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Phase Transition Enthalpy Measurements of Organic and Organometallic Compounds. Sublimation, Vaporization and Fusion Enthalpies From 1880 to 2010 — Source link

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Phase Transition Enthalpy Measurements of Organic and Organometallic Compounds. Sublimation, Vaporization and Fusion Enthalpies From 1880 to 2010

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A compendium of phase change enthalpies published within the period 1880–2010 is reported. Phase change enthalpies including fusion, vaporization, and sublimation are included for organic, organometallic, and a few inorganic compounds. This compendium is a combination of three previous series focusing on phase change enthalpies updated to 2009. Sufficient data are presently available for some compounds to permit thermodynamic cycles to be constructed, an important manner of evaluating the reliability of the measurements. Temperature adjustments of phase change enthalpies from the temperature of measurement to the standard reference temperature, $T=298.15$ K, are briefly discussed and a protocol for doing so is illustrated. © *2010 American Institute of Physics*. [doi:10.1063/1.3309507]

Key words: Vaporization enthalpy; fusion enthalpy; sublimation enthalpy; compendium.

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1. Introduction

Transition enthalpy measurements, that include measurements of sublimation, vaporization, and fusion of organic compounds, have been reported for well over 100 years. These properties find use in a number of disciplines that include chemical and enviromental engineering, physics, and chemistry. The magnitude of these properties, when viewed

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in perspective, provides valuable incite into the nature of both intra- and intermolecular interactions and thus are of interest to both experimentalists and theoreticians. While generally weaker than the chemical bond, the interactions responsible for these enthalpies are similar to those responsible for the self-assembly that occurs in everything from liquid crystals to biological systems.

The sheer number of measurements reported in the literature is testimony to the importance of these properties in providing an understanding of our physical world. One goal of this compendium is to bring together in one location measurements that often are scattered in the literature, sometimes in obscure places. Additionally, some of these measurements have significant errors associated with the property reported. These uncertainties are often not easily discernable, even to those familiar with the field. Despite significant improvement in instrumentation over the years, even recent measurements have errors significantly larger than reported. Provided all necessary transition enthalpies are available, an evaluation of the thermodynamic consistancy of the values reported is possible. This compendium is an effort to compile these phase change enthalpies in a manner such that an assessment can be made as quantitatively as the data permits.

Equation (1) is the thermodynamic equality that relates phase change enthalpies, fusion, vaporization, and sublimation enthalpies but only if all enthalpies are referenced to a common temperature. Since experimental fusion enthalpies measured at ambient pressures are confined to the temperature T_{fus}, this equality is only applicable at the fusion temperature unless each enthalpy can be adjusted for temperature. Since $T=298.15$ K is the usual temperature of reference, adjustment of each of these enthalpies to $T=298.15$ K is preferable. A number of methods, some experimental and others computational, have been used to adjust both vaporization and sublimation enthalpies to $T=298.15$ K. A number of these have been summerized in previous compilations [1987CHI, 2003CHI/ACR2, 1999CHI/NIC]. The relationships outlined in this compendium for adjusting sublimation and vaporization enthalpies, those most familiar to the authors, have been in use for some time and have given acceptable results. Fusion enthalpies have been adjusted by combining the relationships used to adjust vaporization and sublimation enthalpies. The protocol is described below,

$$\Delta_{sub}H_m(T) = \Delta_{vap}H_m(T) + \Delta_{fus}H_m(T). \quad (1)$$

2. Phase Change Enthalpies

As noted above, phase change enthalpies are temperature dependent. Therefore, to adjust a phase change enthalpy for temperature requires the heat capacity of the two phases in question. For sublimation enthalpies, while the heat capacity of the solid, $C_{p,m}$ (s, 298.15 K), may be available, the heat capacity of the corresponding gas phase value, $C_{p,m}$ (g, 298.15 K), is generally not. Similarly for vaporization enthalpies, the experimental heat capacity of the liquid at $T=298.15$ K, $C_{p,m}$ (l, 298.15 K), may be available, experimental data for the corresponding gas phase are usually lacking. For fusion enthalpies requiring both $C_{p,m}$ (s, 298.15 K) and $C_{p,m}$ (l, 298.15 K) for this adjustment, only one of these two properties is generally available at $T=298.15$ K. As a means of circumventing the lack of sufficient experimental data, empirical and theoretical relationships have been developed to adjust solid and liquid phase change enthalpies with temperature. Many of the phase change enthalpies reported this compilation have been adjusted to $T=298.15$ K by the authors. The reader should consult the original literature to determine how this adjustment was made. In cases where the phase change enthalpy is reported only at the mean temperature of measurement, a few empirical relationships that can be used to adjust each respective phase change are discussed briefly below.

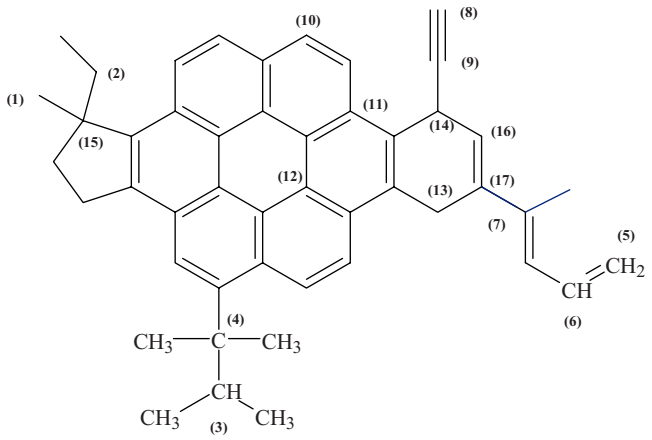


FIG. 1. (Color online) A hypothetical molecule illustrating the different carbon environments as defined in Table 1A.

2.1. Estimation of heat capacities

A number of methods have been developed for the estimation of heat capacities [1990LYM/REE, 1908KOL/KUK, 1993CHI/HES]. The method employed in this article is a method developed by the authors and shown to give reasonably good temperature adjustments when used in combination with the equations to be described below [1998CHI, 1999SAB/XU, 2008ROU/TEM]. The method is based on group contributions. The group values (Γ) used in the estimation of $C_{p,m}$(l, 298.15 K) and $C_{p,m}$(s, 298.15 K) are provided in Table 1. For reference, Figs. 1 and 2 provide an example of a hypothetical molecule containing all of these groups. Each group, identified numerically in column 2 of Table 1, can be located in these figures. Some estimations using examples taken from the recent literature are given in Table 2. Note that some of the group values in Table 1 remain tentative and values for a few groups are not available for both condensed phases.

The calculations for *t*-butylbenzene using the group values of Table 1 are fairly straightforward and require no additional comments. Agreement with experiment for the solid is good. Agreement between estimated and experimental heat capaci-

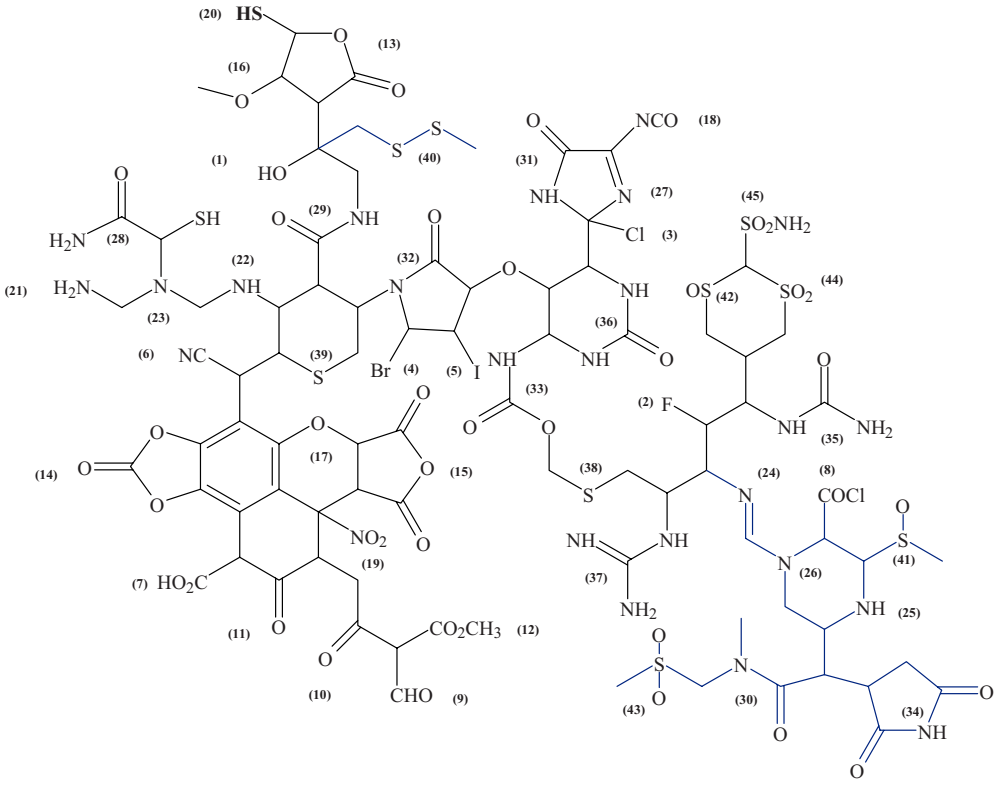


FIG. 2. (Color online) A hypothetical molecule illustrating the different functional groups defined in Table 1B.

ties for solid di-*tert*-butylbenzene also reported in the same article is not as good (estimated: 296.6; expt 347.8 J mol^{-1} K^{-1}) [2009CHI/STE].

Estimations of the heat capacity of 5-aminouracil are not as obvious. This compound can be modeled as containing two cyclic secondary amides, a cyclic tertiary and cyclic quaternary sp^2 carbon atom and a primary sp^3 nitrogen. Less intuitive models include modeling the ring as a cyclic urea and cyclic ketone or as a cyclic imide and cyclic secondary amine along with a cyclic tertiary and cyclic quaternary sp^2 carbon atom. All three of these estimations are illustrated in Table 2. All are in reasonable agreement with the experimental value [1907ZIE/SZT]. In this case, the less intuitive models give a slightly better agreement with experiment. Since group values for liquid cyclic ureas and cyclic imides are not available and cannot be used for the vaporization and fusion enthalpy temperature adjustments described below, the value for the more intuitive model should probably be used for fusion enthalpy adjustments. The heat capacity of 5-aminouracil can also be evaluted as its tautomer, 2,4-dihydroxy-5-aminopyrimidine. For comparative purposes, this estimation is also included in the table. In this case, the heat capacity of the solid is reproduced reasonably well but a larger discepancy is observed between the predicted heat capacities of the liquid. In addition to 5-aminouracil, the heat capacities of a number of other solid uracils are reported in the same article [1907ZIE/SZT]: uracil (estimated: 124.6; expt: 131.8); 6-aminouracil (estimated: 135; expt: 147.0), 6-amino-1-methyluracil (estimated: 177.9; expt: 166.2); 6-amino-1,3-dimethyluracil (estimated: 220.9; expt: 189 J mol^{-1} K^{-1}). The estimated values were calculated using two cyclic amides to model the uracil ring. The values differ slightly from those reported by the authors of the article who used the same method but different groups to model the tertiary and quaternary sp^2 carbon groups [1907ZIE/SZT].

Calculations for 2,9-dimethyl-1,10-phenanthrolene are fairly straightforward and in good agreement with the experimental heat capacity of the solid [2007BON/CAT]. The authors of this work also report the heat capacity of solid 1,10-phenanthrolene as 115 J mol^{-1} K^{-1} at T=298.15 K. The estimated value for the solid at this temperature is 201.4 J mol^{-1} K^{-1} (calculations not shown). In this case the experimental value appears to be remarkably small when compared to the estimated value and to the value of naphthalene, 165 J mol^{-1} K^{-1} (300 K), used as a standard.

Other group additivity methods of varying complexity have been reported for the estimation of $C_{p,\mathrm{m}}$(1,298.15 K). References for these and an alternative method for calculating heat capacities can be found in the recent work of Kolska *et al.* [1908KOL/KUK].

TABLE 1. Group values for estimation of liquid [Γ(l)] and solid [Γ(s)] heat capacity at T=298.15 K (values in brackets are considered tentative values)

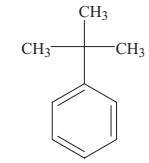
	Group Atoms	Γ(l) J mol^{-1} K^{-1}	Γ(s) J mol^{-1} K^{-1}
A. Hydrocarbon Groups			
primary sp^3 carbon	CH_3–	34.9	36.6
secondary sp^3 carbon	–CH_2–	31.9	26.9
tertiary sp^3 carbon	>CH–	22.4	9.0
quaternary sp^3 carbon	>C<	14.0	−5.0
secondary sp^2 carbon	=CH_2	25.8	[46.0]
tertiary sp^2 carbon	=CH	27.8	21.4
quaternary sp^2 carbon	=C<	21.7	[6.9]
tertiary sp carbon	≡CH	[34.3]	[37.1]
quaternary sp carbon	≡C–	28.9	[15.5]
tertiary aromatic sp^2 carbon	=CH	21.8	17.5
quaternary aromatic sp^2	=C–	15.3	8.5
internal quaternary aromatic carbon[a]	=C–	16	[9.1]
cyclic secondary sp^3 carbon	–CH_2–	25.9	24.6
cyclic tertiary sp^3 carbon	>CH	20.6	11.7
cyclic quaternary sp^3 carbon	>C<	18	6.1
cyclic tertiary sp^2	=CH–	21.8	15.9
cyclic quaternary sp^2	=CR–	21.2	[4.7]
B. Functional Groups			
hydroxyl group (alcohols, phenols)	–OH	53.1	23.5
fluorine	–F	16.2	[24.8]
chlorine	–Cl	30.8	28.7
bromine	–Br	34.6	32.4
iodine	–I	39.1	[27.9]
nitrile	–C≡N	47.7	[42.3]
carboxylic acid	–(CO)OH	87.4	53.1
acid chloride	–(C=O)Cl	62.8	[60.2]
aldehyde	–(C=O)H	57.7	[84.5]
ketone	–(C=O)–	51.5	[28.0]
cyclic ketone	–(C=O)–	46.4	34.3
ester	–(C=O)O–	63.2	40.3
lactone	–(C=O)O–	[67.4]	[45.2
cyclic carbonate	–O(C=O)O–	[92.0]	[68.2]
cyclic anhydride	–(C=O)O(C=O)–		[80.3]
ether	–O–	29.8	49.8
cyclic ether	–O–	24.6	9.7
isocyanate	O=C=N–	[58.2]	[52.7]
nitro group	–NO_2	[58.6]	56.1
thiol	–SH	49.0	[51.9]
primary sp^3 nitrogen	–NH_2	59.4	21.6
secondary sp^3 nitrogen	–NH–	[51.0]	[−0.3]
tertiary sp^3 nitrogen	–N<	22.0	[31.5]
tertiary sp^2 nitrogen	=N–	[44.4]	10.7
cyclic secondary sp^3 nitrogen	–NH–	46.0	[23.9]
cyclic tertiary sp^3 nitrogen	–N<	[28.6]	1.2
cyclic tertiary sp^2 nitrogen	=N–	20.7	13.9
primary amide	–(C=O)NH_2	[41.0]	[54.4]
secondary amide	–(C=O)NH–	79.9	44.4
tertiary amide	–(C=O)N<	[82.4]	
cyclic secondary amide	–(C=O)NH–	[92.0]	46.4
cyclic tertiary amide	–(C=O)N–	[170]	[52.7]
Carbamate	–NH(C=O)O–		[76.1]
cyclic imide	–(C=O)NH(C=O)–		[74.1]
monsubstituted urea	–NH(C=O)NH_2		[82.8]
cyclic urea	–NH(C=O)NH–		[63.6]
monsubstituted guanidine	–NH(C=NH)NH_2		[59.4]

TABLE 1. Group values for estimation of liquid [Γ(l)] and solid [Γ(s)] heat capacity at T=298.15 K (values in brackets are considered tentative values)—Continued

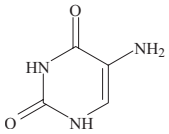
	Group Atoms	Γ(l) J mol^{-1} K^{-1}	Γ(s) J mol^{-1} K^{-1}
sulfide	–S–	40.3	[116]
cyclic sulfide	–S–	33.8	18.2
disulfide	–S–S–	74.5	[41.0]
sulfoxide	–(S→O)–	[83.7]	[47.7]
cyclic sulfoxide	–(S→O)–		[31.0
sulfone	–(S→O)$_2$–		[52.4]
cyclic sulfone	–(S→O)$_2$–		[38.7]
sulfonamide	–(S→O$_2$)NH$_2$		[104]
quaternary silicon	>Si<	30.9	32.4
tertiary aluminum	>Al–	[46.9]	
quaternary tin	>Sn<	58.6]	[77.2]
quaternary germanium	>Ge<	[48.1]	[18.9]
phosphine oxide	–(P→O)<		[28.5]

[a]An internal quaternary carbon refers to internal carbon atoms as found in coronene or graphite.

TABLE 2. Some estimations of liquid and solid heat capacities (J mol^{-1} K^{-1}) at T=298.15 K



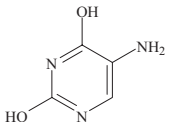
3 CH_3–+>C<+5(=CH)$_{arom}$+(=C–)$_{arom}$
$C_{p,m}$(l,298.15 K)=3(34.9)+14.0+5(21.8)+15.3=243 (lit 241) [2009CHI/STE]
$C_{p,m}$(s,298.15 K)=3(36.6)−4.98+5(17.5)+8.5=200.8



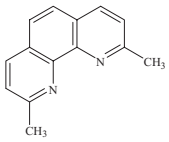
2(–(C=O)NH–)$_{cyc}$+(=CH–)$_{cyc}$+(=CR–)$_{cyc}$+(–NH$_2$)
$C_{p,m}$(l,298.15 K)=2(92)+21.8+21.2+59.4=286.4
$C_{p,m}$(s,298.15 K)=2(46.4)+15.9+4.73+21.6=135.0 (lit 145) [2007ZIE/SZT]

(–NH(C=O)NH–)$_{cyc}$+(–(C=O)–)$_{cyc}$+(=CH–)$_{cyc}$+(=C–)$_{cyc}$+–NH$_2$
$C_{p,m}$(s,298.15 K)=63.6+34.3+15.9+4.73+21.6=140.1

(–(C=O)NH(C=O)–)$_{cyc}$+(–NH–)$_{cyc}$+(=CH–)$_{cyc}$+(=C–)$_{cyc}$+–NH$_2$
$C_{p,m}$(s,298.15 K)=74.1+23.9+15.9+4.73+21.6=140.2



3(=C–)$_{arom}$+(=CH)$_{arom}$+2(=N–)$_{cyc}$+2(–OH)+(–NH$_2$)
$C_{p,m}$(l,298.15 K)=3(15.3)+(21.8)+2(20.7)+2(53.1)+54.9=270.2
$C_{p,m}$(s,298.15 K)=3(8.5)+3(17.5)+2(13.9)+2(23.5)+21.6=139.4



6(=C–)$_{arom}$+(=CH)$_{arom}$+2(=N–)$_{cyc}$+2(–OH)+(–NH$_2$)
$C_{p,m}$(l,298.15 K)=6(21.8)+6(15.3)+2(20.7)+2(34.9)=333.8
$C_{p,m}$(s,298.15 K)=6(17.5)+6(8.5)+2(13.9)+2(36.6)=248 (lit 253) [2007BON/CAT]

2.2. Vaporization enthalpies

Equation (2) is an equation derived to model the differences in heat capacity between the liquid and gas phases [1993CHI/HOS]. It has been derived by correlating vaporization enthalpy differences measured at temperature T and generally at T=298.15 K with the heat capacity of the corresponding liquid at T=298.15 K for which reliable vaporization data are available. The vaporization enthalpy data used were obtained from the critical review and data compilation of Majer and Svoboda [1993CHI/HOS]. It has been found to provide satisfactory results for adjustments ranging from approximately T=500 to 250 K [1998CHI, 1999SAB/XU, 2008ROU/TEM]. The adjustments have been generally been applied from the mean temperature of measurement, $\bar{T}$, to 298.15 K. Adjustments for temperatures above T=500 K should be viewed with caution,

$$\Delta_{vap}H^{o}_{m}(298.15\ \mathrm{K})/\mathrm{kJ\ mol^{-1}} = \Delta_{vap}H^{o}_{m}(\bar{T}/\mathrm{K}) + \{10.58 + 0.26[C_{p,m}(l,298.15\ \mathrm{K})]/\mathrm{J\ mol^{-1}\ K^{-1}}\}\{\bar{T}/\mathrm{K} - 298.15\}/1000. \quad (2)$$

The term $[C_{p,m}(l)]$ (298.15 K)/J mol^{-1} K^{-1} refers to the mo-

lar heat capacity of the liquid phase at $T=298.15$ K; estimated heat capacities were used in deriving this relationship [1993CHI/HES]. Experimental values can also be used. An uncertainty of 16 J mol^{-1} has been associated with the bracketed term in Eq. (2). Some examples using Eq. (2) are given in Table 3.

2.3. Sublimation enthalpies

Sublimation enthalpies can also be adjusted to $T=298.15$ K from the mean temperature of measurement using a similar relationship, Eq. (3). This equation has also been derived by correlating sublimation enthalpy differences measured at temperature $\bar{T}$ and generally at $T=298.15$ K with the estimated heat capacity of each corresponding crystalline compound at $T=298.15$ K [1993CHI/HOS]. Unlike vaporization enthalpy data, much less critically evaluated sublimation enthalpy data are available. As a consequence, a larger uncertainty is associated with this adjustment,

$$\Delta_{sub}H^{o}_{m}(298.15\ \text{K})/\text{kJ mol}^{-1} = \Delta_{sub}H^{o}_{m}(\bar{T}/\text{K}) + \{0.75 + 0.15[C_{p,m}(\text{s},298.15\ \text{K})]/\text{J mol}^{-1}\ \text{K}^{-1}\}\{\bar{T}/\text{K} - 298.15\}/1000. \quad (3)$$

The term $[C_{p,m}(\text{s},298.15\ \text{K})]$ refers to the molar heat capacity of the solid phase at $T=298.15$ K. The relationship was derived using solid heat capacities estimated by the group additivity method described above [1993CHI/HES]. This equation has also been found to give satisfactory results for temperatures up to approximately $T=500$ K. Group values used in these estimations are also summarized in Table 1. As with heat capacities of the liquid state, experimental heat capacity values can be substituted for $C_{p,m}(\text{s},298.15\ \text{K})$ if available. When using Eq. (3), an uncertainty equal to one-third the magnitude of the total temperature adjustment should be assumed. While this uncertainty, arbitrarily chosen, is significant, some compensation is afforded by the fact that temperature adjustments of sublimation enthalpies are generally much smaller than the corresponding adjustments for vaporization enthalpies. In cases where the experimental sublimation enthalpy is reported by the author at $T=298.15$ K, the reader should consult the original literature to determine how the temperature adjustment was achieved. A number of different methods have been used in the literature for this adjustment and it has been found that some methods provide more thermodynamically consistent results than others when using Eq. (1) [1998CHI].

2.4. Fusion enthalpies

Temperature adjustments for fusion enthalpies from T_{fus} to $T=298.15$ K can be achieved by noting that if Eq. (2) is subtracted from Eq. (3), the heat capacity of the gas phase common to both cancels and the remainder results in the difference in molar heat capacity between the liquid and solid phases, $\Delta Cp(\text{cr,l})$, Eq. (4). Equation (4) has been successfully used in combination with Eqs. (1) and (2) to predict sublimation enthalpies at $T=298.15$ K [2008ROU/TEM, 2004BAS/CHI]. An uncertainty equal to one-third the magnitude of the total temperature adjustment has generally been assigned to this temperature adjustment,

$$\Delta_{fus}H^{o}_{m}(298.15\ \text{K})/\text{kJ mol}^{-1} = \Delta_{fus}H_{m}(T_{fus}) + \Delta_{trns}H_{m}(T_{trns}) + [0.15C_{p,m}(\text{s},298.15\ \text{K}) - 0.26C_{p,m}(\text{l},298.15\ \text{K}) - 9.83][(T_{fus}/\text{K} - 298.15]/1000. \quad (4)$$

Many compounds do not exhibit solid-solid phase transitions at temperatures below fusion. For those compounds that do, the enthalpy of the transition also needs to be added to the fusion enthalpy when using Eq. (1) if the sublimation enthalpy was measured at temperatures below the transition temperature T_{trns}. If the sublimation enthalpy was measured above $T=T_{trans}$, the fusion enthalpy can be used directly in Eq. (1) to reproduce the sublimation enthalpy. If T_{trans} exceeds $T=298.15$ K, then the transition enthalpy will need to be added to the sublimation enthalpy to obtain $\Delta_{sub}H^{o}_{m}(298.15\ \text{K})$.

2.5. Sample phase change enthalpy adjustment to $T=298.15$ K

A few examples serve to illustrate the usefulness of Eqs. (1)–(4) when all three phase change enthalpies data for a particular substance are available. These are shown in Table 3. The first example, cyclohexanone, illustrates the use of these equations for temperature adjustments below ambient temperature. Cyclohexanone exhibits a solid-solid phase transition at a temperature below the temperature range used in the sublimation enthalpy measurement and hence is not included in Eq. (1). Since the heat capacity of the liquid generally exceeds that of the solid phase, adjustment to $T=298.15$ K in this case actually increases the fusion enthalpy from 1.3 to 3.0 kJ mol^{-1}. Three vaporization enthalpies have been reported, in good agreement with each other when adjusted to the reference temperature. The sublimation enthalpy, when adjusted to the reference temperature, is attenuated slightly, since the heat capacity of the solid generally exceeds that of the gas phase. The sublimation enthalpy, 48.2 ± 0.3 kJ mol^{-1}, is within experimental error of the mean value calculated using Eq. (1), 49.4 ± 0.8 kJ mol^{-1}. The uncertainty in the latter value is the mean uncertainty associated with each entry, and for one of the entries, the uncertainty associated with only the temperature adjustment.

Phenacetin illustrates a situation not uncommon with pharmaceuticals, the possible existence of polymorphism. The fusion enthalpy of phenacetin has been reported a number of times. Most reports are in reasonable agreement with each other except for one. In this case, the value is probably in error since the first and fourth fusion enthalpy entries, which are in disagreement, have been reported by the same research group. Ignoring the fourth value, an average value of 25.2 ± 1.8 kJ mol^{-1} is calculated, which when added to the

vaporization enthalpies results in two values, one of which appears to be in much better agreeement with a single determination of the sublimation enthalpy. The uncertainty in $\Delta_{fus}H^{o}_{m}(298\ K)$ only reflects the uncertainty in the temperature adjustments.

Carbazole is another example of a substance that exhibits a solid-solid phase transition. In this case the fusion enthalpy at $T=298.15$ T should include this transition since the sublimation enthalpy was measured at a temperature below the transition. A solid to liquid total phase change enthalpy of 15.6 ± 3.5 kJ mol^{-1} is obtained which when added to the vaporization enthalpy results in sublimation enthalpy values of 97.9 ± 5.1 and 91.8 ± 3.5 kJ mol^{-1}. In this instance, only one of the sublimation enthapy values calculated in this manner is consistent with the two sublimation enthalpies measured directly.

TABLE 3. Thermochemical cyclics using Eq. (1)

Enthalpy	$\Delta H_m(T)$ kJ mol^{-1}	$\bar{T}$/K	$C_{p,m}(l,298\ K)$ J mol^{-1} K^{-1}	$C_{p,m}(s,298\ K)$ J mol^{-1} K^{-1}	$\Delta C_{p,m}\Delta T$ kJ mol^{-1}	$\Delta H_m(298\ K)$ kJ mol^{-1}	$\Delta_{fus}H^{\circ}_m(298\ K)$ + $\Delta_{vap}H^{\circ}_m(298\ K)$ kJ mol^{-1}	Reference[a]
$C_6H_{10}O$	**cyclohexanone**							
$\Delta_{trns}H_m(T_{trns})$	8.66	220.8						[1980NAK/SUG]
$\Delta_{fus}H_m(T_{fus})$	1.33	245.2	175.9	157.3	1.7	3.0 ± 0.5		[1980NAK/SUG]
$\Delta_{vap}H^{\circ}_m(\bar{T}/K)$	43.1	358	175.9	157.3	3.4 ± 1.0	46.5	49.5 ± 1.1	[2006TEO/BAR]
	46.6 ± 0.4	298	175.9	157.3	0	46.6 ± 0.4	49.6 ± 0.6	[1995CHI/HOS]
	44.0 ± 0.1	333	175.9	157.3	2.0 ± 0.6	46.0 ± 0.6	49.0 ± 0.8	[1993AUC/MON]
$\Delta_{sub}H^{\circ}_m(\bar{T}/K)$	49.3	254	175.9	157.3	-1.07 ± 0.3	48.2 ± 0.3		[1948NIT/SEK2]
$C_{10}H_{13}NO_2$	**4′-ethoxyacetanilide (phenacetin)**							
$\Delta_{fus}H_m(T_{fus})$	30 ± 1.0	409.6	329.2	281.3	-5.9 ± 1.8	24.1 ± 1.8		[2009VEC/TOM]
	28.8	408.3	329.2	281.3	-5.9 ± 1.8	22.9 ± 1.8		[2009PEN/ESC]
	34.1	407.4	329.2	281.3	-5.8 ± 1.7	28.3 ± 1.7		[2006WAS/HOL]
	21.4 ± 0.9	410.2	329.2	281.3	-6.0 ± 1.8	15.4 ± 2.0		[2004VEC/CAT]
	31.3	407.2	329.2	281.3	-5.8 ± 1.7	25.4 ± 1.7		[1990MAN/AHU]
					average	25.2 ± 1.8		
$\Delta_{vap}H^{\circ}_m(\bar{T}/K)$	79.0 ± 1.0	459	329.2	281.3	15.5 ± 2.6	94.5 ± 2.6	119.6 ± 3.2	[2009VEC/TOM]
	82.6	478	329.2	281.3	17.3 ± 2.9	99.9 ± 2.9	125.0 ± 3.4	[1987STE/MAL]
$\Delta_{sub}H^{\circ}_m(\bar{T}/K)$	115.5	349.5	329.2	281.3	2.2 ± 0.7	117.7 ± 0.7		[1972WIE]
$C_{12}H_9N$	**carbazole**							
$\Delta_{trns}H_m(T_{trns})$	0.27	420						[1969ROB/SCO]
$\Delta_{fus}H_m(T_{fus})$	26.9	518.7	281.6	197.9	-11.8 ± 3.5	15.4 ± 3.5		[2000LIS/JAM]
	27.2	516	281.6	197.9	-11.6 ± 3.5	15.9 ± 3.5		[1996BUR/KOL]
					average	15.6 ± 3.5		
$\Delta_{vap}H^{\circ}_m(\bar{T}/K)$	76.2	298	281.6	197.9	0	76.2	91.8 ± 3.5	[1996GOV/RUT]
	63.3	525	281.6	197.9	19.0 ± 3.6	82.3 ± 3.6	97.9 ± 5.1	[1983SIV/MAR]
$\Delta_{sub}H^{\circ}_m(\bar{T}/K)$	101.2 ± 1.1	355	281.6	197.9	1.7 ± 0.5	102.9 ± 1.2		[1990JIM/ROU]
	97.7 ± 0.3	298	281.6	197.9	0	97.7 ± 0.3		[1987SAB/ANT]

[a]References for fusion vaporization and sublimation can be found in Sec. 5.

3. The Phase Change Enthalpy Compendium

The phase change enthalpy data reported in this compendium have been reported over the time period of 1880–2010. The data are combination of three compendia published in recent years and updated to the present [1902CHI/ACR, 2003CHI/ACR, 2003CHI/ACR2, 1999CHI/ACR, 1909CHI/ACR]. Vaporization enthalpies and sublimation enthalpies have been measured for many years and numerous techniques have been developed to do so. Generally, these techniques can be categorized into two groups, calorimetric techniques, in which the phase change enthalpy is measured directly, and techniques in which vapor pressure is measured directly or indirectly as a function of temperature. Providing on the experimental setup, calorimetric methods can also provide vapor pressures if an effusion cell is used. More recently, gas chromatographic techniques have also been developed to measure vaporization enthalpies. These techniques can provide both vaporization enthalpies and liquid

vapor pressures but since standards must be used, some care must be used in assessing their reliability. One technique, referred to as correlation-gas chromatography, has been shown to be successful provided standards are chosen with reliable values and appropriately related functional groups [2009LIP/HAN]. Fusion enthalpies have generally been measured by some form of calorimetry. These techniques are described by a number of acronyms used throughout the tables. A summary of these acronyms and their meanings can be found in Table 4.

In some cases, the vapor pressure–temperature data reported in the literature authors were analyzed by using the Clausius Clapeyron relationship, Eq. (5), where $C=0$, by the authors. The "Handbook of the Thermodynamics of Organic Compounds," by Stephenson and Malanowski [1987STE/MAL], was a useful source of vaporization enthalpy information provided in the form of Antoine Constants. Unfortunately, references to the original literature data are not provided by these authors. Vaporization enthalpies and some sublimation enthalpies were calculated from the A, B, and C constants reported in this compendium using Eq. (6),

$$\log_{10} p\ (\mathrm{kPa}) = A - B/(C+T), \tag{5}$$

$$\Delta_{\mathrm{vap}} H^{\circ}_{\mathrm{m}}(T_{\mathrm{m}}) = 2.303 \mathrm{R} B[\bar{T}/(\bar{T}+\mathrm{C})]^2. \tag{6}$$

Phase change enthalpies for organic compounds are reported in Tables 5–11. Organometallic compounds are reported in Table 12. Organometallic compounds are arranged alphabetically according to the metal.

In Tables 5–12, some enthalpy values are cited without a reference on the same line. The appropriate reference can be found with the next value with a reference (multiple enthalpy values were taken from the same source). In addition, in Tables 5–12, where a value is prefixed with a "U" (e.g., "U 66.0 ± 21.2"), this indicates unreliable data.

TABLE 4. Acronyms used in tables

A	calculated from the vapor pressure data reported by the method of least squares
AC	adiabatic calorimeter
B	calculated from the difference of the enthalpies of sublimation at temperature T and fusion at the melting point.
BG	Bourdon gauge
C	calorimetric determination
CATH	cathetometer
CGC	correlation-gas chromatography
CGC-DSC	combined correlation gas chromatography-differential scanning calorimetry
CR	Cryoscopy
DBM	dibutyl pththalate manometer
DM	diaphram manometer
DSC	differential scanning calorimeter
DTA	differential thermal analysis
E	estimated value
EB	ebulliometer
EM	electronic manometer
EV	evaporation
F	fluorescence
GC	gas chromatography
GCC	gas chromatography-calorimetry
GS	gas saturation, transpiration
GSM	glass spring manometer
HG	Heise gauge
HSA	head space analysis
I	isoteniscope
IP	inclined piston manometry
KG	Knudsen gauge
LE	Langmuir evaporation
MDSC	Modulated differential scanning calorimetry
ME	mass effusion-Knudsen effusion
MEM	modified entrainment method
MG	McLeod Gauge
MM	mercury manometer
MS	mass spectrometry
OM	oil manometer
PG	pressure gauge
QCM	quartz crystal microbalance
QF	quartz fiber
QR	quartz resonator
RG	Rodebush gauge
S-F	sublimation-fusion
SG	spoon gauge
SRFG	spinning rotor friction gauge
STG	strain gauge
T	tensiometer
TCM	thermal conductivity manometer
TE	torsion effusion
TGA	thermal gravimetric analysis
TSGC	temperature scanning gas chromatography
U	unreliable
UV	ultraviolet spectroscopy
V	viscocity gauge
VG	viscosity gauge

4. References for Secs. 1–3

1972WIE H. G. Wiedemann, Thermochim. Acta. **3**, 355 (1972).

1985MAJ/SVO V. Majer and V. Svoboda, *Enthalpies of Vaporization of Organic Compounds: ACritical Review and Data Compilation*, IU-

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2009LIP/HAN D. Lipkind, W. Hanshaw, and J. S. Chickos, J. Chem. Eng. Data **54**, 2930 (2009) and references cited.

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$CBrClF_2$	[353-59-3]	bromochlorodifluoromethane				
	$\Delta_v H$	(268–324)	23.0	283	A	[1987STE/MAL]
	$\Delta_v H$	(194–287)	23.1	272	A	[1987STE/MAL]
	$\Delta_v H$	(321–403)	22.4	336	A	[1987STE/MAL]
	$\Delta_v H$	(403–427)	23.1	415	A	[1987STE/MAL]
	$\Delta_v H$	(178–283)	26.0	193		[1979KUD/KUD]
	$\Delta_v H$	(178–283)	18.7	268		[1960GLE, 1984BOU/FRI]
$CBrCl_3$	[75-62-7]	bromotrichloromethane				
	$\Delta_{trs}H$		4.62	238.2		
	$\Delta_{trs}H$		0.53	259.4		
	$\Delta_{fus}H$		2.54	267.5	AC	[1991ACR, 1995OHT/YAM]
	$\Delta_v H$	(273–387)	35.0	288		[1979KUD/KUD]
	$\Delta_v H$	(294–443)	36.1	309	A	[1970DYK, 1987STE/MAL]
$CBrF_3$	[75-63-8]	bromotrifluoromethane				
	$\Delta_v H$	(276–340)	17.8	291	A	[1987STE/MAL]
	$\Delta_v H$	(160–267)	17.7	252	A	[1987STE/MAL]
	$\Delta_v H$	(165–216)	19.1	180		[1979KUD/KUD]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
CBrFO	[753-56-0]	carbonic bromide fluoride				
	$\Delta_v H$	(197–256)	22.9	241	A	[1987STE/MAL]
CBrN	[506-68-3]	cyanogen bromide				
	$\Delta_{sub}H$	(273–308)	45.2 ± 4.2		MM	[1954LOR/WOO, 1970COX/PIL]
	$\Delta_{sub}H$	(256–308)	47.0		GS	[20BAX/BEZ]
	$\Delta_{sub}H$	(273–313)	45.9	288		[1954LOR/WOO, 1984BOU/FRI]
$CBrN_3O_6$	[560-95-2]	bromotrinitromethane				
	$\Delta_v H$	(318–335)	47.8	326	A	[1987STE/MAL, 1970CAR/ZIM]
CBr_2Cl_2	[594-18-3]	dibromodichloromethane				
	$\Delta_{trs}H$		5.43	258.8		
	$\Delta_{fus}H$		2.31	294.4		[1995OHT/YAM]
CBr_2F_2	[75-61-6]	dibromodifluoromethane				
	$\Delta_v H$	(247–297)	26.1	282	A	[1987STE/MAL, 1959MCD/SHR, 1979KUD/KUD, 1970DYK]
	$\Delta_v H$	(156–218)	18.6	203		[1948BAN/EME]
CBr_3F	[353-54-8]	tribromofluoromethane				
	$\Delta_v H$	(315–380)	34.4	330	A	[1987STE/MAL, 1948BAN/EME]
CBr_4	[558-13-4]	carbon tetrabromide				
	$\Delta_{trs}H$		5.94	320		
	$\Delta_{fus}H$		3.95	363.2		[1996DOM/HEA]
	$\Delta_{sub}H$ *(mono)*		54.5 ± 0.7	298	C	[1984BIC/MIN]
	$\Delta_{sub}H$ *(mono)*	(295–319)	54.4 ± 1.3	307	BG	[1959BRA/DRU]
	$\Delta_{sub}H$ *(cubic)*	(321–329)	49.4 ± 1.3	325	BG	[1959BRA/DRU]
	$\Delta_{sub}H$ *(cubic)*		48.3	320		[1955HAR/SWI]
	$\Delta_v H$	(375–463)	48.3	390		[1979KUD/KUD]
	$\Delta_v H$	(369–463)	48.2	384	A	[1987STE/MAL, 1947STU]
CClFO	[353-49-1]	carbonic chloride fluoride				
	$\Delta_v H$	(165–211)	22.7	196	A	[1987STE/MAL, 1964FIS/BUC]
	$\Delta_v H$	(157–227)	22.0	192		[1948EME/WOO]
$CClF_2NO$	[16847-30-6]	difluorocarbamoyl chloride				
	$\Delta_v H$	(189–234)	25.8	219	A	[1987STE/MAL]
$CClF_3$	[75-72-9]	chlorotrifluoromethane				
	$\Delta_v H$	(268–302)	16.0	283	A	[1987STE/MAL]
	$\Delta_v H$	(133–185)	17.0	170	A	[1987STE/MAL]
	$\Delta_v H$	(184–246)	15.7	231	A	[1987STE/MAL]
	$\Delta_v H$	(243–271)	15.7	257	A	[1987STE/MAL]
	$\Delta_v H$	(145–192)	16.8	177	A	[1987STE/MAL, 1979KUD/KUD]
	$\Delta_v H$	(124–191)	17.1	177	A	[1947STU]
	$\Delta_v H$	(134–298)	NA			[1941RIE]
$CClF_3O$	[22082-78-6]	trifluoromethyl hypochlorite				
	$\Delta_v H$	(160–226)	21.2	211	A	[1987STE/MAL]
	$\Delta_v H$	(142–219)	19.6	204	A	[1987STE/MAL]
$CClF_3O_2$	[32755-26-3]	peroxyhypochlorous acid, trifluoromethyl ester				
	$\Delta_v H$	(163–296)	23.4	281	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$CClF_3O_3S$	[6069-31-4]	fluorosulfuric acid, chlorodifluoromethyl ester				
	$\Delta_v H$	(227–309)	32.1	243		[1999DYK/SVO]
	$\Delta_v H$	(228–310)	34.6	243	A	[1987STE/MAL, 1966DES/CAD]
$CClF_3S$	[421-17-0]	trifluoromethanesulfenyl chloride				
	$\Delta_v H$	(247–272)	24.5	260	A	[1987STE/MAL, 1999DYK/SVO]
$CClF_4N$	[13880-71-2]	difluoro(difluorochloromethyl)amine				
	$\Delta_v H$	(209–277)	26.6	262	A	[1987STE/MAL]
$CClF_4NO_2S$	[19419-95-5]	chloro(trifluoromethyl) sulfamoyl fluoride				
	$\Delta_v H$	(253–288)	28.8	273	A	[1987STE/MAL, 1999DYK/SVO]
$CClF_4NO_{12}S_4$	[53684-03-0]	fluorosulfuric acid, *bis*[[(fluorosulfonyl)oxy]amino]chloromethylene ester				
	$\Delta_v H$		42.6	424		[1975KIR/LAS]
$CClF_7S$	[42179-04-4]	chlorotetrafluoro (trifluoromethyl) sulfur				
	$\Delta_v H$	(293–353)	25.9	323		[1999DYK/SVO]
CClN	[506-77-4]	cyanogen chloride				
	$\Delta_{sub}H$	(196–259)	35.7	228	A	[1947STU]
	$\Delta_v H$	(196–286)	32.2	271		[1947STU]
CCl_2FNO	[32751-02-3]	dichlorocarbamic fluoride				
	$\Delta_v H$		40.7			[1972DEM/SHR]
CCl_2F_2	[75-71-8]	dichlorodifluoromethane				
	$\Delta_v H$	(282–345)	20.0	297	A	[1987STE/MAL]
	$\Delta_v H$	(173–244)	21.4	229	A	[1987STE/MAL]
	$\Delta_v H$	(173–240)	21.6	225	A	[1987STE/MAL]
	$\Delta_v H$	(236–285)	20.4	270	A	[1987STE/MAL]
	$\Delta_v H$	(341–385)	20.5	356	A	[1987STE/MAL]
	$\Delta_v H$	(172–279)	22.9	187		[1979KUD/KUD]
	$\Delta_v H$	(154–243)	21.5	228		[1947STU]
	$\Delta_v H$		20.4	243		[1931BUF/FLE]
CCl_2F_3N	[24618-60-8]	N,N-difluoro-1,1-dichloro-1-fluoromethylamine				
	$\Delta_v H$	(209–277)	27.0	262	I	[1970ZAB/SHR]
CCl_2F_3N	[13880-73-4]	N,N-dichloro-1,1,1-trifluoromethylamine				
	$\Delta_v H$	(226–291)	25.8	276	A	[1987STE/MAL]
CCl_2F_3N	[33757-11-8]	N,1-dichloro-N,1,1-trifluoromethylamine				
	$\Delta_v H$	(226–291)	26.4	258		[1971SWI/ZAB]
CCl_2F_3NS	[10564-47-3]	(trifluoromethyl)imidosulfurous dichloride				
	$\Delta_v H$	(284–344)	35.4	298		[1999DYK/SVO]
	$\Delta_v H$	(283–362)	33.7	298	A	[1987STE/MAL]
CCl_2F_3P	[421-58-9]	(trifluoromethyl)dichlorophosphine				
	$\Delta_v H$	(208–276)	29.2	260		[1964PET/BUR]
CCl_2F_3PS	[18799-78-5]	dichloro(trifluoromethylthio) phosphine				
	$\Delta_v H$	(293–363)	31.7	308	A	[1987STE/MAL, 1999DYK/SVO, 1960EME/PUG]
CCl_2O	[75-44-5]	phosgene				
	$\Delta_{fus}H$ *(I)*		5.74	145.4		
	$\Delta_{fus}H$ *(II)*		5.59	142.1		
	$\Delta_{fus}H$ *(III)*		4.73	139.2		[1960GIA/OTT]
	$\Delta_{fus}H$		5.73	145.3		[1948GIA/JON]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(280–341)	24.5	295	A	[1987STE/MAL]
	$\Delta_v H$	(240–281)	25.7	266	A	[1987STE/MAL]
	$\Delta_v H$	(338–410)	24.5	353	A	[1987STE/MAL]
	$\Delta_v H$	(406–455)	24.4	421	A	[1987STE/MAL]
	$\Delta_v H$	(215–248)	27.0	233		[1948GIA/JON]
	$\Delta_v H$	(180–273)	25.8	258		[1947STU]
CCl_3F	[75-69-4]	trichlorofluoromethane				
	$\Delta_{fus}H$		6.9	162.7		[1996DOM/HEA]
	$\Delta_v H$	(213–301)	28.5	228	A	[1987STE/MAL]
	$\Delta_v H$	(213–249)	28.2	234	A	[1987STE/MAL]
	$\Delta_v H$	(295–363)	25.6	310	A	[1987STE/MAL]
	$\Delta_v H$	(357–429)	24.7	372	A	[1987STE/MAL]
	$\Delta_v H$	(424–468)	25.1	439	A	[1987STE/MAL]
	$\Delta_v H$	(237–293)	27.3	251		[1979KUD/KUD]
	$\Delta_v H$	(237–293)	27.1	276		[1941OSB/GAR]
	$\Delta_v H$		25.2	290	C	[1941OSB/GAR]
	$\Delta_v H$	(244–334)	26.4	259		[1940BEN/MCH]
CCl_3F_2N	[24708-52-9]	N,N-difluoro-1,1,1-trichloromethylamine				
	$\Delta_v H$	(252–325)	33.4	267	I	[1987STE/MAL, 1970ZAB/SHR]
CCl_3F_2N	[33757-10-7]	N,1,1-trichloro-N,1-difluoromethylamine				
	$\Delta_v H$	(273–319)	27.8	296		[1971SWI/ZAB]
CCl_3F_2P	[1112-03-4]	difluoro(trichloromethyl) phosphine				
	$\Delta_{sub}H$	(264–283)	36.8	274		[1987STE/MAL]
	$\Delta_v H$	(289–313)	32.5	301	A	[1987STE/MAL]
CCl_3F_4P	[1184-80-1]	trichloromethyl tetrafluorophosphorane				
	$\Delta_v H$	(257–300)	10.4			[1965NIX]
CCl_3NO	[3711-49-7]	trichloronitrosomethane				
	$\Delta_v H$	(253–333)	32.4	268	A	[1987STE/MAL]
CCl_3NO_2	[76-06-2]	trichloronitromethane				
	$\Delta_v H$	(273–333)	39.3	288	A	[1987STE/MAL]
	$\Delta_v H$	(301–449)	38.5	316	A	[1987STE/MAL, 1970DYK]
		(247–385)	40.0	262		[1947STU]
CCl_4	[56-23-5]	carbon tetrachloride				
	$\Delta_{trs}H$		4.6	224.6		[1996DOM/HEA]
	$\Delta_{fus}H$		2.69	249		[1996DOM/HEA]
	$\Delta_{sub}H$		43.3	226	B	[1963BON]
	$\Delta_{sub}H$	(209–225)	38.8	217		[1960JON, 1948NIT/SEK]
	$\Delta_{sub}H$	(227–248)	37.9			[1948NIT/SEK]
	$\Delta_v H$	(349–416)	30.4	364	A	[1987STE/MAL]
	$\Delta_v H$	(412–497)	29.2	427	A	[1987STE/MAL]
	$\Delta_v H$	(494–555)	30.6	509	A	[1987STE/MAL]
	$\Delta_v H$		32.4	298	C	[1980MAJ/SVA]
	$\Delta_v H$	(262–349)	33.7	277	A, EB	[1987STE/MAL, 1972BOU/AIM]
	$\Delta_v H$	(293–351)	32.3	308		[1959HIL/MCD]
	$\Delta_v H$	(313–338)	31.7	325		[1953BAR/BRO]
CCl_4O_2S	[2547-61-7]	trichloromethanesulfonyl chloride				
	$\Delta_{trs}H$		7.1	227.4		

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		7.46	418.5		[1994DOU/FEU]
CFIO	[1495-48-3]	carbonyl fluoride iodide				
	Δ_vH	(230–292)	26.1	277	A	[1987STE/MAL]
CFN	[1495-50-7]	cyanogen fluoride				
	$\Delta_{sub}H$	(147–191)	28.9	176	A	[1987STE/MAL, 1964FAW/LIP]
	$\Delta_{sub}H$	(139–192)	24.4	166		[1947STU]
	$\Delta_{sub}H$	(133–203)	29.3	168		[1931COS]
	Δ_vH	(201–227)	22.4	214	A	[1987STE/MAL, 1964FAW/LIP, 1970DYK]
$CFNO_3S$	[1495-51-8]	sulfuryl fluoride isocyanate				
	Δ_vH	(294–335)	36.5	309	A	[1987STE/MAL, 1999DYK/SVO]
$CFNO_6S_2$	[27931-74-4]	pyrosulfuryl fluoride isocyanate				
	Δ_vH	(330–405)	40.9	345	A	[1987STE/MAL, 1999DYK/SVO]
CFN_3O_6	[1840-42-2]	fluorotrinitromethane				
	Δ_vH	(274–358)	34.2	289	A, T	[1987STE/MAL, 1966ZIM/ROB]
CF_2N_2	[7127-18-6]	difluorocyanamide				
	Δ_vH	(179–198)	20.6	189		[1987STE/MAL, 1966MEY/FRA]
CF_2N_2OS	[19073-57-5]	cyanoimidosulfuryl fluoride				
	Δ_vH	(262–354)	37.2	277	A	[1987STE/MAL, 1999DYK/SVO]
$CF_2N_2O_4$	[1185-11-1]	difluorodinitromethane				
	Δ_vH	(283–310)	41.4	296	A	[1987STE/MAL, 1973PEP/LEB]
CF_2N_2S	[14453-41-9]	N-cyano-S,S-difluorosulfilimine				
	Δ_vH	(271–320)	44.1	286	A	[1987STE/MAL, 1999DYK/SVO]
CF_2O	[353-50-4]	carbonyl fluoride				
	$\Delta_{fus}H$		6.7	161.9		[1968PAC/REN]
	$\Delta_{sub}H$	(130–159)	23.2	145		[1987STE/MAL, 1968PAC/REN]
	Δ_vH	(159–189)	20.0	174	A	[1987STE/MAL]
CF_2O_4S	[7519-54-2]	fluoroformyl fluorosulfate				
	Δ_vH	(250–296)	27.3	281	A	[1987STE/MAL, 1999DYK/SVO]
CF_2S	[420-32-6]	thiocarbonyl fluoride				
	Δ_vH	(133–211)	19.2	196	A	[1987STE/MAL, 1970DYK]
	Δ_vH	(178–211)	17.4	196	A	[1987STE/MAL, 1999DYK/SVO, 1962DOW]
CF_3I	[2314-97-8]	iodotrifluoromethane				
	Δ_vH	(188–296)	22.5	281	A	[1987STE/MAL, 1970DYK, 1948BAN/EME]
CF_3NO	[2368-32-3]	(difluoroamino) carbonyl fluoride				
	Δ_vH	(143–217)	21.6	202	A, MM	[1987STE/MAL, 1965FRA/SHR]
CF_3NO	[334-99-6]	trifluoronitrosomethane				
	Δ_vH	(141–174)	17.1	159	A	[1987STE/MAL]
CF_3NOS	[3855-41-2]	S,S-difluoro-N-(fluoroformyl)-sulfimine				
	Δ_vH	(220–323)	37.3	235	A	[1987STE/MAL, 1999DYK/SVO]
CF_3NOS	[24892-54-4]	trifluoromethyl thionitrite				
	Δ_vH	(196–215)	25.8	205	T	[1969MAS]
CF_3NOS	[10564-49-5]	(N-sulfinyl)-trifluoromethylamine				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(239–289)	27.0	274	A	[1987STE/MAL, 1999DYK/SVO]
CF_3NO_2	[335-02-4]	trifluoronitromethane				
	$\Delta_v H$	(238–243)	21.6	240	A	[1987STE/MAL]
CF_3NO_4	[50311-48-3	(trifluoromethyl) peroxynitrate				
	$\Delta_v H$	(193–247)	24.8	232	A	[1987STE/MAL]
$CF_3NO_6S_2$	[19252-48-3]	N-(fluoroformyl)-N,O-*bis*(fluorosulfonyl) hydroxylamine				
	$\Delta_v H$	(325–392)	36.3	340	A	[1987STE/MAL, 1999DYK/SVO]
CF_4	[75-73-0]	carbon tetrafluoride				
	$\Delta_{trs}H$		1.71	76.27		
	$\Delta_{fus}H$		0.71	89.56		[1996DOM/HEA]
	$\Delta_{sub}H(\alpha)$	(76–90)	14.7	83		[1987STE/MAL, 70GEN/DUV]
	$\Delta_{sub}H(\beta)$	(70–76)	16.8	73		[1987STE/MAL, 1970GEN/DUV]
	$\Delta_{sub}H$	(86–89)	14.7	88		[1967SIM/KNO]
	$\Delta_{sub}H$		17.0	76		[1963BON]
	$\Delta_{sub}H$	(80–86)	14.0	83	A	[1933MEN/MOH]
	$\Delta_v H$	(195–227)	12.1	212	A	[1987STE/MAL]
	$\Delta_v H$	(89–163)	12.3	148	A	[1987STE/MAL]
	$\Delta_v H$	(160–197)	11.9	182	A	[1987STE/MAL]
	$\Delta_v H$	(116–146)	12.4	131		[1969SMI/PAC]
	$\Delta_v H$	(93–146)	12.8	131		[1933MEN/MOH, 1987STE/MAL]
CF_4N_2O	[815-10-1]	fluoro(trifluoromethyl) diimidoxide				
	$\Delta_v H$	(233–267)	27.7	252	A	[1987STE/MAL]
$CF_4N_2O_3S_2$	[25523-80-2]	carbonyl*bis*(imidosulfuryl fluoride)				
	$\Delta_v H$	(316–331)	41.3	323	A	[1987STE/MAL, 1999DYK/SVO]
CF_4O	[373-91-1]	hypofluorous acid trifluoromethyl ester				
	$\Delta_v H$	(153–194)	15.5	179	A	[1987STE/MAL, 1948KEL/CAD]
		Note: The table in Ref. [1948KEL/CAD] gives the temperatures in °C; however, all of the equations and graphs in the article suggest that the temperature should be in Kelvin. We have assumed that the tabulated temperatures are in Kelvin; the results closely correspond to the entry in Ref. [1987STE/MAL].				
CF_4OS	[812-12-4]	trifluoromethyl sulfinyl fluoride				
	$\Delta_v H$	(204–271)	22.7	256	A, I	[1987STE/MAL, 1968RAT/SHR, 1970DYK, 1999DYK/SVO]
CF_4O_2	[34511-13-2]	hydroperoxyfluoric acid trifluoromethyl ester				
	$\Delta_v H$	(156–203)	18.7	188	A	[1987STE/MAL]
CF_4O_2S	[335-05-7]	trifluoromethane sulfonyl fluoride				
	$\Delta_v H$	(226–249)	23.4	237	A	[1987STE/MAL, 1999DYK/SVO]
CF_4O_3S	[926-08-9]	trifluoromethyl fluorosulfonate				
	$\Delta_v H$	(194–269)	25.6	231		[1960VAN/CAD]
CF_4O_4S	[13990-10-8]	trifluoromethylperoxyfluorosulfonate				
	$\Delta_v H$	(233–286)	27.7	259		[1960VAN/CAD]
$CF_4O_5S_2$	[21595-44-8]	fluorosulfonic acid trifluoromethane sulfonic acid anhydride				
	$\Delta_v H$	(308–338)	32.9	323	A	[1987STE/MAL, 1999DYK/SVO]
$CF_4O_6S_2$	[6123-47-3]	trifluoromethyl fluorodisulfate				
	$\Delta_v H$	(292–351)	34.4	321		[1960VAN/CAD]
CF_5N	[335-01-3]	pentafluoromethyl amine				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(128–141)	18.6	135		[1987STE/MAL, 1951COA/HAR]
CF_5NO	[4217-93-0]	pentafluoromethoxyamine				
	Δ_vH	(167–210)	18.5	195	A	[1987STE/MAL, 1965SHR/DUN]
CF_5OPS	[52752-66-6]	phosphorothionic difluoride, S-trifluoromethyl ester				
	Δ_vH	(293–353)	23.1	323		[1999DYK/SVO]
CF_5OPS	[52752-66-6]	trifluoromethylthiosphoryl difluoride				
	Δ_vH		23.0			[1974SPE/SHR]
CF_5O_3P	[39125-42-3]	trifluoromethoxyphosphoryl difluoride				
	Δ_vH	(225–264)	27.4	245		[1973BER/DES]
CF_5O_3P	[39125-42-3]	difluoroperoxyphosphoric acid trifluoromethyl ester				
	Δ_vH	(241–280)	32.0	265	A	[1987STE/MAL, 1973BER/DES]
CF_5PS	[52752-65-5]	trifluoromethyl thiodifluorophosphine				
	Δ_vH		24.3			[1974SPE/SHR]
$CF_6N_2O_2S_2$	[20094-83-1]	N,N′-(difluoromethylene)*bis* imidosulfuryl fluoride				
	Δ_vH	(283–308)	36.0	295		[1968GLE/VON]
$CF_6N_2S_2$	[17686-45-2]	difluoromethane *bis*(S,S-difluorosulfilimine)				
	Δ_vH	(230–313)	36.0	245	A	[1987STE/MAL, 1999DYK/SVO]
CF_6PS	[52752-65-5]	difluoro(trifluoromethylthio)phosphine				
	Δ_vH	(293–353)	22.3	323		[1999DYK/SVO]
CF_8OS	[1873-23-0]	pentafluoro (trifluoromethoxy) sulfur				
	Δ_vH	(217–262)	24.4	247	A	[1987STE/MAL, 1964DUN/CAD]
CF_8S	[373-80-8]	trifluoro(pentafluorothio)methane				
	Δ_vH	(223–252)	20.2	253	I	[2001KUL/DES]
	Δ_vH	(205–262)	23.8	247	A	[1987STE/MAL, 1999DYK/SVO]
CF_9NOS	[1840-45-5]	tetrafluoro(difluoroamino)(trifluoromethoxy) sulfur				
	Δ_vH	(257–298)	28.7	272	A	[1987STE/MAL, 1964DUN/CAD2]
$CF_{10}O_5S_2$	[60672-59-5]	[μ-(carbono)diperoxato]decafluorodisulfur				
	Δ_vH		38.1			[1976HOP/DES]
CIN	[506-78-5]	cyanogen iodide				
	$\Delta_{sub}H$	(337–426)	59.9	352	GSM	[1987STE/MAL, 1943KET/KRU]
	$\Delta_{sub}H$	(298–414)	58.6	356	A	[1947STU]
	$\Delta_{sub}H$	(337–426)	59.8 ± 0.4		GSM	[1943KET/KRU, 1970COX/PIL]
	$\Delta_{sub}H$	(278–374)	58.3	326		[1933YOS/STO]
	$\Delta_{vap}H$	(419–426)	40.0	423	A	[1987STE/MAL]
CN_4O_8	[509-14-8]	tetranitromethane				
	$\Delta_{sub}H$	(255–286)	47.4	271		[1987STE/MAL, 1941SEK/NIT]
	Δ_vH	(286–373)	43.1	301	A	[1987STE/MAL]
	Δ_vH	(313–373)	42.9	328	A	[1987STE/MAL, 1984BOU/FRI, 1952EDW]
	Δ_vH	(273–313)	46.6	288		[1987STE/MAL, 1984BOU/FRI, 1949NIC]
CO	[630-08-0]	carbon monoxide				
	$\Delta_{sub}H$	(54–61)	7.6	58		[1987STE/MAL]
	$\Delta_{sub}H$	(51–68)	8.1	60	A	[1947STU]
	$\Delta_{sub}H$	(57–68)	7.9	62	A	[1931CRO/BIJ]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(68–108)	6.0	93	A	[1987STE/MAL]
	$\Delta_v H$	(69–83)	6.0	81		[1932CLA/GIA]
	$\Delta_v H$		6.0	81	C	[1932CLA/GIA]
COS	[463-58-1]	carbonyl sulfide				
	$\Delta_v H$	(161–284)	20.4	176		[1999DYK/SVO]
	$\Delta_v H$	(284–379)	18.3	299		[1999DYK/SVO]
	$\Delta_v H$	(140–224)	19.5	209	A	[1987STE/MAL]
	$\Delta_v H$		19.0 ± 0.1	214		[1939FRA/CLU]
	$\Delta_v H$	(162–224)	19.5	209		[1937KEM/GIA]
CO_2	[124-38-9]	carbon dioxide				
	$\Delta_{sub}H$	(198–216)	26.1	207	A	[1987STE/MAL]
	$\Delta_{sub}H$	(70–102)	27.2 ± 0.4		LE	[1974BRY/CAZ]
	$\Delta_{sub}H$	(179–198)	25.9	188		[1956AMB]
	$\Delta_{sub}H$	(139–195)	26.3	167	A	[1947STU]
	$\Delta_{sub}H$	(154–196)	25.2	195		[1937GIA/EGA]
	$\Delta_v H$	(273–304)	16.7	288	A	[1987STE/MAL]
	$\Delta_v H$	(216–273)	16.4	258	A	[1987STE/MAL]
	$\Delta_v H$	(267–303)	16.5	282		[1972BOU/AIM]
CS_2	[75-15-0]	carbon disulfide				
	$\Delta_v H$	(255–354)	28.7	270		[1999DYK/SVO]
	$\Delta_v H$	(354–552)	27.1	369		[1999DYK/SVO]
	$\Delta_v H$	(260–353)	28.5	275	A	[1987STE/MAL]
	$\Delta_v H$	(338–408)	27.4	353	A	[1987STE/MAL]
	$\Delta_v H$	(388–497)	27.0	403	A	[1987STE/MAL]
	$\Delta_v H$	(490–533)	28.7	505	A	[1987STE/MAL]
	$\Delta_v H$	(255–318)	28.7	270	EB	[1972BOU/AIM, 1987STE/MAL]
	$\Delta_v H$	(277–353)	28.1	292	EB	[1962WAD/SMI]
	$\Delta_v H$		28.1 ± 0.1	282	C	[1962WAD/SMI]
	$\Delta_v H$		27.5 ± 0.1	298	C	[1962WAD/SMI]
	$\Delta_v H$		26.7 ± 0.1	319	C	[1962WAD/SMI]
	$\Delta_v H$		27.7	298		[1961GOO/LAC]
	$\Delta_v H$	(303–358)	27.6	318		[1946THO]
$CHBrF_2$	[1511-62-2]	bromodifluoromethane				
	$\Delta_v H$	(194–259)	24.0	244	A	[1987STE/MAL]
	$\Delta_v H$	(194–288)	24.7	209		[1979KUD/KUD]
$CHBr_3$	[75-25-2]	tribromomethane				
	$\Delta_{fus}H$		11.09	281.5		[1987KAF/DOR]
	$\Delta_v H$		46.1 ± 0.1	298	C	[1972LAY/WAD]
	$\Delta_v H$	(320–412)	42.3	335	EB	[1972BOU/AIM, 1979KUD/KUD]
	$\Delta_v H$	(303–373)	44.0	318		[1941KIR/SIT, 1984BOU/FRI]
$CHClF_2$	[75-45-6]	chlorodifluoromethane				
	$\Delta_{trs}H$		0.07	59		
	$\Delta_{fus}H$		4.12	115.7		[1996DOM/HEA]
	$\Delta_v H$	(275–327)	20.0	290	A	[1987STE/MAL]
	$\Delta_v H$	(170–233)	21.3	218	A	[1987STE/MAL]
	$\Delta_v H$	(230–275)	20.4	260	A	[1987STE/MAL]
	$\Delta_v H$	(324–366)	20.1	339	A	[1987STE/MAL]
	$\Delta_v H$	(194–310)	21.8	209		[1979KUD/KUD]
	$\Delta_v H$	(229–236)	21.0	232		[1964KLE]
	$\Delta_v H$		20.2	232	C	[1957NEI/WHI]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$CHCl_2F$	[75-43-4]	dichlorofluoromethane				
	$\Delta_v H$	(225–282)	26.1	267	A	[1987STE/MAL]
	$\Delta_v H$	(279–344)	25.3	294	A	[1987STE/MAL]
	$\Delta_v H$	(341–399)	24.2	356	A	[1987STE/MAL]
	$\Delta_v H$	(397–450)	24.1	412	A	[1987STE/MAL]
	$\Delta_v H$	(229–236)	U 20.9	233		[1964KLE]
	$\Delta_v H$	(181–282)	26.2	267		[1947STU]
	$\Delta_v H$	(244–317)	36.7	259		[1940BEN/MCH]
$CHCl_2FO_3S$	[42016-50-2]	fluorosulfuric acid, dichloromethyl ester				
	$\Delta_v H$	(275–293)	36.2	284	A	[1987STE/MAL, 1999DYK/SVO]
$CHCl_3$	[67-66-3]	chloroform				
	$\Delta_{fus}H$		8.8	209.6		[1991ACR]
	$\Delta_v H$	(306–427)	30.8	321		[1995CHE/WAN]
	$\Delta_v H$	(227–269)	31.8	254	A	[1987STE/MAL]
	$\Delta_v H$	(333–416)	30.4	348	A	[1987STE/MAL]
	$\Delta_v H$	(410–481)	28.9	425	A	[1987STE/MAL]
	$\Delta_v H$	(479–523)	30.1	494	A	[1987STE/MAL]
	$\Delta_v H$		31.1	298	C	[1980MAJ/SVA]
	$\Delta_v H$	(260–333)	32.5	275	EB	[1972BOU/AIM]
	$\Delta_v H$	(215–334)	35.0	230		[1947STU]
	$\Delta_v H$	(308–333)	30.9	320		[1938SCT/RAY]
$CHFI_2$	[1493-01-2]	diiodofluoromethane				
	$\Delta_v H$	(299–332)	32.9	314	A	[1987STE/MAL, 1979KUD/KUD, 1970DYK]
$CHFN_2O_4$	[7182-87-8]	fluorodinitromethane				
	$\Delta_v H$	(298–338)	43.6	313	A	[1987STE/MAL]
CHFO	[1493-02-3]	formyl fluoride				
	$\Delta_v H$	(178–235)	24.4	220	A	[1987STE/MAL, 1964FIS/BUC, 1970DYK]
CHF_2I	[1493-03-4]	difluoroiodomethane				
	$\Delta_v H$	(227–287)	26.0	272	A	[1987STE/MAL, 1979KUD/KUD, 1970DYK]
CHF_3	[75-46-7]	trifluoromethane				
	$\Delta_{fus}H$		4.06	118		[1996DOM/HEA]
	$\Delta_{sub}H$	(89–118)	25.6	103		[1987STE/MAL]
	$\Delta_v H$	(138–190)	18.1	175	A	[1987STE/MAL]
	$\Delta_v H$	(198–298)	16.8	213	A	[1987STE/MAL]
	$\Delta_v H$	(146–192)	18.0	177		[1962VAL/BRO]
CHF_3O_2	[16156-36-8]	trifluoromethyl hydroperoxide				
	$\Delta_v H$	(248–285)	30.9	270	A	[1987STE/MAL]
CHF_3O_3S	[1493-13-6]	trifluoromethylsulfonic acid				
	$\Delta_v H$	(354–435)	47.7	369	A	[1987STE/MAL, 1999DYK/SVO]
CHF_3S	[1493-15-8]	trifluoromethanethiol				
	$\Delta_{fus}H$		4.93	116		[1996DOM/HEA]
	$\Delta_v H$	(167–236)	21.8	183		[1999DYK/SVO]
	$\Delta_v H$	(167–236)	21.0	221	A	[1987STE/MAL, 1999DYK/SVO]
CHF_7S	[420-67-7]	(difluoromethyl) sulfur pentafluoride				
	$\Delta_v H$	(221–292)	27.5	237		[1999DYK/SVO]
	$\Delta_v H$	(221–293)	25.6	278	A	[1987STE/MAL, 1999DYK/SVO]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
CHI_3	[75-47-8]	iodoform				
	$\Delta_{sub}H$	(308–365)	69.9	323		[1943NIT/SEK]
CHN	[74-90-8]	hydrogen cyanide				
	$\Delta_{sub}H$	(236–259)	35.6	248		[1987STE/MAL]
	$\Delta_{sub}H$	(202–254)	37.6	228	A	[1947STU]
	Δ_vH	(259–299)	28.1	274	A	[1987STE/MAL]
	Δ_vH	(298–457)	27.8	313	A	[1987STE/MAL]
	Δ_vH	(257–315)	28.1	272		[1975IWA/DAT]
	Δ_vH	(259–294)	28.0	277		[1934LEW/SCH]
	Δ_vH	(257–319)	28.1	272		[1926SIN/HAR]
	Δ_vH	(265–300)	27.8	282		[1926PER/POR]
	Δ_vH	(256–319)	27.2	303	MM	[1926SIN/HAR]
CDN	[3017-23-0]	deuterium cyanide				
	Δ_vH	(182–282)	26.2	267		[1947STU]
	Δ_vH	(265–293)	27.6	279		[1934LEW/SCH]
CHNO	[420-05-3]	cyanic acid				
	Δ_vH	(233–268)	30.7	253	A	[1987STE/MAL]
	Δ_vH	(197–267)	NA			[1938LIN]
CHNS	[463-56-9]	thiocyanic acid				
	Δ_vH	(278–396)	28.0	293	A	[1987STE/MAL]
CHN_3O_6	[517-25-9]	trinitromethane				
	$\Delta_{sub}H$		45.2 ± 2.1	298		[1999MIR/VOR]
	$\Delta_{sub}H$		54.8 ± 4.2			[1970BON/CAT]
	$\Delta_{sub}H$		46.7 ± 0.4			[1967MIR/LEB, 1970COX/PIL, 1977PED/RYL]
	Δ_vH	(290–317)	32.6	303	A	[1987STE/MAL, 1967MIR/LEB]
CH_2BrCl	[74-95-7]	bromochloromethane				
	Δ_vH	(226–341)	42.0	241	A	[1987STE/MAL]
	Δ_vH	(289–341)	33.5	304		[1959MCD/SHR, 1979KUD/KUD]
CH_2Br_2	[74-95-3]	dibromomethane				
	Δ_vH	(273–373)	36.5	288	C	[1979KUD/KUD]
	Δ_vH		37.0 ± 0.1	298	A, E	[1972LAY/WAD]
	Δ_vH	(290–409)	37.2	305		[1987STE/MAL, 1956MAN, 1970DYK]
	Δ_vH	(238–371)	37.8	253		[1947STU]
CH_2ClF	[593-70-4]	chlorofluoromethane				
	Δ_vH	(140–264)	23.3	249	A	[1987STE/MAL, 1970DYK]
CH_2Cl_2	[75-09-2]	dichloromethane				
	$\Delta_{fus}H$		6.16	178.2		[1996DOM/HEA]
	Δ_vH		30.6 ± 0.1	298	C	[1989AN/HU]
	Δ_vH	(311–383)	29.0	326	A	[1987STE/MAL]
	Δ_vH		28.8	298	C	[1980MAJ/SVA]
	Δ_vH	(264–311)	30.3	279	EB	[1972BOU/AIM]
	Δ_vH	(303–313)	29.2	308		[1960MUE/IGN]
	Δ_vH	(233–313)	30.2	248		[1948GAN/JUN]
	Δ_vH		NA			[1946DZU]
	Δ_vH	(186–312)	29.4			[1927PER]
CH_2F_2	[75-10-5]	difluoromethane				
	$\Delta_{fus}H$		4.36	136.4		[1996LUE/MAG]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(149–245)	20.6	230		[1987KAN/OI]
	$\Delta_v H$	(256–321)	19.9	271	A	[1987STE/MAL]
	$\Delta_v H$	(191–222)	21.2	207	A	[1987STE/MAL]
	$\Delta_v H$	(191–258)	20.3	243	A	[1987STE/MAL]
	$\Delta_v H$	(316–351)	20.3	331	A	[1987STE/MAL]
	$\Delta_v H$	(191–221)	21.2	206		[1968MAL/MEU]
	$\Delta_v H$	(191–242)	20.6	227		[1968MAL/MEU]
CH_2F_3NS	[1512-33-0]	1,1,1-trifluoromethanesulfenamide				
	$\Delta_v H$	(218–291)	34.1	276	A	[1987STE/MAL, 1999DYK/SVO, 1960EME/NAB]
CH_2I_2	[75-11-6]	diiodomethane				
	$\Delta_{fus}H$		12.05	279.2		[1987KAF/DOR]
	$\Delta_v H$		45.6	298	GC	[1994CAR/LAY]
	$\Delta_v H$		49.0	298	C	[1987FUC/CHA]
	$\Delta_v H$	(293–455)	48.8	307		[1979KUD/KUD]
	$\Delta_v H$	(356–505)	45.4	371	A	[1987STE/MAL, 1970DYK]
CH_2N_2	[420-04-2]	cyanamide				
	$\Delta_{fus}H$		8.76	317.2		[1991ACR]
	$\Delta_{sub}H$	(227–289)	75.9	290	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		75.2	298		[1983DEW/VAN]
CH_2N_4	[288-94-8]	tetrazole				
	$\Delta_{fus}H$		17.7	432.1		[1990KOZ/SIM3]
	$\Delta_{sub}H$		88.16	353	C	[1993KAB/KOZ]
	$\Delta_{sub}H$		87.8 ± 1.4	369	ME	[1993KAB/KOZ]
	$\Delta_{sub}H$	(333–404)	88.0 ± 1.6		ME	[1990KOZ/SIM]
	$\Delta_{sub}H$	(333–363)	97.5 ± 4.2	348	ME	[1951MCE/RIG, 1970COX/PIL]
CH_2O	[50-00-0]	formaldehyde				
	$\Delta_{fus}H$		7.53	155		[1998VAS/LEB]
	$\Delta_v H$	(184–251)	24.3	236	A	[1987STE/MAL]
	$\Delta_v H$	(173–251)	24.2	236		[1935SPE/WIL, 1987STE/MAL]
CH_2O_2	[64-18-6]	formic acid				
	$\Delta_{sub}H$	(268–281)	60.5	275		[1987STE/MAL]
	$\Delta_{sub}H$	(203–218)	62.1 ± 1	213	TE,ME	[1978CAL/CAL]
	$\Delta_{sub}H$	(265–268)	60.7	266		[1930COO, 1960JON]
	$\Delta_{sub}H$	(253–275)	60.1	264	A	[1947STU]
	$\Delta_v H$	(300–392)	35.2	315	EB	[1987AMB/GHI3]
	$\Delta_v H$	(283–384)	36.0	298	A	[1987STE/MAL]
	$\Delta_v H$ (monomer)		20.1 ± 0.1	298	C	[1970KON/WAD]
	$\Delta_v H$		46.3 ± 0.5	298	C	[1970KON/WAD]
	$\Delta_v H$	(310–374)	35.2	325		[1949DRE/SHR, 1949DRE/MAR]
	$\Delta_v H$		19.9	298		[1941STO/FIS]
	$\Delta_v H$		29.6	303		[1934CAM/CAM]
	$\Delta_v H$	(273–373)	20.3	315		[1930COO]
	$\Delta_v H$	(273–373)	20.9	338		[1930COO]
	$\Delta_v H$		20.4	315	C	[1930COO]
	$\Delta_v H$		21.1	338	C	[1930COO]
	$\Delta_v H$	(273–307)	36.8	288		[1994KAH]
	$\Delta_v H$	(295–374)	47.7	374		[1883KAH]
$(CH_2O_2)_2$	[14523-98-9]	formic acid dimer				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(203–218)	64.1 ± 1	213	TE,ME	[1978CAL/CAL]
CH_3Br	[74-83-9]	methyl bromide				
	$\Delta_{trs}H$		0.47	173.8		
	$\Delta_{fus}H$		5.98	179.5		[1996DOM/HEA, 1987KAF/DOR]
	Δ_vH	(223–278)	25.8	238		[1979KUD/KUD]
	Δ_vH	(201–296)	24.6	281	A, E	[1987STE/MAL, 1961LI/ROS]
	Δ_vH	(203–277)	25.2	262		[1947BEE/JUN]
	Δ_vH	(203–278)	25.3	263		[1938EGA/KEM]
CH_3Cl	[74-87-31]	methyl chloride				
	$\Delta_{fus}H$		6.42	174.5		[1996DOM/HEA]
	$\Delta_{sub}H$	(130–172)	31.6 ± 0.1	151		[1995BAH/DUP]
	$\Delta_{sub}H$		28.0		B	[1940MES/AST]
	Δ_vH	(247–310)	22.0	262	A	[1987STE/MAL]
	Δ_vH	(368–416)	21.8	383	A	[1987STE/MAL]
	Δ_vH	(308–373)	21.0	323	A	[1987STE/MAL]
	Δ_vH	(198–278)	22.0	263		[1948GAN/JUN]
	Δ_vH	(183–250)	22.7	235		[1947BEE/JUN]
	Δ_vH	(191–249)	23.5	206		[1946THO]
	Δ_vH	(192–249)	22.6	234		[1940MES/AST]
	Δ_vH		20.1	293	C	[1926YAT]
CH_3ClFOP	[753-71-9]	methylphosphonyl chlorofluoride				
	$\Delta_{fus}H$		11.85	250.7	AC	[1964FUR/REI]
CH_3Cl_2P	[676-83-5]	dichloromethyl phosphine				
	Δ_vH	(229–297)	35.5	282	A	[1987STE/MAL, 1963HOL/WAG]
CH_3Cl_2OP	[676-97-1]	methylphosphonic dichloride				
	$\Delta_{fus}H$		18.08	306.1		[1964FUR/REI]
	$\Delta_{sub}H$		62.3			[1970COX/PIL, 1955NEA/WIL]
CH_3F	[593-53-3]	methyl fluoride				
	Δ_vH	(205–242)	16.9	227	A	[1987STE/MAL]
	Δ_vH	(240–288)	16.9	273	A	[1987STE/MAL]
	Δ_vH	(133–211)	17.9	172		[1983OI/SHU]
	Δ_vH	(141–208)	17.1	193	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK]
	Δ_vH	(165–217)	16.4	202		[1987STE/MAL, 1948MIC/WAS, 1984BOU/FRI]
	Δ_vH	(170–197)	17.7	183	A	[1987STE/MAL, 19MOL/BAT, 1984BOU/FRI]
CH_3F_2N	[753-58-2]	N,N-difluoromethylamine				
	Δ_vH	(203–257)	23.5	242	A	[1987STE/MAL]
	Δ_vH		22.9	257		[1960FRA]
CH_3F_2NS	[758-20-3]	methylimidosulfurous difluoride				
	Δ_vH	(194–258)	28.7	226		[1999DYK/SVO]
	Δ_vH	(194–258)	28.6	243	A	[1987STE/MAL, 1999DYK/SVO]
CH_3F_2P	[753-59-3]	difluoromethyl phosphine				
	Δ_vH	(174–236)	23.4	221	A	[1987STE/MAL]
CH_3F_2OP	[676-99-3]	methylphosphonyl difluoride				
	$\Delta_{fus}H$		11.88	236.3		[1964FUR/REI]
CH_3F_2OPS	[25237-37-0]	difluorothiophosphoric, S-methyl ester				
	Δ_vH	(236–298)	31.2	251	A	[1987STE/MAL, 1999DYK/SVO]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$CH_3F_2PS_2$	[21348-13-0]	difluorodithiophosphoric acid, methyl ester				
	$\Delta_v H$	(253–298)	39.0	268	A	[1987STE/MAL, 1999DYK/SVO]
$CH_3F_4NP_2S_2$	[25741-62-2]	N,N-*bis*(difluorothiophosphoral) methylamine				
	$\Delta_v H$	(273–325)	38.7	288	A	[1987STE/MAL, 1999DYK/SVO]
CH_3I	[74-88-4]	methyl iodide				
	$\Delta_{fus}H$		9.12	206.8		[1982WRE/VIK]
	$\Delta_{sub}H$	(176–227)	40.2 ± 0.4	191	VG	[1982WRE/VIK]
	$\Delta_{sub}H$		U 69.9			[1943NIT/SEK, 1960JON]
	$\Delta_v H$	(228–337)	30.4	243	A	[1987STE/MAL]
	$\Delta_v H$	(315–502)	26.5	330	A	[1987STE/MAL]
	$\Delta_v H$	(208–227)	31.1	217		[1982WRE/VIK]
	$\Delta_v H$	(259–314)	29.2	274	EB	[1972BOU/AIM, 1979KUD/KUD]
	$\Delta_v H$	(218–315)	30.4	233		[1947STU]
	$\Delta_v H$	(273–307)	28.2	288		[1936EWE]
CH_3NO	[75-12-7]	formamide				
	$\Delta_{fus}H$		7.98	275.7		[1996DOM/HEA]
	$\Delta_{fus}H$		8.67	275.6		[1983DEW/DEK]
	$\Delta_{sub}H$	(251–273)	72.4	264	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		71.7	298		[1983DEW/VAN]
	$\Delta_{sub}H$		71.7	276		[1979DAA/VAN]
	$\Delta_v H$	(293–377)	70.8	308	A	[1987STE/MAL]
	$\Delta_v H$	(415–466)	61.2	430	A	[1987STE/MAL]
	$\Delta_v H$		60.2	298	A	[1985BAR/CAS, 1985MAJ/SVO]
	$\Delta_v H$	(343–483)	64.0	358		[1947STU]
CH_3NOS	[4291-05-8]	N-sulfinyl methanamine				
	$\Delta_v H$	(252–277)	31.8	264	A	[1987STE/MAL, 1999DYK/SVO]
CH_3NO_2	[624-91-9]	methyl nitrite				
	$\Delta_v H$	(218–273)	22.1	258	A	[1987STE/MAL]
	$\Delta_v H$	(154–225)	26.2	190		[1982ROO]
	$\Delta_v H$		22.6 ± 0.2			[1958GRA/PRA]
CH_3NO_2	[75-52-2]	nitromethane				
	$\Delta_{fus}H$		9.7	244.8		[1996DOM/HEA]
	$\Delta_v H$		38.5 ± 0.4	298		[1999MIR/VOR2]
	$\Delta_v H$	(313–353)	37.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(405–476)	35.2	420	A	[1987STE/MAL, 1967BER/WES]
	$\Delta_v H$	(328–410)	36.8	343	A	[1987STE/MAL, 1954MCC/SCO]
	$\Delta_v H$		37.2 ± 0.1	318	C	[1954MCC/SCO]
	$\Delta_v H$		36.3 ± 0.1	335	C	[1954MCC/SCO]
	$\Delta_v H$		35.2 ± 0.1	353	C	[1954MCC/SCO]
	$\Delta_v H$		34.0 ± 0.1	374	C	[1954MCC/SCO]
	$\Delta_v H$	(283–373)	38.0 ± 0.4	298	ZG	[1949HOL/DOR]
	$\Delta_v H$		38.3 ± 0.1	298	C	[1947JON/GIA]
CH_3NO_3	[598-58-3]	methyl nitrate				
	$\Delta_{fus}H$		8.24	190.2		[1996DOM/HEA]
	$\Delta_v H$	(273–303)	34.8	288	A	[1987STE/MAL]
CH_3N_5	[4418-61-5]	5-aminotetrazole				
	$\Delta_{sub}H$	(383–443)	112.6 ± 1.2		ME	[1990KOZ/SIM]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
CH_4	[74-82-8]	methane				
	$\Delta_{sub}H$	(53–91)	9.7	72		[1987STE/MAL]
	$\Delta_{sub}H$	(54–90)	9.2	72		[1963BON, 1955ARM/BRI]
	$\Delta_{sub}H$	(79–89)	10.0	84		[1960JON]
	$\Delta_{sub}H$	(48–78)	9.7	63	A,MS	[1951TIC/LOS]
	$\Delta_{sub}H$	(67–88)	9.62	77	A	[1947STU]
	$\Delta_{v}H$	(90–120)	8.6	105	A	[1987STE/MAL]
	$\Delta_{v}H$	(115–149)	8.4	134	A	[1987STE/MAL]
	$\Delta_{v}H$	(148–189)	8.7	174	A	[1987STE/MAL]
	$\Delta_{v}H$	(91–127)	8.6	112		[1972PRY/GOO, 1984BOU/FRI]
	$\Delta_{v}H$	(91–190)	8.5	175		[1972PRY/GOO]
	$\Delta_{v}H$		8.1	137		[1971WIL/ZWO]
	$\Delta_{v}H$	(100–190)	8.6	175		[1970AMB/COU]
	$\Delta_{v}H$		8.2	112	C	[1961HES/WHI]
	$\Delta_{v}H$		7.5	130	C	[1961HES/WHI]
	$\Delta_{v}H$		5.9	160	C	[1961HES/WHI]
	$\Delta_{v}H$		4.0	180	C	[1961HES/WHI]
	$\Delta_{v}H$	(109–189)	8.5	149		[1961HES/WHI]
	$\Delta_{v}H$		8.5 ± 0.1	99		[1939FRA/CLU]
	$\Delta_{v}H$	(92–110)	8.6	101		[1921STO/HEN, 1984BOU/FRI]
CH_4F_2NPS	[31411-30-0]	difluorothiophosphoric acid, N-methylamide				
	$\Delta_{v}H$	(273–325)	39.1	288	A	[1987STE/MAL, 1999DYK/SVO]
CH_4N_2	[12211-52-8]	ammonium cyanide				
	$\Delta_{v}H$	(222–305)	47.1	237		[1947STU]
CH_4N_2	[26981-93-1]	methyl diazene				
	$\Delta_{v}H$	(195–236)	27.5	221	A	[1987STE/MAL]
CH_4N_2O	[57-13-6]	urea				
	$\Delta_{fus}H$		14.6	407.2	DSC	[1999RAI/RAI]
	$\Delta_{fus}H$		14.6	406.7	DSC	[1998RAI/RAI]
	$\Delta_{fus}H$		13.6	405.2	DSC	[1998JAM/PAL]
	$\Delta_{fus}H$		15.03	407.9	DSC	[1995FER/DEL]
	$\Delta_{fus}H$		12.93	408.1		[1990KAB/MIR2]
	$\Delta_{fus}H$		13.9	405.8		[1986KOZ/DAL]
	$\Delta_{sub}H$	(358–402)	95.5 ± 0.3	298	GS	[2006EME/KAB]
	$\Delta_{sub}H$	(329–403)	94.6 ± 2.2	370	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(329–403)	95.1 ± 2.2	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		94.6 ± 0.5	350	C	[2003ZAI/KAB]
	$\Delta_{sub}H$		90.9	381		[1987FER/DEL2]
	$\Delta_{sub}H$	(345–368)	87.7	357		[1987STE/MAL]
	$\Delta_{sub}H$	(338–362)	96.9	351	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		98.6	298		[1983DEW/VAN]
	$\Delta_{sub}H$		95.4	361		[1978TRI/VOO]
	$\Delta_{sub}H$	(345–368)	87.9 ± 2.1	356		[1956SUZ/ONI, 1960JON, 1970COX/PIL]
	$\Delta_{sub}H$		88.2	357		[1953BRA/CLE2, 1983DEW/VAN]
CH_4N_2S	[62-56-5]	thiourea				
	$\Delta_{trs}H$		0.026	169		
	$\Delta_{trs}H$		0.113	200	AC	[1993IGA/LOP]
	$\Delta_{fus}H$		15.64	444.7		[2000DEL/JOZ]
	$\Delta_{trs}H$		0.026	169		
	$\Delta_{trs}H$		0.113	200	AC	[1993IGA/LOP]
	$\Delta_{fus}H$		12.6	452.2		[1994DOU/FUE]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		12.55	452.2		[1994KIM/LEE]
	$\Delta_{sub}H$		112.0 ± 2	298	ME	[2000DEL/JOZ]
	$\Delta_{sub}H$		109 ± 2.0	408	TE	[1994FER/MAR]
	$\Delta_{sub}H$		111 ± 3.0	298		[1994FER/MAR]
	$\Delta_{sub}H$	(378–396)	103.9 ± 0.3	387	ME	[1994TOR/HER]
	$\Delta_{sub}H$	(368–395)	106.6	384	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		107.6	298		[1983DEW/VAN]
	$\Delta_{sub}H$		112 ± 1.5	298	C	[1982TOR/SAB]
	$\Delta_{sub}H$		93.7 ± 10			[1975BAG/AND]
$CH_4N_2O_2$	[1111-78-0]	ammonium carbamate				
	Δ_vH	(247–331)	54.1	262		[1947STU]
$CH_4N_4O_2$	[556-88-7]	nitroguanidine				
	$\Delta_{sub}H$	(402–473)	142.7 ± 2.0	298	ME	[1978CUN/PAL]
$CH_4N_4O_4$	[14168-44-6]	N,N′-dinitro-diaminomethane				
	$\Delta_{fus}H$		35.85	371		[1987OYU/BRI]
CH_4O	[67-56-1]	methanol				
	$\Delta_{trs}H$		0.59	161.1		
	$\Delta_{fus}H$		3.18	175.3		[1996DOM/HEA]
	Δ_vH	(298–333)	38.0	298		[2004NAS/ZIM]
	Δ_vH		34.3			[1999FAT]
	Δ_vH	(175–273)	39.2	258	A	[1987STE/MAL]
	Δ_vH	(338–487)	36.9	353	A	[1987STE/MAL]
	Δ_vH	(188–228)	43.7	213	A	[1987STE/MAL]
	Δ_vH	(224–290)	38.9	275	A	[1987STE/MAL]
	Δ_vH	(285–345)	38.3	300	A	[1987STE/MAL]
	Δ_vH	(335–376)	37.0	350	A	[1987STE/MAL]
	Δ_vH	(373–458)	36.1	388	A	[1987STE/MAL]
	Δ_vH	(453–513)	35.1	468	A	[1987STE/MAL]
	Δ_vH		32.7	373	C	[1986YER/WOR]
	Δ_vH		28.1	423	C	[1986YER/WOR]
	Δ_vH		20.6	473	C	[1986YER/WOR]
	Δ_vH		7.4	510	C	[1986YER/WOR]
	Δ_vH	(316–336)	37.5	331	EB	[1984CER/BOU]
	Δ_vH	(243–303)	37.8	298		[1983SCH/STR]
	Δ_vH	(288–337)	38.3	303		[1974GIB/CRE, 1984BOU/FRI]
	Δ_vH	(337–383)	37.0	352		[1973WIL/ZWO]
	Δ_vH		37.4 ± 0.1	298	C	[1973SVO/VES]
	Δ_vH		36.7 ± 0.1	313	C	[1973SVO/VES]
	Δ_vH		36.2 ± 0.1	323	C	[1973SVO/VES]
	Δ_vH		35.6 ± 0.1	333	C	[1973SVO/VES]
	Δ_vH		35.3 ± 0.1	338	C	[1973SVO/VES]
	Δ_vH		34.7 ± 0.1	343	C	[1973SVO/VES]
	Δ_vH		35.2 ± 0.1	338	C	[1973COU/LEE]
	Δ_vH		35.6 ± 0.1	331	C	[1973COU/LEE]
	Δ_vH		36.2 ± 0.1	321	C	[1973COU/LEE]
	Δ_vH		37.0 ± 0.1	306	C	[1973COU/LEE]
	Δ_vH	(275–336)	38.7	290	EB	[1972BOU/AIM, 1987STE/MAL]
	Δ_vH		37.43 ± 0.02	298	C	[1971POL/BEN]
	Δ_vH	(288–357)	38.3	303	EB	[1970AMB/SPR]
	Δ_vH	(353–483)	36.3	368		[1967HIR/SUD]
	Δ_vH		37.3 ± 0.1	298	C	[1966WAD]
	Δ_vH		37.7 ± 0.1	298	C	[1963MCC/LAI]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(278–323)	38.4	293		[1960KLY/MIS]
CH_4O_2	[3031-73-0]	methyl hydroperoxide				
	$\Delta_v H$	(253–313)	37.7	268	A	[1987STE/MAL, 1951EGE/EMT]
CH_4O_3S	[75-75-2]	methanesulfonic acid				
	$\Delta_v H$	(395–440)	73.9	410	A	[1987STE/MAL, 1999DYK/SVO]
CH_4S	[74-93-1]	methyl mercaptan				
	$\Delta_{trs}H$		2.2	137.6		
	$\Delta_{fus}H$		5.9	150.2		[1996DOM/HEA]
	$\Delta_v H$	(208–298)	27.2	223		[1999DYK/SVO]
	$\Delta_v H$	(267–359)	25.2	359	A	[1987STE/MAL]
	$\Delta_v H$	(221–283)	25.7	268	A	[1987STE/MAL]
	$\Delta_v H$	(345–424)	23.7	360	A	[1987STE/MAL]
	$\Delta_v H$	(414–470)	24.2	429	A	[1987STE/MAL]
	$\Delta_v H$		23.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(222–279)	25.8	264		[1987STE/MAL, 1942RUS/OSB]
CH_5N	[74-89-5]	methylamine				
	$\Delta_{fus}H$		6.13	179.7		[1996DOM/HEA]
	$\Delta_v H$	(319–381)	24.8	334	A	[1987STE/MAL]
	$\Delta_v H$	(373–430)	23.5	388	A	[1987STE/MAL]
	$\Delta_v H$	(263–329)	26.1	278	A	[1987STE/MAL]
	$\Delta_v H$	(223–273)	27.2	258	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(190–267)	27.4	252		[1937AST/SIL, 1984BOU/FRI]
CH_5NO	[593-77-1]	N-methylhydroxylamine				
	$\Delta_{sub}H$	(273–308)	56.6	288		[1987STE/MAL, 1957BIS/PAR]
	$\Delta_v H$	(293–338)	49.7	308	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(313–338)	49.3	325	A	[1987STE/MAL, 1957BIS/PAR, 1984BOU/FRI]
CH_5NO	[67-62-9]	O-methylhydroxylamine				
	$\Delta_v H$	(228–322)	36.9	243	A	[1987STE/MAL]
	$\Delta_v H$	(210–321)	38.0	225		[1957BIS/PAR, 1984BOU/FRI]
CH_5N_3O	[758-19-0]	1-methyl-1-nitrosohydrazine				
	$\Delta_{sub}H$		79.5 ± 0.4	298		[1998LEB/CHI]
CH_5N_3S	[79-19-6]	thiosemicarbazide				
	$\Delta_{sub}H$		125.8 ± 1.5	298	C	[1982TOR/SAB]
CH_5O_3P	[993-13-5]	methylphosphonic acid				
	$\Delta_{sub}H$		48.1 ± 4.2			[1955NEA/WIL, 1970COX/PIL]
CH_6ClN	[593-51-1]	methylamine hydrochloride				
	$\Delta_v H$	(518–593)	114.5	533	A	[1987STE/MAL]
CH_6N_2	[60-33-4]	methylhydrazine				
	$\Delta_{fus}H$		10.42	220.8		[1996DOM/HEA]
	$\Delta_v H$	(274–299)	41.8	286	A	[1987STE/MAL, 1951AST/FIN]
CH_6N_4S	[2231-57-4]	thiocarbohydrazide				
	$\Delta_{sub}H$		152.1 ± 3.0	298	C	[1982TOR/SAB]
$C_2BrCl_2F_3O_4$	[38217-36-6]	perchloric acid, 1,2,2-trifluoro-1-chloro-2-bromoethyl ester				
	$\Delta_v H$	(273–294)	42.5	283	A	[1987STE/MAL, 1973SCH/PIL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_2BrCl_3O	[34069-94-8]	trichloroacetyl bromide				
	$\Delta_v H$	(265–416)	42.6	280	A	[1987STE/MAL, 1947STU]
C_2BrCl_5	[79504-02-2]	bromopentachloroethane				
	$\Delta_{sub}H$	(383–433)	44.4	398		[1987STE/MAL, 1949HIG/END]
C_2BrF_3	[598-73-2]	bromotrifluoroethylene				
	$\Delta_v H$	(260–340)	25.0	275	A	[1987STE/MAL]
$C_2BrF_5O_3S$	[757-02-8]	2-bromotetrafluoroethyl fluorosulfate				
	$\Delta_v H$	(273–298)	33.2	285		[1963GIL/CAD]
C_2BrF_9S	[63011-81-4]	pentafluoro(1-bromo-1,2,2,2-tetrafluoroethyl) sulfur				
	$\Delta_v H$	(294–330)	30.7	309	A	[1987STE/MAL, 1999DYK/SVO]
$C_2Br_2ClF_3$	[354-51-8]	2-chloro-1,2-dibromo-1,1,2-trifluoroethane				
	$\Delta_v H$	(343–428)	31.4	358	A	[1987STE/MAL]
	$\Delta_v H$		35.0 ± 0.1	298	C	[1981MAJ/SVO]
	$\Delta_v H$		34.2 ± 0.1	313	C	[1981MAJ/SVO]
	$\Delta_v H$		33.5 ± 0.1	328	C	[1981MAJ/SVO]
	$\Delta_v H$		32.6 ± 0.1	343	C	[1981MAJ/SVO]
	$\Delta_v H$		31.6 ± 0.1	358	C	[1981MAJ/SVO]
$C_2Br_2Cl_4$	[630-25-1]	1,2-dibromotetrachloroethane				
	$\Delta_{sub}H$	(383–453)	52.5	398		[1987STE/MAL, 1949HIG/END]
	$\Delta_{sub}H$	(323–423)	56.7	373	A	[1935CAR/DIC]
$C_2Br_2F_4$	[124-73-2]	1,2-dibromotetrafluoroethane				
	$\Delta_{fus}H$		7.04	162.8		[1991ACR]
	$\Delta_v H$	(283–357)	28.5	298	A	[1987STE/MAL]
	$\Delta_v H$	(354–443)	26.9	369	A	[1987STE/MAL]
	$\Delta_v H$	(440–488)	27.1	455	A	[1987STE/MAL]
	$\Delta_v H$		28.4 ± 0.1	298	C	[1981MAJ/SVO]
	$\Delta_v H$		27.5 ± 0.1	313	C	[1981MAJ/SVO]
	$\Delta_v H$		26.5 ± 0.1	328	C	[1981MAJ/SVO]
	$\Delta_v H$	(246–295)	30.0	280		[1987STE/MAL, 1970DYK]
C_2Br_4	[79-28-7]	tetrabromoethylene				
	$\Delta_{sub}H$	(221–310)	44.2	236		[1987STE/MAL]
C_2ClFN_2	[30915-40-3]	*cis* chloro(fluoroimino)acetonitrile				
	$\Delta_v H$	(254–320)	31.7	269	A	[1987STE/MAL, 1971ZAB/SHR]
C_2ClFN_2	[30915-39-0]	*trans* chloro(fluoroimino)acetonitrile				
	$\Delta_v H$	(257–320)	32.7	272	A	[1987STE/MAL, 1971ZAB/SHR]
$C_2ClF_2NO_2$	[42016-33-1]	chloro(fluorocarbonyl)carbamic fluoride				
	$\Delta_v H$		36.8	376		[1973SPR/WRI]
C_2ClF_3	[79-38-9]	chlorotrifluoroethylene				
	$\Delta_{fus}H$		5.55	115		[1996DOM/HEA]
	$\Delta_v H$	(206–262)	21.8	247	A	[1987STE/MAL]
	$\Delta_v H$	(298–379)	20.2	313	A	[1987STE/MAL]
	$\Delta_v H$	(206–263)	21.7	248		[1951MCC/PER]
	$\Delta_v H$	(195–250)	21.9	235		[1933HEI/MUR]
$C_2ClF_3O_2$	[23213-83-4]	chloroformic acid, trifluoromethyl ester				
	$\Delta_v H$	(195–273)	24.1	258	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2ClF_3O_4S$	[6069-32-5]	difluorochloroacetic acid, fluorosulfuric acid anhydride				
	Δ_vH	(265–352)	39.8	280	A	[1987STE/MAL, 1966DES/CAD, 1999DYK/SVO]
C_2ClF_4NO	[42016-31-9]	chloro(trifluoromethyl)carbamic fluoride				
	Δ_vH		28.9	310		[1973SPR/WRI]
$C_2ClF_4NO_4S$	[42016-34-2]	fluorosulfuric acid, chloro(trifluoromethyl)carbamic acid anhydride				
	Δ_vH		28.5	398		[1973SPR/WRI]
C_2ClF_5	[76-15-3]	chloropentafluoroethane				
	$\Delta_{trs}H$		2.63	80.2		
	$\Delta_{fus}H$		1.88	173.7		[1996DOM/HEA]
	Δ_vH	(262–317)	19.7	277	A	[1987STE/MAL]
	Δ_vH	(234–265)	20.1	250	A	[1987STE/MAL]
	Δ_vH	(312–353)	19.7	327	A	[1987STE/MAL]
	Δ_vH	(178–234)	20.9	219		[1966MEA/ROS]
	Δ_vH	(176–235)	20.9	220	A	[1987STE/MAL, 1955AST/WIL]
	Δ_vH		19.4 ± 0.1	234	C	[1955AST/WIL]
C_2ClF_5O	[22675-67-8]	hypochlorous acid, pentafluoroethyl ester				
	Δ_vH	(193–248)	25.0	233	A	[1987STE/MAL, 1973DEM/SHR]
C_2ClF_5OS	[39937-08-1]	pentafluoroethanesulfinyl chloride				
	Δ_vH	(273–338)	32.7	288	A	[1987STE/MAL, 1964RAT/SHR, 1999DYK/SVO]
$C_2ClF_5O_3S$	[649-61-6]	2-chlorotetrafluoroethyl fluorosulfate				
	Δ_vH	(248–330)	32.9	289		[1963GIL/CAD]
$C_2ClF_5O_6S_2$	[1957-17-1]	1,2,2-trifluoro-1-chloro-1,2-ethanediol *bis*(fluorosulfate)				
	Δ_vH	(308–406)	53.2	323	A	[1987STE/MAL, 1999DYK/SVO]
C_2ClF_6NOS	[74366-11-3]	(pentafluoroethyl)imidosulfurous chloride fluoride				
	Δ_vH		35.6	326	I	[1980ABE/SHR]
C_2ClF_6P	[650-52-2]	*bis*(trifluoromethyl) chlorophosphine				
	Δ_vH	(193–273)	27.8	258		[1964PET/BUR, 1984BOU/FRI]
$C_2ClF_6PS_2$	[660-05-9]	chloro *bis*(trifluoromethylthio)phosphine				
	Δ_vH	(293–373)	33.0	333		[1960EME/PUG]
C_2ClF_9NP	[13105-57-2]	[*bis*(trifluoromethyl)amino]trifluorochlorophosphorous(V)				
	Δ_vH	(223–273)	26.4	248		[1966RIN/ONE]
C_2ClF_9S	[646-63-9]	2-chlorotetrafluoroethylsulfur pentafluoride				
	Δ_vH		28.3	320		[1961CAS/RAY, 1999DYK/SVO]
$C_2Cl_2F_2$	[598-88-9]	1,2-dichloro-1,2-difluoroethylene				
	Δ_vH	(191–294)	27.9	279	A	[1987STE/MAL]
	Δ_vH	(240–294)	27.2	279		[1933BOO/BUR]
$C_2Cl_2F_2N_2$	[30913-21-4]	dichloro(difluoroamino)acetonitrile				
	Δ_vH	(238–341)	26.8	253	A	[1987STE/MAL, 1971ZAB/SHR]
$C_2Cl_2F_2O$	[354-18-7]	fluorodichloroacetyl fluoride				
	Δ_vH	(208–273)	21.8	258	A	[1987STE/MAL]
$C_2Cl_2F_3NO$	[32751-03-4]	N,N′-dichloro-2,2,2-trifluoroacetamide				
	Δ_vH		40.9			[1972DEM/SHR]
$C_2Cl_2F_3NO$	[354-71-2]	1,2-dichlorotrifluoro-1-nitrosoethane				
	Δ_vH	(307–310)	29.0	308	I	[1960GRI/HAZ]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2Cl_2F_3NOS$	[24433-67-8]	S,S-dichloro-N-(trifluoroacetyl) sulfilimine				
	$\Delta_v H$	(306–333)	44.2	319	A	[1987STE/MAL, 1969GLE/VON, 1999DYK/SVO]
$C_2Cl_2F_3NO_2S$	[51587-33-8]	(trifluoromethyl)sulfonyl carbonimidic dichloride				
	$\Delta_v H$	(312–405)	44.1	327	A	[1987STE/MAL, 1999DYK/SVO]
$C_2Cl_2F_4$	[374-07-2]	1,1-dichloro-1,2,2,2-tetrafluoroethane				
	$\Delta_v H$	(231–373)	23.5	246	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$		23.2	233	BG	[1955MEA/STA]
	$\Delta_v H$		22.5	273	BG	[1955MEA/STA]
	$\Delta_v H$		20.8	313	BG	[1955MEA/STA]
	$\Delta_v H$		17.7	353	BG	[1955MEA/STA]
$C_2Cl_2F_4$	[76-14-2]	1,2-dichloro-1,1,2,2-tetrafluoroethane				
	$\Delta_{trs}H$		1.21	109.3		
	$\Delta_{trs}H$		2.63	134.6		
	$\Delta_{fus}H$		1.51	180.6		[1996DOM/HEA]
	$\Delta_v H$	(277–391)	24.3	292	A	[1987STE/MAL]
	$\Delta_v H$	(210–277)	25.1	262	A	[1987STE/MAL]
	$\Delta_v H$	(178–277)	25.3	261		[1947STU]
$C_2Cl_2F_4O_4$	[38126-28-2]	perchloric acid, 1,1,2,2-tetrafluoro-2-chloroethyl ester				
	$\Delta_v H$	(249–294)	32.6	279	A	[1987STE/MAL, 1973SCH/PIL]
$C_2Cl_2F_5NS$	[10564-48-4]	S,S-dichloro-N-(pentafluoroethyl) sulfilimine				
	$\Delta_v H$	(297–375)	37.4	312	A	[1987STE/MAL, 1999DYK/SVO]
$C_2Cl_2F_8NP$	[13105-58-3]	[*bis*(trifluoromethyl)amino]difluorodichlorophosphorous(V)				
	$\Delta_v H$	(262–305)	32.9	293		[1966EME/ONA]
$C_2Cl_3F_3$	[354-58-5]	1,1,1-trichloro-2,2,2-trifluoroethane				
	$\Delta_v H$		28.1 ± 0.1	298	C	[1980MAJ/SVO]
	$\Delta_v H$		27.2 ± 0.1	313	C	[1980MAJ/SVO]
	$\Delta_v H$		26.3 ± 0.1	328	C	[1980MAJ/SVO]
	$\Delta_v H$	(297–319)	28.9	308		[1980MAJ/SVO]
	$\Delta_v H$	(286–310)	29.2	298	A	[1987STE/MAL, 1963HIR/HIL]
$C_2Cl_3F_3$	[76-13-1]	1,1,2-trichloro-1,2,2-trifluoroethane				
	$\Delta_{trs}H$		0.83	82.5		
	$\Delta_{fus}H$		2.47	236.9		[1991ACR]
	$\Delta_{sub}H$	(205–233)	32.9	219	A	[1947STU]
	$\Delta_v H$	(273–319)	28.3	288	A	[1987STE/MAL]
	$\Delta_v H$	(238–364)	30.9	253	A	[1987STE/MAL]
	$\Delta_v H$	(360–473)	26.9	375	A	[1987STE/MAL]
	$\Delta_v H$	(297–317)	28.8	307	A	[1987STE/MAL]
	$\Delta_v H$		28.4 ± 0.1	298	C	[1980MAJ/SVO]
	$\Delta_v H$		27.5 ± 0.1	313	C	[1980MAJ/SVO]
	$\Delta_v H$		26.6 ± 0.1	328	C	[1980MAJ/SVO]
	$\Delta_v H$		28.2 ± 0.4	298		[1974VAR/BUL]
	$\Delta_v H$	(273–318)	28.2	288		[1963HIR/HIL]
	$\Delta_v H$	(248–356)	30.8	263		[1940BEN/MCH]
	$\Delta_v H$	(243–353)	NA			[1939REI]
$C_2Cl_3F_3$	[na]	trichlorotrifluoroethane				
	$\Delta_v H$	(248–352)	30.5	263		[1938REI]
$C_2Cl_3F_3O_4$	[38126-27-1]	perchloric acid, 1,2,2-trifluoro-1,2-dichloroethyl ester				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(273–296)	26.9	284	A	[1987STE/MAL]
C_2Cl_3N	[545-06-2]	trichloroacetonitrile				
	$\Delta_v H$	(289–357)	35.1	304	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(289–356)	34.7	304		[1954DAV/JEN]
C_2Cl_4	[127-18-4]	tetrachloroethylene				
	$\Delta_{trs}H$		0.82	210		
	$\Delta_{fus}H$		10.88	250.8		[1996DOM/HEA]
	$\Delta_v H$	(307–393)	38.4	322		[1995DEJ/BUR]
	$\Delta_v H$	(310–393)	38.7	325	A	[1987STE/MAL, 1972BOU/AIM]
	$\Delta_v H$	(300–380)	38.9	315		[1970POL/MUR, 1984BOU/FRI]
	$\Delta_v H$	(333–373)	37.6	348		[1967FRI/GAL]
	$\Delta_v H$		39.7 ± 0.1	298	C	[1980MAJ/SVA]
$C_2Cl_4F_2$	[76-12-0]	1,2-difluoro-1,1,2,2-tetrachloroethane				
	$\Delta_{trs}H$		0.79	130		
	$\Delta_{fus}H$		3.7	299.7		[1991ACR, 1978KIS/SUG]
	$\Delta_{sub}H$	(235–293)	36.4	278		[1987STE/MAL, 1947STU]
	$\Delta_{sub}H$	(237–293)	38.2	265	A	[1947STU]
	$\Delta_v H$	(313–361)	34.8 ± 0.4	298		[2007VAR/DRU, 1976VAR/BUL]
	$\Delta_v H$		34.6 ± 0.1	308	C	[1992SVO/KUB2]
	$\Delta_v H$		34.1 ± 0.1	315	C	[1992SVO/KUB2]
	$\Delta_v H$		33.6 ± 0.1	323	C	[1992SVO/KUB2]
	$\Delta_v H$		33.1 ± 0.1	330	C	[1992SVO/KUB2]
	$\Delta_v H$		32.6 ± 0.1	338	C	[1992SVO/KUB2]
	$\Delta_v H$	(301–365)	36.6	316	A	[1987STE/MAL]
	$\Delta_v H$	(235–293)	36.4	278	A	[1987STE/MAL]
	$\Delta_v H$	(312–362)	34.0	327	A	[1987STE/MAL]
	$\Delta_v H$	(283–364)	32.7	298		[1933HOR/GEI]
$C_2Cl_4F_2O_3S$	[na]	2-fluorotetrachloroethyl fluorosulfate				
	$\Delta_v H$	(311–437)	42.0	329		[1963GIL/CAD]
$C_2Cl_4F_2O_4$	[38126-29-3]	perchloric acid, 1,2-difluoro-1,2,2-trichloroethyl ester				
	$\Delta_v H$	(273–294)	30.2	283	A	[1987STE/MAL, 1973SCH/PIL]
$C_2Cl_4F_4N_2$	[35695-53-5]	1,2-*bis*(dichloroamino) tetrafluoroethane				
	$\Delta_v H$		43.1			[1972DEM/SHR]
$C_2Cl_4F_6OS$	[762-90-3]	pentafluoro(2-fluoro-1,1,2,2-tetrachloroethoxy) sulfur				
	$\Delta_v H$	(314–418)	42.8	329	A	[1987STE/MAL, 1962WIL/CAD]
C_2Cl_4O	[16650-10-5]	tetrachloroethylene oxide				
	$\Delta_v H$	(308–348)	36.9	323	A	[1987STE/MAL]
C_2Cl_4O	[76-02-8]	trichloroacetyl chloride				
	$\Delta_v H$	(305–393)	38.3	320	A	[1987STE/MAL, 1959MCD/SHR, 1970DYK]
C_2Cl_6	[67-72-1]	hexachloroethane				
	$\Delta_{trs}H$		2.57	318		
	$\Delta_{trs}H$		8.22	345		
	$\Delta_{fus}H$		9.75	458		[1996DOM/HEA]
	$\Delta_{sub}H$	(317–345)	58.9	331		[1987STE/MAL]
	$\Delta_{sub}H$ (*mp 186.6*)	(306–459)	48.8	382	A	[1947STU]
	$\Delta_{sub}H$ *(triclinic)*	(286–447)	59.1 ± 0.7	367		[1947IVI/DAI, 1960JON, 1970COX/PIL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$ *(cubic)*	(286–447)	51.0	367		[1947IVI/DAI, 1960JON]
	$\Delta_{sub}H$		NA		GSM	[1941NIT/SEK]
	$\Delta_{sub}H$	(335–453)	50.5			[1935LEE]
	$\Delta_{sub}H$	(288–333)	59.0	310	GS,A	[1930NEL]
	Δ_vH	(460–513)	40.3	475	A	[1987STE/MAL]
	Δ_vH	(345–460)	51.2	360	A	[1987STE/MAL, 1970DYK]
	Δ_vH	(305–458)	53.7	320		[1947STU]
C_2FNO_2	[15435-14-0]	fluorocarbonyl isocyanate				
	Δ_vH	(228–264)	33.5	249	A	[1987STE/MAL, 1967GLE/BIE]
$C_2F_2N_2O$	[32837-63-1]	difluorocarboncyamidic amide				
	Δ_vH		29.7	383		[1973WRI/SHR]
$C_2F_2N_2O_2$	[32837-64-2]	difluorocarbonisocyantidic amide				
	Δ_vH		33.9	327		[1973WRI/SHR]
$C_2F_2N_4O_8$	[20165-39-3]	1,2-difluoro-1,1,2,2-tetranitroethane				
	Δ_vH	(297–323)	62.8	310	A	[1987STE/MAL, 1973PEP/LEB]
$C_2F_2O_2$	[359-40-0]	oxalyl fluoride				
	$\Delta_{sub}H$	(234–260)	16.7	247		[1987STE/MAL]
	Δ_vH	(264–272)	29.7	268		[1987STE/MAL]
$C_2F_2O_4$	[692-74-0]	*bis*(fluorocarbonyl)peroxide				
	Δ_vH	(226–266)	30.6	251		[1962VON/AYM, 1984BOU/FRI]
C_2F_3N	[353-85-5]	trifluoroacetonitrile				
	$\Delta_{fus}H$		4.97	128.7		[1996DOM/HEA]
	Δ_vH	(151–206)	19.3	191	A	[1987STE/MAL]
	Δ_vH	(141–203)	19.2	188	A	[1987STE/MAL]
	Δ_vH	(197–241)	18.5	226	A	[1987STE/MAL]
	Δ_vH	(336–282)	17.4	309	A	[1987STE/MAL]
	Δ_vH	(272–311)	17.4	287	A	[1987STE/MAL]
	Δ_vH	(142–206)	19.2	191		[1961PAC/BOB]
C_2F_3NO	[460-49-1]	trifluoromethyl isocyanate				
	Δ_vH	(195–228)	22.5	213	A	[1987STE/MAL]
C_2F_3NO	[2713-04-4]	trifluoronitrosoethylene				
	Δ_vH	(247–250)	25.7	248	A,I	[1987STE/MAL, 1960GRI/HAZ]
C_2F_3NOS	[61951-27-7]	trifluoromethanesulfinyl cyanide				
	Δ_vH		40.2	352	I	[1977BUR/SHR]
C_2F_3NOS	[691-03-2]	trifluoroemethylsulfenyl isocyanate				
	Δ_vH	(231–293)	27.9	278	A	[1987STE/MAL, 1999DYK/SVO, 1963EME/HAA]
$C_2F_3NO_2S$	[26454-68-2]	2,2,2-trifluoro-N-sulfinylacetamide				
	Δ_vH	(267–302)	36.4	282	A	[1987STE/MAL, 1999DYK/SVO]
$C_2F_3NO_2S_2$	[51587-30-5]	trifluoromethanesulfonyl isothiocyanate				
	Δ_vH	(297–385)	41.0	312	A	[1987STE/MAL, 1999DYK/SVO]
$C_2F_3NO_3S$	[30227-06-6]	trifluoromethanesulfonyl isocyanate				
	Δ_vH	(275–345)	36.9	290	A	[1987STE/MAL, 1999DYK/SVO]
C_2F_3NS	[690-24-4]	thiocyanic acid, trifluoromethyl ester				
	Δ_vH	(226–294)	32.6	279	A	[1987STE/MAL, 1999DYK/SVO, 1963EME/HAA]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2F_3N_3O_6$	[20165-38-2]	1,1,2-trifluoro-1,2,2-trinitroethane				
	Δ_vH	(313–353)	57.7	328	A	[1987STE/MAL, 1973PEP/LEB]
C_2F_4	[116-14-3]	tetrafluoroethylene				
	$\Delta_{fus}H$		7.71	142		[1996DOM/HEA]
	Δ_vH	(197–273)	16.8	258	A	[1987STE/MAL]
	Δ_vH	(273–306)	16.6	288	A	[1987STE/MAL]
	Δ_vH	(142–208)	18.6	193	A	[1987STE/MAL, 1953FUR/MCC, 1984BOU/FRI]
$C_2F_4N_2$	[5131-88-4]	tetrafluoroaminoacetic, nitrile				
	Δ_vH	(193–238)	23.9	223	A	[1987STE/MAL]
$C_2F_4N_2O_3$	[679-08-3]	1,1,2,2-tetrafluoro-1-nitro-2-nitrosoethane				
	Δ_vH	(233–293)	28.8	278	A	[1987STE/MAL]
$C_2F_4N_2O_4$	[356-16-1]	1,1,2,2-tetrafluoro-1,2-dinitroethane				
	Δ_vH	(303–343)	67.8	323		[1973PEP/LEB]
	Δ_vH	(259–333)	34.7	274	A, I	[1987STE/MAL, 1957FRA/SAN]
$C_2F_4N_2O_6S_2$	[19252-50-7]	1,2-*bis*(fluoroformyl)-1,2-*bis*(fluorosulfonyl)hydrazine				
	Δ_vH	(273–296)	49.8	284	A	[1987STE/MAL, 1999DYK/SVO]
C_2F_4O	[354-34-7]	trifluoroacetyl fluoride				
	Δ_vH	(161–215)	20.9	200	A	[1987STE/MAL, 1972PAC/HOD]
$C_2F_4O_2S$	[684-106]	trifluoroethylene sulfonyl fluoride				
	Δ_vH	(270–313)	27.0	285	A	[1987STE/MAL, 1999DYK/SVO]
$C_2F_4O_3$	[16118-40-4]	fluoroperoxyformic acid, trifluoromethyl ester				
	Δ_vH	(194–249)	27.3	234	A	[1987STE/MAL]
$C_2F_4O_4S$	[5762-53-8]	trifluoroacetyl fluorosulfate				
	Δ_vH	(262–321)	34.3	277	A	[1987STE/MAL, 1966DEL/SHR]
	Δ_vH	(250–320)	34.9	265		[1966MEA/ROS]
$C_2F_4S_2$	[1717-50-6]	tetrafluoro-1-3-dithietane				
	Δ_vH		29.2			[1973ABE/SHR]
C_2F_5I	[354-64-3]	pentafluoroiodoethane				
	Δ_vH	(248–283)	20.8	268	A	[1987STE/MAL]
C_2F_5NO	[32822-49-4]	pentafluoroacetamide				
	Δ_vH		23.8	252	HG	[1971DEM/SHR]
C_2F_5NO	[354-72-3]	pentafluoronitrosoethane				
	Δ_vH	(193–227)	20.9	212	A	[1987STE/MAL, 1956BAR/HAS]
C_2F_5NOS	[32837-66-4]	carbamothioic acid, difluoro-S-(trifluoromethyl) ester				
	Δ_vH		23.0	315		[1973WRI/SHR]
C_2F_5NOS	[24433-65-6]	S,S-difluoro-N-(trifluoroacetyl) sulfilimine				
	Δ_vH	(240–282)	34.4	267	A	[1987STE/MAL, 1969GLE/VON, 1999DYK/SVO]
C_2F_5NOS	[28103-61-9]	1,1,1-trifluoro-N-(fluoroformyl)methanesulfinimidyl fluoride				
	Δ_vH	(276–323)	38.9	291	A	[1987STE/MAL, 1999DYK/SVO]
C_2F_5NOS	[10564-50-8]	1,1,2,2,2-pentafluoro-N-sulfinyl ethylamine				
	Δ_vH	(245–303)	29.0	260	A	[1987STE/MAL, 1999DYK/SVO]
$C_2F_5NO_4S$	[19252-49-4]	(fluorosulfonyl)(trifluoromethoxy)carbamoyl fluoride				
	Δ_vH	(277–290)	30.3	283		[1999DYK/SVO]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2F_5N_3O_3$	[755-68-0]	fluoro(1,1,2,2-tetrafluoro-2-nitroethyl)-2-diimide oxide				
	Δ_vH	(257–350)	38.0	272	A	[1987STE/MAL]
C_2F_6	[76-16-4]	hexafluoroethane				
	$\Delta_{trs}H$		3.74	104		
	$\Delta_{fus}H$		2.69	173.1		[1996DOM/HEA]
	$\Delta_{sub}H$		26.0	103		[1963BON, 1948PAC/AST]
	Δ_vH	(172–200)	17.3	186	A	[1987STE/MAL]
	Δ_vH	(180–196)	17.1	188		[1948PAC/AST]
C_2F_6IN	[5764-87-4]	N-iodo-*bis*(trifluoromethyl)amine				
	Δ_vH	(261–318)	28.5	276	A	[1987STE/MAL]
C_2F_6IP	[359-64-8]	*bis*(trifluoromethyl) phosphinous iodide				
	Δ_vH	(273–320)	33.2	288		[1964PET/BUR, 1984BOU/FRI]
$C_2F_6N_2$	[372-63-4]	hexafluoroazomethane				
	Δ_vH	(205–242)	22.9	227	A	[1987STE/MAL]
$C_2F_6N_2O$	[371-56-2]	hexafluoroazoxymethane				
	Δ_vH	(274–281)	27.2	277	A	[1987STE/MAL]
$C_2F_6N_2O_2$	[359-75-1]	1,1,1-trifluoro-N-(nitrosooxy)-N-(trifluoromethyl)methanamine				
	Δ_vH	(245–285)	26.8	270	A	[1987STE/MAL]
$C_2F_6N_2O_2$	[367-54-4]	N-nitroso-O,N-*bis*(trifluoromethyl)hydroxylamine				
	Δ_vH	(272–283)	25.4	277	A	[1987STE/MAL, 1954JAN/HAS]
C_2F_6OS	[30341-37-8]	*bis*(trifluoromethyl)sulfoxide				
	Δ_vH	(248–303)	27.9	263	A	[1987STE/MAL, 1999DYK/SVO]
C_2F_6OS	[20621-31-2]	pentafluoroethyl sulfinyl fluoride				
	Δ_vH	(234–293)	28.5	278	A, I	[1987STE/MAL, 1968RAT/SHR, 1999DYK/SVO]
$C_2F_6OS_2$	[63548-94-7]	S-trifluoromethyl-(trifluoromethyl)thiosulfinate				
	Δ_vH	(293–353)	30.7	333		[1999DYK/SVO]
$C_2F_6OS_2$	[na]	methanesulfonothioic acid, trifluoro-S-(trifluoromethyl) ester				
	Δ_vH		27.8	329	I	[1976BUR/SHR]
$C_2F_6O_2S$	[354-87-0]	perfluoroethyl fluorosulfate				
	Δ_vH	(250–300)	28.8	275		[1963GIL/CAD]
$C_2F_6O_3$	[1718-18-9]	*bis*(trifloromethyl) trioxide				
	Δ_vH	(193–248)	24.3	233	A	[1987STE/MAL]
$C_2F_6O_3S$	[3582-05-6]	trifluoromethanesulfonic acid, trifluoromethyl ester				
	Δ_vH	(238–294)	29.4	252		[1999DYK/SVO]
	Δ_vH	(238–294)	27.6	279	A	[1987STE/MAL, 1965NOF/CAD]
$C_2F_6O_4S$	[1479-52-3]	*bis*(trifluoromethyl) sulfate				
	Δ_vH	(219–304)	28.7	262		[1960VAN/CAD]
$C_2F_6O_5S$	[41765-14-4]	peroxysulfuric acid, *bis*(trifluoromethyl) ester				
	Δ_vH	(253–319)	32.0	268		[1999DYK/SVO]
$C_2F_6O_6S_2$	[1479-53-4]	tetrafluoroethylene glycol, *bis*(fluorosulfate)				
	Δ_vH	(295–378)	43.7	310	A	[1987STE/MAL, 1970DYK, 1999DYK/SVO]
$C_2F_6O_7S_2$	[na]	*bis*(trifluoromethyl) disulfate				
	Δ_vH	(328–357)	38.3	342		[1960VAN/CAD]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_2F_6S	[371-78-8]	*bis*(trifluoromethyl) sulfide				
	$\Delta_v H$		23.6			[1952BRA/EME]
$C_2F_6S_2$	[372-64-5]	*bis*(trifluoromethyl) disulfide				
	$\Delta_v H$		28.8			[1952BRA/EME]
C_2F_7N	[359-62-6]	perfluorodimethylamine				
	$\Delta_v H$	(199–230)	21.4	215	A	[1987STE/MAL]
	$\Delta_v H$	(203–233)	18.6	218	A	[1987STE/MAL, 1949THO/EME]
C_2F_7N	[354-80-3]	perfluoroethylamine				
	$\Delta_v H$	(171–236)	20.8	221	A	[1987STE/MAL, 1970DYK]
C_2F_7NOS	[59617-28-6]	(pentafluoroethyl)imidosulfuryl fluoride				
	$\Delta_v H$		30.7			[1976STA/MEW]
$C_2F_7NO_3S$	[4188-34-5]	fluorosulfuric acid, 1,1,2,2-tetrafluoro-2-(difluoroamino)ethyl ester				
	$\Delta_v H$	(276–326)	31.1	291	A	[1987STE/MAL, 1999DYK/SVO]
$C_2F_7NO_{12}S_4$	[53684-02-9]	fluorosulfuric acid, 1-[*bis*[(fluorosulfonyl)oxo]amino]-2,2,2-trifluoroethylidene ester				
	$\Delta_v H$		43.4	418		[1975KIR/LAS]
C_2F_8NOP	[13105-59-4]	[*bis*(difluoromethyl)amino] difluorophosphine oxide				
	$\Delta_v H$	(233–278)	30.4	255		[1966EME/ONA]
C_2F_8NOP	[36544-19-1]	phosphorous *bis*(trifluoromethyl)nitroxide difluoride				
	$\Delta_v H$		28.0	288		[1973WAN/SHR]
C_2F_8OS	[33716-15-3]	difluorooxo-*bis*-(trifluoromethyl)sulfur				
	$\Delta_v H$	(239–299)	22.4	254	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_v H$		28.4			[1971SAU/SHR]
C_2F_8OS	[82390-51-0]	pentafluoro(trifluoroacetyl) sulfur				
	$\Delta_v H$	(162–290)	26.6	177		[1999DYK/SVO]
$C_2F_8O_3S$	[60672-61-9]	pentafluoro (trifluoroethaneperoxoato) sulfur				
	$\Delta_v H$		28.0			[1976HOP/DES]
C_2F_8S	[1186-51-2]	trifluorovinyl sulfur pentafluoride				
	$\Delta_v H$		25.1	292		[1961CAS/RAY]
C_2F_8S	[30341-38-9]	difluoro *bis*(trifluoromethyl) sulfur				
	$\Delta_v H$		28.8			[1971SAU/SHR]
$C_2F_{10}OS$	[1580-07-0]	pentafluoro(pentafluoroethoxy) sulfur				
	$\Delta_v H$	(245–287)	27.6	272	A	[1987STE/MAL, 1962WIL/CAD]
$C_2F_{10}O_2S$	[2004-38-8]	tetrafluoro*bis*(trifluoromethoxy) sulfur				
	$\Delta_v H$	(246–302)	29.9	261	A	[1987STE/MAL, 1964DUN/CAD]
$C_2F_{10}O_3S$	[41938-43-6]	(trifluoromethoxy)[(trifluoromethyl)dioxy] sulfur tetrafluoride				
	$\Delta_v H$	(255–317)	32.5	270		[1999DYK/SVO]
$C_2F_{10}O_3S_2$	[68010-32-2]	pentafluoro[1,2,2,2-tetrafluoro-1-[(fluorosulfonyl)oxy]ethyl] sulfur				
	$\Delta_v H$		34.8			[1978DEM/FOX]
$C_2F_{10}S$	[42179-02-2]	*trans* tetrafluoro*bis*(trifluoromethyl) sulfur				
	$\Delta_v H$	(233–293)	23.3	278	A	[1987STE/MAL, 1999DYK/SVO]
$C_2F_{11}NS$	[13888-13-6]	[*bis*(trifluoromethyl)amino] sulfur pentafluoride				
	$\Delta_v H$	(233–306)	29.3	248	A	[1987STE/MAL, 1966DOB, 1999DYK/SVO]
$C_2F_{12}S_2$	[42060-66-2]	perfluoro-1,3-dithietane octafluoride				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		35.6			[1973ABE/SHR]
C_2N_2	[460-19-5]	cyanogen				
	$\Delta_{fus}H$		8.11	245.3		[1996DOM/HEA]
	$\Delta_{sub}H$	(202–239)	33.0	224		[1987STE/MAL]
	$\Delta_{sub}H$	(177–230)	33.6	204	A	[1947STU]
	$\Delta_{sub}H$	(202–245)	34.4		CATH	[1939RUE/GIA]
	$\Delta_{sub}H$	(198–240)	32.4	224		[1975GRO, 1925PER/BAR]
	$\Delta_{sub}H$		NA			[1916TER]
	$\Delta_v H$	(240–253)	24.5	246	A	[1987STE/MAL]
	$\Delta_v H$	(246–273)	23.9	257		[1925PER/BAR]
	$\Delta_v H$	(246–273)	23.5	267		[1925PER/BAR]
$C_2N_6O_{12}$	[918-37-6]	hexanitroethane				
	$\Delta_{sub}H$		70.7	298		[1999MIR/VOR]
	$\Delta_{sub}H$	(293–343)	30.4	308		[1987STE/MAL, 1963NOB/REE]
	$\Delta_{sub}H$	(293–313)	70.7 ± 1.7	303	ME	[1969MIR/LEB, 1977PED/RYL]
	$\Delta_{sub}H$	(293–343)	70.7 ± 1.7			[1968PEP/MIR]
C_2HBr	[593-61-3]	bromoacetylene				
	$\Delta_v H$	(214–273)	25.6	273	A	[1987STE/MAL]
$C_2HBrClF_3$	[151-67-7]	2-bromo-2-chloro-1,1,1-trifluoroethane				
	$\Delta_{fus}H$		4.84	154.7		[1996DOM/HEA]
	$\Delta_v H$	(302–323)	29.8 ± 0.4	298		[2007VAR/DRU, 1985PAS/VAR]
	$\Delta_v H$	(298–323)	30.0	310	A	[1987STE/MAL]
	$\Delta_v H$		29.6 ± 0.3	298		[1981PAP/ERA]
	$\Delta_v H$		29.6 ± 0.1	298	C	[1980MAJ/SVO]
	$\Delta_v H$		28.7 ± 0.1	313	C	[1980MAJ/SVO]
	$\Delta_v H$		27.8 ± 0.1	328	C	[1980MAJ/SVO]
	$\Delta_v H$		26.8 ± 0.1	343	C	[1980MAJ/SVO]
	$\Delta_v H$	(227–318)	34.3	242		[1965KUD/SAV]
	$\Delta_v H$	(222–329)	33.2	237	A	[1987STE/MAL, 1963BOT/SEI, 1970DYK]
$C_2HBrClF_3$	[354-06-3]	1-bromo-2-chloro-1,1,2-trifluoroethane				
	$\Delta_{fus}H$		4.38	146.2		[1996DOM/HEA]
	$\Delta_v H$		30.0 ± 0.1	298	C	[1981MAJ/SVO]
	$\Delta_v H$		29.0 ± 0.1	313	C	[1981MAJ/SVO]
	$\Delta_v H$		28.1 ± 0.1	328	C	[1981MAJ/SVO]
	$\Delta_v H$		27.2 ± 0.1	343	C	[1981MAJ/SVO]
C_2HBrF_8S	[82390-50-9]	(1-bromo-2,2,2-trifluoroethyl)sulfur pentafluoride				
	$\Delta_v H$		32.0			[1982DEM/FOX]
$C_2HBr_2FO_2$	[353-99-1]	dibromofluoroacetic acid				
	$\Delta_v H$	(403–468)	60.2	468	A	[1987STE/MAL]
C_2HBr_3O	[115-17-3]	tribromoacetaldehyde				
	$\Delta_v H$	(291–447)	47.8	306	A	[1987STE/MAL, 1947STU]
C_2HCl	[593-63-5]	chloroacetylene				
	$\Delta_v H$	(204–238)	21.8	223	A	[1987STE/MAL]
C_2HClF_2	[359-10-4]	1,1-difluoro-2-chloroethene				
	$\Delta_v H$		23.5	233	BG	[1955MEA/STA]
	$\Delta_v H$		21.4	273	BG	[1955MEA/STA]
	$\Delta_v H$		18.5	313	BG	[1955MEA/STA]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		14.1	353	BG	[1955MEA/STA]
C_2HClF_6OS	[20407-78-7]	*trans*[(2-chloro-2-fluorovinyl)oxy] sulfur pentafluoride				
	$\Delta_v H$		36.8			[1968PLA/WIL]
C_2HClF_6OS	[20407-79-8]	*cis*[(2-chloro-2-fluorovinyl)oxy] sulfur pentafluoride				
	$\Delta_v H$		34.3			[1968PLA/WIL]
C_2HClF_8OS	[20334-47-8]	(2-chloro-1,2,2-trifluoroethoxy) sulfur pentafluoride				
	$\Delta_v H$		33.3			[1968PLA/WIL]
$C_2HClF_{12}O_2S$	[20563-90-0]	[(2-chloro-2,2-difluoroethylidiene)dioxy]bis(pentafluoro)sulfur				
	$\Delta_v H$		39.0			[1968PLA/WIL]
C_2HClF_8S	[22756-13-4]	(1,1,2-trifluoro-2-chloroethyl) sulfur pentafluoride				
	$\Delta_v H$	(279–323)	30.2	294	A	[1987STE/MAL, 1999DYK/SVO]
$C_2HCl_2F_3$	[306-83-2]	1,1,1-trifluoro-2,2-dichloroethane				
	$\Delta_{fus}H$		5.51	145.7		[2002VAR/DRU]
	$\Delta_v H$		26.6 ± 0.3	298		[2002VAR/DRU]
	$\Delta_v H$	(243–448)	28.7	258	MM	[1992OGU/YAM]
$C_2HCl_2F_3$	[354-23-4]	1,1,2-trifluoro-1,2-dichlorochloroethane				
	$\Delta_{fus}H$		7.08	135.7		[1999DRU/VAR]
	$\Delta_v H$		26.8 ± 0.3	298		[2002VAR/DRU]
C_2HCl_3	[79-01-6]	trichloroethylene				
	$\Delta_{fus}H$		8.45	188.5		[1996DOM/HEA]
	$\Delta_v H$	(297–360)	34.2	313		[1995AUC/GON]
	$\Delta_v H$		34.5 ± 0.1	298	C	[1980MAJ/SVA]
	$\Delta_v H$	(280–428)	34.6	295		[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(290–359)	36.2	305		[1944MCD]
	$\Delta_v H$	(298–360)	35.6	313		[1912HER/RAT, 1984BOU/FRI]
$C_2HCl_3F_2$	[354-21-2]	1,1-difluoro-1,2,2-trichloroethane				
	$\Delta_v H$	(297–345)	32.8 ± 0.4	298		[2007VAR/DRU, 1976VAR/BUL]
	$\Delta_v H$		32.9 ± 0.1	298	C	[1997VAR/PAS]
$C_2HCl_3F_2$	[354-15-4]	1,2-difluoro-1,1,2-trichloroethane				
	$\Delta_v H$	(289–346)	33.0 ± 0.4	298		[2007VAR/DRU, 1997VAR/PAS]
	$\Delta_v H$		33.1 ± 0.1	298	C	[1997VAR/PAS]
$C_2HCl_3F_2O_3S$	[42087-88-7]	fluorosulfuric acid, 2-fluoro-1,1,2-trichloroethyl ester				
	$\Delta_v H$	(317–353)	36.6	332	A	[1987STE/MAL, 1999DYK/SVO]
C_2HCl_3O	[75-87-6]	trichloroacetaldehyde				
	$\Delta_v H$	(235–371)	36.6	250	A	[1987STE/MAL, 1947STU]
$C_2HCl_3O_2$	[76-03-9]	trichloroacetic acid				
	$\Delta_{fus}H$		5.88	330.7		[1991ACR]
	$\Delta_v H$	(326–473)	65.0	341	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(385–470)	57.2	400		[1959MCD/SHR]
C_2HCl_4FS	[2822-06-2]	(dichloromethyl)(fluorodichloromethyl) sulfide				
	$\Delta_v H$	(322–352)	46.5	337	A	[1987STE/MAL, 1999DYK/SVO]
C_2HCl_5	[76-01-7]	pentachloroethane				
	$\Delta_v H$	(274–434)	40.9	289	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(298–435)	45.5	313		[1930NEL]
$C_2HF_3O_2$	[76-05-1]	trifluoroacetic acid				
	$\Delta_v H$	(285–345)	35.9	300	A	[1987STE/MAL, 1962KRE, 1970DYK, 1984BOU/FRI]
C_2HF_5	[354-33-6]	pentafluoroethane				
	$\Delta_{fus}H$		2.25	172.6		[1996LUE/MAG]
	$\Delta_v H$		22.8	175	C	[1999WEB]
	$\Delta_v H$		21.9	190	C	[1999WEB]
	$\Delta_v H$		20.9	205	C	[1999WEB]
	$\Delta_v H$		20.3	215	C	[1999WEB]
C_2HF_5O	[3822-68-2]	pentafluorodimethyl ether				
	$\Delta_v H$	(216–238)	22.3	239	I	[2001KUL/DES]
	$\Delta_v H$	(229–331)	19.3	260	EB	[1996WEB/DEF2]
	$\Delta_v H$	(229–331)	17.6	280	EB	[1996WEB/DEF2]
	$\Delta_v H$	(229–331)	15.6	300	EB	[1996WEB/DEF2]
	$\Delta_v H$	(240–313)	20.4	255	A	[1992SAL/WAN]
C_2HF_6NOS	[34556-22-4]	S,S-*bis*(trifluoromethyl)sulfoximine				
	$\Delta_v H$		35.1	346	I	[1972SAU/SHR]
$C_2HF_6NS_2$	[na]	*bis*(trifluoromethane) sulphenimide				
	$\Delta_v H$	(243–293)	36.5	268		[1960EME/NAB]
C_2HF_6OP	[359-65-9]	phosphinous acid, *bis*(trifluoromethyl) ester				
	$\Delta_{sub}H$	(233–251)	46.6	242		[1987STE/MAL, 1962GRI/BUR]
C_2HF_6OPS	[35814-49-4]	*bis*(trifluoromethyl) thiophospinic acid				
	$\Delta_v H$	(283–324)	38.3	298	A	[1987STE/MAL]
C_2HF_6PS	[1486-19-7]	*bis*(trifluoromethyl)(mercapto)phosphine				
	$\Delta_v H$	(269–304)	30.7	286		[1964CAV/EME]
$C_2HF_6PS_2$	[1486-19-7]	*bis*(trifluoromethyl) thiophosphinous acid				
	$\Delta_v H$	(217–280)	32.9	265	A	[1987STE/MAL, 1999DYK/SVO]
$C_2HF_6PS_2$	[18799-75-2]	phosphinodithioic acid, *bis*(trifluoromethyl) ester				
	$\Delta_{sub}H$	(273–287)	41.9	280	A	[1987STE/MAL]
C_2HF_7S	[58636-78-5]	(2,2-difluoroethenyl) pentafluorosulfur				
	$\Delta_v H$		27.7			[1978DEM/FOX]
C_2HF_9S	[63011-80-3]	pentafluoro (1,2,2,2-tetrafluoroethyl) sulfur				
	$\Delta_v H$		28.0			[1978DEM/FOX]
C_2H_2	[74-86-2]	acetylene				
	$\Delta_{trs}H$		2.54	142.7		
	$\Delta_{fus}H$		3.76	192.4		[1976MIS/RIE]
	$\Delta_{sub}H$	(98–145)	23.5	130	A	[1987STE/MAL]
	$\Delta_{sub}H$	(133–191)	21.8	162		[1960JON]
	$\Delta_{sub}H$	(151–193)	25.2	193		[1956AMB]
	$\Delta_{sub}H$	(130–189)	22.7	160	A	[1947STU]
	$\Delta_{sub}H$	(89–169)	22.1	129	A	[1943BUR]
	$\Delta_v H$	(258–308)	16.3	273	A	[1987STE/MAL]
	$\Delta_v H$	(192–308)	16.7	207	A	[1987STE/MAL]
	$\Delta_v H$	(192–225)	16.7	210	A	[1987STE/MAL]
	$\Delta_v H$		17.0	214		[1971WIL/ZWO]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(215–308)	16.4	230		[1964AMB/TOW]
	$\Delta_v H$	(193–207)	16.8	200		[1956AMB, 1984BOU/FRI]
$C_2H_2Br_2$	[590-11-4]	*cis* 1,2-dibromoethylene				
	$\Delta_v H$	(299–351)	40.6	314	A	[1987STE/MAL, 1950NOY/NOY, 1970DYK]
$C_2H_2Br_2$	[590-12-5]	*trans* 1,2-dibromoethylene				
	$\Delta_v H$	(277–344)	35.2	310	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(277–343)	42.9	292		[1950NOY/NOY, 1984BOU/FRI]
$C_2H_2Br_2Cl_2$	[75-81-0]	1,2-dibromo-1,1-dichloroethane				
	$\Delta_v H$	(354–519)	45.9	369	A	[1987STE/MAL, 1970DYK]
$C_2H_2Br_2Cl_2$	[683-68-1]	1,2-dibromo-1,2-dichloroethane				
	$\Delta_v H$	(320–379)	45.9	335	A	[1987STE/MAL]
$C_2H_2Br_2F_2$	[75-82-1]	1,2-dibromo-1,1-difluoroethane				
	$\Delta_{fus}H$		8.3	206.3		[1991ACR]
$C_2H_2Br_4$	[630-16-0]	1,1,1,2-tetrabromoethane				
	$\Delta_v H$	(331–473)	61.5	346	A	[1987STE/MAL, 1947STU]
$C_2H_2Br_4$	[79-27-6]	1,1,2,2-tetrabromoethane				
	$\Delta_v H$	(413–573)	56.9	428	A	[1987STE/MAL, 1970DYK]
C_2H_2ClFO	[359-14-8]	chloroacetyl fluoride				
	$\Delta_v H$	(273–333)	38.0	288	A, GS	[1987STE/MAL, 1948RED/CHA4, 1970DYK]
C_2H_2ClFO	[359-06-8]	fluoroacetyl chloride				
	$\Delta_v H$	(273–333)	36.7	288	A, GS	[1987STE/MAL, 1948RED/CHA4, 1970DYK]
$C_2H_2ClF_3O_2S$	[57169-80-9]	chlorosulfurous acid, 2,2,2-trifluoroethyl ester				
	$\Delta_v H$		36.0			[1975DEM/KOV2]
$C_2H_2ClF_7S$	[68010-35-5]	(2-chloro-2,2-difluoroethyl)pentafluorosulfur				
	$\Delta_v H$		32.9			[1978DEM/FOX]
$C_2H_2Cl_2$	[75-35-4]	1,1-dichloroethylene				
	$\Delta_{fus}H$		6.51	150.9		[1996DOM/HEA]
	$\Delta_v H$	(245–305)	28.4	260	A	[1987STE/MAL, 1959HIL/MCD, 1970DYK]
$C_2H_2Cl_2$	[156-59-2]	*cis* 1,2-dichloroethylene				
	$\Delta_v H$	(332–495)	29.3	347	A	[1987STE/MAL]
	$\Delta_v H$	(273–334)	31.5	288	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(292–335)	31.6	307		[1951FLO/ALP]
	$\Delta_v H$	(273–356)	31.8	288		[1947KET/VAN]
$C_2H_2Cl_2$	[156-60-5]	*trans* 1,2-dichloroethylene				
	$\Delta_v H$	(321–473)	29.0	336	A	[1987STE/MAL]
	$\Delta_v H$	(273–319)	30.1	288		[1983MAC]
	$\Delta_v H$	(263–323)	30.4	278	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(235–358)	31.4	250		[1947KET/VAN]
$C_2H_2Cl_2F_2$	[1649-08-7]	1,2-dichloro-1,1-difluoroethane				
	$\Delta_v H$	(323–493)	27.8	338	A	[1987STE/MAL]
$C_2H_2Cl_2F_2$	[1842-05-3]	1,2-difluoro-2,2-dichloroethane				
	$\Delta_{fus}H$		8.19			[1996DOM/HEA]
$C_2H_2Cl_2F_6OS$	[20334-44-5]	(1,2-dichloro-2-fluoroethoxy)pentafluoro sulfur				
	$\Delta_v H$		38.8			[1968PLA/WIL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2H_2Cl_2F_6OS$	[20334-45-6]	(2,2-dichloro-2-fluoroethoxy)pentafluoro sulfur				
	$\Delta_v H$		38.5			[1968PLA/WIL]
$C_2H_2Cl_2O$	[79-04-9]	chloroacetyl chloride				
	$\Delta_v H$	(253–379)	45.0	268	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(301–380)	40.8	316		[1959MCD/SHR]
	$\Delta_v H$	(290–373)	44.1	305		[1935KIR/POP]
$C_2H_2Cl_2O_2$	[79-43-6]	dichloroacetic acid				
	$\Delta_{fus}H$		12.34	286.5		[1996DOM/HEA]
	$\Delta_v H$	(317–468)	55.7	332	A	[1987STE/MAL, 1947STU]
$C_2H_2Cl_4$	[630-20-6]	1,1,1,2-tetrachloroethane				
	$\Delta_v H$		45.7 ± 0.1	298	C	[1980MAJ/SVA]
	$\Delta_v H$	(316–447)	40.1	331	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(332–403)	39.2	347		[1949DRE/SHR, 1949DRE/MAR]
$C_2H_2Cl_4$	[79-34-5]	1,1,2,2-tetrachloroethane				
	$\Delta_{trs}H$		0.54	207.3		
	$\Delta_{fus}H$		9.17	230.8		[1996DOM/HEA]
	$\Delta_v H$	(343–418)	42.5	358	EB	[2006TEO/BAR]
	$\Delta_v H$	(377–419)	40.4	392	A	[1987STE/MAL]
	$\Delta_v H$	(371–419)	40.8	394		[1984CAS/FRA]
	$\Delta_v H$	(377–418)	40.1	398		[1978SUN/VIS]
	$\Delta_v H$		39	415		[1977RAO/VIU]
	$\Delta_v H$		45.8 ± 0.2	298	C	[1972LAY/WAD]
	$\Delta_v H$	(328–464)	41.9	343	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(298–403)	47.7	313		[1950MAT/SUM]
	$\Delta_v H$	(304–419)	45.7	319		[1930NEL]
$C_2H_2Cl_4S$	[51174-93-7]	*bis*(dichloromethyl) sulfide				
	$\Delta_v H$	(355–462)	47.6	370	A	[1987STE/MAL]
C_2H_2FN	[503-20-8]	fluoroacetonitrile				
	$\Delta_v H$	(273–333)	38.1	288	A, GS	[1987STE/MAL, 1948RED/CHA4, 1970DYK]
$C_2H_2F_2$	[75-38-7]	1,1-difluoroethene				
	$\Delta_v H$		13.2	233	BG	[1955MEA/STA]
	$\Delta_v H$		9.5	273	BG	[1955MEA/STA]
$C_2H_2F_3NO$	[354-38-1]	trifluoroacetamide				
	$\Delta_{trs}H$		5.58	336.9		
	$\Delta_{trs}H$		11.5	347.6		
	$\Delta_{fus}H$		1.34	388.9		[2000DI/TAN]
	$\Delta_{sub}H$	(288–329)	81.0	302	I	[1987STE/MAL, 1978BER/SPI]
	$\Delta_{sub}H$	(288–329)	77.7 ± 1.4	298	I	[1978BER/SPI]
$C_2H_2F_4$	[811-97-2]	1,1,1,2-tetrafluoroethane				
	$\Delta_{trs}H$		3.62	124.1		
	$\Delta_{fus}H$		2.01	169.4		[1999ZHE/KAT]
	$\Delta_v H$	(221–246)	23.7	249	I	[2001KUL/DES]
	$\Delta_v H$		26.4	180		[1998BLA/KLI]
	$\Delta_v H$		25.0	200		[1998BLA/KLI]
	$\Delta_v H$		23.8	220		[1998BLA/KLI]
	$\Delta_v H$		22.7	240		[1998BLA/KLI]
	$\Delta_v H$	(279–363)	22.0	294		[1992ZHU/WU]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2H_2F_4O_2S$	[na]	fluorosulfurous acid, 2,2,2-trifluoroethyl ester				
	$\Delta_v H$		33.6			[1975DEM/KOV2]
$C_2H_2F_6P_2$	[462-57-7]	1,2-*bis*-(trifluoromethyl) diphosphine				
	$\Delta_v H$	(233–292)	33.8	277	A, SG	[1987STE/MAL, 1958MAH/BUR]
$C_2H_2F_8S$	[65227-29-4]	pentafluoro (2,2,2-trifluoroethyl) sulfur				
	$\Delta_v H$		29.3			[1978DEM/FOX]
$C_2H_2I_2$	[590-26-1]	*cis* 1,2-diiodoethylene				
	$\Delta_v H$	(302–425)	46.5	317	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(302–424)	47.3	317		[1950NOY/NOY]
$C_2H_2I_2$	[590-27-2]	*trans* 1,2-diiodoethylene				
	$\Delta_{sub}H$	(253–265)	40.7	258	ME	[1933BRO/FRA, 1960JON, 1987STE/MAL]
	$\Delta_v H$	(350–403)	42.3	365	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(350–403)	43.8	365		[1950NOY/NOY]
C_2H_2O	[463-51-4]	ketene				
	$\Delta_v H$	(159–224)	20.4 ± 0.1	209	A, MM	[1987STE/MAL, 1969RUE]
$C_2H_2O_4$	[144-62-7]	oxalic acid (anhydrous)				
	$\Delta_{sub}H(\alpha)$	(303–328)	93.4	316		[1987STE/MAL]
	$\Delta_{sub}H(\beta)$	(310–325)	93.3	318		[1987STE/MAL]
	$\Delta_{sub}H(\alpha)$		98.5			[1983DEW/BOW]
	$\Delta_{sub}H(\beta)$		92.5			[1983DEW/BOW]
	$\Delta_{sub}H(\alpha)$	(303–328)	93.7 ± 1.3	298	TE	[1975DEK/VAN]
	$\Delta_{sub}H$ (orthorhombic)	(311–325)	97.9 ± 2.2	318		[1953BRA/COT, 1960JON]
	$\Delta_{sub}H$ (monoclinic)	(311–323)	93.3	317		[1953BRA/COT, 1960JON]
	$\Delta_{sub}H$	(292–320)	61.8	306	A	[1947GRA]
	$\Delta_{sub}H$	(333–378)	90.6		GS	[1926NOY/WEB]
C_2H_3Br	[593-60-2]	vinyl bromide				
	$\Delta_v H$	(224–319)	27.3	239	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(186–289)	24.8	274		[1937GUY/SCH, 1984BOU/FRI]
	$\Delta_v H$	(207–285)	26.9	270		[1934MEH, 1984BOU/FRI]
C_2H_3BrO	[506-96-7]	acetyl bromide				
	$\Delta_v H$	(289–334)	29.5	304	A	[1987STE/MAL]
	$\Delta_v H$	(275–333)	31.4	290		[1969DEV/ONE]
$C_2H_3BrO_2$	[79-08-3]	bromoacetic acid				
	$\Delta_{fus}H$		13.9	319.2	DSC	[2001LAG/DIO]
	$\Delta_v H$	(327–481)	57.2	342	A	[1987STE/MAL]
	$\Delta_{sub}H$		83.5 ± 3.0	298	ME	[2001LAG/DIO]
$C_2H_3Br_3$	[78-74-0]	1,1,2-tribromoethane				
	$\Delta_{fus}H$		9.11	244		[1991ACR]
	$\Delta_v H$	(368–511)	50.5	383	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(305–461)	52.9	321		[1947STU]
C_2H_3Cl	[75-01-4]	vinyl chloride				
	$\Delta_{fus}H$		4.92	119.3		[1996DOM/HEA]
	$\Delta_v H$	(243–288)	22.7	265		[1967DAN/GOL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(213–273)	22.9	258		[1967HAC/MAT]
	$\Delta_v H$	(209–260)	23.3	245	A	[1987STE/MAL, 1959MCD/SHR, 1970DYK]
$C_2H_3ClF_2$	[75-68-3]	1-chloro-1,1-difluoroethane				
	$\Delta_{fus}H$		2.69	142.4		[1996DOM/HEA]
	$\Delta_v H$	(225–285)	24.2	240	EB	[1993SIL/WEB]
	$\Delta_v H$	(248–390)	22.7	263	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$		24.0	233	BG	[1955MEA/STA]
	$\Delta_v H$		21.9	273	BG	[1955MEA/STA]
	$\Delta_v H$		19.2	313	BG	[1955MEA/STA]
	$\Delta_v H$		15.4	353	BG	[1955MEA/STA]
$C_2H_3ClF_3N$	[16276-45-2]	N-chloro-N,1,1-trifluoroethanamine				
	$\Delta_v H$	(220–294)	30.8	279	BG	[1987STE/MAL, 1967LUS]
$C_2H_3ClF_3P$	[4669-76-5]	chloromethyl(trifluoromethyl)phosphine				
	$\Delta_v H$	(236–294)	30.9	279		[1987STE/MAL]
C_2H_3ClO	[75-36-5]	acetyl chloride				
	$\Delta_v H$	(273–323)	24.5	288	A	[1987STE/MAL]
	$\Delta_v H$	(267–324)	31.5	282	A	[1987STE/MAL, 1959MCD/SHR, 1970DYK]
$C_2H_3ClO_2$	[79-11-8]	chloroacetic acid				
	$\Delta_{fus}H$		16.3	334.8	DSC	[2001LAG/DIO]
	$\Delta_{fus}H(\alpha)$		16.3	334.3		[1996DOM/HEA, 1991ACR]
	$\Delta_{fus}H(\beta)$		13.93	329.2		[1996DOM/HEA, 1991ACR]
	$\Delta_{sub}H$		82.2 ± 0.9	298	ME	[2001LAG/DIO]
	$\Delta_{sub}H$		75.3 ± 4.2			[1928STE/JOH, 1949DRE/MAR, 1970COX/PIL]
	$\Delta_v H$	(336–463)	61.1	351	A	[1987STE/MAL]
	$\Delta_v H$	(377–463)	56.8	392	A	[1987STE/MAL, 1959MCD/SHR, 1970DYK]
	$\Delta_v H$	(396–460)	55.7	411		[1949DRE/SHR, 1949DRE/MAR]
$C_2H_3Cl_2F$	[1717-00-6]	1,1-dichloro-1-fluoroethane				
	$\Delta_v H$	(250–450)	28.7	265		[1997DUA/HWA]
	$\Delta_v H$	(270–312)	27.8	285	EB	[1992WEB]
$C_2H_3Cl_3$	[71-55-6]	1,1,1-trichloroethane				
	$\Delta_{trs}H$		0.21	205		
	$\Delta_{trs}H$		7.45	223.6		
	$\Delta_{fus}H$		1.88	240.1		[1973AND/COU, 1996DOM/HEA]
	$\Delta_v H$	(295–372)	32.3	310	A	[1987STE/MAL]
	$\Delta_v H$	(349–408)	30.5	364	A	[1987STE/MAL]
	$\Delta_v H$	(399–487)	29.4	414	A	[1987STE/MAL]
	$\Delta_v H$	(479–545)	29.5	494	A	[1987STE/MAL]
	$\Delta_v H$		32.5 ± 0.1	298	C	[1980MAJ/SVA]
	$\Delta_v H$		32.4	344		[1977RAO/VIU]
	$\Delta_v H$	(196–298)	37.6	211		[1973AMB/SPR]
	$\Delta_v H$		32.5 ± 0.1	298	C	[1972LAY/WAD, 1971MAN/RIN]
	$\Delta_v H$	(268–290)	33.4	279		[1944RUB/LEV]
	$\Delta_v H$		33.4 ± 0.1	284	C	[1944RUB/LEV]
$C_2H_3Cl_3$	[79-00-5]	1,1,2-trichloroethane				
	$\Delta_{fus}H$		11.38	237.1		[1996DOM/HEA]
	$\Delta_v H$	(316–384)	40.1 ± 0.6	298		[2007VAR/DRU]
	$\Delta_v H$	(316–384)	38.6	331	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		40.2 ± 0.1	298	C	[1980MAJ/SVA]
	$\Delta_v H$		40.3 ± 0.1	298	C	[1972LAY/WAD]
	$\Delta_v H$	(302–428)	38.2	317		[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(323–386)	38.3	338		[1949DRE/SHR, 1949DRE/MAR]
$C_2H_3Cl_3O$	[115-20-8]	2,2,2-trichloroethanol				
	$\Delta_{fus}H$		10.05	290.6		[1997JEN/SAN]
$C_2H_3Cl_3O_2$	[302-17-0]	chloral hydrate				
	$\Delta_{sub}H$	(263–319)	50.9	291	A	[1947STU]
	$\Delta_v H$	(300–348)	38.4	324	EB	[1994WIB/MOR]
	$\Delta_v H$	(325–370)	49.6	340	A	[1987STE/MAL]
	$\Delta_v H$	(263–369)	51.5	278		[1947STU]
C_2H_3F	[75-02-5]	vinyl fluoride				
	$\Delta_v H$	(124–201)	16.6	186	A	[1987STE/MAL, 1947STU]
$C_2H_3FN_2O_5$	[17003-75-7]	2-fluoro-2,2-dinitroethanol				
	$\Delta_{sub}H$		55.6 ± 2.1			[1977PED/RYL, 1968BAR/CAR]
	$\Delta_v H$	(313–373)	55.7	343		[1968BAR/CAR]
C_2H_3FO	[557-99-3]	acetyl fluoride				
	$\Delta_v H$	(195–281)	14.3	266	A	[1987STE/MAL]
$C_2H_3FO_2$	[78948-09-1]	acetyl hypofluorite				
	$\Delta_v H$	(209–253)	35.6 ± 2.4	231		[1985APP/MEN]
$C_2H_3FO_2$	[144-49-0]	fluoroacetic acid				
	$\Delta_v H$	(293–443)	52.3	308	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(293–443)	53.6	308	T	[1955JAS/MIL]
$C_2H_3F_3$	[420-46-2]	1,1,1-trifluoroethane				
	$\Delta_{fus}H$		6.19	161.9		[1991ACR]
	$\Delta_v H$	(236–280)	18.1	240	EB	[1996WEB/DEF]
	$\Delta_v H$	(236–280)	17.5	250	EB	[1996WEB/DEF]
	$\Delta_v H$	(236–280)	16.7	260	EB	[1996WEB/DEF]
	$\Delta_v H$	(236–280)	15.9	270	EB	[1996WEB/DEF]
	$\Delta_v H$		18.9	233	BG	[1955MEA/STA]
	$\Delta_v H$		16.4	273	BG	[1955MEA/STA]
	$\Delta_v H$		13.8	303	BG	[1955MEA/STA]
	$\Delta_v H$		8.7	333	BG	[1955MEA/STA]
	$\Delta_v H$	(174–226)	20.5	211		[1944RUS/GOL]
	$\Delta_v H$		19.2 ± 0.1	224	C	[1944RUS/GOL]
$C_2H_3F_3N_2$	[690-21-1]	1,1,1-trifluoroazomethane				
	$\Delta_v H$	(240–273)	26.4	258	A	[1987STE/MAL]
$C_2H_3F_3O$	[421-14-7]	trifluoromethyl methyl ether				
	$\Delta_v H$	(233–313)	22.5	248	A	[1992SAL/WAN]
$C_2H_3F_3O$	[75-89-8]	2,2,2-trifluoroethanol				
	$\Delta_v H$	(276–302)	45.9	289	A	[1987STE/MAL]
	$\Delta_v H$	(298–328)	44.0	313	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(298–328)	41.5	313	MM	[1973ROC/SYM]
	$\Delta_v H$	(273–298)	44.5	285	MM	[1967MEE/GOL]
$C_2H_3F_3O_2S$	[30957-42-7]	methanesulfinic acid, trifluoromethyl ester				
	$\Delta_v H$		31.8	346		[1971SAU/SHR2]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2H_3F_5O_3S$	[60672-60-8]	(ethaneperoxoato) pentafluoro sulfur				
	$\Delta_v H$	(217–377)	36.2	297		[1999DYK/SVO, 1976HOP/DES]
$C_2H_3F_5S$	[865-54-3]	vinylsulfur pentafluoride				
	$\Delta_v H$		28.5	314		[1961CAS/RAY2]
C_2H_3IO	[507-02-8]	acetyl iodide				
	$\Delta_v H$	(276–302)	37.1	289	A	[1987STE/MAL, 1969DEV/ONE]
$C_2H_3IO_2$	[64-69-7]	iodoacetic acid				
	$\Delta_{fus}H$		15.5	355.1	DSC	[2001LAG/DIO]
	$\Delta_{sub}H$		86.5 ± 1.0	298	ME	[2001LAG/DIO]
C_2H_3N	[75-05-8]	acetonitrile				
	$\Delta_{trs}H$		0.9	216.9		
	$\Delta_{fus}H$		8.17	229.3		[1996DOM/HEA]
	$\Delta_v H$	(302–353)	33	298	EB	[2004ANT/GAL]
	$\Delta_v H$		33	298		[1983AN/MAN]
	$\Delta_v H$	(288–362)	33.8	303		[1974DOJ/HEI]
	$\Delta_v H$	(314–355)	33.3	329	A, EB	[1987STE/MAL, 1971MEY/REN]
	$\Delta_v H$	(299–343)	34.8	315	BG	[1971HAL/BAL]
	$\Delta_v H$	(273–323)	34.2	288		[1968KUS/MIS]
	$\Delta_v H$	(280–300)	33.9	290		[1965PUT/MCE]
C_2H_3NO	[624-83-9]	methyl isocyanate				
	$\Delta_v H$	(265–308)	29.9	280	A	[1987STE/MAL]
	$\Delta_v H$	(253–310)	31.7	268	A	[1987STE/MAL]
$C_2H_3NO_3$	[471-47-6]	oxalic acid, monoamide				
	$\Delta_{sub}H$		108.9 ± 2.1	298	ME	[1988NUN/BAR]
	$\Delta_{sub}H$	(355–363)	107.9	359	ME	[1953BRA/CLE2, 1960JON, 1987STE/MAL]
$C_2H_3NO_5$	[2278-22-0]	acetyl nitro peroxide				
	$\Delta_v H$	(277–330)	34.6	292	A	[1987STE/MAL]
C_2H_3NS	[556-64-9]	methyl thiocyanate				
	$\Delta_v H$	(259–406)	40.7	274	A	[1987STE/MAL, 1947STU, 1999DYK/SVO]
C_2H_3NS	[556-61-6]	methyl isothiocyanate				
	$\Delta_{sub}H$	(238–293)	31.5	266	A	[1947STU]
	$\Delta_v H$	(309–392)	37.4	324	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_v H$	(283–323)	37.3	298		[1935BAU/BUR, 1984BOU/FRI]
$C_2H_3N_3$	[288-88-0]	1,2,4-triazole				
	$\Delta_{fus}H$		16.1	393.5		[1996DOM/HEA]
	$\Delta_{fus}H$		10.76 ± 0.08	393.3		[1999SAB/PER]
	$\Delta_{sub}H$		80.7 ± 0.5	298	C	[1999SAB/PER]
	$\Delta_{sub}H$		84.0 ± 0.7	298	ME	[1989JIM/ROU]
	$\Delta_{sub}H$		80.6 ± 0.5			[1985SKI/PIL]
	$\Delta_{sub}H$		84.1			[1961ZIM/GEI]
$C_2H_3N_3O_6$	[595-86-8]	1,1,1-trinitroethane				
	$\Delta_{trs}H$		4.6	311.7		
	$\Delta_{fus}H$		11.72	329.2	DSC	[1969ROS, 1969ROS/HOL]
	$\Delta_{sub}H$		72.0 ± 8.8	298		[1999MIR/VOR]
$C_2H_3N_3O_7$	[918-54-7]	2,2,2-trinitroethanol				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		17.99	312.5		
	$\Delta_{fus}H$		2.72	344.9		[1969ROS/HOL]
C_2H_4	[74-85-1]	ethylene				
	$\Delta_{fus}H$		3.35	104		[1996DOM/HEA]
	$\Delta_{sub}H$	(79–104)	18.4	91.5	A,MS	[1987STE/MAL, 1951TIC/LOS]
	$\Delta_{sub}H$	(77–103)	15.0			[1982MEN]
	Δ_vH	(252–282)	14.0	267	A	[1987STE/MAL]
	Δ_vH	(170–273)	13.7	258	A	[1987STE/MAL]
	Δ_vH	(120–170)	14.4	155	A	[1987STE/MAL]
	Δ_vH	(169–211)	13.7	196	A	[1987STE/MAL]
	Δ_vH	(209–254)	13.6	239	A	[1987STE/MAL]
	Δ_vH	(120–182)	14.1	167	A	[1987STE/MAL, 1970DYK]
	Δ_vH	(150–190)	14.0	175		[1950MIC/WAS]
	Δ_vH	(148–174)	14.3	161		[1940LAM/ROP]
	Δ_vH	(124–171)	14.4	156		[1937EGA/KEM]
C_2H_4BrCl	[593-96-4]	1-bromo-1-chloroethane				
	Δ_vH	(290–356)	33.1	305	A	[1987STE/MAL]
	Δ_vH	(237–356)	46.7	252		[1947STU]
C_2H_4BrCl	[107-04-0]	1-bromo-2-chloroethane				
	$\Delta_{trs}H$		3.1	182		
	$\Delta_{fus}H$		9.62	256.4		[1996DOM/HEA]
	Δ_vH		37.6 ± 0.1	308	C	[1992SVO/KUB2]
	Δ_vH		37.3 ± 0.1	315	C	[1992SVO/KUB2]
	Δ_vH		36.9 ± 0.1	323	C	[1992SVO/KUB2]
	Δ_vH		36.6 ± 0.1	330	C	[1992SVO/KUB2]
	Δ_vH		36.4 ± 0.1	338	C	[1992SVO/KUB2]
	Δ_vH	(244–379)	39.5			[1947STU]
$C_2H_4Br_2$	[557-91-5]	1,1-dibromoethane				
	Δ_vH	(301–421)	39.6	316	E	[1987STE/MAL, 1956MAN, 1970DYK]
$C_2H_4Br_2$	[106-93-4]	1,2-dibromoethane				
	$\Delta_{trs}H$		1.94	249.5		[1996DOM/HEA]
	$\Delta_{fus}H$		10.94	283		
	$\Delta_{sub}H$	(229–248)	54.8	239		[1948NIT/SEK]
	$\Delta_{sub}H$	(251–281)	49.8	258	A	[1948NIT/SEK, 1947STU, 1987STE/MAL]
	Δ_vH	(331–426)	41.7 ± 0.8	298		[2007VAR/DRU]
	Δ_vH	(283–323)	42.4	298		[1994GRA/PER]
	Δ_vH	(325–403)	41.7 ± 0.8	298		[1993VAR/PUC]
	Δ_vH		41.7 ± 0.1	308	C	[1992SVO/KUB2]
	Δ_vH		41.7 ± 0.1	315	C	[1992SVO/KUB2]
	Δ_vH		41.6 ± 0.1	323	C	[1992SVO/KUB2]
	Δ_vH		41.5 ± 0.1	330	C	[1992SVO/KUB2]
	Δ_vH		41.4 ± 0.1	338	C	[1992SVO/KUB2]
	Δ_vH	(283–317)	41.8	298	A	[1987STE/MAL]
	Δ_vH	(316–488)	40.0	331	A	[1987STE/MAL]
	Δ_vH	(404–578)	37.4	419	A	[1987STE/MAL]
	Δ_vH	(285–298)	49.6	291	MM,A	[1957CAL]
	Δ_vH	(325–404)	39.6	340		[1949DRE/SHR, 1949DRE/MAR]
	Δ_vH	(283–317)	41.8	300		[1948NIT/SEK]
	Δ_vH	(246–404)	31.1	261		[1947STU]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_2H_4ClF	[762-50-5]	1-chloro-2-fluoroethane				
	$\Delta_v H$	(288–327)	32.1	303	A	[1987STE/MAL]
$C_2H_4ClN_3$	[53422-48-3]	1-chloro-2-azidoethane				
	$\Delta_v H$	(273–333)	43.8	288	A	[1987STE/MAL]
$C_2H_4Cl_2$	[75-34-3]	1,1-dichloroethane				
	$\Delta_{fus}H$		7.87	176.2		[1991ACR]
	$\Delta_v H$	(326–345)	33.5	336		[1987GAR/TRE]
	$\Delta_v H$	(323–535)	29.2	338	A	[1987STE/MAL]
	$\Delta_v H$	(363–535)	28.2	378	A	[1987STE/MAL]
	$\Delta_v H$		30.6 ± 0.1	298	C	[1972LAY/WAD]
	$\Delta_v H$	(234–290)	31.9	275		[1956LI/PIT]
	$\Delta_v H$	(213–330)	34.4	228		[1947STU]
	$\Delta_v H$	(258–365)	32.2	273	E	[1987STE/MAL, 1956MAN, 1970DYK]
$C_2H_4Cl_2$	[107-06-2]	1,2-dichloroethane				
	$\Delta_{fus}H$		8.83	237.2		[1996DOM/HEA]
	$\Delta_v H$	(299–356)	35.2 ± 0.4	298		[2007VAR/DRU]
	$\Delta_v H$		34.4	298	GC	[1994CAR/LAY]
	$\Delta_v H$		35.1 ± 0.1	298	C	[1989AN/HU]
	$\Delta_v H$	(356–558)	31.1	371	A	[1987STE/MAL]
	$\Delta_v H$	(279–374)	34.8	294	A	[1987STE/MAL]
	$\Delta_v H$	(368–524)	31.1	383	A	[1987STE/MAL]
	$\Delta_v H$	(523–561)	40.8	538	A	[1987STE/MAL]
	$\Delta_v H$	(301–357)	34.7	316		[1982GUT/KNA]
	$\Delta_v H$		35.2 ± 0.1	298	C	[1980MAJ/SVA]
	$\Delta_v H$	(279–434)	34.8	294		[1987STE/MAL, 1970DYK]
	$\Delta_v H$		34.7			[1956KIR, 1938EFT]
	$\Delta_v H$	(243–372)	37.5	258		[1929PEA/PET]
$C_2H_4Cl_2S$	[3592-44-7]	*bis*(chloromethyl) sulfide				
	$\Delta_v H$	(320–430)	45.1	335	A	[1987STE/MAL, 1999DYK/SVO]
$C_2H_4D_2O_2$	[na]	dihydroxyethane-d2				
	$\Delta_{fus}H$		9.75	258.8		[1967NIK/RAB]
$C_2H_4FNO_3$	[763-97-3]	2-fluoroethyl nitrate				
	$\Delta_v H$	(273–333)	38.3	288	GS	[1987STE/MAL, 1948RED/CHA4, 1970DYK]
$C_2H_4F_2$	[75-37-6]	1,1-difluoroethane				
	$\Delta_{fus}H$		1.57	154.6		[1998MAG]
	$\Delta_v H$	(218–248)	22.7	249	I	[2001KUL/DES]
	$\Delta_v H$	(303–333)	22.1	318		[1999LIM/PAR]
	$\Delta_v H$	(219–273)	23.3	234	EB	[1993SIL/WEB]
	$\Delta_v H$	(250–386)	21.8	265	A	[1987STE/MAL]
	$\Delta_v H$	(193–275)	22.1	260	A, E	[1987STE/MAL, 1970DYK, 1956MAN]
	$\Delta_v H$		21.8	233	BG	[1955MEA/STA]
	$\Delta_v H$		20.4	273	BG	[1955MEA/STA]
	$\Delta_v H$		17.8	313	BG	[1955MEA/STA]
	$\Delta_v H$		12.9	353	BG	[1955MEA/STA]
	$\Delta_v H$	(161–247)	23.8	232		[1947STU]
$C_2H_4F_3NS$	[62067-12-3]	1,1,1-trifluoro-N-methyl methanesulfenamide				
	$\Delta_v H$	(223–294)	33.6	279	A	[1987STE/MAL, 1960EME/NAB]
$C_2H_4F_3OP$	[6395-71-7]	(trifluoromethyl)phosphinous acid, methyl ester				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(194–291)	29.4	276	A	[1987STE/MAL]
$C_2H_4F_3OP$	[26348-89-0]	methyl(trifluoromethyl)phosphine oxide				
	$\Delta_v H$	(305–322)	50.7	313		[1970BUR/KAN]
$C_2H_4F_6OS$	[na]	pentafluoro(2-fluoroethoxy) sulfur				
	$\Delta_v H$	(290–364)	39.3	305	A	[1987STE/MAL, 1962WIL/CAD, 1999DYK/SVO]
$C_2H_4I_2$	[624-73-7]	1,2-diiodoethane				
	$\Delta_{sub}H$		65.7 ± 4.1			[1954ABR/DAV, 1970COX/PIL]
	$\Delta_v H$		49.8	298	GC	[1994CAR/LAY]
	$\Delta_v H$	(371–526)	47.7	386	A	[1987STE/MAL, 1970DYK]
$C_2H_4N_2O_2$	[628-36-4]	diformylhydrazine				
	$\Delta_{sub}H$	(340–373)	205.1 ± 0.7	356	ME	[1980LEB/KAL]
	$\Delta_{sub}H$	(370–403)	100.8			[1956SUZ/ONI, 1960JON]
$C_2H_4N_2O_2$	[471-46-5]	oxamide				
	$\Delta_{trs}H$		1.88	356.2		
	$\Delta_{trs}H$		3.56	455.5		
	$\Delta_{trs}H$		6.24	494.3	DSC	[2006BAD/DEL]
		Note: decomposed prior to melting				
	$\Delta_{sub}H$		117.3 ± 1.2	298	TE,ME	[1988NUN/BAR]
	$\Delta_{sub}H$	(370–398)	115.8	387	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$	(353–369)	113	361	ME	[1953BRA/CLE, 1960JON, 1970COX/PIL]
$C_2H_4N_2O_4$	[600-40-8]	1,1-dinitroethane				
	$\Delta_v H$	(303–363)	51.0	318	A	[1987STE/MAL]
$C_2H_4N_2O_6$	[628-96-6]	ethylene glycol dinitrate				
	$\Delta_v H$	(283–535)	70.5	298	A	[1987STE/MAL]
	$\Delta_v H$	(343–465)	55.3	358	A	[1987STE/MAL]
	$\Delta_v H$	(240–298)	68.3	255		[1987STE/MAL, 1977PEL]
	$\Delta_v H$	(278–390)	62.3 ± 0.4			[1941BEL]
	$\Delta_v H$	(293–323)	68.6 ± 0.4			[1938BRA]
$C_2H_4N_2S_2$	[628-96-6]	dithiooxamide				
	$\Delta_{sub}H$		103.8	298	TE,ME	[1988NUN/BAR]
	$\Delta_{sub}H$	(345–372)	105.1	361	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$	(360–378)	105.4	369	ME	[1953BRA/CLE2, 1960JON, 1987STE/MAL]
$C_2H_4N_4$	[461-58-5]	dicyandiamide				
	$\Delta_{trs}H$		2.98	269.5		
	$\Delta_{fus}H$		22.96	487.6		[1997ZHA/TAN]
	$\Delta_{sub}H$	(420–450)	128.7	436	TE,ME	[1983DEW/VAN]
$C_2H_4N_4$	[16681-77-9]	1-methyltetrazole				
	$\Delta_{fus}H$		15.7	315		[1990KOZ/SIM3]
	$\Delta_{sub}H$	(282–311)	86.7 ± 1.9		ME	[1990KOZ/SIM]
$C_2H_4N_4$	[16681-78-0]	2-methyltetrazole				
	$\Delta_{fus}H$		12.37	286		[1990KOZ/SIM3]
$C_2H_4N_4$	[4076-36-2]	5-methyltetrazole				
	$\Delta_{fus}H$		16.0	418		[1990KOZ/SIM3]
	$\Delta_{sub}H$	(323–418)	93.8 ± 0.5		ME	[1990KOZ/SIM]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2H_4N_4$	[61-82-5]	1*H*-1,2,4-triazol-3-amine				
	$\Delta_{fus}H$		21.93	428.3		[1990DON/DRE]
C_2H_4O	[75-07-0]	acetaldehyde				
	$\Delta_{trs}H$		2.31	149.8		
	$\Delta_{fus}H$		1.72	242.9		[1996DOM/HEA]
	Δ_vH	(293–377)	26.0	308	A	[1987STE/MAL]
	Δ_vH	(293–345)	26.3	308		[1977KIM/KIM]
	Δ_vH	(272–294)	27.6	283	A	[1987STE/MAL, 1970DYK]
	Δ_vH	(293–377)	26.9	298	EB	[1963BUL/SER, 2003VER/KRA2]
	Δ_vH	(273–307)	27.0	307		[1950COL/POP]
C_2H_4O	[75-21-8]	ethylene oxide (oxirane)				
	$\Delta_{fus}H$		5.17	160.7		[1996DOM/HEA]
	Δ_vH	(283–385)	25.9	298	A	[1987STE/MAL]
	Δ_vH	(239–284)	26.8	269	A	[1987STE/MAL, 1959MCD/SHR, 1970DYK]
	Δ_vH	(223–284)	26.8	269	A	[1987STE/MAL, 1949GIA/GOR]
	Δ_vH	(268–313)	26.9	290		[1937MOO/KAN]
C_2D_4O	[6552-57-4]	ethylene oxide-d_4 oxide				
	Δ_vH	(230–273)	27.6	258		[1952LEI/MOR, 1984BOU/FRI]
C_2H_4OS	[507-09-5]	thioacetic acid				
	Δ_vH	(307–360)	35.2	333		[1999DYK/SVO]
$C_2H_4O_2$	[64-19-7]	acetic acid				
	$\Delta_{fus}H$		11.72	298.7		[1996DOM/HEA, 1982MAR/AND]
	$\Delta_{fus}H$		10.83	289.8		[1911LOU/DUP]
	$\Delta_{fus}H$		11.52	283.7		[1910MEY]
	$\Delta_{sub}H$	(213–230)	67.3 ± 1	223	TE,ME	[1978CAL/CAL]
	$\Delta_{sub}H$	(213–230)	70 ± 1	213	TE,ME	[1978CAL/CAL]
	Δ_vH	(320–395)	40.9	335		[2001VER/VAZ]
	Δ_vH	(345–383)	39.1	360	EB	[2001MUN/KRA]
	Δ_vH	(303–378)	50.3	298	CGC	[2000VER2]
	Δ_vH	(391–550)	37.9	406	A	[1987STE/MAL]
	Δ_vH	(290–396)	42.0	305	A	[1987STE/MAL]
	Δ_vH	(391–447)	38.7	406	A	[1987STE/MAL]
	Δ_vH	(437–535)	38.1	452	A	[1987STE/MAL]
	Δ_vH	(525–593)	38.8	540	A	[1987STE/MAL]
	Δ_vH		43.0	308		[1983TAM/DRA]
	Δ_vH	(289–392)	41.6	304	A	[1987STE/MAL, 1970DYK]
	Δ_vH (monomer)		23.3 ± 0.1	298	C	[1970KON/WAD]
	Δ_vH		51.6 ± 1.6	298	C	[1970KON/WAD]
	Δ_vH	(325–391)	40.3	340		[1959MCD/SHR]
	Δ_vH	(303–399)	41.6	318	MM	[1954POR/RIT]
$(C_2H_4O_2)_2$	[na]	acetic acid dimer				
	$\Delta_{sub}H$	(213–230)	70.2 ± 1	213	TE	[1978CAL/CAL]
	$\Delta_{sub}H$	(213–230)	68.9 ± 1	213	ME	[1978CAL/CAL]
$C_2H_4O_2$	[107-31-3]	methyl formate				
	Δ_vH	(279–305)	29.6	292	A	[1987STE/MAL]
	Δ_vH	(305–443)	28.4	320	A	[1987STE/MAL]
	Δ_vH		28.7 ± 0.1	293	C	[1976CIH/HYN]
	Δ_vH		27.9 ± 0.1	305	C	[1976CIH/HYN]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		27.4 ± 0.1	313	C	[1976CIH/HYN]
	$\Delta_v H$	(261–305)	30.1	283	BG	[1971HAL/BAL]
	$\Delta_v H$	(294–304)	U 52.7	299		[1928NEL, 1984BOU/FRI]
$C_2H_4O_2$	[141-46-8]	hydroxyacetaldehyde				
	$\Delta_v H$	(273–304)	70 ± 5	288		[2010PET/REY]
$C_2H_4O_2S$	[68-11-1]	mercaptoacetic acid				
	$\Delta_v H$	(333–427)	56.8	348	A	[1987STE/MAL, 1999DYK/SVO]
$C_2H_4O_3$	[289-14-5]	ethylene ozonide				
	$\Delta_v H$	(273–289)	34.8	281	A	[1987STE/MAL, 1956GAR/SCH]
$C_2H_4O_3$	[79-14-1]	hydroxyacetic acid				
	$\Delta_v H$	(350–375)	51.8	362	A	[1987STE/MAL]
$C_2H_4O_3$	[79-21-0]	peroxyacetic acid				
	$\Delta_v H$	(273–383)	44.2	288	A	[1987STE/MAL, 1970DYK]
$C_2H_4O_3$	[7456-87-3]	methyl hydrogen carbonate				
	$\Delta_{sub} H$	(204–237)	18.2 ± 1.6	220		[1973BEH/GAT]
C_2H_4S	[420-12-2]	ethylene sulfide				
	$\Delta_v H$	(291–361)	30.5	306	A	[1987STE/MAL, 1952GUT/SCO2, 1999DYK/SVO]
	$\Delta_v H$		30.3	298		[1971WIL/ZWO]
C_2H_5Br	[74-96-4]	ethyl bromide				
	$\Delta_v H$	(334–504)	26.9	349	A	[1987STE/MAL]
	$\Delta_v H$	(326–454)	26.6	341	A	[1987STE/MAL]
	$\Delta_v H$	(452–503)	31.0	467	A	[1987STE/MAL]
	$\Delta_v H$		27.6 ± 0.1	305	C	[1977SVO/MAJ]
	$\Delta_v H$		27.0 ± 0.1	312	C	[1977SVO/MAJ]
	$\Delta_v H$		26.2 ± 0.1	323	C	[1977SVO/MAJ]
	$\Delta_v H$	(225–333)	30.6	240	E	[1987STE/MAL, 1961LI/ROS, 1970DYK]
	$\Delta_v H$	(301–348)	27.9	316		[1930ZMA, 1984BOU/FRI]
C_2H_5BrO	[540-51-2]	2-bromoethanol				
	$\Delta_v H$		54.1 ± 0.4	298	C	[2007BER/MIN]
C_2H_5Cl	[75-00-3]	ethyl chloride				
	$\Delta_{fus} H$		4.45	134.8		[1991ACR]
	$\Delta_v H$	(285–344)	25.1	300	A	[1987STE/MAL]
	$\Delta_v H$	(334–413)	24.4	349	A	[1987STE/MAL]
	$\Delta_v H$	(403–460)	24.4	418	A	[1987STE/MAL]
	$\Delta_v H$	(207–305)	27.8	222	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK]
	$\Delta_v H$	(218–285)	25.9	270		[1948GOR/GIA]
	$\Delta_v H$		24.8		C	[1926YAT]
C_2H_5ClO	[107-07-3]	2-chloroethanol				
	$\Delta_v H$		48.3 ± 0.4	298	C	[2007BER/MIN]
	$\Delta_v H$	(328–401)	43.3	343	A	[1987STE/MAL]
	$\Delta_v H$	(323–363)	46.9	338		[1973GOT/MEN]
	$\Delta_v H$	(363–403)	39.1	378		[1973GOT/MEN]
	$\Delta_v H$	(269–401)	45.7	284		[1947STU]
C_2H_5ClO	[107-30-2]	methyl(chloromethyl) ether				
	$\Delta_v H$	(290–332)	32.2	305	A	[1987STE/MAL]
$C_2H_5ClO_2S$	[594-44-5]	ethane sulfonyl chloride				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(349–449)	47.7	364		[1999DYK/SVO]
	$\Delta_v H$	(233–263)	56.4	248	A	[1987STE/MAL, 1999DYK/SVO]
$C_2H_5Cl_2P$	[1498-40-4]	dichloroethyl phosphine				
	$\Delta_v H$	(313–385)	36.8	328	A	[1987STE/MAL]
$C_2H_5Cl_2OP$	[1066-50-8]	ethylphosphonic acid dichloride				
	$\Delta_v H$		42.7 ± 4.2			[1956NEA/WIL, 1982PIL/SKI]
C_2H_5F	[353-36-6]	ethyl fluoride				
	$\Delta_v H$	(200–235)	20.7	236	I	[2001KUL/DES]
	$\Delta_v H$	(275–353)	20.2	290	A	[1987STE/MAL]
	$\Delta_v H$	(235–280)	20.5	265	A	[1987STE/MAL]
	$\Delta_v H$	(343–375)	20.7	358	A	[1987STE/MAL]
	$\Delta_v H$	(170–255)	U 4.2	240		[1975IWA/DAT]
	$\Delta_v H$	(173–251)	20.8	236	E	[1987STE/MAL, 1961LI/ROS, 1970DYK]
	$\Delta_v H$	(156–241)	22.0	226		[1947STU]
C_2H_5FO	[371-62-0]	2-fluoroethanol				
	$\Delta_v H$	(273–333)	44.1	288	GS	[1987STE/MAL, 1948RED/CHA4, 1970DYK]
$C_2H_5FO_3S$	[371-69-7]	ethyl fluorosulfonate				
	$\Delta_v H$	(273–333)	38.5	288	GS	[1987STE/MAL, 1948RED/CHA4, 1970DYK]
$C_2H_5F_2N$	[758-18-9]	N,N-difluoroethylamine				
	$\Delta_v H$	(241–259)	27.3	250	A	[1987STE/MAL]
	$\Delta_v H$		25.7	288		[1960FRA]
$C_2H_5F_3NP$	[4669-74-3]	methyl(trifluoromethyl) phosphinic acid amide				
	$\Delta_v H$	(238–294)	36.8	279		[1987STE/MAL]
C_2H_5I	[75-03-6]	ethyl iodide				
	$\Delta_v H$	(313–353)	31.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		31.9 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$	(249–369)	33.6	264	E	[1987STE/MAL, 1961LI/ROS]
	$\Delta_v H$	(219–345)	34.7	234		[1947STU]
	$\Delta_v H$	(254–293)	32	278		[1944MIL2]
	$\Delta_v H$	(303–333)	31.7	318		[1929SMY/ENG]
C_2H_5IO	[151-56-4]	2-iodoethanol				
	$\Delta_v H$		57.0 ± 0.2	288	C	[2007BER/MIN]
C_2H_5N	[151-56-4]	aziridine				
	$\Delta_v H$	(274–303)	34.9	288	A	[1987STE/MAL]
C_2H_5NO	[107-29-9]	acetaldehyde oxime				
	$\Delta_v H$	(288–388)	48	303	A	[1987STE/MAL]
C_2H_5NO	[60-35-5]	acetamide				
	$\Delta_{fus}H$		15.6	353		[1996DOM/HEA]
	$\Delta_{sub}H$		78.5 ± 0.3			[1998PRI/HAW]
	$\Delta_{sub}H$	(273–293)	77.8	284	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		77.2	298		[1983DEW/VAN]
	$\Delta_{sub}H$		78.7 ± 0.3			[1975BAR/PIL, 1977PED/RYL]
	$\Delta_{sub}H$		80.3 ± 1	298		[1971MOR2]
	$\Delta_{sub}H$		80.3 ± 1.3	298	C	[1965WAD]
	$\Delta_{sub}H$	(298–349)	77.4 ± 0.4	323	GS	[1959DAV/JON2, 1987STE/MAL]
	$\Delta_{sub}H$	(293–306)	U 57.2	300		[1952AIH]
	$\Delta_v H$	(381–492)	63.8	396	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(338–495)	60.9	353		[1947STU]
C_2H_5NO	[123-39-7]	N-methylformamide				
	$\Delta_{trs}H$		1.23	228.1		
	$\Delta_{fus}H$		10.44	270.6		[1999AHL/LOH]
	$\Delta_v H$	(340–440)	53.8	355		[1996USH/SED]
	$\Delta_v H$	(340–440)	54.4 ± 1.3	298		[1996USH/SED]
	$\Delta_v H$	(310–391)	54.5	325	A	[1987STE/MAL]
	$\Delta_v H$		56.2	298	A	[1985BAR/CAS, 1986VAR]
	$\Delta_v H$	(369–472)	53.4	384	A	[1987STE/MAL, 1961HEI/ILA, 1970DYK]
$C_2H_5NO_2$	[109-95-5]	ethyl nitrite				
	$\Delta_v H$	(252–276)	25.7	264	A	[1987STE/MAL, 1937THO/DAI]
	$\Delta_v H$		27.8			[1934GOO]
$C_2H_5NO_2$	[598-55-0]	methyl carbamate				
	$\Delta_{fus}H$		16.7	328.6		[1996DOM/HEA]
	$\Delta_{sub}H$	(287–305)	74.5 ± 0.8	296	GS	[1959DAV/JON]
	$\Delta_v H$	(333–388)	45.7	348	A	[1987STE/MAL]
$C_2H_5NO_2$	[79-24-3]	nitroethane				
	$\Delta_{fus}H$		9.85	183.7		[1996DOM/HEA]
	$\Delta_v H$	(324–388)	38.6	339	EB	[1987STE/MAL, 1956TOO, 1970DYK]
	$\Delta_v H$	(252–387)	41.3	267		[1947STU]
	$\Delta_v H$		38			[1934GOO]
$C_2H_5NO_2$	[56-40-6]	glycine				
	$\Delta_{sub}H$	(408–431)	136.5 ± 2	419	TE,ME	[1979DEK/VOO]
	$\Delta_{sub}H$	(325–425)	U 96.2 ± 4	375	LE	[1977GAF/PIE]
	$\Delta_{sub}H$	(413–450)	138.1 ± 4.6	298	C	[1977NAG/SAB]
	$\Delta_{sub}H$	(453–471)	136.4 ± 4.0	462	ME	[1965SVE/CLY, 1970COX/PIL, 1964CLY/SVE, 1989CHI/GRO]
	$\Delta_{sub}H$	(412–417)	130.5 ± 2	414	ME	[1959TAK/CHI]
$C_2H_5NO_3$	[625-58-1]	ethyl nitrate				
	$\Delta_{fus}H$		8.53	178.6		[1996DOM/HEA]
	$\Delta_v H$	(273–361)	37	288	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(273–343)	37.3	288		[1957GRA/PRA]
	$\Delta_v H$	(273–333)	37	288		[1956GRA/PRA]
	$\Delta_v H$		38.5			[1934GOO]
C_2H_5NS	[62-55-5]	thioacetamide				
	$\Delta_{fus}H$		18.36	385.7		[1990DON/DRE]
	$\Delta_{sub}H$		83.3 ± 0.3	298	C	[1982INA/MUR, 1985MUR/SAK]
	$\Delta_{sub}H$		82.8 ± 0.3	298	C	[1982SAB/TOR]
$C_2H_5N_3$	[871-31-8]	azidoethane				
	$\Delta_v H$	(296–320)	31.5	308	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(253–298)	28.9	268	A	[1987STE/MAL, 1964GEI/KON, 1984BOU/FRI]
$C_2H_5N_3O$	[1517-05-1]	2-azidoethanol				
	$\Delta_v H$		33.9 ± 1.3			[1997KOR/API]
$C_2H_5N_3O_2$	[na]	*bis*(nitrosomethyl)amine				
	$\Delta_v H$	(276–426)	43.5	291		[1987STE/MAL, 1947STU]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2H_5N_5$	[5422-44-6]	1-methyl-5-aminotetrazole				
	$\Delta_{sub}H$	(379–438)	116.4 ± 1.7		ME	[1990KOZ/SIM]
$C_2H_5N_5$	[6154-04-7]	2-methyl-5-aminotetrazole				
	$\Delta_{sub}H$	(310–373)	90.6 ± 1.1		ME	[1990KOZ/SIM]
C_2H_6	[74-84-0]	ethane				
	$\Delta_{fus}H$		2.79	89.5		[1996DOM/HEA]
	$\Delta_{trs}H$		2.28	89.8		
	$\Delta_{fus}H$		0.58	90.3		[1976ATA/CHI]
	$\Delta_{sub}H$	(80–90)	22.6	85		[1972REG]
	$\Delta_{sub}H$		20.5	90	B	[1963BON]
	Δ_vH	(273–305)	15.3	288	A	[1987STE/MAL]
	Δ_vH	(154–185)	15.7	170	A	[1987STE/MAL]
	Δ_vH	(95–129)	17.7	114	A	[1987STE/MAL]
	Δ_vH	(185–229)	14.9	214	A	[1987STE/MAL]
	Δ_vH	(228–274)	14.9	259	A	[1987STE/MAL]
	Δ_vH	(91–144)	17.1	129		[1973CAR/KOB]
	Δ_vH		14.7	210		[1971WIL/ZWO]
	Δ_vH		14.7	184		[1937WIT/KEM]
	Δ_vH	(136–200)	15.3	185		[1926LOO/WAL]
$C_2H_6BrF_4NS$	[63324-17-4]	bromotetrafluoro(N-methylmethanaminato) sulfur				
	Δ_vH		38.1	372	I	[1977KIT/SHR2]
$C_2H_6ClF_4NS$	[63324-16-3]	chlorotetrafluoro(N-methylmethanaminato) sulfur				
	Δ_vH		36	359	I	[1977KIT/SHR2]
C_2H_6ClP	[811-62-1]	chlorodimethyl phosphine				
	$\Delta_{sub}H$	(233–268)	55.5	253		[1987STE/MAL, 1958BUR/SLO]
	Δ_vH	(273–306)	32.9	288	A	[1987STE/MAL, 1958BUR/SLO]
$C_2H_6Cl_2NP$	[683-85-2]	(dimethylamino)dichlorophosphine				
	Δ_vH		40.8 ± 0.7	298	STG	[1995ALM/FIN2]
$C_2H_6ClO_3P$	[16672-87-0]	2-chloroethylphosphonic acid				
	$\Delta_{fus}H$		14.79	347.9	DSC	[1990DON/DRE]
C_2H_6FN	[14722-43-1]	fluorodimethylamine				
	Δ_vH	(249–273)	29.9	261	A	[1987STE/MAL]
$C_2H_6FO_3P$	[5954-50-7]	dimethylfluorophosphate				
	Δ_vH	(273–333)	44.4	288	A, GS	[1987STE/MAL, 1948RED/CHA4]
$C_2H_6F_2NP$	[814-97-1]	(dimethylamino)difluorophosphine				
	Δ_vH	(263–313)	29.3	288	I	[1964CAV]
$C_2H_6F_3NOS$	[22519-52-4]	(dimethylaminato)trifluorooxo sulfur				
	Δ_vH	(313–357)	44.9	335		[1968GLE/VON2]
$C_2H_6F_3NS$	[3880-03-3]	(dimethylamino) sulfur trifluoride				
	Δ_vH	(296–327)	40.5	311	A	[1987STE/MAL, 1999DYK/SVO]
$C_2H_6F_4NP$	[2353-98-2]	(dimethylamino) tetrafluorophosphorane				
	Δ_vH		37.1			[1966BRO/FRA]
$C_2H_6N_2$	[503-28-6]	azomethane				
	Δ_vH	(195–273)	26.4	258	A	[1987STE/MAL]
	Δ_vH	(209–236)	25.3	222	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2H_6N_2$	[na]	methylammonium cyanide				
	$\Delta_v H$	(251–295)	49.1	280	A	[1987STE/MAL, 1973DIE/MAR]
$C_2H_6N_2O$	[598-50-5]	N-methylurea				
	$\Delta_{fus}H$		12.5	372	DSC	[2005HAS/TAJ]
	$\Delta_{fus}H$		16.6	375	DSC	[1995FER/DEL]
	$\Delta_{fus}H$		14.06	378.1		[1990KAB/MIR2]
	$\Delta_{sub}H$	(331–365)	95.5 ± 0.5	298	GS	[2006EME/KAB]
	$\Delta_{sub}H$	(322–371)	96.9 ± 1.2	347	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(322–371)	96.8 ± 1.2	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		94.4 ± 0.8	350	C	[2003ZAI/KAB]
	$\Delta_{sub}H$		94.4 ± 0.84	343	C	[1993KOZ/KAB]
	$\Delta_{sub}H$		97.1 ± 0.4	298		[1993KOZ/KAB]
	$\Delta_{sub}H$		94.9 ± 0.6	337	C	[1990KAB/MIR]
	$\Delta_{sub}H$		93.3 ± 1.2	355	TE	[1990PIA/FER, 1987FER/DEL2]
	$\Delta_{sub}H$		87.3	348		[1987FER/DEL2]
	$\Delta_{sub}H$		99.3 ± 0.7			[1986KRA/KOZ2]
	$\Delta_{sub}H$			78.2	E	[1982AIR/CHA]
$C_2H_6N_2O_2$	[4164-28-7]	N-methyl-N-nitromethanamine				
	$\Delta_{sub}H$	(315–324)	69.9	319	DBM	[1952BRA/COT, 1977PED/RYL]
$C_2H_6N_2O_2$	[4164-28-7]	N-nitro-N-methylaminomethane				
	$\Delta_{fus}H$		37.66	327		[1987OYU/BRI]
$C_2H_6N_2O_2$	[4164-28-7]	2-nitro-2-azapropane				
	$\Delta_{fus}H$		17.26	331.5	DSC	[1997ZEM]
$C_2H_6N_2S$	[598-52-7]	N-methylthiourea				
	$\Delta_{fus}H$		19.46	392.4		[2000DEL/JOZ]
	$\Delta_{sub}H$		112.9 ± 3	298	ME	[2000DEL/JOZ]
	$\Delta_{sub}H$		111 ± 3.0	381	TE	[1994FER/MAR]
$C_2H_6N_2S$	[13849-02-0]	sulfur diimide, dimethyl				
	$\Delta_v H$	(248–298)	37.2	263	A	[1987STE/MAL, 1999DYK/SVO]
$C_2H_6N_4O_4$	[505-71-5]	N,N′-dinitroethanediamine				
	$\Delta_{fus}H$		29.5	450		[1987OYU/BRI]
C_2H_6O	[115-10-6]	dimethyl ether				
	$\Delta_{fus}H$		4.94	131.7		[1996DOM/HEA]
	$\Delta_v H$	(183–265)	22.6	250	A	[1987STE/MAL]
	$\Delta_v H$	(180–249)	22.8	234	A	[1987STE/MAL]
	$\Delta_v H$	(293–360)	21.2	308	A	[1987STE/MAL]
	$\Delta_v H$	(349–400)	21.1	364	A	[1987STE/MAL]
	$\Delta_v H$	(241–303)	22.2	256	A	[1987STE/MAL]
	$\Delta_v H$	(171–248)	18.5	298		[1976AMB/ELL]
	$\Delta_v H$	(171–248)	21.4	248		[1976AMB/ELL]
	$\Delta_v H$	(195–248)	22.7	233		[1941KEN/SAG]
	$\Delta_v H$		21.5 ± 0.1	248	C	[1941KEN/SAG]
C_2H_6O	[64-17-5]	ethanol				
	$\Delta_{trs}H$		3.14	111.4		
	$\Delta_{fus}H$		4.64	158.8		[1996DOM/HEA]
	$\Delta_v H$	(311–351)	41.7	326		[2010MEJ/SEG]
	$\Delta_v H$	(298–348)	41.7	298		[2004NAS/ZIM]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		38.9			[1999FAT]
	$\Delta_v H$	(323–357)	39.3	338		[1999AUC/LOR]
	$\Delta_v H$	(309–343)	40.7	321	EB	[1995DIO/SAN]
	$\Delta_v H$	(309–343)	42.4	298	EB	[1995DIO/SAN]
	$\Delta_v H$	(342–357)	40.5	357		[1990ORT/SUS]
	$\Delta_v H$		35.2	393	C	[1989VIN/WOR]
	$\Delta_v H$		30.6	423	C	[1989VIN/WOR]
	$\Delta_v H$		25.7	453	C	[1989VIN/WOR]
	$\Delta_v H$		21.8	473	C	[1989VIN/WOR]
	$\Delta_v H$		17.3	493	C	[1989VIN/WOR]
	$\Delta_v H$		14.2	503	C	[1989VIN/WOR]
	$\Delta_v H$		40.9	320	C	[1988DON/LIN]
	$\Delta_v H$		40.4	328	C	[1988DON/LIN]
	$\Delta_v H$		40.2	335	C	[1988DON/LIN]
	$\Delta_v H$		39.4	344	C	[1988DON/LIN]
	$\Delta_v H$		38.8	351	C	[1988DON/LIN]
	$\Delta_v H$	(320–359)	41.3	335	A	[1987STE/MAL]
	$\Delta_v H$	(210–271)	45.6	256	A	[1987STE/MAL]
	$\Delta_v H$	(193–223)	44	208	A	[1987STE/MAL]
	$\Delta_v H$	(320–359)	41.3	335	A	[1987STE/MAL]
	$\Delta_v H$	(349–374)	40.1	361	A	[1987STE/MAL]
	$\Delta_v H$	(370–464)	39.1	385	A	[1987STE/MAL]
	$\Delta_v H$	(459–514)	36.1	474	A	[1987STE/MAL]
	$\Delta_v H$	(292–353)	42.5	307	A	[1987STE/MAL]
	$\Delta_v H$	(243–303)	42.3	298		[1983SCH/STR]
	$\Delta_v H$	(271–373)	42.9	286		[1973WIL/ZWO]
	$\Delta_v H$		42.26 ± 0.02	298	C	[1971POL/BEN]
	$\Delta_v H$		41.0 ± 0.1	320	C	[1970COU/FEN]
	$\Delta_v H$		40.0 ± 0.1	335	C	[1970COU/FEN]
	$\Delta_v H$		38.7 ± 0.1	351	C	[1970COU/FEN]
	$\Delta_v H$	(293–366)	42.5	308	A, EB	[1987STE/MAL, 1970AMB/SPR]
	$\Delta_v H$	(288–348)	42.4	303		[1967VAN/SOC]
	$\Delta_v H$		42.3 ± 0.1	298	C	[1966WAD]
	$\Delta_v H$		42.2 ± 0.1	298	C	[1963MCC/LAI]
	$\Delta_v H$	(298–351)	42.2	313		[1949KRE/WIE]
	$\Delta_v H$		40.0	351		[1934OGU/ANJ]
	$\Delta_v H$	(286–351)	54.1	301		[1883KAH]
C_2H_6OS	[67-68-5]	dimethyl sulfoxide				
	$\Delta_{fus}H$		14.37	291.7		[1996DOM/HEA]
	$\Delta_v H$	(377–483)	48.6	392		[1999DYK/SVO]
	$\Delta_v H$	(353–383)	48.1	368	TGA	[1987ALN/ALS]
	$\Delta_v H$	(305–464)	51.7	320	A	[1987STE/MAL]
	$\Delta_v H$	(298–318)	52.3	308		[1974SAS/KON]
	$\Delta_v H$	(325–442)	50.6	340	MM	[1972JAK/VAN, 1984BOU/FRI]
	$\Delta_v H$	(303–423)	52.1	318		[1972NIS/HAK]
	$\Delta_v H$	(293–323)	52.5	308		[1969MES]
	$\Delta_v H$	(293–323)	52.9 ± 0.4	298	RG	[1948DOU]
C_2H_6OS	[60-24-2]	2-mercaptoethanol				
	$\Delta_v H$	(293–440)	54.1	308	A	[1987STE/MAL, 1970DYK, 1999DYK/SVO]
$C_2H_6O_2$	[107-21-1]	ethylene glycol				
	$\Delta_v H$	(307–384)	62.4 ± 4.0	345		[2010PET/REY]
	$\Delta_v H$	(308–336)	65.4 ± 0.3	298	GS	[2005VAS/VER]
	$\Delta_v H$	(278–328)	66.0 ± 0.2	298	GS	[2004VER2]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(260–350)	66.2	298		[2003DER/MIC, 2004VER2]
	$\Delta_v H$	(264–353)	63.4 ± 0.1	298		[1999MOK/PRC, 2004VER2]
	$\Delta_v H$		65.6 ± 0.3	298	C	[1988KNA/SAB, 1990KNA/SAB2]
	$\Delta_v H$	(363–408)	57.4	385	TGA	[1987ALN/ALS]
	$\Delta_v H$	(323–473)	65.2	338	A	[1987STE/MAL]
	$\Delta_v H$	(363–418)	62.5	378	A	[1987STE/MAL]
	$\Delta_v H$	(283–373)	66.1 ± 0.3	298	GS	[1981HAL/COG, 2004VER2]
	$\Delta_v H$	(335–420)	68.2 ± 0.8	298	EB	[1981JOO/ARL, 2004VER2]
	$\Delta_v H$	(374–495)	63.7 ± 0.1	298	EB	[1981AMB/HAL, 2005VAS/VER]
	$\Delta_v H$	(333–443)	63.6	298		[1972GAR/HUS, 2005VAS/VER]
	$\Delta_v H$	(323–473)	64.0	338		[1952JON/TAM, 1972GAR/HUS]
	$\Delta_v H$	(333–443)	63.8	298	DFM	[1937GAL/HIB, 2004VER2, 1972GAR/HUS]
	$\Delta_v H$	(363–403)	61.1	383		[1935SCH/STA]
	$\Delta_v H$	(403–470)	57.3	436		[1935SCH/STA]
	$\Delta_v H$	(395–459)	61.1	410		[1901DEF]
$C_2H_6O_2$	[3031-74-1]	ethyl hydroperoxide				
	$\Delta_v H$	(253–363)	64.0	268	A	[1987STE/MAL, 1951EGE/EMT, 1970DYK]
$C_2H_6O_2$	[na]	dihydroxyethane				
	$\Delta_{fus}H$		9.96	260.6		[1996DOM/HEA]
$C_2H_6O_2S$	[67-71-0]	dimethyl sulfone				
	$\Delta_{fus}H$		18.28	382		[1996DOM/HEA]
	$\Delta_{sub}H$		77 ± 2.9			[1970COX/PIL, UR/MAC]
	$\Delta_v H$	(387–523)	56.0	404	A	[1987STE/MAL, 1970DYK, 1999DYK/SVO]
$C_2H_6O_4$	[17088-73-2]	*bis*-hydroxymethyl peroxide				
	$\Delta_{sub}H$		94.1 ± 4.2		ME	[1953JEN/STY, 1970COX/PIL]
$C_2H_6O_4S$	[77-78-1]	dimethyl sulfate				
	$\Delta_v H$	(340–470)	46.7	355	A	[1987STE/MAL, 1999DYK/SVO]
C_2H_6S	[75-18-3]	dimethyl sulfide				
	$\Delta_{fus}H$		7.98	174.9		[1996DOM/HEA]
	$\Delta_v H$		28.5 ± 0.1			[1997BAE]
	$\Delta_v H$		27.9 ± 0.6	298	C	[1989VOR/KLY]
	$\Delta_v H$	(268–319)	28.9	283	A	[1987STE/MAL]
	$\Delta_v H$	(307–379)	27.7	322	A	[1987STE/MAL]
	$\Delta_v H$	(372–453)	26.6	387	A	[1987STE/MAL]
	$\Delta_v H$	(447–503)	26.7	462	A	[1987STE/MAL]
	$\Delta_v H$		27.5	298		[1981SHI/SAI]
	$\Delta_v H$		27.7	298		[1971WIL/ZWO]
	$\Delta_v H$		28.8 ± 0.1	276	C	[1957MCC/HUB]
	$\Delta_v H$		27.9 ± 0.1	292	C	[1957MCC/HUB]
	$\Delta_v H$		27.0 ± 0.1	310	C	[1957MCC/HUB]
	$\Delta_v H$	(287–318)	28.2	302	EB	[1952WHI/BER]
	$\Delta_v H$	(251–293)	28.9	278		[1942OSB/DOE]
	$\Delta_v H$		28.9	310		[1935THO/LIN]
C_2H_6S	[75-08-1]	ethyl mercaptan (ethanethiol)				
	$\Delta_{fus}H$		4.97	195.3		[1996DOM/HEA]
	$\Delta_v H$	(273–313)	28.4	288	A	[1987STE/MAL]
	$\Delta_v H$	(303–375)	27.5	318	A	[1987STE/MAL]
	$\Delta_v H$	(265–448)	26.3	380	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(442–499)	26.6	457	A	[1987STE/MAL]
	$\Delta_v H$		27.3	298		[1971WIL/ZWO]
	$\Delta_v H$	(273–339)	28.4	288		[1966OSB/DOU]
	$\Delta_v H$	(273–339)	28.4	288	A, EB	[1987STE/MAL, 1952MCC/SCO, 1966OSB/DOU]
	$\Delta_v H$		28.7	306		[1935THO/LIN]
$C_2H_6S_2$	[540-63-6]	1,2-ethanedithiol				
	$\Delta_v H$		44.7	298		[1962MAN/SUN]
$C_2H_6S_2$	[624-92-0]	dimethyl disulfide				
	$\Delta_{fus}H$		9.19	188.4		[1996DOM/HEA]
	$\Delta_v H$		38.5 ± 0.6	298	C	[1989VOR/KLY]
	$\Delta_v H$	(297–402)	37.8	312	A	[1987STE/MAL]
	$\Delta_v H$		37.8 ± 0.1	298	C	[1985KUS]
	$\Delta_v H$		37.8	298		[1981SHI/SAI]
	$\Delta_v H$		38.4	298		[1971WIL/ZWO]
	$\Delta_v H$		36.0 ± 0.1	341	C	[1958HUB/DOU]
	$\Delta_v H$		34.9 ± 0.1	360	C	[1958HUB/DOU]
	$\Delta_v H$		33.7 ± 0.1	383	C	[1958HUB/DOU]
	$\Delta_v H$	(321–388)	36.7	336	EB	[1952WHI/BER]
	$\Delta_v H$	(334–401)	36.2	349		[1950SCO/FIN]
	$\Delta_v H$	(288–333)	38.2	303		[1950SCO/FIN]
C_2H_7N	[124-40-3]	dimethylamine				
	$\Delta_{fus}H$		5.94	181		[1996DOM/HEA]
	$\Delta_v H$	(277–360)	27.0	292	A	[1987STE/MAL]
	$\Delta_v H$	(358–438)	23.8	373	A	[1987STE/MAL]
	$\Delta_v H$	(202–279)	28.4	264	A	[1987STE/MAL, 1939AST/EID, 1984BOU/FRI]
C_2H_7N	[75-04-7]	ethyl amine				
	$\Delta_v H$	(213–297)	29.0	282	A	[1987STE/MAL]
	$\Delta_v H$	(290–449)	27.2	305	A	[1987STE/MAL]
	$\Delta_v H$	(291–387)	27.6	306	A	[1987STE/MAL]
	$\Delta_v H$	(377–456)	25.9	392	A	[1987STE/MAL]
	$\Delta_v H$	(275–288)	29.1	281		[1962BIT/KAU2]
	$\Delta_v H$	(190–290)	28.9	275		[1947STU]
C_2H_7NO	[5725-96-2]	N,N-dimethylhydroxyl amine				
	$\Delta_v H$	(290–363)	45.7	305	A	[1987STE/MAL, 1957BIS/PAR, 1984BOU/FRI]
C_2H_7NO	[1117-97-1]	N,O-dimethylhydroxyl amine				
	$\Delta_v H$	(228–316)	34.3	243	A	[1987STE/MAL, 1957BIS/PAR, 1984BOU/FRI]
C_2H_7NO	[141-43-5]	2-aminoethanol				
	$\Delta_v H$	(283–363)	60.6	298		[2009BEL/RAZ]
	$\Delta_v H$	(357–435)	55.9	372	EB	[2008KIM/SVE]
	$\Delta_v H$	(279–324)	59.6 ± 0.3	298	GS	[2005KAP/SLO]
	$\Delta_v H$	(358–440)	59.4	298	EB	[1999TOC/AKI, 2005KAP/SLO]
	$\Delta_v H$	(352–613)	59.0	298	EB	[1987DAU/JAL, 2005KAP/SLO]
	$\Delta_v H$	(310–444)	61.7	325	A	[1987STE/MAL]
	$\Delta_v H$	(298–308)	56.1	298		[1982TOU/OKA, 2005KAP/SLO]
	$\Delta_v H$	(293–298)	54.8	298		[1974GUS/REN, 2005KAP/SLO]
	$\Delta_v H$	(325–443)	57.7	298		[1969DAN/MAT, 2005KAP/SLO]
	$\Delta_v H$	(379–443)	54.7	394		[1959MCD/SHR]
	$\Delta_v H$	(273–301)	U 50.8	287	A, GS	[1957BES/KOC]
	$\Delta_v H$	(338–443)	58.9	353		[1950MAT/SUM, 1984BOU/FRI]
	$\Delta_v H$	(303–373)	57.4	298	EB	[1947LEI/SHO, 2005KAP/SLO]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(341–453)	57.9	298		[1935WIL, 2005KAP/SLO]
$C_2H_7O_3P$	[868-85-9]	dimethyl phosphite				
	$\Delta_v H$	(353–443)	46.7	368		[2010FAN/WAN]
	$\Delta_v H$	(243–443)	48.3	243	GS	[2009BUT/BUC]
	$\Delta_v H$	(243–443)	47.9	263	GS	[2009BUT/BUC]
	$\Delta_v H$	(243–443)	46.7	298	GS	[2009BUT/BUC]
	$\Delta_v H$	(243–443)	46.4	313	GS	[2009BUT/BUC]
	$\Delta_v H$	(243–443)	46.0	333	GS	[2009BUT/BUC]
	$\Delta_v H$	(243–443)	45.4	373	GS	[2009BUT/BUC]
	$\Delta_v H$		39.5			[1993OVC/SOB]
	$\Delta_v H$	(346–456)	38.7	361	A	[1987STE/MAL, 1970DYK]
$C_2H_7O_3P$	[15845-66-6]	ethylphosphonic acid				
	$\Delta_{sub}H$		50.6 ± 4.2			[1955NEA/WIL, 1970COX/PIL]
C_2H_8ClN	[506-59-2]	dimethylammonium chloride				
	$\Delta_v H$	(429–533)	95.6	444	A	[1987STE/MAL]
	$\Delta_v H$	(533–569)	143.9	548	A	[1987STE/MAL]
C_2H_8ClN	[557-66-4]	ethylammonium chloride				
	$\Delta_v H$	(382–480)	34.3	397	A	[1987STE/MAL]
$C_2H_8NOPS_2$	[10265-92-6]	O,S-dimethyl phosphoroamidothioate				
	$\Delta_{fus}H$		13.34	316.8	DSC	[1990DON/DRE]
$C_2H_8N_2$	[57-14-7]	1,1-dimethylhydrazine				
	$\Delta_{fus}H$		10.07	216		[1996DOM/HEA]
	$\Delta_v H$	(267–303)	34.1	284		[2000BOU/YE]
	$\Delta_v H$	(238–292)	36.5	277	A	[1987STE/MAL, 1953AST/WOO, 1984BOU/FRI]
$C_2H_8N_2$	[540-73-8]	1,2-dimethylhydrazine				
	$\Delta_{fus}H$		13.64	264.3		[1996DOM/HEA]
	$\Delta_v H$	(274–297)	41.0	286	A	[1987STE/MAL, 1951AST/JAN, 1984BOU/FRI]
$C_2H_8N_2$	[107-15-3]	ethylenediamine				
	$\Delta_{fus}H$		21.08	284.1	DSC	[1997LEE/CHA]
	$\Delta_{trs}H$		0.49	189		
	$\Delta_{fus}H$		22.58	284.3	AC	[1991ACR, 1994LEE/LIE, 1975MES/FIN]
	$\Delta_{sub}H$	(242–278)	65.6	263	IP	[1987STE/MAL, 1975MES/FIN]
	$\Delta_v H$	(294–325)	41.6	298	TGA	[1988AFZ/BUT, 2010EFI/EME]
	$\Delta_v H$	(303–391)	43.9	318	A	[1987STE/MAL]
	$\Delta_v H$	(284–419)	45.9	299	A, IP	[1987STE/MAL, 1975MES/FIN]
	$\Delta_v H$		45.0 ± 0.1	298	C	[1969WAD]
	$\Delta_v H$	(314–388)	54.4 ± 1.0	298		[1967SIV/MAT, 2010EFI/EME]
	$\Delta_v H$		46.0 ± 0.2	298	IP	[1965DOU/OSB, 1970GOO/MOR]
	$\Delta_v H$	(299–390)	45.6	314		[1934HIE/WOE, 1984BOU/FRI]
$C_2H_8N_2$	[na]	diaminoethane				
	$\Delta_{trs}H$		0.49	189		
	$\Delta_{fus}H$		22.58	284.2		[1991ACR, 1994LEE/LIE]
$C_2H_8N_6O_2$	[216489-95-1]	1,1′-(1,2-ethanediyl)*bis*(1-nitrosohydrazine)				
	$\Delta_{sub}H$		172.4 ± 1.3	298		[1998LEB/CHI]
$C_3BrClF_6O_4$	[38126-26-0]	perchloric acid, 1,1,2,3,3,3-hexafluoro-2-bromopropyl ester				
	$\Delta_v H$	(273–293)	38.1	283	A	[1987STE/MAL, 1973SCH/PIL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_3BrF_5O	[6129-62-0]	2-bromo-2,3,3,3-tetrafluoropropionyl fluoride				
	Δ_vH	(224–282)	30.2	267	A	[1987STE/MAL]
C_3BrF_6NO	[na]	N,N-*bis*(trifluoromethyl) carbamoyl bromide				
	Δ_vH	(233–293)	30.7	278	A	[1987STE/MAL]
$C_3BrF_9N_2$	[na]	N-bromo-*tris*(trifluoromethyl)hydrazine				
	Δ_vH	(283–333)	36.8	308		[1966BRO/FRA]
$C_3BrF_{10}NS$	[62977-73-5]	bromotrifluoro[1,1,1,2,3,3,3-heptafluoro-2-propanaminoato(2-)] sulfur				
	Δ_vH		35.1	394	I	[1977KIT/SHR2]
$C_3Br_2F_6O$	[2356-57-2]	(trifluoromethyl)(1,2-dibromo-1,2,2-trifluoroethyl) ether				
	Δ_vH	(299–335)	34.6	314	A	[1987STE/MAL, 1968HAS/TIP]
$C_3Br_3F_6NO$	[29528-78-7]	1,1,1,1′,1′,1′-hexafluoro-N-(tribromomethoxy)dimethylamine				
	Δ_vH	(297–338)	28.9	312	A	[1987STE/MAL]
$C_3ClF_4NO_2$	[42016-32-0]	chloro(trifluoroacetyl)carbamic fluoride				
	Δ_vH		39.3	371		[1973SPR/WRI]
C_3ClF_5O	[79-53-8]	chloropentafluoroacetone				
	Δ_vH	(232–303)	27.3	247	A	[1987STE/MAL, 1964MUR, 1984BOU/FRI]
C_3ClF_5O	[28627-00-1]	2-chloro-2,3,3,3-tetrafluoropropionyl fluoride				
	Δ_vH	(195–273)	23.9	258	A	[1987STE/MAL]
$C_3ClF_6NO_2$	[15496-01-2]	O-(chloroformyl)-N,N-*bis*(trifluoromethyl)hydroxylamine				
	Δ_vH	(227–286)	34.5	271	A	[1987STE/MAL]
C_3ClF_6NS	[na]	chloro(hexafluoroisopylidenimino) sulfur				
	Δ_vH		37.7	368	I	[1972MET/SHR]
C_3ClF_7O	[22675-68-9]	heptafluoroisopropyl hypochorite				
	Δ_vH	(196–287)	26.7	272	A	[1987STE/MAL]
	Δ_vH	(194–273)	22.7	258	A	[1987STE/MAL]
C_3ClF_8N	[33757-13-0]	N-chloro-N-1,2,2,2-pentafluoro-1-(trifluoromethyl)ethylamine				
	Δ_vH	(240–311)	28.8	255	A	[1987STE/MAL, 1971SWI/ZAB]
C_3ClF_8NOS	[74366-14-6]	(heptafluoropropyl)imidosulfuryl chloride fluoride				
	Δ_vH		26.7	346	I	[1980ABE/SHR]
$C_3ClF_{10}NS$	[62977-71-3]	chlorotrifluoro[1,1,1,2,3,3,3-heptafluoro-2-propanaminoato(2-)] sulfur				
	Δ_vH		33.5	391	I	[1977KIT/SHR2]
$C_3Cl_2F_5N$	[na]	2,2-difluoro-1,2-dichloro-N-(trifluoromethyl)ethylidenimine				
	Δ_vH	(283–318)	31.2	298	A	[1987STE/MAL]
$C_3Cl_2F_6$	[661-97-2]	1,2-dichlorohexafluoropropane				
	Δ_vH	(296–307)	28.1	301		[1980MAJ/SVO]
	Δ_vH		26.9 ± 0.1	298	C	[1980MAJ/SVO]
	Δ_vH		25.9 ± 0.1	313	C	[1980MAJ/SVO]
$C_3Cl_2F_6N_2$	[na]	*bis*(trifluoromethyl)aminocarbylamine chloride				
	Δ_vH	(267–339)	35.0	303		[1966DOB/EME]
$C_3Cl_2F_6O$	[22675-69-0]	hypochlorous acid, 2-chloro-1,1,2,3,3,3-hexafluoropropyl ester				
	Δ_vH	(273–293)	29.6	283	A	[1987STE/MAL]
$C_3Cl_2F_7N$	[32751-04-5]	N,N-dichloro-1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethylamine				
	Δ_vH	(299–344)	32.7	314	A	[1987STE/MAL, 1971SWI/ZAB]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_3Cl_2F_7NS$	[26454-66-0]	S,S-dichloro-N-[tetrafluoro-1-(trifluoromethyl)ethyl]sulfilimine				
	Δ_vH	(313–347)	39.3	328	A	[1987STE/MAL, 1970VON/GLE]
$C_3Cl_2F_7NS$	[na]	$C_3F_7N{=}SCl_2$				
	Δ_vH		25.9	361	I	[1980ABE/SHR]
$C_3Cl_2F_7P$	[662-55-5]	dichloro(heptafluoropropyl)phosphine				
	Δ_vH	(273–348)	33.5	310		[1959EME/SMI]
$C_3Cl_3F_5O$	[37136-24-6]	chlorodifluoromethyl 2,2-dichloro-1,1,2-trifluoroethyl ether				
	Δ_vH	(302–350)	33.4	317	A	[1987STE/MAL]
	Δ_vH		33.8 ± 0.5	298	EB	[1976AMM/BUL]
$C_3Cl_5F_3O$	[428-73-9]	trichloromethyl 2,2-dichloro-1,1,2-trifluoroethyl ether				
	Δ_vH	(341–423)	42.2	356	A	[1987STE/MAL]
	Δ_vH		45.7 ± 0.7	298	EB	[1976AMM/BUL]
C_3Cl_6	[1888-71-7]	hexachloropropylene				
	Δ_vH	(366–510)	54.8 ± 0.4	298	EB	[1997STE/CHI4]
	Δ_vH	(382–540)	49.3	397	A	[1987STE/MAL, 1970DYK]
C_3Cl_6	[2065-35-2]	hexachlorocyclopropane				
	$\Delta_{fus}H$		18.6	376		[1996DOM/HEA]
$C_3F_3N_2P$	[58310-46-6]	dicyano(trifluoromethyl)phosphine				
	Δ_vH	(291–334)	45.6	306	A	[1987STE/MAL]
$C_3F_3N_3$	[675-14-9]	2,4,6-trifluoro-1,3,5-triazine				
	Δ_vH	(277–344)	38.8	292	A	[1987STE/MAL]
C_3F_4	[20174-11-2]	tetrafluoropropyne				
	Δ_vH	(179–218)	18.8	203	A	[1987STE/MAL]
$C_3F_4O_2S_2$	[58936-60-0]	ethane(dithioperoxoic)acid, fluorooxo-trifluoromethyl ester				
	Δ_vH		34.9	385	I	[1976BUR/SHR]
C_3F_5N	[3291-42-7]	2,2-difluoro-3-(trifluoromethyl)-2*H*-azirine				
	Δ_vH	(193–249)	24.0	234	A	[1987STE/MAL]
C_3F_5N	[3291-41-6]	2,3-difluoro-2-(trifluoromethyl)-2*H*-azirine				
	Δ_vH	(193–249)	24.3	220	A	[1987STE/MAL]
C_3F_6	[116-15-4]	perfluoropropene				
	Δ_vH	(233–293)	21.9	278	A	[1987STE/MAL, 1952WHI, 1970DYK, 1984BOU/FRI]
$C_3F_9N_2OS$	[34556-28-0]	N-cyano-S,S-*bis*(trifluoromethyl)sulfoximine				
	Δ_vH		30.8	382	I	[1972SAU/SHR]
C_3F_6O	[425-82-1]	hexafluorooxetane				
	Δ_vH	(232–313)	22.3	247	A	[1992SAL/WAN]
C_3F_6O	[116-16-5]	perfluoroacetone				
	$\Delta_{fus}H$		8.38	147.7		[1996DOM/HEA]
	Δ_vH	(195–246)	23.6	231	A	[1987STE/MAL, 1967PLA/PAC, 1984BOU/FRI]
	Δ_vH	(240–357)	22.3	253		[1964MUR, 1984BOU/FRI]
	Δ_vH	(213–245)	23.1	229		[1955MOR/AYS]
C_3F_6O	[1187-93-5]	trifluoromethyl trifluorovinyl ether				
	Δ_vH	(248–338)	20.3	298		[2007LIU/LIU]
	Δ_vH	(208–241)	22.9	226	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_3F_6O	[5930-63-2]	pentafluoropropionyl hypofluorite				
	Δ_vH	(214–248)	25.8	233	A	[1987STE/MAL]
$C_3F_6O_2$	[21297-65-4]	1,3-perfluorodioxolane				
	Δ_vH	(234–367)	22.3	249	A	[1992SAL/WAN]
$C_3F_6O_4S$	[51689-98-6]	pentafluoropropionic fluorosulfuric acid anhydride				
	Δ_vH	(252–335)	39.2	267	A	[1987STE/MAL, 1966DES/CAD]
$C_3F_6O_7S_2$	[6378-48-9]	hydroacrylic acid, tetrafluoroanhydride with fluorosulfuric acid, fluorosulfate				
	Δ_vH	(308–403)	49.4	323		[1999DYK/SVO]
$C_3F_7I_2P$	[678-07-9]	diiodo(heptafluoropropyl)phosphine				
	Δ_vH	(313–393)	39.6	353		[1959EME/SMI]
C_3F_7N	[428-71-7]	perfluoro-(2-ethyl-1,2-oxazetidine)				
	Δ_vH		25.6			[1961BAR/HAS]
C_3F_7N	[760-43-0]	perfluoro(ethylidenemethylamine)				
	Δ_vH		21.4			[1961BAR/HAS]
C_3F_7NO	[32822-50-7]	heptafluoropropionamide				
	Δ_vH		27.2	279	HG	[1971DEM/SHR]
C_3F_7NOS	[26454-67-1]	1,1,1,2,3,3,3-heptafluoro-N-sulfinyl-2-propanamine				
	Δ_vH	(252–280)	34.1	266	A	[1987STE/MAL, 1999DYK/SVO, 1970VON/GLE]
C_3F_7NOS	[74366-13-5]	1,1,2,2,3,3,3-heptafluoro-N-sulfinyl-1-propanamine				
	Δ_vH		26.3	325		[1980ABE/SHR]
C_3F_7NS	[62067-06-5]	2,2,2-trifluoro-N-[(trifluoromethyl)thio]ethanimidoyl fluoride				
	Δ_vH		28.0	305	I	[1977BUR/SHR2]
$C_3F_7NO_2$	[423-33-6]	perfluoro-1-nitropropane				
	Δ_vH	(247–296)	28.5	281	A	[1987STE/MAL]
C_3F_8	[76-19-7]	perfluoropropane				
	$\Delta_{trs}H$		3.56	99.4		
	$\Delta_{fus}H$		0.48	125.5		[1996DOM/HEA]
	Δ_vH	(193–237)	21.6	222	A	[1987STE/MAL, 1967PAC/PLA]
	Δ_vH	(213–259)	20.9	244		[1963BRO]
$C_3F_8N_2O_2$	[32837-67-5]	N-[[(difluoroamino)carbonxyl]oxy]-1,1,1-trifluoro-N-(trifluoromethyl)-methanamine				
	Δ_vH		31.4	310		[1973WRI/SHR]
C_3F_8OS	[33622-17-2]	pentafluoroethyl trifluoromethyl sulfur				
	Δ_vH		32.5			[1971SAU/SHR]
C_3F_8S	[33547-10-3]	pentalfuoroethyl trifluoromethyl sulfide				
	Δ_vH		28.8			[1971SAU/SHR]
C_3F_9N	[432-03-1]	perfluorotrimethylamine				
	Δ_vH	(193–263)	23.9	248	A	[1987STE/MAL]
C_3F_9NO	[671-63-6]	1,1,1-trifluoro-N-(trifluoromethoxy)-N-(trifluoromethyl)-methanamine				
	Δ_vH	(226–268)	27.0	253	A	[1987STE/MAL]
C_3F_9NOS	[59617-29-7]	[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl] imidosulfuryl fluoride				
	Δ_vH		28.7			[1976STA/MEW]
$C_3F_9NOS_2$	[34556-26-8]	S,S-*bis*(trifluoromethyl)-N-[(trifluoromethyl)thio]sulfoximine				
	Δ_vH		31.2	360	I	[1972SAU/SHR]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_3F_9NO_2S_2$	[34556-27-9]	S,S-*bis*(trifluoromethyl)-N-[(trifluoromethyl)sulfinyl]sulfoximine				
	$\Delta_v H$		37.2	388	I	[1972SAU/SHR]
$C_3F_9NO_2S_3$	[29749-02-8]	1,1,1-trifluoro-N,N-*bis*(trifluoromethyl)thio]methanesulfonamide				
	$\Delta_v H$	(288–403)	43.5	303	A	[1987STE/MAL, 1999DYK/SVO]
$C_3F_9N_3O$	[10405-30-8]	nitroso*tris*(trifluoromethyl) hydrazine				
	$\Delta_v H$	(279–300)	29.5	289	A	[1987STE/MAL]
	$\Delta_v H$	(233–294)	33.5	263		[1966DOB/EME]
$C_3F_9N_3O_2$	[10405-31-9]	nitro*tris*(trifluoromethyl) hydrazine				
	$\Delta_v H$	(293–321)	31.6	307	A	[1987STE/MAL]
C_3F_9P	[432-04-2]	*tris*(trifluoromethyl)phosphine				
	$\Delta_v H$	(248–285)	24.7	270	A	[1987STE/MAL]
C_3F_9PS	[671-64-7]	*bis*(trifluoromethyl)trifluoromethylthiophosphine				
	$\Delta_v H$	(242–293)	32.5	267		[1962EME/PAC]
C_3F_9PS	[2025-08-3]	*tris*(trifluoromethyl)phosphine sulfide				
	$\Delta_v H$	(282–308)	29.1	295		[1964CAV/EME2]
$C_3F_9PS_2$	[36121-49-0]	(trifluoromethyl)dithiophosphite acid, *bis*(trifluoromethyl) ester				
	$\Delta_v H$	(273–296)	37.9	284	A	[1987STE/MAL, 1999DYK/SVO]
$C_3F_9P_3S_5$	[26349-17-7]	2,4,5-*tris*(trifluoromethyl)-1,3,2,4,5-dithiatriphospholane-2,4,5-trisulfide				
	$\Delta_{sub}H$	(363–373)	96.6	368		[1970BUR/PARC]
$C_3F_{10}OS$	[33564-24-8]	difluorooxo(trifluoromethyl)(pentafluoroethyl) sulfur				
	$\Delta_v H$	(291–324)	30.6	306	A	[1987STE/MAL, 1999DYK/SVO]
$C_3F_{10}O_3S$	[60672-62-0]	pentafluoro (pentafluoropropaneperoxoato)sulfur				
	$\Delta_v H$		34.4			[1976HOP/DES]
$C_3F_{10}S$	[68010-33-3]	[2,2-difluoro-(1-trifluoromethyl)ethenyl] pentafluoro sulfur				
	$\Delta_v H$		30.0			[1978DEM/FOX]
$C_3F_{10}S$	[31222-06-7]	difluoro(pentafluoroethyl)(trifluoromethyl) sulfur				
	$\Delta_v H$		29.2			[1971SAU/SHR]
$C_3F_{11}NO_3S_2$	[65844-08-8]	trifluoro(trifluorosulfato-O)[1,1,1,2,3,3,3-heptafluoro-2-propanaminoato(2-)]sulfur				
	$\Delta_v H$		33.5	391	I	[1977KIT/SHR2]
$C_3F_{12}O_3S_2$	[68010-30-0]	pentafluoro [2,2,2-trifluoro-1-(fluorosulfonyl)oxo]-1-(trifluoromethyl)-ethyl] sulfur				
	$\Delta_v H$		37.2			[1978DEM/FOX]
C_3N_3P	[1116-01-4]	tricyanophosphine				
	$\Delta_{sub}H$	(293–323)	78.3	308	ME	[1987STE/MAL, 1976DAV/FIN]
	$\Delta_{sub}H$		75.3 ± 2.9	298		[1995ALM/FIN, 1976DAV/FIN]
$C_3HClF_6O_2S$	[57169-81-0]	chlorosulfurous acid, 2,2,2-trifluoro-1-(trifluromethyl)ethyl ester				
	$\Delta_v H$		36.7			[1975KIR/LAS]
$C_3HClF_{10}S$	[68010-36-6]	[1-(chlorodifluoromethyl)-2,2,2-trifluoroethyl] pentafluorosulfur				
	$\Delta_v H$		31.2			[1978DEM/FOX]
C_3HCl_7	[594-89-8]	1,1,1,2,2,3,3-heptachloropropane				
	$\Delta_v H$	(413–473)	34.8	428	A	[1987STE/MAL, 1949HIG/END, 1970DYK]
C_3HF_3	[661-54-1]	3,3,3-trifluoropropyne				
	$\Delta_v H$	(138–213)	21.5	198	A	[1987STE/MAL]
C_3HF_6N	[3291-64-3]	2,2,3-trifluoro-3-fluoromethylaziridine				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(268–298)	30.2	283	A	[1987STE/MAL]
C_3HF_7	[431-89-0]	1,1,1,2,3,3,3-heptafluoropropane				
	$\Delta_v H$		18.9	298		[2007ECK/HUA]
	$\Delta_v H$	(278–308)	22.7	293		[2002BOB/ART]
	$\Delta_v H$	(293–353)	22.6	308		[2002VAL/COQ]
	$\Delta_v H$	(237–370)	22.3	250		[1992SAL/WAN]
	$\Delta_v H$	(237–370)	14.5	300		[1992SAL/WAN]
	$\Delta_v H$	(237–370)	12.5	325		[1992SAL/WAN]
C_3HF_7O	[2356-61-8]	trifluoromethyl 1*H*-pentafluoroethyl ether				
	$\Delta_v H$	(232–313)	27.3	247	A	[1992SAL/WAN]
$C_3HF_7O_2S$	[52225-56-6]	fluorosulfurous acid, 2,2,2-trifluoro-1-(trifluoromethyl)ethyl ester				
	$\Delta_v H$		33.8			[1975DEM/KOV2]
C_3HF_8NOS	[34556-23-5]	S-(pentafluoroethyl)-S-(trifluoromethyl)sulfoximine				
	$\Delta_v H$		36.3	358	I	[1972SAU/SHR]
$C_3HF_9N_2$	[13105-67-4]	*tris*(trifluoromethyl)hydrazine				
	$\Delta_v H$	(238–307)	29.9	273		[1966DOB/EME]
$C_3HF_{11}S$	[68010-34-4]	pentafluoro [2,2,2-trifluoro-1-(1-trifluoromethyl)ethyl]sulfur				
	$\Delta_v H$		30.1			[1978DEM/FOX]
C_3HN	[68010-34-4]	cyanoacetylene				
	$\Delta_{fus}H$		14.1		Sub-Vap	[1963DAN/FLU]
	$\Delta_{sub}H$	(247–279)	42.3	264		[1987STE/MAL, 1963DAN/FLU]
	$\Delta_v H$	(279–315)	28.1	294	A	[1987STE/MAL, 1963DAN/FLU]
$C_3H_2ClF_5$	[460-92-4]	3-chloro-1,1,1,3,3-pentafluoropropane				
	$\Delta_{fus}H$		10.47	165.4		[1996DOM/HEA]
$C_3H_2ClF_5O$	[13838-16-9]	1-chloro-1,2,2-trifluoro-2-(difluoromethoxy)ethane				
	$\Delta_v H$	(274–351)	33.8	289		[1988AMB/GHI2]
	$\Delta_v H$	(290–329)	32.9	305	A	[1987STE/MAL]
	$\Delta_v H$		32.6 ± 0.1	298	C	[1984UCH/MAJ]
	$\Delta_v H$		31.3 ± 0.1	313	C	[1984UCH/MAJ]
	$\Delta_v H$		30.2 ± 0.1	328	C	[1984UCH/MAJ]
	$\Delta_v H$		29.1 ± 0.1	343	C	[1984UCH/MAJ]
$C_3H_2ClF_5O$	[26675-46-7]	2-chloro-1,1,1-trifluoro-2-(difluoromethoxy)ethane				
	$\Delta_v H$	(280–344)	31.7	295		[1988AMB/GHI2]
	$\Delta_v H$	(283–312)	31.9	297	A	[1987STE/MAL]
$C_3H_2Cl_2F_4$	[64712-27-2]	3,3-dichloro-1,1,1,3-tetrafluoropropane				
	$\Delta_v H$	(297–333)	31.7	312	A	[1987STE/MAL]
$C_3H_2Cl_2F_4O$	[37031-38-2]	2-chloro-1,1,2-trifluoroethyl chlorofluoromethyl ether				
	$\Delta_v H$		37.5 ± 0.1	298	C	[1984MAJ/UCH]
	$\Delta_v H$		36.4 ± 0.1	313	C	[1984MAJ/UCH]
	$\Delta_v H$		35.3 ± 0.1	328	C	[1984MAJ/UCH]
	$\Delta_v H$		34.1 ± 0.1	343	C	[1984MAJ/UCH]
	$\Delta_v H$		32.9 ± 0.1	353	C	[1984MAJ/UCH]
$C_3H_2Cl_3F_3$	[7125-84-0]	1,1,1-trichloro-3,3,3-trifluoropropane				
	$\Delta_{fus}H$		14.07	232.7		[1991ACR]
	$\Delta_v H$		36.8 ± 0.1	298	C	[2007VAR/DRU]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(320–365)	35.2	335		[1987STE/MAL]
$C_3H_2Cl_4$	[60320-18-5]	1,1,2,3-tetrachloropropylene				
	$\Delta_v H$	(347–416)	42.9	362	A	[1987STE/MAL]
$C_3H_2Cl_2F_4$	[64712-27-2]	1,1,1,3-tetrafluoro-3,3-dichloropropane				
	$\Delta_v H$	(297–333)	31.9 ± 0.5	298		[2007VAR/DRU]
$C_3H_2D_5N$	[153557-95-0]	1,1,1,3-tetrafluoro-3,3-dichloropropane				
	$\Delta_v H$	(283–330)	31.7	298		[1993WOL/KIM]
C_3H_2FNOS	[459-71-2]	fluoracetyl isothiocyanate				
	$\Delta_v H$	(273–353)	49.3	288	A	[1987STE/MAL, 1970DYK, 1999DYK/SVO]
$C_3H_2F_6$	[690-39-1]	1,1,1,3,3,3-hexafluoropropane				
	$\Delta_v H$	(283–323)	24.5	303	A	[2000BOB/CAM]
$C_3H_2F_6N_2S$	[na]	amino (hexafluoroisopropylidenimino) sulfur				
	$\Delta_v H$		37.7	388	I	[1972MET/SHR]
$C_3H_2F_6N_2S$	[62067-09-8]	2,2,2-trifluoro-N-[(trifluoromethyl)thiol]ethanimidamide				
	$\Delta_v H$	(322–390)	39.8	337	A, I	[1987STE/MAL, 1977BUR/SHR2, 1999DYK/SVO]
$C_3H_2F_6O$	[57041-67-5]	2-(difluoromethoxy)-1,1,1,2-tetrafluoroethane				
	$\Delta_v H$	(274–311)	24.9	293	I	[1996SUS/SMI]
$C_3H_2F_6O$	[920-66-1]	1,1,1,3,3,3-hexafluoro-2-propanol				
	$\Delta_v H$	(294–330)	40.2	309	A, MM	[1987STE/MAL, 1973ROC/SYM]
	$\Delta_v H$	(294–330)	41.6	298	MM	[1973ROC/SYM]
	$\Delta_v H$	(273–296)	47.3	284		[1967VAN/SOC]
$C_3H_2F_6O_2$	[30957-44-9]	*bis*-(difluoromethoxy)difluoromethane				
	$\Delta_{fus}H$		7.2	153		[1999MAR/BAS]
	$\Delta_v H$	(243–308)	31.5 ± 0.4			[1999MAR/BAS]
$C_3H_2F_6O_2S$	[30957-44-9]	trifluoormethanesulfinic acid, 2,2,2-trifluoromethyl ester				
	$\Delta_v H$		36.8	363		[1971SAU/SHR2]
$C_3H_2F_8N_2S$	[2433-66-1]	S,S-difluoro-N-[1-amino-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]sulfilimine				
	$\Delta_v H$	(295–313)	38.7	304	A	[1987STE/MAL, 1969GLE/VON, 1999DYK/SVO]
$C_3H_2N_2$	[109-77-3]	malononitrile				
	$\Delta_{trs}H$		0.43	260.9		
	$\Delta_{fus}H$		10.7	305	DSC	[2007BAD/BLA]
	$\Delta_{fus}H$		10.8	305		[1996DOM/HEA]
	$\Delta_{sub}H$	(278–299)	78.2 ± 1.0	298		[1990BEC/DOG]
	$\Delta_{sub}H$		79.1 ± 8		ME	[1967BOY/GUH, 1970COX/PIL]
$C_3H_2N_2O_3$	[120-89-8]	imidazolidine-2,4,5-trione				
	$\Delta_{trs}H$		2.1	392.3		
	$\Delta_{fus}H$		NA			[2008RIB/RIB2]
	$\Delta_{sub}H$	(381–406)	114.6 ± 0.6	393.7	ME	[2008RIB/RIB2]
	$\Delta_{sub}H$	(381–406)	119.4 ± 0.6	298	ME	[2008RIB/RIB2]
$C_3H_2OS_2$	[2314-40-1]	1,3-dithiol-2-one				
	$\Delta_{sub}H$		73.6 ± 0.8	298		[1973RAU/GEI, 1977PED/RYL]
$C_3H_2OS_3$	[930-35-8]	1,3-dithiole-2-thione				
	$\Delta_{sub}H$		75.4 ± 0.4	298		[1973RAU/GEI, [1977PED/RYL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_3H_2O_3$	[872-36-6]	vinylene carbonate				
	$\Delta_v H$	(308–350)	46.9	323	A	[1987STE/MAL]
	$\Delta_v H$	(308–400)	41.3		MM	[1971CHO/JON]
C_3H_3Cl	[7747-84-4]	1-chloro-1-propyne				
	$\Delta_v H$	(200–289)	28.3	274	A	[1987STE/MAL]
$C_3H_3Cl_2F_3$	[460-69-5]	1,1-dichloro-3,3,3-trifluoropropane				
	$\Delta_{trs}H$		0.2	167.7		
	$\Delta_{fus}H$		10.13	182.2		[1996DOM/HEA]
	$\Delta_v H$		34.1 ± 0.1	298	C	[2007VAR/DRU]
	$\Delta_v H$	(301–342)	33.7	316	A	[1987STE/MAL]
$C_3H_3Cl_2F_3O$	[428-92-2]	2-chloro-1,1,2-trifluoroethyl chloromethyl ether				
	$\Delta_v H$		42.4 ± 0.1	298	C	[1984UCH/MAJ]
	$\Delta_v H$		41.2 ± 0.1	313	C	[1984UCH/MAJ]
	$\Delta_v H$		40.1 ± 0.1	328	C	[1984UCH/MAJ]
	$\Delta_v H$		39.0 ± 0.1	343	C	[1984UCH/MAJ]
	$\Delta_v H$		37.8 ± 0.1	358	C	[1984UCH/MAJ]
$C_3H_3Cl_3O_2$	[598-99-2]	methyl trichloroacetate				
	$\Delta_v H$		48.3 ± 0.1	298	C	[1972LAY/WAD]
$C_3H_3Cl_5$	[16714-68-4]	1,1,2,2,3-pentachloropropane				
	$\Delta_v H$	(365–447)	46.3	380	A	[1987STE/MAL, 1970DYK]
$C_3H_3F_3$	[677-21-4]	3,3,3-trifluoro-1-propene				
	$\Delta_v H$	(283–363)	22.0	298	A	[1987STE/MAL]
$C_3H_3F_4I$	[1737-76-4]	1,1,1,2-tetrafluoro-3-iodopropane				
	$\Delta_v H$	(295–356)	28.4	310	A	[1987STE/MAL]
$C_3H_3F_4I$	[460-74-2]	1,1,1,3-tetrafluoro-3-iodopropane				
	$\Delta_v H$	(301–356)	31.2	316	A	[1987STE/MAL]
$C_3H_3F_4NO_2$	[na]	methoxy (trifluoromethyl)carbamic fluoride				
	$\Delta_v H$		27.8			[1979SEK/DES]
$C_3H_3F_5$	[679-86-7]	1,1,2,2,3-pentafluoropropane				
	$\Delta_v H$	(258–353)	30.2	273	A	[2002DIN/PAS]
$C_3H_3F_5$	[1814-88-6]	1,1,1,2,2-pentafluoropropane				
	$\Delta_v H$	(232–283)	22.9	268	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(233–379)	23.0	248		[1967SHA]
$C_3H_3F_5O$	[422-05-9]	2,2,3,3,3-pentafluoro-1-propanol				
	$\Delta_v H$	(273–297)	47.0	285	A, MM	[1987STE/MAL, 1967MEE/GOL, 1984BOU/FRI]
	$\Delta_v H$		44.4	298	MM	[1973ROC/SYM, 1967MEE/GOL]
	$\Delta_v H$		41.3	298		[1967MUR/KIV]
$C_3H_3F_5O$	[37031-31-5]	1,1,2,2-tetrafluoro-1-(fluoromethoxy)ethane				
	$\Delta_v H$	(288–317)	33.5	303	I	[2002MUR/YAM]
$C_3H_3F_6NOS$	[34556-25-7]	N-methyl-S,S-*bis*(trifluoromethyl)sulfoximine				
	$\Delta_v H$		30.7	338	I	[1972SAU/SHR]
$C_3H_3F_6NS$	[13105-12-9]	N,N-*bis*(trifluoromethyl)methanesulfenamide				
	$\Delta_v H$	(269–309)	31.1	284	A,T	[1987STE/MAL, 1966EME/TAT]
$C_3H_3F_6O_2P$	[25439-11-6]	*bis*(trifluromethyl)phosphinic acid, methyl ester				
	$\Delta_v H$	(258–313)	40.5	273	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_3H_3F_6PS$	[1486-18-6]	*bis*(trifluoromethyl) methylthiophosphine				
	Δ_vH	(273–321)	36.9	297	T	[1964CAV/EME]
$C_3H_3F_6PS_2$	[18799-79-6]	*bis*(trifluromethyl)dithiophosphinic acid, methyl ester				
	Δ_vH	(273–344)	41.5	288	A	[1987STE/MAL, 1999DYK/SVO]
C_3H_3N	[107-13-1]	acrylonitrile				
	$\Delta_{trs}H$		1.19	162.5		
	$\Delta_{fus}H$		6.23	189.6		[1996DOM/HEA]
	Δ_vH	(257–352)	33.6	272	A	[1987STE/MAL]
	Δ_vH	(283–343)	31.6	298	A	[1987STE/MAL]
	Δ_vH	(222–351)	35.5	237		[1964SEV/SOK]
	Δ_vH	(293–343)	32.9	308		[1964GUB/FER]
	Δ_vH	(273–353)	32.6			[1945DAV/WIE]
C_3H_3NO	[288-42-6]	oxazole				
	Δ_vH	(293–344)	34.6	308	A	[1987STE/MAL]
	Δ_vH		32.5 ± 0.1	298	C	[1978MCC/HAM]
C_3H_3NO	[288-14-2]	isoxazole				
	Δ_vH	(314–404)	37.2 ± 0.2	298	EB	[1996STE/CHI3]
	Δ_vH		36.5 ± 0.1	298	C	[1978MCC/HAM]
$C_3H_3NO_2$	[17640-15-2]	cyanoformic acid, methyl ester				
	Δ_vH	(273–333)	39.3	288	A	[1987STE/MAL, 1970DYK]
C_3H_3NS	[288-47-1]	thiazole				
	$\Delta_{fus}H$		9.58	239.4		[1968GOU/WES2, 1966MEY/MET]
	Δ_vH	(333–393)	39.7	348	A	[1987STE/MAL]
	Δ_vH	(336–391)	38.9	351	A	[1987STE/MAL, 1969SOU/GOU2]
$C_3H_3N_3$	[290-87-9]	1,3,5-triazine				
	$\Delta_{trs}H$		0.07	197.7		
	$\Delta_{fus}H$		14.56	353.4		[1991ACR]
	$\Delta_{sub}H$	(212–229)	58.2	222	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		54.2 ± 0.2	298		[1982BYS]
	$\Delta_{sub}H$		56.5 ± 2.1			[1982INI/LOP]
	$\Delta_{sub}H$	(242–264)	U 43.1	253	ME	[1968MAS/RAE]
	Δ_vH	(342–373)	38.8 ± 1.9	298	CGC	[2009LIP/CHI2, 2009LIP/CHI]
$C_3H_3N_3O_2$	[461-89-2]	6-azauracil				
	$\Delta_{sub}H$			141	LE	[1974YAN/VER]
$C_3H_3N_3O_3$	[108-80-5]	cyanuric acid				
	$\Delta_{sub}H$	(440–473)	131	458	ME,TE	[1983DEW/VAN]
	$\Delta_{sub}H$		133	298		[1983DEW/VAN]
$C_3H_3N_5O_{10}$	[62626-83-9]	1,1,1,2,2-pentanitropropane				
	$\Delta_{sub}H$		77.4 ± 1.3	298		[1999MIR/VOR]
C_3H_4	[463-49-0]	allene				
	Δ_vH	(136–274)	22.6	259	A	[1987STE/MAL]
	Δ_vH	(193–246)	19.9	231	A	[1987STE/MAL]
	Δ_vH	(153–238)	21.3	223		[1947STU]
	Δ_vH	(138–189)	22.9	174		[1940LAM/ROP, 1984BOU/FRI]
	Δ_vH	(203–236)	20.9	220	MM	[1930LIV/HEI]
	Δ_vH	(200–260)	21.5	245		[1921MAA/WRI, 1984BOU/FRI]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_3H_4	[74-99-7]	1-propyne				
	$\Delta_v H$	(183–257)	23.0	242	A	[1987STE/MAL]
	$\Delta_v H$	(257–402)	20.8	272	A	[1987STE/MAL]
	$\Delta_v H$	(303–361)	21.2	318	A	[1987STE/MAL]
	$\Delta_v H$	(359–402)	21.9	374	A	[1987STE/MAL]
	$\Delta_v H$	(249–306)	23.2	264	A	[1987STE/MAL]
	$\Delta_v H$		22.1	275		[1971WIL/ZWO]
	$\Delta_v H$	(162–255)	23.9	240		[1967VAN]
	$\Delta_v H$	(323–400)	21.6	338		[1962VOH/KAN]
	$\Delta_v H$	(194–250)	23.4	235		[1933BOO/BUR, 1984BOU/FRI]
	$\Delta_v H$	(200–260)	21.4	230		[1921MAA/WRI]
$C_3H_4Br_2$	[513-31-5]	2,3-dibromopropylene				
	$\Delta_v H$	(267–415)	43.1	282	A	[1987STE/MAL, 1947STU]
$C_3H_4Br_4$	[54268-02-9]	1,2,2,3-tetrabromopropane				
	$\Delta_v H$	(418–580)	57.7	433	A	[1987STE/MAL, 1970DYK]
$C_3H_4ClFO_3$	[462-27-1]	carbonochloridic acid, 2-fluoroethyl ester				
	$\Delta_v H$	(273–333)	46.6	288	GS	[1987STE/MAL, 1948RED/CHA4, 1970DYK]
$C_3H_4ClF_3$	[460-35-5]	1-chloro-3,3,3-trifluoropropane				
	$\Delta_{trs}H$		4.49	169.8		
	$\Delta_{fus}H$		5.31	179.4		[1996DOM/HEA]
	$\Delta_v H$	(297–315)	29.9	306	A	[1987STE/MAL]
	$\Delta_v H$	(301–341)	33.7	316		[1972VAR/DRU]
$C_3H_4ClF_3O$	[425-87-6]	2-chloro-1,1,2-trifluoroethyl methyl ether				
	$\Delta_v H$		34.4 ± 0.1	298	C	[1984MAJ/UCH]
	$\Delta_v H$		33.4 ± 0.1	313	C	[1984MAJ/UCH]
	$\Delta_v H$		31.1 ± 0.1	343	C	[1984MAJ/UCH]
$C_3H_4ClF_3O_2S$	[61915-99-9]	trifluoromethanesulfinic acid, 2-chloroethyl ester				
	$\Delta_v H$	(320–403)	40.5	335	I	[1987STE/MAL, 1977BUR/SHR, 1999DYK/SVO]
$C_3H_4Cl_2F_2O$	[76-38-0]	2,2-dichloro-1,1-difluoro-1-methoxyethane				
	$\Delta_v H$	(279–378)	40.3	294	A	[1987STE/MAL]
$C_3H_4Cl_2O$	[513-88-2]	1,1-dichloroacetone				
	$\Delta_v H$	(292–382)	35.8	307	A	[1987STE/MAL, 1970SMI/THO]
$C_3H_4Cl_2O$	[534-07-6]	1,3-dichloroacetone				
	$\Delta_v H$	(348–445)	49.6	363	A	[1987STE/MAL, 1970SMI/THO]
$C_3H_4Cl_2O_2$	[116-54-1]	methyl dichloroacetate				
	$\Delta_v H$		47.7 ± 0.1	298	C	[1972LAY/WAD]
	$\Delta_v H$	(331–481)	44.9	346	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(276–416)	47.2	291		[1947STU]
$C_3H_4Cl_4$	[812-03-3]	1,1,1,2-tetrachloropropane				
	$\Delta_v H$	(331–469)	42.3	346	A	[1987STE/MAL, 1970DYK]
$C_3H_4Cl_4$	[1070-78-6]	1,1,1,3-tetrachloropropane				
	$\Delta_{trs}H$		2.2	219.9		
	$\Delta_{fus}H$		10.49	237.7		[1996DOM/HEA]
	$\Delta_v H$	(300–377)	57.8	315	A	[1987STE/MAL]
$C_3H_4Cl_4$	[13116-53-5]	1,2,2,3-tetrachloropropane				
	$\Delta_v H$	(346–415)	42.8	361	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_3H_4F_2O_2$	[432-53-4]	methyl difluoroacetate				
	$\Delta_v H$	(273–333)	41.9	288	GS	[1987STE/MAL, 1948RED/CHA4, 1970DYK]
$C_3H_4F_4O$	[32778-16-8]	2-difluoromethoxy-1,1-difluoroethane				
	$\Delta_v H$	(288–328)	32.9	303	I	[2002MUR/YAM]
$C_3H_4F_4O$	[76-37-9]	2,2,3,3-tetrafluoro-1-propanol				
	$\Delta_v H$	(303–380)	47.9	318	A	[1987STE/MAL]
	$\Delta_v H$	(298–333)	50.3	313	MM	[1973ROC/SYM]
	$\Delta_v H$	(298–333)	53.6	298	MM	[1973ROC/SYM]
$C_3H_4N_2$	[288-32-4]	imidazole				
	$\Delta_{fus}H$		12.8	361.9		[1996DOM/HEA, 1983DEW/DEK]
	$\Delta_{sub}H$	(292–309)	83.1 ± 0.2	300	ME	[1987JIM/ROU]
	$\Delta_{sub}H$		83.1 ± 0.2	298	ME	[1986JIM/ROU]
	$\Delta_{sub}H$	(288–310)	80.8	301	ME,TE	[1983DEW/VAN]
	$\Delta_{sub}H$		74.5 ± 0.4	298	C	[1980SAB2]
	$\Delta_{sub}H$		85.3	298		[1961ZIM/GEI]
$C_3H_4N_2$	[288-13-1]	pyrazole				
	$\Delta_{fus}H$		14.2	343.2		[1996DOM/HEA]
	$\Delta_{sub}H$	(268–287)	74.3 ± 0.4	275	ME	[1987JIM/ROU]
	$\Delta_{sub}H$		74.0 ± 0.4	298		[1987JIM/ROU, 1986JIM/ROU]
	$\Delta_{sub}H$	(253–273)	72.7	265	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		69.2 ± 0.3	298	C	[1980SAB2]
	$\Delta_{sub}H$		71.8			[1979DAA/VAN]
	$\Delta_{sub}H$		67.7			[1961ZIM/GEI]
$C_3H_4N_2O$	[107-91-5]	2-cyanoacetamide				
	$\Delta_{trs}H$		1.2	346.5		
	$\Delta_{fus}H$		21.7	387.3		[1996DOM/HEA]
	$\Delta_{sub}H$	(325–348)	99.7	336	TE,ME	[1983DEW/VAN]
$C_3H_4N_2O_4$	[4122-45-6]	3-nitro-2-isoxazoline-2-oxide				
	$\Delta_{sub}H$		71.1 ± 8.4			[1977PED/RYL, 1969MIR/LEB]
$C_3H_4N_4O_2$	[107945-73-3]	2-methyl-4-nitro-1,2,3-triazole				
	$\Delta_{sub}H$	(288–314)	74.6 ± 3.1	301	ME	[2008MAT/IVA]
	$\Delta_{sub}H$	(288–314)	74.7 ± 3.1	298	ME	[2008MAT/IVA]
$C_3H_4N_4O_6$	[97645-24-4]	1,3,3-trinitroazetidine				
	$\Delta_{fus}H$		29	373.8		[2003SUC/RAJ]
	$\Delta_{fus}H$		30.31	375.5		[1996ZHA/HU, 1997ZHA/HU]
	$\Delta_{sub}H$		95.3	373.8	Fus+Vap	[2003SUC/RAJ]
	$\Delta_v H$	(373–413)	66.8	393		[2003SUC/RAJ]
C_3H_4O	[107-02-8]	acrolein				
	$\Delta_v H$	(250–306)	32.3	265	A	[1987STE/MAL]
	$\Delta_v H$	(304–325)	30.9	314		[1979MAR/SAC]
	$\Delta_v H$	(208–326)	33.5	223	A	[1987STE/MAL, 1947STU]
C_3H_4O	[107-19-7]	propargyl alcohol (2-propyn-1-ol)				
	$\Delta_v H$	(293–387)	42.0	308	A	[1987STE/MAL]
$C_3H_4OS_2$	[2080-58-2]	1,3-dithiolan-2-one				
	$\Delta_{sub}H$		80.3 ± 0.4			[1973RAU/GEI, 1977PED/RYL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_3H_4O_2$	[79-10-7]	acrylic acid				
	$\Delta_{fus}H$		11.16	285.5		[1991ACR]
	Δ_vH		53.1 ± 4.2	298	C	[1996VAN/YU]
	Δ_vH		57.3	298		[1980VIL/PER]
	Δ_vH	(341–414)	45.3	356	A	[1987STE/MAL, 1973LIN/WIC]
	Δ_vH	(293–343)	32.7	308		[1964GUB/FER]
$C_3H_4O_2$	[57-57-8]	β-propiolactone (2-oxetanone)				
	$\Delta_{fus}H$		9.41	239.9		[1996DOM/HEA]
	Δ_vH	(324–435)	46.4	339	A	[1987STE/MAL]
	Δ_vH		47.0 ± 0.1	298	C	[1966BOR/NAK]
$C_3H_4O_2S$	[7285-32-7]	thiete sulfone 2*H*-thiete-1,1-dioxide)				
	$\Delta_{sub}H$		83.7 ± 2.5		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_3H_4O_3$	[96-49-1]	ethylene carbonate				
	$\Delta_{fus}H$		13.02	311.2	DSC	[2004DIN]
	$\Delta_{fus}H$		13.3	309.5		[1973VAS/KOR]
	$\Delta_{sub}H$	(273–297)	68.7	285	A	[1987STE/MAL]
	$\Delta_{sub}H$		78.5 ± 4.2			[1971CHO/JON, 1977PED/RYL]
	$\Delta_{sub}H$		73.2 ± 2.5			[1970COX/PIL, 1958HOY/PEP]
	Δ_vH	(310–369)	60.8 ± 0.1	298	GS	[2008VER/TOK]
	Δ_vH	(451.6-505)	64.0 ± 0.1	298	EB	[2004CHE/CLE, 2008VER/TOK]
	Δ_vH	(381–437)	59.6	396	A	[1987STE/MAL]
	Δ_vH	(368–449)	60.3	383	EB	[1982HON/WAK]
	Δ_vH	(368–449)	56.3	423	EB	[1982HON/WAK]
	Δ_vH	(368–433)	55.0	433	EB	[1982HON/WAK]
	Δ_vH	(382–437)	63.4 ± 0.3	298	EB	[1975PET/SAN, 2008VER/TOK]
	Δ_vH		62.4	298	EB	[1958PEP, 2008VER/TOK]
$C_3H_4O_3$	[127-17-3]	pyruvic acid				
	Δ_vH	(294–438)	51.4	309	A	[1987STE/MAL, 1947STU]
$C_3H_4O_4$	[141-82-2]	malonic acid				
	$\Delta_{fus}H$		23.1	407.5		[2004HAN/BEY]
	$\Delta_{sub}H$	(339–357)	108.9 ± 0.7	348	ME	[1999RIB/MON]
	$\Delta_{sub}H$		111.4 ± 0.7	298		[1999RIB/MON]
	$\Delta_{sub}H$	(291–320)	72.7	306	A	[1987STE/MAL, 1947GRA]
	$\Delta_{sub}H$		105.1 ± 0.8		C	[1983ALT/PIL]
$C_3H_4O_5$	[80-69-3]	tartronic acid				
	$\Delta_{sub}H$		116.4 ± 0.3		C	[1983ALT/PIL]
$C_3H_4S_3$	[822-38-8]	1,3-dithiolan-2-thione				
	$\Delta_{sub}H$	(294–303)	81.8 ± 0.8	298		[1967GEI/SCH, 1970COX/PIL]
$C_3H_4S_3$	[822-38-8]	trithiocarbonic acid, cyclic ethylene ester				
	Δ_vH	(294–303)	82.9	298		[1999DYK/SVO]
C_3H_5Br	[106-95-6]	allyl bromide				
	Δ_vH	(297–338)	32.2	312	A, EB	[1987STE/MAL, 1977SVO/MAJ]
	Δ_vH		31.7 ± 0.1	318	C	[1977SVO/MAJ]
	Δ_vH		31.0 ± 0.1	330	C	[1977SVO/MAJ]
	Δ_vH		30.4 ± 0.1	341	C	[1977SVO/MAJ]
C_3H_5Br	[590-14-7]	*cis* 1-bromopropylene				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(257–366)	32.0	272	A	[1987STE/MAL, 1970DYK]
C_3H_5Br	[590-14-7]	*trans* 1-bromopropylene				
	$\Delta_v H$	(262–372)	32.5	277	A	[1987STE/MAL, 1970DYK]
$C_3H_5Br_3$	[96-11-7]	1,2,3-tribromopropane				
	$\Delta_{fus}H$		23.78	289.4		[1991ACR]
	$\Delta_v H$	(390–595)	50.8	405	A	[1987STE/MAL]
	$\Delta_v H$	(400–478)	50.2	415		[1949DRE/SHR, 1949DRE/MAR, 1984BOU/FRI]
C_3H_5Cl	[107-05-1]	allyl chloride				
	$\Delta_v H$	(203–318)	33.1	218	A	[1987STE/MAL]
	$\Delta_v H$	(286–317)	30.0	301		[1944IOF/YAM, 1984BOU/FRI]
C_3H_5Cl	[590-21-6]	1-chloropropene				
	$\Delta_v H$	(191–310)	29.5	206		[1947STU]
C_3H_5Cl	[16136-84-8]	*cis* 1-chloropropene				
	$\Delta_v H$	(276–332)	27.9	291		[2001HOR/GAR]
	$\Delta_v H$	(237–338)	29.2	252	A	[1987STE/MAL, 1970DYK]
C_3H_5Cl	[16136-85-9]	*trans* 1-chloropropene				
	$\Delta_v H$	(277–340)	28.5	292		[2001HOR/GAR]
	$\Delta_v H$	(241–343)	29.7	256	A	[1987STE/MAL, 1970DYK]
C_3H_5Cl	[557-98-2]	2-chloropropene				
	$\Delta_v H$	(229–327)	28.0	244	A	[1987STE/MAL, 1970DYK]
C_3H_5Cl	[107-05-1]	3-chloro-1-propene				
	$\Delta_v H$	(276–320)	29.9	298		[1960DJK]
C_3H_5ClO	[106-89-8]	epichlorohydrin				
	$\Delta_v H$	(256–391)	42.9	272		[1947STU]
C_3H_5ClO	[78-95-5]	chloroacetone				
	$\Delta_v H$	(316–392)	40.1	331	A	[1987STE/MAL]
$C_3H_5ClO_2$	[96-34-4]	methyl chloroacetate				
	$\Delta_v H$		46.7 ± 0.1	298	C	[1972LAY/WAD]
	$\Delta_v H$	(318–402)	45.5	333	A	[1987STE/MAL, 1967GOE/SCH, 1984BOU/FRI]
	$\Delta_v H$	(298–403)	46.7	313		[1928NEL2, 1984BOU/FRI]
$C_3H_5ClO_2$	[541-41-3]	ethylchloroformate				
	$\Delta_v H$	(281–286)	38.7 ± 0.2	283	BG	[1980DAV/FIN]
	$\Delta_v H$	(281–286)	37.8 ± 0.2	298	BG	[1980DAV/FIN]
$C_3H_5ClO_2$	[27617-66-1]	(S) 2-chloropropionic acid				
	$\Delta_v H$	(287–328)	63.4	308	GS	[2002LAG/DIO]
	$\Delta_v H$	(287–328)	64.9 ± 0.5	298	GS	[2002LAG/DIO]
$C_3H_5Cl_3$	[7789-89-1]	1,1,1-trichloropropane				
	$\Delta_v H$	(244–382)	38.8	259	A	[1987STE/MAL, 1947STU]
$C_3H_5Cl_3$	[20395-25-9]	1,1,3-trichloropropane				
	$\Delta_v H$	(328–464)	41.8	343	A	[1987STE/MAL, 1970DYK]
$C_3H_5Cl_3$	[96-18-4]	1,2,3-trichloropropane				
	$\Delta_v H$		47.8 ± 0.1	298	C	[1989AN/HU]
	$\Delta_v H$	(337–477)	43	352	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(361–429)	43	376		[1959URB]
	$\Delta_v H$	(282–431)	46.8	297		[1947STU]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_3H_5FO	[503-09-3]	1,2-epoxy-3-fluoropropane				
	$\Delta_v H$	(273–333)	39.9	288	A, GS	[1987STE/MAL, 1948RED/CHA4, 1970DYK]
$C_3H_5FO_2$	[453-18-9]	methyl fluoroacetate				
	$\Delta_v H$	(273–333)	42.7	288	A, GS	[1987STE/MAL, 1948RED/CHA4, 1970DYK]
$C_3H_5F_3O$	[428-66-0]	1,1,2-trifluoro-1-methoxyethane				
	$\Delta_v H$	(276–317)	31.1	291	I	[2002MUR/YAM]
$C_3H_5F_3O$	[374-01-6]	1,1,1-trifluoro-2-propanol				
	$\Delta_v H$	(292–333)	44.2	307	A, MM	[1987STE/MAL, 1973ROC/SYM, 1984BOU/FRI]
	$\Delta_v H$	(294–333)	44.8	298	MM	[1973ROC/SYM]
$C_3H_5F_3O_2S$	[30957-43-8]	trifluoromethylsulfinic acid, trifluoromethyl ester				
	$\Delta_v H$		37.2	370		[1971SAU/SHR2]
$C_3H_5F_3S_2$	[691-05-4]	ethyl(trifluoromethyl) disulfide				
	$\Delta_v H$	(253–303)	33.8	268	A	[1987STE/MAL, 1999DYK/SVO]
C_3H_5N	[107-12-0]	propionitrile				
	$\Delta_{trs}H$		17.07	177		
	$\Delta_{fus}H$		5.03	180.4		[1996DOM/HEA]
	$\Delta_v H$	(310–353)	37.1 ± 0.3	298	EB	[2004ANT/GAL, 2005EME/VER]
	$\Delta_v H$	(288–371)	36.1	303	A	[1987STE/MAL]
	$\Delta_v H$	(308–363)	36.7	326	BG	[1971HAL/BAL]
	$\Delta_v H$	(189–295)	36.5	280		[1956MIL, 1984BOU/FRI]
	$\Delta_v H$	(308–370)	35.9	323		[1949DRE/SHR, 1949DRE/MAR, 1984BOU/FRI]
	$\Delta_v H$	(294–394)	36.7 ± 0.3	298	MM	[1933HEI, 2005EME/VER]
C_3H_5NO	[79-06-1]	acrylamide				
	$\Delta_{fus}H$		15.33	358		[1996DOM/HEA]
	$\Delta_{sub}H$	(303–358)	81.8	330		[1957CAR/DAV]
	$\Delta_v H$	(357–413)	61.5	372	A	[1987STE/MAL]
	$\Delta_v H$	(373–413)	76.5	388	A	[1987STE/MAL]
C_3H_5NO	[1738-36-9]	methoxyacetonitrile				
	$\Delta_v H$	(285–316)	41.7 ± 0.6	298	GS	[1995VER/BEC]
C_3H_5NO	[109-78-4]	2-cyanoethanol				
	$\Delta_v H$	(306–361)	62.3 ± 0.5	298	GS	[2007ROU/NOT]
	$\Delta_v H$	(331–494)	53.4	346	A	[1987STE/MAL]
C_3H_5NO	[5314-33-0]	2-propenal oxime				
	$\Delta_v H$	(303–381)	42.2	318	A	[1987STE/MAL]
C_3H_5NO	[930-21-2]	2-azetidinone				
	$\Delta_{sub}H$		77.4 ± 0.3	298	ME	[1996ROU/JIM2]
C_3H_5NOS	[5840-81-3]	2-mercapto-2-oxazoline				
	$\Delta_{fus}H$		15.9	370	DSC	[2008TEM/ROU3]
	$\Delta_{sub}H$	(325–354)	104.3 ± 4.4	340	ME	[2009ROU/TEM]
	$\Delta_{sub}H$	(325–354)	105.0 ± 4.4	298	ME	[2009ROU/TEM]
$C_3H_5NO_2$	[3156-70-5]	1-nitropropylene				
	$\Delta_v H$	(301–373)	37.1	337		[1984BOS/TUR]
	$\Delta_v H$	(273–333)	44.1	288	A	[1987STE/MAL, 1970DYK]
$C_3H_5NO_2$	[4749-28-4]	2-nitropropylene				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(273–333)	38.2	288	A	[1987STE/MAL, 1970DYK]
$C_3H_5NO_2$	[497-25-6]	dimethylene urethane (2-oxazolidinone)				
	$\Delta_{fus}H$		17.3	360		[2004SMI/MAR]
C_3H_5NS	[542-85-8]	ethyl isothiocyanate				
	$\Delta_v H$	(283–404)	40.2	298	A	[1987STE/MAL]
	$\Delta_v H$	(283–323)	39.8	298		[1935BAU/BUR, 1984BOU/FRI]
C_3H_5NS	[542-90-5]	ethyl thiocyanate				
	$\Delta_v H$	(358–422)	44.2	373	A	[1987STE/MAL, 1999DYK/SVO]
$C_3H_5NS_2$	[96-53-7]	2-mercapto-2-thiazoline				
	$\Delta_{fus}H$		16.8	377	DSC	[2008TEM/ROU3]
	$\Delta_{sub}H$	(333–351)	99.8 ± 3.4	342	ME	[2009ROU/TEM]
	$\Delta_{sub}H$	(333–351)	100.5 ± 3.4	298	ME	[2009ROU/TEM]
$C_3H_5N_3O_9$	[55-63-0]	glycerol trinitrate				
	$\Delta_{fus}H$		21.87	285.5		[1991ACR]
	$\Delta_v H$	(293–373)	104.5	308	A	[1987STE/MAL]
	$\Delta_v H$	(400–524)	58.6	415		[1947STU]
C_3H_5P	[114596-02-0]	2-propynylphosphine				
	$\Delta_v H$	(228–273)	36.8	250		[1988SHA/DIE]
C_3H_6	[75-19-4]	cyclopropane				
	$\Delta_{fus}H$		5.44	145.6		[1996DOM/HEA]
	$\Delta_{sub}H$		29.2	145	B	[1963BON]
	$\Delta_{sub}H$	(115–141)	28.2	128	A,MS	[1951TIC/LOS]
	$\Delta_v H$	(195–225)	21.8	210		[1997CAL/FIL]
	$\Delta_v H$	(358–398)	20.4	373	A	[1987STE/MAL]
	$\Delta_v H$	(297–359)	19.9	312	A	[1987STE/MAL]
	$\Delta_v H$	(188–239)	20.3	224	A	[1987STE/MAL]
	$\Delta_v H$	(239–298)	19.9	254	A	[1987STE/MAL]
	$\Delta_v H$		17.02	298		[1970LIN/SIL]
	$\Delta_v H$	(183–241)	21.1	226		[1946RUE/POW, 1984BOU/FRI]
C_3H_6	[115-07-1]	propylene				
	$\Delta_{fus}H$		2.93	88.2		[1996DOM/HEA]
	$\Delta_v H$	(297–363)	18.7	312	A	[1987STE/MAL]
	$\Delta_v H$	(104–161)	22.2	146	A	[1987STE/MAL]
	$\Delta_v H$	(228–271)	18.7	256	A	[1987STE/MAL]
	$\Delta_v H$	(270–327)	18.5	285	A	[1987STE/MAL]
	$\Delta_v H$	(325–363)	18.8	340	A	[1987STE/MAL]
	$\Delta_v H$	(161–242)	19.2	227	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(298–423)	18.7	360		[1953MIC/WAS]
	$\Delta_v H$	(166–226)	19.6	211		[1939POW/GIA]
	$\Delta_v H$	(236–283)	19.3	268		[1921MAA/WRI, 1984BOU/FRI]
C_3H_6BrCl	[109-70-6]	1-bromo-3-chloropropane				
	$\Delta_v H$	(326–488)	42.0	341	A	[1987STE/MAL, 1970DYK]
C_3H_6BrNO	[7119-91-7]	2-bromo-2-nitrosopropane				
	$\Delta_v H$	(239–356)	41.0	254	A	[1987STE/MAL, 1970DYK]
$C_3H_6Br_2$	[598-17-4]	1,1-dibromopropane				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(322–449)	42.5	337	A, E	[1987STE/MAL, 1956MAN, 1970DYK]
$C_3H_6Br_2$	[78-75-1]	1,2-dibromopropane				
	$\Delta_v H$	(312–403)	41.4	327	A	[1987STE/MAL]
	$\Delta_v H$	(310–400)	42.2	298		[1991BAS/SVO, 1975PIS/ROZ2]
	$\Delta_v H$		42.3 ± 0.7	298	EB	[1975PIS/ROZ]
	$\Delta_v H$	(329–456)	44.6	344	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(266–415)	42.8	281		[1947STU]
$C_3H_6Br_2$	[109-64-8]	1,3-dibromopropane				
	$\Delta_{fus}H$		14.64	238.6		[1996DOM/HEA]
	$\Delta_v H$		47.6	298	GC	[1994CAR/LAY]
	$\Delta_v H$		47.3 ± 0.1	308	C	[1992SVO/KUB2]
	$\Delta_v H$		46.7 ± 0.1	315	C	[1992SVO/KUB2]
	$\Delta_v H$		46.1 ± 0.1	323	C	[1992SVO/KUB2]
	$\Delta_v H$		45.5 ± 0.1	330	C	[1992SVO/KUB2]
	$\Delta_v H$		44.8 ± 0.1	338	C	[1992SVO/KUB2]
	$\Delta_v H$	(307–437)	46.6	322	A	[1987STE/MAL]
	$\Delta_v H$	(351–487)	47.8	366	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$	(283–440)	45.3	298		[1947STU]
$C_3H_6Br_2O$	[96-13-9]	2,3-dibromo-1-propanol				
	$\Delta_v H$	(330–492)	57.3	345	A	[1987STE/MAL, 1947STU]
$C_3H_6ClNO_2$	[594-71-8]	2-chloro-2-nitropropane				
	$\Delta_{trs}H$		9.54	213.8		
	$\Delta_{fus}H$		1.34	261.6		[1996DOM/HEA]
$C_3H_6Cl_2$	[78-99-9]	1,1-dichloropropane				
	$\Delta_v H$		35.2 ± 0.4	298	C	[2007VAR/DRU]
	$\Delta_v H$	(310–360)	35.2	298		[1967HAC/MAT, 1991BAS/SVO]
	$\Delta_v H$	(282–399)	35.5	297	A, E	[1987STE/MAL, 1956MAN, 1970DYK]
$C_3H_6Cl_2$	[78-87-5]	1,2-dichloropropane				
	$\Delta_{fus}H$		6.4	172.7		[1991ACR]
	$\Delta_v H$	(303–368)	36.3 ± 0.5	298		[2007VAR/DRU]
	$\Delta_v H$		36.2 ± 0.1	298	C	[2007VAR/DRU]
	$\Delta_v H$	(294–406)	38.4 ± 0.3	298	EB	[1997STE/CHI3]
	$\Delta_v H$	(300–370)	36.3	298		[1991BAS/SVO]
	$\Delta_v H$		36.1 ± 0.1	298	C	[1989AN/HU]
	$\Delta_v H$	(239–373)	39.4	254	A	[1987STE/MAL]
	$\Delta_v H$	(321–369)	34.7	336		[1949DRE/SHR, 1949DRE/MAR]
	$\Delta_v H$	(288–373)	34.3	303		[1933NEL/YOU]
$C_3H_6Cl_2$	[142-28-9]	1,3-dichloropropane				
	$\Delta_v H$		41.0	298	GC	[1994CAR/LAY]
	$\Delta_v H$	(330–400)	41.0	298		[1987VAR/LOS, 1991BAS/SVO]
	$\Delta_v H$		40.6 ± 0.1	298	C	[1989AN/HU]
	$\Delta_v H$	(307–435)	39	322	A	[1987STE/MAL, 1970DYK]
$C_3H_6Cl_2$	[594-20-7]	2,2-dichloropropane				
	$\Delta_{trs}H$		0.01	171.6		
	$\Delta_{trs}H$		0.73	188.2		
	$\Delta_{fus}H$		10.0	239.6		[1999KOB/OGU]
	$\Delta_{trs}H$		5.98	188		
	$\Delta_{fus}H$		2.34	239.3		[1996DOM/HEA]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(295–340)	32.1	298	A	[1987VAR/LOS, 1991BAS/SVO]
	$\Delta_v H$	(267–378)	33.2	282	A	[1987STE/MAL, 1970DYK]
$C_3H_6Cl_2O$	[616-23-9]	2,3-dichloro-1-propanol				
	$\Delta_v H$	(384–419)	48.5	399	A	[1987STE/MAL]
$C_3H_6Cl_2O$	[96-23-1]	1,3-dichloro-2-propanol				
	$\Delta_v H$	(301–448)	50.4	316	A	[1987STE/MAL, 1947STU]
$C_3H_6F_2$	[430-81-5]	1,1-difluoropropane				
	$\Delta_v H$	(219–311)	27.2	234	A, E	[1987STE/MAL, 1956MAN, 1970DYK]
$C_3H_6F_2$	[420-45-1]	2,2-difluoropropane				
	$\Delta_v H$	(211–302)	25.6	226	A	[1987STE/MAL, 1970DYK]
$C_3H_6F_2O$	[461-57-4]	1,1-difluoro-2-methoxyethane				
	$\Delta_v H$	(288–322)	31.8	303	I	[2002MUR/YAM]
$C_3H_6F_3NS$	[62067-13-4]	N,N-dimethyl-trifluoromethanesulfenamide				
	$\Delta_v H$	(223–295)	30.2	259		[1960EME/NAB]
$C_3H_6F_3NS$	[62067-13-4]	dimethyl(trifluoromethylthio)amine				
	$\Delta_v H$	(273–329)	31.1	288	A	[1987STE/MAL, 1999DYK/SVO]
$C_3H_6F_3OP$	[26348-84-5]	methyl(trifluoromethyl)phosphinous acid, methyl ester				
	$\Delta_v H$	(232–285)	33.9	258		[1970BUR/KAN]
$C_3H_6F_3OP$	[26348-91-4]	dimethyl(trifluoromethyl)phosphine oxide				
	$\Delta_v H$	(347–360)	52.4	358		[1970BUR/KAN]
$C_3H_6F_3O_2P$	[684-56-0]	(trifluoromethyl)phosphonic acid, dimethyl ester				
	$\Delta_v H$	(237–318)	37.4	252	A	[1987STE/MAL, 1961BUR/GRI]
$C_3H_6F_3PS$	[26348-86-7]	methyl(trifluoromethyl)phosphinothious acid, methyl ester				
	$\Delta_v H$	(273–313)	38.4	293		[1970BUR/KAN]
$C_3H_6F_3PS$	[26348-92-5]	dimethyl(trifluoromethyl)phosphine sulfide				
	$\Delta_{sub} H$	(300–320)	68.0	310		[1970BUR/KAN]
	$\Delta_v H$	(323–357)	47.2	340		[1970BUR/KAN]
$C_3H_6I_2$	[627-31-6]	1,3-diiodopropane				
	$\Delta_v H$		54.1	298	GC	[1994CAR/LAY]
$C_3H_6N_2O$	[120-93-4]	2-imadazolidinone				
	$\Delta_{trs} H$		3.6	344.6		
	$\Delta_{fus} H$		11.5	401.2		[2008RIB/RIB]
	$\Delta_{trs} H$		3.27	344		
	$\Delta_{fus} H$		5.11	397.3	DSC	[1984WEI/LEF]
	$\Delta_{sub} H$	(327–349)	96.6 ± 0.8	298	ME	[2008RIB/RIB]
	$\Delta_{sub} H$		83.7	298		[1999DEF/DEO]
$C_3H_6N_2O_2$	[591-07-1]	acetylurea				
	$\Delta_{sub} H$	(360–407)	102.4 ± 0.7	383		[1988IMA/MUR]
	$\Delta_{sub} H$		103.1 ± 0.7	298		[1988IMA/MUR]
	$\Delta_{sub} H$		103.1 ± 0.7	298	C	[1985MUR/SAK]
$C_3H_6N_2O_2$	[108-13-4]	malonamide				
	$\Delta_{trs} H$		1.89	418.9		
	$\Delta_{fus} H$		29.85	444.2	DSC	[2006BAD/DEL]
	$\Delta_{trs} H$		1.9	393		

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		35.8	443		[1996DOM/HEA]
	$\Delta_{sub}H$		126.4 ± 0.5		C	[1989IMA/TAK]
$C_3H_6N_2O_4$	[601-76-3]	1,1-dinitropropane				
	Δ_vH	(323–383)	57.9	338	A	[1987STE/MAL]
$C_3H_6N_2O_4$	[595-49-3]	2,2-dinitropropane				
	$\Delta_{trs}H$		11.28	267.7		
	$\Delta_{trs}H$		1.87	259.7		
	$\Delta_{fus}H$		2.64	324.5		[1996DOM/HEA]
	Δ_vH	(363–553)	46.3	378	A	[1987STE/MAL]
$C_3H_6N_2O_5$	[918-52-5]	2,2-dinitro-1-propanol				
	$\Delta_{trs}H$		15.06	281.7		
	$\Delta_{fus}H$		2.85	366.7		[1969ROS/HOL]
$C_3H_6N_2O_6$	[6423-43-4]	1,2-propanediol dinitrate				
	Δ_vH	(288–328)	63.8	303	A	[1987STE/MAL, 1970DYK]
$C_3H_6N_2O_6$	[3457-90-7]	1,3-propanediol dinitrate				
	Δ_vH	(293–313)	74.3 ± 4.6	303	A, GS	[1987STE/MAL, 1957KEM/GOL]
$C_3H_6N_2O_6$	[2736-80-3]	2,2-dinitro-1,3-propanediol				
	$\Delta_{trs}H$		21.34	341.2		[1969ROS/HOL]
		Note: decomposes before melting.				
$C_3H_6N_4$	[5144-11-6]	1,5-dimethyltetrazole				
	$\Delta_{fus}H$		14.7	349		[1990KOZ/SIM3]
	$\Delta_{sub}H$	(303–343)	86.2 ± 1.0		ME	[1990KOZ/SIM]
$C_3H_6N_4$	[4135-93-7]	2,5-dimethyltetrazole				
	$\Delta_{fus}H$		13.5	256.4		[1990KOZ/SIM3]
$C_3H_6N_4O_4$	[5754-91-6]	1,3-dinitro-1,3-diazacyclopentane				
	$\Delta_{fus}H$		25.08	410		[1996DOM/HEA]
$C_3H_6N_6$	[108-78-1]	2,4,6-triamino-s-triazine (melamine)				
	$\Delta_{sub}H$	(417–614)	121.3 ± 4.2	515	GS	[1960HIR/STE, 1970COX/PIL]
	$\Delta_{sub}H$	(417–447)	123.3	432	A	[1987STE/MAL]
$C_3H_6N_6O_3$	[13980-04-6]	1,3,5-trinitroso-1,3,5-triazacyclohexane				
	$\Delta_{trs}H$		17.78	367		
	$\Delta_{fus}H$		3.77	376		[1996DOM/HEA]
	$\Delta_{sub}H$	(343–447)	134.3 ± 0.7	298	ME	[1978CUN/PAL]
	$\Delta_{sub}H$	(383–411)	112.1		ME	[1974PEP/MAT]
	$\Delta_{sub}H$		112.1			[1953EDW, 1960JON]
$C_3H_6N_6O_5$	[5755-27-1]	1,3-dinitro-5-nitroso-1,3,5-triazacyclohexane				
	$\Delta_{fus}H$		25.97	446		[1987OYU/BRI]
$C_3H_6N_6O_6$	[121-82-4]	hexahydro-1,3,5-trinitro-1,3,5-triazine				
	$\Delta_{fus}H$		37.66	478.2		[1996DOM/HEA]
	$\Delta_{sub}H$		134.3	298		[1978CUN/PAL]
	$\Delta_{sub}H$	(325–360)	112.5 ± 0.8		ME	[1974PEP/MAT]
	$\Delta_{sub}H$	(329–371)	130.1	350		[1969ROS/DIC]
	Δ_vH	(503–523)	84.4	513	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_3H_6O	[107-18-6]	2-propen-1-ol				
	$\Delta_v H$	(311–355)	46.1	298	EB	[2004LUB/MAL]
	$\Delta_v H$	(323–373)	47.3	298	CGC	[1995CHI/HOS]
C_3H_6O	[503-30-0]	oxetane				
	$\Delta_v H$		29.8	298	C	[1981HOS/SCO]
C_3H_6O	[67-64-1]	acetone				
	$\Delta_{fus}H$		5.72	176.6		[1996DOM/HEA]
	$\Delta_v H$	(298–318)	32.1	308		[2008SON/RAM]
	$\Delta_v H$	(329–488)	29.9	344	A	[1987STE/MAL]
	$\Delta_v H$	(178–243)	32.9	228	A	[1987STE/MAL]
	$\Delta_v H$	(203–269)	33.8	254	A	[1987STE/MAL]
	$\Delta_v H$	(323–379)	30.6	338	A	[1987STE/MAL]
	$\Delta_v H$	(374–464)	29.5	389	A	[1987STE/MAL]
	$\Delta_v H$	(457–508)	29.7	472	A	[1987STE/MAL]
	$\Delta_v H$		26.1	373	C	[1986DMI/KAC]
	$\Delta_v H$		21.7	423	C	[1986DMI/KAC]
	$\Delta_v H$		15.3	473	C	[1986DMI/KAC]
	$\Delta_v H$		9.2	498	C	[1986DMI/KAC]
	$\Delta_v H$	(285–329)	31.9	300	EB	[1986BAL/GNA]
	$\Delta_v H$	(305–333)	31.8	319		[1984CAS/FRA3]
	$\Delta_v H$	(259–351)	32.8	274	A	[1987STE/MAL, 1974AMB/SPR2, 1975AMB/ELL]
	$\Delta_v H$		31.3	298		[1975AMB/ELL]
	$\Delta_v H$	(261–328)	32.7	276	A, EB	[1987STE/MAL, 1972BOU/AIM]
	$\Delta_v H$	(278–293)	32.6	285		[1963SOK/ZHI]
	$\Delta_v H$	(310–329)	31.1	319		[1957BRO/SMI]
	$\Delta_v H$	(204–339)	35	253	MG	[1926FEL/DUR]
	$\Delta_v H$	(204–339)	32.1	293	MG	[1926FEL/DUR]
	$\Delta_v H$	(204–339)	30.7	313	MG	[1926FEL/DUR]
C_3H_6O	[107-18-6]	allyl alcohol				
	$\Delta_v H$	(310–340)	44.6	325		[2002LUB/BAN]
	$\Delta_v H$	(253–370)	46.7	268	A	[1987STE/MAL]
	$\Delta_v H$				NA	[1936EWE]
	$\Delta_v H$	(283–313)	44.8	298		[1935BAU/BUR]
C_3H_6O	[107-25-5]	methyl vinyl ether				
	$\Delta_v H$	(278–412)	23.4	293	A	[1987STE/MAL]
C_3H_6O	[503-30-3]	trimethylene oxide				
	$\Delta_{fus}H$	(85–270)	6.27	173.2		[1985HAN]
C_3H_6O	[123-38-6]	propanal				
	$\Delta_{fus}H$		8.59	171.3		[1996DOM/HEA]
	$\Delta_v H$	(263–373)	31.5	278		[1977KIM/KIM]
	$\Delta_v H$	(286–321)	30.5	301		[1974AMB/SPR]
	$\Delta_v H$		28.3	321		[1972COU/LEE]
	$\Delta_v H$		29.4	303		[1972COU/LEE]
	$\Delta_v H$		30.3	286		[1972COU/LEE]
	$\Delta_v H$		29.6	298		[1972COU/LEE]
	$\Delta_v H$	(290–322)	30.3	305	A	[1987STE/MAL, 1970DYK]
	$\Delta_v H$		29.7 ± 0.4	298	EB	[1967BUC/COX, 2003VER/KRA2]
	$\Delta_v H$		30.0	298	EB	[1962TJE2, 2003VER/KRA2]
	$\Delta_v H$	(250–330)	31.9	265	EB	[1987STE/MAL, 1951SMI/BON]
C_3H_6O	[75-56-9]	propylene oxide				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		6.57	161.3		[1996DOM/HEA]
	Δ_vH	(225–308)	31.6	240	A	[1987STE/MAL, 1970DYK]
	Δ_vH	(292–345)	28.5	307		[1966BOT/ADL]
	Δ_vH		27.9	298	C	[1962SIN/HIL]
	Δ_vH	(249–308)	30.1	264		[1959MCD/SHR]
	Δ_vH	(285–322)	28.2	303		[1937MOO/KAN]
	Δ_vH	(243–306)	32.9	273		[1935KIR/POP]
$C_3H_6O_2$	[646-06-0]	1,3-dioxolane				
	$\Delta_{trs}H$		2.68	142.4		
	$\Delta_{fus}H$		6.57	175.9		[1996DOM/HEA]
	Δ_vH	(305–347)	34.6	326	A	[1989WU/SAN]
	Δ_vH	(280–323)	35.8	295	A	[1987STE/MAL]
	Δ_vH	(321–357)	33.7	339		[1982CAS/FRA]
	Δ_vH	(306–346)	33.7	326		[1980FRA/CAS]
	Δ_vH	(280–355)	34.1	296		[1968CHE/TUR, 1984BOU/FRI]
	Δ_vH		35.6 ± 0.4			[1959FLE/MOR]
$C_3H_6O_2$	[109-94-4]	ethyl formate				
	Δ_vH	(300–326)	31.4	313		[1993FAR/WIC]
	Δ_vH	(327–498)	29.9	342	A	[1987STE/MAL]
	Δ_vH		31.6 ± 0.1	304	C	[1976CIH/HYN]
	Δ_vH		30.9 ± 0.1	313	C	[1976CIH/HYN]
	Δ_vH		29.8 ± 0.1	328	C	[1976CIH/HYN]
	Δ_vH	(213–336)	35.8	228	A	[1987STE/MAL, 1970DYK]
$C_3H_6O_2$	[79-20-9]	methyl acetate				
	$\Delta_{fus}H$		7.49	174.9		[1992OKA/OGU]
	Δ_vH	(260–351)	34.1	275	A	[1987STE/MAL]
	Δ_vH		32.3 ± 0.1	298	C	[1980SVO/UCH]
	Δ_vH		29.5 ± 0.1	343	C	[1980SVO/UCH]
	Δ_vH	(308–338)	31.8	323	DTA	[1980MEY/AWE]
	Δ_vH		32.6 ± 0.1	298	C	[1979SUN/SVE2]
	Δ_vH		32.2 ± 0.1	304	C	[1977SVO/VES]
	Δ_vH		31.6 ± 0.1	313	C	[1977SVO/VES]
	Δ_vH		30.5 ± 0.1	328	C	[1977SVO/VES]
	Δ_vH		30.3 ± 0.1	331	C	[1977SVO/VES]
	Δ_vH		32.5	295		[1976CON/COU]
	Δ_vH		30.2	330		[1976CON/COU]
	Δ_vH	(273–318)	34.5	296	BG	[1971HAL/BAL]
	Δ_vH	(274–329)	33.4	289	A	[1987STE/MAL, 1965MER/POL, 1970DYK]
$C_3H_6O_2$	[79-09-4]	propionic acid				
	$\Delta_{fus}H$		10.66	252.7		[1996DOM/HEA, 1982MAR/AND]
	$\Delta_{sub}H$	(225–238)	74.1 ± 1	233	TE	[1978CAL/CAL]
	$\Delta_{sub}H$		73.2 ± 1	233	ME	[1978CAL/CAL]
	Δ_vH	(303–378)	54.4	298	CGC	[2000VER]
	Δ_vH	(353–393)	54.9	298	CGC	[1995CHI/HOS]
	Δ_vH	(343–419)	47.0	358	A	[1987STE/MAL]
	Δ_vH	(414–511)	60.6	429	A	[1987STE/MAL]
	Δ_vH	(345–401)	46.4	360	A	[1987STE/MAL]
	Δ_vH		56.0	303		[1983TAM/DRA]
	Δ_vH (monomer)		31.1 ± 0.1	298	C	[1970KON/WAD]
	Δ_vH		55 ± 2	298	C	[1970KON/WAD]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(328–437)	48.3	343		[1981AMB/ELL]
$(C_3H_6O_2)_2$	[32574-16-6]	propionic acid dimer				
	$\Delta_{sub}H$	(225–238)	81.3 ± 1	233	TE	[1978CAL/CAL]
	$\Delta_{sub}H$		79.4 ± 1.0	233	ME	[1978CAL/CAL]
$C_3H_6O_2$	[116-09-6]	hydroxyacetone				
	$\Delta_v H$	(296–356)	42 ± 3	326		[2010PET/REY]
$C_3H_6O_2S$	[107-96-0]	β-thiolactic acid				
	$\Delta_{fus}H$		16.97	291.9		[1996DOM/HEA]
$C_3H_6O_3$	[625-45-6]	2-methoxyacetic acid				
	$\Delta_v H$	(325–477)	54.5	340	A	[1987STE/MAL, 1947STU]
$C_3H_6O_3$	[96-35-5]	methyl glycolate				
	$\Delta_{fus}H$		11.4	272.8		[2000JAR/MAR]
	$\Delta_v H$	(326–381)	52.5 ± 6.3	298	EB	[1996STE/CHI2]
	$\Delta_v H$	(282–425)	47.4	297	A	[1987STE/MAL, 1947KET/VAN]
$C_3H_6O_3$	[616-38-6]	dimethylcarbonate				
	$\Delta_{trs}H$		NA	220.1		
	$\Delta_{fus}H$		11.58	278.2		[2004DIN]
	$\Delta_v H$	(274–304)	38.0 ± 0.2	298	GS	[2008KOZ/EME]
	$\Delta_v H$	(326–411)	36.4	341		[2002ROD/CAN]
	$\Delta_v H$	(311–397)	37.7 ± 0.2	298	EB	[1997STE/CHI4, 1997STE/CHI2]
$C_3H_6O_3$	[4212-43-5]	peroxypropionic acid				
	$\Delta_v H$	(273–393)	43.2	288	A	[1987STE/MAL, 1951EGE/EMT, 1970DYK]
$C_3H_6O_3$	[38787-96-1]	propylene ozonide				
	$\Delta_v H$	(261–296)	36.9	281	A	[1987STE/MAL, 1956GAR/SCH]
$C_3H_6O_3$	[110-88-3]	1,3,5-trioxane				
	$\Delta_{fus}H$		15.1	333.4		[1996DOM/HEA, 1991ACR]
	$\Delta_{sub}H$	(212–231)	57.9	223	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		55.6	298		[1983DEW/VAN]
	$\Delta_{sub}H$		56.5	298	C	[1975BOG/BER]
	$\Delta_{sub}H$		56.2 ± 0.2	298	C	[1969MAN/MOR, 1977PED/RYL]
	$\Delta_v H$	(329–386)	40.0	344	A	[1987STE/MAL, 1965SER/BYK]
$C_3H_6O_3$	[50-21-5]	(*dl*) lactic acid				
	$\Delta_{fus}H$		11.34	289.9		[1996DOM/HEA]
C_3H_6S	[1072-43-1]	2-methylthiirane				
	$\Delta_v H$	(272–423)	34.6	287	A	[1987STE/MAL, 1970DYK, 1999DYK/SVO]
C_3H_6S	[287-27-4]	thiacyclobutane (thietane)				
	$\Delta_{trs}H$		0.67	176.7		
	$\Delta_{fus}H$		8.24	199.9		[1996DOM/HEA]
	$\Delta_v H$	(275–393)	36.5	290		[1999DYK/SVO]
	$\Delta_v H$		35.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(321–404)	34.6	336	A, EB	[1987STE/MAL, 1953SCO/FIN, 1966OSB/DOU]
$C_3H_6S_3$	[291-21-4]	1,3,5-trithiane				
	$\Delta_{fus}H$		32.2	488.4		[2002VAN/VAN2]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		93.2 ± 0.2	298	ME	[2001ROU/JIM]
	$\Delta_{sub}H$	(320–339)	91.5	331	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		93.9	298		[1983DEW/VAN]
C_3H_7Br	[106-94-5]	1-bromopropane				
	Δ_vH	(301–344)	31.8	316	A, EB	[1987STE/MAL, 1977SVO/MAJ]
	Δ_vH		31.1 ± 0.1	322	C	[1977SVO/MAJ]
	Δ_vH		30.5 ± 0.1	332	C	[1977SVO/MAJ]
	Δ_vH		30.1 ± 0.1	339	C	[1977SVO/MAJ]
	Δ_vH		29.3 ± 0.1	352	C	[1977SVO/MAJ]
	Δ_vH		31.9 ± 0.1	298	C	[1966WAD]
	Δ_vH	(250–368)	34.1	265	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK]
	Δ_vH	(220–344)	35.5	235		[1947STU]
	Δ_vH	(273–303)	32.6	288		[1906REX, 1984BOU/FRI]
C_3H_7Br	[75-26-3]	2-bromopropane				
	$\Delta_{fus}H$		6.55	184.1		[1996DOM/HEA]
	Δ_vH	(323–363)	30.6	298	CGC	[1995CHI/HOS]
	Δ_vH	(236–328)	32.1	251	A	[1987STE/MAL]
	Δ_vH	(299–332)	30.1	314	EB	[1987STE/MAL, 1977SVO/MAJ]
	Δ_vH		29.8 ± 0.1	305	C	[1977SVO/MAJ]
	Δ_vH		29.2 ± 0.1	318	C	[1977SVO/MAJ]
	Δ_vH		28.5 ± 0.1	330	C	[1977SVO/MAJ]
	Δ_vH		28.0 ± 0.1	338	C	[1977SVO/MAJ]
	Δ_vH		30.2 ± 0.1	298	C	[1966WAD]
	Δ_vH	(211–333)	33.4	226		[1947STU]
	Δ_vH	(273–303)	30.9	288		[1906REX, 1984BOU/FRI]
C_3H_7Cl	[540-54-5]	1-chloropropane				
	Δ_vH	(250–320)	29.0	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH		28.5 ± 0.2	298	C	[1977MAN/SEL]
	Δ_vH	(248–320)	31.0	263	A	[1987STE/MAL, 1969KEM/KRE, 1970DYK]
	Δ_vH	(205–319)	33.1	219		[1947STU]
C_3H_7Cl	[75-29-6]	2-chloropropane				
	$\Delta_{fus}H$		7.39	156		[1991ACR]
	Δ_vH	(239–310)	30.2	254	A	[1987STE/MAL]
	Δ_vH	(271–312)	27.6	298		[1960DJK]
	Δ_vH	(194–309)	30.6	209		[1947STU]
	Δ_vH	(273–303)	27.3	288		[1906REX, 1984BOU/FRI]
C_3H_7ClO	[127-00-4]	1-chloro-2-propanol				
	Δ_vH	(308–399)	45.0 ± 2.2	340	EB	[2002STE/CHI]
	Δ_vH	(308–399)	42.2 ± 1.9	380	EB	[2002STE/CHI]
C_3H_7ClO	[78-89-7]	2-chloro-1-propanol				
	Δ_vH	(316–399)	45.0	331	A	[1987STE/MAL]
$C_3H_7ClO_2$	[96-24-2]	3-chloro-1,2-propanediol				
	Δ_vH	(343–409)	66.6	358		[1996GIL/WIL]
$C_3H_7ClO_2S$	[10147-36-1]	1-propanesulfonyl chloride				
	Δ_vH	(273–362)	52.3	288		[1999DYK/SVO]
	Δ_vH	(362–464)	49.9	377		[1999DYK/SVO]
	Δ_vH	(243–273)	60.1	258	A	[1987STE/MAL, 1999DYK/SVO]
C_3H_7ClS	[na]	methyl(2-chloroethyl) sulfide				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(293–333)	42.4	308	A, GS	[1987STE/MAL, 1948RED/CHA, 1970DYK]
C_3H_7F	[460-13-9]	1-fluoropropane				
	$\Delta_v H$	(196–289)	24.0	274	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK]
C_3H_7F	[420-26-8]	2-fluoropropane				
	$\Delta_v H$	(190–264)	23.7	249	A	[1987STE/MAL]
C_3H_7I	[107-08-4]	1-iodopropane				
	$\Delta_v H$	(171–271)	37.8	256	A	[1987STE/MAL]
	$\Delta_v H$		36.3 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$	(271–402)	36.8	286	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK]
	$\Delta_v H$	(237–375)	37.0	252		[1947STU]
C_3H_7I	[75-30-9]	2-iodopropane				
	$\Delta_v H$	(313–353)	34.0	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(173–262)	36.7	247	A	[1987STE/MAL]
	$\Delta_v H$		34.1 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$	(230–363)	36.3	244		[1947STU]
C_3H_7N	[765-30-0]	cyclopropylamine				
	$\Delta_{fus}H$		13.18	237.8		[1991ACR]
	$\Delta_v H$		31.3 ± 0.4	298	EB	[1971GOO/MOO]
C_3D_7N	[153557-96-1]	perdeuterocyclopropylamine				
	$\Delta_v H$	(283–336)	32.0	298		[1993WOL/KIM]
C_3H_7N	[107-11-9]	allylamine				
	$\Delta_v H$	(273–303)	33.0	288	A	[1987STE/MAL]
	$\Delta_v H$	(273–324)	32.6	288	A	[1987STE/MAL]
C_3H_7N	[503-29-7]	azetidine				
	$\Delta_v H$	(273–303)	32.6	288	A	[1987STE/MAL]
C_3H_7NO	[127-06-0]	acetone oxime				
	$\Delta_{sub}H$	(313–333)	59.6	323	I	[1987STE/MAL, 1975MES/BAE]
	$\Delta_v H$	(338–352)	51.4	345	A	[1987STE/MAL]
C_3H_7NO	[79-05-0]	propionamide				
	$\Delta_{fus}H$		12.9	352.6		[2008ABA/BAD]
	$\Delta_{fus}H$		12.9	352.6		[2000BRU/DEL]
	$\Delta_{sub}H$	(283–343)	75 ± 4.0	298	TE	[2000BRU/DEL]
	$\Delta_{sub}H$		79.2 ± 0.3			[1975BAR/PIL, 1977PED/RYL]
	$\Delta_{sub}H$		73.3			[1960THO]
	$\Delta_{sub}H$	(318–346)	79.1 ± 0.4		GS	[1959DAV/JON2]
	$\Delta_v H$	(375–476)	63.9	390	EB	[2004HOR/FIS]
	$\Delta_v H$	(338–486)	60.3	353		[1947STU]
C_3H_7NO	[68-12-2]	N,N-dimethylformamide				
	$\Delta_{fus}H$		8.95	212.9	AC	[2007SMI/TSV]
	$\Delta_{fus}H$		8.95	212.9		[1996DOM/HEA]
	$\Delta_v H$	(463–513)	46.7 ± 0.5	298	CGC	[2009PAN/ANT]
	$\Delta_v H$	(346–425)	43.1	361		[2005MUN/MON]
	$\Delta_v H$	(377–426)	41.8	392		[1997BLA/BEL]
	$\Delta_v H$	(338–425)	43.6	353		[1995MAR/GAB]
	$\Delta_v H$	(301–426)	49.2	316	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		46.9	298	A	[1985BAR/CAS, 1985MAJ/SVO]
	$\Delta_v H$	(318–423)	42.5	370		[1979BLU/BAE]
	$\Delta_v H$	(331–425)	56.7	346		[1974MYA/SCH, 1984BOU/FRI]
	$\Delta_v H$	(303–363)	46.7	318		[1968GOP/RIZ]
C_3H_7NO	[627-45-2]	N-ethylformamide				
	$\Delta_v H$		58.4	298	A	[1985BAR/CAS, 1985MAJ/SVO]
C_3H_7NO	[79-16-3]	N-methylacetamide				
	$\Delta_{fus}H$		10.11	303.7		[1999AHL/LOH]
	$\Delta_{fus}H$		9.73	303.8		[1969KRE/WOO]
	$\Delta_{sub}H$		70.8 ± 2.0	298		[1996ROU/JIM2]
	$\Delta_{sub}H$		69.87 ± 0.31	298		[1984STA/WAD]
	$\Delta_{sub}H$	(288–303)	54.0			[1952AIH, 1960JON]
	$\Delta_v H$	(363–414)	55.5	378		[1995SCH/PUS]
	$\Delta_v H$	(353–428)	62	368		[1993AUC/MON]
	$\Delta_v H$	(333–443)	59.6	348	A	[1987STE/MAL]
	$\Delta_v H$	(353–479)	53.5	368	A	[1987STE/MAL]
	$\Delta_v H$		NA			[1968GOP/RIZ]
C_3H_7NO	[627-39-4]	propionaldehyde oxime				
	$\Delta_v H$	(313–339)	51.2	326	A	[1987STE/MAL]
$C_3H_7NO_2$	[51-79-6]	ethyl carbamate				
	$\Delta_{fus}H$		15.23	321.9		[1991ACR]
	$\Delta_{sub}H$	(256–273)	77.7	265	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		76.3	298		[1983DEW/VAN]
	$\Delta_{sub}H$		71.9	322		[1976BAR/BOU]
	$\Delta_{sub}H$	(292–307)	89.1 ± 0.8	299	GS	[1959DAV/JON]
	$\Delta_v H$	(323–373)	U 25.8	338		[2004AHM/GIE]
	$\Delta_v H$	(338–457)	56.6	353	A	[1987STE/MAL, 1947STU]
$C_3H_7NO_2$	[541-42-4]	isopropyl nitrite				
	$\Delta_v H$	(253–268)	26.0	260	A	[1987STE/MAL, 1937THO/DAI]
$C_3H_7NO_2$	[108-03-2]	1-nitropropane				
	$\Delta_v H$	(313–353)	43.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(293–405)	42.6	308	A, EB	[1987STE/MAL, 1956TOO, 1970DYK]
	$\Delta_v H$	(331–404)	40.6	346		[1949DRE/SHR, 1949DRE/MAR]
$C_3H_7NO_2$	[79-46-9]	2-nitropropane				
	$\Delta_v H$	(313–353)	43.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(284–394)	40.9	299	A, EB	[1987STE/MAL, 1947STU, 1956TOO, 1970DYK]
$C_3H_7NO_2$	[543-67-9]	propyl nitrite				
	$\Delta_v H$	(253–268)	28.3	260	A	[1987STE/MAL, 1937THO/DAI]
$C_3H_7NO_2$	[56-41-7]	L-(*d*)-alanine				
	$\Delta_{sub}H$		132.8 ± 1	414	TE,ME	[1979DEK/VOO]
	$\Delta_{sub}H$	(413–450)	132.4 ± 1.3	433	C	[1977NAG/SAB]
	$\Delta_{sub}H$		144.8 ± 4.2	298		[1977NAG/SAB]
$C_3H_7NO_2$	[338-69-2]	D-(*l*)-alanine				
	$\Delta_{sub}H$	(407–426)	132.8	417	A	[1987STE/MAL]
	$\Delta_{sub}H$	(342–442)	U 105 ± 8	392	LE	[1977GAF/PIE]
	$\Delta_{sub}H$	(453–469)	138.3 ± 8	461	ME	[1965SVE/CLY, 1970COX/PIL, 1964CLY/SVE, 1989CHI/GRO]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_3H_7NO_2$	[107-95-9]	β-alanine				
	$\Delta_{sub}H$	(384–402)	133.1 ± 0.7	393	C	[1983SKO/SAB]
	$\Delta_{sub}H$		134 ± 2	298	C	[1983SKO/SAB]
	$\Delta_{sub}H$	(318–418)	U 105 ± 4	368	LE	[1977GAF/PIE]
$C_3H_7NO_2$	[107-97-1]	sarcosine (N-methylglycine)				
	$\Delta_{sub}H$	(380–413)	146 ± 1	298	C	[1978SAB/LAF]
$C_3H_7NO_2S$	[52-90-4]	L-cysteine				
	$\Delta_{sub}H$	(337–437)	U 96.2 ± 4.2	387	LE	[1977GAF/PIE]
$C_3H_7NO_3$	[1712-64-7]	isopropyl nitrate				
	$\Delta_{fus}H$		10.1	190.9		[1988LUS/RUB]
	Δ_vH		35.3 ± 0.6		DSC	[1999JON/FEN]
	Δ_vH	(273–343)	39.7	288	A	[1987STE/MAL, 1957GRA/PRA, 1970DYK]
$C_3H_7NO_3$	[627-13-4]	propyl nitrate				
	Δ_vH	(273–343)	41.7	288	A	[1987STE/MAL, 1957GRA/PRA, 1970DYK]
$C_3H_7NO_3$	[302-84-1]	(*dl*)-serine				
	$\Delta_{sub}H$	(354–454)	U 83.7 ± 4	404	LE	[1977GAF/PIE]
$C_3H_7N_3$	[22293-25-0]	1-azidopropane				
	Δ_vH	(253–298)	31.1	268	A	[1987STE/MAL, 1964GEI/KON, 1984BOU/FRI]
$C_3H_7N_3$	[691-57-6]	2-azidopropane				
	Δ_vH	(253–298)	33.2	268	A	[1987STE/MAL, 1964GEI/KON, 1984BOU/FRI]
C_3H_7P	[81637-99-2]	2-propenylphosphine				
	Δ_vH	(210–273)	32.7	241		[1988SHA/DIE]
C_3H_8	[74-98-6]	propane				
	$\Delta_{fus}H$		3.51	85.5	AC	[2009PER/OCH]
	$\Delta_{fus}H$		3.52	85.5		[1991ACR]
	$\Delta_{sub}H$		28.5	86	B	[1963BON]
	Δ_vH	(278–332)	18.8	293	A	[1987STE/MAL]
	Δ_vH	(165–248)	19.5	233	A	[1987STE/MAL]
	Δ_vH	(104–165)	22.1	150	A	[1987STE/MAL]
	Δ_vH	(231–281)	19.0	266	A	[1987STE/MAL]
	Δ_vH	(329–369)	19.2	344	A	[1987STE/MAL]
	Δ_vH	(312–367)	18.9	327		[1980MAJ/SVA]
	Δ_vH		18.77	256		[1971WIL/ZWO]
	Δ_vH	(166–231)	20.0	216		[1938REI]
$C_3H_8N_2$	[na]	dimethyl ammonium cyanide				
	Δ_vH	(251–295)	49.0	280		[1987STE/MAL, 1973DIE/MAR]
$C_3H_8N_2O$	[625-52-5]	N-ethylurea				
	$\Delta_{fus}H$		9.6	356.7	DSC	[2005HAS/TAJ]
	$\Delta_{trs}H$		1.0	294.6		
	$\Delta_{fus}H$		14.65	368.9	DSC	[1995FER/DEL]
	$\Delta_{fus}H$		13.9	NA	DSC	[1995STR/ARG]
	$\Delta_{fus}H$		14.39	365.1		[1990KAB/MIR2]
	$\Delta_{sub}H$	(323–364)	98.1 ± 1.1	344	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(323–364)	97.8 ± 1.1	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		96.4 ± 1.1	350	C	[2003ZAI/KAB]
	$\Delta_{sub}H$	(333–365)	91.8 ± 1.2	354	TE	[1990PIA/FER, 1987FER/DEL2]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		100.3 ± 0.7			[1986KRA/KOZ2]
$C_3H_8N_2O$	[598-94-7]	1,1-dimethylurea				
	$\Delta_{fus}H$		29.11	454		[1991ACR]
	$\Delta_{sub}H$	(346–398)	93.5 ± 0.3	298	GS	[2006EME/KAB]
	$\Delta_{sub}H$	(323–372)	94.7 ± 1.4	348	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(323–372)	94.7 ± 1.4	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		93.3 ± 0.5	350	C	[2003ZAI/KAB]
	$\Delta_{sub}H$	(326–369)	92.5 ± 1.3	357	TE	[1990PIA/FER, 1987FER/DEL2]
	$\Delta_{sub}H$		99.1 ± 0.4			[1986KRA/KOZ2]
$C_3H_8N_2O$	[96-31-1]	1,3-dimethylurea				
	$\Delta_{fus}H$		13.0	379.5		
	$\Delta_{trs}H$		0.08	301.2		
	$\Delta_{trs}H$		0.32	161.3		[1995KAB/KOZ2, 1990KAB/MIR2]
	$\Delta_{sub}H$	(313–357)	89.3 ± 0.4	298	GS	[2006EME/KAB]
	$\Delta_{sub}H$	(317–377)	87.6 ± 1.0	347	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(317–377)	87.5 ± 1.0	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		86.6 ± 0.5	350	C	[2003ZAI/KAB]
	$\Delta_{sub}H$	(316–373)	87.2 ± 0.6	353	TE	[1990PIA/FER, 1987FER/DEL2]
$C_3H_8N_2O_2$	[4114-31-2]	ethyl carbazate				
	$\Delta_{fus}H$	(78–371)	20.0	318.9	AC	[2001DI/SUN2]
$C_3H_8N_2S$	[534-13-4]	1,3-dimethylthiourea				
	$\Delta_{fus}H$		13.71	337		[2000DEL/JOZ]
	$\Delta_{fus}H$		12.7	336.9		[1994FER/MAR]
	$\Delta_{sub}H$		111.8 ± 3	298	B	[2000DEL/JOZ]
	$\Delta_{sub}H$		107.3 ± 4.0	298	B	[1994TER/PIA]
	$\Delta_{sub}H$		108 ± 3.0	361	B	[1994FER/MAR]
	$\Delta_{v}H$	(342–375)	93 ± 4.0	359	ME, TE	[1994TER/PIA]
$C_3H_8N_2S$	[625-53-6]	1-ethylthiourea				
	$\Delta_{fus}H$		21.34	380.8	DSC	[2000DEL/JOZ]
	$\Delta_{sub}H$	(360–380)	116.1 ± 2.0	370	ME, TE	[2007FER/BAD]
	$\Delta_{sub}H$	(360–380)	118.8 ± 2.1	298	ME, TE	[2007FER/BAD]
	$\Delta_{sub}H$		118.8 ± 5	298	ME	[2000DEL/JOZ]
$C_3H_8N_4O_4$	[13232-00-3]	2,4-dinitro-2,4-diazapentane				
	$\Delta_{fus}H$		16.36	330.2	DSC	[1997ZEM]
C_3H_8O	[540-67-0]	methyl ethyl ether				
	$\Delta_{v}H$	(281–433)	30.1	296	A	[1987STE/MAL]
	$\Delta_{v}H$	(216–299)	37.0	231	A	[1987STE/MAL]
	$\Delta_{v}H$	(281–438)	37.1	296	A	[1987STE/MAL]
	$\Delta_{v}H$	(278–281)	NA			[1967SHA]
	$\Delta_{v}H$	(182–280)	26.3	265		[1947STU]
C_3H_8O	[71-23-8]	1-propanol				
	$\Delta_{fus}H$		5.4	148.7		[2004VAN/VAN]
	$\Delta_{fus}H$		5.37	148.8		[1968COU/LEE]
	$\Delta_{v}H$	(298–363)	45.7	298		[2004NAS/ZIM]
	$\Delta_{v}H$	(310–356)	47.8	298	EB	[2004LUB/MAL]
	$\Delta_{v}H$		41.2	371		[2000WOR/VIN]
	$\Delta_{v}H$		35.2	423		[2000WOR/VIN]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		29.4	453		[2000WOR/VIN]
	$\Delta_v H$		21.0	498		[2000WOR/VIN]
	$\Delta_v H$		11.4	528		[2000WOR/VIN]
	$\Delta_v H$	(323–373)	49.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(303–370)	47.0	318		[1995AUC/GON]
	$\Delta_v H$	(360–377)	42.9	375		[1990ORT/SUS]
	$\Delta_v H$	(200–228)	48.0	214	A	[1987STE/MAL]
	$\Delta_v H$	(356–376)	43.5	366	A	[1987STE/MAL]
	$\Delta_v H$	(369–407)	42.3	384	A	[1987STE/MAL]
	$\Delta_v H$	(401–482)	40.1	416	A	[1987STE/MAL]
	$\Delta_v H$	(478–507)	36.5	492	A	[1987STE/MAL]
	$\Delta_v H$	(243–303)	46.3	298		[1983SCH/STR]
	$\Delta_v H$	(275–373)	49.3	290		[1973WIL/ZWO]
	$\Delta_v H$		46.4 ± 0.1	313	C	[1973SVO/VES]
	$\Delta_v H$		45.7 ± 0.1	323	C	[1973SVO/VES]
	$\Delta_v H$		44.9 ± 0.1	333	C	[1973SVO/VES]
	$\Delta_v H$		44.0 ± 0.1	343	C	[1973SVO/VES]
	$\Delta_v H$		43.2 ± 0.1	353	C	[1973SVO/VES]
	$\Delta_v H$		42.4 ± 0.1	363	C	[1973SVO/VES]
	$\Delta_v H$		47.49 ± 0.02	298	C	[1971POL/BEN]
	$\Delta_v H$	(333–377)	44.7	348	EB	[1970AMB/SPR, 1987STE/MAL]
	$\Delta_v H$	(292–370)	46.9	307	DTA	[1969KEM/KRE]
	$\Delta_v H$	(288–348)	46.7	303		[1967VAN/SOC]
	$\Delta_v H$		47.3 ± 0.1	298	C	[1966WAD]
	$\Delta_v H$	(338–378)	44.3	353	EB	[1963BID/COL]
	$\Delta_v H$		46.6	298	C	[1963MCC/LAI]
	$\Delta_v H$	(405–537)	40.7	420		[1963AMB/TOW]
	$\Delta_v H$	(343–385)	44.1	358		[1961MAT/MCK]
	$\Delta_v H$		43.9 ± 0.1	343	C	[1961MAT/MCK]
	$\Delta_v H$		42.3 ± 0.1	360	C	[1961MAT/MCK]
	$\Delta_v H$		41.2 ± 0.1	370	C	[1961MAT/MCK]
	$\Delta_v H$		40.3 ± 0.1	378	C	[1961MAT/MCK]
	$\Delta_v H$		39.7 ± 0.1	384	C	[1961MAT/MCK]
	$\Delta_v H$	(321–367)	45.5			[1959ARO/KAS]
	$\Delta_v H$		43.2	354		[1957WIL/HAR]
C_3H_8O	[67-63-0]	2-propanol				
	$\Delta_{fus}H$		5.41	185.2		[1996DOM/HEA]
	$\Delta_v H$	(298–353)	44.0	298		[2004NAS/ZIM]
	$\Delta_v H$	(322–355)	43.2	337		[2002SEG/GAL]
	$\Delta_v H$		39.8	355		[2000WOR/VIN2]
	$\Delta_v H$		29.7	423		[2000WOR/VIN2]
	$\Delta_v H$		23.7	453		[2000WOR/VIN2]
	$\Delta_v H$		16.5	483		[2000WOR/VIN2]
	$\Delta_v H$		10.5	503		[2000WOR/VIN2]
	$\Delta_v H$		40.4			[1999FAT]
	$\Delta_v H$	(300–355)	44.8	315		[1995AUC/GON]
	$\Delta_v H$	(195–228)	50.3	213	A	[1987STE/MAL]
	$\Delta_v H$	(347–368)	42.0	355	A	[1987STE/MAL]
	$\Delta_v H$	(350–383)	41.3	365	A	[1987STE/MAL]
	$\Delta_v H$	(379–461)	39.2	394	A	[1987STE/MAL]
	$\Delta_v H$	(453–508)	35.3	468	A	[1987STE/MAL]
	$\Delta_v H$	(273–374)	45.7	288		[1973WIL/ZWO]
	$\Delta_v H$	(325–362)	43.1	340	A, EB	[1987STE/MAL, 1970AMB/SPR]
	$\Delta_v H$		45.34 ± 0.02	298	C	[1971POL/BEN]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(288–348)	45.5	303		[1967VAN/SOC]
	$\Delta_v H$		45.2 ± 0.1	298	C	[1966WAD]
	$\Delta_v H$		42.7 ± 0.1	330	C	[1964BER/LAR]
	$\Delta_v H$		41.0 ± 0.1	346	C	[1964BER/LAR]
	$\Delta_v H$		39.8 ± 0.1	355	C	[1964BER/LAR]
	$\Delta_v H$		38.9 ± 0.1	363	C	[1964BER/LAR]
	$\Delta_v H$	(329–363)	42.8	344	EB	[1963BID/COL]
	$\Delta_v H$		44.0	298	C	[1963MCC/LAI]
	$\Delta_v H$	(395–508)	39.1	410		[1963AMB/TOW]
	$\Delta_v H$		43.2	324	C	[1963HAL/COX]
	$\Delta_v H$		41.7	339	C	[1963HAL/COX]
	$\Delta_v H$		39.8	355	C	[1963HAL/COX]
	$\Delta_v H$	(354–420)	41.1	369		[1955FOZ/MOR]
	$\Delta_v H$	(273–363)	44.4	298		[1928PAR/BAR]
$C_3H_8OS_2$	[59-52-9]	2,3-dimercaptopropanol				
	$\Delta_v H$	(353–413)	61.2	382		[1999DYK/SVO, 1987STE/MAL]
$C_3H_8O_2$	[109-86-4]	2-methoxyethanol				
	$\Delta_v H$	(346–397)	43.0	361		[2010MAR/LOR]
	$\Delta_v H$	(333–423)	42.8	348	A	[1987STE/MAL]
	$\Delta_v H$		45.2 ± 0.2	298	C	[1971KUS/WAD]
	$\Delta_v H$	(329–396)	42.9	344		[1956PIC/FRI]
$C_3H_8O_2$	[109-87-5]	dimethoxymethane				
	$\Delta_{fus}H$		8.33	168		[1996DOM/HEA]
	$\Delta_v H$	(273–357)	29.6	298		[2001ALB/HAH]
	$\Delta_v H$	(273–316)	31.2	288	A	[1987STE/MAL]
	$\Delta_v H$	(273–318)	29.8	288	A	[1987STE/MAL]
	$\Delta_v H$	(296–314)	30.3	305		[1976BRA/PES]
	$\Delta_v H$	(273–308)	30.1	288		[1949NIC/LAF]
$C_3H_8O_2$	[57-55-6]	1,2-propanediol (propylene glycol)				
	$\Delta_v H$	(284–331)	67.5 ± 0.5	298	GS	[2009VER/KOZ]
	$\Delta_v H$	(284–331)	64.5 ± 0.2	298	GS	[2004VER2]
		Note: Author later recalculated this earlier value in a later paper [2009VER/KOZ]. The recalculated value was reported to be 68.5 ± 0.5				
	$\Delta_v H$	(293–423)	76	298	EB	[2004CHY/FRA2]
	$\Delta_v H$	(366–396)	62.2	298	TGA	[2002TAT/DOL]
	$\Delta_v H$	(365–496)	60.0 ± 0.3	380	EB	[2002STE/CHI3]
	$\Delta_v H$	(365–496)	56.2 ± 0.2	420	EB	[2002STE/CHI3]
	$\Delta_v H$	(365–496)	52.0 ± 0.3	460	EB	[2002STE/CHI3]
	$\Delta_v H$	(365–496)	47.5 ± 0.6	500	EB	[2002STE/CHI3]
	$\Delta_v H$	(348–453)	63.6 ± 0.3	298	EB	[1990KNA/SAB3, 2004VER2]
	$\Delta_v H$		U71.2 ± 0.1	298	C	[1990KNA/SAB3, 2004VER2]
	$\Delta_v H$	(373–408)	66.5	413	TGA	[1987ALN/ALS]
	$\Delta_v H$		U 51.7	298	I	[1971SUN/EIS]
	$\Delta_v H$	(359–461)	64.7	298	EB	[1966THO/MEA, 2004VER2]
	$\Delta_v H$	(318–461)	58.6	333	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$	(353–403)	58.2	378		[1935SCH/STA]
	$\Delta_v H$	(403–460)	56	431		[1935SCH/STA]
$C_3H_8O_2$	[4254-14-2]	(R)-1,2-propanediol (propylene glycol)				
	$\Delta_{fus}H$		8.4	240		[1995JAB/LET]
$C_3H_8O_2$	[4254-15-3]	(S)-1,2-propanediol (propylene glycol)				
	$\Delta_{fus}H$		8.4	240		[1995JAB/LET]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(294–338)	69.2 ± 0.3	298	GS	[2009VER/KOZ]
$C_3H_8O_2$	[504-63-2]	1,3-propanediol				
	$\Delta_{fus}H$		11.4	249	DSC	[1998JAB/LET]
	$\Delta_v H$	(314–460)	66.5	298	EB	[2008RIB/SAN4]
	$\Delta_v H$	(293–342)	70.5 ± 0.2	298	GS	[2007VER]
	$\Delta_v H$	(480–716)	69.1 ± 0.2	298		[2002WIL/VON, 2007VER]
	$\Delta_v H$	(413–458)	70.6 ± 0.5	298	EB	[1996OLS, 2007VER]
	$\Delta_v H$	(402–488)	70.1 ± 0.3	298	EB	[1981MAR/SAC, 2007VER]
	$\Delta_v H$	(367–489)	71.4	298	EB	[1966THO/MEA, 2007VER]
	$\Delta_v H$		72.4 ± 0.3	298	C	[1988KNA/SAB, 1990KNA/SAB2]
	$\Delta_v H$	(332–448)	57.2	347	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$	(373–488)	65.2	298	EB	[1937GAL/HIB, 2007VER]
	$\Delta_v H$	(383–433)	63.3	408		[1935SCH/STA]
	$\Delta_v H$	(433–488)	60.4	460		[1935SCH/STA]
$C_3H_8O_2S$	[594-43-4]	ethyl methyl sulfone				
	$\Delta_{fus}H$		11.3	307.7		[1961BUS/IVI]
	$\Delta_{sub}H$		77.8 ± 2.9			[UR/MAC, 1970COX/PIL]
$C_3H_8O_3$	[56-81-5]	glycerol				
	$\Delta_{fus}H$		18.28	293		[1991ACR]
	$\Delta_v H$		91.7 ± 0.9	298	C	[1988BAS/NIL]
	$\Delta_v H$	(469–563)	78.5	484	A	[1987STE/MAL]
	$\Delta_v H$	(291–341)	86.8	316	ME	[1977CAM/SCHL]
	$\Delta_v H$		67.5	343	GC	[1977NOV/NOV]
	$\Delta_v H$		66.8	353	GC	[1977NOV/NOV]
	$\Delta_v H$		66.2	363	GC	[1977NOV/NOV]
	$\Delta_v H$		65.5	373	GC	[1977NOV/NOV]
	$\Delta_v H$		64.8	383	GC	[1977NOV/NOV]
	$\Delta_v H$	(278–323)	71.5	300		[1972MCF/SOM]
	$\Delta_v H$	(293–343)	85.8	308	ME	[1987STE/MAL, 1962ROS/HEI, 1970DYK]
	$\Delta_v H$	(456–553)	86	471		[1886RIC]
C_3H_8S	[624-89-5]	ethyl methyl sulfide				
	$\Delta_{fus}H$		9.76	167.2		[1996DOM/HEA]
	$\Delta_v H$	(253–363)	33.7	268		[1999DYK/SVO]
	$\Delta_v H$		31.5	298		[1981SHI/SAI]
	$\Delta_v H$		32.3	287		[1960MAC/MAY]
	$\Delta_v H$	(296–373)	31.8	311	A, EB	[1987STE/MAL, 1951SCO/FIN]
	$\Delta_v H$		31.8	298		[1971WIL/ZWO, 1966OSB/DOU, 1954HUB/WAD]
	$\Delta_v H$		30.3	338		[1935THO/LIN]
C_3H_8S	[107-03-9]	1-propanethiol				
	$\Delta_{trs}H$		3.97	142.1		
	$\Delta_{fus}H$		5.48	160		[1996DOM/HEA]
	$\Delta_v H$	(254–364)	33.7	269		[1999DYK/SVO]
	$\Delta_v H$		31.9	298		[1971WIL/ZWO]
	$\Delta_v H$	(297–375)	31.8	312	A, EB	[1987STE/MAL, 1956PEN/SCO, 1966OSB/DOU, 1954HUB/WAD]
	$\Delta_v H$		31.6 ± 0.1	303	C	[1956PEN/SCO]
	$\Delta_v H$		30.7 ± 0.1	320	C	[1956PEN/SCO]
	$\Delta_v H$		29.5 ± 0.1	341	C	[1956PEN/SCO]
	$\Delta_v H$	(284–340)	31.5	312		[1933TAY/LAY]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_3H_8S	[75-33-2]	2-propanethiol				
	$\Delta_{trs}H$		0.05	112.5		
	$\Delta_{fus}H$		5.73	142.6		[1996DOM/HEA]
	Δ_vH	(242–348)	31.9	257		[1999DYK/SVO]
	Δ_vH		29.5	298		[1971WIL/ZWO]
	Δ_vH	(283–358)	30.1	298	A, EB	[1987STE/MAL, 1954MCC/SCO, 1966OSB/DOU, 1954HUB/WAD]
$C_3H_8S_2$	[109-80-8]	1,3-propanedithiol				
	Δ_vH	(338–446)	50.9	353		[1999DYK/SVO]
	Δ_vH	(377–446)	41.6	398	A	[1987STE/MAL]
	Δ_vH		49.7	298		[1962MAN/SUN]
C_3H_9N	[75-31-0]	isopropylamine				
	$\Delta_{fus}H$		7.33	178		[1991ACR]
	Δ_vH		28.4	298		[1979MAJ/SVO2]
	Δ_vH		27.2	313		[1979MAJ/SVO2]
	Δ_vH	(277–334)	29.7	292	A, EB, IP	[1987STE/MAL, 1968OSB/DOU, 1970DYK]
C_3H_9N	[107-10-8]	propylamine				
	$\Delta_{fus}H$		10.97	188.4		[1991ACR]
	Δ_vH		31.3	298		[1979MAJ/SVO2]
	Δ_vH		30.1	313		[1979MAJ/SVO2]
	Δ_vH		28.9	328		[1979MAJ/SVO2]
	Δ_vH	(296–350)	31.3	311	A, EB, IP	[1987STE/MAL, 1968OSB/DOU, 1970DYK]
C_3H_9N	[75-50-3]	trimethylamine				
	$\Delta_{fus}H$		6.54	156.1		[1991ACR]
	Δ_vH	(333–403)	23.0	368		[1950DAY/FEL]
	Δ_vH	(273–313)	24.1	288		[1945SWI/HOC]
	Δ_vH	(193–276)	24.6	261	A	[1987STE/MAL, 1944AST/SAG]
	Δ_vH		24.5	250	C	[1944AST/SAG]
C_3H_9NO	[109-83-1]	2-(methylamino)ethanol				
	Δ_vH	(275–320)	57.8 ± 0.2	298	GS	[2005KAP/SLO]
	Δ_vH	(269–401)	57.9	298		[1998NOL/VAL, 2005KAP/SLO]
	Δ_vH	(340–461)	57.0 ± 0.5	298	EB	[1997STE/CHI3]
	Δ_vH	(351–410)	57.6	298	EB	[1987SMI/TER, 2005KAP/SLO]
	Δ_vH	(298–308)	57.5	298		[1982TOU/OKA, 2005KAP/SLO]
C_3H_9NO	[78-96-6]	1-amino-2-propanol				
	Δ_vH	(306–431)	51.6	321	A	[1987STE/MAL]
C_3H_9NO	[156-87-6]	3-amino-1-propanol				
	$\Delta_{fus}H$		16.9	284.1		[2003CAC/BAU]
C_3H_9NO	[5669-39-6]	N-methoxy dimethyl amine (trimethylhydroxylamine)				
	Δ_vH	(194–297)	28	282	A	[1987STE/MAL, 1957BIS/PAR]
C_3H_9NO	[109-85-3]	2-methoxyethyl amine				
	Δ_vH	(278–318)	38.8	293	A	[1987STE/MAL]
$C_3H_9NO_2S$	[177634-55-8]	trimethyl amine. sulfur dioxide complex				
	$\Delta_{sub}H$	(292–349)	60.6	307		[1987STE/MAL, 1943BUR2]
C_3H_9OP	[676-96-0]	trimethyl amine. sulfur dioxide complex				
	$\Delta_{sub}H$		50.2 ± 4.2		E	[1982PIL/SKI, 1960CLA/FOW]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_3H_9O_3P$	[756-79-6]	methylphosphonic acid, dimethyl ester				
	$\Delta_v H$	(258–454)	54.9	273	GS	[2009BUT/BUC]
	$\Delta_v H$	(258–454)	52.8	298	GS	[2009BUT/BUC]
	$\Delta_v H$	(258–454)	51.8	313	GS	[2009BUT/BUC]
	$\Delta_v H$	(258–454)	50.6	333	GS	[2009BUT/BUC]
	$\Delta_v H$	(258–454)	49.5	353	GS	[2009BUT/BUC]
	$\Delta_v H$	(336–408)	64	351	A	[1987STE/MAL, 1955KOS]
$C_3H_9O_3P$	[121-45-9]	trimethyl phosphite				
	$\Delta_v H$	(302–342)	42.5	317	EB	[1990DUT/KAH]
	$\Delta_v H$	(422–494)	32.8	437	A	[1987STE/MAL]
$C_3H_9O_4P$	[512-56-1]	trimethyl phosphate				
	$\Delta_v H$	(408–438)	47.5	298	CGC	[2007PAN/ANT2]
	$\Delta_v H$	(296–466)	48.8	311	A	[1987STE/MAL, 1947STU]
C_3H_9P	[594-09-2]	trimethyl phosphine				
	$\Delta_v H$	(248–310)	28.9	263	A	[1987STE/MAL]
	$\Delta_v H$		28.0 ± 2.1			[1957LON/SAC, 1962BER/MCK]
C_3H_9PS	[2404-55-9]	trimethylphospine sulfide				
	$\Delta_{sub}H$	(366–394)	70.3	380		[1966BUR]
$C_3H_{10}N_2$	[109-76-2]	1,3-diaminopropane				
	$\Delta_{trs}H$		10.53	260.6		
	$\Delta_{fus}H$		12.19	262.4	DSC	[2002DAL/DEL]
	$\Delta_v H$		50.2 ± 0.1	298	C	[1969WAD]
$C_3H_{10}N_2$	[78-90-0]	(*dl*) 1,2-propanediamine				
	$\Delta_{trs}H$		0.07	222		
	$\Delta_{fus}H$		18.42	236.5		[1996DOM/HEA]
	$\Delta_v H$	(293–393)	42.2	308	A	[1987STE/MAL]
	$\Delta_v H$	(242–293)	47.2	278	A, IP	[1987STE/MAL, 1975MES/FIN]
	$\Delta_v H$	(242–293)	43.9 ± 0.2	298	IP	[1975MES/FIN]
	$\Delta_v H$		44.2 ± 0.2	298	IP	[1965DOU/OSB, 1970GOO/MOR]
$C_3H_{10}N_2$	[1741-01-1]	trimethylhydrazine				
	$\Delta_{fus}H$		9.49	201.2		[1996DOM/HEA]
	$\Delta_v H$	(257–287)	34.6	272		[1955AST/ZOL]
	$\Delta_v H$		33.4 ± 0.1	292	C	[1955AST/ZOL]
C_3N_2O	[1115-12-4]	carbonyl cyanide				
	$\Delta_v H$	(250–291)	37.5	276	A	[1987STE/MAL, 1948GLE/HAU]
C_3O_2	[504-64-3]	carbon suboxide				
	$\Delta_v H$	(161–249)	26.2	234	A	[1987STE/MAL, 1965MCD/KIL]
C_3S_2	[627-34-9]	carbon subsulfide				
	$\Delta_v H$	(287–383)	45.1	302	A	[1987STE/MAL]
C_4BrClF_9N	[na]	1,1,2-trifluoro-2-chloro-2-bromo-N,N-*bis*(trifluoromethyl)ethylamine				
	$\Delta_v H$	(329–364)	33.1	344	A	[1987STE/MAL, 1965HAS/TIP]
$C_4BrCl_2F_8N$	[4905-98-0]	2-bromo-1,2-dichloro-1,2-difluoro-N,N-*bis*(trifluoromethyl)ethamine				
	$\Delta_v H$	(358–394)	36.5	376		[1965HAS/TIP]
C_4BrF_6N	[22130-38-7]	2-bromo-N,N-*bis*(trifluoromethyl)ethynylamine				
	$\Delta_v H$	(311–329)	30.4	320	A	[1987STE/MAL, 1969FRE/TIP]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_4BrF_8N	[17725-57-4]	N,N-*bis*(trifluoromethyl)-2,2-difluoro-1-bromovinylamine				
	Δ_vH	(293–320)	31.2	320	A	[1987STE/MAL, 1968HAS/TIP]
$C_4BrF_9O_3S$	[14609-27-9]	2-bromo-3-fluorosulfatooctafluorobutane				
	Δ_vH	(313–372)	43.5	342		[1966EAR/HIL]
$C_4BrF_{10}N$	[2261-32-7]	1,1,2,2-tetrafluoro-2-bromo-N,N-*bis*(trifluoromethyl)ethylamine				
	Δ_vH	(289–329)	30.4	304	A	[1987STE/MAL, 1965HAS/TIP]
$C_4Br_2Cl_2F_6$	[375-42-8]	1,4-dibromo-2,3-dichloro-1,1,2,3,4,4-hexafluorobutane				
	Δ_vH		47.7 ± 0.1	308	C	[1992SVO/KUB2]
	Δ_vH		46.9 ± 0.1	315	C	[1992SVO/KUB2]
$C_4Br_2F_9N$	[17725-58-5]	1,2-dibromo-1,2,2-trifluoro-N,N-*bis*(trifluoromethyl)ethylamine				
	Δ_vH	(326–366)	34.3	341	A	[1987STE/MAL, 1968HAS/TIP]
C_4ClF_8N	[14003-64-6]	2-chloro-1,2-difluoro-N,N-*bis*(trifluoromethyl)vinylamine				
	Δ_vH	(273–312)	29.1	288	A	[1987STE/MAL, 1968HAS/TIP]
$C_4ClF_{10}N$	[54566-79-9]	N-chloro-1,1,2,2,2-pentafluoro-N-(pentafluoroethyl)ethanamine				
	Δ_vH		27.2	325		[1975PET/SHR2]
$C_4ClF_{10}N$	[53684-04-1]	N-chloro-1,1,1,2,3,3,3-heptafluoro-N-(trifluoromethyl)-2-propanamine				
	Δ_vH		28.9	325		[1975KIR/LAS]
$C_4ClF_{12}NS$	[62609-69-2]	chlorodifluoro[1,1,1,2,3,3,3-heptafluoro-2-propanaminoto(2-)]-(trifluoromethyl) sulfur				
	Δ_vH		37.7	402		[1977KIT/SHR2]
$C_4Cl_2F_6$	[20972-44-5]	1,4-dichloro-hexafluoro-2-butene				
	Δ_vH	(279–330)	34	294	A	[1987STE/MAL]
$C_4Cl_2F_6$	[2418-22-6]	*cis* 2,3-dichloro-hexafluoro-2-butene				
	Δ_vH	(298–341)	32.5	313	A	[1987STE/MAL]
$C_4Cl_2F_6$	[2418-21-5]	*trans* 2,3-dichloro-hexafluoro-2-butene				
	Δ_vH	(298–340)	32.2	313	A	[1987STE/MAL]
$C_4Cl_2F_7N$	[89033-96-5]	2,3,4,4-tetrafluoro-2,3-dichloro-(trifluoromethyl)azetidine				
	Δ_vH	(273–333)	32.6	288	A	[1987STE/MAL, 1965BAN/BAR]
$C_4Cl_2F_7N$	[4776-86-7]	2,3-dichlorotetrafluoropropylidenetrifluoromethylamine				
	Δ_vH	(283–343)	27.0	313		[1965BAN/BAR]
$C_4Cl_3F_7$	[335-44-4]	2,3,3-trichloroheptafluorobutane				
	Δ_vH		33.3			[1959YEN/REE]
	Δ_vH		35.6	298		[1959YEN/REE]
	Δ_vH	(302–446)	36.4	317	MM, A	[1987STE/MAL, 56CAP/JAC]
$C_4Cl_4F_4$	[457-20-0]	1,2,3,4-tetrachlorotetrafluoro-1-butene				
	Δ_vH	(362–414)	39.4	377	A	[1987STE/MAL]
$C_4Cl_4F_6O$	[61136-57-0]	trichloromethyl 2-chloro-1,1,2,3,3,3-hexafluoropropyl ether				
	Δ_vH	(325–403)	40.3	340	A	[1987STE/MAL]
	Δ_vH		42.8 ± 0.7	298	EB	[1976AMM/BUL]
$C_4Cl_4N_2$	[1780-40-1]	2,4,5,6-tetrachloropyrmidine				
	$\Delta_{sub}H$		83.0 ± 1.0	298	C	[2007RIB/AMA]
C_4Cl_6	[87-68-3]	perchloro-1,3-butadiene				
	Δ_vH	(343–484)	58.6	358	A	[1987STE/MAL]
	Δ_vH	(343–473)	60.4	358		[1971GEL/SIM, 1984BOU/FRI]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4Cl_6O_3$	[4124-31-6]	trichloroacetic anhydride				
	$\Delta_v H$	(329–496)	56.0	344	A	[1987STE/MAL, 1947STU]
C_4F_6	[685-63-2]	hexafluoro-1,3-butadiene				
	$\Delta_v H$	(273–343)	25.9	288		[2002BOB/FED]
$C_4F_6N_2S$	[71148-78-2]	3,4-*bis*(trifluoromethyl)-1?4-1,2,5-thiadiazole				
	$\Delta_{fus}H$		11.5	284		[2002BRO/DU]
$C_4F_6N_2S$	[na]	bis(trifluoromethyl)-1,3,2-dithiazol-2-yl				
	$\Delta_{sub}H$	(253–283)	49.0 ± 1.5	268	PG	[2000BRO/DU]
$C_4F_6O_3$	[407-25-0]	trifluoroacetic anhydride				
	$\Delta_v H$	(271–312)	34.7	286	A	[1987STE/MAL, 1962KRE, 1971DYK]
C_4F_7NO	[4222-29-1]	4,4-difluoro-3-(difluoromethylene)-2-(trifluoromethyl)-1,2-oxazetidine				
	$\Delta_v H$	(238–283)	31.1	268	A,I	[1987STE/MAL, 1960GRI/HAZ]
C_4F_7NO	[4777-13-3]	3,6-dihydro-2,2,3,3,5,6,6-heptafluoro 2*H*-1,4-oxazine				
	$\Delta_v H$	(249–293)	27.3	278	A	[1987STE/MAL]
$C_4F_7NO_3S$	[26404-53-5]	fluorosulfuric ester 3,3,3-trifluoro-2-(trifluoromethyl)lactonitrile				
	$\Delta_v H$	(262–320)	31.2	277	A	[1987STE/MAL]
C_4F_8	[357-26-6]	perfluoro-1-butene				
	$\Delta_v H$	(203–279)	28.9	264	A	[1987STE/MAL, 1971DYK]
	$\Delta_v H$	(250–293)	U 14.4	265		[1947FOW/HAM, 1984BOU/FRI]
C_4F_8	[115-25-3]	perfluorocyclobutane				
	$\Delta_v H$	(289–348)	23.5	304	A	[1987STE/MAL]
	$\Delta_v H$	(343–388)	23.2	358	A	[1987STE/MAL]
	$\Delta_v H$	(233–388)	25	248		[1967KLE/PET]
	$\Delta_v H$	(234–269)	25	254		[1962MAR, 1984BOU/FRI]
	$\Delta_v H$	(233–274)	24.9	259	A	[1987STE/MAL, 1954FUR/MCC]
$C_4F_8N_2O_2S$	[66918-60-3]	N,N′-*bis*(trifluoroacetyl)sulfur difluorodiimide				
	$\Delta_v H$	(328–383)	43.5	355		[1978STA/MEW]
$C_4F_8N_2O_3$	[382-38-7]	perfluoro-2-(tetrafluoro-2-nitroethyl)-1,2-oxazetidine				
	$\Delta_v H$	(273–343)	31	288	A	[1987STE/MAL]
C_4F_8OS	[42060-62-8]	perfluorotetramethylene sulfoxide				
	$\Delta_v H$		37.1			[1973ABE/SHR]
$C_4F_8O_2S$	[42060-64-0]	perfluorotetramethylene sulfone				
	$\Delta_v H$		31.1			[1973ABE/SHR]
$C_4F_8O_4S$	[6069-35-8]	heptaflurobutyric acid and fluorosulfuric acid anhydride				
	$\Delta_v H$	(268–352)	44.8	283	A	[1987STE/MAL, 1966DES/CAD]
C_4F_8S	[706-76-3]	octafluorotetramethylene sulfide				
	$\Delta_{trs}H$		10.88	146		
	$\Delta_{fus}H$		2.09	266.7		[1961VAN]
	$\Delta_v H$		26.9			[1973ABE/SHR]
$C_4F_8S_2$	[710-65-6]	perfluoro-1,4-dithiane				
	$\Delta_v H$		33			[1973ABE/SHR]
C_4F_9N	[453-22-5]	1,1,1-trifluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-methanamine				
	$\Delta_v H$		22.2	288		[1975KIR/LAS]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_4F_9N	[13821-49-3]	perfluoro[N,N-dimethyl(vinylamine)]				
	Δ_vH	(257–280)	27.5	268	A	[1987STE/MAL, 1968HAS/TIP]
C_4F_9N	[680-23-9]	perfluoro[N-methyl(propylidineamine)]				
	Δ_vH	(245–280)	26.6	265	A	[1987STE/MAL, 1968HAS/TIP]
C_4F_9N	[378-00-7]	perfluoro[N-propyl(methylenenamine)]				
	Δ_vH	(250–291)	28.3	276	A	[1987STE/MAL, 1956BAR/HAS]
C_4F_9NO	[32822-51-8]	nonafluorobutyramide				
	Δ_vH		29.7	306	HG	[1971DEM/SHR]
C_4F_9NO	[na]	2,2,4,4,5,5-hexafluoro-3-(trifluoromethyl)oxazolidine				
	Δ_vH	(253–293)	27.4	278	A	[1987STE/MAL]
C_4F_9NO	[714-52-3]	perfluoro[2,4-*bis*(trifluoromethyl)-1,2-oxazetidine				
	Δ_vH	(266–289)	25.9	278	A	[1987STE/MAL, 1961BAR/HAS]
C_4F_9NOS	[31340-35-9]	1,1,1-trifluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-methanesulfinamide				
	Δ_vH		36.4	361	I	[1972SWI/BAB]
$C_4F_9NO_2$	[15496-02-3]	O-(trifluoroacetyl)-N,N-*bis*(trifluoromethyl)hydroxylamine				
	Δ_vH	(234–296)	30.5	281	A	[1987STE/MAL]
$C_4F_9NO_2S$	[34556-29-1]	N-(trifluoroacetyl)-S,S-*bis*(trifluoromethyl)sulfoximine				
	Δ_vH		35.1	363	I	[1972SAU/SHR]
$C_4F_9NO_3$	[55064-78-3]	2,2,2-trifluoro-1,1-*bis*(trifluoromethyl) nitrate				
	Δ_vH		33.5			[1975WAL/DES]
C_4F_9NS	[31340-34-8]	1,1,1-trifluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-methanesulfenamide				
	Δ_vH		31.4	324	I	[1972SWI/BAB]
C_4F_{10}	[355-25-9]	perfluorobutane				
	Δ_vH	(272–327)	24.2	287	A	[1987STE/MAL]
	Δ_vH	(233–273)	24.2	258	A	[1987STE/MAL]
	Δ_vH	(323–386)	23.1	338	A	[1987STE/MAL]
	Δ_vH	(233–383)	21	293		[1958BRO/MEA]
	Δ_vH	(233–383)	17.1	333		[1958BRO/MEA]
	Δ_vH	(233–260)	25.8	247		[1952SIM/HAU, 1984BOU/FRI]
$C_4F_{10}OS$	[33622-18-3]	heptafluoropropyl trifluoromethyl sulfoxide				
	Δ_vH		33.6			[1971SAU/SHR]
$C_4F_{10}OS$	[33622-19-4]	*bis*(pentafluoroethyl) sulfoxide				
	Δ_vH		35.1			[1971SAU/SHR]
$C_4F_{10}O_3S$	[5762-52-7]	fluorosulfuric acid, perfluoro(1-methylpropyl) ester				
	Δ_vH	(294–342)	33.8	309	A	[1987STE/MAL]
$C_4F_{10}O_4S$	[55064-77-2]	fluoroperoxymonosulfuric acid, 2,2,2-trifluoro-1,1-bis(trifluoromethyl)-ethyl ester				
	Δ_vH			37.6		[1975WAL/DES]
$C_4F_{10}O_6S_2$	[2261-44-1]	1,1,1,2,3,4,4,4-octafluoro-2,3-*bis*(fluorosulfato)butane				
	Δ_vH	(316–393)	30.1	331	A	[1987STE/MAL, 1964RAT/SHR]
	Δ_vH	(392–411)	27.1	401	A	[1987STE/MAL, 1964RAT/SHR]
$C_4F_{10}S$	[42060-60-6]	octafluoroetramethylene sulfur difluoride				
	Δ_vH		41.5			[1973ABE/SHR]
$C_4F_{10}S$	[33547-11-4]	heptafluoropropyl trifluoromethyl sulfide				
	Δ_vH		27.7			[1971SAU/SHR]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4F_{11}NOS$	[62609-62-5]	difluoro(1,1,1,3,3,3-hexafluoro-2-propaniminato)oxo(trifluoromethyl) sulfur				
	$\Delta_v H$		35.1	396	I	[1977KIT/SHR]
$C_4F_{11}NS$	[37826-43-0]	fluoro(trifluoromethyl)[2,2,2,1-tetrafluoro-1-(trifluoromethyl)ethyl]-imino sulfur				
	$\Delta_v H$	(300–333)	32.4	315	A, I	[1987STE/MAL, 1972SWI/SHR]
$C_4F_{12}N_2O$	[10405-32-0]	perfluoro(2,3-dimethyl)-4-oxo-diazepentane				
	$\Delta_v H$	(276–308)	32	291	A	[1987STE/MAL, 1971DYK, 1966HAS/TIP]
$C_4F_{12}N_2O$	[6141-72-6]	perfluoro(2,4-dimethyl)-3-oxo-diazepentane				
	$\Delta_v H$	(288–318)	30.1	303	A	[1987STE/MAL, 1971DYK, 1966HAS/TIP]
$C_4F_{12}N_2S$	[4101-59-1]	difluoro*bis*[1,1,2,2,2-pentafluorothananaminato]sulfur				
	$\Delta_v H$		37.0			[1976STA/MEW]
$C_4F_{12}OS$	[33564-25-9]	difluoro*bis*[1,1,2,2,2-pentafluorothananaminato]sulfur				
	$\Delta_v H$	(284–341)	33.8	299		[1999DYK/SVO]
$C_4F_{12}O_2S$	[63465-11-2]	*bis*(trifluoromethyl)*bis*(trifluoromethoxy) sulfur				
	$\Delta_v H$	(273–325)	29.3	288	A, I	[1987STE/MAL, 1977KIT/SHR3, 1978KIT/SHR]
$C_4F_{12}O_3S$	[66632-46-0]	oxo*bis*(trifluoromethyl)*bis*(trifluoromethoxy) sulfur				
	$\Delta_v H$	(273–335)	33.4	288	A, I	[1987STE/MAL, 1978KIT/SHR]
$C_4F_{12}P_2S$	[1486-20-0]	di[*bis*(trifluoromethyl)phosphino] sulfide				
	$\Delta_v H$	(273–335)	42.2	304	T	[1964CAV/EME]
$C_4F_{12}P_4$	[393-02-2]	1,2,3,4-*tetrakis*(trifluoromethyl)tetraphosphetane				
	$\Delta_{sub}H$	(292–339)	65.3	307	A, SG	[1987STE/MAL, 1958MAH/BUR]
	$\Delta_v H$	(313–375)	43.2	328	A, SG	[1987STE/MAL, 1958MAH/BUR]
$C_4F_{12}S$	[33622-15-0]	difluoro*bis*(pentafluoroethyl) sulfur				
	$\Delta_v H$	(284–341)	34.0	299	A	[1987STE/MAL]
	$\Delta_v H$		32.2			[1971SAU/SHR]
$C_4F_{12}S$	[31206-31-2]	difluoro(heptafluoropropyl) (trifluoromethyl) sulfur				
	$\Delta_v H$		32.8			[1971SAU/SHR]
$C_4F_{13}NOS$	[65844-09-9]	trifluoro[1,1,1,2,3,3,3-heptafluoro-2-propanaminoato(2-)]-(trifluoromethanolato) sulfur				
	$\Delta_v H$		33.9	389	I	[1978KIT/SHR]
$C_4F_{15}N_2O_2P$	[36544-20-4]	phosphorous *bis*[*bis*(trifluoromethyl)nitroxide] difluoride				
	$\Delta_v H$	(303–370)	37.6	336		[1973WAN/SHR]
$C_4F_{16}S_2$	[4556-31-4]	hexadecafluoro-octahydro-1,4-dithiane				
	$\Delta_v H$	(323–408)	40.5	365		[1999DYK/SVO, 1973ABE/SHR]
C_4N_4	[1071-98-3]	dicyanoacetylene				
	$\Delta_{sub}H$	(263–273)	44.3	268	I	[1957SAG, 1975GRO, 1987STE/MAL]
	$\Delta_v H$	(295–350)	27.3	310	A	[1987STE/MAL]
C_4HBrF_7N	[25273-49-8]	1-bromo-2-fluoro-N,N-*bis*(trifluromethyl)vinylamine				
	$\Delta_v H$	(321–342)	29.8	331	A	[1987STE/MAL]
C_4HBrF_9N	[4905-99-0]	2-bromo-1,1,2-trifluoro-N,N-*bis*(trifluoromethyl)ethylamine				
	$\Delta_v H$	(308–342)	31.9	323	A	[1987STE/MAL, 1965HAS/TIP]
C_4HBrF_9N	[4905-96-8]	2-bromo-1,2,2-trifluoro-N,N-*bis*(trifluoromethyl)ethylamine				
	$\Delta_v H$	(301–332)	33.8	316	A	[1987STE/MAL, 1968HAS/TIP]
$C_4HBr_2F_6N$	[22298-34-6]	*trans* 1,2-dibromo-N,N-*bis*(trifluromethyl)vinylamine				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(355–382)	33.4	369	A	[1987STE/MAL, 1969FRE/TIP]
$C_4HCl_2F_5O_2$	[375-07-5]	3,4-dichloro-2,2,3,4,4-pentafluorobutyric acid				
	$\Delta_v H$	(373–456)	54.8	388	A	[1987STE/MAL, 1957BAR/SEF]
$C_4HCl_3N_2$	[3764-01-0]	2,4,6-trichloropyrimidine				
	$\Delta_v H$		55.6 ± 0.6	298	C	[2007RIB/AMA]
C_4HF_5	[7096-51-7]	3,3,4,4,4-pentafluoro-1-butyne				
	$\Delta_v H$	(203–261)	23.6	246	A	[1987STE/MAL]
C_4HF_6N	[13747-21-2]	N,N-*bis*(trifluoromethyl)ethynylamine				
	$\Delta_v H$	(229–271)	26.0	256	A	[1987STE/MAL, 1968FRE/TIP]
$C_4HF_6N_3$	[709-62-6]	3,5-*bis*(trifluoromethyl)-1,2,4-triazole				
	$\Delta_{sub} H$	(271–283)	75.6 ± 0.8	277	ME	[1994TIP/JIM]
	$\Delta_{sub} H$	(271–283)	74.7 ± 0.8	298	ME	[1994TIP/JIM]
$C_4HF_7O_2$	[375-22-4]	perfluorobutyric acid				
	$\Delta_v H$	(310–426)	50.1 ± 0.2	320	EB	[2002STE/CHI5]
	$\Delta_v H$	(310–426)	45.9 ± 0.2	360	EB	[2002STE/CHI5]
	$\Delta_v H$	(310–426)	41.0 ± 0.5	400	EB	[2002STE/CHI5]
	$\Delta_v H$	(329–493)	47.8	344	A	[1987STE/MAL]
	$\Delta_v H$	(353–393)	47.3	368	A	[1987STE/MAL]
C_4HF_8N	[14003-49-7]	N,N-*bis*(trifluoromethyl)-1,2-difluorovinylamine				
	$\Delta_v H$	(276–296)	28.8	286	A	[1987STE/MAL, 1968HAS/TIP]
C_4HF_8N	[13747-23-4]	N,N-*bis*(trifluoromethyl)-2,2-difluorovinylamine				
	$\Delta_v H$	(274–291)	27.7	282	A	[1987STE/MAL, 1968HAS/TIP]
C_4HF_8NO	[13580-54-6]	2,2,3,3,5,5,6,6-octafluoromorpholine				
	$\Delta_v H$	(273–323)	32.7	288	A	[1987STE/MAL, 67BAN/HAS]
C_4HF_8NOS	[77589-47-0]	2,2,3,3,4,4,5,5-octafluoro-1,1,2,3,4,5-hexahydro-1-iminothiophene-1-oxide				
	$\Delta_v H$		28.0	397		[1981ABE/SHR]
$C_4HF_9N_2OS$	[62609-65-8]	1,1,1-trifluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-methanesulfonimidamide				
	$\Delta_v H$		37.2	388	I	[1977KIT/SHR]
$C_4HF_9O_2S$	[52225-50-0]	trifluoromethanesulfinic acid, 2,2,2-trifluoro-1-(trifluoromethyl)ethyl ester				
	$\Delta_v H$		39.3	362	HG	[1974MAJ/SHR]
$C_4HF_{10}N$	[54566-81-3]	1,1,1,2,3,3,3-heptafluoro-N-(pentafluoroethyl)ethanamine				
	$\Delta_v H$		26.4	306		[1975PET/SHR2]
$C_4HF_{10}N$	[53684-05-2]	1,1,1,2,3,3,3-heptafluoro-N-(trifluoromethyl)-2-propanamine				
	$\Delta_v H$		28.1	309		[1975KIR/LAS]
$C_4HF_{10}NOS$	[34556-24-6]	S,S-*bis*(pentafluoroethyl)sulfoximine				
	$\Delta_v H$		35.6	366	I	[1972SAU/SHR]
C_4H_2	[460-12-8]	1,3-butadiyne				
	$\Delta_{sub} H$	(190–232)	36.2	211	A	[1947STU]
	$\Delta_{sub} H$	(188–234)	36.3			[1933TAN]
	$\Delta_v H$	(237–283)	26.1	268	A	[1987STE/MAL, 1971DYK]
	$\Delta_v H$	(191–282)	26.4	267		[1947STU]
	$\Delta_v H$	(188–234)	33.4	219		[1933TAN, 1984BOU/FRI]
	$\Delta_v H$	(195–273)	25.4	258		[1926STR, 1984BOU/FRI]
$C_4H_2BrF_6N$	[19451-87-7]	1-bromo-N,N-*bis*(trifluoromethyl)vinylamine				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(288–327)	32.8	303	A	[1987STE/MAL, 1968FRE/TIP]
$C_4H_2BrF_6N$	[19483-21-7]	*cis* 2-bromo-N,N-*bis*(trifluoromethyl)vinylamine				
	$\Delta_v H$	(314–346)	29.7	329	A	[1987STE/MAL, 1968FRE/TIP]
$C_4H_2BrF_6N$	[19483-20-6]	*trans* 2-bromo-N,N-*bis*(trifluoromethyl)vinylamine				
	$\Delta_v H$	(314–341)	30.0	327	A	[1987STE/MAL, 1968FRE/TIP]
$C_4H_2BrF_8N$	[6857-63-2]	2-bromo-1,2-difluoro-N,N-*bis*(trifluoromethyl)ethylamine				
	$\Delta_v H$	(323–348)	32.4	328	A	[1987STE/MAL, 1965HAS/TIP]
$C_4H_2BrF_8N$	[5003-73-6]	2-bromo-2,2-difluoro-N,N-*bis*(trifluoromethyl)ethylamine				
	$\Delta_v H$	(313–348)	33.6	328	A	[1987STE/MAL, 1965HAS/TIP]
$C_4H_2Br_2S$	[3141-26-2]	3,4-dibromothiophene				
	$\Delta_v H$	(333–374)	32.1	348	A, I	[1987STE/MAL, 1971EON/POM, 1999DYK/SVO]
$C_4H_2Cl_2N_2$	[4774-14-5]	2,6-dichloropyrazine				
	$\Delta_{sub}H$		69.9 ± 2.0	298	C	[2004MOR/MIR]
$C_4H_2Cl_2N_2$	[3934-20-1]	2,4-dichloropyrimidine				
	$\Delta_{sub}H$		76.5 ± 2.0	298	C	[2007RIB/AMA]
$C_4H_2Cl_2O_2$	[627-53-4]	*trans* fumaroyl chloride				
	$\Delta_v H$	(288–433)	45.6	303	A	[1987STE/MAL, 1947STU]
$C_4H_2Cl_2S$	[3172-52-9]	2,5-dichlorothiophene				
	$\Delta_{fus}H$		11.87	232.7		[2006FUJ/MAT]
	$\Delta_v H$	(323–425)	49.9	338		[1999DYK/SVO]
	$\Delta_v H$	(323–425)	36.2	338		[1999DYK/SVO]
	$\Delta_v H$	(323–425)	40.7	338		[1981DIT/SKO]
	$\Delta_v H$	(333–374)	33.7	348	A, I	[1987STE/MAL, 1971EON/POM, 1999DYK/SVO]
$C_4H_2F_4$	[407-70-5]	1,1,4,4-tetrafluoro-1,3-butadiene				
	$\Delta_v H$	(239–271)	22.4	256	A	[1987STE/MAL]
$C_4H_2F_8$	[662-35-1]	1,1,1,2,2,3,3,4-octafluorobutane				
	$\Delta_v H$	(260–278)	28.9	269	EB	[1997DEF/CAR]
$C_4H_2F_6O_2$	[407-38-5]	trifluoroacetic acid, 2,2,2-trifluoroethyl ester				
	$\Delta_v H$		31.8	330	HG	[1973MAJ/SHR]
$C_4H_2F_7S$	[25273-51-2]	*cis* 2-fluoro-N,N-*bis*(trifluoromethyl)vinylamine				
	$\Delta_v H$	(289–311)	29.1	300	A	[1987STE/MAL]
$C_4H_2F_7S$	[25211-47-6]	*trans* 2-fluoro-N,N-*bis*(trifluoromethyl)vinylamine				
	$\Delta_v H$	(273–295)	28.5	284	A	[1987STE/MAL]
$C_4H_2F_8$	[662-35-1]	1,1,1,2,2,3,3,4-octafluorobutane				
	$\Delta_v H$	(260–278)	28.9	269	EB	[1997DEF/CAR]
$C_4H_2F_8O$	[26103-08-2]	2-difluoromethoxy-1,1,1,3,3,3-hexafluoropropane				
	$\Delta_v H$	(283–315)	31.1	298	I	[2002MUR/YAM]
$C_4H_2F_8O_2$	[188690-78-0]	1,2-*bis*(difluoromethoxy)-1,1,2,2-tetrafluoroethane				
	$\Delta_{fus}H$		11.8	195		[1999MAR/BAS]
	$\Delta_v H$	(253–331)	36.1 ± 0.2			[1999MAR/BAS]
$C_4H_2F_8O_3$	[249932-25-0]	oxy*bis*[(difluoromethoxy)difluoromethane]				
	$\Delta_{fus}H$		3.1	153		[1999MAR/BAS]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(253–341)	35.2 ± 0.2			[1999MAR/BAS]
$C_4H_2N_2$	[764-42-1]	fumaronitrile				
	$\Delta_{sub}H$	(250–269)	69.6	260	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		68.6	298		[1983DEW/VAN]
	$\Delta_{sub}H$	(245–281)	72 ± 0.8	263	ME	[1967BOY/GUH, 1970COX/PIL]
$C_4H_2N_2O_4S$	[5347-12-6]	2,4-dinitrothiophene				
	$\Delta_v H$	(388–523)	59.7	403	A	[1987STE/MAL, 1971DYK, 1999DYK/SVO]
$C_4H_2N_2O_4S$	[59434-05-8]	2,5-dinitrothiophene				
	$\Delta_v H$	(388–523)	59.6	403		[1999DYK/SVO]
$C_4H_2N_2S$	[1452-15-9]	4-cyanothiazole				
	$\Delta_{sub}H$		73.9 ± 0.4	298	C	[1966MAN/SUN, 1970COX/PIL]
$C_4H_2O_3$	[108-31-6]	maleic anhydride				
	$\Delta_{fus}H$		12.26	325.7		[1996DOM/HEA]
	$\Delta_{sub}H$	(308–326)	85.4	317		[1987STE/MAL]
	$\Delta_{sub}H$		68.8	258	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		70	298		[1978VIL/PER]
	$\Delta_{sub}H$	(308–325)	71.5 ± 5.0			[1949WIN/KUL, 1970COX/PIL]
	$\Delta_v H$	(336–475)	49.1	351	A	[1987STE/MAL]
	$\Delta_v H$	(326–350)	54.8			[1949WIN/KUL]
	$\Delta_v H$	(317–475)	56.7	332		[1947STU]
$C_4H_2O_4$	[142-45-0]	butyndioic acid				
	$\Delta_{sub}H$		NA			[1972LEB/KAT]
$C_4H_2O_4$	[2892-51-5]	3,4-dihydroxy-3-cyclobutene-1,2-dione				
	$\Delta_{sub}H$	(469–499)	152.5	486	ME,TE	[1983DEW/VAN]
	$\Delta_{sub}H$		154.3	298		[1983DEW/VAN]
	$\Delta_{sub}H$		83.7 ± 16.7	298	E	[1971SEL2, 1977PED/RYL]
$C_4H_3BrF_7N$	[25237-12-1]	2-bromo-2-fluoro-N,N-*bis*(trifluoromethyl)ethylamine				
	$\Delta_v H$	(329–255)	30.9	342	A	[1987STE/MAL]
$C_4H_3BrN_2O_2$	[51-20-7]	5-bromouracil				
	$\Delta_{sub}H$	(405–414)	148.1		ME	[2002SZT/KAM]
	$\Delta_{sub}H$		151.4 ± 2.5	298	ME	[2002SZT/KAM, 2005ZIE/SZT]
	$\Delta_{sub}H$		128.4		LE	[1974YAN/VER]
C_4H_3BrS	[1003-09-4]	2-bromothiophene				
	$\Delta_{trs}H$		0.01	55.3		
	$\Delta_{fus}H$		7.9	203.9		[1996DOM/HEA]
	$\Delta_v H$	(333–373)	27.9	348	A, I	[1987STE/MAL, 1971EON/POM, 1999DYK/SVO]
C_4H_3BrS	[872-31-1]	3-bromothiophene				
	$\Delta_v H$	(333–373)	28.9	348	A, I	[1987STE/MAL, 1971EON/POM, 1999DYK/SVO]
$C_4H_3ClF_6O_2S$	[57169-82-1]	chlorosulfurous acid, 2,2,2-trifluoro-1-methyl-1-(trifluoromethyl)ethyl ester				
	$\Delta_v H$		39.7			[1975DEM/KOV2]
$C_4H_3ClN_2$	[14508-49-7]	2-chloropyrazine				
	$\Delta_v H$		45.1 ± 1.5	298	C	[2004MOR/MIR]
$C_4H_3ClN_2$	[1722-12-9]	2-chloropyrimidine				
	$\Delta_{sub}H$		70.1 ± 1.3	298	C	[2007RIB/AMA]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_3ClN_2O_2$	[1820-81-1]	5-chlorouracil				
	$\Delta_{sub}H$	(402–412)	145.5		ME	[2002SZT/KAM]
	$\Delta_{sub}H$		148.3 ± 2.4	298	ME	[2002SZT/KAM, 2005ZIE/SZT]
$C_4H_3ClN_2O_2$	[4270-27-3]	6-chlorouracil				
	$\Delta_{sub}H$	(381–392)	134.3		ME	[2002SZT/KAM]
	$\Delta_{sub}H$		135.2 ± 2.0	298	ME	[2002SZT/KAM, 2005ZIE/SZT]
C_4H_3ClS	[96-43-5]	2-chlorothiophene				
	$\Delta_{fus}H$		8.97	201.3		[1993FUJ/OGU]
	Δ_vH	(313–401)	34.7	328		[1999DYK/SVO]
	Δ_vH	(320–401)	36.9	335		[1999DYK/SVO, 1981DIT/SKO]
	Δ_vH	(333–374)	34.4	348	A, I	[1987STE/MAL, 1971EON/POM, 1999DYK/SVO]
C_4H_3ClS	[17249-80-8]	3-chlorothiophene				
	$\Delta_{fus}H$	(13–300)	9.39	214.2	AC	[2004FUJ/TOD]
$C_4H_3Cl_3OS$	[na]	2,3,3-trichloro-2-propenethioic acid, O-methyl ester				
	Δ_vH	(383–423)	64.8		GC	[1980PIT/KIS]
$C_4H_3FN_2O_2$	[51-21-8]	5-fluorouracil				
	$\Delta_{sub}H$	(394–401)	129.9		ME	[2002SZT/KAM]
	$\Delta_{sub}H$		133.2 ± 2.1	298	ME	[2002SZT/KAM, 2005ZIE/SZT]
	$\Delta_{sub}H$	(421–483)	150 ± 2		TE	[2002BRU/POR]
$C_4H_3F_5OS$	[35709-11-6]	trifluoroacetic acid, S-(2,2-difluoroethyl) ester				
	Δ_vH	(282–322)	39.3	297	A	[1987STE/MAL, 1999DYK/SVO]
$C_4H_3F_5O_3$	[2195-84-8]	α-(trifluoromethoxy)-α, α-difluoromethyl acetate				
	$\Delta_{fus}H$		8.51	167.4		[1996DOM/HEA]
$C_4H_3F_6NO_2$	[22743-78-8]	N,N-*bis*(trifluoromethyl)acetamide-N-oxide				
	Δ_vH	(268–336)	40.6	283	A	[1987STE/MAL, 1968NAS/BAB]
$C_4H_3F_6O_2P$	[2022-79-9]	*bis*(trifluoromethyl)acetoxyphosphine				
	Δ_vH	(273–313)	41	288		[1964PET/BUR, 1984BOU/FRI]
$C_4H_3F_7O$	[375-01-9]	2,2,3,3,4,4,4-heptafluoro-1-butanol				
	Δ_vH	(273–298)	43.6	286	A, MM	[1987STE/MAL, 1971DYK, 1967MEE/GOL]
$C_4H_3F_7O$	[171182-95-9]	1-(2,2-difluoroethoxy)-1,1,2,2,2-pentafluoroethane				
	Δ_vH	(288–318)	31.5	303	I	[2002MUR/YAM]
$C_4H_3F_7O$	[306-78-0]	1,1,2,2-tetrafluoro-1-(2,2,2-trifluoroethoxy)ethane				
	Δ_vH	(283–329)	34	298	I	[2002MUR/YAM]
$C_4H_3F_7O$	[1683-81-4]	1,1,2,2-tetrafluoro-3-(trifluoromethoxy)propane				
	Δ_vH	(288–319)	31.3	303	I	[2002MUR/YAM]
$C_4H_3F_7O$	[28523-86-6]	1,1,1,3,3,3-hexafluoro-2-fluoromethoxypropane				
	Δ_vH	(288–331)	34.1	303	I	[2002MUR/YAM]
$C_4H_3F_7O$	[56860-81-2]	3-(difluoromethoxy)-1,1,1,2,2-pentafluoropropane				
	Δ_vH	(283–319)	31.2	298	I	[2002MUR/YAM]
$C_4H_3F_7O_2S$	[57169-83-2]	fluorosulfurous acid, 2,2,2-trifluoro-1-methyl-1-(trifluoromethyl)ethyl ester				
	Δ_vH		36.4			[1975DEM/KOV2]
$C_4H_3IN_2O_2$	[696-07-1]	5-iodouracil				
	$\Delta_{sub}H$	(381–392)	127		ME	[2002SZT/KAM]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_4H_3IS	[3437-95-4]	2-iodothiophene				
	$\Delta_v H$	(333–374)	29.0	348	A, I	[1987STE/MAL, 1971EON/POM, 1999DYK/SVO]
$C_4H_3NO_2S$	[609-40-5]	2-nitrothiophene				
	$\Delta_v H$	(378–443)	48.6	393		[1999DYK/SVO]
	$\Delta_v H$	(321–498)	50.4	336	A	[1987STE/MAL]
$C_4H_3NO_3$	[609-39-2]	2-nitrofuran				
	$\Delta_{sub}H$		75.3 ± 2.1			[1980BAL/LEB, 1986PED/NAY]
C_4H_4	[689-97-4]	1-butene-3-yne				
	$\Delta_v H$	(180–278)	26.0	236	A	[1987STE/MAL, 1947STU]
$C_4H_4BrF_6N$	[1683-83-6]	2-bromo-N,N-*bis*(trifluoromethyl)ethylamine				
	$\Delta_v H$	(323–356)	31.0	338	A	[1987STE/MAL, 1965HAS/TIP]
$C_4H_4BrN_3O$	[2240-25-7]	5-bromocytosine				
	$\Delta_{sub}H$	(403–468)	148.4 ± 1.5	435		[1975TEP/YAN]
$C_4H_4Cl_2$	[3574-40-1]	1,2-dichloro-1,3-butadiene				
	$\Delta_v H$	(260–308)	33.3	275	A	[1987STE/MAL]
$C_4H_4Cl_2$	[1653-19-6]	2,3-dichloro-1,3-butadiene				
	$\Delta_v H$	(299–368)	33.8	314	A	[1987STE/MAL]
$C_4H_4Cl_2O_2$	[543-20-4]	succinyl chloride				
	$\Delta_v H$	(312–466)	54.7	327	A	[1987STE/MAL, 1947STU]
$C_4H_4Cl_2O_3$	[541-88-8]	chloroacetic acid anhydride				
	$\Delta_v H$	(340–490)	61.8	355	A	[1987STE/MAL, 1947STU]
$C_4H_4Cl_4O_2S$	[3737-41-5]	3,3,4,4-tetrachlorotetrahydrothiophene-1,1-dioxide				
	$\Delta_{sub}H$	(303–348)	88.7	325	ME	[1978DEP]
	$\Delta_{sub}H$	(303–348)	88.6	318	A	[1987STE/MAL, 1999DYK/SVO]
$C_4H_4F_3NO_3$	[383-70-0]	N-(trifluoroacetyl)aminoacetic acid				
	$\Delta_{sub}H$	(273–393)	98.8	288	A	[1987STE/MAL, 1960WEY/KLI]
$C_4H_4F_4OS$	[35709-10-5]	trifluorothioacetic acid, S-(2-fluoroethyl) ester				
	$\Delta_v H$	(282–322)	41.4	297	A	[1987STE/MAL, 1999DYK/SVO]
$C_4H_4F_6N_2S$	[62067-10-1]	2,2,2-trifluoro-N-methyl-N′-[(trifluoromethyl)thio]ethanimidamide				
	$\Delta_v H$	(339–387)	34.9	354	A, I	[1987STE/MAL, 1977BUR/SHR2, 1999DYK/SVO]
$C_4H_4F_6O$	[35042-99-0]	3-difluoromethoxy-1,1,2,2-tetrafluoropropane				
	$\Delta_v H$	(283–349)	35.9	298	I	[2002MUR/YAM]
$C_4H_4F_6O$	[13171-18-1]	1,1,1,3,3,3-hexafluoro-2-methoxypropane				
	$\Delta_v H$	(283–324)	32.6	298	I	[2002MUR/YAM]
$C_4H_4F_6O$	[25449-61-0]	1,1,1-trifluoro-2-(1,1,2-trifluoroethoxy)ethane				
	$\Delta_v H$	(283–338)	35.4	298	I	[2002MUR/YAM]
$C_4H_4F_6O$	[333-36-8]	1,1,1-trifluoro-2-(2,2,2-trifluoroethoxy)ethane				
	$\Delta_v H$	(283–337)	35	298	I	[2002MUR/YAM]
$C_4H_4F_6O$	[50807-77-7]	1-(1,1-difluoroethoxy)-1,1,2,2-tetrafluoroethane				
	$\Delta_v H$	(288–352)	38.1	303	I	[2002MUR/YAM]
$C_4H_4F_6O$	[382-34-3]	1,1,1,2,3,3-hexafluoro-3-methoxypropane				
	$\Delta_v H$	(288–327)	32.4	303	I	[2002MUR/YAM]
$C_4H_4F_6O$	[160620-20-2]	1,1,2,2,3,3-hexafluoro-1-methoxypropane				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(288–341)	34.5	303	I	[2002MUR/YAM]
$C_4H_4F_6O_2S$	[52225-48-6]	trifluoromethanesulfinic acid, 2,2,2-trifluoro-1-methylethyl ester				
	$\Delta_v H$		36.8	375	HG	[1974MAJ/SHR]
$C_4H_4IN_3O$	[1122-44-7]	5-iodocytosine (4-amino-5-iodopyrimidinone)				
	$\Delta_{sub}H$	(413–463)	144 ± 1.5	438		[1975TEP/YAN]
$C_4H_4N_2$	[290-37-9]	pyrazine				
	$\Delta_{trs}H$	(5–380)	1.09	300.5		
	$\Delta_{trs}H$	(5–380)	0.05	309.8		
	$\Delta_{fus}H$	(5–380)	14.78	325.4	AC	[2003CHI/KNI]
	$\Delta_{fus}H$		12.95	328.2		[1978BOU/LEC]
	$\Delta_{sub}H$	(288–317)	56.2	303		[1995SAK/UEO]
	$\Delta_{sub}H$		56.3 ± 0.5		C	[1962TJE, 1970COX/PIL]
	$\Delta_v H$	(342–373)	40.5 ± 1.7	298	CGC	[2009LIP/CHI2, 2009LIP/CHI]
	$\Delta_v H$	(354–426)	38.8 ± 0.1	340	EB	[2002STE/CHI3]
	$\Delta_v H$	(354–426)	36.5 ± 0.2	380	EB	[2002STE/CHI3]
	$\Delta_v H$	(354–426)	34.1 ± 0.4	420	EB	[2002STE/CHI3]
	$\Delta_v H$	(332–373)	37.9	352		[1995SAK/UEO]
$C_4H_4N_2$	[289-95-2]	pyrimidine				
	$\Delta_v H$	(342–373)	41.0 ± 1.9	298	CGC	[2009LIP/CHI2, 2009LIP/CHI]
	$\Delta_v H$		49.9 ± 0.6	298	C	[1977NAB/SAB]
	$\Delta_v H$		49.8 ± 0.3	298	C	[1962TJE]
$C_4H_4N_2$	[289-80-5]	pyridazine				
	$\Delta_v H$		53.5 ± 0.4	298	C	[1962TJE]
$C_4H_4N_2$	[110-61-2]	succinonitrile				
	$\Delta_{fus}H$		3.7	329.7	DSC	[2009RAI/RED]
	$\Delta_{trs}H$		6.09	233.6		
	$\Delta_{fus}H$		3.75	330.3	DSC	[2007BAD/BLA]
	$\Delta_{trs}H$		6.2	233.3		
	$\Delta_{fus}H$	(5–350)	3.7	331.2	AC	[1996DOM/HEA, 1963WUL/WES]
	$\Delta_{sub}H$	(279–298)	70 ± 0.3	289		[1960WOO/MUR, 1977PED/RYL, 1971RAP/WES, 1969STU/WES]
$C_4H_4N_2OS$	[141-90-2]	2-thiouracil				
	$\Delta_{sub}H$		129.3		LE	[1974YAN/VER]
$C_4H_4N_2OS$	[591-28-6]	4-thiouracil				
	$\Delta_{sub}H$		125.5		LE	[1974YAN/VER]
$C_4H_4N_2O_2$	[2423-84-9]	pyrazine 1,4-dioxide				
	$\Delta_{sub}H$		116.9 ± 0.8	298	C	[1997ACR/POW]
$C_4H_4N_2O_2$	[66-22-8]	uracil				
	$\Delta_{sub}H$	(315–435)	125.3 ± 0.2	425	QR,ME	[2006DEB/MED]
	$\Delta_{sub}H$	(399–411)	101.3		ME	[2002SZT/KAM]
	$\Delta_{sub}H$	(394–494)	127.0 ± 2.0	439	TE	[2000BRU/PIA]
	$\Delta_{sub}H$	(452–587)	130.6 ± 4.0	519	ME, TE	[1980BAR/BEN]
	$\Delta_{sub}H$	(452–587)	131 ± 5	298	TE,GS	[1980BAR/BEN]
	$\Delta_{sub}H$	(378–428)	120.5 ± 1.3	403	QR	[1980TEP/YAN]
	$\Delta_{sub}H$		121.7	425	MS	[1979YAN/TEP]
	$\Delta_{sub}H$	(500–545)	133.9 ± 8	523	HSA	[1978NOW/SZC]
	$\Delta_{sub}H$		126.5 ± 2.2	440	C	[1977NAB/SAB]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(393–458)	120.5 ± 5.2	426	LE	[1975YAN/TEP, 1974YAN/VER]
	$\Delta_{sub}H$		115.5 ± 2.1		ME	[1972ROM/SUK, 2000BRU/PIA]
	$\Delta_{sub}H$		U 83.7			[1965CLA/PES]
$C_4H_4N_2O_2S$	[504-17-6]	thiobarbituric acid				
	$\Delta_{sub}H$	(400–461)	110 ± 4.0	430	TE	[1999BRU/PIA]
$C_4H_4N_2O_3$	[67-52-7]	barbituric acid				
	$\Delta_{trs}H$		1.3	516		
	$\Delta_{fus}H$		20.87	526.4		[2008ROU/TEM2]
	$\Delta_{sub}H$	(294–438)	111.3 ± 0.3		GS	[1999ZIE/PER]
	$\Delta_{sub}H$	(392–493)	113 ± 4.0	442	TE	[1999BRU/PIA]
	$\Delta_{sub}H$	(404–479)	123.3 ± 1.7	440	ME	[1990SOL/KAB]
$C_4H_4N_2S_2$	[2001-93-6]	2,4-dithiouracil				
	$\Delta_{sub}H$	(393–443)	119.7 ± 2.4	418		[1975TEP/YAN]
$C_4H_4N_4O_2$	[5424-94-2]	N-nitro-*bis*(N,N-cyanomethyl) amine				
	$\Delta_{fus}H$		38.66	367		[1987OYU/BRI]
$C_4H_4N_4O_7$	[57449-43-1]	furazandimethanol dinitrate				
	$\Delta_{v}H$	(399–433)	58.7	414	A	[1987STE/MAL, 1975PEP/MAT]
$C_4H_4N_4O_8$	[57449-44-2]	furazandimethanol dinitrate, 2-oxide				
	$\Delta_{v}H$	(413–453)	64.3	428	A	[1987STE/MAL, 1975PEP/MAT]
$C_4H_4N_6$	[1123-54-2]	8-azaadenine				
	$\Delta_{sub}H$	(418–463)	128.4 ± 1.3	440		[1975TEP/YAN]
$C_4H_4N_8O_{13}$	[34882-73-0]	*bis*-(2,2,2-trinitroethyl)-N-nitrosoamine				
	$\Delta_{sub}H$	(333–354)	97.9 ± 0.8	343	ME	[1973DEK/OON]
$C_4H_4N_8O_{14}$	[19836-28-3]	*bis*-(2,2,2-trinitroethyl)-N-nitroamine				
	$\Delta_{sub}H$	(340–356)	117.6 ± 0.8	348	ME	[1973DEK/OON]
C_4H_4O	[110-00-9]	furan				
	$\Delta_{trs}H$		2.05	150		
	$\Delta_{fus}H$		3.8	187.6		[1996DOM/HEA]
	$\Delta_{sub}H$		NA			[1953MIL/PAO]
	$\Delta_{v}H$	(238–356)	30.2	253	A	[1987STE/MAL]
	$\Delta_{v}H$	(277–323)	28.2	298		[1970MOI/ANT]
	$\Delta_{v}H$	(275–334)	28.6	290		[1952GUT/SCO, 1984BOU/FRI]
C_4H_4OS	[3354-32-3]	2-(5*H*)-thiophenone				
	$\Delta_{v}H$		56.0 ± 1.2	298	C	[2010RIB/SAN3]
$C_4H_4O_2$	[674-82-8]	diketene				
	$\Delta_{v}H$	(297–388)	42.9	312	A	[1987STE/MAL]
	$\Delta_{v}H$		42.9 ± 0.1	298	C	[1968MAN/NAK]
$C_4H_4O_2$	[33689-28-0]	cyclobutane-1,2-dione				
	$\Delta_{sub}H$	(251–289)	69.1 ± 3.5	270	HSA	[UR/CHI]
	$\Delta_{sub}H$	(295–335)	54.8	315		[1985CAO/BAC]
$C_4H_4O_2$	[15506-53-3]	cyclobutane-1,3-dione				
	$\Delta_{sub}H$	(274–322)	73.6 ± 3.7	298	HSA	[1978CHI/SHE]
$C_4H_4O_2$	[497-23-4]	2-(5*H*)-furanone				
	$\Delta_{v}H$		55.6 ± 1.3	298	C	[2010RIB/SAN3]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_4O_3$	[108-30-5]	succinic anhydride				
	$\Delta_{sub}H$	(298–320)	80.5 ± 1.6	309	ME	[1990MEN/PIL]
	$\Delta_{sub}H$		80.7 ± 1.6	298	C	[1990MEN/PIL]
	$\Delta_{sub}H$	(290–311)	82.2	302	ME,TE	[1983DEW/VAN]
	Δ_vH	(401–534)	57.3	416	A	[1987STE/MAL]
$C_4H_4O_4$	[110-16-7]	*cis*-butenedioic acid (maleic acid)				
	$\Delta_{fus}H$		26.9	411.9	DSC	[2010GUO/SAD]
	$\Delta_{sub}H$	(348–389)	105.4 ± 1.7	368	ME	[1974ARS]
	$\Delta_{sub}H$	(357–367)	110 ± 2.5			[1938WOL/WEG, 1960JON, 1970COX/PIL]
	$\Delta_{sub}H$	(356–371)	109 ± 4.2			[1934WOL/TRI]
$C_4H_4O_4$	[110-17-8]	*trans*-butenedioic acid				
	$\Delta_{sub}H$	(371–391)	123.6 ± 2.0	381	TE,ME	[1977DEK/VAN]
	$\Delta_{sub}H$		136 ± 6.3	365	QF	[1938WOL/WEG, 1935TRI, 1960JON]
	$\Delta_{sub}H$	(358–371)	134 ± 4.2			[1934WOL/TRI]
$C_4H_4O_4$	[4480-83-5]	diglycolic anhydride				
	$\Delta_{sub}H$	(382–303)	84.2 ± 1.1	294	ME, TE	[1983DEW/VAN]
$C_4H_4O_4$	[502-97-6]	1,4-dioxane-2,5-dione				
	$\Delta_{trs}H$		1.81	312.1		
	$\Delta_{fus}H$		14.8	356.2	AC	[1996DOM/HEA, 1988LEB/KAL]
	Δ_vH	(376–513)	50.4	391	A	[1987STE/MAL, 1947STU]
$C_4H_4O_4$	[3524-70-7]	ethylene oxalate				
	$\Delta_{fus}H$		13.4	415		[1996DOM/HEA]
C_4H_4S	[110-02-1]	thiophene				
	$\Delta_{trs}H$		1.21	171.1		
	$\Delta_{fus}H$		4.97	235.2		[1996DOM/HEA, 1985FIG/SZW]
	$\Delta_{sub}H$	(195–228)	46.8	213		[1987STE/MAL, 1956MIL]
	$\Delta_{sub}H$	(192–213)	49	203		[1944MIL]
	Δ_vH	(267–381)	35.8	282		[1999DYK/SVO]
	Δ_vH	(333–373)	34.8	348	I	[1971EON/POM]
	Δ_vH		34.6	298		[1971WIL/ZWO]
	Δ_vH	(300–366)	34.1	315	EB	[1952WHI/BER]
	Δ_vH	(311–393)	33.7	326		[1949WAD/KNO]
	Δ_vH		33.6 ± 0.1	319	C	[1949WAD/KNO]
	Δ_vH		32.7 ± 0.1	336	C	[1949WAD/KNO]
	Δ_vH		31.5 ± 0.1	357	C	[1949WAD/KNO]
	Δ_vH	(344–363)	32.6	353		[1945FAW/RAS]
	Δ_vH	(228–289)	35	270		[1944MIL]
C_4H_5Cl	[126-99-8]	2-chloro-1,3-butadiene				
	Δ_vH	(243–263)	29.6	253	A	[1987STE/MAL]
	Δ_vH	(279–333)	29.6	294	A	[1987STE/MAL, 1971DYK]
	Δ_vH	(293–333)	30.9	308		[1964GUB/FER, 1984BOU/FRI]
C_4H_5ClO	[920-46-7]	methacryloyl chloride				
	Δ_vH	(313–372)	36.1	328	A	[1987STE/MAL]
$C_4H_5ClO_2$	[na]	Z-3-chloro-2-butenoic acid				
	$\Delta_{fus}H$		20.71	366.8		[1996DOM/HEA]
$C_4H_5ClO_2$	[na]	E-3-chloro-2-butenoic acid				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		13.81	333.7		[1996DOM/HEA]
$C_4H_5ClO_3$	[4755-77-5]	ethyl chloroglyoxylate				
	Δ_vH	(268–408)	44.9	283		[1947STU]
$C_4H_5Cl_3O_2$	[515-84-4]	ethyl trichloroacetate				
	Δ_vH	(293–440)	49	308	A	[1987STE/MAL]
	Δ_vH		51.0 ± 0.1	298	C	[1972LAY/WAD]
	Δ_vH	(317–368)	47.5	332		[1959USA/DEM, 1984BOU/FRI]
$C_4H_5Cl_5$	[2431-52-9]	1,2,2,3,4-pentachlorobutane				
	Δ_vH	(368–498)	62.6	383	A	[1987STE/MAL, 1968CIH/VOJ]
$C_4H_5F_2I$	[692-26-2]	1,1-difluoro-4-iodo-1-butene				
	Δ_vH	(318–342)	40.6	330	A	[1987STE/MAL]
$C_4H_5F_3O$	[406-90-6]	vinyl 2,2,2-trifluoroethyl ether				
	Δ_vH	(293–317)	32.0	305	A	[1987STE/MAL]
$C_4H_5F_3OS$	[383-64-2]	trifluorothioacetic acid, S-ethyl ester				
	Δ_vH	(273–313)	42.0	288	A	[1987STE/MAL]
$C_4H_5F_3O_2$	[383-63-1]	trifluoroacetic acid, ethyl ester				
	Δ_vH		34.7	335	HG	[1973MAJ/SHR]
$C_4H_5F_5$	[406-58-6]	1,1,1,3,3-pentafluorobutane				
	Δ_vH	(303–358)	29.2	318		[2002MAR/OLI]
$C_4H_5F_5O$	[378-16-5]	1,1,1,2,2-pentafluoro-3-methoxypropane				
	Δ_vH	(283–321)	31.6	298	I	[2002MUR/YAM]
$C_4H_5F_5O$	[69948-24-9]	1-(difluoromethoxy)-1,1,2-trifluoroethane				
	Δ_vH	(283–316)	31.7	298	I	[2002MUR/YAM]
$C_4H_5F_6OP$	[1692-49-5]	ethyl *bis*(trifluoromethyl)phosphinite				
	Δ_vH	(248–328)	33.2	288		[1959EME/SMI]
C_4H_5N	[109-75-1]	3-butenenitrile				
	Δ_vH	(293–417)	40.3	308	A	[1987STE/MAL]
	Δ_vH		40.0	298		[1969KON/PRO]
	Δ_vH	(254–392)	41.6	268		[1947STU]
C_4H_5N	[627-26-9]	(E) 2-butenenitrile				
	Δ_vH		40.0	298		[1969KON/PRO]
C_4H_5N	[1190-76-7]	(Z) 2-butenenitrile				
	Δ_vH		38.9	298		[1969KON/PRO]
C_4H_5N	[1190-76-7]	*cis* crotonitrile				
	Δ_vH	(297–405)	37.1	312	A	[1987STE/MAL]
	Δ_vH	(244–381)	39.0	259		[1947STU]
C_4H_5N	[627-26-7]	*trans* crotonitrile				
	Δ_vH	(292–420)	39.7	307	A	[1987STE/MAL]
	Δ_vH	(254–395)	40.5	268		[1947STU]
C_4H_5N	[126-98-7]	methacrylonitrile				
	Δ_vH	(273–373)	36.5	288	A	[1987STE/MAL]
	Δ_vH	(229–363)	35.4	243		[1947STU]
C_4H_5N	[5500-21-0]	cyclopropylcyanide				
	Δ_vH		41.9 ± 0.1	298	C	[1982FUC/HAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(310–391)	39.4	325	BG	[1971HAL/BAL]
	$\Delta_v H$	(310–391)	39.8 ± 0.4	298	BG	[1971HAL/BAL]
C_4H_5N	[109-97-7]	pyrrole				
	$\Delta_{fus}H$		7.91	249.7		[1996DOM/HEA]
	$\Delta_{sub}H$		NA			[1941MIL]
	$\Delta_v H$	(285–329)	42.5	300		[1992KIM/SZY]
	$\Delta_v H$	(313–373)	41.9	328	I	[1971EON/POM]
	$\Delta_v H$	(338–440)	42.5	353	A, EB, IP	[1987STE/MAL, 1968OSB/DOU, 1967SCO/BER]
	$\Delta_v H$		45.2	298		[1967SCO/BER]
	$\Delta_v H$		41.8			[1961ZIM/GEI]
	$\Delta_v H$	(333–373)	41.9	348		[1947STU]
C_4DH_4N	[10162-82-0]	N-deutero pyrrole				
	$\Delta_v H$	(285–329)	42.9	300		[1992KIM/SZY]
C_4H_5NO	[30842-90-1]	3-methylisoxazole				
	$\Delta_v H$		39.8 ± 0.2	298	C	[1978HAM/BEN]
C_4H_5NO	[5765-44-6]	5-methylisoxazole				
	$\Delta_v H$		39.7 ± 0.2	298	C	[1978HAM/BEN]
$C_4H_5NO_2$	[105-34-0]	methyl cyanoacetate				
	$\Delta_v H$	(292–322)	66.2 ± 0.9	298	GS	[1995VER/BEC]
	$\Delta_v H$	(385–573)	54.9	400	A	[1987STE/MAL, 1971DYK]
$C_4H_5NO_2$	[123-56-8]	succinimide				
	$\Delta_{fus}H$		17.0	400		[1996DOM/HEA]
	$\Delta_{sub}H$	(317–340)	83.1 ± 1.5	329	ME	[1990MEN/PIL]
	$\Delta_{sub}H$		83.6 ± 1.5	298		[1990MEN/PIL]
	$\Delta_{sub}H$		88.0		B	[1989STE/CHI2]
	$\Delta_v H$	(416–561)	66.9	431	A	[1987STE/MAL]
	$\Delta_v H$	(388–560)	73.5	403		[1947STU]
C_4H_5NS	[57-06-7]	allyl isothiocyanate				
	$\Delta_v H$	(277–323)	47.6		GC	[1997LIM/TUN]
	$\Delta_v H$	(370–430)	56.8	385	A	[1987STE/MAL]
	$\Delta_v H$	(283–323)	42.1	298		[1935BAU/BUR, 1984BOU/FRI, 1999DYK/SVO]
C_4H_5NS	[3581-87-1]	2-methylthiazole				
	$\Delta_{fus}H$		12.16	248.6		[1968GOU/WES, 1969SOU/GOU]
	$\Delta_v H$	(353–402)	39.4	368	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_v H$	(342–404)	40.0	357	A	[1987STE/MAL, 1969SOU/GOU]
C_4H_5NS	[693-95-8]	4-methylthiazole				
	$\Delta_{fus}H$		8.9	229.1		[1966MEY/MET]
	$\Delta_v H$	(346–408)	40.8	361	A	[1987STE/MAL]
	$\Delta_v H$		43.8 ± 0.2	298	C	[1966MAN/SUN]
C_4H_5NS	[3581-89-3]	5-methylthiazole				
	$\Delta_{fus}H$		7.65	232.8		[1966MEY/MET]
$C_4H_5N_3O$	[71-30-7]	cytosine				
	$\Delta_{sub}H$	(320–410)	167.7 ± 0.5	365	QR,ME	[2006DEB/MED]
	$\Delta_{sub}H$	(505–525)	151.7 ± 0.7		GS	[1998ZIE/WSZ]
	$\Delta_{sub}H$	(423–483)	147.2 ± 2.6	453	ME	[1984BUR/MOR]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		155.0 ± 3.0	298		[1984BUR/MOR]
	$\Delta_{sub}H$		167 ± 10	298	TE	[1980FER/BEN]
	$\Delta_{sub}H$	(450–470)	176 ± 10	298	C	[1980SAB]
	$\Delta_{sub}H$		NA			[1977SAB/NAB]
	$\Delta_{sub}H$		150.6		ME	[1974YAN/VER, 1975YAN/TEP]
$C_4H_5N_3O_2$	[932-52-5]	5-aminouracil				
	$\Delta_{sub}H$		145.6		LE	[1974YAN/VER]
$C_4H_5N_3O_2$	[932-53-6]	6-azathymine				
	$\Delta_{sub}H$	(358–403)	112.5 ± 2.3	380		[1974MAN3]
$C_4H_5N_3S$	[333-49-3]	2-thiocytosine				
	$\Delta_{sub}H$	(408–458)		158 ± 1.6	433	[1975TEP/YAN]
$C_4H_5N_7O_{12}$	[34880-53-0]	2,2,2-trinitro-N-(2,2,2-trinitroethyl)ethanamine				
	$\Delta_{sub}H$	(338–349)	80.8 ± 0.4		ME, A	[1973DEK/OON, 1977PED/RYL, 1987STE/MAL]
C_4H_6	[590-19-2]	1,2-butadiene				
	$\Delta_{fus}H$		6.95	136.9		[1996DOM/HEA]
	Δ_vH	(243–291)	25.3	276	A	[1987STE/MAL]
	Δ_vH	(204–243)	26.4	228	A	[1987STE/MAL]
	Δ_vH		23.9	298		[1971WIL/ZWO]
	Δ_vH	(184–291)	25.2	276		[1947STU]
	Δ_vH		24.6 ± 0.1	273	C	[1947AST/SZA]
C_4H_6	[106-99-0]	1,3-butadiene				
	$\Delta_{fus}H$		7.98	164.2		[1991ACR]
	Δ_vH	(270–318)	23	285	A	[1987STE/MAL]
	Δ_vH	(193–213)	25.7	203	A	[1987STE/MAL]
	Δ_vH	(213–276)	23.6	261	A	[1987STE/MAL]
	Δ_vH	(315–382)	22.4	330	A	[1987STE/MAL]
	Δ_vH	(380–425)	22.9	395	A	[1987STE/MAL]
	Δ_vH		21.1	298		[1971WIL/ZWO, 1945PRO/ROS]
	Δ_vH	(198–271)	23.7	256		[1984BOU/FRI, 1933HEI2]
	Δ_vH	(191–249)	24.7	235		[1932VAU, 1984BOU/FRI]
C_4H_6	[107-00-6]	1-butyne				
	$\Delta_{fus}H$		6.03	147.4		[1996DOM/HEA]
	Δ_vH	(205–289)	26	274	A	[1987STE/MAL]
	Δ_vH		23.7	298		[1971WIL/ZWO]
	Δ_vH		25.8 ± 0.1	263	C	[1950AST/MAS]
	Δ_vH		24.5 ± 0.1	281	C	[1950AST/MAS]
C_4H_6	[503-17-3]	2-butyne				
	$\Delta_{fus}H$		9.25	240.9		[1991ACR]
	$\Delta_{sub}H$	(200–239)	37.4	220	A	[1947STU]
	Δ_vH	(240–308)	29	255	A	[1987STE/MAL]
	Δ_vH		26.7	298		[1971WIL/ZWO]
	Δ_vH		26.9 ± 0.1	291	C	[1941YOU/GAR]
C_4H_6	[822-35-2]	cyclobutene				
	Δ_vH	(206–275)	24.7	260	A	[1987STE/MAL]
	Δ_vH	(196–275)	24.6	260		[1941HEI, 1984BOU/FRI]
$C_4H_6ClFO_2$	[1537-62-8]	2-chloroethyl fluoroacetate				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(273–333)	56.4	288	A, GS	[1987STE/MAL, 1948RED/CHA4, 1971DYK]
$C_4H_6ClF_3O$	[310-71-4]	2-chloro-1,1,2-trifluoroethyl ethyl ether				
	$\Delta_v H$		37.5 ± 0.1	298	C	[1984UCH/MAJ]
	$\Delta_v H$		36.5 ± 0.1	313	C	[1984UCH/MAJ]
	$\Delta_v H$		35.3 ± 0.1	328	C	[1984UCH/MAJ]
	$\Delta_v H$		34.2 ± 0.1	343	C	[1984UCH/MAJ]
	$\Delta_v H$		32.9 ± 0.1	358	C	[1984UCH/MAJ]
$C_4H_6Cl_2$	[760-23-6]	3,4-dichloro-1-butene				
	$\Delta_v H$	(320–396)	38	335	A	[1987STE/MAL]
$C_4H_6Cl_2$	[7415-31-8]	*trans* 1,3-dichloro-2-butene				
	$\Delta_v H$	(306–401)	39.3	321	A	[1987STE/MAL]
$C_4H_6Cl_2$	[110-57-6]	*trans* 1,4-dichloro-2-butene				
	$\Delta_v H$	(340–379)	45.6	355	A	[1987STE/MAL]
$C_4H_6Cl_2O_2$	[3848-12-2]	2-chloroethyl chloroacetate				
	$\Delta_v H$	(319–478)	53.3	334	A	[1987STE/MAL, 1947STU]
$C_4H_6Cl_2O_2$	[535-15-9]	ethyl dichloroacetate				
	$\Delta_v H$		50.6 ± 0.1	298	C	[1972LAY/WAD]
	$\Delta_v H$	(283–430)	46.2	298	A	[1987STE/MAL, 1947STU]
$C_4H_6Cl_4$	[13138-51-7]	1,2,3,3-tetrachlorobutane				
	$\Delta_v H$	(349–464)	54.2	364	A	[1987STE/MAL, 1968CIH/VOJ]
C_4H_6FN	[407-83-0]	4-fluorobutyronitrile				
	$\Delta_v H$	(273–333)	45.2	288	A, GS	[1987STE/MAL, 1948RED/CHA4, 1971DYK]
$C_4H_6F_2O_2$	[459-99-4]	2-fluoroethyl fluoroacetate				
	$\Delta_v H$	(273–333)	55.1	288	A, GS	[1987STE/MAL, 1948RED/CHA4, 1971DYK]
$C_4H_6F_3I$	[540-87-4]	1,1,1-trifluoro-3-iodobutane				
	$\Delta_v H$	(304–321)	32.4	312	A	[1987STE/MAL]
$C_4H_6F_3I$	[26653-47-4]	1,1,1-trifluoro-3-iodo-2-methylpropane				
	$\Delta_v H$	(298–368)	30.4	313	A	[1987STE/MAL]
$C_4H_6F_3NO_3$	[72316-38-2]	carbamic acid, methoxy(trifluoromethyl)-, methyl ester				
	$\Delta_v H$		39			[1979SEK/DES]
$C_4H_6F_4O$	[512-51-6]	1-ethoxy-1,1,2,2-tetrafluoroethane				
	$\Delta_v H$	(283–330)	33	298	I	[2002MUR/YAM]
$C_4H_6F_4O$	[60598-17-6]	1,1,2,2-tetrafluoro-3-methoxypropane				
	$\Delta_v H$	(293–347)	35.2	308	I	[2002MUR/YAM]
$C_4H_6F_4O_2$	[73287-23-7]	1,2-dimethoxytetrafluoroethane				
	$\Delta_{fus}H$		10.75	252	DSC	[2005MAR/AVA]
	$\Delta_v H$	(270–356)	33.7			[2005MAR/AVA]
$C_4H_6F_6N_2O$	[30295-33-1]	1,1-dimethyl-2,2-*bis*(trifluoromethyl)hydrazine-2-oxide				
	$\Delta_v H$	(287–356)	36.4	302	A	[1987STE/MAL]
$C_4H_6F_6P_2S$	[26348-88-9]	methyl(trifluoromethyl)phosphinothious acid, anhydrosulfide				
	$\Delta_v H$	(316–342)	46.7	329		[1970BUR/KAN]
$C_4H_6N_2$	[693-98-1]	2-methylimidazole				
	$\Delta_{sub}H$	(301–318)	88.2 ± 0.7	309	ME	[1992JIM/ROU]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		88.4 ± 0.7	298		
$C_4H_6N_2$	[1453-58-3]	3-methylpyrazole				
	Δ_vH		65.9 ± 2.0	298	C	[2008RIB/FIG]
$C_4H_6N_2O$	[1072-67-9]	3-amino-5-methylisoxazole				
	$\Delta_{sub}H$		81.6 ± 2.5			[1973HAM/AYE, 1977PED/RYL]
$C_4H_6N_2O$	[4975-21-7]	dimethylfurazan				
	Δ_vH	(353–427)	51.1	368	A	[1987STE/MAL, 1971MAT/PEP]
$C_4H_6N_2O_2$	[106-57-0]	2,5-piperazinedione				
	$\Delta_{sub}H$	(413–450)	103.8	428	A	[1987STE/MAL]
$C_4H_6N_2O_2$	[2518-42-5]	dimethylfurazan-2-oxide				
	Δ_vH	(353–493)	57.0	368	A	[1987STE/MAL, 1971MAT/PEP]
$C_4H_6N_4O$	[56-06-4]	2,4-diamino-6-hydroxypyrimidine				
	$\Delta_{sub}H$	(423–471)	147.6 ± 0.2		GS	[1999ZIE/PER]
$C_4H_6N_4O_3S_2$	[59-66-5]	2-acetamido-1,3,4-thiadiazole-5-sulfonamide				
	$\Delta_{trs}H$		1.2	506.2	DSC	
	$\Delta_{fus}H$		28.6	532.2	DSC	[2009BAR/GAM]
$C_4H_6N_4O_6$	[14760-99-7]	2,5-dinitro-2,5-diazahexane-3,4-dione				
	$\Delta_{fus}H$		23.4	397.1	DSC	[1997ZEM]
$C_4H_6N_4O_8$	[3759-60-2]	1,1,3,3-tetranitrobutane				
	$\Delta_{sub}H$		87.9 ± 0.8	298		[1999MIR/VOR]
$C_4H_6N_4O_8$	[20919-97-5]	2,2,3,3-tetranitrobutane				
	$\Delta_{sub}H$		78.2 ± 0.8	298		[1999MIR/VOR]
$C_4H_6N_4O_8$	[20919-96-4]	1,1,1,4-tetranitrobutane				
	$\Delta_{sub}H$		99.6	298		[1999MIR/VOR]
$C_4H_6N_4O_8$	[42216-58-0]	1,1,1,3-tetranitro-2-methylpropane				
	$\Delta_{sub}H$		91.2	298		[1999MIR/VOR]
	Δ_vH	(304–327)	75.7	316	A	[1987STE/MAL]
$C_4H_6N_4O_{11}$	[20820-44-4]	2-nitro-2-hydroxmethyl-1,3-propanedioltrinitrate				
	Δ_vH	(313–353)	72.9	328	A	[1987STE/MAL]
$C_4H_6N_6O_8$	[81360-42-1]	1,3,5,5-tetranitro-1,3-diazacyclohexane				
	$\Delta_{fus}H$		29.37	430		[1987OYU/BRI, 1995SKA/GOL]
C_4H_6O	[123-73-9]	*trans* crotonaldehyde				
	Δ_vH	(314–411)	36.6 ± 0.1	320	EB	[2002STE/CHI2]
	Δ_vH	(314–411)	34.5 ± 0.2	360	EB	[2002STE/CHI2]
	Δ_vH	(314–411)	32.1 ± 0.5	400	EB	[2002STE/CHI2]
C_4H_6O	[4170-30-3]	crotonaldehyde				
	Δ_vH		37.3 ± 0.4	298	C	[1996VAN/YU]
	Δ_vH		38.8	325	EB	[1994WIB/MOR]
	Δ_vH	(288–376)	35.1 ± 0.5	332		[1988BAG/GUR]
	Δ_vH	(304–377)	37.3	319		[1979MAR/SAC]
	Δ_vH	(306–376)	36.8	321	A	[1987STE/MAL, 1973WAR/SKU, 1984BOU/FRI]
C_4H_6O	[1191-95-3]	cyclobutanone				
	$\Delta_{fus}H$		10.8	220.5		[1998GON/SZW]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(301–344)	37.7	322	EB	[1994WIB/MOR]
	$\Delta_v H$	(283–313)	38.4	298	A	[1987STE/MAL]
	$\Delta_v H$	(317–380)	36.3	332	A, EB	[1987STE/MAL, 1976MEY/HOT]
	$\Delta_v H$		38.2 ± 0.4	298		[1972WOL]
	$\Delta_v H$	(249–298)	38.5	273		[1942BEN/KIS, 1984BOU/FRI]
C_4H_6O	[109-93-3]	divinyl ether				
	$\Delta_v H$	(253–323)	29.2	268	A	[1987STE/MAL]
	$\Delta_v H$	(253–323)	26.1	301	I	[1933MIL/MEN]
C_4H_6O	[78-94-4]	methyl vinyl ketone				
	$\Delta_v H$	(279–355)	32.9	294	A	[1987STE/MAL]
	$\Delta_v H$	(300–355)	33.6	315	A	[1987STE/MAL]
C_4H_6O	[1191-99-7]	2,3-dihydrofuran				
	$\Delta_v H$	(302–260)	30.8 ± 0.1	300	EB	[2002STE/CHI5]
	$\Delta_v H$	(302–360)	28.6 ± 0.3	340	EB	[2002STE/CHI5]
C_4H_6O	[927-74-2]	3-butyn-1-ol				
	$\Delta_v H$	(343–393)	51.7 ± 0.9	298	CGC	[2005VAL/QUI]
C_4H_6OS	[1115-15-7]	divinyl sulfoxide				
	$\Delta_v H$		51.2 ± 0.9	298	C	[1989VOR/KLY]
$C_4H_6O_2$	[1759-53-1]	cyclopropane carboxylic acid				
	$\Delta_v H$	(357–473)	58.9 ± 0.3	340	EB	[2002STE/CHI5]
	$\Delta_v H$	(357–473)	55.7 ± 0.2	380	EB	[2002STE/CHI5]
	$\Delta_v H$	(357–473)	52.4 ± 0.2	420	EB	[2002STE/CHI5]
	$\Delta_v H$	(357–473)	48.8 ± 0.4	460	EB	[2002STE/CHI5]
$C_4H_6O_2$	[431-03-8]	2,3-butanedione (biacetyl)				
	$\Delta_v H$	(273–348)	38.5	288	A, I	[1987STE/MAL, 1972NEE/HAL]
	$\Delta_v H$	(273–293)	39.6 ± 0.2	283		[1954NIC/SZA]
$C_4H_6O_2$	[503-64-0]	*cis* 2-butenoic acid				
	$\Delta_v H$	(306–445)	55.8	321	A	[1987STE/MAL, 1947STU]
$C_4H_6O_2$	[107-93-7]	*trans* 2-butenoic acid				
	$\Delta_v H$	(353–458)	56.7	368	A	[1987STE/MAL, 1947STU]
$C_4H_6O_2$	[110-65-6]	2-butyne-1,4-diol				
	$\Delta_v H$	(418–520)	69.0	433	A	[1987STE/MAL, 1966BRA/SEM, 1971DYK]
$C_4H_6O_2$	[96-48-0]	γ-butyrolactone				
	$\Delta_{fus}H$		9.57	230		[1991ACR]
	$\Delta_v H$	(293–333)	47.6 ± 4.0	298		[1997KLE, 2008EME/KOZ]
	$\Delta_v H$	(378–406)	49.5 ± 0.1	392	EB	[1991WIB/WAL]
	$\Delta_v H$	(378–406)	55.2 ± 1.3	298	EB	[1991WIB/WAL]
	$\Delta_v H$	(345–370)	51.8 ± 0.6	357	MM	[1991WIB/WAL]
	$\Delta_v H$	(345–370)	55.6 ± 1.4	298	MM	[1991WIB/WAL]
	$\Delta_v H$	(392–555)	48.9 ± 0.3	298		[1990RAM/KUD, 2008EME/KOZ]
	$\Delta_v H$		54.4 ± 0.4	298	C	[1990LEI/PIL2]
	$\Delta_v H$	(361–522)	54.9 ± 0.2	298	EB	[1989STE/CHI2, 2008EME/KOZ]
	$\Delta_v H$	(357–435)	51.5	298	EB	[1988ISM/GAB, 2008EME/KOZ]
	$\Delta_v H$	(392–474)	48.2	407	A	[1987STE/MAL]
	$\Delta_v H$	(273–478)	54.6 ± 0.2	298	GS	[1980JAR/AFA, 2008EME/KOZ]
	$\Delta_v H$	(413–478)	53.1 ± 0.2	298	EB	[1980JAR/AFA, 2008EME/KOZ]
	$\Delta_v H$		48.0 ± 0.4	298	EB	[1980YEV/LEB, 2008EME/KOZ]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_6O_2$	[79-41-4]	2-methyl-2-propenoic acid				
	$\Delta_v H$		47.5 ± 0.4	298	C	[1996VAN/YU]
	$\Delta_v H$	(321–435)	53.9	336	A	[1987STE/MAL]
	$\Delta_v H$	(298–434)	51.6	313	A	[1987STE/MAL, 1947STU]
$C_4H_6O_2$	[96-33-3]	methyl acrylate				
	$\Delta_{fus}H$		9.73	197.5		[1996DOM/HEA]
	$\Delta_v H$	(316–354)	34.2	331	A	[1987STE/MAL]
	$\Delta_v H$	(299–337)	28.8	314	BG	[1971HAL/BAL]
	$\Delta_v H$	(229–353)	38	244		[1947STU]
$C_4H_6O_2$	[108-05-4]	vinyl acetate				
	$\Delta_{fus}H$		8.46	180.6		[1997KUL/LEB]
	$\Delta_v H$	(294–346)	34.4	309	A	[1987STE/MAL, 1971DYK, 1963CAP/FRI, 1984BOU/FRI]
	$\Delta_v H$	(340–355)	31.4	348		[1965SWA/VAN]
$C_4H_6O_2$	[na]	α-methylacrylic acid				
	$\Delta_{fus}H$		8.06	287.5		[1996DOM/HEA]
$C_4H_6O_2$	[na]	*cis*-crotonic acid				
	$\Delta_{fus}H$		12.57	344.4		[1991ACR]
$C_4H_6O_2S$	[3232-39-1]	diacetyl sulfide				
	$\Delta_v H$	(325–355)	54.2	340		[1999DYK/SVO]
	$\Delta_v H$	(325–355)	50.9	340	A	[1987STE/MAL]
$C_4H_6O_2S$	[77-77-0]	divinyl sulfone				
	$\Delta_v H$		56.4 ± 0.9	298	C	[1989VOR/KLY]
	$\Delta_v H$		56.5 ± 0.8	298		[1969MAC/MCN]
$C_4H_6O_3$	[108-24-7]	acetic anhydride				
	$\Delta_v H$	(349–429)	43.3	364	EB	[1987AMB/GHI]
	$\Delta_v H$	(413–526)	47.6	428	A	[1987STE/MAL]
	$\Delta_v H$	(320–413)	45.5	335	A	[1987STE/MAL, 1971DYK]
	$\Delta_v H$	(336–412)	44.2	351		[1959MCD/SHR]
$C_4H_6O_3$	[108-32-7]	propylene carbonate				
	$\Delta_{fus}H$		8.96	220.3	DSC	[2004DIN]
	$\Delta_{fus}H$	(13–300)	8.01	218.7	AC	[1994FUJ/OGU]
	$\Delta_{fus}H$		9.62	218.2		[1974VAS/KOR]
	$\Delta_v H$	(298–345)	61.5 ± 0.3	298	GS	[2008VER/TOK]
	$\Delta_v H$	(294–473)	71.3	298		[2005NAS/NEU]
	$\Delta_v H$	(460–513)	61.3 ± 0.1	298	E	[2004CHE/CLE, 2008VER/TOK]
	$\Delta_v H$	(668–762)	71.2 ± 0.6	298		[2002WIL/VON, 2008VER/TOK]
	$\Delta_v H$	(412–466)	54.4	427	A	[1987STE/MAL]
	$\Delta_v H$	(368–462)	57.8	383	EB	[1982HON/WAK]
	$\Delta_v H$	(368–462)	55.2	423	EB	[1982HON/WAK]
	$\Delta_v H$	(368–462)	53.0	443	EB	[1982HON/WAK]
	$\Delta_v H$	(293–353)	55.2	323		[1972GRA/SAL]
	$\Delta_v H$	(323–370)	33.8	338	A, MM	[1987STE/MAL, 1971CHO/JON]
$C_4H_6O_3$	[3041-16-5]	*p*-dioxanone				
	$\Delta_{fus}H$		16.14	301.7		[1995LEB/BYK]
$C_4H_6O_4$	[553-90-2]	dimethyl oxalate				
	$\Delta_{fus}H$		21.07	327.6		[1991ACR]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		74.6 ± 0.7	298	C	[1996CHI/SAB]
	$\Delta_{sub}H$	(268–298)	75.6 ± 1.6	283	HSA	[1996CHI/SAB]
	$\Delta_{sub}H$		75.3 ± 1.6	298		[1996CHI/SAB]
	$\Delta_{sub}H$		74.9 ± 0.6		B	[1996CHI/SAB]
	$\Delta_{sub}H$		47.4 ± 0.5		BG	[1976ANT/CAR2, 1975ANT/CAR]
	$\Delta_{v}H$	(330–365)	54.7 ± 0.3	298	GS	[2006VER/KOZ]
	$\Delta_{v}H$	(328–443)	52.5	298		[2004MA/LIU, 2006VER/KOZ]
	$\Delta_{v}H$	(347–485)	44.7	416	HG, EB	[1988ASK/DAU]
	$\Delta_{v}H$	(293–437)	48.8	308	A	[1987STE/MAL, 1947STU]
$C_4H_6O_4$	[110-15-6]	succinic acid				
	$\Delta_{fus}H$		34	455.2		[2005ROU/TEM]
	$\Delta_{fus}H$		32.95	457		[1991ACR]
	$\Delta_{sub}H$	(318–358)	128 ± 2		TPD	[2007CAP/LOV]
	$\Delta_{sub}H$	(280–302)	119.5		TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$	(356–376)	120.5	368	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		123.1	298		[1983DEW/VAN]
	$\Delta_{sub}H$	(372–401)	118.1 ± 3.3	386	ME	[1970COX/PIL, 1960DAV/THO]
	$\Delta_{sub}H$		120.3 ± 4.4	298		[1970COX/PIL, 1960DAV/THO]
	$\Delta_{sub}H$		121.8 ± 3.3	298		[1960DAV/THO, 1999RIB/MON]
	$\Delta_{sub}H$	(292–320)	73.6	306	A	[1947GRA]
	$\Delta_{v}H$	(424–503)	94.4	298	CGC	[2005ROU/TEM]
$C_4H_6O_4$	[516-05-2]	methylmalonic acid				
	$\Delta_{sub}H$		117.4 ± 1.9	298	ME	[2000RIB/MON]
	$\Delta_{sub}H$		113.2 ± 0.4		C	[1983ALT/PIL]
$C_4H_6O_4$	[931-40-8]	4-hydroxmethyl)-1,3-dioxolan-2-one				
	$\Delta_{v}H$	(330–398)	85.4 ± 0.4	298	GS	[2008VER/TOK]
	$\Delta_{v}H$	(430–455)	87.8 ± 0.4	298	EB	[2002WIL/VON, 2008VER/TOK]
$C_4H_6O_5$	[na]	(*dl*) malic acid I				
	$\Delta_{fus}H$ *(I)*		33.52	402		[1996DOM/HEA]
	$\Delta_{fus}H$ *(II)*		30.17	396		[1996DOM/HEA]
$C_4H_6O_5$	[na]	(*d*) malic acid				
	$\Delta_{fus}H$		23.01	376		[1976LEC/COL]
$C_4H_6O_6$	[147-73-9]	*meso* tartaric acid				
	$\Delta_{sub}H$		156.9			[1983DEW/BOW]
$C_4H_6O_6$	[na]	(*d*)-tataric acid				
	$\Delta_{fus}H$		32.3	445.1		[1998MUR/BET]
C_4H_6S	[5954-75-6]	2-vinylthiirane				
	$\Delta_{v}H$	(273–335)	38.7	288	A	[1987STE/MAL, 1999DYK/SVO]
C_4H_6S	[627-51-0]	divinyl sulfide				
	$\Delta_{v}H$		38.3 ± 0.7	298	C	[1989VOR/KLY]
$C_4H_6S_3$	[1748-15-8]	1,3-dithian-2-thione				
	$\Delta_{sub}H$	(321–348)	88.6	335		[1967GEI/SCH]
	$\Delta_{sub}H$		91.4 ± 2.5	298		[1967GEI/SCH, 1970COX/PIL]
C_4H_7Br	[31849-78-2]	*cis* 1-bromo-1-butene				
	$\Delta_{v}H$	(280–397)	35.1	295	A	[1987STE/MAL, 1971DYK]
	$\Delta_{v}H$	(229–359)	36.5	244		[1947STU]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_4H_7Br	[32620-08-9]	*trans* 1-bromo-1-butene				
	$\Delta_v H$	(234–368)	36.1	249	A	[1987STE/MAL, 1947STU]
C_4H_7Br	[23074-36-4]	2-bromo-1-butene				
	$\Delta_v H$	(276–391)	34.5	291	A	[1987STE/MAL, 1971DYK]
	$\Delta_v H$	(226–354)	36.1	241		[1947STU]
C_4H_7Br	[3017-71-8]	*cis* 2-bromo-2-butene				
	$\Delta_v H$	(234–367)	36.5	249	A	[1987STE/MAL, 1947STU]
C_4H_7Br	[3017-68-3]	*trans* 2-bromo-2-butene				
	$\Delta_v H$	(228–359)	35.7	243	A	[1987STE/MAL, 1947STU]
C_4H_7BrO	[816-40-0]	1-bromo-2-butanone				
	$\Delta_v H$	(322–428)	49.9	337	A	[1987STE/MAL]
	$\Delta_v H$	(279–420)	47.7	294		[1947STU]
C_4H_7BrO	[814-75-5]	3-bromo-2-butanone				
	$\Delta_v H$	(306–409)	46.4	321	A	[1987STE/MAL]
C_4H_7BrO	[2736-37-0]	isobutyryl bromide				
	$\Delta_v H$	(286–436)	45.7	301	A	[1987STE/MAL, 1947STU]
$C_4H_7Br_3$	[62127-48-4]	1,3-dibromo-2-(bromomethyl)propane				
	$\Delta_v H$	(475–660)	66.1	490	A	[1987STE/MAL]
$C_4H_7Br_3$	[3675-68-1]	1,1,2-tribromobutane				
	$\Delta_v H$	(361–490)	49.4	376	A	[1987STE/MAL]
$C_4H_7Br_3$	[3675-69-2]	1,2,2-tribromobutane				
	$\Delta_v H$	(356–487)	48.4	371	A	[1987STE/MAL]
	$\Delta_v H$	(314–486)	50.7	329		[1947STU]
$C_4H_7Br_3$	[632-05-3]	1,2,3-tribromobutane				
	$\Delta_v H$	(394–546)	54.1	409	A	[1987STE/MAL, 1971DYK]
	$\Delta_v H$	(318–489)	51.3	333		[1947STU]
$C_4H_7Br_3$	[38300-67-3]	1,2,4-tribromobutane				
	$\Delta_v H$	(390–541)	53.5	405	A	[1987STE/MAL, 1971DYK]
$C_4H_7Br_3$	[62127-47-3]	2,2,3-tribromobutane				
	$\Delta_v H$	(311–480)	51.7	326	A	[1987STE/MAL, 1947STU]
C_4H_7Cl	[513-37-1]	1-chloro-2-methyl-1-propene				
	$\Delta_v H$	(285–343)	33.2	300	A	[1987STE/MAL]
C_4H_7Cl	[563-47-3]	3-chloro-2-methyl-1-propene				
	$\Delta_v H$	(285–348)	33.3	300	A	[1987STE/MAL]
C_4H_7ClO	[616-27-3]	1-chloro-2-butanone				
	$\Delta_v H$	(307–411)	49.2	322	A	[1987STE/MAL, 1971DYK]
C_4H_7ClO	[4091-39-8]	3-chloro-2-butanone				
	$\Delta_v H$	(313–389)	38.8	328	A	[1987STE/MAL]
C_4H_7ClO	[40605-42-3]	3-chloro-2-butene-1-ol				
	$\Delta_v H$	(345–437)	50	360	A	[1987STE/MAL]
$C_4H_7ClO_2$	[109-61-5]	propyl chloroformate				
	$\Delta_v H$	(293–303)	40.7 ± 0.4	298		[1990DAV/FIN]
	$\Delta_v H$		40.7 ± 0.4	298	C	[1990DAV/FIN]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_7ClO_2$	[105-39-5]	ethyl chloroacetate				
	$\Delta_v H$	(274–418)	45	289	A	[1987STE/MAL]
	$\Delta_v H$		49.5 ± 0.1	298	C	[1972LAY/WAD]
	$\Delta_v H$	(298–418)	48.5	313		[1928NEL2, 1984BOU/FRI]
C_4H_7ClS	[760996-44-9]	2-butene-3-chloro-1-thiol				
	$\Delta_v H$	(341–397)	48.2	356	A	[1987STE/MAL]
$C_4H_7Cl_2O_4P$	[62-73-7]	dimethyl-(2,2-dichlorovinyl) phosphate				
	$\Delta_v H$	(283–387)	68	298	A	[1987STE/MAL]
$C_4H_7Cl_3$	[18338-40-4]	1,2,3-trichlorobutane				
	$\Delta_v H$	(273–442)	41.3	288	A	[1987STE/MAL, 1947STU]
C_4H_7FOS	[462-31-7]	2-fluoroethyl thioacetate				
	$\Delta_v H$	(273–333)	44.7	288	A, GS	[1987STE/MAL, 1948RED/CHA4]
$C_4H_7FO_2$	[459-72-3]	ethyl fluoroacetate				
	$\Delta_v H$	(273–333)	41.9	288	A, GS	[1987STE/MAL, 1948RED/CHA4, 1971DYK]
$C_4H_7F_3$	[460-34-4]	1,1,1-trifluorobutane				
	$\Delta_v H$	(226–320)	28.1	241	A	[1987STE/MAL, 1971DYK]
$C_4H_7IO_2$	[623-48-3]	ethyl iodoacetate				
	$\Delta_v H$	(301–362)	52.1	316	A	[1987STE/MAL, 1947GOU/HOL]
C_4H_7N	[78-82-0]	isobutyronitrile				
	$\Delta_v H$	(324–354)	35.9	339		[1979SUK/VLA]
	$\Delta_v H$	(303–352)	37.5	321	BG	[1971HAL/BAL]
C_4H_7N	[109-74-0]	butyronitrile				
	$\Delta_v H$		39.2 ± 0.1	298	C	[1982FUC/HAL]
	$\Delta_v H$	(303–493)	38.8	318	EB	[1971MEY/REN]
	$\Delta_v H$	(332–401)	37.7	347	A, EB	[1987STE/MAL, 1947STU, 1973MEY/HOT]
	$\Delta_v H$		37.0	298	EB	[1959EVA/SKI, 2005EME/VER]
	$\Delta_v H$	(294–415)	40.5 ± 0.2	298	MM	[1933HEI, 2005EME/VER]
C_4H_7NO	[75-86-5]	acetone cyanohydrin				
	$\Delta_v H$	(355–393)	106.5	370	A	[1987STE/MAL]
C_4H_7NO	[4476-02-2]	2-hydroxybutyronitrile				
	$\Delta_v H$	(314–452)	57.9	329	A	[1987STE/MAL, 1947STU]
C_4H_7NO	[1120-64-5]	2-methyl-2-oxazoline				
	$\Delta_v H$		39.1 ± 0.3	298	C	[1976HAM/THO]
C_4H_7NO	[79-39-0]	methyacrylamide				
	$\Delta_{fus}H$		15.0	385.1		[1996DOM/HEA]
	$\Delta_v H$	(390–418)	86.3	404	A	[1987STE/MAL]
C_4H_7NO	[62957-60-2]	ethoxyacetonitrile				
	$\Delta_v H$	(273–313)	46.5 ± 0.3	298	GS	[1995VER/BEC]
C_4H_7NO	[33695-59-9]	3-methoxypropionitrile				
	$\Delta_v H$	(328–438)	47.6	343	A	[1987STE/MAL]
C_4H_7NO	[616-45-5]	2-pyrrolidone				
	$\Delta_{fus}H$		13.92	299		[1996DOM/HEA]
	$\Delta_v H$	(391–484)	73.6 ± 1.3	298	EB,BG	[1998MOR/KOP]
	$\Delta_v H$		41.7 ± 0.6			[1995VIE/CDE]
	$\Delta_v H$	(395–518)	60	410	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_4H_7NO	[31110-30-2]	*cis* 2-butenoic acid amide				
	$\Delta_{sub}H$	(353–387)	68.0	368	A	[1987STE/MAL]
C_4H_7NO	[625-37-6]	*trans* 2-butenoic acid amide				
	$\Delta_{sub}H$	(363–413)	80.0	378	A	[1987STE/MAL]
C_4H_7NOS	[17374-18-4]	tetrahydro-2*H*-1,3-oxazine-2-thione				
	$\Delta_{fus}H$		18.4	400.2	DSC	[2008TEM/ROU3]
$C_4H_7NO_2$	[625-77-4]	diacetamide				
	$\Delta_{sub}H$		73.2 ± 0.8	298	C	[1965WAD, 1971MOR]
	Δ_vH	(368–496)	59.7	383	A	[1987STE/MAL]
	Δ_vH	(343–496)	64.6	358		[1947STU]
$C_4H_7NO_2$	[2783-12-2]	2-nitro-1-butene				
	Δ_vH	(273–333)	44.0	288	A	[1987STE/MAL, 1971DYK]
$C_4H_7NO_2$	[22677-21-0]	(R)-4-hydroxy-2-pyrrolidone				
	$\Delta_{fus}H$		23.41	392	DSC	[2004WAN/WIE]
$C_4H_7NO_2$	[68108-18-9]	(−) 4-hydroxy-2-pyrrolidone				
	$\Delta_{fus}H$		28.49	429.8	DSC	[1999LI/ZEL]
$C_4H_7NO_2$	[25747-41-5]	(+) 4-hydroxy-2-pyrrolidone				
	$\Delta_{fus}H$		26.74	394.8	DSC	[1999LI/ZEL]
$C_4H_7NO_3$	[543-24-8]	N-acetylglycine				
	$\Delta_{sub}H$		127.0 ± 1.0	389	TE,ME	[1979DEK/VOO]
$C_4H_7NO_4$	[56-84-8]	L-aspartic acid				
	$\Delta_{sub}H$	(370–470)	U 96 ± 4.2	420	LE	[1977GAF/PIE]
$C_4H_7N_3O_9$	[6859-60-5]	1,2,4-butanetriol trinitrate				
	Δ_vH	(293–313)	60.0 ± 11.3	303	A, GS	[1987STE/MAL, 1957MCC/DOU]
C_4H_8	[106-98-9]	1-butene				
	$\Delta_{fus}H$		3.85	87.8		[1996DOM/HEA]
	Δ_vH	(200–274)	23.3	259	A	[1987STE/MAL]
	Δ_vH	(126–192)	28.3	177	A	[1987STE/MAL]
	Δ_vH	(267–345)	22.8	282	A	[1987STE/MAL]
	Δ_vH	(342–411)	22.0	357	A	[1987STE/MAL]
	Δ_vH	(267–411)	22.5	282	A	[1987STE/MAL]
	Δ_vH		20.1	298		[1971WIL/ZWO]
	Δ_vH		25.3	202		[1946AST/FIN]
	Δ_vH		24.5	219		[1946AST/FIN]
	Δ_vH		23.3	242		[1946AST/FIN]
	Δ_vH		21.9	267		[1946AST/FIN]
	Δ_vH	(216–273)	23.2	258		[1940LAM/ROP, 1984BOU/FRI]
C_4H_8	[590-18-1]	*cis* 2-butene				
	$\Delta_{fus}H$		7.31	134.3		[1996DOM/HEA]
	Δ_vH	(221–290)	24.4	275	A	[1987STE/MAL]
	Δ_vH	(276–325)	24.0	291	A	[1987STE/MAL]
	Δ_vH	(324–386)	23.6	339	A	[1987STE/MAL]
	Δ_vH	(383–431)	23.6	398	A	[1987STE/MAL]
	Δ_vH		22.1	298		[1971WIL/ZWO]
	Δ_vH		22.5	246	C	[1944SCO/FER]
	Δ_vH	(195–267)	25.3	252		[1942BEN, 1984BOU/FRI]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_4H_8	[624-64-6]	*trans* 2-butene				
	$\Delta_{fus}H$		9.76	167.6		[1996DOM/HEA]
	Δ_vH	(205–287)	23.9	272	A	[1987STE/MAL]
	Δ_vH	(273–315)	23.6	288	A	[1987STE/MAL]
	Δ_vH	(313–385)	23.3	328	A	[1987STE/MAL]
	Δ_vH	(382–428)	23.2	397	A	[1987STE/MAL]
	Δ_vH		21.3	298		[1971WIL/ZWO]
	Δ_vH		22.8 ± 0.1	274	C	[1945GUT/PIT]
	Δ_vH	(203–274)	24.2	259		[1945GUT/PIT, 1984BOU/FRI]
	Δ_vH	(205–283)	23.9	268		[1940LAM/ROP, 1984BOU/FRI]
C_4H_8	[287-23-0]	cyclobutane				
	$\Delta_{trs}H$		5.71	145.7		
	$\Delta_{fus}H$		1.09	182.4		[1996DOM/HEA]
	$\Delta_{sub}H$		36.4	145	B	[1963BON]
	Δ_vH	(198–287)	25.2	272	A	[1987STE/MAL]
	Δ_vH	(217–285)	25.2	270		[1953RAT/GWI, 1984BOU/FRI]
C_4H_8	[594-11-6]	cyclobutane				
	Δ_vH	(177–278)	24.8	263	A	[1987STE/MAL, 1947STU]
C_4H_8	[115-11-7]	2-methylpropene				
	$\Delta_{fus}H$		5.92	132.4		[1996DOM/HEA]
	Δ_vH	(212–279)	23.1	264	A	[1987STE/MAL]
	Δ_vH	(266–313)	22.7	281	A	[1987STE/MAL]
	Δ_vH	(310–376)	22.2	325	A	[1987STE/MAL]
	Δ_vH	(371–418)	22.3	386	A	[1987STE/MAL]
	Δ_vH		20.6	298		[1971WIL/ZWO]
	Δ_vH	(303–398)	22.2	350		[1942BEA/ING]
	Δ_vH	(216–273)	22.8	258		[1940LAM/ROP, 1984BOU/FRI]
C_4H_8BrClO	[51070-66-7]	2-bromoethyl 2-chloroethyl ether				
	Δ_vH	(309–469)	53.3	324	A	[1987STE/MAL, 1947STU]
$C_4H_8Br_2$	[62168-25-6]	1,1-dibromobutane				
	Δ_vH	(342–477)	45.8	357	A, EST	[1987STE/MAL, 1956MAN, 1971DYK]
$C_4H_8Br_2$	[533-98-2]	1,2-dibromobutane				
	Δ_vH	(338–425)	43.5	353	A	[1987STE/MAL]
	Δ_vH	(330–425)	45.9	298		[1975PIS/ROZ2, 1975PIS/ROZ]
	Δ_vH		45.6 ± 0.7	298	EB	[1975PIS/ROZ]
	Δ_vH	(281–439)	42.8	296	A	[1987STE/MAL, 1947STU]
	Δ_vH	(273–333)	45.1	300		[1941LIS]
$C_4H_8Br_2$	[107-80-2]	1,3-dibromobutane				
	Δ_vH	(351–450)	44.7	366	A	[1987STE/MAL]
$C_4H_8Br_2$	[110-52-1]	1,4-dibromobutane				
	Δ_vH		52.6	298	GC	[1994CAR/LAY]
	Δ_vH	(375–520)	51.4	390	A	[1987STE/MAL, 1971DYK]
	Δ_vH	(305–470)	49.4	320		[1947STU]
$C_4H_8Br_2$	[5780-13-2]	*meso* 2,3-dibromobutane				
	Δ_vH	(274–431)	41.7	289	A	[1987STE/MAL, 1947STU]
$C_4H_8Br_2$	[598-71-0]	*threo* 2,3-dibromobutane				
	Δ_vH	(278–434)	40.9	293	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_8Br_2$	[594-34-3]	1,2-dibromo-2-methylpropane				
	$\Delta_v H$		43.3 ± 0.1		C	[1974SUN/WUL]
	$\Delta_v H$	(244–422)	33.3	259	A	[1987STE/MAL, 1947STU]
$C_4H_8Br_2$	[28148-04-1]	1,3-dibromo-2-methylpropane				
	$\Delta_v H$	(287–448)	45.1	302	A	[1987STE/MAL, 1947STU]
$C_4H_8Br_2O$	[5414-19-7]	*bis*(2-bromoethyl) ether				
	$\Delta_v H$	(320–486)	55.1	335	A	[1987STE/MAL, 1947STU]
$C_4H_8Br_2O_2$	[na]	(*dl*) 2,3-dibromo-1,4-butanediol				
	$\Delta_{fus}H$		29.29	363.2		[1981CHI/GAR]
$C_4H_8Br_2O_2$	[na]	(*d*) 2,3-dibromo-1,4-butanediol				
	$\Delta_{fus}H$		33.89	388.2		[1981CHI/GAR]
$C_4H_8Cl_2$	[541-33-3]	1,1-dichlorobutane				
	$\Delta_v H$	(310–390)	39.5	298		[1991BAS/SVO]
	$\Delta_v H$	(304–386)	38.7	319	A	[1987STE/MAL]
	$\Delta_v H$		39.4 ± 0.6	298	EB	[1977PIS/ROZ]
	$\Delta_v H$	(303–428)	38.8	318	EST	[1987STE/MAL, 1956MAN]
$C_4H_8Cl_2$	[616-21-7]	1,2-dichlorobutane				
	$\Delta_v H$		40.1 ± 0.1	298	C	[1992HE/AN]
	$\Delta_v H$		40.2 ± 0.1	298	C	[1989AN/HU]
	$\Delta_v H$	(312–394)	39.0	327	A	[1987STE/MAL]
	$\Delta_v H$	(310–390)	40.4	298		[1982ROO, 1991BAS/SVO]
	$\Delta_v H$		40.1 ± 0.6	298	EB	[1975PIS/ROZ2]
	$\Delta_v H$	(249–397)	38.1	264	A	[1987STE/MAL, 1947STU]
$C_4H_8Cl_2$	[1190-22-3]	1,3-dichlorobutane				
	$\Delta_v H$		42.2 ± 0.1	298	C	[1992HE/AN]
	$\Delta_v H$	(320–400)	42.3	298		[1991BAS/SVO]
	$\Delta_v H$		42.3 ± 1.8	298	C	[1990AN/HE]
	$\Delta_v H$	(318–407)	40.5	333	A	[1987STE/MAL]
$C_4H_8Cl_2$	[110-56-2]	1,4-dichlorobutane				
	$\Delta_v H$		46.7	298	GC	[1994CAR/LAY]
	$\Delta_v H$		46.5 ± 0.1	298	C	[1992HE/AN]
	$\Delta_v H$	(325–425)	46.4	298		[1991BAS/SVO]
	$\Delta_v H$		46.4 ± 0.1	298	C	[1990AN/HE]
	$\Delta_v H$		46.4 ± 0.1	298	C	[1989AN/HU]
	$\Delta_v H$	(336–425)	43.4	351	A	[1987STE/MAL, 1971DYK]
$C_4H_8Cl_2$	[4279-22-5]	2,2-dichlorobutane				
	$\Delta_v H$		36.3 ± 0.1	298	C	[1992HE/AN]
	$\Delta_v H$	(300–370)	36.7	298		[1991BAS/SVO]
	$\Delta_v H$	(293–376)	36.4	308	A	[1987STE/MAL]
	$\Delta_v H$		33.7 ± 0.6	298	EB	[1977PIS/ROZ]
$C_4H_8Cl_2$	[na]	*meso* 2,3-dichlorobutane				
	$\Delta_v H$		38.4	298	C	[1992HE/AN, 1993HE/AN]
$C_4H_8Cl_2$	[na]	(*dl*) 2,3-dichlorobutane				
	$\Delta_v H$		39.7	298	C	[1993HE/AN]
$C_4H_8Cl_2$	[7581-97-7]	2,3-dichlorobutane				
	$\Delta_v H$	(247–389)	39.6	262	A	[1987STE/MAL]
$C_4H_8Cl_2$	[598-76-5]	1,1-dichloro-2-methylpropane				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(242–379)	38.7	257	A	[1987STE/MAL]
$C_4H_8Cl_2$	[594-37-6]	1,2-dichloro-2-methylpropane				
	$\Delta_v H$	(247–381)	40.4	262	A	[1987STE/MAL, 1947STU]
$C_4H_8Cl_2$	[616-19-3]	1,3-dichloro-2-methylpropane				
	$\Delta_v H$	(270–408)	45.1	285	A	[1987STE/MAL, 1947STU]
$C_4H_8Cl_2O$	[111-44-4]	*bis*(2-chloroethyl) ether				
	$\Delta_{fus}H$		8.39	226.5		[1996DOM/HEA]
	$\Delta_v H$	(297–452)	49.8	312	A	[1987STE/MAL, 1947STU]
$C_4H_8Cl_2S$	[505-60-2]	*bis*(2-chloroethyl) sulfide				
	$\Delta_{sub}H$	(248–293)	80.9	271		[2006BUC/BUE]
	$\Delta_{sub}H$	(263–287)	77.2	275		[1987STE/MAL]
	$\Delta_{sub}H$		84.5		B	[1963BON, 1947BAL/DEN]
	$\Delta_v H$	(288–358)	59.6	303	A, MM	[1987STE/MAL, 1947BAL/DEN, 1984BOU/FRI, 1948BEN/FRA]
	$\Delta_v H$	(353–393)	50.3	373		[1943HOL/MEL]
$C_4H_8Cl_2S_3$	[19149-77-0]	*bis*(2-chloroethyl) trisulfide				
	$\Delta_v H$	(293–333)	68.2	308	A, GS	[1987STE/MAL, 1948RED/CHA, 1999DYK/SVO]
$C_4H_8Cl_3O_4P$	[52-68-6]	(1-hydroxy-2,2,2-trichloroethyl)phosphonic acid dimethyl ester				
	$\Delta_{fus}H$		20.37	351		
	$\Delta_{fus}H$		22.4	357		
	$\Delta_{fus}H$		25.0	384		[1996DOM/HEA]
	$\Delta_{sub}H$	(293–357)	107		308	[1987STE/MAL]
$C_4H_8F_2$	[353-81-1]	1,1-difluorobutane				
	$\Delta_v H$	(246–347)	31	261	A, EST	[1987STE/MAL, 1956MAN, 1971DYK]
$C_4H_8F_2$	[353-81-1]	2,2-difluorobutane				
	$\Delta_v H$	(238–336)	30	253	A	[1987STE/MAL, 1971DYK]
$C_4H_8F_2O$	[184899-81-8]	1,1,1,2,2,3,3-heptafluoro-3-(fluoromethoxy)propane				
	$\Delta_v H$	(283–316)	31	298	I	[2002MUR/YAM]
$C_4H_8F_2O_4S$	[381-46-4]	*bis*(2-fluoroethyl) sulfate				
	$\Delta_v H$	(273–333)	63.9	288	A, GS	[1987STE/MAL, 1948RED/CHA4, 1999DYK/SVO]
$C_4H_8I_2$	[628-21-7]	1,4-diiodobutane				
	$\Delta_v H$		59	298	GC	[1994CAR/LAY]
$C_4H_8N_2$	[926-64-7]	(dimethylamino)acetonitrile				
	$\Delta_v H$	(277–307)	45.4 ± 0.6		GS	[1997WEL/VER]
$C_4H_8N_2$	[1606-49-1]	1,4,5,6-tetrahydropyrimidine				
	$\Delta_v H$	(330–395)	75.6 ± 2.0	298	IP	[1996STE/CHI3]
$C_4H_8N_2O$	[1852-17-1]	tetrahydro-2-pyrimidone				
	$\Delta_{sub}H$	(363–385)	113.4 ± 0.7	298	ME	[2008RIB/RIB]
	$\Delta_{sub}H$		89.3	298		[1999DEF/DEO]
$C_4H_8N_2O_2$	[3148-73-0]	1,2-diacetylhydrazine				
	$\Delta_{sub}H$	(347–358)	103.1 ± 1.7	352.5	A	[1987STE/MAL, 1959TAK/SHI]
$C_4H_8N_2O_2$	[95-45-4]	dimethylglyoxime				
	$\Delta_{sub}H$	(331–352)	96.8	341.5	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		97.1 ± 2.1			[1956SEK/SUZ, 1970COX/PIL, 1960JON]
$C_4H_8N_2O_2$	[2620-63-5]	N-acetylglycine amide				
	$\Delta_{fus}H$		25.6	408.2		[1996DOM/HEA]
	$\Delta_{sub}H$		123.5 ± 1.7	376	C	[1999DEL/BAR]
	$\Delta_{sub}H$		126.3 ± 2.3			[1999DEL/BAR]
	$\Delta_{sub}H$		140.2 ± 2.3	298	C	[1995DEL/SAB]
	$\Delta_{sub}H$	(378–406)	135 ± 3	392	TE	[1988FER/DEL, 1986BAR/FER]
$C_4H_8N_2O_2$	[110-14-5]	succinamide				
	$\Delta_{fus}H$		6.08	485.9	DSC	[2006BAD/DEL]
$C_4H_8N_2O_2$	[59-82-2]	N-nitrosomorpholine				
	$\Delta_{vap}H$		50.2	343		[1988SOL/SIT]
$C_4H_8N_2O_6$	[6423-44-5]	1,3-butanediol dinitrate				
	$\Delta_{v}H$	(293–313)	71.4 ± 7.1	303	A, GS	[1987STE/MAL, 1957KEM/GOL]
$C_4H_8N_2O_6$	[3457-91-8]	1,4-butanediol dinitrate				
	$\Delta_{v}H$	(293–313)	57.4 ± 0.8	303	A, GS	[1987STE/MAL, 1957KEM/GOL]
$C_4H_8N_2O_7$	[693-21-0]	diethyleneglycol dinitrate				
	$\Delta_{fus}H$		25.4	276.5		[2000URY/KUP]
	$\Delta_{v}H$	(293–333)	94.3	308	A	[1987STE/MAL]
$C_4H_8N_4O_2$	[140-79-4]	1,4-dinitrosopiperazine				
	$\Delta_{sub}H$	(325–360)	101.3 ± 8	343		[1974PEP/MAT, 1977PED/RYL]
$C_4H_8N_4O_4$	[4164-37-8]	1,4-dinitropiperazine				
	$\Delta_{fus}H$		200.8	489.2		[2001OXL/SMI]
		Note: Enthalpy of fusion is abnormally high, compound may be decomposing				
	$\Delta_{fus}H$		33.93	489.6	DSC	[1997ZEM]
	$\Delta_{sub}H$	(325–360)	111.3 ± 8	343		[1974PEP/MAT, 1977PED/RYL]
$C_4H_8N_4O_4$	[5754-89-2]	1,3-dinitro-1,3-diazacyclohexane				
	$\Delta_{trs}H$		15.8	343		
	$\Delta_{fus}H$		2.97	354		[1991PIC/RYL]
$C_4H_8N_6O_5$	[5800-63-5]	1,5-dinitro-3-nitroso-1,3,5-triazacycloheptane				
	$\Delta_{trs}H$		25.7	404		
	$\Delta_{fus}H$		2.9	440		[1991PIC/RYL]
$C_4H_8N_6O_6$	[5790-78-3]	1,3,5-trinitro-1,3,5-triazacycloheptane				
	$\Delta_{fus}H$		27.74	435.9	DSC	[1997ZEM]
$C_4H_8N_8O_8$	[2691-41-0]	1,3,5,7-tetranitro-1,3,5,7-tetrazacyclooctane				
	$\Delta_{fus}H(\delta)$		69.87	553.2		[1996DOM/HEA]
	$\Delta_{sub}H$	(461–487)	161.9	474		[1976TAY/CRO]
	$\Delta_{sub}H(\delta)$	(415–479)	161 ± 0.3	447		[1978CUN/PAL]
	$\Delta_{sub}H(\beta)$	(371–403)	175.2	385		[1969ROS/DIC]
$C_4H_8N_{12}O_6$	[62209-57-8]	1,7-diazido-2,4,6-trinitro-2,4,6-triazaheptane				
	$\Delta_{fus}H$		40.17	406		[1987OYU/BRI]
C_4H_8O	[2919-23-5]	cyclobutanol				
	$\Delta_{fus}H$		8.53	228.4		[1982DWO/FUC]
C_4H_8O	[78-93-3]	2-butanone				
	$\Delta_{fus}H$		8.44	186.5		[1991ACR]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(294–342)	34.6	309	A	[1987STE/MAL]
	$\Delta_v H$	(353–403)	32.5	368	A	[1987STE/MAL]
	$\Delta_v H$	(397–479)	31.6	412	A	[1987STE/MAL]
	$\Delta_v H$	(473–537)	31.1	488	A	[1987STE/MAL]
	$\Delta_v H$		34.8 ± 0.1	298	C	[1983UCH/MAJ]
	$\Delta_v H$		34.5 ± 0.1	298	C	[1979SUN/SVE2]
	$\Delta_v H$	(258–362)	35.6	273		[1978CAV/CHA]
	$\Delta_v H$		34.7			[1975AMB/ELL]
	$\Delta_v H$	(315–363)	33.9	330	A, EB, GS	[1987STE/MAL, 1975AMB/ELL, 1965COL/COU]
	$\Delta_v H$		33.8	315	C	[1973GEI/QUI]
	$\Delta_v H$		33.8 ± 0.1	314	C	[1961NIC/KOB]
	$\Delta_v H$		32.3 ± 0.1	338	C	[1961NIC/KOB]
	$\Delta_v H$		31.3 ± 0.1	352	C	[1961NIC/KOB]
	$\Delta_v H$		30.5 ± 0.1	363	C	[1961NIC/KOB]
	$\Delta_v H$		30.0 ± 0.1	370	C	[1961NIC/KOB]
	$\Delta_v H$	(314–370)	33.9	329		[1947STU]
C_4H_8O	[513-42-8]	2-methyl-2-propen-1-ol				
	$\Delta_v H$	(323–373)	51.9	298	CGC	[1995CHI/HOS]
C_4H_8O	[627-27-0]	3-buten-1-ol				
	$\Delta_v H$	(343–393)	50.8 ± 0.0	298	CGC	[2005VAL/QUI]
	$\Delta_v H$		50.9 ± 0.1	313	C	[1996ULB/KLU]
	$\Delta_v H$		48.8 ± 0.1	328	C	[1996ULB/KLU]
	$\Delta_v H$		46.7 ± 0.1	343	C	[1996ULB/KLU]
C_4H_8O	[6118-14-5]	(*dl*) 3-buten-2-ol				
	$\Delta_v H$	(304–370)	39.2	319	A	[1987STE/MAL]
C_4H_8O	[123-72-8]	butyraldehyde				
	$\Delta_{fus}H$		11.09	176.8		[1996DOM/HEA, 1989VAS/LEB]
	$\Delta_v H$	(313–353)	33.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(293–349)	34.2	308	A	[1987STE/MAL]
	$\Delta_v H$		33.7 ± 0.4	298	EB	[1967BUC/COX, 2003VER/KRA2]
	$\Delta_v H$	(330–348)	32.9	339	EB	[1963WOJ]
	$\Delta_v H$	(304–347)	33.3	319		[1959SEP/PAU, 1984BOU/FRI]
	$\Delta_v H$	(258–353)	33.9	306		[1938KUC]
C_4H_8O	[106-88-7]	(*dl*) 1,2-epoxybutane				
	$\Delta_v H$	(254–347)	24.7	269	A	[1987STE/MAL]
C_4H_8O	[558-30-5]	1,2-epoxy-2-methylpropane (2,2-dimethyloxirane)				
	$\Delta_v H$	(204–329)	30.6	219	A	[1987STE/MAL, 1947STU]
C_4H_8O	[109-92-2]	ethyl vinyl ether				
	$\Delta_v H$	(223–309)	29.5	238	A	[1987STE/MAL]
C_4H_8O	[78-84-2]	isobutyraldehyde				
	$\Delta_v H$	(313–353)	32.3	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(313–324)	31.4	318		[1984ENG/SAN]
	$\Delta_v H$	(309–337)	31.8	324		[1976BRA/PES]
	$\Delta_v H$	(333–347)	33.4	340	EB	[1963WOJ]
	$\Delta_v H$	(283–337)	32.8	298	A	[1987STE/MAL, 1959SEP/PAU, 1964SER/TIM]
C_4H_8O	[116-11-0]	2-methoxy-1-propene				
	$\Delta_v H$	(281–309)	28.3 ± 0.1	295		[1988BAG/GUR]
C_4H_8O	[4188-68-5]	*cis* methyl propenyl ether				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(293–318)	30.6	305	A	[1987STE/MAL]
C_4H_8O	[4188-69-6]	*trans* methyl propenyl ether				
	$\Delta_v H$	(293–322)	29.5	307	A	[1987STE/MAL]
C_4H_8O	[109-99-9]	tetrahydrofuran				
	$\Delta_{fus}H$		8.54	164.8		[1991ACR]
	$\Delta_v H$	(290–339)	32.3	305		[2001LOR/AUC]
	$\Delta_v H$	(273–339)	33.1	288	A	[1987STE/MAL]
	$\Delta_v H$	(399–479)	29	414	A	[1987STE/MAL]
	$\Delta_v H$	(467–541)	29.6	482	A	[1987STE/MAL]
	$\Delta_v H$		32	298	C	[1981HOS/SCO]
	$\Delta_v H$	(235–340)	32.5 ± 0.2	288		[1976BOR/CHU]
	$\Delta_v H$	(302–339)	30.8	320		[1975RIV]
	$\Delta_v H$	(273–308)	32.8	288		[1970KOI/OUC, 1984BOU/FRI]
	$\Delta_v H$	(296–373)	31.9	311		[1970SCO, 1984BOU/FRI]
	$\Delta_v H$	(224–360)	32.9	298		[1970MOI/ANT]
	$\Delta_v H$	(293–341)	U 26.9	308		[1959BIS/FIN]
	$\Delta_v H$	(293–313)	31.8	313		[1948KLA/MOH, 1958CAS/FLE3]
C_4H_8OS	[1600-44-8]	tetrahydrothiophene 1-oxide				
	$\Delta_{trs}H$		5.85	223.9		
	$\Delta_{fus}H$		0.51	231.8	DSC	[1990HAI/GIL]
C_4H_8OS	[15980-15-1]	1,4-oxathiane				
	$\Delta_v H$	(342–411)	42.1	378		[1999DYK/SVO]
	$\Delta_v H$	(342–411)	44.8	357	A	[1987STE/MAL]
C_4H_8OS	[625-60-5]	S-ethyl thiolacetate				
	$\Delta_v H$		40.0 ± 0.2	298	C	[1966WAD]
$C_4H_8OS_2$	[16487-10-8]	1,3-dithiane sulfoxide				
	$\Delta_{fus}H$		22.6	361.9	DSC	[2003ROU/TEM2]
$C_4H_8O_2$	[497-26-7]	2-methyl-1,3-dioxolane				
	$\Delta_v H$	(270–308)	43.0 ± 0.6		GS	[1998VER/PEN, 2002VER]
$C_4H_8O_2$	[6117-80-2]	*cis* 2-butene-1,4-diol				
	$\Delta_v H$	(373–508)	74.7	388	A	[1987STE/MAL]
$C_4H_8O_2$	[922-69-0]	1,1-dimethoxyethene				
	$\Delta_v H$	(303–362)	39.6	333		[1995GUT/LIU]
$C_4H_8O_2$	[107-92-6]	butanoic acid				
	$\Delta_{fus}H$		11.07	264.7		[1991ACR]
	$\Delta_{trs}H$		1.04	NA		
	$\Delta_{fus}H$		11.59	268		[1982MAR/AND]
	$\Delta_{sub}H$	(238–255)	76.0 ± 1.5	248	TE,ME	[1978CAL/CAL]
	$\Delta_v H$	(384–435)	52.5	399		[2004CLI/RAM]
	$\Delta_v H$	(391–429)	50.3	406	EB	[2001MUN/KRA]
	$\Delta_v H$	(303–378)	58.5	298	CGC	[2000VER2]
	$\Delta_v H$	(278–308)	58.5 ± 0.3	293	GS	[2000VER2]
	$\Delta_v H$	(278–308)	58.2 ± 0.3	298	GS	[2000VER2]
	$\Delta_v H$	(353–393)	60.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(437–592)	47.7	452	A	[1987STE/MAL]
	$\Delta_v H$	(301–358)	51.1	316	A	[1987STE/MAL]
	$\Delta_v H$	(355–453)	53.2	370	A	[1987STE/MAL, 1971DYK]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$ (monomer)		40.5 ± 0.1	298	C	[1970KON/WAD]
	$\Delta_v H$		58 ± 4	298	C	[1970KON/WAD]
	$\Delta_v H$	(363–436)	52	378		[1949DRE/SHR, 1949DRE/MAR, 1984BOU/FRI]
$(C_4H_8O_2)_2$	[19496-06-1]	butanoic acid dimer				
	$\Delta_{sub}H$	(238–255)	85 ± 1.5	248	TE,ME	[1978CAL/CAL]
$C_4H_8O_2$	[505-22-6]	1,3-dioxane				
	$\Delta_v H$		39.1 ± 0.1	298	C	[1982BYS/MAN]
	$\Delta_v H$		35.6 ± 0.4			[1959FLE/MOR]
$C_4H_8O_2$	[123-91-1]	1,4-dioxane				
	$\Delta_{trs}H$		2.35	272.9		
	$\Delta_{fus}H$		12.84	284.1		[1996DOM/HEA]
	$\Delta_{sub}H$	(237–272)	35.6	255	A	[1947STU]
	$\Delta_v H$	(285–375)	38	300	A	[1987STE/MAL]
	$\Delta_v H$	(329–372)	36.5	350		[1984CAS/FRA]
	$\Delta_v H$		38.6 ± 0.1	298	C	[1982BYS/MAN]
	$\Delta_v H$	(293–398)	37.3	308		[1963VIN/MAR, 1984BOU/FRI]
	$\Delta_v H$	(283–353)	37	318		[1936HOV/SCH]
$C_4H_8O_2$	[141-78-6]	ethyl acetate				
	$\Delta_{fus}H$		10.48	189.3		[1991ACR]
	$\Delta_v H$	(300–390)	34.1	315		[1997HER/ORT]
	$\Delta_v H$	(313–353)	35.0	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(271–373)	36.7	286		[1981AMB/ELL, 1984BOU/FRI]
	$\Delta_v H$		35.6 ± 0.1	298	C	[1980SVO/UCH]
	$\Delta_v H$		34.6 ± 0.1	313	C	[1980SVO/UCH]
	$\Delta_v H$		31.4 ± 0.1	343	C	[1980SVO/UCH]
	$\Delta_v H$		33.8 ± 0.1	326	C	[1977SVO/VES]
	$\Delta_v H$		33.4 ± 0.1	331	C	[1977SVO/VES]
	$\Delta_v H$		32.4 ± 0.1	344	C	[1977SVO/VES]
	$\Delta_v H$		31.9 ± 0.1	351	C	[1977SVO/VES]
	$\Delta_v H$		31.0 ± 0.1	363	C	[1977SVO/VES]
	$\Delta_v H$		34.0	320		[1976CON/COU]
	$\Delta_v H$		31.9	350		[1976CON/COU]
	$\Delta_v H$		35.1 ± 0.2	298	C	[1966WAD]
	$\Delta_v H$	(288–351)	35.7	303	A	[1987STE/MAL, 1965MER/POL, 1971DYK]
$C_4H_8O_2$	[513-86-0]	3-hydroxy-2-butanone (acetoin)				
	$\Delta_v H$	(363–393)	48.7 ± 0.4	298	CGC	[2005TEM/CHI]
	$\Delta_v H$	(273–418)	38.4	288	A	[1987STE/MAL]
$C_4H_8O_2$	[79-31-2]	2-methylpropanoic acid				
	$\Delta_v H$	(375–426)	50.5	390		[2004CLI/RAM]
	$\Delta_v H$	(303–378)	56.3	298	CGC	[2000VER2]
	$\Delta_v H$	(278–308)	55.8 ± 0.3	293	GS	[2000VER2]
	$\Delta_v H$	(278–308)	55.5 ± 0.3	298	GS	[2000VER2]
	$\Delta_v H$	(344–445)	51.6	359	EB	[1987AMB/GHI3]
	$\Delta_v H$	(288–428)	50.9	303	A	[1987STE/MAL]
	$\Delta_v H$	(428–562)	45.4	443	A	[1987STE/MAL]
	$\Delta_v H$	(228–243)	53.4 ± 3	398	TE	[1979DEK/OON]
	$\Delta_v H$ (monomer)		35.5 ± 0.1	298	C	[1970KON/WAD]
	$\Delta_v H$		53 ± 4	298	C	[1970KON/WAD]
$C_4H_8O_2$	[625-55-8]	isopropyl formate				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(221–342)	34.5	236	A	[1987STE/MAL, 1947STU]
$C_4H_8O_2$	[922-67-8]	methyl propionate				
	$\Delta_v H$	(313–363)	28.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		35.6 ± 0.4	298	GC	[1987AZA]
	$\Delta_v H$	(231–353)	39.1	246	A	[1987STE/MAL]
	$\Delta_v H$	(353–486)	32.8	368	A	[1987STE/MAL]
	$\Delta_v H$		35.9 ± 0.1	298	C	[1980SVO/UCH]
	$\Delta_v H$		34.9 ± 0.1	313	C	[1980SVO/UCH]
	$\Delta_v H$		36.3 ± 0.3	298	GCC	[1980FUC/PEA]
	$\Delta_v H$		35.8 ± 0.1	298	C	[1979SUN/SVE2]
	$\Delta_v H$		34.2 ± 0.1	326	C	[1977SVO/VES]
	$\Delta_v H$		33.8 ± 0.1	331	C	[1977SVO/VES]
	$\Delta_v H$		32.8 ± 0.1	344	C	[1977SVO/VES]
	$\Delta_v H$		32.1 ± 0.1	355	C	[1977SVO/VES]
	$\Delta_v H$		31.5 ± 0.1	363	C	[1977SVO/VES]
	$\Delta_v H$	(293–353)	35.9	308	A	[1987STE/MAL, 1965MER/POL]
$C_4H_8O_2$	[110-74-7]	propyl formate				
	$\Delta_v H$	(302–353)	35.3	317		[1993FAR/WIC]
	$\Delta_v H$	(354–518)	32.7	369	A	[1987STE/MAL]
	$\Delta_v H$	(230–355)	36.8	245	A	[1987STE/MAL]
	$\Delta_v H$		37.5 ± 0.1	298	C	[1980SVO/UCH]
	$\Delta_v H$		36.5 ± 0.1	313	C	[1980SVO/UCH]
	$\Delta_v H$		35.8 ± 0.1	326	C	[1976CIH/HYN]
	$\Delta_v H$		35.4 ± 0.1	331	C	[1976CIH/HYN]
	$\Delta_v H$		34.4 ± 0.1	344	C	[1976CIH/HYN]
	$\Delta_v H$		33.8 ± 0.1	351	C	[1976CIH/HYN]
	$\Delta_v H$		33.5 ± 0.1	355	C	[1976CIH/HYN]
	$\Delta_v H$		32.9 ± 0.1	363	C	[1976CIH/HYN]
	$\Delta_v H$	(299–355)	35.6	314		[1928NEL, 1984BOU/FRI]
$C_4H_8O_2S$	[16215-14-8]	allyl methyl sulfone				
	$\Delta_v H$	(405–450)	68.2	420	A	[1987STE/MAL, 1999DYK/SVO]
$C_4H_8O_2S$	[126-33-0]	tetrahydrothiophene-1,1-dioxide (sulfolane)				
	$\Delta_{trs}H$		7.86	288.6		
	$\Delta_{fus}H$		1.37	301.7		[1999AHL/LOH]
	$\Delta_v H$		69.1 ± 1.4	298	C	[2004MOR/MAT]
	$\Delta_v H$	(423–529)	59.0	438		[1999DYK/SVO]
	$\Delta_v H$	(364–529)	53.7	379		[1999DYK/SVO]
	$\Delta_v H$	(424–542)	67.8 ± 0.8	298	EB	[1997STE/CHI3]
	$\Delta_v H$	(373–453)	58.2	413	TGA	[1987ALN/ALS]
	$\Delta_v H$	(303–328)	31.0	315	A	[1987STE/MAL]
	$\Delta_v H$	(413–558)	58.7	428	A	[1987STE/MAL]
	$\Delta_v H$	(360–400)	54.5	380		[1984SHC/KAP]
$C_4H_8O_2S$	[126-33-0]	tetramethylene sulfone				
	$\Delta_{trs}H$		5.35	288.6		
	$\Delta_{fus}H$		1.43	301.6		[1996DOM/MOO]
$C_4H_8O_2S_2$	[55337-75-2]	1,3-dithiane sulfone				
	$\Delta_{fus}H$		23.47	413.8	DSC	[2004ROU/TEM3]
	$\Delta_{fus}H$		22.0	414	DSC	[2003ROU/TEM2]
	$\Delta_{sub}H$	(342–358)	102.3 ± 0.9	350	ME	[2004ROU/TEM3]
	$\Delta_{sub}H$	(342–358)	103.6 ± 0.9	298	ME	[2004ROU/TEM3]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_8O_2S_2$	[139408-38-1]	1,4-dithiane sulfone				
	$\Delta_{fus}H$		26.0	474.2	DSC	[2006TEM/ROU]
	$\Delta_{sub}H$	(340–354)	99.9 ± 1.2	298	ME	[2006ROU/TEM]
	$\Delta_{sub}H$	(340–354)	98.7 ± 1.2	347	ME	[2006ROU/TEM]
$C_4H_8O_3$	[627-03-2]	ethoxyacetic acid				
	Δ_vH	(280–310)	69.1	295	A	[1987STE/MAL]
$C_4H_8O_3$	[19693-75-5]	2-methoxy-1,3-dioxolane				
	Δ_vH	(278–308)	46.4 ± 0.8	298	GS	[2002VER]
	Δ_vH	(278–308)	46.8 ± 0.8		GS	[1995RAK/VER2]
$C_4H_8O_3$	[623-50-7]	ethyl glycolate				
	Δ_vH	(287–432)	47.1	302	A	[1987STE/MAL, 1947STU]
$C_4H_8O_3$	[594-61-6]	2-hydroxyisobutyric acid				
	Δ_vH	(371–485)	67.5	386	A	[1987STE/MAL]
$C_4H_8O_3$	[6149-41-3]	methyl 3-hydroxypropionate				
	Δ_vH	(330–343)	60	336	A	[1987STE/MAL]
$C_4H_8O_3$	[6290-49-9]	methoxyacetic acid, methyl ester				
	Δ_vH	(285–310)	39.3	297	A	[1987STE/MAL]
$C_4H_8O_3$	[547-64-8]	(*dl*) methyl lactate				
	Δ_vH	(313–418)	44.7	328	A	[1987STE/MAL]
$C_4H_8O_3$	[542-59-6]	ethylene glycol monoacetate				
	Δ_vH	(301–346)	63.9 ± 0.3	298	GS	[2009VER/EME2]
	Δ_vH	(363–448)	55.1	378	EB	[2007SCH/DOE]
$C_4H_8O_3$	[13122-71-9]	peroxybutyric acid				
	Δ_vH	(273–393)	45.5	288	A	[1987STE/MAL, 1971DYK]
$C_4H_8O_3$	[623-53-0]	ethyl methyl carbonate				
	$\Delta_{fus}H$		11.24	219.4	DSC	[2004DIN]
$C_4H_8O_3S$	[109577-03-9]	1,3-oxathiane sulfone				
	$\Delta_{fus}H$		15.2	352.9	DSC	[2006TEM/ROU]
	$\Delta_{sub}H$	(307–324)	92.1 ± 0.7	298	ME	[2007ROU/TEM2]
	$\Delta_{sub}H$	(307–324)	91.7 ± 0.7	316	ME	[2007ROU/TEM2]
$C_4H_8O_3S$	[107-61-9]	1,4-oxathiane sulfone				
	$\Delta_{trs}H+\Delta_{fus}H$		20.2	403.3	DSC	[2006TEM/ROU]
	$\Delta_{sub}H$	(307–322)	92.0 ± 1.0	298	ME	[2007ROU/TEM2]
	$\Delta_{sub}H$	(307–322)	91.6 ± 1.0	314	ME	[2007ROU/TEM2]
$C_4H_8O_4$	[293-30-1]	1,3,5,7-tetroxane				
	$\Delta_{fus}H$		22.59	385		[1996DOM/HEA]
	$\Delta_{sub}H$		79.6 ± 0.2	298	C	[1977PED/RYL, 1969MAN/MOR]
	$\Delta_{sub}H$		79.5		C	[1975BOG/BER]
C_4H_8S	[3772-13-2]	2,2-dimethylthiirane				
	Δ_vH	(273–473)	37	288	A	[1987STE/MAL, 1971DYK, 1999DYK/SVO]
C_4H_8S	[3195-86-6]	2-ethylthiirane				
	Δ_vH	(298–450)	39.7	313	A	[1987STE/MAL, 1971DYK]
C_4H_8S	[110-01-0]	tetrahydrothiophene				

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		7.35	177		[1985DEA]
	Δ_vH		38.8	298		[1971WIL/ZWO]
	Δ_vH	(331–401)	37.7	346	EB	[1952WHI/BER]
	Δ_vH	(343–434)	37.1	358	A, EB	[1987STE/MAL, 1952HUB/FIN, 1966OSB/DOU]
$C_4H_8S_2$	[505-23-7]	1,3-dithiane				
	$\Delta_{trs}H$		0.8	316.4		
	$\Delta_{fus}H$		14.4	327.2		[1996DOM/HEA]
	$\Delta_{sub}H$	(266–279)	62.9 ± 0.7	298	ME	[1999ROU/DAV]
	$\Delta_{sub}H$		69.9 ± 0.4	298	GC	[1989AZA]
	$\Delta_{sub}H$	(250–271)	72.6	263	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		52.3 ± 0.8	298	C	[1971MOR]
	Δ_vH		66.9 ± 0.4		GC	[1989AZA]
$C_4H_8S_2$	[505-29-3]	1,4-dithiane				
	$\Delta_{fus}H$		21.6	384.6		[1996DOM/HEA]
	$\Delta_{sub}H$		63	298		[1999DAV/FLO]
	$\Delta_{sub}H$		68.9	298		[1989AZA]
	$\Delta_{sub}H$	(253–276)	72.4	268	E	[1983DEW/VAN]
	Δ_vH	(389–437)	48.7	404		[1999DYK/SVO]
	Δ_vH		68.9 ± 0.5		GC	[1989AZA]
	Δ_vH	(388–437)	47.9	403	A	[1987STE/MAL]
C_4H_9Br	[109-65-9]	1-bromobutane				
	$\Delta_{fus}H$		9.23	160.4		[1996DOM/HEA]
	Δ_vH	(323–363)	36.4	298	CGC	[1995CHI/HOS]
	Δ_vH	(340–370)	36.4	298		[1991BAS/SVO]
	Δ_vH	(338–373)	34.6	353	A, EB	[1987STE/MAL, 1977SVO/MAJ]
	Δ_vH		35.6 ± 0.1	322	C	[1977SVO/MAJ]
	Δ_vH		34.9 ± 0.1	332	C	[1977SVO/MAJ]
	Δ_vH		34.5 ± 0.1	339	C	[1977SVO/MAJ]
	Δ_vH		33.7 ± 0.1	352	C	[1977SVO/MAJ]
	Δ_vH		33.0 ± 0.1	366	C	[1977SVO/MAJ]
	Δ_vH		36.6 ± 0.1	298	C	[1968WAD]
	Δ_vH		36.7 ± 0.1	298	C	[1966WAD]
	Δ_vH	(273–400)	37.5	288	A, EST	[1987STE/MAL, 1961LI/ROS, 1971DYK]
	Δ_vH	(293–343)	33.5	308		[1929SMY/ENG, 1984BOU/FRI]
C_4H_9Br	[78-76-2]	2-bromobutane				
	$\Delta_{fus}H$		6.88	160.3		[1991ACR]
	Δ_vH	(281–403)	33.9	296	A	[1987STE/MAL, 1971DYK]
	Δ_vH		34.5 ± 0.1	298	C	[1968WAD]
	Δ_vH		34.8 ± 0.1	298	C	[1966WAD]
C_4H_9Br	[78-77-3]	1-bromo-2-methylpropane				
	Δ_vH	(305–363)	34.1	320	A, EB	[1987STE/MAL, 1977SVO/MAJ]
	Δ_vH		33.1 ± 0.1	330	C	[1977SVO/MAJ]
	Δ_vH		32.6 ± 0.1	341	C	[1977SVO/MAJ]
	Δ_vH		32.0 ± 0.1	353	C	[1977SVO/MAJ]
	Δ_vH		31.4 ± 0.1	366	C	[1977SVO/MAJ]
	Δ_vH	(281–404)	34	296	A	[1987STE/MAL, 1971DYK]
	Δ_vH		34.9 ± 0.1	298	C	[1968WAD]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_4H_9Br	[507-19-7]	2-bromo-2-methylpropane				
	$\Delta_{trs}H$		5.65	208.6		
	$\Delta_{trs}H$		1.05	231.5		
	$\Delta_{fus}H$		1.97	256.1		[1996DOM/HEA]
	$\Delta_{trs}H$		5.85	209.3		
	$\Delta_{trs}H$		0.96	231.8		
	$\Delta_{fus}H$		NA	NA	DSC	[1986WEN/SCH]
	Δ_vH	(248–346)	31.4	263	A	[1987STE/MAL]
	Δ_vH	(270–345)	31	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH	(298–323)	31.5	313		[1969CAL/VAL]
	Δ_vH		31.8 ± 0.1	298	C	[1968WAD]
	Δ_vH	(273–346)	31.2	288		[1951BRY/HOW, 1984BOU/FRI]
C_4H_9BrO	[2482-57-7]	1-bromo-2-butanol				
	Δ_vH	(296–418)	58.4	311	A	[1987STE/MAL, 1947STU]
C_4H_9Cl	[109-69-3]	1-chlorobutane				
	Δ_vH	(260–350)	33.5	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH		33.5 ± 0.1	298	C	[1981TEK/MAJ]
	Δ_vH		32.7 ± 0.1	313	C	[1981TEK/MAJ]
	Δ_vH		31.8 ± 0.1	328	C	[1981TEK/MAJ]
	Δ_vH		30.9 ± 0.1	343	C	[1981TEK/MAJ]
	Δ_vH		30.0 ± 0.1	358	C	[1981TEK/MAJ]
	Δ_vH		29.4 ± 0.1	358	C	[1981TEK/MAJ]
	Δ_vH	(256–352)	35.6	271	DTA	[1969KEM/KRE]
	Δ_vH		33.5 ± 0.1	298	C	[1968WAD]
	Δ_vH	(257–389)	35	272	A, EST	[1987STE/MAL, 1961LI/ROS, 1971DYK]
	Δ_vH	(293–343)	37.2	308		[1929SMY/ENG, 1984BOU/FRI]
C_4H_9Cl	[78-86-4]	2-chlorobutane				
	Δ_vH	(315–341)	30.9	328	EB	[1996DAH/WIC]
	Δ_vH	(266–377)	33.1	281	A	[1987STE/MAL]
	Δ_vH		31.5 ± 0.1	298	C	[1981TEK/MAJ]
	Δ_vH		30.7 ± 0.1	313	C	[1981TEK/MAJ]
	Δ_vH		29.9 ± 0.1	328	C	[1981TEK/MAJ]
	Δ_vH		29.1 ± 0.1	343	C	[1981TEK/MAJ]
	Δ_vH		28.2 ± 0.1	358	C	[1981TEK/MAJ]
	Δ_vH		31.6 ± 0.1	298	C	[1968WAD]
	Δ_vH	(273–312)	31.8	288		[1928ROL, 1984BOU/FRI]
C_4H_9Cl	[513-36-0]	1-chloro-2-methylpropane				
	Δ_vH	(219–342)	36.1	234	A	[1987STE/MAL, 1947STU]
	Δ_vH		31.7 ± 0.1	298	C	[1968WAD]
C_4H_9Cl	[507-20-0]	2-chloro-2-methylpropane				
	$\Delta_{trs}H$		2.08	183.6		
	$\Delta_{trs}H$		5.75	219.8		
	$\Delta_{fus}H$		1.89	247.8	DSC	[2000TAM/LOP]
	$\Delta_{trs}H$		1.87	182.9		
	$\Delta_{trs}H$		5.88	219.3		
	$\Delta_{fus}H$		1.97	248.1		[1985DEA]
	$\Delta_{trs}H$		1.86	183.1		
	$\Delta_{trs}H$		5.66	219.4		
	$\Delta_{fus}H$		1.99	248.4		[1972URB/JAN]
	Δ_vH	(313–353)	28.6	298	CGC	[1995CHI/HOS]
	Δ_vH	(253–358)	32.3	268	A	[1987STE/MAL, 1971DYK]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(295–323)	27.8	309	A	[1987STE/MAL, 1969CAL/VAL]
	$\Delta_v H$	(295–323)	27	310		[1969CAL/VAL, 1984BOU/FRI]
	$\Delta_v H$		29.0 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$	(254–324)	29.1	269		[1947STU]
$C_4H_9ClO_2$	[628-89-7]	2-(2-chloroethoxy)ethanol				
	$\Delta_v H$	(326–469)	59.8	341	A	[1987STE/MAL, 1947STU]
$C_4H_9ClO_2S$	[2386-60-9]	butyl sulfonyl chloride				
	$\Delta_v H$	(283–373)	55.7	298		[1999DYK/SVO]
	$\Delta_v H$	(373–474)	52.9	388		[1999DYK/SVO]
	$\Delta_v H$	(253–283)	60.2	268	A	[1987STE/MAL, 1999DYK/SVO]
C_4H_9ClS	[693-07-2]	ethyl (2-chloroethyl) sulfide				
	$\Delta_v H$	(293–333)	44.4	308	A, GS	[1987STE/MAL, 1948RED/CHA, 1971DYK]
C_4H_9F	[2366-52-1]	1-fluorobutane				
	$\Delta_v H$	(222–326)	30.1	237	A, EST	[1987STE/MAL, 1961LI/ROS, 1971DYK]
C_4H_9F	[359-01-3]	2-fluorobutane				
	$\Delta_v H$	(233–329)	29.2	248	A	[1987STE/MAL, 1971DYK]
C_4H_9F	[353-61-7]	2-fluoro-2-methylpropane				
	$\Delta_v H$	(222–315)	27.6	237	A	[1987STE/MAL, 1971DYK]
C_4H_9FO	[372-93-0]	4-fluoro-1-butanol				
	$\Delta_v H$	(323–343)	64	333	A	[1987STE/MAL]
C_4H_9I	[542-69-8]	1-iodobutane				
	$\Delta_v H$	(313–353)	40.3	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(313–353)	39.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		40.6 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$	(292–431)	39.9	307	A, EST	[1987STE/MAL, 1961LI/ROS, 1971DYK]
C_4H_9I	[513-48-4]	2-iodobutane				
	$\Delta_v H$	(313–353)	37.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(313–353)	38.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		38.5 ± 0.1	298	C	[1968WAD]
C_4H_9I	[513-38-2]	1-iodo-2-methylpropane				
	$\Delta_v H$	(256–393)	41.1	271	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$		38.8 ± 0.1	298	C	[1968WAD]
C_4H_9I	[558-17-8]	2-iodo-2-methylpropane				
	$\Delta_{sub}H$	(202–223)	49.8	212.5	MG	[1987STE/MAL, 1944MIL2]
	$\Delta_v H$	(313–353)	37.0	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(236–294)	34.8	279	A	[1987STE/MAL, 1971DYK]
	$\Delta_v H$		35.4 ± 0.1	298	C	[1968WAD]
C_4H_9N	[123-75-1]	pyrrolidine				
	$\Delta_{trs}H$		0.54	207.1		
	$\Delta_{fus}H$		8.58	215.3		[1996DOM/HEA]
	$\Delta_v H$	(273–313)	38.4	288	A	[1987STE/MAL]
	$\Delta_v H$	(316–394)	35.8	331	EB, IP	[1987STE/MAL, 1959MCC/DOU, 1968OSB/DOU]
	$\Delta_v H$		35.8 ± 0.1	322	C	[1959MCC/DOU]
	$\Delta_v H$		34.5 ± 0.1	340	C	[1959MCC/DOU]
	$\Delta_v H$		33.0 ± 0.1	360	C	[1959MCC/DOU]
	$\Delta_v H$	(294–360)	37.3	309		[1959HIL/SIN, 1984BOU/FRI]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_4H_9NO	[96-29-7]	2-butanone oxime				
	$\Delta_v H$	(283–329)	58.6 ± 0.2	306	GS	[2009VER/EME4]
	$\Delta_v H$	(283–329)	59.1 ± 0.2	298	GS	[2009VER/EME4]
	$\Delta_v H$	(308–425)	53.7	323	A	[1987STE/MAL]
	$\Delta_v H$	(318–343)	55.5	330	A	[1987STE/MAL]
	$\Delta_v H$	(313–333)	57.2	323		[1975MES/BAE, 2009VER/EME4]
	$\Delta_v H$	(313–333)	57.7	298		[1975MES/BAE, 2009VER/EME4]
C_4H_9NO	[625-50-3]	N-ethylacetamide				
	$\Delta_v H$	(361–423)	55.7	376		[1995SCH/PUS]
	$\Delta_v H$		64.9 ± 0.2	298	C	[1984STA/WAD]
C_4H_9NO	[110-69-0]	buyraldehyde oxime				
	$\Delta_v H$	(313–343)	55.8	328	A	[1987STE/MAL]
C_4H_9NO	[541-35-5]	butyramide				
	$\Delta_{fus}H$		19.2	387.3		[2008ABA/BAD]
	$\Delta_{fus}H$		19.2	387.3		[2000BRU/DEL]
	$\Delta_{sub}H$	(288–354)	82 ± 4.0	298	TE	[2000BRU/DEL]
	$\Delta_{sub}H$	(298–347)	82 ± 4.0	298	TE	[2000BRU/DEL]
	$\Delta_{sub}H$		86.4 ± 0.4			[1975BAR/PIL, 1977PED/RYL]
	$\Delta_{sub}H$	(292–304)	85.4 ± 1.7	298	ME	[1973LEB/KAT2, 1977PED/RYL]
	$\Delta_{sub}H$	(353–373)	87	363		[1960JON]
	$\Delta_{sub}H$	(336–382)	86.4 ± 0.4	359	GS	[1959DAV/JON2]
	$\Delta_{sub}H$	(298–341)	87.0 ± 0.8	320	ME	[1959DAV/JON2]
	$\Delta_{sub}H$		79.9			[1960THO]
	$\Delta_v H$	(397–504)	64	412	A	[1987STE/MAL]
C_4H_9NO	[563-83-7]	2-methylpropanamide				
	$\Delta_{fus}H$		19.2	400.1		[2008ABA/BAD]
	$\Delta_{sub}H$		82			[2000BRU/DEL]
	$\Delta_{sub}H$	(285–302)	86.1 ± 0.2	294	ME	[1989ABB/JIM]
	$\Delta_{sub}H$		86.0 ± 0.2	298		[1989ABB/JIM]
C_4H_9NO	[127-19-5]	N,N-dimethylacetamide				
	$\Delta_{fus}H$		10.2	254.2		[2007SMI/TSV]
	$\Delta_{fus}H$		8.2	253.2		[2000LIS/JAM]
	$\Delta_{fus}H$		10.42	251.4		[1999AHL/LOH]
	$\Delta_v H$	(463–513)	50.7 ± 0.7	298	CGC	[2009PAN/ANT]
	$\Delta_v H$	(298–423)	45.8	298		[2005NAS/NEU]
	$\Delta_v H$	(371–423)	45.1	386	A	[1987STE/MAL]
	$\Delta_v H$		50.2	298	A	[1985BAR/CAS, 1985MAJ/SVO]
	$\Delta_v H$	(297–438)	67.9	312		[1974MYA/SCH, 1984BOU/FRI]
	$\Delta_v H$		43.7	298	I	[1971SUN/EIS]
	$\Delta_v H$	(303–363)	45.2	318	A	[1987STE/MAL, 1968GOP/RIZ]
C_4H_9NO	[1187-58-2]	N-methylpropionamide				
	$\Delta_v H$	(307–371)	64.0 ± 0.2	339	GS	[2009VER/EME4]
	$\Delta_v H$	(307–371)	66.6 ± 0.2	298	GS	[2009VER/EME4]
	$\Delta_v H$	(368–473)	66.9 ± 1.3	298	EB,BG	[1998MOR/KOP]
	$\Delta_v H$	(368–473)	64.0 ± 0.3	420	EB,BG	[1998MOR/KOP]
	$\Delta_v H$	(361–414)	54.2	376		[1995SCH/PUS]
	$\Delta_v H$		64.9 ± 0.3	298	C	[1984STA/WAD]
	$\Delta_v H$	(303–363)	54.4	318	A	[1987STE/MAL, 1968GOP/RIZ]
	$\Delta_v H$	(381–480)	56.6 ± 0.2	431	EB	[1983VAS, 2009VER/EME4]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(381–480)	63.9 ± 0.2	431	EB	[1983VAS, 2009VER/EME4]
C_4H_9NO	[110-91-8]	morpholine				
	$\Delta_v H$		45.3 ± 0.5	298	DSC	[2005ROJ/GIN]
	$\Delta_v H$	(274–303)	45.6 ± 0.4	288	GS	[1998VER2]
	$\Delta_v H$	(274–303)	45.0 ± 0.4	298	GS	[1998VER2]
	$\Delta_v H$	(346–401)	40.8	361		[1991WU/LOC]
	$\Delta_v H$	(313–343)	44.3	328	TGA	[1987ALN/ALS]
	$\Delta_v H$	(273–318)	45.3	288	A	[1987STE/MAL, 1975CAB/CON]
	$\Delta_v H$	(317–443)	42.3	332	A	[1987STE/MAL]
	$\Delta_v H$	(318–401)	42.3	333	EB	[1983PAL/CHO]
$C_4H_9NO_2$	[2835-81-6]	(*dl*) 2-aminobutyric acid				
	$\Delta_{sub}H$		132 ± 2	409	TE,ME	[1979DEK/VOO]
	$\Delta_{sub}H$	(400–418)	132	409	A	[1987STE/MAL]
$C_4H_9NO_2$	[1492-24-6]	S 2-aminobutyric acid				
	$\Delta_{sub}H$		162.8 ± 0.8	455	ME	[1965SVE/CLY, 1964CLY/SVE]
	$\Delta_{sub}H$	(449–462)	162.5	455	A	[1987STE/MAL]
$C_4H_9NO_2$	[62-57-7]	2-aminoisobutyric acid				
	$\Delta_{sub}H$	(439–462)	125.8	450.5	A	[1987STE/MAL]
	$\Delta_{sub}H$	(403–424)	134.2	413.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		129.5 ± 0.4	455	ME	[1965SVE/CLY, 1964CLY/SVE]
$C_4H_9NO_2$	[56-12-2]	4-aminobutanoic acid				
	$\Delta_{sub}H$	(460–475)	139 ± 4			[2009LEG/BAC]
	$\Delta_{sub}H$	(384–407)	138.9 ± 0.6	395	C	[1983SKO/SAB]
	$\Delta_{sub}H$		140 ± 2	395	C	[1983SKO/SAB]
	$\Delta_v H$	(493–500)	87 ± 2			[2009LEG/BAC]
$C_4H_9NO_2$	[924-43-6]	sec-butyl nitrite				
	$\Delta_v H$	(267–287)	29.6	277	A	[1987STE/MAL, 1937THO/DAI]
$C_4H_9NO_2$	[540-80-7]	*tert*-butyl nitrite				
	$\Delta_v H$	(267–337)	30.8	282	A	[1987STE/MAL, 1937THO/DAI]
$C_4H_9NO_2$	[na]	lactic acid N-methyl amide				
	$\Delta_v H$	(359–415)	72.7	374	A	[1987STE/MAL]
$C_4H_9NO_2$	[105-40-8]	N-methyl carbamic acid, ethyl ester				
	$\Delta_v H$	(299–443)	51.7	314	A	[1987STE/MAL, 1947STU]
$C_4H_9NO_2$	[625-74-1]	2-methyl-1-nitropropane				
	$\Delta_v H$	(347–415)	41.1	362	A, EB	[1987STE/MAL, 1956TOO, 1971DYK]
$C_4H_9NO_2$	[594-70-7]	2-methyl-2-nitropropane				
	$\Delta_{trs}H$		4.2	215.3		
	$\Delta_{trs}H$		4.7	260.1		
	$\Delta_{fus}H$		2.6	299.2		[1997REU/BUS]
	$\Delta_v H$	(334–401)	39.1	349	EB	[1987STE/MAL, 1956TOO, 1971DYK]
$C_4H_9NO_2$	[627-05-4]	1-nitrobutane				
	$\Delta_v H$	(313–353)	47.0	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(357–426)	42.7	372	A, EB	[1987STE/MAL, 1956TOO, 1971DYK]
$C_4H_9NO_2$	[600-24-8]	(*dl*) 2-nitrobutane				
	$\Delta_v H$	(345–413)	40.3	360	A, EB	[1987STE/MAL, 1956TOO, 1971DYK]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_9NO_2$	[627-12-3]	propyl carbamate				
	$\Delta_v H$	(325–468)	61.6	340	A	[1987STE/MAL, 1947STU]
$C_4H_9NO_3$	[928-45-0]	butyl nitrate				
	$\Delta_v H$	(273–343)	44.1	288	A	[1987STE/MAL, 1971DYK, 1957GRA/PRA]
$C_4H_9NO_3$	[543-29-3]	isobutyl nitrate				
	$\Delta_v H$	(273–343)	42.8	288	A	[1987STE/MAL, 1971DYK, 1957GRA/PRA]
$C_4H_9NO_3$	[80-68-2]	(*dl*)-threonine				
	$\Delta_{sub}H$	(341–441)	U 96 ± 8	391	LE	[1977GAF/PIE]
$C_4H_9NO_3$	[76-39-1]	2-methyl-2-nitro-1-propanol				
	$\Delta_{trs}H$		14.64	311.5		
	$\Delta_{fus}H$		3.17	363.9		[1999SAL/LOP]
	$\Delta_{trs}H$		17.2	310		
	$\Delta_{fus}H$		3.74	361		[1996DOM/HEA]
	$\Delta_{sub}H$ *(cryst)*	(293–309)	78 ± 1			[1995FON/MUN]
	$\Delta_{sub}H$ *(plastic)*	(319–333)	64 ± 2			[1995FON/MUN]
	$\Delta_{sub}H$ *(plastic)*		59.5 ± 3.0	319	C	[1994FON/MUN]
	$\Delta_{sub}H$ *(cryst)*		73.2 ± 3.7	311	C	[1994FON/MUN]
$C_4H_9NO_4$	[77-49-6]	2-methyl-2-nitro-1,3-propanediol				
	$\Delta_{trs}H$		25.72	352		
	$\Delta_{fus}H$		3.84	424		[1996DOM/HEA, 1994LOP/VAN]
	$\Delta_{sub}H$ *(cryst)*	(330–349)	98 ± 4			[1995FON/MUN]
	$\Delta_{sub}H$ *(plastic)*	(361–382)	74 ± 5			[1995FON/MUN]
	$\Delta_{sub}H$ *(plastic)*		79.3 ± 4.0	368	C	[1994FON/MUN]
	$\Delta_{sub}H$ *(cryst)*		102.0 ± 5.1	339	C	[1994FON/MUN]
$C_4H_9NO_5$	[126-11-4]	2-hydroxymethyl-2-nitro-1,3-propanediol				
	$\Delta_{sub}H$ *(cryst)*	(332–347)	107 ± 10			[1995FON/MUN]
	$\Delta_{sub}H$ *(plastic)*	(354–378)	76 ± 8			[1995FON/MUN]
	$\Delta_{sub}H$ *(plastic)*		77.3 ± 3.9	368	C	[1994FON/MUN]
$C_4H_9N_3O_2$	[na]	*bis*(nitrosoethyl)amine				
	$\Delta_v H$	(291–450)	46.4	306	A	[1987STE/MAL]
$C_4H_9N_3O_2$	[216489-98-4]	1-[2-(ethenyloxy)ethyl]-1-nitrosohydrazine				
	$\Delta_{sub}H$		112.1 ± 1.9	298		[1998LEB/CHI]
$C_4H_9O_2PS_2$	[695-68-1]	2-mercapto-4,5-dimethyl-1,3,2-dioxaphospholane-2-sulfide				
	$\Delta_v H$		66	298		[2008SAG/SAF]
C_4H_9P	[62778-93-2]	allymethylphosphine				
	$\Delta_v H$	(242–291)	34.4	276	A	[1987STE/MAL]
C_4H_9P	[114596-01-9]	3-butenylphosphine				
	$\Delta_v H$	(252–295)	34.5	273		[1988SHA/DIE]
C_4H_9P	[3466-00-0]	phospholane				
	$\Delta_v H$	(257–347)	37.4	272	A	[1987STE/MAL]
C_4H_{10}	[106-97-8]	butane				
	$\Delta_{trs}H$		2.05	107.6		
	$\Delta_{fus}H$		4.66	134.9		[1996DOM/HEA]
	$\Delta_{sub}H$		35.9	107	B	[1966GEI/QUI]
	$\Delta_v H$	(300–315)	22.9	308		[1997SAK/HOR]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(195–292)	23.4	277	A	[1987STE/MAL]
	$\Delta_v H$	(273–321)	23.2	288	A	[1987STE/MAL]
	$\Delta_v H$	(316–383)	22.6	331	A	[1987STE/MAL]
	$\Delta_v H$	(375–425)	22.8	390	A	[1987STE/MAL]
	$\Delta_v H$	(135–213)	27	198	A	[1987STE/MAL, 1973CAR/KOB]
	$\Delta_v H$		22.4	298		[1971WIL/ZWO]
	$\Delta_v H$	(206–279)	23.1	264		[1945WAC/LIN, 1984BOU/FRI]
	$\Delta_v H$	(195–273)	23.9	258		[1940AST/MES, 1984BOU/FRI]
C_4H_{10}	[75-28-5]	2-methylpropane (isobutane)				
	$\Delta_{fus}H$		4.49	113.7		[2009PER/MAG]
	$\Delta_{fus}H$		4.56	113.7		[1996DOM/HEA]
	$\Delta_v H$	(303–333)	21.5	318		[1999LIM/PAR]
	$\Delta_v H$	(186–280)	22.4	265	A	[1987STE/MAL]
	$\Delta_v H$	(121–187)	26.9	172	A	[1987STE/MAL]
	$\Delta_v H$	(263–306)	21.9	278	A	[1987STE/MAL]
	$\Delta_v H$	(301–366)	21.4	316	A	[1987STE/MAL]
	$\Delta_v H$	(361–408)	21.6	376	A	[1987STE/MAL]
	$\Delta_v H$	(277–344)	21.6	292		[1976STE/POL, 1984BOU/FRI]
	$\Delta_v H$		21.3	286		[1971WIL/ZWO]
	$\Delta_v H$	(188–262)	22.6	247		[1940AST/KEN, 1984BOU/FRI]
$C_4H_{10}F_3NOS$	[26458-94-6]	(diethylaminato)trifluorooxosulfur				
	$\Delta_v H$	(329–354)	49.5	341	A	[1987STE/MAL, 1999DYK/SVO]
$C_4H_{10}F_3NS$	[38078-09-0]	(N-ethylethaneaminato)trifluoro sulfur				
	$\Delta_v H$	(318–340)	45.2	329	A	[1987STE/MAL, 1999DYK/SVO]
$C_4H_{10}N_2$	[275-02-5]	piperazine				
	$\Delta_{fus}H$		26.7	384.6		[1997STE/CHI4]
	$\Delta_{fus}H$		22.1	381.8	DSC	[1997LEE/CHA]
	$\Delta_{sub}H$		72.1	298		[1998VER2]
	$\Delta_{sub}H$		65.2	385	B	[1997STE/CHI4]
	$\Delta_{sub}H$	(279–321)	73.1	294		[1987STE/MAL]
	$\Delta_v H$	(417–460)	50.1 ± 1.9	298	EB	[1997STE/CHI4]
$C_4H_{10}N_2$	[na]	trimethylammonium cyanide				
	$\Delta_{sub}H$	(219–236)	45.0	227.5		[1987STE/MAL]
$C_4H_{10}N_2O$	[927-67-3]	N-propylurea				
	$\Delta_{trs}H$		2.4	291.3		
	$\Delta_{fus}H$		11.9	370.2	DSC	[2005HAS/TAJ]
	$\Delta_{trs}H$		3.0	289.6		
	$\Delta_{fus}H$		14.92	383	DSC	[1995FER/DEL]
	$\Delta_{fus}H$		14.63	381		[1991ACR]
	$\Delta_{sub}H$	(333–357)	101.4 ± 0.6	298	GS	[2006EME/KAB]
	$\Delta_{sub}H$	(332–373)	90.7 ± 1.0	366		[1990PIA/FER, 1987FER/DEL2]
$C_4H_{10}N_2O$	[691-60-1]	N-isopropylurea				
	$\Delta_{trs}H$		1.41	280.8		
	$\Delta_{trs}H$		2.31	375.5		
	$\Delta_{fus}H$		17.5	429		[1990KAB/MIR2]
	$\Delta_{sub}H$	(333–372)	96.7 ± 1.6	353	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(333–372)	96.8 ± 1.6	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		97.2 ± 0.6	350	C	[2003ZAI/KAB]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		100.6 ± 1.3	389		[1990PIA/FER]
$C_4H_{10}N_2O$	[632-14-4]	1,1,3-trimethylurea				
	$\Delta_{fus}H$		14.3	344.4		[1991ACR]
	Δ_vH	(345–375)	89.7 ± 1.2	360		[1990PIA/FER]
$C_4H_{10}N_2O_2$	[7119-92-8]	diethylnitramine				
	Δ_vH	(338–378)	49.7	358		[1958CAS/FLE]
$C_4H_{10}N_4O_4$	[4164-34-5]	N,N′-dimethyl-N,N′-dinitro-1,2-ethanediamine				
	$\Delta_{fus}H$		60.32	410		[1987OYU/BRI]
$C_4H_{10}N_6O_6$	[13126-25-5]	2,4,6-trinitro-2,4,6-triazaheptane				
	$\Delta_{fus}H$		34.01	442.4	DSC	[1997ZEM]
$C_4H_{10}O$	[71-36-3]	1-butanol				
	$\Delta_{fus}H$		9.28	183.9		[1991ACR]
	Δ_vH	(298–363)	48.4	298		[2004NAS/ZIM]
	Δ_vH	(357–389)	46.0	372	EB	[2001MUN/KRA]
	Δ_vH		38.2	423		[2000WOR/FEN]
	Δ_vH		29.6	473		[2000WOR/FEN]
	Δ_vH		20.8	523		[2000WOR/FEN]
	Δ_vH		44.1			[1999FAT]
	Δ_vH	(323–373)	52.5	298	CGC	[1995CHI/HOS]
	Δ_vH	(315–390)	49.9	330		[1995DEJ/BUR]
	Δ_vH	(364–403)	45.3	379		[1993SUS/ORT2]
	Δ_vH	(283–323)	55.2	298		[1992GRA/SAN]
	Δ_vH	(376–399)	45.3	387	A	[1987STE/MAL]
	Δ_vH	(323–413)	50.1	338	A	[1987STE/MAL]
	Δ_vH	(413–550)	41.9	428	A	[1987STE/MAL]
	Δ_vH	(209–251)	51.6	236	A	[1987STE/MAL]
	Δ_vH	(376–397)	45.4	386	A	[1987STE/MAL]
	Δ_vH	(391–429)	43.8	406	A	[1987STE/MAL]
	Δ_vH	(415–501)	41.9	430	A	[1987STE/MAL]
	Δ_vH	(497–563)	37.4	512	A	[1987STE/MAL]
	Δ_vH	(243–303)	51.7	298		[1983SCH/STR]
	Δ_vH	(329–391)	49.0	344		[1982SAC/PES]
	Δ_vH		52.1	298	C	[1982FUC/PEA]
	Δ_vH	(288–404)	55.0	303		[1973WIL/ZWO]
	Δ_vH		49.5 ± 0.1	333	C	[1973SVO/VES]
	Δ_vH		48.6 ± 0.1	343	C	[1973SVO/VES]
	Δ_vH		47.5 ± 0.1	353	C	[1973SVO/VES]
	Δ_vH		46.4 ± 0.1	363	C	[1973SVO/VES]
	Δ_vH		52.34 ± 0.02	298	C	[1971POL/BEN]
	Δ_vH	(351–397)	47.2	366	EB	[1987STE/MAL, 1970AMB/SPR]
	Δ_vH	(295–391)	53.0	310	DTA	[1969KEM/KRE]
	Δ_vH		52.3 ± 0.1	298	C	[1966WAD]
	Δ_vH		47.2 ± 0.1	356	C	[1965COU/HAL]
	Δ_vH		45.4 ± 0.1	381	C	[1965COU/HAL]
	Δ_vH		43.1 ± 0.1	391	C	[1965COU/HAL]
	Δ_vH	(419–563)	42.1	434		[1963AMB/TOW]
	Δ_vH	(362–398)	46.6	377	EB	[1963BID/COL]
	Δ_vH		51.0 ± 0.1	298	C	[1963MCC/LAI]
	Δ_vH	(337–390)	48.3	352		[1959BRO/SMI, 1984BOU/FRI]
	Δ_vH	(314–390)	48.3	352		[1998KAH, 1984BOU/FRI]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_{10}O$	[78-92-2]	2-butanol				
	$\Delta_{fus}H$		5.97	184.7		[1971AND/CON]
	Δ_vH	(315–371)	48.8	330	EB	[2009GIE/KOS]
	Δ_vH	(320–379)	46.2	335		[2009MAR/LLA]
	Δ_vH	(298–563)	46.2	298		[2004NAS/ZIM]
	Δ_vH	(306–373)	47.7	321		[1995DEJ/BUR]
	Δ_vH	(303–403)	49.3	318	A	[1987STE/MAL]
	Δ_vH	(359–381)	43.2	370	A	[1987STE/MAL]
	Δ_vH	(372–524)	47.9	387	A	[1987STE/MAL]
	Δ_vH	(210–303)	57.5	225	A	[1987STE/MAL]
	Δ_vH	(359–380)	43.2	369	A	[1987STE/MAL]
	Δ_vH	(368–404)	42	383	A	[1987STE/MAL]
	Δ_vH	(395–485)	39.6	410	A	[1987STE/MAL]
	Δ_vH	(476–536)	35	491	A	[1987STE/MAL]
	Δ_vH	(307–373)	47.8	322		[1982SAC/PES]
	Δ_vH	(293–380)	53.2	308		[1978CAV/CHA]
	Δ_vH	(319–372)	44.1	334		[1975BRA/AND]
	Δ_vH	(280–314)	50.2	295		[1975CAB/CON2]
	Δ_vH	(298–393)	48.1	313		[1973WIL/ZWO]
	Δ_vH		49.74 ± 0.02	298	C	[1971POL/BEN]
	Δ_vH	(323–373)	46.3	338		[1969BRO/FOC, 1984BOU/FRI]
	Δ_vH		49.7 ± 0.1	298	C	[1966WAD]
	Δ_vH	422–538)	38.4	437		[1963AMB/TOW]
	Δ_vH	(345–381)	44.1	360	EB	[1963BID/COL]
	Δ_vH		48.5	298	C	[1963MCC/LAI]
	Δ_vH	(340–379)	44.7	355	EB	[1987STE/MAL, 1962BER/MCK, 1970AMB/SPR]
	Δ_vH		45.3 ± 0.1	340	C	[1962BER/MCK]
	Δ_vH		43.3 ± 0.1	355	C	[1962BER/MCK]
	Δ_vH		41.9 ± 0.1	365	C	[1962BER/MCK]
	Δ_vH		40.8 ± 0.1	372	C	[1962BER/MCK]
$C_4H_{10}O$	[na]	(+) 2-butanol				
	$\Delta_{fus}H$		6.0	177.4		[1971AND/CON]
$C_4H_{10}O$	[78-83-1]	2-methyl-1-propanol				
	$\Delta_{fus}H$		6.32	171.2		[1968COU/LEE]
	Δ_vH	(350–400)	48.8	298		[1999ORT/HER]
	Δ_vH	(350–400)	45.4	365	EB	[1993SUS/ORT]
	Δ_vH	(313–411)	49.5	328	A	[1987STE/MAL]
	Δ_vH	(381–524)	46.0	396	A	[1987STE/MAL]
	Δ_vH	(202–243)	55.0	228	A	[1987STE/MAL]
	Δ_vH	(369–389)	44.2	379	A	[1987STE/MAL]
	Δ_vH	(383–416)	42.6	398	A	[1987STE/MAL]
	Δ_vH	(401–493)	41.1	416	A	[1987STE/MAL]
	Δ_vH	(483–548)	36.2	498	A	[1987STE/MAL]
	Δ_vH		50.8 ± 0.1	298	C	[1984MAJ/SVO]
	Δ_vH		49.7 ± 0.1	313	C	[1984MAJ/SVO]
	Δ_vH		48.3 ± 0.1	328	C	[1984MAJ/SVO]
	Δ_vH		45.0 ± 0.1	358	C	[1984MAJ/SVO]
	Δ_vH	(320–382)	48.1	335		[1982SAC/PES]
	Δ_vH	(293–388)	52.6	308		[1973WIL/ZWO]
	Δ_vH		50.79 ± 0.02	298	C	[1971POL/BEN]
	Δ_vH		46.2 ± 0.1	347	C	[1970COU/FEN]
	Δ_vH		44.2 ± 0.1	363	C	[1970COU/FEN]
	Δ_vH		41.9 ± 0.1	381	C	[1970COU/FEN]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(342–389)	46.2	357	A, EB	[1987STE/MAL, 1970AMB/SPR]
	$\Delta_v H$	(333–381)	47.0	348		[1969BRO/FOC, 1984BOU/FRI]
	$\Delta_v H$		50.8 ± 0.1	298	C	[1966WAD]
	$\Delta_v H$	(423–548)	40.1	438		[1963AMB/TOW]
	$\Delta_v H$	(353–388)	45.2	368	EB	[1963BID/COL]
	$\Delta_v H$		49.8	298	C	[1963MCC/LAI]
$C_4H_{10}O$	[75-65-0]	2-methyl-2-propanol				
	$\Delta_{trs}H$		0.83	286.1		
	$\Delta_{trs}H$		0.49	294.5		
	$\Delta_{fus}H$		6.7	299		[1996DOM/HEA]
	$\Delta_{sub}H$	(253–298)	51.3	275	A	[1947STU]
	$\Delta_v H$	(306–355)	47.4	298	EB	[2007MAL]
	$\Delta_v H$	(323–368)	42.7	338		[2003ORT/ESP]
	$\Delta_v H$	(321–359)	43.4	336		[1999AUC/LOR]
	$\Delta_v H$	(323–373)	45.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(299–375)	46.2	314	A	[1987STE/MAL]
	$\Delta_v H$	(347–363)	41.4	355	A	[1987STE/MAL]
	$\Delta_v H$	(356–480)	43.2	371	A	[1987STE/MAL]
	$\Delta_v H$	(347–363)	41.4	355	A	[1987STE/MAL]
	$\Delta_v H$	(357–461)	39.8	372	A	[1987STE/MAL]
	$\Delta_v H$	(453–506)	33.6	468	A	[1987STE/MAL]
	$\Delta_v H$		46.2 ± 0.1	303	C	[1984MAJ/SVO]
	$\Delta_v H$		44.9 ± 0.1	313	C	[1984MAJ/SVO]
	$\Delta_v H$		43.0 ± 0.1	328	C	[1984MAJ/SVO]
	$\Delta_v H$		41.0 ± 0.1	343	C	[1984MAJ/SVO]
	$\Delta_v H$		37.2 ± 0.1	368	C	[1984MAJ/SVO]
	$\Delta_v H$	(306–357)	44.7	321		[1982SAC/PES]
	$\Delta_v H$	(293–376)	46.5	308		[1973WIL/ZWO]
	$\Delta_v H$		46.94 ± 0.02	298	C	[1971POL/BEN]
	$\Delta_v H$	(313–355)	44.2	328		[1969BRO/FOC, 1984BOU/FRI]
	$\Delta_v H$		46.6 ± 0.1	298	C	[1966WAD]
	$\Delta_v H$	(333–363)	42.1	348	EB	[1963BEN/MCK]
	$\Delta_v H$		42.5 ± 0.1	330	C	[1963BEN/MCK]
	$\Delta_v H$		41.3 ± 0.1	340	C	[1963BEN/MCK]
	$\Delta_v H$		40.4 ± 0.1	346	C	[1963BEN/MCK]
	$\Delta_v H$		40.0 ± 0.1	349	C	[1963BEN/MCK]
	$\Delta_v H$		39.0 ± 0.1	356	C	[1963BEN/MCK]
	$\Delta_v H$	(329–363)	42.6	344	EB	[1987STE/MAL, 1970AMB/SPR, 1963BEN/MCK]
	$\Delta_v H$		44.9	298	C	[1963MCC/LAI]
	$\Delta_v H$	(373–506)	38.7	388		[1963AMB/TOW]
	$\Delta_v H$	(293–363)	44.7	323		[1928PAR/BAR]
$C_4H_{10}O$	[60-29-7]	diethyl ether				
	$\Delta_{fus}H$		7.19	156.9		[1971COU/LEE]
	$\Delta_v H$	(286–329)	28.1	301	A	[1987STE/MAL]
	$\Delta_v H$	(307–457)	26.9	322	A	[1987STE/MAL]
	$\Delta_v H$	(305–360)	27.5	320	A	[1987STE/MAL]
	$\Delta_v H$	(351–420)	26,6	366	A	[1987STE/MAL]
	$\Delta_v H$	(417–467)	26.7	432	A	[1987STE/MAL]
	$\Delta_v H$		27.1 ± 0.1	298	C	[1980MAJ/WAN]
	$\Delta_v H$	(250–329)	27.2	298		[1976AMB/ELL]
	$\Delta_v H$	(250–329)	29.5	265	A	[1987STE/MAL, 1972AMB/SPR, 1976AMB/ELL]
	$\Delta_v H$	(213–293)	28.4	278		[1922TAY/SMI]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_{10}O$	[598-53-8]	isopropyl methyl ether				
	$\Delta_{fus}H$		5.85	127.3		[1996DOM/HEA]
	Δ_vH	(250–325)	28.8	265	A	[1987STE/MAL]
	Δ_vH		26.4 ± 0.1	298	C	[1980MAJ/WAN]
	Δ_vH	(260–325)	28.4	275	A	[1987STE/MAL, 1976AMB/ELL]
	Δ_vH		26.4	298		[1976AMB/ELL]
$C_4H_{10}O$	[557-17-5]	methyl propyl ether				
	$\Delta_{fus}H$		7.67	134		[1996DOM/HEA]
	Δ_vH	(325–407)	27.2	340	A	[1987STE/MAL]
	Δ_vH	(401–476)	26.7	416	A	[1987STE/MAL]
	Δ_vH	(273–321)	30.7	288	A	[1987STE/MAL]
	Δ_vH		27.6 ± 0.1	298	C	[1980MAJ/WAN]
	Δ_vH	(253–328)	29.7	268	A	[1987STE/MAL, 1976AMB/ELL]
	Δ_vH		27.5	298		[1976AMB/ELL]
	Δ_vH		27.9 ± 0.2	298	C	[1975FEN/HAR]
	Δ_vH	(273–312)	29.7	288		[1910BIN, 1984BOU/FRI]
$C_4H_{10}OS$	[70-29-1]	diethyl sulfoxide				
	Δ_vH	(298–318)	58.7 ± 3.3	308		[2005MAR/ZAT]
$C_4H_{10}O_2$	[26171-83-5]	(±) 1,2-butanediol				
	Δ_vH	(283–332)	70.4 ± 0.3	298	GS	[2004VER2]
	Δ_vH		73.3 ± 0.4	298	C	[2003EUS/LOP]
	Δ_vH	(372–506)	71.6 ± 0.8	298	EB	[1996STE/CHI]
	Δ_vH	(372–506)	51.46 ± 0.4	360	EB	[1996STE/CHI]
	Δ_vH	(372–506)	48.9 ± 0.4	400	EB	[1996STE/CHI]
	Δ_vH	(372–506)	46.3 ± 0.4	440	EB	[1996STE/CHI]
	Δ_vH	(372–506)	43.6 ± 0.4	480	EB	[1996STE/CHI]
	Δ_vH	(372–506)	40.7 ± 0.5	520	EB	[1996STE/CHI]
$C_4H_{10}O_2$	[107-88-0]	(±) 1,3-butanediol				
	Δ_vH	(288–332)	72.6 ± 0.3	298	GS	[2007VER]
	Δ_vH		72.8 ± 0.6	298	C	[2003EUS/LOP]
	Δ_vH	(365–518)	74.5 ± 1.0	298	EB	[1996STE/CHI]
	Δ_vH	(365–518)	72.3 ± 0.8	320	EB	[1996STE/CHI]
	Δ_vH	(365–518)	68.3 ± 0.7	360	EB	[1996STE/CHI]
	Δ_vH	(365–518)	64.1 ± 0.6	400	EB	[1996STE/CHI]
	Δ_vH	(365–518)	59.5 ± 0.5	440	EB	[1996STE/CHI]
	Δ_vH	(365–518)	54.4 ± 0.6	480	EB	[1996STE/CHI]
	Δ_vH	(362–483)	67.6	377	A	[1987STE/MAL]
	Δ_vH	(373–423)	59.7	398		[1935SCH/STA]
	Δ_vH	(423–480)	58.1	451		[1935SCH/STA]
$C_4H_{10}O_2$	[na]	(R) 1,3-butanediol				
	Δ_vH		72.3 ± 0.7	298	C	[2003EUS/LOP]
$C_4H_{10}O_2$	[110-63-4]	1,4-butanediol				
	$\Delta_{fus}H$		18.7	293.6		[1996DOM/HEA]
	Δ_vH	(330–363)	79.0 ± 0.9	298	GS	[2005VAS/VER]
	Δ_vH		78.3 ± 0.3	298	C	[2003EUS/LOP]
	Δ_vH		79.3 ± 0.5	298	C	[1988KNA/SAB, 1990KNA/SAB2]
	Δ_vH	(380–510)	72	395	A	[1987STE/MAL]
	Δ_vH	(416–501)	76.1 ± 0.5	298	EB	[1984PAL/CHO, 2005VAS/VER]
	Δ_vH	(419–490)	76.6 ± 1.7	298		[1972GAR/HUS, 2003EUS/LOP]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_{10}O_2$	[513-85-9]	(*dl*) 2,3-butanediol				
	$\Delta_v H$	(348–457)	62.5	363	A	[1987STE/MAL]
	$\Delta_v H$	(317–455)	58.4	332		[1947STU]
	$\Delta_v H$	(353–403)	57.9	378		[1935SCH/STA]
	$\Delta_v H$	(303–456)	55.7	380		[1935SCH/STA]
$C_4H_{10}O_2$	[na]	*meso* 2,3-butanediol				
	$\Delta_{fus}H$		10.8	306.6		[2003EUS/LOP]
	$\Delta_v H$		66.6 ± 0.4	298	C	[2003EUS/LOP]
	$\Delta_v H$	(413–453)	54.6	433		[1946KNO/SCH]
$C_4H_{10}O_2$	[na]	*levo* 2,3-butanediol				
	$\Delta_v H$	(413–453)	52.6	433		[1946KNO/SCH]
$C_4H_{10}O_2$	[na]	(S,S) 2,3-butanediol				
	$\Delta_v H$		63.2 ± 0.7	298	C	[2003EUS/LOP]
$C_4H_{10}O_2$	[2163-42-0]	2-methyl-1,3-propanediol				
	$\Delta_v H$	(297–375)	73.6 ± 0.2	298	GS	[2007VER]
	$\Delta_v H$	(488–708)	71.3 ± 0.5	298		[2002WIL/VON, 2007VER]
$C_4H_{10}O_2$	[628-37-5]	diethylperoxide				
	$\Delta_v H$	(253–333)	29.0	268	A	[1987STE/MAL, 1951EGE/EMT, 1971DYK]
$C_4H_{10}O_2$	[534-15-6]	1,1-dimethoxyethane				
	$\Delta_v H$		36.4 ± 0.1	298	C	[1970KUS/WAD]
	$\Delta_v H$	(273–333)	33.4	288	A	[1987STE/MAL, 1949NIC/LAF, 1971DYK]
$C_4H_{10}O_2$	[110-71-4]	1,2-dimethoxyethane				
	$\Delta_v H$	(304–358)	34.5		EB	[2009LI/FAN]
	$\Delta_v H$	(305–392)	36.8 ± 0.2	298	EB	[1996STE/CHI2]
	$\Delta_v H$	(238–298)	39.4	253	A	[1987STE/MAL]
	$\Delta_v H$	(238–363)	39.1	253	A	[1987STE/MAL]
	$\Delta_v H$	(225–366)	33.9	240		[1947STU]
$C_4H_{10}O_2$	[110-80-5]	2-ethoxyethanol				
	$\Delta_v H$	(310–385)	47.4	325	EB	[2001CHY/FRA]
	$\Delta_v H$	(313–353)	49.4	298	EB	[1999ANT/FRA]
	$\Delta_v H$	(313–363)	50.0	298	EB	[1999ANT/FRA]
	$\Delta_v H$	(323–353)	45.9	338	TGA	[1987ALN/ALS]
	$\Delta_v H$		48.2 ± 0.1	298	C	[1971KUS/WAD]
	$\Delta_v H$		49.2	298	I	[1971SUN/EIS]
	$\Delta_v H$	(336–408)	44.7	351	A	[1987STE/MAL, 1956PIC/FRI]
$C_4H_{10}O_2$	[107-98-2]	1-methoxy-2-propanol				
	$\Delta_v H$	(331–373)	46.2	298	EB	[2004ANT/GAL]
	$\Delta_v H$	(347–378)	46.4	298	EB	[2004CHY/FRA2]
$C_4H_{10}O_2S$	[111-48-8]	*bis*(2-hydroxyethyl) sulfide				
	$\Delta_v H$	(368–483)	27.1	383	A	[1987STE/MAL]
	$\Delta_v H$	(315–558)	28.3	330		[1947STU]
$C_4H_{10}O_2S$	[597-35-3]	diethyl sulfone				
	$\Delta_{sub}H$		86.2 ± 2.5			[UR/MAC, 1970COX/PIL]
$C_4H_{10}O_2S_2$	[na]	*meso* 1,2-*bis*(methylsufinyl)ethane				
	$\Delta_{fus}H$		34.31	446.7		[2001CAL/MEL]
$C_4H_{10}O_2S_2$	[na]	racemic 1,2-*bis*(methylsufinyl)ethane				
	$\Delta_{fus}H$		22.18	405.4		[2001CAL/MEL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
		Note: The enthalpy and entropy of fusion values given in the paper are not consistent.				
$C_4H_{10}O_3$	[111-46-6]	diethylene glycol				
	$\Delta_v H$	(410–539)	66.9 ± 0.3	420	EB	[2002STE/CHI2]
	$\Delta_v H$	(410–539)	63.1 ± 0.3	460	EB	[2002STE/CHI2]
	$\Delta_v H$	(410–539)	59.2 ± 0.3	500	EB	[2002STE/CHI2]
	$\Delta_v H$	(410–539)	55.1 ± 0.5	540	EB	[2002STE/CHI2]
	$\Delta_v H$	(373–453)	66.5	413	TGA	[1987ALN/ALS]
	$\Delta_v H$	(364–518)	59.8	379	A	[1987STE/MAL]
	$\Delta_v H$	(412–513)	66.8	427		[1981AMB/HAL, 1984BOU/FRI]
	$\Delta_v H$	(403–513)	69.2	418		[1927RIN, 1984BOU/FRI]
$C_4H_{10}O_3$	[4435-50-1]	1,2,3-butanetriol				
	$\Delta_v H$	(375–537)	68.1	390		[1947STU]
$C_4H_{10}O_3$	[149-73-5]	orthoformic acid trimethyl ester				
	$\Delta_v H$	(273–358)	39	288	A	[1987STE/MAL]
	$\Delta_v H$		38.1 ± 0.8	298		[1971PIH/TUO]
$C_4H_{10}O_3S$	[623-81-4]	diethyl sulfite				
	$\Delta_v H$		44.7			[1975DEM/KOV]
	$\Delta_v H$	(283–431)	44.5	298	A	[1987STE/MAL, 1947STU, 1999DYK/SVO]
$C_4H_{10}O_4$	[149-32-6]	*meso* erythritol				
	$\Delta_{fus}H$		38.9	391.2		[2005LOP/TOM]
	$\Delta_{fus}H$		40.3	392.2		[2002JON/COO]
	$\Delta_{sub}H$		140	298	Vap+Fus	[2005LOP/TOM]
	$\Delta_{sub}H$		157	298	B	[1990BAR/DEL]
	$\Delta_{sub}H$		135.1 ± 2.2			[1950EDW, 1960JON, 1970COX/PIL]
	$\Delta_v H$		97 ± 1	398	C	[2005LOP/TOM]
	$\Delta_v H$	(397–428)	113.6 ± 1.1	412	TE	[1990BAR/DEL]
	$\Delta_v H$	(394–401)	93.3	397	A	[1987STE/MAL]
$C_4H_{10}O_4$	[2319-57-5]	(*l*)-threitol				
	$\Delta_{fus}H$		29.1	361.8		[2005LOP/TOM]
	$\Delta_{sub}H$		123	298	Vap+Fus	[2005LOP/TOM]
	$\Delta_v H$		86 ± 1	398	C	[2005LOP/TOM]
$C_4H_{10}O_4S$	[64-67-5]	diethyl sulfate				
	$\Delta_v H$	(413–484)	50.1	428	A	[1987STE/MAL]
	$\Delta_v H$	(320–482)	54.9	335		[1947STU, 1999DYK/SVO]
$C_4H_{10}S$	[109-79-5]	1-butanethiol				
	$\Delta_{fus}H$		10.46	157.5		[1996DOM/HEA]
	$\Delta_v H$		36.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(323–409)	35	338	A, EB	[1987STE/MAL, 1957SCO/FIN, 1966OSB/DOU]
	$\Delta_v H$		34.7 ± 0.1	330	C	[1957SCO/FIN]
	$\Delta_v H$		33.6 ± 0.1	350	C	[1957SCO/FIN]
	$\Delta_v H$		32.2 ± 0.1	371	C	[1957SCO/FIN]
$C_4H_{10}S$	[513-53-1]	(*dl*) 2-butanethiol				
	$\Delta_{fus}H$		6.48	133		[1996DOM/HEA]
	$\Delta_v H$		34.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(310–395)	33.2	325	A, EB	[1987STE/MAL, 1958MCC/FIN, 1966OSB/DOU]
	$\Delta_v H$		32.9 ± 0.1	318	C	[1958MCC/FIN]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		32.3 ± 0.1	329	C	[1958MCC/FIN]
	$\Delta_v H$		31.8 ± 0.1	337	C	[1958MCC/FIN]
	$\Delta_v H$		30.6 ± 0.1	358	C	[1958MCC/FIN]
$C_4H_{10}S$	[513-44-0]	2-methyl-1-propanethiol				
	$\Delta_{fus}H$		4.98	128.3		[1996DOM/HEA]
	$\Delta_v H$		34.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(314–399)	33.6	329	A, EB	[1987STE/MAL, 1958SCO/MCC, 1966OSB/DOU]
	$\Delta_v H$		33.3 ± 0.1	321	C	[1958SCO/MCC]
	$\Delta_v H$		32.3 ± 0.1	340	C	[1958SCO/MCC]
	$\Delta_v H$		31.0 ± 0.1	361	C	[1958SCO/MCC]
$C_4H_{10}S$	[75-66-1]	*tert*-butyl mercaptan				
	$\Delta_{trs}H$		4.07	151.6		
	$\Delta_{trs}H$		0.65	157		
	$\Delta_{trs}H$		0.97	199.4		
	$\Delta_{fus}H$		2.48	274.4		[1996DOM/HEA]
	$\Delta_v H$	(275–293)	30.1	284		[1998STO/NG]
	$\Delta_v H$		30.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(293–373)	30.9	308	A, EB	[1987STE/MAL, 1953MCC/SCO, 1966OSB/DOU]
$C_4H_{10}S$	[352-93-2]	diethyl sulfide				
	$\Delta_{fus}H$		11.92	169.2		[1996DOM/HEA]
	$\Delta_v H$	(293–361)	34.9	327		[2008BAE]
	$\Delta_v H$		35.8 ± 0.7	298	C	[1989VOR/KLY]
	$\Delta_v H$		35.5	298		[1981SHI/SAI]
	$\Delta_v H$		35.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(318–396)	34.4	333	A, EB	[1987STE/MAL, 1952SCO/FIN, 1966OSB/DOU]
	$\Delta_v H$	(309–371)	34.8	324	EB	[1952WHI/BER]
	$\Delta_v H$	(233–361)	37.5	248		[1947STU]
	$\Delta_v H$		33.5	364		[1935THO/LIN]
$C_4H_{10}S$	[1551-21-9]	methyl isopropyl sulfide				
	$\Delta_{fus}H$		9.36	171.7		[1996DOM/HEA]
	$\Delta_v H$		34.1	298		[1971WIL/ZWO]
	$\Delta_v H$		33.0 ± 0.1	318	C	[1955MCC/FIN]
	$\Delta_v H$		32.0 ± 0.1	336	C	[1955MCC/FIN]
	$\Delta_v H$		30.7 ± 0.1	358	C	[1955MCC/FIN]
	$\Delta_v H$	(298–368)	33.8	313	A, EB	[1987STE/MAL, 1952WHI/BER]
$C_4H_{10}S$	[3877-15-4]	methyl propyl sulfide				
	$\Delta_{fus}H$		9.91	160.2		[1996DOM/HEA]
	$\Delta_v H$		36.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(308–374)	35.3	323	A, EB	[1987STE/MAL, 1952WHI/BER]
	$\Delta_v H$		34.5 ± 0.1	328	C	[1957SCO/FIN]
	$\Delta_v H$		33.4 ± 0.1	347	C	[1957SCO/FIN]
	$\Delta_v H$		32.1 ± 0.1	369	C	[1957SCO/FIN]
$C_4H_{10}S_2$	[1191-08-8]	1,4-butanedithiol				
	$\Delta_v H$	(347–469)	50.9	362	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_v H$		55.3	298		[1962MAN/SUN]
	$\Delta_v H$		54.9	298		[1962MAN/SUN]
$C_4H_{10}S_2$	[110-81-6]	diethyl disulfide				
	$\Delta_{fus}H$		9.4	171.6		[1996DOM/HEA]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(383–423)	44.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		45.4 ± 0.8	298	C	[1989VOR/KLY]
	$\Delta_v H$	(287–434)	45.7	302	A	[1987STE/MAL]
	$\Delta_v H$		45.2 ± 0.1	298	C	[1985KUS]
	$\Delta_v H$		45.2	298		[1981SHI/SAI]
	$\Delta_v H$		45.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(373–431)	40.9	388	EB	[1987STE/MAL, 1966OSB/DOU, 1952SCO/FIN2]
	$\Delta_v H$	(359–433)	41.5	374	EB	[1952WHI/BER]
$C_4H_{11}N$	[109-73-9]	butyl amine				
	$\Delta_v H$	(298–343)	35.2	313	I	[2000BEL/BEL]
	$\Delta_v H$	(283–373)	36.0	298		[1995WOL/LAN]
	$\Delta_v H$	(323–373)	35.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(313–350)	34.7	328	A	[1987STE/MAL]
	$\Delta_v H$		35.7 ± 0.2	298	C	[1985KUS]
	$\Delta_v H$	(296–349)	35.5	311	EB	[1979MAJ/SVO2]
	$\Delta_v H$		35.7 ± 0.1	298	C	[1979MAJ/SVO2]
	$\Delta_v H$		34.7 ± 0.1	313	C	[1979MAJ/SVO2]
	$\Delta_v H$		33.5 ± 0.1	323	C	[1979MAJ/SVO2]
	$\Delta_v H$		32.4 ± 0.1	343	C	[1979MAJ/SVO2]
	$\Delta_v H$		31.1 ± 0.1	358	C	[1979MAJ/SVO2]
	$\Delta_v H$		35.7 ± 0.1	298	C	[1969WAD]
$C_4H_{11}N$	[13952-84-6]	(*dl*) 2-aminobutane				
	$\Delta_v H$	(264–371)	34.1	279	A	[1987STE/MAL, 1971DYK]
$C_4H_{11}N$	[13952-84-6]	sec-butylamine				
	$\Delta_v H$	(300–335)	32.4	315	EB	[1979MAJ/SVO2]
	$\Delta_v H$		32.7 ± 0.1	298	C	[1979MAJ/SVO2]
	$\Delta_v H$		31.6 ± 0.1	313	C	[1979MAJ/SVO2]
	$\Delta_v H$		30.5 ± 0.1	328	C	[1979MAJ/SVO2]
	$\Delta_v H$		29.4 ± 0.1	343	C	[1979MAJ/SVO2]
	$\Delta_v H$		32.6 ± 0.1	298	C	[1969WAD]
$C_4H_{11}N$	[78-81-9]	isobutylamine				
	$\Delta_v H$	(248–347)	37.6	263	A	[1987STE/MAL]
	$\Delta_v H$		33.9 ± 0.1	298	C	[1979MAJ/SVO2]
	$\Delta_v H$		32.7 ± 0.1	313	C	[1979MAJ/SVO2]
	$\Delta_v H$		31.6 ± 0.1	328	C	[1979MAJ/SVO2]
	$\Delta_v H$	(297–340)	33.5	313	EB	[1979MAJ/SVO2]
	$\Delta_v H$		33.8 ± 0.1	298	C	[1969WAD]
	$\Delta_v H$		33.9 ± 0.2	298	IP	[1965DOU/OSB, 1970GOO/MOR]
$C_4H_{11}N$	[75-64-9]	*tert*-butylamine				
	$\Delta_{trs}H$		0.11	91.3		
	$\Delta_{trs}H$		6.05	202.3		
	$\Delta_{fus}H$		0.88	206.2		[1996DOM/HEA]
	$\Delta_v H$	(283–343)	30.5	298		[1995WOL/LAN]
	$\Delta_v H$		29.6 ± 0.1	298	C	[1969WAD]
	$\Delta_v H$	(292–349)	30.1	307	A,EB,IP	[1987STE/MAL, 1968OSB/DOU]
$C_4H_{11}N$	[109-89-7]	diethylamine				
	$\Delta_v H$	(302–328)	31.2	315	A	[1987STE/MAL]
	$\Delta_v H$	(325–437)	30.4	340	A	[1987STE/MAL]
	$\Delta_v H$	(431–496)	28.4	446	A	[1987STE/MAL]
	$\Delta_v H$		31.3 ± 0.1	298	C	[1979MAJ/SVO2]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		30.2 ± 0.1	313	C	[1979MAJ/SVO2]
	$\Delta_v H$		29.1 ± 0.1	328	C	[1979MAJ/SVO2]
	$\Delta_v H$		28.0 ± 0.1	343	C	[1979MAJ/SVO2]
	$\Delta_v H$		31.2 ± 0.1	298	C	[1969WAD]
	$\Delta_v H$	(273–333)	32.7 ± 0.2	298	I	[1969FRA/WAT]
	$\Delta_v H$	(292–313)	31.8	307		[1965KIL/BIT, 1984BOU/FRI]
	$\Delta_v H$	(304–323)	31.5	319		[1962BIT/KAU, 1984BOU/FRI]
$C_4H_{11}N$	[4747-21-1]	N-methyl isopropyl amine				
	$\Delta_v H$		30.7 ± 0.1	298	C	[1979PET/MAJ]
	$\Delta_v H$		29.5 ± 0.1	313	C	[1979PET/MAJ]
	$\Delta_v H$		27.1 ± 0.1	343	C	[1979PET/MAJ]
	$\Delta_v H$	(293–319)	30.9	306	EB	[1979PET/MAJ]
$C_4H_{11}NO$	[108-01-0]	2-(dimethylamino)ethanol				
	$\Delta_v H$	(278–316)	46.5 ± 0.4	298	GS	[2005KAP/SLO]
	$\Delta_v H$	(350–387)	43.2	365	A	[1987STE/MAL]
	$\Delta_v H$	(323–408)	42.7	338	A	[1987STE/MAL]
	$\Delta_v H$	(298–308)	47.9	298		[1982TOU/OKA, 2005KAP/SLO]
	$\Delta_v H$	(333–423)	47.6	298	EB	[1970QUI/HOF, 2005KAP/SLO]
$C_4H_{11}NO$	[5332-73-0]	3-methoxypropylamine				
	$\Delta_v H$	(278–390)	44.5	293	A	[1987STE/MAL]
$C_4H_{11}NO_2$	[111-42-2]	2,2′-iminodiethanol				
	$\Delta_v H$	(463–582)	69	478		[1959MCD/SHR]
$C_4H_{11}NO_2$	[111-42-2]	diethanolamine				
	$\Delta_{sub} H$		105.9 ± 2.0	298	C	[1982MIN/SAB]
	$\Delta_v H$	(423–542)	74.4	438	A	[1987STE/MAL]
	$\Delta_v H$	(376–454)	77.0	391		[1969DAN/MAT, 1984BOU/FRI]
	$\Delta_v H$	(466–514)	70.6	481		[1959MCD/SHR, 1984BOU/FRI]
$C_4H_{11}NO_2$	[115-69-5]	2-amino-2-methyl-1,3-propanediol				
	$\Delta_{trs} H$		23.55	356.7		
	$\Delta_{fus} H$		2.76	384.1	DSC	[2006DIV/CHE]
	$\Delta_{trs} H$		25.21	352		
	$\Delta_{fus} H$		2.99	384		[1996DOM/HEA, 1994LOP/VAN]
	$\Delta_{trs} H$	(283–393)	5.0	352.9		
	$\Delta_{trs} H$	(283–393)	18.46	353.7		
	$\Delta_{fus} H$	(283–393)	2.78	384.1	AC	[1990ZHA/YAN]
	$\Delta_{sub} H$ *(cryst)*	(330–346)	110 ± 6			[1995FON/MUN]
	$\Delta_{sub} H$ *(plastic)*	(354–372)	81 ± 8			[1995FON/MUN]
	$\Delta_{sub} H$ *(plastic)*		86.5 ± 4.3	368	C	[1994FON/MUN]
	$\Delta_{sub} H$ *(cryst)*		114.5 ± 5.7	339	C	[1994FON/MUN]
$C_4H_{11}NO_2S$	[6338-68-7]	N,N-dimethylethanesulfonamide				
	$\Delta_v H$	(384–517)	54.3	399	A	[1987STE/MAL]
$C_4H_{11}NO_3$	[77-86-1]	2-amino-2-hydroxymethylpropane-1,3-diol				
	$\Delta_{trs} H$		33.48	409.2		
	$\Delta_{fus} H$		3.1	444.6	DSC	[2006DIV/CHE]
	$\Delta_{trs} H$		33.42	407.5		
	$\Delta_{fus} H$		2.41	443.6		[1990YIN/LIN, 1994LOP/VAN]
$C_4H_{11}O_2PS_2$	[298-06-6]	O,O-diethyl phosphorodithioate				
	$\Delta_v H$		67.7	298		[2008SAG/SAF]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_{11}O_3P$	[762-04-9]	diethylphosphite				
	$\Delta_v H$		49.3	298		[2008SAG/SAF]
	$\Delta_v H$	(338–471)	38.1	353	A	[1987STE/MAL]
$C_4H_{11}O_3P$	[na]	dimethyl ethylphosphonate				
	$\Delta_v H$	(333–410)	70.1	348		[1987STE/MAL, 1955KOS, 1984BOU/FRI]
$C_4H_{12}ClN$	[3858-78-4]	butylammonium chloride				
	$\Delta_v H$	(489–508)	62.1	498	A	[1987STE/MAL]
$C_4H_{12}ClN$	[660-68-4]	diethylamine hydrochloride				
	$\Delta_v H$	(513–558)	177.6	528	A	[1987STE/MAL]
$C_4H_{12}ClN_2P$	[na]	*bis*(dimethylamino)chlorophosphine				
	$\Delta_v H$		45.9 ± 1.2	298	STG	[1995ALM/FIN2]
$C_4H_{12}FN_2OP$	[115-26-4]	*bis*(dimethylamido)fluorophosphate				
	$\Delta_v H$	(312–350)	50.4	327	A	[1987STE/MAL]
$C_4H_{12}NP$	[683-84-1]	dimethyl(dimethylamino)phosphine				
	$\Delta_v H$	(264–372)	36.8	279	A	[1987STE/MAL]
$C_4H_{12}N_2$	[4426-48-6]	(*dl*) 1,2-butanediamine				
	$\Delta_v H$	(251–293)	50.2	278		[1987STE/MAL, 1975MES/FIN]
	$\Delta_v H$	(251–293)	46.9	298	IP	[1975MES/FIN]
	$\Delta_v H$		46.3 ± 0.2	298	IP	[1965DOU/OSB, 1970GOO/MOO]
$C_4H_{12}N_2$	[110-60-1]	butane-1,4-diamine				
	$\Delta_{fus}H$		28.06	295.1	DSC	[2002DAL/DEL]
$C_4H_{12}N_2$	[811-93-8]	2-methyl-1,2-propanediamine				
	$\Delta_{trs}H$		15.46	237.5		
	$\Delta_{fus}H$		2.23	256.1		[1996DOM/HEA, 1975MES/FIN]
	$\Delta_v H$	(256–293)	47.2	278	IP	[1987STE/MAL, 1975MES/FIN]
	$\Delta_v H$	(256–293)	43.5 ± 0.2	298	IP	[1975MES/FIN]
	$\Delta_v H$		43.6 ± 0.2	298	IP	[1965DOU/OSB, 1970GOO/MOR]
$C_4H_{12}N_2$	[6415-12-9]	tetramethylhydrazine				
	$\Delta_v H$	(290–346)	32.9	305	T	[1987STE/MAL, 1957AYL]
$C_4H_{12}N_2$	[6291-84-5]	3-(methylamino)propylamine				
	$\Delta_v H$	(327–413)	45.9	342	EB	[2008KIM/SVE]
$C_4H_{12}N_2O$	[111-41-1]	N-(2-hydroxyethyl)ethylenediamine				
	$\Delta_v H$	(383–517)	62.8	398	A	[1987STE/MAL]
$C_4H_{12}N_2OS$	[3768-60-3]	tetramethyl sulfurous diamide				
	$\Delta_v H$	(320–351)	41.9	335	A	[1987STE/MAL, 1999DYK/SVO]
$C_4H_{12}N_2O_2S$	[3768-63-6]	N,N,N′,N′-tetramethylsulfamide				
	$\Delta_v H$	(358–495)	53.2	373	A	[1987STE/MAL, 1999DYK/SVO]
$C_4H_{12}N_2S$	[2129-20-6]	tetramethylsulfoxylic diamide				
	$\Delta_v H$	(301–326)	40.4	313	A	[1987STE/MAL]
$C_4H_{13}NP_2$	[98023-09-7]	*bis*(dimethylphosphino)amine				
	$\Delta_{sub}H$	(300–310)	61.7	305		[1953WAG/BUR]
$C_4H_{13}N_3$	[111-40-0]	2,2′-diaminodiethylamine				
	$\Delta_v H$	(371–521)	63.4 ± 0.7	298	EB	[1999RIB/MAT2]
	$\Delta_v H$	(371–441)	54.8	386	A	[1987STE/MAL]

TABLE 5. Phase change enthalpies of C_1 to C_4 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		NA		DSC	[2006BAD/DEL]
	Note: compound decomposed on melting					

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5BrF_{12}N$	[4908-96-7]	1,1,2,3,3,3-hexafluoro-2-bromo-N,N-*bis*(trifluoromethyl)propylamine				
	Δ_vH	(324–351)	30.2	337	A	[1987STE/MAL, 1965HAS/TIP]
C_5ClF_5	[30221-57-9]	1-chloro-2,3,4,5,5-pentafluoro-1,3-cyclopentadiene				
	Δ_vH	(273–303)	31.0	288	A	[1987STE/MAL]
C_5ClF_5	[30221-56-8]	5-chloro-1,2,3,4,5-pentafluoro-1,3-cyclopentadiene				
	Δ_vH	(283–323)	28.7	298	A	[1987STE/MAL]
$C_5ClF_{10}N$	[54120-14-8]	2,2,2-trifluoro-N-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethylidene]-ethanimidoyl chloride				
	Δ_vH		28.6	361		[1975PET/SHR2]
$C_5ClF_{12}N$	[54566-78-8]	N-chloro-1,1,2,3,3,3-heptafluoro-N-(pentafluoroethyl)-2-propanamine				
	Δ_vH		28.6	346		[1975PET/SHR2]
$C_5Cl_2F_6$	[706-79-6]	1,2-dichlorohexafluorocyclopentene				
	Δ_vH		33.0			[1959YEN/REE]
	Δ_vH		36.5	298		[1959YEN/REE]
$C_5Cl_2F_9N$	[54566-77-7]	1,1-dichloro-2,2,2-trifluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)-ethylidene]ethanamine				
	Δ_vH		31.2	361		[1975PET/SHR2]
$C_5Cl_5F_7O$	[61196-11-0]	(1,1,2-trifluoro-2,2-dichloroethyl)(2,2,3,3-tetrafluoro-1,1,3-trichloropropyl) ether				
	Δ_vH	(362–449)	45.3	377	A	[1987STE/MAL]
	Δ_vH		50.7 ± 0.8	298	EB	[1976AMM/BUL]
C_5Cl_6	[77-47-4]	hexachlorocyclopentadiene				
	$\Delta_{sub}H$		73.6	283	B	[1963BON, 1958UNG/MCB]
	Δ_vH	(335–512)	53.7	350	A	[1987STE/MAL]
	Δ_vH		67.4			[1977LYU/SMO]
C_5Cl_8	[706-78-5]	octachlorocyclopentene				
	Δ_vH		83.4			[1977LYU/SMO]
C_5F_5N	[700-16-3]	perfluoropyridine				
	Δ_vH	(273–363)	36.3	288	A	[1987STE/MAL, 1961BAN/GIN, 1972DYK]
C_5F_8	[21972-01-1]	perfluoro-1,2-pentadiene				
	Δ_vH	(262–276)	26.1	269	A	[1987STE/MAL]
C_5F_9N	[19451-91-3]	3,3,3-trifluoro-N,N-*bis*(trifluoromethyl)-1-propylamine				
	Δ_vH	(277–293)	24.9	285	A	[1987STE/MAL]
C_5F_9N	[714-37-4]	2,3,4,5-tetrahydrononafluoropyridine				
	Δ_vH	(249–310)	29.3	264	A	[1987STE/MAL]
C_5F_9NO	[52225-57-7]	2,2,2-trifluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-acetamide				
	Δ_vH		32.1	319		[1974PET/SHR]
C_5F_9NO	[4827-67-2]	3,3,4,5,6,6-hexafluoro-3,6-dihydro-2-trifluoromethyl-2*H*-1,2-oxazine				
	Δ_vH	(263–323)	31.4	278	A	[1987STE/MAL, 1965BAN/BAR]
$C_5F_9NO_3S$	[34805-64-6]	nonafluoro-1-butanesulfonyl isocyanate				
	Δ_vH	(309–401)	48.2	324	A	[1987STE/MAL]
C_5F_{10}	[376-77-2]	perfluorocyclopentane				
	$\Delta_{trs}H$		4.95	118.2		
	$\Delta_{fus}H$		2.99	238.5		[1951BUR/CAD]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(229–281)	32.1	266		[1987STE/MAL, 1967CRO/TAY]
	$\Delta_{sub}H$		38.2	115		[1963BON, 1951BUR/CAD, 1956BAR/CAD]
	Δ_vH	(285–297)	27	291	A	[1987STE/MAL]
	Δ_vH	(290–330)	25.6	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH	(290–329)	26.3	298		[1956BAR/CAD]
$C_5F_{10}N_2O_2$	[32822-52-9]	decafluoroglutaramide				
	Δ_vH		35.6	368	HG	[1971DEM/SHR]
$C_5F_{10}N_2O_2$	[1840-07-9]	1-nitrodecafluoropiperadine				
	Δ_vH	(283–343)	29.6	298	A	[1987STE/MAL, 1964BAN/CHE]
$C_5F_{10}O_2$	[55064-79-4]	carbonofluoridic acid, 2,2,2-trifluoro-1,1-*bis*(trifluoromethyl) ethyl ether				
	Δ_vH	(275–305)	32.2	290	A	[1987STE/MAL, 1975WAL/DES2]
$C_5F_{10}O_3S$	[2993-14-8]	perfluorocyclopentyl fluorosulfate				
	Δ_vH	(255–360)	36.6	307		[1963GIL/CAD]
$C_5F_{10}O_6S_2$	[741-20-8]	octafluorocyclopentanediol *bis*(fluorosulfate)				
	Δ_vH	(334–423)	49.5	349		[1972DYK, 1987STE/MAL, 1999DYK/SVO]
$C_5F_{11}N$	[836-77-1]	perfluoropiperidine				
	$\Delta_{trs}H$		6.63	161		
	$\Delta_{trs}H$		1.84	171.9		
	$\Delta_{fus}H$		2.82	274.1		[1996DOM/HEA]
	Δ_vH	(302–355)	30	317	A	[1987STE/MAL, 1963GOO/TOD, 1972DYK]
$C_5F_{11}N$	[2344-10-7]	octafluoro-1-(trifluoromethyl)pyrrolidine				
	Δ_vH	(249–306)	29.4	264	A	[1987STE/MAL]
$C_5F_{11}NO$	[52225-65-7]	N,2,2,2-tetrafluoro-N-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-acetamide				
	Δ_vH		32.6	332		[1974PET/SHR]
C_5F_{12}	[594-21-2]	perfluoro-2-methylbutane				
	Δ_vH	(290–340)	26.3	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH	(228–308)	31.0	243	A	[1987STE/MAL, 1967CRO/TAY]
	Δ_vH	(290–337)	27.4	298		[1956BAR/CAD]
C_5F_{12}	[678-26-2]	perfluoropentane				
	$\Delta_{fus}H$		6.8	147.8		[1951BUR/CAD]
	$\Delta_{sub}H$		43.7	145		[1963BON, 1951BUR/CAD, 1956BAR/CAD]
	Δ_vH	(280–340)	26.6	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH	(221–303)	31.1	236	A	[1987STE/MAL, 1967CRO/TAY]
	Δ_vH	(288–338)	27.5	298		[1956BAR/CAD]
$C_5F_{12}N_2$	[53684-06-3]	[2,2,2-trifluoro-1,1-*bis*(trifluoromethyl)ethyl](trifluoromethyl)-diazene				
	Δ_vH		23.7	309		[1975KIR/LAS]
$C_5F_{12}O_2$	[20822-11-1]	*bis*(pentafluoroethoxy)difluoromethane				
	Δ_vH	(246–299)	32.7	261	A	[1987STE/MAL]
$C_5F_{12}O_2S$	[52225-54-4]	trifluoromethanesulfinic acid, 2,2,2-trifluoro-1,1-*bis*(trifluoromethyl) ethyl ether				
	Δ_vH		37.7	355	HG	[1974MAJ/SHR]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5F_{12}O_4S$	[60672-63-1]	pentafluoro(2,2,3,3,4,4,5-heptafluoro-5-oxopentaneperoxoato)sulfur				
	$\Delta_v H$		39.2			[1976HOP/DES]
$C_5F_{13}N$	[1481-55-6]	N-(trifluoromethyl)*bis*(pentafluoroethyl)amine				
	$\Delta_v H$	(298–319)	30.2	308	A	[1987STE/MAL]
	$\Delta_v H$		29.4 ± 0.4	298		[1977VAR/AMM2]
$C_5F_{13}N$	[758-48-5]	perfluoromethyldiethylamine				
	$\Delta_{fus}H$		7.16	149.7		[1996DOM/HEA]
$C_5F_{13}NS$	[37826-44-1]	N-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-S,S-*bis*(trifluoromethyl)sulfilimine				
	$\Delta_v H$	(314–360)	31.3		A	[1987STE/MAL, 1999DYK/SVO]
$C_5F_{14}N_2O$	[17636-89-4]	1-[difluoro(trifluoromethoxy)methyl]-1,2,2-*tris*(trifluoromethyl)hydrazine				
	$\Delta_v H$	(302–311)	34.7		A	[1987STE/MAL]
$C_5F_{14}N_2O$	[17636-88-3]	1,1-difluoro-N-(trifluoromethoxy)-N,N′,N′-*tris*(trifluoromethyl)-methanediamine				
	$\Delta_v H$	(282–323)	33.7	297	A	[1987STE/MAL]
$C_5F_{14}OS$	[736-59-4]	pentafluoro[(nonfluorocyclopentyl)oxyl] sulfur				
	$\Delta_v H$	(300–361)	36.1	315	A	[1987STE/MAL, 1999DYK/SVO]
$C_5F_{15}N$	[758-48-5]	N-(trifluoromethyl)*bis*(pentafluoroethyl)amine				
	$\Delta_v H$		29.4 ± 0.4	298		[1977VAR/AMM]
$C_5F_{15}NS$	[65844-10-2]	difluoro[1,1,1,2,3,3,3-heptafluoro-2-propanaminoto(2-)]-bis(trifluoromethyl) sulfur				
	$\Delta_v H$		32.2	375	I	[1978KIT/SHR]
$C_5F_{15}P_5$	[745-23-3]	1,2,3,4,5-*pentakis*(trifluoromethyl)pentaphospholane				
	$\Delta_v H$	(319–435)	51.8	334	A,SG	[1987STE/MAL, 1958MAH/BUR]
C_5N_4	[24331-09-7]	tetracyanomethane				
	$\Delta_{sub}H$		61.1 ± 8.8	298	C	[1973BAR/MOR2]
C_5O_2	[51799-36-1]	pentacarbon dioxide				
	$\Delta_v H$	(186–273)	4.6	258	A	[1987STE/MAL, 1937KLE/WAG]
$C_5HClF_8O_2$	[52225-55-5]	trifluoroacetic acid, 1-(chlorodifluoromethyl)-2,2,2-trifluoroethyl ester				
	$\Delta_v H$		37.2	338	HG	[1974MAJ/SHR]
$C_5HF_{10}NO$	[52225-63-5]	2,2,2-trifluoro-N-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-acetamide				
	$\Delta_v H$		42.3	367		[1974PET/SHR]
C_5HF_9	[376-65-8]	nonafluorocyclopentane				
	$\Delta_v H$	(289–348)	29.6	304	A	[1987STE/MAL, 1956BAR/CAD]
	$\Delta_v H$	(289–348)	29.4	298		[1956BAR/CAD]
C_5HF_9IN	[20257-34-5]	*cis* 3,3,3-trifluoro-1-iodo-N,N-*bis*(trifluromethyl)propenylamine				
	$\Delta_v H$	(343–366)	31.3	354	A	[1987STE/MAL, 1968FRE/TIP]
C_5HF_9IN	[20257-35-6]	*trans* 3,3,3-trifluoro-1-iodo-N,N-*bis*(trifluromethyl)propenylamine				
	$\Delta_v H$	(345–368)	35	356	A	[1987STE/MAL, 1968FRE/TIP]
$C_5HF_9O_2$	[42031-15-2]	trifluoroacetic acid, 2,2,2-1-(trifluoromethyl)ethyl ester				
	$\Delta_v H$		28.5	321	HG	[1973MAJ/SHR]
$C_5HF_{10}N$	[559-31-9]	2,2,3,3,4,4,5,5,6,6-decafluoropiperidine				
	$\Delta_v H$	(273–313)	32.7	288	A	[1987STE/MAL, 1964BAN/CHE]
$C_5HF_{12}N$	[54566-80-2]	1,1,1,2,3,3,3-heptafluoro-N-(pentafluoroethyl)-2-propanamine				
	$\Delta_v H$		29.8	325		[1975PET/SHR2]
C_5HN_3	[997-76-2]	ethylenetricarbonitrile				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(313–343)	66.0	328	A,MG	[1987STE/MAL, 1963BOY]
$C_5H_2BrF_8N$	[19451-93-5]	2-bromo-3,3-difluoro-N,N-*bis*(trifluoromethyl)allylamine				
	$\Delta_v H$	(336–367)	33.8	351	A	[1987STE/MAL, 1968HAS/TIP]
$C_5H_2Cl_3N$	[16063-70-0]	2,3,5-trichloropyridine				
	$\Delta_{sub} H$		74.4 ± 1.5	298	C	[2005GOM/AMA]
$C_5H_2Cl_3NO$	[6515-38-4]	3,5,6-trichloro-2-pyridinol				
	$\Delta_{fus} H$		25.79	448.1		[1991ACR]
	$\Delta_v H$	(373–403)	63.0		GC	[2007GOE/MCC]
$C_5H_2F_6N_2$	[14704-41-7]	3,5-*bis*(trifluoromethyl)pyrazole				
	$\Delta_{sub} H$		69.0 ± 0.6	266	ME	[1991ELG/YRA]
$C_5H_2F_6O_2$	[1522-22-1]	1,1,1,5,5,5-hexafluoropentan-2,4-dione				
	$\Delta_v H$	(273–330)	33.1	301	GS	[1998GEO/YOU]
	$\Delta_v H$		30.6 ± 0.1	298		[1997RIB/GON, 1975IRV/RIB, 1978RIB/IRV]
$C_5H_2F_9N$	[25273-42-1]	*trans* 3,3,3-trifluoro-N,N-*bis*(trifluoromethyl)propenylamine				
	$\Delta_v H$	(287–319)	28.2	302	A	[1987STE/MAL, 1968HAS/TIP]
$C_5H_2F_9NOS$	[62067-07-6]	2,2,2-trifluoro-N-[(trifluoromethyl)thio]ethanimidic acid, 2,2,2-trifluoroethyl ester				
	$\Delta_v H$		35.8	373	I	[1977BUR/SHR2]
$C_5H_2F_9NS$	[57682-29-8]	2,2,2-trifluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethyl]ethanethioamide				
	$\Delta_v H$		36.9			[1975PET/SHR3]
$C_5H_2F_{10}$	[138495-42-8]	1,1,1,2,2,3,4,5,5,5-decafluoropentane				
	$\Delta_v H$	(289–326)	33.4	298		[2001LOR/AUC]
$C_5H_2F_{10}$	[na]	(*threo*) 1,1,1,2,2,3,4,5,5,5-decafluoropentane				
	$\Delta_v H$	(293–328)	40.8	298	EB	[2004KAO/SIE]
$C_5H_2F_{10}$	[na]	(*erythro*) 1,1,1,2,2,3,4,5,5,5-decafluoropentane				
	$\Delta_v H$	(293–328)	37.9	298	EB	[2004KAO/SIE]
$C_5H_2F_{10}O$	[142469-08-7]	1,1,1,2,2,3,3-heptafluoro-3-(2,2,2-trifluoroethoxy)propane				
	$\Delta_v H$	(288–325)	31.5	303	I	[2002MUR/YAM]
$C_5H_2F_{10}O$	[347148-74-7]	1,1,1,2,4,4,4-heptafluoro-2-(trifluoromethoxy)butane				
	$\Delta_v H$	(288–323)	31.8	303	I	[2002MUR/YAM]
$C_5H_2F_{10}O$	[155653-44-4]	1,1,1,2,2-pentafluoro-3-(pentafluoroethoxy)propane				
	$\Delta_v H$	(288–320)	31.2	303	I	[2002MUR/YAM]
$C_5H_2F_{10}O_3$	[188690-77-9]	1-(difluoromethoxy)-2-[(difluoromethoxy)difluoromethoxy]-1,1,2,2-tetrafluoroethane				
	$\Delta_v H$	(263–357)	36.5 ± 0.7			[1999MAR/BAS]
$C_5H_2N_4O_6$	[78013-51-1]	2,4,6-trinitropyridine				
	$\Delta_{fus} H$		22.0	436.2		[1988LIC/RIT]
	$\Delta_{sub} H$	(335–357)	101.7 ± 2.9			[1995LEB/CHI]
$C_5H_2N_4O_7$	[25242-76-6]	2,4,6-trinitropyridine N-oxide				
	$\Delta_{sub} H$	(377–403)	106.3 ± 2.9			[1995LEB/CHI]
$C_5H_3BrF_9N$	[19451-92-4]	2-bromo-3,3,3-trifluoro-N,N-*bis*(trifluoromethyl)propylamine				
	$\Delta_v H$	(342–365)	34.2	353	A	[1987STE/MAL, 1968FRE/TIP]
$C_5H_3Br_2N$	[624-28-2]	2,5-dibromopyridine				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		82.1 ± 2.2	298	C	[1997RIB/MAT]
$C_5H_3Br_2N$	[626-05-1]	2,6-dibromopyridine				
	$\Delta_{sub}H$		85.6 ± 3.0	298	C	[1997RIB/MAT]
$C_5H_3Cl_2N$	[2402-77-9]	2,3-dichloropyridine				
	$\Delta_{sub}H$		73.5 ± 3.1	298	C	[1997RIB/MAT]
$C_5H_3Cl_2N$	[16110-09-1]	2,5-dichloropyridine				
	$\Delta_{sub}H$		67.1 ± 2.0	298	C	[1997RIB/MAT]
$C_5H_3Cl_2N$	[2402-78-0]	2,6-dichloropyridine				
	$\Delta_{sub}H$		72.0 ± 1.6	298	C	[1997RIB/MAT]
$C_5H_3Cl_2N$	[2457-47-8]	3,5-dichloropyridine				
	$\Delta_{sub}H$		67.3 ± 1.9	298	C	[1997RIB/MAT]
$C_5H_3F_3N_2O_2$	[54-20-6]	5-(trifluoromethyl)uracil				
	$\Delta_{sub}H$	(373–392)	108.5 ± 0.9	382	ME	[2004ZIE/SZT]
	$\Delta_{sub}H$	(373–392)	110.8 ± 0.9	298	ME	[2004ZIE/SZT]
$C_5H_3F_6N$	[25237-11-0]	N,N-*bis*(trifluoromethyl)-1-propynylamine				
	Δ_vH	(295–312)	31.1	303	A	[1987STE/MAL]
$C_5H_3F_7O_2$	[356-24-1]	methyl perfluorobutyrate				
	$\Delta_{fus}H$		11.77	191.4		[1996DOM/HEA]
	Δ_vH		34.5			[1977DIT/KOL, 1978KOL/DIT]
$C_5H_3F_8NOS$	[77589-48-1]	2,2,3,3,4,4,5,5-octafluoro-1,1,2,3,4,5-hexahydro-1-(methylimino)-thiophene-1-oxide				
	Δ_vH		33.9	330		[1981ABE/SHR]
$C_5H_3F_9N_2OS$	[62609-63-6]	1,1,1-trifluoro-N′-methyl-N-[2,2,2-trifluoro-1-(trifluoromethyl)-ethylidene]methanesulfonimidamide				
	Δ_vH		32.6	417	I	[1977KIT/SHR]
$C_5H_3F_9O$	[176310-27-3]	1,1,2,2-tetrafluoro-3-(pentafluoroethoxy)propane				
	Δ_vH	(288–336)	34.0	303	I	[2002MUR/YAM]
$C_5H_3F_9O$	[176310-28-4]	1-(2,2-difluoroethoxy)-1,1,2,2,3,3,3-heptafluoropropane				
	Δ_vH	(288–340)	34.8	303	I	[2002MUR/YAM]
$C_5H_3F_9O$	[50807-74-4]	1,1,1,2,2-pentafluoro-3-(1,1,2,2-tetrafluoroethoxy)propane				
	Δ_vH	(293–343)	35.6	308	I	[2002MUR/YAM]
$C_5H_3F_9O$	[439152-54-2]	1,1,1,2,4,4-hexafluoro-2-(trifluoromethoxy)butane				
	Δ_vH	(283–332)	33.8	298	I	[2002MUR/YAM]
$C_5H_3F_9O$	[66670-22-2]	1,1,1,3,3,3-hexafluoro-2-methxoy-2-(trifluoromethyl)propane				
	Δ_vH	(288–326)	31.3	303	I	[2002MUR/YAM]
$C_5H_3F_9O$	[993-95-3]	1,1,1,2,3,3-hexafluoro-3-(2,2,2-trifluoroethoxy)propane				
	Δ_vH	(293–346)	36.1	308	I	[2002MUR/YAM]
$C_5H_3F_9O$	[69948-43-2]	1,1,1,2,3,3-hexafluoro-4-(trifluoromethoxy)butane				
	Δ_vH	(288–338)	34.0	303	I	[2002MUR/YAM]
$C_5H_3F_9O_2S$	[52225-51-1]	trifluoromethanesulfinic acid, 2,2,2-trifluoro-1-methyl-1-(trifluoromethyl)ethyl ester				
	Δ_vH		34.3	385	HG	[1974MAJ/SHR]
C_5H_3NO	[617-90-3]	2-furancarbonitrile				
	Δ_vH		44.8 ± 0.4	298	C	[2009RIB/AMA]
$C_5H_3NO_3$	[698-63-5]	5-nitro-2-furancarboxaldehyde				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		75.3 ± 2.1			[1980BAL/LEB, 1986PED/NAY]
C_5H_3NS	[1003-31-2]	2-thiophenecarbonitrile				
	Δ_vH		49.5 ± 1.1	298	C	[2008RIB/SAN]
C_5H_3NS	[1641-09-4]	3-thiophenecarbonitrile				
	Δ_vH		51.6 ± 1.9	298	C	[2008RIB/SAN]
C_5H_3NS	[10359-20-3]	2,2-dicyanopropionitrile				
	$\Delta_{fus}H$		18.7	367.2		[1994RAK/VER]
	$\Delta_{sub}H$	(293–333)	73.9 ± 0.5	313	T	[1994RAK/VER]
	Δ_vH	(293–333)	55.2		B	[1994RAK/VER]
$C_5H_3N_3$	[19847-12-2]	pyrazinecarbonitrile				
	Δ_vH		58.7 ± 1.2	298	C	[2005RIB/MIR]
$C_5H_4BrF_6N$	[25273-47-6]	*cis* 2-bromo-N,N-*bis*(trifluoromethyl)propenylamine				
	Δ_vH	(346–367)	35.3	356	A	[1987STE/MAL]
$C_5H_4BrF_6N$	[25273-48-7]	*trans* 2-bromo-N,N-*bis*(trifluoromethyl)propenylamine				
	Δ_vH	(336–360)	33.3	348	A	[1987STE/MAL]
C_5H_4BrN	[109-04-6]	2-bromopyridine				
	Δ_vH		54.4 ± 1.3	298	C	[1997RIB/MAT]
C_5H_4BrN	[626-55-1]	3-bromopyridine				
	Δ_vH		52.1 ± 1.3	298	C	[1997RIB/MAT]
	Δ_vH	(289–447)	47.4	304	A	[1987STE/MAL, 1947STU]
C_5H_4ClN	[109-09-1]	2-chloropyridine				
	Δ_vH		51.0 ± 1.2	298	C	[1997RIB/MAT2]
	Δ_vH	(286–444)	53	301	A	[1987STE/MAL, 1947STU]
C_5H_4ClN	[626-60-8]	3-chloropyridine				
	Δ_vH		47.9 ± 1.1	298	C	[1997RIB/MAT2]
$C_5H_4F_4N_4O_{10}$	[58715-08-5]	*bis*(2-fluoro-2,2-dinitroethyl)difluoroformal				
	Δ_vH	(323–357)	72.7	340		[1997MIN/BEH]
$C_5H_4F_7I$	[1513-88-8]	1,1,1,2,2,3,3-heptafluoro-5-iodopentane				
	Δ_vH	(317–386)	38.7	332	A	[1987STE/MAL]
$C_5H_4F_8O$	[16627-68-2]	1,1,2,2-tetrafluoro-3-(1,1,2,2-tetrafluoroethoxy)propane				
	Δ_vH	(293–366)	40.2	308	I	[2002MUR/YAM]
$C_5H_4F_8O$	[382-26-3]	1,1,1,3,3-penatafluoro-3-methoxy-2-trifluoromethylpropane				
	Δ_vH	(288–343)	34.5	303	I	[2002MUR/YAM]
$C_5H_4F_9N$	[19451-89-9]	3,3,3-trifluoro-N,N-*bis*(trifluoromethyl)propylamine				
	Δ_vH	(290–333)	31	305	A	[1987STE/MAL, 1968FRE/TIP]
$C_5H_4N_2$	[37580-43-1]	*cis* 2-methyl-2-butenedinitrile				
	Δ_vH	(395–467)	58.5	410	A	[1987STE/MAL, 1972DYK]
$C_5H_4N_2$	[37580-44-2]	*trans* 2-methyl-2-butenedinitrile				
	Δ_vH	(339–411)	47.9	354	A	[1987STE/MAL, 1972DYK]
$C_5H_4N_2O_3$	[1124-33-0]	4-nitropyridine-N-oxide				
	$\Delta_{sub}H$		108.9 ± 0.3	298	C	[1995ACR/TUC]
	$\Delta_{sub}H$	(311–335)	89.1 ± 2.5			[1995LEB/CHI]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_4N_4$	[275-02-5]	1,2,4-triazolo[1,5-a]pyrimidine				
	$\Delta_{fus}H$		19.4	419.5		[1997STE/CHI4]
	$\Delta_{sub}H$		86.9	419		[1997STE/CHI4]
	Δ_vH	(370–523)	82.5 ± 13.1	298	EB	[1997STE/CHI4]
	Δ_vH	(370–523)	63.5 ± 2.2	480	EB	[1997STE/CHI4]
	Δ_vH	(370–523)	61.2 ± 2.0	520	EB	[1997STE/CHI4]
$C_5H_4N_4$	[120-73-0]	purine				
	$\Delta_{sub}H$		NA			[1974TEP/SUK]
$C_5H_4N_4O$	[68-94-0]	hypoxanthine				
	$\Delta_{sub}H$	(423–473)	158.1 ± 1.6	448		[1975TEP/YAN]
$C_5H_4N_4S$	[6112-76-1]	6-mercaptopurine				
	$\Delta_{sub}H$	(413–458)	148.5 ± 1.5	435		[1975TEP/YAN]
C_5H_4OS	[98-03-3]	2-thiophenecarboxyaldehyde				
	Δ_vH		54.9 ± 1.1	298	C	[2008RIB/SAN2]
C_5H_4OS	[498-62-4]	3-thiophenecarboxyaldehyde				
	Δ_vH		52.6 ± 1.2	298	C	[2008RIB/SAN2]
$C_5H_4O_2$	[98-01-1]	2-furfuraldehyde				
	$\Delta_{fus}H$		14.37	235.1		[1996DOM/HEA]
	Δ_vH	(277–323)	50.7 ± 0.2	298	GS	[2007EME/DAB]
	Δ_vH	(357–435)	44.7	372	A	[1987STE/MAL]
	Δ_vH	(366–394)	50.7 ± 0.2	298	EB	[1987HAU/WU, 2007EME/DAB]
	Δ_vH	(329–433)	48.2	344		[1950MAT/SUM, 1984BOU/FRI]
	Δ_vH	(365–443)	47.6	380		[1926EVA/AYL, 1984BOU/FRI]
	Δ_vH	(329–434)	50.6 ± 0.4	298	EB	[1926MAT, 2007EME/DAB]
$C_5H_4O_2$	[498-60-2]	3-furanaldehyde				
	Δ_vH		48.1 ± 0.5	298	C	[2009RIB/AMA]
$C_5H_4O_2S$	[527-72-0]	2-thiophene carboxylic acid				
	$\Delta_{fus}H$		21	400.9	DSC	[2003ROU/TEM]
	$\Delta_{sub}H$	(315–323)	97.1	319	E	[1953BRA/CAR, 1960JON]
	$\Delta_{sub}H$	(314–323)	96.9	319		[1999DYK/SVO]
$C_5H_4O_2S$	[88-13-1]	3-thiophenecarboxylic acid				
	$\Delta_{fus}H$		18.3	412.9	DSC	[2003ROU/TEM]
$C_5H_4O_3$	[616-02-4]	citraconic anhydride				
	Δ_vH	(320–487)	53.3	335	A	[1987STE/MAL, 1947STU]
$C_5H_4O_3$	[88-14-2]	2-furancarboxylic acid				
	$\Delta_{fus}H$		22.6	402.5	DSC	[2004ROU/TEM2]
	$\Delta_{sub}H$	(285–304)	88.4 ± 1.5	298	ME	[2003ROU/TEM3]
	$\Delta_{sub}H$	(317–328)	108.4 ± 2.2		ME	[1953BRA/CAR, 1960JON, 1970COX/PIL]
$C_5H_4O_3$	[488-93-7]	3-furancarboxylic acid				
	$\Delta_{fus}H$		21.3	394.8	DSC	[2004ROU/TEM2]
	$\Delta_{sub}H$	(283–298)	87.1 ± 0.5	298	ME	[2003ROU/TEM3]
$C_5H_5ClN_2O_2$	[31737-09-4]	1-methyl-6-chlorouracil				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(417–465)	108.8 ± 8		HSA	[1978NOW/SZC]
$C_5H_5ClN_2O_2$	[4318-56-3]	3-methyl-6-chlorouracil				
	$\Delta_{sub}H$	(444–493)	104.6 ± 6		HSA	[1978NOW/SZC]
$C_5H_5Cl_3OS$	[76619-92-6]	2,3,3-trichloro-2-propenethioic acid, O-ethyl ester				
	$\Delta_{v}H$	(383–423)	66.9		GC	[1980PIT/KIS]
$C_5H_5FN_2O_2$	[155-16-8]	1-methyl-5-fluorouracil				
	$\Delta_{sub}H$	(381–423)	116 ± 2		TE	[2002BRU/POR]
	$\Delta_{sub}H$	(480–515)	125.5 ± 8		HSA	[1978NOW/SZC]
$C_5H_5FN_2O_2$	[4840-69-1]	3-methyl-5-fluorouracil				
	$\Delta_{sub}H$	(465–487)	79.5 ± 17		HSA	[1978NOW/SZC]
$C_5H_5F_3N_2$	[10010-93-2]	3(5)-trifluoromethyl-5(3)-methylpyrazole				
	$\Delta_{sub}H$		78.2 ± 0.8	297	ME	[1991ELG/YRA]
$C_5H_5F_3O_2$	[367-57-7]	1,1,1-trifluoropentane-2,4-dione				
	$\Delta_{v}H$		37.2 ± 0.2	298		[1997RIB/GON, 1975IRV/RIB, 1978RIB/IRV]
$C_5H_5F_3O_2$	[7291-30-7]	trifluoromethyl (2-hydroxy-1-propenyl)ketone				
	$\Delta_{fus}H$		8.45	232.4		[1996DOM/HEA]
$C_5H_5F_6NO$	[22743-77-7]	N,N-*bis*(trifluoromethyl)allylamine-N-oxide				
	$\Delta_{v}H$	(254–328)	33.1	269	A	[1987STE/MAL]
$C_5H_5F_6NO$	[22130-39-8]	1-methoxy-N,N-*bis*(trifluoromethyl)vinylamine				
	$\Delta_{v}H$	(321–343)	32.4	332	A	[1987STE/MAL, 1969FRE/TIP]
$C_5H_5F_6NO$	[22298-35-7]	*cis* 2-methoxy-N,N-*bis*(trifluoromethyl)vinylamine				
	$\Delta_{v}H$	(341–362)	32.5	351	A	[1987STE/MAL, 1969FRE/TIP]
$C_5H_5F_6NO_2$	[22743-66-4]	N,N-*bis*(trifluoromethyl)propionamide-N-oxide				
	$\Delta_{v}H$	(278–361)	42.1	293	A	[1987STE/MAL, 1968NAS/BAB]
$C_5H_5F_7O$	[200501-98-0]	1,1,1,2-tetrafluoro-2-(trifluoromethoxy)butane				
	$\Delta_{v}H$	(283–319)	30.3	298	I	[2002MUR/YAM]
$C_5H_5F_7O$	[22052-86-4]	1-ethoxy-1,1,2,2,3,3,3-heptafluoropropane				
	$\Delta_{v}H$	(288–323)	31.0	303	I	[2002MUR/YAM]
$C_5H_5F_7O$	[376-98-7]	1,1,1,2,2,3,3-heptafluoro-4-methoxybutane				
	$\Delta_{v}H$	(293–344)	34.6	308	I	[2002MUR/YAM]
C_5H_5N	[2180-69-0]	*cis* 2,4-pentadienenitrile (*cis* 1-cyano-1,3-butadiene)				
	$\Delta_{v}H$	(318–383)	41.4	333	A	[1987STE/MAL, 1972DYK]
	$\Delta_{v}H$		40.7	348		[1954WIS]
	$\Delta_{v}H$		38.3	408		[1954WIS]
C_5H_5N	[16955-35-4]	bicyclo[1.1.0]butane-1-carbonitrile				
	$\Delta_{v}H$	(307–349)	48.0	319	BG	[1971HAL/BAL]
C_5H_5N	[110-86-1]	pyridine				
	$\Delta_{fus}H$		8.28	231.5		[1996DOM/HEA]
	$\Delta_{v}H$	(342–373)	40.5 ± 1.1	298	CGC	[2009LIP/CHI2]
	$\Delta_{v}H$	(289–358)	39.3	324		[1997UKR/SOL]
	$\Delta_{v}H$		40.16 ± 0.06	298		[1996CHI/STE]
	$\Delta_{v}H$	(323–373)	40.4	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(346–362)	37.6	354		[1994BLA/BEL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(295–388)	39.9	310	EB	[1990LEN]
	$\Delta_v H$	(296–353)	39.7	311	A	[1987STE/MAL]
	$\Delta_v H$	(348–434)	37.3	363	A	[1987STE/MAL]
	$\Delta_v H$	(431–558)	35.0	446	A	[1987STE/MAL]
	$\Delta_v H$	(552–620)	34.0	567	A	[1987STE/MAL]
	$\Delta_v H$	(298–333)	39.6	313	C	[1986MIC/JOS]
	$\Delta_v H$		40.2	298	C	[1984MAJ/SVO2]
	$\Delta_v H$		39.4	313	C	[1984MAJ/SVO2]
	$\Delta_v H$		38.5	328	C	[1984MAJ/SVO2]
	$\Delta_v H$		37.7	343	C	[1984MAJ/SVO2]
	$\Delta_v H$		36.3	368		[1984MAJ/SVO2]
	$\Delta_v H$	(340–426)	37.6	355	EB	[1987STE/MAL, 1957MCC/DOU]
	$\Delta_v H$		37.5 ± 0.1	346	C	[1957MCC/DOU]
	$\Delta_v H$		36.4 ± 0.1	366	C	[1957MCC/DOU]
	$\Delta_v H$		35.1 ± 0.1	388	C	[1957MCC/DOU]
	$\Delta_v H$	(320–388)	38.4	335	MG	[1953HER/MAR]
	$\Delta_v H$	(258–389)	44.4	273		[1931VAN/MAN]
C_5H_5NO	[142-08-5]	2-hydroxypyridine				
	$\Delta_{sub}H$		86.6 ± 1.3	298	C	[1982SUR/SAI, 1986PED/NAY]
C_5H_5NO	[109-00-2]	3-hydroxypyridine				
	$\Delta_{sub}H$		88.3 ± 1.3	298	C	[1982SUR/SAI, 1986PED/NAY]
C_5H_5NO	[626-64-2]	4-hydroxypyridine				
	$\Delta_{sub}H$		118.6 ± 5.2	298	C	[1992RIB/MAT]
	$\Delta_{sub}H$		103.8 ± 1.7	298	C	[1982SUR/SAI, 1986PED/NAY]
C_5H_5NO	[694-59-7]	pyridine N-oxide				
	$\Delta_{sub}H$		79.3 ± 1.0	298		[1988SHA/PIL]
$C_5H_5NO_2$	[13161-30-3]	2-hydroxypyridine N-oxide				
	$\Delta_{sub}H$		89.4 ± 0.9	298	C	[2004RIB/MAT]
$C_5H_5NO_2$	[6602-28-4]	3-hydroxypyridine N-oxide				
	$\Delta_{sub}H$	(345–392)	121.8 ± 4.4	298	ME	[1998RIB/MAT]
$C_5H_5NO_2$	[634-97-9]	pyrrole-2-carboxylic acid				
	$\Delta_{sub}H$	(331–353)	98.6 ± 0.9	342	ME	[2009SAN/RIB]
	$\Delta_{sub}H$	(331–353)	100.8 ± 0.9	298	ME	[2009SAN/RIB]
	$\Delta_{sub}H$	(350–354)	126.8	352	ME	[1953BRA/CAR, 1960JON]
$C_5H_5NO_2$	[930-88-1]	N-methylmaleimide				
	$\Delta_{sub}H$	(276–289)	75.3 ± 0.5	282	ME	[1997ROU/JIM]
	$\Delta_{sub}H$		73.3 ± 0.5	298		[1997ROU/JIM]
$C_5H_5NO_2$	[137-05-3]	2-cyanoacrylic acid, methyl ester				
	$\Delta_v H$	(258–283)	57.8	270	A	[1987STE/MAL, 1969WOO/ADI, 1972DYK]
$C_5H_5NO_2$	[16867-04-2]	2,3-dihydroxypyridine				
	$\Delta_{sub}H$		109.1 ± 4.3	298	C	[2006MOR/MIR]
$C_5H_5N_3O$	[98-96-4]	pyrazine carboxamide				
	$\Delta_{fus}H$		30.28	463		[1960NEG/MIK2]
	$\Delta_{sub}H$	(353–383)	87.9	368	ME	[1987STE/MAL, 1960NEG/MIK, 1959HAR]
$C_5H_5N_3O_2$	[4214-76-0]	2-amino-5-nitropyridine				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$	(80–395)	29.2	461.4	AC	[2007SHI/TAN2]
$C_5H_5N_5$	[73-24-5]	adenine				
	$\Delta_{sub}H$		140.4		ME	[2000ZIE]
	$\Delta_{sub}H$	(448–473)	109.2	460.5	A	[1987STE/MAL]
	$\Delta_{sub}H$	(403–439)	127.2 ± 1.9		ME	[1984ZIE/ZIE]
	$\Delta_{sub}H$		126.3		LE	[1975YAN/TEP, 1974YAN/VER]
	$\Delta_{sub}H$		108.7 ± 8		ME	[1965CLA/PES, 1970COX/PIL]
$C_5H_5N_5O$	[73-40-5]	guanine				
	$\Delta_{sub}H$	(325–405)	168.3 ± 0.6	365	QR,ME	[2006DEB/MED]
	$\Delta_{sub}H$		186.2		LE	[1975YAN/TEP, 1974YAN/VER]
$C_5H_5N_7O_{14}$	[20919-99-7]	1,1,1,3,5,5,5-heptanitropentane				
	$\Delta_{sub}H$		111.7	298		[1999MIR/VOR]
C_5H_6	[542-92-7]	1,3-cyclopentadiene				
	$\Delta_{fus}H$		8.01	176.6		[1996DOM/HEA]
	Δ_vH	(271–314)	28.2	286		[1967LES/OGO, 1984BOU/FRI]
	Δ_vH	(291–314)	28.1	302	A,MM	[1987STE/MAL, 1965HUL/REI]
	Δ_vH	(291–314)	28.4 ± 0.3	298	MM	[1965HUL/REI]
	Δ_vH	(273–287)	29.7	298		[1965HUL/REI, 1933BAR/BUR]
C_5H_6	[6746-94-7]	ethynylcyclopropane				
	Δ_vH	(290–320)	31.1	305	A	[1987STE/MAL]
C_5H_6	[78-80-8]	isopropenylacetylene				
	Δ_vH		27.2			[1977LEB/RYA]
C_5H_6ClN	[32366-08-8]	4-chloro-3-pentenenitrile				
	Δ_vH	(349–433)	63.9	364	A	[1987STE/MAL]
$C_5H_6Cl_2O_2$	[2873-74-7]	glutaryl chloride				
	Δ_vH	(329–490)	55.9	344	A	[1987STE/MAL, 1947STU]
$C_5H_6F_2N_4O_{10}$	[17003-79-1]	*bis*(2-fluoro-2,2-dinitroethyl)formal				
	Δ_vH	(323–365)	85.1	344		[1997MIN/BEH]
$C_5H_6F_3NO_3$	[383-72-2]	glycine, N-(trifluoroacetyl) methyl ester				
	$\Delta_{sub}H$	(293–463)	57.3	308		[1987STE/MAL, 1960WEY/KLI]
$C_5H_6F_6N_2S$	[62067-11-2]	2,2,2-trifluoro-N,N-dimethyl-N′-[(trifluoromethyl)thio]ethanimidamide				
	Δ_vH		40.4	400	I	[1977BUR/SHR2]
$C_5H_6F_6O$	[58705-93-4]	1,1,1,2,3,3-hexafluoro-4-methoxybutane				
	Δ_vH	(293–360)	37.0	308	I	[2002MUR/YAM]
$C_5H_6F_6N_2S$	[38005-19-5]	dimethylamino(hexafluoroisoproplidenimino) sulfur				
	Δ_vH		39.7	383	I	[1972MET/SHR]
$C_5H_6F_6O_2S$	[52225-49-7]	trifluoromethanesulfinic acid, 2,2,2-trifluoro-1,1-dimethylethyl ester				
	Δ_vH		35.6	388	HG	[1974MAJ/SHR]
$C_5H_6F_6O_5S_2$	[61915-97-7]	3,3-*bis*[(trifluoromethyl)sulfonyl]-1-propanol				
	Δ_vH	(333–418)	32.8	348	A,I	[1987STE/MAL, 1977BUR/SHR, 1999DYK/SVO]
$C_5H_6N_2$	[7321-55-3]	dimethylmalononitrile				
	$\Delta_{trs}H$		9.87	302.6		
	$\Delta_{fus}H$		4.05	307.5		[1996DOM/HEA]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		62.0 ± 0.7	298		[1990BEC/DOG]
	Δ_vH	(322–413)	47.5	337	A	[1987STE/MAL, 1967RIB/WES]
$C_5H_6N_2$	[109-08-0]	2-methylpyrazine				
	Δ_vH	(342–373)	43.7 ± 1.9	298	CGC	[2009LIP/CHI2]
	Δ_vH	(288–392)	42.4	340		[1995SAK/UEO]
$C_5H_6N_2$	[1632-76-4]	3-methylpyridazine				
	Δ_vH	(342–373)	49.7 ± 2.8	298	CGC	[2009LIP/CHI2]
$C_5H_6N_2$	[3438-46-8]	4-methylpyrimidine				
	Δ_vH	(342–373)	44.2 ± 2.4	298	CGC	[2009LIP/CHI2]
$C_5H_6N_2$	[544-13-8]	glutaronitrile				
	$\Delta_{fus}H$		12.03	242	DSC	[2007BAD/BLA]
	$\Delta_{fus}H$		12.59	244.2		[1996DOM/HEA]
	Δ_vH	(364–560)	60.1	379	A	[1987STE/MAL]
	Δ_vH	(277–303)	66.8	290	A	[1987STE/MAL, 1972DYK, 1960WOO/MUR]
$C_5H_6N_2$	[504-29-0]	2-aminopyridine				
	$\Delta_{fus}H$		15.3	331.5		[1998SAB/DAS]
	$\Delta_{sub}H$		76.5 ± 0.4	298	C	[1998SAB/DAS]
	$\Delta_{sub}H$		38.6 ± 1.9		DSC	[1985BRO/INI]
	$\Delta_{sub}H$		78.7 ± 0.8	298	C	[1984BIC/PIL]
$C_5H_6N_2$	[462-08-8]	3-aminopyridine				
	$\Delta_{fus}H$		14.4	335.5		[1998SAB/DAS]
	$\Delta_{sub}H$		80.7 ± 0.3	298	C	[1998SAB/DAS]
	$\Delta_{sub}H$		84.0 ± 1.4	298	C	[1984BIC/PIL]
$C_5H_6N_2$	[504-24-5]	4-aminopyridine				
	$\Delta_{fus}H$		20.07	429.9	DSC	[1990DON/DRE]
	$\Delta_{sub}H$		87.1 ± 0.4	298	C	[1998SAB/DAS]
	$\Delta_{sub}H$		53.8 ± 0.8		DSC	[1985BRO/INI]
	$\Delta_{sub}H$		88.1 ± 1.1	298	C	[1984BIC/PIL]
$C_5H_6N_2OS$	[2361-27-5]	2-thiophenecarboxylic acid hydrazide				
	$\Delta_{sub}H$	(339–361)	110.7 ± 0.5	350	ME	[2008RIB/AMA3]
	$\Delta_{sub}H$	(339–361)	113.3 ± 0.5	298	ME	[2008RIB/AMA3]
$C_5H_6N_2O_2$	[615-77-0]	1-methyluracil				
	$\Delta_{sub}H$	(343–428)	121.7 ± 4.0	439	TE	[2000BRU/PIA]
	$\Delta_{sub}H$	(378–418)	112.5 ± 2.6	398	QR	[1980TEP/YAN]
	$\Delta_{sub}H$	(435–480)	104.6 ± 8	457	HSA	[1978NOW/SZC]
$C_5H_6N_2O_2$	[608-34-4]	3-methyluracil				
	$\Delta_{sub}H$	(344–419)	118.8 ± 3.0	382	TE	[2000BRU/PIA]
	$\Delta_{sub}H$	(438–498)	75.3 ± 8	463	HSA	[1978NOW/SZC]
$C_5H_6N_2O_2$	[65-71-4]	5-methyluracil (thymine)				
	$\Delta_{fus}H$		17.51	321.3		[1996DOM/HEA]
	$\Delta_{sub}H$	(383–438)	125.7 ± 3.6	411	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		131.3 ± 4.0	298		[1984BUR/MOR]
	$\Delta_{sub}H$	(378–428)	124.4 ± 1.3	403	QR	[1980TEP/YAN]
	$\Delta_{sub}H$		138 ± 10	298	TE	[1980FER/BEN]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		134.1 ± 4.2	298	C	[1977NAB/SAB]
	$\Delta_{sub}H$		124.3		LE	[1975YAN/TEP, 1974YAN/VER]
$C_5H_6N_2O_2$	[626-48-2]	6-methyluracil				
	$\Delta_{sub}H$	(426–503)	131	298		[1980FER/BEN2]
$C_5H_6N_2O_2$	[3326-71-4]	2-furancarboxylic acid hydrazide				
	$\Delta_{sub}H$	(309–325)	98.1 ± 0.7	317.2	ME	[2008RIB/AMA3]
	$\Delta_{sub}H$	(309–325)	99.0 ± 0.7	298	ME	[2008RIB/AMA3]
C_5H_6O	[534-22-5]	2-methylfuran				
	$\Delta_{fus}H$		8.55	181.9		[1965CAR/WES]
	Δ_vH	(289–337)	32.4	304		[2002LOR/AUC]
	Δ_vH	(251–338)	34.4	266	A	[1987STE/MAL]
	Δ_vH	(309–339)	31.5	324		[1986KRE/PRA]
	Δ_vH	(288–303)	32.5	295		[1972DYK]
	Δ_vH	(333–373)	30.9	348		[1971EON/POM, 1984BOU/FRI]
	Δ_vH	(215–360)	32.2	298		[1970MOI/ANT]
$C_5H_6O_2$	[591-12-8]	5-methyl-2(3*H*)-furanone				
	Δ_vH	(324–442)	40.3	339	A	[1987STE/MAL]
$C_5H_6O_2$	[591-11-7]	(*dl*) 5-methyl-2(5*H*)-furanone				
	Δ_vH	(356–481)	48.2	371	A	[1987STE/MAL]
$C_5H_6O_2$	[98-00-0]	furfuryl alcohol				
	$\Delta_{fus}H$		13.1	258.6		[1996DOM/HEA]
	Δ_vH	(304–443)	53.6	319	A	[1987STE/MAL, 1947KET/VAN]
$C_5H_6O_2$	[15441-65-3]	5-hydroxy-3-pentyn-2-one				
	Δ_vH	(273–333)	64.4	288	A	[1987STE/MAL, 1972DYK]
$C_5H_6O_3$	[108-55-4]	glutaric anhydride				
	$\Delta_{sub}H$	(298–320)	85.9 ± 1.6	309	ME	[1990MEN/PIL]
	$\Delta_{sub}H$		86.1 ± 1.6	298		[1990MEN/PIL]
	Δ_vH	(373–560)	60.9	388	A	[1987STE/MAL, 1947STU]
$C_5H_6O_3$	[4100-80-5]	(*dl*) methylsuccinic anhydride				
	Δ_vH	(342–521)	59.3	357	A	[1987STE/MAL, 1947STU]
$C_5H_6O_5$	[328-50-7]	α-ketoglutaric acid				
	$\Delta_{fus}H$		28.59	388.7	DSC	[2005CON/CHI]
	$\Delta_{sub}H$	(269–285)	100		TPTD	[2005CHA/ZIE]
	Note: Values based on TPTD method are not consistent with values determined by other experimental methods					
$C_5H_6O_5$	[542-05-2]	3-oxopentanedioic acid				
	$\Delta_{sub}H$	(310–322)	160.2		TPTD	[2005CHA/ZIE]
	Note: Values based on TPTD method are not consistent with values determined by other experimental methods					
C_5H_6S	[554-14-3]	2-methylthiophene				
	$\Delta_{fus}H$		9.47	207.8		[1956PEN/FIN]
	Δ_vH	(333–373)	36.8	348	I	[1971EON/POM, 1984BOU/FRI]
	Δ_vH		38.7	298		[1971WIL/ZWO]
	Δ_vH	(324–391)	37.2	339	A,EB	[1987STE/MAL, 1952WHI/BER, 1999DYK/SVO]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_5H_6S	[616-44-4]	3-methylthiophene				
	$\Delta_{fus}H$		10.54	204.2		[1985DEA]
	Δ_vH	(333–388)	37.3	348		[2009SAP/UUS2]
	Δ_vH	(326–398)	36.8	357		[1999DYK/SVO]
	Δ_vH	(333–373)	37.4	348	I	[1971EON/POM, 1984BOU/FRI]
	Δ_vH		39.5	298		[1971WIL/ZWO]
	Δ_vH	(327–399)	37.5	342	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_5H_7ClO_3$	[54166-91-5]	acetic acid, chlorooxo, propyl ester				
	Δ_vH	(282–396)	52.7	297	A	[1987STE/MAL, 1947STU]
$C_5H_7Cl_3O_2$	[17831-70-8]	3-chloro-2,2-*bis*(chloromethyl)propionic acid				
	$\Delta_{fus}H$		20.9	383.9		[1999GOT/BUH]
$C_5H_7FO_2$	[406-23-5]	allyl fluoroacetate				
	Δ_vH	(273–333)	48.9	288	A,GS	[1987STE/MAL, 1948RED/CHA4]
	Δ_vH					[1972DYK]
C_5H_7N	[4426-11-3]	cyclobutanecarbonitrile				
	Δ_vH		44.3	298	C	[1983FUC/HAL]
	Δ_vH	(328–402)	39.6	347	BG	[1971HAL/BAL]
	Δ_vH		40.0 ± 0.4	298	BG	[1971HAL/BAL]
C_5H_7N	[1647-11-6]	2-ethylacrylonitrile				
	Δ_vH	(244–387)	37.1	259	A	[1987STE/MAL, 1947STU]
C_5H_7N	[20068-02-4]	angelic acid, nitrile				
	Δ_vH	(265–413)	42.8	280	A	[1987STE/MAL, 1947STU]
C_5H_7N	[96-54-8]	1-methylpyrrole				
	$\Delta_{fus}H$		7.82	216.9		[1996DOM/HEA]
	$\Delta_{sub}H$		NA			[1941MIL]
	Δ_vH	(333–373)	38	343	I	[1971EON/POM]
	Δ_vH	(321–423)	39	336	A,EB,IP	[1987STE/MAL, 1968OSB/DOU, 1972DYK]
C_5H_7N	[25899-50-7]	(Z) 2-pentenenitrile				
	Δ_vH		43.2	298		[1969KON/PRO]
C_5H_7N	[16529-66-1]	(E) 3-pentenenitrile				
	Δ_vH		44.8	298		[1969KON/PRO]
C_5H_7N	[26294-98-4]	(E) 2-pentenenitrile				
	Δ_vH		44.9	298		[1969KON/PRO]
C_5H_7N	[30574-97-1]	tiglic acid, nitrile				
	Δ_vH	(247–395)	37.4	262	A	[1987STE/MAL, 1947STU]
C_5H_7NO	[927-56-0]	4-oxo-pentanenitrile				
	Δ_vH	(293–473)	52.3	308	A	[1987STE/MAL]
$C_5H_7NO_2$	[105-56-6]	ethyl cyanoacetate				
	$\Delta_{fus}H$		11.78	246.8		[1996DOM/HEA]
	Δ_vH	(340–479)	66.9	355	A	[1987STE/MAL, 1947STU]
$C_5H_7NO_2$	[1121-89-7]	glutarimide				
	$\Delta_{sub}H$	(317–340)	93.6 ± 1.6	329	ME	[1990MEN/PIL]
	$\Delta_{sub}H$		94.1 ± 1.6	298		[1990MEN/PIL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_7NO_2$	[1121-07-9]	N-methylsuccinimide				
	$\Delta_{sub}H$	(280–298)	80.6 ± 0.3	289	ME	[1997ROU/JIM]
	$\Delta_{sub}H$		80.1 ± 0.3	298		[1997ROU/JIM]
$C_5H_7NO_3$	[149-87-1]	(*dl*)-5-oxoproline				
	$\Delta_{sub}H$	(394–416)	133.2 ± 1	405	TE,ME	[1979DEK/VOO]
C_5H_7NS	[3386-97-8]	isothiocyanic acid, 3-butenyl ester				
	Δ_vH	(342–443)	45.2	357	A	[1987STE/MAL, 1999DYK/SVO]
C_5H_7NS	[541-58-2]	2,4-dimethylthiazole				
	$\Delta_{fus}H$		2.9	222.9		[1966MEY/MET]
	Δ_vH	(357–421)	42.0	372	A	[1987STE/MAL]
$C_5H_7N_3O$	[1122-47-0]	1-methylcytosine				
	$\Delta_{sub}H$	(455–487)	141.2 ± 0.6		GS	[1998ZIE/WSZ]
	$\Delta_{sub}H$	(423–443)	141.8 ± 8.8	433	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		149.1 ± 9.0	298		[1984BUR/MOR]
$C_5H_7N_3O$	[4776-08-3]	3-methylcytosine				
	$\Delta_{sub}H$	(487–526)	150.6		HAS	[1965CLA/PES]
$C_5H_7N_3O$	[1122-04-9]	3,5-dimethyl-4-nitrosopyrazole				
	$\Delta_{sub}H$		102.9 ± 3.0	298	C	[2001RIB/FER]
$C_5H_7N_3O_2$	[20541-50-8]	1-methyl-N-hydroxycytosine				
	$\Delta_{sub}H$		126.7 ± 1.5			[1998ZIE/WSZ]
$C_5H_7N_3O_5$	[179894-08-7]	N-acetyl-3,3-dinitroazetidine				
	$\Delta_{fus}H$		25.65	386.9		[1999GRI/SZE]
C_5H_8	[185-94-4]	bicyclo[2.1.0]pentane				
	Δ_vH		28.0 ± 0.5	298	EB	[1998KOL/PIM, 1996VAR/PAS]
	Δ_vH	(296–315)	28.6	305	A	[1987STE/MAL]
C_5H_8	[157-40-4]	spiropentane				
	$\Delta_{fus}H$		6.43	166.1		[1996DOM/HEA]
	Δ_vH	(276–344)	28.6	291	A	[1987STE/MAL, 1950SCO/FIN]
	Δ_vH		28.3 ± 0.1	283	C	[1950SCO/FIN2]
	Δ_vH		27.5 ± 0.1	298	C	[1950SCO/FIN2]
	Δ_vH		26.7 ± 0.1	312	C	[1950SCO/FIN2]
C_5H_8	[693-86-7]	vinylcyclopropane				
	Δ_vH	(289–310)	28.9	299	A	[1987STE/MAL]
C_5H_8	[142-29-0]	cyclopentene				
	$\Delta_{trs}H$		0.48	87.07		
	$\Delta_{fus}H$		3.36	138.1		[1996DOM/HEA]
	Δ_vH	(249–318)	29.9	264	A	[1987STE/MAL]
	Δ_vH	(289–318)	24.8	299	MM	[1950FOR/CAM]
	Δ_vH	(230–293)	28.4	300		[1941LIS]
C_5H_8	[1120-56-5]	methylenecyclobutane				
	$\Delta_{fus}H$		5.86	138.5		[1996DOM/HEA]
	Δ_vH	(290–316)	26.1	303	A	[1987STE/MAL]
	Δ_vH	(292–306)	29.1	299	A	[1987STE/MAL, 1978LEB/TSV, 1978LEB/TSV2]
	Δ_vH		27.7 ± 0.4	298	EB	[1974GOO/MOO]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_5H_8	[598-25-4]	3-methyl-1,2-butadiene				
	$\Delta_{fus}H$		7.95	159.5		[1996DOM/HEA]
	Δ_vH	(227–253)	31	240	A	[1987STE/MAL]
	Δ_vH	(252–323)	29.9	267	A	[1987STE/MAL]
	Δ_vH		28	298		[1971WIL/ZWO]
	Δ_vH	(213–242)	31.6	230	IP	[1969OSB/DOU]
	Δ_vH	(274–319)	29	291	EB	[1969OSB/DOU]
C_5H_8	[78-79-5]	2-methyl-1,3-butadiene				
	$\Delta_{fus}H$		4.92	127.3		[1996DOM/HEA]
	Δ_vH	(221–254)	29.4	239	A	[1987STE/MAL]
	Δ_vH	(254–316)	28.3	269	A	[1987STE/MAL]
	Δ_vH		26.4	298		[1971WIL/ZWO]
	Δ_vH	(216–235)	31.5	225	IP	[1969OSB/DOU]
	Δ_vH	(290–308)	27.3	299	MM	[1950FOR/CAM]
	Δ_vH	(258–318)	27.4	288		[1938KUC]
C_5H_8	[598-23-2]	3-methyl-1-butyne				
	Δ_vH	(218–320)	30.2	233	A	[1987STE/MAL]
			25.8	298		[1971WIL/ZWO]
C_5H_8	[591-95-7]	1,2-pentadiene				
	$\Delta_{fus}H$		7.56	135.9		[1996DOM/HEA]
	Δ_vH	(231–249)	31.6	240	A	[1987STE/MAL]
	Δ_vH	(249–331)	30.6	264	A	[1987STE/MAL]
	Δ_vH		28.7	298		[1971WIL/ZWO]
	Δ_vH	(213–245)	32.2	231	IP	[1969OSB/DOU]
	Δ_vH	(285–319)	29.1	300	MM	[1950FOR/CAM]
C_5H_8	[1574-41-0]	*cis* 1,3-pentadiene				
	$\Delta_{fus}H$		5.64	132.4		[1996DOM/HEA]
	Δ_vH	(255–326)	30.1	270	A	[1987STE/MAL]
	Δ_vH	(230–255)	31.2	242	A	[1987STE/MAL]
	Δ_vH		28.3	298		[1971WIL/ZWO]
	Δ_vH	(213–242)	31.9	230	IP	[1969OSB/DOU]
	Δ_vH	(289–318)	28.8	304	MM	[1950FOR/CAM]
C_5H_8	[2004-41-0]	*trans* 1,3-pentadiene				
	$\Delta_{fus}H$		7.14	185.7		[1996DOM/HEA]
	Δ_vH	(228–256)	30.7	242	A	[1987STE/MAL]
	Δ_vH	(256–324)	29.5	271	A	[1987STE/MAL]
	Δ_vH		27.8	298		[1971WIL/ZWO]
	Δ_vH	(213–242)	31.3	230	IP	[1969OSB/DOU]
	Δ_vH	(292–316)	28.3	304	MM	[1950FOR/CAM]
C_5H_8	[591-93-5]	1,4-pentadiene				
	$\Delta_{fus}H$		6.14	124.3		[1996DOM/HEA]
	Δ_vH	(216–236)	29.1	226	A	[1987STE/MAL]
	Δ_vH	(236–307)	28.1	251	A	[1987STE/MAL]
	Δ_vH		25.2	298		[1971WIL/ZWO]
	Δ_vH	(213–230)	29.3	221	IP	[1969OSB/DOU]
	Δ_vH	(288–300)	26.5	293	MM	[1950FOR/CAM]
	Δ_vH	(194–255)	28.4	240		[1940LAM/ROP]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_5H_8	[591-96-8]	2,3-pentadiene				
	$\Delta_{fus}H$		6.13	147.5		[1996DOM/HEA]
	Δ_vH	(234–258)	32.3	246	A	[1987STE/MAL]
	Δ_vH	(258–330)	31.1	273	A	[1987STE/MAL]
	Δ_vH		29.5	298		[1971WIL/ZWO]
	Δ_vH	(213–247)	33.2	232	IP	[1969OSB/DOU]
	Δ_vH	(298–322)	29.6	310	MM	[1950FOR/CAM]
C_5H_8	[627-19-0]	1-pentyne				
	Δ_vH	(229–315)	31.8	244	A	[1987STE/MAL]
	Δ_vH		28.4	298		[1971WIL/ZWO]
C_5H_8	[627-21-4]	2-pentyne				
	Δ_vH	(240–329)	33.1	255	A	[1987STE/MAL]
	Δ_vH		30.8	298		[1971WIL/ZWO]
$C_5H_8Br_2$	[10230-26-9]	*trans* 1,2-dibromocyclopentane				
	Δ_vH	(273–332)	47.9	288	A	[1987STE/MAL, 1941LIS]
$C_5H_8Br_4$	[3229-00-3]	pentarythritol tetrabromide				
	$\Delta_{fus}H$		27.97	433.5		[1996DOM/HEA]
	$\Delta_{sub}H$	(384–434)	84.0	399	A	[1987STE/MAL]
	$\Delta_{sub}H$		NA		GSM	[1941NIT/SEK]
	Δ_vH	(439–466)	61.0	452	A	[1987STE/MAL]
$C_5H_8ClFO_2$	[541-86-6]	3-chloro-4-fluorobutyric acid, methyl ester				
	Δ_vH	(273–333)	54.5	288	GS	[1987STE/MAL, 1948RED/CHA4, 1972DYK]
$C_5H_8ClF_3O$	[330-17-0]	2-chloro-1,1,2-trifluoroethyl isopropyl ether				
	Δ_vH		39.2	298	C	[1984MAJ/UCH]
	Δ_vH		38.1	313	C	[1984MAJ/UCH]
	Δ_vH		37.0	324	C	[1984MAJ/UCH]
$C_5H_8ClF_3O$	[380-43-8]	2-chloro-1,1,2-trifluoroethyl propyl ether				
	Δ_vH		41.0	298	C	[1984UCH/MAJ]
	Δ_vH		39.9	313	C	[1984UCH/MAJ]
	Δ_vH		38.7	328	C	[1984UCH/MAJ]
	Δ_vH		37.5	343	C	[1984UCH/MAJ]
	Δ_vH		36.2	358	C	[1984UCH/MAJ]
$C_5H_8Cl_2O$	[78-71-7]	3,3-*bis*(chloromethyl)oxetane				
	$\Delta_{fus}H$		16.95	292.2		[1996DOM/HEA]
	Δ_vH		56.0 ± 0.4	298	C	[1971RIN/SUN]
$C_5H_8Cl_4$	[2467-10-9]	1,1,1,5-tetrachloropentane				
	Δ_vH	(340–432)	61.7	355	A	[1987STE/MAL]
$C_5H_8F_2O_3$	[406-15-5]	*bis*(2-fluoroethyl) carbonate				
	Δ_vH	(273–333)	61.5	288	GS	[1987STE/MAL, 1948RED/CHA4, 1972DYK]
$C_5H_8F_4$	[338-23-8]	pentaerythritol tetrafluoride				
	$\Delta_{trs}H$		13.21	249.4		
	$\Delta_{fus}H$		5.14	367.4		[1996DOM/HEA]
$C_5H_8F_4N_4O_2$	[298228-65-6]	4,4-*bis*(difluoroamino)-1-nitropiperidine				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		50.2	366.2		[2001OXL/SMI]
$C_5H_8NO_2$	[19947-75-2]	5-amino-3,4-dimethylisoxazole				
	$\Delta_{sub}H$		87.9 ± 2.5			[1973HAM/MIT, 1977PED/RYL]
$C_5H_8N_2$	[80-73-9]	1,3-dimethyl-2-imidazolidinone				
	Δ_vH	(355–498)	54.3	375	EB	[1987KNE/ZON]
	Δ_vH	(355–498)	48.5	450	EB	[1987KNE/ZON]
$C_5H_8N_2$	[7098-07-9]	1-ethylimidazole				
	Δ_vH		66.0 ± 3.9	298	C	[1999RIB/RIB]
$C_5H_8N_2$	[1072-62-4]	2-ethylimidazole				
	$\Delta_{sub}H$	(303–321)	89.2 ± 0.4	312	ME	[1992JIM/ROU]
	$\Delta_{sub}H$		89.6 ± 0.4	298	ME	[1992JIM/ROU]
$C_5H_8N_2$	[2817-71-2]	1-ethylpyrazole				
	Δ_vH		53.3 ± 2.4	298	C	[1999RIB/RIB]
$C_5H_8N_2$	[2721-32-6]	2,3-diazabicyclo[2.2.1]hept-2-ene				
	$\Delta_{sub}H$		43.9 ± 2.1			[1974ENG/WOO, 1977PED/RYL]
	$\Delta_{sub}H$		55.3 ± 0.6	298		[1976ENG/MEL]
$C_5H_8N_2$	[67-51-6]	3,5-dimethylpyrazole				
	$\Delta_{sub}H$		83.4 ± 2.4	298	C	[2001RIB/FER]
	$\Delta_{sub}H$		83.3 ± 0.2	301	ME	[1991ELG/YRA]
$C_5H_8N_2O_2$	[19947-75-2]	1,3-dimethyluracil				
	$\Delta_{sub}H$		96.9 ± 1.2		C	[1989IMA/TAK]
$C_5H_8N_4O_6$	[298228-66-7]	1,4,4-trinitropiperidine				
	$\Delta_{fus}H$		100.4	389.2		[2001OXL/SMI]
$C_5H_8N_4O_{12}$	[78-11-5]	pentaerythritol tetranitrate				
	$\Delta_{sub}H$	(356–382)	156.9 ± 0.8	369	TE	[2004LAU/HIL]
	$\Delta_{sub}H$		152.3		DSC	[1990HWA/YOS]
	$\Delta_{sub}H$	(328–405)	150.4 ± 1.3	298	ME	[1978CUN/PAL]
	$\Delta_{sub}H$		146 ± 12			[1978CUN/PAL, 1971DIN/STA]
	$\Delta_{sub}H$		U 121.3		ME	[1969CRI]
	$\Delta_{sub}H$	(370–411)	151.9 ± 2.1			[1953EDW, 1960JON, 1970COX/PIL]
C_5H_8O	[120-93-2]	cyclopentanone				
	$\Delta_{fus}H$		11.4	221.2		[1998GON/SZW]
	Δ_vH	(323–403)	41.5	338	EB	[2006TEO/BAR]
	Δ_vH		42.1 ± 0.2	298		[1991DIK/KAB]
	Δ_vH		43.2 ± 0.3		GC	[1989AZA]
	Δ_vH	(317–427)	40.6	332		[1987AMB/GHI2]
	Δ_vH	(293–404)	42.6	308	A	[1987STE/MAL]
	Δ_vH	(338–416)	39.6	353	A,EB	[1987STE/MAL, 1976MEY/HOT]
	Δ_vH		42.6 ± 0.4	298		[1972WOL]
	Δ_vH		42.7 ± 0.1	298	C	[1968PLA/WIL]
	Δ_vH	(273–299)	43.6	286		[191942BEN/KIS]
C_5H_8O	[922-63-4]	2-ethylacrolein				
	Δ_vH		36.8 ± 0.4	298	C	[1996VAN/YU]
C_5H_8O	[765-43-5]	cyclopropyl methyl ketone				
	Δ_vH	(361–387)	37.6	374	A	[1987STE/MAL]
	Δ_vH		39.4			[1984KOZ/TIM]
	Δ_vH		39.4 ± 0.1	298	C	[1983FUC/HAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_5H_8O	[25512-65-6]	dihydro-2*H*-pyran				
	$\Delta_v H$	(273–288)	32.2	280	A	[1987STE/MAL, 1972DYK, 1958CAS/FLE3]
C_5H_8O	[497-03-0]	*trans* 2-methyl-2-butenal				
	$\Delta_v H$	(248–390)	39.2	263	A	[1987STE/MAL, 1947STU]
C_5H_8O	[814-78-8]	3-methyl-3-buten-2-one				
	$\Delta_v H$	(313–371)	26.2	328	A	[1987STE/MAL, 1972DYK]
C_5H_8O	[115-19-5]	2-methyl-3-butyn-2-ol				
	$\Delta_v H$	(333–377)	41.0	353	A	[1999ZAR/CHA]
	$\Delta_v H$	(294–380)	43.9	337	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(294–380)	49.5	309		[1984BOU/FRI, 1950CON/ELV]
C_5H_8O	[1629-58-9]	1-penten-3-one				
	$\Delta_v H$	(303–376)	36.7	318	A	[1987STE/MAL]
C_5H_8OS	[1072-72-6]	tetrahydro-4*H*-thiopyran-4-one				
	$\Delta_{sub} H$		71.7 ± 1.7	317	I	[1972GEI/SAW]
	$\Delta_{sub} H$		72.6 ± 1.7	298		[1972GEI/SAW, 1977PED/RYL]
$C_5H_8O_2$	[111-30-8]	glutaraldehyde				
	$\Delta_v H$	(347–382)	51.4	362		[1998OLS]
	$\Delta_v H$	(327–436)	56.2	342		[1998OLS]
$C_5H_8O_2$	[2868-37-3]	methyl cyclopropanecarboxylate				
	$\Delta_v H$	(273–313)	42.6 ± 0.4		GS	[1998VER/KUM]
	$\Delta_v H$		41.3 ± 0.1	298	C	[1983FUC/HAL]
$C_5H_8O_2$	[123-54-6]	acetylacetone				
	$\Delta_v H$ (diketone)		51.2 ± 2.2	298	CGC	[2005TEM/ROU]
	$\Delta_v H$ (enol form)		50.8 ± 0.6	298	CGC	[2005TEM/ROU]
	$\Delta_v H$	(307–414)	39.2	322	EB	[1985RAV/RAO]
	$\Delta_v H$	(295–313)	40.6	304		[1981INO/ARA]
	$\Delta_v H$	(378–411)	35.2	393	A,I,EB	[1987STE/MAL, 1972NAK/TOY]
	$\Delta_v H$	(288–378)	42.7	303	A,EB	[1987STE/MAL]
	$\Delta_v H$ (84% enol)		41.8 ± 0.2	298	C	[1970IRV/WAD]
	$\Delta_v H$ (100% enol)		43.2	298	C	[1970IRV/WAD]
	$\Delta_v H$	(297–398)	39.4	347		[1969MEL/MER]
$C_5H_8O_2$	[na]	acetylacetone enol				
	$\Delta_{fus} H$		14.5	254.8		[1969MEL/MER]
$C_5H_8O_2$	[600-14-6]	2,3-pentanedione				
	$\Delta_{fus} H$		7.84	221.2	DSC	[2006DOM/MOR]
$C_5H_8O_2$	[565-63-9]	*cis* 2-methyl-2-butenoic acid				
	$\Delta_v H$	(361–458)	61.8	376	A	[1987STE/MAL]
$C_5H_8O_2$	[3586-58-1]	2-ethylpropenoic acid				
	$\Delta_v H$		52.1 ± 0.4	298	C	[1996VAN/YU]
$C_5H_8O_2$	[3586-58-1]	2-ethylacrylic acid				
	$\Delta_v H$	(320–453)	62.2	335	A	[1987STE/MAL, 1947STU]
$C_5H_8O_2$	[626-96-0]	4-oxovaleraldehyde (levulinaldehyde)				
	$\Delta_v H$	(301–460)	48.8	316	A	[1987STE/MAL, 1947STU]
$C_5H_8O_2$	[541-47-9]	3-methylcrotonic acid				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(363–473)	57.7	378	A	[1987STE/MAL]
$C_5H_8O_2$	[140-88-5] 2-ethyl acrylate					
	$\Delta_v H$	(243–372)	41.4	258		[1947STU]
$C_5H_8O_2$	[140-88-5] 2-propenoic acid, ethyl ester					
	$\Delta_v H$		39.2			[1975VIL/PER]
$C_5H_8O_2$	[80-62-6] methyl methacrylate					
	$\Delta_{fus}H$		12.24	225		[1996DOM/HEA]
	$\Delta_{sub}H$	(194–223)	60.7	205		[1952BYW, 1960JON]
	$\Delta_v H$	(295–386)	38.8 ± 0.1	300	EB	[2002STE/CHI4]
	$\Delta_v H$	(295–386)	36.3 ± 0.2	340	EB	[2002STE/CHI4]
	$\Delta_v H$	(295–386)	33.3 ± 0.4	380	EB	[2002STE/CHI4]
	$\Delta_v H$	(293–373)	37.9	308	A	[1987STE/MAL]
	$\Delta_v H$	(318–348)	37.7	333		[1984HUL/LU]
	$\Delta_v H$	(305–373)	38	320		[1984BOU/FRI]
	$\Delta_v H$		40.1			[1975VIL/PER]
	$\Delta_v H$	(312–362)	39	327		[1956VON/JEN]
$C_5H_8O_2$	[591-80-0] 4-pentenoic acid					
	$\Delta_v H$	(289–324)	65.8 ± 0.4	298	GS	[2008EME/VER]
$C_5H_8O_2$	[80-59-1] *trans* 2-methyl-2-butenoic acid					
	$\Delta_v H$	(350–453)	61.2	365	A	[1987STE/MAL]
$C_5H_8O_2$	[542-28-9] tetrahydro-2*H*-pyran-2-one (*δ*-valerolactone)					
	$\Delta_{trs}H$		0.46	118		
	$\Delta_{trs}H$		0.3	135		
	$\Delta_{fus}H$		10.53	263		[1991ACR]
	$\Delta_v H$	(278–353)	58.2 ± 0.3	298	GS	[2007EME/KOZ]
	$\Delta_v H$	(393–428)	52.4 ± 0.2	410	EB	[1991WIB/WAL]
	$\Delta_v H$	(393–428)	60.2 ± 1.3	298	EB	[1991WIB/WAL]
	$\Delta_v H$		58.0 ± 0.4	298	C	[1990LEI/PIL2, 1989BRO/CON]
	$\Delta_v H$	(342–433)	48.6	387		[1930SCH/THO]
$C_5H_8O_2$	[29943-42-8] 2,3,5,6-tetrahydropyran-4-one					
	$\Delta_v H$		50.7 ± 0.3	298	C	[2009FRE/GOM2]
$C_5H_8O_2$	[108-29-2] (*dl*) *γ*-valerolactone					
	$\Delta_v H$	(276–350)	53.9 ± 0.2	298	GS	[2008EME/KOZ, 2009EME/VER]
	$\Delta_v H$		54.8 ± 0.4	298	C	[1990LEI/PIL2]
	$\Delta_v H$	(310–480)	53.5	325	A	[1987STE/MAL, 1947STU]
$C_5H_8O_2$	[105-38-4] vinyl propanoate					
	$\Delta_v H$	(321–368)	36.7	336		[2005RES/GON]
$C_5H_8O_2S$	[6007-71-2] 2,5-dihydro-2-methyl-thiophene-1,1-dioxide					
	$\Delta_{sub}H$		60.7 ± 2.5			[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_5H_8O_2S$	[1193-10-8] 2,5-dihydro-3-methyl-thiophene-1,1-dioxide					
	$\Delta_{sub}H$		64.0 ± 2.5			[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_5H_8O_3$	[123-76-2] 4-oxopentanoic acid					
	$\Delta_v H$	(375–519)	74.4	390	A	[1987STE/MAL, 1947STU]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_8O_3$	[105-45-3]	methyl acetoacetate				
	$\Delta_v H$	(289–446)	45.4	304	A	[1987STE/MAL]
$C_5H_8O_3$	[123-76-2]	levulinic acid				
	$\Delta_{fus}H$		9.22	306.2		[1991ACR]
$C_5H_8O_3$	[4437-85-8]	butylene carbonate				
	$\Delta_v H$	(289–344)	63.2 ± 0.3	298	GS	[2008VER/TOK]
	$\Delta_v H$	(397–523)	63.8 ± 0.1	298	E	[2004CHE/CLE, 2008VER/TOK]
$C_5H_8O_4$	[108-59-8]	dimethyl malonate				
	$\Delta_{sub}H$		111.7 ± 2.1	298	ME	[2000RIB/MON]
	$\Delta_v H$	(278–314)	57.5 ± 0.3	298	GS	[2006VER/KOZ]
	$\Delta_v H$	(351–460)	52.9 ± 0.2	360	EB	[2002STE/CHI6]
	$\Delta_v H$	(351–460)	49.5 ± 0.2	400	EB	[2002STE/CHI6]
	$\Delta_v H$	(351–460)	46.1 ± 0.3	440	EB	[2002STE/CHI6]
	$\Delta_v H$	(278–308)	61.8 ± 0.8	293	GS	[1992VER/BEC]
	$\Delta_v H$	(374–620)	50.0	497	EB,HG	[1988ASK/DAU]
	$\Delta_v H$	(308–454)	53.7	323	A	[1987STE/MAL]
$C_5H_8O_4$	[110-94-1]	glutaric acid				
	$\Delta_{trs}H$		2.34	349.2		
	$\Delta_{fus}H$		21.3	372.3	DSC	[2009HA/HAN]
	$\Delta_{fus}H$		20.7	370.9	DSC	[2009GOO/ROD]
	$\Delta_{trs}H$		2.3	340.5		
	$\Delta_{fus}H$		18.8	363.9	DSC	[2005ROU/TEM]
	$\Delta_{trs}H$		2.4	338		
	$\Delta_{fus}H$		23	371		[2002STE/CHI6]
	$\Delta_{trs}H$		2.46	348.5		
	$\Delta_{fus}H$		20.9	371		[1991ACR]
	$\Delta_{sub}H$	(313–349)	134 ± 4		TPD	[2007CAP/LOV]
	$\Delta_{sub}H$	(275–294)	132.3		TPTD	[2005CHA/ZIE]
		Note: Values based on TPTD method are not consistent with values determined by other experimental methods				
	$\Delta_{sub}H$	(348–363)	117.0 ± 1.2	356	ME	[1999RIB/MON]
	$\Delta_{sub}H$	(348–363)	119.8 ± 1.2	298	ME	[1999RIB/MON]
	$\Delta_{sub}H$	(292–320)	U 52.6	306	A	[1947GRA]
	$\Delta_v H$	(424–503)	101.6	298	GS	[2005ROU/TEM]
	$\Delta_v H$	(428–576)	98.1	443	A	[1987STE/MAL, 1947STU]
$C_5H_8O_4$	[601-75-2]	ethylmalonic acid				
	$\Delta_{sub}H$		112.8 ± 2.2	298	ME	[2000RIB/MON]
	$\Delta_{sub}H$		105.5 ± 0.5		C	[1983ALT/PIL]
$C_5H_8O_4$	[628-51-3]	diacetoxymethane				
	$\Delta_v H$	(334–443)	50.6	349	A	[1987STE/MAL]
C_5H_9BrO	[815-48-5]	3-bromo-2-pentanone				
	$\Delta_v H$	(273–333)	45.2	288	A	[1987STE/MAL, 1972DYK]
C_5H_9Cl	[930-28-9]	cyclopentyl chloride				
	$\Delta_{trs}H$		7.63	169.4		
	$\Delta_{fus}H$		0.64	180		[1993DIK/KAB]
	$\Delta_v H$		38.8	298	C	[1993DIK/KAB]
	$\Delta_v H$	(322–387)	37.4	337	A,EB	[1987STE/MAL, 1970AND/BRA]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_9ClO_2$	[5396-24-7]	propyl chloroacetate				
	$\Delta_{trs}H$		0.36	110		
	$\Delta_{trs}H$		0.69	204		
	$\Delta_{trs}H$		0.17	207		
	$\Delta_{fus}H$		13.0	240		[1990MID/KAT]
$C_5H_9ClO_2$	[105-48-6]	isopropyl chloroacetate				
	Δ_vH	(308–425)	44.3	323		[1928NEL2, 1984BOU/FRI]
$C_5H_9ClO_2$	[535-13-7]	2-chloropropionic acid, ethyl ester				
	Δ_vH	(279–420)	46.5	294	A	[1987STE/MAL, 1947STU]
$C_5H_9ClO_2$	[623-71-2]	3-chloropropionic acid, ethyl ester				
	Δ_vH	(316–358)	56.0	331	A	[1987STE/MAL]
C_5H_9ClS	[19155-35-2]	(2-chloroethyl) allyl sulfide				
	Δ_vH	(293–333)	50.2	308	A,GS	[1987STE/MAL, 1949WAD/SMI, 1972DYK, 1999DYK/SVO]
$C_5H_9Cl_3O$	[1067-09-0]	2-chloromethyl-2-methyl-1,3-dichloropropane				
	$\Delta_{trs}H$		12	246.6		
	$\Delta_{fus}H$		2.5	291.3		[1996DOU/FUE]
$C_5H_9Cl_3O$	[813-99-0]	3-chloro-2,2-*bis*(chloromethyl)-1-propanol				
	Δ_vH	(404–450)	79.6	419	A	[1987STE/MAL]
C_5H_9FOS	[63732-24-1]	4-fluorothiobutryic acid, methyl ester				
	Δ_vH	(273–333)	52.4	288	A,GS	[1987STE/MAL, 1948RED/CHA4, 1972DYK, 1999DYK/SVO]
$C_5H_9FO_2$	[406-20-2]	4-fluorobutyric acid, methyl ester				
	Δ_vH	(273–333)	47.3	288	A,GS	[1987STE/MAL, 1948RED/CHA4, 1972DYK]
$C_5H_9FO_2$	[406-06-4]	isopropyl fluoroacetate				
	Δ_vH	(273–333)	44.3	288	A,GS	[1987STE/MAL, 1948RED/CHA4]
$C_5H_9FO_3$	[25309-12-0]	3-fluoro-2-hydroxybutryic acid, methyl ester				
	Δ_vH	(273–333)	62.3	288	GS	[1987STE/MAL, 1948RED/CHA4, 1972DYK]
C_5H_9N	[630-18-2]	pivalonitrile				
	$\Delta_{trs}H$		0.23	213		
	$\Delta_{trs}H$		1.91	232.7		
	$\Delta_{fus}H$		9.29	292.1		[1996DOM/HEA]
	Δ_vH	(299–365)	37.0	318	BG	[1971HAL/BAL]
	Δ_vH	(313–371)	36.5	328	A,I	[1987STE/MAL, 1967WES/RIB]
	Δ_vH	(313–371)	37.8	298	I	[1967WES/RIB]
C_5H_9N	[18936-17-9]	2-methylbutyronitrile				
	Δ_vH	(274–313)	42.5 ± 0.3		GS	[1994RAK/VER]
C_5H_9N	[110-59-8]	valeronitrile				
	Δ_vH	(313–418)	42.3	328	A	[1987STE/MAL]
	Δ_vH		44.3	298		[1969KON/PRO]
	Δ_vH	(342–414)	44.2		EB	[1949DRE/SHR, 1949DRE/MAR, 2005EME/VER]
	Δ_vH	(394–439)	44.1 ± 0.2	298	MM	[1933HEI, 2005EME/VER]
C_5H_9NO	[872-50-4]	N-methyl-2-pyrrolidone				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		18.1	248.5		[2000LIS/JAM]
	Δ_vH	(380–475)	49.5	395		[2007PAL/ORA2]
	Δ_vH	(352–378)	61.9	298	EB	[2004CHY/FRA2]
	Δ_vH	(330–373)	53.1	345	GS	[1996LIN/WIC]
	Δ_vH	(340–476)	53.4	350	EB	[1987KNE/ZON]
	Δ_vH	(340–476)	47.7	425	EB	[1987KNE/ZON]
	Δ_vH	(361–477)	49.2	376	A	[1987STE/MAL, 1972DYK]
	Δ_vH	(291–299)	55.3	295	A	[1987STE/MAL]
	Δ_vH	(333–473)	49.3	403		[1979BLU/BAE]
C_5H_9NO	[111-36-4]	butyl isocyanate				
	Δ_vH	(293–388)	38.5	308		[2004AHM/GIE]
	Δ_vH	(273–389)	46.8	288	A	[1987STE/MAL, 1974ZHU/MON]
C_5H_9NO	[1873-29-6]	isobutyl isocyanate				
	Δ_vH	(273–376)	44.2	288	A	[1987STE/MAL, 1974ZHU/MON]
C_5H_9NO	[3887-02-3]	N-methyl methacrylamide				
	Δ_vH	(355–489)	60.9	370	A	[1987STE/MAL]
C_5H_9NO	[15856-96-9]	*cis* 2-pentenoic acid amide				
	$\Delta_{sub}H$	(323–333)	106.5	328	A	[1987STE/MAL]
	Δ_vH	(343–384)	74.8	358	A	[1987STE/MAL]
C_5H_9NO	[15856-96-9]	*trans* 2-pentenoic acid amide				
	$\Delta_{sub}H$	(353–383)	57.9	368	A	[1987STE/MAL]
C_5H_9NO	[76474-09-4]	α-methoxyisobutyronitrile				
	Δ_vH	(261–285)	37.4 ± 0.8	298	GS	[1995VER/BEC]
C_5H_9NO	[14631-45-9]	2-ethoxypropanenitrile				
	Δ_vH	(348–445)	46.7	363	A,EB	[1987STE/MAL, 1976RAO/CHI]
C_5H_9NO	[675-20-7]	2-piperidone				
	$\Delta_{fus}H$		10.5	311.9		[1990DOM/HEA]
	Δ_vH	(293–312)	75.5	302	A	[1987STE/MAL]
C_5H_9NO	[10431-98-8]	2-ethyl-2-oxazoline				
	Δ_vH		44.2 ± 0.4	298	C	[1976HAM/THO]
	$\Delta_{sub}H$	(293–312)	74.5	303		[1953AIH, 1960JON, 1960AIH2]
$C_5H_9NO_2$	[147-85-3]	L-(*l*)-proline				
	$\Delta_{sub}H$	(396–416)	127.4 ± 1	406	TE,ME	[1979DEK/VOO]
	$\Delta_{sub}H$	(380–420)	149 ± 4	400	C	[1978SAB/LAF]
	$\Delta_{sub}H$	(323–423)	U 50 ± 8	373	LE	[1977GAF/PIE]
$C_5H_9NO_2$	[4394-85-8]	N-formylmorpholine				
	Δ_vH		56.9	416		[1989PAR/GME]
	Δ_vH	(375–423)	52.7	399	TGA	[1987ALN/ALS]
$C_5H_9NO_3$	[51-35-4]	*trans* 4-hydroxy-L-proline				
	$\Delta_{sub}H$	(461–481)	162.6 ± 2	471	TE,ME	[1979DEK/VOO]
$C_5H_9NO_4$	[56-86-0]	(*l*)-glutamic acid				
	$\Delta_{sub}H$	(353–453)	U 121 ± 34	403	LE	[1977GAF/PIE]
$C_5H_9N_3O_7$	[26459-85-8]	2-ethoxy-1,1,1-trinitropropane				
	Δ_vH	(293–310)	57.7	301	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_9N_3O_9$	[3032-55-1]	2-hydroxymethyl-2-methyl-1,3-propanediol trinitrate				
	$\Delta_v H$	(299–345)	88.1	314	A	[1987STE/MAL]
$C_5H_9N_3O_9$	[98071-55-7]	1,2,5-pentanetriol trinitrate				
	$\Delta_v H$	(293–313)	41.7 ± 2.1	303	A,GS	[1987STE/MAL, 1957KEM/GOL]
C_5H_{10}	[1630-94-0]	1,1-dimethylcyclopropane				
	$\Delta_v H$		25.1 ± 0.8	298	EB	[1974GOO/MOO]
C_5H_{10}	[287-92-3]	cyclopentane				
	$\Delta_{trs}H$		4.9	122		
	$\Delta_{trs}H$		0.34	138		
	$\Delta_{fus}H$		0.6	179.7		[1996DOM/HEA]
	$\Delta_{sub}H$		42.6	122	B	[1963BON]
	$\Delta_v H$	(280–331)	29.2	295	A	[1987STE/MAL]
	$\Delta_v H$	(322–384)	28.0	337	A	[1987STE/MAL]
	$\Delta_v H$	(381–455)	27.2	396	A	[1987STE/MAL]
	$\Delta_v H$	(452–511)	27.5	467	A	[1987STE/MAL]
	$\Delta_v H$		28.5	298		[1971WIL/ZWO]
	$\Delta_v H$		28.5 ± 0.1	298	C	[1959MCC/PEN]
	$\Delta_v H$		27.9 ± 0.1	310	C	[1959MCC/PEN]
	$\Delta_v H$		27.3 ± 0.1	322	C	[1959MCC/PEN]
	$\Delta_v H$		27.4	323		[1946SPI/PIT]
	$\Delta_v H$	(289–323)	29.0	304	MM	[1945WIL/TAY]
	$\Delta_v H$		29.2	298	C	[1943AST/FIN]
C_5H_{10}	[109-67-1]	1-pentene				
	$\Delta_{fus}H$		5.81	107.9		[1991ACR, 1990MES/TOD]
	$\Delta_v H$	(218–311)	29.1	233	A	[1987STE/MAL]
	$\Delta_v H$	(286–304)	26.7	295	MM	[1950FOR/CAM]
	$\Delta_v H$		25.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(273–334)	26.9	288		[1949SCO/WAD]
	$\Delta_v H$		26.2 ± 0.1	284	C	[1949SCO/WAD]
	$\Delta_v H$		25.5 ± 0.1	298	C	[1949SCO/WAD]
	$\Delta_v H$		25.2 ± 0.1	303	C	[1949SCO/WAD]
	$\Delta_v H$	(273–308)	26.3	290		[1948DAY/NIC]
	$\Delta_v H$	(313–368)	25.7	341		[1948DAY/NIC]
C_5H_{10}	[627-20-3]	*cis* 2-pentene				
	$\Delta_{fus}H$		7.11	121.8		[1991ACR]
	$\Delta_v H$	(234–318)	29.8	249	A	[1987STE/MAL]
	$\Delta_v H$		26.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(274–341)	28.1	289	EB	[1950SCO/WAD]
C_5H_{10}	[646-04-8]	*trans* 2-pentene				
	$\Delta_{fus}H$		8.35	133		[1991ACR]
	$\Delta_v H$	(251–341)	28.8	266	A	[1987STE/MAL]
	$\Delta_v H$		26.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(274–341)	28	289	EB	[1950SCO/WAD]
C_5H_{10}	[563-46-2]	2-methyl-1-butene				
	$\Delta_{fus}H$		5.36	104.7		[1996DOM/HEA]
	$\Delta_v H$	(240–336)	28.5	255	A	[1987STE/MAL]
	$\Delta_v H$		25.9	298		[1971WIL/ZWO]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(274–336)	27.3	289		[1949SCO/WAD]
	$\Delta_v H$		25.9 ± 0.1	298	C	[1949SCO/WAD]
	$\Delta_v H$		25.5 ± 0.1	304	C	[1949SCO/WAD]
C_5H_{10}	[563-45-1]	3-methyl-1-butene				
	$\Delta_{fus}H$		5.36	104.7		[1996DOM/HEA]
	$\Delta_v H$	(237–324)	26.3	252	A	[1987STE/MAL]
	$\Delta_v H$		23.9	298		[1971WIL/ZWO]
	$\Delta_v H$	(273–324)	25.4	288	EB	[1950SCO/WAD]
C_5H_{10}	[515-35-9]	2-methyl-2-butene				
	$\Delta_{fus}H$		7.59	139.4		[1996DOM/HEA]
	$\Delta_v H$	(271–343)	28.4	286	A	[1987STE/MAL]
	$\Delta_v H$		27.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(276–344)	28.3	291		[1949SCO/WAD]
	$\Delta_v H$		27.5 ± 0.1	290	C	[1949SCO/WAD]
	$\Delta_v H$		27.1 ± 0.1	298	C	[1949SCO/WAD]
	$\Delta_v H$		26.3 ± 0.1	312	C	[1949SCO/WAD]
C_5H_{10}	[698-61-8]	methylcyclobutane				
	$\Delta_{fus}H$		5.76	138.6		[1991ACR]
$C_5H_{10}Br_2$	[13320-56-4]	1,1-dibromopentane				
	$\Delta_v H$	(360–501)	48.8	375	A,EST	[1987STE/MAL, 1956MAN, 1972DYK]
$C_5H_{10}Br_2$	[3234-49-9]	1,2-dibromopentane				
	$\Delta_v H$	(348–465)	46.5	363	A	[1987STE/MAL]
	$\Delta_v H$	(350–450)	49	298		[1975PIS/ROZ, 1991BAS/SVO]
	$\Delta_v H$		49.2 ± 0.8	298	EB	[1975PIS/ROZ]
	$\Delta_v H$	(292–448)	48.8	307	A	[1987STE/MAL, 1947STU]
$C_5H_{10}Br_2$	[626-87-9]	1,4-dibromopentane				
	$\Delta_v H$	(377–524)	51.8	392	A	[1987STE/MAL, 1972DYK]
$C_5H_{10}Br_2$	[111-24-0]	1,5-dibromopentane				
	$\Delta_v H$	(396–549)	54.4	411	A	[1987STE/MAL, 1972DYK]
$C_5H_{10}Br_2O_2$	[3296-90-0]	2,2-*bis*(bromomethyl)-1,3-propanediol				
	$\Delta_{fus}H$		30.1	387.3		[1996DOU/FUE]
$C_5H_{10}ClNO$	[2895-21-8]	2-chloro-N-isopropylacetamide				
	$\Delta_{fus}H$		26.05	351.3	DSC	[1990DON/DRE]
$C_5H_{10}Cl_2$	[820-55-3]	1,1-dichloropentane				
	$\Delta_v H$	(340–410)	44.3	298	A	[1987VAR/LOS2, 1991BAS/SVO]
	$\Delta_v H$	(325–457)	42.0	340	A,EST	[1987STE/MAL, 1956MAN, 1972DYK]
$C_5H_{10}Cl_2$	[1674-33-5]	1,2-dichloropentane				
	$\Delta_v H$	(330–420)	44.4	298		[1991BAS/SVO]
	$\Delta_v H$	(332–418)	41.9	347	A	[1987STE/MAL]
	$\Delta_v H$		43.8 ± 0.7	298	EB	[1975PIS/ROZ2]
$C_5H_{10}Cl_2$	[626-92-6]	1,4-dichloropentane				
	$\Delta_v H$	(350–440)	48.9	298		[1991BAS/SVO]
	$\Delta_v H$	(348–443)	45.0	363	A	[1987STE/MAL]
	$\Delta_v H$		48.1 ± 0.8	298	EB	[1975PIS/ROZ2]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_{10}Cl_2$	[628-76-2]	1,5-dichloropentane				
	$\Delta_v H$	(360–450)	52.2	298		[1991BAS/SVO]
	$\Delta_v H$	(362–453)	47.2	377	A	[1987STE/MAL]
	$\Delta_v H$		51.3 ± 0.8	298	EB	[1975PIS/ROZ2]
$C_5H_{10}Cl_2$	[29559-55-5]	1,3-dichloro-2,2-dimethylpropane				
	$\Delta_{trs}H$		0.6	193.8		
	$\Delta_{trs}H$		3.6	198.4		
	$\Delta_{fus}H$		1.6	262.2		[99GOT/BUH]
$C_5H_{10}Cl_2O$	[52250-75-6]	(2-chloroethyl)-(2-chloroisopropyl) ether				
	$\Delta_v H$	(297–453)	49.7	312	A	[1987STE/MAL, 1947STU]
$C_5H_{10}Cl_2O$	[42434-29-7]	(2-chloroethyl)-(2-chloropropyl) ether				
	$\Delta_v H$	(302–467)	49.3	317	A	[1987STE/MAL, 1947STU]
$C_5H_{10}Cl_2O_2$	[111-91-1]	*bis*(2-chloroethoxy) methane				
	$\Delta_v H$	(326–488)	54.2	341	A	[1987STE/MAL, 1947STU]
$C_5H_{10}F_2$	[62127-40-6]	1,1-difluoropentane				
	$\Delta_v H$	(268–378)	34.4	283	A,EST	[1987STE/MAL, 1956MAN, 1972DYK]
$C_5H_{10}F_2$	[371-65-3]	2,2-difluoropentane				
	$\Delta_v H$	(262–367)	33.7	277	A	[1987STE/MAL, 1972DYK]
$C_5H_{10}F_2$	[358-03-2]	3,3-difluoropentane				
	$\Delta_v H$	(262–368)	33.8	277	A	[1987STE/MAL, 1972DYK]
$C_5H_{10}F_2O_2$	[373-40-0]	*bis*(2-fluoroethoxy) methane				
	$\Delta_v H$	(273–333)	52.3	288	A,GS	[1987STE/MAL, 1948RED/CHA4, 1972DYK]
$C_5H_{10}N_2$	[1738-25-6]	3-(dimethylamino)propionitrile				
	$\Delta_v H$		42.2 ± 0.1			[1992PAP/PIM]
	$\Delta_v H$	(330–445)	45.9	345	A	[1987STE/MAL]
	$\Delta_v H$	(331–407)	52.4	346	A	[1987STE/MAL]
	$\Delta_v H$	(290–317)	44.1 ± 0.2			[1984LEB/GUT2]
	$\Delta_v H$		47.3			[1977VAS/KOT]
$C_5H_{10}N_2O$	[100-75-4]	1-nitrosopiperidine				
	$\Delta_v H$	(333–383)	47.7	348	A	[1987STE/MAL]
$C_5H_{10}N_2O_2$	[7606-79-3]	N-acetylglycine, N-methylamide				
	$\Delta_{sub}H$	(348–363)	97.8	355.5	A	[1987STE/MAL, 1955AIH]
$C_5H_{10}N_2O_2$	[15962-47-7]	N-acetyl-L-alanine amide				
	$\Delta_{fus}H$		21.7	431		[1996DOM/HEA]
	$\Delta_{sub}H$		115.0 ± 1.2	376	C	[1999DEL/BAR]
	$\Delta_{sub}H$		118.1 ± 1.6	298		[1999DEL/BAR]
	$\Delta_{sub}H$	(366–410)	115 ± 3	388	TE	[1988FER/DEL, 1986BAR/FER]
$C_5H_{10}N_2O_2$	[95048-77-4]	N-acetylsarcosinamide				
	$\Delta_{fus}H$		27.4	412.7		[1997PUL/DES]
$C_5H_{10}N_2O_2$	[3424-60-0]	glutaramide				
	$\Delta_{fus}H$		38.4	453.9	DSC	[2006BAD/DEL]
$C_5H_{10}N_2O_2S$	[16752-77-5]	5-methyl N-(methylcarbamoyloxy)thioacetimidate				
	$\Delta_{fus}H$		21.73	352.7	DSC	[1990DON/DRE]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_{10}N_2O_3$	[na]	alanylglycine				
	$\Delta_{fus}H$ (decomp)		56.6	508		[1996DOM/HEA]
$C_5H_{10}N_2O_6$	[3457-92-9]	1,5-pentanediol dinitrate				
	Δ_vH	(293–313)	78.9 ± 5.9	303	A,GS	[1987STE/MAL, 1957KEM/GOL, 1972DYK]
$C_5H_{10}N_2O_6$	[25385-63-1]	2,4-pentanediol dinitrate				
	Δ_vH	(293–313)	60.6 ± 5.9	303	A,GS	[1987STE/MAL, 1957KEM/GOL, 1972DYK]
$C_5H_{10}N_2O_6$	[67727-92-8]	1-(methoxymethoxy)-2,2-dinitropropane				
	Δ_vH	(293–333)	71.3	308	A	[1987STE/MAL]
$C_5H_{10}N_4O_4$	[5754-90-5]	1,3-dinitro-1,3-diazacycloheptane				
	$\Delta_{trs}H$		21.8	369		
	$\Delta_{fus}H$		2.8	374		[1991PIC/RYL]
$C_5H_{10}O$	[557-31-3]	allyl ethyl ether				
	Δ_vH	(244–401)	34.6	259	A	[1987STE/MAL]
$C_5H_{10}O$	[616-25-1]	1-penten-3-ol				
	Δ_vH		49.9 ± 0.1	313	C	[1996ULB/KLU]
	Δ_vH		48.4 ± 0.1	328	C	[1996ULB/KLU]
	Δ_vH		46.8 ± 0.1	343	C	[1996ULB/KLU]
$C_5H_{10}O$	[556-82-1]	3,3-dimethyl-2-propen-1-ol				
	Δ_vH	(348–372)	48.7	360	EB	[1989WAN/YIN]
$C_5H_{10}O$	[115-18-4]	2-methyl-3-buten-2-ol				
	Δ_vH	(290–372)	43.1 ± 0.1	331		[1988BAG/GUR]
$C_5H_{10}O$	[763-32-6]	3-buten-3-methyl-1-ol				
	Δ_vH	(338–409)	55.6	353	A	[1987STE/MAL]
$C_5H_{10}O$	[na]	(*dl*) 3-buten-3-methyl-2-ol				
	Δ_vH	(358–379)	41.0	368	A	[1987STE/MAL]
$C_5H_{10}O$	[96-41-3]	cyclopentanol				
	$\Delta_{trs}H$		3.71	202.8		
	$\Delta_{fus}H$		1.54	257.4		[1996DOM/HEA]
	Δ_vH	(323–373)	57.1	298	CGC	[1995CHI/HOS]
	Δ_vH	(346–437)	52.7	361	A,EB	[1987AMB/GHI2]
	Δ_vH	(283–321)	56.1	298	A	[1987STE/MAL]
	Δ_vH	(283–323)	56.4	298	A	[1987STE/MAL]
	Δ_vH	(279–314)	57.1	294		[1975CAB/CON2]
	Δ_vH		57.5 ± 0.2	298	C	[1968PLA/WIL]
	Δ_vH		57.5 ± 0.3	298	C	[1966WAD]
$C_5H_{10}O$	[142-68-7]	tetrahydropyran				
	Δ_vH	(286–361)	36	301		[2006ROD/GIN]
	Δ_vH		38.2 ± 1.1	298	DSC	[2005ROJ/GIN]
	Δ_vH	(335–412)	33.2	350		[2000ROD/ART]
	Δ_vH	(273–362)	35.0	288	A	[1987STE/MAL]
	Δ_vH	(273–288)	35.0	281		[1972DYK, 1958CAS/FLE]
$C_5H_{10}O$	[96-47-9]	2-methyltetrahydrofuran				
	Δ_vH	(283–353)	34.0	298	A	[1987STE/MAL]
	Δ_vH		33.7	298		[1970MOI/ANT]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_{10}O$	[563-80-4]	3-methyl-2-butanone				
	$\Delta_{fus}H$		9.34	180		[1996DOM/HEA]
	Δ_vH	(311–369)	35.5	326	A	[1987STE/MAL]
	Δ_vH	(363–415)	33.8	378	A	[1987STE/MAL]
	Δ_vH	(405–500)	32.6	420	A	[1987STE/MAL]
	Δ_vH		36.8	298	C	[1983UCH/MAJ]
	Δ_vH	(328–377)	35.0	343	A	[1987STE/MAL, 1975AMB/ELL]
	Δ_vH		36.9	298		[1975AMB/ELL]
	Δ_vH		35.0 ± 0.1	327	C	[1967HAL/LEE]
	Δ_vH		33.8 ± 0.1	346	C	[1967HAL/LEE]
	Δ_vH		32.3 ± 0.1	367	C	[1967HAL/LEE]
$C_5H_{10}O$	[107-87-9]	2-pentanone				
	$\Delta_{trs}H$		2.09	110		[1991ACR]
	$\Delta_{fus}H$		10.63	196.3		
	Δ_vH	(336–422)	36.1	351	A	[1987STE/MAL]
	Δ_vH	(416–501)	33.7	431	A	[1987STE/MAL]
	Δ_vH	(487–561)	33.3	502	A	[1987STE/MAL]
	Δ_vH		38.4	298	C	[1983UCH/MAJ]
	Δ_vH		38.3 ± 0.3	298	GCC	[1979SAL/PEA]
	Δ_vH		38.4	298		[1975AMB/ELL]
	Δ_vH	(268–373)	39.5	283	EB	[1966MEY/WAG]
	Δ_vH	(329–385)	36.5	344	A,GS,EB	[1987STE/MAL, 1975AMB/ELL, 1965COL/COU, 1972DYK]
	Δ_vH		36.1 ± 0.1	335	C	[1961NIC/KOB]
	Δ_vH		34.4 ± 0.1	360	C	[1961NIC/KOB]
	Δ_vH		33.4 ± 0.1	375	C	[1961NIC/KOB]
	Δ_vH		32.8 ± 0.1	386	C	[1961NIC/KOB]
	Δ_vH		32.2 ± 0.1	394	C	[1961NIC/KOB]
$C_5H_{10}O$	[96-22-0]	3-pentanone				
	$\Delta_{trs}H$		0.11	118.5		
	$\Delta_{trs}H$		0.01	180		
	$\Delta_{fus}H$		11.59	234.2		[1991ACR]
	Δ_vH	(290–375)	35.9 ± 0.2	332		[1988BAG/GUR]
	Δ_vH	(329–426)	36.6	344	A	[1987STE/MAL]
	Δ_vH	(421–502)	33.7	436	A	[1987STE/MAL]
	Δ_vH	(494–561)	33.3	509	A	[1987STE/MAL]
	Δ_vH		38.5	298	C	[1983UCH/MAJ]
	Δ_vH		38.7 ± 0.3	298	GCC	[1979SAL/PEA]
	Δ_vH		38.6	298		[1975AMB/ELL]
	Δ_vH		36.1 ± 0.1	335	C	[1967HAL/LEE]
	Δ_vH		34.9 ± 0.1	354	C	[1967HAL/LEE]
	Δ_vH		33.5 ± 0.1	375	C	[1967HAL/LEE]
	Δ_vH	(329–384)	36.6	344	A,GS,EB	[1987STE/MAL, 1975AMB/ELL]
	Δ_vH					[1965COL/COU, 1972DYK]
	Δ_vH	(283–323)	36.9	303		[1937RIN/SAY]
$C_5H_{10}O$	[110-62-3]	pentanal				
	$\Delta_{fus}H$		15.0	151.6		[1998VAS/LEB]
	Δ_vH	(307–343)	38.6	298	EB	[2002ANT/FRA, 2003VER/KRA2]
	Δ_vH	(313–353)	38.3	298	CGC	[1995CHI/HOS]
	Δ_vH	(290–385)	U 50.0	305	A	[1987STE/MAL]
	Δ_vH		38.1 ± 0.1	298		[1981DYA/KOR]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(305–377)	37.3	320		[1979MAR/SAC]
$C_5H_{10}O$	[630-19-3]	pivaldehyde				
	$\Delta_{trs}H$		0.5	158.5		
	$\Delta_{trs}H$		4.81	183.9		
	$\Delta_{fus}H$		2.52	272.1		[1988WHI/PER]
	$\Delta_v H$	(308–336)	34.2	322		[1989VAR/SOM]
$C_5H_{10}O$	[6921-35-3]	3,3-dimethyloxetane				
	$\Delta_v H$		33.9 ± 0.3	298	C	[1971RIN/SUN]
$C_5H_{10}OS$	[2307-10-0]	S-propyl thiolacetate				
	$\Delta_v H$		44.1 ± 0.2	298	C	[1966WAD]
$C_5H_{10}OS$	[926-73-8]	S-isopropyl thiolacetate				
	$\Delta_v H$		42.3 ± 0.2	298	C	[1966WAD]
$C_5H_{10}OS$	[6607-53-0]	1-(methylthio)-2-(vinyloxy)ethane				
	$\Delta_v H$	(316–347)	47.5	331	A	[1987STE/MAL, 1999DYK/SVO]
$C_5H_{10}O_2$	[97-99-4]	tetrahydrofurfuryl alcohol				
	$\Delta_v H$	(393–453)	46.2	408	A	[1987STE/MAL]
	$\Delta_v H$	(333–443)	46.5	388		[1979BLU/BAE]
$C_5H_{10}O_2$	[2916-31-6]	2,2-dimethyl-1,3-dioxolane				
	$\Delta_v H$	(278–318)	41.1 ± 0.2		GS	[1998VER/PEN, 2002VER]
$C_5H_{10}O_2$	[1120-97-4]	4-methyl-1,3-dioxane				
	$\Delta_v H$	(273–313)	43.7 ± 0.3		GS	[1998VER/PEN, 2002VER]
$C_5H_{10}O_2$	[50741-70-3]	1-methoxy-2-butanone				
	$\Delta_v H$	(297–408)	44.9	312	A	[1987STE/MAL, 1934RIG/FEL, 1972DYK]
$C_5H_{10}O_2$	[115-22-0]	3-hydroxy-3-methyl-2-butanone				
	$\Delta_v H$	(317–419)	41.1	332	A	[1987STE/MAL, 1972DYK, 1950CON/ELV]
$C_5H_{10}O_2$	[3393-64-4]	4-hydroxy-3-methyl-2-butanone				
	$\Delta_v H$	(375–528)	58.3	390	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(317–458)	59.0	332		[1947STU]
$C_5H_{10}O_2$	[592-84-7]	butyl formate				
	$\Delta_v H$	(313–359)	40.1	298	EB	[2004CHY/FRA]
	$\Delta_v H$	(295–380)	37.9	310	A	[1987STE/MAL]
	$\Delta_v H$		41.3 ± 0.1	298	C	[1980SVO/UCH]
	$\Delta_v H$		40.1 ± 0.1	313	C	[1980SVO/UCH]
	$\Delta_v H$		39.0 ± 0.1	328	C	[1980SVO/UCH]
	$\Delta_v H$		38.7 ± 0.1	346	C	[1976CIH/HYN]
	$\Delta_v H$		38.1 ± 0.1	355	C	[1976CIH/HYN]
	$\Delta_v H$		37.3 ± 0.1	363	C	[1976CIH/HYN]
$C_5H_{10}O_2$	[589-40-2]	sec butyl formate				
	$\Delta_v H$	(238–367)	37.7	253	A	[1987STE/MAL]
$C_5H_{10}O_2$	[105-37-3]	ethyl propionate				
	$\Delta_v H$	(315–420)	36.7	330		[1997HER/ORT]
	$\Delta_v H$	(372–538)	34.4	387	A	[1987STE/MAL]
	$\Delta_v H$		39.3 ± 0.1	298	C	[1980SVO/UCH]
	$\Delta_v H$		38.2 ± 0.1	313	C	[1980SVO/UCH]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		36.6 ± 0.1	336	C	[1977SVO/VES]
	$\Delta_v H$		36.0 ± 0.1	344	C	[1977SVO/VES]
	$\Delta_v H$		35.5 ± 0.1	351	C	[1977SVO/VES]
	$\Delta_v H$		34.5 ± 0.1	363	C	[1977SVO/VES]
	$\Delta_v H$		39.1 ± 0.1	298	C	[1972MAN]
	$\Delta_v H$	(306–372)	38.2	321	A	[1987STE/MAL, 1965MER/POL, 1972DYK]
$C_5H_{10}O_2$	[542-55-2]	isobutyl formate				
	$\Delta_v H$	(371–507)	36.6	386	A	[1987STE/MAL]
	$\Delta_v H$	(240–372)	38.6	255	A	[1987STE/MAL, 1947STU]
$C_5H_{10}O_2$	[108-21-4]	isopropyl acetate				
	$\Delta_v H$	(313–353)	37.0	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		35.6	323	C	[1973GEI/QUI]
	$\Delta_v H$		37.2 ± 0.2	298	C	[1966WAD]
	$\Delta_v H$	(235–362)	38.8	250	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$	(273–363)	36.3	288	A	[1929HAG/WEI]
$C_5H_{10}O_2$	[623-42-7]	methyl butyrate				
	$\Delta_v H$	(274–303)	40.3 ± 0.5	298	GS	[2008VER/EME]
	$\Delta_v H$	(317–360)	38.4	332		[2002SWI/MAL]
	$\Delta_v H$		36.9	350		[2002VAN/VAN]
	$\Delta_v H$		41.1 ± 0.2	284		[2002VAN/VAN]
	$\Delta_v H$		40.6 ± 0.2	298		[2002VAN/VAN]
	$\Delta_v H$	(317–360)	40.6 ± 0.1	298	EB	[2002CON/WIC]
	$\Delta_v H$	(333–378)	39.3	298	CGC	[1999VER/HEI]
	$\Delta_v H$	(349–384)	36.4	364		[1990ORT/SUS]
	$\Delta_v H$		39.0 ± 0.4	298	GC	[1987AZA]
	$\Delta_v H$	(375–545)	34.2	390	A	[1987STE/MAL]
	$\Delta_v H$	(345–383)	40.4	298	EB	[1984WIS/TAM, 2008VER/EME]
	$\Delta_v H$		40.1 ± 0.4	298	C	[1981GAT/STR]
	$\Delta_v H$		39.8 ± 0.3	298	GCC	[1980FUC/PEA]
	$\Delta_v H$		39.3 ± 0.2	298	C	[1979SUN/SVE2]
	$\Delta_v H$	(246–375)	42.8	261	A	[1987STE/MAL, 1947STU]
$C_5H_{10}O_2$	[547-63-7]	methyl isobutyrate				
	$\Delta_v H$	(366–533)	33.7	381	A	[1987STE/MAL]
	$\Delta_v H$		37.3	298		[UR/FUC, 1985MAJ/SVO]
	$\Delta_v H$	(239–366)	40.1	254	A	[1987STE/MAL, 1947STU]
$C_5H_{10}O_2$	[109-60-4]	propyl acetate				
	$\Delta_v H$	(313–363)	37.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(333–372)	37.0	348		[1993FAR/WIC]
	$\Delta_v H$	(374–542)	34.8	389	A	[1987STE/MAL]
	$\Delta_v H$	(322–383)	38.1	327	DTA	[1980MEY/AWE]
	$\Delta_v H$		39.8 ± 0.1	298	C	[1980SVO/UCH]
	$\Delta_v H$		38.6 ± 0.1	313	C	[1980SVO/UCH]
	$\Delta_v H$		35.3 ± 0.1	343	C	[1980SVO/UCH]
	$\Delta_v H$		36.9 ± 0.1	336	C	[1977SVO/VES]
	$\Delta_v H$		36.4 ± 0.1	344	C	[1977SVO/VES]
	$\Delta_v H$		35.8 ± 0.1	351	C	[1977SVO/VES]
	$\Delta_v H$		34.8 ± 0.1	363	C	[1977SVO/VES]
	$\Delta_v H$		36.9	335		[1976CON/COU]
	$\Delta_v H$		33.9	375		[1976CON/COU]
	$\Delta_v H$		36.7	335	C	[1973GEI/QUI]
	$\Delta_v H$		39.1 ± 0.2	298	C	[1966WAD]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(312–374)	38.2	327	A	[1987STE/MAL, 1965MER/POL, 1972DYK]
$C_5H_{10}O_2$	[75-98-9]	trimethylacetic acid (pivalic acid)				
	$\Delta_{fus}H$		2.3	309.1		[2002STE/CHI4]
	$\Delta_{trs}H$		8.18	278.3		
	$\Delta_{fus}H$		2.27	309.1		[1990SIN/GLI]
	$\Delta_{sub}H$		62.3	291	GS	[2000VER2]
	$\Delta_v H$	(344–472)	57.6 ± 0.2	320	EB	[2002STE/CHI4]
	$\Delta_v H$	(344–472)	54.4 ± 0.2	360	EB	[2002STE/CHI4]
	$\Delta_v H$	(344–472)	50.9 ± 0.2	400	EB	[2002STE/CHI4]
	$\Delta_v H$	(344–472)	47.0 ± 0.4	440	EB	[2002STE/CHI4]
$C_5H_{10}O_2$	[109-52-4]	valeric acid (pentanoic acid)				
	$\Delta_{fus}H$		14.16	239.5		[1996DOM/HEA]
	$\Delta_v H$	(283–313)	63.0 ± 9.5	298	GS	[2000VER2]
	$\Delta_v H$	(353–393)	65.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(373–465)	57.9	388	EB	[1987AMB/GHI3]
	$\Delta_v H$	(375–523)	58.0	390	A	[1987STE/MAL]
	$\Delta_v H$	(243–266)	62.4 ± 3	298	TE	[1979DEK/OON]
$C_5H_{10}O_2$	[503-74-2]	3-methylbutanoic acid (isovaleric acid)				
	$\Delta_v H$	(396–448)	53.8	411		[2004CLI/RAM]
	$\Delta_v H$	(293–323)	60.7 ± 0.3	308	GS	[2000VER2]
	$\Delta_v H$	(293–323)	61.2 ± 0.3	298	GS	[2000VER2]
	$\Delta_v H$	(364–464)	55.8	379	A,EB	[1987AMB/GHI3]
	$\Delta_v H$	(307–448)	56.6	322	A	[1987STE/MAL]
	$\Delta_v H$	(243–259)	57.5 ± 3	298	TE	[1979DEK/OON]
	$\Delta_v H$ (monomer)		46.9 ± 0.2	298	C	[1970KON/WAD]
	$\Delta_v H$	(360–377)	45.9	375		[1994KAH]
$C_5H_{10}O_3$	[105-58-8]	diethyl carbonate				
	$\Delta_{fus}H$		9.24	198.2	DSC	[2004DIN]
	$\Delta_v H$	(344–398)	42.3	359	EB	[2009XIN/FAN]
	$\Delta_v H$	(273–315)	44.4 ± 0.2	298	GS	[2008KOZ/EME]
	$\Delta_v H$	(352–403)	39.7	367		[2002ROD/CAN2]
	$\Delta_v H$	(308–400)	40.9	323	A	[1987STE/MAL]
	$\Delta_v H$		43.6 ± 0.2	298	C	[1973COU/LEE]
	$\Delta_v H$	(308–368)	39.1		MM	[1971CHO/JON]
	$\Delta_v H$	(263–399)	44.3	278		[1947STU]
$C_5H_{10}O_3$	[110-49-6]	ethylene glycol methyl ethyl acetate				
	$\Delta_v H$		50.3 ± 0.1	298	C	[1970KUS/WAD]
	$\Delta_v H$	(343–417)	44.3	358	A	[1987STE/MAL, 1957DYK/SEP, 1972DYK]
$C_5H_{10}O_3$	[97-64-3]	(*dl*) ethyl lactate				
	$\Delta_v H$	(308–426)	49.2	323	A	[1987STE/MAL]
	$\Delta_v H$	(324–427)	51.3	339	A	[1987STE/MAL]
$C_5H_{10}O_3$	[623-72-3]	3-hydroxypropionic acid, ethyl ester				
	$\Delta_v H$	(338–356)	62.2	347	A	[1987STE/MAL]
$C_5H_{10}O_3$	[3852-09-3]	3-methoxypropionic acid, methyl ester				
	$\Delta_v H$	(350–438)	43.4	370	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_{10}O_3$	[1779-19-7]	1,3,6-trioxacyclooctane				
	$\Delta_v H$		48.8 ± 0.2	298	C	[1982BYS/MAN]
$C_5H_{10}O_4$	[106-61-6]	glycerol, 1-monoacetate				
	$\Delta_v H$	(385–458)	74.0	400	A	[1987STE/MAL, 1972DYK]
$C_5H_{10}O_4$	[4767-03-7]	2,2-*bis*-hydroxymethylpropanoic acid				
	$\Delta_{trs}H$		38.5	426		
	$\Delta_{fus}H$		3.59	468		[1996DOM/HEA]
$C_5H_{10}O_5$	[16528-92-0]	1,3,5,7,9-pentoxecane				
	$\Delta_{fus}H$		21.88	334	DSC	[1996DOM/HEA]
	$\Delta_{sub}H$		87.9 ± 0.5	298	C	[1974MAN2]
$C_5H_{10}O_5$	[58-86-6]	(*d*)-xylose				
	$\Delta_{fus}H$		31.7	416.2		[2002JON/COO]
	$\Delta_{sub}H$	(370–395)	158.0 ± 3.1	382	ME	[1999OJA/SUU]
$C_5H_{10}S$	[5296-62-8]	allyl ethyl sulfide				
	$\Delta_v H$	(300–327)	38.9	313	A,EB	[1987STE/MAL, 1962MAC/MAY3, 1999DYK/SVO]
	$\Delta_v H$	(300–327)	39.3	298		[1962MAC/MAY3]
$C_5H_{10}S$	[1679-07-8]	cyclopentanethiol				
	$\Delta_{fus}H$		7.83	155.4		[1996DOM/HEA]
	$\Delta_v H$	(354–446)	38.2	369		[1999DYK/SVO]
	$\Delta_v H$	(348–446)	38.4	363	A,EB	[1987STE/MAL, 1961BER/SCO, 1966OSB/DOU]
	$\Delta_v H$		37.9 ± 0.1	361	C	[1961BER/SCO]
	$\Delta_v H$		36.7 ± 0.1	381	C	[1961BER/SCO]
	$\Delta_v H$		35.3 ± 0.1	405	C	[1961BER/SCO]
$C_5H_{10}S$	[1795-09-1]	2-methyltetrahydrothiophene				
	$\Delta_{fus}H$		8.87	172.4		[1974MES/FIN, 1996DOM/HEA]
	$\Delta_v H$	(303–433)	40.6	318		[1999DYK/SVO]
	$\Delta_v H$		41.8	298		[1971WIL/ZWO]
	$\Delta_v H$		41.3 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$	(335–447)	39	350	A,EB	[1987STE/MAL, 1966OSB/DOU]
	$\Delta_v H$	(341–411)	38.7	356		[1952WHI/BER]
$C_5H_{10}S$	[4740-00-5]	3-methyltetrahydrothiophene				
	$\Delta_{fus}H$		10.37	192		[1974MES/FIN, 1996DOM/HEA]
	$\Delta_v H$	(307–439)	41.3	322		[1999DYK/SVO]
	$\Delta_v H$		42.7	298		[1971WIL/ZWO]
	$\Delta_v H$		42.1 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$	(340–453)	39.6	355	A,EB	[1987STE/MAL, 1966OSB/DOU]
	$\Delta_v H$	(346–422)	39.3	361		[1952WHI/BER]
$C_5H_{10}S$	[1613-51-0]	pentamethylene sulfide				
	$\Delta_{trs}H$		1.1	201.4		
	$\Delta_{trs}H$		7.77	240		
	$\Delta_{fus}H$		2.45	292.3		[1996DOM/HEA]
	$\Delta_v H$	(310–443)	41.4	325		[1999DYK/SVO]
	$\Delta_v H$	(338–393)	37.2	345	EB	[1984PAL/CHO]
	$\Delta_v H$		42.8	298	C	[1971WIL/ZWO]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		39.7	351		[1954MCC/FIN]
	$\Delta_v H$	(347–423)	39.5	362	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_5H_{11}Br$	[110-53-2]	1-bromopentane				
	$\Delta_{fus}H$		14.37	185.1		[1996DOM/HEA]
	$\Delta_v H$	(323–363)	40.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		41.4 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$		41.1 ± 0.1	298	C	[1966WAD]
	$\Delta_v H$	(293–443)	41.0	308	A,EST	[1987STE/MAL, 1961LI/ROS, 1972DYK]
$C_5H_{11}Br$	[107-81-3]	(*dl*) sec-pentylbromide, 2-bromopentane				
	$\Delta_v H$	(303–432)	37.5	318	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Br$	[107-81-3]	2-bromopentane				
	$\Delta_v H$	(323–363)	38.5	298	CGC	[1995CHI/HOS]
$C_5H_{11}Br$	[1809-10-5]	3-bromopentane				
	$\Delta_{fus}H$		8.4	167.3		[1995TAK/YAM]
	$\Delta_v H$	(304–434)	37.7	319	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Br$	[630-17-1]	1-bromo-2,2-dimethylpropane				
	$\Delta_v H$	(293–420)	35.6	308	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Br$	[10422-35-2]	1-bromo-2-methylbutane				
	$\Delta_v H$	(306–436)	37.9	321	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Br$	[107-82-4]	1-bromo-3-methylbutane				
	$\Delta_v H$	(306–436)	37.9	321	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(253–393)	41	268		[1947STU]
$C_5H_{11}Br$	[507-36-8]	2-bromo-2-methylbutane				
	$\Delta_v H$	(295–422)	36.4	310	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Br$	[18295-25-5]	2-bromo-3-methylbutane				
	$\Delta_v H$	(301–430)	37.2	316	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Cl$	[543-59-9]	1-chloropentane				
	$\Delta_v H$	(313–353)	38.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		38.2	298	C	[1981TEK/MAJ]
	$\Delta_v H$		37.3	313	C	[1981TEK/MAJ]
	$\Delta_v H$		36.5	328	C	[1981TEK/MAJ]
	$\Delta_v H$		35.6	343	C	[1981TEK/MAJ]
	$\Delta_v H$		34.6	358	C	[1981TEK/MAJ]
	$\Delta_v H$		34.0	363	C	[1981TEK/MAJ]
	$\Delta_v H$		38.2 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$	(277–421)	38.7	292	A,EST	[1987STE/MAL, 1961LI/ROS]
	$\Delta_v H$					[1972DYK]
	$\Delta_v H$	(283–323)	36.2	303		[1937RIN/SAY]
$C_5H_{11}Cl$	[625-29-6]	2-chloropentane				
	$\Delta_v H$		36.0	298	C	[1981TEK/MAJ]
	$\Delta_v H$		35.2	313	C	[1981TEK/MAJ]
	$\Delta_v H$		34.4	328	C	[1981TEK/MAJ]
	$\Delta_v H$		33.5	358	C	[1981TEK/MAJ]
	$\Delta_v H$		31.9	368	C	[1981TEK/MAJ]
	$\Delta_v H$	(289–409)	36.2	304	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Cl$	[616-20-6]	3-chloropentane				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(289–410)	36.5	304	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Cl$	[753-89-9]	1-chloro-2,2-dimethylpropane				
	$\Delta_v H$	(279–395)	34.9	294	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Cl$	[616-13-7]	(*dl*) 1-chloro-2-methylbutane				
	$\Delta_v H$	(300–374)	35.4	315	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Cl$	[594-36-5]	2-chloro-2-methylbutane				
	$\Delta_v H$	(280–396)	35.0	295	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Cl$	[631-65-2]	2-chloro-3-methylbutane				
	$\Delta_v H$	(285–405)	35.9	300	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}Cl$	[107-84-6]	1-chloro-3-methylbutane				
	$\Delta_v H$	(313–353)	38.1	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		36.2	298	C	[1981TEK/MAJ]
	$\Delta_v H$		35.4	313	C	[1981TEK/MAJ]
	$\Delta_v H$		34.6	328	C	[1981TEK/MAJ]
	$\Delta_v H$		33.7	343	C	[1981TEK/MAJ]
	$\Delta_v H$		32.8	358	C	[1981TEK/MAJ]
	$\Delta_v H$		32.3	368	C	[1981TEK/MAJ]
$C_5H_{11}ClO_2S$	[6303-18-0]	1-pentanesulfonyl chloride				
	$\Delta_v H$	(293–387)	58.5	308		[1999DYK/SVO]
	$\Delta_v H$	(387–492)	55.1	402		[1999DYK/SVO]
	$\Delta_v H$	(263–293)	60.5	278	A	[1987STE/MAL, 1999DYK/SVO]
$C_5H_{11}Cl_2N$	[51-75-2]	N-methyl-*bis*(2-chloroethyl)amine				
	$\Delta_v H$	(273–333)	54.6	288	A	[1987STE/MAL]
$C_5H_{11}F$	[592-50-7]	1-fluoropentane				
	$\Delta_v H$	(245–373)	33.7	260	EST	[1987STE/MAL, 1961LI/ROS, 1972DYK]
$C_5H_{11}F$	[10086-64-3]	1-fluoro-2-methylbutane				
	$\Delta_v H$	(287–329)	30.7	302	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}F$	[661-53-0]	2-fluoro-2-methylbutane				
	$\Delta_v H$	(249–341)	31.8	264	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}I$	[628-17-1]	1-iodopentane				
	$\Delta_v H$	(313–353)	44.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		45.3 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$	(312–473)	43.1	327	A,EST	[1987STE/MAL, 1961LI/ROS, 1972DYK]
$C_5H_{11}I$	[616-14-8]	1-iodo-2-methylbutane				
	$\Delta_v H$	(339–406)	39.8	354	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}I$	[541-28-6]	1-iodo-3-methylbutane				
	$\Delta_v H$	(313–353)	42.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(270–422)	43.5	285	A	[1987STE/MAL, 1947STU]
$C_5H_{11}I$	[594-38-7]	2-iodo-2-methylbutane				
	$\Delta_v H$	(308–398)	40.4	323	A	[1987STE/MAL, 1972DYK]
$C_5H_{11}N$	[1003-03-8]	cyclopentylamine				
	$\Delta_{trs}H$		0.48	184.5		
	$\Delta_{fus}H$		8.31	190.4		[1996DOM/HEA]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(317–419)	38.3	332	EB	[1987STE/MAL, 1975AMB/CON]
	$\Delta_v H$	(317–419)	40.2 ± 0.4	298	EB	[1975GOO/MES]
$C_5H_{11}N$	[120-94-5]	1-methylpyrrolidine				
	$\Delta_v H$	(270–298)	35.0 ± 0.7	284	GS	[1998VER6]
	$\Delta_v H$	(270–298)	34.2 ± 0.7	298	GS	[1998VER6]
	$\Delta_v H$	(273–315)	33.7	288	A	[1987STE/MAL]
$C_5H_{11}N$	[110-89-4]	piperidine				
	$\Delta_{fus}H$		14.85	262.1		[1996DOM/HEA]
	$\Delta_v H$		36.6	338		[1988HOS/ARC]
	$\Delta_v H$		35.3	357		[1988HOS/ARC]
	$\Delta_v H$	(315–417)	37.6	330	A,EB,IP	[1987STE/MAL, 1968OSB/DOU]
$C_5H_{11}NO$	[617-84-5]	N,N-diethylformamide				
	$\Delta_v H$		50.3	298		[1985BAR/CAS, 1985MAJ/SVO]
	$\Delta_v H$	(303–363)	48.9	318	A	[1987STE/MAL, 1968GOP/RIZ]
$C_5H_{11}NO$	[1118-69-0]	N-isopropylacetamide				
	$\Delta_v H$		66.4 ± 0.3	298	C	[1984STA/WAD]
$C_5H_{11}NO$	[5331-48-6]	N-propylacetamide				
	$\Delta_v H$		69.8 ± 0.2	298	C	[1984STA/WAD]
$C_5H_{11}NO$	[626-97-1]	pentanamide				
	$\Delta_{trs}H$		1.9	211.8		
	$\Delta_{trs}H$		1.2	365		
	$\Delta_{fus}H$		17.9	377.2		[2008ABA/BAD]
	$\Delta_{sub}H$	(333–374)	89.3 ± 0.4		GS	[1959DAV/JON2, 1970COX/PIL]
	$\Delta_{sub}H$	(353–373)	89.1			[1960JON]
$C_5H_{11}NO$	[759-10-9]	2,2-dimethylpropanamide				
	$\Delta_{fus}H$		24.1	425.4		[2008ABA/BAD]
	$\Delta_{sub}H$	(298–359)	89 ± 2.0	298	TE	[2000BRU/DEL]
	$\Delta_{sub}H$	(288–306)	86.6 ± 0.4	298		[1989ABB/JIM]
$C_5H_{11}NO$	[758-96-3]	N,N-dimethylpropionamide				
	$\Delta_v H$	(326–424)	53.5	341	A	[1987STE/MAL]
	$\Delta_v H$		52.9			[1977VAS/KOT]
$C_5H_{11}NO$	[2675-88-9]	N-methyl-2-methylpropionamide				
	$\Delta_v H$		67.1 ± 0.2	298	C	[1984STA/WAD]
$C_5H_{11}NO$	[na]	methyl 2-(N,N-dimethylamino)propanoate				
	$\Delta_v H$	(278–308)	43.9 ± 0.4	293	GS	[1992VER/BECT]
$C_5H_{11}NO$	[109-02-4]	N-methylmorpholine				
	$\Delta_v H$	(273–353)	39.5	298		[2009BEL/RAZ]
	$\Delta_v H$	(273–353)	38.9	313		[2009RAZ/HAJ]
	$\Delta_v H$	(273–353)	39.8	298		[2009RAZ/HAJ]
	$\Delta_v H$		38.2 ± 1.1	298	DSC	[2005ROJ/GIN]
	$\Delta_v H$	(274–304)	40.2 ± 0.3	288	GS	[1998VER2]
	$\Delta_v H$	(274–304)	39.6 ± 0.3	298	GS	[1998VER2]
	$\Delta_v H$	(323–363)	33.6	343	TGA	[1987ALN/ALS]
	$\Delta_v H$	(297–389)	38.4	312	A	[1987STE/MAL]
	$\Delta_v H$	(276–390)	40.0	291	A	[1987STE/MAL]
	$\Delta_v H$	(276–319)	39.4 ± 0.1	298		[1975CAB/CON]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_{11}NO$	[15364-56-4]	1-(dimethylamino)-2-propanone				
	$\Delta_v H$	(298–338)	43.6 ± 0.3	298	GS	[1994WEL/VER]
$C_5H_{11}NO$	[1188-11-0]	3-pentanone oxime				
	$\Delta_v H$	(318–425)	55.8	333	A	[1987STE/MAL]
$C_5H_{11}NO_2$	[628-05-7]	1-nitropentane				
	$\Delta_v H$	(278–318)	50.3 ± 0.2	298	GS	[1997VER3]
$C_5H_{11}NO_2$	[543-28-2]	isobutyl carbamate				
	$\Delta_v H$	(356–479)	58.8	371	A	[1987STE/MAL, 1947STU]
$C_5H_{11}NO_2$	[31502-31-5]	N,N-dimethyl lactamide				
	$\Delta_v H$	(351–417)	73.7	366	A	[1987STE/MAL]
$C_5H_{11}NO_2$	[760-78-1]	(*dl*) 2-aminopentanoic acid (DL-norvaline)				
	$\Delta_{sub}H$	(439–461)	120	450		[1987STE/MAL]
	$\Delta_{sub}H$		121.1 ± 0.4	455	ME	[1965SVE/CLY, 1964CLY/SVE]
$C_5H_{11}NO_2$	[592-35-8]	butyl carbamate				
	$\Delta_{sub}H$	(292–316)	94.1 ± 8		GS	[1959DAV/JON]
$C_5H_{11}NO_2$	[465-58-7]	(*dl*)-2-amino-2-methyl-butanoic acid				
	$\Delta_{sub}H$		134.2 ± 1	413	TE,ME	[1979DEK/VOO]
	$\Delta_{sub}H$	(439–469)	125.8 ± 0.4	454		[1965SVE/CLY, 1964CLY/SVE]
$C_5H_{11}NO_2$	[516-06-3]	DL-valine				
	$\Delta_{sub}H$	(320–420)	U 79.5 ± 8	370	LE	[1977GAF/PIE]
$C_5H_{11}NO_2$	[72-18-4]	L-valine				
	$\Delta_{sub}H$		162.8 ± 8	455	ME	[1965SVE/CLY, 1964CLY/SVE, 1989CHI/GRO]
$C_5H_{11}NO_2$	[660-88-8]	5-aminopentanoic acid				
	$\Delta_{sub}H$	(384–394)	141.8 ± 0.5	389	C	[1983SKO/SAB]
	$\Delta_{sub}H$		144 ± 3	289	C	[1983SKO/SAB]
$C_5H_{11}NO_2$	[7529-22-8]	N-methylmorpholine-N-oxide				
	$\Delta_{fus}H$		18.8	457.4		[1981NAV/HAU]
$C_5H_{11}NO_2S$	[59-51-8]	DL-methionine				
	$\Delta_{sub}H$	(363–463)	U 134 ± 8	413	LE	[1977GAF/PIE]
$C_5H_{11}NO_2S$	[63-68-3]	L-(*d*)-methionine				
	$\Delta_{sub}H$		164 ± 4	298	C	[1981SAB/MIN]
	$\Delta_{sub}H$	(463–485)	125	474	A	[1987STE/MAL]
$C_5H_{11}NO_2S$	[348-67-4]	D-(l)-methionine				
	$\Delta_{sub}H$		125.1 ± 0.8	455	ME	[1965SVE/CLY, 1964CLY/SVE]
$C_5H_{11}NO_3$	[543-87-3]	isopentyl nitrate				
	$\Delta_v H$	(278–421)	47.0	293	A	[1987STE/MAL, 1947STU]
$C_5H_{11}NO_3S$	[14357-44-9]	2-methyl-2-(methylsulfonyl)propanal oxime				
	$\Delta_{fus}H$		27.12	382	DSC	[1990DON/DRE]
$C_5H_{11}O_2PS_2$	[77240-15-4]	2-mercapto-4,6-dimethyl-1,3,2-dioxaphosphorinane-2-sulfide				
	$\Delta_v H$		72.3			[2008SAG/SAF]
$C_5H_{11}P$	[4743-40-2]	phosphorinane				
	$\Delta_{sub}H$	(250–291)	43.3	276	T	[1987STE/MAL, 1966MOR/TAM]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(294–345)	39.9	309	A,T	[1987STE/MAL, 1966MOR/TAM]
C_5H_{12}	[109-66-0]	pentane				
	$\Delta_{fus}H$		8.4	143.5		[1991ACR]
	$\Delta_{sub}H$		42.0	143	B	[1963BON]
	$\Delta_v H$	(308–423)	26.7	323		[2002PFO/RIE]
	$\Delta_v H$		26.4	298		[1994RUZ/MAJ]
	$\Delta_v H$	(223–352)	29.8	238	A	[1987STE/MAL]
	$\Delta_v H$	(143–223)	32.3	208	A	[1987STE/MAL]
	$\Delta_v H$	(350–422)	26.1	365	A	[1987STE/MAL]
	$\Delta_v H$	(418–470)	26.2	433	A	[1987STE/MAL]
	$\Delta_v H$		26.6 ± 0.1	298	C	[1982FUC/PEA]
	$\Delta_v H$		26.4	298	C	[1981HOS/SCO2]
	$\Delta_v H$		25.5	310		[1977DAS/REE]
	$\Delta_v H$		23	350		[1977DAS/REE]
	$\Delta_v H$		19.7	390		[1977DAS/REE]
	$\Delta_v H$		15.1	430		[1977DAS/REE]
	$\Delta_v H$		8.5	460		[1977DAS/REE]
	$\Delta_v H$	(216–296)	26.2	298		[1975HOE/HOE]
	$\Delta_v H$	(269–341)	27.9	284	EB	[1987STE/MAL, 1974OSB/DOU]
	$\Delta_v H$		26.4	298		[1971WIL/ZWO]
	$\Delta_v H$		26.4	298	C	[1947OSB/GIN]
	$\Delta_v H$	(286–310)	27.4	298	MM	[1945WIL/TAY]
	$\Delta_v H$		26.2	298		[1940MES/KEN]
C_5DH_{11}	[55620-30-9]	1-deuteropentane				
	$\Delta_v H$	(223–303)	26.2	298		[1975HOE/HOE]
C_5DH_{11}	[55620-31-0]	3-deuteropentane				
	$\Delta_v H$	(213–294)	26.3	298		[1975HOE/HOE]
C_5D_{12}	[2031-90-5]	pentane-d_{12}				
	$\Delta_v H$	(205–298)	26.0	298		[1975HOE/HOE]
C_5H_{12}	[463-82-1]	2,2-dimethylpropane (neopentane)				
	$\Delta_{trs}H$		2.58	140		
	$\Delta_{fus}H$		3.26	256.5		[1996DOM/HEA]
	$\Delta_{sub}H$	(223–256)	28.2	241		[1987STE/MAL]
	$\Delta_{sub}H$		33.2			[1933WHI/FLE, 1936AST/MES]
	$\Delta_{sub}H$	(171–249)	23.9	210	A	[1947STU]
	$\Delta_v H$	(268–313)	24.0	283	A	[1987STE/MAL]
	$\Delta_v H$	(312–385)	23.1	327	A	[1987STE/MAL]
	$\Delta_v H$	(382–433)	23.1	397	A	[1987STE/MAL]
	$\Delta_v H$		21.8	298	C	[1981HOS/SCO2]
	$\Delta_v H$		22.2	290		[1977DAS/REE2]
	$\Delta_v H$		19.5	330		[1977DAS/REE2]
	$\Delta_v H$		16.2	370		[1977DAS/REE2]
	$\Delta_v H$		11.1	410		[1977DAS/REE2]
	$\Delta_v H$	(257–293)	24.3	272		[1975HOE/PAR, 1984BOU/FRI]
	$\Delta_v H$	(343–433)	22.8	358		[1973DAW/SIL, 1984BOU/FRI]
	$\Delta_v H$		21.85	298		[1971WIL/ZWO]
	$\Delta_v H$		22.8 ± 0.1	283		[1936AST/MES]
C_5H_{12}	[78-78-4]	2-methylbutane (isopentane)				
	$\Delta_{fus}H$		5.13	113.4		[1996DOM/HEA]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(255–323)	26.9	270		[1991EWI/GOO]
	$\Delta_v H$	(216–323)	28.5	231	A	[1987STE/MAL]
	$\Delta_v H$	(300–460)	25.2	315	A	[1987STE/MAL]
	$\Delta_v H$	(320–391)	25.2	335	A	[1987STE/MAL]
	$\Delta_v H$	(385–416)	24.8	400	A	[1987STE/MAL]
	$\Delta_v H$	(412–460)	25.3	427	A	[1987STE/MAL]
	$\Delta_v H$		24.4	310		[1977DAS/REE3]
	$\Delta_v H$		21.5	350		[1977DAS/REE3]
	$\Delta_v H$		18.0	390		[1977DAS/REE3]
	$\Delta_v H$		12.9	430		[1977DAS/REE3]
	$\Delta_v H$		24.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(190–300)	30.2	205		[1947STU]
	$\Delta_v H$	(289–301)	26.2	295	MM	[1945WIL/TAY]
	$\Delta_v H$		25.0	298	C	[1942SCH/AST]
$C_5H_{12}ClF_3N_2OS$	[63265-73-6]	chloro*bis*(N-methylmethanaminato)oxo(trifluoromethyl)sulfur				
	$\Delta_v H$		40.2	477	I	[1977KIT/SHR2]
$C_5H_{12}ClF_3N_2S$	[63265-71-4]	chloro*bis*(N-methylmethanaminato)(trifluoromethyl) sulfur				
	$\Delta_v H$		38.1	368	I	[1977KIT/SHR2]
$C_5H_{12}NO_3PS_2$	[60-51-5]	phosphorodithioic acid, O,O-dimethyl-S-[2-(methylamino)-2-oxoethyl]ester				
	$\Delta_{fus}H$		20.49	321	DSC	[1990DON/DRE]
	$\Delta_v H$	(283–390)	95.0	298	A	[1987STE/MAL]
$C_5H_{12}N_2$	[4426-46-4]	methyl butyldiazene				
	$\Delta_v H$		36.4 ± 0.2	298	C	[1978ENG/MON]
$C_5H_{12}N_2$	[109-01-3]	N-methylpiperazine				
	$\Delta_v H$	(274–319)	46.7	289	A	[1987STE/MAL]
$C_5H_{12}N_2O$	[632-22-4]	1,1,3,3-tetramethylurea				
	$\Delta_{fus}H$		14.0	272.1		[2001JAM/DOB]
	$\Delta_{fus}H$		13.4	272.2		[1995KAB/KOZ2, 1996DOM/HEA]
	$\Delta_v H$	(320–450)	41.7	450	A,EB	[1987KNE/ZON]
	$\Delta_v H$	(320–450)	52.2	325	A,EB	[1987KNE/ZON]
$C_5H_{12}N_2O$	[634-95-7]	1,1-diethylurea				
	$\Delta_{trs}H$		2.07	197.3		
	$\Delta_{fus}H$		16.78	342.3		[1991ACR, 1995KAB/KOZ2, 1990KAB/MIR2]
	$\Delta_{sub}H$	(312–339)	95.7 ± 0.7	298	GS	[2006EME/KAB]
	$\Delta_{sub}H$	(305–347)	95.5 ± 0.8	324	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(305–347)	94.9 ± 0.8	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		94.7 ± 0.2	350	C	[2003ZAI/KAB]
$C_5H_{12}N_2O$	[623-76-7]	1,3-diethylurea				
	$\Delta_{trs}H$		1.87	339.4		
	$\Delta_{fus}H$		12.46	383.4		[1991ACR, 1995KAB/KOZ2, 1990KAB/MIR2]
	$\Delta_{sub}H$	(343–379)	95.4 ± 0.3	298	GS	[2006EME/KAB]
	$\Delta_{sub}H$	(323–384)	91.8 ± 0.9	358	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(323–384)	92.3 ± 0.9	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		95.6 ± 0.6	350	C	[2003ZAI/KAB]
	$\Delta_{sub}H$	(321–379)	96.8 ± 0.9	361	TE	[1990PIA/FER, 1987FER/DEL2]
	$\Delta_{sub}H$	(384–590)	NA		ME	[1986KRA/KOZ]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_{12}N_2O$	[592-31-4]	N-butylurea				
	$\Delta_{trs}H$		6.3	310.5		
	$\Delta_{trs}H$		0.7	362.2		
	$\Delta_{fus}H$		10.8	365.4	DSC	[2005HAS/TAJ]
	$\Delta_{trs}H$		7.0	315		
	$\Delta_{trs}H$		1.0	346		
	$\Delta_{fus}H$		15.7	370	DSC	[1995FER/DEL]
	$\Delta_{trs}H$		7.02	313.1		
	$\Delta_{trs}H$		0.88	344.9		
	$\Delta_{fus}H$		14.55	369.3		[1991ACR]
	$\Delta_{sub}H$	(346–367)	105.8 ± 0.7	298	GS	[2006EME/KAB]
	$\Delta_{sub}H$	(339–364)	102.7 ± 2.8	354	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(339–364)	103.0 ± 2.8	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		101.1 ± 0.4	350	C	[2003ZAI/KAB]
	$\Delta_{sub}H$		99 ± 4			[1987FIO/FER]
$C_5H_{12}N_2O$	[592-17-6]	N-isobutylurea				
	$\Delta_{sub}H$		101.1 ± 1.1	377	TE	[1990PIA/FER]
$C_5H_{12}N_2O$	[689-11-2]	N-sec-butylurea				
	$\Delta_{sub}H$	(345–394)	101.9 ± 0.5	298	GS	[2006EME/KAB]
	$\Delta_{sub}H$	(338–372)	104.3 ± 0.8	355	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(338–372)	104.5 ± 0.8	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		102.4 ± 0.5	350	C	[2009RIB/FER7]
$C_5H_{12}N_2O$	[1118-12-3]	N-*tert*-butylurea				
	$\Delta_{trs}H$		0.1	249		
	$\Delta_{fus}H$		33.13	449.8		[1991ACR]
	$\Delta_{sub}H$	(335–397)	98.2 ± 0.4	298	GS	[2006EME/KAB]
	$\Delta_{sub}H$	(333–372)	97.6 ± 0.8	353	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(333–372)	97.7 ± 0.8	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		94.4 ± 0.9	350	C	[2003ZAI/KAB]
	$\Delta_{sub}H$		101.6 ± 0.7	379	TE	[1990PIA/FER]
$C_5H_{12}N_2O_2$	[52330-07-1]	N-methyl-N-nitrobutanamine				
	$\Delta_{fus}H$		37.56	331		[1987OYU/BRI]
$C_5H_{12}N_2S$	[105-55-5]	1,3-diethylthiourea				
	$\Delta_{fus}H$		17.14	350.5	DSC	[2000DEL/JOZ]
	$\Delta_{sub}H$		121.7 ± 3	298	B	[2000DEL/JOZ]
	$\Delta_{sub}H$		120.2 ± 3.0	298	B	[1994TER/PIA]
	$\Delta_{v}H$	(351–384)	101 ± 3.0	368	ME,TE	[1994TER/PIA]
$C_5H_{12}N_2S$	[2782-91-4]	tetramethylthiourea				
	$\Delta_{fus}H$		22.14	350.4	DSC	[2000DEL/JOZ]
	$\Delta_{sub}H$		84.5 ± 3	298	ME	[2000DEL/JOZ]
	$\Delta_{sub}H$		83 ± 3.0	333	TE	[1994FER/MAR]
	$\Delta_{sub}H$		84.0	298		[1994FER/MAR]
	$\Delta_{sub}H$		83.0 ± 0.5	298	C	[1985MUR/SAK]
	$\Delta_{sub}H$		83.0 ± 0.2	298	C	[1982INA/MUR]
$C_5H_{12}O$	[628-28-4]	1-methoxybutane				
	$\Delta_{fus}H$		10.85	157.5		[1996DOM/HEA]
	$\Delta_{v}H$	(293–367)	32.5	308	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		32.4	298	C	[1980MAJ/WAN]
	$\Delta_v H$	(265–367)	32.4	298		[1976AMB/ELL]
	$\Delta_v H$	(265–367)	29.6	343		[1976AMB/ELL]
	$\Delta_v H$		32.5 ± 0.1	298	C	[1975FEN/HAR]
	$\Delta_v H$	(296–342)	32.4	311	EB	[1969CID/POL]
$C_5H_{12}O$	[628-32-0]	1-ethoxypropane				
	$\Delta_{fus}H$		8.39	145.7		[1996DOM/HEA]
	$\Delta_v H$	(264–359)	33.0	279	A	[1987STE/MAL, 1976AMB/ELL]
	$\Delta_v H$		31.4	298	C	[1980MAJ/WAN]
	$\Delta_v H$	(264–359)	31.4	298		[1976AMB/ELL]
	$\Delta_v H$	(264–359)	29	336		[1976AMB/ELL]
	$\Delta_v H$		31.4 ± 0.1	298	C	[1975FEN/HAR]
	$\Delta_v H$	(293–335)	31.6	308		[1969CID/POL]
$C_5H_{12}O$	[625-54-7]	ethyl isopropyl ether				
	$\Delta_v H$		30.0	298	C	[1980MAJ/WAN]
$C_5H_{12}O$	[1634-04-4]	methyl *tert*-butyl ether				
	$\Delta_{fus}H$		7.6	164.6		[1996DOM/HEA]
	$\Delta_v H$	(300–328)	29.9	314		[2002SEG/GAL]
	$\Delta_v H$	(315–365)	29.6	330		[1998AUC/LOR]
	$\Delta_v H$	(298–322)	30.0	310		[1995BEL/AIT]
	$\Delta_v H$	(300–411)	31.2	315	EB	[1994KRA/GME]
	$\Delta_v H$	(287–326)	30.4	302		[1991WU/PIV]
	$\Delta_v H$		29.8	298	C	[1980MAJ/WAN]
	$\Delta_v H$	(287–351)	30.2	302	A	[1987STE/MAL, 1976AMB/ELL]
	$\Delta_v H$		29.6	298		[1976AMB/ELL]
	$\Delta_v H$		27.9	328		[1976AMB/ELL]
	$\Delta_v H$		30.4 ± 0.1	298	C	[1975FEN/HAR]
$C_5H_{12}O$	[71-41-0]	1-pentanol				
	$\Delta_{fus}H$		10.51	195.6		[2004VAN/VAN]
	$\Delta_{fus}H$		10.5	195.6		[1996DOM/HEA]
	$\Delta_v H$	(318–403)	55.4	298		[2006NAS/NEU]
	$\Delta_v H$		44.4	411		[2000WOR/JAM]
	$\Delta_v H$		40.1	448		[2000WOR/JAM]
	$\Delta_v H$		36.1	473		[2000WOR/JAM]
	$\Delta_v H$		31.7	498		[2000WOR/JAM]
	$\Delta_v H$		26.4	523		[2000WOR/JAM]
	$\Delta_v H$		22.0	548		[2000WOR/JAM]
	$\Delta_v H$		14.1	573		[2000WOR/JAM]
	$\Delta_v H$		7.1	586		[2000WOR/JAM]
	$\Delta_v H$		43.5			[1999FAT]
	$\Delta_v H$	(323–373)	57.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(323–373)	57.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(335–410)	51.5	350		[1994AUC/BUR]
	$\Delta_v H$	(388–420)	47.2	403	A	[1987STE/MAL]
	$\Delta_v H$	(326–411)	54.3	341	A	[1987STE/MAL]
	$\Delta_v H$	(408–441)	45.4	423	A	[1987STE/MAL]
	$\Delta_v H$		55.7 ± 0.2	313	C	[1985MAJ/SVO2]
	$\Delta_v H$		54.4 ± 0.2	328	C	[1985MAJ/SVO2]
	$\Delta_v H$		53.0 ± 0.2	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		51.2 ± 0.2	358	C	[1985MAJ/SVO2]
	$\Delta_v H$	(343–303)	55.4	298		[1983SCH/STR]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(310–411)	55.0	325		[1973WIL/ZWO]
	$\Delta_v H$		50.5 ± 0.1	362	C	[1970COU/FEN]
	$\Delta_v H$		49.2 ± 0.1	374	C	[1970COU/FEN]
	$\Delta_v H$		47.0 ± 0.1	392	C	[1970COU/FEN]
	$\Delta_v H$		44.4 ± 0.1	411	C	[1970COU/FEN]
	$\Delta_v H$	(347–429)	51.6	362	EB	[1987STE/MAL, 1970AMB/SPR]
	$\Delta_v H$	(307–411)	56.2	322	DTA	[1969KEM/KRE]
	$\Delta_v H$		56.9 ± 0.2	298	C	[1966WAD]
	$\Delta_v H$		57.7 ± 1.1	298	EB	[1960GRE, 2001KUL/VER]
$C_5H_{12}O$	[6032-29-7]	2-pentanol				
	$\Delta_{fus}H$		8.48	200		[1997LOH/JOH]
	$\Delta_v H$	(324–391)	51.2	339	EB	[2009GIE/KOS]
	$\Delta_v H$	(323–373)	53.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(274–393)	58.9	289	A	[1987STE/MAL]
	$\Delta_v H$		54.2 ± 0.2	298	C	[1985MAJ/SVO2]
	$\Delta_v H$		52.7 ± 0.2	313	C	[1985MAJ/SVO2]
	$\Delta_v H$		50.9 ± 0.2	328	C	[1985MAJ/SVO2]
	$\Delta_v H$		49.0 ± 0.2	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		46.9 ± 0.1	358	C	[1985MAJ/SVO2]
	$\Delta_v H$		45.4 ± 0.1	368	C	[1985MAJ/SVO2]
	$\Delta_v H$	(322–393)	50.3	337		[1984SAC/MAR]
	$\Delta_v H$	(298–393)	54.0	313		[1973WIL/ZWO]
	$\Delta_v H$		53.0	298	C	[1963MCC/LAI]
	$\Delta_v H$	(298–383)	53.7	313		[1935BUT/RAM, 1984BOU/FRI]
$C_5H_{12}O$	[584-02-1]	3-pentanol				
	$\Delta_{fus}H$		9.08	204.2		[1997LOH/JOH]
	$\Delta_v H$		53.2 ± 0.1	298	EB	[1988PES/SHV, 2001KUL/VER]
	$\Delta_v H$	(245–390)	59.9	260	A	[1987STE/MAL]
	$\Delta_v H$	(317–389)	49.6	332		[1984SAC/MAR]
	$\Delta_v H$	(279–318)	53.6	294		[1975CAB/CON2]
	$\Delta_v H$	(294–389)	50.2	319		[1973WIL/ZWO]
	$\Delta_v H$		52.9	298	C	[1963MCC/LAI]
$C_5H_{12}O$	[137-32-6]	2-methyl-1-butanol				
	$\Delta_v H$	(330–405)	51.2	345		[1994AUC/BUR]
	$\Delta_v H$	(338–402)	49.8	353	A	[1987STE/MAL]
	$\Delta_v H$	(317–403)	53.9	332	A	[1987STE/MAL]
	$\Delta_v H$	(249–319)	58.5	264	A	[1987STE/MAL, 1979THO/MEA]
	$\Delta_v H$	(307–403)	56.1	322		[1973WIL/ZWO]
	$\Delta_v H$		54.1	298	C	[1963MCC/LAI]
	$\Delta_v H$	(302–410)	43.4	317		[1957EAS/HAR, 1984BOU/FRI]
	$\Delta_v H$	(298–393)	56.7	313		[1984BOU/FRI, 1935BUT/RAM]
$C_5H_{12}O$	[75-85-4]	2-methyl-2-butanol				
	$\Delta_{trs}H$		0.93	146.4		
	$\Delta_{trs}H$		1.54	149.9		
	$\Delta_{trs}H$		0.66	214.4		
	$\Delta_{fus}H$		2.24	262.7	AC	[2008TON/TAN]
	$\Delta_{trs}H$	(84–301)	0.9	145.8		
	$\Delta_{fus}H$	(84–301)	2.0	264.7	AC	[2007STR/RUZ2]
	$\Delta_{trs}H$		1.96	146		
	$\Delta_{trs}H$		0.17	213		
	$\Delta_{fus}H$		4.46	264		[1996DOM/HEA, 1933PAR/HUF]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(303–373)	51.2	318	EB	[2009GIE/KOS]
	$\Delta_v H$	(274–306)	51.5 ± 0.3	298	GS	[2001KUL/VER]
	$\Delta_v H$	(323–373)	50.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(308–375)	47.3	323		[1994AUC/BUR]
	$\Delta_v H$		50.2 ± 0.3	298	EB	[1988PES/SHV, 2001KUL/VER]
	$\Delta_v H$	(280–375)	49.0	295	A	[1987STE/MAL]
	$\Delta_v H$	(323–376)	45.8	338	A	[1987STE/MAL]
	$\Delta_v H$		50.1 ± 0.2	298	C	[1985MAJ/SVO2]
	$\Delta_v H$		48.4 ± 0.2	313	C	[1985MAJ/SVO2]
	$\Delta_v H$		46.4 ± 0.2	328	C	[1985MAJ/SVO2]
	$\Delta_v H$		44.2 ± 0.1	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		42.0 ± 0.1	358	C	[1985MAJ/SVO2]
	$\Delta_v H$		40.3 ± 0.1	368	C	[1985MAJ/SVO2]
	$\Delta_v H$	(298–375)	52.8	313		[1973WIL/ZWO]
	$\Delta_v H$		49.2	298	C	[1963MCC/LAI]
	$\Delta_v H$	(298–364)	48.5	313		[1935BUT/RAM]
$C_5H_{12}O$	[123-51-3]	3-methyl-1-butanol				
	$\Delta_v H$	(348–404)	49.8	363		[2008LLA/MON]
	$\Delta_v H$	(323–373)	55.3	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(325–385)	47.2	340		[1994AUC/BUR]
	$\Delta_v H$	(303–412)	57.1	318		[1987STE/MAL]
	$\Delta_v H$		55.2 ± 0.2	303	C	[1985MAJ/SVO2]
	$\Delta_v H$		54.2 ± 0.2	313	C	[1985MAJ/SVO2]
	$\Delta_v H$		52.9 ± 0.2	328	C	[1985MAJ/SVO2]
	$\Delta_v H$		51.4 ± 0.2	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		49.7 ± 0.2	358	C	[1985MAJ/SVO2]
	$\Delta_v H$	(298–426)	56.5	313		[1973WIL/ZWO]
	$\Delta_v H$		54.3	298	C	[1963MCC/LAI]
$C_5H_{12}O$	[598-75-4]	3-methyl-2-butanol				
	$\Delta_v H$	(280–301)	51.6 ± 0.3	298	GS	[2001KUL/VER]
	$\Delta_v H$	(280–375)	49.0	295	A	[1987STE/MAL]
	$\Delta_v H$	(298–384)	52.7	313		[1973WIL/ZWO]
	$\Delta_v H$		51.7	298	C	[1963MCC/LAI]
$C_5H_{12}O$	[598-75-4]	(*dl*) 3-methyl-2-butanol				
	$\Delta_v H$	(293–385)	46.4	308	A	[1987STE/MAL]
$C_5H_{12}O$	[75-84-3]	2,2-dimethyl-1-propanol				
	$\Delta_{trs}H$	(10–370)	4.1	233.3		
	$\Delta_{fus}H$	(10–370)	2.9	328.2	AC	[2007STR/RUZ2]
	$\Delta_{fus}H$		3.87	329.8		[2003CEN/RUZ]
	$\Delta_{trs}H$		4.14	235.4		
	$\Delta_{fus}H$		3.73	329.8		[1999SAL/LOP]
	$\Delta_{trs}H$		4.6	242.1		
	$\Delta_{fus}H$		3.5	328.1	DSC	[1996GRA]
	$\Delta_{trs}H$		4.46	242		
	$\Delta_{fus}H$		4.06	325		[1970MER/BRE]
	$\Delta_v H$	(274–312)	51.8 ± 0.3	298	GS,B	[2001KUL/VER]
	$\Delta_v H$	(330–387)	47.5	345	A	[1987STE/MAL]
$C_5H_{12}O_2$	[5137-45-1]	1-ethoxy-2-methoxyethane				
	$\Delta_v H$		39.8 ± 0.1	298	C	[1970KUS/WAD]
$C_5H_{12}O_2$	[77-76-9]	2,2-dimethoxypropane				
	$\Delta_v H$	(272–301)	37.6 ± 0.4	298	GS	[2002VER]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(272–301)	38.2 ± 0.4		GS	[1998VER/PEN]
	$\Delta_v H$	(299–348)	35.3	324	EB	[1994WIB/MOR]
	$\Delta_v H$	(292–357)	33.4 ± 0.2	325		[1988BAG/GUR]
$C_5H_{12}O_2$	[109-59-1]	2-isopropoxyethanol				
	$\Delta_v H$		50.1 ± 0.1	298	C	[1971MOR]
	$\Delta_v H$	(341–413)	45.1	356	A	[1987STE/MAL, 1957DYK/SEP, 1972DYK]
$C_5H_{12}O_2$	[2807-30-9]	2-propoxyethanol				
	$\Delta_v H$		52.1 ± 0.1	298	C	[1971KUS/WAD]
	$\Delta_v H$	(350–422)	46.3	365	A	[1987STE/MAL, 1957DYK/SEP, 1972DYK]
$C_5H_{12}O_2$	[462-95-3]	formaldehyde diethyl acetal (diethoxymethane)				
	$\Delta_v H$	(273–361)	36.1	288	A	[1987STE/MAL]
	$\Delta_v H$		35.7 ± 0.2	298	C	[1969MAN]
$C_5H_{12}O_2$	[684-84-4]	2-methyl-1,3-butanediol				
	$\Delta_v H$	(399–561)	62.4	414	A	[1987STE/MAL]
$C_5H_{12}O_2$	[2568-33-4]	3-methyl-1,3-butanediol				
	$\Delta_v H$	(346–475)	60.3	361	A	[1987STE/MAL]
$C_5H_{12}O_2$	[126-30-7]	2,2-dimethyl-1,3-propanediol				
	$\Delta_{trs}H$		12.33	315.1		
	$\Delta_{fus}H$		4.55	401.2	DSC	[2009SIN/MUR]
	$\Delta_{trs}H$	(78–410)	14.78	314.3		
	$\Delta_{fus}H$	(78–410)	7.52	402.4	AC	[2007TON/TAN]
	$\Delta_{trs}H$		12.24	315.1		
	$\Delta_{fus}H$		4.23	401.6	DSC	[2006DIV/CHE]
	$\Delta_{trs}H$	(15–340)	0.18	60.4		
	$\Delta_{trs}H$	(15–340)	12.5	314.5	AC	[2001KAM/SUE]
	$\Delta_{trs}H$		0.18	60.4		
	$\Delta_{trs}H$		12.43	314.4		
	$\Delta_{fus}H$		4.34	402.8	DSC	[1999SAL/LOP]
	$\Delta_{trs}H$		13.8	315.2		
	$\Delta_{trs}H$		12.52	314.5	AC	[1999SUG]
	$\Delta_{trs}H$		12.8	315.2		
	$\Delta_{fus}H$		4.3	402.5	DSC	[1996GRA]
	$\Delta_{fus}H$		4.6	403.2		[1973FRA/KRZ, 1994LOP/VAN]
	$\Delta_{sub}H$ *(cryst)*	(294–311)	85 ± 2			[1995FON/MUN]
	$\Delta_{sub}H$ *(plastic)*	(319–333)	75 ± 2			[1995FON/MUN]
	$\Delta_{sub}H$ *(plastic)*		75.5 ± 3.8	368	C	[1994FON/MUN2, 1994FON/MUN]
	$\Delta_{sub}H$ *(cryst)*		87.6 ± 4.4	350	C	[1994FON/MUN2, 1994FON/MUN]
	$\Delta_v H$	(400–480)	79.4	415	A	[1987STE/MAL]
$C_5H_{12}O_2$	[5343-92-0]	1,2-pentanediol				
	$\Delta_v H$	(289–345)	74.6 ± 0.3	298	GS	[2004VER2]
$C_5H_{12}O_2$	[111-29-5]	1,5-pentanediol				
	$\Delta_{fus}H$		15.72	248		[1996DOM/HEA]
	$\Delta_v H$		86.8 ± 0.5	298	C	[1988KNA/SAB, 1990KNA/SAB2]
	$\Delta_v H$	(391–479)	78.6	406	A	[1987STE/MAL]
$C_5H_{12}O_2$	[625-69-4]	2,4-pentanediol				
	$\Delta_v H$	(297–347)	72.5 ± 0.3	298	GS	[2007VER]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_{12}O_2S$	[14094-12-3]	*tert*-butyl methyl sulfone				
	$\Delta_{fus}H$		24.69	357.6		[1961BUS/IVI]
	$\Delta_{sub}H$		82.4 ± 2.5			[UR/MAC, 1970COX/PIL]
$C_5H_{12}O_3$	[17742-78-8]	*tert*-butyldioxymethanol				
	Δ_vH		59.6 ± 2.4			[1983VAN/KAC]
$C_5H_{12}O_3$	[111-77-3]	diethylene glycol, methyl ether				
	Δ_vH	(385–466)	51.9	400	A	[1987STE/MAL, 1957DYK/SEP, 1972DYK]
$C_5H_{12}O_3$	[14642-48-9]	2,3,4-pentanetriol				
	Δ_vH	(428–600)	78.9	443		[1947STU]
$C_5H_{12}O_3$	[77-85-0]	2-hydroxymethyl-2-methyl-1,3-propanediol				
	$\Delta_{trs}H$		20.94	356.7		
	$\Delta_{fus}H$		4.72	474.4		[1999SAL/LOP]
	$\Delta_{trs}H$		23.17	354		
	$\Delta_{fus}H$		5.38	470		[1996DOM/HEA]
	$\Delta_{trs}H$		21.1	357.4		
	$\Delta_{fus}H$		4.8	472.4	DSC	[1996GRA]
	$\Delta_{trs}H$	(18–375)	21.2	358.2	AC	
	$\Delta_{fus}H$	(353–483)	4.7	473.7	DSC	[1990SUE/MAT]
	$\Delta_{sub}H$ *(plastic)*		84.2 ± 4.2	319	C	[1994FON/MUN]
	$\Delta_{sub}H$ *(cryst)*		109.2 ± 5.5	311	C	[1994FON/MUN]
$C_5H_{12}O_4$	[1850-14-2]	tetramethoxymethane				
	Δ_vH	(304–387)	41.2	319		[1980THO/SMI]
$C_5H_{12}O_4$	[115-77-5]	pentaerythritol				
	$\Delta_{trs}H$		43.93	460.4		
	$\Delta_{fus}H$		7.11	538.7		[1996DOM/HEA]
	$\Delta_{trs}H$		41.2	459.7		
	$\Delta_{fus}H$		5.3	532.3	DSC	[1996GRA]
	$\Delta_{trs}H$		40.5	458.3		[1990BAR/DEL]
	$\Delta_{fus}H$		4.6	513.2	DSC	[1990BAR/DEL]
	$\Delta_{sub}H$ *(cryst)*	(441–460)	134 ± 7			[1995FON/MUN]
	$\Delta_{sub}H$ *(plastic)*	(465–477)	96 ± 9			[1995FON/MUN]
	$\Delta_{sub}H$		131.3 ± 6.6	403	C	[1994FON/MUN]
	$\Delta_{sub}H$	(418–455)	161 ± 1.0	437	TE	[1990BAR/DEL]
	$\Delta_{sub}H$		163.0	298		[1990BAR/DEL]
	$\Delta_{sub}H$ *(tetragonal)*	(397–410)	131.4		ME	[1951NIT/SEK2, 1960JON]
	$\Delta_{sub}H$	(379–408)	143.9 ± 0.8		ME	[1953BRA/COT, 1960JON]
$C_5H_{12}O_5$	[488-81-3]	1,2,3,4,5-pentahydroxypentane (adonitol)				
	$\Delta_{fus}H$		36.42	369.1	AC	[2010TON/YU]
	$\Delta_{fus}H$		35.5	375.0	DSC	[2003CAR/DES]
	$\Delta_{fus}H$		37.6	374.7	DSC	[1990BAR/DEL, 1996DOM/HEA]
	$\Delta_{sub}H$		161.0	298	B	[1990BAR/DEL]
	Δ_vH	(418–465)	111.1 ± 1.5	443	TE	[1990BAR/DEL]
$C_5H_{12}O_5$	[488-82-4]	1,2,3,4,5-pentahydroxypentane (D-arabinitol)				
	$\Delta_{fus}H$		38.8	376.0	DSC	[2003CAR/DES]
	$\Delta_{fus}H$		38.9	379.4	DSC	[1990BAR/DEL, 1990DOM/HEA]
	$\Delta_{sub}H$		160.0	298	B	[1990BAR/DEL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(414–461)	110.1 ± 1.5	440	TE	[1990BAR/DEL]
$C_5H_{12}O_5$	[7643-75-6]	1,2,3,4,5-pentahydroxypentane (L-arabinitol)				
	$\Delta_{fus}H$		43.2	374.0	DSC	[2003CAR/DES]
$C_5H_{12}O_5$	[87-99-0]	xylitol				
	$\Delta_{fus}H$		33.26	369		[2007TON/TAN2]
	$\Delta_{fus}H$		37.7	368.0	DSC	[2003CAR/DES]
	$\Delta_{fus}H$		37.4	365.7	DSC	[1996DOM/HEA, 1990BAR/DEL]
	$\Delta_{sub}H$		161	298	B	[1990BAR/DEL]
	$\Delta_v H$	(406–460)	111.1 ± 0.8	433	TE	[1990BAR/DEL]
$C_5H_{12}S$	[10359-64-5]	3-methyl-2-thiapentane				
	$\Delta_v H$	(288–418)	38.5	303		[1999DYK/SVO]
$C_5H_{12}S$	[5008-69-5]	4-methyl-2-thiapentane				
	$\Delta_v H$	(288–411)	36.9	303		[1999DYK/SVO]
$C_5H_{12}S$	[628-29-5]	butyl methyl sulfide				
	$\Delta_{fus}H$		12.45	175.6		[1985DEA]
	$\Delta_v H$	(297–423)	40.4	312		[1999DYK/SVO]
	$\Delta_v H$	(301–330)	35.3	315	A	[1987STE/MAL]
	$\Delta_v H$		40.5	298		[1981SHI/SAI]
	$\Delta_v H$		41.0	298		[1971WIL/ZWO]
	$\Delta_v H$		40.9 ± 0.8	298	GC	[1964GUB/FER]
	$\Delta_v H$	(296–325)	38.1	313	EB	[1962MAC/MAY2]
	$\Delta_v H$	(343–436)	38.0	358	A,EB	[1987STE/MAL, 1961MCC/FIN, 1966OSB/DOU]
$C_5H_{12}S$	[6163-64-0]	methyl *tert*-butyl sulfide				
	$\Delta_{fus}H$		8.41	190.8		[1996DOM/HEA]
	$\Delta_v H$	(245–352)	34.2	298		[2004SAW/MOK]
	$\Delta_v H$	(276–397)	36.5	291		[1999DYK/SVO]
	$\Delta_v H$		35.9	298		[1971WIL/ZWO]
	$\Delta_v H$	(305–411)	35.1	320	A,EB	[1987STE/MAL, 1962SCO/GOO, 1966OSB/DOU]
$C_5H_{12}S$	[5145-99-3]	ethyl isopropyl sulfide				
	$\Delta_v H$	(284–406)	38.1	299		[1999DYK/SVO]
	$\Delta_v H$		37.8	298		[1981SHI/SAI]
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
	$\Delta_v H$		37.9 ± 0.8	298	GC	[1964MAC/MCC]
	$\Delta_v H$	(296–325)	38.1	313	EB	[1962MAC/MAY2]
	$\Delta_v H$	(319–391)	36.3	334	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_5H_{12}S$	[4110-50-3]	ethyl propyl sulfide				
	$\Delta_{fus}H$		10.58	156.1		[1996DOM/HEA]
	$\Delta_v H$	(293–418)	39.8	308		[1999DYK/SVO]
	$\Delta_v H$		40	298		[1981SHI/SAI]
	$\Delta_v H$		39.5	298	C	[1981HOS/SCO]
	$\Delta_v H$	(331–398)	37.8	346	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_5H_{12}S$	[110-66-7]	1-pentanethiol				
	$\Delta_{fus}H$		17.53	197.5		[1996DOM/HEA]
	$\Delta_v H$	(300–426)	40.6	315		[1999DYK/SVO]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		41.1	298		[1971WIL/ZWO]
	$\Delta_v H$		37.1 ± 0.1	356	C	[1965FIN/HOS]
	$\Delta_v H$		36.4 ± 0.1	376	C	[1965FIN/HOS]
	$\Delta_v H$		34.9 ± 0.1	400	C	[1965FIN/HOS]
	$\Delta_v H$	(347–440)	38.1	362	A,EB	[1987STE/MAL, 1952FIN/SCO, 1966OSB/DOU]
$C_5H_{12}S$	[2084-19-7]	2-pentanethiol				
	$\Delta_v H$	(287–412)	38.4	302		[1999DYK/SVO]
	$\Delta_v H$	(347–435)	37.8	361	A	[1987STE/MAL]
$C_5H_{12}S$	[616-31-9]	3-pentanethiol				
	$\Delta_v H$	(288–413)	38.3	303		[1999DYK/SVO]
$C_5H_{12}S$	[1878-18-8]	2-methyl-1-butanethiol				
	$\Delta_v H$	(293–418)	39.2	308		[1999DYK/SVO]
	$\Delta_v H$		39.9 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(324–432)	37.6	339	A,EB	[1987STE/MAL, 1966OSB/DOU]
$C_5H_{12}S$	[541-31-1]	3-methyl-1-butanethiol				
	$\Delta_{fus}H$		7.41	139.6		[1996DOM/HEA]
	$\Delta_v H$	(292–418)	39.3	307		[1999DYK/SVO]
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
	$\Delta_v H$		39.9 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$	(323–431)	37.7	338	A,EB	[1987STE/MAL, 1966OSB/DOU]
$C_5H_{12}S$	[1679-09-0]	2-methyl-2-butanethiol				
	$\Delta_v H$	(276–398)	36.3	291		[1999DYK/SVO]
	$\Delta_v H$		35.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(320–411)	34.3	335	A,EB	[1987STE/MAL, 1962SCO/DOU]
	$\Delta_v H$		33.8 ± 0.1	330	C	[1962SCO/DOU]
	$\Delta_v H$		32.7 ± 0.1	350	C	[1962SCO/DOU]
	$\Delta_v H$		31.4 ± 0.1	372	C	[1962SCO/DOU]
$C_5H_{12}S$	[2084-18-6]	3-methyl-2-butanethiol				
	$\Delta_{trs}H$		7.06	144.5		
	$\Delta_{fus}H$	(12–370)	0.61	146.1		[1996DOM/HEA, 1974MES/FIN]
	$\Delta_v H$	(285–409)	37.7	300		[1999DYK/SVO]
	$\Delta_v H$		37.5 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$		37.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(315–422)	36.2	330	A,EB	[1987STE/MAL, 1966OSB/DOU]
$C_5H_{12}S$	[1679-08-9]	2,2-dimethyl-1-propanethiol				
	$\Delta_v H$	(280–403)	36.9	295		[1999DYK/SVO]
	$\Delta_v H$		36.4 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$		36.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(292–416)	36.2	307	A,EB	[1987STE/MAL, 1966OSB/DOU]
	$\Delta_v H$	(213–415)	42.1	230	EB,IP	[1966OSB/DOU]
$C_5H_{12}S_2$	[928-98-3]	1,5-pentanedithiol				
	$\Delta_v H$	(363–491)	51.6	378	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_v H$		59.3	298		[1962MAN/SUN]
$C_5H_{12}S_2$	[5395-75-5]	3,5-dithiaheptane				
	$\Delta_v H$		50.8 ± 0.2	298	C	[1974MAN4]
$C_5H_{12}S_2$	[53966-36-2]	ethyl isopropyl disulfide				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(369–426)	42.5	384		[1999DYK/SVO]
	$\Delta_v H$	(363–427)	42.9	378	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_5H_{12}S_2$	[30453-31-7]	ethyl propyl disulfide				
	$\Delta_v H$	(373–414)	44.0	388	A,EB	[1987STE/MAL, 1952WHI/BER, 1999DYK/SVO]
$C_5H_{12}S_4$	[6156-25-8]	tetra(methylthia)methane				
	$\Delta_{trs}H$	(13–360)	7.09	296.2		
	$\Delta_{trs}H$	(13–360)	7.29	318.8		
	$\Delta_{fus}H$	(13–360)	3.31	338.9	AC	[1998SOR/KIM]
	$\Delta_{trs}H$		6.11	296.4		
	$\Delta_{trs}H$		7.61	318.7		
	$\Delta_{fus}H$		4.14	338.7		[1996DOM/HEA]
$C_5H_{13}N$	[19961-27-4]	N-ethylisopropylamine				
	$\Delta_v H$		33.1 ± 0.1	298	C	[1979PET/MAJ]
	$\Delta_v H$		32.1 ± 0.1	313	C	[1979PET/MAJ]
	$\Delta_v H$		31.0 ± 0.1	328	C	[1979PET/MAJ]
	$\Delta_v H$		28.8 ± 0.1	358	C	[1979PET/MAJ]
	$\Delta_v H$	(303–342)	33.4	318	EB	[1979PET/MAJ]
$C_5H_{13}N$	[616-39-7]	N,N-diethylmethylamine				
	$\Delta_v H$	(283–339)	31.8	298	A	[1987STE/MAL]
$C_5H_{13}N$	[110-68-9]	N-methylbutylamine				
	$\Delta_v H$	(283–313)	38.1	298	A	[1987STE/MAL]
$C_5H_{13}N$	[14610-37-8]	*tert*-butylmethylamine				
	$\Delta_v H$	(270–288)	32.3 ± 1.4	297		[1997VER]
$C_5H_{13}N$	[110-58-7]	pentylamine				
	$\Delta_v H$	(322–378)	40.9	298	EB	[2004ANT/GAL]
	$\Delta_v H$	(298–417)	39.0	313	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$		40.1 ± 0.1	298	C	[1969WAD]
$C_5H_{13}NO$	[110-73-6]	2-(ethylamino)ethanol				
	$\Delta_v H$	(282–321)	61.0 ± 0.4	298	GS	[2005KAP/SLO]
$C_5H_{13}NO_2$	[105-59-9]	N-methyl diethanolamine				
	$\Delta_v H$	(409–435)	71.5	422	EB	[2008KIM/SVE]
	$\Delta_v H$	(390–520)	73.0	405	A	[1987STE/MAL]
$C_5H_{13}NO_2S$	[2374-61-0]	N,N-diethyl methanesulfonamide				
	$\Delta_v H$	(384–528)	52.1	399	A	[1987STE/MAL]
$C_5H_{13}NS$	[na]	N-methyl-*tert*-butylsulfenamide				
	$\Delta_v H$	(329–397)	41.9	364		[1999DYK/SVO]
$C_5H_{13}N_3$	[80-70-6]	1,1,3,3-tetramethylquanidine				
	$\Delta_v H$		46.9			[1967AND/HAM]
$C_5H_{13}O_3P$	[683-08-9]	diethyl methylphosphonate				
	$\Delta_v H$	(253–465)	60.6	253	GS	[2009BUT/BUC]
	$\Delta_v H$	(253–465)	57.2	283	GS	[2009BUT/BUC]
	$\Delta_v H$	(253–465)	55.9	298	GS	[2009BUT/BUC]
	$\Delta_v H$	(253–465)	54.7	313	GS	[2009BUT/BUC]
	$\Delta_v H$	(253–465)	53.4	333	GS	[2009BUT/BUC]
	$\Delta_v H$	(253–465)	51.2	373	GS	[2009BUT/BUC]
	$\Delta_v H$	(343–402)	51.8	358	A	[1987STE/MAL, 1972DYK]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		56.5 ± 4.2			[1956NEA/WIL, 1982PIL/SKI]
$C_5H_{14}NP$	[na]	trimethylphosphine-N-ethylimine				
	$\Delta_v H$		61.5 ± 4.2			[1960CLA/FOW, 1982PIL/SKI]
$C_5H_{14}N_2$	[111-33-1]	N,N-dimethyl-1,3-propanediamine				
	$\Delta_{fus}H$		12.38	194.4		[1996DOM/HEA]
	$\Delta_v H$	(303–366)	45.7	318	A	[1987STE/MAL]
	$\Delta_v H$	(303–408)	42.0	318	A	[1987STE/MAL]
	$\Delta_v H$		52.7			[1977VAS/KOT]
$C_5H_{14}N_2$	[51-80-9]	*bis*(dimethylamino)methane				
	$\Delta_v H$	(273–348)	32.3	310		[1965AYL/PET]
$C_5H_{14}N_2$	[462-94-2]	pentane-1,5-diamine				
	$\Delta_{fus}H$		29.82	285	DSC	[2002DAL/DEL]
$C_5H_{14}N_2$	[7328-91-8]	2,2-dimethyl-1,3-diaminopropane				
	$\Delta_{trs}H$		14.7	194.2		
	$\Delta_{fus}H$		1.7	301.7		[1996STR/BRA]
C_6BrF_5	[344-04-7]	bromopentafluorobenzene				
	$\Delta_v H$	(400–522)	38.2	415	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(283–348)	43.1 ± 0.2	298		[1977KRE/PRI]
	$\Delta_v H$	(414–522)	38.0	429	EB	[1969WOO/ADI]
$C_6BrF_{15}N_2S$	[62977-74-6]	*bis*[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]diimidosulfurylbromide fluoride				
	$\Delta_v H$		41.0	476	I	[1977KIT/SHR2]
C_6Br_6	[87-82-1]	hexabromobenzene				
	$\Delta_{fus}H$		24.6	598.8		[2004KUR/MAE2]
$C_6ClF_{15}N_2S$	[62977-72-4]	*bis*[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]diimidosulfurylchloride fluoride				
	$\Delta_v H$		37.2	458	I	[1977KIT/SHR2]
C_6ClF_5	[344-07-0]	chloropentafluorobenzene				
	$\Delta_{trs}H$		3.64	191		
	$\Delta_{trs}H$		0.98	245		
	$\Delta_{fus}H$		8.36	257.5		[1996DOM/HEA, 1968AND/COU]
	$\Delta_v H$	(290–550)	41.3	298		[1991BAS/SVO]
	$\Delta_v H$	(348–402)	37.7	363	A	[1987STE/MAL]
	$\Delta_v H$	(307–417)	40.0	322	A	[1987STE/MAL, 1968AMB]
	$\Delta_v H$		37.7 ± 0.1	349		[1968AND/COU]
	$\Delta_v H$		36.4 ± 0.1	369		[1968AND/COU]
	$\Delta_v H$		34.8 ± 0.1	391		[1968AND/COU]
	$\Delta_v H$	(403–547)	35.2	418	EB	[1966EVA/TIL]
$C_6ClF_{13}N_2$	[33757-14-1]	1-chloro-1′,2,2,2,2′,2′,2-heptafluoro-1,1′-*bis*(trifluoromethyl)azoethane				
	$\Delta_v H$	(297–355)	33.3	312	A	[1987STE/MAL, 1971SWI/ZAB]
$C_6ClF_{14}P$	[756-17-2]	*bis*(heptafluoropropyl) chlorophosphine				
	$\Delta_v H$	(283–373)	37.5	328		[1959EME/SMI]
$C_6Cl_2F_{12}N_2S$	[na]	*bis*(2-chlorohexafluoroisopropylimino) sulfur				
	$\Delta_v H$		43.5	404	I	[1972MET/SHR]
$C_6Cl_3F_3$	[319-88-0]	1,3,5-trichloro-2,4,6-trifluorobenzene				
	$\Delta_{fus}H$		19.83	335		[1991ACR]
	$\Delta_v H$	(364–496)	49.2	379	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(364–550)	53.8	298		[1984BOU/FRI, 1991BAS/SVO]
$C_6Cl_3F_{14}P$	[na]	trichloro *bis*(heptafluoropropyl)phosphorane				
	$\Delta_v H$	(323–393)	40.1	358		[1959EME/SMI]
$C_6Cl_3N_3O_6$	[2631-68-7]	1,3,5-trichloro-2,4,6-trinitrobenzene				
	$\Delta_v H$	(503–543)	68.9	518	A	[1987STE/MAL, 1968MAK]
	$\Delta_v H$	(503–543)	43.2	518		[1972DYK]
$C_6Cl_4O_2$	[118-75-2]	2,3,5,6-tetrachloro-1,4-benzoquinone (chloranil)				
	$\Delta_{fus}H$		30.87	567.2		[1991ACR]
	$\Delta_{sub}H$	(333–356)	98.7 ± 8.3		QF	[1927COO/COO, 1960JON, 1970COX/PIL]
	$\Delta_v H$	(343–435)	88.5	358		[1947STU]
$C_6Cl_5NO_2$	[82-68-8]	pentachloronitrobenzene				
	$\Delta_{fus}H$		18.41	418		[1991ACR]
	$\Delta_{sub}H$		96.3 ± 2.1	298	C	[2009RIB/FER6]
	$\Delta_{sub}H$	(317–339)	93.0 ± 0.4	328	ME	[2009RIB/FER6]
	$\Delta_{sub}H$	(317–339)	94.5 ± 0.4	298	ME	[2009RIB/FER6]
C_6Cl_6	[118-74-1]	hexachlorobenzene				
	$\Delta_{fus}H$		25.2	502	DTA	[1991SAB/AN2]
	$\Delta_{fus}H$		23.85	505		[1991ACR]
	$\Delta_{sub}H$	(358–403)	96.8 ± 0.5	298	GS	[2007VER/EME]
	$\Delta_{sub}H$	(258–313)	105			[1994LIU/DIC]
	$\Delta_{sub}H$	(253–303)	77.4 ± 0.8	278	GS	[1994WAN/SHU]
	$\Delta_{sub}H$		89.6 ± 0.2	337	C	[1991SAB/AN2]
	$\Delta_{sub}H$		90.5 ± 0.2	298	C	[1991SAB/AN2]
	$\Delta_{sub}H$	(461–506)	85.5			[1989LUB/JAN]
	$\Delta_{sub}H$	(387–502)	62.7	402	A	[1987STE/MAL]
	$\Delta_{sub}H$	(314–373)	94.7	344	GS	[1986ROR/SAR, 1997DEL]
	$\Delta_{sub}H$	(288–318)	101.3	303	GS	[1980FAR/YAN]
	$\Delta_{sub}H$	(312–337)	79.5 ± 1.2			[1977STE2]
	$\Delta_{sub}H$	(369–397)	92 ± 8.2		RG	[1949SEA/HOP2, 1970COX/PIL]
	$\Delta_v H$		74.4 ± 0.7	298	GS	[2001PUR/CHI]
	$\Delta_v H$	(413–453)	76.8	298	GC	[1994SPI/LUI]
	$\Delta_v H$	(258–313)	81.3		GC	[1994LIU/DIC]
	$\Delta_v H$	(343–453)	68.6	398	GC	[1990HIN/BID2]
	$\Delta_v H$	(502–589)	68.7	517	A	[1987STE/MAL]
	$\Delta_v H$	(387–582)	60.5	402		[1947STU]
$C_6D_{10}O$	[51209-49-5]	cyclohexanone-d_{10}				
	$\Delta_{trs}H$		7.1	216.8		
	$\Delta_{trs}H$		0.4	219.3		
	$\Delta_{fus}H$		1.19	241.5		[1997BUS/HAM]
$C_6F_5NO_2$	[880-76-4]	pentafluoronitrobenzene				
	$\Delta_{fus}H$		11.81	250.5		[1996DOM/HEA]
C_6F_6	[392-56-3]	hexafluorobenzene				
	$\Delta_{fus}H$		11.59	278.3		[1996DOM/HEA]
	$\Delta_{sub}H$	(215–278)	49.2	263	A	[1987STE/MAL, 1965DOU/OSB]
	$\Delta_{sub}H$	(238–268)	49.8	253	IP,A	[1979SCO/OSB]
	$\Delta_{sub}H$		46.0	316	B	[1965COU/GRE]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(288–333)	36.1 ± 0.1	298		[2005DIA/GON]
	$\Delta_v H$	(318–376)	34.4	333	EB	[1990AMB/EWI]
	$\Delta_v H$	(403–516)	31.8	425		[1988DAV/EWI]
	$\Delta_v H$	(278–354)	36.5	293	A	[1987STE/MAL]
	$\Delta_v H$	(348–389)	33.2	363	A	[1987STE/MAL]
	$\Delta_v H$	(384–462)	32.2	399	A	[1987STE/MAL]
	$\Delta_v H$	(458–517)	31.8	473	A	[1987STE/MAL]
	$\Delta_v H$	(290–510)	35.6	298		[1982INV, 1991BAS/SVO]
	$\Delta_v H$		35.7	298	C	[1981HOS/SCO]
	$\Delta_v H$	(293–323)	35.7	308		[1980PAT/TOM]
	$\Delta_v H$	(281–335)	36.4 ± 0.1	298		[1972KRE/PRI]
	$\Delta_v H$	(278–321)	36.2	292	MM	[1969FIN]
	$\Delta_v H$	(363–516)	32.2	378	EB	[1966EVA/TIL]
	$\Delta_v H$	(275–387)	36.5	293		[1965DOU/OSB]
	$\Delta_v H$	(293–356)	35.1	308		[1964PAT/PRO]
	$\Delta_v H$	(293–358)	35.5	308		[1964PAT/PRO, 1984BOU/FRI]
C_6F_7NOS	[20094-84-2]	N-(pentafluorophenyl)imidosulfuryl fluoride				
	$\Delta_v H$	(309–355)	45.3	332		[1968GLE/VON]
C_6F_7OP	[59646-78-5]	pentafluorophenoxydifluorophosphine				
	$\Delta_v H$	(310–363)	42.4	325		[1976FAL/DES]
$C_6F_7O_2P$	[59617-42-4]	pentafluorophenoxyphosphoryl difluoride				
	$\Delta_v H$	(323–367)	46.4	338		[1976FAL/DES]
C_6F_8	[5680-05-7]	perfluoro(2-methyl-3-methylenecyclobutene)				
	$\Delta_v H$	(243–306)	31.0	258	A,I	[1987STE/MAL, 1966BAN/BAR]
C_6F_{10}	[355-75-9]	perfluorocyclohexene				
	$\Delta_v H$	(277–319)	31.0	298		[1979PRI/SAP]
$C_6F_{11}NO$	[52225-58-8]	2,2,3,3,3-pentafluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]propanamide				
	$\Delta_v H$		32.7	338		[1974PET/SHR]
$C_6F_{11}NO_2S$	[77589-41-4]	2,2,3,3,3,4,4,5,5-octafluoro-1,1,2,3,4,5-hexahydro-1-[(trifluoroacetyl)imino]thiophene-1-oxide				
	$\Delta_v H$		33.9	383		[1981ABE/SHR2]
C_6F_{12}	[1805-22-7]	perfluoromethylcyclopentane				
	$\Delta_v H$		30.68	298	EB	[1998EWI/SAN]
C_6F_{12}	[355-68-0]	perfluorocyclohexane				
	$\Delta_{sub} H$	(252–326)	36.4	267	A	[1987STE/MAL, 1967CRO/TAY]
	$\Delta_{sub} H$	(293–333)	36.2	313		[1957ROW/THA]
	$\Delta_v H$	(373–457)	28.0	388		[1988DAV/EWI]
	$\Delta_v H$	(350–451)	28.1	365	A	[1987STE/MAL]
	$\Delta_v H$	(274–322)	36.0	298		[1979PRI/SAP]
	$\Delta_v H$	(336–394)	29.6	351		[1957MCC/DOU, 1984BOU/FRI]
C_6F_{12}	[2994-71-0]	perfluoro(1,2-dimethylcyclobutane)				
	$\Delta_v H$	(242–318)	32.1	257	A	[1987STE/MAL]
$C_6F_{12}N_2$	[19451-96-8]	N,N,N,N-*tetrakis*(trifluoromethyl)-1,2-ethynylenediamine				
	$\Delta_v H$	(305–328)	32.1	316	A	[1987STE/MAL, 1968HAS/TIP]
$C_6F_{12}N_2OS$	[34619-84-6]	1,1,1,3,3,3-hexafluoro-2-isocyanato-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-2-propanamine				
	$\Delta_v H$		39.3	375	I	[1972SWI/BAB]
$C_6F_{12}N_2O_2S$	[62609-66-9]	1,1,1-trifluoro-N′-(trifluoroacetyl)-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]methanesulfonimidamide				
	$\Delta_v H$		32.6	404	I	[1977KIT/SHR]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6F_{12}N_2S$	[31340-33-7]	*bis*[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]sulfoxylic diamide				
	$\Delta_v H$		40.6	391	I	[1972SWI/BAB]
$C_6F_{12}N_2S_2$	[38005-16-2]	*bis*(hexafluoroisopropylidenimino) disulfide				
	$\Delta_v H$		46	417	I	[1972MET/SHR]
$C_6F_{12}O$	[788-40-9]	perfluoro(methoxycyclopentane)				
	$\Delta_v H$	(246–330)	38.6	261	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$		30.3	330		[1957POR/CAD]
$C_6F_{12}O_2$	[24165-10-4]	trifluoroacetic acid, 2,2,2-trifluoro-1,1-*bis*(trifluoromethyl) ethyl ester				
	$\Delta_v H$	(264–298)	34.3	279	A	[1987STE/MAL, 1975WAL/DES2]
	$\Delta_v H$		33.1	329	HG	[1973MAJ/SHR]
$C_6F_{12}O_4$	[55100-93-1]	carbonoperoxoic acid, O-[2,2,2-trifluoro-1,1-*bis*(trifluoromethyl)ethyl-O,O-(trifluoromethyl) ester ester				
	$\Delta_v H$	(273–315)	33.5	288	A	[1987STE/MAL, 1975WAL/DES2]
$C_6F_{13}NS$	[53120-07-9]	2,2,2-trifluoro-N-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]ethanimidothioic acid, trifluoromethyl ester				
	$\Delta_v H$		35.3	360		[1975PET/SHR]
C_6F_{14}	[355-42-0]	perfluorohexane				
	$\Delta_{trs}H$		0.97	103		
	$\Delta_{fus}H$		6.84	185		[1996DOM/HEA, 1986STA]
	$\Delta_v H$	(289–333)	32.5 ± 0.1	298		[2005DIA/GON]
	$\Delta_v H$	(261–334)	34.4	276	A	[1987STE/MAL]
	$\Delta_v H$	(285–340)	31.4	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(433–449)	33.4	441	A	[1987STE/MAL, 1978MOU]
	$\Delta_v H$	(303–330)	31.5	316		[1958DUN/MUR, 1984BOU/FRI]
	$\Delta_v H$	(284–342)	32.4	298		[1952STI/CAD]
C_6F_{14}	[335-04-4]	perfluoro-2-methylpentane				
	$\Delta_v H$	(280–340)	31.4	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(253–329)	34.5	268	A	[1987STE/MAL, 1967CRO/TAY, 1984BOU/FRI]
	$\Delta_v H$	(277–341)	32.5	292		[1952STI/CAD, 1984BOU/FRI]
C_6F_{14}	[865-71-4]	perfluoro-3-methylpentane				
	$\Delta_v H$	(282–333)	30.8	297	A	[1987STE/MAL]
C_6F_{14}	[354-96-1]	perfluoro-2,3-dimethylbutane				
	$\Delta_v H$	(260–340)	31.6	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(262–333)	33.0	277	A	[1987STE/MAL, 1967CRO/TAY, 1984BOU/FRI]
$C_6F_{14}IP$	[756-18-3]	*bis*(heptafluoropropyl) iodophosphine				
	$\Delta_v H$	(273–353)	41.6	313		[1959EME/SMI]
$C_6F_{14}N_2S$	[34451-12-2]	*bis*[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl] sulfur diimide				
	$\Delta_v H$	(325–378)	38.5	340	A	[1987STE/MAL, 1972SWI/SHR]
$C_6F_{14}O$	[356-62-7]	perfluorodipropyl ether				
	$\Delta_v H$	(306–327)	31.2 ± 0.4	298	EB	[1989VAR/PAS]
$C_6F_{15}N$	[359-70-6]	perfluorotriethylamine				
	$\Delta_{trs}H$		1.56	146.4		
	$\Delta_{fus}H$		5.56	156.2		[1996DOM/HEA]
	$\Delta_v H$	(297–343)	34.0 ± 0.4	298	EB	[1995VAR/DRO]
	$\Delta_v H$		34.2 ± 0.1	298	C	[1995VAR/DRO]
	$\Delta_v H$	(320–334)	32.8	327	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(317–349)	32.9	332	A	[1987STE/MAL]
$C_6F_{15}NO$	[54566-82-4]	1,1,1,2,3,3,3,-heptafluoro-N-(pentafluoroethyl)-N-(trifluoromethyl)-2-propanamine				
	$\Delta_v H$		27.1	338		[1975PET/SHR2]
$C_6F_{15}O_4S_2$	[63441-15-6]	2,2,4,4-tetrafluoro-1,1,3,3-tetrahydro-1,1,3,3-*tetrakis*(trifluoromethoxy)-1,3-dithietane				
	$\Delta_v H$		37.2	404	I	[1977KIT/SHR3]
$C_6F_{16}N_2S$	[59617-31-1]	*bis*[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]diimidosulfuryl fluoride				
	$\Delta_v H$		35.8			[1976STA/MEW]
$C_6F_{16}S$	[1423-18-3]	difluoro *bis*[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl] sulfur				
	$\Delta_v H$	(273–383)	36.6	328	A	[1987STE/MAL, 1999DYK/SVO]
$C_6F_{18}NP_3$	[na]	nitrilo *tris*[*bis*(trifluoromethyl)phosphine]				
	$\Delta_{sub}H$	(273–309)	68.4	291		[1965BUR/HEN]
$C_6F_{20}N_3O_3P$	[na]	phosphorous *tris*[*bis*(trifluoromethyl)nitroxide] difluoride				
	$\Delta_v H$		39.3	421		[1973WAN/SHR]
C_6N_2	[16419-78-6]	dicyanobutadiyne				
	$\Delta_{sub}H$	(294–335)	34.4	309	A	[1987STE/MAL]
	$\Delta_{sub}H$	(295–335)	35.9	315	I	[1957SAG]
	$\Delta_v H$	(341–369)	30.2	355	A	[1987STE/MAL, 1957SAG]
C_6N_4	[670-54-2]	tetracyanoethylene				
	$\Delta_{fus}H$		24.92	472.2		[1991RAD/RAD]
	$\Delta_{sub}H$	(333–371)	81.4	348	A	[1987STE/MAL]
	$\Delta_{sub}H$	(290–312)	84.3	302	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		81.2 ± 5.9	350		[1963BOY, 1970COX/PIL]
	$\Delta_{sub}H$		78.0		GS	[1958LOO/DOW]
$C_6N_6O_3$	[na]	benzotrifurazan				
	$\Delta_{sub}H$	(303–333)	95.8 ± 3.8			[1999MAT/PEP]
$C_6N_6O_6$	[na]	benzotrifuroxan				
	$\Delta_{sub}H$	(363–433)	172.0 ± 2.5			[1999MAT/PEP]
$C_6N_8O_8$	[19451-95-7]	4,4″-dinitro-3,3′:4′,3″-ter-1,2,5-oxadiazole-2′-oxide				
	$\Delta_{fus}H$		93.83	381.9		[2004GEN/PEI]
$C_6HBrF_{12}N_2$	[19451-95-7]	*trans* 1-bromo-N,N,N′,N′-*tetrakis*(trifluoromethyl)vinylenediamine				
	$\Delta_v H$	(348–371)	32.3	359	A	[1987STE/MAL, 1968FRE/TIP]
C_6HBr_5O	[608-71-9]	pentabromophenol				
	$\Delta_{fus}H$		27.6	469.8		[2004KUR/MAE]
	$\Delta_{trs}H$		11.29	441.5		
	$\Delta_{fus}H$		19.14	502		[1995WOJ/TOU]
$C_6HClF_{11}NO$	[52225-62-4]	N-[1-chloro-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]-2,2,3,3,3-pentafluoropropanamide				
	$\Delta_v H$		40.8	381		[1974PET/SHR]
$C_6HCl_2N_3O_6$	[1630-09-7]	1,3-dichloro-2,4,6-trinitrobenzene				
	$\Delta_v H$	(504–563)	46.9	519	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(504–533)	80.4			[1968MAK]
$C_6HCl_3F_8O_2$	[2106-54-9]	octafluoro-3,5,6-trichlorohexanoic acid				
	$\Delta_v H$	(373–505)	64.2	388	A	[1987STE/MAL, 1972DYK, 1957BAR/SEF]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6HCl_3O_2$	[634-85-5]	trichloro-1,4-benzoquinone				
	$\Delta_{sub}H$	(301–327)	88.7 ± 8.3		QF	[1927COO/COO, 1960JON, 1970COX/PIL]
$C_6HCl_4NO_2$	[117-18-0]	1,2,4,5-tetrachloro-3-nitrobenzene				
	$\Delta_{fus}H$		19.46	373.3	DSC	[1991ACR, 1990DON/DRE]
	$\Delta_{sub}H$		91.3 ± 2.5	298	C	[2009RIB/FER6]
C_6HCl_5	[608-93-5]	pentachlorobenzene				
	$\Delta_{fus}H$		20.6	357.7		[1991ACR]
	$\Delta_{sub}H$		87.1 ± 0.4	298	C	[1991SAB/AN2]
	Δ_vH		66.0	357		[1999ROH/RUZ]
	Δ_vH	(413–453)	67.7	298	GC	[1994SPI/LUI]
	Δ_vH	(371–549)	62.1	386	A	[1987STE/MAL, 1947STU]
C_6HCl_5O	[87-86-5]	pentachlorophenol				
	$\Delta_{fus}H$		17.15	462.5		[1991ACR, 1995WOJ/TOU]
	$\Delta_{sub}H$	(348–403)	91.6 ± 0.5	298	GS	[2007VER/EME]
	$\Delta_{sub}H$		67.4 ± 2.1			[UR/STU, 1970COX/PIL]
	Δ_vH	(463–507)	69.0	478	A	[1987STE/MAL, 1972DYK]
C_6HF_5	[363-72-4]	pentafluorobenzene				
	$\Delta_{fus}H$		10.88	225.7		[1991ACR]
	Δ_vH	(358–397)	33.5	373	A	[1987STE/MAL]
	Δ_vH	(393–479)	32.6	408	A	[1987STE/MAL]
	Δ_vH	(473–531)	32.2	488	A	[1987STE/MAL]
	Δ_vH	(290–510)	36.2	298		[1982INV, 1991BAS/SVO]
	Δ_vH	(322–368)	34.8	337	A	[1987STE/MAL, 1968AMB]
	Δ_vH	(373–530)	32.0	388	EB	[1966EVA/TIL]
	Δ_vH	(298–358)	35.7	313		[1964PAT/PRO, 1984BOU/FRI]
C_6HF_5O	[771-61-9]	pentafluorophenol				
	$\Delta_{trs}H$		1.16	287		
	$\Delta_{fus}H$		16.41	310.6		[1968AND/COU]
	$\Delta_{sub}H$	(273–299)	67.4 ± 1.7		GS	[1969COX/GUN, 1970COX/PIL]
	Δ_vH	(323–455)	52.2 ± 0.4	298	EB	[1997STE/CHI2]
	Δ_vH	(378–428)	44.2	393	A	[1987STE/MAL, 1968AMB]
$C_6HF_{12}NO$	[52225-64-6]	2,2,3,3,3-pentafluoro-N-[1,2,2,-tetrafluoro-1-(trifluoromethyl)ethyl]propanamide				
	Δ_vH		41.3	368		[1974PET/SHR]
$C_6HF_{12}NOS$	[62067-08-7]	2,2,2-trifluoro-N-[(trifluoromethyl)thio]ethanimidic acid, 2,2,2-trifluoro-1-(trifluoromethyl)ethyl ether				
	Δ_vH		33.6	364	I	[1977BUR/SHR2]
$C_6H_2BrCl_3O$	[na]	3-bromo-2,4,6-trichlorophenol				
	Δ_vH	(385–579)	67.1	400	A	[1987STE/MAL, 1947STU]
$C_6H_2Br_4$	[636-28-2]	1,2,4,5-tetrabromobenzene				
	$\Delta_{fus}H$		24.4	454.5		[2004KUR/MAE2]
	$\Delta_{trs}H$		0.34	306.8		
	$\Delta_{fus}H$		27.88	453.1		[1996DOM/HEA]
$C_6H_2ClN_3O_6$	[88-88-0]	1-chloro-2,4,6-trinitrobenzene				
	$\Delta_{sub}H$		103.8		DSC	[1990HWA/YOS]
	$\Delta_{sub}H$		103.0			[1950NIT/SEK]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		85.4		DSC	[1990HWA/YOS]
	$\Delta_v H$	(473–543)	63.1	488	A	[1987STE/MAL, 1968MAK]
$C_6H_2Cl_2O_2$	[697-91-6]	2,6-dichloro-1,4-benzoquinone				
	$\Delta_{sub}H$	(274–315)	69.9 ± 8.3		QF	[1927COO/COO, 1960JON, 1970COX/PIL]
$C_6H_2Cl_3F$	[36556-33-9]	1-fluoro-2,4,6-trichlorobenzene				
	$\Delta_v H$	(344–489)	41.1	359	A	[1987STE/MAL]
$C_6H_2Cl_3NO_2$	[89-69-0]	2,4,5-trichloro-1-nitrobenzene				
	$\Delta_v H$	(427–560)	56.7	442	A	[1987STE/MAL]
$C_6H_2Cl_3NO_2$	[18708-70-8]	2,4,6-trichloro-1-nitrobenzene				
	$\Delta_{sub}H$		84.3 ± 1.9	298	C	[2009RIB/FER6]
	$\Delta_{sub}H$	(287–303)	86.9 ± 1.1	295	ME	[2009RIB/FER6]
	$\Delta_{sub}H$	(287–303)	86.7 ± 1.1	298	ME	[2009RIB/FER6]
$C_6H_2Cl_4$	[634-66-2]	1,2,3,4-tetrachlorobenzene				
	$\Delta_{fus}H$		17.0	319.7	DTA	[1991SAB/AN2]
	$\Delta_{fus}H$		17.0	320		[1991ACR]
	$\Delta_{sub}H$		78.8 ± 0.2	298	C	[1991SAB/AN2]
	$\Delta_v H$	(413–453)	60.1	298	GC	[1994SPI/LUI]
	$\Delta_v H$	(341–527)	56.7	356	A	[1987STE/MAL, 1947STU]
$C_6H_2Cl_4$	[634-90-2]	1,2,3,5-tetrachlorobenzene				
	$\Delta_{fus}H$		19.0	323.9		[1991ACR]
	$\Delta_{sub}H$		79.6 ± 0.3	298	C	[1991SAB/AN2]
	$\Delta_v H$	(413–453)	60.7	298	GC	[1994SPI/LUI]
	$\Delta_v H$	(331–519)	51.1	346	A	[1987STE/MAL, 1947STU]
$C_6H_2Cl_4$	[95-94-3]	1,2,4,5-tetrachlorobenzene				
	$\Delta_{fus}H$		24.4	410.1	DSC	[2002RAI/PAN]
	$\Delta_{fus}H$		24.9	412.6	DTA	[1991SAB/AN2]
	$\Delta_{fus}H$		24.1	412.2		[1991ACR]
	$\Delta_{sub}H$		83.2 ± 0.3	298	C	[1991SAB/AN2]
	$\Delta_v H$	(413–453)	60.7	298	GC	[1994SPI/LUI]
	$\Delta_v H$	(419–518)	52.0	434	A	[1987STE/MAL, 1947STU]
$C_6H_2Cl_4O$	[58-90-2]	2,3,4,6-tetrachlorophenol				
	$\Delta_v H$	(373–548)	64.8	388	A	[1987STE/MAL, 1947STU]
$C_6H_2Cl_4O_2$	[1198-55-6]	3,4,5,6-tetrachloro-1,2-benzenediol				
	$\Delta_v H$	(293–323)	77.9	308	CGC	[1999LEI/WAN2]
$C_6H_2Cl_4O_2$	[87-87-6]	tetrachlorohydroquinone				
	$\Delta_{sub}H$	(298–359)	89.0	313		[1987STE/MAL]
	$\Delta_{sub}H$	(333–356)	88.7		QF	[1927COO/COO, 1960JON]
$C_6H_2Cl_5N$	[527-20-8]	pentachloroaniline				
	$\Delta_{fus}H$		18.7	505.8		[1991ACR]
$C_6H_2F_4$	[551-62-2]	1,2,3,4-tetrafluorobenzene				
	$\Delta_{fus}H$		10.93	233.3		[1973AND/MAR]
	$\Delta_v H$	(300–390)	37.5	298		[1984BOU/FRI, 1991BAS/SVO]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(300–392)	36.8	315	A	[1987STE/MAL, 1975AMB/ELL2, 1984BOU/FRI]
	$\Delta_v H$	(279–323)	37.0	294	MM	[1987STE/MAL, 1969FIN]
$C_6H_2F_4$	[2367-82-0]	1,2,3,5-tetrafluorobenzene				
	$\Delta_{fus}H$		10.67	226.9		[1973AND/MAR]
	$\Delta_v H$	(385–416)	32.4	400	A	[1987STE/MAL]
	$\Delta_v H$	(290–380)	36.0	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(287–382)	36.0	302	A	[1987STE/MAL, 1975AMB/ELL2, 1984BOU/FRI]
	$\Delta_v H$	(279–323)	36.0	294	MM	[1987STE/MAL, 1969FIN]
$C_6H_2F_4$	[327-54-8]	1,2,4,5-tetrafluorobenzene				
	$\Delta_{fus}H$		15.05	277		[1973AND/MAR]
	$\Delta_v H$	(290–390)	37.2	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(390–488)	33.1	405	A	[1987STE/MAL]
	$\Delta_v H$	(488–543)	32.6	503	A	[1987STE/MAL]
	$\Delta_v H$	(293–390)	36.8	308	A	[1987STE/MAL, 1975AMB/ELL2, 1984BOU/FRI]
$C_6H_2F_5N$	[771-60-8]	pentafluoroaniline				
	$\Delta_{trs}H$		3.94	287.4		
	$\Delta_{fus}H$		14.27	306.8		[1996DOM/HEA]
$C_6H_2F_{12}O$	[176310-30-8]	1,1,1,2,2,3,3,-heptafluoro-3-(2,2,3,3,3-pentafluoropropoxy)propane				
	$\Delta_v H$	(288–344)	34.8	303	I	[2002MUR/YAM]
$C_6H_2F_{12}O_3$	[205367-61-9]	1,1′-oxy*bis*[2-(difluoromethoxy)-1,1,2,2-tetrafluoroethane]				
	$\Delta_v H$	(268–283)	38.5 ± 0.8			[1999MAR/BAS]
$C_6H_2F_{12}O_3S$	[53517-89-9]	*bis*(1,1,1,3,3,3-hexafluoro-2-propanol) sulfite				
	$\Delta_v H$		42.4			[1975DEM/KOV]
$C_6H_2F_{12}O_4$	[249932-26-1]	1,1,3,3,5,5,7,7,8,8,10,10-dodecafluoro-12,4,6,9-tetraoxadecane				
	$\Delta_v H$	(263–381)	42.3 ± 0.4			[1999MAR/BAS]
$C_6H_2F_{14}NP$	[na]	amino *bis*(heptafluoropropyl)phosphine				
	$\Delta_v H$	(293–393)	38.7	343		[1959EME/SMI]
$C_6H_2N_4$	[13481-25-9]	2,3-dicyanopyrazine				
	$\Delta_{fus}H$		19.8	405.1	DSC	[2006MIR/MOR]
	$\Delta_{sub}H$		89.1 ± 2.7	298	C	[2006MIR/MOR]
$C_6H_2N_4O_6$	[5128-28-9]	4,6-dinitrobenzofurazan 1-oxide				
	$\Delta_{fus}H$		20.73	452.7		[1983RED/MUR]
$C_6H_3BrCl_2O$	[45524-77-0]	2-bromo-4,6-dichlorophenol				
	$\Delta_v H$	(357–541)	58.6	372	A	[1987STE/MAL, 1947STU]
$C_6H_3BrCl_2O$	[1940-42-7]	4-bromo-2,5-dichlorophenol				
	$\Delta_{fus}H$		22.11	343.4	DSC	[1990DON/DRE]
$C_6H_3Br_3$	[615-54-3]	1,2,4-tribromobenzene				
	$\Delta_{fus}H$		17.9	317		[2004KUR/MAE2]
$C_6H_3Br_3$	[626-39-1]	1,3,5-tribromobenzene				
	$\Delta_{fus}H$		21.72	395		[2005VAN/VAN]
$C_6H_3Br_3NO_2$	[3460-18-2]	2,5-dibromonitrobenzene				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(302–322)	96.8 ± 0.4	312	ME	[2009RIB/FER8]
	$\Delta_{sub}H$	(302–322)	97.0 ± 0.4	298	ME	[2009RIB/FER8]
$C_6H_3Br_3O$	[118-79-6]	2,4,6-tribromophenol				
	$\Delta_{fus}H$		20.9	367.5		[2004KUR/MAE]
	$\Delta_{fus}H$		18.52	366.2		[1991ACR]
	$\Delta_{sub}H$		97.6 ± 1.1			[1987ALL/FIN]
$C_6H_3ClN_2O_2$	[17348-69-5]	5-chlorobenzofurazan-1-oxide				
	$\Delta_{sub}H$		81.2 ± 1.8	298	C	[1996ACR/BOT]
$C_6H_3ClN_2O_4$	[97-00-7]	1-chloro-2,4-dinitrobenzene				
	$\Delta_{fus}H$		20.17	325.2		[1932KUB]
	Δ_vH	(430–590)	80.5	445	A	[1987STE/MAL]
$C_6H_3ClN_2O_4$	[606-21-3]	2,6-dinitrochlorobenzene				
	$\Delta_{fus}H$		18.95	361.2		[1932KUB]
$C_6H_3ClO_2$	[695-99-8]	chlorobenzoquinone				
	$\Delta_{sub}H$	(264–289)	69.0 ± 8.3	276	QF	[1927COO/COO, 1960JON, 1970COX/PIL]
$C_6H_3Cl_2NO_2$	[611-06-3]	2,4-dichloro-1-nitrobenzene				
	$\Delta_{sub}H$		87.8 ± 1.7	298	C	[2009RIB/FER9]
$C_6H_3Cl_2NO_2$	[89-61-2]	2,5-dichloro-1-nitrobenzene				
	$\Delta_{sub}H$		87.4 ± 2.4	298	C	[2009RIB/FER9]
$C_6H_3Cl_2NO_2$	[99-54-7]	3,4-dichloro-1-nitrobenzene				
	$\Delta_{fus}H$		17.95	314.1	DSC	[2003VER/SCH]
	$\Delta_{fus}H$		17.6	316		[1981MAS/OLE]
	$\Delta_{sub}H$		85.8 ± 2.5	298	C	[2009RIB/FER9]
	$\Delta_{sub}H$	(283–311)	83.1 ± 0.6	298	GS	[2003VER/SCH]
	Δ_vH	(316–346)	65.2 ± 0.2	298	GS	[2003VER/SCH]
	Δ_vH	(417–515)	55.5	432	A	[1987STE/MAL]
$C_6H_3Cl_2NO_2$	[618-62-2]	3,5-dichloro-1-nitrobenzene				
	$\Delta_{sub}H$		83.2 ± 1.5	298	C	[2009RIB/FER9]
$C_6H_3Cl_3$	[120-82-1]	1,2,4-trichlorobenzene				
	$\Delta_{sub}H$	(279–298)	62.3	289	RG	[1949SEA/HOP, 1960JON]
	Δ_vH		55.8	290		[1999ROH/RUZ]
	Δ_vH	(391–490)	49.5	406	EB	[1998ROH/RUZ]
	Δ_vH	(413–453)	57.6	298	GC	[1994SPI/LUI]
	Δ_vH		55.5 ± 0.1	298	C	[1987YAN/GU]
	Δ_vH	(279–298)	47.0	288	RG	[1949SEA/HOP]
	Δ_vH	(311–486)	49.3	326		[1947STU]
$C_6H_3Cl_3$	[87-61-6]	1,2,3-trichlorobenzene				
	$\Delta_{fus}H$		20.5	326.9		[1991ACR]
	$\Delta_{fus}H$		17.25	322.9	DSC	[1990DON/DRE]
	$\Delta_{sub}H$	(258–313)	72.7			[1994LIU/DIC]
	$\Delta_{sub}H$		75.1 ± 0.75	298		[1985YAN/GU, 1987YAN/GU]
	$\Delta_{sub}H$	(289–303)	65.7	296	RG	[1949SEA/HOP, 1960JON]
	Δ_vH		54.5	325		[1999ROH/RUZ]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(413–453)	57.2	298	GC	[1994SPI/LUI]
	$\Delta_v H$	(258–313)	54.3		GC	[1994LIU/DIC]
	$\Delta_v H$	(293–383)	53.5	308	A	[1987STE/MAL]
	$\Delta_v H$	(313–492)	47.4	328	A	[1987STE/MAL, 1947STU]
$C_6H_3Cl_3$	[108-70-3]	1,3,5-trichlorobenzene				
	$\Delta_{fus}H$		17.56	335.9		[2005VAN/VAN]
	$\Delta_{fus}H$		18.2	336.7		[1991ACR]
	$\Delta_{sub}H$		72.7 ± 0.5	298		[1985YAN/GU, 1987YAN/GU]
	$\Delta_{sub}H$	(282–301)	56.5	291	RG	[1949SEA/HOP, 1960JON]
	$\Delta_v H$	(338–415)	50.3 ± 0.1	375	DM	[2001BLO/VAN]
	$\Delta_v H$		51.7	337		[1999ROH/RUZ]
	$\Delta_v H$	(413–453)	59	298	GC	[1994SPI/LUI]
	$\Delta_v H$	(336–482)	48.8	351	A	[1987STE/MAL, 1947STU]
$C_6H_3Cl_3O$	[95-95-4]	2,4,5-trichlorophenol				
	$\Delta_{fus}H$		21.59	340.3	DSC	[1990DON/DRE]
	$\Delta_v H$	(345–525)	54.5	360	A	[1987STE/MAL, 1947STU]
$C_6H_3Cl_3O$	[88-06-2]	2,4,6-trichlorophenol				
	$\Delta_{sub}H$	(299–340)	82.3 ± 0.3	298	GS	[2007FRE/OLI]
	$\Delta_v H$	(343–375)	62.5	359	GS	[2007VER/EME]
	$\Delta_v H$	(343–375)	67.2 ± 0.3	298	GS	[2007VER/EME]
	$\Delta_v H$	(344–463)	58.2	404		[1995MOK/PAU, 2007VER/EME]
	$\Delta_v H$	(344–463)	66.1 ± 0.4	298		[1995MOK/PAU, 2007VER/EME]
	$\Delta_v H$	(349–519)	58.8	364	A	[1987STE/MAL, 1947STU]
$C_6H_3Cl_3O_2$	[56961-20-7]	3,4,5-trichloro-1,2-benzenediol				
	$\Delta_v H$	(293–323)	79.3	308	CGC	[1999LEI/WAN2]
$C_6H_3Cl_3O_2$	[608-94-6]	trichlorohydroquinone				
	$\Delta_{sub}H$	(298–336)	101.5	313	A	[1987STE/MAL]
	$\Delta_{sub}H$	(314–335)	101.3	324	QF	[1927COO/COO, 1960JON]
$C_6H_3Cl_4N$	[3481-20-7]	2,3,5,6-tetrachloroaniline				
	$\Delta_{sub}H$		86.0 ± 2.0	298	C	[2007RIB/AMA3]
$C_6H_3Cl_4N$	[69045-78-9]	2-chloro-5-(trichloromethyl)pyridine				
	$\Delta_{fus}H$	(80–345)	14.5	324.7	AC	[2004KON/TAN]
$C_6H_3Cl_4N$	[1929-82-4]	2-chloro-6-(trichloromethyl)pyridine				
	$\Delta_{fus}H$	(13–316)	20.3	337.8	AC	[1996DOM/HEA]
$C_6H_3F_3$	[372-38-3]	1,3,5-trifluorobenzene				
	$\Delta_v H$	(280–320)	33.9	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(279–350)	34.5	294	A,MM	[1987STE/MAL, 1969FIN, 1972DYK]
$C_6H_3F_4N$	[363-73-5]	2,3,4,6-tetrafluoroaniline				
	$\Delta_v H$		50.4 ± 0.6	298	C	[2007RIB/FER]
$C_6H_3F_9O_2$	[42031-16-3]	trifluoroacetic acid, 2,2,2-trifluoro-1-methyl-1-(trifluoromethyl)ethyl ester				
	$\Delta_v H$		33.5	338	HG	[1973MAJ/SHR]
$C_6H_3F_9O_2$	[24165-09-1]	acetic acid, 2,2,2-trifluoro-1,1-*bis*(trifluoromethyl)ethyl ester				
	$\Delta_v H$	(273–328)	40.1	288	A	[1987STE/MAL, 1975WAL/DES2]
$C_6H_3F_{10}NS$	[54120-08-0]	2,2,2-trifluoro-N-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]ethanimidothioic acid, methyl ester				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		31.6	383		[1975PET/SHR]
$C_6H_3F_{11}O$	[176310-29-5]	1,1,1,2,2,3,3-heptafluoro-3-(2,2,3,3-tetrafluoropropoxy)propane				
	$\Delta_v H$	(288–357)	37.2	303	I	[2002MUR/YAM]
$C_6H_3F_{11}O$	[181214-74-4]	1,1,1,2,2,3,3,4,4,5,5-undecafluoro-5-methoxypentane				
	$\Delta_v H$	(288–358)	36.6	303	I	[2002MUR/YAM]
$C_6H_3F_{11}O$	[203783-56-6]	1,1,1,2,3,3,4,4-octafluoro-4-methoxy-2-(trifluoromethyl)butane				
	$\Delta_v H$	(288–357)	36		I	[2002MUR/YAM]
$C_6H_3F_{11}O$	[290-28-8]	1,1,1,2,3,3-hexafluoro-3-(2,2,3,3,3-pentafluoropropoxy)propane				
	$\Delta_v H$	(293–360)	38.4	308	I	[2002MUR/YAM]
$C_6H_3N_3O_4$	[18771-85-2]	4-nitrobenzofurazan-1-oxide				
	$\Delta_{sub}H$		97.3 ± 1.6	298	C	[1996ACR/BOT]
$C_6H_3N_3O_6$	[603-13-4]	1,2,3-trinitrobenzene				
	$\Delta_v H$	(523–573)	60.3	538	A	[1987STE/MAL, 1968MAK, 1972DYK]
$C_6H_3N_3O_6$	[610-31-1]	1,2,4-trinitrobenzene				
	$\Delta_v H$	(523–573)	82.6	538	A	[1987STE/MAL, 1968MAK, 1972DYK]
$C_6H_3N_3O_6$	[99-35-4]	1,3,5-trinitrobenzene				
	$\Delta_{trs}H$		1.9	370		
	$\Delta_{fus}H$		14.81	380.3		[1996DOM/HEA]
	$\Delta_{sub}H$	(313–395)	107.3 ± 0.6	298	ME	[1978CUN/PAL]
	$\Delta_{sub}H$		99.6 ± 2.1			[1950NIT/SEK, 1970COX/PIL]
	$\Delta_v H$	(475–585)	70.3	490	A	[1987STE/MAL, 1968MAK, 1972DYK]
$C_6H_3N_3O_7$	[88-89-1]	2,4,6-trinitrophenol (picric acid)				
	$\Delta_{fus}H$		17.1	394.1		[1996DOM/HEA]
	$\Delta_{sub}H$		106.3		DSC	[1990HWA/YOS]
	$\Delta_{sub}H$	(314–406)	105.1 ± 1.6	298	ME	[1978CUN/PAL]
	$\Delta_v H$		87.9		DSC	[1990HWA/YOS]
	$\Delta_v H$	(468–598)	106.4	483	A	[1987STE/MAL]
	Note: The value of 106.4 kJ/mole from [1987STE/MAL] is likely an enthalpy of sublimation					
$C_6H_3N_3O_8$	[82-71-3]	2,4,6-trinitroresorcinol (styphnic acid)				
	$\Delta_{fus}H$		33.5	454.8		[1996DOM/HEA]
	$\Delta_{sub}H$		120.1		DSC	[1990HWA/YOS]
	$\Delta_{sub}H$	(325–436)	120.8 ± 1.1	298	ME	[1978CUN/PAL]
	$\Delta_v H$		92.9		DSC	[1990HWA/YOS]
C_6H_4BrCl	[694-80-4]	1-bromo-2-chlorobenzene				
	$\Delta_{fus}H$		12.37	260.6		[1996DOM/HEA]
C_6H_4BrCl	[108-37-2]	1-bromo-3-chlorobenzene				
	$\Delta_{fus}H$		12.29	252		[1996DOM/HEA]
	$\Delta_v H$	(252–469)	52.2	267	A	[1987STE/MAL, 1972DYK]
C_6H_4BrCl	[106-39-8]	1-bromo-4-chlorobenzene				
	$\Delta_{fus}H$	(6–350)	18.4	338	AC	[2000TOZ/AKU]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		18.76	337.8		[1996DOM/HEA]
	$\Delta_{sub}H$		69.34 ± 0.11	298	DM	[2000OON/VAN]
	$\Delta_{sub}H$	(250–335)	69.3 ± 0.4	298	TE,ME,DM	[1998OON/VAN]
	$\Delta_{sub}H$		69.1 ± 0.2	298		[1998OON/VAN]
	$\Delta_{sub}H$	(294–337)	67.9 ± 0.8	316		[1961WAL/SMI]
	$\Delta_{v}H$	(333–470)	49.1	348	A	[1987STE/MAL]
	$\Delta_{v}H$	(305–470)	49.7	320		[1947STU]
C_6H_4BrI	[583-55-1]	1-bromo-2-iodobenzene				
	$\Delta_{fus}H$		14.42	294.2		[1991ACR]
C_6H_4BrI	[591-18-4]	1-bromo-3-iodobenzene				
	$\Delta_{fus}H$		12.16	282.5		[1991ACR]
C_6H_4BrI	[589-87-7]	1-bromo-4-iodobenzene				
	$\Delta_{fus}H$		19.38	363.5		[2001VAN/OON]
	$\Delta_{fus}H$		19.13	363.3		[1991ACR]
	$\Delta_{sub}H$		78.53 ± 0.16	298	DM	[2000OON/VAN]
	$\Delta_{sub}H$	(279–355)	78.5 ± 0.4	298	ME,TE,DM	[1998OON/VAN]
$C_6H_4BrNO_2$	[577-19-5]	2-bromo-1-nitrobenzene				
	$\Delta_{sub}H$	(275–295)	85.5 ± 0.3	285	ME	[2010RIB/FER4]
	$\Delta_{sub}H$	(275–295)	85.2 ± 0.3	298	ME	[2010RIB/FER4]
$C_6H_4BrNO_2$	[585-79-5]	3-bromo-1-nitrobenzene				
	$\Delta_{sub}H$	(280–295)	87.0 ± 0.5	287	ME	[2010RIB/FER4]
	$\Delta_{sub}H$	(280–295)	86.8 ± 0.5	298	ME	[2010RIB/FER4]
$C_6H_4BrNO_2$	[586-78-7]	4-bromo-1-nitrobenzene				
	$\Delta_{sub}H$	(289–309)	86.6 ± 0.6	299	ME	[2010RIB/FER4]
	$\Delta_{sub}H$	(289–309)	86.6 ± 0.6	298	ME	[2010RIB/FER4]
	$\Delta_{sub}H$	(293–303)	88.3	303	ME	[1987STE/MAL, 1925SWA/MAC]
$C_6H_4Br_2$	[583-53-9]	1,2-dibromobenzene				
	$\Delta_{fus}H$		12.61	275		[1991ACR]
	$\Delta_{v}H$	(388–568)	50.1	403	A	[1987STE/MAL, 1972DYK]
$C_6H_4Br_2$	[108-36-1]	1,3-dibromobenzene				
	$\Delta_{fus}H$		13.21	266.3		[1991ACR]
	$\Delta_{v}H$	(417–500)	48.3	432	A	[1987STE/MAL]
$C_6H_4Br_2$	[106-37-6]	1,4-dibromobenzene				
	$\Delta_{fus}H$		18.6	357.7		
	$\Delta_{fus}H$		20.39	360.5		[2004KUR/MAE2, 2005VAN/VAN]
	$\Delta_{fus}H$		20.04	360.1		[1991ACR]
	$\Delta_{sub}H$		74.23 ± 0.11	298	ME	[2000OON/VAN]
	$\Delta_{sub}H$	(298–354)	73.2	313		[1987STE/MAL]
	$\Delta_{sub}H$	(278–353)	73.3 ± 0.4	326		[1961WAL/SMI]
	$\Delta_{sub}H$	(228–347)	73.8	288		[1959STE/GRE]
	$\Delta_{sub}H$	(248–303)	59.8	298	ME,GS	[1940ZIB, 1960JON]
	$\Delta_{v}H$	(373–493)	49.9	388	A	[1987STE/MAL, 1972DYK]
$C_6H_4Br_2O$	[615-58-7]	2,4-dibromophenol				
	$\Delta_{fus}H$		14.64	313		[1991ACR]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_4Br_3N$	[147-82-0]	2,4,6-tribromoaniline				
	$\Delta_{fus}H$		25.75	393	DSC	[2006RIB/FER]
	$\Delta_{sub}H$		96.7 ± 1.7	298	C	[2006RIB/FER]
	$\Delta_{sub}H$		101.1 ± 1.1			[1987ALL/FIN]
C_6H_4ClF	[625-98-9]	1-chloro-3-fluorobenzene				
	Δ_vH	(273–403)	37.4	288	A	[1987STE/MAL]
C_6H_4ClF	[352-33-0]	1-chloro-4-fluorobenzene				
	$\Delta_{fus}H$		13.9	245		[2004CER/PER]
C_6H_4ClF	[352-33-0]	1-chloro-4-iodobenzene				
	$\Delta_{fus}H$		16.1	326.7		[2000VAN/OON]
	$\Delta_{sub}H$		71.86 ± 0.21	298	DM	[2000OON/VAN]
	$\Delta_{sub}H$	(259–320)	71.9 ± 0.4	298	ME,TE,DM	[1998OON/VAN]
	$\Delta_{sub}H$	(303–323)	61.1 ± 0.6			[1953EWA, 1960JON]
	Δ_vH	(333–500)	56.5	348	A	[1987STE/MAL]
$C_6H_4ClNO_2$	[88-73-3]	1-chloro-2-nitrobenzene				
	$\Delta_{fus}H$		18.21	305.8		[2003VER/SCH]
	$\Delta_{fus}H$		18.11	305.8		[2007STR/RUZ]
	$\Delta_{fus}H$		19.08	308.2		[1981MAS/OLE]
	$\Delta_{sub}H$		80.9 ± 1.5	298	C	[2009RIB/FER7]
	$\Delta_{sub}H$	(278–305)	80.8 ± 0.3	298	GS	[2003VER/SCH]
	Δ_vH	(307–334)	60.4 ± 0.3	298	GS	[2003VER/SCH]
	Δ_vH	(420–516)	52.1	435	EB	[1984PUT/IVA]
$C_6H_4ClNO_2$	[121-73-3]	1-chloro-3-nitrobenzene				
	$\Delta_{fus}H$		18.65	318		[2003VER/SCH]
	$\Delta_{fus}H$		19.52	316.9		[2007STR/RUZ]
	$\Delta_{fus}H$		19.37	317.6		[1991ACR]
	$\Delta_{sub}H$		82.5 ± 1.5	298	C	[2009RIB/FER7]
	$\Delta_{sub}H$	(281–314)	81.3 ± 0.3	298	GS	[2003VER/SCH]
	$\Delta_{sub}H$	(275–286)	74.7 ± 1.7			[1935TRI, 1938WOL/WEG]
	Δ_vH	(319–364)	60.2 ± 0.2	298	GS	[2003VER/SCH]
	Δ_vH	(414–506)	51.5	429	EB	[1984PUT/IVA]
$C_6H_4ClNO_2$	[100-00-5]	1-chloro-4-nitrobenzene				
	$\Delta_{fus}H$		15.03	355.1		[2007STR/RUZ]
	$\Delta_{fus}H$		16.17	356.1	DSC	[2003VER/SCH]
	$\Delta_{fus}H$		11.85	354.6		[1996DOM/HEA]
	$\Delta_{fus}H$		14.1	357		[1981MAS/OLE]
	$\Delta_{sub}H$	(303–339)	74.7 ± 0.1	298	GS	[2003VER/SCH]
	$\Delta_{sub}H$	(283–303)	83.2	293	ME	[1987STE/MAL, 1925SWA/MAC]
	Δ_vH	(385–515)	51.3	400	A	[1987STE/MAL]
$C_6H_4ClNO_3$	[619-08-9]	2-chloro-4-nitrophenol				
	$\Delta_{fus}H$		20.88	380.7		[2007MOR/MIR]
	$\Delta_{sub}H$		99.0 ± 2.1	298	C	[2007MOR/MIR]
$C_6H_4ClNO_3$	[89-64-5]	4-chloro-2-nitrophenol				
	$\Delta_{fus}H$		22.69	360.3		[2007MOR/MIR]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		87.6 ± 0.9	298	C	[2007MOR/MIR]
$C_6H_4ClNO_3$	[610-78-6]	4-chloro-3-nitrophenol				
	$\Delta_{fus}H$		25.97	399.4		[2007MOR/MIR]
	$\Delta_{sub}H$		111.0 ± 3.3	298	C	[2007MOR/MIR]
$C_6H_4ClNO_3$	[54127-63-8]	5-chloro-6-hydroxynicotinic acid				
	$\Delta_{sub}H$	(457–487)	149.1 ± 2.6	472	DSC	[2009SAN/FIG]
	$\Delta_{sub}H$	(457–487)	151.3 ± 2.8	298	DSC	[2009SAN/FIG]
$C_6H_4ClN_3O_4$	[3531-19-9]	2-chloro-4,6-dinitroaniline				
	$\Delta_{sub}H$	(358–380)	114.2 ± 0.5	369	ME	[2010RIB/RIB]
	$\Delta_{sub}H$	(358–380)	115.0 ± 0.9	298	ME	[2010RIB/RIB]
$C_6H_4ClN_3O_4$	[5388-62-5]	4-chloro-2,6-dinitroaniline				
	$\Delta_{sub}H$	(335–359)	104.7 ± 0.4	347	ME	[2010RIB/RIB]
	$\Delta_{sub}H$	(335–359)	105.2 ± 0.7	298	ME	[2010RIB/RIB]
$C_6H_4Cl_2$	[95-50-1]	1,2-dichlorobenzene				
	$\Delta_{fus}H$		12.4	255.9	DSC	[2009WEI/JIN, 2008WEI]
	$\Delta_{fus}H$		12.93	256.5		[1991ACR]
	Δ_vH		51.2	256		[1999ROH/RUZ]
	Δ_vH	(363–454)	44.5	376	EB	[1998ROH/RUZ]
	Δ_vH	(256–287)	50.8	271		[1996POL/GUE]
	Δ_vH	(413–453)	50.9	298	GC	[1994SPI/LUI]
	Δ_vH	(258–313)	51.2		GC	[1994LIU/DIC]
	Δ_vH		48.5 ± 0.1	298	C	[1989ZN/ZHE]
	Δ_vH	(373–453)	44.0	388	A	[1987STE/MAL]
	Δ_vH	(360–450)	49.9	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH	(301–343)	50.0	322	GS	[1982GRA/FOS]
$C_6H_4Cl_2$	[541-73-1]	1,3-dichlorobenzene				
	$\Delta_{fus}H$		12.6	248.3	DSC	[2009WEI/JIN, 2008WEI]
	$\Delta_{fus}H$		12.64	248.4		[1991ACR]
	Δ_vH		50.4	248		[1999ROH/RUZ]
	Δ_vH	(357–448)	44.1	372	EB	[1998ROH/RUZ]
	Δ_vH	(250–274)	50.0	262		[1996POL/GUE]
	Δ_vH	(413–453)	53.9	298	GC	[1994SPI/LUI]
	Δ_vH	(360–450)	47.0	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH	(348–513)	44.7	363	A	[1987STE/MAL, 1972DYK]
$C_6H_4Cl_2$	[106-46-7]	1,4-dichlorobenzene				
	$\Delta_{fus}H$		18.19	326.2	DSC	[2009WEI/JIN, 2008WEI]
	$\Delta_{trs}H$		1.24	275		
	$\Delta_{trs}H$		0.18	306		
	$\Delta_{fus}H$	(5–380)	17.91	326.2	AC	[2005VAN/VAN]
	$\Delta_{fus}H$		18.16	326		[1991ACR]
	$\Delta_{sub}H$		64.75 ± 0.15	298	DM	[2000OON/VAN]
	$\Delta_{sub}H$	(258–313)	53.1			[1994LIU/DIC]
	$\Delta_{sub}H$		65.2 ± 2.0	298	C	[1989AN/ZHE]
	$\Delta_{sub}H$	(303–423)	65.4	313	GS	[1985ROR]
	$\Delta_{sub}H$		65.7			[1981DEK/VAN]
	$\Delta_{sub}H$	(293–311)	64.8 ± 0.8	303		[1961WAL/SMI, 1970COX/PIL]
	$\Delta_{sub}H$	(311–325)	63 ± 0.4	318		[1961WAL/SMI]
	$\Delta_{sub}H$	(248–303)	56.9	275	ME	[1940DAR/VER, 1960JON]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		46.4	326		[1999ROH/RUZ]
	$\Delta_v H$	(358–448)	44.2	373	EB	[1998ROH/RUZ]
	$\Delta_v H$	(413–453)	54.8	298	GC	[1994SPI/LUI]
	$\Delta_v H$	(258–313)	U 35.0		GC	[1994LIU/DIC]
	$\Delta_v H$	(341–448)	45.0	356	A	[1987STE/MAL]
	$\Delta_v H$	(370–450)	47.8	298		[1984BOU/FRI, 1991BAS/SVO]
$C_6H_4Cl_2N_2O_2$	[6627-34-5]	2,5-dichloro-4-nitrobenzenamine				
	$\Delta_{sub}H$	(352–374)	113.2 ± 0.6	363	ME	[2009RIB/RIB]
	$\Delta_{sub}H$	(352–374)	114.3 ± 0.9	298	ME	[2009RIB/RIB]
$C_6H_4Cl_2N_2O_2$	[99-30-9]	2,6-dichloro-4-nitroaniline				
	$\Delta_{fus}H$		29.48	467.2	DSC	[1991ACR, 1990DON/DRE]
	$\Delta_{sub}H$	(344–366)	108.2 ± 0.6	355	ME	[2009RIB/RIB]
	$\Delta_{sub}H$	(344–366)	109.2 ± 0.9	298	ME	[2009RIB/RIB]
$C_6H_4Cl_2N_2O_2$	[6641-64-1]	4,5-dichloro-2-nitroaniline				
	$\Delta_{sub}H$	(351–367)	108.4 ± 0.7	359	ME	[2009RIB/RIB2]
	$\Delta_{sub}H$	(351–367)	109.4 ± 0.9	298	ME	[2009RIB/RIB2]
$C_6H_4Cl_2O$	[576-24-9]	2,3-dichlorophenol				
	$\Delta_{fus}H$		21.36	330		[1991ACR]
	$\Delta_{sub}H$	(294–327)	76.9 ± 0.4	298	GS	[2007VER/EME]
	$\Delta_{sub}H$		71.7 ± 2.2	298	C	[1994RIB/FER2]
	$\Delta_v H$	(331–358)	57.3 ± 0.2	298	GS	[2007VER/EME]
$C_6H_4Cl_2O$	[128-83-2]	2,4-dichlorophenol				
	$\Delta_{fus}H$		20.09	318		[1996DOM/HEA]
	$\Delta_{sub}H$	(278–315)	78.0 ± 0.3	298	GS	[2007VER/EME]
	$\Delta_{sub}H$		70.1 ± 1.1	298	C	[1994RIB/FER2]
	$\Delta_v H$	(317–344)	56.6	331	GS	[2007VER/EME]
	$\Delta_v H$	(317–344)	59.0 ± 0.4	298	GS	[2007VER/EME]
	$\Delta_v H$	(323–443)	52.3	383		[1995MOK/PAU, 2007VER/EME]
	$\Delta_v H$	(323–443)	58.1 ± 0.3	298		[1995MOK/PAU, 2007VER/EME]
	$\Delta_v H$	(326–483)	60.8	341	A	[1987STE/MAL, 1947STU, 1975ARR/MEL]
$C_6H_4Cl_2O$	[583-78-8]	2,5-dichlorophenol				
	$\Delta_{fus}H$		22.43	331		[1996DOM/HEA]
	$\Delta_{sub}H$	(294–327)	77.3 ± 0.1	298	GS	[2007VER/EME]
	$\Delta_{sub}H$		73.6 ± 2.1	298	C	[1994RIB/FER2]
	$\Delta_v H$	(333–361)	53.1	347	GS	[2007VER/EME]
	$\Delta_v H$	(333–361)	56.7 ± 0.1	298	GS	[2007VER/EME]
$C_6H_4Cl_2O$	[87-65-0]	2,6-dichlorophenol				
	$\Delta_{fus}H$		22.14	340		[1996DOM/HEA]
	$\Delta_{sub}H$	(299–331)	79.3 ± 0.2	298	GS	[2007VER/EME]
	$\Delta_{sub}H$		75.8 ± 1.1	298	C	[1994RIB/FER2]
	$\Delta_v H$	(341–371)	55.4	356	GS	[2007VER/EME]
	$\Delta_v H$	(341–371)	59.6 ± 0.3	298	GS	[2007VER/EME]
	$\Delta_v H$	(343–457)	51.6	400		[1995MOK/PAU, 2007VER/EME]
	$\Delta_v H$	(343–457)	58.5 ± 0.5	298		[1995MOK/PAU, 2007VER/EME]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(333–493)	57.9	348	A	[1987STE/MAL, 1947STU]
$C_6H_4Cl_2O$	[95-77-2]	3,4-dichlorophenol				
	$\Delta_{fus}H$		20.93	341		[1996DOM/HEA]
	$\Delta_{sub}H$	(291–337)	89.8 ± 0.4	298	GS	[2007VER/EME]
	$\Delta_{sub}H$		81.3 ± 2.3	298	C	[1994RIB/FER2]
	$\Delta_v H$	(341–368)	66.7	355	GS	[2007VER/EME]
	$\Delta_v H$	(341–368)	70.8 ± 0.2	298	GS	[2007VER/EME]
$C_6H_4Cl_2O$	[591-35-5]	3,5-dichlorophenol				
	$\Delta_{fus}H$		20.51	341		[1996DOM/HEA]
	$\Delta_{sub}H$		82.8 ± 1.1	298	C	[1994RIB/FER2]
	$\Delta_{sub}H$	(273–295)	71.8	284		[1987STE/MAL]
$C_6H_4Cl_2O_2$	[3428-24-8]	4,5-dichloro-1,2-benzenediol				
	$\Delta_v H$	(293–323)	70.5	308	CGC	[1999LEI/WAN2]
$C_6H_4Cl_2O_2$	[20103-10-0]	2,6-dichlorohydroquinone				
	$\Delta_{sub}H$	(324–345)	92.0 ± 8.3		QF	[1927COO/COO, 1960JON, 1970COX/PIL]
$C_6H_4Cl_2O_3$	[na]	vinyl mucochlorate				
	$\Delta_v H$	(273–333)	63.9	288	A	[1987STE/MAL]
$C_6H_4Cl_3N$	[634-67-3]	2,3,4-trichloroaniline				
	$\Delta_{sub}H$		92.4 ± 1.7	298	C	[2002RIB/AMA]
$C_6H_4Cl_3N$	[636-30-6]	2,4,5-trichloroaniline				
	$\Delta_{sub}H$		86.3 ± 2.5	298	C	[2002RIB/AMA]
$C_6H_4Cl_3N$	[634-93-5]	2,4,6-trichloroaniline				
	$\Delta_{sub}H$		85.3 ± 1.9	298	C	[2002RIB/AMA]
	$\Delta_v H$	(407–535)	92.9	422	A	[1987STE/MAL, 1947STU]
	Note: Enthalpy of vaporization is likely in error					
$C_6H_4Cl_3N$	[634-91-3]	3,4,5-trichloroaniline				
	$\Delta_{sub}H$		92.9 ± 3.3	298	C	[2002RIB/AMA]
$C_6H_4F_2$	[367-11-3]	1,2-difluorobenzene				
	$\Delta_{fus}H$		11.05	226		[1996DOM/HEA]
	$\Delta_v H$	(300–400)	36.2	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(304–403)	35.5	319	EB	[1963SCO/MES, 1984BOU/FRI]
	$\Delta_v H$		34.6 ± 0.1	327	C	[1963SCO/MES]
	$\Delta_v H$		33.5 ± 0.1	345	C	[1963SCO/MES]
	$\Delta_v H$		32.2 ± 0.1	367	C	[1963SCO/MES]
$C_6H_4F_2$	[372-18-9]	1,2-difluorobenzene				
	$\Delta_{trs}H$		0.83	186.8		
	$\Delta_{fus}H$		8.58	204		[1996DOM/HEA]
	$\Delta_v H$	(310–400)	34.6	298		[1980OSB/SCO, 1991BAS/SVO]
$C_6H_4F_2$	[540-36-3]	1,4-difluorobenzene				
	$\Delta_v H$	(300–400)	35.8	298		[1980OSB/SCO, 1991BAS/SVO]
$C_6H_4F_2O$	[6418-38-8]	2,3-difluorophenol				
	$\Delta_{sub}H$		68.2 ± 1.5	298	C	[2010RIB/FER2]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_4F_2O$	[367-27-1]	2,4-difluorophenol				
	$\Delta_v H$		58.8 ± 0.9	298	C	[2010RIB/FER2]
$C_6H_4F_2O$	[2713-31-7]	2,5-difluorophenol				
	$\Delta_{sub}H$		68.0 ± 1.4	298	C	[2010RIB/FER2]
$C_6H_4F_2O$	[28177-48-2]	2,6-difluorophenol				
	$\Delta_{sub}H$		77.8 ± 2.0	298	C	[2010RIB/FER2]
$C_6H_4F_2O$	[2713-33-9]	3,4-difluorophenol				
	$\Delta_{sub}H$		72.9 ± 1.5	298	C	[2010RIB/FER2]
$C_6H_4F_2O$	[2713-34-0]	3,5-difluorophenol				
	$\Delta_{sub}H$		72.8 ± 1.5	298	C	[2010RIB/FER2]
$C_6H_4F_3N$	[3862-73-5]	2,3,4-trifluoroaniline				
	$\Delta_v H$		53.7 ± 0.5	298	C	[2007RIB/FER]
$C_6H_4F_3N$	[67815-56-9]	2,3,6-trifluoroaniline				
	$\Delta_v H$		50.1 ± 0.5	298	C	[2007RIB/FER]
$C_6H_4F_{10}O$	[65064-78-0]	1,1,1,2,3,3-hexafluoro-3-(2,2,3,3-tetrafluoropropoxy)propane				
	$\Delta_v H$	(293–379)	42.3	308	I	[2002MUR/YAM]
$C_6H_4INO_2$	[609-73-4]	2-iodo-1-nitrobenzene				
	$\Delta_v H$	(433–563)	59.9	448	A	[1987STE/MAL]
$C_6H_4INO_2$	[645-00-1]	3-iodo-1-nitrobenzene				
	$\Delta_{sub}H$	(295–306)	83.2 ± 1.2	300		[1935TRI, 1938WOL/WEG, 1960JON]
$C_6H_4I_2$	[615-42-9]	1,2-diiodobenzene				
	$\Delta_{fus}H$		14.01	296.6		[1991ACR]
$C_6H_4I_2$	[626-00-6]	1,3-diiodobenzene				
	$\Delta_{fus}H$		15.93	307.4		[1991ACR]
$C_6H_4I_2$	[624-38-4]	1,4-diiodobenzene				
	$\Delta_{trs}H$		0.22	320		
	$\Delta_{fus}H$		22.3	402.4		[2001VAN/OON]
	$\Delta_{fus}H$		22.37	402		[1991ACR]
	$\Delta_{sub}H$	(372–401)	63.4	386.5	A	[1987STE/MAL]
	$\Delta_v H$	(402–560)	52.6	417	A	[1987STE/MAL]
$C_6H_4N_2$	[100-54-9]	nicotinic acid nitrile				
	$\Delta_v H$	(453–479)	45	466	A	[1987STE/MAL, 1972DYK]
$C_6H_4N_2$	[100-70-9]	2-cyanopyridine				
	$\Delta_{sub}H$		70.7 ± 1.2	298	C	[1984BIC/PIL]
$C_6H_4N_2$	[100-54-9]	3-cyanopyridine				
	$\Delta_{sub}H$		72.1 ± 1.8	298	C	[1984BIC/PIL]
	$\Delta_{sub}H$		79		DSC	[1989SHI/SHI]
$C_6H_4N_2$	[100-48-1]	4-cyanopyridine				
	$\Delta_{sub}H$		73.2 ± 0.6	298	C	[1984BIC/PIL]
	$\Delta_{sub}H$		75.6		DSC	[1989SHI/SHI]
$C_6H_4N_2O$	[14906-64-0]	3-cyanopyridine N-oxide				
	$\Delta_{sub}H$	(345–392)	101.9 ± 2.0	298	ME	[1998RIB/MAT]
$C_6H_4N_2O$	[14906-59-3]	4-cyanopyridine N-oxide				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(345–392)	104.4 ± 4.3	298	ME	[1998RIB/MAT]
$C_6H_4N_2O$	[273-09-6]	benzofurazan				
	$\Delta_{sub}H$		64.4 ± 1.6	298	C	[1990LEI/PIL]
	$\Delta_{sub}H$		64.9	298		[1980ARS]
$C_6H_4N_2O_2$	[480-96-6]	benzofurazan N-oxide				
	$\Delta_{sub}H$		79.6 ± 1.7	298	C	[1990LEI/PIL]
$C_6H_4N_2O_3$-$C_6H_4N_2O_3$	[56079-22-2]	1-nitro-2-nitrosobenzene (dimer)				
	$\Delta_{sub}H$	(323–343)	95.5	333	A	[1987STE/MAL, 1974PEP/LEB]
$C_6H_4N_2O_4$	[528-29-0]	1,2-dinitrobenzene				
	$\Delta_{fus}H$		22.84	396.1		[1996DOM/HEA]
	$\Delta_{sub}H$	(323–353)	95.5 ± 0.9	298	GS	[1997VER3]
	$\Delta_{sub}H$	(323–353)	93.1 ± 0.9	338	GS	[1997VER3]
	$\Delta_{sub}H$	(343–387)	82.9	358		[1987STE/MAL]
	$\Delta_{sub}H$	(343–397)	87.9 ± 2.1	298	TE	[1976FER/PIA]
	$\Delta_{sub}H$	(328–338)	86.6 ± 1.2	309		[1935TRI, 1938WOL/WEG, 1960JON]
	$\Delta_{v}H$	(454–593)	60.0	469	A	[1987STE/MAL, 1972DYK]
$C_6H_4N_2O_4$	[99-65-0]	1,3-dinitrobenzene				
	$\Delta_{fus}H$		19.68	360.4		[2002MUS/RAZ]
	$\Delta_{fus}H$		17.36	363.2		[1991ACR]
	$\Delta_{sub}H$	(335–356)	76.1	345.5		[1987STE/MAL]
	$\Delta_{sub}H$	(332–383)	87.0 ± 0.8	298	TE	[1976FER/PIA]
	$\Delta_{sub}H$	(315–329)	81.1 ± 1.7	323		[1935TRI, 1938WOL/WEG, 1960JON]
	$\Delta_{sub}H$		81.2 ± 1.7			[1950NIT/SEK3, 1970COX/PIL]
	$\Delta_{v}H$	(336–379)	96.7	351	A	[1987STE/MAL]
$C_6H_4N_2O_4$	[100-25-4]	1,4-dinitrobenzene				
	$\Delta_{fus}H$		17.58	446		[2002MUS/RAZ]
	$\Delta_{fus}H$		28.12	446.7		[1991ACR]
	$\Delta_{sub}H$		94.3 ± 0.7	298		[1997VER3]
	$\Delta_{sub}H$	(339–398)	96.2 ± 2.5	298	TE	[1976FER/PIA]
	$\Delta_{sub}H$	(345–368)	89.1 ± 1.7	343		[1935TRI, 1938WOL/WEG, 1960JON]
	$\Delta_{v}H$	(445–572)	60.3	460	A	[1987STE/MAL, 1972DYK]
$C_6H_4N_2O_5$	[66-56-8]	2,3-dinitrophenol				
	$\Delta_{fus}H$		22.67	419		[2002MUS/RAZ]
	$\Delta_{fus}H$		26.24	417		[1996DOM/HEA]
	$\Delta_{sub}H$	(303–343)	96.6	323		[1958HOY/PEP]
$C_6H_4N_2O_5$	[51-28-5]	2,4-dinitrophenol				
	$\Delta_{fus}H$		26.19	383.2		[2002MUS/RAZ]
	$\Delta_{fus}H$		24.17	388		[1996DOM/HEA]
	$\Delta_{sub}H$	(293–333)	104.6 ± 4.2	313		[1958HOY/PEP, 1970COX/PIL]
$C_6H_4N_2O_5$	[329-71-5]	2,5-dinitrophenol				
	$\Delta_{fus}H$		23.73	381		[1996DOM/HEA]
	$\Delta_{sub}H$	(278–333)	93.4	306		[1958HOY/PEP]
$C_6H_4N_2O_5$	[573-56-8]	2,6-dinitrophenol				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		22.91	329		[2002MUS/RAZ]
	$\Delta_{fus}H$		19.58	336		[1996DOM/HEA]
	$\Delta_{sub}H$	(293–333)	112.1 ± 4.2	313		[1958HOY/PEP, 1970COX/PIL]
$C_6H_4N_2O_5$	[577-71-9]	3,4-dinitrophenol				
	$\Delta_{fus}H$		25.37	407		[1996DOM/HEA]
	$\Delta_{sub}H$	(328–383)	123.5	383		[1958HOY/PEP]
$C_6H_4N_4O_2$	[1516-60-5]	4-nitrophenyl azide				
	$\Delta_{fus}H$		17.1	345.4	DSC	[1997FIN/GAR]
$C_6H_4N_4O_6$	[489-98-5]	2,4,6-trinitroaniline				
	$\Delta_{sub}H$		124.7		DSC	[1990HWA/YOS]
	$\Delta_{sub}H$	(328–371)	115.9	343	LE	[1987STE/MAL, 1969ROS/DIC]
	$\Delta_{sub}H$	(326–449)	125.3 ± 0.8	298	ME	[1978CUN/PAL]
	$\Delta_{v}H$		95.8		DSC	[1990HWA/YOS]
$C_6H_4N_2S$	[273-13-2]	2,1,3-benzothiadiazole				
	$\Delta_{sub}H$		70.73 ± 0.2	298	C	[1998SAB/KUA]
$C_6H_4O_2$	[106-51-4]	1,4-benzoquinone				
	$\Delta_{fus}H$		18.40 ± 0.1	385.1	DSC	[2004ROJ/FOR]
	$\Delta_{fus}H$		18.35 ± 0.3	385.7	HFC	[2004ROJ/FOR]
	$\Delta_{fus}H$		18.45	388		[1991ACR]
	$\Delta_{sub}H$		66.7 ± 1.6	298	DSC	[2004ROJ/FOR]
	$\Delta_{sub}H$		68.0 ± 0.5	262	ME,TE	[1981DEK/SMI]
	$\Delta_{sub}H$		62.8 ± 3.3			[1956MAG, 1977PED/RYL]
	$\Delta_{sub}H$		68.5 ± 0.6			[1953SEK/SUZ]
	$\Delta_{sub}H$	(260–278)	62.8	269	QF	[1927COO/COO]
	$\Delta_{v}H$	(388–402)	47.8	395	A	[1987STE/MAL]
($C_6H_4O_2$)–($C_6H_6O_2$)	[106-34-3]	quinhydrone (quinone-hydroquinone)				
	$\Delta_{sub}H$		88.6 ± 1	313	ME,TE	[1981DEK/SMI]
	$\Delta_{sub}H$		U 181.2			[1953SEK/SUZ, 1960JON]
	$\Delta_{sub}H$		NA			[1951NIT/SEK]
$C_6H_4O_5$	[3238-40-2]	furan-2,5-dicarboxylic acid				
	$\Delta_{sub}H$	(378–402)	121.3	391	TE,ME	[1983SPE/CLI]
$C_6H_4S_4$	[31366-25-3]	tetrathiafulvene				
	$\Delta_{sub}H$		61.0		TGA	[1995YAS/TAK]
	$\Delta_{sub}H$		95.3 ± 1	345	TE,ME	[1980DEK/GOV]
	$\Delta_{sub}H$	(341–361)	92 ± 6.3	351	HSA	[1979SAN/EPS]
	$\Delta_{v}H$	(331–355)	95.3	343		[1999DYK/SVO]
($C_6H_4S_4$)–($C_{12}H_4N_4$)	[40210-84-2]	(tetrathiofulvalene)-(7,7,8,8-tetracyanoquinodimethane) (TTF-TCNQ)				
	$\Delta_{sub}H$		130 ± 2	410	TE,ME	[1980DEK/GOV]
C_6H_5Br	[108-86-1]	bromobenzene				
	$\Delta_{fus}H$		10.7	242.4		[1996DOM/HEA]
	$\Delta_{v}H$	(330–430)	44.8	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_{v}H$		44.0	293	C	[1975MAS/SCO]
	$\Delta_{v}H$	(333–463)	42.3	348	A	[1987STE/MAL, 1972DYK]
	$\Delta_{v}H$		44.5 ± 0.1	298	C	[1968WAD]
	$\Delta_{v}H$	(329–427)	42.4	344		[1955DRE/MAR]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_6H_5BrO	[95-56-7]	2-bromophenol				
	$\Delta_v H$		55.5 ± 1.3	298	C	[2009RIB/FER5]
	$\Delta_v H$		50.2			[1986BAL/GNA]
C_6H_5BrO	[591-20-8]	3-bromophenol				
	$\Delta_v H$	(410–510)	73.5	425	A	[1987STE/MAL]
	$\Delta_v H$		55.2			[1986BAL/GNA]
C_6H_5BrO	[106-41-2]	4-bromophenol				
	$\Delta_{fus}H$		17.6	338.2		[2004KUR/MAE]
	$\Delta_{fus}H$		16.57	336		[1996DOM/HEA]
	$\Delta_{sub}H$		83.1 ± 1.6	298	C	[2009RIB/FER5]
	$\Delta_{sub}H$	(260–302)	87.3 ± 0.4	298	ME	[1971PAR/ROC]
	$\Delta_v H$	(390–511)	58.8	405	A	[1987STE/MAL]
	$\Delta_v H$		58.6			[1986BAL/GNA]
C_6H_5BrS	[6320-02-1]	2-bromobenzenethiol				
	$\Delta_v H$		50.6			[1986BAL/GNA]
C_6H_5BrS	[6320-01-0]	3-bromobenzenethiol				
	$\Delta_v H$		51.1			[1986BAL/GNA]
C_6H_5BrS	[106-53-6]	4-bromobenzenethiol				
	$\Delta_v H$		52.3			[1986BAL/GNA]
$C_6H_5Br_2N$	[615-57-6]	2,4-dibromoaniline				
	$\Delta_{fus}H$		21.37	351.4	DSC	[2006RIB/FER]
	$\Delta_{sub}H$		88.0 ± 1.5	298	C	[2006RIB/FER]
$C_6H_5Br_2N$	[3638-73-1]	2,5-dibromoaniline				
	$\Delta_{fus}H$		20.47	328.1	DSC	[2006RIB/FER]
	$\Delta_{sub}H$		85.7 ± 1.9	298	C	[2006RIB/FER]
$C_6H_5Br_2N$	[608-30-0]	2,6-dibromoaniline				
	$\Delta_{fus}H$		21.79	355.5	DSC	[2006RIB/FER]
	$\Delta_{sub}H$		80.7 ± 1.4	298	C	[2006RIB/FER]
C_6H_5Cl	[108-90-7]	chlorobenzene				
	$\Delta_{fus}H$		9.55	227.9		[1996DOM/HEA]
	$\Delta_v H$	(313–353)	40.3	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(413–453)	43.9	298	GC	[1994SPI/LUI]
	$\Delta_v H$	(258–313)	48.1		GC	[1994LIU/DIC]
	$\Delta_v H$		40.6 ± 0.3		GC	[1989AZA]
	$\Delta_v H$	(405–597)	35.4	420	A	[1987STE/MAL]
	$\Delta_v H$	(335–405)	41.0	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$		41.0 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$	(333–405)	38.8	348	A	[1987STE/MAL, 1952BRO, 1984BOU/FRI]
	$\Delta_v H$	(253–303)	37.3	278	ME	[1940ZIB]
$C_6H_5ClN_2O_2$	[121-87-9]	2-chloro-4-nitroaniline				
	$\Delta_{sub}H$		101.8 ± 1.8	298	C	[2003RIB/LIM]
	$\Delta_{sub}H$	(335–351)	100.3 ± 1.5	343	ME	[2003RIB/LIM]
	$\Delta_{sub}H$	(335–351)	102.6 ± 1.5	298	ME	[2003RIB/LIM]
$C_6H_5ClN_2O_2$	[6283-25-6]	2-chloro-5-nitroaniline				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		100.3 ± 2.2	298	C	[2003RIB/LIM]
	$\Delta_{sub}H$	(325–341)	99.3 ± 1.6	333	ME	[2003RIB/LIM]
	$\Delta_{sub}H$	(325–341)	101.0 ± 1.6	298	ME	[2003RIB/LIM]
C_6H_5ClO	[95-57-8]	2-chlorophenol				
	$\Delta_{trs}H$		0.09	276		
	$\Delta_{fus}H$		12.52	283		[1991ACR]
	Δ_vH	(288–321)	51.9	305	GS	[2007VER/EME]
	Δ_vH	(288–321)	52.3 ± 0.2	298	GS	[2007VER/EME]
	Δ_vH	(337–447)	47.0	352		[1995GAB/MAR]
	Δ_vH		45.2			[1966GOO/DEP]
	Δ_vH	(354–448)	47.2	369	A	[1987STE/MAL]
	Δ_vH	(333–449)	50.1	348	A	[1987STE/MAL, 1974KIV/NAD]
	Δ_vH	(285–447)	45.2	300		[1947STU]
C_6H_5ClO	[108-43-0]	3-chlorophenol				
	$\Delta_{fus}H$		14.91	305.8		[1991ACR]
	$\Delta_{sub}H$	(275–306)	76.9 ± 0.3	298	GS	[2007VER/EME]
	$\Delta_{sub}H$		53.1			[1938WOL/WEG, 1960JON, 1970COX/PIL]
	Δ_vH	(308–335)	61.9	322	GS	[2007VER/EME]
	Δ_vH	(308–335)	63.5 ± 0.3	298	GS	[2007VER/EME]
	Δ_vH		52.3			[1986BAL/GNA]
	Δ_vH	(317–487)	53.1	332	A	[1987STE/MAL, 1947STU]
C_6H_5ClO	[106-48-9]	4-chlorophenol				
	$\Delta_{fus}H$		14.07	315.9		[1991ACR]
	$\Delta_{sub}H$	(283–313)	77.1 ± 0.2	298	GS	[2007VER/EME]
	$\Delta_{sub}H$	(252–293)	60.8	278	A	[1987STE/MAL]
	$\Delta_{sub}H$		51.9			[1938WOL/WEG, 1960JON, 1970COX/PIL]
	Δ_vH	(318–351)	61.9	335	GS	[2007VER/EME]
	Δ_vH	(318–351)	64.4 ± 0.3	298	GS	[2007VER/EME]
	Δ_vH	(373–493)	60.6	388	A	[1987STE/MAL]
	Δ_vH		54.0			[1986BAL/GNA]
	Δ_vH	(323–493)	52.8	338		[1947STU]
$C_6H_5ClO_2$	[2138-22-9]	4-chloro-1,2-benzenediol				
	Δ_vH	(293–323)	70.2	308	CGC	[1999LEI/WAN2]
$C_6H_5ClO_2$	[615-67-8]	chlorohydroquinone				
	$\Delta_{sub}H$	(306–334)	102.9 ± 8.3	320	QF	[1927COO/COO, 1960JON, 1970COX/PIL]
$C_6H_5ClO_2S$	[98-09-9]	benzenesulfonyl chloride				
	Δ_vH	(339–524)	54.4	354		[1999DYK/SVO]
	Δ_vH	(338–525)	57.2	353	A	[1987STE/MAL, 1947STU]
$C_6H_5ClO_3S$	[99-66-8]	4-chlorobenzene sulfonic acid				
	$\Delta_{fus}H$		10.6	333.2	DSC	[1995MAC/JOY]
C_6H_5ClS	[6320-03-2]	2-chlorobenzenethiol				
	Δ_vH		47.7			[1986BAL/GNA]
C_6H_5ClS	[2037-31-2]	3-chlorobenzenethiol				
	Δ_vH		48.5			[1986BAL/GNA]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_6H_5ClS	[106-54-7]	4-chlorobenzenethiol				
	$\Delta_v H$		48.5			[1986BAL/GNA]
$C_6H_5Cl_2N$	[608-27-5]	2,3-dichloroaniline				
	$\Delta_{sub}H$		82.2 ± 1.0	298	C	[2006RIB/AMA]
$C_6H_5Cl_2N$	[554-00-7]	2,4-dichloroaniline				
	$\Delta_{sub}H$		84.7 ± 1.3	298	C	[2006RIB/AMA]
$C_6H_5Cl_2N$	[95-82-9]	2,5-dichloroaniline				
	$\Delta_{sub}H$		83.4 ± 1.3	298	C	[2006RIB/AMA]
$C_6H_5Cl_2N$	[608-31-1]	2,6-dichloroaniline				
	$\Delta_{sub}H$		74.2 ± 0.9	298	C	[2006RIB/AMA]
$C_6H_5Cl_2N$	[95-76-1]	3,4-dichloroaniline				
	$\Delta_{fus}H$		21.69	344.5		[2003VER/SCH]
	$\Delta_v H$	(420–545)	58.6	435	A	[1987STE/MAL]
$C_6H_5Cl_2OP$	[3426-89-9]	phenyl dichlorophosphite				
	$\Delta_v H$	(363–480)	52.7	378		[2008SHA/WU]
$C_6H_5Cl_2O_2P$	[770-12-7]	phenyl dichlorophosphate				
	$\Delta_v H$	(339–513)	63.6	354	A	[1987STE/MAL, 1947STU]
C_6H_5F	[462-06-6]	fluorobenzene				
	$\Delta_{fus}H$		11.31	230.9		[1996DOM/HEA]
	$\Delta_v H$	(358–530)	31.9	373	A	[1987STE/MAL]
	$\Delta_v H$	(373–419)	31.8	388	A	[1987STE/MAL]
	$\Delta_v H$	(414–501)	31.0	429	A	[1987STE/MAL]
	$\Delta_v H$	(497–561)	30.9	512	A	[1987STE/MAL]
	$\Delta_v H$	(255–360)	34.5	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(312–394)	33.6	327	EB	[1987STE/MAL, 1956SCO/MCC2]
	$\Delta_v H$		33.5 ± 0.1	318	C	[1956SCO/MCC2]
	$\Delta_v H$		32.4 ± 0.1	337	C	[1956SCO/MCC2]
	$\Delta_v H$		31.2 ± 0.1	358	C	[1956SCO/MCC2]
	$\Delta_v H$		29.7 ± 0.1	382	C	[1956SCO/MCC2]
C_6H_5FO	[367-12-4]	2-fluorophenol				
	$\Delta_v H$		52.3 ± 0.8	298	C	[2009RIB/FER]
C_6H_5FO	[372-20-3]	3-fluorophenol				
	$\Delta_v H$		60.1 ± 0.9	298	C	[2009RIB/FER]
	$\Delta_v H$	(373–451)	50.3	388	A	[1987STE/MAL]
C_6H_5FO	[371-41-5]	4-fluorophenol				
	$\Delta_{sub}H$		73.9 ± 1.4	298	C	[2009RIB/FER]
	$\Delta_v H$	(360–460)	48.8	375	A	[1987STE/MAL]
$C_6H_5F_2N$	[4519-40-8]	2,3-difluoroaniline				
	$\Delta_v H$		49.3 ± 0.5	298	C	[2007RIB/FER]
$C_6H_5F_2N$	[367-25-9]	2,4-difluoroaniline				
	$\Delta_v H$		52.1 ± 0.5	298	C	[2007RIB/FER]
$C_6H_5F_2N$	[367-30-6]	2,5-difluoroaniline				
	$\Delta_v H$		52.5 ± 0.5	298	C	[2007RIB/FER]
$C_6H_5F_2N$	[5509-65-9]	2,6-difluoroaniline				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		47.5 ± 0.5	298	C	[2007RIB/FER]
$C_6H_5F_2N$	[3863-11-4]	3,4–difluoroaniline				
	$\Delta_v H$		53.3 ± 0.5	298	C	[2007RIB/FER]
$C_6H_5F_8NOS$	[77984-30-6]	1-(ethylimino)-2,2,3,3,4,4,5,5-octafluoro-1,1,2,3,4,5-hexahydrothiophene-1-oxide				
	$\Delta_v H$		31.4	333		[1981ABE/SHR]
$C_6H_5F_9O$	[163702-05-4]	1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane				
	$\Delta_v H$	(293–350)	34.2	308	I	[2002MUR/YAM]
C_6H_5I	[591-50-4]	iodobenzene				
	$\Delta_{fus}H$		9.75	241.8		[1996DOM/HEA]
	$\Delta_v H$	(243–255)	43.1			[1960JON]
	$\Delta_v H$	(248–303)	40.0	275	ME	[1940ZIB]
	$\Delta_v H$	(313–353)	47.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(462–679)	41.1	477	A	[1987STE/MAL]
	$\Delta_v H$	(320–460)	48.9	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(273–358)	51.4	288	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(358–543)	46.0	373	A	[1987STE/MAL, 1972DYK]
C_6H_5NO	[586-96-9]	nitrosobenzene (dimer)				
	$\Delta_{sub}H$	(297–339)	85.1	312	A	[1987STE/MAL, 1974PEP/LEB]
	$\Delta_{sub}H$		80.8			[1930DRU/FLA]
$C_6H_5NO_2$	[98-95-3]	nitrobenzene				
	$\Delta_{fus}H$		12.12	278.8		[1996DOM/HEA]
	$\Delta_v H$	(313–353)	54.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(288–318)	54.3	303		[1985ZAR]
	$\Delta_v H$	(291–305)	56.1 ± 1.7	298	ME	[1971LEB/KAT]
	$\Delta_v H$		55.0	298		[1971KUS/WAD2]
	$\Delta_v H$	(279–296)	54.7	287	A	[1987STE/MAL, 1972DYK, 1960LYN/WIL]
	$\Delta_v H$	(283–303)	52.5	293	ME	[1958SKL/MAR]
	$\Delta_v H$	(407–483)	48.5	422		[1952OLI/GRI, 1984BOU/FRI]
	$\Delta_v H$	(369–481)	48.9	425		[1933TOR/MOL]
$C_6H_5NO_2$	[98-98-6]	2-pyridinecarboxylic acid (picolinic acid)				
	$\Delta_{fus}H$		30.0	411		[1996DOM/HEA]
	$\Delta_{sub}H$		91.0 ± 0.5	329	C	[1999SAB/IDE]
	$\Delta_{sub}H$		92.7 ± 0.5	298		[1999SAB/IDE]
	$\Delta_{sub}H$	(345–392)	98.0 ± 2.3	298	ME	[1998RIB/MAT]
$C_6H_5NO_2$	[59-67-6]	3-pyridinecarboxylic acid (nicotinic acid)				
	$\Delta_{fus}H$		97.1	509.3		[2004WAN/WAN]
		Note: This value is considerably larger than values below—likely in error.				
	$\Delta_{trs}H$		0.81	451.4		
	$\Delta_{fus}H$		27.57	509.1		[2004WAN/TAN3]
	$\Delta_{trs}H$		0.78	452		
	$\Delta_{fus}H$		26.7	510		[1993ELM/CHA]
	$\Delta_{sub}H$	(473–498)	89.3		TG,DTA	[2002MEN/DOL]
	$\Delta_{sub}H$	(352–360)	123.9 ± 3.7	298	ME	[2000RIB/GON]
	$\Delta_{sub}H$		101.1 ± 0.6	362	C	[1999SAB/IDE]
	$\Delta_{sub}H$		105.2 ± 0.6	298		[1999SAB/IDE]
	$\Delta_{sub}H$		123.4 ± 1.2	298	C	[1984BIC/PIL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_5NO_2$	[55-22-1]	4-pyridinecarboxylic acid (isonicotinic acid)				
	$\Delta_{fus}H$		135	593		[1996DOM/HEA]
		Note: Enthalpy of fusion is much too large, compound likely decomposed				
	$\Delta_{sub}H$		107.7 ± 0.7	362	C	[1999SAB/IDE]
	$\Delta_{sub}H$		111.3 ± 0.6	298		[1999SAB/IDE]
	$\Delta_{sub}H$	(345–392)	113.9 ± 4.7	298	ME	[1998RIB/MAT]
$C_6H_5NO_3$	[88-75-5]	2-nitrophenol				
	$\Delta_{fus}H$		17.05	316.3		[2002MUS/RAZ]
	$\Delta_{fus}H$		17.45	318.2		[1991ACR, 1994SAB/GOU]
	$\Delta_{sub}H$		73.3	298	C	[1994SAB/GOU]
	$\Delta_{sub}H$	(273–292)	54.8	282.5		[1987STE/MAL]
	$\Delta_{sub}H$	(298–310)	73.2 ± 1.3			[1935TRI, 1938WOL/WEG, 1960JON]
	$\Delta_{v}H$	(319–346)	58.4 ± 0.5	298	GS	[2007HEI/KAP]
	$\Delta_{v}H$	(366–490)	55.9	381	A	[1987STE/MAL]
	$\Delta_{v}H$	(324–347)	U 43.3	298	ME	[1958SKL/MAR, 2007HEI/KAP]
	$\Delta_{v}H$	(322–357)	54.4	337	A	[1947STU]
$C_6H_5NO_3$	[554-84-7]	3-nitrophenol				
	$\Delta_{fus}H$		18.06	369		[2002MUS/RAZ]
	$\Delta_{fus}H$		19.2	370		[1982POE/FAN]
	$\Delta_{fus}H$		19.19	371.2		[1991ACR, 1994SAB/GOU]
	$\Delta_{sub}H$		91.2 ± 0.5	298	C	[1994SAB/GOU]
	$\Delta_{sub}H$		98.5 ± 0.6	321	ME	[1992RIB/REI]
	$\Delta_{sub}H$		100.2 ± 0.6	298		[1992RIB/REI]
	$\Delta_{sub}H$	(305–334)	76.2	319.5	A	[1987STE/MAL]
	$\Delta_{sub}H$	(325–336)	91.6 ± 1.7			[1935TRI, 1938WOL/WEG, 1960JON]
$C_6H_5NO_3$	[100-02-7]	4-nitrophenol				
	$\Delta_{fus}H$		11.0	386.4		[2002MUS/RAZ]
	$\Delta_{fus}H$		18.25	388.2		[1996DOM/HEA, 1994SAB/GOU]
	$\Delta_{sub}H$		92.4	298	C	[1994SAB/GOU]
	$\Delta_{sub}H$	(305–352)	98.8 ± 1	298	ME	[1971PAR/ROC]
	$\Delta_{sub}H$	(339–351)	91.2 ± 1.7			[1935TRI, 1938WOL/WEG, 1960JON]
$C_6H_5NO_3$	[824-40-8]	pyridine-2-carboxylic acid N-oxide				
	$\Delta_{sub}H$	(345–392)	94.4 ± 4.0	298	ME	[1998RIB/MAT]
$C_6H_5NO_3$	[2398-81-4]	pyridine-3-carboxylic acid N-oxide				
	$\Delta_{sub}H$		152.3 ± 1.9	298	ME	[1995ACR/TUC, 1995ABB/JIM]
$C_6H_5NO_3$	[13602-12-5]	pyridine-4-carboxylic acid N-oxide				
	$\Delta_{sub}H$	(345–392)	136.1 ± 1.2	298	ME	[1998RIB/MAT]
$C_6H_5NO_3$	[84522-17-8]	(2-furyl)oxoacetamide				
	$\Delta_{fus}H$ *(I)*		22	373.4		
	$\Delta_{fus}H$ *(II)*		17.8	367.2	DSC	[2008BAR/BER]
$C_6H_5NO_3$	[609-71-2]	2-hydroxynicotinic acid				
	$\Delta_{sub}H$	(433–461)	125.4 ± 5.0	447	ME	[2009SAN/FIG]
	$\Delta_{sub}H$	(433–461)	128.3 ± 5.1	298	ME	[2009SAN/FIG]
$C_6H_5NO_3$	[609-70-1]	4-hydroxynicotinic acid				
	$\Delta_{sub}H$	(425–456)	144.6 ± 3.6	441	ME	[2009SAN/FIG]
	$\Delta_{sub}H$	(425–456)	148.1 ± 3.7	298	ME	[2009SAN/FIG]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_5NO_3$	[27828-71-3]	5-hydroxynicotinic acid				
	$\Delta_{sub}H$	(436–458)	147.1 ± 7.0	447	ME	[2009SAN/FIG]
	$\Delta_{sub}H$	(436–458)	149.8 ± 7.1	298	ME	[2009SAN/FIG]
$C_6H_5NO_3$	[5006-66-6]	6-hydroxynicotinic acid				
	$\Delta_{sub}H$	(461–488)	143.0 ± 4.5	475	ME	[2009SAN/FIG]
	$\Delta_{sub}H$	(461–488)	146.4 ± 4.6	298	ME	[2009SAN/FIG]
$C_6H_5NO_4$	[601-89-8]	2-nitro-1,3-dihydroxybenzene				
	$\Delta_{sub}H$	(253–293)	74.5	273		[1958HOY/PEP]
$C_6H_5NO_4$	[3316-09-4]	4-nitrocatechol				
	$\Delta_{sub}H$		121.1 ± 1.4		C	[1986RIB/RIB]
$C_6H_5NO_5$	[na]	methyl 5-nitro-2-furancarboxylate				
	$\Delta_{sub}H$		104.2 ± 2.1			[1980BAL/LEB, 1986PED/NAY]
C_6H_5NS	[20893-30-5]	2-thiopheneacetonitrile				
	$\Delta_{v}H$		60.5 ± 1.3	298	C	[2008RIB/SAN]
C_6H_5NS	[13781-53-8]	3-thiopheneacetonitrile				
	$\Delta_{v}H$		61.1 ± 1.3	298	C	[2008RIB/SAN]
C_6H_5NS	[55406-13-8]	3-methyl-2-thiophenecarbonitrile				
	$\Delta_{v}H$		54.4 ± 1.2	298	C	[2008RIB/SAN]
$C_6H_5N_3$	[622-37-3]	phenyl azide				
	$\Delta_{v}H$	(348–368)	45.2	358	A	[1987STE/MAL, 1972DYK]
$C_6H_5N_3$	[95-14-7]	1-*H*-benzotriazole				
	$\Delta_{fus}H$		7.7	369.9		[1999SAB/PER]
	$\Delta_{sub}H$		98.2 ± 0.7	298	C	[1999SAB/PER]
	$\Delta_{sub}H$		99.0 ± 0.5	298	ME	[1989JIM/ROU]
	$\Delta_{sub}H$		97.9			[1961ZIM/GEI]
$C_6H_5N_5O_6$	[28930-29-2]	1,3-diamino-2,4,6-trinitrobenzene				
	$\Delta_{sub}H$		146.9		DSC	[1990HWA/YOS]
	$\Delta_{sub}H$	(335–382)	140	350	LE	[1987STE/MAL, 1969ROS/DIC]
	$\Delta_{sub}H$		143.5	298		[1978CUN/PAL]
	$\Delta_{v}H$		110.9		DSC	[1990HWA/YOS]
C_6H_6	[71-43-2]	benzene				
	$\Delta_{fus}H$		9.87	278.7	C	[1996DOM/HEA, 1926AND/LYN, 1942ZIE/AND]
	$\Delta_{sub}H$	(258–273)	41.7			[1994LIU/DIC]
	$\Delta_{sub}H$	(223–279)	45.2	264	A	[1987STE/MAL, 1976HA/MOR]
	$\Delta_{sub}H$		45.1	278		[1984HES/WIS]
	$\Delta_{sub}H$	(183–197)	44.4	298	TE,ME	[1980DEK]
	$\Delta_{sub}H$		53.9 ± 0.8	193		[1977DEK/VAN]
	$\Delta_{sub}H$		49.4 ± 0.4	193		[1977DEK/VAN]
	$\Delta_{sub}H$	(221–268)	45.6	279	MM	[1974JAC]
	$\Delta_{sub}H$		44.1	261		[1960JON]
	$\Delta_{sub}H$		43.1	229		[1960JON]
	$\Delta_{sub}H$		44.6	279		[1956MIL]
	$\Delta_{sub}H$	(263–270)	46.6	282	A	[1947STU]
	$\Delta_{sub}H$		44.6	273		[1936DEB, 1974JAC]
	$\Delta_{sub}H$	(184–200)	U 33.2	192		[1933DEI]
	$\Delta_{sub}H$	(214–238)	43.3	226	A	[1913MUN]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(305–345)	33.2	320		[2002LUB/BAN]
	$\Delta_v H$	(258–313)	35.6		GC	[1994LIU/DIC]
	$\Delta_v H$	(296–377)	33.5	311	EB	[1990AMB/EWI]
	$\Delta_v H$		33.9 ± 0.2		GC	[1989AZA]
	$\Delta_v H$		33.4	307	C	[1988DON/LIN]
	$\Delta_v H$		33.1	314	C	[1988DON/LIN]
	$\Delta_v H$		32.4	324	C	[1988DON/LIN]
	$\Delta_v H$		31.9	332	C	[1988DON/LIN]
	$\Delta_v H$		31.4	344	C	[1988DON/LIN]
	$\Delta_v H$		30.6	353	C	[1988DON/LIN]
	$\Delta_v H$	(279–377)	34.4	294	A	[1987STE/MAL]
	$\Delta_v H$	(353–422)	31.5	368	A	[1987STE/MAL]
	$\Delta_v H$	(420–502)	30.2	435	A	[1987STE/MAL]
	$\Delta_v H$	(501–562)	30.3	516	A	[1987STE/MAL]
	$\Delta_v H$		30.8	352		[1983NAT/VIS]
	$\Delta_v H$		30.5	361		[1983NAT/VIS]
	$\Delta_v H$		30.2	366		[1983NAT/VIS]
	$\Delta_v H$	(313–373)	35.3	343		[1983TSO/WIL]
	$\Delta_v H$		31	350		[1977RAO/VIU]
	$\Delta_v H$		33.8 ± 0.1	298	C	[1973SVO/VES]
	$\Delta_v H$		33.0 ± 0.1	313	C	[1973SVO/VES]
	$\Delta_v H$		32.2 ± 0.1	328	C	[1973SVO/VES]
	$\Delta_v H$		31.8 ± 0.1	333	C	[1973SVO/VES]
	$\Delta_v H$		31.4 ± 0.1	343	C	[1973SVO/VES]
	$\Delta_v H$		30.9 ± 0.1	353	C	[1973SVO/VES]
	$\Delta_v H$		32.6 ± 0.4	313	DSC	[1971MIT/IMA]
	$\Delta_v H$		32.5 ± 0.5	328	DSC	[1971MIT/IMA]
	$\Delta_v H$		33.9	298		[1971WIL/ZWO]
	$\Delta_v H$		31.6 ± 0.4	345	DSC	[1971MIT/IMA]
	$\Delta_v H$		34.1	293		[49YAR/FED]
	$\Delta_v H$	(284–354)	34.1	299		[1949FOR/NOR]
	$\Delta_v H$		33.8	298	C	[1947OSB/GIN]
	$\Delta_v H$	(282–354)	34.1	297		[1946THO]
	$\Delta_v H$		31.2	294		[1946SCO/BRI]
	$\Delta_v H$	(288–354)	34.1	303	MM	[1945WIL/TAY]
	$\Delta_v H$	(298–373)	33.4	313	EB	[1941SMI]
	$\Delta_v H$	(273–348)	34.5	288		[1940STU/SAY]
	$\Delta_v H$		34	298		[1927NAG]
C_6D_6	[1076-43-3]	benzene-d_6				
	$\Delta_{fus}H$		9.79	279.9		[1942ZIE/AND]
	$\Delta_v H$	(283–352)	34.2	298		[1953DAV/SCH]
C_6H_6	[821-08-9]	1,5-hexadien-3-yne				
	$\Delta_v H$	(223–357)	40.4	238	A	[1987STE/MAL]
C_6H_6	[10420-90-3]	1,3-hexadien-5-yne				
	$\Delta_v H$	(223–303)	44.0	238	A	[1987STE/MAL]
C_6H_6	[2809-69-0]	2,4-hexadiyne				
	$\Delta_{trs}H$		1.0	118		[1982BAL/MRA]
	$\Delta_{sub}H$	(282–333)	47 ± 2	307	MM	[1982BAL/MRA]
	$\Delta_v H$	(364–408)	42.5	298	EB	[1986MEY/MEY]
C_6H_6BrN	[615-36-1]	2-bromoaniline				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		16.14	304.1	DSC	[2006RIB/FER]
	$\Delta_{fus}H$		20.04	305		[1983KHA/KHE]
	$\Delta_{sub}H$		75.0 ± 1.4	298	C	[2006RIB/FER]
C_6H_6BrN	[591-19-5]	3-bromoaniline				
	$\Delta_{fus}H$		14.68	291		[1983KHA/KHE]
	Δ_vH		63.4 ± 1.5	298	C	[2006RIB/FER]
C_6H_6BrN	[106-40-1]	4-bromoaniline				
	$\Delta_{fus}H$		16.75	336	DSC	[2006RIB/FER]
	$\Delta_{fus}H$		13.36	336		[1983KHA/KHE]
	$\Delta_{sub}H$		79.4 ± 1.7	298	C	[2006RIB/FER]
C_6H_6ClN	[95-51-2]	2-chloroaniline				
	$\Delta_{fus}H$		12.38	269.2		[2007STR/RUZ]
	$\Delta_{fus}H$		8.81	271		[1983KHA/KHE]
	Δ_vH		56.4 ± 1.6	298	C	[2005RIB/GOM]
	Δ_vH	(288–327)	57.1 ± 0.5	298	GS	[2003VER/SCH]
	Δ_vH	(397–482)	50.7	412	A	[1987STE/MAL]
	Δ_vH	(287–336)	58.2 ± 1.4	311	TE,ME	[1985PIA/SCA]
	Δ_vH	(294–330)	57.1 ± 1.0	312	TE,ME	[1985PIA/SCA]
C_6H_6ClN	[108-42-9]	3-chloroaniline				
	$\Delta_{fus}H$		12	263		[1983KHA/KHE]
	Δ_vH		61.1 ± 2.8	298	C	[2005RIB/GOM]
	Δ_vH	(291–340)	60.2 ± 0.1	298	GS	[2003VER/SCH]
	Δ_vH	(398–573)	53.6	413	A	[1987STE/MAL, 1972DYK]
	Δ_vH	(292–346)	60.3 ± 0.6	319	TE,ME	[1985PIA/SCA]
	Δ_vH	(304–342)	61.0 ± 0.8	323	TE,ME	[1985PIA/SCA]
C_6H_6ClN	[106-47-8]	4-chloroaniline				
	$\Delta_{fus}H$		21.06	343.5		
	$\Delta_{fus}H$		20.47	342.8		[2003VER/SCH, 2007STR/RUZ]
	$\Delta_{fus}H$		16.9	344		[1983KHA/KHE]
	$\Delta_{sub}H$	(291–337)	80.5 ± 0.3	298	GS	[2003VER/SCH]
	$\Delta_{sub}H$	(283–303)	90.7	293	ME	[1987STE/MAL, 1925SWA/MAC]
	Δ_vH	(346–374)	62.3 ± 0.5	298	GS	[2003VER/SCH]
	Δ_vH	(363–505)	52.2	378	A	[1987STE/MAL]
$C_6H_6Cl_4$	[41992-55-6]	α-3,4,5,6-tetrachlorocyclohexene				
	Δ_vH	(353–399)	58.0	368	A	[1987STE/MAL]
$C_6H_6Cl_6$	[319-84-6]	α-hexachlorocyclohexane				
	$\Delta_{sub}H$	(313–363)	95.7	328	A	[1987STE/MAL, 1960JON]
	$\Delta_{sub}H$	(324–344)	92.9	334	TE	[1947BAL]
	Δ_vH	(343–453)	68.5	398	GC	[1990HIN/BID2]
$C_6H_6Cl_6$	[319-85-7]	β-hexachlorocyclohexane (mp 314 °C)				
	$\Delta_{sub}H$	(506–551)	103.7			[1989LUB/JAN]
	$\Delta_{sub}H$	(313–363)	107	328	A	[1987STE/MAL, 1960JON]
	$\Delta_{sub}H$	(368–390)	102.9	379	TE	[1947BAL]
$C_6H_6Cl_6$	[58-89-9]	γ-hexachlorocyclohexane				
	$\Delta_{sub}H$	(310–384)	92.4 ± 4.0	298	ME,TE	[1998GIU/BRU]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(292–326)	97.7 ± 0.6	308	ME	[1996BOE/MAR]
	$\Delta_{sub}H$	(243–303)	106.6 ± 0.9	273	GS	[1994WAN/SHU]
	$\Delta_{sub}H$		90.1 ± 0.7	338	C	[1991SAB/AN]
	$\Delta_{sub}H$		90.8 ± 0.7	298	C	[1991SAB/AN]
	$\Delta_{sub}H$	(313–363)	99.2	328	A	[1987STE/MAL, 1960JON]
	$\Delta_{sub}H$	(293–313)	88.9	303	GS	[1983SPE/CLI, 1970SPE/CLI]
	$\Delta_{sub}H$	(293–313)	101.2	303		[1970SPE/CLI]
	$\Delta_{sub}H$	(313–343)	89.7	328		[1960SCH/LEG]
	$\Delta_{sub}H$	(333–365)	115.5		TE	[1947BAL]
	Δ_vH	(343–453)	70.5	398	GC	[1990HIN/BID2]
$C_6H_6Cl_6$	[319-86-8]	δ-hexachlorocyclohexane (mp 142 °C)				
	$\Delta_{sub}H$	(313–363)	97.3	328	A	[1987STE/MAL, 1960JON]
	$\Delta_{sub}H$	(328–358)	97.5			[1947BAL]
$C_6H_6Cl_6$	[na]	1α,2α,3β,4α,5α,6β-hexachlorocyclohexane				
	$\Delta_{fus}H$		22.13	386.8	DSC	[1990DON/DRE]
$C_6H_6Cl_6$	[na]	1α,2α,3β,4α,5α,6β-hexachlorocyclohexane (lindane)				
	$\Delta_{fus}H$		15.9	388.9	DSC	[1969PLA.GLA]
C_6H_6FN	[348-54-9]	2-fluoroaniline				
	Δ_vH		52.0 ± 0.6	298	C	[2007RIB/FER]
C_6H_6FN	[372-19-0]	3-fluoroaniline				
	Δ_vH		54.7 ± 0.6	298	C	[2007RIB/FER]
C_6H_6FN	[371-40-4]	4-fluoroaniline				
	Δ_vH		54.8 ± 0.8	298	C	[2007RIB/FER]
$C_6H_6F_8O$	[77527-96-9]	1,1,2,2,3,3,4,4-octafluoro-5-methoxypentane				
	Δ_vH	(293–396)	44.8	308	I	[2002MUR/YAM]
$C_6H_6F_8O_2$	[355-74-8]	2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediol				
	$\Delta_{sub}H$		89.2 ± 8.4			[1974COX, 1977PED/RYL]
$C_6H_6F_8O_3$	[485399-46-0]	1,1′-oxy*bis*[1,1,2,2-tetrafluoro-2-methoxyethane]				
	Δ_vH	(280–370)	33.4			[2005MAR/AVA]
$C_6H_6F_9N_3S$	[63265-76-9]	N-[N,N′-dimethyl-S-(trifluoromethyl)sulfonodiimidoyl]-1,1,1,3,3,3-hexafluoro-2-propanimine				
	Δ_vH		32.6	426	I	[1977KIT/SHR2]
C_6H_6IN	[615-43-0]	2-iodoaniline				
	$\Delta_{fus}H$		19.38	329.6		[2006RIB/FER2]
	$\Delta_{fus}H$		13.95	333		[1983KHA/KHE]
	$\Delta_{sub}H$		81.3 ± 1.4	298	C	[2006RIB/FER2]
C_6H_6IN	[626-01-7]	3-iodoaniline				
	$\Delta_{fus}H$		14.5	298		[1983KHA/KHE]
	Δ_vH		67.5 ± 1.4	298	C	[2006RIB/FER2]
C_6H_6IN	[540-37-4]	4-iodoaniline				
	$\Delta_{fus}H$		16.94	336		[2006RIB/FER2]
	$\Delta_{fus}H$		15.1	334		[1983KHA/KHE]
	$\Delta_{sub}H$		84.8 ± 1.4	298	C	[2006RIB/FER2]
$C_6H_6N_2$	[1119-85-3]	3-hexenedinitrile				
	Δ_vH	(353–448)	49.4	368	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_6N_2O$	[1452-77-3]	2-pyridinecarboxamide				
	$\Delta_{fus}H$		16.82	381		[1960NEG/MIK2]
	$\Delta_{sub}H$		93.1 ± 3.3	298	C	[2001RIB/GON]
	$\Delta_{sub}H$	(323–373)	93.1	338	ME	[1987STE/MAL, 1960NEG/MIK, 1959HAR]
$C_6H_6N_2O$	[98-92-0]	3-pyridinecarboxamide (nicotinamide)				
	$\Delta_{fus}H$		23.8	403.8	DSC	[2009GOO/ROD]
	$\Delta_{fus}H$		25.5	401.6	DSC	[2008NIC/BEL]
	$\Delta_{fus}H$		26.94	402		[1960NEG/MIK2]
	$\Delta_{sub}H$		121.2 ± 3.3	298	C	[2001RIB/GON]
	$\Delta_{sub}H$	(363–393)	111.8	378	ME	[1987STE/MAL, 1960NEG/MIK, 1959HAR]
$C_6H_6N_2O$	[1453-82-3]	4-pyridinecarboxamide				
	$\Delta_{fus}H$		26.81	431		[1960NEG/MIK2]
	$\Delta_{sub}H$		116.1 ± 1.5	298	C	[2001RIB/GON]
	$\Delta_{sub}H$	(383–412)	99.9	397.5	ME	[1987STE/MAL, 1960NEG/MIK, 1959HAR]
$C_6H_6N_2O$	[na]	2-pyridinealdoxime				
	$\Delta_{fus}H$		19.98	388		[2007SHI/TAN3]
$C_6H_6N_2O_2$	[88-74-4]	2-nitroaniline				
	$\Delta_{fus}H$		16.11	344.4		[1996DOM/HEA]
	$\Delta_{sub}H$	(313–342)	89.0 ± 0.7	298	GS	[1997VER3]
	$\Delta_{sub}H$	(313–342)	87.2 ± 0.7	328	GS	[1997VER3]
	$\Delta_{sub}H$		90 ± 3.0		ME,TE	[1985FER/PIA]
	$\Delta_{sub}H$		82.4 ± 2	313		[1938WOL/WEG, 1960JON, 1935TRI]
	$\Delta_{sub}H$		90 ± 4.2			[1958HOY/PEP, 1970COX/PIL]
	$\Delta_{sub}H$	(310–319)	79.9 ± 1.7			[1934WOL/TRI]
	$\Delta_{v}H$	(423–553)	59.3	438	A	[1987STE/MAL]
	$\Delta_{v}H$	(377–558)	64.8	392		[1947STU]
$C_6H_6N_2O_2$	[99-09-2]	3-nitroaniline				
	$\Delta_{fus}H$		23.68	387.2		[1996DOM/HEA]
	$\Delta_{sub}H$		108.3 ± 3		ME,TE	[1985FER/PIA]
	$\Delta_{sub}H$	(320–384)	93.6 ± 0.7	351	ME	[1973MAL/GIG2]
	$\Delta_{sub}H$	(320–384)	94.6 ± 0.3	351	C	[1973MAL/GIG2]
	$\Delta_{sub}H$		96.5 ± 0.3	298	C	[1973MAL/GIG2]
	$\Delta_{sub}H$	(288–343)	97.6	316	ME	[1958HOY/PEP, 1970COX/PIL]
	$\Delta_{sub}H$	(332–341)	88.3 ± 1.7		TE	[1934WOL/TRI]
	$\Delta_{sub}H$	(332–341)	88.7 ± 2.5			[1938WOL/WEG, 1960JON, 1935TRI]
	$\Delta_{v}H$	(443–578)	64.9	458	A	[1985FER/PIA]
$C_6H_6N_2O_2$	[100-01-6]	4-nitroaniline				
	$\Delta_{fus}H$		21.09	420.2		[1996DOM/HEA]
	$\Delta_{sub}H$		101.4 ± 1.3	298	ME	[1990RIB/RIB]
	$\Delta_{sub}H$		101.5 ± 1.7	298	TE	[1990RIB/RIB]
	$\Delta_{sub}H$		94.6		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$		107 ± 3		ME,TE	[1985FER/PIA]
	$\Delta_{sub}H$		100.4 ± 2.1	298	ME	[1977FRA, 1990RIB/RIB]
	$\Delta_{sub}H$		100.9 ± .6	298	ME	[1973MAL/GIG2]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		101.3 ± 0.7	298	C	[1973MAL/GIG2]
	$\Delta_{sub}H$	(303–363)	109.3	333	ME	[1958HOY/PEP, 1970COX/PIL]
	$\Delta_{sub}H$		99.3 ± 1.7	298	ME	[1956MAJ]
	$\Delta_{sub}H$	(346–366)	97.5 ± 1.7	356	ME	[1956MAJ]
	$\Delta_{sub}H$		100.7 ± 2.5	298	TE	[1938WOL/WEG]
	$\Delta_{sub}H$		98.7 ± 2.5	361	TE	[1938WOL/WEG, 1960JON]
	$\Delta_{sub}H$	(357–367)	103.3 ± 1.7	362		[1934WOL/TRI]
	$\Delta_{v}H$	(473–538)	77.9	488	A	[1987STE/MAL]
	$\Delta_{v}H$	(415–609)	70.0	430		[1947STU]
$C_6H_6N_2O_2$	[1986-81-8]	3-pyridinecarboxamide N-oxide				
	$\Delta_{sub}H$		119.2 ± 2.3	298	ME	[2001RIB/GON]
$C_6H_6N_2O_2$	[38557-82-3]	4-pyridinecarboxamide N-oxide				
	$\Delta_{sub}H$		125.3 ± 1.8	298	ME	[2001RIB/GON]
$C_6H_6N_2O_2$	[5521-55-1]	2-methyl-5-pyrazine carboxylic acid				
	$\Delta_{sub}H$		100.9 ± 1.5	298	C	[1997ACR/POW]
$C_6H_6N_2O_2$	[1445-69-8]	phthalhydrazide				
	$\Delta_{sub}H$	(428–450)	132.7 ± 0.7	439	ME	[2008RIB/CAB2]
	$\Delta_{sub}H$	(428–450)	139.8 ± 0.7	298	ME	[2008RIB/CAB2]
$C_6H_6N_2O_3$	[1074-98-2]	3-methyl-4-nitropyridine N-oxide				
	$\Delta_{sub}H$	(345–392)	106.7 ± 2.0	298	ME	[1998RIB/MAT]
$C_6H_6N_4O$	[1006-08-02]	7-methylhypoxanthine				
	$\Delta_{sub}H$		100.4 ± 13			[1978NOW/SZC]
$C_6H_6N_4O$	[875-31-0]	9-methylhypoxanthine				
	$\Delta_{sub}H$	(500–552)	84.0		HS	[1965CLA/PES]
$C_6H_6N_4O_4$	[na]	(2,4-dinitrophenyl)hydrazine				
	$\Delta_{fus}H$		18.89	474.1		[2002MUS/RAZ]
$C_6H_6N_6O_6$	[3058-38-6]	2,4,6-trinitro-1,3,5-benzenetriamine				
	$\Delta_{sub}H$		182.4		DCA	[1990HWA/YOS]
	$\Delta_{sub}H$		168	423		[2008RAI/BHA, 1979GAR/LAW]
	$\Delta_{sub}H$	(402–451)	168.2	417	LE	[1987STE/MAL, 1969ROS/DIC]
$C_6H_6N_6O_{14}$	[866-65-9]	2,2,2-trinitroethyl 4,4,4-trinitrobutyrate				
	$\Delta_{trs}H$		25.94	362.7		
	$\Delta_{fus}H$		6.69	366.5	DSC	[1971ROS/HOL]
$C_6H_6N_{12}O_{12}$	[135285-90-4]	hexanitrohexaazaisowurtzitane				
	$\Delta_{trs}H$		1.97	428.2		
	$\Delta_{trs}H$		5.91	435.2		
	$\Delta_{fus}H$		NA			
	$\Delta_{trs}H$		7.25	442.2		
	$\Delta_{fus}H$		NA			[2005TUR/VAC, 1998LOB/BOH]
C_6H_6O	[108-95-2]	phenol				
	$\Delta_{fus}H$		11.51	314		[1972INO/LIA, 1996DOM/HEA]
	$\Delta_{sub}H$	(263–298)	65.3 ± 3.3	280	HSA	[1975CHI]
	$\Delta_{sub}H$	(230–273)	69.7 ± 0.9	298	ME	[1971PAR/ROC]
	$\Delta_{sub}H$	(282–313)	68.7 ± 0.5		GS	[1960AND/BID, 1970COX/PIL]
	$\Delta_{sub}H$	(283–303)	68.2	293	ME	[1958SKL/MAR]
	$\Delta_{sub}H$	(270–313)	68.1	292		[1948NIT/SEK2]
	$\Delta_{sub}H$	(278–305)	67.8		TE	[1947BAL, 1960JON]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(363–391)	53.2	378	EB	[2001CHY/FRA]
	$\Delta_v H$	(393–433)	58.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(455–655)	49.5	470	A	[1987STE/MAL]
	$\Delta_v H$	(314–395)	57.4	329	A	[1987STE/MAL]
	$\Delta_v H$	(387–456)	50.9	402	A	[1987STE/MAL]
	$\Delta_v H$	(449–526)	46.8	464	A	[1987STE/MAL]
	$\Delta_v H$	(520–625)	43.8	535	A	[1987STE/MAL]
	$\Delta_v H$		51.1			[1986BAL/GNA]
	$\Delta_v H$	(383–473)	51.3	398	EB,GS	[1987STE/MAL, 1960AND/BID, 1972DYK]
	$\Delta_v H$	(380–455)	51.4	395		[1949DRE/SHR, 1949DRE/MAR, 1984BOU/FRI]
	$\Delta_v H$	(414–454)	48.1	434		[1939GOL/MAR]
C_6H_6O	[1192-62-7]	2-acetylfuran				
	$\Delta_{fus}H$		15.5	301.6		[2009FLO/CAM]
	$\Delta_v H$		53.0 ± 0.6	298	C	[2009RIB/AMA]
C_6H_6OS	[88-15-3]	2-acetylthiophene				
	$\Delta_v H$		58.8 ± 1.2	298	C	[2007ROU/TEM]
C_6H_6OS	[1468-83-3]	3-acetylthiophene				
	$\Delta_{fus}H$		18.9	333.6		[2006TEM/ROU]
C_6H_6OS	[1379-70-4]	5-methyl-2-thiophenecarboxyaldehyde				
	$\Delta_v H$		57.7 ± 1.3	298	C	[2008RIB/SAN2]
C_6H_6OS	[5834-16-2]	3-methyl-2-thiophenecarboxyaldehyde				
	$\Delta_v H$		56.2 ± 1.2	298	C	[2008RIB/SAN2]
$C_6H_6O_2$	[120-80-9]	1,2-dihydroxybenzene (catechol)				
	$\Delta_{fus}H$		22.87	377.6		[2008VER/KOZ]
	$\Delta_{fus}H$		18.55	377.6		[2000VER/SCH]
	$\Delta_{fus}H$		22.54	377.7	DSC	[1997LEE/CHA]
	$\Delta_{fus}H$		22.01	376.9		[1989BRE/LIC]
	$\Delta_{fus}H$		22.76	377.5	C	[1926AND/LYN]
	$\Delta_{sub}H$	(295–310)	80.0 ± 0.5	302		[2006CHE/OJA]
	$\Delta_{sub}H$		87.5 ± 0.3	298	C	[1991SAB/BUL]
	$\Delta_{sub}H$		86.6 ± 1.6	298	C	[1984CAR]
	$\Delta_{sub}H$		80.8			[1938WOL/WEG, 1960JON, 1935TRI]
	$\Delta_v H$	(378–389)	71.9 ± 0.8	298	GS	[2008VER/KOZ]
	$\Delta_v H$	(395–519)	63.1	410	A	[1987STE/MAL]
	$\Delta_v H$	(378–439)	61.2	393	GC	[1975KUN/LIL]
$C_6H_6O_2$	[108-46-3]	1,3-dihydroxybenzene (resorcinol)				
	$\Delta_{trs}H$		1.2	366.8		
	$\Delta_{fus}H$		18.9	382.6		[1989BRE/LIC]
	$\Delta_{fus}H$		21.3	382.9	C	[1926AND/LYN]
	$\Delta_{sub}H$		85.3 ± 0.5	334	C	[1991SAB/BUL]
	$\Delta_{sub}H$		87.5 ± 0.5	298	C	[1991SAB/BUL]
	$\Delta_{sub}H$	(328–379)	92.3	353	GS	[1983BEN/BIE]
	$\Delta_{sub}H$	(324–335)	93.3 ± 21			[1968DES/WIL]
	$\Delta_{sub}H$	(283–323)	93.4	303		[1958HOY/PEP]
	$\Delta_{sub}H$		95.4 ± 1.7			[1938WOL/WEG, 1960JON, 1935TRI]
	$\Delta_v H$		78.4 ± 1.3	298		[2008VER/KOZ]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(419–550)	74.3	434	A	[1987STE/MAL]
	$\Delta_v H$	(392–463)	74.3	407	GC	[1987STE/MAL, 1975KUN/LIL]
$C_6H_6O_2$	[123-31-9]	1,4-dihydroxybenzene (hydroquinone)				
	$\Delta_{fus}H$		27.23	445.1		[2008VER/KOZ]
	$\Delta_{fus}H$		27.2	NA	DSC	[1999VER7]
	$\Delta_{fus}H$		26.48	453		[1989BRE/LIC]
	$\Delta_{fus}H$		27.11	445.1	C	[1926AND/LYN]
	$\Delta_{sub}H$	(325–339)	100.6 ± 1.3	332		[2006CHE/OJA]
	$\Delta_{sub}H$		94.1 ± 0.5	298	C	[1991SAB/BUL]
	$\Delta_{sub}H$		93.7 ± 0.5	334	C	[1991SAB/BUL]
	$\Delta_{sub}H$	(341–400)	101.3		GS	[1983BEN/BIE]
	$\Delta_{sub}H$		103.9 ± 1	342	ME,TE	[1981DEK/SMI]
	$\Delta_{sub}H$	(298–346)	103.8	313		[1956MAG]
	$\Delta_{sub}H$		90.1 ± 0.8			[1953SEK/SUZ]
	$\Delta_{sub}H$	(326–345)	103.8		QF	[1927COO/COO]
	$\Delta_v H$		84.4 ± 0.7	298		[2008VER/KOZ]
	$\Delta_v H$	(448–559)	70.5	463	A	[1987STE/MAL]
($C_6H_6O_2$)–($C_{10}H_8O_2$)	[60706-28-7]	1,4-hydroquinone-1,4-naphthoquinone				
	$\Delta_{sub}H$		98.7 ± 1	324	TE,ME	[1981DEK/SMI]
$C_6H_6O_2S$	[1918-77-0]	2-thiopheneacetic acid				
	$\Delta_{fus}H$		14.0	337.4	DSC	[2006TEM/ROU]
	$\Delta_{sub}H$	(292–307)	97.5 ± 1.4	298	ME	[2008TEM/ROU2]
$C_6H_6O_2S$	[6964-21-2]	3-thiopheneacetic acid				
	$\Delta_{fus}H$		18.8	353.3	DSC	[2006TEM/ROU]
	$\Delta_{sub}H$	(294–312)	100.9 ± 1.9	298	ME	[2008TEM/ROU2]
$C_6H_6O_2S$	[5380-42-7]	methyl 2-thiophenecarboxylate				
	$\Delta_v H$		57.6 ± 1.2	298	C	[2009RIB/SAN2]
$C_6H_6O_2S$	[23806-24-8]	methyl 2-thiophenecarboxylate				
	$\Delta_{sub}H$	(312–334)	96.7 ± 0.4	323.2	ME	[2008RIB/SAN5]
	$\Delta_{sub}H$	(312–334)	98.0 ± 0.4	298	ME	[2008RIB/SAN5]
$C_6H_6O_2S$	[1918-79-2]	5-methyl-2-thiophenecarboxylic acid				
	$\Delta_{sub}H$	(316–338)	100.4 ± 0.3	327.2	ME	[2008RIB/SAN5]
	$\Delta_{sub}H$	(316–338)	101.9 ± 0.3	298	ME	[2008RIB/SAN5]
$C_6H_6O_3$	[87-66-1]	1,2,3-trihydroxybenzene				
	$\Delta_{fus}H$		25.9	405.6		[2004VER/SCH]
	$\Delta_{fus}H$		18.55	407.2		[1992RAI/GEO]
	$\Delta_{sub}H$	(326–370)	104	298	GS	[2004VER/SCH]
	$\Delta_{sub}H$		116.9 ± 0.6	298	C	[1986RIB/RIB]
	$\Delta_{sub}H$	(377–398)	89.1	387		[1934HIR]
	$\Delta_v H$	(425–582)	69.5	440	A	[1987STE/MAL, 1955VON/GEB]
$C_6H_6O_3$	[533-73-3]	1,2,4-trihydroxybenzene				
	$\Delta_{fus}H$		28.8	413.2		[2004VER/SCH]
	$\Delta_{sub}H$	(341–382)	124.2 ± 0.6	298	GS	[2004VER/SCH]
	$\Delta_{sub}H$		119.8 ± 1.6	298	C	[1986RIB/RIB]
$C_6H_6O_3$	[108-73-6]	1,3,5-trihydroxybenzene				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		34.5	491.8		[2004VER/SCH]
	$\Delta_{sub}H$	(355–382)	135.5 ± 1.3	298	GS	[2004VER/SCH]
	$\Delta_{sub}H$		131.7 ± 1.0	298	C	[1986RIB/RIB]
	$\Delta_{sub}H$	(383–406)	127.9		TE,ME	[1983DEW/BOW]
$C_6H_6O_3$	[67-47-0]	5-hydroxymethylfurfural				
	$\Delta_{fus}H$		19.8	308.5	DSC	[2009VER/EME]
	Δ_vH	(314–368)	83.4 ± 0.2	298	GS	[2009VER/EME]
$C_6H_6O_4$	[na]	butynedioic acid, dimethyl ester				
	Δ_vH	(273–460)	56.3	288	A	[1987STE/MAL, 1972DYK]
C_6H_6S	[108-98-5]	benzenethiol (thiophenol)				
	$\Delta_{fus}H$		11.48	258.2		[1996DOM/HEA]
	Δ_vH	(333–471)	45.9	348		[1999DYK/SVO]
	Δ_vH		43.5			[1986BAL/GNA]
	Δ_vH	(385–486)	43.1	400	A,EB	[1987STE/MAL, 1966OSB/DOU, 1956SCO/MCC]
	Δ_vH		43.8 ± 0.1	375	C	[1956SCO/MCC]
	Δ_vH		42.6 ± 0.1	395	C	[1956SCO/MCC]
	Δ_vH		41.8 ± 0.1	407	C	[1956SCO/MCC]
	Δ_vH		41.3 ± 0.1	417	C	[1956SCO/MCC]
	Δ_vH	(324–440)	44.3	339		[1955VON/GEB, 1984BOU/FRI]
$C_6H_7Cl_2N$	[137-04-2]	2-chloroaniline hydrochloride				
	$\Delta_{sub}H$	(373–473)	77.6	388	A	[1987STE/MAL, 1975KON/SEL]
$C_6H_7Cl_2N$	[141-85-5]	3-chloroaniline hydrochloride				
	$\Delta_{sub}H$	(383–473)	71.3	398	A	[1987STE/MAL, 1975KON/SEL]
$C_6H_7Cl_2N$	[20265-96-7]	4-chloroaniline hydrochloride				
	$\Delta_{sub}H$	(373–483)	77.8	388	A	[1987STE/MAL, 1975KON/SEL]
$C_6H_7Cl_3OS$	[76619-93-7]	2,3,3-trichloro-2-propenethioic acid, O-propyl ester				
	Δ_vH	(383–433)	69.4		GC	[1980PIT/KIS]
$C_6H_7FN_2O_2$	[na]	1,3-dimethyl-5-fluorouracil				
	$\Delta_{sub}H$	(338–373)	119 ± 4		TE	[2002BRU/POR]
$C_6H_7F_3N_2O_4$	[400-58-8]	N-[N-(trifluoroacetyl)glycyl]glycine				
	$\Delta_{sub}H$	(273–423)	67.0	288	A	[1987STE/MAL, 1960WEY/KLI]
C_6H_7N	[15760-35-7]	3-methylenecyclobutanecarbonitrile				
	Δ_vH	(348–435)	45.9	366	BG	[1971HAL/BAL]
C_6H_7N	[31357-71-8]	bicyclo[2.1.0]pentane-1-carbonitrile				
	Δ_vH	(332–390)	41.8	343	BG	[1971HAL/BAL]
C_6H_7N	[62-53-3]	aniline				
	$\Delta_{fus}H$		10.54	267.1		[1972AHM/EAD2, 1996DOM/HEA]
	$\Delta_{fus}H$		10.92	267.3		[1942ZIE/AND]
	Δ_vH	(350–499)	51.0 ± 0.2	360	EB	[2002STE/CHI]
	Δ_vH	(350–499)	48.0 ± 0.2	400	EB	[2002STE/CHI]
	Δ_vH	(350–499)	45.2 ± 0.2	440	EB	[2002STE/CHI]
	Δ_vH	(350–499)	42.2 ± 0.4	480	EB	[2002STE/CHI]
	Δ_vH	(421–591)	45.8	444		[1992LEE/CHE]
	Δ_vH	(273–338)	52.2	288	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(304–485)	53.6	319	A	[1987STE/MAL]
	$\Delta_v H$	(373–458)	48.6	388	A	[1987STE/MAL]
	$\Delta_v H$	(455–523)	46.3	470	A	[1987STE/MAL]
	$\Delta_v H$	(313–386)	51.4	350		[1979MAH/SMI]
	$\Delta_v H$	(288–298)	52.9	293		[1968RAV/DAN]
	$\Delta_v H$	(304–457)	54.0	319		[1962HAT/DOU]
	$\Delta_v H$		53.0	333	C	[1962HAT/DOU]
C_6H_7N	[109-06-8]	2-methylpyridine				
	$\Delta_{fus}H$		9.72	206.5		[1996DOM/HEA]
	$\Delta_v H$	(308–441)	41.2 ± 0.1	320	EB	[1999CHI/KNI]
	$\Delta_v H$	(308–441)	38.8 ± 0.1	360	EB	[1999CHI/KNI]
	$\Delta_v H$	(308–441)	36.4 ± 0.1	400	EB	[1999CHI/KNI]
	$\Delta_v H$	(308–441)	33.7 ± 0.3	440	EB	[1999CHI/KNI]
	$\Delta_v H$	(323–373)	43.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(292–403)	42.0	307	EB	[1990LEN]
	$\Delta_v H$	(209–245)	46.9	230	A	[1987STE/MAL]
	$\Delta_v H$	(429–537)	36.5	444	A	[1987STE/MAL]
	$\Delta_v H$	(521–621)	35.4	536	A	[1987STE/MAL]
	$\Delta_v H$		42.5 ± 0.1	298	C	[1984MAJ/SVO2]
	$\Delta_v H$		41.6 ± 0.1	313	C	[1984MAJ/SVO2]
	$\Delta_v H$		40.7 ± 0.1	328	C	[1984MAJ/SVO2]
	$\Delta_v H$		39.8 ± 0.1	343	C	[1984MAJ/SVO2]
	$\Delta_v H$		38.3 ± 0.1	368	C	[1984MAJ/SVO2]
	$\Delta_v H$	(352–445)	39.1	367	EB,IP	[1987STE/MAL, 1968OSB/DOU]
	$\Delta_v H$	(352–442)	39.1	367	EB	[1987STE/MAL, 1963SCO/HUB]
	$\Delta_v H$		38.8 ± 0.1	359	C	[1963SCO/HUB]
	$\Delta_v H$		37.7 ± 0.1	379	C	[1963SCO/HUB]
	$\Delta_v H$		36.2 ± 0.1	402	C	[1963SCO/HUB]
	$\Delta_v H$	(337–403)	39.8	352	MG	[1953HER/MAR]
C_6H_7N	[108-99-6]	3-methylpyridine				
	$\Delta_{fus}H$		14.18	255		[1996DOM/HEA]
	$\Delta_{sub}H$	(225–255)	62.2	240		[1987STE/MAL]
	$\Delta_v H$	(342–373)	44.5 ± 2.0	298	CGC	[2009LIP/CHI2]
	$\Delta_v H$	(314–457)	43.2 ± 0.1	320	EB	[1999CHI/KNI]
	$\Delta_v H$	(314–457)	40.9 ± 0.1	360	EB	[1999CHI/KNI]
	$\Delta_v H$	(314–457)	38.6 ± 0.1	400	EB	[1999CHI/KNI]
	$\Delta_v H$	(314–457)	36.1 ± 0.2	440	EB	[1999CHI/KNI]
	$\Delta_v H$	(374–458)	40.1	389	A	[1987STE/MAL]
	$\Delta_v H$	(450–570)	37.7	465	A	[1987STE/MAL]
	$\Delta_v H$	(561–645)	36.8	576	A	[1987STE/MAL]
	$\Delta_v H$		44.6 ± 0.1	298	C	[1984MAJ/SVO2]
	$\Delta_v H$		43.6 ± 0.1	313	C	[1984MAJ/SVO2]
	$\Delta_v H$		42.7 ± 0.1	328	C	[1984MAJ/SVO2]
	$\Delta_v H$		42.0 ± 0.1	343	C	[1984MAJ/SVO2]
	$\Delta_v H$		40.4 ± 0.1	368	C	[1984MAJ/SVO2]
	$\Delta_v H$	(347–458)	41.3	362	EB,IP	[1987STE/MAL, 1968OSB/DOU]
	$\Delta_v H$	(347–458)	41.3	362	EB	[1987STE/MAL, 1963SCO/GOO]
	$\Delta_v H$		40.2 ± 0.1	372	C	[1963SCO/GOO]
	$\Delta_v H$		38.9 ± 0.1	393	C	[1963SCO/GOO]
	$\Delta_v H$		37.4 ± 0.1	417	C	[1963SCO/GOO]
	$\Delta_v H$	(354–418)	41.0	369	MG	[1953HER/MAR]
C_6H_7N	[108-89-4]	4-methylpyridine				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(213–239)	62.7	226	A	[1987STE/MAL]
	Δ_vH	(328–459)	43.4 ± 0.1	320	EB	[1999CHI/KNI]
	Δ_vH	(328–459)	41.1 ± 0.1	360	EB	[1999CHI/KNI]
	Δ_vH	(328–459)	38.8 ± 0.1	400	EB	[1999CHI/KNI]
	Δ_vH	(328–459)	36.2 ± 0.2	440	EB	[1999CHI/KNI]
	Δ_vH	(323–373)	44.7	298	CGC	[1995CHI/HOS]
	Δ_vH	(348–460)	41.4	363	A	[1987STE/MAL]
	Δ_vH	(348–347)	42.1	347	A	[1987STE/MAL]
	Δ_vH	(381–460)	40.0	396	A	[1987STE/MAL]
	Δ_vH	(452–573)	37.9	467	A	[1987STE/MAL]
	Δ_vH	(564–646)	37.2	579	A	[1987STE/MAL]
	Δ_vH		44.9 ± 0.1	298	C	[1984MAJ/SVO2]
	Δ_vH		43.9 ± 0.1	313	C	[1984MAJ/SVO2]
	Δ_vH		42.9 ± 0.1	328	C	[1984MAJ/SVO2]
	Δ_vH		42.1 ± 0.1	343	C	[1984MAJ/SVO2]
	Δ_vH		44.8 ± 0.1	298	C	[1981HOS/SCO]
	Δ_vH	(348–459)	41.4	363	EB,IP	[1987STE/MAL, 1968OSB/DOU]
	Δ_vH	(350–418)	41.3	365	MG	[1953HER/MAR]
C_6H_7N	[26555-56-5]	2-cyclopentene-1-carbonitrile				
	Δ_vH		44.9 ± 0.1	298	C	[1970PRO/KRE]
$(C_6H_7N)-(SO_2)$	[na]	aniline-sulfur dioxide complex				
	$\Delta_{sub}H$	(277–323)	82.1	300		[1931HIL]
C_6H_7NO	[95-55-6]	2-aminophenol				
	$\Delta_{fus}H$		31.4	443.2		[2001ROT/GLA]
	$\Delta_{fus}H$		21.72	447.6		[2003HUA, 2005HUA/TAN]
	$\Delta_{fus}H$		34.0	447.4		[1996DOM/HEA]
	$\Delta_{sub}H$		93.5 ± 0.8	332	C	[1996SAB/GOU]
	$\Delta_{sub}H$		95.3 ± 0.7	337	C	[1996SAB/GOU]
	$\Delta_{sub}H$		96.9 ± 0.6	298	C	[1996SAB/GOU]
	$\Delta_{sub}H$		103.9 ± 0.9	298	C	[1986NUN/BAR]
C_6H_7NO	[591-27-5]	3-aminophenol				
	$\Delta_{fus}H$		23.9	390.7		[2001ROT/GLA]
	$\Delta_{fus}H$		21.95	396.8		[2003HUA, 2005HUA/TAN]
	$\Delta_{fus}H$		22.98	399		[1991RAI/GEO]
	$\Delta_{sub}H$		98.8 ± 0.9	335	C	[1996SAB/GOU]
	$\Delta_{sub}H$		101.6 ± 0.9	298	C	[1996SAB/GOU]
	$\Delta_{sub}H$		104.7 ± 1.2	298	C	[1986NUN/BAR]
C_6H_7NO	[123-30-8]	4-aminophenol				
	$\Delta_{fus}H$		23.8	455.2		[2001ROT/GLA]
	$\Delta_{fus}H$		31.2	459.5		[1996DOM/HEA, 1989BRE/LIC]
	$\Delta_{fus}H$		26.0	462.5		[1996DOM/HEA, 1996SAB/GOU]
	$\Delta_{sub}H$		101.1 ± 0.7	335	C	[1996SAB/GOU]
	$\Delta_{sub}H$		103.6 ± 0.7	298	C	[1996SAB/GOU]
	$\Delta_{sub}H$	(423–459)	111.0	438		[1987STE/MAL]
	$\Delta_{sub}H$		109.1 ± 1.4	298	C	[1986NUN/BAR]
	$\Delta_{sub}H$	(403–430)	92.1	417	I	[1954DUN, 1960JON]
C_6H_7NO	[1121-25-1]	2-methyl-3-hydroxypyridine				
	$\Delta_{sub}H$		89.3 ± 1.3	298	C	[1982SUR/SAI, 1986PED/NAY]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_6H_7NO	[18617-86-6]	2-methyl-4-hydroxypyridine				
	$\Delta_{sub}H$		113.0 ± 1.3	298		[1982SUR/SAI, 1986PED/NAY]
C_6H_7NO	[1121-78-4]	2-methyl-5-hydroxypyridine				
	$\Delta_{sub}H$		96.2 ± 2.1	298	C	[1982SUR/SAI, 1986PED/NAY]
C_6H_7NO	[3279-76-3]	2-methyl-6-hydroxypyridine				
	$\Delta_{sub}H$		92.0 ± 1.3	298	C	[1982SUR/SAI, 1986PED/NAY]
C_6H_7NO	[931-19-1]	2-methylpyridine N-oxide				
	$\Delta_{sub}H$		92.9 ± 1.9	298	C	[2010CAB/MON]
	$\Delta_{sub}H$		78.2 ± 2.2	298	C	[1995ACR/TUC]
C_6H_7NO	[1003-73-2]	3-methylpyridine N-oxide				
	$\Delta_{sub}H$		82.2 ± 2.4	298	C	[1995ACR/TUC]
C_6H_7NO	[1003-67-4]	4-methylpyridine N-oxide				
	$\Delta_{sub}H$	(345–392)	85.3 ± 2.6	298	ME	[1998RIB/MAT]
	$\Delta_{sub}H$	(316–341)	79.1 ± 1.3			[1995LEB/CHI]
C_6H_7NO	[1628-89-3]	2-methoxypyridine				
	Δ_vH	(304–338)	40.5	319	A	[1987STE/MAL]
C_6H_7NO	[694-85-9]	1-methyl-2(1*H*)-pyridone				
	Δ_vH	(353–399)	60.2	368	A	[1987STE/MAL]
C_6H_7NO	[586-95-8]	4-pyridinemethanol				
	$\Delta_{fus}H$		11.78	325.2		[2005WAN/TAN]
C_6H_7NO	[1072-83-9]	2-acetylpyrrole				
	$\Delta_{fus}H$		14.08	363		[2009FLO/CAM]
	$\Delta_{sub}H$	(277–293)	81.3 ± 1.0	285	ME	[2009SAN/GOM]
	$\Delta_{sub}H$	(277–293)	81.2 ± 1.0	298	ME	[2009SAN/GOM]
C_6H_7NO	[1072-82-8]	3-acetylpyrrole				
	$\Delta_{sub}H$	(316–338)	93.2 ± 0.5	327	ME	[2009SAN/GOM]
	$\Delta_{sub}H$	(316–338)	94.7 ± 0.5	298	ME	[2009SAN/GOM]
$C_6H_7NO_2$	[na]	*n*-ethyl-α-cyanoacrylate				
	$\Delta_{fus}H$		12.86	243.2		[1991BYK/KIP]
$C_6H_7NO_2$	[6973-60-0]	1-methyl-2-pyrrolecarboxylic acid				
	$\Delta_{sub}H$	(305–327)	95.3 ± 0.7	316	ME	[2009SAN/RIB]
	$\Delta_{sub}H$	(305–327)	96.2 ± 0.7	298	ME	[2009SAN/RIB]
$C_6H_7NO_2S$	[98-10-2]	benzenesulfonamide				
	$\Delta_{fus}H$		25.17	425.8		[2005MAT/MIR]
	$\Delta_{sub}H$		115.3 ± 1.7	298	C	[2005MAT/MIR]
$C_6H_7NO_3S$	[121-57-3]	sulfanilic acid (4-aminobenzene sulfonic acid)				
	$\Delta_{sub}H$		66.9			[1938WOL/WEG, 1960JON]
C_6H_7NS	[22581-72-2]	4-(methylthio)pyridine				
	$\Delta_{sub}H$	(347–383)	75.3 ± 3.8	365	B	[1974BEA/MUE]
	Δ_vH	(346–383)	55.8	361	A	[1987STE/MAL]
C_6H_7NS	[6887-59-8]	1-methyl-4-thiopyridone				
	$\Delta_{sub}H$	(440–465)	188.3 ± 9.2	452	B	[1974BEA/MUE]
$C_6H_7N_3O_2$	[3034-19-3]	2-hydrazino-1-nitrobenzene				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		124.7		DSC	[1990HWA/YOS]
	Δ_vH		99.6		DSC	[1990HWA/YOS]
$C_6H_7N_5$	[5142-22-3]	1-methyladenine				
	$\Delta_{sub}H$		138.2		ME	[2000ZIE]
$C_6H_7N_5$	[1445-08-5]	2-methyladenine				
	$\Delta_{sub}H$		121.7		ME	[2000ZIE]
$C_6H_7N_5$	[5142-23-4]	3-methyladenine				
	$\Delta_{sub}H$		117.5		ME	[2000ZIE]
	$\Delta_{sub}H$		83.7 ± 9		HSA	[1978NOW/SZC]
$C_6H_7N_5$	[443-72-1]	N-methyladenine				
	$\Delta_{sub}H$	(395–425)	123.4 ± 21		ME	[1984ZIE/ZIE]
$C_6H_7N_5$	[22387-37-7]	8-methyladenine				
	$\Delta_{sub}H$		103.2		ME	[2000ZIE]
$C_6H_7N_5$	[700-00-5]	9-methyladenine				
	$\Delta_{sub}H$	(381–411)	121.3 ± 4.6		ME	[1984ZIE/ZIE]
	$\Delta_{sub}H$	(413–458)	121.7	428	HSA	[1987STE/MAL, 1965CLA/PES]
	$\Delta_{sub}H$		92 ± 8		HSA	[1978NOW/SZC]
C_6H_8	[na]	*cis, anti, cis*-tricyclo[3.1.0.0^{2,4}]hexane				
	Δ_vH	(273–329)	30.6	293		[1979LET/ORC]
	Δ_vH	(273–329)	29.7	313		[1979LET/ORC]
C_6H_8	[592-57-4]	1,3-cyclohexadiene				
	$\Delta_{fus}H$		4.2	161		[1996DOM/HEA]
	Δ_vH	(307–364)	32.6	322	A,EB	[1987STE/MAL, 1973MEY/HOT]
	Δ_vH	(304–322)	32.4	308	MM	[1974LET/MAR]
C_6H_8	[628-41-1]	1,4-cyclohexadiene				
	$\Delta_{trs}H$		0.82	192		
	$\Delta_{fus}H$		5.72	224		[1996DOM/HEA]
	Δ_vH	(304–360)	34.0	319	A	[1987STE/MAL]
	Δ_vH	(304–322)	33.9	308	MM	[1974LET/MAR]
C_6H_8	[2612-46-6]	*cis* 1,3,5-hexatriene				
	Δ_vH	(306–323)	33.3	314	A,MM	[1987STE/MAL, 1974LET/MAR]
C_6H_8ClN	[142-04-1]	aniline hydrochloride				
	$\Delta_{sub}H$	(383–471)	87.5	398	A	[1987STE/MAL, 1975KON/SEL]
C_6H_8ClN	[14401-92-4]	3-methylpyridine hydrochloride				
	Δ_vH	(420–471)	68.7	435	A	[1987STE/MAL]
C_6H_8ClN	[14401-93-5]	4-methylpyridine hydrochloride				
	Δ_vH	(437–473)	64.7	452	A	[1987STE/MAL]
C_6H_8ClO	[na]	chloroethyl methacrylate				
	$\Delta_{fus}H$		17.0	235.1		[1996DOM/HEA]
$C_6H_8Cl_2O_4$	[6941-69-1]	ethylene glycol, *bis* chloroacetate				
	Δ_vH	(385–557)	73.9	400	A	[1987STE/MAL, 1947STU]
$C_6H_8F_8N_4$	[na]	1,1,4,4-*tetrakis*(difluoroamino)cyclohexane				
	$\Delta_{fus}H$		46.02	382.2		[2001OXL/SMI]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_8N_2$	[5910-89-4]	2,3-dimethylpyrazine				
	$\Delta_v H$		52.6 ± 1.7	298	C	[2003MOR/MIR]
$C_6H_8N_2$	[123-32-0]	2,5-dimethylpyrazine				
	$\Delta_v H$	(342–373)	47.2 ± 2.2	298	CGC	[2009LIP/CHI2]
	$\Delta_v H$	(303–411)	44.5	357		[1995SAK/UEO]
$C_6H_8N_2$	[111-69-3]	adiponitrile				
	$\Delta_{fus}H$		18.0	275	DSC	[2007BAD/BLA]
	$\Delta_v H$	(348–523)	58.7	363	A	[1987STE/MAL]
$C_6H_8N_2$	[4597-87-9]	2-methylaminopyridine				
	$\Delta_v H$	(308–323)	49.0	316	A	[1987STE/MAL]
$C_6H_8N_2$	[18364-47-1]	3-methylaminopyridine				
	$\Delta_v H$	(313–343)	57.2	326	A	[1987STE/MAL]
$C_6H_8N_2$	[1121-58-0]	4-methylaminopyridine				
	$\Delta_v H$	(313–343)	54.1	328	A	[1987STE/MAL]
$C_6H_8N_2$	[95-54-5]	1,2-diaminobenzene				
	$\Delta_{fus}H$		23.1	373.9		[1997LEE/CHA, 1989BRE/LIC]
	$\Delta_{sub}H$		85.5 ± 0.3	298	C	[1997SAB/PER]
$C_6H_8N_2$	[108-45-2]	1,3-diaminobenzene				
	$\Delta_{fus}H$		15.4	335.5		[1996DOM/HEA]
	$\Delta_{sub}H$		90.4 ± 0.4	298	C	[1997SAB/PER]
	$\Delta_v H$	(372–559)	63.7	387	A	[1987STE/MAL, 1947STU]
$C_6H_8N_2$	[106-50-3]	1,4-diaminobenzene				
	$\Delta_{fus}H$		21.7	412.3		[1996DOM/HEA]
	$\Delta_{sub}H$		92.2 ± 0.2	298	C	[1997SAB/PER]
$C_6H_8N_2$	[100-63-0]	phenyl hydrazine				
	$\Delta_{fus}H$		16.43	292.8		[1996DOM/HEA]
	$\Delta_v H$	(413–518)	57.3	428	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(345–517)	59.2	360		[1947STU]
	$\Delta_v H$	(378–465)	57.2	393	T	[1942WIL/GIL]
$C_6H_8N_2$	[13925-00-3]	ethylpyrazine				
	$\Delta_v H$		48.8 ± 1.9	298	C	[2003MOR/MIR]
$C_6H_8N_2O_2$	[874-14-6]	1,3-dimethyluracil				
	$\Delta_{fus}H$		14.6	398		[1996DOM/HEA]
	$\Delta_{sub}H$	(311–367)	115.8 ± 3.0	338	TE	[2000BRU/PIA]
	$\Delta_{sub}H$		96.4 ± 1.4	298	C	[1985MUR/SAK]
	$\Delta_{sub}H$	(313–363)	101.7 ± 2.1	338	QR	[1980TEP/YAN]
	$\Delta_{sub}H$	(400–454)	46 ± 4.2	426	HAS	[1978NOW/SZC]
	$\Delta_{sub}H$	(344–370)	92		HAS	[1965CLA/PES]
$C_6H_8N_2O_2$	[4160-72-9]	1-methylthymine				
	$\Delta_{sub}H$	(378–428)	124.4 ± 1.3	398	QR	[1980TEP/YAN]
$C_6H_8N_2O_2$	[na]	N-acetylglycine amide				
	$\Delta_{fus}H$		25.6	408.2		[1988FER/DEL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_8N_2O_2$	[4538–37–8]	1,4-diisocyanatobutane				
	$\Delta_{fus}H$	(8–360)	20.76	231.2	AC	[2005SMI/KAN2]
$C_6H_8N_2O_2S$	[na]	*p*-aminobenzene sulphonamide				
	$\Delta_{trs}H$		1.63	407		[1996CIO/MEL]
	$\Delta_{fus}H$		24.02	439.3		[1996CIO/MEL]
	$\Delta_{fus}H$		23.0	438.7		[1985OHM/LIP]
$C_6H_8N_2O_2S$	[63-74-1]	4-aminobenzenesulfonamide (sulfanilamide)				
	$\Delta_{fus}H$		23.3	435.4		[2002MAR/GOM]
$C_6H_8N_2O_8$	[na]	1,4:3,6-dianhydromannitol dinitrate (isomannide dinitrate)				
	$\Delta_{fus}H$		20.5	337.2		[1998HAT/SUZ]
$C_6H_8N_2O_8$	[na]	1,4:3,6-dianhydro-(*d*)-glucitol dinitrate (isosorbide dinitrate)				
	$\Delta_{fus}H$		27.63	341.7		[1998HAT/SUZ]
$C_6H_8N_2O_8$	[na]	1,4:3,6-dianhydroiditol dinitrate (isoidide dinitrate)				
	$\Delta_{fus}H$		12.81	325.9		[1998HAT/SUZ]
$C_6H_8N_4O_2$	[4164-33-4]	*bis*(2-cyanoethyl)-N-nitroamine				
	$\Delta_{fus}H$		44.99	327		[1987OYU/BRI]
$C_6H_8N_4O_8$	[146028-82-2]	1,1,4,4-tetranitrocyclohexane				
	$\Delta_{fus}H$		108.8	489.2		[2001OXL/SMI]
		Note: Experimental enthalpy is abnormally large—compound may be decomposing				
$C_6H_8N_6O_8$	[na]	1,3-dinitro-3(1′,3′)-dinitroazetidin-3′-yl)azetidine				
	$\Delta_{fus}H$		25.52	387.5		[1998MCK/FLO]
C_6H_8O	[930-68-7]	2-cyclohexen-1-one				
	Δ_vH	(351–445)	45.0	366	EB	[2006PAL/ORA]
	Δ_vH	(335–481)	49.5 ± 0.4	298	EB	[1997STE/CHI3]
C_6H_8O	[625-36-3]	2,5-dimethylfuran				
	Δ_vH	(271–308)	32.3 ± 0.3	290	GS	[1998VER/WEL]
	Δ_vH	(271–308)	31.8 ± 0.3	298	GS	[1998VER/WEL]
$C_6H_8O_2$	[4935-01-7]	methyl bicyclo[1.1.0]butane-1-carboxylate				
	Δ_vH	(299–377)	37.3	318	BG	[1971HAL/BAL]
$C_6H_8O_2$	[504-02-9]	1,3-cyclohexanedione				
	$\Delta_{sub}H$		89.8 ± 1.1	298	C	[1993PIL/PAR]
$C_6H_8O_2$	[637-88-7]	1,4-cyclohexanedione				
	$\Delta_{trs}H$		6.20	319.9		
	$\Delta_{trs}H$		1.18	338.8		
	$\Delta_{fus}H$		11.26	351.5		[1983DEW/DEK]
	$\Delta_{trs}H$		6.15	322.2		
	$\Delta_{trs}H$		0.96	339.2		
	$\Delta_{fus}H$		10.04	348.2		[1972ALV/BOR]
	$\Delta_{sub}H$		75.0 ± 1.0	298	C	[1993PIL/PAR]
	$\Delta_{sub}H$		84.4	289	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		84.2	298		[1983DEW/VAN]
$C_6H_8O_3$	[17347-61-4]	2,2-dimethylsuccinic acid anhydride				
	Δ_vH	(334–493)	57.3	349	A	[1987STE/MAL, 1947STU]
$C_6H_8O_3$	[31468-33-4]	2-methylglutaric acid anhydride				
	Δ_vH	(366–556)	60.7	381	A	[1987STE/MAL, 1947STU]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_8O_4$	[624-49-7] dimethyl fumarate					
	$\Delta_{fus}H$		35.15	375		[1996DOM/HEA]
	$\Delta_{sub}H$		NA			[1972LEB/KAT]
	$\Delta_{sub}H$		84.5 ± 1.7			[1934WOL/TRI]
	$\Delta_{v}H$	(361–466)	53.8	376	A	[1987STE/MAL]
$C_6H_8O_4$	[624-48-6] dimethyl maleate					
	$\Delta_{fus}H$		14.64	254		[1996DOM/HEA]
	$\Delta_{sub}H$		44.8			[1938WOL/WEG, 1960JON, 1935TRI]
	$\Delta_{sub}H$	(317–341)	41.8 ± 4.2			[1934WOL/TRI]
	$\Delta_{v}H$	(385–421)	52.0	400	A	[1987STE/MAL]
	$\Delta_{v}H$	(318–478)	53.9	334		[1947STU]
$C_6H_8O_4$	[5445-51-2] cyclobutane-1,1-dicarboxylic acid					
	$\Delta_{sub}H$		112.2 ± 0.7		C	[1983ALT/PIL]
$C_6H_8O_4$	[3396-14-3] cyclobutane-1,2-dicarboxylic acid					
	$\Delta_{sub}H$		120.0 ± 0.9		C	[1983ALT/PIL]
$C_6H_8O_4$	[95-96-5] (*dl*) 3,6-dimethyl-1,4-dioxane-2,5-dione					
	$\Delta_{fus}H$		24.7	397.5		[1996DOM/HEA]
$C_6H_8O_4$	[4511-42-6] (*l*) 3,6-dimethyl-1,4-dioxane-2,5-dione					
	$\Delta_{fus}H$		16.94	366.6		[1999LEB/KUL]
$C_6H_8O_5$	[3184-35-8] 2-oxohexanedioic acid					
	$\Delta_{sub}H$	(281–301)	127.0		TPTD	[2005CHA/ZIE]
	Note: Values based on TPTD method are not consistent with values determined by other experimental methods					
$C_6H_8O_5$	[689-31-6] 3-oxohexanedioic acid					
	$\Delta_{sub}H$	(307–329)	151		TPTD	[2005CHA/ZIE]
	Note: Values based on TPTD method are not consistent with values determined by other experimental methods					
$C_6H_8O_6$	[na] (*l*)-ascorbic acid					
	$\Delta_{fus}H$		37.04	466.2		[1998MUR/BET]
C_6H_8S	[632-16-6] 2,3-dimethylthiophene					
	$\Delta_{v}H$	(353–473)	39.4	368	A	[1987STE/MAL, 1972DYK]
C_6H_8S	[638-00-6] 2,4-dimethylthiophene					
	$\Delta_{v}H$	(323–493)	41.4	338	A	[1987STE/MAL, 1972DYK, 1999DYK/SVO]
C_6H_8S	[638-02-8] 2,5-dimethylthiophene					
	$\Delta_{fus}H$		8.91	210.6		[1996DOM/HEA]
	$\Delta_{v}H$		40.2 ± 0.9	298	C	[2008RIB/SAN3]
	$\Delta_{v}H$	(333–374)	39.7	348	IA	[1987STE/MAL, 1971EON/POM, 1999DYK/SVO]
C_6H_8S	[632-15-5] 3,4-dimethylthiophene					
	$\Delta_{v}H$	(328–478)	41.1	343	A	[1987STE/MAL, 1972DYK, 1999DYK/SVO]
C_6H_8S	[872-55-9] 2-ethylthiophene					
	$\Delta_{v}H$		39.7 ± 0.9	298	C	[2007RIB/SAN]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(333–374)	39.7	348	IA	[1987STE/MAL, 1971EON/POM, 1999DYK/SVO]
C_6H_8S	[1795-01-3]	3-ethylthiophene				
	$\Delta_v H$	(318–473)	40.7	333	A	[1987STE/MAL, 1972DYK]
$C_6H_9F_3O_2$	[367-64-6]	butyl trifluoroacetate				
	$\Delta_v H$	(343–377)	37.8	358	A,EB	[1987STE/MAL, 1969SHE/LAN]
C_6H_9N	[4254-02-8]	cyclopentanecarbonitrile				
	$\Delta_v H$		48.1 ± 0.1	298	C	[1983FUC/HAL]
	$\Delta_v H$		43.4 ± 0.1	298		[1973KON]
	$\Delta_v H$	(340–418)	40.9	359	BG	[1971HAL/BAL]
	$\Delta_v H$		43.5 ± 0.1	298	C	[1970PRO/KRE]
C_6H_9N	[625-82-1]	2,4-dimethylpyrrole				
	$\Delta_{fus}H$		9.6	268.5		[1994CHI/HOS2]
C_6H_9N	[625-84-3]	2,5-dimethylpyrrole				
	$\Delta_{fus}H$		9.3	280.9		[1996DOM/HEA]
	$\Delta_v H$	(373-43)	49.5	388	A,IP,EB	[1987STE/MAL, 1968OSB/DOU]
C_6H_9NO	[88-12-0]	N-vinylpyrrolidone				
	$\Delta_{fus}H$		15.28	286.2		[1997KUL/LEB2]
$C_6H_9NO_2$	[1572-99-2]	ethyl 2-cyanopropionate				
	$\Delta_v H$	(283–323)	58.6 ± 0.3	298	GS	[1995VER/BEC]
$C_6H_9NO_6$	[na]	isomannide mononitrate				
	$\Delta_{fus}H$		20.64	344.8		[1998HAT/SUZ]
$C_6H_9NO_6$	[na]	isosorbide-2-mononitrate				
	$\Delta_{fus}H$		26.38	328		[1998HAT/SUZ]
$C_6H_9NO_6$	[na]	isosorbide-5-mononitrate				
	$\Delta_{fus}H$		22.36	364		[1998HAT/SUZ]
C_6H_9NS	[13623-11-5]	2,4,5-trimethylthiazole				
	$\Delta_{fus}H$		9.0	240.7		[1966MEY/MET]
$C_6H_9N_3O$	[7171-70-2]	1,3,5-trimethyl-4-nitrosopyrazole				
	$\Delta_{sub}H$		88.0 ± 2.0	298	C	[2001RIB/FER]
$C_6H_9N_3O$	[17634-60-5]	1,5-dimethylcytosine				
	$\Delta_{sub}H$	(390–437)	132.8 ± 0.6		GS	[1998ZIE/WSZ]
$C_6H_9N_3O$	[6220-49-1]	1,N-dimethylcytosine				
	$\Delta_{sub}H$	(401–426)	122.2 ± 0.3		GS	[1998ZIE/WSZ]
$C_6H_9N_3O_2$	[71-00-1]	L-histidine				
	$\Delta_{sub}H$	(392–492)	142 ± 8	442	LE	[1977GAF/PIE]
$C_6H_9N_3O_2$	[20555-80-0]	1-methyl-N4-methoxycytosine				
	$\Delta_{sub}H$	(316–325)	107.6 ± 0.3		ME	[1999ZIE/PER]
	$\Delta_{sub}H$	(320–357)	106.9 ± 0.4		GS	[1999ZIE/PER]
	$\Delta_{sub}H$		106.4 ± 0.8			[1998ZIE/WSZ]
$C_6H_9N_3O_2$	[6220-53-7]	1,5-dimethyl-N-hydroxcytosine				
	$\Delta_{sub}H$	(357–394)	115.2 ± 0.6		GS	[1998ZIE/WSZ]
$C_6H_9N_3O_2$	[36315-01-2]	2-amino-4,6-dimethoxypyrimidine				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		29.85	371		[2003SUN/SON]
$C_6H_9N_3O_3$	[877-89-4]	2,4,6-trimethoxy-1,3,5-triazine				
	$\Delta_{fus}H$ (β-form)		18.1	404		[2004FRI/KAP]
	$\Delta_{fus}H$ (γ-form)		11.4	409		[2004FRI/KAP]
	$\Delta_{trs}H$	(298–523)	3.9	340.2	DSC	
	$\Delta_{fus}H$	(298–523)	18.1	395.2	DSC	[2000HAN/BOT]
$C_6H_9N_3O_3$	[na]	6-methoxy-3,5-dimethyl-tetrahydrotriazine-2,4-dione				
	$\Delta_{fus}H$		12.7	363.2		[2000HAN/BOT, 2004FRI/KAP]
		Note: Compound rearranges shortly after melting.				
$C_6H_9N_3O_3$	[877-89-4]	trimethyl isocyanurate				
	$\Delta_{sub}H$	(330–346)	86.6 ± 1.3	338	C	[1988IMA/MUR]
	$\Delta_{sub}H$		88.2 ± 1.3	298	C	[1988IMA/MUR]
	$\Delta_{sub}H$		88.2 ± 1.3	298	C	[1989IMA/TAK, 1985MUR/SAK]
$C_6H_9N_3O_3$	[877-89-4]	trimethyl cyanurate				
	$\Delta_{sub}H$		90.3 ± 1.0	298	C	[1989IMA/TAK, 1985MUR/SAK]
C_6H_9P	[3746-01-8]	trivinylphosphine				
	Δ_vH	(289–334)	33.7	304		[1957MAI/SEY, 1984BOU/FRI]
C_6H_{10}	[285-58-5]	*cis* bicyclo[3.1.0]hexane				
	Δ_vH	(273–300)	33.7	286	A	[1987STE/MAL]
	Δ_vH		33.5 ± 0.4	298		[1970CHA/MCN]
C_6H_{10}	[5685-46-1]	bicyclopropyl				
	Δ_vH		31.7 ± 0.5	298	C	[2007PAS/KUZ]
C_6H_{10}	[3664-56-0]	1,2,2-trimethylcyclopropene				
	Δ_vH		27.9 ± 1.4	298	C	[2007PAS/KUZ]
	Δ_vH		26.8 ± 1.7	298		[1986PIM/DOM, 2007PAS/KUZ]
C_6H_{10}	[110-83-8]	cyclohexene				
	$\Delta_{trs}H$		4.23	138.7		
	$\Delta_{fus}H$		3.28	169.7		[1996DOM/HEA]
	Δ_vH	(315–356)	32.8	330		[2009MAR/AUC]
	Δ_vH	(310–356)	32.9	325		[2004STE/SUN]
	Δ_vH	(312–356)	32.6	327		[2001SEG/LAM]
	Δ_vH	(285–357)	33.5 ± 0.5	298	EB	[1996STE/CHI3]
	Δ_vH	(309–365)	32.7	324	A,EB	[1987STE/MAL, 1973MEY/HOT]
	Δ_vH	(305–322)	33.1	308	MM	[1974LET/MAR]
	Δ_vH		32.7 ± 0.1	313	C	[1973SVO/VES]
	Δ_vH		32.2 ± 0.1	323	C	[1973SVO/VES]
	Δ_vH		31.7 ± 0.1	333	C	[1973SVO/VES]
	Δ_vH		31.2 ± 0.1	343	C	[1973SVO/VES]
	Δ_vH		30.7 ± 0.1	353	C	[1973SVO/VES]
	Δ_vH	(285–357)	33.7	300	MM	[1950FOR/CAM]
	Δ_vH	(229–292)	32.6	300		[1941LIS]
C_6H_{10}	[na]	1-methylcyclopentene				
	Δ_vH		32.6 ± 0.2	298	GCC	[1979FUC/PEA]
	Δ_vH	(268–403)	33.4	283	A	[1987STE/MAL, 1972DYK]
C_6H_{10}	[1120-62-3]	3-methylcyclopentene				
	Δ_vH		31.0 ± 0.2	298	GCC	[1979FUC/PEA]
	Δ_vH	(263–392)	32.1	278	A	[1987STE/MAL, 1972DYK]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_6H_{10}	[1759-81-5]	4-methylcyclopentene				
	$\Delta_v H$	(271–403)	33.2	286	A	[1987STE/MAL, 1972DYK]
C_6H_{10}	[1489-61-8]	1,3-dimethylcyclobutene				
	$\Delta_v H$	(269–296)	31.3	282	A	[1987STE/MAL]
C_6H_{10}	[513-81-5]	2,3-dimethyl-1,3-butadiene				
	$\Delta_v H$	(273–342)	32.2	288	A	[1987STE/MAL, 1955CUM/MCL]
C_6H_{10}	[592-48-3]	*trans* 1,3-hexadiene				
	$\Delta_v H$	(299–319)	32.1	309	A,MM	[1987STE/MAL, 1974LET/MAR]
C_6H_{10}	[7319-00-8]	*trans* 1,4-hexadiene				
	$\Delta_v H$	(304–323)	30.2	313	A,MM	[1987STE/MAL, 1974LET/MAR]
C_6H_{10}	[592-42-7]	1,5-hexadiene				
	$\Delta_v H$	(299–333)	29.4	314	A	[1987STE/MAL]
	$\Delta_v H$	(300–319)	28.6	308		[1974LET/MAR]
	$\Delta_v H$	(273–333)	30.5	288	A	[1987STE/MAL, 1955CUM/MCL, 1972DYK]
C_6H_{10}	[5194-51-4]	*trans trans* 2,4-hexadiene				
	$\Delta_v H$	(304–354)	33.2	319	A	[1987STE/MAL]
	$\Delta_v H$	(305–323)	33.2	308	MM	[1974LET/MAR]
C_6H_{10}	[693-02-7]	1-hexyne				
	$\Delta_v H$	(250–290)	33.5	270	MM	[1981CHI/HYM]
	$\Delta_v H$	(237–287)	34.2	262	HSA	[1981CHI/HYM]
	$\Delta_v H$	(265–391)	33.4	280	A	[1987STE/MAL, 1972DYK]
C_6H_{10}	[264-35-2]	2-hexyne				
	$\Delta_v H$	(283–313)	35.8	298		[2007BOU/BEL]
	$\Delta_v H$	(283–313)	35.9	298		[2006BOU/BEL]
C_6H_{10}	[764-35-2]	3-hexyne				
	$\Delta_v H$	(253–354)	30.5	268	A	[1987STE/MAL]
	$\Delta_v H$	(253–298)	31.6	275	T	[1965RON/HAR]
$C_6H_{10}Br_2$	[7429-37-0]	*trans* 1,2-dibromocyclohexane				
	$\Delta_v H$	(350–416)	53.3	365	A	[1987STE/MAL]
$C_6H_{10}ClFO_2$	[na]	3-fluorobutyric acid, 2-chloroethyl ester				
	$\Delta_v H$	(273–333)	60.4	288	A	[1987STE/MAL, 1972DYK]
$C_6H_{10}ClF_3O$	[358-36-1]	2-chloro-1,1,2-trifluoroethyl butyl ether				
	$\Delta_v H$		45.1 ± 0.1	298	C	[1984MAJ/UCH]
	$\Delta_v H$		43.9 ± 0.1	313	C	[1984MAJ/UCH]
	$\Delta_v H$		42.8 ± 0.1	328	C	[1984MAJ/UCH]
	$\Delta_v H$		41.6 ± 0.1	343	C	[1984MAJ/UCH]
$C_6H_{10}Cl_2$	[2108-92-1]	1,1-dichlorocyclohexane				
	$\Delta_{trs}H$		9.16	225		
	$\Delta_{fus}H$		1.47	236		[1999KAB/KOZ]
	$\Delta_v H$	(335–444)	43.5	350	A	[1987STE/MAL]
$C_6H_{10}Cl_2$	[10498-35-8]	*cis* 1,2-dichlorocyclohexane				
	$\Delta_v H$	(364–480)	45.8	379	A	[1987STE/MAL]
$C_6H_{10}Cl_2$	[822-86-6]	*trans* 1,2-dichlorocyclohexane				
	$\Delta_v H$	(344–462)	45.8	359	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{10}Cl_2$	[19398-57-3]	1,4-dichlorocyclohexane				
	$\Delta_v H$	(353–406)	47.8	368	A	[1987STE/MAL]
$C_6H_{10}Cl_2O_2$	[37079-08-6]	isobutyl dichloroacetate				
	$\Delta_v H$	(301–456)	51.4	316	A	[1987STE/MAL, 1947STU]
$C_6H_{10}F_2O_2$	[na]	3-fluorobutyric acid, 2-fluoroethyl ester				
	$\Delta_v H$	(273–333)	54.8	288	A	[1987STE/MAL, 1972DYK]
$C_6H_{10}N_2O$	[na]	2,3-diazabicyclo[2.2.2]oct-2-ene N-oxide				
	$\Delta_{trs}H$		5.02	359.3		
	$\Delta_{trs}H$		8.05	399.3		
	$\Delta_{fus}H$		3.84	438		[1980BYS]
$C_6H_{10}N_2O_2$	[7491-74-1]	2-oxo-1-pyrrolidineacetamide (piracetam)				
	$\Delta_{fus}H$ *(I)*		25.59	426		
	$\Delta_{fus}H$ *(II)*		29.85	412	DSC	[1996CEO/AGA]
$C_6H_{10}N_6O_9$	[28464-26-8]	N-(2,2-dinitropropyl)-2,2-dinitro-N-nitroso-1-propanamine				
	$\Delta_{sub}H$	(323–336)	110.9 ± 8		ME	[1973PEP/GAF, 1977PED/RYL]
$C_6H_{10}N_6O_{10}$	[28464-24-6]	N-(2,2-dinitropropyl)-2,2-dinitro- N-nitro-1-propanamine				
	$\Delta_{sub}H$	(398–423)	99.2 ± 0.8		ME	[1973PEP/GAF]
$C_6H_{10}O$	[279-49-2]	7-oxabicyclo[2.2.1]heptane				
	$\Delta_{trs}H$		4.86	180.5		
	$\Delta_{trs}H$		0.98	218.5		
	$\Delta_{fus}H$		0.71	244	DSC	[1998PAR/GIL]
$C_6H_{10}O$	[1462-03-9]	1-methylcyclopentanol				
	$\Delta_{sub}H$ *(cryst III)*	(253–281)	73.7 ± 0.4	267	ME	[1997BLO/KAB]
	$\Delta_{sub}H$ *(cryst III)*		67.0 ± 0.2	298		[1997BLO/KAB]
	$\Delta_{sub}H$ *(cryst III)*		67.4 ± 0.2	291	C	[1997BLO/KAB]
$C_6H_{10}O$	[na]	cyclopentenyl methyl ether				
	$\Delta_v H$	(274–313)	42.3 ± 0.8	294	GS	[1998VER/WEL]
	$\Delta_v H$	(274–313)	42.1 ± 0.8	298	GS	[1998VER/WEL]
$C_6H_{10}O$	[12655-16-2]	2,3-dihydro-4-methyl-2*H*-pyran				
	$\Delta_v H$	(304–392)	38.1	319	A	[1987STE/MAL, 1968KAC/NEM, 1984BOU/FRI]
$C_6H_{10}O$	[35656-02-1]	methylenetetrahydro-2*H*-pyran				
	$\Delta_v H$	(339–382)	36.8	354	A	[1987STE/MAL]
$C_6H_{10}O$	[108-94-1]	cyclohexanone				
	$\Delta_{trs}H$		8.66	220.8		
	$\Delta_{fus}H$		1.33	245.2		[1980NAK/SUG]
	$\Delta_{sub}H$	(243–265)	49.3	254		[1948NIT/SEK2]
	$\Delta_v H$	(343–427)	43.1	358	EB	[2006TEO/BAR]
	$\Delta_v H$	(343–383)	46.6 ± 0.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(318–428)	44.0	333		[1993AUC/MON]
	$\Delta_v H$		44.4 ± 0.1	308	C	[1992SVO/KUB]
	$\Delta_v H$		44.0 ± 0.1	313	C	[1992SVO/KUB]
	$\Delta_v H$		43.4 ± 0.1	323	C	[1992SVO/KUB]
	$\Delta_v H$		43.1 ± 0.1	328	C	[1992SVO/KUB]
	$\Delta_v H$		42.2 ± 0.1	338	C	[1992SVO/KUB]
	$\Delta_v H$		41.8 ± 0.1	343	C	[1992SVO/KUB]
	$\Delta_v H$		41.4 ± 0.1	348	C	[1992SVO/KUB]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		42.3 ± 0.2		GC	[1989AZA]
	$\Delta_v H$	(345–458)	42.2	360	EB	[1987AMB/GHI2]
	$\Delta_v H$	(395–426)	40.4	410		[1984CAS/FRA2]
	$\Delta_v H$	(362–439)	41.5	377	A,EB	[1987STE/MAL, 1973MEY/HOT]
	$\Delta_v H$		44.9 ± 0.6	298		[1972WOL]
	$\Delta_v H$		45.1 ± 0.1	298	C	[1968PLA/WIL]
	$\Delta_v H$	(273–298)	40.3	286		[1938RAD/ALE]
$C_6H_{10}O$	[109-49-9]	5-hexen-2-one				
	$\Delta_v H$	(317–440)	42.1 ± 0.1	320	EB	[2002STE/CHI5]
	$\Delta_v H$	(317–440)	39.4 ± 0.2	360	EB	[2002STE/CHI5]
	$\Delta_v H$	(317–440)	36.6 ± 0.3	400	EB	[2002STE/CHI5]
	$\Delta_v H$	(317–440)	33.5 ± 0.6	440	EB	[2002STE/CHI5]
	$\Delta_v H$	(449–561)	34.6	464	A	[1987STE/MAL]
$C_6H_{10}O$	[141-79-7]	mesityl oxide				
	$\Delta_v H$		35.2	401		[1998LOU, 1997STE/CHI]
		Note: May be a mixture of 2-methyl-1-penten-4-one and 4-methyl-3-penten-2-one				
$C_6H_{10}O$	[3744-02-3]	2-methyl-1-penten-4-one				
	$\Delta_v H$	(389–461)	36.9	404	A	[1987STE/MAL]
	$\Delta_v H$	(286–461)	41.9	298		[1975AMB/ELL]
	$\Delta_v H$	(306–398)	41.1	321	MM	[1987STE/MAL, 1947STR/MON, 1972DYK]
$C_6H_{10}O$	[141-79-7]	4-methyl-3-penten-2-one				
	$\Delta_v H$	(303–442)	42.7 ± 0.3	298	EB	[1997STE/CHI]
	$\Delta_v H$	(303–442)	41.4 ± 0.3	320	EB	[1997STE/CHI]
	$\Delta_v H$	(303–442)	39.1 ± 0.3	360	EB	[1997STE/CHI]
	$\Delta_v H$	(303–442)	36.5 ± 0.3	400	EB	[1997STE/CHI]
	$\Delta_v H$	(303–442)	33.5 ± 0.6	440	EB	[1997STE/CHI]
	$\Delta_v H$	(343–383)	44.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(399–471)	37.8	414	A	[1987STE/MAL]
	$\Delta_v H$	(292–471)	43.3	298		[1975MES/FIN]
	$\Delta_v H$	(313–405)	41.5	328	MM	[1987STE/MAL, 1947STR/MON, 1972DYK]
$C_6H_{10}O$	[286-20-4]	cyclohexene oxide (1,2-epoxycyclohexane)				
	$\Delta_{trs}H$	(10–300)	9.54	193.1		
	$\Delta_{fus}H$	(10–300)	1.06	238.1		[1980NAK/SUG]
$C_6H_{10}O_2$	[765-85-5]	methyl cyclobutanecarboxylate				
	$\Delta_v H$		44.2 ± 0.2		GS	[1998VER/KUM]
	$\Delta_v H$		44.7 ± 0.1	298	C	[1983FUC/HAL]
	$\Delta_v H$	(319–378)	41.4	340	BG	[1971HAL/BAL]
$C_6H_{10}O_2$	[na]	cyclopropanecarboxylic acid ethyl ester				
	$\Delta_v H$	(278–308)	44.0 ± 0.5		GS	[1998VER/KUM]
$C_6H_{10}O_2$	[106-92-3]	allyl glycidyl ether				
	$\Delta_v H$	(323–420)	47.0	338	A	[1987STE/MAL]
$C_6H_{10}O_2$	[123-20-6]	butyric acid, vinyl ester				
	$\Delta_v H$	(365–387)	39.3	376	A	[1987STE/MAL]
$C_6H_{10}O_2$	[1072-96-4]	4-vinyl-1,3-dioxane				
	$\Delta_v H$	(306–416)	54.5	321	A	[1987STE/MAL]
$C_6H_{10}O_2$	[502-44-3]	ε-caprolactone				
	$\Delta_{fus}H$		13.82	272		[1991ACR]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(283–343)	U 38.2	298		[2008BIA/CEZ]
	$\Delta_v H$	(395–436)	54.0 ± 0.2	415	EB	[1991WIB/WAL]
	$\Delta_v H$	(395–436)	62.0 ± 1.3	298	EB	[1991WIB/WAL]
$C_6H_{10}O_2$	[823-22-3]	δ-hexanolactone				
	$\Delta_v H$	(283–343)	58.1	298		[2008BIA/CEZ]
	$\Delta_v H$	(283–353)	60.9 ± 0.1	298	GS	[2007EME/KOZ]
$C_6H_{10}O_2$	[695-06-7]	γ-caprolactone				
	$\Delta_v H$	(283–353)	57.2 ± 0.3	298	GS	[2008EME/KOZ, 2009EME/VER]
	$\Delta_v H$	(243–298)	55.3 ± 0.6	298		[2004COV/MOK, 2008EME/KOZ]
$C_6H_{10}O_2$	[924-50-5]	methyl 3-methylbut-2-enoate				
	$\Delta_v H$	(274–304)	46.9 ± 0.2	298	GS	[2008EME/TOK]
$C_6H_{10}O_2$	[10544-63-5]	ethyl crotonate				
	$\Delta_v H$	(329–420)	47.1	344	A	[1987STE/MAL]
$C_6H_{10}O_2$	[97-63-2]	ethyl methacrylate				
	$\Delta_v H$	(285–390)	38.3	300	A	[1987STE/MAL]
$C_6H_{10}O_2$	[3123-97-5]	5,5-dimethyldihydro-2(3*H*)-furanone				
	$\Delta_v H$	(311–480)	52.7	326	A	[1987STE/MAL]
$C_6H_{10}O_2$	[925-60-0]	propyl acrylate				
	$\Delta_v H$	(287–395)	37.9	302	A	[1987STE/MAL]
$C_6H_{10}O_2$	[110-13-4]	2,5-hexanedione				
	$\Delta_v H$	(386–474)	50.1	401	A	[1987STE/MAL]
$C_6H_{10}O_3$	[na]	*cis/trans* 2,5-dimethoxy-2,5-dihydrofuran				
	$\Delta_v H$		44.2 ± 0.3	298	CGC	[2000NIC/ORF]
$C_6H_{10}O_3$	[na]	cyclohexene ozonide				
	$\Delta_v H$	(276–311)	74.2	291	A	[1987STE/MAL]
	$\Delta_v H$	(353–403)	58.6	378		[1977BOL/MAK]
$C_6H_{10}O_3$	[141-97-9]	ethyl acetoacetate				
	$\Delta_v H$	(301–454)	52.5	316	A	[1987STE/MAL]
$C_6H_{10}O_3$	[624-45-3]	methyl levulinate				
	$\Delta_v H$	(312–471)	50.4	327	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$		51.1	410		[1931SCH/COW]
$C_6H_{10}O_3$	[123-62-6]	propionic anhydride				
	$\Delta_v H$	(293–440)	48.2	308	A	[1987STE/MAL]
	$\Delta_v H$	(341–440)	52.2	356		[1883KAH]
$C_6H_{10}O_3$	[141-97-9]	ethyl 3-oxobutanoate				
	$\Delta_v H$		54.2 ± 1.0	298	C	[1995RIB/FER]
	$\Delta_v H$		55.0			[1975VIL/PER]
$C_6H_{10}O_3$	[766-32-5]	4-methyl-2,6,7-trioxabicyclo[2.2.2]octane				
	$\Delta_{fus}H$		10.4	369.2		[1995RAK/VER2]
	$\Delta_{sub}H$		67.4	298		[1995RAK/VER2]
$C_6H_{10}O_3$	[3592-12-9]	2,2-dimethyltrimethylene carbonate				
	$\Delta_{trs}H$		10.3	324.1		
	$\Delta_{fus}H$		5.62	387.2		[1995LEB/KUL2]
$C_6H_{10}O_4$	[75096-35-4]	*cis*-1,3,5,7-tetraoxadecalin or [54933-94-7]				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		28.62	450.2		[1998LIN/BEC]
	$\Delta_{sub}H$		94.9	298		[1998LIN/BEC]
$C_6H_{10}O_4$	[75096-35-4]	*trans*-1,3,5,7-tetraoxadecalin or [54933-94-7]				
	$\Delta_{fus}H$		23.14	374.5		[1998LIN/BEC]
	$\Delta_{sub}H$		81.5	298		[1998LIN/BEC]
$C_6H_{10}O_4$	[542-10-9]	1,1-diacetoxyethane				
	Δ_vH	(343–438)	49.7	358	A	[1987STE/MAL]
$C_6H_{10}O_4$	[6284-75-9]	2-acetoxypropionic acid, methyl ester				
	Δ_vH	(337–445)	52.9	352	A	[1987STE/MAL]
$C_6H_{10}O_4$	[38003-42-8]	3-acetoxypropionic acid, methyl ester				
	Δ_vH	(343–358)	68.0	350	A	[1987STE/MAL]
$C_6H_{10}O_4$	[95-92-1]	diethyl oxalate				
	Δ_vH	(343–457)	53.9	358	A	[1987STE/MAL]
	Δ_vH	(320–459)	62.3	335	A	[1987STE/MAL, 1947STU]
$C_6H_{10}O_4$	[106-65-0]	dimethyl succinate				
	Δ_vH	(286–340)	61.0 ± 0.3	298	GS	[2006VER/KOZ]
	Δ_vH	(342–468)	61.7 ± 0.4	298		[1992KAT, 2006VER/KOZ]
	Δ_vH	(340–470)	49.3	364	A	[1987STE/MAL]
	Δ_vH	(367–460)	60.9 ± 0.4	298	EB	[1987DAU/JAL, 2006VER/KOZ]
	Δ_vH	(398–468)	62.4	298	EB	[1963VLA/GRA, 2006VER/KOZ]
$C_6H_{10}O_4$	[111-55-7]	ethylene glycol diacetate				
	Δ_vH	(291–334)	61.4 ± 0.2	298	GS	[2009VER/EME2]
	Δ_vH	(311–464)	55.2	326	A	[1987STE/MAL]
	Δ_vH		61.4 ± 0.2	298	C	[1986NIL/WAD]
	Δ_vH		61.0 ± 0.1	298	C	[1970KUS/WAD]
	Δ_vH	(373–463)	57.6	388		[1926TAY/RIN, 1984BOU/FRI]
$C_6H_{10}O_4$	[609-02-9]	dimethyl methylmalonate				
	Δ_vH	(278–308)	57.8 ± 0.8	293	GS	[1992VER/BEC]
$C_6H_{10}O_4$	[124-04-9]	adipic acid				
	$\Delta_{fus}H$		33.7	419		[2005ROU/TEM]
	$\Delta_{fus}H$		34.85	426.4		[1991ACR]
	$\Delta_{sub}H$	(353–373)	124.7 ± 20		ME	[2009TAU/SIT]
	$\Delta_{sub}H$	(328–368)	145 ± 4		TPD	[2007CAP/LOV]
	$\Delta_{sub}H$	(285–307)	146.2		TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$		NA			[2001ALB]
	$\Delta_{sub}H$	(295–318)	140		TPTD	[2001CHA/TOB]
		Note: Values based on TPTD method are not consistent with values determined by other experimental methods				
	$\Delta_{sub}H$		133.6 ± 1.3	298	ME	[1999RIB/MON, 1960DAV/THO]
	$\Delta_{sub}H$	(359–406)	129.3 ± 2.5	383	ME	[1950NIT/SEK2, 1960JON, 1970COX/PIL]
	$\Delta_{sub}H$	(292–320)	U 37.2	306	A	[1947GRA]
	Δ_vH	(424–503)	105.2	298	CGC	[2005ROU/TEM]
	Δ_vH	(432–611)	92.0	447	A	[1987STE/MAL, 1947STU]
$C_6H_{10}O_5$	[498-07-7]	(*l*) glucosane				
	Δ_vH	(468–528)	92.2	483	A	[1987STE/MAL, 1964ENS/DUR, 1972DYK]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{10}O_5$	[498-07-7]	1,6-anhydro-β-(d)-glucose				
	$\Delta_{sub}H$	(344–386)	125.1 ± 1.0	365	ME	[1999OJA/SUU]
	$\Delta_{sub}H$	(386–405)	100.3 ± 5.9	395	ME	[1999OJA/SUU]
$C_6H_{10}O_5$	[na]	1,6-anhydro-β-(d)-gulopyranose				
	$\Delta_{fus}H$		24.5	404		[1970SHA/MCG]
$C_6H_{10}O_5$	[617-55-0]	(l) malic acid, dimethyl ester				
	$\Delta_{v}H$	(348–516)	58.7	363	A	[1987STE/MAL, 1947STU]
$C_6H_{10}O_5$	[na]	methyl[1-(methxoycarbonyl)ethyl]carbonate				
	$\Delta_{v}H$	(358–483)	55.9	373	A	[1987STE/MAL]
$C_6H_{10}O_6$	[608-68-4]	(d) dimethyl tartrate				
	$\Delta_{fus}H$		17.36	322.2	DTA	[1981CHI/GAR, 1991CHI/BRA]
	$\Delta_{sub}H$	(310–320)	77.4 ± 8	315	HSA	[1981CHI/GAR]
	$\Delta_{sub}H$	(308–317)	U 113	312		[1954CRO/JON, 1977PED/RYL]
	$\Delta_{sub}H$		88.3			[1938WOL/WEG, 1960JON]
	$\Delta_{sub}H$		85.8			[1937DUN/WOL]
	$\Delta_{v}H$	(322–365)	76.4	337	A,ME	[1987STE/MAL, 1954CRO/JON]
	$\Delta_{v}H$	(375–553)	66.0	390		[1947STU]
$C_6H_{10}O_6$	[609-69-5]	(dl) dimethyl tartrate				
	$\Delta_{fus}H$		26.94	360.2	DTA	[1981CHI/GAR, 1991CHI/BRA]
	$\Delta_{sub}H$	(314–339)	112 ± 5.6	326	HSA	[1981CHI/GAR]
	$\Delta_{sub}H$	(315–358)	113.8	336	ME	[1954CRO/JON, 1977PED/RYL]
	$\Delta_{sub}H$		U 95.0			[1938WOL/WEG, 1960JON]
	$\Delta_{sub}H$		U 92.5			[1937DUN/WOL]
	$\Delta_{v}H$	(373–555)	62.5	388	A	[1987STE/MAL, 1947STU]
$C_6H_{10}O_6$	[na]	*meso*-dimethyl tartrate				
	$\Delta_{sub}H$		98.3			[1938WOL/WEG, 1960JON]
	$\Delta_{sub}H$		95.8			[1937DUN/WOL]
$C_6H_{10}O_6$	[na]	(d)-galactono-1,4-lactone				
	$\Delta_{fus}H$		35.77	410.3		[2004FLO/AMA]
$C_6H_{10}O_6$	[na]	(l)-galactono-1,4-lactone				
	$\Delta_{fus}H$		35.98	409.8		[2004FLO/AMA]
$C_6H_{10}O_6$	[na]	(d)-gulono-1,4-lactone				
	$\Delta_{fus}H$		40.13	459.3		[2004FLO/AMA]
$C_6H_{10}O_6$	[na]	(l)-gulono-1,4-lactone				
	$\Delta_{fus}H$		41.5	459		[2004FLO/AMA]
$C_6H_{10}O_6$	[na]	(l)-mannono-1,4-lactone				
	$\Delta_{fus}H$		36.13	426.5		[2004FLO/AMA]
$C_6H_{10}S$	[592-88-1]	diallyl sulfide				
	$\Delta_{v}H$	(263–411)	46.6	278		[1999DYK/SVO]
	$\Delta_{v}H$	(263–412)	43.2	278	A	[1987STE/MAL, 1947STU]
$C_6H_{11}Br$	[108-85-0]	bromocyclohexane				
	$\Delta_{fus}H$		10.79	216.9		[1995KOB/OGU]
	$\Delta_{v}H$	(347–439)	42.8	362		[1997ART/LAF]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{11}BrO_2$	[600-00-0]	ethyl 2-bromo-2-methylpropionate				
	$\Delta_v H$	(283–437)	45.4	298	A	[1987STE/MAL, 1947STU]
$C_6H_{11}Cl$	[542-18-7]	chlorocyclohexane				
	$\Delta_{trs}H$		7.88	221.1		
	$\Delta_{fus}H$		1.67	228.7	DSC	[2008SIN/MUR]
	$\Delta_{trs}H$		0.05	120		
	$\Delta_{trs}H$		8.01	220.4		
	$\Delta_{fus}H$	(5-304)	2.04	229.3	AC	[1994DIK/KAB]
	$\Delta_v H$	(313–353)	41.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		40.7 ± 0.1	298	C	[1995XUW/DAJ]
	$\Delta_v H$		42.9 ± 0.6	298	C	[1994DIK/KAB]
	$\Delta_v H$	(350–416)	39.3	365	A	[1987STE/MAL, 1969AND/BRA]
$C_6H_{11}Cl$	[6196-85-6]	1-chloro-1-methylcyclopentane				
	$\Delta_v H$		39.7 ± 0.1	297	C	[1997BLO/KAB]
$C_6H_{11}ClO$	[2736-40-5]	diethylacetyl chloride				
	$\Delta_v H$	(313–412)	39.4	328	A	[1987STE/MAL]
$C_6H_{11}ClO$	[2177-22-2]	3-ethyl-3-(chloromethyl)oxetane				
	$\Delta_v H$		49.7 ± 0.2	298	C	[1971RIN/SUN]
$C_6H_{11}ClO_2$	[17696-64-9]	chloroacetic acid, sec-butyl ester				
	$\Delta_v H$	(290–441)	49.6	305	A	[1987STE/MAL]
$C_6H_{11}ClO_2$	[13361-38-8]	chloroacetic acid, isobutyl ester				
	$\Delta_v H$	(293–323)	43.9	308	A	[1987STE/MAL]
$C_6H_{11}F$	[372-46-3]	fluorocyclohexane				
	$\Delta_{trs}H$		7.82	186.7		
	$\Delta_{fus}H$		2.58	285.3		[1986GON/SZW]
	$\Delta_v H$	(271–301)	37.5 ± 0.3	298	GS	[1997SCH/VER]
	$\Delta_v H$	(316–373)	35.0	331	A	[1987STE/MAL]
$C_6H_{11}FO_2$	[1578-57-0]	2-fluorohexanoic acid				
	$\Delta_v H$	(387–411)	80.9	399	A	[1987STE/MAL]
$C_6H_{11}FO_5$	[na]	2-deoxy-2-fluoro-(*d*)-glucopyranose				
	$\Delta_{fus}H$		38.2	427.2		[1996SCH]
$C_6H_{11}FO_5$	[na]	6-deoxy-6-fluoro-(*d*)-glucopyranose				
	$\Delta_{fus}H$		27.2	412.2		[1996SCH]
$C_6H_{11}FO_5$	[na]	3-deoxy-3-fluoro-(*d*)-glucopyranose				
	$\Delta_{fus}H$		18.3	378.2		[1996SCH]
$C_6H_{11}I$	[626-62-0]	iodocyclohexane				
	$\Delta_v H$	(313–353)	48.3	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(358–408)	43.0	383	A,I	[1987STE/MAL, 1956BRE/UBB]
$C_6H_{11}N$	[628-73-9]	hexanenitrile				
	$\Delta_v H$	(371–442)	43.3	386	A,EB	[1987STE/MAL, 1973MEY/HOT]
	$\Delta_v H$	(344–441)	44.6	359	EB	[1971MEY/REN]
	$\Delta_v H$		47.9 ± 0.1	298	C	[1970HOW/WAD]
	$\Delta_v H$	(365–437)	49.1	298	EB	[1949DRE/SHR, 1949DRE/MAR, 2005EME/VER]
	$\Delta_v H$	(293–452)	47.7 ± 0.1	298	MM	[1933HEI, 2005EME/VER]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{11}N$	[542-54-1]	4-methylvaleronitrile				
	$\Delta_v H$	(332–430)	35.7	347	A	[1987STE/MAL]
$C_6H_{11}NO$	[100-64-1]	cyclohexanone oxime				
	$\Delta_{fus}H$		12.7	362.5		[2002STE/CHI6]
	$\Delta_{fus}H$		12.45	362.2		[2008ZAI/PAU]
	$\Delta_{trs}H$		0.01	240.8		
	$\Delta_{trs}H$		0.09	273.4		
	$\Delta_{fus}H$		12.7	362.6		[1992KOZ/KAB]
	$\Delta_{sub}H$		74.0 ± 0.3	354	C	[1992KOZ/KAB]
	$\Delta_{sub}H$	(288–348)	79.9 ± 0.7	317	ME	[1992KOZ/KAB]
	$\Delta_{sub}H$		76.5 ± 1.0	378		[2002STE/CHI6]
	$\Delta_{sub}H$		79.0 ± 2.0	298		[2002STE/CHI6]
	$\Delta_v H$		58.7 ± 0.6	368	C	[1992KOZ/KAB]
	$\Delta_v H$	(371–446)	59.5 ± 0.5			[1992KOZ/KAB]
	$\Delta_v H$	(370–385)	63.1 ± 1.0	298		[2002STE/CHI6]
$C_6H_{11}NO$	[105-60-2]	ε-caprolactam				
	$\Delta_{fus}H$		16.16	342.2		[2007SHE/ZAI]
	$\Delta_{fus}H$		16.2	342.3	DSC	[2002STE/CHI3]
	$\Delta_{fus}H$		16.1	343.3		[1992KAB/KOZ]
	$\Delta_{sub}H$	(293–338)	86.3	316	ME	[2006ZAI/PAU]
	$\Delta_{sub}H$	(302–339)	86.9	320	GS	[2006ZAI/PAU]
	$\Delta_{sub}H$	(330–340)	89.3 ± 0.8	335	ME	[1992KAB/KOZ]
	$\Delta_{sub}H$		86.3 ± 0.2	338	C	[1992KAB/KOZ]
	$\Delta_{sub}H$		87.3 ± 0.2	298		[1992KAB/KOZ]
	$\Delta_{sub}H$	(258–308)	77.5	273	A	[1987STE/MAL]
	$\Delta_{sub}H$	(294–314)	83.3 ± 0.8			[1953AIH, 1960JON, 1970COX/PIL, 1960AIH2]
	$\Delta_v H$	(350–568)	69.2 ± 0.3	360	EB	[2002STE/CHI3]
	$\Delta_v H$	(350–568)	65.7 ± 0.3	400	EB	[2002STE/CHI3]
	$\Delta_v H$	(350–568)	62.3 ± 0.2	440	EB	[2002STE/CHI3]
	$\Delta_v H$	(350–568)	59.0 ± 0.2	480	EB	[2002STE/CHI3]
	$\Delta_v H$	(350–568)	55.7 ± 0.3	520	EB	[2002STE/CHI3]
	$\Delta_v H$	(350–568)	52.4 ± 0.5	560	EB	[2002STE/CHI3]
	$\Delta_v H$	(373–543)	62.3	388	A	[1987STE/MAL]
$C_6H_{11}NO$	[820-99-5]	*cis* 2-hexenoic acid amide				
	$\Delta_{sub}H$	(323–333)	80.0	328	A	[1987STE/MAL]
	$\Delta_v H$	(343–383)	61.7	358	A	[1987STE/MAL]
$C_6H_{11}NO$	[19841-69-3]	*trans* 2-hexenoic acid amide				
	$\Delta_{sub}H$	(353–393)	55.8	368	A	[1987STE/MAL]
$C_6H_{11}NO$	[931-20-4]	1-methyl-2-piperidone				
	$\Delta_v H$		60.3 ± 0.9	298	C	[2006RIB/CAB]
	$\Delta_v H$	(341–385)	55.4	356	A	[1987STE/MAL]
$C_6H_{11}NO$	[1445-73-4]	1-methyl-4-piperidone				
	$\Delta_v H$		54.2 ± 1.0	298	C	[2006RIB/CAB]
$C_6H_{11}NO$	[5693-62-9]	2,3,4,5-tetrahydro-6-methoxypyridine				
	$\Delta_v H$	(292–338)	42.8	307	A	[1987STE/MAL]
$C_6H_{11}NO_2$	[1122-60-7]	nitrocyclohexane				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(298–318)	54.7 ± 0.6	298	GS	[1997VER3]
$C_6H_{11}NO_2$	[52-52-8]	1-aminocyclopentanecarboxylic acid				
	$\Delta_{sub}H$		123.4 ± 4	455	ME	[1965SVE/CLY, 1964CLY/SVE]
	$\Delta_{sub}H$	(443–468)	123.3	455	A	[1987STE/MAL]
$C_6H_{11}NO_2$	[na]	lactic acid N-allyl amide				
	$\Delta_v H$	(359–419)	78.2	374	A	[1987STE/MAL]
$C_6H_{11}NO_2$	[na]	5,5-dimethylperhydro-1,3-oxazine-2-one				
	$\Delta_{fus}H$		28.5	399		[1996LEB/SMI]
$C_6H_{11}NO_3$	[1906-82-7]	ethyl acetamidoacetate				
	$\Delta_v H$	(383–466)	69.4	398	A	[1987STE/MAL, 1972DYK]
$C_6H_{11}NO_3$	[1596-84-5]	N-dimethylaminosuccinamic acid				
	$\Delta_{fus}H$		36.97	431.4	DSC	[1990DON/DRE]
$C_6H_{11}N_2O_3PS_2$	[950-37-8]	S-2,3-dihydro-5-methoxy-2-oxo-1,3,4-thiadiazol-3-ylmethyl O,O-dimethyl phosphorodithioate				
	$\Delta_{fus}H$		28.54	315.1	DSC	[1990DON/DRE]
$C_6H_{11}NS$	[13070-07-0]	2-piperidinethione				
	$\Delta_{sub}H$	(363–370)	81.2 ± 2.9	366	B	[1974BEA/MUE]
	$\Delta_v H$	(363–370)	63.3	366	A	[1987STE/MAL]
$C_6H_{11}NS$	[19766-29-1]	2,3,4,5-tetrahydro-(methylthio)pyridine				
	$\Delta_v H$	(313–351)	52.6	328	A	[1987STE/MAL]
$C_6H_{11}N_3O_6$	[62154-78-3]	2,3,3-trinitro-2-methylpentane				
	$\Delta_{sub}H$		90.8	298		[1999MIR/VOR]
$C_6H_{11}N_5O_8$	[1924-47-6]	N-(2,2-dinitropropyl)-2,2-dinitro-1-propanamine				
	$\Delta_{sub}H$		105.4 ± 4.2			[1973DEK/OON, 1977PED/RYL]
C_6H_{12}	[4806-61-5]	ethylcyclobutane				
	$\Delta_v H$		31.2 ± 0.2	298	C	[1983FUC/HAL]
	$\Delta_v H$		32.6 ± 0.8	298	EB	[1974GOO/MOO]
C_6H_{12}	[110-82-7]	cyclohexane				
	$\Delta_{trs}H$		6.74	186.1		
	$\Delta_{fus}H$		2.68	279.8		[1996DOM/HEA]
	$\Delta_{trs}H$		6.73	186		[1984DOM/EVA]
	$\Delta_{sub}H$	(223–280)	27.6	265	A	[1987STE/MAL]
	$\Delta_{sub}H$		36.4 ± 0.7		B	[1974JAC]
	$\Delta_{sub}H$		46.6	186	B	[1963BON]
	$\Delta_{sub}H$	(268–278)	37.2	273		[1960JON]
	$\Delta_{sub}H$	(228–268)	37.7	248	A	[1947STU]
	$\Delta_{sub}H$	(269–279)	36.5	274	A	[1934ROT/NAG]
	$\Delta_v H$	(296–353)	33.1	315	EB	[2009GIE/KOS]
	$\Delta_v H$	(300–345)	32.7	315		[2002LUB/BAN]
	$\Delta_v H$	(360–470)	32.2	375		[1993LEE/HOL]
	$\Delta_v H$	(313–336)	31.9	324	EB	[1995DIO/SAN]
	$\Delta_v H$	(313–336)	33.1	298	EB	[1995DIO/SAN]
	$\Delta_v H$		32.3	314	C	[1988DON/LIN]
	$\Delta_v H$		31.1	332	C	[1988DON/LIN]
	$\Delta_v H$		30.3	345	C	[1988DON/LIN]
	$\Delta_v H$		30.0	355	C	[1988DON/LIN]
	$\Delta_v H$	(353–414)	30.9	368	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(412–491)	29.6	427	A	[1987STE/MAL]
	$\Delta_v H$	(489–553)	29.6	504	A	[1987STE/MAL]
	$\Delta_v H$		33.0 ± 0.1	298	C	[1982FUR/SAK]
	$\Delta_v H$		33.0	298		[1981SHI/SAI]
	$\Delta_v H$		33.0 ± 0.1	298	C	[1979MAJ/SVO]
	$\Delta_v H$		32.3 ± 0.1	313	C	[1979MAJ/SVO]
	$\Delta_v H$		31.2 ± 0.1	333	C	[1979MAJ/SVO]
	$\Delta_v H$		31.0 ± 0.1	338	C	[1979MAJ/SVO]
	$\Delta_v H$		30.4 ± 0.1	348	C	[1979MAJ/SVO]
	$\Delta_v H$		30.1 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$		32.2 ± 0.1	313	C	[1973SVO/VES]
	$\Delta_v H$		31.9 ± 0.1	323	C	[1973SVO/VES]
	$\Delta_v H$		31.1 ± 0.1	333	C	[1973SVO/VES]
	$\Delta_v H$		30.6 ± 0.1	343	C	[1973SVO/VES]
	$\Delta_v H$		30.1 ± 0.1	354	C	[1973SVO/VES]
	$\Delta_v H$		32.9 ± 0.3	298	ME	[1972SAB/CHA]
	$\Delta_v H$		32.9	298		[1971MOR]
	$\Delta_v H$		33.0	298		[1971WIL/ZWO]
	$\Delta_v H$	(303–343)	32.5	318		[1968GAW/SWI]
	$\Delta_v H$	(298–348)	32.9	313		[1967CRU/CUT]
	$\Delta_v H$	(316–354)	32.8	331		[1965MAR/SUS]
	$\Delta_v H$		33.0 ± 0.1	298	C	[1960WAD]
	$\Delta_v H$		31.4 ± 0.1	324	C	[1951MCC/PER]
	$\Delta_v H$		30.4 ± 0.1	346	C	[1951MCC/PER]
	$\Delta_v H$		33.0	298	C	[1947OSB/GIN]
	$\Delta_v H$		30.1	354		[1946SPI/PIT]
	$\Delta_v H$	(293–355)	32.9	308	A,MM	[1987STE/MAL, 1945WIL/TAY]
	$\Delta_v H$		33.3 ± 0.1	298	C	[1943AST/SZA]
	$\Delta_v H$		33.5	298		[1927NAG]
C_6D_{12}	[1735-17-7]	cyclohexane-d_{12}				
	$\Delta_v H$	(283–353)	33.1	298		[1953DAV/SCH]
C_6H_{12}	[96-37-7]	methylcyclopentane				
	$\Delta_{fus}H$		6.93	130.7		[1996DOM/HEA]
	$\Delta_v H$	(300–345)	31.4	315		[2010SAP/UUS]
	$\Delta_v H$		31.6	298		[1971WIL/ZWO]
	$\Delta_v H$		31.3 ± 0.1	304	C	[1959MCC/PEN]
	$\Delta_v H$		30.2 ± 0.1	326	C	[1959MCC/PEN]
	$\Delta_v H$		29.1 ± 0.1	345	C	[1959MCC/PEN]
	$\Delta_v H$		31.6 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(288–346)	31.9	303	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_6H_{12}	[592-41-6]	1-hexene				
	$\Delta_{fus}H$		9.35	133.4		[1996DOM/HEA]
	$\Delta_v H$	(298–336)	30.4	313		[2009MAR/AUC]
	$\Delta_v H$	(300–337)	30.6	315		[2001SEG/LAM]
	$\Delta_v H$	(273–343)	31.6	288	A	[1987STE/MAL]
	$\Delta_v H$		30.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(289–337)	30.6	298		[1956CAM/ROS]
	$\Delta_v H$	(289–337)	31.0	304	MM	[1950FOR/CAM]
C_6H_{12}	[7688-21-3]	*cis* 2-hexene				
	$\Delta_{fus}H$		8.88	132		[1990MES/TOD]
	$\Delta_v H$	(278–343)	32.2	293	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		31.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(298–342)	31.5	298		[1956CAM/ROS]
C_6H_{12}	[4050-45-7]	*trans* 2-hexene				
	$\Delta_v H$	(283–342)	32.2	298	A	[1987STE/MAL]
	$\Delta_v H$		31.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(292–341)	31.5	298		[1956CAM/ROS]
C_6H_{12}	[7642-09-3]	*cis* 3-hexene				
	$\Delta_v H$	(276–348)	32.1	291	A	[1987STE/MAL]
	$\Delta_v H$		31.3	298		[1971WIL/ZWO]
	$\Delta_v H$	(185–340)	31.3	298		[1956PEN/SCO]
C_6H_{12}	[13269-52-8]	*trans* 3-hexene				
	$\Delta_v H$	(278–341)	32.3	293	A	[1987STE/MAL]
	$\Delta_v H$		31.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(291–341)	31.5	298		[1956PEN/SCO]
C_6H_{12}	[763-29-1]	2-methyl-1-pentene				
	$\Delta_v H$	(272–341)	31.6	287	A	[1987STE/MAL]
	$\Delta_v H$		30.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(300–335)	30.5	298		[1956CAM/ROS]
C_6H_{12}	[760-20-3]	3-methyl-1-pentene				
	$\Delta_v H$	(265–333)	30	280	A	[1987STE/MAL]
	$\Delta_v H$		28.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(287–328)	28.6	298		[1956CAM/ROS]
C_6H_{12}	[691-37-2]	4-methyl-1-pentene				
	$\Delta_{fus}H$		4.93	118.9		[1994LEB/SMI3]
	$\Delta_v H$	(310–360)	28.6 ± 0.2	298	EB	[1997STE/CHI]
	$\Delta_v H$	(310–360)	27.4 ± 0.3	320	EB	[1997STE/CHI]
	$\Delta_v H$	(310–360)	26.2 ± 0.4	340	EB	[1997STE/CHI]
	$\Delta_v H$	(310–360)	24.9 ± 0.5	360	EB	[1997STE/CHI]
	$\Delta_v H$	(265–333)	30.1	280	A	[1987STE/MAL]
	$\Delta_v H$		28.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(287–328)	28.7	298		[1956PEN/SCO]
C_6H_{12}	[625-27-4]	2-methyl-2-pentene				
	$\Delta_v H$	(277–346)	32.4	292	A	[1987STE/MAL]
	$\Delta_v H$		31.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(292–341)	31.6	298		[1956PEN/SCO]
C_6H_{12}	[922-62-3]	*cis* 3-methyl-2-pentene				
	$\Delta_v H$	(277–347)	32.2	292	A	[1987STE/MAL]
	$\Delta_v H$		31.3	298		[1971WIL/ZWO]
	$\Delta_v H$	(300–344)	32.1	298		[1956CAM/ROS]
C_6H_{12}	[616-12-6]	*trans* 3-methyl-2-pentene				
	$\Delta_v H$	(280–349)	32.8	295	A	[1987STE/MAL]
	$\Delta_v H$		32.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(292–341)	31.3	298		[1956CAM/ROS]
C_6H_{12}	[691-38-3]	*cis* 4-methyl-2-pentene				
	$\Delta_v H$	(267–330)	30.8	282	A	[1987STE/MAL]
	$\Delta_v H$		29.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(300–330)	29.5	298		[1956CAM/ROS]
C_6H_{12}	[674-76-0]	*trans* 4-methyl-2-pentene				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(269–337)	31.2	284	A	[1987STE/MAL]
	$\Delta_v H$		30.0	298		[1971WIL/ZWO]
	$\Delta_v H$	(291–332)	30.0	298		[1956CAM/ROS]
C_6H_{12}	[563-78-0]	2,3-dimethyl-1-butene				
	$\Delta_v H$	(267–335)	30.5	282	A	[1987STE/MAL]
	$\Delta_v H$		29.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(289–329)	29.2	298		[1956CAM/ROS]
C_6H_{12}	[558-37-2]	3,3-dimethyl-1-butene				
	$\Delta_{trs}H$		4.35	124.9		
	$\Delta_{fus}H$		1.09	158.4		[1996DOM/HEA]
	$\Delta_v H$	(254–316)	28.6	269	A	[1987STE/MAL]
	$\Delta_v H$		26.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(264–314)	27.4	298		[1971BAG/MAL]
	$\Delta_v H$	(281–315)	26.6	298		[1956CAM/ROS]
C_6H_{12}	[563-79-1]	2,3-dimethyl-2-butene				
	$\Delta_{trs}H$		3.53	196.8		
	$\Delta_{fus}H$		6.44	198.9		[1996DOM/HEA]
	$\Delta_v H$	(313–346)	32.1	328		[2004UUS/POK]
	$\Delta_v H$	(289–347)	32.6	298		[1956CAM/ROS]
	$\Delta_v H$		32.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(289–347)	32.7	304		[1971BAG/MAL]
	$\Delta_v H$	(282–348)	33.1	297	A	[1987STE/MAL, 1955CUM/MCL]
	$\Delta_v H$		32.9 ± 0.1	292	C	[1955SCO/FIN]
	$\Delta_v H$		32.0 ± 0.1	308	C	[1955SCO/FIN]
	$\Delta_v H$		30.9 ± 0.1	326	C	[1955SCO/FIN]
	$\Delta_v H$		29.7 ± 0.1	346	C	[1955SCO/FIN]
C_6H_{12}	[760-21-4]	2-ethyl-1-butene				
	$\Delta_v H$	(289–338)	31.0	298		[1956CAM/ROS]
$C_6H_{12}Br_2$	[58133-26-9]	1,1-dibromohexane				
	$\Delta_v H$	(378–526)	51.6	393	A,EST	[1987STE/MAL, 1956MAN, 1972DYK]
$C_6H_{12}Br_2$	[624-20-4]	1,2-dibromohexane				
	$\Delta_v H$	(363–450)	56.5 ± 2.0	298		[1993VAR/PUC]
$C_6H_{12}ClNO$	[3240-94-6]					
	$\Delta_v H$	(273–333)	53.8	288	A	[1987STE/MAL, 1972DYK]
$C_6H_{12}Cl_2$	[62017-16-7]	1,1-dichlorohexane				
	$\Delta_v H$	(330–440)	48.7	298		[1987VAR/LOS2, 1991BAS/SVO]
	$\Delta_v H$	(345–484)	45.1	360	A,EST	[1987STE/MAL, 1956MAN, 1972DYK]
$C_6H_{12}Cl_2$	[2162-92-7]	(*dl*) 1,2-dichlorohexane				
	$\Delta_v H$	(350–440)	48.8	298		[1991BAS/SVO]
	$\Delta_v H$	(352–442)	44.9	367	A	[1987STE/MAL]
	$\Delta_v H$		47.9 ± 0.7	298	EB	[1975PIS/ROZ2]
$C_6H_{12}Cl_2$	[2163-00-0]	1,6-dichlorohexane				
	$\Delta_v H$	(380–480)	56.3	298		[1988VAR/LOS, 1991BAS/SVO]
$C_6H_{12}Cl_2O$	[108-60-1]	*bis*(2-chloro-1-methylethyl) ether				
	$\Delta_v H$	(302–456)	53.6	317	A	[1987STE/MAL, 1947STU]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{12}Cl_2O_2$	[14689-97-5]	*bis*(2-chloroethyl)acetaldehyde acetal				
	$\Delta_v H$	(329–486)	59.4	344	A	[1987STE/MAL, 1947STU]
$C_6H_{12}Cl_3N$	[555-77-1]	*bis*(2-chloroethyl)acetaldehyde acetal				
	$\Delta_v H$	(273–333)	65.0	288	A,GS	[1987STE/MAL, 1948RED/CHA3, 1972DYK]
$C_6H_{12}Cl_3O_4P$	[na]	tris(2-chloroethyl)phosphate				
	$\Delta_v H$	(293–445)	36.7	308	A	[1987STE/MAL, 1972DYK]
$C_6H_{12}F_2$	[62127-41-7]	1,1-difluorohexane				
	$\Delta_v H$	(290–407)	37.7	305	A,EST	[1987STE/MAL, 1956MAN, 1972DYK]
$C_6H_{12}F_3OP$	[na]	methyl (trifluoromethyl)phosphinous acid, *tert*-butyl ester				
	$\Delta_v H$	(273–329)	39.7	296		[1970BUR/KAN]
$C_6H_{12}F_3PS$	[26348-87-8]	methyl (trifluoromethyl)phosphinothious acid, *tert*-butyl ester				
	$\Delta_v H$	(296–337)	43.2	312		[1970BUR/KAN]
$C_6H_{12}F_4N_2$	[16096-76-7]	N,N,N′,N′-tetrafluoro-2-methyl-1,2-pentanediamine				
	$\Delta_v H$	(253–293)	42.8	278	A,IP	[1987STE/MAL, 1963GOO/DOU, 1962GOO/DOU]
$C_6H_{12}N_2$	[3010-02-4]	(diethylamino)acetonitrile				
	$\Delta_v H$	(283–318)	49.9 ± 0.3		GS	[1997WEL/VER]
$C_6H_{12}N_2$	[280-57-9]	1,4-diazabicyclo[2.2.2]octane				
	$\Delta_{trs}H$		10.54	351.1		
	$\Delta_{fus}H$		7.45	433		[1996DOM/HEA]
	$\Delta_{sub}H$	(324–351)	61.9 ± 3.3	338		[1960WAD/KIS, 1970COX/PIL]
	$\Delta_{sub}H$	(353–369)	52.3 ± 3.3	361		[1960WAD/KIS, 1970COX/PIL]
	$\Delta_{sub}H$	(323–373)	54.4	348		[1963BON]
$C_6H_{12}N_2$	[na]	3,3,4,4-tetramethyl-Δ1-1,2-diazetine				
	$\Delta_{sub}H$		62.3 ± 1.0	298	C	[1978MON/ENG]
$C_6H_{12}N_2O$	[7226-23-5]	1,3-dimethyl-3,4,5,6-tetrahydro-2(1*H*) pyrimidinone				
	$\Delta_v H$	(370–520)	58.0	400	EB	[1987KNE/ZON]
$C_6H_{12}N_2O$	[18503-52-1]	1,4-diazabicyclo[2.2.2]octane N-oxide				
	$\Delta_{trs}H$		3.4	418		
	$\Delta_{fus}H$		0.45	493	DSC	[1990MIH/BAS, 1987MIH/BAS]
$C_6H_{12}N_2O$	[2158-03-4]	1-piperidinecarboxamide				
	$\Delta_{sub}H$		100.2 ± 1.2	298	C	[2007RIB/CAB2]
$C_6H_{12}N_2O$	[4138-26-5]	3-piperidinecarboxamide				
	$\Delta_{sub}H$		112.5 ± 1.3	298	C	[2007RIB/CAB2]
$C_6H_{12}N_2O$	[39546-32-2]	4-piperdinecarboxamide				
	$\Delta_{sub}H$		123.6 ± 1.3	298	C	[2007RIB/CAB2]
$C_6H_{12}N_2OS$	[62528-85-2]	tetramethyl monothiooxamide				
	$\Delta_{fus}H$		17.0	350.2	DSC	[2003CLO/JAN]
	$\Delta_v H$		59.0	508	TGA,DSC	[2003CLO/JAN]
$C_6H_{12}N_2O_2$	[608-14-6]	N,N,N′,N′-tetramethyloxamide				
	$\Delta_{fus}H$		18.0	352.2		[2003CLO/JAN]
	$\Delta_v H$		52.5	460	TGA,DSC	[2003CLO/JAN]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{12}N_2O_2$	[628-94-4]	adipamide				
	$\Delta_{trs}H$		1.59	458.4		
	$\Delta_{fus}H$		52.72	499.1	DSC	[2006BAD/DEL]
$C_6H_{12}N_2O_3$	[na]	β-alanyl-β-alanine				
	$\Delta_{fus}H$		58.3	480.1		[1996DOM/HEA]
$C_6H_{12}N_2O_3$	[na]	α-alanyl-α-alanine (*dl*)				
	$\Delta_{fus}H$		33.2	483.2		[1996DOM/HEA]
$C_6H_{12}N_2O_4$	[3964-18-9]	2,3-dinitro-2,3-dimethylbutane				
	$\Delta_{trs}H$		1.0	322		
	$\Delta_{trs}H$		18.0	389		
	$\Delta_{fus}H$		8.8	473		[2002JON/LIG]
	$\Delta_{sub}H$		74 ± 5		TGA	[2002JON/LIG]
	$\Delta_{sub}H$		79.5 ± 0.8	298		[1999MIR/VOR]
	$\Delta_{sub}H$	(303–330)	85 ± 2		ME	[1994SMI/MAT, 2002JON/LIG]
	$\Delta_{sub}H$	(253–323)	94		GC	[1991ELI, 2002JON/LIG]
$C_6H_{12}N_2O_6$	[99115-63-6]	2,5-hexanediol dinitrate				
	$\Delta_{sub}H$	(293–313)	119	303	A	[1987STE/MAL, 1957KEM/GOL, 1972DYK]
	Δ_vH	(293–313)	54.4	303	B,GS	[1957KEM/GOL, 1972DYK]
$C_6H_{12}N_2O_8$	[111-22-8]	triethylene glycol dinitrate				
	Δ_vH	(303–348)	88.3	318	A	[1987STE/MAL, 1972DYK, 1963WOO/ADI]
$C_6H_{12}N_2S_2$	[35840-78-9]	tetramethyl dithiooxamide				
	$\Delta_{fus}H$		21.0	409.2	DSC	[2003CLO/JAN]
	Δ_vH		60.5	533	TGA,DSC	[2003CLO/JAN]
$C_6H_{12}N_4$	[100-97-0]	1,3,5,7-tetraazatricyclo[3.3.1.1^{3,7}]decane				
	$\Delta_{sub}H$	(339–378)	77.7 ± 0.4	359	GS	[2002VER2]
	$\Delta_{sub}H$	(339–378)	79.6 ± 0.4	298	GS	[2002VER2]
	$\Delta_{sub}H$	(298–453)	76.8	313	A	[1987STE/MAL]
	$\Delta_{sub}H$	(302–328)	78.8	316	TE,ME	[1983DEW/VAN]
	$\Delta_{sub}H$		74.9 ± 2.9	298		[1960WAD/KIS, 1970MAN/RAP]
	$\Delta_{sub}H$	(281–298)	74.1 ± 0.8	289	TE	[1960BUD]
	$\Delta_{sub}H$		75.3			[1958KLI/STR]
$C_6H_{12}O$	[100-38-9]	(*dl*) 2,5-dimethyltetrahydrofuran				
	Δ_vH	(278–370)	35.4	293	A	[1987STE/MAL]
$C_6H_{12}O$	[1436-34-6]	1,2-epoxyhexane				
	Δ_vH	(300–390)	43.1	315	A	[1987STE/MAL, 1969VOJ/CIH, 1984BOU/FRI]
$C_6H_{12}O$	[1192-22-9]	2-methyl-2,3-epoxypentane				
	Δ_vH	(306–369)	40.6	321	A	[1987STE/MAL]
$C_6H_{12}O$	[6140-80-3]	allyl isopropyl ether				
	Δ_vH	(253–415)	36.1	268	A	[1987STE/MAL]
	Δ_vH	(229–353)	36.8	244	A	[1987STE/MAL, 1947STU]
$C_6H_{12}O$	[1471-03-0]	allyl propyl ether				
	Δ_vH	(261–428)	37.5	276	A	[1987STE/MAL]
	Δ_vH	(234–364)	36.4	249	A	[1987STE/MAL, 1947STU]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{12}O$	[111-34-2]	butyl vinyl ether				
	$\Delta_v H$	(311–403)	36.7 ± 0.2	298	EB	[1996STE/CHI2]
	$\Delta_v H$	(311–403)	35.2 ± 0.2	320	EB	[1996STE/CHI2]
	$\Delta_v H$	(311–403)	32.5 ± 0.2	360	EB	[1996STE/CHI2]
	$\Delta_v H$	(311–403)	29.6 ± 0.2	400	EB	[1996STE/CHI2]
	$\Delta_v H$	(353–393)	36.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(269–368)	36.1	284	A	[1987STE/MAL]
$C_6H_{12}O$	[109-53-5]	isobutyl vinyl ether				
	$\Delta_v H$	(266–357)	37.4	281	A	[1987STE/MAL]
$C_6H_{12}O$	[108-93-0]	cyclohexanol				
	$\Delta_{trs}H$		8.7	245.2		
	$\Delta_{fus}H$		1.73	298.2	DSC	[2009SIN/MUR]
	$\Delta_{trs}H$		8.21	263.5		
	$\Delta_{fus}H$		1.7	297		[1984PIN/POS, 1968ADA/SUG, 1996DOM/HEA]
	$\Delta_{sub}H$	(272–298)	60.7	285	A	[1987STE/MAL, 1948NIT/SEK2]
	$\Delta_v H$	(322–433)	60.1	337		[2004STE/SUN]
	$\Delta_v H$	(390–430)	49.8	405		[2002SWI/MAL]
	$\Delta_v H$		62.0 ± 0.3	298	C	[1999COS/EUS]
	$\Delta_v H$	(288–328)	61.2 ± 0.6	308	GS	[1998VER5]
	$\Delta_v H$	(288–328)	61.8 ± 0.6	298	GS	[1998VER5]
	$\Delta_v H$	(341–471)	63.5 ± 0.7	298	EB	[1997STE/CHI3]
	$\Delta_v H$	(323–373)	61.3	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(350–456)	55.0	365	EB	[1987AMB/GHI2]
	$\Delta_v H$	(318–434)	59.9	333	A	[1987STE/MAL]
	$\Delta_v H$	(300–434)	62.7	315	A	[1987STE/MAL]
	$\Delta_v H$	(404–432)	49.3	418		[1984CAS/FRA2]
	$\Delta_v H$	(303–373)	58.4	318		[1984SIP/WIE]
	$\Delta_v H$	(299–319)	60.4	309		[1975CAB/CON2]
	$\Delta_v H$		62.0 ± 0.9	298		[1975CAB/CON2]
	$\Delta_v H$		62.0 ± 0.2	298	C	[1968PLA/WIL]
	$\Delta_v H$		62.0 ± 0.3	298		[1966WAD]
	$\Delta_v H$		62.0 ± 0.2		C	[1962SEL/SUN]
	$\Delta_v H$	(367–433)	52.6	382		[1960NOV/MAT2, 1960NOV/MAT]
	$\Delta_v H$	(307–422)	54.8	322		[1946THO]
$C_6H_{12}O$	[1462-03-9]	1-methylcyclopentanol				
	$\Delta_{fus}H$		8.41	310.2		[1985WIB/WAS]
	$\Delta_v H$	(354–407)	45.7	369	A	[1987STE/MAL]
$C_6H_{12}O$	[821-41-0]	5-hexen-1-ol				
	$\Delta_v H$		60.2 ± 0.1	298	C	[1996ULB/KLU]
	$\Delta_v H$		58.0 ± 0.1	343	C	[1996ULB/KLU]
	$\Delta_v H$		55.7 ± 0.1	358	C	[1996ULB/KLU]
$C_6H_{12}O$	[565-61-7]	(*dl*) 3-methyl-2-pentanone				
	$\Delta_v H$	(286–400)	39.8	301	A	[1987STE/MAL]
	$\Delta_v H$	(283–395)	41.5	298	A	[1987STE/MAL]
	$\Delta_v H$	(385–455)	36.5	400	A	[1987STE/MAL]
	$\Delta_v H$	(283–457)	41.2	298		[1975AMB/ELL]
$C_6H_{12}O$	[591-78-6]	2-hexanone				
	$\Delta_{fus}H$		14.9	217.7		[1996DOM/HEA]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(359–401)	39.0	374	EB	[2002SII/KIR]
	$\Delta_v H$		43.1 ± 0.1	298	C	[1992SVO/KUB]
	$\Delta_v H$		42.5 ± 0.1	308	C	[1992SVO/KUB]
	$\Delta_v H$		41.6 ± 0.1	323	C	[1992SVO/KUB]
	$\Delta_v H$		40.7 ± 0.1	338	C	[1992SVO/KUB]
	$\Delta_v H$		40.1 ± 0.1	348	C	[1992SVO/KUB]
	$\Delta_v H$		39.5 ± 0.1	358	C	[1992SVO/KUB]
	$\Delta_v H$	(293–411)	40.8	308	A	[1987STE/MAL]
	$\Delta_v H$	(279–423)	43.8	294	A	[1987STE/MAL]
	$\Delta_v H$	(310–427)	41.5	325	A	[1987STE/MAL]
	$\Delta_v H$	(421–523)	36.7	436	A	[1987STE/MAL]
	$\Delta_v H$	(513–587)	36.1	528	A	[1987STE/MAL]
	$\Delta_v H$		43.1 ± 0.1	298	C	[1983UCH/MAJ]
	$\Delta_v H$		43.0 ± 0.3	298	GCC	[1979SAL/PEA]
	$\Delta_v H$	(307–482)	42.9	298		[1975AMB/ELL]
	$\Delta_v H$		42.2 ± 0.1	298	C	[1970HAR/HEA]
	$\Delta_v H$	(280–400)	53.8	295		[1947STU]
$C_6H_{12}O$	[589-38-8]	3-hexanone				
	$\Delta_{trs}H$		0.68	145		
	$\Delta_{fus}H$		13.47	217.7		[1996DOM/HEA]
	$\Delta_v H$	(408–517)	36.5	423	A	[1987STE/MAL]
	$\Delta_v H$	(511–583)	35.4	526	A	[1987STE/MAL]
	$\Delta_v H$		40.6 ± 0.1	298	C	[1983UCH/MAJ]
	$\Delta_v H$		42.3 ± 0.3	298	GCC	[1979SAL/PEA]
	$\Delta_v H$	(348–413)	38.9	363	A	[1987STE/MAL, 1975AMB/ELL]
	$\Delta_v H$		42.3	298		[1975AMB/ELL]
	$\Delta_v H$	(292–406)	42.2	307	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$		41.9 ± 0.2	298	C	[1970HAR/HEA]
	$\Delta_v H$		38.4 ± 0.1	354	C	[1967HAL/LEE]
	$\Delta_v H$		37.0 ± 0.1	374	C	[1967HAL/LEE]
	$\Delta_v H$		35.4 ± 0.1	396	C	[1967HAL/LEE]
	$\Delta_v H$	(349–406)	38.8	364	GS,EB	[1965COL/COU]
$C_6H_{12}O$	[75-97-8]	3,3-dimethyl-2-butanone (pinacolone)				
	$\Delta_{fus}H$		11.34	221.7		[1996DOM/HEA]
	$\Delta_v H$		37.8 ± 0.1	308	C	[1992SVO/KUB]
	$\Delta_v H$		37.5 ± 0.1	313	C	[1992SVO/KUB]
	$\Delta_v H$		36.9 ± 0.1	323	C	[1992SVO/KUB]
	$\Delta_v H$		36.7 ± 0.1	328	C	[1992SVO/KUB]
	$\Delta_v H$		35.8 ± 0.1	338	C	[1992SVO/KUB]
	$\Delta_v H$		35.4 ± 0.1	343	C	[1992SVO/KUB]
	$\Delta_v H$		35.0 ± 0.1	348	C	[1992SVO/KUB]
	$\Delta_v H$	(311–381)	36.9	326	A	[1987STE/MAL]
	$\Delta_v H$	(363–400)	34.9	378	A	[1987STE/MAL]
	$\Delta_v H$	(396–509)	33.8	411	A	[1987STE/MAL]
	$\Delta_v H$	(491–567)	33.1	506	A	[1987STE/MAL]
	$\Delta_v H$	(289–402)	38.3	304	A	[1987STE/MAL, 1975AMB/ELL]
	$\Delta_v H$		38.3	298		[1975AMB/ELL]
	$\Delta_v H$		36.1	338	C	[1973GEI/QUI]
	$\Delta_v H$		37.9 ± 0.1	298	C	[1970HAR/HEA]
$C_6H_{12}O$	[108-10-1]	4-methyl-2-pentanone				
	$\Delta_v H$	(321–397)	38.7	336		[2009MAR/LLA]
	$\Delta_v H$		40.1 ± 0.1	308	C	[1992SVO/KUB]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		39.0 ± 0.1	323	C	[1992SVO/KUB]
	$\Delta_v H$		38.0 ± 0.1	338	C	[1992SVO/KUB]
	$\Delta_v H$		37.4 ± 0.1	348	C	[1992SVO/KUB]
	$\Delta_v H$	(309–416)	39.2	324		[1988AMB/GHI3]
	$\Delta_v H$	(281–400)	42.5	296	A	[1987STE/MAL]
	$\Delta_v H$	(349–389)	37.0	365	EB	[1985RED/RAO]
	$\Delta_v H$		42.5 ± 0.1	298	C	[1983UCH/MAJ]
	$\Delta_v H$	(282–456)	41.0	298		[1975AMB/ELL]
	$\Delta_v H$		37.6	347	C	[1973GEI/QUI]
	$\Delta_v H$	(294–390)	41.2	309	A	[1987STE/MAL, 1952FUG/BOW]
$C_6H_{12}O$	[565-69-5]	2-methyl-3-pentanone				
	$\Delta_v H$	(300–387)	43.4	315	A	[1987STE/MAL]
	$\Delta_v H$	(280–387)	41.0	295	A	[1987STE/MAL]
	$\Delta_v H$	(377–450)	36.2	392	A	[1987STE/MAL]
	$\Delta_v H$	(280–452)	40.5	298		[1975AMB/ELL]
	$\Delta_v H$		39.8 ± 0.2	298	C	[1970SEL2]
$C_6H_{12}O$	[66-25-1]	hexanal				
	$\Delta_{fus}H$		13.3	214.9		
	$\Delta_{trs}H$ (liq anomaly)		0.34	243.2		[1993LEB/VAS, 1991YAS/BYK]
	$\Delta_v H$	(322–402)	40.8	337	EB	[2006PAL/ORA]
	$\Delta_v H$	(287–309)	42.5 ± 0.4	298	GS	[2003VER/KRA2]
	$\Delta_v H$		42.3 ± 0.1	298		[1981DYA/KOR]
	$\Delta_v H$	(315–402)	41.0	330		[1979MAR/SAC]
$C_6H_{12}OS$	[926-47-2]	S-butyl thiolacetate				
	$\Delta_v H$		48.1 ± 0.2	298	C	[1966WAD]
$C_6H_{12}OS$	[999-90-6]	S-*tert*-butyl thiolacetate				
	$\Delta_v H$		42.9 ± 0.2	298	C	[1966WAD]
$C_6H_{12}O_2$	[1792-81-0]	*cis* 1,2-cyclohexanediol				
	$\Delta_{fus}H$		20.27	373.2	DSC	[2002ZHO/PEN, 2003ZHO/ZHA]
	$\Delta_{trs}H$		19.9	360.4		
	$\Delta_{fus}H$		3.3	371.6		[2008MAR/EUS]
	$\Delta_{trs}H$		19.89	360.4		
	$\Delta_{fus}H$		3.32	371.6		[1995MAR/COS]
	$\Delta_{sub}H$		89.0			[1999COS/EUS]
	$\Delta_{sub}H$ (cryst. I)		70 ± 3.0	366	C	[1995MAR/COS]
	$\Delta_{sub}H$ (cryst. III)		88.0 ± 1.9	343	C	[1995MAR/COS]
	$\Delta_{sub}H$	(289–320)	43.7	304	ME	[1987STE/MAL, 1940ZIB]
$C_6H_{12}O_2$	[1460-57-7]	*trans* 1,2-cyclohexanediol				
	$\Delta_{fus}H$		16.37	375.7	DSC	[2002ZHO/PEN, 2003ZHO/ZHA]
	$\Delta_{fus}H$		21.0	382.6		[2008MAR/EUS]
	$\Delta_{fus}H$		18.51	372.3		[1995MAR/COS]
	$\Delta_{sub}H$		85.9 ± 1.4	343	C	[1995MAR/COS]
	$\Delta_{sub}H$	(289–320)	42.5	304	ME	[1987STE/MAL, 1940ZIB]
$C_6H_{12}O_2$	[126-39-6]	2-ethyl-2-methyl-1,3-dioxolane				
	$\Delta_v H$	(274–313)	44.8 ± 0.3	298	GS	[2002VER]
	$\Delta_v H$	(274–313)	43.1 ± 0.3		GS	[1998VER/PEN]
$C_6H_{12}O_2$	[3390-13-4]	2-propyl-1,3-dioxolane				
	$\Delta_v H$	(278–313)	45.3 ± 0.3	298	GS	[1998VER/PEN, 2002VER]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{12}O_2$	[1121-61-5]	4-ethyl-1,3-dioxane				
	$\Delta_v H$	(362–412)	39.3	377	A	[1987STE/MAL]
$C_6H_{12}O_2$	[766-20-1]	2,4-dimethyl-1,3-dioxane				
	$\Delta_v H$	(274–313)	44.9 ± 0.6	298	GS	[2002VER]
$C_6H_{12}O_2$	[141-79-7]	2,2-dimethyl-1,3-dioxane				
	$\Delta_{fus}H$		12.1	229.6		[1975BOR]
$C_6H_{12}O_2$	[766-15-4]	4,4-dimethyl-1,3-dioxane				
	$\Delta_v H$	(333–407)	37.1	348	A	[1987STE/MAL, 1968KAC/NEM]
	$\Delta_v H$	(363–406)	38.8	378		[1969LES/MOR]
$C_6H_{12}O_2$	[2391-24-4]	*cis* 4,5-dimethyl-1,3-dioxane				
	$\Delta_v H$	(353–410)	48.5	368	A	[1987STE/MAL]
$C_6H_{12}O_2$	[1121-20-6]	*trans* 4,5-dimethyl-1,3-dioxane				
	$\Delta_v H$	(353–408)	39.1	368	A	[1987STE/MAL]
$C_6H_{12}O_2$	[100-72-1]	2-hydroxymethyltetrahydopyran				
	$\Delta_v H$	(344–460)	49.0	359	A	[1987STE/MAL]
$C_6H_{12}O_2$	[6581-66-4]	2-methoxytetrahydropyran				
	$\Delta_v H$		39.3 ± 1.2	298	DSC	[2005ROJ/GIN]
$C_6H_{12}O_2$	[4415-90-1]	1,1-dimethoxycyclobutane				
	$\Delta_v H$	(274–313)	42.0 ± 0.3	298	GS	[2002VER]
	$\Delta_v H$	(273–313)	42.3 ± 0.3		GS	[1998VER/PEN]
	$\Delta_v H$	(301–348)	42.6	325	EB	[1994WIB/MOR]
$C_6H_{12}O_2$	[4016-14-2]	[(1-methylethoxy)methyl]oxirane				
	$\Delta_v H$		43.5 ± 2.1			[1987VAN/KAC]
$C_6H_{12}O_2$	[3126-95-2]	(propoxymethyl)oxirane				
	$\Delta_v H$		48.5 ± 0.4			[1987VAN/KAC]
$C_6H_{12}O_2$	[72380-56-4]	1,1-dimethoxy-3-butene				
	$\Delta_v H$	(305–334)	42.0	320	EB	[1994WIB/MOR]
$C_6H_{12}O_2$	[123-86-4]	butyl acetate				
	$\Delta_v H$		42.4	298	GC	[1997KOU/HOS]
	$\Delta_v H$	(313–363)	42.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(313–353)	43.1	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		41.0 ± 0.5	298	GC	[1987AZA]
	$\Delta_v H$		43.0 ± 0.1	313	C	[1980SVO/UCH]
	$\Delta_v H$		41.7 ± 0.1	328	C	[1980SVO/UCH]
	$\Delta_v H$		40.6 ± 0.1	343	C	[1980SVO/UCH]
	$\Delta_v H$		39.4 ± 0.1	358	C	[1980SVO/UCH]
	$\Delta_v H$	(326–404)	41.3	341	DTA	[1980MEY/AWE]
	$\Delta_v H$		43.6 ± 0.5	298	GCC	[1980FUC/PEA]
	$\Delta_v H$		43.7 ± 0.2	298	GCC	[1980FUC/PEA]
	$\Delta_v H$	(341–399)	40.5	356	A,EB	[1987STE/MAL, 1969SHE/LAN]
	$\Delta_v H$		43.6 ± 0.2	298	C	[1966WAD]
	$\Delta_v H$	(332–399)	40.8	347	A	[1987STE/MAL, 1964KLI/FRI, 1984BOU/FRI]
	$\Delta_v H$		37.5	398		[1961SCH/BOT]
$C_6H_{12}O_2$	[123-42-2]	diacetone alcohol				
	$\Delta_v H$	(301–388)	47.5	316	A,I	[1987STE/MAL, 1952FUG/BOW]
$C_6H_{12}O_2$	[123-42-2]	4-hydroxy-4-methyl-2-pentanone				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		52.1			[1975VIL/PER]
	$\Delta_v H$	(295–441)	51.0	310		[1947STU]
$C_6H_{12}O_2$	[105-54-4]	ethyl butyrate				
	$\Delta_v H$	(330–435)	39.4	345		[1997HER/ORT]
	$\Delta_v H$	(332–393)	40.2	347		[1993FAR/WIC]
	$\Delta_v H$	(310–336)	42.1 ± 0.1	323	EB	[1991WIB/WAL]
	$\Delta_v H$	(310–336)	43.7 ± 1.3	298	EB	[1991WIB/WAL]
	$\Delta_v H$	(263–404)	48.3	278	A	[1987STE/MAL]
	$\Delta_v H$		42.0 ± 0.1	298	C	[1966WAD]
	$\Delta_v H$	(254–394)	41.8	270		[1947STU]
$C_6H_{12}O_2$	[97-62-1]	ethyl isobutyrate				
	$\Delta_v H$	(383–483)	36.0	398	A	[1987STE/MAL]
	$\Delta_v H$		39.8 ± 0.1	298	C	[1966WAD]
	$\Delta_v H$	(249–393)	44.1	264	A	[1987STE/MAL, 1947STU]
$C_6H_{12}O_2$	[110-19-0]	isobutyl acetate				
	$\Delta_v H$	(308–391)	39.9	323		[2005MON/MUN]
	$\Delta_v H$	(325–393)	39.2	340		[1996BUR/MON]
	$\Delta_v H$	(252–391)	39.8	267	A	[1987STE/MAL, 1947STU]
$C_6H_{12}O_2$	[540-88-5]	*tert*-butyl acetate				
	$\Delta_v H$	(308–372)	36.7	323		[2005MON/MUN]
	$\Delta_v H$		38.0 ± 0.2	298	C	[1966WAD, 1996VER/BEC]
$C_6H_{12}O_2$	[598-98-1]	methyl 2,2-dimethylpropanoate				
	$\Delta_v H$	(313–363)	37.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		39.0 ± 0.5	298	GC	[1987AZA]
	$\Delta_v H$		38.8	298		[UR/FUC, 1985MAJ/SVO]
	$\Delta_v H$		39.7 ± 0.3	298	GCC	[1980FUC/PEA]
	$\Delta_v H$	(299–356)	35.2	319	BG	[1971HAL/BAL]
$C_6H_{12}O_2$	[110-45-2]	isopentyl formate				
	$\Delta_v H$	(255–397)	38.9	270	A	[1987STE/MAL]
$C_6H_{12}O_2$	[556-24-1]	methyl isovalerate				
	$\Delta_v H$	(254–390)	41.2	269	A	[1987STE/MAL, 1947STU]
$C_6H_{12}O_2$	[624-24-8]	methyl valerate				
	$\Delta_v H$	(275–311)	43.7 ± 0.3	298	GS	[2008VER/EME]
	$\Delta_v H$	(350–415)	44.1 ± 0.1		EB	[2007CAM/MOL]
	$\Delta_v H$	(281–547)	44.4	296		[2006CAM/MAR, 2006CAM]
	$\Delta_v H$	(364–417)	39.2	379		[2003ORT/ESP2]
	$\Delta_v H$		41.3	350		[2002VAN/VAN]
	$\Delta_v H$		43.7 ± 0.2	298		[2002VAN/VAN]
	$\Delta_v H$	(297–411)	42.5	312	A	[1987STE/MAL]
	$\Delta_v H$		43.3 ± 0.5	298	GC	[1987AZA]
	$\Delta_v H$		44.3 ± 0.5	298	C	[1981GAT/STR]
	$\Delta_v H$		46.1 ± 0.3	298	GCC	[1980FUC/PEA]
	$\Delta_v H$		44.1 ± 0.1	298	GCC	[1980FUC/PEA]
	$\Delta_v H$		43.1 ± 0.1	298	C	[1977MAN/SEL]
$C_6H_{12}O_2$	[106-36-5]	propyl propionate				
	$\Delta_v H$	(378–406)	37.6	392		[1994ORT/GAL]
	$\Delta_v H$	(336–394)	39.9	351		[1993FAR/WIC]
	$\Delta_v H$	(259–396)	43.1	274	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$		42.1 ± 0.1	313	C	[1980SVO/UCH]
	$\Delta_v H$		41.1 ± 0.1	328	C	[1980SVO/UCH]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		40.0 ± 0.1	343	C	[1980SVO/UCH]
	$\Delta_v H$		38.8 ± 0.1	358	C	[1980SVO/UCH]
$C_6H_{12}O_2$	[142-62-1]	hexanoic acid				
	$\Delta_v H$	(297–328)	68.4 ± 0.9	313	GS	[2000VER2]
	$\Delta_v H$	(297–328)	69.2 ± 0.9	298	GS	[2000VER2]
	$\Delta_v H$	(353–393)	71.3	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		70.9	271		[1982DEK/SCH]
	$\Delta_v H$	(270–280)	73.2 ± 2.0	298	TE	[1979DEK/OON]
	$\Delta_v H$	(335–487)	65.9	350	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(371–452)	66.6	386		[1957ROS/ACC, 1984BOU/FRI]
	$\Delta_v H$		64.6	367	I	[1943CRA]
$C_6H_{12}O_2$	[88-09-5]	2-ethyl butyric acid				
	$\Delta_v H$	(373–466)	58.2	388	A	[1987STE/MAL]
$C_6H_{12}O_2$	[646-07-1]	4-methylvaleric acid				
	$\Delta_v H$	(339–481)	91.7	354	A	[1987STE/MAL]
$C_6H_{12}O_2$	[595-37-9]	2,2-dimethylbutanoic acid				
	$\Delta_v H$	(364–498)	59.4 ± 0.3	370	EB	[2002STE/CHI]
	$\Delta_v H$	(364–498)	54.6 ± 0.3	410	EB	[2002STE/CHI]
	$\Delta_v H$	(364–498)	50.0 ± 0.4	450	EB	[2002STE/CHI]
	$\Delta_v H$	(364–498)	46.0 ± 0.7	490	EB	[2002STE/CHI]
$C_6H_{12}O_2$	[1070-83-3]	3,3-dimethylbutanoic acid				
	$\Delta_v H$	(283–325)	63.6 ± 0.9	304	GS	[2000VER2]
	$\Delta_v H$	(283–325)	64.0 ± 0.9	298	GS	[2000VER2]
$C_6H_{12}O_3$	[na]	1-hexene ozonide				
	$\Delta_v H$	(353–373)	43.9	363	MM	[1977BOL/MAK]
$C_6H_{12}O_3$	[37160-61-5]	sec-butyl glycolate				
	$\Delta_v H$	(301–451)	52.3	316	A	[1987STE/MAL, 1947STU]
$C_6H_{12}O_3$	[123-63-7]	2,4,6-trimethyl-1,3,5-trioxane				
	$\Delta_{trs}H$		0.26	142.7		
	$\Delta_{trs}H$		0.77	147.5		
	$\Delta_{fus}H$		13.52	285.7		[1996DOM/HEA]
	$\Delta_v H$	(323–396)	41.5	338	A	[1987STE/MAL]
	$\Delta_v H$		41.4 ± 0.4			[1959FLE/MOR]
$C_6H_{12}O_3$	[na]	glycerol 1-monoallyl ether				
	$\Delta_v H$	(323–383)	74.7	338	A	[1987STE/MAL, 1972DYK]
$C_6H_{12}O_3$	[817-95-8]	2-ethoxyacetic acid, ethyl ester				
	$\Delta_v H$	(330–430)	46.1	345	A	[1987STE/MAL]
$C_6H_{12}O_3$	[14144-33-3]	3-ethoxypropionic acid, methyl ester				
	$\Delta_v H$	(320–432)	44.3	335	A	[1987STE/MAL, 1972DYK]
$C_6H_{12}O_3$	[111-15-9]	2-ethoxyethanol acetate				
	$\Delta_v H$	(322–430)	50.9	337	A	[1987STE/MAL]
	$\Delta_v H$		52.7 ± 0.1	298	C	[1970KUS/WAD]
	$\Delta_v H$	(330–468)	52.6 ± 0.4	298	EB	[1966BOT/ADL]
$C_6H_{12}O_3$	[na]	3-hydroxypropionic acid, propyl ester				
	$\Delta_v H$	(350–375)	60.9	362	A	[1987STE/MAL]
$C_6H_{12}O_3$	[10606-42-5]	3-methoxypropionic acid, ethyl ester				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(313–432)	44.6	328	A	[1987STE/MAL]
$C_6H_{12}O_3$	[616-09-1]	propyl lactate				
	$\Delta_v H$	(334–442)	52.1	349	A	[1987STE/MAL]
$C_6H_{12}O_3$	[617-51-6]	isopropyl lactate				
	$\Delta_v H$	(356–430)	44.5	371		[2005PEN/MUR]
$C_6H_{12}O_3$	[54078-53-4]	ethoxymethyl propionate				
	$\Delta_v H$		49.9 ± 0.1	298	C	[1974MAN]
$C_6H_{12}O_3$	[5405-41-4]	ethyl 3-hydroxybutyrate				
	$\Delta_v H$	(363–393)	55.9 ± 0.6	298	CGC	[2005TEM/CHI]
$C_6H_{12}O_4$	[624-47-5]	(*dl*) glycerol 1-propionate				
	$\Delta_v H$	(388–456)	75.8	403	A	[1987STE/MAL, 1972DYK]
$C_6H_{12}O_5$	[na]	1-deoxy-(*d*)-glucopyranose				
	$\Delta_{fus}H$		27.4	403.2		[1996SCH]
$C_6H_{12}O_5$	[na]	2-deoxy-(*d*)-glucopyranose				
	$\Delta_{fus}H$		34.5	398.7		[1996SCH]
$C_6H_{12}O_5$	[na]	3-deoxy-(*d*)-glucopyranose				
	$\Delta_{fus}H$		32.6	387.2		[1996SCH]
$C_6H_{12}O_5$	[na]	6-deoxy-(*d*)-glucopyranose				
	$\Delta_{fus}H$		22.7	409.2		[1996SCH]
$C_6H_{12}O_6$	[87-89-8]	*myo*-inositol				
	$\Delta_{fus}H$		47.9	496.9		[1996DOM/HEA]
	$\Delta_{sub}H$	(438–458)	174.0 ± 2.6	448		[2006CHE/OJA]
	$\Delta_{sub}H$		181			[1999COS/EUS]
	$\Delta_{sub}H$		154.7 ± 1.4	477	TE	[1990BAR/DEL]
	$\Delta_{sub}H$		161	298		[1990BAR/DEL]
	$\Delta_{sub}H$		178	298	B	[1990BAR/DEL]
	$\Delta_{sub}H$	(454–472)	168			[1983DEW/BOW]
	$\Delta_v H$	(497–524)	119.0 ± 1.4	519	TE	[1990BAR/DEL]
$C_6H_{12}O_6$	[na]	α-(*d*)-glucose				
	$\Delta_{fus}H$		34.3	423.2		[1996SCH]
	$\Delta_{fus}H$		31.42	414		[1996DOM/HEA]
$C_6H_{12}O_6$	[na]	(*d*)-mannopyranose				
	$\Delta_{fus}H$		24.7	391.2		[1996SCH]
$C_6H_{12}O_6$	[59-23-4]	(*d*)-galactose				
	$\Delta_{fus}H$		43.8	436.2		[2002JON/COO]
$C_6H_{12}S$	[7133-36-0]	cyclopentyl methyl sulfide				
	$\Delta_{trs}H$		0.9	165		
	$\Delta_{fus}H$		9.2	169.9		[1974MES/FIN]
	$\Delta_v H$		45.1 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$	(354–473)	41.7	369	A,EB	[1987STE/MAL, 1966OSB/DOU]
$C_6H_{12}S$	[5161-13-7]	*cis* 2,5-dimethyltetrahydrothiophene				
	$\Delta_v H$	(311–444)	41.7	326		[1999DYK/SVO]
	$\Delta_v H$	(349–427)	39.7	364	A,EB	[1987STE/MAL, 1952WHI/BER]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{12}S$	[5161-14-8]	*trans* 2,5-dimethyltetrahydrothiophene				
	$\Delta_v H$	(348–396)	39.3	363	EB	[1987STE/MAL, 1952WHI/BER, 1999DYK/SVO]
$C_6H_{12}S$	[1551-32-2]	2-ethyltetrahydrothiophene				
	$\Delta_v H$	(333–488)	42.6	348	A	[1987STE/MAL, 1972DYK, 1999DYK/SVO]
$C_6H_{12}S$	[62184-67-2]	3-ethyltetrahydrothiophene				
	$\Delta_v H$	(343–503)	43.1	358	A	[1987STE/MAL, 1972DYK, 1999DYK/SVO]
$C_6H_{12}S$	[5161-16-0]	2-methyltetrahydro-2*H*-thiopyrane				
	$\Delta_v H$	(317–455)	42.1	332		[1999DYK/SVO]
	$\Delta_v H$	(356–438)	40.2	371	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_6H_{12}S$	[5258-50-4]	3-methyltetrahydro-2*H*-thiopyrane				
	$\Delta_v H$	(321–460)	42.5	336		[1999DYK/SVO]
	$\Delta_v H$	(361–435)	40.7	376	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_6H_{12}S$	[5161-17-1]	4-methyltetrahydro-2*H*-thiopyrane				
	$\Delta_v H$	(321–461)	42.8	336		[1999DYK/SVO]
	$\Delta_v H$	(361–441)	40.8	376	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_6H_{12}S$	[1569-69-3]	cyclohexanethiol				
	$\Delta_{fus}H$		10.0	189.6		[1996DOM/HEA]
	$\Delta_v H$		44.9	298	C	[1981HOS/SCO]
	$\Delta_v H$		44.6 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$	(355–476)	41.2	370	A,EB	[1987STE/MAL, 1966OSB/DOU, 1999DYK/SVO]
$C_6H_{12}S_3$	[6573-11-1]	1,4,7-trithiacyclononane				
	$\Delta_{fus}H$		29.0	354.2	DSC	[2002ROC/GRI]
$C_6H_{13}Br$	[111-25-1]	1-bromohexane				
	$\Delta_{fus}H$		18.05	188.1		[1996DOM/HEA]
	$\Delta_v H$	(323–363)	45.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		46.1 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$		45.6 ± 0.1	298	C	[1966WAD]
	$\Delta_v H$	(333–456)	43.2	348	A,EST	[1987STE/MAL, 1961LI/ROS, 1972DYK]
$C_6H_{13}Br$	[3377-86-4]	(*dl*) 2-bromohexane				
	$\Delta_v H$	(303–416)	43.8	318	A	[1987STE/MAL]
$C_6H_{13}Br$	[30310-22-6]	2-bromo-4-methylpentane				
	$\Delta_v H$	(315–448)	29.3	330	A	[1987STE/MAL, 1972DYK]
$C_6H_{13}Br$	[26356-06-9]	2-bromo-3,3-dimethylbutane				
	$\Delta_v H$	(315–449)	39.5	330	A	[1987STE/MAL, 1972DYK]
$C_6H_{13}Cl$	[544-10-5]	1-chlorohexane				
	$\Delta_v H$	(319–376)	41.1	334		[1988PAU/KRU]
	$\Delta_v H$	(290–410)	42.0	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$		42.8 ± 0.1	298	C	[1981TEK/MAJ]
	$\Delta_v H$		40.5 ± 0.1	328	C	[1981TEK/MAJ]
	$\Delta_v H$		40.0 ± 0.1	343	C	[1981TEK/MAJ]
	$\Delta_v H$		39.0 ± 0.1	358	C	[1981TEK/MAJ]
	$\Delta_v H$		38.4 ± 0.1	368	C	[1981TEK/MAJ]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(288–409)	43.5	303	A,DTA	[1987STE/MAL, 1969KEM/KRE, 1972DYK]
	$\Delta_v H$		42.8 ± 0.1	298	C	[1968WAD]
$C_6H_{13}Cl$	[638-28-8]	(*dl*) 2-chlorohexane				
	$\Delta_v H$	(300–399)	40.9	315	A	[1987STE/MAL]
$C_6H_{13}Cl$	[594-57-0]	2-chloro-2,3-dimethylbutane				
	$\Delta_v H$	(301–426)	38.0	316	A	[1987STE/MAL, 1972DYK]
$C_6H_{13}Cl$	[5750-00-5]	(*dl*) 2-chloro-3,3-dimethylbutane				
	$\Delta_v H$	(300–425)	38.0	315	A	[1987STE/MAL, 1972DYK]
$C_6H_{13}ClO_2S$	[14532-24-2]	1-hexanesulfonyl chloride				
	$\Delta_v H$	(273–304)	60.7	288		[1999DYK/SVO, 1963QUI/NOW]
	$\Delta_v H$	(303–400)	61.7	318		[1999DYK/SVO]
	$\Delta_v H$	(400–507)	57.2	415		[1999DYK/SVO]
$C_6H_{13}Cl_2N$	[13426-57-8]	N-ethyl-*bis*(2-chloroethyl)amine				
	$\Delta_v H$	(273–333)	54.9	288	A,GS	[1987STE/MAL, 1948RED/CHA3, 1972DYK]
$C_6H_{13}F$	[373-14-8]	1-fluorohexane				
	$\Delta_v H$	(273–388)	36.9	288	A,EST	[1987STE/MAL, 1961LI/ROS, 1972DYK]
$C_6H_{13}F$	[52688-75-2]	3-fluorohexane				
	$\Delta_v H$	(281–393)	36.8	296	A	[1987STE/MAL, 1972DYK]
$C_6H_{13}I$	[638-45-9]	1-iodohexane				
	$\Delta_v H$		49.8 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$	(331–485)	46.2	346	A,EST	[1987STE/MAL, 1961LI/ROS, 1972DYK]
$C_6H_{13}N$	[108-91-8]	cyclohexylamine				
	$\Delta_{trs}H$		1.0	258.2		
	$\Delta_{fus}H$		16.5	255.1		[1999HAM/WUR]
	$\Delta_{fus}H$		14.92	255.4		[1939VAN, 1999KAB/KOZ]
	$\Delta_v H$	(363–407)	40.6	378		[1987STE/MAL]
	$\Delta_v H$		42.7 ± 0.1	313	C	[1979MAJ/SVO2]
	$\Delta_v H$		40.7 ± 0.1	343	C	[1979MAJ/SVO2]
	$\Delta_v H$		39.6 ± 0.1	358	C	[1979MAJ/SVO2]
	$\Delta_v H$		42.8 ± 0.1	298	C	[1975BER/OLO]
	$\Delta_v H$	(333–408)	40.8	348	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(334–401)	40.8	349		[1960NOV/MAT2, 1984BOU/FRI, 1960NOV/MAT]
$C_6H_{13}N$	[111-49-9]	hexahydro-1*H*-azepine				
	$\Delta_v H$	(348–423)	37.7	363	A	[1987STE/MAL]
	$\Delta_v H$	(312–411)	40.4	327	A	[1987STE/MAL, 1972DYK]
$C_6H_{13}N$	[626-67-5]	N-methylpiperidine				
	$\Delta_v H$		36.8 ± 0.6	298	C	[2006RIB/CAB5]
$C_6H_{13}N$	[109-05-7]	(*dl*) 2-methylpiperidine				
	$\Delta_{fus}H$		18.58	269.4		[1996DOM/HEA]
	$\Delta_v H$	(323–431)	38.2	338	EB,IP	[1987STE/MAL, 1968OSB/DOU]
$C_6H_{13}N$	[626-56-2]	3-methylpiperidine				
	$\Delta_v H$		44.4 ± 0.7	298	C	[2006RIB/CAB5]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{13}N$	[626-58-4]	4-methylpiperidine				
	$\Delta_v H$		40.6 ± 0.9	298	C	[2006RIB/CAB5]
$C_6H_{13}N$	[626-67-5]	N-methylpiperidine				
	$\Delta_v H$		36.8 ± 0.6	298	C	[2006RIB/CAB5]
	$\Delta_v H$	(298–343)	36.5	313		[1995BEL/AIT]
	$\Delta_v H$	(273–380)	37.3	288	A	[1987STE/MAL]
	$\Delta_v H$		36.7 ± 0.1	298		[1979BER/ANG, 1998EWI/SAN]
$C_6H_{13}NO$	[100-74-3]	N-ethylmorpholine				
	$\Delta_v H$	(274–313)	42.3 ± 0.3	294	GS	[1998VER2]
	$\Delta_v H$	(274–313)	42.1 ± 0.3	298	GS	[1998VER2]
$C_6H_{13}NO$	[na]	methyl 2-(N,N-dimethylamino)propanoate				
	$\Delta_v H$	(278–306)	46.1 ± 1.1	290	GS	[1992VER/BEC]
$C_6H_{13}NO$	[na]	ethyl 2-(N,N-dimethylamino)ethanoate				
	$\Delta_v H$	(278–308)	47.6 ± 0.8	293	GS	[1992VER/BEC]
$C_6H_{13}NO$	[127-19-5]	N,N-diethylacetamide				
	$\Delta_v H$	(463–513)	53.7 ± 0.4	298	CGC	[2009PAN/ANT]
	$\Delta_v H$		54.1	298	A	[1985BAR/CAS, 1985MAJ/SVO]
$C_6H_{13}NO$	[1119-49-9]	N-butylacetamide				
	$\Delta_v H$		75.0 ± 0.3	298	C	[1984STA/WAD]
$C_6H_{13}NO$	[760-79-2]	N,N-dimethyl butyramide				
	$\Delta_v H$	(251–432)	50.8	366	A	[1987STE/MAL]
	$\Delta_v H$		55.2			[1977VAS/KOT]
$C_6H_{13}NO$	[762-84-5]	*tert*-butylacetamide				
	$\Delta_{sub}H$	(278–295)	78.3 ± 0.3	287	ME	[1983ZIE/ZIE]
	$\Delta_{sub}H$		77.9 ± 0.4	298		[1983ZIE/ZIE]
$C_6H_{13}NO$	[628-02-4]	hexanamide				
	$\Delta_{trs}H$		7.9	305.1		
	$\Delta_{fus}H$		16.7	373	DSC	[2008ABA/BAD]
	$\Delta_{fus}H$		25.1	374		[1973LEB/KAT2]
	$\Delta_{sub}H$	(301–371)	85 ± 4.0	298	TE	[2000BRU/DEL]
	$\Delta_{sub}H$	(293–303)	98.7 ± 1.7	298		[1973LEB/KAT2, 1977PED/RYL]
	$\Delta_{sub}H$	(338–368)	95.1 ± 4	353	GS	[1959DAV/JON2, 1970COX/PIL, 1987STE/MAL]
$C_6H_{13}NO$	[3554-74-3]	1-methyl-3-piperidinol				
	$\Delta_v H$		73.0 ± 0.6	298	C	[2006RIB/CAB2]
$C_6H_{13}NO$	[106-52-5]	1-methyl-4-piperidinol				
	$\Delta_v H$		80.8 ± 0.4	298	C	[2006RIB/CAB2]
$C_6H_{13}NO$	[3433-37-2]	2-piperidinemethanol				
	$\Delta_{sub}H$		93.0 ± 0.5	298	C	[2006RIB/CAB3]
$C_6H_{13}NO$	[4606-65-9]	3-piperidinemethanol				
	$\Delta_{sub}H$		95.9 ± 1.4	298	C	[2006RIB/CAB3]
$C_6H_{13}NO$	[6457-49-4]	4-piperidinemethanol				
	$\Delta_{sub}H$		98.3 ± 0.7	298	C	[2006RIB/CAB3]
$C_6H_{13}NO_2$	[na]	N-isopropyl lactamide				
	$\Delta_v H$	(369–407)	69.9	384	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{13}NO_2$	[na]	N-propyl lactamide				
	$\Delta_v H$	(373–423)	74.0	388	A	[1987STE/MAL]
$C_6H_{13}NO_2$	[616-06-8]	*dl*-2-aminohexanoic acid				
	$\Delta_{sub}H$	(435–469)	114.5 ± 0.4	450	ME	[1965SVE/CLY, 1964CLY/SVE, 1987STE/MAL]
$C_6H_{13}NO_2$	[3107-04-8]	2-amino-3-methylpentanoic acid				
	$\Delta_{sub}H$		120.1 ± 0.8	455	ME	[1965SVE/CLY, 1964CLY/SVE]
$C_6H_{13}NO_2$	[328-38-1]	L-(*d*)-2-amino-4-methylpentanoic acid (L-(*d*)-leucine)				
	$\Delta_{sub}H$	(323–423)	U 83.7 ± 4	373	LE	[1977GAF/PIE]
$C_6H_{13}NO_2$	[61-90-5]	D-(*l*)-leucine				
	$\Delta_{sub}H$	(401–517)	148.7 ± 6.5		TGA	[2009LAH/RAU]
	$\Delta_{sub}H$	(446–464)	150.6 ± 0.8	455	ME	[1965SVE/CLY, 1970COX/PIL, 1964CLY/SVE]
$C_6H_{13}NO_2$	[60-32-2]	6-aminohexanoic acid				
	$\Delta_{sub}H$	(388–407)	153.3 ± 0.8	398	C	[1983SKO/SAB]
	$\Delta_{sub}H$		155 ± 3	298	C	[1983SKO/SAB]
C_6H_{14}	[110-54-3]	hexane				
	$\Delta_{fus}H$		13.08	177.8		[1996DOM/HEA]
	$\Delta_{sub}H$		50.8	178	B	[1963BON]
	$\Delta_v H$		31.4 ± 0.2	298	C	[2007PAS/KUZ]
	$\Delta_v H$		31.5 ± 0.1	298	C	[1996VAR/PAS]
	$\Delta_v H$		31.5	298		[1994RUZ/MAJ]
	$\Delta_v H$	(283–323)	32.1	298		[1992GRA/SAN]
	$\Delta_v H$		31.3 ± 0.3		GC	[1989AZA]
	$\Delta_v H$	(238–298)	34.9	253	A	[1987STE/MAL]
	$\Delta_v H$	(189–259)	35.7	244	A	[1987STE/MAL]
	$\Delta_v H$	(298–343)	31.5	313	A	[1987STE/MAL]
	$\Delta_v H$	(341–377)	30.1	356	A	[1987STE/MAL]
	$\Delta_v H$	(374–451)	29.3	389	A	[1987STE/MAL]
	$\Delta_v H$	(445–508)	29.4	460	A	[1987STE/MAL]
	$\Delta_v H$		26.6	373	C	[1985WOR/YER]
	$\Delta_v H$		22.5	423	C	[1985WOR/YER]
	$\Delta_v H$		15.7	473	C	[1985WOR/YER]
	$\Delta_v H$		8.9	498	C	[1985WOR/YER]
	$\Delta_v H$		31.6	298		[UR/FUC, 1985MAJ/SVO]
	$\Delta_v H$	(298–338)	30.9	313		[1984MIC/JOS]
	$\Delta_v H$		31.6 ± 0.1	298	C	[1979MAJ/SVO]
	$\Delta_v H$		30.7 ± 0.1	313	C	[1979MAJ/SVO]
	$\Delta_v H$		29.5 ± 0.1	333	C	[1979MAJ/SVO]
	$\Delta_v H$		28.2 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$	(300–321)	31.6	310		[1974LET/MAR, 1984BOU/FRI]
	$\Delta_v H$	(178–265)	32.5	250		[1973CAR/KOB]
	$\Delta_v H$		31.55	298		[1971WIL/ZWO]
	$\Delta_v H$		30.9 ± 0.1	309	C	[1947WAD/DOU]
	$\Delta_v H$		29.8 ± 0.1	328	C	[1947WAD/DOU]
	$\Delta_v H$		31.5 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(286–343)	32.0	301	A,MM	[1987STE/MAL, 1945WIL/TAY]
	$\Delta_v H$		31.0 ± 0.2	298	C	[1943LEM/FEL]
	$\Delta_v H$		30.5 ± 0.2	313	C	[1943LEM/FEL]
	$\Delta_v H$		29.0 ± 0.2	333	C	[1943LEM/FEL]
	$\Delta_v H$		28.2 ± 0.2	353	C	[1943LEM/FEL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_6H_{14}	[107-83-5]	2-methylpentane				
	$\Delta_{fus}H$		6.27	119.6		[1996DOM/HEA]
	Δ_vH	(290–333)	30.2	305		[2010SAP/UUS]
	Δ_vH	(301–333)	30.0	316		[2002POK/UUS]
	Δ_vH	(310–359)	29.7	325		[1998AUC/LOR]
	Δ_vH	(293–335)	30.5	308	A	[1987STE/MAL]
	Δ_vH		29.9	298		[1971WIL/ZWO]
	Δ_vH		29.9 ± 0.1	298	C	[1949WAD/SMI]
	Δ_vH		28.7 ± 0.1	318	C	[1949WAD/SMI]
	Δ_vH		27.8 ± 0.1	333	C	[1949WAD/SMI]
	Δ_vH		29.9 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(286–334)	30.4	301	MM	[1945WIL/TAY]
	Δ_vH		29.8 ± 0.2	293	C	[1943LEM/FEL]
	Δ_vH		29.0 ± 0.2	313	C	[1943LEM/FEL]
	Δ_vH		27.6 ± 0.2	333	C	[1943LEM/FEL]
	Δ_vH		26.9 ± 0.2	353	C	[1943LEM/FEL]
C_6H_{14}	[96-14-0]	3-methylpentane				
	$\Delta_{fus}H$		5.31	110.3		[1996DOM/HEA]
	Δ_vH	(316–361)	29.9	331		[1999LOR/AUC]
	Δ_vH	(293–338)	30.5	308	A	[1987STE/MAL]
	Δ_vH		30.3 ± 0.1	298	C	[1979MAJ/SVO]
	Δ_vH		29.5 ± 0.1	313	C	[1979MAJ/SVO]
	Δ_vH		28.3 ± 0.1	333	C	[1979MAJ/SVO]
	Δ_vH		27.0 ± 0.1	353	C	[1979MAJ/SVO]
	Δ_vH		30.3	298		[1971WIL/ZWO]
	Δ_vH		30.0 ± 0.1	303	C	[1949WAD/SMI]
	Δ_vH		28.8 ± 0.1	324	C	[1949WAD/SMI]
	Δ_vH		28.1 ± 0.1	336	C	[1949WAD/SMI]
	Δ_vH		30.3 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(288–337)	30.2	303	MM	[1945WIL/TAY]
C_6H_{14}	[79-29-8]	2,3-dimethylbutane				
	$\Delta_{trs}H$		6.43	136.1		
	$\Delta_{trs}H$		2.37	107		
	$\Delta_{fus}H$		0.79	145.2		[1996DOM/HEA]
	Δ_vH		29.1	298		[1971WIL/ZWO]
	Δ_vH		29.2 ± 0.1	296	C	[1949WAD/SMI]
	Δ_vH		28.9 ± 0.1	303	C	[1949WAD/SMI]
	Δ_vH		28.3 ± 0.1	313	C	[1949WAD/SMI]
	Δ_vH		27.3 ± 0.1	331	C	[1949WAD/SMI]
	Δ_vH	(287–332)	29.6	302	MM	[1945WIL/TAY]
	Δ_vH		29.2 ± 0.1	293	C	[1943LEM/FEL]
	Δ_vH		28.2 ± 0.1	313	C	[1943LEM/FEL]
	Δ_vH		27.0 ± 0.1	333	C	[1943LEM/FEL]
	Δ_vH		26.1 ± 0.1	353	C	[1943LEM/FEL]
C_6H_{14}	[75-83-2]	2,2-dimethylbutane				
	$\Delta_{trs}H$		5.4	126.8		
	$\Delta_{trs}H$		0.28	140.8		
	$\Delta_{fus}H$		0.58	174.3		[1996DOM/HEA]
	Δ_vH		27.7	298		[1971WIL/ZWO]
	Δ_vH	(273–318)	28.7	288		[1949NIC/LAF, 1984BOU/FRI]
	Δ_vH		27.8 ± 0.1	296	C	[1947WAD/DOU]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		26.3 ± 0.1	323	C	[1947WAD/DOU]
	$\Delta_v H$	(211–289)	29.2	274		[1946KIL/PIT]
	$\Delta_v H$	(288–323)	28.3	303	MM	[1945WIL/TAY]
$C_6H_{14}FO_3P$	[55-91-4]	fluorophosphoric acid, diisopropyl ester				
	$\Delta_v H$	(273–348)	29.4	288	A	[1987STE/MAL]
$C_6H_{14}N_2$	[821-67-0]	dipropyldiazene				
	$\Delta_v H$		39.9 ± 0.4	298	C	[1976ENG/MEL]
	$\Delta_v H$	(295–305)	39.5	300	UV	[1974ENG/WOO]
	$\Delta_v H$		41.1			[1968BAC/NOV, 1974ENG/WOO]
$C_6H_{14}N_2$	[3880-49-7]	diisopropyldiazene				
	$\Delta_v H$		35.9 ± 0.4	298	C	[1976ENG/MEL]
	$\Delta_v H$	(296–308)	36.1	302	UV	[1974ENG/WOO]
	$\Delta_v H$		37.7		I	[1974ENG/WOO]
	$\Delta_v H$		34.9			[1968GEI/HOF, 1974ENG/WOO]
$C_6H_{14}N_2$	[3114-70-3]	1,4-diaminocyclohexane				
	$\Delta_v H$	(383–473)	48.2	398	A	[1987STE/MAL]
$C_6H_{14}N_2$	[1436-59-5]	*cis* 1,2-cyclohexanediamine				
	$\Delta_v H$		62.2 ± 1.0	298	ME	[2007TOM/ROS]
$C_6H_{14}N_2$	[2615-25-0]	*trans*-cyclohexyl-1,4-diamine				
	$\Delta_{fus}H$		27.0	342.1	DSC	[2007TOM/ROS]
	$\Delta_{sub}H$		105.0 ± 0.8	298	C	[2007TOM/ROS]
$C_6H_{14}N_2$	[106-58-1]	1,4-dimethylpiperazine				
	$\Delta_v H$	(268–311)	41.2 ± 0.4	298	GS	[2010EFI/EME]
	$\Delta_v H$	(270–309)	44.3 ± 0.3	289	GS	[1998VER2]
	$\Delta_v H$	(270–309)	43.8 ± 0.3	298	GS	[1998VER2]
	$\Delta_v H$	(276–319)	41.6	291	A	[1987STE/MAL, 1975CAB/CON]
$C_6H_{14}N_2$	[106-55-8]	2,5-dimethylpiperazine				
	$\Delta_v H$	(437–609)	48.4	452	A	[1987STE/MAL]
$C_6H_{14}N_2$	[7423-00-9]	propylhydrazone acetone				
	$\Delta_v H$	(288–318)	44.0	300		[1980LEB/NAZ]
$C_6H_{14}N_2$	[7423-01-0]	isopropylhydrazone acetone				
	$\Delta_v H$	(288–323)	44.6	303		[1980LEB/NAZ]
$C_6H_{14}N_2O$	[103-76-4]	N-(hydroxyethyl)piperazine				
	$\Delta_v H$	(308–343)	77.3 ± 0.7	326	GS	[2002VER2]
	$\Delta_v H$	(308–343)	78.8 ± 0.7	298	GS	[2002VER2]
$C_6H_{14}N_2O$	[17697-55-1]	dipropyldiazene N-oxide				
	$\Delta_v H$		51.7 ± 0.1	298	C	[1981BYS]
$C_6H_{14}N_2O$	[38869-91-9]	1-pentyl urea				
	$\Delta_{trs}H$		2.5	355.1		
	$\Delta_{fus}H$		21.0	375.2	DSC	[2005HAS/TAJ]
$C_6H_{14}N_2O_2$	[56-87-1]	(*l*)-lysine				
	$\Delta_{sub}H$	(397–497)	U 88 ± 8	447	LE	[1977GAF/PIE]
$C_6H_{14}N_4O_2$	[74-79-3]	(*l*)-arginine				
	$\Delta_{sub}H$	(441–541)	U 134 ± 8	491	LE	[1977GAF/PIE]
$C_6H_{14}N_8O_8$	[13405-40-8]	2,4,7,9-tetranitro-2,4,7,9-tetraazadecane				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		68.09	488.1	DSC	[1997ZEM]
$C_6H_{14}O$	[62881-9]	butyl ethyl ether				
	Δ_vH		36.3 ± 0.1	298	C	[1980MAJ/WAN]
	Δ_vH	(311–365)	36.5	298		[1976AMB/ELL]
	Δ_vH	(311–365)	32.1	365		[1976AMB/ELL]
	Δ_vH	(311–365)	35.2	326	A,EB	[1987STE/MAL, 1976AMB/ELL, 1969CID/POL, 1972DYK]
$C_6H_{14}O$	[994-05-8]	*tert*-amyl methyl ether				
	Δ_vH		35.3 ± 0.4	298		[UR/VER, 2002VER, 2003VER/KRA]
	Δ_vH	(309–396)	36.6 ± 0.1	320	EB	[2002STE/CHI2]
	Δ_vH	(309–396)	34.5 ± 0.2	360	EB	[2002STE/CHI2]
	Δ_vH	(309–396)	32.1 ± 0.5	400	EB	[2002STE/CHI2]
	Δ_vH		34.8	298	EB	[1999HEI/FIS, 2003VER/KRA]
	Δ_vH	(314–362)	33.4	329		[1998AUC/LOR]
	Δ_vH	(283–308)	35.7 ± 1.0	295	GS	[1998VER/WEL]
	Δ_vH	(283–308)	35.5 ± 1.0	298	GS	[1998VER/WEL]
	Δ_vH		35.2	298	EB	[1996TOG/TOG, 2003VER/KRA]
	Δ_vH		35.0	298	EB	[1994ANT/SAN, 2003VER/KRA]
	Δ_vH	(306–359)	33.8	321	EB	[1994KRA/GME]
	Δ_vH		35.8	298	C	[1991ROZ/SAF]
	Δ_vH	(294–359)	33.5	298	EB	[1991ROZ/SAF, 1984CER/BOU, 2003VER/KRA]
	Δ_vH	(294–359)	34.3	309	EB	[1984CER/BOU]
	Δ_vH	(309–358)	33.7	324	EB	[1984PAL/CHO]
$C_6H_{14}O$	[637-92-3]	*tert*-butyl ethyl ether				
	Δ_vH	(303–345)	33.1 ± 0.4	298	EB	[2007EFI/PAS]
	Δ_vH	(313–346)	32.1	328		[2007SAP/ZAY]
	Δ_vH	(313–345)	31.9	328		[2004KIM/KES]
	Δ_vH	(307–346)	32.1	322		[2000REI/CAR]
	Δ_vH	(306–345)	32.2	321	EB	[1994KRA/GME]
	Δ_vH	(284–346)	33.5	299	A	[1987STE/MAL]
	Δ_vH	(248–350)	35.3	263	A	[1987STE/MAL]
	Δ_vH	(340–407)	31.2	355	A	[1987STE/MAL]
$C_6H_{14}O$	[111-43-3]	dipropyl ether				
	$\Delta_{trs}H$		2.3	149.4		
	$\Delta_{fus}H$		10.77	158.4		[1996DOM/HEA]
	Δ_vH	(308–338)	34.8	323	EB	[2002ANT/FRA]
	Δ_vH	(385–467)	32.2	400	A	[1987STE/MAL]
	Δ_vH	(465–530)	32.4	480	A	[1987STE/MAL]
	Δ_vH		35.7 ± 0.1	298	C	[1980MAJ/WAN]
	Δ_vH	(292–389)	35.6	307	A	[1987STE/MAL, 1976AMB/ELL]
	Δ_vH		31.4	363		[1976AMB/ELL]
	Δ_vH	(312–371)	34.6	327	A,EB	[1987STE/MAL, 1973MEY/HOT]
	Δ_vH	(300–362)	35.1	315	EB	[1969CID/POL]
	Δ_vH	(340–379)	34.5	360		[1968LAP/NIS]
$C_6H_{14}O$	[108-20-3]	diisopropyl ether				
	$\Delta_{fus}H$		12.05	187.8		[1974AND/COU]
	Δ_vH	(285–365)	32.7 ± 0.5	298	EB	[2007EFI/PAS]
	Δ_vH	(278–323)	33.0	293		[1999GAR/AND]
	Δ_vH	(307–349)	31.1	322		[1999MON/DEL]
	Δ_vH	(360–440)	29.9	375	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(436–500)	29.5	451	A	[1987STE/MAL]
	$\Delta_v H$		32.1 ± 0.1	298	C	[1980MAJ/WAN]
	$\Delta_v H$	(284–365)	32.6	299	A	[1987STE/MAL, 1976AMB/ELL]
	$\Delta_v H$	(284–365)	29.2	341		[1976AMB/ELL]
	$\Delta_v H$	(296–342)	32.1	311	A,EB	[1987STE/MAL, 1969CID/POL]
	$\Delta_v H$	(321–350)	30.1	336		[1965NIS/LAP2, 1972DYK]
	$\Delta_v H$	(273–333)	33.2	288		[1949NIC/LAF, 1984BOU/FRI]
$C_6H_{14}O$	[111-27-3]	1-hexanol				
	$\Delta_{fus}H$		15.48	225.8		[1996DOM/HEA]
	$\Delta_v H$	(344–384)	59.7	359	EB	[2009GIE/KOS]
	$\Delta_v H$	(328–423)	59.9	298		[2006NAS/NEU]
	$\Delta_v H$	(265–363)	61.7 ± 0.3	298	GS	[2005ROG/PIS]
	$\Delta_v H$	(370–416)	51.4	385	EB	[2004TAN/LI]
	$\Delta_v H$	(265–328)	62.0	288	GS	[2001KUL/VER2]
	$\Delta_v H$	(265–328)	61.1	298	GS	[2001KUL/VER2]
	$\Delta_v H$	(268–333)	61.9 ± 0.2	301	GS	[1998VER5]
	$\Delta_v H$	(268–333)	62.1 ± 0.2	298	GS	[1998VER5]
	$\Delta_v H$	(373–423)	61.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(323–373)	61.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(253–338)	61.2	296		[1992NGU/KAS]
	$\Delta_v H$	(298–343)	57.7	313	A	[1987STE/MAL]
	$\Delta_v H$	(380–417)	47.9	395	EB	[1985RED/RAO]
	$\Delta_v H$		58.5 ± 0.2	328	C	[1985MAJ/SVO3]
	$\Delta_v H$		57.6 ± 0.2	343	C	[1985MAJ/SVO3]
	$\Delta_v H$		55.2 ± 0.2	358	C	[1985MAJ/SVO3]
	$\Delta_v H$		53.8 ± 0.2	368	C	[1985MAJ/SVO3]
	$\Delta_v H$	(243–303)	59.1	298		[1983SCH/STR]
	$\Delta_v H$		60.8 ± 0.2	298	C	[1977MAN/SEL]
	$\Delta_v H$	(308–430)	57.9	323		[1973WIL/ZWO]
	$\Delta_v H$	(325–431)	58.5	340	DTA	[1987STE/MAL, 1969KEM/KRE]
	$\Delta_v H$					[1972DYK]
	$\Delta_v H$		61.6 ± 0.2	298	C	[1966WAD]
	$\Delta_v H$	(334–381)	56.0	349		[1961ROS/SUP]
	$\Delta_v H$	(308–428)	U 55.8	323	I	[1938HOV/LAN]
	$\Delta_v H$	(333–425)	57.9	348		[1935BUT/RAM, 1984BOU/FRI]
$C_6H_{14}O$	[626-93-7]	(*dl*) 2-hexanol				
	$\Delta_v H$	(274–309)	57.0 ± 0.2	298	GS	[2005ROG/PIS]
	$\Delta_v H$	(274–309)	58.3 ± 0.3	298	GS	[2001KUL/VER]
	$\Delta_v H$	(224–323)	61.8	239		[1999NGU/BER]
	$\Delta_v H$	(360–415)	48.7	375	A	[1987STE/MAL]
	$\Delta_v H$		56.8 ± 0.2	313	C	[1985MAJ/SVO2]
	$\Delta_v H$		55.0 ± 0.2	328	C	[1985MAJ/SVO2]
	$\Delta_v H$		53.0 ± 0.2	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		50.7 ± 0.2	358	C	[1985MAJ/SVO2]
	$\Delta_v H$		49.2 ± 0.2	368	C	[1985MAJ/SVO2]
	$\Delta_v H$	(337–413)	52.4	352		[1984SAC/MAR]
	$\Delta_v H$	(351–412)	47.8	366	A	[1987STE/MAL, 1975BRA/AND]
	$\Delta_v H$	(301–415)	53.1	316		[1973WIL/ZWO]
	$\Delta_v H$	(298–413)	49.7	356	I	[1938HOV/LAN]
$C_6H_{14}O$	[623-37-0]	(*dl*) 3-hexanol				
	$\Delta_v H$	(278–311)	58.6 ± 0.4	298	GS	[2001KUL/VER]
	$\Delta_v H$	(244–318)	U 50.7	259		[1999NGU/BER]
	$\Delta_v H$	(354–410)	46.1	369	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(280–320)	57.5	295	A	[1987STE/MAL]
	$\Delta_v H$	(333–409)	51.5	348		[1984SAC/MAR]
	$\Delta_v H$	(280–316)	57.4	295		[1975CAB/CON2]
	$\Delta_v H$	(298–408)	46.4	353	I	[1938HOV/LAN]
$C_6H_{14}O$	[105-30-6]	(*dl*) 2-methyl-1-pentanol				
	$\Delta_v H$	(275–313)	59.4 ± 0.3	298	GS	[2001KUL/VER]
	$\Delta_v H$	(367–423)	49.3	382	A	[1987STE/MAL]
	$\Delta_v H$	(261–294)	64.9	279	A	[1987STE/MAL, 1979THO/MEA]
	$\Delta_v H$		57.4 ± 0.2	328	C	[1985MAJ/SVO2]
	$\Delta_v H$		55.7 ± 0.2	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		53.9 ± 0.2	358	C	[1985MAJ/SVO2]
	$\Delta_v H$		52.7 ± 0.2	368	C	[1985MAJ/SVO2]
	$\Delta_v H$	(298–423)	54.2	313		[1973WIL/ZWO]
	$\Delta_v H$	(298–413)	50.2	356	I	[1938HOV/LAN]
$C_6H_{14}O$	[589-35-5]	(*dl*) 3-methyl-1-pentanol				
	$\Delta_v H$	(280–316)	61.7 ± 0.3	298	GS	[2001KUL/VER]
	$\Delta_v H$	(328–427)	54.8	343	A	[1987STE/MAL]
	$\Delta_v H$	(298–427)	59.7	313		[1973WIL/ZWO]
	$\Delta_v H$	(298–423)	47.2	360	I	[1940HOV/LAN2]
$C_6H_{14}O$	[626-89-1]	4-methyl-1-pentanol				
	$\Delta_v H$	(357–427)	53.0	372	A	[1987STE/MAL]
	$\Delta_v H$	(371–427)	51.1	386	A	[1987STE/MAL]
	$\Delta_v H$	(298–427)	63.9	313		[1973WIL/ZWO]
	$\Delta_v H$	(298–423)	46.5	360	I	[1940HOV/LAN2]
$C_6H_{14}O$	[590-36-3]	2-methyl-2-pentanol				
	$\Delta_v H$	(341–396)	44.2	356	A	[1987STE/MAL]
	$\Delta_v H$	(330–397)	48.9	345	A	[1987STE/MAL]
	$\Delta_v H$		54.7 ± 0.2	298	C	[1985MAJ/SVO2]
	$\Delta_v H$		52.8 ± 0.2	313	C	[1985MAJ/SVO2]
	$\Delta_v H$		50.7 ± 0.2	328	C	[1985MAJ/SVO2]
	$\Delta_v H$		48.5 ± 0.2	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		46.1 ± 0.2	358	C	[1985MAJ/SVO2]
	$\Delta_v H$		44.4 ± 0.2	368	C	[1985MAJ/SVO2]
	$\Delta_v H$	(288–396)	58.3	303		[1973WIL/ZWO]
	$\Delta_v H$	(268–394)	49.1	283		[1947STU]
	$\Delta_v H$	(288–396)	51.3	303	I	[1933HOR/LAN]
$C_6H_{14}O$	[565-60-5]	(*dl*) 3-methyl-2-pentanol				
	$\Delta_v H$	(275–310)	58.2 ± 0.3	298	GS	[2001KUL/VER]
	$\Delta_v H$	(314–409)	54.4	329	A	[1987STE/MAL]
	$\Delta_v H$	(255–295)	60.4	280	A	[1987STE/MAL, 1979THO/MEA]
	$\Delta_v H$	(296–408)	54.8	311		[1973WIL/ZWO]
$C_6H_{14}O$	[108-11-2]	(*dl*) 4-methyl-2-pentanol				
	$\Delta_v H$	(274–301)	57.3 ± 0.3	298	GS	[2001KUL/VER]
	$\Delta_v H$	(240–295)	59.6	280	A	[1987STE/MAL]
	$\Delta_v H$	(293–406)	49.6	308		[1973WIL/ZWO]
	$\Delta_v H$	(353–404)	47.3	368	A,EB	[1987STE/MAL, 1970AND/BRA]
	$\Delta_v H$	(298–403)	45.6	350	I	[1938HOV/LAN]
$C_6H_{14}O$	[565-67-3]	(*dl*) 2-methyl-3-pentanol				
	$\Delta_v H$	(275–307)	56.0 ± 0.5	298	GS	[2001KUL/VER]
	$\Delta_v H$	(307–401)	52.2	322	A	[1987STE/MAL]
	$\Delta_v H$	(342–400)	45.4	357	A	[1987STE/MAL, 1975BRA/AND]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(298–401)	52.0	313		[1973WIL/ZWO]
	$\Delta_v H$	(298–399)	44.4	349	I	[1940HOV/LAN]
$C_6H_{14}O$	[77-74-7]	3-methyl-3-pentanol				
	$\Delta_v H$	(275–301)	55.7 ± 0.3	298	GS	[2001KUL/VER]
	$\Delta_v H$	(322–397)	40.1	337	A	[1987STE/MAL]
	$\Delta_v H$	(338–396)	46.4	353		[1973WIL/ZWO]
	$\Delta_v H$		56.7 ± 0.8	298		[1991WIB/HAO]
	$\Delta_v H$	(298–393)	42.1	346	I	[1940HOV/LAN]
$C_6H_{14}O$	[1185-33-7]	2,2-dimethyl-1-butanol				
	$\Delta_v H$	(356–415)	47.2	371	A	[1987STE/MAL]
	$\Delta_v H$	(298–415)	53.7	313		[1973WIL/ZWO]
	$\Delta_v H$	(298–408)	52.1	313	I	[1940HOV/LAN3]
$C_6H_{14}O$	[19550-30-2]	(*dl*) 2,3-dimethyl-1-butanol				
	$\Delta_v H$	(324–431)	51.4	339	A	[1987STE/MAL]
	$\Delta_v H$	(373–422)	49.6	388		[1973WIL/ZWO]
$C_6H_{14}O$	[624-95-3]	3,3-dimethyl-1-butanol				
	$\Delta_{fus}H$		9.54	235.7		[2004MAS/NAK]
	$\Delta_v H$	(276–312)	58.0 ± 0.2	298	GS	[2001KUL/VER]
	$\Delta_v H$		58.6 ± 0.1	328	C	[1996ULB/KLU]
	$\Delta_v H$		55.4 ± 0.1	343	C	[1996ULB/KLU]
	$\Delta_v H$		52.4 ± 0.1	358	C	[1996ULB/KLU]
	$\Delta_v H$	(319–424)	50.8	334	A	[1987STE/MAL]
	$\Delta_v H$	(353–417)	49.4	368		[1973WIL/ZWO]
$C_6H_{14}O$	[594-60-5]	2,3-dimethyl-2-butanol				
	$\Delta_v H$	(303–340)	54.0 ± 0.8	298		[1991WIB/HAO]
	$\Delta_v H$	(299–400)	48.8	314	A	[1987STE/MAL]
	$\Delta_v H$	(298–393)	49.1	313		[1973WIL/ZWO]
$C_6H_{14}O$	[464-07-3]	(*dl*) 3,3-dimethyl-2-butanol				
	$\Delta_v H$	(280–315)	53.8 ± 0.3	298	GS	[2001KUL/VER]
	$\Delta_v H$	(302–401)	48.3	317	A	[1987STE/MAL]
	$\Delta_v H$	(338–393)	46.8	353		[1973WIL/ZWO]
$C_6H_{14}O$	[97-95-0]	2-ethyl-1-butanol				
	$\Delta_v H$	(275–313)	60.3 ± 0.3	298	GS	[2001KUL/VER]
	$\Delta_v H$	(321–426)	53.1	336	A	[1987STE/MAL]
	$\Delta_v H$	(262–295)	65.4	280	A	[1987STE/MAL, 1979THO/MEA]
	$\Delta_v H$	(298–426)	59.6	313		[1973WIL/ZWO]
	$\Delta_v H$	(298–418)	U 45.5	313	I	[1940HOV/LAN3]
$C_6H_{14}OS$	[na]	2-methyl-2-propanesulfonic acid, ethyl ester				
	$\Delta_v H$	(337–343)	U 14.0	340	A	[1987STE/MAL]
$C_6H_{14}O_2$	[111-76-2]	2-butoxyethanol				
	$\Delta_{fus}H$		11.8	199.5		[2000ATA/KAW]
	$\Delta_v H$	(363–382)	51.2	373	MM	[1999ESC/SAN]
	$\Delta_v H$	(336–443)	49.5	351	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(336–443)	52.6	351		[1957DYK/SEP, 1984BOU/FRI]
$C_6H_{14}O_2$	[4461-87-4]	1,1-dimethoxybutane				
	$\Delta_v H$	(304–329)	41.2	317	EB	[1994WIB/MOR]
$C_6H_{14}O_2$	[3453-99-4]	2,2-dimethoxybutane				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		9.32	174		[2003TEO/WIL]
$C_6H_{14}O_2$	[105-57-7] 1,1-diethoxyethane					
	$\Delta_{fus}H$		10.95	167		[2003TEO/WIL]
	Δ_vH	(275–308)	39.6 ± 0.3	298	GS	[1998VER/PEN, 2002VER]
	Δ_vH	(281–384)	41.6	296	A	[1987STE/MAL, 1972DYK]
	Δ_vH	(273–343)	39.8	288		[1949NIC/LAF, 1984BOU/FRI]
	Δ_vH	(239–392)	36.2	255		[1947STU]
$C_6H_{14}O_2$	[629-14-1] 1,2-diethoxyethane					
	Δ_vH	(339–382)	39.3	361		[1987TRE/LU]
	Δ_vH	(239–393)	37.9	254	A	[1987STE/MAL]
	Δ_vH		43.2 ± 0.1	298	C	[1970KUS/WAD]
$C_6H_{14}O_2$	[77078-18-3] 1-methoxy-2-propoxyethane					
	Δ_vH		43.7 ± 0.1	298	C	[1970KUS/WAD]
$C_6H_{14}O_2$	[4439-24-1] 2-isobutoxyethanol					
	Δ_vH	(344–432)	48.1	359	A	[1987STE/MAL, 1972DYK, 1957DYK/SEP, 1984BOU/FRI]
$C_6H_{14}O_2$	[7580-85-0] 2-*tert*-butoxyethanol					
	$\Delta_{fus}H$		11.4	223.1		[2000ATA/KAW]
$C_6H_{14}O_2$	[6920-22-5] 1,2-hexanediol					
	Δ_vH	(294–348)	78.7 ± 0.3	298	GS	[2004VER2]
$C_6H_{14}O_2$	[629-11-8] 1,6-hexanediol					
	$\Delta_{fus}H$		25.5	316		[2005SMI/KAN]
	$\Delta_{fus}H$		25.52	340.6		[1996DOM/HEA]
	$\Delta_{sub}H$		112.0 ± 0.4	298	C	[1990KNA/SAB]
	$\Delta_{sub}H$		108.8			[1972GAR/HUS, 1977PED/RYL]
	Δ_vH	(355–559)	98.5 ± 1.8	298	EB,IP	[1996STE/CHI2]
	Δ_vH	(355–559)	87.8 ± 1.1	360	EB,IP	[1996STE/CHI2]
	Δ_vH	(355–559)	80.8 ± 0.9	400	EB,IP	[1996STE/CHI2]
	Δ_vH	(355–559)	73.9 ± 0.7	440	EB,IP	[1996STE/CHI2]
	Δ_vH	(355–559)	67.0 ± 0.6	480	EB,IP	[1996STE/CHI2]
	Δ_vH		87.0	342		[1993PIA/FER, 2006UMN/KWE]
	Δ_vH		90.9 ± 4.1	298		[1993PIA/FER, 2006UMN/KWE]
	Δ_vH		90.7 ± 1.1	298		[1990KNA/SAB]
	Δ_vH		83.3 ± 1.7			[1972GAR/HUS, 1977PED/RYL]
$C_6H_{14}O_2$	[4457-71-0] 3-methyl-1,5-pentanediol					
	Δ_vH	(402–485)	76.9	417	A	[1987STE/MAL]
$C_6H_{14}O_2$	[107-41-5] (*dl*) 2-methyl-2,4-pentanediol					
	Δ_vH	(285–329)	68.9 ± 0.4	298	GS	[2007VER]
	Δ_vH	(370–547)	68.6 ± 0.4	298	EB	[1990DAU/HUT, 2007VER]
	Δ_vH	(373–473)	58.1	388	A	[1987STE/MAL]
$C_6H_{14}O_2$	[76-09-5] 2,3-dimethyl-2,3-butanediol					
	$\Delta_{fus}H$		14.7	316.2	DSC	[1983PRI/WOO]
	Δ_vH	(346–448)	59.1	361	A	[1987STE/MAL]
$C_6H_{14}O_2S$	[34008-94-1] *tert*-butyl ethyl sulfone					
	$\Delta_{sub}H$		86.6 ± 2.5			[UR/MAC, 1970COX/PIL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{14}O_3$	[111-96-6]	diethylene glycol, dimethyl ether				
	$\Delta_{fus}H$		17.78	209.1		[1996DOM/HEA]
	Δ_vH	(371–434)	45.4		EB	[2009LI/FAN]
	Δ_vH		48.0 ± 0.6	298	CGC	[2000NIC/ORF]
	Δ_vH	(286–433)	47.4	301	A	[1987STE/MAL, 1947STU]
$C_6H_{14}O_3$	[5648-29-3]	3,5,7-trioxanonane				
	Δ_vH		44.7 ± 0.2	298	C	[1969MAN]
$C_6H_{14}O_3$	[15476-85-4]	*tert*-butyl 2-hydroxyethyl peroxide				
	Δ_vH		66.4 ± 1.9			[1983VAN/KAC]
$C_6H_{14}O_3$	[111-90-0]	diethylene glycol, monoethyl ether				
	Δ_vH	(318–475)	52.1	333	A	[1987STE/MAL, 1947STU]
$C_6H_{14}O_3$	[25265-71-8]	dipropylene glycol				
	Δ_vH	(423–505)	61.2	438	A	[1987STE/MAL]
$C_6H_{14}O_3$	[77-99-6]	2-ethyl-2-hydroxymethyl-1,3-propanediol				
	$\Delta_{trs}H$		16.36	327.8		
	$\Delta_{fus}H$		0.9	332.7	DSC	[2002CHA/MAN]
	$\Delta_{fus}H$	(270–354)	21.45	333.4	AC	[1989ZHA/YAN]
	Δ_vH	(433–570)	81.4	448	A	[1987STE/MAL]
$C_6H_{14}O_3$	[106-69-4]	1,2,6-trihydroxyhexane				
	Δ_vH	(393–433)	97.2	408	A	[1987STE/MAL]
$C_6H_{14}O_4$	[2517-44-4]	1,1,2,2-tetramethoxyethane				
	Δ_vH	(351–432)	42.9	366	A	[1987STE/MAL]
$C_6H_{14}O_4$	[112-27-6]	triethylene glycol				
	Δ_vH	(442–562)	72.2 ± 0.3	440	EB	[2002STE/CHI3]
	Δ_vH	(442–562)	68.5 ± 0.3	480	EB	[2002STE/CHI3]
	Δ_vH	(442–562)	64.6 ± 0.3	520	EB	[2002STE/CHI3]
	Δ_vH	(442–562)	60.8 ± 0.5	560	EB	[2002STE/CHI3]
	Δ_vH	(278–323)	77.0	300		[1972MCF/SOM]
	Δ_vH	(288–303)	67.7	295	A	[1987STE/MAL, 1955ISH/MAT]
	Δ_vH	(293–303)	60.5	298		[1950WIS/PUC]
	Δ_vH	(387–552)	71.5	402	A	[1987STE/MAL, 1947STU]
$C_6H_{14}O_6$	[na]	dulcitol				
	$\Delta_{fus}H$		65.1	460.3		[1996DOM/HEA]
	Δ_vH	(464–496)	133.8 ± 1.4	482	TE	[1990BAR/DEL]
$C_6H_{14}O_6$	[69-65-8]	(*d*)-mannitiol				
	$\Delta_{fus}H$		54.69	437.3	DSC	[2010TON/LIU]
	$\Delta_{fus}H$		56.1	439.1	DSC	[1996DOM/HEA, 1990BAR/DEL]
	$\Delta_{sub}H$		202	298	B	[1990BAR/DEL]
	Δ_vH	(458–501)	135.6 ± 1.1	479	TE	[1990BAR/DEL]
$C_6H_{14}O_6$	[50-70-4]	(*d*)-sorbitol				
	$\Delta_{fus}H$		30.2	366.5	DSC	[1996DOM/HEA, 1990BAR/DEL]
	$\Delta_{sub}H$		186	298	B	[1990BAR/DEL]
	Δ_vH	(461–497)	132.4 ± 2.0	477	TE	[1990BAR/DEL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{14}O_6$	[na]	sorbitol				
	$\Delta_{fus}H$	(80–390)	30.35	369.2	AC	[2008TON/TAN2]
$C_6H_{14}O_6$	[50-70-4]	sorbitol				
	$\Delta_{fus}H(\alpha)$		29.8	359.1	DSC	[2009NEZ/AER]
	$\Delta_{fus}H(\beta)$		31.7	371.2	DSC	[2009NEZ/AER]
$C_6H_{14}O_6$	[608-66-2]	(*d*)-galactitol				
	$\Delta_{sub}H$		205	298	B	[1990BAR/DEL]
$C_6H_{14}O_6$	[na]	(*l*)-iditol				
	$\Delta_{fus}H$		30.9	352.8		[1993SIN/CAR]
$C_6H_{14}S$	[1741-83-9]	methyl pentyl sulfide				
	Δ_vH	(321–349)	44.2	336		[1999DYK/SVO]
	Δ_vH		45.2	298		[1981SHI/SAI]
	Δ_vH		44.6 ± 0.8	298	GC	[1964MAC/MCC]
	Δ_vH	(321–350)	42.6	308	EB	[1961NIC/KOB]
$C_6H_{14}S$	[638-46-0]	butyl ethyl sulfide				
	$\Delta_{fus}H$		12.39	178.1		[1985DEA]
	Δ_vH	(314–445)	43.7	319		[1999DYK/SVO]
	Δ_vH		44.5	298		[1981SHI/SAI]
	Δ_vH		44.9	298		[1971WIL/ZWO]
	Δ_vH		44.6 ± 0.8	298	GC	[1964MAC/MCC]
	Δ_vH	(316–348)	43.5	333	EB	[1962MAC/MAY2]
	Δ_vH	(354–424)	40.7	369	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_6H_{14}S$	[5008-72-0]	sec-butyl ethyl sulfide				
	Δ_vH	(304–434)	41.2	319		[1999DYK/SVO]
	Δ_vH	(345–409)	39.0	360	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_6H_{14}S$	[14290-92-7]	*tert*-butyl ethyl sulfide				
	Δ_vH	(293–420)	39.2	308		[1999DYK/SVO]
	Δ_vH		39.3	298		[1971WIL/ZWO]
	Δ_vH	(332–400)	37.1	347	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_6H_{14}S$	[625-80-9]	diisopropyl sulfide				
	$\Delta_{fus}H$		10.42	195.1		[1996DOM/HEA]
	Δ_vH	(293–420)	39.4	308		[1999DYK/SVO]
	Δ_vH		39.6 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	Δ_vH	(324–433)	37.7	339	A,EB	[1987STE/MAL, 1966OSB/DOU]
	Δ_vH		39.6 ± 0.8	298	GC	[1964MAC/MCC]
	Δ_vH	(303–328)	38.5	318	EB	[1962MAC/MAY2]
	Δ_vH	(330–400)	37.4	345	EB	[1952WHI/BER]
$C_6H_{14}S$	[111-47-7]	dipropyl sulfide				
	$\Delta_{fus}H$		12.13	170.4		[1996DOM/HEA]
	Δ_vH	(313–411)	42.9	328		[1999DYK/SVO]
	Δ_vH		44.2	298		[1981SHI/SAI]
	Δ_vH		44.5	298		[1971WIL/ZWO]
	Δ_vH		39.5	298		[1971WIL/ZWO]
	Δ_vH		44.7 ± 0.8	298	GC	[1964MAC/MCC]
	Δ_vH	(353–427)	40.6	368	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_6H_{14}S$	[5008-73-1]	isopropyl propyl sulfide				
	Δ_vH	(303–432)	41.1	318		[1999DYK/SVO]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		41.8	298		[1981SHI/SAI]
	$\Delta_v H$	(343–416)	39.0	358	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_6H_{14}S$	[1613-45-2]	ethyl isobutyl sulfide				
	$\Delta_v H$	(305–401)	41.3	320		[1999DYK/SVO]
	$\Delta_v H$	(345–414)	39.2	360	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_6H_{14}S$	[111-31-9]	1-hexanethiol				
	$\Delta_{fus}H$		18.03	192.6		[1996DOM/HEA]
	$\Delta_v H$	(320–454)	43.9	335		[1999DYK/SVO]
	$\Delta_v H$		44.8 ± 0.2	298		[1966GOO/DEP, 1966OSB/DOU]
	$\Delta_v H$	(352–468)	42.4	367	A,EB	[1987STE/MAL, 1966OSB/DOU]
$C_6H_{14}S$	[1679-06-7]	2-hexanethiol				
	$\Delta_v H$	(310–440)	42.7	325		[1999DYK/SVO]
	$\Delta_v H$	(328–423)	41.4	343	A	[1987STE/MAL]
$C_6H_{14}S$	[1639-01-6]	2,3-dimethyl-2-butanethiol				
	$\Delta_v H$	(285–318)	39.3	300		[1999DYK/SVO]
	$\Delta_v H$	(318–441)	37.8	333		[1999DYK/SVO]
	$\Delta_v H$		39.3 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$	(328–441)	37.4	343	A,EB	[1987STE/MAL, 1966OSB/DOU]
$C_6H_{14}S$	[1633-97-2]	2-methyl-2-pentanethiol				
	$\Delta_v H$		40.0 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$	(327–439)	38.0	342	A,EB	[1987STE/MAL, 1966OSB/DOU, 1999DYK/SVO]
$C_6H_{14}S_2$	[4253-89-8]	diisopropyl disulfide				
	$\Delta_v H$	(383–423)	49.3	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		39.6	298		[1981SHI/SAI]
	$\Delta_v H$	(377–447)	43.8	392	A,EB	[1987STE/MAL, 1952WHI/BER, 1999DYK/SVO]
$C_6H_{14}S_2$	[629-19-6]	dipropyl disulfide				
	$\Delta_{fus}H$		13.81	187.7		[1996DOM/HEA]
	$\Delta_v H$	(354–499)	47.8	369		[1999DYK/SVO]
	$\Delta_v H$		53.8 ± 0.1	298	C	[1985KUS]
	$\Delta_v H$		53.8	298		[1981SHI/SAI]
	$\Delta_v H$	(389–447)	47.0	404	A,EB	[1987STE/MAL, 1958HUB/DOU, 1966OSB/DOU]
	$\Delta_v H$	(395–456)	46.6	410	EB	[1952WHI/BER]
$C_6H_{14}S_2$	[4151-69-3]	ethyl (1,1-dimethylethyl) disulfide				
	$\Delta_v H$	(373–461)	43.4	388	A,EB	[1987STE/MAL, 1952WHI/BER, 1999DYK/SVO]
$C_6H_{14}S_2$	[33672-51-4]	isopropyl propyl disulfide				
	$\Delta_v H$	(383–433)	45.4	398	A	[1987STE/MAL, 1999DYK/SVO]
$C_6H_{14}S_2$	[1191-43-1]	1,6-hexanedithiol				
	$\Delta_v H$	(379–511)	55.7	394	A	[1987STE/MAL, 1999DYK/SVO]
$C_6H_{14}S_2$	[5395-75-5]	3,6-dithiaoctane				
	$\Delta_v H$		59.5 ± 0.1	298	C	[1974MAN4]
$C_6H_{14}S_3$	[na]	trithiodiethylene glycol, dimethyl ether				
	$\Delta_v H$	(391–418)	103.7	404	A	[1987STE/MAL]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{14}S_3$	[37460-04-1]	2,5,8-trithianonane				
	$\Delta_v H$	(391–533)	116.4	406		[1999DYK/SVO]
$C_6H_{15}N$	[111-26-2]	hexylamine				
	$\Delta_v H$	(323–373)	45.0	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(303–406)	42.2	318	A	[1987STE/MAL]
	$\Delta_v H$		45.1 ± 0.1	298	C	[1969WAD]
$C_6H_{15}N$	[21035-44-9]	(*dl*) sec-butyl ethyl amine				
	$\Delta_v H$	(283–372)	37.9	298		[1987STE/MAL, 1972DYK]
$C_6H_{15}N$	[108-18-9]	diisopropylamine				
	$\Delta_v H$	(260–412)	35.4	275	A	[1987STE/MAL]
	$\Delta_v H$	(273–367)	35.6	288	A	[1987STE/MAL]
	$\Delta_v H$		34.6 ± 0.1	298	C	[1979PET/MAJ]
	$\Delta_v H$		33.7 ± 0.1	313	C	[1979PET/MAJ]
	$\Delta_v H$		32.6 ± 0.1	328	C	[1979PET/MAJ]
	$\Delta_v H$		31.5 ± 0.1	343	C	[1979PET/MAJ]
	$\Delta_v H$		30.2 ± 0.1	358	C	[1979PET/MAJ]
	$\Delta_v H$	(300–356)	34.4	315	EB	[1979PET/MAJ]
	$\Delta_v H$	(291–305)	34.6	298		[1971LEB/KAT2]
	$\Delta_v H$		34.5 ± 0.1	298	C	[1969WAD]
	$\Delta_v H$	(273–333)	33.8 ± 0.2	298	I	[1969FRA/WAT]
$C_6H_{15}N$	[21968-17-2]	N-isopropyl propylamine				
	$\Delta_v H$		37.3 ± 0.1	298	C	[1979PET/MAJ]
	$\Delta_v H$		36.2 ± 0.1	313	C	[1979PET/MAJ]
	$\Delta_v H$		35.2 ± 0.1	328	C	[1979PET/MAJ]
	$\Delta_v H$		34.1 ± 0.1	343	C	[1979PET/MAJ]
	$\Delta_v H$		33.0 ± 0.1	358	C	[1979PET/MAJ]
	$\Delta_v H$	(312–369)	36.2	327	EB	[1979PET/MAJ]
$C_6H_{15}N$	[13360-63-9]	N-butylethylamine				
	$\Delta_v H$		40.2 ± 0.1	298	C	[1979PET/MAJ]
	$\Delta_v H$		39.1 ± 0.1	313	C	[1979PET/MAJ]
	$\Delta_v H$		38.0 ± 0.1	328	C	[1979PET/MAJ]
	$\Delta_v H$		36.9 ± 0.1	343	C	[1979PET/MAJ]
	$\Delta_v H$		35.8 ± 0.1	358	C	[1979PET/MAJ]
	$\Delta_v H$	(313–375)	39.9	328	EB	[1979PET/MAJ]
	$\Delta_v H$	(283–382)	41.4	298	A	[1987STE/MAL, 1972DYK]
$C_6H_{15}N$	[142-84-7]	dipropylamine				
	$\Delta_v H$	(321–382)	40.0	336		[2000RES/GON]
	$\Delta_v H$	(302–422)	39.8	317	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(291–305)	41.5	298		[1971LEB/KAT2]
	$\Delta_v H$		40.0 ± 0.1	298	C	[1969WAD]
	$\Delta_v H$	(273–333)	40.2 ± 0.3	298	I	[1969FRA/WAT]
$C_6H_{15}N$	[121-44-8]	triethylamine				
	$\Delta_v H$	(273–353)	33.4 ± 0.2	313		[2009MOK/RAZ]
	$\Delta_v H$	(273–353)	35.4 ± 0.2	298		[2009MOK/RAZ]
	$\Delta_v H$	(310–362)	33.9	325	EB	[2006WAN/FAN]
	$\Delta_v H$	(231–319)	35.2 ± 0.9	275		[2001BAE]
	$\Delta_v H$	(302–338)	34.1	317	EB	[1990DUT/KAH]
	$\Delta_v H$	(298–324)	34.6	311		[1987STE/MAL]
	$\Delta_v H$	(283–363)	35.5	298		[1987STE/MAL]
	$\Delta_v H$		34.8 ± 0.2	298	C	[1979MAJ/SVO2]
	$\Delta_v H$		33.9 ± 0.1	313	C	[1979MAJ/SVO2]

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		33.0 ± 0.2	328	C	[1979MAJ/SVO2]
	$\Delta_v H$		32.2 ± 0.1	343	C	[1979MAJ/SVO2]
	$\Delta_v H$		31.3 ± 0.2	358	C	[1979MAJ/SVO2]
	$\Delta_v H$	(303–361)	34.8	318	EB	[1979MAJ/SVO2]
	$\Delta_v H$	(283–313)	35.1	298		[1975CHU/DRU]
	$\Delta_v H$	(324–357)	33.3	339		[1971BAY/LET]
	$\Delta_v H$		34.9 ± 0.1	298	C	[1969WAD]
	$\Delta_v H$	(298–363)	U 25.3	313	I	[1953COP/EVE]
	$\Delta_v H$	(285–337)	33.0	311		[1936THO/LIN]
$C_6H_{15}N$	[918-02-5]	N,N-dimethyl *tert*-butyl amine				
	$\Delta_v H$	(283–318)	34.8	298	A	[1987STE/MAL]
$C_6H_{15}NO$	[5888-29-9]	N-(methoxymethyl)diethylamine				
	$\Delta_v H$	(293–318)	38.0	305	A	[1987STE/MAL]
$C_6H_{15}NO$	[100-37-8]	N,N-diethylethanolamine				
	$\Delta_v H$	(278–318)	52.5 ± 0.2	298	GS	[2005KAP/SLO]
	$\Delta_v H$	(332–475)	48.5 ± 0.2	340	EB	[2002STE/CHI5]
	$\Delta_v H$	(332–475)	45.0 ± 0.2	380	EB	[2002STE/CHI5]
	$\Delta_v H$	(332–475)	41.6 ± 0.4	420	EB	[2002STE/CHI5]
	$\Delta_v H$	(332–475)	37.8 ± 0.7	460	EB	[2002STE/CHI5]
	$\Delta_v H$	(328–433)	48.5	343	A	[1987STE/MAL]
	$\Delta_v H$	(283–318)	58.5 ± 1.3	298		[1977LEB/NAZ, 2005KAP/SLO]
$C_6H_{15}NO_2$	[110-97-4]	diisopropanolamine				
	$\Delta_v H$	(390–521)	68.0	405	A	[1987STE/MAL, 1972DYK]
$C_6H_{15}NO_2$	[1704-62-7]	2-[2-(dimethylamino)ethoxy]ethanol				
	$\Delta_v H$	(412–452)	54.4	427	A	[1987STE/MAL]
$C_6H_{15}NO_2S$	[33718-39-7]	N,N-diethyl ethanesulfonamide				
	$\Delta_v H$	(392–526)	55.4	407	A	[1987STE/MAL]
$C_6H_{15}NO_3$	[102-71-6]	triethanolamine				
	$\Delta_v H$	(523–579)	79.3	538	A	[1987STE/MAL, 1959MCD/SHR, 1984BOU/FRI]
$C_6H_{15}NS$	[na]	N,N-dimethyl-S-*tert*-butylthiohydroxylamine				
	$\Delta_v H$	(328–334)	28.3	331	A	[1987STE/MAL, 1999DYK/SVO]
$C_6H_{15}N_3$	[108-74-7]	1,3,5-trimethylhexahydro-s-triazine				
	$\Delta_v H$	(284–328)	50.8 ± 0.8	306	GS	[2002VER2]
	$\Delta_v H$	(284–328)	51.2 ± 0.8	298	GS	[2002VER2]
$C_6H_{15}N_3$	[140-31-8]	1-(2-aminoethyl)piperazine				
	$\Delta_v H$	(296–338)	68.7 ± 0.3	298	GS	[2010EFI/EME]
$C_6H_{15}O_2PS_3$	[640-15-3]	O,O-dimethyl-S-[2-(ethylthio)ethyl]dithiophosphate				
	$\Delta_v H$	(283–394)	76.8	298	A	[1987STE/MAL, 1999DYK/SVO]
$C_6H_{15}O_3P$	[1809-21-8]	phosphonic acid, dipropyl ester				
	$\Delta_v H$	(318–467)	38.1	333	A	[1987STE/MAL, 1972DYK]
$C_6H_{15}O_3P$	[122-52-1]	triethylphosphite				
	$\Delta_v H$		53.0	298		[2008SAG/SAF]
$C_6H_{15}O_3PS$	[126-68-1]	O,O,O-triethythiophosphate				
	$\Delta_v H$	(305–335)	87.5	320	A	[1987STE/MAL, 1999DYK/SVO]
$C_6H_{15}O_3PS$	[1186-09-0]	O,O,S-triethythiophosphate				

TABLE 6. Phase change enthalpies of C_5 to C_6 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(312–352)	76.3	327	A	[1987STE/MAL, 1999DYK/SVO]
$C_6H_{15}O_3PS_2$	[867-27-6]	phosphorothioic acid, O-[2-(ethylthio)ethyl]-O,O-dimethyl ester				
	$\Delta_v H$	(283–379)	71	298	A	[1987STE/MAL, 1999DYK/SVO]
$C_6H_{15}O_3PS_2$	[919-86-8]	phosphorothioic acid, S-[2-(ethylthio)ethyl]-O,O-dimethyl ester				
	$\Delta_v H$	(283–407)	78.8	298	A	[1987STE/MAL, 1999DYK/SVO]
$C_6H_{15}O_4P$	[78-40-0]	triethylphosphate				
	$\Delta_v H$	(413–453)	55.7	298	CGC	[2007PAN/ANT2]
	$\Delta_v H$	(312–484)	46.3	327	A	[1987STE/MAL, 1947STU]
$C_6H_{15}P$	[554-70-1]	triethylphosphine				
	$\Delta_{fus}H$		10.73	188.2		[1999SHE/KAM]
	$\Delta_v H$	(291–402)	38.3	306	A	[1987STE/MAL, 1972DYK]
$C_6H_{16}FN_2OP$	[371-86-8]	N,N′-diisopropyl phosphorodiamidic fluoride				
	$\Delta_v H$	(278–398)	58.1	293	A	[1987STE/MAL]
$C_6H_{16}N_2$	[124-09-4]	1,6-hexanediamine				
	$\Delta_{fus}H$		39.38	311.6	DSC	[2006KHI/DAH2]
	$\Delta_{fus}H$		40.21	312.3	DSC	[2002DAL/DEL]
	$\Delta_v H$	(348–474)	49.3	363	A	[1987STE/MAL]
	$\Delta_v H$	(338–473)	51.3	353	A	[1987STE/MAL]
$C_6H_{16}N_2$	[110-18-9]	1,2-*bis*(dimethylamino)ethane				
	$\Delta_v H$	(295–365)	39.8	330		[2009RAZ/HAJ]
	$\Delta_v H$	(295–365)	42.2	298		[2009RAZ/HAJ]
$C_6H_{16}N_2O_2$	[4439-20-7]	N,N-*bis*(2-hydroxyethyl)ethylenediamine				
	$\Delta_{fus}H$		49.7	373.2		[1997STE/CHI4]
	$\Delta_{sub}H$		142.7	373	B	[1997STE/CHI4]
	$\Delta_v H$	(399–500)	106.4 ± 6.4	298	EB,IP	[1997STE/CHI2, 1997STE/CHI4]
	$\Delta_v H$	(399–500)	91.2 ± 0.2	400	EB,IP	[1997STE/CHI2, 1997STE/CHI4]
	$\Delta_v H$	(399–500)	87.7 ± 0.2	440	EB,IP	[1997STE/CHI2, 1997STE/CHI4]
	$\Delta_v H$	(399–500)	84.8 ± 0.2	480	EB,IP	[1997STE/CHI2, 1997STE/CHI4]
$C_6H_{16}N_2O_2$	[929-59-9]	1,2-*bis*(2-aminoethoxy)ethane				
	$\Delta_v H$	(293–353)	56.2	323		[2009RAZ/HAJ]
	$\Delta_v H$	(293–353)	58.8	298		[2009RAZ/HAJ]
$C_6H_{16}N_2O_2$	[3129-93-9]	diisopropyl ammonium nitrite				
	$\Delta_{sub}H$	(288–299)	39.0	293.5	A	[1987STE/MAL, 1965MAR]
$C_6H_{18}N_3P$	[1608-26-0]	*tris*(dimethylamino)phosphine				
	$\Delta_v H$		41.5 ± 0.6	298	STG	[1995ALM/FIN2]
	$\Delta_v H$	(298–333)	63.2	313		[1984MIC/JOS]
$C_6H_{18}N_4$	[112-24-3]	triethylenetetramine				
	$\Delta_v H$	(338–373)	84.7 ± 0.3	298	GS	[2010EFI/EME]
	$\Delta_v H$	(294–325)	75.6	298	TGA	[1988AFZ/BUT, 2010EFI/EME]
	$\Delta_v H$	(431–550)	59.8	446	A	[1987STE/MAL, 1972DYK]
	$\Delta_v H$	(431–492)	71.0 ± 2.6	298		[1967SIV/MAT, 2010EFI/EME]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7ClF_{17}N_2S$	[na]	$CF_3SCl[=NCF(CF_3)_2]_2$				
	$\Delta_v H$		38.9	467	I	[1977KIT/SHR2]
		Note: This is the structure and molecular formula given in paper. A search of Chemical Abstracts by molecular formula failed to turn up any hits with this formula.				
C_7D_8	[2037-26-5]	perdeuterotoluene				
	$\Delta_{trs}H$		3.51	136	DSC	[1972AHM/EAD]
	$\Delta_{fus}H$		6.02	178	DSC	
$C_7F_6O_2$	[59483-82-8]	carbonofluoridic acid pentafluorophenyl ester				
	$\Delta_v H$		42.3			[1976FAL/DES2]
C_7F_8	[434-64-0]	perfluorotoluene				
	$\Delta_{fus}H$		13.2	207.7		
	$\Delta_{fus}H$		11.49	207		[1996DOM/HEA]
	$\Delta_v H$	(288–334)	40.5 ± 0.2	298		[2005DIA/GON]
	$\Delta_v H$	(291–378)	40.0	306		[1999DYK/SVO]
	$\Delta_v H$	(285–376)	40.9	300	A	[1987STE/MAL]
	$\Delta_v H$	(290–400)	40.4	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(285–334)	41.6 ± 0.2	298		[1973KRE/PRI]
C_7F_{10}	[14451-74-2]	3,3-difluoro-1,2-*bis*(trifluoromethyl)-4-(difluoroethylene)cyclobutene				
	$\Delta_v H$	(272–316)	31.5	287	A	[1987STE/MAL, 1999DYK/SVO]
$C_7F_{12}O_2S_4$	[58936-62-2]	pentane*bis*(dithioperoxoic) acid, hexafluoro-*bis*(trifluoromethyl) ester				
	$\Delta_v H$		33.6	370	I	[1976BUR/SHR]
$C_7F_{12}O_6$	[32751-20-5]	hexafluoroperoxyglutaric acid, *bis*(trifluoromethyl) ester				
	$\Delta_v H$	(200–390)	47.3	215	A	[1987STE/MAL, 1999DYK/SVO]
C_7F_{14}	[355-02-2]	perfluoromethylcyclohexane				
	$\Delta_{sub}H$		51.6	234	B	[1963BON, 1957ROW/THA]
	$\Delta_v H$	(305–414)	33.1	320		[1999DYK/SVO]
	$\Delta_v H$	(413–488)	30.2	428		[1999DYK/SVO]
	$\Delta_v H$	(306–384)	34.0	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$		34.1 ± 0.3	298		[1981VAR/BUL]
	$\Delta_v H$	(305–385)	33.4	320	A	[1987STE/MAL, 1970DYK/VAN, 1973KKY/REP]
	$\Delta_v H$	(306–384)	33.3	321		[1959GOO/DOU, 1984BOU/FRI]
	$\Delta_v H$	(298–353)	33.8	313		[1957ROW/THA, 1984BOU/FRI]
	$\Delta_v H$	(272–349)	33.3	310		[1956GLE/REE, 1970DYK/VAN]
$C_7F_{15}NS$	[77984-26-0]	2,2,3,3,4,4,5,5-octafluoro-1,1,2,3,4,5-hexahydro-1-[[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]imino]thiophene				
	$\Delta_v H$		33.9	371		[1981ABE/SHR]
C_7F_{16}	[333-57-9]	perfluoroheptane				
	$\Delta_{trs}H$		6.67	180.4		
	$\Delta_{fus}H$		6.95	221.9		[1996DOM/HEA, 1986STA]
	$\Delta_{sub}H$		57.7		B	[1963BON, 1951OLI/GRI]
	$\Delta_v H$	(363–474)	32.6	378		[1999DYK/SVO]
	$\Delta_v H$	(304–390)	36.3 ± 0.3	298	EB	[1997STE/CHI3]
	$\Delta_v H$	(290–355)	35.9	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$		33.1			[1959YEN/REE]
	$\Delta_v H$	(293–355)	34.9	324		[1956GLE/REE]
	$\Delta_v H$	(271–379)	37.7	286	A	[1987STE/MAL, 1951OLI/GRI, 1970DYK/VAN]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7F_{16}N_2OS$	[62609-64-7]	1,1,1-trifluoro-N′-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-N-[2,2,2-trifluoro-1-(trifluromethyl)ethylidene] methanesulfonimidamide				
	$\Delta_v H$		33.5	451		[1977KIT/SHR]
$C_7F_{17}N$	[338-81-8]	perfluoro-N,N-diethylpropylamine				
	$\Delta_v H$	(283–366)	39.2	325		[1999DYK/SVO]
$C_7HF_5O_2$	[602-94-8]	pentafluorobenzoic acid				
	$\Delta_{sub}H$	(335–359)	91.6 ± 4.2		GS	[1969COX/GUN, 1970COX/PIL]
$C_7HF_{13}O_2$	[375-85-9]	tridecafluoroheptanoic acid				
	$\Delta_v H$	(359–485)	61.4 ± 0.3	370	EB	[2002STE/CHI]
	$\Delta_v H$	(359–485)	55.5 ± 0.3	410	EB	[2002STE/CHI]
	$\Delta_v H$	(359–485)	48.7 ± 0.7	450	EB	[2002STE/CHI]
C_7HF_{15}	[375-83-7]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7-pentafluoroheptane				
	$\Delta_v H$	(365–369)	30.7	367		[1966CAR/STE]
	$\Delta_v H$	(292–370)	37.1	307	A	[1987STE/MAL, 1953KAR/SAY, 1973KKY/REP, 1999DYK/SVO]
$C_7H_2F_{13}NO$	[54181-88-3]	(E) 1,1,1,2,3,3,3-heptafluoro-N-[2,2,2-trifluoro-1-(2,2,2-trifluoroethoxy)ethylidene]-2-propanamine				
	$\Delta_v H$		35.7	369		[1975PET/SHR]
$C_7H_3Br_2NO$	[1689-84-5]	3,5-dibromo-4-hydroxybenzonitrile				
	$\Delta_{fus}H$		32.03	464	DSC	[1990DON/DRE]
$C_7H_3ClF_3NO_2$	[777-37-7]	1-(trifluoromethyl)-2-chloro-5-nitrobenzene				
	$\Delta_v H$	(364–508)	58.1	379	A	[1987STE/MAL, 1953KAR/SAY, 1973KKY/REP, 1999DYK/SVO]
$C_7H_3ClF_3NO_2$	[121-17-5]	1-(trifluoromethyl)-4-chloro-3-nitrobenzene				
	$\Delta_v H$	(358–495)	57.6	373	A	[1987STE/MAL, 1973KKY/REP, 1999DYK/SVO]
$C_7H_3Cl_2F_3$	[328-84-7]	1-(trifluoromethyl)-3,4-dichlorobenzene				
	$\Delta_v H$	(353–453)	44.1	368	A	[1987STE/MAL]
	$\Delta_v H$	(284–446)	41.8	299		[1947STU]
$C_7H_3Cl_2N$	[1194-65-6]	2,6-dichlorobenzonitrile				
	$\Delta_{fus}H$		24.56	421.2	DSC	[2000ROD/VEC]
	$\Delta_{fus}H$		26.17	417.2	DSC	[1991ACR, 1990DON/DRE]
	$\Delta_{fus}H$		25.94	416.7	DSC	[1972PLA]
$C_7H_3Cl_2NO$	[102-36-3]	3,4-dichlorophenylisocyanate				
	$\Delta_v H$	(373–473)	47.4	388	A	[1987STE/MAL]
$C_7H_3Cl_3O_2$	[50-31-7]	2,3,6-trichlorobenzoic acid				
	$\Delta_{fus}H$		23.85	402.7		[1991ACR]
$C_7H_3Cl_5$	[13014-24-9]	1-(trichloromethyl)-3,4-dichlorobenzene				
	$\Delta_v H$	(438–663)	59.3	453	A	[1987STE/MAL, 1970DYK/VAN, 1973KKY/REP, 1999DYK/SVO]
$C_7H_3F_5$	[771-56-2]	2,3,4,5,6-pentafluorotoluene				
	$\Delta_{trs}H$		0.7	70.3		
	$\Delta_{fus}H$		13.28	243.7		[1996DOM/HEA, 1968COU/HAL]
	$\Delta_v H$	(403–523)	36.1	418		[1999DYK/SVO]
	$\Delta_v H$	(493–564)	34.9	508		[1999DYK/SVO]
	$\Delta_v H$	(310–410)	41.2	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(312–416)	39.9	327	A	[1987STE/MAL, 1968AMB, 1973KKY/REP, 1999DYK/SVO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_3I_2NO$	[1689-83-4]	4-hydroxy-3,5-diiodobenzonitrile				
	$\Delta_{fus}H$		33.63	482.9	DSC	[1990DON/DRE]
$C_7H_3I_3O_2$	[88-82-4]	2,3,5-triiodobenzoic acid				
	$\Delta_{fus}H$		32.23	503.8		[1991ACR]
$C_7H_4ClF_3$	[88-16-4]	1-(trifluoromethyl)-2-chlorobenzene				
	$\Delta_{fus}H$		11.6	264	DSC	[1972AHM/EAD]
	Δ_vH	(310–426)	44.6	325	A	[1987STE/MAL, 1951POT/SAY, 1970DYK/VAN, 1973KKY/REP]
$C_7H_4ClF_3$	[98-15-7]	1-(trifluoromethyl)-3-chlorobenzene				
	Δ_vH	(302–411)	43.0	317	A	[1987STE/MAL, 1951POT/SAY, 1970DYK/VAN, 1973KKY/REP]
$C_7H_4ClF_3$	[98-56-6]	1-(trifluoromethyl)-4-chlorobenzene				
	Δ_vH	(302–412)	42.2	317	A	[1987STE/MAL, 1951POT/SAY, 1970DYK/VAN, 1973KKY/REP]
C_7H_4ClN	[873-32-5]	2-chlorobenzonitrile				
	Δ_vH	(378–486)	53.5	393	EB	[1994AIM2]
C_7H_4ClN	[623-03-0]	4-chlorobenzonitrile				
	Δ_vH	(389–483)	51.9	404	EB	[1994AIM2]
C_7H_4ClNO	[2909-38-8]	3-chlorophenyl isocyanate				
	Δ_vH	(344–432)	53.1	359	A	[1987STE/MAL, 1964GOL/GOR]
C_7H_4ClNO	[104-12-1]	4-chlorophenyl isocyanate				
	Δ_vH	(363–443)	48.9	378	A	[1987STE/MAL]
	Δ_vH	(323–433)	44.3	338		[1967KON/ZHU]
$C_7H_4ClNO_3$	[121-90-4]	3-nitrobenzoyl chloride				
	Δ_vH	(428–551)	62.4	443	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_4Cl_2O$	[609-65-4]	2-chlorobenzoyl chloride				
	Δ_vH	(374–395)	53.4	384	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_4Cl_2O$	[618-46-2]	3-chlorobenzoyl chloride				
	Δ_vH	(367–391)	49.4	382	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_4Cl_2O$	[122-01-0]	4-chlorobenzoyl chloride				
	Δ_vH	(370–392)	55.7	381	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_4Cl_2O$	[874-42-0]	2,4-dichlorobenzaldehyde				
	$\Delta_{fus}H$		20.47	347.2		[2004WAN/TAN4]
$C_7H_4Cl_2O_2$	[51-36-5]	3,5-dichlorobenzoic acid				
	$\Delta_{fus}H$		22.97	459.3		[1991ACR]
$C_7H_4Cl_3NO_3$	[55335-06-3]	3,5,6-trichloro-2-pyridinyloxyacetic acid				
	$\Delta_{fus}H$		31.17	423.3	DSC	[1990DON/DRE]
$C_7H_4Cl_4$	[2136-89-2]	1-(trichloromethyl)-2-chlorobenzene				
	Δ_vH	(423–588)	55.0	438	A	[1987STE/MAL, 1970DYK/VAN]
$C_7H_4Cl_4$	[1006-31-1]	2,3,5,6-tetrachlorotoluene				
	Δ_vH	(399–548)	52.6	414	A	[1987STE/MAL, 1973FEL/SAV, 1999DYK/SVO]
$C_7H_4F_3NO_2$	[98-46-4]	1-(trifluoromethyl)-3-nitrobenzene				
	Δ_vH	(341–475)	53.8	356	A	[1987STE/MAL, 1953KAR/SAY, 1999DYK/SVO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_4F_4$	[5230-78-4]	1,2,4,5-tetrafluoro-3-methylbenzene				
	$\Delta_{trs}H$		3.64	218	DSC	
	$\Delta_{fus}H$		5.84	233	DSC	[1972AHM/EAD]
$C_7H_4F_4$	[392-85-8]	1-(trifluoromethyl)-2-fluorobenzene				
	$\Delta_{fus}H$		10.7	222	DSC	[1972AHM/EAD]
	Δ_vH	(310–410)	38.1	298		[1984BOU/FRI, 1991BAS/SVO]
$C_7H_4F_4$	[401-80-9]	1-(trifluoromethyl)-3-fluorobenzene				
	Δ_vH	(313–410)	36.8	328	A	[1987STE/MAL, 1970DYK/VAN]
$C_7H_4F_4$	[402-44-8]	1-(trifluoromethyl)-4-fluorobenzene				
	Δ_vH	(286–381)	35.8	301	A	[1987STE/MAL, 1970DYK/VAN]
$C_7H_4F_{12}O$	[335-99-9]	2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1-heptanol				
	Δ_vH	(355–446)	53.4	370	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_4N_2O_2$	[612-24-8]	2-nitrobenzonitrile				
	$\Delta_{trs}H$		1.57	338.1		
	$\Delta_{fus}H$		15.72	382.7	DSC	[2002JIM/ROU2]
	$\Delta_{sub}H$	(297–311)	87.9 ± 1.4	304	ME	[2003ROU/JIM]
	$\Delta_{sub}H$	(297–311)	88.1 ± 1.4	298	ME	[2003ROU/JIM]
$C_7H_4N_2O_2$	[619-24-9]	3-nitrobenzonitrile				
	$\Delta_{fus}H$		20.49	389.7	DSC	[2002JIM/ROU2]
	$\Delta_{sub}H$	(306–324)	92.2 ± 0.3	316	ME	[2003RIB/SAN]
	$\Delta_{sub}H$	(306–324)	92.8 ± 0.3	298	ME	[2003ROU/JIM]
$C_7H_4N_2O_2$	[619-72-7]	4-nitrobenzonitrile				
	$\Delta_{trs}H$		0.45	349		
	$\Delta_{trs}H$		1.01	386		
	$\Delta_{fus}H$		17.73	420.6	DSC	[2002JIM/ROU2]
	$\Delta_{sub}H$	(305–322)	90.5 ± 1.3	313	ME	[2003ROU/JIM]
	$\Delta_{sub}H$	(305–322)	91.1 ± 1.3	298	ME	[2003ROU/JIM]
$C_7H_4N_2O_5$	[528-75-6]	2,4-dinitrobenzaldehyde				
	$\Delta_{fus}H$	(78–368)	21.18	344.9	AC	[2005WAN/TAN3]
$C_7H_4N_2O_6$	[610-30-0]	2,4-dinitrobenzoic acid				
	$\Delta_{fus}H$		30.6	455.8	DSC	[2009VEC/BRU]
	$\Delta_{sub}H$	(364–402)	132 ± 2	383	TE	[2009VEC/BRU]
	$\Delta_{sub}H$	(364–402)	135 ± 2	298	TE	[2009VEC/BRU]
	Δ_vH	(503–544)	92 ± 3	522	TGA	[2009VEC/BRU]
	Δ_vH	(494–539)	91 ± 1	517	TGA	[2009VEC/BRU]
$C_7H_4N_2O_6$	[528-45-0]	3,4-dinitrobenzoic acid				
	$\Delta_{fus}H$		24.6	438.2	DSC	[2009VEC/BRU]
	$\Delta_{sub}H$	(366–399)	126 ± 2	386	TE	[2009VEC/BRU]
	$\Delta_{sub}H$	(366–399)	129 ± 2	298	TE	[2009VEC/BRU]
	Δ_vH	(518–540)	91 ± 3	529	TGA	[2009VEC/BRU]
	Δ_vH	(506–536)	91 ± 1	521	TGA	[2009VEC/BRU]
$C_7H_4N_2O_6$	[99-34-3]	3,5-dinitrobenzoic acid				
	$\Delta_{fus}H$		22.8	480.4		[1971LEB/RYA]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_4S_3$	[3354-42-5]	4,5-benzo-1,2-dithiole-3-thione				
	$\Delta_{sub}H$	(350–361)	102.6 ± 0.4	355		[1972GEI/RAU]
	$\Delta_{sub}H$		107 ± 0.4	298		[1972GEI/RAU]
$C_7H_4S_3$	[934-36-1]	4,5-benzo-1,3-dithiole-2-thione				
	$\Delta_{sub}H$		118.8 ± 0.4	298		[1973RAU/GEI, 1977PED/RYL]
C_7H_5BrO	[618-32-6]	benzoyl bromide				
	Δ_vH	(320–492)	52.3	335	A	[1987STE/MAL, 1947STU]
C_7H_5BrO	[1122-91-4]	4-bromobenzaldehyde				
	$\Delta_{fus}H$		22.6	334.2		[2008FAV/FRE]
$C_7H_5BrO_2$	[88-65-3]	2-bromobenzoic acid				
	$\Delta_{fus}H$		24.83	421.6	DSC	[2005RIB/FON]
	$\Delta_{sub}H$	(328–347)	106.8 ± 0.4	338	ME	[2005RIB/FON]
	$\Delta_{sub}H$	(328–347)	108.5 ± 0.6	298	ME	[2005RIB/FON]
	$\Delta_{sub}H$		95.9 ± 0.4	298	C	[1994TAN/SAB]
	$\Delta_{sub}H$		110.9 ± 1.1	298	C	[1987FER/PIL]
	$\Delta_{sub}H$		83.3 ± 0.4		DSC	[1983HOL]
$C_7H_5BrO_2$	[585-76-2]	3-bromobenzoic acid				
	$\Delta_{fus}H$		24.91	430.1	DSC	[2005RIB/FON]
	$\Delta_{sub}H$	(328–347)	104.2 ± 0.5	338	ME	[2005RIB/FON]
	$\Delta_{sub}H$	(328–347)	105.9 ± 0.7	298	ME	[2005RIB/FON]
	$\Delta_{sub}H$		99.2 ± 0.2	298	C	[1994TAN/SAB]
	$\Delta_{sub}H$		105.0 ± 1.1	298	C	[1987FER/PIL]
$C_7H_5BrO_2$	[586-76-5]	4-bromobenzoic acid				
	$\Delta_{fus}H$		30.87	526.3	DSC	[2005RIB/FON]
	$\Delta_{sub}H$	(349–366)	107.4 ± 0.5	358	ME	[2005RIB/FON]
	$\Delta_{sub}H$	(349–366)	110.1 ± 0.8	358	ME	[2005RIB/FON]
	$\Delta_{sub}H$		103.1 ± 0.6	298	C	[1994TAN/SAB]
	$\Delta_{sub}H$		107.6 ± 1.1	298	C	[1987FER/PIL]
C_7H_5ClO	[98-88-4]	benzoyl chloride				
	Δ_vH	(305–470)	49.6	320	A	[1987STE/MAL, 1947STU, 1999DYK/SVO]
C_7H_5ClO	[89-98-5]	2-chlorobenzaldehyde				
	Δ_vH	(382–563)	49.8	397	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_5ClO_2$	[118-91-2]	2-chlorobenzoic acid				
	$\Delta_{fus}H$		25.25	414	DSC	[2005RIB/FON]
	$\Delta_{fus}H$		25.73	413.4		[1991ACR]
	$\Delta_{fus}H$		26.3	414		[1991SAB/HIR]
	$\Delta_{sub}H$	(320–339)	105.0 ± 0.4	330	ME	[2005RIB/FON]
	$\Delta_{sub}H$	(320–339)	106.3 ± 0.5	298	ME	[2005RIB/FON]
	$\Delta_{sub}H$		100.9 ± 0.5	298	C	[1995SAB/AGU]
	$\Delta_{sub}H$		116.2 ± 0.6		DSC	[1983HOL]
	$\Delta_{sub}H$		79.5 ± 3.3			[1938WOL/WEG, 1960JON, 1970COX/PIL]
$C_7H_5ClO_2$	[535-80-8]	3-chlorobenzoic acid				
	$\Delta_{fus}H$		23.67	427.9	DSC	[2005RIB/FON]
	$\Delta_{fus}H$		23.85	427.4		[1991ACR]
	$\Delta_{fus}H$		22.0	427.8		[1991SAB/HIR]
	$\Delta_{sub}H$	(320–340)	101.2 ± 0.4	330	ME	[2005RIB/FON]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(320–340)	102.5 ± 0.5	298	ME	[2004RIB/SAN3]
	$\Delta_{sub}H$		101.4 ± 0.4	298	C	[1995SAB/AGU]
	$\Delta_{sub}H$		99.6	413	C	[1975ADE/BRO]
	$\Delta_{sub}H$		105.8	298	C	[1975ADE/BRO]
	$\Delta_{sub}H$		80.8 ± 3.3			[1938WOL/WEG, 1960JON, 1970COX/PIL]
$C_7H_5ClO_2$	[74-11-3]	4-chlorobenzoic acid				
	$\Delta_{fus}H$		30.91	512.5	DSC	[2005RIB/FON]
	$\Delta_{fus}H$	(80–580)	13.5	512.3	AC	[2002TAN/SUN]
	Note: This value is considerably lower than the other three reported enthalpies of fusion. This value is likely in error.					
	$\Delta_{fus}H$		32.26	512.9		[1991ACR]
	$\Delta_{fus}H$		34.26	513.5		[1991SAB/HIR]
	$\Delta_{sub}H$	(333–356)	103.3 ± 0.5	344	ME	[2005RIB/FON]
	$\Delta_{sub}H$	(333–356)	105.2 ± 0.7	298	ME	[2005RIB/FON]
	$\Delta_{sub}H$		102.5 ± 0.4	298	C	[1995SAB/AGU]
	$\Delta_{sub}H$		101.9	413	C	[1975ADE/BRO]
	$\Delta_{sub}H$		107.9	298	C	[1975ADE/BRO]
	$\Delta_{sub}H$		87.9 ± 3.3			[1938WOL/WEG, 1960JON, 1970COX/PIL]
$C_7H_5Cl_2N$	[622-44-6]	phenylcarbonimidic dichloride				
	Δ_vH	(273–333)	54.0	288	A	[1987STE/MAL, 1973KKY/REP, 1999DYK/SVO]
$C_7H_5Cl_2NO_2$	[133-90-4]	3-amino-2,5-dichlorobenzoic acid				
	$\Delta_{fus}H$		37.42	475.6		[1991ACR]
$C_7H_5Cl_3$	[94-99-5]	1-(chloromethyl)-2,4-dichlorobenzene				
	Δ_vH	(413–578)	54.6	428	A	[1987STE/MAL, 1970DYK/VAN, 1973KKY/REP]
$C_7H_5Cl_3$	[98-07-7]	(trichloromethyl)benzene				
	$\Delta_{fus}H$		13.95	236		[1996DOM/HEA]
	$\Delta_{fus}H$		10.6	270	DSC	[1972AHM/EAD]
	Note: There is a large discrepancy in the two melting points. The 270 K value is correct					
	Δ_vH		57.6			[1995PAP/PIM]
	Δ_vH	(318–487)	52.0	333	A	[1987STE/MAL, 1947STU]
$C_7H_5Cl_3$	[2077-46-5]	2,3,6-trichlorotoluene				
	Δ_vH	(384–509)	62.2	399	A	[1987STE/MAL, 1973FEL/SAV]
$C_7H_5Cl_3N_2O_2$	[na]	methyl 4-amino-3,5,6-trichloro-2-picolinate				
	$\Delta_{fus}H$		26.78	394.3	DSC	[1969PLA/GLA]
$C_7H_5FN_2O_4$	[17003-70-2]	(fluorodinitromethyl)benzene				
	Δ_vH	(328–363)	52.8	343	A	[1987STE/MAL]
$C_7H_5FO_2$	[445-29-4]	2-fluorobenzoic acid				
	$\Delta_{sub}H$	(309–323)	93.9 ± 0.5	316	ME	[2000MON/HIL]
	$\Delta_{sub}H$		94.4 ± 0.8	298		[2000MON/HIL]
$C_7H_5FO_2$	[455-38-9]	3-fluorobenzoic acid				
	$\Delta_{sub}H$	(303–317)	93.3 ± 0.5	310	ME	[2000MON/HIL]
	$\Delta_{sub}H$		93.6 ± 0.6	298		[2000MON/HIL]
$C_7H_5FO_2$	[456-22-4]	4-fluorobenzoic acid				
	$\Delta_{fus}H$		20.9	451.2		[2000KAN/SAM]
	$\Delta_{sub}H$	(358–382)	91.2 ± 1.3	370	GS	[1969COX/GUN, 1970COX/PIL, 1987STE/MAL]
	$\Delta_{sub}H$		93.1 ± 3.8	298		[1969COX/GUN, 2000MON/HIL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_5F_3$	[98-08-8]	(trifluoromethyl)benzene				
	$\Delta_{fus}H$		13.77	244		[1996DOM/HEA]
	$\Delta_{fus}H$		11.99	242	DSC	[1972AHM/EAD]
	$\Delta_{sub}H$	(222–233)	54.4	227	MG	[1948SEA/HOP]
	Δ_vH	(328–413)	35.6	343		[1999DYK/SVO]
	Δ_vH	(468–532)	31.6	483		[1999DYK/SVO]
	Δ_vH	(323–384)	35.9	338	I	[1992JAD/FRA]
	Δ_vH	(460–530)	32.4	475		[1985MOU]
	Δ_vH	(330–410)	37.1	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH		35.4 ± 0.1	334	C	[1959SCO/DOU]
	Δ_vH		34.1 ± 0.1	353	C	[1959SCO/DOU]
	Δ_vH		32.6 ± 0.1	375	C	[1959SCO/DOU]
	Δ_vH	(328–413)	35.7	343	A,EB	[1987STE/MAL, 1951POT/SAY, 1970DYK/VAN, 1959SCO/DOU]
	Δ_vH	(241–375)	39.1	256		[1947STU]
	Δ_vH	(275–353)	38.5	290		[1946FIE/SAY]
$C_7H_5F_4NO_2$	[27827-91-4]	1,1,3-trihydrotetrafluoropropyl α-cyanoacrylate				
	$\Delta_{trs}H$		0.3	154		
	$\Delta_{fus}H$		19.95	287.4		[1995LEB/BYK2]
$C_7H_5F_{10}NS$	[na]	2,2,2-trifluoro-N-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]ethanimidothioic acid, ethyl ester				
	Δ_vH		30.1	394		[1975PET/SHR]
$C_7H_5F_{11}O$	[181214-75-5]	1-ethoxy-1,1,2,2,3,3,4,4,5,5,5-undecafluoropentane				
	Δ_vH	(288–373)	39.0	303	I	[2002MUR/YAM]
$C_7H_5F_{11}O$	[203783-57-7]	1-ethoxy-1,1,2,2,3,4,4,4-octafluoro-3-(trifluoromethyl)butane				
	Δ_vH	(288–373)	38.3	303	I	[2002MUR/YAM]
$C_7H_5IO_2$	[88-67-5]	2-iodobenzoic acid				
	$\Delta_{fus}H$		21.38	435.1		[1994TAN/SAB2]
	$\Delta_{sub}H$	(345–359)	111.4 ± 0.8	352	ME	[2000MON/HIL]
	$\Delta_{sub}H$		112.8 ± 2.0	298		[2000MON/HIL]
	$\Delta_{sub}H$		92.6 ± 0.2	298	C	[1994ZHI/SAB, 1995SAB/AGU, 1994TAN/SAB2]
	$\Delta_{sub}H$		103.0 ± 0.4	298	DSC	[1983HOL]
$C_7H_5IO_2$	[618-51-9]	3-iodobenzoic acid				
	$\Delta_{fus}H$		28.7	460.4		[1994TAN/SAB2]
	$\Delta_{sub}H$	(347–363)	109.6 ± 0.5	355	ME	[2000MON/HIL]
	$\Delta_{sub}H$		111.1 ± 1.9	298		[2000MON/HIL]
	$\Delta_{sub}H$		96.4 ± 0.3	298	C	[1994ZHI/SAB, 1995SAB/AGU, 1994TAN/SAB2]
$C_7H_5IO_2$	[619-58-9]	4-iodobenzoic acid				
	$\Delta_{fus}H$		35.24	543.8		[1994TAN/SAB2]
	$\Delta_{sub}H$	(363–379)	111.0 ± 0.4	372	ME	[2000MON/HIL]
	$\Delta_{sub}H$		112.9 ± 2.5	298		[2000MON/HIL]
	$\Delta_{sub}H$		99.3 ± 0.4	298	C	[1994ZHI/SAB, 1995SAB/AGU, 1994TAN/SAB2]
C_7H_5N	[100-47-0]	benzonitrile				
	$\Delta_{fus}H$		10.98	260.3		[1985LEB/BYK]
	Δ_vH	(301–464)	49.1	316	A	[1987STE/MAL, 1947STU]
C_7H_5N	[931-54-4]	phenyl isocyanide				
	Δ_vH	(285–438)	46.2	300	A	[1987STE/MAL, 1947STU]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_7H_5NO	[273-53-0] benzoxazole					
	$\Delta_{trs}H$		0.02	247		
	$\Delta_{fus}H$		16.78	302.5		[1996DOM/HEA]
	$\Delta_{sub}H$		69.5 ± 0.4	298	C	[1998SAB/HEV]
	Δ_vH		51.2	320	EB	[1992STE/CHI2]
	Δ_vH		48.6	360	EB	[1992STE/CHI2]
	Δ_vH		46.1	400	EB	[1992STE/CHI2]
	Δ_vH		43.5	440	EB	[1992STE/CHI2]
	Δ_vH		40.7	480	EB	[1992STE/CHI2]
C_7H_5NO	[103-71-9] phenyl isocyanate					
	Δ_vH	(329–445)	46.5 ± 0.3	298	EB	[1996STE/CHI3]
	Δ_vH	(283–439)	45.0	298	A	[1987STE/MAL, 1947STU]
C_7H_5NO	[7187-01-1] 2-furanacrylonitrile					
	Δ_vH		65.2 ± 0.6	298	C	[2009RIB/AMA2]
C_7H_5NO	[271-58-9] benz[a]isoxazole (anthranil)					
	Δ_vH		55.3 ± 0.3	298	C	[2004MAT/MIR3]
C_7H_5NOS	[2382-96-9] 2-mercaptobenzoxazole					
	$\Delta_{fus}H$		25.0	470	DSC	[2008TEM/ROU3]
	$\Delta_{fus}H$		22.6 ± 0.9	468.3	DSC	[2008MEN/FLO]
$C_7H_5NO_2$	[59-49-4] 2-benzoxazolinone					
	$\Delta_{sub}H$		97.6 ± 2.2	298	C	[2006MOR/MIR2]
$C_7H_5NO_3$	[552-89-6] 2-nitrobenzaldehyde					
	Δ_vH	(390–547)	58.7	405	A	[1987STE/MAL]
	Δ_vH	(359–547)	59.5	373		[1947STU]
$C_7H_5NO_3$	[99-61-6] 3-nitrobenzaldehyde					
	Δ_vH	(401–552)	62.0	416	A	[1987STE/MAL]
$C_7H_5NO_3S$	[81-07-2] 1,1-dioxo-1,2-benzisothiazol-3(2*H*)-one (saccharin)					
	$\Delta_{fus}H$		32.1	502.9	DSC	[2009GOO/ROD]
	$\Delta_{fus}H$		26.77	502.7	DSC	[2008BAS/BOS]
	$\Delta_{fus}H$		29.89	500.7	DSC	[2005MAT/MIR]
	$\Delta_{sub}H$		112.6 ± 4.2	298	C	[2005MAT/MIR]
$C_7H_5NO_4$	[552-16-9] 2-nitrobenzoic acid					
	$\Delta_{fus}H$		27.99	419		[1996DOM/HEA]
	$\Delta_{sub}H$	(346–356)	115.8 ± 0.5	356	ME	[1999RIB/MAT]
	$\Delta_{sub}H$		118.7 ± 0.5	298	ME	[1999RIB/MAT]
$C_7H_5NO_4$	[121-92-6] 3-nitrobenzoic acid					
	$\Delta_{fus}H$		19.33	414.3		[1996DOM/HEA]
	$\Delta_{sub}H$	(347–361)	107.2 ± 0.4	354	ME	[1999RIB/MAT]
	$\Delta_{sub}H$		110.0 ± 0.4	298	ME	[1999RIB/MAT]
$C_7H_5NO_4$	[62-23-7] 4-nitrobenzoic acid					
	$\Delta_{fus}H$		36.9	512.4		[1996DOM/HEA]
	$\Delta_{sub}H$	(367–381)	115.4 ± 0.6	374	ME	[1999RIB/MAT]
	$\Delta_{sub}H$		119.7 ± 0.6	298	ME	[1999RIB/MAT]
$C_7H_5NO_4$	[100-26-5] pyridine-2,5-dicarboxylic acid					
	$\Delta_{sub}H$		163.6 ± 2.7	298	C	[2005MAT/MOR]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_5NO_4$	[499-83-2]	pyridine-2,6-dicarboxylic acid				
	$\Delta_{sub}H$		137.1 ± 5.7	298	C	[2005MAT/MOR]
$C_7H_5NO_4$	[1874-22-2]	3-(5-nitro-2-furyl)-2-propenal				
	$\Delta_{sub}H$		97.9 ± 2.1			[1980BAL/LEB, 1986PED/NAY]
$C_7H_5NO_4$	[2620-44-2]	5-nitro-1,3-benzodioxole				
	$\Delta_{fus}H$		28.2	420.2	DSC	[2007MAT/SOU]
	$\Delta_{sub}H$		97.4 ± 2.2	298	C	[2007MAT/SOU]
C_7H_5NS	[95-16-9]	benzothiazole				
	$\Delta_{fus}H$		11.95	275.5	DTA	[1998SAB/HEV]
	$\Delta_{fus}H$		12.8	275.6		[1996DOM/HEA]
	$\Delta_{sub}H$		72.9 ± 0.6	298	B	[1998SAB/HEV]
	Δ_vH		58.7	320	EB	[1992STE/CHI2]
	Δ_vH		56.0	360	EB	[1992STE/CHI2]
	Δ_vH		53.5	400	EB	[1992STE/CHI2]
	Δ_vH		50.9	440	EB	[1992STE/CHI2]
	Δ_vH		48.4	480	EB	[1992STE/CHI2]
	Δ_vH		45.7	520	EB	[1992STE/CHI2]
C_7H_5NS	[103-72-0]	phenyl isothiocyanate				
	Δ_vH	(320–492)	52.6	335	A	[1987STE/MAL, 1947STU]
$C_7H_5NS_2$	[149-30-4]	2-mercaptobenzothiazole				
	$\Delta_{fus}H$		22.3 ± 0.2	455.9	DSC	[2008TEM/ROU3]
	$\Delta_{fus}H$		20.56	453.5	DSC	[2008MEN/FLO]
$C_7H_5N_3O_6$	[610-25-3]	2,4,5-trinitrotoluene				
	$\Delta_{fus}H$		24.7	376.2		[1996DOM/HEA]
$C_7H_5N_3O_6$	[118-96-7]	2,4,6-trinitrotoluene				
	$\Delta_{fus}H$		23.43	352.2		[1993ACR]
	$\Delta_{sub}H$		104.2		DSC	[1990HWA/YOS]
	$\Delta_{sub}H$	(293–353)	112.4	308	A	[1987STE/MAL]
	$\Delta_{sub}H$	(301–349)	113.2 ± 1.5	298	ME	[1979KUD/KUD2]
	$\Delta_{sub}H$	(297–330)	99.2 ± 2		GS	[1976PEL, 1977PEL]
	$\Delta_{sub}H$		104.6 ± 1.7	298	ME	[1971LEN/VEL]
	$\Delta_{sub}H$	(327–349)	103.3 ± 2.5	338		[1970LEN/VEL]
	$\Delta_{sub}H$		U 112-132		TGA	[1970MAY/VEN, 1978CUN/PAL]
	$\Delta_{sub}H$	(323–353)	118.4 ± 4.2		ME	[1950EDW, 1960JON, 1970COX/PIL]
	$\Delta_{sub}H$		102.2			[1950NIT/SEK]
	Δ_vH		80.8		DSC	[1990HWA/YOS]
	Δ_vH	(353–523)	93.7	368	A	[1987STE/MAL]
	Δ_vH		87.0 ± 1.9	298	ME	[1978CUN/PAL]
$C_7H_5N_3O_7$	[606-35-9]	2,4,6-trinitroanisole				
	$\Delta_{sub}H$	(334–342)	132.4	338	A	[1987STE/MAL]
	$\Delta_{sub}H$		133.1 ± 2.1			[1950NIT/SEK, 1970COX/PIL]
	Δ_vH	(342–363)	91.9	352	A	[1987STE/MAL]
$C_7H_5N_3O_7$	[602-99-3]	3-hydroxy-2,4,6-trinitrotoluene				
	$\Delta_{sub}H$	(310–365)	111.2 ± 2.1	298		[1978CUN/PAL]
	$\Delta_{sub}H$	(325–350)	103.3	337		[1970LEN/VEL]
	$\Delta_{sub}H$		104.6	298		[1970LEN/VEL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_5N_5O_8$	[479-45-8]	2,4,6-N-tetranitro-N-methylaniline				
	$\Delta_{fus}H$		25.86	402.6		[1996DOM/HEA]
	$\Delta_{sub}H$		133.1		DSC	[1990HWA/YOS]
	$\Delta_{sub}H$	(335–416)	133.8 ± 1.6	298	ME	[1978CUN/PAL]
	$\Delta_{v}H$		108.4		DSC	[1990HWA/YOS]
C_7H_6ClF	[443-83-4]	1-chloro-3-fluoro-2-methylbenzene				
	$\Delta_{fus}H$		12.6	246	DSC	[1972AHM/EAD]
$C_7H_6ClNO_2$	[612-23-7]	1-(chloromethyl)-2-nitrobenzene				
	$\Delta_{sub}H$		96.2 ± 3.5		ME	[2005HOS/NAG]
$C_7H_6Cl_2$	[98-87-3]	(dichloromethyl)benzene				
	$\Delta_{v}H$	(308–487)	49.5	323	A	[1987STE/MAL, 1947STU]
$C_7H_6Cl_2$	[95-73-8]	2,4-dichlorotoluene				
	$\Delta_{v}H$	(346–475)	50.6	361	A	[1987STE/MAL, 1973FEL/SAV, 1999DYK/SVO]
$C_7H_6Cl_2$	[118-69-4]	2,6-dichlorotoluene				
	$\Delta_{fus}H$		10.7	272	DSC	[1972AHM/EAD]
$C_7H_6Cl_2$	[95-75-0]	3,4-dichlorotoluene				
	$\Delta_{v}H$	(378–543)	49.4	393	A	[1987STE/MAL, 1970DYK/VAN, 1999DYK/SVO]
$C_7H_6Cl_2O$	[1984-59-4]	2,3-dichloroanisole				
	$\Delta_{fus}H$		22.04	304.1	DSC	[2008RIB/FER]
	$\Delta_{sub}H$		83.6 ± 1.5	298	C	[2008RIB/FER]
$C_7H_6Cl_2O$	[33719-74-3]	3,5-dichloroanisole				
	$\Delta_{fus}H$		23.68	310.5	DSC	[2008RIB/FER]
	$\Delta_{sub}H$		79.0 ± 1.5	298	C	[2008RIB/FER]
$C_7H_6Cl_3NO_2$	[77765-42-5]	2,2,4-trichloro-5-(dimethylamino)-4-cyclopentene-1,3-dione				
	$\Delta_{v}H$	(453–483)	70.9	468	GC	[1980SHA/SAD]
$C_7H_6F_3N$	[98-16-8]	1-(trifluoromethyl)-3-aminobenzene				
	$\Delta_{v}H$	(334–464)	53.1	349	A	[1987STE/MAL, 1953KAR/SAY, 1999DYK/SVO]
$C_7H_6F_3NS$	[na]	N-(trifluoromethyl)thioaniline				
	$\Delta_{v}H$	(333–413)	47.0	348	A	[1987STE/MAL]
$C_7H_6F_6O_4$	[na]	dimethylperfluoroglutarate				
	$\Delta_{v}H$		52.3	298	EB	[1976KOL/SLA]
$C_7H_6F_8O_3$	[na]	*bis*-(tetrafluoropropyl)carbonate				
	$\Delta_{fus}H$		41.05	253.4		[1996DOM/HEA]
$C_7H_6INO_2$	[6277-17-4]	2-iodo-3-nitrotoluene				
	$\Delta_{fus}H$	(79–373)	20.68	339.3	AC	[2000DI/LI]
$C_7H_6N_2$	[51-17-2]	benzimidazole				
	$\Delta_{trs}H$		0.71	384.4		
	$\Delta_{fus}H$		20.47	445.5		[2002DOM/KOZ]
	$\Delta_{fus}H$		19.25	443.2		[1984DOM/EVA]
	$\Delta_{sub}H$		90.2 ± 0.6	363	C	[1998SAB/HEV2]
	$\Delta_{sub}H$		94.3 ± 0.6	298		[1998SAB/HEV2]
	$\Delta_{sub}H$	(340–359)	101.8 ± 0.4	350	ME	[1987JIM/ROU]
	$\Delta_{sub}H$		102.2 ± 0.4	298	ME	[1987JIM/ROU]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		98.9 ± 0.4	298		[1986JIM/ROU]
$C_7H_6N_2$	[271-44-3]	indazole				
	$\Delta_{sub}H$	(308–317)	90.9 ± 0.2	318	ME	[1987JIM/ROU]
	$\Delta_{sub}H$		91.1 ± 0.2	298		[1987JIM/ROU, 1986JIM/ROU]
	$\Delta_{sub}H$		87.7 ± 0.9			[1985SKI/PIL]
	$\Delta_{sub}H$		97.1			[1961ZIM/GEI]
$C_7H_6N_2O$	[615-16-7]	1,3-dihydro-2*H*-benzimidazol-2-one				
	$\Delta_{sub}H$		126.4 ± 2.4	298	C	[2006MOR/MIR2]
$C_7H_6N_2O$	[7364-25-2]	1,2-dihydro-3*H*-indazol-3-one				
	$\Delta_{sub}H$		127.6 ± 1.5	298	C	[2006MOR/MIR2]
$C_7H_6N_2O_2$	[4413-48-3]	5-methoxybenzofurazan				
	$\Delta_{sub}H$		89.2 ± 0.7	298	C	[1996ACR/BOT]
$C_7H_6N_2O_2$	[19164-41-1]	5-methylbenzofurazan-1-oxide				
	$\Delta_{sub}H$		92.2 ± 1.2	298	C	[1996ACR/BOT]
$C_7H_6N_2O_3$	[7791-49-3]	5-methoxybenzofurazan-1-oxide				
	$\Delta_{sub}H$		96.0 ± 1.6	298	C	[1996ACR/BOT]
$C_7H_6N_2O_3$	[6635-41-2]	2-nitrobenzaldoxime				
	$\Delta_{sub}H$ (*anti*)		U 26.4 ± 1.7		MS	[1983MAJ/AZZ]
	$\Delta_{sub}H$ (*syn*)		U 40.2 ± 1.7		MS	[1983MAJ/AZZ]
$C_7H_6N_2O_3$	[3431-62-7]	3-nitrobenzaldoxime				
	$\Delta_{sub}H$ (*anti*)		U 41.0 ± 1.7		MS	[1983MAJ/AZZ]
	$\Delta_{sub}H$ (*syn*)		U 42.7 ± 1.7		MS	[1983MAJ/AZZ]
$C_7H_6N_2O_3$	[1129-37-9]	4-nitrobenzaldoxime				
	$\Delta_{sub}H$ (*anti*)		U 56.4 ± 1.7		MS	[1983MAJ/AZZ]
$C_7H_6N_2O_4$	[25321-14-6]	1,1-dinitrophenylmethane				
	$\Delta_{sub}H$	(312–323)	76.1 ± 0.8		ME	[1972PEP/MAT]
$C_7H_6N_2O_4$	[602-01-7]	2,3-dinitrotoluene				
	$\Delta_{fus}H$		17.57	329.8		[1993ACR]
	$\Delta_{sub}H$	(270–315)	97.0 ± 2.1		ME	[2008FRE/KEB]
$C_7H_6N_2O_4$	[121-14-2]	2,4-dinitrotoluene				
	$\Delta_{fus}H$		20.12	343.3		[1991ACR]
	$\Delta_{sub}H$	(270–315)	94.7 ± 2.3		ME	[2008FRE/KEB]
	$\Delta_{sub}H$		94.2 ± 2.5		GS	[2008FRE/KEB, 2001RIT]
	$\Delta_{sub}H$	(332–342)	98.3 ± 2.5	337	ME	[1977PED/RYL, 1970LEN/VEL]
	$\Delta_{sub}H$		99.6 ± 2.5	298		[1977PED/RYL, 1970LEN/VEL]
	$\Delta_{sub}H$	(277–344)	95.8 ± 1.25	310	GS	[1976PEL, 1977PEL]
	$\Delta_{sub}H$		99.6 ± 1.3		ME	[1970COX/PIL, 1971LEN/VEL]
	$\Delta_{v}H$	(344–572)	76.9	359	A	[1987STE/MAL]
	$\Delta_{v}H$	(473–572)	58.2	488		[1987STE/MAL, 1968MAK, 1973KKY/REP]
	$\Delta_{v}H$	(354–439)	70.2			[1977PEL, 1958MOL]
$C_7H_6N_2O_4$	[606-20-2]	2,6-dinitrotoluene				
	$\Delta_{fus}H$		23.85	327.5		[1993ACR]
	$\Delta_{sub}H$	(275–325)	99.6 ± 2.3		ME	[2008FRE/KEB]
	$\Delta_{sub}H$	(277–323)	98.3 ± 0.8	300	GS	[1976PEL, 1977PEL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(330–533)	77.8	345	A	[1987STE/MAL]
	$\Delta_v H$	(423–553)	56.9	438	A	[1987STE/MAL, 1968MAK]
	$\Delta_v H$	(344–427)	68.7			[1977PEL, 1958MOL]
$C_7H_6N_2O_4$	[610-39-9]	3,4-dinitrotoluene				
	$\Delta_{fus}H$		18.83	329.5		[1993ACR]
	$\Delta_{sub}H$	(270–315)	99.6 ± 1.9		ME	[2008FRE/KEB]
$C_7H_6N_2O_4$	[618-85-9]	3,5-dinitrotoluene				
	$\Delta_v H$	(493–543)	62.6	508	A	[1987STE/MAL, 1968MAK]
$C_7H_6N_2O_4$	[611-38-1]	(dinitromethyl)benzene				
	$\Delta_{sub}H$	(312–323)	76.1	317.5	A	[1987STE/MAL]
$C_7H_6N_2O_5$	[497-56-3]	3,5-dinitro-*o*-cresol				
	$\Delta_{sub}H$	(290–324)	103.3		TE	[1947BAL, 1960JON]
$C_7H_6N_2O_5$	[534-52-1]	2-methyl-4,6-dinitrophenol				
	$\Delta_{fus}H$		19.41	359.3		[1991ACR]
$C_7H_6N_2S$	[583-39-1]	2-mercaptobenzimidazole				
	$\Delta_{fus}H$		24.11	589.4	DSC	[2008MEN/FLO]
C_7H_6O	[100-52-7]	benzaldehyde				
	$\Delta_{fus}H$		9.33	216		[1996DOM/HEA]
	$\Delta_v H$	(278–313)	49.0 ± 0.7	298	GS	[2007EME/DAB]
	$\Delta_v H$	(313–353)	49.1	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(348–452)	49.5	363	A	[1987STE/MAL]
	$\Delta_v H$	(409–481)	43.8	424	A	[1987STE/MAL]
	$\Delta_v H$	(311–376)	48.6	326	A	[1987STE/MAL]
	$\Delta_v H$	(370–475)	45.5	385	A	[1987STE/MAL]
	$\Delta_v H$	(465–541)	41.9	480	A	[1987STE/MAL]
	$\Delta_v H$	(529–599)	40.6	544	A	[1987STE/MAL]
	$\Delta_v H$	(311–404)	50.3	298	EB	[1975AMB/CON]
	$\Delta_v H$	(311–404)	42.5	452	EB	[1975AMB/CON]
	$\Delta_v H$	(273–373)	47.0	288	A,BG	[1987STE/MAL, 1973DEM/LEH]
	$\Delta_v H$	(299–452)	54.4	314		[1947STU]
C_7H_6O	[539-80-0]	2,4,6-cycloheptatrienone (tropone)				
	$\Delta_v H$	(273–323)	54.2	288	A	[1987STE/MAL]
$C_7H_6O_2$	[65-85-0]	benzoic acid				
	$\Delta_{fus}H$		16.99	396.9	DSC	[2009BRI2]
	$\Delta_{fus}H$		17.3	394.4	DSC	[2003SHA/KAN, 2004SHA/JAM]
	$\Delta_{fus}H$		17.1	395.4	DSC	[2002ROY/RIG]
	$\Delta_{fus}H$		17.99	395.5		[1984DOM/EVA]
	$\Delta_{sub}H$	(340–410)	90.9 ± 2.0		TG-TS	[2009SEL/RAG]
	$\Delta_{sub}H$		93.3 ± 1.2	298	QCM	[2008FRE/KEB]
	$\Delta_{sub}H$	(299–317)	90.0 ± 0.5	307	ME	[2006RIB/MON]
	$\Delta_{sub}H$	(299–317)	90.4 ± 0.5	298	ME	[2006RIB/MON]
	$\Delta_{sub}H$		91.7 ± 3.4		ME	[2005HOS/NAG]
	$\Delta_{sub}H$		88.3 ± 0.5	298	C	[2001KIY/MIN]
	$\Delta_{sub}H$	(323–394)	90.5 ± 0.3		GS	[1999ZIE/PER]
	$\Delta_{sub}H$		89 ± 6		TGA	[1999PRI/BAS]
	$\Delta_{sub}H$		87.5 ± 0.4			[1998PRI/HAW]
	$\Delta_{sub}H$	(313–343)	86.7		TGA	[1997ELD]
	$\Delta_{sub}H$	(307–314)	88.7 ± 0.9	311	ME	[1990RIB/MON]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		89.3 ± 0.9	298		[1990RIB/MON]
	$\Delta_{sub}H$		87.5 ± 0.3	335	C	[1988TOR/BAR]
	$\Delta_{sub}H$		89.2 ± 1.0	298		[1988TOR/BAR]
	$\Delta_{sub}H$		95.1 ± 1.8	294		[1985KAI/HAD]
	$\Delta_{sub}H$	(293–319)	90.8 ± 0.6	306	QR	[1985GLU/ARK]
	$\Delta_{sub}H$	(368–428)	87.8		GS	[1985MAT/KUW2]
	$\Delta_{sub}H$		89.5 ± 0.4		DSC	[1983HOL]
	$\Delta_{sub}H$	(320–370)	89.1 ± 0.2		C	[1982MUR/SAK]
	$\Delta_{sub}H$	(316–391)	89.5 ± .05	353	DM	[1982DEK/BLO]
	$\Delta_{sub}H$	(293–313)	90.6 ± 2		ME	[1982COL/JIM]
	$\Delta_{sub}H$		93.45 ± 1		GS	[1981BRO/MCE]
	$\Delta_{sub}H$	(328–398)	U 133.5 ± 4.5		C	[1980MUR/CAV]
	$\Delta_{sub}H$	(344–395)	85 ± 2	369	SG	[1980SAC/HIL]
	$\Delta_{sub}H$	(281–323)	88.3 ± 2.9		LE	[1978NOW/SZC]
	$\Delta_{sub}H$		88.5 ± 0.8		C	[1976MIR/LEB]
	$\Delta_{sub}H$	(294–331)	92.5 ± 4		ME	[1975VAN/DEK]
	$\Delta_{sub}H$	(293–318)	88.5 ± 1.6		TE	[1975DEK/VAN]
	$\Delta_{sub}H$	(273–318)	92.9 ± 0.2	296	ME	[1974ARS]
	$\Delta_{sub}H$	(293–311)	88.1 ± 0.2		TCM	[1973DEK/OON]
	$\Delta_{sub}H$	(338–383)	89.0 ± 0.4		ME	[1973MAL/GIG]
	$\Delta_{sub}H$	(338–383)	89.3 ± 0.4		C	[1973MAL/GIG]
	$\Delta_{sub}H$	(290–315)	86.6 ± 1.3		ME,C	[1972WIE]
	$\Delta_{sub}H$	(293–308)	90. ± 0.3		ME	[1972COL/MON]
	$\Delta_{sub}H$		89.5 ± 0.2	298	C	[1972MOR, 1971BEE/LIN]
	$\Delta_{sub}H$	(299–329)	89.1	314		[1971ASH]
	$\Delta_{sub}H$	(290–315)	86.6 ± 1.7	303	ME	[1970WIE/WAU, 1999ZIE/PER]
	$\Delta_{sub}H$	(324–392)	90.4 ± 0.8	367	HSA	[1970MEL/MER]
	$\Delta_{sub}H$		89.7 ± 0.6	298	C	[1969CHA/STE]
	$\Delta_{sub}H$	(348–378)	88.9 ± 0.5	363	GS	[1968MER]
	$\Delta_{sub}H$	(291–307)	90.9	299	ME	[1965DAV/KYB]
	$\Delta_{sub}H$	(243–387)	91.5 ± 0.5	298	GS	[1954DAV/JON, 1970COX/PIL, 1960JON]
	$\Delta_{sub}H$		84.2 ± 0.8	318	TE	[1938WOL/WEG]
	$\Delta_{sub}H$	(333–389)	85.8	383	T	[1934HIR]
	$\Delta_{sub}H$	(377–394)	84.5 ± 0.5	364	I	[1927KLO/WOO]
	$\Delta_{v}H$	(401–416)	63.3 ± 0.6			[2003PEN/RIB]
	$\Delta_{v}H$	(353–393)	78.9	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(368–428)	67.8		GS	[1985MAT/KUW2]
	$\Delta_{v}H$	(405–523)	66.3	420	A	[1987STE/MAL]
	$\Delta_{v}H$		65.4	428	I	[1943CRA]
	$\Delta_{v}H$	(401–520)	67.7	416	MM,A	[1927KLO/WOO]
$C_7H_6O_2$	[90-02-8]	2-hydroxybenzaldehyde				
	$\Delta_{fus}H$		13.3	278.7	DSC	[2008BER/MIN]
		Note: Authors noted in the paper that their melting point temperature differed significantly from published literature values				
	$\Delta_{v}H$		53.3 ± 0.3	298	C	[2008BER/MIN]
	$\Delta_{v}H$		50.4 ± 1.3	298	C	[2007RIB/ARA]
	$\Delta_{v}H$	(383–470)	30.6	398	A	[1987STE/MAL]
	$\Delta_{v}H$		47.7			[1986BAL/GNA]
	$\Delta_{v}H$	(306–470)	49.6	321		[1947STU]
$C_7H_6O_2$	[100-83-4]	3-hydroxybenzaldehyde				
	$\Delta_{sub}H$	(312–330)	99.7 ± 0.6	321	ME	[2010RIB/GON]
	$\Delta_{sub}H$	(312–330)	100.1 ± 0.6	298	ME	[2010RIB/GON]
$C_7H_6O_2$	[123-08-0]	4-hydroxybenzaldehyde				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		20.3	390.8	DSC	[2008BER/MIN]
	$\Delta_{fus}H$		21.6	390.8		[2008TEM/ROU]
	$\Delta_{sub}H$	(324–341)	101.8 ± 0.5	333	ME	[2010RIB/GON]
	$\Delta_{sub}H$	(324–341)	102.5 ± 0.5	298	ME	[2010RIB/GON]
	$\Delta_{sub}H$		99.7 ± 0.4	298	C	[2008BER/MIN]
	$\Delta_{sub}H$	(303–336)	98.2 ± 1.3	298		[1987STE/MAL, 1971PAR/ROC]
	$\Delta_{sub}H$	(312–336)	91.2	324		[1960AIH]
	$\Delta_{v}H$	(394–583)	72.3	409	A	[1987STE/MAL, 1947STU]
$C_7H_6O_2$	[1864-94-4]	phenylformate				
	$\Delta_{v}H$	(287–305)	52.9 ± 0.6	298	BG	[1976ANT/CAR, 1975ANT/CAR]
$C_7H_6O_2$	[274-09-9]	1,3-benzodioxole				
	$\Delta_{v}H$		41.4			[1958CAS/FLE2]
$C_7H_6O_2$	[533-75-5]	tropolone				
	$\Delta_{sub}H$	(273–333)	84.1 ± .4		ME	[1971JAC/HUN]
	$\Delta_{sub}H$		83.7 ± 0.8	298		[1951NIC, 1970COX/PIL]
$C_7H_6O_2$	[623-30-3]	3-(2-furyl)-2-propenal				
	$\Delta_{sub}H$		76.1 ± 2.1			[1980BAL/LEB, 1986PED/NAY]
$C_7H_6O_3$	[539-47-9]	2-furanacrylic acid				
	$\Delta_{sub}H$	(322–338)	101.7 ± 0.5	298	ME	[2009RIB/AMA2]
	$\Delta_{sub}H$		103.0 ± 0.7	298	C	[2009RIB/AMA2]
$C_7H_6O_3$	[81311-95-7]	3-furanacrylic acid				
	$\Delta_{sub}H$	(327–343)	105.0 ± 0.5	298	ME	[2009RIB/AMA2]
	$\Delta_{sub}H$		104.9 ± 1.1	298	C	[2009RIB/AMA2]
$C_7H_6O_3$	[69-72-7]	2-hydroxybenzoic acid (salicylic acid)				
	$\Delta_{fus}H$		27.1	434.1	DSC	[2009GOO/ROD]
	$\Delta_{fus}H$		23.05	432.5	DSC	[2009PEN/ESC]
	$\Delta_{fus}H$		26.1	432.4		
	$\Delta_{fus}H$		24.45	431.1		[2005PIN/DIO, 2008MOT/QUE]
	$\Delta_{fus}H$		24.6	NA	DSC	[2003SHA/KAN]
	$\Delta_{fus}H$		24.6	431.8		[1996DOM/HEA, 1993SAB/LE]
	$\Delta_{sub}H$		94.4 ± 0.4	298	C	[2005PIN/DIO]
	$\Delta_{sub}H$		95.1 ± 0.5	333	C	[1993SAB/LE]
	$\Delta_{sub}H$		96.3 ± 0.5	298		[1993SAB/LE]
	$\Delta_{sub}H$	(307–324)	95.7 ± 0.8	315	ME	[1980COL/JIM, 1981COL/JIM]
	$\Delta_{sub}H$	(312–332)	94.9 ± 0.4	322	TE	[1977DEK/VAN]
	$\Delta_{sub}H$	(312–332)	93.22 ± 0.8	322	ME	[1977DEK/VAN]
	$\Delta_{sub}H$	(298–328)	99.2 ± 2	313	ME	[1974ARS]
	$\Delta_{sub}H$	(368–408)	94.8 ± 0.4			[1973MAL/GIG]
	$\Delta_{sub}H$	(368–408)	95.1 ± 0.4		GS	[1954DAV/JON, 1970COX/PIL, 1960JON]
	$\Delta_{v}H$		66.7			[2002CHA/DOL]
	$\Delta_{v}H$	(445–504)	79.4	460	A	[1987STE/MAL]
$C_7H_6O_3$	[99-06-9]	3-hydroxybenzoic acid				
	$\Delta_{fus}H$		36.5	476.4		[2005PIN/DIO]
	$\Delta_{fus}H$		26.2	475.1		[1996DOM/HEA, 1993SAB/LE]
	$\Delta_{sub}H$		118.3 ± 1.1	298	C	[2005PIN/DIO]
	$\Delta_{sub}H$		123.5 ± 0.74	363	C	[1993SAB/LE]
	$\Delta_{sub}H$		125.0 ± 0.74	298		[1993SAB/LE]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		80.1		TGA	[2002CHA/DOL]
$C_7H_6O_3$	[99-96-7]	4-hydroxybenzoic acid				
	$\Delta_{fus}H$		31.4	487.2		[2002GRA/RAS]
	$\Delta_{fus}H$		30.85	489		[2006NOR/RAS2]
	$\Delta_{fus}H$		32.0	488	DSC	[1992HEA/SIN]
	$\Delta_{fus}H$		30.9	488.1		[1979ARM/JAM]
	$\Delta_{sub}H$		117.0 ± 0.5	298	C	[2005PIN/DIO]
	$\Delta_{sub}H$		112.4 ± 0.7	363	C	[1993SAB/LE]
	$\Delta_{sub}H$		114.1 ± 0.7	298		[1993SAB/LE]
	$\Delta_{sub}H$	(398–433)	116.3		GS	[1954DAV/JON, 1960JON]
$C_7H_6O_3$	[533-31-3]	5-hydroxy-1,3-benzodioxole (sesamol)				
	$\Delta_{fus}H$		16.96	337.7		[2004MAT/MON]
	$\Delta_{sub}H$	(293–309)	92.1 ± 0.6	301	ME	[2004MAT/MON]
	$\Delta_{sub}H$	(293–309)	92.2 ± 0.6	298	ME	[2004MAT/MON]
$C_7H_6O_3S$	[4066-41-5]	5-acetyl-2-thiophenecarboxylic acid				
	$\Delta_{sub}H$	(364–387)	119.6 ± 0.6	375.2	ME	[2008RIB/SAN5]
	$\Delta_{sub}H$	(364–387)	123.5 ± 0.6	298	ME	[2008RIB/SAN5]
$C_7H_6O_4$	[303-38-8]	2,3-dihydroxybenzoic acid				
	$\Delta_{fus}H$		31.9	476.6	DSC	[2010MON/GON]
	$\Delta_{sub}H$	(345–363)	109.1 ± 0.8	354	ME	[2010MON/GON]
	$\Delta_{sub}H$	(345–363)	110.7 ± 0.8	298	ME	[2010MON/GON]
	$\Delta_{sub}H$		116 ± 4		TGA	[1999PRI/BAS]
$C_7H_6O_4$	[89-86-1]	2,4-dihydroxybenzoic acid				
	$\Delta_{sub}H$	(376–392)	124.0 ± 0.8	384	ME	[2010MON/GON]
	$\Delta_{sub}H$	(376–392)	126.4 ± 0.8	298	ME	[2010MON/GON]
	$\Delta_{sub}H$		126 ± 6		TGA	[1999PRI/BAS]
$C_7H_6O_4$	[490-79-9]	2,5-dihydroxybenzoic acid				
	$\Delta_{fus}H$		20.8	476.2	DSC	[2010MON/GON]
	$\Delta_{sub}H$	(372–389)	128.1 ± 1.4	380	ME	[2010MON/GON]
	$\Delta_{sub}H$	(372–389)	130.4 ± 1.3	298	ME	[2010MON/GON]
	$\Delta_{sub}H$	(362–379)	117.9 ± 1.4	370		[2006CHE/OJA]
	$\Delta_{sub}H$		109 ± 3		TGA	[1999PRI/BAS]
$C_7H_6O_4$	[303-07-1]	2,6-dihydroxybenzoic acid				
	$\Delta_{sub}H$	(347–365)	107.5 ± 1.0	356	ME	[2010MON/GON]
	$\Delta_{sub}H$	(347–365)	109.1 ± 1.0	298	ME	[2010MON/GON]
	$\Delta_{sub}H$		111 ± 7		TGA	[1999PRI/BAS]
$C_7H_6O_4$	[99-50-3]	3,4-dihydroxybenzoic acid				
	$\Delta_{fus}H$		31.2	472.3	DSC	[2009QUE/MOT]
	$\Delta_{sub}H$	(387–403)	132.3 ± 1.2	395	ME	[2010MON/GON]
	$\Delta_{sub}H$	(387–403)	135.1 ± 1.2	298	ME	[2010MON/GON]
	$\Delta_{sub}H$		153 ± 9		TGA	[1999PRI/BAS]
$C_7H_6O_4$	[99-10-5]	3,5-dihydroxybenzoic acid				
	$\Delta_{fus}H$		38.3	508.3	DSC	[2010MON/GON]
	$\Delta_{sub}H$	(345–363)	139.8 ± 1.8	416	ME	[2010MON/GON]
	$\Delta_{sub}H$	(345–363)	143.2 ± 1.8	298	ME	[2010MON/GON]
	$\Delta_{sub}H$		135 ± 6		TGA	[1999PRI/BAS]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_6O_5$	[149-91-7]	3,4,5-trihydroxybenzoic acid				
	$\Delta_{sub}H$	(391–421)	75.1	406		[1934HIR]
C_7H_7Br	[100-39-0]	benzylbromide				
	$\Delta_{fus}H$		13.2	271.8		[1976ASH]
	Δ_vH	(284–306)	53.3 ± 0.7	298	GS	[2002KRA/VAS]
	Δ_vH		53.7	298	CGC	[2002KRA/VAS]
	Δ_vH	(340–409)	48.1	355	I,A	[1976ASH, 1987STE/MAL]
	Δ_vH		50.5 ± 0.5	298		[1976ASH]
	Δ_vH	(305–472)	46.9	320	A	[1987STE/MAL, 1947STU, 1999DYK/SVO]
C_7H_7Br	[95-46-5]	2-bromotoluene				
	Δ_vH	(322–455)	47.2	337		[1999DYK/SVO]
	Δ_vH	(353–518)	45.3	368	A	[1987STE/MAL, 1970DYK/VAN, 1973KKY/REP]
	Δ_vH	(297–455)	52.6	312		[1947STU]
	Δ_vH	(273–348)	48.8	288		[1940STU/SAY]
C_7H_7Br	[591-17-3]	3-bromotoluene				
	Δ_vH	(351–457)	47.7	366		[1999DYK/SVO]
	Δ_vH	(287–457)	48.3	302	A	[1987STE/MAL, 1947STU]
	Δ_vH	(273–348)	49.4	288		[1940STU/SAY]
C_7H_7Br	[108-38-7]	4-bromotoluene				
	$\Delta_{fus}H$		15.13	301.2		[1996VAN/ALV]
	Δ_vH	(320–458)	47.1	335		[1999DYK/SVO]
	Δ_vH	(273–472)	55.3	288		[1999DYK/SVO]
	Δ_vH	(358–523)	45.8	373	A	[1987STE/MAL, 1970DYK/VAN, 1973KKY/REP]
C_7H_7BrO	[578-57-4]	2-bromoanisole				
	Δ_vH		61.8 ± 1.3	298	C	[2009RIB/FER3]
	Δ_vH		52.3			[1986BAL/GNA]
C_7H_7BrO	[2398-37-0]	3-bromoanisole				
	Δ_vH		58.0 ± 1.2	298	C	[2009RIB/FER3]
	Δ_vH		50.2			[1986BAL/GNA]
C_7H_7BrO	[104-92-7]	4-bromoanisole				
	Δ_vH		58.3 ± 1.2	298	C	[2009RIB/FER3]
	Δ_vH		50.6			[1986BAL/GNA]
	Δ_vH	(318–496)	48.9	333		[1947STU]
C_7H_7BrS	[19614-16-5]	2-bromothioanisole				
	Δ_vH		56.5			[1986BAL/GNA]
C_7H_7BrS	[33733-73-2]	3-bromothioanisole				
	Δ_vH		54.4			[1986BAL/GNA]
C_7H_7BrS	[104-95-0]	4-bromothioanisole				
	Δ_vH		55.7			[1986BAL/GNA]
C_7H_7Cl	[100-44-7]	benzyl chloride				
	$\Delta_{fus}H$		8.74	230	DSC	[1972AHM/EAD]
	Δ_vH	(276–309)	50.1 ± 0.3	298	GS	[2002KRA/VAS]
	Δ_vH		49.9	298	CGC	[2002KRA/VAS]
	Δ_vH	(320–390)	48.6	335	A,I	[1987STE/MAL, 1976ASH]
	Δ_vH		50.1 ± 0.5	298		[1976ASH, 1999DYK/SVO]
	Δ_vH	(295–453)	48.6	310	A	[1987STE/MAL, 1947STU]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_7H_7Cl	[95-49-8]	2-chlorotoluene				
	$\Delta_{fus}H$		10.3	237	DSC	[1972AHM/EAD]
	Δ_vH	(370–432)	41.6	385		[1999DYK/SVO]
	Δ_vH	(345–430)	45.3	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH	(345–430)	42.5	361		[1984BOU/FRI]
	Δ_vH	(338–493)	42.8	353	A	[1987STE/MAL, 1973KKY/REP, 1970DYK/VAN]
	Δ_vH	(278–432)	44.8	293		[1947STU]
	Δ_vH	(273–348)	45.8	288		[1940STU/SAY]
C_7H_7Cl	[108-41-8]	3-chlorotoluene				
	Δ_vH	(373–435)	41.9	388		[1999DYK/SVO]
	Δ_vH	(277–436)	43.7	292	A	[1987STE/MAL, 1947STU]
	Δ_vH	(273–348)	46.2	288		[1940STU/SAY]
C_7H_7Cl	[106-43-4]	4-chlorotoluene				
	$\Delta_{fus}H$		13.55	280.7		[1996VAN/ALV]
	Δ_vH	(362–435)	41.8	375		[1999DYK/SVO]
	Δ_vH	(304–436)	41.7	319	A	[1987STE/MAL]
	Δ_vH	(340–430)	46.0	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH	(338–433)	43.5	353		[1984BOU/FRI]
	Δ_vH	(279–435)	44.1	293		[1947STU]
$C_7H_7ClN_2O$	[5814-05-1]	2-chlorobenzoic acid hydrazide				
	$\Delta_{fus}H$		25.6	392.2	DSC	[2003CHI/ACR]
$C_7H_7ClN_2O$	[536-40-3]	4-chlorobenzoic acid hydrazide				
	$\Delta_{fus}H$		32.9	437.2	DSC	[2003CHI/ACR]
$C_7H_7ClN_2O_2$	[23042-32-2]	N-methyl-N-(4-chlorophenyl)nitramine				
	$\Delta_{fus}H$		19.5	323.4		[2002DAS/ZAL]
$C_7H_7ClN_2S$	[5344-82-1]	1-(*o*-chlorophenyl)thiourea				
	$\Delta_{fus}H$		22.29	413.5	DSC	[1990DON/DRE]
C_7H_7ClO	[766-51-8]	2-chloroanisole				
	Δ_vH		55.0 ± 0.8	298	C	[2008RIB/FER2]
	Δ_vH		49.4			[1986BAL/GNA]
	Δ_vH	(388–460)	48.3	403	A	[1987STE/MAL, 1973KKY/REP, 1999DYK/SVO]
C_7H_7ClO	[2845-89-8]	3-chloroanisole				
	Δ_vH		53.6 ± 0.8	298	C	[2008RIB/FER2]
	Δ_vH		48.1			[1986BAL/GNA]
C_7H_7ClO	[623-12-1]	4-chloroanisole				
	Δ_vH		54.8 ± 0.8	298	C	[2008RIB/FER2]
	Δ_vH		47.7			[1986BAL/GNA]
C_7H_7ClO	[17733-22-1]	2-chlorothioanisole				
	Δ_vH		53.6			[1986BAL/GNA]
C_7H_7ClO	[4867-37-2]	3-chlorothioanisole				
	Δ_vH		51.9			[1986BAL/GNA]
C_7H_7ClO	[123-09-1]	4-chlorothioanisole				
	Δ_vH		53.1			[1986BAL/GNA]
$C_7H_7Cl_3NO_3PS$	[5598-13-0]	O,O-dimethyl-O-3,5,6-trichloro-2-pyridyl phosphorothioate (chlorpyrifos methyl)				
	Δ_vH	(373–403)	73.0		GC	[2007GOE/MCC]
C_7H_7F	[350-50-5]	benzyl fluoride				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(278–318)	46.2 ± 0.3	298	GS	[2002KRA/VAS]
	$\Delta_v H$		46.5	298	CGC	[2002KRA/VAS]
	$\Delta_v H$	(278–318)	46.3 ± 0.3	298	GS	[1997SCH/VER]
	$\Delta_v H$	(297–410)	43.7	312	A	[1987STE/MAL]
	$\Delta_v H$	(298–356)	44.3	312	I	[1976ASH]
	$\Delta_v H$		44.5 ± 0.4	298		[1976ASH]
C_7H_7F	[95-52-3]	2-fluorotoluene				
	$\Delta_{fus}H$		9.8	210.7		[1996DOM/HEA]
	$\Delta_{fus}H$		9.8	204	DSC	[1972AHM/EAD]
	$\Delta_v H$	(248–388)	42.0	263		[1999DYK/SVO]
	$\Delta_v H$	(452–531)	31.5	465		[1999DYK/SVO]
	$\Delta_v H$	(453–530)	32.3	468		[1984MOU]
	$\Delta_v H$	(308–348)	38.0	323		[1974MOZ/KOL, 1984BOU/FRI]
	$\Delta_v H$	(295–388)	38.7	310	A	[1987STE/MAL, 1951POT/SAY]
	$\Delta_v H$	(248–387)	40.5	264		[1947STU]
C_7H_7F	[352-70-5]	3-fluorotoluene				
	$\Delta_{fus}H$		8.3	184		[1996DOM/HEA]
	$\Delta_{fus}H$		6.31	185	DSC	[1972AHM/EAD]
	$\Delta_v H$	(250–390)	41.6	265		[1999DYK/SVO]
	$\Delta_v H$	(293–390)	39.2	308	A	[1987STE/MAL, 1951POT/SAY]
	$\Delta_v H$	(250–389)	40.7	266		[1947STU]
C_7H_7F	[352-32-9]	4-fluorotoluene				
	$\Delta_{fus}H$		9.35	216.5		[1996DOM/HEA]
	$\Delta_{fus}H$		7.65	213	DSC	[1972AHM/EAD]
	$\Delta_v H$	(340–430)	39.5	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(340–429)	37.0	355	A	[1987STE/MAL, 1951POT/SAY, 1999DYK/SVO]
C_7H_7FO	[321-28-8]	2-fluoroanisole				
	$\Delta_v H$		52.1 ± 1.1	298	C	[2009RIB/FER2]
C_7H_7FO	[456-49-5]	3-fluoroanisole				
	$\Delta_v H$		48.1 ± 1.1	298	C	[2009RIB/FER2]
C_7H_7FO	[459-60-9]	4-fluoroanisole				
	$\Delta_v H$		48.7 ± 1.2	298	C	[2009RIB/FER2]
$C_7H_7F_2N$	[23162-99-4]	N,N-difluorobenzylamine				
	$\Delta_v H$	(313–333)	77.8	323	A	[1987STE/MAL]
$C_7H_7F_9O$	[72372-80-6]	1,1,1,2,2,3,3,4,4-nonafluoro-4-propoxybutane				
	$\Delta_v H$	(288–369)	37.9	303	I	[2002MUR/YAM]
C_7H_7I	[620-05-3]	benzyl iodide				
	$\Delta_{fus}H$		13.2	299.5		[1976ASH]
	$\Delta_v H$	(301–337)	57.4 ± 0.3	298	GS	[2002KRA/VAS]
	$\Delta_v H$		57.7	298	CGC	[2002KRA/VAS]
	$\Delta_v H$	(360–400)	46.8	375	I,A	[1987STE/MAL, 1976ASH]
	$\Delta_v H$		50.6 ± 1.4	298		[1976ASH]
C_7H_7I	[615-37-2]	2-iodotoluene				
	$\Delta_v H$	(310–484)	49.7	325	A	[1987STE/MAL, 1947STU]
C_7H_7I	[624-31-7]	4-iodotoluene				
	$\Delta_{fus}H$		14.96	306.7		[1996VAN/ALV]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_7H_7IO	[696-62-8]	4-iodoanisole				
	$\Delta_v H$	(401–520)	54.4	416	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_v H$	(401–479)	53.1 ± 0.4	440	I	[1956BRE/UBB]
C_7H_7NO	[6264-93-3]	2-aminotropone				
	$\Delta_{sub}H$	(273–333)	71.13 ± 0.4		ME	[1971JAC/HUN]
C_7H_7NO	[55-21-0]	benzamide				
	$\Delta_{fus}H$		19.15	402.1	DSC	[2009BRI]
	$\Delta_{fus}H$		23.14	NA	DSC	[2008SIN/DAS2]
	$\Delta_{fus}H$		18.49	402.3		[1991ACR]
	$\Delta_{sub}H$	(325–342)	96.9	333.5	A	[1987STE/MAL, 1960AIH2]
	$\Delta_{sub}H$	(323–349)	101.7 ± 1	298	C	[1982TOR/SAB2]
C_7H_7NO	[103-70-8]	formanilide				
	$\Delta_{sub}H$	(298–318)	77.8	308	A	[1987STE/MAL, 1960AIH2]
C_7H_7NO	[1122-62-9]	2-acetylpyridine				
	$\Delta_v H$		60.5 ± 0.3	298	C	[2007FRE/OLI]
C_7H_7NO	[350-03-8]	3-acetylpyridine				
	$\Delta_v H$		66.1 ± 0.8	298	C	[2007FRE/OLI]
C_7H_7NO	[1122-54-9]	4-acetylpyridine				
	$\Delta_v H$		66.5 ± 0.9	298	C	[2007FRE/OLI]
$C_7H_7NO_2$	[622-42-4]	(nitromethyl)benzene				
	$\Delta_v H$	(363–413)	53.8	378	A	[1987STE/MAL]
$C_7H_7NO_2$	[88-72-2]	2-nitrotoluene				
	$\Delta_v H$	(283–313)	59.6 ± 1.6	298	GS	[2010WID/BRU]
	$\Delta_v H$	(274–323)	59.0 ± 0.3	299	GS	[2000VER/HEI]
	$\Delta_v H$		59.1 ± 0.3	298		[2000VER/HEI]
	$\Delta_v H$	(388–448)	52.0	403	EB	[1994AIM]
	$\Delta_v H$	(402–496)	51.0	417	A	[1987STE/MAL]
	$\Delta_v H$	(387–493)	52.2	402		[1938LEV/SHT, 1994AIM]
$C_7H_7NO_2$	[99-08-1]	3-nitrotoluene				
	$\Delta_v H$	(293–313)	56.6 ± 2.5	303	GS	[2010WID/BRU]
	$\Delta_v H$	(397–452)	52.8	413	EB	[1994AIM]
	$\Delta_v H$	(353–505)	49.8	368	A	[1987STE/MAL]
$C_7H_7NO_2$	[99-99-0]	4-nitrotoluene				
	$\Delta_{fus}H$		16.81	324.8		[1991ACR]
	$\Delta_{sub}H$	(283–313)	74.8 ± 1.0	298	GS	[2010WID/BRU]
	$\Delta_{sub}H$		79.1 ± 2.5	298	ME	[1971LEN/VEL]
	$\Delta_{sub}H$	(298–310)	79.1	298		[1970LEN/VEL]
	$\Delta_v H$	(407–457)	52.8	422	EB	[1994AIM]
	$\Delta_v H$	(423–512)	49.8	438	A	[1987STE/MAL]
	$\Delta_v H$	(387–493)	54.2	402		[1938LEV/SHT, 1994AIM]
$C_7H_7NO_2$	[118-92-3]	2-aminobenzoic acid (I)				
	$\Delta_{fus}H$		20.5	417.8		[1991ACR]
	$\Delta_{sub}H$		111.6 ± 1.7	298		[1972ARN/JON]
$C_7H_7NO_2$	[na]	2-aminobenzoic acid (II)				
	$\Delta_{sub}H$		100 ± 1	338	TE,ME	[1979DEK/VOO]
	$\Delta_{sub}H$		99.6 ± 0.5	378	C	[1974SAB/CHA]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		104.9 ± 1	298	C	[1974SAB/CHA]
$C_7H_7NO_2$	[99-05-8]	3-aminobenzoic acid				
	$\Delta_{fus}H$ *(I)*		35.5	445.2		[2010SVA/NOR]
	$\Delta_{fus}H$ *(II)*		26.7	451.2	DSC	[2010SVA/NOR]
	$\Delta_{fus}H$		33.7	445.7		[2001ROT/GLA]
	$\Delta_{fus}H$		21.84	452.9		[1991ACR]
	$\Delta_{sub}H$		122 ± 1	374.8	TE	[1979DEK/VOO]
	$\Delta_{sub}H$	(367–389)	122.3 ± 3		C	[1974SAB/CHA]
	$\Delta_{sub}H$		128 ± 3.2	298	C	[1974SAB/CHA, 1977NAB/SAB]
$C_7H_7NO_2$	[150-13-0]	4-aminobenzoic acid				
	$\Delta_{trs}H$		2.06	355.2		
	$\Delta_{fus}H$		22.62	458.7	DSC	[2004GRA/RAS]
	$\Delta_{fus}H$		24.5	459.2		[2001ROT/GLA]
	$\Delta_{fus}H$		20.92	461.4		[1991ACR]
	$\Delta_{sub}H$		112.3 ± 1	373	TE	[1979DEK/VOO]
	$\Delta_{sub}H$	(367–389)	114 ± 3.5		C	[1974SAB/CHA]
	$\Delta_{sub}H$		116 ± 3.7	298	C	[1974SAB/CHA, 1977NAB/SAB]
	$\Delta_{sub}H$		U 142			[1938WOL/WEG, 1960JON]
$C_7H_7NO_2$	[94-67-7]	2-hydroxybenzaldoxime				
	$\Delta_{sub}H$(*mp* 330 K)	(423–513)	96.7 ± 9.4	468	DSC	[1984BUR/MOR]
	$\Delta_{sub}H$		105.2 ± 10	298		[1984BUR/MOR]
	$\Delta_{sub}H$(*anti*)		U 51 ± 1.7		MS	[1983MAJ/AZZ]
	$\Delta_{sub}H$(*syn*)		U 65.3 ± 1.7		MS	[1983MAJ/AZZ]
$C_7H_7NO_2$	[22241-18-5]	3-hydroxybenzaldoxime				
	$\Delta_{sub}H$(*anti*)		U 52.7 ± 1.7		MS	[1983MAJ/AZZ]
	$\Delta_{sub}H$(*syn*)		U 57.3 ± 1.7		MS	[1983MAJ/AZZ]
$C_7H_7NO_2$	[699-06-9]	4-hydroxybenzaldoxime				
	$\Delta_{sub}H$(*anti*)		U 54.4 ± 1.7		MS	[1983MAJ/AZZ]
$C_7H_7NO_2$	[65-45-2]	2-hydroxybenzamide (salicylamide)				
	$\Delta_{fus}H$		27.1	414.9	DSC	[2008BER/MIN]
	$\Delta_{fus}H$		29.0	411.9		[2006NOR/RAS]
	$\Delta_{sub}H$		101.9 ± 0.4	298	C	[2008BER/MIN]
	$\Delta_{sub}H$		99.3 ± 1.3	298	C	[2007RIB/ARA]
$C_7H_7NO_2$	[619-57-8]	4-hydroxybenzamide				
	$\Delta_{fus}H$		25.4	433.8	DSC	[2008BER/MIN]
	$\Delta_{fus}H$		25.2	433.2	DSC	[2007PER/HAN]
	$\Delta_{sub}H$		129.7 ± 1.9	298	C	[2008BER/MIN]
	$\Delta_{sub}H$	(360–420)	115.6 ± 0.6	390	GS	[2007PER/HAN]
	$\Delta_{sub}H$	(360–420)	117.8 ± 0.6	298	GS	[2007PER/HAN]
$C_7H_7NO_2$	[622-42-8]	phenyl carbamate				
	$\Delta_{fus}H$ *(I)*		15.42	414.9	DSC	
	$\Delta_{fus}H$ *(II)*		22.12	417.6	DSC	[2008WIS/BER]
$C_7H_7NO_2$	[2459-07-6]	methyl picolinate				
	$\Delta_{v}H$		67.0 ± 1.8	298	C	[2007RIB/FRE]
	$\Delta_{v}H$	(273–340)	64.1 ± 0.1	298		[2007RIB/FRE]
$C_7H_7NO_2$	[93-60-7]	methyl nicotinate				
	$\Delta_{v}H$	(298–324)	61.2 ± 0.2	298		[2007RIB/FRE]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_7NO_2$	[2459-09-8]	methyl isonicotinate				
	$\Delta_v H$		65.4 ± 1.4	298	C	[2007RIB/FRE]
	$\Delta_v H$	(298–320)	59.4 ± 0.1	298		[2007RIB/FRE]
$C_7H_7NO_3$	[5399-68-8]	2,4-dihydroxybenzaldoxime				
	$\Delta_{sub}H$ (*anti*)		U 76.2 ± 1.7		MS	[1983MAJ/AZZ]
	$\Delta_{sub}H$ (*syn*)		U 93.7 ± 1.7		MS	[1983MAJ/AZZ]
$C_7H_7NO_3$	[91-23-6]	2-nitroanisole				
	$\Delta_v H$	(424–545)	58.6	439	A	[1987STE/MAL]
$C_7H_7NO_3$	[2581-34-2]	4-nitro-5-methylphenol				
	$\Delta_{fus}H$		27.4	401		[1991ACR]
$C_7H_7NO_3$	[700-38-9]	2-nitro-5-methylphenol				
	$\Delta_{fus}H$		20.79	302.8		[1991ACR]
	$\Delta_v H$	(331–358)	62.8 ± 0.5	298	GS	[2007HEI/KAP]
$C_7H_7NO_3$	[2581-34-2]	3-methyl-4-nitrophenol				
	$\Delta_v H$		85.8	298	B	[2007HEI/KAP]
$C_7H_7NO_3$	[554-84-7]	2-methyl-5-nitrophenol				
	$\Delta_v H$		85.9	298	B	[2007HEI/KAP]
$C_7H_7NO_3$	[65-49-6]	4-aminosalicylic acid				
	$\Delta_{fus}H$		47.9	406.2		[2001ROT/GLA]
$C_7H_7NO_3$	[89-57-6]	5-aminosalicylic acid				
	$\Delta_{fus}H$		67.2	543.2		[2001ROT/GLA]
$C_7H_7NO_3$	[619-73-8]	4-nitrobenzyl alcohol				
	$\Delta_{fus}H$	(78–396)	20.97	336.4	AC	[2009MEN/TAN]
$C_7H_7NO_4$	[3251-56-7]	2-methoxy-4-nitrophenol				
	$\Delta_{fus}H$		21.69	374.4		[2004MIR/MOR]
	$\Delta_{sub}H$		99.4 ± 2.0	298	C	[2004MIR/MOR]
$C_7H_7NO_4$	[636-93-1]	2-methoxy-5-nitrophenol				
	$\Delta_{fus}H$		21.43	377.6		[2004MIR/MOR]
	$\Delta_{sub}H$		106.2 ± 2.2	208	C	[2004MIR/MOR]
$C_7H_7NO_4$	[1568-70-3]	4-methoxy-2-nitrophenol				
	$\Delta_{fus}H$		22.42	352.3		[2004MIR/MOR]
	$\Delta_{sub}H$		90.8 ± 1.7	298	C	[2004MIR/MOR]
C_7H_7NS	[2227-79-4]	thiobenzamide				
	$\Delta_{sub}H$		103.4 ± 2.2	298	C	[1989RIB/SOU]
	$\Delta_{sub}H$		97.2 ± 0.6	298	C	[1982SAB/TOR]
$C_7H_7N_3$	[622-79-7]	(azidomethyl)benzene				
	$\Delta_v H$	(333–363)	48.0	348	A	[1987STE/MAL]
$C_7H_7N_3O_2$	[na]	N-acetyl-pyrazinamide				
	$\Delta_{fus}H$		23.6	366.7		[1991LIU/GUO]
$C_7H_7N_3O_4$	[16698-03-6]	N-methyl-N-(4-nitrophenyl)nitramine				
	$\Delta_{fus}H$		25.0	416.9		[2002DAS/ZAL]
$C_7H_7N_3O_4$	[55739-03-2]	N-methyl-N-(3-nitrophenyl)nitramine				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		25.3	350.5		[2002DAS/ZAL]
C_7H_8	[121-46-0]	bicyclo[2.2.1]hepta-2,5-diene				
	$\Delta_{trs}H$		8.2	202		
	$\Delta_{fus}H$		1.91	255.6		[2004BYK/SMI]
	$\Delta_{trs}H$		8.93	202		
	$\Delta_{fus}H$		NA			[1974CLA/MCK]
	Δ_vH		34.8 ± 0.1	298	C	[1993AN/XIE]
	Δ_vH	(300–364)	33.6	315	A	[1987STE/MAL]
	Δ_vH		34.7 ± 0.1	298	C	[1985KUS]
	Δ_vH		33.8 ± 0.9	298		[1978STE2]
	Δ_vH	(300–353)	32.9 ± 0.8	298	BG	[1973HAL/SMI]
C_7H_8	[544-25-2]	1,3,5-cycloheptatriene				
	$\Delta_{trs}H$		2.35	154		
	$\Delta_{fus}H$		1.16	198		[1996DOM/HEA]
	Δ_vH	(273–338)	40.8	288	A	[1987STE/MAL, 1973KKY/REP]
	Δ_vH	(273–416)	39.4	288	A,EB	[1987STE/MAL, 1956FIN/SCO]
	Δ_vH		38.7 ± 0.2	298		[1956FIN/SCO]
C_7H_8	[278-06-8]	tetracyclo[3.2.0.0^{2,7}.0^{4,6}]heptane (quadricyclane)				
	$\Delta_{trs}H$		7.2	180		
	$\Delta_{fus}H$		1.09	228		[1996DOM/HEA]
	Δ_vH		37.9 ± 0.1	298	C	[1993AN/XIE]
	Δ_vH		37.9 ± 0.1	298	C	[1985KUS]
	Δ_vH		37.0 ± 0.8	298		[1978STE2]
	Δ_vH	(302–372)	37.3 ± 0.8	317	BG	[1987STE/MAL, 1973HAL/SMI]
C_7H_8	[108-88-3]	toluene				
	$\Delta_{fus}H$		6.61	178		[1996DOM/HEA, 1931SOU/AND]
	$\Delta_{sub}H$		43.1	298	B	[1970LEN/VEL]
	Δ_vH	(331–496)	35.7	346		[1993LEE/HOL]
	Δ_vH	(210–279)	40.6	264	A	[1987STE/MAL]
	Δ_vH	(383–445)	34.4	398	A	[1987STE/MAL]
	Δ_vH	(440–531)	33.2	455	A	[1987STE/MAL]
	Δ_vH	(530–592)	33.3	545	A	[1987STE/MAL]
	Δ_vH	(273–295)	38.9	284	A	[1987STE/MAL]
	Δ_vH		33.5 ± 0.1	380	C	[1985NAT/VIS]
	Δ_vH		32.1 ± 0.1	403	C	[1985NAT/VIS]
	Δ_vH		29.4 ± 0.1	441	C	[1985NAT/VIS]
	Δ_vH		27.1 ± 0.1	470	C	[1985NAT/VIS]
	Δ_vH		24.0 ± 0.1	505	C	[1985NAT/VIS]
	Δ_vH		35.4	333		[1984EUB/CED]
	Δ_vH		33.4	373		[1984EUB/CED]
	Δ_vH		31.4	413		[1984EUB/CED]
	Δ_vH		28.4	453		[1984EUB/CED]
	Δ_vH		24.0	493		[1984EUB/CED]
	Δ_vH	(343–383)	35.4	360		[1975RIV]
	Δ_vH		38.0	298		[1971WIL/ZWO]
	Δ_vH	(303–343)	37.3	318		[1968GAW/SWI2]
	Δ_vH	(288–348)	36.9	303		[1967VAN/SOC]
	Δ_vH	(210–293)	37.8	278		[1956MIL]
	Δ_vH	(308–386)	37.0	323		[1987STE/MAL, 1949FOR/NOR]
	Δ_vH		38.0	298	C	[1947OSB/GIN]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(286–362)	37.8	301		[1946THO]
	$\Delta_v H$	(308–384)	37.0	323	MM	[1945WIL/TAY]
	$\Delta_v H$	(273–323)	38.8	288		[1943PIT/SCO]
$C_7H_8ClN_3O_4S_2$	[58-93-5]	6-chloro-3,4-dihydro-2*H*-1,2,4-benzothiadiazine-7-sulfonamide-1,1-dioxide (hydrochlorthiazide)				
	$\Delta_{fus}H$		33.6	540.8	DSC	[2006WAS/HOL]
	$\Delta_{fus}H$		30.96	547.2		[2000HAN/PAR]
C_7H_8FN	[452-80-2]	2-fluoro-4-methylaniline				
	$\Delta_v H$		56.6 ± 0.6	298	C	[2007RIB/FER2]
C_7H_8FN	[452-84-6]	2-fluoro-5-methylaniline				
	$\Delta_v H$		56.9 ± 0.5	298	C	[2007RIB/FER2]
C_7H_8FN	[443-86-7]	3-fluoro-2-methylaniline				
	$\Delta_v H$		57.8 ± 0.6	298	C	[2007RIB/FER2]
C_7H_8FN	[452-71-1]	4-fluoro-2-methylaniline				
	$\Delta_v H$		59.8 ± 0.8	298	C	[2007RIB/FER2]
$C_7H_8N_2$	[33496-46-7]	1-amino-7-imino-1,3,5-cycloheptatriene				
	$\Delta_{sub}H$	(273–333)	49.4 ± 0.4		ME	[1971JAC/HUN]
$C_7H_8N_2O$	[64-10-8]	monophenylurea				
	$\Delta_{fus}H$		23.68	420.6		[1991ACR]
	$\Delta_{sub}H$	(392–412)	136 ± 6	406	TE	[1987FER/DEL]
$C_7H_8N_2O$	[3398-07-0]	2-aminobenzaldoxime				
	$\Delta_{sub}H$ (*anti*)		U 33.9 ± 1.7		MS	[1983MAJ/AZZ]
	$\Delta_{sub}H$ (*syn*)		U 63.6 ± 1.7		MS	[1983MAJ/AZZ]
$C_7H_8N_2O$	[5231-96-9]	(2-pyridyl)acetamide				
	$\Delta_{fus}H$		16.0	343		[1979GON/CHA]
	$\Delta_{sub}H$		103.8	298	B,E	[1979GON/CHA]
$C_7H_8N_2O$	[613–94–5]	benzoic acid hydrazide				
	$\Delta_{fus}H$		25.7	388.2	DSC	[2003CHI/ACR]
$C_7H_8N_4O$	[31010-51-2]	9-ethylhypoxanthine				
	$\Delta_{sub}H$		108.8 ± 13		HSA	[1978NOW/SZC]
	$\Delta_{sub}H$		U 83.7		HSA	[1965CLA/PES]
$C_7H_8N_4O$	[20535-82-4]	1,9-dimethylhypoxanthine				
	$\Delta_{sub}H$		75.3 ± 13		HSA	[1978NOW/SZC]
$C_7H_8N_4O_2$	[58-55-9]	1,3-dimethylxanthine (theophylline)				
	$\Delta_{fus}H$ (*form I*)		28.02	547.9	DSC	[2010SZT/LEG, 2009SZT]
	$\Delta_{fus}H$ (*form II*)		30.1	543.9	DSC	[2010SZT/LEG, 2009SZT]
	$\Delta_{fus}H$		19	546.8	DSC	[2009GOO/ROD]
	$\Delta_{fus}H$		28.2	544		[1989GON/KRA]
	$\Delta_{fus}H$		28.2	542.3		[1989SUZ/SHI]
	$\Delta_{fus}H$		31.2	543.7		[1983FOK/VAN]
	$\Delta_{sub}H$ (*form I*)	(413–453)	132.0 ± 0.3	433	T	[1999EMM/PIC]
	$\Delta_{sub}H$ (*form I*)		142	298		[1999EMM/PIC]
	$\Delta_{sub}H$ (*form II*)	(413–453)	134.2 ± 0.3	433	T	[1999EMM/PIC]
	$\Delta_{sub}H$ (*form II*)		144	298		[1999EMM/PIC]
	$\Delta_{sub}H$		126	421	ME,TE	[1983FOK/VAN]
	$\Delta_{sub}H$		135	298		[1983FOK/VAN, 1999EMM/PIC]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_7H_8O	[100-66-3]	anisole				
	$\Delta_{fus}H$		11.66	237		[1996DOM/HEA, 1994LEE/LIE]
	$\Delta_{fus}H$		12.89	236		[1996DOM/HEA]
	Δ_vH	(278–312)	46.6 ± 0.2	298	GS	[2005VAS/VER]
	Δ_vH	(363–463)	44.3	298	GC	[2005HOS/GRY]
	Δ_vH	(353–393)	45.3	298	CGC	[1995CHI/HOS]
	Δ_vH	(382–429)	41.8	397		[1993REI/SAN]
	Δ_vH		41.0			[1986BAL/GNA]
	Δ_vH	(382–437)	41.9	397	A	[1987STE/MAL, 1976AMB/ELL]
	Δ_vH	(382–437)	46.9	298		[1976AMB/ELL]
	Δ_vH	(282–437)	39.0	426		[1976AMB/ELL]
	Δ_vH		46.8 ± 0.2	298	C	[1975FEN/HAR]
	Δ_vH	(363–383)	38.2 ± 0.4	298		[1972LEB/KAT2, 2005VAS/VER]
	Δ_vH		42.9 ± 0.1	367	C	[1967HAL/LEE]
	Δ_vH		42.0 ± 0.1	382	C	[1967HAL/LEE]
	Δ_vH		40.5 ± 0.1	402	C	[1967HAL/LEE]
	Δ_vH		38.9 ± 0.1	427	C	[1967HAL/LEE]
	Δ_vH		39.4	298		[1957MCC/DOU, 2005VAS/VER]
	Δ_vH	(382–437)	41.9	397		[1955VON/GEB, 1965COL/COU]
C_7H_8O	[100-51-6]	benzyl alcohol				
	$\Delta_{fus}H$		8.79	257.6		[1991ACR]
	Δ_vH	(282–323)	65.5 ± 0.4	298	GS	[2005VAS/VER]
	Δ_vH	(277–381)	64.8 ± 0.6	298	GS	[1999VER4]
	Δ_vH	(323–373)	69.5	298	CGC	[1995CHI/HOS]
	Δ_vH		60.5			[1995PAP/PIM]
	Δ_vH	(404–507)	62.5 ± 0.3	298	EB	[1990AMB/GHI, 2005VAS/VER]
	Δ_vH	(303–333)	66.2	318	GS	[1982GRA/FOS]
	Δ_vH	(385–573)	54.6	400	A	[1987STE/MAL, 1973KKY/REP]
	Δ_vH	(293–313)	61.5	303	A.ME	[1987STE/MAL, 1957SER/VOI, 1973KKY/REP]
	Δ_vH	(396–478)	62.1 ± 0.3	298	EB	[1949DRE/SHR, 1949DRE/MAR, 2005VAS/VER]
	Δ_vH	(312–348)	63.0 ± 2.2	298	EB	[1937GAR/BRE, 2005VAS/VER]
	Δ_vH		60.3 ± 0.4	298	EB	[1926MAT, 2005VAS/VER]
C_7H_8O	[95-48-7]	2-hydroxytoluene				
	$\Delta_{fus}H$		14.8	305.4	DSC	[2007RIC/BER]
	$\Delta_{fus}H$		15.9	304.1	DSC	[1998JAM/PAL]
	$\Delta_{fus}H$		15.82	304.2		[1996DOM/HEA]
	$\Delta_{fus}H$		14.8	304.1		[1990MEV/LIC]
	$\Delta_{sub}H$		73.7 ± 0.5	298	C	[2007RIC/BER]
	$\Delta_{sub}H$	(273–303)	74.8	288	A	[1987STE/MAL]
	$\Delta_{sub}H$	(273–303)	76.0 ± 0.8	288		[1960AND/BID, 1970COX/PIL]
	Δ_vH	(304–409)	58.5	319	A	[1987STE/MAL]
	Δ_vH	(399–470)	50.1	414	A	[1987STE/MAL]
	Δ_vH	(463–526)	46.2	478	A	[1987STE/MAL]
	Δ_vH	(517–630)	44.0	532	A	[1987STE/MAL]
	Δ_vH		50.2			[1986BAL/GNA]
	Δ_vH	(383–473)	51.3	398	GS,EB	[1987STE/MAL, 1960AND/BID, 1973KKY/REP]
	Δ_vH	(415–462)	48.2	438		[1939GOL/MAR]
C_7H_8O	[108-39-4]	3-hydroxytoluene				
	$\Delta_{fus}H$		8.9	282.3	DSC	[2007RIC/BER]
	$\Delta_{fus}H$		10.67	285.3	DSC	[1998JAM/PAL]
	$\Delta_{fus}H$		10.71	285.4		[1996DOM/HEA]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		9.1	280.8		[1990MEV/LIC]
	$\Delta_{sub}H$	(273–285)	56.1	279	A	[1987STE/MAL]
	$\Delta_{sub}H$	(284–313)	61.7 ± 1.0		GS	[1960AND/BID]
	$\Delta_{v}H$		65.0 ± 0.7	298	C	[2007RIC/BER]
	$\Delta_{v}H$	(393–433)	62.5	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(284–313)	61.7	298	A	[1987STE/MAL]
	$\Delta_{v}H$	(285–416)	63.1	300	A	[1987STE/MAL]
	$\Delta_{v}H$	(410–477)	52.7	425	A	[1987STE/MAL]
	$\Delta_{v}H$	(471–531)	47.6	486	A	[1987STE/MAL]
	$\Delta_{v}H$	(523–633)	43.8	538	A	[1987STE/MAL]
	$\Delta_{v}H$	(383–473)	55.0	398	GS,EB	[1987STE/MAL, 1960AND/BID]
	$\Delta_{v}H$	(388–429)	60.6	409	GS	[1980NAS/HWA, 1973KKY/REP]
	$\Delta_{v}H$		61.7	298		[1958BID/MAR]
	$\Delta_{v}H$	(359–473)	58.8	374		[1955VON/GEB, 1984BOU/FRI]
	$\Delta_{v}H$	(422–474)	50.7	448		[1939GOL/MAR]
C_7H_8O	[106-44-5]	4-hydroxytoluene				
	$\Delta_{fus}H$		12.6	308.8	DSC	[2007RIC/BER]
	$\Delta_{fus}H$		8.58	307.6	DSC	[1998JAM/PAL]
	$\Delta_{fus}H$		12.72	307.9		[1996DOM/HEA]
	$\Delta_{fus}H$		11.8	307.4		[1990MEV/LIC]
	$\Delta_{sub}H$		73.1 ± 0.6	298	C	[2007RIC/BER]
	$\Delta_{sub}H$	(273–307)	73.9 ± 1.5	290		[1960AND/BID, 1970COX/PIL]
	$\Delta_{v}H$	(308–393)	62.0	323	A	[1987STE/MAL]
	$\Delta_{v}H$	(385–477)	55.4	400	A	[1987STE/MAL]
	$\Delta_{v}H$	(463–533)	49.2	478	A	[1987STE/MAL]
	$\Delta_{v}H$	(523–635)	46.0	538	A	[1987STE/MAL]
	$\Delta_{v}H$		54.0			[1986BAL/GNA]
	$\Delta_{v}H$	(383–473)	55.6	398	A,GS,EB	[1987STE/MAL, 1960AND/BID, 1973KKY/REP]
	$\Delta_{v}H$	(419–474)	51.3	446		[1939GOL/MAR]
C_7H_8OS	[106-53-6]	4-methoxybenzenethiol				
	$\Delta_{v}H$		52.3			[1986BAL/GNA]
C_7H_8OS	[13679-73-7]	2-acetyl-4-methylthiophene				
	$\Delta_{v}H$		63.0 ± 2.6	298	C	[2008RIB/SAN4]
C_7H_8OS	[13679-72-6]	2-acetyl-3-methylthiophene				
	$\Delta_{v}H$		57.1 ± 2.4	298	C	[2008RIB/SAN4]
C_7H_8OS	[13679-74-8]	2-acetyl-5-methylthiophene				
	$\Delta_{v}H$		62.0 ± 2.6	298	C	[2008RIB/SAN4]
C_7H_8OS	[36880-33-8]	5-ethyl-2-thiophenecarboxaldehyde				
	$\Delta_{v}H$		62.2 ± 1.3	298	C	[2008RIB/SAN2]
$C_7H_8O_2$	[488-17-5]	3-methyl-1,2-dihydroxybenzene				
	$\Delta_{sub}H$		93.2 ± 1.0	298	C	[1984CAR]
$C_7H_8O_2$	[496-73-1]	2,4-dihydroxytoluene				
	$\Delta_{fus}H$		27.6	404.2		[1999VER7]
	$\Delta_{sub}H$	(317–333)	106.8 ± 0.9	325	ME	[2009RIB/FER4]
	$\Delta_{sub}H$	(317–333)	107.3 ± 3.0	298	ME	[2009RIB/FER4]
	$\Delta_{v}H$	(391–459)	72.2	406	A,GC	[1987STE/MAL, 1975KUN/LIL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_8O_2$	[608-25-3]	2,6-dihydroxytoluene				
	$\Delta_{sub}H$	(309–329)	98.8 ± 0.3	319	ME	[2009RIB/FER4]
	$\Delta_{sub}H$	(309–329)	99.2 ± 2.3	298	ME	[2009RIB/FER4]
	Δ_vH	(398–434)	66.9	413	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_7H_8O_2$	[452-86-8]	3,4-dihydroxytoluene				
	$\Delta_{sub}H$		94.9 ± 1.0	298	C	[1984CAR]
	Δ_vH	(387–415)	90.0	401	A	[1987STE/MAL]
$C_7H_8O_2$	[504-15-4]	3,5-dihydroxytoluene				
	$\Delta_{sub}H$	(322–338)	102.3 ± 0.7	330	ME	[2009RIB/FER4]
	$\Delta_{sub}H$	(322–338)	102.9 ± 3.5	298	ME	[2009RIB/FER4]
	Δ_vH	(402–468)	76.6	417	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_7H_8O_2$	[95-71-6]	2-methyl-1,4-dihydroxybenzene				
	$\Delta_{fus}H$		27.6	404.2	DSC	[1999VER7]
	$\Delta_{sub}H$	(325–341)	107.8 ± 1.1	333	ME	[2009RIB/FER4]
	$\Delta_{sub}H$	(325–341)	108.4 ± 3.9	298	ME	[2009RIB/FER4]
	$\Delta_{sub}H$	(333–368)	97.2 ± 1.4	351	GS	[1999VER7]
	$\Delta_{sub}H$	(333–368)	100.4 ± 1.4	298	GS	[1999VER7]
$C_7H_8O_2$	[90-05-1]	2-methoxyphenol				
	Δ_vH		62.6 ± 0.5	298	C	[2003MAT/MIR]
	Δ_vH	(378–479)	52.7	393	A	[1987STE/MAL, 1973KKY/REP]
	Δ_vH	(355–478)	52.7	370		[1955VON/GEB]
$C_7H_8O_2$	[150-19-6]	3-methoxyphenol				
	Δ_vH		75.9 ± 1.2	298	C	[2003MAT/MIR]
	Δ_vH	(413–518)	64.8	428	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_8O_2$	[150-76-5]	4-methoxyphenol				
	$\Delta_{fus}H$		18.3	328.4		[1997LEE/CHA]
	$\Delta_{sub}H$		94.4 ± 1.2	298	C	[2003MAT/MIR]
	$\Delta_{sub}H$	(278–300)	88.7	289		[1987STE/MAL, 1960AIH]
	Δ_vH		58.6			[1986BAL/GNA]
	Δ_vH	(418–518)	61.4	433	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_8O_2$	[63233-31-8]	2,3-dimethyl-2*H*-pyran-2-one				
	Δ_vH	(352–518)	64.9	367	A	[1987STE/MAL, 1947STU]
$C_7H_8O_2$	[90-01-7]	2-hydroxybenzyl alcohol				
	$\Delta_{fus}H$		21.5	358.3		[2008PIN/DIO]
$C_7H_8O_2S$	[52911-98-5]	6-methyl-4-methoxy-2*H*-pyran-2-thione				
	$\Delta_{sub}H$	(402–415)	130.5 ± 5.9	408	B	[1974BEA/MUE]
	Δ_vH	(401–415)	108.9	408	A	[1987STE/MAL, 1999DYK/SVO, 1974BEA/MUE]
$C_7H_8O_2S$	[52911-99-6]	2-methyl-6-(methylthio)-4*H*-pyran-4-one				
	$\Delta_{sub}H$	(388–433)	87.4 ± 3.8	410	B	[1974BEA/MUE]
	Δ_vH	(387–432)	62.7	402	A	[1987STE/MAL, 1999DYK/SVO, 1974BEA/MUE]
$C_7H_8O_2S$	[3112-85-4]	methyl phenyl sulfone				
	$\Delta_{sub}H$		92 ± 2.9			[UR/MAC, 1970COX/PIL]
$C_7H_8O_2S$	[19432-68-9]	methyl 2-thiopheneacetate				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		61.9 ± 1.4	298	C	[2007ROU/TEM3]
$C_7H_8O_2S$	[58414-52-1]	methyl 3-thiopheneacetate				
	$\Delta_v H$		60.9 ± 1.3	298	C	[2007ROU/TEM3]
$C_7H_8O_2S$	[2810-04-0]	ethyl 2-thiophenecarboxylate				
	$\Delta_v H$		56.6 ± 1.3	298	C	[2009RIB/SAN2]
$C_7H_8O_3$	[614-99-3]	2-furancarboxylic acid, ethyl ester				
	$\Delta_v H$	(354–389)	51.2	369	A	[1987STE/MAL]
	$\Delta_v H$	(310–468)	52.6	325		[1947STU]
$C_7H_8O_3$	[4225-42-7]	3-methoxy-6-methyl-4*H*-pyran-4-one				
	$\Delta_v H$	(370–384)	72.8	377	A	[1987STE/MAL]
$C_7H_8O_3$	[672-89-9]	4-methoxy-6-methyl-2*H*-pyran-2-one				
	$\Delta_v H$	(385–434)	57.4	400	A	[1987STE/MAL]
$C_7H_8O_3$	[934-00-9]	3-methoxycatechol				
	$\Delta_v H$		91.7 ± 0.8	298		[1986RIB/RIB]
C_7H_8S	[100-53-8]	benzenemethanethiol				
	$\Delta_v H$	(394–436)	47.5	409		[1999DYK/SVO]
	$\Delta_v H$		56.6 ± 0.1	298		[1972GOO]
C_7H_8S	[137-06-4]	2-methylbenzenethiol				
	$\Delta_v H$	(351–498)	48.1	366		[1999DYK/SVO]
	$\Delta_v H$	(370–470)	46.6	394	A	[1987STE/MAL]
	$\Delta_v H$		46.0			[1986BAL/GNA]
C_7H_8S	[108-40-7]	3-methylbenzenethiol				
	$\Delta_v H$	(353–498)	48.7	368		[1999DYK/SVO]
	$\Delta_v H$	(380–471)	47.1	395	A	[1987STE/MAL]
C_7H_8S	[106-45-6]	4-methylbenzenethiol				
	$\Delta_v H$	(351–499)	48.1	366		[1999DYK/SVO]
	$\Delta_v H$	(379–471)	46.5	394	A	[1987STE/MAL]
	$\Delta_v H$		46.4			[1986BAL/GNA]
C_7H_8S	[100-68-5]	methyl phenyl sulfide				
	$\Delta_{fus}H$		14.85	256.4		[1974MES/FIN]
	$\Delta_v H$		47.7			[1986BAL/GNA]
	$\Delta_v H$		54.3 ± 0.1	298		[1972GOO, 1966OSB/DOU]
	$\Delta_v H$	(389–475)	47.5	404	A,EB	[1987STE/MAL, 1966OSB/DOU, 1999DYK/SVO]
	$\Delta_v H$	(323–353)	50.6 ± 2.1	298		[1962MAC/MAY]
$C_7H_8S_3$	[698-42-0]	4,5-tetramethylene-1,3-dithiole-2-thione				
	$\Delta_{sub}H$	(340–352)	98.3	346		[1967GEI/SCH, 1970COX/PIL]
	$\Delta_{sub}H$		102.1 ± 2.9			[1967GEI/SCH, 1970COX/PIL]
$C_7H_8S_3$	[14085-34-8]	4,5-tetramethylene-1,2-dithiole-3-thione				
	$\Delta_{sub}H$	(335–350)	101.6	342		[1972GEI/RAU]
	$\Delta_{sub}H$		105.3	298		[1972GEI/RAU]
$C_7H_9Cl_3NO_3PS$	[5598-13-0]	O,O-dimethyl-O-(3,5,6-trichloro-2-pyridyl)phosphorothioate				
	$\Delta_{fus}H$		25.92	318.7	DSC	[1990DON/DRE]
$C_7H_9Cl_3OS$	[79886-21-8]	2,3,3-trichloro-2-propenethioic acid, O-butyl ester				
	$\Delta_v H$	(383–433)			GC	[1980PIT/KIS]
$C_7H_9F_3N_2O_4$	[433-33-0]	glycine, N-[N-(trifluoroacetyl)glycyl]methyl ester				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(323–419)	127.9	338		[1987STE/MAL, 1960WEY/KLI]
	Δ_vH	(420–443)	93.8	431	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_9F_5O_2$	[680-28-4]	pentafluoropropionic acid, butyl ester				
	Δ_vH	(354–389)	38.6	369	A,EB	[1987STE/MAL, 1969SHE/LAN, 1999DYK/SVO]
C_7H_9N	[100-46-9]	benzylamine				
	Δ_vH	(293–362)	52.7 ± 0.3	328		[2009MOK/RAZ]
	Δ_vH	(293–362)	54.6 ± 0.3	298		[2009MOK/RAZ]
	Δ_vH	(302–458)	51.8	317	A	[1987STE/MAL, 1977CAR/LAY, 1947BEE/JUN]
C_7H_9N	[583-61-9]	2,3-dimethylpyridine				
	$\Delta_{fus}H$		13.48	258.6		[1994CHI/HOS]
	Δ_vH	(283–313)	52.0 ± 0.6	298	GS	[1999VER4]
	Δ_vH	(328–476)	45.2	340	EB	[1995STE/CHI2]
	Δ_vH	(328–476)	42.7	380	EB	[1995STE/CHI2]
	Δ_vH	(328–476)	40.2	420	EB	[1995STE/CHI2]
	Δ_vH	(328–476)	37.4	460	EB	[1995STE/CHI2]
	Δ_vH	(323–373)	47.6	298	CGC	[1995CHI/HOS]
	Δ_vH		46.9	313	C	[1985MAJ/SVO2]
	Δ_vH		45.0	343	C	[1985MAJ/SVO2]
	Δ_vH		43.5	368	C	[1985MAJ/SVO2]
	Δ_vH	(372–436)	43.0	387	A	[1987STE/MAL, 1973KKY/REP]
C_7H_9N	[108-47-4]	2,4-dimethylpyridine				
	$\Delta_{fus}H$		8.82	209.4		[1994CHI/HOS]
	Δ_vH	(323–373)	47.5	298	CGC	[1995CHI/HOS]
	Δ_vH	(288–373)	45.5	330		[1995SAK/UEO]
	Δ_vH	(331–473)	44.8	340	EB	[1995STE/CHI2]
	Δ_vH	(331–473)	42.3	380	EB	[1995STE/CHI2]
	Δ_vH	(331–473)	39.8	420	EB	[1995STE/CHI2]
	Δ_vH	(331–473)	37.0	460	EB	[1995STE/CHI2]
	Δ_vH	(298–431)	47.1	313	EB	[1990LEN]
	Δ_vH	(267–358)	47.5	282	MM	[1986WIS/LEN]
	Δ_vH		46.5	313	C	[1985MAJ/SVO2]
	Δ_vH		44.6	343	C	[1985MAJ/SVO2]
	Δ_vH		43.9	368	C	[1985MAJ/SVO2]
	Δ_vH	(349–433)	43.5	364	A	[1987STE/MAL, 1973KKY/REP]
C_7H_9N	[589-93-5]	2,5-dimethylpyridine				
	$\Delta_{fus}H$		14.64	259.1		[1994CHI/HOS]
	Δ_vH	(330–471)	44.4	340	EB	[1995STE/CHI2]
	Δ_vH	(330–471)	41.9	380	EB	[1995STE/CHI2]
	Δ_vH	(330–471)	39.4	420	EB	[1995STE/CHI2]
	Δ_vH	(330–471)	36.5	460	EB	[1995STE/CHI2]
	Δ_vH	(358–431)	42.8	373	A,MG	[1987STE/MAL, 1953HER/MAR, 1973KKY/REP]
C_7H_9N	[108-48-5]	2,6-dimethylpyridine				
	$\Delta_{fus}H$		13.04	267.1		[1994CHI/HOS]
	Δ_vH	(342–373)	45.9 ± 2.4	298	CGC	[2009LIP/CHI2]
	Δ_vH	(263–353)	45.3	298		[2005BEN/AIT]
	Δ_vH	(323–373)	46.4	298	CGC	[1995CHI/HOS]
	Δ_vH	(288–373)	43.7	330		[1995SAK/UEO]
	Δ_vH	(315–457)	43.9	320	EB	[1995STE/CHI2]
	Δ_vH	(315–457)	41.4	360	EB	[1995STE/CHI2]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(315–457)	38.8	400	EB	[1995STE/CHI2]
	$\Delta_v H$	(315–457)	36.0	440	EB	[1995STE/CHI2]
	$\Delta_v H$	(295–417)	45.0	310	EB	[1990LEN]
	$\Delta_v H$	(267–358)	46.1	282	MM	[1986WIS/LEN]
	$\Delta_v H$		44.4	313	C	[1985MAJ/SVO2]
	$\Delta_v H$		42.5	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		40.8	368	C	[1985MAJ/SVO2]
	$\Delta_v H$	(352–418)	41.6	367	A,MG	[1987STE/MAL, 1953HER/MAR]
C_7H_9N	[583-58-4]	3,4-dimethylpyridine				
	$\Delta_{fus}H$		14.7	262.7		[1994CHI/HOS]
	$\Delta_v H$	(341–495)	46.6	360	EB	[1995STE/CHI2]
	$\Delta_v H$	(341–495)	44.2	400	EB	[1995STE/CHI2]
	$\Delta_v H$	(341–495)	41.7	440	EB	[1995STE/CHI2]
	$\Delta_v H$	(341–495)	39.0	480	EB	[1995STE/CHI2]
	$\Delta_v H$	(288–422)	47.6	355		[1995SAK/UEO]
	$\Delta_v H$		48.8	328	C	[1985MAJ/SVO2]
	$\Delta_v H$		47.6	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		45.9	368	C	[1985MAJ/SVO2]
	$\Delta_v H$	(385–454)	44.8	400	A	[1987STE/MAL, 1973KKY/REP]
C_7H_9N	[591-22-0]	3,5-dimethylpyridine				
	$\Delta_{fus}H$		13.11	266.9		[1994CHI/HOS]
	$\Delta_v H$	(273–353)	48.5	298		[2005BEN/AIT]
	$\Delta_v H$	(323–373)	48.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(288–392)	47.0	340		[1995SAK/UEO]
	$\Delta_v H$	(335–487)	46.7	340	EB	[1995STE/CHI2]
	$\Delta_v H$	(335–487)	44.3	380	EB	[1995STE/CHI2]
	$\Delta_v H$	(335–487)	41.8	420	EB	[1995STE/CHI2]
	$\Delta_v H$	(335–487)	39.2	460	EB	[1995STE/CHI2]
	$\Delta_v H$	(273–358)	49.1	288	MM	[1986WIS/LEN]
	$\Delta_v H$		49.6	313	C	[1985MAJ/SVO2]
	$\Delta_v H$		46.5	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		44.8	368	C	[1985MAJ/SVO2]
	$\Delta_v H$	(373–446)	44.3	388	A	[1987STE/MAL, 1973KKY/REP]
C_7H_9N	[536-78-7]	3-ethylpyridine				
	$\Delta_v H$	(334–373)	44.6	349	A	[1987STE/MAL, 1973KKY/REP]
C_7H_9N	[100-71-0]	2-ethylpyridine				
	$\Delta_v H$		44.7 ± 0.8	298	C	[2003MOR/MIR]
	$\Delta_v H$	(323–373)	43.7	338	A	[1987STE/MAL, 1973KKY/REP]
C_7H_9N	[536-75-4]	4-ethylpyridine				
	$\Delta_v H$		46.3 ± 0.7	298	C	[2003MOR/MIR]
	$\Delta_v H$	(333–372)	45.3	348	A	[1987STE/MAL, 1973KKY/REP]
C_7H_9N	[100-61-8]	N-methylaniline				
	$\Delta_v H$	(309–469)	53.6	324	A	[1987STE/MAL]
C_7H_9N	[95-53-4]	*o*-toluidine				
	$\Delta_{fus}H$		11.66	287.6		[1994STE/CHI]
	$\Delta_v H$	(282–313)	57.3 ± 0.2	298	GS	[2005EME/VER2]
	$\Delta_v H$	(290–517)	57.8	300	EB,IP	[1994STE/CHI]
	$\Delta_v H$	(290–517)	54.5	340	EB,IP	[1994STE/CHI]
	$\Delta_v H$	(290–517)	51.5	380	EB,IP	[1994STE/CHI]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(290–517)	48.6	420	EB,IP	[1994STE/CHI]
	$\Delta_v H$	(290–517)	45.7	460	EB,IP	[1994STE/CHI]
	$\Delta_v H$	(290–517)	42.7	500	EB.IP	[1994STE/CHI]
	$\Delta_v H$		62.7 ± 0.5	298		[1990CHA/GAD, 2005EME/VER2]
	$\Delta_v H$	(473–690)	63.1	298		[1957GLA/RUL, 2005EME/VER2]
	$\Delta_v H$	(391–474)	50.0	406	A	[1987STE/MAL, 1949DRE/SHR, 1984BOU/FRI]
	$\Delta_v H$	(313–473)	56.2	298	EB	[1927BER/MAY, 2005EME/VER2]
C_7H_9N	[108-44-1]	*m*-toluidine				
	$\Delta_{fus}H$		8.8	241.7		[1991ACR]
	$\Delta_v H$	(282–313)	58.3 ± 0.4	298	GS	[2005EME/VER2]
	$\Delta_v H$		62.7 ± 0.5	298		[1990CHA/GAD, 2005EME/VER2]
	$\Delta_v H$	(420–439)	59.6 ± 0.3	298	EB	[1990CAB/BEL, 2005EME/VER2]
	$\Delta_v H$	(476–704)	64.1	298		[1957GLA/RUL, 2005EME/VER2]
	$\Delta_v H$	(394–477)	51.1	409	A	[1987STE/MAL, 1949DRE/SHR, 1984BOU/FRI]
	$\Delta_v H$	(313–473)	56.4	298	EB	[1927BER/MAY, 2005EME/VER2]
C_7H_9N	[106-49-0]	*p*-toluidine				
	$\Delta_{fus}H$		17.19	317		[2001CEN/LIP]
	$\Delta_{fus}H$		17.89	316.5		[1991ACR]
	$\Delta_{fus}H$		17.3	316.6		[1990MEV/LIC]
	$\Delta_{fus}H$		18.9	316.9		[1963RAS/NIG]
	$\Delta_{fus}H$		17.28	315.6		[1889EYK]
	$\Delta_{sub}H$	(284–313)	76.2 ± 0.3	298	GS	[2005EME/VER2]
	$\Delta_{sub}H$		78.8 ± 0.5	298		[1990CHA/GAD]
	$\Delta_v H$	(319–345)	57.8 ± 0.3	298	GS	[2005EME/VER2]
	$\Delta_v H$	(393–474)	51.1	408	A	[1987STE/MAL]
	$\Delta_v H$	(474–641)	62.1	298		[1957GLA/RUL, 2005EME/VER2]
	$\Delta_v H$	(315–473)	54.9	330		[1947STU]
	$\Delta_v H$	(313–473)	55.9	298	EB	[1927BER/MAY, 2005EME/VER2]
C_7H_9N	[1855-63-6]	1-cyclohexene-1-carbonitrile				
	$\Delta_v H$		53.6 ± 0.1	298	C	[1970PRO/KRE]
C_7H_9N	[31357-72-9]	bicyclo[3.1.0]hexane-1-carbonitrile				
	$\Delta_v H$	(366–444)	U43.2	382	BG	[1971HAL/BAL]
C_7H_9NO	[90-04-0]	2-methoxyaniline				
	$\Delta_v H$	(334–492)	57.5	349	A	[1987STE/MAL, 1947STU]
C_7H_9NO	[104-94-9]	4-methoxyaniline				
	$\Delta_{fus}H$		18.53	NA	DSC	[2008SIN/DAS]
C_7H_9NO	[3718-65-8]	3,5-dimethylpyridine N-oxide				
	$\Delta_{sub}H$		100.9 ± 2.3	298	C	[2010CAB/MON]
$C_7H_9N_5$	[87578-82-3]	8,9-dimethyladenine				
	$\Delta_{sub}H$	(369–374)	105.8 ± 0.8	361	ME	[1987KAM/ZIE]
$C_7H_9N_5$	[76470-20-7]	2,9-dimethyladenine				
	$\Delta_{sub}H$	(359–364)	123.5	371		[1992KAM]
$C_7H_9N_5$	[938-55-6]	N,N-dimethyladenine				
	$\Delta_{sub}H$	(379–409)	115.5 ± 2.1		ME	[1984ZIE/ZIE]
$C_7H_9N_5$	[2009-52-1]	N,9-dimethyladenine				
	$\Delta_{sub}H$	(336–369)	115.5 ± 1.7		ME	[1984ZIE/ZIE]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_9N_5O_{12}$	[34001-49-5]	2,2,2-trinitroethyl-4,4-dinitropentanoate				
	$\Delta_{trs}H$		20.08	363.8		
	$\Delta_{fus}H$		6.69	366.7	DSC	[1971ROS/HOL]
$C_7H_9N_5O_{12}$	[2555-56-8]	2,2-dinitropropyl-4,4,4-trinitrobutyrate				
	$\Delta_{trs}H$		25.94	284.2		
	$\Delta_{trs}H$		20.92	335.5		
	$\Delta_{fus}H$		6.69	368.2	DSC	[1971ROS/HOL]
C_7H_{10}	[498-66-8]	bicyclo[2.2.1]hept-2-ene (norbornene)				
	$\Delta_{trs}H$		4.37	130.3		
	$\Delta_{fus}H$		3.48	319.5		[1992LEB/SMI, 1992SMI/LEB]
	$\Delta_{trs}H$		4.37	130		[1992LEB/SMI]
	$\Delta_{sub}H$		37.8 ± 0.14	298	C	[1982JOC/DEK]
	$\Delta_{sub}H$		37.7 ± 0.9	298	BG	[1978STE2]
	$\Delta_{sub}H$		38.7 ± 0.5	298	C	[1976KOZ/BYC]
	$\Delta_{sub}H$		33.6 ± 0.08			[1973HAL/SMI]
	Δ_vH	(338–406)	35.1 ± 0.2	298	EB	[1996STE/CHI2]
	Δ_vH	(338–406)	33.0 ± 0.2	340	EB	[1996STE/CHI2]
	Δ_vH	(338–406)	30.8 ± 0.3	380	EB	[1996STE/CHI2]
	Δ_vH	(301–350)	34.3	316	A	[1987STE/MAL]
C_7H_{10}	[16554-83-9]	bicyclo[4.1.0]hept-3-ene				
	Δ_vH	(333–384)	36.7	348	A	[1987STE/MAL]
	Δ_vH		38.4 ± 0.6	298	EB	[1974VAR/DRU]
C_7H_{10}	[279-19-6]	tricyclo[2.2.1.0^{2,6}]heptane				
	$\Delta_{sub}H$		38.7 ± 0.7	298	BG	[1978STE2]
	$\Delta_{sub}H$		39.2 ± 1.1	298	C	[1976KOZ/BYC]
	Δ_vH		38.5	298		[2008OSM/CAT]
	Δ_vH	(302–337)	38.3	317	A	[1987STE/MAL]
C_7H_{10}	[187-26-8]	tricyclo[4.1.0.0^{2,4}]heptane				
	Δ_vH		36.5 ± 0.5	298	EB	[1974VAR/DRU]
C_7H_{10}	[na]	tricyclo[4.1.0.0^{2,6}]heptane				
	Δ_vH	(322–373)	35.3	337	A	[1987STE/MAL]
C_7H_{10}	[33475-22-8]	dispiro[2.0.2.1]heptane				
	Δ_vH		35.1 ± 0.5	298		[2008OSM/CAT]
$C_7H_{10}ClN_3O_3$	[16773-42-5]	1-(2-hydroxy-3-chloropropyl)-2-methyl-5-nitroimidazole (ornidazole)				
	$\Delta_{fus}H$		21.38	358.6		[2004WAN/TAN2]
$C_7H_{10}N_2$	[14667-55-1]	2,3,5-trimethylpyrazine				
	Δ_vH		53.9 ± 1.6	298	C	[1996RIB/MOR]
$C_7H_{10}N_2$	[538-08-9]	diallycyanamide				
	Δ_vH	(369–495)	52.3	384	A	[1987STE/MAL]
$C_7H_{10}N_2$	[646-20-8]	1,5-dicyanopentane				
	Δ_vH	(306–331)	74.5	318	A	[1987STE/MAL]
$C_7H_{10}N_2$	[95-80-7]	2,4-diaminotoluene				
	Δ_vH	(379–553)	67.7	394	A	[1987STE/MAL, 1947STU]
$C_7H_{10}N_2$	[539-44-6]	4-tolyhydrazine				
	Δ_vH	(355–515)	65.4	370	A	[1987STE/MAL, 1947STU]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_{10}N_2$	[4210-60-0]	α-*tert*-butylmalononitrile				
	$\Delta_{sub}H$	(293–323)	59.8 ± 0.7	298		[1990BEC/DOG]
$C_7H_{10}N_2$	[646-20-8]	pimelonitrile				
	$\Delta_{fus}H$		15.0	241.7	DSC	[2007BAD/BLA]
$C_7H_{10}N_2$	[1122-58-3]	4-N,N-dimethylaminopyridine				
	$\Delta_{fus}H$	(80–402)	21.63	387.1	AC	[2007SHI/TAN]
$C_7H_{10}N_2O$	[na]	6,7-diazatricyclo[3.2.2.0^{2,4}]non-6-ene-N-oxide				
	$\Delta_{trs}H$		15.8	372.6		
	$\Delta_{fus}H$		2.6	411.4		[1980BYS]
$C_7H_{10}N_2O_2$	[4401-71-2]	1,3-dimethylthymine				
	$\Delta_{sub}H$	(313–363)	109.2 ± 2.1	338	QR	[1980TEP/YAN]
$C_7H_{10}N_2O_2$	[4401-71-2]	1,3,5-trimethyluracil				
	$\Delta_{fus}H$		16.1	428.7		[1996KAM/ZIE]
	$\Delta_{sub}H$	(321–331)	103.5 ± 1.5	326	ME	[1996KAM/ZIE]
$C_7H_{10}N_2O_2$	[13509-52-9]	1,3,6-trimethyluracil				
	$\Delta_{fus}H$		21.2	384.5		[1996DOM/HEA]
	$\Delta_{sub}H$	(300–340)	106.7 ± 2.5	320	QR	[1980TEP/YAN]
$C_7H_{10}N_2O_2$	[na]	N-acetyl-(*l*)-alanine amide				
	$\Delta_{fus}H$		21.7	431		[1988FER/DEL]
$C_7H_{10}O$	[17356-19-3]	1-ethynyl-1-cyclopentanol				
	$\Delta_{v}H$	(323–373)	62.1	298	CGC	[1995CHI/HOS]
$C_7H_{10}O$	[10218-02-7]	7-norbornanone				
	$\Delta_{sub}H$	(300–340)	47.3 ± 2.2	298	BG	[1978STE]
	$\Delta_{v}H$	(322–348)	47.9	335	EB	[1994WIB/MOR]
$C_7H_{10}O$	[497-38-1]	2-norbornanone				
	$\Delta_{fus}H$		3.39	368.7		[1993ACR]
	$\Delta_{sub}H$	(300–340)	49.0 ± 1.7	298	BG	[1978STE]
	$\Delta_{v}H$		50.0	298	GC	[2002VAN/PAR]
	$\Delta_{v}H$	(343–383)	51.5	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(343–383)	49.6	298	CGC	[1995CHI/HOS]
$C_7H_{10}O_2$	[20583-46-4]	5-methyl-5-hexene-2,4-dione				
	$\Delta_{v}H$	(323–363)	26.4	338	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_{10}O_2$	[4350-84-9]	2-oxabicyclo[2.2.2]octan-3-one				
	$\Delta_{sub}H$		69.6 ± 21			[1980AND/PIL]
$C_7H_{10}O_3$	[815-68-9]	3-acetyl-2,4-pentanedione				
	$\Delta_{v}H$	(369–477)	54.9	384	A	[1987STE/MAL]
$C_7H_{10}O_3$	[106-91-2]	glycidyl methacrylate				
	$\Delta_{v}H$		61.2 ± 0.4	298	A	[1987VAN/KAC]
	$\Delta_{v}H$		60.6 ± 0.9	298	C	[1986YER/WOR2]
$C_7H_{10}O_3$	[281-32-3]	2,4,10-trioxaadamantane				
	$\Delta_{sub}H$		74.4 ± 0.4	298	C	[1974MAN2]
$C_7H_{10}O_3$	[na]	3,3-dimethylpentanedioic anhydride				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		17.99	396.2		[1974BOR]
$C_7H_{10}O_3$	[35046–67–4]	trimethylsuccinic anhydride				
	$\Delta_{sub}H$		74.1 ± 4.2			[1954JOR, 1970COX/PIL]
	Δ_vH	(326–504)	52.9	341	A	[1987STE/MAL, 1947STU]
$C_7H_{10}O_4$	[617-54-9]	dimethyl citraconate				
	Δ_vH	(324–484)	55.8	339	A	[1987STE/MAL, 1947STU]
$C_7H_{10}O_4$	[617-52-7]	dimethyl itaconate				
	Δ_vH	(342–481)	67.0	357	A	[1987STE/MAL, 1947STU]
$C_7H_{10}O_4$	[617-53-8]	dimethyl mesaconate				
	Δ_vH	(319–479)	55.2	334	A	[1987STE/MAL, 1947STU]
$C_7H_{10}O_6$	[na]	*tris*(methoxycarbonyl)methane				
	$\Delta_{fus}H$		18.2	301.2		[1995RAK/VER]
	Δ_vH	(308–348)	74.4 ± 0.6		GS	[1995RAK/VER]
$C_7H_{10}S$	[1551-27-5]	2-propylthiophene				
	Δ_vH		43.7 ± 1.0	298	C	[2007RIB/SAN]
	Δ_vH	(243–303)	46.0	273		[1981EDW/PRA, 1999DYK/SVO]
$C_7H_{10}S$	[4095-22-1]	2-isopropylthiophene				
	Δ_vH	(352–468)	41.5	367		[1999DYK/SVO]
$C_7H_{10}S_3$	[2164-87-6]	4,5-tetramethylene-1,3-dithiolan-2-thione				
	$\Delta_{sub}H$	(353–369)	99.0	360		[1967GEI/SCH, 1970COX/PIL]
	$\Delta_{sub}H$		103.9 ± 2.9	298		[1967GEI/SCH, 1970COX/PIL]
$C_7H_{11}BrO_2$	[26918-14-9]	4-bromo-3-methylcrotonic acid, ethyl ester				
	Δ_vH	(346–381)	43.1	361	A	[1987STE/MAL]
$C_7H_{11}ClO_5$	[na]	(2-chloroethyl)[(1-methoxycarbonyl)ethyl] carbonate				
	Δ_vH	(365–525)	66.8	380	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_{11}Cl_3O_2$	[57392-56-0]	trichloracetic acid, neopentyl ester				
	Δ_vH	(378–473)	57.7	393	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_{11}N$	[766-05-2]	cyclohexanecarbonitrile				
	$\Delta_{trs}H$		7.43	215		
	$\Delta_{fus}H$		3.64	285.1		[1996DOM/HEA]
	Δ_vH	(333–427)	39.4	351	BG	[1971HAL/BAL]
	Δ_vH		51.9 ± 0.1	298	C	[1970PRO/KRE]
$C_7H_{11}N$	[931-53-3]	isocyanocyclohexane				
	$\Delta_{fus}H$		3.98	277.7	DSC	[2008SIN/MUR2]
	$\Delta_{trs}H$		6.18	192.6		
	$\Delta_{fus}H$		4.23	279.6		[1996DOM/HEA]
$C_7H_{11}NO_2$	[na]	2-methyl-2-acetoxybutyronitrile				
	Δ_vH	(315–469)	58.1	330	A	[1987STE/MAL, 1947STU]
$C_7H_{11}NO_2$	[na]	5-oxo-2-pyrrolidinecarboxylic acid, ethyl ester				
	Δ_vH	(418–511)	73.7	433	A	[1987STE/MAL]
$C_7H_{11}N_3O$	[2228-27-5]	1,N,N-trimethylcytosine				
	$\Delta_{sub}H$		110.9 ± 1.7			[1998ZIE/WSZ]
$C_7H_{11}N_3O$	[25307-94-2]	1,5,N-trimethylcytosine				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(396–431)	108.0 ± 2.0		GS	[1998ZIE/WSZ]
$C_7H_{11}N_3O_2$	[na] 1,5-dimethyl-N-methoxycytosine					
	$\Delta_{sub}H$	(327–365)	95.6 ± 0.7		GS	[1998ZIE/WSZ]
$C_7H_{11}N_5O_{10}$	[242800-94-8] 1,1,1,4,4-pentanitro-2,2-dimethylpentane					
	$\Delta_{sub}H$		103.8	298		[1999MIR/VOR]
C_7H_{12}	[279-23-2] bicyclo[2.2.1]heptane (norbornane)					
	$\Delta_{fus}H$		4.45	360.8	DSC	[2004VER/EME]
	$\Delta_{sub}H$	(278–308)	40.3 ± 0.4	293	GS	[2004VER/EME]
	$\Delta_{sub}H$	(278–308)	40.1 ± 0.4	298	GS	[2004VER/EME]
	$\Delta_{sub}H$		40.0 ± 0.1	298	C	[1987AN/ZHU]
	$\Delta_{sub}H$		40.3 ± 0.32	298	C	[1982JOC/DEK]
	$\Delta_{sub}H$		40.4 ± 0.8			[1978STE2]
	$\Delta_{sub}H$	(284–326)	40.0 ± 0.8	305	TSGC	[1975CLA/KNO]
	$\Delta_{sub}H$		39.33 ± 0.13			[1973HAL/SMI]
	$\Delta_{sub}H$		40.1 ± 0.8		BG	[1971BOY/SAN, 1977PED/RYL]
C_7H_{12}	[286-08-8] *cis* bicyclo[4.1.0]heptane					
	Δ_vH		40.6 ± 0.2	298		[2008OSM/CAT]
	Δ_vH	(298–385)	38.0 ± 0.8	313	A	[1987STE/MAL, 1970CHA/MCN]
C_7H_{12}	[286-08-8] (*dl*) bicyclo[4.1.0]heptane					
	Δ_vH	(333–385)	36.5	348	A	[1987STE/MAL]
C_7H_{12}	[4625-24-5] 1-methylbicyclo[3.1.0]hexane					
	Δ_vH	(312–362)	34.0	327	A	[1987STE/MAL]
C_7H_{12}	[628-92-2] cycloheptene					
	$\Delta_{trs}H$		5.28	154		
	$\Delta_{trs}H$		0.71	210		
	$\Delta_{fus}H$		0.97	217		[1996DOM/HEA, 1994LEB/SMI]
	Δ_vH	(251–313)	38.5	266	A	[1987STE/MAL, 1941LIS]
	Δ_vH	(251–312)	36.7	300		[1941LIS]
C_7H_{12}	[765-47-9] 1,2-dimethylcyclopentene					
	Δ_vH	(294–431)	36.4	309	A	[1987STE/MAL, 1973KKY/REP]
C_7H_{12}	[62184-82-1] (*dl*) 1,3-dimethylcyclopentene					
	Δ_vH	(283–410)	35.0	298	A	[1987STE/MAL, 1973KKY/REP]
C_7H_{12}	[57426-81-0] (*dl*) 1,4-dimethylcyclopentene					
	Δ_vH	(273–413)	35.1	288	A	[1987STE/MAL, 1973KKY/REP]
C_7H_{12}	[16491-15-9] (*dl*) 1,5-dimethylcyclopentene					
	Δ_vH	(273–423)	37.1	288	A	[1987STE/MAL, 1973KKY/REP]
C_7H_{12}	[na] 1-ethylidenecyclopentane					
	Δ_vH		38.6 ± 0.2	298	GCC	[1979FUC/PEA]
C_7H_{12}	[2146-38-5] 1-ethylcyclopentene					
	Δ_vH		38.5 ± 0.3	298	GCC	[1979FUC/PEA]
	Δ_vH	(293–433)	36.5	308	A	[1987STE/MAL, 1973KKY/REP]
C_7H_{12}	[694-35-9] 3-ethylcyclopentene					
	Δ_vH	(288–435)	36.5	303	A	[1987STE/MAL, 1973KKY/REP]
C_7H_{12}	[3742-38-9] 4-ethylcyclopentene					
	Δ_vH	(288–435)	36.5	303	A	[1987STE/MAL, 1973KKY/REP]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_7H_{12}	[591-49-1]	1-methyl-1-cyclohexene				
	$\Delta_v H$	(275–313)	37.7 ± 0.2	294	GS	[2000VER/WAN]
	$\Delta_v H$	(275–313)	37.5 ± 0.2	298	GS	[2000VER/WAN]
	$\Delta_v H$	(333–384)	35.7	348	A	[1987STE/MAL, 1970EIS/ORA, 1984BOU/FRI]
	$\Delta_v H$	(309–384)	36.7	324	MM	[1960CAM/ROS]
C_7H_{12}	[591-48-0]	(*dl*) 3-methyl-1-cyclohexene				
	$\Delta_v H$	(335–376)	34.8	350	A	[1987STE/MAL, 1970EIS/ORA, 1984BOU/FRI]
C_7H_{12}	[591-47-9]	(*dl*) 4-methyl-1-cyclohexene				
	$\Delta_{fus}H$		6.63	153.6		[1994LEB/SMI]
	$\Delta_v H$	(275–296)	37.0 ± 0.6	286	GS	[2000VER/WAN]
	$\Delta_v H$	(275–296)	36.3 ± 0.6	298	GS	[2000VER/WAN]
	$\Delta_v H$	(292–429)	36.3	307	A	[1987STE/MAL]
C_7H_{12}	[1192-37-6]	methylenecyclohexane				
	$\Delta_v H$		36.1 ± 0.3	298	GCC	[1979FUC/PEA]
	$\Delta_v H$	(331–387)	34.4	346	A,EB	[1987STE/MAL, 1973MEY/HOT]
C_7H_{12}	[628-71-7]	1-heptyne				
	$\Delta_v H$	(336–373)	37.9	351	A	[1987STE/MAL, 1970EIS/ORA, 1984BOU/FRI]
C_7H_{12}	[1119-65-9]	2-heptyne				
	$\Delta_v H$	(346–385)	38.6	361	A	[1987STE/MAL, 1970EIS/ORA, 1984BOU/FRI]
C_7H_{12}	[2586-89-2]	3-heptyne				
	$\Delta_v H$	(343–380)	39.1	358	A	[1987STE/MAL, 1970EIS/ORA, 1984BOU/FRI]
$C_7H_{12}Br_2$	[29974-68-3]	1,2-dibromocycloheptane				
	$\Delta_v H$	(292–353)	50.3	307	A	[1987STE/MAL, 1941LIS, 1973KKY/REP]
$C_7H_{12}ClNO$	[13654-91-6]	6-chlorohexylisocyanate				
	$\Delta_v H$	(363–453)	52.5	378	A	[1987STE/MAL, 1968ZHU/KON, 1973KKY/REP]
$C_7H_{12}ClN_5$	[122-34-9]	2-chloro-4,6-*bis*(ethylamino)-s-triazine (Simazin)				
	$\Delta_{fus}H$		47.35	502.5	DSC	[1990DON/DRE]
	$\Delta_{sub}H$	(323–403)	130.8	338	GS-GC	[1987STE/MAL, 1964FRI/SAM]
$C_7H_{12}Cl_2O_2$	[na]	dichloroacetic acid, neopentyl ester				
	$\Delta_v H$	(368–463)	57.4	383	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_{12}Cl_2S$	[na]	(2-chloroethyl)(2-chlorocyclopentyl) sulfide				
	$\Delta_v H$	(273–333)	65.9	303	A,GS	[1987STE/MAL, 1948RED/CHA, 1999DYK/SVO]
$C_7H_{12}Cl_4$	[3922-36-9]	1,1,1,7-tetrachloroheptane				
	$\Delta_v H$	(342–455)	71.7	357		[1999DYK/SVO]
	$\Delta_v H$	(370–454)	69.9	385	A	[1987STE/MAL]
$C_7H_{12}N_2$	[3010-03-5]	1-piperidinoacetonitrile				
	$\Delta_{fus}H$		17.57	293.2		[1997WEL/VER]
	$\Delta_v H$	(303–338)	56.0 ± 0.5		GS	[1997WEL/VER]
$C_7H_{12}N_4O_{10}$	[5917-61-3]	*bis*(2,4-dinitropropyl)formal				
	$\Delta_v H$	(333–383)	84.8 ± 0.9	358		[2007RAU/BEH]
$C_7H_{12}O$	[497-37-0]	exo-norborneol				
	$\Delta_v H$		52.5	298	GC	[2002VAN/PAR]
$C_7H_{12}O$	[931-57-7]	1-methoxycyclohexene				
	$\Delta_v H$	(274–313)	44.0 ± 0.2	294	GS	[1998VER/WEL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(274–313)	43.7 ± 0.2	298	GS	[1998VER/WEL]
$C_7H_{12}O$	[502-42-1] cycloheptanone					
	$\Delta_{trs}H$		12.4	227		
	$\Delta_{trs}H$		0.43	232.6		
	$\Delta_{fus}H$		1.39	259.3		[1998GON/SZW]
	$\Delta_v H$	(343–383)	50.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(343–383)	51.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(343–383)	50.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(313–453)	48.5	328	A	[1987STE/MAL]
	$\Delta_v H$	(373–465)	44.8	388	A,EB	[1987STE/MAL, 1976MEY/HOT]
	$\Delta_v H$		49.5 ± 0.6	298		[1972WOL]
$C_7H_{12}O$	[583-60-8] 2-methylcyclohexanone					
	$\Delta_v H$	(339–437)	44.0	298	EB	[2006PAL/ORA]
	$\Delta_v H$	(331–437)	45.0	346		[1993BRU/MON]
$C_7H_{12}O$	[591-24-2] 3-methylcyclohexanone					
	$\Delta_v H$	(334–441)	44.9	349		[1993AUC/MON]
$C_7H_{12}O$	[589-92-4] 4-methylcyclohexanone					
	$\Delta_v H$	(339–444)	45.3	354		[1993AUC/MON]
$C_7H_{12}O_2$	[na] cyclobutanecarboxylic acid ethyl ester					
	$\Delta_v H$	(274–308)	44.9 ± 0.4		GS	[1998VER/KUM]
$C_7H_{12}O_2$	[176-32-9] 1,4-dioxaspiro[4.4]nonane					
	$\Delta_v H$	(278–313)	47.6 ± 0.5	298	GS	[1998VER/PEN, 2002VER]
$C_7H_{12}O_2$	[141-32-2] butyl acrylate					
	$\Delta_{fus}H$		17.31	209.5		[1996DOM/HEA]
	$\Delta_v H$	(318–419)	47.3 ± 0.3	298	EB	[1996STE/CHI2]
	$\Delta_v H$	(318–419)	45.7 ± 0.3	320	EB	[1996STE/CHI2]
	$\Delta_v H$	(318–419)	42.8 ± 0.3	360	EB	[1996STE/CHI2]
	$\Delta_v H$	(318–419)	40.0 ± 0.3	400	EB	[1996STE/CHI2]
	$\Delta_v H$	(272–421)	44.8	287	A	[1987STE/MAL, 1947STU]
$C_7H_{12}O_2$	[106-63-8] isobutyl acrylate					
	$\Delta_v H$	(330–410)	43.8	345	A	[1987STE/MAL]
$C_7H_{12}O_2$	[539-87-7] heptanolactone					
	$\Delta_v H$	(368–390)	48.2 ± 0.3	379	MM	[1991WIB/WAL]
	$\Delta_v H$	(369–390)	53.3 ± 1.3	298	MM	[1991WIB/WAL]
$C_7H_{12}O_2$	[105-21-5] γ-heptalactone					
	$\Delta_v H$	(298–363)	62.3 ± 0.3	298	GS	[2008EME/KOZ]
$C_7H_{12}O_2$	[2210-28-8] propyl methacrylate					
	$\Delta_v H$	(304–413)	41.6	319	A	[1987STE/MAL]
$C_7H_{12}O_2$	[98-89-5] cyclohexanecarboxylic acid					
	$\Delta_{fus}H$		9.2	301.9		[2008DOM/MOR]
$C_7H_{12}O_2$	[4351-54-6] cyclohexyl formate					
	$\Delta_{fus}H$		10.49	201.3		[1999KAB/KOZ]
	$\Delta_v H$	(307–434)	47.1	322		[2005STE/SUN]
	$\Delta_v H$		49.3 ± 0.2	298	C	[2004PAU/ZAI, 2003ZAI/VER]
	$\Delta_v H$	(243–273)	52.0 ± 1.3	298	ME	[2003ZAI/VER]
	$\Delta_v H$	(243–273)	49.5 ± 1.2	298	ME	[2003ZAI/VER]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_{12}O_2$	[638-10-8]	ethyl 3-methylbut-2-enoate				
	$\Delta_v H$	(274–319)	49.3 ± 0.2	298	GS	[2008EME/TOK]
$C_7H_{12}O_3$	[2461-40-7]	glycidyl butyrate				
	$\Delta_v H$		58.7 ± 0.4	298		[1987VAN/KAC]
	$\Delta_v H$		58.0 ± 0.4	298	C	[1986YER/WOR2]
$C_7H_{12}O_3$	[10235-71-9]	2-acetoxy-2-methyl-3-butanone				
	$\Delta_v H$	(337–368)	54.8	352	A	[1987STE/MAL]
$C_7H_{12}O_3$	[539-88-8]	ethyl levulinate				
	$\Delta_v H$	(320–480)	58.3	335	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$		51.6	420		[1931SCH/COW]
$C_7H_{12}O_3$	[27761-61-1]	1,4-dimethyl-2,6,7-trioxabicyclo[2.2.2]octane				
	$\Delta_{fus}H$		18.0	370.2		[1995RAK/VER2]
	$\Delta_{sub}H$		74.9	298		[1995RAK/VER2]
$C_7H_{12}O_4$	[2985-28-6]	2-acetoxypropionic acid, ethyl ester				
	$\Delta_v H$	(313–454)	57.9	328	A	[1987STE/MAL]
$C_7H_{12}O_4$	[40326-37-2]	3-acetoxypropionic acid, ethyl ester				
	$\Delta_v H$	(350–367)	72.1	358	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_{12}O_4$	[623-84-7]	1,2-propylene glycol diacetate				
	$\Delta_v H$	(318–367)	54.9	323		[2001HOR/GAR]
$C_7H_{12}O_4$	[105-53-3]	diethyl malonate				
	$\Delta_v H$	(288–318)	64.7 ± 0.2	293	GS	[1992VER/BEC]
		Note: Steele and coworkers in reference [2002STE/CHI6] refer to a personal communication with one of the authors of [1992VER/BEC]—stating that it was established that the compound studied was not diethyl malonate.				
	$\Delta_v H$	(293–318)	63.3	305	A	[1987STE/MAL]
	$\Delta_v H$	(384–468)	59.9	399	A	[1987STE/MAL]
	$\Delta_v H$	(313–472)	51.2	328	A	[1987STE/MAL, 1947STU]
$C_7H_{12}O_4$	[6065-54-9]	dimethyl dimethylmalonate				
	$\Delta_v H$	(278–307)	55.6 ± 0.8	293	GS	[1992VER/BEC]
$C_7H_{12}O_4$	[1119-40-0]	glutaric acid, dimethyl ester				
	$\Delta_v H$	(283–348)	65.7 ± 0.4	298	GS	[2006VER/KOZ]
	$\Delta_v H$	(366–483)	54.7	381	A	[1987STE/MAL]
	$\Delta_v H$	(388–483)	66.1	298	EB	[1963VLA/GRA, 2006VER/KOZ]
$C_7H_{12}O_4$	[627-91-8]	methyl adipate				
	$\Delta_v H$	(453–503)	82.9	468	A	[1987STE/MAL]
$C_7H_{12}O_4$	[111-16-0]	heptanedioic acid (pimelic acid)				
	$\Delta_{trs}H$		1.5	337.7		
	$\Delta_{fus}H$		23.7	368.2		[2005ROU/TEM]
	$\Delta_{fus}H$		27.62	377.5		[1993ACR]
	$\Delta_{sub}H$	(328–363)	153 ± 4		TPD	[2007CAP/LOV]
	$\Delta_{sub}H$	(283–300)	124		TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$	(318–336)	80.8		TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$	(288–308)	178		TPTD	[2001CHA/TOB]
		Note: Values based on the TPTD method are not consistent with values determined by other experimental methods				
	$\Delta_{sub}H$	(358–371)	136.61.0	365	ME	[1999RIB/MON]
	$\Delta_{sub}H$		139.9 ± 1.0	298		[1999RIB/MON]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(424–503)	112.0 ± 0.8	298	CGC	[2005ROU/TEM]
	$\Delta_v H$	(436–615)	88.6	451	A	[1987STE/MAL, 1947STU]
$C_7H_{12}O_4$	[126-54-5]	2,4,8,10-tetraoxaspiro[5.5]undecane				
	$\Delta_v H$		56.0			[1959FLE/MOR]
$C_7H_{12}O_4$	[534-59-8]	butylmalonic acid				
	$\Delta_{sub} H$		124.6 ± 2.3	298	ME	[2000RIB/MON]
$C_7H_{12}O_4S_2$	[na]	(*dl*) methylenebisthiopropionic acid				
	$\Delta_{fus} H$		39.33	429		[1976LEC/COL]
$C_7H_{12}O_4S_2$	[na]	(*d*) methylenebisthiopropionic acid				
	$\Delta_{fus} H$		22.59	355		[1976LEC/COL]
$C_7H_{12}O_5$	[na]	ethyl[(1-methoxycarbonyl)ethyl]carbonate				
	$\Delta_v H$	(343–473)	60.0	358	A	[1987STE/MAL]
$C_7H_{12}O_5$	[na]	2-(lactyloxy)propionic acid, methyl ester				
	$\Delta_v H$	(317–384)	72.0	332	A	[1987STE/MAL]
$C_7H_{13}Cl$	[932-78-2]	1-chloro-1-methylcyclohexane				
	$\Delta_{trs} H$		9.38	214.4		
	$\Delta_{fus} H$		1.63	234.5		[1998KAB/BLO]
$C_7H_{13}ClO$	[2528-61-2]	heptanoyl chloride				
	$\Delta_v H$	(307–418)	63.7	322	A	[1987STE/MAL, 1947STU]
$C_7H_{13}ClO_2$	[na]	chloroacetic acid, neopentyl ester				
	$\Delta_v H$	(378–448)	55.6	393	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_{13}F_3O_3$	[2339-51-7]	*tris*(2-fluoroethyl)orthoformate				
	$\Delta_v H$	(273–333)	59.7	288	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_{13}N$	[na]	2,2-dimethylpentanenitrile				
	$\Delta_v H$	(274–303)	46.9 ± 0.4		GS	[1994RAK/VER]
$C_7H_{13}N$	[629-08-3]	heptanonitrile				
	$\Delta_v H$	(280–307)	51.9 ± 0.3	298	GS	[2005EME/VER]
	$\Delta_v H$	(313–473)	46.0	328	A	[1987STE/MAL]
	$\Delta_v H$		51.9 ± 0.8	298	EB	[1973LEB/KAT, 2005EME/VER]
	$\Delta_v H$	(294–457)	46.4	309		[1947STU]
	$\Delta_v H$	(313–473)	49.1	298	EB	[1941RAL/SEL, 2005EME/VER]
	$\Delta_v H$	(314–472)	51.3 ± 0.3	298	MM	[1933HEI, 2005EME/VER]
$C_7H_{13}N$	[100-76-5]	1-azabicyclooctane				
	$\Delta_{trs} H$		5.23	196		
	$\Delta_{fus} H$		5.86	430		[1996DOM/HEA]
	$\Delta_{sub} H$		50.8 ± 0.4			[1971WON/WES, 1977PED/RYL]
	$\Delta_{sub} H$	(273–362)	50.8 ± 0.2	298		[1948BRO/SUJ, 1970COX/PIL, 1960JON]
$C_7H_{13}NO$	[2556-73-2]	N-methylcaprolactam				
	$\Delta_v H$	(340–400)	49.4	370		[1984SHC/KAP]
$C_7H_{13}NO$	[na]	2-butoxypropionitrile				
	$\Delta_v H$	(373–423)	46.7	388	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_{13}NO$	[162047-91-8]	2-methoxy-3,3-dimethylbutanenitrile				
	$\Delta_v H$	(295–324)	58.8 ± 1.1	298	GS	[1995VER/BEC]
$C_7H_{13}NO$	[162047-90-7]	2-methoxy-2-methylpentanenitrile				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(278–308)	48.5 ± 0.6	298	GS	[1995VER/BEC]
$C_7H_{13}NO$	[na]	*trans*-6-heptenoic acid amide				
	$\Delta_{sub}H$	(362–393)	97.2	377	A	[1987STE/MAL]
$C_7H_{13}NO$	[673-66-5]	ζ-enantholactam				
	$\Delta_{fus}H$		13.78	310.3		[1996DOM/HEA]
$C_7H_{13}NO$	[3612-18-8]	1-ethyl-4-piperidone				
	$\Delta_v H$		56.7 ± 0.6	298	C	[2006RIB/CAB]
$C_7H_{13}NO_2$	[na]	lactic acid N-(methallyl) amide				
	$\Delta_v H$	(360–428)	81.8	375	A	[1987STE/MAL]
$C_7H_{13}NO_2$	[na]	N-lactylmorpholine				
	$\Delta_v H$	(371–423)	62.7	386	A	[1987STE/MAL]
$C_7H_{13}NO_3$	[5143-72-6]	(*dl*) N-acetylalanine ethyl ester				
	$\Delta_v H$	(372–460)	65.2	387	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_{13}N_3O_3S$	[23135-22-0]	N,N-dimethyl-2-methylcarbamoyloxyimino-2-(methylthio)acetamide				
	$\Delta_{fus}H$		30.17	372.2	DSC	[1990DON/DRE]
$C_7H_{13}O_6P$	[7786-34-7]	mevinphos				
	$\Delta_v H$	(293–383)	68.1	308	A	[1987STE/MAL]
C_7H_{14}	[291-64-5]	cycloheptane				
	$\Delta_{trs}H$		4.98	134.8		
	$\Delta_{trs}H$		0.29	198.2		
	$\Delta_{trs}H$		0.45	212.4		
	$\Delta_{fus}H$		1.88	265.1		[1996DOM/HEA]
	$\Delta_{sub}H$		53.5	134		[1963BON]
	$\Delta_v H$	(282–333)	38.6	297	A	[1987STE/MAL]
	$\Delta_v H$	(476–604)	31.7	491	A	[1987STE/MAL]
	$\Delta_v H$	(333–398)	36.4	348	A,EB	[1987STE/MAL, 1976MEY/HOT]
	$\Delta_v H$	(283–323)	38.5	298		[1975ANA/GRO]
	$\Delta_v H$	(341–433)	36.1	356	A,EB	[1987STE/MAL, 1956FIN/SCO]
	$\Delta_v H$		38.5 ± 0.2	298		[1956FIN/SCO]
C_7H_{14}	[108-87-2]	methylcyclohexane				
	$\Delta_{fus}H$		6.69	146.6		[1996DOM/HEA]
	$\Delta_v H$	(325–374)	33.8	340		[2010SAP/UUS]
	$\Delta_v H$	(295–333)	36.2	310		[1991WU/PIV]
	$\Delta_v H$		35.1 ± 0.4	298	GC	[1987AZA]
	$\Delta_v H$	(373–511)	32.3	388	A	[1987STE/MAL]
	$\Delta_v H$	(501–573)	31.2	516	A	[1987STE/MAL]
	$\Delta_v H$		32.2	353		[1984EUB/CED]
	$\Delta_v H$		29.9	393		[1984EUB/CED]
	$\Delta_v H$		26.9	433		[1984EUB/CED]
	$\Delta_v H$		23.4	473		[1984EUB/CED]
	$\Delta_v H$		35.4 ± 0.1	298	C	[1979MAJ/SVO]
	$\Delta_v H$		34.6 ± 0.1	313	C	[1979MAJ/SVO]
	$\Delta_v H$		33.5 ± 0.1	333	C	[1979MAJ/SVO]
	$\Delta_v H$		32.5 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$		35.4	298	GCC	[1978FUC/PEA]
	$\Delta_v H$		35.3	298		[1975KUS/SAI]
	$\Delta_v H$	(308–368)	34.6	323	A	[1987STE/MAL, 1970VAL/KIL, 1984BOU/FRI]
	$\Delta_v H$		31.8	374		[1946SPI/PIT]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(299–375)	34.9	314	MM	[1945WIL/TAY]
	$\Delta_v H$	(273–348)	36.1	288		[1940STU/SAY]
C_7H_{14}	[1638-26-2]	1,1-dimethylcyclopentane				
	$\Delta_{trs}H$		6.49	146.8		
	$\Delta_{fus}H$		1.09	203.7		[1996DOM/HEA]
	$\Delta_v H$	(284–363)	34.0	299	A	[1987STE/MAL]
	$\Delta_v H$		33.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(289–362)	33.8	304		[1949FOR/NOR]
C_7H_{14}	[1192-18-3]	*cis* 1,2-dimethylcyclopentane				
	$\Delta_{trs}H$		6.65	141.5		
	$\Delta_{fus}H$		1.66	219.4		[1996DOM/HEA]
	$\Delta_v H$	(293–375)	35.5	308	A	[1987STE/MAL]
	$\Delta_v H$		35.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(298–373)	35.2	313		[1949FOR/NOR]
C_7H_{14}	[822-50-4]	(*dl*) *trans* 1,2-dimethylcyclopentane				
	$\Delta_v H$	(295–367)	34.2	310	A	[1987STE/MAL]
	$\Delta_v H$		34.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(299–366)	34.0	314		[1949FOR/NOR]
C_7H_{14}	[2532-58-3]	*cis* 1,3-dimethylcyclopentane				
	$\Delta_v H$	(295–366)	34.2	310	A	[1987STE/MAL]
	$\Delta_v H$		34.3	298		[1971WIL/ZWO]
	$\Delta_v H$		32.8 ± 0.1	323	C	[1959MCC/PEN]
	$\Delta_v H$		31.7 ± 0.1	342	C	[1959MCC/PEN]
	$\Delta_v H$		30.4 ± 0.1	364	C	[1959MCC/PEN]
	$\Delta_v H$	(299–366)	34.0	314		[1949FOR/NOR]
C_7H_{14}	[1759-58-6]	(*dl*) *trans* 1,3-dimethylcyclopentane				
	$\Delta_{fus}H$		7.41	139.5		[1996DOM/HEA]
	$\Delta_v H$	(295–367)	34.0	310	A	[1987STE/MAL]
	$\Delta_v H$		34.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(291–365)	34.2	306		[1949FOR/NOR]
C_7H_{14}	[1640-89-7]	ethylcyclopentane				
	$\Delta_{fus}H$		6.86	134.7		[1996DOM/HEA]
	$\Delta_v H$	(308–387)	35.5	323	A	[1987STE/MAL]
	$\Delta_v H$	(386–507)	32.9	401	A	[1987STE/MAL]
	$\Delta_v H$	(499–569)	31.9	514	A	[1987STE/MAL]
	$\Delta_v H$		35.6 ± 0.1	313	C	[1981SVO/CHA]
	$\Delta_v H$		34.8 ± 0.1	328	C	[1981SVO/CHA]
	$\Delta_v H$		33.9 ± 0.1	343	C	[1981SVO/CHA]
	$\Delta_v H$		33.0 ± 0.1	358	C	[1981SVO/CHA]
	$\Delta_v H$		32.5 ± 0.1	368	C	[1981SVO/CHA]
	$\Delta_v H$		36.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(302–377)	35.7	317		[1949FOR/NOR]
C_7H_{14}	[592-76-7]	1-heptene				
	$\Delta_{fus}H$		12.64	154.3		[1996DOM/HEA]
	$\Delta_v H$	(311–368)	34.6	326	A	[1987STE/MAL]
	$\Delta_v H$	(327–367)	33.9	342		[1970EIS/ORA, 1984BOU/FRI]
	$\Delta_v H$		35.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(295–318)	35.3	310	MM	[1950FOR/CAM]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(255–312)	35.9	300		[1941LIS]
	$\Delta_v H$	(273–362)	34.5	288		[1936BEN/CUT]
C_7H_{14}	[6443-92-1]	*cis* 2-heptene				
	$\Delta_v H$	(276–304)	39.0 ± 0.3	290	GS	[2000VER/WAN]
	$\Delta_v H$	(276–304)	38.6	298	GS	[2000VER/WAN]
	$\Delta_v H$	(315–372)	35.3	330	A	[1987STE/MAL]
	$\Delta_v H$	(332–371)	34.6	347		[1970EIS/ORA, 1984BOU/FRI]
	$\Delta_v H$		36.0	298		[1971WIL/ZWO]
C_7H_{14}	[14686-13-6]	*trans* 2-heptene				
	$\Delta_v H$	(314–373)	35.3	329	A	[1987STE/MAL]
	$\Delta_v H$		36.0	298		[1971WIL/ZWO]
	$\Delta_v H$	(331–370)	34.6	346		[1970EIS/ORA]
C_7H_{14}	[7642-10-6]	*cis* 3-heptene				
	$\Delta_v H$	(312–369)	35.0	327	A	[1987STE/MAL]
	$\Delta_v H$		35.6	298		[1971WIL/ZWO]
C_7H_{14}	[14686-14-7]	*trans* 3-heptene				
	$\Delta_v H$	(312–368)	34.6	327	A	[1987STE/MAL]
	$\Delta_v H$		35.6	298		[1971WIL/ZWO]
C_7H_{14}	[6094-02-6]	2-methyl-1-hexene				
	$\Delta_v H$	(318–390)	33.9	333	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		35.1	298		[1971WIL/ZWO]
C_7H_{14}	[3404-61-3]	(*dl*) 3-methyl-1-hexene				
	$\Delta_v H$	(311–381)	33.4	326	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		34.3	298		[1971WIL/ZWO]
C_7H_{14}	[3769-23-1]	(*dl*) 4-methyl-1-hexene				
	$\Delta_v H$	(313–384)	33.6	328	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		34.7	298		[1971WIL/ZWO]
C_7H_{14}	[3524-73-0]	5-methyl-1-hexene				
	$\Delta_v H$	(313–393)	33.5	328	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		34.3	298		[1971WIL/ZWO]
C_7H_{14}	[2738-19-4]	2-methyl-2-hexene				
	$\Delta_v H$	(322–394)	34.0	337	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		35.6	298		[1971WIL/ZWO]
C_7H_{14}	[10574-36-4]	*cis* 3-methyl-2-hexene				
	$\Delta_v H$	(322–396)	34.2	337	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		35.6	298		[1971WIL/ZWO]
C_7H_{14}	[20710-38-7]	*trans* 3-methyl-2-hexene				
	$\Delta_v H$	(321–394)	34.1	336	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		35.6	298		[1971WIL/ZWO]
C_7H_{14}	[3683-19-0]	*cis* 4-methyl-2-hexene				
	$\Delta_v H$	(313–384)	33.5	328	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		34.7	298		[1971WIL/ZWO]
C_7H_{14}	[3683-22-5]	*trans* 4-methyl-2-hexene				
	$\Delta_v H$	(314–385)	33.6	329	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		34.7	298		[1971WIL/ZWO]
C_7H_{14}	[13151-17-2]	*cis* 5-methyl-2-hexene				
	$\Delta_v H$	(354–372)	32.6	363	A	[1987STE/MAL, 1973KKY/REP]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		34.7	298		[1971WIL/ZWO]
C_7H_{14}	[3683-22-5]	*trans* 5-methyl-2-hexene				
	$\Delta_v H$	(315–386)	33.6	330	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		34.7	298		[1971WIL/ZWO]
C_7H_{14}	[15840-60-5]	*cis* 2-methyl-3-hexene				
	$\Delta_v H$	(262–383)	36.1	277	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		34.3	298		[1971WIL/ZWO]
C_7H_{14}	[692-24-0]	*trans* 2-methyl-3-hexene				
	$\Delta_v H$	(313–383)	33.5	328	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		34.3	298		[1971WIL/ZWO]
C_7H_{14}	[4914-89-0]	*cis* 3-methyl-3-hexene				
	$\Delta_v H$	(307–375)	35.4	322	A	[1987STE/MAL]
	$\Delta_v H$		36.4	298		[1971WIL/ZWO]
	$\Delta_v H$	(302–368)	35.7	317	MM	[1960CAM/ROS]
C_7H_{14}	[3899-36-3]	*trans* 3-methyl-3-hexene				
	$\Delta_v H$	(310–368)	34.8	325	A	[1987STE/MAL]
	$\Delta_v H$		35.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(300–367)	35.3	315	MM	[1960CAM/ROS]
C_7H_{14}	[3404-72-6]	(*dl*) 2,3-dimethylpent-1-ene				
	$\Delta_v H$	(311–382)	33.4	326	A	[1987STE/MAL, 1973KKY/REP]
C_7H_{14}	[na]	2,3-dimethylpent-2-ene				
	$\Delta_v H$		34.3	298		[1971WIL/ZWO]
C_7H_{14}	[2213-32-3]	2,4-dimethylpent-1-ene				
	$\Delta_v H$	(311–361)	32.3	326	A	[1987STE/MAL]
	$\Delta_v H$		33.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(289–355)	33.2	304	MM	[1960CAM/ROS]
C_7H_{14}	[3404-73-7]	3,3-dimethylpent-1-ene				
	$\Delta_v H$	(306–374)	33.0	321	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		33.5	298		[1971WIL/ZWO]
C_7H_{14}	[7385-78-6]	(*dl*) 3,4-dimethylpent-1-ene				
	$\Delta_v H$	(309–378)	33.2	324	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		33.9	298		[1971WIL/ZWO]
C_7H_{14}	[762-62-9]	4,4-dimethylpent-1-ene				
	$\Delta_v H$	(299–347)	31.0	314	A	[1987STE/MAL]
	$\Delta_v H$		31.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(290–346)	31.0	315	MM	[1960CAM/ROS]
C_7H_{14}	[10574-37-5]	2,3-dimethylpent-2-ene				
	$\Delta_v H$	(322–396)	34.2	337	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		35.6	298		[1971WIL/ZWO]
C_7H_{14}	[625-65-0]	2,4-dimethylpent-2-ene				
	$\Delta_v H$	(276–297)	35.2 ± 1.5	286	GS	[2000VER/WAN]
	$\Delta_v H$	(276–297)	34.5 ± 1.5	298	GS	[2000VER/WAN]
	$\Delta_v H$	(286–363)	34.5	301	A	[1987STE/MAL]
	$\Delta_v H$		34.3	298		[1971WIL/ZWO]
	$\Delta_v H$	(292–357)	34.2	307	MM	[1960CAM/ROS]
C_7H_{14}	[4914-91-4]	*cis* 3,4-dimethylpent-2-ene				
	$\Delta_v H$	(316–387)	33.7	331	A	[1987STE/MAL, 1973KKY/REP]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		34.7	298		[1971WIL/ZWO]
C_7H_{14}	[4914-92-5]	*trans* 3,4-dimethylpent-2-ene				
	$\Delta_v H$	(317–390)	33.9	332	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		35.1	298		[1971WIL/ZWO]
C_7H_{14}	[762-63-0]	*cis* 4,4-dimethylpent-2-ene				
	$\Delta_v H$	(303–355)	32.2	318	A	[1987STE/MAL]
	$\Delta_v H$		32.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(291–354)	32.6	306	MM	[1960CAM/ROS]
C_7H_{14}	[690-08-4]	*trans* 4,4-dimethylpent-2-ene				
	$\Delta_v H$	(295–352)	32.8	310	A	[1987STE/MAL]
	$\Delta_v H$		32.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(289–350)	33.0	304	MM	[1960CAM/ROS]
C_7H_{14}	[7357-93-9]	2-ethyl-3-methyl-1-butene				
	$\Delta_v H$	(303–381)	33.8	318	A	[1987STE/MAL]
	$\Delta_v H$		34.3	298		[1971WIL/ZWO]
	$\Delta_v H$	(290–360)	34.4	305	MM	[1960CAM/ROS]
C_7H_{14}	[3404-71-5]	2-ethyl-1-pentene				
	$\Delta_v H$	(267–392)	36.6	282	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		35.1	298		[1971WIL/ZWO]
C_7H_{14}	[4038-04-4]	3-ethyl-1-pentene				
	$\Delta_v H$	(311–382)	33.4	326	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		34.3	298		[1971WIL/ZWO]
C_7H_{14}	[816-79-5]	3-ethyl-2-pentene				
	$\Delta_v H$	(321–395)	34.1	336	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		35.6	298		[1971WIL/ZWO]
C_7H_{14}	[594-56-9]	2,3,3-trimethyl-1-butene				
	$\Delta_v H$	(288–353)	32.4	303	A	[1987STE/MAL]
	$\Delta_v H$		34.3	298		[1971WIL/ZWO]
	$\Delta_v H$	(288–351)	32.1	303	MM	[1960CAM/ROS]
$C_7H_{14}Br_2$	[59104-79-9]	1,1-dibromoheptane				
	$\Delta_v H$	(395–548)	54.4	410	A,E	[1987STE/MAL, 1956MAN, 1970DYK/VAN]
$C_7H_{14}Br_2$	[42474-21-5]	(*dl*) 1,2-dibromoheptane				
	$\Delta_v H$	(295–553)	52.9	310	A	[1987STE/MAL, 1973KKY/REP, 1999DYK/SVO]
	$\Delta_v H$	(295–355)	54.4	300		[1941LIS]
$C_7H_{14}Cl_2$	[821-25-0]	1,1-dichloroheptane				
	$\Delta_v H$	(375–460)	53.5	298		[1987VAR/LOS2, 1991BAS/SVO]
	$\Delta_v H$	(364–510)	48.4	379	A,E	[1987STE/MAL, 1956MAN, 1970DYK/VAN]
$C_7H_{14}Cl_2$	[10575-87-8]	1,2-dichloroheptane				
	$\Delta_v H$	(353–466)	49.0	368		[1999DYK/SVO]
	$\Delta_v H$	(350–470)	53.2	298		[1982VAR/PUC, 1991BAS/SVO]
$C_7H_{14}Cl_2$	[821-76-1]	1,7-dichloroheptane				
	$\Delta_v H$	(406–491)	52.3	421		[1999DYK/SVO]
	$\Delta_v H$	(410–490)	61.2	298		[1988VAR/LOS, 1991BAS/SVO]
$C_7H_{14}F_2$	[407-96-5]	1,1-difluoroheptane				
	$\Delta_v H$	(311–424)	41.1	326	A,E	[1987STE/MAL, 1956MAN, 1970DYK/VAN]
$C_7H_{14}NO_5P$	[6923-22-4]	dimethyl (E)-1-methyl-2-methylcarbamoylvinyl phosphate				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		22.36	326.9	DSC	[1990DON/DRE]
$C_7H_{14}N_2$	[5351-04-2]	3-(diethylamino)propionitrile				
	Δ_vH	(338–470)	53.7	353	A	[1987STE/MAL]
$C_7H_{14}N_2$	[na]	2-(diethylamino)propionitrile				
	Δ_vH	(278–315)	50.8 ± 0.3		GS	[1997WEL/VER]
$C_7H_{14}N_2$	[2721-31-5]	3,3,5,5-tetramethyl-1-pyrazoline				
	$\Delta_{sub}H$		61.6 ± 0.2	298		[1976ENG/MEL]
$C_7H_{14}N_2O_2$	[37933-88-3]	N-acetyl L-valinamide				
	$\Delta_{fus}H$		39.1	509		[1997SAN/ROC]
	$\Delta_{sub}H$		129.8 ± 1.9	376	C	[1999DEL/BAR]
	$\Delta_{sub}H$		133.1 ± 2.2	298		[1999DEL/BAR]
	$\Delta_{sub}H$	(391–425)	126 ± 2.0	418		[1990PUL/MAT]
$C_7H_{14}N_2O_2$	[1740-56-3]	pimelamide				
	$\Delta_{fus}H$		44.56	446.8	DSC	[2006BAD/DEL]
$C_7H_{14}N_2O_2S$	[116-06-3]	2-methyl-2(methylthio)propanal, O-[(methylamino)-carbonyl]oxime				
	$\Delta_{fus}H$		22.71	374	DSC	[1990DON/DRE]
	$\Delta_{sub}H$	(298–323)	80.0	310	ME	[1987STE/MAL, 1976DEP]
$C_7H_{14}O$	[5063-65-0]	1,2-epoxyheptane				
	Δ_vH	(305–414)	45.5	320	A	[1987STE/MAL, 1970VOJ/CIH]
$C_7H_{14}O$	[502-41-0]	cycloheptanol				
	$\Delta_{trs}H$		0.45	227.9		
	$\Delta_{trs}H$		0.78	250.4		
	$\Delta_{fus}H$		1.51	278.3		[2003RUT/SAL]
	$\Delta_{trs}H$		2.93	172.2		
	$\Delta_{trs}H$		0.55	227.3		
	$\Delta_{trs}H$		0.88	258.4		
	$\Delta_{fus}H$		1.6	280.3		[1996DOM/HEA]
	Δ_vH	(284–323)	64.7	299	A	[1987STE/MAL]
	Δ_vH	(284–321)	67.4	299		[1975CAB/CON2]
$C_7H_{14}O$	[590-67-0]	1-methylcyclohexanol				
	$\Delta_{fus}H$		14.32	299.4		[1998KAB/BLO]
	$\Delta_{fus}H$		10.87	299.2		[1985WIB/WAS]
	$\Delta_{sub}H$		75.9 ± 0.4	291	C	[1998KAB/BLO]
	Δ_vH	(340–430)	49.1	355	A	[1987STE/MAL]
$C_7H_{14}O$	[583-59-5]	2-methylcyclohexanol				
	Δ_vH	(361–439)	51.7	376	EB	[2007PAL/ORA]
	Δ_vH	(323–373)	63.3	298	CGC	[1995CHI/HOS]
$C_7H_{14}O$	[7443-70-1]	*cis* 2-methylcyclohexanol				
	Δ_vH		61.8			[1975VIL/PER]
$C_7H_{14}O$	[na]	3-methylcyclohexanol				
	Δ_vH	(323–373)	65.5	298	CGC	[1995CHI/HOS]
$C_7H_{14}O$	[24965-90-0]	(*dl*) *cis* 3-methylcyclohexanol				
	Δ_vH	(340–450)	54.3	355	A	[1987STE/MAL]
$C_7H_{14}O$	[23068-71-5]	(*dl*) *trans* 3-methylcyclohexanol				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(350–450)	50	365	A	[1987STE/MAL]
$C_7H_{14}O$	[na]	4-methylcyclohexanol				
	$\Delta_v H$	(323–373)	65.9	298	CGC	[1995CHI/HOS]
$C_7H_{14}O$	[7731-28-4]	*cis* 4-methylcyclohexanol				
	$\Delta_v H$	(340–450)	49.9	355	A	[1987STE/MAL]
$C_7H_{14}O$	[7731-29-5]	*trans* 4-methylcyclohexanol				
	$\Delta_v H$	(340–350)	52.1	355	A	[1987STE/MAL]
$C_7H_{14}O$	[1462-96-0]	1-ethyl-1-cyclopentanol				
	$\Delta_v H$	(347–426)	58.4	362	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_{14}O$	[110-43-0]	2-heptanone				
	$\Delta_{fus}H$		19.71	237.7		[1996FIE/JOH]
	$\Delta_v H$	(343–383)	46.1	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(343–383)	48.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(303–424)	47.5	318	A	[1987STE/MAL]
	$\Delta_v H$	(449–480)	39.1	464	A	[1987STE/MAL]
	$\Delta_v H$		47.4 ± 0.3	298	GCC	[1979SAL/PEA]
	$\Delta_v H$		47.2 ± 0.1	298	C	[1979SUN/SVE2]
	$\Delta_v H$	(327–457)	44.7	342		[1987STE/MAL, 1975AMB/ELL]
	$\Delta_v H$		48.0	298		[1975AMB/ELL]
$C_7H_{14}O$	[123-19-3]	3-heptanone				
	$\Delta_{fus}H$		17.53	236		[1996FIE/JOH]
$C_7H_{14}O$	[123-19-3]	4-heptanone				
	$\Delta_{fus}H$		16.16	240.2		[1996FIE/JOH]
	$\Delta_v H$	(343–383)	47.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		46.2 ± 0.4	298	GCC	[1979SAL/PEA]
	$\Delta_v H$	(304–490)	45.5	319	A	[1987STE/MAL, 1975AMB/ELL]
	$\Delta_v H$		46.7	298		[1975AMB/ELL]
	$\Delta_v H$	(296–417)	57.5	311	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$	(283–323)	40.7	303		[1937RIN/SAY]
$C_7H_{14}O$	[7379-12-6]	2-methyl-3-hexanone				
	$\Delta_v H$	(296–406)	41.3	311	A	[1987STE/MAL]
$C_7H_{14}O$	[564-04-5]	2,2-dimethyl-3-pentanone				
	$\Delta_v H$		42.3 ± 0.1	298	C	[1970SEL2]
	$\Delta_v H$		42.3 ± 0.1	298	C	[1966WAD]
$C_7H_{14}O$	[565-80-0]	2,4-dimethyl-3-pentanone				
	$\Delta_{fus}H$		11.2	204.8		[1996DOM/HEA]
	$\Delta_v H$	(321–399)	39.4	336	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$		41.6 ± 0.1	298	C	[1970SEL2]
	$\Delta_v H$		41.5 ± 0.1	298	C	[1966WAD]
$C_7H_{14}O$	[111-71-7]	heptanal				
	$\Delta_{fus}H$		22.89	229.3		[1980DYA/VAS]
	$\Delta_v H$	(313–353)	48.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		47.3 ± 0.1	298		[1981DYA/KOR]
	$\Delta_v H$		48.0 ± 1.3	298	EB	[1960NIC, 2003VER/KRA2]
	$\Delta_v H$	(285–428)	62.0	300		[1947STU]
$C_7H_{14}O$	[19269-28-4]	3-methylhexanal				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(314–417)	42.8	329	EB	[1987MIL/FEN]
$C_7H_{14}O$	[19353-21-0]	3,4-dimethylpentanal				
	$\Delta_v H$	(319–417)	42.4	334	EB	[1987MIL/FEN]
$C_7H_{14}O_2$	[931-94-2]	1,1-dimethoxycyclopentane				
	$\Delta_v H$	(278–318)	44.5 ± 0.3	298	GS	[1998VER/PEN, 2002VER]
	$\Delta_v H$	(307–343)	46.1	325	EB	[1994WIB/MOR]
$C_7H_{14}O_2$	[106-70-7]	methyl hexanoate				
	$\Delta_v H$	(281–331)	48.4 ± 0.2	298	GS	[2008VER/EME]
	$\Delta_v H$		45.2	350		[2002VAN/VAN]
	$\Delta_v H$		46.4 ± 0.1	325		[2002VAN/VAN]
	$\Delta_v H$		47.7 ± 0.1	298		[2002VAN/VAN]
	$\Delta_v H$	(313–363)	47.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(313–353)	48.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		47.8 ± 0.5	298	GC	[1987AZA]
	$\Delta_v H$		48.7 ± 0.3	298	GCC	[1980FUC/PEA]
	$\Delta_v H$		48.0 ± 0.1	298	C	[1977MAN/SEL]
	$\Delta_v H$	(315–383)	45.3	330	A	[1987STE/MAL, 1963ROS/SCH]
$C_7H_{14}O_2$	[590-01-2]	butyl propionate				
	$\Delta_v H$	(305–417)	49.1	320	A	[1987STE/MAL]
	$\Delta_v H$	(305–365)	47.4	320		[1959USA/DEM2, 1984BOU/FRI]
$C_7H_{14}O_2$	[3938-95-2]	ethyl pivalate				
	$\Delta_v H$	(308–429)	39.8 ± 0.1	320	EB	[2002STE/CHI4]
	$\Delta_v H$	(308–429)	36.9 ± 0.2	360	EB	[2002STE/CHI4]
	$\Delta_v H$	(308–429)	33.8 ± 0.6	400	EB	[2002STE/CHI4]
			41.3 ± 0.1	298	C	[1966WAD]
$C_7H_{14}O_2$	[108-64-5]	ethyl isovalerate				
	$\Delta_v H$	(301–418)	42.8	316	A	[1987STE/MAL]
	$\Delta_v H$	(267–407)	44.5	282		[1947STU]
$C_7H_{14}O_2$	[540-42-1]	isobutyl propionate				
	$\Delta_v H$	(271–410)	44.9	286	A	[1987STE/MAL, 1947STU]
$C_7H_{14}O_2$	[123-92-2]	isopentyl acetate				
	$\Delta_v H$	(230–435)	46.4	300		[1999DIA/GUE]
	$\Delta_v H$	(278–305)	46.8 ± 0.2	292	GS	[1999VER/HEI]
	$\Delta_v H$	(278–305)	46.4 ± 0.2	298	GS	[1999VER/HEI]
	$\Delta_v H$	(308–424)	44.3	323	A	[1987STE/MAL]
	$\Delta_v H$	(313–368)	45.1	328		[1959TER/BRI, 1984BOU/FRI]
$C_7H_{14}O_2$	[617-50-5]	isopropyl isobutyrate				
	$\Delta_v H$	(257–394)	43.3	272	A	[1987STE/MAL, 1947STU]
$C_7H_{14}O_2$	[107-70-0]	4-methoxy-4-methyl-2-pentanone				
	$\Delta_v H$	(343–423)	45.0	358	A	[1987STE/MAL]
$C_7H_{14}O_2$	[10250-48-3]	methyl *tert*-butylacetate				
	$\Delta_v H$	(274–313)	43.9 ± 0.2	298	GS	[2008VER/EME]
	$\Delta_v H$	(274–313)	44.4 ± 0.2	298	GS	[1996VER/BEC]
$C_7H_{14}O_2$	[926-41-0]	neopentyl acetate				
	$\Delta_v H$	(301–400)	49.1	316	A	[1987STE/MAL]
$C_7H_{14}O_2$	[625-16-1]	*tert*-pentyl acetate				
	$\Delta_v H$	(274–308)	40.3	298	GS	[2008VER/EME]
	$\Delta_v H$		42.8	209	CGC	[2000MAT/MIR]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(274–308)	42.8 ± 0.3	298	GS	[1996VER/BEC]
$C_7H_{14}O_2$	[628-63-7]	pentyl acetate				
	$\Delta_v H$	(321–462)	48.6 ± 0.4	298	EB	[1996STE/CHI]
	$\Delta_v H$	(329–423)	43.2	344	A	[1987STE/MAL]
$C_7H_{14}O_2$	[105-66-8]	propyl butyrate				
	$\Delta_v H$	(390–430)	39.6	405		[1995ORT/GAL]
	$\Delta_v H$	(355–416)	42.0	370		[1993FAR/WIC]
	$\Delta_v H$	(271–416)	44.3	286	A	[1987STE/MAL, 1947STU]
$C_7H_{14}O_2$	[644-49-5]	propyl isobutyrate				
	$\Delta_v H$	(267–407)	50.5	282	A	[1987STE/MAL, 1947STU]
$C_7H_{14}O_2$	[na]	ethyl 2-methylbutanoate				
	$\Delta_v H$	(288–308)	64.7	298	GS	[1992VER/BEC]
$C_7H_{14}O_2$	[2426-08-6]	butyl glycidyl ether				
	$\Delta_v H$		53.3 ± 0.4			[1987VAN/KAC]
$C_7H_{14}O_2$	[7665-72-7]	*tert*-butyl glycidyl ether				
	$\Delta_v H$		50.2 ± 0.4			[1987VAN/KAC]
$C_7H_{14}O_2$	[na]	2,2,4-trimethyl-1,3-dioxane				
	$\Delta_v H$		41.9 ± 1.2	298		[1967PIH/HEI]
$C_7H_{14}O_2$	[4352-98-1]	2-methyl-2-propyl-1,3-dioxolane				
	$\Delta_v H$	(278–313)	46.3 ± 0.3	298	GS	[1998VER/PEN, 2002VER]
$C_7H_{14}O_2$	[4405-16-7]	2-methyl-2-isopropyl-1,3-dioxolane				
	$\Delta_v H$	(274–303)	43.9 ± 0.2	298	GS	[2002VER]
	$\Delta_v H$	(273–303)	44.6 ± 0.2	298	GS	[1998VER/PEN]
$C_7H_{14}O_2$	[3814-55-9]	[(1-methylpropoxy)methyl]oxirane				
	$\Delta_v H$		45.2 ± 1.8			[1987VAN/KAC]
$C_7H_{14}O_2$	[111-14-8]	heptanoic acid				
	$\Delta_{trs}H$		2.04	224.8		
	$\Delta_{fus}H$		15.44	265.8		[1996DOM/HEA, 1991LAB/WES]
	$\Delta_v H$	(413–453)	69.0	428		[2004CLI/RAM]
	$\Delta_v H$	(283–328)	72.5 ± 0.8	306	GS	[2000VER2]
	$\Delta_v H$	(283–328)	72.9 ± 0.8	298	GS	[2000VER2]
	$\Delta_v H$	(353–393)	75.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		76.0	266		[1982DEK/SCH]
	$\Delta_v H$	(271–291)	72.0 ± 1.5	298	TE	[1979DEK/OON]
	$\Delta_v H$	(351–495)	68.3	366	A	[1987STE/MAL, 1947STU]
$C_7H_{14}O_3$	[33415-52-0]	*tert*-butylperoxymethyloxirane				
	$\Delta_v H$		53.9 ± 0.4			[1987VAN/KAC]
$C_7H_{14}O_3$	[20706-25-6]	2-propoxyethylacetate				
	$\Delta_v H$		55.6 ± 0.1	298	C	[1970KUS/WAD]
$C_7H_{14}O_3$	[138-22-7]	(*dl*) butyl lactate				
	$\Delta_v H$	(391–460)	49.9	406		[2005PEN/MUR]
	$\Delta_v H$	(339–456)	58.7	354	A	[1987STE/MAL]
$C_7H_{14}O_3$	[763-69-9]	3-ethoxypropionic acid, ethyl ester				
	$\Delta_v H$	(312–446)	45.5	327	A	[1987STE/MAL]
$C_7H_{14}O_3$	[na]	1-heptene ozonide				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(353–373)	44.4	363	A	[1987STE/MAL, 1977BOL/MAK]
$C_7H_{14}O_3$	[na]	4-(2-hydroxyethyl)-4-methyl-1,3-dioxane				
	$\Delta_v H$	(329–455)	51.7	344	A	[1987STE/MAL]
$C_7H_{14}O_3$	[na]	3-hydroxypropionic acid, butyl ester				
	$\Delta_v H$	(361–382)	60.3	371	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_{14}O_3$	[5349-56-4]	3-methoxypropionic acid, propyl ester				
	$\Delta_v H$	(323–433)	47.0	338	A	[1987STE/MAL]
$C_7H_{14}O_3$	[14144-39-9]	3-propoxypropionic acid, methyl ester				
	$\Delta_v H$	(323–453)	46.6	338	A	[1987STE/MAL]
$C_7H_{14}O_3$	[557-25-5]	(*dl*) butyric acid, 2,3-dihydroxypropyl ester				
	$\Delta_v H$	(392–449)	80.4	407	A	[1987STE/MAL]
$C_7H_{14}O_3$	[14620-87-2]	2-butoxypropionic acid				
	$\Delta_v H$	(373–473)	52.8	388	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_{14}O_3$	[623-96-1]	dipropyl carbonate				
	$\Delta_v H$	(274–318)	53.2 ± 0.3	298	GS	[2008KOZ/EME]
$C_7H_{14}O_6$	[na]	1-methoxy-α-(*d*)-glucopyranoside				
	$\Delta_{fus}H$		35.11	436	DSC	[2000AGU/GUA]
	$\Delta_{fus}H$		37.6	424.2		[1996SCH]
$C_7H_{14}O_6$	[na]	3-methoxy-α-(*d*)-glucopyranoside				
	$\Delta_{fus}H$		41.3	425.6		[1996SCH]
$C_7H_{14}O_6$	[na]	methyl α-(*d*)-mannopyranoside				
	$\Delta_{fus}H$		44.7	455.2		[1996SCH]
$C_7H_{14}O_6$	[na]	methyl-α-(*d*)-glucopyranoside				
	$\Delta_{fus}H$		35.11	436		[2000AGU/GUA]
$C_7H_{14}O_6$	[na]	methyl-β-(*d*)-glucopyranoside				
	$\Delta_{fus}H$		27.03	384.9		[2000AGU/GUA]
$C_7H_{14}O_6$	[na]	methyl-α-(*d*)-galactopyranoside				
	$\Delta_{fus}H$		27.95	397.6		[2000AGU/GUA]
$C_7H_{14}O_6$	[na]	methyl-β-(d)-galactopyranoside				
	$\Delta_{fus}H$		33.18	450.9		[2000AGU/GUA]
$C_7H_{14}S$	[37850-75-2]	allyl *tert*-butyl sulfide				
	$\Delta_v H$	(319–339)	41.9	332		[1999DYK/SVO]
	$\Delta_v H$	(319–339)	43.1	329	A,EB	[1987STE/MAL, 1962MAC/MAY3]
	$\Delta_v H$	(319–339)	44.8	298	EB	[1962MAC/MAY3]
$C_7H_{15}Br$	[629-04-9]	1-bromoheptane				
	$\Delta_{fus}H$		21.76	214.4		[1950CRO/SMY]
	$\Delta_v H$	(341–481)	47.0	356		[1999DYK/SVO]
	$\Delta_v H$	(323–363)	50.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		50.8 ± 0.1	298	C	[1968WAD]
	$\Delta_v H$		50.4 ± 0.2	298	C	[1966WAD]
	$\Delta_v H$	(333–483)	47.5	348	A,E	[1987STE/MAL, 1961LI/ROS]
$C_7H_{15}Br$	[1974-04-5]	(*dl*) 2-bromoheptane				
	$\Delta_v H$	(333–440)	45.0	348	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_{15}Cl$	[629-06-1]	1-chloroheptane				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(326–462)	45.1	341		[1999DYK/SVO]
	$\Delta_v H$	(313–353)	47.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(300–430)	47.0	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(307–434)	46.9	322	A,DTA	[1987STE/MAL, 1969KEM/KRE]
	$\Delta_v H$		47.7 ± 0.1	298	C	[1968WAD]
$C_7H_{15}Cl$	[1001-89-4]	(*dl*) 2-chloroheptane				
	$\Delta_v H$	(313–424)	44.8	328	A	[1987STE/MAL, 1999DYK/SVO]
$C_7H_{15}Cl_2N$	[52802-03-6]	N-methyl-*bis*(2-chloropropyl)amine				
	$\Delta_v H$	(273–333)	54.6	288	A,GS	[1987STE/MAL, 1948RED/CHA3, 1973KKY/REP]
$C_7H_{15}Cl_2N$	[621-68-1]	N-propyl-*bis*(2-chloroethyl)amine				
	$\Delta_v H$	(273–369)	56.8	288	A,GS	[1987STE/MAL, 1948RED/CHA3, 1973KKY/REP]
$C_7H_{15}Cl_2N_2O_2P$	[50-18-0]	2-[*bis*(2-chloroethyl)amino]tetrahydro-2*H*-1,3,2-oxazophosphorine-2-oxide				
	$\Delta_{fus}H$		33.13	322.6	DSC	[1990DON/DRE]
$C_7H_{15}F$	[661-11-0]	1-fluoroheptane				
	$\Delta_v H$	(294–416)	40.3	309		[1999VER2]
	$\Delta_v H$	(287–417)	40.8	302	A,E	[1987STE/MAL, 1961LI/ROS]
$C_7H_{15}I$	[4282-40-0]	1-iodoheptane				
	$\Delta_v H$	(373–513)	55.0	298		[2006BOL/NER, 1961LI/ROS]
	$\Delta_v H$	(373–513)	47.8	388	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_7H_{15}N$	[766-09-6]	N-ethylpiperidine				
	$\Delta_v H$	(274–313)	41.1 ± 0.6	294	GS	[1998VER6]
	$\Delta_v H$	(274–313)	40.8 ± 0.6	298	GS	[1998VER6]
$C_7H_{15}N$	[766-80-6]	1-ethylpiperdine				
	$\Delta_v H$		39.4 ± 0.7	298	C	[2006RIB/CAB6]
$C_7H_{15}N$	[1484-80-6]	2-ethylpiperdine				
	$\Delta_v H$		42.2 ± 0.9	298	C	[2006RIB/CAB6]
$C_7H_{15}N$	[766-17-6]	*cis* 2,6-dimethylpiperidine				
	$\Delta_v H$	(295–365)	39.7 ± 0.1	330		[2009MOK/RAZ]
	$\Delta_v H$	(295–365)	41.3 ± 0.1	298		[2009MOK/RAZ]
	$\Delta_v H$		42.4 ± 0.6	298	C	[2006RIB/CAB5]
		Note: Authors indicate that the compound is *cis* 2,6-dimethylpiperidine; however they give the CAS registry number of 504-03-0 (which does not specify *cis* or *trans* isomer).				
$C_7H_{15}N$	[35794-11-7]	3,5-dimethylpiperidine				
	$\Delta_v H$		49.1 ± 0.6	298	C	[2006RIB/CAB5]
$C_7H_{15}N$	[1121-92-2]	octahydroazocine				
	$\Delta_v H$	(273–313)	46.5	288	A	[1987STE/MAL]
$C_7H_{15}NO$	[3040-44-6]	1-piperidineethanol				
	$\Delta_v H$		64.2 ± 0.8	298	C	[2006RIB/CAB4]
$C_7H_{15}NO$	[1484-84-0]	2-piperidineethanol				
	$\Delta_v H$		75.2 ± 0.5	298	C	[2006RIB/CAB4]
$C_7H_{15}NO$	[20845-34-5]	1-methyl-2-piperidinemethanol				
	$\Delta_v H$		68.2 ± 0.7	298	C	[2006RIB/CAB4]
$C_7H_{15}NO$	[13444-24-1]	1-ethyl-3-piperidinol				
	$\Delta_v H$		75.7 ± 0.4	298	C	[2006RIB/CAB2]
$C_7H_{15}NO$	[na]	N,N-dimethyl-*tert*-butylcarboxamide				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		55.1 ± 0.4	298	ME	[1995ABB/JIM, 1993ABB/JIM]
$C_7H_{15}NO$	[1620-14-0]	1-(diethylamino)-2-propanone				
	$\Delta_v H$	(278–318)	47.7 ± 0.3	298	GS	[1994WEL/VER]
$C_7H_{15}NO$	[628-62-6]	heptanamide (enanthamide)				
	$\Delta_{sub}H$	(345–365)	99.6		A	[1954SER/VOI, 1960JON, 1987STE/MAL]
$C_7H_{15}NO$	[na]	methyl 2-(N,N-dimethylamino)-2-methylpropanoate				
	$\Delta_v H$	(278–308)	49.2 ± 1.0	293	GS	[1992VER/BEC]
$C_7H_{15}NO_2$	[30220-58-7]	lactic acid N-butylamide				
	$\Delta_v H$	(365–433)	77.4	380	A	[1987STE/MAL]
$C_7H_{15}NO_2$	[na]	lactic acid N-sec-butylamide				
	$\Delta_v H$	(368–418)	74.6	383	A	[1987STE/MAL]
$C_7H_{15}NO_2$	[na]	lactic acid N-isobutylamide				
	$\Delta_v H$	(388–418)	73.5	403	A	[1987STE/MAL]
$C_7H_{15}NO_2$	[2666-93-5]	(*d*) leucine methyl ester				
	$\Delta_v H$	(320–353)	39.4	366	A	[1987STE/MAL]
$C_7H_{15}NO_2$	[2114-20-7]	hexyl carbamate				
	$\Delta_{sub}H$	(291–314)	96.2 ± 0.8		GS	[1959DAV/JON]
$C_7H_{15}NO_4$	[69567-10-8]	N-methyl-5-amino-1,5-dideoxy-(*d*)-glycopyranose				
	$\Delta_{fus}H$		27.5	425.7		[1994BLU/PRA]
C_7H_{16}	[142-85-5]	heptane				
	$\Delta_{fus}H$		14.04	182.6		[1996DOM/HEA]
	$\Delta_{sub}H$		57.9	183	B	[1963BON]
	$\Delta_v H$	(330–371)	34.7	345		[2002SEG/WIS]
	$\Delta_v H$	(328–393)	35.2	343		[2001ORT/GON]
	$\Delta_v H$		36.6	298		[1994RUZ/MAJ]
	$\Delta_v H$	(298–363)	36.1	313		[1984SIP/WIE]
	$\Delta_v H$	(298–338)	36.1	313		[1984MIC/JOS]
	$\Delta_v H$		36.6 ± 0.1	298	C	[1979MAJ/SVO]
	$\Delta_v H$		35.6 ± 0.1	313	C	[1979MAJ/SVO]
	$\Delta_v H$		34.4 ± 0.1	333	C	[1979MAJ/SVO]
	$\Delta_v H$		33.1 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$	(278–353)	36.9	298		[1979JAK/TZI]
	$\Delta_v H$		36.55	298		[1971WIL/ZWO]
	$\Delta_v H$	(288–348)	36.4	303		[1967VAN/SOC]
	$\Delta_v H$	(297–375)	36.1	312	A	[1987STE/MAL, 1949FOR/NOR]
	$\Delta_v H$		34.5 ± 0.1	331	C	[1947WAD/TOD]
	$\Delta_v H$		33.2 ± 0.1	350	C	[1947WAD/TOD]
	$\Delta_v H$	(313–398)	35.4	328		[1946THO]
	$\Delta_v H$	(299–372)	36.0	314	MM	[1945WIL/TAY]
	$\Delta_v H$		32.0	371	C	[1940PIT]
	$\Delta_v H$	(310–397)	35.5	325	EB	[1940SMI]
C_7H_{16}	[591-76-4]	2-methylhexane				
	$\Delta_{fus}H$		9.18	154.9		[1996DOM/HEA]
	$\Delta_v H$	(296–365)	34.6	311	A	[1987STE/MAL]
	$\Delta_v H$		34.9 ± 0.1	298	C	[1979MAJ/SVO]
	$\Delta_v H$		33.9 ± 0.1	313	C	[1979MAJ/SVO]
	$\Delta_v H$		32.7 ± 0.1	333	C	[1979MAJ/SVO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		31.3 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$		34.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(273–318)	34.8	298		[1961HUF/GRO]
	$\Delta_v H$	(291–364)	34.8	306		[1949FOR/NOR]
C_7H_{16}	[589-34-4]	(*dl*) 3-methylhexane				
	$\Delta_v H$	(289–366)	35.1	304	A	[1987STE/MAL]
	$\Delta_v H$		35.1 ± 0.1	298	C	[1979MAJ/SVO]
	$\Delta_v H$		34.2 ± 0.1	313	C	[1979MAJ/SVO]
	$\Delta_v H$		32.9 ± 0.1	333	C	[1979MAJ/SVO]
	$\Delta_v H$		31.7 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$		35.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(293–366)	34.9	308		[1949FOR/NOR]
C_7H_{16}	[590-35-2]	2,2-dimethylpentane				
	$\Delta_{fus}H$		5.86	148.1		[1991ACR]
	$\Delta_v H$		32.4 ± 0.1	298	C	[1998SVO/HYN]
	$\Delta_v H$		31.8 ± 0.1	308	C	[1998SVO/HYN]
	$\Delta_v H$		31.4 ± 0.1	315	C	[1998SVO/HYN]
	$\Delta_v H$		31.0 ± 0.1	323	C	[1998SVO/HYN]
	$\Delta_v H$		30.5 ± 0.1	330	C	[1998SVO/HYN]
	$\Delta_v H$		30.1 ± 0.1	338	C	[1998SVO/HYN]
	$\Delta_v H$		29.4 ± 0.1	348	C	[1998SVO/HYN]
	$\Delta_v H$		28.8 ± 0.1	358	C	[1998SVO/HYN]
	$\Delta_v H$		28.1 ± 0.1	368	C	[1998SVO/HYN]
	$\Delta_v H$	(277–354)	33.2	292	A	[1987STE/MAL]
	$\Delta_v H$	(353–483)	30.1	368	A	[1987STE/MAL]
	$\Delta_v H$	(285–353)	32.8	300		[1949FOR/NOR]
	$\Delta_v H$		32.4 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$		32.2 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(288–353)	32.6	303	MM	[1945WIL/TAY]
C_7H_{16}	[565-59-3]	(*dl*) 2,3-dimethylpentane				
	$\Delta_v H$	(309–371)	33.0	324		[1999MON/DEL]
	$\Delta_v H$	(208–286)	35.9	271	A	[1987STE/MAL]
	$\Delta_v H$		34.3 ± 0.1	298	C	[1979MAJ/SVO]
	$\Delta_v H$		33.4 ± 0.1	313	C	[1979MAJ/SVO]
	$\Delta_v H$		32.2 ± 0.1	333	C	[1979MAJ/SVO]
	$\Delta_v H$		31.1 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$	(286–365)	34.5	301	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$	(291–364)	34.4	306		[1949FOR/NOR]
	$\Delta_v H$		34.2 ± 0.1	298	C	[1947OSB/GIN]
C_7H_{16}	[108-08-7]	2,4-dimethylpentane				
	$\Delta_{fus}H$		6.85	154		[1996DOM/HEA]
	$\Delta_v H$		32.7 ± 0.1	298	C	[1998SVO/HYN]
	$\Delta_v H$		32.3 ± 0.1	308	C	[1998SVO/HYN]
	$\Delta_v H$		31.9 ± 0.1	315	C	[1998SVO/HYN]
	$\Delta_v H$		31.5 ± 0.1	323	C	[1998SVO/HYN]
	$\Delta_v H$		31.0 ± 0.1	330	C	[1998SVO/HYN]
	$\Delta_v H$		30.6 ± 0.1	338	C	[1998SVO/HYN]
	$\Delta_v H$		30.0 ± 0.1	348	C	[1998SVO/HYN]
	$\Delta_v H$	(284–355)	33.3	299	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$	(287–354)	33.2	302		[1949FOR/NOR]
	$\Delta_v H$		32.9 ± 0.1	298	C	[1947OSB/GIN]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_7H_{16}	[562-49-2]	3,3-dimethylpentane				
	$\Delta_{fus}H$		7.07	138.2		[1996DOM/HEA]
	Δ_vH	(213–281)	34.8	266		[1987STE/MAL]
	Δ_vH	(280–360)	33.6	295		[1987STE/MAL]
	Δ_vH		33.0 ± 0.1	298	C	[1981HOS/SCO2]
	Δ_vH		33.0	298		[1971WIL/ZWO]
	Δ_vH	(287–360)	33.2	302		[1949FOR/NOR]
	Δ_vH		33.0 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(285–360)	33.3	300	MM	[1987STE/MAL, 1945WIL/TAY]
C_7H_{16}	[617-78-7]	3-ethylpentane				
	$\Delta_{fus}H$		9.55	154.6		[1996DOM/HEA]
	Δ_vH		35.1 ± 0.1	298	C	[1998SVO/HYN]
	Δ_vH		34.5 ± 0.1	308	C	[1998SVO/HYN]
	Δ_vH		34.1 ± 0.1	315	C	[1998SVO/HYN]
	Δ_vH		33.7 ± 0.1	232	C	[1998SVO/HYN]
	Δ_vH		33.3 ± 0.1	330	C	[1998SVO/HYN]
	Δ_vH		32.7 ± 0.1	338	C	[1998SVO/HYN]
	Δ_vH		32.2 ± 0.1	348	C	[1998SVO/HYN]
	Δ_vH	(291–368)	35.2	306	A	[1987STE/MAL]
	Δ_vH		35.2	298		[1971WIL/ZWO]
	Δ_vH		35.2 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(294–367)	35.0	309		[1945WIL/TAY]
	Δ_vH	(308–391)	34.4	323	EB	[1941SMI, 1984BOU/FRI]
C_7H_{16}	[464-06-2]	2,2,3-trimethylbutane				
	$\Delta_{trs}H$		2.38	121		
	$\Delta_{fus}H$		2.2	247.7		[1996DOM/HEA]
	Δ_vH	(284–355)	32.4	299	A	[1987STE/MAL]
	Δ_vH	(353–483)	29.9	368	A	[1987STE/MAL]
	Δ_vH		32	298		[1971WIL/ZWO]
	Δ_vH	(286–355)	32.3	301		[1949FOR/NOR]
	Δ_vH		31.2 ± 0.1	314	C	[1947WAD/TOD]
	Δ_vH	(296–378)	31.9	311	EB	[1941SMI]
$C_7H_{16}N_2O$	[2158-11-4]	1-hexyl urea				
	$\Delta_{fus}H$		22.4	383	DSC	[2005HAS/TAJ]
	$\Delta_{fus}H$		26.5	380.2		[1999WEL/DRU]
$C_7H_{16}N_2S$	[26536-60-7]	1,3-propylthiourea				
	$\Delta_{fus}H$		22.9	342.6	DSC	[2000DEL/JOZ]
	$\Delta_{sub}H$		134.9 ± 3	298	B	[2000DEL/JOZ]
	$\Delta_{sub}H$		132.5 ± 3.0	298	C	[1994TER/PIA]
	Δ_vH	(346–394)	107 ± 3.0	370	ME,TE	[1994TER/PIA]
$C_7H_{16}O$	[919-94-8]	*tert*-amyl ethyl ether				
	Δ_vH		39.2 ± 0.4	298	GS	[UR/VER, 2002VER, 2003VER/KRA]
	Δ_vH		38.2 ± 0.2	298	C	[2002VAR/PAS]
	Δ_vH	(318–374)	35.7	333	EB	[2002VAR/PAS]
	Δ_vH	(320–374)	35.6	335	EB	[1994KRA/GME]
$C_7H_{16}O$	[29072-93-3]	propyl *tert*-butyl ether				
	$\Delta_{fus}H$		9.87	179.6		[2001VAR/DRU, 2004DOR/YAN]
	Δ_vH		38.3	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(315–370)	37.2 ± 0.6	298	EB	[2002VAR/PAS2]
	$\Delta_v H$		36.6 ± 0.2	298	C	[2002VAR/PAS2, 2004DOR/YAN]
$C_7H_{16}O$	[17348-59-3]	isopropyl *tert*-butyl ether				
	$\Delta_{fus}H$		8.46	184.8		[2001VAR/DRU, 2004DOR/YAN]
	$\Delta_v H$		36.2	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
	$\Delta_v H$	(305–360)	34.4 ± 0.6	298	EB	[2002VAR/PAS2]
	$\Delta_v H$		34.5 ± 0.2	298	C	[2002VAR/PAS2, 2004DOR/YAN]
	$\Delta_v H$	(307–360)	34.0	322	EB	[1994KRA/GME]
$C_7H_{16}O$	[111-70-6]	1-heptanol				
	$\Delta_{fus}H$		18.35	239.9		[2003VAN/GAB]
	$\Delta_{fus}H$		18.16	240.4		[1996DOM/HEA]
	$\Delta_v H$	(348–443)	67.1	298		[2006NAS/NEU]
	$\Delta_v H$	(283–323)	66.9 ± 0.4	298	GS	[2005ROG/PIS]
	$\Delta_v H$	(323–373)	66.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(373–423)	66.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(258–363)	65.2	310		[1992NGU/KAS]
	$\Delta_v H$	(335–450)	62.5	350	A	[1987STE/MAL]
	$\Delta_v H$		66.8 ± 0.2	298	C	[1977MAN/SEL]
	$\Delta_v H$	(333–449)	65.2	348		[1973WIL/ZWO]
	$\Delta_v H$	(336–450)	62.6	351	DTA	[1987STE/MAL, 1969KEM/KRE]
	$\Delta_v H$	(333–425)	62.9	348		[1935BUT/RAM, 1984BOU/FRI]
$C_7H_{16}O$	[543-49-7]	(*dl*) 2-heptanol				
	$\Delta_v H$	(275–312)	62.1 ± 0.4	298	GS	[2007VER/SCH]
	$\Delta_v H$	(244–338)	66.1	259		[1999NGU/BER]
	$\Delta_v H$	(351–433)	54.4	366		[1984SAC/MAR]
	$\Delta_v H$	(357–431)	51.6	372	A	[1987STE/MAL, 1975BRA/AND]
	$\Delta_v H$	(323–433)	59.8	338		[1973WIL/ZWO]
$C_7H_{16}O$	[589-82-2]	(*dl*) 3-heptanol				
	$\Delta_v H$	(244–333)	67.0	259		[1999NGU/BER]
	$\Delta_v H$	(325–430)	60.3	340	A	[1987STE/MAL]
	$\Delta_v H$	(263–295)	64.7	280	A	[1987STE/MAL, 1979THO/MEA]
	$\Delta_v H$	(349–430)	53.1	364		[1984SAC/MAR]
	$\Delta_v H$	(328–429)	59.2	343		[1973WIL/ZWO]
$C_7H_{16}O$	[589-55-9]	4-heptanol				
	$\Delta_v H$		62.4 ± 0.3	298		[2007VER/SCH]
	$\Delta_v H$	(320–428)	58.2	335	A	[1987STE/MAL]
	$\Delta_v H$	(349–428)	53.1	364		[1984SAC/MAR]
	$\Delta_v H$	(282–320)	63.1	297	A	[1987STE/MAL, 1975CAB/CON2]
	$\Delta_v H$	(320–428)	56.9	335		[1973WIL/ZWO]
$C_7H_{16}O$	[624-22-6]	2-methyl-1-hexanol				
	$\Delta_v H$	(343–438)	53.5	390		[1973WIL/ZWO]
$C_7H_{16}O$	[13231-81-7]	3-methyl-1-hexanol				
	$\Delta_v H$	(353–445)	57.4	399		[1973WIL/ZWO]
$C_7H_{16}O$	[818-49-5]	4-methyl-1-hexanol				
	$\Delta_v H$	(348–448)	62.6	363		[1973WIL/ZWO]
$C_7H_{16}O$	[625-23-0]	2-methyl-2-hexanol				
	$\Delta_v H$	(274–306)	58.6 ± 0.4	298	GS	[2005ROG/PIS]
	$\Delta_v H$	(311–415)	54.5	326	A	[1987STE/MAL, 1973WIL/ZWO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_{16}O$	[627-59-8]	5-methyl-2-hexanol				
	$\Delta_v H$	(348–428)	49.4	388		[1973WIL/ZWO]
$C_7H_{16}O$	[617-29-8]	2-methyl-3-hexanol				
	$\Delta_v H$	(323–420)	55.7	338		[1973WIL/ZWO]
$C_7H_{16}O$	[597-96-6]	3-methyl-3-hexanol				
	$\Delta_v H$	(323–416)	53.6	338		[1973WIL/ZWO]
$C_7H_{16}O$	[623-55-2]	5-methyl-3-hexanol				
	$\Delta_v H$	(275–311)	59.8 ± 0.3	298	GS	[2005ROG/PIS]
$C_7H_{16}O$	[6570-87-2]	3,4-dimethyl-1-pentanol				
	$\Delta_v H$	(393–438)	50.3	388		[1973WIL/ZWO]
$C_7H_{16}O$	[625-06-9]	2,4-dimethyl-2-pentanol				
	$\Delta_v H$	(328–408)	49.7	343		[1973WIL/ZWO]
$C_7H_{16}O$	[3970-62-5]	2,2-dimethyl-3-pentanol				
	$\Delta_v H$	(318–411)	51.4	333		[1973WIL/ZWO]
$C_7H_{16}O$	[595-41-5]	2,3-dimethyl-3-pentanol				
	$\Delta_v H$	(318–413)	53.2	333		[1973WIL/ZWO]
$C_7H_{16}O$	[600-36-2]	2,4-dimethyl-3-pentanol				
	$\Delta_v H$		51.8	328	C	[1996WEB/DEF2]
	$\Delta_v H$		48.8	343	C	[1996WEB/DEF2]
	$\Delta_v H$		45.7	358	C	[1996WEB/DEF2]
	$\Delta_v H$	(307–412)	53.6	322	A	[1987STE/MAL, 1973WIL/ZWO]
$C_7H_{16}O$	[597-49-9]	3-ethyl-3-pentanol				
	$\Delta_v H$	(275–311)	57.3 ± 0.2	298	GS	[2005ROG/PIS]
	$\Delta_v H$	(317–408)	51.3	332	A	[1987STE/MAL, 1973KKY/REP]
	$\Delta_v H$	(308–416)	55.2	323		[1973WIL/ZWO]
$C_7H_{16}O$	[18371-13-6]	2-methyl-2-ethyl-1-butanol				
	$\Delta_v H$	(358–428)	55.7	373		[1973WIL/ZWO]
$C_7H_{16}O$	[594-83-2]	2,3,3-trimethyl-2-butanol				
	$\Delta_v H$	(298–363)	48.7	313	MM	[1985WIE/SIP]
$C_7H_{16}O_2$	[13343-98-1]	1-butoxy-2-methoxyethane				
	$\Delta_v H$		47.8 ± 0.1	298	C	[1970KUS/WAD]
$C_7H_{16}O_2$	[18854-31-4]	1-propoxy-2-ethoxyethane				
	$\Delta_v H$		46.8 ± 0.1	298	C	[1970KUS/WAD]
$C_7H_{16}O_2$	[3459-83-4]	1,3-diethoxypropane				
	$\Delta_v H$		45.9 ± 0.2	298	C	[1972MAN2]
$C_7H_{16}O_2$	[126-84-1]	2,2-diethoxypropane				
	$\Delta_v H$	(273–308)	43.2 ± 0.4	298	GS	[2002VER]
	$\Delta_v H$	(273–308)	43.9	298	GS	[1998VER/PEN]
	$\Delta_v H$	(286–304)	U28.2	295	A,I	[1987STE/MAL, 1962STE/DOR]
$C_7H_{16}O_2$	[57018-52-7]	1-*tert*-butoxy-2-propanol				
	$\Delta_v H$	(346–420)	45.4	361	EB	[2001BER/WIC]
$C_7H_{16}O_2$	[141-73-1]	4-methyl-4-methoxy-2-pentanol				
	$\Delta_v H$	(343–423)	46.6	358	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_{16}O_2$	[629-30-1]	1,7-heptanediol				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		21.3	295.2		[1991ACR]
	Δ_vH		92.4	341		[1994PIA/FER, 2006UMN/KWE]
	Δ_vH		96.5 ± 3.2	298		[1994PIA/FER, 2006UMN/KWE]
	Δ_vH		93.8	323		[1990KNA/SAB, 2006UMN/KWE]
	Δ_vH		96.2 ± 1.2	298		[1990KNA/SAB, 2006UMN/KWE]
$C_7H_{16}O_2$	[115-76-4]	2,2-diethyl-1,3-propanediol				
	Δ_vH	(343–380)	80.2 ± 0.2	298		[2007VER]
$C_7H_{16}O_3$	[6881-94-3]	diethylene glycol monopropyl ether				
	Δ_vH	(369–404)	65.3	384	A	[1987STE/MAL]
$C_7H_{16}O_3$	[6881-94-3]	2-(2-propoxyethoxy)ethanol				
	Δ_vH	(378–495)	65.7 ± 0.8	298	EB	[1996STE/CHI]
$C_7H_{16}O_3$	[122-51-0]	triethoxymethane (triethyl orthoformate)				
	Δ_vH	(293–323)	49.0	308	A	[1987STE/MAL]
	Δ_vH		47.8 ± 0.1	298	C	[1985MAR/MAN]
	Δ_vH		46.0 ± 0.8	298		[1971PIH/TUO]
	Δ_vH	(278–419)	47.2	293	A	[1987STE/MAL, 1947STU]
$C_7H_{16}O_3$	[4431-82-7]	3,5,7,9-tetraoxaundecane				
	Δ_vH		53.6 ± 0.7	298	C	[1969MAN]
$C_7H_{16}O_3$	[51452-08-5]	*tert*-pentylperoxyethanol				
	Δ_vH		70.1 ± 2.5			[1983VAN/KAC]
$C_7H_{16}O_4$	[38578-50-6]	3-*tert*-butyldioxy-1,2-propanediol				
	Δ_vH		88.0 ± 2.6			[1983VAN/KAC]
$C_7H_{16}S$	[1639-09-4]	1-heptanethiol				
	$\Delta_{fus}H$		25.4	229.9		[1996DOM/HEA]
	Δ_vH	(273–345)	49.5	288		[1999DYK/SVO]
	Δ_vH		50.6 ± 0.2	298		[1966GOO/DEP, 1966OSB/DOU]
	Δ_vH	(373–472)	45.0	388	A,EB	[1987STE/MAL, 1965DOU/OSB, 1966OSB/DOU]
$C_7H_{16}S$	[628-00-2]	2-heptanethiol				
	Δ_vH	(343–437)	44.1	358		[1999DYK/SVO]
	Δ_vH	(343–471)	47.2	360		[1999DYK/SVO]
	Δ_vH	(341–443)	44.2	356	A	[1987STE/MAL, 1973KKY/REP]
$C_7H_{16}S_2$	[62224-02-6]	1,7-heptanedithiol				
	Δ_vH	(392–526)	59.0	407	A	[1987STE/MAL, 1973KKY/REP, 1999DYK/SVO]
$C_7H_{17}N$	[na]	*tert*-butylisopropylamine				
	Δ_vH	(275–299)	35.7 ± 1.0	287		[1997VER]
$C_7H_{17}N$	[39099-23-5]	N-butyl isopropylamine				
	Δ_vH		42.1 ± 0.1	298	C	[1979PET/MAJ]
	Δ_vH		40.9 ± 0.1	313	C	[1979PET/MAJ]
	Δ_vH		39.9 ± 0.1	328	C	[1979PET/MAJ]
	Δ_vH		38.7 ± 0.1	343	C	[1979PET/MAJ]
	Δ_vH		37.6 ± 0.1	358	C	[1979PET/MAJ]
	Δ_vH	(325–395)	40.0	340	C	[1979PET/MAJ]
$C_7H_{17}N$	[111-68-2]	heptylamine				
	Δ_vH	(323–373)	49.9	298	CGC	[1995CHI/HOS]
	Δ_vH	(326–430)	46.5	341	A	[1987STE/MAL]
	Δ_vH		50.0 ± 0.1	298	C	[1969WAD]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_{17}NO$	[7352-03-6]	N-(ethoxymethyl)diethylamine				
	$\Delta_v H$	(285–400)	39.6	300	A	[1987STE/MAL]
$C_7H_{17}N_3$	[934-98-5]	1-(2-aminoethyl)-4-methylpiperazine				
	$\Delta_v H$	(298–332)	64.0 ± 0.2	298	GS	[2010EFI/EME]
$C_7H_{17}O_2PS_3$	[298-02-2]	O,O-diethyl-S-[(ethylthio)methyl]dithiophosphate				
	$\Delta_v H$	(283–387)	70.8	298	A	[1987STE/MAL, 1973KKY/REP, 1999DYK/SVO]
$C_7H_{17}O_3P$	[1445-75-6]	diisopropyl methylphosphonate				
	$\Delta_v H$	(253–468)	62.1	253	GS	[2009BUT/BUC]
	$\Delta_v H$	(253–468)	58.9	283	GS	[2009BUT/BUC]
	$\Delta_v H$	(253–468)	57.6	298	GS	[2009BUT/BUC]
	$\Delta_v H$	(253–468)	56.5	313	GS	[2009BUT/BUC]
	$\Delta_v H$	(253–468)	54.2	353	GS	[2009BUT/BUC]
	$\Delta_v H$	(253–468)	52.4	393	GS	[2009BUT/BUC]
$C_7H_{18}N_2$	[646-19-5]	1,7-heptanediamine				
	$\Delta_{fus}H$		36.95	298.5	DSC	[2002DAL/DEL]
	$\Delta_v H$	(273–313)	46.5	288	A	[1987STE/MAL]
$C_7H_{18}N_2$	[104-78-9]	N,N-diethyl-1,3-propanediamine				
	$\Delta_v H$	(329–443)	46.4	344	A	[1987STE/MAL]
$C_7H_{18}N_2O$	[5966-51-8]	1,3-*bis*(dimethylamino)-2-propanol				
	$\Delta_v H$	(355–450)	50.3	370	A	[1987STE/MAL]
$C_7H_{18}N_3$	[67727-91-7]	N,N-diethyl-2-(1-methylhydrazino)ethanamine				
	$\Delta_v H$	(283–313)	61.8	298	A	[1987STE/MAL]
$C_7H_{20}N_4$	[4741-99-5]	1,4,8,11-tetraazaundecane				
	$\Delta_v H$	(332–348)	98.3 ± 1.3	340	TE	[1983CLA/COR]
C_8BrF_{17}	[423-55-2]	1-bromoperfluorooctane				
	$\Delta_{trs}H$		1.6	146.4		
	$\Delta_{fus}H$		12.13	278.9		[1997VAR/DRU]
	$\Delta_v H$	(288–332)	45.6 ± 0.4	298		[2005DIA/GON]
$C_8Cl_4N_2$	[1897-45-6]	2,4,5,6-tetrachloro-1,3-benzenedicarbonitrile				
	$\Delta_{trs}H$		4.03	423.7		
	$\Delta_{fus}H$		NA			[2005RON/GU]
	$\Delta_{fus}H$		30	526.2	DSC	[1990DON/DRE]
	$\Delta_{sub}H$	(363–418)	109.1	378	ME,GS	[1987STE/MAL, 1980DEP]
	$\Delta_v H$	(373–403)	67.0		GC	[2007GOE/MCC]
$C_8F_8O_2$	[14533-84-7]	trifluoroacetic acid, pentafluorophenyl ester				
	$\Delta_v H$		42.1			[1976HOP/DES]
$C_8F_8O_4$	[59483-83-9]	carbonoperoxoic acid, O-(pentafluorophenyl) O,O-(trifluoromethyl) ester				
	$\Delta_v H$		51.8			[1976FAL/DES2]
C_8F_{16}	[335-21-7]	perfluoroethylcyclohexane				
	$\Delta_v H$	(308–512)	37.2	323		[1999DYK/SVO]
	$\Delta_v H$	(310–400)	38.6	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$		38.7 ± 0.4	298		[1981VAR/BUL]
	$\Delta_v H$	(311–411)	37.1	326	A	[1987STE/MAL, 1970DYK/VAN, 1959GOO/DOU, 1999DYK/SVO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8F_{16}	[335-27-3]	perfluoro-1,3-dimethylcyclohexane				
	$\Delta_v H$	(308–375)	37.4	323		[1999DYK/SVO]
C_8F_{16}	[na]	*cis/trans* perfluoro-1,3-dimethylcyclohexane				
	$\Delta_v H$		38.6 ± 0.1	298	C	[1996VAR/DRU]
$C_8F_{16}N_2$	[57682-63-0]	2,2,2-trifluoro-N′-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidine]-ethanimidamide				
	$\Delta_v H$		32.8			[1975PET/SHR3]
$C_8F_{16}O$	[na]	perfluoro-2-butyltetrahydrofuran				
	$\Delta_v H$	(383–433)	34.7	408	EST	[1960YAR/KAY]
C_8F_{18}	[307-34-6]	perfluorooctane				
	$\Delta_{trs}H$		3.14	176.5		
	$\Delta_{fus}H$		9.58	254.2		[1986STA]
	$\Delta_v H$	(289–333)	39.9	298		[2004DIA/CAC]
	$\Delta_v H$	(437–503)	32	452		[1999DYK/SVO]
	$\Delta_v H$	(309–378)	41.2 ± 0.8	298	EB	[1981VAR/BUL]
	$\Delta_v H$		41.1 ± 0.1	298	C	[1981VAR/BUL]
	$\Delta_v H$	(310–379)	39.5	325	A	[1987STE/MAL, 1962KRE, 1970DYK/VAN]
$C_8F_{18}N_2OS$	[66632-47-1]	*bis*(1,1,1,3,3,3-hexafluoro-2-propanaminato)oxo*bis*(trifluoromethyl)sulfur				
	$\Delta_v H$	(273–333)	39.6	288	A	[1987STE/MAL, 1978KIT/SHR, 1999DYK/SVO]
$C_8F_{18}N_2S$	[37826-45-2]	S,S-*bis*(trifluoromethyl)-N-[2,2,2-trifluoro-1-(trifluoromethyl)-1-[(2,2,2-trifluoro-1-trifluoromethyl]ethylidine)amino]ethyl sulfilimine				
	$\Delta_v H$	(329–373)	41.1	344	A	[1987STE/MAL, 1972SWI/SHR]
$C_8F_{18}O$	[308-48-5]	*bis*(nonafluorobutyl) ether				
	$\Delta_v H$	(315–374)	40.3 ± 0.8	298	EB	[1989VAR/PAS]
	$\Delta_v H$		40.7 ± 0.1	298	C	[1989VAR/PAS]
	$\Delta_v H$	(343–375)	36.6	358	A	[1987STE/MAL]
	$\Delta_v H$	(288–313)	42.2	300	A	[1987STE/MAL]
	$\Delta_v H$	(374–413)	56.3	389	A	[1987STE/MAL, 1999DYK/SVO]
$C_8F_{18}O_2$	[na]	dodecafluoro-1,6-*bis*(trifluoromethoxy)hexane				
	$\Delta_v H$	(293–353)	33.6	323		[1999DYK/SVO]
$C_8F_{18}O_3S$	[53517-90-1]	*bis*(1,1,1,3,3,3-hexafluoro-2-(trifluoromethyl)-2-propanol) sulfite				
	$\Delta_v H$		38.7			[1975DEM/KOV]
$C_8F_{20}N_2S$	[65844-11-3]	difluoro[1,1,1,3,3,3-hexafluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)-ethylidene-2,2-propanediaminato(2-)-N]-*bis*(trifluoromethyl) sulfur				
	$\Delta_v H$		39.3	390	I	[1978KIT/SHR]
$C_8HCl_4F_{11}O_2$	[2923-68-4]	3,5,7,8-tetrachloro-2,2,3,4,4,5,6,6,7,8,8-undecafluorooctanoic acid				
	$\Delta_v H$	(373–553)	70.6	388	A	[1987STE/MAL, 1957BAR/SEF, 1999DYK/SVO]
$C_8HF_{15}O_2$	[335-67-1]	perfluorooctanoic acid				
	$\Delta_{sub}H$	(298–318)	88.9		GS	[2008BAR/BOT]
$C_8HF_{16}NO$	[54181-87-2]	1,1,1,2,3,3,3-heptafluoro-N-[2,2,2-trifluoro-1-[2,2,2-trifluoro-1-(trifluoromethyl)ethoxy]ethylidene]-2-propanamine				
	$\Delta_v H$		36	364		[1975PET/SHR]
C_8HF_{17}	[335-65-9]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluorooctane				
	$\Delta_v H$	(288–332)	43.4 ± 0.2	298		[2005DIA/GON]
$C_8H_2Cl_4N_2$	[25983-14-6]	2,3,6,7-tetrachloroquinoxaline				
	$\Delta_{fus}H$		29.6	446		[2000MON/HIL2]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		105.9 ± 2.2	298	ME	[2004MOR/MIR]
	$\Delta_{sub}H$	(347–361)	106.2 ± 0.3	354	ME	[2000MON/HIL2]
	$\Delta_{sub}H$		108.2 ± 1.9	298	ME	[2000MON/HIL2]
$C_8H_2F_{16}$	[307-99-3]	1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-hexadecafluorooctane				
	Δ_vH	(298–323)	41.1	310	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_3ClF_6$	[327-76-4]	4-chloro-1,3-*bis*(trifluoromethyl)benzene				
	Δ_vH	(275–353)	48.0	290		[1987STE/MAL, 1946FIE/SAY, 1970DYK/VAN, 1999DYK/SVO]
$C_8H_3ClF_6$	[328-72-3]	5-chloro-1,3-*bis*(trifluoromethyl)benzene				
	Δ_vH	(275–353)	46.2	290	A	[1987STE/MAL, 1946FIE/SAY, 1970DYK/VAN, 1999DYK/SVO]
$C_8H_3Cl_4F_3$	[328-82-5]	1,1,1-trifluoro-2,2-dichloro-2-(3,4-dichlorophenyl)ethane				
	Δ_vH	(417–461)	56.9	432	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_3F_5O_2$	[19220-93-0]	acidic acid, pentafluorophenyl ester				
	Δ_vH	(283–322)	48.1	298	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_3F_{15}O$	[307-30-2]	2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-octanol				
	Δ_vH	(350–437)	53.3	365	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_3NO_5$	[641-70-3]	3-nitrophthalic anhydride				
	$\Delta_{fus}H$		18.4	436.2	DSC	[1977CAS/VEC]
$C_8H_3NO_5$	[5466-84-2]	4-nitrophthalic anhydride				
	$\Delta_{fus}H$		17.14	388.2	DSC	[1977CAS/VEC]
$C_8H_4ClF_3O$	[321-31-3]	trifluoromethyl 3-chlorophenyl ketone				
	Δ_vH	(366–405)	52.7	386	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_4Cl_2N_2$	[2213-63-0]	2,3-dichloroquinoxaline				
	$\Delta_{fus}H$		24.36	424.4	DSC	[2000MON/HIL2]
	$\Delta_{sub}H$		91.8 ± 1.1	298	ME	[2004MOR/MIR]
	$\Delta_{sub}H$	(313–329)	92.4 ± 0.4	321	ME	[2000MON/HIL2]
	$\Delta_{sub}H$		93.1 ± 0.9	298	ME	[2000MON/HIL2]
$C_8H_4Cl_2O_2$	[99-63-8]	isophthaloyl chloride				
	Δ_vH	(443–550)	61.5	458	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_4Cl_2O_2$	[88-95-9]	phthaloyl chloride				
	Δ_vH	(391–549)	58.0	406	A	[1987STE/MAL, 1947STU, 1999DYK/SVO]
$C_8H_4Cl_2O_2$	[100-20-9]	terephthaloyl chloride				
	$\Delta_{trs}H$		2.34	337.3		
	$\Delta_{fus}H$		21.1	356.1		[1996DOM/HEA]
	Δ_vH	(454–473)	56.2	463	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_4Cl_3F_3$	[309-12-6]	1,1,1-trifluoro-2,2-dichloro-(3-chlorophenyl)ethane				
	Δ_vH	(387–475)	49.6	431		[1999DYK/SVO]
	Δ_vH	(387–474)	50.4	402	A	[1987STE/MAL]
$C_8H_4F_6$	[402-31-3]	1,3-*bis*(trifluoromethyl)benzene				
	Δ_vH	(275–353)	42.4	290	A	[1987STE/MAL, 1951POT/SAY, 1970DYK/VAN, 1999DYK/SVO]
$C_8H_4F_6$	[433-19-2]	1,4-*bis*(trifluoromethyl)benzene				
	Δ_vH	(287–390)	41.8	302	A	[1987STE/MAL, 1951POT/SAY, 1999DYK/SVO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_4N_2$	[91-15-6]	1,2-dicyanobenzene				
	$\Delta_{fus}H$		20.0	414.1		[1982KAR/SHV]
	$\Delta_{sub}H$		86.9 ± 1.5	298	GS	[1980SAT/SAK]
$C_8H_4N_2$	[626-17-5]	1,3-dicyanobenzene				
	$\Delta_{sub}H$		90.1 ± 1.5	298	GS	[1980SAT/SAK]
$C_8H_4N_2$	[623-26-7]	1,4-dicyanobenzene				
	$\Delta_{sub}H$		89.7 ± 1.8	298	ME	[1992ACR/TUC]
	$\Delta_{sub}H$		88.8 ± 1.5	298	GS	[1980SAT/SAK]
$C_8H_4N_2O_2$	[3729-34-8]	1,4-dicyanobenzene di-N-oxide				
	$\Delta_{sub}H$		73.0 ± 2.0	298	ME	[1992ACR/TUC]
$C_8H_4O_2$	[6383-11-5]	benzocyclobutenedione				
	$\Delta_{sub}H$	(304–367)	U 89.5	336		[1989ROR/RUT]
$C_8H_4O_3$	[85-44-9]	phthalic anhydride				
	$\Delta_{fus}H$		23.09	403.3	DSC	[1991ACR, 1990DON/DRE]
	$\Delta_{fus}H$		22.1	404.5	DSC	[1979DAS/DHA]
	$\Delta_{sub}H$	(313–383)	87.9	348	A	[1987STE/MAL, 1972AMI/VAK]
	$\Delta_{sub}H$	(333–403)	84.4 ± 1.2	388	GS	[1979DAS/DHA]
	$\Delta_{sub}H$		81 ± 1		C	[1971BEE/LIN]
	$\Delta_{sub}H$	(303–333)	88.4 ± 1.2	318		[1946CRO/FEE, 1970COX/PIL, 1960JON]
	$\Delta_{v}H$	(407–558)	52.1	422	A	[1987STE/MAL]
	$\Delta_{v}H$	(411–450)	63.9 ± 2.5	422	GS	[1979DAS/DHA]
	$\Delta_{v}H$		63.1			[1952GOT]
	$\Delta_{v}H$		65.3 ± 0.8			[1946CRO/FEE, 1979DAS/DHA]
	$\Delta_{v}H$	(485–557)	54.1	521		[20MON]
$C_8H_5Br_3$	[24162-65-0]	2,4,5-tribromostyrene				
	$\Delta_{fus}H$		25.1	340.3		[1993OIS/HOR]
$C_8H_5Cl_2F_3$	[309-10-4]	1,1,1-trifluoro-2,2-dichloro-2-phenylethane				
	$\Delta_{v}H$	(365–446)	47.2	380	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_5Cl_2N$	[40626-45-7]	α,α-dichlorophenylacetonitrile				
	$\Delta_{v}H$	(329–497)	57.2	344	A	[1987STE/MAL, 1947STU]
$C_8H_5Cl_3O_2$	[85-34-7]	2,3,6-trichlorophenylacetic acid				
	$\Delta_{fus}H$		22.43	432.3	DSC	[1991ACR, 1990DON/DRE]
$C_8H_5Cl_3O_3$	[93-76-5]	(2,4,5-trichlorophenoxy)acetic acid				
	$\Delta_{fus}H$		38.0	428.7	DSC	[1991ACR, 1990DON/DRE]
$C_8H_5Cl_5$	[606-07-5]	pentachloroethylbenzene				
	$\Delta_{v}H$	(369–572)	58.8	384	A	[1987STE/MAL, 1947STU, 1999DYK/SVO]
$C_8H_5F_3OS_2$	[4552-64-1]	1,1,1-trifluoro-4-(2-thienyl)-4-mercapto-3-buten-2-one				
	$\Delta_{sub}H$		95.1 ± 3.7	298	C	[1997RIB/SAN]
$C_8H_5F_3O_2S$	[15788-02-0]	1,1,1-trifluoro-4-(2-thienyl)-4-hydroxy-3-buten-2-one				
	$\Delta_{sub}H$		86.2 ± 0.6	298	C	[1997RIB/SAN]
	$\Delta_{sub}H$		86.2 ± 0.6	298	ME	[1992RIB/MON]
$C_8H_5F_3O_3$	[326-90-9]	4,4,4-trifluoro-1-(2-furanyl)-butane-1,3-dione				
	$\Delta_{sub}H$		70 ± 10	298		[1997RIB/GON]
$C_8H_5F_5O$	[434-45-7]	2,2,2-trifluoroacetophenone				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(342–425)	43.1	357	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_5F_{14}OP$	[na] ethyl *bis*(heptafluropropyl)phosphinite					
	$\Delta_v H$	(303–393)	41.9	348		[1959EME/SMI]
C_8H_5NO	[613-90-1] benzoylnitrile					
	$\Delta_{sub}H$	(292–304)	78.7 ± 4.2	298		[1969LEB/DNE, 1977PED/RYL, 1987STE/MAL]
	$\Delta_v H$	(318–481)	52.0	333	A	[1987STE/MAL, 1947STU]
$C_8H_5NO_2$	[85-41-6] phthalimide					
	$\Delta_{fus}H$		28.6	507.2	DSC	[1978CAN]
	$\Delta_{sub}H$	(347–365)	104.0 ± 0.4	356	ME	[2006RIB/SAN]
	$\Delta_{sub}H$	(347–365)	106.3 ± 1.3	298	ME	[2006RIB/SAN]
	$\Delta_{sub}H$	(378–418)	82.8	393	RG	[1987STE/MAL, 1956KLO]
$C_8H_5NO_2$	[91-56-5] 1*H*-indole-2,3-dione (isatin)					
	$\Delta_{fus}H$		27.82	475.7	DSC	[2003MAR/AVI]
	$\Delta_{sub}H$		118.8 ± 5.1	298	C	[2003MAT/MIR2]
$C_8H_5NO_2$	[4421-09-4] 5-cyano-1,3-benzodioxole					
	$\Delta_{fus}H$		20.79	366.3	DSC	[2007MAT/SOU]
	$\Delta_{sub}H$		90.9 ± 0.9	298	C	[2007MAT/SOU]
$C_8H_5NO_2$	[3839-22-3] 2-cyanobenzoic acid					
	$\Delta_{sub}H$		114.6 ± 1.3	298	C	[2008RIB/AMA2]
$C_8H_5NO_2$	[1877-72-1] 3-cyanobenzoic acid					
	$\Delta_{sub}H$		116.6 ± 0.9	298	C	[2008RIB/AMA2]
$C_8H_5NO_2$	[619-65-8] 4-cyanobenzoic acid					
	$\Delta_{sub}H$		112.8 ± 0.4	298		[2008RIB/AMA2]
$C_8H_5NO_3$	[118-48-9] isatoic anhydride					
	$\Delta_{sub}H$		115.6 ± 2.8	298	C	[2004MAT/MIR]
	$\Delta_{sub}H$		82.7 ± 2.8	298	C	[2003MAT/MIR2]
	Note: in [2004MAT/MIR] the authors state that an error was made in [2003MAT/MIR2] in converting the enthalpy of sublimation measured at a higher temperature back to 298 K.					
$C_8H_5NO_3$	[2037-95-8] 2*H*-1,3-benzoxazine-2,4(3*H*)-dione					
	$\Delta_{fus}H$		28.63	500.5	DSC	[2004MAT/MIR]
	$\Delta_{sub}H$		114.2 ± 2.7	298	C	[2004MAT/MIR]
$C_8H_5N_3$	[27032-01-5] pyridinium dicyanomethylide					
	$\Delta_{sub}H$	(403–433)	125.4	418	A	[1987STE/MAL]
	$\Delta_{sub}H$	(403–406)	125.5 ± 1.3		ME	[1967BOY/GUH, 1970COX/PIL]
C_8H_6	[536-74-3] phenylacetylene					
	$\Delta_{fus}H$		9.46	228		[1982LEB/BYK]
	$\Delta_v H$	(313–416)	42.6 ± 0.1	320	EB	[2002STE/CHI3]
	$\Delta_v H$	(313–416)	40.4 ± 0.1	360	EB	[2002STE/CHI3]
	$\Delta_v H$	(313–416)	38.0 ± 0.2	400	EB	[2002STE/CHI3]
	$\Delta_v H$	(265–291)	43.9	278	MM	[1981CHI/HYM]
	$\Delta_v H$	(270–292)	45.2	281	HSA	[1981CHI/HYM]
C_8H_6BrN	[5798-79-8] (*dl*) a-bromophenylacetonitrile					
	$\Delta_v H$	(293–515)	64.7	308	A	[1987STE/MAL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_6ClN	[612-13-5]	2-(chloromethyl)benzonitrile				
	$\Delta_{fus}H$	(300–372)	20.53	344.2	AC	[2007XU/ZEN]
$C_8H_6ClNO_3$	[22751-23-1]	2-nitrobenzeneacetyl chloride				
	$\Delta_{sub}H$	(296–327)	103.6	311	TE	[1987STE/MAL, 1947BAL, 1960JON]
$C_8H_6ClNO_3$	[99-47-8]	3-nitrobenzeneacetyl chloride				
	$\Delta_{sub}H$	(299–343)	109.1	314	TE	[1987STE/MAL, 1947BAL, 1960JON]
$C_8H_6ClNS_2$	[28908-00-1]	2-(chloromethylthio)benzothiazole				
	$\Delta_{fus}H$	(80–350)	17.02	351.1	AC	[2005WAN/TAN2]
$C_8H_6Cl_2$	[2123-28-6]	2,3-dichlorostyrene				
	Δ_vH	(334–508)	55.4	349		[1999DYK/SVO]
	Δ_vH	(334–508)	54.3	349	A	[1987STE/MAL, 1947STU]
$C_8H_6Cl_2$	[2123-27-5]	2,4-dichlorostyrene				
	Δ_vH	(327–498)	55.0	342	A	[1987STE/MAL, 1970DYK/VAN]
$C_8H_6Cl_2$	[1123-84-8]	2,5-dichlorostyrene				
	Δ_vH	(328–500)	54.3	343	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_8H_6Cl_2$	[28469-92-3]	2,6-dichlorostyrene				
	Δ_vH		53.8 ± 1.5	298	GS	[2001PUR/CHI]
	Δ_vH	(321–490)	50.4	336	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_8H_6Cl_2$	[2039-83-0]	3,4-dichlorostyrene				
	Δ_vH	(330–503)	53.3	345	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_8H_6Cl_2$	[2155-42-2]	3,5-dichlorostyrene				
	Δ_vH	(326–498)	55.1	341	A	[1987STE/MAL, 1970DYK/VAN]
$C_8H_6Cl_2O$	[63024-77-1]	3-(chloromethyl)benzoyl chloride				
	Δ_vH	(424–464)	54.7	439	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_6Cl_2O$	[876-08-4]	4-(chloromethyl)benzoyl chloride				
	Δ_vH	(440–466)	68.3	453	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_6Cl_2O_3$	[94-75-7]	(2,4-dichlorophenoxy)acetic acid				
	$\Delta_{fus}H$		32	416.2	DSC	[2005VEC/BRU]
	$\Delta_{fus}H$		35.33	412.5	DSC	[1990DON/DRE]
	$\Delta_{sub}H$		115 ± 6	298	DSC	[2005VEC/BRU]
	$\Delta_{sub}H$	(346–387)	123 ± 2	361	TE	[2005VEC/BRU]
	$\Delta_{sub}H$	(346–387)	125 ± 3	298	TE	[2005VEC/BRU]
$C_8H_6Cl_2O_3$	[1918-00-9]	3,6-dichloro-2-methoxybenzoic acid				
	$\Delta_{fus}H$		22.9	386.7	DSC	[1991ACR, 1990DON/DRE]
$C_8H_6Cl_2O_4$	[7600-50-2]	3,6-dichloro-5-hydroxy-2-methoxybenzoic acid				
	$\Delta_{fus}H$		28.98	409.8	DSC	[1991ACR, 1990DON/DRE]
$C_8H_6Cl_4$	[877-08-7]	2,3,4,6-tetrachloro-1-ethylbenzene				
	Δ_vH	(350–543)	53.6	365	A	[1987STE/MAL, 1947STU]
$C_8H_6Cl_4$	[877-08-7]	3,4,5,6-tetrachloro-1,2-dimethylbenzene				
	$\Delta_{fus}H$		21.46	359.2		[1991ACR]
	Δ_vH	(367–547)	63.6	382	A	[1987STE/MAL, 1970DYK/VAN]
$C_8H_6Cl_4$	[877-10-1]	tetrachloro-*p*-xylene				
	$\Delta_{fus}H$		22.59	368.2		[1991ACR]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_6F_{12}O_3S$	[53602-64-5]	*bis*(1,1,1,3,3,3-hexafluoro-2-methyl-2-propanol) sulfite				
	$\Delta_v H$		46.5			[1975DEM/KOV]
$C_8H_6F_{12}O_4$	[485399-48-2]	3,3,4,4,6,6,7,7,9,9,10,10-dodecafluoro-2,5,8,11-tetraoxododecane				
	$\Delta_{trs}H$		22.07	239		
	$\Delta_{fus}H$		1.14	251	DSC	[2005MAR/AVA]
	$\Delta_v H$	(300–410)	36.7			[2005MAR/AVA]
$C_8H_6N_2$	[253-52-1]	phthalazine				
	$\Delta_{fus}H$		13.32	364.5		[1993SAB/PEM]
	$\Delta_{sub}H$		82.3 ± 2.3	298	C	[1995RIB/MAT4]
	$\Delta_{sub}H$		81.1 ± 0.4	298	C	[1998SAB/TAB, 1993SAB/PEM]
	$\Delta_{sub}H$		96.7		ME	[1972MIL]
$C_8H_6N_2$	[91-19-0]	quinoxaline				
	$\Delta_{fus}H$		11.8	305.7		[1993SAB/PEM]
	$\Delta_{sub}H$		66.6 ± 2.0	298	C	[1995RIB/MAT4]
	$\Delta_{sub}H$		69.4 ± 0.6	298	C	[1993SAB/PEM]
$C_8H_6N_2$	[253-82-7]	quinazoline				
	$\Delta_{fus}H$		16.95	320.9		[1993SAB/PEM]
	$\Delta_{sub}H$		77.6 ± 0.5	298	C	[1998SAB/TAB, 1993SAB/PEM]
	$\Delta_{sub}H$		76.6 ± 1.4	298	C	[1995RIB/MAT4]
	$\Delta_v H$		58.9 ± 2.0	298	CGC	[2009LIP/HAN]
$C_8H_6N_2O$	[1196-57-2]	2-hydroxyquinoxaline				
	$\Delta_{fus}H$		32.5	542.5	DSC	[2000MON/HIL2]
	$\Delta_{sub}H$	(383–399)	116.1 ± 0.6	391	ME	[2000MON/HIL2]
	$\Delta_{sub}H$		118.5 ± 3.1	298	ME	[2000MON/HIL2]
	$\Delta_{sub}H$		125.8 ± 4.0	298	C	[2000RIB/MAT]
$C_8H_6N_2O$	[119-39-1]	1-(2*H*)-phthalazinone				
	$\Delta_{sub}H$	(348–368)	104.4 ± 0.5	358	ME	[2008RIB/CAB2]
	$\Delta_{sub}H$	(348–368)	107.4 ± 0.5	298	ME	[2008RIB/CAB2]
$C_8H_6N_2OS_2$	[2439-01-2]	6-methyl-1,3-dithiolo[4,5-b]quinoxalin-2-one				
	$\Delta_{fus}H$		29.92	443.2	DSC	[1990DON/DRE]
$C_8H_6N_2O_2$	[15804-19-0]	2,3-dihydroxyquinoxaline				
	$\Delta_{sub}H$		156.3 ± 5.5	298	C	[2000RIB/MAT]
$C_8H_6N_2O_2$	[2433-66-7]	quinoxaline-1,4-dioxide				
	$\Delta_{sub}H$		112.0 ± 1.9	298	C	[1997ACR/POW]
$C_8H_6N_2O_2$	[2518-24-3]	3-aminophthalimide				
	$\Delta_{sub}H$	(386–459)	108.3	401	A	[1987STE/MAL, 1956KLO]
$C_8H_6N_2O_2$	[3676-85-5]	4-aminophthalimide				
	$\Delta_{sub}H$	(444–498)	135.3	459	A	[1987STE/MAL]
$C_8H_6N_2O_2$	[6146-52-7]	5-nitroindole				
	$\Delta_{sub}H$	(353–375)	110.5 ± 1.0	298	ME	[2009RIB/CAB]
$C_8H_6N_4$	[na]	monobenzo-1,3α,4,6α-tetraazapentalene				
	$\Delta_{sub}H$	(323–373)	74.9 ± 2.9	348		[1967CHI/SIM]
$C_8H_6N_4$	[na]	monobenzo-1,3α,6,6α-tetraazapentalene				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(323–383)	63.6 ± 2.9	350		[1967CHI/SIM]
C_8H_6O	[271-89-6]	2,3-benzofuran				
	Δ_vH	(323–403)	46.2	338	A	[1987STE/MAL]
C_8H_6O	[5101-44-0]	2-ethynylphenol				
	Δ_vH	(300–373)	33.5	315	A	[1987STE/MAL]
$C_8H_6O_2$	[1074-12-0]	phenyl glyoxal				
	Δ_vH	(348–467)	59.7	363	A	[1987STE/MAL, 1947STU]
$C_8H_6O_2$	[87-41-2]	phthalide				
	Δ_vH	(368–563)	59.3	383	A	[1987STE/MAL, 1947STU]
$C_8H_6O_3$	[120-57-0]	piperonal				
	$\Delta_{sub}H$	(293–353)	90.8	323		[1953SER/VOI, 1960JON, 1987STE/MAL]
	Δ_vH	(310–353)	65.7	331		[1953SER/VOI]
	Δ_vH	(360–536)	60.6	375	A	[1987STE/MAL, 1947STU]
$C_8H_6O_3$	[619-66-9]	4-formylbenzoic acid				
	$\Delta_{fus}H$		21.3	452.2		[2004CHE/MA]
$C_8H_6O_4$	[88-99-3]	phthalic acid				
	$\Delta_{fus}H$		36.5	463.5		[1999SAB/PER2]
	$\Delta_{sub}H$		129.8 ± 0.6	298	C	[1999SAB/PER2]
$C_8H_6O_4$	[121-91-5]	isophthalic acid				
	$\Delta_{fus}H$		43.2	617.4	DTA	[1999SAB/PER2]
	$\Delta_{sub}H$	(424–476)	134.6 ± 1.6	450	ME	[2000KOZ/MAK]
	$\Delta_{sub}H$		142.0 ± 0.7	298	C	[1999SAB/PER2]
	$\Delta_{sub}H$	(493–563)	114.2	508	A	[1987STE/MAL, 1962KRA/BER]
	$\Delta_{sub}H$	(493–563)	106.7 ± 2.2	523	GS	[1962KRA/BER, 1970COX/PIL]
$C_8H_6O_4$	[100-21-0]	terephthalic acid				
	$\Delta_{sub}H$	(442–500)	142.2 ± 1.5	471	ME	[2000KOZ/MAK]
	$\Delta_{sub}H$		146.6 ± 0.5	298	C	[1999SAB/PER2]
	$\Delta_{sub}H$	(568–675)	139.3 ± 3.8		DTA	[1968LUC/LEW]
	$\Delta_{sub}H$	(523–633)	139.2	538	A	[1987STE/MAL, 1962KRA/BER]
	$\Delta_{sub}H$	(523–633)	131	573	GS	[1962KRA/BER]
	$\Delta_{sub}H$	(392–425)	U 98.24 ± 2.5	408		[1934HIR, 1970COX/PIL]
$C_8H_6O_4$	[94-53-1]	1,3-benzodioxole-5-carboxylic acid (piperonylic acid)				
	$\Delta_{fus}H$		30.5	501.6		[2004MAT/MON]
	$\Delta_{sub}H$	(363–377)	113.6 ± 1.1	370	ME	[2004MAT/MON]
	$\Delta_{sub}H$	(363–377)	117.2 ± 1.8	298	ME	[2004MAT/MON]
C_8H_6S	[95-15-8]	benzo[b]thiophene				
	$\Delta_{fus}H$		11.84	304.5		[1996DOM/HEA]
	$\Delta_{sub}H$		65.7 ± 0.2	298	C	[1979SAB]
	Δ_vH	(349–424)	52.1	364		[1999DYK/SVO]
	Δ_vH	(424–498)	47.9	439		[1999DYK/SVO]
	Δ_vH	(498–631)	45.0	513		[1999DYK/SVO]
	Δ_vH	(310–542)	54.3	320		[1991CHI/KNI2]
	Δ_vH	(310–542)	52.0	360		[1991CHI/KNI2]
	Δ_vH	(310–542)	49.7	400		[1991CHI/KNI2]
	Δ_vH	(310–542)	46.2	460		[1991CHI/KNI2]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(310–542)	43.8	500		[1991CHI/KNI2]
	$\Delta_v H$	(310–542)	41.2	540		[1991CHI/KNI2]
	$\Delta_v H$		47.2	425		[1981WIE/KOB]
	$\Delta_v H$		42.8	505		[1981WIE/KOB]
	$\Delta_v H$		36.1	605		[1981WIE/KOB]
	$\Delta_v H$	(306–346)	53.8	326		[1981EDW/PRA, 1999DYK/SVO]
$C_8H_6S_2$	[492-97-7]	2,2′-bithiophene				
	$\Delta_{fus}H$		16.5	304.2		[2006TEM/ROU]
	$\Delta_{sub}H$	(275–291)	86.0 ± 0.4	283	ME	[2009RIB/SAN]
	$\Delta_{sub}H$	(275–291)	85.2 ± 0.4	298	ME	[2009RIB/SAN]
$C_8H_6S_2$	[3172-56-3]	3,3′-biothiophene				
	$\Delta_{sub}H$	(301–317)	88.6 ± 0.3	309	ME	[2009RIB/SAN]
	$\Delta_{sub}H$	(301–317)	89.2 ± 0.3	298	ME	[2009RIB/SAN]
C_8H_7Br	[2039-88-5]	2-bromostyrene				
	$\Delta_v H$	(378–543)	48.7	393	A	[1987STE/MAL, 1970DYK/VAN]
C_8H_7Br	[2039-82-9]	4-bromostyrene				
	$\Delta_v H$	(393–420)	48.5	406		[1999DYK/SVO]
	$\Delta_v H$	(383–543)	49.9	398	A	[1987STE/MAL, 1970DYK/VAN]
C_8H_7Cl	[2039-87-4]	2-chlorostyrene				
	$\Delta_v H$	(363–523)	46.0	378	A	[1987STE/MAL, 1970DYK/VAN]
C_8H_7Cl	[2039-85-2]	3-chlorostyrene				
	$\Delta_v H$	(298–463)	46.1	313	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
C_8H_7Cl	[1073-67-2]	4-chlorostyrene				
	$\Delta_v H$	(363–523)	48.1	378	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_8H_7ClN_2O_2$	[14722-82-8]	N-(2-chlorophenyl)-2-(hydroxyimino)acetamide				
	$\Delta_{fus}H$		29.7	432.7	DTA	[1982CUE/SOL]
$C_8H_7ClN_2O_2S$	[364-98-7]	7-chloro-3-methyl-2*H*-1,2,4-benzothiadiazine 1,1-dioxide (diazoxide)				
	$\Delta_{fus}H$		34.1	600.4	DSC	[2006WAS/HOL]
C_8H_7ClO	[532-27-4]	2-chloroacetophenone				
	$\Delta_{sub}H$	(278–323)	90.7	293	TE	[1987STE/MAL, 1947BAL, 1960JON]
C_8H_7ClO	[99-91-2]	4′-chloroacetophenone				
	$\Delta_v H$	(404–623)	54.0	419	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_v H$	(395–485)	50.7	410		[1949DRE/SHR, 1949DRE/MAR, 1984BOU/FRI]
C_8H_7ClO	[103-80-0]	phenylacetyl chloride				
	$\Delta_v H$	(321–483)	56.5	336	A	[1987STE/MAL, 1947STU, 1999DYK/SVO]
$C_8H_7ClO_2$	[501-53-1]	benzyl chloroformate				
	$\Delta_v H$	(293–303)	38.5 ± 0.1	298		[1990DAV/FIN]
$C_8H_7ClO_2$	[2444-36-2]	(2-chlorophenyl)acetic acid				
	$\Delta_{fus}H$		24.33	367.4	DSC	[2008RIB/FER3]
$C_8H_7ClO_2$	[1878-65-5]	(3-chlorophenyl)acetic acid				
	$\Delta_{fus}H$		22.6	349.8	DSC	[2008RIB/FER3]
$C_8H_7ClO_2$	[1878-66-6]	(4-chlorophenyl)acetic acid				
	$\Delta_{fus}H$		23.57	377.9	DSC	[2008RIB/FER3]
$C_8H_7ClO_3$	[na]	(*d*) *o*-chloromandelic acid				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		24.69	392.5		[1991CHI/BRA]
$C_8H_7ClO_3$	[10421-85-9]	(*dl*) *o*-chloromandelic acid				
	$\Delta_{fus}H$		20.08	358.5		[1991CHI/BRA]
$C_8H_7ClO_3$	[na]	2-chloromandelic acid				
	$\Delta_{fus}H$		23.1	363.5	DSC	[2009HE/ZHU]
$C_8H_7ClO_3$	[na]	(R) 2-chloromandelic acid				
	$\Delta_{fus}H$		24.9	391.3	DSC	[2009HE/ZHU]
$C_8H_7ClO_3$	[492-86-4]	(*dl*) *p*-chloromandelic acid				
	$\Delta_{fus}H$		27.2	394		[1991CHI/BRA]
$C_8H_7ClO_3$	[na]	(*d*) *p*-chloromandelic acid				
	$\Delta_{fus}H$		23.01	394		[1991CHI/BRA]
$C_8H_7ClO_3$	[122-88-3]	4-chlorophenoxyacetic acid				
	$\Delta_{fus}H$		36.27	429.6	DSC	[1990DON/DRE]
$C_8H_7ClO_3$	[19463-48-0]	5-chloro-4-hydroxy-3-methoxybenzaldehyde				
	$\Delta_{fus}H$		39.4	442.6	DSC	[2000LAR/LER]
$C_8H_7Cl_2NO$	[1918-18-9]	methyl-3,4-dichlorophenylcarbamate				
	$\Delta_{fus}H$		23.19	381.4	DSC	[1990DON/DRE]
$C_8H_7Cl_3O_3$	[2539-26-6]	3,4,5-trichloro-2,6-dimethoxyphenol				
	Δ_vH	(293–323)	77.4	308	CGC	[1999LEI/WAN2]
C_8H_7FO	[450-95-3]	2-fluoroacetophenone				
	Δ_vH	(273–333)	62	288	A,GS	[1987STE/MAL, 1948RED/CHA4, 1999DYK/SVO]
$C_8H_7FO_3$	[395-05-1]	(*dl*) *m*-fluoromandelic acid				
	$\Delta_{fus}H$		24.69	370		[1991CHI/BRA, 1994LAR/MAR]
$C_8H_7FO_3$	[na]	(*d*) *m*-fluoromandelic acid				
	$\Delta_{fus}H$		24.27	394		[1991CHI/BRA]
$C_8H_7FO_3$	[389-31-1]	(*dl*) *o*-fluoromandelic acid				
	$\Delta_{fus}H$		30.12	390		[1991CHI/BRA, 1994LAR/MAR]
$C_8H_7FO_3$	[na]	(*d*) *o*-fluoromandelic acid				
	$\Delta_{fus}H$		20.92	363		[1991CHI/BRA]
$C_8H_7FO_3$	[395-33-5]	(*dl*) *p*-fluoromandelic acid				
	$\Delta_{fus}H$		29.29	403		[1991CHI/BRA, 1994LAR/MAR]
$C_8H_7FO_3$	[na]	(*d*) *p*-fluoromandelic acid				
	$\Delta_{fus}H$		30.54	426		[1991CHI/BRA]
$C_8H_7F_3$	[21249-93-4]	1,1,1-trifluoro-2-phenylethane				
	Δ_vH	(273–313)	46.1 ± 0.3	298	GS	[1997SCH/VER]
C_8H_7N	[140-29-4]	benzylcyanide				
	Δ_vH	(283–328)	60.1 ± 0.7	306	GS	[2000VER]
	Δ_vH	(283–328)	60.5 ± 0.7	298	GS	[2000VER]
	Δ_vH	(333–507)	54.8	348	A	[1987STE/MAL, 1947STU]
C_8H_7N	[620-22-4]	2-tolunitrile				
	Δ_vH	(309–479)	50.8	324	A	[1987STE/MAL, 1947STU]
C_8H_7N	[104-85-8]	4-tolunitrile				
	Δ_vH	(315–491)	48.0	330	A	[1987STE/MAL, 1947STU]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_7N	[10468-64-1]	2-tolylisocyanide				
	$\Delta_v H$	(298–457)	48.5	313	A	[1987STE/MAL, 1947STU]
C_8H_7N	[120-72-9]	indole				
	$\Delta_{sub}H$	(275–291)	78.4 ± 1.4	283	ME	[2008RIB/CAB3]
	$\Delta_{sub}H$	(275–291)	77.6 ± 1.1	298	ME	[2008RIB/CAB3]
	$\Delta_{sub}H$	(291–319)	75.0	305	A	[1987STE/MAL]
	$\Delta_{sub}H$	(275–303)	77.8 ± 1.6	289	ME	[1974ARS]
	$\Delta_{sub}H$	(283–301)	70.0	292		[1955AIH2]
	$\Delta_{sub}H$	(283–328)	74.9	305		[1954SER/VOI, 1960JON]
	$\Delta_v H$		57.3		GC	[1996GOV/RUT]
C_8H_7NO	[3173-56-6]	benzyl isocyanate				
	$\Delta_v H$	(333–393)	42.3	348	A	[1987STE/MAL]
$C_8H_7NO_2$	[5466-88-6]	2*H*-1,4-benzoxazin-3(4*H*)-one				
	$\Delta_{fus}H$		22.8	445.6	DSC	[2006MAT/MIR]
	$\Delta_{sub}H$		106.4 ± 3.0	298	C	[2006MAT/MIR]
$C_8H_7NO_3$	[577-59-3]	2′-nitroacetophenone				
	$\Delta_v H$	(293–333)	103.6	308	A	[1987STE/MAL]
$C_8H_7NO_3$	[121-89-1]	3′-nitroacetophenone				
	$\Delta_{sub}H$	(293–343)	110	308	A	[1987STE/MAL]
$C_8H_7NO_4$	[16498-20-7]	2,3-dihydro-6-nitro-1,4-benzodioxin				
	$\Delta_{fus}H$		24.27	394	DSC	[2008MAT/SOU2]
	$\Delta_{sub}H$		100.6 ± 1.2	298	C	[2008MAT/SOU2]
$C_8H_7NO_4$	[606-27-9]	2-nitrobenzoic acid, methyl ester				
	$\Delta_v H$	(423–453)	56.1	438	A	[1987STE/MAL]
$C_8H_7NO_4$	[610-69-5]	(2-nitrophenyl) acetate				
	$\Delta_v H$	(373–526)	71.1	388	A	[1987STE/MAL, 1947STU]
$C_8H_7NO_4$	[1975-50-4]	2-methyl-3-nitrobenzoic acid				
	$\Delta_{sub}H$		119.5 ± 2.3	298	ME	[2001MON/HIL3]
$C_8H_7NO_4$	[13506-76-8]	2-methyl-6-nitrobenzoic acid				
	$\Delta_{sub}H$		120.0 ± 2.2	298	ME	[2001MON/HIL3]
$C_8H_7NO_4$	[5437-38-7]	3-methyl-2-nitrobenzoic acid				
	$\Delta_{sub}H$		124.4 ± 2.7	298	ME	[2001MON/HIL3]
$C_8H_7NO_4$	[3113-71-1]	3-methyl-4-nitrobenzoic acid				
	$\Delta_{sub}H$		119.3 ± 2.5	298	ME	[2001MON/HIL3]
$C_8H_7NO_4$	[96-98-0]	4-methyl-3-nitrobenzoic acid				
	$\Delta_{sub}H$		118.6 ± 2.5	298	ME	[2001MON/HIL3]
$C_8H_7NO_4$	[3113-72-2]	2-methyl-3-nitrobenzoic acid				
	$\Delta_{sub}H$		118.7 ± 2.2	298	ME	[2001MON/HIL3]
$C_8H_7NO_5$	[4920-80-3]	3-methoxy-2-nitrobenzoic acid				
	$\Delta_{sub}H$	(398–410)	136.6 ± 1.3	404	ME	[1999RIB/MAT]
	$\Delta_{sub}H$		141.9 ± 1.3	298	ME	[1999RIB/MAT]
$C_8H_7NO_5$	[89-41-8]	4-methoxy-3-nitrobenzoic acid				
	$\Delta_{sub}H$	(387–401)	126.5 ± 0.8	394	ME	[1999RIB/MAT]
	$\Delta_{sub}H$		131.2 ± 0.8	298	ME	[1999RIB/MAT]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_7NO_5$	[5081-36-7]	3-methoxy-4-nitrobenzoic acid				
	$\Delta_{sub}H$	(388–402)	126.1 ± 1.1	395	ME	[1999RIB/MAT]
	$\Delta_{sub}H$		131.0 ± 1.1	298	ME	[1999RIB/MAT]
C_8H_7NS	[622-78-6]	benzyl isothiocyanate				
	Δ_vH	(352–516)	62.2	367	A	[1987STE/MAL, 1947STU]
C_8H_7NS	[120-75-2]	2-methylbenzothiazole				
	Δ_vH	(343–499)	61.3	358	A	[1987STE/MAL, 1947STU, 1999DYK/SVO]
$C_8H_7N_3O_2$	[1660-15-7]	3,6-diaminophthalimide				
	$\Delta_{sub}H$	(461–508)	98.5	476	A	[1987STE/MAL, 1956KLO]
$C_8H_7N_3O_6$	[38677-56-4]	2,2,2-trinitro-1-phenylethane				
	$\Delta_{sub}H$	(293–308)	84.1 ± 0.4	301	ME	[1972PEP/MAT, 1977PED/RYL, 1987STE/MAL]
$C_8H_7N_3O_6$	[632-92-8]	3-methyl-2,4,6-trinitrotoluene				
	$\Delta_{fus}H$		38.49	455.4		[1919BEL/SAW]
	$\Delta_{sub}H$		122.6		DSC	[1990HWA/YOS]
	$\Delta_{sub}H$	(319–411)	129.8 ± 1.1	365	ME	[1987STE/MAL, 1978CUN/PAL]
	Δ_vH		87.9		DSC	[1990HWA/YOS]
$C_8H_7N_3O_7$	[4732-14-3]	2,4,6-trinitrophenetole				
	$\Delta_{sub}H$	(352–364)	79.0	358	A	[1987STE/MAL]
	$\Delta_{sub}H$		120.5 ± 2.1			[1950NIT/SEK3, 1970COX/PIL]
	Δ_vH	(342–351)	120.5	346	A	[1987STE/MAL]
$C_8H_7N_5O_8$	[43072-20-4]	2,4,6,-trinitro-N-(nitromethyl)-*m*-toluidine				
	$\Delta_{fus}H$		19.33	375.6	DSC	[1996DOM/HEA, 1973KRI/LIC]
$C_8H_7N_5O_8$	[6052-13-7]	2,4,6-N-tetranitro-N-ethylaniline				
	$\Delta_{fus}H$		23.51	369	DSC	[1996DOM/HEA, 1973KRI/LIC]
C_8H_8	[277-10-1]	cubane				
	$\Delta_{trs}H$		5.94	394		
	$\Delta_{fus}H$		8.7	404.9	AC	[1992WHI/WAS]
	$\Delta_{sub}H$		55.2 ± 2.0	298	AC+CGC	[2004BAS/CHI]
	$\Delta_{sub}H$	(239–262)	80.3 ± 1.6	298	ME	[1966KYB/CAR, 1970COX/PIL, 1987STE/MAL, 2003DIK/FRE]
		Note: in Ref. [2003DIK/FRE] the authors state that the value of 80.3 kJ/mole from [1966KYB/CAR] pertains to the average temperature and not to 298 K. The authors give a value of 79.1 ± 1.7 for the 298 K value				
	Δ_vH		44.6 ± 0.8	298	CGC	[2004BAS/CHI]
C_8H_8	[629-20-9]	cyclooctatetraene				
	$\Delta_{fus}H$		11.25	268.5		[1996DOM/HEA]
	$\Delta_{sub}H$		54.4		B	[1949SCO/GRO]
	Δ_vH	(273–348)	43.9	288	A	[1987STE/MAL]
	Δ_vH		43.1	298		[1949SCO/GRO]
C_8H_8	[500-24-3]	bicyclo[2.2.2]octa-2,5,7-triene				
	Δ_vH		42.9 ± 0.1	298	C	[1985KUS]
C_8H_8	[16607-77-5]	1,5,7-octatriene-3-yene				
	Δ_vH	(313–429)	35.1	328	A	[1987STE/MAL]
C_8H_8	[100-42-5]	styrene				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		10.96	242.3		[1996DOM/HEA]
	Δ_vH	(245–334)	42.5	260	A	[1987STE/MAL]
	Δ_vH	(334–419)	41.5	349	A	[1987STE/MAL]
	Δ_vH	(306–333)	42.5	319		[1959CHA/VAN]
	Δ_vH	(303–417)	43.1	318		[1955DRE/MAR]
	Δ_vH	(285–333)	43.9	298		[1946PIT/GUT]
	Δ_vH		43.5 ± 0.4	298		[1946PIT/GUT]
	Δ_vH	(306–389)	40.2	348		[1942BUR]
	Δ_vH	(245–357)	43.2	298		[1939PAT/SCH]
C_8H_8	[116316-76-8]	1-cyclopropyl-1,3-pentadiene				
	Δ_vH		51.9 ± 0.1	298	C	[2007PAS/KUZ]
$C_8H_8BrCl_2O_3PS$	[2104-96-3]	O-(4-bromo-2,5-dichlorophenyl) O,O-dimethylphosphorothioate				
	$\Delta_{fus}H$		31.15	325.3	DSC	[1990DON/DRE]
C_8H_8BrNO	[103-88-8]	4-bromoacetanilide				
	$\Delta_{fus}H$		26.0	440.3		[2009BAR/ESP]
	$\Delta_{fus}H$		25.8	441.2		[2004VEC/CAT]
	$\Delta_{sub}H$		110 ± 4	298	Fus+Vap	[2009VEC/TOM]
	Δ_vH		78 ± 2	480	TGA	[2009VEC/TOM]
	Δ_vH		77 ± 1	460	TGA	[2009VEC/TOM]
$C_8H_8Br_2$	[93-52-7]	(1,2-dibromoethyl)benzene				
	Δ_vH	(359–527)	64.9	374	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_8H_8Br_2$	[91-13-4]	α,α'-dibromo-*o*-xylene				
	$\Delta_{fus}H$		26.78	368.2		[1991ACR]
$C_8H_8Br_2$	[626-15-3]	α,α'-dibromo-*m*-xylene				
	$\Delta_{fus}H$		23.69	350.2		[1991ACR]
$C_8H_8ClNO_2$	[3942-54-9]	N-methyl-2-chlorophenylcarbamic acid ester				
	$\Delta_{fus}H$		21.81	362.7	DSC	[1990DON/DRE]
$C_8H_8Cl_2$	[1124-05-6]	2,5-dichloro-1,4-dimethylbenzene				
	Δ_vH	(393–573)	52.7	408	A	[1987STE/MAL, 1970DYK/VAN, 1999DYK/SVO]
$C_8H_8Cl_2$	[54484-61-6]	2,5-dichloro-1,4-dimethylbenzene				
	Δ_vH	(319–495)	48.9	334	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_8H_8Cl_2$	[54484-63-8]	2,5-dichloro-1,4-dimethylbenzene				
	Δ_vH	(311–490)	46.0	326	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_8H_8Cl_2$	[6623-59-2]	3,4-dichloro-1-ethylbenzene				
	Δ_vH	(320–500)	49.3	335	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_8H_8Cl_2$	[93-52-7]	1,4-*bis*(chloromethyl)benzene				
	Δ_vH	(412–504)	50.8	427		[1999DYK/SVO]
$C_8H_8Cl_2$	[612-12-4]	α,α'-dichloro-*o*-xylene				
	$\Delta_{fus}H$		21.26	328.2		[1991ACR]
$C_8H_8Cl_2$	[626-16-4]	α,α'-dichloro-*m*-xylene				
	$\Delta_{fus}H$		19.51	307.2		[1991ACR]
$C_8H_8Cl_2$	[623-25-6]	α,α'-dichloro-*p*-xylene				
	$\Delta_{fus}H$		23.97	373.2		[1991ACR]
$C_8H_8Cl_2O_2$	[120-67-2]	2-(2,4-dichlorophenoxy)ethanol				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(484–560)	65.1	499	A	[1959MCD/SHR, 1984BOU/FRI] [1999DYK/SVO, 1987STE/MAL]
$C_8H_8Cl_2O_2$	[2675-77-6]	1,4-dichloro-2,5-dimethoxybenzene				
	$\Delta_{fus}H$		27.56	403.9	DSC	[1991ACR, 1990DON/DRE]
$C_8H_8Cl_2O_3$	[na]	3,5-dichloro-2,6-dimethoxyphenol				
	$\Delta_v H$	(293–323)	70.4	308	CGC	[1999LEI/WAN2]
$C_8H_8Cl_2O_3$	[6597-78-0]	methyl 3,6-dichloro-2-methoxybenzoate				
	$\Delta_{fus}H$		18.49	304.6	DSC	[1990DON/DRE]
$C_8H_8Cl_3O_3PS$	[299-84-3]	O,O-dimethyl-O-(2,4,5-trichlorophenyl)thiophosphate				
	$\Delta_{fus}H$		18.94	313	DSC	[1990DON/DRE]
	$\Delta_v H$	(298–373)	56.8	313	A	[1987STE/MAL]
$C_8H_8NO_3$	[6705-03-9]	2-amino-5-methoxybenzoic acid				
	$\Delta_{fus}H$		22.88	425	DSC	[2010MON/ALM]
	$\Delta_{sub}H$	(353–375)	116.9 ± 0.8	364	ME	[2010MON/ALM]
	$\Delta_{sub}H$	(353–375)	119.3 ± 0.8	298	ME	[2010MON/ALM]
$C_8H_8NO_3$	[2840-26-8]	3-amino-4-methoxybenzoic acid				
	$\Delta_{fus}H$		25.34	477.9	DSC	[2010MON/ALM]
	$\Delta_{sub}H$	(380–399)	127.4 ± 0.8	389	ME	[2010MON/ALM]
	$\Delta_{sub}H$	(380–399)	130.7 ± 0.8	298	ME	[2010MON/ALM]
$C_8H_8NO_3$	[74165-74-5]	3-amino-5-methoxybenzoic acid				
	$\Delta_{fus}H$		22.4	456.9	DSC	[2010MON/ALM]
	$\Delta_{sub}H$	(380–400)	132.8 ± 1.0	390	ME	[2010MON/ALM]
	$\Delta_{sub}H$	(380–400)	136.1 ± 1.0	298	ME	[2010MON/ALM]
$C_8H_8NO_3$	[2486-69-3]	4-amino-3-methoxybenzoic acid				
	$\Delta_{fus}H$		25.27	462.4	DSC	[2010MON/ALM]
	$\Delta_{sub}H$	(373–395)	128.9 ± 1.2	384	ME	[2010MON/ALM]
	$\Delta_{sub}H$	(373–395)	132.0 ± 1.2	298	ME	[2010MON/ALM]
$C_8H_8N_2$	[615-15-6]	2-methylbenzimidazole				
	$\Delta_{trs}H$		0.59	383.9		
	$\Delta_{fus}H$		20.49	451.4	DSC	[2002DOM/KOZ]
$C_8H_8N_2O_2$	[32692-19-6]	5-nitroindoline				
	$\Delta_{sub}H$	(338–360)	109.8 ± 0.8	298	ME	[2009RIB/CAB]
$C_8H_8N_2O_2$	[122-96-3]	1,4-*bis*(2-hydroxyethyl)piperazine				
	$\Delta_v H$	(413–507)	67.8 ± 5.3			[1998ABD/MEI]
$C_8H_8N_2O_2$	[88-96-0]	1,2-benzenedicarboxamide				
	$\Delta_{sub}H$		57.3 ± 4.2		ME	[1972HAM/WIT, 1977PED/RYL]
$C_8H_8N_2O_2$	[1740-57-4]	1,3-benzenedicarboxamide				
	$\Delta_{sub}H$		54.4 ± 4.2		ME	[1971HAM/WIT, 1977PED/RYL]
$C_8H_8N_2O_2$	[3010-82-0]	1,4-benzenedicarboxamide				
	$\Delta_{sub}H$	(373–498)	57.3 ± 4.2			[1972HAM/WIT]
$C_8H_8N_2O_2$	[1769-41-1]	2-(hydroxyimino)-N-phenylacetamide				
	$\Delta_{fus}H$		10.4	453.1	DTA	[1982CUE/SOL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_8N_2O_3$	[552-32-9]	2′-nitroacetanilide				
	$\Delta_v H$	(473–593)	44.0	488	A	[1987STE/MAL]
C_8H_8O	[98-86-2]	acetophenone				
	$\Delta_{trs}H$		1.36	289.7		[2006SED/MAI]
	$\Delta_{fus}H$		16.65	292.7		[1911LOU/DUP, 2006SED/MAI]
	$\Delta_v H$	(360–520)	55.4 ± 0.4	298	EB	[1996STE/CHI]
	$\Delta_v H$	(360–520)	52.6 ± 0.4	340	EB	[1996STE/CHI]
	$\Delta_v H$	(360–520)	50.1 ± 0.3	380	EB	[1996STE/CHI]
	$\Delta_v H$	(360–520)	47.5 ± 0.3	420	EB	[1996STE/CHI]
	$\Delta_v H$	(360–520)	45.0 ± 0.4	460	EB	[1996STE/CHI]
	$\Delta_v H$	(360–520)	42.2 ± 0.4	500	EB	[1996STE/CHI]
	$\Delta_v H$	(343–383)	53.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(343–383)	52.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(343–383)	57.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(375–603)	49.7	390	A	[1987STE/MAL]
	$\Delta_v H$	(383–437)	41.9	398	GS,EB	[1965COL/COU]
	$\Delta_v H$	(310–476)	51.2	325		[1947STU]
C_8H_8O	[496-14-0]	2,5-dihydrobenzo-3,4-furan				
	$\Delta_v H$	(285–510)	53.7 ± 0.4	298	EB	[1996STE/CHI3]
C_8H_8O	[122-78-1]	phenylacetaldehyde				
	$\Delta_v H$	(293–343)	59.8 ± 0.3	298	GS	[2007EME/DAB]
	$\Delta_v H$	(283–333)	54.5	298	A	[1987STE/MAL]
$C_8H_8O_2$	[493-09-4]	1,4-benzodioxan				
	$\Delta_v H$		67.4 ± 1.7	298	C	[2008MAT/SOU2]
	$\Delta_v H$	(400–486)	50.4	415	A	[1987STE/MAL]
	$\Delta_v H$		50.4			[1958CAS/FLE2]
$C_8H_8O_2$	[104-57-4]	benzyl formate				
	$\Delta_v H$	(298–357)	51.6	313	A	[1987STE/MAL]
$C_8H_8O_2$	[118-93-4]	2′-hydroxyacetophenone				
	$\Delta_{fus}H$		13.0	278.5	DSC	[2008BER/MIN]
	$\Delta_v H$		58.3 ± 0.3	298	C	[2008BER/MIN]
	$\Delta_v H$	(369–491)	58.3	384	A	[1987STE/MAL]
	$\Delta_v H$		50.2			[1986BAL/GNA]
$C_8H_8O_2$	[121-71-1]	3′-hydroxyacetophenone				
	$\Delta_{fus}H$		23.4	366.7	DSC	[2005CHE/TAN]
$C_8H_8O_2$	[99-93-4]	4′-hydroxyacetophenone				
	$\Delta_{fus}H$		18.08	382.8		[2008BER/PIE]
	$\Delta_{fus}H$		17.0	381.3	DSC	[2005CHE/TAN]
	$\Delta_{sub}H$	(320–349)	95.7	335	A	[1987STE/MAL, 1960AIH]
$C_8H_8O_2$	[123-11-5]	4-methoxybenzaldehyde				
	$\Delta_v H$	(348–521)	58.4	363	A,EB	[1985SCH/BRU]
	$\Delta_v H$	(283–323)	60.4	298	A	[1987STE/MAL, 1955SER/VOI]
	$\Delta_v H$	(346–521)	57.1	361	A	[1987STE/MAL, 1947STU]
$C_8H_8O_2$	[93-58-3]	methyl benzoate				
	$\Delta_{fus}H$	(5–320)	14.8	260.8	AC	[2002BLO/PAU]
	$\Delta_{fus}H$		14.83	260.8		[1998MAK/KAB]
	$\Delta_{fus}H$		13.9	261		[1978DOZ/FUJ]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(358–517)	51.1 ± 0.2	360	EB	[2002STE/CHI2]
	$\Delta_v H$	(358–517)	48.5 ± 0.2	400	EB	[2002STE/CHI2]
	$\Delta_v H$	(358–517)	45.8 ± 0.2	440	EB	[2002STE/CHI2]
	$\Delta_v H$	(358–517)	43.0 ± 0.4	480	EB	[2002STE/CHI2]
	$\Delta_v H$		57.2 ± 0.1	303	C	[1998MAK/KAB]
	$\Delta_v H$	(313–353)	53.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(313–363)	53.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(433–473)	54.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(334–428)	50.7	379	BG	[1988KAT2]
	$\Delta_v H$	(334–428)	48.3	410	BG	[1988KAT2]
	$\Delta_v H$	(283–323)	53.9	298	A	[1987STE/MAL]
	$\Delta_v H$	(373–533)	49.7	388	A	[1987STE/MAL]
	$\Delta_v H$		55.6 ± 0.1	298	C	[1972COL/LAY]
	$\Delta_v H$	(341–433)	52.8	363	BG	[1971HAL/BAL]
$C_8H_8O_2$	[118-90-1]	2-methylbenzoic acid				
	$\Delta_{fus}H$		20.17	376.9		[1991ACR]
	$\Delta_{sub}H$	(297–337)	95.9 ± 0.1	298	ME	[1986COL/JIM]
	$\Delta_{sub}H$		137.7 ± 0.5		DSC	[1983HOL]
$C_8H_8O_2$	[99-04-7]	3-methylbenzoic acid				
	$\Delta_{fus}H$		15.73	381.9		[1991ACR]
	$\Delta_{sub}H$	(303–323)	97.0 ± 0.3	298	ME	[1986COL/JIM]
	$\Delta_v H$	(473–533)	62.8	503	A	[1987STE/MAL, 1970MUL/GAL]
$C_8H_8O_2$	[99-94-5]	4-methylbenzoic acid				
	$\Delta_{fus}H$		22.72	452.8		[1991ACR]
	$\Delta_{sub}H$	(320–337)	98.6 ± 0.6	298	ME	[2004MON/ALM]
	$\Delta_{sub}H$	(318–337)	98.8 ± 0.3	298	ME	[1986COL/JIM]
$C_8H_8O_2$	[122-79-2]	phenyl acetate				
	$\Delta_v H$	(313–363)	53.3	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(433–473)	53.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(313–353)	53.1	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(311–469)	51.7	326	A	[1987STE/MAL, 1947STU]
$C_8H_8O_2$	[103-82-2]	phenylacetic acid				
	$\Delta_{fus}H$		32.0	NA	DSC	[2003SHA/KAN]
	$\Delta_{fus}H$		15.2	349.2		[2002GRA/RAS]
	$\Delta_{fus}H$		16.5	350.8		[2001MON/HIL]
	$\Delta_{fus}H$		14.49	349.9	DSC	[1991ACR]
		Note: There is a large discrepancy between the value of 32.0 kJ/mole and the other reported literature values. Reference [2003SHA/KAN] quotes a literature value of 32.0 kJ/mole; however, the authors do not provide the source of the cited literature value.				
	$\Delta_{sub}H$	(307–339)	93.5 ± 0.3	298	GS	[2004ROU/TEM]
	$\Delta_{sub}H$	(305–321)	98.6 ± 0.4	313	ME	[2001MON/HIL]
	$\Delta_{sub}H$	(305–321)	99.0 ± 0.6	298	ME	[2001MON/HIL]
	$\Delta_v H$	(353–392)	79.1 ± 0.3	298	GS	[2004ROU/TEM]
	$\Delta_v H$	(370–539)	65.0	385	A	[1987STE/MAL]
$C_8H_8O_2$	[137-18-8]	2,5-dimethyl-1,4-benzoquinone				
	$\Delta_{sub}H$	(273–293)	77.0	283	QF	[1927COO/COO, 1960JON, 1987STE/MAL]
$C_8H_8O_2$	[7145-99-5]	5-methyl-1,3-benzodioxole				
	$\Delta_v H$		54.9 ± 1.2	298	C	[2007MAT/SOU]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_8O_2S$	[5535-48-8]	phenyl vinyl sulfone				
	$\Delta_{fus}H$		11.72	343.4		[1969MAC/MCN]
	$\Delta_{sub}H$		82 ± 2.5		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_8H_8O_3$	[935-79-5]	*cis* 4-cyclohexene-1,2-dicarboxylic acid anhydride				
	$\Delta_{v}H$	(325–525)	53.1 ± 0.1			[1984NUR/MEK]
$C_8H_8O_3$	[na]	1-cyclohexene-1,2-dicarboxylic acid anhydride				
	$\Delta_{fus}H$	(80–360)	11.88	343.5	AC	[2004LU/TAN]
$C_8H_8O_3$	[25326-19-6]	5,6-dioxycarbony[2.2.1]bicyclohept-2-ene				
	$\Delta_{trs}H$		0.9	323.6		
	$\Delta_{trs}H$		8.7	342.4		
	$\Delta_{fus}H$		3.6	388.4	DSC	[1987CUR/ASR]
$C_8H_8O_3$	[99-76-3]	4-hydroxybenzoic acid, methyl ester				
	$\Delta_{fus}H$		25.3	399.2		[1999GIO/BET]
	$\Delta_{fus}H$		24.31	398.5		[1990MAN/AHU]
	$\Delta_{sub}H$	(303–327)	98.8 ± 0.8	298	GS	[2005PER/ROD]
	$\Delta_{sub}H$		77.1		TGA	[2002CHA/DOL]
	$\Delta_{v}H$		83.1	298	CGC	[2005TEM/ROU]
	$\Delta_{v}H$	(446–517)	81.5	461	A	[1987STE/MAL]
$C_8H_8O_3$	[119-36-8]	methyl salicylate				
	$\Delta_{v}H$	(333–433)	U56.2	298	GC	[2005HOS/GRY]
	$\Delta_{v}H$		52.3		TG,DTA	[2001CHE/HUA]
	$\Delta_{v}H$	(327–497)	59.9	342	A	[1987STE/MAL]
	$\Delta_{v}H$	(329–496)	58.7	344	A	[1987STE/MAL]
	$\Delta_{v}H$	(288–333)	56.9	303	A	[1987STE/MAL]
$C_8H_8O_3$	[148-53-8]	2-hydroxy-3-methoxybenzaldehyde				
	$\Delta_{sub}H$	(282–303)	54.1	292.5	A	[1987STE/MAL]
$C_8H_8O_3$	[121-33-5]	4-hydroxy-3-methoxybenzaldehyde (vanillin)				
	$\Delta_{fus}H$		22.35	NA	DSC	[2008SIN/DAS]
	$\Delta_{fus}H$		22.4	355.4		[2008TEM/ROU]
	$\Delta_{sub}H$	(293–353)	88.7	323		[1953SER/VOI, 1960JON]
	$\Delta_{v}H$	(353–463)	66.9	298	GC	[2005HOS/GRY]
	$\Delta_{v}H$	(380–558)	66.9	395	A	[1987STE/MAL, 1947STU]
$C_8H_8O_3$	[579-75-9]	2-methoxybenzoic acid				
	$\Delta_{fus}H$		24.0	374.6	DSC	[2008PER/VOL]
	$\Delta_{sub}H$	(309–363)	110.7 ± 0.8	298	GS	[2008PER/VOL]
	$\Delta_{sub}H$	(318–353)	101.2	333	A	[1987STE/MAL]
	$\Delta_{sub}H$		104.7 ± 0.3	298	ME	[1978COL/JIM]
	$\Delta_{sub}H$	(353–368)	90.8 ± 0.4	360	GS	[1973MAL/GIG, 1987STE/MAL]
	$\Delta_{sub}H$	(353–368)	90.9	360	GS	[1954DAV/JON, 1960JON]
	$\Delta_{v}H$		91.8	298	Sub-Fus	[2008PER/VOL]
$C_8H_8O_3$	[586-38-9]	3-methoxybenzoic acid				
	$\Delta_{fus}H$		24.9	378.7	DSC	[2008PER/VOL]
	$\Delta_{sub}H$	(310–349)	114.7 ± 0.8	298	GS	[2008PER/VOL]
	$\Delta_{sub}H$		107.5 ± .4	298	ME	[1987STE/MAL, 1978COL/JIM]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		95	298	Sub-Fus	[2008PER/VOL]
$C_8H_8O_3$	[100-09-4]	4-methoxybenzoic acid				
	$\Delta_{fus}H$		29.9	455.6	DSC	[2008PER/VOL]
	$\Delta_{fus}H$		28.4	457.8		[1991ACR]
	$\Delta_{sub}H$	(316–369)	111.6 ± 0.6	298	GS	[2008PER/VOL]
	$\Delta_{sub}H$		109.8 ± 0.6	298	ME	[1987STE/MAL, 1978COL/JIM]
	$\Delta_v H$		92	298	Sub-Fus	[2008PER/VOL]
$C_8H_8O_3$	[na]	(*dl*) mandelic acid				
	$\Delta_{fus}H$		26.1	392.1	MDSC	[2004PRO/RAS]
	$\Delta_{fus}H$		25.52	392		[1991CHI/BRA]
$C_8H_8O_3$	[na]	(*d*) mandelic acid				
	$\Delta_{fus}H$		26.2	404.1	MDSC	[2004PRO/RAS]
	$\Delta_{fus}H$		26.36	406		[1991CHI/BRA]
$C_8H_8O_3$	[156-38-7]	4-hydroxyphenylacetic acid				
	$\Delta_{fus}H$		28.0	422.9		[2002GRA/RAS]
	$\Delta_{fus}H$		28.4	423.6		[1991ACR]
$C_8H_8O_3$	[495-76-1]	1,3-benzodioxole-5-methanol (piperonyl alcohol)				
	$\Delta_{fus}H$		18.05	327.1		[2004MAT/MON]
	$\Delta_{sub}H$	(305–319)	103.0 ± 0.6	312	ME	[2004MAT/MON]
	$\Delta_{sub}H$	(305–319)	103.7 ± 0.7	298	ME	[2004MAT/MON]
$C_8H_8O_4$	[520-45-6]	2-acetyl-5-hydroxy-3-oxo-4-hexenoic acid-δ-lactone (dehydroacetic acid)				
	$\Delta_v H$	(364–542)	62.1	379	A	[1987STE/MAL, 1947STU]
C_8H_8S	[4565-32-6]	2,3-dihydrobenzo[b]thiophene				
	$\Delta_{fus}H$		14.84	269.8		[2003STE/CHI]
	$\Delta_v H$	(345–557)	59.1 ± 0.2	298	IP,EB	[2003STE/CHI]
	$\Delta_v H$	(345–557)	56.3 ± 0.2	340	IP,EB	[2003STE/CHI]
	$\Delta_v H$	(345–557)	53.8 ± 0.2	380	IP,EB	[2003STE/CHI]
	$\Delta_v H$	(345–557)	51.4 ± 0.2	420	IP,EB	[2003STE/CHI]
	$\Delta_v H$	(345–557)	49.0 ± 0.2	460	IP,EB	[2003STE/CHI]
	$\Delta_v H$	(345–557)	46.4 ± 0.3	500	IP,EB	[2003STE/CHI]
C_8H_9Br	[553-94-6]	1-bromo-2,5-dimethylbenzene				
	$\Delta_v H$	(310–480)	50.9	325		[1999DYK/SVO, 1947STU]
	$\Delta_v H$	(310–480)	53.6	325	A	[1987STE/MAL, 1970DYK/VAN]
C_8H_9Br	[585-71-7]	(1-bromoethyl)benzene				
	$\Delta_v H$	(298–333)	56.4 ± 0.3	298	GS	[2002KRA/VAS]
	$\Delta_v H$		52.4	298	CGC	[2002KRA/VAS]
C_8H_9Br	[103-63-9]	(2-bromoethyl)benzene				
	$\Delta_v H$	(348–401)	51.5	363	A	[1987STE/MAL, 1999DYK/SVO]
C_8H_9Br	[1973-22-4]	1-bromo-2-ethylbenzene				
	$\Delta_v H$	(368–523)	48.1	383	A	[1987STE/MAL, 1970DYK/VAN, 1999DYK/SVO]
C_8H_9Br	[1585-07-5]	1-bromo-4-ethylbenzene				
	$\Delta_v H$	(347–479)	46.2	362		[1999DYK/SVO]
	$\Delta_v H$	(378–533)	49.4	393	A	[1987STE/MAL, 1970DYK/VAN]
	$\Delta_v H$	(303–479)	52.0	318		[1947STU]
C_8H_9Cl	[627-65-1]	(*dl*) (1-chloroethyl)benzene				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(281–319)	52.8 ± 0.2	298	GS	[2002KRA/VAS]
	$\Delta_v H$		52.4	298	CGC	[2002KRA/VAS]
	$\Delta_v H$	(336–372)	51.4	351		[1999DYK/SVO]
	$\Delta_v H$	(342–378)	47.0	357	A	[1987STE/MAL]
C_8H_9Cl	[622-24-2]	(2-chloroethyl)benzene				
	$\Delta_v H$	(356–480)	53.1	368		[1999DYK/SVO]
	$\Delta_v H$	(356–380)	51.7	368	A	[1987STE/MAL]
C_8H_9Cl	[89-96-3]	1-chloro-2-ethylbenzene				
	$\Delta_v H$	(353–503)	46.1	368	A	[1987STE/MAL, 1970DYK/VAN]
	$\Delta_v H$	(290–450)	47.2	305		[1947STU]
C_8H_9Cl	[620-16-6]	1-chloro-3-ethylbenzene				
	$\Delta_v H$	(348–457)	46.4	363		[1999DYK/SVO]
	$\Delta_v H$	(358–508)	46.8	373	A	[1987STE/MAL, 1970DYK/VAN]
	$\Delta_v H$	(291–454)	46.4	307		[1947STU]
C_8H_9Cl	[622-98-0]	1-chloro-4-ethylbenzene				
	$\Delta_v H$	(350–458)	45.8	365		[1999DYK/SVO]
	$\Delta_v H$	(358–508)	46.8	373	A	[1987STE/MAL, 1970DYK/VAN]
	$\Delta_v H$	(381–457)	45.5	396		[1947STU]
C_8H_9Cl	[104-82-5]	1-(chloromethyl)-4-methylbenzene				
	$\Delta_v H$	(376–457)	44.9	391	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_9ClNO_5PS$	[500-28-7]	O,O-(dimethyl)-O-(3-chloro-4-nitrophenyl)thiophosphate				
	$\Delta_v H$	(283–409)	92	346	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_9ClNO_5PS$	[2463-84-5]	O-(2-chloro-4-nitrophenyl) O,O-dimethyl phosphorothioate				
	$\Delta_{fus}H$		29.08	323.9	DSC	[1990DON/DRE]
$C_8H_9ClN_2O$	[52943-21-2]	2-chloro-N,N-dimethylnicotinamide				
	$\Delta_{fus}H$	(82–380)	21.39	342.2	AC	[2005SUN/LIU3]
C_8H_9ClO	[614-72-2]	1-chloro-2-ethoxybenzene				
	$\Delta_v H$	(318–481)	52.4	333	A	[1987STE/MAL, 1947STU]
C_8H_9ClO	[1875-88-3]	4-chlorophenethyl alcohol				
	$\Delta_v H$	(426–673)	59.3	411	A	[1987STE/MAL, 1947STU]
C_8H_9ClO	[622-61-7]	4-chloro-1-ethoxybenzene				
	$\Delta_v H$	(395–485)	49.5	410	A	[1987STE/MAL, 1947STU]
$C_8H_9ClO_2$	[7477-64-7]	ethylene glycol, 4-chlorophenyl ether				
	$\Delta_v H$	(410–554)	68.5	425	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_9ClO_3$	[na]	3-chloro-2,6-dimethoxyphenol				
	$\Delta_v H$	(293–323)	68.6	308	CGC	[1999LEI/WAN2]
$C_8H_9Cl_3O_4$	[na]	2-acetyl-4,4,4-trichloro-3-oxobutyric acid, ethyl ester				
	$\Delta_v H$	(374–409)	53.1	389	A	[1987STE/MAL, 1999DYK/SVO]
C_8H_9I	[10604-60-1]	(1-iodoethyl)benzene				
	$\Delta_v H$	(303–340)	59.9 ± 0.4	298	GS	[2002KRA/VAS]
C_8H_9N	[140-76-1]	2-methyl-5-vinylpyridine				
	$\Delta_v H$	(342–457)	55.2	357	A	[1987STE/MAL]
	$\Delta_v H$	(342–457)	54.5	357		[1961FRO/LOG, 1984BOU/FRI]
C_8H_9N	[na]	N-methylbenzaldehyde-imine				
	$\Delta_v H$	(283–318)	51.1 ± 0.2	301	GS	[1997VER/MOR]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(283–318)	51.2 ± 0.2	298	GS	[1997VER/MOR]
C_8H_9N	[496-15-1]	indoline				
	$\Delta_v H$		61.9 ± 1.7	298	C	[2008RIB/CAB3]
C_8H_9NO	[103-84-4]	acetanilide (N-phenylacetamide)				
	$\Delta_{fus}H$		21.4	386.9	DSC	[2005CHE/TAN]
	$\Delta_{fus}H$		18.3	387.2		[2004VEC/CAT]
	$\Delta_{fus}H$		21.67	387.5		[1996DOM/HEA]
	$\Delta_{sub}H$	(303–324)	80.6	313.5	A	[1987STE/MAL, 1955AIH3]
	$\Delta_{sub}H$	(317–336)	87.2	326.5	A	[1987STE/MAL, 1960AIH2]
	$\Delta_v H$	(473–577)	64.8	488	A	[1987STE/MAL]
	$\Delta_v H$	(387–577)	66.3	402		[1947STU]
C_8H_9NO	[41977-54-2]	*anti* 3-methylbenzaldoxime				
	$\Delta_{sub}H$		U 31 ± 1.7		MS	[1983MAJ/AZZ]
C_8H_9NO	[3235-02-7]	*anti* 4-methylbenzaldoxime				
	$\Delta_{sub}H$		U 36 ± 1.7		MS	[1983MAJ/AZZ]
C_8H_9NO	[103-81-1]	2-phenylacetamide				
	$\Delta_{sub}H$	(329–352)	96.4	340.5	A	[1987STE/MAL, 1960AIH2]
C_8H_9NO	[99-03-6]	3-aminoacetophenone				
	$\Delta_{fus}H$		29.0	371.2		[1971LEB/RYA]
C_8H_9NO	[99-92-3]	4-aminoacetophenone				
	$\Delta_{fus}H$		19.6	378.2	DSC	[2005CHE/TAN]
	$\Delta_{fus}H$		38.0	379.2		[1971LEB/RYA]
	$\Delta_{sub}H$	(314–338)	92.7	326	A	[1987STE/MAL, 1960AIH2]
C_8H_9NO	[613-93-4]	N-methylbenzamide				
	$\Delta_{sub}H$	(297–321)	75.0	309	A	[1987STE/MAL, 1955AIH]
	$\Delta_{sub}H$	(307–329)	85.7	318	A	[1987STE/MAL, 1960AIH2]
$C_8H_9NO_2$	[134-20-3]	anthranilic acid, methyl ester				
	$\Delta_v H$	(299–333)	62.3	314	A,ME	[1987STE/MAL, 1954SER/VOI]
$C_8H_9NO_2$	[81-20-9]	2-nitro-1,3-dimethylbenzene				
	$\Delta_v H$	(284–323)	57.2 ± 0.8	303	GS	[2000VER/HEI]
	$\Delta_v H$		57.5 ± 0.8	298		[2000VER/HEI]
	$\Delta_v H$	(373–498)	49.7	388	A	[1987STE/MAL]
$C_8H_9NO_2$	[89-87-2]	4-nitro-1,3-dimethylbenzene				
	$\Delta_v H$	(368–518)	56.7	383	A	[1987STE/MAL]
	$\Delta_v H$	(338–517)	57.3	353		[1947STU]
$C_8H_9NO_2$	[83-41-0]	1,2-dimethyl-3-nitrobenzene				
	$\Delta_v H$	(383–518)	59.4	398		[1984BOU/FRI]
$C_8H_9NO_2$	[99-51-4]	1,2-dimethyl-4-nitrobenzene				
	$\Delta_v H$	(399–536)	63.6	414		[1984BOU/FRI]
$C_8H_9NO_2$	[612-22-6]	2-nitro-1-ethylbenzene				
	$\Delta_v H$	(284–323)	62.7 ± 0.4	303	GS	[2000VER/HEI]
	$\Delta_v H$		63.0 ± 0.4	298		[2000VER/HEI]
	$\Delta_v H$	(353–422)	56.3	368	A	[1987STE/MAL]
$C_8H_9NO_2$	[100-12-9]	4-nitro-1-ethylbenzene				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(353–433)	59.4	368	A	[1987STE/MAL]
$C_8H_9NO_2$	[103-01-5] N-phenylglycine					
	$\Delta_{sub}H$		114.1 ± 1.0	365.4	C	[1980SAB/SKO]
	$\Delta_{sub}H$		128.0 ± 2.0	298		[1980SAB/SKO]
$C_8H_9NO_2$	[875-74-1] (*d*) α-phenylglycine					
	$\Delta_{sub}H$		148.9 ± 2.2	443	C	[1980SAB/SKO]
	$\Delta_{sub}H$		165.0 ± 6.0	298	C	[1980SAB/SKO]
$C_8H_9NO_2$	[29577-53-5] 2-methoxybenzaldoxime					
	$\Delta_{sub}H$ (*anti*)		U 20.1 ± 1.7		MS	[1983MAJ/AZZ]
	$\Delta_{sub}H$ (*syn*)		U 32.6 ± 1.7		MS	[1983MAJ/AZZ]
$C_8H_9NO_2$	[5235-04-9] 4-methoxybenzaldoxime					
	$\Delta_{sub}H$		U 67.3 ± 1.7		MS	[1983MAJ/AZZ]
$C_8H_9NO_2$	[134-20-3] methyl 2-aminobenzoate					
	$\Delta_{sub}H$	(287–298)	78.4	292.5	ME	[1987STE/MAL, 1954SER/VOI, 1960JON]
$C_8H_9NO_2$	[619-45-4] methyl 4-aminobenzoate					
	$\Delta_{fus}H$		22.55	385.1		[1990MAN/AHU]
$C_8H_9NO_2$	[614-80-2] *o*-hydroxyacetanilide					
	$\Delta_{fus}H$		21.25	364.5		[1996DOM/HEA]
$C_8H_9NO_2$	[103-90-2] *p*-hydroxyacetanilide (acetaminophen)					
	$\Delta_{fus}H$		27.6	443.2	DSC	[2009MOT/CAR]
	$\Delta_{fus}H$		27.0	440.3	DSC	[2009VEC/TOM]
	$\Delta_{trs}H$		NA	149.9		
	$\Delta_{fus}H$		26.49	441.9	AC,DSC	[2006XU/SUN]
	$\Delta_{fus}H$		26.2	443	DSC	[2004ROM/BUS]
	$\Delta_{fus}H$		26.02	441.2		[1990MAN/AHU]
	$\Delta_{sub}H$		138 ± 3	298	Fus+Vap	[2009VEC/TOM]
	$\Delta_v H$		103 ± 3	521	TGA	[2009VEC/TOM]
	$\Delta_v H$		99 ± 1	494	TGA	[2009VEC/TOM]
$C_8H_9NO_2$	[2603-10-3] methyl N-phenylcarbamate					
	$\Delta_{fus}H$		14.56	325		[1971PRI, 1996DOM/HEA]
$C_8H_9NO_2$	[4389-45-1] 2-amino-3-methylbenzoic acid					
	$\Delta_{fus}H$		27.3	447.4	DSC	[2001MON/HIL2]
	$\Delta_{sub}H$	(343–357)	107.3 ± 1.8	298	ME	[2001MON/HIL2]
	$\Delta_{sub}H$	(343–357)	105.8 ± 0.8	350	ME	[2001MON/HIL2]
$C_8H_9NO_2$	[2941-78-8] 2-amino-5-methylbenzoic acid					
	$\Delta_{fus}H$		27.63	450	DSC	[2001MON/HIL2]
	$\Delta_{sub}H$	(345–361)	110.6 ± 1.9	298	ME	[2001MON/HIL2]
	$\Delta_{sub}H$	(345–361)	108.9 ± 0.5	353	ME	[2001MON/HIL2]
$C_8H_9NO_2$	[4389-50-8] 2-amino-6-methylbenzoic acid					
	$\Delta_{fus}H$		27.49	398.7	DSC	[2001MON/HIL2]
	$\Delta_{sub}H$	(339–355)	116.1 ± 2.0	298	ME	[2001MON/HIL2]
	$\Delta_{sub}H$	(339–355)	114.7 ± 1.2	347	ME	[2001MON/HIL2]
$C_8H_9NO_2$	[52130-17-3] 3-amino-2-methylbenzoic acid					
	$\Delta_{fus}H$		38.47	458.8	DSC	[2001MON/HIL2]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(367–381)	127.8 ± 2.6	298	ME	[2001MON/HIL2]
	$\Delta_{sub}H$	(367–381)	115.6 ± 0.8	374	ME	[2001MON/HIL2]
$C_8H_9NO_2$	[2458-12-0]	3-amino-4-methylbenzoic acid				
	$\Delta_{fus}H$		26.89	438.8	DSC	[2001MON/HIL2]
	$\Delta_{sub}H$	(363–377)	119.4 ± 2.5	298	ME	[2001MON/HIL2]
	$\Delta_{sub}H$	(363–377)	117.3 ± 0.9	370	ME	[2001MON/HIL2]
$C_8H_9NO_2$	[2486-70-6]	4-amino-3-methylbenzoic acid				
	$\Delta_{fus}H$		21.77	439.4	DSC	[2001MON/HIL2]
	$\Delta_{sub}H$	(367–383)	122.0 ± 2.6	298	ME	[2001MON/HIL2]
	$\Delta_{sub}H$	(367–383)	119.8 ± 0.7	375	ME	[2001MON/HIL2]
$C_8H_9NO_2$	[1197-55-3]	4-aminophenylacetic acid				
	$\Delta_{fus}H$		42.7	468.2	DSC	[2002GRA/RAS]
$C_8H_9NO_2S_2$	[949171-63-5]	N-theonylthiocarbamic-O-ethyl ester				
	$\Delta_{fus}H$		21.9	345.9	DSC	[2007RIB/MON]
	$\Delta_{sub}H$		143.2 ± 3.1	298	C	[2007RIB/MON]
$C_8H_9NO_7$	[22401-53-2]	methyl 5-nitro-2-acetoxy-2,5-dihydro-2-furancarboxylate				
	$\Delta_{sub}H$		89.1 ± 2.1			[1980BAL/LEB, 1986PED/NAY]
$C_8H_9N_3$	[62679-52-1]	2,2-dicyanohexanenitrile				
	Δ_vH	(288–323)	61.0 ± 0.2		GS	[1994RAK/VER]
$C_8H_9N_3O_2$	[na]	N-(1-oxopropyl)pyrazinecarboxamide				
	$\Delta_{fus}H$		23.5	366.7		[1991ZHA/HUA]
$C_8H_9O_3PS$	[3811-49-2]	2-methoxy-4*H*-1,3,2-benzodioxaphosphorin 2-sulfide				
	$\Delta_{fus}H$		16.92	327.9	DSC	[1990DON/DRE]
C_8H_{10}	[95-47-6]	1,2-dimethylbenzene				
	$\Delta_{fus}H$		13.6	247.8		[1996DOM/HEA]
	$\Delta_{sub}H$		60.1	248	B	[1986HES/LIC]
	Δ_vH	(373–423)	42.9	298	CGC	[1995CHI/HOS]
	Δ_vH	(333–419)	41.1	348	A	[1987STE/MAL]
	Δ_vH	(416–473)	38.0	431	A	[1987STE/MAL]
	Δ_vH	(471–571)	36.7	486	A	[1987STE/MAL]
	Δ_vH	(567–630)	36.7	582	A	[1987STE/MAL]
	Δ_vH	(386–416)	39.8	401		[1982CAS/FRA]
	Δ_vH		43.4	298		[1971WIL/ZWO]
	Δ_vH		43.4 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(337–419)	40.8	352	MM	[1945WIL/TAY, 1949FOR/NOR]
	Δ_vH	(273–323)	45.0	288		[1943PIT/SCO, 1984BOU/FRI]
C_8D_{10}	[56004-61-6]	o-xylene-d10				
	Δ_vH		43.0	298	CGC	[2008ZHA/UNH]
C_8D_{10}	[41051-88-1]	p-xylene-d10				
	Δ_vH		42.4	298	CGC	[2008ZHA/UNH]
C_8H_{10}	[108-38-3]	1,3-dimethylbenzene				
	$\Delta_{fus}H$		11.59	225.3		[1996DOM/HEA]
	Δ_vH	(360–410)	39.2	375		[2002SWI/MAL]
	Δ_vH	(327–412)	40.7	342		[1989PAR/GME]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(267–301)	44.7	282	A	[1987STE/MAL]
	$\Delta_v H$	(412–462)	37.5	427	A	[1987STE/MAL]
	$\Delta_v H$	(461–554)	36.4	476	A	[1987STE/MAL]
	$\Delta_v H$	(550–617)	36.2	565	A	[1987STE/MAL]
	$\Delta_v H$	(380–411)	38.7	395		[1983MAC]
	$\Delta_v H$		42.7	298		[1971WIL/ZWO]
	$\Delta_v H$		42.7 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(331–415)	40.4	346	MM	[1987STE/MAL, 1945WIL/TAY, 1949FOR/NOR]
	$\Delta_v H$	(273–333)	43.2	288		[1943PIT/SCO, 1984BOU/FRI]
C_8H_{10}	[106-42-3]	1,4-dimethylbenzene				
	$\Delta_{fus}H$		17.11	286.3		[1996DOM/HEA]
	$\Delta_{sub}H$	(247–286)	59.4	271		[1987STE/MAL, 1974OSB/DOU]
	$\Delta_{sub}H$		60.8	286	B	[1986HES/LIC]
	$\Delta_v H$	(373–423)	42.3	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(293–323)	43.0 ± 0.1	298		[1990SMI]
	$\Delta_v H$		42.3 ± 0.01	298		[1988MES/FIN]
	$\Delta_v H$		40.3	353		[1988HOS/ARC]
	$\Delta_v H$	(411–463)	37.3	426	A	[1987STE/MAL]
	$\Delta_v H$	(460–553)	36.1	475	A	[1987STE/MAL]
	$\Delta_v H$	(551–616)	36.2	566	A	[1987STE/MAL]
	$\Delta_v H$		36.0 ± 0.1	411	C	[1985NAT/VIS]
	$\Delta_v H$		34.5 ± 0.1	436	C	[1985NAT/VIS]
	$\Delta_v H$		30.5 ± 0.1	484	C	[1985NAT/VIS]
	$\Delta_v H$		24.7 ± 0.1	540	C	[1985NAT/VIS]
	$\Delta_v H$	(380–410)	37.3	395		[1982CAS/FRA]
	$\Delta_v H$		42.3 ± 0.1	298	C	[1981HOS/SCO3]
	$\Delta_v H$		42.6	298		[1974AMB/ELL]
	$\Delta_v H$	(286–453)	42.4	301	IP,EB	[1987STE/MAL, 1974OSB/DOU]
	$\Delta_v H$		42.4	298		[1971WIL/ZWO]
	$\Delta_v H$	(303–343)	41.6	318		[1968GAW/SWI2]
	$\Delta_v H$		42.4 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(332–413)	40.1	347	MM	[1945WIL/TAY, 1949FOR/NOR]
C_8H_{10}	[100-41-4]	ethylbenzene				
	$\Delta_{fus}H$		9.16	178.2		[1996DOM/HEA]
	$\Delta_v H$	(298–420)	41.8	313	A	[1987STE/MAL]
	$\Delta_v H$	(409–459)	37.0	424	A	[1987STE/MAL]
	$\Delta_v H$	(457–554)	35.8	472	A	[1987STE/MAL]
	$\Delta_v H$	(320–400)	40.6	335		[1986PAU/KRU]
	$\Delta_v H$	(549–617)	35.5	564	A	[1987STE/MAL]
	$\Delta_v H$		40.5 ± 0.1	328	C	[1982SVO/CHA]
	$\Delta_v H$		39.5 ± 0.1	343	C	[1982SVO/CHA]
	$\Delta_v H$		38.6 ± 0.1	358	C	[1982SVO/CHA]
	$\Delta_v H$		42.4 ± 0.1	298	C	[1981HOS/SCO3]
	$\Delta_v H$		42.3	298		[1971WIL/ZWO]
	$\Delta_v H$		42.2 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(330–410)	40.0	345	MM	[1945WIL/TAY, 1949FOR/NOR]
C_8H_{10}	[na]	1,2-bicyclopropylacetylene				
	$\Delta_v H$		47.6 ± 0.2	298	C	[2007PAS/KUZ]
$C_8H_{10}Cl_2O_2$	[55701-05-8]	3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylic acid				
	$\Delta_{fus}H$		16.32	331.5		[2007XUE/WAN]
$C_8H_{10}F_3NO_3$	[715-58-2]	N-trifluoroacetyl-*l*-proline, methyl ester				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(303–523)	57.9	318	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{10}F_3NO_5$	[81084-01-7]	N-trifluoroacetyl-*l*-aspartic acid, dimethyl ester				
	$\Delta_v H$	(303–423)	58.2	318	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{10}NO_5PS$	[298-00-0]	O,O-dimethyl-O-(4-nitrophenyl) thiophosphate				
	$\Delta_{fus}H$		20.07	308.2		[1991ACR]
	$\Delta_{sub}H$	(298–308)	125.1	303	GS,A	[1984KIM/WOO]
	$\Delta_{sub}H$	(278–288)	108.7	283	GS	[1983SPE/CLI, 1979SPE/SHO]
	$\Delta_v H$	(293–427)	88.9	308	A	[1987STE/MAL]
	$\Delta_v H$		87.0		GS	[1979SPE/SHO]
$C_8H_{10}N_2O$	[138-89-6]	4-N,N-dimethylaminonitrosobenzene				
	$\Delta_{sub}H$	(323–334)	82.0 ± 1.7	298	ME	[1994ACR/TUC]
$C_8H_{10}N_2O_2$	[619-31-8]	3-nitro-N,N-dimethylaniline				
	$\Delta_{sub}H$		92.7 ± 0.3	298	C	[1985MUR/SAK]
	$\Delta_v H$	(427–558)	52.3	442	A,GS,EB	[1987STE/MAL, 1960AND/BID]
	$\Delta_v H$	(357–492)	48.2	372		[1955VON/GEB]
$C_8H_{10}N_2O_2$	[100-23-2]	N,N-dimethyl-4-nitroaniline				
	$\Delta_{sub}H$		102.7 ± 1.1	298	C	[1985MUR/SAK]
	$\Delta_{sub}H$	(344–366)	98.7 ± 1.7	355	ME	[1987STE/MAL, 1956MAJ]
	$\Delta_{sub}H$	(372–393)	101.3 ± 2.0	298	ME	[1994ACR/TUC]
$C_8H_{10}N_2O_3$	[22809-78-3]	N-methyl-N-(4-methoxyphenyl)nitramine				
	$\Delta_{fus}H$		22.7	342.6		[2002DAS/ZAL]
$C_8H_{10}N_2O_3S$	[144-80-9]	N-[(4-aminophenyl)sulfonyl]acetamide (sulfacetamide)				
	$\Delta_{fus}H$		29.8	455.2		[2002MAR/GOM]
$C_8H_{10}N_2O_4S$	[156461-84-6]	N-methyl-N-(3-methylsulfonylphenyl)nitramine				
	$\Delta_{fus}H$		26.1	377.8		[2002DAS/ZAL]
$C_8H_{10}N_2O_4S$	[23042-38-8]	N-methyl-N-(4-methylsulfonylphenyl)nitramine				
	$\Delta_{fus}H$		19.2	438.1		[2002DAS/ZAL]
$C_8H_{10}N_4O_2$	[58-08-2]	caffeine (1,3,7-trimethylxanthine)				
	$\Delta_{fus}H$		24.8	507.7	DSC	[2010GUO/SAD]
	$\Delta_{trs}H$		3.43	420.9		
	$\Delta_{fus}H$		19.86	509.5	DSC	[2007DON/LI]
	$\Delta_{trs}H$		4.02	428.2		
	$\Delta_{fus}H$		21.9	510.2	DSC	[2006PIN/DIO]
	$\Delta_{trs}H$		3.9	428	DSC	[1905DES/COR]
	$\Delta_{fus}H$		19.38	510.2	DSC	[2005KLO/BRO]
	$\Delta_{trs}H$		0.94	426		
	$\Delta_{fus}H$		23.43	512		
	$\Delta_{fus}H$		18.3	510		[1990DOM/HEA, 1985OHM/LIP]
	$\Delta_{trs}H$		1.71	420.8		
	$\Delta_{fus}H$		20.95	508.3	DSC	[1984WEI/LEF]
	$\Delta_{sub}H$ *(form I)*	(413–463)	104.8 ± 0.2	438	T	[1999EMM/PIC]
	$\Delta_{sub}H$ *(form I)*	(413–463)	115	298	T	[1999EMM/PIC]
	$\Delta_{sub}H$ *(form II)*	(413–463)	113.6 ± 0.2	369	T	[1999EMM/PIC]
	$\Delta_{sub}H$ *(form II)*	(413–463)	119	298	T	[1999EMM/PIC]
	$\Delta_{sub}H$	(315–364)	112.6 ± 2.4		ME	[1998BOL/WIE]
	$\Delta_{sub}H$		105.1 ± 0.7		ME	[1985KAM/ZIE]
	$\Delta_{sub}H$	(373–473)	103.6	423	UV	[84EBE/FRA]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$ *(form I)*	(446–509)	100.0 ± 0.6	478	MM	[1979BOT/CAM]
	$\Delta_{sub}H$ *(form I)*		110	298		[1979BOT/CAM, 1999EMM/PIC]
	$\Delta_{sub}H$ *(form II)*	(446–509)	110.7 ± 0.7	362	MM	[1979BOT/CAM]
	$\Delta_{sub}H$ *(form II)*		114	298		[1979BOT/CAM, 1999EMM/PIC]
	$\Delta_v H$	(634–743)	64.9 ± 2.4		DSC	[1998BOL/WIE]
$C_8H_{10}O$	[526-75-0]	2,3-dimethylphenol				
	$\Delta_{fus}H$		20.29	345.8	DSC	[1998JAM/PAL]
	$\Delta_{fus}H$		21.02	346		[1991ACR]
	$\Delta_{sub}H$	(283–323)	84. ± 1.0		GS	[1960AND/BID, 1970COX/PIL, 1987STE/MAL]
	$\Delta_v H$	(433–492)	52.1	448	A,GS,EB	[1987STE/MAL, 1960AND/BID]
$C_8H_{10}O$	[105-67-9]	2,4-dimethylphenol				
	$\Delta_{fus}H$		12.76	297.3	DSC	[1998JAM/PAL]
	$\Delta_v H$	(282–318)	65.9 ± 0.2		GS	[1960AND/BID, 1970COX/PIL]
	$\Delta_v H$	(393–433)	64.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(282–318)	65.9	297	A	[1987STE/MAL]
	$\Delta_v H$	(282–318)	65.9 ± 0.2		GS	[1960AND/BID, 1970COX/PIL]
	$\Delta_v H$	(429–486)	51.8	444	A,GS,EB	[1987STE/MAL, 1960AND/BID]
$C_8H_{10}O$	[95-87-4]	2,5-dimethylphenol				
	$\Delta_{fus}H$		13.81	348.1	DSC	[1998JAM/PAL]
	$\Delta_{fus}H$		23.38	348		[1991ACR]
	$\Delta_{sub}H$	(282–323)	85.0 ± 0.25		GS	[1960AND/BID, 1970COX/PIL, 1987STE/MAL]
	$\Delta_v H$	(427–485)	51.7	442	A,GS,EB	[1987STE/MAL, 1960AND/BID]
$C_8H_{10}O$	[576-26-1]	2,6-dimethylphenol				
	$\Delta_{fus}H$		18.83	318.6	DSC	[1998JAM/PAL]
	$\Delta_{fus}H$		18.9	318.9		[1991ACR]
	$\Delta_{sub}H$		75.6	298		[1971MOR]
	$\Delta_{sub}H$		75.1	298		[1968MOR]
		Note: Author of [1968MOR] refers to the determined value as the enthalpy of vaporization even though the compound is a solid				
	$\Delta_{sub}H$	(277–313)	75.6 ± 0.17		GS	[1960AND/BID, 1970COX/PIL]
	$\Delta_v H$		75.6	298		[1971MOR]
	$\Delta_v H$		75.1	298		[1968MOR]
	$\Delta_v H$	(417–476)	48.5	432	A,GS,EB	[1987STE/MAL, 1960AND/BID]
$C_8H_{10}O$	[96-65-8]	3,4-dimethylphenol				
	$\Delta_{fus}H$		19.04	338.5	DSC	[1998JAM/PAL]
	$\Delta_{fus}H$		18.13	334		[1991ACR]
	$\Delta_{sub}H$		85.1	298		[1971MOR]
	$\Delta_{sub}H$		85.0	298		[1968MOR]
		Note: Author of [1968MOR] refers to the determined value as the enthalpy of vaporization even though the compound is a solid				
	$\Delta_{sub}H$	(282–323)	85.7 ± 0.1		GS	[1960AND/BID, 1970COX/PIL, 1987STE/MAL]
	$\Delta_v H$		85.1	298		[1971MOR]
	$\Delta_v H$		85.0	298		[1968MOR]
	$\Delta_v H$	(444–502)	54.9	459	A,GS,EB	[1987STE/MAL, 1960AND/BID]
$C_8H_{10}O$	[108-68-9]	3,5-dimethylphenol				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		18.0	336.8		[1991ACR]
	$\Delta_{sub}H$	(282–323)	82.8 ± 0.3		GS	[1960AND/BID, 1970LEN/VEL, 1987STE/MAL]
	$\Delta_{sub}H$		82 (sub)	298		[1971MOR]
	Δ_vH	(427–497)	55.3	442	A,GS,EB	[1987STE/MAL, 1960AND/BID]
$C_8H_{10}O$	[538-86-3]	benzyl methyl ether				
	Δ_vH	(274–314)	51.4 ± 0.3	298	GS	[2002KRA/VAS]
$C_8H_{10}O$	[103-73-1]	ethoxybenzene				
	Δ_vH	(390–454)	44.5	405	A	[1987STE/MAL, 1976AMB/ELL]
	Δ_vH	(390–454)	50.7	298		[1976AMB/ELL]
	Δ_vH	(390–454)	40.7	443		[1976AMB/ELL]
	Δ_vH		51.0 ± 0.1	298	C	[1975FEN/HAR]
	Δ_vH	(400–454)	44.0	415		[1965COL/COU, 1984BOU/FRI]
$C_8H_{10}O$	[90-00-6]	2-ethylphenol				
	$\Delta_{sub}H$	(278–317)	80.3 ± 0.5		GS	[1963BID/HAN, 1970COX/PIL, 1987STE/MAL]
	Δ_vH	(393–433)	64.5	298	CGC	[1995CHI/HOS]
	Δ_vH	(423–491)	50.5	438	A,GS,EB	[1987STE/MAL, 1963BID/HAN]
	Δ_vH	(277–318)	63.5	292	A,GS,EB	[1987STE/MAL, 1963BID/HAN]
	Δ_vH	(359–480)	51.6	374		[1955VON/GEB]
	Δ_vH	(321–492)	51.4	348		[1953STA/MUL]
	Δ_vH	(321–492)	49.5	373		[1953STA/MUL]
	Δ_vH	(321–492)	48.6	398		[1953STA/MUL]
	Δ_vH	(321–492)	47.0	423		[1953STA/MUL]
	Δ_vH	(321–492)	43.1	473		[1953STA/MUL]
$C_8H_{10}O$	[620-17-7]	3-ethylphenol				
	Δ_vH	(445–503)	53.1	460	A,GS,EB	[1987STE/MAL, 1963BID/HAN]
	Δ_vH	(277–323)	68.1	292	A,GS,EB	[1987STE/MAL, 1963BID/HAN]
	Δ_vH	(334–501)	58.3	348		[1953STA/MUL]
	Δ_vH	(334–501)	56.5	373		[1953STA/MUL]
	Δ_vH	(334–501)	55.2	398		[1953STA/MUL]
	Δ_vH	(334–501)	53.7	423		[1953STA/MUL]
	Δ_vH	(334–501)	48.8	473		[1953STA/MUL]
$C_8H_{10}O$	[123-07-9]	4-ethylphenol				
	Δ_vH	(444–503)	53.2	459	A,GS,EB	[1987STE/MAL, 1963BID/HAN]
	Δ_vH	(337–503)	56.5	348		[1953STA/MUL]
	Δ_vH	(337–503)	54.7	373		[1953STA/MUL]
	Δ_vH	(337–503)	53.8	398		[1953STA/MUL]
	Δ_vH	(337–503)	51.3	423		[1953STA/MUL]
	Δ_vH	(337–503)	47.6	473		[1953STA/MUL]
$C_8H_{10}O$	[589-18-4]	4-methylbenzyl alcohol				
	$\Delta_{trs}H$		0.73	179		
	$\Delta_{trs}H$		0.21	210		
	$\Delta_{fus}H$	(10–350)	20.17	331.9	AC	[2005SAI/IKE]
	Δ_vH	(338–376)	64.2	353	A	[1987STE/MAL]
$C_8H_{10}O$	[13323-81-4]	(*dl*) 1-phenylethanol				
	Δ_vH	(353–480)	53.5	368	A	[1987STE/MAL]
$C_8H_{10}O$	[60-12-8]	2-phenylethanol				
	Δ_vH	(288–363)	66.7	298	GS	[2007EME/DAB]
	Δ_vH	(313–413)	U54.55	298	GC	[2005HOS/GRY]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(394–613)	55.1	409	A	[1987STE/MAL]
	$\Delta_v H$	(305–363)	73.4 ± 1.5	298	GC	[1981SHC/RUD, 2007EME/DAB]
	$\Delta_v H$	(284–287)	69.7 ± 1.6	298	ME	[1958SER/VOI, 2007EME/DAB]
	$\Delta_v H$	(283–318)	68.4	298	A,ME	[1987STE/MAL, 1954SER/VOI]
	$\Delta_v H$	(406–492)	64.9 ± 0.3	298	EB	[1949DRE/SHR, 1949DRE/MAR, 2007EME/DAB]
	$\Delta_v H$	(331–492)	68	298	EB	[1947STU, 2007EME/DAB]
$C_8H_{10}O$	[578-58-5] 2-methylanisole					
	$\Delta_v H$		45.2			[1986BAL/GNA]
$C_8H_{10}O$	[104-93-8] 4-methylanisole					
	$\Delta_v H$		46.0			[1986BAL/GNA]
$C_8H_{10}O$	[98-85-1] α-methyl benzyl alcohol					
	$\Delta_v H$	(358–398)	75.2	298	EB	[2004CHY/FRA]
$C_8H_{10}OS$	[1879-16-9] 4-methoxythioanisole					
	$\Delta_v H$		53.6			[1986BAL/GNA]
$C_8H_{10}OS$	[2530-10-4] 3-acetyl-2,5-dimethylthiophene					
	$\Delta_v H$		61.3 ± 1.3	298	C	[2008RIB/SAN3]
$C_8H_{10}O_2$	[na] ethyl *trans* b-(2-furyl)acrylate					
	$\Delta_v H$	(428–500)	56.8	464		[1956FRO/LOE]
$C_8H_{10}O_2$	[105-13-5] 4-methoxybenzyl alcohol					
	$\Delta_v H$	(394–424)	95.6	409	A	[1987STE/MAL]
	$\Delta_v H$	(354–453)	71.7	369	EB	[1985SCH/BRU]
$C_8H_{10}O_2$	[488-87-9] 1,3-dihydroxy-2,5-dimethylbenzene					
	$\Delta_v H$	(393–459)	74.7	408	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_8H_{10}O_2$	[527-55-9] 1,3-dihydroxy-4,5-dimethylbenzene					
	$\Delta_v H$	(424–453)	67.5	438	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_8H_{10}O_2$	[615-89-4] 1,3-dihydroxy-4,6-dimethylbenzene					
	$\Delta_v H$	(388–466)	74.7	403	A,GC	[1975KUN/LIL]
$C_8H_{10}O_2$	[615-90-7] 1,4-dihydroxy-2,5-dimethylbenzene					
	$\Delta_v H$	(331–361)	101.1	346	A	[1987STE/MAL]
$C_8H_{10}O_2$	[4299-72-3] 1,3-dihydroxy-5-ethylbenzene					
	$\Delta_v H$	(408–479)	81.3	423	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_8H_{10}O_2$	[615-90-7] 2,5-dimethylhydroquinone					
	$\Delta_{sub} H$	(332–361)	100.8		QF	[1927COO/COO, 1960JON]
$C_8H_{10}O_2$	[91-16-7] 1,2-dimethoxybenzene					
	$\Delta_v H$	(373–468)	52.7	388		[2002SU, 2004LEE/SU]
	$\Delta_v H$		68.1 ± 1.4	298	C	[2000MAT/MIR]
	$\Delta_v H$		66.9			[1958CAS/FLE2]
$C_8H_{10}O_2$	[151-10-0] 1,3-dimethoxybenzene					
	$\Delta_v H$	(358–423)	60.8	373	A,GC	[1987STE/MAL, 1975KUN/LIL]
	$\Delta_v H$		61.5 ± 1.4	298	C	[2000MAT/MIR]
$C_8H_{10}O_2$	[150-78-7] 1,4-dimethoxybenzene					
	$\Delta_{sub} H$		84.1 ± 2.3	298	C	[2000MAT/MIR]
	$\Delta_v H$	(298–357)	62.1	313	A	[1987STE/MAL]
	$\Delta_v H$		51.5			[1986BAL/GNA]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{10}O_2$	[122-99-6]	2-phenoxyethanol				
	$\Delta_v H$	(351–519)	66.0	366	A	[1987STE/MAL, 1947STU]
$C_8H_{10}O_2$	[2896-67-5]	3-methoxy-4-hydroxytoluene				
	$\Delta_v H$	(356–495)	53.2	371	A	[1987STE/MAL]
$C_8H_{10}O_2$	[135-02-4]	2-methoxybenzaldehyde				
	$\Delta_v H$		55.2			[1986BAL/GNA]
$C_8H_{10}O_2$	[501-94-0]	4-hydroxybenzeneethanol				
	$\Delta_{fus}H$		25.9	364	DSC	[2009QUE/MOT]
$C_8H_{10}O_2S$	[3112-90-1]	benzyl methyl sulfone				
	$\Delta_{fus}H$		25.52	400.5		[1961BUS/IVI]
	$\Delta_v H$	(455–529)	64.9	470	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{10}O_2S$	[57382-97-5]	ethyl 2-thiopheneacetate				
	$\Delta_v H$		61.8 ± 1.3	298	C	[2009RIB/SAN2]
$C_8H_{10}O_2S$	[37784-63-7]	ethyl 3-thiopheneacetate				
	$\Delta_v H$		63.2 ± 1.3	298	C	[2009RIB/SAN2]
$C_8H_{10}O_3$	[13149-00-3]	*cis* cyclohexane-1,2-dicarboxylic acid anhydride				
	$\Delta_{trs}H$		5.59	304		
	$\Delta_{fus}H$		0.85	310.5		[1983GEI/NUR]
	$\Delta_v H$	(325–525)	48.8 ± 0.1			[1984NUR/MEK]
$C_8H_{10}O_3$	[85-42-7]	1,2-cyclohexanedicarboxylic anhydride				
	$\Delta_{fus}H$	(80–390)	14.71	303.8	AC	[2008LU/GAO]
$C_8H_{10}O_3$	[5150-42-5]	2,3-dimethoxyphenol				
	$\Delta_v H$		76.5 ± 0.5	298	C	[2003MAT/MIR]
$C_8H_{10}O_3$	[91-10-1]	2,6-dimethoxyphenol				
	$\Delta_{sub}H$		98.4 ± 1.1	298	C	[2003MAT/MIR]
$C_8H_{10}O_3$	[500-99-2]	3,5-dimethoxyphenol				
	$\Delta_{sub}H$		101.1 ± 2.3	298	C	[2003MAT/MIR]
$C_8H_{10}O_4$	[na]	*trans,trans*-2,6-octadiene-1,8-dioic acid				
	$\Delta_{trs}H$		11.04	439		
	$\Delta_{fus}H$		27.77	541		[1969COR/FRA]
$C_8H_{10}O_4$	[na]	*trans,cis*-2,6-octadiene-1,8-dioic acid				
	$\Delta_{fus}H$		22.78	380		[1969COR/FRA]
$C_8H_{10}O_6$	[59743-08-7]	dioxobutanedioic acid, diethyl ester				
	$\Delta_v H$	(343–507)	59.3	358	A	[1987STE/MAL, 1947STU]
$C_8H_{10}S$	[766-92-7]	benzyl methyl sulfide				
	$\Delta_v H$	(336–368)	51.8	351		[1999DYK/SVO]
	$\Delta_v H$	(336–368)	50.8	351	A	[1987STE/MAL]
	$\Delta_v H$	(323–358)	55.2 ± 2.1	298		[1962MAC/MAY]
$C_8H_{10}S$	[622-38-8]	ethyl phenyl sulfide				
	$\Delta_v H$	(255–451)	56.4	298		[2004SAW/MOK]
	$\Delta_v H$	(338–367)	50.9	353		[1999DYK/SVO]
	$\Delta_v H$	(338–477)	51.7	353	A	[1987STE/MAL]
	$\Delta_v H$	(323–358)	53.6 ± 2.1			[1962MAC/MAY]
$C_8H_{10}S$	[14092-00-3]	2-(methylthio)toluene				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		50.2			[1986BAL/GNA]
$C_8H_{10}S$	[623-13-2]	4-(methylthio)toluene				
	$\Delta_v H$		50.2			[1986BAL/GNA]
$C_8H_{11}Cl_3OS$	[76619-94-8]	2,3,3-trichloro-2-propenethioic acid, O-pentyl ester				
	$\Delta_v H$	(413–455)	74.1		GC	[1980PIT/KIS]
$C_8H_{11}F_3O_2$	[1549-45-7]	trifluoroacetic acid, cyclohexyl ester				
	$\Delta_v H$	(345–420)	43	360	A,EB	[1987STE/MAL, 1969SHE/LAN, 1999DYK/SVO]
$C_8H_{11}N$	[121-69-7]	N,N-dimethylaniline				
	$\Delta_{fus}H$		11.56	275.6		[1972AHM/EAD2]
	$\Delta_v H$	(284–323)	53.7 ± 0.5	304		[1997VER]
	$\Delta_v H$	(363–418)	49.2	378	A	[1987STE/MAL]
	$\Delta_v H$		52.8 ± 0.1	298	C	[1982FUR/SAK]
	$\Delta_v H$	(302–467)	47.6	317	A	[1987STE/MAL, 1947STU]
$C_8H_{11}N$	[95-68-1]	2,4-dimethylaniline				
	$\Delta_v H$	(295–339)	61.3 ± 0.6	317		[1997VER]
	$\Delta_v H$	(383–485)	55.5	398	A	[1987STE/MAL]
	$\Delta_v H$	(326–485)	56.9	341		[1947STU]
$C_8H_{11}N$	[95-78-3]	2,5-dimethylaniline				
	$\Delta_{fus}H$		13.7	279		[1972AHM/EAD2]
	$\Delta_v H$	(295–339)	61.7 ± 0.7	317		[1997VER]
$C_8H_{11}N$	[87-62-7]	2,6-dimethylaniline				
	$\Delta_v H$	(286–326)	59.2 ± 0.3	306		[2000VER3]
	$\Delta_v H$		59.6 ± 0.3	298		[2000VER3]
	$\Delta_v H$	(373–490)	48.5	388	A	[1987STE/MAL]
	$\Delta_v H$	(317–491)	50.7	332		[1947STU]
$C_8H_{11}N$	[103-69-5]	N-ethylaniline				
	$\Delta_v H$	(279–318)	58.3 ± 0.6	298		[1997VER]
	$\Delta_v H$	(311–477)	52.2	326	A	[1987STE/MAL]
$C_8H_{11}N$	[578-54-1]	2-ethylaniline				
	$\Delta_v H$	(283–323)	60.3 ± 0.9	304.3	GS	[2000VER3]
	$\Delta_v H$		60.6 ± 0.9	298		[2000VER3]
$C_8H_{11}N$	[589-16-2]	4-ethylaniline				
	$\Delta_v H$	(393–491)	53.1	408	A	[1987STE/MAL]
	$\Delta_v H$	(325–490)	54.6	340		[1947STU]
$C_8H_{11}N$	[104-90-5]	5-ethyl-2-methylpyridine				
	$\Delta_v H$	(348–451)	45.4	363	A	[1987STE/MAL]
	$\Delta_v H$	(253–276)	51.6	264	GS	[1980VAN/PRA]
$C_8H_{11}N$	[98-84-0]	α-methyl benzylamine				
	$\Delta_v H$	(283–318)	54.7 ± 0.3	301	GS	[1999VER4]
	$\Delta_v H$	(283–318)	54.9 ± 0.3	298	GS	[1999VER4]
$C_8H_{11}N$	[618-36-0]	(*dl*) α-methyl benzylamine				
	$\Delta_v H$	(292–318)	36.7	305	A	[1987STE/MAL]
	$\Delta_v H$		54.5 ± 0.1	298	C	[1987ATI/SAI]
$C_8H_{11}N$	[3886-69-9]	(+) α-methylbenzylamine				
	$\Delta_v H$		54.1 ± 0.1	298	C	[1987ATI/SAI]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{11}N$	[2627-86-3]	(−)α-methylbenzylamine				
	$\Delta_v H$		54.6 ± 0.1	298	C	[1987ATI/SAI]
$C_8H_{11}N$	[104-84-7]	4-methylbenzylamine				
	$\Delta_v H$	(353–466)	54.4	368	A	[1987STE/MAL]
$C_8H_{11}N$	[64-04-0]	2-phenylethylamine				
	$\Delta_v H$	(277–351)	55.7 ± 0.2	313		[2009MOK/RAZ]
	$\Delta_v H$	(277–351)	56.8 ± 0.2	298		[2009MOK/RAZ]
$C_8H_{11}N$	[695-98-7]	2,3,5-trimethylpyridine				
	$\Delta_v H$	(293–426)	44.0	359		[1995SAK/UEO]
$C_8H_{11}N$	[1462-84-6]	2,3,6-trimethylpyridine				
	$\Delta_v H$		48.5	328	C	[1985MAJ/SVO2]
	$\Delta_v H$		47.5	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		45.7	368	C	[1985MAJ/SVO2]
$C_8H_{11}N$	[108-75-8]	2,4,6-trimethylpyridine				
	$\Delta_{fus}H$		9.54	229		[1996DOM/HEA]
	$\Delta_v H$	(342–373)	50.4 ± 2.9	298	CGC	[2009LIP/CHI2]
	$\Delta_v H$	(323–373)	50.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(303–424)	46.5	363		[1995SAK/UEO]
	$\Delta_v H$	(298–444)	51.2	313	EB	[1990LEN]
	$\Delta_v H$		50.3 ± 0.2	298		[1985MAJ/SVO2]
	$\Delta_v H$		48.3	328	C	[1985MAJ/SVO2]
	$\Delta_v H$		47.2	343	C	[1985MAJ/SVO2]
	$\Delta_v H$		45.5	368	C	[1985MAJ/SVO2]
$C_8H_{11}N$	[622-39-9]	2-propylpyridine				
	$\Delta_v H$	(338–445)	46.6	353	A	[1987STE/MAL]
$C_8H_{11}N$	[4673-31-8]	3-propylpyridine				
	$\Delta_v H$	(350–450)	49.9	365	A	[1987STE/MAL]
$C_8H_{11}N$	[1122-81-2]	4-propypyridine				
	$\Delta_v H$	(354–465)	47.8	369	A	[1987STE/MAL]
$C_8H_{11}N$	[103434-09-9]	1-norbornylisocyanide				
	$\Delta_{sub}H$		60.6 ± 0.5	298		[1987MEI/DOG]
$C_8H_{11}N$	[3211-90-3]	*exo*-2-cyanobicyclo[2.2.1]heptane				
	$\Delta_{trs}H$		7.95	237.7		
	$\Delta_{fus}H$		2.93	298.8		[1996DOM/HEA]
$C_8H_{11}N$	[3211-87-8]	*endo*-2-cyanobicyclo[2.2.1]heptane				
	$\Delta_{trs}H$		2.25	177.3		
	$\Delta_{fus}H$		2.96	331.2		[1996DOM/HEA]
$C_8H_{11}NO$	[122-98-5]	2-anilinoethanol				
	$\Delta_v H$	(377–553)	69.9	392	A	[1987STE/MAL, 1947STU]
$C_8H_{11}NO$	[94-70-2]	2-ethoxyaniline				
	$\Delta_v H$	(373–458)	57.3	388	A	[1987STE/MAL]
$C_8H_{11}NO$	[156-43-4]	4-ethoxyaniline				
	$\Delta_v H$	(421–523)	61.2	436	A	[1987STE/MAL]
$C_8H_{11}NO_2$	[4355-17-3]	3-azabicyclo[3.3.1]nonane-2,4-dione				
	$\Delta_{trs}H$		16.3	408.6		[2007HUL/JOH]
	$\Delta_{fus}H$		3.3	463.6		

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{11}N_3O_4$	[87473-90-3]	methyl N-(4,6-dimethoxypyrimidin-2-yl)carbamate				
	$\Delta_{fus}H$	(80–380)	26.29	357.2	AC	[2004XIN/TAN]
$C_8H_{11}N_5$	[116988-56-8]	8-ethyl-9-methyladenine				
	$\Delta_{sub}H$		127.1 ± 0.7			[1994ZIE/ZIE]
	$\Delta_{sub}H$	(365–370)	115.2 ± 1.0	368	ME	[1987KAM/ZIE]
$C_8H_{11}N_5$	[139909-51-6]	6,8,9-trimethyladenine				
	$\Delta_{fus}H$		23.1	438		[1994ZIE/ZIE]
	$\Delta_{sub}H$	(334–342)	98.6 ± 0.2	338	ME	[1994ZIE/ZIE]
$C_8H_{11}N_5$	[3013-82-9]	N,N,9-trimethyladenine				
	$\Delta_{sub}H$	(319–349)	101.7 ± 2.1		ME	[1984ZIE/ZIE]
$C_8H_{11}N_5O_2$	[na]	2-amino-9-[(2-hydroxyethoxy)methyl]-9*H*-purine				
	$\Delta_{fus}H$		42.2	462.2		[1995KRI/VES]
$C_8H_{11}N_5O_3$	[59277-89-3]	2-amino-9-[(2-hydroxyethoxy)methyl]-1,9-dihydro-6*H*-purin-6-one				
	$\Delta_{fus}H$		30.44	528.2		[1995KRI/VES]
C_8H_{12}	[13027-75-3]	*anti*-tricyclo[4.2.0.0^{2,5}]octane				
	Δ_vH		41.8 ± 1.7	298		[2008OSM/CAT]
C_8H_{12}	[28636-10-4]	*syn*-tricyclo[4.2.0.0^{2,5}]octane				
	Δ_vH		41.8 ± 1.7	298		[2008OSM/CAT]
C_8H_{12}	[250-21-5]	tricyclo[3.3.0.0^{2,6}]octane				
	Δ_vH	(273–343)	40.0	273		[1988LET/SEW]
	Δ_vH	(273–343)	39.1	298		[1988LET/SEW]
	Δ_vH	(273–343)	38.3	323		[1988LET/SEW]
C_8H_{12}	[na]	cyclooctadiene (mixed isomers)				
	Δ_vH	(290–474)	34.6	305	A	[1987STE/MAL]
C_8H_{12}	[1552-12-1]	*ciscis* 1,5-cyclooctadiene				
	Δ_vH		43.4 ± 0.1	298	C	[1996VAR/PAS]
C_8H_{12}	[10092-71-4]	1,5-cyclooctadiene				
	$\Delta_{trs}H$		0.38	194.4		
	$\Delta_{fus}H$		9.83	204		[1996DOM/HEA, 1975LEB/TSV]
	Δ_vH	(348–386)	40.9	363	A	[1987STE/MAL]
C_8H_{12}	[6553-48-6]	(*dl*) *trans* 1,2-divinylcyclobutane				
	Δ_vH	(319–371)	38.9 ± 0.5	298	EB	[1996VAR/PAS]
	Δ_vH	(350–385)	39.1	365	A	[1987STE/MAL]
	Δ_vH		42.3	298		[1973RAU/GEY]
	Δ_vH		39.0 ± 0.5	367		[1973RAU/GEY]
C_8H_{12}	[100-40-3]	(*dl*) 4-vinyl-1-cyclohexene				
	Δ_vH	(292–405)	40.1	307	A	[1987STE/MAL]
C_8H_{12}	[931-64-6]	bicyclo[2.2.2]octene				
	$\Delta_{trs}H$		0.19	110.5		
	$\Delta_{trs}H$		5.65	176.5		
	$\Delta_{fus}H$		5.4	389.8		[1977WON/WES]
	$\Delta_{sub}H$		43.8 ± 0.4		C	[1970WES/WON, 1977PED/RYL, 1971WON/WES]
C_8H_{12}	[21426-37-9]	dispiro[2.0.2.2]octane				
	Δ_vH	(280–369)	38.3		DSC	[1995BEC/RUC]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_{12}	[25399-32-0]	dispiro[2.1.2.1]octane				
	$\Delta_v H$	(278–362)	32.2		DSC	[1995BEC/RUC]
$C_8H_{12}BrN_5O_3$	[81475-44-7]	8-bromo-9-[(2-hydroxyethoxy)methyl]quanine				
	$\Delta_{fus}H$		36.44	452.9		[1999ZIE/GOL]
$C_8H_{12}Cl_2O_5$	[na]	diethylene glycol *bis*(chloroacetate)				
	$\Delta_v H$	(421–586)	87.3	436		[1987STE/MAL, 1947STU, 1999DYK/SVO]
$C_8H_{12}NO_5PS_2$	[115-93-5]	O,O-dimethyl O-(4-aminosulfonylphenyl)phosphorodithioate				
	$\Delta_{fus}H$		26.21	344.2	DSC	[1990DON/DRE]
$C_8H_{12}N_2$	[42046-61-7]	pentylmalodinitrile				
	$\Delta_v H$	(298–328)	66.9 ± 0.4		GS	[1990BEC/DOG]
$C_8H_{12}N_2$	[629-40-3]	suberic acid dinitrile (suberonitrile)				
	$\Delta_{fus}H$		21.97	268.9	DSC	[2007BAD/BLA]
	$\Delta_v H$	(303–339)	77.3	318	A	[1987STE/MAL]
$C_8H_{12}N_2$	[3333-52-6]	tetramethylsuccinonitrile				
	$\Delta_{trs}H$		18.1	345		
	$\Delta_{fus}H$		7.15	442		[1996DOM/HEA]
	$\Delta_{sub}H$		81.2 ± 1.7			[1973LEB/KAT, 1977PED/RYL]
$C_8H_{12}N_2$	[1124-11-4]	tetramethylpyrazine				
	$\Delta_{sub}H$		94.6 ± 4.0	298	C	[1996RIB/MOR]
$C_8H_{12}N_2O$	[15029-30-8]	1-(cyanoacetyl)piperidine				
	$\Delta_{sub}H$		103.5 ± 1.9	298	C	[2008RIB/CAB]
$C_8H_{12}N_2O_2$	[31703-08-9]	1,3-dimethyl-5-ethyluracil				
	$\Delta_{fus}H$		19.4	354.4		[1996KAM/ZIE]
	$\Delta_{sub}H$	(312–321)	98.7 ± 1.7	316	ME	[1996KAM/ZIE]
	$\Delta_{sub}H$	(300–316)	99.3 ± 0.2	308	ME	[1983COL/JIM]
	$\Delta_{sub}H$	(319–340)	110 ± 1.2	330	QR	[1983COL/JIM]
$C_8H_{12}N_2O_2$	[na]	1,6-hexamethylene diisocyanate				
	$\Delta_{fus}H$		18.64	206.1		[1996DOM/HEA]
$C_8H_{12}N_2O_3$	[57-44-3]	5,5-diethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione (barbital)				
	$\Delta_{fus}H$		24.98	462.6		[1986CHU/DEM]
$C_8H_{12}N_4O_{10}$	[2555-54-6]	2,2-dinitropropyl-4,4-dinitropentanoate				
	$\Delta_{trs}H$		23.01	330.6		
	$\Delta_{fus}H$		6.28	370.8	DSC	[1971ROS/HOL]
$C_8H_{12}N_4O_{10}$	[34001-51-9]	2-methyl-2-nitropropyl-4,4,4-trinitrobutyrate				
	$\Delta_{trs}H$		24.69	346.1		
	$\Delta_{fus}H$		5.27	349.4	DSC	[1971ROS/HOL]
$C_8H_{12}O$	[59348-18-4]	1-methylnorcamphor				
	$\Delta_v H$		47.6			[1984KOZ/TIM]
$C_8H_{12}O$	[7040-43-9]	2-*tert*-butylfuran				
	$\Delta_v H$	(270–308)	38.7 ± 0.4	289	GS	[1998VER/WEL]
	$\Delta_v H$	(270–308)	38.1 ± 0.4	298	GS	[1998VER/WEL]
$C_8H_{12}OS$	[20387-67-1]	2-oxa-6-thiaadamantane				
	$\Delta_{trs}H$		4.11	224		
	$\Delta_{fus}H$		8.12	557		[1978AND/CAR]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{12}O_2$	[10279-96-6]	2,6-dioxaadamantane				
	$\Delta_{trs}H$		5.84	276		
	$\Delta_{fus}H$		3.78	444		[1978AND/CAR]
$C_8H_{12}O_2$	[562-46-9]	4,4-dimethyl-1,3-cyclohexanedione				
	$\Delta_{sub}H$		99.2 ± 2.1	298	ME	[1993PIL/PAR]
$C_8H_{12}O_2$	[126-81-8]	5,5-dimethyl-1,3-cyclohexanedione				
	$\Delta_{sub}H$		99.8 ± 1.1	298	ME	[1993PIL/PAR]
$C_8H_{12}O_2$	[933-52-8]	2,2,4,4-tetramethyl-1,3-cyclobutanedione				
	$\Delta_{sub}H$		70.3 ± 3.5		HSA	[1975CHI]
	$\Delta_{sub}H$		72.2 ± 0.6			[1971SEL2]
	$\Delta_{sub}H$		72.4 ± 0.6		C	[1971MOR]
$C_8H_{12}O_2$	[1489-74-3]	1,5-cyclooctanedione				
	$\Delta_{fus}H$		11.92	341.2		[1972ALV/BOR]
$C_8H_{12}O_4$	[623-91-6]	diethyl fumerate				
	Δ_vH	(326–492)	53.2	341	A	[1987STE/MAL, 1947STU]
$C_8H_{12}O_4$	[141-05-9]	diethyl maleate				
	Δ_vH	(330–498)	55.2	345	A	[1987STE/MAL, 1947STU]
$C_8H_{12}O_4S$	[925-47-3]	thiodiacetic acid, diethyl ether				
	Δ_vH	(385–448)	77.7	400		[1999DYK/SVO]
$C_8H_{12}S_6$	[6327-74-8]	1,3,5,7-tetramethyl-2,4,6,8,9,10-hexathiaadamantane				
	$\Delta_{fus}H$		23.7	501.4	DSC	[2002BOU/SAI]
$C_8H_{13}ClN_2O_2$	[4902-51-2]	5-chloro-3-(1,1-dimethylethyl)-6-methyl-2,4(1*H*,3*H*)-pyrimidinedione				
	$\Delta_{fus}H$		12.51	448	DSC	[1990DON/DRE]
$C_8H_{13}N_2O_3$	[57-44-3]	5,5′-diethylbarbituric acid				
	$\Delta_{trs}H$		0.7	413.3		
	$\Delta_{fus}H$		24.8	462	DSC	[2009RIB/RIB3]
	$\Delta_{sub}H$	(355–377)	113.9 ± 0.6	366	ME	[2009RIB/RIB3]
	$\Delta_{sub}H$	(355–377)	117.3 ± 0.6	298	ME	[2009RIB/RIB3]
C_8H_{14}	[280-33-1]	bicyclo[2.2.2]octane				
	$\Delta_{trs}H$		4.6	164.3		
	$\Delta_{fus}H$		8.37	447.5		[1991ACR, 1970WON/WES]
	$\Delta_{trs}H$		4.6	164		[1984DOM/EVA]
	$\Delta_{sub}H$	(323–363)	46.3 ± 0.8		BG	[1971BOY/SAN, 1977PED/RYL, 1987STE/MAL]
	$\Delta_{sub}H$		47.7 ± 0.8	298		[1971BOY/SAN, 1977PED/RYL]
	$\Delta_{sub}H$		48.0 ± 2		C	[1970WES/WON, 1971BOY/SAN, 1977PED/RYL]
C_8H_{14}	[1755-05-1]	*cis* bicyclo[3.3.0]octane				
	Δ_vH	(298–318)	42.0	308	A	[1987STE/MAL]
	Δ_vH		41.5 ± 0.4	318		[1970CHA/MCN]
	Δ_vH		43.1 ± 0.8	298		[1970CHA/MCN]
C_8H_{14}	[5597-89-7]	*trans* bicyclo[3.3.0]octane				
	Δ_vH	(298–320)	41.4	309	A	[1987STE/MAL]
	Δ_vH		41.3 ± 0.4	320		[1970CHA/MCN]
	Δ_vH		42.7 ± 0.8	298		[1970CHA/MCN]
C_8H_{14}	[28282-35-1]	*cis* bicyclo[4.2.0]octane				
	Δ_vH	(298–347)	40.7	313	A	[1987STE/MAL]
	Δ_vH		39.5 ± 0.4	347		[1970CHA/MCN]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		42.7 ± 1.2	298		[1970CHA/MCN]
C_8H_{14}	[16526-90-2]	*cis* bicyclo[5.1.0]octane				
	$\Delta_v H$	(297–322)	43.6 ± 0.8	309	A	[1987STE/MAL, 1970CHA/MCN]
C_8H_{14}	[286-43-1]	bicyclo[5.1.0]octane				
	$\Delta_v H$		43.5 ± 0.8	298		[2008OSM/CAT]
C_8H_{14}	[931-88-4]	cyclooctene				
	$\Delta_{trs}H$		9.8	190.1		
	$\Delta_{fus}H$		1.81	259.2		[1994LEB/SMI]
	$\Delta_v H$	(273–411)	42.0	288	A	[1987STE/MAL]
	$\Delta_v H$	(273–333)	41.6	300		[1941LIS]
C_8H_{14}	[695-12-5]	vinylcyclohexane				
	$\Delta_v H$		39.7 ± 0.2	298	GCC	[1979FUC/PEA]
C_8H_{14}	[3524-75-2]	allylcyclopentane				
	$\Delta_v H$		40.4 ± 0.2	298	GCC	[1979FUC/PEA]
C_8H_{14}	[627-58-7]	2,5-dimethyl-1,5-hexadiene				
	$\Delta_v H$	(330–388)	38.8	345	A	[1987STE/MAL]
C_8H_{14}	[24253-25-6]	3,3-dimethyl-1,5-hexadiene				
	$\Delta_v H$	(293–371)	35.2	308	A	[1987STE/MAL]
C_8H_{14}	[na]	3,4-dimethylhexadiene				
	$\Delta_{sub}H$		53.1			[1956SEK/SUZ, 1960JON]
C_8H_{14}	[1453-24-3]	1-ethylcylohexene				
	$\Delta_v H$	(353–412)	39.1	368	A	[1987STE/MAL]
	$\Delta_v H$	(332–411)	40.1	347	MM	[1960CAM/ROS]
C_8H_{14}	[2439-79-4]	1-methylbicyclo[4.1.0]heptane				
	$\Delta_v H$	(340–394)	37.2	355	A	[1987STE/MAL]
C_8H_{14}	[629-05-0]	1-octyne				
	$\Delta_v H$		42.3 ± 0.1	298	C	[1983HAL/STE]
	$\Delta_v H$	(357–400)	38.5	372	A	[1987STE/MAL, 1970EIS/ORA, 1984BOU/FRI]
C_8H_{14}	[2809-67-8]	2-octyne				
	$\Delta_v H$		44.5 ± 0.1	298	C	[1983HAL/STE]
	$\Delta_v H$	(368–412)	39.9	383	A	[1987STE/MAL, 1970EIS/ORA, 1984BOU/FRI]
C_8H_{14}	[15232-76-5]	3-octyne				
	$\Delta_v H$		43.9	298		[UR/FUC, 1985MAJ/SVO]
	$\Delta_v H$	(363–406)	39.7	378	A	[1987STE/MAL, 1970EIS/ORA, 1984BOU/FRI]
C_8H_{14}	[1942-45-6]	4-octyne				
	$\Delta_v H$		42.7 ± 0.1	298	C	[1983HAL/STE]
	$\Delta_v H$	(362–405)	39.6	377	A	[1987STE/MAL, 1970EIS/ORA, 1984BOU/FRI]
C_8H_{14}	[765-90-2]	*endo*-2-methylbicyclo[2.2.1]heptane				
	$\Delta_{trs}H$		4.73	152.4		
	$\Delta_{fus}H$		1.62	278.3		[1996DOM/HEA]
C_8H_{14}	[872-78-6]	*exo* 2-methylbicyclo[2.2.1]heptanes				
	$\Delta_{fus}H$		8.37	164.1		[1996DOM/HEA]
$C_8H_{14}Br_2$	[29974-69-4]	1,2-dibromocyclooctane				
	$\Delta_v H$	(292–354)	50.3	307	A	[1987STE/MAL, 1941LIS]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{14}ClN_5$	[1912-24-9]	2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine (atrazine)				
	$\Delta_{sub}H$	(324–354)	114.6	339	GS	[1982GRA/FOS]
	$\Delta_{sub}H$	(323–403)	113.8	338	GS-GC	[1964FRI/SAM, 1987STE/MAL]
$C_8H_{14}Cl_2S$	[16660-53-0]	(2-chlorocyclohexyl)(2-chloroethyl) sulfide				
	Δ_vH	(293–333)	62.5	308	A,GS	[1987STE/MAL, 1948RED/CHA, 1999DYK/SVO]
$C_8H_{14}N_2$	[62842-38-0]	2-piperidinopropionitrile				
	Δ_vH	(283–318)	57.6 ± 0.3		GS	[1997WEL/VER]
$C_8H_{14}N_2$	[49570-30-1]	1,4-dimethyl-2,3-diazabicyclo[2.2.2]octane				
	$\Delta_{sub}H$		72.0 ± 0.5	298	C	[1976ENG/MEL]
$C_8H_{14}N_2O_2$	[19701-85-0]	α-acetylproline N-methylamide				
	$\Delta_{sub}H$	(308–318)	69.1	313	A	[1987STE/MAL, 1955AIH]
$C_8H_{14}N_2O_2$	[na]	β-acetylproline N-methylamide				
	$\Delta_{sub}H$	(319–335)	60.7	327	A	[1987STE/MAL, 1955AIH]
$C_8H_{14}N_4OS$	[21087-64-9]	4-amino-6-(1,1-dimethylethyl)-3-(methylthio)1,2,4-triazin-5(4*H*)-one				
	$\Delta_{fus}H$		18.0	399.4	DSC	[1991ACR, 1990DON/DRE]
$C_8H_{14}N_5Cl$	[1912-24-9]	6-chloro-N-ethyl-N′(isopropyl)-1,3,5-triazine-2,4-diamine				
	$\Delta_{fus}H$		38.15	449.7	DSC	[1990DON/DRE]
$C_8H_{14}N_6O_{10}$	[na]	1,7-diacetoxy-2,4,6-trinitro-2,4,6-triazaheptane				
	$\Delta_{fus}H$		38.49	422.5		[1996DOM/HEA]
$C_8H_{14}O$	[502-49-8]	cyclooctanone				
	Δ_vH	(343–383)	54.4	298	CGC	[1995CHI/HOS]
	Δ_vH	(343–383)	53.6	298	CGC	[1995CHI/HOS]
	Δ_vH	(343–383)	54.2	298	CGC	[1995CHI/HOS]
	Δ_vH	(323–403)	47.3	338	A	[1987STE/MAL]
	Δ_vH	(394–484)	46.8	409	A,EB	[1987STE/MAL, 1976MEY/HOT]
	Δ_vH		48.5 ± 0.6	298		[1972WOL]
$C_8H_{14}O$	[66266-68-2]	2-ethyl-2-hexenal				
	Δ_vH	(326–448)	48.4	341	A	[1987STE/MAL, 1961DYK/SEP]
$C_8H_{14}O$	[28419-86-5]	2-ethyl-4-methyl-2-pentenal				
	Δ_vH	(311–436)	46.7	326	A	[1987STE/MAL, 1961DYK/SEP]
$C_8H_{14}O$	[110-93-0]	6-methyl-5-hepten-2-one				
	Δ_vH	(364–393)	45.9	379		[1989WAN/YIN]
	Δ_vH	(328–451)	44.7 ± 0.2	390		[1988BAG/GUR]
$C_8H_{14}O$	[1193-70-0]	(*dl*) 2-propylcyclopentanone				
	Δ_vH	(332–457)	46.0	347	A	[1987STE/MAL]
$C_8H_{14}O$	[283-27-2]	3-oxabicyclo[3.2.2]nonane				
	$\Delta_{trs}H$		7.02	208.5		
	$\Delta_{fus}H$		6.75	448.4		[1996DOM/HEA]
	$\Delta_{sub}H$		53.1 ± 0.5			[1971WON/WES, 1977PED/RYL]
$C_8H_{14}O_2$	[5292-21-7]	cyclohexylacetic acid				
	$\Delta_{fus}H$		13.8	302.6		[2008DOM/MOR]
$C_8H_{14}O_2$	[5698-29-3]	octanolactone				
	Δ_vH	(345–380)	48.9 ± 0.2	362	MM	[1991WIB/WAL]
	Δ_vH	(345–380)	52.8 ± 1.3	298	MM	[1991WIB/WAL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{14}O_2$	[698-76-0]	d-octanolactone				
	$\Delta_v H$	(288–353)	67.0 ± 0.2	298	GS	[2007EME/KOZ]
$C_8H_{14}O_2$	[na]	acrylic acid, neopentyl ester				
	$\Delta_v H$	(301–325)	45.7	313	A	[1987STE/MAL]
$C_8H_{14}O_2$	[3891-33-6]	1,4-butanediol divinyl ether				
	$\Delta_v H$	(335–440)	49.0	350	A	[1987STE/MAL]
$C_8H_{14}O_2$	[97-88-1]	butyl methacrylate				
	$\Delta_{fus}H$		15.55	197.8		[1995LEB/KUL]
	$\Delta_v H$	(343–373)	47.4	358	A	[1987STE/MAL]
	$\Delta_v H$	(344–437)	45.1	359	A	[1987STE/MAL]
$C_8D_{14}O_2$	[na]	perdeuteriobutylmethacrylate				
	$\Delta_{fus}H$		16.04	198.1		[1995LEB/KUL]
$C_8H_{14}O_2$	[na]	cyclopentanecarboxylic acid ethyl ester				
	$\Delta_v H$	(275–308)	51.2 ± 0.6		GS	[1996VIT/CHA]
$C_8H_{14}O_2$	[177-10-6]	1,4-dioxaspiro[4.5]decane				
	$\Delta_v H$	(278–308)	50.6 ± 0.6	298	GS	[1998VER/PEN, 2002VER]
$C_8H_{14}O_2$	[622-45-7]	cyclohexyl acetate				
	$\Delta_{trs}H$		5.23	221.8		
	$\Delta_{fus}H$		8.0	224.6		[1999KAB/KOZ]
	$\Delta_v H$		52.3 ± 0.2	298	C	[2004PAU/ZAI, 2003ZAI/VERI]
	$\Delta_v H$	(253–283)	56.5 ± 0.5	298	ME	[2003ZAI/VER]
	$\Delta_v H$	(253–283)	52.6 ± 0.5	298	ME	[2003ZAI/VER]
	$\Delta_v H$	(274–318)	52.3 ± 0.8	298	GS	[2003ZAI/VER]
	$\Delta_v H$	(333–378)	51.7	298	CGC	[1999VER/HEI]
	$\Delta_v H$	(278–318)	51.7 ± 0.2	298	GS	[1996VER/BEC]
	$\Delta_v H$	(368–446)	46.7	383	A,EB	[1987STE/MAL, 1969SHE/LAN]
$C_8H_{14}O_2$	[585-07-9]	methylacrylic acid, *tert*-butyl ester				
	$\Delta_v H$	(313–410)	42.9	328	A	[1987STE/MAL]
$C_8H_{14}O_2$	[2998-23-4]	pentyl acrylate				
	$\Delta_v H$	(325–440)	44.9	340	A	[1987STE/MAL]
$C_8H_{14}O_2$	[142-30-2]	2,5-dimethyl-3-hexyne-2,5-diol				
	$\Delta_v H$		82.8 ± 1.0	298	CGC	[2006UMN/KWE]
$C_8H_{14}O_2$	[56922-71-5]	propyl 3-methylbut-2-enoate				
	$\Delta_v H$	(278–311)	53.0 ± 0.2	298	GS	[2008EME/TOK]
$C_8H_{14}O_2$	[25859-51-2]	isopropyl 3-methylbut-2-enoate				
	$\Delta_v H$	(279–313)	50.0 ± 0.2	298	GS	[2008EME/TOK]
$C_8H_{14}O_3$	[106-31-0]	butyric anhydride				
	$\Delta_v H$	(349–470)	49.1	364	A	[1987STE/MAL]
$C_8H_{14}O_3$	[764-99-8]	diethylene glycol divinyl ether				
	$\Delta_v H$	(336–470)	50.0	351	A	[1987STE/MAL]
$C_8H_{14}O_3$	[607-97-6]	2-ethylacetoacetic acid, ethyl ester				
	$\Delta_v H$	(313–471)	53.3	328	A	[1987STE/MAL, 1947STU]
$C_8H_{14}O_3$	[21884-26-4]	isopropyl levulinate				
	$\Delta_v H$	(321–481)	56.6	336	A	[1987STE/MAL, 1947STU]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		52.0	422		[1931SCH/COW]
$C_8H_{14}O_3$	[645-67-0] propyl levulinate					
	$\Delta_v H$	(332–495)	56.3	347	A	[1987STE/MAL]
	$\Delta_v H$		54.0	436		[1931SCH/COW]
$C_8H_{14}O_4$	[na] 2-acetoxypropionic acid, propyl ester					
	$\Delta_v H$	(318–469)	59.5	333	A	[1987STE/MAL]
$C_8H_{14}O_4$	[na] 3-acetoxypropionic acid, propyl ester					
	$\Delta_v H$	(361–373)	74.7	367	A	[1987STE/MAL]
$C_8H_{14}O_4$	[123-25-1] diethyl succinate					
	$\Delta_v H$	(327–490)	56.5	342	A	[1987STE/MAL, 1947STU]
$C_8H_{14}O_4$	[615-81-6] diisopropyl oxalate					
	$\Delta_v H$	(418–501)	57.8	433	A	[1987STE/MAL]
	$\Delta_v H$	(316–467)	57.6	331	A	[1987STE/MAL, 1947STU]
$C_8H_{14}O_4$	[627-93-0] dimethyl adipate					
	$\Delta_v H$	(353–443)	74.6	368		[2007LEE/LAI]
	$\Delta_v H$	(294–373)	69.0 ± 0.2	298	GS	[2006VER/KOZ]
	$\Delta_v H$	(293–344)	67.1 ± 0.3	298	GS	[2006VAS/VER, 2006VER/KOZ]
	$\Delta_v H$	(293–323)	U 55.9 ± 2.0	298	TE	[1997CHE/LIA, 2006VER/KOZ]
	$\Delta_v H$	(382–500)	58.8	397	A	[1987STE/MAL]
	$\Delta_v H$	(428–498)	73.4	298		[1963VLA/GRA, 2006VER/KOZ]
$C_8H_{14}O_4$	[615-98-5] dipropyl oxalate					
	$\Delta_v H$	(326–487)	57.8	341	A	[1987STE/MAL, 1947STU]
$C_8H_{14}O_4$	[123-80-8] ethylene dipropionate					
	$\Delta_v H$		67.6 ± 0.5	298	C	[1986NIL/WAD]
$C_8H_{14}O_4$	[609-08-5] 2-methylmalonic acid, diethyl ester					
	$\Delta_v H$	(312–475)	52.5	327	A	[1987STE/MAL, 1947STU]
$C_8H_{14}O_4$	[505-48-6] octanedioic acid (suberic acid)					
	$\Delta_{trs}H$		2.0	335.9		
	$\Delta_{trs}H$		9.1	403.6		
	$\Delta_{fus}H$		30.7	413.2		[2005ROU/TEM]
	$\Delta_{fus}H$		28.82	415.3		[1991ACR]
	$\Delta_{sub}H$	(348–378)	168 ± 7		TPD	[2007CAP/LOV]
	$\Delta_{sub}H$	(310–320)	148		TPTD	[2001CHA/TOB]
	$\Delta_{sub}H$		147.8 ± 3.8	298		[1999RIB/MON, 1960DAV/THO]
	$\Delta_{sub}H$	(379–407)	143.1 ± 3.8	393	M	[1960DAV/THO, 1970COX/PIL, 1987STE/MAL]
	$\Delta_v H$	(424–503)	116.7 ± 0.8	298	CGC	[2005ROU/TEM]
	$\Delta_v H$	(445–619)	91.4	460	A	[1987STE/MAL, 1947STU]
$C_8H_{14}O_4$	[360-51-3] tetramethysuccinic acid					
	$\Delta_{trs}H$		13.43	383		
	$\Delta_{fus}H$		6.47	464		[1996DOM/HEA]
$C_8H_{14}O_4S$	[925-47-3] thiodiacetic acid, diethyl ester					
	$\Delta_v H$	(384–448)	77.3	399	A	[1987STE/MAL]
$C_8H_{14}O_5$	[na] isopropyl[1-(methoxycarbonyl)ethyl] carbonate					
	$\Delta_v H$	(330–493)	55.5	345	A	[1987STE/MAL]
$C_8H_{14}O_5$	[na] 2-(lactyloxy)propionic acid, ethyl ester					
	$\Delta_v H$	(321–389)	72.8	336	A	[1987STE/MAL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{14}O_5$	[7554-12-3]	malic acid, diethyl ester				
	$\Delta_v H$	(353–527)	59.6	368	A	[1987STE/MAL, 1947STU]
$C_8H_{14}O_5$	[na]	propyl[1-(methoxycarbonyl)ethyl] carbonate				
	$\Delta_v H$	(373–495)	58.0	388	A	[1987STE/MAL]
$C_8H_{14}O_6$	[13811-71-7]	(*d*) diethyl tartrate				
	$\Delta_v H$	(375–553)	65.9	390		[1947STU]
$C_8H_{14}O_6$	[87-91-2]	(*dl*) diethyl tartrate				
	$\Delta_v H$	(375–553)	67.3	390	A	[1987STE/MAL, 1947STU]
$C_8H_{14}O_6$		(*d*)-dimethoxysuccinic acid dimethyl ester				
	$\Delta_v H$		53.1			[1937DUN/WOL]
$C_8H_{14}O_6$		(*dl*)-dimethoxysuccinic acid dimethyl ester				
	$\Delta_v H$		57.7			[1937DUN/WOL]
$C_8H_{14}O_6$		*meso* dimethoxysuccinic acid dimethyl ester				
	$\Delta_v H$		74.1			[1937DUN/WOL]
$C_8H_{14}O_6S$	[29771-87-7]	sulfonyldiacetic acid, diethyl ester				
	$\Delta_v H$	(421–494)	88.2	426		[1999DYK/SVO]
	$\Delta_v H$	(421–494)	87.6	436	A	[1987STE/MAL]
$C_8H_{14}O_6S$	[na]	dimethyl 3,3′-sulfonyldipropionate				
	$\Delta_{fus}H$		41.1	390.3		[1994WAN/KUO]
$C_8H_{15}Br$	[1647-26-3]	(2-bromoethyl)cyclohexane				
	$\Delta_v H$	(311–486)	54.2	326	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_8H_{15}ClO$	[111-64-8]	octanoyl chloride				
	$\Delta_v H$	(343–373)	74.5	358	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{15}ClO$	[na]	5-methylheptanoyl chloride				
	$\Delta_v H$	(338–373)	66.3	353	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{15}Cl_3O_4$	[na]	trichlorohydrine pentaerythritol				
	$\Delta_v H$	(404–449)	80.4	419		[1965LUT/KOL]
$C_8H_{15}N$	[283-24-9]	3-azabicyclo[3.2.2]nonane				
	$\Delta_{trs}H$		14.55	297.8		
	$\Delta_{fus}H$		6.92	466.6		[1996DOM/HEA]
	$\Delta_{sub}H$		57.8 ± 1.3	298	C	[1970WES/WON]
	$\Delta_v H$	(303–443)	52.2	318	A	[1987STE/MAL]
$C_8H_{15}N$	[124-12-9]	octanenitrile				
	$\Delta_v H$	(283–310)	55.7 ± 0.2	298	GS	[2005EME/VER]
	$\Delta_v H$	(373–480)	50.0	388	A	[1987STE/MAL]
	$\Delta_v H$		56.8 ± 0.3	298	C	[1977STRI/SUN]
	$\Delta_v H$	(374–420)	49.8	389	EB	[1971MEY/REN]
	$\Delta_v H$	(420–479)	48.0	435	EB	[1971MEY/REN]
	$\Delta_v H$	(316–477)	56.7	331		[1947STU]
	$\Delta_v H$	(322–460)	53.5	298	EB	[1941RAL/SEL, 2005EME/VER]
	$\Delta_v H$	(294–477)	57.2 ± 0.3	298	MM	[1933HEI, 2005EME/VER]
$C_8H_{15}NO$	[4747-81-3]	heptyl isocyanate				
	$\Delta_v H$	(326–461)	47.5	341	A	[1987STE/MAL]
$C_8H_{15}NO$	[6554-73-0]	methacrylic acid N-*tert*-butylamide				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(340–467)	49.6	355	A	[1987STE/MAL]
$C_8H_{15}NO$	[na]	*trans* 2-octenoic acid amide				
	$\Delta_{sub}H$	(373–393)	73.5	383	A	[1987STE/MAL]
$C_8H_{15}NO_2$	[2867-47-2]	methacrylic acid, 2-(dimethylamino)ethyl ester				
	$\Delta_v H$	(372–460)	48.8	387	A	[1987STE/MAL]
$C_8H_{15}NO_2$	[na]	1-lactopiperidine				
	$\Delta_v H$	(346–408)	62.1	361	A	[1987STE/MAL]
$C_8H_{15}NO_2$	[1563-86-6]	N-acetyl-N-butylacetamide				
	$\Delta_v H$		64.4 ± 0.4	298	C	[1965WAD]
$C_8H_{15}NO_2$	[na]	dimethylaminoethyl methacrylate				
	$\Delta_{fus}H$		16.85	237.7		[1996DOM/HEA]
$C_8H_{15}NO_3$	[5411-58-5]	N,N-diethyloxamic acid, ethyl ester				
	$\Delta_v H$	(349–525)	60.5	364	A	[1987STE/MAL, 1947STU]
$C_8H_{15}N_5O$	[673-04-1]	2-methoxy-4,6-*bis*(ethylamino)-1,3,5-triazine				
	$\Delta_{sub}H$	(323–403)	98.2	338	GS-GC	[1987STE/MAL, 1964FRI/SAM]
$C_8H_{15}N_5S$	[1014-70-6]	2-methylthio-4,6-*bis*(ethylamino)-1,3,5-triazine (simetryn)				
	$\Delta_{fus}H$		24.0	353.2		[2007VEC/BRU]
	$\Delta_{sub}H$	(323–355)	101.3	338	GS-GC	[1987STE/MAL, 1964FRI/SAM]
	$\Delta_v H$		88 ± 4	461	DSC	[2007VEC/BRU]
	$\Delta_v H$		120 ± 6	298	DSC	[2007VEC/BRU]
	$\Delta_v H$		83.7 ± 1.3	453	TGA	[2007VEC/BRU]
	$\Delta_v H$		115 ± 4	298	DSC	[2007VEC/BRU]
$C_8H_{15}N_5S$	[1014-69-3]	2-methylthio-4-methylamino-6-isopropyl-1,3,5-triazine				
	$\Delta_{sub}H$	(323–357)	101.5	338	GS-GC	[1987STE/MAL, 1964FRI/SAM]
$C_8H_{15}N_7O_2S_3$	[76824-35-6]	3-[[[2-[(aminoiminomethyl)amino]-4-thiazolyl]methyl]thio]-N-(aminosulfonyl)propanimidamide (famotidine)				
	$\Delta_{fus}H$ *(I)*		49.7	447		
	$\Delta_{fus}H$ *(II)*		48.6	438.6	DSC	[2007LU/WAN]
	$\Delta_{fus}H$ *(I)*		45.81	444.4		
	$\Delta_{fus}H$ *(II)*		43.92	436.6		[2002ROU/DAV]
	$\Delta_{sub}H$		207		TGA	[1997ELD]
C_8H_{16}	[16747-50-5]	1-ethyl-1-methylcyclopentane				
	$\Delta_v H$		38.8	298	C	[1981HOS/SCO3]
C_8H_{16}	[292-64-8]	cyclooctane				
	$\Delta_{trs}H$		6.32	166.5		
	$\Delta_{fus}H$		0.48	183.8		
	$\Delta_{fus}H$		2.41	288		[1991ACR]
	$\Delta_{sub}H$		58.7	166	B	[1963BON]
	$\Delta_v H$	(358–413)	40.3	373		[1991WU/LOC]
	$\Delta_v H$		43.1 ± 0.2		GC	[1989AZA]
	$\Delta_v H$	(289–369)	43.3	304	A	[1987STE/MAL]
	$\Delta_v H$	(373–434)	39.3	388	EB	[1976MEY/HOT]
	$\Delta_v H$	(291–323)	43.1	306		[1975ANA/GRO]
	$\Delta_v H$		43.3 ± 0.2	298		[1956FIN/SCO]
	$\Delta_v H$	(369–467)	39.4	384	A,EB	[1987STE/MAL, 1956FIN/SCO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_{16}	[590-66-9]	1,1-dimethylcyclohexane				
	$\Delta_{trs}H$		5.98	153.2		
	$\Delta_{fus}H$		2.01	239.8		[1996DOM/HEA]
	Δ_vH	(271–303)	39.6 ± 0.1	287	GS	[1995CHI/HES]
	Δ_vH		38.8 ± 0.1	298		[1995CHI/HES]
	Δ_vH		37.9	298		[1975KUS/SAI]
	Δ_vH		37.8	298		[1971WIL/ZWO]
	Δ_vH	(313–395)	36.6	328	A	[1987STE/MAL, 1949FOR/NOR]
C_8H_{16}	[2207-01-4]	*cis* 1,2-dimethylcyclohexane				
	$\Delta_{trs}H$		8.26	172.5		
	$\Delta_{fus}H$		1.64	223.3		[1996DOM/HEA]
	Δ_vH		39.4	298		[1975KUS/SAI]
	Δ_vH		39.7	298		[1971WIL/ZWO]
	Δ_vH		35.5 ± 0.1	370	C	[1951MCC/PER]
	Δ_vH		34.5 ± 0.1	387	C	[1951MCC/PER]
	Δ_vH		39.7 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(322–405)	38.0	337	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{16}	[6876-23-9]	(*dl*) *trans* 1,2-dimethylcyclohexane				
	$\Delta_{fus}H$		10.5	185		[1996DOM/HEA]
	Δ_vH		38.3	298		[1975KUS/SAI]
	Δ_vH		38.4	298		[1971WIL/ZWO]
	Δ_vH		34.4 ± 0.1	373	C	[1951MCC/PER]
	Δ_vH		33.5 ± 0.1	387	C	[1951MCC/PER]
	Δ_vH		38.4 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(316–399)	37.0	331	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{16}	[638-04-0]	*cis* 1,3-dimethylcyclohexane				
	$\Delta_{fus}H$		10.82	197.6		[1996DOM/HEA]
	Δ_vH	(318–396)	36.8	333	A	[1987STE/MAL]
	Δ_vH		38.1	298		[1975KUS/SAI]
	Δ_vH		38.2	298		[1971WIL/ZWO]
	Δ_vH		34.9 ± 0.1	363	C	[1951MCC/PER]
	Δ_vH		33.3 ± 0.1	385	C	[1951MCC/PER]
	Δ_vH		38.2 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(316–398)	37.7	331	MM	[1945WIL/TAY]
C_8H_{16}	[2207-03-6]	(*dl*) *trans* 1,3-dimethylcyclohexane				
	$\Delta_{fus}H$		9.87	183.1		[1996DOM/HEA]
	Δ_vH	(314–400)	37.9	329	A	[1987STE/MAL]
	Δ_vH		39.1	298		[1975KUS/SAI]
	Δ_vH		39.2	298		[1971WIL/ZWO]
	Δ_vH		39.2 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(314–394)	37.4	329	MM	[1945WIL/TAY]
C_8H_{16}	[624-29-3]	*cis* 1,4-dimethylcyclohexane				
	$\Delta_{fus}H$		9.29	185.7		[1996DOM/HEA]
	Δ_vH		39	298		[1975KUS/SAI]
	Δ_vH		3900	298		[1971WIL/ZWO]
	Δ_vH		39.0 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(317–400)	37.6	332	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{16}	[2207-04-7]	(*dl*) *trans* 1,4-dimethylcyclohexane				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		12.34	236.2		[1996DOM/HEA]
	Δ_vH		37.6	298		[1975KUS/SAI]
	Δ_vH		37.9	298		[1971WIL/ZWO]
	Δ_vH		35.6 ± 0.1	341	C	[1951MCC/PER]
	Δ_vH		34.6 ± 0.1	357	C	[1951MCC/PER]
	Δ_vH		33.5 ± 0.1	377	C	[1951MCC/PER]
	Δ_vH		39.9 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(313–395)	36.7	328	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{16}	[1678-91-7]	ethylcyclohexane				
	$\Delta_{fus}H$		8.5	161.5		[2006MAN/CUT]
	$\Delta_{fus}H$		8.33	161.4		[1996DOM/HEA]
	Δ_vH		39.2 ± 0.4	298	GC	[1987AZA]
	Δ_vH		39.8 ± 0.1	313	C	[1981SVO/CHA]
	Δ_vH		38.9 ± 0.1	328	C	[1981SVO/CHA]
	Δ_vH		37.9 ± 0.1	343	C	[1981SVO/CHA]
	Δ_vH		37.0 ± 0.1	358	C	[1981SVO/CHA]
	Δ_vH		36.3 ± 0.1	368	C	[1981SVO/CHA]
	Δ_vH		40.0 ± 0.4	298	GCC	[1978FUC/PEA]
	Δ_vH		40.4	298		[1975KUS/SAI]
	Δ_vH		40.5	298		[1971WIL/ZWO]
	Δ_vH		40.5 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(323–407)	38.6	338	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{16}	[2040-96-2]	propylcyclopentane				
	$\Delta_{fus}H$		10.04	155.8		[1996DOM/HEA]
	Δ_vH		41.1	298		[1971WIL/ZWO]
	Δ_vH		41.1 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(323–406)	39.2	338	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{16}	[3875-51-2]	isopropylcyclopentane				
	Δ_vH		37.9	298		[1971WIL/ZWO]
	Δ_vH		39.4 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(320–403)	37.9	335	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{16}	[4259-00-1]	1,1,2-trimethylcyclopentane				
	Δ_vH		36.3	324	A,MM	[1987STE/MAL, 1949FOR/NOR]
C_8H_{16}	[4516-69-2]	1,1,3-trimethylcyclopentane				
	Δ_vH		35.4	316	A,MM	[1987STE/MAL, 1949FOR/NOR]
C_8H_{16}	[16747-50-5]	1-ethyl-1-methylcyclopentane				
	Δ_vH	(331–397)	36.7	346	A	[1987STE/MAL]
	Δ_vH	(238–288)	40.2	273	IP	[1987STE/MAL, 1974OSB/DOU]
	Δ_vH		38.9	298		[1971WIL/ZWO]
	Δ_vH	(316–396)	37.3	331		[1949FOR/NOR]
C_8H_{16}	[930-89-2]	(*dl*) *cis* 1-ethyl-2-methylcyclopentane				
	Δ_vH	(238–304)	42.5	253	A	[1987STE/MAL]
	Δ_vH	(303–403)	39.3	318	A	[1987STE/MAL]
	Δ_vH	(238–288)	41.6	273	IP	[1974OSB/DOU]
	Δ_vH		40.2	298		[1971WIL/ZWO]
	Δ_vH	(322–402)	38.3	337		[1949FOR/NOR]
C_8H_{16}	[na]	*trans* 1-ethyl-2-methylcyclopentane				
	Δ_vH		39.3	298		[1971WIL/ZWO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_{16}	[na]	*cis* 1-ethyl-3-methylcyclopentane				
	$\Delta_v H$		39.3	298		[1941KIR/SIT]
C_8H_{16}	[na]	*trans* 1-ethyl-3-methylcyclopentane				
	$\Delta_v H$		38.9	298		[1941KIR/SIT]
C_8H_{16}	[4259-00-1]	1,1,2-trimethylcyclopentane				
	$\Delta_v H$		37.2	298		[1971WIL/ZWO]
C_8H_{16}	[4516-69-2]	1,1,3-trimethylcyclopentane				
	$\Delta_v H$		36.0	298		[1971WIL/ZWO]
C_8H_{16}	[na]	*cis, cis* 1,2,3-trimethylcyclopentane				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[na]	*cis, cis* 1,2,4-trimethylcyclopentane				
	$\Delta_v H$		38.1	298		[1971WIL/ZWO]
C_8H_{16}	[na]	*cis* 1,2-*trans*-3-trimethylcyclopentane				
	$\Delta_v H$		38.1	298		[1971WIL/ZWO]
C_8H_{16}	[4850-28-6]	*cis* 1,2-*trans*-4-trimethylcyclopentane				
	$\Delta_v H$	(311–392)	36.8	326	A,MM	[1987STE/MAL, 1949FOR/NOR]
C_8H_{16}	[13398-35-1]	*trans* 1,2-*cis*-4-trimethylcyclopentane				
	$\Delta_v H$		36.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(305–385)	36.0	320	A,MM	[1987STE/MAL, 1949FOR/NOR]
C_8H_{16}	[111-66-0]	1-octene				
	$\Delta_{fus}H$		15.31	171.5		[1996DOM/HEA]
	$\Delta_v H$	(373–423)	40.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		39.5 ± 0.1	313	C	[1982SVO/CHA]
	$\Delta_v H$		38.6 ± 0.1	328	C	[1982SVO/CHA]
	$\Delta_v H$		37.6 ± 0.1	343	C	[1982SVO/CHA]
	$\Delta_v H$		36.6 ± 0.1	358	C	[1982SVO/CHA]
	$\Delta_v H$		35.8 ± 0.1	368	C	[1982SVO/CHA]
	$\Delta_v H$	(263–291)	40.2	277	MM	[1981CHI/HYM]
	$\Delta_v H$	(260–291)	41.2	275	HSA	[1981CHI/HYM]
	$\Delta_v H$		40.3 ± 0.2	298	C	[1977MAN/SEL]
	$\Delta_v H$		38	298		[1971WIL/ZWO]
	$\Delta_v H$	(317–395)	38.8	332	A,MM	[1987STE/MAL, 1950FOR/CAM]
C_8H_{16}	[7642-04-8]	*cis* 2-octene				
	$\Delta_v H$		40.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(356–400)	37.8	371	A	[1987STE/MAL]
C_8H_{16}	[13389-42-9]	*trans* 2-octene				
	$\Delta_v H$	(356–399)	37.9	371	A	[1987STE/MAL]
	$\Delta_v H$		40.2	298		[1971WIL/ZWO]
C_8H_{16}	[14850-22-7]	*cis* 3-octene				
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[14919-01-8]	*trans* 3-octene				
	$\Delta_v H$	(354–396)	37.6	369	A	[1987STE/MAL]
	$\Delta_v H$		40.2	298		[1971WIL/ZWO]
C_8H_{16}	[7642-15-1]	*cis* 4-octene				
	$\Delta_v H$	(353–395)	37.2	368	A	[1987STE/MAL]
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_{16}	[14850-23-8]	*trans* 4-octene				
	$\Delta_v H$	(276–308)	43.2 ± 0.3	292	GS	[2000VER/WAN]
	$\Delta_v H$	(276–308)	42.9 ± 0.3	298	GS	[2000VER/WAN]
	$\Delta_v H$	(353–396)	37.4	368	A	[1987STE/MAL]
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[15870-10-7]	2-methyl-1-heptene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[4810-09-7]	3-methyl-1-heptene				
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[13151-05-8]	4-methyl-1-heptene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[13151-04-7]	5-methyl-1-heptene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[5026-76-6]	6-methyl-1-heptene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[627-97-4]	2-methyl-2-heptene				
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(257–396)	41.2	272	A	[1987STE/MAL, 1947STU]
C_8H_{16}	[22768-19-0]	3-methyl-*cis*-2-heptene				
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[22768-20-3]	3-methyl-*trans*-2-heptene				
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[na]	4-methyl-*cis*-2-heptene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[na]	4-methyl-*trans*-2-heptene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[24608-84-2]	5-methyl-*cis*-2-heptene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[24608-85-3]	5-methyl-*trans*-2-heptene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[na]	6-methyl-*cis*-2-heptene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[51065-65-7]	6-methyl-*trans*-2-heptene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[20488-34-0]	2-methyl-*cis*-3-heptene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[692-96-6]	2-methyl-*trans*-3-heptene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[22768-17-8]	3-methyl-*cis*-3-heptene				
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[22768-18-9]	3-methyl-*trans*-3-heptene				
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[14255-24-4]	4-methyl-*cis*-3-heptene				
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_{16}	[13714-85-7] 4-methyl-*trans*-3-heptene					
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[50422-80-5] 5-methyl-*cis*-3-heptene					
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[53510-18-2] 5-methyl-*trans*-3-heptene					
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[66225-19-2] 6-methyl-*cis*-3-heptene					
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[66225-20-5] 6-methyl-*trans*-3-heptene					
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[1632-16-2] 2-ethyl-1-hexene					
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[3404-58-8] 3-ethyl-1-hexene					
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[16746-85-3] 4-ethyl-1-hexene					
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[16746-86-4] 2,3-dimethyl-1-hexene					
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[16746-87-5] 2,4-dimethyl-1-hexene					
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[6795-92-4] 2,5-dimethyl-1-hexene					
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[3404-77-1] 3,3-dimethyl-1-hexene					
	$\Delta_v H$		36.0	298		[1971WIL/ZWO]
C_8H_{16}	[16745-94-1] 3,4-dimethyl-1-hexene					
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[7423-69-0] 3,5-dimethyl-1-hexene					
	$\Delta_v H$		38.1	298		[1971WIL/ZWO]
C_8H_{16}	[1647-08-1] 4,4-dimethyl-1-hexene					
	$\Delta_v H$		31.0	298		[1971WIL/ZWO]
C_8H_{16}	[16106-59-5] 4,5-dimethyl-1-hexene					
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[7116-86-1] 5,5-dimethyl-1-hexene					
	$\Delta_v H$		37.7	298		[1971WIL/ZWO]
C_8H_{16}	[36880-72-5] 3-ethyl-*cis*-2-hexene					
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[19781-63-6] 3-ethyl-*trans*-2-hexene					
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[54616-49-8] 4-ethyl-*cis*-2-hexene					
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[19781-63-6] 4-ethyl-*trans*-2-hexene					
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_{16}	[7145-20-2]	2,3-dimethyl-2-hexene				
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[14255-23-3]	2,4-dimethyl-2-hexene				
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[3404-78-2]	2,5-dimethyl-2-hexene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[19550-81-3]	3,4-dimethyl-*cis*-2-hexene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[19550-82-4]	3,4-dimethyl-*trans*-2-hexene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[66225-31-8]	3,5-dimethyl-*cis*-2-hexene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[66225-12-5]	3,5-dimethyl-*trans*-2-hexene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[66225-13-6]	4,4-dimethyl-*cis*-2-hexene				
	$\Delta_v H$		38.1	298		[1971WIL/ZWO]
C_8H_{16}	[19550-83-5]	4,4-dimethyl-*trans*-2-hexene				
	$\Delta_v H$		38.1	298		[1971WIL/ZWO]
C_8H_{16}	[na]	4,5-dimethyl-*cis*-2-hexene				
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[66225-14-7]	4,5-dimethyl-*trans*-2-hexene				
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[39761-61-0]	5,5-dimethyl-*cis*-2-hexene				
	$\Delta_v H$		38.1	298		[1971WIL/ZWO]
C_8H_{16}	[39782-43-9]	5,5-dimethyl-*trans*-2-hexene				
	$\Delta_v H$		38.1	298		[1971WIL/ZWO]
C_8H_{16}	[16789-51-8]	3-ethyl-3-hexene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[690-92-6]	*cis* 2,2-dimethyl-3-hexene				
	$\Delta_v H$	(319–380)	35.3	334	A	[1987STE/MAL]
	$\Delta_v H$		37.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(305–379)	36.1	320	MM	[1960CAM/ROS]
C_8H_{16}	[690-93-7]	*trans* 2,2-dimethyl-3-hexene				
	$\Delta_v H$	(306–379)	36.1	321	A	[1987STE/MAL]
	$\Delta_v H$		37.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(303–374)	36.3	318	MM	[1960CAM/ROS]
C_8H_{16}	[59643-75-3]	*cis* 2,3-dimethyl-3-hexene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[66225-30-7]	*trans* 2,3-dimethyl-3-hexene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[37549-89-6]	*cis* 2,4-dimethyl-3-hexene				
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[61847-78-7]	*trans* 2,4-dimethyl-3-hexene				
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_{16}	[10557-44-5]	*cis* 2,5-dimethyl-3-hexene				
	$\Delta_v H$		37.2	298		[1971WIL/ZWO]
C_8H_{16}	[692-70-6]	*trans* 2,5-dimethyl-3-hexene				
	$\Delta_v H$		37.5	298		[1971WIL/ZWO]
C_8H_{16}	[19550-87-9]	*cis* 3,4-dimethyl-3-hexene				
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[19550-88-0]	*trans* 3,4-dimethyl-3-hexene				
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
C_8H_{16}	[15918-08-8]	2-propyl-1-pentene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[61847-79-8]	2-isopropyl-1-pentene				
	$\Delta_v H$		38.8	298		[1971WIL/ZWO]
C_8H_{16}	[3404-67-9]	2-ethyl-3-methyl-1-pentene				
	$\Delta_v H$	(307–389)	36.4	322	A	[1987STE/MAL]
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
	$\Delta_v H$	(308–383)	36.4	323	MM	[1960CAM/ROS]
C_8H_{16}	[3404-80-6]	2-ethyl-4-methyl-1-pentene				
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[19780-66-6]	3-ethyl-2-methyl-1-pentene				
	$\Delta_v H$		37.7	298		[1971WIL/ZWO]
C_8H_{16}	[6196-60-7]	3-ethyl-3-methyl-1-pentene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[61847-80-1]	3-ethyl-4-methyl-1-pentene				
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[560-23-6]	2,3,3-trimethyl-1-pentene				
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[565-76-4]	2,3,4-trimethyl-1-pentene				
	$\Delta_v H$		38.5	298		[1971WIL/ZWO]
C_8H_{16}	[107-39-1]	2,4,4-trimethyl-1-pentene				
	$\Delta_{fus}H$		8.79	178.9		[1996DOM/HEA]
	$\Delta_v H$	(306–356)	35.7	298	EB	[2007MAL]
	$\Delta_v H$	(343–381)	33.5	358	A	[1987STE/MAL]
	$\Delta_v H$		35.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(301–375)	35.1	316	MM	[1960CAM/ROS]
C_8H_{16}	[564-03-4]	3,3,4-trimethyl-1-pentene				
	$\Delta_v H$		38.1	298		[1971WIL/ZWO]
C_8H_{16}	[19780-67-7]	2-methyl-3-ethyl-2-pentene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[42067-48-1]	4-methyl-3-ethyl-*cis*-2-pentene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]
C_8H_{16}	[42067-49-2]	4-methyl-3-ethyl-*trans*-2-pentene				
	$\Delta_v H$		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[565-77-5]	2,3,4-trimethyl-2-pentene				
	$\Delta_v H$		39.3	298		[1971WIL/ZWO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_{16}	[107-40-4]	2,4,4-trimethyl-2-pentene				
	$\Delta_{fus}H$		6.78	166		[1996DOM/HEA]
	Δ_vH	(319–380)	35.7	334	A	[1987STE/MAL]
	Δ_vH		39.3	298		[1971WIL/ZWO]
	Δ_vH	(305–378)	37.2	320	MM	[1960CAM/ROS]
C_8H_{16}	[39761-64-3]	3,4,4-trimethyl-*cis*-2-pentene				
	Δ_vH		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[39761-64-3]	3,4,4-trimethyl-*trans*-2-pentene				
	Δ_vH		38.9	298		[1971WIL/ZWO]
C_8H_{16}	[na]	3-methyl-2-isopropyl-1-butene				
	Δ_vH		38.1	298		[1971WIL/ZWO]
C_8H_{16}	[18231-53-3]	3,3-dimethyl-2-ethyl-1-butene				
	Δ_vH		38.5	298		[1971WIL/ZWO]
$C_8H_{16}Br_2$	[62168-26-7]	1,1-dibromooctane				
	Δ_vH	(412–571)	57.1	427	A,EST	[1987STE/MAL, 1956MAN, 1970DYK/VAN]
$C_8H_{16}Cl_2$	[20395-24-8]	1,1-dichlorooctane				
	Δ_vH	(380–480)	57.7	298	A	[1987VAR/LOS2, 1991BAS/SVO]
	Δ_vH	(382–533)	51.4	397	A,EST	[1987STE/MAL, 1956MAN, 1970DYK/VAN, 1999DYK/SVO]
$C_8H_{16}Cl_2$	[21948-46-9]	1,2-dichlorooctane				
	Δ_vH	(370–490)	52.0	385		[1982VAR/PUC, 1999DYK/SVO]
	Δ_vH	(370–490)	57.6	298		[1982VAR/PUC, 1992LEE/CHE]
$C_8H_{16}Cl_2$	[2162-99-4]	1,8-dichlorooctane				
	Δ_vH	(410–510)	55.9	426		[1999DYK/SVO]
	Δ_vH	(410–510)	65.6	298		[1988VAR/LOS, 1991BAS/SVO]
$C_8H_{16}Cl_2$	[2162-99-4]	*erythro*-4,5-dichlorooctane				
	Δ_vH	(351–480)	47.3	415		[1999DYK/SVO]
$C_8H_{16}F_2$	[61350-03-6]	1,1-difluorooctane				
	Δ_vH	(329–459)	44.2	344	A,EST	[1987STE/MAL, 1956MAN, 1970DYK/VAN, 1999DYK/SVO]
$C_8H_{16}NO_2$	[na]	ethyl 2-(N,N-dimethylamino)-2-methylpropanoate				
	Δ_vH	(278–313)	51.6 ± 0.5	298	GS	[1996VER/ZUF]
$C_8H_{16}N_2$	[na]	methyl ethyl ketazine				
	Δ_vH	(439–524)	40.0			[1993FER/MOR]
$C_8H_{16}N_2$	[na]	1,1,4,4-tetramethyltetramethylenediazine				
	Δ_vH		50.1 ± 0.4	298	C	[1976ENG/MEL]
$C_8H_{16}N_2$	[na]	2-diethylamino-2-methylpropionitrile				
	Δ_vH		56.3 ± 1.1		GS	[1997WEL/VER]
$C_8H_{16}N_2O_2$	[28529-34-2]	N-acetyl (*l*)-leucine amide				
	$\Delta_{sub}H$		115.6 ± 1.4	376	C	[1999DEL/BAR]
	$\Delta_{sub}H$		119.8 ± 1.5	298		[1999DEL/BAR]
$C_8H_{16}N_2O_2$	[16624-68-3]	N-acetyl (*d*)-leucine amide				
	$\Delta_{fus}H$		20.2	404		[1996DOM/HEA]
	$\Delta_{sub}H$		114.8 ± 0.3	393	C	[1999DEL/BAR]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		120.4 ± 0.4	298		[1999DEL/BAR]
	$\Delta_{sub}H$	(374–401)	101 ± 3	388	TE	[1988FER/DEL, 1986BAR/FER]
$C_8H_{16}N_2O_2$	[56711-06-9]	N-acetyl (*l*)-isoleucine amide				
	$\Delta_{fus}H$		41.8	529.6		[1997PUL/DES]
	$\Delta_{sub}H$		142.7 ± 0.2	390	C	[1999DEL/BAR]
	$\Delta_{sub}H$		147.4 ± 0.3	298		[1999DEL/BAR]
$C_8H_{16}N_2O_2$	[3891-73-4]	suberamide				
	$\Delta_{trs}H$		5.45	431.3		
	$\Delta_{fus}H$		58.4	493.2	DSC	[2006BAD/DEL]
$C_8H_{16}N_6$	[na]	1-(methylamino)-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		22.34	378.8		[1989BRA/RYT]
$C_8H_{16}N_6O$	[na]	1-(hydroxylamino)-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		30.67	381.5		[1989BRA/RYT]
$C_8H_{16}O$	[124-13-0]	octanal				
	$\Delta_{fus}H$		25.86	288.2		[1980DYA/VAS]
	Δ_vH	(277–310)	51.0 ± 0.3	298	GS	[2003VER/KRA2]
	Δ_vH	(313–353)	53.8	298	CGC	[1995CHI/HOS]
	Δ_vH	(293–438)	43.4	308	A	[1987STE/MAL]
	Δ_vH		51.3 ± 0.2	298		[1981DYA/KOR]
$C_8H_{16}O$	[18641-70-8]	2,4-dimethyl-3-hexanone				
	Δ_vH	(350–418)	42.5	365	A	[1987STE/MAL]
$C_8H_{16}O$	[696-71-9]	cyclooctanol				
	$\Delta_{fus}H$		2.02	291.2	DSC	[2008SIN/MUR]
	$\Delta_{trs}H$		2.05	264.1		
	$\Delta_{fus}H$		1.97	297.1		[2003RUT/SAL]
	$\Delta_{trs}H$		2.12	261.3		
	$\Delta_{fus}H$		2.06	295		[1995SCI/MAY]
		Note: Authors did not report enthalpic data for all transitions				
$C_8H_{16}O$	[1940-18-7]	1-ethylcyclohexanol				
	Δ_vH	(324–440)	46.9	339	A	[1987STE/MAL]
$C_8H_{16}O$	[13019-20-0]	2-methyl-3-heptanone				
	Δ_vH	(350–428)	43.5	365	A	[1987STE/MAL]
$C_8H_{16}O$	[51500-48-2]	6-methyl-3-hepten-2-ol				
	Δ_vH	(314–449)	59.7	329	A	[1987STE/MAL, 1947STU]
$C_8H_{16}O$	[4630-06-2]	(*dl*) 6-methyl-5-hepten-2-ol				
	Δ_vH	(314–448)	57	329	A	[1987STE/MAL, 1947STU]
$C_8H_{16}O$	[111-13-7]	2-octanone				
	$\Delta_{fus}H$		24.42	252.9		[1996DOM/HEA]
	Δ_vH	(343–383)	52.6	298	CGC	[1995CHI/HOS]
	Δ_vH	(317–446)	49.8	332	A	[1987STE/MAL]
	Δ_vH		52.0 ± 0.3	298	GCC	[1979SAL/PEA]
	Δ_vH	(324–520)	49.1	339	A	[1987STE/MAL, 1975AMB/ELL]
	Δ_vH	(324–520)	51.8	298		[1975AMB/ELL]
	Δ_vH	(296–446)	50.6	311		[1947STU]
$C_8H_{16}O$	[106-68-3]	3-octanone				
	Δ_vH	(293–348)	43.8	308	A	[1987STE/MAL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{16}O$	[589-63-9]	4-octanone				
	$\Delta_v H$	(288–433)	36.4	303	A	[1987STE/MAL]
$C_8H_{16}O$	[1604-02-0]	1-propylcyclopentanol				
	$\Delta_v H$	(344–447)	64.2	359	A	[1987STE/MAL]
$C_8H_{16}O$	[5857-36-2]	2,2,4-trimethyl-3-pentanone				
	$\Delta_v H$	(287–408)	55.7	302	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$		43.3 ± 0.2	298	C	[1970SEL2]
	$\Delta_v H$		43.3 ± 0.1	298	C	[1966WAD]
$C_8H_{16}O_2$	[na]	3-butoxy-2-butanone				
	$\Delta_v H$	(323–398)	36.7	338	A	[1987STE/MAL]
$C_8H_{16}O_2$	[na]	*trans* 2,2,4,6-tetramethyl-1,3-dioxane				
	$\Delta_v H$		41.9 ± 1.2	298		[1967PIH/HEI]
$C_8H_{16}O_2$	[na]	*cis* 2,2,4,6-tetramethyl-1,3-dioxane				
	$\Delta_v H$		42.3 ± 1.2	298		[1967PIH/HEI]
$C_8H_{16}O_2$	[na]	2,2,6,6-tetramethyl-1,3-dioxane				
	$\Delta_{fus}H$		10.9	250.6		[1975BOR]
$C_8H_{16}O_2$	[933-40-4]	1,1-dimethoxycyclohexane				
	$\Delta_v H$	(278–308)	48.6 ± 0.2	298	GS	[2002VER]
	$\Delta_v H$	(278–308)	49.0 ± 0.2		GS	[1998VER/PEN]
	$\Delta_v H$	(315–347)	52.4	331	EB	[1994WIB/MOR]
$C_8H_{16}O_2$	[124-07-2]	octanoic acid (caprylic acid)				
	$\Delta_{fus}H$		21.38	289.7		[1996DOM/HEA]
	$\Delta_{sub}H$		113.3 ± 6	298	TPD	[2008CAP/LOV]
	$\Delta_v H$	(297–343)	79.8 ± 0.6	320	GS	[2000VER2]
	$\Delta_v H$	(297–434)	81.0 ± 0.6	298	GS	[2000VER2]
	$\Delta_v H$	(353–393)	81.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(417–514)	66.6	432	A,EB	[1987AMB/GHI3]
	$\Delta_v H$	(296–331)	85.3	311	A	[1987STE/MAL]
	$\Delta_v H$	(360–512)	74.4	375	A	[1987STE/MAL]
	$\Delta_v H$		80.0	290		[1982DEK/SCH]
	$\Delta_v H$	(291–303)	82.9 ± 1.0	298	TE	[1979DEK/OON]
	$\Delta_v H$		70.0	407	I	[1943CRA]
$C_8H_{16}O_2$	[123-66-0]	ethyl hexanoate				
	$\Delta_v H$	(345–374)	47.4 ± 0.3	359	EB	[1991WIB/WAL]
	$\Delta_v H$	(345–379)	51.5 ± 1.3	298	EB	[1991WIB/WAL]
	$\Delta_v H$	(396–449)	51.8	311	A	[1987STE/MAL]
	$\Delta_v H$	(300–376)	48.6	315	A	[1987STE/MAL]
$C_8H_{16}O_2$	[149-57-5]	(*dl*) 2-ethylhexanoic acid				
	$\Delta_v H$	(397–514)	76.3 ± 0.9	298	EB	[1997STE/CHI3]
	$\Delta_v H$	(403–500)	61.8	418	A	[1987STE/MAL]
	$\Delta_v H$		75.6 ± 0.5	298	C	[1976STR]
$C_8H_{16}O_2$	[142-92-7]	hexyl acetate				
	$\Delta_{fus}H$		19.83	212.1		[1996DOM/HEA]
	$\Delta_v H$	(274–309)	51.9 ± 0.3	298	GS	[2006KRA/VER]
	$\Delta_v H$		52.1	298	GC	[1997KOU/HOS]
	$\Delta_v H$	(303–444)	50.9	318		[1995ARC/BLA]
	$\Delta_v H$	(304–381)	48.9	319	A	[1987STE/MAL]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(378–459)	46.2	387	DTA	[1980MEY/AWE]
$C_8H_{16}O_2$	[109-21-7]	butyl butanoate				
	$\Delta_{fus}H$		14.93	181.7		[1996DOM/HEA]
$C_8H_{16}O_2$	[539-90-2]	isobutyl butyrate				
	$\Delta_v H$	(277–430)	41.7	292	A	[1987STE/MAL, 1947STU]
$C_8H_{16}O_2$	[97-85-8]	isobutyl isobutyrate				
	$\Delta_v H$	(274–319)	48.5	298	GS	[2008VER/EME]
	$\Delta_v H$	(278–313)	44.5 ± 0.1	298	GS	[1996VER/BEC]
	$\Delta_v H$	(277–421)	46.9	292	A	[1987STE/MAL, 1947STU]
$C_8H_{16}O_2$	[624-54-4]	isopentyl propionate				
	$\Delta_v H$	(281–434)	44.1	296	A	[1987STE/MAL]
$C_8H_{16}O_2$	[106-73-0]	methyl heptanoate				
	$\Delta_v H$	(421–444)	46.3	433		[2009POS/MAR]
	$\Delta_v H$	(278–310)	53.2 ± 0.2	298	GS	[2008VER/EME]
	$\Delta_v H$		49.1	350		[2002VAN/VAN]
	$\Delta_v H$		50.2 ± 0.1	326		[2002VAN/VAN]
	$\Delta_v H$		51.8 ± 0.1	298		[2002VAN/VAN]
	$\Delta_v H$	(313–363)	53.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(433–473)	53.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(313–353)	53.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		49.7 ± 0.5	298	GC	[1987AZA]
	$\Delta_v H$		53.1 ± 0.4	298	GCC	[1980FUC/PEA]
	$\Delta_v H$		53.1 ± 0.1	298	C	[1980FUC/PEA]
	$\Delta_v H$		51.6 ± 0.5	298	C	[1977MAN/SEL]
	$\Delta_v H$	(332–402)	49.0	347	A,EST	[1987STE/MAL, 1963ROS/SCH]
$C_8H_{16}O_2$	[25415-67-2]	4-methylvaleric acid, ethyl ester				
	$\Delta_v H$	(284–434)	45.4	299	A	[1987STE/MAL, 1947STU]
$C_8H_{16}O_2$	[557-00-6]	propyl isovalerate				
	$\Delta_v H$	(281–429)	44.3	296	A	[1987STE/MAL, 1947STU]
$C_8H_{16}O_2$	[123-66-0]	ethyl hexanoate				
	$\Delta_v H$	(279–309)	50.8 ± 0.4	294	GS	[1999VER/HEI]
	$\Delta_v H$	(279–309)	50.6 ± 0.4	298	GS	[1999VER/HEI]
$C_8H_{16}O_2$	[34949-22-9]	*tert*-pentyl propionate				
	$\Delta_v H$	(274–310)	45.3 ± 0.1	298	GS	[2008VER/EME]
	$\Delta_v H$	(333–378)	45.7	298	CGC	[1999VER/HEI]
$C_8H_{16}O_2$	[34859-98-8]	1,1-dimethylbutyl acetate				
	$\Delta_v H$	(333–378)	45.6	298	CGC	[1999VER/HEI]
$C_8H_{16}O_2$	[15965-97-6]	[(3-methylbutoxy)methyl]oxirane				
	$\Delta_v H$		55.8 ± 1.9			[1987VAN/KAC]
$C_8H_{16}O_3$	[112-07-2]	2-butoxyethyl acetate				
	$\Delta_v H$		59.5 ± 0.1	298	C	[1970KUS/WAD]
$C_8H_{16}O_3$	[4126-55-0]	2-butoxypropionic acid, methyl ester				
	$\Delta_v H$	(348–417)	51.9	363	A	[1987STE/MAL]
$C_8H_{16}O_3$	[14144-34-4]	3-butoxypropionic acid, methyl ester				
	$\Delta_v H$	(311–469)	51.1	326	A	[1987STE/MAL]
$C_8H_{16}O_3$	[na]	3-ethoxypropionic acid, propyl ester				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(343–461)	48.6	358	A	[1987STE/MAL, 1954FRI/PIC]
$C_8H_{16}O_3$	[112-07-2] ethylene glycol monobutyl ether acetate					
	$\Delta_v H$	(293–465)	51.9	308	A	[1987STE/MAL]
$C_8H_{16}O_3$	[816-50-2] 2-hydroxyisobutyric acid, butyl ester					
	$\Delta_v H$	(384–458)	47.7	399	A	[1987STE/MAL]
$C_8H_{16}O_3$	[4195-88-4] 3-methoxypropionic acid, butyl ester					
	$\Delta_v H$	(311–469)	50.9	326	A	[1987STE/MAL]
$C_8H_{16}O_3$	[6382-06-5] pentyl lactate					
	$\Delta_v H$	(288–469)	73.9	303	A	[1987STE/MAL]
$C_8H_{16}O_3$	[112-15-2] diethylene glycol monoethyl ether acetate					
	$\Delta_v H$	(293–491)	51.7	308	A	[1987STE/MAL]
$C_8H_{16}O_3$	[2305-25-1] ethyl 3-hydroxyhexanoate					
	$\Delta_v H$	(363–393)	61.9 ± 0.6	298	CGC	[2005TEM/CHI]
$C_8H_{16}O_4$	[294-93-9] 1,4,7,10-tetraoxacyclododecane (12-crown-4)					
	$\Delta_{fus}H$		22.46	290.7		[1998DOM]
	$\Delta_v H$		65.7 ± 3.7	298	CGC	[2000NIC/ORF]
	$\Delta_v H$		65.6 ± 0.4	298	C	[1982BYS/MAN]
$C_8H_{16}O_4$	[2780-59-8] 3,6-diethyl-3,6-dimethyl-1,2,4,5-tetraoxacyclohexane					
	$\Delta_v H$	(403–473)	45.09	298	CGC	[2007CAN/EYL]
$C_8H_{16}S_4$	[25423-56-7] 1,4,7,10-tetrathiacyclododecane					
	$\Delta_{fus}H$		31.0	499.2	DSC	[2002ROC/GRI]
$C_8H_{17}Br$	[111-83-1] 1-bromooctane					
	$\Delta_{fus}H$		24.69	218.2		[1950CRO/SMY]
	$\Delta_v H$	(323–363)	55.1	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		55.8 ± 0.1	298	C	[1976STR3, 1977MAN/SEL]
	$\Delta_v H$	(373–475)	49.3	388	A,EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_8H_{17}Br$	[555-35-7] (*dl*) 2-bromooctane					
	$\Delta_v H$	(343–463)	48.4	358	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{17}Cl$	[111-85-3] 1-chlorooctane					
	$\Delta_v H$	(330–460)	51.4	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(327–457)	50.3	342	A,DTA	[1987STE/MAL, 1969KEM/KRE]
	$\Delta_v H$		52.4 ± 0.1	298	C	[1968WAD]
$C_8H_{17}Cl$	[628-61-5] (*dl*) 2-chlorooctane					
	$\Delta_v H$	(330–446)	47.8	345	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{17}Cl$	[123-04-6] (3-chloromethyl)heptane					
	$\Delta_v H$	(371–443)	44.2	386	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{17}ClO_4$	[5197-66-0] triethylene glycol mono(2-chloroethyl) ether					
	$\Delta_v H$	(383–555)	68.6	398	A	[1987STE/MAL, 1947STU]
$C_8H_{17}Cl_2N$	[42520-97-8] N-butyl *bis*(2-chloroethyl)amine					
	$\Delta_v H$	(273–380)	60.7	288	A,GS	[1987STE/MAL, 1948RED/CHA3, 1999DYK/SVO]
$C_8H_{17}Cl_2N$	[na] N-sec-butyl *bis*(2-chloromethyl)amine					
	$\Delta_v H$	(273–373)	59.5	288	GS	[1987STE/MAL, 1948RED/CHA3, 1999DYK/SVO]
$C_8H_{17}Cl_2N$	[10125-86-7] N-*tert*-butyl *bis*(2-chloromethyl)amine					

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(273–345)	58.4	288	A,GS	[1987STE/MAL, 1948RED/CHA3, 1999DYK/SVO]
$C_8H_{17}Cl_2N$	[87289-70-1]	N-isobutyl *bis*(2-chloromethylamine				
	$\Delta_v H$	(273–345)	60.3	288	A,GS	[1987STE/MAL, 1948RED/CHA3, 1999DYK/SVO]
$C_8H_{17}F$	[463-11-6]	1-fluorooctane				
	$\Delta_v H$		49.7	298		[UR/FUC, 1985MAJ/SVO]
	$\Delta_v H$	(307–446)	44.1	322	A,EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_8H_{17}I$	[629-27-6]	1-iodooctane				
	$\Delta_v H$	(391–554)	59.7	298	A,EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	$\Delta_v H$	(391–554)	50.7	406	A,EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_8H_{17}NO$	[629-01-6]	octanamide				
	$\Delta_{trs}H$		1.91	194.4		
	$\Delta_{trs}H$		0.97	304.5		
	$\Delta_{fus}H$		27.6	377	DSC	[2008ABA/BAD]
	$\Delta_{sub}H$	(325–374)	110.5 ± 2.9		GS,ME	[1959DAV/JON2, 1987STE/MAL]
$C_8H_{17}NO$	[na]	N-propylpiperidine				
	$\Delta_v H$	(275–314)	45.2 ± 0.4	294	GS	[1998VER6]
	$\Delta_v H$	(275–314)	44.9 ± 0.4	298	GS	[1998VER6]
$C_8H_{17}NO$	[1114-76-7]	butyric acid N,N-diethylamide				
	$\Delta_v H$	(298–373)	38.7	313	A	[1987STE/MAL]
$C_8H_{17}NO$	[929-55-5]	caprylaldehyde oxime				
	$\Delta_v H$	(313–400)	71.3	328	A	[1987STE/MAL]
$C_8H_{17}NO$	[7207-49-0]	2-octanone oxime				
	$\Delta_v H$	(293–487)	67.5	308	A	[1987STE/MAL]
$C_8H_{17}NO$	[7207-50-3]	3-octanone oxime				
	$\Delta_v H$	(293–400)	67.2	308	A	[1987STE/MAL]
$C_8H_{17}NO$	[7207-51-4]	4-octanone oxime				
	$\Delta_v H$	(293–400)	68.8	308	A	[1987STE/MAL]
$C_8H_{17}NO_2$	[na]	2,4,4-trimethyl-2-nitropentane				
	$\Delta_v H$	(288–324)	54.2 ± 0.8	306	GS	[1997VER3]
	$\Delta_v H$	(288–324)	54.7 ± 0.8	298	GS	[1997VER3]
$C_8H_{17}NO_2$	[na]	lactic acid N-isopentylamide				
	$\Delta_v H$	(386–433)	77.9	401	A	[1987STE/MAL]
$C_8H_{17}NO_2$	[na]	lactic acid N-pentylamide				
	$\Delta_v H$	(373–448)	81.8	388	A	[1987STE/MAL]
$C_8H_{17}NO_2$	[2743-60-4]	(*l*) leucine ethyl ester				
	$\Delta_v H$	(333–449)	43.5	348	A	[1987STE/MAL]
$C_8H_{17}NO_2$	[na]	ethyl 2-(N,N-dimethylamino)-2-methylpropionate				
	$\Delta_v H$		55.6 ± 0.4	283	DSC	[1993SCH/BEC]
$C_8H_{17}NO_2$	[na]	(1-methylheptyl)nitrite				
	$\Delta_v H$	(303–338)	44.9	318	A	[1987STE/MAL]
$C_8H_{17}NO_2$	[1002-57-9]	8-aminooctanoic acid				
	$\Delta_{sub}H$	(391–402)	166.2 ± 0.9	397	C	[1983SKO/SAB]
	$\Delta_{sub}H$		170 ± 4	298	C	[1983SKO/SAB]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{17}NO_4$	[72458-42-5]	N-ethyl-5-amino-1,5-dideoxy-(*d*)-glycopyranose				
	$\Delta_{fus}H$		26.3	429.1		[1994BLU/PRA]
C_8H_{18}	[590-73-8]	2,2-dimethylhexane				
	Δ_vH		37.3	298		[1971WIL/ZWO]
	Δ_vH	(243–380)	39.7	258		[1947STU]
	Δ_vH		37.3 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(302–381)	36.6	317	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[584-94-1]	2,3-dimethylhexane				
	Δ_vH		38.8	298		[1971WIL/ZWO]
	Δ_vH	(250–388)	41.4	265		[1947STU]
	Δ_vH		38.8 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(310–390)	37.6	325	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[589-43-5]	2,4-dimethylhexane				
	Δ_vH		37.8	298		[1971WIL/ZWO]
	Δ_vH	(246–382)	41	261		[1947STU]
	Δ_vH		37.8 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(305–385)	36.9	320	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[592-13-2]	2,5-dimethylhexane				
	Δ_vH		37.9	298		[1971WIL/ZWO]
	Δ_vH	(246–382)	41.1	261		[1947STU]
	Δ_vH		37.9 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(307–383)	36.9	322	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[563-16-6]	3,3-dimethylhexane				
	Δ_vH	(247–385)	41.2	262		[1947STU]
	Δ_vH		37.5 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(308–386)	36.6	323	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[583-48-2]	3,4-dimethylhexane				
	Δ_vH	(251–390)	41.3	266		[1947STU]
	Δ_vH		39.0 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(313–392)	37.7	328	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[619-99-8]	3-ethylhexane				
	Δ_vH		39.7	298		[1971WIL/ZWO]
	Δ_vH	(251–391)	42.4	268		[1947STU]
	Δ_vH		39.6 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(314–393)	38.2	329	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[609-26-7]	3-ethyl-2-methylpentane				
	Δ_vH		38.5	298		[1971WIL/ZWO]
	Δ_vH		38.5 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(311–390)	37.4	326	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[1067-08-9]	3-ethyl-3-methylpentane				
	Δ_vH		38.0	298		[1971WIL/ZWO]
	Δ_vH	(249–391)	40.2	264		[1947STU]
	Δ_vH		38.0 ± 0.1	298	C	[1947OSB/GIN]
	Δ_vH	(312–393)	36.9	327	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[592-27-8]	2-methylheptane				
	$\Delta_{fus}H$		11.92	164.2		[1996DOM/HEA]
	Δ_vH	(285–392)	39.8	300	A	[1987STE/MAL]
	Δ_vH		39.7 ± 0.1	298	C	[1979MAJ/SVO]
	Δ_vH		38.7 ± 0.1	313	C	[1979MAJ/SVO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		37.3 ± 0.1	333	C	[1979MAJ/SVO]
	$\Delta_v H$		36.0 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$	(233–283)	41.6	268	IP	[1987STE/MAL, 1974OSB/DOU]
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
	$\Delta_v H$		39.8 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(315–391)	38.1	330	MM	[1945WIL/TAY]
C_8H_{18}	[589-81-1]	3-methylheptane				
	$\Delta_{fus}H$		11.67	152.6		[1996DOM/HEA]
	$\Delta_v H$		39.8 ± 0.2	298	C	[1987AN/HU]
	$\Delta_v H$	(286–393)	40.1	301	A	[1987STE/MAL]
	$\Delta_v H$	(238–286)	41.6	271	IP	[1987STE/MAL, 1974OSB/DOU]
	$\Delta_v H$		39.8	298		[1971WIL/ZWO]
	$\Delta_v H$		39.8 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(316–393)	38.3	331	MM	[1945WIL/TAY]
C_8H_{18}	[589-53-7]	4-methylheptane				
	$\Delta_{fus}H$		10.84	152.2		[1991ACR]
	$\Delta_v H$		39.7 ± 0.1	298	C	[1979MAJ/SVO]
	$\Delta_v H$		38.7 ± 0.1	313	C	[1979MAJ/SVO]
	$\Delta_v H$		37.4 ± 0.1	333	C	[1979MAJ/SVO]
	$\Delta_v H$		36.1 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$		39.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(253–391)	42.3	268		[1947STU]
	$\Delta_v H$		39.7 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(312–392)	38.2	327	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[111-65-9]	octane				
	$\Delta_{fus}H$		21.8	216.6	DSC	[2004MON/RAJ]
	$\Delta_{fus}H$		20.74	216.4		[1996DOM/HEA]
	$\Delta_{sub}H$		68.1	216	B	[1963BON]
	$\Delta_v H$	(323–563)	39.4	338	EB	[2003EWI/OCH]
	$\Delta_v H$		41.6	298		[1994RUZ/MAJ]
	$\Delta_v H$	(297–400)	41.0	312	A	[1987STE/MAL]
	$\Delta_v H$	(216–278)	44.4	263	A	[1987STE/MAL]
	$\Delta_v H$	(396–432)	36.3	411	A	[1987STE/MAL]
	$\Delta_v H$	(428–510)	35.5	443	A	[1987STE/MAL]
	$\Delta_v H$	(506–569)	34.9	521	A	[1987STE/MAL]
	$\Delta_v H$	(295–402)	41.2	310		[1986PAU/KRU]
	$\Delta_v H$	(298–333)	41.9	313		[1984MIC/JOS]
	$\Delta_v H$		41.5 ± 0.1	298	C	[1981HOS/SCO2]
	$\Delta_v H$		41.5 ± 0.1	298	C	[1979MAJ/SVO]
	$\Delta_v H$		40.5 ± 0.1	313	C	[1979MAJ/SVO]
	$\Delta_v H$		39.1 ± 0.1	333	C	[1979MAJ/SVO]
	$\Delta_v H$		37.8 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$	(217–297)	43.0	282		[1973CAR/KOB]
	$\Delta_v H$		41.5	298		[1971WIL/ZWO]
	$\Delta_v H$		38.0 ± 0.1	311	C	[1960MCK/SAG]
	$\Delta_v H$		36.7 ± 0.1	328	C	[1960MCK/SAG]
	$\Delta_v H$		35.4 ± 0.1	344	C	[1960MCK/SAG]
	$\Delta_v H$		41.5 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(326–400)	39.2	341	MM	[1945WIL/TAY]
C_8D_{18}	[17252-77-6]	octane-d_{18}				
	$\Delta_v H$		41.4	298	CGC	[2008ZHA/UNH]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_8H_{18}	[560-21-4]	(*dl*) 2,2,3-trimethylpentane				
	$\Delta_v H$		37.7 ± 0.1	298	C	[1998SVO/HYN]
	$\Delta_v H$		37.1 ± 0.1	308	C	[1998SVO/HYN]
	$\Delta_v H$		36.6 ± 0.1	315	C	[1998SVO/HYN]
	$\Delta_v H$		36.0 ± 0.1	323	C	[1998SVO/HYN]
	$\Delta_v H$		35.5 ± 0.1	330	C	[1998SVO/HYN]
	$\Delta_v H$		35.1 ± 0.1	338	C	[1998SVO/HYN]
	$\Delta_v H$		34.8 ± 0.1	348	C	[1998SVO/HYN]
	$\Delta_v H$		34.1 ± 0.1	358	C	[1998SVO/HYN]
	$\Delta_v H$		33.5 ± 0.1	368	C	[1998SVO/HYN]
	$\Delta_v H$		36.9	298		[1971WIL/ZWO]
	$\Delta_v H$		36.9 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(306–384)	36.1	321	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[540-84-1]	2,2,4-trimethylpentane				
	$\Delta_{fus}H$		9.04	165.3		[1996DOM/HEA]
	$\Delta_v H$	(373–423)	34.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(289–333)	36.1	304		[1991WU/PIV]
	$\Delta_v H$	(423–523)	31.6	438	A	[1987STE/MAL]
	$\Delta_v H$	(372–416)	32.2	387	A	[1987STE/MAL]
	$\Delta_v H$	(413–494)	31.5	428	A	[1987STE/MAL]
	$\Delta_v H$	(490–544)	31.4	505	A	[1987STE/MAL]
	$\Delta_v H$		35.2 ± 0.1	298	C	[1982SVO/CHA]
	$\Delta_v H$		34.4 ± 0.1	313	C	[1982SVO/CHA]
	$\Delta_v H$		33.4 ± 0.1	328	C	[1982SVO/CHA]
	$\Delta_v H$		32.6 ± 0.1	343	C	[1982SVO/CHA]
	$\Delta_v H$		31.7 ± 0.1	358	C	[1982SVO/CHA]
	$\Delta_v H$		31.0 ± 0.1	368	C	[1982SVO/CHA]
	$\Delta_v H$		35.1 ± 0.1	298	C	[1979MAJ/SVO]
	$\Delta_v H$		34.3 ± 0.1	313	C	[1979MAJ/SVO]
	$\Delta_v H$		33.2 ± 0.1	333	C	[1979MAJ/SVO]
	$\Delta_v H$		32.0 ± 0.1	353	C	[1979MAJ/SVO]
	$\Delta_v H$		35.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(194–299)	40.7	209	A	[1987STE/MAL, 1956MIL]
	$\Delta_v H$		35.1 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(297–374)	34.8	312	A,MM	[1987STE/MAL, 1945WIL/TAY]
	$\Delta_v H$		31.0	371	C	[1940PIT]
	$\Delta_v H$	(318–399)	33.9	333	EB	[1940SMI]
C_8H_{18}	[560-21-4]	2,3,3-trimethylpentane				
	$\Delta_v H$		37.6 ± 0.1	298	C	[1998SVO/HYN]
	$\Delta_v H$		36.9 ± 0.1	308	C	[1998SVO/HYN]
	$\Delta_v H$		36.5 ± 0.1	315	C	[1998SVO/HYN]
	$\Delta_v H$		36.0 ± 0.1	323	C	[1998SVO/HYN]
	$\Delta_v H$		35.5 ± 0.1	330	C	[1998SVO/HYN]
	$\Delta_v H$		35.1 ± 0.1	338	C	[1998SVO/HYN]
	$\Delta_v H$		34.4 ± 0.1	348	C	[1998SVO/HYN]
	$\Delta_v H$		33.9 ± 0.1	358	C	[1998SVO/HYN]
	$\Delta_v H$		33.3 ± 0.1	368	C	[1998SVO/HYN]
	$\Delta_v H$		37.2	298		[1971WIL/ZWO]
	$\Delta_v H$		36.9 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$		37.2 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(308–390)	36.4	323	A,MM	[1987STE/MAL, 1945WIL/TAY]
C_8H_{18}	[565-75-3]	2,3,4-trimethylpentane				
	$\Delta_{fus}H$		9.27	163.6		[1996DOM/HEA]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(288–400)	37.7	303	A	[1987STE/MAL]
	$\Delta_v H$	(223–289)	39.1	274	A	[1987STE/MAL]
	$\Delta_v H$		37.7 ± 0.1	298	C	[1981HOS/SCO2]
	$\Delta_v H$	(223–426)	41.3	238	IP,EB	[1974OSB/DOU]
	$\Delta_v H$	(223–278)	39.8	263	IP	[1974OSB/DOU]
	$\Delta_v H$		37.7	298		[1971WIL/ZWO]
	$\Delta_v H$		37.7 ± 0.1	298	C	[1947OSB/GIN]
	$\Delta_v H$	(310–388)	36.7	325	MM	[1945WIL/TAY]
C_8H_{18}	[594-82-1]	2,2,3,3-tetramethylbutane				
	$\Delta_{trs}H$		2.0	153		[1984DOM/EVA]
	$\Delta_{trs}H$		2.0	152.5		
	$\Delta_{fus}H$		7.54	373.9		[1996DOM/HEA]
	$\Delta_{sub}H$	(286–377)	43.6	301		[1987STE/MAL]
	$\Delta_{sub}H$	(273–338)	43.4 ± 0.2	298		[1952SCO/DOU, 1970COX/PIL]
	$\Delta_{sub}H$		42.9 ± 0.9	298	C	[1947OSB/GIN]
	$\Delta_{sub}H$	(263–279)	56.2		A,MG	[1931LIN]
	$\Delta_v H$	(377–390)	333	383	A	[1987STE/MAL]
$C_8H_{18}N_2$	[2159-75-3]	dibutyldiazene				
	$\Delta_v H$		49.3 ± 0.2	298	C	[1978ENG/MON]
$C_8H_{18}N_2$	[927-83-3]	di-*tert*-butyldiazene				
	$\Delta_{trs}H$		4.89	242.6		
	$\Delta_{fus}H$		10.28	258.6		[1980BYS]
	$\Delta_v H$		39.1 ± 0.3	298	C	[1976ENG/MEL]
	$\Delta_v H$	(294–305)	39.6	299	UV	[1974ENG/WOO]
	$\Delta_v H$		32.7		I	[1974ENG/WOO]
$C_8H_{18}N_2$	[na]	butylhydrazone butyraldehyde				
	$\Delta_v H$	(298–323)	55.6	310		[1980LEB/NAZ]
$C_8H_{18}N_2$	[na]	isobutylhydrazone isobutyraldehyde				
	$\Delta_v H$	(288–313)	57.2	300		[1980LEB/NAZ]
$C_8H_{18}N_2O$	[16649-52-8]	dibutyldiazene N-oxide				
	$\Delta_{trs}H$		8.34	268		
	$\Delta_{fus}H$		11.52	288.4		[1980BYS]
	$\Delta_v H$		45.9 ± 0.1	298	C	[1981BYS]
$C_8H_{18}N_2O$	[42955-46-4]	1-heptyl urea				
	$\Delta_{fus}H$		29.0	386.1	DSC	[2005HAS/TAJ]
	$\Delta_{trs}H$		1.4	379.2		
	$\Delta_{fus}H$		26.3	382.2		[1999WEL/DRU]
$C_8H_{18}N_2O_2$	[122-96-3]	1,4-*bis*-(2-hydroxyethyl)piperazine				
	$\Delta_{fus}H$		25.9	405		[1996DOM/HEA]
	$\Delta_{sub}H$	(354–396)	128.0 ± 1.0	375	GS	[2002VER2]
	$\Delta_{sub}H$	(354–396)	130.5 ± 1.0	298	GS	[2002VER2]
	$\Delta_{sub}H$	(334–356)	104.1			[1984LEB/GUT]
$C_8H_{18}N_4O_4$	[35823-10-0]	N,N′-dimethyl-N,N′dinitro-1,6-hexanediamine				
	$\Delta_{fus}H$		61.68	331		[1987OYU/BRI]
$C_8H_{18}O$	[629-32-3]	heptyl methyl ether				
	$\Delta_v H$		46.9	298		[UR/FUC, 1985MAJ/SVO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{18}O$	[1000-63-1]	butyl *tert*-butyl ether				
	$\Delta_v H$		43.2	298		[UR/VER, 2002VER]
	$\Delta_v H$		41.6 ± 0.2	298	C	[2002VAR/AIT]
	$\Delta_v H$		42.3 ± 0.3	298	C	[1991SHA/MIS]
	$\Delta_v H$	(293–397)	41.7	308	A	[1987STE/MAL]
	$\Delta_v H$	(356–397)	38.3	371	EB	[1987STE/MAL, 1969SHE/ALN]
$C_8H_{18}O$	[33021-02-2]	*tert*-butyl isobutyl ether				
	$\Delta_{fus}H$		8.65	162.3		[2006DRU/DOR]
	$\Delta_v H$	(349–386)	39.1 ± 0.5	298	EB	[2007EFI/PAS]
	$\Delta_v H$		41.2 ± 0.3	298		[UR/VER, 2002VER]
	$\Delta_v H$		39.2 ± 0.3	298	C	[2002VAR/AIT]
	$\Delta_v H$	(273–308)	40.9 ± 0.3	298	GS	[1996VER/BEC]
	$\Delta_v H$		40.1 ± 0.1	298	C	[1991SHA/MIS]
$C_8H_{18}O$	[17071-47-5]	butyl isobutyl ether				
	$\Delta_v H$	(328–406)	40.3	343	A	[1987STE/MAL]
$C_8H_{18}O$	[32970-45-9]	sec-butyl *tert*-butyl ether				
	$\Delta_v H$		41.3	298		[2002VER, 2003VER/KRA]
$C_8H_{18}O$	[32970-45-9]	1-methyl-1-*tert*-butoxypropane				
	$\Delta_v H$		40.3 ± 0.2	298	C	[1991SHA/MIS]
$C_8H_{18}O$	[142-96-1]	dibutyl ether				
	$\Delta_v H$	(339–415)	40.9	354	A	[1987STE/MAL]
	$\Delta_v H$	(336–415)	41.7	351	A	[1987STE/MAL]
	$\Delta_v H$		44.7 ± 0.1	298	C	[1982FUC/PEA]
	$\Delta_v H$		45.0 ± 0.1	298	C	[1980MAJ/WAN]
	$\Delta_v H$	(362–414)	44.4	298		[1976AMB/ELL]
	$\Delta_v H$	(362–414)	36.4	413		[1976AMB/ELL]
	$\Delta_v H$	(362–413)	40.6	377	EB	[1969CID/POL]
	$\Delta_v H$	(386–440)	39.4	413		[1965NIS/LAP]
$C_8H_{18}O$	[6163-66-2]	di-*tert*-butyl ether				
	$\Delta_v H$	(290–386)	37.7 ± 0.3	298	EB	[1996STE/CHI2]
	$\Delta_v H$	(289–382)	37.3	304	A	[1987STE/MAL, 1976AMB/ELL]
	$\Delta_v H$	(289–382)	37.2	298		[1976AMB/ELL]
	$\Delta_v H$	(289–382)	31.6	380		[1976AMB/ELL]
	$\Delta_v H$		37.6 ± 0.1	298	C	[1975FEN/HAR]
	$\Delta_v H$	(277–382)	38.7	292	A	[1987STE/MAL, 1961SMU/BON]
$C_8H_{18}O$	[628-55-7]	diisobutyl ether				
	$\Delta_{trs}H$	(8–373)	1.8	170.7		
	$\Delta_{fus}H$	(8–383)	11.33	190.4	AC	[2009EFI/DRU]
	$\Delta_v H$	(331–395)	41.2 ± 0.7	298	EB	[2009EFI/DRU]
	$\Delta_v H$	(320–396)	38.9	335	A	[1987STE/MAL]
$C_8H_{18}O$	[74058-13-2]	propyl *tert*-amyl ether				
	$\Delta_v H$		43.8 ± 0.7	298		[2002VER, 2003VER/KRA]
$C_8H_{18}O$	[3249-46-5]	isopropyl *tert*-amyl ether				
	$\Delta_v H$		41.6	298		[2002VER, 2003VER/KRA]
$C_8H_{18}O$	[104-76-7]	2-ethyl-1-hexanol				
	$\Delta_v H$	(293–331)	68.5 ± 0.2	298	GS	[2005ROG/PIS]
	$\Delta_v H$	(373–398)	52.7	388		[1973LIN/WIC]
	$\Delta_v H$	(347–457)	60.2	362	A	[1987STE/MAL, 1961DYK/SEP]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{18}O$	[597-76-2]	3-ethyl-3-hexanol				
	$\Delta_v H$	(331–433)	49.2	345		[1973WIL/ZWO]
$C_8H_{18}O$	[10137-88-9]	2-ethyl-4-methyl-1-pentanol				
	$\Delta_v H$	(343–450)	58.9	358	A	[1987STE/MAL, 1961DYK/SEP, 1973WIL/ZWO]
$C_8H_{18}O$	[106-67-2]	2-methyl-1-heptanol				
	$\Delta_v H$	(350–449)	53.3	365	A	[1987STE/MAL, 1973WIL/ZWO]
$C_8H_{18}O$	[1070-32-2]	3-methyl-1-heptanol				
	$\Delta_v H$	(360–459)	53.4	375	A	[1987STE/MAL, 1973WIL/ZWO]
$C_8H_{18}O$	[817-91-4]	4-methyl-1-heptanol				
	$\Delta_v H$	(357–456)	55.9	372	A	[1987STE/MAL]
	$\Delta_v H$	(354–456)	56.7	369		[1973WIL/ZWO]
$C_8H_{18}O$	[7212-53-5]	(*dl*) 5-methyl-1-heptanol				
	$\Delta_v H$	(364–460)	57.6	379	A	[1987STE/MAL, 1973WIL/ZWO]
$C_8H_{18}O$	[1653-40-3]	6-methyl-1-heptanol				
	$\Delta_v H$	(368–610)	61.0	383	A	[1987STE/MAL, 1973WIL/ZWO]
$C_8H_{18}O$	[625-25-2]	2-methyl-2-heptanol				
	$\Delta_v H$	(275–314)	62.9 ± 0.2	298	GS	[2005ROG/PIS]
	$\Delta_v H$	(343–430)	53.1	358	A	[1987STE/MAL]
	$\Delta_v H$	(339–429)	55	354		[1973WIL/ZWO]
$C_8H_{18}O$	[31367-46-1]	3-methyl-2-heptanol				
	$\Delta_v H$	(341–440)	48.0	356	A	[1987STE/MAL, 1973WIL/ZWO]
$C_8H_{18}O$	[56298-90-9]	4-methyl-2-heptanol				
	$\Delta_v H$	(351–445)	54.2	366	A	[1987STE/MAL, 1973WIL/ZWO]
$C_8H_{18}O$	[54630-50-1]	5-methyl-2-heptanol				
	$\Delta_v H$	(348–445)	51.9	363	A	[1987STE/MAL]
	$\Delta_v H$	(348–445)	47.2	363		[1973WIL/ZWO]
$C_8H_{18}O$	[4730-22-7]	(*dl*) 6-methyl-2-heptanol				
	$\Delta_v H$	(354–445)	55.2	369	A	[1987STE/MAL, 1973WIL/ZWO]
$C_8H_{18}O$	[18720-62-2]	(*dl*) 2-methyl-3-heptanol				
	$\Delta_v H$	(349–441)	54.8	364	A	[1987STE/MAL, 1973WIL/ZWO]
$C_8H_{18}O$	[5582-82-1]	3-methyl-3-heptanol				
	$\Delta_v H$	(344–433)	54.1	359	A	[1987STE/MAL]
	$\Delta_v H$	(338–433)	54.7	353		[1973WIL/ZWO]
$C_8H_{18}O$	[14979-39-6]	4-methyl-3-heptanol				
	$\Delta_v H$	(330–429)	43.9	345	A	[1987STE/MAL, 1973WIL/ZWO]
$C_8H_{18}O$	[18720-65-5]	5-methyl-3-heptanol				
	$\Delta_v H$	(330–427)	46.5	345	A	[1987STE/MAL, 1973WIL/ZWO]
$C_8H_{18}O$	[18720-66-6]	(*dl*) 6-methyl-3-heptanol				
	$\Delta_v H$	(333–432)	47.6	348	A	[1987STE/MAL]
$C_8H_{18}O$	[21570-35-4]	2-methyl-4-heptanol				
	$\Delta_v H$	(348–440)	54.8	363	A	[1987STE/MAL]
	$\Delta_v H$	(345–437)	56.3	360		[1973WIL/ZWO]
$C_8H_{18}O$	[1838-73-9]	(*dl*) 3-methyl-4-heptanol				
	$\Delta_v H$	(340–438)	48.0	355	A	[1987STE/MAL, 1973WIL/ZWO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{18}O$	[598-01-6]	4-methyl-4-heptanol				
	$\Delta_v H$	(344–434)	54.4	359	A	[1987STE/MAL]
	$\Delta_v H$	(331–434)	54.8	345		[1973WIL/ZWO]
$C_8H_{18}O$	[19550-07-3]	2,5-dimethyl-3-hexanol				
	$\Delta_v H$	(337–431)	55	352		[1973WIL/ZWO]
$C_8H_{18}O$	[111-87-5]	1-octanol				
	$\Delta_{fus}H$		25.24	258.4		[2003VAN/GAB]
	$\Delta_{sub}H$		100.4	298		[1965DAV/KYB]
	$\Delta_v H$	(358–463)	69.3	298		[2006NAS/NEU]
	$\Delta_v H$	(282–321)	69.6	303	GS	[2001KUL/VER2]
	$\Delta_v H$	(282–321)	70.1	298	GS	[2001KUL/VER2]
	$\Delta_v H$	(373–423)	71.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(273–363)	68.7	318		[1992NGU/KAS]
	$\Delta_v H$	(328–400)	67.3	343	A	[1987STE/MAL]
	$\Delta_v H$	(430–474)	52.5	445	A	[1987STE/MAL]
	$\Delta_v H$	(397–479)	56.6	412	A	[1987STE/MAL]
	$\Delta_v H$	(475–555)	47.8	490	A	[1987STE/MAL]
	$\Delta_v H$		71.0 ± 0.4	298	C	[1977MAN/SEL]
	$\Delta_v H$	(343–468)	67.5	358		[1973WIL/ZWO]
	$\Delta_v H$	(386–480)	58.3	401	EB	[1987STE/MAL, 1970AMB/SPR]
	$\Delta_v H$	(352–468)	65.0	367	DTA	[1969KEM/KRE]
	$\Delta_v H$	(293–353)	70.4	308		[1966GEI/FRU]
	$\Delta_v H$	(267–282)	64.0	274	A,ME	[1987STE/MAL, 1965DAV/KYB]
	$\Delta_v H$	(365–427)	61.6	380		[1958ROS/PAP]
$C_8H_{18}O$	[123-96-6]	(*dl*) 2-octanol				
	$\Delta_v H$	(284–329)	67.9 ± 0.3	298	GS	[2007VER/SCH]
	$\Delta_v H$	(253–353)	70.7	268		[1999NGU/BER]
	$\Delta_v H$	(333–453)	60.7	348	A	[1987STE/MAL]
	$\Delta_v H$	(367–453)	56.1	382		[1984SAC/MAR]
	$\Delta_v H$	(345–453)	60.0	360		[1973WIL/ZWO]
$C_8H_{18}O$	[20296-29-1]	(*dl*) 3-octanol				
	$\Delta_v H$	(288–324)	67.9 ± 0.3	298	GS	[2007VER/SCH]
	$\Delta_v H$	(253–348)	71.6	268		[1999NGU/BER]
	$\Delta_v H$	(313–450)	64.1	328	A	[1987STE/MAL]
	$\Delta_v H$	(366–450)	54.5	381		[1984SAC/MAR]
	$\Delta_v H$	(349–449)	58.8	364		[1973WIL/ZWO]
$C_8H_{18}O$	[589-62-8]	(*dl*) 4-octanol				
	$\Delta_v H$	(288–322)	67.2 ± 0.5	298	GS	[2007VER/SCH]
	$\Delta_v H$	(343–450)	57.3	358	A	[1987STE/MAL]
	$\Delta_v H$	(364–449)	54.8	379		[1984SAC/MAR]
	$\Delta_v H$	(341–449)	62.1	356		[1973WIL/ZWO]
$C_8H_{18}O$	[123-44-4]	(*dl*) 2,4,4-trimethyl-1-pentanol				
	$\Delta_v H$		60.6 ± 0.1	328	C	[1996ULB/KLU]
	$\Delta_v H$		58.6 ± 0.1	343	C	[1996ULB/KLU]
	$\Delta_v H$		56.5 ± 0.1	358	C	[1996ULB/KLU]
	$\Delta_v H$	(352–446)	54.2	367	A	[1987STE/MAL]
	$\Delta_v H$	(333–441)	54.7	348		[1973WIL/ZWO]
$C_8H_{18}O$	[7294-05-5]	2,2,3-trimethyl-3-pentanol				
	$\Delta_v H$	(318–426)	47.3	333		[1973WIL/ZWO]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{18}O$	[5162-48-1]	2,2,4-trimethyl-3-pentanol				
	$\Delta_v H$	(328–428)	57.1	343		[1973WIL/ZWO]
$C_8H_{18}O_2$	[110-05-4]	di-*tert*-butyl peroxide				
	$\Delta_v H$	(308–358)	37.0	333		[1995DIO/MIN]
	$\Delta_v H$	(308–358)	38.9	298		[1995DIO/MIN]
	$\Delta_v H$		36.6 ± 0.6	298	C	[1990VAN/PAV]
	$\Delta_v H$	(246–311)	32.0	261	A	[1987STE/MAL, 1978IND/STO]
	$\Delta_v H$	(273–384)	31.0	288	A	[1987STE/MAL, 1951EGE/EMT]
	$\Delta_v H$		40.2	298		[1951VAU, 1948RAL/RUS]
$C_8H_{18}O_2$	[18854-56-3]	1,2-dipropoxyethane				
	$\Delta_v H$	(234–453)	U28.2	249	A	[1987STE/MAL]
	$\Delta_v H$		50.6 ± 0.1	298	C	[1970KUS/WAD]
$C_8H_{18}O_2$	[4413-13-2]	1-butoxy-2-ethoxyethane				
	$\Delta_v H$		50.9 ± 0.1	298	C	[1970KUS/WAD]
$C_8H_{18}O_2$	[4468-93-3]	ethylene glycol mono(2-ethylbutyl) ether				
	$\Delta_v H$	(357–470)	53.4	372	A	[1987STE/MAL]
$C_8H_{18}O_2$	[112-25-4]	ethylene glycol monohexyl ether				
	$\Delta_v H$	(363–483)	54.6	378	A	[1987STE/MAL]
$C_8H_{18}O_2$	[na]	3-hydroxymethyl-4-heptanol				
	$\Delta_v H$	(375–518)	61.6	390	A	[1987STE/MAL]
$C_8H_{18}O_2$	[629-41-4]	1,8-octanediol				
	$\Delta_{fus}H$		36.1	332.8		[1991ACR]
	$\Delta_{sub}H$		139.3 ± 0.9	298	C	[1990KNA/SAB]
	$\Delta_v H$		101	356		[1993PIA/FER, 2006UMN/KWE]
	$\Delta_v H$		107.0 ± 2.2	298		[1993PIA/FER, 2006UMN/KWE]
	$\Delta_v H$		105.4 ± 1.8	298		[1990KNA/SAB, 2006UMN/KWE]
$C_8H_{18}O_2$	[144-19-4]	2,2,4-trimethyl-1,3-pentanediol				
	$\Delta_{fus}H$		24.2	328.3		[2002STE/CHI]
	$\Delta_v H$	(396–489)	66.6 ± 2.1	400	EB	[2002STE/CHI]
	$\Delta_v H$	(396–489)	60.3 ± 1.7	440	EB	[2002STE/CHI]
	$\Delta_v H$	(396–489)	55.0 ± 1.6	480	EB	[2002STE/CHI]
	$\Delta_v H$	(413–502)	58.5	428	A	[1987STE/MAL]
$C_8H_{18}O_2$	[94-96-2]	2-ethyl-1,3-hexanediol				
	$\Delta_v H$	(331–413)	79.5	298		[1974BLA/LEV, 2007VER]
$C_8H_{18}O_2$	[110-03-2]	2,5-dimethyl-2,5-hexanediol				
	$\Delta_v H$		85.2 ± 3.5	298	CGC	[2006UMN/KWE]
$C_8H_{18}O_2S$	[598-04-9]	di-*n*-butyl sulfone				
	$\Delta_{sub}H$		100.4 ± 2.5			[UR/MAC, 1970COX/PIL]
$C_8H_{18}O_2S$	[1886-75-7]	di-*tert*-butyl sulfone				
	$\Delta_{sub}H$		94.1 ± 2.9			[UR/MAC, 1970COX/PIL]
$C_8H_{18}O_3$	[1538-75-6]	trimethylacetic acid anhydride				
	$\Delta_v H$	(355–513)	50.7 ± 0.2	360	EB	[2002STE/CHI4]
	$\Delta_v H$	(355–513)	47.4 ± 0.2	400	EB	[2002STE/CHI4]
	$\Delta_v H$	(355–513)	44.0 ± 0.4	440	EB	[2002STE/CHI4]
	$\Delta_v H$	(355–513)	40.3 ± 0.7	480	EB	[2002STE/CHI4]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{18}O_3$	[112-36-7]	diethylene glycol diethyl ether				
	$\Delta_v H$		56.4 ± 1.4	298	CGC	[2000NIC/ORF]
	$\Delta_v H$	(330–461)	48.3	345	A	[1987STE/MAL]
$C_8H_{18}O_3$	[112-34-5]	diethylene glycol monobutyl ether				
	$\Delta_v H$	(415–505)	55.7	430	A	[1987STE/MAL]
$C_8H_{18}O_4$	[112-49-2]	1,2-*bis*(2-methoxyethoxy)ethane (triglyme)				
	$\Delta_v H$		63.7 ± 3.3	298	CGC	[2000NIC/ORF]
$C_8H_{18}O_4$	[112-49-2]	2,5,8,11-tetraoxadodecane				
	$\Delta_{fus}H$		23.71	229.3		[1996DOM/HEA]
$C_8H_{18}O_4$	[na]	1,2,7,8-tetrahydroxyoctane				
	$\Delta_{fus}H$		36.7	352.2		[1991HEN/TSC, 1994HEN/DIE]
$C_8H_{18}O_4S_2$	[76-20-0]	2,2-butanediol *bis*(ethylsulfonate)				
	$\Delta_v H$	(443–493)	75.7	458	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{18}O_5$	[112-60-7]	tetraethylene glycol				
	$\Delta_v H$	(426–581)	92.2	441	A	[1987STE/MAL, 1947STU]
$C_8H_{18}S$	[544-40-1]	dibutyl sulfide				
	$\Delta_{fus}H$		19.41	198.1		[1996DOM/HEA]
	$\Delta_v H$	(255–422)	44.8	339		[2004SAW/MOK]
	$\Delta_v H$	(283–390)	40.3	298		[1999DYK/SVO]
	$\Delta_v H$		53	298		[1981SHI/SAI]
	$\Delta_v H$		54.2 ± 0.8	298	GC	[1964MAC/MCC]
	$\Delta_v H$	(390–470)	46.5	405	A,EB	[1987STE/MAL, 1952WHI/BER]
$C_8H_{18}S$	[626-26-6]	di-*tert*-butyl sulfide				
	$\Delta_v H$	(264–329)	44.9	279		[1999DYK/SVO]
	$\Delta_v H$	(329–470)	41.4	344		[1999DYK/SVO]
	$\Delta_v H$	(390–470)	46.4	405		[1999DYK/SVO]
	$\Delta_v H$	(278–308)	44.8	293		[1998STO/NG]
	$\Delta_v H$	(324–420)	42.4	339	A	[1987STE/MAL]
	$\Delta_v H$		43.8	298		[1981SHI/SAI]
	$\Delta_v H$		43.8 ± 0.1	298		[1972GOO]
	$\Delta_v H$		49.3 ± 0.8	298	GC	[1964MAC/MCC]
	$\Delta_v H$	(325–350)	42.3	333	EB	[1962MAC/MAY2]
$C_8H_{18}S$	[592-65-4]	diisobutyl sulfide				
	$\Delta_v H$	(325–346)	46.4	335	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_v H$		48.7	298		[1981SHI/SAI]
	$\Delta_v H$		48.5 ± 0.8	298	GC	[1964MAC/MCC]
	$\Delta_v H$	(326–346)	43.1	336	EB	[1962MAC/MAY2]
$C_8H_{18}S$	[626-26-6]	di-sec-butyl sulfide				
	$\Delta_v H$	(255–422)	47.0	298		[2004SAW/MOK]
$C_8H_{18}S$	[111-88-6]	1-octanethiol				
	$\Delta_{fus}H$		24.27	224		[1996DOM/HEA, 1985DEA]
	$\Delta_v H$	(372–473)	49.6	387	A	[1987STE/MAL, 1999DYK/SVO, 1932ELL/REI]
$C_8H_{18}S$	[3001-66-9]	2-octanethiol				
	$\Delta_v H$	(347–489)	49.0	362		[1999DYK/SVO]
$C_8H_{18}S$	[10435-81-1]	(*dl*) 2-octanethiol				
	$\Delta_v H$	(361–460)	48.0	376	A	[1987STE/MAL, 1999DYK/SVO, 1932ELL/REI]

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{18}S_2$	[629-45-8]	dibutyl disulfide				
	$\Delta_v H$	(383–423)	64.1	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		62.3 ± 0.2	298	C	[1985KUS]
	$\Delta_v H$		62.3	298		[1981SHI/SAI]
$C_8H_{18}S_2$	[na]	diisobutyl disulfide				
	$\Delta_v H$		57.2	298		[1981SHI/SAI]
$C_8H_{18}S_2$	[1518-72-5]	2,7-dimethyl-4,5-dithiaoctane				
	$\Delta_v H$		57.2 ± 0.1	298	C	[1985KUS]
$C_8H_{18}S_2$	[110-06-5]	2,2,5,5-tetramethyl-3,4-dithiahexane				
	$\Delta_v H$	(383–423)	53.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		52.5 ± 0.2	298	C	[1985KUS]
	$\Delta_v H$		52.5	298		[1981SHI/SAI]
$C_8H_{18}S_2$	[1191-62-4]	1,8-octanedithiol				
	$\Delta_v H$	(405–543)	60.9	420	A	[1987STE/MAL, 1943HAL/REI, 1999DYK/SVO]
$C_8H_{19}N$	[20810-06-4]	N-butyl isobutylamine				
	$\Delta_v H$	(313–423)	41.2	328	A	[1987STE/MAL]
$C_8H_{19}N$	[111-92-2]	N,N-dibutylamine				
	$\Delta_v H$	(343–479)	46.0	358	A	[1987STE/MAL]
	$\Delta_v H$		46.0 ± 0.1	343	C	[1979PET/MAJ]
	$\Delta_v H$		44.8 ± 0.1	358	C	[1979PET/MAJ]
	$\Delta_v H$	(291–305)	48.1	298		[1971LEB/KAT2]
	$\Delta_v H$		49.4 ± 0.1	298	C	[1969WAD]
	$\Delta_v H$	(273–333)	45.7 ± 0.3	298	I	[1969FRA/WAT]
$C_8H_{19}N$	[110-93-3]	N,N-diisobutylamine				
	$\Delta_v H$	(291–305)	39.3	298		[1971LEB/KAT2]
	$\Delta_v H$	(273–333)	43.1 ± 0.3	298	I	[1969FRA/WAT]
	$\Delta_v H$	(268–413)	43.8	283	A	[1987STE/MAL, 1947STU]
$C_8H_{19}N$	[626-23-3]	N,N-di-sec-butylamine				
	$\Delta_v H$	(273–333)	41.3 ± 0.3	298	I	[1969FRA/WAT]
$C_8H_{19}N$	[104-75-6]	2-ethylhexylamine				
	$\Delta_v H$	(341–447)	44.8	356	A	[1987STE/MAL]
$C_8H_{19}N$	[111-86-4]	octylamine				
	$\Delta_v H$	(343–494)	54.8 ± 0.5	298	EB	[1996STE/CHI3]
	$\Delta_v H$	(323–373)	54.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(308–453)	50.8	323	A	[1987STE/MAL]
$C_8H_{19}O_2PS_3$	[298-04-4]	O,O-diethyl-S-[2-(ethylthio)ethyl] dithiophosphate				
	$\Delta_v H$	(283–401)	76.7	298	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{19}O_2PS_3$	[2253-44-3]	O,O′-dibutyl dithiophosphate				
	$\Delta_v H$		81.8	298		[2008SAG/SAF]
$C_8H_{19}O_3P$	[1809-19-4]	dibutyl phosphite				
	$\Delta_v H$	(298–438)	37.8	313	A	[1987STE/MAL]
$C_8H_{19}O_3P$	[na]	diisopropyl ethylphosphonate				
	$\Delta_v H$		60.7 ± 4.2			[1956NEA/WIL, 1982PIL/SKI]
$C_8H_{19}O_3PS_2$	[298-03-3]	O,O-diethyl-O-[2-(ethylthio)ethyl] thiophosphate				
	$\Delta_v H$	(283–411)	78.7	298	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{19}O_3PS_2$	[126-75-0]	O,O-diethyl-S-[2-(ethylthio)ethyl] thiophosphate				

TABLE 7. Phase change enthalpies of C_7 to C_8 organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(283–401)	76.4	298	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{20}ClN$	[6287-40-7]	dibutylammonium chloride				
	$\Delta_v H$	(553–563)	116.7	558	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{20}N_2$	[373-44-4]	octane-1,8-diamine				
	$\Delta_{fus}H$		50.51	324.9	DSC	[2006KHI/DAH2]
	$\Delta_{fus}H$		50.98	324.8	DSC	[2002DAL/DEL]
$C_8H_{20}N_2$	[4267-00-9]	tetraethylhydrazine				
	$\Delta_v H$	(308–368)	33.4	323	A	[1987STE/MAL]
$C_8H_{20}N_2$	[97-84-7]	N,N,N′,N′-tetramethyl-1,3-butanediamine				
	$\Delta_v H$	(273–363)	49.2	288		[2002DAH/MOK]
	$\Delta_v H$	(335–439)	42.7	350	A	[1987STE/MAL]
$C_8H_{20}N_2O_2S$	[2832-49-7]	N,N,N′,N′-tetraethylsulfamide				
	$\Delta_v H$	(407–528)	59.1	422	A	[1987STE/MAL]
$C_8H_{20}N_2O_3$	[na]	*tris*(2-hydroxyethyl)ethylenediamine				
	$\Delta_v H$	(373–472)	90.0		GS	[1998ABD/MEI]
$C_8H_{20}O_5P_2S_2$	[3689-24-5]	dithiopyrophosphoric acid, tetraethyl ester				
	$\Delta_v H$	(293–409)	80.6	308	A	[1987STE/MAL, 1999DYK/SVO]
$C_8H_{20}O_7P_2$	[107-49-3]	pyrophosphoric acid, tetraethyl ester				
	$\Delta_v H$	(283–411)	82.2	298	A	[1987STE/MAL]
$C_8H_{23}N_5$	[112-57-2]	tetraethylene pentamine				
	$\Delta_v H$	(464–615)	71.3	478	A	[1987STE/MAL]
$C_8H_{24}N_4O_3P_2$	[152-16-9]	pyrophosphoric acid *tetrakis*(dimethylamide)				
	$\Delta_v H$	(273–415)	65.5	288	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_9F_{16}	[75240-06-1]	*trans*-perfluorohydrindane				
	$\Delta_v H$		45.2 ± 0.1	298	C	[1996VAR/DRU]
C_9F_{16}	[75262-87-2]	*cis*-perfluorobicyclo[4.3.0]nonane				
	$\Delta_{trs}H$	(5–350)	8.76	200.6		
	$\Delta_{trs}H$	(5–350)	1.27	245.6		
	$\Delta_{fus}H$	(5–350)	2.72	291.3	AC	[1998VAR/DRU]
C_9F_{16}	[75240-06-1]	*trans*-perfluorobicyclo[4.3.0]nonane				
	$\Delta_{trs}H$	(5–350)	8.91	236.6		
	$\Delta_{fus}H$	(5–350)	2.63	248.1	AC	[1998VAR/DRU]
$C_9F_{17}NO_3S$	[34834-20-3]	perfluoro-1-octanesulfonylisocyanate				
	$\Delta_v H$	(324–470)	67.7	339	A	[1987STE/MAL, 1999DYK/SVO]
C_9F_{18}	[374-59-4]	perfluoro(propylcyclohexane)				
	$\Delta_v H$	(321–396)	40.4	336		[1999DYK/SVO]
	$\Delta_v H$		43.1 ± 0.1	298	C	[1996VAR/DRU]
	$\Delta_v H$		43.1 ± 0.5	298	EB	[1981VAR/BUL]
	$\Delta_v H$		43.1 ± 0.1	298	C	[1981VAR/BUL]
C_9F_{18}	[423-02-9]	perfluoro(isopropylcyclohexane)				
	$\Delta_v H$		46.7 ± 0.1	298	C	[1996VAR/DRU]
$C_9F_{18}N_2$	[34451-14-4]	1,1,1,3,3,3-hexafluoro-N,N′-*bis*[2,2,2-trifluoro-1-(trifluoromethy)-ethylidene]-2,2-propanediamine				
	$\Delta_v H$	(314–381)	35.5	329	A	[1987STE/MAL, 1972SWI/SHR]
$C_9F_{18}O_3$	[40719-69-5]	carbonic acid, *bis*[1,1,1,3,3,3-hexafluoro-2-(trifluoromethyl)-2-propyl ester				
	$\Delta_v H$	(316–358)	39.7	331	A	[1987STE/MAL, 1975WAL/DES2]
$C_9F_{19}NO$	[54120-06-8]	2,2,2-trifluoro-N-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]ethanimidic acid, 1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl ester				
	$\Delta_v H$		37.6	385		[1975PET/SHR]
C_9F_{20}	[375-96-2]	perfluorononane				
	$\Delta_v H$	(288–333)	45.3 ± 0.2	298		[2005DIA/GON]
	$\Delta_v H$	(387–524)	32.8	402	A	[1987STE/MAL, 1967BER/WES, 1999DYK/SVO]
$C_9F_{21}N$	[514-03-4]	perfluoro-N-methyl-N,N-dibutylamine				
	$\Delta_v H$	(339–407)	48.8 ± 0.8	298	EB	[1995VAR/DRO]
	$\Delta_v H$		48.2 ± 0.1	298	C	[1995VAR/DRO]
$C_9F_{21}N$	[338-83-3]	*tris*(heptafluoropropyl)amine				
	$\Delta_v H$		46.6 ± 0.3	298	C	[1995VAR/DRO]
	$\Delta_v H$	(329–403)	46.9 ± 0.7	298	EB	[1995VAR/DRO]
	$\Delta_v H$	(333–403)	40.6	348	A	[1987STE/MAL]
$C_9H_2Cl_6O_3$	[7365-74-4]	4,5,6,7,8,8-hexachloro-3a,4,7,7a-tetrahydro-4,7-methanoisobenzofuran-1,3-dione				
	$\Delta_{trs}H$		10.64	385.4		
	$\Delta_{fus}H$		2.67	506	DSC	[1984WEI/LEF]
$C_9H_4Cl_3NO_2S$	[133-07-3]	2-[(trichloromethyl)thio]-1*H*-isoindole-1,3(2*H*)-dione				
	$\Delta_{fus}H$		35.49	454.2	DSC	[1991ACR, 1990DON/DRE]
$C_9H_4Cl_4O_4$	[887-54-7]	methyl tetrachloroterephthalic acid ester				
	$\Delta_{fus}H$		16.89	444.3	DSC	[1990DON/DRE]
$C_9H_4Cl_8O$	[76341-69-0]	1,3,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-4,7-methanoisobenzofuran				
	$\Delta_{fus}H$		25.94	395.4	DSC	[1969PLA/GLA]
$C_9H_4O_5$	[552-30-7]	trimellitic acid anhydride				
	$\Delta_{fus}H$		10.46	385		[1996DOM/HEA]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(558–596)	65.6	573	A	[1987STE/MAL]
$C_9H_5BrClNO$	[7640-33-7]	7-bromo-5-chloro-8-hydroxyquinoline				
	$\Delta_{sub}H$	(353–368)	110.1 ± 0.8	361	ME	[1992RIB/MON2]
	$\Delta_{sub}H$	(353–368)	113.2 ± 0.8	298	ME	[1992RIB/MON2]
$C_9H_5Br_2NO$	[521-74-4]	5,7-dibromo-8-hydroxyquinoline				
	$\Delta_{sub}H$	(365–380)	113.6 ± 1.3	372	ME	[1992RIB/MON2]
	$\Delta_{sub}H$	(365–380)	117.3 ± 1.3	298	ME	[1992RIB/MON2]
	$\Delta_{sub}H$	(363–393)	94.1			[1963HOR/WEN]
C_9H_5ClINO	[130-26-7]	5-chloro-7-iodo-8-hydroxyquinoline				
	$\Delta_{sub}H$	(359–378)	111.3 ± 0.4	368	ME	[1992RIB/MON2]
	$\Delta_{sub}H$	(359–378)	114.8 ± 0.4	298	ME	[1992RIB/MON2]
C_9H_5ClINO	[35048-13-6]	5-iodo-7-chloro-8-hydroxyquinoline				
	$\Delta_{sub}H$	(383–414)	131			[1963HOR/WEN]
$C_9H_5ClN_2O_2$	[15166-26-4]	5-chloro-2,4-diisocyanato-1-methylbenzene				
	$\Delta_v H$	(373–433)	66.7	388	A	[1987STE/MAL]
	$\Delta_v H$	(373–433)	60.2 ± 0.2	403		[1972STR/NOV]
$C_9H_5Cl_2N$	[86-98-6]	4,7-dichloroquinoline				
	$\Delta_{sub}H$		89.5 ± 2.3	298	C	[2006RIB/MAT]
$C_9H_5Cl_2NO$	[773-76-2]	5,7-dichloro-8-hydroxyquinoline				
	$\Delta_{sub}H$	(351–366)	106.3 ± 0.7	358	ME	[1992RIB/MON2]
	$\Delta_{sub}H$	(351–366)	109.3 ± 0.7	298	ME	[1992RIB/MON2]
	$\Delta_{sub}H$	(363–393)	92.9			[1963HOR/WEN]
$C_9H_5Cl_3N_4$	[101-05-3]	4,6-dichloro-N-(2-chlorophenyl)-1,3,5-triazin-2-amine				
	$\Delta_{fus}H$		31.48	431	DSC	[1990DON/DRE]
$C_9H_5I_2NO$	[83-73-8]	5,7-diiodo-8-hydroxyquinoline				
	$\Delta_{sub}H$	(389–404)	121.9 ± 0.8	396	ME	[1992RIB/MON2]
	$\Delta_{sub}H$	(389–404)	126.8 ± 0.8	298	ME	[1992RIB/MON2]
	$\Delta_{sub}H$	(403–423)	110.9			[1963HOR/WEN]
C_9H_6BrN	[5332-24-1]	3-bromoquinoline				
	$\Delta_v H$		70.7 ± 2.3	298	C	[2008RIB/AMA]
C_9H_6ClN	[612-62-4]	2-chloroquinoline				
	$\Delta_{sub}H$		84.3 ± 2.6	298	C	[2006RIB/MAT]
C_9H_6ClN	[611-35-8]	4-chloroquinoline				
	$\Delta_{sub}H$		78.6 ± 1.7	298	C	[2006RIB/MAT]
C_9H_6ClN	[612-57-7]	6-chloroquinoline				
	$\Delta_{sub}H$		80.8 ± 1.9	298	C	[2006RIB/MAT]
C_9H_6ClNO	[130-16-5]	5-chloro-8-hydroxyquinoline				
	$\Delta_{sub}H$	(317–327)	97.5 ± 0.9	322	ME	[1992RIB/MON2]
	$\Delta_{sub}H$	(317–327)	98.7 ± 0.9	298	ME	[1992RIB/MON2]
$C_9H_6ClNO_2$	[17564-64-6]	N-chloromethylphthalimide				
	$\Delta_{sub}H$		103.5 ± 1.1	298	C	[2007RIB/SAN3]
	$\Delta_{sub}H$	(323–343)	103.6 ± 0.9	298	ME	[2007RIB/SAN3]
$C_9H_6Cl_2N_2O_3$	[20354-26-1]	2-(3,4-dichlorophenyl)-4-methyl-1,2,4-oxadiazolidine-3,5-dione				
	$\Delta_{fus}H$		29.5	396.3	DSC	[1990DON/DRE]
$C_9H_6Cl_2O_3$	[17812-11-2]	2,3-dichloro- 5-norbornene-2,3-dicarboxylic anhydride				
	$\Delta_{trs}H$		17.94	339.1		
	$\Delta_{fus}H$		5.36	457.6	DSC	[1984WEI/LEF]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_6Cl_6O_3S$	[959-98-8] endosulfan I					
	$\Delta_{fus}H$		10.0	380	DSC	[1990DON/DRE]
	Δ_vH	(343–453)	80.4	398	GC	[1990HIN/BID2]
$C_9H_6Cl_6O_3S$	[33213-65-9] endosulfan II					
	Δ_vH	(343–453)	82.4	398	GC	[1990HIN/BID2]
$C_9H_6Cl_6O_3S$	[115-29-7] 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepin-3-oxide (endosulfan)					
	$\Delta_{fus}H$		16.52	368	DSC	[2000ROD/VEC]
$C_9H_6Cl_6O_4S$	[1031-07-8] endosulfan sulfate					
	Δ_vH	(343–453)	85.6	398	GC	[1990HIN/BID2]
$C_9H_6Cl_6O_4S$	[1031-07-6] 6,7,8,9,10,10-hexachloro-6,9-methano-2,4,3-benzodioxathiapin-3,3-dioxide					
	$\Delta_{fus}H$		21.66	419.7	DSC	[1990DON/DRE]
C_9H_6INO	[13207-63-1] 5-iodo-8-hydroxyquinoline					
	$\Delta_{sub}H$	(363–393)	118.8		ME	[1963HOR/WEN]
$C_9H_6N_2O_2$	[584-84-9] 2,4-toluene diisocyanate					
	Δ_vH	(373–530)	59.7	388	A	[1987STE/MAL]
	Δ_vH	(393–530)	59.5	408	A	[1987STE/MAL]
	Δ_vH	(373–530)	61.3	388	I	[1975FRE/ADA]
	Δ_vH	(373–433)	57.7 ± 0.2	403		[1972STR/NOV]
$C_9H_6N_2O_2$	[91-08-7] 2,6-toluene diisocyanate					
	Δ_vH	(373–463)	60.4	388	A	[1987STE/MAL]
$C_9H_6N_2O_2$	[607-34-1] 5-nitroquinoline					
	$\Delta_{sub}H$	(310–324)	93.2 ± 0.7	317	ME	[1997RIB/MAT5]
	$\Delta_{sub}H$	(310–324)	94.2 ± 0.7	298	ME	[1997RIB/MAT5]
$C_9H_6N_2O_2$	[613-50-3] 6-nitroquinoline					
	$\Delta_{sub}H$	(336–350)	101.5 ± 1.0	343	ME	[1997RIB/MAT5]
	$\Delta_{sub}H$	(336–350)	103.8 ± 1.0	298	ME	[1997RIB/MAT5]
$C_9H_6N_2O_2$	[607-35-2] 8-nitroquinoline					
	$\Delta_{sub}H$	(338–352)	104.3 ± 0.9	345	ME	[1997RIB/MAT5]
	$\Delta_{sub}H$	(338–352)	106.7 ± 0.9	298	ME	[1997RIB/MAT5]
$C_9H_6N_2O_3$	[4008-48-4] 5-nitro-8-hydroxyquinoline					
	$\Delta_{fus}H$		19.61	455.2	DSC	[2010GAO/LIN]
	$\Delta_{fus}H$		24.7	453.2		[2001ZOR/COS]
	$\Delta_{sub}H$	(413–453)	81.66		TGA	[2010GAO/LIN]
	$\Delta_{sub}H$	(413–453)	86.14	298	TGA	[2010GAO/LIN]
	Note: The authors of [2010GAO/LIN] did note that their experimental value differed significantly from the earlier published literature values.					
	$\Delta_{sub}H$	(352–362)	114.1 ± 2.2	298	ME	[1989RIB/MON]
	$\Delta_{sub}H$		111.2 ± 3.0	298	C	[1989RIB/MON]
$C_9H_6N_4O_2$	[23190-84-3] 3-amino-2-quinoxalinecarbonitrile 1,4-dioxide					
	$\Delta_{sub}H$		139.7 ± 3.7	298	ME	[2004RIB/GOM]
$C_9H_6O_2$	[91-64-5] coumarin					
	$\Delta_{fus}H$		18.63	342.3	DSC	[2009MAT/SOU4]
	$\Delta_{fus}H$		19.14	342.1		[1996DOM/HEA]
	$\Delta_{sub}H$		95.4 ± 2.6	298	C	[2009MAT/SOU4]
	$\Delta_{sub}H$		83.1	298	C	[1991ELW/SAB, 1992SAB/WAT]
	$\Delta_{sub}H$	(293–353)	86.2	323	ME	[1953SER/VOI, 1960JON, 1987STE/MAL]
	Δ_vH	(379–463)	63.2	394	A	[1987STE/MAL, 1947STU]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_6O_2$	[491-38-3]	chromone				
	$\Delta_{fus}H$		15.44	329.9	DSC	[2009MAT/SOU4]
	$\Delta_{fus}H$		17.31	330.3		[1991ACR, 1996DOM/HEA]
	$\Delta_{sub}H$		86.5 ± 1.1	298	C	[2009MAT/SOU4]
	$\Delta_{sub}H$		81.3 ± 0.2	298	C	[1988SAB/ELW]
$C_9H_6O_2$	[606-23-5]	1,3-indandione				
	$\Delta_{fus}H$		21.8	401.5	DSC	[2007MAT/MIR]
	$\Delta_{sub}H$		97.3 ± 1.8	298	C	[2007MAT/MIR]
$C_9H_6O_6$	[554-95-0]	1,3,5-benzenetricarboxylic acid				
	$\Delta_{sub}H$	(553–593)	159.4	573	GS	[1987STE/MAL, 1962KRA/BER]
$C_9H_6S_3$	[3445-76-9]	5-phenyl-1,2-dithiole-3-thione				
	$\Delta_{sub}H$	(363–373)	117.4 ± 0.4			[1972GEI/RAU]
	$\Delta_{sub}H$		123.3 ± 0.4	298		[1972GEI/RAU]
$C_9H_6S_3$	[3445-76-9]	5-phenyldithiolethione				
	$\Delta_{fus}H$		26.27	398	DSC	[1999DOL/LEC]
$C_9H_7BrO_2$	[14473-91-7]	3-bromo-*trans*-cinnamic acid				
	$\Delta_{fus}H$		31.06	443.2	DSC	[2001AHN/HAR]
$C_9H_7Cl_3O_3$	[93-72-1]	2-(2,4,5-trichlorophenoxy)propanoic acid				
	$\Delta_{fus}H$		39.58	450.6	DSC	[1990DON/DRE]
$C_9H_7Cl_3O_3$	[1928-37-6]	2,4,5-trichlorophenoxyacetic acid, methyl ester				
	$\Delta_{fus}H$		30.46	361.9	DSC	[1990DON/DRE]
	$\Delta_{v}H$	(444–573)	76.9	459	A	[1987STE/MAL, 1999DYK/SVO]
$C_9H_7F_3O_2$	[1736-09-0]	trifluoroacetic acid, 3-tolyl ester				
	$\Delta_{v}H$	(363–439)	47.4	378	A,EB	[1987STE/MAL, 1969SHE/LAN, 1999DYK/SVO]
$C_9H_7F_3O_2$	[1813-29-2]	trifluoroacetic acid, 4-tolyl ester				
	$\Delta_{v}H$	(365–442)	47.8	380	A,EB	[1987STE/MAL, 1969SHE/LAN, 1999DYK/SVO]
C_9H_7N	[119-65-3]	isoquinoline				
	$\Delta_{fus}H$		13.54	299.6		[1996DOM/HEA]
	$\Delta_{v}H$		53.3		GC	[1996GOV/RUT]
	$\Delta_{v}H$	(313–566)	58.9 ± 0.1	320	IP,EB	[1988STE/ARC]
	$\Delta_{v}H$	(313–566)	56.4 ± 0.1	360	IP,EB	[1988STE/ARC]
	$\Delta_{v}H$	(313–566)	54.1 ± 0.1	400	IP,EB	[1988STE/ARC]
	$\Delta_{v}H$	(313–566)	51.7 ± 0.1	440	IP,EB	[1988STE/ARC]
	$\Delta_{v}H$	(313–566)	49.4 ± 0.2	480	IP,EB	[1988STE/ARC]
	$\Delta_{v}H$	(313–566)	47.0 ± 0.3	520	IP,EB	[1988STE/ARC]
	$\Delta_{v}H$	(439–517)	51.0	454	A,EB	[1987STE/MAL, 1961MAL]
C_9H_7N	[91-22-5]	quinoline				
	$\Delta_{trs}H$		0.07	220		
	$\Delta_{fus}H$		10.66	258.4		[1996DOM/HEA]
	$\Delta_{v}H$		53.3		GC	[1996GOV/RUT]
	$\Delta_{v}H$	(573–668)	46.9	588	DSC	[1996BAC/GRZ]
	$\Delta_{v}H$	(504–616)	46.5	519		[1992LEE/CHE]
	$\Delta_{v}H$	(298–559)	57.9 ± 0.1	320	IP,EB	[1988STE/ARC]
	$\Delta_{v}H$	(298–559)	55.5 ± 0.1	360	IP,EB	[1988STE/ARC]
	$\Delta_{v}H$	(298–559)	53.1 ± 0.1	400	IP,EB	[1988STE/ARC]
	$\Delta_{v}H$	(298–559)	50.7 ± 0.1	440	IP,EB	[1988STE/ARC]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(298–559)	48.4 ± 0.2	480	IP,EB	[1988STE/ARC]
	$\Delta_v H$	(298–559)	46.0 ± 0.3	520	IP,EB	[1988STE/ARC]
	$\Delta_v H$	(473–548)	U65.4	488		[1987KLA/MOH]
	$\Delta_v H$	(463–794)	46.1	478	A	[1987STE/MAL]
	$\Delta_v H$	(286–309)	58.1	298	GS	[1980VAN/PRA]
	$\Delta_v H$	(433–511)	49.2	448	EB	[1987STE/MAL, 1961MAL]
C_9H_7NO	[59-31-4]	2-hydroxyquinoline				
	$\Delta_{sub}H$	(375–390)	115.2 ± 0.6	383	ME	[1990RIB/MAT]
	$\Delta_{sub}H$	(375–390)	119.4 ± 0.6	298	ME	[1990RIB/MAT]
C_9H_7NO	[611-36-9]	4-hydroxyquinoline				
	$\Delta_{sub}H$	(415–433)	128.8 ± 1.1	424	ME	[1990RIB/RIB]
	$\Delta_{sub}H$	(415–433)	135.1 ± 1.1	298	ME	[1990RIB/RIB]
C_9H_7NO	[148-24-3]	8-hydroxyquinoline				
	$\Delta_{fus}H$		40.3	345.7	AC	[2008WAN/TAN]
	$\Delta_{fus}H$		22.1	346.8		[2001ZOR/COS]
	$\Delta_{sub}H$	(293–303)	89.5 ± 0.9	298	ME	[1989RIB/MON]
	$\Delta_{sub}H$		89.0 ± 1.4	298	C	[1989RIB/MON]
	$\Delta_{sub}H$	(308–328)	108.8 ± 1.7		ME	[1963HOR/WEN, 1970COX/PIL, 1987STE/MAL]
C_9H_7NO	[491-30-5]	1-hydroxyisoquinoline				
	$\Delta_{sub}H$		113.6 ± 2.2	298	C	[2005RIB/MAT]
C_9H_7NO	[2439-04-5]	5-hydroxyisoquinoline				
	$\Delta_{sub}H$		109.6 ± 2.1	298	C	[2005RIB/MAT]
C_9H_7NO	[614-16-4]	Ω-cyanoacetophenone				
	$\Delta_{sub}H$	(318–333)	99.8	325.5		[1987STE/MAL]
	$\Delta_{sub}H$		92.5 ± 4.2		ME	[1969LEB/DNE, 1977PED/RYL]
$C_9H_7NO_2$	[5154-02-9]	1,5-dihydroxyisoquinoline				
	$\Delta_{sub}H$		123.6 ± 2.2		C	[2005RIB/FON]
$C_9H_7NO_2$	[550-44-7]	N-methylphthalimide				
	$\Delta_{sub}H$	(298–316)	91.1 ± 0.5	307	ME	[1997ROU/JIM]
	$\Delta_{sub}H$	(298–316)	91.1 ± 0.5	298	ME	[1997ROU/JIM]
$C_9H_7NO_2$	[2058-74-4]	1-methyl-1*H*-indole-2,3-dione (N-methylisatin)				
	$\Delta_{fus}H$		19.5	403.3	DSC	[2003MAT/MIR2]
	$\Delta_{sub}H$		105.6 ± 3.3	298	C	[2003MAT/MIR2]
$C_9H_7N_3O_2$	[35975-00-9]	5-amino-6-nitroquinoline				
	$\Delta_{sub}H$	(400–424)	130.7 ± 0.8	412	ME	[1998RIB/CAR]
	$\Delta_{sub}H$	(400–424)	136.4 ± 0.8	298	ME	[1998RIB/CAR]
$C_9H_7N_3S$	[41814-78-2]	5-methyl-1,2,4-triazolo[3,4-b]benzothiazole				
	$\Delta_{fus}H$		24.07	460.2	DSC	[1990DON/DRE]
C_9H_8	[95-13-6]	indene				
	$\Delta_{fus}H$		10.2	271.7		[1996DOM/HEA]
	$\Delta_v H$	(369–457)	45.3	384	A	[1987STE/MAL]
	$\Delta_v H$	(289–455)	43.6	304	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$	(329–454)	43.9	392		[1942BUR]
$C_9H_8Cl_2O_3$	[6597-78-0]	methyl 3,6-dichloro-2-methoxybenzoate				
	$\Delta_{fus}H$		18.49	304.6		[1991ACR]
$C_9H_8Cl_2O_3$	[120-36-5]	2-(2,4-dichlorophenoxy)propanoic acid				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		32.0	391.3	DSC	[2005VEC/BRU]
	$\Delta_{fus}H$		30.43	389.2		[1991ACR]
	$\Delta_{sub}H$		116 ± 6	298	DSC	[2005VEC/BRU]
	$\Delta_{sub}H$	(343–375)	128 ± 2	359	TE	[2005VEC/BRU]
	$\Delta_{sub}H$	(343–375)	130 ± 3	298	TE	[2005VEC/BRU]
$C_9H_8Cl_2O_3$	[1928-38-7]	2,4-dichlorophenoxyacetic acid, methyl ester				
	$\Delta_{fus}H$		20.0	313.4	DSC	[2005VEC/BRU]
	$\Delta_{fus}H$		25.1	315.4	DSC	[1969PLA/GLA]
	Δ_vH	(403–548)	68.0	418	A	[1987STE/MAL, 1999DYK/SVO]
$C_9H_8Cl_2O_4$	[76330-06-8]	2,6-dichlorosyringaldehyde				
	Δ_vH	(293–323)	82.2	308	CGC	[1999LEI/WAN2]
$C_9H_8Cl_3NO_3$	[75907-45-8]	2,2,4-trichloro-5-(4-morpholinyl)-4-cyclopentene-1,3-dione				
	Δ_vH	(453–483)	79.6	468	GC	[1980SHA/SAD]
$C_9H_8N_2$	[1126-00-7]	1-phenylpyrazole				
	Δ_vH		70.2 ± 3.4	298	C	[2000RIB/RIB2]
$C_9H_8N_2$	[7164-98-9]	1-phenylimidazole				
	Δ_vH		84.6 ± 3.7	298	C	[2000RIB/RIB2]
$C_9H_8N_2$	[670-96-2]	2-phenylimidazole				
	$\Delta_{fus}H$		17.81	420	DSC	[2007SIF/AIT]
$C_9H_8N_2$	[580-17-6]	3-aminoquinoline				
	$\Delta_{sub}H$	(329–345)	101.1 ± 0.9	337	ME	[1993RIB/MAT]
	$\Delta_{sub}H$	(329–345)	103.1 ± 0.9	298	ME	[1993RIB/MAT]
	$\Delta_{sub}H$		104.8 ± 4.8	298	C	[1993RIB/MAT]
$C_9H_8N_2$	[611-34-7]	5-aminoquinoline				
	$\Delta_{sub}H$	(329–349)	102.9 ± 0.7	339	ME	[1993RIB/MAT]
	$\Delta_{sub}H$	(329–349)	105.0 ± 0.7	298	ME	[1993RIB/MAT]
	$\Delta_{sub}H$		103.3 ± 3.4	298	C	[1993RIB/MAT]
$C_9H_8N_2$	[580-15-4]	6-aminoquinoline				
	$\Delta_{sub}H$	(333–349)	103.6 ± 1.0	341	ME	[1993RIB/MAT]
	$\Delta_{sub}H$	(333–349)	105.7 ± 1.0	298	ME	[1993RIB/MAT]
$C_9H_8N_2$	[578-66-5]	8-aminoquinoline				
	$\Delta_{sub}H$	(296–314)	93.0 ± 0.5	305	ME	[1993RIB/MAT]
	$\Delta_{sub}H$	(296–314)	93.33 ± 0.5	298	ME	[1993RIB/MAT]
$C_9H_8N_2O$	[14003-34-0]	2-methyl-3-hydroxyquinoxaline				
	$\Delta_{fus}H$		33.4	522.9	DSC	[2000MON/HIL2]
	$\Delta_{sub}H$	(375–391)	117.2 ± 0.4	383	ME	[2000MON/HIL2]
	$\Delta_{sub}H$	(375–391)	119.7 ± 2.8	298	ME	[2000MON/HIL2]
	$\Delta_{sub}H$		123.0 ± 4.4	298	C	[2000RIB/MAT]
$C_9H_8N_2O_2$	[6639-86-7]	2-methylquinoxaline-1,4-dioxide				
	$\Delta_{sub}H$		107.0 ± 6.2	298	C	[1997ACR/POW]
$C_9H_8N_2O_2$	[5972-09-8]	3-methylaminophthalimide				
	$\Delta_{sub}H$	(402–450)	104.9	417	RG	[1987STE/MAL, 1956KLO]
C_9H_8O	[83-33-0]	1-indanone				
	$\Delta_{fus}H$		17.6	314.1	DSC	[2007MAT/MIR]
	$\Delta_{fus}H$		17.78	312.9	DSC	[1998VER4]
	$\Delta_{sub}H$		78.7 ± 2.8	298	C	[2007MAT/MIR]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		83.5 ± 0.7	298	GS	[1998VER4]
	Δ_vH	(318–348)	60.3 ± 0.4		GS	[1998GUD/TOR]
C_9H_8O	[615-13-4] 2-indanone					
	$\Delta_{fus}H$		16.89	330	DSC	[2007MAT/MIR]
	$\Delta_{sub}H$		78.3 ± 1.1	298	C	[2007MAT/MIR]
C_9H_8O	[104-55-2] 3-phenyl-2-propenal (cinnamaldehyde)					
	Δ_vH		62.4	298	GC	[2002VAN/PAR]
	Δ_vH	(408–482)	51.7	444	TGA	[2002HAZ/DOL]
	Δ_vH	(349–519)	58.2	364	A	[1987STE/MAL, 1947STU]
	Δ_vH	(353–373)	72.7	363	A	[1987STE/MAL]
$C_9H_8O_2$	[140-10-3] *trans* cinnamic acid					
	$\Delta_{fus}H$		22.21	406.1		[2008MOT/QUE]
	$\Delta_{fus}H$		22.6	404.8	DSC	[2004SHA/JAM]
	$\Delta_{fus}H$		22.63	406.2		[1991ACR]
	$\Delta_{sub}H$	(333–347)	107.1 ± 0.8	298	ME	[1999MON/HIL]
	Δ_vH	(430–573)	73.9	445	A	[1987STE/MAL]
$C_9H_8O_2$	[102-94-3] allocinnamic acid (*cis* cinnamic acid)					
	$\Delta_{fus}H$		16.95	341.2		[1991ACR]
$C_9H_8O_2$	[39869-70-0] 7,7-dimethoxynorborane					
	Δ_vH	(321–357)	49.0	339	EB	[1994WIB/MOR]
$C_9H_8O_2$	[119-84-6] 3,4-dihydrocoumarin					
	Δ_vH		69.9 ± 0.5	298	C	[2009MAT/SOU2]
$C_9H_8O_2$	[491-37-2] chromanone					
	$\Delta_{fus}H$		16.7	312.3	DSC	[2009MAT/SOU]
	$\Delta_{sub}H$		84.6 ± 1.3	298	C	[2009MAT/SOU]
$C_9H_8O_2$	[4385-35-7] 3-isochromanone					
	$\Delta_{fus}H$		18.3	355.9	DSC	[2009MAT/SOU]
	$\Delta_{sub}H$		97.3 ± 1.4	298	C	[2009MAT/SOU]
$C_9H_8O_2S$	[2525-42-0] phenyl propadienyl sulfone					
	$\Delta_{sub}H$		105.4 ± 2.5			[1969MAC/STE, 1970COX/PIL]
$C_9H_8O_2S$	[2525-41-9] phenyl prop-1-ynyl sulfone					
	$\Delta_{sub}H$		95.4 ± 2.5		B	[1969MAC/STE, 1970COX/PIL]
$C_9H_8O_2S$	[2525-40-8] phenyl prop-2-ynyl sulfone					
	$\Delta_{sub}H$		105. ± 2.5		B	[1969MAC/STE, 1970COX/PIL]
$C_9H_8O_3$	[129-64-6] *endo*-5-norbornene-2,3-dicarboxylic anhydride					
	$\Delta_{trs}H$		15.73	367.2		
	$\Delta_{fus}H$		3.71	437.2		[1967PIN/WIL]
	$\Delta_{sub}H$		97 ± 4.2	298	MG	[1973ROG/QUA, 1977PED/RYL]
$C_9H_8O_3$	[2746-19-2] *exo*-5-norbornene-2,3-dicarboxylic anhydride					
	$\Delta_{fus}H$		21.77	416.2	DSC	[1967PIN/WIL]
$C_9H_8O_3$	[3162-29-6] 5-oxoethyl-1,3-benzodioxole					
	$\Delta_{fus}H$		26.23	358.9	DSC	[2007MAT/SOU]
	$\Delta_{sub}H$		104.4 ± 2.2	298	C	[2007MAT/SOU]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_8O_3$	[29668-44-8]	2,3-dihydro-1,4-benzodioxin-6-carboxaldehyde				
	$\Delta_{fus}H$		19.44	324.4	DSC	[2008MAT/SOU2]
	$\Delta_{sub}H$		98.2 ± 1.4	298	C	[2008MAT/SOU2]
$C_9H_8O_4$	[331-39-5]	3,4-dihydroxycinnamic acid (caffeic acid)				
	$\Delta_{sub}H$	(409–424)	170.2 ± 4.6	411		[2006CHE/OJA]
$C_9H_8O_4$	[1679-64-7]	monomethyl terephthalate				
	$\Delta_{fus}H$		37.68	92.5	DSC	[2005MON/SOU]
	$\Delta_{sub}H$	(363–381)	121.0 ± 0.5	372.3	ME	[2005MON/SOU]
	$\Delta_{sub}H$	(363–381)	124.1 ± 1.0	298	ME	[2005MON/SOU]
	$\Delta_{sub}H$	(433–493)	72.1	448		[1987STE/MAL]
	$\Delta_{sub}H$	(433–493)	82.8	473	GS	[1962KRA/BER]
	$\Delta_{sub}H$		130.4		C	[1998MAK/KAB]
$C_9H_8O_4$	[4376-18-5]	monomethyl phthalate				
	$\Delta_{fus}H$		21.63	357.5	DSC	[2005MON/SOU]
	$\Delta_{sub}H$	(335–355)	115.9 ± 0.6	345.3	ME	[2005MON/SOU]
	$\Delta_{sub}H$	(335–355)	117.9 ± 0.8	298	ME	[2005MON/SOU]
$C_9H_8O_4$	[1877-71-0]	monomethyl isophthalate				
	$\Delta_{fus}H$		36.5	466.7	DSC	[2005MON/SOU]
	$\Delta_{sub}H$	(359–379)	122.6 ± 0.7	369.2	ME	[2005MON/SOU]
	$\Delta_{sub}H$	(359–379)	125.6 ± 1.0	298	ME	[2005MON/SOU]
$C_9H_8O_4$	[50-78-2]	2-acetoxybenzoic acid (aspirin)				
	$\Delta_{fus}H$		29.17	409.2	DSC	[2004XU/SUN2]
	$\Delta_{fus}H$		31.01	412.7	DSC	[2001PER/BAU, 2003PER/BAU]
	$\Delta_{fus}H$		29.8	414		[2000KIR]
$C_9H_8O_4$	[2345-34-8]	4-acetoxybenzoic acid				
	$\Delta_{fus}H$		26.35	467.2		[1997YUA/ZHA]
$C_9H_8O_4$	[2861-28-1]	1,3-benzodioxole-5-acetic acid (homopiperonylic acid)				
	$\Delta_{fus}H$		24.94	401.7		[2004MAT/MON]
	$\Delta_{sub}H$	(346–364)	120.1 ± 0.8	355	ME	[2004MAT/MON]
	$\Delta_{sub}H$	(346–364)	122.9 ± 1.4	298	ME	[2004MAT/MON]
$C_9H_8O_4$	[3663-80-7]	(*dl*) 1,4-benzodioxan-2-carboxylic acid				
	$\Delta_{sub}H$		117.8 ± 2.1	298	C	[2008MAT/MIR2]
$C_9H_9BrO_3$	[na]	(*dl*) 2-(*p*-bromophenoxy)propanoic acid				
	$\Delta_{fus}H$		31.8	385		[1991CHI/BRA]
$C_9H_9BrO_3$	[na]	(*d*) 2-(*p*-bromophenoxy)propanoic acid				
	$\Delta_{fus}H$		27.61	380		[1991CHI/BRA]
$C_9H_9BrO_3$	[40620-67-5]	(*dl*) 3-(*m*-bromophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		26.78	349		[1991CHI/BRA]
$C_9H_9BrO_3$	[40620-57-3]	(*d*) 3-(*m*-bromophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		23.85	350		[1991CHI/BRA]
$C_9H_9BrO_3$	[40620-68-6]	(*dl*) 3-(*p*-bromophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		28.87	371		[1991CHI/BRA]
$C_9H_9BrO_3$	[40620-58-4]	(*d*) 3-(*p*-bromophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		35.56	398		[1991CHI/BRA]
$C_9H_9ClO_3$	[na]	(*dl*) 2-(*o*-chlorophenoxy)propanoic acid				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		32.22	388		[1991CHI/BRA]
$C_9H_9ClO_3$	[na]	(*d*) 2-(*o*-chlorophenoxy)propanoic acid				
	$\Delta_{fus}H$		26.78	369		[1991CHI/BRA]
$C_9H_9ClO_3$	[101-10-0]	(*dl*) 2-(*m*-chlorophenoxy)propanoic acid				
	$\Delta_{fus}H$		33.05	386		[1991CHI/BRA]
$C_9H_9ClO_3$	[na]	(*d*) 2-(*m*-chlorophenoxy)propanoic acid				
	$\Delta_{fus}H$		29.71	367.5		[1991CHI/BRA]
$C_9H_9ClO_3$	[na]	(*dl*) 3-(*p*-chlorophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		29.71	357		[1991CHI/BRA]
$C_9H_9ClO_3$	[40620-55-1]	(*d*) 3-(*p*-chlorophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		28.03	385		[1991CHI/BRA]
$C_9H_9ClO_3$	[40620-64-2]	(*dl*) 3-(*m*-chlorophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		23.85	340		[1991CHI/BRA]
$C_9H_9ClO_3$	[40620-54-0]	(*d*) 3-(*m*-chlorophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		28.03	368		[1991CHI/BRA]
$C_9H_9ClO_3$	[94-74-6]	(4-chloro-*o*-tolyloxy)acetic acid				
	$\Delta_{fus}H$		29.98	392.9	DSC	[1991ACR, 1990DON/DRE]
$C_9H_9ClO_4$	[76341-69-0]	2-chlorosyringaldehyde				
	Δ_vH	(293–323)	77.7	308	CGC	[1999LEI/WAN2]
$C_9H_9Cl_2NO$	[709-98-8]	3′,4′-dichloropropionanilide				
	$\Delta_{fus}H$		18.26	363.7	DSC	[1991ACR, 1990DON/DRE]
$C_9H_9FO_3$	[40620-61-9]	(*dl*) 3-(*m*-fluorophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		20.5	290		[1991CHI/BRA]
$C_9H_9FO_3$	[40620-51-7]	(*d*) 3-(*m*-fluorophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		24.27	311		[1991CHI/BRA]
$C_9H_9FO_3$	[na]	(*dl*) 3-(*o*-fluorophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		27.2	342		[1991CHI/BRA]
$C_9H_9FO_3$	[40620-50-6]	(*d*) 3-(*o*-fluorophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		22.59	348		[1991CHI/BRA]
$C_9H_9FO_3$	[40620-62-0]	(*dl*) 3-(*p*-fluorophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		27.61	362		[1991CHI/BRA]
$C_9H_9FO_3$	[na]	(*d*) 3-(*p*-fluorophenyl)-3-hydroxypropanoic acid				
	$\Delta_{fus}H$		30.96	381		[1991CHI/BRA]
$C_9H_9F_6NO_5$	[1548-45-4]	(*l*) N,O-*bis*(trifluoroacetal)-threonine methyl ester				
	Δ_vH	(323–413)	72.5	338	A	[1987STE/MAL, 1999DYK/SVO]
C_9H_9N	[603-76-9]	1-methylindole				
	Δ_vH		62.2 ± 1.6	298	C	[2009RIB/CAB2]
C_9H_9N	[95-20-5]	2-methylindole				
	$\Delta_{fus}H$		15.72	329.4		[1997PEY/LET]
	$\Delta_{sub}H$		88.7 ± 2.4	298	C	[2009RIB/CAB2]
C_9H_9N	[83-34-1]	3-methylindole (skatole)				
	$\Delta_{sub}H$		90.4 ± 1.9	298	C	[2009RIB/CAB2]
	$\Delta_{sub}H$	(288–333)	83.3	303	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(368–540)	64.5	383	A	[1987STE/MAL, 1947STU]
C_9H_9N	[1823-91-2]	α-methylbenzylcyanide				
	$\Delta_v H$	(284–318)	60.8 ± 0.7	301	GS	[2000VER]
	$\Delta_v H$	(284–318)	60.9 ± 0.7	298	GS	[2000VER]
C_9H_9N	[21789-36-6]	2,6-dimethylbenzonitrile				
	$\Delta_{sub}H$		83.9 ± 2.8	298	C	[1991ACR/TUC]
$C_9H_9NO_2$	[122-85-0]	4-acetomidobenzaldehyde				
	$\Delta_{sub}H$	(328–346)	99.0	337	A	[1987STE/MAL, 1960AIH2]
$C_9H_9NO_4$	[618-98-4]	3-nitrobenzoic acid, ethyl ester				
	$\Delta_v H$	(381–571)	65.1	396	A	[1987STE/MAL, 1947STU]
$C_9H_9NO_4$	[5251-93-4]	[(benzoylamino)oxy] acetic acid				
	$\Delta_{fus}H$		31.46	416.9	DSC	[1991ACR, 1990DON/DRE]
$C_9H_9NO_4$	[5453-67-8]	dimethyl pyridine-2,6-dicarboxylate				
	$\Delta_{sub}H$		113.5 ± 3.8	298	C	[2005MAT/MOR]
$C_9H_9NO_5$	[na]	(*dl*) 2-(*p*-nitrophenoxy)propanoic acid				
	$\Delta_{fus}H$		32.22	411.4		[1991CHI/BRA]
$C_9H_9NO_5$	[na]	(*d*) 2-(*p*-nitrophenoxy)propanoic acid				
	$\Delta_{fus}H$		20.92	362		[1991CHI/BRA]
$C_9H_9N_3O_2S_2$	[72-14-0]	4-amino-N-2-thiazolylbenzenesulfonamide (sulfathiazole)				
	$\Delta_{fus}H$		30.3	473	DSC	[2003MAR/AVI, 2002MAR/GOM]
$C_9H_9N_3O_6$	[602-96-0]	2,4,6-trinitromesitylene				
	$\Delta_{sub}H$	(319–397)	103.6 ± 1.2		ME	[1987STE/MAL, 1978CUN/PAL]
C_9H_{10}	[496-11-7]	indane				
	$\Delta_{fus}H$		8.6	221.8		[1996DOM/HEA]
	$\Delta_v H$	(374–466)	44.0	389	A	[1987STE/MAL]
	$\Delta_v H$		49.0	298	C	[1981HOS/SCO3]
	$\Delta_v H$	(355–482)	45.0	370		[1976AMB/SPR]
C_9H_{10}	[611-15-4]	2-methylstyrene				
	$\Delta_v H$	(305–385)	47.9	320	A	[1987STE/MAL, 1953CLE/WIS]
C_9H_{10}	[100-80-1]	3-methylstyrene				
	$\Delta_v H$	(314–385)	47.5	329	A	[1987STE/MAL, 1953CLE/WIS]
C_9H_{10}	[622-97-9]	4-methylstyrene				
	$\Delta_v H$	(304–390)	47.6	319	A	[1987STE/MAL, 1953CLE/WIS]
C_9H_{10}	[98-83-9]	α-methylstyrene				
	$\Delta_{fus}H$		11.92	250.8		[1996DOM/HEA]
	$\Delta_v H$	(274–314)	49.2 ± 0.3	294	GS	[1999VER6]
	$\Delta_v H$	(274–314)	48.9 ± 0.3	298	GS	[1999VER6]
	$\Delta_v H$	(331–467)	48.6 ± 0.4	298	EB	[1997STE/CHI2]
	$\Delta_v H$	(331–467)	45.9 ± 0.3	340	EB	[1997STE/CHI2]
	$\Delta_v H$	(331–467)	43.3 ± 0.3	380	EB	[1997STE/CHI2]
	$\Delta_v H$	(331–467)	40.6 ± 0.3	420	EB	[1997STE/CHI2]
	$\Delta_v H$	(331–467)	37.7 ± 0.5	460	EB	[1997STE/CHI2]
	$\Delta_v H$	(343–493)	44.3	358	A	[1987STE/MAL]
	$\Delta_v H$	(353–413)	44.8	368	A	[1987STE/MAL]
C_9H_{10}	[766-90-5]	*cis* β-methylstyrene				
	$\Delta_v H$	(348–498)	44.8	363	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_9H_{10}	[873-66-5]	*trans* β-methylstyrene				
	$\Delta_v H$	(291–452)	46.4	306	A	[1987STE/MAL, 1947STU]
C_9H_{10}	[300-57-2]	allylbenzene				
	$\Delta_v H$	(274–313)	46.5 ± 0.2	294	GS	[1999VER6]
	$\Delta_v H$	(274–313)	46.3 ± 0.2	298	GS	[1999VER6]
$C_9H_{10}BrClN_2O_2$	[13360-45-7]	3-(4-bromo-3-chlorophenyl)-1-methoxy-1-methylurea				
	$\Delta_{fus}H$		26.54	369.8	DSC	[1990DON/DRE]
$C_9H_{10}ClNO_3$	[194085-75-1]	(1S)-1-(2-chlorophenyl)-1,2-ethanediol, 2-carbamate, (carisbamate)				
	$\Delta_{fus}H$		33.0	409.6	DSC	[2009WU/MEH]
$C_9H_{10}Cl_2N_2O$	[330-54-1]	3-(3,4-dichlorophenyl)-1,1-dimethylurea (diuron)				
	$\Delta_{fus}H$		25.28	435.1	DSC	[2000ROD/VEC]
	$\Delta_{fus}H$		30.47	430.5	DSC	[1990DON/DRE]
	$\Delta_{fus}H$		33.89	429.7	DSC	[1969PLA/GLA]
	$\Delta_{sub}H$		119 ± 0.6	393	C	[1997PFE/SAB]
	$\Delta_{sub}H$		133.9 ± 0.7	298	C	[1997PFE/SAB]
$C_9H_{10}Cl_2N_2O_2$	[330-55-2]	N′-(3,4-dichlorophenyl)-N-methoxy-N-methylurea (linuron)				
	$\Delta_{fus}H$		26.56	365.8	DSC	[1991ACR, 1990DON/DRE]
$C_9H_{10}F_2$	[146377-62-0]	1,1-difluoro-3-phenylpropane				
	$\Delta_v H$	(278–318)	53.3 ± 0.4	298	GS	[1997SCH/VER]
$C_9H_{10}N_2$	[1075-76-9]	N-(2-cyanoethyl)aniline				
	$\Delta_{trs}H$	(83–353)	0.98	310.6		
	$\Delta_{fus}H$	(83–353)	19.4	323.3	AC	[2005TIA/TAN]
$C_9H_{10}N_2$	[53406-41-0]	N-amino-2-methylindole				
	$\Delta_{fus}H$		25.55	384.6		[1997PEY/LET]
$C_9H_{10}N_2O$	[92-43-3]	1-phenyl-3-pyrazolidinone				
	$\Delta_{sub}H$	(327–348)	84.3	337.5	A	[1987STE/MAL, 1960AIH2]
$C_9H_{10}N_2O_3$	[612-45-3]	N-(4-methyl-2-nitrophenyl)acetamide				
	$\Delta_{fus}H$ (*white cryst*)		24.25	366.2		
	$\Delta_{fus}H$ (*amber cryst*)		20.97	356.7		
	$\Delta_{fus}H$ (*yellow cryst*)		22.37	364.2	DSC	[2001HE/STO]
$C_9H_{10}N_2O_3$	[6335-41-7]	2-(hydroxyimino)-N-(4-methoxyphenyl)acetamide				
	$\Delta_{fus}H$		8.3	457.6	DTA	[1982CUE/SOL]
$C_9H_{10}N_2O_3$	[6335-42-8]	2-(hydroxyimino)-N-(2-methoxyphenyl)acetamide				
	$\Delta_{fus}H$		27.8	424.6	DTA	[1982CUE/SOL]
$C_9H_{10}O$	[1746-13-0]	allyl phenyl ether				
	$\Delta_v H$	(349–456)	49.4	364	A	[1987STE/MAL]
$C_9H_{10}O$	[104-54-1]	cinnamyl alcohol				
	$\Delta_{fus}H$		15.73	308.2		[1991CHI/BRA]
	$\Delta_v H$	(295–325)	68.1 ± 0.1	310	TG,DTA	[2002SOR/DOL]
	$\Delta_v H$	(310–328)	79.8	319	A	[1987STE/MAL]
	$\Delta_v H$	(373–523)	56.2	388	A	[1987STE/MAL]
$C_9H_{10}O$	[15764-16-6]	2,4-dimethylbenzaldehyde				
	$\Delta_v H$	(358–489)	57.4	373	A	[1987STE/MAL]
$C_9H_{10}O$	[1470-94-6]	5-hydroxyindane				
	$\Delta_v H$	(393–524)	55.4	408	A	[1987STE/MAL]
$C_9H_{10}O$	[122-00-9]	4′-methylacetophenone				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(288–333)	59.6	303	A	[1987STE/MAL]
$C_9H_{10}O$	[93-53-8]	2-phenylpropionaldehyde				
	$\Delta_v H$	(364–517)	52.3 ± 0.2	360	EB	[2002STE/CHI5]
	$\Delta_v H$	(364–517)	49.4 ± 0.2	400	EB	[2002STE/CHI5]
	$\Delta_v H$	(364–517)	46.6 ± 0.3	440	EB	[2002STE/CHI5]
	$\Delta_v H$	(364–517)	43.4 ± 0.5	480	EB	[2002STE/CHI5]
$C_9H_{10}O$	[104-53-0]	3-phenylpropionaldehyde				
	$\Delta_v H$	(330–363)	67.5	345	A	[1987STE/MAL]
$C_9H_{10}O$	[103-79-7]	benzyl methyl ketone				
	$\Delta_v H$	(343–383)	56.1	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(343–383)	55.0	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(273–328)	53.5 ± 0.3	298		[1954NIC/SZA]
$C_9H_{10}O$	[93-55-0]	ethyl phenyl ketone (propiophenone)				
	$\Delta_v H$	(388–623)	52.1	403	A	[1987STE/MAL]
	$\Delta_v H$	(391–454)	44.4	406	EB,GS	[1965COL/COU]
$C_9H_{10}O$	[612-15-7]	2-vinylanisole				
	$\Delta_v H$	(314–467)	56.7	329	A	[1987STE/MAL, 1947STU]
$C_9H_{10}O$	[626-20-0]	3-vinylanisole				
	$\Delta_v H$	(316–471)	55.9	331	A	[1987STE/MAL, 1947STU]
$C_9H_{10}O$	[637-69-4]	4-vinylanisole				
	$\Delta_v H$	(318–478)	54.9	333	A	[1987STE/MAL, 1947STU]
$C_9H_{10}O$	[4407-36-7]	(*E*)-3-phenyl-2-propen-1-ol				
	$\Delta_{sub}H$	(288–307)	109.6	297.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		69.5		ME	[1954SER/VOI]
$C_9H_{10}O$	[493-08-3]	chroman				
	$\Delta_{fus}H$		16.26	269.8		[1996DOM/HEA]
	$\Delta_{sub}H$	(293–535)	56.7 ± 0.1	298	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(293–535)	55.2 ± 0.1	320	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(293–535)	52.7 ± 0.1	360	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(293–535)	50.2 ± 0.1	400	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(293–535)	48.9 ± 0.1	440	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(293–535)	45.1 ± 0.3	480	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(293–535)	42.5 ± 0.5	520	IPM,EB	[1990CHI/ARC]
$C_9H_{10}O$	[493-05-0]	isochroman				
	$\Delta_{fus}H$		16.75	277.5		[1996DOM/HEA]
	$\Delta_{sub}H$	(295–536)	57.1 ± 0.1	298	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(295–536)	55.6 ± 0.1	320	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(295–536)	52.9 ± 0.1	360	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(295–536)	50.3 ± 0.1	400	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(295–536)	48.7 ± 0.1	440	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(295–536)	45.3 ± 0.3	480	IPM,EB	[1990CHI/ARC]
	$\Delta_{sub}H$	(295–536)	42.6 ± 0.5	520	IPM,EB	[1990CHI/ARC]
$C_9H_{10}O_2$	[89-71-4]	methyl *o*-toluate				
	$\Delta_{fus}H$	(5–320)	12.47	228.8	AC	[2002BLO/PAU]
	$\Delta_{fus}H$		12.5	228.8	AC	[1998MAK/KAB]
	$\Delta_v H$		57.3 ± 0.2	293	C	[1998MAK/KAB]
$C_9H_{10}O_2$	[99-36-5]	methyl *m*-toluate				
	$\Delta_{fus}H$	(5–320)	17.14	270.6	AC	[2002BLO/PAU]
	$\Delta_{fus}H$		21.15	269.9	AC	[1998MAK/KAB]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		60.3 ± 0.2	296	C	[1998MAK/KAB]
	$\Delta_v H$		53.5	388		[1974MUR/TUD]
$C_9H_{10}O_2$	[99-75-2]	methyl *p*-toluate				
	$\Delta_{fus}H$	(5–320)	20.78	306.5	AC	[2002BLO/PAU]
	$\Delta_{fus}H$		20.77	306.5	AC	[1998MAK/KAB]
	$\Delta_{sub}H$		83.3 ± 0.3	298	C	[1998MAK/KAB]
	$\Delta_{sub}H$	(403–493)	51.6	418		[1998SEM/WIL]
$C_9H_{10}O_2$	[122-46-3]	acetic acid, 3-tolyl ester				
	$\Delta_v H$	(385–480)	55.7	400	A,EB	[1987STE/MAL, 1969SHE/LAN]
$C_9H_{10}O_2$	[140-39-6]	acetic acid, 4-tolyl ester				
	$\Delta_v H$	(385–480)	55.9	400	A,EB	[1987STE/MAL, 1969SHE/LAN]
$C_9H_{10}O_2$	[579-74-8]	2-acetylanisole				
	$\Delta_v H$		56.5			[1986BAL/GNA]
$C_9H_{10}O_2$	[100-06-1]	4-acetylanisole				
	$\Delta_{sub}H$	(276–300)	77.7		V	[1959AIH]
	$\Delta_{sub}H$	(283–333)	93.7	308	A	[1954SER/VOI, 1960JON, 1987STE/MAL]
	$\Delta_v H$	(311–334)	66.5	322	A,ME	[1987STE/MAL, 1954SER/VOI]
$C_9H_{10}O_2$	[7216-18-4]	3,4-dihydro-2*H*-1,5-benzodioxepin				
	$\Delta_v H$		55.6			[1958CAS/FLE2]
$C_9H_{10}O_2$	[140-11-4]	benzyl acetate				
	$\Delta_v H$	(283–490)	55.5	298	A	[1987STE/MAL]
	$\Delta_v H$	(283–328)	60.4	305	ME	[1954SER/VOI]
$C_9H_{10}O_2$	[93-89-0]	ethylbenzoate				
	$\Delta_v H$	(283–332)	61.1 ± 0.3	298	GS	[2006VAS/VER]
	$\Delta_v H$	(369–531)	52.5 ± 0.2	380	EB	[2002STE/CHI2]
	$\Delta_v H$	(369–531)	49.6 ± 0.2	420	EB	[2002STE/CHI2]
	$\Delta_v H$	(369–531)	46.7 ± 0.3	460	EB	[2002STE/CHI2]
	$\Delta_v H$	(369–531)	43.6 ± 0.5	500	EB	[2002STE/CHI2]
	$\Delta_v H$	(344–440)	57.0	356	BG	[1988KAT2]
	$\Delta_v H$	(344–440)	50.5	419	BG	[1988KAT2]
	$\Delta_v H$	(288–333)	55.9	303	A	[1987STE/MAL]
	$\Delta_v H$	(358–487)	50.4	373	A	[1987STE/MAL]
	$\Delta_v H$	(317–486)	51.9	332		[1947STU]
$C_9H_{10}O_2$	[501-52-0]	3-phenylpropionic acid (hydrocinnamic acid)				
	$\Delta_{fus}H$		15.61	321.2	DSC	[2001MON/HIL4]
	$\Delta_{fus}H$		17.68	321.2		[1991ACR]
	$\Delta_{sub}H$	(305–315)	102.0 ± 0.7	310	ME	[2001MON/HIL4]
	$\Delta_{sub}H$	(305–315)	102.4 ± 0.8	298	ME	[2001MON/HIL4]
	$\Delta_v H$	(375–553)	67.0	390	A	[1987STE/MAL, 1947STU]
$C_9H_{10}O_2$	[99-36-5]	3-methylbenzoic acid, methyl ester				
	$\Delta_v H$	(359–500)	54.8	374	A	[1987STE/MAL]
$C_9H_{10}O_2$	[122-60-1]	(phenoxymethyl)oxirane				
	$\Delta_v H$	(400–532)	69.9 ± 0.7	298	EB	[1997STE/CHI]
	$\Delta_v H$	(400–532)	60.3 ± 0.5	400	EB	[1997STE/CHI]
	$\Delta_v H$	(400–532)	56.7 ± 0.4	440	EB	[1997STE/CHI]
	$\Delta_v H$	(400–532)	53.1 ± 0.4	480	EB	[1997STE/CHI]
	$\Delta_v H$	(400–532)	51.3 ± 0.5	500	EB	[1997STE/CHI]
	$\Delta_v H$	(400–532)	49.4 ± 0.6	520	EB	[1997STE/CHI]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(343–373)	65.6 ± 0.1			[1976KUZ/MIR]
$C_9H_{10}O_2$	[101-41-7] methyl phenylacetate					
	$\Delta_v H$	(333–433)	57.4	298	GC	[2005HOS/GRY]
$C_9H_{10}O_2$	[122-46-3] 3-methylphenyl acetate					
	$\Delta_{sub}H$	(274–317)	60.7	295	TE	[1947BAL, 1960JON]
$C_9H_{10}O_2$	[936-51-6] 2-phenyl-1,3-dioxolane					
	$\Delta_v H$	(285–333)	62.6 ± 0.7	298	GS	[2002VER]
	$\Delta_v H$	(298–333)	62.1 ± 0.3	316	GS	[1995VER/DOG]
$C_9H_{10}O_2$	[612-19-1] 2-ethylbenzoic acid					
	$\Delta_{sub}H$	(298–313)	100.5	305.5	ME	[1987STE/MAL, 1976COL/JIM]
	$\Delta_{sub}H$		101.1 ± 0.4	298	ME	[1984COL/JIM]
	$\Delta_{sub}H$	(298–313)	100.7 ± 2.5	298	ME	[1976COL/JIM]
$C_9H_{10}O_2$	[619-20-5] 3-ethylbenzoic acid					
	$\Delta_{sub}H$	(300–318)	99.1	309	ME	[1987STE/MAL, 1976COL/JIM]
	$\Delta_{sub}H$		99.7 ± 0.4	298	ME	[1984COL/JIM]
	$\Delta_{sub}H$	(300–318)	99.11 ± 2.5	298	ME	[1976COL/JIM]
$C_9H_{10}O_2$	[619-64-7] 4-ethylbenzoic acid					
	$\Delta_{fus}H$		14.06	386.2		[1991CHI/BRA]
	$\Delta_{sub}H$	(321–335)	101.2 ± 0.8	298	ME	[2004MON/ALM]
	$\Delta_{sub}H$	(310–329)	98.2	319.5	ME	[1987STE/MAL, 1976COL/JIM]
	$\Delta_{sub}H$		98.9 ± 0.2	298	ME	[1984COL/JIM]
	$\Delta_{sub}H$	(311–330)	97.6 ± 0.2	321	ME	[1984COL/JIM]
	$\Delta_{sub}H$	(320–329)	97.5 ± 2.5	298	ME	[1976COL/JIM]
$C_9H_{10}O_2$	[603-79-2] 2,3-dimethylbenzoic acid					
	$\Delta_{fus}H$		18.3	417.6		[1996BEL/UFN]
	$\Delta_{sub}H$	(316–337)	102.3 ± 0.4	326	ME	[1984COL/JIM2]
	$\Delta_{sub}H$	(316–337)	104.6 ± 0.4	298	ME	[1984COL/JIM2]
$C_9H_{10}O_2$	[611-01-8] 2,4-dimethylbenzoic acid					
	$\Delta_{sub}H$	(312–331)	102.7 ± 0.3	321	ME	[1984COL/JIM2]
	$\Delta_{sub}H$	(312–331)	103.5 ± 0.3	298	ME	[1984COL/JIM2]
$C_9H_{10}O_2$	[610-72-0] 2,5-dimethylbenzoic acid					
	$\Delta_{sub}H$	(315–334)	103.6 ± 0.6	324	ME	[1984COL/JIM2]
	$\Delta_{sub}H$	(315–334)	105.0 ± 0.6	298	ME	[1984COL/JIM2]
$C_9H_{10}O_2$	[632-46-2] 2,6-dimethylbenzoic acid					
	$\Delta_{sub}H$	(309–324)	98.2 ± 0.2	317	ME	[1984COL/JIM2]
	$\Delta_{sub}H$	(309–324)	99.1 ± 0.2	298	ME	[1984COL/JIM2]
$C_9H_{10}O_2$	[632-46-2] 3,4-dimethylbenzoic acid					
	$\Delta_{sub}H$	(325–347)	104.5 ± 0.3	336	ME	[1984COL/JIM2]
	$\Delta_{sub}H$	(325–347)	106.4 ± 0.3	298	ME	[1984COL/JIM2]
$C_9H_{10}O_2$	[499-06-9] 3,5-dimethylbenzoic acid					
	$\Delta_{fus}H$		22.6	442.9		[1996BEL/UFN]
	$\Delta_{sub}H$	(322–341)	100.8 ± 0.3	332	ME	[1984COL/JIM2]
	$\Delta_{sub}H$	(322–341)	102.3 ± 0.3	298	ME	[1984COL/JIM2]
$C_9H_{10}O_2$	[122-60-1] phenyl glycidyl ether					
	$\Delta_{fus}H$		17.32	279.8		[1988LEB/BYK]
$C_9H_{10}O_2$	[935-92-2] 2,3,5-trimethyl-1,4-benzoquinone					
	$\Delta_v H$	(393–450)	49.9	408	EB	[2004TAN/LI]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{10}O_2S$	[5535-52-4] p-tolyl vinyl sulfone					
	$\Delta_{fus}H$		10.88	340.4		[1969MAC/MCN]
	$\Delta_{sub}H$		82.4 ± 2.5		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_9H_{10}O_3$	[118-61-6] ethyl salicylate					
	Δ_vH	(431–461)	53.4			[1982WAY]
	Δ_vH	(288–333)	59.2	303	A	[1987STE/MAL]
	Δ_vH	(334–505)	55.2	349	A	[1987STE/MAL]
$C_9H_{10}O_3$	[623-20-1] 2-furanacrylic acid, ethyl ester					
	Δ_vH	(428–500)	56.8	443	A	[1987STE/MAL]
$C_9H_{10}O_3$	[121-98-2] methyl 4-methoxybenozate					
	Δ_vH	(382–472)	61.1	397	EB	[1985SCH/BRU]
$C_9H_{10}O_3$	[120-47-8] ethyl 4-hydroxybenzoate					
	$\Delta_{fus}H$		27.9	389.2	DSC	[2008WAS/HOL]
	$\Delta_{fus}H$		32.49	388.9	DSC	[2008NIC/BEL]
	$\Delta_{fus}H$		26.4	389		[1999GIO/BET]
	$\Delta_{fus}H$	(313–326)	100.9 ± 0.7	298	GS	[2005PER/ROD]
	Δ_vH		75.0		TGA	[2002CHA/DOL]
	Δ_vH		72.6		TGA	[2001CHA/DOL]
$C_9H_{10}O_3$	[35438-32-5] *cis*,*cis* 3-methyl-4-cyclohexene-1,2-dicarboxylic acid anhydride					
	Δ_vH	(325–525)	49.5 ± 1.0			[1984NUR/MEK]
$C_9H_{10}O_3$	[3425-89-6] 4-methyl-4-cyclohexene-1,2-dicarboxylic anhydride					
	$\Delta_{fus}H$	(80–361)	17.67	335.5	AC	[2005LU/TAN]
$C_9H_{10}O_3$	[121-32-4] 3-ethoxy-4-hydroxybenzadehyde (ethyl vanillin)					
	$\Delta_{fus}H$		23.1	349.8	DSC	[2008TEM/ROU]
	$\Delta_{sub}H$	(296–338)	101.5	311		[1987STE/MAL, 1957LIT, 1960JON]
$C_9H_{10}O_3$	[120-14-9] 3,4-dimethoxybenzaldehyde					
	$\Delta_{fus}H$		20.3	317	DSC	[2008TEM/ROU]
$C_9H_{10}O_3$	[na] (*dl*) 3-phenyl-3-hydroxypropanoic acid					
	$\Delta_{fus}H$		29.71	366		[1991CHI/BRA]
$C_9H_{10}O_3$	[2768-42-5] (*d*) 3-phenyl-3-hydroxypropanoic acid					
	$\Delta_{fus}H$		32.64	391		[1991CHI/BRA]
$C_9H_{10}O_3$	[940-31-8] (*dl*) 2-phenoxypropionic acid					
	$\Delta_{fus}H$		33.05	388		[1991CHI/BRA]
$C_9H_{10}O_3$	[na] (*d*) 2-phenoxypropionic acid					
	$\Delta_{fus}H$		22.59	359		[1991CHI/BRA]
$C_9H_{10}O_3$	[104-01-8] 4-methoxyphenylacetic acid					
	$\Delta_{fus}H$		21.8	358.1		[1991ACR]
$C_9H_{10}O_3$	[na] 4-hydroxyphenylpropionic acid					
	$\Delta_{fus}H$		28.9	402.5		[1991ACR]
$C_9H_{10}O_3$	[619-86-3] 4-ethoxybenzoic acid					
	$\Delta_{fus}H$		29.4	472.8		[1991ACR]
	$\Delta_{sub}H$		123.3 ± 0.9	298		[2010RIB/FER3]
$C_9H_{10}O_3$	[3663-82-9] 1,4-benzodioxan-2-hydroxymethyl					
	$\Delta_{fus}H$		28.78	362.4	DSC	[2008MAT/SOU]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		106.9 ± 0.8	298	C	[2008MAT/MIR2]
$C_9H_{10}O_3$	[53282-12-5]	ethyl *trans* β-(2-furyl)acrylate				
	Δ_vH	(428–500)	56.8	464		[1956FRO/LOE]
$C_9H_{10}O_4$	[1521-38-6]	2,3-dimethoxybenzoic acid				
	$\Delta_{sub}H$	(336–356)	115.1 ± 0.3	346	ME	[1985COL/JIM]
	$\Delta_{sub}H$	(336–356)	116.6 ± 0.3	298	ME	[1985COL/JIM]
$C_9H_{10}O_4$	[91-52-1]	2,4-dimethoxybenzoic acid				
	$\Delta_{sub}H$	(346–367)	120.5 ± 0.4	357	ME	[1985COL/JIM]
	$\Delta_{sub}H$	(346–367)	123.4 ± 0.4	298	ME	[1985COL/JIM]
$C_9H_{10}O_4$	[1466-76-8]	2,6-dimethoxybenzoic acid				
	$\Delta_{sub}H$	(335–378)	118.4 ± 0.4	367	ME	[1985COL/JIM]
	$\Delta_{sub}H$	(335–378)	121.7 ± 0.4	298	ME	[1985COL/JIM]
$C_9H_{10}O_4$	[93-07-2]	3,4-dimethoxybenzoic acid				
	$\Delta_{sub}H$	(359–378)	126.1 ± 0.6	369	ME	[1985COL/JIM]
	$\Delta_{sub}H$	(359–378)	129.8 ± 0.6	298	ME	[1985COL/JIM]
$C_9H_{10}O_4$	[2785-98-0]	2,5-dimethoxybenzoic acid				
	$\Delta_{sub}H$	(324–342)	113.3 ± 0.7	333	ME	[1996JIM/ROU]
	$\Delta_{sub}H$	(324–342)	116.1 ± 0.7	298	ME	[1996JIM/ROU]
$C_9H_{10}O_4$	[1132-21-4]	3,5-dimethoxybenzoic acid				
	$\Delta_{sub}H$	(356–376)	124.5 ± 0.6	369	ME	[1985COL/JIM]
	$\Delta_{sub}H$	(356–376)	127.1 ± 0.6	298	ME	[1985COL/JIM]
$C_9H_{10}O_4$	[na]	(±) bicyclo[2.2.1]hept-5-ene-*trans*-2,3-dicarboxylic acid				
	$\Delta_{fus}H$		29.8	458.2		[1971PIN/TON]
$C_9H_{10}O_4$	[32216-02-7]	(+) bicyclo[2.2.1]hept-5-ene-*trans*-2,3-dicarboxylic acid				
	$\Delta_{fus}H$		22.5	449.2		[1971PIN/TON]
$C_9H_{10}O_4$	[na]	(*dl*) *erythro* phenylglyceric acid				
	$\Delta_{fus}H$		31.38	395		[1991CHI/BRA]
$C_9H_{10}O_4$	[na]	(*d*) *erythro* phenylglyceric acid				
	$\Delta_{fus}H$		23.43	371.5		[1991CHI/BRA]
$C_9H_{10}O_5$	[613-75-2]	2-(diacetoxymethyl)furan				
	$\Delta_{sub}H$		109.6 ± 2.5			[1980BAL/LEB, 1986PED/NAY]
$C_9H_{10}O_5$	[530-57-4]	3,5-dimethoxy-4-hydroxybenzoic acid (syringic acid)				
	$\Delta_{fus}H$		33.7	480.3	DSC	[2009QUE/MOT]
$C_9H_{11}Br$	[7073-94-1]	1-bromo-2-isopropylbenzene				
	Δ_vH	(404–484)	48.4	419		[1999DYK/SVO]
	Δ_vH	(378–528)	49.8	393	A	[1987STE/MAL, 1970DYK/VAN]
$C_9H_{11}Br$	[586-61-8]	1-bromo-4-isopropylbenzene				
	Δ_vH	(362–493)	51.1	377		[1999DYK/SVO]
	Δ_vH	(388–528)	50.4	403	A	[1987STE/MAL, 1970DYK/VAN]
$C_9H_{11}Br$	[3575-19-7]	cumyl bromide				
	Δ_vH		58.0	298	CGC	[2002KRA/VAS]
$C_9H_{11}BrN_2O$	[3060-89-7]	N′-(4-bromophenyl)-N-methoxy-N-methylurea				
	$\Delta_{fus}H$		24.44	368.3	DSC	[1991ACR, 1990DON/DRE]
$C_9H_{11}BrO_2$	[109417-60-9]	1-bromo-2-(2-methoxyethoxy)benzene				
	Δ_vH	(302–368)	64.5 ± 0.3	298	GS	[2006DAB/SPO]
$C_9H_{11}BrO_3$	[63834-58-2]	(racemic) 3-(2-bromophenoxy)propane-1,2-diol				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		33.4	353.5		[2006ZAK/LAZ]
$C_9H_{11}BrO_3$	[386702-67-6]	(R) 3-(2-bromoophenoxy)propane-1,2-diol				
	$\Delta_{fus}H$		38.4	374.3		[2006ZAK/LAZ]
$C_9H_{11}Cl$	[2077-13-6]	1-chloro-2-isopropylbenzene				
	Δ_vH	(341–465)	48.1	356		[1999DYK/SVO]
	Δ_vH	(363–508)	47.7	378	A	[1987STE/MAL, 1970DYK/VAN]
$C_9H_{11}Cl$	[2621-46-7]	1-chloro-4-isopropylbenzene				
	Δ_vH	(307–472)	51.4	322		[1999DYK/SVO]
	Δ_vH	(368–513)	48.5	383	A	[1987STE/MAL, 1970DYK/VAN]
$C_9H_{11}Cl$	[934-53-2]	cumyl chloride				
	Δ_vH		54.7	298	CGC	[2002KRA/VAS]
$C_9H_{11}ClN_2O$	[150-68-5]	3-(4-chlorophenyl)-1,1-dimethylurea (monuron)				
	$\Delta_{fus}H$		29.3	447.6		[2004KON/TAN2]
	$\Delta_{fus}H$		29.46	447.6		[1991ACR]
	$\Delta_{sub}H$	(303–379)	114.6 ± 4.9	341	ME,C	[1987STE/MAL, 1972WIE]
$C_9H_{11}ClN_2O_2$	[1746-81-2]	N′-(4-chlorophenyl)-N-methoxy-N-methylurea				
	$\Delta_{fus}H$		22.54	353.4	DSC	[1991ACR, 1990DON/DRE]
$C_9H_{11}ClO_2$	[67146-43-4]	propylene glycol mono(4-chlorophenyl) ether				
	Δ_vH	(417–542)	64.9	432	A	[1987STE/MAL, 1999DYK/SVO]
$C_9H_{11}ClO_3$	[93-65-2]	2-(4-chloro-2-methylphenoxy)propanoic acid				
	$\Delta_{fus}H$		26.43	366.2	DSC	[1990DON/DRE]
$C_9H_{11}ClO_3$	[5112-21-0]	(racemic) 3-(2-chlorophenoxy)propane-1,2-diol				
	$\Delta_{fus}H$		29.0	344.9		[2006ZAK/LAZ]
$C_9H_{11}ClO_3$	[153547-60-5]	(R) 3-(2-chlorophenoxy)propane-1,2-diol				
	$\Delta_{fus}H$		38.2	363.3		[2006ZAK/LAZ]
$C_9H_{11}ClS$	[4322-51-8]	benzyl (2-chloroethyl) sulfide				
	Δ_vH	(293–333)	52.3	308	A,GS	[1987STE/MAL, 1948RED/CHA, 1999DYK/SVO]
$C_9H_{11}Cl_3NO_3PS$	[330-55-2]	O,O-diethyl-O-(3,5,6-trichloro-2-pyridyl)phosphorothioate				
	$\Delta_{fus}H$		24.53	315	DSC	[1991ACR, 1990DON/DRE]
$C_9H_{11}Cl_3NO_4P$	[5598-15-2]	3,5,6-trichloro-2-pyridyl diethylphosphate (chlorpyrifos oxon)				
	$\Delta_{sub}H$	(373–403)	79		GC	[2007GOE/MCC]
$C_9H_{11}FO_3$	[399-28-0]	(racemic) 3-(2-fluorophenoxy)propane-1,2-diol				
	$\Delta_{fus}H$		20.5	318.2		[2006ZAK/LAZ]
$C_9H_{11}FO_3$	[912556-93-5]	(R) 3-(2-fluorophenoxy)propane-1,2-diol				
	$\Delta_{fus}H$		26.0	333.7		[2006ZAK/LAZ]
$C_9H_{11}F_5O_2$	[24262-73-5]	pentafluoropropionic acid, cyclohexyl ester				
	Δ_vH	(335–428)	46.4	350	A,EB	[1987STE/MAL, 1969SHE/LAN]
$C_9H_{11}I$	[54290-22-1]	cumyl iodide				
	Δ_vH		63.3	298	CGC	[2002KRA/VAS]
$C_9H_{11}IO_3$	[55169-06-7]	(racemic) 3-(2-iodophenoxy)propane-1,2-diol				
	$\Delta_{fus}H$		34.2	362.5		[2006ZAK/LAZ]
$C_9H_{11}IO_3$	[912556-94-6]	(R) 3-(2-iodophenoxy)propane-1,2-diol				
	$\Delta_{fus}H$		37.4	383.5		[2006ZAK/LAZ]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{11}N$	[635-46-1]	1,2,3,4-tetrahydroquinoline				
	$\Delta_{fus}H$		11.81	290		[1991ACR]
	Δ_vH	(323–572)	65.3 ± 0.2	298	IP,EB	[1989STE/CHI3]
	Δ_vH	(323–572)	62.1 ± 0.1	340	IP,EB	[1989STE/CHI3]
	Δ_vH	(323–572)	59.2 ± 0.1	380	IP,EB	[1989STE/CHI3]
	Δ_vH	(323–572)	56.3 ± 0.1	420	IP,EB	[1989STE/CHI3]
	Δ_vH	(323–572)	53.5 ± 0.2	460	IP,EB	[1989STE/CHI3]
	Δ_vH	(323–572)	50.8 ± 0.3	500	IP,EB	[1989STE/CHI3]
	Δ_vH	(323–572)	47.9 ± 0.4	540	IP,EB	[1989STE/CHI3]
$C_9H_{11}N$	[10500-57-9]	5,6,7,8-tetrahydroquinoline				
	$\Delta_{fus}H$		9.08	222.7		[1991ACR]
	Δ_vH	(303–544)	57.6 ± 0.2	298	IP,EB	[1989STE/CHI3]
	Δ_vH	(303–544)	56.1 ± 0.1	320	IP,EB	[1989STE/CHI3]
	Δ_vH	(303–544)	53.6 ± 0.1	360	IP,EB	[1989STE/CHI3]
	Δ_vH	(303–544)	51.1 ± 0.1	400	IP,EB	[1989STE/CHI3]
	Δ_vH	(303–544)	48.7 ± 0.3	440	IP,EB	[1989STE/CHI3]
	Δ_vH	(303–544)	46.2 ± 0.4	480	IP,EB	[1989STE/CHI3]
	Δ_vH	(303–544)	43.5 ± 0.5	520	IP,EB	[1989STE/CHI3]
$C_9H_{11}NO$	[579-10-2]	N-methylacetanilide				
	Δ_vH	(383–519)	60.1	398	A	[1987STE/MAL]
	Δ_vH	(377–526)	56.7	392		[1947STU]
$C_9H_{11}NO$	[120-66-1]	N-(2-methylphenyl)acetamide				
	$\Delta_{sub}H$	(315–340)	96.8	327.5		[1987STE/MAL, 1960AIH2]
$C_9H_{11}NO$	[103-89-9]	N-(4-methylphenyl)acetamide				
	$\Delta_{sub}H$	(331–350)	99.0	341		[1960AIH2]
$C_9H_{11}NO$	[611-74-5]	N,N-dimethylbenzamide				
	$\Delta_{sub}H$	(289–305)	89.7 ± 0.3	298		[1995ABB/JIM]
	$\Delta_{sub}H$		94.8 ± 2.0	298	C	[1989RIB/SOU]
$C_9H_{11}NO$	[120-66-1]	2-(acetylamino)toluene				
	$\Delta_{fus}H$		21.7	382.7	DSC	[2003HUA, 2005HUA/TAN]
$C_9H_{11}NO$	[103-89-9]	4-(acetylamino)toluene				
	$\Delta_{fus}H$		28.93	424	DSC	[2003HUA, 2005HUA/TAN]
$C_9H_{11}NO$	[100-10-7]	4-(N,N-dimethylamino)benzaldehyde				
	$\Delta_{fus}H$		19.07	346.2		[1999MEN/LIA]
$C_9H_{11}NO_2$	[6526-72-3]	1-nitro-2-isopropylbenzene				
	Δ_vH	(278–323)	65.5 ± 0.7	301	GS	[2000VER/HEI]
	Δ_vH		65.6 ± 0.7	298		[2000VER/HEI]
$C_9H_{11}NO_2$	[87-25-2]	ethyl 2-aminobenzoate (ethyl anthranilate)				
	Δ_vH	(433–593)	59.6	448	A	[1987STE/MAL]
$C_9H_{11}NO_2$	[94-09-7]	ethyl 4-aminobenzoate (benzocaine)				
	$\Delta_{fus}H$		24.6	362.6	DSC	[2008WAS/HOL]
	$\Delta_{fus}H$		21.16	NA	DSC	[1995YAM/KIT]
	$\Delta_{fus}H$		23.56	362.8		[1991ACR]
$C_9H_{11}NO_2$	[101-99-5]	ethyl carbanilate				
	Δ_vH	(380–510)	84.2	395	A	[1987STE/MAL, 1947STU]
$C_9H_{11}NO_2$	[603-71-4]	2,4,6-trimethylnitrobenzene				
	$\Delta_{sub}H$		78.6 ± 1.0	298	C	[1993ACR/TUC2, 1993ACR/TUC2]
$C_9H_{11}NO_2$	[63-91-2]	L-(*l*)-phenylalanine				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(342–442)	U 90 ± 6.3	392	LE	[1977GAF/PIE]
	$\Delta_{sub}H$		154 ± 8	455	ME	[1965SVE/CLY, 1970COX/PIL, 1987STE/MAL, 1964CLY/SVE]
$C_9H_{11}NO_2$	[101-88-5]	ethyl phenyl carbamate				
	$\Delta_{fus}H$		16.27	326		[1971PRI]
$C_9H_{11}NO_2$	[51-66-1]	*p*-methoxyacetanilide				
	$\Delta_{fus}H$		27.82	400.3		[1990MAN/AHU]
$C_9H_{11}NO_2S_2$	[949171-64-6]	N-theonylthiocarbamic-O-propyl ester				
	$\Delta_{fus}H$		26.1	370.1	DSC	[2007RIB/MON]
	$\Delta_{sub}H$		136.5 ± 1.8	298	C	[2007RIB/MON]
$C_9H_{11}NO_3$	[60-18-4]	(*l*)-tyrosine				
	$\Delta_{sub}H$	(412–512)	101 ± 8	462	LE	[1977GAF/PIE]
C_9H_{12}	[38451-18-2]	*cis* bicyclo[4.3.0]nona-3,7-diene				
	Δ_vH	(356–429)	41.8	371	A	[1987STE/MAL]
C_9H_{12}	[28304-66-7]	(Z) 5-ethylidene-2-norbornene				
	Δ_vH	(315–462)	44.3 ± 0.3	298	EB	[1997STE/CHI]
	Δ_vH	(315–462)	43.0 ± 0.3	320	EB	[1997STE/CHI]
	Δ_vH	(315–462)	40.5 ± 0.3	360	EB	[1997STE/CHI]
	Δ_vH	(315–462)	38.0 ± 0.3	400	EB	[1997STE/CHI]
	Δ_vH	(315–462)	35.2 ± 0.5	440	EB	[1997STE/CHI]
C_9H_{12}	[3048-64-4]	5-ethylidene-2-norbornene				
	Δ_vH	(314–420)	42.3 ± 0.3	298	EB	[1996STE/CHI2]
C_9H_{12}	[28304-67-8]	*trans* 5-ethylidene-2-norbornene				
	Δ_vH	(346–416)	41.2	361	A	[1987STE/MAL]
C_9H_{12}	[611-14-3]	2-ethyltoluene				
	Δ_vH		46.9	298		[1994RUZ/ZAB]
	Δ_vH		47.7	298		[1971WIL/ZWO]
	Δ_vH	(353–443)	43.6	368	A	[1987STE/MAL, 1949FOR/NOR]
C_9H_{12}	[620-14-4]	3-ethyltoluene				
	Δ_vH		46.6	298		[1994RUZ/ZAB]
	Δ_vH		46.9	298		[1971WIL/ZWO]
	Δ_vH	(348–438)	43.4	363	A	[1987STE/MAL, 1949FOR/NOR]
C_9H_{12}	[622-96-8]	4-ethyltoluene				
	Δ_vH		46.5	298		[1994RUZ/ZAB]
	Δ_vH		46.6	298		[1971WIL/ZWO]
	Δ_vH	(349–442)	43.2	364	A	[1987STE/MAL, 1949FOR/NOR]
C_9H_{12}	[98-82-8]	isopropylbenzene				
	$\Delta_{fus}H$		7.32	177.1		[1973KIS/SUG]
	Δ_vH		45.1	298		[1994RUZ/ZAB]
	Δ_vH	(349–426)	41.2	364		[1989CEP/GON]
	Δ_vH	(339–433)	42.1	354	A	[1987STE/MAL]
	Δ_vH		45.1 ± 0.1	298	C	[1982FUC/HAL]
	Δ_vH		44.0	298		[1975KUS/SAI]
	Δ_vH		45.1	298		[1971WIL/ZWO]
	Δ_vH		45.1	298	C	[1947OSB/GIN]
	Δ_vH	(343–426)	41.9	358	MM	[1949FOR/NOR, 1945WIL/TAY]
C_9H_{12}	[103-65-1]	propylbenzene				
	$\Delta_{fus}H$		9.27	173.6		[1991ACR]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		46.2	298		[1994RUZ/ZAB]
	$\Delta_v H$	(340–391)	43.8	355		[1986PAU/KRU]
	$\Delta_v H$		45.0	298		[1975KUS/SAI]
	$\Delta_v H$		46.2	298		[1971WIL/ZWO]
	$\Delta_v H$		46.2	298	C	[1947OSB/GIN]
	$\Delta_v H$	(348–433)	42.7	363	A,MM	[1987STE/MAL, 1949FOR/NOR, 1945WIL/TAY]
C_9H_{12}	[3048-65-5]	3a,4,7,7a-tetrahydro-1*H*-indene				
	$\Delta_v H$	(338–440)	42.3	353	A	[1987STE/MAL]
C_9H_{12}	[526-73-8]	1,2,3-trimethylbenzene				
	$\Delta_{trs}H$		0.66	218.7		[1996DOM/HEA]
	$\Delta_{trs}H$		1.33	230.3		
	$\Delta_{fus}H$		8.18	247.8		[1996DOM/HEA]
	$\Delta_v H$		49.0	298		[1994RUZ/ZAB]
	$\Delta_v H$		48.8	298		[1974KUS/SAI]
	$\Delta_v H$	(363–456)	44.8	378	A	[1987STE/MAL, 1949FOR/NOR]
	$\Delta_v H$		49.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(259–270)	42.5	265	RG	[1948HOP/SEA]
	$\Delta_v H$		49.1	298	C	[1947OSB/GIN]
C_9H_{12}	[95-63-6]	1,2,4-trimethylbenzene				
	$\Delta_{fus}H$		12.65	228.6		
	$\Delta_{fus}H$		13.19	229.3		[1996DOM/HEA]
	$\Delta_v H$		48.0	298		[1994RUZ/ZAB]
	$\Delta_v H$		47.2	298		[1974KUS/SAI]
	$\Delta_v H$		47.9	298		[1971WIL/ZWO]
	$\Delta_v H$	(357–450)	44.1	372	A	[1987STE/MAL, 1949FOR/NOR]
	$\Delta_v H$	(257–267)	46.5	262	RG	[1948HOP/SEA]
	$\Delta_v H$		47.9	298	C	[1947OSB/GIN]
C_9H_{12}	[108-67-8]	1,3,5-trimethylbenzene				
	$\Delta_{trs}H$		0.33	91.3		
	$\Delta_{trs}H$		0.07	188.5		[2000YAM/TAN]
	$\Delta_{fus}H$		9.51	228.4		[1991RAD/RAD]
	$\Delta_{fus}H$		9.51	228.4		[1996DOM/HEA, 1991RAD/RAD]
	$\Delta_v H$		47.6	298		[1994RUZ/ZAB]
	$\Delta_v H$	(296–342)	46.2 ± 1.3	319	MM	[1991WIB/WAL]
	$\Delta_v H$	(296–342)	47.5 ± 2.1	298	MM	[1991WIB/WAL]
	$\Delta_v H$	(348–424)	43.5	363		[1989PAR/GME]
	$\Delta_v H$	(249–356)	49.7	264	A	[1987STE/MAL]
	$\Delta_v H$		47.5 ± 0.1	298	C	[1987AN/HU]
	$\Delta_v H$	(273–299)	47.7	286	MM	[1981CHI/HYM]
	$\Delta_v H$	(354–445)	43.9	369	A	[1987STE/MAL, 1949FOR/NOR]
	$\Delta_v H$		47.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(255–268)	51.1	262	RG	[1948HOP/SEA]
	$\Delta_v H$		47.5	298	C	[1947OSB/GIN]
C_9H_{12}	[3048-64-4]	5-vinyl-2-norbornene				
	$\Delta_v H$	(301–410)	42.0	316	A	[1987STE/MAL]
	$\Delta_v H$	(354–409)	48.9	369	A	[1987STE/MAL]
C_9H_{12}	[31561-59-8]	trispiro[2.0.2.0.2.0]nonane ([3] rotane)				
	$\Delta_{fus}H$		14.14	312.1	DSC	[1995BEC/RUC]
	$\Delta_v H$	(273–308)	59.2 ± 0.5		GS	[1995BEC/RUC]
C_9H_{12}	[50874-24-3]	trispiro[2.0.0.2.1.1]nonane ([3] triangulane)				
	$\Delta_v H$	(275–314)	46.3 ± 0.5		GS	[1995BEC/RUC]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{12}ClN_5$	[22936-86-3]	6-chloro-N-cyclopropyl-N′-(1-methylethyl)-1,3,5-triazine-2,4-diamine				
	$\Delta_{fus}H$		28.76	441.6	DSC	[1990DON/DRE]
$C_9H_{12}F_3N_3O_5$	[651-18-3]	N-[N-(N-[trifluoroacetyl]glycyl)glycyl]glycine methyl ester				
	$\Delta_{sub}H$	(343–433)	133.4	358		[1987STE/MAL, 1960WEY/KLI]
$C_9H_{12}NO_5PS$	[122-14-5]	O,O-dimethyl-O-(3-methyl-4-nitrophenyl)thiophosphate				
	Δ_vH	(293–382)	78.0	308	A	[1987STE/MAL]
$C_9H_{12}N_2$	[103-02-6]	phenylhydrazone acetone				
	Δ_vH	(413–436)	74.6	424	A	[1987STE/MAL]
$C_9H_{12}N_2$	[1502-10-9]	N-methyl-7-(methylimino)-1,3,5-cycloheptatrienylamine				
	$\Delta_{sub}H$		49.4 ± 4			[1971JAC/HUN, 1977PED/RYL]
$C_9H_{12}N_2$	[31529-46-1]	N-amino-2-methylindoline				
	$\Delta_{fus}H$		24.45	318.2		[1997PEY/LET]
$C_9H_{12}N_2O$	[101-42-8]	1,1-dimethyl-3-phenylurea				
	$\Delta_{fus}H$		22.81	404.8	DSC	[1991ACR, 1990DON/DRE]
$C_9H_{12}N_2O_2$	[13142-86-4]	3-ethoxyphenylurea				
	$\Delta_{sub}H$		75.3 ± 8.3			[1954TSU/KAT, 1970COX/PIL]
$C_9H_{12}N_2O_2$	[150-69-6]	4-ethoxyphenylurea (dulcin)				
	$\Delta_{sub}H$		83.7 ± 8.3			[1954TSU/KAT, 1970COX/PIL]
$C_9H_{12}N_2O_2S_2$	[2651-16-3]	S-methyl-N′-tosylisothiourea				
	$\Delta_{fus}H$		31.2	401.2	DSC	[1992REI/HAN]
$C_9H_{12}N_2S$	[14222-60-7]	2-propyl-4-pyridinecarbothioamide				
	$\Delta_{fus}H$		23.21	414.1		[2007ZHA/TAN]
$C_9H_{12}N_4O_2$	[5770-28-5]	8-ethyltheophylline				
	$\Delta_{fus}H$		37.2	545.3	DSC	[1989GON/KRA]
$C_9H_{12}O$	[4013-34-7]	(1-methoxyethyl)benzene				
	Δ_vH	(298–313)	49.2 ± 0.4	296	GS	[2001VER/HEI]
	Δ_vH	(298–313)	49.1 ± 0.4	298	GS	[2001VER/HEI]
$C_9H_{12}O$	[539-30-0]	benzyl ethyl ether				
	Δ_vH	(278–314)	53.5 ± 0.4	298	GS	[2002KRA/VAS]
	Δ_vH	(299–460)	48.0	314	A	[1987STE/MAL, 1947STU]
$C_9H_{12}O$	[14804-32-1]	2-ethylanisole				
	Δ_vH	(302–460)	49.8	317	A	[1987STE/MAL, 1947STU]
$C_9H_{12}O$	[10568-38-4]	3-ethylanisole				
	Δ_vH	(306–470)	49.3	321	A	[1987STE/MAL, 1947STU]
$C_9H_{12}O$	[1515-95-3]	4-ethylanisole				
	Δ_vH	(306–470)	51.9	321	A	[1987STE/MAL, 1947STU]
$C_9H_{12}O$	[698-71-5]	5-ethyl-3-methyphenol				
	Δ_vH	(468–521)	55.0	483	A,GS,EB	[1987STE/MAL, 1964HAN/HAR]
	Δ_vH	(385–506)	58.5	58.5		[1955VON/GEB]
$C_9H_{12}O$	[88-69-7]	2-isopropylphenol				
	Δ_vH	(375–493)	63.5	390	EB	[1990NES/NAZ]
	Δ_vH	(370–489)	55.1	385	A	[1987STE/MAL]
	Δ_vH	(375–493)	56.1	390		[1986TSV/NAZ]
	Δ_vH	(335–501)	57.3	350		[1947STU]
$C_9H_{12}O$	[618-45-1]	3-isopropylphenol				
	Δ_vH	(377–497)	64.3	392	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{12}O$	[99-89-8]	4-isopropylphenol				
	$\Delta_v H$	(391–507)	63.7	406	EB	[1990NES/NAZ]
	$\Delta_v H$	(380–496)	63.1	395	A	[1987STE/MAL]
$C_9H_{12}O$	[2741-16-4]	isopropyl phenyl ether				
	$\Delta_v H$	(345–448)	49.5	360	A	[1987STE/MAL, 1965HEI/SUR, 1984BOU/FRI]
$C_9H_{12}O$	[122-97-4]	3-phenyl-1-propanol				
	$\Delta_v H$	(284–328)	62.8	299	A	[1987STE/MAL]
	$\Delta_v H$	(347–508)	62.6	362		[1947STU]
$C_9H_{12}O$	[617-94-7]	2-phenyl-2-propanol				
	$\Delta_v H$	(391–423)	52.9	406	A	[1987STE/MAL]
$C_9H_{12}O$	[622-85-5]	phenyl propyl ether				
	$\Delta_v H$	(374–463)	46.5	389	A	[1987STE/MAL]
$C_9H_{12}O$	[644-35-9]	2-propylphenol				
	$\Delta_v H$	(377–495)	56.9	392	A	[1987STE/MAL]
	$\Delta_v H$	(381–504)	59.9	398		[1953STA/MUL]
	$\Delta_v H$	(381–504)	57.2	423		[1953STA/MUL]
	$\Delta_v H$	(381–504)	53.0	473		[1953STA/MUL]
$C_9H_{12}O$	[621-27-2]	3-propylphenol				
	$\Delta_v H$	(408–538)	60.2	423	A	[1987STE/MAL]
	$\Delta_v H$	(386–512)	59.9	398		[1953STA/MUL]
	$\Delta_v H$	(386–512)	57.2	423		[1953STA/MUL]
	$\Delta_v H$	(386–512)	53.0	473		[1953STA/MUL]
$C_9H_{12}O$	[645-56-7]	4-propylphenol				
	$\Delta_v H$	(383–508)	56.7	398	A	[1987STE/MAL]
	$\Delta_v H$	(347–517)	61.3	348		[1953STA/MUL]
	$\Delta_v H$	(347–517)	59.5	373		[1953STA/MUL]
	$\Delta_v H$	(347–517)	58.4	398		[1953STA/MUL]
	$\Delta_v H$	(347–517)	56.2	423		[1953STA/MUL]
	$\Delta_v H$	(347–517)	51.5	473		[1953STA/MUL]
$C_9H_{12}O$	[697-82-5]	2,3,5-trimethylphenol				
	$\Delta_v H$	(459–521)	53.9	474	A,GS,EB	[1987STE/MAL, 1964HAN/HAR]
	$\Delta_v H$	(379–506)	55.1	394		[1955VON/GEB]
$C_9H_{12}O$	[2416-94-6]	2,3,6-trimethylphenol				
	$\Delta_{fus}H$		22.05	331.2		[1999VER]
	$\Delta_{sub}H$		86.7 ± 0.6	298	GS	[1999VER]
$C_9H_{12}O$	[496-78-6]	2,4,5-trimethylphenol				
	$\Delta_v H$	(379–505)	56.5	394	A	[1987STE/MAL, 1955VON/GEB]
$C_9H_{12}O$	[527-60-6]	2,4,6-trimethylphenol				
	$\Delta_{sub}H$		82.8 ± 0.3	298	GS	[1999VER]
	$\Delta_{sub}H$		95.0	298	C	[1971BER/GIR, 1999VER]
	$\Delta_v H$	(367–494)	53.2	382	A	[1987STE/MAL, 1955VON/GEB]
$C_9H_{12}O$	[2416-94-6]	2,5,6-trimethylphenol				
	$\Delta_v H$	(359–503)	51.1 ± 0.2	431		[1988BAG/GUR]
$C_9H_{12}O$	[527-54-8]	3,4,5-trimethylphenol				
	$\Delta_v H$	(396–521)	61.1	411	A	[1987STE/MAL]
$C_9H_{12}O$	[617-94-7]	α,α-dimethylbenzyl alcohol				
	$\Delta_{sub}H$	(276–302)	82.8 ± 0.7	289	GS	[1999VER4]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		82.3 ± 0.7	298		[1999VER4]
	Δ_vH	(311–338)	63.4 ± 0.5	325	GS	[1999VER4]
	Δ_vH	(311–338)	65.0 ± 0.5	298	GS	[1999VER4]
$C_9H_{12}O_2$	[700-13-0]	trimethylhydroquinone				
	Δ_vH	(450–501)	45.5 ± 0.3	475		[1988BAG/GUR]
$C_9H_{12}O_2$	[80-15-9]	cumene hydroperoxide				
	Δ_vH	(283–333)	69.9	298	A	[1987STE/MAL]
	Δ_vH	(347–390)	74.0	362	A	[1987STE/MAL]
$C_9H_{12}O_2$	[na]	1,3-dihydroxy-5-methyl-2-ethylbenzene				
	Δ_vH	(388–453)	77.1	403	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_9H_{12}O_2$	[4179-19-5]	3,5-dimethoxytoluene				
	Δ_vH	(374–520)	59.5	389	A	[1987STE/MAL]
$C_9H_{12}O_2$	[622-08-2]	ethylene glycol monobenzyl ether				
	Δ_vH	(453–530)	58.6	468	A	[1987STE/MAL]
$C_9H_{12}O_2$	[770-35-4]	propylene glycol 1-phenyl ether				
	Δ_vH	(389–509)	59.5	404	A	[1987STE/MAL]
$C_9H_{12}O_2$	[na]	isopropyl catechol (isomer not specified)				
	Δ_vH	(393–453)	65.3	423		[1965GAK/BAB]
$C_9H_{12}O_2$	[1125-88-8]	benzaldehyde dimethyl acetal				
	Δ_vH	(278–318)	60.9 ± 0.5	298	GS	[2002VER]
	Δ_vH	(283–318)	56.5 ± 0.7	300	GS	[1995VER/DOG]
$C_9H_{12}O_2$	[2138-48-9]	3-isopropyl-1,2-dihydroxybenzene				
	$\Delta_{sub}H$		97.8 ± 1.7	298	C	[1984RIB/RIB2]
$C_9H_{12}O_3$	[634-36-6]	1,2,3-trimethoxybenzene				
	$\Delta_{sub}H$		113.4 ± 0.3	375	C	[2000MAT/MIR]
	$\Delta_{sub}H$		98.0 ± 0.3	298	C	[2000MAT/MIR]
$C_9H_{12}O_3$	[621-23-8]	1,3,5-trimethoxybenzene				
	$\Delta_{sub}H$		116.0 ± 1.9	375	C	[2000MAT/MIR]
	$\Delta_{sub}H$		100.6 ± 1.9	298	C	[2000MAT/MIR]
	Δ_vH		68.2 ± 2.0	298	CGC	[2000NIC/ORF]
$C_9H_{12}O_3$	[538-43-2]	(racemic) 3-phenoxypropane-1,2-diol				
	$\Delta_{fus}H$		28.0	331.7	DSC	[2008BRE/BRE, 2006ZAK/LAZ]
$C_9H_{12}O_3$	[82430-38-4]	(R)-3-phenoxypropane-1,2-diol				
	$\Delta_{fus}H$		31.8	341.5	DSC	[2008BRE/BRE, 2006ZAK/LAZ]
$C_9H_{12}O_3$	[5662-95-3]	3,3-tetramethyleneglutaric acid anhydride				
	$\Delta_{fus}H$		15.3	338.4	DSC	[2008MAT/MIR]
	$\Delta_{sub}H$		96.4 ± 1.1	298	C	[2008MAT/MIR]
$C_9H_{12}O_4$	[642-71-7]	3,4,5-trimethoxyphenol				
	$\Delta_{fus}H$		31.94	420.2		[2008MAT/MIR2]
$C_9H_{12}S$	[6263-62-3]	benzyl ethyl sulfide				
	Δ_vH	(346–370)	56.0	358		[1999DYK/SVO]
	Δ_vH	(345–500)	54.8	360	A	[1987STE/MAL]
	Δ_vH		56.9 ± 2.1	298		[1962MAC/MAY]
$C_9H_{12}S$	[20760-06-9]	2-ethylthioanisole				
	Δ_vH	(481–511)	44.3	496		[1999DYK/SVO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{12}S$	[34786-24-8] ethyl *m*-tolyl sulfide					
	$\Delta_v H$	(472–502)	43.5	487		[1999DYK/SVO]
$C_9H_{12}S$	[622.63-9] ethyl *p*-tolyl sulfide					
	$\Delta_v H$	(473–503)	43.6	488		[1999DYK/SVO]
$C_9H_{12}S$	[3019-20-3] (isopropylthio)benzene					
	$\Delta_v H$	(461–491)	U23.6	476		[1999DYK/SVO]
$C_9H_{12}S$	[874-79-3] (propylthio)benzene					
	$\Delta_v H$	(473–503)	44.3	488		[1999DYK/SVO]
$C_9H_{13}BrN_2O_2$	[314-40-9] 5-bromo-6-methyl-3-(1-methylpropyl)-2,4(1*H*,3*H*)-pyrimidinedione					
	$\Delta_{fus}H$		22.02	428.3	DSC	[1991ACR, 1990DON/DRE]
$C_9H_{13}ClN_6$	[21725-46-2] 2-[[4-chloro-6-(ethylamino)-1,3,5-triazin-2-yl]amino]-2-methylpropanenitrile					
	$\Delta_{fus}H$		41.96	437.9	DSC	[1991ACR, 1990DON/DRE]
$C_9H_{13}ClN_6$	[21725-46-2] 2-[(4-chloro-6-ethylamino-s-triazin-2-yl)amino]-2-methylpropionitrile (cyanazine)					
	$\Delta_{sub}H$	(339–365)	90.7	352	GS	[1982GRA/FOS]
$C_9H_{13}Cl_3NO_4P$	[5598-15-2] O,O-diethyl-O-(3,5,6-trichloro-2-pyridyl) phosphate					
	$\Delta_{fus}H$		15.61	312.5	DSC	[1990DON/DRE]
$C_9H_{13}Cl_3OS$	[76619-95-9] 2,3,3-trichloro-2-propenethioic acid, O-hexyl ester					
	$\Delta_v H$	(433–483)	69.5		GC	[1980PIT/KIS]
$C_9H_{13}N$	[na] α,α-dimethylbenzylamine					
	$\Delta_v H$	(283–323)	56.4 ± 0.7	303	GS	[1999VER4]
	$\Delta_v H$	(283–323)	56.7 ± 0.7	298	GS	[1999VER4]
$C_9H_{13}N$	[103-83-3] N,N-dimethylbenzylamine					
	$\Delta_v H$	(288–328)	48.9 ± 0.4	308	GS	[1999VER4]
	$\Delta_v H$	(288–328)	49.5 ± 0.4	298	GS	[1999VER4]
	$\Delta_v H$		50.1 ± 0.9	298	C	[1996MIR/ORL]
$C_9H_{13}N$	[609-72-3] N,N-dimethyl-2-toluidine					
	$\Delta_v H$	(301–458)	52.4	316	A	[1987STE/MAL, 1947STU]
$C_9H_{13}N$	[121-72-2] N,N-dimethyl-3-toluidine					
	$\Delta_v H$		58.2 ± 6.9	298	CGC	[1996RIB/RIB]
$C_9H_{13}N$	[99-97-8] N,N-dimethyl-4-toluidine					
	$\Delta_v H$	(323–483)	60.7	338	A	[1987STE/MAL, 1947STU]
$C_9H_{13}N$	[102-27-2] N-ethyl-3-toluidine					
	$\Delta_v H$		60.0 ± 3.0	298	CGC	[1996RIB/RIB]
$C_9H_{13}N$	[643-28-7] 2-isopropylaniline					
	$\Delta_v H$	(286–326)	61.3 ± 0.9	306	GS	[2000VER3]
	$\Delta_v H$	(286–326)	61.8 ± 0.9	298	GS	[2000VER3]
$C_9H_{13}N$	[99-88-7] 4-isopropylaniline					
	$\Delta_v H$	(333–500)	57.5	348	A	[1987STE/MAL, 1947STU]
$C_9H_{13}N$	[300-62-9] 1-phenyl-2-propylamine					
	$\Delta_v H$	(333–353)	53.4	343	A	[1987STE/MAL]
$C_9H_{13}N$	[88-05-1] 2,4,6-trimethylaniline					
	$\Delta_v H$	(341–510)	64.1	356	A	[1987STE/MAL, 1947STU]
$C_9H_{13}N$	[3978-81-2] 4-*tert*-butylpyridine					
	$\Delta_v H$		54.4 ± 1.3	298	C	[2008FRI/ACR]
$C_9H_{13}NO$	[492-41-1] (−) 2-amino-1-phenyl-1-propanol (norephedrine)					

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		15.87	324.4	DSC	[1999LI/ZEL]
$C_9H_{13}NO$	[14838-15-4] (±) 2-amino-1-phenyl-1-propanol (norephedrine)					
	$\Delta_{fus}H$		26.11	374.3	DSC	[1999LI/ZEL]
$C_9H_{13}NO$	[104-63-2] N-benzylethanolamine					
	Δ_vH	(293–363)	71.7	328		[2009RAZ/HAJ]
	Δ_vH	(293–363)	74.5	298		[2009RAZ/HAJ]
$C_9H_{13}NO_2$	[1075-89-4] 3,3-tetramethyleneglutarimide					
	$\Delta_{fus}H$		24.2	426.6	DSC	[2008MAT/MIR]
	$\Delta_{sub}H$		106.8 ± 2.0	298	C	[2008MAT/MIR]
$C_9H_{13}N_5$	[139909-52-7] 6,9-dimethyl-8-ethyladenine					
	$\Delta_{fus}H$		29.8	436.8		[1994ZIE/ZIE]
	$\Delta_{sub}H$	(345–351)	94.1 ± 0.1	348	ME	[1994ZIE/ZIE]
$C_9H_{13}N_5$	[117954-97-9] 8-propyl-9-methyladenine					
	$\Delta_{sub}H$	(364–370)	124.2 ± 0.8	367	ME	[1987KAM/ZIE]
$C_9H_{13}N_5O_4$	[82410-32-0] 9-[(1,3-dihydroxy-2-propoxy)methyl]guanine					
	$\Delta_{fus}H$		37.88	509.2		[1999ZIE/GOL]
C_9H_{14}	[na] 1-ethyltricyclo[2,2,1,$0^{2,6}$]heptane					
	Δ_vH		42.0 ± 0.1	298	C	[1996VAR/PAS]
C_9H_{14}	[2972-20-5] 2-methylenebicyclo[2.2.2]octane					
	Δ_vH		45.2			[1974KOZ/BYC]
C_9H_{14}	[4893-13-4] 2-methylbicyclo[2.2.2]oct-2-ene					
	Δ_vH	(363–402)	40.2	378	A	[1987STE/MAL]
	Δ_vH		43.5 ± 0.4	298	EB	[1974VAR/DRU, 1974KOZ/BYC]
C_9H_{14}	[2146-39-6] 2-vinylbicyclo[2.2.1]heptane					
	Δ_vH	(350–385)	38.6	365	A	[1987STE/MAL]
C_9H_{14}	[7124-86-9] bicyclo[3.2.2]non-6-ene					
	$\Delta_{sub}H$		48 ± 1.0	298	C	[1982JOC/DEK2]
C_9H_{14}	[6671-66-5] bicyclo[3.3.1]non-2-ene					
	$\Delta_{sub}H$		48.2 ± 0.4	298	C	[1982JOC/DEK2]
C_9H_{14}	[1456-33-0] bicyclo[4.2.1]non-3-ene					
	$\Delta_{sub}H$		49.7 ± 0.8	298	C	[1982JOC/DEK2]
$C_9H_{14}ClN_5$	[139-40-2] 2-chloro-4,6-*bis*(isopropylamino)-1,3,5-triazine					
	$\Delta_{fus}H$		41.87	490.3	DSC	[1991ACR, 1990DON/DRE]
$C_9H_{14}F_3NO_3$	[1115-39-5] N-trifluoroacetyl-*l*-leucine, methyl ester					
	Δ_vH	(273–463)	55.9	288	A	[1987STE/MAL, 1999DYK/SVO]
$C_9H_{14}N_2$	[1675-69-0] azelaic acid dinitrile					
	Δ_vH	(308–341)	80.4	323	A	[1987STE/MAL]
$C_9H_{14}N_2$	[1675-69-0] azelanitrile					
	$\Delta_{fus}H$		18.68	251.1	DSC	[2007BAD/BLA]
$C_9H_{14}N_2O_2$	[82413-39-6] 1,3-dimethyl-5-propyluracil					
	$\Delta_{fus}H$		26.3	355		[1996KAM/ZIE]
	$\Delta_{sub}H$	(317–327)	111.0 ± 1.6	322	ME	[1996KAM/ZIE]
$C_9H_{14}N_2O_2$	[175412-48-3] 1,3-dimethyl-5-isopropyluracil					

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		22.4	354.7		[1996KAM/ZIE]
	$\Delta_{sub}H$	(316–328)	102.9 ± 1.6	322	ME	[1996KAM/ZIE]
$C_9H_{14}N_2O_2$	[21472-93-5]	1,3-diethylthymine				
	$\Delta_{sub}H$		89.8 ± 0.4	298	C	[1980SAB/KOM]
	$\Delta_{sub}H$	(307–325)	95.0 ± 2.1	317	QR	[1980TEP/YAN]
$C_9H_{14}O$	[281-24-3]	2-oxaadamantane				
	$\Delta_{fus}H$		8.12	567	DSC	[1978AND/CAR]
$C_9H_{14}O$	[17931-55-4]	bicyclo[3.3.1]nonan-9-one				
	$\Delta_{trs}H$		13.99	299	DSC	[1998PAR/GIL2]
	$\Delta_{trs}H$		14.11	300.5	AC	[1991WHI/PER]
$C_9H_{14}O$	[5689-04-3]	*cis* 2-hexahydroindanone				
	Δ_vH		57.5	298		[1971SEL3]
$C_9H_{14}O$	[16484-17-6]	*trans* 2-hexahydroindanone				
	Δ_vH		56.1	298		[1971SEL3]
$C_9H_{14}O$	[20030-30-2]	2,5,6-trimethyl-2-cyclohexen-1-one				
	Δ_vH	(371–478)	45.5 ± 0.3	425		[1988BAG/GUR]
$C_9H_{14}O$	[78-59-1]	3,3,5-trimethyl-2-cyclohex-1-one (isophorone)				
	Δ_vH	(311–489)	48.6	326	A	[1987STE/MAL, 1947STU]
$C_9H_{14}O$	[504-20-1]	2,6-dimethyl-2,5-heptadien-4-one (phorone)				
	Δ_vH	(315–471)	54.1	330	A	[1987STE/MAL, 1947STU]
$C_9H_{14}O_2$	[na]	bicyclo[2.2.1]heptan-7-one ethylene ketal				
	Δ_vH	(283–318)	53.8 ± 0.2		GS	[1998VER/PEN, 2002VER]
$C_9H_{14}O_2$	[111-12-6]	methyl 2-octynoate				
	Δ_vH	(283–312)	64.5	297	A,ME	[1987STE/MAL, 1955SER/VOI]
$C_9H_{14}O_4$	[691-83-8]	diethyl citraconate				
	Δ_vH	(332–504)	54.9	347	A	[1987STE/MAL, 1947STU]
$C_9H_{14}O_4$	[2409-52-1]	diethyl itaconate				
	Δ_vH	(324–501)	51.0	339	A	[1987STE/MAL, 1947STU]
$C_9H_{14}O_4$	[2418-31-7]	diethyl mesaconate				
	Δ_vH	(335–502)	55.9	350	A	[1987STE/MAL, 1947STU]
$C_9H_{14}O_4$	[1559-02-0]	1,1-cyclopropanedicarboxylic acid diethyl ester				
	Δ_vH	(288–318)	63.9 ± 0.5		GS	[1998VER/KUM]
$C_9H_{14}O_4$	[16713-66-9]	3,3-tetramethyleneglutaric acid				
	$\Delta_{fus}H$		32.1	452.9	DSC	[2008MAT/MIR]
	$\Delta_{sub}H$		126.9 ± 2.4	298	C	[2008MAT/MIR]
$C_9H_{14}O_5$	[570-08-1]	diethyl acetylmalonate				
	Δ_vH	(363–510)	54.0	378	A	[1987STE/MAL]
$C_9H_{14}O_5$	[na]	ethyl[(1-allyloxycarbonyl)ethyl] carbonate				
	Δ_vH	(342–496)	61.3	357	A	[1987STE/MAL]
$C_9H_{14}O_5$	[na]	2-lactyloxypropionic acid, allyl ester				
	Δ_vH	(331–401)	75.1	346	A	[1987STE/MAL]
$C_9H_{14}O_5$	[57822-06-7]	3-oxononanedioic acid				
	$\Delta_{sub}H$	(312–330)	118		TPTD	[2005CHA/ZIE]

Note: Values based on TPTD method are not consistent with values determined by other experimental methods

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{14}O_6$	[102-76-1] glycerol triacetate					
	$\Delta_{fus}H$		25.8	275.3		[1996DOM/HEA]
	Δ_vH	(320–361)	81.9 ± 0.3	298	GS	[2009VER/EME2]
	Δ_vH	(440–590)	83.8 ± 0.9	298	EB	[1990DAU/HUT, 2009VER/EME2]
	Δ_vH	(284–319)	82.0	299	A	[1987STE/MAL, 1963WOO/ADI]
	Δ_vH		85.7 ± 0.3	298	C	[1986NIL/WAD]
	Δ_vH		83.4 ± 1.0	298	GCC	[1980FUC/PEA]
$C_9H_{14}O_7$	[1587-20-8] trimethyl citrate					
	Δ_vH	(379–560)	617.4	394	A	[1987STE/MAL, 1947STU]
$C_9H_{14}S$	[281-25-4] 2-thiaadamantane					
	$\Delta_{trs}H$		1.95	211		
	$\Delta_{fus}H$		8.1	597	DSC	[1978AND/CAR]
$C_9H_{14}S$	[4861-58-9] 2-pentylthiophene					
	Δ_vH		52.0 ± 1.2	298	C	[2007RIB/SAN]
$C_9H_{15}Cl_3O_2$	[na] 3-chloro-2,2-*bis*(chloromethyl)propyl butyrate					
	Δ_vH	(426–482)	73.6	441	A	[1987STE/MAL, 1999DYK/SVO]
$C_9H_{15}NOS$	[59300-33-3] carbamothioic acid, (1-methylethyl)-2-propynyl-S-ethyl ester					
	Δ_vH	(298–313)	72.8	305	A	[1987STE/MAL, 1999DYK/SVO]
$C_9H_{15}NOS$	[59300-32-2] carbamothioic acid, propyl-2-propynyl-S-ethyl ester					
	Δ_vH	(298–313)	64.6	305	A	[1987STE/MAL]
$C_9H_{15}NO_3S$	[62571-86-2] 1-[(2S)-3-mercapto-2-methyl-1-oxopropyl]-(*l*)-proline					
	$\Delta_{fus}H$		20.38	379.5	DSC	[2008STU/ROR]
$C_9H_{15}N_3O_3$	[82859-98-1] N-acetylglycyl-(*l*)-prolinamide					
	$\Delta_{trs}H$		5.6	450.6		
	$\Delta_{fus}H$		27.0	457.8		[1996PUL/BAR]
$C_9H_{15}N_3O_3$	[52186-41-1] N-acetyl-(*l*)-prolyl-glycinamide					
	$\Delta_{fus}H$		32.2	434.1	DSC	[1992BAR/GIA]
$C_9H_{15}N_3O_8$	[34001-52-0] neopentyl-4,4,4-trinitrobutyrate					
	$\Delta_{fus}H$		22.59	333.5	DSC	[1971ROS/HOL]
C_9H_{16}	[3452-09-3] 1-nonyne					
	Δ_vH	(320–464)	45.6 ± 0.2	320	EB	[2002STE/CHI4]
	Δ_vH	(320–464)	42.7 ± 0.2	360	EB	[2002STE/CHI4]
	Δ_vH	(320–464)	39.7 ± 0.3	400	EB	[2002STE/CHI4]
	Δ_vH	(320–464)	36.4 ± 0.5	440	EB	[2002STE/CHI4]
C_9H_{16}	[39124-79-3] *trans* bicyclo[6.1.0]nonane					
	Δ_vH		42.7 ± 0.6		EB	[1978COR/PER]
C_9H_{16}	[13757-43-2] *cis* bicyclo[6.1.0]nonane					
	Δ_vH		49.8 ± 0.8		EB	[1978COR/PER]
	Δ_vH	(297–360)	50.4 ± 0.8	312	A	[1987STE/MAL, 1970CHA/MCN]
C_9H_{16}	[20454-81-3] 1,4-dimethylbicyclo[2.2.1]heptane					
	Δ_vH	(328–393)	36.8	343	A	[1987STE/MAL, 1970VAR/BEL, 1984BOU/FRI]
C_9H_{16}	[20558-16-1] *trans* 2,3-dimethylbicyclo[2.2.1]heptane					
	Δ_vH	(345–411)	39.3	360	A	[1987STE/MAL, 1970VAR/BEL, 1984BOU/FRI]
C_9H_{16}	[2146-41-0] 2-ethylbicyclo[2.2.1]heptane					
	Δ_vH	(349–396)	44.4	364	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_9H_{16}	[4551-51-3]	*cis* hexahydroindan				
	$\Delta_{trs}H$		8.26	182.3		
	$\Delta_{trs}H$		0.39	184.5		
	$\Delta_{fus}H$		1.4	236.5		[1972FIN/MCC]
	Δ_vH	(263–293)	47.1	278	A	[1987STE/MAL]
	Δ_vH	(290–366)	45.9	305	A	[1987STE/MAL]
	Δ_vH	(363–463)	41.9	378	A	[1987STE/MAL]
	Δ_vH	(350–442)	42.6	365	GS	[1955CAM/ROS]
C_9H_{16}	[3296-50-2]	*trans* hexahydroindan				
	$\Delta_{fus}H$		10.9	213.9		[1972FIN/MCC]
	Δ_vH	(281–362)	45.1	296	A	[1987STE/MAL]
	Δ_vH	(356–457)	41.1	371	A	[1987STE/MAL]
	Δ_vH	(262–283)	45.9	272	A	[1987STE/MAL]
	Δ_vH	(358–479)	41.0	373	A	[1987STE/MAL]
	Δ_vH	(345–435)	41.6	360	GS	[1955CAM/ROS]
C_9H_{16}	[2114-42-3]	allylcyclohexane				
	Δ_vH		44.0 ± 0.2	298	GCC	[1979FUC/PEA]
C_9H_{16}	[1003-64-1]	ethylidenecyclohexane				
	Δ_vH		42.0 ± 0.2	298	GCC	[1979FUC/PEA]
C_9H_{16}	[175-93-9]	spiro[4.4]nonane				
	Δ_vH	(278–313)	44.5 ± 0.6	298	GS	[2002VER]
C_9H_{16}	[260-65-9]	bicyclo[3.3.1]nonane				
	$\Delta_{sub}H$		50.6 ± 2	298	TSGC	[1977PAR/STE]
$C_9H_{16}ClN_5$	[139-40-2]	2-chloro-4,6-*bis*(isopropylamino)-1,3,5-triazine				
	$\Delta_{sub}H$	(323–403)	125.1	338	GS-GC	[1987STE/MAL, 1964FRI/SAM]
$C_9H_{16}ClN_5$	[5915-41-3]	6-chloro-N-(1,1-dimethylethyl)-N′-ethyl-1,3,5-triazine-2,4-diamine				
	$\Delta_{fus}H$		33.57	448.6	DSC	[1990DON/DRE]
$C_9H_{16}Cl_4$	[1561-48-4]	1,1,1,9-tetrachlorononane				
	Δ_vH	(303–434)	78.0	318		[1999DYK/SVO]
	Δ_vH	(298–338)	89.0	313	A	[1987STE/MAL]
$C_9H_{16}NO_2$	[2896-70-0]	2,2,6,6-tetramethyl-4-oxopiperidine-1-oxyl				
	$\Delta_{sub}H$		83.3 ± 1.7		ME	[1965KAL/ROZ, 1970COX/PIL, 1987STE/MAL]
$C_9H_{16}N_2$	[2273-41-8]	2-methyl-2-piperidinopropionitrile				
	$\Delta_{fus}H$		21.59	316.2		[1997WEL/VER]
	$\Delta_{sub}H$		80.3 ± 0.5	298		[1997WEL/VER]
	Δ_vH		57.6 ± 0.4		GS	[1997WEL/VER]
$C_9H_{16}N_4OS$	[34014-18-1]	N-[5-(1,1-dimethylethyl)-1,3,4-thiadiazol-2-yl]-N,N′-dimethylurea				
	$\Delta_{fus}H$		29.48	435.3	DSC	[1991ACR, 1990DON/DRE]
$C_9H_{16}O$	[3350-30-9]	cyclononanone				
	$\Delta_{trs}H$		14.7	247		
	$\Delta_{fus}H$		1.6	298		[1998GON/SZW]
	Δ_vH	(333–413)	51.4	348	A	[1987STE/MAL]
	Δ_vH		53.1 ± 0.6	298		[1972WOL]
$C_9H_{16}O$	[2890-62-2]	1-(1-methyl-3-cyclohexen-3-yl)ethanol				
	Δ_vH	(358–410)	54.6	373	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{16}O$	[2890-62-2]	methyl (1-methylcyclohexyl) ketone				
	$\Delta_v H$	(374–414)	46.1	389	A	[1987STE/MAL]
$C_9H_{16}O$	[18829-56-6]	*trans* 2-nonenal				
	$\Delta_v H$	(363–398)	56.1	378	A	[1987STE/MAL]
$C_9H_{16}O$	[873-94-9]	(*dl*) 3,5,5-trimethylcyclohexanone				
	$\Delta_v H$	(423–463)	39.3	438	A	[1987STE/MAL]
$C_9H_{16}O$	[1000-30-2]	2,5,5-trimethyl-4-hexene-1-al				
	$\Delta_v H$	(293–353)	57.0	308	A	[1987STE/MAL]
$C_9H_{16}OS$	[22842-41-7]	tetrahydro-2,2,6,6-tetramethyl-4*H*-thiopyran-4-one				
	$\Delta_v H$	(300–360)	34.7	315	A	[1987STE/MAL, 1972GEI/SAW, 1999DYK/SVO]
$C_9H_{16}O_2$	[6222-35-1]	cyclohexyl propanoate				
	$\Delta_v H$		55.9 ± 0.1	298	C	[2004PAU/ZAI, 2003ZAI/VER]
	$\Delta_v H$	(253–293)	59.4 ± 0.8	298	ME	[2003ZAI/VER]
	$\Delta_v H$	(253–293)	56.4 ± 0.5	298	ME	[2003ZAI/VER]
	$\Delta_v H$	(274–313)	54.3 ± 0.4	298	GS	[2003ZAI/VER]
	$\Delta_v H$	(333–378)	56.8	298	CGC	[1999VER/HEI]
$C_9H_{16}O_2$	[16737-30-7]	1-methylcyclohexyl acetate				
	$\Delta_v H$	(333–378)	52.4	298	CGC	[1999VER/HEI]
$C_9H_{16}O_2$	[66922-08-5]	3-methylcyclohexyl acetate				
	$\Delta_v H$	(333–378)	53.6	298	CGC	[1999VER/HEI]
$C_9H_{16}O_2$	[22597-23-5]	4-methylcyclohexyl acetate				
	$\Delta_v H$	(333–378)	54.1	298	CGC	[1999VER/HEI]
$C_9H_{16}O_2$	[39869-70-0]	bicyclo[2.2.1]heptan-7-one dimethyl ketal				
	$\Delta_v H$	(283–318)	50.2 ± 0.2		GS	[1998VER/PEN, 2002VER]
$C_9H_{16}O_2$	[5726-19-2]	acetic acid, 2-methylcyclohexyl ester, mixed isomers				
	$\Delta_v H$	(337–457)	49.0	353	A	[1987STE/MAL]
$C_9H_{16}O_2$	[61732-95-4]	2-butyl-4,7-dihydro-1,3-dioxepine				
	$\Delta_v H$	(318–453)	50.9	333	A	[1987STE/MAL]
$C_9H_{16}O_2$	[2499-95-8]	hexyl acrylate				
	$\Delta_v H$	(342–461)	48.2	357	A	[1987STE/MAL]
$C_9H_{16}O_2$	[na]	methacrylic acid, neopentyl ester				
	$\Delta_v H$	(313–338)	40.5	325	A	[1987STE/MAL]
$C_9H_{16}O_2$	[6008-27-1]	oxo-2-cyclodecanone (nonanolactone)				
	$\Delta_v H$	(352–381)	54.5 ± 0.2	366	MM	[1991WIB/WAL]
	$\Delta_v H$	(352–381)	59.0 ± 1.3	298	MM	[1991WIB/WAL]
	$\Delta_v H$	(333–383)	60.9	348	A	[1987STE/MAL]
$C_9H_{16}O_2$	[104-61-0]	γ-nonalactone				
	$\Delta_v H$	(296–363)	70.3 ± 0.2	298	GS	[2008EME/KOZ, 2009EME/VER]
$C_9H_{16}O_2$	[3301-94-8]	δ-nonanolactone				
	$\Delta_v H$	(293–348)	70.7 ± 0.4	298	GS	[2007EME/KOZ]
$C_9H_{16}O_2$	[18362-64-6]	2,6-dimethyl-3,5-heptanedione				
	$\Delta_v H$		56.1	298		[1978RIB/IRV]
$C_9H_{16}O_2$	[2849-98-1]	pentyl methacrylate				
	$\Delta_v H$	(339–456)	47.6	354	A	[1987STE/MAL]
$C_9H_{16}O_2$	[54056-51-8]	butyl 3-methylbut-2-enoate				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(279–323)	56.6 ± 0.3	298	GS	[2008EME/TOK]
$C_9H_{16}O_2$	[30434-54-9] isobutyl 3-methylbut-2-enoate					
	$\Delta_v H$	(280–323)	54.7 ± 0.2	298	GS	[2008EME/TOK]
$C_9H_{16}O_3$	[2052-15-5] butyl levulinate					
	$\Delta_v H$	(338–511)	55.5	373	A	[1987STE/MAL]
	$\Delta_v H$		56.0	452		[1931SCH/COW]
$C_9H_{16}O_3$	[2052-15-5] sec-butyl levulinate					
	$\Delta_v H$	(393–499)	51.0	408	A	[1987STE/MAL]
$C_9H_{16}O_3$	[3757-32-2] isobutyl levulinate					
	$\Delta_v H$	(338–503)	61.5	353	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$		54.7	444		[1931SCH/COW]
$C_9H_{16}O_3$	[na] 4-methyl-1-propyl-2,6,7-trioxabicyclo[2.2.2]octane					
	$\Delta_{fus}H$		16.1	311.2		[1995RAK/VER2]
$C_9H_{16}O_4$	[na] 2-acetoxypropionic acid, butyl ester					
	$\Delta_v H$	(325–485)	63.2	340	A	[1987STE/MAL]
$C_9H_{16}O_4$	[40326-38-3] 3-acetoxypropionic acid, butyl ester					
	$\Delta_v H$	(373–391)	75.4	382	A	[1987STE/MAL]
$C_9H_{16}O_4$	[818-38-2] diethyl glutarate					
	$\Delta_v H$	(338–510)	55.7	353	A	[1987STE/MAL, 1947STU]
$C_9H_{16}O_4$	[133-13-1] ethylmalonic acid, diethyl ester					
	$\Delta_v H$	(323–485)	55.3	338	A	[1987STE/MAL, 1947STU]
$C_9H_{16}O_4$	[123-99-9] nonanedioic acid (azelaic acid)					
	$\Delta_{fus}H$		35.3	375.6	DSC	[2009CHE/XIA]
	Note: Authors explicitly state in the manuscript that no solid-solid phase transition was observed					
	$\Delta_{trs}H$		0.01	330.6		
	$\Delta_{trs}H$		0.7	339.8		
	$\Delta_{fus}H$		29.7	372.4	DSC	[2005ROU/TEM]
	$\Delta_{fus}H$		32.67	380		[1991ACR]
	$\Delta_{sub}H$	(348–373)	178 ± 5		TPD	[2007CAP/LOV]
	$\Delta_{sub}H$	(294–311)	138		TPTD	[2005CHA/ZIE]
	Note: Values based on TPTD method are not consistent with values determined by other experimental methods					
	$\Delta_{sub}H$	(367–377)	156.2 ± 0.5	372	ME	[1999RIB/MON]
	$\Delta_{sub}H$	(367–377)	159.9 ± 1.0	298	ME	[1999RIB/MON]
	$\Delta_v H$	(434–503)	119.7 ± 0.8	298	CGC	[2005ROU/TEM]
	$\Delta_v H$	(451–630)	89.3	466	A	[1987STE/MAL, 1947STU]
$C_9H_{16}O_4$	[1732-08-7] dimethyl pimelate					
	$\Delta_v H$	(291–353)	73.5 ± 0.3	298	GS	[2006VER/KOZ]
$C_9H_{16}O_5$	[na] butyl[1-(methoxycarbonyl)ethyl] carbonate					
	$\Delta_v H$	(349–510)	61.7	364	A	[1987STE/MAL]
$C_9H_{16}O_5$	[na] isobutyl[1-(methoxycarbonyl)ethyl] carbonate					
	$\Delta_v H$	(340–501)	59.1	355	A	[1987STE/MAL]
$C_9H_{16}O_5$	[na] 2-lactoylpropionic acid, propyl ester					
	$\Delta_v H$	(327–397)	73.5	342	A	[1987STE/MAL]
$C_9H_{16}O_5$	[na] methyl[1-(butoxycarbonyl)ethyl] carbonate					
	$\Delta_v H$	(311–503)	60.2	326	A	[1987STE/MAL]
$C_9H_{17}N$	[767-92-0] *trans* (R,S)-decahydroquinoline					

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		25.72	321.4		[1994STE/CHI]
	Δ_vH	(325–525)	50.4	340	EB,IP	[1994STE/CHI]
	Δ_vH	(325–525)	47.6	380	EB,IP	[1994STE/CHI]
	Δ_vH	(325–525)	45.0	420	EB,IP	[1994STE/CHI]
	Δ_vH	(325–525)	42.3	460	EB,IP	[1994STE/CHI]
	Δ_vH	(325–525)	39.5	500	EB,IP	[1994STE/CHI]
$C_9H_{17}N$	[2243-27-8]	octyl cyanide				
	Δ_vH	(285–323)	62.0 ± 0.3	298	GS	[2005EME/VER]
	Δ_vH	(328–503)	56.8	343	A	[1987STE/MAL]
	Δ_vH	(314–480)	58.0	298	EB	[1941RAL/SEL, 2005EME/VER]
$C_9H_{17}NO$	[2896-70-0]	2,2,6,6-tetramethyl-4-oxopiperidine				
	$\Delta_{sub}H$		60.8 ± 2.7		ME	[1966LEB/ROS, 1970COX/PIL]
$C_9H_{17}NO$	[14952-05-7]	*trans* 2-nonenoic acid amide				
	$\Delta_{sub}H$	(383–393)	111.9	388	A	[1987STE/MAL]
$C_9H_{17}NO_2$	[3637-11-4]	2,2,6,6-tetramethyl-1-hydroxy-4-oxopiperidine				
	$\Delta_{sub}H$	(288–328)	80.0	303	A	[1987STE/MAL]
	$\Delta_{sub}H$		80.1 ± 4.6		ME	[1965KAL/ROZ, 1970COX/PIL]
$C_9H_{17}NO_3$	[56430-36-5]	(*dl*) N-acetylvaline ethyl ester				
	Δ_vH	(382–466)	67.7	397	A	[1987STE/MAL]
$C_9H_{17}NO_3S$	[33280-93-2]	(*dl*) N-acetylmethionine ethyl ester				
	Δ_vH	(432–519)	81.6	447	A	[1987STE/MAL, 1999DYK/SVO]
$C_9H_{17}N_5O$	[1610-17-9]	2-methoxy-4-ethylamino-6-isopropylamino-1,3,5-triazine				
	$\Delta_{sub}H$	(323–403)	94.4	338	GS-GC	[1987STE/MAL, 1964FRI/SAM]
$C_9H_{17}N_5S$	[834-12-8]	2-methylthio-4-ethylamino-6-isopropylamino-1,3,5-triazine (ametryn)				
	$\Delta_{fus}H$		26.0	359.1	DSC	[2007VEC/BRU]
	$\Delta_{sub}H$	(323–403)	100.9	338	GS-GC	[1987STE/MAL, 1964FRI/SAM]
	Δ_vH		91 ± 4	466	DSC	[2007VEC/BRU]
	Δ_vH		125 ± 6	298	DSC	[2007VEC/BRU]
	Δ_vH		84.9 ± 1.3	453	TGA	[2007VEC/BRU]
	Δ_vH		118 ± 4	298	TGA	[2007VEC/BRU]
C_9H_{18}	[2040-95-1]	butylcyclopentane				
	$\Delta_{fus}H$		11.31	165.2		[1996DOM/HEA]
	Δ_vH	(413–432)	39.4	422	A	[1987STE/MAL]
	Δ_vH		43.8 ± 0.1	328	C	[1981SVO/CHA]
	Δ_vH		42.7 ± 0.1	343	C	[1981SVO/CHA]
	Δ_vH		41.6 ± 0.1	358	C	[1981SVO/CHA]
	Δ_vH		40.9 ± 0.1	368	C	[1981SVO/CHA]
	Δ_vH		46.0		298	[1971WIL/ZWO]
C_9H_{18}	[19489-10-2]	*cis* 1-ethyl-3-methylcyclohexane				
	Δ_vH	(373–465)	39.0	388	A	[1987STE/MAL]
C_9H_{18}	[696-29-7]	isopropylcyclohexane				
	Δ_vH	(295–431)	44.1	310	A	[1987STE/MAL]
	Δ_vH	(344–429)	41.1	359		[1949FOR/NOR]
C_9H_{18}	[1678-92-8]	propylcyclohexane				
	$\Delta_{fus}H$		10.6	178		[2006MAN/CUT]
	$\Delta_{fus}H$		10.37	178.3		[1991ACR]
	Δ_vH		42.8 ± 0.5	298	GC	[1987AZA]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		44.7 ± 0.4	298	GCC	[1978FUC/PEA]
	$\Delta_v H$		45.2	298		[1971WIL/ZWO]
	$\Delta_v H$		45.1	298		[1965FIN/MES]
	$\Delta_v H$		45.2	298	C	[1947OSB/GIN]
	$\Delta_v H$	(346–431)	41.7	361	A,MM	[1987STE/MAL, 1947STU, 1949FOR/NOR]
C_9H_{18}	[3073-66-3]	1,1,3-trimethylcyclohexane				
	$\Delta_v H$	(348–411)	37.7	363	A	[1987STE/MAL]
	$\Delta_v H$	(327–410)	38.6	342		[1962PAS/THO, 1984BOU/FRI]
	$\Delta_v H$	(328–411)	38.4	343		[1949FOR/NOR]
C_9H_{18}	[7094-27-1]	1,1,4-trimethylcyclohexane				
	$\Delta_v H$		45.6 ± 0.2	298		[1995LUK/KOZ2, 1995LUK/KOZ]
C_9H_{18}	[1795-27-3]	*cis* 1,3,5-trimethylcyclohexane				
	$\Delta_v H$	(318–410)	38.3	333	A	[1987STE/MAL]
C_9H_{18}	[3074-78-0]	2,6-dimethyl-1-heptene				
	$\Delta_v H$	(273–306)	46.3 ± 0.5	290	GS	[2000VER/WAN]
	$\Delta_v H$	(273–306)	45.9 ± 0.5	298	GS	[2000VER/WAN]
C_9H_{18}	[124-11-8]	1-nonene				
	$\Delta_{fus}H$		19.97	191.6		[1990MES/TOD]
	$\Delta_v H$	(278–318)	44.7 ± 0.2	298	GS	[2000VER/WAN]
	$\Delta_v H$		45.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(339–423)	42.0	354	A,MM	[1987STE/MAL, 1950FOR/CAM]
C_9H_{18}	[6434-77-1]	*cis* 2-nonene				
	$\Delta_v H$	(379–424)	40.7	394	A	[1987STE/MAL]
C_9H_{18}	[6434-78-2]	*trans* 2-nonene				
	$\Delta_v H$	(379–422)	40.8	394	A	[1987STE/MAL]
C_9H_{18}	[20237-46-1]	*cis* 3-nonene				
	$\Delta_v H$	(376–422)	40.3	391	A	[1987STE/MAL]
C_9H_{18}	[20063-92-7]	*trans* 3-nonene				
	$\Delta_v H$	(377–421)	40.6	392	A	[1987STE/MAL]
C_9H_{18}	[10405-84-2]	*cis* 4-nonene				
	$\Delta_v H$	(376–421)	40.1	391	A	[1987STE/MAL]
C_9H_{18}	[10405-85-3]	*trans* 4-nonene				
	$\Delta_v H$	(376–420)	40.4	391	A	[1987STE/MAL]
$C_9H_{18}Br_2$	[62168-27-8]	1,1-dibromononane				
	$\Delta_v H$	(427–591)	59.5	442	A,EST	[1987STE/MAL, 1956MAN, 1970DYK/VAN, 1999DYK/SVO]
$C_9H_{18}Cl_2$	[821-88-5]	1,1-dichlorononane				
	$\Delta_v H$	(420–490)	62.3	298		[1987VAR/LOS2, 1991BAS/SVO]
	$\Delta_v H$	(398–556)	54.0	413	A,EST	[1987STE/MAL, 1956MAN, 1970DYK/VAN, 1999DYK/SVO]
$C_9H_{18}Cl_2$	[56375-96-3]	1,2-dichlorononane				
	$\Delta_v H$	(430–510)	52.1	443		[1999DYK/SVO]
	$\Delta_v H$	(430–510)	62.1	298		[1986VAR, 1991BAS/SVO]
$C_9H_{18}F_2$	[62127-42-8]	1,1-difluorononane				
	$\Delta_v H$	(347–482)	47.2	362	A,EST	[1987STE/MAL, 1956MAN, 1970DYK/VAN, 1999DYK/SVO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{18}F_2$	[145853-37-8]	2,2-difluorononane				
	$\Delta_v H$	(279–313)	46.7 ± 0.2	298	GS	[1997SCH/VER]
$C_9H_{18}NO_2$	[na]	propyl 2-(N,N-dimethylamino)-2-methylpropanoate				
	$\Delta_v H$	(282–318)	54.0 ± 0.5	298	GS	[1996VER/ZUF]
$C_9H_{18}NO_2$	[na]	ethyl 2-(N,N-diethylamino)2-propanoate				
	$\Delta_v H$	(283–313)	54.9 ± 0.6	298	GS	[1996VER/ZUF]
$C_9H_{18}NO_2$	[2226-96-2]	2,2,6,6-tetramethyl-4-hydroxypiperidine-1-oxyl				
	$\Delta_{sub}H$	(293–318)	101.5 ± 5.2	306	ME	[1966LEB/ROS, 1970COX/PIL]
$C_9H_{18}N_2$	[19340-91-9]	2-(diethylamino)pentanenitrile				
	$\Delta_v H$	(283–318)	57.4 ± 0.4		GS	[1997WEL/VER]
	$\Delta_v H$	(283–326)	58.8	298	A	[1987STE/MAL]
$C_9H_{18}N_2OS$	[na]	N,N-diethyl-N′-isobutanoylthiourea				
	$\Delta_{sub}H$	363	120.8 ± 2.5	298	C	[2001RIB/RIB]
$C_9H_{18}N_2O_2$	[1842-72-4]	azelamide				
	$\Delta_{fus}H$		55.0	450.4	DSC	[2006BAD/DEL]
$C_9H_{18}N_2O_2S$	[39196-18-4]	3,3-dimethyl-1-(methylthio)-2-butanone O-[(methylamino)carbonyl]oxime				
	$\Delta_{fus}H$		19.83	330.2	DSC	[1991ACR, 1990DON/DRE]
	$\Delta_{sub}H$	(298–328)	93.5 ± 6	308	ME	[1987STE/MAL, 1976DEP]
$C_9H_{18}N_6$	[645-05-6]	1,3,5-*tris*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		23.01	444.4	DSC	[1991ACR]
$C_9H_{18}N_6$	[16268-64-7]	1-(ethylamino)-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		16.74	333	DSC	[1991ACR]
$C_9H_{18}O$	[1462-97-1]	1-butylcyclopentanol				
	$\Delta_v H$	(359–466)	63.5	374	A	[1987STE/MAL]
$C_9H_{18}O$	[815-24-7]	2,2,4,4-tetramethyl-3-pentanone				
	$\Delta_v H$		45.5 ± 0.4	298	C	[1977PEA/FUC]
	$\Delta_v H$		45.4 ± 0.1	298	C	[1970SEL2]
	$\Delta_v H$		45.4 ± 0.1	298	C	[1966WAD]
$C_9H_{18}O$	[108-83-8]	2,6-dimethyl-4-heptanone				
	$\Delta_v H$		49.8 ± 0.1	308	C	[1992SVO/KUB]
	$\Delta_v H$		49.3 ± 0.1	313	C	[1992SVO/KUB]
	$\Delta_v H$		48.4 ± 0.1	323	C	[1992SVO/KUB]
	$\Delta_v H$		47.9 ± 0.1	328	C	[1992SVO/KUB]
	$\Delta_v H$		47.1 ± 0.1	338	C	[1992SVO/KUB]
	$\Delta_v H$		46.6 ± 0.1	343	C	[1992SVO/KUB]
	$\Delta_v H$		46.1 ± 0.1	348	C	[1992SVO/KUB]
	$\Delta_v H$		45.2 ± 0.1	358	C	[1992SVO/KUB]
	$\Delta_v H$	(322–471)	51.0	298		[1975AMB/ELL]
	$\Delta_v H$		50.9 ± 0.1	298	C	[1970SEL2]
	$\Delta_v H$	(336–451)	46.8	351	A,MM	[1987STE/MAL, 1947STR/GAB]
$C_9H_{18}O$	[na]	1-(1-methylcyclohexyl)ethanol				
	$\Delta_v H$	(358–408)	55.5	373	A	[1987STE/MAL]
$C_9H_{18}O$	[124-19-6]	nonanal				
	$\Delta_{fus}H$		29.6	253.9		[1980DYA/VAS]
	$\Delta_v H$	(276–309)	55.3 ± 0.3	298	GS	[2003VER/KRA2]
	$\Delta_v H$	(323–343)	55.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(313–353)	58.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(306–458)	51.1	321	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		56.3 ± 0.2	298		[1981DYA/KOR]
$C_9H_{18}O$	[925-78-0]	2-nonanone				
	$\Delta_v H$	(285–454)	55.6	300		[1999DIA/GUE]
	$\Delta_v H$	(335–468)	52.6	350	A	[1987STE/MAL]
	$\Delta_v H$		56.6 ± 0.6	298	GCC	[1979SAL/PEA]
	$\Delta_v H$		56.4 ± 0.1	298	C	[1977SEL]
	$\Delta_v H$	(342–545)	56.4	298		[1975AMB/ELL]
	$\Delta_v H$	(335–437)	52.7	348		[1966MEY/WAG]
$C_9H_{18}O$	[502-56-7]	5-nonanone				
	$\Delta_{trs}H$		24.94	269.3		
	$\Delta_{fus}H$		11.27	451.8		[1991ACR]
	$\Delta_v H$	(443–486)	44.7	458	A	[1987STE/MAL]
	$\Delta_v H$		54.9 ± 0.4	298	GCC	[1979SAL/PEA]
	$\Delta_v H$	(357–468)	49.7	372	A	[1987STE/MAL, 1975AMB/ELL]
	$\Delta_v H$		55.0	298		[1975AMB/ELL]
	$\Delta_v H$		53.3 ± 0.1	298	C	[1970HAR/HEA]
	$\Delta_v H$	(283–323)	40.2	298	A	[1987STE/MAL, 1937RIN/SAY]
$C_9H_{18}O$	[116-02-9]	3,3,5-trimethylcyclohexanol				
	$\Delta_v H$	(343–473)	61.8	358	A	[1987STE/MAL]
$C_9H_{18}O$	[53965-16-5]	2,2,5-trimethyl-4-hexene-1-ol				
	$\Delta_v H$	(323–373)	61.5	338	A	[1987STE/MAL]
$C_9H_{18}O_2$	[858858-08-9]	2-butoxy-3-pentanone				
	$\Delta_v H$	(333–398)	39.8	348	A	[1987STE/MAL, 1933HEN/MUR]
$C_9H_{18}O_2$	[22432-66-2]	2-butyl-1,3-dioxepane				
	$\Delta_v H$	(325–358)	57.4	340	A	[1987STE/MAL]
$C_9H_{18}O_2$	[3274-29-1]	2-ethylheptanoic acid				
	$\Delta_v H$	(386–475)	63.4	401	A,EB	[1987STE/MAL, 1960TRE/MIL]
$C_9H_{18}O_2$	[4352-95-8]	2-methyl-2-pentyl-1,3-dioxolane				
	$\Delta_v H$	(278–318)	54.0 ± 0.3	298	GS	[1998VER/PEN, 2002VER]
$C_9H_{18}O_2$	[4421-10-7]	2,2-diisopropyl-1,3-dioxolane				
	$\Delta_v H$	(278–318)	49.9 ± 0.3	293	GS	[1998VER/PEN, 2002VER]
$C_9H_{18}O_2$	[1708-34-5]	2-hexyl-1,3-dioxolane				
	$\Delta_v H$	(325–353)	55.0	339	A	[1987STE/MAL]
$C_9H_{18}O_2$	[64198-22-7]	methyl 2,4,4-trimethylpentanoate				
	$\Delta_v H$	(278–318)	48.4 ± 0.2	298	GS	[1996VER/BEC]
$C_9H_{18}O_2$	[5129-37-3]	butyl pivalate				
	$\Delta_v H$	(274–313)	49.5 ± 0.2	298	GS	[2008VER/EME]
	$\Delta_v H$	(274–313)	50.4 ± 0.3	298	GS	[1996VER/BEC]
$C_9H_{18}O_2$	[589-59-3]	isobutyl isovalerate				
	$\Delta_v H$	(289–442)	47.3	304	A	[1987STE/MAL, 1947STU]
$C_9H_{18}O_2$	[106-27-4]	isopentyl butyrate				
	$\Delta_v H$	(294–452)	47.4	309	A	[1987STE/MAL, 1947STU]
$C_9H_{18}O_2$	[2050-01-3]	isopentyl isobutyrate				
	$\Delta_v H$	(287–442)	47.4	302	A	[1987STE/MAL, 1947STU]
$C_9H_{18}O_2$	[2311-46-8]	isopropyl caproate				
	$\Delta_v H$	(307–383)	51.6	322	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{18}O_2$	[111-11-5]	methyl octanoate (methyl caprylate)				
	$\Delta_v H$		53.3	350		[2002VAN/VAN]
	$\Delta_v H$		52.6 ± 0.1	363		[2002VAN/VAN]
	$\Delta_v H$		56.9 ± 0.1	298		[2002VAN/VAN]
	$\Delta_v H$		54.7 ± 0.6	298	GC	[1987AZA]
	$\Delta_v H$		57.3 ± 0.4	298	GCC	[1980FUC/PEA]
	$\Delta_v H$		57.9 ± 0.4	298	C	[1977PEA/FUC]
	$\Delta_v H$		56.4 ± 0.5	298	C	[1977MAN/SEL]
	$\Delta_v H$	(347–470)	52.4	362	A,EST	[1987STE/MAL, 1963ROS/SCH]
	$\Delta_v H$	(373–419)	50.8	388		[1961ROS/SUP, 1984BOU/FRI]
	$\Delta_v H$	(307–350)	55.2	322	MG,OM	[1952SCO/MAC]
$C_9H_{18}O_2$	[112-05-0]	nonanoic acid				
	$\Delta_{trs}H$		5.61	268		
	$\Delta_{fus}H$		20.31	285.5		[1991ACR]
	$\Delta_v H$	(381–528)	76.9	396	A	[1987STE/MAL]
	$\Delta_v H$	(292–313)	85.3 ± 2.0	304	ME,TE	[1982DEK/SCH]
	$\Delta_v H$	(293–303)	82.4 ± 0.4	298		[1968BAC/NOV]
	$\Delta_v H$	(387–483)	64.2		EB	[1960TRE/MIL]
$C_9H_{18}O_2$	[626-77-7]	propyl caproate				
	$\Delta_v H$	(315–394)	52.8	330	A	[1987STE/MAL]
	$\Delta_v H$	(315–394)	52.1	330		[1961ROS/SUP, 1984BOU/FRI]
$C_9H_{18}O_2$	[112-06-1]	heptyl acetate				
	$\Delta_v H$	(274–306)	57.1 ± 0.2	298	GS	[2006KRA/VER]
	$\Delta_v H$		56.9	298	GC	[1997KOU/HOS]
	$\Delta_v H$	(387–478)	49.2	402	DTA	[1980MEY/AWE]
$C_9H_{18}O_2$	[2050-00-2]	*tert*-amyl butyrate				
	$\Delta_v H$	(274.5-309)	50.3 ± 0.2	298	GS	[2008VER/EME]
	$\Delta_v H$	(333–378)	48.9	298	CGC	[1999VER/HEI]
	$\Delta_v H$	(278–308)	50.8 ± 0.6	298	GS	[1996VER/BEC]
$C_9H_{18}O_2$	[194784-95-5]	*tert*-amyl isobutyrate				
	$\Delta_v H$	(333–378)	47.8	298	CGC	[1999VER/HEI]
$C_9H_{18}O_2$	[245658-26-8]	2-methyl-2-pentanol propanoate				
	$\Delta_v H$	(333–378)	49.8	298	CGC	[1999VER/HEI]
$C_9H_{18}O_2$	[245658-31-5]	2,3-dimethyl-2-butanol 2-propanoate				
	$\Delta_v H$	(333–378)	49.9	298	CGC	[1999VER/HEI]
$C_9H_{18}O_2$	[15706-73-7]	butyl 2-methylbutanoate				
	$\Delta_v H$	(274–319)	54.4 ± 0.3	298	GS	[2008VER/EME]
	$\Delta_v H$	(278–313)	50.6 ± 0.5	298	GS	[1996VER/BEC]
$C_9H_{18}O_3$	[109857-47-8]	2-butoxypropionic acid, ethyl ester				
	$\Delta_v H$	(348–438)	80.3	363	A	[1987STE/MAL, 1933HEN/MUR]
$C_9H_{18}O_3$	[14144-35-5]	3-ethoxypropionic acid, butyl ester				
	$\Delta_v H$	(346–479)	51.8	361	A	[1987STE/MAL]
$C_9H_{18}O_3$	[na]	3-hydroxypropionic acid, hexyl ester				
	$\Delta_v H$	(408–432)	69.6	420	A	[1987STE/MAL]
$C_9H_{18}O_3$	[20279-51-0]	lactic acid, hexyl ester				
	$\Delta_v H$	(307–494)	67.4	322	A	[1987STE/MAL]
$C_9H_{18}O_3$	[10500-16-0]	3-methoxypropionic acid, pentyl ester				
	$\Delta_v H$	(322–485)	53.3	337	A	[1987STE/MAL]
$C_9H_{18}O_3$	[14144-41-3]	3-propoxypropionic acid, propyl ester				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(317–484)	50.9	332	A	[1987STE/MAL]
$C_9H_{18}O_3$	[542-52-9] dibutyl carbonate					
	$\Delta_v H$	(287–329)	62.9 ± 0.4	298	GS	[2008KOZ/EME]
$C_9H_{18}O_3$	[34619-03-9] di-*tert*-butylcarbonate					
	$\Delta_{sub}H$		65.4 ± 0.2	298	C	[1985KUS]
$C_9H_{18}S_4$	[25423-58-9] 1,5,9-trithiacyclododecane					
	$\Delta_{trs}H$		12	349.2		
	$\Delta_{fus}H$		19.4	373.2	DSC	[2002ROC/GRI]
$C_9H_{19}Br$	[693-58-3] 1-bromononane					
	$\Delta_{fus}H$		30.12	243.2		[1950CRO/SMY]
	$\Delta_v H$	(376–525)	53.1	391		[1999DYK/SVO]
	$\Delta_v H$	(391–549)	52.2	406	A,EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_9H_{19}Cl$	[2473-01-0] 1-chlorononane					
	$\Delta_v H$	(363–509)	51.5	378		[1999DYK/SVO]
	$\Delta_v H$	(340–480)	55.9	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(342–478)	53.4	357	A,DTA	[1987STE/MAL, 1969KEM/KRE]
$C_9H_{19}F$	[463-18-3] 1-fluorononane					
	$\Delta_v H$	(278–313)	50.8 ± 0.9	298	GS	[1994STE/CHI]
	$\Delta_v H$	(333–473)	46.8	348	A,EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 1999DYK/SVO]
$C_9H_{19}I$	[4282-42-2] 1-iodononane					
	$\Delta_v H$		64.5	298		[2006BOL/NER, 1961LI/ROS]
	$\Delta_v H$	(391–551)	54.6	406		[1999DYK/SVO]
	$\Delta_v H$	(408–577)	53.5	423	A	[1987STE/MAL, 1970DYK/VAN]
	$\Delta_v H$	(343–493)	64.3	358		[1947STU]
$C_9H_{19}N$	[768-66-1] 2,2,6,6-tetramethylpiperidine					
	$\Delta_v H$	(288–313)	44.5 ± 0.5	300		[1997VER]
$C_9H_{19}N$	[4945-48-6] N-butylpiperidine					
	$\Delta_v H$	(275–313)	49.2 ± 0.2	294	GS	[1998VER6]
	$\Delta_v H$	(275–313)	48.9 ± 0.2	298	GS	[1998VER6]
$C_9H_{19}N$	[13173-21-2] N,N-diethyl-4-pentenylamine					
	$\Delta_v H$	(338–430)	41.5	353	A	[1987STE/MAL]
$C_9H_{19}NO$	[103-00-4] 1-(cyclohexylamino)-2-propanol					
	$\Delta_v H$	(423–512)	56.6	438	A	[1987STE/MAL, 1984BOU/FRI, 1959MCD/SHR]
$C_9H_{19}NO$	[1120-07-6] nonanamide					
	$\Delta_{sub}H$	(353–370)	114.6 ± 3.3		ME	[1959DAV/JON2, 1987STE/MAL]
$C_9H_{19}NO_2$	[35601-84-4] heptylcarbamic acid, methyl ester					
	$\Delta_v H$	(368–408)	109.8	383	A	[1987STE/MAL]
$C_9H_{19}NO_2$	[3637-10-3] 2,2,6,6-tetramethyl-1,4-dihydroxypiperidine					
	$\Delta_{sub}H$	(318–348)	100.4 ± 0.6	328	ME	[1966LEB/ROS, 1970COX/PIL]
C_9H_{20}	[111-84-2] nonane					
	$\Delta_{trs}H$		6.2	218.2		
	$\Delta_{fus}H$		15.0	219.5	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		6.28	217.2		
	$\Delta_{fus}H$		15.48	219.7		[1991ACR, 1996DOM/HEA]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		74.6	219	B	[1963BON]
	Δ_vH		46.5 ± 0.2	298	C	[2007PAS/KUZ]
	Δ_vH		46.7	299	C	[1996VIT/CHA]
	Δ_vH		46	314	C	[1996VIT/CHA]
	Δ_vH		46.6 ± 0.2	298	C	[1996VAR/PAS]
	Δ_vH		46.6	298		[1994RUZ/MAJ]
	Δ_vH	(322–413)	43.9	337		[1986PAU/KRU]
	Δ_vH		44.3	328	C	[1984MAJ/SVO3]
	Δ_vH		43.2	343	C	[1984MAJ/SVO3]
	Δ_vH		42.1	358	C	[1984MAJ/SVO3]
	Δ_vH		46.4	298		[1971WIL/ZWO]
	Δ_vH	(219–308)	48.3	234	A	[1987STE/MAL, 1973CAR/KOB]
	Δ_vH		46.4	298	C	[1947OSB/GIN]
	Δ_vH	(344–426)	42.7	359	A,MM	[1987STE/MAL, 1945WIL/TAY, 1949FOR/NOR]
C_9H_{20}	[3221-61-2]	2-methyloctane				
	$\Delta_{fus}H$		17.99	192.8		[1998HEL/OWE]
	Δ_vH	(305–417)	43.2	320	A	[1987STE/MAL]
	Δ_vH		44.9	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[2216-33-3]	3-methyloctane				
	$\Delta_{fus}H$		16.99	165.6		[1998HEL/OWE]
	Δ_vH		44.9	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[2216-34-4]	4-methyloctane				
	Δ_vH		44.5	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[15869-80-4]	3-ethylheptane				
	Δ_vH		44.5	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[2216-32-2]	4-ethylheptane				
	Δ_vH		44.1	298		[1961LAB/GRE]
C_9H_{20}	[1071-26-7]	2,2-dimethylheptane				
	Δ_vH		42.3	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[3074-71-3]	2,3-dimethylheptane				
	Δ_vH		43.6	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[2213-23-2]	2,4-dimethylheptane				
	Δ_vH		42.9	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[2216-30-0]	2,5-dimethylheptane				
	Δ_vH		43.3	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[1072-05-5]	2,6-dimethylheptane				
	Δ_vH		43.3	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[4032-86-4]	3,3-dimethylheptane				
	Δ_vH		42.6	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[922-28-1]	3,4-dimethylheptane				
	Δ_vH		43.6	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[926-82-9]	3,5-dimethylheptane				
	Δ_vH		43.3	298		[1971WIL/ZWO]
C_9H_{20}	[1068-19-5]	4,4-dimethylheptane				
	Δ_vH		42.2	298		[1971WIL/ZWO, 1961LAB/GRE]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
C_9H_{20}	[1067-20-5]	3,3-diethylpentane				
	$\Delta_{trs}H$		0.48	208.3		
	$\Delta_{trs}H$		0.81	210.4		
	$\Delta_{fus}H$		10.09	240.1		[1996DOM/HEA]
	Δ_vH		42.6 ± 0.3	298	GCC	[1979FUC/PEA]
	Δ_vH		43.6	298		[1971WIL/ZWO, 1961LAB/GRE]
	Δ_vH	(335–426)	39.8	350	A	[1987STE/MAL, 1949FOR/NOR]
C_9H_{20}	[16789-46-1]	2-methyl-3-ethylhexane				
	Δ_vH		43.2	298		[1961LAB/GRE]
C_9H_{20}	[3074-75-7]	2-methyl-4-ethylhexane				
	Δ_vH		42.9	298		[1961LAB/GRE]
C_9H_{20}	[3074-76-8]	3-methyl-3-ethylhexane				
	Δ_vH		42.9	298		[1961LAB/GRE]
C_9H_{20}	[na]	3-methyl-4-ethylhexane				
	Δ_vH		43.6	298		[1961LAB/GRE]
C_9H_{20}	[16747-25-4]	2,2,3-trimethylhexane				
	Δ_vH	(238–303)	42.2	288	IP	[1974OSB/DOU]
	Δ_vH		41.7	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[16747-26-5]	2,2,4-trimethylhexane				
	Δ_vH	(288–410)	39.5	303	A	[1987STE/MAL]
	Δ_vH	(238–393)	41.0	278	A	[1987STE/MAL]
	Δ_vH	(238–303)	40.5	288	IP	[1974OSB/DOU]
	Δ_vH		40.7	298		[1971WIL/ZWO]
C_9H_{20}	[3522-94-9]	2,2,5-trimethylhexane				
	Δ_vH	(288–399)	40.1	303	A	[1987STE/MAL]
	Δ_vH	(238–303)	41.1	288	A,IP	[1987STE/MAL, 1974OSB/DOU]
	Δ_vH		40.2	298		[1971WIL/ZWO]
	Δ_vH	(319–398)	38.5	334		[1949FOR/NOR]
	Δ_vH		40.2	298	C	[1947OSB/GIN]
C_9H_{20}	[16747-28-7]	2,3,3-trimethylhexane				
	Δ_vH	(238–303)	44.2	253	A	[1987STE/MAL]
	Δ_vH	(288–422)	39.4	303	A	[1987STE/MAL]
	Δ_vH		42.1	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[921-47-1]	2,3,4-trimethylhexane				
	Δ_vH		42.7	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[1069-53-0]	2,3,5-trimethylhexane				
	Δ_vH		41.4	298		[1971WIL/ZWO]
	Δ_vH		41.4	298	C	[1947OSB/GIN]
C_9H_{20}	[16747-30-0]	2,4,4-trimethylhexane				
	Δ_vH		41.1	298		[1971WIL/ZWO, 1961LAB/GRE]
	Δ_vH	(323–406)	38.5	338	A	[1987STE/MAL, 1949FOR/NOR]
C_9H_{20}	[16747-31-2]	3,3,4-trimethylhexane				
	Δ_vH		42.2	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[16747-32-3]	2,2-dimethyl-3-ethylpentane				
	Δ_vH		41.7	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[16747-33-4]	2,3-dimethyl-3-ethylpentane				
	Δ_vH		42.7	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[1068-87-7]	2,4-dimethyl-3-ethylpentane				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		42.3	298		[1971WIL/ZWO, 1961LAB/GRE]
C_9H_{20}	[7154-79-2]	2,2,3,3-tetramethylpentane				
	$\Delta_{trs}H$		7.33	174.5		
	$\Delta_{fus}H$		2.33	263.4		[1996DOM/HEA]
	$\Delta_v H$		41.2	298		[1971WIL/ZWO, 1961LAB/GRE]
	$\Delta_v H$	(328–415)	39.2	343	A	[1987STE/MAL, 1949FOR/NOR]
C_9H_{20}	[1186-53-4]	2,2,3,4-tetramethylpentane				
	$\Delta_v H$		40.8	298		[1971WIL/ZWO, 1961LAB/GRE]
	$\Delta_v H$	(325–413)	38.4	340	A	[1987STE/MAL, 1949FOR/NOR]
C_9H_{20}	[1070-87-7]	2,2,4,4-tetramethylpentane				
	$\Delta_{fus}H$		9.75	206.7		[1996DOM/HEA]
	$\Delta_v H$		38.5 ± 0.1	298	C	[1982FUC/PEA]
	$\Delta_v H$		38.5 ± 0.3	298	GCC	[1979FUC/PEA]
	$\Delta_v H$		38.2	298		[1971WIL/ZWO, 1961LAB/GRE]
	$\Delta_v H$	(313–397)	37.2	328	A	[1987STE/MAL, 1949FOR/NOR]
	$\Delta_v H$	(331–375)	36.5	346	EB	[1941SMI, 1984BOU/FRI]
	$\Delta_v H$	(375–422)	34.8	390		[1941SMI]
C_9H_{20}	[16747-38-9]	2,3,3,4-tetramethylpentane				
	$\Delta_v H$		41.8	298		[1971WIL/ZWO, 1961LAB/GRE]
	$\Delta_v H$	(331–416)	39.3	346	A	[1987STE/MAL, 1949FOR/NOR]
$C_9H_{20}ClF_3N_2S$	[63265-72-5]	chloro*bis*(N-ethylethanaminato)(trifluoromethyl) sulfur				
	$\Delta_v H$		39.8	479	I	[1977KIT/SHR2]
$C_9H_{20}ClF_3N_2OS$	[63265-74-7]	chloro*bis*(N-ethylethanaminato)oxo(trifluoromethyl) sulfur				
	$\Delta_v H$		44.4	486	I	[1977KIT/SHR2]
$C_9H_{20}N_2O$	[1792-17-2]	1,3-dibutylurea				
	$\Delta_{trs}H$		11.1	311.5		
	$\Delta_{fus}H$		14.87	349.6		[1996DOM/HEA]
	$\Delta_{sub}H$	(323–372)	91.9 ± 0.9	348	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$	(323–372)	91.9 ± 0.9	350	ME	[2003ZAI/KAB]
	$\Delta_{sub}H$		90.0 ± 1.0	350	C	[2003ZAI/KAB]
	$\Delta_v H$	(379–413)	101.1 ± 1.6	396		[1990PIA/FER]
$C_9H_{20}N_2O$	[2158-10-3]	1-octyl urea				
	$\Delta_{trs}H$		11.8	353.2		
	$\Delta_{fus}H$		24.4	374.6	DSC	[2005HAS/TAJ]
	$\Delta_{trs}H$		11.5	350.2		
	$\Delta_{fus}H$		24.6	372.2		[1999WEL/DRU]
$C_9H_{20}N_2O$	[1187-03-7]	1,1,3,3-tetraethylurea				
	$\Delta_{fus}H$		20.55	253		[1990KOZ/SIM2, 1996DOM/HEA, 1995KAB/KOZ2]
$C_9H_{20}N_2S$	[109-46-6]	1,3-butylthiourea				
	$\Delta_{fus}H$		28.34	338	DSC	[2000DEL/JOZ]
	$\Delta_{sub}H$		141.0 ± 2	298	B	[2000DEL/JOZ]
	$\Delta_{sub}H$		137 ± 3.0	298	C	[1994TER/PIA]
	$\Delta_v H$	(368–403)	105 ± 2.0	386	ME,TE	[1994TER/PIA]
$C_9H_{20}N_2S_2$	[1518-58-7]	diethylammonium diethyldithiocarbamate				
	$\Delta_{sub}H$		209.9 ± 3.0		C	[1988RIB/REI]
	$\Delta_{sub}H$		111.8 ± 3.0			[1979CAV/HIL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
		Note: Authors of [1988RIB/REI] state compound decomposes on sublimation				
$C_9H_{20}O$	[143-08-8]	1-nonanol				
	Δ_vH	(284–353)	74.7 ± 0.3	298	GS	[2005ROG/PIS]
	Δ_vH		72.2	298	CGC	[2000OVA/KOU]
	Δ_vH	(373–423)	76.7	298	CGC	[1995CHI/HOS]
	Δ_vH	(273–323)	77.4	298		[1992NGU/KAS]
	Δ_vH	(368–500)	65.0	383	A	[1987STE/MAL]
	Δ_vH	(381–495)	62.9	396	A	[1987STE/MAL]
	Δ_vH		76.9 ± 0.8	298	C	[1977MAN/SEL]
	Δ_vH	(425–494)	59.7	440	EB	[1976HON/SIN]
	Δ_vH	(368–487)	64.5	383		[1973WIL/ZWO]
	Δ_vH	(365–487)	65.5	380	DTA	[1969KEM/KRE]
$C_9H_{20}O$	[628-99-9]	2-nonanol				
	Δ_vH	(286–324)	72.9 ± 0.6	298	GS	[2007VER/SCH]
	Δ_vH	(253–353)	79.6	268		[1999NGU/BER]
	Δ_vH	(364–471)	55.5	379		[1973WIL/ZWO]
$C_9H_{20}O$	[624-51-1]	3-nonanol				
	Δ_vH	(263–363)	70.9 ± 0.3	298	GS	[2007VER/SCH]
	Δ_vH	(263–363)	75.5	278		[1999NGU/BER]
	Δ_vH	(366–468)	57.1	381		[1973WIL/ZWO]
$C_9H_{20}O$	[5932-79-6]	4-nonanol				
	Δ_vH	(285–324)	71.5 ± 0.3	298	GS	[2007VER/SCH]
$C_9H_{20}O$	[623-93-8]	5-nonanol				
	Δ_vH	(289–334)	71.4 ± 0.4	298	GS	[2007VER/SCH]
$C_9H_{20}O$	[628-44-4]	2-methyl-2-octanol				
	Δ_vH	(338–451)	64.6	353		[1973WIL/ZWO]
$C_9H_{20}O$	[26533-34-6]	2-methyl-3-octanol				
	Δ_vH	(388–453)	49.5	403		[1973WIL/ZWO]
$C_9H_{20}O$	[5340-36-3]	3-methyl-3-octanol				
	Δ_vH	(353–388)	53.2	368		[1973WIL/ZWO]
$C_9H_{20}O$	[na]	2,2-dimethyl-4-heptanol				
	Δ_vH	(320–445)	50.2	335		[1973WIL/ZWO]
$C_9H_{20}O$	[108-82-7]	2,6-dimethyl-4-heptanol				
	Δ_vH	(278–321)	65.2 ± 0.3	298	GS	[2005ROG/PIS]
	Δ_vH	(363–453)	54.5	378		[1973WIL/ZWO]
	Δ_vH	(374–452)	52.8	389	A,MM	[1987STE/MAL, 1947STR/GAB]
$C_9H_{20}O$	[5340-41-0]	2,2,3-trimethyl-3-hexanol				
	Δ_vH	(343–441)	55.1	358		[1973WIL/ZWO]
$C_9H_{20}O$	[3452-97-9]	3,5,5-trimethyl-1-hexanol				
	Δ_vH	(288–324)	67.9 ± 0.4	298	GS	[2005ROG/PIS]
$C_9H_{20}O$	[3970-59-0]	2,4-dimethyl-3-ethyl-3-pentanol				
	Δ_vH	(369–451)	50.0	384		[1973WIL/ZWO]
$C_9H_{20}O$	[29772-39-2]	2,2,3,4-tetramethyl-3-pentanol				
	Δ_vH	(329–448)	60.8	344		[1973WIL/ZWO]
$C_9H_{20}O$	[14609-79-1]	di-*tert*-butylmethanol				
	Δ_vH		62.7 ± 0.9	298		[1998VER3]
$C_9H_{20}O$	[14609-79-1]	2,2,4,4-tetramethylpentan-3-ol				
	$\Delta_{trs}H$		1.9	263		

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		7.3	322		[1996DOM/HEA]
$C_9H_{20}O$	[3249-47-6]	butyl 1,1-dimethylpropyl ether				
	Δ_vH	(278–308)	46.1 ± 0.3	298	GS	[1996VER/BEC]
$C_9H_{20}O$	[62108-41-2]	2-methoxy-2,4,4-trimethylpentane				
	Δ_vH	(381–418)	38.5	396		[2001UUS/POK]
$C_9H_{20}O$	[62108-41-2]	methyl *tert*-octyl ether				
	Δ_vH		45.3	298		[2002VER, 2003VER/KRA]
	Δ_vH		45.33	298	EB	[2001UUS/POK, 2003VER/KRA]
$C_9H_{20}O$	[10100-95-5]	pentyl *tert*-butyl ether				
	Δ_vH		48.3	298		[2002VER, 2003VER/KRA]
	Δ_vH	(319–365)	43.7	334	EB	[1990ROZ/BAR]
	Δ_vH	(319–365)	46.9 ± 1.0	298	EB	[1990ROZ/BAR]
$C_9H_{20}O$	[10100-95-5]	isobutyl *tert*-amyl ether				
	Δ_vH		46.3	298		[2002VER, 2003VER/KRA]
$C_9H_{20}O$	[na]	sec-butyl *tert*-amyl ether				
	Δ_vH		46.8	298		[2002VER, 2003VER/KRA]
$C_9H_{20}O$	[3249-47-6]	butyl *tert*-amyl ether				
	Δ_vH		48.3	298		[2002VER, 2003VER/KRA]
$C_9H_{20}O_2$	[22419-28-9]	2,6,6-trimethyl-5-oxa-2-heptanol				
	Δ_vH	(329–454)	53.3	344		[1968KAC/NEM, 1984BOU/FRI]
$C_9H_{20}O_2$	[2568-90-3]	dibutyoxymethane				
	Δ_vH	(366–452)	47.9	381	EB	[2000PAL/SZA]
	Δ_vH	(363–452)	48.1	298	EB	[2000PAL/SZA]
$C_9H_{20}O_2$	[18854-58-5]	1-butyoxy-2-propoxyethane				
	Δ_vH		54.7 ± 0.1	298	C	[1970KUS/WAD]
$C_9H_{20}O_2$	[115-84-4]	2-butyl-2-ethyl-1,3-propanediol				
	$\Delta_{fus}H$		20.8	317.3		[2002STE/CHI]
	Δ_vH	(424–523)	74.3 ± 0.3	420	EB	[2002STE/CHI]
	Δ_vH	(424–523)	67.2 ± 0.3	460	EB	[2002STE/CHI]
	Δ_vH	(424–523)	61.4 ± 0.6	500	EB	[2002STE/CHI]
$C_9H_{20}O_2$	[22419-28-9]	4-*tert*-butoxy-2-methyl-2-butanol				
	Δ_vH	(367–483)	61.5	382	A	[1987STE/MAL]
$C_9H_{20}O_2$	[3937-56-2]	1,9-nonanediol				
	$\Delta_{fus}H$		36.4	319.6		[1991ACR]
	$\Delta_{sub}H$		148.7			[1990KNA/SAB]
	Δ_vH		104.4	360		[1994PIA/FER, 2006UMN/KWE]
	Δ_vH		111.4 ± 7.0	298		[1994PIA/FER, 2006UMN/KWE]
	Δ_vH		110	323		[1990KNA/SAB, 2006UMN/KWE]
	Δ_vH		112.8 ± 2.1	298		[1990KNA/SAB, 2006UMN/KWE]
$C_9H_{20}O_2$	[3089-24-5]	2,2,4-trimethyl-1,6-hexanediol				
	Δ_vH	(419–541)	68.0	434	A	[1987STE/MAL]
$C_9H_{20}O_2S$	[54581-77-0]	3-(hexylthio)-1,2-propanediol				
	$\Delta_{fus}H$		48.5	290.8	DSC	[1993ACR, 1990VAN/KEL]
$C_9H_{20}O_2S_2$	[na]	*meso* 1,3-*bis*(propylsufinyl)propane				
	$\Delta_{fus}H$		40.58	411.3		[2001CAL/MEL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{20}O_2S_2$	[na] racemic 1,3-*bis*(propylsufinyl)propane					
	$\Delta_{fus}H$		35.15	387.8		[2001CAL/MEL]
$C_9H_{20}O_3$	[na] dipropylene glycol isopropyl ether					
	Δ_vH	(319–479)	55.0	334	A	[1987STE/MAL, 1947STU]
$C_9H_{20}O_3$	[10305-38-1] 3-(hexyloxy)-1,2-propanediol					
	$\Delta_{fus}H$		10.2	272.9	DSC	[1990VAN/KEL]
$C_9H_{20}O_4$	[na] tripropylene glycol					
	Δ_vH	(369–541)	63.3	384	A	[1987STE/MAL]
$C_9H_{20}O_4$	[4161-32-4] 3,3′-[1,3-propanediyl*bis*(oxy)]*bis*-1-propanol					
	$\Delta_{fus}H$		21.15	263.1	DSC	[1991BED/BOO]
$C_9H_{20}O_4$	[78-09-1] tetraethoxymethane					
	Δ_vH		52.9 ± 0.2	298	C	[1985MAR/MAN]
$C_9H_{20}S$	[1455-21-6] 1-nonanethiol					
	$\Delta_{fus}H$		33.5	267.7		[1985DEA]
	Δ_vH	(390–494)	52.6	405	A	[1987STE/MAL, 1999DYK/SVO, 1932ELL/REI]
$C_9H_{20}S$	[13281-11-3] 2-nonanethiol					
	Δ_vH	(379–482)	50.3	394		[1999DYK/SVO, 1932ELL/REI]
$C_9H_{20}S_2$	[3489-28-9] 1,9-nonanedithiol					
	Δ_vH	(418–557)	63.6	433	A	[1987STE/MAL, 1999DYK/SVO, 1943HAL/REI]
$C_9H_{21}N$	[2439-54-5] N-methyl octylamine					
	Δ_vH	(365–508)	49.2	380	A	[1987STE/MAL]
$C_9H_{21}N$	[112-20-9] nonylamine					
	Δ_vH	(377–478)	50.7	392	A	[1987STE/MAL]
$C_9H_{21}N$	[102-69-2] tripropylamine					
	Δ_vH	(341–475)	45.6	356	A	[1987STE/MAL]
	Δ_vH		46.2 ± 0.1	298	C	[1969WAD]
$C_9H_{21}NO_3$	[122-20-3] triisopropanolamine					
	Δ_vH	(428–573)	73.7	443	A	[1987STE/MAL]
$C_9H_{21}O_4P$	[513-08-6] tripropylphosphate					
	Δ_vH	(394–525)	56.7	409	A	[1987STE/MAL]
$C_9H_{21}P$	[2234-97-1] tripropylphosphine					
	Δ_vH	(324–368)	39.4 ± 0.2	346		[2001BAE]
$C_9H_{22}ClN_2PS$	[58023-20-4] P-(chloromethyl)-N,N′-*bis*(1-methylpropyl)phosphorothioic diamide					
	Δ_vH	(333–368)	66.8	348	A	[1987STE/MAL, 1999DYK/SVO]
$C_9H_{22}N_2$	[646-24-2] nonane-1,9-diamine					
	$\Delta_{trs}H$		7.77	301.7		
	$\Delta_{fus}H$		36.24	308.1	DSC	[2002DAL/DEL]
$C_{10}Cl_8$	[2234-13-1] octachloronaphthalene					
	Δ_vH	(323–423)	96.1	373	GC	[1999LEI/WAN]
$C_{10}Cl_{12}$	[2385-85-5] mirex					
	Δ_vH	(343–453)	90.3	398	GC	[1990HIN/BID2]
$C_{10}F_8$	[313-72-4] octafluoronaphthalene					
	$\Delta_{trs}H$		2.12	283.6		

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		17.55	358.8		[1999MIC/NEG]
	$\Delta_{sub}H$	(293–323)	79.4 ± 2.5	308	A	[1987STE/MAL, 1974RAD/KAT]
$C_{10}F_{16}$	[54939-04-7]	perfluorobicyclo[4.4.0]dec-1(6)-ene				
	$\Delta_{trs}H$		0.75	200		
	$\Delta_{trs}H$		1.12	234		
	$\Delta_{fus}H$		10.47	263		[1996DOM/HEA]
	Δ_vH		45.3 ± 0.1	298	C	[1996VAR/DRU]
$C_{10}F_{18}$	[60433-11-6]	perfluoro(*cis*-decahydronaphthalene)				
	$\Delta_{trs}H$		4.24	232.5		
	$\Delta_{fus}H$		10.3	266.7		[1996DOM/HEA]
	Δ_vH	(313–415)	43.9	328		[1999DYK/SVO]
	Δ_vH		46.2 ± 0.1	298	C	[1996VAR/DRU]
	Δ_vH		46.7 ± 0.6	298	EB	[1981VAR/BUL]
	Δ_vH		46.2 ± 0.1	298	C	[1981VAR/BUL]
$C_{10}F_{18}$	[60433-12-7]	perfluoro(*trans*-decahydronaphthalene)				
	$\Delta_{fus}H$		17.96	294.6		[1996DOM/HEA]
	Δ_vH	(315–417)	43.3	330		[1999DYK/SVO]
	Δ_vH		45.4 ± 0.1	298	C	[1996VAR/DRU]
	Δ_vH		45.9 ± 0.6	298	EB	[1981VAR/BUL]
	Δ_vH		45.4 ± 0.1	298	C	[1981VAR/BUL]
$C_{10}F_{18}$	[306-94-5]	perfluorodecalin				
	Δ_vH	(288–333)	41.5 ± 0.5	298		[2005DIA/GON]
$C_{10}F_{20}$	[35328-43-9]	perfluoro-1-decene				
	Δ_vH	(315–399)	42.3	330		[1999DYK/SVO]
	Δ_vH		45.2 ± 0.6	298	EB	[1981VAR/BUL]
$C_{10}F_{20}$	[116667-53-9]	perfluoro(1-methyl-4-isopropyl)cyclohexane				
	Δ_vH	(339–418)	42.7	354		[1999DYK/SVO]
	Δ_vH		46.7 ± 0.5	298	EB	[1981VAR/BUL]
$C_{10}F_{20}$	[na]	perfluoro(isobutylcyclohexane)				
	Δ_vH	(327–415)	43.4	342		[1999DYK/SVO]
	Δ_vH		46.3 ± 0.6	298	EB	[1981VAR/BUL]
	Δ_vH		46.7 ± 0.1	298	C	[1981VAR/BUL]
$C_{10}F_{20}N_2S$	[77984-27-1]	2,2,3,3,4,4,5,5-octafluoro-1,1,2,3,4,5-hexahydro-1-[[2,2,2-trifluoro-1-(trifluoromethyl)-1-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]amino]ethyl]imino]thiophene				
	Δ_vH		29.3	389		[1981ABE/SHR]
$C_{10}F_{22}$	[307-45-9]	perfluorodecane				
	Δ_vH	(404–543)	34	420	A	[1987STE/MAL, 1967ERM/SKR, 1999DYK/SVO]
$C_{10}F_{22}O$	[464-36-8]	*bis*(undecafluoropentyl)ether				
	Δ_vH	(337–411)	49.9 ± 1.5	298	EB	[1989VAR/PAS]
	Δ_vH		49.5 ± 0.1	298	C	[1989VAR/PAS]
	Δ_vH	(288–313)	51.5	300	A	[1987STE/MAL, 1999DYK/SVO]
	Δ_vH		47.3 ± 0.8	298	EB	[1976KOL/SLA]
$C_{10}F_{22}O_8$	[927699-29-4]	perfluoro-2,4,6,8,11,13,15.17-octaoxy-n-octadecane				
	Δ_vH	(363–437)	61.9 ± 1.2	298	EB	[2006DRU/KRO]
$C_{10}HCl_5F_{14}O_2$	[335-74-0]	2,2,3,4,4,5,6,6,7,8,8,9,10,10-tetradecafluoro-3,5,7,9,10-pentachlorodecanoic acid				
	Δ_vH	(373–578)	80.6	388	A	[1987STE/MAL, 1957BAR/SEF, 1999DYK/SVO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}HCl_7$	[58863-14-2]	1,2,3,4,5,6,7-heptachloronaphthalene				
	$\Delta_{trs}H$		8.54	454.5		
	$\Delta_{fus}H$		8.75	456	DSC	[2006LAH/PAA]
	Δ_vH	(323–423)	90.6	373	GC	[1999LEI/WAN]
$C_{10}H_2Cl_6$	[90948-28-0]	1,2,4,5,6,8-hexachloronaphthalene				
	$\Delta_{fus}H$		28.89	449.4	DSC	[2006LAH/PAA]
	Δ_vH	(323–423)	85.3	373	GC	[1999LEI/WAN]
$C_{10}H_2Cl_6$	[103426-94-4]	1,2,3,5,7,8-hexachloronaphthalene				
	Δ_vH	(323–423)	85.0	373	GC	[1999LEI/WAN]
$C_{10}H_2Cl_6$	[103426-97-7]	1,2,3,5,6,7-hexachloronaphthalene				
	Δ_vH	(323–423)	84.5	373	GC	[1999LEI/WAN]
$C_{10}H_2Cl_6$	[103426-96-6]	1,2,3,4,6,7-hexachloronaphthalene				
	Δ_vH	(323–423)	84.5	373	GC	[1999LEI/WAN]
$C_{10}H_2O_6$	[89-32-7]	1,2,4,5-benzenetetracarboxylic dianhydride (pyromellitic acid dianhydride)				
	$\Delta_{fus}H$		15.82	557.2		[1996DOM/HEA]
	$\Delta_{trs}H$		3.38	505.9		
	$\Delta_{fus}H$		32.39	558.9	DSC	[1984WEI/LEF]
	$\Delta_{sub}H$		122.3 ± 2.4	298	C	[2007MAT/MIR2]
	$\Delta_{sub}H$		100.4	559		[1975BAG/AND]
	$\Delta_{sub}H$		88.4			[1967MUL/MUK]
	Δ_vH	(641–665)	79.6	576	A	[1987STE/MAL]
$C_{10}H_3Cl_5$	[150224-24-1]	1,2,3,5,8-pentachloronaphthalene				
	$\Delta_{trs}H$		14.39	387.8		
	$\Delta_{trs}H$		0.92	443.4		
	$\Delta_{fus}H$		8.44	453.3	DSC	[2006LAH/PAA]
	Δ_vH	(323–423)	80.5	373	GC	[1999LEI/WAN]
$C_{10}H_3Cl_5$	[53555-65-0]	1,2,3,5,7-pentachloronaphthalene				
	$\Delta_{fus}H$		27.14	444.9	DSC	[2006LAH/PAA]
	Δ_vH	(323–423)	78.2	373	GC	[1999LEI/WAN]
$C_{10}H_3Cl_5$	[67922-26-3]	1,2,3,4,6-pentachloronaphthalene				
	$\Delta_{trs}H$		15.64	404.2		
	$\Delta_{fus}H$		8.41	412.7	DSC	[2006LAH/PAA]
	Δ_vH	(323–423)	78.9	373	GC	[1999LEI/WAN]
$C_{10}H_3Cl_5$	[150224-16-1]	1,2,3,6,7-pentachloronaphthalene				
	$\Delta_{fus}H$		22.94	416.6	DSC	[2006LAH/PAA]
$C_{10}H_3Cl_5$	[150205-21-3]	1,2,3,7,8-pentachloronaphthalene				
	$\Delta_{fus}H$		17.55	381.6	DSC	[2006LAH/PAA]
$C_{10}H_3Cl_5$	[150224-17-2]	1,2,4,6,7-pentachloronaphthalene				
	$\Delta_{fus}H$		22.58	404.3	DSC	[2006LAH/PAA]
$C_{10}H_3Cl_5$	[150224-22-9]	1,2,4,6,8-pentachloronaphthalene				
	$\Delta_{fus}H$		19.75	429	DSC	[2006LAH/PAA]
$C_{10}H_4Cl_2O_2$	[117-80-6]	2,3-dichloro-1,4-naphthalenedione				
	$\Delta_{fus}H$		28.53	469	DSC	[1991ACR, 1990DON/DRE]
$C_{10}H_4Cl_4$	[67922-21-8]	1,2,4,7-tetrachloronaphthalene				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(323–423)	72.1	373	GC	[1999LEI/WAN]
$C_{10}H_4Cl_4$	[53555-63-8] 1,2,3,5-tetrachloronaphthalene					
	$\Delta_{fus}H$		27.14	453	DSC	[2006LAH/PAA]
	$\Delta_v H$	(323–423)	73.4	373	GC	[1999LEI/WAN]
$C_{10}H_4Cl_4$	[20020-02-4] 1,2,3,4-tetrachloronaphthalene					
	$\Delta_{trs}H$		10.53	440.5		
	$\Delta_{trs}H$		1.33	454.3		
	$\Delta_{fus}H$		11.54	470.8	DSC	[2006LAH/PAA]
	$\Delta_v H$	(323–423)	73.2	373	GC	[1999LEI/WAN]
$C_{10}H_4Cl_4$	[149864-82-4] 1,2,7,8-tetrachloronaphthalene					
	$\Delta_{fus}H$		14.62	401.3	DSC	[2006LAH/PAA]
$C_{10}H_4Cl_8O$	[27304-13-8] 2,3,4,5,6,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro-2,5-methano-2*H*-indeno-[1,2-b]oxirene (oxychlordane)					
	$\Delta_v H$	(373–403)	75		GC	[2007GOE/MCC]
$C_{10}H_5Cl_3$	[50402-52-3] 1,2,3-trichloronaphthalene					
	$\Delta_{fus}H$		18.44	354.7	DSC	[2006LAH/PAA]
	$\Delta_v H$	(323–423)	68	373	GC	[1999LEI/WAN]
$C_{10}H_5Cl_7$	[76-44-8] 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-endomethanoindene (heptachlor)					
	$\Delta_{fus}H$		20.72	362.2	TGA,DSC	[2000ROD/VEC]
	$\Delta_{trs}H$		23.4	358.2		
	$\Delta_{fus}H$		2.09	371	DSC	[1995KSI/NAG]
	$\Delta_v H$	(343–453)	76.5	398	GC	[1990HIN/BID2]
$C_{10}H_5Cl_7O$	[1024-57-3] 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro-4,7-endo-methanoindan					
	$\Delta_{trs}H$		18.9	385.2		
	$\Delta_{fus}H$		2.85	434.9	DSC	[1995KSI/NAG]
	$\Delta_v H$	(373–423)	75		GC	[2007GOE/MCC]
$C_{10}H_5Cl_9$	[5103-73-1] *cis* nonachlor					
	$\Delta_v H$	(343–453)	83.8	398	GC	[1990HIN/BID2]
$C_{10}H_5Cl_9$	[39765-80-5] *trans* nonachlor					
	$\Delta_v H$	(343–453)	85.5	398	GC	[1990HIN/BID2]
$C_{10}H_6BrNO_2$	[13380-67-1] 1-(4-bromophenyl)-1*H*-pyrrole-2,5-dione					
	$\Delta_{sub}H$	(350–370)	105.9 ± 0.7		C	[1998KIS/KAS]
$C_{10}H_6Br_2$	[83-53-4] 1,4-dibromonaphthalene					
	$\Delta_{sub}H$	(297–322)	90.8 ± 1.7		ME	[2008GOL/SUU2]
$C_{10}H_6Cl_2$	[2050-69-3] 1,2-dichloronaphthalene					
	$\Delta_v H$	(323–423)	60.7	373	GC	[1999LEI/WAN]
$C_{10}H_6Cl_2$	[1825-31-6] 1,4-dichloronaphthalene					
	$\Delta_v H$	(323–423)	58.7	373	GC	[1999LEI/WAN]
$C_{10}H_6Cl_4O_4$	[1861-32-1] dimethyltetrachloroterephthalane (chlorthal)					
	$\Delta_{sub}H$	(348–433)	104.9 ± 1.4	390	ME,GS	[1981DEP]
$C_{10}H_6Cl_4O_4$	[1861-32-1] dimethyl-2,3,5,6-tetrachloro-1,4-benzenedicarboxylate					
	$\Delta_{fus}H$		30.23	431.7		[1991ACR]
$C_{10}H_6Cl_8$	[5103-71-9] *cis* chlordane					
	$\Delta_v H$	(323–409)	83	338		[1999DYK/SVO]
	$\Delta_v H$	(343–453)	82	398	GC	[1990HIN/BID2]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_6Cl_8$	[5103-74-2]	*trans* chlordane				
	$\Delta_v H$	(373–409)	81.7	388		[1999DYK/SVO]
	$\Delta_v H$	(343–453)	80.7	398	GC	[1990HIN/BID2]
$C_{10}H_6Cl_8$	[5103-71-9]	1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-4,7-ethano-1*H*-indene				
	$\Delta_{fus}H$		23.15	379.9	DSC	[1990DON/DRE]
$C_{10}H_6F_3NO_2$	[53518-15-3]	4-trifluoromethyl-7-aminocoumarin				
	$\Delta_{fus}H$		31.7	494.8	DSC	[1991ZHA/HUA]
$C_{10}H_6N_2$	[1436-43-7]	2-cyanoquinoline				
	$\Delta_{sub}H$		89.3 ± 3.3	298	C	[1995RIB/MAT2]
	$\Delta_{sub}H$	(312–326)	93.4 ± 0.7	319	ME	[1995RIB/MAT2]
	$\Delta_{sub}H$		94.4 ± 0.7	298		[1995RIB/MAT2]
$C_{10}H_6N_2$	[34846-64-5]	3-cyanoquinoline				
	$\Delta_{sub}H$		91.3 ± 1.8	298	C	[1995RIB/MAT2]
	$\Delta_{sub}H$	(312–326)	93.4 ± 0.7	319	ME	[1995RIB/MAT2]
	$\Delta_{sub}H$		93.2 ± 0.8	298		[1995RIB/MAT2]
$C_{10}H_6N_2O_4$	[7300-93-8]	1-(3-nitrophenyl)-1*H*-pyrrole-2,5-dione				
	$\Delta_{sub}H$	(350–370)	115.7 ± 0.9		C	[1998KIS/KAS]
$C_{10}H_6N_2O_4$	[4338-06-1]	1-(4-nitrophenyl)-1*H*-pyrrole-2,5-dione				
	$\Delta_{sub}H$	(350–370)	117.3 ± 1.2		C	[1998KIS/KAS]
$C_{10}H_6N_2O_6$	[605-71-0]	1,5-dinitronaphthalene				
	$\Delta_v H$	(506–642)	74.7	521	A	[1987STE/MAL]
$C_{10}H_6N_2O_6$	[602-38-0]	1,8-dinitronaphthalene				
	$\Delta_v H$	(553–715)	78.5	568	A	[1987STE/MAL]
$C_{10}H_6OS_2$	[49833-12-7]	naphthalene 1,8-disulfide S-oxide				
	$\Delta_{trs}H$		3.2	363		
	$\Delta_{fus}H$		23.3	421.2	DSC	[1975CUC]
$C_{10}H_6O_2$	[130-15-4]	1,4-naphthoquinone				
	$\Delta_{sub}H$		91.0 ± 0.8	298	C	[1989RIB/RIB]
	$\Delta_{sub}H$		90.7 ± 2	313	TE,ME	[1981DEK/SMI]
	$\Delta_{sub}H$		72.4 ± 3.8			[1956MAG, 1970COX/PIL]
(**$C_{10}H_6O_2$**)–(**$C_{10}H_8O_2$**)	[21414-85-7]	(1,4-naphthoquinone)-(1,4-naphthohydroquinone)				
	$\Delta_{sub}H$		102.3 ± 2	342.4	ME,TE	[1981DEK/SMI]
2(**$C_{10}H_6O_2$**)–(**$C_{10}H_8O_2$**)	[66653-77-8]	2(1,4-naphthoquinine)-(1,4-naphthohydroquinone)				
	$\Delta_{sub}H$		88.7 ± 3	328.5	ME,TE	[1981DEK/SMI]
$C_{10}H_6S_2$	[209-22-3]	naphthalene 1,8-disulfide				
	$\Delta_{fus}H$		13.0	394.8	DSC	[1975CUC2]
$C_{10}H_7Br$	[90-11-9]	1-bromonaphthalene				
	$\Delta_{fus}H$		15.16	271.4		[1991ACR]
	$\Delta_v H$	(303–336)	63.9 ± 0.4	298	GS	[2003VER]
	$\Delta_v H$	(357–555)	58.5	372		[1987STE/MAL]
	$\Delta_v H$	(295–359)	56 ± 6	329	ME	[1980URB/GIG]
	$\Delta_v H$	(469–559)	45.8	484	A,EB	[1987STE/MAL, 1976HON/SIN, 1999DYK/SVO]
$C_{10}H_7Br$	[580-13-2]	2-bromonaphthalene				
	$\Delta_{trs}H$		5.76	319		
	$\Delta_{fus}H$		14.4	329		[1996DOM/HEA]
	$\Delta_{sub}H$		81.2 ± 1.0	298	C	[1993RIB/FER]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(275–378)	64 ± 5	298	TE,ME	[1981FER/PIA]
	Δ_vH	(330–360)	66.1 ± 0.4	298	GS	[2003VER]
	Δ_vH	(330–378)	42.5	354		[1999DYK/SVO]
	Δ_vH	(322–359)	40.4	340	ME,TE	[1981FER/PIA]
$C_{10}H_7Cl$	[90-13-1]	1-chloronaphthalene				
	$\Delta_{fus}H$		12.9	270.7		[1991ACR]
	Δ_vH		64.7	298		[2006BOL/NER2]
	Δ_vH	(289–332)	62.0 ± 0.4	298	GS	[2003VER]
	Δ_vH		64.0 ± 0.3	298	GS	[2001PUR/CHI]
	Δ_vH	(323–423)	58.6	373	GC	[1999LEI/WAN]
	Δ_vH	(353–553)	59.6	368	A	[1987STE/MAL, 1947STU]
	Δ_vH	(400–435)	57.8	415	A	[1987STE/MAL]
$C_{10}H_7Cl$	[91-58-7]	2-chloronaphthalene				
	$\Delta_{fus}H$		14.7	332		[1991ACR]
	Δ_vH	(332–362)	62.3 ± 1.1	298	GS	[2003VER]
	Δ_vH	(400–435)	57.9	417		[1999DYK/SVO]
	Δ_vH	(323–423)	58.5	373	GC	[1999LEI/WAN]
$C_{10}H_7Cl_5O$	[58138-08-2]	2-(3,5-dichlorophenyl)-2-(2,2,2-trichloroethyl)oxirane				
	$\Delta_{fus}H$		18.54	313.2	DSC	[1990DON/DRE]
$C_{10}H_7Cl_7$	[2589-15-3]	1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindan				
	$\Delta_{sub}H$	(333–353)	83.8	343		[1987STE/MAL, 1974BES/CHE]
	Δ_vH	(333–353)	83.8	343		[1999DYK/SVO]
$C_{10}H_7F_3O_2$	[326-06-7]	benzoyltrifluoroacetone				
	$\Delta_{sub}H$		87.1 ± 0.9	298	ME	[1992RIB/MON]
$C_{10}H_7F_5O_2$	[24277-51-0]	pentafluoropropionic acid, 3-tolyl ester				
	Δ_vH	(371–446)	48.5	386	A,EB	[1987STE/MAL, 1969SHE/LAN, 1999DYK/SVO]
$C_{10}H_7F_5O_2$	[24271-52-1]	pentafluoropropionic acid, 4-tolyl ester				
	Δ_vH	(371–448)	48.3	386	A,EB	[1987STE/MAL, 1969SHE/LAN, 1999DYK/SVO]
$C_{10}H_7I$	[90-14-2]	1-iodonaphthalene				
	$\Delta_{fus}H$		15.91	280		[1991ACR]
	Δ_vH	(303–347)	69.9 ± 0.3	298	GS	[2003VER]
	Δ_vH	(321–428)	78.9	336		[1999DYK/SVO]
$C_{10}H_7I$	[612-55-5]	2-iodonaphthalene				
	$\Delta_{fus}H$		16.04	327.6		[1991ACR]
	$\Delta_{sub}H$		90.8			[1956SMI]
$C_{10}H_7NO_2$	[86-57-7]	1-nitronaphthalene				
	$\Delta_{fus}H$		17.3	328.9	DSC	[2010KES/AUC]
	$\Delta_{fus}H$		18.43	329.9		[1991ACR]
	$\Delta_{sub}H$	(305–321)	94.4 ± 0.4	313	ME	[2006RIB/AMA3]
	$\Delta_{sub}H$	(305–321)	95.1 ± 0.4	298	ME	[2006RIB/AMA3]
	$\Delta_{sub}H$	(309–326)	U68.5 ± 1.9	318		[1987STE/MAL, 1974RAD/KAT]
	$\Delta_{sub}H$	(325–332)	106.9	328.5		[1987STE/MAL]
	$\Delta_{sub}H$		107.1 ± 2.1			[1950NIT/SEK, 1970COX/PIL]
	Δ_vH	(332–580)	66.4	347	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_7NO_2$	[581-89-5]	2-nitronaphthalene				
	$\Delta_{fus}H$		14.5	348.2		[2010KES/AUC]
$C_{10}H_7NO_2$	[131-91-9]	1-nitroso-2-naphthol				
	$\Delta_{sub}H$		86.6 ± 4.2		ME	[1968HAM/FAG, 1977PED/RYL]
$C_{10}H_7NO_2$	[132-53-6]	2-nitroso-1-naphthol				
	$\Delta_{sub}H$		56.5 ± 4.2		ME	[1968HAM/FAG, 1977PED/RYL]
$C_{10}H_7NO_2$	[605-60-7]	4-nitroso-1-naphthol				
	$\Delta_{sub}H$		87.4 ± 4.2		ME	[1968HAM/FAG, 1977PED/RYL]
$C_{10}H_7NO_2$	[941-69-5]	1-phenyl-1*H*-pyrrole-2,5-dione				
	$\Delta_{sub}H$	(350–370)	98.1 ± 1		C	[1998KIS/KAS]
$C_{10}H_7N_3S$	[148-79-8]	2-(4-thiazolyl)-1*H*-benzimidazole (thiabendazole)				
	$\Delta_{fus}H$		35.2	573.2	DSC	[2010MUE/ESC]
$C_{10}H_8$	[275-51-4]	azulene				
	$\Delta_{fus}H$		17.53	373.5	DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(283–326)	78.4 ± 1.3	303	HSA	[1998CHI/HES]
	$\Delta_{sub}H$		72.7	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(290–372)	82.8	305	S	[1987STE/MAL]
	$\Delta_{sub}H$		82.9	298	H	[1987STE/MAL, 1993CHI/HOS]
	$\Delta_{sub}H$	(253–293)	75.8	273		[1958HOY/PEP]
	$\Delta_{sub}H$		75.3	298	H	[1987STE/MAL, 1993CHI/HOS]
	$\Delta_{sub}H$		76.8 ± 0.2		C	[1972MOR]
	$\Delta_{sub}H$	(293–323)	95.4 ± 0.4	298	ME	[1962BAU/GUN, 1970COX/PIL]
	$\Delta_{sub}H$		67.6			[1947HEI/WIE]
	$\Delta_{v}H$		52.8	298	CGC	[1998CHI/HES]
	$\Delta_{v}H$	(369–515)	53.0	384	A	[1987STE/MAL]
	$\Delta_{v}H$	(442–534)	51.2	457	EB	[1977MEY/GEN]
	$\Delta_{v}H$	(373–423)	55.5	373		[1962BAU/GUN]
$C_{10}H_8$	[91-20-3]	naphthalene				
	$\Delta_{fus}H$		19.1	353.5	DSC	[2008SHA/GUP]
	$\Delta_{fus}H$		16.44	353.8	DSC	[2007HAF/MAH]
	$\Delta_{fus}H$		19.55	354.7	DSC	[2006KHI/DAH2]
	$\Delta_{fus}H$		19.55	354.7	DSC	[2006KHI/DAH]
	$\Delta_{fus}H$		19.1	Not given	DSC	[2003SHA/KAN]
	$\Delta_{fus}H$	(5–440)	19.0	353.4	AC	[2002CHI/KNI]
	$\Delta_{fus}H$		19.1	353.4		[1991ACR]
	$\Delta_{sub}H$	(267–303)	88.0 ± 2.5		ME	[1998BOL/WIE]
	$\Delta_{sub}H$		70.4	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(313–353)	71.7	333	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(243–273)	73.7 ± 1.0	258	GS	[1994WAN/SHU]
	$\Delta_{sub}H$	(337–352)	78.2 ± 1		GC	[1988KHU]
	$\Delta_{sub}H$		70.9 ± 04	323	DSC	[1988TOR/BAR]
	$\Delta_{sub}H$		72.3 ± 0.4	298	DSC	[1988TOR/BAR]
	$\Delta_{sub}H$	(299–331)	73.4	315	GS	[1986SAT/INO]
	$\Delta_{sub}H$	(333–393)	69.9		GS	[1985MAT/KUW2]
	$\Delta_{sub}H$	(293–331)	72.3 ± 0.8		QR	[1985GLU/ARK]
	$\Delta_{sub}H$	(283–323)	75.8 ± 1.1	303	GS	[1983SON/ZOL]
	$\Delta_{sub}H$		72.6 ± 0.4		DSC	[1983HOL]
	$\Delta_{sub}H$		72.6 ± 0.1	298	TE,ME,DM	[1983VAN/JAC, 1981DEK/KUI]
	$\Delta_{sub}H$	(302–352)	72.8	327	GS	[1982GRA/FOS]
	$\Delta_{sub}H$	(271–285)	72.8 ± 0.3		ME	[1982COL/JIM]
	$\Delta_{sub}H$		72.4 ± 0.7	298	C	[1982MUR/SAK]
	$\Delta_{sub}H$	(274–353)	72.5 ± 0.1		DM	[1981DEK/KUI]
	$\Delta_{sub}H$	(328–398)	76.0 ± 2.0		DSC	[1980MUR/CAV]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(253–273)	72.6 ± 0.6		TE	[1980DEK]
	$\Delta_{sub}H$	(280–305)	71.3	293	GS	[1979MAC/PRA]
	$\Delta_{sub}H$	(253–273)	74.77 ± 0.4		TE	[1977DEK/VAN]
	$\Delta_{sub}H$	(253–273)	73.9 ± 0.2		ME	[1977DEK/VAN]
	$\Delta_{sub}H$	(303–329)	74.35 ± 1.7		TSGC	[1975MCE/SAN]
	$\Delta_{sub}H$		72.3 ± 0.4		C	[1976FER/PIA]
	$\Delta_{sub}H$	(263–343)	72.5 ± 0.3		DM	[1975AMB/LAW]
	$\Delta_{sub}H$		67.8 ± 3.5	280	HSA	[1975CHI]
	$\Delta_{sub}H$		72.5	298	GS	[1974SIN]
	$\Delta_{sub}H$		72.7 ± 1.7			[1974RAD/KAT]
	$\Delta_{sub}H$	(281–290)	64 ± .5		LE	[1973MCE/SAN]
	$\Delta_{sub}H$		72.1 ± 0.25	298	C	[1972MOR]
	$\Delta_{sub}H$		73.0 ± 0.3	298	C	[1972IRV]
	$\Delta_{sub}H$	(283–323)	72.7		ME	[1971RAD]
	$\Delta_{sub}H$		66.5			[1968KAR/RAB]
	$\Delta_{sub}H$	(230–260)	72.7 ± 0.3		KG	[1963MIL, 1970COX/PIL]
	$\Delta_{sub}H$	(276–283)	66.3		V	[1959AIH]
	$\Delta_{sub}H$	(283–303)	65.8	293	Effusion	[1958SKL/MAR]
	$\Delta_{sub}H$	(253–283)	69.2	268		[1958HOY/PEP]
	$\Delta_{sub}H$	(273–311)	72.1	292		[1957SHE/BRY]
	$\Delta_{sub}H$	(279–294)	72.4			[1953BRA/CLE2, 1960JON, 1954SEA/HOP]
	$\Delta_{sub}H$		64.0	298	ME	[1951INO]
	$\Delta_{sub}H$	(288–306)	65.7	297	Effusion	[1940ZIB]
	$\Delta_{sub}H$		66.5 ± 1.7	298	QF	[1938WOL/WEG]
	$\Delta_{sub}H$	(237–276)	76.6			[1926AND]
	$\Delta_{sub}H$	(283–303)	82.0	293	ME	[1925SWA/MAC]
	Δ_vH		54.6	298	CGC	[2008ZHA/UNH]
	Δ_vH	(333–403)	60.3 ± 1.1	298	GC	[2006HAF/PAR]
	Δ_vH	(323–473)	56.1	398	GC	[2002LEI/CHA]
	Δ_vH	(491–747)	47.6 ± 1.8		DSC	[1998BOL/WIE]
	Δ_vH		53.4	298	CGC	[1998CHI/HES]
	Δ_vH	(460–647)	45.4	475	DSC	[1996BAC/GRZ]
	Δ_vH	(403–453)	56.6	298	CGC	[1995CHI/HOS]
	Δ_vH		48.7 ± 0.3	400	EB	[1993CHI/KNI]
	Δ_vH		46.4	440	EB	[1993CHI/KNI]
	Δ_vH		44.0	480	EB	[1993CHI/KNI]
	Δ_vH		41.5	520	EB	[1993CHI/KNI]
	Δ_vH	(513–613)	44.4	528		[1993LEE/HOL]
	Δ_vH	(418–613)	47.9	423	EB	[1990AMB/EWI]
	Δ_vH	(352–500)	50.6	367	A	[1987STE/MAL]
	Δ_vH	(491–565)	44.8	506	A	[1987STE/MAL]
	Δ_vH	(563–663)	43.2	578	A	[1987STE/MAL]
	Δ_vH	(661–750)	43.3	676	A	[1987STE/MAL]
	Δ_vH		51.5		GS	[1985MAT/KUW2]
	Δ_vH	(441–727)	44.7	466		[1981WIL/JOH]
	Δ_vH	(353–388)	50.3 ± 0.2	370		[1981DEK/KUI]
	Δ_vH	(354–453)	50.7	369		[1968FOW/TRU]
	Δ_vH	(399–491)	49.0	414		[1955CAM/ROS]
	Δ_vH		51.5			[1952GOT]
	Δ_vH		46.4	441	C	[1951BAR/MCC]
	Δ_vH		48.3	379	I	[1943CRA]
	Δ_vH	(373–473)	47.2	423	I	[1923MOR/MUR]
	Δ_vH	(360–494)	47.7	427	I	[1922NEL/SEN]
$C_{10}D_8$	[1146-65-2] naphthalene-d_8					
	$\Delta_{sub}H$	(282–323)	70.6 ± 0.5	303	GS	[1983SON/ZOL]
	Δ_vH		54.7	298	CGC	[2008ZHA/UNH]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_8BrNO_2$	[574-98-1]	N-(2-bromoethyl)phthalimide				
	$\Delta_{sub}H$		108.7 ± 1.0	298	C	[2007RIB/SAN3]
$C_{10}H_8Br_2N_2$	[3138-86-1]	2,3-*bis*(bromomethyl)quinoxaline				
	$\Delta_{fus}H$		32.43	423.6	DSC	[2000MON/HIL2]
	$\Delta_{sub}H$	(351–365)	111.7 ± 0.5	358	ME	[2000MON/HIL2]
	$\Delta_{sub}H$	(351–365)	114.0 ± 2.0	298	ME	[2000MON/HIL2]
$C_{10}H_8ClNO_2$	[6270-06-0]	N-(2-chloroethyl)phthalimide				
	$\Delta_{sub}H$		98.4 ± 1.9	298	C	[2007RIB/SAN3]
$C_{10}H_8ClN_3O$	[1698-60-8]	5-amino-4-chloro-2-phenyl-3(2*H*)-pyridazinone				
	$\Delta_{fus}H$		26.75	479.2	DSC	[1991ACR, 1990DON/DRE]
$C_{10}H_8ClN_3O_2$	[5707-69-7]	4-(2-chlorophenylhydrazone)-3-methyl-5-isoxazolone				
	$\Delta_{fus}H$		28.04	440.4	DSC	[1990DON/DRE]
$C_{10}H_8Cl_2O_6$	[24648-18-8]	3,6-dichloro-2,5-dihydroxyterephthalate				
	$\Delta_{trs}H$		1.7	380		
	$\Delta_{fus}H$ *(white)*		41.0	455		[1990RIC/YAN]
	$\Delta_{fus}H$ *(white)*		44.6	461	DSC	[1972BYR/CUR]
	$\Delta_{trs}H$ (*yellow--white*)		2.6	403	DSC	[1972BYR/CUR]
$C_{10}H_8NO_2$	[87-51-4]	indole-3-acetic acid				
	$\Delta_{sub}H$	(313–423)	64.0 ± 1.5	368	ME	[1988TOR/BAR]
$C_{10}H_8N_2$	[366-18-7]	2,2′-bipyridine				
	$\Delta_{fus}H$		20.4	345	DSC	[2009LIP/HAN]
	$\Delta_{sub}H$		81.8 ± 2.3	298	C	[1995RIB/MOR]
	$\Delta_{sub}H$		75.0 ± 5.0	298	B	[1996CHA/EMM]
	$\Delta_{sub}H$		81.9 ± 0.3			[1985SKI/PIL]
	$\Delta_{v}H$		67.0 ± 2.3	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
$C_{10}H_8N_2$	[581-47-5]	2,4′-bipyridine				
	$\Delta_{fus}H$		17.4	332.8	DSC	[2009LIP/HAN]
	$\Delta_{sub}H$		87.9 ± 1.7	298	C	[1995RIB/MOR]
	$\Delta_{v}H$		70.9 ± 1.6	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
$C_{10}H_8N_2$	[553-26-4]	4,4′-bipyridine				
	$\Delta_{fus}H$		16.1	377.5	DSC	[2009LIP/HAN]
	$\Delta_{sub}H$		106.3 ± 2.8	298	C	[1995RIB/MOR]
	$\Delta_{v}H$		71.1 ± 2.6	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
$C_{10}H_8N_2$	[3438-48-0]	4-phenylpyrimidine				
	$\Delta_{fus}H$		18.8	334.1	DSC	[2009LIP/HAN]
	$\Delta_{v}H$		68.8 ± 2.5	298	CGC	[2009LIP/HAN]
$C_{10}H_8N_2O_2$	[3634-83-1]	1,3-*bis*(isocyanatomethyl)benzene				
	$\Delta_{v}H$	(403–473)	46.7	418	A	[1987STE/MAL]
$C_{10}H_8N_2O_2$	[1014-98-8]	1,4-*bis*(isocyanatomethyl)benzene				
	$\Delta_{v}H$	(403–473)	56.9	418	A	[1987STE/MAL]
$C_{10}H_8N_2O_2$	[64711-83-7]	benzene, ethyldiisocyanato (mixed isomers)				
	$\Delta_{v}H$	(363–473)	60.7	378	A	[1987STE/MAL, 1977ZHU/MEL]
$C_{10}H_8N_2O_2$	[881-07-2]	8-nitroquinaldine				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(346–360)	108.3 ± 0.8	353	ME	[1997RIB/MAT5]
	$\Delta_{sub}H$	(346–360)	111.0 ± 0.8	298	ME	[1997RIB/MAT5]
$C_{10}H_8N_2O_3$	[6118-65-6]	3-acetamidophthalimide				
	$\Delta_{sub}H$	(428–468)	108.5	443	A	[1987STE/MAL, 1956KLO]
$C_{10}H_8O$	[90-15-3]	1-naphthol				
	$\Delta_{fus}H$		23.3	368.7	DSC	[2002RAI/PAN]
	$\Delta_{fus}H$		24.4	369.7	DSC	[1998RAI/RAI]
	$\Delta_{fus}H$		23.01	369		[1991ACR]
	$\Delta_{fus}H$		23.47	368.2	C	[1926AND/LYN]
	$\Delta_{sub}H$	(296–313)	91.2 ± 0.4		ME	[1974COL/ROU2]
	$\Delta_{sub}H$	(279–328)	89.1 ± 1.7	304	ME	[1974ARS]
	$\Delta_{sub}H$	(298–312)	93.3	305	A	[1987STE/MAL, 1960AIH]
	$\Delta_{sub}H$	(314–324)	84.3	319	A	[1987STE/MAL, 1960AIH]
		Note: In Ref. [1960AIH] the author mentions that there may be a small phase transition at 39.4 °C as evidenced in the log P versus 1/T graph				
	$\Delta_{sub}H$		91.5 ± 3.8	298	B	[1926AND/LYN, 1970COX/PIL, 1927MAY/BER]
	Δ_vH	(399–556)	58.5	414	A	[1987STE/MAL]
	Δ_vH	(423–563)	60.8	473		[1927MAY/BER]
$C_{10}H_8O$	[135-19-3]	2-naphthol				
	$\Delta_{fus}H$	(363–413)	20.9	392.5	DSC	[2003ROJ/ORO]
	$\Delta_{fus}H$		18.79	393.6	C	[1991ACR, 1926AND/LYN]
	$\Delta_{sub}H$		85.5 ± 1.2	298	DSC	[2003ROJ/ORO]
	$\Delta_{sub}H$	(305–323)	94.2 ± 0.5		ME	[1974COL/ROU2]
	$\Delta_{sub}H$	(277–324)	87.4 ± 2.5	300	ME	[1974ARS]
	$\Delta_{sub}H$	(283–323)	78.7 ± 0.8	298	A	[1968KAR/RAB, 1977PED/RYL, 1987STE/MAL]
	$\Delta_{sub}H$	(298–312)	97.8	305	A	[1987STE/MAL, 1960AIH]
	$\Delta_{sub}H$	(314–332)	87.8	323	A	[1987STE/MAL, 1960AIH]
		Note: In reference [1960AIH] the author mentions that there may be a small Phase transition at 39.1 °C as evidenced in the log P versus 1/T graph				
	$\Delta_{sub}H$		83.0 ± 3.8	298	B	[1926AND/LYN, 1927MAY/BER, 1970COX/PIL]
	Δ_vH	(393–433)	76.2	298	CGC	[1995CHI/HOS]
	Δ_vH	(401–561)	59.7	416	A	[1987STE/MAL]
	Δ_vH	(417–561)	59.7	432		[1955VON/GEB]
	Δ_vH	(423–563)	61.8	473		[1927MAY/BER]
$C_{10}H_8O$	[4759-11-9]	1,6-oxido[10]annulene				
	$\Delta_{sub}H$		80.4 ± 8.4		B	[1969BRE/HAG, 1977PED/RYL]
$C_{10}H_8OS_3$	[532-11-6]	5-(4-methoxyphenyl)-3*H*-1,2-dithiole-3-thione				
	$\Delta_{fus}H$		24.39	382.2	DSC	[1999DOL/LEC]
$C_{10}H_8O_2$	[571-60-8]	1,4-naphthohydroquinone				
	$\Delta_{sub}H$		119 ± 1	381	ME,TE	[1981DEK/SMI]
$C_{10}H_8O_2$	[574-00-5]	1,2-dihydroxynaphthalene				
	$\Delta_{sub}H$		109.3 ± 0.9	298	C	[1988RIB/RIB]
$C_{10}H_8O_2$	[132-86-5]	1,3-dihydroxynaphthalene				
	$\Delta_{sub}H$		116.0 ± 1.1	298	C	[1988RIB/RIB]
$C_{10}H_8O_2$	[92-44-4]	2,3-dihydroxynaphthalene				
	$\Delta_{sub}H$		109.6 ± 1.0	298	C	[1988RIB/RIB]
	$\Delta_{sub}H$	(341–359)	109.4 ± 0.5	350	ME	[1979COL/JIM2]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_8O_3$	[90-33-5]	4-methyl-7-hydroxycoumarin				
	$\Delta_{fus}H$		29.14	460.7		[1996DOM/HEA]
$C_{10}H_9Br$	[2007844-51-7]	bromobullvalene				
	$\Delta_{fus}H$		14.2	317.2	DSC	[1998LUS/OLI]
$C_{10}H_9Cl$	[27576-94-9]	chlorobullvalene				
	$\Delta_{fus}H$		13.5	287.2	DSC	[1998LUS/OLI]
$C_{10}H_9Cl_2NO$	[2164-09-2]	N-(3,4-dichlorophenyl)-2-methyl-2-propenamide				
	$\Delta_{fus}H$		32.04	395.5	DSC	[1991ACR, 1990DON/DRE]
$C_{10}H_9Cl_3O_3$	[1928-39-8]	(2,4,5-trichlorophenoxy)acetic acid, ethyl ester				
	Δ_vH	(444–573)	76.4	459	A	[1987STE/MAL, 1999DYK/SVO]
$C_{10}H_9Cl_3O_3$	[1928-37-6]	methyl 2-(2,4,5-trichlorophenoxy)propionate				
	$\Delta_{fus}H$		31.95	360.6		[1991ACR]
$C_{10}H_9Cl_3O_3$	[93-80-1]	4-(2,4,5-trichlorophenoxy)butanoic acid				
	$\Delta_{fus}H$		30.28	386.7	DSC	[1991ACR, 1990DON/DRE]
$C_{10}H_9Cl_4NO_2S$	[2425-06-1]	N-[(1,1,2,2-tetrachloroethyl)thio]-4-cyclohexene-1,2-dicarboximide				
	$\Delta_{fus}H$		40.22	432.7	DSC	[1990DON/DRE]
	$\Delta_{fus}H$		43.1	432	DSC	[1969PLA/GLA]
$C_{10}H_9I$	[207844-52-8]	iodobullvalene				
	$\Delta_{fus}H$		15.5	376.2	DSC	[1998LUS/OLI]
$C_{10}H_9IO_2$	[122200-58-2]	methyl-4-iodocubanecarboxylate				
	$\Delta_{fus}H$		22.3	395		[2010GRI/TSA]
$C_{10}H_9N$	[91-63-4]	2-methylquinoline (quinaldine)				
	$\Delta_{fus}H$		12.52	270.5	AC,DSC	[2005CHI/STE]
	Δ_vH	(319–553)	62.6 ± 0.1	298	IP,EB	[2005CHI/STE]
	Δ_vH	(319–553)	61.0 ± 0.1	320	IP,EB	[2005CHI/STE]
	Δ_vH	(319–553)	58.2 ± 0.1	360	IP,EB	[2005CHI/STE]
	Δ_vH	(319–553)	55.6 ± 0.1	400	IP,EB	[2005CHI/STE]
	Δ_vH	(319–553)	53.0 ± 0.1	440	IP,EB	[2005CHI/STE]
	Δ_vH	(319–553)	50.4 ± 0.1	480	IP,EB	[2005CHI/STE]
	Δ_vH	(319–553)	47.7 ± 0.2	520	IP,EB	[2005CHI/STE]
	Δ_vH		66.1 ± 1.9	298	C	[1995RIB/MAT]
	Δ_vH	(281–313)	61.2	297	GS	[1980VAN/PRA]
	Δ_vH	(443–521)	54.7	548	A,EB	[1987STE/MAL, 1961MAL2, 1961MAL]
$C_{10}H_9N$	[612-58-8]	3-methylquinoline				
	Δ_vH	(443–528)	55.8	458	A	[1987STE/MAL, 1961MAL2]
$C_{10}H_9N$	[491-35-0]	4-methylquinoline (lepidine)				
	Δ_vH		67.6 ± 1.8	298	C	[1995RIB/MAT]
	Δ_vH	(463–539)	58.2	478	A,EB	[1987STE/MAL, 1961MAL2, 1961MAL]
$C_{10}H_9N$	[91-62-3]	6-methylquinoline				
	Δ_vH		67.7 ± 1.8	298	C	[1995RIB/MAT]
	Δ_vH	(453–540)	56.1	468	A	[1987STE/MAL]
$C_{10}H_9N$	[612-60-2]	7-methylquinoline				
	Δ_vH	(493–532)	56.7	508	A,EB	[1987STE/MAL, 1961MAL]
$C_{10}H_9N$	[611-32-5]	8-methylquinoline				
	$\Delta_{fus}H$		10.73	246.9	AC,DSC	[2005CHI/STE]
	Δ_vH	(324–553)	62.1 ± 0.1	298	IP,EB	[2005CHI/STE]
	Δ_vH	(324–553)	59.2 ± 0.1	340	IP,EB	[2005CHI/STE]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(324–553)	56.6 ± 0.1	380	IP,EB	[2005CHI/STE]
	$\Delta_v H$	(324–553)	54.0 ± 0.1	420	IP,EB	[2005CHI/STE]
	$\Delta_v H$	(324–553)	51.3 ± 0.1	460	IP,EB	[2005CHI/STE]
	$\Delta_v H$	(324–553)	49.0 ± 0.2	500	IP,EB	[2005CHI/STE]
	$\Delta_v H$	(324–553)	46.2 ± 0.3	540	IP,EB	[2005CHI/STE]
	$\Delta_v H$		65.7 ± 1.9	298	C	[1995RIB/MAT]
	$\Delta_v H$	(493–523)	52.2	508	A,EB	[1987STE/MAL, 1961MAL]
$C_{10}H_9N$	[134-32-7]	1-naphthylamine				
	$\Delta_{fus}H$		15.53	323.2		[1991ACR]
	$\Delta_{sub}H$	(290–320)	88.1 ± 0.4	298	GS	[2007VER/GEO]
	$\Delta_{sub}H$		90.0 ± 4.2		TE	[1947BAL, 1970COX/PIL]
	$\Delta_v H$	(323–353)	73.3 ± 0.4	298	GS	[2007VER/GEO]
	$\Delta_v H$	(377–574)	63.6	392	A	[1987STE/MAL, 1947STU]
$C_{10}H_9N$	[91-59-8]	2-naphthylamine				
	$\Delta_{fus}H$		23.33	386.2		[1991ACR]
	$\Delta_{sub}H$	(283–323)	73.9	298	A	[1987STE/MAL]
	$\Delta_{sub}H$		74.1 ± 1.7			[1968KAR/RAB, 1977PED/RYL]
	$\Delta_{sub}H$		88.3 ± 4.2			[1947STU, 1970COX/PIL]
	$\Delta_v H$	(388–579)	63.5	403	A	[1987STE/MAL, 1947STU]
$C_{10}H_9NO$	[5263-87-6]	6-methoxyquinoline				
	$\Delta_v H$		78.1 ± 2.3	298	C	[2003RIB/SAN]
$C_{10}H_9NO$	[5343-98-6]	β-cyanopropiophenone				
	$\Delta_{sub}H$		101.7 ± 4.2		ME	[1969LEB/DNE, 1977PED/RYL]
	$\Delta_{sub}H$	(318–333)	108.5	325.5	A	[1987STE/MAL]
$C_{10}H_9NO$	[826-81-3]	2-methyl-8-hydroxyquinoline				
	$\Delta_{sub}H$	(296–307)	90.4 ± 0.7		ME	[1989RIB/MON]
	$\Delta_{sub}H$		87.2 ± 1.9		C	[1989RIB/MON]
	$\Delta_{sub}H$	(308–333)	87.9		ME	[1987STE/MAL, 1963HOR/WEN]
$C_{10}H_9NO$	[18615-86-6]	2-methyl-4-hydroxyquinoline				
	$\Delta_{sub}H$	(424–442)	132.2 ± 1.0	433	ME	[1990RIB/MAT]
	$\Delta_{sub}H$		139.0 ± 1.0	298		[1990RIB/MAT]
$C_{10}H_9NO$	[607-66-9]	4-methyl-2-hydroxyquinoline				
	$\Delta_{sub}H$	(391–405)	123.1 ± 1.6	398	ME	[1990RIB/MAT]
	$\Delta_{sub}H$		128.1 ± 1.6	298		[1990RIB/MAT]
$C_{10}H_9NO_2$	[87-51-4]	indole-3-acetic acid				
	$\Delta_{sub}H$	(313–423)	64.0 ± 1.4U	368	ME	[1988GAL/GON]
$C_{10}H_9NO_2$	[26093-31-2]	4-methyl-7-aminocoumarin				
	$\Delta_{fus}H$		32.09	499.9		[1996DOM/HEA]
$C_{10}H_9NO_2$	[5022-29-7]	N-ethylphthalimide				
	$\Delta_{sub}H$		90.9 ± 1.2	298	C	[2006RIB/SAN]
$C_{10}H_9NO_2$	[6563-13-9]	6-methoxyquinoline N-oxide				
	$\Delta_{sub}H$		117.9 ± 1.0	298	C	[2003RIB/SAN]
$C_{10}H_{10}$	[5603-34-9]	pentacyclo[4.4.0.0^{2,5}0^{3,8}0^{4,7}]dec-9-ene (basketene)				
	$\Delta_{fus}H$		2.72	331.8	DSC	[2002VER/KUM]
	$\Delta_{sub}H$	(274–313)	55.4 ± 0.5	294	GS	[2002VER/KUM]
	$\Delta_{sub}H$	(274–313)	55.3 ± 0.5	298	GS	[2002VER/KUM]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{10}$	[21604-76-2] tricyclo[4.2.2.0^{2,5}]dec-3,7,9-triene					
	$\Delta_{fus}H$		1.46	293.7	DSC	[2002VER/KUM]
	Δ_vH	(296–326)	47.2 ± 0.4	311	GS	[2002VER/KUM]
	Δ_vH	(296–326)	47.9 ± 0.4	298	GS	[2002VER/KUM]
$C_{10}H_{10}$	[26934-61-2] 2,2a,2b,3,5a,5b-hexahydro-1,2,3-metheno-1*H*-cycloprop[cd]indene (snoutene)					
	$\Delta_{fus}H$		7.87	334	DSC	[2002VER/KUM]
	$\Delta_{sub}H$	(274–313)	58.9 ± 0.4	294	GS	[2002VER/KUM]
	$\Delta_{sub}H$	(274–313)	58.7 ± 0.4	298	GS	[2002VER/KUM]
$C_{10}H_{10}$	[108-57-6] 1,3-divinylbenzene					
	Δ_vH	(305–453)	48.3	320	A	[1987STE/MAL, 1947STU]
$C_{10}H_{10}$	[77-73-6] dicyclopentadiene					
	Δ_vH	(307–440)	42.4	322		[1947STU]
$C_{10}H_{10}$	[447-53-0] 1,2-dihydronaphthalene					
	$\Delta_{fus}H$	(5–444)	10.53	264.4	AC	[2008CHI/STE]
	Note: Authors report two solid/solid phase transitions having negligible enthalpy of transition					
	Δ_vH		54.8 ± 0.1	298	IP,EB	[2008CHI/STE]
	Δ_vH		53.4 ± 0.1	320	IP,EB	[2008CHI/STE]
	Δ_vH		50.8 ± 0.1	360	IP,EB	[2008CHI/STE]
	Δ_vH		48.4 ± 0.1	400	IP,EB	[2008CHI/STE]
	Δ_vH		45.9 ± 0.1	440	IP,EB	[2008CHI/STE]
	Δ_vH	(274–319)	51.9 ± 0.4	296	GS	[1999VER6]
	Δ_vH	(274–319)	51.9 ± 0.4	298	GS	[1999VER6]
$C_{10}H_{10}$	[612-17-9] 1,4-dihydronaphthalene					
	$\Delta_{fus}H$		9.35	298.1	DSC	[1999VER6]
	$\Delta_{sub}H$		63.6 ± 1.6	298		[1999VER6]
	Δ_vH	(300–333)	53.2 ± 0.4	296	GS	[1999VER6]
	Δ_vH	(300–333)	54.2 ± 0.4	298	GS	[1999VER6]
$C_{10}H_{10}$	[5187-81-5] diisopropenyldiacetylene					
	Δ_vH		50.2			[1977LEB/RYA]
$C_{10}H_{10}$	[1005-51-2] bullvalene					
	$\Delta_{fus}H$		15.25	366.5		[1996DOM/HEA]
	$\Delta_{sub}H$		71.8	298	C	[1981MAN/SUN]
$C_{10}H_{10}Cl_2O_3$	[533-23-3] (2,4-dichlorophenoxy)acetic acid, ethyl ester					
	Δ_vH	(444–573)	72.6	459	A	[1987STE/MAL, 1999DYK/SVO]
$C_{10}H_{10}Cl_2O_3$	[94-82-6] 4-(2,4-dichlorophenoxy)butyric acid					
	$\Delta_{fus}H$		35.0	395.5	DSC	[2005VEC/BRU]
	$\Delta_{fus}H$		38.42	391.4		[1991ACR]
	$\Delta_{sub}H$		124 ± 6	298	DSC	[2005VEC/BRU]
	$\Delta_{sub}H$	(356–391)	146 ± 1	374	TE	[2005VEC/BRU]
	$\Delta_{sub}H$	(356–391)	149 ± 2	298	TE	[2005VEC/BRU]
$C_{10}H_{10}N_2$	[2243-62-1] 1,5-diaminonaphthalene					
	$\Delta_{sub}H$	(367–389)	118.5 ± 0.9	378	ME	[2010RIB/FER]
	$\Delta_{sub}H$	(367–389)	122.5 ± 0.9	298	ME	[2010RIB/FER]
	$\Delta_{sub}H$	(345–371)	120.2 ± 0.7	298	GS	[2007VER/GEO]
$C_{10}H_{10}N_2$	[479-27-6] 1,8-diaminonaphthalene					
	$\Delta_{fus}H$		16.15	339.8	DSC	[2007VER/GEO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(314–338)	97.6 ± 0.7	326	ME	[2010RIB/FER]
	$\Delta_{sub}H$	(314–338)	99.0 ± 0.7	298	ME	[2010RIB/FER]
	$\Delta_{sub}H$	(304–335)	94.1 ± 0.4	298	GS	[2007VER/GEO]
	Δ_vH	(339–379)	79.6 ± 0.3	298	GS	[2007VER/GEO]
$C_{10}H_{10}N_2$	[10199-67-4]	1-benzylpyrazole				
	Δ_vH		73.8 ± 2.0	298	C	[1999MO/YAN]
$C_{10}H_{10}N_2$	[2379-55-7]	2,3-dimethylquinoxaline				
	$\Delta_{fus}H$		22.35	379.5	DSC	[2000MON/HIL2]
	$\Delta_{sub}H$	(294–308)	87.7 ± 0.4	301	ME	[2000MON/HIL2]
	$\Delta_{sub}H$		87.8 ± 0.4	298	ME	[2000MON/HIL2]
	$\Delta_{sub}H$		85.8 ± 1.8	298	C	[1996RIB/MOR]
$C_{10}H_{10}N_2$	[6628-04-2]	4-aminoquinaldine				
	$\Delta_{sub}H$	(352–373)	112.1 ± 0.8	363	ME	[1998RIB/CAR]
	$\Delta_{sub}H$		115.3 ± 0.8	298		[1998RIB/CAR]
$C_{10}H_{10}N_2$	[4238-71-5]	1-benzylimidazole				
	$\Delta_{sub}H$		102.1 ± 0.4	298	ME	[1999MO/YAN]
$C_{10}H_{10}N_2O_2$	[6118-66-7]	3-dimethylaminophthalimide				
	$\Delta_{sub}H$	(392–431)	90.9	407	RG	[1987STE/MAL, 1956KLO]
$C_{10}H_{10}N_2O_2$	[5432-74-6]	2,3-dimethylquinoxaline 1,4-dioxide				
	$\Delta_{sub}H$		124.4 ± 2.7	298	C	[2004RIB/GOM2]
$C_{10}H_{10}N_2O_5$	[143248-63-9]	2,3-dihydro-3-[2-(nitrooxy)ethyl]-4*H*-1,3-benzoxazin-4-one				
	$\Delta_{fus}H$		23.0	326.3	DSC	[1996FON/ROS]
$C_{10}H_{10}N_4O_2S$	[68-35-9]	4-amino-N-(2-pyrmidinyl)benzene sulfonamide (sulfadiazine)				
	$\Delta_{fus}H$		44.3	532.7	DSC	[2003MAR/AVI, 2002MAR/GOM]
	$\Delta_{fus}H$		44.3	520.4		[1985MAR/WU]
	$\Delta_{fus}H$		31.2	538.7	DTA	[1971SUN/EIS]
$C_{10}H_{10}O$	[101-39-3]	2-methyl-3-phenyl-2-propenal				
	Δ_vH	(401–556)	59.3 ± 0.2	400	EB	[2002STE/CHI4]
	Δ_vH	(401–556)	56.3 ± 0.2	440	EB	[2002STE/CHI4]
	Δ_vH	(401–556)	53.4 ± 0.2	480	EB	[2002STE/CHI4]
	Δ_vH	(401–556)	50.5 ± 0.4	520	EB	[2002STE/CHI4]
	Δ_vH	(401–556)	47.7 ± 0.6	560	EB	[2002STE/CHI4]
	Δ_vH	(343–393)	71.5	358	A	[1987STE/MAL]
$C_{10}H_{10}O$	[122-57-6]	4-phenyl-3-buten-2-one				
	Δ_vH	(354–534)	58.5	369	A	[1987STE/MAL, 1947STU]
$C_{10}H_{10}O$	[529-34-0]	1-tetralone				
	Δ_vH	(284–324)	65.0 ± 0.3	298	GS	[1998VER4]
	Δ_vH	(388–535)	61.5	403	A	[1987STE/MAL]
$C_{10}H_{10}O_2$	[103-26-4]	*trans* cinnamic acid, methyl ester				
	$\Delta_{fus}H$		33.1	309		[2002STE/CHI4]
	Δ_vH	(409–557)	59.9 ± 0.2	420	EB	[2002STE/CHI4]
	Δ_vH	(409–557)	56.9 ± 0.2	460	EB	[2002STE/CHI4]
	Δ_vH	(409–557)	53.8 ± 0.3	500	EB	[2002STE/CHI4]
	Δ_vH	(409–557)	50.5 ± 0.5	540	EB	[2002STE/CHI4]
	Δ_vH	(288–333)	62.4	303	A	[1987STE/MAL]
	Δ_vH	(350–536)	58.3	365	A	[1987STE/MAL, 1947STU]
$C_{10}H_{10}O_2$	[6781-42-6]	1,3-diacetylbenzene				
	Δ_vH	(323–418)	43.2	338	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{10}O_2$	[1009-61-6] 1,4-diacetylbenzene					
	$\Delta_v H$	(388–431)	82.2	403	A	[1987STE/MAL]
$C_{10}H_{10}O_2$	[120-58-1] isosafrole					
	$\Delta_v H$	(393–531)	59.4	408	A	[1987STE/MAL]
$C_{10}H_{10}O_2$	[1199-77-5] *α*-methylcinnamic acid					
	$\Delta_v H$	(398–561)	78.5	413	A	[1987STE/MAL, 1947STU]
$C_{10}H_{10}O_2$	[1963-36-6] 4-methoxycinnamaldehyde					
	$\Delta_{fus}H$		19.0	332.7		[2008TEM/ROU]
$C_{10}H_{10}O_2$	[94-59-7] safrole					
	$\Delta_v H$	(336–506)	54.6	351	A	[1987STE/MAL, 1947STU]
$C_{10}H_{10}O_2$	[15844-05-0] 4-carboxypentacyclo[4.3.0.0.^{2,5}0^{4,7}]nonane					
	$\Delta_v H$		82.0		C	[1984BEC/RUC]
$C_{10}H_{10}O_2$	[93-91-4] 1-phenyl-1,3-butanedione					
	$\Delta_{sub}H$		91.0 ± 0.6	298	ME	[1992RIB/MON]
	$\Delta_{sub}H$	(278–300)	83.7	289	V	[1987STE/MAL, 1959AIH]
$C_{10}H_{10}O_2$	[28315-93-7] 5-hydroxy-*α*-tetralone					
	$\Delta_{fus}H$		33.67	480.1	DSC	[2009MAT/SOU3]
	$\Delta_{sub}H$		118.5 ± 1.5	298	C	[2009MAT/SOU3]
$C_{10}H_{10}O_2$	[3470-50-6] 6-hydroxy-*α*-tetralone					
	$\Delta_{trs}H$		13.02	387.5		
	$\Delta_{fus}H$		18.98	425.9	DSC	[2009MAT/SOU3]
	$\Delta_{sub}H$		117.5 ± 1.4	298	C	[2009MAT/SOU3]
$C_{10}H_{10}O_2S$	[16192-08-8] p-tolyl propadienyl sulfone					
	$\Delta_{sub}H$		113 ± 2.5		B	[1969MAC/STE, 1970COX/PIL]
$C_{10}H_{10}O_2S$	[14027-53-3] p-tolyl prop-1-ynyl sulfone					
	$\Delta_{sub}H$		103.3 ± 2.5		B	[1969MAC/STE, 1970COX/PIL]
$C_{10}H_{10}O_2S$	[16192-07-7] p-tolyl prop-2-ynyl sulfone					
	$\Delta_{sub}H$		107.5 ± 2.5		B	[1969MAC/STE, 1970COX/PIL]
$C_{10}H_{10}O_3$	[14737-91-8] *cis*-2-methoxycinnamic acid					
	$\Delta_{sub}H$	(339–352)	121.7 ± 0.6	298	ME	[1999MON/HIL]
$C_{10}H_{10}O_3$	[3943-97-3] methyl 4-hydroxycinnamate					
	$\Delta_{fus}H$		30.22	410.7	DSC	[2010PAN/SAR]
$C_{10}H_{10}O_3$	[1011-54-7] *trans*-2-methoxycinnamic acid					
	$\Delta_{sub}H$	(368–382)	128.8 ± 0.6	298	ME	[1999MON/HIL]
$C_{10}H_{10}O_3$	[6099-03-2] 2-methoxycinnamic acid					
	$\Delta_{fus}H$		32.54	458.7	DSC	[1994HUA/CHE]
$C_{10}H_{10}O_3$	[17570-26-2] *trans*-3-methoxycinnamic acid					
	$\Delta_{sub}H$	(353–367)	124.0 ± 0.9	298	ME	[1999MON/HIL]
$C_{10}H_{10}O_3$	[6099-04-3] 3-methoxycinnamic acid					
	$\Delta_{fus}H$		22.58	390.5	DSC	[1994HUA/CHE]
$C_{10}H_{10}O_3$	[943-89-5] *trans*-4-methoxycinnamic acid					
	$\Delta_{sub}H$	(369–383)	134.0 ± 1.0	298	ME	[1999MON/HIL]
$C_{10}H_{10}O_3$	[830-09-1] 4-methoxycinnamic acid					
	$\Delta_{trs}H$		24.75	446.4		

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		2.49	461.9	DSC	[1994HUA/CHE]
$C_{10}H_{10}O_3$	[2879-20-1] 6-acetylbenzodioxan					
	$\Delta_{fus}H$		23.49	356	DSC	[2008MAT/SOU2]
	$\Delta_{sub}H$		102.5 ± 1.1	298	C	[2008MAT/SOU2]
$C_{10}H_{10}O_3$	[24327-08-0] *endo*-bicyclo[2.2.2]oct-5-ene-2,3-dicarboxylic anhydride					
	$\Delta_{trs}H$		18.19	382.9		
	$\Delta_{fus}H$		4.54	419.2	DSC	[1984WEI/LEF]
$C_{10}H_{10}O_4$	[635-67-6] 1,2-diacetoxybenzene					
	Δ_vH	(371–551)	62.9	386	A	[1987STE/MAL]
$C_{10}H_{10}O_4$	[1459-93-4] dimethyl isophthalate					
	$\Delta_{fus}H$		25.3	341.2		[1993ACR]
	$\Delta_{sub}H$	(295–309)	100.7 ± 0.2	302	ME	[1998ROU/JIM]
	$\Delta_{sub}H$		100.9 ± 0.2	298		[1998ROU/JIM]
	$\Delta_{sub}H$		100.7	298	C	[1998MAK/KAB]
	Δ_vH	(350–607)	77.2 ± 0.8	298	EB,IP	[1997STE/CHI2]
	Δ_vH	(393–550)	60.5	408	A,GS	[1987STE/MAL, 1963VOI]
$C_{10}H_{10}O_4$	[131-11-3] dimethyl phthalate					
	$\Delta_{fus}H$		16.95	274.2		[1998MAK/KAB]
	$\Delta_{fus}H$		16.95	274.2		[1993ACR]
	Δ_vH	(466–518)	61.5	481	EB	[1999ROH/MUS]
	Δ_vH		69.4 ± 0.1	365	C	[1998MAK/KAB]
	Δ_vH		72.5 ± 0.6	344	C	[1998MAK/KAB]
	Δ_vH		74.5 ± 0.3	326	C	[1998MAK/KAB]
	Δ_vH	(304–371)	78.7	319	A	[1987STE/MAL]
	Δ_vH	(371–547)	63.7	386	A	[1987STE/MAL]
	Δ_vH	(377–440)	68.6	409		[1969DAV/MAK]
$C_{10}H_{10}O_4$	[120-61-6] dimethyl terephthalate					
	$\Delta_{fus}H$		32.09	413.8		[1993ACR]
	$\Delta_{sub}H$	(311–330)	103.8 ± 0.3	321	ME	[1998ROU/JIM]
	$\Delta_{sub}H$		104.6 ± 0.3	298		[1998ROU/JIM]
	$\Delta_{sub}H$	(373–413)	94.4	388		[1987STE/MAL]
	$\Delta_{sub}H$	(373–413)	88.3	393	GS	[1962KRA/BER]
	$\Delta_{sub}H$		105.3		C	[1998MAK/KAB]
	Δ_vH	(413–523)	62	428	A	[1987STE/MAL]
$C_{10}H_{10}O_4$	[1135-24-6] 4-hydroxy-3-methoxycinnamic acid (ferulic acid)					
	$\Delta_{fus}H$		17.89	435.3	DSC	[1994HUA/CHE]
	$\Delta_{sub}H$	(369–390)	132.4 ± 1.3	379		[2006CHE/OJA]
$C_{10}H_{10}O_4$	[635-51-8] (RS)-phenylsuccinic acid					
	$\Delta_{fus}H$		37.37	440.1	DSC	[2006PRO/RAS]
$C_{10}H_{10}O_4$	[4036-30-0] (S)-phenylsuccinic acid					
	$\Delta_{fus}H$		41.84	446.9	DSC	[2006PRO/RAS]
$C_{10}H_{10}O_4$	[1135-24-6] 3-(4-hydroxy-3-methoxyphenyl)-2-propenoic acid (ferulic acid)					
	$\Delta_{fus}H$		33.34	444.6		[2008MOT/QUE]
$C_{10}H_{11}ClN_2O_4$	[310412-18-1] ethyl (2-chloromethyl-2,3-dihydro-5*H*-oxazolo[3,2-a]-pyrimidin-5-one)-6-carboxylate					
	$\Delta_{trs}H$		5.38	379.7		
	$\Delta_{fus}H$		10.77	413.4	DSC	[2000CHA/SOS]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{11}ClO_3$	[na] (*dl*) 2-(2-chloro-3-methylphenoxy)propionic acid					
	$\Delta_{fus}H$		30.54	391.5		[1976LEC/COL]
$C_{10}H_{11}ClO_3$	[na] (*d*) 2-(2-chloro-3-methylphenoxy)propionic acid					
	$\Delta_{fus}H$		22.18	359.5		[1976LEC/COL]
$C_{10}H_{11}F_3N_2O$	[2164-17-2] N,N-dimethyl-N′-[3-(trifluoromethyl)-phenyl]urea					
	$\Delta_{fus}H$		29.82	434.1	DSC	[1991ACR, 1990DON/DRE]
$C_{10}H_{11}F_3N_2O_3S$	[47000-92-0] N-[4-methyl-3-[[(trifluoromethyl)sulfonyl]amino]phenyl]acetamide					
	$\Delta_{fus}H$		40.47	455.7	DSC	[1990DON/DRE]
$C_{10}H_{11}N$	[1195-98-8] α,α-dimethylbenzylcyanide					
	Δ_vH	(284–323)	60.3 ± 0.6	303	GS	[2000VER]
	Δ_vH	(284–323)	60.6 ± 0.6	298	GS	[2000VER]
$C_{10}H_{11}N$	[769-68-6] α-ethylbenzylcyanide					
	Δ_vH	(283–313)	64.3 ± 0.6	298	GS	[2000VER]
$C_{10}H_{11}N$	[2571-52-0] 2,4,6-trimethylbenzonitrile					
	$\Delta_{sub}H$		82.9 ± 1.6	298	C	[1991ACR/TUC]
$C_{10}H_{11}NO$	[2904-59-8] 2,4,6-trimethylbenzonitrile N-oxide					
	$\Delta_{sub}H$		87.5 ± 0.5	314	C	[1993ACR/SEV]
	$\Delta_{sub}H$		87.9 ± 1.9	298		[1993ACR/SEV]
	$\Delta_{sub}H$		84.7 ± 1.8	319	ME	[1992ACR/SIM]
	$\Delta_{sub}H$		77.5 ± 3.7	298	C	[1991ACR/TUC]
$C_{10}H_{11}NO$	[1128-85-4] 3-amino-1-phenyl-but-2-enone					
	$\Delta_{sub}H$		109.4 ± 2.1	298	C	[1993RIB/RIB]
$C_{10}H_{11}NO_2$	[1563-87-7] N-phenyldiacetamide					
	$\Delta_{sub}H$		90.0 ± 0.8	298	C	[1965WAD, 1970COX/PIL]
$C_{10}H_{11}NO_2S$	[6958-78-7] N-benzoylthiocarbamic O-ethyl ester					
	$\Delta_{sub}H$		112.2 ± 1.3	298	C	[2004RIB/SAN2]
$C_{10}H_{11}NO_3$	[2571-54-2] 2,4,6-trimethoxybenzonitrile					
	$\Delta_{sub}H$		112.6 ± 2.0	298	C	[1991ACR/TUC]
$C_{10}H_{11}NO_3$	[34295-85-7] N-salicylidene-β-alanine					
	$\Delta_{fus}H$		28.5	408		[1996DOM/HEA]
$C_{10}H_{11}NO_3$	[2623-33-8] N-[4-(acetyloxy)phenyl] acetamide					
	$\Delta_{fus}H$		30.97	427.5		[1990BHA/LAL]
$C_{10}H_{11}NO_4$	[2904-59-8] 2,4,6-trimethoxybenzonitrile N-oxide					
	$\Delta_{sub}H$		91.9 ± 1.9	298	C	[1991ACR/TUC]
$C_{10}H_{11}N_3O$	[5809-38-1] 3,5-dimethyl-1-phenyl-4-nitrosopyrazole					
	$\Delta_{sub}H$		89.7 ± 2.0	298	C	[2001RIB/FER]
$C_{10}H_{11}N_3O_2$	[10495-38-2] 3-dimethylamino-6-aminophthalimide					
	$\Delta_{sub}H$	(434–459)	108.8	446.5		[1987STE/MAL, 1956KLO]
$C_{10}H_{11}N_3O_3S$	[723-46-6] 4-amino-N-(5-methyl-3-isoxazolyl)benzene sulfonamide (sulfamethoxazole)					
	$\Delta_{fus}H$		33.8	440.7	DSC	[2003MAR/AVI, 2002MAR/GOM]
	$\Delta_{fus}H$		35.26	440		[1998ISS/ELA]
$C_{10}H_{11}N_5O_3$	[134287-59-5] 3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine					
	$\Delta_{fus}H$		43.33	520.6	DSC	[1999ZIE/GOL]
$C_{10}H_{12}$	[1755-01-7] *endo* dicyclopentadiene					
	$\Delta_{trs}H$		9.66	216		
	$\Delta_{fus}H$		2.22	304.8		[1996DOM/HEA]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		8.04	216.1		
	$\Delta_{fus}H$		1.79	304.7		[1997SMI/LEB]
	Δ_vH	(350–446)	43.6	365	A	[1987STE/MAL]
$C_{10}H_{12}$	[933-60-8]	*exo*-dicyclopentadiene				
	$\Delta_{fus}H$		7.11	189.8		[1997SMI/LEB]
$C_{10}H_{12}$	[2234-20-0]	2,4-dimethylstyrene				
	Δ_vH	(307–453)	50.0	322	A	[1987STE/MAL, 1947STU]
$C_{10}H_{12}$	[2039-89-6]	2,5-dimethylstyrene				
	Δ_vH	(302–453)	48.1	317	A	[1987STE/MAL, 1947STU]
$C_{10}H_{12}$	[2039-93-2]	α-ethylstyrene				
	Δ_vH	(274–313)	52.0 ± 0.3	294	GS	[1999VER/EBE]
	Δ_vH	(274–313)	51.8 ± 0.3	298	GS	[1999VER/EBE]
$C_{10}H_{12}$	[7564-63-8]	1-ethyl-2-vinylbenzene				
	Δ_vH	(363–413)	46.3	378	A	[1987STE/MAL]
$C_{10}H_{12}$	[7525-62-4]	1-ethyl-3-vinylbenzene				
	Δ_vH	(343–453)	49.6	358	A	[1987STE/MAL]
$C_{10}H_{12}$	[3454-07-7]	1-ethyl-4-vinylbenzene				
	Δ_vH	(341–448)	48.4	356	A	[1987STE/MAL]
$C_{10}H_{12}$	[119-64-2]	1,2,3,4-tetrahydronaphthalene (tetralin)				
	$\Delta_{fus}H$		12.45	237.4		[1996DOM/HEA]
	Δ_vH	(465–580)	44.1	480		[1992LEE/DEM]
	Δ_vH	(311–481)	51.1	326	A	[1987STE/MAL]
	Δ_vH		41.3 ± 0.1	498	C	[1985NAT/VIS]
	Δ_vH		37.6 ± 0.1	552	C	[1985NAT/VIS]
	Δ_vH		35.7 ± 0.1	567	C	[1985NAT/VIS]
	Δ_vH		33.9 ± 0.1	585	C	[1985NAT/VIS]
	Δ_vH		32.0 ± 0.1	604	C	[1985NAT/VIS]
	Δ_vH	(331–437)	52.1	346		[1984KAT/HAR]
	Δ_vH	(367–479)	48.6	382		[1947STU]
$C_{10}H_{12}$	[3451-55-6]	cyclodeca-1,2,6,7-tetraene				
	$\Delta_{sub}H$		73.0 ± 0.4	298	C	[1991LUK/TIM]
$C_{10}H_{12}ClNO_2$	[2950-21-0]	isopropyl-3-chlorophenylcarbamate				
	$\Delta_{fus}H$		17.75	313.9		[1991ACR]
$C_{10}H_{12}ClN_3O_2$	[15271-41-7]	5-chloro-6-[[[(methylamino)carbonyl]oxy]imino]bicyclo[2.2.1]-heptane-2-carbonitrile				
	$\Delta_{fus}H$		26.07	431.6	DSC	[1990DON/DRE]
$C_{10}H_{12}Cl_4NOPS$	[21844-03-1]	P-chloromethyl-N-(1-methylethyl)amidothiophosphonic acid, O-(2,4,6-trichlorophenyl) ester				
	Δ_vH	(323–363)	78.3	338	A	[1987STE/MAL]
$C_{10}H_{12}N_2$	[827-36-1]	2-dimethylamino-2-phenyloacetonitrile				
	Δ_vH	(298–338)	62.8 ± 0.4		GS	[1997WEL/VER]
$C_{10}H_{12}N_2$	[5465-29-2]	2-propylbenzimidazole				
	$\Delta_{trs}H$		1.5	385.8		
	$\Delta_{fus}H$		NA	431.6	DSC	[2004RIB/RIB]
	$\Delta_{sub}H$	(344–364)	109.4 ± 1.2	298	ME	[2004RIB/RIB]
$C_{10}H_{12}N_2$	[5851-43-4]	2-isopropylbenzimidazole				
	$\Delta_{trs}H$		1.0	410.4		
	$\Delta_{fus}H$		NA	507.9	DSC	[2004RIB/RIB]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		109.9 ± 2.7	298	C	[2004RIB/RIB]
$C_{10}H_{12}N_2O_2$	[30764-27-3] acetylglycine anilide					
	$\Delta_{sub}H$	(362–365)	122.1	363.5	A	[1987STE/MAL, 1955AIH]
$C_{10}H_{12}N_2O_3$	[52-43-7] allobarbital					
	$\Delta_{fus}H$		32.31	442.6		[1986CHU/DEM]
$C_{10}H_{12}N_2O_3$	[38423-62-0] 2-ethoxyisonitrosoacetanilide					
	$\Delta_{fus}H$		23.0	405		[1996DOM/HEA]
	$\Delta_{fus}H$		27.8	434.6	DTA	[1982CUE/SOL]
$C_{10}H_{12}N_2O_3$	[17122-74-6] 4-ethoxyisonitrosoacetanilide					
	$\Delta_{fus}H$		7.6	490		[1996DOM/HEA]
	$\Delta_{fus}H$		7.6	491.2	DTA	[1982CUE/SOL]
$C_{10}H_{12}N_2O_3S$	[25057-89-0] 3-(1-methylethyl)-(1*H*)-2,1,3-benzothiadiazin-4(3*H*)-one 2,2-dioxide					
	$\Delta_{fus}H$		21.77	412.5	DSC	[1990DON/DRE]
$C_{10}H_{12}N_2O_4$	[84592-41-6] (2-hydroxyethyl)[3-[(hydroxyimino)methyl]phenyl carbamic acid					
	$\Delta_{fus}H$		28.9	508.3	DTA	[1982CUE/SOL]
$C_{10}H_{12}N_2O_4$	[3056-17-5] 2,3′-didehydro-3′-deoxythymidine (stavudine)					
	$\Delta_{fus}H$		26.91	443.2		[2000GAN/BOG]
$C_{10}H_{12}N_2O_4S$	[138517-12-1] (4-nitrophenyl)-2-(methylthio)ethyl carbamate					
	$\Delta_{fus}H$		31.27	349.4	DSC	[1993TIE/FRA]
$C_{10}H_{12}N_2O_5$	[88-85-7] 2-sec-butyl-4,6-dinitrophenol					
	$\Delta_{fus}H$		21.81	313.7	DSC	[1990DON/DRE]
$C_{10}H_{12}N_2S$	[na] N-allyl-N-phenylthiourea					
	$\Delta_{fus}H$		27.61	375		[1996DOM/HEA]
$C_{10}H_{12}N_3O_3PS_2$	[86-50-0] S-(3,4-dihydro-4-oxobenzo[d] [1,2,3]-triazin-3-ylmethyl) O,O-dimethylphoshorodithioate					
	$\Delta_{fus}H$		27.76	345.3	DSC	[1991ACR, 1990DON/DRE]
$C_{10}H_{12}O$	[104-46-1] anethole					
	Δ_vH		61.9	298	GC	[2002VAN/PAR]
$C_{10}H_{12}O$	[25679-28-1] *cis* anethole					
	Δ_vH	(333–363)	68.7	348	A	[1987STE/MAL]
$C_{10}H_{12}O$	[4180-23-8] *trans* anethole					
	Δ_vH	(333–363)	78.3	348	A	[1987STE/MAL]
$C_{10}H_{12}O$	[140-67-0] estragole					
	Δ_vH	(325–488)	56.3	340	A	[1987STE/MAL]
$C_{10}H_{12}O$	[2142-64-5] 2′-ethylacetophenone					
	Δ_vH	(363–397)	52.8	378	A	[1987STE/MAL]
	Δ_vH	(293–423)	U23.7	368		[1968KHO/BYK]
$C_{10}H_{12}O$	[937-30-4] 4′-ethylacetophenone					
	Δ_vH	(294–368)	42.2	309	A	[1987STE/MAL]
	Δ_vH	(293–423)	39.8	368		[1968KHO/BYK]
$C_{10}H_{12}O$	[122-03-2] 4-isopropylbenzaldehyde (cuminal)					
	Δ_vH	(331–505)	55.3	346	A	[1987STE/MAL, 1947STU]
$C_{10}H_{12}O$	[5445-77-2] 2-methyl-3-phenylpropanal					
	Δ_vH	(333–373)	59.1	348	A	[1987STE/MAL]
$C_{10}H_{12}O$	[5337-93-9] 4′-methylpropiophenone					
	Δ_vH	(332–512)	52.6	347	A	[1987STE/MAL, 1947STU]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{12}O$	[5459-40-5]	4-vinylphenetole				
	$\Delta_v H$	(337–498)	59.2	352	A	[1987STE/MAL, 1947STU]
$C_{10}H_{12}O$	[1712-69-2]	4-methoxy-α-methylstyrene				
	$\Delta_{fus}H$		19.07	309.2		[1999VER6]
	$\Delta_{sub}H$		81.2 ± 0.4	298		[1999VER6]
	$\Delta_v H$	(308–343)	60.6 ± 0.3	326	GS	[1999VER6]
	$\Delta_v H$	(308–343)	62.1 ± 0.3	298	GS	[1999VER6]
$C_{10}H_{12}O_2$	[3674-77-9]	2-phenyl-2-methyl-1,3-dioxolane				
	$\Delta_{sub}H$	(293–324)	81.9 ± 0.5	308	T	[1995VER/DOG]
$C_{10}H_{12}O_2$	[103-45-7]	acetic acid, phenethyl ester				
	$\Delta_v H$	(283–318)	67.4	298	A	[1987STE/MAL]
	$\Delta_v H$	(422–506)	52.2	437	A	[1987STE/MAL]
$C_{10}H_{12}O_2$	[31508-44-8]	methyl 2-phenylpropionate				
	$\Delta_v H$	(284–318)	61.8 ± 0.7	301	GS	[1999VER8]
	$\Delta_v H$	(284–318)	62.0 ± 0.7	298	GS	[1999VER8]
$C_{10}H_{12}O_2$	[97-53-0]	4-allyl-2-methoxyphenol (eugenol)				
	$\Delta_v H$		66.3	298	GC	[2002VAN/PAR]
	$\Delta_v H$	(395–527)	57.7	410	A	[1987STE/MAL]
	$\Delta_v H$	(285–333)	66.1	300	ME	[1987STE/MAL, 1959SCO/DOU]
	$\Delta_v H$	(351–526)	60.3	366		[1947STU]
$C_{10}H_{12}O_2$	[122-63-4]	benzyl propionate				
	$\Delta_v H$	(298–378)	59.0	313	A	[1987STE/MAL]
$C_{10}H_{12}O_2$	[501-19-9]	5-allyl-2-methoxyphenol				
	$\Delta_v H$	(345–527)	61.4	371	A	[1987STE/MAL]
$C_{10}H_{12}O_2$	[97-54-1]	2-methoxy-4-(1-propenyl)phenol (isoeugenol)				
	$\Delta_v H$	(359–540)	60.7	374		[1957DYK/SEP]
$C_{10}H_{12}O_2$	[5912-86-7]	*cis* isoeugenol				
	$\Delta_v H$	(373–403)	69.7	388	A	[1987STE/MAL]
$C_{10}H_{12}O_2$	[5932-68-3]	*trans* isoeugenol				
	$\Delta_v H$	(363–420)	69.1	378	A	[1987STE/MAL]
$C_{10}H_{12}O_2$	[na]	acetophenone ethylene glycol ketal				
	$\Delta_{fus}H$		25.2	333.6		[1995VER/DOG]
$C_{10}H_{12}O_2$	[16108-50-2]	2-acetyl-3,5-dimethylphenol				
	$\Delta_{fus}H$		1.36	333.2	DTA	[1989SAL/ABA]
		Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent				
$C_{10}H_{12}O_2$	[101-97-3]	phenylacetic acid, ethyl ester				
	$\Delta_v H$	(333–433)	60.7	298	GC	[2005HOS/GRY]
	$\Delta_v H$	(288–328)	63.9 ± 0.4	308	GS	[1999VER8]
	$\Delta_v H$	(288–328)	64.5 ± 0.4	298	GS	[1999VER8]
	$\Delta_v H$	(393–500)	54	408	A	[1987STE/MAL]
$C_{10}H_{12}O_2$	[2315-68-6]	propylbenzoate				
	$\Delta_v H$	(359–458)	60.2	379	BG	[1988KAT2]
	$\Delta_v H$	(359–458)	52.7	440	BG	[1988KAT2]
	$\Delta_v H$	(327–504)	53.8	342	A	[1987STE/MAL, 1947STU]
$C_{10}H_{12}O_2$	[2930-05-4]	[(phenylmethoxy)methyl]oxirane				
	$\Delta_v H$		71.0 ± 0.4			[1987VAN/KAC]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{12}O_2$	[2529-36-4]	2,3,6-trimethylbenzoic acid				
	$\Delta_{sub}H$	(314–336)	104.4 ± 0.2	298	ME	[1987COL/JIM2]
	$\Delta_{sub}H$	(314–336)	103.6 ± 0.2	325	ME	[1987COL/JIM2]
$C_{10}H_{12}O_2$	[480-63-7]	2,4,6-trimethylbenzoic acid				
	$\Delta_{sub}H$	(316–340)	103.6 ± 0.3	298	ME	[1987COL/JIM2]
	$\Delta_{sub}H$	(316–340)	102.5 ± 0.3	328	ME	[1987COL/JIM2]
$C_{10}H_{12}O_2$	[1076-47-7]	2,3,4-trimethylbenzoic acid				
	$\Delta_{sub}H$	(329–351)	109.3 ± 0.3	298	ME	[1987COL/JIM2]
	$\Delta_{sub}H$	(329–351)	108.2 ± 0.3	340	ME	[1987COL/JIM2]
$C_{10}H_{12}O_2$	[2437-66-3]	2,3,5-trimethylbenzoic acid				
	$\Delta_{sub}H$	(320–338)	106.7 ± 0.3	298	ME	[1987COL/JIM2]
	$\Delta_{sub}H$	(320–338)	105.7 ± 0.3	329	ME	[1987COL/JIM2]
$C_{10}H_{12}O_2$	[528-90-5]	2,4,5-trimethylbenzoic acid				
	$\Delta_{sub}H$	(324–346)	109.6 ± 0.5	298	ME	[1987COL/JIM2]
	$\Delta_{sub}H$	(324–346)	108.3 ± 0.5	335	ME	[1987COL/JIM2]
$C_{10}H_{12}O_2$	[1076-88-6]	3,4,5-trimethylbenzoic acid				
	$\Delta_{sub}H$	(340–359)	111.0 ± 0.5	298	ME	[1987COL/JIM2]
	$\Delta_{sub}H$	(340–359)	109.3 ± 0.5	350	ME	[1987COL/JIM2]
$C_{10}H_{12}O_2$	[2438-05-3]	4-propylbenzoic acid				
	$\Delta_{trs}H$		3.4	301		
	$\Delta_{fus}H$		23.3	422		[1985PRI/PUC]
	$\Delta_{sub}H$	(331–347)	109.1 ± 0.8	298	ME	[2004MON/ALM]
$C_{10}H_{12}O_2$	[2438-04-2]	2-isopropylbenzoic acid				
	$\Delta_{sub}H$	(300–320)	100.2 ± 0.4	310	ME	[1987COL/JIM]
	$\Delta_{sub}H$		101.0 ± 0.4	298		[1987COL/JIM]
$C_{10}H_{12}O_2$	[5651-47-8]	3-isopropylbenzoic acid				
	$\Delta_{sub}H$	(300–316)	103.3 ± 0.3	308	ME	[1987COL/JIM]
	$\Delta_{sub}H$		104.1 ± 0.3	298		[1987COL/JIM]
$C_{10}H_{12}O_2$	[536-66-3]	4-isopropylbenzoic acid				
	$\Delta_{sub}H$	(316–334)	99.0 ± 0.3	310	ME	[1987COL/JIM]
	$\Delta_{sub}H$		99.0 ± 0.3	298		[1987COL/JIM]
$C_{10}H_{12}O_2$	[1821-12-1]	4-phenylbutyric acid				
	$\Delta_{fus}H$		19.5	324.2	DSC	[2001MON/HIL]
	$\Delta_{sub}H$	(309–323)	112.4 ± 0.8	316	ME	[2001MON/HIL]
	$\Delta_{sub}H$		113.0 ± 1.0	298	ME	[2001MON/HIL]
$C_{10}H_{12}O_2$	[527-17-3]	2,3,5,6-tetramethyl-1,4-benzoquinone				
	$\Delta_{fus}H$		18.39 ± 0.1	384.1	DSC	[2004ROJ/FOR]
	$\Delta_{fus}H$		18.54 ± 0.1	384.8	HFC	[2004ROJ/FOR]
	$\Delta_{sub}H$		93.2 ± 1.2	298	DSC	[2004ROJ/FOR]
$C_{10}H_{12}O_2$	[490-91-5]	2-isopropyl-5-methyl-1,4-benzoquinone (thymoquinone)				
	$\Delta_{fus}H$		18.16	323.2		[2003PAG/BEN]
$C_{10}H_{12}O_2S$	[32228-15-2]	p-tolyl trans-prop-1-enyl sulfone				
	$\Delta_{sub}H$		83.7 ± 2.1		B	[1969MAC/STE, 1970COX/PIL]
$C_{10}H_{12}O_2S$	[3112-87-6]	p-tolyl prop-2-enyl sulfone				
	$\Delta_{sub}H$		95.8 ± 2.9		B	[1969MAC/STE, 1970COX/PIL]
$C_{10}H_{12}O_2S$	[67605-02-1]	p-tolyl isopropenyl sulfone				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		88.7 ± 2.5		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_{10}H_{12}O_3$	[6192-44-5] acetic acid, (2-phenoxyethyl) ester					
	Δ_vH	(355–533)	56.8	370	A	[1987STE/MAL, 1947STU]
$C_{10}H_{12}O_3$	[94-13-3] propyl 4-hydroxybenzoate					
	$\Delta_{fus}H$		27.2	369.3		[1999GIO/BET]
	$\Delta_{fus}H$		27.99	369.2		[1990MAN/AHU]
	$\Delta_{sub}H$	(319–333)	123.7 ± 0.6	298	GS	[2005PER/ROD]
	Δ_vH		79.1		TGA	[2002CHA/DOL]
	Δ_vH		76.5		TGA	[2001CHA/DOL]
$C_{10}H_{12}O_3$	[3759-31-7] (*dl*) 3-hydroxy-3-phenylbutyric acid					
	$\Delta_{fus}H$		19.66	330		[1991CHI/BRA]
$C_{10}H_{12}O_3$	[na] (*d*) 3-hydroxy-3-phenylbutyric acid					
	$\Delta_{fus}H$		22.59	357		[1991CHI/BRA]
$C_{10}H_{12}O_3$	[4919-33-9] 4-ethoxyphenylacetic acid					
	$\Delta_{fus}H$		23.0	360.2		[1991ACR]
$C_{10}H_{12}O_3$	[6342-77-4] 3-(2-methoxyphenyl)propionic acid					
	$\Delta_{fus}H$		25.33	360.5	DSC	[2001MON/HIL4]
	$\Delta_{sub}H$	(331–347)	116.0 ± 0.4	339	ME	[2001MON/HIL4]
	$\Delta_{sub}H$	(331–347)	117.8 ± 1.4	298	ME	[2001MON/HIL4]
$C_{10}H_{12}O_3$	[129-29-9] 3-(4-methoxyphenyl)propionic acid					
	$\Delta_{fus}H$		29.57	376.1	DSC	[2001MON/HIL4]
	$\Delta_{fus}H$		28.5	376.9		[1991ACR]
	$\Delta_{sub}H$	(341–357)	122.3 ± 0.3	349	ME	[2001MON/HIL4]
	$\Delta_{sub}H$	(341–357)	124.5 ± 1.7	298	ME	[2001MON/HIL4]
$C_{10}H_{12}O_3$	[5438-19-7] 4-propoxybenzoic acid					
	$\Delta_{trs}H$ (*liq cryst*)		7.95	394.2		
	$\Delta_{trs}H$ (*liq cryst*)		16.74	419.9		
	$\Delta_{trs}H$ (*liq cryst-liq*)		2.51	426.7		[1967HER]
$C_{10}H_{12}O_4$	[999-21-3] maleic acid, diallyl ester					
	Δ_vH	(392–426)	77.7	407	A	[1987STE/MAL]
$C_{10}H_{12}O_4$	[20765-04-2] 2,5-diethoxy-1,4-benzoquinone					
	$\Delta_{fus}H$		28.7	459.3	DSC	[1996KEE/VAN]
$C_{10}H_{12}O_5$	[490-64-2] 2,4,5-trimethoxybenzoic acid					
	$\Delta_{fus}H$		31.15	417.9	DSC	[2003HUA, 2005HUA/TAN]
$C_{10}H_{12}O_5$	[118-41-2] 3,4,5-trimethoxybenzoic acid					
	$\Delta_{fus}H$		29.9	444.5	DSC	[2003HUA, 2005HUA/TAN]
	$\Delta_{sub}H$	(354–372)	127.9 ± 0.8	363	ME	[2001ROU/JIM2]
	$\Delta_{sub}H$		131.2 ± 0.8	298	ME	[2001ROU/JIM2]
$C_{10}H_{13}Br$	[2437-76-5] 2-bromo-4-isopropyltoluene					
	Δ_vH	(400–510)	50.2	415	A	[1987STE/MAL, 1970DYK/VAN, 1999DYK/SVO]
$C_{10}H_{13}Br$	[4478-10-8] 3-bromo-4-isopropyltoluene					
	Δ_vH	(400–510)	48.3	415	A	[1987STE/MAL, 1970DYK/VAN, 1999DYK/SVO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{13}BrO$	[54514-31-7] 2-bromophenyl isobutyl ether					
	$\Delta_v H$	(293–323)	64.0 ± 0.2	298	GS	[2005STR/SPO]
$C_{10}H_{13}BrO$	[223564-75-8] 3-bromophenyl isobutyl ether					
	$\Delta_v H$	(290–323)	65.3 ± 0.2	298	GS	[2005STR/SPO]
$C_{10}H_{13}BrO$	[30752-23-9] 4-bromophenyl isobutyl ether					
	$\Delta_v H$	(293–333)	66.8 ± 0.6	298	GS	[2005STR/SPO]
$C_{10}H_{13}Cl$	[4395-79-3] 2-chloro-4-isopropyltoluene					
	$\Delta_v H$	(400–490)	49.3	415	A	[1987STE/MAL, 1970DYK/VAN, 1999DYK/SVO]
$C_{10}H_{13}Cl$	[15146-00-6] 3-chloro-4-isopropyltoluene					
	$\Delta_v H$	(400–490)	47.1	415	A	[1987STE/MAL, 1970DYK/VAN]
$C_{10}H_{13}ClN_2O_2$	[19937-59-8] N′-(3-chloro-4-methoxyphenyl)-N,N-dimethylurea					
	$\Delta_{fus}H$		27.48	399.2	DSC	[1990DON/DRE]
$C_{10}H_{13}ClN_2O_3S$	[94-20-2] 1-(4-chlorobenzenesulfonyl)-3-propylurea					
	$\Delta_{fus}H$		25.7	401	DSC	[2006WAS/HOL, 2008WAS/HOL]
$C_{10}H_{13}ClN_6$	[32889-48-8] 2-((4-chloro-6-(cyclopropylamino)-1,3,5-triazin-2-yl)amino-2-methylpropanenitrile					
	$\Delta_{fus}H$		22.51	438.5	DSC	[1990DON/DRE]
$C_{10}H_{13}ClO$	[4446-91-7] 2-chloroethyl α-methylbenzyl ether					
	$\Delta_v H$	(335–508)	54.8	350	A	[1987STE/MAL, 1947STU, 1999DYK/SVO]
$C_{10}H_{13}ClO_3$	[58498-77-4] diethylene glycol 4-chlorophenyl ether					
	$\Delta_v H$	(450–523)	75.9	465	A	[1987STE/MAL, 1999DYK/SVO]
$C_{10}H_{13}ClO_3$	[94-81-5] 4-(4-chloro-2-methylphenoxy)butanoic acid					
	$\Delta_{fus}H$		32.02	373.4	DSC	[1990DON/DRE]
$C_{10}H_{13}Cl_2O_2P$	[18351-36-5] 4-tert-butyl phenyl dichlorophosphate					
	$\Delta_v H$	(369–572)	59.6	384		[1947STU]
$C_{10}H_{13}Cl_3NOPS$	[18361-88-1] P-chloromethyl-N-(1-methylethyl)amidothiophosphonic acid, O-(2,4-dichlorophenyl) ester					
	$\Delta_v H$	(323–368)	93.1	345	A	[1987STE/MAL, 1999DYK/SVO]
$C_{10}H_{13}NO$	[6935-65-5] N,N-dimethyl-*m*-toluamide					
	$\Delta_v H$	(374–405)	29.9	390		[1969DAV/MAK2]
$C_{10}H_{13}NO_2$	[62-44-2] 4′-ethoxyacetanilide (phenacetin)					
	$\Delta_{fus}H$		30	409.6	DSC	[2009VEC/TOM]
	$\Delta_{fus}H$		28.75	408.3	DSC	[2009PEN/ESC]
	$\Delta_{fus}H$		34.1	407.4	DSC	[2006WAS/HOL, 2008WAS/HOL]
	$\Delta_{fus}H$		21.4	410.2	DSC	[2004VEC/CAT]
	$\Delta_{fus}H$		31.25	407.2		[1990MAN/AHU]
	$\Delta_{sub}H$		120 ± 3	298	Vap+Fus	[2009VEC/TOM]
	$\Delta_{sub}H$	(312–387)	115.5 ± 2.4		C,ME	[1972WIE, 1987STE/MAL]
	$\Delta_v H$		79 ± 1	459	TGA	[2009VEC/TOM]
	$\Delta_v H$		82 ± 1	476	TGA	[2009VEC/TOM]
	$\Delta_v H$	(463–533)	82.6	478	A	[1987STE/MAL]
$C_{10}H_{13}NO_2$	[943-15-7] 2-nitro-4-isopropyltoluene					
	$\Delta_v H$	(370–415)	67.7	385	A	[1987STE/MAL]
$C_{10}H_{13}NO_2$	[35480-94-5] 3-nitro-4-isopropyltoluene					
	$\Delta_v H$	(330–430)	54	345	A	[1987STE/MAL]
$C_{10}H_{13}NO_2$	[1886-57-3] 2-nitro-1-*tert*-butylbenzene					

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(278–323)	64.8 ± 0.6	301	GS	[2000VER/HEI]
	$\Delta_v H$	(278–323)	65.0 ± 0.6	298	GS	[2000VER/HEI]
$C_{10}H_{13}NO_2$	[94-12-2]	propyl 4-aminobenzoate				
	$\Delta_{fus}H$		20.54	347.1		[1991ACR]
$C_{10}H_{13}NO_2$	[1202-25-1]	methyl *p*-N,N-dimethylaminobenzoate				
	$\Delta_{fus}H$		26.07	371.8		[1991ACR]
$C_{10}H_{13}NO_2$	[5532-90-1]	propyl N-phenylcarbamate				
	$\Delta_{fus}H$		21.08	331		[1971PRI]
$C_{10}H_{13}NO_2$	[122-42-9]	isopropyl phenylcarbamate				
	$\Delta_{fus}H$		19.37	359.5		[1991ACR]
$C_{10}H_{13}NO_2$	[2425-10-7]	3,4-dimethylphenyl methylcarbamate				
	$\Delta_{fus}H$		24.97	350.8		[1991ACR]
$C_{10}H_{13}NO_2S_2$	[949171-65-7]	N-theonylthiocarbamic-O-butyl ester				
	$\Delta_{fus}H$		23.89	364.3	DSC	[2007RIB/MON]
	$\Delta_{sub}H$		147.5 ± 1.9	298	C	[2007RIB/MON]
$C_{10}H_{13}NO_4$	[6988-21-2]	2-(1,3-dioxolan-2-yl)phenyl methylcarbamate				
	$\Delta_{fus}H$		23.82	387.2	DSC	[1990DON/DRE]
$C_{10}H_{13}N_5O_3$	[na]	2-acetylamino-9-[(2-hydroxyethoxy)methyl]-9*H*-purine				
	$\Delta_{fus}H$		54.92	454.2		[1995KRI/VES]
$C_{10}H_{13}N_5O_3$	[na]	9-[(2-acetoxyethoxy)methyl]-2-amino-9*H*-purine				
	$\Delta_{fus}H$		42.69	408.2		[1995KRI/VES]
$C_{10}H_{13}N_5O_4$	[110104-37-5]	2-acetylamino-9-[(2-hydroxyethoxy)methyl]-1,9-dihydro-6*H*-purin-6-one				
	$\Delta_{fus}H$		53.83	490.2	DSC	[1995KRI/VES]
$C_{10}H_{13}N_5O_4$	[102728-64-3]	2-amino-9-[(2-acetoxyethoxy)methyl]-1,9-dihydro-6*H*-purin-6-one				
	$\Delta_{fus}H$		49.9	515.2	DSC	[1995KRI/VES]
$C_{10}H_{13}N_5O_4$	[30516-87-1]	3′-azido-2,3′-dideoxythymidine (zidovudine)				
	$\Delta_{fus}H$		33.03	359.8	DSC	[2003ARA/STO]
$C_{10}H_{14}$	[104-51-8]	butylbenzene				
	$\Delta_{fus}H$		11.22	185.3		[1996DOM/HEA]
	$\Delta_v H$	(343–501)	47.4 ± 0.2	350	EB	[2002STE/CHI, 2006VER]
	$\Delta_v H$	(343–501)	43.5 ± 0.2	410	EB	[2002STE/CHI]
	$\Delta_v H$	(343–501)	40.6 ± 0.4	450	EB	[2002STE/CHI]
	$\Delta_v H$	(343–501)	37.5 ± 0.7	490	EB	[2002STE/CHI]
	$\Delta_v H$		50.8	298		[1994RUZ/ZAB]
	$\Delta_v H$	(243–403)	53.5	258		[1993KAS/MOK]
	$\Delta_v H$		48.0 ± 0.1	343	C	[1982SVO/CHA]
	$\Delta_v H$		46.8 ± 0.1	358	C	[1982SVO/CHA]
	$\Delta_v H$		46.0 ± 0.1	368	C	[1982SVO/CHA]
	$\Delta_v H$		50.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(374–454)	45.2	389		[1965LIN/FRI, 1984BOU/FRI]
	$\Delta_v H$	(369–463)	45.7	384	A	[1987STE/MAL, 1949FOR/NOR]
$C_{10}H_{14}$	[135-98-8]	(*dl*) sec-butylbenzene				
	$\Delta_v H$	(335–491)	45.7 ± 0.2	340	EB	[2002STE/CHI]
	$\Delta_v H$	(335–491)	43.2 ± 0.2	380	EB	[2002STE/CHI]
	$\Delta_v H$	(335–491)	40.6 ± 0.3	420	EB	[2002STE/CHI]
	$\Delta_v H$	(335–491)	37.8 ± 0.5	460	EB	[2002STE/CHI]
	$\Delta_v H$		48.1	298		[1994RUZ/ZAB]
	$\Delta_v H$	(243–373)	50.6	258		[1993KAS/MOK]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(384–448)	42.8	399	A	[1987STE/MAL]
	$\Delta_v H$		49.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(368–448)	44.0	375		[1949FOR/NOR]
$C_{10}H_{14}$	[98-06-6]	*tert*-butylbenzene				
	$\Delta_{fus}H$		8.4	215.3	DSC,AC	[2009CHI/STE]
	$\Delta_{fus}H$		8.41	215		[1996DOM/HEA]
	$\Delta_v H$	(332–486)	45.3 ± 0.2	340	EB	[2002STE/CHI]
	$\Delta_v H$	(332–486)	42.6 ± 0.2	380	EB	[2002STE/CHI]
	$\Delta_v H$	(332–486)	39.9 ± 0.3	420	EB	[2002STE/CHI]
	$\Delta_v H$	(332–486)	37.0 ± 0.5	460	EB	[2002STE/CHI]
	$\Delta_v H$	(278–308)	47.8 ± 0.4	293	GS	[1998VER]
	$\Delta_v H$		47.5 ± 0.4	298		[1998VER]
	$\Delta_v H$		47.6	298		[1994RUZ/ZAB]
	$\Delta_v H$	(368–444)	43.1	383	A	[1987STE/MAL]
	$\Delta_v H$		47.7	298		[1974KUS/SAI]
	$\Delta_v H$		49.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(357–443)	43.7	372		[1949FOR/NOR]
$C_{10}H_{14}$	[135-01-3]	1,2-diethylbenzene				
	$\Delta_v H$		52.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(369–464)	46.0	384	A	[1987STE/MAL, 1949FOR/NOR]
$C_{10}H_{14}$	[141-93-5]	1,3-diethylbenzene				
	$\Delta_v H$		52.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(368–457)	45.8	383	A	[1987STE/MAL, 1949FOR/NOR]
$C_{10}H_{14}$	[105-05-5]	1,4-diethylbenzene				
	$\Delta_v H$		52.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(369–464)	45.8	384	A	[1987STE/MAL, 1949FOR/NOR]
$C_{10}H_{14}$	[933-98-2]	1,2-dimethyl-3-ethylbenzene				
	$\Delta_v H$	(344–497)	49.7	359	A	[1987STE/MAL]
	$\Delta_v H$		54.9	298		[1971WIL/ZWO]
$C_{10}H_{14}$	[934-80-5]	1,2-dimethyl-4-ethylbenzene				
	$\Delta_v H$	(340–493)	48.9	355	A	[1987STE/MAL]
	$\Delta_v H$		53.9	298		[1971WIL/ZWO]
$C_{10}H_{14}$	[2870-04-0]	1,3-dimethyl-2-ethylbenzene				
	$\Delta_v H$	(341–493)	48.8	356	A	[1987STE/MAL]
	$\Delta_v H$		53.9	298		[1971WIL/ZWO]
	$\Delta_v H$	(299–461)	48.6	314		[1947STU]
$C_{10}H_{14}$	[874-41-9]	1,3-dimethyl-4-ethylbenzene				
	$\Delta_v H$	(339–492)	48.5	354	A	[1987STE/MAL]
	$\Delta_v H$		53.3	298		[1971WIL/ZWO]
$C_{10}H_{14}$	[934-74-7]	1,3-dimethyl-5-ethylbenzene				
	$\Delta_v H$	(336–487)	48.0	351	A	[1987STE/MAL]
	$\Delta_v H$		52.4	298		[1971WIL/ZWO]
	$\Delta_v H$	(295–456)	47.5	310		[1947STU]
$C_{10}H_{14}$	[1758-88-9]	1,4-dimethyl-2-ethylbenzene				
	$\Delta_v H$	(338–490)	48.0	353	A	[1987STE/MAL]
	$\Delta_v H$		52.6	298		[1971WIL/ZWO]
	$\Delta_v H$	(299–440)	48.7	313		[1947STU]
$C_{10}H_{14}$	[538-93-2]	isobutylbenzene				
	$\Delta_v H$		48.0	298		[1994RUZ/ZAB]
	$\Delta_v H$	(373–447)	43.2	388	A	[1987STE/MAL]
	$\Delta_v H$		49.5	298		[1971WIL/ZWO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(360–447)	43.8	375		[1949FOR/NOR]
$C_{10}H_{14}$	[527-84-4] 2-isopropyltoluene					
	$\Delta_v H$	(354–453)	44.4	369	A	[1987STE/MAL, 1959MCD/SHR, 1984BOU/FRI]
	$\Delta_v H$		50.6	298		[1971WIL/ZWO]
$C_{10}H_{14}$	[535-77-3] 3-isopropyltoluene					
	$\Delta_v H$	(351–450)	44.7	366	A	[1987STE/MAL, 1959MCD/SHR, 1984BOU/FRI]
	$\Delta_v H$		50.0	298		[1971WIL/ZWO]
$C_{10}H_{14}$	[99-87-6] 4-isopropyltoluene					
	$\Delta_{fus}H$		9.67	204.2		[1996DOM/HEA]
	$\Delta_v H$	(333–443)	49.2	298	GC	[2005HOS/GRY]
	$\Delta_v H$		48.9	298		[1994RUZ/ZAB]
	$\Delta_v H$	(380–452)	44.0	395	A	[1987STE/MAL, 1959MCD/SHR, 1984BOU/FRI]
	$\Delta_v H$		50.3	298		[1971WIL/ZWO]
$C_{10}H_{14}$	[1074-17-5] 2-propyltoluene					
	$\Delta_v H$	(337–488)	48.0	352	A	[1987STE/MAL]
	$\Delta_v H$		52.7	298		[1971WIL/ZWO]
$C_{10}H_{14}$	[1074-43-7] 3-propyltoluene					
	$\Delta_v H$	(334–485)	47.8	349	A	[1987STE/MAL]
	$\Delta_v H$		52.1	298		[1971WIL/ZWO]
$C_{10}H_{14}$	[1074-55-1] 4-propyltoluene					
	$\Delta_v H$	(335–487)	47.6	350	A	[1987STE/MAL]
	$\Delta_v H$		51.9	298		[1971WIL/ZWO]
$C_{10}H_{14}$	[488-23-3] 1,2,3,4-tetramethylbenzene					
	$\Delta_{fus}H$		11.23	265.4		[1996DOM/HEA]
	$\Delta_v H$		54.0	298		[1994RUZ/ZAB]
	$\Delta_v H$		52.6 ± 0.2	298	C	[1994SAB/TAB, 1990YAW/YAN]
	$\Delta_v H$	(352–509)	50.7	367	A	[1987STE/MAL]
	$\Delta_v H$		57.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(316–477)	55.7	331		[1947STU]
$C_{10}H_{14}$	[527-53-7] 1,2,3,5-tetramethylbenzene					
	$\Delta_{fus}H$		12.93	248.6		[1996DOM/HEA]
	$\Delta_v H$		53.2	298		[1994RUZ/ZAB]
	$\Delta_v H$		52.0 ± 0.2	298	C	[1994SAB/TAB]
	$\Delta_v H$	(348–502)	50.0	363	A	[1987STE/MAL]
	$\Delta_v H$		55.8	298		[1971WIL/ZWO]
	$\Delta_v H$	(314–471)	58.9	329		[1947STU]
$C_{10}H_{14}$	[95-93-2] 1,2,4,5-tetramethylbenzene					
	$\Delta_{fus}H$		20.88	352.4		[1996DOM/HEA]
	$\Delta_{sub}H$		71.7 ± 0.3	298	C	[1994SAB/TAB]
	$\Delta_{sub}H$	(263–277)	74.6 ± 0.3	298	ME	[1989COL/JIM]
	$\Delta_{sub}H$	(318–348)	71.3	333	A	[1947BAL/DEN]
	$\Delta_{sub}H$		72.4	298	H	[1947BAL/DEN, 1993CHI/HOS]
	$\Delta_v H$	(363–381)	47.7 ± 0.3	375	DM	[2001BLO/VAN]
	$\Delta_v H$	(353–500)	49.4	368	A	[1987STE/MAL]
$C_{10}H_{14}$	[na] spirocyclopropane-1,6-tricyclo[3.2.1.0^{2,4}]octane					
	$\Delta_v H$		47.8 ± 0.1	298	C	[1998KOL/PIM, 1996VAR/PAS]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{14}Cl_2NO_2PS$	[299-85-4] O-(2,4-dichlorophenyl) O-methyl-(1-methylethyl) phosphoramidothioate					
	$\Delta_{fus}H$		29.25	321.5	DSC	[1990DON/DRE]
$C_{10}H_{14}NO_5PS$	[56-38-2] O,O-diethyl O-4-nitrophenyl phosphorothioate (parathion)					
	$\Delta_{fus}H$		15.72	278.1	DSC	[1991ACR, 1990DON/DRE]
	$\Delta_{sub}H$	(298–318)	100.6	308		[1979SPE/SHO, 1983SPE/CLI]
	$\Delta_{l}^{g}H$	(293–433)	93.4 (sub)	308	A	[1987STE/MAL, 1999DYK/SVO]
$C_{10}H_{14}NO_5PS$	[3270-86-8] phosphorothioic acid, O,O′-diethyl-S-(4-nitrophenyl)					
	$\Delta_{l}^{g}H$	(313–366)	75.9	328	A	[1987STE/MAL, 1999DYK/SVO]
$C_{10}H_{14}NO_5PS$	[597-88-6] phosphorothioic acid, O,S-diethyl-O′-(4-nitrophenyl)					
	$\Delta_{l}^{g}H$	(332–364)	75.1	347	A	[1987STE/MAL, 1999DYK/SVO]
$C_{10}H_{14}NO_6P$	[311-45-5] O,O-diethyl-O-(4-nitrophenyl) phosphate					
	$\Delta_{l}^{g}H$	(273–422)	87.9	288	A	[1987STE/MAL]
$C_{10}H_{14}N_2$	[22083-74-5] (*dl*) nicotine					
	$\Delta_{l}^{g}H$	(406–520)	53.3	421	A	[1987STE/MAL]
$C_{10}H_{14}N_2$	[54-11-5] (*l*) nicotine					
	$\Delta_{l}^{g}H$		63.9 ± 2.1	298	CGC	[2009LIP/HAN]
	$\Delta_{l}^{g}H$	(373–523)	46.1	448		[1934GOR]
$C_{10}H_{14}N_2$	[494-52-0] 3-(2S)-2-piperidinylpyridine					
	$\Delta_{l}^{g}H$	(373–523)	49.5	448		[1934GOR]
$C_{10}H_{14}N_2O$	[120-22-9] 4-diethylaminonitrosobenzene					
	$\Delta_{sub}H$		107.9 ± 3.7	298	C	[1998RIB/MAT2]
$C_{10}H_{14}N_2O_2S$	[na] N,N-diethyl-N′-furoylthiourea					
	$\Delta_{sub}H$		132.0 ± 3.5	298	C	[2002RIB/RIB]
$C_{10}H_{14}N_2O_4$	[88381-75-3] 2,2-dinitroadamantane					
	$\Delta_{trs}H$		16.76	362.2		
	$\Delta_{fus}H$		5.06	491.2		[1990FRI/DOG]
	$\Delta_{sub}H$	(278–317)	96.4 ± 1.4	298	T	[1990FRI/DOG]
$C_{10}H_{14}N_4O_2$	[2850-41-1] 8-propyltheophylline					
	$\Delta_{fus}H$		33.3	534.3	DSC	[1991ACR, 1989GON/KRA]
$C_{10}H_{14}N_4O_2$	[2850-40-0] 8-isopropyltheophylline					
	$\Delta_{fus}H$		34.4	569.3	DSC	[1991ACR, 1989GON/KRA]
$C_{10}H_{14}N_4O_3$	[603-00-9] (R,S)-3,7-dihydro-7-(2-hydroxypropyl)-1,3-dimethyl-1*H*-pyrine-2,6-dione (proxyphylline)					
	$\Delta_{fus}H$ *(I)*		24.7	408.2		
	$\Delta_{fus}H$ *(II)*		20.8	389.2		[2000GRI/AUE]
$C_{10}H_{14}N_4O_4$	[479-18-5] 7-(2,3-dihydroxypropyl)-3,7-dihydro-1,3-dimethyl-1*H*-purine-2,6-dione (dyphylline)					
	$\Delta_{fus}H$		39.3	435.7		[1999GRI/AUE]
$C_{10}H_{14}O$	[3180-09-4] 2-butylphenol					
	$\Delta_{l}^{g}H$	(403–533)	55.1	418	A	[1987STE/MAL, 1975ARR/MEL]
	$\Delta_{l}^{g}H$	(382–520)	52.9	398		[1953STA/MUL]
	$\Delta_{l}^{g}H$	(382–520)	51.0	423		[1953STA/MUL]
	$\Delta_{l}^{g}H$	(382–520)	47.0	473		[1953STA/MUL]
$C_{10}H_{14}O$	[89-72-5] 2-sec-butylphenol					
	$\Delta_{l}^{g}H$	(451–513)	52.1	466	A,GS,EB	[1987STE/MAL, 1964HAN/HAR]
$C_{10}H_{14}O$	[88-18-6] 2-*tert*-butylphenol					
	$\Delta_{l}^{g}H$	(289–329)	62.6 ± 0.2	309	GS	[1999VER2]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		63.2 ± 0.2	298		[1999VER2]
	$\Delta_v H$	(409–467)	74.1	424	EB	[1990NES/NAZ]
	$\Delta_v H$	(409–465)	52.9	424		[1986TSV/NAZ]
	$\Delta_v H$	(353–498)	54.9	368	A	[1987STE/MAL]
	$\Delta_v H$	(330–507)	55.6	348		[1953STA/MUL]
	$\Delta_v H$	(330–507)	53.9	373		[1953STA/MUL]
	$\Delta_v H$	(330–507)	51.0	423		[1953STA/MUL]
	$\Delta_v H$	(330–507)	47.0	473		[1953STA/MUL]
$C_{10}H_{14}O$	[4074-43-5]	3-butylphenol				
	$\Delta_v H$	(396–533)	62.5	411	A	[1987STE/MAL]
	$\Delta_v H$	(396–533)	56.6	398		[1953STA/MUL]
	$\Delta_v H$	(396–533)	54.4	423		[1953STA/MUL]
	$\Delta_v H$	(396–533)	49.9	473		[1953STA/MUL]
$C_{10}H_{14}O$	[585-34-2]	3-*tert*-butylphenol				
	$\Delta_{sub}H$		88.9 ± 0.5	298	C	[1999RIB/MAT2]
	$\Delta_{sub}H$	(278–319)	86.0 ± 0.5	298	GS	[1999VER2]
	$\Delta_{sub}H$	(266–299)	70.7	281	A	[1987STE/MAL]
	$\Delta_v H$	(320–348)	69.1 ± 0.8	334	GS	[1999VER2]
	$\Delta_v H$	(320–348)	71.3 ± 0.8	298	GS	[1999VER2]
	$\Delta_v H$	(391–524)	62.4	406	A	[1987STE/MAL]
	$\Delta_v H$	(391–524)	56.6	398		[1953STA/MUL]
	$\Delta_v H$	(391–524)	54.4	423		[1953STA/MUL]
	$\Delta_v H$	(391–524)	49.9	473		[1953STA/MUL]
$C_{10}H_{14}O$	[1638-22-8]	4-butylphenol				
	$\Delta_v H$	(395–653)	61.7	410	A	[1987STE/MAL]
	$\Delta_v H$	(357–529)	57.6	373		[1953STA/MUL]
	$\Delta_v H$	(357–529)	56.6	398		[1953STA/MUL]
	$\Delta_v H$	(357–529)	54.4	423		[1953STA/MUL]
	$\Delta_v H$	(357–529)	49.9	473		[1953STA/MUL]
$C_{10}H_{14}O$	[99-71-8]	4-sec-butylphenol				
	$\Delta_v H$	(344–516)	59.0	359	A	[1987STE/MAL, 1947STU]
$C_{10}H_{14}O$	[98-54-4]	4-*tert*-butylphenol				
	$\Delta_{fus}H$		14.52	373.2		[1972INO/LIA]
	$\Delta_{sub}H$		89.4 ± 2.5	298	C	[1999RIB/MAT2]
	$\Delta_{sub}H$	(293–334)	85.0 ± 0.5	313	GS	[1999VER2]
	$\Delta_{sub}H$	(293–334)	85.9 ± 0.5	298	GS	[1999VER2]
	$\Delta_{sub}H$	(280–304)	84.3	292	A	[1987STE/MAL, 1960AIH]
	$\Delta_v H$		67.9 ± 1.0	298	C	[1999RIB/MAT2]
	$\Delta_v H$	(471–525)	54.3	486	A,GS,EB	[1987STE/MAL, 1947STU, 1964HAN/HAR]
	$\Delta_v H$	(346–523)	59.6	348		[1953STA/MUL]
	$\Delta_v H$	(346–523)	57.6	373		[1953STA/MUL]
	$\Delta_v H$	(346–523)	56.6	398		[1953STA/MUL]
	$\Delta_v H$	(346–523)	54.4	423		[1953STA/MUL]
	$\Delta_v H$	(346–523)	49.9	473		[1953STA/MUL]
$C_{10}H_{14}O$	[1126-79-0]	butyl phenyl ether				
	$\Delta_v H$	(391–483)	48.9	406	A	[1987STE/MAL, 1949DRE/SHR, 1984BOU/FRI]
$C_{10}H_{14}O$	[4371-48-6]	3-isopropyl-2-methylphenol				
	$\Delta_v H$	(365–516)	60.2	380	EB	[1969LAM/PER]
$C_{10}H_{14}O$	[1740-97-2]	4-isopropyl-2-methylphenol				
	$\Delta_v H$	(382–503)	59.8	397	EB	[1969LAM/PER]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{14}O$	[499-75-2]	5-isopropyl-2-methylphenol (carvacrol)				
	$\Delta_v H$		68.2	298	GC	[2002VAN/PAR]
	$\Delta_v H$	(387–512)	59.4	402	EB	[1969LAM/PER]
	$\Delta_v H$	(343–510)	56.5	358	A	[1987STE/MAL, 1947STU]
$C_{10}H_{14}O$	[3228-04-4]	6-isopropyl-2-methylphenol				
	$\Delta_v H$	(371–499)	54.5	386	EB	[1969LAM/PER]
$C_{10}H_{14}O$	[1197-34-8]	3,5-diethylphenol				
	$\Delta_v H$	(387–521)	54.3	402	A	[1987STE/MAL, 1955VON/GEB]
$C_{10}H_{14}O$	[4167-74-2]	4-isobutylphenol				
	$\Delta_v H$	(345–510)	58.1	360	A	[1987STE/MAL, 1947STU]
$C_{10}H_{14}O$	[527-35-5]	2,3,5,6-tetramethylphenol				
	$\Delta_v H$	(381–522)	51.2	396	A	[1987STE/MAL, 1955VON/GEB]
$C_{10}H_{14}O$	[89-83-8]	2-isopropyl-5-methylphenol (thymol)				
	$\Delta_{fus}H$		22.01	324.2		[1991CHI/BRA]
	$\Delta_{sub}H$	(273–295)	75.1	284	A	[1987STE/MAL, 1960AIH]
	$\Delta_{sub}H$	(293–323)	89.1 ± 4.5	303	HSA	[1975CHI]
	$\Delta_{sub}H$	(229–312)	U 69.0	270	TGA	[1971ASH]
	$\Delta_{sub}H$	(273–313)	91.2 ± 4.1		TE	[1970COX/PIL, 1960JON, 1947BAL]
	$\Delta_{sub}H$	(283–323)	91.5	298		[1957SHE/BRY, 1987STE/MAL]
	$\Delta_v H$	(333–433)	70.9	298	GC	[2005HOS/GRY]
	$\Delta_v H$		68.7	298	GC	[2002VAN/PAR]
	$\Delta_v H$	(393–433)	70.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(381–514)	58.4	396	A	[1987STE/MAL]
	$\Delta_v H$	(339–514)	63.2	373		[1953STA/MUL]
	$\Delta_v H$	(339–514)	58.4	398		[1953STA/MUL]
	$\Delta_v H$	(339–514)	55.2	423		[1953STA/MUL]
	$\Delta_v H$	(339–514)	52.8	448		[1953STA/MUL]
	$\Delta_v H$	(339–514)	51.5	473		[1953STA/MUL]
	$\Delta_v H$	(337–505)	54.9	352		[1947STU]
$C_{10}H_{14}O$	[22327-39-5]	(*dl*) carvone				
	$\Delta_v H$	(330–501)	55	345	A	[1987STE/MAL, 1947STU]
$C_{10}H_{14}O$	[na]	(*l*)-carvone				
	$\Delta_{fus}H$		11.55	247.7		[1996GAL/BOU]
$C_{10}H_{14}O$	[2244-16-8]	(+)-carvone				
	$\Delta_v H$	(323–433)	58.2	298	GC	[2005HOS/GRY]
$C_{10}H_{14}O$	[18486-69-6]	(−)-myrtenal				
	$\Delta_v H$	(323–423)	55.1	298	GC	[2005HOS/GRY]
$C_{10}H_{14}O$	[1585-06-4]	4-ethylphenetole				
	$\Delta_v H$	(321–481)	54.3	336	A	[1987STE/MAL, 1947STU]
$C_{10}H_{14}O$	[22545-12-6]	2-(2-ethylphenyl)ethanol				
	$\Delta_v H$	(420–653)	59.5	435	A	[1987STE/MAL]
$C_{10}H_{14}O$	[22545-13-7]	2-(4-ethylphenyl)ethanol				
	$\Delta_v H$	(420–653)	59.1	435	A	[1987STE/MAL]
$C_{10}H_{14}O$	[536-60-7]	4-isopropylbenzyl alcohol				
	$\Delta_v H$	(347–520)	59.7	362	A	[1987STE/MAL, 1947STU]
$C_{10}H_{14}O$	[7384-80-7]	2-methyl-3-phenyl-1-propanol				
	$\Delta_v H$	(343–393)	71.9	358	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{14}O$	[3299-05-6]	(1-ethoxyethyl)benzene				
	$\Delta_v H$	(286–318)	52.4 ± 0.2	302	GS	[2001VER/HEI]
	$\Delta_v H$	(286–318)	52.6 ± 0.2	298	GS	[2001VER/HEI]
$C_{10}H_{14}O$	[700-58-3]	2-adamantanone				
	$\Delta_{trs}H$	(5–310)	7.63	216.4	AC	[2006BAR/BLO]
	$\Delta_{fus}H$		11.77	557.5	DSC	[2006BAR/BLO]
	$\Delta_{sub}H$		66.4 ± 0.3	298	C	[2006BAR/BLO]
	$\Delta_{sub}H$	(280–333)	66.3 ± 0.8	298	ME	[2006BAR/BLO]
	$\Delta_{sub}H$		76.1 ± 1.5	298		[2002MIR/LEB, 2006BAR/BLO]
	$\Delta_{sub}H$		80.3 ± 2.5	298	BG	[1978ARO/STE]
	$\Delta_v H$		60.7 ± 0.2	298	GC	[2002VAN/PAR]
$C_{10}H_{14}O$	[935-67-1]	(1-methoxy-1-methylethyl)-benzene				
	$\Delta_v H$	(278–313)	53.0 ± 0.5	296	GS	[2001HEI/VER]
	$\Delta_v H$	(278–313)	52.9 ± 0.5	298	GS	[2001HEI/VER]
$C_{10}H_{14}O_2$	[4026-05-5]	1,2-dihydroxy-3-*tert*-butylbenzene				
	$\Delta_v H$	(334–384)	70.1 ± 0.8	359	GS	[2000VER/SCH]
	$\Delta_v H$	(334–384)	73.5 ± 0.8	298	GS	[2000VER/SCH]
$C_{10}H_{14}O_2$	[98-29-3]	1,2-dihydroxy-4-*tert*-butylbenzene				
	$\Delta_{fus}H$		15.1	330.4		[2000VER/SCH]
	$\Delta_{sub}H$		98.7 ± 0.9	313	GS	[2000VER/SCH]
	$\Delta_{sub}H$		99.2 ± 0.9	298	GS	[2000VER/SCH]
	$\Delta_{sub}H$		99.3 ± 1.4	298	C	[1984CAR]
	$\Delta_v H$	(439–516)	96.5 ± 2.8	298	EB	[1997STE/CHI2]
$C_{10}H_{14}O_2$	[1948-33-0]	2-*tert*-butyl-1,4-dihydroxybenzene				
	$\Delta_{fus}H$		27.74	350.9		[1999VER7]
	$\Delta_{sub}H$	(333–368)	101.2 ± 1.3	351	GS	[1999VER7]
	$\Delta_{sub}H$		104.4 ± 1.3	298	GS	[1999VER7]
$C_{10}H_{14}O_2$	[13331-20-9]	1,3-dihydroxy-2-butylbenzene				
	$\Delta_v H$	(413–469)	75.3	428	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_{10}H_{14}O_2$	[2785-87-7]	2-methoxy-4-propylphenol				
	$\Delta_v H$	(373–413)	78.0	388	A	[1987STE/MAL]
$C_{10}H_{14}O_2$	[na]	*tert*-butylcatechol (isomer not specified)				
	$\Delta_v H$	(421–466)	58.2	443		[1965GAK/BAB]
$C_{10}H_{14}O_2$	[490-06-2]	6-methyl-3-isopropyl-1,2-dihydroxybenzene				
	$\Delta_{sub}H$		96.6 ± 0.9	298	C	[1984CAR]
$C_{10}H_{14}O_2$	[18523-34-7]	1,1-dimethoxy-2-phenylcyclopropane				
	$\Delta_v H$	(278–313)	63.7 ± 0.6	298	GS	[2002VER]
$C_{10}H_{14}O_2$	[4316-35-2]	acetophenone dimethyl ketal				
	$\Delta_v H$	(268–303)	54.0 ± 0.8	298	GS	[2002VER]
	$\Delta_v H$	(268–303)	55.0 ± 1.3	286	GS	[1995VER/DOG]
$C_{10}H_{14}O_2$	[na]	(1S)-(+)-camphorquinone				
	$\Delta_{fus}H$		6.07	473.2		[1992ELS/PRA]
		Note: Fusion enthalpy seems low, compound may have an unmeasured phase transition at a lower temperature]				
$C_{10}H_{14}O_3$	[707-07-3]	trimethyl orthobenzoate				
	$\Delta_v H$	(294–333)	59.9 ± 0.4	298	GS	[2002VER]
	$\Delta_v H$	(294–333)	58.6 ± 0.4		GS	[1995RAK/VER2]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{14}O_3$	[595-31-3]	(*d*)-camphoric anhydride				
	$\Delta_{trs}H$		19.5	404.4		
	$\Delta_{fus}H$		5.65	493.6	DSC	[1984WEI/LEF]
	$\Delta_{trs}H$		29	406		
	$\Delta_{fus}H$		8.7	495	DSC	[1979MJO]
$C_{10}H_{14}O_3$	[76-32-4]	(*dl*)-camphoric anhydride				
	$\Delta_{trs}H$		17.31	374.5		
	$\Delta_{fus}H$		5.72	493.9	DSC	[1984WEI/LEF]
	$\Delta_{trs}H$		24.0	375		
	$\Delta_{fus}H$		8.7	495	DSC	[1979MJO]
$C_{10}H_{14}O_3$	[na]	(racemic) 3-(2-methylphenoxy)propane-1,2-diol				
	$\Delta_{fus}H$		32.2	343.8	DSC	[2008BRE/BRE]
$C_{10}H_{14}O_3$	[52153-44-3]	(S)- 3-(2-methylphenoxy)propane-1,2-diol				
	$\Delta_{fus}H$		34.4	364.2	DSC	[2008BRE/BRE]
$C_{10}H_{14}O_5$	[na]	allyl[(1-allyloxycarbonyl)ethyl] carbonate				
	Δ_vH	(353–503)	61.9	368	A	[1987STE/MAL]
$C_{10}H_{14}O_8$	[na]	(*dl*) dimethyl diacetyltartrate				
	$\Delta_{fus}H$		25.94	355.2		[1991CHI/BRA]
$C_{10}H_{14}O_8$	[na]	(*d*) dimethyl diacetyltartrate				
	$\Delta_{fus}H$		29.29	377.2		[1991CHI/BRA]
$C_{10}H_{15}Br$	[768-90-1]	1-bromoadamantane				
	$\Delta_{trs}H$	(6–320)	0.001	31	AC	
	$\Delta_{trs}H$	(6–320)	1.39	282.3	AC	
	$\Delta_{trs}H$	(290–430)	7.42	309.9	DSC	
	$\Delta_{fus}H$	(290–430)	3.97	391.8	DSC	[2005BAZ/BLO]
	$\Delta_{trs}H$		0.88	279		
	$\Delta_{trs}H$		6.93	310.5		
	$\Delta_{fus}H$		3.83	396.5		[1977CLA/KNO]
	$\Delta_{sub}H$ *(form II)*	(288–310)	71.6 ± 1.1	299	ME	[2005BAZ/KAB]
	$\Delta_{sub}H$ *(form II)*		71.8 ± 0.3	303	C	[2005BAZ/KAB]
	$\Delta_{sub}H$ *(form I)*	(310–323)	63.2 ± 2.1	317	ME	[2005BAZ/KAB]
$C_{10}H_{15}Cl$	[935-56-8]	1-chloroadamantane				
	$\Delta_{trs}H$		6.01	244.2		
	$\Delta_{fus}H$		4.87	442.5		[1977CLA/KNO]
	$\Delta_{fus}H$		5.53	439.7		[1998KOB/KYO]
$C_{10}H_{15}Cl$	[7346-41-0]	2-chloroadamantane				
	$\Delta_{trs}H$		0.47	227		
	$\Delta_{trs}H$		8.3	242	DSC	[1988PAR/KAW]
	$\Delta_{sub}H$		61.5 ± 0.8	298	ME	[2002ABB/CAS]
$C_{10}H_{15}Cl_3OS$	[76633-71-1]	2,3,3-trichloro-2-propenethioic acid, O-heptyl ester				
	Δ_vH	(433–483)	72.7		GC	[1980PIT/KIS]
$C_{10}H_{15}F$	[768-92-3]	1-fluoroadamantane				
	$\Delta_{fus}H$		1.5	221.6		[1991KAW/GIL]
$C_{10}H_{15}I$	[768-93-4]	1-iodoadamantane				
	$\Delta_{trs}H$		2.14	211		
	$\Delta_{fus}H$		10.22	347		[1977CLA/KNO]
$C_{10}H_{15}N$	[6310-21-0]	2-*tert*-butylaniline				
	Δ_vH	(279–318)	62.7 ± 0.4	298	GS	[2000VER3]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{15}N$	[579-66-8] 2,6-diethylaniline					
	$\Delta_v H$	(284–328)	69.5 ± 0.6	306		[2000VER3]
	$\Delta_v H$		65.9 ± 0.6	298		[2000VER3]
$C_{10}H_{15}N$	[2051-53-8] 5-isopropyl-2-methylaniline					
	$\Delta_v H$	(360–386)	72.0	373	A	[1987STE/MAL]
$C_{10}H_{15}N$	[537-46-2] N-α-dimethylphenethylamine					
	$\Delta_v H$	(270–304)	52.8	285	A	[1987STE/MAL]
$C_{10}H_{15}N$	[1126-78-9] N-butylaniline					
	$\Delta_v H$	(413–643)	55.6	428	A	[1987STE/MAL]
$C_{10}H_{15}N$	[91-66-7] N,N-diethylaniline					
	$\Delta_v H$	(343–493)	54.5	358	A	[1987STE/MAL]
$C_{10}H_{15}NO$	[na] 2-(dimethylamino)-1-phenylethanone					
	$\Delta_v H$	(293–333)	69.7 ± 0.5	298	GS	[1994WEL/VER]
$C_{10}H_{15}NO$	[103-62-8] 4-(butylamino)phenol					
	$\Delta_v H$	(464–511)	71.2	478	A	[1987STE/MAL]
$C_{10}H_{15}NO$	[55658-55-4] (*dl*)-carvoxime					
	$\Delta_{fus}H$		17.03	365.1	DTA	[1981CHI/GAR]
	$\Delta_{sub}H$	(324–343)	101.6 ± 5	334	HAS	[1981CHI/GAR]
$C_{10}H_{15}NO$	[80124-30-7] (d)-carvoxime					
	$\Delta_{fus}H$		22.72	346.5	DTA	[1981CHI/GAR]
	$\Delta_{sub}H$	(324–343)	90.8 ± 4.5	334	HAS	[1981CHI/GAR]
$C_{10}H_{15}NO$	[90-82-4] (+) *threo*-2-(methylamino)-1-phenyl-1-propanol (pseudoephedrine)					
	$\Delta_{fus}H$		31.95	392.4	DSC	[1999LI/ZEL]
$C_{10}H_{15}NO$	[4125-58-0] (+) *threo*-2-(methylamino)-1-phenyl-1-propanol (pseudoephedrine)					
	$\Delta_{fus}H$		34.1	391.1	DSC	[1999LI/ZEL]
$C_{10}H_{15}NO$	[299-42-3] (−) 2-(methylamino)-1-phenyl-1-propanol (ephedrine)					
	$\Delta_{fus}H$		17.33	312.9	DSC	[1999LI/ZEL]
$C_{10}H_{15}NO$	[90-81-3] (+) 2-(methylamino)-1-phenyl-1-propanol (ephedrine)					
	$\Delta_{fus}H$		29.09	350.7	DSC	[1999LI/ZEL]
$C_{10}H_{15}NO_2$	[120-07-0] N,N-*bis*(2-hydroxyethyl)aniline					
	$\Delta_v H$	(418–611)	77.6	433	A	[1987STE/MAL, 1947STU]
$C_{10}H_{15}NO_2$	[7575-82-8] 1-nitroadamantane					
	$\Delta_{fus}H$		4.18	435.2		[1990FRI/DOG]
	Note: Entropy seems low, compound may have lower temperature phase transitions.					
	$\Delta_{sub}H$	(321–357)	63.6 ± 1.0	339	T	[1990FRI/DOG]
$C_{10}H_{15}NO_2$	[54654-31-7] 2-nitroadamantane					
	$\Delta_{fus}H$		4.23	452.2		[1990FRI/DOG]
	Note: Entropy seems low, compound may have lower temperature phase transitions.					
	$\Delta_{sub}H$	(331–368)	58.0 ± 2.3	350	T	[1990FRI/DOG]
$C_{10}H_{15}N_5$	[153495-35-3] 6,9-dimethyl-8-propyladenine					
	$\Delta_{fus}H$		30.2	411.9		[1994ZIE/ZIE]
	$\Delta_{sub}H$	(345–349)	129.0 ± 0.1	347	ME	[1994ZIE/ZIE]
$C_{10}H_{15}N_5$	[117954-98-0] 8-butyl-9-methyladenine					

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(363–368)	135.1 ± 1.2	366	ME	[1987KAM/ZIE7]
$C_{10}H_{15}N_5O_3$	[39809-25-1]	9-(4-hydroxy-3-hydroxymethylbut-1-yl)guanine				
	$\Delta_{fus}H$		35.74	551.2		[2004AHM/BAR]
$C_{10}H_{15}O_3PS_2$	[55-38-9]	O,O-dimethyl-O-[3-methyl-4-(methylthio)phenyl]thiophosphate				
	$\Delta_{l}H$	(293–373)	75.6	308	A	[1987STE/MAL, 1999DYK/SVO]
$C_{10}H_{16}$	[53130-19-1]	tricyclo[4.3.1.0^{3,8}]decane				
	$\Delta_{sub}H$	(310–335)	64.9 ± 1.8	323	TSGC	[1975CLA/KNO]
	$\Delta_{sub}H$		65.6	298	H	[1975CLA/KNO, 1993CHI/HOS]
$C_{10}H_{16}$	[6004-38-2]	tricyclo[5.2.1.0^{2,6}]decane				
	$\Delta_{trs}H$		2.57	204.3		
	$\Delta_{fus}H$		3.07	345.3	AC	[2003KON/TAN]
	$\Delta_{fus}H$		2.95	352		[1996DOM/HEA]
	$\Delta_{sub}H$	(359–443)	52.9 ± 1.3	298	BG	[1971BOY/SAN, 1977PED/RYL]
	$\Delta_{l}H$	(394–457)	46.0	409	EB	[2009XIN/FAN]
$C_{10}H_{16}$	[17760-91-7]	tricyclo[5.2.1.0$_{4,10}$]decane (hexahydrotriquinacene)				
	$\Delta_{sub}H$		56.6 ± 1.3	307	TSGC	[1979CLA/KNO]
$C_{10}H_{16}$	[283-50-1]	bicyclo[3.3.2]decane				
	$\Delta_{sub}H$		58.2 ± 2	298		[1977PAR/STE]
$C_{10}H_{16}$	[281-23-2]	adamantane				
	$\Delta_{trs}H$		3.21	208	AC	[2006VAN/VAN]
	$\Delta_{fus}H$		10.9	541	DSC	[1998CHI/HES]
	$\Delta_{trs}H$	(5–350)	3.38	208.6	AC	[1960CHA/WES]
	$\Delta_{fus}H$		10.9	541.2		[1996DOM/HEA, 1966PIR, 1993HAK]
	$\Delta_{trs}H$		3.38	208.6	AC	[1960CHA/WES]
	$\Delta_{fus}H$		13.8	543.2		[2000KAB/BLO]
	$\Delta_{sub}H$		59.1	298		[2000MOK/RUZ]
	$\Delta_{sub}H$		58.3	308		[2000KAB/BLO]
	$\Delta_{sub}H$		52.6	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(278–368)	59.7	293	A	[1987STE/MAL]
	$\Delta_{sub}H$	(328–373)	55.3	343	A	[1987STE/MAL]
	$\Delta_{sub}H$	(343–483)	54.3	358	A	[1987STE/MAL, 1968FLO]
	$\Delta_{sub}H$		58.45	298	C	[1982JOC/DEK]
	$\Delta_{sub}H$	(278–443)	59.5	300		[1975LEE/SLU]
	$\Delta_{sub}H$	(310–336)	59.7 ± 0.8	326	TSGC	[1975CLA/KNO]
	$\Delta_{sub}H$		58.6	298	H	[1975CLA/KNO, 1993CHI/HOS]
	$\Delta_{sub}H$	(310–336)	59.3 ± 0.2	326	BG	[1971BOY/SAN]
	$\Delta_{sub}H$		60.5 ± 1.3	298	H	[1971BOY/SAN, 1993CHI/HOS]
	$\Delta_{sub}H$	(312–366)	53.6	332	I	[1971WU/HSU]
	$\Delta_{sub}H$		54.8	298	H	[1971WU/HSU, 1993CHI/HOS]
	$\Delta_{sub}H$		59.3 ± 0.16	298	C	[1970MAN/RAP]
	$\Delta_{sub}H$		59.5	298		[1970VON/WIL, 1971BUT/CAR]
	$\Delta_{sub}H$	(313–353)	58.6 ± 0.6	333	DBM	[1967BRA/SZI]
	$\Delta_{sub}H$		59.6	298	H	[1967BRA/SZI, 1993CHI/HOS]
	$\Delta_{sub}H$		62.3	298		[1967BRA/SZI]
	$\Delta_{l}H$		48.2	298	GC	[2002VAN/PAR]
	$\Delta_{l}H$	(403–453)	51.7	298	CGC	[1995CHI/HOS]
$C_{10}H_{16}$	[79-92-5]	(*dl*) 2,2-dimethyl-3-methylenebicyclo[2.2.1]heptane (camphene)				
	$\Delta_{sub}H$		46.8		C	[1977KOZ/BYC]
	$\Delta_{l}H$	(320–434)	44.0	335	A	[1987STE/MAL, 1947STU]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{16}$	[4497-92-1]	(*d*) 3,7,7-trimethylbicyclo[4.1.0]hept-2-ene (2-carene)				
	$\Delta_v H$	(293–450)	45.5	308	A	[1987STE/MAL, 1954BUK/MAJ]
$C_{10}H_{16}$	[498-15-7]	(*d*) 3,7,7-trimethylbicyclo[4.1.0]hept-3-ene (3-carene)				
	$\Delta_v H$	(359–443)	42.8	374	A	[1987STE/MAL]
$C_{10}H_{16}$	[na]	(+) limonene				
	$\Delta_v H$	(373–423)	49.6	298	CGC	[1995CHI/HOS]
$C_{10}H_{16}$	[na]	(S)-(−) limonene				
	$\Delta_v H$	(320–451)	47.4	335		[1996ROD/BER]
$C_{10}H_{16}$	[5989-27-5]	(*d*) limonene				
	$\Delta_{fus}H$		11.38	199.2		[1996GAL/VAN, 1996GAL/VAN]
	$\Delta_v H$	(326–445)	49.5	298		[2009CLA/GOM]
	$\Delta_v H$	(313–413)	49.6	298	GC	[2005HOS/GRY]
	$\Delta_v H$		49.9	298	GC	[2002VAN/PAR]
	$\Delta_v H$	(339–495)	46.1 ± 0.2	350	EB	[2002STE/CHI2]
	$\Delta_v H$	(339–495)	43.5 ± 0.2	390	EB	[2002STE/CHI2]
	$\Delta_v H$	(339–495)	40.9 ± 0.3	430	EB	[2002STE/CHI2]
	$\Delta_v H$	(339–495)	37.9 ± 0.6	470	EB	[2002STE/CHI2]
	$\Delta_v H$	(250–434)	49.2	300		[1999DIA/GUE]
	$\Delta_v H$		48.9 ± 0.1	298	C	[1987ATI/SAI]
	$\Delta_v H$	(287–448)	44.5	302	A	[1987STE/MAL]
	$\Delta_v H$	(288–323)	47.7	303	A	[1987STE/MAL]
$C_{10}H_{16}$	[5989-54-8]	(*l*) limonene				
	$\Delta_v H$	(325–450)	47.0	340		[1993NAD/BER]
	$\Delta_v H$		49.0 ± 0.1	298	C	[1987ATI/SAI]
	$\Delta_v H$	(303–363)	45.5	318	A	[1987STE/MAL, 1954BUK/MAJ]
$C_{10}H_{16}$	[138-86-3]	(*dl*) limonene				
	$\Delta_v H$	(287–448)	45.9	302	A	[1987STE/MAL]
$C_{10}H_{16}$	[na]	limonene				
	$\Delta_v H$	(353–405)	39.4	379	TGA	[2002HAZ/DOL]
$C_{10}H_{16}$	[na]	*β*-myrcene				
	$\Delta_v H$	(303–363)	47.0	318		[1954BUK/MAJ]
$C_{10}H_{16}$	[123-35-3]	7-methyl-3-methylene-1,6-octadiene (myrcene)				
	$\Delta_v H$		50.6	298	GC	[2002VAN/PAR]
	$\Delta_v H$	(287–445)	45.7	302	A	[1987STE/MAL, 1947STU]
$C_{10}H_{16}$	[99-83-2]	5-isopropyl-2-methyl-1,3-cyclohexadiene				
	$\Delta_v H$	(293–448)	47.7	308	A	[1987STE/MAL]
$C_{10}H_{16}$	[555-10-2]	3-isopropyl-6-methylenecyclohexene				
	$\Delta_v H$	(303–363)	47.7	318	A	[1987STE/MAL, 1954BUK/MAJ]
$C_{10}H_{16}$	[na]	*α*-pinene				
	$\Delta_v H$	(320–429)	42.5	335		[1996ROD/BER]
	$\Delta_v H$	(365–430)	40.2	380		[1993REI/SAN]
	$\Delta_v H$		44.6 ± 0.1	298	C	[1987AN/HU]
$C_{10}H_{16}$	[80-56-8]	(*d*) *α*-pinene				
	$\Delta_v H$	(308–427)	45.4	298		[2009CLA/GOM]
	$\Delta_v H$	(292–433)	45.0	307	A	[1987STE/MAL]
	$\Delta_v H$	(293–363)	43.4	308		[1954BUK/MAJ]
$C_{10}H_{16}$	[127-91-3]	*β*-pinene				
	$\Delta_v H$	(290–439)	46.0	305		[1996ROD/BER]
	$\Delta_v H$	(364–439)	41.6	379		[1993REI/SAN]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		45.8 ± 0.1	298	C	[1987AN/HU]
$C_{10}H_{16}$	[na]	(*l*) β-pinene				
	$\Delta_v H$	(291–441)	46.1	306	A	[1987STE/MAL]
	$\Delta_v H$	(293–363)	44.9	308		[1954BUK/MAJ]
$C_{10}H_{16}$	[586-62-9]	terpinolene				
	$\Delta_v H$	(313–363)	50.8	328		[1954BUK/MAJ]
	$\Delta_v H$	(305–458)	50.5	320	A	[1987STE/MAL, 1947STU]
$C_{10}H_{16}$	[79-92-5]	camphene				
	$\Delta_v H$	(313–413)	44.7	298	GC	[2005HOS/GRY]
$C_{10}H_{16}$	[99-85-4]	γ-terpinene				
	$\Delta_v H$	(313–413)	51.4	298	GC	[2005HOS/GRY]
$C_{10}H_{16}$	[4221-98-1]	sabinene				
	$\Delta_v H$	(313–413)	46.9	298	GC	[2005HOS/GRY]
$C_{10}H_{16}$	[4221-98-1]	(−)-α-phellandrene				
	$\Delta_v H$	(313–423)	48.3	298	GC	[2005HOS/GRY]
$C_{10}H_{16}$	[4497-92-1]	(+) 2-carene				
	$\Delta_v H$	(313–413)	48.5	298	GC	[2005HOS/GRY]
$C_{10}H_{16}$	[498-15-7]	(+) 3-carene				
	$\Delta_v H$	(313–413)	48.5	298	GC	[2005HOS/GRY]
$C_{10}H_{16}$	[2867-05-2]	α-thujene				
	$\Delta_v H$	(313–413)	44.8	298	GC	[2005HOS/GRY]
$C_{10}H_{16}$	[6004-38-2]	tetrahydrodicyclopentadiene				
	$\Delta_v H$	(358–465)	43.5	373	A	[1987STE/MAL]
$C_{10}H_{16}$	[2825-82-3]	*exo* tetrahydrodicyclopentadiene				
	$\Delta_{trs}H$		3.18	162.1		
	$\Delta_{fus}H$		1.2	183.2	DSC	[2002CHI/HIL]
$C_{10}H_{16}$	[2825-83-4]	*endo* tetrahydrodicyclopentadiene				
	$\Delta_{trs}H$		10.7	213.8		
	$\Delta_{fus}H$		3.48	356.8	DSC	[2002CHI/HIL]
$C_{10}H_{16}ClO_6$	[na]	lactic acid, O-ethoxycarbonyl, 2-(2-chloroethoxy)ethyl ester				
	$\Delta_v H$	(406–523)	83.8 (sub)	421	A	[1987STE/MAL]
$C_{10}H_{16}Cl_3NOS$	[2303-17-5]	carbamothioic acid, *bis*(isopropyl), S-(2,3,3-trichloroallyl) ester				
	$\Delta_{fus}H$		27.11	306.4	DSC	[1991ACR, 1990DON/DRE]
	$\Delta_v H$	(293–318)	84.3	305	A	[1987STE/MAL]
$C_{10}H_{16}NOS$	[2303-17-5]	S-2,3,3-trichloroallyl N,N-diisopropylthiocarbonate (triallate)				
	$\Delta_{sub}H$	(293–318)	84.0			[1983SPE/CLI, 1978GRO/SPE]
$C_{10}H_{16}NO_4PS$	[52-85-7]	O-[4-(dimethylamino)sulfonyl]phenyl] O,O-dimethylphosphorothionate				
	$\Delta_{fus}H$		26.5	326.8	DSC	[1990DON/DRE]
$C_{10}H_{16}N_2$	[1871-96-1]	sebaconitrile				
	$\Delta_{fus}H$		28.2	281.2	DSC	[2007BAD/BLA]
	$\Delta_v H$	(303–343)	83.7	318	A	[1987STE/MAL]
$C_{10}H_{16}N_2$	[33089-74-6]	N′-(2,4-dimethylphenyl)-N-methylformamidine				
	$\Delta_v H$		89.2	303		[1998ZHA/MO]
$C_{10}H_{16}N_2$	[85688-96-6]	methyl(1,1,1-trimethylpropyl)propanedinitrile				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		62.0 ± 0.7	298		[1990BEC/DOG]
$C_{10}H_{16}N_2$	[85688-95-5] (1,1-dimethylpropyl)ethylpropanedinitrile					
	$\Delta_{fus}H$		19.25	307.5		[1990BEC/DOG]
	$\Delta_{sub}H$		76.2 ± 0.8	298		[1990BEC/DOG]
$C_{10}H_{16}N_2$	[na] *meso* 2,3-diethyl-2,3-dimethylsuccinonitrile					
	$\Delta_{fus}H$		26.78	370.2		[1983BAR/BEC]
$C_{10}H_{16}N_2O_2$	[82413-40-9] 1,3-dimethyl-5-butyluracil					
	$\Delta_{fus}H$		22	312.1		[1996KAM/ZIE]
	$\Delta_{sub}H$	(306–311)	106.3 ± 1.3	309	ME	[1996KAM/ZIE]
$C_{10}H_{16}N_2O_2$	[77-28-1] 5-butyl-5-ethylbarbituric acid (butobarbital)					
	$\Delta_{fus}H$ *(I)*		13.6	394.2		
	$\Delta_{fus}H$ *(II)*		14.7	392.7		
	$\Delta_{fus}H$ *(III)*		17.3	396.2	DSC	[1989CHA/DEM]
$C_{10}H_{16}N_4O_2S$	[55511-98-3] 3-(5-(1,1-dimethylethyl)-1,3,4-thiadiazol-2-yl)-4-hydroxy-1-methyl-2-imidazolidinone					
	$\Delta_{fus}H$		25.46	408.9	DSC	[1990DON/DRE]
$C_{10}H_{16}N_6S$	[51481-61-9] N-cyano-N′-methyl-N″-[2-[(5-methyl-1*H*-imidazol-4-yl)-thio]ethyl]guanidine (cimetidine)					
	$\Delta_{fus}H$ *(I)*		41.0	413.8		
	$\Delta_{fus}H$ *(II)*		39.7	413.5	DSC	[1999BAU/MAR]
	$\Delta_{fus}H(A)$		38.2	412.2	DSC	
	$\Delta_{fus}H(B)$		34.8	413.7	DSC	[1996BAU]
	Note: Cimetidine is reported to have four different crystalline forms					
$C_{10}H_{16}O$	[29171-20-8] 3,7-dimethyl-6-octen-1-yn-3-ol (dehydrolinalool)					
	Δ_vH	(406–471)	52.1	421	EB	[2001ZHU/LI]
	Δ_vH	(359–381)	U			[1999ZAR/CHA]
	Δ_vH	(369–445)	50.4 ± 0.1	407		[1988BAG/GUR]
$C_{10}H_{16}O$	[na] camphor					
	Δ_vH	(343–383)	54.4	298	CGC	[1995CHI/HOS]
	Δ_vH	(343–383)	54.5	298	CGC	[1995CHI/HOS]
	Δ_vH	(343–383)	55.2	298	CGC	[1995CHI/HOS]
$C_{10}H_{16}O$	[464-49-3] (*d*)-camphor					
	$\Delta_{trs}H$		16.0	242		
	$\Delta_{trs}H$		0.23	374		
	$\Delta_{fus}H$		5.3	452	DSC	[1979MJO]
$C_{10}H_{16}O$	[76-22-2] (*dl*)-camphor					
	$\Delta_{sub}H$		51.8 ± 0.8			[1977STE]
	$\Delta_{sub}H$	(273–293)	51.5 ± 2.6	283	HSA	[1975CHI]
	$\Delta_{sub}H$	(273–298)	U 65.8			[1960JON, 1940ZIB]
	$\Delta_{sub}H$		50.7			[1960JON, 1937DEW]
	$\Delta_{sub}H$	(273–453)	53.6	363		[1960JON]
	$\Delta_{sub}H$	(285–318)	54.7	301		[1957SHE/BRY]
$C_{10}H_{16}O$	[464-49-3] (+) camphor					
	Δ_vH		55.3	298	GC	[2002VAN/PAR]
$C_{10}H_{16}O$	[1686-14-2] α-pinene oxide					
	Δ_vH		53.6	298	GC	[2002VAN/PAR]
$C_{10}H_{16}O$	[13854-85-8] (*d*) 3-bornanone					
	$\Delta_{sub}H$	(273–408)	54.2	288	A	[1987STE/MAL]
	$\Delta_{sub}H$	(323–339)	55.0	331	A	[1987STE/MAL]
	$\Delta_{sub}H$	(408–451)	49.8	423	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(452–488)	44.6	467	A	[1987STE/MAL]
$C_{10}H_{16}O$	[4695-62-9]	(*d*) 1,3,3-trimethylbicyclo[2.2.1]heptan-2one (fenchone)				
	$\Delta_v H$	(365–384)	47.0	374		[2002BAT]
	$\Delta_v H$		51.7 ± 0.1	298	C	[1987ATI/SAI]
	$\Delta_v H$		51.4 ± 0.1	298	C	[1987ATI/SAI]
	$\Delta_v H$		51.1 ± 0.1	298	C	[1985KUS]
	$\Delta_v H$	(301–464)	48.9	316	A	[1987STE/MAL, 1947STU]
$C_{10}H_{16}O$	[na]	(*l*) 1,3,3-trimethylbicyclo[2.2.1]heptan-2one (fenchone)				
	$\Delta_v H$		51.1 ± 0.1	298	C	[1987ATI/SAI]
	$\Delta_v H$		51.3 ± 0.1	298	C	[1987ATI/SAI]
	$\Delta_v H$		51.4 ± 0.1	298	C	[1985KUS]
$C_{10}H_{16}O$	[89-82-7]	pulegone				
	$\Delta_v H$	(353–453)	58.0	298	GC	[2005HOS/GRY]
	$\Delta_v H$		62.0	298	GC	[2002VAN/PAR]
	$\Delta_v H$	(331–494)	U99.8	346	A	[1987STE/MAL, 1947STU]
$C_{10}H_{16}O$	[471-15-8]	(*d*) 1-isopropyl-4-methylbicyclo[3.1.0]hexan-3-one (thujone)				
	$\Delta_v H$	(311–474)	51.8	326	A	[1987STE/MAL, 1947STU]
$C_{10}H_{16}O$	[499-74-1]	(*dl*) 3-isopropyl-6-methyl-2-cyclohexene-1-one				
	$\Delta_v H$	(364–507)	56.9	379	A	[1987STE/MAL]
$C_{10}H_{16}O$	[43205-82-9]	5-isopropyl-2-methyl-2-cyclohexen-1-one				
	$\Delta_v H$	(361–503)	56.8	376	A	[1987STE/MAL]
$C_{10}H_{16}O$	[na]	3,4-epoxycarane (α-isomer)				
	$\Delta_v H$		49.4			[1977ALE/KOZ]
$C_{10}H_{16}O$	[na]	3,4-epoxycarane (β-isomer)				
	$\Delta_v H$		50.2			[1977ALE/KOZ]
$C_{10}H_{16}O$	[4584-09-2]	(*dl*) dihydrocarvone				
	$\Delta_v H$	(319–496)	51.2	334	A	[1987STE/MAL, 1947STU]
$C_{10}H_{16}O$	[5392-40-5]	citral				
	$\Delta_v H$	(372–473)	55.9	298		[2009CLA/GOM]
$C_{10}H_{16}O$	[141-27-5]	geranial (*trans*-citral)				
	$\Delta_v H$	(343–453)	62.5	298	GC	[2005HOS/GRY]
	$\Delta_v H$	(283–333)	61	298	A	[1987STE/MAL]
	$\Delta_v H$	(373–501)	54.9	388	A	[1987STE/MAL]
$C_{10}H_{16}O$	[13040-03-4]	(+)-*cis*-verbenol				
	$\Delta_v H$	(323–433)	54.9	298	GC	[2005HOS/GRY]
$C_{10}H_{16}O$	[22339-08-8]	(+)-*trans*-verbenol				
	$\Delta_v H$	(323–433)	55.0	298	GC	[2005HOS/GRY]
$C_{10}H_{16}O$	[106-26-3]	neral				
	$\Delta_v H$	(343–453)	60.2	298	GC	[2005HOS/GRY]
$C_{10}H_{16}O$	[768-95-6]	1-adamantanol				
	$\Delta_{trs}H$		11.29	357.1		
	$\Delta_{fus}H$		12.36	552.9		[2003CHA/BLO]
	$\Delta_{trs}H$		2.5	369.2		[1989SAL/ABA2]
	$\Delta_{sub}H$		86.8 ± 0.2	298	C	[2003CHA/BLO2]
	$\Delta_{sub}H$	(288–323)	86.7 ± 0.2	298	ME	[2003CHA/BLO2]
	$\Delta_{sub}H$		86.6 ± 2.5	298	BG	[1978ARO/STE]
	$\Delta_v H$		60.8	298	GC	[2002VAN/PAR]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{16}O$	[700-57-2]	adamantan-2-ol				
	$\Delta_{trs}H$		0.16	238.4		
	$\Delta_{trs}H$		2.3	322.3		
	$\Delta_{trs}H$		7.98	389.3		
	$\Delta_{fus}H$		11.94	567.3		[2003CHA/BLO]
	$\Delta_{trs}H$		0.3	325.2		
	$\Delta_{trs}H$		3.74	391.2		[1989SAL/ABA2]
	$\Delta_{sub}H$	(303–318)	88.1 ± 1.6	298	ME	[2003CHA/BLO2]
	$\Delta_{sub}H$		88.7 ± 2.5	298	BG	[1978ARO/STE]
$C_{10}H_{16}O$	[20379-99-1]	*trans* octahydro-3a-methyl-2*H*-inden-2-one				
	Δ_vH		58.3 ± 0.2	298	C	[1970SEL]
$C_{10}H_{16}O$	[13351-29-6]	*cis*-8-methyl-2-hydrindanone				
	$\Delta_{sub}H$		60.9 ± 0.2	298	C	[1970SEL, 1977PED/RYL]
$C_{10}H_{16}O_2$	[2704-78-1]	3-acetyl-2,2-dimethylcyclobutaneacetaldehyde (pinonaldehyde)				
	Δ_vH	(283–308)	75.5 ± 5.6		ME	[1997HAL/WAN]
$C_{10}H_{16}O_2$	[26946-56-5]	2,2-dimethyl-3-(2-oxopropyl)cyclopropaneacetaldehyde (caronaldehyde)				
	Δ_vH	(283–308)	77.4 ± 6.9		ME	[1997HAL/WAN]
$C_{10}H_{16}O_2$	[490-03-9]	diosphenol				
	Δ_vH	(339–505)	56.2	354	A	[1987STE/MAL, 1947STU]
$C_{10}H_{16}O_2$	[512-77-6]	1-methyl-3-(1-methylethyl)-cyclopentanecarboxylic acid (fencholic acid)				
	Δ_vH	(374–537)	77.5	389		[1947STU]
$C_{10}H_{16}O_2$	[na]	(2,3,3-trimethyl-3-cyclopentadienyl)acetic acid				
	Δ_vH	(370–529)	71.3	385	A	[1987STE/MAL, 1947STU]
$C_{10}H_{16}O_2$	[38734-05-3]	1,6-cyclodecanedione				
	$\Delta_{fus}H$		29.58	372.2		[1972ALV/BOR]
$C_{10}H_{16}O_2$	[10453-89-1]	2,2-dimethyl-3-(2-methyl-1-propen-1-yl)cyclopropanecarboxylic acid (chrysanthemic acid)				
	$\Delta_{fus}H$		14.51	390.7		[2004XUE/WAN]
$C_{10}H_{16}O_4$	[na]	1,4-cyclohexanedione *bis* ethylene ketal				
	$\Delta_{fus}H$		25.77	353.2		[1972ALV/BOR]
$C_{10}H_{16}O_4$	[na]	1,1-cyclobutanedicarboxylic acid diethyl ester				
	Δ_vH	(288–318)	65.8 ± 0.4	GS		[1998VER/KUM]
$C_{10}H_{16}O_6$	[na]	lactic acid, O-ethoxycarbonyl, tetrafurfuryl ester				
	Δ_vH	(390–523)	71.2	405	A	[1987STE/MAL]
$C_{10}H_{16}O_6$	[6279-86-3]	*tris*-(carboethoxy)methane				
	Δ_vH	(297–338)	79.1 ± 0.7	298	GS	[1992VER/BEC]
$C_{10}H_{16}S$	[53402-10-1]	(1R) (−)-thiocamphor				
	$\Delta_{sub}H$	(262–282)	62.2 ± 0.9	272	ME	[1999ROU/JIM]
	$\Delta_{sub}H$		61.7 ± 0.9	298		[1999ROU/JIM]
	Δ_vH		55.5	298	GC	[2002VAN/PAR]
$C_{10}H_{16}S$	[18794-77-9]	2-hexylthiophene				
	Δ_vH		56.4 ± 1.3	298	C	[2007RIB/SAN]
$C_{10}H_{16}S$	[1693-86-3]	3-hexylthiophene				
	Δ_vH		58.5 ± 1.3	298	C	[2007RIB/SAN]
$C_{10}H_{16}S_4$	[7000-79-5]	1,3,5,7-tetramethyl-2,4,6,8-tetrathiaadamantane				
	$\Delta_{sub}H$		117.1 ± 4.1	298	TE	[78HEA/HEF]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{17}N$	[na]	1-cyclohexylimino-2-butene				
	$\Delta_v H$		58.3			[1993OVC/SOB]
$C_{10}H_{17}N$	[768-94-5]	1-aminoadamantane				
	$\Delta_{trs}H$	(5–370)	1.72	241.4	AC	
	$\Delta_{trs}H$	(5–370)	5.31	284.6	AC	
	$\Delta_{fus}H$		NA		AC	[2008BAZ/BLO]
	$\Delta_{sub}H$	(291–343)	61.7 ± 0.6	298	ME,GS	[2008BAZ/BLO]
$C_{10}H_{17}NO$	[2792-42-9]	(*d*) camphor oxime				
	$\Delta_{trs}H$		14.48	384.5		
	$\Delta_{fus}H$		2.1	393.3	DSC	[1984WEI/LEF]
	$\Delta_{trs}H$		13.3	383		
	$\Delta_{fus}H$		1.8	389	DSC	[1979MJO]
$C_{10}H_{17}NO$	[na]	(*dl*) camphor oxime				
	$\Delta_{trs}H$		3	375		
	$\Delta_{trs}H$		11.2	380		
	$\Delta_{fus}H$		1.2	388	DSC	[1979MJO]
$C_{10}H_{17}NOS$	[59300-35-5]	carbamothioic acid, N-butyl-N-(2-propynyl), S-ethyl ester				
	$\Delta_{sub}H$	(298–313)	82.1	305.5	ME	[1987STE/MAL, 1976DEP]
$C_{10}H_{17}NOS$	[59300-36-6]	carbamothioic acid, N,N-dipropyl S-(2-propynyl) ester				
	$\Delta_{sub}H$	(298–313)	92.4	305.5	ME	[1987STE/MAL, 1976DEP]
$C_{10}H_{17}NOS$	[59300-34-4]	carbamothioic acid, N-2-methylpropyl-N-(2-propynyl), S-ethyl ester				
	$\Delta_{sub}H$	(298–313)	74.0	305.5	ME	[1987STE/MAL, 1976DEP]
$C_{10}H_{17}NO_3$	[na]	2-(2-cyanoethoxy)propionic acid, butyl ester				
	$\Delta_v H$	(328–382)	61.7	343	A	[1987STE/MAL]
$C_{10}H_{17}NO_5$	[1069-39-2]	(*l*) N-acetylaspartic acid, diethyl ester				
	$\Delta_v H$	(418–508)	76.0	433	A	[1987STE/MAL]
$C_{10}H_{17}N_5O$	[1610-18-0]	(*l*) N-acetylaspartic acid, diethyl ester				
	$\Delta_{fus}H$		21.18	363.5	DSC	[1991ACR, 1990DON/DRE]
$C_{10}H_{18}$	[176-63-6]	spiro[4.5]decane				
	$\Delta_v H$		54.8	298	C	[1975SUB/ZWO]
	$\Delta_v H$	(348–389)	44.0	363		[1965NAR]
$C_{10}H_{18}$	[16189-46-1]	*cis* bicyclo[5.3.0]decane				
	$\Delta_v H$	(298–377)	49.8	313	A	[1987STE/MAL]
	$\Delta_v H$		46.9 ± 0.8	377		[1970CHA/MCN]
	$\Delta_v H$		53.6 ± 1.2	298		[1970CHA/MCN]
$C_{10}H_{18}$	[1636-39-1]	bicyclopentyl				
	$\Delta_{trs}H$		0.26	171.5		
	$\Delta_{fus}H$		13.4	237.8		[2004CHI/STE]
	$\Delta_v H$	(383–509)	50.4 ± 0.1	298	EB	[2005CHI/STE]
	$\Delta_v H$	(384–509)	44.1 ± 0.1	400	EB	[2004CHI/STE]
	$\Delta_v H$	(384–509)	41.6 ± 0.1	440	EB	[2004CHI/STE]
	$\Delta_v H$	(384–509)	38.9 ± 0.2	480	EB	[2004CHI/STE]
	$\Delta_v H$	(350–393)	43.2	365	A	[1987STE/MAL]
$C_{10}H_{18}$	[18968-24-6]	*cis* carane				
	$\Delta_v H$	(362–445)	42.8	377	A	[1987STE/MAL]
$C_{10}H_{18}$	[493-01-6]	*cis* decahydronaphthalene				
	$\Delta_{fus}H$		14.43	242.8		[1996DOM/HEA]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		64.8	230	B	[1963BON]
	$\Delta_{sub}H$		62.5	298	H	[1963BON, 1993CHI/HOS]
	Δ_vH	(371–473)	45.5	386	A,GS	[1987STE/MAL, 1955CAM/ROS]
$C_{10}H_{18}$	[493-02-7]	*trans* decahydronaphthalene				
	$\Delta_{trs}H$		2.13	216.1		
	$\Delta_{fus}H$		9.49	230.2		[1996DOM/HEA]
	$\Delta_{sub}H$		66.2	241	B	[1963BON]
	$\Delta_{sub}H$		64.3	298	H	[1963BON, 1993CHI/HOS]
	Δ_vH	(363–461)	44.2	378	A,GS	[1987STE/MAL, 1955CAM/ROS]
$C_{10}H_{18}$	[1942-46-7]	5-decyne				
	Δ_vH	(477–487)	45.5	366	A	[1987STE/MAL]
$C_{10}H_{18}$	[4755-33-3]	*cis* 2,6,6-trimethylbicyclo[3.1.1]heptane (*cis*-pinane)				
	Δ_vH	(378–441)	41.8	393		[2003WAN/LI]
$C_{10}H_{18}Cl_4$	[205646-11-3]	1,2,9,10-tetrachlorodecane				
	Δ_vH		75.4			[1998DRO/TOM]
$C_{10}H_{18}N_6O_2$	[na]	1-(sarcosino)-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		29.83	431		[1989BRA/RYT]
$C_{10}H_{18}O$	[470-82-6]	1,8-epoxy-*p*-menthane				
	Δ_vH	(264–303)	35.6	279	A	[1987STE/MAL]
$C_{10}H_{18}O$	[6627-72-1]	(*dl*) borneol				
	$\Delta_{sub}H$	(350–475)	69.3	365	A	[1987STE/MAL]
	Δ_vH	(477–487)	50.9	482	A	[1987STE/MAL]
$C_{10}H_{18}O$	[470-67-7]	1,4-cineole				
	Δ_vH	(288–449)	46.1	303	A	[1987STE/MAL]
$C_{10}H_{18}O$	[470-82-6]	1,8-cineole				
	Δ_vH	(313–413)	49.0	298	GC	[2005HOS/GRY]
	Δ_vH		53.2	298	GC	[2002VAN/PAR]
	Δ_vH	(353–403)	41.1	378	TGA	[2002HAZ/DOL]
$C_{10}H_{18}O$	[619-01-2]	(*d*) dihydrocarveol				
	Δ_vH	(336–498)	58.2	351	A	[1987STE/MAL]
$C_{10}H_{18}O$	[2217-01-8]	(*dl*) fenchyl alcohol				
	Δ_vH	(318–474)	89.1	333	A	[1987STE/MAL]
$C_{10}H_{18}O$	[106-24-1]	geraniol				
	Δ_vH	(288–333)	62.9	303	A	[1987STE/MAL]
	Δ_vH	(342–503)	59.1	357	A	[1987STE/MAL]
$C_{10}H_{18}O$	[7786-67-6]	(*d*) isopulegol				
	Δ_vH	(335–485)	49.8	350	A	[1987STE/MAL]
$C_{10}H_{18}O$	[126-90-9]	(*d*) linalool				
	Δ_vH	(273–321)	65.4	297		[1999DIA/GUE]
	Δ_vH	(313–471)	52.4	328	A	[1987STE/MAL]
$C_{10}H_{18}O$	[78-70-6]	linalool				
	Δ_vH	(352–468)	65.0	298		[2009CLA/GOM]
	Δ_vH	(333–433)	55.3	298	GC	[2005HOS/GRY]
	Δ_vH	(368–428)	51.4	399	TGA	[2002HAZ/DOL]
	Δ_vH	(409–465)	50.3	424	EB	[2002DEN/LI]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{18}O$	[106-25-2]	*cis* 3,7-dimethyl-2,6-octadien-1-ol (nerol)				
	$\Delta_v H$	(334–499)	55.4	349	A	[1987STE/MAL]
$C_{10}H_{18}O$	[98-55-5]	(*dl*) α-terpineol				
	$\Delta_{sub}H$	(287–308)	80.1	297.5	A	[1987STE/MAL]
	$\Delta_v H$	(325–491)	54.0	340	A	[1987STE/MAL]
$C_{10}H_{18}O$	[7785-53-7]	(+) α-terpineol				
	$\Delta_v H$		60.7	298	GC	[2002VAN/PAR]
$C_{10}H_{18}O$	[10482-56-1]	α-terpineol				
	$\Delta_{sub}H$	(283–328)	80.3	305	ME	[1954SER/VOI, 1960JON]
$C_{10}H_{18}O$	[562-74-3]	terpinen-4-ol				
	$\Delta_v H$	(323–433)	55.5	298	GC	[2005HOS/GRY]
$C_{10}H_{18}O$	[124-76-5]	(*dl*)-isoborneol				
	$\Delta_{sub}H$	(373–457)	41.1	388	A	[1987STE/MAL, 1936GRE]
$C_{10}H_{18}O$	[na]	1-(1-methylcyclohex-3-enyl)-1-propanol				
	$\Delta_v H$	(397–422)	53.6	409	A	[1987STE/MAL]
$C_{10}H_{18}O$	[1502-06-3]	cyclodecanone				
	$\Delta_{fus}H$		24.3	294.9		[1998GON/SZW]
	$\Delta_v H$	(353–423)	55.2	368	A	[1987STE/MAL]
	$\Delta_v H$		58.4 ± 0.6	298		[1972WOL]
$C_{10}H_{18}O$	[na]	ethyl (1-methylcyclohexyl) ketone				
	$\Delta_v H$	(388–431)	45.2	403	A	[1987STE/MAL]
$C_{10}H_{18}O$	[10458-14-7]	2-isopropyl-5-methylcyclohexanone (menthone)				
	$\Delta_v H$	(372–397)	50.1	385		[2002BAT]
	$\Delta_v H$	(350–483)	51.2	365	A	[1987STE/MAL]
$C_{10}H_{18}O$	[2385-77-5]	(*d*) citronellal				
	$\Delta_v H$	(288–333)	54.9	303	A	[1987STE/MAL]
	$\Delta_v H$	(317–480)	53.2	332	A	[1987STE/MAL, 1947STU]
$C_{10}H_{18}O$	[69891-94-7]	(Z) 3-decenal				
	$\Delta_v H$	(323–343)	59.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[68676-85-7]	(E) 3-decenal				
	$\Delta_v H$	(323–343)	59.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[21662-09-9]	(Z) 4-decenal				
	$\Delta_v H$	(323–343)	59.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[65405-70-1]	(E) 4-decenal				
	$\Delta_v H$	(323–343)	60	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[21662-08-8]	(Z) 5-decenal				
	$\Delta_v H$	(323–343)	58.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[21662-11-3]	(E) 5-decenal				
	$\Delta_v H$	(323–343)	59.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[147159-48-6]	(Z) 6-decenal				
	$\Delta_v H$	(323–343)	59.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[147159-48-6]	(E) 6-decenal				
	$\Delta_v H$	(323–343)	59.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[21661-97-2]	(Z) 7-decenal				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(323–343)	59.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[21662-10-2] (E) 7-decenal					
	$\Delta_v H$	(323–343)	59.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[174155-46-5] (Z) 8-decenal					
	$\Delta_v H$	(323–343)	60.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O$	[174155-47-6] (E) 8-decenal					
	$\Delta_v H$	(323–343)	60.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{10}H_{18}O_2$	[502-47-6] 3,7-dimethyl-6-octenoic acid					
	$\Delta_v H$	(372–530)	68.7	387	A	[1987STE/MAL, 1947STU]
$C_{10}H_{18}O_2$	[na] 8,8-dimethyl-6,10-dioxaspiro[4.5]decane					
	$\Delta_v H$	(283–313)	53.7 ± 0.5	298	GS	[1998VER/PEN, 2002VER]
$C_{10}H_{18}O_2$	[7333-23-5] 2,2,6-dimethyl-3,5-heptanedione					
	$\Delta_v H$		57.7	298		[1976BUR/SHR]
$C_{10}H_{18}O_2$	[na] δ-decanolactone					
	$\Delta_v H$	(365–387)	57.7 ± 0.8	376	MM	[1991WIB/WAL]
	$\Delta_v H$	(365–387)	63.0 ± 1.5	298	MM	[1991WIB/WAL]
$C_{10}H_{18}O_2$	[706-14-9] γ-decanolactone					
	$\Delta_v H$	(298–365)	75.6 ± 0.3	298	GS	[2008EME/KOZ]
$C_{10}H_{18}O_2$	[705-86-2] δ-decanolactone					
	$\Delta_v H$	(309–358)	74.2 ± 0.3	298	GS	[2007EME/KOZ]
$C_{10}H_{18}O_2$	[2499-58-3] heptyl acrylate					
	$\Delta_v H$	(359–481)	51.1	374	A	[1987STE/MAL]
$C_{10}H_{18}O_2$	[142-09-6] hexyl methacrylate					
	$\Delta_v H$	(354–475)	50.5	369	A	[1987STE/MAL]
$C_{10}H_{18}O_2$	[512-77-6] 1-methyl-3-isopropylcyclopentane carboxylic acid					
	$\Delta_v H$	(374–538)	91.6	389	A	[1987STE/MAL]
$C_{10}H_{18}O_2$	[1551-44-6] cyclohexyl butyrate					
	$\Delta_v H$		60.0 ± 0.2	298	C	[2004PAU/ZAI]
	$\Delta_v H$		60.1 ± 0.2	298	C	[2003ZAI/VER]
	$\Delta_v H$	(273–310)	64.1 ± 0.6	298	ME	[2003ZAI/VER]
	$\Delta_v H$	(273–310)	59.8 ± 0.6	298	ME	[2003ZAI/VER]
	$\Delta_v H$	(278–313)	58.4 ± 0.7	298	GS	[2003ZAI/VER]
	$\Delta_v H$	(333–378)	60.0	298	CGC	[1999VER/HEI]
	$\Delta_v H$	(283–313)	60.0 ± 0.6	298	GS	[1996VER/BEC]
$C_{10}H_{18}O_2$	[1129-47-1] cyclohexyl isobutyrate					
	$\Delta_v H$	(333–378)	57.7	298	CGC	[1999VER/HEI]
$C_{10}H_{18}O_2$	[na] 1-methylcyclohexyl propanoate					
	$\Delta_v H$	(333–378)	55.8	298	CGC	[1999VER/HEI]
$C_{10}H_{18}O_2$	[na] 3-methylcyclohexyl propanoate					
	$\Delta_v H$	(333–378)	58.3	298	CGC	[1999VER/HEI]
$C_{10}H_{18}O_2$	[na] 4-methylcyclohexyl propanoate					
	$\Delta_v H$	(333–378)	58.9	298	CGC	[1999VER/HEI]
$C_{10}H_{18}O_2$	[56922-76-2] pentyl 3-methylbut-2-enoate					
	$\Delta_v H$		61.8 ± 0.4	298	GS	[2008EME/TOK]
$C_{10}H_{18}O_2$	[71697-84-2] (−) 5-hydroxy-α,α,4-trimethyl-3-cyclohexene-1-methanol (*trans*-sobrerol)					
	$\Delta_{fus}H$		34.69	423.6	DSC	[1999LI/ZEL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{18}O_2$	[42370-41-2] (+) 5-hydroxy-α,α,4-trimethyl-3-cyclohexene-1-methanol (*trans*-sobrerol)					
	$\Delta_{fus}H$		34.39	404.9	DSC	[1999LI/ZEL]
$C_{10}H_{18}O_2$	[na] (−) 5-hydroxy-α,α,4-trimethyl-3-cyclohexene-1-methanol (*cis*-sobrerol)					
	$\Delta_{fus}H$		23.18	382.9	DSC	[1999LI/ZEL]
$C_{10}H_{18}O_2$	[54164-89-5] (+) 5-hydroxy-α,α,4-trimethyl-3-cyclohexene-1-methanol (*cis*-sobrerol)					
	$\Delta_{fus}H$		25.86	378.9	DSC	[1999LI/ZEL]
$C_{10}H_{18}O_3$	[na] 3-hydroxy-2,3-dimethyl-4-hexenoic acid, ethyl ester					
	Δ_vH	(362–387)	57.4	374	A	[1987STE/MAL]
$C_{10}H_{18}O_3$	[na] isopentyl levulinate					
	Δ_vH	(403–521)	59.4	418	A	[1987STE/MAL]
	Δ_vH		56.3	461		[1931SCH/COW]
$C_{10}H_{18}O_3$	[na] 1-ethylpropyl levulinate					
	Δ_vH	(397–513)	58.6	412	A	[1987STE/MAL]
$C_{10}H_{18}O_3$	[na] 1-methylbutyl levulinate					
	Δ_vH	(397–513)	57.2	412	A	[1987STE/MAL]
$C_{10}H_{18}O_3$	[na] 2-methylbutyl levulinate					
	Δ_vH	(391–473)	56.5	406	A	[1987STE/MAL]
$C_{10}H_{18}O_3$	[20279-49-6] pentyl levulinate					
	Δ_vH	(354–527)	66.3	369	A	[1987STE/MAL, 1947STU]
	Δ_vH		56.2	466		[1931SCH/COW]
$C_{10}H_{18}O_3$	[na] 1-*tert*-butyl-4-methyl-2,6,7-trioxabicyclo[2.2.2]octane					
	$\Delta_{fus}H$		16.4	375.2		[1995RAK/VER2]
$C_{10}H_{18}O_4$	[na] pentyl 2-acetoxypropionate					
	Δ_vH	(312–501)	68.5	327	A	[1987STE/MAL]
$C_{10}H_{18}O_4$	[141-28-6] diethyl adipate					
	Δ_vH	(347–513)	57.5	362	A	[1987STE/MAL, 1947STU]
$C_{10}H_{18}O_4$	[2050-61-5] diisobutyl oxalate					
	Δ_vH	(336–503)	55.5	351	A	[1987STE/MAL, 1947STU]
$C_{10}H_{18}O_4$	[925-15-5] dipropyl succinate					
	Δ_vH	(350–524)	59.4	365	A	[1987STE/MAL, 1947STU]
$C_{10}H_{18}O_4$	[2049-70-9] diethyl ethylmethylmalonate					
	Δ_vH	(317–481)	53.2	332	A	[1987STE/MAL]
$C_{10}H_{18}O_4$	[1732-09-8] dimethyl suberate					
	Δ_vH	(293–352)	78.1 ± 0.2	298	GS	[2006VER/KOZ]
$C_{10}H_{18}O_4$	[105-72-6] ethylene glycol dibutyrate					
	Δ_vH		73.2 ± 0.6	298	C	[1986NIL/WAD]
$C_{10}H_{18}O_4$	[111-20-6] sebacic acid					
	$\Delta_{fus}H$		46.9	405.7		[2008VEN/BAY]
	$\Delta_{fus}H$		45.3	405.6	DSC	[2008XIA/ZHA]
	$\Delta_{trs}H$		0.4	370.3		
	$\Delta_{fus}H$		46.6	403.9		[2005ROU/TEM]
	$\Delta_{fus}H$		40.8	404		[1996DOM/HEA]
	$\Delta_{sub}H$	(353–385)	181 ± 8		TPD	[2007CAP/LOV]
	$\Delta_{sub}H$	(302–320)	146.5		TPTD	[2005CHA/ZIE]
	Note: Values based on TPTD method are not consistent with values determined by other experimental methods					
	$\Delta_{sub}H$		165.3 ± 2.9			[1999RIB/MON, 1960DAV/THO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(375–403)	160.7 ± 2.5	389	ME	[1960DAV/THO, 1970COX/PIL, 1987STE/MAL]
	Δ_vH	(424–503)	124.8	298	CGC	[2005ROU/TEM]
	Δ_vH	(456–625)	85.9	471		[1947STU]
$C_{10}H_{18}O_5$	[na]	ethyl[1-(butoxycarbonyl)ethyl] carbonate				
	Δ_vH	(324–473)	70.2	339	A	[1987STE/MAL]
$C_{10}H_{18}O_5$	[na]	2-lactoyloxypropionic acid, butyl ester				
	Δ_vH	(336–407)	74.8	351	A	[1987STE/MAL]
$C_{10}H_{18}O_5$	[na]	2-lactoyloxypropionic acid, sec-butyl ester				
	Δ_vH	(329–399)	74.3	344	A	[1987STE/MAL]
$C_{10}H_{18}O_5$	[500790-23-8]	pentyl[1-(ethoxycarbonyl)methyl] carbonate				
	Δ_vH	(383–503)	68.2	398	A	[1987STE/MAL]
$C_{10}H_{18}O_5$	[na]	pentyl[1-(methoxycarbonyl)ethyl] carbonate				
	Δ_vH	(360–524)	63.7	375	A	[1987STE/MAL]
$C_{10}H_{18}O_6$	[62961-64-2]	(*d*) diisopropyl tartrate				
	Δ_vH	(376–548)	65.7	391	A	[1987STE/MAL, 1947STU]
$C_{10}H_{18}O_6$	[2217-14-3]	(*d*) dipropyl tartrate				
	Δ_vH	(388–576)	71.8	403	A	[1987STE/MAL, 1947STU]
$C_{10}H_{18}O_6S$	[7355-12-6]	diethyl 3,3′-sulfonyldipropionate				
	$\Delta_{fus}H$		38.0	359.7		[1994WAN/KUO]
$C_{10}H_{19}ClNO_5P$	[13171-21-6]	phosphamidon				
	Δ_vH	(293–388)	90.1	308	A	[1987STE/MAL, 1999DYK/SVO]
$C_{10}H_{19}Cl_2N$	[4261-59-0]	N,N-*bis*(2-chloroethyl)cyclohexylamine				
	Δ_vH	(273–333)	62.4	288	A,GS	[1987STE/MAL, 1948RED/CHA3, 1999DYK/SVO]
$C_{10}H_{19}N$	[7335-04-8]	N-cyclopentylpiperidine				
	Δ_vH	(283–318)	54.9 ± 0.3	301	GS	[1998VER6]
	Δ_vH	(283–318)	55.1 ± 0.3	298	GS	[1998VER6]
$C_{10}H_{19}N$	[1975-78-6]	decanenitrile (caprinitrile)				
	Δ_vH	(295–326)	66.3 ± 0.4	298	GS	[2005EME/VER]
	Δ_vH	(381–519)	58.0	396	A	[1987STE/MAL]
	Δ_vH		66.8 ± 0.4	298	C	[1977STRI/SUN]
	Δ_vH	(381–431)	57.8	396	EB	[1971MEY/REN]
	Δ_vH	(431–518)	54.4	446	EB	[1971MEY/REN]
$C_{10}H_{19}NO_3$	[na]	(*l*) N-acetylisoleucine, ethyl ester				
	Δ_vH	(391–476)	69.1	406	A	[1987STE/MAL]
$C_{10}H_{19}NO_3$	[na]	(*l*) N-acetylleucine, ethyl ester				
	Δ_vH	(396–476)	74.8	411	A	[1987STE/MAL]
$C_{10}H_{19}N_5O$	[1610-18-0]	2-methoxy-4,6-*bis*(isopropylamino)-1,3,5-triazine				
	$\Delta_{sub}H$	(323–365)	92.2	338	GS-GC	[1987STE/MAL, 1964FRI/SAM]
$C_{10}H_{19}N_5S$	[7287-19-6]	2-methylthio-4,6-*bis*(isopropylamino)-1,3,5-triazine				
	$\Delta_{sub}H$	(323–393)	100	338	GS-GC	[1987STE/MAL, 1964FRI/SAM]
$C_{10}H_{19}N_5S$	[886-50-0]	2-methylmercapto-4-ethylamino-6-*tert*-butylamino-1,3,5-triazine (terbutryn)				
	$\Delta_{fus}H$		21	376.1		[2007VEC/BRU]
	$\Delta_{fus}H$		21.42	375.9	DSC	[1990DON/DRE]
	Δ_vH		87 ± 5	467	DSC	[2007VEC/BRU]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		115 ± 7	298	DSC	[2007VEC/BRU]
	$\Delta_v H$		83.2 ± 1.0	452	TGA	[2007VEC/BRU]
	$\Delta_v H$		111 ± 4	298	TGA	[2007VEC/BRU]
$C_{10}H_{19}O_6PS_2$	[121-75-5]	(*dl*) malathion				
	$\Delta_v H$	(283–419)	71.1	298	A	[1987STE/MAL]
$C_{10}H_{19}O_7PS$	[na]	O,O-dimethyl-S-[1,2-*bis*(ethoxycarbonyl)ethyl]thiophosphate				
	$\Delta_v H$	(283–406)	93.4	298	A	[1987STE/MAL]
$C_{10}H_{20}$	[2158-55-6]	1,1,4-trimethylcycloheptane				
	$\Delta_v H$		45.5 ± 0.2	298	C	[1996VAR/PAS]
	Note: Text in Ref. [1996VAR/PAS] states 1,1,4-trimethylcycloheptane; however, the molecular structure of 1,1,4-trimethylcyclohexane is given in the paper.					
$C_{10}H_{20}$	[293-96-9]	cyclodecane				
	$\Delta_{fus}H$		18.95	282.7		[2005HUA/SIM]
	$\Delta_v H$	(404–489)	45.1	419	A,EB	[1987STE/MAL, 1976MEY/HOT]
	$\Delta_v H$	(343–386)	48.2	358	EB	[1987STE/MAL, 1976MEY/HOT]
$C_{10}H_{20}$	[1678-93-9]	butylcyclohexane				
	$\Delta_{fus}H$		14.2	198		[2006MAN/CUT]
	$\Delta_{fus}H$		14.14	198.4		[1996DOM/HEA]
	$\Delta_v H$	(274–313)	47.4 ± 0.2	294	GS	[1995CHI/HES]
	$\Delta_v H$		47.0 ± 0.2	298		[1995CHI/HES]
	$\Delta_v H$		48.9 ± 0.5	298	GC	[1987AZA]
	$\Delta_v H$		49.4 ± 0.4	298	GCC	[1978FUC/PEA]
	$\Delta_v H$		49.4	298		[1975KUS/SAI]
	$\Delta_v H$		50	298		[1971WIL/ZWO]
	$\Delta_v H$		50.0	298		[1965FIN/MES]
	$\Delta_v H$	(367–457)	44.9	382	A	[1987STE/MAL, 1949FOR/NOR]
$C_{10}H_{20}$	[7058-01-7]	sec-butylcyclohexane				
	$\Delta_v H$	(369–455)	44.1	384	A	[1987STE/MAL, 1949FOR/NOR]
$C_{10}H_{20}$	[3178-22-1]	*tert*-butylcyclohexane				
	$\Delta_v H$		45.0 ± 0.1	328	C	[1981SVO/CHA]
	$\Delta_v H$		44.0 ± 0.1	343	C	[1981SVO/CHA]
	$\Delta_v H$		43.0 ± 0.1	358	C	[1981SVO/CHA]
	$\Delta_v H$		42.4 ± 0.1	368	C	[1981SVO/CHA]
	$\Delta_v H$	(355–446)	42.9	370	A	[1987STE/MAL, 1949FOR/NOR]
$C_{10}H_{20}$	[1678-98-4]	isobutylcyclohexane				
	$\Delta_v H$		47.5	298		[1975KUS/SAI]
	$\Delta_v H$	(355–446)	43.5	370	A	[1987STE/MAL, 1949FOR/NOR]
$C_{10}H_{20}$	[99-82-1]	1-isopropyl-4-methylcyclohexane				
	$\Delta_v H$	(382–443)	43.6	297	A	[1987STE/MAL]
$C_{10}H_{20}$	[3741-00-2]	n-pentylcyclopentane				
	$\Delta_v H$		51.0	298		[1971WIL/ZWO]
$C_{10}H_{20}$	[872-05-9]	1-decene				
	$\Delta_{trs}H$		7.95	198.3		
	$\Delta_{fus}H$		13.81	206.9		[1996DOM/HEA]
	$\Delta_v H$	(383–445)	43.8	398	A	[1987STE/MAL]
	$\Delta_v H$		50.4 ± 0.2	298	C	[1977MAN/SEL]
	$\Delta_v H$		50.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(360–445)	45.1	375		[1950FOR/CAM]
$C_{10}H_{20}$	[20348-51-0]	*cis* 2-decene				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(401–447)	43.6	416	A	[1987STE/MAL]
$C_{10}H_{20}$	[20063-97-2]	*trans* 2-decene				
	$\Delta_v H$	(401–447)	43.7	416	A	[1987STE/MAL]
$C_{10}H_{20}$	[19398-86-8]	*cis* 3-decene				
	$\Delta_v H$	(398–444)	43.1	413	A	[1987STE/MAL]
$C_{10}H_{20}$	[19150-21-1]	*trans* 3-decene				
	$\Delta_v H$	(398–445)	43.4	413	A	[1987STE/MAL]
$C_{10}H_{20}$	[19398-88-0]	*cis* 4-decene				
	$\Delta_v H$	(397–444)	43.0	412	A	[1987STE/MAL]
$C_{10}H_{20}$	[19398-89-1]	*trans* 4-decene				
	$\Delta_v H$	(398–444)	43.2	413	A	[1987STE/MAL]
$C_{10}H_{20}$	[7433-78-5]	*cis* 5-decene				
	$\Delta_v H$	(397–443)	42.9	412	A	[1987STE/MAL]
$C_{10}H_{20}$	[7433-56-9]	*trans* 5-decene				
	$\Delta_v H$	(398–444)	42.3	413	A	[1987STE/MAL]
$C_{10}H_{20}$	[4485-13-6]	4-propyl-3-heptene				
	$\Delta_v H$	(333–371)	43.7	348	A,MG	[1987STE/MAL, 1955SCH/WHI]
$C_{10}H_{20}$	[na]	*trans* 2,2,4,4-tetramethyl-3-hexene				
	$\Delta_v H$		42.0 ± 0.2	298	GCC	[1979BOT/CAM]
$C_{10}H_{20}$	[22808-06-6]	2,2,5,5-tetramethylhex-3-ene				
	$\Delta_{trs}H$		1.21	235.8		
	$\Delta_{trs}H$		4.33	243.5		
	$\Delta_{fus}H$		10.25	268.9	DSC	[1980BYS]
$C_{10}H_{20}Br_2$	[59104-80-2]	1,1-dibromodecane				
	$\Delta_v H$	(442–610)	62.2	457	A,EST	[1987STE/MAL, 1956MAN, 1970DYK/VAN, 1999DYK/SVO]
$C_{10}H_{20}Br_2$	[28467-71-2]	1,2-dibromodecane				
	$\Delta_v H$	(368–524)	67.0	383	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_{10}H_{20}Cl_2$	[3162-62-7]	1,1-dichlorodecane				
	$\Delta_v H$	(415–577)	56.9	430	A,EST	[1987STE/MAL, 1956MAN, 1970DYK/VAN]
$C_{10}H_{20}Cl_2$	[2162-98-3]	1,10-dichlorodecane				
	$\Delta_v H$	(441–520)	61.1	456		[1999DYK/SVO]
	$\Delta_v H$		67.3			[1998DRO/TOM]
	$\Delta_v H$	(440–540)	73.1	298		[1991BAS/SVO]
$C_{10}H_{20}F_2$	[62127-43-9]	1,1-difluorodecane				
	$\Delta_v H$	(364–504)	50.2	379	A,EST	[1987STE/MAL, 1956MAN, 1970DYK/VAN, 1999DYK/SVO]
$C_{10}H_{20}NO_2$	[na]	ethyl 2-(N,N-diethylamino)butanoate				
	$\Delta_v H$	(283–313)	57.3 ± 0.2	298	GS	[1996VER/ZUF]
$C_{10}H_{20}N_2OS$	[398995-30-7]	N,N-diethyl-N′-isovaleroylthiourea				
	$\Delta_{sub}H$	363	121.5 ± 3.2	298	C	[2001RIB/RIB]
$C_{10}H_{20}N_2OS$	[398995-31-8]	N,N-diethyl-N′-pivaloylthiourea				
	$\Delta_{sub}H$	366	114.9 ± 2.7	298	C	[2001RIB/RIB]
$C_{10}H_{20}N_2O_2$	[na]	tetraethyloxamide				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		17	310.2		[2003CLO/JAN]
	Δ_vH		63	464	TGA,DSC	[2003CLO/JAN]
$C_{10}H_{20}N_2O_2$	[1740-54-1]	sebacamide				
	$\Delta_{fus}H$		68.7	484.3	DSC	[2006BAD/DEL]
$C_{10}H_{20}N_6$	[16268-73-8]	1-(ethylmethylamino)-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		21.3	384	DSC	[1991ACR]
$C_{10}H_{20}O$	[106-22-9]	citronellol				
	$\Delta_{sub}H$	(283–333)	66.1	308		[1954SER/VOI, 1960JON]
	Δ_vH	(343–453)	63.5	298	GC	[2005HOS/GRY]
$C_{10}H_{20}O$	[na]	*bis*(3-methyl-2-butenyl) ether				
	Δ_vH	(383–413)	47.8	398		[1989WAN/YIN]
$C_{10}H_{20}O$	[103-44-6]	(2-ethylhexyl) vinyl ether				
	Δ_vH	(330–451)	44.7	345	A	[1987STE/MAL]
$C_{10}H_{20}O$	[5445-30-7]	1-butylcyclohexanol				
	Δ_vH	(362–481)	55.7	377	A	[1987STE/MAL]
$C_{10}H_{20}O$	[106-22-9]	3,7-dimethyl-6-octene-1-ol				
	Δ_vH	(293–333)	72.6	308	A	[1987STE/MAL]
	Δ_vH	(373–500)	65.9	388	A	[1987STE/MAL]
$C_{10}H_{20}O$	[2216-51-5]	(*l*) menthol				
	$\Delta_{fus}H$		11.88	316.2	DTA	[1981CHI/GAR]
	$\Delta_{sub}H$	(279–299)	95.8 ± 4.8	289	HSA	[1981CHI/GAR]
	Δ_vH	(372–488)	59.1	387	A	[1987STE/MAL]
	Δ_vH	(329–485)	58.2	344		[1947STU]
$C_{10}H_{20}O$	[89-78-1]	(*dl*)-menthol				
	$\Delta_{fus}H$		10.25	301.2	DTA	[1981CHI/GAR]
	$\Delta_{sub}H$	(279–299)	78.6 ± 4	289	HSA	[1981CHI/GAR]
$C_{10}H_{20}O$	[2216-51-5]	(−)-menthol				
	Δ_vH	(323–433)	56.6	298	GC	[2005HOS/GRY]
$C_{10}H_{20}O$	[1502-05-2]	cyclodecanol				
	$\Delta_{sub}H$	(287–292)	100.5 ± 0.5	288	TM	[1955ENG]
$C_{10}H_{20}O$	[na]	1-(1-methylcyclohexyl)-1-propanol				
	Δ_vH	(396–420)	55.4	408	A	[1987STE/MAL]
$C_{10}H_{20}O$	[27331-02-8]	2-(1-methylcyclohexyl)-2-propanol				
	Δ_vH	(393–418)	53.0	405	A	[1987STE/MAL]
$C_{10}H_{20}O$	[10340-22-4]	(Z) 3-decen-1-ol				
	Δ_vH	(323–363)	78.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[10339-60-3]	(E) 3-decen-1-ol				
	Δ_vH	(323–363)	78.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[57074-37-0]	(Z) 4-decen-1-ol				
	Δ_vH	(323–363)	79.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[10339-62-5]	(E) 4-decen-1-ol				
	Δ_vH	(323–363)	80.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{20}O$	[51652-47-2]	(Z) 5-decen-1-ol				
	$\Delta_v H$	(323–363)	80.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[56578-18-8]	(E) 5-decen-1-ol				
	$\Delta_v H$	(323–363)	80.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[68760-59-8]	(Z) 6-decen-1-ol				
	$\Delta_v H$	(323–363)	80.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[38421-92-0]	(E) 6-decen-1-ol				
	$\Delta_v H$	(323–363)	80.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[16504-66-8]	(Z) 7-decen-1-ol				
	$\Delta_v H$	(323–363)	80.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[52957-12-7]	(E) 7-decen-1-ol				
	$\Delta_v H$	(323–363)	81.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[83799-67-1]	(Z) 8-decen-1-ol				
	$\Delta_v H$	(323–363)	81.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[83799-68-2]	(E) 8-decen-1-ol				
	$\Delta_v H$	(323–363)	81.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{10}H_{20}O$	[693-54-9]	2-decanone				
	$\Delta_v H$	(317–484)	51.7	332	A	[1987STE/MAL, 1947STU]
	$\Delta_v H$	(357–560)	55.1	372	A	[1987STE/MAL]
	$\Delta_v H$		60.9 ± 0.5	298	GCC	[1979SAL/PEA]
	$\Delta_v H$	(358–568)	44.6	487		[1975AMB/ELL]
$C_{10}H_{20}O$	[868-91-7]	2,2,5,5-tetramethyl-3-hexanone				
	$\Delta_v H$		48.8 ± 0.2	298	C	[1970SEL2]
$C_{10}H_{20}O$	[112-31-2]	decanal				
	$\Delta_{fus}H$		30.6	268.2		[1980DYA/VAS]
	$\Delta_v H$	(280–316)	59.5 ± 0.4	298	GS	[2003VER/KRA2]
	$\Delta_v H$	(308–353)	60.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(288–333)	57.3	303	A	[1987STE/MAL]
	$\Delta_v H$	(293–358)	57.3	308	A	[1987STE/MAL]
	$\Delta_v H$		60.4 ± 0.3	298		[1981DYA/KOR]
	$\Delta_v H$	(324–482)	56.3	339		[1987STE/MAL, 1947STU]
$C_{10}H_{20}O_2$	[4359-57-3]	2-heptyl-1,3-dioxolane				
	$\Delta_v H$	(318–453)	62.0	333	A	[1987STE/MAL]
$C_{10}H_{20}O_2$	[4359-47-1]	2-(1-ethylpentyl)-1,3-dioxolane				
	$\Delta_v H$	(333–453)	55.3	348	A	[1987STE/MAL]
$C_{10}H_{20}O_2$	[2244-85-1]	4-hexyl-1,3-dioxane				
	$\Delta_v H$	(318–453)	56.9	333	A	[1987STE/MAL]
$C_{10}H_{20}O_2$	[61827-60-9]	3-pentyl-4-hydroxytetrahydropyran				
	$\Delta_v H$	(383–453)	72.6	398	A	[1987STE/MAL]
$C_{10}H_{20}O_2$	[859773-58-3]	2-butoxy-3-hexanone				
	$\Delta_v H$	(333–418)	39.5	348	A	[1987STE/MAL, 1933HEN/MUR]
$C_{10}H_{20}O_2$	[107-75-5]	hydroxycitronellal				
	$\Delta_v H$	(283–333)	75.3	298	A,ME	[1987STE/MAL, 1955SER/VOI]
$C_{10}H_{20}O_2$	[112-14-1]	octyl acetate				
	$\Delta_v H$	(274–309)	60.7 ± 0.4	298	GS	[2006KRA/VER]
	$\Delta_v H$		61.7	298	GC	[1997DEF/CAR]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(334–417)	54.9	349	A	[1987STE/MAL]
	$\Delta_v H$	(345–472)	47.8	360	A	[1987STE/MAL]
$C_{10}H_{20}O_2$	[106-32-1] ethyl octanoate					
	$\Delta_v H$	(382–412)	52.5 ± 0.2	397	EB	[1991WIB/WAL]
	$\Delta_v H$	(382–412)	59.5 ± 1.3	298	EB	[1991WIB/WAL]
	$\Delta_v H$	(330–480)	53.2	345	A	[1987STE/MAL]
$C_{10}H_{20}O_2$	[103-09-3] 2-ethylhexylacetate					
	$\Delta_v H$	(333–472)	50.1	348	A	[1987STE/MAL]
$C_{10}H_{20}O_2$	[659-70-1] isopentyl isovalerate					
	$\Delta_v H$	(341–479)	46.4	356	A	[1987STE/MAL]
	$\Delta_v H$	(300–467)	47.2	315		[1947STU]
$C_{10}H_{20}O_2$	[5340-26-1] neopentyl pivalate					
	$\Delta_v H$	(280–310)	49.1 ± 0.5	295	GS	[1999VER/HEI]
	$\Delta_v H$	(280–310)	48.9 ± 0.5	298	GS	[1999VER/HEI]
$C_{10}H_{20}O_2$	[89397-96-6] 2,2-dimethylpropanoic acid, 1,1-dimethylpropyl ester					
	$\Delta_v H$	(333–378)	48.0	298	CGC	[1999VER/HEI]
$C_{10}H_{20}O_2$	[245658-27-9] 2-methylpropanoic acid, 1,1-dimethylbutyl ester					
	$\Delta_v H$	(333–378)	51.4	298	CGC	[1999VER/HEI]
$C_{10}H_{20}O_2$	[245658-32-6] 2-methylpropanoic acid, 1,1,2-trimethylpropyl ester					
	$\Delta_v H$	(333–378)	51.7	298	CGC	[1999VER/HEI]
$C_{10}H_{20}O_2$	[na] butanoic acid, 1,1,2-trimethylpropyl ester					
	$\Delta_v H$	(333–378)	53.8	298	CGC	[1999VER/HEI]
$C_{10}H_{20}O_2$	[245658-37-1] 2,4-dimethyl-2-pentanol, propanoate					
	$\Delta_v H$	(333–378)	51.7	298	CGC	[1999VER/HEI]
$C_{10}H_{20}O_2$	[1731-84-6] methyl nonanoate					
	$\Delta_v H$		57.4	350		[2002VAN/VAN]
	$\Delta_v H$		56.7 ± 0.3	364		[2002VAN/VAN]
	$\Delta_v H$		61.6 ± 0.4	298		[2002VAN/VAN]
	$\Delta_v H$		57.7 ± 0.7	298	GC	[1987AZA]
	$\Delta_v H$		62.0 ± 0.5	298	GCC	[1980FUC/PEA]
	$\Delta_v H$		62.0 ± 0.4	298	C	[1977MAN/SEL]
	$\Delta_v H$	(364–439)	55.6	379	A,EST	[1987STE/MAL, 1963ROS/SCH]
$C_{10}H_{20}O_2$	[334-48-5] decanoic acid (capric acid)					
	$\Delta_{fus}H$		28.3	303.8	DSC	[2007MOR/COR]
	$\Delta_{fus}H$		27.82	304.5		[1996DOM/HEA]
	$\Delta_{sub}H$		129.6 ± 5	298	TPD	[2008CAP/LOV]
	$\Delta_{sub}H$	(293–303)	118.8 ± 2.2	298	ME	[1968BAC/NOV, 1970COX/PIL, 1987STE/MAL]
	$\Delta_{sub}H$	(290–301)	117.1 ± 1.7	295	ME	[1961DAV/MAL]
	$\Delta_v H$	(398–543)	76.4	413	A	[1987STE/MAL]
	$\Delta_v H$	(305–323)	88.6	314	ME,TE	[1982DEK/SCH]
	$\Delta_v H$		71.4	418	I	[1943CRA]
$C_{10}H_{20}O_3$	[869190-73-8] propyl 3-butoxypropionate					
	$\Delta_v H$	(373–473)	44.2	388	A	[1987STE/MAL, 1933HEN/MUR]
$C_{10}H_{20}O_3$	[14144-36-6] pentyl 3-ethoxypropionate					
	$\Delta_v H$	(374–498)	54.1	389	A	[1987STE/MAL]
$C_{10}H_{20}O_3$	[7419-97-8] methyl 3-hexyloxypropionate					
	$\Delta_v H$	(373–473)	55.1	388	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{20}O_3$	[14156-10-6]	peroxydecanoic acid				
	$\Delta_{sub}H$	(293–303)	117.1 ± 0.8	298	ME	[1980SWA/KWA]
$C_{10}H_{20}O_4$	[124-17-4]	diethylene glycol monobutyl ether acetate				
	Δ_vH	(393–520)	57.7	408	A	[1987STE/MAL]
$C_{10}H_{20}O_4$	[33785-99-8]	3,3,6,6-tetraethyl-1,2,4,5-tetraoxacyclohexane				
	Δ_vH	(403–473)	50.1	298	CGC	[2007CAN/EYL]
$C_{10}H_{20}N_6O$	[52298-71-2	1-(2-hydroxyethylmethylamino)-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		17.32	373.3		[1989BRA/RYT]
$C_{10}H_{20}O_5$	[33100-27-5]	1,4,7,10,13-pentaoxacyclopentadecane (15-crown-5)				
	Δ_vH		75.7 ± 1.7	298	CGC	[2000NIC/ORF]
	Δ_vH		79.6 ± 0.3	298	C	[1982BYS/MAN]
$C_{10}H_{20}S_4$	[24194-61-4]	1,4,8,11-tetrathiacyclotetradecane				
	$\Delta_{trs}H$		2.7	345.2		
	$\Delta_{fus}H$		33.0	393.2	DSC	[2002ROC/GRI]
$C_{10}H_{20}S_5$	[36338-04-2]	1,4,7,10,13-pentathiacyclopentadecane				
	$\Delta_{trs}H$		11.0	318.2		
	$\Delta_{trs}H$		4.2	340.2		
	$\Delta_{fus}H$		17.0	391.2	DSC	[2002ROC/GRI]
$C_{10}H_{21}Br$	[112-29-8]	1-bromodecane				
	Δ_vH	(391–545)	56.1	406		[1999DYK/SVO]
	Δ_vH	(383–570)	56.6	398	A,EST	[1987STE/MAL, 1961LI/ROS]
$C_{10}H_{21}Cl$	[1002-69-3]	1-chlorodecane				
	Δ_vH		64.0 ± 0.2	298	GS	[2001PUR/CHI]
	Δ_vH	(379–530)	54.4	394		[1999DYK/SVO]
	Δ_vH	(359–499)	56.2	374	A,DTA	[1987STE/MAL, 1969KEM/KRE]
$C_{10}H_{21}F$	[334-56-5]	1-fluorodecane				
	Δ_vH	(342–503)	50.4	357	A	[1987STE/MAL, 1961LI/ROS]
$C_{10}H_{21}I$	[2050-77-3]	1-iododecane				
	Δ_vH	(397–598)	69.8	298	A,EST	[1987STE/MAL, 1961LI/ROS, 2006BOL/NER]
	Δ_vH	(407–571)	57.4	422		[1999DYK/SVO]
	Δ_vH	(397–598)	58.1	412	A,EST	[1987STE/MAL, 1961LI/ROS]
$C_{10}H_{21}N$	[101-40-6]	N,α-dimethylcyclohexanethylamine				
	Δ_vH	(270–300)	50.2	285	A	[1987STE/MAL]
$C_{10}H_{21}NO$	[6282-97-9]	N,N-diethylhexanamide				
	Δ_vH	(373–443)	47.7	388	A	[1987STE/MAL]
$C_{10}H_{21}NO$	[2319-29-1]	decanamide				
	$\Delta_{trs}H$		1.05	218.7		
	$\Delta_{trs}H$		18.8	366.6		
	$\Delta_{fus}H$		15.1	370.6	DSC	[2008ABA/BAD]
	$\Delta_{sub}H$	(353–370)	125.9 ± 1.3	361.5	ME	[1959DAV/JON2]
$C_{10}H_{22}$	[124-18-5]	decane				
	$\Delta_{fus}H$		27.6	243	DSC	[2004MAR/KAI]
	$\Delta_{fus}H$		28.7	243.5		[1996DOM/HEA]
	$\Delta_{sub}H$		80.3	298	B	[1980SWA/KWA]
	$\Delta_{sub}H$		84.8	243	B	[1963BON]
	$\Delta_{sub}H$		82.4	298	H	[1963BON, 1993CHI/HOS]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(324–402)	48.3	339	GC	[2007MOK/RAZ]
	$\Delta_v H$	(337–376)	46.6	352		[2002BAT]
	$\Delta_v H$		51.1 ± 3.9	298	CGC	[2000NIC/ORF]
	$\Delta_v H$		51.5	299	C	[1996VIT/CHA]
	$\Delta_v H$		50.5	314	C	[1996VIT/CHA]
	$\Delta_v H$		50.1	324	C	[1996VIT/CHA]
	$\Delta_v H$		49.2	334	C	[1996VIT/CHA]
	$\Delta_v H$	(403–453)	50.9	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(423–473)	51.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		51.4	298		[1994RUZ/MAJ]
	$\Delta_v H$	(409–584)	42.5	424		[1992LEE/DEM]
	$\Delta_v H$	(268–490)	48.1	340	EB,IP	[1989CHI/NGU]
	$\Delta_v H$	(268–490)	51.4	298	EB,IP	[1989CHI/NGU]
	$\Delta_v H$	(252–383)	53.8	267	A	[1987STE/MAL]
	$\Delta_v H$	(447–526)	41.7	462	A	[1987STE/MAL]
	$\Delta_v H$	(524–617)	38.6	539	A	[1987STE/MAL]
	$\Delta_v H$	(298–347)	50.3	313	GS	[1986ALL/JOS]
	$\Delta_v H$	(308–351)	49.8 ± 1.7			[1984BEC/RUC]
	$\Delta_v H$		51.4 ± 0.1	298	C	[1982FUR/SAK]
	$\Delta_v H$	(243–310)	55.9	258		[1973CAR/KOB]
	$\Delta_v H$		51.4	298		[1971WIL/ZWO]
	$\Delta_v H$	(373–443)	45.3	388		[1987STE/MAL, 1970VAR/BEL]
	$\Delta_v H$		51.4	298	C	[1947OSB/GIN]
	$\Delta_v H$	(368–440)	45.5	383	MM	[1945WIL/TAY]
$C_{10}H_{22}$	[871-83-0]	2-methylnonane				
	$\Delta_{fus}H$		17.49	198.8		[1996DOM/HEA]
	$\Delta_v H$	(324–441)	46.4 ± 0.2	339	A	[1987STE/MAL]
	$\Delta_v H$		47.3 ± 0.2	328	C	[1984MAJ/SVO3]
	$\Delta_v H$		46.2 ± 0.2	343	C	[1984MAJ/SVO3]
	$\Delta_v H$		45.0 ± 0.2	358	C	[1984MAJ/SVO3]
	$\Delta_v H$		51.0	298		[1971WIL/ZWO]
$C_{10}D_{22}$	[16416-29-8]	decane-d_{22}				
	$\Delta_v H$		51.8	298	CGC	[2008ZHA/UNH]
$C_{10}H_{22}$	[5911-04-6]	3-methylnonane				
	$\Delta_{fus}H$		18.7	188.5		[1996DOM/HEA]
	$\Delta_v H$		47.3 ± 0.2	328	C	[1984MAJ/SVO3]
	$\Delta_v H$		46.2 ± 0.2	343	C	[1984MAJ/SVO3]
	$\Delta_v H$		45.1 ± 0.2	358	C	[1984MAJ/SVO3]
	$\Delta_v H$		50.2	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[17301-94-9]	4-methylnonane				
	$\Delta_{fus}H$		15.19	174.7		[1996DOM/HEA]
	$\Delta_v H$		49.5	298		[1961LAB/GRE]
$C_{10}H_{22}$	[15869-85-9]	5-methylnonane				
	$\Delta_{fus}H$		16.65	186.7		[1996DOM/HEA]
	$\Delta_v H$		47.0 ± 0.2	328	C	[1984MAJ/SVO3]
	$\Delta_v H$		45.9 ± 0.2	343	C	[1984MAJ/SVO3]
	$\Delta_v H$		44.6 ± 0.2	358	C	[1984MAJ/SVO3]
	$\Delta_v H$		49.8	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[5881-17-4]	3-ethyloctane				
	$\Delta_v H$		49.0	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[15869-86-0]	4-ethyloctane				
	$\Delta_v H$		48.1	298		[1971WIL/ZWO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{22}$	[3178-29-8]	4-propylheptane				
	$\Delta_v H$		48.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(331–430)	44.1	346	A,MG	[1987STE/MAL, 1955SCH/WHI]
$C_{10}H_{22}$	[52896-87-4]	4-isopropylheptane				
	$\Delta_v H$		47.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[15869-87-1]	2,2-dimethyloctane				
	$\Delta_v H$		49.0	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[7146-60-3]	2,3-dimethyloctane				
	$\Delta_v H$		48.1	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[4032-94-4]	2,4-dimethyloctane				
	$\Delta_v H$		44.9 ± 0.2	328	C	[1984MAJ/SVO2]
	$\Delta_v H$		43.6 ± 0.2	343	C	[1984MAJ/SVO2]
	$\Delta_v H$		42.4 ± 0.2	358	C	[1984MAJ/SVO2]
	$\Delta_v H$		48.5	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[15869-89-3]	2,5-dimethyloctane				
	$\Delta_v H$		49.0	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[2051-30-1]	2,6-dimethyloctane				
	$\Delta_v H$		49.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[1072-16-8]	2,7-dimethyloctane				
	$\Delta_v H$		47.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(279–433)	45.2	294	A	[1987STE/MAL, 1947STU]
$C_{10}H_{22}$	[4110-44-5]	3,3-dimethyloctane				
	$\Delta_v H$		48.5	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[15869-92-8]	3,4-dimethyloctane				
	$\Delta_v H$		48.1	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[15869-93-9]	3,5-dimethyloctane				
	$\Delta_v H$		48.5	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[15869-94-0]	3,6-dimethyloctane				
	$\Delta_v H$		47.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[15869-95-1]	4,4-dimethyloctane				
	$\Delta_v H$		48.1	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[15869-96-2]	4,5-dimethyloctane				
	$\Delta_v H$		48.5	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[14676-29-0]	2-methyl-3-ethylheptane				
	$\Delta_v H$		48.1	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52896-88-5]	2-methyl-4-ethylheptane				
	$\Delta_v H$		47.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[13475-78-0]	2-methyl-5-ethylheptane				
	$\Delta_v H$		48.1	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[17302-01-1]	3-methyl-3-ethylheptane				
	$\Delta_v H$		47.7	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52896-89-6]	3-methyl-4-ethylheptane				
	$\Delta_v H$		47.7	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52896-90-0]	3-methyl-5-ethylheptane				
	$\Delta_v H$		47.7	298		[1971WIL/ZWO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{22}$	[52896-91-0] 4-methyl-3-ethylheptane					
	$\Delta_v H$		48.1	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[17302-04-4] 4-methyl-4-ethylheptane					
	$\Delta_v H$		47.2	298		[1961LAB/GRE]
$C_{10}H_{22}$	[52896-92-1] 2,2,3-trimethylheptane					
	$\Delta_v H$		46.9	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[14720-74-2] 2,2,4-trimethylheptane					
	$\Delta_v H$		45.6	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[20291-95-6] 2,2,5-trimethylheptane					
	$\Delta_v H$		46.0	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[1190-83-6] 2,2,6-trimethylheptane					
	$\Delta_v H$		46.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52896-93-2] 2,3,3-trimethylheptane					
	$\Delta_v H$		46.9	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52896-95-4] 2,3,4-trimethylheptane					
	$\Delta_v H$		47.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[20278-85-7] 2,3,5-trimethylheptane					
	$\Delta_v H$		47.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[4032-93-3] 2,3,6-trimethylheptane					
	$\Delta_v H$		47.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[4032-92-2] 2,4,4-trimethylheptane					
	$\Delta_v H$		45.2	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[20278-84-6] 2,4,5-trimethylheptane					
	$\Delta_v H$		46.9	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[2613-61-8] 2,4,6-trimethylheptane					
	$\Delta_v H$		46.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[1189-99-7] 2,5,5-trimethylheptane					
	$\Delta_v H$		46.0	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[20278-88-0] 3,3,4-trimethylheptane					
	$\Delta_v H$		46.9	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[7154-80-5] 3,3,5-trimethylheptane					
	$\Delta_v H$		46.0	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[20278-88-0] 3,4,4-trimethylheptane					
	$\Delta_v H$		46.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[20278-89-1] 3,4,5-trimethylheptane					
	$\Delta_v H$		47.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[62016-13-1] 2-methyl-3-isopropylhexane					
	$\Delta_v H$		46.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[17302-02-2] 3,3-diethylhexane					
	$\Delta_v H$		47.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[19398-77-7] 3,4-diethylhexane					
	$\Delta_v H$		47.7	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[20291-91-2] 2,2-dimethyl-3-ethylhexane					
	$\Delta_v H$		46.0	298		[1971WIL/ZWO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{22}$	[52896-99-8]	2,2-dimethyl-4-ethylhexane				
	$\Delta_v H$		45.2	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-00-4]	2,3-dimethyl-3-ethylhexane				
	$\Delta_v H$		46.9	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-01-5]	2,3-dimethyl-4-ethylhexane				
	$\Delta_v H$		46.9	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[7220-26-0]	2,4-dimethyl-3-ethylhexane				
	$\Delta_v H$		46.9	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-03-7]	2,4-dimethyl-4-ethylhexane				
	$\Delta_v H$		46.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-04-8]	2,5-dimethyl-3-ethylhexane				
	$\Delta_v H$		46.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-05-9]	3,3-dimethyl-4-ethylhexane				
	$\Delta_v H$		46.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-06-0]	3,4-dimethyl-3-ethylhexane				
	$\Delta_v H$		46.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[13475-81-5]	2,2,3,3-tetramethylhexane				
	$\Delta_v H$		45.2	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-08-2]	2,2,3,4-tetramethylhexane				
	$\Delta_v H$		45.6	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-09-3]	2,2,3,5-tetramethylhexane				
	$\Delta_v H$		45.2	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[51750-65-3]	2,2,4,4-tetramethylhexane				
	$\Delta_v H$		43.5	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[16747-42-5]	2,2,4,5-tetramethylhexane				
	$\Delta_v H$		44.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[1071-81-4]	2,2,5,5-tetramethylhexane				
	$\Delta_v H$		43.5	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-10-6]	2,3,3,4-tetramethylhexane				
	$\Delta_v H$		46.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-11-7]	2,3,3,5-tetramethylhexane				
	$\Delta_v H$		45.2	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-12-8]	2,3,4,4-tetramethylhexane				
	$\Delta_v H$		46.0	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-15-1]	2,3,4,5-tetramethylhexane				
	$\Delta_v H$		46.0	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[5171-84-6]	3,3,4,4-tetramethylhexane				
	$\Delta_v H$		42.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[13475-79-1]	2,4-dimethyl-3-isopropylpentane				
	$\Delta_v H$		45.6	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-16-2]	2-methyl-3,3-diethylpentane				
	$\Delta_v H$		47.3	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-17-3]	2,2,3-trimethyl-3-ethylpentane				
	$\Delta_v H$		46.0	298		[1971WIL/ZWO]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{22}$	[52897-18-4]	2,2,4-trimethyl-3-ethylpentane				
	$\Delta_v H$		44.8	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[52897-19-5]	2,3,4-trimethyl-3-ethylpentane				
	$\Delta_v H$		46.4	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[16747-44-7]	2,2,3,3,4-pentamethylpentane				
	$\Delta_v H$		45.2	298		[1971WIL/ZWO]
$C_{10}H_{22}$	[16747-45-8]	2,2,3,4,4-pentamethylpentane				
	$\Delta_v H$		43.5	298		[1971WIL/ZWO]
$C_{10}H_{22}N_2O$	[28141-55-1]	1-nonyl urea				
	$\Delta_{fus}H$		38.9	380.3	DSC	[2005HAS/TAJ]
$C_{10}H_{22}O$	[69775-79-7]	hexyl *tert*-butyl ether				
	$\Delta_v H$		53.2	298	CGC	[2002VER, 2003VER/KRA]
$C_{10}H_{22}O$	[na]	pentyl *tert*-amyl ether				
	$\Delta_v H$		53.5	298	CGC	[2002VER, 2003VER/KRA]
$C_{10}H_{22}O$	[na]	ethyl *tert*-octyl ether				
	$\Delta_v H$		45.3 ± 0.3	298	GS	[2002VER, 2003VER/KRA]
$C_{10}H_{22}O$	[693-65-2]	dipentyl ether				
	$\Delta_v H$	(373–460)	46.2	388	A	[1987STE/MAL]
	$\Delta_v H$	(423–480)	45.6	451		[1968LAP/NIS]
$C_{10}H_{22}O$	[54459-71-1]	butyl hexyl ether				
	$\Delta_v H$		53.2 ± 0.1	298	C	[1985KUS]
$C_{10}H_{22}O$	[544-01-4]	diisopentyl ether				
	$\Delta_v H$	(353–393)	51.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(417–470)	41.4	443		[1968LAP/NIS]
	$\Delta_v H$	(291–447)	47.6	306	A	[1987STE/MAL, 1947STU]
$C_{10}H_{22}O$	[112-30-1]	1-decanol				
	$\Delta_{fus}H$		33.67	280		[2003VAN/GAB]
	$\Delta_{fus}H$		37.66	280.1		[1997DOM/GON]
	$\Delta_{sub}H$	(264–273)	115.5 ± 6.3	268	ME	[1965KAR/KYB, 1987STE/MAL]
	$\Delta_{sub}H$		112.5 ± 6.3	298		[1965KAR/KYB]
	$\Delta_v H$	(281–327)	79.5	309	GS	[2001KUL/VER2]
	$\Delta_v H$	(281–327)	80.9	298	GS	[2001KUL/VER2]
	$\Delta_v H$	(278–378)	81.1	293		[1999NGU/BER]
	$\Delta_v H$	(373–423)	81.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(353–393)	79.3	298	CGC	[1994KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(283–388)	75.4	336		[1992NGU/KAS]
	$\Delta_v H$	(349–410)	71.6	364	A	[1987STE/MAL]
	$\Delta_v H$	(405–528)	62.6	420	A	[1987STE/MAL]
	$\Delta_v H$	(474–529)	53.9	489	A	[1987STE/MAL]
	$\Delta_v H$		78.2 ± 0.8	323	C	[1979SEV]
	$\Delta_v H$		81.5 ± 0.8	298	C	[1979SEV]
	$\Delta_v H$		81.5 ± 0.8	298	C	[1977MAN/SEL]
	$\Delta_v H$	(298–325)	77.6	313		[1973WIL/ZWO]
	$\Delta_v H$	(400–529)	63.5	415	A,EB	[1987STE/MAL, 1970AMB/SPR]
	$\Delta_v H$	(378–504)	69.5	393	DTA	[1969KEM/KRE]
	$\Delta_v H$	(298–325)	77.6	311	ME	[1965DAV/KYB]
	$\Delta_v H$	(364–461)	69.6	379		[1958ROS/PAP]
$C_{10}H_{22}O$	[106-21-8]	(*dl*) 3,7-dimethyl-1-octanol				
	$\Delta_v H$	(341–467)	79.1	356	A	[1987STE/MAL]

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{22}O_2$	[112-48-1]	ethylene glycol dibutyl ether				
	$\Delta_v H$	(356–476)	55.9	371	A	[1987STE/MAL]
	$\Delta_v H$		58.8 ± 0.1	298	C	[1970KUS/WAD]
$C_{10}H_{22}O_2$	[5669-09-0]	ethylene glycol diisobutyl ether				
	$\Delta_v H$	(336–456)	46.1	351	A	[1987STE/MAL]
$C_{10}H_{22}O_2$	[1559-35-9]	ethylene glycol mono(2-ethylhexyl) ether				
	$\Delta_v H$	(381–502)	56.5	396	A	[1987STE/MAL]
$C_{10}H_{22}O_2$	[871-22-7]	acetaldehyde dibutyl ether				
	$\Delta_v H$	(303–464)	47.3	318	A	[1987STE/MAL]
$C_{10}H_{22}O_2$	[6931-71-1]	3,4-diethyl-3,4-hexanediol				
	$\Delta_v H$	(405–507)	54.7	420	A,EB	[1987STE/MAL, 1979BAL/FRI]
$C_{10}H_{22}O_2$	[na]	3-ethyl-3-hydroxymethyl-2-heptanol				
	$\Delta_v H$	(338–500)	63.4	353	A	[1987STE/MAL]
$C_{10}H_{22}O_2$	[112-47-0]	1,10-decanediol				
	$\Delta_{fus}H$		41.7	345.5		[1991ACR]
	$\Delta_{sub}H$		155.8 ± 0.9	298	C	[1990KNA/SAB]
	$\Delta_v H$		126.6 ± 4.2	298		[1994STE/CHI2, 2006UMN/KWE]
	$\Delta_v H$		112.4	364		[1993PIA/FER, 2006UMN/KWE]
	$\Delta_v H$		120.4 ± 4.9	298		[1993PIA/FER, 2006UMN/KWE]
	$\Delta_v H$		113.7 ± 2.1	298		[1990KNA/SAB, 2006UMN/KWE]
$C_{10}H_{22}O_2S$	[126835-71-0]	3-(heptylthio)-1,2-propanediol				
	$\Delta_{trs}H$		27.3	289.5		
	$\Delta_{fus}H$		1.7	292.5	DSC	[1993ACR]
$C_{10}H_{22}O_3$	[112-59-4]	diethylene glycol monohexyl ether				
	$\Delta_v H$	(403–423)	86.5	298	EB	[2004CHY/FRA2]
	$\Delta_v H$	(406–531)	62.7	421	A	[1987STE/MAL]
$C_{10}H_{22}O_3$	[24083-03-2]	dipropylene glycol monobutyl ether				
	$\Delta_v H$	(337–500)	63.2	352	A	[1987STE/MAL, 1947STU]
$C_{10}H_{22}O_3$	[127748-41-8]	3-(heptyloxy)-1,2-propanediol				
	$\Delta_{fus}H$		28.8	288	DSC	[1993ACR]
$C_{10}H_{22}O_4$	[20324-33-8]	tripropylene glycol monomethyl ether				
	$\Delta_v H$	(308–515)	58.7	323	A	[1987STE/MAL]
$C_{10}H_{22}O_5$	[143-24-8]	tetraethylene glycol dimethyl ether (tetraglyme)				
	$\Delta_v H$		76.9 ± 2.6	298	CGC	[2000NIC/ORF]
	$\Delta_v H$	(419–553)	58	434	A	[1987STE/MAL]
$C_{10}H_{22}S$	[3698-94-0]	1-ethylthiooctane				
	$\Delta_v H$	(384–545)	63.9 ± 0.6	298	EB	[1996STE/CHI]
$C_{10}H_{22}S$	[143-10-2]	1-decanethiol				
	$\Delta_{fus}H$		33.3	247.9		[1996DOM/HEA]
	$\Delta_v H$	(390–544)	56.4	405		[1999DYK/SVO]
	$\Delta_v H$	(283–293)	58.6	288	A	[1987STE/MAL]
	$\Delta_v H$	(413–534)	54.6	428	A	[1987STE/MAL]
	$\Delta_v H$		65.5 ± 0.5	298	C	[1977MAN/SEL]
$C_{10}H_{22}S$	[13402-60-3]	2-decanethiol				
	$\Delta_v H$	(380–534)	54.6	395		[1999DYK/SVO]
$C_{10}H_{22}S$	[544-02-5]	diisopentyl sulfide				

TABLE 8. Phase change enthalpies of C_9 to C_{10} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(339–366)	57.9	352	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_v H$	(340–365)	56.9	352	C	[1962MAC/MAY2]
$C_{10}H_{22}S$	[872-10-6]	dipentyl sulfide				
	$\Delta_v H$	(346–365)	U66.3	356		[1999DYK/SVO]
	$\Delta_v H$	(346–366)	58.7	356	A	[1987STE/MAL]
	$\Delta_v H$	(346–366)	57.5	358	EB	[1962MAC/MAY2]
$C_{10}H_{22}S_2$	[112-51-6]	dipentyl disulfide				
	$\Delta_v H$	(410–571)	59.8	425		[1999DYK/SVO]
	$\Delta_v H$		71.1 ± 0.2	298	C	[1985KUS]
$C_{10}H_{22}S_2$	[1191-67-9]	1,10-decanedithiol				
	$\Delta_v H$	(434–571)	72.3	449	A	[1987STE/MAL, 1999DYK/SVO, 1943HAL/REI]
$C_{10}H_{23}N$	[2016-57-1]	decylamine				
	$\Delta_v H$	(410–506)	52.4	425	A,EST	[1987STE/MAL, 1956MAN2]
$C_{10}H_{23}N$	[7378-99-6]	N,N-methyloctylamine				
	$\Delta_v H$	(284–323)	54.0 ± 0.5	303		[1997VER]
	$\Delta_v H$	(371–517)	50.2	386	A	[1987STE/MAL]
$C_{10}H_{23}N$	[2050-92-2]	dipentylamine				
	$\Delta_v H$	(379–527)	51.2	394	A	[1987STE/MAL]
$C_{10}H_{23}NO_2$	[126835-62-9]	3-(heptylamino)-1,2-propanediol				
	$\Delta_{fus}H$		28.8	324.9	DSC	[1993ACR]
$C_{10}H_{23}N_3$	[67752-90-3]	[2-(dimethylamino)ethyl]methylhydrazone-2-propanone				
	$\Delta_v H$	(288–315)	62.3	301	A	[1987STE/MAL, 1980LEB/NAZ]
$C_{10}H_{24}NO_3PS$	[78-53-5]	O,O-diethyl-S-[2-(diethylamino)ethyl]thiophosphate				
	$\Delta_v H$	(358–407)	94.5	373	A	[1987STE/MAL, 1999DYK/SVO]
$C_{10}H_{24}N_2$	[646-25-3]	decane-1,10-diamine				
	$\Delta_{fus}H$		57.81	332.9		[2002DAL/DEL]
$C_{10}H_{24}N_4$	[996-70-3]	*tetrakis*(dimethylamino)ethylene				
	$\Delta_v H$	(358–485)	53.9 ± 0.5	298	EB	[1997STE/CHI4]
$C_{10}H_{24}N_4$	[295-37-4]	1,4,8,11-tetraazacyclotetradecane				
	$\Delta_{sub}H$	(352–372)	133.9 ± 2.5	362	TE	[1983CLA/COR]
$C_{10}H_{27}N_5O_6$	[114606-56-3]	8-[[(1R)-1-(3,4-dimethoxyphenyl)-2-hydroxyethyl]amino]-3,7-dihydro-7-(2-methoxyethyl)-1,3-dimethyl-1*H*-pyrine-2,6-dione				
	$\Delta_{fus}H$ *(I)*		40.31	384.2		
	$\Delta_{fus}H$ *(II)*		39.88	401.2		
	$\Delta_{fus}H$ *(III)*		38.58	391.2		[1999GIR/PIE]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}F_{21}N_3$	[57731-09-6]	2,2,2-trifluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-N′-[2,2,2-trifluoro-1-(trifluoromethyl)-1-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]amino]ethyl] ethanimidamide				
	$\Delta_v H$		39.8			[1975PET/SHR3]
$C_{11}F_{22}$	[75169-50-5]	perfluoro(1-methyl-4-*tert*-butylcyclohexane) (mix *cis*+*trans*)				
	$\Delta_v H$	(345–442)	45.8	360		[1999DYK/SVO]
$C_{11}F_{22}$	[na]	perfluoro(1-methyl-4-*tert*-butylcyclohexane) (isomer not specified)				
	$\Delta_v H$		54.1 ± 0.5	298	EB	[1981VAR/BUL]
$C_{11}F_{24}O_2$	[678-38-6]	octadecafluoro-1,9-*bis*(trifluoromethoxy)nonane				
	$\Delta_v H$	(293–353)	43.0	323		[1999DYK/SVO]
$C_{11}H_4Cl_5NO_2$	[77765-41-4]	2,2,4-trichloro-5-[(3,4-dichlorophenyl)amino]-4-cyclopentene-1,3-dione				
	$\Delta_v H$	(453–483)	87.5	468	GC	[1980SHA/SAD]
$C_{11}H_5BrCl_3NO_2$	[73373-59-8]	2,2,4-trichloro-5-[(2-bromophenyl)amino]-4-cyclopentene-1,3-dione				
	$\Delta_v H$	(453–483)	67.5	468	GC	[1980SHA/SAD]
$C_{11}H_5BrCl_3NO_2$	[73373-60-1]	2,2,4-trichloro-5-[(3-bromophenyl)amino]-4-cyclopentene-1,3-dione				
	$\Delta_v H$	(453–483)	78.1	468	GC	[1980SHA/SAD]
$C_{11}H_5BrCl_3NO_2$	[73373-61-2]	2,2,4-trichloro-5-[(4-bromophenyl)amino]-4-cyclopentene-1,3-dione				
	$\Delta_v H$	(453–483)	82.9	468	GC	[1980SHA/SAD]
$C_{11}H_5Cl_4NO_2$	[73373-63-4]	2,2,4-trichloro-5-[(4-chlorophenyl)amino]-4-cyclopentene-1,3-dione				
	$\Delta_v H$	(453–483)	86.2	468	GC	[1980SHA/SAD]
$C_{11}H_6N_4$	[6343-21-1]	bicyclo[2.2.1]hept-5-ene-2,2,3,3-tetracarbonitrile				
	$\Delta_{sub}H$		117.2 ± 5.4	408	MG	[1972ROG2, 1977PED/RYL]
$C_{11}H_7BrO_2$	[20717-79-7]	1-bromo-2-naphthoic acid				
	$\Delta_{sub}H$	(340–401)	109.0 ± 2.7		ME	[2008GOL/SUU]
$C_{11}H_7N_2$	[6023-46-7]	2,2-dicyano-3-phenylpropionitrile				
	$\Delta_{fus}H$		29.29	411.2		[1994RAK/VER]
	$\Delta_{sub}H$	(318–388)	96.2 ± 0.4	353	T	[1994RAK/VER]
$C_{11}H_7N_3$	[6023-46-7]	2,2-dicyano-1-phenylpropionitrile				
	$\Delta_v H$	(318–388)	66.9		B	[1994RAK/VER]
$C_{11}H_7N_3O_2S$	[186792-85-8]	2-[(2-nitrophenyl)amino]-3-thiophenecarbonitrile				
	$\Delta_{fus}H$ *(red cryst)*		30.4	407.8	DSC	
	$\Delta_{fus}H$ *(orange)*		30.4	407.8	DSC	[2006LI/STO]
$C_{11}H_8F_3N_3O_7$	[185852-05-5]	2,3-dihydro-6-nitro-3-[2-(nitrooxy)ethyl]-7-(trifluoromethyl)-4*H*-1,3-benzoxazin-4-one				
	$\Delta_{fus}H$		28.9	384.7	DSC	[1996FON/ROS]
$C_{11}H_8N_2$	[244-63-3]	9*H*-pyrido[3,4-b]indole (norharmane)				
	$\Delta_{fus}H$		25.5	471.5	DSC	[1996BUR/DAG]
$C_{11}H_8N_4$	[13358-02-6]	3-methyl-1,1,2,2-tetracyanocyclohex-4-ene				
	$\Delta_{sub}H$		82 ± 2.1	350	MG	[1971ROG, 1977PED/RYL]
$C_{11}H_8O_2$	[86-55-5]	1-naphthoic acid				
	$\Delta_{fus}H$		19.89	435.2		[1991ACR]
	$\Delta_{sub}H$		117.6 ± 0.4		DSC	[1983HOL]
	$\Delta_{sub}H$	(340–360)	110.4 ± 0.2	355	ME	[1974COL/ROU, 1977PED/RYL, 1987STE/MAL]
	$\Delta_{sub}H$		113.6	298	C	[1974SAB/GIL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(457–573)	97.2	472	A	[1987STE/MAL]
$C_{11}H_8O_2$	[93-09-4]	2-naphthoic acid				
	$\Delta_{fus}H$		23.54	460.2		[1991ACR]
	$\Delta_{sub}H$		119.5 ± 0.6		DSC	[1983HOL]
	$\Delta_{sub}H$	(347–363)	113.6 ± 0.8	365	ME	[1974COL/ROU, 1977PED/RYL, 1987STE/MAL]
	$\Delta_{sub}H$		117.2	298	C	[1974SAB/GIL]
	$\Delta_v H$	(463–582)	98.9	478	A	[1987STE/MAL]
$C_{11}H_9Cl_2NO_2$	[101-27-9]	4-chlorobut-2-ynyl 3-chlorophenylcarbamate				
	$\Delta_{fus}H$		26.91	344.1	DSC	[1990DON/DRE]
$C_{11}H_9Cl$	[86-52-2]	1-(chloromethyl)naphthalene				
	$\Delta_v H$	(423–565)	59.8	494		[1999DYK/SVO]
	$\Delta_v H$	(407–447)	U 90.2	422	A	[1987STE/MAL]
$C_{11}H_9N$	[1009-89-5]	2-phenylpyridine				
	$\Delta_v H$		68.4 ± 1.9	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
	$\Delta_v H$		68.7 ± 4.6	298	CGC	[2000RIB/MAT2]
	$\Delta_v H$		63.2		GC	[1996GOV/RUT]
$C_{11}H_9N$	[1008-88-4]	3-phenylpyridine				
	$\Delta_v H$		68.4 ± 1.6	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
	$\Delta_v H$		64.5 ± 4.5	298	CGC	[2000RIB/MAT2]
$C_{11}H_9N$	[939-23-1]	4-phenylpyridine				
	$\Delta_{fus}H$		19.95	346.9	DSC	[2000RIB/MAT2]
	$\Delta_{sub}H$		81.4 ± 1.6	298		[2000RIB/MAT2]
	$\Delta_v H$		63.3		GC	[1996GOV/RUT]
$C_{11}H_9NO_2$	[1631-28-3]	1-(4-methylphenyl)-1*H*-pyrrole-2,5-dione				
	$\Delta_{sub}H$	(350–370)	104.6 ± 0.8		C	[1998KIS/KAS]
$C_{11}H_9NO_3$	[1081-17-0]	1-(4-methoxphenyl)-1*H*-pyrrole-2,5-dione				
	$\Delta_{sub}H$	(350–370)	121.1 ± 0.8		C	[1998KIS/KAS]
$C_{11}H_{10}$	[92-12-0]	1-methylnaphthalene				
	$\Delta_{trs}H$		4.98	240.7		
	$\Delta_{fus}H$		6.95	242.7		[1996DOM/HEA]
	$\Delta_v H$	(343–423)	65.1 ± 1.1	298	GC	[2006HAF/PAR]
	$\Delta_v H$	(294–324)	60.1 ± 0.8	298	GS	[2003VER]
	$\Delta_v H$	(323–473)	62.4	298	GC	[2002LEI/CHA]
	$\Delta_v H$	(485–595)	50.0	500		[1992LEE/DEM]
	$\Delta_v H$	(259–388)	63.3	274		[1988SAS/JOS]
	$\Delta_v H$	(424–536)	49.6	455		[1981WIE/KOB]
	$\Delta_v H$	(424–536)	45.9	525		[1981WIE/KOB]
	$\Delta_v H$	(278–313)	57.5	293	A, GS	[1987STE/MAL, 1979MAC/PRA]
	$\Delta_v H$		57.3 ± 0.4	298	C	[1974SAB/CHA2]
	$\Delta_v H$	(415–526)	52.3	430	A, GS	[1987STE/MAL, 1955CAM/ROS]
$C_{11}H_{10}$	[91-57-6]	2-methylnaphthalene				
	$\Delta_{trs}H$		5.61	288.5		
	$\Delta_{fus}H$		12.13	307.7		[1996DOM/HEA]
	$\Delta_{sub}H$		65.7 ± 0.85		C	[1974SAB/CHA2]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		61.7 ± 1.7			[1968KAR/RAB, 1977PED/RYL]
	Δ_vH	(424–535)	48.4	465		[1981WIE/KOB]
	Δ_vH	(424–535)	46.4	505		[1981WIE/KOB]
	Δ_vH	(423–515)	51.2	438	A, GS	[1987STE/MAL, 1955CAM/ROS]
$C_{11}H_{10}BrNO_2$	[5460-29-7]	N-(3-bromopropyl)phthalimide				
	$\Delta_{sub}H$		116.0 ± 1.0	298	C	[2007RIB/SAN3]
$C_{11}H_{10}N_2O$	[72583-92-7]	2-(2-benzofuryl) Δ-2-imidazoline				
	$\Delta_{fus}H$ *(I)*		25.95	412.7		
	$\Delta_{fus}H$ *(II)*		28.53	420.3	DSC	[2001LEG/BAZ]
$C_{11}H_{10}N_2O_3$	[13297-17-1]	2-methyl-3-acetylquinoxaline-1,4-dioxide				
	$\Delta_{sub}H$		117.0 ± 2.4	298	ME	[1997ACR/POW]
$C_{11}H_{10}N_2O_3$	[40016-70-4]	2-methyl-3-carboxymethoxyquinoxaline-1,4-dioxide				
	$\Delta_{sub}H$		118.3 ± 2.6	298	C	[1997ACR/POW]
$C_{11}H_{10}N_2O_3$	[61522-53-0]	3-(methoxycarbonyl)-2-methoxyquinoxaline-1-oxide				
	$\Delta_{sub}H$		118.1 ± 3.3	298	C	[2009GOM/MON]
$C_{11}H_{10}O$	[4780-79-4]	1-naphthalenemethanol				
	$\Delta_{sub}H$		102.3 ± 1.9	298	C	[2007MAT/MOR]
$C_{11}H_{10}O$	[1592-38-7]	2-naphthalenemethanol				
	$\Delta_{sub}H$		106.0 ± 2.1	298	C	[2007MAT/MOR]
$C_{11}H_{10}O_2$	[2958-72-7]	pentacyclo[5.4.0^{2,6}0^{3,10}0^{5,9}]undecane-8,11-dione				
	$\Delta_{trs}H$		0.32	309.8		
	$\Delta_{trs}H$		9.61	345.3		
	$\Delta_{fus}H$		5.23	516.8	DSC	[1999JIM/ROU]
	$\Delta_{trs}H$		32.14	365.9		
	$\Delta_{fus}H$		3.94	516.8	DSC	[1984WEI/LEF]
		Note: There is a large difference in the experimental enthalpies and transition temperature reported by the two research groups for the solid/solid transition around 355 K				
	$\Delta_{sub}H$		92.6 ± 1.0	298	ME	[1999JIM/ROU]
$C_{11}H_{10}O_2$	[711-79-5]	2-acetyl-1-naphthol				
	$\Delta_{fus}H$		22.52	371.8		[1991ACR]
$C_{11}H_{10}O_2$	[574-19-6]	1-acetyl-2-naphthol				
	$\Delta_{fus}H$		21.34	337		[1991ACR]
$C_{11}H_{10}O_4$	[na]	*p*-methacryloyloxybenzoic acid				
	$\Delta_{fus}H$		34.0	455		[1996DOM/HEA]
$C_{11}H_{11}Cl_3O_3$	[1928-40-1]	2,4,5-trichlorophenoxyacetic acid, propyl ester				
	Δ_vH	(444–573)	83.2	459	A	[1987STE/MAL, 1999DYK/SVO]
$C_{11}H_{11}Cl_3O_3$	[na]	methyl 2-(2,4,5-trichlorophenoxy)butyrate				
	$\Delta_{fus}H$		28.87	316.5	DSC	[1969PLA/GLA]
$C_{11}H_{11}N$	[1198-37-4]	2,4-dimethylquinoline				
	Δ_vH	(458–543)	56.3	473	A	[1987STE/MAL]
$C_{11}H_{11}N$	[877-43-0]	2,6-dimethylquinoline				
	$\Delta_{fus}H$		20.4	330.8	AC,DSC	[2007CHI/JOH]
	$\Delta_{sub}H$		84.5 ± 1.5	298	C	[1995RIB/MAT3]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(337–591)	64.0 ± 0.1	340	IP,EB	[2007CHI/JOH]
	$\Delta_v H$	(337–591)	61.1 ± 0.1	380	IP,EB	[2007CHI/JOH]
	$\Delta_v H$	(337–591)	58.4 ± 0.1	420	IP,EB	[2007CHI/JOH]
	$\Delta_v H$	(337–591)	55.7 ± 0.1	460	IPEB	[2007CHI/JOH]
	$\Delta_v H$	(337–591)	53.0 ± 0.1	500	IP,EB	[2007CHI/JOH]
	$\Delta_v H$	(337–591)	50.0 ± 0.2	540	IP,EB	[2007CHI/JOH]
	$\Delta_v H$	(337–591)	46.8 ± 0.4	580	IP,EB	[2007CHI/JOH]
	$\Delta_v H$	(337–591)	67.1 ± 0.2	298	IP,EB	[2007CHI/JOH]
	$\Delta_v H$	(461–541)	55.7	476	A	[1987STE/MAL]
$C_{11}H_{11}N$	[93-37-8]	2,7-dimethylquinoline				
	$\Delta_{sub}H$		87.5 ± 1.5	298	C	[1995RIB/MAT3]
$C_{11}H_{11}NO_2$	[5323-50-2]	N-propylphthalimide				
	$\Delta_{sub}H$		98.2 ± 1.4	298	C	[2006RIB/SAN]
$C_{11}H_{11}N_3O_2S$	[144-83-2]	4-amino-N-2-pyridinylbenzenesulfonamide (sulfapyridine)				
	$\Delta_{fus}H$		40.47	462.7	DSC	[2003MAR/AVI, 2002MAR/GOM]
$C_{11}H_{11}N_3O_8$	[53848-90-1]	butyl 2,4,6-trinitrobenzoate				
	$\Delta_{trs}H$		2.5	360		
	$\Delta_{fus}H$		28.13	395.2	DSC	[1974WAR/WIL]
$C_{11}H_{12}BrN_5O_3$	[244272-55-7]	2-bromo-6-methyl-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	$\Delta_{fus}H$		50.44	474.3	DSC	[1999ZIE/GOL]
$C_{11}H_{12}Cl_2O_3$	[94-11-1]	2,4-dichlorophenoxyacetic acid, isopropyl ester				
	$\Delta_v H$	(460–573)	69.5	475	A	[1987STE/MAL, 1999DYK/SVO]
$C_{11}H_{12}Cl_2O_3$	[1928-61-1]	2,4-dichlorophenoxyacetic acid, propyl ester				
	$\Delta_v H$	(444–573)	77.3	459	A	[1987STE/MAL, 1999DYK/SVO]
$C_{11}H_{12}Cl_2O_3$	[na]	methyl 4-(2,4-dichlorophenoxy)butyrate				
	$\Delta_{fus}H$		32.64	309.6	DSC	[1969PLA/GLA]
$C_{11}H_{12}Cl_2O_3$	[18625-12-2]	4-(2,4-dichlorophenoxy)butanoic acid, methyl ester				
	$\Delta_{fus}H$		22	309.7	DSC	[2005VEC/BRU]
$C_{11}H_{12}Cl_2O_4$	[28191-20-0]	2,4-dichlorophenoxyacetic acid, 3-hydroxypropyl ester				
	$\Delta_v H$	(463–483)	72.1	473	A	[1987STE/MAL, 1999DYK/SVO]
$C_{11}H_{12}I_3NO_2$	[na]	(−) 3-[3-(amino-2,4,6-triiodophenyl]-2-ethylpropanoic acid (iopanoic acid)				
	$\Delta_{fus}H$		25.98	438.8	DSC	[1999LI/ZEL]
$C_{11}H_{12}I_3NO_2$	[96-83-3]	(+) 3-[3-(amino-2,4,6-triiodophenyl]-2-ethylpropanoic acid (iopanoic acid)				
	$\Delta_{fus}H$		27.7	427	DSC	[1999LI/ZEL]
$C_{11}H_{12}NO_3PS$	[732-11-6]	O,O-dimethyl S-phthalimidomethyl phosphorodithioate				
	$\Delta_{fus}H$		26.96	343.2	DSC	[1990DON/DRE]
$C_{11}H_{12}N_2O$	[60-80-0]	1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one (antipyrine)				
	$\Delta_{fus}H$		24.52	385.8		[1985OHM/LIP]
$C_{11}H_{12}N_2OS_2$	[102-77-2]	2-(4-morpholinothio)benzothiazole				
	$\Delta_{fus}H$ *(I)*		12.97	345		
	$\Delta_{fus}H$ *(II)*		17.99	357		[1978GUZ/LAR]
$C_{11}H_{12}N_2O_2$	[73-22-3]	(*l*)-tryptophane				
	$\Delta_{sub}H$	(340–440)	87.9 ± 8U	390	LE	[1977GAF/PIE]
$C_{11}H_{12}N_2O_3$	[20771-72-6]	4-[(4-nitrophenyl)amino]pent-3-ene-2-one				
	$\Delta_{sub}H$		121.9 ± 3.9	298	C	[1993RIB/RIB]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{12}N_2O_5$	[143248-64-0]	2,3-dihydro-6-methyl-3-[2-(nitrooxy)ethyl]-4*H*-1,3-benzoxazin-4-one				
	$\Delta_{fus}H$		27.1	351.2	DSC	[1996FON/ROS]
$C_{11}H_{12}N_4O_2S$	[127-79-7]	2-(4-aminobenzenesulfonamido)-4-methylpyrimidine (sulfamerazine)				
	$\Delta_{fus}H$		41.3	508.5	DSC	[2003MAR/AVI, 2002MAR/GOM]
	$\Delta_{fus}H$		31.6	515.2	DTA	[1971SUN/EIS]
$C_{11}H_{12}N_4O_3S$	[80-35-3]	4-amino-N-(6-methoxy-3-pyridazinyl)benzenesulfonamide (sulphamethoxypyridazine)				
	$\Delta_{fus}H$		22.3	453.4		[1995BUS/ESC]
$C_{11}H_{12}O$	[na]	2-ethylidiene-3-phenylpropanal				
	Δ_vH	(333–374)	73.6	348	A	[1987STE/MAL]
$C_{11}H_{12}O_2$	[2495-37-6]	benzyl methacrylate				
	Δ_vH	(347–431)	70.5	362	A	[1987STE/MAL]
$C_{11}H_{12}O_2$	[103-36-6]	ethyl cinnamate				
	Δ_vH	(453–544)	57.8	468	A	[1987STE/MAL]
$C_{11}H_{12}O_2$	[5331-64-6]	1-phenyl-1,3-pentanedione				
	Δ_vH	(371–550)	64.6	386	A	[1987STE/MAL]
$C_{11}H_{12}O_2$	[39522-76-4]	1-phenyl-4,7-dioxaspiro[2.4]heptane				
	$\Delta_{fus}H$		22.6	303.1	DSC	[1998VER/PEN]
	$\Delta_{sub}H$		91.8 ± 0.8	298		[1998VER/PEN]
	Δ_vH	(307–333)	71.3 ± 0.7	298	GS	[2002VER]
	Δ_vH	(288–302)	69.6 ± 0.7		GS	[1998VER/PEN]
$C_{11}H_{12}O_2$	[40317-63-3]	4-carboxymethylpentacyclo[4.3.0.0.^{2,5}0^{4,7}]nonane				
	Δ_vH	(303–343)	80.0 ± 1.7	333		[1984BEC/RUC]
$C_{11}H_{12}O_2$	[33892-75-0]	3,4-dihyro-5-methoxy-1(2*H*)-naphthalenone				
	$\Delta_{fus}H$		22.2	362.5	DSC	[2009MAT/SOU2]
	$\Delta_{sub}H$		97.9 ± 0.4	298	C	[2009MAT/SOU2]
$C_{11}H_{12}O_2$	[1078-19-9]	3,4-dihyro-6-methoxy-1(2*H*)-naphthalenone				
	$\Delta_{fus}H$		22.8	351.3	DSC	[2009MAT/SOU2]
	$\Delta_{sub}H$		104.7 ± 0.9	298	C	[2009MAT/SOU2]
$C_{11}H_{12}O_2$	[6836-19-7]	3,4-dihyro-7-methoxy-1(2*H*)-naphthalenone				
	$\Delta_{fus}H$		23.2	334.8	DSC	[2009MAT/SOU2]
	$\Delta_{sub}H$		103.1 ± 0.9	298	C	[2009MAT/SOU2]
$C_{11}H_{12}O_3$	[94-02-0]	benzoylacetic acid, ethyl ester				
	Δ_vH	(380–538)	72.1	395	A	[1987STE/MAL]
$C_{11}H_{12}O_3$	[607-91-0]	myristicin				
	Δ_vH	(368–553)	61.2	383	A	[1987STE/MAL]
$C_{11}H_{12}O_3$	[na]	2-piperonylpropanal				
	Δ_vH	(373–423)	74.5	388	A	[1987STE/MAL]
$C_{11}H_{12}O_4$	[2309-07-1]	methyl 4′-hydroxy-3′-methoxycinnamate (methyl ferulate)				
	$\Delta_{fus}H$		25.84	335.7	DSC	[2010PAN/SAR]
$C_{11}H_{12}O_4$	[7345-82-6]	*trans*-2,3-dimethoxycinnamic acid				
	$\Delta_{sub}H$	(380–392)	141.0 ± 0.9	298	ME	[1999MON/HIL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{12}O_4$	[16909-09-4]	*trans*-2,4-dimethoxycinnamic acid				
	$\Delta_{sub}H$	(391–404)	149.2 ± 1.3	298	ME	[1999MON/HIL]
$C_{11}H_{12}O_4$	[10538-51-9]	*trans*-2,5-dimethoxycinnamic acid				
	$\Delta_{sub}H$	(376–391)	138.8 ± 1.1	298	ME	[1999MON/HIL]
$C_{11}H_{12}O_4$	[2316-26-9]	*trans*-3,4-dimethoxycinnamic acid				
	$\Delta_{sub}H$	(390–404)	149.9 ± 0.8	298	ME	[1999MON/HIL]
$C_{11}H_{12}O_4$	[16909-11-8]	*trans*-3,5-dimethoxycinnamic acid				
	$\Delta_{sub}H$	(385–397)	141.4 ± 0.5	298	ME	[1999MON/HIL]
$C_{11}H_{13}ClF_3N_3O_4S_3$	[346-18-9]	6-chloro-3,4-dihydro-2-methyl-3-[[2,2,2-trifluoroethyl)-thio]methyl-2*H*-1,2,4-benzothiadiazine-5-sulfonamide-1,1-dioxide (polythiazide)				
	$\Delta_{fus}H$		42.67	493.2		[2000HAN/PAR]
$C_{11}H_{13}ClO_3$	[94-81-5]	4-(4-chloro-2-methylphenoxy)butanoic acid				
	$\Delta_{fus}H$		32.02	373.5	DSC	[1990DON/DRE]
$C_{11}H_{13}Cl_3$	[61468-36-8]	4-*tert*-butyl-2,3,6-trichlorotoluene				
	Δ_vH	(423–570)	62.7	438	A	[1987STE/MAL, 1973FEL/SAV, 1999DYK/SVO]
$C_{11}H_{13}F_3N_2O_3S$	[53780-34-0]	5′-(trifluoromethanesulphonamide)acet-2′,4-xylidide				
	$\Delta_{fus}H$		37.66	457.3	DSC	[1990DON/DRE]
$C_{11}H_{13}F_3N_4O_4$	[2091-05-2]	N(3),N(3)-diethyl-2,4-dinitro-6-(trifluoromethyl)-1,3-benzenediamine				
	$\Delta_{fus}H$		29.13	372.1	DSC	[1990DON/DRE]
$C_{11}H_{13}NO$	[14091-93-1]	(E)-3-(methylamino)-1-phenyl-but-2-en-1-one				
	$\Delta_{sub}H$		99.2 ± 4.2	298	C	[1993RIB/RIB]
$C_{11}H_{13}NO$	[7294-89-5]	4-phenylaminopent-3-ene-2-one				
	$\Delta_{sub}H$		89.9 ± 3.8	298	C	[1993RIB/RIB]
$C_{11}H_{13}NO_4$	[22781-23-3]	2,3-isopropylidenedioxyphenyl-N-methylcarbamate				
	$\Delta_{fus}H$		29.45	402.6	DSC	[1990DON/DRE]
$C_{11}H_{13}N_3O_3S$	[127-69-5]	3,4-dimethylisoxazol 5-sulphanylamide				
	$\Delta_{fus}H$		8.41	448.2	DSC	[1996CIO/MEL]
$C_{11}H_{13}N_5O_3$	[114199-19-8]	6-methyl-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	$\Delta_{fus}H$		36.06	465.4	DSC	[1999ZIE/GOL]
$C_{11}H_{14}$	[4912-92-9]	1,1-dimethylindane				
	$\Delta_{fus}H$		11.99	227.4		[1996DOM/HEA]
	Δ_vH	(313–348)	50.1	328	A,IP,EB	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(313–467)	50.5	328	A,IP,EB	[1987STE/MAL]
	Δ_vH	(387–467)	45.9	402	A,IP,EB	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(313–467)	51.9 ± 0.3	298	IP,EB	[1978OSB/SCO]
$C_{11}H_{14}$	[1685-82-1]	4,6-dimethylindane				
	$\Delta_{fus}H$		12.88	256.5		[1996DOM/HEA]
	Δ_vH	(313–467)	56.9	328	A,IP,EB	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(313–363)	56.4	328	A,IP,EB	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(415–467)	50.3	430	A,IP,EB	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(313–467)	57.9 ± 0.4	298	IP,EB	[1978OSB/SCO]
$C_{11}H_{14}$	[6682-71-9]	4,7-dimethylindane				
	$\Delta_{fus}H$		13.52	272.7		[1996DOM/HEA]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(313–470)	54.7	328	A,IP,EB	[1987STE/MAL, 1978OSB/SCO]
	$\Delta_v H$	(313–363)	56.9	328	A,IP,EB	[1987STE/MAL, 1978OSB/SCO]
	$\Delta_v H$	(417–470)	50.6	432	A,IP,EB	[1987STE/MAL, 1978OSB/SCO]
	$\Delta_v H$	(313–470)	58.3 ± 0.4	298	IP, EB	[1978OSB/SCO]
$C_{11}H_{14}$	[2055-40-5]	4-isopropylstyrene				
	$\Delta_v H$	(408–478)	48.5	423	A	[1987STE/MAL]
$C_{11}H_{14}$	[17498-71-4]	α-isopropylstyrene				
	$\Delta_v H$	(278–318)	53.3 ± 0.3	298	GS	[1999VER/EBE]
$C_{11}H_{14}$	[2809-64-5]	5-methyl-1,2,3,4-tetrahydronaphthalene				
	$\Delta_v H$	(416–508)	53.4	431	A	[1987STE/MAL]
$C_{11}H_{14}$	[1680-51-9]	6-methyl-1,2,3,4-tetrahydronaphthalene				
	$\Delta_v H$	(411–502)	53.7	426	A	[1987STE/MAL]
$C_{11}H_{14}$	[3937-24-4]	2,4,5-trimethylstyrene				
	$\Delta_v H$	(352–490)	56.4	367	A	[1987STE/MAL, 1949BUC/COL]
$C_{11}H_{14}$	[769-25-5]	2,4,6-trimethylstyrene				
	$\Delta_v H$	(362–483)	50.9	377	A	[1987STE/MAL, 1949BUC/COL]
$C_{11}H_{14}$	[4421-32-3]	pentacyclo[5.4.0^{2,6}0^{3,10}0^{5,9}]undecane				
	$\Delta_{trs}H$	(5–320)	4.86	164.4		
	$\Delta_{fus}H$	(5–320)	6.38	475.8	AC	[1995KAB/KOZ]
	$\Delta_{sub}H$		54.7 ± 0.9	337	C	[1995KAB/KOZ]
	$\Delta_{sub}H$	(273–323)	54.9 ± 1.1	298	ME	[1995KAB/KOZ]
$C_{11}H_{14}ClNO$	[1918-16-7]	2-chloro-N-isopropyl N-phenylacetamide				
	$\Delta_{fus}H$		26.05	351.4	DSC	[1990DON/DRE]
$C_{11}H_{14}Cl_2$	[61468-35-7]	4-*tert*-butyl-2,5-dichlorotoluene				
	$\Delta_v H$	(395–538)	57.0	410	A	[1987STE/MAL, 1973FEL/SAV, 1999DYK/SVO]
$C_{11}H_{14}N_2O_2$	[718-36-5]	4-nitrobenzylidene *tert*-butylamine				
	$\Delta_{sub}H$		91.1 ± 3.1	298	C	[1989ACR/KIR]
$C_{11}H_{14}N_2O_2$	[128478-71-7]	2-cyano-2-nitroadamantane				
	$\Delta_{fus}H$		4.98	470.2		[1990FRI/DOG]
		Note: Enthalpy seems low, compound may have lower temperature phase transitions.				
	$\Delta_{sub}H$	(307–368)	70.0 ± 1.9	338	T	[1990FRI/DOG]
$C_{11}H_{14}N_2O_3$	[3585-88-4]	4-nitrobenzylidene *tert*-butylamine N-oxide				
	$\Delta_{sub}H$		116.5 ± 3.1	298	C	[1989ACR/KIR]
$C_{11}H_{14}N_2O_4$	[204189-06-0]	3-nitro-3-(4-nitrophenyl)pentane				
	$\Delta_{fus}H$		20.29	na	DSC	[1997VER3]
	$\Delta_{sub}H$		110.8 ± 0.8	298	Fus+Vap	[1997VER3]
	$\Delta_v H$	(321–358)	88.0 ± 0.8	340	GS	[1997VER3]
	$\Delta_v H$	(321–358)	90.5 ± 0.8	298	GS	[1997VER3]
$C_{11}H_{14}O$	[938-16-9]	*tert*-butyl phenyl ketone				
	$\Delta_v H$	(330–493)	55.5	345	A	[1987STE/MAL, 1947STU]
$C_{11}H_{14}O$	[na]	2-ethyl-3-phenylpropanal				
	$\Delta_v H$	(343–388)	64.6	358	A	[1987STE/MAL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{14}O$	[582-62-7]	isobutyl phenyl ketone				
	$\Delta_v H$	(331–501)	55.7	346	A	[1987STE/MAL, 1947STU]
$C_{11}H_{14}O$	[na]	2,3,5-trimethylacetophenone				
	$\Delta_v H$	(352–557)	57.9	367	A	[1987STE/MAL, 1947STU]
$C_{11}H_{14}O_2$	[18523-34-7]	1,1-dimethoxy-2-phenylcyclopropane				
	$\Delta_v H$	(278–313)	63.9 ± 0.6		GS	[1998VER/PEN]
$C_{11}H_{14}O_2$	[122-72-5]	3-acetoxy-1-phenylpropane				
	$\Delta_v H$	(293–333)	74.3	306	A	[1987STE/MAL]
	$\Delta_v H$	(392–516)	56.8	402		[1986CIH/VOJ]
$C_{11}H_{14}O_2$	[210009-92-7]	2-acetyl-3,5-dimethylanisole				
	$\Delta_{fus}H$		0.99	323.2	DTA	[1989SAL/ABA]
		Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent				
$C_{11}H_{14}O_2$	[120-50-3]	butyl benzoate				
	$\Delta_v H$	(374–474)	63.2	394	BG	[1988KAT2]
	$\Delta_v H$	(374–474)	55.7	452	BG	[1988KAT2]
	$\Delta_v H$	(343–405)	59.1	358	A	[1987STE/MAL]
$C_{11}H_{14}O_2$	[93-16-3]	1,2-dimethoxy-4-(1-propenyl)benzne				
	$\Delta_v H$	(358–521)	61.9	373	A	[1987STE/MAL, 1947STU]
$C_{11}H_{14}O_2$	[136-60-7]	isobutyl benzoate				
	$\Delta_v H$	(370–467)	60.4	393	BG	[1988KAT2]
	$\Delta_v H$	(370–467)	54.4	449	BG	[1988KAT2]
	$\Delta_v H$	(291–300)	58.1	295	A	[1987STE/MAL]
	$\Delta_v H$	(338–510)	57.1	353	A	[1987STE/MAL, 1947STU]
$C_{11}H_{14}O_2$	[2510-99-8]	ethyl 2-phenylpropionate				
	$\Delta_v H$	(293–329)	63.2 ± 0.3	311	GS	[1999VER8]
	$\Delta_v H$	(293–329)	64.0 ± 0.3	298	GS	[1999VER8]
$C_{11}H_{14}O_2$	[53917-01-4]	1-(4-methoxyphenyl)-2-butanone				
	$\Delta_v H$	(373–443)	62.6	388	A	[1987STE/MAL]
$C_{11}H_{14}O_2$	[2270-20-4]	5-phenylvaleric acid				
	$\Delta_{fus}H$		23.4	332	DSC	[2001MON/HIL]
	$\Delta_{sub}H$	(315–327)	118.5 ± 0.8	321	ME	[2001MON/HIL]
	$\Delta_{sub}H$	(315–327)	119.4 ± 1.1	298	ME	[2001MON/HIL]
$C_{11}H_{14}O_2$	[1077-58-3]	2-*tert*-butylbenzoic acid				
	$\Delta_{sub}H$	(306–322)	99.8 ± 0.4	315	ME	[1979COL/JIM]
$C_{11}H_{14}O_2$	[7498-54-6]	3-*tert*-butylbenzoic acid				
	$\Delta_{sub}H$	(318–335)	103. ± 0.5	327	ME	[1979COL/JIM]
$C_{11}H_{14}O_2$	[98-73-7]	4-*tert*-butylbenzoic acid				
	$\Delta_{fus}H$		17.91	440	DSC	[1993ACR]
	$\Delta_{sub}H$	(325–343)	103.8 ± 0.4	334	ME	[1979COL/JIM]
$C_{11}H_{14}O_2$	[20651-71-2]	4-butylbenzoic acid				
	$\Delta_{sub}H$	(333–349)	110.5 ± 0.7	298	ME	[2004MON/ALM]
$C_{11}H_{14}O_2$	[2529-39-7]	2,3,4,5-tetramethylbenzoic acid				
	$\Delta_{sub}H$	(337–360)	113.4 ± 0.6	348	ME	[1988COL/JIM]
	$\Delta_{sub}H$	(337–360)	115.9 ± 0.6	298	ME	[1988COL/JIM]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound				
	Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{14}O_2$	[2408-38-0]	2,3,4,6-tetramethylbenzoic acid				
	$\Delta_{sub}H$	(330–351)	106.9 ± 0.5	341	ME	[1988COL/JIM]
	$\Delta_{sub}H$	(330–351)	109.7 ± 0.5	298	ME	[1988COL/JIM]
$C_{11}H_{14}O_2$	[2604-45-7]	2,3,5,6-tetramethylbenzoic acid				
	$\Delta_{sub}H$	(330–351)	104.6 ± 0.8	341	ME	[1988COL/JIM]
	$\Delta_{sub}H$	(330–351)	106.1 ± 0.8	298	ME	[1988COL/JIM]
$C_{11}H_{14}O_2$	[3854-90-8]	3,5-diethylbenzoic acid				
	$\Delta_{sub}H$	(325–343)	104.1 ± 4.2	334	A	[1974ROU/TUR, 1977PED/RYL, 1987STE/MAL]
$C_{11}H_{14}O_2S$	[111895-49-9]	*p*-tolyl but-1-enyl sulfone				
	$\Delta_{sub}H$		106.3 ± 2.5		B	[1969MAC/MCN, 1969MAC/MCN2, 1970COX/PIL]
$C_{11}H_{14}O_2S$	[24931-66-6]	*p*-tolyl but-2-enyl sulfone				
	$\Delta_{sub}H$		107.5 ± 2.5		B	[1969MAC/STE, 1970COX/PIL]
$C_{11}H_{14}O_2S$	[17482-19-8]	*p*-tolyl but-3-enyl sulfone				
	$\Delta_{sub}H$		113.4 ± 2.9		B	[1969MAC/STE, 1970COX/PIL]
$C_{11}H_{14}O_2S$	[16192-03-3]	p-tolyl-isobutenyl sulfone				
	$\Delta_{sub}H$		102.1 ± 2.5		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_{11}H_{14}O_2S$	[16192-04-4]	p-tolyl 2-methylprop-2-enyl sulfone				
	$\Delta_{sub}H$		106.7 ± 2.9			[1969MAC/STE, 1970COX/PIL]
$C_{11}H_{14}O_3$	[94-26-8]	butyl 4-hydroxybenzoate				
	$\Delta_{fus}H$		26.6	341.8		[1999GIO/BET]
	$\Delta_{sub}H$	(320–333)	108.4 ± 0.8	298	GS	[2005PER/ROD]
	$\Delta_{v}H$		76.9		TGA	[2002CHA/DOL]
	$\Delta_{v}H$		72.2		TGA	[2001CHA/DOL]
$C_{11}H_{14}O_3$	[na]	(*dl*) 3-phenyl-3-hydroxy-2,2-dimethylpropanoic acid				
	$\Delta_{fus}H$		37.24	407		[1991CHI/BRA]
$C_{11}H_{14}O_3$	[na]	(*d*) 3-phenyl-3-hydroxy-2,2-dimethylpropanoic acid				
	$\Delta_{fus}H$		39.75	431		[1991CHI/BRA]
$C_{11}H_{14}O_3$	[4521-28-2]	(4-methoxyphenyl)-4-butyric acid				
	$\Delta_{fus}H$		25.3	330.9		[1979ARM/JAM]
$C_{11}H_{14}O_3$	[na]	(*dl*) 3-hydroxy-3-phenylvaleric acid				
	$\Delta_{fus}H$		35.15	394		[1991CHI/BRA]
$C_{11}H_{14}O_3$	[na]	(*d*) 3-hydroxy-3-phenylvaleric acid				
	$\Delta_{fus}H$		30.96	379		[1991CHI/BRA]
$C_{11}H_{14}O_3$	[na]	2-piperonylpropanol				
	$\Delta_{v}H$	(373–443)	84.8	388	A	[1987STE/MAL]
$C_{11}H_{14}O_3$	[1498-96-0]	4-*n*-butoxybenzoic acid				
	$\Delta_{trs}H$ *(solid-to-liq cryst)*		18.83	420.7		
	$\Delta_{trs}H$ *(liq cryst-to-liq)*		2.93	432.2		[1967HER]
	$\Delta_{sub}H$		129.0 ± 0.8	298		[2010RIB/FER3]
$C_{11}H_{14}O_3$	[6627-89-0]	*tert*-butyl phenyl carbonate				
	$\Delta_{v}H$	(294–348)	67.6 ± 0.6	298	GS	[2008VER/EME2]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{14}O_4$	[2107-70-2]	3-(3,4-dimethoxyphenyl)propionic acid				
	$\Delta_{fus}H$		32.38	370.9	DSC	[2001MON/HIL4]
	$\Delta_{sub}H$	(352–366)	140.3 ± 0.8	359	ME	[2001MON/HIL4]
	$\Delta_{sub}H$	(352–366)	143.6 ± 2.2	298	ME	[2001MON/HIL4]
$C_{11}H_{15}BrO$	[99857-52-0]	4-methyl-2-bromophenyl isobutyl ether				
	Δ_vH	(293–328)	71.0 ± 0.3	298	GS	[2005STR/SPO]
$C_{11}H_{15}BrO_3$	[929259-36-9]	1-bromo-2-[2-(2-methoxyethoxy)ethoxy]benzene				
	Δ_vH	(310–373)	83.1 ± 0.3	298	GS	[2006DAB/SPO]
$C_{11}H_{15}Cl$	[42597-10-4]	4-*tert*-butyl-2-chlorotoluene				
	Δ_vH	(372–503)	54.0	387	A	[1987STE/MAL, 1973FEL/SAV, 1999DYK/SVO]
$C_{11}H_{15}N$	[42525-65-2]	2-phenylethylazetidine				
	Δ_vH	(302–333)	62.2	317	A	[1987STE/MAL, 1976KIP/TSV]
$C_{11}H_{15}N$	[4096-20-2]	N-phenylpiperidine				
	Δ_vH	(284–323)	64.0 ± 0.4	303	GS	[1998VER6]
	Δ_vH	(284–323)	64.3 ± 0.4	298	GS	[1998VER6]
$C_{11}H_{15}N$	[23074-42-2]	1-adamantyl-1-carbonitrile				
	$\Delta_{trs}H$		5.06	279.4	DSC	[2008SIN/MUR2]
	$\Delta_{trs}H$		5.5	280		
	$\Delta_{fus}H$		15.0	458		[1984FOU/AMO]
	$\Delta_{sub}H$	(294–312)	67.1 ± 0.8	303	ME	[1992ABB/JIM]
	$\Delta_{sub}H$	(294–312)	67.2 ± 0.8	298	ME	[1992ABB/JIM]
$C_{11}H_{15}NO$	[3376-24-7]	benzylidene *tert*-butylamine N-oxide				
	$\Delta_{sub}H$		86.8 ± 0.9	298	C	[1989ACR/KIR]
$C_{11}H_{15}NO$	[1696-17-9]	N,N-diethylbenzamide				
	Δ_vH	(373–403)	56.5	388	A	[1987STE/MAL]
	Δ_vH	(374–405)	53.2	389		[1969DAV/MAK]
$C_{11}H_{15}NO$	[na]	(4R,5R)-3,4-dimethyl-5-phenyl-1,3-oxazolidine				
	Δ_vH	(293–303)	50.0 ± 1.3	298		[1998GUD/TOR]
$C_{11}H_{15}NO$	[na]	(4S,5R)-3,4-dimethyl-5-phenyl-1,3-oxazolidine				
	Δ_vH	(293–303)	52.4 ± 0.9	298		[1998GUD/TOR]
$C_{11}H_{15}NO$	[15351-09-1]	2-(dimethylamino)-1-phenyl-1-propanone				
	Δ_vH	(293–333)	64.8 ± 1.2	298	GS	[1994WEL/VER]
$C_{11}H_{15}NO_2$	[na]	4-*trans*-cyanocyclohexyl (E) 2-butenoate				
	$\Delta_{fus}H$		24.4	366.2		[1995KEL/SCH]
$C_{11}H_{15}NO_2$	[94-25-7]	butyl 4-aminobenzoate				
	$\Delta_{fus}H$		23.9	330.6	DSC	[2005SCH]
	$\Delta_{fus}H$		20.46	331.1		[1991ACR]
$C_{11}H_{15}NO_2$	[2631-40-5]	2-(1-methylethyl)phenyl methylcarbamate				
	$\Delta_{fus}H$		26.14	369.3	DSC	[1990DON/DRE]
$C_{11}H_{15}NO_2$	[94-14-4]	4-aminobenzoic acid, 2-methylpropyl ester				
	$\Delta_{fus}H$		10.7	327.8	DSC	[2005SCH]
$C_{11}H_{15}NO_2S$	[2032-65-7]	4-methylthio-3,5-xylyl methylcarbamate				
	$\Delta_{fus}H$		30.36	393.8	DSC	[1991ACR, 1990DON/DRE]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound				
	Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{15}NO_2S_2$	[949171-66-8]	N-theonylthiocarbamic-O-pentyl ester				
	$\Delta_{fus}H$		24.59	354.3	DSC	[2007RIB/MON]
	$\Delta_{sub}H$		165.6 ± 2.1	298	C	[2007RIB/MON]
$C_{11}H_{15}NO_3$	[75587-96-1]	1,2-dihydro-6-neopentyl-2-oxonicotinic acid				
	$\Delta_{fus}H$		19.33	469.2	DSC	[1986SHA/BRI]
$C_{11}H_{15}NS$	[1696-17-9]	N,N-diethylbenzamide				
	$\Delta_{sub}H$		91.4 ± 3.2	298	C	[1989RIB/SOU]
$C_{11}H_{15}N_3O_2$	[140670-55-9]	N-caproyl-pyrazinamide				
	$\Delta_{fus}H$		35.95	351.7		[1991LIU/GUO]
$C_{11}H_{16}$	[1777-44-2]	tetracyclo[6.2.1.0^{2,7}.0^{3,5}]undecane				
	Δ_vH		55.3 ± 0.3	298	C	[1996VAR/PAS]
$C_{11}H_{16}$	[538-68-1]	pentylbenzene				
	Δ_vH	(284–323)	55.1 ± 0.4	298	GS	[2006VER]
	Δ_vH		55.3	298		[1994RUZ/ZAB]
	Δ_vH		55.1	298		[1971WIL/ZWO]
$C_{11}H_{16}$	[2049-94-7]	isopentylbenzene				
	Δ_vH	(302–466)	53.0	298	EB	[1947STU, 2006VER]
$C_{11}H_{16}$	[2049-95-8]	*tert*-pentylbenzene				
	Δ_vH	(294–318)	52.3 ± 0.3	298	GS	[2009VER/EME3]
$C_{11}H_{16}$	[2719-52-0]	(*dl*) 2-phenylpentane				
	Δ_vH	(302–466)	50.3	317	A	[1987STE/MAL]
$C_{11}H_{16}$	[1075-38-3]	1-*tert*-butyl-3-methylbenzene				
	Δ_vH	(274–318)	51.1 ± 0.3	298	GS	[2008VER/KOZ2]
	Δ_vH	(279–314)	51.4 ± 0.6	296	GS	[1998VER]
	Δ_vH		51.3 ± 0.6	298		[1998VER]
$C_{11}H_{16}$	[98-51-1]	1-*tert*-butyl-4-methylbenzene				
	Δ_vH	(279–323)	52.2 ± 0.1	298	GS	[2008VER/KOZ2]
	Δ_vH	(279–314)	52.3 ± 0.5	296	GS	[1998VER]
	Δ_vH		52.2 ± 0.6	298		[1998VER]
$C_{11}H_{16}$	[98-15-1]	4-*tert*-butyltoluene				
	Δ_vH	(342–465)	49.1	357	A	[1987STE/MAL, 1973FEL/SAV]
$C_{11}H_{16}$	[2050-24-0]	3,5-diethyltoluene				
	Δ_vH	(307–474)	49.6	322	A	[1987STE/MAL, 1947STU]
$C_{11}H_{16}$	[4920-99-4]	1-ethyl-3-isopropylbenzene				
	Δ_vH	(301–466)	48.8	316	A	[1987STE/MAL, 1947STU]
$C_{11}H_{16}$	[4218-48-8]	1-ethyl-4-isopropylbenzene				
	Δ_vH	(304–469)	49.4	319	A	[1987STE/MAL, 1947STU]
$C_{11}H_{16}$	[3982-67-0]	2-ethyl-1,3,5-trimethylbenzene				
	Δ_vH	(312–481)	52.6	327	A	[1987STE/MAL]
$C_{11}H_{16}$	[18262-85-6]	3-ethyl-1,2,4-trimethylbenzene				
	Δ_vH	(347–488)	61.3	362	A	[1987STE/MAL]
$C_{11}H_{16}$	[17851-27-3]	5-ethyl-1,2,4-trimethylbenzene				
	Δ_vH	(317–481)	56.4	332	A	[1987STE/MAL, 1947STU]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{16}$	[700-12-9]	pentamethylbenzene				
	$\Delta_{trs}H$		1.98	296.8		
	$\Delta_{fus}H$		10.67	328.2		[1996DOM/HEA]
	$\Delta_{sub}H$		71.6 ± 0.1	298	C	[1994SAB/TAB]
	$\Delta_{sub}H$	(296–313)	77.4 ± 0.4	298	ME	[1989COL/JIM]
	$\Delta_{v}H$	(338–503)	57.8	353	A	[1987STE/MAL]
$C_{11}H_{16}N_2O_2$	[82413-41-0]	1,3-dimethy1-5,6-pentamethyleneuracil				
	$\Delta_{sub}H$	(335–358)	111.9 ± 0.2	346	ME	[1983COL/JIM]
	$\Delta_{sub}H$	(323–338)	108.8 ± 5	330	QR	[1980TEP/YAN, 1983COL/JIM]
	$\Delta_{sub}H$	(340–370)	113.4 ± 1.3	355	MS	[1980TEP/YAN, 1983COL/JIM]
$C_{11}H_{16}N_2O_2$	[156461-80-2]	N-methyl-N-(4-*tert*-butylphenyl)nitramine				
	$\Delta_{fus}H$		23.4	351.2		[2002DAS/ZAL]
$C_{11}H_{16}N_2O_2S_2$	[19475-21-9]	N-ethyl-S-methyl-N′-tosylisothiourea				
	$\Delta_{fus}H$		35.8	390.2	DSC	[1992REI/HAN]
$C_{11}H_{16}N_2O_2S_2$	[21017-78-7]	N-methyl-S-ethyl-N′-tosylisothiourea				
	$\Delta_{fus}H$		26.5	414.2	DSC	[1992REI/HAN]
$C_{11}H_{16}N_4O_2$	[35873-40-6]	8-butyltheophylline				
	$\Delta_{fus}H$		32.3	509.2	DSC	[1989GON/KRA]
$C_{11}H_{16}N_4O_2$	[15030-44-1]	8-*tert*-butyltheophylline				
	$\Delta_{fus}H$		48.2	402.3	DSC	[1989GON/KRA]
$C_{11}H_{16}N_4O_4$	[24613-06-7]	(−) 4,4′-(1-methyl-1,2-ethanediyl)*bis*-2,6-piperazinedione (dexrazoxane)				
	$\Delta_{fus}H$		37.82	467.6	DSC	[1999LI/ZEL]
$C_{11}H_{16}N_4O_4$	[21416-67-1]	(+) 4,4′-(1-methyl-1,2-ethanediyl)*bis*-2,6-piperazinedione (dexrazoxane)				
	$\Delta_{fus}H$		44.98	507.4	DSC	[1999LI/ZEL]
$C_{11}H_{16}O$	[51528-17-7]	2-*sec*-butyl-4-methylphenol				
	$\Delta_{v}H$	(413–548)	58.4	428	A	[1987STE/MAL]
	$\Delta_{v}H$	(383–523)	59.0	373		[1953STA/MUL]
	$\Delta_{v}H$	(383–523)	58.0	398		[1953STA/MUL]
	$\Delta_{v}H$	(383–523)	55.8	423		[1953STA/MUL]
	$\Delta_{v}H$	(383–523)	51.4	473		[1953STA/MUL]
$C_{11}H_{16}O$	[2409-55-4]	2-*tert*-butyl-4-methylphenol				
	$\Delta_{sub}H$	(288–318)	82.6 ± 0.5	303	GS	[1999VER2]
	$\Delta_{sub}H$	(288–318)	82.9 ± 0.5	298	GS	[1999VER2]
	$\Delta_{sub}H$	(274–294)	77.4	284	A	[1987STE/MAL, 1960AIH]
	$\Delta_{v}H$	(327–358)	63.0 ± 0.3	343	GS	[1999VER2]
	$\Delta_{v}H$	(327–358)	65.7 ± 0.3	298	GS	[1999VER2]
	$\Delta_{v}H$	(385–517)	58.9	400	A	[1987STE/MAL]
	$\Delta_{v}H$	(343–507)	57.7	348		[1953STA/MUL]
	$\Delta_{v}H$	(343–507)	55.7	373		[1953STA/MUL]
	$\Delta_{v}H$	(343–507)	52.6	423		[1953STA/MUL]
	$\Delta_{v}H$	(343–507)	48.5	473		[1953STA/MUL]
$C_{11}H_{16}O$	[88-60-8]	2-*tert*-butyl-5-methylphenol				
	$\Delta_{sub}H$	(277–294)	80.4 ± 1.3	287	GS	[1999VER2]
	$\Delta_{sub}H$	(277–294)	79.7 ± 1.3	298	GS	[1999VER2]
	$\Delta_{v}H$	(296–343)	65.9 ± 0.3	320	GS	[1999VER2]
	$\Delta_{v}H$	(296–343)	67.2 ± 0.3	298	GS	[1999VER2]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(378–490)	59.8	393	A	[1987STE/MAL]
	$\Delta_v H$	(383–518)	53.0	398	A	[1987STE/MAL]
$C_{11}H_{16}O$	[2219-82-1]	2-*tert*-butyl-6-methylphenol				
	$\Delta_{fus}H$		17.32	302.5	DSC	[1999VER]
	$\Delta_v H$	(308–343)	62.2 ± 0.5	326	GS	[1999VER]
	$\Delta_v H$	(308–343)	63.8 ± 0.5	298	GS	[1999VER]
	$\Delta_v H$	(375–505)	55.2	390	A	[1987STE/MAL]
$C_{11}H_{16}O$	[98-27-1]	4-*tert*-butyl-2-methylphenol				
	$\Delta_v H$	(291–333)	71.3 ± 0.6	312	GS	[1999VER2]
	$\Delta_v H$	(291–333)	72.1 ± 0.6	298	GS	[1999VER2]
	$\Delta_v H$	(347–520)	61.5	362	A	[1987STE/MAL]
	$\Delta_v H$	(275–297)	75.7	286	A	[1987STE/MAL, 1960AIH]
	$\Delta_v H$	(347–532)	55.7	348		[1953STA/MUL]
	$\Delta_v H$	(347–532)	53.9	373		[1953STA/MUL]
	$\Delta_v H$	(347–532)	53.2	398		[1953STA/MUL]
	$\Delta_v H$	(347–532)	50.9	423		[1953STA/MUL]
	$\Delta_v H$	(347–532)	46.7	473		[1953STA/MUL]
$C_{11}H_{16}O$	[3968-87-4]	2-ethyl-3-phenyl-1-propanol				
	$\Delta_v H$	(348–393)	70.9	363	A	[1987STE/MAL]
$C_{11}H_{16}O$	[87-26-3]	2-(2-pentyl)phenol				
	$\Delta_v H$	(397–501)	74.4	413	EB	[1990NES/NAZ]
	$\Delta_v H$	(397–501)	59.6	412		[1993KAS/MOK]
$C_{11}H_{16}O$	[14938-35-3]	4-pentylphenol				
	$\Delta_v H$	(423–563)	60.9	438	A	[1987STE/MAL]
$C_{11}H_{16}O$	[80-46-6]	4-*tert*-pentylphenol				
	$\Delta_{sub}H$	(293–333)	87.4 ± 0.5	313	GS	[1999VER2]
	$\Delta_{sub}H$	(293–333)	88.3 ± 0.5	298	GS	[1999VER2]
	$\Delta_v H$	(297–333)	64.2 ± 0.2	329	GS	[1999VER2]
	$\Delta_v H$	(297–333)	65.3 ± 0.2	298	GS	[1999VER2]
	$\Delta_v H$	(385–548)	58.2	400	A	[1987STE/MAL]
$C_{11}H_{16}O$	[10521-91-2]	5-phenyl-1-pentanol				
	$\Delta_v H$	(373–430)	58.2	388	A	[1987STE/MAL]
$C_{11}H_{16}O$	[91967-71-4]	(1-propoxyethyl)benzene				
	$\Delta_v H$	(288–321)	56.4 ± 0.2	305	GS	[2001VER/HEI]
	$\Delta_v H$	(288–321)	56.7 ± 0.2	298	GS	[2001VER/HEI]
$C_{11}H_{16}O$	[65757-61-1]	(1-isopropoxyethyl)benzene				
	$\Delta_v H$	(278–313)	55.4 ± 0.3	298	GS	[2002KRA/VAS, 2002VER/HEI]
$C_{11}H_{16}O$	[1712-74-9]	ethyl cumyl ether				
	$\Delta_v H$	(278–313)	54.8 ± 0.5	296	GS	[2001VER/HEI2]
	$\Delta_v H$	(278–313)	54.7 ± 0.5	298	GS	[2001VER/HEI2]
$C_{11}H_{16}O$	[31108-34-6]	1-(2,4,6-trimethylphenyl)ethanol				
	$\Delta_{sub}H$	(282–313)	U 5.7	297	A	[1987STE/MAL]
$C_{11}H_{16}O_2$	[121-00-6]	2-*tert*-butyl-4-methoxyphenol				
	$\Delta_v H$	(403–463)	54.4	418	A	[1987STE/MAL]
$C_{11}H_{16}O_2$	[533-24-4]	1,3-dihydroxy-4-pentylbenzene				
	$\Delta_v H$	(423–488)	84.9	438	A,GC	[1987STE/MAL, 1975KUN/LIL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{16}O_2$	[774-48-1]	phenyldiethoxymethane				
	$\Delta_v H$	(283–329)	62.8 ± 0.6	298	GS	[2002VER]
$C_{11}H_{16}O_2$	[25310-92-3]	1,1-dimethoxy-1-phenylpropane				
	$\Delta_v H$	(288–328)	58.9 ± 0.3	298	GS	[2002VER]
	$\Delta_v H$	(288–328)	57.9 ± 0.3		GS	[1998VER/PEN]
$C_{11}H_{16}O_2$	[na]	*tert*-pentylcatechol (isomer not specified)				
	$\Delta_v H$	(398–473)	58.2	436		[1965GAK/BAB]
$C_{11}H_{16}O_2$	[828-51-3]	1-adamantanecarboxylic acid				
	$\Delta_{fus}H$		2.25	524.2	DSC	[1986HAR/GIL]
$C_{11}H_{16}O_3$	[7149-82-8]	(racemic) 3-(2-ethylphenoxy)-propane-1,2-diol				
	$\Delta_{fus}H$		34.8	324.1	DSC	[2008BRE/BRE]
$C_{11}H_{16}O_3$	[1092799-92-2]	(S)-3-(2-ethylphenoxy)-propane-1,2-diol				
	$\Delta_{fus}H$		35.0	342.1	DSC	[2008BRE/BRE]
$C_{11}H_{16}O_5$	[na]	ethylcamphoric acid anhydride				
	$\Delta_v H$	(391–571)	70.8	406	A	[1987STE/MAL, 1947STU]
$C_{11}H_{16}O_5$	[na]	(1-methylallyl)[1-(allyloxycarbonyl)ethyl]carbonate				
	$\Delta_v H$	(368–508)	60.2	383	A	[1987STE/MAL]
$C_{11}H_{17}Cl_3OS$	[76619-96-0]	2,3,3-trichloro-2-propenethioic acid, O-octyl ester				
	$\Delta_v H$	(443–483)	74.2		GC	[1980PIT/KIS]
$C_{11}H_{17}NO$	[552-79-4]	(−) 2-dimethylamino-1-phenyl-1-propanol (methylephedrine)				
	$\Delta_{fus}H$	(79–399)	21.8	358.6	AC	[2008DI/WAN]
	$\Delta_{fus}H$		30.56	361.2	DSC	[1999LI/ZEL]
$C_{11}H_{17}NO$	[1201-56-5]	(+) 2-dimethylamino-1-phenyl-1-propanol (methylephedrine)				
	$\Delta_{fus}H$		26.6	336	DSC	[1999LI/ZEL]
$C_{11}H_{17}NO$	[5511-18-2]	1-adamantyl carboxamide				
	$\Delta_{sub}H$	(336–354)	105.9 ± 0.5	345	ME	[1989ABB/JIM]
	$\Delta_{sub}H$		108.0 ± 0.5	298	ME	[1989ABB/JIM]
$C_{11}H_{17}N_5$	[153495-36-4]	6,9-dimethyl-8-butyladenine				
	$\Delta_{fus}H$		36.0	409.2		[1994ZIE/ZIE]
	$\Delta_{sub}H$	(348–354)	106.0 ± 0.1	351	ME	[1994ZIE/ZIE]
$C_{11}H_{18}$	[768-91-2]	1-methyladamantane				
	$\Delta_{trs}H$		1.91	169.5		
	$\Delta_{trs}H$		1.47	211.5		
	$\Delta_{fus}H$		3.71	392		[1977CLA/KNO]
	$\Delta_{sub}H$	(300–342)	67.8 ± 1.3	298	BG	[1977STE/WAT]
	$\Delta_{sub}H$	(306–336)	67.6 ± 0.5	321		[1975CLA/KNO]
$C_{11}H_{18}$	[700-56-1]	2-methyladamantane				
	$\Delta_{sub}H$	(310–330)	67.5 ± 2.1	320		[1975CLA/KNO]
	$\Delta_{sub}H$	(300–340)	68.2 ± 1.3	298		[1977STE/WAT]
$C_{11}H_{18}N_2$	[71172-36-6]	undecanedinitrile				
	$\Delta_{fus}H$		26.0	266.1	DSC	[2007BAD/BLA]
$C_{11}H_{18}O$	[26533-38-0]	6-methyl-3-isopropenyl-5-hepten-2-one				
	$\Delta_v H$	(390–420)	49.7	405		[1989WAN/YIN]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{18}O$	[702-98-7]	2-methyl-2-adamantanol				
	$\Delta_{sub}H$	(298–334)	91.3 ± 0.8	298	ME	[2003CHA/BLO2]
	$\Delta_{sub}H$		91.4 ± 0.3	298	C	[2003CHA/BLO2]
$C_{11}H_{18}O_2$	[7492-41-3]	borneol formate				
	Δ_vH	(320–487)	52.7	335	A	[1987STE/MAL, 1947STU]
$C_{11}H_{18}O_2$	[2142-94-1]	3,7-dimethyl-*cis*-2,6-octadienyl formate				
	Δ_vH	(330–498)	58.1	345	A	[1987STE/MAL]
$C_{11}H_{18}O_2$	[105-86-2]	3,7-dimethyl-*trans*-2,6-octadienyl formate				
	Δ_vH	(334–503)	57.1	349	A	[1987STE/MAL, 1947STU]
$C_{11}H_{18}O_2$	[1200-67-5]	isoborneol formate				
	Δ_vH	(383–441)	53.5	398	A	[1987STE/MAL]
$C_{11}H_{18}O_4$	[4167-77-5]	1,1-cyclopentanedicarboxylic acid diethyl ester				
	Δ_vH	(293–323)	66.8 ± 0.4		GS	[1998VER/KUM]
$C_{11}H_{18}O_5$	[na]	4-oxononanedioic acid, dimethyl ester				
	Δ_vH	(394–559)	72.7	409	A	[1987STE/MAL]
$C_{11}H_{18}O_6$	[na]	1,1,1-*tris*(ethoxycarbonyl)methane				
	Δ_vH	(298–338)	74.1 ± 0.4		GS	[1995RAK/VER]
$C_{11}H_{18}O_6$	[na]	1,1,1-*tris*(methoxycarbonyl)pentane				
	Δ_vH	(298–338)	81.0 ± 0.4		GS	[1995RAK/VER]
$C_{11}H_{19}NO_2$	[62391-95-1]	ethyl *bis*(isopropyl)cyanoacetate				
	Δ_vH	(284–319)	65.0 ± 0.9	298	GS	[1995VER/BEC]
$C_{11}H_{19}NO_3$	[114-26-1]	2-isopropoxyphenyl N-methylcarbamate				
	$\Delta_{fus}H$		22.96	362.7	DSC	[1991ACR, 1990DON/DRE]
$C_{11}H_{19}NS$	[27149-31-1]	2,4-di-*tert*-butylthiazole				
	$\Delta_{fus}H$		10.5	258.2		[1966MEY/MET]
$C_{11}H_{19}N_3O$	[23947-60-6]	5-butyl-2-ethylamino-6-methylpyrimidin-4-ol				
	$\Delta_{fus}H$		20.32	432.5	DSC	[1991ACR, 1990DON/DRE]
$C_{11}H_{19}N_5S$	[4147-51-7]	6-ethylthio-N,N′-*bis*(1-methylethyl)-1,3,5-triazine-2,4-diamine				
	$\Delta_{fus}H$		23.94	377.7	DSC	[1991ACR, 1990DON/DRE]
$C_{11}H_{19}O_5$	[1446-19-1]	N-acetyl-(*l*)-glutamic acid, diethyl ester				
	Δ_vH	(403–503)	67.2	418	A	[1987STE/MAL]
$C_{11}H_{20}$	[180-43-8]	spiro[5.5]undecane				
	Δ_vH		56.1	298	C	[1975SUB/ZWO]
$C_{11}H_{20}$	[1606-08-2]	cyclopentylcyclohexane				
	Δ_vH	(383–488)	47.9	398	A	[1987STE/MAL]
$C_{11}H_{20}$	[180-43-8]	bicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		63.6 ± 0.8	298	C	[1975PAR/STE, 1977PED/RYL]
$C_{11}H_{20}Cl_4$	[3922-34-7]	1,1,1,11-tetrachloroundecane				
	Δ_vH	(303–353)	92.5	318	A	[1987STE/MAL, 1999DYK/SVO]
$C_{11}H_{20}Cl_4$	[210049-49-3]	1,2,10,11-tetrachloroundecane				
	Δ_vH		78.7			[1998DRO/TOM]
$C_{11}H_{20}N_6$	[13452-85-2]	1-pyrrolidinyl-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		25.61	403.1	DSC	[1991ACR]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{20}N_6O$	[16269-02-6]	1-morpholinyl-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		24.69	397.4	DSC	[1991ACR]
$C_{11}H_{20}N_6S$	[41492-69-7]	1-(thiomorpholinyl-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		29.08	391.2	DSC	[1991ACR]
$C_{11}H_{20}O$	[878-13-7]	cycloundecanone				
	Δ_vH	(363–433)	60.3	378	A	[1987STE/MAL]
	Δ_vH	(448–501)	51.8	463	A, EB	[1987STE/MAL, 1976MEY/HOT]
	Δ_vH		64.3 ± 0.6	298		[1972WOL]
$C_{11}H_{20}O_2$	[1118-71-4]	2,2,6,6-tetramethyl-3,5-heptanedione				
	Δ_vH		59.5	298		[1978RIB/IRV]
$C_{11}H_{20}O_2$	[103-11-7]	(*dl*) 2-ethylhexyl acrylate				
	Δ_vH	(323–489)	55.3	338	A	[1987STE/MAL, 1947STU]
$C_{11}H_{20}O_2$	[na]	formic acid, 3-para-menthol ester				
	Δ_vH	(320–492)	52.0	335	A	[1987STE/MAL, 1947STU]
$C_{11}H_{20}O_2$	[1551-43-5]	cyclohexyl valerate				
	Δ_vH		63.7 ± 0.1	298	C	[2004PAU/ZAI, 2003ZAI/VER]
	Δ_vH	(273–318)	67.2 ± 0.8	298	ME	[2003ZAI/VER]
	Δ_vH	(273–318)	63.9 ± 0.4	298	ME	[2003ZAI/VER]
	Δ_vH	(293–332)	62.4 ± 0.7	298	GS	[2003ZAI/VER]
$C_{11}H_{20}O_2$	[na]	1-methylcyclohexyl isobutyrate				
	Δ_vH	(333–378)	57.2	298	CGC	[1999VER/HEI]
$C_{11}H_{20}O_2$	[na]	3-methylcyclohexyl isobutyrate				
	Δ_vH	(333–378)	59.3	298	CGC	[1999VER/HEI]
$C_{11}H_{20}O_2$	[na]	4-methylcyclohexyl isobutyrate				
	Δ_vH	(333–378)	59.7	298	CGC	[1999VER/HEI]
$C_{11}H_{20}O_2$	[29878-49-7]	cyclohexyl pivalate				
	Δ_vH	(333–378)	59.0	298	CGC	[1999VER/HEI]
$C_{11}H_{20}O_2$	[61732-96-5]	2-hexyl-4,7-dihydro-1,3-dioxepin				
	Δ_vH	(333–453)	66.0	348	A	[1987STE/MAL]
$C_{11}H_{20}O_2$	[2499-59-4]	octyl acrylate				
	Δ_vH	(331–500)	56.2	346	A	[1987STE/MAL, 1947STU]
$C_{11}H_{20}O_2$	[1725-03-7]	oxa-2-cyclododecanone (undecanolactone)				
	$\Delta_{trs}H$		3.36	250.2		
	$\Delta_{fus}H$		12.61	275.3		[1996DOM/HEA]
	Δ_vH	(365–387)	57.7 ± 0.8	376	MM	[1991WIB/WAL]
	Δ_vH	(365–387)	66.2 ± 1.3	298	MM	[1991WIB/WAL]
	Δ_vH	(353–413)	70.5	368	A	[1987STE/MAL]
$C_{11}H_{20}O_2$	[112-38-9]	10-undecenoic acid				
	Δ_vH	(387–548)	70.6	402	A	[1987STE/MAL, 1947STU]
$C_{11}H_{20}O_2$	[707-29-9]	3,3-dimethyl-1,5-dioxaspiro[5.5]undecane				
	Δ_vH	(283–323)	59.0 ± 0.6		GS	[1998VER/PEN, 2002VER]
$C_{11}H_{20}O_3$	[24431-34-3]	hexyl levulinate				
	Δ_vH	(363–540)	66.6	378	A	[1987STE/MAL, 1947STU]
	Δ_vH		59.1	479		[1931SCH/COW]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{20}O_4$	[77008-66-3]	(*dl*) hexyl 2-acetoxypropionate				
	$\Delta_v H$	(322–517)	70.3	337	A	[1987STE/MAL]
$C_{11}H_{20}O_4$	[1732-10-1]	azelaic acid, dimethyl ester				
	$\Delta_v H$	(413–540)	63.6	428	A	[1987STE/MAL]
$C_{11}H_{20}O_4$	[77-25-8]	diethyl diethylmalonate				
	$\Delta_v H$	(386–491)	68.5	401	A	[1987STE/MAL]
$C_{11}H_{20}O_4$	[1852-04-6]	undecanedioic acid				
	$\Delta_{trs}H$		1.6	355.3		
	$\Delta_{fus}H$		41.2	380.1	DSC	[2005ROU/TEM]
	$\Delta_{fus}H$		39.65	385		[1996DOM/HEA]
	$\Delta_{sub}H$	(295–313)	141.5		TPTD	[2005CHA/ZIE]
		Note: Values based on TPTD method are not consistent with values determined by other experimental methods				
	$\Delta_{sub}H$	(371–381)	158.6 ± 1.9	376	ME	[1999RIB/MON]
	$\Delta_{sub}H$	(371–381)	162.5 ± 1.9	298	ME	[1999RIB/MON]
	$\Delta_v H$	(424–503)	128.2 ± 2.3	298	CGC	[2005ROU/TEM]
$C_{11}H_{20}O_4$	[1732-10-1]	dimethyl azelate				
	$\Delta_v H$	(298–373)	82.3 ± 0.4	298	GS	[2006VER/KOZ]
$C_{11}H_{20}O_5$	[na]	hexyl[1-(methoxycarbonyl)ethyl]carbonate				
	$\Delta_v H$	(371–538)	65.9	386	A	[1987STE/MAL]
$C_{11}H_{20}O_5$	[na]	propyl[1-(butoxycarbonyl)ethyl]carbonate				
	$\Delta_v H$	(330–463)	66.4	345	A	[1987STE/MAL]
$C_{11}H_{21}N$	[80606-32-2]	2-butyl-2-methylhexanenitrile				
	$\Delta_v H$	(298–388)	59.8 ± 0.4		GS	[1994RAK/VER]
$C_{11}H_{21}N$	[2244-07-1]	undecanonitrile				
	$\Delta_v H$	(290–340)	71.8 ± 0.3	298	GS	[2005EME/VER]
	$\Delta_v H$	(355–534)	63.7	370	A	[1987STE/MAL]
	$\Delta_v H$		71.1 ± 0.1	298	C	[1977STRI/SUN]
$C_{11}H_{21}N$	[3319-01-5]	N-cyclohexylpiperidine				
	$\Delta_v H$	(288–328)	59.9 ± 0.6	308	GS	[1998VER6]
	$\Delta_v H$	(288–328)	60.5 ± 0.6	298	GS	[1998VER6]
$C_{11}H_{21}NO$	[15770-38-4]	N-hexanoylpiperidone				
	$\Delta_v H$	(383–433)	66.3	398	A	[1987STE/MAL]
$C_{11}H_{21}N_5S$	[4147-51-7]	6-(ethylthio)-N,N′-*bis*(1-methylethyl)-1,3,5-triazine-2,4-diamine				
	$\Delta_{fus}H$		23.94	377.7	DSC	[1990DON/DRE]
$C_{11}H_{21}N_7$	[125867-94-9]	1-(piperizinyl)-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		23.01	382	DSC	[1991ACR]
$C_{11}H_{22}$	[4292-92-6]	pentylcyclohexane				
	$\Delta_v H$		52.9 ± 0.5	298		[1987AZA]
	$\Delta_v H$		54.1 ± 0.3	298	GCC	[1978FUC/PEA]
	$\Delta_v H$		53.9	298		[1975KUS/SAI]
	$\Delta_v H$		55.0	298		[1971WIL/ZWO]
$C_{11}H_{22}$	[4457-00-5]	hexylcyclopentane				
	$\Delta_v H$		55.9	298		[1971WIL/ZWO]
$C_{11}H_{22}$	[821-95-4]	1-undecene				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		9.2	217.3		
	$\Delta_{fus}H$		16.99	224		[1996DOM/HEA]
	Δ_vH	(283–312)	54.3 ± 0.3	298	GS	[2000VER/WAN]
	Δ_vH		55.4	298		[1971WIL/ZWO]
	Δ_vH	(378–473)	48.2	393	A	[1987STE/MAL, 1950FOR/CAM]
$C_{11}H_{22}$	[821-96-5]	*cis* 2-undecene				
	Δ_vH	(333–393)	53.2	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[693-61-8]	*trans* 2-undecene				
	Δ_vH	(333–393)	53.0	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[821-97-6]	*cis* 3-undecene				
	Δ_vH	(333–393)	52.3	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[1002-68-2]	*trans* 3-undecene				
	Δ_vH	(333–393)	52.0	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[821-98-7]	*cis* 4-undecene				
	Δ_vH	(333–393)	51.6	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[693-62-9]	*trans* 4-undecene				
	Δ_vH	(333–393)	52.1	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[764-96-5]	*cis* 5-undecene				
	Δ_vH	(333–393)	51.4	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[764-97-6]	*trans* 5-undecene				
	Δ_vH	(333–393)	51.8	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[na]	3-methyl-3-propyl-1-heptene				
	Δ_vH	(263–293)	52.8 ± 1.0	278	HSA	[1995CHI/HES]
	Δ_vH	(263–293)	50.9	298	HSA	[1995CHI/HES]
	Δ_vH		51.5	298	CGC	[1995CHI/HES]
$C_{11}H_{22}Cl_2$	[822-01-5]	1,1-dichloroundecane				
	Δ_vH	(430–500)	59.5	445		[1999DYK/SVO, 1987VAR/LOS2]
	Δ_vH	(430–500)	71.7	298		[1987VAR/LOS2, 1991BAS/SVO]
$C_{11}H_{22}N_2$	[880-09-1]	*bis*(piperidino)methane				
	Δ_vH	(283–322)	61.9 ± 0.9	303	GS	[2002VER2]
	Δ_vH	(283–322)	62.2 ± 0.9	298	GS	[2002VER2]
$C_{11}H_{22}N_2O_2$	[73154-82-2]	undecandiamide				
	$\Delta_{fus}H$		64.4	451.2	DSC	[2006BAD/DEL]
$C_{11}H_{22}O$	[878-13-7]	cycloundecanone				
	$\Delta_{fus}H$		23.0	287.7		[1998GON/SZW]
$C_{11}H_{22}O$	[36633-49-5]	1-hexylcyclopentanol				
	Δ_vH	(387–509)	59.2	402	A	[1987STE/MAL]
$C_{11}H_{22}O$	[na]	cyclohexyl *tert*-amyl ether				
	Δ_vH		54.3 ± 0.2	298		[2002VER]
$C_{11}H_{22}O$	[112-12-9]	2-undecanone				
	$\Delta_{fus}H$		28.78	290.5		[1993VIL/HAM]
	Δ_vH	(461–538)	51.5	476	A	[1987STE/MAL]
	Δ_vH		69.7 ± 0.5	298	GCC	[1979SAL/PEA]
	Δ_vH		67.0 ± 0.4	298	C	[1979SUN/SVE2]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound				
	Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(393–523)	56.2	408	A	[1987STE/MAL, 1975AMB/ELL]
	$\Delta_v H$		46.4	506		[1975AMB/ELL]
	$\Delta_v H$	(335–433)	61.6	350	A, EB	[1987STE/MAL, 1966MEY/WAG]
	$\Delta_v H$	(341–497)	61.9	356		[1947STU]
$C_{11}H_{22}O$	[927-49-1]	6-undecanone				
	$\Delta_v H$	(343–383)	59	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(343–383)	61.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(388–543)	55.3	403	A	[1987STE/MAL]
	$\Delta_v H$	(461–513)	50.4	476	A	[1987STE/MAL]
	$\Delta_v H$		63.5 ± 0.5	298	GCC	[1979SAL/PEA]
	$\Delta_v H$	(383–514)	45.8	500		[1975STR/SUN]
$C_{11}H_{22}O$	[4436-99-1]	2,2,6,6-tetramethyl-4-heptanone				
	$\Delta_v H$		52.9 ± 0.2	298	C	[1971SEL]
$C_{11}H_{22}O$	[112-44-7]	undecanal				
	$\Delta_v H$	(293–329)	64.6 ± 0.5	298	GS	[2003VER/KRA2]
	$\Delta_v H$	(323–343)	69.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(288–400)	60.2	303	A	[1987STE/MAL]
$C_{11}H_{22}O_2$	[5870-93-9]	heptyl butyrate				
	$\Delta_v H$	(384–498)	58.7	399	A	[1987STE/MAL]
$C_{11}H_{22}O_2$	[6454-22-4]	4,5-dimethyl-2-hexyl-1,3-dioxolane				
	$\Delta_v H$	(333–453)	65.6	348	A	[1987STE/MAL]
$C_{11}H_{22}O_2$	[2244-84-0]	4-heptyl-1,3-dioxane				
	$\Delta_v H$	(353–453)	64.4	368	A	[1987STE/MAL]
$C_{11}H_{22}O_2$	[41277-7502]	3-hexyl-4-hydroxytetrahydro-2*H*-pyran				
	$\Delta_v H$	(383–453)	73.6	398	A	[1987STE/MAL]
$C_{11}H_{22}O_2$	[5458-59-3]	isopropyl caprylate				
	$\Delta_v H$	(338–420)	57.5	353	A	[1987STE/MAL]
	$\Delta_v H$	(338–419)	58.3	353		[1948BON/ATH, 1984BOU/FRI]
$C_{11}H_{22}O_2$	[110-42-9]	methyl decanoate (methyl caprate)				
	$\Delta_v H$		62.0	350		[2002VAN/VAN]
	$\Delta_v H$		62.9 ± 0.1	337		[2002VAN/VAN]
	$\Delta_v H$		66.1 ± 0.2	298		[2002VAN/VAN]
	$\Delta_v H$	(373–433)	66.9	298	GC	[1997KRO/VEL]
	$\Delta_v H$	(453–543)	49.9	498	GC	[1993HUS/SAR]
	$\Delta_v H$		66.3 ± 0.5	298	GCC	[1980FUC/PEA]
	$\Delta_v H$		66.8 ± 0.6	298	C	[1977MAN/SEL]
	$\Delta_v H$	(379–500)	57.1	394	A, E	[1987STE/MAL, 1963ROS/SCH]
	$\Delta_v H$	(324–370)	63	339	MG,OM	[1952SCO/MAC]
$C_{11}H_{22}O_2$	[5432-30-4]	2-octyl-1,3-dioxolane				
	$\Delta_v H$	(333–453)	60.3	348	A	[1987STE/MAL]
$C_{11}H_{22}O_2$	[624-13-5]	propyl caprylate				
	$\Delta_v H$	(343–500)	58.8	358	A	[1987STE/MAL]
	$\Delta_v H$	(343–426)	58.2	358		[1948BON/ATH, 1984BOU/FRI]
$C_{11}H_{22}O_2$	[143-13-5]	nonyl acetate				
	$\Delta_v H$	(277–309)	66.2 ± 0.2	298	GS	[2006KRA/VER]
	$\Delta_v H$		66.8	298		[1997DEF/CAR]
	$\Delta_v H$	(313–358)	67	298	GC	[1997KOU/HOS, 2000OVA/KOU]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{22}O_2$	[245658-29-1]	2,2-dimethylpropanoic acid, 1,1-dimethylbutyl ester				
	$\Delta_v H$	(333–378)	52.3	298	CGC	[1999VER/HEI]
$C_{11}H_{22}O_2$	[245658-35-9]	2,2-dimethylpropanoic acid, 1,1,2-trimethylpropyl ester				
	$\Delta_v H$	(333–378)	52.8	298	CGC	[1999VER/HEI]
$C_{11}H_{22}O_2$	[245658-24-6]	3,3-dimethylbutanoic acid, 1,1-dimethylpropyl ester				
	$\Delta_v H$	(333–378)	53.2	298	CGC	[1999VER/HEI]
$C_{11}H_{22}O_2$	[245658-38-2]	2-methylpropanoic acid, 1,1,3-trimethylbutyl ester				
	$\Delta_v H$	(333–378)	53.4	298	CGC	[1999VER/HEI]
$C_{11}H_{22}O_2$	[na]	2,6-dimethyl-2-heptanol acetate				
	$\Delta_v H$	(333–378)	56.4	298	CGC	[1999VER/HEI]
$C_{11}H_{22}O_2$	[112-37-8]	undecanoic acid				
	$\Delta_{trs}H$		8.13	290		
	$\Delta_{fus}H$		25.98	301.6		[1996DOM/HEA]
	$\Delta_{sub}H$	(303–308)	121.3 ± 1.3	298	ME	[1968BAC/NOV, 1970COX/PIL]
	$\Delta_v H$	(393–557)	81.3	408	A	[1987STE/MAL]
	$\Delta_v H$	(310–332)	90.7 ± 2.0	323	ME, TE	[1982DEK/SCH]
	$\Delta_v H$	(303–308)	97.9 ± 6.3	305		[1968BAC/NOV]
$C_{11}H_{22}O_3$	[38611-89-1]	butyl 2-butoxypropionate				
	$\Delta_v H$	(373–398)	40.8	385	A	[1987STE/MAL, 1933HEN/MUR]
$C_{11}H_{22}O_3$	[14144-48-0]	butyl 3-butoxypropionate				
	$\Delta_v H$	(343–493)	57.6	358	A	[1987STE/MAL]
$C_{11}H_{22}O_3$	[14144-37-7]	hexyl 3-ethoxypropionate				
	$\Delta_v H$	(373–514)	56.7	388	A	[1987STE/MAL]
$C_{11}H_{22}O_3$	[51191-33-4]	octyl lactate				
	$\Delta_v H$	(328–528)	71.5	343	A	[1987STE/MAL]
$C_{11}H_{22}O_3$	[676-08-4]	peroxyundecanoic acid				
	$\Delta_{sub}H$	(293–303)	125.9 ± 3.4	298	ME	[1980SWA/KWA]
$C_{11}H_{22}O_3$	[3669-80-5]	11-hydroxyundecanoic acid				
	$\Delta_{sub}H$	(307–321)	105		TPTD	[2005CHA/ZIE]
$C_{11}H_{23}Br$	[693-67-4]	1-bromoundecane				
	$\Delta_{fus}H$		33.47	263.3		[1950CRO/SMY]
	$\Delta_v H$	(407–564)	58.8	422		[1999DYK/SVO]
	$\Delta_v H$	(398–591)	59.5	413	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{11}H_{23}Cl$	[2473-03-2]	1-chloroundecane				
	$\Delta_v H$		70.2	298		[2006BOL/NER2]
	$\Delta_v H$	(370–520)	65.9	298		[1984BOU/FRI, 1991BAS/SVO]
	$\Delta_v H$	(374–519)	59.4	389	A, DTA	[1987STE/MAL, 1969KEM/KRE]
$C_{11}H_{23}F$	[506-05-8]	1-fluoroundecane				
	$\Delta_v H$	(373–523)	52.3	388	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{11}H_{23}I$	[4282-44-4]	1-iodoundecane				
	$\Delta_v H$	(412–618)	74.8	298	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(422–589)	60.1	437		[1999DYK/SVO]
	$\Delta_v H$	(412–618)	60.9	427	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{11}H_{23}NO$	[6225-08-7]	N,N-dimethyl nonamide				
	$\Delta_v H$	(411–509)	69.3	426	A	[1987STE/MAL]
$C_{11}H_{23}NO$	[23220-25-9]	N-methyl decanamide				
	$\Delta_{sub} H$	(303–325)	102.8 ± 0.8	314	GS	[1959DAV/JON, 1987STE/MAL]
$C_{11}H_{23}NO_2$	[6288-16-0]	N,N-dibutyl lactamide				
	$\Delta_v H$	(393–418)	88.3	405	A	[1987STE/MAL]
$C_{11}H_{23}NO_2$	[6280-23-5]	N-octyl lactamide				
	$\Delta_v H$	(428–468)	96.3	443	A	[1987STE/MAL]
$C_{11}H_{24}$	[1120-21-4]	undecane				
	$\Delta_{trs} H$		0.1	236.3		
	$\Delta_{trs} H$		7.0	237.4		
	$\Delta_{fus} H$		22.5	247.6	DSC	[2004MON/RAJ]
	$\Delta_{trs} H$		6.86	236.6		
	$\Delta_{fus} H$		22.18	247.6		[1996DOM/HEA]
	$\Delta_{sub} H$		91.5	236	B	[1963BON]
	$\Delta_v H$		56.4 ± 0.4	298	C	[2007PAS/KUZ]
	$\Delta_v H$		56.6 ± 0.6	298	C	[2006RIB/CAB2]
	$\Delta_v H$		56.2	299	C	[1996VIT/CHA]
	$\Delta_v H$		55.4	314	C	[1996VIT/CHA]
	$\Delta_v H$		54.5	324	C	[1996VIT/CHA]
	$\Delta_v H$		54.0	334	C	[1996VIT/CHA]
	$\Delta_v H$		53.1	344	C	[1996VIT/CHA]
	$\Delta_v H$		56.6	298		[1994RUZ/MAJ]
	$\Delta_v H$	(278–470)	60.0	293	A	[1987STE/MAL]
	$\Delta_v H$		56.3	298		[1971WIL/ZWO]
	$\Delta_v H$	(378–470)	49.1	393		[1955CAM/ROS]
$C_{11}H_{24}$	[6975-98-0]	2-methyldecane				
	$\Delta_{fus} H$		25.06	224.3		[1996DOM/HEA]
	$\Delta_v H$	(273–353)	55.5	288	A	[1987STE/MAL]
	$\Delta_v H$	(379–463)	47.4	394	A	[1987STE/MAL]
	$\Delta_v H$		51.9	328	C	[1984MAJ/SVO3]
	$\Delta_v H$		50.6	343	C	[1984MAJ/SVO3]
	$\Delta_v H$		49.5	358	C	[1984MAJ/SVO3]
	$\Delta_v H$	(273–293)	55.4	283	IP	[1974OSB/DOU]
$C_{11}H_{24}$	[13151-34-3]	3-methyldecane				
	$\Delta_v H$	(340–464)	46.5	355	A	[1987STE/MAL]
$C_{11}H_{24}$	[2847-72-5]	4-methyldecane				
	$\Delta_v H$	(339–460)	46.6	354	A	[1987STE/MAL]
	$\Delta_v H$		50.4	343	C	[1984MAJ/SVO3]
	$\Delta_v H$		49.2	358	C	[1984MAJ/SVO3]
	$\Delta_v H$		48.5	368	C	[1984MAJ/SVO3]
$C_{11}H_{24}$	[13151-35-4]	5-methyldecane				
	$\Delta_v H$	(334–452)	46.0	349	A	[1987STE/MAL]
$C_{11}H_{24}$	[2884-06-2]	2,3-dimethylnonane				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(336–460)	45.1	351	A	[1987STE/MAL]
$C_{11}H_{24}$	[17302-24-8]	2,4-dimethylnonane				
	$\Delta_v H$	(334–452)	46.8	349	A	[1987STE/MAL]
$C_{11}H_{24}$	[62016-37-9]	2,4,6-trimethyloctane				
	$\Delta_v H$	(325–442)	44.9	340	A	[1987STE/MAL]
$C_{11}H_{24}$	[62016-38-0]	2,4,7-trimethyloctane				
	$\Delta_v H$		47.6	328	C	[1984MAJ/SVO3]
	$\Delta_v H$		46.4	343	C	[1984MAJ/SVO3]
	$\Delta_v H$		45.3	358	C	[1984MAJ/SVO3]
$C_{11}H_{24}N_2O$	[17450-44-1]	1-decyl urea				
	$\Delta_{trs}H$		1.3	294.4		
	$\Delta_{fus}H$		38.3	385.3	DSC	[2005HAS/TAJ]
$C_{11}H_{24}O$	[7289-52-3]	decyl methyl ether				
	$\Delta_{fus}H$		31.71	243.5		[1996DOM/HEA]
	$\Delta_v H$	(341–429)	56.9	356	A	[1987STE/MAL]
	$\Delta_v H$	(341–471)	57.0	356	A	[1987STE/MAL, 1976AMB/ELL]
	$\Delta_v H$	(341–471)	62.6	298		[1976AMB/ELL]
	$\Delta_v H$	(341–471)	45.5	489		[1976AMB/ELL]
	$\Delta_v H$		62.3 ± 0.3	298	C	[1975FEN/HAR]
$C_{11}H_{24}O$	[16979-32-1]	ethyl nonyl ether				
	$\Delta_v H$		60.3 ± 0.1	298	C	[1985KUS]
$C_{11}H_{24}O$	[29379-41-7]	propyl octyl ether				
	$\Delta_v H$		58.8 ± 0.1	298	C	[1985KUS]
$C_{11}H_{24}O$	[71112-90-8]	butyl heptyl ether				
	$\Delta_v H$		58.2 ± 0.1	298	C	[1985KUS]
$C_{11}H_{24}O$	[78972-97-1]	heptyl *tert*-butyl ether				
	$\Delta_v H$		56.6	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{11}H_{24}O$	[na]	hexyl *tert*-amyl ether				
	$\Delta_v H$		58.6	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{11}H_{24}O$	[na]	propyl *tert*-octyl ether				
	$\Delta_v H$		50.1 ± 0.3	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{11}H_{24}O$	[112-42-5]	1-undecanol				
	$\Delta_v H$		85.8 ± 2.1	298	CGC	[2006NIC/KWE]
	$\Delta_v H$	(313–354)	79.5	336	GS	[2001KUL/VER2]
	$\Delta_v H$	(313–354)	84.7	298	GS	[2001KUL/VER2]
	$\Delta_v H$	(373–423)	86.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(353–393)	85.6	298	CGC	[1994KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(293–342)	83.6	318		[1992NGU/KAS]
	$\Delta_v H$	(283–393)	83.5	298		[1999NGU/BER]
	$\Delta_v H$	(393–523)	68.7	408	A	[1987STE/MAL]
	$\Delta_v H$	(393–534)	68.5	408	A	[1987STE/MAL]
	$\Delta_v H$	(393–516)	72.3	408		[1973WIL/ZWO]
$C_{11}H_{24}O$	[1653-30-1]	2-undecanol				
	$\Delta_v H$	(344–505)	61.4	359		[1947STU]
$C_{11}H_{24}O$	[57233-26-8]	2,5-dimethyl-3-isopropyl-3-hexanol				
	$\Delta_v H$	(321–458)	57.2	336		[1973WIL/ZWO]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{24}O$	[5457-41-0]	2,2,4-trimethyl-3-isopropyl-3-pentanol				
	$\Delta_v H$	(321–458)	67.1	336		[1973WIL/ZWO]
$C_{11}H_{24}O_2S$	[54581-75-8]	3-(octylthio)-1,2-propanediol				
	$\Delta_{fus}H$		39.8	306.5	DSC	[1993ACR]
$C_{11}H_{24}O_3$	[10438-94-5]	3-(octyloxy)-1,2-propanediol				
	$\Delta_{fus}H$		33.4	296.1	DSC	[1993ACR]
$C_{11}H_{24}O_4$	[75899-69-3]	tripropylene glycol, monoethyl ether				
	$\Delta_v H$	(317–521)	60.0	332	A	[1987STE/MAL]
$C_{11}H_{24}S$	[5332-52-5]	1-undecanethiol				
	$\Delta_v H$	(405–563)	59.3	420		[1999DYK/SVO]
$C_{11}H_{24}S_2$	[63476-06-2]	1,11-undecanedithiol				
	$\Delta_v H$	(444–582)	75.1	459	A	[1987STE/MAL, 1943HAL/REI, 1999DYK/SVO]
$C_{11}H_{25}N$	[7307-55-3]	undecylamine				
	$\Delta_v H$	(428–527)	55.1	443	A, E	[1987STE/MAL, 1956MAN2]
$C_{11}H_{25}NO_2$	[929-31-7]	3-(octylamino)-1,2-propanediol				
	$\Delta_{fus}H$		45.1	335.9	DSC	[1993ACR]
$C_{11}H_{26}NO_2PS$	[50782-69-9]	methylthiophosphonic acid, O-ethyl-S-[2-(N,N-diisopropylamino)ethyl] ester				
	$\Delta_v H$	(261–385)	77.9	323	GC	[2001RIT]
	$\Delta_v H$	(280–315)	101	295	A	[1987STE/MAL, 1999DYK/SVO, 1974FRO]
$C_{11}H_{26}NO_2PS$	[159939-87-4]	P-methylphosphonothioic acid, S-[2(diethylamino)ethyl] O-(2-methylpropyl) ester				
	$\Delta_v H$	(263–385)	76.6	324	GC	[2001RIT]
$C_{11}H_{26}N_2$	[822-08-2]	undecane-1,11-diamine				
	$\Delta_{fus}H$		48.08	313.6	DSC	[2002DAL/DEL]
$C_{12}Cl_8O$	[39001-02-2]	octachlorodibenzofuran				
	$\Delta_{sub}H$	(438–473)	141.7 ± 1.8	455	ME	[2004LI/SHI]
	$\Delta_{sub}H$	(373–474)	149.4	423	T	[1989ROR, 1986ROR]
$C_{12}Cl_8O_2$	[3268-87-9]	octachlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(463–493)	145.7 ± 4.0	478	ME	[2004LI/SHI]
	$\Delta_{sub}H$	(393–573)	149.8	483	T	[1989ROR, 1986ROR]
$C_{12}Cl_{10}$	[2051-24-3]	decachlorobiphenyl				
	$\Delta_{fus}H$		39.34	577.7		[1991ACR]
	$\Delta_{fus}H$		41.2	580.3	DSC	[1990DON/DRE]
	$\Delta_{sub}H$	(338–358)	U 93.6	348	ME	[1997GOO]
	$\Delta_{sub}H$	(324–363)	121.8	343	GS	[1984BUR/ARM]
	$\Delta_v H$	(343–393)	103.4	368	GC	[1994FAL/BID]
	$\Delta_v H$	(343–453)	103.4	398	GC	[1990HIN/BID2]
$C_{12}F_{10}$	[434-90-2]	decafluorobiphenyl				
	$\Delta_{sub}H$	(297–323)	87.8	310	A	[1987STE/MAL]
	$\Delta_{sub}H$		85.3 ± 2.3			[1974RAD/KAT]
	$\Delta_v H$	(453–608)	49.9	468	DSC	[1996BAC/GRZ]
$C_{12}F_{18}$	[23174-55-2]	*hexakis*(trifluoromethyl)bicyclo[2.2.0]hexa-2,5-diene				
	$\Delta_v H$	(293–343)	41.4	308	A	[1987STE/MAL, 1970BAR/HAS, 1999DYK/SVO]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}F_{18}$	[22736-20-5]	*hexakis*(trifluoromethyl)tetracyclo[2.2.0.0^{2,6}0^{3,5}]hexane				
	$\Delta_{sub}H$	(293–306)	49.2	299.5	A	[1987STE/MAL]
	Δ_vH	(313–353)	33.1	328	A	[1987STE/MAL, 1970BAR/HAS, 1999DYK/SVO]
$C_{12}F_{18}$	[22186-64-7]	*hexakis*(trifluoromethyl)tricyclo[3.1.0.0^{2,6}]hex-3-ene				
	Δ_vH	(293–353)	38.6	308	A	[1987STE/MAL, 1970BAR/HAS, 1999DYK/SVO]
$C_{12}F_{23}N$	[86630-50-4]	perfluoro-N-(4-methylcyclohexyl)piperidine				
	$\Delta_{fus}H$		8.32	293.3	AC	[2007DRU/EFI]
	$\Delta_{fus}H$		8.6	293.7	DSC	[2007DRU/EFI]
	Δ_vH		56.6	298	C	[2007DRU/EFI]
$C_{12}F_{26}$	[307-59-5]	perfluorododecane				
	$\Delta_{trs}H$		6.9	170.2		
	$\Delta_{fus}H$		38.16	348.5	DSC	[1986STA]
$C_{12}F_{26}O_{10}$	[927699-30-7]	perfluoro-2,4,6,8,10,13,15.17,19,21-decaoxy-n-docosane				
	Δ_vH	(397–468)	74.6 ± 2.9	298	EB	[2006DRU/KRO]
$C_{12}F_{27}N$	[311-89-7]	perfluorotributylamine				
	Δ_vH		60.3 ± 0.1	298	C	[1995VAR/DRO]
	Δ_vH	(298–450)	57.4	313	A	[1987STE/MAL]
	Δ_vH	(371–544)	51.1	386	A	[1987STE/MAL]
	Δ_vH		60.4 ± 1.2	298		[1977VAR/AMM2, 1977VAR/AMM]
$C_{12}HCl_7O_2$	[58200-70-7]	1,2,3,4,6,7,9-heptachlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(418–453)	144.2 ± 0.3	435	ME	[2004LI/SHI]
$C_{12}HCl_9$	[52663-77-1]	2,2′,3,3′,4,5,5′,6,6′-nonachlorobiphenyl				
	$\Delta_{fus}H$		22.6	455.8		[1991ACR]
$C_{12}HF_{25}$	[66563-68-6]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorododecane				
	$\Delta_{fus}H$		21	345		[1988HOP/PUG]
	$\Delta_{fus}H$		23	344.5	DSC	[1986RUS/RAB]
$C_{12}H_2Cl_6O_2$	[58200-68-3]	1,2,3,4,6,9-hexachlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(418–438)	128.5 ± 1.5	428	ME	[2004LI/SHI]
$C_{12}H_2Cl_8$	[2136-99-4]	2,2′,3,3′,5,5′,6,6′-octachlorobiphenyl				
	$\Delta_{fus}H$		22.8	433.8		[1991ACR]
	$\Delta_{sub}H$	(302–334)	101.7	318	GS	[1984BUR/ARM]
	Δ_vH	(343–393)	92.9	368	GC	[1994FAL/BID]
	Δ_vH	(343–453)	92.9	398	GC	[1990HIN/BID2]
$C_{12}H_3Br_7O$	[327185-13-7]	2′,3,3′,4,4′,5,6-heptabromodiphenyl ether				
	Δ_vH	(363–473)	115.8	418	GC	[2001WON/LEI]
	Δ_vH	(403–475)	121.2		CGC	[2001TIT/TOM]
$C_{12}H_3Cl_5O_2$	[58802-08-7]	1,2,4,7,8-pentachlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(403–428)	125.3 ± 2.3	415	ME	[2004LI/SHI]
$C_{12}H_3Cl_7$	[52663-68-0]	2,2′,3,4′,5,5′,6-heptachlorobiphenyl				
	Δ_vH	(343–393)	94.0	368	GC	[1994FAL/BID]
$C_{12}H_3Cl_7$	[35065-29-3]	2,2′,3,4,4′,5,5′-heptachlorobiphenyl				
	Δ_vH	(343–393)	96.5	268	GC	[1994FAL/BID]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_3Cl_7$	[52663-71-5]	2,2′,3,3′,4,4′,6-heptachlorobiphenyl				
	$\Delta_v H$		109.1	298	CGC	[2001PUR/CHI]
	$\Delta_v H$	(343–393)	95.9	368	GC	[1994FAL/BID]
$C_{12}H_3Cl_7$	[35065-30-6]	2,2′,3,3′,4,4′,5-heptachlorobiphenyl				
	$\Delta_v H$	(343–393)	98.4	368	GC	[1994FAL/BID]
$C_{12}H_3Cl_7$	[52663-67-9]	2,2′,3,3′,5,5′,6-heptachlorobiphenyl				
	$\Delta_{fus}H$		20.3	395.4		[1991ACR]
$C_{12}H_3Cl_7O$	[67517-48-0]	1,2,3,4,8-pentachlorodibenzofuran				
	$\Delta_{sub}H$	(388–413)	125.2 ± 2.0	400	ME	[2004LI/SHI]
$C_{12}H_4Br_6O$	[182677-30-4]	2,2′,3,4,4′,5′-hexabromodiphenyl ether				
	$\Delta_v H$	(403–475)	114.1		CGC	[2001TIT/TOM]
$C_{12}H_4Br_6O$	[68631-49-2]	2,2′,4,4′,5,5′-hexabromodiphenyl ether				
	$\Delta_v H$	(363–473)	107.6	418	GC	[2001WON/LEI]
$C_{12}H_4Cl_2F_6N_4OS$	[120068-37-3]	1-(2,6-dichloro-4-trifluoromethylphenyl)-3-cyano-5-amino-4-(trifluoromethylsulfinyl)pyrazole (fipronil)				
	$\Delta_v H$	(373–423)	85.0		GC	[2007GOE/MCC]
$C_{12}H_4Cl_4O$	[24478-72-6]	1,2,3,4-tetrachlorodibenzofuran				
	$\Delta_{sub}H$	(333–393)	118.5	363	T	[1989ROR, 1986ROR]
$C_{12}H_4Cl_4O$	[51207-31-9]	2,3,7,8-tetrachlorodibenzofuran				
	$\Delta_{sub}H$	(303–344)	124	323	T	[1989ROR, 1986ROR]
$C_{12}H_4Cl_4O_2$	[30746-58-8]	1,2,3,4-tetrachlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(378–403)	111.3 ± 1.4	390	ME	[2004LI/SHI]
$C_{12}H_4Cl_4O_2$	[40581-90-6]	1,2,6,7-tetrachlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(393–413)	120.4 ± 3.3	403	ME	[2004LI/SHI]
$C_{12}H_4Cl_4O_2$	[33423-92-6]	1,3,6,8-tetrachlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(378–408)	118.6 ± 3.2	393	ME	[2004LI/SHI]
$C_{12}H_4Cl_4O_2$	[62470-53-5]	1,3,7,9-tetrachlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(383–408)	123.6 ± 1.5	395	ME	[2004LI/SHI]
$C_{12}H_4Cl_4O_2$	[1746-01-6]	2,3,7,8-tetrachlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{fus}H$		38.9	578.2		[1986ROR2]
	$\Delta_{sub}H$		124	578		[1985SCH/HIL]
$C_{12}H_4Cl_6$	[38380-08-4]	2,3,3′,4,4′,5-hexachlorobiphenyl				
	$\Delta_v H$		112.6 ± 0.4	298	CGC	[2001PUR/CHI]
	$\Delta_v H$	(343–393)	94.8	368	GC	[1994FAL/BID]
$C_{12}H_4Cl_6$	[35065-27-1]	2,2′,4,4′,5,5′-hexachlorobiphenyl				
	$\Delta_v H$		103.5 ± 0.1	298	CGC	[2001PUR/CHI]
	$\Delta_v H$	(343–393)	91.4	368	GC	[1994FAL/BID]
$C_{12}H_4Cl_6$	[33976-03-2]	2,2′,4,4′,6,6′-hexachlorobiphenyl				
	$\Delta_{fus}H$		17.5	386.7		[1991ACR]
	$\Delta_{sub}H$	(263–303)	103.4 ± 2.3	283	GS	[1994WAN/SHU]
$C_{12}H_4Cl_6$	[38380-04-0]	2,2′,3,4′,5′,6-hexachlorobiphenyl				
	$\Delta_v H$	(343–393)	89.8	368	GC	[1994FAL/BID]
$C_{12}H_4Cl_6$	[35065-28-2]	2,2′,3,4,4′,5′-hexachlorobiphenyl				
	$\Delta_v H$	(343–393)	91.9	368	GC	[1994FAL/BID]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_4Cl_6$	[38380-07-3]	2,2′,3,3′,4,4′-hexachlorobiphenyl				
	$\Delta_v H$	(343–393)	93.5	368	GC	[1994FAL/BID]
$C_{12}H_4Cl_6$	[35694-04-3]	2,2′,3,3′,5,5′-hexachlorobiphenyl				
	$\Delta_{fus}H$		29.2	424.9		[1991ACR]
$C_{12}H_4Cl_6$	[38411-22-2]	2,2′,3,3′,6,6′-hexachlorobiphenyl				
	$\Delta_{fus}H$		21.1	385.2		[1991ACR]
$C_{12}H_4N_4$	[1518-16-7]	7,7,8,8-tetracyanoquinodimethane				
	$\Delta_{sub}H$		79		TGA	[1995YAS/TAK]
	$\Delta_{sub}H$	(452–553)	108 ± 2	500	T	[1984KER/OPP]
	$\Delta_{sub}H$	(382–464)	122 ± 2	423	ME	[1984KER/OPP]
	$\Delta_{sub}H$		126.1 ± 1	413	ME,TE	[1980DEK/GOV]
	$\Delta_{sub}H$	(433–499)	104.8 ± 10	448		[1980SWA/KWA, 1987STE/MAL]
	$\Delta_{sub}H$		105 ± 9.2	465	MG	[1963BOY, 1970COX/PIL]
$C_{12}H_5Br_5O$	[na]	2,2′,3,4,4′-pentabromodiphenyl ether				
	$\Delta_v H$	(403–475)	111		CGC	[2001TIT/TOM]
$C_{12}H_5Br_5O$	[327185-11-5]	2,2′,3,3′,4-pentabromodiphenyl ether				
	$\Delta_v H$	(363–473)	99.1	418	GC	[2001WON/LEI]
$C_{12}H_5Br_5O$	[60348-60-9]	2,2′,4,4′,5-pentabromodiphenyl ether				
	$\Delta_v H$	(363–473)	100.3	418	GC	[2001WON/LEI]
	$\Delta_v H$	(405–475)	104.8		CGC	[2001TIT/TOM]
$C_{12}H_5Br_5O$	[189084-66-0]	2,2′,4,4′,6-pentabromodiphenyl ether				
	$\Delta_v H$	(363–473)	101.8	418	GC	[2001WON/LEI]
$C_{12}H_5Cl_3O$	[58802-14-5]	2,4,6-dibenzofuran				
	$\Delta_{sub}H$	(338–373)	108.8 ± 2.2	355	ME	[2004LI/SHI]
$C_{12}H_5Cl_3O_2$	[54536-17-3]	1,2,3-trichlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(363–388)	117.1 ± 3.7	375	ME	[2004LI/SHI]
$C_{12}H_5Cl_3O_2$	[39227-58-2]	1,2,4-trichlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(348–383)	121.0 ± 1.8	365	ME	[2004LI/SHI]
	$\Delta_{sub}H$	(310–374)	118.8	342	T	[1989ROR, 1986ROR]
$C_{12}H_5Cl_3O_2$	[67028-17-5]	1,3,7-trichlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{fus}H$		30.8	421.7		[1986ROR2]
	$\Delta_{sub}H$	(310–373)	116.2	342	T	[1989ROR, 1986ROR]
$C_{12}H_5Cl_3O_2$	[82306-65-8]	1,7,8-trichlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(358–388)	113.5 ± 3.3	373	ME	[2004LI/SHI]
$C_{12}H_5Cl_5$	[31508-00-6]	2,3′,4,4′,5-pentachlorobiphenyl				
	$\Delta_v H$	(343–393)	89.3	368	GC	[1994FAL/BID]
$C_{12}H_5Cl_5$	[32598-14-4]	2,3,3′,4,4′-pentachlorobiphenyl				
	$\Delta_v H$	(343–393)	91.1	368	GC	[1994FAL/BID]
$C_{12}H_5Cl_5$	[37680-73-2]	2,2′,4,5,5′-pentachlorobiphenyl				
	$\Delta_{fus}H$		18.8	350.1		[1991ACR]
	$\Delta_{sub}H$	(303–313)	92.7	308	GS	[1981WES/SIM]
	$\Delta_v H$	(343–393)	86.4	368	GC	[1994FAL/BID]
	$\Delta_v H$	(343–453)	83.7	398	GC	[1990HIN/BID2]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_5Cl_5$	[38379-99-6]	2,2′,3,5′,6-pentachlorobiphenyl				
	$\Delta_v H$		92.3 ± 0.6	298	CGC	[2001PUR/CHI]
$C_{12}H_5Cl_5$	[73575-54-9]	2,2′,3,6,6′-pentachlorobiphenyl				
	$\Delta_v H$		89.6 ± 0.2	298	CGC	[2001PUR/CHI]
$C_{12}H_5Cl_5$	[60145-21-3]	2,2′,4,5′,6-pentachlorobiphenyl				
	$\Delta_v H$		91.6 ± 0.5	298	CGC	[2001PUR/CHI]
$C_{12}H_5Cl_5$	[38380-02-8]	2,2′,3,4,5′-pentachlorobiphenyl				
	$\Delta_v H$	(343–393)	87.3	368	GC	[1994FAL/BID]
$C_{12}H_5Cl_5$	[38380-01-7]	2,2′,4,4′,5-pentachlorobiphenyl				
	$\Delta_v H$	(343–393)	86.8	368	GC	[1994FAL/BID]
$C_{12}H_5Cl_5$	[18259-05-7]	2,3,4,5,6-pentachlorobiphenyl				
	$\Delta_{fus}H$		21.8	397.6		[1991ACR]
$C_{12}H_6Br_4O$	[5436-43-1]	2,2′,4,4′-tetrabromodiphenyl ether				
	$\Delta_v H$	(363–473)	92.0	418	GC	[2001WON/LEI]
	$\Delta_v H$	(403–475)	103.1		CGC	[2001PUR/CHI]
$C_{12}H_6Br_4O$	[189084-61-5]	2,3′,4,4′-tetrabromodiphenyl ether				
	$\Delta_v H$	(363–473)	93.5	418	GC	[2001WON/LEI]
$C_{12}H_6Br_4O$	[327185-09-1]	2,3′,4,6-tetrabromodiphenyl ether				
	$\Delta_v H$	(363–473)	91.1	418	GC	[2001WON/LEI]
$C_{12}H_6Br_4O$	[189084-63-7]	2,4,4′,6-tetrabromodiphenyl ether				
	$\Delta_v H$	(363–473)	90.1	418	GC	[2001WON/LEI]
$C_{12}H_6Br_4O$	[93703-48-1]	3,3′,4,4′-tetrabromodiphenyl ether				
	$\Delta_v H$	(363–473)	95.3	418	GC	[2001WON/LEI]
$C_{12}H_6Cl_2O$	[5409-83-6]	2,8-dichlorodibenzofuran				
	$\Delta_{sub}H$	(348–383)	110.3 ± 1.2	360	ME	[2004LI/SHI]
$C_{12}H_6Cl_2O$	[74919-40-4]	3,6-dichlorodibenzofuran				
	$\Delta_{fus}H$		32.4	461.2		[1986ROR2]
	$\Delta_{sub}H$	(305–374)	110.9	340	T	[1989ROR, 1986ROR]
$C_{12}H_6Cl_2O_2$	[38178-38-0]	1,6-dichlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(348–383)	113.6 ± 2.3	365	ME	[2004LI/SHI]
$C_{12}H_6Cl_2O_2$	[29446-15-9]	2,3-dichlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{fus}H$		27.1	431.6		[1999KOL/DOR]
	$\Delta_{sub}H$	(338–378)	106.2 ± 1.1	358	ME	[2004LI/SHI]
	$\Delta_{sub}H$		108.6 ± 1.0	298	C	[1999KOL/DOR]
	$\Delta_{sub}H$		107.2 ± 0.8	358	C	[1998PAP/KOL]
	$\Delta_{sub}H$		108.6 ± 1.0	298		[1998PAP/KOL]
	$\Delta_{sub}H$	(306–374)	106.2	340	T	[1989ROR, 1986ROR]
$C_{12}H_6Cl_2O_2$	[33857-26-0]	2,7-dichlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(358–393)	113.8 ± 2.0	375	ME	[2004LI/SHI]
	$\Delta_{sub}H$	(314–374)	105.5	344	T	[1989ROR, 1986ROR]
$C_{12}H_6Cl_2O_2$	[38964-22-6]	2,8-dichlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{sub}H$	(305–363)	109	334	T	[1989ROR, 1986ROR]
$C_{12}H_6Cl_4$	[38444-93-8]	2,2′,3,3′-tetrachlorobiphenyl				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(343–398)	81.8	368	GC	[1994FAL/BID]
$C_{12}H_6Cl_4$	[35693-99-3]	2,2′,5,5′-tetrachlorobiphenyl				
	$\Delta_{sub}H$	(323–353)	102.0 ± 0.5	338	ME	[2005NAK/SHI]
	$\Delta_{sub}H$	(303–312)	94.6	308	GS	[1981WES/SIM]
	$\Delta_v H$	(343–398)	80.8	368	GC	[1994FAL/BID]
	$\Delta_v H$	(343–453)	79	398	GC	[1990HIN/BID2]
$C_{12}H_6Cl_4$	[33284-53-6]	2,3,4,5-tetrachlorobiphenyl				
	$\Delta_{fus}H$		25.2	363.9		[1991ACR]
	$\Delta_{sub}H$	(253–393)	88.7 ± 1.2	273	GS	[1994WAN/SHU]
$C_{12}H_6Cl_4$	[32598-10-0]	2,3′,4,4′-tetrachlorobiphenyl				
	$\Delta_{sub}H$	(348–373)	105.9 ± 2.5	353	ME	[2005NAK/SHI]
	$\Delta_v H$	(343–398)	83.3	368	GC	[1994FAL/BID]
$C_{12}H_6Cl_4$	[32598-11-1]	2,3′,4′,5-tetrachlorobiphenyl				
	$\Delta_v H$	(343–398)	84.8	368	GC	[1994FAL/BID]
$C_{12}H_6Cl_4$	[41464-40-8]	2,2′,4,5′-tetrachlorobiphenyl				
	$\Delta_{fus}H$		23.4	339.1		[1991ACR]
	$\Delta_v H$		87.4 ± 0.8	298	CGC	[2001PUR/CHI]
$C_{12}H_6Cl_4$	[41464-41-9]	2,2′,5,6′-tetrachlorobiphenyl				
	$\Delta_v H$		84.9 ± 0.6	298	CGC	[2001PUR/CHI]
	$\Delta_v H$	(343–398)	78.8	368	GC	[1994FAL/BID]
$C_{12}H_6Cl_4$	[32598-13-3]	3,3′,4,4′-tetrachlorobiphenyl				
	$\Delta_{sub}H$	(383–403)	121.6 ± 1.3	393	ME	[2005NAK/SHI]
	$\Delta_v H$	(343–393)	87.2	368	GC	[1994FAL/BID]
$C_{12}H_6Cl_4O_2S$	[116-29-0]	1,2,4-trichloro-5-((4-chlorophenyl)sulfonyl)benzene				
	$\Delta_{fus}H$		28.94	419.9	DSC	[1991ACR]
$C_{12}H_6O_3$	[81-84-5]	1-8-naphthalic anhydride (protect)				
	$\Delta_{fus}H$		23.32	542.3	DSC	[1990DON/DRE]
$C_{12}H_7Br_3O$	[41318-75-6]	2,4,4′-tribromodiphenyl ether				
	$\Delta_v H$	(403–475)	94.1		CGC	[2001TIT/TOM]
$C_{12}H_7Br_3O$	[147217-81-0]	3,4,4′-tribromodiphenyl ether				
	$\Delta_v H$	(363–473)	86.7	418	GC	[2001WON/LEI]
$C_{12}H_7Br_3O$	[155999-95-4]	2,4,6-tribromodiphenyl ether				
	$\Delta_v H$	(363–473)	85.1	418	GC	[2001WON/LEI]
$C_{12}H_7Br_3O$	[189084-60-4]	2,4′,6-tribromodiphenyl ether				
	$\Delta_v H$	(363–473)	83.3	418	GC	[2001WON/LEI]
$C_{12}H_7Br_3O$	[147217-78-5]	2′,3,4-tribromodiphenyl ether				
	$\Delta_v H$	(363–473)	81.0	418	GC	[2001WON/LEI]
$C_{12}H_7Br_3O$	[147217-80-9]	3,3′,4-tribromodiphenyl ether				
	$\Delta_v H$	(363–473)	86.4	418	GC	[2001WON/LEI]
$C_{12}H_7ClO_2$	[39227-53-7]	1-chlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{fus}H$		23.2	378.2		[1986ROR2]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(308–343)	100.5 ± 0.8	325	ME	[2004LI/SHI]
	$\Delta_{sub}H$		95.2 ± 1.1	298	C	[1999KOL/DOR]
	$\Delta_{sub}H$		95.2			[1998PAP/LUK]
	$\Delta_{sub}H$	(303–338)	98.6	321	T	[1989ROR, 1986ROR]
$C_{12}H_7ClO_2$	[39227-54-8]	2-chlorodibenzo[b,e] [1,4]dioxin				
	$\Delta_{fus}H$		23.1	362.2		[1986ROR2]
	$\Delta_{sub}H$	(308–343)	98.1 ± 1.1	298	ME	[2004LI/SHI]
	$\Delta_{sub}H$		97.2	298	C	[1999KOL/DOR]
	$\Delta_{sub}H$		97.2 ± 0.6	298	C	[1996PAP/KOL]
	$\Delta_{sub}H$	(305–348)	97.2	327	T	[1989ROR, 1986ROR]
$C_{12}H_7Cl_2NO_3$	[1836-75-5]	2,4-dichlorophenyl 4-nitrophenyl ether				
	$\Delta_{fus}H$		22.96	342	DSC	[1990DON/DRE]
	Δ_vH	(328–403)	90.4	343	A	[1987STE/MAL]
$C_{12}H_7Cl_3$	[15862-07-4]	2,4,5-trichlorobiphenyl				
	$\Delta_{fus}H$		22.8	349.5		[1991ACR]
	Δ_vH	(343–393)	76.6	368	GC	[1994FAL/BID]
$C_{12}H_7Cl_3$	[35693-92-6]	2,4,6-trichlorobiphenyl				
	$\Delta_{fus}H$		16.5	334.3		[1991ACR]
	Δ_vH	(343–393)	74.4	368	GC	[1994FAL/BID]
$C_{12}H_7Cl_3$	[16606-02-3]	2,4′,5-trichlorobiphenyl				
	Δ_vH	(343–398)	77.7	368	GC	[1994FAL/BID]
$C_{12}H_7Cl_3$	[36780-65-2]	2,2′,5-trichlorobiphenyl				
	$\Delta_{sub}H$	(303–313)	93.7 ± 6.2	308	ME	[2005NAK/SHI]
	Δ_vH		80.2 ± 0.9	298	CGC	[2001PUR/CHI]
$C_{12}H_7Cl_3$	[7012-37-5]	2,4,4′-trichlorobiphenyl				
	$\Delta_{sub}H$	(313–328)	96.7 ± 3.4	320	ME	[2005NAK/SHI]
$C_{12}H_7Cl_3$	[38444-86-9]	2′,3,4-trichlorobiphenyl				
	$\Delta_{sub}H$	(313–328)	98.2 ± 5.5	320	ME	[2005NAK/SHI]
$C_{12}H_8$	[208-96-8]	acenaphthylene				
	$\Delta_{trs}H$		1.4	116.6		
	$\Delta_{fus}H$		6.95	362.6		
	$\Delta_{fus}H$		10.96	362		[1996DOM/HEA, 1994CHE/WES]
	$\Delta_{sub}H$		70.0	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(313–453)	77.2	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(238–323)	73.2 ± 0.5	303	GS	[1983SON/ZOL]
	$\Delta_{sub}H$		73.0 ± 0.4	298	C	[1972MOR]
	$\Delta_{sub}H$	(286–318)	71.1 ± 1.3		A	[1970COX/PIL, 1987STE/MAL, 1965BOY/CHR]
	Δ_vH		64.6 ± 5.8	298	CGC	[2008ROU/TEM]
	Δ_vH		69.1 ± 2.2	298	GC	[2006HAF/PAR]
$C_{12}H_8$	[259-79-0]	biphenylene				
	$\Delta_{sub}H$	(313–453)	82.7	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(309–336)	U 104.5	319		[1989ROR/RUT]
	$\Delta_{sub}H$		87.3 ± 0.3	298	B	[1980OSB/SCO]
	$\Delta_{sub}H$		83.8 ± .3		C	[1972MOR]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(371–381)	U 128.9 ± 2	376	A	[1955CAS/SPR, 1970COX/PIL, 1987STE/MAL]
$C_{12}H_8Br_2$	[na]	(*dl*) 1,2-dibromoacenaphthene				
	$\Delta_{fus}H$		25.1	397		[1976LEC/COL]
$C_{12}H_8Br_2$	[na]	(*d*) 1,2-dibromoacenaphthene				
	$\Delta_{fus}H$		26.36	416		[1976LEC/COL]
$C_{12}H_8Br_2$	[92-86-4]	4,4′-dibromobiphenyl				
	$\Delta_{fus}H$		28.38	440.7	DSC	[2009RAI/RED]
$C_{12}H_8Br_2O$	[171977-44-9]	2,4-dibromodiphenyl ether				
	Δ_vH	(363–473)	75.4	418	GC	[2001WON/LEI]
$C_{12}H_8Br_2O$	[189084-59-1]	3,4-dibromodiphenyl ether				
	Δ_vH	(363–473)	77.4	418	GC	[2001WON/LEI]
$C_{12}H_8Br_2O$	[83694-71-7]	3,4′-dibromodiphenyl ether				
	Δ_vH	(363–473)	77.4	418	GC	[2001WON/LEI]
$C_{12}H_8Br_2O$	[2050-47-7]	4,4′-dibromodiphenyl ether				
	Δ_vH	(363–473)	78.0	418	GC	[2001WON/LEI]
$C_{12}H_8Br_2O$	[147217-71-8]	2,4′-dibromodiphenyl ether				
	Δ_vH	(363–473)	76.4	418	GC	[2001WON/LEI]
$C_{12}H_8Br_2O$	[51930-04-2]	2,6-dibromodiphenyl ether				
	Δ_vH	(363–473)	73.1	418	GC	[2001PUR/CHI]
$C_{12}H_8Cl_2$	[13029-08-8]	2,2′-dichlorobiphenyl				
	$\Delta_{sub}H$	(303–323)	87.8 ± 1.2	313	ME	[2005NAK/SHI]
	$\Delta_{sub}H$	(310–328)	96.1	314	ME	[1964SMI/GOR]
	$\Delta_{sub}H$	(310–328)	96.2 ± 4.2	298	ME	[1964SMI/GOR, 1970COX/PIL, 1987STE/MAL]
$C_{12}H_8Cl_2$	[33284-50-3]	2,4-dichlorobiphenyl				
	Δ_vH		75.3 ± 1.5	298	CGC	[2001PUR/CHI]
	Δ_vH	(343–393)	73.5	368	GC	[1994FAL/BID]
$C_{12}H_8Cl_2$	[34883-39-1]	2,5-dichlorobiphenyl				
	Δ_vH		76.8 ± 0.4	298	CGC	[2001PUR/CHI]
	Δ_vH	(343–393)	73.9	368	GC	[1994FAL/BID]
$C_{12}H_8Cl_2$	[33146-45-1]	2,6-dichlorobiphenyl				
	$\Delta_{fus}H$		12.6	307.9		[1991ACR]
$C_{12}H_8Cl_2$	[2050-67-1]	3,3′-dichlorobiphenyl				
	Δ_vH		81.0 ± 0.2	298	CGC	[2001PUR/CHI]
	Δ_vH	(343–393)	75.4	368	GC	[1994FAL/BID]
$C_{12}H_8Cl_2$	[2050-68-2]	4,4′-dichlorobiphenyl				
	$\Delta_{sub}H$	(263–303)	95.3 ± 1.3	283	GS	[1994WAN/SHU]
	$\Delta_{sub}H$	(303–360)	103.7	331	ME	[1964SMI/GOR, 1987STE/MAL]
	$\Delta_{sub}H$	(303–360)	103.8 ± 4.2	298	ME	[1964SMI/GOR, 1970COX/PIL]
	Δ_vH		81.4 ± 0.3	298	CGC	[2001PUR/CHI]
	Δ_vH	(343–393)	76.0	368	GC	[1994FAL/BID]
$C_{12}H_8Cl_2$	[na]	(*dl*) 1,2-dichloroacenaphthene				
	$\Delta_{fus}H$		20.5	339		[1976LEC/COL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_8Cl_2$	[na]	(*d*) 1,2-dichloroacenaphthene				
	$\Delta_{fus}H$		21.34	375		[1976LEC/COL]
$C_{12}H_8Cl_2O_2S$	[80-07-9]	4,4′-dichlorodiphenylsulfone				
	$\Delta_{fus}H$		24.4	422		[1996DOM/HEA]
	Δ_vH	(463–573)	59.7	478		[1999DYK/SVO]
$C_{12}H_8Cl_2O_3S$	[80-33-1]	4-chlorophenyl 4-chlorobenzenesulfonate				
	$\Delta_{fus}H$		23.63	360	DSC	[1991ACR, 1990DON/DRE]
$C_{12}H_8Cl_3NO_2$	[77765-39-0]	2,2,4-trichloro-5-[(2-methylphenyl)amino]-4-cyclopentene-1,3-dione				
	Δ_vH	(453–483)	85	468	GC	[1980SHA/SAD]
$C_{12}H_8Cl_3NO_3$	[77765-40-3]	2,2,4-trichloro-5-[(2-methoxyphenyl)amino]-4-cyclopentene-1,3-dione				
	Δ_vH	(453–483)	84.6	468	GC	[1980SHA/SAD]
$C_{12}H_8Cl_3NO_3$	[73373-64-5]	2,2,4-trichloro-5-[(3-methoxyphenyl)amino]-4-cyclopentene-1,3-dione				
	Δ_vH	(453–483)	63.1	468	GC	[1980SHA/SAD]
$C_{12}H_8Cl_6$	[309-00-2]	1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-endo-exo-1,4:5,8-dimethylnaphthalene (aldrin)				
	$\Delta_{trs}H$		16.59	383.7		
	$\Delta_{fus}H$		4.15	562.4	DSC	[1995KSI/NAG]
	$\Delta_{sub}H$	(309–343)	91.8	326	GS	[1982GRA/FOS]
	Δ_vH	(343–453)	75.1	398	GC	[1990HIN/BID2]
$C_{12}H_8Cl_6O$	[60-57-1]	1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo-exo-5,8-dimethanonaphthalene (dieldrin)				
	$\Delta_{trs}H$		19.33	405.6		
	$\Delta_{fus}H$		3.04	452.9	DSC	[1995KSI/NAG]
	$\Delta_{sub}H$	(308–348)	93.8	328	GS	[1982GRA/FOS]
	$\Delta_{sub}H$	(293–313)	98.7	303	GS	[1969SPE/CLI]
	Δ_vH	(343–453)	82.5	398	GC	[1990HIN/BID2]
$C_{12}H_8F_2$	[388-82-9]	2,2′-difluorobiphenyl				
	$\Delta_{sub}H$	(301–319)	95.1	310		[1987STE/MAL, 1964SMI/GOR]
	$\Delta_{sub}H$	(301–318)	95 ± 4.2	298	ME	[1964SMI/GOR, 1970COX/PIL]
$C_{12}H_8F_2$	[2050-68-2]	4,4′-difluorobiphenyl				
	$\Delta_{sub}H$	(294–318)	91.4	306	ME	[1964SMI/GOR]
	$\Delta_{sub}H$	(294–318)	91.2 ± 4.2	298	ME	[1964SMI/GOR, 1970COX/PIL]
$C_{12}H_8N_2$	[230-46-6]	1,7-phenanthroline				
	Δ_vH		79.4 ± 4.7	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
$C_{12}H_8N_2$	[66-71-7]	1,10-phenanthroline				
	$\Delta_{fus}H$		15.5	391.7	AC	[2010CHI/STE]
	$\Delta_{fus}H$		11.8	391.1	DSC	[2007BON/CAT]
	$\Delta_{sub}H$		98.3		ME	[1972MIL]
	Δ_vH		77.7 ± 0.1	520	EB	[2010CHI/STE]
	Δ_vH		74.9 ± 0.2	560	EB	[2010CHI/STE]
	Δ_vH		72.1 ± 0.2	600	EB	[2010CHI/STE]
$C_{12}H_8N_2$	[230-07-9]	4,7-phenanthroline				
	Δ_vH		80.8 ± 4.7	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
$C_{12}H_8N_2$	[92-82-0]	phenazine				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		24.92	447.9	AC	[2010CHI/STE2]
	$\Delta_{fus}H$		20.92	450.2	DSC	[1975MCE/SAN]
	$\Delta_{sub}H$		95.9 ± 0.4	298		[2010CHI/STE2]
	$\Delta_{sub}H$		94.3 ± 0.4	354		[2010CHI/STE2]
	$\Delta_{sub}H$		92.7 ± 0.4	354		[1991SAB/WAT]
	$\Delta_{sub}H$		97.0 ± 0.4	298		[1991SAB/WAT]
	$\Delta_{sub}H$		91.8 ± 2.1	298	C	[1990LEI/PIL]
	$\Delta_{sub}H$	(280–318)	92.4	295		[1987STE/MAL]
	$\Delta_{sub}H$		99.9 ± 2.5		ME,GS	[1980ARS]
	$\Delta_{sub}H$	(303–328)	90.4 ± 2.5	298	TE	[1975DEK/VAN]
	$\Delta_{sub}H$	(303–323)	90.0 ± 1.5	298	TCM	[UR/DEK, 1975DEK/VAN]
	$\Delta_{sub}H$	(281–293)	90.4 ± 1.7		LE	[1975MCE/SAN]
	$\Delta_{sub}H$		U 81.5			[1946ALB/WIL]
	$\Delta_{v}H$		66.1 ± 0.1	450		[2010CHI/STE2]
	$\Delta_{v}H$		65.5 ± 0.1	460		[2010CHI/STE2]
	$\Delta_{v}H$		65.0 ± 0.1	470		[2010CHI/STE2]
$C_{12}H_8N_2$	[230-17-1]	benzo[c]cinnoline				
	$\Delta_{fus}H$		20.92	432.2	DTA	[1977SCH/PET]
	$\Delta_{sub}H$	(320–360)	101.7 ± .2	340	ME	[1977SCH/PET, 1987STE/MAL]
	$\Delta_{sub}H$		113		ME	[1972MIL]
$C_{12}H_8N_2O$	[304-81-4]	phenazine-N-oxide				
	$\Delta_{sub}H$		100. ± 1.3	298	C	[1990LEI/PIL]
$C_{12}H_8N_2O_4$	[1528-74-1]	4,4′-dinitrobiphenyl				
	$\Delta_{sub}H$	(441–428)	104.6 ± 1.8	420	ME	[1953SEK/SUZ, 1960JON]
$C_{12}H_8N_2O_5$	[101-63-3]	4,4′-dinitrodiphenyl ether				
	$\Delta_{fus}H$		10.29	418.2		[1993ACR]
$C_{12}H_8N_4$	[1017-93-2]	bicyclo[2.2.2]oct-5-ene-2,2,3,3-tetracarbonitrile				
	$\Delta_{trs}H$		18.91	476.7		
	$\Delta_{fus}H$		4.54	533.2	DSC	[1984WEI/LEF]
	$\Delta_{sub}H$		111.7 ± 5.4	433		[1972ROG2, 1977PED/RYL]
$C_{12}H_8N_4$	[7120-73-2]	dibenzo-1,3a,4,6a-tetraazapentalene				
	$\Delta_{sub}H$	(363–433)	70.3 ± 1.7	400		[1967CHI/SIM]
$C_{12}H_8N_4$	[2055-55-2]	dibenzo-1,3a,6,6a-tetraazapentalene				
	$\Delta_{sub}H$	(363–443)	42.3 ± 3.4	403		[1967CHI/SIM]
$C_{12}H_8O$	[132-64-9]	dibenzofuran				
	$\Delta_{fus}H$		18.6	354.7	DSC	[2010KES/AUC]
	$\Delta_{fus}H$		19.41	355.1		[2007HAF/MAH]
	$\Delta_{fus}H$		20.5	355.8	DSC	[2000LIS/JAM]
	$\Delta_{fus}H$		17.6	355.2	DSC	[2000MAH/SOL]
	$\Delta_{fus}H$		18.6	355.7		[1990CHI/GAM]
	$\Delta_{sub}H$	(295–318)	82.1 ± 1.5	307	ME	[2004LI/SHI]
	$\Delta_{sub}H$	(293–353)	82.0 ± 0.2	298	GS	[2003VER2]
	$\Delta_{sub}H$		84.4 ± 0.7	298		[1990CHI/GAM]
	$\Delta_{sub}H$		76.5 ± 0.2	298		[1987SAB/ANT]
	$\Delta_{sub}H$	(304–343)	85.6	324	T	[1989ROR, 1986ROR]
	$\Delta_{sub}H$	(303–343)	79.1	323		[1986HAN/ECK]
	$\Delta_{sub}H$	(299–346)	76.7	323	GS	[1986SAT/INO]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		88.7 ± 2.1			[1958CAS/FLE3]
	Δ_vH	(323–473)	66.2	398	GC	[2002LEI/CHA]
	Δ_vH	(403–559)	55.1	418	A	[1987STE/MAL]
	Δ_vH	(403–418)	66.2	410		[1958CAS/FLE3]
$C_{12}H_8OS$	[262-20-4]	phenoxathiin				
	$\Delta_{fus}H$		19.43	329.6	DSC	[2008MON/SAN]
	$\Delta_{fus}H$		20.27	328.8		[1993STE/CHI]
	Δ_vH	(318–373)	77.3 ± 0.1	298	ME	[2008MON/SAN]
	Δ_vH	(365–640)	68.7	400	EB,IP	[1993STE/CHI]
	Δ_vH	(365–640)	66	440	EB,IP	[1993STE/CHI]
	Δ_vH	(365–640)	63.4	480	EB,IP	[1993STE/CHI]
	Δ_vH	(365–640)	60.8	520	EB,IP	[1993STE/CHI]
	Δ_vH	(365–640)	58	560	EB,IP	[1993STE/CHI]
	Δ_vH	(365–640)	55.1	600	EB,IP	[1993STE/CHI]
$C_{12}H_8OS_2$	[49833-13-8]	diphenylene-2,2′-disulfide S-oxide				
	$\Delta_{fus}H$		17.99	407	DSC	[1996DOM/HEA, 1975CUC]
$C_{12}H_8O_2$	[262-12-4]	dibenzo[b,e] [1,4]dioxin				
	$\Delta_{fus}H$		23.2	395.7		[1986ROR2]
	$\Delta_{sub}H$	(303–333)	93.6 ± 1.2	318	ME	[2004LI/SHI]
	$\Delta_{sub}H$		91.5 ± 0.8	298	C	[2002PIM/MEL]
	$\Delta_{sub}H$		89.6 ± 0.7	298	C	[1999KOL/DOR]
	$\Delta_{sub}H$		89.6 ± 0.7	318	C	[1997LUK/KOL]
	$\Delta_{sub}H$	(303–333)	92.3	318	T	[1989ROR, 1986ROR]
$C_{12}H_8O_2S$	[1016-05-3]	dibenzothiophene sulfone				
	$\Delta_{fus}H$		27.17	509.2	DSC	[2007RAM/ROJ]
	$\Delta_{fus}H$		23.72	507.8	DSC	[UR/MCC]
$C_{12}H_8S$	[132-64-0]	dibenzothiophene				
	$\Delta_{fus}H$		21.6	371.8	DSC	[2000LIS/JAM]
	$\Delta_{fus}H$		21.58	371		[1996DOM/HEA]
	$\Delta_{fus}H$		21.6	373.2		[1983ORO/MRA]
	$\Delta_{sub}H$		93.2 ± 0.5	298	C	[2009FRE/GOM]
	$\Delta_{sub}H$		85.1 ± 0.4	298	C	[1987SAB/ANT, 1979SAB]
	$\Delta_{sub}H$	(303–348)	91.2	325	T	[1986HAN/ECK]
	$\Delta_{sub}H$	(333–363)	90.7	348	GS	[1981EDW/PRA]
	$\Delta_{sub}H$		97.5	298		[1975AUB/MAY, 2009FRE/GOM]
	Δ_vH	(413–473)	78.3 ± 1.1	298	GC	[2006HAF/PAR]
	Δ_vH	(373–424)	65.6	388		[1999DYK/SVO]
	Δ_vH	(424–608)	63.4	439		[1999DYK/SVO]
	Δ_vH		69.5 ± 0.3	380		[1995STE/CHI]
	Δ_vH		66.8 ± 0.3	420		[1995STE/CHI]
	Δ_vH		64.3 ± 0.3	460		[1995STE/CHI]
	Δ_vH		61.8 ± 0.3	500		[1995STE/CHI]
	Δ_vH		59.3 ± 0.3	540		[1995STE/CHI]
	Δ_vH		56.8 ± 0.3	580		[1995STE/CHI]
	Δ_vH		54.0 ± 0.3	620		[1995STE/CHI]
	Δ_vH	(375–662)	68.0 ± 0.1	400	EB,IP	[1991CHI/KNI]
	Δ_vH	(375–662)	64.9 ± 0.1	450	EB,IP	[1991CHI/KNI]
	Δ_vH	(375–662)	61.8 ± 0.1	500	EB,IP	[1991CHI/KNI]
	Δ_vH	(375–662)	58.7 ± 0.1	550	EB,IP	[1991CHI/KNI]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(375–662)	55.4 ± 0.3	600	EB,IP	[1991CHI/KNI]
	$\Delta_v H$	(375–662)	51.8 ± 0.4	650	EB,IP	[1991CHI/KNI]
	$\Delta_v H$	(385–574)	60.1	400	A	[1987STE/MAL]
	$\Delta_v H$		56.9	590	C	[1984MRA/KEW]
	$\Delta_v H$		55.3	610	C	[1984MRA/KEW]
	$\Delta_v H$		53.6	630	C	[1984MRA/KEW]
	$\Delta_v H$	(373–403)	69.4	385	GS	[1981EDW/PRA]
$C_{12}H_8S_2$	[92-85-3]	thianthrene				
	$\Delta_{fus}H$		27.55	429.6		[1993STE/CHI]
	$\Delta_{sub}H$		103.6 ± 0.4	350	IP	[1993STE/CHI]
	$\Delta_{sub}H$	(338–368)	98.6 ± 0.5	353		[1989SAB/ELW]
	$\Delta_{sub}H$		99.4 ± 0.6	298		[1989SAB/ELW]
	$\Delta_{sub}H$	(358–428)	98.0	393	GS	[1981EDW/PRA]
	$\Delta_{sub}H$	(338–368)	97.5 ± 6.3	353	HSA	[1979SAN/EPS]
	$\Delta_v H$	(429–460)	71.2	444		[1999DYK/SVO]
	$\Delta_v H$	(460–539)	68.4	475		[1999DYK/SVO]
	$\Delta_v H$	(395–639)	72.7	440	EB,IP	[1993STE/CHI]
	$\Delta_v H$	(395–639)	69.9	480	EB,IP	[1993STE/CHI]
	$\Delta_v H$	(395–639)	67.2	520	EB,IP	[1993STE/CHI]
	$\Delta_v H$	(395–639)	64.5	560	EB,IP	[1993STE/CHI]
	$\Delta_v H$	(395–639)	61.7	600	EB,IP	[1993STE/CHI]
	$\Delta_v H$	(430–593)	69.1	465		[1983SIV/KOB]
	$\Delta_v H$	(430–593)	68.7	515		[1983SIV/KOB]
	$\Delta_v H$	(428–448)	71.1	438	GS	[1981EDW/PRA]
$C_{12}H_8S_2$	[230-26-2]	dibenzo[c,e] [1,2]dithiin				
	$\Delta_{fus}H$		19.3	386.2	DSC	[1975CUC2]
$C_{12}H_9Br$	[92-66-0]	4-bromobiphenyl				
	$\Delta_v H$	(371–583)	62.2	386	A	[1987STE/MAL, 1947STU]
$C_{12}H_9Br$	[2051-98-1]	5-bromoacenaphthene				
	$\Delta_{sub}H$	(295–321)	87.4 ± 2.6		ME	[2008GOL/SUU2]
$C_{12}H_9BrO$	[7025-06-1]	5-bromoacenaphthene				
	$\Delta_v H$	(363–473)	63.7	418	GC	[2001WON/LEI]
$C_{12}H_9BrO$	[6876-00-2]	3-bromodiphenyl ether				
	$\Delta_v H$	(363–473)	65.4	418	GC	[2001WON/LEI]
$C_{12}H_9BrO$	[101-55-3]	4-bromodiphenyl ether				
	$\Delta_v H$	(463–673)	64.6	478	A	[1987STE/MAL]
$C_{12}H_9BrO$	[92-03-5]	2-bromo-4-phenylphenol				
	$\Delta_v H$	(373–584)	57.8	388	A	[1987STE/MAL, 1947STU]
$C_{12}H_9Cl$	[2051-60-7]	2-chlorobiphenyl				
	$\Delta_{fus}H$		14.54	304.9		[1991ACR]
	$\Delta_v H$		72.1 ± 2.0	298	CGC	[2001PUR/CHI]
	$\Delta_v H$	(343–393)	64.4	368	GC	[1994FAL/BID]
	$\Delta_v H$	(409–540)	57.8	424	A	[1987STE/MAL]
	$\Delta_v H$	(306–350)	74.5	328	ME	[1983FER/PIA]
	$\Delta_v H$	(410–540)	55.8	424	QM	[1975GEI/DZH]
	$\Delta_v H$	(362–541)	61.1	377	A	[1987STE/MAL, 1947STU]
$C_{12}H_9Cl$	[2051-61-8]	3-chlorobiphenyl				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		74.3 ± 1.1	298	CGC	[2001PUR/CHI]
	$\Delta_v H$	(343–393)	66.6	368	GC	[1994FAL/BID]
	$\Delta_v H$	(310–359)	66.2	335	ME	[1983FER/PIA]
	$\Delta_v H$	(341–402)	69.2	372	TE	[1983FER/PIA]
	$\Delta_v H$	(452–536)	66.0	494	QM	[1975GEI/DZH]
$C_{12}H_9Cl$	[2051-62-9]	4-chlorobiphenyl				
	$\Delta_{fus}H$		13.32	348.6		[1991ACR]
	$\Delta_{sub}H$	(253–303)	86.0 ± 0.9	278	GS	[1994WAN/SHU]
	$\Delta_{sub}H$	(306–346)	73.7 ± 0.7	326	TE,ME	[1983FER/PIA]
	$\Delta_v H$		71.6 ± 0.7	298	CGC	[2001PUR/CHI]
	$\Delta_v H$	(343–393)	66.8	368	GC	[1994FAL/BID]
	$\Delta_v H$	(451–536)	65.9	466	A	[1987STE/MAL]
	$\Delta_v H$	(348–409)	67.8	378	TE	[1983FER/PIA]
	$\Delta_v H$	(369–566)	59.0	384	A	[1987STE/MAL, 1947STU]
$C_{12}H_9ClN_2$	[na]	4-chloroazobenzene				
	$\Delta_{fus}H$		27.2	361.2		[1988BAU/PER]
$C_{12}H_9ClO$	[666747-18-8]	2-chloro-3-phenylphenol				
	$\Delta_v H$	(391–591)	65	406	A	[1987STE/MAL, 1947STU]
$C_{12}H_9ClO$	[85-97-2]	2-chloro-6-phenylphenol				
	$\Delta_v H$	(393–590)	67.6	408	A	[1987STE/MAL, 1947STU]
$C_{12}H_9ClO_2S$	[80-38-6]	4-chlorophenylbenzenesulfonate				
	$\Delta_{fus}H$		21.44	332.2	DSC	[1990DON/DRE]
$C_{12}H_9Cl_2NO_2S$	[92589-22-5]	N-(2,3-dichlorophenyl)benzene sulfonamide				
	$\Delta_{fus}H$		27.2	387.2	DSC	[2007PER/STR]
$C_{12}H_9F_3N_2O_2$	[75706-12-6]	5-methyl-N-[4-(trifluoromethyl)phenyl]-4-isoxazolcarboxamide (leflunomide)				
	$\Delta_{fus}H$		32.43	438.2		[2006VEG/PET]
$C_{12}H_9N$	[86-74-8]	carbazole				
	$\Delta_{fus}H$		26.9	518.7	DSC	[2000LIS/JAM]
	$\Delta_{fus}H$		27.2	516		[1996DOM/HEA]
	$\Delta_{trs}H$		0.27	420		[1969ROB/SCO]
	$\Delta_{sub}H$	(346–364)	101.2 ± 1.1	355	ME	[1990JIM/ROU]
	$\Delta_{sub}H$		103.3 ± 1.1	298	ME	[1990JIM/ROU]
	$\Delta_{sub}H$		97.7 ± 0.3	298	C	[1987SAB/ANT]
	$\Delta_{sub}H$		108.8			[1961ZIM/GEI, 1990JIM/ROU]
	$\Delta_{sub}H$		84.5 ± 0.8			[1970COX/PIL, 1955AIH3]
	$\Delta_v H$		76.2		GC	[1996GOV/RUT]
	$\Delta_v H$		63.3	525		[1983SIV/MAR]
	$\Delta_v H$		61.8	565		[1983SIV/MAR]
	$\Delta_v H$		60.8	605		[1983SIV/MAR]
	$\Delta_v H$	(525–631)	65.7	540	A	[1987STE/MAL, 1923SEN/NEL, 1984BOU/FRI]
	$\Delta_v H$	(517–624)	66	532		[1923MOR/MUR, 1984BOU/FRI]
$C_{12}H_9NO$	[91-02-1]	2-benzoylpyridine				
	$\Delta_{fus}H$	(80–340)	20.91	316.5	AC	[2006WAN/TAN]
$C_{12}H_9NO$	[135-67-1]	10*H*-phenoxazine				
	$\Delta_{sub}H$		96.1 ± 0.3	298	C	[1992SAB/ELW2]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_9NS$	[92-84-2]	phenothiazine				
	$\Delta_{fus}H$		28.4	457.2	DSC	[2007GUP/SIN]
	$\Delta_{fus}H$		25.7	458.4		[1992SAB/ELW2]
	$\Delta_{fus}H$		26.92	458.2		[1991ACR]
	$\Delta_{sub}H$		114.5 ± 0.4	298	C	[1992SAB/ELW2]
	$\Delta_{sub}H$	(336–395)	86.0	351	A	[1987STE/MAL, 1942NEL/SMI]
$C_{12}H_9N_3O_2$	[2491-52-3]	4-nitroazobenzene				
	$\Delta_{sub}H$		110		GS	[1987SHI/OHK, 1991HOR]
$C_{12}H_9N_3O_2S$	[138564-59-7]	5-methyl-[(2-nitrophenyl)amino]-3-thiophene carbonitrile				
	$\Delta_{fus}H$ *(yellow prism)*		27.2	383		
	$\Delta_{fus}H$ *(orange needle)*		25.1	388		
	$\Delta_{fus}H$ *(orange prism)*		25.5	385.9		
	$\Delta_{fus}H$ *(red prism)*		26.0	379.4	DSC	[2000YU/STE]
$C_{12}H_9N_3O_3$	[1435-60-5]	4-hydroxy-4′-nitroazobenzene				
	$\Delta_{sub}H$		140.1		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$	(417–444)	143.8	430.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		146 ± 2.5		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		136.8			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_9N_3O_4$	[961-68-2]	N-(2,4-dinitrophenyl)-N-phenylamine				
	$\Delta_{sub}H$	(402–420)	147.6	411		[1987STE/MAL]
	$\Delta_{sub}H$		149 ± 3.0		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		131.8			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_9N_3O_5$	[119-15-3]	N-(2,4-dinitrophenyl)-N-(4-hydroxyphenyl)amine				
	$\Delta_{sub}H$	(440–470)	155.6 ± 4.2	455	TE,ME	[1970KOJ, 1987STE/MAL]
	$\Delta_{sub}H$		154			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_9N_4O_4$	[961-68-2]	N-(4-aminophenyl)-N-(2,4-dinitrophenyl)amine				
	$\Delta_{sub}H$	(437–460)	156.6	448.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		154 ± 2.9		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		139.3			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_{10}$	[83-32-9]	acenaphthene				
	$\Delta_{fus}H$		21.0	367	DSC	[2008SHA/GUP]
	$\Delta_{fus}H$		20.5	na	DSC	[2003SHA/KAN]
	$\Delta_{fus}H$		21.46	366.6		[1996DOM/HEA]
	$\Delta_{sub}H$		84.6	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(313–453)	83.2	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(293–342)	77.0	318	GS	[1986SAT/INO]
	$\Delta_{sub}H$	(283–323)	86.8 ± 0.9	303	GS	[1983SON/ZOL]
	$\Delta_{sub}H$		83.4 ± 1.0	298		[1975OSB/DOU, 1977FIN/MES]
	$\Delta_{sub}H$		82.4	366	B	[1975OSB/DOU]
	$\Delta_{sub}H$		84.7 ± 2.7		ME	[1974RAD/KAT]
	$\Delta_{sub}H$	(290–340)	86.2 ± 0.8		ME	[1965BOY/CHR, 1970COX/PIL]
	$\Delta_{sub}H$	(291–310)	82.1 ± 0.4	300	V	[1959AIH, 1987STE/MAL]
	$\Delta_{sub}H$	(258–308)	81.6			[1958HOY/PEP]
	$\Delta_{v}H$		68.0	298	CGC	[2008ZHA/UNH]
	$\Delta_{v}H$	(363–423)	70.5 ± 1.1	298	GC	[2006HAF/PAR]
	$\Delta_{v}H$		61.1	366		[1998RUU/MOK, 2008HAN/NUT]
	$\Delta_{v}H$		66.2	298		[1998RUU/MOK, 2008HAN/NUT]
	$\Delta_{v}H$	(323–473)	63.9	398	GC	[2002LEI/CHA]
	$\Delta_{v}H$		66.2	298	CGC	[1998CHI/HES]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		60.6	378		[1995MOK/GUE, 2008HAN/NUT]
	$\Delta_v H$		66.5 ± 1.3	298		[1995MOK/GUE, 2008HAN/NUT]
	$\Delta_v H$	(368–552)	54	403	A	[1987STE/MAL]
	$\Delta_v H$	(368–413)	60.3	383	A	[1987STE/MAL, 1975OSB/DOU, 1984BOU/FRI]
	$\Delta_v H$		61.3	395	I	[1943CRA]
	$\Delta_v H$	(413–561)	54.3	466	I	[1923MOR/MUR]
	$\Delta_v H$	(420–561)	55.4	435		[1923MOR/MUR, 1984BOU/FRI]
$C_{12}H_{10}$	[92-52-4]	biphenyl				
	$\Delta_{fus}H$		19.7	342.3	DSC	[2006KHI/DAH]
	$\Delta_{fus}H$		19.27	344.34	DSC	[2004BEN/KHI]
	$\Delta_{fus}H$		18.66	341.5		[1996DOM/HEA]
	$\Delta_{sub}H$		82.9	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(313–453)	81.8	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(283–338)	83.4	311	EM	[1989SAS/NGU]
	$\Delta_{sub}H$	(303–333)	U 113.3	318		[1989ROR/RUT]
	$\Delta_{sub}H$		81.5 ± 0.2	298		[1989CHI/KRI]
	$\Delta_{sub}H$		77.9 ± 0.3	298	C	[1979SAB2]
	$\Delta_{sub}H$		81.8 ± 0.2	298	C	[1978MON/ROS]
	$\Delta_{sub}H$	(306–332)	80.4 ± 1.6	319	TSGC	[1975CLA/KNO]
	$\Delta_{sub}H$	(273–313)	76.0 ± 4.0		HSA	[1975CHI]
	$\Delta_{sub}H$		83.6 ± 2.5			[1974RAD/KAT]
	$\Delta_{sub}H$	(298–318)	75.2		ME	[1974PRI/POU]
	$\Delta_{sub}H$		81.8 ± 0.4	298	C	[1972MOR]
	$\Delta_{sub}H$	(279–299)	75.8 ± 0.6	289		[1955AIH3]
	$\Delta_{sub}H$		81.6 ± 2			[1953BRA/CLE2, 1970COX/PIL, 1960JON]
	$\Delta_{sub}H$	(287–307)	75.1 ± 1.7	297		[1953SEK/SUZ]
	$\Delta_{sub}H$	(288–314)	81.6 ± 1.7	301		[1953BRA/CLE]
	$\Delta_{sub}H$	(278–307)	72.8+3	302	ME	[1951BRI]
	$\Delta_{sub}H$		68.6 ± 0.8	292	QF	[1938WOL/WEG]
	$\Delta_v H$		65.0	298	CGC	[2008ZHA/UNH]
	$\Delta_v H$	(323–473)	62.5	298	GC	[2002LEI/CHA]
	$\Delta_v H$		64.5 ± 2.2	298	GS	[2001PUR/CHI]
	$\Delta_v H$		66.2	298	CGC	[1998CHI/HES]
	$\Delta_v H$	(495–688)	51.2	510	DSC	[1996BAC/GRZ]
	$\Delta_v H$	(403–453)	66.0	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(348–453)	59.6	363	GS	[1989SAK/IWA]
	$\Delta_v H$	(350–578)	64.9	298	EB	[1989CHI/KRI]
	$\Delta_v H$	(350–578)	57.4	400	EB	[1989CHI/KRI]
	$\Delta_v H$	(350–578)	60.3	360	EB	[1989CHI/KRI]
	$\Delta_v H$	(350–578)	50.4	500	EB	[1989CHI/KRI]
	$\Delta_v H$	(333–393)	60.4	363		[1989SAS/NGU]
	$\Delta_v H$	(390–563)	57.3	405	A	[1987STE/MAL]
	$\Delta_v H$	(396–437)	54.9	417	GS	[1980NAS/HWA]
	$\Delta_v H$	(528–766)	48.0	647		[1957GLA/RUL]
	$\Delta_v H$	(342–544)	59.4	357		[1930CUN, 1984BOU/FRI]
$C_{12}D_{10}$	[1486-01-7]	biphenyl-d_{10}				
	$\Delta_v H$		64.9	298	CGC	[2008ZHA/UNH]
$C_{12}D_{10}$	[15067-26-2]	acenaphthene-d_{10}				
	$\Delta_v H$		67.2	298	CGC	[2008ZHA/UNH]
$C_{12}H_{10}ClNO_2S$	[21226-30-2]	N-(2-chlorophenyl)benzene sulfonamide				
	$\Delta_{fus}H$		33.5	398.2	DSC	[2007PER/STR]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{10}ClNO_2S$	[4750-28-1]	N-(4-chlorophenyl)benzene sulfonamide				
	$\Delta_{fus}H$		25.8	394.6	DSC	[2007PER/STR]
$C_{12}H_{10}ClN_3S$	[27429-35-2]	N-2-pyridyl-N′-(2-chlorophenyl) thiourea				
	$\Delta_{fus}H$		28.3	429.7	DSC	[2002KEL/SZC]
$C_{12}H_{10}ClN_3S$	[53385-84-5]	N-2-pyridyl-N′-(4-chlorophenyl) thiourea				
	$\Delta_{fus}H$		34.3	462.2	DSC	[2002SZC/KEL]
$C_{12}H_{10}Cl_2N_2O_2S$	[943757-10-6]	4-amino-N-(2,3-chlorophenyl)benzene sulfonamide				
	$\Delta_{fus}H$		40.9	454.3	DSC	[2008PER/STR]
	$\Delta_{sub}H$	(345–391)	137.5 ± 0.7	368	GS	[2008PER/STR]
	$\Delta_{sub}H$	(345–391)	141.1 ± 0.7	298	GS	[2008PER/STR]
	Δ_vH		114.3	298	S-F	[2008PER/STR]
$C_{12}H_{10}Cl_2N_2O_2S$	[439118-58-8]	4-amino-N-(2,5-chlorophenyl)benzene sulfonamide				
	$\Delta_{fus}H$		41.3	445.9	DSC	[2008PER/STR]
	$\Delta_{sub}H$	(379–417)	151.3 ± 1.6	398	GS	[2008PER/STR]
	$\Delta_{sub}H$	(379–417)	155.4 ± 1.6	298	GS	[2008PER/STR]
	Δ_vH		127.8	298	S-F	[2008PER/STR]
$C_{12}H_{10}Cl_2N_2O_2S$	[34392-63-7]	4-amino-N-(3,4-chlorophenyl)benzene sulfonamide				
	$\Delta_{fus}H$		51.5	497.9	DSC	[2008PER/STR]
	$\Delta_{sub}H$	(418–448)	161.4 ± 3.6	433	GS	[2008PER/STR]
	$\Delta_{sub}H$	(418–448)	167.5 ± 3.6	298	GS	[2008PER/STR]
	Δ_vH		136.7	298	S-F	[2008PER/STR]
$C_{12}H_{10}F_3NO_2$	[52840-38-7]	4-(trifluoromethyl)-7-(N-ethylamino)coumarin				
	$\Delta_{fus}H$		30.47	432.5	DSC	[1991ZHA/HUA]
$C_{12}H_{10}F_3NO_2$	[53518-14-2]	4-(trifluoromethyl)-7-(N,N-dimethylamino)coumarin				
	$\Delta_{fus}H$		26.25	420.5	DSC	[1991ZHA/HUA]
$C_{12}H_{10}N_2$	[1080-16-6]	*cis*-azobenzene				
	$\Delta_{sub}H$	(273–323)	92.9	288		[1987STE/MAL]
	$\Delta_{sub}H$	(298–357)	92.9 ± 0.12	328	ME	[1977SCH/PET]
	$\Delta_{sub}H$	(303–333)	U 74.9	318	ME	[1950BRI/CAR, 1960JON]
$C_{12}H_{10}N_2$	[17082-12-1]	*trans*-azobenzene				
	$\Delta_{fus}H$		22.53	341.1		[1996DOM/HEA]
	$\Delta_{fus}H$		22.65	341.9	DTA	[1977SCH/PET]
	$\Delta_{fus}H$		22.1		CR	[1977SCH/PET]
	$\Delta_{sub}H$		94.1 ± 0.8	298	B	[1996STE/CHI2]
	$\Delta_{sub}H$	(298–302)	93.6 ± 1.9	298	ME	[1992DIA/MIN]
	$\Delta_{sub}H$	(298–341)	92.1 ± 0.9	319	TE,ME	[1984BOU/OON]
	$\Delta_{sub}H$	(299–317)	96.9 ± 0.8	308	TE	[1977DEK/VAN]
	$\Delta_{sub}H$	(299–317)	94.9 ± 0.8	308	ME	[1977DEK/VAN]
	$\Delta_{sub}H$	(298–347)	93.8 ± 1.2	323	ME	[1977SCH/PET]
	$\Delta_{sub}H$	(303–333)	U 74.9	318	A	[1950BRI/CAR, 1960JON, 1987STE/MAL]
	Δ_vH	(436–626)	72.8 ± 0.7	298	EB	[1996STE/CHI2]
	Δ_vH	(376–566)	62.3	391	A	[1987STE/MAL, 1947STU]
$C_{12}H_{10}N_2$	[486-84-0]	1-methyl-9*H*-pyrido[3,4-b]indole (harmane)				
	$\Delta_{fus}H$		27.2	509.9	DSC	[1996BUR/DAG]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{10}N_2O$	[21650-65-7]	*trans*-diphenyldiazene N-oxide				
	$\Delta_{fus}H$		17.93	309.2		[1991ACR]
	$\Delta_{sub}H$		98.6 ± 0.9	298	C	[1986KIR/ACR]
$C_{12}H_{10}N_2O$	[na]	4-hydroxyazobenzene				
	$\Delta_{fus}H$		32.99	425.2		[1988BAU/PER]
$C_{12}H_{10}N_2O_2$	[119-75-5]	N-(2-nitrophenyl)-N-phenylamine				
	$\Delta_{sub}H$	(335–346)	100.9	340.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		101.9 ± 1.7		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		108.4			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_{10}N_2O_2$	[836-30-6]	N-(4-nitrophenyl)-N-phenylamine				
	$\Delta_{sub}H$	(382–403)	130.6	392.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		126.2 ± 1.6		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		120.9			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_{10}N_4$	[69155-29-9]	4,5-dimethy1-1,1,2,2-tetracyanocyclohex-4-ene				
	$\Delta_{sub}H$		107.9 ± 4.2	378		[1972ROG2, 1977PED/RYL]
$C_{12}H_{10}N_4O_2$	[730-40-5]	4-amino-4′-nitroazobenzene				
	$\Delta_{fus}H$		31.88	488.2		[1988BAU/PER]
	$\Delta_{sub}H$	(403–465)	123	434	GS	[1989NIS/AND]
	$\Delta_{sub}H$		140.1		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$		127.6		UV	[1984KAR/ROD, 1984KAR/KRU]
	$\Delta_{sub}H$		136.4		ME	[1980NIG/DEP, 1991HOR]
	$\Delta_{sub}H$		140.4 ± 1.2		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		134.3		ME	[1968TSU/KOJ, 1988BAU/PER]
	$\Delta_{sub}H$	(404–424)	137.7 ± 0.8	414	TE	[1967GRE/JON, 1987STE/MAL]
	$\Delta_{sub}H$	(404–423)	136.4 ± 5.0	413	ME	[1967GRE/JON, 1966JON/KRA]
$C_{12}H_{10}O$	[941-98-0]	1-acetylnaphthalene				
	$\Delta_{v}H$	(388–569)	65.4	403	A	[1987STE/MAL]
$C_{12}H_{10}O$	[93-08-3]	2-acetylnaphthalene				
	$\Delta_{sub}H$	(295–316)	87.9 ± 0.4	305	V	[1959AIH, 1987STE/MAL]
	$\Delta_{v}H$	(393–574)	74.1	408	A	[1987STE/MAL]
$C_{12}H_{10}O$	[101-84-8]	diphenyl ether				
	$\Delta_{fus}H$		17.21	300		[1996DOM/HEA]
	$\Delta_{fus}H$		16.51	300.4	DSC	[1992BAB/WHA]
	$\Delta_{sub}H$		82 ± 2.1		E	[1958CAS/FLE3, 1970COX/PIL]
	$\Delta_{v}H$	(353–393)	67.1	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(477–544)	65.0	298		[1976AMB/ELL]
	$\Delta_{v}H$	(477–544)	48.2	531		[1976AMB/ELL]
	$\Delta_{v}H$	(477–544)	53.0	492	GS,EB	[1987STE/MAL, 1976AMB/ELL]
	$\Delta_{v}H$		66.1 ± 0.4	298	C	[1972MOR, 1965COL/COU]
	$\Delta_{v}H$	(313–333)	64.2	323	A	[1987STE/MAL, 1948BEN/FRA]
$C_{12}H_{10}O$	[90-43-7]	2-hydroxybiphenyl				
	$\Delta_{fus}H$		15.48	333.7	DSC	[1998VER5]
	$\Delta_{fus}H$		16.21	330.6		[1973GEI/DZH]
	$\Delta_{sub}H$	(301–328)	87.6 ± 0.9	314	GS	[1998VER5]
	$\Delta_{sub}H$		88.5 ± 0.9	298	GS	[1998VER5]
	$\Delta_{sub}H$	(292–314)	82.9	303		[1987STE/MAL, 1960AIH]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(434–547)	94.2	449	A	[1987STE/MAL]
$C_{12}H_{10}O$	[92-69-3]	4-hydroxybiphenyl				
	$\Delta_{fus}H$		31.59	443.1	DSC	[1998VER5]
	$\Delta_{sub}H$	(333–368)	106.6 ± 1.0	351	GS	[1998VER5]
	$\Delta_{sub}H$		109.8 ± 1.0	298	GS	[1998VER5]
	$\Delta_{sub}H$	(327–348)	97.0	337.5	A	[1987STE/MAL, 1960AIH]
	$\Delta_v H$	(450–581)	72.3	465	A	[1987STE/MAL]
$C_{12}H_{10}O_2$	[1806-29-7]	2,2′-dihydroxybiphenyl				
	$\Delta_{fus}H$		25.36	386.7	DSC	[1998VER5]
	$\Delta_{sub}H$	(334–363)	111.4 ± 1.2	349	GS	[1998VER5]
	$\Delta_{sub}H$	(334–363)	114.4 ± 1.2	298	GS	[1998VER5]
	$\Delta_v H$	(444–598)	61.7	459	A	[1987STE/MAL]
$C_{12}H_{10}O_2$	[92-88-6]	4,4′-dihydroxybiphenyl				
	$\Delta_{fus}H$		43.05	560.7	DSC	[1998VER5]
	$\Delta_{sub}H$	(354–388)	138.6 ± 2.0	371	GS	[1998VER5]
	$\Delta_{sub}H$	(354–388)	143.0 ± 2.0	298	GS	[1998VER5]
$C_{12}H_{10}O_2$	[713-68-8]	3-phenoxyphenol				
	$\Delta_v H$	(416–494)	69.5	431	A	[1987STE/MAL]
$C_{12}H_{10}O_2$	[830-81-9]	α-naphthyl acetate				
	$\Delta_{fus}H$		20.21	319.2		[1981BYS]
	$\Delta_{sub}H$	(286–317)	95.1 ± 0.6	298	GS	[2003VER/ROU]
$C_{12}H_{10}O_2$	[1523-11-1]	β-naphthyl acetate				
	$\Delta_{fus}H$		20.05	342.2		[1981BYS]
	$\Delta_{sub}H$	(313–341)	96.3 ± 0.6	298	GS	[2003VER/ROU]
$C_{12}H_{10}O_2$	[86-87-3]	1-naphthaleneacetic acid				
	$\Delta_{fus}H$		22.26	405.3		[1991ACR]
	$\Delta_{sub}H$	(343–372)	112.3 ± 0.9	298	GS	[2004ROU/TEM]
$C_{12}H_{10}O_2$	[581-96-4]	2-naphthaleneacetic acid				
	$\Delta_{sub}H$	(343–372)	124.6 ± 1.0	298	GS	[2004ROU/TEM]
$C_{12}H_{10}O_2$	[na]	2-carbomethoxynaphthalene				
	$\Delta_{fus}H$		27.1	350.2		[1978DOZ/FUJ]
$C_{12}H_{10}O_2S$	[127-63-9]	diphenyl sulfone				
	$\Delta_{fus}H$		21.78	398.2	DSC	[UR/MCC, 2000DEF/VAN]
	$\Delta_{sub}H$		106.3 ± 2.9			[UR/MAC, 1970COX/PIL]
$C_{12}H_{10}O_2S$	[2664-63-3]	4,4′-thiodiphenol				
	$\Delta_{fus}H$		31.04	432.9		[2001LI/HE]
$C_{12}H_{10}O_4$	[106-34-3]	quinhydrone				
	$\Delta_{sub}H$	(317–334)	89.1	325.5	A	[1987STE/MAL]
$C_{12}H_{10}O_4S_2$	[10409-06-0]	diphenyl disulfone				
	$\Delta_{sub}H$		161.9 ± 3.3		E	[1964MAC/OHA]
	$\Delta_v H$		149.0 ± 2.9	298	E	[1964MAC/OHA]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{10}S$	[139-66-2]	diphenyl sulfide				
	$\Delta_{fus}H$	(5–440)	13.98	258	AC	[1995STE/CHI]
	$\Delta_{sub}H$		95. ± 3.0		E	[1962MAC/MAY3, 1970COX/PIL]
	$\Delta_{v}H$	(369–566)	60.5	384		[1999DYK/SVO]
	$\Delta_{v}H$	(345–611)	67.3 ± 0.3	360	EB,IP	[1995STE/CHI]
	$\Delta_{v}H$	(345–611)	64.3 ± 0.3	400	EB,IP	[1995STE/CHI]
	$\Delta_{v}H$	(345–611)	61.3 ± 0.3	440	EB,IP	[1995STE/CHI]
	$\Delta_{v}H$	(345–611)	58.3 ± 0.3	480	EB,IP	[1995STE/CHI]
	$\Delta_{v}H$	(345–611)	55.3 ± 0.3	520	EB,IP	[1995STE/CHI]
	$\Delta_{v}H$	(345–611)	52.0 ± 0.3	560	EB,IP	[1995STE/CHI]
	$\Delta_{v}H$	(369–566)	58.2	384	A	[1987STE/MAL, 1949KRE/WIE]
$C_{12}H_{10}S_2$	[882-33-7]	diphenyl disulfide				
	$\Delta_{v}H$	(405–583)	72.4	420		[1999DYK/SVO]
	$\Delta_{v}H$		78.7 ± 2.9	298		[1962MAC/MAY3]
	$\Delta_{v}H$	(404–583)	74.4	419	A	[1987STE/MAL, 1947STU]
$C_{12}H_{11}ClN_2O_2S$	[16803-92-2]	4-amino-N-(4-chlorophenyl)benzene sulfonamide				
	$\Delta_{fus}H$		37.3	467.9	DSC	[2008PER/STR]
	$\Delta_{sub}H$	(400–432)	129.2 ± 1.2	416	GS	[2008PER/STR]
	$\Delta_{sub}H$	(400–432)	134.1 ± 1.2	298	GS	[2008PER/STR]
	$\Delta_{v}H$		110.3	298	S-F	[2008PER/STR]
$C_{12}H_{11}Cl_2NO$	[23950-58-5]	3,5-dichloro-N-(1,1-dimethyl-2-propynyl)benzamide				
	$\Delta_{fus}H$		28.68	428.4	DSC	[1990DON/DRE]
$C_{12}H_{11}N$	[90-41-5]	2-aminobiphenyl				
	$\Delta_{fus}H$		13.99	322.3		[1996DOM/HEA]
	$\Delta_{v}H$	(340–623)	68.6	400	EB,IP	[1991STE/CHI]
	$\Delta_{v}H$	(340–623)	65.1	440	EB,IP	[1991STE/CHI]
	$\Delta_{v}H$	(340–623)	61.8	480	EB,IP	[1991STE/CHI]
	$\Delta_{v}H$	(340–623)	58.5	520	EB,IP	[1991STE/CHI]
	$\Delta_{v}H$	(340–623)	55.2	560	EB,IP	[1991STE/CHI]
	$\Delta_{v}H$	(340–623)	51.7	600	EB,IP	[1991STE/CHI]
$C_{12}H_{11}N$	[na]	diphenylamine				
	$\Delta_{fus}H$		19.9	326.1	DSC	[2009SUR/TER]
	$\Delta_{fus}H$		17.86	326.2		[1991ACR]
	$\Delta_{sub}H$	(303–319)	110.0 ± 1.0	311	GS	[2009SUR/TER]
	$\Delta_{sub}H$	(303–319)	110	298	GS	[2009SUR/TER]
	$\Delta_{sub}H$		96.7 ± 2.5		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		99.2			[1968TSU/KOJ, 1988BAU/PER]
	$\Delta_{sub}H$	(298–323)	96.7 ± 2.5	310	QF	[1953AIH, 1970COX/PIL]
	$\Delta_{v}H$	(381–575)	64.1	396	A	[1987STE/MAL, 1947STU]
	$\Delta_{v}H$	(573–673)	54.2	588	A	[1987STE/MAL]
$C_{12}H_{11}N$	[101-82-6]	2-benzylpyridine				
	$\Delta_{v}H$		69.9 ± 2.8	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
$C_{12}H_{11}NO$	[575-36-0]	N-acetyl-1-naphthylamine				
	$\Delta_{sub}H$	(337–360)	94.1	348.5	A	[1987STE/MAL, 1960AIH2]
$C_{12}H_{11}NO$	[86-86-2]	1-naphthaleneacetamide				
	$\Delta_{fus}H$		32.82	455.5	DSC	[1990DON/DRE]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{11}NO_2$	[63-25-2]	1-naphthyl methylcarbamate				
	$\Delta_{fus}H$		24.51	416.3	DSC	[1990DON/DRE]
$C_{12}H_{11}N_3$	[60-09-3]	4-aminoazobenzene				
	$\Delta_{fus}H$		21.7	398.2		[1988BAU/PER]
	$\Delta_{sub}H$		106.3		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$		109.4			[1984KAR/KRU]
	$\Delta_{sub}H$	(356–373)	110.9 ± 1.7	364	ME	[1956MAJ, 1987STE/MAL]
$C_{12}H_{11}N_3O_2S$	[1900019-63-7]	5-nitro-2-thiophenecarboxaldehyde-4-methylphenylhydrazone				
	$\Delta_{fus}H$ *(red greenish plates)*		5.23	425		
	$\Delta_{fus}H$ *(orange red prisms)*		15.15	429.2		
	$\Delta_{fus}H$ *(black needles)*		25.3	430.2	DSC	[1997PAN/BOS]
$C_{12}H_{11}N_3S$	[886-60-2]	N-2-pyridyl-N′-phenylthiourea				
	$\Delta_{fus}H$		41.0	na		[2002VAL/HER]
$C_{12}H_{11}O_2P$	[1707-03-5]	P,P-diphenylphosphinic acid				
	$\Delta_{fus}H$		21.91	466.1	DSC	[2008ZHA/WAN]
$C_{12}H_{12}$	[571-58-4]	1,4-dimethylnaphthalene				
	$\Delta_{fus}H$		10.6	279.2	DSC	[2007CHE/KIM]
	$\Delta_{fus}H$		10.6	279.9		[1991ACR]
$C_{12}H_{12}$	[571-61-7]	1,5-dimethylnaphthalene				
	$\Delta_{fus}H$		20	355.2	DSC	[2007CHE/KIM]
	Δ_vH	(323–473)	64.1	398	GC	[2002LEI/CHA]
$C_{12}H_{12}$	[575-43-9]	1,6-dimethylnaphthalene				
	$\Delta_{fus}H$		8.5	257	DSC	[2007CHE/KIM]
	Δ_vH	(323–473)	63.6	398	GC	[2002LEI/CHA]
$C_{12}H_{12}$	[569-41-5]	1,8-dimethylnaphthalene				
	$\Delta_{fus}H$		18.53	338.2	DSC	[2007CHE/KIM]
	$\Delta_{fus}H$		15.77	336.3		[1991ACR]
	$\Delta_{sub}H$	(328–336)	77.9	332	A	[1987STE/MAL]
	$\Delta_{sub}H$		79.6	336	B	[1975OSB/DOU, 1979COL/JIM2]
	$\Delta_{sub}H$		82.7 ± 0.3	298	C	[1974MAN3, 1977PED/RYL]
	Δ_vH	(338–413)	62.8	353	A	[1987STE/MAL, 1975OSB/DOU, 1984BOU/FRI]
	Δ_vH	(338–413)	64.8	336	IP	[1977FIN/MES]
	Δ_vH	(338–413)	62.2	360	IP	[1977FIN/MES]
	Δ_vH	(338–413)	60.7	380	IP	[1977FIN/MES]
	Δ_vH	(338–413)	59.7	400	IP	[1977FIN/MES]
$C_{12}H_{12}$	[581-40-8]	2,3-dimethylnaphthalene				
	$\Delta_{fus}H$		23.97	377.2	DSC	[2007CHE/KIM]
	$\Delta_{fus}H$		15.9	378		[1991ACR]
	$\Delta_{sub}H$	(333–373)	82.8	348	A	[1987STE/MAL]
	$\Delta_{sub}H$	(287–300)	82.2 ± 0.4	294	ME	[1979COL/JIM2]
	$\Delta_{sub}H$		81.0		B	[1978ARO/STE]
	$\Delta_{sub}H$	(278–301)	79.9 ± 0.4	290	V	[1959AIH, 1987STE/MAL]
	Δ_vH		60.9 ± 0.7	380		[1988MES/FIN]
	Δ_vH	(378–408)	60.0	393	A	[1987STE/MAL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{12}$	[581-42-0]	2,6-dimethylnaphthalene				
	$\Delta_{fus}H$		25.3	385.2	DSC	[2007CHE/KIM]
	$\Delta_{fus}H$		25.06	383.3		[1991ACR]
	$\Delta_{sub}H$	(350–383)	84.4 ± 1.9	366		[1977FIN/MES, 1975OSB/DOU, 1987STE/MAL]
	$\Delta_{sub}H$		82.5	383	B	[1975OSB/DOU]
	$\Delta_{sub}H$	(279–304)	84.1	291	V	[1959AIH, 1987STE/MAL]
	$\Delta_{v}H$	(384–418)	57.4	383	IP	[1977FIN/MES]
	$\Delta_{v}H$	(384–418)	56.6	400	IP	[1977FIN/MES]
	$\Delta_{v}H$	(384–418)	55.7	420	IP	[1977FIN/MES]
	$\Delta_{v}H$	(384–418)	57.3	399	A	[1987STE/MAL, 1975OSB/DOU, 1984BOU/FRI]
$C_{12}H_{12}$	[582-16-1]	2,7-dimethylnaphthalene				
	$\Delta_{fus}H$		22.2	370.2	DSC	[2007CHE/KIM]
	$\Delta_{fus}H$		23.35	368.8		[1991ACR]
	$\Delta_{sub}H$	(340–369)	83.8 ± 1	345		[1977FIN/MES, 1975OSB/DOU]
	$\Delta_{sub}H$		83.2	369	B	[1975OSB/DOU]
	$\Delta_{sub}H$	(333–368)	84.6	348	A	[1987STE/MAL]
	$\Delta_{v}H$		57.3	400		[1993CHI/KNI]
	$\Delta_{v}H$		54.8	440		[1993CHI/KNI]
	$\Delta_{v}H$		52.2	480		[1993CHI/KNI]
	$\Delta_{v}H$		49.5	520		[1993CHI/KNI]
	$\Delta_{v}H$		46.6	560		[1993CHI/KNI]
	$\Delta_{v}H$	(369–398)	59.5	368.8	IP	[1977FIN/MES]
	$\Delta_{v}H$	(369–398)	58.6	380	IP	[1977FIN/MES]
	$\Delta_{v}H$	(369–398)	58.1	390	IP	[1977FIN/MES]
	$\Delta_{v}H$	(369–400)	58.5	384	A	[1987STE/MAL, 1975OSB/DOU, 1984BOU/FRI]
$C_{12}H_{12}$	[1127-76-0]	1-ethylnaphthalene				
	$\Delta_{v}H$	(393–565)	57.3	408	A, GS	[1987STE/MAL, 1979MAC/PRA]
$C_{12}H_{12}$	[939-27-5]	2-ethylnaphthalene				
	$\Delta_{v}H$	(323–473)	64.7	398	GC	[2002LEI/CHA]
	$\Delta_{v}H$	(269–398)	69.3	284		[1988SAS/JOS]
	$\Delta_{v}H$	(286–319)	61.9	301	A	[1987STE/MAL]
	$\Delta_{v}H$	(393–565)	56.7	408	A	[1987STE/MAL]
$C_{12}H_{12}ClN_5$	[na]	2-amino-4-(*p*-chloranilino)-6-isopropenyl-s-triazine				
	$\Delta_{fus}H$ *(I)*		23.85	415.2		
	$\Delta_{fus}H$ *(II)*		20.5	403.2		[1986KUN/YUK]
$C_{12}H_{12}N_2$	[530-50-7]	1,1-diphenylhydrazine				
	$\Delta_{v}H$	(399–596)	68.8	68.8	A	[1987STE/MAL, 1947STU]
$C_{12}H_{12}N_2$	[na]	hydrazobenzene (1,2-diphenylhydrazine)				
	$\Delta_{fus}H$		17.65	407.2		[1991ACR]
$C_{12}H_{12}N_2$	[1134-35-6]	4,4′-dimethyl-2,2′-bipyridyl				
	$\Delta_{sub}H$		99.7 ± 2.3	298	C	[1997RIB/MAT4]
$C_{12}H_{12}N_2$	[92-87-5]	benzidine				
	$\Delta_{fus}H$		19.1	400.2		[1992RAI/GEO]
$C_{12}H_{12}N_2O$	[101-80-4]	4,4′-diaminodiphenyl oxide				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		7.74	465.4		[1996DOM/HEA]
	$\Delta_{sub}H$		62.8			[1975BAG/AND]
$C_{12}H_{12}N_2O_2$	[6953-81-7]	1-(4-dimethylaminophenyl)-1*H*-pyrrole-2,5-dione				
	$\Delta_{sub}H$	(350–370)	122.6 ± 0.9		C	[1998KIS/KAS]
$C_{12}H_{12}N_2O_3$	[389-08-2]	1-ethyl-1,4-dihydro-7-methyl-4-oxo-1,8-naphthyridine-3-carboxylic acid (nalidixic acid)				
	$\Delta_{fus}H$		35.92	501.9	DSC	[2004ROM/BUS2]
	$\Delta_{fus}H$		35.92	501.9		[1998BUS/ROM]
$C_{12}H_{12}N_2O_3$	[94098-94-9]	3-(methoxycarbonyl)-2-methylquinoxaline-1-oxide				
	$\Delta_{sub}H$		129.2 ± 4.1	298	C	[2009GOM/MON]
$C_{12}H_{12}N_2O_3$	[50-06-6]	5-ethyl-5-phenylpyridine-2,4,6(1*H*,3*H*,5*H*)trione (phenobarbital)				
	$\Delta_{fus}H$ *(I)*		28.0	449	DSC	[2010ZEN/GEL]
	$\Delta_{fus}H$ *(II)*		27.9	447	DSC	[2010ZEN/GEL]
$C_{12}H_{12}N_2O_4$	[13297-18-2]	3-methyl-2-quinoxalinecarboxylic acid-1,4-dioxide, ethyl ester				
	$\Delta_{sub}H$		133.4 ± 2.1	298	C	[2004RIB/GOM2]
$C_{12}H_{12}O_4$	[29412-62-2]	1,4-dimethylcubane dicarboxylate				
	$\Delta_{fus}H$		38.1	438.2	DSC	[2005ROU/DAV]
	$\Delta_{fus}H$		41.0	437.8		[1996DOM/HEA]
	$\Delta_{sub}H$		117.2 ± 3.9	298	Vap+Fus	[2005ROU/DAV]
	$\Delta_{v}H$		88.5 ± 2.2	298	CGC	[2005ROU/DAV]
$C_{12}H_{12}O_4$	[30296-80-1]	dimethyl 2,6-cuneanedicarboxylate				
	$\Delta_{fus}H$		23.4	392.7	DSC	[2005ROU/DAV]
	$\Delta_{sub}H$		106.8 ± 3.0	298	Vap+Fus	[2005ROU/DAV]
	$\Delta_{v}H$		89.7 ± 2.1	298	CGC	[2005ROU/DAV]
$C_{12}H_{12}O_6$	[2672-57-3]	1,2,3-benzenetricarboxylic acid, trimethyl ester				
	$\Delta_{fus}H$		32.7	375.7	DSC	[1993ACR, 1978DOZ/FUJ]
	$\Delta_{v}H$	(453–513)	72.5	468	A, GS	[1987STE/MAL, 1962KRA/BER]
$C_{12}H_{12}O_6$	[28904-30-5]	1,2,4-benzenetricarboxylic acid, trimethyl ester				
	$\Delta_{v}H$		78.5 ± 0.4	399	C	[1998MAK/KAB]
	$\Delta_{v}H$	(443–493)	61.1	458	A, GS	[1987STE/MAL, 1962KRA/BER]
$C_{12}H_{12}O_6$	[2672-58-4]	1,3,5-benzenetricarboxylic acid, trimethyl ester				
	$\Delta_{trs}H$		4.6	408.2	DSC	
	$\Delta_{fus}H$		17.6	419.4	DSC	[1978DOZ/FUJ]
		Note: Fusion enthalpy may not be reliable—authors reported a mass loss as the sample melted				
	$\Delta_{sub}H$	(350–368)	115.9 ± 0.4	359	ME	[1995JIM/MEN]
	$\Delta_{sub}H$		118.9 ± 0.4	298		[1995JIM/MEN]
	$\Delta_{sub}H$		117.5 ± 0.8	298		[1967TUR2, 1995JIM/MEN]
	$\Delta_{v}H$	(443–513)	75.4	458	A	[1987STE/MAL]
$C_{12}H_{12}S$	[16587-33-0]	1,2,3,4-tetrahydrodibenzothiophene				
	$\Delta_{fus}H$		32.03	275		[2004STE/CHI2]
	$\Delta_{v}H$	(360–600)	70.3 ± 0.3	360	IP,EB	[2004STE/CHI2]
	$\Delta_{v}H$	(360–600)	67.3 ± 0.3	400	IP,EB	[2004STE/CHI2]
	$\Delta_{v}H$	(360–600)	64.5 ± 0.2	440	IP,EB	[2004STE/CHI2]
	$\Delta_{v}H$	(360–600)	61.8 ± 0.2	480	IP,EB	[2004STE/CHI2]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(360–600)	59.2 ± 0.3	520	IP,EB	[2004STE/CHI2]
	$\Delta_v H$	(360–600)	56.5 ± 0.4	560	IP,EB	[2004STE/CHI2]
	$\Delta_v H$	(360–600)	75.3 ± 0.7	298	IP,EB	[2004STE/CHI2]
$C_{12}H_{13}ClF_3N_3O_4$	[33245-39-5]	N-(2-chloroethyl)-2,6-dinitro-N-propyl-4-(trifluoromethyl)benzeneamine				
	$\Delta_{fus}H$		23.08	318.4	DSC	[1990DON/DRE]
$C_{12}H_{13}Cl_3O_3$	[93-79-8]	2,4,5-trichlorophenoxyacetic acid, butyl ester				
	$\Delta_v H$	(460–573)	87.3	475	A	[1987STE/MAL]
$C_{12}H_{13}N$	[86-56-6]	N,N-dimethyl-1-aminonaphthalene				
	$\Delta_v H$	(283–334)	66.9 ± 0.2	298	GS	[2007VER/GEO]
$C_{12}H_{13}NO_2$	[na]	4-methyl-7-dimethylaminocoumarin				
	$\Delta_{fus}H$		23.92	416.1		[1996DOM/HEA]
$C_{12}H_{13}NO_2S$	[5237-68-4]	5,6-dihydro-2-methyl-N-phenyl-1,4-oxathin-3-carboxanilide (carboxin)				
	$\Delta_{fus}H$	(79–380)	28.19	365.3	AC	[2004WAN/TAN]
$C_{12}H_{13}NO_4S$	[5259-88-1]	2,3-dihydro-6-methyl-5-phenylcarbamoyl-1,4-oxathiin-4,4-dioxide				
	$\Delta_{fus}H$		26.66	401.5	DSC	[1990DON/DRE]
$C_{12}H_{13}N_3$	[53112-28-0]	4,6-dimethyl-N-phenyl-2-pyrimidinamine				
	$\Delta_{fus}H$	(78–391)	21.23	370.8	AC	[2004SUN/SON]
$C_{12}H_{14}Cl_2$	[79995-39-4]	cyclohexyl-3,4-dichlorobenzene				
	$\Delta_v H$	(383–488)	64.7	398		[1981GUS/KAS]
$C_{12}H_{14}Cl_2O_3$	[94-80-4]	2,4-dichlorophenoxyacetic acid, butyl ester				
	$\Delta_v H$	(444–573)	76.3	459	A	[1987STE/MAL, 1999DYK/SVO]
$C_{12}H_{14}Cl_2O_3$	[94-79-1]	2,4-dichlorophenoxyacetic acid, sec-butyl ester				
	$\Delta_v H$	(444–573)	74.2	459	A	[1987STE/MAL, 1999DYK/SVO]
$C_{12}H_{14}Cl_2O_4$	[74944-83-5]	2,4-dichlorophenoxyacetic acid, 2-ethoxyethyl ester				
	$\Delta_v H$	(443–503)	63.5	458	A	[1987STE/MAL]
$C_{12}H_{14}Cl_2O_4$	[36227-43-7]	2,4-dichlorophenoxyacetic acid, 4-hydroxybutyl ester				
	$\Delta_v H$	(443–503)	72.1	458	A	[1987STE/MAL]
$C_{12}H_{14}N_2O_5$	[131-89-5]	2-cyclohexyl-4,6-dinitrophenol				
	$\Delta_{fus}H$		28.03	378.7	DSC	[1969PLA/GLA]
	$\Delta_v H$	(405–565)	88.6	420	A	[1987STE/MAL, 1947STU]
$C_{12}H_{14}N_4O$	[2676-59-7]	3,3′,4′4′-tetraaminodiphenyl ether				
	$\Delta_{fus}H$		25.3	402.6		[1990DOM/HEA]
$C_{12}H_{14}N_4O_2S$	[na]	4-amino-N-[2,6-dimethyl-4-pyrimidinyl)benzene sulfonamide				
	$\Delta_{fus}H$		45.11	515.6		[1982MAR/MIR]
$C_{12}H_{14}N_4O_2S$	[515-64-0]	2,4-dimethyl-6-sulfamilamidopyrimidine (sulfisomidine)				
	$\Delta_{fus}H$		42.7	523.6	DTA	[1971SUN/EIS]
$C_{12}H_{14}N_4O_2S$	[55-68-1]	2-(4-aminobenzenesulfonamido)-4,6-dimethylpyrimidinesulfamethazine)				
	$\Delta_{fus}H$		39.2	469	DSC	[2003MAR/AVI, 2002MAR/GOM]
	$\Delta_{fus}H$		31.1	471.6	DTA	[1971SUN/EIS]
$C_{12}H_{14}O_2$	[946-38-3]	ethyl *cis*-2-phenylcyclopropanecarboxylate				
	$\Delta_v H$		70.7 ± 0.6	298	C	[1998KOL/PIM]
$C_{12}H_{14}O_2$	[946-39-4]	ethyl *trans*-2-phenylcyclopropanecarboxylate				
	$\Delta_{sub}H$		96.9 ± 0.4	298	C	[1998KOL/PIM]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{14}O_3$	[93-28-7]	1-acetoxy-2-methoxy-4-allylbenzene (eugenol acetate)				
	$\Delta_v H$	(374–555)	63.1	389	A	[1987STE/MAL, 1947STU]
$C_{12}H_{14}O_3$	[na]	4-methyl-1-phenyl-2,6,7-trioxabicyclo[2.2.2]octane				
	$\Delta_{fus}H$		20.9	410.2		[1995RAK/VER2]
$C_{12}H_{14}O_4$	[523-80-8]	4,7-dimethoxy-5-(2-propen-1-yl)-1,3-benzodioxole (apiol)				
	$\Delta_v H$	(389–558)	70.6	404	A	[1987STE/MAL]
$C_{12}H_{14}O_4$	[84-66-2]	diethyl phthalate				
	$\Delta_{fus}H$		17.99	269.9		[1996DOM/HEA]
	$\Delta_v H$		82.1 ± 0.5	298	EB,ME	[2004ROH/RUZ]
	$\Delta_v H$		87.4	298	EB,ME	[2004ROH/RUZ]
	$\Delta_v H$		74.6	426	BG	[1988KAT]
	$\Delta_v H$	(345–453)	77.9	360	A	[1987STE/MAL]
	$\Delta_v H$	(421–570)	59.1	436	A	[1987STE/MAL]
	$\Delta_v H$	(307–333)	86.8	310	GS	[1982GRA/FOS]
	$\Delta_v H$		81.1 ± 0.8	298	GCC	[1980FUC/PEA]
	$\Delta_v H$	(381–567)	65.9	396		[1947STU]
$C_{12}H_{14}O_4$	[636-09-9]	diethyl terephthalate				
	$\Delta_{fus}H$		24.69	317.2		[1996DOM/HEA]
$C_{12}H_{14}O_4$	[28153-24-4]	1,1-diacetoxy-1-phenylethane				
	$\Delta_{sub}H$	(308–338)	94.4 ± 2.2	318	GS	[1996VER/PEN]
$C_{12}H_{14}O_5$	[20733-94-2]	methyl 4-hydroxy-3,5-dimethoxycinnamate (methyl sinapate)				
	$\Delta_{fus}H$		29.85	361.8	DSC	[2010PAN/SAR]
$C_{12}H_{15}ClNO_4S_2$	[2310-17-0]	S-6-chloro-2,3-dihydro-2-oxobenzoxazol-3-ylmethyl O,O-diethylphosphorodithioate				
	$\Delta_{fus}H$		30.03	320	DSC	[1990DON/DRE]
$C_{12}H_{15}N$	[6247-00-3]	N,N-diallyl aniline				
	$\Delta_v H$	(421–513)	54.8	436	A	[1987STE/MAL]
$C_{12}H_{15}NO$	[4783-65-7]	1-benzyl-2-piperidone				
	$\Delta_v H$		91.3 ± 1.0	298	C	[2006RIB/CAB]
$C_{12}H_{15}NO$	[3612-20-2]	1-benzyl-4-piperidone				
	$\Delta_v H$		78.0 ± 0.8	298	C	[2006RIB/CAB]
$C_{12}H_{15}NO_2$	[na]	phenylaminoethyl methacrylate				
	$\Delta_{fus}H$		25.47	297.5		[1996DOM/HEA]
$C_{12}H_{15}NO_2S$	[21406-29-1]	N-benzoylthiocarbamic O-butyl ester				
	$\Delta_{sub}H$		120.7 ± 1.8	298	C	[2004RIB/SAN2]
$C_{12}H_{15}NO_3$	[1563-66-2]	2,3-dihydro-2,2-dimethylbenzofuran-7-yl methylcarbamate				
	$\Delta_{fus}H$		30.33	426.2	DSC	[1990DON/DRE]
$C_{12}H_{15}N_2O_3PS$	[13593-03-8]	O,O-diethyl O-quinoxalin-2-yl phosphothioate				
	$\Delta_{fus}H$		25.4	304.1	DSC	[1990DON/DRE]
$C_{12}H_{15}N_3O_2$	[5972-07-6]	3,6-*bis*(dimethylamino)phthalimide				
	$\Delta_{sub}H$	(400–457)	105	415	A	[1987STE/MAL]
	$\Delta_{sub}H$		135.3		RG	[1958KLO]
$C_{12}H_{15}N_3O_6$	[81-15-2]	2,4,6-trinitro-1,3-dimethyl-5-*tert*-butylbenzene				
	$\Delta_{sub}H$	(312–348)	100.4	327	A	[1987STE/MAL, 1956SER/VOI]
$C_{12}H_{15}N_5O_4$	[na]	9-[(2-acetoxyethoxy)methyl]-2-acetylamino-9*H*-purine				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		42.33	407.2		[1995KRI/VES]
$C_{12}H_{15}N_5O_5$	[75128-73-3]	9-[(2-acetoxyethoxy)methyl]-2-acetylamino-1,9-dihydro-6*H*-purin-6-one				
	$\Delta_{fus}H$		47.37	477.2		[1995KRI/VES]
$C_{12}H_{15}N_3O_6$	[81-15-2]	5-*tert*-butyl-2,4,6-trinitro-1,3-dimethylbenzene (musk xylene)				
	$\Delta_{fus}H$		20.79	386.7	DSC	[2004QU/BAI]
$C_{12}H_{16}$	[827-52-1]	cyclohexylbenzene				
	$\Delta_{fus}H$		15.3	280.5		[1996DOM/HEA]
	Δ_vH	(344–462)	60.8 ± 0.2	298	MM	[1998MOK/RAU, 2006VER]
	Δ_vH	(283–462)	60.4	298		[1993KAS/MOK]
	Δ_vH	(333–343)	56.4	348		[1990SOH/OKA]
	Δ_vH	(421–513)	51.3	436	A	[1987STE/MAL]
	Δ_vH		59.9 ± 0.3	298	C	[1978MON/ROS]
$C_{12}H_{16}$	[na]	dicyclohexadiene				
	Δ_vH	(377–505)	77.9	329	A	[1987STE/MAL]
$C_{12}H_{16}$	[2715-29-9]	2,5-diethylstyrene				
	Δ_vH	(322–496)	52.2	337	A	[1987STE/MAL, 1947STU]
$C_{12}H_{16}$	[5676-29-9]	*α*-*tert*-butylstyrene				
	Δ_vH	(298–318)	53.2 ± 0.1	298	GS	[1999VER/EBE]
$C_{12}H_{16}$	[2388-14-9]	1-isopropenyl-4-isopropylbenzene				
	Δ_vH	(403–479)	50.9	418	A	[1987STE/MAL]
$C_{12}H_{16}$	[24375-17-5]	tetraspiro[2.0.2.0.2.0.2.0]dodecane ([4] rotane)				
	$\Delta_{fus}H$		21	394.9	DSC	[1995BEC/RUC]
	$\Delta_{sub}H$	(298–338)	74.9 ± 0.5		GS	[1995BEC/RUC]
$C_{12}H_{16}Cl_2N_2O$	[555-37-3]	N-butyl-N′-(3,4-dichlorophenyl)-N-methylurea				
	$\Delta_{fus}H$		27.23	374.3	DSC	[1990DON/DRE]
$C_{12}H_{16}NO_2$	[2631-37-0]	5-isopropyl-*m*-tolyl methylcarbamate				
	$\Delta_{fus}H$		23.04	361.3	DSC	[1990DON/DRE]
$C_{12}H_{16}N_2OS$	[479578-80-8]	N-[(3-methoxyphenyl)methyl]-N′-2-propenylthiourea				
	$\Delta_{fus}H$		15.43	313	DSC	[2002ABB/WOH]
$C_{12}H_{16}N_2O_2$	[315-18-4]	4-dimethylamino-3,5-xylyl methylcarbamate				
	$\Delta_{fus}H$		18.37	361.7	DSC	[1990DON/DRE]
$C_{12}H_{16}N_2O_2$	[na]	N-benzoyl-N′,N′-diethylurea				
	$\Delta_{sub}H$		132.2 ± 2.8	298	C	[2000RIB/RIB]
$C_{12}H_{16}N_2O_4$	[na]	2,4-dinitro-1,3-dimethyl-5-*tert*-butylbenzene				
	$\Delta_{fus}H$		16.68	340.4		[2004QU/BAI]
$C_{12}H_{16}N_2O_4$	[90429-36-0]	pentyl N-(4-nitrophenyl) carbamate				
	$\Delta_{fus}H$		25.98	363.8	DSC	[1993TIE/FRA]
$C_{12}H_{16}N_2O_5$	[83-66-9]	1-methyl-4-*tert*-butyl-3-methoxy-2,6-dinitrobenzene				
	$\Delta_{sub}H$	(293–353)	102.9			[1953SER/VOI, 1960JON]
$C_{12}H_{16}N_3O_3PS_2$	[2642-71-9]	azinphos-ethyl				
	$\Delta_{sub}H$	(326–420)	86.8	341	A	[1987STE/MAL]
$C_{12}H_{16}N_3O_3PS_2$	[2642-71-9]	S-(3,4-dihydro-4-oxobenzo[d]-[1,2,3]-triazin-3-ylmethyl) O,O-diethylphoshorodithioate				
	$\Delta_{fus}H$		25.22	322.2	DSC	[1990DON/DRE]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{16}N_3O_6S$	[4726-14-1]	4-methylsulphonyl-2,6-dinitro-N,N-dipropylaniline				
	$\Delta_{fus}H$		28.05	424.3	DSC	[1990DON/DRE]
$C_{12}H_{16}O_2$	[2049-96-9]	pentyl benzoate				
	Δ_vH	(395–492)	85.9	410	A	[1987STE/MAL]
$C_{12}H_{16}O_2$	[94-46-2]	isopentyl benzoate				
	Δ_vH	(345–535)	51.6	360	A	[1987STE/MAL, 1947STU]
$C_{12}H_{16}O_2$	[94-46-2]	ethyl 2-phenylbutyrate				
	Δ_vH	(404–489)	56.0	419	A	[1987STE/MAL]
$C_{12}H_{16}O_2$	[na]	benzaldehyde 2,2-dimethylpropylene glycol acetal				
	$\Delta_{fus}H$		18.6	307.6		[1995VER/DOG]
$C_{12}H_{16}O_2$	[26311-45-5]	4-pentylbenzoic acid				
	$\Delta_{trs}H$ *(liq cryst)*		2.6	252		
	$\Delta_{trs}H$ *(liq cryst)*		9.9	362		
	$\Delta_{trs}H$ *(liq cryst-to-liq)*		1.5	395		[1985PRI/PUC]
	$\Delta_{sub}H$	(341–357)	118.2 ± 1.0	298	ME	[2004MON/ALM]
$C_{12}H_{16}O_2$	[2243-32-5]	pentamethylbenzoic acid				
	$\Delta_{sub}H$	(347–363)	111.5 ± 1.7	355	ME	[1988COL/JIM]
	$\Delta_{sub}H$		113.4 ± 1.8	298		[1988COL/JIM]
$C_{12}H_{16}O_3$	[2050-08-0]	pentyl salicylate				
	Δ_vH	(402–540)	66.5	417	A	[1987STE/MAL]
$C_{12}H_{16}O_3$	[87-20-7]	isopentyl salicylate				
	Δ_vH	(287–329)	73.0	302	A, ME	[1987STE/MAL, 1955SER/VOI]
$C_{12}H_{16}O_3$	[15872-41-0]	4-pentoxybenzoic acid				
	$\Delta_{trs}H$ *(liq cryst)*		21.76	398.2		
	$\Delta_{trs}H$ *(liq cryst-to-liq)*		2.09	422.2		[1967HER]
$C_{12}H_{16}O_3$	[63905-22-6]	(racemic) 3-(2-allylphenoxy)-propane-1,2-diol				
	$\Delta_{fus}H$		27.8	314.9	DSC	[2008BRE/BRE]
$C_{12}H_{16}O_3$	[476169-18-3]	(S)-3-(2-allylphenoxy)-propane-1,2-diol				
	$\Delta_{fus}H$		28.8	331.2	DSC	[2008BRE/BRE]
$C_{12}H_{16}O_4$	[14174-08-4]	benzo-12-crown-4				
	$\Delta_{sub}H$		104.3 ± 2.6	298	CGC-DSC	[2000NIC/ORF]
	Δ_vH		82.7 ± 2.3	298	CGC	[2000NIC/ORF]
$C_{12}H_{16}O_4$	[25762-98-5]	2,5-dipropoxy-1,4-benzoquinone				
	$\Delta_{trs}H$		8.6	357		
	$\Delta_{fus}H$		33.6	460.8	DSC	[1996KEE/VAN]
$C_{12}H_{16}O_6$	[na]	α-phenoxy-α-(*d*)-glucopyranoside				
	$\Delta_{fus}H$		39.0	429.2		[1996SCH]
$C_{12}H_{17}N$	[31252-42-3]	4-benzylpiperidine				
	Δ_vH		74.2 ± 1.0	298	C	[2007RIB/CAB]
$C_{12}H_{17}NO$	[91-49-6]	N-butylacetanilide				
	Δ_vH	(443–653)	60.2	458	A	[1987STE/MAL]
$C_{12}H_{17}NO$	[2431-96-1]	N,N-diethyl-2-phenylacetamide				
	Δ_vH	(404–460)	82.8	419	A	[1987STE/MAL, 1969DAV/MAK]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound				
	Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{17}NO$	[52486-76-7]	2-(dimethylamino)-2-methyl-1-phenylpropanone				
	$\Delta_v H$	(298–338)	66.7 ± 0.4	298	GS	[1994WEL/VER]
$C_{12}H_{17}NO$	[4061-29-4]	2-(diethylamino)-1-phenylethanone				
	$\Delta_v H$	(293–338)	71.6 ± 0.9	298	GS	[1994WEL/VER]
$C_{12}H_{17}NO_2$	[91563-76-7]	1-nitro-2,6-diisopropylbenzene				
	$\Delta_{fus}H$		12.51	301.2	DSC	[2000VER/HEI]
	$\Delta_{sub}H$	(279–294)	81.0 ± 1.0	286	GS	[2000VER/HEI]
	$\Delta_{sub}H$	(279–294)	80.6 ± 1.0	298	GS	[2000VER/HEI]
	$\Delta_v H$	(308–343)	66.9 ± 0.6	326	GS	[2000VER/HEI]
	$\Delta_v H$	(308–343)	68.4 ± 0.6	298	GS	[2000VER/HEI]
$C_{12}H_{17}NO_2$	[13110-37-7]	pentyl 4-aminobenzoate				
	$\Delta_{fus}H$		23.93	325.1		[1991ACR]
$C_{12}H_{17}NO_2S_2$	[949171-67-9]	N-theonylthiocarbamic-O-hexyl ester				
	$\Delta_{fus}H$		22.48	346.4	DSC	[2007RIB/MON]
	$\Delta_{sub}H$		180.1 ± 3.0	298	C	[2007RIB/MON]
$C_{12}H_{17}N_3O_3$	[105910-97-2]	1-pentyl-3-(4-nitrophenyl) urea				
	$\Delta_{fus}H$		19.85	404.2	DSC	[1993TIE/FRA]
$C_{12}H_{17}N_3S$	[na]	N-(diethylaminothiocarbonyl)benzamideine				
	$\Delta_{sub}H$		126.0 ± 1.5	298	C	[2004RIB/SAN]
$C_{12}H_{18}$	[4904-61-4]	1-*cis*-5-*trans*-9-*trans*-cyclododecatriene				
	$\Delta_v H$	(344–387)	49.9	359	A	[1987STE/MAL]
	$\Delta_v H$	(400–423)	60.0	411	A	[1987STE/MAL]
	$\Delta_v H$	(426–503)	47.8	441	A	[1987STE/MAL]
$C_{12}H_{18}$	[706-31-0]	1-*trans*-5-*trans*-9-*cis*-cyclododecatriene				
	$\Delta_v H$	(286–373)	68.0	301	A	[1987STE/MAL]
$C_{12}H_{18}$	[1077-16-3]	hexylbenzene				
	$\Delta_v H$		60.2	298		[1994RUZ/ZAB]
	$\Delta_v H$	(274–463)	61.6	289		[1993KAS/MOK]
	$\Delta_v H$		60.0	298		[1971WIL/ZWO]
$C_{12}H_{18}$	[577-55-9]	1,2-diisopropylbenzene				
	$\Delta_v H$	(388–476)	48.9	403	A	[1987STE/MAL]
$C_{12}H_{18}$	[99-62-7]	1,3-diisopropylbenzene				
	$\Delta_v H$	(283–318)	56.0 ± 0.8	301	GS	[1998VER7]
	$\Delta_v H$	(283–318)	56.2 ± 0.8	298	GS	[1998VER7]
	$\Delta_v H$	(387–477)	48.9	402	A	[1987STE/MAL]
$C_{12}H_{18}$	[100-18-5]	1,4-diisopropylbenzene				
	$\Delta_v H$	(366–530)	50.7 ± 0.2	400	EB	[2002STE/CHI6]
	$\Delta_v H$	(366–530)	46.3 ± 0.3	440	EB	[2002STE/CHI6]
	$\Delta_v H$	(366–530)	43.0 ± 0.5	480	EB	[2002STE/CHI6]
	$\Delta_v H$	(366–530)	39.3 ± 0.9	520	EB	[2002STE/CHI6]
	$\Delta_v H$	(283–318)	56.3 ± 0.3	301	GS	[1998VER7]
	$\Delta_v H$	(283–318)	56.5 ± 0.3	298	GS	[1998VER7]
	$\Delta_v H$	(393–485)	47.6	408	A	[1987STE/MAL]
	$\Delta_v H$	(393–485)	48.9	408		[1959MCD/SHR, 1984BOU/FRI]
$C_{12}H_{18}$	[98-19-1]	1,3-dimethyl-5-*tert*-butylbenzene				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(284–318)	56.5 ± 0.6	301	GS	[1998VER]
	$\Delta_v H$		56.6 ± 0.6	298		[1998VER]
	$\Delta_v H$	(253–443)	59.8	268		[1993KAS/MOK]
$C_{12}H_{18}$	[87-85-4]	hexamethylbenzene				
	$\Delta_{trs}H$		1.76	383.7		
	$\Delta_{fus}H$		20.63	438.7		[1996DOM/HEA, 1932SPA/THO]
	$\Delta_{sub}H$		80		TGA	[1997GIL/BOT]
	$\Delta_{sub}H$		81.4 ± 0.1	298	C	[1994SAB/TAB]
	$\Delta_{sub}H$	(288–304)	85.0 ± 0.2	298	ME	[1989COL/JIM]
	$\Delta_{sub}H$		74.9 ± 0.6		DSC	[1984HOL]
	$\Delta_{sub}H$	(303–338)	85.2	320	A	[1976AMB/LAW]
	$\Delta_{sub}H$		86.1	298	H	[1976AMB/LAW, 1993CHI/HOS]
	$\Delta_{sub}H$	(314–364)	83.2	329	A	[1969OVE/STE]
	$\Delta_{sub}H$		74.7 ± 2		ME	[1965FRA/AST, 1970COX/PIL]
	$\Delta_{sub}H$		80.8			[1957VAN, 1960JON]
	$\Delta_{sub}H$		80.8			[1949NIT/SEK]
	$\Delta_v H$		68.6	298	CGC	[2008ZHA/UNH]
	$\Delta_v H$	(443–537)	56.8	458	A	[1987STE/MAL]
$C_{12}D_{18}$	[4342-40-9]	hexamethylbenzene-d_{18}				
	$\Delta_v H$		68.2	298	CGC	[2008ZHA/UNH]
($C_{12}H_{18}$) –($C_6H_3N_2ClO_4$)	[57230-36-1]	(hexamethylbenzene)- (picryl chloride)				
	$\Delta_{sub}H$		93.7			[1949NIT/SEK]
$C_{12}H_{18}$	[877-44-1]	1,2,4-triethylbenzene				
	$\Delta_v H$	(319–491)	51.2	334	A	[1987STE/MAL, 1947STU]
$C_{12}H_{18}$	[102-25-0]	1,3,5-triethylbenzene				
	$\Delta_v H$	(371–534)	59.2 ± 0.3	298	EB	[1997STE/CHI2]
$C_{12}H_{18}$	[10222-95-4]	1,2,4-trimethyl-5-isopropylbenzene				
	$\Delta_v H$		64.9	298		[1975VIL/PER]
$C_{12}H_{18}$	[6902-73-4]	2-isopropenyl-1-methyl-1-vinyl-3-cyclohexane				
	$\Delta_v H$	(348–404)	47.8	363	A	[1987STE/MAL]
$C_{12}H_{18}$	[676-22-2]	*E,E,E-1,5,9*-cyclododecatriene				
	$\Delta_{sub}H$	(273–307)	75.2	288	A	[1987STE/MAL]
	$\Delta_{sub}H$		74.7 ± 0.8			[1973RAU/GEY, 1977PED/RYL]
$C_{12}H_{18}ClNO$	[41570-61-0]	2-chloro-α-[[(1,1-dimethylethyl)amino]methyl]benzenemethanol (tulobuterol)				
	$\Delta_{fus}H$ *(I)*		27.1	364		
	$\Delta_{fus}H$ *(II)*		25.4	354	DSC	[2004CAI/BOU]
$C_{12}H_{18}Cl_2NOPS$	[42585-08-0]					
	$\Delta_v H$	(309–363)	62.6	324	A	[1987STE/MAL]
$C_{12}H_{18}N_2O$	[34123-59-6]	N,N-dimethyl-N′-[4-(1-methylethyl)phenyl]urea				
	$\Delta_{fus}H$		33.87	430.4	DSC	[1991ACR]
$C_{12}H_{18}N_2O$	[34123-59-6]	N′-(p-cumenyl)-N,N-dimethylurea (isoproturon)				
	$\Delta_{fus}H$		21.33	427.4		[2003YU/TAN2]
$C_{12}H_{18}N_2O_2$	[315-18-4]	3,5-dimethyl-4-(dimethylamino)phenyl methylcarbamate				
	$\Delta_{fus}H$		18.37	361.7	DSC	[1991ACR, 1990DON/DRE]
$C_{12}H_{18}N_2O_2S_2$	[120563-92-0]	N-isopropyl-S-methyl-N′-tosylisothiourea				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		32.7	392.2	DSC	[1992REI/HAN]
$C_{12}H_{18}N_2O_2S_2$	[145198-68-1]	N-ethyl-S-ethyl-N′-tosylisothiourea				
	$\Delta_{fus}H$		30.3	390.2	DSC	[1992REI/HAN]
$C_{12}H_{18}N_2O_3$	[76-73-3]	5-(1-methylbutyl)-5-(2-propen-1-yl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione (secobarbital)				
	$\Delta_{fus}H$		22.9	371.8	DSC	[2008WAS/HOL]
$C_{12}H_{18}N_2O_3S$	[64-77-7]	3-(p-tolyl-4-sulfonyl)-1-butyl urea (tolbutamide)				
	$\Delta_{fus}H$		27.2	400.2	DSC	[1999KIM/HIR]
	$\Delta_{fus}H$		25.61	404.8		[1982MAR/MIR]
$C_{12}H_{18}N_4O_2$	[35873-41-7]	8-pentyltheophylline				
	$\Delta_{fus}H$		35.1	498.4		[1991ACR]
$C_{12}H_{18}N_4O_6S$	[19044-88-3]	4-(N,N-dipropylamino)-3,5-dinitrobenzenesulphonamide				
	$\Delta_{fus}H$		38.48	414.8	DSC	[1990DON/DRE]
$C_{12}H_{18}O$	[4157-77-1]	(1-butoxyethyl)benzene				
	Δ_vH	(278–318)	59.8 ± 0.3	298	GS	[2001VER/HEI]
$C_{12}H_{18}O$	[6857-85-1]	R,S (1-sec-butoxyethyl)benzene				
	Δ_vH	(296–332)	58.7 ± 0.5	298	GS	[2002KRA/VAS, 2002VER/HEI]
$C_{12}H_{18}O$	[8760-63-8]	S,S (1-sec-butoxyethyl)benzene				
	Δ_vH	(297–332)	59.1 ± 0.5	298	GS	[2002KRA/VAS, 2002BAE/SHI2]
$C_{12}H_{18}O$	[24142-77-6]	propyl cumyl ether				
	Δ_vH	(278–325)	59.1 ± 0.2	302	GS	[2001VER/HEI2]
	Δ_vH	(278–325)	59.3 ± 0.2	298	GS	[2001VER/HEI2]
$C_{12}H_{18}O$	[6382-14-5]	benzyl pentyl ether				
	Δ_vH	(363–512)	50.8	378	A	[1987STE/MAL, 1969KRO]
$C_{12}H_{18}O$	[2934-05-6]	2,4-diisopropylphenol				
	Δ_vH	(395–528)	58.4	410	A	[1987STE/MAL]
$C_{12}H_{18}O$	[2078-54-8]	2,6-diisopropylphenol				
	$\Delta_{fus}H$		14.64	292.8		[1975BER/PER]
	Δ_vH	(293–328)	67.9 ± 0.3	310	GS	[1999VER]
	Δ_vH		68.7 ± 0.3	298		[1999VER]
$C_{12}H_{18}O$	[26886-05-5]	3,5-diisopropylphenol				
	$\Delta_{fus}H$		12.13	326.3		[1975BER/PER]
$C_{12}H_{18}O$	[68189-19-5]	2,3-dimethyl-4-*tert*-butylphenol				
	Δ_vH	(418–523)	60.2	433	A	[1987STE/MAL]
$C_{12}H_{18}O$	[46170-85-8]	2,3-dimethyl-6-*tert*-butylphenol				
	Δ_vH	(412–525)	60.0	427	S	[1987STE/MAL]
$C_{12}H_{18}O$	[1879-09-0]	2,4-dimethyl-6-*tert*-butylphenol				
	Δ_vH	(304–333)	67.2 ± 0.8	318	GS	[1999VER]
	Δ_vH		68.4 ± 0.8	298		[1999VER]
	Δ_vH	(388–522)	58.4	403	A	[1987STE/MAL]
	Δ_vH	(344–535)	54.4	348		[1953STA/MUL]
	Δ_vH	(344–535)	52.7	373		[1953STA/MUL]
	Δ_vH	(344–535)	51.7	398		[1953STA/MUL]
	Δ_vH	(344–535)	49.7	423		[1953STA/MUL]
	Δ_vH	(344–535)	45.4	473		[1953STA/MUL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{18}O$	[17696-37-6]	2,5-dimethyl-4-*tert*-butylphenol				
	$\Delta_v H$	(408–538)	61.7	423	A	[1987STE/MAL]
	$\Delta_v H$	(361–548)	62.0	373		[1953STA/MUL]
	$\Delta_v H$	(361–548)	59.4	398		[1953STA/MUL]
	$\Delta_v H$	(361–548)	57.1	423		[1953STA/MUL]
	$\Delta_v H$	(361–548)	52.8	473		[1953STA/MUL]
$C_{12}H_{18}O$	[879-97-0]	2,6-dimethyl-4-*tert*-butylphenol				
	$\Delta_v H$	(392–522)	59.7	407	A	[1987STE/MAL]
	$\Delta_v H$	(347–530)	58.4	348		[1953STA/MUL]
	$\Delta_v H$	(347–530)	57.0	373		[1953STA/MUL]
	$\Delta_v H$	(347–530)	55.4	398		[1953STA/MUL]
	$\Delta_v H$	(347–530)	54.2	423		[1953STA/MUL]
	$\Delta_v H$	(347–530)	49.3	473		[1953STA/MUL]
$C_{12}H_{18}O$	[1445-23-4]	3,4-dimethyl-6-*tert*-butylphenol				
	$\Delta_v H$	(413–532)	62.7	428	A	[1987STE/MAL]
$C_{12}H_{18}O$	[63452-61-9]	2-ethyl-4-*tert*-butylphenol				
	$\Delta_v H$	(428–623)	61.6	443	A	[1987STE/MAL]
	$\Delta_v H$	(397–543)	55.4	398		[1953STA/MUL]
	$\Delta_v H$	(397–543)	54.2	423		[1953STA/MUL]
	$\Delta_v H$	(397–543)	49.3	473		[1953STA/MUL]
$C_{12}H_{18}O$	[63551-41-7]	2-ethyl-6-*tert*-butylphenol				
	$\Delta_v H$	(393–443)	58.2	408	A	[1987STE/MAL]
$C_{12}H_{18}O$	[4237-25-6]	3-ethyl-6-*tert*-butylphenol				
	$\Delta_v H$	(415–530)	59.5	430	A	[1987STE/MAL]
$C_{12}H_{18}O$	[96-70-8]	4-ethyl-2-*tert*-butylphenol				
	$\Delta_v H$	(394–523)	59.2	409	A	[1987STE/MAL]
	$\Delta_v H$	(349–533)	57.0	373		[1953STA/MUL]
	$\Delta_v H$	(349–533)	55.4	398		[1953STA/MUL]
	$\Delta_v H$	(349–533)	54.2	423		[1953STA/MUL]
	$\Delta_v H$	(349–533)	49.3	473		[1953STA/MUL]
$C_{12}H_{18}O$	[71745-63-6]	2-methyl-4-*tert*-pentylphenol				
	$\Delta_v H$	(443–653)	65.6	458	A	[1987STE/MAL]
	$\Delta_v H$	(409–561)	55.3	423		[1953STA/MUL]
	$\Delta_v H$	(409–561)	50.7	473		[1953STA/MUL]
$C_{12}H_{18}O$	[na]	3-methyl-4-*tert*-pentylphenol				
	$\Delta_v H$	(443–683)	65.1	458	A	[1987STE/MAL]
	$\Delta_v H$	(409–561)	55.3	423		[1953STA/MUL]
	$\Delta_v H$	(409–561)	50.7	473		[1953STA/MUL]
$C_{12}H_{18}O$	[34072-71-4]	4-methyl-2-*tert*-pentylphenol				
	$\Delta_v H$	(423–653)	61.4	438	A	[1987STE/MAL]
	$\Delta_v H$	(394–538)	58.1	398		[1953STA/MUL]
	$\Delta_v H$	(394–538)	55.3	423		[1953STA/MUL]
	$\Delta_v H$	(394–538)	50.7	473		[1953STA/MUL]
$C_{12}H_{18}O$	[1660-04-4]	1-adamantyl methyl ketone				
	$\Delta_{sub}H$	(287–305)	84.2 ± 0.6	298	ME	[1992ABB/JIM2]
$C_{12}H_{18}O$	[7273-98-5]	*exo*-4-hydroxy-*endo*-*endo*-tetracyclo[6.2.1. 1.^{3,6}.0^{2,7}]dodecane				
	$\Delta_{sub}H$	(303–343)	79.0 ± 2.5	298	TSGC	[1980STE]
$C_{12}H_{18}O$	[107133-43-7]	*exo*-4-hydroxy-*exo*-*endo*-tetracyclo[6.2.1.1.^{3,6}.0^{2,7}]dodecane				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(323–353)	74.3 ± 1.8		TSGC	[1980STE]
	$\Delta_{sub}H$		76.3 ± 2.0	298		[1980STE]
$C_{12}H_{18}O$	[74007-11-7]	*exo*-4-hydroxy-*exo*-*exo*-tetracyclo[6.2.1. 1.^{3,6}.0^{2,7}]dodecane				
	$\Delta_{sub}H$	(313–353)	73.9 ± 2		TSGC	[1980STE]
	$\Delta_{sub}H$		75.9 ± 2.2	298		[1980STE]
$C_{12}H_{18}O$	[na]	2-(1′-cyclohexenyl)cyclohexanone				
	$\Delta_{fus}H$		17.26	278.8		[1992MAR/KOZ]
$C_{12}H_{18}O_2$	[5673-09-6]	1,3-dihydroxy-2-hexylbenzene				
	$\Delta_{v}H$	(433–494)	76.8	448	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{12}H_{18}O_2$	[136-77-6]	1,3-dihydroxy-4-hexylbenzene				
	$\Delta_{fus}H$		19.04	341.5		[1991ACR]
	$\Delta_{v}H$	(434–494)	88.1	449	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{12}H_{18}O_2$	[711-01-3]	1-adamantyl-1-carboxylic acid methyl ester				
	$\Delta_{sub}H$	(267–283)	84.3 ± 0.6	275	ME	[1992ABB/JIM]
	$\Delta_{sub}H$		82.4 ± 0.6	298		[1992ABB/JIM]
$C_{12}H_{18}O_2$	[na]	*trans-syn-trans* decahydro-3-hydroxy-2-naphthalene acetic γ-lactone				
	$\Delta_{sub}H$	(240–310)	NA		ME	[1957SPI]
$C_{12}H_{18}O_2$	[na]	*trans-anti-trans* decahydro-3-hydroxy-2-naphthalene acetic γ-lactone				
	$\Delta_{sub}H$	(240–310)	NA		ME	[1957SPI]
$C_{12}H_{18}O_3$	[63911-78-6]	(racemic) 3-(2-propylphenoxy)-propane-1,2-diol				
	$\Delta_{fus}H$		29.5	326.5	DSC	[2008BRE/BRE]
$C_{12}H_{18}O_3$	[1092799-99-9]	(R)-3-(2-propylphenoxy)-propane-1,2-diol				
	$\Delta_{fus}H$		31.9	340.5	DSC	[2008BRE/BRE]
$C_{12}H_{18}O_3$	[204583-98-2]	(racemic) 3-(2-isopropylphenoxy)-propane-1,2-diol				
	$\Delta_{fus}H$		31.5	353.7	DSC	[2008BRE/BRE]
$C_{12}H_{18}O_3$	[204584-38-3]	(R)-3-(2-isopropylphenoxy)-propane-1,2-diol				
	$\Delta_{fus}H$		30.6	345	DSC	[2008BRE/BRE]
$C_{12}H_{18}O_4$	[532-34-3]	3,4-dihydro-2,2-dimethyl-4-oxo-2H-pyran-6-carboxylic acid, butyl ester				
	$\Delta_{v}H$	(357–435)	64.7	372	A	[1987STE/MAL]
$C_{12}H_{18}O_6$	[na]	triethyl aconitrate				
	$\Delta_{v}H$	(423–540)	79.6	438	A	[1987STE/MAL]
$C_{12}H_{18}O_6$	[na]	R,R,R-4,8,12-trimethyl-1,5,9-trioxacyclododeca-2,6,10-trione				
	$\Delta_{fus}H$		21.51	380.2		[1996LEB/BYK]
$C_{12}H_{19}ClNO_3P$	[299-86-5]	N-methyl O-methyl O-2-chloro-4-*tert*-butylphenylphosphoramidate				
	$\Delta_{fus}H$		21.98	332	DSC	[1990DON/DRE]
$C_{12}H_{19}F_3N_2O_4$	[na]	N-[(N-trifluoroacetyl)valyl]alanine ethyl ester				
	$\Delta_{sub}H$	(323–424)	115.5	338	A	[1987STE/MAL, 1960WEY/KLI]
$C_{12}H_{19}N$	[24544-04-5]	2,6-diisopropylaniline				
	$\Delta_{v}H$	(284–323)	69.2 ± 0.3	303		[2000VER3]
	$\Delta_{v}H$		69.5 ± 0.3	298		[2000VER3]
$C_{12}H_{19}N$	[202925-84-6]	N-methyl-3-methyl-3-phenyl-2-butaneamine				
	$\Delta_{v}H$	(283–330)	67.0 ± 0.8	307	GS	[1998VER/BEC]
	$\Delta_{v}H$	(283–330)	67.5 ± 0.8	298	GS	[1998VER/BEC]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{19}F_3N_2O_4$	[na]	N-[N-(trifluoroacetyl)valyl]alanine ethyl ester				
	$\Delta_v H$	(425–453)	86.4	439	A	[1987STE/MAL, 1999DYK/SVO]
$C_{12}H_{20}$	[770-69-4]	1-ethyladamantane				
	$\Delta_{fus}H$	(8–373)	11.28	225.6	AC	[2005VAR/DRU]
	$\Delta_v H$		55.3 ± 1.1	298		[2000MEL/PIM]
	$\Delta_v H$	(383–492)	49.1	398	A	[1987STE/MAL]
$C_{12}H_{20}$	[707-79-4]	1,3-dimethyladamantane				
	$\Delta_{trs}H$	(8–373)	9.31	223.4		
	$\Delta_{fus}H$	(8–373)	1.54	247.8	AC	[2005VAR/DRU]
	$\Delta_{trs}H$		7.65	221		
	$\Delta_{fus}H$		0.94	244	DSC	[1980ARN/SCH]
	$\Delta_{trs}H$		7.36	221		
	$\Delta_{fus}H$		0.92	245		[1977CLA/KNO]
	$\Delta_{sub}H$		67.8 ± 1.3	298	EB	[1977STE/WAT]
	$\Delta_v H$		49.2 ± 0.2	308	C	[2001VAN/PAS]
	$\Delta_v H$		49.7 ± 0.2	298	C	[2001VAN/PAS]
	$\Delta_v H$	(352–526)	49.4 ± 0.3	298	EB	[1996STE/CHI]
	$\Delta_v H$	(352–526)	45.9 ± 0.3	360	EB	[1996STE/CHI]
	$\Delta_v H$	(352–526)	43.7 ± 0.3	400	EB	[1996STE/CHI]
	$\Delta_v H$	(352–526)	41.5 ± 0.3	440	EB	[1996STE/CHI]
	$\Delta_v H$	(352–526)	39.1 ± 0.3	480	EB	[1996STE/CHI]
	$\Delta_v H$	(352–526)	36.4 ± 0.3	520	EB	[1996STE/CHI]
$C_{12}H_{20}$	[19740-34-2]	2,2-dimethyladamantane				
	$\Delta_{sub}H$	(300–360)	73.6 ± 1.3	298	BG	[1977STE/WAT]
$C_{12}H_{20}N_2$	[3867-15-0]	1-(1-piperidinyl)cyclohexanecarbonitrile				
	$\Delta_{fus}H$		25.44	339.2		[1997WEL/VER]
	$\Delta_{sub}H$		87.8 ± 0.6	298		[1997WEL/VER]
$C_{12}H_{20}N_2$	[4543-66-2]	dodecanedinitrile				
	$\Delta_{fus}H$		34.33	294.2	DSC	[2007BAD/BLA]
$C_{12}H_{20}N_2O_2$	[6310-76-5]	N,N′-ethylene*bis*(4-aminopent-3-ene-2-one)				
	$\Delta_{sub}H$	(358–374)	128.2 ± 0.7	366	ME	[1995RIB/RIB]
	$\Delta_{sub}H$	(358–374)	131.6	298	ME	[1995RIB/RIB]
$C_{12}H_{20}N_2O_2$	[63254-50-2]	(1R,2S,5R)-2-isopropyl-5-methylcyclohexyl diazoacetate				
	$\Delta_{fus}H$		17.2	320.4		[2000DI/TAN2]
$C_{12}H_{20}N_4O_2$	[51235-04-2]	3-cyclohexyl-6-(dimethylamino)-1-methyl-1,3,5-triazine-2,4(1*H*,3*H*)-dione				
	$\Delta_{fus}H$		20.36	389.6	DSC	[1990DON/DRE]
$C_{12}H_{20}O$	[4789-40-6]	2,5-di-*tert*-butylfuran				
	$\Delta_v H$	(274–323)	56.1 ± 1.1	298	GS	[1998VER/WEL]
$C_{12}H_{20}O$	[90-42-6]	2-cyclohexylcyclohexanone				
	$\Delta_{fus}H$		18.0	277		[1992MAR/KOZ]
$C_{12}H_{20}O_2$	[76-49-3]	bornyl acetate				
	$\Delta_v H$	(319–496)	50.8	334	A	[1987STE/MAL, 1947STU]
$C_{12}H_{20}O_2$	[105-87-3]	geranyl acetate				
	$\Delta_v H$	(346–516)	58.1	361	A	[1987STE/MAL, 1947STU]
$C_{12}H_{20}O_2$	[125-12-2]	isobornyl acetate				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(404–450)	56.1	419	A	[1987STE/MAL]
$C_{12}H_{20}O_2$	[na]	bicyclo[2,2,1]heptane-7-one 2,2-dimethylpropylene acetal				
	$\Delta_v H$	(293–323)	60.5 ± 0.9	298	GS	[2002VER]
$C_{12}H_{20}O_2$	[115-95-7]	3,7-dimethyl-1,6-octadien-3-ol acetate (linalyl acetate)				
	$\Delta_v H$	(281–490)	57.8	296	A	[1987STE/MAL]
	$\Delta_v H$	(328–493)	56.8	343		[1947STU]
$C_{12}H_{20}O_2$	[80-26-2]	terpineol acetate				
	$\Delta_v H$	(310–424)	68.1	325	A	[1987STE/MAL]
$C_{12}H_{20}O_2$	[217467-40-8]	bicyclo[2.2.1]heptane-7-one 2,2-dimethylpropylene ketal				
	$\Delta_{fus}H$		23.9	346.7		[1998VER/PEN]
	$\Delta_{sub}H$		84.0 ± 0.9	298		[1998VER/PEN]
$C_{12}H_{20}O_2$	[10329-90-5]	1,7-cyclododecanedione				
	$\Delta_{fus}H$		15.77	405.2		[1972ALV/BOR]
$C_{12}H_{20}O_2$	[28746-99-8]	2-(1′-hydroxycyclohexyl)cyclohexanone				
	$\Delta_{fus}H$	(5–310)	20.81	306.8	DSC	[2006SHE/KAB]
$C_{12}H_{20}O_3$	[49540-29-6]	3,3,6,6-tetramethyoctanedioic anhydride				
	$\Delta_{fus}H$		18.83	344.2		[1974BOR]
$C_{12}H_{20}O_4$	[na]	1,5-cyclooctanedione *bis* ethylene ketal				
	$\Delta_{fus}H$		18.03	296.2		[1972ALV/BOR]
$C_{12}H_{20}O_4$	[105-76-0]	dibutyl maleate				
	$\Delta_v H$	(255–550)	41.1	270	A	[1987STE/MAL]
$C_{12}H_{20}O_5$	[na]	2-ethoxycarbonylpropionic acid, cyclohexyl ester				
	$\Delta_v H$	(388–523)	67.6	403	A	[1987STE/MAL]
$C_{12}H_{20}O_6$	[139-45-7]	tripropionin				
	$\Delta_v H$		91.4 ± 0.4	298	C	[1986NIL/WAD]
$C_{12}H_{20}O_7$	[77-93-0]	triethyl citrate				
	$\Delta_v H$	(380–567)	68.2	395	A	[1987STE/MAL]
$C_{12}H_{20}S$	[880-36-4]	2-octylthiophene				
	$\Delta_v H$		65.4 ± 1.4	298	C	[2007RIB/SAN]
$C_{12}H_{20}S$	[65016-62-8]	3-octylthiophene				
	$\Delta_v H$		67.6 ± 1.5	298	C	[2007RIB/SAN]
$C_{12}H_{21}O_4P$	[na]	trimethyallyl phosphate				
	$\Delta_v H$	(367–597)	53.9	381		[1947STU]
$C_{12}H_{21}N_2O_3PS$	[333-41-5]	diazinon				
	$\Delta_v H$	(293–398)	87.4	308	A	[1987STE/MAL, 1999DYK/SVO]
$C_{12}H_{22}$	[92-51-3]	*cis* bicyclohexyl				
	$\Delta_v H$	(331–511)	53.8	346	A	[1987STE/MAL]
$C_{12}H_{22}$	[92-51-3]	bicyclohexyl				
	$\Delta_{trs}H$	(6–440)	3.7	267.4		
	$\Delta_{trs}H$	(6–440)	7.26	273		
	$\Delta_{fus}H$	(6–440)	6.86	276.8	AC	[1998CHI/COW]
	$\Delta_{trs}H$		1.54	256.1		
	$\Delta_{trs}H$		0.74	267.5		

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		7.08	273.5		
	$\Delta_{fus}H$		6.78	277.2	DSC	[1996DOM/HEA, 1983ORO/MRA]
	Δ_vH		50.1	435		[1981WIE/KOB]
	Δ_vH		42.5	525		[1981WIE/KOB]
	Δ_vH		58.0 ± 0.2	298	C	[1978MON/ROS]
	Δ_vH		58.5 ± 0.6	298	C	[1978MAN, 1978MON/ROS]
$C_{12}H_{22}$	[6975-99-1]	6-dodecyne				
	Δ_vH	(373–388)	60.9	380	A	[1987STE/MAL]
$C_{12}H_{22}$	[na]	perhydroacenaphthylene				
	Δ_vH	(422–514)	49.6	437	EB	[2000ROH/CEN]
$C_{12}H_{22}Cl_4$	[210115-98-3]	1,2,11,12-tetrachlorododecane				
	Δ_vH		81.9			[1998DRO/TOM]
$C_{12}H_{22}N_2O_2$	[56403-09-9]	1,8-diaza-2,9-dioxocyclotetradecane				
	$\Delta_{trs}H$		13.6	517.4		
	$\Delta_{fus}H$		49.3	617.8	DSC	[1993SCH/KVA]
$C_{12}H_{22}N_6$	[na]	1-(piperidinyl)-3,5-(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		23.22	361.5		[1991ACR]
$C_{12}H_{22}O$	[58879-21-3]	*trans* 2-cyclohexylcyclohexanol				
	$\Delta_{fus}H$		14.52	325.8		[1997MAK/KAB]
	$\Delta_{sub}H$	(293–325)	98.6 ± 0.5	320	ME	[1997MAK/KAB]
	Δ_vH	(324–364)	83.2 ± 1.2	344	ME	[1997MAK/KAB]
$C_{12}H_{22}O$	[830-13-7]	cyclododecanone				
	$\Delta_{fus}H$		16.85	335.6		[1996ROU/JIM, 1998GON/SZW]
	$\Delta_{sub}H$		83.2 ± 0.3	298	ME	[1996ROU/JIM]
	Δ_vH	(373–443)	61	388	A	[1987STE/MAL]
	Δ_vH	(408–450)	57.9	423	A, EB	[1987STE/MAL, 1976MEY/HOT]
	Δ_vH	(458–556)	54.7	473	A, EB	[1987STE/MAL, 1976MEY/HOT]
	Δ_vH		65.5 ± 0.6	298		[1972WOL]
$C_{12}H_{22}O$	[81149-96-4]	(Z) 2-dodecenal				
	Δ_vH	(323–363)	72.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[20407-84-5]	(E) 2-dodecenal				
	Δ_vH	(323–363)	72.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[68141-15-1]	(Z) 3-dodecenal				
	Δ_vH	(323–363)	69.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[76595-72-7]	(E) 3-dodecenal				
	Δ_vH	(323–363)	70.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[21944-98-9]	(Z) 4-dodecenal				
	Δ_vH	(323–363)	69.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[174155-48-7]	(E) 4-dodecenal				
	Δ_vH	(323–363)	69.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[68820-33-7]	(Z) 5-dodecenal				
	Δ_vH	(323–363)	69.1	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[68820-34-8]	(E) 5-dodecenal				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(323–363)	69.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[12674-61-7]	(Z) 6-dodecenal				
	$\Delta_v H$	(323–363)	69.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[174155-49-8]	(E) 6-dodecenal				
	$\Delta_v H$	(323–363)	67.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[63851-40-1]	(Z) 7-dodecenal				
	$\Delta_v H$	(323–363)	69.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[82944-76-1]	(E) 7-dodecenal				
	$\Delta_v H$	(323–363)	69.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[139909-65-2]	(Z) 8-dodecenal				
	$\Delta_v H$	(323–363)	70.0	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[144298-64-6]	(E) 8-dodecenal				
	$\Delta_v H$	(323–363)	69.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[56219-03-5]	(Z) 9-dodecenal				
	$\Delta_v H$	(323–363)	70.1	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[155235-07-7]	(E) 9-dodecenal				
	$\Delta_v H$	(323–363)	70.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[81892-61-7]	(Z) 10-dodecenal				
	$\Delta_v H$	(323–363)	71.0	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[81892-62-8]	(E) 10-dodecenal				
	$\Delta_v H$	(323–363)	70.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[947-05-7]	dodecanolactone				
	$\Delta_v H$	(377–403)	64.2 ± 1.1	390	MM	[1991WIB/WAL]
	$\Delta_v H$	(377–403)	70.5 ± 1.7	298	MM	[1991WIB/WAL]
$C_{12}H_{22}O_2$	[na]	acetic acid, 4-*tert*-butylcyclohexyl ester				
	$\Delta_v H$	(285–318)	63.8	300	A, ME	[1987STE/MAL, 1958SER/VOI, 1957SER/VOI]
$C_{12}H_{22}O_2$	[na]	3,3-dimethylbutanoic acid, cyclohexyl ester				
	$\Delta_v H$	(333–378)	62.1	298	CGC	[1999VER/HEI]
$C_{12}H_{22}O_2$	[na]	1-methylcyclohexyl pivalate				
	$\Delta_v H$	(333–378)	57.9	298	CGC	[1999VER/HEI]
$C_{12}H_{22}O_2$	[na]	3-methylcyclohexyl pivalate				
	$\Delta_v H$	(333–378)	60.5	298	CGC	[1999VER/HEI]
$C_{12}H_{22}O_2$	[na]	4-methylcyclohexyl pivalate				
	$\Delta_v H$	(333–378)	60.9	298	CGC	[1999VER/HEI]
$C_{12}H_{22}O_2$	[16409-45-3]	(*d*) menthyl acetate				
	$\Delta_v H$	(330–500)	55.3	345	A	[1987STE/MAL, 1947STU]
$C_{12}H_{22}O_2$	[150-84-5]	citronellyl acetate				
	$\Delta_v H$	(347–490)	68.7	362	A	[1987STE/MAL, 1947STU]
$C_{12}H_{22}O_2$	[61732-97-6]	2-(1-ethylpentyl)-4,7-dihydro-1,3-dioxepin				
	$\Delta_v H$	(333–453)	66.3	348	A	[1987STE/MAL]
$C_{12}H_{22}O_2$	[2664-55-3]	nonyl acrylate				
	$\Delta_{fus}H$		23.36	236.5		[1996DOM/HEA]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{22}O_2$	[2157-01-9]	octyl methacrylate				
	$\Delta_{fus}H$		24.09	230.3		[1990DOM/HEA]
	Δ_vH	(384–513)	55.6	399	A	[1987STE/MAL]
$C_{12}H_{22}O_2$	[111-81-9]	methyl 10-undecenoate				
	Δ_vH	(397–524)	59.2	412	A	[1987STE/MAL]
$C_{12}H_{22}O_2$	[81634-99-3]	(Z) 3-decenyl acetate				
	Δ_vH	(313–358)	69.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	Δ_vH	(299–313)	72.0	306	GC	[1983OLS/JON]
$C_{12}H_{22}O_2$	[81634-98-2]	(E) 3-decenyl acetate				
	Δ_vH	(313–358)	70.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[67452-27-1]	(Z) 4-decenyl acetate				
	Δ_vH	(313–358)	69.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[69222-16-8]	(E) 4-decenyl acetate				
	Δ_vH	(313–358)	70.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[67446-07-5]	(Z) 5-decenyl acetate				
	Δ_vH	(313–358)	69.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	Δ_vH	(299–313)	72.0	306	GC	[1983OLS/JON]
$C_{12}H_{22}O_2$	[38421-90-8]	(E) 5-decenyl acetate				
	Δ_vH	(313–358)	70.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[68760-70-3]	(Z) 6-decenyl acetate				
	Δ_vH	(313–358)	70.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[na]	(E) 6-decenyl acetate				
	Δ_vH	(313–358)	70.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	Δ_vH	(299–313)	72.0	306	GC	[1983OLS/JON]
$C_{12}H_{22}O_2$	[13857-03-9]	(Z) 7-decenyl acetate				
	Δ_vH	(313–358)	70.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[13857-04-0]	(E) 7-decenyl acetate				
	Δ_vH	(313–358)	71.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[83808-51-9]	(Z) 8-decenyl acetate				
	Δ_vH	(313–358)	71.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[83808-51-9]	(Z) 8-decenyl acetate				
	Δ_vH	(313–358)	71.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_3$	[na]	heptyl levulinate				
	Δ_vH	(393–558)	62.6	408	A	[1987STE/MAL]
	Δ_vH		60.0	496		[1931SCH/COW]
$C_{12}H_{22}O_3$	[18871-14-2]	3-pentyl-4-acetoxytetrahydro-2*H*-pyran				
	Δ_vH	(383–453)	65.8	398	A	[1987STE/MAL]
$C_{12}H_{22}O_4$	[106-19-4]	dipropyl adipate				
	Δ_vH	(413–540)	63.6	428	A	[1987STE/MAL]
$C_{12}H_{22}O_4$	[141-03-7]	di-*n*-butyl succinate				
	$\Delta_{fus}H$		29.21	244.1		[1996DOM/HEA]
$C_{12}H_{22}O_4$	[5398-08-3]	isopentylmalonic acid, diethyl ester				
	Δ_vH	(377–420)	64.1	392	A	[1987STE/MAL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound				
	Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{22}O_4$	[22328-91-2]	(1-methylbutyl)malonic acid, diethyl ester				
	$\Delta_v H$	(395–516)	67.4	410	A	[1987STE/MAL]
$C_{12}H_{22}O_4$	[106-79-6]	dimethyl sebacate				
	$\Delta_v H$	(304–374)	86.4 ± 0.3	298	GS	[2006VER/KOZ]
$C_{12}H_{22}O_4$	[2051-00-5]	diisopentyl oxalate				
	$\Delta_v H$	(358–538)	58.6	373	A	[1987STE/MAL, 1947STU]
$C_{12}H_{22}O_4$	[693-23-2]	dodecanedioic acid				
	$\Delta_{fus}H$		52.5	401.6		[2008VEN/BAY]
	$\Delta_{fus}H$		49.8	400.3	DSC	[2005ROU/TEM]
	$\Delta_{fus}H$		50.57	402.5		[1996DOM/HEA]
	$\Delta_{sub}H$	(346–377)	169 ± 4		TPD	[2007CAP/LOV]
	$\Delta_{sub}H$	(298–316)	156		TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$	(375–296)	153.1 ± 2.9	386	ME	[1960DAV/THO, 1970COX/PIL]
	$\Delta_v H$	(424–503)	130.0 ± 2.3	298	CGC	[2005ROU/TEM]
$C_{12}H_{22}O_4S$	[4121-12-4]	thiodiglycolic acid, diethyl ester				
	$\Delta_v H$	(298–383)	75.7	313	A	[1987STE/MAL, 1999DYK/SVO]
$C_{12}H_{22}O_5$	[902261-31-8]	butyl[1-(butoxycarbonyl)ethyl] carbonate				
	$\Delta_v H$	(338–513)	68.1	353	A	[1987STE/MAL]
$C_{12}H_{22}O_5$	[na]	pentyl[1-(ethoxycarbonyl)isopropyl] carbonate				
	$\Delta_v H$	(368–513)	63.8	383	A	[1987STE/MAL]
$C_{12}H_{22}O_6$	[856371-29-4]	lactic acid, O-ethoxycarbonyl, 2-butoxyethyl ester				
	$\Delta_v H$	(383–521)	74.6	398	A	[1987STE/MAL]
$C_{12}H_{22}O_6$	[87-92-3]	dibutyl tartrate				
	$\Delta_v H$	(428–511)	79.8	443	A	[1987STE/MAL]
$C_{12}H_{22}O_6$	[4054-82-4]	(*d*) diisobutyl tartrate				
	$\Delta_v H$	(390–597)	64.6	405	A	[1987STE/MAL]
$C_{12}H_{22}O_{11}$	[528-50-7]	(*d*) cellobiose				
	$\Delta_{sub}H$	(474–488)	302 ± 44.0	481	ME	[1999OJA/SUU]
$C_{12}H_{22}O_{11}$	[14641-93-1]	α-lactose				
	$\Delta_{fus}H$		75.2	496.2		[2000MAC/COU, 1983RAE/SCH]
$C_{12}H_{22}O_{11}$	[57-50-1]	sucrose				
	$\Delta_{fus}H$		46.2	459		[1988SOP/KEA]
$C_{12}H_{22}S$	[7133-46-2]	dicyclohexyl sulfide				
	$\Delta_{trs}H$		10.01	274.7		
	$\Delta_{fus}H$		5.68	284.2		[2004STE/CHI]
	$\Delta_v H$	(335–523)	65.4 ± 0.2	340	IP,EB	[2004STE/CHI]
	$\Delta_v H$	(335–523)	62.5 ± 0.1	380	IP,EB	[2004STE/CHI]
	$\Delta_v H$	(335–523)	59.5 ± 0.1	420	IP,EB	[2004STE/CHI]
	$\Delta_v H$	(335–523)	56.6 ± 0.1	440	IP,EB	[2004STE/CHI]
	$\Delta_v H$	(335–523)	53.7 ± 0.1	480	IP,EB	[2004STE/CHI]
	$\Delta_v H$	(421–523)	69.0 ± 0.7	298	EB	[1997STE/CHI4]
$C_{12}H_{23}N$	[101-83-7]	dicyclohexylamine				
	$\Delta_v H$	(408–529)	54.0	423	A	[1987STE/MAL]
$C_{12}H_{23}N$	[2437-25-4]	lauronitrile				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(298–367)	74.9 ± 0.2	298	GS	[2005EME/VER]
	$\Delta_v H$		76.1 ± 0.1	298	C	[1977STRI/SUN]
	$\Delta_v H$	(393–462)	65.2	408	EB	[1971MEY/REN]
	$\Delta_v H$	(440–556)	60.7	455	A, EB	[1987STE/MAL, 1971MEY/REN, 1973MEY/HOT]
$C_{12}H_{23}NO_3$	[14305-32-9]	N-decanoylglycine				
	$\Delta_{fus}H$		42.2	387.6	DSC	[1986MIY/MAT]
$C_{12}H_{23}N_7$	[5512-05-0]	1-(4′-methylpiperizinyl)-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		20.42	354.2	DSC	[1989BRA/RYT]
$C_{12}H_{24}$	[294-62-2]	cyclododecane				
	$\Delta_{trs}H$		0.6	199		
	$\Delta_{fus}H$		14.8	333.8		[1987DRO/MOL]
	$\Delta_{sub}H$		76.2	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$		76.4 ± 1.7			[1957VAN]
	$\Delta_v H$		63.0	298	CGC	[1998CHI/HES]
	$\Delta_v H$	(403–453)	62.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(386–441)	52.6	401	A, EB	[1987STE/MAL, 1976MEY/HOT]
	$\Delta_v H$	(440–529)	49.8	455	A, EB	[1987STE/MAL, 1976MEY/HOT]
$C_{12}H_{24}$	[112-41-4]	1-dodecene				
	$\Delta_{trs}H$		4.55	212.9		
	$\Delta_{fus}H$		19.87	237.9		[1996DOM/HEA]
	$\Delta_v H$		60.8 ± 0.3	298	C	[1976STR2, 1977MAN/SEL]
	$\Delta_v H$		60.3	298		[1971WIL/ZWO]
	$\Delta_v H$	(396–493)	51.1	411	A	[1987STE/MAL, 1950FOR/CAM]
$C_{12}H_{24}$	[4292-75-5]	hexylcyclohexane				
	$\Delta_v H$		55.9 ± 0.5	298	GC	[1987AZA]
	$\Delta_v H$		59.0 ± 0.5	298	GCC	[1978FUC/PEA]
	$\Delta_v H$		59.9	298		[1971WIL/ZWO]
$C_{12}H_{24}$	[5617-42-5]	heptylcyclopentane				
	$\Delta_v H$		60.8	298		[1971WIL/ZWO]
$C_{12}H_{24}$	[27656-49-1]	*trans* 2,2,4,6,6-pentamethyl-3-heptene				
	$\Delta_v H$	(291–318)	65.6 ± 0.5	305	GS	[2000VER/WAN]
	$\Delta_v H$	(291–318)	65.9 ± 0.3	298	GS	[2000VER/WAN]
$C_{12}H_{24}$	[27656-50-4]	*cis* 2,2,4,6,6-pentamethyl-3-heptene				
	$\Delta_v H$	(288–318)	63.0 ± 0.5	303	GS	[2000VER/WAN]
	$\Delta_v H$	(288–318)	63.2 ± 0.5	298	GS	[2000VER/WAN]
$C_{12}H_{24}Cl_2$	[3922-28-9]	1,12-dichlorododecane				
	$\Delta_v H$		73.1			[1998DRO/TOM]
$C_{12}H_{24}N_2O_2$	[10263-96-4]	N,N′-di-*n*-propyladipamide				
	$\Delta_{fus}H$		36.11	452		[1984DOM/EVA]
$C_{12}H_{24}N_2O_2$	[6224-99-3]	dodecandiamide				
	$\Delta_{trs}H$		5.09	422.8		
	$\Delta_{fus}H$		73.7	466.1	DSC	[2006BAD/DEL]
$C_{12}H_{24}N_2O_2$	[3129-91-7]	dicyclohexyl ammonium nitrite				
	$\Delta_{sub}H$	(290–298)	99.1	294	TE	[1987STE/MAL, 1965MAR]
	$\Delta_{sub}H$		U 161.8			[1985TRU/KRA]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(308–339)	105.9	324		[1961ROZ/POL]
$C_{12}H_{24}O$	[1724-39-6]	cyclododecanol				
	Δ_vH	(405–468)	68.8	420	A	[1987STE/MAL]
	Δ_vH	(467–557)	57.1	482	A	[1987STE/MAL]
$C_{12}H_{24}O$	[112-54-9]	dodecanal				
	Δ_vH	(314–347)	68.3 ± 0.9	298	GS	[2003VER/KRA2]
	Δ_vH	(308–353)	70.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
	Δ_vH	(350–530)	56.5	365	A	[1987STE/MAL, 1947STU]
$C_{12}H_{24}O$	[6175-49-1]	2-dodecanone				
	Δ_vH	(350–520)	61.1	365	A	[1987STE/MAL, 1947STU]
	Δ_vH		71.8 ± 0.6	298	C	[1977SEL]
	Δ_vH	(386–609)	60.8	401	A	[1987STE/MAL, 1975AMB/ELL]
	Δ_vH	(386–609)	48.1	524		[1975AMB/ELL]
$C_{12}H_{24}O$	[19321-39-2]	ethyl *p*-menthyl ether				
	Δ_vH	(366–414)	50.9	381	A	[1987STE/MAL]
$C_{12}H_{24}O$	[20999-39-7]	1-heptylcyclopentanol				
	Δ_vH	(395–524)	58.6	410	A	[1987STE/MAL]
$C_{12}H_{24}O$	[3964-63-4]	1-hexylcyclohexanol				
	Δ_vH	(380–491)	53.5	395	A	[1987STE/MAL]
$C_{12}H_{24}O$	[69064-36-4]	(Z) 2-dodecen-1-ol				
	Δ_vH	(333–373)	90.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[69064-37-5]	(E) 2-dodecen-1-ol				
	Δ_vH	(333–373)	91.0	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[32451-95-9]	(Z) 3-dodecen-1-ol				
	Δ_vH	(333–373)	89.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[68900-87-8]	(E) 3-dodecen-1-ol				
	Δ_vH	(333–373)	89.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[40642-37-3]	(Z) 4-dodecen-1-ol				
	Δ_vH	(333–373)	89.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[81745-38-2]	(E) 4-dodecen-1-ol				
	Δ_vH	(333–373)	90.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[40642-38-4]	(Z) 5-dodecen-1-ol				
	Δ_vH	(333–373)	90.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[62936-12-3]	(E) 5-dodecen-1-ol				
	Δ_vH	(333–373)	90.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[40642-39-5]	(Z) 6-dodecen-1-ol				
	Δ_vH	(333–373)	90.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[52957-14-9]	(E) 6-dodecen-1-ol				
	Δ_vH	(333–373)	90.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[20056-92-2]	(Z) 7-dodecen-1-ol				
	Δ_vH	(333–373)	90.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[16695-40-2]	(E) 7-dodecen-1-ol				
	Δ_vH	(333–373)	90.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{24}O$	[40642-40-8]	(Z) 8-dodecen-1-ol				
	$\Delta_v H$	(333–373)	91.0	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[42513-42-8]	(E) 8-dodecen-1-ol				
	$\Delta_v H$	(333–373)	91.0	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[35148-18-6]	(Z) 9-dodecen-1-ol				
	$\Delta_v H$	(333–373)	91.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[35237-62-8]	(E) 9-dodecen-1-ol				
	$\Delta_v H$	(333–373)	91.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[35289-30-6]	(Z) 10-dodecen-1-ol				
	$\Delta_v H$	(333–373)	92.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[35237-63-9]	(E) 10-dodecen-1-ol				
	$\Delta_v H$	(333–373)	91.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O_2$	[110-38-3]	ethyl decanoate				
	$\Delta_{fus}H$	(5–370)	32.29	253.6	AC	[2009ZAI/PAU]
	$\Delta_v H$		69.9 ± 0.7	305	C	[2009ZAI/PAU]
	$\Delta_v H$		70.5	298		[2009ZAI/PAU]
	$\Delta_v H$	(404–440)	58.4 ± 0.1	422	MM	[1991WIB/WAL]
	$\Delta_v H$	(404–440)	67.4 ± 1.3	298	MM	[1991WIB/WAL]
	$\Delta_v H$	(359–515)	59.6	374	A	[1987STE/MAL]
$C_{12}H_{24}O_2$	[112-17-4]	decyl acetate				
	$\Delta_v H$	(284–321)	70.2 ± 0.3	298	GS	[2006KRA/VER]
	$\Delta_v H$	(313–358)	71.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(363–515)	61.9	378	A	[1987STE/MAL]
	$\Delta_v H$	(299–313)	72	306	GC	[1983OLS/JON]
	$\Delta_v H$	(445–530)	56.3	460	DTA	[1980MEY/AWE]
$C_{12}H_{24}O_2$	[61732-91-0]	4,5-dimethyl-2-heptyl-1,3-dioxolane				
	$\Delta_v H$	(333–453)	69.8	346	A	[1987STE/MAL]
$C_{12}H_{24}O_2$	[143-07-7]	dodecanoic acid				
	$\Delta_{fus}H$		36.1	316.6	DSC	[2007MOR/COR]
	$\Delta_{fus}H$		34.7	317.9	DSC	[2007MIS/MIS]
	$\Delta_{fus}H$		36.65	316.9		[1996DOM/HEA]
	$\Delta_{sub}H$		147.2 ± 4	298	TPD	[2008CAP/LOV]
	$\Delta_{sub}H$	(293–303)	127.9	298		[1987STE/MAL]
	$\Delta_{sub}H$	(293–308)	132.6	300	ME	[1968BAC/NOV]
	$\Delta_{sub}H$	(296–314)	140.2 ± 3.3	304	ME	[1961DAV/MAL]
	$\Delta_{sub}H$	(293–313)	117.2 ± 2.9	303	ME	[1957LIT]
	$\Delta_v H$	(393–573)	88.8	408	A	[1987STE/MAL]
	$\Delta_v H$	(321–341)	95.8	332	ME, TE	[1982FUC/HAL]
	$\Delta_v H$		81.3	437	I	[1943CRA]
$C_{12}H_{24}O_2$	[61732-93-2]	2-(1-ethylpentyl)-1,3-dioxepane				
	$\Delta_v H$	(333–373)	68.1	348	A	[1987STE/MAL]
$C_{12}H_{24}O_2$	[61732-92-1]	2-heptyl-1,3-dioxepane				
	$\Delta_v H$	(328–373)	70.3	343	A	[1987STE/MAL]
$C_{12}H_{24}O_2$	[62159-06-2]	3-heptyl-4-hydroxytetrahydro-2*H*-pyran				
	$\Delta_v H$	(383–453)	77.6	398	A	[1987STE/MAL]
$C_{12}H_{24}O_2$	[23433-02-5]	4-octyl-1,3-dioxane				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(353–453)	65.5	368	A	[1987STE/MAL]
$C_{12}H_{24}O_2$	[1731-86-8]	methyl undecanoate				
	$\Delta_v H$		66.1	350		[2002VAN/VAN]
	$\Delta_v H$		67.0 ± 0.1	340		[2002VAN/VAN]
	$\Delta_v H$		70.8 ± 0.4	298		[2002VAN/VAN]
	$\Delta_v H$	(433–473)	70.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		71.4 ± 0.3	298	C	[1977MAN/SEL]
	$\Delta_v H$	(393–473)	60.9	408	A, E	[1987STE/MAL, 1963ROS/SCH]
$C_{12}H_{24}O_2$	[245658-36-0]	3,3-dimethylbutanoic acid, 1,1,2-trimethylpropyl ester				
	$\Delta_v H$	(333–378)	57.1	298	CGC	[1999VER/HEI]
$C_{12}H_{24}O_2$	[245658-40-6]	2,2-dimethylpropanoic acid, 1,1,3-trimethylbutyl ester				
	$\Delta_v H$	(333–378)	54.2	298	CGC	[1999VER/HEI]
$C_{12}H_{24}O_2$	[245658-43-9]	2,6-dimethyl-2-heptanol propanoate				
	$\Delta_v H$	(333–378)	59.4	298	CGC	[1999VER/HEI]
$C_{12}H_{24}O_3$	[2388-12-7]	peroxydodecanoic acid				
	$\Delta_{sub}H$	(293–303)	131.4 ± 1.7	298	ME	[1980SWA/KWA]
$C_{12}H_{24}O_3$	[na]	pentyl 2-butoxypropionate				
	$\Delta_v H$	(373–398)	47.3	385	A	[1987STE/MAL]
$C_{12}H_{24}O_3$	[7419-98-9]	methyl 3-octyloxypropionate				
	$\Delta_v H$	(373–513)	59.8	388	A	[1987STE/MAL]
$C_{12}H_{24}O_4$	[53759-20-9]	2,2,8,8-tetramethyl-1,3,7,9-tetraoxycyclododecane				
	$\Delta_{fus}H$		23.4	383		[1975BOR]
$C_{12}H_{24}O_4$	[43091-26-5]	1,3,9,11-tetraoxacyclohexadecane				
	$\Delta_{fus}H$		35.56	332		[1973DAL/EKE]
$C_{12}H_{24}O_4$	[20732-35-8]	3,6-dimethyl-3,6-di-*tert*-butyl-1,2,4,5-tetraoxacyclohexane				
	$\Delta_v H$	(403–473)	53.7	298	CGC	[2007CAN/EYL]
$C_{12}H_{24}O_6$	[24748-23-0]	3,6,9-triethyl-3,6,9-trimethyl-1,2,4,5,7,8-hexaoxacyclononane				
	$\Delta_v H$	(403–473)	59.2	298	CGC	[2007CAN/EYL]
$C_{12}H_{24}O_6$	[17455-13-9]	1,4,7,10,13,16-hexaoxacyclooctadecane (18-crown-6)				
	$\Delta_{fus}H$		34.0	312.2		[1972DAL/KRI]
	$\Delta_{sub}H$		119.1 ± 6.7	298	CGC-DSC	[2000NIC/ORF]
	$\Delta_{sub}H$		133.2 ± 0.3		C	[1990BRI/WAD]
	$\Delta_v H$		86.1 ± 6.7	298	CGC	[2000NIC/ORF]
$C_{12}H_{24}O_{11}$	[585-88-6]	1,4-O-α-D-glucopyranosyl-D-glucitol (maltitol)				
	$\Delta_{fus}H$		55.07	420	DSC	[2001LEB/VAN, 2003LEB/VAN]
$C_{12}H_{24}O_{11}$	[534-73-6]	α-(*d*)-glucopyranosyl-1,6-sorbitol				
	$\Delta_{fus}H$		56.4	439		[1996CAM/FIG]
$C_{12}H_{24}O_{11}$	[20942-99-8]	α-(*d*)-glucopyranosyl-1,6-mannitol				
	$\Delta_{fus}H$		55.0	440.8		[1996CAM/FIG]
$C_{12}H_{24}O_{11}$	[64519-82-0]	6-O-α-D-glucopyranosyl-D-arabino-hexitol (isomalt)				
	$\Delta_{fus}H$		44.3		DSC	[2002BOR/CES]
$C_{12}H_{24}S_4$	[297181-32-9]	1,4,8,11-tetrathiacyclohexadecane				
	$\Delta_{trs}H$ *[solid-solid (I)]*		32.0	328.2		

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		5.2	333.2		[2002ROC/GRI]
	$\Delta_{trs}H$ *[solid-solid (II)]*		27.0	328.2		
	$\Delta_{fus}H$		5.2	333.2	DSC	[2002ROC/GRI]
$C_{12}H_{25}Br$	[143-15-7]	1-bromododecane				
	Δ_vH		74.8 ± 0.4	298	C	[1976STR3, 1977MAN/SEL]
	Δ_vH	(411–610)	62.2	426	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{12}H_{25}Cl$	[112-52-7]	1-chlorododecane				
	Δ_vH		75.8	298		[2006BOL/NER2]
	Δ_vH		73.9 ± 1.4	298	GS	[2001PUR/CHI]
	Δ_vH	(390–520)	70.5	298		[1984BOU/FRI, 1991BAS/SVO]
	Δ_vH		71.9 ± 0.3	298	C	[1977MAN/SEL]
	Δ_vH		70.3 ± 0.5	298	C	[1975STR/SUN]
	Δ_vH	(389–519)	62.4	404	A, DTA	[1987STE/MAL, 1969KEM/KRE]
$C_{12}H_{25}Cl$	[2350-12-1]	(*dl*) 2-chlorododecane				
	Δ_vH	(283–328)	65.3	298	A	[1987STE/MAL, 1970DYK/VAN, 1962GEI/QUI]
$C_{12}H_{25}Cl$	[2350-12-1]	(*dl*) 3-chlorododecane				
	Δ_vH	(283–328)	65.9	298	A	[1987STE/MAL, 1970DYK/VAN, 1962GEI/QUI]
$C_{12}H_{25}Cl$	[2350-13-2]	(*dl*) 4-chlorododecane				
	Δ_vH	(283–328)	64.1	298	A	[1987STE/MAL, 1970DYK/VAN, 1962GEI/QUI]
$C_{12}H_{25}Cl$	[2350-14-3]	(*dl*) 5-chlorododecane				
	Δ_vH	(283–328)	65.9	298	A	[1987STE/MAL, 1970DYK/VAN, 1962GEI/QUI]
$C_{12}H_{25}Cl$	[26535-66-0]	6-chlorododecane				
	Δ_vH	(283–328)	65.5	298	A	[1987STE/MAL, 1970DYK/VAN, 1962GEI/QUI]
$C_{12}H_{25}F$	[334-68-9]	1-fluorododecane				
	Δ_vH	(288–328)	64.0 ± 0.2	298	GS	[1997SCH/VER]
	Δ_vH	(374–533)	56.2	389	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{12}H_{25}I$	[4292-19-7]	1-iodododecane				
	Δ_vH	(426–636)	79.9	298	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	Δ_vH	(426–636)	63.5	441	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{12}H_{25}NO$	[996-97-4]	N,N-diethylcaprylamide				
	Δ_vH	(373–510)	71.2	388	A	[1987STE/MAL]
$C_{12}H_{25}NO$	[1120-16-7]	dodecanamide				
	$\Delta_{trs}H$		9.7	321.1		
	$\Delta_{fus}H$		36.3	373.3	DSC	[2008ABA/BAD]
	$\Delta_{sub}H$	(349–368)	152.7 ± 0.8	358.5	ME	[1959DAV/JON2, 1987STE/MAL]
$C_{12}H_{26}$	[112-40-3]	dodecane				
	$\Delta_{fus}H$		35.7	263.1	DSC	[2004MON/RAJ]
	$\Delta_{fus}H$		36.82	263.6		[1996DOM/HEA]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		100.2	298	B	[1972MOR3]
	$\Delta_{sub}H$		101.7	263	B	[1963BON]
	Δ_vH		62.1 ± 0.2	298	GS	[2001PUR/CHI]
	Δ_vH		60.3 ± 0.8	298	CGC	[2000NIC/ORF]
	Δ_vH		61.4	299	C	[1996VIT/CHA]
	Δ_vH		58.1	334	C	[1996VIT/CHA]
	Δ_vH		57.4	344	C	[1996VIT/CHA]
	Δ_vH	(373–423)	60.7	298	CGC	[1995CHI/HOS]
	Δ_vH	(363–413)	61.2	298	CGC	[1995CHI/HOS]
	Δ_vH	(423–473)	61.2	298	CGC	[1995CHI/HOS]
	Δ_vH		61.5	298		[1994RUZ/MAJ]
	Δ_vH	(263–371)	65.7	278		[1988SAS/JOS]
	Δ_vH	(278–400)	61.8	293	A	[1987STE/MAL]
	Δ_vH	(298–389)	61.1	313	GS	[1986ALL/JOS]
	Δ_vH		61.8 ± 0.5	298	C	[1976MEL/MAN]
	Δ_vH		61.2 ± 0.2	298	C	[1974MAN4]
	Δ_vH		60.4 ± 0.3	298	C	[1972MOR2]
	Δ_vH		61.3	298		[1971WIL/ZWO]
	Δ_vH	(400–492)	51.6	415	A, MM	[1987STE/MAL, 1945WIL/TAY]
$C_{12}H_{26}$	[7045-71-8]	2-methylundecane				
	Δ_vH	(356–484)	49.5	371	A	[1987STE/MAL]
$C_{12}H_{26}$	[1002-43-3]	(*dl*) 3-methylundecane				
	Δ_vH	(357–485)	48.8	372	A	[1987STE/MAL]
$C_{12}H_{26}$	[2980-69-0]	4-methylundecane				
	Δ_vH	(359–481)	51.6	374	A	[1987STE/MAL]
$C_{12}H_{26}$	[1632-70-8]	5-methylundecane				
	Δ_vH	(357–480)	50.3	372	A	[1987STE/MAL]
$C_{12}H_{26}$	[17312-44-6]	2,3-dimethyldecane				
	Δ_vH	(369–480)	50.0	384	A	[1987STE/MAL]
$C_{12}H_{26}$	[2801-84-5]	2,4-dimethyldecane				
	Δ_vH	(348–472)	47.5	363	A	[1987STE/MAL]
$C_{12}H_{26}$	[62184-10-5]	2,4,6-trimethylnonane				
	Δ_vH	(339–459)	46.4	354	A	[1987STE/MAL]
$C_{12}H_{26}$	[62199-46-6]	3,3,6,6-tetramethyloctane				
	Δ_vH	(347–463)	52.9	362	A	[1987STE/MAL]
$C_{12}H_{26}$	[13475-82-6]	2,2,4,6,6-pentamethylheptane				
	Δ_vH		49.0 ± 0.2	298	C	[1976MEL/MAN]
$C_{12}H_{26}N_2O$	[4128-38-5]	1-undecyl urea				
	$\Delta_{fus}H$		38.4	385.6	DSC	[2005HAS/TAJ]
$C_{12}H_{26}O$	[55962-01-1]	ethyl decyl ether				
	Δ_vH		65.9 ± 0.1	298	C	[1985KUS]
$C_{12}H_{26}O$	[112-58-3]	dihexyl ether				
	Δ_vH		63.6 ± 0.8	298	CGC	[2000NIC/ORF]
	Δ_vH	(353–393)	63.5	298	CGC	[1995CHI/HOS]
	Δ_vH	(372–510)	52.9	387	A	[1987STE/MAL]
	Δ_vH		64.1 ± 0.1	298	C	[1985KUS]
$C_{12}H_{26}O$	[51323-70-7]	octyl *tert*-butyl ether				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		61.4	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{12}H_{26}O$	[na]	isobutyl *tert*-octyl ether				
	$\Delta_v H$		51.6	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{12}H_{26}O$	[na]	butyl *tert*-octyl ether				
	$\Delta_v H$		52.9 ± 0.4	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{12}H_{26}O$	[112-53-8]	1-dodecanol				
	$\Delta_{fus}H$		40.31	297.3		[2003VAN/VAN]
	$\Delta_{fus}H$		40.17	300.2		[1993ACR]
	$\Delta_{sub}H$	(285–294)	130.1 ± 1.2	290	ME	[1965DAV/KYB, 1987STE/MAL]
	$\Delta_{sub}H$		129.3	298		[1965DAV/KYB]
	$\Delta_v H$		90.8 ± 1.2	298	CGC	[2006NIC/KWE]
	$\Delta_v H$	(303–348)	85.8	327	GS	[2001KUL/VER2]
	$\Delta_v H$	(303–348)	90	298	GS	[2001KUL/VER2]
	$\Delta_v H$	(373–423)	91.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(353–393)	91.7	298	CGC	[1994KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(303–413)	80.5	358		[1992NGU/KAS]
	$\Delta_v H$	(383–438)	73.8	398	A	[1987STE/MAL]
	$\Delta_v H$	(505–550)	57.1	520	A	[1987STE/MAL]
	$\Delta_v H$		84.7 ± 0.5	343	C	[1979SEV]
	$\Delta_v H$		91.8 ± 0.6	298	C	[1979SEV]
	$\Delta_v H$		92.0 ± 0.6	298	C	[1977MAN/SEL]
	$\Delta_v H$	(297–363)	92.5	312		[1973WIL/ZWO]
	$\Delta_v H$	(411–487)	67.6	426		[1973WIL/ZWO]
	$\Delta_v H$	(425–550)	66.7	440	A, EB	[1987STE/MAL, 1970AMB/SPR]
	$\Delta_v H$	(400–538)	71.5	415	DTA	[1969KEM/KRE]
	$\Delta_v H$	(297–313)	95.4	305	ME	[1965DAV/KYB]
	$\Delta_v H$	(303–363)	83.3	333	A, ME	[1987STE/MAL, 1962GEI/QUI2]
	$\Delta_v H$	(411–487)	67.6	426		[1958ROS/PAP]
$C_{12}H_{26}O$	[10203-28-8]	2-dodecanol				
	$\Delta_v H$	(293–393)	87.0	308		[1999NGU/BER]
	$\Delta_v H$	(293–343)	85.0	318	A, ME	[1987STE/MAL, 1962GEI/QUI2]
$C_{12}H_{26}O$	[10203-30-2]	(*dl*) 3-dodecanol				
	$\Delta_v H$	(293–343)	78.3	318	A, ME	[1987STE/MAL, 1962GEI/QUI2]
$C_{12}H_{26}O$	[10203-32-4]	4-dodecanol				
	$\Delta_v H$	(293–343)	80.6	318	A, ME	[1987STE/MAL, 1962GEI/QUI2]
$C_{12}H_{26}O$	[10203-33-5]	5-dodecanol				
	$\Delta_v H$	(293–343)	79.4	318	A, ME	[1987STE/MAL, 1962GEI/QUI2]
$C_{12}H_{26}O$	[6836-38-0]	6-dodecanol				
	$\Delta_v H$	(293–343)	81.5	318	A, ME	[1987STE/MAL, 1962GEI/QUI2]
$C_{12}H_{26}O$	[5457-42-1]	di-*tert*-butyl-isopropylmethanol				
	$\Delta_{fus}H$		2.09	314	DSC	[1998VER3]
		Note: Compound likely has an unmeasured solid phase transition.				
	$\Delta_{sub}H$	(274–308)	59.3 ± 0.8	298	GS	[1998VER3]
	$\Delta_{sub}H$	(274–308)	59.7 ± 0.8	291	GS	[1998VER3]
	$\Delta_v H$	(317–348)	54.9 ± 0.8	333	GS	[1998VER5]
	$\Delta_v H$	(317–348)	57.0 ± 0.8	298	GS	[1998VER5]
$C_{12}H_{26}O_2$	[na]	(*dl*) 3,4-diethyl-3,4-dimethoxyhexane				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(302–332)	59.8 ± 1.3	317	GS	[1990DOG/BEC]
$C_{12}H_{26}O_2$	[5675-51-4]	1,12-dodecanediol				
	$\Delta_{fus}H$		51.2	352		[2006UMN/KWE]
$C_{12}H_{26}O_3$	[112-73-2]	diethylene glycol dibutyl ether				
	$\Delta_v H$		73.8 ± 1.7	298	GC	[2000NIC/ORF]
	$\Delta_v H$	(293–528)	56.6	308	A	[1987STE/MAL]
$C_{12}H_{26}O_3$	[113676-50-9]	3-(nonyloxy)-1,2-propanediol				
	$\Delta_{fus}H$		29.5	297.2	DSC	[1993ACR]
$C_{12}H_{26}O_4$	[41407-59-4]	2,2-*bis*(*tert*-butylperoxy)butane				
	$\Delta_v H$	(299–323)	77.1	311	A	[1987STE/MAL]
$C_{12}H_{26}O_4$	[na]	tripropylene glycol monoisopropyl ether				
	$\Delta_v H$	(355–530)	56.9	370	A	[1987STE/MAL, 1947STU]
$C_{12}H_{26}O_4$	[4161-33-5]	4,4′-[1,4-butanediyl *bis*(oxy)]*bis*-1-butanol				
	$\Delta_{fus}H$		39.37	306.7	DSC	[1991BED/BOO]
$C_{12}H_{26}S$	[112-55-0]	1-dodecanethiol				
	$\Delta_v H$	(420–581)	62.0	435		[1999DYK/SVO]
$C_{12}H_{26}S$	[6294-31-1]	dihexylsulfide				
	$\Delta_v H$	(295–452)	72.4	310		[2004SAW/MOK]
$C_{12}H_{26}S_2$	[33528-63-1]	1,12-dodecanedithiol				
	$\Delta_v H$	(454–593)	77.8	469	A	[1987STE/MAL, 1943HAL/REI, 1999DYK/SVO]
$C_{12}H_{26}S_2$	[10496-15-8]	dihexyl disulfide				
	$\Delta_v H$	(435–601)	64.9	450		[1999DYK/SVO]
$C_{12}H_{27}N$	[124-22-1]	dodecylamine				
	$\Delta_v H$	(443–545)	61.0	458	A, E	[1987STE/MAL, 1956MAN2]
	$\Delta_v H$	(356–521)	63.4	371		[1947STU]
$C_{12}H_{27}N$	[143-16-8]	dihexylamine				
	$\Delta_v H$	(408–569)	55.1	423	A	[1987STE/MAL]
$C_{12}H_{27}N$	[1120-24-7]	N,N-dimethyldecylamine				
	$\Delta_v H$	(405–564)	55.2	420	A	[1987STE/MAL]
$C_{12}H_{27}N$	[102-82-9]	tributylamine				
	$\Delta_v H$		62.7 ± 1.3	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
	$\Delta_v H$	(432–488)	49.9	447	EB	[2008GUA/YAN]
	$\Delta_v H$	(298–337)	64.4	313	A	[1987STE/MAL]
	$\Delta_v H$	(333–487)	48.1	348	A	[1987STE/MAL]
$C_{12}H_{27}N$	[1116-40-1]	triisobutylamine				
	$\Delta_v H$	(305–452)	54.3	320	A	[1987STE/MAL, 1947STU]
$C_{12}H_{27}NO_2$	[126835-64-1]	3-(nonylamino)-1,2-propanediol				
	$\Delta_{fus}H$		53.2	343.2		[1993ACR]
$C_{12}H_{27}O_4P$	[126-73-8]	tributyl phosphate				
	$\Delta_v H$	(443–483)	81.3	298	CGC	[2007PAN/ANT2]
	$\Delta_v H$	(423–463)	78.8	298	CGC	[2007PAN/ANT2]
	$\Delta_v H$	(453–493)	81.7	298	CGC	[2007PAN/ANT2]
	$\Delta_v H$	(500–562)	61.4	515	A	[1987STE/MAL]
$C_{12}H_{27}O_4P$	[126-71-6]	triisobutyl phosphate				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(443–483)	73.0	298	CGC	[2007PAN/ANT2]
	$\Delta_v H$	(443–473)	76.3	298	CGC	[2007PAN/ANT2]
	$\Delta_v H$	(411–537)	62.8	426	A	[1987STE/MAL]
$C_{12}H_{27}O_4P$	[2528-45-2]	tri-*sec*-butyl phosphate				
	$\Delta_v H$	(413–453)	69.6	298	CGC	[2007PAN/ANT2]
	$\Delta_v H$	(443–483)	70.5	298	CGC	[2007PAN/ANT2]
$C_{12}H_{27}P$	[998-40-3]	tributyl phosphine				
	$\Delta_v H$	(353–428)	51.7 ± 0.5	390		[2001BAE]
$C_{12}H_{28}N_2$	[4843-89-4]	1,12-dodecanediamine				
	$\Delta_{fus}H$		67.1	341.8	DSC	[2006KHI/DAH2]
	$\Delta_{fus}H$		67.1	340.5	DSC	[2002DAL/DEL]
	$\Delta_v H$	(313–353)	110.1	328	A	[1987STE/MAL]
$C_{12}H_{28}N_2$	[60678-69-5]	tetrapropyl hydrazine				
	$\Delta_v H$	(362–423)	65.2	377	A	[1987STE/MAL]
$C_{12}H_{30}N_3P$	[2283-11-6]	*tris*(diethylamino)phosphine				
	$\Delta_v H$		60.7 ± 0.4			[1959FOL/MOR]
$C_{13}H_4Cl_6O$	[38178-99-3]	1,2,4,5,7,8-hexachloroxanthene				
	$\Delta_{sub}H$	(353–449)	147	401	T	[1986ROR]
$C_{13}H_4N_4O_{10}$	[185141-40-6]	2,3,5,7-tetranitroxanthone				
	$\Delta_{fus}H$		33.56	514	DSC	[1997IBR/FRA]
$C_{13}H_4N_4O_{10}$	[54849-77-3]	2,4,5,7-tetranitroxanthone				
	$\Delta_{fus}H$		32.2	593.9	DSC	[1997IBR/FRA]
$C_{13}H_5N_3O_7$	[129-79-3]	2,4,7-trinitrofluoren-9-one				
	$\Delta_{trs}H$		2.9	430.2		
	$\Delta_{fus}H$		23.5	449.2	DSC	[1980KRA/PIG]
$C_{13}H_5N_3O_8$	[185141-39-3]	1,2,7-trinitroxanthone				
	$\Delta_{fus}H$		11.89	554.9	DSC	[1997IBR/FRA]
	Note: Decomposes near melting point temperature.					
$C_{13}H_5N_3O_8$	[54849-76-2]	2,3,7-trinitroxanthone				
	$\Delta_{fus}H$		24.91	538.9	DSC	[1997IBR/FRA]
$C_{13}H_5N_3O_8$	[131032-92-3]	2,4,7-trinitroxanthone				
	$\Delta_{fus}H$		31.4	477.8	DSC	[1997IBR/FRA]
$C_{13}H_6Cl_6O_2$	[70-30-4]	2,2′-methylene *bis*(3,4,6-trichlorophenol)				
	$\Delta_{fus}H$		33.26	437.5	DSC	[1991ACR, 1990DON/DRE]
$C_{13}H_6N_2O_6$	[185141-35-9]	1,7-dinitroxanthone				
	$\Delta_{fus}H$		37.23	536.4	DSC	[1997IBR/FRA]
$C_{13}H_6N_2O_6$	[185141-37-1]	2,5-dinitroxanthone				
	$\Delta_{fus}H$		31.37	491.2	DSC	[1997IBR/FRA]
$C_{13}H_6N_2O_6$	[185141-38-2]	2,6-dinitroxanthone				
	$\Delta_{fus}H$		26.13	541	DSC	[1997IBR/FRA]
$C_{13}H_6N_2O_6$	[51792-18-8]	2,7-dinitroxanthone				
	$\Delta_{fus}H$		30.59	540	DSC	[1997IBR/FRA]
$C_{13}H_7F_3N_2O_5$	[15457-05-3]	2-nitro-1-(4-nitrophenoxy)-4-(trifluoromethyl)benzene				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		18.44	364.6	DSC	[1991ACR, 1990DON/DRE]
$C_{13}H_7NO_2$	[46492-08-4]	benz[g]isoquinoline-5,10-dione				
	$\Delta_{sub}H$	(334–381)	108.1 ± 1.6	358	ME	[1998OJA/SUU]
$C_{13}H_7NO_4$	[17607-01-1]	1-nitroxanthone				
	$\Delta_{fus}H$		28.9	477.7	DSC	[1997IBR/FRA]
$C_{13}H_7NO_4$	[20061-39-0]	2-nitroxanthone				
	$\Delta_{fus}H$		26.75	477.9	DSC	[1997IBR/FRA]
$C_{13}H_7NO_4$	[17607-10-2]	3-nitroxanthone				
	$\Delta_{fus}H$		25.37	448	DSC	[1997IBR/FRA]
$C_{13}H_8Br_3NO_2$	[87-10-5]	3,5-dibromo-N-(4-bromophenyl)-2-hydroxybenzamide				
	$\Delta_{fus}H$		28.67	497.7	DSC	[1990DON/DRE]
$C_{13}H_8Cl_2N_2O_4$	[50-65-7]	5-chloro-N-(2-chloro-4-nitrophenyl)-2-hydroxybenzamide (niclosamide)				
	$\Delta_{fus}H$		40.7	505.4		[2005YAN/DEV]
	$\Delta_{fus}H$		35.98	502.2	DSC	[2004VAN/MAL]
$C_{13}H_8Cl_2O$	[90-98-2]	4,4′-dichlorobenzophenone				
	$\Delta_{trs}H$	(90–280)	0.04	187		
	$\Delta_{trs}H$	(90–280)	0.05	192		
	$\Delta_{fus}H$	(90–280)	NA		AC	[2002DIA/LOP]
	$\Delta_{trs}H$	(10–298)	0.14	188.3		
	$\Delta_{trs}H$	(10–298)	0.39			
	$\Delta_{fus}H$	(10–298)	na		AC	[1999HUZ/SAI]
	$\Delta_{fus}H$		21.65	338.4	DSC	[1990DON/DRE]
		Note: the entry for Ref. [1990DON/DRE] may likely be in error. The authors give the name of the compound as 4,4′-dichlorobenzophenone in the paper; however, they give the CAS Registry number of [85-29-0] which corresponds to 2,4′-dichlorobenzophenone. The observed melting point temperature of 338.4 K is more in line with the melting point temperature of 2,4′-dichlorobenzophenone				
	$\Delta_{trs}H$		0.15	186.1		
	$\Delta_{trs}H$		0.25	189.5		
	$\Delta_{fus}H$		NA		DSC	[1987ECO/BER, 1999HUZ/SAI]
	$\Delta_{fus}H$		30.12	420	DSC	[1991ACR, 1972PLA]
	$\Delta_{sub}H$	(349–367)	114.5 ± 0.3	358	ME	[2007RIB/AMA2]
	$\Delta_{sub}H$	(349–367)	117.5 ± 0.3	298	ME	[2007RIB/AMA2]
$C_{13}H_8F_2O_3$	[22494-42-4]	5-[2,4-difluorophenyl]salicylic acid (diflunisal)				
	$\Delta_{fus}H$ *(I)*		35.9	486		
	$\Delta_{fus}H$ *(II)*		35.8	485.5		
	$\Delta_{fus}H$ *(III)*		35.9	486.4	DSC	[2002PER/HAN]
	$\Delta_{sub}H$	(349–414)	119.3 ± 0.6		GS	[2003PER/KUR]
$C_{13}H_8N_2O_2$	[2538-68-3]	1-phenazinecarboxylic acid				
	$\Delta_{fus}H$		35.44	514.5	DSC	[1997CIO/MEL]
$C_{13}H_8N_4$	[19139-24-3]	8,8,9,9-tetracyanoquadracyclo[2.2.1.0^{3,5}.2]nonane				
	$\Delta_{trs}H$		4.14	425.8		
	$\Delta_{trs}H$		0.37	462.1		
	$\Delta_{fus}H$		14.47	467.9	DSC	[1984WEI/LEF]
$C_{13}H_8O$	[548-39-0]	perinaphthenone				
	$\Delta_{sub}H$	(326–348)	97.2 ± 2.5	337	ME	[1998OJA/SUU]
$C_{13}H_8O$	[486-25-9]	9-fluorenone				
	$\Delta_{fus}H$		14.85	353.3	DSC	[1998VER4]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		18.12	356.4		[1991ACR]
	$\Delta_{sub}H$		93.9 ± 1.8	298	GS	[1998VER4]
	$\Delta_{sub}H$		87.6 ± 0.3	319	C	[1988SAB/ELW2]
	$\Delta_{sub}H$		88.4 ± 0.4	298	C	[1988SAB/ELW2]
	$\Delta_{v}H$		60.9	435		[1983SIV/MAR]
	$\Delta_{v}H$		59.8	475		[1983SIV/MAR]
	$\Delta_{v}H$		59.1	525		[1983SIV/MAR]
	$\Delta_{v}H$		58.6	565		[1983SIV/MAR]
	$\Delta_{v}H$		57.9	595		[1983SIV/MAR]
$C_{13}H_8OS$	[492-22-8]	thioxanthone				
	$\Delta_{fus}H$		35.5	487.9		[1992SAB/ELW]
	$\Delta_{sub}H$		114.8 ± 0.4	298	C	[1992SAB/ELW]
$C_{13}H_8O_2$	[90-47-1]	xanthone				
	$\Delta_{fus}H$		26.12	449.7		[1996DOM/HEA]
	$\Delta_{sub}H$		102.7 ± 2.3	298	C	[2009FRE/GOM2]
	$\Delta_{sub}H$		98.57 ± 0.4	298	C	[1988SAB/ELW]
$C_{13}H_8O_2$	[5472-84-4]	3-hydroxy-1*H*-phenalen-1-one				
	$\Delta_{sub}H$	(402–432)	151.5 ± 4.7	417	ME	[1998OJA/SUU]
$C_{13}H_9ClO$	[5162-03-8]	2-chlorobenzophenone				
	$\Delta_{sub}H$		100.2 ± 0.4	298	C	[2007RIB/AMA2]
$C_{13}H_9ClO$	[1016-78-0]	3-chlorobenzophenone				
	$\Delta_{sub}H$	(321–339)	108.8 ± 0.4	330	ME	[2007RIB/AMA2]
	$\Delta_{sub}H$	(321–339)	110.4 ± 0.4	298	ME	[2007RIB/AMA2]
$C_{13}H_9ClO$	[134-85-0]	4-chlorobenzophenone				
	$\Delta_{sub}H$	(320–338)	105.4 ± 0.3	329	ME	[2007RIB/AMA2]
	$\Delta_{sub}H$	(320–338)	108.2 ± 0.3	298	ME	[2007RIB/AMA2]
$C_{13}H_9ClO_2$	[85-19-8]	5-chloro-2-hydroxybenzophenone				
	$\Delta_{sub}H$	(293–367)	91.9	308	A, UV	[1987STE/MAL, 1960SCH/HIR]
	$\Delta_{v}H$	(367–493)	73.3	382	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{13}H_9Cl_3N_2O$	[na]	benzoic acid, 2,4,6-trichlorophenyl hydrazide				
	$\Delta_{fus}H$		32.71	439.7	DSC	[1990DON/DRE]
$C_{13}H_9Cl_3N_2O$	[101-20-2]	3,4,4′-trichlorocarbanilide				
	$\Delta_{trs}H$		6.1	428	DSC	[2010RIB/RIB2]
	$\Delta_{sub}H$		182.2 ± 1.7	298	C	[2010RIB/RIB2]
$C_{13}H_9F_3N_2O_2$	[4394-00-7]	2-[3-(trifluoromethyl)anilino]nicotinic acid (niflumic acid)				
	$\Delta_{fus}H$		36.5	478	DSC	[2007PER/SUR2, 2009SUR/TER]
	$\Delta_{fus}H$		35.7	476.4	DSC	[2004ROM/BUS]
	$\Delta_{fus}H$		32.73	477.2		[1998BUS/PEN]
	$\Delta_{fus}H$		38.0	476		[1989PIN/GON]
	$\Delta_{sub}H$	(355–396)	127.8 ± 0.8	376	GS	[2007PER/SUR2, 2009SUR/TER]
	$\Delta_{sub}H$	(355–396)	130.2 ± 0.8	298	GS	[2007PER/SUR2, 2009SUR/TER]
	$\Delta_{v}H$		107.5	298	S-F	[2007PER/SUR2]
$C_{13}H_9N$	[260-94-6]	acridine				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		18.58	383.2	DSC	[1975MCE/SAN]
	$\Delta_{sub}H$		86.0	430	TGA	[1998LEB/CHI]
	$\Delta_{sub}H$		89.5 ± 0.2	333	C	[1994SAB/TAB2]
	$\Delta_{sub}H$		91.7 ± 0.4	298	C	[1994SAB/TAB2]
	$\Delta_{sub}H$		94.5	298		[1989STE/CHI]
	$\Delta_{sub}H$	(280–328)	92.6	295		[1987STE/MAL]
	$\Delta_{sub}H$	(303–328)	90.8 ± 1.3	298	TE	[1975DEK/VAN]
	$\Delta_{sub}H$	(303–326)	93.3 ± 0.8	298	TCM	[UR/DEK, 1975DEK/VAN]
	$\Delta_{sub}H$	(281–298)	91.6 ± 2.5	290	LE	[1975MCE/SAN]
	$\Delta_{sub}H$	(306–345)	92.8 ± 1.3	298	ME	[UR/DEK, 1975DEK/VAN]
	$\Delta_{sub}H$		78.7		E	[1946ALB/WIL]
	$\Delta_{v}H$		72.1		GC	[1996GOV/RUT]
	$\Delta_{v}H$	(383–637)	71.5 ± 0.2	400	IPM,EB	[1989STE/CHI]
	$\Delta_{v}H$	(383–637)	68.9 ± 0.1	440	IPM,EB	[1989STE/CHI]
	$\Delta_{v}H$	(383–637)	66.4 ± 0.1	480	IPM,EB	[1989STE/CHI]
	$\Delta_{v}H$	(383–637)	63.8 ± 0.1	520	IPM,EB	[1989STE/CHI]
	$\Delta_{v}H$	(383–637)	61.3 ± 0.2	560	IPM,EB	[1989STE/CHI]
	$\Delta_{v}H$	(423–621)	62.9	465		[1983SIV/KOB]
	$\Delta_{v}H$	(423–621)	62.1	515		[1983SIV/KOB]
	$\Delta_{v}H$	(423–621)	61.5	595		[1983SIV/KOB]
	$\Delta_{v}H$	(402–619)	66.2	417	A	[1987STE/MAL, 1947STU]
$C_{13}H_9N$	[260-27-3]	3,4-benzoquinoline (phenanthridine)				
	$\Delta_{trs}H$		0.02	354		
	$\Delta_{fus}H$		22.83	379.7		[1996DOM/HEA]
	$\Delta_{sub}H$	(288–323)	100.1 ± 10.1	306	ME	[1998OJA/SUU]
	$\Delta_{sub}H$		98.6	298		[1989STE/CHI]
	$\Delta_{sub}H$	(288–323)	94.6 ± 4	308	ME	[1975MCE/INI, 1987STE/MAL]
	$\Delta_{sub}H$		107.5		ME	[1965DAV/KYB]
	$\Delta_{v}H$	(383–473)	74.3 ± 0.1	380	IPM	[1989STE/CHI]
	$\Delta_{v}H$	(383–473)	71.6 ± 0.1	420	IPM	[1989STE/CHI]
	$\Delta_{v}H$	(383–473)	68.9 ± 0.1	460	IPM	[1989STE/CHI]
$C_{13}H_9N$	[85-02-9]	5,6-benzoquinoline				
	$\Delta_{sub}H$	(288–323)	83.1 ± 3.6	308	ME	[1975MCE/INI, 1987STE/MAL]
	$\Delta_{sub}H$		106.3		ME	[1972MIL]
$C_{13}H_9N$	[230-27-3]	7,8-benzoquinoline				
	$\Delta_{fus}H$		14.1	324.1		[1996DOM/HEA]
	$\Delta_{sub}H$		90.2 ± 2.0	298		[1989STE/CHI]
	$\Delta_{sub}H$	(293–323)	80.8 ± 2.5	308	ME	[1975MCE/INI, 1987STE/MAL]
	$\Delta_{sub}H$		100.4		ME	[1972MIL]
	$\Delta_{v}H$		71.4		GC	[1996GOV/RUT]
	$\Delta_{v}H$	(373–672)	71.7 ± 0.1	380	IPM.EB	[1989STE/CHI]
	$\Delta_{v}H$	(373–672)	69.0 ± 0.1	420	IPM.EB	[1989STE/CHI]
	$\Delta_{v}H$	(373–672)	66.5 ± 0.1	460	IPM.EB	[1989STE/CHI]
	$\Delta_{v}H$	(373–672)	64.0 ± 0.1	500	IPM.EB	[1989STE/CHI]
	$\Delta_{v}H$	(373–672)	61.5 ± 0.3	540	IPM.EB	[1989STE/CHI]
	$\Delta_{v}H$	(373–672)	59.0 ± 0.3	580	IPM.EB	[1989STE/CHI]
$C_{13}H_9NO$	[598-95-0]	acridone				
	$\Delta_{fus}H$		32.5	640	DSC	[2003STO/KRZ]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		133		DSC	[2003STO/KRZ]
	$\Delta_{sub}H$		136.2 ± 0.5	298	C	[1992SAB/ELW]
$C_{13}H_9NO_2$	[2382-08-3]	N-methyl-1,8-naphthalimide				
	$\Delta_{sub}H$	(379–398)	107.4 ± 0.8	389	ME	[2000ROU/JIM]
	$\Delta_{sub}H$		109.7 ± 0.8	298	ME	[2000ROU/JIM]
$C_{13}H_9NO_2$	[607-57-8]	2-nitrofluorene				
	$\Delta_{sub}H$	(349–384)	114.2 ± 3.0		ME	[2008GOL/SUU]
$C_{13}H_9NO_4$	[75965-74-1]	2-nitro-7-methoxynaphtho[2,1b]furan				
	$\Delta_{fus}H$		28.7	460.4	DSC	[2010KES/AUC]
$C_{13}H_9N_2$	[716-79-0]	2-phenylbenzimidazole				
	$\Delta_{fus}H$		22.18	572.2		[1971KAM/MIT]
$C_{13}H_{10}$	[86-73-7]	fluorene				
	$\Delta_{fus}H$		19.1	387.7	DSC	[2000LIS/JAM]
	$\Delta_{fus}H$		19.58	387.9		[1996DOM/HEA]
	$\Delta_{sub}H$	(289–359)	86.1 ± 0.1	298	GS	[2004VER]
	$\Delta_{sub}H$		87.6	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(313–453)	84.9	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(323–363)	84.9 ± 0.4	343	GS	[1994RAK/VER2]
	$\Delta_{sub}H$		85.1 ± 0.4	298		[1994RAK/VER2]
	$\Delta_{sub}H$	(318–333)	87.0 ± 1.0	318	PG	[1988SAS/JOS]
	$\Delta_{sub}H$		80.2 ± 0.2	298	C	[1987SAB/ANT]
	$\Delta_{sub}H$	(348–388)	78.9	363	A	[1987STE/MAL]
	$\Delta_{sub}H$	(308–347)	83.2	328	GS	[1986SAT/INO]
	$\Delta_{sub}H$	(298–343)	92.2	320	T	[1986HAN/ECK]
	$\Delta_{sub}H$	(283–323)	88.4 ± 0.6	303	GS	[1983SON/ZOL]
	$\Delta_{sub}H$	(350–388)	83.1 ± 1.3			[1977FIN/MES, 1975OSB/DOU]
	$\Delta_{sub}H$		81.8	388	B	[1975OSB/DOU]
	$\Delta_{sub}H$	(286–300)	80.3 ± 0.8	293	TE	[1960BUD]
	$\Delta_{sub}H$	(306–323)	82.8	315		[1953BRA/CLE, 1987STE/MAL]
	$\Delta_{sub}H$	(306–322)	82.8			[1953BRA/CLE2, 1960JON]
	$\Delta_{v}H$		72.4 ± 1.7	298	CGC	[2008HAN/NUT]
	$\Delta_{v}H$	(373–423)	74.4 ± 1.2	298	GC	[2006HAF/PAR]
	$\Delta_{v}H$	(323–473)	66.9	398	GC	[2002LEI/CHA]
	$\Delta_{v}H$		72.3	298	CGC	[1998CHI/HES]
	$\Delta_{v}H$	(403–453)	72.2	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(323–363)	65.7	298	B	[1994RAK/VER2]
	$\Delta_{v}H$	(383–427)	63.3	398		[1988SAS/JOS]
	$\Delta_{v}H$	(402–568)	54.2	417	A	[1987STE/MAL]
	$\Delta_{v}H$	(423–573)	56.6	498	I	[1923MOR/MUR]
$C_{13}H_{10}BrCl_2O_2PS$	[21609-90-5]	O-(4-bromo-2,5-dichlorophenyl) O-methyl phenylphosphonothioate				
	$\Delta_{fus}H$		31.35	345.6	DSC	[1990DON/DRE]
$C_{13}H_{10}BrN_3O_4$	[192219-62-8]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, 2-bromoethyl ester				
	$\Delta_{fus}H$		19.79	419.2	DSC	[2005LIZ/ZAB]
$C_{13}H_{10}ClN_3O_4$	[850836-65-6]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, 2-chloroethyl ester				
	$\Delta_{fus}H$		17.17	418.9	DSC	[2005LIZ/ZAB]
$C_{13}H_{10}Cl_2S$	[na]	*p*-chlorobenzyl *p*-chlorophenyl sulfide				
	$\Delta_{fus}H$		32.22	343.8	DSC	[1969PLA/GLA]
$C_{13}H_{10}N_2$	[622-16-2]	N,N′-diphenylcarbondiimide				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		18.55	287.4		[1990DOM/HEA]
	Δ_vH	(500–599)	65.6	515	A, I	[1987STE/MAL, 1962JOH/MCE]
$C_{13}H_{10}N_2$	[90-45-9]	9-aminoacridine				
	$\Delta_{sub}H$		115	520	TGA	[1998STO/KRZ]
$C_{13}H_{10}N_2$	[716-79-0]	2-phenylbenzimidazole				
	$\Delta_{sub}H$		123.0 ± 1.7	298	C	[2005RIB/RIB]
$C_{13}H_{10}N_2O_2$	[785-80-8]	N-phenyl 4-nitrobenzaldehyde imine				
	$\Delta_{fus}H$		24.56	347.2		[1997VER/MOR]
	$\Delta_{sub}H$		126 ± 1.3	298		[1997VER/MOR]
$C_{13}H_{10}N_2O_4$	[50-35-1]	thalidomide				
	$\Delta_{fus}H$ *(I)*		39.97	546.7	DSC	[2007LAR/PER]
	$\Delta_{fus}H$ *(II)*		37.91	550.8	DSC	[2007LAR/PER]
	$\Delta_{fus}H$		36.02	548.2		[2002GOO/LAI]
$C_{13}H_{10}N_4$	[7477-73-8]	1,5-diphenyltetrazole				
	$\Delta_{sub}H$	(348–363)	121.5 ± 4.2	355	ME	[1951MCE/RIG, 1970COX/PIL]
$C_{13}H_{10}N_4$	[18038-45-7]	2,5-diphenyltetrazole				
	$\Delta_{sub}H$	(333–353)	119.7 ± 4.2	343	ME	[1951MCE/RIG, 1970COX/PIL]
$C_{13}H_{10}N_4O$	[14031-13-1]	1-phenazinecarboxylic acid hydrazide				
	$\Delta_{fus}H$		27.62	505	DSC	[1997CIO/MEL]
$C_{13}H_{10}O$	[119-61-9]	benzophenone				
	$\Delta_{fus}H$		18.47	321.3	AC	[2002HAN/HIK]
	$\Delta_{fus}H$	(5–440)	18.81	321.2	AC	[2002CHI/KNI2]
	$\Delta_{fus}H$		18.19	324.2		[1996DOM/HEA]
	$\Delta_{sub}H$		93.1 ± 2.1	298	GS	[1998VER4]
	$\Delta_{sub}H$		94.7 ± 1	321	DM	[1983DEK/VAN]
	$\Delta_{sub}H$		92 ± 0.83	298	C	[1974SAB, 1983DEK/VAN]
	$\Delta_{sub}H$	(295–313)	95.0 ± 0.2	304	ME	[1980COL/JIM2]
	$\Delta_{sub}H$		84.4 ± 1.13	298	C	[1978SAB/LAF2]
	$\Delta_{sub}H$	(297–317)	93.9 ± 0.5	307	TE,ME	[1977DEK/VAN]
	$\Delta_{sub}H$	(293–318)	95.0 ± 1.5	305	TE	[1975DEK/VAN]
	$\Delta_{sub}H$	(294–318)	92.9 ± 0.8	306	ME	[1975VAN/DEK]
	$\Delta_{sub}H$	(278–311)	77.0 ± 2.5	298	ME	[1974ARS]
	$\Delta_{sub}H$	(298–318)	89.96	308	ME	[1987STE/MAL, 1974PRI/POU]
	$\Delta_{sub}H$	(295–304)	94.6 ± 0.8	298	TCM	[1973DEK/OON]
	$\Delta_{sub}H$		93.4 ± 0.3	298	C	[1972MOR3]
	$\Delta_{sub}H$	(293–319)	96.1	306		[1956SER/VOI]
	$\Delta_{sub}H$		91.2			[1950NIT/SEK]
	$\Delta_{sub}H$	(290–315)	78.2 ± 1.2	303		[1938WOL/WEG, 1934WOL/TRI]
	$\Delta_{sub}H$		95 ± 2.5	298	TE	[1932NEU/VOL, 1970COX/PIL, 1960JON]
	$\Delta_{sub}H$	(273–320)	91.2 ± 1.6	298	ME	[1925VOL/KIR]
	Δ_vH	(433–673)	65.1	448	A	[1987STE/MAL]
	Δ_vH	(473–579)	62.2	488		[1949DRE/SHR, 1949DRE/MAR, 1984BOU/FRI]
	Δ_vH	(530–575)	59.0	545		[1904JAQ/WAS, 1984BOU/FRI]
$C_{13}H_{10}O$	[92-83-1]	xanthene				
	$\Delta_{fus}H$		20.67	374.6	DSC	[2008MON/SAN]
	$\Delta_{fus}H$		15.87	374.3	DSC	[2000MAH/SOL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		19.2	373.7		[1991ACR]
	$\Delta_{sub}H$	(305–353)	92.5	329	T	[1986ROR]
	$\Delta_{sub}H$		112.1 ± 2.1			[1958CAS/FLE3, 1970COX/PIL]
	The authors refer to the compound as dibenzopyran but the melting temperature corresponds to xanthene					
	$\Delta_{v}H$	(424–589)	64.5	435		[1984SIV/KOB]
	$\Delta_{v}H$	(424–589)	61.1	475		[1984SIV/KOB]
	$\Delta_{v}H$	(424–589)	59.2	515		[1984SIV/KOB]
	$\Delta_{v}H$	(424–589)	56.7	555		[1984SIV/KOB]
	$\Delta_{v}H$	(424–589)	54.4	585		[1984SIV/KOB]
	$\Delta_{v}H$	(413–433)	88.7	423	A	[1987STE/MAL, 1958CAS/FLE3]
$C_{13}H_{10}O$	[1689-64-1]	9-hydroxyfluorene				
	$\Delta_{v}H$		50.4	435		[1983SIV/MAR]
	$\Delta_{v}H$		49.7	465		[1983SIV/MAR]
	$\Delta_{v}H$		48.9	505		[1983SIV/MAR]
$C_{13}H_{10}O_2$	[947-84-2]	2-biphenylcarboxylic acid				
	$\Delta_{sub}H$		121.3 ± 4.3	298	C	[2004MAT/MIR2]
$C_{13}H_{10}O_2$	[92-92-2]	4-biphenylcarboxylic acid				
	$\Delta_{sub}H$		127.5 ± 4.1	298	C	[2004MAT/MIR2]
$C_{13}H_{10}O_2$	[93-99-2]	phenyl benzoate				
	$\Delta_{sub}H$		99.0 ± 0.4	298		[1971CAR/FIN]
	$\Delta_{sub}H$		89.5 ± 4.2			[1971KIP/RAB, 1977PED/RYL]
	$\Delta_{sub}H$		96.2 ± 1.7			[1947STU, 1970COX/PIL]
	$\Delta_{v}H$	(379–587)	62.4	394	A	[1987STE/MAL, 1947STU]
$C_{13}H_{10}O_2$	[117-99-7]	(2-hydroxyphenyl)phenylmethanone				
	$\Delta_{fus}H$		0.67	308.2	DTA	[1989SAL/ABA]
	Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent					
$C_{13}H_{10}O_3$	[835-11-0]	2,2′-dihydroxybenzophenone				
	$\Delta_{fus}H$		20.07	334.5		[2005TOM/MIZ]
$C_{13}H_{10}O_3$	[131-56-6]	2,4-dihydroxybenzophenone				
	$\Delta_{sub}H$	(312–353)	134	327	A	[1987STE/MAL]
	$\Delta_{v}H$	(418–485)	87.1	433	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{13}H_{10}O_3$	[118-55-8]	phenyl salicylate				
	$\Delta_{fus}H$		19.2	315.1	DSC	[2010LAZ/RIE]
	$\Delta_{fus}H$		18.4 ± 0.5	312.7	DSC	[2006PER/CON]
	$\Delta_{fus}H$ *(I)*		16.5	304.2	DSC	[2004RAM/COR]
	$\Delta_{fus}H$ *(II)*		18.6	315.2	DSC	[2004RAM/COR]
	$\Delta_{fus}H$		19.16	315		[2002HAN/HIK]
	$\Delta_{fus}H$		18.98	314.2	DSC	[1995MUR/PAI]
	$\Delta_{sub}H$	(279–315)	109.1	294	A	[1987STE/MAL]
	$\Delta_{sub}H$		92 ± 4.2			[1947STU, 1970COX/PIL]
	$\Delta_{v}H$	(423–587)	69.9	438	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{13}H_{10}O_3$	[102-09-0]	diphenyl carbonate				
	$\Delta_{fus}H$		23.43	355		[1971CAR/FIN]
	$\Delta_{sub}H$		90 ± 8.4	298	E	[1971CAR/FIN, 1977PED/RYL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(355–381)	80.9 ± 0.6	298	GS	[2008VER/EME2]
$C_{13}H_{10}O_4$	[1470-79-7]	2,4,4′-trihydroxybenzophenone				
	$\Delta_{fus}H$		31.3	482.6	DSC	[1999PRI/HAWN]
	$\Delta_{sub}H$		139		TGA	[1999PRI/HAWN]
$C_{13}H_{10}O_5$	[131-55-5]	2,2′,4,4′-tetrahydroxybenzophenone				
	$\Delta_{fus}H$		28.0	472	DSC	[1999PRI/HAWN]
	$\Delta_{sub}H$		178.5		B	[1999PRI/HAWN]
	$\Delta_{sub}H$	(363–471)	143.4	378	A	[1987STE/MAL]
$C_{13}H_{10}S$	[261-31-4]	thioxanthene				
	$\Delta_{fus}H$		26.1	401.8		[1991ACR]
	$\Delta_{sub}H$		101.7 ± 1.6	298	C	[2009FRE/MON]
	$\Delta_{sub}H$	(339–402)	98.4 ± 0.2	370	ME	[2009FRE/MON]
	$\Delta_{sub}H$	(339–402)	100.9 ± 0.2	298	ME	[2009FRE/MON]
	$\Delta_v H$	(383–447)	69.5 ± 0.2	415	ME	[2009FRE/MON]
	$\Delta_v H$	(383–447)	77.8 ± 2.6	298	ME	[2009FRE/MON]
$C_{13}H_{10}S$	[7372-88-5]	4-methyldibenzothiophene				
	$\Delta_{sub}H$		90.3 ± 0.7	298	C	[2010FRE/GOM]
$C_{13}H_{11}BrO_5$	[111171-29-0]	8-(hydroxymethyl)-6-bromo-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	$\Delta_{fus}H$		28.19	434.1	DSC	[1992HUA/ZHO2]
$C_{13}H_{11}Cl$	[90-99-3]	chlorodiphenylmethane				
	$\Delta_v H$	(381–450)	70.4	396	A	[1987STE/MAL]
$C_{13}H_{11}ClO_5$	[111171-28-9]	8-(hydroxymethyl)-6-chloro-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	$\Delta_{trs}H$		15.53	418.2		
	$\Delta_{fus}H$		22.47	424	DSC	[1992HUA/ZHO2]
$C_{13}H_{11}F$	[579-55-5]	fluorodiphenylmethane				
	$\Delta_v H$	(288–333)	69.8 ± 0.4	298	GS	[1997SCH/VER]
$C_{13}H_{11}N$	[1013-88-3]	benzophenone imine				
	$\Delta_v H$	(308–338)	74.2 ± 1.0	323	GS	[1997VER/MOR]
	$\Delta_v H$	(308–338)	75.7 ± 1.0	298	GS	[1997VER/MOR]
	$\Delta_v H$	(373–422)	62.3	388	A	[1987STE/MAL]
$C_{13}H_{11}N$	[538-51-2]	N-phenyl-benzaldehyde imine				
	$\Delta_{fus}H$		20.42	329.7		[1997VER/MOR]
	$\Delta_{sub}H$	(294–326)	97.4 ± 1.2	309	T	[1997VER/MOR]
	$\Delta_{sub}H$		98.1 ± 1.2	298	T	[1997VER/MOR]
	$\Delta_{sub}H$		93.7 ± 0.9	298	C	[1986KIR/ACR]
	$\Delta_{sub}H$		85.5 ± 2.1	293	EST	[1948COA/SUT]
$C_{13}H_{11}N$	[1484-12-4]	9-methylcarbazole				
	$\Delta_{fus}H$		17.15	362.5		[1996DOM/HEA]
	$\Delta_{sub}H$	(313–332)	95.0	322	ME	[1990JIM/ROU]
	$\Delta_{sub}H$		95.5	298		[1990JIM/ROU]
	$\Delta_v H$		79.5 ± 3.2	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
	$\Delta_v H$	(373–673)	73.4	400	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(373–673)	70.5	440	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(373–673)	67.7	480	EB,IP	[1992STE/CHI]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(373–673)	65.0	520	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(373–673)	62.1	560	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(373–673)	59.1	600	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(373–673)	55.9	640	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(348–384)	74.9	366	GS	[1980VAN/PRA]
$C_{13}H_{11}N$	[5097-92-7]	*cis* 4-(2-phenylethyenyl)pyridine				
	$\Delta_{fus}H$		9.14	400.3	DSC	[2007LIU/LIU]
$C_{13}H_{11}NO$	[1137-98-8]	N-phenylmethylene benzenamine N-oxide				
	$\Delta_{sub}H$		115.0 ± 0.8	298	C	[1986KIR/ACR]
$C_{13}H_{11}NO$	[779-84-0]	2-hydroxybenzaldehyde N-phenylimine				
	$\Delta_{sub}H$	(288–325)	115.9	303	A	[1987STE/MAL]
	$\Delta_{sub}H$	(348–408)	129.9	378		[1958HOY/PEP]
$C_{13}H_{11}NO$	[1689-73-2]	4-hydroxybenzaldehyde N-phenylimine				
	$\Delta_{sub}H$	(348–408)	127.9	363	A	[1987STE/MAL]
	$\Delta_{sub}H$	(288–338)	116	313		[1958HOY/PEP]
$C_{13}H_{11}NO$	[93-98-1]	benzanilide				
	$\Delta_{fus}H$		32.4	436.3	DSC	[2006MAT/MIR2]
	$\Delta_{fus}H$		29.61	436.5		[1996DOM/HEA]
	$\Delta_{sub}H$		125.4 ± 2.3	298	C	[2006MAT/MIR2]
	$\Delta_{sub}H$	(352–369)	99.2	360.5	A	[1987STE/MAL, 1960AIH2]
$C_{13}H_{11}NO_2$	[20357-59-9]	N-(2-hydroxyphenylmethylene) benzenamine N-oxide				
	$\Delta_{sub}H$		116.5 ± 1.4	298	C	[1986KIR/ACR]
$C_{13}H_{11}NO_2$	[91-40-7]	N-phenylanthranilic acid				
	$\Delta_{fus}H$		39.7	458.2	DSC	[2009SUR/TER]
	$\Delta_{sub}H$	(353–411)	123.0 ± 1.3	382	GS	[2009SUR/TER]
	$\Delta_{sub}H$	(353–411)	126.0 ± 1.3	298	GS	[2009SUR/TER]
$C_{13}H_{11}NO_5$	[14698-29-4]	1-ethyl-1,4-dihydro-6,7-methylenedioxy-4-oxo-3-quinoline-carboxylic acid (oxolinic acid)				
	$\Delta_{fus}H$		43.59	592.5	DSC	[2004ROM/BUS2]
$C_{13}H_{11}N_3O$	[2440-22-4]	2-(2′-hydroxy-5′-methylphenyl)benzotriazole				
	$\Delta_{sub}H$	(293–333)	125.2	308	A	[1987STE/MAL]
	$\Delta_v H$	(413–433)	79.1	423	ME	[1984SUR]
	$\Delta_v H$	(404–435)	70.6	419	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{13}H_{11}N_3O_2S$	[na]	5-methyl-2-[(4-methyl-2-nitrophenyl)amino]-3-thiophene carbonitrile				
	$\Delta_{fus}H$		24.57	400.2		[2001HE/GRI]
$C_{13}H_{11}N_3O_4$	[1979-00-7]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, ethyl ester				
	$\Delta_{fus}H$		27.11	391.2	DSC	[2005LIZ/ZAB]
$C_{13}H_{12}$	[643-93-6]	3-methylbiphenyl				
	$\Delta_v H$	(283–463)	69.6	298		[1993KAS/MOK]
$C_{13}H_{12}$	[644-08-6]	4-methylbiphenyl				
	$\Delta_{sub}H$		80.2 ± 1.4	298	C	[1997RIB/MAT4]
$C_{13}H_{12}$	[101-81-5]	diphenylmethane				
	$\Delta_{fus}H$		19.01	298.4		[2005CHI/STE2]
	$\Delta_{fus}H$		18.58	298.3	AC	[1996DOM/HEA]
	$\Delta_{sub}H$	(273–295)	88.5 ± 0.8	284	GS	[1999VER5]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		87.6 ± 0.8	298		[1999VER5]
	$\Delta_{sub}H$	(273–298)	71.5	286	EM	[1989SAS/NGU]
	$\Delta_{sub}H$	(276–295)	83.3 ± 3.3	286	HSA	[1986CHI/ANN]
	$\Delta_{sub}H$		82.4 ± 8		V	[1959AIH, 1970COX/PIL]
	$\Delta_{sub}H$	(278–299)	64.0			[1951BRI, 1960JON]
	$\Delta_{sub}H$		72.0 ± 0.8	297		[1938WOL/WEG]
	$\Delta_{v}H$		67.6 ± 0.2	298		[2005CHI/STE2, 2008HAN/NUT]
	$\Delta_{v}H$	(343–393)	64.7 ± 0.2	298		[2006HAF/PAR]
	$\Delta_{v}H$	(330–588)	64.1 ± 0.1	340	IP,EB	[2005CHI/STE2]
	$\Delta_{v}H$	(330–588)	61.0 ± 0.1	380	IP,EB	[2005CHI/STE2]
	$\Delta_{v}H$	(330–588)	57.9 ± 0.1	420	IP,EB	[2005CHI/STE2]
	$\Delta_{v}H$	(330–588)	55.0 ± 0.1	460	IP,EB	[2005CHI/STE2]
	$\Delta_{v}H$	(330–588)	52.0 ± 0.2	500	IP,EB	[2005CHI/STE2]
	$\Delta_{v}H$	(330–588)	48.9 ± 0.3	540	IP,EB	[2005CHI/STE2]
	$\Delta_{v}H$		65.7	298	GC	[2002VAN/PAR]
	$\Delta_{v}H$	(303–343)	66.4 ± 0.5	323	GS	[1999VER5]
	$\Delta_{v}H$	(303–343)	67.9 ± 0.5	298	GS	[1999VER5]
	$\Delta_{v}H$	(353–433)	61.8	368		[1990SOH/OKA]
	$\Delta_{v}H$	(303–402)	63.7	363		[1989SAS/NGU]
	$\Delta_{v}H$	(295–383)	72.2	310	A	[1987STE/MAL]
	$\Delta_{v}H$	(423–583)	56.7	438	A	[1987STE/MAL]
	$\Delta_{v}H$		55.8	445		[1981WIE/KOB]
	$\Delta_{v}H$		49.0	535		[1981WIE/KOB]
	$\Delta_{v}H$		66.6 ± 0.1	298	C	[1972MOR]
	$\Delta_{v}H$	(490–555)	54.2	505		[1915CRA, 1984BOU/FRI]
$C_{13}H_{12}ClN_2O_2$	[556836-77-2]	4-chloro-2′-hydroxy-4′-methoxyazobenzene				
	$\Delta_{fus}H$		33.7	390	DSC	[2003PAJ/ROS]
$C_{13}H_{12}ClN_3S$	[281212-47-3]	N-2-(3-picolyl)-N′-(2-chlorophenyl) thiourea				
	$\Delta_{fus}H$		11.2	400.2	DSC	[2002KEL/SZC]
$C_{13}H_{12}ClN_3S$	[457886-93-0]	N-2-(4-picolyl)-N′-(2-chlorophenyl) thiourea				
	$\Delta_{fus}H$		44.5	441.2	DSC	[2002KEL/SZC]
$C_{13}H_{12}ClN_3S$	[457886-96-3]	N-2-(5-picolyl)-N′-(2-chlorophenyl) thiourea				
	$\Delta_{fus}H$		24.2	460.2	DSC	[2002KEL/SZC]
$C_{13}H_{12}ClN_3S$	[457886-94-1]	N-2-(6-picolyl)-N′-(2-chlorophenyl) thiourea				
	$\Delta_{fus}H$		27.3	449.7	DSC	[2002KEL/SZC]
$C_{13}H_{12}ClN_3S$	[53385-87-8]	N-2-(3-picolyl)-N′-(4-chlorophenyl) thiourea				
	$\Delta_{fus}H$		16.8	391.2	DSC	[2002SZC/KEL]
$C_{13}H_{12}ClN_3S$	[53385-88-9]	N-2-(4-picolyl)-N′-(4-chlorophenyl) thiourea				
	$\Delta_{fus}H$		35.2	460.2	DSC	[2002SZC/KEL]
$C_{13}H_{12}ClN_3S$	[53385-89-0]	N-2-(5-picolyl)-N′-(4-chlorophenyl) thiourea				
	$\Delta_{fus}H$		51.1	473.7	DSC	[2002SZC/KEL]
$C_{13}H_{12}ClN_3S$	[53385-90-3]	N-2-(6-picolyl)-N′-(4-chlorophenyl) thiourea				
	$\Delta_{fus}H$		40.1	464.2	DSC	[2002SZC/KEL]
$C_{13}H_{12}N_2O$	[102-07-8]	1,3-diphenylurea				
	$\Delta_{fus}H$		34.62	512.1		[1996DOM/HEA, 1991ACR]
	$\Delta_{fus}H$		37.7	na	DSC	[1995STR/ARG]
	$\Delta_{sub}H$	(445–484)	152 ± 6		TE	[1987FER/DEL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{13}H_{12}N_2O$	[442-51-3]	7-methoxy-1-methyl-9*H*-pyrido[3,4-b]indole (harmine)				
	$\Delta_{fus}H$		48.8	536.6	DSC	[1996BUR/DAG]
$C_{13}H_{12}N_2O_2$	[23042-34-4]	N-methyl-N-(4-biphenylyl)nitramine				
	$\Delta_{fus}H$		24.0	415.1		[2002DAS/ZAL]
$C_{13}H_{12}N_2O_2$	[17954-23-3]	2-cyano-1(2*H*)-quinolinecarboxylic acid, ethyl ester				
	$\Delta_{fus}H$		19.88	337	DSC	[2005LIZ/ZAB]
$C_{13}H_{12}N_2O_5S$	[51803-78-2]	N-(4-nitro-2-phenoxyphenyl)methanesulfonamide (nimesulide)				
	$\Delta_{fus}H$		37.3	422.5	DSC	[2007MON/PER]
$C_{13}H_{12}N_4O_2$	[na]	4′-nitro-2-methylaminoazobenzene				
	$\Delta_{sub}H$		134.7		GS	[1987SHI/OHK, 1991HOR]
$C_{13}H_{12}O$	[946-80-5]	benzyl phenyl ether				
	$\Delta_{v}H$	(368–560)	58.8	383	A	[1987STE/MAL, 1947STU]
$C_{13}H_{12}O$	[91-01-0]	diphenylmethanol				
	$\Delta_{fus}H$		23.0	338.5		[1996DOM/HEA]
	$\Delta_{sub}H$	(301–335)	105.7 ± 0.7	298	GS	[1998VER3]
	$\Delta_{sub}H$	(301–335)	104.5 ± 0.7	318	GS	[1998VER3]
	$\Delta_{v}H$	(342–373)	79.4 ± 0.7	358	GS	[1998VER5]
	$\Delta_{v}H$	(342–373)	83.0 ± 0.7	298	GS	[1998VER5]
	$\Delta_{v}H$	(438–574)	65.4	453	A	[1987STE/MAL]
$C_{13}H_{12}O$	[2876-63-3]	ethyl 1-naphthyl ketone				
	$\Delta_{v}H$	(397–579)	74.1	412	A	[1987STE/MAL, 1947STU]
$C_{13}H_{12}O$	[28994-41-4]	2-(phenylmethyl)phenol (2-benzylphenol)				
	$\Delta_{fus}H$ *(I)*		21.8	326.2		
	$\Delta_{fus}H$ *(II)*		17.0	288.2	DSC	[2004ROM/ROC]
	$\Delta_{fus}H$		23.4	325.7	DSC	[1995MUR/PAI]
$C_{13}H_{12}O$	[101-53-1]	4-benzylphenol				
	$\Delta_{sub}H$	(313–335)	97.4	324	A	[1987STE/MAL, 1960AIH]
$C_{13}H_{12}O$	[2928-43-0]	2-biphenylmethanol				
	$\Delta_{fus}H$		19.7	324	DSC	[2007PIN/BER, 2006DIO/PIN]
	$\Delta_{fus}H$		18.5	326.8	DSC	[2006BAR/DAV]
	$\Delta_{sub}H$		106.0 ± 1.1	315	ME	[2007PIN/BER]
	$\Delta_{sub}H$		107.1 ± 1.1	298	ME	[2007PIN/BER]
	$\Delta_{v}H$		85.6 ± 0.6	326	C	[2007PIN/BER]
$C_{13}H_{12}O$	[3597-91-9]	4-biphenylmethanol				
	$\Delta_{fus}H$		27.0	375.5	DSC	[2007PIN/BER, 2006DIO/PIN]
	$\Delta_{sub}H$		105.7 ± 1.8	349	C	[2007PIN/BER]
	$\Delta_{sub}H$		107.3 ± 1.8	298	C	[2007PIN/BER]
$C_{13}H_{12}OS$	[40932-63-6]	3-acetyl-2-methyl-5-phenylthiophene				
	$\Delta_{sub}H$	(321–339)	107.3 ± 0.4	330	ME	[2010RIB/SAN]
	$\Delta_{sub}H$	(321–339)	108.9 ± 0.4	298	ME	[2010RIB/SAN]
$C_{13}H_{12}S$	[831-91-4]	phenyl benzyl sulfide				
	$\Delta_{sub}H$		98.4 ± 1.4	298	C	[2006MUL/MOZ]
$C_{13}H_{13}BrS$	[148681-80-5]	2-propyl-5-(4-bromophenyl)thiophene				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		15.7	360.4	DSC	[1993BRE/DUN]
$C_{13}H_{13}ClN_2O_2S$	[34392-72-8]	4-amino-N-(5-chloro-2-methylphenyl)benzenesulfonamide				
	$\Delta_{fus}H$		36.8	422.7	DSC	[2009PER/TKA]
	$\Delta_{sub}H$		130 ± 1	298	GS	[2009PER/TKA]
	Δ_vH		104	298	S-F	[2009PER/TKA]
$C_{13}H_{13}N$	[552-82-9]	N-methyldiphenylamine				
	Δ_vH	(376–555)	65.2	391	A	[1987STE/MAL, 1947STU]
$C_{13}H_{13}N$	[103-32-2]	N-benzylaniline				
	$\Delta_{fus}H$		16.76	305.6		[1991ACR]
	$\Delta_{sub}H$	(293–312)	103.6 ± 1.6	303	T	[1997VER]
	$\Delta_{sub}H$		51.3			[1980AIH]
	Δ_vH	(316–343)	79.6 ± 1.1	330		[1997VER]
	Δ_vH		79.5			[1980AIH]
		Note: The value reported in Ref. [1980AIH] for the enthalpy of sublimation is smaller than the value given for the enthalpy of vaporization. The author of [1980AIH] noted the anomalous behavior.				
$C_{13}H_{13}NO$	[3449-48-7]	1-keto-1,2,3,4-tetrahydro-6-methylcarbazole				
	$\Delta_{fus}H$		26.9	468.5		[2006COR/LOP]
$C_{13}H_{13}NO$	[na]	2-(4-methoxyphenyl)-5-methylpyridine				
	$\Delta_{fus}H$		20.0	328		[2000MOR/HAR]
$C_{13}H_{13}NO_2$	[na]	(*dl*) 2-(1-naphthoxy)propionamide				
	$\Delta_{fus}H$		37.66	445		[1976LEC/COL]
$C_{13}H_{13}NO_2$	[na]	(*d*) 2-(1-naphthoxy)propionamide				
	$\Delta_{fus}H$		38.07	475		[1976LEC/COL]
$C_{13}H_{13}N_3O$	[na]	N-(4-methylphenyl)-N′-(2-pyridyl) urea				
	$\Delta_{fus}H$		204.45	447		[2002LU/SON, 2004SON/TAN]
		Note: Value is too large. The compound may have decomposed upon melting, or there is a decimal place error in the numerical value.				
$C_{13}H_{13}N_3S$	[53385-83-4]	N-2-(6-picolyl)-N′-phenylthiourea				
	$\Delta_{fus}H$		43.5	460.7	DSC	[2002VAL/HER]
$C_{13}H_{13}OP$	[2129-89-7]	methyldiphenylphosphine oxide				
	$\Delta_{fus}H$		20.37	385.4	DSC	[2010HU/WAN]
$C_{13}H_{14}$	[2245-38-7]	1,6,7-trimethylnaphthalene				
	Δ_vH	(323–473)	68.6	398	GC	[2002LEI/CHA]
$C_{13}H_{14}$	[6158-45-8]	1-isopropylnaphthalene				
	Δ_vH	(402–541)	50.4	417	A	[1987STE/MAL]
$C_{13}H_{14}$	[2027-17-0]	2-isopropylnaphthalene				
	Δ_vH	(402–541)	60.3	417	A	[1987STE/MAL]
$C_{13}H_{14}N_2$	[1208-52-2]	2,4′-diaminodiphenylmethane				
	Δ_vH	(353–403)	111.5	368	A	[1987STE/MAL]
$C_{13}H_{14}N_2$	[101-77-9]	4,4′-diaminodiphenylmethane				
	$\Delta_{fus}H$		19.69	362.7	DSC	[2006KHI/DAH]
	$\Delta_{fus}H$		9.23	363.7		[1996DOM/HEA]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(343–393)	109.3	358	A	[1987STE/MAL]
	$\Delta_v H$	(486–545)	98.0	501	A	[1987STE/MAL]
	$\Delta_v H$	(471–545)	100.6	502	A	[1966ZAL/STR]
$C_{13}H_{14}N_2$	[6582-52-1]	2,2′-diaminodiphenylmethane				
	$\Delta_{sub}H$	(343–403)	111.3	358	A	[1987STE/MAL]
$C_{13}H_{14}N_2O_3S$	[19837-74-2]	4-amino-N-(4-methoxyphenyl)benzenesulfonamide				
	$\Delta_{fus}H$		38.6	467.4	DSC	[2009PER/TKA]
	$\Delta_{sub}H$		124 ± 1	298	GS	[2009PER/TKA]
	$\Delta_v H$		99.4	298	S-F	[2009PER/TKA]
$C_{13}H_{15}Cl_2N_3$	[56518-41-3]	5-[(4-bromo-3,5-dimethoxyphenyl)methyl]-2,4-pyrimidinediamine				
	$\Delta_{fus}H$		49.9	505.4		[2007CAI/BET]
$C_{13}H_{15}Cl_2N_3$	[66246-88-6]	1-[2-(2,4-dichlorophenyl)pentyl]-1*H*-1,2,4-triazole (penconazole)				
	$\Delta_{fus}H$		33.58	332.4		[2004SUN/SON2]
$C_{13}H_{15}Cl_3O_3$	[120-39-8]	2,4,6-trichlorophenoxyacetic acid, pentyl ester				
	$\Delta_v H$	(460–573)	78.8	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{13}H_{15}N$	[17058-12-7]	1,2,3,4-tetrahydro-9-methylcarbazole				
	$\Delta_{trs}H$		0.08	162		
	$\Delta_{fus}H$		14.67	323.8		[1992STE/CHI]
	$\Delta_v H$	(370–655)	72.5	400	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(370–655)	69.6	440	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(370–655)	66.7	480	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(370–655)	63.8	520	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(370–655)	60.7	560	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(370–655)	57.4	600	EB,IP	[1992STE/CHI]
	$\Delta_v H$	(370–655)	53.8	640	EB,IP	[1992STE/CHI]
$C_{13}H_{15}NO$	[na]	1-(1-isocyanato-1-methylethyl)-4-(1-methylethylbenzene)				
	$\Delta_v H$	(298–463)	68.5	308	DTA, T, HSA	[1986ACH/HAS]
$C_{13}H_{15}NO_2$	[24691-76-7]	3,4-dihydro-6-methyl-2*H*-pyran-5-carboxanilide				
	$\Delta_{fus}H$		19.21	381.1	DSC	[1990DON/DRE]
$C_{13}H_{15}NO_2$	[na]	ethyl 4,7-dihydro-4,7-ethano-2*H*-isoindole-1-carboxylate				
	$\Delta_{fus}H$		45.4	401.8		[2000UNO/ITO]
$C_{13}H_{15}N_3O_2$	[87-47-8]	3-methyl-1-phenyl-1*H*-pyrazol-5-yl dimethylcarbamate				
	$\Delta_{fus}H$		21.39	324.3	DSC	[1990DON/DRE]
$C_{13}H_{15}N_3O_8$	[53848-89-8]	hexyl 2,4,6-trinitrobenzoate				
	$\Delta_{trs}H$		1.7	264		
	$\Delta_{fus}H$		32.96	402	DSC	[1974WAR/WIL]
$C_{13}H_{16}ClNO$	[6740-88-1]	(RS)-2-(2-chlorophenyl)-2-(methylamino)cyclohexanone				
	$\Delta_{fus}H$		26.6	365.7		[2009TAM/MIR]
$C_{13}H_{16}Cl_2O_3$	[67821-07-2]	2,4-dichlorophenoxyacetic acid, isopentyl ester				
	$\Delta_v H$	(460–573)	75.8	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{13}H_{16}Cl_2O_3$	[1917-96-6]					
	$\Delta_v H$	(444–573)	73.6	459	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{13}H_{16}F_3N_3O_4$	[na]	2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)benzenamine				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		22.32	321.4		[1991ACR]
$C_{13}H_{16}F_3N_3O_4$	[na]	N-butyl-N-ethyl-2,6-dinitro-4-trifluoromethylaniline				
	$\Delta_{fus}H$		36.5	338.5		[1991ACR]
$C_{13}H_{16}N_2$	[5766-79-0]	2-phenyl-1-piperidinoacetonitrile				
	$\Delta_{fus}H$		19.71	335.2		[1997WEL/VER]
	Δ_vH	(338–378)	73.2 ± 0.4	298	GS	[1997WEL/VER]
$C_{13}H_{16}N_2O_3$	[37000-08-1]	hexahydro-1-(3-nitrobenzoyl)-1*H*-azepine (compound is called hexamethyleneimine m-nitro-benzoate in paper)				
	$\Delta_{sub}H$	(310–321)	113	315		[1972ROZ/POL]
	$\Delta_{sub}H$		104.6		ME	[1970POL/PER, 1972ROZ/POL]
$C_{13}H_{16}N_2O_6$	[159432-36-7]	2,3-dihydro-7-(1-methylethoxy)-3-[2-(nitrooxy)ethyl]-4*H*-1,3-benzoxazin-4-one				
	$\Delta_{fus}H$		32.1	344.7	DSC	[1996FON/ROS]
$C_{13}H_{17}ClN_2O_4$	[138517-06-3]	(4-nitrophenyl)-6-chlorohexyl carbamate				
	$\Delta_{fus}H$		30.31	360.8	DSC	[1993TIE/FRA]
$C_{13}H_{17}NO$	[3626-62-8]	1-(phenacyl)piperidine				
	Δ_vH	(381–446)	51.4	396	A	[1987STE/MAL, 1969DAV/MAK]
	Δ_vH	(382–450)	47.2	416		[1969DAV/MAK]
$C_{13}H_{17}NO$	[13290-48-7]	1-(*m*-toluoyl)piperidine				
	Δ_vH	(373–403)	53.8	388	A	[1987STE/MAL, 1969DAV/MAK]
$C_{13}H_{17}NO_3$	[4134-09-2]	(*dl*) N-acetylphenylalanine, ether ester				
	Δ_vH	(438–528)	82.4	453	A	[1987STE/MAL]
$C_{13}H_{17}NO_3$	[na]	morpholine cinnamate				
	$\Delta_{sub}H$	(298–349)	118.8	313	A	[1987STE/MAL]
$C_{13}H_{18}$	[941-60-6]	1,1,4,6-tetramethylindane				
	$\Delta_{fus}H$		15.74	273.6		[1991ACR]
	Δ_vH	(313–383)	59.4	328	A,EB,IP	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(313–469)	60.2	328	A,EB,IP	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(423–469)	51.9	439	A,EB,IP	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(313–469)	61.4 ± 0.5	298	EB, IP	[1978OSB/SCO]
$C_{13}H_{18}$	[1078-04-2]	1,1,4,7-tetramethylindane				
	$\Delta_{fus}H$		11.28	245.6		[1991ACR]
	Δ_vH	(313–388)	59.6	328	A,EB,IP	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(313–469)	60.4	328	A,EB,IP	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(431–469)	52.0	446	A,EB,IP	[1987STE/MAL, 1978OSB/SCO]
	Δ_vH	(313–469)	61.4 ± 0.6	298	EB, IP	[1978OSB/SCO]
$C_{13}H_{18}Br_2N_2O$	[18683-91-5]	*trans*-4-[[(2-amino-3,5-dibromophenyl)methyl]amino]cyclohexanol (ambroxol)				
	$\Delta_{fus}H$ *(I)*		31.46	372.7		
	$\Delta_{fus}H$ *(II)*		36.52	365.6		[2004CAI/FOP]
$C_{13}H_{18}ClNO$	[7287-36-7]	N-(4-chlorophenyl)-2,2-dimethylpentanamide				
	$\Delta_{fus}H$		23.31	360.2	DSC	[1990DON/DRE]
$C_{13}H_{18}ClNO$	[2307-68-8]	N-(3-chloro-4-methylphenyl)-2-methylpentanamide				
	$\Delta_{fus}H$		16.35	353.2	DSC	[1990DON/DRE]
$C_{13}H_{18}N_2O_2$	[2164-08-1]	3-cyclohexyl-6,7-dihydro-1*H*-cyclopentapyrimidine-2,4-(3*H*,5*H*)-dione				
	$\Delta_{fus}H$		42.31	584.3	DSC	[1990DON/DRE]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{13}H_{18}N_2O_2S_2$	[na]	N-allyl-S-ethyl-N′-tosylisothiourea				
	$\Delta_{fus}H$		28	335.2	DSC	[1992REI/HAN]
$C_{13}H_{18}N_2O_4$	[87458-01-3]	hexyl N-(4-nitrophenyl) carbamate				
	$\Delta_{fus}H$		32.74	376.7	DSC	[1993TIE/FRA]
$C_{13}H_{18}N_4O_3$	[6493-05-6]	1-(5-oxohexyl)-3,7-dimethylxanthine (pentoxifylline)				
	$\Delta_{fus}H$		36.6	376.8	DSC	[2009DOM/POB]
$C_{13}H_{18}O$	[5195-24-4]	4,4-dimethyl-1-phenyl-3-pentanone				
	Δ_vH	(405–520)	63.5	420	A	[1987STE/MAL]
$C_{13}H_{18}O$	[103-95-7]	*p*-isopropyl-α-methylhydrocinnamaldehyde				
	Δ_vH	(283–499)	72.6	298	A	[1987STE/MAL]
$C_{13}H_{18}O$	[1671-75-6]	1-phenyl-1-heptanone				
	Δ_vH	(373–550)	64.6	388	A	[1987STE/MAL, 1947STU]
$C_{13}H_{18}O_2$	[41643-38-9]	4-hexylbenzoic acid				
	$\Delta_{trs}H$ *(liq cryst)*		17.4	371		
	$\Delta_{trs}H$ *(liq cryst-to-liq)*		2.4	380		[1985PRI/PUC]
	$\Delta_{sub}H$	(347–363)	123.6 ± 1.0	298	ME	[2004MON/ALM]
$C_{13}H_{18}O_2$	[15687-27-1]	(±) α-methyl-4-(isobutyl)phenylacetic acid (ibuprofen)				
	$\Delta_{fus}H$		27.94	347.6	DSC	[2010HON/HUA]
	$\Delta_{fus}H$		26.6	346.4	DSC	[2006WAS/HOL]
	$\Delta_{fus}H$		25.5	347.2		
	$\Delta_{fus}H$		26.65	348		[2002GRA/RAS, 2004XU/SUN]
	$\Delta_{fus}H$		25.7	350.9	DSC	[1999LI/ZEL]
$C_{13}H_{18}O_2$	[51146-57-7]	(−) α-methyl-4-(isobutyl)phenylacetic acid (ibuprofen)				
	$\Delta_{fus}H$		17.9	327.2	DSC	[1999LI/ZEL]
$C_{13}H_{18}O_2$	[51146-56-6]	(S) α-methyl-4-(2-methylpropyl)benzeneacetic acid (S)-ibuprofen)				
	$\Delta_{fus}H$		18.05	324.2	AC	[2005XU/SUN]
	$\Delta_{fus}H$		18.7	325.5	DSC	[1996BUR/KOL]
$C_{13}H_{18}O_2$	[na]	S-ibuprofen				
	$\Delta_{fus}H$		28.3	326.9	DSC	[2010CIL/ALB]
$C_{13}H_{18}O_2$	[na]	RS-ibuprofen				
	$\Delta_{fus}H$		39.5	350.4	DSC	[2010CIL/ALB]
$C_{13}H_{18}O_3$	[200570-98-5]	3-hexyloxybenzoic acid				
	$\Delta_{fus}H$		22.72	343		[2001LAI/LEE]
$C_{13}H_{18}O_5S$	[26225-79-6]	(*dl*)-2-ethoxy-2,3-dihydro-3,3-dimethyl-5-benzofuranylmethanesulfonate				
	$\Delta_{fus}H$		26.25	344.1	DSC	[1990DON/DRE]
$C_{13}H_{18}O_7$	[138-52-3]	2-(hydroxymethyl)phenyl-β-(*d*)-glucopyranoside, (*d*)-salicin				
	$\Delta_{fus}H$		55.5	474.7	DSC	[2008PIN/DIO, 2008DIO/PIN]
$C_{13}H_{19}BrO_4$	[929259-37-0]	1-bromo-2-{2-[2-(2-methoxyethoxy)ethoxy]ethoxy}benzene				
	Δ_vH	(333–370)	96.1 ± 0.4	298	GS	[2006DAB/SPO]
$C_{13}H_{19}NO$	[na]	3-phenylpropionic acid, N,N-diethylamide				
	Δ_vH	(353–439)	46.5	368	A	[1987STE/MAL]
$C_{13}H_{19}NO$	[141271-51-4]	(4R,5R)-2,2,3,4-tetramethyl-5-phenyl-1,3-oxazolidine				
	Δ_vH	(293–301)	61.6 ± 1.8	298		[1998GUD/TOR]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound				
	Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{13}H_{19}NO_2$	[3129-92-8]	cyclohexyl ammonium benzoate				
	$\Delta_{sub}H$	(289–298)	103.1	293.5	A	[1987STE/MAL, 1965MAR]
$C_{13}H_{19}NO_2$	[7461-26-9]	hexyl N-phenylcarbamate				
	$\Delta_{fus}H$		32.76	328		[1971PRI]
$C_{13}H_{19}NO_4$	[73243-69-3]	N-phenylethyl-5-amino-1,5-dideoxy-(*d*)-glucopyranose				
	$\Delta_{fus}H$		39.9	455.8		[1994BLU/PRA]
$C_{13}H_{19}NO_4S$	[57-66-9]	4-[(dipropylamino)sulfonyl]benzoic acid (probenecid)				
	$\Delta_{fus}H$		33.57	471	DSC	[2009PEN/ESC]
	$\Delta_{fus}H$		40.9	472.1	DSC	[2006WAS/HOL]
$C_{13}H_{19}N_3O_3$	[16577-64-3]	1-hexyl-3-(4-nitrophenyl) urea				
	$\Delta_{fus}H$		25.47	384.4	DSC	[1993TIE/FRA]
$C_{13}H_{19}N_3O_4$	[40487-42-1]	N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine				
	$\Delta_{fus}H$		25.19	327.5	DSC	[1991ACR, 1990DON/DRE]
$C_{13}H_{20}$	[1078-71-3]	heptylbenzene				
	Δ_vH	(292–353)	64.2 ± 0.2	298	GS	[2006VER]
	Δ_vH	(423–527)	54.0	438	A	[1987STE/MAL]
	Δ_vH		64.9	298		[1971WIL/ZWO]
$C_{13}H_{20}N_2O_2S_2$	[81261-44-1]	N-isobutyl-S-methyl-N′-tosylisothiourea				
	$\Delta_{fus}H$		29.4	363.2	DSC	[1992REI/HAN]
$C_{13}H_{20}N_2O_2S_2$	[120563-91-9]	N-*tert*-butyl-S-methyl-N′-tosylisothiourea				
	$\Delta_{fus}H$		30.4	394.2	DSC	[1992REI/HAN]
$C_{13}H_{20}N_2O_2S_2$	[145198-70-5]	N-isopropyl-S-ethyl-N′-tosylisothiourea				
	$\Delta_{fus}H$		29.1	392.2	DSC	[1992REI/HAN]
$C_{13}H_{20}O$	[na]	butyl cumyl ether				
	Δ_vH	(278–318)	63.8 ± 0.5	298	GS	[2001VER/HEI2]
$C_{13}H_{20}O$	[127-41-3]	α-ionone				
	Δ_vH	(352–523)	62.0	367	A	[1987STE/MAL, 1947STU]
	Δ_vH	(286–333)	67.5	301	A, ME	[1987STE/MAL, 1957SER/VOI]
$C_{13}H_{20}O$	[14901-07-6]	β-ionone				
	Δ_vH	(291–334)	69.0	306	A, ME	[1987STE/MAL, 1957SER/VOI]
$C_{13}H_{20}O$	[16647-05-5]	6,10-dimethyl-4,5,9-undecatrien-2-one				
	Δ_vH	(349–421)	63.6 ± 1.4	385		[1988BAG/GUR]
$C_{13}H_{20}O$	[141-10-6]	6,10-dimethyl-3,5,9-undecatrien-2-one				
	Δ_vH	(382–457)	67.6 ± 1.1	420		[1988BAG/GUR]
$C_{13}H_{20}O$	[79-77-6]	4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-3-buten-2-one				
	Δ_vH	(373–442)	49.6 ± 1.1	408		[1988BAG/GUR]
$C_{13}H_{20}O_2$	[500-67-4]	1,3-dihydroxy-5-heptylbenzene				
	Δ_vH	(443–504)	91.6	458	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{13}H_{20}O_2$	[41395-27-1]	1,3-dihydroxy-5-methyl-2-hexylbenzene				
	Δ_vH	(433–493)	82.8	448	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{13}H_{21}Cl_3OS$	[76619-97-1]	2,3,3-trichloro-2-propenethioic acid, O-decyl ester				
	Δ_vH	(483–503)	79.9		GC	[1980PIT/KIS]
$C_{13}H_{21}N$	[29772-98-3]	N,N-dimethyl-3-methyl-3-phenyl-2-butaneamine				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(283–330)	59.8 ± 0.7	307	GS	[1998VER/BEC]
	$\Delta_v H$	(283–330)	60.3 ± 0.7	298	GS	[1998VER/BEC]
$C_{13}H_{21}N$	[29772-82-5]	N-methyl-2,3-dimethyl-3-phenyl-2-butaneamine				
	$\Delta_v H$	(285–332)	71.9 ± 1.1	309	GS	[1998VER/BEC]
	$\Delta_v H$	(285–332)	72.5 ± 1.1	298	GS	[1998VER/BEC]
$C_{13}H_{21}N$	[585-48-8]	2,6-di-*tert*-butylpyridine				
	$\Delta_v H$		56.6 ± 1.2	298		[2008FRI/ACR]
$C_{13}H_{21}NO$	[90-84-6]	2-(diethylamino)-1-phenyl-1-propanone				
	$\Delta_v H$	(293–333)	71.6 ± 1.0	298	GS	[1994WEL/VER]
$C_{13}H_{21}NO$	[1502-00-7]	N,N-dimethyl-1-adamantylcarboxamide				
	$\Delta_{sub}H$	(303–322)	96.9 ± 0.3	313	ME	[1993ABB/JIM, 1995ABB/JIM]
	$\Delta_{sub}H$		97.5 ± 0.3	298	ME	[1995ABB/JIM]
$C_{13}H_{21}NO_2$	[3246-04-6]	N-(3-phenoxy-2-hydroxypropyl)butylamine				
	$\Delta_{sub}H$	(323–348)	133.9	335.5	A	[1987STE/MAL]
$C_{13}H_{21}N_2O$	[18530-56-8]	N,N-dimethyl-N′-(octahydro-4,7-methano-1*H*-inden-5-yl)urea				
	$\Delta_{fus}H$		21.74	436.5	DSC	[1990DON/DRE]
$C_{13}H_{22}$	[na]	2-allyl-*cis*-decahydronaphthalene				
	$\Delta_v H$	(296–320)	89.9	308	A	[1987STE/MAL]
$C_{13}H_{22}$	[na]	2-allyl-*trans*-decahydronaphthalene				
	$\Delta_v H$	(296–320)	91.7	308	A	[1987STE/MAL]
$C_{13}H_{22}$	[5744-03-6]	dodecahydrofluorene				
	$\Delta_v H$	(332–525)	55.8	347	A	[1987STE/MAL]
$C_{13}H_{22}$	[707-35-7]	1,3,5-trimethyladamantane				
	$\Delta_{trs}H$		8.19	234.4		
	$\Delta_{fus}H$		2.06	255.6		[2000DRU/VAR2]
	$\Delta_{trs}H$		6.3	228.2		
	$\Delta_{fus}H$		1.73	253.6		[1977CLA/KNO]
	$\Delta_{sub}H$	(300–360)	77.8 ± 1.3	298	BG	[1977STE/WAT]
	$\Delta_v H$		51.7 ± 0.2	298		[2000DRU/VAR, 2000MEL/PIM]
$C_{13}H_{22}Cl_2O_4$	[na]	2,2-*bis*(chloromethyl)-1,3-propanediol dibutyrate				
	$\Delta_v H$	(454–572)	43.1	469	A	[1987STE/MAL]
$C_{13}H_{22}O_2$	[78548-53-5]	bornyl propionate				
	$\Delta_v H$	(337–508)	55.9	352	A	[1987STE/MAL, 1947STU]
$C_{13}H_{22}O_3$	[4427-97-8]	dicyclohexyl carbonate				
	$\Delta_{sub}H$	(293–313)	66.5 ± 4.2	303	ME	[1971KIP/RAB, 1977PED/RYL]
$C_{13}H_{22}O_3$	[49540-31-0]	3,3,7,7-tetramethylnonanedioic anhydride				
	$\Delta_{fus}H$		20.5	396.2		[1974BOR]
$C_{13}H_{24}Cl_4$	[3922-33-6]	1,1,1,13-tetrachlorotridecane				
	$\Delta_v H$	(320–370)	97.4	335	A	[1987STE/MAL]
$C_{13}H_{24}O$	[42023-59-6]	5-methyl-2-ethyl-2-butyl-4-hexenal				
	$\Delta_v H$	(323–393)	69.1	338	A	[1987STE/MAL]
$C_{13}H_{24}N_6$	[na]	1-(hexamethyleneimine)-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		16.32	335.8		[1989BRA/RYT]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{13}H_{24}O_2$	[2156-96-9]	decyl acrylate				
	$\Delta_v H$	(404–536)	59.6	419	A	[1987STE/MAL]
$C_{13}H_{24}O_2$	[1725-04-8]	oxa-2-cyclotetradecanone (tridecanolactone)				
	$\Delta_{trs}H$		18.16	290.6		
	$\Delta_{fus}H$		9.08	300.4		[1996DOM/HEA]
	$\Delta_v H$	(375–405)	66.6 ± 1.1	390	MM	[1991WIB/WAL]
	$\Delta_v H$	(375–405)	72.9 ± 1.7	298	MM	[1991WIB/WAL]
	$\Delta_v H$	(393–443)	67.5	408	A	[1987STE/MAL]
$C_{13}H_{24}O_2$	[na]	3,3-dimethylbutanoic acid, 1-methylcyclohexyl ester				
	$\Delta_v H$	(333–378)	61.4	298	CGC	[1999VER/HEI]
$C_{13}H_{24}O_2$	[na]	3,3-dimethylbutanoic acid, 3-methylcyclohexyl ester				
	$\Delta_v H$	(333–378)	63.5	298	CGC	[1999VER/HEI]
$C_{13}H_{24}O_2$	[1027080-67-6]	3,3-dimethylbutanoic acid, 4-methylcyclohexyl ester				
	$\Delta_v H$	(333–378)	64.1	298	CGC	[1999VER/HEI]
$C_{13}H_{24}O_2$	[692-86-4]	ethyl 10-undecenoate				
	$\Delta_v H$	(404–532)	77.4	419	A	[1987STE/MAL]
$C_{13}H_{24}O_3$	[1898-91-1]	1,4-dioxa-5-cyclopentadecanone				
	$\Delta_v H$	(403–443)	69.6	418	A, GC	[1987STE/MAL, 1971VOI/SHC]
$C_{13}H_{24}O_3$	[36575-54-9]	1,6-dioxa-7-cyclopentadecanone				
	$\Delta_v H$	(403–443)	75.7	418	A, GC	[1987STE/MAL, 1971VOI/SHC]
$C_{13}H_{24}O_3$	[36575-53-8]	1,8-dioxa-9-cyclopentadecanone				
	$\Delta_v H$	(403–443)	66.5	418	A, GC	[1987STE/MAL, 1971VOI/SHC]
$C_{13}H_{24}O_3$	[18871-17-5]	3-hexyl-4-acetoxytetrahydro-2*H*-pyran				
	$\Delta_v H$	(383–453)	72.1	398	A	[1987STE/MAL]
$C_{13}H_{24}O_3$	[41780-57-8]	octyl levulinate				
	$\Delta_v H$	(413–565)	66.3	428	A	[1987STE/MAL]
	$\Delta_v H$		65.1	507		[1933COW/SCH]
$C_{13}H_{24}O_4$	[na]	octyl 3-acetoxypropionate				
	$\Delta_v H$	(420–440)	88.4	430	A	[1987STE/MAL]
$C_{13}H_{24}O_4$	[72030-39-8]	ethylisopentylmalonic acid, ethyl methyl ester				
	$\Delta_v H$	(392–501)	73.1	407	A	[1987STE/MAL]
$C_{13}H_{24}O_4$	[505-52-2]	1,13-tridecanedioic acid (brassylic acid)				
	$\Delta_{fus}H$		49.4	386.3	DSC	[2005ROU/TEM]
$C_{13}H_{24}O_5$	[5456-15-5]	octyl[1-(methoxycarbonyl)ethyl] carbonate				
	$\Delta_v H$	(391–566)	70.0	406	A	[1987STE/MAL]
$C_{13}H_{24}O_5$	[na]	pentyl[1-(butoxycarbonyl)ethyl] carbonate				
	$\Delta_v H$	(348–513)	70.1	363	A	[1987STE/MAL]
$C_{13}H_{25}N$	[629-60-7]	tridecanonitrile				
	$\Delta_v H$	(301–363)	80.3 ± 0.4	298	GS	[2005EME/VER]
	$\Delta_v H$	(380–566)	69.5	395	A	[1987STE/MAL]
$C_{13}H_{25}NO$	[20299-83-6]	1-octanoyl piperidine				
	$\Delta_v H$	(373–443)	50.0	388	A	[1987STE/MAL]
$C_{13}H_{26}$	[7367-38-6]	5-butyl-4-nonene				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(310–361)	55.8	325	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{13}H_{26}$	[2437-56-1]	1-tridecene				
	$\Delta_v H$		65.3	298		[1971WIL/ZWO]
	$\Delta_v H$	(413–509)	53.9	428	A	[1987STE/MAL, 1955CAM/ROS]
$C_{13}H_{26}$	[1795-20-6]	*n*-octylcyclopentane				
	$\Delta_v H$		65.8	298		[1971WIL/ZWO]
$C_{13}H_{26}$	[5617-41-4]	*n*-heptylcyclohexane				
	$\Delta_{fus}H$		22.22	232.8		[1996DOM/HEA]
	$\Delta_v H$		64.9	298		[1971WIL/ZWO]
$C_{13}H_{26}$	[295-02-3]	cyclotridecane				
	$\Delta_{trs}H$		0.9	285.6		
	$\Delta_{fus}H$		7.4	297.6		[1987DRO/MOL]
$C_{13}H_{26}O$	[53144-53-9]	5-methyl-2-ethyl-2-butyl-4-hexene-1-ol				
	$\Delta_v H$	(333–393)	76.9	348	A	[1987STE/MAL]
$C_{13}H_{26}O$	[30089-09-9]	1-octylcyclopentanol				
	$\Delta_v H$	(468–541)	60.9	483	A	[1987STE/MAL]
$C_{13}H_{26}O$	[10486-19-8]	tridecanal				
	$\Delta_v H$	(325–349)	73.3 ± 0.4	298	GS	[2003VER/KRA2]
$C_{13}H_{26}O$	[593-08-8]	2-tridecanone				
	$\Delta_v H$	(335–534)	69.6	350	A	[1987STE/MAL]
	$\Delta_v H$	(424–510)	61	439	A	[1987STE/MAL]
	$\Delta_v H$	(400–628)	49.6	541		[1975AMB/ELL]
	$\Delta_v H$	(335–431)	69.8	348	EB	[1966MEY/WAG]
	$\Delta_v H$	(360–535)	62.1	375		[1947STU]
$C_{13}H_{26}O$	[462-18-0]	7-tridecanone				
	$\Delta_{sub}H$	(287–293)	103.8	290	ME	[1938UBB]
	$\Delta_v H$	(395–600)	62.7	410	A	[1987STE/MAL]
	$\Delta_v H$	(396–623)	49.3	536		[1975AMB/ELL]
$C_{13}H_{26}O$	[64470-31-1]	(Z) 7-tridecen-1-ol				
	$\Delta_v H$	(343–383)	95.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[64437-28-1]	(E) 7-tridecen-1-ol				
	$\Delta_v H$	(343–383)	95.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[52957-10-5]	(Z) 9-tridecen-1-ol				
	$\Delta_v H$	(343–383)	95.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[52957-15-0]	(E) 9-tridecen-1-ol				
	$\Delta_v H$	(343–383)	96.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[34010-24-7]	(Z) 11-tridecen-1-ol				
	$\Delta_v H$	(343–383)	97.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[56195-34-7]	(E) 11-tridecen-1-ol				
	$\Delta_v H$	(343–383)	97.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[1604-34-8]	6,10-dimethyl-2-undecanone				
	$\Delta_v H$	(379–473)	59.3 ± 0.4	426		[1988BAG/GUR]
$C_{13}H_{26}O_2$	[5452-11-9]	4,5-dimethyl-2-octyl-1,3-dioxolane				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(333–453)	72.8	348	A	[1987STE/MAL]
$C_{13}H_{26}O_2$	[61732-94-3]	2-octyl-1,3-dioxepane				
	$\Delta_v H$	(323–373)	61.2	338	A	[1987STE/MAL]
$C_{13}H_{26}O_2$	[1731-81-3]	undecyl acetate				
	$\Delta_v H$	(289–329)	75.1 ± 0.3	298	GS	[2006KRA/VER]
	$\Delta_v H$	(333–378)	77.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{13}H_{26}O_2$	[2311-59-3]	isopropyl decanoate				
	$\Delta_v H$	(363–451)	60.8	378	A	[1987STE/MAL]
$C_{13}H_{26}O_2$	[627-90-7]	ethyl undecanoate				
	$\Delta_{fus}H$		36.16	259.2	AC	[2005VAN/OON]
$C_{13}H_{26}O_2$	[30673-60-0]	propyl decanoate				
	$\Delta_v H$	(369–459)	62.4	384	A	[1987STE/MAL]
$C_{13}H_{26}O_2$	[111-82-0]	methyl laurate				
	$\Delta_{sub}H$	(262–273)	121.8 ± 2.1	267	ME	[1965DAV/KYB, 1987STE/MAL]
	$\Delta_v H$		71.4	350		[2002VAN/VAN]
	$\Delta_v H$		70.7 ± 0.2	356		[2002VAN/VAN]
	$\Delta_v H$		76.6 ± 0.4	298		[2002VAN/VAN]
	$\Delta_v H$	(295–452)	74.9	310		[2001BUR/JOS]
	$\Delta_v H$	(393–463)	76.8	298	GC	[1997KRO/VEL]
	$\Delta_v H$	(453–543)	53.3	498	GC	[1993HUS/SAR]
	$\Delta_v H$	(287–333)	83.6	302	A	[1987STE/MAL]
	$\Delta_v H$		76.5 ± 0.7	298	C,GC	[1980FUC/PEA]
	$\Delta_v H$		77.2 ± 0.6	298	C	[1977MAN/SEL]
	$\Delta_v H$	(407–540)	63.6	422	A	[1987STE/MAL, 1963ROS/SCH]
	$\Delta_v H$	(336–409)	71.4	351	MG,OM	[1952SCO/MAC]
	$\Delta_v H$	(373–439)	62.3	388		[1944ALT/TRI]
$C_{13}H_{26}O_2$	[245658-41-7]	3,3-dimethylbutanoic acid, 1,1,3-trimethylbutyl ester				
	$\Delta_v H$	(333–378)	58.4	298	CGC	[1999VER/HEI]
$C_{13}H_{26}O_2$	[na]	2,6-dimethyl-2-heptanol butanoate				
	$\Delta_v H$	(333–378)	62.5	298	CGC	[1999VER/HEI]
$C_{13}H_{26}O_2$	[245658-44-0]	2-methylpropanoic acid, 1,1,5-trimethylhexyl ester				
	$\Delta_v H$	(333–378)	60.8	298	CGC	[1999VER/HEI]
$C_{13}H_{26}O_2$	[638-53-9]	tridecanoic acid				
	$\Delta_{trs}H$		0.06	287.7		
	$\Delta_{trs}H$		8.5	309.1		
	$\Delta_{fus}H$		33.0	314.6	DSC	[2007GBA/NEG]
	$\Delta_{trs}H$		8.72	307.1		
	$\Delta_{fus}H$		33.74	315		[1996DOM/HEA]
	$\Delta_{sub}H$	(271–282)	112.5		TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$	(282–299)	170		TPTD	[2001CHA/TOB]
		Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods				
	$\Delta_v H$	(409–585)	90.1	424	A	[1987STE/MAL]
	$\Delta_v H$	(328–350)	100.4 ± 2.0	340	ME, TE	[1982DEK/SCH]
$C_{13}H_{26}O_3$	[42175-34-8]	decyl lactate				
	$\Delta_v H$	(349–556)	76.6	364	A	[1987STE/MAL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{13}H_{26}O_3$	[na]	octyl 3-ethoxypropionate				
	$\Delta_v H$	(398–543)	56.9	413	A	[1987STE/MAL]
$C_{13}H_{26}O_3$	[14144-56-0]	pentyl 3-pentyloxypropionate				
	$\Delta_v H$	(378–498)	62.3	393	A	[1987STE/MAL]
$C_{13}H_{26}O_3$	[40915-96-6]	peroxytridecanoic acid				
	$\Delta_{sub}H$	(293–303)	142.7 ± 5	298	ME	[1980SWA/KWA]
$C_{13}H_{27}Br$	[765-09-3]	1-bromotridecane				
	$\Delta_v H$	(425–628)	64.6	440	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{13}H_{27}Cl$	[822-13-9]	1-chlorotridecane				
	$\Delta_v H$		81.3	298		[2006BOL/NER2]
	$\Delta_v H$	(414–611)	63.0	429	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{13}H_{27}F$	[1536-21-6]	1-fluorotridecane				
	$\Delta_v H$	(387–558)	58.9	402	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{13}H_{27}I$	[35599-77-0]	1-iodotridecane				
	$\Delta_v H$	(440–655)	85.0	298	A,EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	$\Delta_v H$	(440–655)	66.1	455	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{13}H_{27}NO$	[27563-67-3]	N-methyl dodecanamide				
	$\Delta_{sub}H$	(323–337)	116.6 ± 0.8	330	GS	[1959DAV/JON, 1987STE/MAL]
$C_{13}H_{27}NO_2$	[6280-24-6]	N-decyl lactamide				
	$\Delta_v H$	(413–483)	97.9	428	A	[1987STE/MAL]
$C_{13}H_{27}NO_2$	[na]	O-decyl lactamide				
	$\Delta_v H$	(413–483)	95.0	428	A	[1987STE/MAL]
$C_{13}H_{28}$	[629-50-5]	tridecane				
	$\Delta_{trs}H$		7.7	255.2		
	$\Delta_{fus}H$		28.9	267.7	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		7.66	255		
	$\Delta_{fus}H$		28.49	267.8		[1996DOM/HEA]
	$\Delta_{sub}H$		91.4	298	B	[1972MOR3]
	$\Delta_v H$		65.3	309	C	[1996VIT/CHA]
	$\Delta_v H$		64.9	314	C	[1996VIT/CHA]
	$\Delta_v H$		64.2	324	C	[1996VIT/CHA]
	$\Delta_v H$		63.3	334	C	[1996VIT/CHA]
	$\Delta_v H$		62.4	344	C	[1996VIT/CHA]
	$\Delta_v H$		62.3	349	C	[1996VIT/CHA]
	$\Delta_v H$		66.7	298		[1994RUZ/MAJ]
	$\Delta_v H$		65.6	308	C	[1979SUN/SVE]
	$\Delta_v H$		64.6	318	C	[1979SUN/SVE]
	$\Delta_v H$		61.7	348	C	[1979SUN/SVE]
	$\Delta_v H$		66.5 ± 0.2	298	C	[1979SUN/SVE]
	$\Delta_v H$		66.4 ± 0.3	298	C	[1972MOR2]
	$\Delta_v H$		66.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(417–511)	54.5	432	A	[1987STE/MAL, 1955CAM/ROS]
$C_{13}H_{28}$	[1560-97-0]	2-methyldodecane				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(373–503)	52.5	388	A	[1987STE/MAL]
$C_{13}H_{28}$	[17312-57-1]	3-methyldodecane				
	$\Delta_v H$	(372–504)	51.4	387	A	[1987STE/MAL]
$C_{13}H_{28}$	[6117-97-1]	4-methyldodecane				
	$\Delta_v H$	(372–501)	52.0	387	A	[1987STE/MAL]
$C_{13}H_{28}$	[17453-93-9]	5-methyldodecane				
	$\Delta_v H$	(368–500)	50.6	383	A	[1987STE/MAL]
$C_{13}H_{28}$	[17312-77-5]	2,3-dimethylundecane				
	$\Delta_v H$	(383–500)	53.2	398	A	[1987STE/MAL]
$C_{13}H_{28}$	[17312-80-0]	2,4-dimethylundecane				
	$\Delta_v H$	(365–490)	52.1	380	A	[1987STE/MAL]
$C_{13}H_{28}$	[62108-27-4]	2,4,6-trimethyldecane				
	$\Delta_v H$	(352–478)	48.7	367	A	[1987STE/MAL]
$C_{13}H_{28}$	[na]	5-ethyl-5-methyldecane				
	$\Delta_v H$	(273–307)	61.4 ± 1.1	290	HSA	[1995CHI/HES]
	$\Delta_v H$		60.5 ± 1.1	298		[1995CHI/HES]
	$\Delta_v H$		61.4 ± 1.8	298	CGC	[1995CHI/HES]
$C_{13}H_{28}$	[17312-63-9]	5-butylnonane				
	$\Delta_v H$	(298–365)	52.6	313	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{13}H_{28}$	[35660-96-9]	tri-*tert*-butylmethane				
	$\Delta_{fus}H$		3.53	358.2		[1986FLA/BEC]
	$\Delta_{sub}H$		55.4	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(265–319)	57.0 ± 0.4	288	T	[1997VER/NOL]
	$\Delta_{sub}H$	(273–306)	57.7 ± 2.8	290	HSA	[1995CHI/HES]
	$\Delta_{sub}H$		61.1 ± 1.3			[1995CHI/HES]
	$\Delta_{sub}H$	(295–330)	7.7 ± 0.1	311		[1986FLA/BEC]
$C_{13}H_{28}N_2O$	[2158-09-0]	1-dodecyl urea				
	$\Delta_{trs}H$		1.3	275.4		
	$\Delta_{fus}H$		46.6	379.2	DSC	[2005HAS/TAJ]
$C_{13}H_{28}O$	[508181-43-9]	pentyl *tert*-octyl ether				
	$\Delta_v H$	(278–303)	55.9 ± 0.3	298	GS	[UR/VER, 2002VER, 2003VER/KRA]
$C_{13}H_{28}O$	[112-70-9]	1-tridecanol				
	$\Delta_{fus}H$		44.78	304.7		[2003VAN/VAN]
	$\Delta_{trs}H$		45.1	304.6		
	$\Delta_{trs}H$		41.42	304.5		
	$\Delta_{trs}H$		23.3	303.5		
	$\Delta_{trs}H$		3.6	301.6		
	$\Delta_{trs}H$		22.09	305.8		
	$\Delta_{fus}H$		18.74	306.6		[1974MOS/MOU]
	$\Delta_v H$		94.7 ± 0.4	298	CGC	[2006NIC/KWE]
	$\Delta_v H$	(307–348)	91.1	327	GS	[2001KUL/VER2]
	$\Delta_v H$	(307–348)	95.8	298	GS	[2001KUL/VER2]
	$\Delta_v H$	(313–373)	87.4	343		[1992NGU/KAS]
	$\Delta_v H$	(431–568)	69.2	446	A	[1987STE/MAL]
$C_{13}H_{28}O$	[42930-67-6]	2,2-dimethyl-3-*tert*-butyl-3-heptanol				
	$\Delta_v H$	(379–513)	58.3	394		[1973WIL/ZWO]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{13}H_{28}O$	[na]	3,3,5,5-tetramethyl-4-ethyl-4-heptanol				
	$\Delta_v H$	(393–526)	55.9	408		[1973WIL/ZWO]
$C_{13}H_{28}O$	[na]	3,3,6-trimethyl-4-isopropyl-4-heptanol				
	$\Delta_v H$	(381–512)	59.1	396		[1973WIL/ZWO]
$C_{13}H_{28}O$	[na]	3,3,6-trimethyl-4-propyl-4-heptanol				
	$\Delta_v H$	(383–513)	60.1	398		[1973WIL/ZWO]
$C_{13}H_{28}O$	[32579-70-7]	2,2,5-trimethyl-3-*tert*-butyl-3-hexanol				
	$\Delta_v H$	(377–513)	57.6	392		[1973WIL/ZWO]
$C_{13}H_{28}O$	[41902-42-5]	tri-*tert*-butylmethanol				
	$\Delta_{trs}H$		7.2	302		
	$\Delta_{fus}H$		3.43	390		[1996DOM/HEA]
	$\Delta_{sub}H$ *(plastic)*	(278–318)	56.5 ± 1.0	298	TE	[1983MAS/STE]
	$\Delta_{sub}H$ *(crys)*	(269–300)	63.2 ± 1.2	298	TE	[1983MAS/STE]
$C_{13}H_{28}O_2$	[13362-25-2]	1,13-tridecanediol				
	$\Delta_{trs}H$		28.9	343		
	$\Delta_{fus}H$		17.8	351	DSC	[1999OGA/NAK]
$C_{13}H_{28}O_2S$	[24724-30-9]	3-(decylthio)-1,2-propanediol				
	$\Delta_{trs}H$		17.3	291.9		
	$\Delta_{fus}H$		17.3	311.9	DSC	[1993ACR]
$C_{13}H_{28}O_3$	[10430-97-4]	3-(decyloxy)-1,2-propanediol				
	$\Delta_{fus}H$		38.9	311	DSC	[1993ACR]
$C_{13}H_{28}O_4$	[57499-93-1]	tripropylene glycol, monobutyl ether				
	$\Delta_v H$	(374–543)	67.1	389	A	[1987STE/MAL, 1947STU]
$C_{13}H_{28}O_5S_2$	[123483-21-6]	(*l*)-arabinose dibutyl dithioacetal				
	$\Delta_{fus}H$		41.5	380.4	DSC	[1989VAN/VAN]
$C_{13}H_{28}S$	[19484-26-5]	1-tridecanethiol				
	$\Delta_v H$	(433–598)	64.7	448		[1999DYK/SVO]
$C_{13}H_{29}N$	[2869-34-3]	tridecylamine				
	$\Delta_v H$	(458–562)	60.1	473	A, EST	[1987STE/MAL, 1956MAN2]
$C_{13}H_{29}NO_2$	[1191-45-3]	3-(decylamino)-1,2-propanediol				
	$\Delta_{fus}H$		54.8	346.6	DSC	[1993ACR]
$C_{14}H_5F_{25}$	[89109-68-2]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorotetradecane				
	$\Delta_{fus}H$		20.8	344.2	DSC	[1986RUS/RAB]
$C_{14}H_6Cl_2N_2O_4$	[66121-41-3]	1-amino-4-nitro-5,8-dichloroanthraquinone				
	$\Delta_{sub}H$		158.2			[1968TSU/KOJ, 1988BAU/PER]
$C_{14}H_6N_2O_6$	[66121-37-7]	1,4-dinitroanthraquinone				
	$\Delta_{sub}H$		131			[1968TSU/KOJ, 1988BAU/PER]
$C_{14}H_6N_6O_{12}$	[20062-22-0]	1,2-*bis*(2,4,6-trinitrophenyl)ethylene				
	$\Delta_{sub}H$	(434–479)	179.9	449	LE	[1987STE/MAL, 1969ROS/DIC]
	$\Delta_{sub}H$		180.3			[1968MAR/ARM, 1966ROS]
$C_{14}H_7ClF_3NO_5$	[50594-66-6]	5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoic acid				
	$\Delta_{fus}H$		37.67	436.6	DSC	[1990DON/DRE]
$C_{14}H_7ClO_2$	[131-09-9]	2-chloroanthraquinone				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		39.0	483		[1996DOM/HEA]
$C_{14}H_7NO_4$	[82-34-8]	1-nitroanthraquinone				
	$\Delta_{sub}H$	(407–440)	139.7	422	A	[1987STE/MAL]
	$\Delta_{sub}H$		108.9 ± 2.1	396	C	[1982MUR/SAK]
	$\Delta_{sub}H$		137.9 ± 1.7		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		115.5			[1968TSU/KOJ, 1988BAU/PER]
$C_{14}H_8$	[187-78-0]	paracylene				
	$\Delta_{sub}H$		82.0	342	ME	[2002DIO/KIY]
	$\Delta_{sub}H$		83.2	298	ME	[2002DIO/KIY]
$C_{14}H_8Br_2$	[3278-82-8]	1,5-dibromoanthracene				
	$\Delta_{sub}H$	(358–408)	116.7 ± 3.0		ME	[2008GOL/SUU2]
$C_{14}H_8Br_2$	[523-27-3]	9,10-dibromoanthracene				
	$\Delta_{sub}H$	(359–391)	114.2 ± 2.8		ME	[2008GOL/SUU2]
$C_{14}H_8Cl_2$	[605-48-1]	9,10-dichloroanthracene				
	$\Delta_{sub}H$	(316–376)	113.9 ± 4.5		ME	[2008GOL/SUU2]
$C_{14}H_8Cl_4$	[3424-92-6]	1-chloro-2-(2,2-dichloro-1-(4-chlorophenylethenyl)benzene				
	$\Delta_{fus}H$		23.84	349.8	DSC	[1990DON/DRE]
$C_{14}H_8Cl_4$	[72-55-9]	1,1-dichloro-2,2-*bis*(4-chlorophenyl)ethylene (*p*,*p*′-DDE)				
	$\Delta_{fus}H$		23.55	360.4	DSC	[1990DON/DRE]
	$\Delta_{sub}H$		74.2			[1995RUL/RAK, 1989LUB/JAN]
	$\Delta_{v}H$	(343–453)	87.2	398	GC	[1990HIN/BID2]
$C_{14}H_8Cl_6$	[3563-45-9]	1,1,1-trichloro-2-chloro-2,2-*bis*(4-chlorophenyl)ethane				
	$\Delta_{sub}H$		89.4			[1995RUL/RAK, 1989LUB/JAN]
$C_{14}H_8O_2$	[84-65-1]	9,10-anthraquinone				
	$\Delta_{fus}H$		32.57	558		[1996DOM/HEA]
	$\Delta_{sub}H$		111.3		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$	(373–453)	98.3	413	GS	[1977NIS/ISH, 1978NIS/ISH]
	$\Delta_{sub}H$		113. ± 0.8	298	C	[1973BAR/MAL]
	$\Delta_{sub}H$		107.5 ± 0.8	434	ME	[1973BAR/MAL]
	$\Delta_{sub}H$	(397–471)	107.9 ± 0.8		ME	[1973BAR/MAL]
	$\Delta_{sub}H$	(355–356)	U 105.9		TGA	[1971ASH]
	$\Delta_{sub}H$	(470–590)	127.0 ± 3.0		C	[1971BEE/LIN]
	$\Delta_{sub}H$		136.6 ± 3	298	C	[1971BEE/LIN]
	$\Delta_{sub}H$		116.1 ± 1.7		ME,TE	[1970KOJ]
	$\Delta_{sub}H$		115.1		ME	[1968TSU/KOJ, 1988BAU/PER]
	$\Delta_{sub}H$	(343–403)	126.4	373	ME	[1958HOY/PEP, 1987STE/MAL]
	$\Delta_{sub}H$		112.1	298		[1956MAG, 1970COX/PIL]
	$\Delta_{sub}H$		110.9	298		[1956BEY/NIC]
	$\Delta_{sub}H$		107.9	298		[1954JOR]
	$\Delta_{sub}H$		104.6	367	ME	[1952INO/SHI]
	$\Delta_{sub}H$		108	298	ME	[1952INO/SHI]
	$\Delta_{v}H$	(559–660)	64.3	574	A	[1987STE/MAL]
$C_{14}H_8O_2$	[84-11-7]	9,10-phenanthraquinone				
	$\Delta_{sub}H$		108.1	289	C	[1989RIB/RIB]
	$\Delta_{sub}H$		132	383		[1956MAG, 1970COX/PIL]
$C_{14}H_8O_3$	[129-43-1]	1-hydroxy-9,10-anthraquinone				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		113.4		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$	(333–383)	120.6	358		[1958HOY/PEP, 1987STE/MAL]
	$\Delta_{sub}H$		101.3 ± 0.4	407	HSA	[1956BEY/NIC]
$C_{14}H_8O_3$	[605-32-3]	2-hydroxy-9,10-anthraquinone				
	$\Delta_{sub}H$		136.8		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$	(393–453)	153.1	408	A	[1987STE/MAL]
$C_{14}H_8O_3$	[74553-57-4]	9-hydroxy-1,4-anthraquinone				
	$\Delta_{sub}H$	(377–394)	108.2 ± 2.2	386	ME	[2002JIM/ROU]
	$\Delta_{sub}H$	(377–394)	109.5 ± 2.2	298	ME	[2002JIM/ROU]
$C_{14}H_8O_3$	[6050-13-1]	2,2′-biphenyldicarboxylic anhydride				
	$\Delta_{sub}H$		120.7 ± 4.0	298	C	[2005MAT/MIR2]
	$\Delta_{sub}H$	(433–490)	91.4	448	A	[1987STE/MAL]
$C_{14}H_8O_4$	[72-48-0]	1,2-dihydroxyanthraquinone				
	$\Delta_{sub}H$	(368–498)	123.8	383	A	[1987STE/MAL]
	$\Delta_{sub}H$		121.9 ± 0.5	469	C	[1973MAL/BAR]
	$\Delta_{sub}H$	(434–505)	121.5 ± 0.4	469	ME	[1973MAL/BAR]
	$\Delta_{sub}H$		123.9	403	ME	[1958HOY/PEP]
$C_{14}H_8O_4$	[81-64-1]	1,4-dihydroxy-9,10-anthraquinone (quinizarin)				
	$\Delta_{sub}H$		115.3	363		[2003HIN/RAF]
	$\Delta_{sub}H$		114.6		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$	(353–373)	102.4 ± 4.4	363		[1984KRI]
	$\Delta_{sub}H$	(473–553)	89.1	513	GS	[1977NIS/ISH, 1978NIS/ISH]
	$\Delta_{sub}H$	(394–463)	121.9 ± 0.8	429	ME	[1973MAL/BAR]
	$\Delta_{sub}H$		121.1 ± 4	429	C	[1973MAL/BAR]
	$\Delta_{sub}H$	(324–351)	U 94.5	338	TGA	[1971ASH]
	$\Delta_{sub}H$		123.5	376		[1958HOY/PEP, 1987STE/MAL]
	$\Delta_{sub}H$		103.5 ± 1.3	409	HSA	[1956BEY/NIC]
	$\Delta_{v}H$	(469–633)	74	484	A	[1987STE/MAL, 1947STU]
$C_{14}H_8O_4$	[117-12-4]	1,5-dihydroxyanthraquinone				
	$\Delta_{sub}H$		123.2 ± 7		ME	[1973BAR/MAL]
	$\Delta_{sub}H$	(363–433)	126.8	398	ME	[1958HOY/PEP, 1987STE/MAL]
	$\Delta_{sub}H$		111.3	456		[1956BEY/NIC]
	$\Delta_{sub}H$		117.6	298		[1956BEY/NIC]
$C_{14}H_8O_4$	[117-10-2]	1,8-dihydroxyanthraquinone				
	$\Delta_{sub}H$		116.8		ME	[1973BAR/MAL]
	$\Delta_{sub}H$	(333–403)	123	368	ME	[1958HOY/PEP, 1987STE/MAL]
	$\Delta_{sub}H$	(335–356)	U 96.5	345	TGA	[1971ASH]
	$\Delta_{sub}H$		105.8 ± 8	404	HSA	[1956BEY/NIC]
	$\Delta_{sub}H$		109.6 ± 8	298		[1956BEY/NIC]
$C_{14}H_8O_4$	[84-60-6]	2,6-dihydroxyanthraquinone				
	$\Delta_{sub}H$	(463–533)	173.8	498		[1958HOY/PEP, 1987STE/MAL]
$C_{14}H_8O_6$	[81-60-7]	1,4,5,8-tetrahydroxyanthraquinone				
	$\Delta_{sub}H$	(403–473)	151.6	438		[1958HOY/PEP, 1987STE/MAL]
$C_{14}H_9Br$	[1564-64-3]	9-bromoanthracene				
	$\Delta_{sub}H$	(315–368)	100.5 ± 1.8		ME	[2008GOL/SUU2]
$C_{14}H_9Cl$	[4985-70-0]	1-chloroanthracene				
	$\Delta_{fus}H$		14.14	355.2		[1970GUA/SAR]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound				
	Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_9Cl$	[17135-78-3]	2-chloroanthracene				
	$\Delta_{sub}H$	(331–371)	99.3 ± 2.7		ME	[2008RIB/SCH]
$C_{14}H_9Cl$	[716-53-0]	9-chloroanthracene				
	$\Delta_{fus}H$		18.66	379.2		[1970GUA/SAR]
$C_{14}H_9ClF_2N_2O_2$	[35367-38-5]	N-[[(4-chlorophenylamino]carbonyl]-2,6-difluorobenzamide				
	$\Delta_{fus}H$		55.99	499.5	DSC	[1990DON/DRE]
$C_{14}H_9ClN_2O_4$	[12217-79-7]	1,5-diaminochloro-4,8-dihydroxyanthraquinone (C.I. disperse blue 56)				
	$\Delta_{sub}H$	(483–533)	93.3	498	A	[1987STE/MAL]
$C_{14}H_9Cl_2NO_3$	[42576-02-3]	methyl 5-(2,4-dichlorophenoxy)-2-nitrobenzoate				
	$\Delta_{fus}H$		26.31	358.3	DSC	[1991ACR, 1990DON/DRE]
$C_{14}H_9Cl_3$	[na]	1-chloro-2,2-(*bis*-(4-chlorophenyl)ethylene				
	$\Delta_{fus}H$		25.52	337.9	DSC	[1969PLA/GLA]
$C_{14}H_9Cl_5$	[50-29-3]	1,1,1-trichloro-2,2-*bis*(4-chlorophenyl)ethane (*pp′*DDT)				
	$\Delta_{fus}H$		26.28	382.1	DSC	[1991ACR, 1990DON/DRE]
	$\Delta_{sub}H$	(273–313)	120.2 ± 1.0	293	GS	[1994WAN/SHU]
	$\Delta_{sub}H$	(323–363)	115	338	A	[1987STE/MAL]
	$\Delta_{sub}H$	(293–353)	110	304	GS	[1980ROT]
	$\Delta_{sub}H$	(293–313)	117.8	303	GS	[1972SPE/CLI]
	$\Delta_{sub}H$	(323–363)	117.5	338	GS	[1956DIC, 1960JON]
	$\Delta_{sub}H$	(313–363)	84	338	GS	[1949KUH/MAS]
	$\Delta_{sub}H$	(339–373)	118	356	TE	[1947BAL]
	Δ_vH		106.1 ± 1.3	398	GS	[2001PUR/CHI]
	Δ_vH	(343–453)	93.2	398	GC	[1990HIN/BID2]
$C_{14}H_9Cl_5$	[789-02-6]	1,1,1-trichloro-2-(4-chlorophenyl)-2-(2-chlorophenyl)ethane (p,o′-DDT)				
	Δ_vH	(343–453)	88.6	398	GC	[1990HIN/BID2]
$C_{14}H_9Cl_5$	[789-02-6]	1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)benzene				
	$\Delta_{fus}H$		23.09	345.8	DSC	[1990DON/DRE]
$C_{14}H_9Cl_5$	[na]	DDT				
	Δ_vH	(313–363)	338	83.7		[1949KUH/MAS]
$C_{14}H_9Cl_5O$	[10606-46-9]	2-chloro-α-(4-chlorophenyl)-α-(trichloromethyl)benzenemethanol				
	$\Delta_{fus}H$		25.2	396.3		[1991ACR, 1990DON/DRE]
$C_{14}H_9Cl_5O$	[115-32-2]	4-chloro-α-(4-chlorophenyl)-α-(trichloromethyl)benzenemethanol				
	$\Delta_{fus}H$		19.56	347.2	DSC	[1990DON/DRE]
$C_{14}H_9F_3O_2$	[893-33-4]	4,4,4-trifluoro-1-(2-naphthyl)-butan-1,3-dione				
	$\Delta_{sub}H$		108.7 ± 0.6	298	ME	[1997RIB/GON]
$C_{14}H_9F_{17}O_2$	[1996-88-9]	perfluorooctylethylene methacrylate				
	$\Delta_{trs}H$		5.0	210		
	$\Delta_{fus}H$		9.0	253		[1992HOP/FAU]
$C_{14}H_9F_{21}O$	[na]	ω-perfluorodecyl-1-butanol				
	$\Delta_{fus}H$		21.3	360		[1991HOP/MOL]
$C_{14}H_9NO_2$	[82-45-1]	1-aminoanthraquinone				
	$\Delta_{fus}H$		28.78	524.2		[1988BAU/PER]
	$\Delta_{sub}H$		121.8		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$	(413–443)	126.5	428	A	[1987STE/MAL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(368–393)	116.3 ± 3.9	380		[1984KRI]
	$\Delta_{sub}H$	(473–553)	103.3	513	GS	[1977NIS/ISH, 1978NIS/ISH]
	$\Delta_{sub}H$	(361–386)	U 90.9	374	TGA	[1971ASH]
	$\Delta_{sub}H$		125.9 ± 2.5		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		131			[1968TSU/KOJ, 1988BAU/PER]
	$\Delta_{sub}H$		113 ± 0.4	463	HSA	[1956BEY/NIC]
$C_{14}H_9NO_2$	[117-79-3]	2-aminoanthraquinone				
	$\Delta_{sub}H$		136.8		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$		143.5 ± 2.9		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		162.3			[1968TSU/KOJ, 1988BAU/PER]
$C_{14}H_9NO_2$	[602-60-8]	9-nitroanthracene				
	$\Delta_{fus}H$		20.1	420.4	DSC	[2010KES/AUC]
	$\Delta_{sub}H$	(361–377)	111.9 ± 0.6	369	ME	[2006RIB/AMA3]
	$\Delta_{sub}H$	(361–377)	115.4 ± 0.6	298	ME	[2006RIB/AMA3]
$C_{14}H_9NO_3$	[116-85-8]	1-hydroxy-4-aminoanthraquinone				
	$\Delta_{sub}H$		127.2		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$	(418–438)	131.3	428	A	[1987STE/MAL, 1980ROD/KRU]
	$\Delta_{sub}H$	(444–473)	144	458.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		119.6			[1984KAR/KRU]
	$\Delta_{sub}H$		133.5 ± 2.1		TE,ME	[1970KOJ]
	$\Delta_{sub}H$		120.1			[1968TSU/KOJ, 1988BAU/PER]
$C_{14}H_9N_3O_4$	[82-33-7]	1,4-diamino-5-nitroanthraquinone				
	$\Delta_{sub}H$ *(not crystalline)*	(473–553)	U 50.2	513	GS	[1977NIS/ISH, 1978NIS/ISH]
$C_{14}H_{10}$	[120-12-7]	anthracene				
	$\Delta_{fus}H$	(463–503)	29.8	492	DSC	[2003ROJ/ORO]
	$\Delta_{fus}H$		31.5	491	DSC	[2003STO/KRZ]
	$\Delta_{fus}H$		28.8	489.4	DSC	[2000LIS/JAM]
	$\Delta_{fus}H$		29.37	488.9		[1996DOM/HEA]
	$\Delta_{sub}H$	(339–399)	97.6 ± 1.3	369	ME	[2009SID/SID]
	$\Delta_{sub}H$	(339–399)	98.2	298	ME	[2009SID/SID]
	$\Delta_{sub}H$	(320–355)	97.9 ± 0.6		ME	[2009OJA/CHE]
	$\Delta_{sub}H$	(320–350)	98.4 ± 0.7		ME	[2009OJA/CHE]
	$\Delta_{sub}H$	(320–354)	95.6 ± 1.2	337		[2006CHE/OJA]
	$\Delta_{sub}H$	(340–360)	98.8 ± 0.4	350	ME	[2006RIB/MON]
	$\Delta_{sub}H$	(340–360)	100.2 ± 0.4	298	ME	[2006RIB/MON]
	$\Delta_{sub}H$	(348–368)	102.5 ± 1.9	358	ME	[2004VER]
	$\Delta_{sub}H$		96.3 ± 0.7	298	DSC	[2003ROJ/ORO]
	$\Delta_{sub}H$		106		DSC	[2003STO/KRZ]
	$\Delta_{sub}H$	(423–488)	94.5		MEM	[1999EMM/PIC]
	$\Delta_{sub}H$	(338–353)	102.5		ME	[1998KLO/LAU]
	$\Delta_{sub}H$		99.4	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(318–363)	100.0 ± 2.8	341	ME	[1998OJA/SUU]
	$\Delta_{sub}H$	(343–448)	84.0 ± 3.0	298	TGA	[1997TES/PIK]
	$\Delta_{sub}H$	(313–453)	99.7	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(318–373)	98.7	346	GS	[1986ROR]
	$\Delta_{sub}H$	(313–363)	102.6	338	GS	[1986HAN/ECK]
	$\Delta_{sub}H$	(353–399)	94.3		GS	[1983BEN/BIE]
	$\Delta_{sub}H$	(283–323)	91.8 ± 0.9	303	GS	[1983SON/ZOL]
	$\Delta_{sub}H$	(323–353)	91.2	338	GS	[1982GRA/FOS]
	$\Delta_{sub}H$		97.4 ± 1.1		GS,C	[1981BRO/MCE]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		97.8 ± 0.1		HSA	[1980DYG/STE]
	$\Delta_{sub}H$	(337–361)	104.5 ± 1.5	298	TE,ME	[1980DEK]
	$\Delta_{sub}H$	(358–393)	94.8	376	GS	[1979MAC/PRA]
	$\Delta_{sub}H$	(363–448)	98.8 ± 0.4		HSA	[1977DYG/STE]
	$\Delta_{sub}H$	(328–372)	97.2		ME	[1976TAY/CRO]
	$\Delta_{sub}H$		97.1		C	[1975ADE/BRO]
	$\Delta_{sub}H$	(323–353)	102.9 ± 4.8	298	TE	[1975DEK/VAN]
	$\Delta_{sub}H$	(283–323)	95.8 ± 6		LE	[1973MCE/SAN]
	$\Delta_{sub}H$	(353–432)	101.0 ± 0.5		ME	[1973MAL/GIG]
	$\Delta_{sub}H$		99.7	393	C	[1973MAL/GIG]
	$\Delta_{sub}H$	(290–358)	84.1		ME,C	[1972WIE, 1971BEE/LIN]
	$\Delta_{sub}H$	(342–359)	98.3 ± 2.1			[1964KEL/RIC, 1970COX/PIL]
	$\Delta_{sub}H$	(327–346)	90 ± 01.3	337	TE	[1960BUD]
	$\Delta_{sub}H$		100.8			[1958HOY/PEP, 1970COX/PIL]
	$\Delta_{sub}H$	(303–373)	103.4 ± 2.9			[1958HOY/PEP, 1970COX/PIL]
	$\Delta_{sub}H$		100.8 ± 4.2			[1958HOY/PEP, 1970COX/PIL]
	$\Delta_{sub}H$	(396–421)	97.5 ± 2		HSA	[1953STE]
	$\Delta_{sub}H$	(339–353)	102.1	346		[1953BRA/CLE]
	$\Delta_{sub}H$	(338–353)	102.1 ± 2.1			[1953BRA/CLE2, 1970COX/PIL]
	$\Delta_{sub}H$		92.0 ± 2.1	364	ME	[1952INO/SHI]
	$\Delta_{sub}H$		90.4	353	ME	[1951INO]
	$\Delta_{sub}H$		95.4			[1951NIT/SEK]
	$\Delta_{sub}H$		95.0			[1950NIT/SEK3]
	$\Delta_{sub}H$	(378–398)	97.3 ± 1.2		RG	[1949SEA/HOP2]
	$\Delta_{sub}H$		104.6 ± 4.2			[1949KLA, 1970COX/PIL]
	$\Delta_{sub}H$		93.3 ± 4.2	353		[1938WOL/WEG]
	$\Delta_{v}H$		66.7	498		[2003ROJ/ORO, 2008HAN/NUT]
	$\Delta_{v}H$		78.5	298	CGC	[2008ZHA/UNH]
	$\Delta_{v}H$	(413–473)	79.5 ± 1.2	298	GC	[2006HAF/PAR]
	$\Delta_{v}H$	(323–473)	72.4	398	GC	[2002LEI/CHA]
	$\Delta_{v}H$		79.1	298	CGC	[2001PUR/CHI]
	$\Delta_{v}H$		79.8	298	CGC	[1998CHI/HES]
	$\Delta_{v}H$	(453–503)	79.6	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(343–453)	69.7	398	GC	[1990HIN/BID2]
	$\Delta_{v}H$	(504–615)	58.6	519	A	[1987STE/MAL]
	$\Delta_{v}H$		62.1	500		[1979KUD/KUD2, 2008HAN/NUT]
	$\Delta_{v}H$	(500–616)	59.2	558	I	[1923MOR/MUR]
	$\Delta_{v}H$	(500–616)	60.3	515	I	[1923MOR/MUR, 1984BOU/FRI]
	$\Delta_{v}H$	(496–614)	59.6	555	I	[1922NEL/SEN]
	$\Delta_{v}H$	(496–614)	60.7	511	I	[1922NEL/SEN, 1984BOU/FRI]
$C_{14}D_{10}$	[1719-06-8]	anthracene-d_{10}				
	$\Delta_{v}H$		78.4	298	CGC	[2008ZHA/UNH]
$C_{14}H_{10}$	[85-01-8]	phenanthrene				
	$\Delta_{fus}H$		18.1	na	DSC	[2003SHA/KAN]
	$\Delta_{fus}H$	(353–383)	16.6	367.6	DSC	[2003ROJ/ORO]
	$\Delta_{trs}H$		0.22	347.5		
	$\Delta_{fus}H$		16.2	372.9	DSC	[2000LIS/JAM]
	$\Delta_{fus}H$		16.46	372.4		[1996DOM/HEA]
	$\Delta_{sub}H$	(313–333)	91.6 ± 0.4	323	ME	[2006RIB/MON]
	$\Delta_{sub}H$	(313–333)	92.5 ± 0.4	298	ME	[2006RIB/MON]
	$\Delta_{sub}H$		89.6 ± 0.8	298	DSC	[2003ROJ/ORO]
	$\Delta_{sub}H$		92 ± 1		LE	[1998PRI/HAW]
	$\Delta_{sub}H$		90.5	298	CGC-DSC	[1998CHI/HES]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(303–333)	95.0 ± 4.4	318	ME	[1998OJA/SUU]
	$\Delta_{sub}H$	(313–453)	88.9	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$		87.2 ± 1.1	350	DSC	[1988TOR/BAR]
	$\Delta_{sub}H$		90.9 ± 1.7	298	DSC	[1988TOR/BAR]
	$\Delta_{sub}H$	(323–348)	96.2	335	GS	[1986SAT/INO]
	$\Delta_{sub}H$	(317–362)	82 ± 2	340	TE	[1983FER/IMP]
	$\Delta_{sub}H$	(283–323)	95.0 ± 0.6	303	GS	[1983SON/ZOL]
	$\Delta_{sub}H$	(315–335)	92.5 ± 2	298	TE,ME	[1980DEK]
	$\Delta_{sub}H$	(325–364)	87.2	345	GS	[1979MAC/PRA]
	$\Delta_{sub}H$		87.2	372	B	[1975OSB/DOU]
	$\Delta_{sub}H$	(300–330)	87.4 ± 0.8	298	TE	[1975DEK/VAN]
	$\Delta_{sub}H$	(312–326)	86.6 ± 0.8	298	TCM	[UR/DEL, 1975DEK/VAN]
	$\Delta_{sub}H$		90.9 ± 0.4	298	C	[1972MOR, 1977PED/RYL]
	$\Delta_{sub}H$	(279–315)	84.1 ± 2.5	297	TE	[1960BUD]
	$\Delta_{sub}H$	(273–333)	95.9	303		[1958HOY/PEP, 1970COX/PIL]
	$\Delta_{sub}H$	(310–323)	86.6			[1953BRA/CLE2, 1970COX/PIL]
	$\Delta_{sub}H$					[1960JON]
	$\Delta_{sub}H$		90.7 ± 1.2	315	ME	[1952INO/SHI]
	$\Delta_{sub}H$		81.6	323	ME	[1951INO]
	$\Delta_{sub}H$		92.9			[1949KLA, 1970COX/PIL]
	$\Delta_{sub}H$		84.1 ± 0.8	313		[1938WOL/WEG]
	$\Delta_{v}H$		78.7	298	CGC	[2008ZHA/UNH]
	$\Delta_{v}H$	(413–483)	79.0 ± 1.2	298	GC	[2006HAF/PAR]
	$\Delta_{v}H$	(323–473)	72.2	398	GC	[2002LEI/CHA]
	$\Delta_{v}H$		78.7	298	CGC	[1998CHI/HES]
	$\Delta_{v}H$		72.5		GC	[1996GOV/RUT]
	$\Delta_{v}H$	(403–453)	78.5	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(343–453)	71.2	398	GC	[1990HIN/BID2]
	$\Delta_{v}H$	(391–613)	58.2	406	A	[1987STE/MAL]
	$\Delta_{v}H$	(373–423)	69.6	388	A	[1987STE/MAL, 1975OSB/DOU]
	$\Delta_{v}H$		71.2	372		[1977FIN/MES]
	$\Delta_{v}H$		69.7	390		[1977FIN/MES]
	$\Delta_{v}H$		67.5	420		[1977FIN/MES]
	$\Delta_{v}H$	(476–620)	57.2	548	I	[1923MOR/MUR]
	$\Delta_{v}H$	(476–620)	61.2	491	I	[1923MOR/MUR, 1984BOU/FRI]
	$\Delta_{v}H$	(505–614)	59.3	560	I	[1922NEL/SEN]
	$\Delta_{v}H$	(505–614)	61.2	520	I	[1922NEL/SEN, 1984BOU/FRI]
$C_{14}D_{10}$	[1517-22-2]	phenanthrene-d_{10}				
	$\Delta_{sub}H$	(283–323)	92.2 ± 1.1	303	GS	[1983SON/ZOL]
	$\Delta_{v}H$		78.6	298	CGC	[2008ZHA/UNH]
$C_{14}H_{10}$	[501-65-5]	diphenylacetylene				
	$\Delta_{fus}H$		21.5	335	DSC	[2002STE/CHI3]
	$\Delta_{fus}H$		20.5	334		[1996DOM/HEA]
	$\Delta_{sub}H$		95.3	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(298–316)	95.1 ± 1.1	298	ME	[1993DIO/MIN]
	$\Delta_{sub}H$	(299–321)	90.0 ± 4.5	310	HSA	[1986CHI/ANN]
	$\Delta_{sub}H$	(299–321)	88.7 ± 1.25	313		[1938WOL/WEG, 1938WEG, 1960JON]
	$\Delta_{v}H$	(439–517)	63.8 ± 0.2	440	EB	[2002STE/CHI3]
	$\Delta_{v}H$	(439–517)	60.9 ± 0.2	480	EB	[2002STE/CHI3]
	$\Delta_{v}H$	(439–517)	58.1 ± 0.3	520	EB	[2002STE/CHI3]
$C_{14}H_{10}Cl_2O_2$	[83-05-6]	*bis*(4-chlorophenyl)acetic acid				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		31.66	440.2	DSC	[1991ACR, 1990DON/DRE]
$C_{14}H_{10}Cl_4$	[72-54-8]	1,1-dichloro-2,2-*bis*(4-chlorophenyl)ethane p,p′-DDD				
	$\Delta_{fus}H$		27.31	382.1	DSC	[1991ACR, 1990DON/DRE]
	Δ_vH	(343–453)	88.5	398	GC	[1990HIN/BID2]
$C_{14}H_{10}Cl_4$	[121107-48-0]	(2,2′,4,6′-tetrachloro-5-methyldiphenyl)methane				
	Δ_vH		98.6	298	GC	[1996VAN/VAN]
$C_{14}H_{10}Cl_4$	[121107-46-8]	(2,2′,4,5′-tetrachloro-5-methyldiphenyl)methane				
	Δ_vH		101	298	GC	[1996VAN/VAN]
	Δ_vH		92.4		GC	[1996GOV/RUT]
$C_{14}H_{10}Cl_4$	[121107-54-8]	(2,2′,5,5′-tetrachloro-4-methyldiphenyl)methane				
	Δ_vH		101.2	298	GC	[1996VAN/VAN]
	Δ_vH		92.6		GC	[1996GOV/RUT]
$C_{14}H_{10}Cl_4$	[121107-44-6]	(2,2′,4,4′-tetrachloro-5-methyldiphenyl)methane				
	Δ_vH		101.3	298	GC	[1996VAN/VAN]
	Δ_vH		92.8		GC	[1996GOV/RUT]
$C_{14}H_{10}Cl_4$	[121107-47-9]	(2,2′,4,6′-tetrachloro-3-methyldiphenyl)methane				
	Δ_vH		100.1	298	GC	[1996VAN/VAN]
$C_{14}H_{10}Cl_4$	[121107-83-5]	(2′,3,4,6′-tetrachloro-6-methyldiphenyl)methane				
	Δ_vH		101.1	298	GC	[1996VAN/VAN]
$C_{14}H_{10}Cl_4$	[121107-43-5]	(2,2′,4,4′-tetrachloro-3-methyldiphenyl)methane				
	Δ_vH		101.8	298	GC	[1996VAN/VAN]
	Δ_vH		93.0		GC	[1996GOV/RUT]
$C_{14}H_{10}Cl_4$	[121107-65-1]	(2,3′,4,4′-tetrachloro-5-methyldiphenyl)methane				
	Δ_vH		103.8	298	GC	[1996VAN/VAN]
$C_{14}H_{10}Cl_4$	[121107-77-5]	(2′3,4,4′-tetrachloro-6-methyldiphenyl)methane				
	Δ_vH		103	298	GC	[1996VAN/VAN]
	Δ_vH		94.2		GC	[1996GOV/RUT]
$C_{14}H_{10}F_3NO_2$	[530-78-9]	2-[[3-(trifluoromethyl)phenyl]amino]benzoic acid (flufenamic acid)				
	$\Delta_{fus}H$		26.7	405	DSC	[2007PER/SUR2, 2009SUR/TER]
	$\Delta_{fus}H$		27.0	407.3	DSC	[2004ROM/BUS]
	$\Delta_{sub}H$	(339–376)	119.4 ± 0.7	358	GS	[2007PER/SUR2, 2009SUR/TER]
	$\Delta_{sub}H$	(339–376)	121.2 ± 0.7	298	GS	[2007PER/SUR2, 2009SUR/TER]
	Δ_vH		101.6	298	S-F	[2007PER/SUR2]
$C_{14}H_{10}F_4$	[425-32-1]	1,1,2,2-tetrafluoro-1,2-diphenylethane				
	$\Delta_{fus}H$		28.83	399.2		[1997SCH/VER]
	$\Delta_{sub}H$		101.8	298		[1997SCH/VER]
$C_{14}H_{10}N_2O_2$	[128-95-0]	1,4-diaminoanthraquinone				
	$\Delta_{fus}H$		24.2	484.2		[1988BAU/PER]
	$\Delta_{sub}H$		143		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$	(448–474)	151.2	461		[1987STE/MAL, 1980ROD/KRU]
	$\Delta_{sub}H$		136			[1984KAR/KRU]
	$\Delta_{sub}H$	(378–403)	102.6 ± 9.7	390		[1984KRI]
	$\Delta_{sub}H$	(473–553)	123	513	GS	[1977NIS/ISH, 1978NIS/ISH]
	$\Delta_{sub}H$		199.2 ± 2.5		TE,ME	[1970KOJ]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		123.4			[1968TSU/KOJ, 1988BAU/PER]
	$\Delta_{sub}H$		138.1		GS	[1967DAT/KAN, 1991HOR]
$C_{14}H_{10}N_2O_2$	[129-44-2]	1,5-diaminoanthraquinone				
	$\Delta_{sub}H$	(405–427)	118.5 ± 4.8	416		[1984KRI]
$C_{14}H_{10}N_2O_2$	[4870-16-0]	N-anilinophthalimide				
	$\Delta_{trs}H$		1.62	401		
	$\Delta_{fus}H$		26.9	457		[1998BOT/ELL]
$C_{14}H_{10}N_2O_3$	[58658-02-9]	10-methyl-2-nitroacridin-9(10*H*)-one				
	$\Delta_{fus}H$		37.6	561	DSC	[2003STO/KRZ]
$C_{14}H_{10}O$	[90-44-8]	anthrone				
	$\Delta_{fus}H$		26.8	429		[1996DOM/HEA]
		Note: Some decomposition upon melting				
	$\Delta_{sub}H$		106.1 ± 0.8	298	GS	[1998VER4]
	$\Delta_{sub}H$		103.3	298		[1991ELW/SAB, 1992SAB/WAT]
	$\Delta_{sub}H$		99.6	354	C	[1991ELW/SAB]
$C_{14}H_{10}O$	[30084-90-3]	2-fluorenecarboxaldehyde				
	$\Delta_{sub}H$	(338–356)	100.0 ± 3.4		ME	[2008GOL/SUU]
$C_{14}H_{10}O_2$	[134-81-6]	benzil				
	$\Delta_{fus}H$		22.88	368.1		[2005FAT/KAS]
	$\Delta_{fus}H$		23.2	na	DSC	[2003SHA/KAN]
	$\Delta_{fus}H$		23.8	369.2	DSC	[2001RAI/VAR]
	$\Delta_{trs}H$		0.04	84.0		
	$\Delta_{fus}H$		23.56	368		[1996DOM/HEA]
	$\Delta_{trs}H$	(60–100)	0.05	84.1	AC	[1977DWO/FUC]
	$\Delta_{sub}H$	(319–340)	98.4 ± 1.1	329		[1959AIH, 1970COX/PIL, 1987STE/MAL]
	$\Delta_{sub}H$		82.8			[1938WOL/WEG, 1938WEG, 1960JON]
	$\Delta_{v}H$	(401–620)	69.2	416	A	[1987STE/MAL, 1947STU]
$C_{14}H_{10}O_2$	[1989-33-9]	9-fluorenecarboxylic acid				
	$\Delta_{sub}H$	(349–418)	110.1 ± 4.6		ME	[2008GOL/SUU]
$C_{14}H_{10}O_3$	[93-97-0]	benzoic acid anhydride				
	$\Delta_{fus}H$		17.15	313.2		[1971CAR/FIN]
	$\Delta_{sub}H$		96.2 ± 4.2	298	B	[1971CAR/FIN, 1977PED/RYL]
	$\Delta_{sub}H$		96.7 ± 4.2			[1947STU, 1970COX/PIL]
	$\Delta_{v}H$	(416–633)	69.1	431	A	[1987STE/MAL, 1947STU]
$C_{14}H_{10}O_4$	[94-36-0]	benzoyl peroxide				
	$\Delta_{fus}H$		22.59	378		[1967FIN/GRA]
		Note: Large uncertainty in reported value. Compound may undergo some decomposition upon melting.				
	$\Delta_{sub}H$	(310–340)	97.9 ± 2.5	298	ME	[1975CAR/LAY]
	$\Delta_{sub}H$	(293–313)	89.7 ± 4.2	303	ME	[1971KIP/RAB, 1977PED/RYL]
$C_{14}H_{10}O_4$	[3155-16-6]	diphenyl oxalate				
	$\Delta_{fus}H$		31.38	403		[1971CAR/FIN]
	$\Delta_{sub}H$		102.5 ± 8.4		B	[1971CAR/FIN, 1977PED/RYL]
$C_{14}H_{10}O_4$	[482-05-3]	2,2′-biphenyldicarboxylic acid				
	$\Delta_{sub}H$		151.9 ± 3.5	298	C	[2004MAT/MIR2]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(433–493)	166.1	448	A	[1987STE/MAL]
$C_{14}H_{10}O_4$	[787-70-2]	4,4′-biphenyldicarboxylic acid				
	$\Delta_{sub}H$		196.4 ± 7.1	298	C	[2004MAT/MIR2]
$C_{14}H_{10}O_4$	[40498-13-3]	2,3-dihydro-1,4-dihydroxy-9,10-anthraquinone				
	$\Delta_{sub}H$		110.7	363		[2003HIN/RAF]
$C_{14}H_{10}O_5$	[962-16-3]	O-phenyl-O,O-benzoyl peroxycarbonate				
	$\Delta_{sub}H$		97.9 ± 2.5			[1975CAR/LAY, 1977PED/RYL]
	$\Delta_{sub}H$		133.9 ± 4.2		E	[1971KIP/RAB, 1977PED/RYL]
$C_{14}H_{10}O_5$	[552-94-3]	salicylsalicylic acid				
	$\Delta_{fus}H$		29.0	430.2	DSC	[2004RAM/DIO]
$C_{14}H_{11}BrN_2S$	[109768-69-6]	N-(4-bromophenyl)-4*H*-3,1-benzothiazin-2-amine				
	$\Delta_{fus}H$		24.5	478.3	DSC	[2004GON/KOS]
$C_{14}H_{11}ClN_2S$	[461662-90-8]	N-(4-chlorophenyl)-4*H*-3,1-benzothiazin-2-amine				
	$\Delta_{fus}H$		27.5	476.4	DSC	[2004GON/KOS]
$C_{14}H_{11}Cl_2NO_2$	[32809-16-8]	3-(3,5-dichlorophenyl)-1,5-dimethyl-3-azabicyclo[3.1.0]hexanedione				
	$\Delta_{fus}H$		30.09	438.2	DSC	[1990DON/DRE]
$C_{14}H_{11}Cl_2NO_2$	[15307-86-5]	2-[(2,6-dichlorophenyl)amino]benzoic acid (diclofenac acid)				
	$\Delta_{fus}H$		40.4	452.6	DSC	[2009SUR/TER]
	$\Delta_{fus}H$		39.4	454.2	DSC	[2007PAS/BET]
	$\Delta_{sub}H$	(323–355)	114.7 ± 1.3	339	GS	[2007PER/SUR, 2009SUR/TER]
	$\Delta_{sub}H$	(323–355)	115.6 ± 1.3	298	GS	[2007PER/SUR, 2009SUR/TER]
$C_{14}H_{11}FO_3$	[3119-88-8]	2′-fluoro-2-hydroxy-4-methoxybenzophenone				
	$\Delta_{sub}H$	(307–318)	109.3	312.5	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{14}H_{11}FO_3$	[3506-35-2]	3′-fluoro-2-hydroxy-4-methoxybenzophenone				
	$\Delta_{sub}H$	(322–343)	U 17.3	332.5	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{14}H_{11}FO_3$	[3602-47-9]	4′-fluoro-2-hydroxy-4-methoxybenzophenone				
	$\Delta_{sub}H$	(322–343)	U 37.7	332.5	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{14}H_{11}F_3$	[68936-77-6]	1,1,2-trifluoro-1,2-diphenylethane				
	$\Delta_{fus}H$		28.37	354.2		[1997SCH/VER]
	$\Delta_{sub}H$		93.1	298		[1997SCH/VER]
$C_{14}H_{11}F_3$	[384-94-1]	1,1,1-trifluoro-2,2-diphenylethane				
	$\Delta_{v}H$	(286–328)	69.1 ± 0.9	298	GS	[1997SCH/VER]
$C_{14}H_{11}IO_3S$	[313057-05-5]	4-(2-propenyloxy)phenyl 5-iodo-2-thiophene carboxylate				
	$\Delta_{fus}H$		83.68	383.2	DSC	[2000WU/WAN]
$C_{14}H_{11}NO$	[574-39-0]	N-acetylcarbazole				
	$\Delta_{fus}H$		15.1	349.9		[2001JAM/DOB]
$C_{14}H_{11}NO$	[719-54-0]	10-methylacridin-9(10*H*)-one				
	$\Delta_{fus}H$		29.7	479	DSC	[2003STO/KRZ]
	$\Delta_{sub}H$		105		DSC	[2003STO/KRZ]
$C_{14}H_{11}NO_3$	[na]	N-salicylidene-*m*-aminobenzoic acid				
	$\Delta_{fus}H$		33.11	464		[1996DOM/HEA]
$C_{14}H_{11}NS$	[150993-53-6]	2-cyanophenyl benzyl sulfide				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		117.8 ± 2.1	298	C	[2006MUL/MOZ]
$C_{14}H_{11}N_3O_2$	[6407-69-8]	1,4,5-triaminoanthraquinone				
	$\Delta_{sub}H$	(473–553)	U 70.3	513	GS	[1977NIS/ISH, 1978NIS/ISH]
$C_{14}H_{11}N_3O_4$	[1979-14-3]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, 2-propenyl ester				
	$\Delta_{fus}H$		26.87	383.7	DSC	[2005LIZ/ZAB]
$C_{14}H_{11}N_3O_4$	[na]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, 1-propenyl ester				
	$\Delta_{fus}H$		26.27	389.4	DSC	[2005LIZ/ZAB]
$C_{14}H_{12}$	[1730-37-6]	1-methylfluorene				
	$\Delta_{sub}H$	(285–317)	91.2 ± 0.4	298	GS	[2004VER]
	$\Delta_{v}H$		77.2 ± 3.6	298	CGC	[2008HAN/NUT]
	$\Delta_{v}H$	(361–375)	78.7 ± 0.7	298	GS	[2004VER]
	$\Delta_{v}H$	(323–473)	71.1	398	GC	[2002LEI/CHA]
$C_{14}H_{12}$	[2523-37-7]	9-methylfluorene				
	$\Delta_{fus}H$		16.32	319.2	DSC	[1994RAK/VER2]
	$\Delta_{sub}H$	(285–317)	83.7 ± 0.6	298	GS	[2004VER]
	$\Delta_{sub}H$	(318–358)	82.8 ± 0.3	338	B	[1994RAK/VER2]
	$\Delta_{sub}H$		82.8 ± 0.3	298		[1994RAK/VER2]
	$\Delta_{v}H$	(320–353)	70.6 ± 0.3	298	GS	[2004VER]
	$\Delta_{v}H$	(318–358)	71.3 ± 0.2	298	GS	[2004VER]
	$\Delta_{v}H$	(318–358)	66.5	298	B	[1994RAK/VER2]
$C_{14}H_{12}$	[613-31-0]	9,10-dihydroanthracene				
	$\Delta_{sub}H$	(313–453)	93.9	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(318–379)	92.4 ± 4		ME	[1975MAL/GIG, 1987STE/MAL]
	$\Delta_{sub}H$		94.2 ± 0.8	298	ME	[1975MAL/GIG]
	$\Delta_{sub}H$	(279–328)	93.3 ± 4	304		[1958HOY/PEP, 1970COX/PIL]
	$\Delta_{sub}H$		89.5	388		[1951MAG/HAR, 1960JON]
$C_{14}H_{12}$	[776-35-2]	9,10-dihydrophenanthrene				
	$\Delta_{fus}H$		12.8	306.5	AC	[1996DOM/HEA, 1979LEE/HOS]
	$\Delta_{v}H$	(417–453)	64.0	432	A	[1987STE/MAL]
	$\Delta_{v}H$	(353–418)	72.3 ± 0.6	340	IP	[1979LEE/HOS]
	$\Delta_{v}H$	(353–418)	76.6 ± 0.1	298	IP	[1979LEE/HOS]
$C_{14}H_{12}$	[530-48-3]	1,1-diphenylethylene				
	$\Delta_{v}H$	(298–331)	70.2 ± 0.7	314	GS	[1999VER/EBE]
	$\Delta_{v}H$	(298–331)	71.2 ± 0.7	298	GS	[1999VER/EBE]
	$\Delta_{v}H$	(360–550)	59.3	375	A	[1987STE/MAL, 1947STU]
$C_{14}H_{12}$	[645-49-8]	*cis* 1,2-diphenylethylene (*cis* stilbene)				
	$\Delta_{v}H$	(308–343)	70.5 ± 0.4	298	GS	[2009CAM/EME]
	$\Delta_{v}H$	(373–428)	66.5	388	A	[1987STE/MAL]
	$\Delta_{v}H$	(276–286)	50.3 ± 1.0	298		[1952BRA/PLE, 2009CAM/EME]
$C_{14}H_{12}$	[103-30-0]	*trans* 1,2-diphenylethylene (*trans* stilbene)				
	$\Delta_{fus}H$		27.4	398.2		[1991ACR]
	$\Delta_{fus}H$		27.7	397.4	AC	[1985BOU/DEL]
	$\Delta_{sub}H$	(324–367)	102 ± 0.4	298	GS	[2009CAM/EME]
	$\Delta_{sub}H$		102	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(298–343)	99.6	313	A	[1987STE/MAL]
	$\Delta_{sub}H$		U 61.1		MS	[1983MAJ/AZZ]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(293–338)	103.8 ± 2.5	315		[1983KRA/BEC]
	$\Delta_{sub}H$		100.7 ± 0.4	298	SRFG	[1983VAN/JAC]
	$\Delta_{sub}H$	(310–340)	99.6 ± 1.7	298	TE	[1975DEK/VAN]
	$\Delta_{sub}H$		102.1 ± 0.6		TCM	[1973DEK/OON]
	$\Delta_{sub}H$		99.2 ± 0.4			[1972MOR3]
	$\Delta_{sub}H$	(303–315)	86.5 ± 0.1	309	TM	[1955ENG]
	$\Delta_{v}H$		79.7	298	CGC	[1998CHI/HES]
	$\Delta_{v}H$	(453–503)	79.8	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(403–453)	79.6	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(419–580)	65.5	434	A	[1987STE/MAL]
$C_{14}H_{12}BrNOS$	[127351-08-0]	3-bromo-N-(4-methoxyphenyl)benzenecarbothioamide				
	$\Delta_{fus}H$ *(I)*		28.5	376.7		
	$\Delta_{fus}H$ *(II)*		22.6	373.2		[2007BAS/AND]
$C_{14}H_{12}ClN$	[33442-36-3]	4-chlorobenzylidene-4′-methylaniline				
	$\Delta_{fus}H$		25.58	400.4	DSC	[1999GAL/COL]
$C_{14}H_{12}ClNO_2$	[13710-19-5]	2-[(3-chloro-2-methylphenyl)amino]benzoic acid (tolfenamic acid)				
	$\Delta_{fus}H$ *(white crys)*		41.0	484.2		
	$\Delta_{fus}H$ *(yellow crys)*		49.0	485.8	DSC	[2009SUR/SZT]
	$\Delta_{fus}H$		38.6	484.3	DSC	[2009SUR/TER]
	$\Delta_{fus}H$		41.2	485.3		[2007BER/WAS]
	$\Delta_{sub}H$	(346–373)	125.7 ± 0.8	360	GS	[2009SUR/TER]
	$\Delta_{sub}H$	(346–373)	128.4 ± 0.8	298	GS	[2009SUR/TER]
$C_{14}H_{12}F_2$	[350-62-9]	1,1-difluoro-1,2-diphenylethane				
	$\Delta_{fus}H$		24.35	339.2		[1997SCH/VER]
	$\Delta_{sub}H$		94.7 ± 0.9	298		[1997SCH/VER]
$C_{14}H_{12}F_3NO_4S_2$	[37924-13-3]	1,1,1-trifluoro-N-[2-methyl-4-(phenylsulphonyl)phenyl]methanesulfonamide				
	$\Delta_{fus}H$		31.79	418.4	DSC	[1990DON/DRE]
$C_{14}H_{12}N_2$	[22739-29-3]	N-methyl-9-acridinamine				
	$\Delta_{sub}H$		107	480	TGA	[1998STO/KRZ]
$C_{14}H_{12}N_2$	[5291-44-1]	10-methyl-9-acridinimine				
	$\Delta_{sub}H$		94	550	TGA	[1998STO/KRZ]
$C_{14}H_{12}N_2$	[588-68-1]	dibenzylideneazine				
	$\Delta_{sub}H$		93.3 ± 2.1	293	EST	[1948COA/SUT]
$C_{14}H_{12}N_2$	[484-11-7]	2,9-dimethyl-1,10-phenanthroline				
	$\Delta_{fus}H$		17.6	435.9		[2007BON/CAT]
$C_{14}H_{12}N_2$	[621-72-7]	2-benzylbenzimidazole				
	$\Delta_{sub}H$	(393–412)	134.5 ± 0.5	403	ME	[2005RIB/RIB]
	$\Delta_{sub}H$	(393–412)	136.2 ± 0.5	298	ME	[2005RIB/RIB]
$C_{14}H_{12}N_2O_2$	[192998-96-2]	*cis*-5a,6,11a,12-tetrahdro[1,4]benzothiazino[3,2-b] [1,4]-benzoxazine				
	$\Delta_{sub}H$	(383–392)	122	387	ME	[1997GUD/TOR]
	$\Delta_{sub}H$		129.0 ± 1.3	298		[1997GUD/TOR]
$C_{14}H_{12}N_2O_2$	[na]	4-nitro-4′-methylbenzylidene aniline				
	$\Delta_{fus}H$		27.3	402		[1997KER/LOC]
$C_{14}H_{12}N_2O_4$	[42472-93-5]	N-methylthalidomide				
	$\Delta_{fus}H$		18.12	432.2	DTA	[2002GOO/LAI]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{12}N_2S_2$	[165454-33-1]	*cis*-5a,6,11a,12-tetrahdro[1,4]benzothiazino[3,2-b]-[1,4]-benzothiazine				
	$\Delta_{sub}H$	(383–392)	118	387	ME	[1997GUD/TOR]
	$\Delta_{sub}H$		123.3 ± 1.2	298		[1997GUD/TOR]
$C_{14}H_{12}N_4O_2$	[2475-45-8]	1,4,5,8-tetraminoanthraquinone				
	$\Delta_{sub}H$	(473–553)	U 82	513	GS	[1977NIS/ISH, 1978NIS/ISH]
$C_{14}H_{12}O$	[451-40-1]	benzyl phenyl ketone				
	$\Delta_{v}H$	(396–594)	68.1	411	A	[1987STE/MAL, 1947STU]
$C_{14}H_{12}O$	[131-58-8]	2-methylbenzophenone				
	$\Delta_{v}H$	(435–580)	65.1	450	A	[1987STE/MAL]
$C_{14}H_{12}O$	[643-65-2]	3-methylbenzophenone				
	$\Delta_{v}H$	(445–585)	68.4	460	A	[1987STE/MAL]
$C_{14}H_{12}O$	[134-84-9]	4-methylbenzophenone				
	$\Delta_{v}H$	(450–492)	72.0	465	A	[1987STE/MAL]
$C_{14}H_{12}O$	[451-40-1]	desoxybenzoin				
	$\Delta_{sub}H$		99.3 ± 4.2			[1947STU, 1970COX/PIL]
$C_{14}H_{12}O$	[24324-17-2]	9-fluorenylmethanol				
	$\Delta_{fus}H$	(78–390)	26.27	376.6	AC	[2004DI/TAN]
$C_{14}H_{12}O_2$	[579-44-2]	(*dl*) benzoin				
	$\Delta_{v}H$		98.5 ± 12.5	298	CGC	[2006PER/CON]
	$\Delta_{v}H$	(408–616)	69.0	423	A	[1987STE/MAL, 1947STU]
$C_{14}H_{12}O_2$	[120-51-4]	benzyl benzoate				
	$\Delta_{fus}H$		20.44	293.1	DSC	[1990DON/DRE]
	$\Delta_{v}H$	(497–602)	59.7	512	A, EB	[1987STE/MAL, 1976HON/SIN]
	$\Delta_{v}H$	(297–353)	77.7	312	A, ME	[1987STE/MAL, 1957SER/VOI]
$C_{14}H_{12}O_2$	[117-34-0]	diphenylacetic acid				
	$\Delta_{fus}H$		31.18	420.4		[2010CHA/LAY]
	$\Delta_{fus}H$		31.25	420.4		[1996DOM/HEA]
$C_{14}H_{12}O_2$	[na]	(*dl*) 1,2-diphenyl-1,2-dihydroxyethane				
	$\Delta_{fus}H$		31.38	393		[1976LEC/COL]
$C_{14}H_{12}O_2$	[na]	(*d*) 1,2-diphenyl-1,2-dihydroxyethane				
	$\Delta_{fus}H$		34.31	420.5		[1976LEC/COL]
$C_{14}H_{12}O_2$	[2553-04-0]	(2-methoxyphenyl)phenylmethanone				
	$\Delta_{fus}H$		0.68	350.2	DTA	[1989SAL/ABA]
		Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent				
$C_{14}H_{12}O_2S$	[16212-06-9]	E-(2-phenylethenyl)sulfonyl benzene (phenyl *trans*-β-styrylsulfone)				
	$\Delta_{sub}H$		105 ± 3.8		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_{14}H_{12}O_3$	[118-58-1]	benzyl salicylate				
	$\Delta_{v}H$	(295–334)	78.7	310	A, ME	[1987STE/MAL, 1955SER/VOI]
$C_{14}H_{12}O_3$	[131-57-7]	2-hydroxy-4-methoxybenzophenone				
	$\Delta_{fus}H$		21.77	336.7		[2008LAG/JIM]
	$\Delta_{sub}H$	(281–337)	118.9	296	A	[1987STE/MAL]
	$\Delta_{sub}H$	(308–323)	U 39.7	315	EV	[1966GRA/BUR]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(337–413)	74.7	352	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{14}H_{12}O_3$	[na]	2-pivaloylindan-1,3-dione				
	$\Delta_{fus}H$		25.99	381.5		[1991ACR]
$C_{14}H_{12}O_4$	[131-53-3]	2,2′-dihydroxy-4-methoxybenzophenone				
	$\Delta_{fus}H$		22.0	343	DSC	[1999PRI/HAWN]
	$\Delta_{sub}H$		103.8		B	[1999PRI/HAWN]
	$\Delta_{sub}H$	(303–342)	228	318	A	[1987STE/MAL]
	$\Delta_v H$	(342–481)	75.6	357	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{14}H_{12}O_4$	[131-53-3]	2,4-dihydroxy-4′-methoxybenzophenone				
	$\Delta_{fus}H$		35.6	436.8	DSC	[1999PRI/HAWN]
	$\Delta_{sub}H$		138.3		B	[1999PRI/HAWN]
$C_{14}H_{12}O_4$	[na]	1,2-dicarbomethoxynaphthalene				
	$\Delta_{fus}H$		27.6	358.2	DSC	[1993ACR]
$C_{14}H_{12}O_4$	[18713-38-7]	1,3-dicarbomethoxynaphthalene				
	$\Delta_{fus}H$		30.5	378.7	DSC	[1993ACR]
$C_{14}H_{12}O_4$	[7487-15-2]	1,4-dicarbomethoxynaphthalene				
	$\Delta_{fus}H$		20.4	340.2	DSC	[1993ACR]
$C_{14}H_{12}O_4$	[19458-95-8]	1,5-dicarbomethoxynaphthalene				
	$\Delta_{fus}H$		26.4	392	DSC	[1993ACR]
$C_{14}H_{12}O_4$	[16144-94-8]	1,6-dicarbomethoxynaphthalene				
	$\Delta_{fus}H$		22.1	371.8	DSC	[1993ACR]
$C_{14}H_{12}O_4$	[68267-12-9]	1,7-dicarbomethoxynaphthalene				
	$\Delta_{fus}H$		20.0	363.2	DSC	[1993ACR]
$C_{14}H_{12}O_4$	[13728-34-2]	2,3-dicarbomethoxynaphthalene				
	$\Delta_{fus}H$		20.2	324.2	DSC	[1993ACR]
$C_{14}H_{12}O_4$	[2549-47-5]	2,7-dicarbomethoxynaphthalene				
	$\Delta_{fus}H$		26.6	410.2	DSC	[1993ACR]
$C_{14}H_{12}O_5$	[82-02-0]	4,9-dimethoxy-7-methyl-5*H*-furo[3,2g] [1]benzopyran-5-one (khellin)				
	$\Delta_{fus}H$ *(I)*		27.9	423.5		
	$\Delta_{fus}H$ *(II)*		32.32	426.5		[1979MAS/MAL]
$C_{14}H_{13}N$	[na]	N-benzybenzaldehyde-imine				
	$\Delta_v H$	(309–340)	83.4 ± 1.2	324	GS	[1997VER/MOR]
	$\Delta_v H$	(309–340)	85.0 ± 1.2	298	GS	[1997VER/MOR]
$C_{14}H_{13}N$	[86-28-2]	N-ethylcarbazole				
	$\Delta_{sub}H$	(310–329)	98.4 ± 0.3	319	ME	[1990JIM/ROU]
	$\Delta_{sub}H$		99.1 ± 0.3	298	ME	[1990JIM/ROU]
$C_{14}H_{13}NO$	[519-87-9]	N,N-diphenylacetamide				
	$\Delta_{fus}H$		23.4	374.4		[2001JAM/DOB]
	$\Delta_{sub}H$	(343–376)	122.7	358	A	[1987STE/MAL]
$C_{14}H_{13}NO_2$	[3585-93-1]	N-(4-methoxyphenylmethylene) benzenamine N-oxide				
	$\Delta_{sub}H$		130.6 ± 1.2	298	C	[1986KIR/ACR]
$C_{14}H_{13}N_3O_4$	[1979-08-5]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, propyl ester				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		24.99	372.2	DSC	[2005LIZ/ZAB]
$C_{14}H_{13}N_3O_4$	[1979-12-1]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, 1-methylethyl ester				
	$\Delta_{fus}H$		27.75	402	DSC	[2005LIZ/ZAB]
$C_{14}H_{13}N_3O_4S$	[71125-38-7]	4-hydroxy-2-methyl-N-(5-methyl-2-thiazolyl)-2*H*-1,2-benzothiazine-3-carboxamide-1,1-dioxide (meloxicam)				
	$\Delta_{fus}H$		71.73	530	DSC	[2007BAB/SUB]
$C_{14}H_{14}$	[620-83-7]	(4-methylphenyl)phenylmethane				
	Δ_vH	(293–333)	68.6 ± 0.3	313	GS	[1999VER5]
	Δ_vH	(293–333)	69.5 ± 0.3	298	GS	[1999VER5]
$C_{14}H_{14}$	[605-39-0]	2,2′-dimethylbiphenyl				
	$\Delta_{fus}H$		2.28	293.1		[1996DOM/HEA]
	$\Delta_{sub}H$	(283–288)	65.7	285	ME	[1974PRI/POU, 1987STE/MAL]
$C_{14}H_{14}$	[612-75-9]	3,3′-dimethylbiphenyl				
	$\Delta_{sub}H$	(288–308)	71.9	298	ME	[1974PRI/POU]
	Δ_vH	(288–308)	71.9	298	A	[1987STE/MAL, 1974PRI/POU]
$C_{14}H_{14}$	[613-33-2]	4,4′-dimethylbiphenyl				
	$\Delta_{sub}H$		95.1 ± 2.0	298	C	[1997RIB/MAT4]
$C_{14}H_{14}$	[1812-51-7]	2-ethylbiphenyl				
	$\Delta_{fus}H$		2.07	267.1		[1996DOM/HEA]
$C_{14}H_{14}$	[612-00-0]	1,1-diphenylethane				
	Δ_vH	(293–328)	68.2 ± 0.6	313	GS	[1999VER5]
	Δ_vH	(293–328)	68.9 ± 0.6	298	GS	[1999VER5]
	Δ_vH	(348–405)	62.4	363	A	[1987STE/MAL]
$C_{14}H_{14}$	[103-29-7]	1,2-diphenylethane				
	$\Delta_{trs}H$		2.25	273.2		
	$\Delta_{fus}H$		22.73	324.3		[1996DOM/HEA]
	$\Delta_{sub}H$	(293–323)	92.9	308	EM	[1989SAS/NGU]
	$\Delta_{sub}H$	(273–318)	91.2 ± 0.4	295		[1983KRA/BEC]
	$\Delta_{sub}H$		91.5 ± 0.7	298	B	[1980OSB/SCO]
	$\Delta_{sub}H$		91.4 ± 0.5	298	C	[1972MOR]
	$\Delta_{sub}H$	(286–307)	84.1 ± 0.4		V	[1959AIH, 1970COX/PIL]
	$\Delta_{sub}H$	(290–317)	72.4 ± 1.3	304	ME	[1951BRI]
	$\Delta_{sub}H$		73.2			[1938WOL/WEG, 1960JON, 1938WEG]
	Δ_vH	(323–473)	67.4	398	GC	[2002LEI/CHA]
	Δ_vH		66.2 ± 0.2	340		[1988MES/FIN]
	Δ_vH	(333–413)	64.1	373		[1989SAS/NGU]
	Δ_vH	(359–557)	57	374	A	[1987STE/MAL, 1947STU]
$C_{14}H_{14}$	[2141-42-6]	1,2,3,4-tetrahydroanthracene				
	$\Delta_{trs}H$		19.16	373.3		
	$\Delta_{fus}H$		2.92	388		[1996DOM/HEA]
$C_{14}H_{14}$	[1013-08-7]	1,2,3,4-tetrahydrophenanthrene				
	$\Delta_{fus}H$		11.17	302.6		
	$\Delta_{trs}H$		0.10	285		
	$\Delta_{trs}H$		1.77	298		[1994CHI/GAM]
$C_{14}H_{14}$	[1857-75-6]	1,2-*cis*-dimethylacenaphthene				
	$\Delta_{fus}H$		22.59	325.2		[1974CAN/JAC]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound				
	Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{14}$	[51921-69-8]	1,2-*trans*-dimethylacenaphthene				
	$\Delta_{fus}H$		18.83	350.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-64-5]	1,3-dimethylacenaphthene				
	$\Delta_{fus}H$		12.55	283.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-75-8]	1,4-dimethylacenaphthene				
	$\Delta_{fus}H$		17.57	279.7		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-80-5]	1,5-dimethylacenaphthene				
	$\Delta_{fus}H$		22.18	316.7		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-89-4]	1,7-dimethylacenaphthene				
	$\Delta_{fus}H$		14.23	288.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-90-7]	1,8-dimethylacenaphthene				
	$\Delta_{fus}H$		14.23	289.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-94-1]	3,4-dimethylacenaphthene				
	$\Delta_{fus}H$		17.57	357.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-95-2]	3,8-dimethylacenaphthene				
	$\Delta_{fus}H$		17.99	341.7		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-98-5]	4,7-dimethylacenaphthene				
	$\Delta_{fus}H$		15.06	314.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56138-04-6]	5,6-dimethylacenaphthene				
	$\Delta_{fus}H$		21.76	443.2		[1974CAN/JAC]
$C_{14}H_{14}ClN_2O_2$	[457899-89-7]	4-chloro-2′-hydroxy-4′-ethoxyazobenzene				
	$\Delta_{fus}H$		34.3	421	DSC	[2003PAJ/ROS]
$C_{14}H_{14}ClN_3S$	[436847-00-6]	N-2-(4,6-lutidyl)-N′-(2-chlorophenyl) thiourea				
	$\Delta_{fus}H$		42.2	467.2	DSC	[2002KEL/SZC]
$C_{14}H_{14}ClN_3S$	[436847-02-8]	N-2-(4,6-lutidyl)-N′-(4-chlorophenyl) thiourea				
	$\Delta_{fus}H$		66.5	499.7	DSC	[2002SZC/KEL]
$C_{14}H_{14}Cl_2N_2O$	[35554-44-0]	1-[2-(2,4-dichlorophenyl)-2-(propenyloxy)ethyl]-1*H*-imidazole				
	$\Delta_{fus}H$		30.5	322.6	DSC	[1990DON/DRE]
$C_{14}H_{14}FN_3$	[150-74-3]	N,N-dimethyl-4-[(fluorophenyl)azo]benzenamine				
	$\Delta_{sub}H$		91.2		UV	[1984KAR/ROD]
$C_{14}H_{14}FN_3O_2S$	[4644-89-7]	4-[[4-(dimethylamino)phenyl]azo]benzenesulfonyl fluoride				
	$\Delta_{sub}H$		105.6		UV	[1984KAR/ROD]
$C_{14}H_{14}F_3NO_2$	[41934-47-8]	4-trifluoromethyl-7-(N,N-diethylamino)coumarin				
	$\Delta_{fus}H$		23.3	360	DSC	[1991ZHA/HUA]
$C_{14}H_{14}NO_3$	[2643-00-7]	*bis*(4-methoxyphenyl)nitrogen oxide				
	$\Delta_{sub}H$	(328–363)	100.7	343	A	[1987STE/MAL, 1965KAL/ROZ]
$C_{14}H_{14}NO_4PS$	[2104-64-5]	O-ethyl O-(4-nitrophenyl)phenylphosphonothioate				
	$\Delta_{fus}H$		25.05	308.2	DSC	[1990DON/DRE]
$C_{14}H_{14}N_2$	[621-09-0]					
	$\Delta_{sub}H$	(343–383)	122.6 ± 3.8	363	ME	[1958DUN/HAN]
$C_{14}H_{14}N_2O$	[1562-94-3]	*p*-azoxyanisole				
	$\Delta_{sub}H$		134.8 ± 3.7	298	C	[1993ACR/TUC]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{14}N_2O_2$	[na]	4-(2-hydroxyethoxy)azobenzene				
	$\Delta_{sub}H$		120.9		GS	[1956MAJ2, 1991HOR]
$C_{14}H_{14}N_2O_2$	[na]	N-methyl-N-nitro-4-(phenylmethyl)benzenamine				
	$\Delta_{fus}H$		21.7	329.6		[2002DAS/ZAL]
$C_{14}H_{14}N_2O_3$	[1562-94-3]	4,4′-dimethoxyazoxybenzene				
	Δ_vH	(395–418)	73.7	406	A	[1987STE/MAL]
$C_{14}H_{14}N_2O_3$	[57721-89-8]	2-cyano-6-methoxy-1(2*H*)-quinolinecarboxylic acid, ethyl ester				
	$\Delta_{fus}H$		22.37	359.1	DSC	[2005LIZ/ZAB]
$C_{14}H_{14}N_4O_2$	[3837-55-6]	3-nitro-4′-(N,N-dimethylamino)-azobenzene				
	$\Delta_{sub}H$	(388–412)	133.9 ± 3.8	400	ME	[1967GRE/JON]
	$\Delta_{sub}H$	(392–410)	133.1 ± 3.8	401	TE	[1967GRE/JON, 1987STE/MAL]
$C_{14}H_{14}N_4O_2$	[2491-74-9]	4-nitro-4′-(N,N-dimethylamino)-azobenzene				
	$\Delta_{sub}H$	(413–425)	134.3 ± 7.5	419	ME	[1967GRE/JON, 1966JON/KRA]
	$\Delta_{sub}H$	(414–428)	135.1 ± 0.9	421	TE	[1967GRE/JON, 1987STE/MAL]
	$\Delta_{sub}H$		134.3		ME	[1956MAJ2, 1991HOR]
$C_{14}H_{14}O$	[103-50-4]	dibenzyl ether				
	Δ_vH	(275–417)	45.6	290	A	[1987STE/MAL]
	Δ_vH	(413–461)	59.4	428	A	[1987STE/MAL]
$C_{14}H_{14}O$	[59502-28-2]	isopropyl 2-naphthyl ketone				
	Δ_vH	(406–586)	75.9	421	A	[1987STE/MAL, 1947STU]
$C_{14}H_{14}O$	[52857-29-1]	2-(1-phenylethyl)phenol				
	Δ_vH	(443–521)	82.8	458	A	[1987STE/MAL]
	Δ_vH	(442–523)	72.8	482		[1939GOL/MAR]
$C_{14}H_{14}O$	[1988-89-2]	4-(1-phenylethyl)phenol				
	Δ_vH	(447–517)	90.8	462	A	[1987STE/MAL]
	Δ_vH	(447–523)	75.4	485		[1939GOL/MAR]
$C_{14}H_{14}O$	[599-67-7]	1,1-diphenylethanol				
	$\Delta_{fus}H$		26.49	357.9		[1998VER3]
	$\Delta_{sub}H$		105.0 ± 0.8	298		[1998VER3]
$C_{14}H_{14}OS$	[26905-24-8]	4-methoxyphenyl benzyl sulfide				
	$\Delta_{sub}H$		112.5 ± 2.7	298	C	[2006MUL/MOZ]
$C_{14}H_{14}O_2$	[7501-02-2]	2-(2-biphenyloxy)ethanol				
	Δ_vH	(410–608)	71.9	425	A	[1987STE/MAL]
$C_{14}H_{14}O_2S$	[620-32-6]	dibenzyl sulfone				
	$\Delta_{sub}H$		125.5 ± 2.9			[UR/MAC, 1970COX/PIL]
$C_{14}H_{14}O_2S$	[599-66-6]	di-p-tolyl sulfone				
	$\Delta_{sub}H$		109.6 ± 2.9			[UR/MAC, 1970COX/PIL]
$C_{14}H_{14}O_3$	[22204-53-1]	6-methoxy-α-methyl-2-naphthaleneacetic acid (naproxen)				
	$\Delta_{fus}H$		34.2	428.8	DSC	[2006WAS/HOL]
	$\Delta_{fus}H$		31.5	428.5		[1997NEA/BHA]
	$\Delta_{fus}H$		29.41	439.2		[1993CON/VIA]
	$\Delta_{sub}H$	(341–397)	128.3 ± 0.5		GS	[2004PER/KUR]
$C_{14}H_{14}O_5$	[111171-30-3]	8-(hydroxymethyl)-6-methyl-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	$\Delta_{trs}H$		2.96	415.6		

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		29.58	429.8	DSC	[1992HUA/ZHO2]
$C_{14}H_{14}O_6$	[111171-31-4]	8-(hydroxymethyl)-6-methoxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	$\Delta_{fus}H$		36.42	431.9	DSC	[1992HUA/ZHO2]
$C_{14}H_{14}O_8$	[3451-02-3]	1,2,3,4-tetracarbomethoxybenzene				
	$\Delta_{fus}H$		40.4	404.7	DSC	[1993ACR]
$C_{14}H_{14}O_8$	[3034-97-7]	1,2,3,5-tetracarbomethoxybenzene				
	$\Delta_{fus}H$		32.6	389.2	DSC	[1993ACR]
$C_{14}H_{14}O_8$	[635-10-9]	1,2,4,5-tetramethoxycarbonylbenzene				
	$\Delta_{fus}H$		35.7	416.7	DSC	[1993ACR]
	$\Delta_{sub}H$	(371–391)	140.4 ± 0.8	381	ME	[1995JIM/MEN]
	$\Delta_{sub}H$		143.3 ± 0.8	298		[1995JIM/MEN]
	$\Delta_{sub}H$		135.9 ± 1.3	298		[1967TUR2, 1995JIM/MEN]
$C_{14}H_{14}S$	[538-74-9]	dibenzyl sulfide				
	$\Delta_{sub}H$		93.3 ± 5		E	[1962MAC/MAY3, 1970COX/PIL]
$C_{14}H_{14}S_2$	[150-60-7]	benzyl disulfide				
	$\Delta_{fus}H$		44.7	341.7		[2007WAN/TAN]
$C_{14}H_{15}N$	[103-49-1]	dibenzylamine				
	Δ_vH	(391–573)	70.5	406	A	[1987STE/MAL, 1947STU]
$C_{14}H_{15}N$	[606-99-5]	N,N-diphenyl-N-ethylamine				
	Δ_vH	(371–559)	63.2	386	A	[1987STE/MAL, 1947STU]
$C_{14}H_{15}NO$	[na]	2-(4-ethoxyphenyl)-5-methylpyridine				
	$\Delta_{fus}H$		21.0	364		[2000MOR/HAR]
$C_{14}H_{15}N_3$	[60-11-7]	4-(N,N-dimethylamino)azobenzene				
	$\Delta_{sub}H$	(346–354)	117.6 ± 1.7	350	ME	[1967GRE/JON]
	$\Delta_{sub}H$	(352–354)	115.9 ± 1.3	353	TE	[1967GRE/JON]
	$\Delta_{sub}H$		120.9 ± 1.7	373	ME	[1956MAJ, 1987STE/MAL]
$C_{14}H_{15}N_3$	[25548-37-2]	(E) 4-(N,N-dimethylamino)azobenzene				
	$\Delta_{sub}H$		132 ± 8	381	TE	[1985CAM/FER]
$C_{14}H_{15}N_3$	[na]	N,N-dimethyl-4-phenylazoaniline				
	$\Delta_{fus}H$		23.08	389.2		[1988BAU/PER]
$C_{14}H_{15}N_3$	[na]	2,3′-dimethyl-4-aminoazobenzene				
	$\Delta_{sub}H$		112.5		GS	[1987SHI/OHK, 1991HOR]
$C_{14}H_{15}N_3S$	[na]	N-2-(4,6-lutidyl)-N′-phenylthiourea				
	$\Delta_{fus}H$		50.9	489.7	DSC	[2002VAL/HER]
$C_{14}H_{15}N_3S$	[71196-80-0]	N-2-(6-picolyl)-N′-2-tolylthiourea				
	$\Delta_{fus}H$		44.1	468.7	DSC	[2002HER/ACK]
$C_{14}H_{15}N_3S$	[476443-76-2]	N-2-(6-picolyl)-N′-3-tolylthiourea				
	$\Delta_{fus}H$		33.2	460.7	DSC	[2002HER/ACK]
$C_{14}H_{15}N_3S$	[71196-81-1]	N-2-(6-picolyl)-N′-4-tolylthiourea				
	$\Delta_{fus}H$		47.2	492.2	DSC	[2002HER/ACK]
$C_{14}H_{16}$	[2717-39-7]	1,4,5,8-tetramethylnaphthalene				
	$\Delta_{sub}H$		99.8 ± 1.4	298	C	[1974MAN3, 1977PED/RYL]
$C_{14}H_{16}$	[na]	heptacyclo[6.6.0$^{[2,6]}$.0$^{[3,13]}$.0$^{[4,11]}$.0$^{[5,9]}$.0$^{[8,1]}$.O$^{[10,14]}$ tetradecane				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		14.67	355		
	$\Delta_{fus}H$		5.57	440		[1994KAB/KOZ]
$C_{14}H_{16}ClNO$	[124771-55-7]	2-chloromethylbenzoxazole				
	Δ_vH	(348–424)	84.1	363		[2006HUO/ZEN]
$C_{14}H_{16}ClN_3O$	[67129-08-2]	2-chloro-N-(2,6-dimethylphenyl)-N-(1*H*-pyrazol-1-ylmethyl)acetamide (metazachlor)				
	$\Delta_{fus}H$ *(I)*		19.7	356.2		
	$\Delta_{fus}H$ *(II)*		23	353.2		
	$\Delta_{fus}H$ *(III)*		26.6	349.2	DSC	[2004GRI/WEI]
$C_{14}H_{16}ClN_3O_2$	[43121-43-3]	{1-(4-chlorophenoxy)-3,3-dimethyl-1-(1*H*-1,2,4-triazol-1-yl)}butanone (triadimefon)				
	$\Delta_{sub}H$	(298–343)	111.1 ± 2.2	303	GS	[1997DAS/DAS]
$C_{14}H_{16}ClN_3O_2$	[43121-43-3]	1-(4-chlorophenoxy)-3,3-dimethyl-(1*H*,1,2,4-triazol-1-yl)-2-butanone				
	$\Delta_{fus}H$		22.87	351.4	DSC	[1990DON/DRE]
$C_{14}H_{16}F_3N_3O_4$	[26399-36-0]	N-(cyclopropylmethyl)-2,6-dinitro-N-propyl-4-(trifluoromethyl)benzenamine				
	$\Delta_{fus}H$		22.51	305.8	DSC	[1990DON/DRE]
$C_{14}H_{16}N_2O_2$	[na]	1,3-*bis*(1-isocyanato-1-methylethyl)benzene				
	Δ_vH	(298–426)	65.2	361	HSA, T, DTA	[1986ACH/HAS]
$C_{14}H_{16}N_2O_2$	[na]	1,4-*bis*(1-isocyanato-1-methylethyl)benzene				
	Δ_vH	(373–428)	74.0	400	HSA, T, DTA	[1986ACH/HAS]
$C_{14}H_{16}N_2O_2S$	[108929-67-5]	4-amino-N-(4-ethylphenyl)benzenesulfonamide				
	$\Delta_{fus}H$		36.3	436.2	DSC	[2009PER/TKA]
	$\Delta_{sub}H$		143.6 ± 0.9	298	GS	[2009PER/TKA]
	Δ_vH		118.8	298	S-F	[2009PER/TKA]
$C_{14}H_{16}N_2O_7$	[152672-90-7]	2-methylpropanoic acid 2,3-dihydro-7-(1-methylethoxy)-3-[2-(nitrooxy)-ethyl]-4-oxo-2*H*-1,3-benzoxazin-7-yl ester				
	$\Delta_{fus}H$		26	345.7	DSC	[1996FON/ROS]
$C_{14}H_{16}O_5$	[20666-86-8]	benzoyl (3-cyclohexyloxy)carbonyl peroxide				
	$\Delta_{sub}H$	(293–313)	96.2 ± 4.2	303	ME	[1971KIP/RAB, 1977PED/RYL]
$C_{14}H_{17}ClNO_4PS_2$	[10311-84-9]	S-[2-chloro-1-(1,3-dihydro-1,3-dioxo-2*H*-isoindol-2-yl)ethyl] O,O-diethylphosphorodithioate				
	$\Delta_{fus}H$		25.27	340	DSC	[1990DON/DRE]
$C_{14}H_{17}Cl_2N_3O$	[79983-71-4]	α-butyl-α-(2,4-dichlorophenyl)-1*H*-1,2,4-triazole-1-ethanol (±)-hexaconazole				
	$\Delta_{sub}H$	(318–358)	160.1	338	ME	[1997GOO]
$C_{14}H_{17}Cl_3O_3$	[2630-13-9]	hexyl 2,4,5-trichlorophenoxyacetate				
	Δ_vH	(460–573)	85.3	475	A	[1987STE/MAL]
$C_{14}H_{17}NO_2$	[na]	4-methyl-7-diethylaminocoumarin				
	$\Delta_{fus}H$		17.88	343.8		[1996DOM/HEA]
$C_{14}H_{17}N_5O_3$	[51940-44-4]	8-ethyl-5,8-dihydro-5-oxo-2-(1-piperazinyl)pyrido[2,3-d]-pyrimidine-6-carboxylic acid (pipemidic acid)				
	$\Delta_{fus}H$		32.85	529.9		[2004ROM/BUS2]
$C_{14}H_{18}$	[1079-71-6]	1,2,3,4,5,6,7,8-octahydroanthracene				
	$\Delta_{trs}H$		2.51	331.4		
	$\Delta_{fus}H$		18.34	345.4		[1996DOM/HEA]
	Δ_vH	(437–498)	45.6	452	A	[1987STE/MAL]
	Δ_vH	(348–433)	NA		IP	[1982GAM/CAL]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{18}$	[5325-97-3]	1,2,3,4,5,6,7,8-octahydrophenanthrene				
	$\Delta_v H$	(402–570)	55.8	417	A	[1987STE/MAL]
$C_{14}H_{18}ClN_3O_2$	[55219-65-3]	β-(4-chlorophenoxy)-α-(1,1-dimethylethyl)-1*H*-1,2,4-triazole-1-ethanol				
	$\Delta_{fus}H$		24.47	377.8	DSC	[1990DON/DRE]
$C_{14}H_{18}Cl_2O_3$	[1917-95-9]	hexyl 2,4-dichlorophenoxyacetate				
	$\Delta_v H$	(444–573)	81.3	459	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{14}H_{18}Cl_2O_3$	[na]	isohexyl 2,4-dichlorophenoxyacetate				
	$\Delta_v H$	(460–573)	69.1	475	A,GC	[1987STE/MAL, 1999DYK/SVO, 1966JEN/SCH]
$C_{14}H_{18}N_2$	[10075-69-1]	1,5-N,N,N′,N′-tetramethyldiaminonaphthalene				
	$\Delta_{sub}H$	(318–356)	98.6 ± 0.4	298	GS	[2007VER/GEO]
$C_{14}H_{18}N_2$	[20734-58-1]	1,8-N,N,N′,N′-tetramethyldiaminonaphthalene				
	$\Delta_{sub}H$	(324–364)	94.7 ± 0.8	298	GS	[2007VER/GEO]
	$\Delta_v H$	(324–364)	76.7 ± 0.4	298	GS	[2007VER/GEO]
$C_{14}H_{18}N_2O_5$	[81-14-1]	2,6-dimethyl-3,5-dinitro-4-*tert*-butylacetophenone				
	$\Delta_{fus}H$		23.81	408.5		[2004QU/BAI]
	$\Delta_{sub}H$	(293–353)	107.9	323	ME	[1953SER/VOI, 1960JON]
$C_{14}H_{18}N_4O_3$	[738-70-5]	5-[(3,4,5-trimethoxyphenyl)methyl]-2,4-pyrimidinediamine (trimethoprim)				
	$\Delta_{fus}H$		49.8	472.9	DSC	[2006WAS/HOL]
	$\Delta_{fus}H$		53.65	474		[1998ISS/ELA]
$C_{14}H_{18}O$	[122-40-7]	α-pentylcinnamaldehyde				
	$\Delta_v H$	(282–333)	75.3	297	A, ME	[1987STE/MAL, 1955SER/VOI]
$C_{14}H_{18}O$	[30545-23-4]	diamantanone				
	$\Delta_{sub}H$		103.1 ± .62	320	TSGC	[1980CLA/KNO]
$C_{14}H_{18}O_2$	[180988-52-7]	6,6-dimethyl-1-phenyl-4,8-dioxaspiro[2.5]octane				
	$\Delta_{fus}H$		27.2	351.2		[1998VER/PEN]
	$\Delta_{sub}H$		97.5 ± 0.3	298		[1998VER/PEN]
$C_{14}H_{18}O_3$	[49763-96-4]	E(+) 4,4-dimethyl-1-(3,4-methylenedioxyphenyl)-1-penten-3-ol (stiripentol)				
	$\Delta_{fus}H$		29.0	348.2		[1991CEO/DUG]
$C_{14}H_{18}O_4$	[131-16-8]	dipropyl phthalate				
	$\Delta_v H$	(403–578)	73.2	418	A	[1987STE/MAL]
$C_{14}H_{18}O_4$	[na]	diisopropyl phthalate				
	$\Delta_v H$		74.8	430	BG	[1988KAT]
$C_{14}H_{19}Cl_2NO_2$	[305-03-3]	4[*p*-[*bis*(2-chloroethyl)amino]benzene]butanoic acid				
	$\Delta_{fus}H$		29.18	338.9	DSC	[1990DON/DRE]
$C_{14}H_{19}NO$	[na]	2-(dimethylamino)-1,2-diphenylethanone				
	$\Delta_{fus}H$		22.38	334.2		[1994WEL/VER]
$C_{14}H_{19}NO$	[18494-61-6]	hexahydro-1-(phenylacetyl)-1*H*-azepine				
	$\Delta_v H$	(370–418)	53.9	385	A	[1987STE/MAL, 1969DAV/MAK]
	$\Delta_v H$	(371–420)	49.4	396		[1969DAV/MAK]
$C_{14}H_{19}NO_2S$	[na]	N-benzoylthiocarbamic O-hexyl ester				
	$\Delta_{sub}H$		139.7 ± 2.4	298	C	[2004RIB/SAN2]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{19}N_2O_2$	[70585-35-2]	(1RS,2SR)-1-(4-chlorophenoxy)-3,3-dimethyl-1-(1*H*-1,2,4-triazol-1-yl)-butan-2-ol (*erythro* triadimenol)				
	$\Delta_{fus}H$ *(I)*		32	411.2		
	$\Delta_{fus}H$ *(II)*		33.1	406.2		
	$\Delta_{fus}H$ *(III)*		25.1	385.2	DSC	[2000BUR/VAN]
$C_{14}H_{19}N_2O_2$	[70585-37-4]	(1RR,2SS)-1-(4-chlorophenoxy)-3,3-dimethyl-1-(1*H*-1,2,4-triazol-1-yl)-butan-2-ol (*threo* triadimenol)				
	$\Delta_{fus}H$		33.2	406.2	DSC	[2000BUR/VAN]
$C_{14}H_{19}N_5O_3$	[157891-99-1]	6-*tert*-butyl-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	$\Delta_{fus}H$		37.95	478.5	DSC	[1999ZIE/GOL]
$C_{14}H_{20}$	[4413-16-5]	1-cyclohexyl-1-phenylethane				
	Δ_vH	(359–400)	70.8	374	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{14}H_{20}$	[1603-61-8]	1-cyclohexyl-2-phenylethane				
	Δ_vH	(372–406)	60.7	387	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{14}H_{20}$	[2883-12-7]	1-cyclopentyl-3-phenylpropane				
	Δ_vH	(373–540)	61.3	388	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{14}H_{20}$	[1540-80-3]	1,8-cyclotetradecadiyne				
	$\Delta_{fus}H$		22.6	370		[1974AUG/BOR]
	$\Delta_{sub}H$	(315–364)	87.6 ± 1.0	338	HSA	[1998CHI/HES]
	$\Delta_{sub}H$		94.3	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(317–332)	166.0 ± 3.2	325	ME	[1964FRI/BAU, 1970COX/PIL]
$C_{14}H_{20}$	[1079-71-6]	1,2,3,4,5,6,7,8-octahydroanthracene (octhracene)				
	$\Delta_{sub}H$	(438–499)	82.3 ± 1.2	298	BG	[1971BOY/SAN, 1977PED/RYL]
$C_{14}H_{20}$	[2292-79-7]	diadamantane				
	$\Delta_{trs}H$		4.44	407.2		
	$\Delta_{trs}H$		8.95	440.4		
	$\Delta_{fus}H$		8.66	517.9		[1996DOM/HEA]
	$\Delta_{sub}H$	(305–333)	96.0 ± 0.8	319	TSGC	[1975CLA/KNO]
	$\Delta_{sub}H$		117.2 ± 8		B	[1971CAR/LAY]
$C_{14}H_{20}ClNO_2$	[15972-60-8]	2-chloro-N-(2,6-diethylphenyl)-N-(methoxymethyl)acetamide				
	$\Delta_{fus}H$		26.7	317.7	DSC	[2005SBI/VEC]
	$\Delta_{fus}H$		25.31	315.9	DSC	[1990DON/DRE]
	Δ_vH		85 ± 1	436	TGA	[2007VEC]
$C_{14}H_{20}Cl_2$	[na]	1,2-dichloro-3,4,5,6-tetraethylbenzene				
	Δ_vH	(378–575)	66.2	393	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_{14}H_{20}Cl_2$	[na]	1,4-dichloro-2,3,5,6-tetraethylbenzene				
	Δ_vH	(364–570)	60.8	379	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_{14}H_{20}N_2O$	[27262-40-4]	N-(2,6-dimethylphenyl)-2-piperidinecarboxamide				
	$\Delta_{fus}H$		24.19	403.2	DSC	[1997NEM/ACS]
$C_{14}H_{20}N_2OS$	[90473-84-0]	N-(diethylaminothiocarbonyl)benzimido ethyl ester				
	$\Delta_{sub}H$		135.6 ± 2.6	298	C	[2006RIB/SAN3]
$C_{14}H_{20}N_2O_2$	[na]	(−) 1-(1*H*-indol-4-yloxy)-3-(isopropylamino)-2-propanol (pindolol)				
	$\Delta_{fus}H$		25.69	365.7		[1999LI/ZEL]
$C_{14}H_{20}N_2O_2$	[13523-86-9]	(±) 1-(1*H*-indol-4-yloxy)-3-(isopropylamino)-2-propanol (pindolol)				
	$\Delta_{fus}H$		60.6	423.6	DSC	[2007PER/VOL]
	$\Delta_{fus}H$		58	443.8		[2004NUN/EUS]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		57.9	442.9		[1999LI/ZEL]
	$\Delta_{sub}H$	(355–427)	146.0 ± 1.2	298	GS	[2007PER/VOL]
$C_{14}H_{20}N_3O_5PS$	[13457-18-6]	O-6-ethoxycarbonyl-5-methylpyrazolo[1,5-a]pyrimidin-2-yl O,O-diethyl phosphorothioate				
	$\Delta_{fus}H$		27.32	324.4	DSC	[1990DON/DRE]
$C_{14}H_{20}O$	[61812-55-3]	(1-cyclohexyloxyethyl)benzene				
	Δ_vH	(286–338)	69.8 ± 0.5	298	GS	[2002KRA/VAS, 2002VER/HEI]
$C_{14}H_{20}O$	[30545-14-3]	diamantan-1-ol				
	$\Delta_{trs}H$		18.0	395		
	$\Delta_{trs}H$		4.9	408		
	$\Delta_{fus}H$		9.6	573	DSC	[1974CLA/MCK]
	$\Delta_{sub}H$	(319–349)	118. ± 0.6	334		[1980CLA/KNO, 1975CLA/KNO]
$C_{14}H_{20}O$	[30545-24-5]	diamantan-3-ol				
	$\Delta_{sub}H$	(323–354)	116.1 ± 4.4	338		[1980CLA/KNO, 1975CLA/KNO]
$C_{14}H_{20}O$	[30651-03-7]	diamantan-4-ol				
	$\Delta_{trs}H$		9.77	448		
	$\Delta_{fus}H$		16.4	484	DSC	[1974CLA/MCK]
	$\Delta_{sub}H$	(322–353)	117.8 ± 0.2	337		[1980CLA/KNO, 1975CLA/KNO]
$C_{14}H_{20}O_2$	[3383-21-9]	3,5-di-*tert*-butyl-*o*-benzoquinone				
	$\Delta_{fus}H$		26.53	387.9		[2005FAT/KAS]
$C_{14}H_{20}O_2$	[38350-87-7]	4-heptylbenzoic acid				
	$\Delta_{sub}H$	(353–369)	130.0 ± 0.9	298	ME	[2004MON/ALM]
$C_{14}H_{20}O_3$	[na]	2-(4-*tert*-butylphenoxy)ethyl acetate				
	Δ_vH	(391–578)	78.8	406	A	[1987STE/MAL, 1947STU]
$C_{14}H_{20}O_4$	[58608-07-4]	2,5-dibutoxy-1,4-benzoquinone				
	$\Delta_{trs}H$		4.7	328.3		
	$\Delta_{trs}H$		2.3	364.5		
	$\Delta_{fus}H$		31.5	473.3	DSC	[1996KEE/VAN]
$C_{14}H_{20}O_5$	[14098-44-3]	benzo-15-crown-5				
	$\Delta_{sub}H$		128.1 ± 10.8	298	CGC-DSC	[2000NIC/ORF]
	Δ_vH		98.9 ± 1.3	298	CGC	[2000NIC/ORF]
$C_{14}H_{21}F_3N_2O_4$	[na]	proline, 1-[N-(trifluoroacetyl)-(l)-leucyl]methyl ester				
	$\Delta_{sub}H$	(313–366)	121.3	328	A	[1987STE/MAL, 1960WEY/KLI]
	Δ_vH	(366–453)	105.8	381	A	[1987STE/MAL]
$C_{14}H_{21}NO$	[121678-88-4]	4-isopropylbenzylidene *tert*-butylamine N-oxide				
	$\Delta_{sub}H$		101.8 ± 4.1	298	C	[1989ACR/KIR]
$C_{14}H_{21}N_3O_4$	[33629-47-9]	4-(1,1-dimethylethyl)-N-(1-methylpropyl)-2,6-dinitrobenzeneamine				
	$\Delta_{fus}H$		20.84	338.8	DSC	[1990DON/DRE]
$C_{14}H_{21}N_3S$	[90473-92-0]	N-(diethylaminothiocarbony)-N-monoethylbenzamide				
	$\Delta_{sub}H$		141.2 ± 1.2	298	C	[2006RIB/SAN3]
$C_{14}H_{22}$	[1012-72-2]	1,4-di-*tert*-butylbenzene				
	$\Delta_{trs}H$		14.4	350.7	AC, DSC	[2009CHI/STE]
	$\Delta_{fus}H$		8.2	350.8	AC, DSC	[2009CHI/STE]
	$\Delta_{fus}H$		22.48	341.5		[1997STE/CHI3]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(288–333)	82.1 ± 0.4	310	T	[1998VER]
	$\Delta_{sub}H$		82.8 ± 0.4	298		[1998VER]
	$\Delta_{sub}H$	(285–325)	82.8	305	ME	[1951HOP/SEA, 1987STE/MAL]
	$\Delta_{v}H$	(319–559)	63.0 ± 0.1	298	EB,IP	[2009CHI/STE]
	$\Delta_{v}H$	(319–559)	55.8 ± 0.1	360	EB,IP	[2009CHI/STE]
	$\Delta_{v}H$	(319–559)	54.6 ± 0.1	400	EB,IP	[2009CHI/STE]
	$\Delta_{v}H$	(319–559)	61.4 ± 0.1	440	EB,IP	[2009CHI/STE]
	$\Delta_{v}H$	(319–559)	46.4 ± 0.2	480	EB,IP	[2009CHI/STE]
	$\Delta_{v}H$	(319–559)	44.6 ± 0.3	520	EB,IP[	[2009CHI/STE]
	$\Delta_{v}H$	(354–382)	61.4 ± 0.3	298	GS	[2008VER/KOZ2]
	$\Delta_{v}H$	(387–559)	63.0 ± 0.6	298	EB	[1997STE/CHI3]
$C_{14}H_{22}$	[1014-60-4]	1,3-di-*tert*-butylbenzene				
	$\Delta_{v}H$	(288–333)	58.9 ± 0.5	310	GS	[1998VER]
	$\Delta_{v}H$		59.6 ± 0.5	298		[1998VER]
	$\Delta_{v}H$	(346–374)	58.0	360	A	[1987STE/MAL]
$C_{14}H_{22}$	[2189-60-8]	octylbenzene				
	$\Delta_{fus}H$		29.96	234.2		[1996DOM/HEA]
	$\Delta_{v}H$	(293–462)	67.4	308		[1993KAS/MOK]
	$\Delta_{v}H$	(368–400)	63.1	383	A	[1987STE/MAL]
	$\Delta_{v}H$	(316–399)	66.2	336	GS	[1986ALL/JOS]
$C_{14}H_{22}$	[777-22-0]	2-phenyloctane				
	$\Delta_{v}H$	(361–392)	61.6	376	A	[1987STE/MAL]
	$\Delta_{v}H$		70.0	298		[1971WIL/ZWO]
$C_{14}H_{22}$	[642-32-0]	1,2,3,4-tetraethylbenzene				
	$\Delta_{v}H$	(423–525)	62.6	438	A	[1987STE/MAL]
$C_{14}H_{22}$	[38842-05-6]	1,2,3,5-tetraethylbenzene				
	$\Delta_{v}H$	(413–521)	64.8	428	A	[1987STE/MAL]
$C_{14}H_{22}$	[635-81-4]	1,2,4,5-tetraethylbenzene				
	$\Delta_{v}H$	(338–521)	54.5	353	A	[1987STE/MAL]
$C_{14}H_{22}N_2O$	[137-58-6]	2-(diethylamino)-N-(2,6-dimethylphenyl)acetamide (lidocaine)				
	$\Delta_{fus}H$		16.4	340.7	DSC	[2010LAZ/RIE]
	$\Delta_{fus}H$		18.8	341	DSC	[2008WAS/HOL]
$C_{14}H_{22}N_2O_2S$	[na]	N,N-diisobutyl-N′-furoylthiourea				
	$\Delta_{sub}H$		141.7 ± 5.6	298	C	[2002RIB/RIB]
$C_{14}H_{22}N_2O_3$	[56715-13-0]	(+) 4-[2′-hydroxy-3′-(isopropylamino)propoxy]-phenylacetamide (atenolol)				
	$\Delta_{fus}H$		36.77	420.3	DSC	[1999LI/ZEL]
$C_{14}H_{22}N_2O_3$	[29122-68-7]	(+) 4-[2′-hydroxy-3′-(isopropylamino)propoxy]-phenylacetamide (atenolol)				
	$\Delta_{fus}H$		38.7	426.1	DSC	[2007PER/VOL]
	$\Delta_{fus}H$		35.66	423.4	DSC	[1999LI/ZEL]
	$\Delta_{sub}H$	(396–418)	140.0 ± 3.7	298	GS	[2007PER/VOL]
$C_{14}H_{22}N_4O_2$	[35873-43-9]	8-heptyltheophylline				
	$\Delta_{fus}H$		33	472.7	DSC	[1991ACR, 1989GON/KRA]
$C_{14}H_{22}N_4O_6$	[74734-25-1]	N,N′-*bis*(2-oxo-3-oxazolidin-3-ylcarbonyl)-1,6-hexandiamine				
	$\Delta_{fus}H$		8.9	400.8		[1990SHI/HAY]
$C_{14}H_{22}N_4O_6S$	[19044-94-1]	4-(dipropylamino)-N,N-dimethyl-3,5-dinitrobenzenesulfonamide				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		32.57	413.6	DSC	[1990DON/DRE]
$C_{14}H_{22}O$	[96-76-4]	2,4-di-*tert*-butylphenol				
	$\Delta_{sub}H$	(288–327)	86.1 ± 0.3	308	GS	[1999VER2]
	$\Delta_{sub}H$		86.7 ± 0.3	298		[1999VER2]
	$\Delta_{sub}H$		92.9 ± 2.8	298	C	[1999RIB/MAT2]
	$\Delta_{v}H$	(333–368)	69.2 ± 0.5	350	GS	[1999VER2]
	$\Delta_{v}H$		72.4 ± 0.5	298		[1999VER2]
	$\Delta_{v}H$	(403–537)	60.1	418	A	[1987STE/MAL]
$C_{14}H_{22}O$	[128-39-2]	2,6-di-*tert*-butylphenol				
	$\Delta_{fus}H$		16.57	310.7		[1972INO/LIA]
	$\Delta_{sub}H$		84.6 ± 0.5	298	GS	[1999VER]
	$\Delta_{sub}H$		81.5 ± 2.3	298	C	[1999RIB/MAT2]
	$\Delta_{sub}H$		U 110.9	298	C	[1971BER/GIR, 1999VER]
	$\Delta_{v}H$	(313–368)	63.5 ± 0.2	341	GS	[1999VER]
	$\Delta_{v}H$		66.0 ± 0.2	298		[1999VER]
	$\Delta_{v}H$	(386–530)	60.4	401	A	[1987STE/MAL]
$C_{14}H_{22}O$	[1138-52-9]	3,5-di-*tert*-butylphenol				
	$\Delta_{sub}H$		97.7 ± 3.7	298	C	[2001RIB/MAT]
	$\Delta_{sub}H$	(302–325)	68.2	313.5	A	[1987STE/MAL]
$C_{14}H_{22}O$	[63264-81-3]	4-(1,1-diethylbutyl)phenol				
	$\Delta_{v}H$	(404–549)	69.5	419	A	[1987STE/MAL]
$C_{14}H_{22}O$	[65152-07-0]	2,4-diisobutylphenol				
	$\Delta_{v}H$	(448–598)	65.0	463	A	[1987STE/MAL]
$C_{14}H_{22}O$	[59048-99-6]	4-[(1,2-dimethyl-1-ethyl)butyl]phenol				
	$\Delta_{v}H$	(415–578)	64.7	430	A	[1987STE/MAL]
$C_{14}H_{22}O$	[na]	4-[(1,3-dimethyl-1-ethyl)butyl]phenol				
	$\Delta_{v}H$	(409–571)	60.9	424	A	[1987STE/MAL]
$C_{14}H_{22}O$	[na]	4-[(2,2-dimethyl-1-ethyl)butyl]phenol				
	$\Delta_{v}H$	(413–553)	67.0	428	A	[1987STE/MAL]
$C_{14}H_{22}O$	[79-70-9]	β-irone				
	$\Delta_{v}H$	(288–333)	72.1	303	A	[1987STE/MAL]
$C_{14}H_{22}O$	[127-51-5]	α-isomethylionone				
	$\Delta_{v}H$	(288–333)	69.5	303	A	[1987STE/MAL]
$C_{14}H_{22}O$	[1988-35-8]	4-(1-methyl-1-ethyl)pentyl]phenol				
	$\Delta_{v}H$	(413–578)	62.8	428	A	[1987STE/MAL]
$C_{14}H_{22}O$	[127-42-4]	α-methylionone				
	$\Delta_{v}H$	(288–333)	70.1	303	A	[1987STE/MAL]
$C_{14}H_{22}O$	[127-43-5]	β-methylionone				
	$\Delta_{v}H$	(288–333)	70.3	303	A	[1987STE/MAL]
$C_{14}H_{22}O$	[140-66-9]	4-(1,1,3,3-tetramethylbutyl)phenol				
	$\Delta_{v}H$	(309–350)	68.8 ± 0.3	329	GS	[1999VER2]
	$\Delta_{v}H$		70.7 ± 0.3	298	GS	[1999VER2]
	$\Delta_{v}H$	(381–563)	72.4	396	A	[1987STE/MAL, 1959MCD/SHR, 1984BOU/FRI]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{22}O$	[124765-79-3]	4-*tert*-octylphenol				
	$\Delta_{sub}H$	(297–351)	96.3 ± 0.9	324	GS	[1999VER2]
	$\Delta_{sub}H$		97.9 ± 0.9	298	GS	[1999VER2]
$C_{14}H_{22}O_2$	[1020-31-1]	3,5-di-*tert*-butyl-1,2-dihydroxybenzene				
	$\Delta_{fus}H$		24.1	372.8		[2000VER/SCH]
	$\Delta_{sub}H$		103.7 ± 0.5	330	GS	[2000VER/SCH]
	$\Delta_{sub}H$		104.7 ± 0.5	298	GS	[2000VER/SCH]
	$\Delta_{sub}H$		100.1 ± 0.6	298	C	[1984CAR]
$C_{14}H_{22}O_2$	[88-58-4]	2,5-di-*tert*-butyl-1,4-dihydroxybenzene				
	$\Delta_{fus}H$		43.85	496.5		[1999VER7]
	$\Delta_{sub}H$	(333–368)	108.8 ± 1.7	351	GS	[1999VER7]
	$\Delta_{sub}H$		122.4 ± 1.7	298		[1999VER7]
$C_{14}H_{22}O_4$	[620-82-6]	dicyclohexyl oxalate				
	$\Delta_{v}H$	(333–360)	92.1 ± 0.7	298	GS	[2008LIP/KRA]
$C_{14}H_{22}O_6$	[1561-49-5]	dicyclohexyl peroxydicarbonate				
	$\Delta_{sub}H$		100.4 ± 4.2			[1971KIP/RAB, 1977STE/WAT]
	$\Delta_{sub}H$	(293–313)	100.4 ± 8.3	303	ME	[1962RAB/TEL, 1970COX/PIL]
$C_{14}H_{22}O_{11}$	[na]	diethylenelglycol, O,O-dicarboxylic acid, di[1-(methoxycarbonyl)-ethyl] ester				
	$\Delta_{v}H$	(403–493)	98.2	418	A	[1987STE/MAL]
$C_{14}H_{23}N$	[na]	N,N-dimethyl-2,3-dimethyl-3-phenyl-2-butanamine				
	$\Delta_{v}H$	(280–335)	65.8 ± 1.3	308	GS	[1998VER/BEC]
	$\Delta_{v}H$	(280–335)	66.4 ± 1.3	298	GS	[1998VER/BEC]
$C_{14}H_{23}NO_2$	[na]	decyl-α-cyanoacrylate				
	$\Delta_{fus}H$		41.8	294.5		[1993BYK/KIP]
$C_{14}H_{24}$	[5743-97-5]	perhydrophenanthrene				
	$\Delta_{v}H$	(455–551)	55.7	470	EB	[2000ROH/CEN]
$C_{14}H_{24}$	[28071-99-0]	*trans-anti-trans* perhydroanthracene				
	$\Delta_{sub}H$	(269–313)	66.1	284		[1987STE/MAL]
	$\Delta_{sub}H$	(275–313)	72.7 ± 3.3	294	ME	[1963MAR/FRI, 1970COX/PIL]
$C_{14}H_{24}$	[1755-19-7]	*trans-syn-trans* perhydroanthracene				
	$\Delta_{sub}H$	(293–335)	88.1	308	A	[1987STE/MAL]
	$\Delta_{sub}H$	(335–393)	87.4 ± 2.4	365	ME	[1963MAR/FRI, 1970COX/PIL]
$C_{14}H_{24}$	[1687-36-1]	1,3,5,7-tetramethyladamantane				
	$\Delta_{sub}H$	(310–350)	83.7 ± 1.3	298	BG	[1977STE/WAT]
	$\Delta_{sub}H$	(295–315)	81.1 ± 10.9	305	TSGC	[1975CLA/KNO]
$C_{14}H_{24}$	[na]	*cis-anti-trans*-perhydrophenanthrene				
	$\Delta_{fus}H$		11.16	313		[1996DOM/HEA]
$C_{14}H_{24}$	[na]	*cis-syn-trans*-perhydrophenanthrene				
	$\Delta_{fus}H$		10.48	273		[1996DOM/HEA]
$C_{14}H_{24}$	[2108-89-6]	*trans-anti-trans*-perhydrophenanthrene				
	$\Delta_{fus}H$		11.83	283		[1996DOM/HEA]
$C_{14}H_{24}$	[1687-36-1]	1,3,5,7-tetramethyladamantane				
	$\Delta_{trs}H$		0.23	183.3		
	$\Delta_{fus}H$		9.82	337.2		[1977CLA/KNO]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound				
	Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{24}NO_4PS_3$	[741-58-2]	O,O-diisopropyl S-2-phenylsulfonylaminoethylphosphorodithioate				
	$\Delta_{trs}H$		30.61	310.4	DSC	[1990DON/DRE]
$C_{14}H_{24}N_2$	[101-96-2]	N,N′-di-sec-butyl-1,4-phenylenedianmine				
	Δ_vH	(370–507)	70.3	385	A	[1987STE/MAL]
$C_{14}H_{24}N_2$	[7735-44-6]	tetradecanedinitrile				
	$\Delta_{trs}H$		1.77	261.1		
	$\Delta_{fus}H$		40.17	309.6	DSC	[2007BAD/BLA]
$C_{14}H_{24}O$	[53131-20-7]	2,2,5,9-tretamethyl-4,8-decanedienal				
	Δ_vH	(353–416)	66.4	368	A	[1987STE/MAL]
$C_{14}H_{24}O$	[na]	borneol butyrate				
	Δ_vH	(347–520)	59.6	362	A	[1987STE/MAL, 1947STU]
$C_{14}H_{24}O$	[24717-86-0]	(*dl*) borneol isobutyrate				
	Δ_vH	(343–516)	58.8	358	A	[1987STE/MAL, 1947STU]
$C_{14}H_{24}O$	[na]	geraniol butyrate				
	Δ_vH	(369–531)	68.6	384	A	[1987STE/MAL, 1947STU]
$C_{14}H_{24}O$	[na]	geraniol isobutyrate				
	Δ_vH	(363–524)	67.8	378	A	[1987STE/MAL, 1947STU]
$C_{14}H_{24}O_2$	[38300-49-1]	1,8-cyclotetradecanedione				
	$\Delta_{fus}H$		27.53	417.2		[1972ALV/BOR]
$C_{14}H_{24}O_4$	[na]	1,6-cyclodecanedione *bis* ethylene ketal				
	$\Delta_{fus}H$		32.68	450.2		[1972ALV/BOR]
$C_{14}H_{24}O_6$	[na]	1,1,1-*tris*(ethoxycarbonyl)pentane				
	Δ_vH	(298–343)	81.4 ± 0.4		GS	[1995RAK/VER]
$C_{14}H_{26}$	[2883-07-0]	1-cyclohexyl-3-cyclopentylpropane				
	Δ_vH	(371–403)	64.5	386	A	[1987STE/MAL]
$C_{14}H_{26}$	[2319-61-1]	1,1-dicyclohexylethane				
	Δ_vH	(370–402)	62.1	385	A	[1987STE/MAL]
$C_{14}H_{26}$	[3321-50-4]	1,2-dicyclohexylethane				
	Δ_vH	(371–402)	65.4	386	A	[1987STE/MAL]
$C_{14}H_{26}O$	[53965-17-6]	*cis* 2,2,5,9-tetramethyl-4,8-decadiene-1-ol				
	Δ_vH	(363–393)	94.0	378	A	[1987STE/MAL]
$C_{14}H_{26}O$	[53965-18-7]	*trans* 2,2,5,9-tetramethyl-4,8-decadiene-1-ol				
	Δ_vH	(363–393)	86.3	378	A	[1987STE/MAL]
$C_{14}H_{26}O$	[3021-89-4]	2-pentyl-2-nonenal				
	Δ_vH	(384–553)	65.7	399		[1987MIL/FEN2]
$C_{14}H_{26}O$	[142628-55-5]	(Z) 2-tetradecenal				
	Δ_vH	(353–393)	82.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[51534-36-2]	(E) 2-tetradecenal				
	Δ_vH	(353–393)	82.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-51-2]	(Z) 3-tetradecenal				
	Δ_vH	(353–393)	79.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-50-1]	(E) 3-tetradecenal				
	Δ_vH	(353–393)	80.1	298	CGC	[1996KOU/HOS, 2000OVA/KOU]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{26}O$	[115018-49-0]	(Z) 4-tetradecenal				
	$\Delta_v H$	(353–393)	79.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[115018-39-8]	(E) 4-tetradecenal				
	$\Delta_v H$	(353–393)	79.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[63851-42-3]	(Z) 5-tetradecenal				
	$\Delta_v H$	(353–393)	78.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-52-3]	(E) 5-tetradecenal				
	$\Delta_v H$	(353–393)	79.1	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-53-4]	(Z) 6-tetradecenal				
	$\Delta_v H$	(353–393)	78.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-54-5]	(E) 6-tetradecenal				
	$\Delta_v H$	(353–393)	79.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[65128-96-3]	(Z) 7-tetradecenal				
	$\Delta_v H$	(353–393)	78.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[37011-96-4]	(E) 7-tetradecenal				
	$\Delta_v H$	(353–393)	79.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[169054-69-7]	(Z) 8-tetradecenal				
	$\Delta_v H$	(353–393)	78.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-55-6]	(E) 8-tetradecenal				
	$\Delta_v H$	(353–393)	79.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[53939-27-8]	(Z) 9-tetradecenal				
	$\Delta_v H$	(353–393)	79.1	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[71377-13-4]	(E) 9-tetradecenal				
	$\Delta_v H$	(353–393)	79.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[144525-16-6]	(Z) 10-tetradecenal				
	$\Delta_v H$	(353–393)	79.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[148238-39-5]	(E) 10-tetradecenal				
	$\Delta_v H$	(353–393)	79.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[35237-64-0]	(Z) 11-tetradecenal				
	$\Delta_v H$	(353–393)	80.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[35746-21-5]	(E) 11-tetradecenal				
	$\Delta_v H$	(353–393)	80.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-56-7]	(Z) 12-tetradecenal				
	$\Delta_v H$	(353–393)	80.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[124499-92-9]	(E) 12-tetradecenal				
	$\Delta_v H$	(353–393)	80.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[na]	2-(1,2-dimethylpropyl)-5,6-dimethylheptenal				
	$\Delta_v H$	(385–535)	60.0	400	EB	[1987MIL/FEN2]
$C_{14}H_{26}O$	[3021-89-4]	2-pentyl-2-nonenal				
	$\Delta_v H$	(385–553)	65.0	409	EB	[1987MIL/FEN2]
$C_{14}H_{26}O$	[295-17-0]	cyclotetradecanone				
	$\Delta_{sub}H$		80.75			[1938WOL/WEG, 1960JON]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No	Compound				
	Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{26}O$	[37608-02-9]	4,4,8,8-tetramethylcyclodecanone				
	$\Delta_{fus}H$		16.32	378.2		[1976BOR/DAL]
$C_{14}H_{26}O_2$	[3179-47-3]	decyl methacrylate				
	$\Delta_{fus}H$		30.55	250.7		[1996DOM/HEA]
	Δ_vH	(350–541)	62.7	365	A	[1987STE/MAL]
$C_{14}H_{26}O_2$	[84801-15-0]	(Z) 2-dodecenyl acetate				
	Δ_vH	(333–378)	79.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[84801-16-1]	(E) 2-dodecenyl acetate				
	Δ_vH	(333–378)	81.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[38363-24-5]	(Z) 3-dodecenyl acetate				
	Δ_vH	(333–378)	79.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[56218-63-4]	(E) 3-dodecenyl acetate				
	Δ_vH	(333–378)	79.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[38363-25-6]	(Z) 4-dodecenyl acetate				
	Δ_vH	(333–378)	78.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[38363-26-7]	(E) 4-dodecenyl acetate				
	Δ_vH	(333–378)	79.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[16676-96-3]	(Z) 5-dodecenyl acetate				
	Δ_vH	(333–378)	79.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[16676-97-4]	(E) 5-dodecenyl acetate				
	Δ_vH	(333–378)	80.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[16974-12-2]	(Z) 6-dodecenyl acetate				
	Δ_vH	(333–378)	79.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[29868-16-4]	(E) 6-dodecenyl acetate				
	Δ_vH	(333–378)	80.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[14959-86-5]	(Z) 7-dodecenyl acetate				
	Δ_vH	(333–378)	79.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	Δ_vH	(303–317)	77.5	310	GC	[1983OLS/JON]
$C_{14}H_{26}O_2$	[16695-41-3]	(E) 7-dodecenyl acetate				
	Δ_vH	(333–378)	80.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[28079-04-1]	(Z) 8-dodecenyl acetate				
	Δ_vH	(333–378)	80.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[38363-29-0]	(E) 8-dodecenyl acetate				
	Δ_vH	(333–378)	80.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[16974-11-1]	(Z) 9-dodecenyl acetate				
	Δ_vH	(333–378)	80.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[35148-19-7]	(E) 9-dodecenyl acetate				
	Δ_vH	(333–378)	81	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[35148-20-0]	(Z) 10-dodecenyl acetate				
	Δ_vH	(333–378)	81.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[35153-09-4]	(E) 10-dodecenyl acetate				
	Δ_vH	(333–378)	81.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{26}O_3$	[5963-13-3]	1,7-dioxa-8-cyclohexadecanone				
	$\Delta_v H$	(403–453)	73.3	418	A	[1987STE/MAL]
$C_{14}H_{26}O_3$	[23144-23-2]	3-heptyl-4-acetoxytetrahydro-2*H*-pyran				
	$\Delta_v H$	(383–453)	74.4	398	A	[1987STE/MAL]
$C_{14}H_{26}O_3$	[872803-07-1]	nonyl levulinate				
	$\Delta_v H$	(423–571)	69.4	438	A	[1987STE/MAL]
	$\Delta_v H$		68.4	516		[1933COW/SCH]
$C_{14}H_{26}O_4$	[821-38-5]	1,14-tetradecanedioic acid				
	$\Delta_{fus}H+\Delta_{trs}H$		56.9	398	DSC	[2006VEN/MET]
	$\Delta_{fus}H$		56.5	397.3	DSC	[2005ROU/TEM]
	$\Delta_v H$	(424–503)	127.4 ± 2.3	298	CGC	[2005ROU/TEM]
$C_{14}H_{26}O_4$	[105-99-7]	dibutyl adipate				
	$\Delta_v H$	(435–563)	68.7	450	A	[1987STE/MAL]
$C_{14}H_{26}O_4$	[na]	diethyl isopentylmalonate				
	$\Delta_v H$	(388–526)	75.3	403	A	[1987STE/MAL]
$C_{14}H_{26}O_4$	[na]	2-methylheptane-5,5-dicarboxylic acid, diethyl ester				
	$\Delta_v H$	(394–427)	70.1	409	A	[1987STE/MAL]
$C_{14}H_{26}O_4$	[110-40-7]	diethyl decanedioate				
	$\Delta_v H$	(398–579)	74.1	413	A	[1987STE/MAL, 1947STU]
$C_{14}H_{26}O_5$	[na]	ethyl[1-(1-octyloxycarbonyl)ethyl]carbonate				
	$\Delta_v H$	(413–513)	74.0	428	A	[1987STE/MAL]
$C_{14}H_{26}O_5$	[902261-33-0]	hexyl[1-(1-butoxycarbonyl)ethyl]carbonate				
	$\Delta_v H$	(357–501)	72.1	372	A	[1987STE/MAL]
$C_{14}H_{26}O_6S$	[5423-27-8]	dibutyl 3,3′-sulfonyldipropionate				
	$\Delta_{fus}H$		31.4	344		[1994WAN/KUO]
$C_{14}H_{27}N$	[629-63-0]	myristonitrile				
	$\Delta_v H$	(327–369)	84.2 ± 0.2	298	GS	[2005EME/VER]
	$\Delta_v H$	(391–580)	71.4	406	A	[1987STE/MAL]
	$\Delta_v H$		85.3 ± 0.5	298	C	[1977STRI/SUN]
$C_{14}H_{27}NO_3$	[na]	N-dodecanoylglycine				
	$\Delta_{fus}H$		48.4	393.1	DSC	[1986MIY/MAT]
$C_{14}H_{27}NO_3$	[14379-35-2]	N-octanoyl-(*l*)-leucine				
	$\Delta_{trs}H$		7.6	357.1		
	$\Delta_{fus}H$		29.3	398.1	DSC	[1986MIY/MAT]
$C_{14}H_{27}NO_3$	[107396-11-2]	N-octanoyl-(*dl*)-leucine				
	$\Delta_{trs}H$		6.8	353.6		
	$\Delta_{fus}H$		27.2	367.1	DSC	[1986MIY/MAT]
$C_{14}H_{28}$	[295-17-0]	cyclotetradecane				
	$\Delta_{fus}H$		28.7	328		[1970BOR/DAL]
	$\Delta_{sub}H$		95.6	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(300–321)	97.9 ± 1.7	310	HSA	[1992CHI/HES]
	$\Delta_{sub}H$	(295–307)	134.8 ± 1.5	301	ME	[1964FRI/BAU, 1970COX/PIL]
	$\Delta_{sub}H$	(285–290)	89.3 ± 0.4	287	TM	[1955ENG]
	$\Delta_v H$		62.3 ± 0.2	343		[1992CHI/HES]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		65.3 ± 0.2	298		[1992CHI/HES]
$C_{14}H_{28}$	[na]	3-*tert*-butyl-1-methyl-4-isopropylcyclohexane				
	$\Delta_v H$	(329–505)	53.8	344	A	[1987STE/MAL]
$C_{14}H_{28}$	[na]	(1-methylheptyl)cyclohexane				
	$\Delta_v H$	(364–397)	60.4	379	A	[1987STE/MAL]
$C_{14}H_{28}$	[1795-15-9]	octylcyclohexane				
	$\Delta_v H$	(367–399)	62.7	382	A	[1987STE/MAL]
	$\Delta_v H$		69.8	298		[1971WIL/ZWO]
$C_{14}H_{28}$	[2882-98-6]	nonylcyclopentane				
	$\Delta_v H$		70.7	298		[1971WIL/ZWO]
$C_{14}H_{28}$	[1120-36-1]	1-tetradecene				
	$\Delta_v H$		70.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(430–527)	56.5	445	A	[1987STE/MAL, 1955CAM/ROS]
$C_{14}H_{28}$	[54845-26-0]	2,2,3,5,5,6,6-heptamethyl-3-heptene				
	$\Delta_v H$	(303–355)	51.2	318	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{14}H_{28}$	[4789-35-9]	*trans*-1,4-di-*tert*-butylcyclohexane				
	$\Delta_{fus}H$		17.15	363.2		[1968VAN/HOE]
$C_{14}H_{28}$	[4789-34-8]	*cis*-1,4-di-*tert*-butylcyclohexane				
	$\Delta_{fus}H$		8.79	293.2		[1968VAN/HOE]
$C_{14}H_{28}N_2O_2$	[163678-36-2]	tetrapropyloxamide				
	$\Delta_{fus}H$		21.0	317.2	TGA,DSC	[2003CLO/JAN]
	$\Delta_v H$		67.0	489	TGA,DSC	[2003CLO/JAN]
$C_{14}H_{28}N_2O_2$	[61382-93-2]	tetradecanediamide				
	$\Delta_{fus}H$		77.45	469.3	DSC	[2006BAD/DEL]
$C_{14}H_{28}O$	[5770-04-7]	1-octylcyclohexanol				
	$\Delta_v H$	(373–403)	105.6	388	A	[1987STE/MAL]
$C_{14}H_{28}O$	[75039-85-9]	(Z) 2-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	101.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[75039-86-0]	(E) 2-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	101.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[68892-27-3]	(Z) 3-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	99.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[68900-86-7]	(E) 3-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	99.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[40642-41-9]	(Z) 4-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	100.0	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[59101-24-5]	(E) 4-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	100.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[40642-42-0]	(Z) 5-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	100.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[62936-14-5]	(E) 5-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	100.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{28}O$	[68760-63-4]	(Z) 6-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	100	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[68760-62-3]	(E) 6-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	100.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[40642-43-1]	(Z) 7-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	99.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[37011-95-3]	(E) 7-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	100.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[64470-32-2]	(Z) 8-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	100.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[64437-34-9]	(E) 8-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	101.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[35153-15-2]	(Z) 9-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	100.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[52957-16-1]	(E) 9-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	101	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[57393-02-9]	(Z) 10-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	101.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[64437-35-0]	(E) 10-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	101.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[34010-15-6]	(Z) 11-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	101.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[35153-18-5]	(E) 11-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	101.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[70711-48-7]	(Z) 12-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	102.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[70711-49-8]	(E) 12-tetradecen-1-ol				
	$\Delta_v H$	(353–393)	102.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[2345-27-9]	2-tetradecanone				
	$\Delta_{fus}H$		49.12	306.7		[1996DOM/HEA]
	$\Delta_{sub}H$		130.9 ± 0.5	298	C	[1979SUN/SVE2]
	$\Delta_v H$	(411–560)	65.6	426	A	[1987STE/MAL]
	$\Delta_v H$	(549–643)	55.6	564	A	[1987STE/MAL]
	$\Delta_v H$		82.1 ± 0.6	298	S-F	[1979SUN/SVE2]
	$\Delta_v H$	(412–643)	51.6	556		[1975AMB/ELL]
	$\Delta_v H$	(372–551)	64.4	387	A	[1987STE/MAL, 1947STU]
$C_{14}H_{28}O$	[6137-34-4]	7-tetradecanone				
	$\Delta_v H$	(438–462)	66.9	450	A, ME	[1987STE/MAL, 1938UBB]
$C_{14}H_{28}O$	[124-25-4]	tetradecanal				
	$\Delta_v H$	(334–370)	77.4 ± 0.4	298	GS	[2003VER/KRA2]
	$\Delta_v H$	(343–383)	80.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(372–571)	63.4	387	A	[1987STE/MAL, 1947STU]
$C_{14}H_{28}O_2$	[112-66-3]	dodecyl acetate				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(289–333)	79.6 ± 0.3	298	GS	[2006KRA/VER]
	$\Delta_v H$	(333–378)	81.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(398–540)	70.5	413	A	[1987STE/MAL]
$C_{14}H_{28}O_2$	[106-33-2]	ethyl dodecanoate				
	$\Delta_{fus}H$		9.31	271.5		[1996DOM/HEA]
	$\Delta_v H$	(423–483)	80.0	298	GC	[1997KRO/VEL]
	$\Delta_v H$	(386–435)	67.2	401	A	[1987STE/MAL]
$C_{14}H_{28}O_2$	[1731-88-0]	methyl tridecanoate				
	$\Delta_v H$		74.0	350		[2002VAN/VAN]
	$\Delta_v H$		72.3 ± 0.1	368		[2002VAN/VAN]
	$\Delta_v H$		80.0 ± 0.5	298		[2002VAN/VAN]
	$\Delta_v H$		81.3 ± 0.7	298	GC, C	[1980FUC/PEA]
	$\Delta_v H$		82.7 ± 0.8	298	C	[1977MAN/SEL]
	$\Delta_v H$	(377–504)	72.6	392	A, EST	[1987STE/MAL, 1963ROS/SCH]
$C_{14}H_{28}O_2$	[245658-44-0]	2,2-dimethylpropanoic acid, 1,1,5-trimethylhexyl ester				
	$\Delta_v H$	(333–378)	61.3	298	CGC	[1999VER/HEI]
$C_{14}H_{28}O_2$	[544-63-8]	tetradecanoic acid				
	$\Delta_{fus}H$		45.75	326.2	DSC	[2010HON/HUA]
	$\Delta_{trs}H$		1.8	315		
	$\Delta_{trs}H$		6.4	325.3		
	$\Delta_{fus}H$		45.0	326.5	DSC	[2007MOR/COR]
	$\Delta_{fus}H$		40.1	326.6	DSC	[2007MIS/MIS]
	$\Delta_{fus}H$		45.1	327		[1996DOM/HEA]
	$\Delta_{sub}H$		168.6 ± 9	298	TPD	[2008CAP/LOV]
	$\Delta_{sub}H$	(272–288)		125.6	TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$	(282–305)		174	TPTD	[2001CHA/TOB]
		Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods				
	$\Delta_{sub}H$	(312–325)	139.7 ± 3.8	318	ME	[1961DAV/MAL, 1970COX/PIL]
	$\Delta_v H$	(383–459)	100.4	398	A	[1987STE/MAL]
	$\Delta_v H$	(423–599)	91.6	438	A	[1987STE/MAL]
	$\Delta_v H$	(339–358)	104.1 ± 2.0	349	ME, TE	[1982DEK/SCH]
	$\Delta_v H$		88.9	455	I	[1943CRA]
$C_{14}H_{28}O_3$	[na]	decyl 3-methoxypropionate				
	$\Delta_v H$	(403–513)	68.9	418	A	[1987STE/MAL]
$C_{14}H_{28}O_3$	[19816-73-0]	peroxytetradecanoic acid				
	$\Delta_{sub}H$	(293–303)	156.0 ± 4.1		ME	[1980SWA/KWA]
$C_{14}H_{28}O_4$	[56444-61-2]	2,2,9,9-tetramethyl-1,3,8,10-tetraoxacyclotetradecane				
	$\Delta_{fus}H$		30.5	409.4		[1994KIM/LEE]
$C_{14}H_{28}O_4$	[55208-76-9]	3,3,6,6-tetrapropyl-1,2,4,5-tetraoxacyclohexane				
	$\Delta_v H$	(403–473)	65.1	298	CGC	[2007CAN/EYL]
$C_{14}H_{28}O_6$	[125590-73-0]	2-ethylhexyl α-(D)-glucoside				
	$\Delta_{trs}H$		33.47	341.2		
	$\Delta_{fus}H$		3.56	387.2	DSC	[1998NIL/SOE]
$C_{14}H_{28}O_6$	[125590-74-1]	2-ethylhexyl β-(D)-glucoside				
	$\Delta_{fus}H$		10.88	330.2	DSC	[1998NIL/SOE]
$C_{14}H_{29}Br$	[112-71-0]	1-bromotetradecane				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(437–645)	67.1	452	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{14}H_{29}Cl$	[2425-54-9]	1-chlorotetradecane				
	$\Delta_v H$		86.6	298		[2006BOL/NER2]
	$\Delta_v H$	(313–373)	80.2	313	GC	[1980JON/MAT]
	$\Delta_v H$	(313–373)	78.0	333	GC	[1980JON/MAT]
	$\Delta_v H$	(313–373)	74.4	353	GC	[1980JON/MAT]
	$\Delta_v H$	(313–373)	72.9	373	GC	[1980JON/MAT]
	$\Delta_v H$	(414–570)	68.7	429	A, DTA	[1987STE/MAL, 1969KEM/KRE]
$C_{14}H_{29}F$	[593-33-9]	1-fluorotetradecane				
	$\Delta_v H$	(288–335)	73.5 ± 0.4	298	GS	[1997SCH/VER]
	$\Delta_v H$	(400–593)	61.4	415	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{14}H_{29}I$	[19218-94-1]	1-iodotetradecane				
	$\Delta_v H$	(452–672)	90.0	298	A,EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	$\Delta_v H$	(452–672)	68.6	467	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{14}H_{29}NO$	[638-58-4]	tetradecanamide				
	$\Delta_{sub}H$	(248–375)	167.4 ± 2.5	352	ME	[1959DAV/JON2, 1987STE/MAL]
$C_{14}H_{30}$	[629-54-4]	tetradecane				
	$\Delta_{fus}H$		42.7	278.3	DSC	[2004MON/RAJ]
	$\Delta_{fus}H$		45.07	279		[1996DOM/HEA]
	$\Delta_{sub}H$		117.6	298	B	[1972MOR3]
	$\Delta_v H$	(283–313)	71.6 ± 1.3	298	GS	[1909LEG/BAC]
	$\Delta_v H$		72.1	298	GS	[2001PUR/CHI]
	$\Delta_v H$		72.0 ± 2.4	298	CGC	[2000NIC/ORF]
	$\Delta_v H$		69.0	324	C	[1996VIT/CHA]
	$\Delta_v H$		68.6	329	C	[1996VIT/CHA]
	$\Delta_v H$		67.9	334	C	[1996VIT/CHA]
	$\Delta_v H$		66.8	344	C	[1996VIT/CHA]
	$\Delta_v H$		65.7	359	C	[1996VIT/CHA]
	$\Delta_v H$	(423–473)	71.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(363–413)	71.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		71.7	298		[1994RUZ/MAJ]
	$\Delta_v H$	(313–433)	67.8	328	A	[1987STE/MAL]
	$\Delta_v H$	(343–395)	64.1	361	GS	[1986ALL/JOS]
	$\Delta_v H$		70.1	313	C	[1979SUN/SVE]
	$\Delta_v H$		68.9	328	C	[1979SUN/SVE]
	$\Delta_v H$		71.8 ± 0.6	298	C	[1979SUN/SVE]
	$\Delta_v H$		71.1 ± 0.4	298	C	[1972MOR2]
	$\Delta_v H$		71.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(432–529)	57.1	447	A	[1987STE/MAL, 1955CAM/ROS]
	$\Delta_v H$	(429–468)	57.8	449	ME	[1938UBB]
$C_{14}H_{30}$	[1560-96-9]	2-methyltridecane				
	$\Delta_v H$	(388–530)	56.3	403	A	[1987STE/MAL]
$C_{14}H_{30}$	[6418-41-3]	3-methyltridecane				
	$\Delta_v H$	(389–521)	55.1	404	A	[1987STE/MAL]
$C_{14}H_{30}$	[26730-12-1]	4-methyltridecane				

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(386–520)	54.2	401	A	[1987STE/MAL]
$C_{14}H_{30}$	[25117-31-1]	5-methyltridecane				
	$\Delta_v H$	(385–518)	53.8	400	A	[1987STE/MAL]
$C_{14}H_{30}$	[26730-14-3]	7-methyltridecane				
	$\Delta_v H$	(357–389)	59.0	372	A	[1987STE/MAL]
$C_{14}H_{30}$	[6117-98-2]	2,3-dimethyldodecane				
	$\Delta_v H$	(385–519)	53.4	400	A	[1987STE/MAL]
$C_{14}H_{30}$	[6117-99-3]	2,4-dimethyldodecane				
	$\Delta_v H$	(379–509)	54.0	394	A	[1987STE/MAL]
$C_{14}H_{30}$	[na]	2,4,6-trimethylundecane				
	$\Delta_v H$	(368–491)	53.2	383	A	[1987STE/MAL]
$C_{14}H_{30}$	[5171-86-8]	2,2,3,4,6,6-heptamethylheptane				
	$\Delta_v H$	(313–366)	54.5	366	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{14}H_{30}$	[5171-86-8]	hexaethylethane (3,3,4,4-tetraethylhexane)				
	$\Delta_v H$	(298–307)	63.9 ± 1.2	298	GS	[1997VER/NOL]
	$\Delta_v H$	(283–302)	65.7 ± 1.2	292	GS	[1973BEC/RUC, 1995CHI/HES]
	$\Delta_v H$		65.0 ± 1.2	298		[1973BEC/RUC]
$C_{14}H_{30}$	[65149-84-0]	2,2,3,3,4,4,5,5-octamethylhexane				
	$\Delta_v H$	(288–325)	56.9 ± 0.7	298	GS	[1997VER/NOL]
$C_{14}H_{30}N_2O$	[842173-55-1]	1-tridecyl urea				
	$\Delta_{trs}H$		1.5	261.6		
	$\Delta_{trs}H$		2.8	306.5		
	$\Delta_{fus}H$		46.0	384.6	DSC	[2005HAS/TAJ]
$C_{14}H_{30}O$	[629-64-1]	diheptyl ether				
	$\Delta_v H$	(360–547)	63.1	375	A	[1987STE/MAL]
$C_{14}H_{30}O$	[na]	4-methylpentyl *tert*-octyl ether				
	$\Delta_v H$		57.5	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{14}H_{30}O$	[na]	3-methylpentyl *tert*-octyl ether				
	$\Delta_v H$		58.0	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{14}H_{30}O$	[na]	3,3-dimethylbutyl *tert*-octyl ether				
	$\Delta_v H$		56.4	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{14}H_{30}O$	[508181-44-0]	hexyl *tert*-octyl ether				
	$\Delta_v H$	(296–326)	59.8 ± 0.6	298	GS	[2003VER/KRA]
	$\Delta_v H$		59.2	298		[UR/VER, 2002VER]
$C_{14}H_{30}O$	[112-72-1]	1-tetradecanol				
	$\Delta_{fus}H$		47.29	308.1	DSC	[2009ZEN/CAO]
	$\Delta_{fus}H+\Delta_{trs}H$		47.01	311.2		
	$\Delta_{trs}H$		25.1	310.8		
	$\Delta_{trs}H$		1.8	306		
	$\Delta_{trs}H$		23.81	311		
	$\Delta_{fus}H$		22.01	311.6		
	$\Delta_{fus}H+\Delta_{trs}H$		49.37	311		[1974MOS/MOU]
	$\Delta_{sub}H$		126.0 ± 0.6			[1977MAN/SEL]
	$\Delta_{sub}H$	(293–307)	143.9	300	ME	[1965DAV/KYB]
	$\Delta_v H$		98.9 ± 2.5	298	CGC	[2006NIC/KWE]

TABLE 9. Phase change enthalpies of C_{11} to C_{14} organic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(312–346)	93.6	328	GS	[2001KUL/VER2]
	$\Delta_v H$	(312–346)	98.7	298	GS	[2001KUL/VER2]
	$\Delta_v H$	(333–438)	81.8	386		[1992NGU/KAS]
	$\Delta_v H$	(317–358)	109	332	A	[1987STE/MAL]
	$\Delta_v H$		102.2 ± 2.3	298	C	[1977MAN/SEL]
	$\Delta_v H$	(313–358)	106.4	328		[1973WIL/ZWO]
	$\Delta_v H$	(424–569)	76.6	439	A	[1987STE/MAL, 1969KEM/KRE]
	$\Delta_v H$	(313–326)	104.2	320	ME	[1965DAV/KYB]
$C_{14}H_{30}O$	[4706-81-4]	2-tetradecanol				
	$\Delta_v H$	(313–428)	95.7	328		[1999NGU/BER]
$C_{14}H_{30}O_2$	[4536-30-5]	2-(dodecyloxy)ethanol				
	$\Delta_v H$	(414–467)	71.5	429	A	[1987STE/MAL]
$C_{14}H_{30}O_2$	[19812-64-7]	1,14-tetradecanediol				
	$\Delta_{fus}H$		61.9	360.4	DSC	[1999OGA/NAK]
$C_{14}H_{30}O_2S$	[126835-75-4]	3-(undecylthio)-1,2-propanediol				
	$\Delta_{trs}H$		2.5	280.2		
	$\Delta_{trs}H$		4.9	289.1		
	$\Delta_{trs}H$		4.6	295.2		
	$\Delta_{fus}H$		18.3	317.4		[1993ACR]
$C_{14}H_{30}O_3$	[10430-98-5]	3-(undecyloxy)-1,2-propanediol				
	$\Delta_{fus}H$		43.1	311.7	DSC	[1993ACR]
$C_{14}H_{30}O_4S_2$	[na]	2-deoxy-(*D*)-glucose dibutyl dithioacetal				
	$\Delta_{fus}H$		60.3	409.5	DSC	[1989VAN/VAN]
$C_{14}H_{30}O_4S_2$	[na]	(*l*)-rhamnose dibutyl dithioacetal				
	$\Delta_{fus}H$		37.9	389.9	DSC	[1989VAN/VAN]
		Note: Authors report that there are several transitions prior to melting.				
$C_{14}H_{30}O_5S_2$	[115395-52-3]	(*D*)-glucose dibutyl dithioacetal				
	$\Delta_{fus}H$		50.2	399	DSC	[1989VAN/VAN]
$C_{14}H_{30}O_5S_2$	[68747-93-3]	(*D*)-galactose dibutyl dithioacetal				
	$\Delta_{fus}H$		46.4	399.2	DSC	[1989VAN/VAN]
$C_{14}H_{30}S$	[2079-95-0]	1-tetradecanethiol				
	$\Delta_v H$	(446–614)	67.3	461		[1999DYK/SVO]
$C_{14}H_{30}S_2$	[10496-16-9]	diheptyl disulfide				
	$\Delta_v H$	(458–630)	69.8	473		[1999DYK/SVO]
$C_{14}H_{31}N$	[2470-68-0]	diheptylamine				
	$\Delta_v H$	(435–605)	60.0	450	A	[1987STE/MAL]
$C_{14}H_{31}N$	[112-18-5]	N,N-dimethyldodecylamine				
	$\Delta_v H$	(283–324)	69.5	299		[2004FUL/RUZ]
	$\Delta_v H$	(380–604)	64.4	395	A	[1987STE/MAL]
$C_{14}H_{31}N$	[2016-42-4]	tetradecylamine				
	$\Delta_v H$	(471–577)	62.4	486	A, EST	[1987STE/MAL, 1956MAN2]
$C_{14}H_{31}NO_2$	[126835-66-3]	3-(undecylamino)-1,2-propanediol				
	$\Delta_{fus}H$		58.2	348.8		[1993ACR]
$C_{14}H_{31}O_2P$	[na]	diheptylphosphinic acid				
	$\Delta_v H$	(482–664)	64.1	573		[1971NAK/SMI]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_8Cl_3NO_2$	[77765-38-9]	2,2,4-trichloro-5-(2-naphthaleneylamino)-4-cyclopentene-1,3-dione				
	$\Delta_v H$	(453–483)	91.4	468	GC	[1980SHA/SAD]
$C_{15}H_9N$	[1210-12-4]	9-cyanoanthracene				
	$\Delta_{fus}H$		25.19	445.2		[1970GUA/SAR]
$C_{15}H_9N_3$	[217-88-9]	pyrido[2,3-f] [1,7]phenanthroline				
	$\Delta_v H$	(648–707)	65.1	663	A	[1987STE/MAL, 1962JOH/MCE]
$C_{15}H_9N_3$	[217-81-2]	pyrido[3,2-f] [1,7]phenanthroline				
	$\Delta_v H$	(648–706)	67.4	663	A, I	[1987STE/MAL, 1962JOH/MCE]
$C_{15}H_{10}$	[203-64-5]	4*H*-cyclopenta[def]phenanthrene				
	$\Delta_v H$		83.4 ± 0.7	298	CGC	[2008HAN/NUT]
$C_{15}H_{10}ClFN_2O$	[2886-65-9]	7-chloro-1,3-dihydro-5-(2′-fluorophenyl)-2*H*-1,4-benzodiazapin-2-one (desalkylflurazepam)				
	$\Delta_{fus}H$		30.7	481.2	DSC	[2008WAS/HOL]
$C_{15}H_{10}Cl_2N_2O_2$	[50264-69-2]	1-[(2,4-dichlorophenyl)methyl]-1-*H*-indazole-3-carboxylic acid				
	$\Delta_{fus}H$		45.92	480.2	DSC	[1998PAL/WEH]
$C_{15}H_{10}N_2O_2$	[2536-05-2]	2,2′-diisocyanatodiphenylmethane				
	$\Delta_v H$	(343–413)	90.1	358	A	[1987STE/MAL]
$C_{15}H_{10}N_2O_2$	[5873-54-1]	2,4′-diisocyanatodiphenylmethane				
	$\Delta_v H$	(343–413)	89.3	358	A	[1987STE/MAL]
$C_{15}H_{10}N_2O_2$	[101-68-8]	4,4′-diisocyanatodiphenylmethane				
	$\Delta_{fus}H$		27.3	313.6		[1996DOM/HEA, 1977LEB/EVS]
	$\Delta_v H$	(343–413)	90.5	358	A	[1987STE/MAL]
	$\Delta_v H$	(442–530)	93.8	457	A	[1987STE/MAL]
	$\Delta_v H$	(442–530)	90.6	483	A	[1966ZAL/STR]
$C_{15}H_{10}O$	[886-38-4]	diphenylcyclopropenone				
	$\Delta_{sub}H$	(353–378)	119.7 ± 8	365	HSA	[1985STE/GAN]
	$\Delta_{sub}H$	(323–343)	141 ± 4	333	ME	[1976HOP/BOS, 1987STE/MAL]
$C_{15}H_{10}O$	[642-31-9]	9-anthraldehyde				
	$\Delta_{fus}H$		17.61	377.2		[1970GUA/SAR]
	$\Delta_{sub}H$	(329–363)	100.6 ± 3.9		ME	[2008GOL/SUU]
$C_{15}H_{10}O$	[1139-82-8]	5,7-dihydro-6*H*-dibenzo[a,c]cyclohepten-6-one				
	$\Delta_{fus}H$		18.16	350.3	DSC	[1998VER4]
$C_{15}H_{10}O_2$	[na]	α-benzoyloxyphthalide				
	$\Delta_{sub}H$	(343–388)	U 125.3	366		[1989ROR/RUT]
$C_{15}H_{10}O_2$	[613-08-1]	2-anthracenecarboxylic acid				
	$\Delta_{sub}H$	(401–421)	134.8 ± 3.4		ME	[2008GOL/SUU]
$C_{15}H_{10}O_2$	[723-62-6]	9-anthracenecarboxylic acid				
	$\Delta_{sub}H$	(385–420)	120.1 ± 3.8		ME	[2008GOL/SUU]
$C_{15}H_{10}O_2$	[525-82-6]	2-phenyl-4*H*-1-benzopyran-4-one (flavone)				
	$\Delta_{fus}H$		20.32	369.9	DSC	[2009SOU/MAT]
	$\Delta_{sub}H$		108.2 ± 1.7	298	C	[2009SOU/MAT]
$C_{15}H_{10}O_3$	[82-39-3]	1-methoxy-9,10-anthraquinone				
	$\Delta_{sub}H$		128		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$		106.6	385	HSA	[1956BEY/NIC]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{10}O_3$	[3274-20-2]	2-methoxy-9,10-anthraquinone				
	$\Delta_{sub}H$		124.7		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$		118.4 ± 0.4	419	HSA	[1956BEY/NIC]
$C_{15}H_{10}O_3$	[60466-75-3]	9-methoxy-1,4-anthraquinone				
	$\Delta_{sub}H$	(363–386)	130.5 ± 2.3	375	ME	[2002JIM/ROU]
	$\Delta_{sub}H$	(363–386)	131.5 ± 2.3	298	ME	[2002JIM/ROU]
$C_{15}H_{10}O_4$	[480-40-0]	5,7-dihydroxy-2-phenyl-4*H*-1-benzoyran-4-one (chrysin)				
	$\Delta_{fus}H$		39.2	558.2	DSC	[2007CHE/HUM]
$C_{15}H_{10}O_7$	[117-39-5]	2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy-4*H*-1-benzopyran-4-one (quercetin)				
	$\Delta_{fus}H$		41.5	595.2	DSC	[2007CHE/HUM]
$C_{15}H_{11}ClF_3NO_4$	[42874-03-3]	2-chloro-1-(3-ethoxy-4-nitrophenoxy)-4-(trifluoromethyl)benzene				
	$\Delta_{fus}H$		30.07	358.8	DSC	[1991ACR, 1990DON/DRE]
$C_{15}H_{11}ClN_2O$	[1088-11-5]	7-chloro-1,3-dihydro-5-phenyl-2*H*-1,4-benzodiazepin-2-one (nordazepam)				
	$\Delta_{fus}H$ *(I)*		24.45	494.5		
	$\Delta_{fus}H$ *(II)*		34	489.9		
	$\Delta_{fus}H$ *(III)*		27.4	489.2		
	$\Delta_{fus}H$ *(IV)*		33.62	487.4	TGA	[1996DOM/HEA, 1992CHA/MOU]
$C_{15}H_{11}Cl_2N_2O_2$	[846-49-1]	7-chloro-5-(2-chlorophenyl)-1,3-dihydro-3-hydroxy-2*H*-1,4-benzodiazepin-2-one ((±)lorazepam)				
	$\Delta_{fus}H$		75.2	453.2	DSC	[2008WAS/HOL]
	$\Delta_{fus}H$		92.57	446.5	DSC	[2001VER/AUG]
$C_{15}H_{11}F_3O_3$	[3119-86-6]	2-hydroxy-2′-trifluoromethyl-4-methoxybenzophenone				
	$\Delta_{sub}H$	(323–363)	U 13.3	338	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{15}H_{11}F_3O_3$	[7396-89-6]	2-hydroxy-3′-trifluoromethyl-4-methoxybenzophenone				
	$\Delta_{sub}H$	(313–323)	103.8	318	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{15}H_{11}F_3O_3$	[7396-90-9]	2-hydroxy-4′-trifluoromethyl-4-methoxybenzophenone				
	$\Delta_{sub}H$	(313–333)	91.0	323	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{15}H_{11}N$	[612-96-4]	2-phenylquinoline				
	$\Delta_{sub}H$	(337–351)	103.1 ± 0.8	344	ME	[1997RIB/MAT3]
	$\Delta_{sub}H$		105.4 ± 0.9	298	ME	[1997RIB/MAT3]
$C_{15}H_{11}NO_2$	[82-38-2]	1-methylamino-9,10-anthraquinone				
	$\Delta_{fus}H$		28.81	443.2		[1991BAU/WEB]
	$\Delta_{sub}H$		112.6			[1984KAR/KRU]
	$\Delta_{sub}H$	(363–383)	115.9 ± 3.5	373		[1984KRI]
	$\Delta_{sub}H$	(384–405)	123.8 ± 3.3	395	ME	[1960BRA/BIR, 1987STE/MAL]
	$\Delta_{sub}H$		123.8		ME	[1964JON/SED, 1991HOR, 1966JON/KRA]
	$\Delta_{sub}H$		115.5 ± 0.4	461	HSA	[1956BEY/NIC]
	$\Delta_{sub}H$		114.7 ± 3	406	HSA	[1956BEY/NIC]
	$\Delta_{v}H$	(433–493)	103.5	448	A	[1987STE/MAL]
$C_{15}H_{11}NO_2$	[82-28-0]	1-amino-2-methyl-9,10-anthraquinone				
	$\Delta_{sub}H$	(360–388)	124.6 ± 7.3	374		[1984KRI]
$C_{15}H_{11}NO_3S$	[313057-09-9]	4-(2-propenyloxy)phenyl 5-cyano-2-thiophene carboxylate				
	$\Delta_{fus}H$		103.8	361.5	DSC	[2000WU/WAN]
$C_{15}H_{11}NO_4$	[na]	1-amino-2-methoxy-4-hydroxy-9,10-anthraquinone				
	$\Delta_{sub}H$		132			[1984KAR/KRU]
$C_{15}H_{11}N_3O_2$	[6407-80-3]	4-hydroxy-3-(phenylazo)-2(1*H*)-quinolinone (Disperse Yellow 4)				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		127.2			[1968TSU/KOJ, 1988BAU/PER]
$C_{15}H_{12}$	[610-48-0]	1-methylanthracene				
	Δ_vH		87.0 ± 1.0	298	CGC	[2008HAN/NUT]
$C_{15}H_{12}$	[613-12-7]	2-methylanthracene				
	Δ_vH		84.5 ± 2.7	298	CGC	[2008HAN/NUT]
	Δ_vH	(413–473)	84.4 ± 1.2	298	GC	[2006HAF/PAR]
	Δ_vH	(323–473)	76.1	398	GC	[2002LEI/CHA]
$C_{15}H_{12}$	[779-02-0]	9-methylanthracene				
	$\Delta_{sub}H$	(329–345)	99.8 ± 1.0	337	ME	[2006RIB/AMA2]
	$\Delta_{sub}H$	(329–345)	101.8 ± 1.0	298	ME	[2006RIB/AMA2]
	$\Delta_{sub}H$		98.9		RG	[1958KLO]
	Δ_vH		88.1 ± 1.0	298	CGC	[2008HAN/NUT]
	Δ_vH	(354–402)	98.9	369	A	[1987STE/MAL]
	Δ_vH	(423–587)	58.5	465		[1983SIV/KOB]
	Δ_vH	(423–515)	58.1	515		[1983SIV/KOB]
	Δ_vH	(423–515)	56.5	555		[1983SIV/KOB]
$C_{15}H_{12}$	[832-69-9]	1-methylphenanthrene				
	Δ_vH		84.5 ± 1.4	298	CGC	[2008HAN/NUT]
	Δ_vH	(323–473)	76.3	398	GC	[2002LEI/CHA]
$C_{15}H_{12}$	[832-64-4]	4-methylphenanthrene				
	$\Delta_{trs}H$		0.02	182		
	$\Delta_{trs}H$		0.03	295		
	$\Delta_{fus}H$		14.04	324.9		[1996DOM/HEA]
	Δ_vH	(368–647)	74.4 ± 0.2	380	EB,IP	[1989CHI/HOS]
	Δ_vH	(368–647)	71.8 ± 0.1	420	EB,IP	[1989CHI/HOS]
	Δ_vH	(368–647)	69.2 ± 0.1	460	EB,IP	[1989CHI/HOS]
	Δ_vH	(368–647)	66.7 ± 0.1	500	EB,IP	[1989CHI/HOS]
	Δ_vH	(368–647)	64.2 ± 0.1	540	EB,IP	[1989CHI/HOS]
	Δ_vH	(368–647)	61.6 ± 0.1	580	EB,IP	[1989CHI/HOS]
$C_{15}H_{12}$	[4505-48-0]	2-phenylindene				
	Δ_vH		84.3 ± 0.7	298	CGC	[2008HAN/NUT]
$C_{15}H_{12}Br_4O_2$	[79-94-7]	2,2′,6,6′-tetrabromo-4,4-isopropylidenediphenol				
	$\Delta_{fus}H$		29.1	451.5	DSC	[2008KUR/KAW]
	$\Delta_{sub}H$		153 ± 3		ME	[2008KUR/KAW]
$C_{15}H_{12}ClN_2O_2$	[604-75-1]	7-chloro-1,3-dihydroxy-5-phenyl-2*H*-1,4-benzodiazepin-2-one ((±)-oxazepam)				
	$\Delta_{fus}H$		86.4	478.8	DSC	[2008WAS/HOL]
	$\Delta_{fus}H$		84.11	467.5	DSC	[2001VER/AUG]
$C_{15}H_{12}ClN_5O_4$	[na]	5-[(4-chloro-2-nitrophenylazo]-1-ethyl-1,2-dihydro-6-hydroxy-4-methyl-2-oxo-3-pyridinecarbonitrile				
	$\Delta_{fus}H$		35.16	500.2		[1991BAU/WEB]
$C_{15}H_{12}N_2$	[668-94-0]	4.5-diphenylimidazole				
	$\Delta_{fus}H$		32.34	505	DSC	[2007SIF/AIT]
$C_{15}H_{12}N_2O$	[298-46-4]	5H-dibenz[b,f]azepine-5-carboxamide (carbamazepine)				
	$\Delta_{fus}H$		25.6	465.3	DSC	[2009GOO/ROD]
	$\Delta_{fus}H$ *(I)*		25.52	466.7		
	$\Delta_{fus}H$ *(II)*		26.82	464.4		
	$\Delta_{fus}H$ *(III)*		24.89	464.7	DSC	[2003GRZ/LAN]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{12}N_2O_2$	[1220-94-6]	1-amino-4-(N-methylamino)anthra-9,10-quinone				
	$\Delta_{sub}H$		140.6		GS	[1967DAT/KAN, 1991HOR]
$C_{15}H_{12}N_2O_2$	[51-41-0]	5,5-diphenyl-2,4-imidazolidinedione (phenytoin)				
	$\Delta_{fus}H$		40.1	568.8	DSC	[2006WAS/HOL, 2008WAS/HOL]
	$\Delta_{fus}H$		47.08	570.8	DSC	[2003NOK/BOL]
$C_{15}H_{12}N_2O_2$	[52955-48-3]	N-(N′-methylanilino)phthalamide				
	$\Delta_{trs}H$		3.6	374		
	$\Delta_{fus}H$		21.7	399	DSC	[1998BOT/ELL]
$C_{15}H_{12}N_2O_2$	[28721-07-5]	10,11-dihydro-10-oxo-5*H*-dibenz[b,f]azepine-5-carboxamide (oxcarbazepine)				
	$\Delta_{fus}H$ *(I)*		40.3	495.6	DSC	
	$\Delta_{fus}H$ *(II)*		33.3	491.4	DSC	
	$\Delta_{fus}H$ *(III)*		26.07	486.2	DSC	[2010LUT/MAT]
		Note: All three polymorphic forms decomposed on melting.				
$C_{15}H_{12}N_2O_2$	[57-41-0]	5,5-diphenylhydantoin				
	$\Delta_{fus}H$		36.29	574		[1985OHM/LIP]
$C_{15}H_{12}N_2O_3$	[2872-48-2]	1,4-diamino-2-methoxyanthra-9,10-quinone				
	$\Delta_{fus}H$		35.29	515.2		[1988BAU/PER]
	$\Delta_{sub}H$		147.0			[1984KAR/KRU]
	$\Delta_{sub}H$		151.9		GS	[1967DAT/KAN, 1991HOR]
$C_{15}H_{12}N_4O_2$	[340820-68-0]	4-phenyl-5-(2-pyridinyl)-4*H*-1,2,4-triazole-3-carboxylic acid, methyl ester				
	$\Delta_{fus}H$		24.4	465.2		[2005SIK/MOD]
$C_{15}H_{12}O$	[1210-35-1]	dibenzosuberone				
	$\Delta_{fus}H$		17.15	305.5	DSC	[1998VER4]
	$\Delta_{sub}H$		109.3	298		[1998VER4]
	$\Delta_{v}H$	(314–338)	90.0 ± 1.5		GS	[1998VER4]
$C_{15}H_{12}O$	[1139-82-8]	5,7-dihydro-6*H*-dibenzo[a,c]cyclohepten-6-one				
	$\Delta_{sub}H$		95.6 ± 0.8	298		[1998VER4]
$C_{15}H_{12}OS$	[na]	monothiodibenzoylmethane				
	$\Delta_{sub}H$		125.5 ± 4.9	298	C	[2004RIB/SAN3]
$C_{15}H_{12}O_2$	[120-46-7]	dibenzoylmethane				
	$\Delta_{sub}H$		113.3 ± 4.8	298	C	[2004RIB/SAN3]
	$\Delta_{sub}H$		115.7 ± 0.9	298	ME	[1992RIB/MON]
$C_{15}H_{12}O_2$	[120-46-7]	1,3-diphenyl-1,3-propanedione				
	$\Delta_{v}H$	(368–383)	60.1	375	A	[1987STE/MAL]
$C_{15}H_{12}O_2$	[487-26-3]	2,3-dihydro-2-phenyl-4*H*-1-benzopyran-4-one (flavanone)				
	$\Delta_{fus}H$		21.04	349.5	DSC	[2009SOU/MAT]
	$\Delta_{sub}H$		107.2 ± 2.3	298	C	[2009SOU/MAT]
$C_{15}H_{12}O_5$	[480-41-1]	2,3-dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-4*H*-1-benzopyran-4-one (naringenin)				
	$\Delta_{fus}H$		39.8	523.2	DSC	[2007CHE/HUM]
$C_{15}H_{13}ClN_2O_5$	[1562-85-2]	gallocyanine (C. I. Disperse Blue 95)				
	$\Delta_{sub}H$	(433–493)	88.2	448	A	[1987STE/MAL]
$C_{15}H_{13}ClN_2S$	[688319-94-0]	N-(2-methyl-4-chlorophenyl)-4*H*-3,1-benzothiazin-2-amine				
	$\Delta_{fus}H$		17.5	495.8	DSC	[2004GON/KOS]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{13}Cl_2NO_2$	[117-27-1]	1,1-(di-p-chlorophenyl)-2-nitropropane				
	$\Delta_{fus}H$		21.39	354.3	DSC	[1990DON/DRE]
$C_{15}H_{13}FO_2$	[5104-49-4]	2-fluoro-α-methyl[1,1′-biphenyl]-4-acetic acid (flurbiprofen)				
	$\Delta_{fus}H$		27.9	386.7	DAC	[1999HEN/KUH]
	$\Delta_{sub}H$	(342–367)	108.4 ± 0.5		GS	[2003PER/KUR]
$C_{15}H_{13}NO$	[68347-34-2]	2,10-dimethylacridin-9(10*H*)-one				
	$\Delta_{fus}H$		22.4	426	DSC	[2003STO/KRZ]
	$\Delta_{sub}H$		119		DSC	[2003STO/KRZ]
$C_{15}H_{13}NO$	[2207-41-2]	10-ethylacridin-9(10*H*)-one				
	$\Delta_{fus}H$		27.5	434		[2003STO/KRZ]
	$\Delta_{sub}H$		117		DSC	[2003STO/KRZ]
$C_{15}H_{13}NO_2$	[23825-32-3]	N-benzoyl-N-methylbenzamide				
	$\Delta_{sub}H$	(246–269)	116.8 ± 0.4	356	ME	[1997ROU/JIM]
	$\Delta_{sub}H$		120.1 ± 0.4	298		[1997ROU/JIM]
$C_{15}H_{13}NO_3$	[74103-06-3]	5-benzoyl-2,3-dihydro-1H-pyrrolizine-1-carboxylic acid (ketorolac)				
	$\Delta_{fus}H$ *(I)*		28.62	431.2	DSC	
	$\Delta_{fus}H$ *(II)*		171.74	430.2	DSC	
		Note: Value for (II) seems much too large in comparison with fusion enthalpies of the other two crystalline forms				
	$\Delta_{fus}H$ *(III)*		25.42	426.2	DSC	[2004SOH/SEO]
$C_{15}H_{13}N_3O_4S$	[36322-90-4]	2*H*-1,2-benzothiazine-3-carboxyamide-4-hydroxy-2-methyl-N-2-pyridinyl-1,1-dioxide (piroxicam)				
	$\Delta_{fus}H$		36.3	473.4	DSC	[2006WAS/HOL, 2008WAS/HOL]
	$\Delta_{fus}H$		35	473.9	DSC	[2006DRE/SHA]
	$\Delta_{fus}H$		35	474.5		[1998GIO/GAZ]
	$\Delta_{fus}H$		34.5	473	DSC	[1998BUS/PEN]
$C_{15}H_{14}ClN$	[113788-74-2]	4-chlorobenzylidene-4′-ethylaniline				
	$\Delta_{fus}H$		17.21	358.4	DSC	[1999GAL/COL]
$C_{15}H_{14}Cl_2N_4O_3$	[6232-56-0]	4-(N-methyl-N-2-hydroxyethylamino)-4′-nitro-2′,6′-dichloroazobenzene				
	$\Delta_{sub}H$		135.1			[1968TSU/KOJ, 1988BAU/PER]
$C_{15}H_{14}Cl_3O_2PS$	[57875-65-7]	(chloromethyl)thiophosphnic acid, O,O-*bis*(2-chloro-4-methylphenyl) ester				
	Δ_vH	(343–365)	93.2	354	A	[1987STE/MAL, 1999DYK/SVO]
$C_{15}H_{14}F_3N_3$	[6232-56-0]	N,N-dimethyl-4-[[4-(trifluoromethyl)phenyl]azo]benzenamine				
	$\Delta_{sub}H$		95.8		UV	[1984KAR/ROD]
$C_{15}H_{14}F_3N_3O$	[1494-75-3]	N,N-dimethyl-4-[[4-(trifluoromethoxy)phenyl]azo]benzenamine				
	$\Delta_{sub}H$		96.8		UV	[1984KAR/ROD]
$C_{15}H_{14}F_3N_3S$	[1494-77-5]	N,N-dimethyl-4-[[4-[(trifluoromethyl)thio]phenyl]azo]benzenamine				
	$\Delta_{sub}H$		100.8		UV	[1984KAR/ROD]
$C_{15}H_{14}N_2$	[3295-59-8]	N,N-dimethyl-9-acridinamine				
	$\Delta_{sub}H$		86.0	510	TGA	[1998STO/KRZ]
$C_{15}H_{14}N_2$	[213623-43-9]	N-methyl-10-methylacridinimine				
	$\Delta_{sub}H$		72.0	480	TGA	[1998STO/KRZ]
$C_{15}H_{14}N_2OS$	[109768-68-5]	N-(4-methoxyphenyl)-4*H*-3,1-benzothiazin-2-amine				
	$\Delta_{fus}H$		16.1	436.2	DSC	[2004GON/KOS]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{14}N_2S$	[109768-67-4] N-(4-methylphenyl)-4*H*-3,1-benzothiazin-2-amine					
	$\Delta_{fus}H$		19.9	448.4	DSC	[2004GON/KOS]
$C_{15}H_{14}O$	[102-04-5] 1,3-diphenylacetone					
	$\Delta_{fus}H$		20.2	307.2		[1993ACR]
	$\Delta_{sub}H$		89.1 ± 5			[1954SPR/WHI, 1977PED/RYL, 1970COX/PIL]
	Δ_vH	(398–604)	65.7	413	A	[1987STE/MAL, 1947STU]
$C_{15}H_{14}O$	[10435-68-4] 4,5,6-trimethylbenzoxalene					
	$\Delta_{sub}H$		139.7 ± 2.5			[1966GEI/QUI, 1970COX/PIL]
$C_{15}H_{14}O$	[1210-34-0] 5*H*-10,11-dihydrodibenzo[a,d]cyclohexane-5-ol					
	$\Delta_{fus}H$		19.0	365.2	DSC	[2005PER/BAN]
$C_{15}H_{14}O$	[2571-39-3] 3,4-dimethylbenzophenone					
	$\Delta_{sub}H$		107.9 ± 0.8	298	C	[2008GOM/AMA]
$C_{15}H_{14}O_2$	[4359-34-6] 2,2-diphenyl-1,3-dioxolane					
	$\Delta_{fus}H$		15.9	328.1		[1998VER/PEN]
	$\Delta_{sub}H$		99.7 ± 1.1	298		[1998VER/PEN]
	Δ_vH	(331–370)	84.6 ± 0.6	298	GS	[2002VER]
	Δ_vH	(331–370)	81.2 ± 0.6		GS	[1998VER/PEN]
$C_{15}H_{14}O_2$	[7144-65-2]or [4698-96-8] 1-biphenyloxy-2,3-epoxypropane					
	Δ_vH	(408–613)	80.0	423	A	[1987STE/MAL]
$C_{15}H_{14}O_2$	[2929-45-5] (2-hydroxy-4,6-dimethylphenyl)phenylmethanone					
	$\Delta_{fus}H$		0.67	405.2	DTA	[1989SAL/ABA]
	Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent					
$C_{15}H_{14}O_2$	[na] 4,4′-dihydroxy-α-methylstilbene					
	$\Delta_{fus}H$		20.82	465.2	DSC	[2000PUN]
	Note: DSC thermogram showed an un-quantified transition between 373 and 393 K.					
$C_{15}H_{14}O_2S$	[54897-33-5] (Z)-1-methyl-4-(2-phenylethenyl)sulfonyl benzene					
	$\Delta_{sub}H$		116.3 ± 3.8		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_{15}H_{14}O_2S$	[16212-08-1] (E)-1-methyl-4-(2-phenylethenyl)sulfonyl benzene					
	$\Delta_{sub}H$		108.4 ± 2.5		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_{15}H_{14}O_3$	[15889-70-0] 2-hydroxy-4-ethoxybenzophenone					
	Δ_vH	(373–433)	90.7	403	ME	[1984SUR]
$C_{15}H_{14}O_3$	[6547-53-1] 4-(phenylmethoxy)benzeneacetic acid					
	$\Delta_{fus}H$		29.3	396.1	DSC	[2006KUR/PER]
	$\Delta_{sub}H$	(378–387)	107.3 ± 3.0	383	GS	[2006KUR/PER]
$C_{15}H_{14}O_3$	[3459-92-5] dibenzyl carbonate					
	Δ_vH	(342–373)	96.7 ± 0.7	298	GS	[2008KOZ/EME]
$C_{15}H_{14}O_4$	[631-38-0] 2-hydroxy-4,4′-dimethoxybenzophenone					
	$\Delta_{fus}H$		37.6	390.4	DSC	[1999PRI/HAWN]
	$\Delta_{sub}H$		121.1		B	[1999PRI/HAWN]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{14}O_4S$	[313057-13-5]	4-(2-propenyloxy)phenyl 5-methoxy-2-thiophene carboxylate				
	$\Delta_{fus}H$		66.94	336.9	DSC	[2000WU/WAN]
$C_{15}H_{14}O_5$	[131-54-4]	2,2′-dihydroxy-4,4′-dimethoxybenzophenone				
	$\Delta_{fus}H$		33.2	412.3	DSC	[1999PRI/HAWN]
	$\Delta_{sub}H$		130.2		B	[1999PRI/HAWN]
	Δ_vH	(406–497)	77.4	423	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{15}H_{15}Cl$	[13389-70-3]	chloro-di-4-tolylmethane				
	Δ_vH	(406–453)	75.2	421	A	[1987STE/MAL]
$C_{15}H_{15}ClN_2O_2$	[1982-47-4]	3-[4-[4-chlorophenoxy]phenyl]-1,1-dimethylurea				
	$\Delta_{fus}H$		34.87	425.8	DSC	[1991ACR, 1990DON/DRE]
$C_{15}H_{15}ClO_5$	[111171-33-6]	8-(hydroxymethyl)-6-chloro-5,7-dimethyl-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	$\Delta_{trs}H$		3.59	446.5		
	$\Delta_{fus}H$		25.08	456.4	DSC	[1992HUA/ZHO2]
$C_{15}H_{15}N$	[1484-09-9]	N-isopropylcarbazole				
	$\Delta_{trs}H$		0.64	137.5	DSC	[1986BER/COL]
	$\Delta_{trs}H$		0.38	180		
	$\Delta_{fus}H$		17.73	395.2	DSC	[1991ACR, 1990KAL/DRE]
$C_{15}H_{15}NO$	[954-21-2]	N-methyldiphenylacetamide				
	$\Delta_{fus}H$		30.23	439.8	DSC	[1990DON/DRE]
$C_{15}H_{15}NO_2$	[61-68-7]	2-[(2,3-dimethylphenyl)amino]benzoic acid (mefenamic acid)				
	$\Delta_{fus}H$		38.7	503.5	DSC	[2009SUR/TER]
	$\Delta_{trs}H$		18.1	463.2		
	$\Delta_{fus}H$		38.25	503.6	DSC	[2004ROM/BUS]
	$\Delta_{fus}H$		38.2	503.6		[1999ROM/ESC]
	$\Delta_{sub}H$	(357–398)	132.7 ± 0.8	377	GS	[2009SUR/TER]
	$\Delta_{sub}H$	(357–398)	136.3 ± 0.8	298	GS	[2009SUR/TER]
$C_{15}H_{15}NO_3$	[24033-07-6]	2-methoxy-4-[[(4-methoxyphenyl)imino]methyl]phenol				
	$\Delta_{fus}H$		18.53	408	DSC	[2008SIN/DAS]
$C_{15}H_{15}N_3O_2$	[2832-40-8]	N-[4-[(2-hydroxy-5-methylphenyl)azo]phenyl]acetamide (Disperse Yellow 3)				
	$\Delta_{sub}H$	(403–465)	107	434	GS	[1989NIS/AND]
	$\Delta_{sub}H$		140.6			[1968TSU/KOJ, 1988BAU/PER]
$C_{15}H_{15}N_3O_3$	[1979-02-9]	6-(acetylamino)-2-cyano-1(2*H*)-quinolinecarboxylic acid, ethyl ester				
	$\Delta_{fus}H$		35.02	441.2	DSC	[2005LIZ/ZAB]
$C_{15}H_{15}N_3O_4$	[1979-19-8]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, butyl ester				
	$\Delta_{fus}H$		25.16	359.1	DSC	[2005LIZ/ZAB]
$C_{15}H_{15}N_3O_4$	[1979-23-4]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, 2-methylpropyl ester				
	$\Delta_{fus}H$		28.26	388.8	DSC	[2005LIZ/ZAB]
$C_{15}H_{16}$	[1335-47-3]	ditolylmethane				
	Δ_vH	(573–673)	51.8	588		[1964MAN]
$C_{15}H_{16}$	[1530-03-6]	1,1-diphenylpropane				
	Δ_vH	(298–343)	71.4 ± 0.4	321	GS	[1999VER5]
	Δ_vH	(298–343)	72.8 ± 0.4	298	GS	[1999VER5]
$C_{15}H_{16}$	[1081-75-0]	1,3-diphenylpropane				
	Δ_vH	(342–577)	61.5	357	A	[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{16}ClN_2O_2$	[556836-79-4]	4-chloro-2′-hydroxy-4′-propoxyazobenzene				
	$\Delta_{fus}H$		29.8	371	DSC	[2003PAJ/ROS]
$C_{15}H_{16}N_2O_2$	[12771-68-5]	α-cyclopropyl-α-(4-methoxyphenyl)-5-pyrimidinemethanol				
	$\Delta_{fus}H$		26.63	383.1	DSC	[1990DON/DRE]
$C_{15}H_{16}N_2O_2$	[na]	2-cyano-1(2*H*)-quinolinecarboxylic acid, butyl ester				
	$\Delta_{fus}H$		22.5	347.5	DSC	[2005LIZ/ZAB]
$C_{15}H_{16}N_2O_2S$	[6601-00-9]	N,N′-*bis*(3-methoxyphenyl)thiourea				
	$\Delta_{fus}H$		43.83	405.2	DSC	[2002ABB/WOH]
$C_{15}H_{16}N_2O_3$	[16460-28-9]	N,N′-*bis*(3-methoxyphenyl)urea				
	$\Delta_{fus}H$		36.76	443.2	DSC	[2002ABB/WOH]
$C_{15}H_{16}N_2O_3$	[1979-07-4]	2-cyano-6-methoxy-1(2*H*)-quinolinecarboxylic acid, propyl ester				
	$\Delta_{fus}H$		15.6	339.9	DSC	[2005LIZ/ZAB]
$C_{15}H_{16}N_4O_2$	[4313-14-8]	3-methyl-3′-nitro-4,N,N-dimethylaminoazobenzene				
	$\Delta_{sub}H$	(368–393)	101.7 ± 1.7	381	ME	[1967GRE/JON]
	$\Delta_{sub}H$	(370–388)	98.7 ± 2.5	379	TE	[1967GRE/JON]
	$\Delta_{v}H$	(370–388)	98.6	379	A	[1987STE/MAL]
$C_{15}H_{16}N_4O_2$	[92114-99-3]	3-methyl-4′-nitro-4-N,N-dimethylaminoazobenzene				
	$\Delta_{sub}H$	(369–392)	125.5 ± 1.3	381	TE	[1967GRE/JON, 1987STE/MAL]
	$\Delta_{sub}H$	(371–390)	126.4 ± 3.8	381	ME	[1967GRE/JON]
$C_{15}H_{16}N_4O_6$	[74734-24-0]	2,4-*bis*(2-oxo-3-oxazolidin-3-ylcarbonylamino)toluene				
	$\Delta_{fus}H$		5.2	479.5		[1990SHI/HAY]
$C_{15}H_{16}O$	[885-77-8]	di-(4-tolyl)methanol				
	$\Delta_{v}H$	(413–478)	81.7	428	A	[1987STE/MAL]
$C_{15}H_{16}O$	[na]	1-isovaleronaphthone				
	$\Delta_{v}H$	(409–593)	76.2	424	A	[1987STE/MAL, 1947STU]
$C_{15}H_{16}O$	[599-64-4]	4-(1-methyl-1-phenylmethyl)phenol (p-α-cumylphenol)				
	$\Delta_{fus}H$		22.8	346.2	DSC	[1998JAM/PAL]
	$\Delta_{fus}H$		21.68	346.4		[1996DOM/HEA]
$C_{15}H_{16}O_2$	[80-05-7]	4,4′-dihydroxydiphenyl-2,2-propane (bisphenol A)				
	$\Delta_{fus}H$		30.1	433		[1996DOM/HEA]
	$\Delta_{v}H$	(466–634)	102.2	481	A	[1987STE/MAL, 1947STU]
$C_{15}H_{16}O_2$	[2235-01-0]	dimethoxydiphenylmethane				
	$\Delta_{fus}H$		27.8	380	DSC	[1998VER/PEN]
	$\Delta_{sub}H$		103.9 ± 1.7	298		[1998VER/PEN]
$C_{15}H_{16}S_2$	[14252-46-1]	2,2-*bis*(phenylthio)propane				
	$\Delta_{fus}H$		24.4	329		[1997STE/CHI]
$C_{15}H_{17}BrNO_2$	[1689-99-2]	3,5-dibromo-4-hydroxybenzonitrile octanoyl ester				
	$\Delta_{fus}H$		26.49	318.3	DSC	[1990DON/DRE]
$C_{15}H_{17}ClN_4$	[88671-89-0]	α-butyl-α-(4-chlorophenyl)-1*H*-1,2,4-triazole-1-propanenitrile (myclobutanil)				
	$\Delta_{fus}H$		30.93	348.8		[2005SUN/LIU2]
$C_{15}H_{17}NO_2$	[16112-55-3]	N-(2-hydroxy-3-phenoxypropyl)phenylamine				
	$\Delta_{sub}H$	(323–333)	113.9	328	A	[1987STE/MAL]
	$\Delta_{sub}H$		113.8 ± 2.1			[1976KUZ/MIR]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(343–373)	99.9	358	A	[1987STE/MAL]
		Note: There is a problem with these experimental values				
$C_{15}H_{18}$	[86-89-5]	1-pentylnaphthalene				
	$\Delta_v H$	(415–535)	62.7	430	A	[1987STE/MAL]
$C_{15}H_{18}Cl_2N_2O_3$	[19666-30-9]	3-[2,4-dichloro-5-(1-methylethoxy)phenyl]-5-(1,1-dimethylethyl)-1,3,4-oxadiazol-2(3*H*)-one				
	$\Delta_{fus}H$		26.39	360.6	DSC	[1990DON/DRE]
$C_{15}H_{18}N_2$	[101-72-4]	4-isopropylaminodiphenylamine				
	$\Delta_{sub}H$	(323–348)	120.7	335	GS	[1971FEL/KUZ]
$C_{15}H_{18}N_2O_6$	[485-31-4]	2-sec-butyl-4,6-dinitrophenyl 3-methylcrotonate				
	$\Delta_{fus}H$		18.89	341.3	DSC	[1990DON/DRE]
$C_{15}H_{18}O$	[20490-22-6]	2,4,6-triallylphenol				
	$\Delta_v H$	(423–571)	61.0	438	A	[1987STE/MAL]
$C_{15}H_{18}O$	[5737-13-3]	4*H*-cyclopenta[def]phenanthren-4-one				
	$\Delta_{fus}H$		16.3	443.9	DSC	[2010KES/AUC]
$C_{15}H_{19}Cl_3O_3$	[1928-41-2]	2,4,5-trichlorophenoxyacetic acid, heptyl ester				
	$\Delta_v H$	(460–573)	92.3	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{15}H_{19}N_3O_8$	[53848-88-7]	octyl 2,4,6-trinitrobenzoate				
	$\Delta_{trs}H$		2.07	312		
	$\Delta_{fus}H$		29.16	396.7	DSC	[1974WAR/WIL]
$C_{15}H_{20}Cl_2O_3$	[1917-96-0]	2,4-dichlorophenoxyacetic acid, heptyl ester				
	$\Delta_v H$	(460–573)	88.3	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{15}H_{20}Cl_2O_3$	[1917-94-8]	2,4-dichlorophenoxyacetic acid, 1-propylbutyl ester				
	$\Delta_v H$	(460–573)	77.3	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{15}H_{20}Cl_2O_4$	[3966-11-8]	2,4-dichlorophenoxyacetic acid, (1-methyl-2-butoxy)ethyl ester				
	$\Delta_v H$	(443–573)	82.5	458	A	[1987STE/MAL]
$C_{15}H_{20}N_2O_4S$	[968-81-0]	4-acetyl-N-[(cyclohexylamino)carbonyl]benzene sulfonamide				
	$\Delta_{fus}H$		41.08	457		[1982MAR/MIR]
$C_{15}H_{20}N_4O_4$	[na]	1,1′-(1,5-pentanediyl)*bis* thymine				
	$\Delta_{fus}H$		32.03	524		[2002ITA/KAM]
$C_{15}H_{20}O_2$	[1407-13-3]	helenine, alantolactone				
	$\Delta_v H$	(430–548)	112.7	445	A	[1987STE/MAL]
$C_{15}H_{21}NO$	[13430-30-3]	2-methyl-1-phenyl-2-N-piperidinyl-1-propanone				
	$\Delta_{fus}H$		16.74	310.2		[1994BEC/RUE]
	$\Delta_{sub}H$		94.8 ± 1.3		B	[1994WEL/VER]
$C_{15}H_{21}NO_2$	[57-42-1]	1-methyl-4-phenylpiperidine-4-carboxylic acid ethyl ester (meperidine)				
	$\Delta_{fus}H$		24.6	308.2	DSC	[1988ROY/FLY]
$C_{15}H_{21}NO_4$	[57837-19-1]	methyl N-(2-methoxyacetyl)-*n*-(2,6-xylyl)-(*dl*)-alaninate				
	$\Delta_{fus}H$		26.46	345.5	DSC	[1990DON/DRE]
$C_{15}H_{21}N_3O_3S$	[21187-98-4]	N-(4-methylbenzenesulfonyl)-N′-[3-azabicyclo(3,3,0)oct-3-yl]urea (gliclazide)				
	$\Delta_{fus}H$		44.2	444.6	DSC	[2006WAS/HOL]
$C_{15}H_{22}$	[26460-76-4]	1-methyldiamantane				
	$\Delta_{sub}H$	(310–333)	80.7 ± 0.4	321	TSGC	[1975CLA/KNO]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{22}$	[38375-86-2]	3-methyldiamantane				
	$\Delta_{sub}H$	(305–327)	103.1 ± 1.0	316	TSGC	[1975CLA/KNO]
$C_{15}H_{22}$	[30545-18-9]	4-methyldiamantane				
	$\Delta_{sub}H$	(310–333)	79.4 ± 1.25	321	TSGC	[1975CLA/KNO]
$C_{15}H_{22}ClNO_2$	[51218-45-2]	2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)acetamide				
	$\Delta_{fus}H$		17.0	299	DSC	[2005SBI/VEC]
	$\Delta_{v}H$		70 ± 1	436	TGA	[2007VEC]
$C_{15}H_{22}N_2O$	[24358-84-7]	N-(2,6-dimethylphenyl)-1-methyl-2-piperidinecarboxamide				
	$\Delta_{fus}H$		17.77	426.2	DSC	[1997NEM/ACS]
$C_{15}H_{22}N_2O_2$	[5124-30-1]	dicyclohexylmethane-4,4′-diisocyanate				
	$\Delta_{v}H$	(326–404)	80.4	341	A	[1987STE/MAL]
$C_{15}H_{22}N_2O_4$	[92700-71-5]	octyl N-(4-nitrophenyl) carbamate				
	$\Delta_{fus}H$		38.85	383.6	DSC	[1993TIE/FRA]
$C_{15}H_{22}N_2O_5$	[138517-11-0]	(4-nitrophenyl)-8-hydroxyoctyl carbamate				
	$\Delta_{fus}H$		44.07	386.9	DSC	[1993TIE/FRA]
$C_{15}H_{22}O_2$	[16225-26-6]	3,5-di-*tert*-butylbenzoic acid				
	$\Delta_{sub}H$	(339–357)	108.4 ± 4.2	348	ME	[1974ROU/TUR, 1987STE/MAL, 1977PED/RYL]
$C_{15}H_{22}O_2$	[37942-07-7]	3,5-di-*tert*-butyl-2-hydroxybenzaldehyde				
	$\Delta_{sub}H$	(296–312)	95.7 ± 0.5	304	ME	[2010RIB/GON]
	$\Delta_{sub}H$	(296–312)	96.0 ± 0.5	298	ME	[2010RIB/GON]
$C_{15}H_{22}O_2$	[3575-31-3]	4-octylbenzoic acid				
	$\Delta_{sub}H$ *(I)*	(357–365)	134.7 ± 1.5	298	ME	[2004MON/ALM]
	$\Delta_{sub}H$ *(II)*	(367–372)	135.4 ± 1.3	298	ME	[2004MON/ALM]
$C_{15}H_{22}O_3$	[79785-45-8]	3-octyloxybenzoic acid				
	$\Delta_{fus}H$		33.12	347.1		[2001LAI/LEE]
$C_{15}H_{22}O_3$	[2493-84-7]	4-octyloxybenzoic acid				
	$\Delta_{sub}H$		163.0 ± 1.2	298		[2010RIB/FER3]
$C_{15}H_{22}O_3$	[19715-19-6]	3,5-di-*tert*-butylsalicylic acid				
	$\Delta_{fus}H$		22.92	437.5	DSC	[2003YU/TAN]
	$\Delta_{sub}H$		83.9 ± 2.6		DSC	[2003YU/TAN]
$C_{15}H_{22}O_5$	[63968-64-9]	octahydro-3,6,9-trimethyl-3,12-epoxy-12*H*-pyrano[4,3-j]-1,2-benzodioxepin-10(3*H*)-one (artemisinine)				
	$\Delta_{fus}H$ *(I)*		22.8	428.2		
	$\Delta_{fus}H$ *(II)*		23.41	428.1	DSC	[1997CHA/YUE]
$C_{15}H_{23}NO_2$	[na]	(+) 1-(*o*-allylphenoxy)-3-(isopropylamino)-2-propanol (alprenolol)				
	$\Delta_{fus}H$		23.78	298.5	DSC	[1999LI/ZEL]
$C_{15}H_{23}NO_2$	[13655-52-2]	(±) 1-(*o*-allylphenoxy)-3-(isopropylamino)-2-propanol (alprenolol)				
	$\Delta_{fus}H$		35.61	331.2	DSC	[1999LI/ZEL]
$C_{15}H_{23}N_3O_2$	[135742-55-1]	N-capryl-pyrazinamide				
	$\Delta_{fus}H$		50.58	360.5		[1991LIU/GUO]
$C_{15}H_{23}N_3O_4S$	[na]	(−) N-1-(ethylpyrrolidin-2-ylmethyl)-2-methoxy-5-sulfamoylbenzamide (sulpiride)				
	$\Delta_{fus}H$		42.01	459.5		[1999LI/ZEL]
$C_{15}H_{23}N_3O_4S$	[15676-16-1]	(+) N-1-(ethylpyrrolidin-2-ylmethyl)-2-methoxy-5-sulfamoylbenzamide (sulpiride)				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		46.15	451		[1999LI/ZEL]
$C_{15}H_{24}$	[1081-77-2]	nonylbenzene				
	Δ_vH	(304–466)	74.1 ± 0.5	298	MM	[1998MOK/RAU, 2006VER/KOZ]
	Δ_vH	(316–415)	69.7	331	GS	[1986ALL/JOS]
	Δ_vH		74.8	298		[1971WIL/ZWO]
$C_{15}H_{24}$	[717-74-8]	1,3,5-triisopropylbenzene				
	Δ_vH	(283–323)	64.3 ± 0.3	303	GS	[1998VER7]
	Δ_vH	(283–323)	64.6 ± 0.6	298	GS	[1998VER7]
	Δ_vH	(282–388)	67.4	297		[1993KAS/MOK]
$C_{15}H_{24}$	[na]	1,3-di-*tert*-butyl-5-methylbenzene				
	$\Delta_{sub}H$	(275–301)	82.4 ± 0.5	288	T	[1998VER]
	$\Delta_{sub}H$	(275–301)	81.8 ± 0.5	298	T	[1998VER]
	Δ_vH	(309–338)	61.8 ± 0.9	310	GS	[1998VER]
	Δ_vH	(309–338)	63.3 ± 0.9	298	GS	[1998VER]
$C_{15}H_{24}$	[18794-84-8]	(E)-β-farnesene				
	Δ_vH	(363–473)	72.5	298	GC	[2005HOS/GRY]
$C_{15}H_{24}$	[87-44-5]	β-caryophyllene				
	Δ_vH	(363–463)	65.5	298	GC	[2005HOS/GRY]
$C_{15}H_{24}N_2O_3$	[490-98-2]	4-(butylamino)-2-hydroxybenzoic acid, 2-(dimethylamino)ethyl ester (salicaine)				
	$\Delta_{fus}H$		26.8	319.4	DSC	[2006SCH/SCH]
$C_{15}H_{24}O$	[497-39-2]	2,4-di-*tert*-butyl-5-methylphenol				
	Δ_vH	(376–555)	67.0	391	A	[1987STE/MAL, 1947STU]
$C_{15}H_{24}O$	[616-55-7]	2,4-di-*tert*-butyl-6-methylphenol				
	Δ_vH	(359–543)	59.8	374	A	[1987STE/MAL]
$C_{15}H_{24}O$	[128-37-0]	2,6-di-*tert*-butyl-4-methylphenol				
	$\Delta_{fus}H$		19.85	341.7	DSC	[1999VER]
	$\Delta_{fus}H$		23.85	343.7	DTA	[1972INO/LIA]
	$\Delta_{sub}H$		91.9 ± 3.2	298	C	[2001RIB/MAT]
	$\Delta_{sub}H$	(298–338)	86.8 ± 0.8	319	GS	[1999VER]
	$\Delta_{sub}H$	(298–338)	88.0 ± 0.8	298	GS	[1999VER]
	$\Delta_{sub}H$	(303–343)	87.8	318	GS	[1987STE/MAL, 1971FEL/KUZ]
	$\Delta_{sub}H$		U 117.3	298	C	[1971BER/GIR, 1999VER]
	Δ_vH	(303–343)	87.8	318	A	[1987STE/MAL]
	Δ_vH	(358–536)	61.5	373	A	[1987STE/MAL, 1947STU]
$C_{15}H_{24}O$	[2219-84-3]	2-methyl-4-(1,1,3,3-tetramethylbutyl)phenol				
	Δ_vH	(447–683)	67.1	462	A	[1987STE/MAL]
$C_{15}H_{24}O$	[2219-84-3]	3-methyl-4-(1,1,3,3-tetramethylbutyl)phenol				
	Δ_vH	(436–549)	65.5	451	A	[1987STE/MAL]
$C_{15}H_{24}O$	[4979-46-8]	4-methyl-2-(1,1,3,3-tetramethylbutyl)phenol				
	Δ_vH	(415–545)	65.0	430	A	[1987STE/MAL]
$C_{15}H_{24}O$	[na]	4-(3′,6′-dimethyl-3′-heptyl)phenol				
	Δ_vH		89.4	298	ME	[2001LAL/SCH]
$C_{15}H_{24}O$	[104-40-5]	4-nonylphenol				
	Δ_vH	(487–595)	65.0	502	A, EB	[1987STE/MAL, 1976HON/SIN]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{24}O$	[115-71-9]	α-santalol				
	$\Delta_v H$	(293–450)	58.3	308	A	[1987STE/MAL]
$C_{15}H_{24}O_2$	[1991-52-2]	2,5-di-*tert*-butyl-4-methoxyphenol				
	$\Delta_{fus}H$		26.9	374.4		[1972ALV/BOR]
	$\Delta_v H$	(423–453)	64.4	438	A	[1987STE/MAL]
$C_{15}H_{24}O_2$	[6121-64-8]	1,3-dimethoxy-5-heptylbenzene				
	$\Delta_v H$	(419–488)	75.5	434	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{15}H_{24}O_2$	[41442-51-7]	1,3-dimethoxy-5-methyl-2-hexylbenzene				
	$\Delta_v H$	(410–475)	72.3	425	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{15}H_{24}O_4$	[1152-57-4]	dicyclohexyl malonate				
	$\Delta_v H$	(324–353)	93.7 ± 1.1	298	GS	[2008LIP/KRA]
$C_{15}H_{24}O_6$	[64617-28-3]	aconitic acid, tripropyl ester				
	$\Delta_v H$	(359–500)	72.3	374	A	[1987STE/MAL]
$C_{15}H_{26}O$	[489-86-1]	guaiol				
	$\Delta_v H$	(373–561)	62.2	388	A	[1987STE/MAL]
$C_{15}H_{26}O_6$	[na]	camphorenic acid, triethyl ester				
	$\Delta_v H$	(423–574)	69.0	438	A	[1987STE/MAL, 1947STU]
$C_{15}H_{26}O_6$	[5333-54-0]	tripropyl 1,2,3-propanetricarboxylate				
	$\Delta_v H$	(360–460)	76.5	375	A	[1987STE/MAL]
$C_{15}H_{26}O_6$	[60-01-5]	glycerol tributyrate				
	$\Delta_v H$	(318–364)	81.4	333	A	[1987STE/MAL]
$C_{15}H_{26}O_6$	[60-01-5]	tributyrin				
	$\Delta_v H$		83.5	308	TGA	[1990KIS/SHO]
	$\Delta_v H$		84.9 ± 2.5	298	TGA	[1990KIS/SHO]
	$\Delta_v H$		107.1 ± 1.0	298	C	[1986NIL/WAD]
$C_{15}H_{28}Cl_4$	[3922-32-5]	1,1,1,15-tetrachloropentadecane				
	$\Delta_v H$	(340–392)	103.5	355	A	[1987STE/MAL]
$C_{15}H_{28}O$	[1604-35-9]	3,7,11-trimethyl-1-dodecyn-3-ol				
	$\Delta_v H$	(401–524)	43.2 ± 1.1	463		[1988BAG/GUR, 1986WHI]
$C_{15}H_{28}O$	[502-72-7]	cyclopentadecanone				
	$\Delta_{sub}H$	(296–315)	86.0 ± 0.6	305	ME	[1997JIM/ROU]
	$\Delta_{sub}H$		77.4			[1938WOL/WEG, 1960JON, 1970COX/PIL]
$C_{15}H_{28}O_2$	[2156-97-0]	dodecyl acrylate				
	$\Delta_v H$	(432–573)	64.6	447	A	[1987STE/MAL]
$C_{15}H_{28}O_2$	[106-02-5]	pentadecanolide				
	$\Delta_{sub}H$	(290–310)	81.3	300	ME	[1987STE/MAL, 1960JON, 1954SER/VOI]
	$\Delta_v H$	(363–443)	78.2	378	A	[1987STE/MAL]
	$\Delta_v H$	(310–320)	74.2	315	A, ME	[1987STE/MAL, 1954SER/VOI]
$C_{15}H_{28}O_2$	[34270-22-9]	(Z) 7-tridecenyl acetate				
	$\Delta_v H$	(343–388)	84.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[56577-30-1]	(E) 7-tridecenyl acetate				
	$\Delta_v H$	(343–388)	84.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[35835-78-0]	(Z) 9-tridecenyl acetate				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(343–388)	85.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[52957-19-4] (E) 9-tridecenyl acetate					
	$\Delta_v H$	(343–388)	85.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[33951-95-0] (Z) 11-tridecenyl acetate					
	$\Delta_v H$	(343–388)	86.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[56195-36-9] (E) 11-tridecenyl acetate					
	$\Delta_v H$	(343–388)	86.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[56219-06-8] methyl Z 9-tetradecenoate					
	$\Delta_v H$		87.1 ± 0.7	298	CGC	[2007LIP/KAP]
$C_{15}H_{28}O_2$	[106-02-5] pentadecanolactone					
	$\Delta_{trs}H$		27.3	283		
	$\Delta_{fus}H$	(10–370)	6.99	308.5	AC	[1984DOM/EVA, 1981LEB/YEV]
$C_{15}H_{28}O_3$	[37826-51-0] decyl levulinate					
	$\Delta_v H$	(423–580)	76.1	438	A	[1987STE/MAL]
	$\Delta_v H$		72.0	524		[1933COW/SCH]
$C_{15}H_{28}O_3$	[6707-60-4] 1,6-dioxa-7-cycloheptadecanone					
	$\Delta_v H$	(403–463)	75.9	418	A	[1987STE/MAL]
$C_{15}H_{28}O_5$	[1085702-05-1] decyl[1-(methoxycarbonyl)ethyl]carbonate					
	$\Delta_v H$	(411–592)	73.8	426	A	[1987STE/MAL]
$C_{15}H_{29}N$	[2570-26-5] pentadecanenitrile					
	$\Delta_v H$	(336–372)	88.1 ± 0.3	298	GS	[2005EME/VER]
	$\Delta_v H$	(403–596)	75.5	418	A	[1987STE/MAL]
$C_{15}H_{29}NO_3$	[na] 2-[2-ethyl(hexanoyloxy)]propionic acid, butylamide					
	$\Delta_v H$	(378–433)	81.0	393	A	[1987STE/MAL]
$C_{15}H_{29}NO_3$	[22220-07-1] N-decanoyl-(*l*)-valine					
	$\Delta_{trs}H$		21.3	378.1		
	$\Delta_{fus}H$		15.4	380.6	DSC	[1986MIY/MAT]
$C_{15}H_{29}NO_3$	[83871-16-3] N-decanoyl-(*dl*)-valine					
	$\Delta_{fus}H$		63.1	358.1	DSC	[1986MIY/MAT]
$C_{15}H_{29}NO_3$	[na] N-dodecanoyl-(*l*)-alanine					
	$\Delta_{fus}H$		37.6	356.1	DSC	[1986MIY/MAT]
$C_{15}H_{30}$	[1795-21-7] decylcyclopentane					
	$\Delta_{fus}H$		33.14	251		[1996DOM/HEA]
	$\Delta_v H$	(358–411)	71.1	373	A	[1987STE/MAL]
	$\Delta_v H$		75.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(453–553)	59.7	468	A, MM	[1987STE/MAL, 1954CAM/FOR]
$C_{15}H_{30}$	[2883-02-5] nonylcyclohexane					
	$\Delta_v H$		74.7	298		[1971WIL/ZWO]
$C_{15}H_{30}$	[13360-61-7] 1-pentadecene					
	$\Delta_v H$	(375–407)	65.2	390	A	[1987STE/MAL]
	$\Delta_v H$	(423–658)	53.2	570		[1975AMB/ELL]
	$\Delta_v H$		75.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(443–543)	59.3	458	A	[1987STE/MAL, 1955CAM/ROS]
$C_{15}H_{30}$	[295-48-7] cyclopentadecane					

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		8.5	210.1		
	$\Delta_{fus}H$		8.5	336.6		[1987DRO/MOL]
	$\Delta_{sub}H$		74.6 ± 0.4			[1957VAN, 1970COX/PIL]
$C_{15}H_{30}N_3PS_6$	[17767-20-3]	phosphorus-*tris*(N,N-diethyldithiocarbamate)				
	$\Delta_{sub}H$		143 ± 2	298		[1987AIR/DES]
$C_{15}H_{30}O$	[56218-94-1]	(Z) 9-pentadecen-1-ol				
	Δ_vH	(363–403)	105.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[64437-40-7]	(E) 9-pentadecen-1-ol				
	Δ_vH	(363–403)	105.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[64437-42-9]	(Z) 10-pentadecen-1-ol				
	Δ_vH	(363–403)	105.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[64437-44-1]	(E) 10-pentadecen-1-ol				
	Δ_vH	(363–403)	106.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[69282-63-9]	(Z) 11-pentadecen-1-ol				
	Δ_vH	(363–403)	106.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[69222-14-6]	(E) 11-pentadecen-1-ol				
	Δ_vH	(363–403)	106.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[158906-50-4]	(Z) 12-pentadecen-1-ol				
	Δ_vH	(363–403)	106.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[69222-15-7]	(E) 12-pentadecen-1-ol				
	Δ_vH	(363–403)	107	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[158906-51-5]	(Z) 13-pentadecen-1-ol				
	Δ_vH	(363–403)	107.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[158906-52-6]	(E) 13-pentadecen-1-ol				
	Δ_vH	(363–403)	107.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[2345-28-0]	2-pentadecanone				
	$\Delta_{fus}H$		54.39	312.2		[1996DOM/HEA]
	$\Delta_{sub}H$		139.3 ± 1.6	298	C	[1979SUN/SVE2]
	Δ_vH	(422–575)	67.8	437	A	[1987STE/MAL]
	Δ_vH	(559–658)	57.9	574	A	[1987STE/MAL]
	Δ_vH		85.4 ± 1.7	298	S-F	[1979SUN/SVE2]
$C_{15}H_{30}O$	[818-23-5]	8-pentadecanone				
	Δ_vH	(443–568)	65.3	458	A	[1987STE/MAL]
	Δ_vH	(443–589)	65.4	458	A	[1987STE/MAL, 1975AMB/ELL]
	Δ_vH	(444–590)	53.0	567		[1975AMB/ELL]
	Δ_vH	(438–462)	61.9	450	A, ME	[1987STE/MAL, 1938UBB]
$C_{15}H_{30}O_2$	[124-10-7]	methyl tetradecanoate (methyl myristate)				
	$\Delta_{fus}H$		50.21	291.6		[1993ACR]
	$\Delta_{sub}H$		137.7 ± 2.1	281	ME	[1965DAV/KYB]
	Δ_vH		79.8	350		[2002VAN/VAN]
	Δ_vH		76.0 ± 0.2	382		[2002VAN/VAN]
	Δ_vH		85.9 ± 0.8	298		[2002VAN/VAN]
	Δ_vH	(393–473)	86.6	298	GC	[1997KRO/VEL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(453–543)	65.3	498	GC	[1993HUS/SAR]
	$\Delta_v H$		86.2 ± 1.0	298	GC, C	[1980FUC/PEA]
	$\Delta_v H$		87.0 ± 0.9	298	C	[1977MAN/SEL]
	$\Delta_v H$	(389–519)	75.6	404	A	[1987STE/MAL, 1963ROS/SCH]
	$\Delta_v H$	(364–417)	77.4	379	MG, OM	[1952SCO/MAC]
$C_{15}H_{30}O_2$	[28267-29-0]	ethyl tridecanoate				
	$\Delta_{fus}H$		40.7	272.4	AC	[2005VAN/OON]
$C_{15}H_{30}O_2$	[10233-13-3]	isopropyl dodecanoate				
	$\Delta_v H$	(305–452)	81.5	320		[2001BUR/JOS]
	$\Delta_v H$	(390–469)	66.1	405	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{15}H_{30}O_2$	[3681-78-5]	propyl dodecanoate				
	$\Delta_v H$	(423–483)	84.7	298	GC	[1997KRO/VEL]
	$\Delta_v H$	(396–479)	66.9	411	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{15}H_{30}O_2$	[1072-33-9]	tridecyl acetate				
	$\Delta_v H$	(313–358)	87.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{30}O_2$	[245658-47-3]	3,3-dimethylbutanoic acid, 1,1,5-trimethylhexyl ester				
	$\Delta_v H$	(333–378)	67.4	298	CGC	[1999VER/HEI]
$C_{15}H_{30}O_2$	[1002-84-2]	pentadecanoic acid				
	$\Delta_{trs}H$		8.2	321.9		
	$\Delta_{fus}H$		40.4	325.5	DSC	[2007GBA/NEG, 2008GBA/NEG, 2009GBA/NEG]
	$\Delta_{trs}H$		8.12	318.7		
	$\Delta_{fus}H$		41.52	325.7		[1996DOM/HEA]
	$\Delta_{fus}H$		46.1	324.9		[1976BER/BER]
	$\Delta_{sub}H$	(275–293)	144.3		TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$	(283–305)	178		TPTD	[2001CHA/TOB]
	Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods					
	$\Delta_v H$	(431–613)	94	446	A	[1987STE/MAL]
	$\Delta_v H$	(347–367)	108.5 ± 2.0	357	ME, TE	[1982DEK/SCH]
$C_{15}H_{30}O_3$	[4617-33-8]	15-hydroxypentadecanoic acid				
	$\Delta_{sub}H$	(294–316)	103		TPTD	[2005CHA/ZIE]
	Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods					
$C_{15}H_{30}O_3$	[6283-92-7]	dodecyl lactate				
	$\Delta_v H$	(367–583)	80.5	382	A	[1987STE/MAL]
$C_{15}H_{30}O_3$	[70160-09-7]	decyl 2-ethoxypropionate				
	$\Delta_v H$	(423–523)	69.8	438	A	[1987STE/MAL]
$C_{15}H_{30}O_6$	[63364-38-5]	3,3,6,6,9,9-tetraethyl-1,2,4,5,7,8-hexaoxacyclononane				
	$\Delta_v H$	(403–473)	63.6	298	CGC	[2007CAN/EYL]
$C_{15}H_{31}Br$	[629-72-1]	1-bromopentadecane				
	$\Delta_v H$	(450–661)	69.5	465	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{15}H_{31}Cl$	[4862-03-7]	1-chloropentadecane				
	$\Delta_v H$		92.6	298		[2006BOL/NER2]
	$\Delta_v H$	(439–645)	55.4	454	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{15}H_{31}F$	[1555-17-5]	1-fluoropentadecane				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(413–593)	63.8	428	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{15}H_{31}I$	[35599-78-1]	1-iodopentadecane				
	$\Delta_v H$	(464–673)	94.6	298	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	$\Delta_v H$	(464–673)	70.6	479	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{15}H_{31}NO$	[7438-09-7]	N-methyl tetradecanamide				
	$\Delta_{sub}H$	(332–347)	130.4 ± 0.8	340	GS	[1959DAV/JON, 1987STE/MAL]
$C_{15}H_{31}NO_2$	[5468-40-6]	N,N-dihexyl lactamide				
	$\Delta_v H$	(418–453)	79.4	433	A	[1987STE/MAL]
$C_{15}H_{31}NO_2$	[5422-41-3]	N-dodecyl lactamide				
	$\Delta_v H$	(408–476)	103.9	423	A	[1987STE/MAL]
$C_{15}H_{32}$	[629-62-9]	pentadecane				
	$\Delta_{trs}H$		8.7	270.3		
	$\Delta_{fus}H$		34.2	282.7	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		9.17	270.9		
	$\Delta_{fus}H$		34.6	283.1		[1996DOM/HEA]
	$\Delta_{sub}H$		107.8	298	B	[1972MOR3]
	$\Delta_v H$		72.9	334	C	[1996VIT/CHA]
	$\Delta_v H$		71.8	344	C	[1996VIT/CHA]
	$\Delta_v H$	(453–503)	75.7	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(423–473)	76.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(363–413)	76.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		76.8	298		[1994RUZ/MAJ]
	$\Delta_v H$	(366–409)	67.5	381	A	[1987STE/MAL]
	$\Delta_v H$	(333–409)	66.4	350	GS	[1986ALL/JOS]
	$\Delta_v H$		75.4 ± 1.2	298	C	[1979SUN/SVE]
	$\Delta_v H$		70.8	353	C	[1979SUN/SVE]
	$\Delta_v H$		68.8	373	C	[1979SUN/SVE]
	$\Delta_v H$		72.2 ± 1.2	333	C	[1979SUN/SVE]
	$\Delta_v H$		76.2 ± 0.4	298	C	[1972MOR2]
	$\Delta_v H$		76.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(447–546)	59.6	462	A	[1987STE/MAL, 1955CAM/ROS]
	$\Delta_v H$	(430–464)	61.9	447	ME	[1938UBB]
$C_{15}H_{32}$	[1560-95-8]	2-methyltetradecane				
	$\Delta_v H$	(402–537)	58.8	417	A	[1987STE/MAL]
$C_{15}H_{32}$	[18435-22-8]	3-methyltetradecane				
	$\Delta_v H$	(403–538)	58.4	418	A	[1987STE/MAL]
$C_{15}H_{32}$	[25117-24-2]	4-methyltetradecane				
	$\Delta_v H$	(398–536)	55.9	413	A	[1987STE/MAL]
$C_{15}H_{32}$	[25117-32-2]	5-methyltetradecane				
	$\Delta_v H$	(398–535)	56.1	413	A	[1987STE/MAL]
$C_{15}H_{32}$	[18435-20-6]	2,3-dimethyltridecane				
	$\Delta_v H$	(399–537)	56.3	414	A	[1987STE/MAL]
$C_{15}H_{32}$	[61868-05-1]	2,4-dimethyltridecane				
	$\Delta_v H$	(393–523)	57.9	408	A	[1987STE/MAL]
$C_{15}H_{32}$	[na]	2,4,6-trimethyldodecane				
	$\Delta_v H$	(382–508)	55.8	397	A	[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{32}N_2O$	[32954-73-7]	1-tetradecyl urea				
	$\Delta_{trs}H$		1.0	227.1		
	$\Delta_{trs}H$		1.7	369.2		
	$\Delta_{fus}H$		50.9	387.4	DSC	[2005HAS/TAJ]
$C_{15}H_{32}O$	[629-76-5]	1-pentadecanol				
	$\Delta_{fus}H$		29.6	316.4	DSC	[2004VEN/CAL]
	$\Delta_{fus}H$		53.62	316.9		[2003VAN/VAN]
		Note: The value of 53.62 includes both the enthalpy of fusion as well as the enthalpy of solid-to-solid transition that occurs at 315.4 K				
	$\Delta_{trs}H$		23.64	316		
	$\Delta_{fus}H$		54.73	316.6		[1974MOS/MOU]
	Δ_vH		103.5 ± 3.3	298	CGC	[2006NIC/KWE]
	Δ_vH	(319–358)	95.5	339	GS	[2001KUL/VER2]
	Δ_vH	(319–358)	102.5	298	GS	[2001KUL/VER2]
	Δ_vH	(353–393)	107.2	298	CGC	[1994KOU/HOS, 2000OVA/KOU]
	Δ_vH	(343–393)	92.4	368		[1992NGU/KAS]
	Δ_vH	(438–600)	75.0	453	A	[1987STE/MAL]
	Δ_vH	(453–584)	72.4	468	A	[1987STE/MAL]
$C_{15}H_{32}O_2$	[14722-40-8]	1,15-pentadecanediol				
	$\Delta_{trs}H$		35.1	349.4		
	$\Delta_{fus}H$		23.6	361.4	DSC	[1999OGA/NAK]
$C_{15}H_{32}O_2S$	[18023-86-4]	3-(dodecylthio)-1,2-propanediol				
	$\Delta_{trs}H$		18.1	299		
	$\Delta_{fus}H$		20.3	325.5	DSC	[1993ACR]
$C_{15}H_{32}O_3$	[1561-07-5]	3-(dodecyloxy)-1,2-propanediol				
	$\Delta_{fus}H$		51.4	323	DSC	[1993ACR]
$C_{15}H_{32}O_4$	[4161-34-6]	5,5′-[1,5-pentanediyl*bis*(oxy)]*bis*-1-pentanol				
	$\Delta_{fus}H$		35.66	302.7	DSC	[1991BED/BOO]
$C_{15}H_{32}O_5$	[na]	tetrapropylene glycol monoisopropyl ether				
	Δ_vH	(389–566)	71.5	404	A	[1987STE/MAL, 1947STU]
$C_{15}H_{32}O_5S_2$	[na]	(*l*)-arabinose dipentyl dithioacetal				
	$\Delta_{fus}H$		37.3	368	DSC	[1989VAN/VAN]
$C_{15}H_{32}S$	[25276-70-4]	1-pentadecanethiol				
	Δ_vH	(459–629)	69.8	474		[1999DYK/SVO]
$C_{15}H_{33}N$	[2570-26-5]	1-aminopentadecane				
	Δ_vH	(400–594)	71.2	415	A, E	[1987STE/MAL, 1956MAN2]
$C_{15}H_{33}NO_2$	[821-91-0]	3-(dodecylamino)-1,2-propanediol				
	$\Delta_{fus}H$		62.1	351.9	DSC	[1993ACR]
$C_{15}H_{33}O_4P$	[2528-38-3]	tripentyl phosphate				
	Δ_vH	(443–473)	92.3	298	CGC	[2007PAN/ANT2]
	Δ_vH	(443–483)	90.7	298	CGC	[2007PAN/ANT2]
$C_{15}H_{33}O_4P$	[919-62-0]	triisopentyl phosphate				
	Δ_vH	(453–493)	86.6	298	CGC	[2007PAN/ANT2]
	Δ_vH	(483–513)	86.5	298	CGC	[2007PAN/ANT2]
$C_{15}H_{33}O_4P$	[646621-37-1]	tri-sec-pentyl phosphate				
	Δ_vH	(463–493)	80.7	298	CGC	[2007PAN/ANT2]
	Δ_vH	(453–493)	81.5	298	CGC	[2007PAN/ANT2]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{33}O_4P$	[45241-53-0]	tri-(2-methylbutyl) phosphate				
	$\Delta_v H$	(463–493)	86.1	298	CGC	[2007PAN/ANT2]
	$\Delta_v H$	(493–523)	86.7	298	CGC	[2007PAN/ANT2]
$C_{16}F_{34}$	[355-49-7]	*n*-perfluorohexadecane				
	$\Delta_{trs}H$		1.13	176.5		
	$\Delta_{trs}H$		3.01	177.7		
	$\Delta_{trs}H$		1.89	186.7		
	$\Delta_{fus}H$		61.09	402.2	DSC	[1986STA]
	$\Delta_{sub}H$	(288–303)	104.6	295	ME	[1951BRA/WAG, 1987STE/MAL]
$C_{16}H_6Br_4N_2O_2$	[2475-31-2]	5,7-dibromo-2-(5,7-dibromo-1,3-dihydro-3-oxo-2*H*-indol-2-ylidene)-1,2-dihydro-3*H*-indol-3-one (C.I. Vat Blue 5)				
	$\Delta_{sub}H$	(519–634)	129	577	GS	[1986NIS/AND]
$C_{16}H_9Br$	[1714-29-0]	1-bromopyrene				
	$\Delta_{sub}H$	(321–368)	99.2 ± 4.4		ME	[2008GOL/SUU2]
$C_{16}H_9BrN_2O_2$	[6492-73-5]	5-bromo-2-(1,3-dihydro-3-oxo-2*H*-indol-2-ylidene)-1,2-dihydro-3*H*-indol-3-one (C.I. Vat Blue 3)				
	$\Delta_{sub}H$	(519–634)	57.0	577	GS	[1986NIS/AND]
$C_{16}H_9F_{25}$	[89109-69-3]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorohexadecane				
	$\Delta_{trs}H$		0.7	147		
	$\Delta_{trs}H$		1.4	314		
	$\Delta_{fus}H$		21.0	349	DSC	[1991HOP/MOL]
	$\Delta_{trs}H$		1.4	312.2		
	$\Delta_{fus}H$		20.9	349.2	DSC	[1986RUS/RAB]
$C_{16}H_9NO_2$	[5522-43-0]	1-nitropyrene				
	$\Delta_{fus}H$		18.9	425.9	DSC	[2010KES/AUC]
	$\Delta_{sub}H$	(379–408)	125.2 ± 3.8		ME	[2008GOL/SUU]
$C_{16}H_9NO_2$	[892-21-7]	3-nitrofluoranthene				
	$\Delta_{fus}H$		22.6	435.0	DSC	[2010KES/AUC]
$C_{16}H_{10}$	[206-44-0]	fluoranthene				
	$\Delta_{fus}H$		18.74	383.4		[1996DOM/HEA]
	$\Delta_{sub}H$	(313–453)	98.3	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(283–323)	84.6 ± 0.9	303	GS	[1983SON/ZOL]
	$\Delta_{sub}H$		99.2 ± 0.8	298	C	[1972MOR, 1977PED/RYL]
	$\Delta_{sub}H$	(328–353)	102.1 ± 2	340	ME	[1965BOY/CHR, 1970COX/PIL]
	$\Delta_{sub}H$	(298–358)	102.6	328		[1958HOY/PEP]
	$\Delta_v H$	(423–493)	86.8 ± 1.3	298	GC	[2005RIB/GOM]
	$\Delta_v H$	(323–473)	79.3	398	GC	[2002LEI/CHA]
	$\Delta_v H$	(343–453)	77.4	398	GC	[1990HIN/BID2]
	$\Delta_v H$	(503–658)	62.2	518	A	[1987STE/MAL, 1955TSY]
$C_{16}H_{10}$	[129-00-0]	pyrene				
	$\Delta_{fus}H$	(403–433)	16.7	422.4	DSC	[2003ROJ/ORO]
	$\Delta_{trs}H$		0.29	120.8		
	$\Delta_{fus}H$		17.36	423.8		[1996DOM/HEA]
	$\Delta_{sub}H$	(341–418)	103.3 ± 2.1	380	ME	[2009SID/SID]
	$\Delta_{sub}H$	(341–418)	104.5	298	ME	[2009SID/SID]
	$\Delta_{sub}H$		98.5 ± 1.0	298	DSC	[2003ROJ/ORO]
	$\Delta_{sub}H$	(308–398)	103.1 ± 6.5	353	ME	[1998OJA/SUU]
	$\Delta_{sub}H$	(313–453)	97.9	383	GS	[1995NAS/LEN]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(369–383)	100.3 ± 0.3	353	PG	[1988SAS/JOS]
	$\Delta_{sub}H$	(283–323)	91.2 ± 0.5	303	GS	[1983SON/ZOL]
	$\Delta_{sub}H$	(398–423)	100.2 ± 0.4	410	IP	[1980SMI/STE]
	$\Delta_{sub}H$		101.0 ± 0.5		C	[1974MAL/BAR]
	$\Delta_{sub}H$	(348–419)	100.8 ± 1.5		ME	[1974MAL/BAR]
	$\Delta_{sub}H$		95.7		ME	[1953BRA/CLE2, 1977PED/RYL, 1970COX/PIL]
	$\Delta_{sub}H$	(298–363)	100.5	330	ME	[1958HOY/PEP]
	$\Delta_{sub}H$	(345–358)	100.1 ± 1.7	351	ME	[1952INO/SHI]
	Δ_vH		92.4 ± 1.1	298	CGC	[2008HAN/NUT]
	Δ_vH	(423–493)	87.2 ± 1.3	298	GC	[2006TEO/BAR]
	Δ_vH	(343–453)	78.6	398	GC	[1990HIN/BID2]
	Δ_vH	(413–467)	76	428		[1988SAS/JOS]
	Δ_vH	(398–458)	76.4	440		[1980SMI/STE]
	Δ_vH	(513–668)	73	528	A	[1987STE/MAL, 1955TSY]
$C_{16}H_{10}ClN_3O$	[1978-95-7]	1-[(2-chloro-3-pyridinyl)carbonyl]-1,2-dihydro-2-quinolinecarbonitrile				
	$\Delta_{fus}H$		50.89	489.8	DSC	[2005LIZ/ZAB]
$C_{16}H_{10}N_2O_2$	[482-89-3]	2-(1,3-dihydro-3-oxo-2*H*-indol-2-ylidene)-1,2-dihydro-3*H*-indol-3-one (C.I. Vat Blue 1)				
	$\Delta_{sub}H$	(519–634)	136	577	GS	[1986NIS/AND]
$C_{16}H_{10}O$	[5315-79-7]	1-hydroxypyrene				
	$\Delta_{sub}H$	(369–394)	129.0 ± 3.2	382	ME	[1998OJA/SUU]
$C_{16}H_{10}O$	[243-24-3]	2,3,5,6-dibenzoxalene (benz[b]indeno[1,2-e]pyran)				
	$\Delta_{sub}H$	(375–388)	125.9	381.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		129.4 ± 1.3			[1966GEI/QUI, 1970COX/PIL]
$C_{16}H_{10}O$	[955-83-9]	2,5-diphenylfuran				
	$\Delta_{sub}H$		102	340	HSA	[1989SCH/PEN]
$C_{16}H_{10}O$	[205-39-0]	benzo[b]naphtho[1,2d]furan				
	$\Delta_{fus}H$		13.7	315.9	DSC	[2010KES/AUC]
$C_{16}H_{10}O$	[239-30-5]	benzo[b]naphtho[2,1d]furan				
	$\Delta_{fus}H$		20.9	373.7	DSC	[2010KES/AUC]
$C_{16}H_{10}S$	[239-35-0]	1,2-benzodiphenylene sulfide				
	$\Delta_{sub}H$	(325–373)	111.9 ± 1.2	349	ME	[1998OJA/SUU]
$C_{16}H_{10}S$	[205-43-6]	dibenzo[b]naphtho[1,2d]thiopnene				
	$\Delta_{fus}H$		19.0	375.5	DSC	[2010KES/AUC]
$C_{16}H_{10}S_4$	[5632-29-1]	2,2′,5′,2″,5″,2‴-quaterthiophene				
	$\Delta_{sub}H$	(383–413)	132.6		ME	[1998KLO/LAU]
	$\Delta_{sub}H$	(428–457)	145.6		ME	[1998KLO/LAU]
$C_{16}H_{11}F_3O$	[172424-69-0]	4-ethoxy-2′,3′,4′-trifluorodiphenylacetylene				
	$\Delta_{fus}H$		32.2	356.8	DSC	[1995HSU/TSA]
$C_{16}H_{11}N_3O$	[1978-94-6]	1-[(3-pyridinyl)carbonyl]-1,2-dihydro-2-quinolinecarbonitrile				
	$\Delta_{fus}H$		31.01	412.5	DSC	[2005LIZ/ZAB]
$C_{16}H_{12}$	[6572-60-7]	[2.2]-paracyclophane-1,9-diene				
	$\Delta_{fus}H$		30.71	505.9	DSC	[2003DEM/KOZ]
	$\Delta_{sub}H$	(318–343)	92.0 ± 1.2	331	GS	[2003DEM/KOZ]
	$\Delta_{sub}H$	(318–343)	93.1 ± 1.2	298	GS	[2003DEM/KOZ]
$C_{16}H_{12}$	[605-02-7]	1-phenylnaphthalene				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(313–453)	88.6	383	GS	[1995NAS/LEN]
	Δ_vH		81.1 ± 1.8	298	C	[2008ROU/LIM]
$C_{16}H_{12}$	[612-94-2]	2-phenylnaphthalene				
	$\Delta_{fus}H$		17.9	373.5	DSC	[2008ROU/LIM]
	$\Delta_{sub}H$	(333–353)	106.6 ± 0.4	343	ME	[2008ROU/LIM]
	$\Delta_{sub}H$	(333–353)	107.6 ± 0.6	298	ME	[2008ROU/LIM]
$C_{16}H_{12}F_2$	[145698-42-6]	4-ethyl-3′,4′-difluorodiphenylacetylene				
	$\Delta_{fus}H$		16.6	301.2	DSC	[1995HSU/TSA]
$C_{16}H_{12}F_2O$	[172424-66-7]	4-ethoxy-2′,4′-difluorodiphenylacetylene				
	$\Delta_{fus}H$		27.0	343.4	DSC	[1995HSU/TSA]
$C_{16}H_{12}N_2O$	[842-07-9]	2-hydroxy-1-phenylazonaphthalene				
	$\Delta_{sub}H$	(350–374)	116.7 ± 5.4	362		[1984KRI]
$C_{16}H_{12}O_2$	[134852-10-1]	5-hydroxymethylene-5*H*-6,7-dihydrodibenzo[a,c]-cyclohepten-6-one				
	$\Delta_{fus}H$		16.9	357.7	DSC	[2006PER/CON]
	Δ_vH		116.1 ± 12.1	298	CGC	[2006PER/CON]
$C_{16}H_{12}S_2$	[16212-85-4]	3,6-diphenyl-1,2-dithiin				
	$\Delta_{sub}H$		174.5 ± 2.5	355		[1973GEI/SAW, 1977PED/RYL]
	$\Delta_{sub}H$		183.1 ± 2.5	298		[1973GEI/SAW, 1977PED/RYL]
$C_{16}H_{12}S_2$	[92802-27-2]	2,6-diphenyl-1,4-dithiin				
	$\Delta_{fus}H$ *(I)*		20.9	336.6		
	$\Delta_{fus}H$ *(II)*		24.6	350.7	DSC	[2004PIA/SUG]
$C_{16}H_{13}ClN_2O$	[439-14-5]	7-chloro-1,3-dihydro-1-methyl-5-phenyl-2*H*-1,4-benzodiazepin-2-one (diazepam)				
	$\Delta_{fus}H$		24.7	404.8	DSC	[2006WAS/HOL]
	$\Delta_{fus}H$		25.49	403.6	DSC	[2001VER/AUG]
$C_{16}H_{13}ClN_2O_2$	[846-50-4]	7-chloro-1,3-dihydro-3-hydroxy-1-methyl-5-phenyl-2*H*-1,4-benzodiazepin-2-one (temazepam)				
	$\Delta_{fus}H$		27.4	432.6		[1998VAN/AUG]
	$\Delta_{fus}H$		25.58	432.5	DSC	[1992RIC/MCC]
$C_{16}H_{13}FO$	[na]	4-ethoxy-4′-fluorodiphenylacetylene				
	$\Delta_{fus}H$		22.8	354.4		[1995HSU/TSA]
$C_{16}H_{13}N$	[90-32-2]	N-phenyl-1-naphthylamine				
	$\Delta_{sub}H$	(313–333)	96.5	323	GS	[1987STE/MAL, 1971FEL/KUZ]
	Δ_vH	(338–368)	89.6	353	A	[1987STE/MAL]
$C_{16}H_{13}N$	[135-88-6]	N-phenyl-2-naphthylamine				
	$\Delta_{sub}H$	(333–363)	115.8	348	GS	[1987STE/MAL, 1971FEL/KUZ]
	Δ_vH	(383–520)	88.7	398	A	[1987STE/MAL]
$C_{16}H_{13}NO$	[37170-96-0]	9-acetamidoanthracene				
	$\Delta_{sub}H$	(446–500)	134.8	461	RG	[1958KLO, 1987STE/MAL]
$C_{16}H_{13}NO$	[93-45-8]	N-(4-hydroxyphenyl)-2-naphthylamine				
	$\Delta_{sub}H$	(373–408)	126.8	390	GS	[1971FEL/KUZ]
$C_{16}H_{13}NO_2$	[5960-55-4]	1-(dimethylamino)-9,10-anthraquinone				
	$\Delta_{sub}H$	(396–408)	U 3.6	402	A	[1987STE/MAL]
$C_{16}H_{13}NO_2$	[4465-58-1]	1-(2-hydroxyethylamino)-9,10-anthraquinone				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(403–417)	152.7	410	ME	[1960BRA/BIR, 1966JON/KRA]
$C_{16}H_{13}NO_3$	[483362-77-2]	1-[(4-nitrophenyl)ethynyl]-4-ethoxybenzene				
	$\Delta_{fus}H$		26.02	388.1	DSC	[2002SPA/DZI]
$C_{16}H_{13}NO_5$	[na]	1-amino-2-hydroxyethyl-4-hydroxy-9,10-anthraquinone				
	$\Delta_{sub}H$		135.2			[1984KAR/KRU]
$C_{16}H_{13}NO_7$	[na]	2-acetoxybenzoic acid, 3′-(nitrooxymethyl)phenyl ester				
	$\Delta_{fus}H$ *(I)*		33.79	335.2		
	$\Delta_{fus}H$ *(I)*		26.83	328.5		[2004FOP/SAN]
$C_{16}H_{14}$	[781-17-9]	4,5,9,10-tetrahydropyrene				
	$\Delta_{trs}H$		1.85	319.9		
	$\Delta_{trs}H$		0.13	385.1		
	$\Delta_{fus}H$		17.09	412.8		[1993CHI/KNI2]
	$\Delta_{sub}H$	(385–410)	90.4	400	IP	[1993CHI/KNI2]
	Δ_vH		70.9	440	EB,IP	[1993CHI/KNI2]
	Δ_vH		68.1	480	EB,IP	[1993CHI/KNI2]
	Δ_vH		65.3	520	EB,IP	[1993CHI/KNI2]
	Δ_vH		62.5	560	EB,IP	[1993CHI/KNI2]
	Δ_vH		59.5	600	EB,IP	[1993CHI/KNI2]
	Δ_vH		56.4	640	EB,IP	[1993CHI/KNI2]
$C_{16}H_{14}$	[20279-21-4]	1,2,3,10b-tetrahydrofluoranthene				
	Δ_vH	(400–469)	68.0	415	A	[1987STE/MAL]
$C_{16}H_{14}$	[781-43-1]	9,10-dimethylanthracene				
	$\Delta_{sub}H$	(363–378)	109.4 ± 1.7	371	ME	[2006RIB/AMA2]
	$\Delta_{sub}H$	(363–378)	113.0 ± 1.7	298	ME	[2006RIB/AMA2]
	$\Delta_{sub}H$	(372–382)	114.6	377		[1987STE/MAL]
	$\Delta_{sub}H$	(381–434)	103.2	396	RG	[1958KLO, 1987STE/MAL]
	Δ_vH		94.5 ± 0.2	298	CGC	[2008HAN/NUT]
$C_{16}H_{14}$	[52251-71-5]	2-ethylanthracene				
	$\Delta_{sub}H$	(343–359)	104.9 ± 0.6	351	ME	[2006RIB/AMA2]
	$\Delta_{sub}H$	(343–359)	107.6 ± 0.6	298	ME	[2006RIB/AMA2]
	Δ_vH		91.4 ± 1.1	298	CGC	[2008HAN/NUT]
$C_{16}H_{14}$	[1576-69-8]	2,7-dimethylphenanthrene				
	$\Delta_{sub}H$		106.7 ± 0.8		ME	[1965KAR/KYB, 1970COX/PIL]
$C_{16}H_{14}$	[3674-69-9]	4,5-dimethylphenanthrene				
	$\Delta_{sub}H$	(313–453)	85.7	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$		104.6 ± 1.3		ME	[1965KAR/KYB, 1970COX/PIL]
$C_{16}H_{14}$	[604-83-1]	9,10-dimethylphenanthrene				
	$\Delta_{sub}H$		119.5 ± 1.3			[1966GEI/QUI, 1970COX/PIL]
$C_{16}H_{14}$	[866-65-7]	1,4-diphenylbutadiene				
	$\Delta_{sub}H$		87.0		RG	[1958KLO]
$C_{16}H_{14}$	[31297-12-8]	[2.2]-paracyclophane-1-ene				
	$\Delta_{fus}H$		17.61	469.9		[2003DEM/KOZ]
	$\Delta_{sub}H$	(318–343)	93.3 ± 1.1	331	GS	[2003DEM/KOZ]
	$\Delta_{sub}H$	(318–343)	94.4 ± 1.1	298	GS	[2003DEM/KOZ]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{14}Cl_2O_2$	[4359-34-6]	1,1-dichloro-2,2-*bis*-(4-methoxyphenyl)ethylene				
	$\Delta_{sub}H$		79.2			[1995RUL/RAK, 1989LUB/JAN]
$C_{16}H_{14}Cl_2O_3$	[na]	ethyl 2-hydroxy-2,2-*bis*-(4-chlorophenyl)acetate				
	$\Delta_{fus}H$		23.48	310.4		[1991ACR]
$C_{16}H_{14}Cl_2O_3$	[51338-27-3]	methyl 2-(4-(2,4-dichlorophenoxy)phenoxy)propionate				
	$\Delta_{fus}H$		27.08	314.4	DSC	[1990DON/DRE]
$C_{16}H_{14}F_4N_4O_2$	[80135-84-8]	N-methyl-N-(2,2,3,3-tetrafluoropropyl)-4-[(4-nitrophenyl)azo]benzenamine				
	$\Delta_{sub}H$		100.8		UV	[1984KAR/ROD]
$C_{16}H_{14}N_2$	[19311-79-6]	1-methyl-3,5-diphenylpyrazole				
	$\Delta_{fus}H$	(70–370)	17.46	332.9	AC	[2001DI/SUN]
$C_{16}H_{14}N_2OS$	[688319-93-9]	N-(4-acetylphenyl)-4*H*-3,1-benzothiazin-2-amine				
	$\Delta_{fus}H$		16.1	436.2	DSC	[2004GON/KOS]
$C_{16}H_{14}N_2O_2$	[2475-44-7]	1,4-*bis*(N-methylamino)anthra-9,10-quinone				
	$\Delta_{sub}H$	(385–413)	151.8 ± 3.9	399		[1984KRI]
	$\Delta_{sub}H$		150.2		GS	[1967DAT/KAN, 1991HOR]
$C_{16}H_{14}N_2O_2$	[65990-96-7]	2-methyl-3-(phenylmethyl)quinoxaline-1,4-dioxide				
	$\Delta_{sub}H$		146.6 ± 3.2	298	C	[2004RIB/GOM2]
$C_{16}H_{14}N_2O_3S$	[181695-72-7]	4-(5-methyl-3-phenyl-4-isoxazolyl)benzenesulfonamide (valdecoxib)				
	$\Delta_{fus}H$		30.35	446.4		[2004AMB/MAH]
$C_{16}H_{14}N_4O_2$	[340820-69-1]	4-(4-methylphenyl)-5-(2-pyridinyl)-4*H*-1,2,4-triazole-3-carboxylic acid, methyl ester				
	$\Delta_{fus}H$		38.2	423.4		[2005SIK/MOD]
$C_{16}H_{14}O$	[838-15-3]	2,3:6,7-dibenzocycloocta-2,6-dien-1-one				
	$\Delta_{fus}H$		17.2	366.6	DSC	[2003PER/CON]
	$\Delta_{sub}H$		103.3 ± 3.2	298	Vap+Fus	[2003PER/CON]
	$\Delta_{v}H$		90.6 ± 2.0	298	CGC	[2003PER/CON]
$C_{16}H_{14}O$	[na]	2,3:7,8-dibenzocycloocta-2,7-dien-1-one				
	$\Delta_{fus}H$		27.8	420	DSC	[2003PER/CON]
	$\Delta_{sub}H$		112.8 ± 4.1	298	Vap+Fus	[2003PER/CON]
	$\Delta_{v}H$		92.0 ± 2.9	298	CGC	[2003PER/CON]
$C_{16}H_{14}O_2$	[103-41-3]	benzyl cinnamate				
	$\Delta_{v}H$	(446–623)	89.4	461	A	[1987STE/MAL, 1947STU]
$C_{16}H_{14}O_2$	[495-71-6]	1,2-dibenzoylethane				
	$\Delta_{trs}H$		0.22	187		
	$\Delta_{fus}H$		38.99	418.6		[1996DOM/HEA]
$C_{16}H_{14}O_3$	[22071-15-4]	(+)α-(3-benzoylphenyl)propionic acid ((+)-ketoprofen)				
	$\Delta_{fus}H$		37.3	368	DSC	[2006WAS/HOL, 2008WAS/HOL]
	$\Delta_{fus}H$		25.04	369		[1998MUR/BET2, 1999MUR/FAU]
	$\Delta_{fus}H$		28.23	367.4		[1995ESP/BIS]
	$\Delta_{sub}H$	(341–365)	110.1 ± 0.5		GS	[2003PER/KUR2]
$C_{16}H_{14}O_3$	[36330-85-5]	3-(4-biphenylylcarbonyl)propionic acid (fenbufen)				
	$\Delta_{fus}H$		41.1	462.9	DSC	[2008KUR/PER]
	$\Delta_{fus}H$		46.2	459.3	DSC	[2006WAS/HOL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(378–420)	154.9 ± 0.8	298	GS	[2008KUR/PER]
$C_{16}H_{14}O_4$	[5673-22-3] 1,2-*cis*-dicarbomethoxyacenaphthene					
	$\Delta_{fus}H$		37.66	398.2		[1974CAN/JAC]
$C_{16}H_{14}O_4$	[51869-93-3] 1,2-*trans*-dicarbomethoxyacenaphthene					
	$\Delta_{fus}H$		27.61	388.7		[1974CAN/JAC]
$C_{16}H_{14}O_4$	[56137-73-6] 1,3-dicarbomethoxyacenaphthene					
	$\Delta_{fus}H$		23.01	371.2		[1974CAN/JAC]
$C_{16}H_{14}O_4$	[51870-00-9] 1,5-dicarbomethoxyacenaphthene					
	$\Delta_{fus}H$		28.87	386.7		[1974CAN/JAC]
$C_{16}H_{14}O_4$	[4599-96-6] 5,6-dicarbomethoxyacenaphthene					
	$\Delta_{fus}H$		34.73	450.2		[1974CAN/JAC]
$C_{16}H_{14}O_6$	[36063-02-2] 1,2,3-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		23.7	362.7	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36063-03-3] 1,2,4-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		32.1	393.7	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[68267-11-8] 1,2,5-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		25.5	363	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36063-04-4] 1,2,6-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		35.9	416.7	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[68257-10-7] 1,2,7-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		36.1	427.2	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36440-23-0] 1,2,8-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		24.8	366.7	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36440-28-5] 1,3,5-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		25.9	402.7	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36440-29-6] 1,3,6-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		37.4	469.7	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36440-30-9] 1,3,7-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		37.2	446.7	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36440-24-1] 1,3,8-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		27.7	388.2	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36440-25-2] 1,4,5-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		26.5	402.2	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36063-05-5] 1,4,6-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		30.2	409.2	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36440-26-3] 2,3,5-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		41.0	401.7	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[36440-27-4] 2,3,6-tricarbomethoxynaphthalene					
	$\Delta_{fus}H$		34.4	399.2	DSC	[1993ACR]
$C_{16}H_{14}O_6$	[520-33-2] 2,3-dihyro-5,7-dihyroxy-2-(3-hydroxy-4-methoxyphenyl)-4*H*-1-benzopyran-4-one (hesperitin)					
	$\Delta_{fus}H$		35.9	499.2	DSC	[2007CHE/HUM]
$C_{16}H_{15}BrO$	[556052-89-2] 4-bromo-4′-(3-butenyloxy)-1,1′-biphenyl					

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		13.3	324.2		
	$\Delta_{fus}H$		15.8	396.8	DSC	[2003WIL/VAN]
$C_{16}H_{15}Cl_2NO_2$	[117-26-0]	1,1-*bis*(4-chlorophenyl)-2-nitrobutane				
	$\Delta_{fus}H$		15.41	330.3	DSC	[1990DON/DRE]
$C_{16}H_{15}Cl_3O_2$	[30667-90-3]	1-methoxy-2-(2,2,2-tricloro-1-(4-methoxyphenyl)ethyl)benzene				
	$\Delta_{fus}H$		22.45	347.6	DSC	[1990DON/DRE]
$C_{16}H_{15}Cl_3O_2$	[72-43-5]	1,1′-(2,2,2-trichloroethylidene-*bis*(4-methoxy)benzene				
	$\Delta_{fus}H$		27.48	360.6	DSC	[1990DON/DRE]
$C_{16}H_{15}IO_3S$	[313057-06-6]	4-(4-pentenyloxy)phenyl 5-iodo-2-thiophene carboxylate				
	$\Delta_{fus}H$		68.2	332.7	DSC	[2000WU/WAN]
$C_{16}H_{15}N$	[na]	4′-propylbiphenyl-4-carbonitrile				
	$\Delta_{fus}H$		22.7	338.8		[1996DOM/HEA]
$C_{16}H_{15}NO$	[18594-93-9]	3-anilino-1-phenylbut-2-enone				
	$\Delta_{sub}H$		126.8 ± 3.0	298	C	[1993RIB/RIB]
$C_{16}H_{15}NO_4$	[483362-66-9]	2-(4-nitrophenyl)-1-(4-ethoxyphenyl)ethanone				
	$\Delta_{fus}H$		28.2	390.3	DSC	[2002SPA/DZI]
$C_{16}H_{15}N_5O_3$	[157892-00-7]	6-phenyl-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	$\Delta_{fus}H$		63.78	485.8	DSC	[1999ZIE/GOL]
$C_{16}H_{16}$	[1732-13-4]	1,2,3,6,7,8-hexahydropyrene				
	$\Delta_{trs}H$		5.02	377		
	$\Delta_{fus}H$		18.09	407.7		[1993CHI/KNI2]
	$\Delta_{sub}H$	(390–405)	92.3	398	IP	[1993CHI/KNI2]
	Δ_vH		72.0	440	EB,IP	[1993CHI/KNI2]
	Δ_vH		69.4	480	EB,IP	[1993CHI/KNI2]
	Δ_vH		66.8	520	EB,IP	[1993CHI/KNI2]
	Δ_vH		64.2	560	EB,IP	[1993CHI/KNI2]
	Δ_vH		61.5	600	EB,IP	[1993CHI/KNI2]
$C_{16}H_{16}$	[1633-22-3]	[2.2]-para-cyclophane				
	$\Delta_{fus}H$		0.21	323.2		[1970AND/WES]
	$\Delta_{sub}H$	(353–409)	96.4 ± 1.5		TSGC	[1980NIS/SAK]
	$\Delta_{sub}H$		96.3 ± 4.2			[1973ROD/WES, 1977PED/RYL]
	$\Delta_{sub}H$	(343–383)	92.9 ± 0.84	363	ME	[1966BOY, 1987STE/MAL, 1970COX/PIL]
$C_{16}H_{16}$	[2319-97-3]	[2.2]-meta-cyclophane				
	$\Delta_{fus}H$		21.42	404		[1969SHI/MCN]
	$\Delta_{sub}H$	(308–332)	91.6 ± 1.7	320	ME	[1969SHI/MCN, 1977PED/RYL, 1987STE/MAL]
	$\Delta_{sub}H$		92.0 ± 2	298	ME	[1969SHI/MCN, 1977PED/RYL]
$C_{16}H_{16}$	[5385-36-4]	[2.2]-meta-para-cyclophane				
	$\Delta_{trs}H$		0.98	315		
	$\Delta_{fus}H$		12.76	354		[1969SHI/MCN]
	$\Delta_{sub}H$	(311–328)	86.6	336	ME	[1969SHI/MCN, 1977PED/RYL, 1987STE/MAL]
	$\Delta_{sub}H$		87.5 ± 0.9	298	ME	[1969SHI/MCN, 1977PED/RYL]
$C_{16}H_{16}$	[2919-20-2]	1,1-*bis*-(4-methylphenyl)ethene				
	$\Delta_{fus}H$		23.31	334.1		[1999VER6]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(309–332)	100.3 ± 1.4	320	GS	[1999VER6]
	$\Delta_{sub}H$		101.0 ± 1.4	298	GS	[1999VER6]
$C_{16}H_{16}ClN$	[113788-75-3]	4-chlorobenzylidene-4′-propylaniline				
	$\Delta_{fus}H$		24.61	343.7	DSC	[1999GAL/COL]
$C_{16}H_{16}N_2O_2$	[94-93-9]	N,N′-*bis*(salicylaldehydo)ethylenediimine				
	$\Delta_{fus}H$		34.09	397.9	DSC	[2004RIB/GON]
	$\Delta_{sub}H$	(348–363)	141.3 ± 3.2	298	ME	[2004RIB/GON]
$C_{16}H_{16}N_2O_2$	[2299-73-2]	2-[(4-methoxyphenyl)methylene]hydrazone-4-methoxybenzaldehyde (anisaldazine)				
	$\Delta_{fus}H$		29.75	442		[1996DOM/HEA]
$C_{16}H_{16}N_2O_4$	[13684-56-5]	ethyl [3-[[(phenylamino)carbonyl]oxy]phenylcarbamate				
	$\Delta_{fus}H$		32.75	394.1	DSC	[1990DON/DRE]
$C_{16}H_{16}N_2O_4$	[13684-63-4]	methyl 3-*m*-tolylcarbamoyloxyphenylcarbamate				
	$\Delta_{fus}H$		39.62	423.8	DSC	[1990DON/DRE]
$C_{16}H_{16}N_2O_4$	[54946-22-4]	N-propylthalidomide				
	$\Delta_{fus}H$		27.28	409.2	DTA	[2002GOO/LAI]
$C_{16}H_{16}O$	[130935-82-9]	6-hydroxymethyl-5,6-dihydro-7*H*-dibenzo[a,c]cycloheptane				
	$\Delta_{fus}H$		25.9	405.7	DSC	[2005PER/BAN]
$C_{16}H_{16}O$	[29817-04-7]	5-hydroxymethyl-5,6-dihydro-7*H*-dibenzo[a,c]cycloheptane				
	$\Delta_{fus}H$		16	352.5	DSC	[2005PER/BAN]
$C_{16}H_{16}O_2$	[29783-24-2]	*trans*-9,10-*bis* hydroxymethyl-9,10-dihydrophenanthrene				
	$\Delta_{fus}H$		30.3	450.8	DSC	[2005PER/BAN]
$C_{16}H_{16}O_2$	[29790-58-7]	*trans*-5-hydroxymethyl-5,6-dihydro-7*H*-dibenzo[a,c]cycloheptan-6-ol				
	$\Delta_{fus}H$		31.8	460.2	DSC	[2005PER/BAN]
$C_{16}H_{16}O_2$	[na]	(*d*) 2-(p-methoxyphenyl)propiophenone				
	$\Delta_{fus}H$		21.76	326		[1976LEC/COL]
$C_{16}H_{16}O_2$	[na]	(*dl*) 2-(p-methoxyphenyl)propiophenone				
	$\Delta_{fus}H$		26.36	353		[1976LEC/COL]
$C_{16}H_{16}O_2$	[46863-20-1]	(2-hydroxyphenyl)-2,4,6-trimethylphenylmethanone				
	$\Delta_{fus}H$		0.49	353.2	DTA	[1989SAL/ABA]
		Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent				
$C_{16}H_{16}O_3$	[24650-42-8]	2,2-dimethoxy-1,2-diphenylethanone				
	$\Delta_{fus}H$		20.86	338.5		[1994SAN/DEF]
$C_{16}H_{16}O_3$	[7074-00-2]	2-phenylisopropoxybenzoate				
	$\Delta_{sub}H$	(293–313)	43.1 ± 4.2	303	ME	[1971KIP/RAB, 1977PED/RYL]
$C_{16}H_{16}O_{10}$	[3327-06-8]	pentamethoxycarbonylbenzene				
	$\Delta_{fus}H$		38.0	424.7	DSC	[1978DOZ/FUJ]
	$\Delta_{sub}H$	(389–413)	160.0 ± 0.8	401	ME	[1995JIM/MEN]
	$\Delta_{sub}H$		165.1 ± 0.8	298		[1995JIM/MEN]
	$\Delta_{sub}H$		165.1 ± 0.8	298		[1967TUR2, 1995JIM/MEN]
$C_{16}H_{17}ClN_4O_3$	[3180-81-2]	4-(N-ethyl-N-2-hydroxyethylamino)-4′-nitro-2′-chloroazobenzene				
	$\Delta_{sub}H$		142.7			[1968TSU/KOJ, 1988BAU/PER]
$C_{16}H_{17}ClN_4O_4$	[na]	2,2′-[[3-chloro-4-[(4-nitrophenyl)azo]phenyl]imino]*bis*-ethanol				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		29.78	463.2		[1988BAU/PER]
$C_{16}H_{17}Cl_2N_5O_4$	[na]	1-[[2-chloro-4-[(2-chloro-4-nitrophenyl)azo]-5-(methylamino)phenyl]amino]-2-propanol N-oxide				
	$\Delta_{fus}H$		30.62	371.2		[1991BAU/WEB]
$C_{16}H_{17}F$	[193472-70-7]	2-fluoro-2-methyl-1,3-diphenylpropane				
	$\Delta_{fus}H$		29.7	332.7		[1997SCH/VER]
	$\Delta_{sub}H$		102.2 ± 1.1	298		[1997SCH/VER]
$C_{16}H_{17}F_{15}O$	[41049-15-4]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7-pentadecafluoro-8-hexadecanone				
	$\Delta_{fus}H$		34.2	285.8		[1992VIL/WEI]
$C_{16}H_{17}NO$	[15582-77-5]	1,2-diphenyl-2-N,N-dimethylamino-1-ethanone				
	$\Delta_{sub}H$		140.1 ± 1.9		B	[1994WEL/VER]
$C_{16}H_{17}NO$	[99081-88-6]	N-(4-isopropylphenylmethylene) benzenamine N-oxide				
	$\Delta_{sub}H$		127.2 ± 1.7	298	C	[1986KIR/ACR]
$C_{16}H_{17}NO$	[na]	N,N-dimethyl-2,2-diphenylacetamide				
	$\Delta_{fus}H$		25.43	407.1		[1993ACR]
$C_{16}H_{17}N_3O_3$	[850836-66-7]	6-(acetylamino)-2-cyano-1(2*H*)-quinolinecarboxylic acid, 1-methylethyl ester				
	$\Delta_{fus}H$		12.66	377.4	DSC	[2005LIZ/ZAB]
$C_{16}H_{18}$	[na]	1-(2-tolyl)-2-(4-tolyl)ethane				
	Δ_vH	(298–473)	85.6	313	A	[1987STE/MAL, 1963BES]
$C_{16}H_{18}$	[719-79-9]	1,1-diphenylbutane				
	Δ_vH	(298–342)	75.9 ± 0.6	320	GS	[1999VER5]
	Δ_vH	(298–342)	77.2 ± 0.6	298	GS	[1999VER5]
$C_{16}H_{18}$	[1520-44-1]	(*dl*) 1,3-diphenylbutane				
	$\Delta_{sub}H$	(288–303)	73.6	296	ME	[1974PRI/POU, 1987STE/MAL]
$C_{16}H_{18}$	[5789-35-5]	2,3-diphenylbutane				
	$\Delta_{sub}H$	(293–348)	96.7	326		[1984BEC/RUC]
$C_{16}H_{18}$	[1634-11-3]	2-methyl-1,1-diphenylpropane				
	Δ_vH	(298–338)	72.0 ± 0.5	318	GS	[1999VER5]
	Δ_vH	(298–338)	73.2 ± 0.5	298	GS	[1999VER5]
$C_{16}H_{18}$	[530-45-0]	1,1-*bis*(4-methylphenyl)ethane				
	Δ_vH	(298–338)	75.3 ± 0.6	318	GS	[1999VER5]
	Δ_vH	(298–338)	76.5 ± 0.6	298	GS	[1999VER5]
$C_{16}H_{18}$	[1625-92-9]	4-*tert*-butylbiphenyl				
	$\Delta_{sub}H$		98.1 ± 2.1	298	C	[2009MEL/PIM]
	Δ_vH		80.0 ± 1.9	298	C	[2009MEL/PIM]
$C_{16}H_{18}Cl_4O_4$	[3015-66-5]	dibutyl tetrachlorophthalate				
	Δ_vH	(368–421)	99.7	383	A, T	[1987STE/MAL, 1949PER/WEB, 1999DYK/SVO]
$C_{16}H_{18}FN_3O_3$	[70458-96-7]	1-ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid (norfloxacin)				
	$\Delta_{fus}H$		32.42	492.6	DSC	[2009OLI/BER]
	$\Delta_{fus}H$		32.97	500.2	DSC	[1994YU/ZIP]
$C_{16}H_{18}NO_5$	[3788-15-6]	*bis*(2,4-dimethoxyphenyl)nitrogen oxide				
	$\Delta_{sub}H$	(333–363)	144.1 ± 11.4	348	A	[1987STE/MAL, 1965KAL/ROZ]
$C_{16}H_{18}N_2O$	[na]	4-*n*-butyl-4′-hydroxyazobenzene				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		5.25	351.6		[1990JIN/KAN]
$C_{16}H_{18}N_2OS$	[373642-48-9]	N-[(3-methoxyphenyl)methyl]-N′-(phenylmethyl)thiourea				
	$\Delta_{fus}H$		21.02	345	DSC	[2002ABB/WOH]
$C_{16}H_{18}N_2O_2$	[101225-69-8]	2,2′,6,6′-tetramethylazobenzene-N,N-dioxide				
	$\Delta_{sub}H$		107 ± 12	298	ME	[1993ACR/TUC2]
$C_{16}H_{18}N_2O_3$	[4792-83-0]	*p*-azoxyphenetole				
	$\Delta_{sub}H$		126.2 ± 2.7	298	C	[1993ACR/TUC]
$C_{16}H_{18}N_2O_3$	[1979-22-3]	2-cyano-6-methoxy-1(2*H*)-quinolinecarboxylic acid, 2-methylpropyl ester				
	$\Delta_{fus}H$		24.45	346.4	DSC	[2005LIZ/ZAB]
$C_{16}H_{18}N_4O_2$	[3025-52-3]	4-(N,N-diethylamino)-4′-nitroazobenzene				
	$\Delta_{sub}H$		146		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$	(422–441)	151.5 ± 4.2	431	ME	[1960BRA/BIR]
$C_{16}H_{18}N_4O_3$	[2872-52-8]	4-(N-ethyl-N-2-hydroxyethylamino)-4′-nitroazobenzene				
	$\Delta_{sub}H$		136.8		UV	[1984KAR/ROD, 1984KAR/KRU]
	$\Delta_{sub}H$		189.5			[1968TSU/KOJ, 1988BAU/PER]
	$\Delta_{sub}H$	(420–433)	176.6 ± 1.3	426	ME	[1960BRA/BIR, 1966JON/KRA]
$C_{16}H_{18}N_4O_4$	[na]	N,N-(2-hydroxyethyl)-4-(4-nitrophenyl)azoaniline				
	$\Delta_{fus}H$		32.43	484.2		[1988BAU/PER]
$C_{16}H_{18}O$	[93-96-9]	*bis*(α-methylbenzyl) ether				
	Δ_vH	(369–554)	62.1	384	A	[1987STE/MAL, 1947STU]
$C_{16}H_{19}BrO_2$	[164591-96-2]	4-*trans*-(4-bromophenyl)cyclohexyl (E)-2-butenoate				
	$\Delta_{fus}H$		28.4	388.2		[1995KEL/SCH]
$C_{16}H_{19}ClO_2$	[164591-95-1]	4-*trans*-(4-chlorophenyl)cyclohexyl (E)-2-butenoate				
	$\Delta_{fus}H$		30.2	386.2		[1995KEL/SCH]
$C_{16}H_{19}FO_2$	[164591-94-0]	4-*trans*-(4-fluorophenyl)cyclohexyl (E)-2-butenoate				
	$\Delta_{fus}H$		25.1	354.2		[1995KEL/SCH]
$C_{16}H_{19}NO$	[na]	2-(4-butoxyphenyl)-5-methylpyridine				
	$\Delta_{fus}H$		33.0	363		[2000MOR/HAR]
$C_{16}H_{19}N_3$	[2481-94-9]	4-(N,N-diethylamino)azobenzene				
	$\Delta_{sub}H$		132.2		GS	[1987SHI/OHK, 1991HOR]
	$\Delta_{sub}H$	(330–353)	91.4 ± 2.9	342		[1984KRI]
	$\Delta_{sub}H$		106.4		UV	[1984KAR/ROD]
	$\Delta_{sub}H$		106.3			[1984KAR/KRU]
$C_{16}H_{19}N_3O_2$	[na]	N,N-(2-hydroxyethyl)-4-phenylazoaniline				
	$\Delta_{fus}H$		29.96	407		[1988BAU/PER]
$C_{16}H_{20}N_2$	[19219-01-3]	tetracyclopropylsuccinonitrile				
	$\Delta_{fus}H$		22.3	390		[1996DOM/HEA]
$C_{16}H_{20}N_4O_3S$	[56211-40-6]	N-[[(1-methylethyl)amino]carbonyl]-4-[(3′-methylphenyl)amino]-3-pyridinesulfonamide (torasemide)				
	$\Delta_{fus}H$ *(I)*		37.2	434.7		
	$\Delta_{fus}H$ *(II)*		29.0	430		[2002ROL/GST]
$C_{16}H_{20}O_2$	[105443-43-4]	2-isopropyl-6-(1-hydroperoxy-1-methylethyl)naphthalene				
	$\Delta_{fus}H$		24.9	335.2		[1998STE/ZAW]
$C_{16}H_{20}O_3$	[146683-17-2]	3-benzoyl-1,2,2-trimethylcyclopentanecarboxylic acid				
	$\Delta_{fus}H$		20.35	387.6	DSC	[1992TER/PAU]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{20}O_4$	[96783-79-8] 2,6-*bis*-(1-hydroperoxy-1-methylethyl)naphthalene					
	$\Delta_{fus}H$		38.3	394.2		[1998STE/ZAW]
$C_{16}H_{20}O_6P_2S_3$	[3383-96-8] O,O,O′,O′-tetramethyl O,O′-thiodi-*p*-phenylene *bis*(phosphorothioate)					
	$\Delta_{fus}H$		33.03	303.2	DSC	[1990DON/DRE]
$C_{16}H_{21}Cl_3O_3$	[1928-47-8] 2,4,5-trichlorophenoxyacetic acid, (2-ethylhexyl) ester					
	Δ_vH	(460–575)	85.4	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{16}H_{21}Cl_3O_3$	[2630-15-1] 2,4,5-trichlorophenoxyacetic acid, octyl ester					
	Δ_vH	(460–575)	92.2	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{16}H_{21}N$	[61203-99-4] 4-(*trans*-4-propycyclohexyl)benzonitrile					
	$\Delta_{trs}H$	(15–385)	20.4	316.3		
	$\Delta_{fus}H$	(15–385)	1.1	319	AC	[1998ASA/SOR]
$C_{16}H_{21}NO_2$	[4199-09-1] (−) 1-(isopropylamino)-3-(1-naphthyloxy)-2-propanol (propranolol)					
	$\Delta_{fus}H$		36.25	344.7	DSC	[1999LI/ZEL]
$C_{16}H_{21}NO_2$	[525-66-6] (±) 1-(isopropylamino)-3-(1-naphthyloxy)-2-propanol (propranolol)					
	$\Delta_{fus}H$		43.45	365.5	DSC	[1999LI/ZEL]
$C_{16}H_{22}ClNO_3$	[38727-55-8] N-(chloroacetyl)-N-(2,6-diethylphenyl)glycine ethyl ester					
	$\Delta_{fus}H$		23.84	318	DSC	[1990DON/DRE]
$C_{16}H_{22}Cl_2O_3$	[1928-43-4] 2,4-dichlorophenoxyacetic acid, (2-ethylhexyl) ester					
	Δ_vH	(460–575)	83	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{16}H_{22}Cl_2O_3$	[1917-97-1] 2,4-dichlorophenoxyacetic acid, (1-methylheptyl) ester					
	Δ_vH	(460–575)	83	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{16}H_{22}Cl_2O_3$	[1928-44-5] 2,4-dichlorophenoxyacetic acid, octyl ester					
	Δ_vH	(460–573)	87.9	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{16}H_{22}N_4O_4$	[53808-87-0] 5-[[3,5-dimethoxy-4-(2-methoxyethoxy)phenyl]methyl]-2,4-pyrimidinediamine (tetroxoprim)					
	$\Delta_{fus}H$		46.36	423.3	DSC	[2002CAI/BET]
$C_{16}H_{22}O_4$	[84-74-2] dibutyl phthalate					
	Δ_vH		80.4	462		[1988KAT]
	Δ_vH	(314–469)	94.0	329	A	[1987STE/MAL]
	Δ_vH	(468–605)	76.1	483	A	[1987STE/MAL]
	Δ_vH	(288–313)	91.7	300		[1949BIR/BRA]
$C_{16}H_{22}O_4$	[4489-61-6] di-sec-butyl phthalate					
	Δ_vH	(313–373)	93.8	328	A, ME	[1987STE/MAL, 1948SMA/SMA]
$C_{16}H_{22}O_4$	[1962-75-0] dibutyl terephthalate					
	Δ_vH	(393–483)	86.2	408	A	[1987STE/MAL]
$C_{16}H_{23}N$	[199394-72-4] N-cyclohexyl-(2,4,6-trimethyl)benzaldehyde imine					
	$\Delta_{fus}H$		25.61	339.4		[1997VER/MOR]
	$\Delta_{sub}H$		104.9 ± 0.8	298	B	[1997VER/MOR]
$C_{16}H_{24}N_2$	[na] 2-(4-*tert*-butylphenyl)-2-(diethylamino)acetonitrile					
	$\Delta_{fus}H$		24.39	327.2		[1997WEL/VER]
$C_{16}H_{24}N_2O$	[98626-60-9] N-(2,6-dimethylphenyl)-1-ethyl-2-piperidinecarboxamide					
	$\Delta_{fus}H$		19.9	408.2	DSC	[1997NEM/ACS]
$C_{16}H_{24}N_2OS$	[862582-66-9] 2-[(diethylamino)thioxomethyl]-N,N-dimethylbenzamide					
	$\Delta_{fus}H$		28.79	353.5	DSC	[2005ALT/COP]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{24}N_2O_2$	[81994-74-3]	N-benzoyl-N′,N′-diisobutylurea				
	$\Delta_{sub}H$		137.5 ± 4.4	298	C	[2000RIB/RIB]
$C_{16}H_{24}N_2O_4$	[na]	nonyl N-(4-nitrophenyl)carbamate				
	$\Delta_{fus}H$		37.0	378.6	DSC	[1993TIE/FRA]
$C_{16}H_{24}N_2S_2$	[862582-67-0]	N,N,N′,N′-tetraethyl-1,2-benzenedicarbothiamide				
	$\Delta_{fus}H$		23.39	388.4	DSC	[2005ALT/COP]
$C_{16}H_{24}N_6$	[125867-93-8]	1-(methylphenethylamino)-3,5-*bis*(dimethylamino)-s-triazine				
	$\Delta_{fus}H$		20.04	334.2		[1991ACR]
$C_{16}H_{24}O_4$	[175848-65-4]	2,5-dipentoxy-1,4-benzoquinone				
	$\Delta_{trs}H$		9.0	333.7		
	$\Delta_{fus}H$		36.5	414.6	DSC	[1996KEE/VAN]
$C_{16}H_{25}Cl$	[412027-20-4]	chloro(pentaethyl)benzene				
	Δ_vH	(363–558)	60.3	378	A	[1987STE/MAL, 1947STU]
$C_{16}H_{25}NO_2$	[33689-71-3]	nonyl phenylcarbamate				
	$\Delta_{fus}H$		28.07	327		[1971PRI]
$C_{16}H_{25}N_3S$	[90473-97-5]	N-(diethylaminothiocarbonyl)-N′,N′-diethylbenzamide				
	$\Delta_{sub}H$		122.2 ± 2.0	298	C	[2004RIB/SAN]
$C_{16}H_{26}$	[104-72-3]	decylbenzene				
	Δ_vH	(318–363)	78.2 ± 0.3	298	GS	[2006VER]
	Δ_vH	(313–433)	78.0	328		[1993KAS/MOK]
	Δ_vH	(371–427)	75.1	386	A	[1987STE/MAL]
	Δ_vH		79.8	298		[1971WIL/ZWO]
	Δ_vH	(475–571)	61.6	490	A, IP	[1987STE/MAL, 1954CAM/FOR]
$C_{16}H_{26}$	[605-01-6]	pentaethylbenzene				
	Δ_vH	(359–550)	56.5	374	A	[1987STE/MAL, 1947STU]
$C_{16}H_{26}O$	[4130-42-1]	2,6-di-*tert*-butyl-4-ethylphenol				
	Δ_vH	(362–557)	62.8	348		[1953STA/MUL]
	Δ_vH	(362–557)	60.4	373		[1953STA/MUL]
	Δ_vH	(362–557)	58.6	398		[1953STA/MUL]
	Δ_vH	(362–557)	57.3	423		[1953STA/MUL]
	Δ_vH	(362–557)	52.6	473		[1953STA/MUL]
$C_{16}H_{26}O$	[6287-47-4]	4,6-di-*tert*-butyl-2-ethylphenol				
	Δ_vH	(413–556)	61.9	428	A	[1987STE/MAL]
	Δ_vH	(413–562)	57.3	423		[1953STA/MUL]
	Δ_vH	(413–562)	52.6	473		[1953STA/MUL]
$C_{16}H_{26}O$	[70766-54-0]	2,4-di-*tert*-butyl-5,6-dimethylphenol				
	Δ_vH	(431–565)	69.1	446	A	[1987STE/MAL]
$C_{16}H_{26}O$	[19245-41-1]	2,4-di-*tert*-butyl-5-ethylphenol				
	Δ_vH	(384–563)	69.3	399	A	[1987STE/MAL]
$C_{16}H_{26}O$	[na]	2,4,5-triisopropylbenzyl alcohol				
	Δ_vH	(312–346)	113.1	327	A	[1987STE/MAL]
$C_{16}H_{26}O_4$	[965-40-2]	dicyclohexyl succinate				
	Δ_vH	(338–365)	98.0 ± 0.8	298	GS	[2008LIP/KRA]
$C_{16}H_{26}O_{11}$	[na]	diethylene glycol dicarboxylic acid, di[1-(ethoxycarbonyl)ethyl] ester				
	Δ_vH	(418–503)	99.3	433	A	[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{28}$	[3752-92-9]	tricyclopentylmethane				
	$\Delta_v H$	(273–351)	77.8	288	A	[1987STE/MAL, 1964MOR]
	$\Delta_v H$	(371–429)	71.4	386	A	[1987STE/MAL]
$C_{16}H_{28}$	[283-68-1]	tricyclo[8.2.2.2^{4,7}]hexadecane				
	$\Delta_{sub}H$	(316–338)	91.6 ± 0.9	327	ME	[1969SHI/MCN, 1977PED/RYL]
	$\Delta_{sub}H$	(316–338)	85.2	327		[1987STE/MAL]
$C_{16}H_{28}O_2$	[31067-25-1]	1,9-cyclohexadecanedione				
	$\Delta_{trs}H$		17.95	301.2		
	$\Delta_{fus}H$		8.03	351.2		[1972ALV/BOR]
$C_{16}H_{28}O_4$	[na]	1,7-cyclododecanedione *bis* ethylene ketal				
	$\Delta_{fus}H$		36.94	478.2		[1972ALV/BOR]
$C_{16}H_{30}N_2$	[19219-01-3]	tetracyclopropylsuccinonitrile				
	$\Delta_{sub}H$		110.2 ± 1.5			[1984BER/BEC2]
$C_{16}H_{30}O$	[541-91-3]	3-methylcyclopentadecanone				
	$\Delta_v H$	(391–601)	63.5	406	A	[1987STE/MAL]
$C_{16}H_{30}O$	[2550-52-8]	cyclohexadecanone				
	$\Delta_{sub}H$		82.0			[1938WOL/WEG, 1960JON]
$C_{16}H_{30}O$	[174155-58-9]	(Z) 3-hexadecenal				
	$\Delta_v H$	(373–413)	89.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[174155-57-8]	(E) 3-hexadecenal				
	$\Delta_v H$	(373–413)	89.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[88373-69-7]	(Z) 4-hexadecenal				
	$\Delta_v H$	(373–413)	88.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[174155-59-0]	(E) 4-hexadecenal				
	$\Delta_v H$	(373–413)	88.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[88373-68-6]	(Z) 5-hexadecenal				
	$\Delta_v H$	(373–413)	87.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[99142-11-7]	(E) 5-hexadecenal				
	$\Delta_v H$	(373–413)	88.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[88373-67-5]	(Z) 6-hexadecenal				
	$\Delta_v H$	(373–413)	87.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[103346-18-5]	(E) 6-hexadecenal				
	$\Delta_v H$	(373–413)	88.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[56797-40-1]	(Z) 7-hexadecenal				
	$\Delta_v H$	(373–413)	87.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-27-2]	(E) 7-hexadecenal				
	$\Delta_v H$	(373–413)	88.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[66644-98-2]	(Z) 8-hexadecenal				
	$\Delta_v H$	(373–413)	87.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-28-3]	(E) 8-hexadecenal				
	$\Delta_v H$	(373–413)	88.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[56219-04-6]	(Z) 9-hexadecenal				
	$\Delta_v H$	(373–413)	88.0	298	CGC	[1996KOU/HOS, 2000OVA/KOU]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{30}O$	[72698-29-4] (E) 9-hexadecenal					
	$\Delta_v H$	(373–413)	88.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[68279-24-3] (Z) 10-hexadecenal					
	$\Delta_v H$	(373–413)	88.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-30-7] (E) 10-hexadecenal					
	$\Delta_v H$	(373–413)	88.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[53939-28-9] (Z) 11-hexadecenal					
	$\Delta_v H$	(373–413)	88.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[57491-33-5] (E) 11-hexadecenal					
	$\Delta_v H$	(373–413)	89.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-31-8] (Z) 12-hexadecenal					
	$\Delta_v H$	(373–413)	89.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-32-9] (E) 12-hexadecenal					
	$\Delta_v H$	(373–413)	89.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[71545-96-5] (Z) 13-hexadecenal					
	$\Delta_v H$	(373–413)	89.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-33-0] (E) 13-hexadecenal					
	$\Delta_v H$	(373–413)	90.0	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[142-90-5] dodecyl methacrylate					
	$\Delta_v H$	(438–580)	64.9	453	A	[1987STE/MAL]
$C_{16}H_{30}O_2$	[109-29-5] oxa-2-cycloheptadecanone					
	$\Delta_v H$	(403–463)	71.6	418	A	[1987STE/MAL]
$C_{16}H_{30}O_2$	[51309-20-7] (Z) 2-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	89.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[51309-21-8] (E) 2-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	90.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[54897-65-3] (Z) 3-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	88.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[56221-90-0] (E) 3-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	89.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[54897-66-4] (Z) 4-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	87.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[56209-67-7] (E) 4-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	89.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35153-13-0] (Z) 5-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	88.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[34010-13-4] (E) 5-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	89.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[39650-11-8] (Z) 6-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	88.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[39650-10-7] (E) 6-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	88.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{30}O_2$	[16974-10-0] (Z) 7-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	88.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[28540-79-6] (E) 7-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	89.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35835-80-4] (Z) 8-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	88.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[56218-64-5] (E) 8-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	89.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[16725-53-4] (Z) 9-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	89.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(303–317)	90.0	310	GC	[1983OLS/JON]
$C_{16}H_{30}O_2$	[23192-82-7] (E) 9-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	89.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35153-16-3] (Z) 10-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	89.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35153-17-4] (E) 10-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	89.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[20711-10-8] (Z) 11-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	90.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[33189-72-9] (E) 11-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	90.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35153-20-9] (Z) 12-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	90.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35153-21-0] (E) 12-tetradecenyl acetate					
	$\Delta_v H$	(353–398)	90.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[90176-51-5] methyl Z 10-pentadecenoate					
	$\Delta_v H$		91.7	298	CGC	[2007LIP/KAP]
$C_{16}H_{30}O_2$	[373-49-9] *cis*-9-hexadecenoic acid (palmitoleic acid)					
	$\Delta_{trs}H$		7.5	254.8		
	$\Delta_{fus}H$		32.1	275.2		[1997SAT/YAN]
$C_{16}H_{30}O_3$	[6720-22-5] 1,7-dioxa-8-cyclooctadecanone					
	$\Delta_v H$	(403–463)	73.3	418	A	[1987STE/MAL]
$C_{16}H_{30}O_3$	[36575-58-3] 1,9-dioxa-2-cyclooctadecanone					
	$\Delta_v H$	(403–463)	74.5	418	A	[1987STE/MAL]
$C_{16}H_{30}O_4$	[14027-78-2] dipentyl adipate					
	$\Delta_v H$	(449–575)	74.7	464	A	[1987STE/MAL]
$C_{16}H_{30}O_4$	[505-54-4] hexadecanedioic acid					
	$\Delta_{fus}H+\Delta_{trs}H$		60.1	396.4	DSC	[2006VEN/MET]
	$\Delta_{fus}H$		52.2	395.4	DSC	[2005ROU/TEM]
	$\Delta_{sub}H$	(377–398)	151.0 ± 3.3	388	ME	[1960DAV/THO, 1987STE/MAL]
	$\Delta_{sub}H$		155.4 ± 3.3	298		[1960DAV/THO, 1999RIB/MON]
$C_{16}H_{30}O_5$	[5420-72-4] octyl[1-(butoxycarbonyl)ethyl]carbonate					
	$\Delta_v H$	(374–503)	76.2	389	A	[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{31}N$	[629-79-8]	hexadecanenitrile (palmitonitrile)				
	$\Delta_v H$	(345–382)	93.3 ± 0.4	298		[2005EME/VER]
	$\Delta_v H$	(503–608)	70.1	518	A	[1987STE/MAL]
$C_{16}H_{31}NO_3$	[14246-55-0]	N-tetradecanoylglycine				
	$\Delta_{trs}H$		6.8	379.6		
	$\Delta_{fus}H$		47.4	396.6	DSC	[1986MIY/MAT]
$C_{16}H_{31}NO_3$	[14379-38-5]	N-decanoyl-(*l*)-leucine				
	$\Delta_{trs}H$		1.2	343.1		
	$\Delta_{fus}H$		27.5	383.1	DSC	[1986MIY/MAT]
$C_{16}H_{31}NO_3$	[107396-12-3]	N-decanoyl-(*dl*)-leucine				
	$\Delta_{fus}H$		28.9	357.1	DSC	[1986MIY/MAT]
$C_{16}H_{32}$	[15220-85-6]	tetraisobutylene				
	$\Delta_v H$	(381–440)	54.5	397		[1943STE]
$C_{16}H_{32}$	[1795-16-0]	decylcyclohexane				
	$\Delta_{fus}H$		38.62	271.4		[1991ACR]
	$\Delta_v H$	(371–425)	76.7	386	A	[1987STE/MAL]
	$\Delta_v H$		79.7	298		[1971WIL/ZWO]
	$\Delta_v H$	(469–571)	61.6	484	A, MM	[1987STE/MAL, 1954CAM/FOR]
$C_{16}H_{32}$	[6785-23-5]	undecylcyclopentane				
	$\Delta_v H$		80.6	298		[1971WIL/ZWO]
$C_{16}H_{32}$	[629-73-2]	1-hexadecene				
	$\Delta_{trs}H$		3.87	249.2		
	$\Delta_{fus}H$		30.21	277.5		[1990MES/TOD]
	$\Delta_v H$		80.3 ± 0.4	298	C	[1977MAN/SEL]
	$\Delta_v H$		80.3 ± 0.4	298	C	[1976STR2]
	$\Delta_v H$		80.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(461–558)	61.5	476	A	[1987STE/MAL, 1954CAM/FOR]
$C_{16}H_{32}$	[295-65-8]	cyclohexadecane				
	$\Delta_{trs}H$		18.83	271.2		
	$\Delta_{trs}H$		1.26	283.2		
	$\Delta_{fus}H$		4.18	332.2		[1975BJO/BOR2]
	$\Delta_{sub}H$		81.8 ± 0.4			[1957VAN, 1970COX/PIL]
$C_{16}H_{32}O$	[141694-91-9]	(Z) 3-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	110.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[128999-42-8]	(E) 3-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	110.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[145235-63-8]	(Z) 4-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	110.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[59101-23-4]	(E) 4-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[106463-48-3]	(Z) 5-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	110.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[85388-16-5]	(E) 5-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{32}O$	[40642-45-3]	(Z) 6-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	110.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[34500-33-9]	(E) 6-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[24880-48-6]	(Z) 7-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	110.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[51824-10-3]	(E) 7-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[64437-46-3]	(Z) 8-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	110.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[64470-33-3]	(E) 8-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[10378-01-5]	(Z) 9-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	110.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[64437-47-4]	(E) 9-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[64437-48-5]	(Z) 10-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[54502-94-2]	(E) 10-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[56683-54-6]	(Z) 11-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[61301-56-2]	(E) 11-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[72698-34-1]	(Z) 12-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	111.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[72698-35-2]	(E) 12-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	112.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[69282-65-1]	(Z) 13-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	112.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[69282-66-2]	(E) 13-hexadecen-1-ol				
	$\Delta_v H$	(373–413)	112.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[18787-63-8]	2-hexadecanone				
	$\Delta_v H$	(382–580)	72.3	397	A	[1987STE/MAL]
$C_{16}H_{32}O$	[629-80-1]	hexadecanal				
	$\Delta_v H$	(343–383)	89.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(394–594)	67.6	409	A	[1987STE/MAL, 1947STU]
$C_{16}H_{32}O_2$	[7132-64-1]	methyl pentadecanoate				
	$\Delta_v H$		82.1	350		[2002SEG/GAL]
	$\Delta_v H$		79.8 ± 0.2	372		[2002SEG/GAL]
	$\Delta_v H$		89.3 ± 0.8	298		[2002SEG/GAL]
	$\Delta_v H$	(433–473)	88.8	298	CGC	[1995CHI/HOS]
	$\Delta_v H$		91.6 ± 0.9	298	GC,C	[1980FUC/PEA]
	$\Delta_v H$		93.5 ± 1.0	298	C	[1977MAN/SEL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(295–303)	87.9 ± 1.3	299		[1968BAC/NOV]
	$\Delta_v H$	(400–527)	78.3	415	A, E	[1987STE/MAL, 1963ROS/SCH]
$C_{16}H_{32}O_2$	[124-06-1]	ethyl tetradecanoate				
	$\Delta_v H$	(407–568)	71.8	422	A	[1987STE/MAL]
$C_{16}H_{32}O_2$	[106-18-3]	butyl dodecanoate				
	$\Delta_v H$	(423–483)	89.2	298	GC	[1997KRO/VEL]
	$\Delta_v H$	(343–383)	75.8	358	A	[1987STE/MAL]
$C_{16}H_{32}O_2$	[na]	isobutyl dodecanoate				
	$\Delta_v H$	(345–452)	80.0	360		[2001BUR/JOS]
$C_{16}H_{32}O_2$	[638-59-5]	tetradecyl acetate				
	$\Delta_v H$	(303–340)	89.9 ± 0.2	298	GS	[2006KRA/VER]
	$\Delta_v H$	(353–398)	91.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(411–462)	72.7	426	A	[1987STE/MAL]
$C_{16}H_{32}O_2$	[57-10-3]	hexadecanoic acid (palmitic acid)				
	$\Delta_{trs}H$		3.8	318.8		
	$\Delta_{fus}H$		53.9	335.4	DSC	[2009GBA/NEG]
	$\Delta_{fus}H$		51.37	332.7	DSC	[2009ZEN/CAO]
	$\Delta_{trs}H$		3.1	316.7		
	$\Delta_{trs}H$		4.9	317.5		
	$\Delta_{fus}H$		53.0	334.7	DSC	[2007MOR/COR]
	$\Delta_{fus}H$		47.0	336.5	DSC	[2007MIS/MIS]
	$\Delta_{fus}H$		54.81	335.7		[1996DOM/HEA]
	$\Delta_{sub}H$		193.8 ± 11	298	TPD	[2008CAP/LOV]
	$\Delta_{sub}H$	(273–303)	134		TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$	(294–316)	154		TPTD	[2001CHA/TOB]
		Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods				
	$\Delta_{sub}H$	(320–333)	154.4 ± 4.2	326	ME	[1961DAV/MAL, 1970COX/PIL, 1987STE/MAL]
	$\Delta_v H$	(440–625)	97.5	455	A	[1987STE/MAL]
	$\Delta_v H$	(347–374)	110.2 ± 2.0	364	ME, TE	[1982DEK/SCH]
	$\Delta_v H$		90.1	475	I	[1943CRA]
$C_{16}H_{32}O_3$	[764-67-0]	2-hydroxyhexadecanoic acid				
	$\Delta_{sub}H$	(294–311)	121		TPTD	[2005CHA/ZIE]
		Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods				
$C_{16}H_{32}O_3$	[506-13-8]	16-hydroxyhexadecanoic acid				
	$\Delta_{sub}H$	(316–329)	114		TPTD	[2005CHA/ZIE]
		Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods				
$C_{16}H_{32}O_4$	[43091-27-6]	6,6,14,14-tetramethyl-1,3,9,11-tetraoxacyclohexadecane				
	$\Delta_{fus}H$		29.71	358.6		[1973DAL/EKE]
$C_{16}H_{32}O_4$	[43091-28-7]	2,2,10,10-tetramethyl-1,3,9,11-tetraoxacyclohexadecane				
	$\Delta_{fus}H$		25.94	371.3		[1973DAL/EKE]
$C_{16}H_{32}O_8$	[33089-37-1]	1,4,7,10,13,16,19,22-octaoxacyclotetracosane				
	$\Delta_{fus}H$		34.5	292.2		[1972DAL/KRI]
$C_{16}H_{33}Br$	[112-82-3]	1-bromohexadecane				
	$\Delta_v H$		94.4 ± 1.5	298	C	[1996WEB/DEF2]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(461–673)	71.9	476	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{16}H_{33}Cl$	[4860-03-1]	1-chlorohexadecane				
	$\Delta_v H$		97.9	298		[2006BOL/NER2]
	$\Delta_v H$		96.4 ± 0.9	298	GS	[2001PUR/CHI]
	$\Delta_v H$		91.8 ± 1.1	298	C	[1977MAN/SEL]
	$\Delta_v H$	(439–600)	73.3	454	DTA	[1969KEM/KRE]
$C_{16}H_{33}F$	[408-38-8]	1-fluorohexadecane				
	$\Delta_v H$	(425–608)	66.1	440	A, E	[1970DYK/VAN]
$C_{16}H_{33}I$	[544-77-4]	1-iodohexadecane				
	$\Delta_v H$	(475–673)	99.6	298	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	$\Delta_v H$	(475–673)	73.0	490	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{16}H_{33}NO$	[629-54-9]	hexadecanamide				
	$\Delta_{trs} H$		10.4	355.5		
	$\Delta_{fus} H$		45.4	376	DSC	[2008ABA/BAD]
	$\Delta_{sub} H$	(364–378)	181.6 ± 1.3	371	ME	[1959DAV/JON2, 1987STE/MAL]
$C_{16}H_{33}NO$	[74534-10-4]	N-hexyl decanamide				
	$\Delta_{trs} H$		6.0	301		
	$\Delta_{fus} H$		31.0	311	DSC	[1980CAR/BUS]
$C_{16}H_{33}NO$	[6284-08-8]	N-butyl dodecanamide				
	$\Delta_{fus} H$		39.0	322.1	DSC	[1980CAR/BUS]
$C_{16}H_{33}NO$	[57303-23-8]	N,N-dibutyl octanamide				
	$\Delta_v H$	(463–513)	75.6 ± 0.7	298	CGC	[2009PAN/ANT]
$C_{16}H_{34}$	[544-76-3]	hexadecane				
	$\Delta_{fus} H$		53.0	290.7	DSC	[2004MON/RAJ]
	$\Delta_{fus} H$		53.35	291.3		
	$\Delta_{fus} H$		51.46	291.1		[1996DOM/HEA]
	$\Delta_{sub} H$		135.1	298	B	[1972MOR3]
	$\Delta_{sub} H$		134.9	291	B	[1963BON]
	$\Delta_{sub} H$	(288–290)	83.4 ± 8		ME	[1949BRA/SHE]
	$\Delta_v H$		81.8 ± 1.3	298	CGC	[2000NIC/ORF]
	$\Delta_v H$	(453–503)	81.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(423–473)	81.4	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(363–413)	81.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(393–583)	68.5	408		[1994MOR/KOB]
	$\Delta_v H$		81.4	298		[1994RUZ/MAJ]
	$\Delta_v H$	(505–589)	59.8	520		[1992LEE/DEM]
	$\Delta_v H$	(323–423)	74.9	338	A	[1987STE/MAL]
	$\Delta_v H$		66.9	343	GC	[1977NOV/NOV]
	$\Delta_v H$		66.2	353	GC	[1977NOV/NOV]
	$\Delta_v H$		65.6	363	GC	[1977NOV/NOV]
	$\Delta_v H$		64.9	373	GC	[1977NOV/NOV]
	$\Delta_v H$		64.2	383	GC	[1977NOV/NOV]
	$\Delta_v H$		81.4 ± 0.4	298	C	[1972MOR2]
	$\Delta_v H$		81.1	298		[1971WIL/ZWO]
	$\Delta_v H$	(467–563)	61.7	482	A, MM	[1987STE/MAL, 1954CAM/FOR]
	$\Delta_v H$	(299–324)	93.4	311	ME	[1949PAR/MOO]
	$\Delta_v H$	(293–308)	80.2	300	ME	[1949BRA/SHE2]
	$\Delta_v H$	(442–469)	65.7	455	ME	[1938UBB]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{34}$	[1560-93-6]	2-methylpentadecane				
	$\Delta_v H$	(417–554)	62.0	432	A	[1987STE/MAL]
$C_{16}H_{34}$	[2882-96-4]	3-methylpentadecane				
	$\Delta_v H$	(417–555)	61.0	432	A	[1987STE/MAL]
$C_{16}H_{34}$	[2801-87-8]	4-methylpentadecane				
	$\Delta_v H$	(411–553)	57.8	426	A	[1987STE/MAL]
$C_{16}H_{34}$	[25117-33-3]	5-methylpentadecane				
	$\Delta_v H$	(408–551)	57.3	423	A	[1987STE/MAL]
$C_{16}H_{34}$	[6165-40-8]	7-methylpentadecane				
	$\Delta_v H$	(355–410)	66.3	370	A	[1987STE/MAL]
$C_{16}H_{34}$	[18435-23-9]	2,3-dimethyltetradecane				
	$\Delta_v H$	(412–554)	57.4	427	A	[1987STE/MAL]
$C_{16}H_{34}$	[61868-06-2]	2,4-dimethyltetradecane				
	$\Delta_v H$	(404–539)	60.6	419	A	[1987STE/MAL]
$C_{16}H_{34}$	[na]	2,4,6-trimethyltridecane				
	$\Delta_v H$	(395–521)	59.1	410	A	[1987STE/MAL]
$C_{16}H_{34}$	[4390-04-9]	2,2,4,4,6,8,8-heptamethylnonane				
	$\Delta_v H$	(423–545)	52.4	438		[1988AMB/GHI]
$C_{16}H_{34}$	[78715-64-7]	3,3.6,6-tetraethyloctane				
	$\Delta_v H$	(301–330)	73.0 ± 1.9	308	HSA	[1995CHI/HES]
	$\Delta_v H$		74.3 ± 1.9	298		[1995CHI/HES]
	$\Delta_v H$		72.3 ± 1.8	298	CGC	[1995CHI/HES]
$C_{16}H_{34}N_2$	[39198-34-0]	*bis*(1,1,3,3-tetramethylbutyl)diazene				
	$\Delta_v H$		66.5 ± 0.6	298	C	[1976ENG/MEL]
$C_{16}H_{34}O$	[36653-82-4]	1-hexadecanol				
	$\Delta_{fus}H$	(80–370)	57.7	322.2	AC	[2008XIN/TAN]
	$\Delta_{fus}H$		33.1	321.6	DSC	[2004VEN/CAL]
	$\Delta_{trs}H$		21.21	322.2		[1979KUC/SKU]
	$\Delta_{fus}H$		33.97	322.9		[1979KUC/SKU]
	$\Delta_{fus}H+\Delta_{trs}H$		58.41	322.2		[1974MOS/MOU]
	$\Delta_{sub}H$	(308–320)	167.4 ± 2.1	314	ME	[1965DAV/KYB, 1987STE/MAL]
	$\Delta_{sub}H$		169.5 ± 2.1	298		[1965DAV/KYB]
	$\Delta_v H$		107.7 ± 1.2	298	CGC	[2006NIC/KWE]
	$\Delta_v H$	(328–362)	100.4	347	GS	[2001KUL/VER2]
	$\Delta_v H$	(328–362)	108.8	298	GS	[2001KUL/VER2]
	$\Delta_v H$		112.5	298	CGC	[2000OVA/KOU]
	$\Delta_v H$	(343–463)	88.2	403		[1992NGU/KAS]
	$\Delta_v H$	(509–569)	68.9	524	A	[1987STE/MAL]
	$\Delta_v H$	(415–487)	83.2	430	A	[1987STE/MAL, 1974AMB/ELL]
	$\Delta_v H$	(323–335)	109.4	329		[1987STE/MAL]
	$\Delta_v H$	(323–376)	112.3	338		[1973WIL/ZWO]
	$\Delta_v H$	(418–463)	78.8	423		[1973WIL/ZWO]
	$\Delta_v H$	(498–569)	70.0	513	A, EB	[1987STE/MAL, 1970AMB/SPR]
	$\Delta_v H$	(445–598)	77.3	460	DTA	[1969KEM/KRE]
	$\Delta_v H$	(323–335)	109.5	329	ME	[1965DAV/KYB]
$C_{16}H_{34}O$	[14852-31-4]	2-hexadecanol				
	$\Delta_v H$	(333–453)	102.2	348		[1999NGU/BER]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{34}O_2$	[7735-42-4]	1,16-hexadecanediol				
	$\Delta_{fus}H$		64.2	365.4	DSC	[1999OGA/NAK]
$C_{16}H_{34}O_2S$	[126835-77-6]	3-(tridecylthio)-1,2-propanediol				
	$\Delta_{trs}H$		11.3	296.9		
	$\Delta_{fus}H$		22.7	330.6	DSC	[1993ACR]
$C_{16}H_{34}O_3$	[10431-00-2]	3-(tridecyloxy)-1,2-propanediol				
	$\Delta_{fus}H$		51.4	324.2	DSC	[1993ACR]
$C_{16}H_{34}O_3$	[3055-93-4]	2[2-(dodecyloxy)ethoxy]ethanol				
	Δ_vH	(448–489)	82.1	463	A	[1987STE/MAL]
$C_{16}H_{34}O_4S_2$	[na]	2-deoxy-(*D*)-glucose dipentyl dithioacetal				
	$\Delta_{fus}H$		63.1	393.3	DSC	[1989VAN/VAN]
$C_{16}H_{34}O_4S_2$	[na]	(*l*)-rhamnose dipentyl dithioacetal				
	$\Delta_{fus}H$		46.5	388.2	DSC	[1989VAN/VAN]
$C_{16}H_{34}O_5S_2$	[115395-53-4]	(*D*)-glucose dipentyl dithioacetal				
	$\Delta_{fus}H$		49.1	389	DSC	[1989VAN/VAN]
$C_{16}H_{34}O_5S_2$	[123389-86-6]	(*D*)-galactose dipentyl dithioacetal				
	$\Delta_{trs}H$		2.7	384.6		
	$\Delta_{fus}H$		41.1	392.1	DSC	[1989VAN/VAN]
$C_{16}H_{34}S$	[2917-26-2]	1-hexadecanethiol				
	Δ_vH	(470–643)	72.4	485		[1999DYK/SVO]
$C_{16}H_{34}S$	[2690-08-6]	dioctyl sulfide				
	Δ_vH	(335–442)	71.6	388		[2004SAW/MOK]
	Δ_vH	(465–550)	95.0 ± 10.7	298	EB	[1997STE/CHI4]
	Δ_vH	(465–550)	72.0 ± 0.6	460	EB	[1997STE/CHI4]
	Δ_vH	(465–550)	67.8 ± 0.5	500	EB	[1997STE/CHI4]
	Δ_vH	(465–550)	63.7 ± 0.6	540	EB	[1997STE/CHI4]
$C_{16}H_{34}S_2$	[822-27-5]	diheptyl disulfide				
	Δ_vH	(479–656)	73.9	494		[1999DYK/SVO]
$C_{16}H_{35}N$	[1120-48-5]	dioctylamine				
	Δ_vH	(448–597)	87.1 ± 1.3	298	EB	[1996STE/CHI3]
$C_{16}H_{35}N$	[143-27-1]	hexadecylamine				
	Δ_vH	(498–609)	66.9	513	A	[1987STE/MAL]
$C_{16}H_{35}N$	[na]	N,N-dimethyl-2-pentylnonylamine				
	Δ_vH	(401–552)	64.8	425	EB	[1987MIL/FEN2]
$C_{16}H_{35}NO_2$	[126835-68-5]	3-(tridecylamino)-1,2-propanediol				
	$\Delta_{fus}H$		68.7	354.9	DSC	[1993ACR]
$C_{16}H_{36}N_2$	[60678-70-8]	tetrabutyl hydrazine				
	Δ_vH	(392–453)	51.1	407	A	[1987STE/MAL]
$C_{17}H_{10}ClN_3O_3$	[1978-90-2]	1-(4-chlorobenzoyl)-1,2-dihydro-6-nitro-1-quinolinecarbonitrile				
	$\Delta_{fus}H$		25.62	430.5	DSC	[2005LIZ/ZAB]
$C_{17}H_{10}O$	[82-05-3]	benzanthrone				
	$\Delta_{sub}H$	(390–410)	122.6 ± 0.6	400	ME	[2006RIB/MON]
	$\Delta_{sub}H$	(390–410)	125.6 ± 0.6	298	ME	[2006RIB/MON]
	$\Delta_{sub}H$	(389–409)	121.6 ± 0.6	399	ME	[1999RIB/FER]
	$\Delta_{sub}H$	(389–409)	126.6 ± 0.6	298	ME	[1999RIB/FER]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(373–393)	129.7 ± 2.1	298	QR	[1999RIB/FER]
	$\Delta_{sub}H$	(373–393)	125.5 ± 2.1	382	QR	[1999RIB/FER]
	$\Delta_{sub}H$	(353–388)	119.7 ± 5.4	370	ME	[1984BUR/MOR]
	$\Delta_{sub}H$	(353–388)	124.6 ± 6.0	298	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		114.2 ± 0.8		QR	[1979YAN/TEP]
	$\Delta_{sub}H$		115.5	398		[1952INO/SHI, 1960JON]
	$\Delta_{v}H$	(498–673)	91.4	513	A	[1987STE/MAL, 1947STU]
$C_{17}H_{10}O$	[116232-62-3]	benzo[a]fluorenone				
	$\Delta_{fus}H$		15.6	406.9	DSC	[2010KES/AUC]
$C_{17}H_{11}ClN_2O_2$	[1979-25-6]	2-cyano-1(2*H*)-quinolinecarboxylic acid, 4-chlorophenyl ester				
	$\Delta_{fus}H$		37.19	424.2	DSC	[2005LIZ/ZAB]
$C_{17}H_{11}N$	[225-11-6]	benz[a]acridine				
	$\Delta_{fus}H$		21.9	402.8	DSC	[2010KES/AUC]
$C_{17}H_{11}N$	[225-51-4]	benz[c]acridine				
	$\Delta_{fus}H$		20.3	381.4	DSC	[2010KES/AUC]
$C_{17}H_{12}$	[238-84-6]	1,2-benzofluorene				
	$\Delta_{trs}H$		3.8	399.9		
	$\Delta_{fus}H$		18.4	462.8		[1996DOM/HEA]
	$\Delta_{sub}H$	(313–453)	105.4	383	GS	[1995NAS/LEN]
	$\Delta_{v}H$	(323–473)	83.7	398	GC	[2002LEI/CHA]
$C_{17}H_{12}$	[243-17-4]	2,3-benzofluorene				
	$\Delta_{fus}H$		23.4	489.7		[1996DOM/HEA]
	$\Delta_{sub}H$	(344–398)	119.3 ± 1.3	371	ME	[1998OJA/SUU]
	$\Delta_{sub}H$	(313–453)	111.2	383	GS	[1995NAS/LEN]
	$\Delta_{v}H$		97.5 ± 3.9	298	CGC	[2008HAN/NUT]
	$\Delta_{v}H$	(323–473)	84.7	398	GC	[2002LEI/CHA]
$C_{17}H_{12}$	[2381-21-7]	1-methylpyrene				
	$\Delta_{v}H$	(423–493)	92.3 ± 1.3	298	GC	[2006HAF/PAR]
$C_{17}H_{12}Cl_2N_4$	[28911-01-5]	8-chloro-6-(2-chlorophenyl)-1-methyl-4*H*-[1,2,4]triazolo[4,3-a]-[1,4]benzodiazepine (triazolam)				
	$\Delta_{fus}H$		41.0	514.5	DSC	[2008WAS/HOL]
$C_{17}H_{12}N_2O_2$	[40448-93-9]	2-cyano-1(2*H*)-quinolinecarboxylic acid, phenyl ester				
	$\Delta_{fus}H$		31.52	399	DSC	[2005LIZ/ZAB]
$C_{17}H_{12}O$	[152464-07-8]	4-ethynyl-1-[(4-ethynylphenyl)methoxy]benzene				
	$\Delta_{fus}H$		21.2	371.2	DSC	[1994MEL/LIT]
$C_{17}H_{12}O_2$	[24776-44-1]	4-benzoyl-1-naphthol				
	$\Delta_{fus}H$		28.64	440.6	DSC	[1991ACR]
$C_{17}H_{12}O_2$	[6333-07-9]	1-benzoyl-2-naphthol				
	$\Delta_{fus}H$		31.35	414.1	DSC	[1991ACR]
$C_{17}H_{12}O_2$	[21009-99-4]	2-benzoyl-1-naphthol				
	$\Delta_{fus}H$		20.18	343.9	DSC	[1991ACR]
$C_{17}H_{12}O_2$	[607-55-6]	1-naphthyl benzoate				
	$\Delta_{fus}H$		16.98	329.2		[1981BYS]
$C_{17}H_{12}O_2$	[93-44-7]	2-naphthyl benzoate				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		26.23	381.2		[1981BYS]
$C_{17}H_{13}ClN_4$	[28981-97-7] 8-chloro-1-methyl-6-phenyl-4*H*-[1,2,4]triazolo[4,3-a] [1,4]-benzodiazepine (alprazolam)					
	$\Delta_{fus}H$		32.0	501.8	DSC	[2008WAS/HOL]
$C_{17}H_{13}F_3O$	[172424-70-3] 4-*n*-propoxy-2′,3′,4′-trifluorodiphenylacetylene					
	$\Delta_{fus}H$		26.1	327.3	DSC	[1995HSU/TSA]
$C_{17}H_{13}N$	[6626-64-8] 5-methyl-5*H*-indeno[2,1-b]quinoline					
	$\Delta_{sub}H$		131.8 ± 1.3			[1966GEI/QUI, 1970COX/PIL]
	$\Delta_{v}H$	(375–388)	122.2	381	A	[1966GEI/QUI, 1970COX/PIL]
$C_{17}H_{14}F_2$	[145698-43-7] 4-*n*-propyl-3′,4′-difluorodiphenylacetylene					
	$\Delta_{fus}H$		20.2	311	DSC	[1995HSU/TSA]
$C_{17}H_{14}F_2O$	[172424-67-8] 4-*n*-propoxy-2′,4′-difluorodiphenylacetylene					
	$\Delta_{fus}H$		25.2	326.9	DSC	[1995HSU/TSA]
$C_{17}H_{14}F_3N_3O_2S$	[169590-42-5] 4-[5-(3-methylphenyl)-3-(trifluoromethyl)-1*H*-pyrazol-1-yl]-benzenesulphonamide (celecoxib)					
	$\Delta_{fus}H$		34.35	436		[2003CHA/GUP]
$C_{17}H_{14}N_2O_2$	[122955-6] 1-[(2-methoxyphenyl)azo]-2-hydroxynaphthalene					
	$\Delta_{sub}H$	(374–388)	142.4 ± 2.2	381		[1984KRI]
$C_{17}H_{14}N_2O_2$	[na] 2,2-*bis*-(4-cyanatophenyl)propane					
	$\Delta_{fus}H$		26.69	355.8		[1996DOM/HEA]
$C_{17}H_{14}N_4O_3$	[243445-12-5] 2[4,5-dihydro-5-oxo-4-phenyl-3-(2-pyridinyl)-1,2,4-triazine-6(1*H*)-ylidene]acetic acid, methyl ester					
	$\Delta_{fus}H$		21.6	420.6		[2005SIK/MOD]
$C_{17}H_{14}O$	[24330-03-8] 2:3,6:7-dibenzobicyclo[3.2.2]nona-2,6-dien-4-one					
	$\Delta_{fus}H$		10.9	383.2	DSC	[2006PER/CON]
	$\Delta_{v}H$		94.5 ± 2.2	298	CGC	[2006PER/CON]
$C_{17}H_{14}O_4S$	[162011-90-7] 3-phenyl-4-[4-(methylsulfonyl)phenyl]-2(5*H*)-furanone (rofecoxib)					
	$\Delta_{fus}H$		11.98	482.1	DSC	[2008TUN/TAB]
$C_{17}H_{14}O_5$	[117-52-2] 3-[1-(2-furanyl)-3-oxobutyl]-4-hydroxy-2*H*-1-benzopyran-2-one					
	$\Delta_{fus}H$		33.88	391.8	DSC	[1990DON/DRE]
$C_{17}H_{15}F$	[145698-32-4] 4-*n*-propyl-4′-fluorodiphenylacetylene					
	$\Delta_{fus}H$		24.1	324	DSC	[1995HSU/TSA]
$C_{17}H_{15}FO$	[145532-20-3] 4-*n*-propoxy-4′-fluorodiphenylacetylene					
	$\Delta_{fus}H$		27.1	356.8	DSC	[1995HSU/TSA]
$C_{17}H_{15}NO_2$	[154924-24-0] 1-[(4-nitrophenyl)ethynyl]-4-propylbenzene					
	$\Delta_{fus}H$		23.26	351.3	DSC	[2002SPA/DZI]
$C_{17}H_{15}NO_3$	[483362-78-3] 1-[(4-nitrophenyl)ethynyl]-4-propoxybenzene					
	$\Delta_{fus}H$		31.42	377	DSC	[2002SPA/DZI]
$C_{17}H_{15}NO_3$	[31842-01-0] 4-(1,3-dihydro-1-oxo-2*H*-isoindol-2-yl)-α-methylbenzeneacetic acid (±) indoprofen					
	$\Delta_{fus}H$		40.3	484.6	DSC	[2006WAS/HOL, 2008WAS/HOL]
$C_{17}H_{15}NO_3S$	[313057-10-2] 4-(4-pentenyloxy)phenyl 5-cyano-2-thiophene carboxylate					
	$\Delta_{fus}H$		72.8	337.6	DSC	[2000WU/WAN]
$C_{17}H_{16}Br_2O_3$	[na] isopropyl 4,4′-dibromobenzilate					
	$\Delta_{fus}H$		24.55	348.1		[1996DOM/HEA]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{17}H_{16}ClN_5O_3$	[na]	3-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl](2-hydroxyethyl)amino]propanenitrile				
	$\Delta_{fus}H$		26.29	428.2		[1991BAU/WEB]
$C_{17}H_{16}F_4N_4O_2$	[91488-84-5]	N-ethyl-N-(2,2,3,3-tetrafluoropropyl)-4-[4-nitrophenyl]azobenzenamine				
	$\Delta_{sub}H$		103		UV	[1984KAR/ROD]
$C_{17}H_{16}F_4N_4O_4$	[1543-74-4]	2-[[4-(4-nitrophenyl)azo]phenyl](2,2,3,3-tetrafluoropropyl)amino]ethanol				
	$\Delta_{sub}H$		103		UV	[1984KAR/ROD]
$C_{17}H_{16}N_2O_4$	[129555-39-1]	5-phenoxymethyl-3-phenylcarbamoyl-2-oxazolidone				
	$\Delta_{fus}H$		12.9	415.9		[1990SHI/HAY]
$C_{17}H_{16}OS$	[37014-01-0]	tetrahydro-2,6-diphenyl-4*H*-thiopyran-4-one				
	$\Delta_{sub}H$		136	375	ME	[1972GEI/SAW]
	$\Delta_{sub}H$		144 ± 3	298	ME	[1972GEI/SAW, 1977PED/RYL]
$C_{17}H_{16}O_4$	[54334-63-3]	diphenylmethylene diacetate				
	$\Delta_{sub}H$	(348–388)	122.1 ± 1.2	368	GS	[1996VER/PEN]
$C_{17}H_{17}ClO_6$	[126-07-8]	([1S]-*trans*-7-chloro-,2′,4,6-trimethoxy-6′-methylsprio[benzofuran-2(3*H*), 1′-(2)cyclohexene]-3,4′-dione (griseofulvin)				
	$\Delta_{fus}H$		44.7	491.2	DSC	[2006WAS/HOL]2008WAS/HOL]
	$\Delta_{fus}H$		39.39	495.2		[1983GRA/ABO]
$C_{17}H_{17}Cl_2N_5O_4$	[na]	N-[4-chloro-2-[(2-chloro-4-nitrophenyl)azo]-5-[(2-hydroxypropyl)amino]phenyl] acetamide				
	$\Delta_{fus}H$		38.87	471.2		[1991BAU/WEB]
$C_{17}H_{17}NO_4$	[483362-67-0]	2-(4-nitrophenyl)-1-(4-propoxyphenyl)ethanone				
	$\Delta_{fus}H$		31.97	372.4	DSC	[2002SPA/DZI]
$C_{17}H_{17}N_5O_2$	[na]	4-nitro-4′-[N-2-cyanoethyl-N-ethylamino)azobenzene				
	$\Delta_{sub}H$		147.3			[1984KAR/KRU]
$C_{17}H_{17}N_5O_4$	[231629-80-4]	6-(4-methoxyphenyl)-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	$\Delta_{fus}H$		48.41	507.3	DSC	[1999ZIE/GOL]
$C_{17}H_{18}ClNO_2S$	[178870-32-1]	N-[4-chloro-3-[(3-methyl-2-butenyl)oxy]phenyl]-2-methyl-3-furancarbothiamide				
	$\Delta_{fus}H$		36.94	400.8	DSC	[2001DAM/BLA]
$C_{17}H_{18}FNO_2$	[164591-98-4]	4-*trans*-(3-fluoro-4-cyanophenyl)cyclohexyl (E)-but-2-enoate				
	$\Delta_{fus}H$		21.1	393.2		[1995KEL/SCH]
$C_{17}H_{18}FN_3O_3$	[85721-33-1]	1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-qiunolinecarboxylic acid (ciprofloxacin)				
	$\Delta_{fus}H$		64.48	541.5	DSC	[1994YU/ZIP]
$C_{17}H_{18}N_2O_3S$	[479578-81-9]	4-methoxy-N-[[[(3-methoxyphenyl)methyl]amino]thioxomethyl]benzamide				
	$\Delta_{fus}H$		31.02	389.2	DSC	[2002ABB/WOH]
$C_{17}H_{18}O_3$	[15131-43-8]	2-hydroxy-4-butoxybenzophenone				
	Δ_vH	(393–443)	92.7	418	ME	[1984SUR]
$C_{17}H_{18}O_3$	[87-18-3]	salicyclic acid, 4-(t-butylphenyl) ester				
	$\Delta_{sub}H$	(293–336)	137.4	308	A	[1987STE/MAL]
	Δ_vH	(336–438)	90.4	351	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{17}H_{18}O_4$	[101595-31-7]	2-hydroxy-4,4′-diethoxybenzophenone				
	$\Delta_{fus}H$		34.7	373.6	DSC	[1999PRI/HAWN]
	$\Delta_{sub}H$		134.9	298	B	[1999PRI/HAWN]
$C_{17}H_{18}O_4S$	[313057-14-6]	4-(4-pentenyloxy)phenyl 5-methoxy-2-thiophene carboxylate				
	$\Delta_{fus}H$		74.48	333.7	DSC	[2000WU/WAN]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{17}H_{19}F_3O_3$	[164591-97-3]	4-*trans*-(trifluoromethoxyphenyl)cyclohexyl (E)-but-2-enoate				
	$\Delta_{fus}H$		21.6	340.2		[1995KEL/SCH]
$C_{17}H_{19}NO_3$	[57-27-2]	7,8-didehydro-4,5-epoxy-17-methylmorphinan-3,6-diol (morphine)				
	$\Delta_{fus}H$		28.87	528.2	DTA	[1988ROY/FLY]
$C_{17}H_{19}NO_4$	[72490-01-8]	N-[2-(4-phenoxyphenoxy)ethyl]carbamic acid, ethyl ester (fenoxycarb)				
	$\Delta_{fus}H$		26.98	326.3		[2005SUN/LIU4]
$C_{17}H_{19}N_3O_3$	[850836-67-8]	6-(acetylamino)-2-cyano-1(2*H*)-quinolinecarboxylic acid, 2-methylpropyl ester				
	$\Delta_{fus}H$		19.83	404.6	DSC	[2005LIZ/ZAB]
$C_{17}H_{19}N_3O_3$	[1979-20-1]	6-(acetylamino)-2-cyano-1(2H)-quinolinecarboxylic acid, butyl ester				
	$\Delta_{fus}H$		36.44	436.1	DSC	[2005LIZ/ZAB]
$C_{17}H_{20}N_2O_2S$	[373643-58-1]	N,N′-*bis*[(3-methoxyphenyl)methyl]thiourea				
	$\Delta_{fus}H$		33.22	354.7	DSC	[2002ABB/WOH]
$C_{17}H_{20}O_2$	[6397-77-9]	diethoxydiphenylmethane				
	$\Delta_{fus}H$		19.9	323.2		[1998VER/PEN]
	$\Delta_{sub}H$		97.1 ± 1.1	298		[1998VER/PEN]
$C_{17}H_{21}ClO_4$	[104225-37-8]	3-(3-chloro-4-methoxybenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	$\Delta_{fus}H$		29.1	440.2	DSC	[1992TER/PAU]
$C_{17}H_{21}F_{15}$	[139277-00-2]	1,1,1,2,3,3,4,4,5,5,6,6-dodecafluoro-2-(trifluoromethyl)hexadecane				
	$\Delta_{trs}H$		3.0	220		
	$\Delta_{fus}H$		18.0	261	DSC	[1992HOP/MOL]
$C_{17}H_{21}NO_2$	[15299-99-7]	N,N-diethyl-2-(1-naphthyloxy)propionamide				
	$\Delta_{fus}H$		24.57	345.3	DSC	[1990DON/DRE]
$C_{17}H_{21}NO_3$	[509-60-4]	4,5-epoxy-3-hydroxy-17-methylmorphinan-6-one (hydromorphone)				
	$\Delta_{fus}H$		35.61	539.2	DSC	[1988ROY/FLY]
$C_{17}H_{21}NO_4$	[50-36-2]	cocaine				
	$\Delta_{sub}H$		127.2		GS	[1996ZIE/EIK]
	$\Delta_{sub}H$	(294–314)	112.3 ± 2.8	304	GS	[1984LWA/ELI]
$C_{17}H_{21}NO_6$	[146607-85-4]	3-(3-nitro-4-methoxybenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	$\Delta_{fus}H$		32.36	426.9	DSC	[1992TER/PAU]
$C_{17}H_{21}N_3O_2$	[na]	2,2′-[[3-methyl-4-(phenylazo)phenyl]imino]*bis*-ethanol				
	$\Delta_{fus}H$		31.9	384.2		[1988BAU/PER]
$C_{17}H_{22}N_2O_6$	[76035-96-6]	(*l*)-menthyl 3,5-dinitrobenzoate				
	$\Delta_{fus}H$		34.4	427.2	DTA	[1981CHI/GAR]
$C_{17}H_{22}N_2O_6$	[80124-31-8]	(*dl*)-menthyl 3,5-dinitrobenzoate				
	$\Delta_{fus}H$		30.6	401.2	DTA	[1981CHI/GAR]
$C_{17}H_{22}O_3$	[115969-40-9]	3-(4-methylbenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	$\Delta_{fus}H$		30.07	468.2	DSC	[1993TER/BOU]
$C_{17}H_{22}O_3S$	[145918-70-3]	*p*-(1R,3S)-3-thianisoyl-1,2,2-trimethylcyclopentanecarboxylic acid				
	$\Delta_{fus}H$		23.56	393.7	DSC	[1994TER/CAS, 1993RAM/BOU]
$C_{17}H_{23}NO_3$	[172589-28-5]	3-[(hydroxyimino)phenylmethyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester				
	$\Delta_{fus}H$		33.8	422	DSC	[1995NUR/LEL]
$C_{17}H_{23}NO_3$	[51-55-8]	α-(hydroxymethyl)-benzene acetic acid, (3-*endo*)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester (atropine)				
	$\Delta_{fus}H$		35.5	388.5	DSC	[2009DOM/POB]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{17}H_{23}NO_4$	[146607-86-5]	3-(4-methoxy-3-aminobenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	$\Delta_{fus}H$		41.32	498.6	DSC	[1992TER/PAU]
$C_{17}H_{24}O_2$	[6284-35-1]	menthyl benzoate				
	Δ_vH	(396–574)	69.9	411	A	[1987STE/MAL, 1947STU]
$C_{17}H_{26}N_2O$	[84057-95-4]	N-(2,6-dimethylphenyl)-1-propyl-2-piperidinecarboxamide				
	$\Delta_{fus}H$		44.5	414.2	DSC	[1997NEM/ACS]
$C_{17}H_{26}O_3$	[na]	3-decyloxybenzoic acid				
	$\Delta_{fus}H$		33.88	345.1		[2001LAI/LEE]
$C_{17}H_{27}NO_2$	[93413-69-5]	1-[2-(dimethylamino)-1-(4-methoxyphenyl)ethyl]cyclohexanol (venlafaxine)				
	$\Delta_{fus}H$ *(I)*		27.2	348.1	DSC	
	$\Delta_{fus}H$ *(II)*		26.4	349.7	DSC	
	$\Delta_{fus}H$ *(III)*		24.4	351.3	DSC	[2009VAN/WES]
$C_{17}H_{27}N_3O_3$	[83963-52-4]	1-decyl-3-(4-nitrophenyl) urea				
	$\Delta_{fus}H$		37.92	390.6	DSC	[1993TIE/FRA]
$C_{17}H_{28}$	[6742-54-7]	undecylbenzene				
	Δ_vH	(313–364)	82.4 ± 0.4	298	GS	[2006VER]
	Δ_vH	(450–622)	66.7	465		[1999DYK/SVO]
	Δ_vH		84.7	298		[1971WIL/ZWO]
$C_{17}H_{28}N_2OS$	[373642-33-2]	N-[(3-methoxyphenyl)methyl]-N′-octylthiourea				
	$\Delta_{fus}H$		37.94	350.7	DSC	[2002ABB/WOH]
$C_{17}H_{28}O$	[56103-67-4]	4-methyl-2,6-di-*tert*-pentylphenol				
	Δ_vH	(438–556)	65.9	453	A	[1987STE/MAL]
$C_{17}H_{28}O_2$	[55095-35-7]	1,3-dimethoxy-2-nonylbenzene				
	Δ_vH	(443–509)	79.2	458	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{17}H_{28}O_4$	[3220-58-4]	dicyclohexyl glutarate				
	Δ_vH	(341–370)	101.1 ± 0.8	298	GS	[2008LIP/KRA]
$C_{17}H_{32}$	[26186-00-5]	1-heptadecyne				
	Δ_vH	(438–607)	62.7	453		[1999DYK/SVO]
$C_{17}H_{32}$	[61847-96-9]	2-heptadecyne				
	Δ_vH	(446–619)	63.7	461		[1999DYK/SVO]
$C_{17}H_{32}$	[61886-63-3]	3-heptadecyne				
	Δ_vH	(438–607)	62.5	453		[1999DYK/SVO]
$C_{17}H_{32}Cl_4$	[93479-16-4]	1,1,1,17-tetrachloroheptadecane				
	Δ_vH	(351–418)	108	366	A	[1987STE/MAL]
$C_{17}H_{32}O$	[3661-77-6]	cycloheptadecanone				
	$\Delta_{sub}H$		75.7			[1938WOL/WEG, 1960JON, 1970COX/PIL]
$C_{17}H_{32}O_2$	[5637-97-8]	oxa-2-cyclotetradecanone				
	Δ_vH	(403–463)	73.5	418	A	[1987STE/MAL]
$C_{17}H_{32}O_2$	[21643-42-5]	tetradecyl acrylate				
	Δ_vH	(458–601)	69.4	473	A	[1987STE/MAL]
$C_{17}H_{32}O_2$	[35835-77-9]	(Z) 9-pentadecenyl acetate				
	Δ_vH	(363–408)	93.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[64437-41-8]	(E) 9-pentadecenyl acetate				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(363–408)	94.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[64437-43-0] (Z) 10-pentadecenyl acetate					
	$\Delta_v H$	(363–408)	94.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[64437-45-2] (E) 10-pentadecenyl acetate					
	$\Delta_v H$	(363–408)	94.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[35153-25-4] (Z) 11-pentadecenyl acetate					
	$\Delta_v H$	(363–408)	94.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[40535-40-8] (E) 11-pentadecenyl acetate					
	$\Delta_v H$	(363–408)	94.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[70711-45-4] (Z) 12-pentadecenyl acetate					
	$\Delta_v H$	(363–408)	95.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[73304-17-3] (E) 12-pentadecenyl acetate					
	$\Delta_v H$	(363–408)	94.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[70711-46-5] (Z) 13-pentadecenyl acetate					
	$\Delta_v H$	(363–408)	95.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[na] (E) 13-pentadecenyl acetate					
	$\Delta_v H$	(363–408)	95.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[1120-25-8] methyl Z 9-hexadecenoate					
	$\Delta_v H$		96.4 ± 0.7	298	CGC	[2007LIP/KAP]
$C_{17}H_{32}O_2$	[na] methyl Z 10-heptadecenoate					
	$\Delta_v H$		100.8	298	CGC	[2007LIP/KAP]
$C_{17}H_{32}O_3$	[1725-00-4] 1,8-dioxa-9-cyclononadecanone					
	$\Delta_v H$	(403–463)	77.0	418	A	[1987STE/MAL]
$C_{17}H_{32}O_4$	[2917-73-9] dibutyl nonadioate					
	$\Delta_v H$	(313–450)	88.4	328	A	[1987STE/MAL]
$C_{17}H_{32}O_5$	[na] nonyl[1-(butoxycarbonyl)ethyl]carbonate					
	$\Delta_v H$	(420–534)	73.8	435	A	[1987STE/MAL]
$C_{17}H_{33}N$	[5399-02-0] heptadecanonitrile					
	$\Delta_v H$	(348–385)	98.9 ± 0.4	298	GS	[2005EME/VER]
	$\Delta_v H$	(425–620)	81.2	440	A	[1987STE/MAL]
$C_{17}H_{33}NO_3$	[71448-29-8] N-tetradecanyl-(*l*)-alanine					
	$\Delta_{fus}H$		52.3	367.1	DSC	[1986MIY/MAT]
$C_{17}H_{33}NO_3$	[na] N-dodecanoyl-(*l*)-valine					
	$\Delta_{fus}H$		33.1	380.1	DSC	[1986MIY/MAT]
$C_{17}H_{33}NO_3$	[na] N-dodecyl-(*dl*)-valine					
	$\Delta_{fus}H$		64.4	364.6	DSC	[1986MIY/MAT]
$C_{17}H_{34}$	[5634-30-0] dodecylcyclopentane					
	$\Delta_v H$	(450–619)	68.0	465		[1999DYK/SVO]
	$\Delta_v H$		85.5	298		[1971WIL/ZWO]
$C_{17}H_{34}$	[54105-66-7] undecylcyclohexane					
	$\Delta_v H$	(450–622)	67.0	465		[1999DYK/SVO]
	$\Delta_v H$		84.6	298		[1971WIL/ZWO]
$C_{17}H_{34}$	[6765-39-5] 1-heptadecene					

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(598–746)	55.5	613		[1999DYK/SVO]
	$\Delta_v H$	(376–432)	72.3	391	A	[1987STE/MAL]
	$\Delta_v H$		84.9	298		[1971WIL/ZWO]
$C_{17}H_{34}$	[295-97-6]	cycloheptadecane				
	$\Delta_{sub}H$		66.1 ± 0.6			[1957VAN, 1970COX/PIL]
$C_{17}H_{34}O$	[2922-51-2]	2-heptadecanone				
	$\Delta_v H$	(402–593)	77.0	417	A	[1987STE/MAL, 1947STU]
$C_{17}H_{34}O$	[6064-42-2]	7-heptadecanone				
	$\Delta_v H$		94.5 ± 1.8	298	CGC	[2006PER/CON]
$C_{17}H_{34}O$	[540-08-9]	9-heptadecanone				
	$\Delta_{fus}H$		66.68	323.9		[1993VIL/HAM]
	$\Delta_v H$	(439–482)	78.3	454	A, ME	[1987STE/MAL, 1938UBB]
$C_{17}H_{34}O_2$	[112-39-0]	methyl hexadecanoate (methyl palmitate)				
	$\Delta_{fus}H$		58.1	302.2		
	$\Delta_{fus}H$		56.0	305.2		[2003NIK/MAR, 2004CHI/ZHA]
	$\Delta_{fus}H$		68.16	307.2		[1993ACR]
	$\Delta_{sub}H$	(291–301)	152.3 ± 2	296	ME	[1965DAV/KYB, 1987STE/MAL]
	$\Delta_v H$		93.4	350		[2002VAN/VAN]
	$\Delta_v H$		83.3 ± 0.4	397		[2002VAN/VAN]
	$\Delta_v H$		96.8 ± 0.6	298		[2002VAN/VAN]
	$\Delta_v H$	(463–523)	96.4	298	GC	[1997KRO/VEL]
	$\Delta_v H$	(433–473)	93.2	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(453–543)	78.2	498	GC	[1993HUS/SAR]
	$\Delta_v H$	(287–322)	U 69.6	302	A	[1987STE/MAL]
	$\Delta_v H$	(411–543)	82.4	426	A	[1987STE/MAL, 1963ROS/SCH]
	$\Delta_v H$	(378–445)	82.6	393	MG,OM	[1952SCO/MAC]
	$\Delta_v H$	(422–475)	71.4	437		[1948BON/ATH]
$C_{17}H_{34}O_2$	[110-27-0]	isopropyl tetradecanoate				
	$\Delta_v H$	(413–466)	70.2	428	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{17}H_{34}O_2$	[14303-70-9]	propyl tetradecanoate				
	$\Delta_v H$	(420–474)	71.3	435	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{17}H_{34}O_2$	[506-12-7]	heptadecanoic acid				
	$\Delta_{trs}H$		7.5	331.2		
	$\Delta_{fus}H$		46.5	333.5	DSC	[2007GBA/NEG, 2008GBA/NEG]
	$\Delta_{trs}H$		7.44	329.2		
	$\Delta_{fus}H$		51.33	334.3		[1996DOM/HEA]
	$\Delta_{fus}H$		51.9	333		[1976BER/BER]
	$\Delta_{sub}H$	(280–302)	151		TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$	(291–316)	168		TPTD	[2001CHA/TOB]
	Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods					
	$\Delta_v H$	(449–637)	100.7	464	A	[1987STE/MAL]
	$\Delta_v H$	(357–382)	112.7 ± 2.0	372	ME, TE	[1982DEK/SCH]
$C_{17}H_{34}O_3$	[1323-03-1]	tetradecyl lactate				
	$\Delta_v H$	(388–608)	86.4	403	A	[1987STE/MAL]
$C_{17}H_{35}Br$	[3508-00-7]	1-bromoheptadecane				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(472–673)	71.6	487	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{17}H_{35}Cl$	[62016-75-5]	1-chloroheptadecane				
	$\Delta_v H$		103.6	298		[2006BOL/NER2]
	$\Delta_v H$	(450–673)	73.2	465	A, E	[1987STE/MAL, 1970DYK/VAN, 1961LI/ROS]
$C_{17}H_{35}F$	[1545-17-1]	1-fluoroheptadecane				
	$\Delta_v H$	(437–623)	68.4	452	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{17}H_{35}I$	[26825-83-2]	1-iodoheptadecane				
	$\Delta_v H$	(517–673)	104.7	298	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	$\Delta_v H$	(517–673)	73.0	532	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{17}H_{35}NO$	[7388-58-1]	N-methyl hexadecanamide				
	$\Delta_{sub}H$	(345–355)	144.5 ± 0.8	350	GS	[1959DAV/JON, 1987STE/MAL]
$C_{17}H_{35}NO_2$	[96945-44-7]	N-tetradecyllactamide				
	$\Delta_v H$	(413–491)	107.5	428	A	[1987STE/MAL]
$C_{17}H_{36}$	[629-78-7]	heptadecane				
	$\Delta_{trs}H$		10.8	284.2		
	$\Delta_{fus}H$		39.4	294.7	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		10.96	284.3		
	$\Delta_{fus}H$		40.17	295.1		[1996DOM/HEA]
	$\Delta_{sub}H$		125.1	298		[1972MOR3]
	$\Delta_{sub}H$	(288–293)	131.3 ± 13	290	ME	[1949BRA/SHE, 1960JON]
	$\Delta_v H$		86.5	298		[1994RUZ/MAJ]
	$\Delta_v H$	(289–320)	91.1	304	A	[1987STE/MAL]
	$\Delta_v H$	(488–577)	62.9	503	A	[1987STE/MAL]
	$\Delta_v H$		86.0 ± 0.8	298	C	[1972MOR]
	$\Delta_v H$		86.2	298		[1971WIL/ZWO]
	$\Delta_v H$	(445–470)	71.6	457	ME	[1938UBB]
$C_{17}H_{36}$	[1560-92-5]	2-methylhexadecane				
	$\Delta_v H$	(428–569)	63.5	443	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[6418-43-5]	3-methylhexadecane				
	$\Delta_v H$	(428–567)	63.4	443	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[25117-26-4]	4-methylhexadecane				
	$\Delta_v H$	(420–567)	58.7	435	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[25117-34-4]	5-methylhexadecane				
	$\Delta_v H$	(422–566)	59.8	437	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[2882-97-5]	2,3-dimethylpentadecane				
	$\Delta_v H$	(424–569)	60.6	439	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[61868-07-3]	2,4-dimethylpentadecane				
	$\Delta_v H$	(419–546)	65.2	434	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[101791-53-1]	2,4,6-trimethyltetradecane				
	$\Delta_v H$	(411–534)	64.5	426	A	[1987STE/MAL]
$C_{17}H_{36}$	[93816-24-1]	4,4-dipropylundecane				
	$\Delta_v H$		78.0 ± 1.8	298	CGC	[1995CHI/HES]
$C_{17}H_{36}O$	[1454-85-9]	1-heptadecanol				
	$\Delta_{fus}H$		63.06	327.3		[2003VAN/VAN]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
		Note: The enthalpy of fusion value includes the enthalpy of solid-to-solid transition that occurs at 323.2 K				
	$\Delta_{fus}H$		37.0	326.6	DSC	[2004VEN/CAL]
	$\Delta_{trs}H$		25.2	323.6		
	$\Delta_{fus}H$		37.0	326.6		[2002VEN/RAM]
	$\Delta_{sub}H$		169.5 ± 2.2			[1965DAV/KYB, 1970COX/PIL]
	$\Delta_{v}H$		112.5 ± 0.5	298	CGC	[2006NIC/KWE]
	$\Delta_{v}H$	(460–620)	78.3	475	A	[1987STE/MAL]
	$\Delta_{v}H$	(473–623)	75.9	488	A	[1987STE/MAL]
$C_{17}H_{36}O$	[103385-34-8]	4-heptadecanol				
	$\Delta_{fus}H+\Delta_{trs}H$		35.7	311.5	DSC	[2006NIC/KWE]
$C_{17}H_{36}O$	[112283-13-3]	6-heptadecanol				
	$\Delta_{fus}H+\Delta_{trs}H$		49.0	315.8	DSC	[2006NIC/KWE]
	$\Delta_{v}H$		108.6 ± 1.0	298	CGC	[2006NIC/KWE]
$C_{17}H_{36}O$	[93658-33-4]	7-heptadecanol				
	$\Delta_{fus}H+\Delta_{trs}H$		28.8	314.4	DSC	[2006NIC/KWE]
	$\Delta_{v}H$		108.2 ± 0.8	298	CGC	[2006NIC/KWE]
$C_{17}H_{36}O$	[624-08-8]	9-heptadecanol				
	$\Delta_{fus}H+\Delta_{trs}H$		43.2	330.2	DSC	[2006NIC/KWE]
	$\Delta_{v}H$		108.5 ± 0.4	298	CGC	[2006NIC/KWE]
$C_{17}H_{36}O_2$	[66577-59-1]	1,17-heptadecanediol				
	$\Delta_{trs}H$		34.9	98.4		
	$\Delta_{fus}H$		30.8	367.3	DSC	[1999OGA/NAK]
$C_{17}H_{36}O_2S$	[79768-75-5]	3-(tetradecylthio)-1,2-propanediol				
	$\Delta_{trs}H$		16.3	302.5		
	$\Delta_{fus}H$		26.8	336.4	DSC	[1993ACR]
$C_{17}H_{36}O_3$	[1561-06-4]	3-(tetradecyloxy)-1,2-propanediol				
	$\Delta_{fus}H$		62.1	331.3	DSC	[1993ACR]
$C_{17}H_{36}S$	[53193-22-9]	1-heptadecanethiol				
	$\Delta_{v}H$	(481–657)	74.6	496		[1999DYK/SVO]
$C_{17}H_{37}N$	[4200-95-7]	heptadecylamine				
	$\Delta_{v}H$	(522–636)	68.2	537	A	[1987STE/MAL, 1956MAN2]
$C_{17}H_{37}NO_2$	[111953-19-6]	3-(tetradecylamino)-1,2-propanediol				
	$\Delta_{fus}H$		64.9	356.2	DSC	[1993ACR]
$C_{18}H_{10}$	[65513-20-4]	benzo[3,4]cyclobuta[1,2-a]biphenylene ([3]phenylene)				
	$\Delta_{sub}H$		115.1 ± 0.8			[2000BEC/FAU]
$C_{18}H_{10}$	[203-12-3]	benzo[ghi]fluoranthene				
	$\Delta_{trs}H$		5.35	402.8		
	$\Delta_{trs}H$		0.88	402.1		
	$\Delta_{trs}H$		0.44	352.7		
	$\Delta_{fus}H$		11.8	424		[1980SMI]
$C_{18}H_{10}BrNO_3$	[10319-14-9]	2(4-bromo-3-hydroxy-2-quinolinyl)-1*H*-indene-1,3(2*H*)-dione (C. I. disperse yellow 64)				
	$\Delta_{sub}H$	(483–523)	130.6	498		[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{10}Cl_2O_2S_2$	[2379-74-0]	6-chloro-2-(6-chloro-4-methyl-3-oxobenzo[b]thien-2(3*H*)-ylidine)-4-methyl-benzo[b]thiophen-3(2*H*)-one (C.I. Vat Red 1)				
	$\Delta_{sub}H$	(519–634)	148	577	GS	[1986NIS/AND]
$C_{18}H_{10}Cl_2O_2S_2$	[5462-29-3]	5-chloro-2-(5-chloro-7-methyl-3-oxobenzo[b]thien-2(3*H*)-ylidine)-7-methyl-benzo[b]thiophen-3(2*H*)-one (C.I. Vat Violet 2)				
	$\Delta_{sub}H$	(519–634)	93.0	577	GS	[1986NIS/AND]
$C_{18}H_{10}O_2$	[2498-66-0]	1,2-benzanthra-9,10-quinone				
	$\Delta_{sub}H$		82.8 ± 4.0			[1956MAG, 1970COX/PIL]
$C_{18}H_{10}O_2$	[1090-13-7]	5,12-tetracenequinone				
	$\Delta_{sub}H$		108.8 ± 5.0			[1956MAG, 1970COX/PIL]
$C_{18}H_{10}O_4$	[1785-52-0]	6,11-dihydroxy-5,12-naphthacenedione				
	$\Delta_{sub}H$	(426–446)	144.2 ± 1.4	436	ME	[1998OJA/SUU]
$C_{18}H_{11}NO_2$	[7496-02-8]	6-nitrochrysene				
	$\Delta_{fus}H$		28.4	486.6	DSC	[2010KES/AUC]
$C_{18}H_{11}NO_3$	[7576-65-0]	2-(3-hydroxy-2-quinolinylidene)-indeno-1,3-dione (Disperse yellow 54)				
	$\Delta_{fus}H$		30.89	539.2		[1991BAU/WEB]
	$\Delta_{sub}H$		125.2 ± 0.4		LE	[1998PRI/HAW]
	$\Delta_{sub}H$	(483–513)	139	498		[1973MCD]
$C_{18}H_{12}$	[92-24-0]	naphthacene (tetracene)				
	$\Delta_{sub}H$	(399–430)	124.8 ± 2.6		ME	[2009OJA/CHE]
	$\Delta_{sub}H$	(386–472)	126.1 ± 9.0	429	ME	[1998OJA/SUU]
	$\Delta_{sub}H$	(313–453)	126.5	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(419–446)	143.7 ± 0.5	298	TE,M	[1980DEK]
	$\Delta_{sub}H$		124.7 ± 4	422	ME	[1967WAK/INO, 1977PED/RYL]
	$\Delta_{sub}H$					[1970COX/PIL]
	$\Delta_{sub}H$	(433–493)	128.8	473	HSA	[1965MOR]
	$\Delta_{sub}H$	(433–483)	132.6	468	HSA	[1964FIE/MAC]
	$\Delta_{sub}H$		117.2	459	ME	[1952INO/SHI, 1960JON]
	$\Delta_{sub}H$		U 92.0	384	ME	[1951INO]
	$\Delta_{sub}H$		124.3			[1951MAG/HAR, 1960JON]
	$\Delta_{v}H$		106.2 ± 3.7	298	CGC	[2008HAN/NUT]
$C_{18}H_{12}$	[56-55-3]	benz[a]anthracene				
	$\Delta_{fus}H$		20.1	433.5	DSC	[2010KES/AUC]
	$\Delta_{fus}H$		21.38	434.3		[1991ACR]
	$\Delta_{sub}H$	(313–453)	115.5	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(330–390)	113.4	345	ME	[1987STE/MAL, 1974MUR/POL]
	$\Delta_{sub}H$		104 ± 2	351	TE	[1983FER/IMP]
	$\Delta_{sub}H$	(283–323)	U 81.3 ± 2.5	303	GS	[1983SON/ZOL]
	$\Delta_{sub}H$	(373–396)	123.3 ± 3	298		[1980DEK]
	$\Delta_{sub}H$	(357–454)	120.5	405	ME	[1967WAK/INO]
	$\Delta_{sub}H$	(377–403)	104.6 ± 4.2	390	ME	[1964KEL/RIC, 1987STE/MAL]
	$\Delta_{sub}H$	(333–393)	119.7	363		[1958HOY/PEP]
	$\Delta_{sub}H$		U 109.2			[1951MAG/HAR, 1960JON]
	$\Delta_{v}H$		105.8 ± 1.9	298	CGC	[2008HAN/NUT]
	$\Delta_{v}H$	(463–525)	96.6 ± 1.4	298	GC	[2006HAF/PAR]
	$\Delta_{v}H$	(343–453)	91.0	398	GC	[1990HIN/BID2]
$C_{18}H_{12}$	[217-59-4]	triphenylene				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		23.0	471.2	DSC	[2010KES/AUC]
	$\Delta_{fus}H$		24.74	471		[1996DOM/HEA]
	$\Delta_{sub}H$	(313–453)	114.5	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(381–406)	126.5 ± 4	298	TE,ME	[1980DEK]
	$\Delta_{sub}H$	(363–468)	107.6	378		[1987STE/MAL]
	$\Delta_{sub}H$	(338–398)	118 ± 4	368		[1958HOY/PEP, 1970COX/PIL]
	$\Delta_{sub}H$		107.1	425	ME	[1967WAK/INO]
	$\Delta_{v}H$		106.1 ± 3.9	298	CGC	[2008HAN/NUT]
	$\Delta_{v}H$	(323–473)	88.5	398	GC	[2002LEI/CHA]
	$\Delta_{v}H$	(535–768)	67.7	550		[1999DYK/SVO]
$C_{18}H_{12}$	[218-01-9]	chrysene				
	$\Delta_{fus}H$		23.6	527	DSC	[2010KES/AUC]
	$\Delta_{trs}H$		3.22	512.2		
	$\Delta_{fus}H$		26.15	531.4	DSC	[1973CAS/VEC]
	$\Delta_{sub}H$	(313–453)	118.8	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$		131 ± 4	298	TE,ME	[1980DEK]
	$\Delta_{sub}H$		117.6 ± 4	400	ME	[1967WAK/INO, 1970COX/PIL]
	$\Delta_{sub}H$	(353–418)	121.4	385		[1958HOY/PEP]
	$\Delta_{sub}H$		117.6			[1951MAG/HAR, 1960JON]
	$\Delta_{v}H$		106.2	298	CGC	[2008ZHA/UNH]
	$\Delta_{v}H$	(463–513)	97.0 ± 1.4	298	GC	[2006HAF/PAR]
	$\Delta_{v}H$	(323–473)	89.6	398	GC	[2002LEI/CHA]
$C_{18}D_{12}$	[1719-03-5]	chrysene - d_{12}				
	$\Delta_{v}H$		106	298	CGC	[2008ZHA/UNH]
$C_{18}H_{12}$	[195-19-7]	benzo[c]phenanthrene (3,4-benzophenanthrene)				
	$\Delta_{fus}H$		15.5	339.2	DSC	[2010KES/AUC]
	$\Delta_{fus}H$		16.32	334.7		[1991ACR]
	$\Delta_{sub}H$		106.3 ± 4.2			[1951MAG/HAR, 1970COX/PIL, 1967WAK/INO]
$C_{18}H_{12}N_2$	[119-91-5]	2,2′-biquinoline				
	$\Delta_{sub}H$	(393–411)	129.5 ± 0.8	402	ME	[1997RIB/MAT3]
	$\Delta_{sub}H$		134.7 ± 1.3	298		[1997RIB/MAT3]
	$\Delta_{sub}H$		96.6 ± 0.9			[1985SKI/PIL]
$C_{18}H_{12}O$	[10435-67-3]	2-phenylindeno[2,1-b]pyran				
	$\Delta_{sub}H$	(394–424)	132.8	409		[1987STE/MAL, 1966GEI/QUI]
$C_{18}H_{12}O_3$	[568-73-0]	1,6-dimethylphenanthro[1,2-b]furan-10,11-dione				
	$\Delta_{fus}H$		22.09	495.4	DSC	[1988HUA/TAN]
$C_{18}H_{13}ClN_2O_3$	[1979-26-7]	2-cyano-6-methoxy-1(2*H*)-quinolinecarboxylic acid, 4-chlorophenyl ester				
	$\Delta_{fus}H$		22.35	374.2	DSC	[2005LIZ/ZAB]
$C_{18}H_{13}FO$	[145532-14-5]	4-ethoxy-4′-fluorodiphenyldiacetylene				
	$\Delta_{fus}H$		33.9	400.2	DSC	[1993JUA/CHE]
$C_{18}H_{13}F_{25}$	[89109-70-6]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorooctadecane				
	$\Delta_{trs}H$		3.3	317.2		
	$\Delta_{fus}H$		21.8	352.2	DSC	[1986RUS/RAB]
$C_{18}H_{13}O_4P$	[99208-50-1]	2-(6-oxido-6*H*-dibenz[c,e] [1,2]oxaphosphorin-6-yl)-1,4-dihydroxyphenylene				
	$\Delta_{fus}H$		41.7	524.1	DSC	[2008FAN/WAN]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{14}$	[84-15-1]	*o*-terphenyl				
	$\Delta_{fus}H$		16.9	327.8	DSC	[1997VER2]
	$\Delta_{fus}H$		17.2	328.4		[1995MUR/PAI]
	$\Delta_{fus}H$		17.2	329.4		[1972CHA/BES]
	$\Delta_{sub}H$	(312–328)	103.0 ± 0.4	298	ME	[2008RIB/SAN6]
	$\Delta_{sub}H$		97 ± 1	298	B	[1979KIM/TAK]
	$\Delta_{v}H$	(335–368)	81.0 ± 0.4	352	GS	[1997VER2]
	$\Delta_{v}H$	(335–368)	84.2 ± 0.4	298	GS	[1997VER2]
	$\Delta_{v}H$	(576–786)	60.5	591	DSC	[1996BAC/GRZ]
	$\Delta_{v}H$	(343–462)	77.6	403		[1989SAS/NGU]
	$\Delta_{v}H$	(462–650)	68.5	477	A	[1987STE/MAL]
$C_{18}H_{14}$	[92-06-8]	*m*-terphenyl				
	$\Delta_{fus}H$		31.0	361.2	DSC	[1997VER2]
	$\Delta_{fus}H$		22.59	360		[1971KAM/MIT]
	$\Delta_{sub}H$	(337–359)	118.6 ± 0.7	298	ME	[2008RIB/SAN6]
	$\Delta_{sub}H$	(329–353)	115.5 ± 1.6	341	T	[1997VER2]
	$\Delta_{sub}H$		118.1 ± 1.6	298		[1997VER2]
	$\Delta_{sub}H$		120 ± 1	298		[1979KIM/TAK]
	$\Delta_{sub}H$	(313–363)	119	338		[1958HOY/PEP]
	$\Delta_{v}H$		97.2 ± 0.3	298	CGC	[2001PUR/CHI]
	$\Delta_{v}H$	(462–691)	76.1	477	A	[1987STE/MAL]
$C_{18}H_{14}$	[92-94-4]	*p*-terphenyl				
	$\Delta_{fus}H$		35.3	482.4	DSC	[1997VER2]
	$\Delta_{trs}H$		1.96	193.6		
	$\Delta_{fus}H$		35.5	486.3		[1988SAI/ATA, 1983CHA, 1991ACR]
	$\Delta_{sub}H$	(373–395)	125.6 ± 0.8	298	ME	[2008RIB/SAN6]
	$\Delta_{sub}H$	(353–383)	116.2 ± 2.4	368	T	[1997VER2]
	$\Delta_{sub}H$		120.4 ± 2.4	298		[1997VER2]
	$\Delta_{sub}H$		113 ± 2	298	B	[1979KIM/TAK]
	$\Delta_{sub}H$		118.4	397	ME	[1967WAK/INO]
	$\Delta_{sub}H$	(333–393)	120.6	363		[1958HOY/PEP]
	$\Delta_{v}H$		101.7	298	CGC	[2008ZHA/UNH]
	$\Delta_{v}H$	(323–473)	79.2	398	GC	[2002LEI/CHA]
	$\Delta_{v}H$	(499–700)	79.2	514	A	[1987STE/MAL]
$C_{18}D_{14}$	[1718-51-0]	*p*-terphenyl - d_{14}				
	$\Delta_{v}H$		101.6	298	CGC	[2008ZHA/UNH]
	$\Delta_{v}H$		99.5 ± 4.4	298	CGC	[2008HAN/NUT]
$C_{18}H_{14}$	[959-02-4]	5,12-dihydrotetracene				
	$\Delta_{sub}H$	(338–398)	115.9 ± 4	368		[1958HOY/PEP, 1970COX/PIL]
	$\Delta_{sub}H$		120.5			[1951MAG/HAR, 1960JON]
$C_{18}H_{14}$	[2175-90-8]	diphenylfulvene				
	$\Delta_{sub}H$		104.6 ± 8.3		E	[1957DAY/OES, 1970COX/PIL]
$C_{18}H_{14}F_4N_2O_4S$	[90357-06-5]	(±) N-[4-cyano-3-(trifluoromethyl)phenyl]-3-[(4-fluorophenyl)-sulfonyl]-2-hydroxy-2-methylpropanamide (bicalutamide)				
	$\Delta_{fus}H$		53.8	469.2	DSC	[2010AND/ABU]
	$\Delta_{fus}H$ *(I)*		47.77	465.2		
	$\Delta_{fus}H$ *(II)*		43.04	462.2		[2006VEG/POL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{14}N_2O_2$	[6334-31-2] 1-benzyloyl-1,2-dihydro-6-methoxy-2-quinolinecarbonitrile					
	$\Delta_{fus}H$		23.11	396	DSC	[2005LIZ/ZAB]
$C_{18}H_{14}N_2O_3$	[1979-24-5] 2-cyano-6-methoxy-1(2*H*)-quinolinecarboxylic acid, phenyl ester					
	$\Delta_{fus}H$		22.88	384	DSC	[2005LIZ/ZAB]
$C_{18}H_{14}N_4O_2$	[21811-64-3] 1,4-*bis*[(4-hydroxphenyl)azo]benzene					
	Δ_vH	(473–533)	68.0	488	A	[1987STE/MAL]
$C_{18}H_{14}O$	[2432-11-3] 2,6-diphenylphenol					
	$\Delta_{sub}H$	(334–363)	116.1 ± 1.1	348	GS	[1998VER5]
	$\Delta_{sub}H$		119.1 ± 1.1	298	GS	[1998VER5]
$C_{18}H_{14}O_3$	[538-56-7] cinnamic anhydride					
	$\Delta_{fus}H$		32.77	321.2		[1991ACR]
$C_{18}H_{14}O_3$	[87205-99-0] 1,2-dihydro-1,6-dimethylphenanthro[1,2-b]furan-10,11-dione					
	$\Delta_{fus}H$		22.22	490.3	DSC	[1988HUA/TAN]
$C_{18}H_{15}ClN_2O_2S$	[202409-33-4] 5-chloro-6′-methyl-3-[4-(methylsulfonyl)phenyl]-2,3′-bipyridine (etoricoxib)					
	$\Delta_{fus}H$		30.43	407.1	DSC	[2008TUN/TAB]
$C_{18}H_{15}F_3O$	[172424-71-4] 4-butoxy-2′,3′,4′-trifluorodiphenylacetylene					
	$\Delta_{fus}H$		36.0	344.4	DSC	[1995HSU/TSA]
$C_{18}H_{15}N$	[603-34-9] triphenylamine					
	$\Delta_{fus}H$		24.89	400.2		[1993ACR]
	$\Delta_{sub}H$	(322–373)	87.9 ± 1.3	337	BG	[1978STE3, 1987STE/MAL]
	Δ_vH	(473–640)	65.2	488	A	[1987STE/MAL, 1949FOR/BOW]
$C_{18}H_{15}NO_2$	[3808-37-5] N-9-anthryldiacetamide					
	Δ_vH	(399–455)	106.3	414	A	[1987STE/MAL]
$C_{18}H_{15}NO_2$	[3808-37-5] 9-diacetylaminoanthracene					
	$\Delta_{sub}H$		106.4		RG	[1958KLO]
$C_{18}H_{15}OP$	[791-28-6] triphenylphosphine oxide					
	$\Delta_{fus}H$		24.22	431.9		[1991ACR]
	$\Delta_{sub}H$		131 ± 2	399	ME,TE	[1989HUI/VAN]
	$\Delta_{sub}H$		66 ± 6	298	B	[1978JOR/AIR]
$C_{18}H_{15}O_3P$	[13291-46-8] (2,5-dihydroxyphenyl) diphenylphosphine oxide					
	$\Delta_{fus}H$		37.26	487.8	DSC	[2010GUO/WAN]
$C_{18}H_{15}O_4P$	[115-86-6] triphenyl phosphate					
	$\Delta_{fus}H$		29.61	322.5		[1991ACR]
	$\Delta_{sub}H$		114.4 ± 2.6	298	B	[1989KIR/DOM]
	Δ_vH	(548–683)	81.4	563	I,A	[1987STE/MAL, 1957DOB/KEL]
$C_{18}H_{15}P$	[603-35-0] triphenylphosphine					
	$\Delta_{fus}H$		19.69	354.4		[1991ACR]
	$\Delta_{sub}H$		113.2 ± 3.0	298		[1988KIR/DOM]
	$\Delta_{sub}H$		109.2 ± 1.1	350		[1984GRI/KON]
	$\Delta_{sub}H$		96.2 ± 8.4	298		[1982PIL/SKI, 1960BED/MOR]
	Δ_vH	(483–660)	71.2	498	A	[1987STE/MAL, 1949FOR/BOW]
	Δ_vH	(364–392)	91.4 ± 2	378	TE,ME	[1981DEK/HER]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{15}PS$	[3878-45-3]	triphenylphosphine sulfide				
	$\Delta_{sub}H$	(388–419)	136.8 ± 6.1	403	HSA	[1996KIR/CHI]
	$\Delta_{sub}H$		142.8 ± 6.8	298		[1996KIR/CHI]
$C_{18}H_{16}F_2$	[109970-65-2]	4-*n*-butyl-3′,4′-difluorodiphenylacetylene				
	$\Delta_{fus}H$		25.3	323.5	DSC	[1995HSU/TSA]
$C_{18}H_{16}N_2O_2$	[na]	*meso* 2,3-dimethoxy-2,3-diphenylsuccinonitrile				
	$\Delta_{fus}H$		25.1	469.7		[1983ZAM/KAI]
$C_{18}H_{16}N_4O_3$	[243445-13-8]	2[4,5-dihydro-4-(4-methylphenyl)-5-oxo-3-(2-pyridinyl)-1,2,4-triazine-6(1*H*)-ylidene]acetic acid, methyl ester				
	$\Delta_{fus}H$		42.8	468.3		[2005SIK/MOD]
$C_{18}H_{16}N_4$	[22119-35-3]	dihydrodibenzotetra-aza-annulene				
	$\Delta_{sub}H$	(443–583)	81.5 ± 6.4	513	T	[1983ZVE/MOT]
$C_{18}H_{16}O_2$	[84-47-9]	2-*tert*-butyl-9,10-anthraquinone				
	$\Delta_{v}H$	(483–523)	101.4	498	A	[1987STE/MAL]
	$\Delta_{v}H$		97.7			[1977SAS/FAL]
$C_{18}H_{16}O_3$	[114390-57-7]	1,8-diphenyl-2,3,5-trioxabicyclo[4.3.0]non-7-ene				
	$\Delta_{fus}H$		21.7	371.2	DSC	[1991JEF/JAB]
$C_{18}H_{16}O_8$	[36063-07-7]	1,2,3,4-tetracarbomethoxynaphthalene				
	$\Delta_{fus}H$		35.9	423.7	DSC	[1993ACR]
$C_{18}H_{16}O_8$	[68267-09-4]	1,2,4,5-tetracarbomethoxynaphthalene				
	$\Delta_{fus}H$		36.4	438.2	DSC	[1993ACR]
$C_{18}H_{16}O_8$	[36063-08-8]	1,2,5,6-tetracarbomethoxynaphthalene				
	$\Delta_{fus}H$		42.1	470.2	DSC	[1993ACR]
$C_{18}H_{16}O_8$	[68267-08-3]	1,2,6,7-tetracarbomethoxynaphthalene				
	$\Delta_{fus}H$		34.2	407.2	DSC	[1993ACR]
$C_{18}H_{16}O_8$	[56110-97-5]	2,3,6,7-tetracarbomethoxynaphthalene				
	$\Delta_{fus}H$		42.2	458.2	DSC	[1993ACR]
$C_{18}H_{16}O_8$	[31996-10-8]	1,4,5,8-tetracarbomethoxynaphthalene				
	$\Delta_{fus}H$		36.1	477.2	DSC	[1993ACR]
$C_{18}H_{17}Cl_2NO_3$	[22212-55-1]	ethyl N-benzoyl-N-(3,4-dichlorophenyl)-(*dl*)-alaninate				
	$\Delta_{fus}H$		27.06	341.7	DSC	[1990DON/DRE]
$C_{18}H_{17}F$	[109970-63-0]	4-*n*-butyl-4′-fluorodiphenylacetylene				
	$\Delta_{fus}H$		18.5	329.9	DSC	[1995HSU/TSA]
$C_{18}H_{17}FO$	[130746-61-1]	4-butoxy-4′-fluorodiphenylacetylene				
	$\Delta_{fus}H$		25.4	346.7	DSC	[1995HSU/TSA]
$C_{18}H_{17}NO_3$	[483362-79-4]	1-[(4-nitrophenyl)ethynyl]-4-butoxybenzene				
	$\Delta_{fus}H$		21.84	374.7	DSC	[2002SPA/DZI]
$C_{18}H_{17}NO_5$	[53902-12-8]	2-[[3-(3,4-dimethoxyphenyl)-1-oxo-2-propenyl]amino]benzoic acid (tranilast)				
	$\Delta_{fus}H$		48.87	486.4		[2005VOG/COH]
$C_{18}H_{18}$	[18801-00-8]	2-(*tert*-butyl)anthracene				
	$\Delta_{v}H$	(323–473)	84.5	398	GC	[2002LEI/CHA]
$C_{18}H_{18}$	[1498-69-7]	9-butylanthracene				
	$\Delta_{sub}H$	(293–313)	108.1	303	A	[1987STE/MAL, 1964MOR]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(422–492)	77.1	437	A	[1987STE/MAL]
	$\Delta_v H$	(328–373)	83.9	343	A	[1987STE/MAL, 1964MOR]
$C_{18}H_{18}$	[483-65-8]	1-methyl-7-isopropylphenanthrene				
	$\Delta_{fus}H$		18.03	369		[1996DOM/HEA]
	$\Delta_v H$	(539–678)	54.0	554	A	[1987STE/MAL]
$C_{18}H_{18}$	[7396-38-5]	2,4,5,7-tetramethylphenanthrene				
	$\Delta_{sub}H$		114.2 ± 1.7		ME	[1965MCD/KIL, 1970COX/PIL]
$C_{18}H_{18}$	[7343-06-8]	3,4,5,6-tetramethylphenanthrene				
	$\Delta_{sub}H$		133.5 ± 3.8		ME	[1965MCD/KIL, 1970COX/PIL]
$C_{18}H_{18}ClNS$	[113-59-7]	3-(2-chloro-9*H*-thioxanthen-9-ylidene)-N,N-dimethyl-1-propanamine (2-chlorprothixene)				
	$\Delta_{fus}H$		27.82	370.3		[1996DOM/HEA]
	$\Delta_{fus}H$		28.9	370.5	DTA	[1983MAS/CHA]
$C_{18}H_{18}F_3N_3O_3$	[15168-05-9]	3-{3,5-dimethyl-4-[3-(3-methylisoxazol-5-yl)propoxy]phenyl}-5-trifluoromethyl[1,2,4]oxodiazole (pleconaril)				
	$\Delta_{fus}H$ *(I)*		29.3	336.5		
	$\Delta_{fus}H$ *(II)*		32.7	333.4	DSC	[2004COS/SCH]
$C_{18}H_{18}N_2O_2$	[na]	N,N′-(2-hydroxyethyl)-1,4-diaminoanthraquinone				
	$\Delta_{fus}H$		32.34	521.2		[1988BAU/PER]
$C_{18}H_{18}O_2$	[19672-37-8]	3-diphenylmethyl-2,4-pentanedione				
	$\Delta_{fus}H$		27.02	387.2		[1995NOL/VER]
	$\Delta_{sub}H$	(348–383)	112.8 ± 0.4	366	T	[1995NOL/VER]
$C_{18}H_{18}O_3$	[na]	butyl 9-hydroxy-9*H*-fluorene-9-carboxylate				
	$\Delta_{fus}H$		25.56	343.9		[1991ACR]
$C_{18}H_{18}O_4$	[25062-95-7]	2,2′-diphenyl-bi-(1,3-dioxolan-2-yl)				
	$\Delta_{fus}H$		32.1	456.1		[1995VER/DOG]
	$\Delta_{sub}H$	(320–362)	132.8 ± 2.1	341	T	[1995VER/DOG]
$C_{18}H_{18}O_{12}$	[6237-59-8]	hexamethoxycarbonylbenzene				
	$\Delta_{fus}H$		22.5	463.7	DSC	[1978DOZ/FUJ]
	$\Delta_{sub}H$	(403–422)	140.7 ± 1.1	413	ME	[1995JIM/MEN]
	$\Delta_{sub}H$		154.3 ± 1.2	298		[1995JIM/MEN]
$C_{18}H_{19}BrO$	[556052-88-1]	4-bromo-4′-(5-hexenyloxy)-1,1′-biphenyl				
	$\Delta_{trs}H$		13.8	308.2		
	$\Delta_{fus}H$		16.0	393.9	DSC	[2003WIL/VAN]
$C_{18}H_{19}ClN_4$	[5786-21-0]	8-chloro-11-(4-methyl-1-piperazinyl)-5*H*-dibenzo[b,e] [1,4]diazepine (clozapine)				
	$\Delta_{fus}H$		35.9	457.1	DSC	[2006WAS/HOL]
$C_{18}H_{19}Cl_2NO_4$	[72509-76-3]	(±) ethyl methyl 1,4-dihydro-2,6-dimethyl-4-(2,3-dichlorophenyl)-3,5-pyridine dicarboxylate (felodipine)				
	$\Delta_{fus}H$ *(I)*		31.5	417.4		
	$\Delta_{fus}H$ *(II)*		26.7	405.7		[2001ROL/BUR]
	$\Delta_{fus}H$		34.8	412.3		[2007BER/WAS]
	$\Delta_{fus}H$		35.21	414.9	DSC	[1992SRC/KER]
$C_{18}H_{19}Cl_2NO_4$	[119945-59-4]	(+) ethyl methyl 1,4-dihydro-2,6-dimethyl-4-(2,3-dichlorophenyl)-3,5-pyridine dicarboxylate (felodipine)				
	$\Delta_{fus}H$		25.4	415.7		[2001ROL/BUR]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{19}N$	[na]	(S) 4-(2-methylbutyl)-4′-cyanobiphenyl				
	$\Delta_{fus}H$		10.7	276		[1999MAY/WIT]
		Note: Compound may have phase transitions at lower temperatures.				
$C_{18}H_{19}NO_4$	[483362-68-1]	2-(4-nitrophenyl)-1-(4-butoxyphenyl)ethanone				
	$\Delta_{fus}H$		24.94	336.1	DSC	[2002SPA/DZI]
$C_{18}H_{20}$	[2913-24-8]	[3.3]para-cyclophane				
	$\Delta_{trs}H$		7.36	332		
	$\Delta_{trs}H$		0.46	351		
	$\Delta_{fus}H$		11.76	377		[1969SHI/MCN]
	$\Delta_{sub}H$	(322–343)	103.3 ± 1	332	ME	[1969SHI/MCN, 1977PED/RYL]
	$\Delta_{sub}H$	(321–343)	97.8	332	A	[1987STE/MAL]
$C_{18}H_{20}$	[115181-05-0]	6-(4-biphenyl)-1-hexene				
	$\Delta_{fus}H$		15.1	274.5	DSC	[1989MAL/KAN]
$C_{18}H_{20}BrN_5O_5$	[191355-38-1]	8-bromo-(R)-7-[2-hydroxy-3-(4-acetylamino)-fenoxypropyl]-1,3-dimethylxanthine				
	$\Delta_{fus}H$		37.8	492.2	DSC	[2000DAN/PRO]
$C_{18}H_{20}Cl_2$	[72-56-0]	1,1′-(2,2-dichloroethylidene)*bis*(4-ethylbenzene)				
	$\Delta_{fus}H$		23.34	331.6	DSC	[1991ACR, 1990DON/DRE]
$C_{18}H_{20}N_2O_2$	[3955-57-5]	N,N′-*bis*(salicylaldehydo)tetramethylenediimine				
	$\Delta_{fus}H$		35.54	362.8	DSC	[2004RIB/GON]
	$\Delta_{sub}H$	(349–361)	165.1 ± 3.1	298	ME	[2004RIB/GON]
$C_{18}H_{20}N_2O_4$	[na]	diethyl 2,4,6,8-tetrahydro-4,8-ethanobenzo[1,2-c:4,5-c′]dipyrrole-1,7-dicarboxylate				
	$\Delta_{fus}H$		18.2	439.3		[2000UNO/ITO]
$C_{18}H_{20}N_2O_4$	[54946-24-6]	N-pentylthalidomide				
	$\Delta_{fus}H$		23.97	378.2	DTA	[2002GOO/LAI]
$C_{18}H_{20}N_2O_6$	[na]	3-ethyl-5-methyl-1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylate ((RS)-nitrendipine)				
	$\Delta_{fus}H$		41.1	430.7		[1997BUR/ROL]
$C_{18}H_{20}N_6O_7$	[191355-39-2]	8-nitro-(R)-7-[2-hydroxy-3-(4-acetylamino)-fenoxypropyl]-1,3-dimethylxanthine				
	$\Delta_{fus}H$		56.8	481.2	DSC	[2000DAN/PRO]
$C_{18}H_{20}OS$	[556052-90-5]	4′-(5-hexenyloxy)-[1,1′-biphenyl]-4-thiol				
	$\Delta_{trs}H$		11.6	358.4		
	$\Delta_{fus}H$		13.6	384.6	DSC	[2003WIL/VAN]
$C_{18}H_{20}O_2$	[56-53-1]	diethylstilbestrol				
	$\Delta_{fus}H$		31.76	443.8	DSC	[1990DON/DRE]
$C_{18}H_{20}O_2$	[100923-74-8]	(2-hydroxyl-4,6-dimethylphenyl)-2,4,6-trimethylphenylmethanone				
	$\Delta_{fus}H$		0.84	380.2	DTA	[1989SAL/ABA]
		Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent				
$C_{18}H_{20}O_4$	[na]	2-hydroxy-4-butoxy-4′-methoxybenzophenone				
	$\Delta_{fus}H$		33.7	345.6	DSC	[1999PRI/HAWN]
	$\Delta_{sub}H$		126.3		B	[1999PRI/HAWN]
$C_{18}H_{21}N$	[na]	N-benzyl-pivalophenone imine				
	$\Delta_{fus}H$		27.86	339.6		[1997VER/MOR]
	$\Delta_{sub}H$		109.7 ± 3.3	298	B	[1997VER/MOR]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{21}NO$	[97402-82-9]	(E)-N-(4-methoxybenzylidene)-4-butylaniline				
	$\Delta_{sub}H$		na			[1989KRE/AZA]
$C_{18}H_{21}NO_3$	[76-57-3]	7,8-didehydro-4,5-epoxy-3-methoxy-17-ethylmorphanan-6-ol (codeine)				
	$\Delta_{fus}H$		23.81	430.3		[1995YAN/YIN]
	$\Delta_{fus}H$		18.28	428.2	DTA	[1988ROY/FLY]
$C_{18}H_{21}N_3S$	[69186-17-0]	N-(diethylaminothiocarbonyl)-N′-phenylbenzamidine				
	$\Delta_{sub}H$		159.4 ± 3.3	298	C	[2004RIB/SAN]
$C_{18}H_{21}N_5O_5$	[191355-37-0]	(R)-7-[2-hydroxy-3-(4-acetylamino)-fenoxypropyl]-1,3-dimethylxanthine				
	$\Delta_{fus}H$		65.9	477.2	DSC	[2000DAN/PRO]
$C_{18}H_{22}$	[1087-49-6]	1,6-diphenylhexane				
	Δ_vH	(293–373)	88.0	308	A	[1987STE/MAL, 1964MOR]
$C_{18}H_{22}$	[na]	2,2-di(*p*-tolyl)butane				
	Δ_vH	(298–473)	85.4	313		[1999DYK/SVO]
$C_{18}H_{22}$	[na]	1-*p*-tolyl-(1-*p*-propylphenyl)ethane				
	Δ_vH	(298–473)	85.4	313		[1999DYK/SVO]
$C_{18}H_{22}$	[na]	1-*o*-tolyl-*p*-tolylbutane				
	Δ_vH	(298–473)	85.4	313		[1999DYK/SVO]
$C_{18}H_{22}$	[1889-67-4]	2,3-dimethyl-2,3-diphenylbutane				
	$\Delta_{fus}H$		25.52	392	DSC	[1983KRA/BEC]
	$\Delta_{sub}H$	(293–348)	96.7 ± 0.8	320		[1983KRA/BEC]
$C_{18}H_{22}FNO_3$	[34809-52-2]	(R)-deoxyephedrinium (S)-4′-fluoromandelate				
	$\Delta_{fus}H$		27.9	374.5	DSC	[2001VAL/SMI]
$C_{18}H_{22}FNO_3$	[348098-53-3]	(R)-deoxyephedrinium (R)-4′-fluoromandelate				
	$\Delta_{fus}H$		26.6	369.2	DSC	[2001VAL/SMI]
$C_{18}H_{22}FNO_4$	[174966-70-2]	(1R,2S)-ephedrinium (R)-4′-fluoromandelate				
	$\Delta_{fus}H$		37.5	438.3	DSC	[2001VAL/SMI]
$C_{18}H_{22}FNO_4$	[174966-62-2]	(1R,2S)-ephedrinium (S)-4′-fluoromandelate				
	$\Delta_{fus}H$		24.5	380.4	DSC	[2001VAL/SMI]
$C_{18}H_{22}N_2O_2$	[100046-00-2]	2,2′,4,4′,6,6′-hexamethylazobenzene-N,N-dioxide				
	$\Delta_{sub}H$		107 ± 12	298	ME	[1993ACR/TUC2]
$C_{18}H_{22}N_4$	[133930-64-0]	2,3-dimethyl-2,3-*bis*(phenylazo)butane				
	$\Delta_{fus}H$		21.09	342.3		[1993ENG/WAN]
	$\Delta_{sub}H$		113.8 ± 1.8		B	[1993ENG/WAN]
$C_{18}H_{22}N_4$	[na]	*trans, trans*-1,6-diphenyl-3,3,4,4-tetramethyl-1,2,5,6-tetraazahexane				
	Δ_vH	(348–388)	92.8 ± 1.5	368	GS	[1993ENG/WAN]
$C_{18}H_{22}O_2$	[41047-48-7]	(*dl*)-2,3-dimethoxy-2,3-diphenylbutane				
	$\Delta_{sub}H$	(322–355)	114.2 ± 6.3	339		[1990DOG/BEC]
$C_{18}H_{22}O_2$	[na]	(*dl*) anisylidenecamphor				
	$\Delta_{fus}H$		26.36	371.5		[1976LEC/COL]
$C_{18}H_{22}O_2$	[na]	(*d*) anisylidenecamphor				
	$\Delta_{fus}H$		30.12	399.5		[1976LEC/COL]
$C_{18}H_{22}O_2$	[80-43-3]	di-α-cumyl peroxide				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		28.14	312.4		[1996DOM/HEA]
$C_{18}H_{22}O_4$	[39787-30-9] 1,2-diphenyl-1,1,2,2-tetramethoxyethane					
	$\Delta_{fus}H$		20.1	328.5		[1995VER/DOG]
	$\Delta_{sub}H$	(351–399)	77.6 ± 0.6	375	T	[1995VER/DOG]
$C_{18}H_{22}O_4$	[11921-29-1] 4,4′-di-(2-methoxyethoxy)biphenyl					
	$\Delta_{trs}H$		17.53	409.5		
	$\Delta_{fus}H$		22.67	412.4	DSC	[1995BOW/HER]
$C_{18}H_{23}FO_2$	[157396-75-3] 4-*trans*-(4-fluorophenylethyl)cyclohexyl (E)-butenoate					
	$\Delta_{fus}H$		25.0	335.2		[1995KEL/SCH]
$C_{18}H_{24}$	[1610-22-6] 1,2,3,4,4a,7,8,9,10,12,12a-dodecahydrochrysene					
	$\Delta_{sub}H$	(293–313)	115.4	303	A	[1987STE/MAL, 1964MOR]
	Δ_vH	(318–358)	84.2	333	A	[1987STE/MAL, 1947STU]
$C_{18}H_{24}$	[83171-44-2] (E)-9-(bicyclo[4.2.1]non-3-en-9-ylidene)bicyclo[4.2.1]non-3-ene					
	$\Delta_{fus}H$		9.1	441.7	DSC	[1984MAR/MEL]
$C_{18}H_{24}$	[83171-45-3] (Z)-9-(bicyclo[4.2.1]non-3-en-9-ylidene)bicyclo[4.2.1]non-3-ene					
	$\Delta_{fus}H$		27.96	440.8	DSC	[1984MAR/MEL]
$C_{18}H_{24}N_2O_4$	[138516-98-0] (4-nitrophenyl)-10-undecynyl carbamate					
	$\Delta_{fus}H$		53.18	385.4	DSC	[1993TIE/FRA]
$C_{18}H_{24}N_2O_6$	[na] 3-[(hydroxyimino)(4-methoxy-3-nitrophenyl)methyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester					
	$\Delta_{fus}H$		31.99	433		[1995NUR/LEL]
$C_{18}H_{24}O$	[na] (1R,1″R,6S,6″S,9S,9″S)-dispiro(bicyclo[4.2.1]non-3-ene-9,2′-oxirane-3′,9″-bicyclo[4.2.1]non-3-ene)					
	$\Delta_{trs}H$		5.92	354.3		
	$\Delta_{fus}H$		8.19	373.8	DSC	[1984MAR/MEL]
$C_{18}H_{24}O$	[na] (1R,1″R,6S,6″S,9R,9″S)-dispiro(bicyclo[4.2.1]non-3-ene-9,2′-oxirane-3′,9″-bicyclo[4.2.1]non-3-ene)					
	$\Delta_{fus}H$		14.92	333.9	DSC	[1984MAR/MEL]
$C_{18}H_{24}O_3$	[104225-40-3] 3-(4-ethylbenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid					
	$\Delta_{fus}H$		22.54	387.6	DSC	[1992TER/PAU]
$C_{18}H_{24}O_3$	[104225-33-4] 3-(3,4-dimethylbenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid					
	$\Delta_{fus}H$		32.31	460.6	DSC	[1992TER/PAU]
$C_{18}H_{24}O_3$	[104225-36-7] 3-(2,4-dimethylbenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid					
	$\Delta_{fus}H$		18.81	386.8	DSC	[1992TER/PAU]
$C_{18}H_{24}O_4$	[57403-79-7] 3-(4-ethoxybenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid					
	$\Delta_{fus}H$		22.05	394.6	DSC	[1992TER/PAU]
$C_{18}H_{24}O_4$	[84-64-0] butylcyclohexylphthalate					
	Δ_vH	(368–485)	94.3	383	A	[1987STE/MAL]
$C_{18}H_{25}NO_3$	[104225-18-5] 3-[4-(dimethylamino)benzoyl]-1,2,2-trimethylcyclopentanecarboxylic acid					
	$\Delta_{fus}H$		25.03	445	DSC	[1992TER/PAU]
$C_{18}H_{25}NO_4$	[na] 3-[(hydroxyimino)(4-methoxyphenyl)methyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester					
	$\Delta_{fus}H$		36.99	433		[1995NUR/LEL]
$C_{18}H_{26}N_2O_4$	[138516-97-9] (4-nitrophenyl)-10-undecenyl carbamate					
	$\Delta_{fus}H$		43.81	376.4	DSC	[1993TIE/FRA]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{26}O_4$	[606-50-5]	diisopentyl phthalate				
	$\Delta_v H$	(390–610)	81.6	405	A	[1987STE/MAL]
$C_{18}H_{26}O_4$	[131-18-0]	dipentyl phthalate				
	$\Delta_v H$	(323–390)	87.3	338	T	[1949PER/WEB]
	$\Delta_v H$	(303–500)	99.4	318	A, ME	[1987STE/MAL, 1948SMA/SMA]
$C_{18}H_{27}BrN_2O_4$	[138517-07-4]	(4-nitrophenyl)-11-bromoundecyl carbamate				
	$\Delta_{fus}H$		58.56	395.6	DSC	[1993TIE/FRA]
$C_{18}H_{27}IN_2O_4$	[138517-10-9]	(4-nitrophenyl)-11-iodoundecyl carbamate				
	$\Delta_{fus}H$		63.34	399.6	DSC	[1993TIE/FRA]
$C_{18}H_{28}$	[66553-12-6]	1,2,3,4-tetrahydro-6-octylnaphthalene				
	$\Delta_v H$	(503–574)	103.3	538		[1999DYK/SVO]
$C_{18}H_{28}$	[83171-46-4]	(E)-9-(bicyclo[4.2.1]nonan-9-ylidene)bicyclo[4.2.1]nonane				
	$\Delta_{trs}H$		2.68	224.8		
	$\Delta_{fus}H$		9.32	412.4	DSC	[1984MAR/MEL]
$C_{18}H_{28}$	[83171-47-5]	(Z)-9-(bicyclo[4.2.1]nonan-9-ylidene)bicyclo[4.2.1]nonane				
	$\Delta_{trs}H$		10.12	344.4		
	$\Delta_{fus}H$		11.04	393.3	DSC	[1984MAR/MEL]
$C_{18}H_{28}N_2O$	[27262-45-9]	N-(2,6-dimethylphenyl)-1-butyl-2-piperidinecarboxamide				
	$\Delta_{fus}H$		26.25	413.2	DSC	[1997NEM/ACS]
$C_{18}H_{28}O$	[na]	(1R,1″R,6S,6″S,9R,9″R)-dispiro(bicyclo[4.2.1]nonane-9,2′-oxirane-3′,9″-bicyclo[4.2.1]nonane)				
	$\Delta_{trs}H$		9.74	348.5		
	$\Delta_{fus}H$		13.13	444.1	DSC	[1984MAR/MEL]
$C_{18}H_{28}O$	[na]	(1R,1″R,6S,6″S,9R,9″S)-dispiro(bicyclo[4.2.1]nonane-9,2′-oxirane-3′,9″-bicyclo[4.2.1]nonane)				
	$\Delta_{trs}H$		0.72	274.9		
	$\Delta_{fus}H$		6.35	342.5	DSC	[1984MAR/MEL]
$C_{18}H_{28}O_4$	[118476-22-5]	2,5-di-*n*-hexyloxy-1,4-benzoquinone				
	$\Delta_{trs}H$		5.3	332.3		
	$\Delta_{fus}H$		38.9	412.1	DSC	[1996KEE/VAN]
$C_{18}H_{28}S_8$	[106920-28-9]	2-[4,5-*bis*(propylthio)-1,3-dithiol-2-ylidene]-4,5-*bis*(propylthio)-1,3-dithiole				
	$\Delta_{fus}H$		42.7	306.6	AC	[1997TAN/ATA]
$C_{18}H_{29}NO$	[24973-59-9]	2,4,6-tri-*tert*-butylnitrosobenzene				
	$\Delta_{sub}H$		91.0 ± 3.2	298	C	[1995ACR/BOT]
$C_{18}H_{29}NO_2$	[4074-25-3]	2,4,6-tri-*tert*-butylnitrobenzene				
	$\Delta_{fus}H$		19.25	482.8	DSC	[2000VER/HEI]
	$\Delta_{sub}H$	(333–368)	94.8 ± 1.0	351	GS	[2000VER/HEI]
	$\Delta_{sub}H$	(333–368)	96.4 ± 1.0	298	GS	[2000VER/HEI]
	$\Delta_{sub}H$		81.4 ± 1.8	298	C	[1995ACR/BOT]
$C_{18}H_{30}$	[123-01-3]	dodecylbenzene				
	$\Delta_v H$		92	275		[2000MOK/RUZ]
	$\Delta_v H$	(333–453)	83.2	348		[1993KAS/MOK]
	$\Delta_v H$	(496–609)	67.4	511	A	[1987STE/MAL]
	$\Delta_v H$	(336–456)	80.6	356	GS	[1986ALL/JOS]
	$\Delta_v H$		89.6	298		[1971WIL/ZWO]
$C_{18}H_{30}$	[2090-14-4]	perhydrochrysene				
	$\Delta_v H$	(273–353)	82.4	288		[1964MOR]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{30}$	[604-88-6]	hexaethylbenzene				
	$\Delta_{sub}H$	(327–352)	95.0 ± 4.0	340	HSA	[1986CHI/ANN]
	$\Delta_{sub}H$		U 41.3 ± 0.9		DSC	[1984HOL]
	$\Delta_{v}H$	(407–572)	62.6	422	A	[1987STE/MAL, 1947STU]
$C_{18}H_{30}$	[635-11-0]	1,2,4,5-tetraisopropylbenzene				
	$\Delta_{fus}H$		19.6	393		[2002STE/CHI6]
	$\Delta_{v}H$	(410–575)	61.1 ± 0.3	420	EB	[2002STE/CHI6]
	$\Delta_{v}H$	(410–575)	56.8 ± 0.3	460	EB	[2002STE/CHI6]
	$\Delta_{v}H$	(410–575)	52.3 ± 0.5	500	EB	[2002STE/CHI6]
	$\Delta_{v}H$	(410–575)	47.5 ± 0.9	540	EB	[2002STE/CHI6]
$C_{18}H_{30}$	[1460-02-2]	1,3,5-tri-*tert*-butylbenzene				
	$\Delta_{sub}H$	(298–341)	79.9 ± 0.3	319	T	[1998VER]
	$\Delta_{sub}H$		81.2 ± 0.3	298		[1998VER]
	$\Delta_{sub}H$	(273–315)	79.7 ± 0.4	294	ME	[1965DAV/KYB, 1987STE/MAL]
$C_{18}H_{30}$	[2090-14-4]	perhydrochrysene				
	$\Delta_{sub}H$	(273–353)	82.3 (liq)	288	A	[1987STE/MAL, 1964MOR]
$C_{18}H_{30}$	[123-01-3]	1-phenyldodecane				
	$\Delta_{fus}H$		43.1	274.6	DSC	[2000MOK/RUZ]
	$\Delta_{sub}H$		135.1	298		[2000MOK/RUZ]
$C_{18}H_{30}N_4O_2$	[126235-05-0]	8-undecyltheophylline				
	$\Delta_{fus}H$		25.8	433.5	DSC	[1989GON/KRA, 1991ACR]
$C_{18}H_{30}O$	[732-26-3]	2,4,6-tri-*tert*-butylphenol				
	$\Delta_{fus}H$		19.46	405.2		[1991CHI/BRA]
	$\Delta_{sub}H$		87.5 ± 0.4	298	GS	[1999VER]
	$\Delta_{sub}H$	(295–339)	85.6 ± 0.4	317	ME	[1965DAV/KYB, 1987STE/MAL]
	$\Delta_{sub}H$		U 128.1	298	C	[1971BER/GIR, 1999VER]
	$\Delta_{sub}H$	(292–313)	83.9	302		[1960AIH]
	$\Delta_{sub}H$		84.2 ± 0.5	298	V	[1960AIH, 1999VER]
	$\Delta_{v}H$	(415–551)	63.2	430	A	[1987STE/MAL]
$C_{18}H_{30}O_2$	[59968-12-6]	1,3-dimethoxy-4-decylbenzene				
	$\Delta_{v}H$	(443–493)	76.6	458	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{18}H_{30}O_2$	[41442-52-8]	1,3-dimethoxy-5-decylbenzene				
	$\Delta_{v}H$	(459–519)	78.4	474	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{18}H_{30}O_4$	[47189-08-2]	1,4-*bis*(1,1-diethoxyethyl)lbenzene				
	$\Delta_{v}H$	(329–347)	88.5	338	A	[1987STE/MAL]
$C_{18}H_{30}O_4$	[47189-08-2]	4-diacetylbenzene diethyl ketal				
	$\Delta_{trs}H$		1.31	168.2		
	$\Delta_{fus}H$		23.5	326.2		[1996DOM/HEA]
	$\Delta_{sub}H$	(306–327)	112.5	316.5		[1978KAR/KAM, 1987STE/MAL]
$C_{18}H_{30}O_4$	[849-30-4]	dicyclohexyl adipate				
	$\Delta_{v}H$	(338–369)	106.3 ± 1.5	298	GS	[2008LIP/KRA]
$C_{18}H_{30}O_6$	[7568-58-3]	*trans* aconitic acid, tributyl ester				
	$\Delta_{v}H$	(385–483)	87.4	400	A	[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{30}O_6$	[na]	diethylene glycol dicarboxylic acid, di[1-(isopropoxycarbonyl)ethyl] ester				
	$\Delta_v H$	(418–493)	97.6	433	A	[1987STE/MAL]
$C_{18}H_{30}O_6$	[na]	diethylene glycol dicarboxylic acid, di[1-(propoxycarbonyl)ethyl] ester				
	$\Delta_v H$	(418–514)	101.5	433	A	[1987STE/MAL]
$C_{18}H_{31}N$	[961-38-6]	2,4,6-tri-*tert*-butylaniline				
	$\Delta_{fus}H$		19.38	426.4		[2000VER3]
	$\Delta_{sub}H$		92.5 ± 1.1	298	GS	[2000VER3]
$C_{18}H_{32}$	[55133-89-6]	9-butyltetradecahydroanthracene				
	$\Delta_v H$	(420–456)	72.8	435	A	[1987STE/MAL]
$C_{18}H_{32}$	[2456-43-1]	1,2-dicyclohexylcyclohexane				
	$\Delta_v H$	(375–563)	72.8	390	A	[1987STE/MAL]
$C_{18}H_{32}O$	[1604-32-6]	6,10,14-trimethyl-3,5-pentadecadien-2-one				
	$\Delta_v H$	(404–560)	43.4 ± 0.5	482		[1988BAG/GUR]
$C_{18}H_{32}O_2$	[506-21-8]	linoelaidic acid				
	$\Delta_{fus}H$		47.7	303	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19307-18-7]	4-octadecynoic acid				
	$\Delta_{fus}H$		57.94	348	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[676-30-2]	5-octadecynoic acid				
	$\Delta_{fus}H$		54.41	325	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[544-74-1]	6-octadecynoic acid				
	$\Delta_{fus}H$		54.92	324	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-35-0]	7-octadecynoic acid				
	$\Delta_{fus}H$		53.61	322	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-36-1]	8-octadecynoic acid				
	$\Delta_{fus}H$		55.3	320	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[506-24-1]	9-octadecynoic acid				
	$\Delta_{fus}H$		54.87	319	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-39-4]	10-octadecynoic acid				
	$\Delta_{fus}H$		52.32	319	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-40-7]	11-octadecynoic acid				
	$\Delta_{fus}H$		55.97	320	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-41-8]	12-octadecynoic acid				
	$\Delta_{fus}H$		49.79	320	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-42-9]	13-octadecynoic acid				
	$\Delta_{fus}H$		55.51	322	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[34494-26-3]	14-octadecynoic acid				
	$\Delta_{fus}H$		52.74	337	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[34450-17-4]	16-octadecynoic acid				
	$\Delta_{fus}H$		60.1	347	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[34450-18-5]	17-octadecynoic acid				
	$\Delta_{fus}H$		54.2	340	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[112-79-8]	1,10-cyclooctadecanedione				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		11.84	359.2		
	$\Delta_{fus}H$		27.03	371.2		[1972ALV/BOR]
$C_{18}H_{32}O_4$	[na]	1,8-cyclotetradecanedione *bis* ethylene ketal				
	$\Delta_{fus}H$		30.67	457.2		[1972ALV/BOR]
$C_{18}H_{32}O_6$	[38094-11-0]	tributyl 1,2,3-propanetricarboxylate				
	Δ_vH	(385–482)	87.8	400	A	[1987STE/MAL]
$C_{18}H_{34}$	[629-89-0]	1-octadecyne				
	Δ_vH	(450–623)	64.9	465		[1999DYK/SVO]
$C_{18}H_{34}$	[61847-97-0]	2-octadecyne				
	Δ_vH	(458–633)	65.7	473		[1999DYK/SVO]
$C_{18}H_{34}$	[61886-64-4]	3-octadecyne				
	Δ_vH	(449–622)	64.5	464		[1999DYK/SVO]
$C_{18}H_{34}$	[95049-67-5]	1,4-dipentylbicyclo[2.2.2]octane				
	$\Delta_{fus}H$		20.4	261.5		[1999DOU/BOT]
$C_{18}H_{34}$	[1610-23-7]	1,6-dicyclohexylhexane				
	Δ_vH	(288–373)	85.9	303	A	[1987STE/MAL, 1964MOR]
$C_{18}H_{34}O$	[6907-37-5]	cyclooctadecanone				
	$\Delta_{sub}H$		77.4			[1938WOL/WEG, 1960JON]
$C_{18}H_{34}O_2$	[593-39-5]	*cis*-6-octadecenoic acid				
	$\Delta_{fus}H$		59.9	302.3		[2007MOO/KOE]
	$\Delta_{fus}H$		47.5	303.7		[1996DOM/HEA]
$C_{18}H_{34}O_2$	[112-80-1]	*cis* 9-octadecenoic acid				
	$\Delta_{fus}H$		39.6	286.5		[1996DOM/HEA]
	Δ_vH	(441–633)	83.8	456	A	[1987STE/MAL]
$C_{18}H_{34}O_2$	[112-79-8]	*trans* 9-octadecenoic acid (elaidic acid)				
	$\Delta_{fus}H$		61.55	317.6		[1996DOM/HEA]
	Δ_vH	(444–635)	82.3	459	A	[1987STE/MAL, 1947STU]
$C_{18}H_{34}O_2$	[2549-53-3]	tetradecyl methacrylate				
	Δ_vH	(463–611)	69.1	478	A	[1987STE/MAL]
$C_{18}H_{34}O_2$	[141694-86-2]	(Z) 3-hexadecenyl acetate				
	Δ_vH	(373–418)	98.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[128984-60-1]	(E) 3-hexadecenyl acetate				
	Δ_vH	(373–418)	99.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[65954-24-7]	(Z) 4-hexadecenyl acetate				
	Δ_vH	(373–418)	97.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[155055-27-9]	(E) 4-hexadecenyl acetate				
	Δ_vH	(373–418)	98.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[34010-18-9]	(Z) 5-hexadecenyl acetate				
	Δ_vH	(373–418)	98.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-65-6]	(E) 5-hexadecenyl acetate				
	Δ_vH	(373–418)	98.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[34010-19-0]	(Z) 6-hexadecenyl acetate				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(373–418)	97.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-66-7] (E) 6-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	98.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[23192-42-9] (Z) 7-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	97.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[23192-83-8] (E) 7-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	98.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-67-8] (Z) 8-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	97.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-68-9] (E) 8-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	98.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[34010-20-3] (Z) 9-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	98.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-69-0] (E) 9-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	98.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-70-3] (Z) 10-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	98.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-71-4] (E) 10-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	99.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[34010-21-4] (Z) 11-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	98.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-72-5] (E) 11-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	99.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-73-6] (Z) 12-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	99.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[64789-90-8] (E) 12-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	99.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-74-7] (Z) 13-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	100	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[69282-67-3] (E) 13-hexadecenyl acetate					
	$\Delta_v H$	(373–418)	100.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[13161-77-8] *trans*-3-octadecenoic acid					
	$\Delta_{fus}H$		57.15	334	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[34450-19-6] *trans*-4-octadecenoic acid					
	$\Delta_{fus}H$		55.88	333	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[7056-85-1] *trans*-5-octadecenoic acid					
	$\Delta_{fus}H$		45.11	319	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[593-40-8] *trans*-6-octadecenoic acid					
	$\Delta_{fus}H$		60.15	326	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[5684-82-2] *trans*-10-octadecenoic acid					
	$\Delta_{fus}H$		58.52	326	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[506-17-2] *cis*-11-octadecenoic acid (asclepic acid)					

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		7.8	257.8		
	$\Delta_{fus}H$		39.8	287		[1997SAT/YAN]
$C_{18}H_{34}O_2$	[693-72-1]	*trans*-11-octadecenoic acid				
	$\Delta_{fus}H$		58.49	317	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[13126-38-0]	*trans*-12-octadecenoic acid				
	$\Delta_{fus}H$		56.71	325	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[693-72-1]	*trans*-13-octadecenoic acid				
	$\Delta_{fus}H$		55.62	318	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[13126-42-6]	*trans*-14-octadecenoic acid				
	$\Delta_{fus}H$		57.06	327	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[13126-44-8]	*trans*-15-octadecenoic acid				
	$\Delta_{fus}H$		58.98	331	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_4$	[110-33-8]	dihexyl adipate				
	Δ_vH	(470–595)	80.4	485	A	[1987STE/MAL]
$C_{18}H_{34}O_4$	[109-43-3]	dibutyl decanedioate				
	Δ_vH	(468–532)	106.4	483	EB	[2008ZHU/XU]
	Δ_vH	(400–532)	87.6	465		[2008ZHU/XU]
	Note: First value based on published Antoine constants determined from the authors' experimental data; second value is what the authors reported from combining their experimental data with published literature data					
	Δ_vH		88.1	327	TGA	[1990KIS/SHO]
	Δ_vH		91.8 ± 3.2	298	TGA	[1990KIS/SHO]
	Δ_vH	(401–520)	94.3	416	A	[1987STE/MAL]
$C_{18}H_{34}O_5$	[1081524-92-6]	decyl[1-(butoxycarbonyl)ethyl]carbonate				
	Δ_vH	(391–503)	79.3	406	A	[1987STE/MAL]
$C_{18}H_{34}O_6$	[95-08-9]	triethylene glycol, *bis*(2-ethylbutyrate)				
	Δ_vH	(313–528)	91.7	328	A	[1987STE/MAL]
$C_{18}H_{35}N$	[638-65-3]	stearonitrile				
	$\Delta_{fus}H$		56.5	315.5		[2006TEI/GON]
	Δ_vH	(478–631)	78.6	493	A	[1987STE/MAL]
$C_{18}H_{35}NO_3$	[2441-41-0]	N-hexadecanoylglycine				
	$\Delta_{trs}H$		4.5	384.6		
	$\Delta_{trs}H$		5.6	366.1		
	$\Delta_{fus}H$		56.5	393.1	DSC	[1986MIY/MAT]
$C_{18}H_{35}NO_3$	[14379-40-9]	N-dodecanoyl-(*l*)-leucine				
	$\Delta_{fus}H$		33.5	383.1	DSC	[1986MIY/MAT]
$C_{18}H_{35}NO_3$	[97850-50-5]	N-dodecanoyl-(*dl*)-leucine				
	$\Delta_{trs}H$		28.9	341.1		
	$\Delta_{fus}H$		31.0	356.6	DSC	[1986MIY/MAT]
$C_{18}H_{36}$	[6006-34-4]	tridecylcyclopentane				
	Δ_vH	(463–634)	70.9	478		[1999DYK/SVO]
	Δ_vH		90.5	298		[1971WIL/ZWO]
$C_{18}H_{36}$	[1795-17-1]	dodecylcyclohexane				
	$\Delta_{fus}H$		45.84	258.8		[1996DOM/HEA]
	Δ_vH		88.9 ± 0.8	298	GCC	[1978FUC/PEA]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		89.5	298		[1971WIL/ZWO]
	$\Delta_v H$	(299–324)	93.4	311	A, ME	[1987STE/MAL, 1949PAR/MOO]
$C_{18}H_{36}$	[296-18-4]	cyclooctadecane				
	$\Delta_{trs}H$		29.29	298.2		
	$\Delta_{fus}H$		9.87	346.2		[1969BOR/DAL]
$C_{18}H_{36}$	[42506-48-9]	1,1-dimethylcyclohexadecane				
	$\Delta_{trs}H$		1.26	216.2		
	$\Delta_{trs}H$		0.42	221.2		
	$\Delta_{fus}H$		14.23	290.2		[1975BJO/BOR2]
$C_{18}H_{36}$	[112-88-9]	1-octadecene				
	$\Delta_v H$	(399–589)	76.4	414	A	[1987STE/MAL]
	$\Delta_v H$		90	298		[1971WIL/ZWO]
$C_{18}H_{36}$	[24584-00-7]	*cis,trans*-1,3,5-tri-*tert*-butylcyclohexane				
	$\Delta_{fus}H$		17.99	338.2		[1968VAN/HOE]
$C_{18}H_{36}$	[24583-99-1]	*cis,cis*-1,3,5-tri-*tert*-butylcyclohexane				
	$\Delta_{fus}H$		26.78	393.2		[1968VAN/HOE]
$C_{18}H_{36}N_2O_2$	[21150-82-3]	N,N′-di-*n*-hexyladipamide				
	$\Delta_{fus}H$		40.79	432		[1996DOM/HEA]
$C_{18}H_{36}O$	[41207-35-6]	(Z) 3-octadecen-1-ol				
	$\Delta_v H$	(393–433)	120.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[41207-36-7]	(E) 3-octadecen-1-ol				
	$\Delta_v H$	(393–433)	120.0	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[143-28-2]	(Z) 9-octadecen-1-ol				
	$\Delta_v H$	(393–433)	119.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[506-42-3]	(E) 9-octadecen-1-ol				
	$\Delta_v H$	(393–433)	120.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[57716-88-8]	(Z) 11-octadecen-1-ol				
	$\Delta_v H$	(393–433)	119.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[62972-93-4]	(E) 11-octadecen-1-ol				
	$\Delta_v H$	(393–433)	120.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[69820-27-5]	(Z) 13-octadecen-1-ol				
	$\Delta_v H$	(393–433)	120.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[76836-10-7]	(E) 13-octadecen-1-ol				
	$\Delta_v H$	(393–433)	121.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[502-69-2]	6,10,14-trimethyl-2-pentadecanone				
	$\Delta_v H$	(402–500)	56.0 ± 0.6	451		[1988BAG/GUR]
$C_{18}H_{36}O$	[638-66-4]	octadecanal				
	$\Delta_v H$	(413–616)	75.7	428	A	[1987STE/MAL, 1947STU]
$C_{18}H_{36}O_2$	[629-70-9]	hexadecyl acetate				
	$\Delta_v H$	(373–418)	102.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(431–469)	70.3	446	A	[1987STE/MAL]
$C_{18}H_{36}O_2$	[628-97-7]	ethyl palmitate				
	$\Delta_{fus}H$		15.09	296.4		[1996DOM/HEA]
	$\Delta_{fus}H$		53.14	296		[1967OMA]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(286–294)	150.8	290	ME	[1987STE/MAL, 1967OMA]
	Δ_vH	(429–466)	73.9	444	A	[1987STE/MAL]
	Δ_vH	(298–318)	100.7	308	ME	[1987STE/MAL, 1967OMA]
$C_{18}H_{36}O_2$	[1731-92-6]	methyl heptadecanoate				
	$\Delta_{fus}H$		48.1	304.2	DSC	[2004CHI/ZHA]
	Δ_vH	(467–558)	100.8 ± 1.0	298	CGC	[2004CHI/ZHA]
	Δ_vH		89.3	350		[2002VAN/VAN]
	Δ_vH		89.0 ± 0.7	353		[2002VAN/VAN]
	Δ_vH		97.0 ± 1.2	298		[2002VAN/VAN]
	Δ_vH	(421–525)	84.4	436	A, EST	[1987STE/MAL, 1963ROS/SCH]
$C_{18}H_{36}O_2$	[55-11-4]	octadecanoic acid (stearic acid)				
	$\Delta_{trs}H$		5.4	324.4		
	$\Delta_{trs}H$		5.7	325.9		
	$\Delta_{fus}H$		63.2	342.8	DSC	[2007MOR/COR]
	$\Delta_{fus}H$		60.4	338.3		[2007MOO/KOE]
	$\Delta_{fus}H$		57.8	344.1	DSC	[2006TEI/GON]
	$\Delta_{fus}H$		50.93	340.2	AC	[2000YU/MEN]
	$\Delta_{fus}H$		61.21	342.5		[1996DOM/HEA]
	$\Delta_{sub}H$		204.1 ± 9	298	TPD	[2008CAP/LOV]
	$\Delta_{sub}H$	(291–309)	158.5		TPTD	[2005CHA/ZIE]
	$\Delta_{sub}H$	(296–319)	158		TPTD	[2001CHA/TOB]
		Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods				
	$\Delta_{sub}H$	(331–340)	166.5 ± 4.2	336	ME	[1961DAV/MAL, 1970COX/PIL]
	Δ_vH	(349–415)	124.3	364	A	[1987STE/MAL]
	Δ_vH	(457–649)	100.6	472	A	[1987STE/MAL]
	Δ_vH	(366–389)	118.9 ± 2.0	379	ME, TE	[1982DEK/SCH]
	Δ_vH		79.8	515	I	[1943CRA]
$C_{18}H_{36}O_4$	[56444-62-3]	2,2,11,11-tetramethyl-1,3,10,12-tetraoxacyclooctadecane				
	$\Delta_{fus}H$		35.1	373		[1975BOR]
$C_{18}H_{37}Br$	[112-89-0]	1-bromooctadecane				
	Δ_vH	(430–673)	81.0	445	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{18}H_{37}Cl$	[3386-33-2]	1-chlorooctadecane				
	Δ_vH		108.8	298		[2006BOL/NER2]
	Δ_vH	(333–393)	96.9	333	GC	[1980JON/MAT]
	Δ_vH	(333–393)	93.4	353	GC	[1980JON/MAT]
	Δ_vH	(333–393)	88.4	373	GC	[1980JON/MAT]
	Δ_vH	(333–393)	86.7	393	GC	[1980JON/MAT]
	Δ_vH	(472–673)	74.2	487	A	[1987STE/MAL, 1970DYK/VAN]
$C_{18}H_{37}F$	[1649-73-6]	1-fluorooctadecane				
	Δ_vH	(477–633)	68.2	492	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{18}H_{37}I$	[629-93-6]	1-iodooctadecane				
	Δ_vH	(496–673)	109.3	298	A,EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	Δ_vH	(496–673)	77.2	511	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{18}H_{37}NO$	[124-26-5]	octadecanamide				
	$\Delta_{trs}H$		2.2	298.7		
	$\Delta_{fus}H$		54.8	379.7	DSC	[2008ABA/BAD]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		59.91	377.2		[1993ACR]
	$\Delta_{sub}H$	(367–379)	195.8 ± 4.2	373	ME	[1959DAV/JON2, 1987STE/MAL]
$C_{18}H_{37}NO$	[41328-72-7]	N-butyl tetradecanamide				
	$\Delta_{fus}H$		45.0	336.1	DSC	[1993ACR, 1980CAR/BUS]
$C_{18}H_{37}NO$	[146985-21-9]	N,N-dihexyl hexanamide				
	Δ_vH	(463–513)	80.4 ± 1.6	298	CGC	[2009PAN/ANT]
$C_{18}H_{38}$	[593-45-3]	octadecane				
	$\Delta_{fus}H$		60.1	301.1	DSC	[2004MON/RAJ]
	$\Delta_{fus}H$		61.5	301.3		[1996DOM/HEA]
	$\Delta_{sub}H$		152.7	298	C	[1972MOR3]
	$\Delta_{sub}H$	(288–298)	153.0 ± 5	293	ME	[1949BRA/SHE, 1960JON, 1970COX/PIL]
	Δ_vH		90.6 ± 1.0	298	CGC	[2002CHI/WEB]
	Δ_vH		91.3 ± 2.9	298	GS	[2001PUR/CHI]
	Δ_vH		91.4 ± 1.3	298	CGC	[2000NIC/ORF]
	Δ_vH	(363–413)	91.8	298	CGC	[1995CHI/HOS]
	Δ_vH	(423–473)	91.8	298	CGC	[1995CHI/HOS]
	Δ_vH	(453–503)	92.8	298	CGC	[1995CHI/HOS]
	Δ_vH	(413–588)	74.4	428		[1994MOR/KOB]
	Δ_vH		91.4	298		[1994RUZ/MAJ]
	Δ_vH	(501–548)	64.8	516	A	[1987STE/MAL]
	Δ_vH	(335–439)	80.0	348	GS	[1986ALL/JOS]
	Δ_vH	(318–361)	84.3	333	A, GS	[1987STE/MAL, 1979MAC/PRA]
	Δ_vH		72.5	343	GC	[1977NOV/NOV]
	Δ_vH		71.8	353	GC	[1977NOV/NOV]
	Δ_vH		71.1	363	GC	[1977NOV/NOV]
	Δ_vH		70.5	373	GC	[1977NOV/NOV]
	Δ_vH		69.8	383	GC	[1977NOV/NOV]
	Δ_vH		90.8	298		[1971WIL/ZWO]
	Δ_vH	(447–474)	78.1	460	ME	[1938UBB]
	Δ_vH	(447–590)	69.4	462		[1882KRA, 1984BOU/FRI]
$C_{18}H_{38}$	[1560-89-0]	2-methylheptadecane				
	Δ_vH	(442–581)	67.8	457	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[6418-44-6]	3-methylheptadecane				
	Δ_vH	(441–583)	65.6	456	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[26429-11-8]	4-methylheptadecane				
	Δ_vH	(429–580)	58.9	444	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[26730-95-0]	5-methylheptadecane				
	Δ_vH	(432–581)	61.1	447	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[61868-02-8]	2,3-dimethylhexadecane				
	Δ_vH	(466–583)	64.9	481	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[61868-08-4]	2,4-dimethylhexadecane				
	Δ_vH	(434–562)	69.0	449	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[101882-67-1]	2,4,6-trimethylpentadecane				
	Δ_vH	(420–550)	64.3	435	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{18}H_{38}$	[na]	4,9-diisopropyldodecane				
	Δ_vH	(368–424)	70.0	383	A	[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{38}$	[62850-21-9]	1,1,2,2-tetra-*tert*-butylethane				
	$\Delta_{sub}H$	(303–366)	71.9	341		[1984FLA/BEC]
	$\Delta_{sub}H$		74.3	298		[1984FLA/BEC]
$C_{18}H_{38}O$	[112-92-5]	1-octadecanol				
	$\Delta_{fus}H$		40.1	330.1	DSC	[2004VEN/CAL]
	$\Delta_{trs}H$		26.5	329.5		
	$\Delta_{fus}H$		40.1	330.3		[2002VEN/RAM]
	$\Delta_{fus}H$		66.67	331.2		[2001VAN/OON2]
	$\Delta_{fus}H$		70.08	334.2		[1991CHI/BRA]
	$\Delta_{sub}H$	(318–329)	187.4 ± 1.3	324	ME	[1965DAV/KYB, 1987STE/MAL]
	$\Delta_{sub}H$		191.2 ± 1.3	298		[1965DAV/KYB]
	Δ_vH		116.8 ± 1.2	298	CGC	[2006NIC/KWE]
	Δ_vH	(435–504)	86.4	450	A	[1987STE/MAL]
	Δ_vH	(500–573)	76.3	515	A	[1987STE/MAL]
	Δ_vH	(494–575)	76.9	509	A,EB	[1987STE/MAL, 1970AMB/SPR]
	Δ_vH	(334–356)	113.5	345	A, ME	[1987STE/MAL, 1965DAV/KYB]
$C_{18}H_{38}O_2$	[2136-71-2]	2-(hexadecyloxy)ethanol				
	$\Delta_{trs}H$		14.94	311.7		
	$\Delta_{fus}H$		37.32	318.5	DTA	[1979KUC/SKU]
$C_{18}H_{38}O_2$	[3155-43-9]	1,18-octadecanediol				
	$\Delta_{trs}H$		38.7	366.1		
	$\Delta_{fus}H$		33.6	371.5	DSC	[1999OGA/NAK]
$C_{18}H_{38}O_4$	[4161-35-5]	6,6′-[1,6-hexanediyl*bis*(oxy)]*bis*-1-hexanol				
	$\Delta_{fus}H$		57.96	329.1	DSC	[1991BED/BOO]
$C_{18}H_{38}O_4$	[3055-94-5]	2-[2-(2-[dodecyloxy]ethoxy)ethoxy]ethanol				
	Δ_vH	(475–523)	102.7	490	A	[1987STE/MAL]
$C_{18}H_{38}O_4S_2$	[na]	2-deoxy-(*D*)-glucose dihexyl dithioacetal				
	$\Delta_{trs}H$		16.4	376.2		
	$\Delta_{fus}H$		45.0	386.4	DSC	[1989VAN/VAN]
$C_{18}H_{38}O_4S_2$	[na]	(*L*)-rhamnose dihexyl dithioacetal				
	$\Delta_{fus}H$		48.5	388.2	DSC	[1989VAN/VAN]
$C_{18}H_{38}O_5S_2$	[115395-54-5]	(*D*)-glucose dihexyl dithioacetal				
	$\Delta_{trs}H$		5.9	373.6		
	$\Delta_{fus}H$		44.6	377	DSC	[1989VAN/VAN]
$C_{18}H_{38}O_5S_2$	[na]	(*L*)-arabinose dihexyl dithioacetal				
	$\Delta_{trs}H$		6.7	345.1		
	$\Delta_{trs}H$		1.0	358.2		
	$\Delta_{fus}H$		39.2	367.2	DSC	[1989VAN/VAN]
$C_{18}H_{38}O_9$	[25990-94-7]	1,ω-dimethoxyocta(oxyethylene)				
	$\Delta_{fus}H$		60.1	276.2		[1997SCH/VER]
$C_{18}H_{38}S$	[2885-00-9]	1-octadecanethiol				
	Δ_vH	(492–670)	77.1	507	EST	[1999DYK/SVO]
$C_{18}H_{38}S_2$	[4485-77-2]	dioctyl disulfide				
	Δ_vH	(490–650)	78.3	514		[1999DYK/SVO]
$C_{18}H_{39}N$	[112-69-6]	N,N-dimethylhexadecylamine				
	Δ_vH	(483–671)	67.3	498	A	[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{39}N$	[2044-21-5]	dinonylamine				
	$\Delta_v H$	(486–676)	67.7	501	A	[1987STE/MAL]
$C_{18}H_{39}N$	[5877-76-9]	N-ethylhexadecylamine				
	$\Delta_v H$	(406–613)	66.4	421	A	[1987STE/MAL, 1947STU]
$C_{18}H_{39}N$	[124-30-1]	octadecylamine				
	$\Delta_v H$	(450–635)	76.2	465	A	[1987STE/MAL]
$C_{18}H_{39}O_4P$	[2528-39-4]	trihexyl phosphate				
	$\Delta_v H$	(483–513)	104.8	298	CGC	[2007PAN/ANT2]
	$\Delta_v H$	(493–523)	104.9	298		[2007PAN/ANT2]
$C_{19}H_{10}O$	[3074-00-8]	6*H*-benzo[cd]pyren-6-one				
	$\Delta_{fus}H$		13.1	524.2	DSC	[2010KES/AUC]
$C_{19}H_{13}F_3O$	[145698-49-3]	4-ethoxy-4′-trifluoromethyldiphenyldiacetylene				
	$\Delta_{fus}H$		32.73	424.9	DSC	[1993JUA/CHE]
$C_{19}H_{13}NO$	[846-63-9]	2-(1-naphthyl)-5-phenyloxazole				
	$\Delta_v H$	(510–595)	89.2	525	A	[1987STE/MAL]
$C_{19}H_{13}NO$	[5472-23-1]	10-phenylacridin-9(10*H*)-one				
	$\Delta_{fus}H$		38.9	550	DSC	[2003STO/KRZ]
	$\Delta_{sub}H$		128		DSC	[2003STO/KRZ]
$C_{19}H_{14}$	[3351-31-3]	3-methylchrysene				
	$\Delta_{fus}H$		16.5	445.0	DSC	[2010KES/AUC]
$C_{19}H_{14}$	[3351-30-2]	4-methylchrysene				
	$\Delta_{fus}H$		18.3	424.0	DSC	[2010KES/AUC]
$C_{19}H_{14}$	[3697-24-3]	5-methylchrysene				
	$\Delta_{fus}H$		19.0	390.7	DSC	[2010KES/AUC]
$C_{19}H_{14}$	[1705-85-7]	6-methylchrysene				
	$\Delta_{fus}H$		22.7	432.5	DSC	[2010KES/AUC]
$C_{19}H_{14}F_2$	[145698-35-7]	4-propyl-3′,4′-difluorodiphenyldiacetylene				
	$\Delta_{fus}H$		22.03	343.7	DSC	[1993JUA/CHE]
$C_{19}H_{14}O_4$	[na]	4-hydroxyphenyl-4″-hydroxybiphenyl-4′-carboxylate				
	$\Delta_{fus}H$		49.59	566.2		[2000PUN]
$C_{19}H_{15}Cl$	[76-83-5]	triphenylchloromethane				
	$\Delta_{fus}H$		27.9	376.8		[1996DOM/HEA]
$C_{19}H_{15}F_9OS$	[246543-99-7]	4-[[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)thio]methoxy]-1,1′-biphenyl				
	$\Delta_{fus}H$		43.1	333.3	DTA	[1999DEG/GUI]
$C_{19}H_{15}F_9S$	[246543-96-4]	4-[[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)thio]methyl]-1,1′-biphenyl				
	$\Delta_{fus}H$		41.0	307.1	DTA	[1999DEG/GUI]
$C_{19}H_{15}N$	[574-45-8]	N-phenyl benzophenone imine				
	$\Delta_{fus}H$		29.14	392.3		[1997VER/MOR]
	$\Delta_{sub}H$	(348–387)	115.5 ± 1.8	367	T	[1997VER/MOR]
	$\Delta_{sub}H$		119.7 ± 1.8	298		[1997VER/MOR]
$C_{19}H_{15}N_3$	[14309-25-2]	triphenylazidomethane				
	$\Delta_{sub}H$	(335–363)	120.6	349	A	[1987STE/MAL, 1974PEP/ERL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{19}H_{16}$	[519-73-3]	triphenylmethane				
	$\Delta_{fus}H$		20.7	367.2	DSC	[1999VER3]
	$\Delta_{fus}H$		21.97	365.3		[1996DOM/HEA]
	$\Delta_{sub}H$	(323–353)	109.1 ± 0.6	298	GS	[1999VER3]
	$\Delta_{sub}H$	(323–353)	106.7 ± 0.6	338	GS	[1999VER3]
	$\Delta_{sub}H$		112	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(343–363)	113.9	353	EM	[1989SAS/NGU]
	$\Delta_{sub}H$	(303–358)	106.8	330	T	[1986HAN/ECK]
	$\Delta_{sub}H$	(325–349)	100 ± 0.4	339	V	[1959AIH, 1970COX/PIL, 1987STE/MAL]
	$\Delta_{sub}H$		100.7	298		[1986MAR/LOE, 1936CUT/BEN]
	$\Delta_{sub}H$		105 ± 0.8			[1974PEP/ERL]
	$\Delta_{v}H$		93.2 ± 2.2	298	CGC	[2008HAN/NUT]
	$\Delta_{v}H$		94.6	298	CGC	[1998CHI/HES]
	$\Delta_{v}H$	(453–503)	95.0	298	CGC	[1995CHI/HOS]
	$\Delta_{v}H$	(343–462)	82.0	403		[1989SAS/NGU]
	$\Delta_{v}H$	(512–643)	58.6	527	A	[1987STE/MAL]
$C_{19}H_{16}ClNO_4$	[53-86-1]	1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1*H*-indole-acetic acid (indomethacin)				
	$\Delta_{fus}H$		36.5	435.2	DSC	[2010MUR/PIK]
	$\Delta_{fus}H$		43.5	434.5	DSC	[2009ACE/NIC]
	$\Delta_{fus}H$		39.99	434	DSC	[2008BAS/BOS]
	$\Delta_{fus}H$		37.9	433	DSC	[2006WAS/HOL]
	$\Delta_{fus}H$ *(I)*		36.85	432.3		
	$\Delta_{fus}H$ *(II)*		32.94	426.2		[2004HAM/FEU]
	$\Delta_{fus}H$		37.8	433		[2004LEG/FEU, 2007BER/WAS]
	$\Delta_{fus}H$		36.49	435.2		[2000HAN/PAR]
$C_{19}H_{16}F_8N_4O_2$	[91488-85-6]	N-ethyl-4-[(4-nitrophenyl)azo]-N-(2,2,3,3,4,4,5,5-octafluoropentyl)benzenamine				
			112.6			[1984KAR/ROD]
$C_{19}H_{16}F_8O_2$	[464213-30-7]	2,3-*bis*(trifluoromethyl)-4-methoxyphenyl-α,α-difluoro-4-n-propylbenzyl ether				
	$\Delta_{fus}H$		21.3	301.4	DSC	[2002MIY/KAT]
$C_{19}H_{16}O$	[76-84-6]	triphenylmethanol				
	$\Delta_{fus}H$		27.24	441.1	DSC	[1998VER3]
	$\Delta_{sub}H$		121.8 ± 1.7	298	GS	[1998VER3]
	$\Delta_{sub}H$	(353–373)	122	363	A	[1987STE/MAL]
$C_{19}H_{16}O_2$	[160731-89-5]	2-fluorenyl-2-methyl-1,3-cyclopentandione				
	$\Delta_{fus}H$		24.6	395.2	DSC	[1995NOL/VER]
	$\Delta_{sub}H$	(353–388)	122.3 ± 1.6	371	T	[1995NOL/VER]
$C_{19}H_{16}O_5$	[111171-32-5]	8-(hydroxymethyl)-6-phenyl-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	$\Delta_{fus}H$		43.08	474.8	DSC	[1992HUA/ZHO2]
$C_{19}H_{17}ClN_2O$	[2955-38-6]	1-(cyclopropylmethyl)-5-phenyl-7-chloro-1,3-dihydro-2*H*-1,4-benzodiazepin-2-one (prazepam)				
	$\Delta_{fus}H$		27.69	419	DSC	[2001VER/AUG]
$C_{19}H_{17}F_3O$	[126315-23-9]	4-pentoxy-2′,3′,4′-trifluorodiphenylacetylene				
	$\Delta_{fus}H$		33.1	315.8	DSC	[1995HSU/TSA]
$C_{19}H_{17}NO_2$	[4946-83-2]	1-piperidinoanthraquinone				
	$\Delta_{sub}H$	(383–392)	U 18.3	387.5	A	[1987STE/MAL, 1977EIB/TRO]
	$\Delta_{v}H$	(395–404)	82.0	399	A	[1987STE/MAL]
$C_{19}H_{17}N_3O_2$	[na]	Disperse Yellow 50				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(464–484)	69.0	474	GS	[1989NIS/AND]
$C_{19}H_{18}FNO_3$	[94611-29-7] 4-cyano-2-fluorophenyl 4-pentoxybenzoate					
	$\Delta_{fus}H$		36.2	359.7	DSC	[1984KEL]
$C_{19}H_{18}FNO_3$	[94610-84-1] 4-cyano-3-fluorophenyl 4-pentoxybenzoate					
	$\Delta_{fus}H$		37.7	341.2	DSC	[1984KEL]
$C_{19}H_{18}F_2$	[109970-66-3] 4-pentyl-3′,4′-difluorodiphenylacetylene					
	$\Delta_{fus}H$		22.1	323.1	DSC	[1995HSU/TSA]
$C_{19}H_{18}N_2O_3$	[na] 1′,3′-dihydro-1′,3′,3′-trimethyl-6-nitrospiro[2*H*-1-benzopyran-2,2′-(2*H*)-indole]					
	$\Delta_{fus}H$		34.0	453.1		[2004KUL/MAR]
$C_{19}H_{18}O_2$	[160731-87-3] 2-diphenylmethyl-2-methyl-1,3-cyclopentandione					
	$\Delta_{fus}H$		34.3	394.2		[1995NOL/VER]
	$\Delta_{sub}H$	(355–393)	120.2 ± 1.1	374	T	[1995NOL/VER]
$C_{19}H_{18}O_3$	[568-72-9] 6,7,8,9-tetrahydro-1,6,6-trimethylphenanthro[1,2-b]furan-10,11-dione					
	$\Delta_{fus}H$		30.46	486.9		
	$\Delta_{fus}H$		29.17	486		[1992HUA/ZHO, 1988HUA/TAN]
$C_{19}H_{18}O_4$	[17397-93-2] 6,7,8,9-tetrahydro-6-(hydroxymethyl)1,6-dimethylphenanthro-[1,2-b]-furan-10,11-dione					
	$\Delta_{fus}H$		23.74	479.7		[1992HUA/ZHO]
$C_{19}H_{19}F$	[109970-64-1] 4-pentyl-4′-fluorodiphenylacetylene					
	$\Delta_{fus}H$		25.6	337.4	DSC	[1995HSU/TSA]
$C_{19}H_{19}FO$	[139195-67-8] 4-pentoxy-4′-fluorodiphenylacetylene					
	$\Delta_{fus}H$		27.2	330.9	DSC	[1995HSU/TSA]
$C_{19}H_{19}NO_2$	[483362-76-1] 1-[(4-nitrophenyl)ethynyl]-4-pentylbenzene					
	$\Delta_{fus}H$		21.46	342.7	DSC	[2002SPA/DZI]
$C_{19}H_{19}NO_3$	[483362-80-7] 1-[(4-nitrophenyl)ethynyl]-4-pentyloxybenzene					
	$\Delta_{fus}H$		33.56	359.9	DSC	[2002SPA/DZI]
$C_{19}H_{19}NO_4S$	[na] ethyl 5-phenylsulfonyl-4,7-dihydro-4,7-ethano-2*H*-isoindole-1-carboxylate					
	$\Delta_{fus}H$		29.8	453.3		[2000UNO/ITO]
$C_{19}H_{20}F_3N_3O_3$	[na] 2-[3-(trifluoromethyl)-phenyl]amino-3-pyridinecarboxylic acid β-morpholino-ethyl ester					
	$\Delta_{fus}H$		34.5	350		[1996DOM/HEA]
$C_{19}H_{20}O_2$	[137932-36-6] 3-diphenylmethyl-3-methyl-2,4-pentanedione					
	$\Delta_{fus}H$		25.1	352.2		[1995NOL/VER]
	$\Delta_{sub}H$		114.4 ± 0.6	298	T,B	[1995NOL/VER]
	Δ_vH	(353–386)	83.1 ± 0.5	370	GS	[1995NOL/VER]
$C_{19}H_{20}O_3$	[35825-57-11] 1,2,6,7,8,9-hexahydro-1,6,6-trimethylphenanthro[1,2-b]furan-10,11-dione					
	$\Delta_{fus}H$		26.46	464.6	DSC	[1988HUA/TAN]
$C_{19}H_{20}O_3$	[na] 1-(diphenylmethyl)-4-methyl-2,6,7-trioxabicyclo[2.2.2]octane					
	$\Delta_{fus}H$		32.6	443.2		[1995RAK/VER2]
$C_{19}H_{20}O_4$	[85-68-7] butylbenzyl phthalate					
	Δ_vH	(416–516)	89.0	431	A	[1987STE/MAL]
$C_{19}H_{20}O_4$	[74254-53-8] dibenzyl ethylmalonate					
	Δ_vH	(403–483)	94.1	418	A	[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{19}H_{21}F_{19}$	[139277-01-3]	1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8-hexadecafluoro-2-(trifluoromethyl)octadecane				
	$\Delta_{trs}H$		1.0	274		
	$\Delta_{fus}H$		25.0	298	DSC	[1992HOP/MOL]
$C_{19}H_{21}IO_3S$	[313057-07-7]	4-(7-octenyloxy)phenyl 5-iodo-2-thiophene carboxylate				
	$\Delta_{fus}H$		80.33	324.9	DSC	[2000WU/WAN]
$C_{19}H_{21}NO$	[127529-16-2]	(±)1,2-diphenyl-2-N-piperidinyl-1-ethanone				
	$\Delta_{fus}H$		33.93	349.2		[1994WEL/VER]
	$\Delta_{sub}H$		147.1 ± 1		B	[1994WEL/VER]
$C_{19}H_{21}NO_3$	[483362-65-8]	2-(4-nitrophenyl)-1-(4-pentylphenyl)ethanone				
	$\Delta_{fus}H$		29.46	363.2	DSC	[2002SPA/DZI]
$C_{19}H_{21}NO_4$	[483362-69-2]	2-(4-nitrophenyl)-1-(4-pentyloxyphenyl)ethanone				
	$\Delta_{fus}H$		27.07	353.4	DSC	[2002SPA/DZI]
$C_{19}H_{22}FN_3O$	[1649-18-9]	1-(4-fluorophenyl)-4-[4-(2-pyridinyl)-1-piperazinyl]-1-butanone (azaperone)				
	$\Delta_{fus}H$		30.5	366.2	DSC	[1981DRA/AZI]
$C_{19}H_{22}F_8O_2$	[na]	2,3-*bis*(trifluoromethyl)-4-methoxyphenyl-*trans*-4-n-propyl-cyclohexyl-α,α-difluoromethyl ether				
	$\Delta_{fus}H$		21.4	314.7		[2002MIY/KAT]
$C_{19}H_{23}NO$	[na]	p-hexyloxybenzylideneaniline				
	$\Delta_{trs}H$		0.19	73.41		
	$\Delta_{fus}H$		30.91	321.6		[1996DOM/HEA]
$C_{19}H_{23}NO$	[29743-08-6]	4-butyl-N-[(4-ethoxyphenyl)methylene]benzenamine				
	$\Delta_{sub}H$			NA		[1981PIR/AZA]
$C_{19}H_{23}N_3$	[33089-61-1]	N-methyl-N′-2,4-xylyl-N-(N-2,4-xylylformimodyl)formamidine (amitraz)				
	$\Delta_{fus}H$ *(I)*		26.77	355.3		
	$\Delta_{fus}H$ *(II)*		19.47	344.4		
	$\Delta_{fus}H$ *(III)*		53.14	388.6		[2004DEV/VAN]
$C_{19}H_{24}$	[25566-92-1]	dicumenylmethane				
	Δ_vH	(303–402)	71	318		[1999DYK/SVO]
	Δ_vH	(608–704)	57.9	623		[1999DYK/SVO]
	Δ_vH	(323–402)	73.7	338	A	[1987STE/MAL]
$C_{19}H_{24}N_2O_2$	[55268-74-1]	(+) 2-(cyclohexylcarbonyl)-1,2,3,6,7,11b-hexahydro-4*H*-pyrazino-[2,1-a]isoquinolin-4-one ((+) praziquantel)				
	$\Delta_{fus}H$		30.8	412.2		[1998ELA/GIR]
$C_{19}H_{24}N_2O_2$	[na]	(+) 2-(cyclohexylcarbonyl)-1,2,3,6,7,11b-hexahydro-4*H*-pyrazino-[2,1-a]isoquinolin-4-one ((+) praziquantel)				
	$\Delta_{fus}H$		23.9	386		[1998ELA/GIR]
$C_{19}H_{24}N_2O_2$	[na]	(−) 2-(cyclohexylcarbonyl)-1,2,3,6,7,11b-hexahydro-4H-pyrazino[2,1-a]-isoquinolin-4-one ((−) praziquantel)				
	$\Delta_{fus}H$		24.15	385.5		[1998ELA/GIR]
$C_{19}H_{24}O$	[1706-65-6]	2-*tert*-butyl-4-methyl-6-α-methylbenzylphenol				
	$\Delta_{fus}H$		31.38	337.7	DTA	[1972INO/LIA]
$C_{19}H_{24}O_3$	[104225-35-6]	3-[(2,3-dihydro-1*H*-inden-5-yl)carbonyl]-1,2,2-trimethylcyclopentanecarboxylic acid				
	$\Delta_{fus}H$		22.5	404.3	DSC	[1992TER/PAU]
$C_{19}H_{26}O_4$	[104225-25-4]	3-(4-methoxy-2,6-dimethylbenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	$\Delta_{fus}H$		28.31	416.7	DSC	[1992TER/PAU]
$C_{19}H_{26}O_6$	[104225-20-9]	1,2,2-trimethyl-3-(2,4,6-trimethoxybenzoyl)cyclopentanecarboxylic acid				
	$\Delta_{fus}H$		29.68	432.2	DSC	[1992TER/PAU]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{19}H_{27}NO_3$	[172589-18-3]	3-[(3,4-dimethylphenyl)(hydroxyimino)methyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester				
	$\Delta_{fus}H$		39.14	426		[1995NUR/LEL]
$C_{19}H_{27}NO_4$	[172589-21-8]	3-[(hydroxyimino)(4-ethoxyphenyl)methyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester				
	$\Delta_{fus}H$		36.75	401		[1995NUR/LEL]
$C_{19}H_{27}NO_4$	[252013-92-6]	(R)-β-cyano-3,4-dimethoxy-α,α-dimethyl-β-(1-methylethyl)benzenepropanoic acid, ethyl ester				
	$\Delta_{fus}H$		36.9	386.4	DSC	[2003ROU/JIM2]
	$\Delta_{fus}H$		36.82	386.2		[1999ROS/MOL]
$C_{19}H_{27}NO_5$	[172589-23-0]	3-[(hydroxyimino)(3,4-dimethoxyphenyl)methyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester				
	$\Delta_{fus}H$		36.2	393		[1995NUR/LEL]
$C_{19}H_{27}N_3O_8$	[53848-87-6]	dodecyl 2,4,6-trinitrobenzoate				
	$\Delta_{trs}H$		7.64	325		
	$\Delta_{fus}H$		29.55	394	DSC	[1974WAR/WIL]
$C_{19}H_{28}N_2$	[na]	4-(4-*n*-heptyl-1-piperidinyl)benzonitrile				
	$\Delta_{fus}H$		29.01	326.2		[1991SHE/WEI]
$C_{19}H_{28}O_2$	[58-22-0]	testosterone				
	$\Delta_{fus}H$		28.2	426.5	DSC	[2006WAS/HOL]
	$\Delta_{fus}H$		29.45	428		[1994REG/CHM]
$C_{19}H_{29}BrN_2O_4$	[138517-08-5]	(4-nitrophenyl)-12-bromododecyl carbamate				
	$\Delta_{fus}H$		48.94	373.5	DSC	[1993TIE/FRA]
$C_{19}H_{30}$	[55030-46-1]	7-phenyl-6-tridecene				
	Δ_vH	(391–449)	77.2	406	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{19}H_{30}O_2$	[na]	5α-androstane-3-one-17β-ol				
	$\Delta_{fus}H$		27.15	455.5		[1996DOM/HEA]
$C_{19}H_{31}N_3O_3$	[138517-13-2]	1-dodecyl-3-(4-nitrophenyl) urea				
	$\Delta_{fus}H$		40.88	390.8	DSC	[1993TIE/FRA]
$C_{19}H_{32}$	[123-02-4]	tridecylbenzene				
	Δ_vH	(473–651)	72.0	488		[1999DYK/SVO]
	Δ_vH	(343–463)	90.0	358		[1990POM/PIA]
	Δ_vH		94.6	298		[1971WIL/ZWO]
$C_{19}H_{32}$	[2400-01-3]	7-phenyltridecane				
	Δ_vH	(413–470)	76.2	428	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{19}H_{32}O_2$	[301-00-8]	methyl linolenate				
	Δ_vH		110.5 ± 0.5	298	CGC	[2007LIP/KAP]
	Δ_vH	(423–503)	102.1	298	GC	[1997KRO/VEL]
	Δ_vH	(394–459)	87.7	409	A,MG,OM	[1987STE/MAL, 1952SCO/MAC]
$C_{19}H_{34}$	[1610-24-8]	tricyclohexylmethane				
	$\Delta_{sub}H$	(301–321)	117.4	311		[1987STE/MAL, 1964MOR]
	Δ_vH	(333–365)	81.4	348	A	[1987STE/MAL, 1964MOR]
	Δ_vH	(428–605)	73.3	443	A	[1987STE/MAL]
$C_{19}H_{34}O_2$	[112-62-9]	linoleic acid, methyl ester (methyl linoleate)				
	Δ_vH		107.8 ± 0.6	298	CGC	[2007LIP/KAP]
	Δ_vH	(423–503)	102.2	298	GC	[1997KRO/VEL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(453–543)	77.2	498	GC	[1993HUS/SAR]
	$\Delta_v H$	(391–459)	86.3	406	A,MG,OM	[1987STE/MAL, 1952SCO/MAC]
$C_{19}H_{36}$	[2090-15-5]	1,1-dicyclohexylheptane				
	$\Delta_v H$	(293–368)	87.8	330	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_v H$	(422–458)	73.8	437	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{19}H_{36}$	[26186-01-6]	1-nonadecyne				
	$\Delta_v H$	(462–637)	66.9	477		[1999DYK/SVO]
$C_{19}H_{36}$	[61847-98-1]	2-nonadecyne				
	$\Delta_v H$	(469–648)	67.8	484		[1999DYK/SVO]
$C_{19}H_{36}$	[61886-65-5]	3-nonadecyne				
	$\Delta_v H$	(460–635)	66.5	475		[1999DYK/SVO]
$C_{19}H_{36}O$	[6907-38-6]	cyclononadecanone				
	$\Delta_{sub} H$		82.4			[1938WOL/WEG, 1960JON]
$C_{19}H_{36}O_2$	[112-62-9]	methyl cis-9-octadecenoate (methyl oleate)				
	$\Delta_v H$		106.2 ± 0.7	298	CGC	[2007LIP/KAP]
	$\Delta_v H$	(423–503)	103.3	298	GC	[1997KRO/VEL]
	$\Delta_v H$	(433–473)	99.6	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(453–543)	77.2	498	GC	[1993HUS/SAR]
	$\Delta_v H$		106.8 ± 1.0	298	GCC	[1980FUC/PEA]
	$\Delta_v H$	(428–486)	83.0	443	A	[1987STE/MAL, 1964ROS/SCH]
	$\Delta_v H$	(401–458)	86.7	416	MG,OM	[1952SCO/MAC]
$C_{19}H_{36}O_2$	[1937-62-8]	methyl elaidate				
	$\Delta_v H$	(453–543)	77.2	498	GC	[1993HUS/SAR]
$C_{19}H_{36}O_3$	[141-24-2]	methyl ricinoleate				
	$\Delta_v H$	(453–543)	89.3	498	GC	[1993HUS/SAR]
$C_{19}H_{36}O_5$	[na]	undecyl[1-(butoxycarbonyl)ethyl]carbonate				
	$\Delta_v H$	(438–637)	77.0	453	A	[1987STE/MAL]
$C_{19}H_{37}NO$	[112-96-9]	octadecyl isocyanate				
	$\Delta_v H$	(388–494)	77.8	403	A	[1987STE/MAL]
$C_{19}H_{37}NO_3$	[na]	2-[2-ethyl-(hexanoyloxy)]-N,N-dibutylpropionamide				
	$\Delta_v H$	(403–448)	83.0	418	A	[1987STE/MAL]
$C_{19}H_{37}NO_3$	[56255-31-3]	N-hexadecanoyl-(*l*)-alanine				
	$\Delta_{fus} H$		65.3	374.1	DSC	[1986MIY/MAT]
$C_{19}H_{37}NO_3$	[14379-30-7]	N-tetradecanoyl-(*l*)-valine				
	$\Delta_{trs} H$		14.9	44.53		
	$\Delta_{fus} H$		20.6	365.1	DSC	[1986MIY/MAT]
$C_{19}H_{37}NO_3$	[83871-19-6]	N-tetradecanoyl-(*dl*)-valine				
	$\Delta_{fus} H$		68.1	370.1	DSC	[1986MIY/MAT]
$C_{19}H_{38}$	[6006-33-3]	tridecylcyclohexane				
	$\Delta_v H$	(474–651)	72.2	489		[1999DYK/SVO]
	$\Delta_v H$		94.5	298		[1971WIL/ZWO]
$C_{19}H_{38}$	[13151-92-3]	7-cyclohexyltridecane				
	$\Delta_v H$	(391–449)	75.6	406	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{19}H_{38}$	[1795-22-8]	tetradecylcyclopentane				
	$\Delta_v H$	(475–648)	73.6	490		[1999DYK/SVO]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		95.4	298		[1971WIL/ZWO]
$C_{19}H_{38}$	[55044-77-4]	7-(cyclopentylmethyl)tridecane				
	$\Delta_v H$	(389–446)	76.5	404	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{19}H_{38}$	[18435-45-5]	1-nonadecene				
	$\Delta_v H$	(560–604)	63.3	575	A	[1987STE/MAL]
	$\Delta_v H$		95	298		[1971WIL/ZWO]
$C_{19}H_{38}O$	[629-66-3]	2-nonadecanone				
	$\Delta_{fus}H$		68.65	328	DSC	[1993VIL/HAM]
$C_{19}H_{38}O$	[504-57-4]	10-nonadecanone				
	$\Delta_{fus}H$		66.67	330	DSC	[1993RUE/SAR, 1993VIL/HAM]
$C_{19}H_{38}O_2$	[112-61-8]	methyl stearate				
	$\Delta_{fus}H$		61.7	310.9	DSC	[2004CHI/ZHA]
	$\Delta_{fus}H$		71.1	311		[2003NIK/MAR]
	$\Delta_{fus}H$		64.4	310		[1936KIN/GAR]
	$\Delta_{sub}H$	(299–310)	158.2 ± 2.5	304		[1965DAV/KYB, 1987STE/MAL]
	$\Delta_v H$	(467–558)	109.5 ± 2.7	298	CGC	[2004CHI/ZHA]
	$\Delta_v H$		98	350		[2002VAN/VAN]
	$\Delta_v H$		90.0 ± 0.3	401		[2002VAN/VAN]
	$\Delta_v H$		105.9 ± 1.4	298		[2002VAN/VAN]
	$\Delta_v H$	(463–523)	106.2	298	GC	[1997KRO/VEL]
	$\Delta_v H$	(453–543)	75.4	498	GC	[1993HUS/SAR]
	$\Delta_v H$	(427–484)	83.2	442	A	[1987STE/MAL, 1964ROS/SCH]
$C_{19}H_{38}O_2$	[14010-23-2]	ethyl margarate (ethyl heptadecanoate)				
	$\Delta_{trs}H$		16.57	291.2		
	$\Delta_{fus}H$		36.2	298.4		[1936KIN/GAR]
$C_{19}H_{38}O_2$	[2239-78-3]	propyl palmitate				
	$\Delta_v H$	(439–477)	74.5	454	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{19}H_{38}O_2$	[142-91-6]	isopropyl palmitate				
	$\Delta_v H$	(433–471)	73.6	448	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{19}H_{38}O_2$	[646-30-0]	nonadecanoic acid				
	$\Delta_{trs}H$		7.4	339		
	$\Delta_{fus}H$		57.0	340.4	DSC	[2007GBA/NEG]
	$\Delta_{trs}H$		9.76	338		
	$\Delta_{fus}H$		57.62	341.2		[1996DOM/HEA]
	$\Delta_{sub}H$	(298–315)	143.6		TPTD	[2005CHA/ZIE]
		Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods				
	$\Delta_{sub}H$		198.7 ± 5			[1968BAC/NOV, 1970COX/PIL]
	$\Delta_v H$	(511–659)	94.4	526	A	[1987STE/MAL]
	$\Delta_v H$	(371–394)	121.8	386	ME, TE	[1982DEK/SCH]
$C_{19}H_{38}O_3$	[35274-05-6]	hexadecyl lactate				
	$\Delta_v H$	(405–556)	90.5	420	A	[1987STE/MAL]
$C_{19}H_{38}O_3$	[94434-74-9]	3-octyloxypropionic acid, octyl ester				
	$\Delta_v H$	(443–513)	73.6	458	A	[1987STE/MAL]
$C_{19}H_{39}Br$	[4434-66-6]	1-bromononadecane				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(493–673)	77.9	508	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{19}H_{39}Cl$	[62016-76-6]	1-chlorononadecane				
	$\Delta_v H$		114.7	298		[2006BOL/NER2]
	$\Delta_v H$	(483–673)	76.3	498	A	[1987STE/MAL, 1970DYK/VAN]
$C_{19}H_{39}F$	[1480-63-3]	1-fluorononadecane				
	$\Delta_v H$	(458–648)	72.5	473	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{19}H_{39}I$	[62127-51-9]	1-iodononadecane				
	$\Delta_v H$	(506–673)	113.8	298	A,EST	[1987STE/MAL, 1961LI/ROS, 2006BOL/NER]
	$\Delta_v H$	(506–673)	79.1	521	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{19}H_{39}NO_2$	[6280-24-6]	N-hexadecyl lactamide				
	$\Delta_v H$	(423–508)	111	438	A	[1987STE/MAL]
$C_{19}H_{39}NO_2$	[na]	N,N-dioctyl lactamide				
	$\Delta_v H$	(453–488)	99.3	468	A	[1987STE/MAL]
$C_{19}H_{40}$	[629-92-5]	nonadecane				
	$\Delta_{trs}H$		12.7	294.8		
	$\Delta_{fus}H$		42.7	304.4	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		13.67	296		
	$\Delta_{fus}H$		47.4	305.3		[1996DOM/HEA]
	$\Delta_{sub}H$		143.6	298	C	[1972MOR3]
	$\Delta_{sub}H$	(288–303)	136.6	296		[1964MOR]
	$\Delta_v H$	(423–588)	76.2	438		[1994MOR/KOB]
	$\Delta_v H$		96.4	298		[1994RUZ/MAJ]
	$\Delta_v H$	(456–606)	73.0	471	A	[1987STE/MAL]
	$\Delta_v H$		95.8	298		[1971WIL/ZWO]
$C_{19}H_{40}$	[1560-88-9]	2-methyloctadecane				
	$\Delta_v H$	(451–595)	67.5	466	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[6561-44-0]	3-methyloctadecane				
	$\Delta_v H$	(455–597)	69.2	470	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[10544-95-3]	4-methyloctadecane				
	$\Delta_v H$	(445–596)	63.3	460	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[25117-35-5]	5-methyloctadecane				
	$\Delta_v H$	(445–595)	63.8	460	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[61868-03-9]	5-methyloctadecane				
	$\Delta_v H$	(447–598)	64.1	462		[1999DYK/SVO, 1959TER/BRI]
	$\Delta_v H$	(493–598)	67.2	508	A	[1987STE/MAL]
$C_{19}H_{40}$	[61868-09-5]	2,4-dimethylheptadecane				
	$\Delta_v H$	(444–574)	70.6	459	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[102013-94-5]	2,4-dimethylheptadecane				
	$\Delta_v H$	(435–568)	67.3	450	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[7225-66-3]	7-hexyltridecane				
	$\Delta_v H$	(411–444)	75.2	426	A	[1987STE/MAL]
$C_{19}H_{40}O$	[1454-84-8]	1-nonadecanol				
	$\Delta_{fus}H$		43.3	333.9	DSC	[2004VEN/CAL]
	$\Delta_{trs}H$		29.1	329.7		
	$\Delta_{fus}H$		43.3	333.9	DSC	[2002VEN/RAM]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		72.42	334.5		[2001VAN/OON2]
		Note: Value includes the enthalpy of a solid/solid transition that occurs at about 331 K				
	Δ_vH	(479–640)	81.7	494	A	[1987STE/MAL]
	Δ_vH	(494–635)	80.0	509	A	[1987STE/MAL]
$C_{19}H_{40}O_2$	[7268-65-7]	1,19-nonadecanediol				
	$\Delta_{trs}H$		37.1	358.9		
	$\Delta_{fus}H$		35.7	373.9	DSC	[1999OGA/NAK]
$C_{19}H_{40}S$	[53193-23-0]	1-nonadecanethiol				
	Δ_vH	(502–682)	79.2	517	EST	[1999DYK/SVO]
$C_{19}H_{41}N$	[14130-05-3]	nonadecylamine				
	Δ_vH	(532–647)	72.7	547	A, EST	[1987STE/MAL, 1956MAN2]
$C_{20}F_{42}$	[37589-57-4]	perfluoroeicosane				
	$\Delta_{trs}H$		0.67	149.5		
	$\Delta_{trs}H$		11.25	202.9		
	$\Delta_{fus}H$		80.33	437.9	DSC	[1986STA]
$C_{20}H_4Cl_4F_{13}NO_2$	[433932-34-4]	4,5,6,7-dichloro-2-(4-n-tridecafluorohexylphenyl)isoindole-1,3-dione				
	$\Delta_{fus}H$		45.1	512.8		[2002JOW/DIN]
$C_{20}H_6Cl_2F_{13}NO_2$	[433932-32-2]	5,6-dichloro-2-(4-n-tridecafluorohexylphenyl)isoindole-1,3-dione				
	$\Delta_{fus}H$		40.7	459.6		[2002JOW/DIN]
$C_{20}H_6Cl_2F_{13}NO_2$	[433932-33-3]	4,7-dichloro-2-(4-n-tridecafluorohexylphenyl)isoindole-1,3-dione				
	$\Delta_{trs}H$		18.4	413.2		
	$\Delta_{fus}H$		19.9	417.2		[2002JOW/DIN]
$C_{20}H_{10}$	[5821-51-2]	corannulene				
	$\Delta_{fus}H$		17.3	542.3	DSC	[2002CHI/WEB]
	$\Delta_{sub}H$	(390–425)	115.8	408	HSA	[2002CHI/WEB]
	$\Delta_{sub}H$	(390–425)	119.5 ± 4.4	298	HSA	[2002CHI/WEB]
	$\Delta_{sub}H$		116.3 ± 6.0	298	CGC+Fus	[2002CHI/WEB]
	Δ_vH		115.5 ± 2.5	298	CGC	[2002CHI/WEB]
$C_{20}H_{11}F_{14}N_3$	[502455-01-8]	2,2,3,3,4,4,4-heptafluoro-N-[2,2,3,3,4,4,4-heptafluoro-1-(phenylamino)-butylidene]-N′-phenylbutanimidamide				
	$\Delta_{fus}H$		31.3	361		[2003SIE/WEB]
$C_{20}H_{11}NO_2$	[63041-90-7]	6-nitrobenzo[a]pyrene				
	$\Delta_{fus}H$		30.2	528.4	DSC	[2010KES/AUC]
$C_{20}H_{12}$	[198-55-0]	perylene				
	$\Delta_{fus}H$		31.88	551		[1996DOM/HEA, 1993ACR]
	$\Delta_{sub}H$	(391–424)	132.6 ± 3.6	408	ME	[1998OJA/SUU]
	$\Delta_{sub}H$	(313–453)	123.2	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(443–518)	145.2 ± 2.5	298	C,ME	[1973GIG/MAL]
	$\Delta_{sub}H$		125.5 ± 4.2	298	ME	[1967WAK/INO, 1970COX/PIL]
	$\Delta_{sub}H$	(383–453)	139	418		[1958HOY/PEP, 1987STE/MAL]
	$\Delta_{sub}H$		129.6 ± 2.1	415	ME	[1952INO/SHI]
	$\Delta_{sub}H$		121.3	370	ME	[1951INO]
	Δ_vH		119.5	298	CGC	[2008ZHA/UNH]
	Δ_vH		123.1 ± 1.7	298	CGC	[2002CHI/WEB]
	Δ_vH	(323–473)	89.9	398	GC	[2002LEI/CHA]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{20}D_{12}$	[1520-96-3]	perylene - d_{12}				
	$\Delta_v H$		119.5	298	CGC	[2008ZHA/UNH]
$C_{20}H_{12}$	[50-32-8]	benzo[a]pyrene				
	$\Delta_{fus}H$		14.7	451.8	DSC	[2010KES/AUC]
	$\Delta_{trs}H$		8.49	390.2		
	$\Delta_{fus}H$		17.32	454.2		[1991ACR]
	$\Delta_{sub}H$	(313–453)	122.5	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(358–431)	118.3	373	ME	[1987STE/MAL, 1974MUR/POL]
	$\Delta_v H$		117.8 ± 1.0	298	CGC	[2008HAN/NUT]
	$\Delta_v H$	(463–523)	105.0 ± 1.5	298	GC	[2006HAF/PAR]
	$\Delta_v H$	(323–473)	91	398	GC	[2002LEI/CHA]
	$\Delta_v H$	(343–453)	95.5	398	GC	[1990HIN/BID2]
$C_{20}H_{12}$	[192-97-2]	benzo[e]pyrene				
	$\Delta_{fus}H$		13.8	451.3	DSC	[2010KES/AUC]
	$\Delta_{trs}H$		2.51	426.2		
	$\Delta_{fus}H$		16.57	454.4		[1991ACR]
	$\Delta_{sub}H$	(313–453)	117.9	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(359–423)	119.1	373	ME	[1987STE/MAL, 1974MUR/POL]
	$\Delta_v H$		118.2 ± 0.3	298	CGC	[2008HAN/NUT]
	$\Delta_v H$	(463–523)	105.0 ± 1.5	298	GC	[2006HAF/PAR]
	$\Delta_v H$	(343–453)	92	398	GC	[1990HIN/BID2]
$C_{20}H_{12}$	[207-08-9]	benzo[k]fluoranthene				
	$\Delta_{fus}H$		32.4	489.7	DSC	[2010KES/AUC]
	$\Delta_{fus}H$		27.5	490.6		[2002DIO/MIN]
	$\Delta_{sub}H$	(387–423)	124.2 ± 4.7	298	ME	[2002DIO/MIN]
	$\Delta_{sub}H$	(363–430)	130	378		[1987STE/MAL]
	$\Delta_{sub}H$		120 ± 10		TE	[1983FER/QUA]
	$\Delta_v H$		117.4 ± 1.1	298	CGC	[2008HAN/NUT]
	$\Delta_v H$	(463–513)	105.5 ± 1.5	298	GC	[2006HAF/PAR]
	$\Delta_v H$	(323–473)	88.5	398	GC	[2002LEI/CHA]
$C_{20}H_{12}$	[205-99-2]	benzo[b]fluoranthene				
	$\Delta_{fus}H$		19.6	441.5	DSC	[2010KES/AUC]
	$\Delta_{sub}H$	(313–453)	119.2	383	GS	[1995NAS/LEN]
	$\Delta_v H$		116.8 ± 1.6	298	CGC	[2008HAN/NUT]
	$\Delta_v H$	(463–513)	104.0 ± 1.5	298	GC	[2006HAF/PAR]
	$\Delta_v H$	(323–473)	89.7	398	GC	[2002LEI/CHA]
$C_{20}H_{12}$	[205-82-3]	benzo[j]fluoranthene				
	$\Delta_{fus}H$		17.9	438.3	DSC	[2010KES/AUC]
$C_{20}H_{12}BrNO_4$	[59722-76-8]	1-amino-2-(4-bromophenoxy)-4-hydroxy-9,10-anthraquinone				
	$\Delta_{sub}H$	(473–543)	163.6	413		[1978NIS/ISH]
$C_{20}H_{12}O$	[13345-21-6]	3-hydroxybenzo[a]pyrene				
	$\Delta_{fus}H$		24.1	469.6	DSC	[2010KES/AUC]
$C_{20}H_{13}N$	[194-59-2]	7*H*-dibenzo[c,g]carbazole				
	$\Delta_{fus}H$		20.1	429.8	DSC	[2010KES/AUC]
$C_{20}H_{13}NO_2$	[109392-90-7]	phenyl acridine-9-carboxylate				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		39.2	464	DSC	[2010KRZ/MAL]
$C_{20}H_{13}NO_4$	[17418-58-5]	1-amino-4-hydroxy-2-phenoxy-9,10-anthraquinine (Disperse Red 60)				
	$\Delta_{fus}H$		30.79	458.2		[1991BAU/WEB]
	$\Delta_{sub}H$	(359–366)	152.5	362.5	A	[1987STE/MAL, 1977EIB/TRO]
	$\Delta_{sub}H$		141.8			[1984KAR/KRU]
	$\Delta_{sub}H$	(373–453)	103.8	413		[1978NIS/ISH]
$C_{20}H_{13}N_5O_3$	[194785-03-0]	1-(2′-nitrobenzylidene)-2-phenazinoylhydrazine				
	$\Delta_{fus}H$		47.47	540.2	DSC	[1997CIO/MEL]
$C_{20}H_{13}N_5O_3$	[194785-02-9]	1-(4′-nitrobenzylidene)-2-phenazinoylhydrazine				
	$\Delta_{fus}H$		44.8	548.2	DSC	[1997CIO/MEL]
$C_{20}H_{14}$	[602-55-1]	9-phenylanthracene				
	$\Delta_{sub}H$	(313–453)	118.7	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(352–395)	119.7		TE	[1974SHI/GRE]
	$\Delta_{sub}H$	(353–426)	115.3	368		[1958KLO]
	$\Delta_{v}H$	(323–473)	91.6	398	GC	[2002LEI/CHA]
	$\Delta_{v}H$	(430–510)	84.4	445	A	[1987STE/MAL]
	$\Delta_{v}H$	(435–513)	86.2	450		[1999DYK/SVO, 1974SHI/GRE]
$C_{20}H_{14}$	[477-75-8]	9,10-dihydro-9,10-(1′,2′) benzoanthracene (tryptycene)				
	$\Delta_{fus}H$		30.29	527.2		[1996DOM/HEA]
	$\Delta_{sub}H$		104.6 ± 12.6			[1973ROD/WES, 1977PED/RYL]
$C_{20}H_{14}$	[11068-27-2]	binaphthalene				
	$\Delta_{sub}H$	(313–453)	138.3	383	GS	[1995NAS/LEN]
$C_{20}H_{14}$	[604-53-5]	1,1′-binaphthyl				
	$\Delta_{fus}H$		19.2	431.2	DSC	[2005SAI/MAR]
	$\Delta_{fus}H$ *(I)*		30.5	418.2		
	$\Delta_{fus}H$ *(II)*		23.7	431.2	DSC	[1975WIL/PIN]
$C_{20}H_{14}$	[612-78-2]	*β*,*β*′-binaphthyl				
	$\Delta_{fus}H$		38.9	461.2		[1996DOM/HEA]
$C_{20}H_{14}N_2O_2$	[4395-65-7]	1-anilino-4-aminoanthraquinone				
	$\Delta_{sub}H$		138.6			[1984KAR/KRU]
	$\Delta_{sub}H$	(473–553)	135.1		GS	[1977NIS/ISH, 1978NIS/ISH]
$C_{20}H_{14}N_2O_4$	[56405-27-7]	1-amino-2-(4-aminophenoxy)-4-hydroxy-9,10-anthraquinone				
	$\Delta_{sub}H$	(373–453)	U 50.2	413		[1978NIS/ISH]
$C_{20}H_{14}N_4$	[101-60-0]	21*H*,23*H*-porphine				
	$\Delta_{sub}H$	(424–507)	87 ± 3		Fluoresc	[2004STE/STI]
$C_{20}H_{14}N_4O$	[194784-97-9]	1-benzylidene-2-phenazinoylhydrazine				
	$\Delta_{fus}H$		45.76	512.1	DSC	[1997CIO/MEL]
$C_{20}H_{14}O_4$	[94-01-9]	dibenzoyl resorcinol				
	$\Delta_{sub}H$	(323–399)	165.8	338	A	[1987STE/MAL]
	$\Delta_{v}H$	(399–493)	76.0	414	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{20}H_{14}O_4$	[77-09-8]	phenolphthalein				
	$\Delta_{fus}H$		51.05	534		[1996DOM/HEA]
$C_{20}H_{15}BrN_4O_6$	[na]	3,5-dinitro-4-(4-methoxyphenyl)aminobenzoyl (4-bromophenyl)amide				

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		50.67	522.5		[1999KOR/LEV]
$C_{20}H_{15}BrN_4O_6$	[235114-51-9]	3,5-dinitro-2-(4-methoxyphenyl)aminobenzoyl (4-bromophenyl)amide				
	$\Delta_{fus}H$		38.0	478.9		[1999KOR/LEV]
$C_{20}H_{15}F_3$	[68643-31-2]	1,1,1-trifluoro-2,2,2-triphenylethane				
	$\Delta_{fus}H$		30.33	440.3		[1997SCH/VER]
	$\Delta_{sub}H$		112.3 ± 1.0	298		[1997SCH/VER]
$C_{20}H_{15}F_3O$	[145698-50-6]	4-propoxy-4′-trifluoromethyldiphenyldiacetylene				
	$\Delta_{fus}H$		18.81	315.9	DSC	[1993JUA/CHE]
$C_{20}H_{15}O_5P$	[803-19-0]	*bis*(4-carboxyphenyl)phenylphosphine oxide				
	$\Delta_{fus}H$		17.6	610.6	DSC	[2000WAN/WAN]
$C_{20}H_{16}$	[58-72-0]	triphenylethylene				
	$\Delta_{fus}H$		20.58	339.9	DSC	[1999VER/EBE]
	$\Delta_{fus}H$		20.35	341		[1998HIK/OKA]
	$\Delta_{sub}H$	(323–339)	110.1 ± 1.9	331	GS	[1999VER/EBE]
	$\Delta_{sub}H$	(323–339)	112.2 ± 1.9	298	GS	[1999VER/EBE]
	$\Delta_{v}H$	(346–377)	88.0 ± 0.9	362	GS	[1999VER/EBE]
	$\Delta_{v}H$	(346–377)	91.8 ± 0.9	298	GS	[1999VER/EBE]
	$\Delta_{v}H$	(353–443)	89.7	398		[1989SAS/NGU]
$C_{20}H_{16}$	[313-74-6]	7,12-dimethylbenz[a]anthracene				
	$\Delta_{sub}H$	(379–390)	135		A	[1987STE/MAL, 1964KEL/RIC]
	$\Delta_{v}H$	(379–396)	107.8		A	[1987STE/MAL, 1964KEL/RIC]
	$\Delta_{v}H$	(323–473)	88.9	398	GC	[2002LEI/CHA]
	$\Delta_{v}H$	(396–408)	112.9	402	A, ME	[1987STE/MAL, 1964RAT/SHR, 1999DYK/SVO]
$C_{20}H_{16}$	[3697-27-6]	5,6-dimethylchrysene				
	$\Delta_{sub}H$		130 ± 1.3			[1966GEI/QUI, 1970COX/PIL]
	$\Delta_{sub}H$		134 ± 1.3			[1966GEI/QUI, 1970COX/PIL]
	$\Delta_{sub}H$	(379–408)	135 ± 2.4	394	ME	[1964KEL/RIC]
	$\Delta_{v}H$	(380–394)	121.7	387	A	[1987STE/MAL]
$C_{20}H_{16}$	[313-74-6]	1′,9-dimethyl-1,2-benzanthracene				
	$\Delta_{sub}H$		112.5 ± 3.3		ME	[1965KAR/KYB, 1970COX/PIL]
$C_{20}H_{16}$	[316-51-8]	3′,6-dimethyl-1,2-benzanthracene				
	$\Delta_{sub}H$		112.5 ± 3.3		ME	[1965KAR/KYB, 1970COX/PIL]
$C_{20}H_{16}F_2$	[145698-36-8]	4-*n*-butyl-3′,4′-difluorodiphenyldiacetylene				
	$\Delta_{fus}H$		24.33	340.8	DSC	[1993JUA/CHE]
$C_{20}H_{16}N_2O_5$	[19685-09-7]	20-(S)-10-hydroxycamptothecin				
	$\Delta_{fus}H$		53.38	467.2	DSC	[2010KUN/SAV]
$C_{20}H_{16}O_4S_2$	[3263-31-8]	6-ethoxy-2-(6-ethoxy-3-oxobenzo[b]thien-2(3*H*)-ylidene)benzo[b]-thiophen-3(2*H*)-one (C.I. Vat Orange 5)				
	$\Delta_{sub}H$	(519–634)	65	577	GS	[1986NIS/AND]
$C_{20}H_{17}FO_3S$	[38194-50-2]	(Z)-5-fluoro-2-methyl-1-[p-(methylsulfinyl)benzylidene]indene-3-acetic acid (sulindac)				
	$\Delta_{fus}H$		33.4	460.2	DSC	[2006WAS/HOL]
$C_{20}H_{17}F_{25}$	[90499-31-3]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafluoroeicosane				
	$\Delta_{trs}H$		2.4	192		

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		6.4	329		
	$\Delta_{fus}H$		23.7	361	DSC	[1991HOP/MOL]
	$\Delta_{trs}H$		5.6	324.2		
	$\Delta_{fus}H$		21.9	355.2	DSC	[1986RUS/RAB]
$C_{20}H_{17}N_3O_4$	[na]	4,11-diamino-2-butyl-1*H*-naphth[2,3-f]isoindole-1,3,5,10(2*H*)-tetraone				
	$\Delta_{fus}H$		24.85	490.2		[1991BAU/WEB]
$C_{20}H_{17}N_5O_3$	[na]	6-(2-naphthyl)-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	$\Delta_{fus}H$		37.64	493.4	DSC	[1999ZIE/GOL]
$C_{20}H_{18}$	[15271-39-6]	1,1,1-triphenylethane				
	$\Delta_{fus}H$		19.95	375.9	DSC	[1999VER3]
	$\Delta_{sub}H$	(338–363)	108.6 ± 0.9	298	GS	[1999VER3]
	$\Delta_{sub}H$	(338–363)	105.4 ± 0.9	351	GS	[1999VER3]
$C_{20}H_{18}$	[1520-42-9]	1,1,2-triphenylethane				
	$\Delta_{fus}H$		24.39	328.2	DSC	[1999VER3]
	$\Delta_{sub}H$	(335–368)	89.0 ± 0.5	351	GS	[1999VER3]
	$\Delta_{sub}H$	(335–368)	92.2 ± 0.5	298	GS	[1999VER3]
$C_{20}H_{18}N_2O_2$	[7385-67-3]	9-(diethylamino)-5*H*-benzo[a]phenoxazin-5-one (nile red)				
	$\Delta_{sub}H$	(427–515)		66 ± 2	Fluoresc	[2004STE/STI]
$C_{20}H_{18}O_2$	[na]	2-fluorenyl-2-methyl-1,3-cyclohexanedione				
	$\Delta_{fus}H$		35.7	448.2		[1995NOL/VER]
$C_{20}H_{18}O_6$	[170464-52-5]	9-fluorenyl-*tris*(methoxycarbonyl)methane				
	$\Delta_{fus}H$		32.3	407.2		[1995RAK/VER]
	$\Delta_{sub}H$		132.6	298	GS	[1995RAK/VER]
$C_{20}H_{19}BrS$	[na]	2-*n*-butyl-5-(4-bromobiphenyl-4-yl)thiophene				
	$\Delta_{fus}H$		21.4	501.4		[1993BRE/DUN]
$C_{20}H_{19}F_3O$	[172424-72-5]	4-*n*-hexyloxy-2′,3′,4′-trifluorodiphenylacetylene				
	$\Delta_{fus}H$		30.8	322	DSC	[1995HSU/TSA]
$C_{20}H_{19}N_7O_4$	[41642-51-7]	Disperse Blue 165				
	$\Delta_{sub}H$	(464–484)	90.7	474	GS	[1989NIS/AND]
	Note: The molecular structure of the compound given in the paper had a Cl group and only one CN functional group, which is different than the molecular structure given in Scifinder Scholar for Disperse Blue 165. The molecular formula for the structure in the paper is $C_{20}H_{21}ClN_6O_3$. The molecular weight given in the paper, 405, agrees with the molecular formula of $C_{20}H_{19}N_7O_4$. We have assumed that the chemical name is correct, but that the authors misdrew the molecular structure.					
$C_{20}H_{20}$	[26902-55-6]	hexacyclopropylethane				
	Δ_vH	(333–373)	85.8 ± 0.2	298	GS	[1995CHI/HES]
$C_{20}H_{20}$	[89683-62-5]	pagodane (undecacyclo[9.9.0.0^{1,5}.0^{2,12}.0^{2,18}.0^{3,7}.0^{6,10}.0^{8,12}.0^{11,15}.0^{13,17}.0^{16,20}]eicosane)				
	$\Delta_{sub}H$	(418–473)	90.2 ± 2.3	446	T	[1994BEC/RUE]
$C_{20}H_{20}FNO_3$	[94610-85-2]	4-cyano-3-fluorophenyl 4-hexyloxybenzoate				
	$\Delta_{fus}H$		35.56	332.7		[1984KEL]
$C_{20}H_{20}F_2$	[145698-44-8]	4-hexyl-3′,4′-difluorodiphenylacetylene				
	$\Delta_{fus}H$		24.3	314.9	DSC	[1995HSU/TSA]
$C_{20}H_{20}F_2O$	[145698-45-9]	4-hexyloxy-3′,4′-difluorodiphenylacetylene				
	$\Delta_{fus}H$		33.1	323.6	DSC	[1995HSU/TSA]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{20}H_{20}F_2O$	[172424-68-9] 4-hexyloxy-2′,4′-difluorodiphenylacetylene					
	$\Delta_{fus}H$		34.1	320.9	DSC	[1995HSU/TSA]
$C_{20}H_{20}NP$	[47182-04-7] N-ethyl triphenylphosphine imine					
	$\Delta_{sub}H$		75.3 ± 8.4	298		[1982PIL/SKI, 1960CLA/FOW]
$C_{20}H_{20}O_2$	[160731-88-4] 2-diphenylmethyl-2-ethyl-1,3-cyclopentandione					
	$\Delta_{fus}H$		28.2	382.2		[1995NOL/VER]
	$\Delta_{sub}H$	(342–377)	122.8 ± 0.7	360	T	[1995NOL/VER]
$C_{20}H_{20}O_3$	[87051-12-5] 4,4-dimethyl-1,8-diphenyl-2,3,5-trioxabicyclo[4.3.0]non-7-ene					
	$\Delta_{fus}H$		22.1	369.2	DSC	[1991JEF/JAB]
$C_{20}H_{20}O_6$	[170464-52-5] 1,1,1-*tris*(methoxycarbonyl)-2,2-diphenylethane					
	$\Delta_{fus}H$		36.1	414.2		[1995RAK/VER]
	$\Delta_{sub}H$		136	298	GS	[1995RAK/VER]
$C_{20}H_{21}ClO_4$	[49562-28-9] 2-[4-(4-chlorobenzoyl)phenoxy]-2-methylpropanoic acid, isopropyl ester (fenofibrate)					
	$\Delta_{fus}H$		32.4	353.7		[2002ZHO/ZHA]
$C_{20}H_{21}F_{19}O$	[144986-71-0] 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-nonadecafluoro-10-eicosanone					
	$\Delta_{fus}H$		53.17	317.9		[1993VIL/HAM]
$C_{20}H_{21}F_{21}$	[90499-29-9] 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafluoroeicosane					
	$\Delta_{trs}H$		4	317		
	$\Delta_{fus}H$		24.4	337	DSC	[1991HOP/MOL]
	$\Delta_{trs}H$		2.2	306.5		
	$\Delta_{fus}H$		26.7	336.7		[1989VIN/RUS]
$C_{20}H_{21}NO_3S$	[313057-11-3] 4-(7-octenyloxy)phenyl 5-cyano-2-thiophene carboxylate					
	$\Delta_{fus}H$		68.2	332.7	DSC	[2000WU/WAN]
$C_{20}H_{21}N_3O_3$	[198629-74-2] pyrimethanil phenoxyacetate					
	$\Delta_{fus}H$	(81–380)	34.28	349.4	AC	[2006SUN/LIU]
$C_{20}H_{21}N_3O_5S$	[87027-09-6] 2-methyl-1,1-dioxido-3-[(2-pyridinylamino)carbonyl]-2*H*-1,2- benzothiazin-4-yl, 2,2-dimethylpropanoic acid ester (piroxicam pivalate)					
	$\Delta_{fus}H$		32.74	427	DSC	[1998GIO/GAZ]
$C_{20}H_{22}N_2O$	[263896-41-9] 2,3-dihydro-2-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1*H*-benz[e]isoindol-1-one					
	$\Delta_{fus}H$		29.1	448.2	DSC	[2006CAP/TRA]
$C_{20}H_{22}N_2O_4$	[na] 1,4-*bis*(propylamino)anthraquinone					
	$\Delta_{v}H$	(409–463)	118.3	424	A	[1987STE/MAL]
$C_{20}H_{22}O_2$	[160731-83-9] 3-diphenylmethyl-3-ethyl-2,4-pentanedione					
	$\Delta_{fus}H$		34.7	388.2		[1995NOL/VER]
	$\Delta_{sub}H$	(349–387)	122.3 ± 1.5	368	T	[1995NOL/VER]
$C_{20}H_{23}FN_2O$	[2354-61-2] 1-(4-fluorophenyl)-4-[4-phenyl-1-piperazinyl]-1-butanone (butropipazone)					
	$\Delta_{fus}H$ *(I)*		36.7	387.2		
	$\Delta_{fus}H$ *(II)*		34.7	363.7	DSC	[1981DRA/AZI]
$C_{20}H_{23}F_{19}O$	[144986-72-1] 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-nonadecafluoro-10-eicosanol					
	$\Delta_{trs}H$		3.6	346.2		
	$\Delta_{fus}H$		33.5	356		[1992VIL/WEI]
$C_{20}H_{23}NO_4$	[16590-41-3] 17-(cyclopropylmethyl)-4,5-epoxy-3,14-dihydroxy-morphinan-6-one (naltrexone)					
	$\Delta_{fus}H$		15.64	448.2	DSC	[2004PIL/HAM]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		14.8	448.9	DSC	[2004HAM/HAM]
$C_{20}H_{23}N_3O_9$	[142489-47-2] N-[N-[[2-(1,3-dihydro-1,3-dioxo-2*H*-isoindol-2-yl)ethoxy]acetyl]-(*l*)-alanyl]-(*d*)-glutamic acid					
	$\Delta_{fus}H$		54.53	NA		[1999ZAD/KER]
$C_{20}H_{24}$	[115182-07-2] 8-(4-biphenyl)-1-octene					
	$\Delta_{fus}H$		21	291.5	DSC	[1989MAL/KAN]
$C_{20}H_{24}O_2$	[102607-41-0] 7-methyl-3-(1-methylethyl)-8-(4-methyl-3-pentenyl)-1,2-naphthalenedione (saprorthoquinone)					
	$\Delta_{fus}H$		23.09	369.2		[1992HUA/ZHO]
$C_{20}H_{24}O_2$	[57-63-6] 19-norpregna-1,3,5(10)-trien-20-yne-3,17-diol (ethinyl estradiol)					
	$\Delta_{fus}H$		27.57	456.2		[2002VAN/KRU]
$C_{20}H_{24}O_3$	[901-93-9] 3-(acetyloxy)-estra-1,3,5(10)-trien-17-one					
	$\Delta_{fus}H$		15	399	DSC	[1990YAN/EIR]
$C_{20}H_{24}O_4S$	[313057-15-7] 4-(7-octenyloxy)phenyl 5-methoxy-2-thiophene carboxylate					
	$\Delta_{fus}H$		76.57	332.8	DSC	[2000WU/WAN]
$C_{20}H_{24}O_6$	[14187-32-7] dibenzo-18-crown-6					
	$\Delta_{fus}H$		57.45	435.8		[1998DOM]
	$\Delta_{sub}H$		178.8 ± 6.9	298	CGC-DSC	[2000NIC/ORF]
	$\Delta_{v}H$		137.0 ± 7.4	298	CGC	[2000NIC/ORF]
$C_{20}H_{26}$	[1625-91-8] 4,4′-di-*tert*-butylbiphenyl					
	$\Delta_{fus}H$		20.0	400.8	DSC	[2009MEL/PIM]
	$\Delta_{trs}H$		1.0	322		
	$\Delta_{fus}H$		18.8	402	DSC	[2002NAT/JES]
	$\Delta_{sub}H$		106.8 ± 3.2	298	C	[2009MEL/PIM]
	$\Delta_{v}H$		86.2 ± 3.2	298	S-V	[2009NTI/CHA]
$C_{20}H_{26}O$	[68-22-4] 19-nor-17α-ethynyltestosterone					
	$\Delta_{fus}H$		39.6	479		[1996DOM/HEA]
$C_{20}H_{26}O_2$	[38107-76-5] 2-*tert*-butyl-4-methoxymethyl-6-α-methylbenzylphenol					
	$\Delta_{fus}H$		29.4	371.7	DTA	[1972INO/LIA]
$C_{20}H_{26}O_3$	[57078-10-1] 1,2,2-trimethyl-3-[(5,6,7,8-tetrahydro-2-naphthalenyl)carbonyl]cyclopentanecarboxylic acid					
	$\Delta_{fus}H$		22.94	421.3	DSC	[1992TER/PAU]
$C_{20}H_{26}O_4$	[84-61-7] dicyclohexyl phthalate					
	$\Delta_{v}H$	(391–475)	97	406	A	[1987STE/MAL]
$C_{20}H_{27}NO_4$	[135531-41-8] (−)1-[[2-(3,4-dimethoxyphenyl)ethyl]amino]-3-(3-methyl-phenoxy)-2-propanol (bevantolol)					
	$\Delta_{fus}H$		43.22	348.3		[1999LI/ZEL]
$C_{20}H_{27}NO_4$	[59170-23-9] (+)1-[[2-(3,4-dimethoxyphenyl)ethyl]amino]-3-(3-methyl-phenoxy)-2-propanol (bevantolol)					
	$\Delta_{fus}H$		45.9	360.6		[1999LI/ZEL]
$C_{20}H_{27}N_5O_2$	[73963-72-1] 6-[4-(1-cyclohexyl-1*H*-tetrazol-5-yl)butoxy]-3,4-dihydro-2(1*H*)-quinolinone (cilostazol)					
	$\Delta_{fus}H$ *(I)*		4.72	432		
	$\Delta_{fus}H$ *(II)*		3.89	408.8		
	$\Delta_{fus}H$ *(III)*		4.28	419		[2002STO/BEH]
	Note: Reported fusion enthalpies are very small. Compound likely exhibits solid-solid transition(s) at lower temperature(s).					
$C_{20}H_{28}$	[55000-56-1] 2-butyl-3-hexylnaphthalene					
	$\Delta_{v}H$	(422–485)	80.8	437		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{20}H_{28}$	[55000-55-0]	7-butyl-1-hexylnaphthalene				
	$\Delta_v H$	(418–481)	78.1	433		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{28}$	[55000-53-8]	1,4-dimethyl-5-octylnaphthalene				
	$\Delta_v H$	(432–496)	81.6	447		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{28}$	[55000-54-9]	2,6-dimethyl-3-octylnaphthalene				
	$\Delta_v H$	(430–494)	80.8	445		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{28}N_2$	[na]	1-(4-cyanophenyl)-4-n-heptylpiperidine				
	$\Delta_{fus}H$		30.2	326.2		[1991SHE/WEI]
$C_{20}H_{28}O_2$	[112018-00-5]	1-[3,5-di-*tert*-butyl-4-hydroxyphenyl]-5-hexyn-1-one (tebufelone)				
	$\Delta_{fus}H$		25.14	342.2		[1993KEL/SAK]
$C_{20}H_{28}O_3$	[3129-42-8]	testosterone formate				
	$\Delta_{fus}H$		26.36	398		[1994REG/CHM]
$C_{20}H_{28}O_5$	[104225-29-8]	3-(3,4-diethoxybenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	$\Delta_{fus}H$		29.07	389.3	DSC	[1992TER/PAU]
$C_{20}H_{30}$	[26902-55-6]	hexacyclopropylethane				
	$\Delta_{sub}H$		109.0 ± 2.1			[1984BER/BEC]
$C_{20}H_{30}$	[3732-31-8]	1,1′-biadamantane				
	$\Delta_{trs}H$		1.15	336.3		
	$\Delta_{trs}H$		1.3	509.6		
	$\Delta_{fus}H$		70 ± 10	561	AC	[2007KAR/KAB]
	$\Delta_{sub}H$	(393–443)	109.1 ± 1.3	417.8	ME	[2007KAR/KAB]
	$\Delta_{sub}H$	(393–443)	113.8 ± 1.4	298	ME	[2007KAR/KAB]
$C_{20}H_{30}N_4O_4$	[197300-58-6]	1,1′-(1,10-decanediyl)*bis*thymine				
	$\Delta_{fus}H$		42.56	455		[2002ITA/KAM]
$C_{20}H_{30}O_2$	[58-18-4]	17-methyl testosterone				
	$\Delta_{fus}H$		27.8	439		[1997CEN/MEL]
$C_{20}H_{30}O_4$	[84-75-3]	dihexyl phthalate				
	$\Delta_v H$	(453–533)	92	468	A	[1987STE/MAL]
	$\Delta_v H$	(343–387)	103	358	A, ME	[1987STE/MAL, 1948SMA/SMA]
$C_{20}H_{32}$	[66538-96-3]	1,2,3,4-tetrahydro-6-butyl-7-hexylnaphthalene				
	$\Delta_v H$	(413–475)	78.1	428		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{32}$	[66205-02-5]	1,2,3,4-tetrahydro-7-butyl-1-hexylnaphthalene				
	$\Delta_v H$	(409–471)	76.7	424		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{32}$	[55255-59-9]	1,2,3,4-tetrahydro-2,6-dimethyl-7-octylnaphthalene				
	$\Delta_v H$	(418–480)	79.4	433		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{32}$	[55255-58-8]	1,2,3,4-tetrahydro-5,8-dimethyl-1-octylnaphthalene				
	$\Delta_v H$	(419–481)	78.6	434		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{32}$	[na]	10,10,13,13-tetramethylcyclohexadeca-1,5-diyne				
	$\Delta_{fus}H$		18.83	323.2		[1975BJO/BOR]
$C_{20}H_{32}O_4$	[175848-66-5]	2,5-di-*n*-heptyloxy-1,4-benzoquinone				
	$\Delta_{trs}H$		3.6	275.8		
	$\Delta_{trs}H$		17.3	372.5		
	$\Delta_{fus}H$		38.4	406.2	DSC	[1996KEE/VAN]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{20}H_{34}$	[55255-70-4]	9-cyclohexyltetradecahydroanthracene				
	$\Delta_v H$	(419–488)	74.5	434	A	[1987STE/MAL]
$C_{20}H_{34}$	[1459-10-5]	tetradecylbenzene				
	$\Delta_v H$	(485–665)	74.5	500		[1999DYK/SVO]
	$\Delta_v H$		99.6	298		[1971WIL/ZWO]
$C_{20}H_{34}O_2$	[1191-41-9]	ethyl linolenate				
	$\Delta_v H$	(447–491)	72.7	462	A	[1987STE/MAL]
$C_{20}H_{34}O_{11}$	[na]	diethylene glycol dicarboxylic acid, di[1-(butoxycarbonyl)ethyl] ester				
	$\Delta_v H$	(433–525)	103.6	448	A	[1987STE/MAL]
$C_{20}H_{34}O_{11}$	[na]	diethylene glycol dicarboxylic acid, di[1-(sec-butoxycarbonyl)ethyl] ester				
	$\Delta_v H$	(418–513)	103.1	433	A	[1987STE/MAL]
$C_{20}H_{34}O_{11}$	[na]	diethylene glycol dicarboxylic acid, di[1-(isobutoxycarbonyl)ethyl] ester				
	$\Delta_v H$	(415–513)	103.1	430	A	[1987STE/MAL]
$C_{20}H_{36}N_2$	[85688-86-4]	tetraisobutylsuccinonitrile				
	$\Delta_{fus}H$		34.31	360.2		[1983BAR/BEC]
$C_{20}H_{36}O_2$	[544-35-4]	ethyl linoleate				
	$\Delta_v H$	(448–497)	72.6	463	A	[1987STE/MAL]
$C_{20}H_{36}O_2$	[14113-56-5]	1,10-cycloeicosanedione				
	$\Delta_{fus}H$		55.06	327.2		[1972ALV/BOR]
$C_{20}H_{36}O_2$	[na]	1,9-cyclohexadecanedione *bis* ethylene ketal				
	$\Delta_{fus}H$		42.13	404.2		[1972ALV/BOR]
$C_{20}H_{36}O_6$	[na]	(syn-*cis*/anti-*cis*) dicyclohexano-18-crown-6				
	$\Delta_v H$		124.2 ± 4.0	298	CGC	[2000NIC/ORF]
$C_{20}H_{38}$	[66455-55-8]	2-butyl-3-hexyldecahydronaphthalene				
	$\Delta_v H$	(407–472)	76.9	422		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{38}$	[66455-54-7]	7-butyl-1-hexyldecahydronaphthalene				
	$\Delta_v H$	(407–467)	80.0	422		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{38}$	[54964-83-9]	1,4-dimethyl-5-octyldecahydronaphthalene				
	$\Delta_v H$	(404–466)	73.9	419		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{38}$	[54964-85-1]	2,6-dimethyl-3-octyldecahydronaphthalene				
	$\Delta_v H$	(406–469)	76.4	421		[1963DIX/YAR, 1984BOU/FRI]
$C_{20}H_{38}$	[26527-76-4]	3,4-dicyclohexyl-3,4-dimethylhexane				
	$\Delta_v H$	(343–365)	78.4	359		[1999DYK/SVO, 1980BEC/KRA]
$C_{20}H_{38}$	[765-27-5]	1-eicosyne				
	$\Delta_v H$	(473–651)	68.9	488		[1999DYK/SVO]
$C_{20}H_{38}$	[61847-99-2]	2-eicosyne				
	$\Delta_v H$	(480–661)	69.8	495		[1999DYK/SVO]
$C_{20}H_{38}$	[61866-66-6	3-eicosyne				
	$\Delta_v H$	(470–648)	68.4	485		[1999DYK/SVO]
$C_{20}H_{38}O$	[29171-23-1]	3,7,11,15-tetramethyl-1-hexadecyn-3-ol				
	$\Delta_v H$	(403–457)	43.8 ± 1.9	430		[1988BAG/GUR]
$C_{20}H_{38}O_2$	[111-62-6]	ethyl oleate				
	$\Delta_v H$	(384–481)	92.4	399	A	[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{20}H_{38}O_2$	[2495-27-4]	hexadecyl methacrylate				
	$\Delta_v H$	(431–541)	73.1	446	A	[1987STE/MAL]
$C_{20}H_{38}O_2$	[na]	(Z) 3-octadecenyl acetate				
	$\Delta_v H$	(393–438)	108.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[na]	(E) 3-octadecenyl acetate				
	$\Delta_v H$	(393–438)	109.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[693-80-1]	(Z) 9-octadecenyl acetate				
	$\Delta_v H$	(393–438)	107.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[22147-38-2]	(E) 9-octadecenyl acetate				
	$\Delta_v H$	(393–438)	108.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[6186-98-7]	(Z) 11-octadecenyl acetate				
	$\Delta_v H$	(393–438)	108.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[69282-64-0]	(E) 11-octadecenyl acetate				
	$\Delta_v H$	(393–438)	109.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[60037-58-3]	(Z) 13-octadecenyl acetate				
	$\Delta_v H$	(393–438)	108.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[na]	(E) 13-octadecenyl acetate				
	$\Delta_v H$	(393–438)	109.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[na]	(Z) 15-octadecenyl acetate				
	$\Delta_v H$	(393–438)	110.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[na]	(E) 15-octadecenyl acetate				
	$\Delta_v H$	(393–438)	110.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[5561-99-9]	*cis*-11-eicosenoic acid (gondoic acid)				
	$\Delta_{trs} H$		9.0	270		
	$\Delta_{fus} H$		49.7	296.5		[1997SAT/YAN]
$C_{20}H_{38}O_4$	[14491-66-8]	dioctyl succinate				
	$\Delta_v H$	(503–523)	94.2	513	A	[1987STE/MAL]
$C_{20}H_{38}O_4$	[6819-09-6]	dipentyl sebacate				
	$\Delta_v H$	(353–408)	99.2	368	A	[1987STE/MAL]
$C_{20}H_{38}O_4$	[2424-92-2]	eicosanedioic acid				
	$\Delta_{sub} H$	(380–395)	165.7 ± 3.3	388	ME	[1960DAV/THO, 1987STE/MAL]
	$\Delta_{sub} H$		170.0 ± 3.3	298		[1960DAV/THO, 1999RIB/MON]
	$\Delta_{sub} H$	(336–346)	199.5	341	A	[1987STE/MAL]
$C_{20}H_{38}O_5$	[1086272-76-5]	dodecyl[1-(butoxycarbonyl)ethyl] carbonate				
	$\Delta_v H$	(408–498)	82.8	423	A	[1987STE/MAL]
$C_{20}H_{39}NO_3$	[14379-41-0]	N-tetradecanoyl-(*l*)-leucine				
	$\Delta_{fus} H$		32.4	377.5	DSC	[1986MIY/MAT]
$C_{20}H_{39}NO_3$	[21394-55-8]	N-tetradecanoyl-(*dl*)-leucine				
	$\Delta_{trs} H$		1.8	320.1		
	$\Delta_{fus} H$		54.8	349.6	DSC	[1986MIY/MAT]
$C_{20}H_{40}$	[3452-07-1]	1-eicosene				
	$\Delta_v H$	(478–638)	74.3	493		[1999DYK/SVO]
	$\Delta_v H$	(573–615)	65	588	A	[1987STE/MAL]
	$\Delta_v H$		100	298		[1971WIL/ZWO]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{20}H_{40}$	[1795-18-2]	tetradecylcyclohexane				
	$\Delta_v H$	(486–665)	74.7	501		[1999DYK/SVO]
	$\Delta_v H$		99.4	298		[1971WIL/ZWO]
$C_{20}H_{40}$	[4669-01-6]	pentadecylcyclopentane				
	$\Delta_v H$	(486–661)	76.5	501		[1999DYK/SVO]
	$\Delta_v H$		100.3	298		[1971WIL/ZWO]
$C_{20}H_{40}$	[42506-54-7]	1,1,9,9-tetramethylcyclohexadecane				
	$\Delta_{fus}H$		25.1	364.2		[1975BJO/BOR2]
$C_{20}H_{40}$	[42506-49-0]	1,1,4,4-tetramethylcyclohexadecane				
	$\Delta_{fus}H$		25.1	303.2		[1975BJO/BOR2]
$C_{20}H_{40}$	[54157-03-8]	1,1-dimethylcyclooctadecane				
	$\Delta_{fus}H$		23.85	283.2		[1974BJO/BOR]
$C_{20}H_{40}O$	[60046-87-9]	3,7,11,15-tetramethyl-1-hexadecen-3-ol				
	$\Delta_v H$	(439–468)	67.0 ± 2.0	453		[1988BAG/GUR]
$C_{20}H_{40}O_2$	[822-23-1]	octadecyl acetate				
	$\Delta_v H$	(393–438)	113.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	$\Delta_v H$	(341–500)	94.3	356	A	[1987STE/MAL]
$C_{20}H_{40}O_2$	[111-06-8]	butyl palmitate				
	$\Delta_v H$	(353–383)	93.8	368	A	[1987STE/MAL]
$C_{20}H_{40}O_2$	[1654-86-0]	decyl decanoate				
	$\Delta_v H$	(341–398)	97.8	356	A	[1987STE/MAL]
$C_{20}H_{40}O_2$	[506-30-9]	eicosanoic acid				
	$\Delta_{trs}H$		4.1	332.8		
	$\Delta_{trs}H$		6.1	333.3		
	$\Delta_{fus}H$		71.6	347.8	DSC	[2007MOR/COR]
	$\Delta_{fus}H$		69.2	348.2		[1996DOM/HEA]
	$\Delta_{sub}H$	(305–323)	148.4		TPTD	[2005CHA/ZIE]
		Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods				
	$\Delta_{sub}H$	(337–346)	199.6 ± 7.5	342	ME	[1961DAV/MAL, 1970COX/PIL]
	$\Delta_v H$	(477–670)	114.5	492	A	[1987STE/MAL]
	$\Delta_v H$	(380–404)	125.5	392	ME,TE	[1982DEK/SCH]
$C_{20}H_{40}O_2$	[111-61-5]	ethyl stearate				
	$\Delta_{fus}H$		59.83	307		[1967OMA]
	$\Delta_{sub}H$	(297–306)	161.4	301.5	ME	[1987STE/MAL, 1967OMA]
	$\Delta_v H$	(454–469)	111.9	461	A	[1987STE/MAL]
	$\Delta_v H$	(310–328)	106.8	319	A, ME	[1987STE/MAL, 1967OMA]
$C_{20}H_{40}O_2$	[1731-94-8]	methyl nonadecanoate				
	$\Delta_{fus}H$		63.8	313.2	DSC	[2004CHI/ZHA]
	$\Delta_{trs}H$		19.4	304.2		
	$\Delta_{fus}H$		42.8	313.2		[1936KIN/GAR]
	$\Delta_v H$	(467–558)	109.5 ± 5.4	298	CGC	[2004CHI/ZHA]
	$\Delta_v H$		101.2	350		[2002VAN/VAN]
	$\Delta_v H$		105.0 ± 2.4	326		[2002VAN/VAN]
	$\Delta_v H$		109.5 ± 2.7	298		[2002VAN/VAN]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(441–529)	90.1	456	A, EST	[1987STE/MAL, 1963ROS/SCH]
$C_{20}H_{40}O_2$	[20292-08-4]	2-ethylhexyl laurate				
	$\Delta_v H$	(371–452)	91.4	386		[2001BUR/JOS]
	$\Delta_v H$	(443–503)	104.5	298	GC	[1997KRO/VEL]
$C_{20}H_{40}O_4$	[43091-29-8]	2,2,6,6,10,10,14,14-octamethyl-1,3,9,11-tetraoxacyclohexadecane				
	$\Delta_{fus}H$		24.69	406.9		[1973DAL/EKE]
$C_{20}H_{40}O_4$	[56444-63-4]	2,2,12,12-tetramethyl-1,3,11,13-tetraoxacycloeicosane				
	$\Delta_{fus}H$		45.6	369.5		[1975BOR]
$C_{20}H_{41}Br$	[4276-49-7]	1-bromoeicosane				
	$\Delta_v H$	(502–673)	79.8	517	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{20}H_{41}Cl$	[42217-02-7]	1-chloroeicosane				
	$\Delta_v H$		120.2	298		[2006BOL/NER2]
	$\Delta_v H$	(492–673)	78.3	507	A	[1987STE/MAL, 1970DYK/VAN]
$C_{20}H_{41}F$	[676-44-8]	1-fluoroeicosane				
	$\Delta_v H$	(468–663)	74.3	483	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{20}H_{41}I$	[34994-81-5]	1-iodoeicosane				
	$\Delta_v H$	(516–673)	118.5	298	A,EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	$\Delta_v H$	(516–673)	80.9	531	A, EST	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{20}H_{41}NO$	[74534-12-6]	N-hexyl tetradecanamide				
	$\Delta_{trs}H$		8.0	310		
	$\Delta_{trs}H$		7.0	328		
	$\Delta_{fus}H$		35.0	334	DSC	[1980CAR/BUS]
$C_{20}H_{41}NO$	[146985-21-9]	N,N-di(2-ethylhexyl) isobutyramide				
	$\Delta_v H$	(463–513)	79.1 ± 0.9	298	CGC	[2009PAN/ANT]
$C_{20}H_{41}NO$	[75397-93-2]	N,N-dihexyl octanamide				
	$\Delta_v H$	(463–513)	82.9 ± 1.0	298	CGC	[2009PAN/ANT]
$C_{20}H_{42}$	[6912-07-8]	5-butylhexadecane				
	$\Delta_v H$	(423–457)	77.3	438	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{20}H_{42}$	[61868-04-0]	2,3-dimethyloctadecane				
	$\Delta_v H$	(458–612)	65.7	473	A	[1987STE/MAL, 1959TER/BRI]
$C_{20}H_{42}$	[61868-10-8]	2,4-dimethyloctadecane				
	$\Delta_v H$	(456–583)	75.8	471	A	[1987STE/MAL, 1959TER/BRI]
$C_{20}H_{42}$	[112-95-8]	eicosane				
	$\Delta_{fus}H$		69.03	311.6		
	$\Delta_{fus}H$		69.8	310.2		[2006KHI/BOU, 2006GEN/AMA]
	$\Delta_{fus}H$		68.1	309.7	DSC	[2004MON/RAJ]
	$\Delta_{fus}H$		67.8	309.7		[1996DOM/HEA]
	$\Delta_{sub}H$	(302–308)	172.8 ± 3.0	305		[2009RAZ/NAC]
	$\Delta_{sub}H$		179.5 ± 2.0	367	B	[1994PIA/FON]
	$\Delta_{sub}H$		U 152.3 ± 5.0	298	B	[1991PIA/POM]
	$\Delta_{sub}H$		170.4	298	C	[1972MOR3]
	$\Delta_v H$	(313–373)	99.5 ± 1.1	343		[2009RAZ/NAC]
	$\Delta_v H$		102.6 ± 1.0	298	CGC	[2002CHI/WEB]
	$\Delta_v H$		102.8 ± 2.2	298	GS	[2001PUR/CHI]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		101.1 ± 2.0	298	CGC	[2000NIC/ORF]
	$\Delta_v H$	(453–503)	103.5	298	CGC	[1995CHI/HOS]
	$\Delta_v H$	(433–583)	78.0	448		[1994MOR/KOB]
	$\Delta_v H$		101.8	298		[1994RUZ/MAJ]
	$\Delta_v H$	(347–388)	110 ± 2	368	TE	[1994PIA/FON]
	$\Delta_v H$	(345–470)	79.0	360	TE,ME,GS	[1991PIA/POM]
	$\Delta_v H$	(388–625)	80.8	440	EB,IP	[1989CHI/NGU]
	$\Delta_v H$	(388–625)	68.3	540	EB,IP	[1989CHI/NGU]
	$\Delta_v H$	(363–460)	89.6	378		[1988SAS/JOS]
	$\Delta_v H$	(528–620)	71.1	543	A	[1987STE/MAL]
	$\Delta_v H$	(344–380)	93.3	359	A, GS	[1987STE/MAL, 1979MAC/PRA]
	$\Delta_v H$		100.8	298		[1971WIL/ZWO]
$C_{20}H_{42}$	[1560-86-7]	2-methylnonadecane				
	$\Delta_v H$	(465–607)	72.4	480	A	[1987STE/MAL, 1959PAR/MAC]
$C_{20}H_{42}$	[6418-45-7]	3-methylnonadecane				
	$\Delta_v H$	(463–609)	71.3	478	A	[1987STE/MAL, 1959TER/BRI]
$C_{20}H_{42}$	[25117-27-5]	4-methylnonadecane				
	$\Delta_v H$	(460–609)	68.4	475	A	[1987STE/MAL, 1959TER/BRI]
$C_{20}H_{42}$	[57160-72-2]	5-methylnonadecane				
	$\Delta_v H$	(462–609)	69.1	477	A	[1987STE/MAL, 1959TER/BRI]
$C_{20}H_{42}$	[55044-10-5]	4-propylheptadecane				
	$\Delta_v H$	(425–459)	79.2	440	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{20}H_{42}$	[102155-32-8]	2,4,6-trimethylheptadecane				
	$\Delta_v H$	(449–579)	71.9		A	[1987STE/MAL, 1999DYK/SVO]
$C_{20}H_{42}O$	[629-96-9]	1-eicosanol				
	$\Delta_{fus}H$		43.6	336.6	DSC	[2004VEN/CAL]
	$\Delta_{trs}H$		28.4	335.5		
	$\Delta_{fus}H$		43.6	336.6		[2002VEN/RAM]
	$\Delta_{fus}H$		73.72	338.2		[2001VAN/OON2]
	$\Delta_{sub}H$	(327–341)	218 ± 3.8	332	ME	[1965DAV/KYB, 1987STE/MAL]
	$\Delta_{sub}H$		223 ± 3.8	298		[1965DAV/KYB]
	$\Delta_v H$		125.9 ± 0.8	298	CGC	[2006NIC/KWE]
	$\Delta_v H$	(488–653)	83.5	503	A	[1987STE/MAL]
	$\Delta_v H$	(493–648)	83.4	508	A	[1987STE/MAL]
	$\Delta_v H$	(339–358)	118.9	348	ME	[1987STE/MAL, 1965DAV/KYB]
$C_{20}H_{42}O_2$	[7735-43-5]	1,20-eicosanediol				
	$\Delta_{trs}H$		37	368.6		
	$\Delta_{fus}H$		39.7	376.1	DSC	[1999OGA/NAK]
$C_{20}H_{42}O_5$	[5274-68-0]	3,6,9,12-tetraoxa-1-tetracosanol				
	$\Delta_v H$	(501–543)	135.5	516	A	[1987STE/MAL]
$C_{20}H_{42}O_{10}$	[na]	1,ω-dimethoxynona(oxyethylene)				
	$\Delta_{fus}H$		73.9	289.2		[1996YAN/YU]
$C_{20}H_{42}S$	[13373-97-2]	1-eicosanethiol				
	$\Delta_v H$	(512–694)	81.3	527	EST	[1999DYK/SVO]
$C_{20}H_{42}S_2$	[10496-18-1]	dinonyl disulfide				
	$\Delta_v H$	(518–702)	83.4	533	EST	[1999DYK/SVO]

TABLE 10. Phase change enthalpies of C_{15} to C_{20} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{20}H_{43}N$	[1120-49-6]	didecylamine				
	$\Delta_v H$	(506–705)	70.9	521	A	[1987STE/MAL]
$C_{20}H_{43}N$	[30951-88-3]	N,N-diethylhexadecylamine				
	$\Delta_v H$	(412–628)	71.9	427	A	[1987STE/MAL, 1947STU]
$C_{20}H_{43}N$	[124-28-7]	N,N-dimethyloctadecylamine				
	$\Delta_v H$	(504–701)	74.7	519	A	[1987STE/MAL]
$C_{20}H_{43}N$	[10525-37-8]	eicosylamine				
	$\Delta_v H$	(543–659)	74.5	558	A	[1987STE/MAL, 1956MAN2]
$C_{20}H_{48}O_2$	[302-79-4]	3,7-dimethyl-9-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4,6,8-nonatetraenoic acid (retinoic acid)				
	$\Delta_{trs}H$		3.2	419.8		
	$\Delta_{fus}H$ *(I)*		37.1	456.9		[2006CAV/PAN]
	$\Delta_{fus}H$ *(II)*		36.8	456.3	DSC	[2006CAV/PAN]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{21}H_6N_{12}O_{18}$	[49753-54-0]	2,4,6-*tris*(2,4,6-trinitrophenyl)-1,3,5-triazine				
	$\Delta_{sub}H$	(479–551)	167.9	494	A	[1987STE/MAL]
$C_{21}H_8F_{28}O_8$	[na]	pentaerythritol, tetra-perfluorobutyrate				
	Δ_vH	(293–433)	35.5	308	I, A	[1987STE/MAL, 1957DOB/KEL]
$C_{21}H_{13}F_{13}OS$	[246543-94-2]	2-(perfluoro-*n*-hexyl)ethylthiomethyl biphenyl-4-yl ether				
	$\Delta_{fus}H$		40.6	344.8		[1999DEG/GUI]
	$\Delta_{fus}H$		40.4	344.8	DTA	[1999TAF/GUI, 1999DEG/GUI]
$C_{21}H_{13}F_{13}S$	[na]	2-(perfluoro-*n*-hexyl)ethylthiomethyl biphenyl-4-yl				
	$\Delta_{fus}H$		53.1	332.9	DTA	[1999TAF/GUI, 1999DEG/GUI]
$C_{21}H_{13}N$	[215-62-3]	dibenz[a,c]acridine				
	$\Delta_{fus}H$		27.8	477.4	DSC	[2010KES/AUC]
$C_{21}H_{13}N$	[226-36-8]	dibenz[a,h]acridine				
	$\Delta_{fus}H$		30.6	499.7	DSC	[2010KES/AUC]
$C_{21}H_{13}N$	[226-92-6]	dibenz[a,i]acridine				
	$\Delta_{fus}H$		29.6	483.5	DSC	[2010KES/AUC]
$C_{21}H_{13}N$	[224-42-0]	dibenz[a,j]acridine				
	$\Delta_{fus}H$		25.5	492.7	DSC	[2010KES/AUC]
$C_{21}H_{14}N_2O_3$	[13494-38-7]	2-phenyl-3-benzoylquinoxaline-1,4-dioxide				
	$\Delta_{sub}H$		167.4 ± 4.0	298	ME	[1997ACR/POW]
$C_{21}H_{14}N_2O_3$	[na]	1,4-diamino-2-benzoyl-9,10-anthraquinone				
			168.5			[1984KAR/KRU]
$C_{21}H_{15}BrN_2O_2$	[128-83-6]	1-amino-2-bromo-4-[(4-methylphenyl)amino]-9,10-anthraquinone				
	$\Delta_{sub}H$	(418–438)	167.0 ± 6.0	428		[1984KRI]
$C_{21}H_{15}NO_2$	[158749-37-2]	2-methylphenyl acridine-9-carboxylate				
	$\Delta_{fus}H$		30.5	415	DSC	[2010KRZ/MAL]
$C_{21}H_{15}NO_2$	[158749-58-7]	3-methylphenyl acridine-9-carboxylate				
	$\Delta_{fus}H$		32	429	DSC	[2010KRZ/MAL]
$C_{21}H_{15}NO_2$	[158749-59-8]	4-methylphenyl acridine-9-carboxylate				
	$\Delta_{fus}H$		30.7	446	DSC	[2010KRZ/MAL]
$C_{21}H_{15}NO_3$	[na]	2-hydroxy-4-[(4-methylphenyl)amino]-9,10-anthraquinone				
	$\Delta_{sub}H$	(349–378)	121.0 ± 7.6	363		[1984KRI]
		Note: Compound is listed as the 2-hydroxy-derivative in the paper; however, it is listed as the 1-hydroxy-derivative in Chem. Abstracts				
$C_{21}H_{16}$	[56-49-5]	3-methylcholanthrene				
	$\Delta_{sub}H$	(401–425)	127.2 ± 2.4	413	A	[1987STE/MAL, 1964KEL/RIC]
	Δ_vH	(323–473)	93.8	398	GC	[2002LEI/CHA]
$C_{21}H_{16}$	[611-48-3]	1,2′-dinaphthylmethane				
	$\Delta_{fus}H$		30.54	369.6		[1996DOM/HEA]
$C_{21}H_{16}N_2$	[484-47-9]	2,4,5-triphenylimidazole				
	$\Delta_{fus}H$		37.31	547.8		[2007SIF/AIT]
	$\Delta_{trs}H$		0.73	505.7	DSC	
	$\Delta_{fus}H$		35.15	550.8		[2002ROG/DOM]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{21}H_{16}N_2O_2$	[na]	1-anilino-4-(N-methylamino)-9,10-anthraquinone				
			136.9			[1984KAR/KRU]
$C_{21}H_{16}N_4O_2$	[194784-98-0]	1-(4′-methoxybenzylidene)-2-phenazinoylhydrazine				
	$\Delta_{fus}H$		63.26	534.3	DSC	[1997CIO/MEL]
$C_{21}H_{17}F_3O$	[145698-51-7]	4-*n*-butoxy-4′-trifluoromethyldiphenyldiacetylene				
	$\Delta_{fus}H$		25.37	414.3	DSC	[1993JUA/CHE]
$C_{21}H_{17}N_3O_3$	[82232-20-0]	(5-cyano-3,4-diphenyl-6-oxo-1,6-dihydropyridazin-1-yl)acetate				
	$\Delta_{sub}H$	(396–414)	131.9 ± 9.3	405	ME	[1982DEP]
$C_{21}H_{18}F_2$	[193472-73-0]	1,1-difluoro-3,3,3-triphenylpropane				
	$\Delta_{fus}H$		28.74	370.2		[1997SCH/VER]
	$\Delta_{sub}H$		113.2 ± 1.7	298		[1997SCH/VER]
$C_{21}H_{18}F_2$	[145698-37-9]	4-*n*-pentyl-3′,4′-difluorodiphenyldiacetylene				
	$\Delta_{fus}H$		30.86	355.1	DSC	[1993JUA/CHE]
$C_{21}H_{19}F$	[193472-69-4]	1-fluoro-3,3,3-triphenylpropane				
	$\Delta_{fus}H$		26.44	344.2		[1997SCH/VER]
	$\Delta_{sub}H$		129.3 ± 0.6	298		[1997SCH/VER]
	Δ_vH	(349–384)	95.9 ± 0.6	298	GS	[1997SCH/VER]
$C_{21}H_{19}F$	[193472-72-9]	2-fluoro-1,2,3-triphenylpropane				
	$\Delta_{fus}H$		34.6	379.6		[1997SCH/VER]
	$\Delta_{sub}H$		132.5 ± 3.0	298		[1997SCH/VER]
$C_{21}H_{20}BrN_7O_6$	[na]	N-[2-[(2-bromo-4,6-dinitrophenyl)azo]-[(2-cyanoethyl)-2-propenylamino]-4-methoxyphenyl] acetamide				
	$\Delta_{fus}H$		59.08	465.2		[1991BAU/WEB]
$C_{21}H_{20}Br_8O_2$	[na]	2,2-*bis*[3,5-dibromo-4-(2,3-dibromopropyloxy)phenyl]propane				
	$\Delta_{fus}H$		39.63	Not given		[1999TAH/TAK]
		Note: Solid sample was precipitated from a methanol-dichloromethane mixture. Abstract implies that the compound may have other crystal forms.				
$C_{21}H_{20}Cl_2O_3$	[61949-76-6]	(3-phenoxyphenyl)methyl-*cis*-3-(2,2-dichloroethenyl-2,2-dimethylcyclopropanecarboxylate (*cis*-permethrin)				
	$\Delta_{sub}H$	(313–333)	108.8	323	GS,A	[1986WEL/GRA]
$C_{21}H_{20}N_4O_3$	[32828-81-2]	4-methoxy-N,N-*bis*(3-pyridinylmethyl)-1,3-benzenedicarboxamide				
	$\Delta_{fus}H$		28.43	403.9	DSC	[1998MUR/BET]
$C_{21}H_{20}O_{12}$	[21637-25-2]	2-(3,4-dihydroxyphenyl)-3-(β-D-glucofuranosyloxy)-5,7-dihydroxy-4*H*-1-benzopyran-4-one (isoquercitrin)				
	$\Delta_{fus}H$		49.8	471.2	DSC	[2007CHE/HUM]
$C_{21}H_{21}N$	[1159-53-1]	4-methyl-N,N-*bis*(4-methylphenyl)benzenamine				
	$\Delta_{fus}H$		22.96	388		
	$\Delta_{fus}H$		19.95	388.8	DSC	[2004MAN/ROH, 2006MAN/ROH]
	$\Delta_{sub}H$		92.53		DSC	[2006MAN/ROH]
	Δ_vH		72.57		DSC	[2006MAN/ROH]
$C_{21}H_{21}N$	[117597-62-3]	N-(3-methylphenyl)-N,N-*bis*(4-methylphenyl)amine				
	$\Delta_{fus}H$		21.71	329.9	DSC	[2006MAN/ROH]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		97.64		DSC	[2006MAN/ROH]
	Δ_vH		75.93		DSC	[2006MAN/ROH]
$C_{21}H_{21}N$	[97413-60-0]	N,N-*bis*(3-methylphenyl)-N-(4-methylphenyl)amine				
	$\Delta_{fus}H$		26.39	362.7	DSC	[2006MAN/ROH]
	$\Delta_{sub}H$		95.69		DSC	[2006MAN/ROH]
	Δ_vH		69.29		DSC	[2006MAN/ROH]
$C_{21}H_{21}N$	[20676-79-3]	N,N,N-*tris*(3-methylphenyl)amine				
	$\Delta_{fus}H$		13.07	313	DSC	[2006MAN/ROH]
	$\Delta_{sub}H$		50.66		DSC	[2006MAN/ROH]
	Δ_vH		37.59		DSC	[2006MAN/ROH]
$C_{21}H_{21}NO$	[957-51-7]	N,N-dimethyl-2,2-diphenylbenzeneacetamide				
	$\Delta_{fus}H$		25.43	402	DSC	[1990DON/DRE]
$C_{21}H_{21}O_4P$	[78-30-8]	phosphoric acid, tri(2-tolyl) ester				
	Δ_vH	(293–700)	86.8	308	A, I	[1987STE/MAL, 1957DOB/KEL]
$C_{21}H_{21}O_4P$	[563-04-2]	phosphoric acid, tri(3-tolyl) ester				
	Δ_vH	(398–530)	123.2	413	A	[1987STE/MAL]
$C_{21}H_{21}O_4P$	[78-32-0]	phosphoric acid, tri(4-tolyl) ester				
	Δ_vH	(388–530)	104.9	408	A	[1987STE/MAL]
$C_{21}H_{21}P$	[1038-95-5]	*tris*(4-tolyl)phosphine				
	Δ_vH	(372–394)	126 ± 5	385	ME, TE	[1981DEK/HER]
$C_{21}H_{23}BrFNO_2$	[10457-90-6]	1-(4-fluorophenyl)-4-[4-hydroxy-4-(4-bromophenyl)-1-piperidinyl]-1-butanone (bromoperidol)				
	$\Delta_{fus}H$		50.8	432.7	DSC	[1981DRA/AZI]
$C_{21}H_{23}ClFNO_2$	[52-86-8]	1-(4-fluorophenyl)-4-[4-hydroxy-4-(4-chlorophenyl)-1-piperidinyl]-1-butanone (haloperidol)				
	$\Delta_{fus}H$		48	422.7	DSC	[1981DRA/AZI]
$C_{21}H_{23}F_2NO_2$	[na]	1-(4-fluorophenyl)-4-[4-hydroxy-4-(4-fluorophenyl)-1-piperidinyl]-1-butanone				
	$\Delta_{fus}H$		34	395.2	DSC	[1981DRA/AZI]
$C_{21}H_{23}NO_5$	[561-27-3]	diacetylmorphine (heroin)				
	$\Delta_{sub}H$	(324–339)	144.5 ± 4.0	331	GS	[1984LWA/ELI]
$C_{21}H_{24}FNO_2$	[3109-12-4]	1-(4-fluorophenyl)-4-[4-hydroxy-4-phenyl-1-piperidinyl]-1-butanone				
	$\Delta_{fus}H$ *(I)*		43.2	412.7		
	$\Delta_{fus}H$ *(II)*		35.2	385.2	DSC	[1981DRA/AZI]
$C_{21}H_{24}O_2$	[160731-84-0]	3-(diphenylmethyl)-3-propyl-2,4-pentanedione				
	$\Delta_{fus}H$		27.1	349.2		[1995NOL/VER]
	$\Delta_{sub}H$		124.7	298	T,B	[1995NOL/VER]
	Δ_vH	(364–392)	96.7 ± 1.7	378	GS	[1995NOL/VER]
$C_{21}H_{25}FN_2O_2$	[1480-19-9]	1-(4-fluorophenyl)-4-[4-(2-methoxyphenyl)-1-piperazinyl]-1-butanone (fluanisone)				
	$\Delta_{fus}H$ *(I)*		27.3	348.7		
	$\Delta_{fus}H$ *(II)*		31.1	343.7		
	$\Delta_{fus}H$ *(III)*		15.7	323.7	DSC	[1981DRA/AZI]
$C_{21}H_{25}F_{19}$	[139277-02-4]	1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8-hexadecafluoro-(trifluoromethyl)eicosane				
	$\Delta_{fus}H$		34	310.1	DSC	[1992HOP/MOL]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{21}H_{25}NO$	[122405-21-4]	4-(1-methylheptyloxy)-4′-cyanobiphenyl				
	$\Delta_{fus}H$ *(I)*		19.51	287.6		
	$\Delta_{fus}H$ *(II)*		17.07	294.3	DSC	[2004SAI/MAS]
	$\Delta_{fus}H$ *(I)*		20.8	287.8		
	$\Delta_{fus}H$ *(II)*		19.1	294.3		[2001SCI/SCI]
$C_{21}H_{26}$	[6169-94-4]	[1,8]-para-cyclophane				
	$\Delta_{sub}H$	(354–376)	105 ± 1.3	365		[1969SHI/MCN, 1977PED/RYL]
	$\Delta_{sub}H$		110.9 ± 2.1	298		[1969SHI/MCN, 1977PED/RYL]
$C_{21}H_{26}ClN_3OS$	[58-39-9]	2-chloro-10-3-[1-(2-hydroxyethyl)-4-piperazinyl]propylphenothiazine (perphenazine)				
	$\Delta_{fus}H$		41.8	370	DSC	[2006WAS/HOL]
$C_{21}H_{26}FNO$	[na]	4-octyloxy-N-(4-fluorobenzylidene) aniline				
	$\Delta_{fus}H$		44.7	360.5		[1991MIY/ENO]
$C_{21}H_{26}FN_3O_4$	[143383-65-7]	[S-(R*,S*)]-1-cyclopropyl-6-fluoro-1,4-dihydro-8-methoxy-7-[3-[1-(methylamino)ethyl]-1-pyrrolidinyl]-4-oxo-3-quinolinecarboxylic acid (premafloxacin)				
	$\Delta_{fus}H$		60.52	471.9	DSC	[1997SCH/BER]
$C_{21}H_{26}O_2$	[72-33-3]	3-methoxy-19-norpregna-1,3,5(10)-trien-20-yn-17-ol (mestranol)				
	$\Delta_{fus}H$		34.55	424.1		[1985DEM/CHA]
$C_{21}H_{26}O_2$	[521-35-7]	cannabinol				
	$\Delta_{fus}H$		17	352.2		[2004STI/VAL]
$C_{21}H_{26}O_3$	[2549-90-8]	2-hydroxy-4-(2-ethylhexyloxy)benzophenone				
	$\Delta_{v}H$	(393–443)	98.7	418	ME	[1984SUR]
$C_{21}H_{26}O_3$	[1843-05-6]	2-hydroxy-4-octyloxybenzophenone				
	$\Delta_{v}H$	(413–453)	102.1	433	ME	[1984SUR]
$C_{21}H_{26}O_3$	[68100-20-9]	2-hydroxy-4-butoxy-5-*tert*-butylbenzophenone				
	$\Delta_{v}H$	(403–453)	90.2	428	ME	[1984SUR]
$C_{21}H_{26}O_3$	[975-64-4]	3-(1-oxypropoxy)-estra-1,3,5(10)-trien-17-one				
	$\Delta_{fus}H$		23.0	409	DSC	[1990YAN/EIR]
$C_{21}H_{26}O_4$	[6127-74-8]	2-hydroxy-4,4′-dibutoxybenzophenone				
	$\Delta_{fus}H$		54.0	372.1	DSC	[1999PRI/HAWN]
	$\Delta_{sub}H$		148		B	[1999PRI/HAWN]
$C_{21}H_{26}O_4$	[96609-16-4]	4-{4-[4-(1,1-dimethylethyl)phenyl]-2-hydroxybutoxy}benzoic acid (lifibrol)				
	$\Delta_{fus}H$ *(I)*		38.1	415.2		
	$\Delta_{fus}H$ *(II)*		49.1	408.2		[2000BUR/LET]
$C_{21}H_{27}FO_6$	[124-94-7]	triamcinolone				
	$\Delta_{fus}H$		42.56	543		[1994REG/CHM]
$C_{21}H_{27}NO$	[na]	4-octyloxy-N-benzylidene aniline				
	$\Delta_{fus}H$		41.47	342.7		[1991MIY/ENO]
$C_{21}H_{28}O_2$	[5630-53-5]	(1α,17α)-17-hydroxy-7-methyl-19-norpregn-5(10)-en-20-yn-3-one (tibolone)				
	$\Delta_{fus}H$ *(monoclinic)*		29.8	444.2	DSC	[2010BAR/ARA]
	$\Delta_{trs}H$ *(triclinic)*		21.0	421.2	DSC	[2010BAR/ARA]
	$\Delta_{fus}H$ *(triclinic)*		3.0	439.2	DSC	[2010BAR/ARA]
$C_{21}H_{28}O_3$	[1097-51-4]	16α,17α-epoxyprogesterone				
	$\Delta_{fus}H$		26.4	328.5		[2006NIE/GON]
$C_{21}H_{28}O_4$	[19427-36-2]	11α-hydroxy-16α,17α-epoxyprogesterone				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		44.8	522.2		[2006NIE/GON]
$C_{21}H_{28}O_5$	[50-24-8] prednisolone					
	$\Delta_{fus}H$		38.86	513		[1994REG/CHM]
$C_{21}H_{28}O_5$	[53-06-5] cortisone					
	$\Delta_{fus}H$		36.86	495		[1994REG/CHM]
$C_{21}H_{29}NO_3$	[172589-24-1] 3-[(hydroxyimino)(5,6,7,8-tetrahydro-2-naphthalenyl)methyl-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester					
	$\Delta_{fus}H$		38.37	425		[1995NUR/LEL]
$C_{21}H_{29}N_3O$	[3737-09-5] α-[2-[*bis*(1-methylethyl)amino]ethyl]-α-phenyl-2-pyridineacetamide (disopyramide)					
	$\Delta_{fus}H$		26.7	363.7	DSC	[2008WAS/HOL]
$C_{21}H_{30}$	[7225-71-0] 1-undecylnaphthalene					
	Δ_vH	(436–502)	84.3	451	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{21}H_{30}O$	[38256-01-8] l,1′-diadamantyl ketone					
	$\Delta_{trs}H$		5.9	404.7		
	$\Delta_{fus}H$		15.7	470		[1997GAR/RED]
	$\Delta_{sub}H$	(362–378.8)	109.0 ± 1.8	298	ME	[1992ABB/JIM2]
$C_{21}H_{30}O_2$	[57-83-0] progesterone					
	$\Delta_{fus}H$ *(I)*		26.71	402.2	DSC	[2009BAR/ESP]
	$\Delta_{fus}H$ *(II)*		24.78	394.8	DSC	[2009BAR/ESP]
	$\Delta_{fus}H$ *(I)*		26.16	402.4	DSC	[2003LEG/FEU, 2004DEF/RAN]
	$\Delta_{fus}H$ *(II)*		21.42	395.4	DSC	[2003LEG/FEU, 2004DEF/RAN]
	$\Delta_{fus}H$ *(III)*		16.13	377	DSC	[2003LEG/FEU, 2004DEF/RAN]
	$\Delta_{fus}H$		26.99	404		[1994REG/CHM]
	$\Delta_{fus}H$ *(I)*		27.95	401		[1979MUR/IWA, 2009BAR/ESP]
	$\Delta_{fus}H$ *(II)*		23.43	395		[1979MUR/IWA, 2009BAR/ESP]
	$\Delta_{fus}H$ *(I)*		24.43	403.5		[1973CAM/GAM, 2009BAR/ESP]
	$\Delta_{fus}H$ *(II)*		21.32	396.2		[1973CAM/GAM, 2009BAR/ESP]
$C_{21}H_{30}O_2$	[13956-29-1] cannabidiol					
	$\Delta_{fus}H$		28.4	340.7		[2004STI/VAL]
$C_{21}H_{30}O_3$	[64-85-7] deoxycorticosterone					
	$\Delta_{fus}H$		27.98	414		[1994REG/CHM]
$C_{21}H_{30}O_3$	[1045-69-8] testosterone acetate					
	$\Delta_{fus}H$		27.88	413		[1994REG/CHM]
$C_{21}H_{30}O_4$	[50-22-6] corticosterone					
	$\Delta_{fus}H$		35.3	458.5	DSC	[2008WAS/HOL]
	$\Delta_{fus}H$		33.32	454		[1994REG/CHM]
$C_{21}H_{30}O_5$	[50-23-7] hydrocortisone					
	$\Delta_{fus}H$ *(I)*		44.65	497.7	DSC	
	$\Delta_{fus}H$ *(II)*		41.3	494.8	DSC	[2008SUI/JES]
	$\Delta_{fus}H$		35.84	486		[1994REG/CHM]
$C_{21}H_{31}NO$	[na] 6-dodecyloxyisoquinoline					
	$\Delta_{fus}H$		38.93	321.3		[1999LIN/KO]
$C_{21}H_{32}O_2$	[2734-47-6] methyl Z,Z,Z,Z,Z 5,8,11,14,17-eicosapentaeneoate					
	Δ_vH		121.0 ± 0.3	298	CGC	[2007LIP/KAP]
$C_{21}H_{34}O_2$	[2566-89-4] methyl Z,Z,Z,Z 5,8,11,14-eicosatetraeneoate					

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		118.3	298	CGC	[2007LIP/KAP]
$C_{21}H_{35}N_3O_2$	[135742-56-2]	N-palmitoyl-pyrazinamide				
	$\Delta_{fus}H$		51.82	362.7		[1991LIU/GUO]
$C_{21}H_{36}$	[2131-18-2]	pentadecylbenzene				
	$\Delta_v H$	(495–677)	77.0	510		[1999DYK/SVO]
	$\Delta_v H$		104.6	298		[1971WIL/ZWO]
$C_{21}H_{36}N_2OS$	[442514-39-8]	N-[(3-methoxyphenyl)methyl]-N′-dodecylthiourea				
	$\Delta_{fus}H$		52.87	361.7	DSC	[2002ABB/WOH]
$C_{21}H_{36}O$	[501-24-6]	3-pentadecylphenol				
	$\Delta_{fus}H$		38.09	322.4	DSC	[2010MAO/LUO]
$C_{21}H_{36}O_2$	[2566-89-4]	methyl Z,Z,Z 11,14,17-eicosadieneoate				
	$\Delta_v H$		122.6 ± 1.6	298	CGC	[2007LIP/KAP]
$C_{21}H_{36}O_6$	[na]	triisopentyl *trans* aconitate				
	$\Delta_v H$	(396–499)	88.3	411	A	[1987STE/MAL]
$C_{21}H_{36}O_6$	[64617-29-4]	tripentyl *trans* aconitate				
	$\Delta_v H$	(403–505)	91.4	418	A	[1987STE/MAL]
$C_{21}H_{38}O_2$	[61012-46-2]	methyl Z,Z 11,14-eicosadieneoate				
	$\Delta_v H$		117.5 ± 0.5	298	CGC	[2007LIP/KAP]
$C_{21}H_{38}O_6$	[621-70-5]	glycerol tricaproate				
	$\Delta_v H$		99.9	349	TGA	[1990KIS/SHO]
	$\Delta_v H$		108.3 ± 3.8	298	TGA	[1990KIS/SHO]
	$\Delta_v H$	(356–410)	94.2	371	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{21}H_{38}O_6$	[na]	triisopentyl 1,2,3-propanetricarboxylate				
	$\Delta_v H$	(396–508)	88.2	411	A	[1987STE/MAL]
$C_{21}H_{38}O_6$	[5333-53-9]	tripentyl 1,2,3-propanetricarboxylate				
	$\Delta_v H$	(404–508)	90.2	419	A	[1987STE/MAL]
$C_{21}H_{40}$	[66326-27-0]	1-undecyldecahydronaphthalene				
	$\Delta_v H$	(426–488)	83.3	411	A	[1987STE/MAL]
$C_{21}H_{40}$	[95115-75-6]	*trans*-2-heptyl-6-butyldecalin				
	$\Delta_{fus}H$		31.8	295.3		[1985VAR/BRI]
$C_{21}H_{40}$	[95115-78-9]	*trans*-2-propyl-6-octyldecalin				
	$\Delta_{fus}H$		41	308.8		[1985VAR/BRI]
$C_{21}H_{40}O_2$	[2390-09-2]	methyl Z 11-eicosenoate				
	$\Delta_v H$		115.8 ± 0.7	298	CGC	[2007LIP/KAP]
$C_{21}H_{41}NO_3$	[45287-42-1]	N-hexadecanoyl-(*l*)-valine				
	$\Delta_{trs}H$		29.1	349.1		
	$\Delta_{fus}H$		54.8	366.6	DSC	[1986MIY/MAT]
$C_{21}H_{41}NO_3$	[83871-20-9]	N-hexadecanoyl-(*dl*)-valine				
	$\Delta_{fus}H$		80.5	375.1	DSC	[1986MIY/MAT]
$C_{21}H_{42}$	[1599-68-4]	1-heneicosene				
	$\Delta_v H$	(392–628)	92.8	407		[1999DYK/SVO]
$C_{21}H_{42}$	[6812-39-1]	hexadecylcyclopentane				
	$\Delta_v H$	(498–674)	79.2	513		[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		105.3	298		[1971WIL/ZWO]
$C_{21}H_{42}$	[6006-95-7]	pentadecylcyclohexane				
	$\Delta_{fus}H$		58.7	298.2	DSC	[2001YOU/SCH]
	$\Delta_{fus}H$		58.3	NA	DSC	[2000YOU/DOL]
	$\Delta_{fus}H$		58.3	301		[1991MIY/ENO]
	$\Delta_v H$	(496–677)	77.2	511		[1999DYK/SVO]
	$\Delta_v H$		104.4	298		[1971WIL/ZWO]
$C_{21}H_{42}N_3PS_6$	[100575-31-3]	*tris*(dipropyldithiocarbamate)phosphorous				
	$\Delta_{sub}H$		127.4 ± 4.2		DSC,E	[1999NEV/GON]
$C_{21}H_{42}O$	[22589-04-4]	2-heneicosanone				
	$\Delta_{fus}H$		77.65	333.9	DSC	[1993VIL/HAM]
$C_{21}H_{42}O$	[19781-72-7]	11-heneicosanone				
	$\Delta_{fus}H$		76.2	336.7		[1993RUE/SAR]
$C_{21}H_{42}O_2$	[1120-28-1]	methyl eicosanoate				
	$\Delta_{fus}H$		74.3	319.2	DSC	[2004CHI/ZHA]
	$\Delta_{fus}H$		73.7	319.2		[1936KIN/GAR]
	$\Delta_{sub}H$	(311–318)	190.8 ± 10	314	ME	[1965DAV/KYB, 1987STE/MAL]
	$\Delta_v H$	(467–558)	120.9 ± 2.5	298	CGC	[2004CHI/ZHA]
	$\Delta_v H$		109.2	350		[2002VAN/VAN]
	$\Delta_v H$		97.8 ± 0.2	406		[2002VAN/VAN]
	$\Delta_v H$		116.4 ± 1.5	298		[2002VAN/VAN]
	$\Delta_v H$	(463–523)	116.2	298	GC	[1997KRO/VEL]
	$\Delta_v H$	(453–543)	76.9	498	GC	[1993HUS/SAR]
	$\Delta_v H$	(450–540)	92.4	465	A, EST	[1987STE/MAL, 1963ROS/SCH]
$C_{21}H_{42}O_2$	[112-10-7]	isopropyl stearate				
	$\Delta_v H$	(453–483)	76.6	468	A	[1987STE/MAL]
$C_{21}H_{42}O_2$	[18281-04-4]	ethyl nonadecanoate				
	$\Delta_{fus}H$		43.1	309		[1967OMA]
	$\Delta_{sub}H$	(302–308)	149.7	305	ME	[1987STE/MAL, 1967OMA]
	$\Delta_v H$	(312–328)	111	320	A, ME	[1987STE/MAL, 1967OMA]
$C_{21}H_{42}O_2$	[3634-92-2]	propyl stearate				
	$\Delta_v H$	(458–483)	87.9	470	A	[1987STE/MAL]
$C_{21}H_{42}O_2$	[2363-71-5]	heneicosanoic acid				
	$\Delta_{trs}H$		5.0	344.6		
	$\Delta_{fus}H$		63.0	346.7	DSC	[2007GBA/NEG]
$C_{21}H_{43}NO$	[129392-93-4]	N-propylstearamide				
	$\Delta_{trs}H$		16.02	348		
	$\Delta_{fus}H$		50.04	354	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO$	[173029-00-0]	N-heptylmyristamide				
	$\Delta_{trs}H$		6.54	316		
	$\Delta_{fus}H$		49.02	343	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO$	[153929-66-9]	N-decylundecanamide				
	$\Delta_{trs}H$		0.07	337		
	$\Delta_{fus}H$		42.45	344	DSC	[1995CYP/JOH]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{21}H_{43}NO$	[173029-01-1]	N-laurylnonanamide				
	$\Delta_{trs}H$		0.17	328		
	$\Delta_{fus}H$		66.91	341	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO$	[173029-02-2]	N-myristylheptanamide				
	$\Delta_{trs}H$		2.08	313		
	$\Delta_{fus}H$		52.68	334	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO$	[79762-59-7]	N-stearylpropanamide				
	$\Delta_{trs}H$		1.84	337		
	$\Delta_{fus}H$		56.03	350	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO_2$	[6280-27-9]	N-octadecyl lactamide				
	Δ_vH	(434–542)	112.8	449	A	[1987STE/MAL]
$C_{21}H_{44}$	[629-94-7]	heneicosane				
	$\Delta_{trs}H$		15.7	304.3		
	$\Delta_{fus}H$		46.6	313	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		15.48	305.7		
	$\Delta_{fus}H$		47.7	313.7		[1996DOM/HEA]
	$\Delta_{sub}H$		141.8 ± 10	298	B	[1991PIA/POM]
	Δ_vH	(351–462)	93.7	368		[2006SAW/MOK]
	Δ_vH	(434–539)	106.8	298	CGC	[2004CHI/HAN]
	Δ_vH		109.4 ± 2.6	298	CGC	[1997CHI/WIL]
	Δ_vH	(365–400)	110 ± 2	382	TE	[1994PIA/FON]
	Δ_vH	(352–478)	84.7	367	TE,ME,GS	[1991PIA/POM]
	Δ_vH	(422–630)	88.4	437	A, EST	[1987STE/MAL, 1966KUD/ZWO]
$C_{21}H_{44}$	[1560-84-5]	2-methyleicosane				
	Δ_vH	(473–621)	70.3	488	A	[1987STE/MAL]
$C_{21}H_{44}$	[6418-46-8]	3-methyleicosane				
	Δ_vH	(477–620)	74.5	492	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{21}H_{44}$	[25117-28-6]	4-methyleicosane				
	Δ_vH	(471–621)	70.2	486	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{21}H_{44}$	[25117-36-6]	5-methyleicosane				
	Δ_vH	(519–621)	73.2	534	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{21}H_{44}$	[75163-99-4]	2,3-dimethylnonadecane				
	Δ_vH	(493–635)	68.8	508	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{21}H_{44}$	[115209-60-4]	2,4-dimethylnonadecane				
	Δ_vH	(465–594)	77.0	480	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{21}H_{44}$	[11400-79-2]	2,4,6-trimethyloctadecane				
	Δ_vH	(460–576)	74.9	475	A	[1987STE/MAL, 1999DYK/SVO]
$C_{21}H_{44}$	[13475-75-7]	8-hexylpentadecane				
	Δ_vH	(405–466)	78.5	420	A	[1987STE/MAL]
$C_{21}H_{44}O_2$	[95008-70-1]	1,21-heneicosanediol				
	$\Delta_{trs}H$		38.8	360		

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		41.7	377.5	DSC	[1999OGA/NAK]
$C_{21}H_{45}PO$	[17262-51-0]	triheptylphosphine oxide				
	Δ_vH	(507–638)	70.8	573		[1971NAK/SMI]
	Note: The published abstract gives the formula for triheptylphosphine oxide; However, the title of the paper gives the name of trioctylphosphine oxide					
$C_{22}H_{10}O_2$	[641-13-4]	anthanthrone (dibenzochrysene-6,12-dione)				
	$\Delta_{sub}H$	(450–550)	152.2	465	A	[1987STE/MAL]
$C_{22}H_{12}$	[191-24-2]	benzo[ghi]perylene				
	$\Delta_{fus}H$		17.37	554.2		[1991ACR]
	$\Delta_{sub}H$	(313–453)	129.9	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(389–468)	127.8	404	ME	[1987STE/MAL, 1974MUR/POL]
	$\Delta_{sub}H$	(450–510)	135.1	465	A	[1987STE/MAL]
	$\Delta_{sub}H$	(454–502)	125.5	478	ME	[1967WAK/INO]
	Δ_vH		128.9 ± 1.5	298	CGC	[2008HAN/NUT]
	Δ_vH	(323–473)	96.1	398	GC	[2002LEI/CHA]
$C_{22}H_{12}$	[191-26-4]	anthranthrene (dibenzo[def,mno]chrysene)				
	$\Delta_{sub}H$		135 ± 5	479	ME	[1952INO/SHI]
$C_{22}H_{12}$	[193-39-5]	*o*-phenylenepyrene				
	$\Delta_{fus}H$		21.51	435.2		[1979SMI2]
$C_{22}H_{12}$	[193-43-1]	indeno[1,2,3cd]fluoranthene				
	$\Delta_{fus}H$		23.2	542.3	DSC	[2010KES/AUC]
$C_{22}H_{12}$	[193-39-5]	indeno[1,2,3cd]pyrene				
	$\Delta_{fus}H$		18.6	437	DSC	[2010KES/AUC]
$C_{22}H_{12}O_2$	[3029-32-1]	6,13-pentacenequinone				
	$\Delta_{sub}H$		116.3 ± 5.9	298		[1956MAG, 1970COX/PIL]
$C_{22}H_{14}$	[215-58-7]	dibenz[a,c]anthracene				
	$\Delta_{fus}H$		25.82	553.5		[1991ACR]
	$\Delta_{sub}H$	(313–453)	135	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(425–452)	159 ± 6	298	TE,ME	[1980DEK]
	Δ_vH		132.3 ± 1.8	298	CGC	[2008HAN/NUT]
	Δ_vH	(323–473)	97.5	398	GC	[2002LEI/CHA]
$C_{22}H_{14}$	[53-70-3]	dibenz[a,h]anthracene				
	$\Delta_{fus}H$		28.4	539.7	DSC	[2010KES/AUC]
	$\Delta_{fus}H$		31.16	544.2		[1991ACR]
	$\Delta_{sub}H$		134.1		GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(436–462)	162 ± 6	298	TE,ME	[1980DEK]
	$\Delta_{sub}H$	(417–502)	141.8	457	ME	[1967WAK/INO]
	Δ_vH		131.1 ± 1.4	298	CGC	[2008HAN/NUT]
	Δ_vH	(323–473)	99.4	398	GC	[2002LEI/CHA]
$C_{22}H_{14}$	[194-69-4]	benzo[c]chrysene				
	$\Delta_{fus}H$		22.7	398.5	DSC	[2010KES/AUC]
$C_{22}H_{14}$	[214-17-5]	1,2:6,7-dibenzophenanthrene (benzo[b]chrysene)				
	$\Delta_{fus}H$		25.3	574.2	DSC	[2010KES/AUC]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		136.4	417	ME	[1967WAK/INO]
	$\Delta_{sub}H$	(398–513)	136.9	413	A	[1987STE/MAL]
$C_{22}H_{14}$	[135-48-8]	pentacene				
	$\Delta_{sub}H$	(443–483)	156.9 ± 13.6	463	ME	[1998OJA/SUU]
	$\Delta_{sub}H$	(494–526)	154 ± 5	512	ME,TE	[1980DEK]
	$\Delta_{sub}H$	(495–530)	184 ± 10	298	ME,TE	[1980DEK]
	$\Delta_{sub}H$	(455–555)	157.7	505	ME	[1967WAK/INO]
$C_{22}H_{14}$	[213-46-7]	picene				
	$\Delta_{fus}H$		35.19	637.2		[1980SMI]
	$\Delta_{sub}H$	(425–488)	140.1	456	ME	[1967WAK/INO]
	$\Delta_{sub}H$	(409–527)	140.7	424		[1987STE/MAL]
$C_{22}H_{14}N_4$	[1154424-98-2]	1,4-*bis*((pyridine-3-ylimo)methyl)benzene				
	$\Delta_{fus}H$		40.7	438.2	DSC	[2008STI/CIN]
$C_{22}H_{14}O_4$	[3363-97-1]	1,4-*bis*(phenylglyoxaloyl)benzene				
	$\Delta_{fus}H$		32.3	425.1		[1996DOM/HEA]
$C_{22}H_{16}$	[68862-02-2]	2-(biphen-4-yl)naphthalene				
	$\Delta_{fus}H$		25.1	489.5	DSC	[2008ROU/LIM]
	$\Delta_{sub}H$	(405–437)	137.1 ± 0.4	421	ME	[2008ROU/LIM]
	$\Delta_{sub}H$	(405–437)	140.2 ± 1.3	298	ME	[2008ROU/LIM]
$C_{22}H_{16}$	[87294-80-2]	2-(biphen-3-yl)naphthalene				
	$\Delta_{fus}H$		18.5	346.3	DSC	[2008ROU/LIM]
	$\Delta_{v}H$		118.6 ± 1.5	298		[2008ROU/LIM]
$C_{22}H_{16}O$	[81-37-8]	3,8-dimethylnaphtho[3,2,1-kl]xanthene (3,8-dimethylceroxene)				
	$\Delta_{sub}H$	(373–433)	138.2	388	A	[1987STE/MAL]
$C_{22}H_{17}NO_2$	[85084-64-7]	2-ethylphenyl acridine-9-carboxylate				
	$\Delta_{fus}H$		30.4	393	DSC	[2010KRZ/MAL]
$C_{22}H_{17}NO_2$	[128649-37-6]	2,5-dimethylphenyl acridine-9-carboxylate				
	$\Delta_{fus}H$		37.9	457	DSC	[2010KRZ/MAL]
$C_{22}H_{17}NO_2$	[na]	2,6-dimethylphenyl acridine-9-carboxylate				
	$\Delta_{fus}H$		29.1	435	DSC	[2010KRZ/MAL]
$C_{22}H_{17}NO_2$	[na]	3,4-dimethylphenyl acridine-9-carboxylate				
	$\Delta_{fus}H$		29.2	442	DSC	[2010KRZ/MAL]
$C_{22}H_{17}NO_2$	[na]	3,5-dimethylphenyl acridine-9-carboxylate				
	$\Delta_{fus}H$		38.4	469	DSC	[2010KRZ/MAL]
$C_{22}H_{17}NO_3S$	[36245-88-2]	2-(3-methyoxypropyl)-1*H*-xantheno[2,2,9-def]-isoquinoline-1,3(2*H*)-dione				
	$\Delta_{sub}H$	(605–647)	111.8	620	A	[1987STE/MAL]
	$\Delta_{sub}H$	(647–685)	150.8	662	A	[1987STE/MAL]
$C_{22}H_{18}F_2O$	[145698-40-4]	4-(6-hexenyloxy)-3′,4′-difluorodiphenyldiacetylene				
	$\Delta_{fus}H$		37.45	370	DSC	[1993JUA/CHE]
$C_{22}H_{18}F_2O$	[153038-12-1]	4-(*cis*-4-hexenyloxy)-3′,4′-difluorodiphenyldiacetylene				
	$\Delta_{fus}H$		35.32	364.4	DSC	[1993JUA/CHE]
$C_{22}H_{18}F_2O$	[153038-13-2]	4-(*cis*-3-hexenyloxy)-3′,4′-difluorodiphenyldiacetylene				
	$\Delta_{fus}H$		30.97	364.6	DSC	[1993JUA/CHE]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{22}H_{18}N_2O_2$	[116-77-8]	1-amino-2-methyl-4-[(4-methylphenyl)amino]-9,10-anthraquinone				
	$\Delta_{sub}H$	(418–435)	142.2 ± 2.3	426		[1984KRI]
$C_{22}H_{18}N_2O_2$	[6408-50-8]	1-(N-methylamino)-4-[(3-methylphenyl)amino]-9,10-anthraquinone				
	$\Delta_{sub}H$	(418–434)	129.0 ± 4.7	426		[1984KRI]
$C_{22}H_{18}N_2O_2$	[128-85-8]	1-(N-methylamino)-4-[(4-methylphenyl)amino]-9,10-anthraquinone				
	$\Delta_{sub}H$	(403–426)	153.9 ± 3.9	414		[1984KRI]
$C_{22}H_{18}O_4$	[523-31-9]	dibenzyl phthalate				
	$\Delta_{v}H$	(445–513)	121.4	460	A	[1987STE/MAL]
$C_{22}H_{19}Br_2NO_3$	[52918-00-5]	(S)-α-cyano-3-phenoxybenzyl (1R)-*cis*-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate				
	$\Delta_{fus}H$		40.71	372.9	DSC	[1990DON/DRE]
		Note: Chemical Abstracts gives a CAN Registry Number of [52918-63-5] for the compound studied by the authors of Ref. [1990DON/DRE]. The authors of the paper; however, give a Registry Number of [52918-00-5]				
$C_{22}H_{19}Br_2NO_3$	[52918-63-5]	(1R,3R)-3-(2,2-dibromoethenyl)-2,2-dimethylcyclopropanecarboxylic acid, (S)-cyano(3-phenoxyphenyl) methyl ester (deltamethrin)				
	$\Delta_{fus}H$	(80–400)	26.73	372.2	AC	[2005XUE/WAN]
$C_{22}H_{19}N_5O_3$	[244272-54-6]	6-(4-biphenylyl)-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	$\Delta_{fus}H$		45.43	484.5	DSC	[1999ZIE/GOL]
$C_{22}H_{20}N_2O_4$	[36360-34-6]	N,N′-*bis*(2-methoxyphenyl)terephthalamide				
	$\Delta_{sub}H$	(183–197)	197.5 ± 4.2		ME	[1973HAM/MIT, 1977PED/RYL]
$C_{22}H_{20}N_2O_4$	[6957-81-9]	N,N′-*bis*(3-methoxyphenyl)terephthalamide				
	$\Delta_{sub}H$	(183–197)	209.2 ± 8.4		ME	[1973HAM/MIT2, 1977PED/RYL]
$C_{22}H_{20}N_2O_4$	[7144-15-2]	N,N′-*bis*(4-methoxyphenyl)terephthalamide				
	$\Delta_{sub}H$		227.6 ± 8.4		ME	[1973HAM/MIT2, 1977PED/RYL]
$C_{22}H_{21}Cl_3N_4O$	[168273-06-1]	5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-1*H*-pyrazole-3-carboxamide (rimonabant)				
	$\Delta_{fus}H$		36.1	427.9	DSC	[2007BER/WAS]
$C_{22}H_{21}F$	[193472-71-8]	2-benzyl-2-fluoro-1,3-diphenylpropane				
	$\Delta_{fus}H$		24.35	363.6		[1997SCH/VER]
	$\Delta_{sub}H$		127.5 ± 0.8	298		[1997SCH/VER]
$C_{22}H_{21}F_{25}$	[93454-72-9]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafluorodocosane				
	$\Delta_{trs}H$		1	207		
	$\Delta_{trs}H$		9.5	342		
	$\Delta_{fus}H$		25.8	365	DSC	[1991HOP/MOL]
	$\Delta_{trs}H$		7.5	339.2		
	$\Delta_{fus}H$		22.2	357.2	DSC	[1986RUS/RAB]
$C_{22}H_{22}$	[43044-69-5]	1,1,1-triphenylbutane				
	$\Delta_{fus}H$		21.84	351.1	DSC	[1999VER3]
	$\Delta_{sub}H$	(323–347)	112.1 ± 1.1	335	GS	[1999VER3]
	$\Delta_{sub}H$	(323–347)	114.3 ± 1.1	298	GS	[1999VER3]
$C_{22}H_{22}$	[4742-04-5]	tribenzylmethane				
	$\Delta_{v}H$	(395–648)	79	521		[1999DYK/SVO]
$C_{22}H_{23}NO_3$	[39515-41-8]	2,2,3,3-tetramethylcyclopropanecarboxylic acid, cyano(3-phenoxyphenyl)methyl ester (fenpropathrin)				
	$\Delta_{fus}H$		18.57	322.5		[2001TAN/XUE, 1999XUE/TAN]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{22}H_{24}N_2O_2$	[16087-30-2]	N,N′-ethylene*bis*(3-amino-1-phenylbut-2-en-1-one)				
	$\Delta_{sub}H$	(407–426)	192.9 ± 5.3	415	ME	[1995RIB/RIB]
	$\Delta_{sub}H$		198.8 ± 5.3	298		[1995RIB/RIB]
$C_{22}H_{24}O_3$	[138306-50-0]	4-methyl-4-propyl-1,8-diphenyl-2,3,5-trioxabicyclo[4.3.0]non-7-ene				
	$\Delta_{fus}H$		16.6	351.2	DSC	[1991JEF/JAB]
$C_{22}H_{24}O_3$	[104225-44-7]	3-([1,1-biphenyl]-4-ylcarbonyl)-1,2,2,-trimethylcyclopentanecarboxylic acid				
	$\Delta_{fus}H$		27.69	444.2	DSC	[1992TER/PAU]
$C_{22}H_{25}F_{21}$	[93454-71-8]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosofluorodocosane				
	$\Delta_{trs}H$		6	334.1		
	$\Delta_{fus}H$		27	338.1	DSC	[1992HOP/MOL]
$C_{22}H_{25}NO$	[6018-34-4]	(+) 5,7,8,15-tetrahydro-3,4-dimethoxy-6,15-dimethyl-3]benzodioxolo-[5,6e] [2]benzazecin-14(6)-one (corycavidine)				
	$\Delta_{fus}H$		38.07	468.3		[2000KAM/YOS]
$C_{22}H_{25}NO_3$	[126675-75-0]	2-(4-nitrophenyl)-1-[4-(*trans*-4-ethylcyclohexyl)phenyl]ethanone				
	$\Delta_{fus}H$		37.32	445.1	DSC	[2002SPA/DZI]
$C_{22}H_{25}NO_6$	[836602-50-7]	methyl naltrexone-3-O-carbonate				
	$\Delta_{fus}H$		10.92	393.7	DSC	[2004PIL/HAM]
$C_{22}H_{26}$	[59358-70-2]	1,1′-diphenyl-1,1′-bicyclopentyl				
	$\Delta_{fus}H$		31.38	414	DSC	[1983KRA/BEC]
	$\Delta_{sub}H$		141.4	141.4	E,B	[1983KRA/BEC]
$C_{22}H_{26}FNO_2$	[1050-79-9]	1-(4-fluorophenyl)-4-[4-hydroxy-4-(4-methylphenyl)-1-piperidinyl]-1-butanone (moperone)				
	$\Delta_{fus}H$ *(I)*		37.4	398.2		
	$\Delta_{fus}H$ *(II)*		15	468.2	DSC	[1981DRA/AZI]
$C_{22}H_{26}N_2O_2$	[17354-14-2]	1,4-*bis*(N-butylamino)-9,10-anthraquinone				
	$\Delta_{sub}H$	(389–398)	116.4 ± 2.3	394		[1984KRI]
$C_{22}H_{26}N_2O_2$	[10720-45-7]	1,4-*bis*(N-isobutylamino)-9,10-anthraquinone				
	$\Delta_{sub}H$	(368–388)	96.4 ± 2.1	378		[1984KRI]
$C_{22}H_{27}NO_2$	[1050-79-9]	pregna-2,4-dien-20-yno[2,3-d]isoxazol-17-ol (danazol)				
	$\Delta_{fus}H$		35.5	501.8	DSC	[2007BER/WAS]
$C_{22}H_{28}N_2O$	[437-38-7]	N-phenyl-N[1-(2-phenylethyl)-4-piperidinyl]propanamide (fentanyl)				
	$\Delta_{fus}H$		30.1	358.3	DSC	[2008GUP/GAN]
	$\Delta_{fus}H$		22.51	357.2	DTA	[1988ROY/FLY]
	$\Delta_{sub}H$	(423–493)	144.6 ± 7.2	298	Vap+Fus	[2008GUP/GAN]
	$\Delta_{v}H$	(423–493)	107.2 ± 4.2	458	TGA	[2008GUP/GAN]
$C_{22}H_{28}N_2O_2$	[145513-29-7]	(4R, 4′R, 5R, 5′R)-5,5-diphenyl-3,3′,4,4′-tetramethyl-2,2′-bioxazolidine				
	$\Delta_{fus}H$		31.9	394		[1995TOR/GUD]
	$\Delta_{sub}H$	(349–358)	130.8 ± 0.8	356	ME	[1995TOR/GUD]
$C_{22}H_{28}N_2O_2$	[145438-85-3]	(2R, 3R, 6R, 7R)-2,6-diphenyl-3,4,7,8-tetramethyl-*cis*-perhydro-[1,4]-oxazino-[3,2-b]-[1,4]-oxazine				
	$\Delta_{fus}H$		20.9	396.8		[1995TOR/GUD]
	$\Delta_{sub}H$	(353–364)	116.6 ± 1.0	358	ME	[1995TOR/GUD]
$C_{22}H_{28}N_2O_2$	[145438-85-3]	(2R, 3S, 6R, 7S)-2,6-diphenyl-3,4,7,8-tetramethyl-*cis*-perhydro-[1,4]-oxazino-[3,2-b]-[1,4]-oxazine				
	$\Delta_{fus}H$		18.4	379.4		[1995TOR/GUD]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(356–364)	123.1 ± 1.6	358	ME	[1995TOR/GUD]
$C_{22}H_{28}O$	[33574-11-7] 2,4,6-triisopropylbenzophenone					
	$\Delta_{sub}H$	(353–364)	116 ± 7	298	C	[1982INA/MUR2]
$C_{22}H_{28}O$	[33574-16-2] 3′,5′-diisopropyl-4,4-dimethyl-3-phenyl-1,2-benzocyclobuten-3-ol					
	$\Delta_{sub}H$	(354–364)	117.9	298	C	[1982INA/MUR2]
$C_{22}H_{28}O_2$	[54048-10-1] 13-ethyl-17-hydroxy-11-methylene-18,19-dinorpregn-4-en-20-yn-3-one (etonogestrel)					
	$\Delta_{fus}H$		31.15	472.2		[2002VAN/KRU]
$C_{22}H_{28}O_3$	[2353-34-6] 3-[(1-oxobutyl)oxy]-estra-1,3,5(10)-trien-17-one					
	$\Delta_{fus}H$		22	381	DSC	[1990YAN/EIR]
$C_{22}H_{28}O_3$	[na] 19-nor-17α-ethynyl-17β-acetoxy-4-androsten-3-one					
	$\Delta_{fus}H$		27.3	480		[1996DOM/HEA]
$C_{22}H_{29}FO_5$	[50-02-2] 9-fluoro-11β,17,21-trihydroxy-16α-methylpregna-1,2-diene-3,20-dione (dexamethasone)					
	$\Delta_{fus}H$		42.02	539		[1994REG/CHM]
$C_{22}H_{29}NO_2$	[133544-40-8] 4-*n*-octyloxy-N-(4-methoxybenzylidene)aniline					
	$\Delta_{fus}H$		42.29	377.3		[1995MIY/NAK]
$C_{22}H_{30}N_2O_2S$	[56030-54-7] N-[4-(methoxymethyl)-1-[2-(2-thienyl)ethyl]-4-piperidinyl]-N-phenylpropanamide (sufentanil)					
	$\Delta_{fus}H$		23.85	370.2	DTA	[1988ROY/FLY]
$C_{22}H_{31}NO_4$	[23257-62-7] N,N-*bis*(3-phenoxy-2-hydroxypropyl)butyl amine					
	$\Delta_{sub}H$	(363–411)	114.3	378	A	[1987STE/MAL]
	$\Delta_{sub}H$		146.0 ± 4.2			[1976KUZ/MIR]
$C_{22}H_{32}O_3$	[57-85-2] testosterone propionate					
	$\Delta_{fus}H$		25.64	393		[1994REG/CHM]
$C_{22}H_{33}N_3O_2$	[765303-86-4] pyrimethanil decylate					
	$\Delta_{fus}H$	(78–373)	45.88	311	AC	[2005SUN/LIU]
$C_{22}H_{34}N_4O_4$	[501946-58-3] 1,1′-(1,12-dodecanediyl)bisthymine					
	$\Delta_{fus}H$		43.95	462	DSC	[2002ITA/KAM]
$C_{22}H_{36}O_4$	[118476-23-6] 2,5-di-*n*-octyloxy-1,4-benzoquinone					
	$\Delta_{trs}H$		9.4	358.2		
	$\Delta_{fus}H$		43.0	405.8	DSC	[1996KEE/VAN]
$C_{22}H_{38}$	[1459-09-2] hexadecylbenzene					
	Δ_vH	(505–688)	79.5	520		[1999DYK/SVO]
$C_{22}H_{38}$	[54934-70-2] 1,1-*bis*(decahydro-1-naphthyl)ethane					
	Δ_vH	(432–503)	77.3	447	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{22}H_{38}$	[54934-69-9] 1,2-*bis*(decahydro-1-naphthyl)ethane					
	Δ_vH	(440–507)	89.3	455	A	[1987STE/MAL]
$C_{22}H_{38}$	[54934-71-3] 1,5-dicylopentyl-3-(2-cyclopentylethyl)-2-pentene					
	Δ_vH	(427–492)	81.4	442	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{22}H_{38}$	[62678-54-0] *meso* 3,4-di(1-cyclohexen-1-yl)-2,2,5,5-tetramethylhexane					
	$\Delta_{sub}H$	(347–404)	117.2 ± 2.4	376	T	[1993HER/BEC]
$C_{22}H_{38}N_4O_2$	[126235-07-2] 8-pentadecyltheophylline					
	$\Delta_{fus}H$		27.2	413.7	DSC	[1991ACR, 1989GON/KRA]
$C_{22}H_{40}$	[55255-85-1] 1,5-dicylopentyl-3-(2-cyclopentylethyl)-2-pentane					
	Δ_vH	(430–494)	83.6	445	A, MG	[1987STE/MAL, 1955SCH/WHI]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{22}H_{40}O_2$	[31067-26-2]	3,3,6,6,10,10,13,13-octamethylcyclotetracane-1,8-dione				
	$\Delta_{fus}H$		24.7	492.2		[1972BOR/DAL2]
$C_{22}H_{40}O_4$	[38734-13-3]	1,10-cyclooctadecanedione *bis* ethylene ketal				
	$\Delta_{fus}H$		33.56	378.2		[1972ALV/BOR]
$C_{22}H_{42}$	[na]	*meso*-(E, E)-5,6-di-*tert*-butyl-2,2,9,9-tetramethyl-3,7-decadiene				
	$\Delta_{sub}H$	(297–353)	110.0 ± 1.7	325	T	[1995HER/VER]
$C_{22}H_{42}$	[na]	(*dl*)-(E, E)-5,6-di-*tert*-butyl-2,2,9,9-tetramethyl-3,7-decadiene				
	$\Delta_{sub}H$	(297–346)	74.4 ± 1.7	307	T	[1995HER/VER]
$C_{22}H_{42}O_2$	[142-77-8]	butyl oleate				
	Δ_vH	(353–393)	97.7	368	A	[1987STE/MAL]
$C_{22}H_{42}O_2$	[112-86-7]	*cis* 13-docosenoic acid (erucic acid)				
	$\Delta_{trs}H$		8.9	282.2		
	$\Delta_{fus}H$		54	307.2		[1997SAT/YAN]
	Δ_vH	(479–655)	98.2	494	A	[1987STE/MAL]
$C_{22}H_{42}O_2$	[506-33-2]	*trans* 13-docosenoic acid				
	Δ_vH	(482–656)	103.4	497	A	[1987STE/MAL]
$C_{22}H_{42}O_4$	[123-79-5]	dioctyl adipate				
	Δ_vH	(373–493)	99	388	A	[1987STE/MAL]
$C_{22}H_{42}O_4$	[2449-10-7]	dihexyl sebacate				
	Δ_vH		99.9	344	TGA	[1990KIS/SHO]
	Δ_vH		106.4 ± 3.7	298	TGA	[1990KIS/SHO]
$C_{22}H_{42}O_6$	[141-19-5]	*bis*(2-butoxyethyl) sebacoate				
	Δ_vH	(368–423)	120.3	383	A, ME	[1987STE/MAL, 1948SMA/SMA]
$C_{22}H_{43}NO_3$	[14379-42-1]	N-hexadecanoyl-(*l*)-leucine				
	$\Delta_{fus}H$		46.1	367.1	DSC	[1986MIY/MAT]
$C_{22}H_{43}NO_3$	[21394-54-7]	N-hexadecanoyl-(*dl*)-leucine				
	$\Delta_{trs}H$		4.3	333.1		
	$\Delta_{fus}H$		60.6	355.1	DSC	[1986MIY/MAT]
$C_{22}H_{44}$	[1599-67-3]	1-docosene				
	Δ_vH	(401–640)	95.6	416		[1999DYK/SVO]
$C_{22}H_{44}$	[6812-38-0]	hexadecylcyclohexane				
	Δ_vH	(507–689)	79.6	522		[1999DYK/SVO]
	Δ_vH		109.3	298		[1971WIL/ZWO]
$C_{22}H_{44}$	[23014-56-4]	1,1,10,10-tetramethylcyclooctadecane				
	$\Delta_{fus}H$		39.58	359.2		[1974BJO/BOR]
$C_{22}H_{44}N_2O_2$	[31827-03-9]	N,N′-di-n-hexylsebacamide				
	$\Delta_{fus}H$		53.56	415		[1996DOM/HEA]
$C_{22}H_{44}O_2$	[123-95-5]	butyl stearate				
	$\Delta_{trs}H$		2.22	288.4		
	$\Delta_{fus}H$		37.48	299.7		[1986KAL/JAC]
	Δ_vH	(352–399)	99.9	367	A, T	[1987STE/MAL, 1949PER/WEB]
$C_{22}H_{44}O_2$	[18281-05-5]	ethyl eicosanoate				
	$\Delta_{fus}H$		68.62	315		[1967OMA]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(307–313)	171.5	310	ME	[1987STE/MAL, 1967OMA]
	Δ_vH	(318–460)	113.7	333	A	[1987STE/MAL]
$C_{22}H_{44}O_2$	[6064-90-0]	methyl heneicosanoate				
	$\Delta_{fus}H$		75.1	321.2		[2004CHI/ZHA]
	Δ_vH	(459–529)	95.6	474	A, EST	[1987STE/MAL, 1963ROS/SCH]
$C_{22}H_{44}O_2$	[36528-28-6]	decyl dodecanoate				
	$\Delta_{fus}H$		63.67	293.2		[1999BAL/WEI]
$C_{22}H_{44}O_2$	[42232-25-7]	hexyl hexadecanoate				
	$\Delta_{fus}H$		56.19	287.6		[1999BAL/WEI]
$C_{22}H_{44}O_2$	[112-85-6]	docosanoic acid				
	Δ_vH	(373–600)	122.3	388	A	[1987STE/MAL]
$C_{22}H_{44}O_4$	[56444-64-5]	2,2,13,13-tetramethyl-1,3,12,14-tetraoxacyclodocosane				
	$\Delta_{fus}H$		61.9	374		[1975BOR]
$C_{22}H_{45}Br$	[6938-66-5]	1-bromodocosane				
	$\Delta_{trs}H$		23.14	303.8		
	$\Delta_{fus}H$		44.98	317.1		[1953HOF/DEC]
$C_{22}H_{45}NO$	[3061-75-4]	docosanamide				
	$\Delta_{fus}H$		63.3	383.3	DSC	[2008ABA/BAD]
$C_{22}H_{45}NO$	[74534-12-6]	N-hexyl hexadecanamide				
	$\Delta_{fus}H$		57	343.1	DSC	[1993ACR]
$C_{22}H_{45}NO$	[55334-54-8]	N,N-dioctyl hexanamide				
	Δ_vH	(463–513)	88.1 ± 1.0	298	CGC	[2009PAN/ANT]
$C_{22}H_{46}$	[629-97-0]	docosane				
	$\Delta_{trs}H$		27.3	315.8		
	$\Delta_{trs}H$		<0.3	316.1		
	$\Delta_{fus}H$		49.1	316.6	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		29.51	315.2		
	$\Delta_{fus}H$		47.84	316.1		[1990DOM/HEA]
	$\Delta_{sub}H$		172.6 ± 2.0	391	B	[1994PIA/FON]
	$\Delta_{sub}H$		U 151.1 ± 10	298	B	[1991PIA/POM]
	Δ_vH	(434–539)	111.9	298	CGC	[2004CHI/HAN]
	Δ_vH		114.9 ± 0.3	298	CGC	[2002CHI/WEB]
	Δ_vH		115.6 ± 1.9	298	CGC	[1997CHI/WIL]
	Δ_vH	(453–503)	115.6	298	CGC	[1995CHI/HOS]
	Δ_vH	(453–573)	84.3	468		[1994MOR/KOB]
	Δ_vH	(372–410)	124 ± 2	391	TE	[1994PIA/FON]
	Δ_vH	(358–490)	89.9	373	TE,ME,GS	[1991PIA/POM]
	Δ_vH	(353–462)	100.9	368		[1988SAS/JOS]
	Δ_vH	(431–642)	91.3	446	A, EST	[1987STE/MAL, 1966KUD/ZWO]
$C_{22}H_{46}$	[1560-82-3]	2-methylheneicosane				
	Δ_vH	(485–640)	76.1	500	A	[1987STE/MAL]
$C_{22}H_{46}$	[6418-47-9]	3-methylheneicosane				
	Δ_vH	(484–631)	74.4	499	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{22}H_{46}$	[25117-29-7]	4-methylheneicosane				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(497–632)	70.9	494	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{22}H_{46}$	[25117-37-7] 5-methylheneicosane					
	$\Delta_v H$	(483–632)	73.9	498	A	[1987STE/MAL, 1999DYK/SVO]
$C_{22}H_{46}$	[75163-98-3] 2,4-dimethyleicosane					
	$\Delta_v H$	(471–603)	77.5	486	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{22}H_{46}$	[102886-19-1] 2,4,6-trimethylnonadecane					
	$\Delta_v H$	(470–587)	77.3	485	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{22}H_{46}$	[71005-15-7] 8-heptylpentadecane					
	$\Delta_v H$	(298–313)	107.7	305	A	[1987STE/MAL]
$C_{22}H_{46}O$	[661-19-8] 1-docosanol					
	$\Delta_{fus}H$	(80–400)	85.07	340.8	AC	[2008TON/TAN3]
	$\Delta_{fus}H$		86.06	343.9		[2001VAN/OON2]
	$\Delta_{trs}H$		17.24	333.9		
	$\Delta_{fus}H$		46.57	345.2		[1979KUC/SKU]
	$\Delta_{sub}H$	(335–341)	206.7 ± 10	330	ME	[1965DAV/KYB, 1987STE/MAL]
	$\Delta_{sub}H$		238.5 ± 10	298		[1965DAV/KYB]
	$\Delta_v H$		135.9 ± 0.8	298	CGC	[2006NIC/KWE]
	$\Delta_v H$	(344–459)	115.3	351	A, ME	[1987STE/MAL, 1965DAV/KYB]
$C_{22}H_{46}O_2$	[22513-81-1] 1,22-docosanediol					
	$\Delta_{trs}H$		39.8	369.7		
	$\Delta_{fus}H$		46.5	379.4	DSC	[1999OGA/NAK]
$C_{22}H_{46}O_4S_2$	[na] (*l*)-rhamnose dioctyl dithioacetal					
	$\Delta_{fus}H$		54.7	387.9	DSC	[1989VAN/VAN]
$C_{22}H_{46}S$	[7773-83-3] 1-docosanethiol					
	$\Delta_v H$	(437–680)	107.7	452	EST	[1999DYK/SVO]
$C_{23}H_{15}ClO_3$	[3691-35-8] 2-[(4-chlorophenyl)phenylacetyl]-1*H*-indene-1,3(2*H*)-dione					
	$\Delta_{fus}H$		34.54	416.5	DSC	[1990DON/DRE]
$C_{23}H_{15}F_{17}OS$	[246544-01-4] 2-(perfluoro-*n*-octyl)ethylthiomethyl biphenyl-4-yl ether					
	$\Delta_{fus}H$		47.4	362.1	DTA	[1999DEG/GUI]
$C_{23}H_{15}F_{17}S$	[246543-98-6] 2-(perfluoro-*n*-octyl)ethylthiomethyl biphenyl-4-yl					
	$\Delta_{fus}H$		58.3	353.2	DTA	[1999DEG/GUI]
$C_{23}H_{19}NO_2$	[1041479-15-5] 2-isopropylphenyl acridine-9-carboxylate					
	$\Delta_{fus}H$		29.0	396	DSC	[2010KRZ/MAL]
$C_{23}H_{19}NO_2$	[1134294-42-0] 2,4,6-trimethylphenyl acridine-9-carboxylate					
	$\Delta_{fus}H$		24.4	405	DSC	[2010KRZ/MAL]
$C_{23}H_{21}F_3O$	[145698-52-8] 4-*n*-hexyloxy-4′-trifluoromethyldiphenyldiacetylene					
	$\Delta_{fus}H$		33.98	394.8	DSC	[1993JUA/CHE]
$C_{23}H_{21}F_7N_4O_3$	[170729-80-3] 5-[[(2R,3S)-2-[(1R)-1-[3,5-bis(trifluoromethyl)phenyl]ethoxy]-3-(4-fluorophenyl)-4-morpholinyl]methyl]-1,2-dihydro-3*H*-1,2,4-triazol-3-one (Aprepitant)					
	$\Delta_{fus}H$ *(I)*		53.7	526.8	DSC	
	$\Delta_{fus}H$ *(II)*		52.4	526.2	DSC	[2008BRA/GEL]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{23}H_{22}O_6$	[83-79-4]	[2R-(2a,6aα,12aα)]-1,2,12,12a-tetrahydro-8,9-dimethoxy-2-(1-methylethenyl)-[1]benzopyrano[3,4-b]furo[2,3-h] [1]benzopyran-6(6a*H*)-one (Rotenone)				
	$\Delta_{fus}H$		35.64	437.9	DSC	[1990DON/DRE]
$C_{23}H_{24}N_6O_4$	[na]	2-[[4-[[(2-acetoxy)ethyl]butylamino]-2-methylphenyl]azo]-5-nitro-1,3-benzenedicarbonitrile				
	$\Delta_{fus}H$		37.88	424.2		[1991BAU/WEB]
$C_{23}H_{24}O_6$	[170464-53-6]	*tris*(ethoxycarbonyl)-9-fluorenylmethane				
	$\Delta_{sub}H$		143.2	298	GS	[1995RAK/VER]
	$\Delta_{v}H$	(359–393)	107.5 ± 0.7		GS	[1995RAK/VER]
$C_{23}H_{25}BrN_6O_{10}$	[na]	N-[5-[*bis*[(2-acetyloxy)ethyl]amino]-2-[(2-bromo-4,6-dinitrophenyl)azo]-4-methoxyphenyl] acetamide				
	$\Delta_{fus}H$		57.28	421.2		[1991BAU/WEB]
$C_{23}H_{25}F$	[154393-25-6]	1-adamantylfluorodiphenylmethane				
	$\Delta_{sub}H$	(353–393)	125.9 ± 1.3	373	T	[1994SCH/BEC]
$C_{23}H_{26}O_6$	[183212-67-1]	1,1,1-*tris*(ethoxycarbonyl)-2,2-diphenylethane				
	$\Delta_{fus}H$		29.5	333.2		[1995RAK/VER]
	$\Delta_{sub}H$		140.1	298	GS	[1995RAK/VER]
	$\Delta_{v}H$	(344–394)	109.3 ± 1.0		GS	[1995RAK/VER]
$C_{23}H_{27}Cl_2N_3O_2$	[129722-12-9]	7-[4-[4-(2,3-dichlorophenyl)-1-piperazinyl]butoxy]-3,4-dihydro-2(1*H*)-quinoline (aripiprazole)				
	$\Delta_{fus}H$ *(I)*		38.36	422.1	DSC	
	$\Delta_{fus}H$ *(II)*		41.51	416.3	DSC	
	$\Delta_{fus}H$ *(III)*		39.97	412.4	DSC	
	$\Delta_{fus}H$ *(IV)*		40.76	408.1	DSC	[2009BRA/GEL]
$C_{23}H_{27}NO_3$	[126675-76-1]	2-(4-nitrophenyl)-1-[4-(*trans*-4-propylcyclohexyl)phenyl]ethanone				
	$\Delta_{fus}H$		38.87	436.5	DSC	[2002SPA/DZI]
$C_{23}H_{27}NO_3S$	[313057-12-4]	4-(7-undecenyloxy)phenyl 5-cyano-2-thiophenecarboxylate				
	$\Delta_{fus}H$		52.72	346.1	DSC	[2000WU/WAN]
$C_{23}H_{27}NO_6$	[836602-51-8]	ethyl natrexone-3-O-carbonate				
	$\Delta_{fus}H$		18.99	404.2	DSC	[2004PIL/HAM]
$C_{23}H_{28}ClN_3O_5S$	[10238-21-8]	5-chloro-N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-2-methoxybenzamide (glyburide)				
	$\Delta_{fus}H$		46.3	446.8	DSC	[2007BER/WAS, 2006WAS/HOL]
	$\Delta_{fus}H$		53.35	450.2		[2000HAN/PAR]
$C_{23}H_{28}N_2O_5$	[na]	N,N-dimethyl naltrexone-3-O-carbamate				
	$\Delta_{fus}H$		22.01	480.2	DSC	[2009VAD/BAN]
$C_{23}H_{30}O_3$	[128788-26-1]	3-[(1-oxopentyl)oxy]-estra-1,3,5(10)-trien-17-one				
	$\Delta_{fus}H$		25	398	DSC	[1990YAN/EIR]
$C_{23}H_{30}O_4S$	[313057-16-8]	4-(7-undecenyloxy)phenyl 5-methoxy-2-thiophenecarboxylate				
	$\Delta_{fus}H$		61.92	334.1	DSC	[2000WU/WAN]
$C_{23}H_{30}O_6$	[52-21-1]	prednisolone acetate				
	$\Delta_{fus}H$		42.3	515		[1997CEN/MEL]
	$\Delta_{fus}H$		38.67	511		[1994REG/CHM]
$C_{23}H_{30}O_6$	[50-04-4]	cortisone acetate				
	$\Delta_{fus}H$		38.43	509		[1994REG/CHM]
$C_{23}H_{31}NO$	[164667-96-3]	4-*n*-octyloxy-N-(3,5-dimethylbenzylidene)aniline				
	$\Delta_{fus}H$		37.73	324.7		[1995MIY/NAK]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{23}H_{31}NO_3$	[164667-97-4]	4-*n*-octyloxy-N-(3,5-dimethoxybenzylidene)aniline				
	$\Delta_{fus}H$		35.3	316.3		[1995MIY/NAK]
$C_{23}H_{32}O_2$	[119-47-1]	3,3′-di-*tert*-butyl-5,5′-dimethyl-2,2-dihydroxydiphenylmethane				
	$\Delta_{fus}H$		29.33	403.7	DTA	[1972INO/LIA]
$C_{23}H_{32}O_3$	[27811-56-9]	estra-1,3,5(10)-triene-3-ol-17β pentanoate				
	$\Delta_{fus}H$		29.45	420.7	DSC	[1986DEM/MAS]
$C_{23}H_{32}O_4$	[56-47-3]	deoxycorticosterone acetate				
	$\Delta_{fus}H$		29.66	430		[1994REG/CHM]
$C_{23}H_{32}O_6$	[50-03-3]	hydrocortisone acetate				
	$\Delta_{fus}H$		53.64	480		[1997CEN/MEL]
	$\Delta_{fus}H$		36.95	496		[1994REG/CHM]
$C_{23}H_{34}O_2$	[2566-90-7]	Z,Z,Z,Z,Z,Z 4,7,10,13,16,19-docosahexaeneoate				
	$\Delta_{v}H$		131.8 ± 0.2	298	CGC	[2007LIP/KAP]
$C_{23}H_{34}O_3$	[3410-54-6]	testosterone butyrate				
	$\Delta_{fus}H$		24.75	382		[1994REG/CHM]
$C_{23}H_{35}N_3O_8$	[53848-86-5]	hexadecyl 2,4,6-trinitrobenzoate				
	$\Delta_{trs}H$		18.6	349.3		
	$\Delta_{fus}H$		29.54	393.3	DSC	[1974WAR/WIL]
$C_{23}H_{36}N_2O_2$	[98319-26-7]	(5α,17β)-N-(1,1-dimethylethyl)-3-oxo-4-azaandrost-1-ene-17-carboxamide (finasteride)				
	$\Delta_{trs}H$ *(I)*		4.1	503.2		
	$\Delta_{fus}H$ *(I)*		33.2	530.2		
	$\Delta_{fus}H$ *(II)*		32.8	530.2	DSC	[2000WEN/BAU]
	$\Delta_{sub}H$	(463–488)	143.7		TGA	[1997ELD]
$C_{23}H_{37}BrN_2O_4$	[138317-09-6]	(4-nitrophenyl)-16-bromohexadecyl carbamate				
	$\Delta_{fus}H$		62.62	382.9	DSC	[1993TIE/FRA]
$C_{23}H_{39}N_3O_3$	[6313-97-9]	1-hexadecyl-3-(4-nitrophenyl) urea				
	$\Delta_{fus}H$		53.94	392.6	DSC	[1993TIE/FRA]
$C_{23}H_{40}$	[14752-75-1]	heptadecylbenzene				
	$\Delta_{v}H$	(414–664)	98.5	429		[1999DYK/SVO]
$C_{23}H_{42}O_2$	[61012-47-3]	methyl Z,Z 13,16-docosadienoate				
	$\Delta_{v}H$		127.9	298	CGC	[2007LIP/KAP]
$C_{23}H_{42}O_3$	[5420-17-7]	tetrahydrofurfuryl oleate				
	$\Delta_{v}H$	(353–398)	98.7	368	A	[1987STE/MAL]
$C_{23}H_{44}$	[95115-76-7]	*trans*-2-heptyl-6-hexyldecalin				
	$\Delta_{fus}H$		38.91	312.2		[1985VAR/BRI]
$C_{23}H_{44}$	[95115-79-0]	*trans*-2-pentyl-6-octyldecalin				
	$\Delta_{fus}H$		43.51	314.2		[1985VAR/BRI]
$C_{23}H_{44}O_2$	[1120-34-9]	methyl erucate				
	$\Delta_{v}H$		125.6 ± 1.2	298	CGC	[2007LIP/KAP]
	$\Delta_{v}H$	(463–523)	123.8	298	GC	[1997KRO/VEL]
	$\Delta_{v}H$	(453–543)	93.5	498	GC	[1993HUS/SAR]
$C_{23}H_{44}O_5$	[820-17-7]	1-aceto-3-stearin				
	$\Delta_{fus}H$		41.69	319.9		[1996DOM/HEA]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{23}H_{45}NO_3$	[na]	2-lauryloxy-N,N-dibutylpropionamide				
	$\Delta_v H$	(443–458)	90.6	450	A	[1987STE/MAL]
$C_{23}H_{46}$	[55124-77-1]	9-cyclohexylheptadecane				
	$\Delta_v H$	(456–492)	83.9	471	A	[1987STE/MAL]
$C_{23}H_{46}$	[19781-73-8]	hexadecylcyclohexane				
	$\Delta_v H$	(414–664)	97.6	429		[1999DYK/SVO]
$C_{23}H_{46}$	[18835-32-0]	1-tricosene				
	$\Delta_v H$	(409–652)	98.5	424		[1999DYK/SVO]
$C_{23}H_{46}O$	[540-09-0]	12-tricosanone				
	$\Delta_{fus}H$		78.03	342.2		[1993RUE/SAR]
$C_{23}H_{46}O_2$	[929-77-1]	methyl docosanoate (methyl behenate)				
	$\Delta_{fus}H$		83.5	327.2	DSC	[2004CHI/ZHA]
	$\Delta_{fus}H$		82.3	327.2		[1936KIN/GAR]
	$\Delta_v H$	(463–513)	126.0 ± 0.3	298	GC	[2006HAF/PAR]
	$\Delta_v H$	(467–558)	126.1 ± 2.5	298	CGC	[2004CHI/ZHA]
	$\Delta_v H$	(463–523)	126.1	298	GC	[1997KRO/VEL]
	$\Delta_v H$	(453–543)	81.0	498		[1993HUS/SAR]
	$\Delta_v H$	(467–539)	98.2	482	A	[1987STE/MAL, 1963ROS/SCH]
$C_{23}H_{46}O_2$	[2433-96-7]	tricosanoic acid				
	$\Delta_{trs}H$		2.5	349.9		
	$\Delta_{fus}H$		75.0	352	DSC	[2007GBA/NEG]
$C_{23}H_{46}O_3$	[102542-57-4]	decyl 3-decyloxypropionate				
	$\Delta_v H$	(453–523)	90.2	468	A	[1987STE/MAL]
$C_{23}H_{48}$	[55124-79-3]	9-hexylheptadecane				
	$\Delta_v H$	(450–486)	82.6	465	A	[1987STE/MAL]
$C_{23}H_{48}$	[1560-81-2]	2-methyldocosane				
	$\Delta_v H$	(495–652)	79.7	510	A	[1987STE/MAL]
$C_{23}H_{48}$	[25117-30-0]	4-methyldocosane				
	$\Delta_v H$	(493–643)	76.3	508	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{23}H_{48}$	[25163-52-4]	5-methyldocosane				
	$\Delta_v H$	(492–644)	75.6	507	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{23}H_{48}$	[638-67-5]	tricosane				
	$\Delta_{trs}H$		<0.3	310.5		
	$\Delta_{trs}H$		19.6	312.4		
	$\Delta_{trs}H$		<0.3	317.2		
	$\Delta_{fus}H$		52.6	320.2	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		21.76	313.7		
	$\Delta_{fus}H$		53.97	320.7		[1990DOM/HEA]
	$\Delta_{sub}H$	U	146.8 ± 10	298	B	[1991PIA/POM]
	$\Delta_v H$	(412–462)	93.5	427		[2006SAW/MOK]
	$\Delta_v H$	(434–539)	117	298	CGC	[2004CHI/HAN]
	$\Delta_v H$		118.7 ± 0.1	298	GS	[2001PUR/CHI]
	$\Delta_v H$		119.7 ± 2.3	298	CGC	[2000NIC/ORF]
	$\Delta_v H$		120.5 ± 2.0	298	CGC	[1991DIK/KAB]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(370–416)	123 ± 1	393	TE	[1994PIA/FON]
	$\Delta_v H$	(370–490)	92	385	TE,ME,GS	[1991PIA/POM]
	$\Delta_v H$	(314–353)	110.4	329	A	[1987STE/MAL]
	$\Delta_v H$	(440–653)	94	455	A, EST	[1987STE/MAL, 1966KUD/ZWO]
$C_{23}H_{48}O_2$	[95491-58-0]	1,23-tricosanediol				
	$\Delta_{trs}H$		41.8	366.3		
	$\Delta_{fus}H$		46.5	380.7	DSC	[1999OGA/NAK]
$C_{23}H_{48}S$	[66375-01-7]	1-tricosanethiol				
	$\Delta_v H$	(444–690)	110.1	459	EST	[1999DYK/SVO]
$C_{24}F_{50}$	[1766-41-2]	perfluorotetracosane				
	$\Delta_{trs}H$		3.89	202.7		
	$\Delta_{fus}H$		100.8	465.2	DSC	[1986STA]
$C_{24}H_{12}$	[191-07-1]	coronene				
	$\Delta_{fus}H$		21.2	709	DSC	[2009TOR/CAM]
	$\Delta_{fus}H$		19.2	710.5		[1991ACR]
	$\Delta_{sub}H$	(473–483)	126.6 ± 1.7	478	ME	[2009TOR/CAM]
	$\Delta_{sub}H$	(473–483)	131.0 ± 1.7	298	ME	[2009TOR/CAM]
	$\Delta_{sub}H$	(421–504)	133.1 ± 5.1	463	ME	[1998OJA/SUU]
	$\Delta_{sub}H$	(313–453)	143.2	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$	(427–510)	135.9	468	ME	[1987STE/MAL, 1974MUR/POL]
	$\Delta_{sub}H$		128.4		ME	[1967WAK/INO]
	$\Delta_{sub}H$	(433–513)	147	473		[1958HOY/PEP]
	$\Delta_{sub}H$	(476–555)	143.2	407	ME	[1952INO/SHI]
	$\Delta_{sub}H$		148.5	407	ME	[1951INO]
	$\Delta_v H$		148.0 ± 0.5	298	CGC	[2002CHI/WEB]
	$\Delta_v H$	(323–473)	104.2	398	GC	[2002LEI/CHA]
$C_{24}H_{12}$	[102234-01-5]	*bis*-benzo[3,4]cyclobuta[1,2-a:1′,2′-c]biphenylene ([4]phenylene)				
	$\Delta_{sub}H$		131.0 ± 4.2			[2000BEC/FAU]
$C_{24}H_{12}O_2$	[3302-52-1]	3,4:9,10-dibenzpyrene-5,8-quinone				
	$\Delta_{sub}H$		112.5 ± 5.4			[1956MAG, 1970COX/PIL]
$C_{24}H_{14}$	[192-65-4]	dibenzo[a,e]pyrene				
	$\Delta_{fus}H$		32.1	517.9	DSC	[2010KES/AUC]
	$\Delta_{fus}H$		30.5	520.2		[1991ACR]
	$\Delta_{sub}H$	(414–506)	146.4	429	A	[1987STE/MAL]
	$\Delta_{sub}H$	(434–526)	137.6	480	ME	[1967WAK/INO]
$C_{24}H_{14}$	[192-51-8]	dibenzo[fg,op]naphthacene				
	$\Delta_{sub}H$	(430–555)	147.4	445	A	[1987STE/MAL]
	$\Delta_{sub}H$	(454–526)	146.9	490	ME	[1967WAK/INO]
	Note: called 1,2,6,7-dibenzpyrene in paper, which we have taken to be dibenzo[fo,op]naphthacene based upon the melting point temperature reported in the paper					
$C_{24}H_{14}$	[191-30-0]	dibenzo[a,l]pyrene				
	$\Delta_{fus}H$		24.68	501.2		[1991ACR]
$C_{24}H_{14}$	[189-55-9]	benzo[rst]pentaphene				
	$\Delta_{fus}H$		27.87	556.8		[1991ACR]
$C_{24}H_{14}$	[5385-75-1]	dibenzo[a,e]fluoranthene				
	$\Delta_{fus}H$		24.0	505.5	DSC	[2010KES/AUC]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{24}H_{14}S_6$	[88493-55-4]	2,2′,5′,2″,5″,2‴,5‴,2⁗,5⁗,2⁗′-sexithiophene				
	$\Delta_{sub}H$	(503–563)	207.1		ME	[1998KLO/LAU]
	$\Delta_{sub}H$	(543–573)	211.3		ME	[1998KLO/LAU]
$C_{24}H_{16}N_2O_2$	[1806-34-4]	2,2′-(1,4-phenylene)*bis*(5-phenyl)oxazole				
	$\Delta_{sub}H$		140	480	Optical	[1989SCH/PEN]
	$\Delta_{sub}H$	(600–680)	94.4	615	A	[1987STE/MAL, 1975STE/SCH]
$C_{24}H_{18}$	[1165-14-6]	1,2,3-triphenylbenzene				
	$\Delta_{sub}H$	(373–395)	131.7 ± 0.6	384	ME	[2010RIB/SAN2]
	$\Delta_{sub}H$	(373–395)	134.1 ± 1.1	298	ME	[2010RIB/SAN2]
$C_{24}H_{18}$	[612-71-5]	1,3,5-triphenylbenzene				
	$\Delta_{fus}H$		32.6	445.2	DSC	[1997VER2]
	$\Delta_{fus}H$		33.4	446		[1982LEB/BYK]
	$\Delta_{sub}H$	(407–429)	141.2 ± 0.7	418	ME	[2006RIB/MON]
	$\Delta_{sub}H$	(407–429)	147.8 ± 0.7	298	ME	[2006RIB/MON]
	$\Delta_{sub}H$		150.9	298	CGC-DSC	[1998CHI/HES]
	$\Delta_{sub}H$	(364–388)	145.6 ± 0.9	376	T	[1997VER2]
	$\Delta_{sub}H$		150.3 ± 0.9	298		[1997VER2]
	$\Delta_{sub}H$		152 ± 0.3	298	C,ME	[1974MAL/BAR]
	$\Delta_{sub}H$	(410–444)	142	425	ME	[1974MAL/BAR, 1987STE/MAL]
	$\Delta_{sub}H$	(384–400)	142.2	422	ME	[1967WAK/INO]
	$\Delta_{sub}H$		149.7 ± 4.1	298	ME	[1958HOY/PEP, 1970COX/PIL]
	Δ_vH		133.4 ± 2.0	298	GCG	[2008HAN/NUT]
	Δ_vH		140	298	CGC	[1998CHI/HES]
	Δ_vH	(500–735)	77.5	515	A	[1987STE/MAL, 1962VOH/KAN]
	Δ_vH	(454–500)	118	469	A	[1987STE/MAL, 1974MAL/BAR]
$C_{24}H_{18}$	[135-70-6]	*p*-quaterphenyl				
	$\Delta_{trs}H$		0.41	233		
	$\Delta_{fus}H$		37.8	587.2		[1985SAI/ATA, 1991ACR]
	Δ_vH		136.1 ± 1.6	298	CGC	[2008HAN/NUT]
$C_{24}H_{18}N_2S_2$	[109538-09-7]	4,4′-*bis*-(2-thienylmethylideamino)-*trans*-stilbene				
	$\Delta_{trs}H$ *(liq cryst)*		44.9	567.2		
	$\Delta_{trs}H$ *(liq cr-liq)*		0.2	580.2		[1978KOS/BUD]
$C_{24}H_{18}N_2S_2$	[109538-10-5]	1,2-*bis*-[5-(β-azastyryl)-2-thienyl]-*trans*-ethylene				
	$\Delta_{fus}H$		45.9	501.2		[1978KOS/BUD]
$C_{24}H_{20}O_6$	[614-33-5]	glycerol tribenzoate				
	Δ_vH	(423–476)	123.5	438	A, T	[1987STE/MAL, 1949FOR/NOR]
$C_{24}H_{21}NO_2$	[1041479-16-6]	2-*tert*-butylphenyl acridine-9-carboxylate				
	$\Delta_{fus}H$		39.8	462	DSC	[2010KRZ/MAL]
$C_{24}H_{24}N_2O_4$	[na]	4-(methoxymethyl)-6-(phenylmethoxy)-9*H*-pyrido[3,4-b]indole-3-carboxylic acid, 1-methylethyl ester				
	$\Delta_{fus}H$		38.83	424		[1999WIN]
$C_{24}H_{24}O_4$	[89702-41-0]	syn 4,9-*bis*(methoxycarbonyl)pagodane (dimethyl undecacyclo [9.9.0.0^{1,5}.0^{2,12}.0^{2,18}.0^{3,7}.0^{6,10}.0^{8,12}.0^{11,15}.0^{13,17}.0^{16,20}]-eicosane-4-*syn*, 9-*syn*-dicarboxylate)				
	$\Delta_{sub}H$	(393–447)	146.1 ± 3.0	420	T	[1994BEC/RUE]
$C_{24}H_{24}O_4$	[124316-65-0]	1,6-*bis*(methoxycarbonyl)dodecahedrane (dimethyl undecacyclo[9.9.0.0^{2,9}.0^{3,7}.0^{4,20}.0^{5,18}.0^{6,16}.0^{8,15}.0^{10,14}.0^{12,19}.0^{13,17}]-eicosane-1,6-dicarboxylate)				
	$\Delta_{sub}H$	(395–450)	139.7 ± 1.3	422	T	[1994BEC/RUE]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{24}H_{25}F_{25}$	[89109-71-7]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorotetracosane				
	$\Delta_{trs}H$		14.6	351		
	$\Delta_{fus}H$		23.2	361	DSC	[2008NUN/CLA]
	$\Delta_{trs}H$		10.0	352.1		
	$\Delta_{fus}H$		26.0	364.1	DSC	[1992HOP/MOL]
	$\Delta_{trs}H$		11.3	353.2		
	$\Delta_{fus}H$		24.5	362.2	DSC	[1986RUS/RAB]
$C_{24}H_{25}F_{25}$	[116177-49-2]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluoro-14-methyltricosane				
	$\Delta_{trs}H$		9	220		
	$\Delta_{fus}H$		25	347.1	DSC	[1992HOP/MOL]
$C_{24}H_{26}N_2O_2$	[14580-70-2]	1,5-dipiperidylanthraquinone				
	$\Delta_{sub}H$	(408–458)	173.3	428		[1958HOY/PEP, 1987STE/MAL]
$C_{24}H_{26}N_2O_4$	[72956-09-3]	1-(9*H*-carbazol-4-yloxy)-3-[[2-(2-methoxyphenoxy)ethyl]amino-2-propanol (carvedilol)				
	$\Delta_{fus}H$		57.6	387.3	DSC	[2007BER/WAS]
$C_{24}H_{27}NO_4$	[3088-05-9]	*bis*[N,N-(2-hydroxy-3-phenoxy)propyl]phenylamine				
	$\Delta_{v}H$	(388–423)	131	403	A	[1987STE/MAL]
$C_{24}H_{27}NO_5S$	[97322-87-7]	5-[[4[(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2*H*-1- benzopyran-2-yl)methoxy]phenyl]methyl-2,4-thiazolidinedione (troglitazone)				
	$\Delta_{fus}H$		48.8	412.4	DSC	[2007BER/WAS]
$C_{24}H_{28}FN_3O$	[265667-22-9]	N-methyl-[1-[1-(2-fluorophenethyl)piperidin-4-yl]-1*H*-indol-6-yl]acetamide				
	$\Delta_{fus}H$ *(I)*		38.2	421.3		
	$\Delta_{fus}H$ *(II)*		35.2	413		[2002KUS/ASH]
$C_{24}H_{28}P_2O_2$	[7688-25-7]	1,4-*bis*(diphenylphosphino)butane				
	$\Delta_{sub}H$		171.6	443	B	[1989HUI/VAN]
$C_{24}H_{29}NO_3$	[126675-77-2]	2-(4-nitrophenyl)-1-[4-(*trans*-4-butylcyclohexyl)phenyl]ethanone				
	$\Delta_{fus}H$		36.4	426.9	DSC	[2002SPA/DZI]
$C_{24}H_{29}NO_6$	[836602-52-9]	propyl naltrexone-3-O-carbonate				
	$\Delta_{fus}H$		20.97	379.2	DSC	[2004PIL/HAM]
$C_{24}H_{29}NO_6$	[836602-53-0]	isopropyl naltrexone-3-O-carbonate				
	$\Delta_{fus}H$		26.62	427.2	DSC	[2004PIL/HAM]
$C_{24}H_{30}$	[59358-71-3]	1,1-diphenyl-1,1′-bicyclohexyl				
	$\Delta_{fus}H$		29.71	455	DSC	[1983KRA/BEC]
	$\Delta_{sub}H$		150.2		E,B	[1983KRA/BEC]
$C_{24}H_{30}O_4$	[140-24-9]	dibenzyl sebacate				
	$\Delta_{v}H$	(368–550)	114.3	383	A	[1987STE/MAL]
	$\Delta_{v}H$	(405–463)	112.2	420	T	[1949PER/WEB]
	$\Delta_{v}H$	(373–432)	121	388	T	[1939VER/MAR]
$C_{24}H_{30}O_4$	[167321-36-0]	2,2′-diphenyl-bi-(5,5-dimethyl-1,3-dioxan-2-yl)				
	$\Delta_{sub}H$	(372–420)	130.2 ± 1.8	396	T	[1995VER/DOG]
$C_{24}H_{31}FO_6$	[76-25-5]	triamcinolone acetonide				
	$\Delta_{fus}H$		45.29	566		[1994REG/CHM]
$C_{24}H_{31}FO_6$	[1177-87-3]	dexamethasome acetate				
	$\Delta_{fus}H$		37.72	503		[1994REG/CHM]
$C_{24}H_{32}$	[4384-23-0]	[6.6]-para-cyclophane				
	$\Delta_{sub}H$	(352–371)	108.8 ± 0.8			[1969SHI/MCN, 1977PED/RYL]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(352–371)	115.1 ± 2.1	298		[1969SHI/MCN, 1977PED/RYL]
$C_{24}H_{32}$	[115181-13-0]	8-[4-(4′-*n*-butylbiphenyl)]-1-octene				
	$\Delta_{trs}H$ *(liq cryst)*		2.2	248.6		
	$\Delta_{trs}H$ *(liq cr-liq)*		9.6	315.6	DSC	[1989MAL/KAN]
$C_{24}H_{32}O_3$	[63058-78-6]	3-[(1-oxohexyl)oxy]-estra-1,3,5(10)-trien-17-one				
	$\Delta_{fus}H$		23	370	DSC	[1990YAN/EIR]
$C_{24}H_{32}O_4$	[na]	2,2′-diphenyl-bi(5,5-dimethyl-1,3-dioxan-2-yl)				
	$\Delta_{fus}H$		49.8	507.1		[1995VER/DOG]
$C_{24}H_{32}O_4S$	[52-01-7]	17-hydroxy-7α-mercapto-3-oxo-17α-pregn-4-ene-21-carboxylic acid, γ-lactone, acetate				
	$\Delta_{fus}H$ *(II)*		22.9	480	DSC	[2007ESP/NIC]
	$\Delta_{fus}H$ *(I)*		20	478		
	$\Delta_{fus}H$ *(II)*		22.1	483		[1991AGA/LEG]
$C_{24}H_{32}O_8$	[14174-09-5]	dibenzo[24-crown-8]				
	$\Delta_{fus}H$		62.5			[2002LEB/BYK, 2004BYK/LEB]
	$\Delta_{trs}H$		16.6	354.1		
	$\Delta_{fus}H$		52.25	375.4		[1998DOM, 1985RAE/SOL]
$C_{24}H_{34}$	[1603-53-8]	1,1-diphenyldodecane				
	$\Delta_{trs}H$		1.92	191		
	$\Delta_{fus}H$		38.83	281.4		[1996DOM/HEA]
$C_{24}H_{34}N_4O_5S$	[93479-97-1]	3-ethyl-2,5-dihydro-4-methyl-N-[2-[4-[[[[trans-4-methylcyclohexyl)amino]carbonyl]amino]sulfonyl] phenyl]ethyl-2-oxo-1*H*-pyrrole-1-carboxamide (glimepiride)				
	$\Delta_{fus}H$		53.3	485.7	DSC	[2007BER/WAS]
$C_{24}H_{36}O_3$	[3129-43-9]	testosterone valerate				
	$\Delta_{fus}H$		24.57	380		[1994REG/CHM]
$C_{24}H_{36}O_5$	[75330-75-5]	2-methylbutanoic acid, (1S,3R,7S,8S,8aR)-1,2,3,7,8,8a-hexahydro-3,7-dimethyl-8-[2-[(2R,4R)-tetrahydro-4-hydroxy-6-oxo-2*H*-pyran-2-yl]ethyl]-1-naphthalenyl ester (lovastatin)				
	$\Delta_{fus}H$		36.53	444.3	DSC	[2008TUN/TAB]
	$\Delta_{fus}H$		43.14	445.5	DSC	[2008NTI/CHM]
$C_{24}H_{37}N_3O$	[218765-43-6]	pyrimethanil laurate				
	$\Delta_{fus}H$	(78–340)	67.24	321.5	AC	[2004SUN/LIU]
$C_{24}H_{38}O_4$	[117-81-7]	*bis*(2-ethylhexyl) phthalate				
	Δ_vH	(373–660)	102.5	388	A	[1987STE/MAL]
	Δ_vH	(385–440)	110.7	390	T	[1949PER/WEB]
$C_{24}H_{38}O_4$	[131-15-7]	*bis*(1-methylheptyl) phthalate				
	Δ_vH	(393–435)	93.1	408	A	[1987STE/MAL]
$C_{24}H_{38}O_4$	[131-20-4]	*bis*(6-methylheptyl) phthalate				
	Δ_vH	(383–490)	92.4	398	A	[1987STE/MAL]
$C_{24}H_{38}O_4$	[117-84-0]	dioctyl phthalate				
	Δ_vH	(423–523)	99.5	438	A	[1987STE/MAL]
	Δ_vH	(383–433)	107.6	398	T	[1949PER/WEB]
$C_{24}H_{40}$	[62155-50-4]	1-cyclohexyl-1-phenyldodecane				
	$\Delta_{fus}H$		35.19	275.8		[1996DOM/HEA]
$C_{24}H_{40}N_8O_4$	[58-32-2]	2,2′,2″,2‴-[(4,8-di-1-piperidinylpyrimido[5,4-d]pyrimidine-2,6-diyl)-dinitrilo]-*tetrakis*-ethanol (dipyridamole)				
	$\Delta_{fus}H$ *(I)*		44.05	442.8		

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$ *(II)*		33.2	441.9		[2006ADH/BAS]
$C_{24}H_{40}O_3$	[na]	5-(1,1-dimethylheptyl)-2-[(1R,2R,5R)-5-hydroxy-2-(3-hydroxypropyl)-cyclohexyl]phenol				
	$\Delta_{fus}H$		18.4	357		[2004VAL/KIP]
$C_{24}H_{40}O_4$	[175848-64-3]	2,5-di-*n*-nonyloxy-1,4-benzoquinone				
	$\Delta_{trs}H$		8.0	352.6		
	$\Delta_{trs}H$		24.2	383.8		
	$\Delta_{fus}H$		47.1	402.7	DSC	[1996KEE/VAN]
$C_{24}H_{42}$	[2456-68-0]	hexapropylbenzene				
	Δ_vH	(458–606)	68.4	473	A	[1987STE/MAL, 1937GRO/IPA]
$C_{24}H_{42}$	[4445-07-2]	octadecylbenzene				
	Δ_vH	(423–675)	101	438		[1999DYK/SVO]
$C_{24}H_{42}O_6$	[64617-30-7]	*trans* trihexyl aconitate				
	Δ_vH	(423–512)	98.2	438	A	[1987STE/MAL]
$C_{24}H_{42}O_{11}$	[na]	di[1-(2-ethylbutyloxycarbonyl)ethyl] diethylene glycol dicarboxylate				
	Δ_vH	(448–538)	110.1	463	A	[1987STE/MAL]
$C_{24}H_{42}O_{11}$	[na]	di[1-(2-hexyloxycarbonyl)ethyl] diethylene glycol dicarboxylate				
	Δ_vH	(443–548)	111	458	A	[1987STE/MAL]
$C_{24}H_{44}$	[na]	9-decyltetradecahydroanthracene				
	Δ_vH	(501–536)	103.2	516	A	[1987STE/MAL]
$C_{24}H_{44}$	[na]	9-decyltetradecahydrophenanthrene				
	Δ_vH	(502–542)	92.0	517	A	[1987STE/MAL]
$C_{24}H_{44}O_2$	[na]	3,3,7,7,11,11,15,15-octamethylcyclohexadecane-1,9-dione				
	$\Delta_{fus}H$		34.3	423.2		[1972BOR/DAL2]
$C_{24}H_{44}O_4$	[na]	1,11-cycloeicosanedione *bis* ethylene ketal				
	$\Delta_{fus}H$		43.72	362.2		[1972ALV/BOR]
$C_{24}H_{44}O_6$	[140-04-5]	O-acetylricinoleic acid, butyl ester				
	Δ_vH	(378–423)	105.2	393	A	[1987STE/MAL]
$C_{24}H_{44}O_6$	[38094-13-2]	trihexyl 1,2,3-propanetricarboxylate				
	Δ_vH	(422–526)	98.1	437	A	[1987STE/MAL]
$C_{24}H_{44}O_6$	[620-67-7]	glycerol triheptanoate				
	Δ_vH	(401–452)	84.4	416		[2001BUR/JOS]
$C_{24}H_{46}$	[18254-57-4]	1,1-dicyclohexyldodecane				
	$\Delta_{fus}H$		44.35	300.6		[1996DOM/HEA]
$C_{24}H_{46}$	[95746-44-4]	2,11-dicyclohexyldodecane				
	$\Delta_{fus}H$		43.93	300.6		[1996DOM/HEA]
$C_{24}H_{46}$	[95115-77-8]	*trans*-2,6-diheptyldecalin				
	$\Delta_{fus}H$		40.17	326.7		[1985VAR/BRI]
$C_{24}H_{46}O_4$	[20270-50-2]	*bis*(3,5,5-trimethylhexyl)adipate				
	Δ_vH	(353–413)	107.6	368	A, ME	[1987STE/MAL, 1948SMA/SMA]
$C_{24}H_{48}$	[4445-06-1]	octadecylcyclohexane				
	Δ_vH	(422–675)	100.3	437		[1999DYK/SVO]
$C_{24}H_{48}$	[10192-32-2]	1-tetracosene				
	Δ_vH	(418–663)	101	433		[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{24}H_{48}$	[297-03-0]	cyclotetracosane				
	$\Delta_{trs}H$		38.0	297		
	$\Delta_{fus}H$		10.8	322		[1987DRO/MOL]
$C_{24}H_{48}O_2$	[5908-87-2]	ethyl docosanoate				
	$\Delta_{trs}H$		9.58	312.3		
	$\Delta_{fus}H$		19.16	321		[1996DOM/HEA]
	$\Delta_{fus}H$		77.82	321		[1967OMA]
	$\Delta_{sub}H$	(313–318)	196.5	315.5	ME	[1987STE/MAL, 1967OMA]
	$\Delta_{v}H$	(327–344)	127.5	335	A, ME	[1987STE/MAL, 1967BER/WES]
$C_{24}H_{48}O_2$	[2433-97-8]	methyl tricosanoate				
	$\Delta_{v}H$	(473–528)	99.8	488	A, EST	[1987STE/MAL, 1963ROS/SCH]
$C_{24}H_{49}Cl$	[6422-18-0]	1-chlorotetracosane				
	$\Delta_{v}H$	(543–774)	72.4	558	A	[1987STE/MAL, 1970DYK/VAN]
$C_{24}H_{50}$	[1928-30-9]	2-methyltricosane				
	$\Delta_{v}H$	(450–664)	89.3	465	A	[1987STE/MAL]
$C_{24}H_{50}$	[22331-09-5]	5-methyltricosane				
	$\Delta_{v}H$	(503–653)	79.6	518	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{24}H_{50}$	[646-31-1]	tetracosane				
	$\Delta_{trs}H$		33.18	321		
	$\Delta_{fus}H$		59.31	324.1	DSC	[2007HAF/MAH]
	$\Delta_{trs}H$		30.3	319		
	$\Delta_{trs}H$		<0.3	319.6		
	$\Delta_{fus}H$		53.8	323.4	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		31.3	321.3		
	$\Delta_{fus}H$		54.89	324.1		[1996DOM/HEA]
	$\Delta_{sub}H$	(308–323)	164.9 ± 1.8	315		[2009RAZ/NAC]
	$\Delta_{sub}H$		162 ± 12	298	B	[1991PIA/POM]
	$\Delta_{v}H$	(333–373)	105.1 ± 0.5	353		[2009RAZ/NAC]
	$\Delta_{v}H$	(334–452)	112	349	GC	[2007LEE/LAI]
	$\Delta_{v}H$	(434–539)	121.9	298	CGC	[2004CHI/HAN]
	$\Delta_{v}H$		126.8 ± 0.4	298	CGC	[2002CHI/WEB]
	$\Delta_{v}H$		125.7 ± 1.6	298	CGC	[2000NIC/ORF]
	$\Delta_{v}H$		126.2 ± 2.3	298	CGC	[1997CHI/WIL]
	$\Delta_{v}H$	(453–588)	92.6	468		[1994MOR/KOB]
	$\Delta_{v}H$	(386–425)	126 ± 2	405	TE	[1994PIA/FON]
	$\Delta_{v}H$	(382–523)	95.2	397	TE,ME,GS	[1991PIA/POM]
	$\Delta_{v}H$	(451–497)	86.2 ± 4.6	474	GS	[1990PIA/SCA]
	$\Delta_{v}H$	(373–463)	111.2	388		[1988SAS/JOS]
	$\Delta_{v}H$	(498–573)	86.6	513	A, EST	[1987STE/MAL, 1966KUD/ZWO]
$C_{24}H_{50}$	[22331-52-8]	12-methyltricosane				
	$\Delta_{v}H$	(435–454)	84.5	445	GC	[1982REC/GRE, 1999DYK/SVO]
$C_{24}H_{50}O$	[4543-57-8]	13-oxapentacosane				
	$\Delta_{trs}H$		4.6	303.8		
	$\Delta_{fus}H$		92.88	304.62	DSC	[2004TYA/BIS]
$C_{24}H_{50}O_2$	[2136-74-5]	2-(docosanoxy)ethanol				
	$\Delta_{trs}H$		12.92	317.2		

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		43.93	335.9	DTA	[1979KUC/SKU]
$C_{24}H_{50}O_2$	[22513-82-2]	1,24-tetracosanediol				
	$\Delta_{trs}H$		42.7	372.7		
	$\Delta_{fus}H$		51.2	381.5	DSC	[1999OGA/NAK]
$C_{24}H_{50}O_4S_2$	[na]	(*l*)-rhamnose dinonyl dithioacetal				
	$\Delta_{trs}H$		24.7	342.1		
	$\Delta_{fus}H$		54.4	387.4	DSC	[1989VAN/VAN]
$C_{24}H_{50}S$	[16331-24-1]	1-tetracosanethiol				
	$\Delta_{v}H$	(451–700)	112.2	466	EST	[1999DYK/SVO]
$C_{24}H_{51}N$	[1116-76-3]	trioctylamine				
	$\Delta_{v}H$	(415–536)	110.4 ± 1.5	298	EB	[1996STE/CHI3]
	$\Delta_{v}H$	(505–702)	70.6	520	A	[1987STE/MAL]
$C_{25}H_{20}$	[630-76-2]	tetraphenylmethane				
	$\Delta_{fus}H$		48.28	554.2	DSC	[1999VER3]
	$\Delta_{sub}H$	(363–388)	140.0 ± 1.3	298	GS	[1999VER3]
	$\Delta_{sub}H$	(363–383)	135.4 ± 1.3	376	GS	[1999VER3]
	$\Delta_{sub}H$	(396–466)	150.6 ± 4	298	TE,ME	[1972KAN, 1977PED/RYL]
	$\Delta_{sub}H$	(404–466)	143.3	419		[1987STE/MAL]
$C_{25}H_{22}O_{10}$	[22888-70-6]	2-[(2R,3R)-2,3-dihydro-3-(4-hydroxy-3-methoxyphenyl)-2-(hydroxymethyl)-1,4-benzodioxin-6-yl]-2,3-dihydro-3,5,7-trihydroxy-4*H*-1-benzopyran-4-one (silybin)				
	$\Delta_{fus}H$		44.87	424	DSC	[2005ZHA/BAI, 2006BAI/YAN, 2005YAO/BAI]
$C_{25}H_{26}$	[55334-57-1]	3-phenylethyl-1,5-diphenyl-2-pentene				
	$\Delta_{v}H$	(469–541)	86.8	484		[1999DYK/SVO]
$C_{25}H_{28}$	[66374-88-7]	3-phenylethyl-1,5-diphenylpentane				
	$\Delta_{v}H$	(498–542)	87.3	513	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{28}N_6O$	[na]	irbesartan				
	$\Delta_{sub}H$ (α)	(403–421)	197.2 ± 20		ME	[2009TAU/SIT]
	$\Delta_{sub}H$ (β)	(403–421)	254.5 ± 20		ME	[2009TAU/SIT]
$C_{25}H_{28}O_3$	[na]	estra-1,3,5(10)-triene-3,17-diol(17β), 3-benzoate				
	$\Delta_{fus}H$		41.75	464.1		[1985DEM/CHA]
$C_{25}H_{31}FO_8$	[67-78-7]	triamcinolone diacetate				
	$\Delta_{fus}H$		38.31	508		[1994REG/CHM]
$C_{25}H_{31}NO_3$	[483362-62-5]	2-(4-nitrophenyl)-1-[4-[2-(*trans*-4-propylcyclohexyl)ethyl]phenyl]ethanone				
	$\Delta_{fus}H$		35.56	420	DSC	[2002SPA/DZI]
$C_{25}H_{31}NO_3$	[126675-78-3]	2-(4-nitrophenyl)-1-[4-(*trans*-4-pentylcyclohexyl)phenyl]ethanone				
	$\Delta_{fus}H$		34.48	415.8	DSC	[2002SPA/DZI]
$C_{25}H_{32}N_2O_5$	[na]	N,N-diethyl naltrexone-3-O-carbamate				
	$\Delta_{fus}H$		21.56	419.7	DSC	[2009VAD/BAN]
$C_{25}H_{32}O_2$	[na]	17-phenyl testosterone				
	$\Delta_{trs}H$		23.3	388.5		
	$\Delta_{fus}H$		44.2	450		[1997CEN/MEL]
$C_{25}H_{34}O_3$	[65445-09-2]	19-nor-17α-ethynyl-17β-(2,2-dimethylpropionoxy-4-androsten-3-one				
	$\Delta_{fus}H$		37.8	500		[1996DOM/HEA]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{25}H_{34}O_3$	[2985-59-3]	2-hydroxy-4-dodecyloxybenzophenone				
	$\Delta_v H$	(413–453)	115.5	433	ME	[1984SUR]
$C_{25}H_{34}O_3$	[118924-66-6]	3-[(1-oxoheptyl)oxy]-estra-1,3,5(10)-trien-17-one				
	$\Delta_{fus}H$		21	338	DSC	[1990YAN/EIR]
$C_{25}H_{34}O_6$	[51333-22-3]	16α,17α-(butylidenedioxy)-11β,21-dihydroxypregna-1,4-diene-3,20-dione (budesonide)				
	$\Delta_{fus}H$		34.7	534	DSC	[2009MOT/CAR]
$C_{25}H_{34}O_8$	[2203-97-6]	hydrocortisone hemisuccinate				
	$\Delta_{fus}H$		41.34	444		[1997CEN/MEL]
$C_{25}H_{36}$	[7225-70-9]	1-phenyl-3-phenethylundecane				
	$\Delta_v H$	(456–521)	91.9	471	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{36}O_2$	[119-47-1]	2,2′-methylene*bis*(6-*tert*-butyl-4-methylphenol)				
	$\Delta_{sub}H$	(383–403)	114	393	GS	[1971FEL/KUZ]
$C_{25}H_{38}$	[55191-63-4]	1-pentadecylnaphthalene				
	$\Delta_v H$	(474–524)	98.1	489	A	[1987STE/MAL]
	$\Delta_v H$	(474–540)	96.7	489	A	[1987STE/MAL]
$C_{25}H_{38}O_5$	[79902-63-9]	2,2-dimethylbutanoic acid, (1S,3R,7S,8S,8aR)-1,2,3,7,8,8a-hexahydro-3,7-dimethyl-8-[2-[(2R,4R)-tetrahydro-4-hydroxy-6-oxo-2*H*-pyran-2-yl]ethyl]-1-naphthalenyl ester (simvastatin)				
	$\Delta_{fus}H$		32.17	412.6	DSC	[2009NTI/CHA]
	$\Delta_{fus}H$		29.59	413.8	DSC	[2008TUN/TAB]
$C_{25}H_{39}N_3O_8$	[53848-85-4]	octadecyl 2,4,6-trinitrobenzoate				
	$\Delta_{trs}H$		25.4	364.1		
	$\Delta_{fus}H$		30.0	392.3	DSC	[1974WAR/WIL]
$C_{25}H_{40}$	[55334-30-0]	1-cyclohexyl-6-cyclopentyl-3-phenethylhexane				
	$\Delta_v H$	(486–525)	87.7	501	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{40}$	[55334-31-1]	1,7-dicyclopentyl-4-(2-phenethyl)heptane				
	$\Delta_v H$	(487–525)	92.0	502	A, MG	[1987STE/MAL, 1955SCH/WHI, 1999DYK/SVO]
$C_{25}H_{42}$	[334-29-2]	1-hexadecylindane				
	$\Delta_v H$	(495–536)	87.0	510	A, MG	[1987STE/MAL, 1955SCH/WHI, 1999DYK/SVO]
$C_{25}H_{42}$	[66374-91-2]	5-pentadecyl-1,2,3,4-tetrahydronaphthalene				
	$\Delta_v H$	(471–534)	99.4	486	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{44}$	[29136-19-4]	nonadecylbenzene				
	$\Delta_v H$	(431–686)	103.6	446		[1999DYK/SVO]
$C_{25}H_{44}$	[66374-92-3]	1,5-dicyclohexyl-3-(2-cyclohexylethyl)-2-pentene				
	$\Delta_v H$	(485–524)	88.0	500	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{44}$	[66374-93-4]	1,7-dicyclopentyl-4-(3-cyclopentylpropyl)-3-heptene				
	$\Delta_v H$	(483–522)	89.0	498	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{44}$	[5637-96-7]	3-octyl-1-phenylundecane				
	$\Delta_v H$	(476–513)	89.4	491	A	[1987STE/MAL]
$C_{25}H_{44}$	[5637-96-7]	9-(2-phenylethyl)heptadecane				
	$\Delta_v H$	(448–513)	88.3	463	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{44}$	[4445-08-3]	9-(4-tolyl)octadecane				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(472–507)	92.0	487	A, MG	[1987STE/MAL, 1955SCH/WHI, 1999DYK/SVO]
$C_{25}H_{44}$	[7225-65-2]	6-octyl(hexylhydrobenz[de]anthracene)				
	$\Delta_v H$	(467–534)	93.8	482		[1999DYK/SVO]
$C_{25}H_{44}O_8$	[15834-04-5]	pentaerythritol tetrapentanoate				
	$\Delta_v H$	(334–413)	120.8	350		[2007RAZ/MOK]
$C_{25}H_{46}$	[55401-70-2]	1-cyclohexyl-3-(cyclohexylethyl)-6-cyclopentylhexane				
	$\Delta_v H$	(487–524)	91.4	502	A	[1987STE/MAL]
$C_{25}H_{46}$	[55401-72-4]	4-(2-cyclohexylethyl)-1,7-dicyclopentylheptane				
	$\Delta_v H$	(471–524)	88.8	486	A	[1987STE/MAL]
$C_{25}H_{46}$	[2090-16-6]	1,5-dicyclohexyl-3-(2-cyclohexylethyl)pentane				
	$\Delta_v H$	(318–418)	107.6	333	A	[1987STE/MAL, 1964MOR]
	$\Delta_v H$	(488–528)	86.2	503	A	[1987STE/MAL]
$C_{25}H_{46}$	[55429-35-1]	1,7-dicyclopentyl-4-(3-cyclopentylpropyl)heptane				
	$\Delta_v H$	(457–525)	87.6	472	A	[1987STE/MAL]
	$\Delta_v H$	(486–525)	88.9	501	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{46}O_6$	[33599-07-4]	1,2-diaceto-3-stearin				
	$\Delta_{fus}H$		45.56	208.3		[1996DOM/HEA]
$C_{25}H_{48}$	[7225-69-6]	1-cyclohexyl-3-(2-cyclohexylethyl)undecane				
	$\Delta_v H$	(480–516)	95.2	495	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{48}$	[7225-68-5]	1-cyclopentyl-4-(3-cyclopentylpropyl)dodecane				
	$\Delta_v H$	(480–518)	88.5	495	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{48}$	[55401-73-5]	1-hexyldecylhexahydroindane				
	$\Delta_v H$	(492–532)	87.6	507	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{48}$	[66359-82-8]	1-pentadecyldecahydronaphthalene				
	$\Delta_v H$	(464–529)	93.4	479	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{48}N_6O_8$	[70-51-9]	N′-[5-[[4-[[5-(acetylhydroxyamino)pentyl]amino]-1,4-dioxobutyl]-hydroxyamino]pentyl]-N-(5-aminopentyl)-N-hydroxybutanediamide (deferoxamine)				
	$\Delta_{fus}H$		105.3	411.1	DSC	[2000IHN/VEN]
$C_{25}H_{48}O_2$	[2733-88-2]	methyl Z 15-tetracosenoate				
	$\Delta_v H$		135.3 ± 1.1	298	CGC	[2007LIP/KAP]
$C_{25}H_{48}O_4$	[2064-80-4]	dioctyl nonanedioate				
	$\Delta_v H$	(393–523)	104.3	408	A	[1987STE/MAL]
$C_{25}H_{50}$	[22349-03-7]	nonadecylcyclohexane				
	$\Delta_{fus}H$		79.9	315.7	DSC	[2001YOU/SCH]
	$\Delta_{fus}H$		78.8	313.2	DSC	[2000YOU/DOL]
	$\Delta_{fus}H$		77.79	316.2	DSC	[2000SIR/HER]
	$\Delta_{fus}H$		77.8	317		[1991MIY/ENO]
	$\Delta_v H$	(430–686)	102.8	445		[1999DYK/SVO]
$C_{25}H_{50}$	[16980-85-1]	1-pentacosene				
	$\Delta_v H$	(426–674)	103.7	441		[1999DYK/SVO]
$C_{25}H_{50}$	[25446-35-9]	9-(2-cyclohexylethyl)heptadecane				
	$\Delta_v H$	(490–513)	88.6	495		[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{50}$	[5638-09-5]	9-(3-cyclopentylpropyl)heptadecane				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(476–514)	86.9	491	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{50}$	[24306-18-1]	9-octyl-8-heptadecene				
	$\Delta_v H$	(441–500)	92.3	456	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{50}O$	[2123-19-5]	13-pentacosanone				
	$\Delta_{fus}H$		96.17	347		[2000NAK/SHI]
$C_{25}H_{50}O_2$	[2442-49-1]	methyl tetracosanoate				
	$\Delta_{fus}H$		90.0	331.2	DSC	[2004CHI/ZHA]
	$\Delta_v H$	(467–558)	136.6 ± 2.5		CGC	[2004CHI/ZHA]
	$\Delta_v H$	(422–452)	146.2	437		[2001BUR/JOS]
	$\Delta_v H$	(483–536)	100.8	498	A	[1987STE/MAL]
$C_{25}H_{50}O_2$	[18281-07-7]	ethyl tricosanoate				
	$\Delta_{fus}H$		57.32	326		[1967OMA]
	$\Delta_{sub}H$	(316–322)	175.2	319	ME	[1987STE/MAL, 1967OMA]
	$\Delta_v H$	(336–359)	121.8	347	A, ME	[1987STE/MAL, 1967BER/WES]
$C_{25}H_{52}$	[7225-64-1]	9-octylheptadecane				
	$\Delta_v H$	(470–505)	93.4	485	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{52}$	[629-99-2]	pentacosane				
	$\Delta_{trs}H$		23.9	309		
	$\Delta_{trs}H$		1.07	312.9		
	$\Delta_{fus}H$		55.53	325.9	DSC	[2006KHI/BOU]
	$\Delta_{trs}H$		<0.4	310.5		
	$\Delta_{trs}H$		0.4	319.4		
	$\Delta_{trs}H$		23.6	320		
	$\Delta_{trs}H$		<0.4	322.6		
	$\Delta_{fus}H$		57.8	326.4	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		26.07	320.2		
	$\Delta_{fus}H$		57.74	326.7		[1996DOM/HEA]
	$\Delta_{sub}H$		173.6 ± 10	298	B	[1991PIA/POM]
	$\Delta_v H$	(382–462)	106.6	397		[2006SAW/MOK]
	$\Delta_v H$	(434–539)	126.8	298	CGC	[2004CHI/HAN]
	$\Delta_v H$		128.6 ± 2.2	298	GS	[2001PUR/CHI]
	$\Delta_v H$		127.6 ± 0.8	298	CGC	[2000NIC/ORF]
	$\Delta_v H$		129.8 ± 2.9	298	CGC	[1997CHI/WIL]
	$\Delta_v H$	(397–434)	126 ± 1	415	TE	[1994PIA/FON]
	$\Delta_v H$	(390–531)	97.6	405	TE,ME,GS	[1991PIA/POM]
	$\Delta_v H$	(461–498)	90.9 ± 5.7	479	GS	[1990PIA/SCA]
	$\Delta_v H$	(457–675)	99.2	472	A, EST	[1987STE/MAL, 1966KUD/ZWO]
$C_{25}H_{52}$	[79370-85-7]	12-ethyltricosane				
	$\Delta_v H$	(435–454)	84.6	444	GC	[1982REC/GRE, 1999DYK/SVO]
$C_{25}H_{52}$	[1560-78-7]	2-methyltetracosane				
	$\Delta_v H$	(425–670)	104.6	440		[1999DYK/SVO]
$C_{25}H_{52}$	[126724-71-8]	5,5-*bis*(3,3′-dimethylbutyl)-2,2,8,8-tetramethylnonane				
	$\Delta_{fus}H$		48.53	472.7		[1990MEN/LIA]
	$\Delta_v H$		91.9 ± 1.8	298	CGC	[1995CHI/HES]
$C_{25}H_{52}$	[163983-29-7]	7,7-dihexyltridecane				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		115.3 ± 1.8	298	CGC	[1995CHI/HES]
$C_{25}H_{52}S$	[66359-74-8]	1-pentacosanethiol				
	$\Delta_v H$	(458–709)	114.2	473	EST	[1999DYK/SVO]
$C_{26}H_{14}$	[190-84-1]	1,12-phenyleneperylene (naphtha[1,2,3,4-ghi]perylene)				
	$\Delta_{fus}H$		17.28	541.5		[1991ACR]
$C_{26}H_{15}Cl_2N_5O_2$	[68808-70-8]	1,3-*bis*(cyano-4-chlorophenylcarbamoyl-methylene)isoindolin				
	$\Delta_{fus}H$		123	679.2		[1993GRU]
$C_{26}H_{16}$	[191-68-4]	dibenzo[g,p]chrysene				
	$\Delta_{sub}H$	(408–493)	142.2	423		[1987STE/MAL]
	$\Delta_{sub}H$	(417–500)	141.8	458	ME	[1967WAK/INO]
$C_{26}H_{18}$	[1499-10-1]	9,10-diphenylanthracene				
	$\Delta_{sub}H$	(313–453)	137.5	383	GS	[1995NAS/LEN]
	$\Delta_{sub}H$		116.4			[1958KLO]
	$\Delta_{sub}H$	(393–433)	143.6	413		[1958HOY/PEP, 1987STE/MAL]
	$\Delta_{sub}H$	(481–502)	156.9 ± 4.2	492	HSA	[1953STE, 1970COX/PIL]
	$\Delta_v H$	(323–473)	102.7	398	GC	[2002LEI/CHA]
$C_{26}H_{18}$	[1530-12-7]	9,9′-bifluorenyl				
	$\Delta_{fus}H$		36.9	519.2		[1994RAK/VER2]
	$\Delta_{sub}H$	(383–408)	131.8 ± 1.1	395	T	[1994RAK/VER2]
	$\Delta_{sub}H$		132.6 ± 1.1	298		[1994RAK/VER2]
	$\Delta_v H$	(383–408)	95.7		B	[1994RAK/VER2]
$C_{26}H_{18}N_2O_4$	[6408-72-6]	disperse violet 31				
	$\Delta_v H$	(453–523)	59.9	468	A	[1987STE/MAL]
$C_{26}H_{20}$	[632-51-9]	tetraphenylethene				
	$\Delta_{fus}H$		37.45	496.1	DSC	[1999VER/EBE]
	$\Delta_{sub}H$	(343–389)	129.3 ± 0.7	366	GS	[1999VER/EBE]
	$\Delta_{sub}H$		133.4 ± 0.7	298	GS	[1999VER/EBE]
$C_{26}H_{20}N_2O_2$	[3073-87-8]	2,2′-(1,4-phenylene)*bis*(4-methyl-5-phenyl)oxazole				
	$\Delta_{sub}H$		150	480		[1989SCH/PEN]
$C_{26}H_{22}$	[632-50-8]	1,1,2,2-tetraphenylethane				
	$\Delta_{sub}H$		136.8 ± 2.9	298	GS	[1990BEC/DOG2]
	$\Delta_{sub}H$	(370–423)	131.4 ± 2.1	396	GS	[1990BEC/DOG2]
$C_{26}H_{22}$	[2294-94-2]	1,1,1,2-tetraphenylethane				
	$\Delta_{sub}H$		132.6 ± 2.1	298	GS	[1990BEC/DOG2]
	$\Delta_{sub}H$	(340–400)	128.7 ± 2.1	370	GS	[1990BEC/DOG2]
	$\Delta_{sub}H$		126.4 ± 1.7	434	HSA	[1956BEY/NIC]
$C_{26}H_{22}N_2O_2S_2$	[109538-15-0]	1,2-*bis*-[5-(4-methoxy-β-azastyryl)-2-thienyl]-*trans*-ethylene				
	$\Delta_{trs}H$ *(liq cryst)*		63.5	538.2		
	$\Delta_{trs}H$ *(liq cr-liq)*		0.8	567.2		[1978KOS/BUD]
$C_{26}H_{26}$	[35117-21-6]	pentacyclo[18.2.2.2(9,12).0(4,15).0(4,15).0(6,17)]hexacos-4,6(17),9,11,15,20,22,23,25-nonane (triple layered [2.2]paracyclophane)				
	$\Delta_{sub}H$	(299–412)	119.1 ± 1.5		TSGC	[1980NIS/SAK]
	$\Delta_{sub}H$		125.9 ± 2.5	298	TSGC	[1980NIS/SAK]
$C_{26}H_{29}F_{25}$	[93454-73-0]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafluorohexacosane				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		16.3	363		
	$\Delta_{fus}H$		26.1	366	DSC	[1991HOP/MOL]
	$\Delta_{fus}H$		26	359.2	DSC	[1986RUS/RAB]
$C_{26}H_{29}NO$	[10540-29-1]	2-[4-[(1Z)-1,2-diphenyl-1-buten-1-yl]phenoxy]-N,N-dimethylethanamine (tamoxifen)				
	$\Delta_{fus}H$		34	371	DSC	[2007BER/WAS]
$C_{26}H_{32}$	[103042-85-9]	6-octyl-1,2,3,4-tetrahydronaphthacene				
	Δ_vH	(503–574)	103.2	518	A	[1987STE/MAL]
$C_{26}H_{32}O_6$	[na]	1,4,5,8-*tetrakis*(propoxy)-9,10-anthraquinone				
	$\Delta_{fus}H$		28.63	473.9		[2001NOR/TOU]
$C_{26}H_{33}NO_3$	[483362-63-6]	2-(4-nitrophenyl)-1-[4-[2-(*trans*-4-butylcyclohexyl)ethyl]phenyl]ethanone				
	$\Delta_{fus}H$		35.9	408.6	DSC	[2002SPA/DZI]
$C_{26}H_{34}$	[2883-70-7]	9-dodecylanthracene				
	Δ_vH	(495–566)	99.4	510	A	[1987STE/MAL]
$C_{26}H_{34}$	[3788-61-2]	9-dodecylphenathrene				
	Δ_vH	(495–568)	95.7	510	A	[1987STE/MAL]
$C_{26}H_{34}O_4$	[na]	1,4,5,8-tetrapropoxyanthracene				
	$\Delta_{fus}H+\Delta_{trs}H$		43.93	410.2		[2001NOR/TOU]
		Note: Authors report only the total enthalpy of melting. Numerical value contains enthalpies for two solid-solid transitions that occur at 370.7 K and 385.5 K. Larger tetraalkoxy-derivatives show liquid crystalline behavior.				
$C_{26}H_{36}O_3$	[63042-30-8]	3-[(1-oxooctyl)oxy]-estra-1,3,5(10)-trien-17-one				
	$\Delta_{fus}H$		24.0	348	DSC	[1990YAN/EIR]
$C_{26}H_{38}$	[55268-63-8]	1,1-diphenyltetradecane				
	Δ_vH	(467–530)	98.2	482	A	[1987STE/MAL]
$C_{26}H_{38}$	[55268-62-7]	1,1-di(4-tolyl)dodecane				
	Δ_vH	(466–529)	98.3	481	A	[1987STE/MAL]
$C_{26}H_{38}$	[5171-91-5]	2,3-dimethyl-2,3-*bis*-(4-*tert*-butylphenyl)-butane				
	$\Delta_{fus}H$		43.93	493	DSC	[1983KRA/BEC]
	$\Delta_{sub}H$		161.9		E,B	[1983KRA/BEC]
$C_{26}H_{38}O_2$	[3000-49-5]	3β-octyloxy-estra-1,3,5(10)-trien-17-one				
	$\Delta_{fus}H$		19.0	331	DSC	[1990YAN/EIR]
$C_{26}H_{40}$	[95258-25-6]	5-octyl-1,2,3,4,4a,5,7,8,9,10,12,12a-dodecahydronaphthacene				
	Δ_vH	(479–549)	91.9	494	A, MG	[1987STE/MAL, 1955SCH/WHI, 1999DYK/SVO]
$C_{26}H_{40}O_2$	[128805-68-5]	3-(octyloxy)-estra-1,3,5(10)-trien-17-ol				
	$\Delta_{fus}H$		21.0	338	DSC	[1990YAN/EIR]
$C_{26}H_{42}$	[na]	1,1-*bis*(dodecahydroacenaphthylene-5-yl)ethane				
	Δ_vH	(482–541)	110.9	497	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{42}O$	[141784-31-8]	*trans*-1-(4-heptanoylphenyl)-4-heptylcyclohexane				
	$\Delta_{trs}H$ *(liq cryst)*		16.49	343.2		
	$\Delta_{trs}H$ *(liq cr-liq)*		7.71	344.7	DSC	[1992FUR/BUT]
$C_{26}H_{42}O_4$	[14103-61-8]	*bis*(3,5,5-trimethylhexyl) phthalate				
	Δ_vH	(333–393)	113.6	348	A	[1987STE/MAL]
$C_{26}H_{42}O_4$	[84-76-4]	dinonyl phthalate				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(333–393)	108.9	348	A	[1987STE/MAL]
$C_{26}H_{46}$	[2655-95-0] 1,4-didecylbenzene					
	$\Delta_v H$	(468–536)	95.2	483	A	[1987STE/MAL]
$C_{26}H_{46}$	[2398-68-7] 1-phenyleicosane					
	$\Delta_v H$	(499–538)	94.7	514	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2398-66-5] 2-phenyleicosane					
	$\Delta_v H$	(492–531)	90.4	507	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2400-02-4] 3-phenyleicosane					
	$\Delta_v H$	(489–526)	92.1	504	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2400-03-5] 4-phenyleicosane					
	$\Delta_v H$	(487–527)	88.2	502	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2400-04-6] 5-phenyleicosane					
	$\Delta_v H$	(485–521)	94.3	500	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2398-64-3] 7-phenyleicosane					
	$\Delta_v H$	(483–520)	93.8	498	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2398-65-4] 9-phenyleicosane					
	$\Delta_v H$	(483–520)	91.9	498	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[55191-36-1] 8-(4-tolyl)nonadecane					
	$\Delta_v H$	(482–517)	94.5	497	A	[1987STE/MAL]
$C_{26}H_{48}$	[55401-75-7] 9-dodecyltetrahydroanthracene					
	$\Delta_v H$	(501–536)	102.7	519		[1999DYK/SVO]
$C_{26}H_{48}$	[55334-01-5] 9-dodecyltetrahydrophenanthrene					
	$\Delta_v H$	(502–542)	90.8	522		[1999DYK/SVO]
$C_{26}H_{48}N_6O_9$	[326813-31-4] formamide deferoxamine					
	$\Delta_{fus}H$		92.93	430.8	DSC	[2000IHN/VEN]
$C_{26}H_{48}O_2$	[25006-68-2] 4,4,7,7,13,13,16,16-octamethylcyclooctadecane-1,10-dione					
	$\Delta_{fus}H$		50.6	492.2		[1972BOR/DAL2]
$C_{26}H_{50}$	[700004-11-1] 9-[α-(*cis*-bicyclo[3.3.0]octyl)methyl]heptadecane					
	$\Delta_v H$	(455–518)	92.3	470	A	[1987STE/MAL, 1999DYK/SVO]
$C_{26}H_{50}$	[55334-09-3] 1,1-*bis*(4-methylcyclohexyl)dodecane					
	$\Delta_v H$	(484–520)	93.5	499	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{50}$	[55334-08-2] 1,1-dicyclohexyltetradecane					
	$\Delta_v H$	(493–529)	97.7	508	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{50}$	[55401-76-8] 1,1-dicyclopentylhexadecane					
	$\Delta_v H$	(471–525)	113.1	486	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{50}$	[55334-11-7] 2-hexadecylbicyclopentyl					
	$\Delta_v H$	(495–532)	97.7	510	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{50}N_6O_{10}S$	[130281-67-3] methylsulfonamide deferoxamine					
	$\Delta_{fus}H$		117.8	416	DSC	[2000IHN/VEN]
$C_{26}H_{50}O_4$	[122-62-3] (*dl*) *bis*(2-ethylhexyl) sebacate					
	$\Delta_v H$	(308–453)	114.9	323	A	[1987STE/MAL]
$C_{26}H_{50}O_4$	[2432-87-3] dioctyl sebacate					

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		109.7	368	TGA	[1990KIS/SHO]
	$\Delta_v H$		120.8 ± 4.2	298	TGA	[1990KIS/SHO]
	$\Delta_v H$	(413–523)	107.1	428	A	[1987STE/MAL]
$C_{26}H_{52}$	[4443-55-4]	1-cyclohexyleicosane				
	$\Delta_v H$	(499–538)	94.2	514	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-56-5]	2-cyclohexyleicosane				
	$\Delta_v H$	(494–530)	98.3	509	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-57-6]	3-cyclohexyleicosane				
	$\Delta_v H$	(492–530)	94	507	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-58-7]	4-cyclohexyleicosane				
	$\Delta_v H$	(488–524)	98.3	503	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-59-8]	5-cyclohexyleicosane				
	$\Delta_v H$	(488–524)	98.3	503	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-60-1]	7-cyclohexyleicosane				
	$\Delta_v H$	(486–523)	93.6	501	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-61-2]	9-cyclohexyleicosane				
	$\Delta_v H$	(486–523)	93.6	501	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[104338-48-9]	11-cyclohexyleicosane				
	$\Delta_{fus}H$		48.7	269.9		[1949PAR/MOO2]
$C_{26}H_{52}$	[6703-82-8]	1-cyclopentylheneicosane				
	$\Delta_v H$	(498–537)	93.8	513	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[6703-81-7]	11-cyclopentylheneicosane				
	$\Delta_v H$	(486–524)	92.4	501	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[18835-33-1]	1-hexacosene				
	$\Delta_v H$	(434–684)	106.1	449		[1999DYK/SVO]
$C_{26}H_{52}$	[23014-57-5]	1,1,4,4,10,10,13,13-octamethylcyclooctadecane				
	$\Delta_{trs}H$		6.74	427.2		
	$\Delta_{fus}H$		20.17	438.2		[1972BOR/DAL, 1969BOR/DAL]
$C_{26}H_{52}O_2$	[55373-89-2]	methyl pentacosanoate				
	$\Delta_{fus}H$		92.0	332.2	DSC	[2004CHI/ZHA]
	$\Delta_v H$	(467–558)	142.0 ± 4.5	298	CGC	[2004CHI/ZHA]
$C_{26}H_{52}O_2$	[24634-95-5]	ethyl tetracosanate				
	$\Delta_{trs}H$		11.2	317.7		
	$\Delta_{fus}H$		22.94	327.4		[1996DOM/HEA]
$C_{26}H_{53}NO$	[74534-13-7]	N-decyl hexadecanamide				
	$\Delta_{trs}H$		5.0	333		
	$\Delta_{fus}H$		63.0	347	DSC	[1980CAR/BUS]
$C_{26}H_{54}$	[55282-16-1]	5-butyldocosane				
	$\Delta_v H$	(482–518)	94.0	497	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-15-0]	7-butyldocosane				
	$\Delta_v H$	(480–514)	97.2	495	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-14-9]	9-butyldocosane				
	$\Delta_v H$	(479–516)	91.9	494	A, MG	[1987STE/MAL, 1955SCH/WHI]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{26}H_{54}$	[13475-76-8]	11-butyldocosane				
	$\Delta_v H$	(480–516)	93.3	495	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-13-8]	5,14-dibutyloctadecane				
	$\Delta_v H$	(458–508)	89.3	473	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[15874-03-0]	6,11-dipentylhexadecane				
	$\Delta_v H$	(468–504)	88.9	483	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-12-7]	3-ethyl-5-(2-ethylbutyl)octadecane				
	$\Delta_v H$	(467–503)	88.4	482	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-11-6]	11-(1-ethylpropyl)heneicosane				
	$\Delta_v H$	(474–509)	93.5	489	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[629-87-8]	2-methylpentacosane				
	$\Delta_v H$	(433–680)	107.2	448		[1999DYK/SVO]
$C_{26}H_{54}$	[79370-84-6]	12-propyltricosane				
	$\Delta_v H$	(435–454)	91	445		[1982REC/GRE, 1999DYK/SVO]
$C_{26}H_{54}$	[55282-17-2]	3-ethyltetracosane				
	$\Delta_v H$	(490–529)	90	505	A	[1987STE/MAL]
$C_{26}H_{54}$	[630-01-3]	hexacosane				
	$\Delta_{trs}H$		33.6	327.8		
	$\Delta_{fus}H$		61.1	330.9	DSC	[2007GNA/PLA]
	$\Delta_{trs}H$		32.6	325		
	$\Delta_{fus}H$		60.1	329.1	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		32.2	326.5		
	$\Delta_{fus}H$		59.5	329.5		[1996DOM/HEA]
	$\Delta_{trs}H$		32.2	324.4		
	$\Delta_{fus}H$		57.6	328.2	DSC	[1992LOU/ROU]
	$\Delta_{sub}H$		177.2 ± 10	298	B	[1991PIA/POM]
	$\Delta_v H$	(434–539)	131.7	298	CGC	[2004CHI/HAN]
	$\Delta_v H$		139.3 ± 0.5	298	CGC	[2002CHI/WEB]
	$\Delta_v H$		136.4 ± 0.2	298	GS	[2001PUR/CHI]
	$\Delta_v H$		140.0 ± 2.2	298	CGC	[1997CHI/WIL]
	$\Delta_v H$	(391–437)	132 ± 1	414	TE	[1994PIA/FON]
	$\Delta_v H$	(404–546)	97.6	419	TE,ME,GS	[1991PIA/POM]
	$\Delta_v H$	(455–519)	99.0 ± 3.8	487	GS	[1990PIA/SCA]
	$\Delta_v H$	(466–685)	101.6	481	A, EST	[1987STE/MAL, 1966KUD/ZWO]
	$\Delta_v H$	(478–530)	94.5	493	A	[1987STE/MAL]
$C_{26}H_{54}$	[55333-99-8]	7-hexyleicosane				
	$\Delta_v H$	(479–512)	101.1	494	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-10-5]	11-neopentylheneicosane				
	$\Delta_v H$	(476–511)	93	491	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[14739-72-1]	11-pentylheneicosane				
	$\Delta_v H$	(478–512)	96.3	493	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}O$	[506-52-5]	1-hexacosanol				
	$\Delta_{trs}H$		16.74	332.2		
	$\Delta_{fus}H$		67.78	351.7		[1970TRA/LOM]
	$\Delta_v H$		148.0 ± 0.8	298	CGC	[2006NIC/KWE]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{26}H_{54}O_4S_2$	[na]	(*l*)-rhamnose didecyl dithioacetal				
	$\Delta_{fus}H$		26.1	332.3		
	$\Delta_{fus}H$		53.2	385.2	DSC	[1989VAN/VAN]
$C_{26}H_{54}S$	[16331-25-2]	1-hexacosanethiol				
	Δ_vH	(465–718)	116.2	480	EST	[1999DYK/SVO]
$C_{27}H_{19}NO$	[2083-09-2]	2,5-*bis*(1,1′-biphenylyl)oxazole				
	Δ_vH	(595–685)	109.7	610	A, I	[1987STE/MAL, 1975STE/SCH]
$C_{27}H_{19}NO$	[76733-99-8]	2-phenyl-5-(*p*-terphenyl-4-yl)oxazole				
	$\Delta_{fus}H$		42.0	504.2	DSC	[2001DIN/MUR]
$C_{27}H_{19}NO$	[362612-65-5]	2-(*p*-terphenyl-4-yl)-5-phenyloxazole				
	$\Delta_{fus}H$		37.0	485.2	DSC	[2001DIN/MUR]
$C_{27}H_{30}N_2$	[221641-35-6]	2-(hept-1-ynyl)-5(4-*p*-hexylphenylbuta-1,3-diynyl) pyrimidine				
	$\Delta_{fus}H$		39.0	426	DSC	[1999HUD/SHE]
$C_{27}H_{30}O_3$	[71203-39-9]	19-nor-17α-ethynyl-17β-(benzoyloxy-4-androsten-3-one				
	$\Delta_{fus}H$		41.5	531		[1996DOM/HEA]
$C_{27}H_{30}O_{16}$	[153-18-4]	3-[[6-O-(6-deoxy-α-L-mannopyranosyl)-β-D-glucopyranosyl]-oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-4*H*-1-benzopyran-4-one (rutin)				
	$\Delta_{fus}H$		82.3	450.2	DSC	[2007CHE/HUM]
$C_{27}H_{32}O_3$	[138306-51-1]	spiro[8.5.0$^{(3,7)}$]-3,5-diphenyl-1,2,8-trioxa-10,12-tetramethyltetradec-5-ene				
	$\Delta_{fus}H$		15.0	389.2	DSC	[1991JEF/JAB]
$C_{27}H_{35}NO_3$	[483362-64-7]	2-(4-nitrophenyl)-1-[4-[2-(*trans*-4-pentylcyclohexyl)ethyl]phenyl]ethanone				
	$\Delta_{fus}H$		37.95	409	DSC	[2002SPA/DZI]
$C_{27}H_{36}N_2O_5$	[na]	N,N-diisopropyl naltrexone-3-O-carbamate				
	$\Delta_{fus}H$		19.95	421.2	DSC	[2009VAD/BAN]
$C_{27}H_{38}O$	[3836-23-5]	19-nor-17α-ethynyl-17β-(heptanoyloxy-4-androsten-3-one				
	$\Delta_{fus}H$		21.6	340		[1996DOM/HEA]
$C_{27}H_{38}O_3$	[105755-75-7]	3-[(1-oxononyl)oxy]-estra-1,3,5(10)-trien-17-one				
	$\Delta_{fus}H$		24.0	337	DSC	[1990YAN/EIR]
$C_{27}H_{40}$	[55334-13-9]	5-pentadecylacenaphthene				
	Δ_vH	(500–568)	105.7	105.7	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{27}H_{40}N_4O_2$	[182410-21-5]	2,2′-[(2,8,10-trimethylpyrido[3,2-g]quinoline-4,6-diyl)*bis*(oxy)]-*bis*[N,N-diethylethanamine]				
	$\Delta_{fus}H$		16.1	415.3	DSC	[2008ABB/KAL]
$C_{27}H_{42}Cl_2N_2O_6$	[530-43-8]	hexadecanoic acid, [R-(R*,R*)]-2-[(dichloroacetyl)amino]-3-hydroxy-3-(4-nitrophenyl)propyl ester (chloramphenicol palmitate)				
	$\Delta_{fus}H$		64.02	368.2		[1998VAN/KEL, 1977BUR, 1970BOR]
	$\Delta_{fus}H$ *(I)*		51.04	367.3		
	$\Delta_{fus}H$ *(II)*		41.3	360.8		[1985OHM/LIP]
$C_{27}H_{44}O$	[313-04-2]	desmosterol				
	$\Delta_{fus}H$		15.9	388.2	DSC	[2009CHE/SU]
$C_{27}H_{46}O$	[57-88-5]	cholesterol				
	$\Delta_{fus}H$		28.5	421.7	DSC	[2009CHE/SU]
	$\Delta_{fus}H$	(300–440)	25.1	423.2	DSC	[2008PEN/JIA]
	$\Delta_{trs}H$		2.71	311.7		
	$\Delta_{fus}H$		21.11	423.2	DSC	[2003KAL/PAU]
	$\Delta_{trs}H$	(5–425)	3.9	306.7		

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		28.4	422.3	AC	[1998VAN/VAN]
	$\Delta_{trs}H$		2.5	304.8		
	$\Delta_{fus}H$		27.41	420.2		[1996DOM/HEA]
	$\Delta_{sub}H$	(386–414)	142.5 ± 0.9		ME	[2009OJA/CHE]
	$\Delta_{v}H$		153.7 ± 0.8	298	CGC	[2006NIC/KWE]
	$\Delta_{v}H$	(411–447)	114.9	426	A	[1987STE/MAL]
$C_{27}H_{46}O$	[57-88-5]	5-cholesten-3β-ol				
	$\Delta_{fus}H$		26.5	422.5		[2001IWA/MIN]
$C_{27}H_{48}$	[481-21-0]	17-(1,5-dimethylhexyl)-10,13-dimethyl-hexahydro-1*H*-cyclopenta[a]-phenanthrene (5-α-cholestane)				
	$\Delta_{fus}H$		25.4	351.8		[2000MOK/RUZ]
	$\Delta_{sub}H$		133.8	298		[2000MOK/RUZ]
	$\Delta_{v}H$		108.4	352		[2000MOK/RUZ]
	$\Delta_{v}H$	(481–538)	115.6	496	A	[1987STE/MAL]
$C_{27}H_{48}$	[40775-09-5]	henicosylbenzene				
	$\Delta_{v}H$	(446–705)	108.4	461		[1999DYK/SVO]
$C_{27}H_{48}$	[6703-80-6]	11-phenylheneicosane				
	$\Delta_{fus}H$		64.77	294.3		[1949PAR/MOO2]
	$\Delta_{v}H$	(491–529)	93.5	506	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{27}H_{48}N_2OS$	[467434-73-7]	N-[(3-methoxyphenyl)methyl]-N′-octadecylthiourea				
	$\Delta_{fus}H$		64.17	375.2	DSC	[2002ABB/WOH]
$C_{27}H_{48}O$	[80-97-7]	5α-cholestan-3β-ol				
	$\Delta_{fus}H$		22.6	413.5		[2001IWA/MIN]
$C_{27}H_{48}O$	[516-92-7]	5β-cholestan-3α-ol				
	$\Delta_{fus}H$		15.8	385.8		[2001IWA/MIN]
$C_{27}H_{48}O$	[360-68-9]	5β-cholestan-3β-ol				
	$\Delta_{fus}H$		16.1	373.8		[2002MIN/SAK]
$C_{27}H_{50}$	[55282-69-4]	5-pentadecyldodecahydroacenaphthalene				
	$\Delta_{v}H$	(486–554)	98.1	501	A	[1987STE/MAL]
$C_{27}H_{50}N_6O_9$	[5722-48-5]	acetamide deferoxamine				
	$\Delta_{fus}H$		118.4	448.9	DSC	[2000IHN/VEN]
$C_{27}H_{50}O_6$	[538-23-8]	glycerol trioctanoate				
	$\Delta_{v}H$		118.7	386	TGA	[1990KIS/SHO]
	$\Delta_{v}H$		135.4 ± 4.7	298	TGA	[1990KIS/SHO]
	$\Delta_{v}H$	(396–453)	116	411	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{27}H_{54}$	[6703-99-7]	11-cyclohexylheneicosane				
	$\Delta_{v}H$	(485–529)	107	500	A	[1987STE/MAL]
$C_{27}H_{54}$	[6703-79-3]	11-(cyclopentylmethyl)heneicosane				
	$\Delta_{v}H$	(492–529)	94.4	507	A	[1987STE/MAL]
$C_{27}H_{54}$	[26718-82-1]	henicosylcyclohexane				
	$\Delta_{v}H$	(445–460)	107.8	460		[1999DYK/SVO]
$C_{27}H_{54}$	[15306-27-1]	1-heptacosene				
	$\Delta_{v}H$	(441–694)	108.7	456		[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{27}H_{54}$	[163983-30-0]	1-decyl-1-undecylcyclohexane				
	$\Delta_v H$		133.6 ± 1.8	298	CGC	[1995CHI/HES]
$C_{27}H_{54}N_3PS_6$	[194281-16-8]	*tris*(diisobutyldithiocarbamate)phosphorous				
	$\Delta_{sub}H$		138 ± 3		DSC, E	[1997DES/DES]
$C_{27}H_{54}N_6$	[38565-87-6]	*tris* N,N-diisobutylamino-1,3,5-triazine				
	$\Delta_{fus}H$		35.81	372.6		[1986LAT/HOE]
$C_{27}H_{54}O_2$	[5802-82-4]	methyl hexacosanoate				
	$\Delta_{fus}H$		101.3	336.2	DSC	[2004CHI/ZHA]
	$\Delta_v H$	(467–558)	147.1 ± 4.5	298	CGC	[2004CHI/ZHA]
$C_{27}H_{56}$	[593-49-7]	heptacosane				
	$\Delta_{trs}H$		0.3	312.9		
	$\Delta_{trs}H$		2.5	322.3		
	$\Delta_{trs}H$		27.1	325.9		
	$\Delta_{fus}H$		62.8	331.6	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		2.26	318		
	$\Delta_{trs}H$		26.28	325.4		
	$\Delta_{fus}H$		59.05	332.1	DSC	[1992LOU/ROU]
	$\Delta_{sub}H$		196.0 ± 30	298	B	[1991PIA/POM]
	$\Delta_v H$	(401–441)	132 ± 1	423	TE	[1994PIA/FON]
	$\Delta_v H$	(508–570)	94.2	523	ME,TE,GS	[1991PIA/POM]
	$\Delta_v H$	(401–441)	116.9 ± 3.0	421	TE	[1990POM/PIA]
	$\Delta_v H$	(473–695)	104.3	488	A, EST	[1987STE/MAL, 1966KUD/ZWO]
$C_{27}H_{56}$	[1561-02-0]	2-methylhexacosane				
	$\Delta_v H$	(441–690)	109.6	456		[1999DYK/SVO]
$C_{27}H_{56}$	[55282-29-6]	8-hexyl-8-pentylhexadecane				
	$\Delta_v H$		125.7 ± 1.8	298	CGC	[1995CHI/HES]
$C_{27}H_{56}$	[55282-28-5]	8,8-dipentylheptadecane				
	$\Delta_v H$		128.1 ± 1.8	298	CGC	[1995CHI/HES]
$C_{27}H_{56}$	[55282-32-1]	10-hexyl-10-methyleicosane				
	$\Delta_v H$		129.9 ± 1.8	298	CGC	[1995CHI/HES]
$C_{27}H_{56}$	[55282-30-9]	5-ethyl-5-methyltetracosane				
	$\Delta_v H$		133.8 ± 1.8	298	CGC	[1995CHI/HES]
$C_{27}H_{56}S$	[66291-85-8]	1-heptacosanethiol				
	$\Delta_v H$	(471–727)	118.3	486	EST	[1999DYK/SVO]
$C_{28}H_{12}Cl_2N_2O_4$	[130-20-1]	C.I. Vat Blue 6				
	$\Delta_{sub}H$	(519–634)	199	577	GS	[1986NIS/AND]
$C_{28}H_{14}$	[190-39-6]	phenanthro[1,10,9,8-opqra]perylene				
	$\Delta_{sub}H$	(580–630)	180.5			[1987STE/MAL]
	$\Delta_{sub}H$		180.7 ± 5	605	ME	[1952INO/SHI]
	$\Delta_v H$	(580–630)	180.5	595	A	[1987STE/MAL]
$C_{28}H_{14}N_2O_4$	[81-77-6]	C.I. Vat Blue 4				
	$\Delta_v H$	(519–634)	167	577	GS	[1986NIS/AND]
$C_{28}H_{16}$	[na]	1,2,4,5,7,8-tribenzopyrene				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		28.8	608		[1979SMI2]
$C_{28}H_{18}$	[1055-23-8]	9,9′-bianthryl				
	$\Delta_{sub}H$		128.4 ± .2			[1970COX/PIL, 1958HOY/PEP]
	$\Delta_{sub}H$	(413–473)	127.9	443	A	[1958HOY/PEP, 1987STE/MAL]
	$\Delta_{sub}H$		148.1			[1951MAG/HAR, 1960JON]
$C_{28}H_{18}$	[20532-03-0]	9,9′-biphenanthryl				
	$\Delta_{sub}H$		151.5			[1951MAG/HAR, 1960JON]
$C_{28}H_{20}S$	[362612-62-2]	3-(*p*-terphenyl-4-yl)-5-phenylthiophene				
	$\Delta_{fus}H$		43	561.2	DSC	[2001DIN/MUR]
$C_{28}H_{20}S$	[362612-62-2]	2-(*p*-terphenyl-4-yl)-4-phenylthiophene				
	$\Delta_{fus}H$		42	554.2	DSC	[2001DIN/MUR]
$C_{28}H_{20}S$	[56316-86-0]	2,5-*bis*(biphenyl-4-yl)thiophene				
	$\Delta_{fus}H$		39	595.2	DSC	[2001DIN/MUR]
$C_{28}H_{22}$	[15300-82-0]	9,9′-dimethyl-9,9′-bifluorenyl				
	$\Delta_{sub}H$	(368–403)	118.7 ± 1.3	386	T	[1994RAK/VER2]
	$\Delta_{sub}H$	(368–403)	119.7 ± 1.3	298	T	[1994RAK/VER2]
	$\Delta_{v}H$	(368–403)	94.6		B	[1994RAK/VER2]
$C_{28}H_{22}N_2O_2$	[na]	1,4-[*bis*[(4-methylphenyl)amino]-9,10-anthracenedione				
	$\Delta_{fus}H$		36.59	491.2		[1991BAU/WEB]
$C_{28}H_{24}O_4$	[74568-07-3]	calix[4]arene-25,26,27,28-tetrol				
	$\Delta_{sub}H$		167 ± 2			[2008SUR]
$C_{28}H_{24}O_8$	[125748-07-4]	2,8,14,20-tetramethyl-4,6,10,12,16,18,20,24-octahydroxyresorci[4]arene (calix[4]resorcinarene)				
	$\Delta_{fus}H$		38.2	578.6	DSC	[2010FRA/SAL]
$C_{28}H_{24}O_{16}S_4$	[112269-92-8]	4-sulfonato-calix[4]arene				
	$\Delta_{fus}H$		192.4	549.8		[2005YAN/MAN]
$C_{28}H_{26}N_4O_8$	[74734-27-3]	1,4-*bis*(3-phenylcarbzmoyl-2-oxo-5-oxazolidin-5-ylmethoxy)benzene				
	$\Delta_{fus}H$ *(I)*		10.1	475.2		[1990SHI/HAY]
	$\Delta_{fus}H$ *(II)*		5.1	502.2		
$C_{28}H_{28}P$	[7688-25-7]	1,4-*bis*(diphenylphosphino)butane				
	$\Delta_{fus}H$		45.3	405.9	DTA	[1989HUI/VAN]
	$\Delta_{sub}H$	(425–455)	171.6 ± 2.5	443	B	[1989HUI/VAN]
	$\Delta_{v}H$	(425–455)	126.3 ± 2	443	ME	[1989HUI/VAN]
$C_{28}H_{29}F_2N_3O$	[2062-78-4]	1-[1-[4,4-*bis*(4-fluorophenyl)butyl]-4-piperidyl]-2-benzimidazolinone (pimozide)				
	$\Delta_{fus}H$		46.9	493.5	DSC	[2008THI/SUB]
$C_{28}H_{30}N_4$	[1257-25-6]	2,3,7,8,12,13,17,18-octamethylporphyrin				
	$\Delta_{sub}H$	(593–653)	268 ± 11		GS	[2001NIK/SUL]
$C_{28}H_{31}FN_4O$	[na]	1-[(4-fluorophenyl)methyl]-N-[1-[2-(4-methoxyphenyl)ethyl]-4-piperidinyl]-1*H*-benzimidazol-2-amine (astemizole)				
	$\Delta_{fus}H$		51.1	447.6	DSC	[2007BER/WAS]
$C_{28}H_{31}F_{25}$	[93454-74-1]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorooctacosane				
	$\Delta_{fus}H$		43.1	263.2	DSC	[1986RUS/RAB]
$C_{28}H_{32}$	[55282-03-6]	1,7-diphenyl-4-(3-phenylpropyl)-3-heptene				
	$\Delta_{v}H$	(488–556)	98.0	503	A, MG	[1987STE/MAL, 1955SCH/WHI]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{28}H_{34}$	[55282-64-9]	1,7-diphenyl-4-(3-phenylpropyl)heptane				
	$\Delta_v H$	(490–557)	100.3	505	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{38}$	[59358-73-5]	1,1-diphenyl-1,1′-bicyclooctyl				
	$\Delta_{fus}H$		35.98	432	DSC	[1983KRA/BEC]
	$\Delta_{sub}H$		174.5		E,B	[1983KRA/BEC]
$C_{28}H_{40}O_3$	[128788-27-2]	3-[(1-oxodecyl)oxy]-estra-1,3,5(10)-trien-17-one				
	$\Delta_{fus}H$		29.0	344	DSC	[1990YAN/EIR]
$C_{28}H_{44}O$	[57-87-4]	ergosterol				
	$\Delta_{sub}H$	(318–412)	147.0 ± 0.9		ME	[2009OJA/CHE]
	$\Delta_v H$	(421–454)	118.7	436	A	[1987STE/MAL]
$C_{28}H_{46}O$	[141784-32-9]	*trans*-1-heptyl-4-(4-nonanoylphenyl)cyclohexane				
	$\Delta_{trs}H$ *(liq cryst)*		20.8	343.4		
	$\Delta_{trs}H$ *(liq cr-liq)*		11.32	353.3	DSC	[1992FUR/BUT]
$C_{28}H_{46}O_4$	[26761-40-0]	diisodecyl phthalate				
	$\Delta_v H$	(371–496)	79.3	386	A	[1987STE/MAL]
$C_{28}H_{48}O_4$	[175848-67-6]	2,5-di-*n*-undecyloxy-1,4-benzoquinone				
	$\Delta_{trs}H$		12.9	367.4		
	$\Delta_{trs}H$		28.4	390		
	$\Delta_{fus}H$		52.1	397.2	DSC	[1996KEE/VAN]
$C_{28}H_{50}$	[5634-22-0]	docosylbenzene				
	$\Delta_v H$	(453–715)	110.8	468		[1999DYK/SVO]
$C_{28}H_{50}$	[55334-72-0]	2-decyl-1-phenyldodecane				
	$\Delta_v H$	(497–532)	102.5	512	A	[1987STE/MAL]
$C_{28}H_{50}O_{11}$	[na]	di[1-(2-ethylhexyl)oxycarbonyl]ethyl diethylene glycol dicarboxylate				
	$\Delta_v H$	(463–553)	116.6	478	A	[1987STE/MAL]
$C_{28}H_{50}O_{11}$	[na]	di[1-(octyloxycarbony)ethyl] diethylene glycol dicarboxylate				
	$\Delta_v H$	(463–564)	112.5	478	A	[1987STE/MAL]
$C_{28}H_{52}$	[55334-73-1]	1,7-dicyclohexyl-4-(3-cyclohexylpropyl)heptane				
	$\Delta_v H$	(482–549)	98.7	497	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{52}N_6O_9$	[326813-19-8]	propylamide deferoxamine				
	$\Delta_{fus}H$		116.9	449.6	DSC	[2000IHN/VEN]
$C_{28}H_{52}O_2$	[29844-60-8]	4,4,8,8,14,14,18,18-octamethylcycloeicosane-1,11-dione				
	$\Delta_{fus}H$		36.8	418.2		[1972BOR/DAL2]
$C_{28}H_{54}$	[55255-74-8]	1-cyclohexyl-2-(cyclohexylmethyl)pentadecane				
	$\Delta_v H$	(501–536)	105.4	516	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{56}$	[61828-07-7]	docosylcyclohexane				
	$\Delta_v H$	(452–715)	110	467		[1999DYK/SVO]
$C_{28}H_{56}$	[18835-34-2]	1-octacosene				
	$\Delta_v H$	(448–703)	111	463		[1999DYK/SVO]
$C_{28}H_{56}$	[6704-00-3]	11-(cyclohexylmethyl)heneicosane				
	$\Delta_v H$	(499–538)	94.2	514	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{56}$	[55255-73-7]	2,2,4,10,12,12-hexamethyl-7-(3,5,5-trimethylhexyl)-6-tridecene				
	$\Delta_v H$	(426–488)	83.8	441	A, MG	[1987STE/MAL, 1955SCH/WHI]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{28}H_{56}$	[29844-61-9]	1,1,5,5,11,11,15,15-octamethylcycloeicosane				
	$\Delta_{fus}H$		47.7	439.2		[1972BOR/DAL]
$C_{28}H_{56}O_2$	[55682-91-2]	methyl heptacosanoate				
	$\Delta_{fus}H$		100.7	336.2	DSC	[2004CHI/ZHA]
	Δ_vH	(467–558)	152.2 ± 4.5	298	CGC	[2004CHI/ZHA]
$C_{28}H_{56}O_2$	[29030-81-7]	ethyl hexaconsanate				
	$\Delta_{trs}H$		13.22	322.7		
	$\Delta_{fus}H$		27.05	322.7		[1996DOM/HEA]
$C_{28}H_{58}$	[1561-00-8]	2-methylheptacosane				
	Δ_vH	(448–700)	111.9	463		[1999DYK/SVO]
$C_{28}H_{58}$	[3035-75-4]	2,2,4,10,12,12-hexamethyl-7-(3,5,5-trimethylhexyl)tridecane				
	Δ_vH	(308–393)	98.5	323	A	[1987STE/MAL, 1964MOR]
	Δ_vH	(429–491)	84.9	444	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{58}$	[55373-86-9]	7-hexyldocosane				
	Δ_vH	(506–531)	100.7	518	A	[1987STE/MAL]
$C_{28}H_{58}$	[630-02-4]	octacosane				
	$\Delta_{trs}H$		31.52	329.6		
	$\Delta_{fus}H$		67.38	334.2	DSC	[2007HAF/MAH]
	$\Delta_{trs}H$		35.2	329.4		
	$\Delta_{fus}H$		63.0	333.4	DSC	[2004MON/RAJ]
	$\Delta_{trs}H$		35.44	331.4		
	$\Delta_{fus}H$		64.64	334.5		[1996DOM/HEA]
	$\Delta_{sub}H$	(323–329)	195.8 ± 2.2	326		[2009RAZ/NAC]
	$\Delta_{sub}H$		208.9 ± 10	298	B	[1991PIA/POM]
	Δ_vH	(339–412)	117.4 ± 1.2	376		[2009RAZ/NAC]
	Δ_vH	(354–517)	118.5	369	GC	[2007MOK/RAZ]
	Δ_vH	(434–539)	141.9	298	CGC	[2004CHI/HAN]
	Δ_vH		150.8 ± 0.5	298	CGC	[2002CHI/WEB]
	Δ_vH		150.7 ± 1.7	298	CGC	[2000NIC/ORF]
	Δ_vH		152.4 ± 2.9	298	CGC	[1997CHI/WIL]
	Δ_vH	(483–588)	100.5	498		[1994MOR/KOB]
	Δ_vH	(407–456)	135 ± 3	431	TE	[1994PIA/FON]
	Δ_vH	(426–493)	105.5	441	TE,ME,GS	[1991PIA/POM]
	Δ_vH	(473–515)	103.1 ± 3.0	494	GS	[1990PIA/SCA]
	Δ_vH	(450–575)	100.6	500	EB,IP	[1989CHI/NGU]
	Δ_vH	(450–575)	98.1	560	EB,IP	[1989CHI/NGU]
	Δ_vH	(300–390)	131.7	315	A	[1987STE/MAL]
	Δ_vH	(481–705)	106.6	496	A, EST	[1987STE/MAL, 1966KUD/ZWO]
$C_{28}H_{58}$	[13475-77-9]	9-octyleicosane				
	Δ_vH	(460–530)	106.8	475	A	[1987STE/MAL]
$C_{28}H_{58}O$	[5412-98-6]	15-oxanonacosane				
	$\Delta_{trs}H$		8.37	315.6		
	$\Delta_{fus}H$		113.39	316.8	DSC	[2004TYA/BIS]
$C_{28}H_{58}S$	[16331-26-3]	1-octacosanethiol				
	Δ_vH	(477–736)	120.2	492	EST	[1999DYK/SVO]
$C_{29}H_{35}NO_2$	[84371-65-3]	17β-hydroxy-11β-[4-(dimethylamino)-phenyl]-17α-(prop-1-ynyl)-estra-4,9-dien-3-one (Mifepristone)				
	$\Delta_{fus}H$		31.7	467.1	DSC	[2006WAS/HOL]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{29}H_{41}NO_4$	[52485-79-7]	17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-6,14-ethenomorphinan-7-methanol				
	$\Delta_{fus}H$		26.8	491.3		[1995STI/DUA]
$C_{29}H_{42}O_3$	[105755-76-8]	3-[(1-oxoundecyl)oxy]-estra-1,3,5(10)-trien-17-one				
	$\Delta_{fus}H$		34.0	345	DSC	[1990YAN/EIR]
$C_{29}H_{44}O_2$	[118-82-1]	3,3′,5,5′-tetra-*tert*-butyldiphenylmethane-4,4′-diol				
	$\Delta_{fus}H$		42.97	447.7	DTA	[1972INO/LIA]
$C_{29}H_{48}O$	[83-48-7]	β-stigmasterol				
	$\Delta_{sub}H$	(390–417)	168.4 ± 1.4		ME	[2009OJA/CHE]
$C_{29}H_{50}$	[55373-90-5]	11-(2,5-dimethylphenyl)-10-heneicosene				
	Δ_vH	(471–534)	99.2	486	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{29}H_{50}O$	[83-46-5]	β-sitosterol				
	$\Delta_{sub}H$	(389–410)	143.8 ± 0.5		ME	[2009OJA/CHE]
$C_{29}H_{52}$	[61828-04-4]	tricosylbenzene				
	Δ_vH	(459–724)	113.2	474		[1999DYK/SVO]
$C_{29}H_{52}$	[18835-35-3]	1-nonacosene				
	Δ_vH	(455–713)	113.3	470		[1999DYK/SVO]
$C_{29}H_{52}$	[55373-91-6]	11-(2,5-dimethylphenyl)heneicosane				
	Δ_vH	(472–535)	100.8	487	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{29}H_{52}N_6O_{11}$	[84211-47-2]	succinamide deferoxamine				
	$\Delta_{fus}H$		101	436.2	DSC	[2000IHN/VEN]
$C_{29}H_{54}N_6O_9$	[326813-21-2]	butylamide deferoxamine				
	$\Delta_{fus}H$		111.4	451.1	DSC	[2000IHN/VEN]
$C_{29}H_{58}$	[61828-08-8]	tricosylcyclohexane				
	Δ_vH	(459–724)	112.3	474		[1999DYK/SVO]
$C_{29}H_{58}O_2$	[55682-92-3]	methyl octacosanoate				
	$\Delta_{fus}H$		109.7	340.2	DSC	[2004CHI/ZHA]
	Δ_vH	(467–558)	157.5 ± 4.5	298	CGC	[2004CHI/ZHA]
$C_{29}H_{60}$	[1560-98-1]	2-methyloctacosane				
	Δ_vH	(455–709)	114.2	470		[1999DYK/SVO]
$C_{29}H_{60}$	[630-03-5]	nonacosane				
	$\Delta_{trs}H$		29.71	331.4		
	$\Delta_{fus}H$		66.11	336.6		[1996DOM/HEA]
	Δ_vH	(422–452)	112.5	437		[2006SAW/MOK]
	Δ_vH	(434–539)	147.1	298	CGC	[2004CHI/HAN]
	Δ_vH	(423–457)	137 ± 3	440	TE	[1994PIA/FON]
	Δ_vH	(423–456)	137.1 ± 3.0	439	TE	[1990POM/PIA]
	Δ_vH	(488–714)	109	503	A, EST	[1987STE/MAL, 1966KUD/ZWO]
$C_{29}H_{60}S$	[66213-92-1]	1-nonacosanethiol				
	Δ_vH	(483–744)	122	498	EST	[1999DYK/SVO]
$C_{30}H_{14}O_2$	[128-70-1]	8,16-pyranthenedione (C. I. Vat Orange 9)				
	$\Delta_{sub}H$	(503–543)	197.7	518		[1987STE/MAL]
	$\Delta_{sub}H$		181.2	498	ME	[1951INO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{30}H_{16}$	[191-13-9]	pyranthrene				
	$\Delta_{sub}H$		194.5 ± 6.7	595	ME	[1952INO/SHI]
$C_{30}H_{22}$	[13476-68-1]	1,3-*bis*(biphenyl-4-yl)benzene				
	$\Delta_{fus}H$		55.0	548.2	DSC	[2001DIN/MUR]
$C_{30}H_{22}$	[13478-57-4]	1-(*p*-terphenyl-4-yl)-3-phenylbenzene				
	$\Delta_{fus}H$		56.0	531.2	DSC	[2001DIN/MUR]
$C_{30}H_{28}O_4$	[142433-64-5]	25,27-dimethoxycalix[4]arene-26,28-diol				
	$\Delta_{sub}H$		75 ± 2			[2008SUR]
$C_{30}H_{30}$	[2819-41-2]	1,1,6,6-tetraphenylhexane				
	$\Delta_{v}H$	(511–579)	108.1	526	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{30}H_{32}P_2$	[19845-69-3]	1,6-*bis*(diphenylphosphino)hexane				
	$\Delta_{fus}H$		66.8	399.4		[1998ZHA/TAN]
$C_{30}H_{34}$	[40339-27-3]	1,10-di(1-naphthyl)decane				
	$\Delta_{v}H$	(540–616)	108.6	555	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{30}H_{37}F_{25}$	[93454-75-2]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorotricontane				
	$\Delta_{fus}H$		47.8	365.2	DSC	[1986RUS/RAB]
$C_{30}H_{40}N_4O_2$	[na]	α,ω-*bis*(azobenzene-4-oxy)hexane				
	$\Delta_{fus}H$		73.53	442.2		[2000BLA/LUC]
$C_{30}H_{44}O_3$	[128788-28-3]	3-[(1-oxododecyl)oxy]-estra-1,3,5(10)-trien-17-one				
	$\Delta_{fus}H$		31	342	DSC	[1990YAN/EIR]
$C_{30}H_{46}$	[85668-74-2]	3,4-diethyl-3,4-*bis*-(4-*tert*-butylphenyl)-hexane				
	$\Delta_{fus}H$		29.71	400	DSC	[1983KRA/BEC]
	$\Delta_{sub}H$		167.8		E,B	[1983KRA/BEC]
$C_{30}H_{46}F_4O_2$	[79312-06-4]	cholesteryl 2,2,3,3-tetrafluoropropionate				
	$\Delta_{fus}H$		28.6	422.6		[1981YAN/NAB]
$C_{30}H_{46}O_2S$	[1620-93-5]	*bis*-[3,5-di-*tert*-butyl-4-hydroxybenzyl]sulfide				
	$\Delta_{fus}H$		43.1	417.2	DTA	[1972INO/LIA]
$C_{30}H_{49}BrO_2$	[73112-93-3]	cholesteryl α-bromopropionate				
	$\Delta_{fus}H$		35.7	409.5		[1981YAN/NAB]
$C_{30}H_{49}ClO_2$	[79312-05-3]	cholesteryl α-chloropropionate				
	$\Delta_{fus}H$		48.5	409.1		[1981YAN/NAB]
$C_{30}H_{54}$	[55268-64-9]	1,10-*bis*(decahydro-1-naphthyl)decane				
	$\Delta_{v}H$	(520–583)	119.7	535	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{30}H_{54}$	[55281-91-9]	1,1,6,6-tetracyclohexylhexane				
	$\Delta_{v}H$	(501–569)	103	516	A	[1987STE/MAL]
$C_{30}H_{54}$	[61828-05-5]	tetracosylbenzene				
	$\Delta_{v}H$	(466–732)	115.3	481		[1999DYK/SVO]
$C_{30}H_{54}O_6$	[52193-50-7]	*trans tris*(2-ethylhexyl) aconitate				
	$\Delta_{v}H$	(437–551)	97.1	452	A	[1987STE/MAL]
$C_{30}H_{54}O_6$	[5400-99-7]	*tris*(2-ethylhexyl) 1,2,3-propanetricarboxylate				
	$\Delta_{v}H$	(438–551)	97.9	453	A	[1987STE/MAL]
$C_{30}H_{56}N_6O_9$	[103991-47-5]	valeramide deferoxamine				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		123.1	453.6	DSC	[2000IHN/VEN]
$C_{30}H_{56}O_2$	[37465-23-9]	5,5,8,8,16,16,19,19-octamethylcyclodocosane-1,12-dione				
	$\Delta_{fus}H$		47.7	442.2		[1972BOR/DAL2]
$C_{30}H_{58}O_4$	[2432-89-5]	didecyl sebacate				
	Δ_vH		120.5	405	TGA	[1990KIS/SHO]
	Δ_vH		138.7 ± 4.9	298	TGA	[1990KIS/SHO]
$C_{30}H_{60}$	[61828-09-9]	tetracosylcyclohexane				
	Δ_vH	(465–733)	114.6	480		[1999DYK/SVO]
$C_{30}H_{60}$	[18435-53-5]	1-tricontene				
	Δ_vH	(462–721)	115.4	477		[1999DYK/SVO]
$C_{30}H_{60}$	[37590-56-0]	1,1,4,4,12,12,15,15-octamethylcycloodocosane				
	$\Delta_{fus}H$		58.58	411.2		[1972BOR/DAL]
$C_{30}H_{60}$	[72443-19-7]	15-triacontene				
	$\Delta_{trs}H$		30.96	324.2		
	$\Delta_{fus}H$		49.79	325.2	DSC	[2004TYA/BIS]
$C_{30}H_{60}O_4$	[56444-66-7]	2,2,6,6,9,9,13,13,17,17,20,20-dodecamethyl-1,3,12,14-tetraoxacyclodocosane				
	$\Delta_{fus}H$		57.3	406.4		[1975BOR]
$C_{30}H_{60}O_{15}$	[109635-67-8]	45-crown-15				
	$\Delta_{fus}H$		70.6	311.2	DSC	[1996YAN/YU]
$C_{30}H_{61}Br$	[62108-44-5]	1-bromotricosane				
	$\Delta_{trs}H$		23.85	313.2		
	$\Delta_{fus}H$		79.5	339.6		[1953HOF/DEC]
$C_{30}H_{62}$	[111-01-3]	2,6,10,15,19,23-hexamethyltetracosane (squalane)				
	Δ_vH	(363–513)	116.2	378	A	[1987STE/MAL]
$C_{30}H_{62}$	[55319-83-0]	9-octyldocosane				
	Δ_vH	(518–588)	109.3	533	A	[1987STE/MAL]
$C_{30}H_{62}$	[638-68-6]	triacontane				
	$\Delta_{trs}H$		37.49	111.82		
	$\Delta_{fus}H$		68.83	338.7		[1996DOM/HEA]
	Δ_vH	(434–539)	152.3	298	CGC	[2004CHI/HAN]
	Δ_vH		164.5 ± 0.4	298	CGC	[2000NIC/ORF]
	Δ_vH	(422–487)	143 ± 2	454	TE	[1994PIA/FON]
	Δ_vH	(495–723)	111.3	510	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{30}H_{62}$	[1560-75-4]	2-methylnonacosane				
	Δ_vH	(461–718)	116.8	476		[1999DYK/SVO]
$C_{30}H_{62}S$	[66213-99-8]	1-triacontanethiol				
	Δ_vH	(488–751)	124	503	E	[1999DYK/SVO]
$C_{30}H_{63}N$	[2869-34-3]	tridecylamine				
	Δ_vH	(545–759)	76.8	560	A	[1987STE/MAL]
$C_{31}H_{15}NO_3$	[3271-76-9]	C.I. Vat Green 3				
	$\Delta_{sub}H$	(519–634)	155	577	GS	[1986NIS/AND]
$C_{31}H_{32}O_2P_2$	[32305-98-9]	(−) 2,3-O-isopropylidene-2,3-dihydroxy-1,4-*bis*(diphenylphosphino)butane				
	$\Delta_{trs}H$	(78–380)	3.42	348.7		
	$\Delta_{fus}H$	(78–380)	38.61	364.2	AC	[2000WU/TAN]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{31}H_{34}$	[56247-76-8]	1,1-di(1-naphthyl)-1-undecene				
	$\Delta_v H$	(518–588)	109.3	533	A	[1987STE/MAL]
$C_{31}H_{43}NO_5$	[171018-28-3]	3-(acetyloxy)-17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-6,14-ethenomorphinan-7-methanol				
	$\Delta_{fus}H$		22.4	440.3		[1995STI/DUA]
$C_{31}H_{44}O_2$	[na]	3,3′-*bis*-(1-cyclohexylethyl)-5,5′-dimethyldiphenylmethane-2,2′-diol				
	$\Delta_{fus}H$		29.29	400.7		[1972INO/LIA]
$C_{31}H_{48}$	[55319-81-8]	1-(1-decylundec-1-enyl)naphthalene				
	$\Delta_v H$	(499–567)	105.1	514	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{52}O_2$	[1180-43-4]	cholesteryl α-methylpropionate				
	$\Delta_{fus}H$		25.2	400.7		[1981YAN/NAB]
$C_{31}H_{52}O_3$	[58-95-7]	α-tocopherol acetate				
	$\Delta_v H$	(466–524)	60.1 ± 1.3	496		[1988BAG/GUR]
$C_{31}H_{56}$	[55373-96-1]	1,1-*bis*(decahydro-1-naphthyl)undecane				
	$\Delta_v H$	(525–561)	110.5	540	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{56}$	[61828-06-6]	pentacosylbenzene				
	$\Delta_v H$	(472–741)	117.5	487		[1999DYK/SVO]
$C_{31}H_{56}$	[6006-90-2]	13-phenylpentacosane				
	$\Delta_v H$	(495–560)	106.7	510	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{60}$	[55320-00-8]	1-(1-decylundecyl)decahydronaphthalene				
	$\Delta_v H$	(523–560)	107	538	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{58}N_6O_9$	[326813-24-5]	caproylamide deferoxamine				
	$\Delta_{fus}H$		119.2	450.1	DSC	[2000IHN/VEN]
$C_{31}H_{62}$	[18435-54-6]	1-hentriacontene				
	$\Delta_v H$	(468–730)	117.7	483		[1999DYK/SVO]
$C_{31}H_{62}$	[61828-10-2]	pentacosylcyclohexane				
	$\Delta_v H$	(472–741)	116.6	487		[1999DYK/SVO]
$C_{31}H_{62}$	[6697-15-0]	13-cyclohexylpentaconsane				
	$\Delta_v H$	(495–560)	106.7	510	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{62}O$	[502-73-8]	16-hentricontanone				
	$\Delta_{fus}H$		117.1	356.4		[1994NAK/TAK]
$C_{31}H_{64}$	[1560-72-1]	2-methyltriacontane				
	$\Delta_v H$	(468–726)	118.8	483		[1999DYK/SVO]
$C_{31}H_{64}$	[55320-06-4]	11-decylheneicosane				
	$\Delta_{fus}H$		71.13	282.3		[1996DOM/HEA]
	$\Delta_v H$	(298–313)	110.9	305	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{64}$	[630-04-6]	hentriacontane				
	$\Delta_v H$	(534–565)	157.3	298	CGC	[2004CHI/HAN2]
	$\Delta_v H$	(433–474)	146 ± 2	450	TE	[1994PIA/FON]
	$\Delta_v H$	(503–732)	113.8	518	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{31}H_{64}S$	[534-24-9]	1-hentriacontanethiol				
	$\Delta_v H$	(494–759)	125.7	509	E	[1999DYK/SVO]
$C_{32}H_2Br_{16}N_8$	[28746-04-5]	hexadecabromophthalocyanine				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(438–493)	109.2 ± 16.3	453	ME	[1987STE/MAL, 1970BON/CAT]
$C_{32}H_2Cl_{16}N_8$	[28888-81-5] hexadecachlorophthalocyanine					
	$\Delta_{sub}H$	(398–443)	141.0 ± 17.6	413	ME	[1987STE/MAL, 1970BON/CAT]
$C_{32}H_{14}$	[190-26-1] ovalene					
	$\Delta_{trs}H$		8.08	729		
	$\Delta_{fus}H$		17.4	770.1		[1979SMI2]
	$\Delta_{sub}H$		211.7 ± 7.9	600	ME	[1952INO/SHI]
$C_{32}H_{18}N_8$	[574-93-6] *β*-29*H*,31*H*-phthalocyanine					
	$\Delta_{sub}H$	(598–698)	223.8 ± 1.3		ME	[2000SEM/BAS]
$C_{32}H_{34}$	[116422-69-6] 1,8-*bis*-(4-biphenyl)octane					
	$\Delta_{fus}H$		56	415.2	DSC	[1989MAL/KAN]
$C_{32}H_{34}$	[116422-70-9] 1,8-*bis*-[4-(4′-ethylbiphenyl)]butane					
	$\Delta_{fus}H$		46	454.2	DSC	[1989MAL/KAN]
$C_{32}H_{38}N_4$	[1154424-99-3] 1,4-*bis*((1-benzylpiperidin-4-ylimino)methyl)benzene					
	$\Delta_{fus}H$		38.7	427.2	DSC	[2008STI/CIN]
$C_{32}H_{38}O_6$	[99022-53-4] hexa-2,4-diyne-1,6-diyl-*bis*(4-hexyloxybenzoate)					
	$\Delta_{fus}H$		49.27	334.2		[1990BEL/BAL]
$C_{32}H_{39}ClO_3$	[71203-42-4] norethindrone-6-(4-chlorophenyl)hexanoate					
	$\Delta_{fus}H$		28.8	413		[1996DOM/HEA]
$C_{32}H_{41}F_{25}$	[89109-72-8] 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorodotriacontane					
	$\Delta_{fus}H$		43.4	369.2	DSC	[1986RUS/RAB]
$C_{32}H_{41}NO_2$	[50679-08-8] *α*-[4-(1,1-dimethylethyl)phenyl]-4-(hydroxydiphenylmethyl)-1-piperidinebutanol (terfenadine)					
	$\Delta_{fus}H$		58.1	422.8	DSC	[2007BER/WAS]
$C_{32}H_{45}NO_5$	[171018-29-4] 17-(cyclopropylmethyl)-*α*-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-*α*-methyl (1-oxopropoxy)-6,14-ethenomorphinan-7-methanol					
	$\Delta_{fus}H$		27.1	410.2		[1995STI/DUA]
$C_{32}H_{50}$	[85668-75-3] 2,4,5,7-tetramethyl-4,5-*bis*-(4-*tert*-butylphenyl)-octane					
	$\Delta_{sub}H$		182.8		E,B	[1983KRA/BEC]
$C_{32}H_{50}$	[85668-73-1] 4,5-diethyl-4,5-bis-(4-tert-butylphenyl)-octane					
	$\Delta_{sub}H$		182.4		E,B	[1983KRA/BEC]
$C_{32}H_{52}N_6O_9$	[105185-40-8] benzoylamide deferoxamine					
	$\Delta_{fus}H$		107	453.8	DSC	[2000IHN/VEN]
$C_{32}H_{58}$	[13024-80-1] hexacosylbenzene					
	Δ_vH	(478–749)	119.6	493		[1999DYK/SVO]
$C_{32}H_{60}O_2$	[na] 5,5,9,9,17,17,21,21-octamethylcyclotetracosane-1,13-dione					
	$\Delta_{fus}H$		32.6	380.2		[1972BOR/DAL2]
$C_{32}H_{64}$	[18435-55-7] 1-dotriacontene					
	Δ_vH	(474–738)	119.8	489		[1999DYK/SVO]
$C_{32}H_{64}$	[61828-11-3] hexacosylcyclohexane					
	Δ_vH	(478–749)	118.6	493		[1999DYK/SVO]
$C_{32}H_{64}O_2$	[7505-12-6] ethyl triacontanoate					
	$\Delta_{trs}H$		16.2	334.7		
	$\Delta_{fus}H$		36.07	341.5		[1996DOM/HEA]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{32}H_{64}O_4$	[56444-67-8]	2,2,6,6,10,10,14,14,18,18,22,22-dodecamethyl-1,3,13,15-tetraoxacyclotetracosane				
	$\Delta_{fus}H$		39.7	342.5		[1975BOR]
$C_{32}H_{64}O_{16}$	[71092-61-0]	48-crown-16				
	$\Delta_{fus}H$		59.1	312.2	DSC	[1996YAN/YU]
$C_{32}H_{66}$	[55401-55-3]	11-decyldocosane				
	Δ_vH	(523–559)	108.7	538	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{32}H_{66}$	[544-85-4]	dotriacontane				
	$\Delta_{trs}H$		40.59	339.1		
	$\Delta_{fus}H$		79.74	341.9	DSC	[2003TOZ/INA]
	$\Delta_{trs}H$		41.38	338.7		
	$\Delta_{fus}H$		76.57	343.5		[1996DOM/HEA]
	$\Delta_{sub}H$		271.1 ± 2.5			[1970COX/PIL]
	Δ_vH	(534–565)	162.5	298	CGC	[2004CHI/HAN2]
	Δ_vH	(437–477)	147 ± 1	456	TE	[1994PIA/FON]
	Δ_vH	(361–395)	130.5	376	A	[1987STE/MAL]
	Δ_vH	(510–741)	116	535	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{32}H_{66}$	[55401-54-2]	9-octyltetracosane				
	Δ_vH	(501–563)	114.8	516	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{32}H_{66}$	[1720-12-3]	2-methylhentriacontane				
	Δ_vH	(474–735)	120.9	489		[1999DYK/SVO]
$C_{32}H_{66}O$	[4113-12-6]	17-oxatritriacontane				
	$\Delta_{trs}H$		10.46	323.2		
	$\Delta_{fus}H$		116.73	324.7	DSC	[2004TYA/BIS]
$C_{32}H_{66}S$	[66256-05-1]	1-dotriacontanethiol				
	Δ_vH	(499–766)	127.5	514	E	[1999DYK/SVO]
$C_{33}H_{34}O_3$	[71203-40-2]	norethindrone-biphenyl-4-carboxylate				
	$\Delta_{fus}H$		31.6	462		[1996DOM/HEA]
$C_{33}H_{40}O_3$	[71203-41-3]	norethindrone-4-cyclohexybenzoate				
	$\Delta_{fus}H$		38.6	482		[1996DOM/HEA]
$C_{33}H_{46}O_4$	[128805-69-6]	17β-4-heptoxybenzoyloxy testosterone				
	$\Delta_{fus}H$		22.0	373	DSC	[1990YAN/EIR]
$C_{33}H_{47}NO_5$	[171018-30-7]	17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-(1-oxobutoxy)-6,14-ethenomorphinan-7-methanol				
	$\Delta_{fus}H$		32.4	422.1		[1995STI/DUA]
$C_{33}H_{48}O_3$	[71203-38-8]	norethindrone-*trans*-3-(4-butylcyclohexyl)propionate				
	$\Delta_{fus}H$		22.5	374		[1996DOM/HEA]
$C_{33}H_{48}O_3$	[71203-37-7]	norethindrone-*trans*-hexylcyclohexylcarboxylate				
	$\Delta_{fus}H$		22.6	398		[1996DOM/HEA]
$C_{33}H_{54}N_6O_9$	[326813-28-9]	phenylacetamide deferoxamine				
	$\Delta_{fus}H$		119	447.7	DSC	[2000IHN/VEN]
$C_{33}H_{54}O_6$	[3319-31-1]	tri(2-ethylhexyl)trimellitate				
	Δ_vH	(331–371)	81.1	346	ME	[2000LIA/MA]
$C_{33}H_{54}O_6$	[27251-75-8]	triisooctyltrimellitate				
	Δ_vH	(331–372)	79.0	346	ME	[2000LIA/MA]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{33}H_{60}$	[61828-25-9]	heptacosylbenzene				
	$\Delta_v H$	(484–756)	121.5	499		[1999DYK/SVO]
$C_{33}H_{62}N_6O_9$	[99899-52-2]	octanoylamide deferoxamine				
	$\Delta_{fus}H$		130.7	455.3	DSC	[2000IHN/VEN]
$C_{33}H_{62}O_6$	[621-71-6]	glycerol tricaprate				
	$\Delta_v H$		130.5	411	TGA	[1990KIS/SHO]
	$\Delta_v H$		154.6 ± 5.4	298	TGA	[1990KIS/SHO]
	$\Delta_v H$	(437–485)	124.6	452	A	[1987STE/MAL]
$C_{33}H_{66}$	[61828-12-4]	heptacosylcyclohexane				
	$\Delta_v H$	(484–757)	120.6	499		[1999DYK/SVO]
$C_{33}H_{66}$	[61868-11-9]	1-tritriacontene				
	$\Delta_v H$	(480–746)	121.8	495		[1999DYK/SVO]
$C_{33}H_{68}$	[630-05-7]	tritriacontane				
	$\Delta_{fus}H$		105.02	344		[1996DOM/HEA]
	$\Delta_v H$	(534–565)	167.6	298	CGC	[2004CHI/HAN2]
	$\Delta_v H$	(438–480)	148 ± 1	458	TE	[1994PIA/FON]
	$\Delta_v H$	(517–749)	118	532	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{33}H_{68}$	[1720-11-2]	2-methyldotriacontane				
	$\Delta_v H$	(480–743)	122.9	495		[1999DYK/SVO]
$C_{33}H_{68}S$	[66214-20-8]	1-tritriacontanethiol				
	$\Delta_v H$	(504–773)	129.1	519	E	[1999DYK/SVO]
$C_{34}H_{16}O_2$	[116-71-2]	dibenzanthrone (violanthrone)				
	$\Delta_{sub}H$	(513–548)	208.8	528	A	[1987STE/MAL]
	$\Delta_{sub}H$		202.9	542	ME	[1951INO]
$C_{34}H_{16}O_2$	[128-64-3]	isodibenzanthrone (isoviolanthrone)				
	$\Delta_{sub}H$	(523–553)	221.1	538		[1987STE/MAL]
	$\Delta_{sub}H$		215.5	537	ME	[1951INO]
$C_{34}H_{18}$	[190-93-2]	benzo[rst]phenanthro[1,10,9-cde]pentaphene				
	$\Delta_{sub}H$	(478–603)	154.1	493	A	[1987STE/MAL]
$C_{34}H_{18}$	[81-31-2]	violanthrene				
	$\Delta_{sub}H$		223.8 ± 8.8	590		[1952INO/SHI, 1960JON]
$C_{34}H_{18}$	[na]	violanthrene A (mp 478 °C)				
	$\Delta_{sub}H$	(562–724)	195.8	653	ME	[1967WAK/INO]
$C_{34}H_{18}$	[na]	violanthrene B (mp 330 °C)				
	$\Delta_{sub}H$	(555–625)	153.5	590	ME	[1976WAK/INO]
	Note: This entry is likely the original reference for benzo[rst]-phenanthro[1,10,9-cde]pentaphene listed in Ref. [1987STE/MAL]. Chemical Abstracts cites [1967WAK/INO] as reporting the heat of sublimation for benzo[rst]phenanthro[1,10,9-cde]pentaphene.					
$C_{34}H_{18}$	[4430-29-9]	isoviolanthrene A (mp 510 °C)				
	$\Delta_{sub}H$	(588–724)	218	590	ME	[1952INO/SHI, 1960JON]
$C_{34}H_{18}$	[191-79-7]	tetrabenzo[de,hi,op,st]pentacene				
	$\Delta_{sub}H$	(348–448)	118.5	363	A	[1987STE/MAL]
	$\Delta_{sub}H$	(350–450)	118	400	ME	[1967WAK/INO]
$C_{34}H_{31}ClN_2O_3$	[119887-41-1]	spiro[isobenzofuran-1(3*H*),9′(9*H*)-7′-chloro-6′-(methylcyclohexylamino)-3′-methyl-2′-anilinoxanthene]-3-one				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		49.0	442.2	DSC	[1988NAK/KIT]
$C_{34}H_{32}N_2O_3$	[55250-84-5] spiro[isobenzofuran-1(3*H*),9′(9*H*)-6′-(methylcyclohexylamino)-3′-methyl-2′-anilinoxanthene]-3-one					
	$\Delta_{fus}H$		39.9	476.2	DSC	[1988NAK/KIT]
$C_{34}H_{38}$	[116422-71-0] 1,6-*bis*-[4-(4′-ethylbiphenyl)]hexane					
	$\Delta_{trs}H$		3.9	393.2		
	$\Delta_{fus}H$		35	422.2	DSC	[1989MAL/KAN]
$C_{34}H_{49}NO_5$	[171018-31-8] 17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-(1-oxopentoxy)-6,14-ethenomorphinan-7-methanol					
	$\Delta_{fus}H$		24.0	379.1		[1995STI/DUA]
$C_{34}H_{52}N_2O_4$	[32687-78-8] N,N′-*bis*[3-(3,5-di-*tert*-butyl-4-hydroxyphenyl)propionyl]hydrazine					
	$\Delta_{trs}H$		19.47	474.1		
	$\Delta_{fus}H$		41.5	503	DSC	[2008COG/HIL]
$C_{34}H_{54}$	[85668-72-0] 4,5-dipropyl-4,5-*bis*-(4-*tert*-butylphenyl)-octane					
	$\Delta_{fus}H$		40.58	419	DSC	[1983KRA/BEC]
	$\Delta_{sub}H$		198.3		E,B	[1983KRA/BEC]
$C_{34}H_{62}$	[61828-26-0] octacosylbenzene					
	Δ_vH	(490–764)	123.4	505		[1999DYK/SVO]
$C_{34}H_{66}O_4$	[2432-88-4] didodecyl sebacate					
	Δ_vH		131.9	420	TGA	[1990KIS/SHO]
	Δ_vH		154.5 ± 5.4	298	TGA	[1990KIS/SHO]
$C_{34}H_{68}$	[61828-13-5] octacosylcyclohexane					
	Δ_vH	(490–764)	122.4	505		[1999DYK/SVO]
$C_{34}H_{68}$	[61868-12-0] 1-tetratriacontene					
	Δ_vH	(486–754)	123.7	501		[1999DYK/SVO]
$C_{34}H_{68}$	[87292-56-6] 17-tetratriacontene					
	$\Delta_{trs}H$		33.47	332.8		
	$\Delta_{fus}H$		51.46	334.3	DSC	[2004TYA/BIS]
$C_{34}H_{68}O_{17}$	[109635-68-9] 51-crown-17					
	$\Delta_{fus}H$		66.6	301.2	DSC	[1996YAN/YU]
$C_{34}H_{70}$	[55429-84-0] 11-decyltetracosane					
	Δ_vH	(537–574)	113.1	552	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{34}H_{70}$	[55429-83-9] 9-octylhexacosane					
	Δ_vH	(537–575)	110.3	552	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{34}H_{70}$	[14167-59-0] tetratriacontane					
	$\Delta_{trs}H$		0.41	342.8		
	$\Delta_{trs}H$		46.65	343.5		
	$\Delta_{fus}H$		95.64	346.1	DSC	[2006WAN/TOZ]
	$\Delta_{trs}H$		29.29	341.5		
	$\Delta_{fus}H$		79.96	345.9		[1996DOM/HEA]
	Δ_vH	(534–565)	172.7	298	CGC	[2004CHI/HAN2]
	Δ_vH	(446–497)	152 ± 2	471	TE	[1994PIA/FON]
	Δ_vH	(372–402)	149.7	387	A	[1987STE/MAL]
	Δ_vH	(523–756)	120.3	538	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{34}H_{70}$	[66214-27-5] 2-methyltritriacontane					
	Δ_vH	(486–750)	124.8	501		[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{34}H_{70}S$	[66214-28-6] 1-tetratriacontanethiol					
	$\Delta_v H$	(509–780)	130.7	524	E	[1999DYK/SVO]
$C_{35}H_{28}Cl_2N_8O_4$	[84625-61-6] 4-[4-[4-[4-[[2-(2,4-dichlorophenyl)-2-(1*H*-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]phenyl]-2,4-dihydro-2-(1-methylpropyl)-3*H*-1,2,4-triazol-3-one (itraconazole)					
	$\Delta_{fus}H$		69.9	438.6	DSC	[2007BER/WAS]
$C_{35}H_{37}N_3$	[500362-45-8] 4-butylphenyl-[6-(4-butylphenyl)methyl-9-methyl-9*H*-carbazol-3-ylmethylene)]amine					
	$\Delta_{fus}H$		29.6	460.2	DSC	[2002BEL/MAN]
$C_{35}H_{37}N_3O_2$	[500362-50-5] 4-butoxyphenyl-[6-(4-butoxyphenyl)methyl-9-methyl-9*H*-carbazol-3-yl-methylene)]amine					
	$\Delta_{fus}H$		34.4	475.2	DSC	[2002BEL/MAN]
$C_{35}H_{50}N_2O_8$	[874908-00-6] 2-methylacrylic acid 11-[4-(6,7,9,10,12,13,15,16-octahydro-5,8,11,14,17-pentaoxabenzocyclopentadecen-2-ylazo)phenoxy]undecyl ester					
	$\Delta_{fus}H$		48.7	379.7	DSC	[2005NIS/WAT]
$C_{35}H_{51}NO_5$	[171018-32-9] 17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-(1-oxohexyloxy)-6,14-ethenomorphinan-7-methanol					
	$\Delta_{fus}H$		22.6	352.6		[1995STI/DUA]
$C_{35}H_{64}$	[56247-97-3] 15-phenylnonacosane					
	$\Delta_v H$	(523–550)	126.5	536	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{35}H_{64}$	[61828-27-1] nonacosylbenzene					
	$\Delta_v H$	(495–771)	125.4	510		[1999DYK/SVO]
$C_{35}H_{68}O_4$	[818-21-3] 1,3-propanediol, dipalmitate					
	$\Delta_{fus}H$		133	329.8	DSC	[2007ABE/BOU]
$C_{35}H_{70}$	[61828-14-6] nonacosylcyclohexane					
	$\Delta_v H$	(495–771)	124.4	510		[1999DYK/SVO]
$C_{35}H_{70}$	[61868-13-1] 1-pentatriacontene					
	$\Delta_v H$	(492–761)	125.5	507		[1999DYK/SVO]
$C_{35}H_{70}$	[55521-27-2] 15-cyclohexylnonacosane					
	$\Delta_v H$	(548–581)	129	563	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{35}H_{72}$	[630-07-9] pentatriacontane					
	$\Delta_{trs}H$		41.09	344.7		
	$\Delta_{fus}H$		86.4	347.2		[1996DOM/HEA]
	$\Delta_v H$	(534–565)	178	298	CGC	[2004CHI/HAN2]
	$\Delta_v H$	(529–764)	122.4	544	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{35}H_{72}$	[14167-65-8] 2-methyltetratriacontane					
	$\Delta_v H$	(491–758)	126.9	506		[1999DYK/SVO]
$C_{35}H_{72}S$	[66576-86-1] 1-pentatriacontanethiol					
	$\Delta_v H$	(514–787)	132.2	529	E	[1999DYK/SVO]
$C_{36}H_{18}$	[191-48-0] decacyclene					
	$\Delta_{fus}H$		25.4	666		[1980SMI]
$C_{36}H_{24}$	[7059-70-3] 1,3,5-tri-α-naphthylbenzene					
	$\Delta_{fus}H$		42.26	472		[1967MAG]
$C_{36}H_{32}N_2O_4$	[158547-46-7] 3,3′,4,4′-biphenyltetracarboxy-N,N′-*bis*-(4-*n*-butylphenyl)diimide					
	$\Delta_{trs}H$		33.5	537.9		
	$\Delta_{fus}H$		8.4	556.3		[1995EIS/DEN]
$C_{36}H_{42}$	[116422-72-1] 1,8-*bis*-[4-(4′-ethylbiphenyl)]octane					

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		8.4	402.2		
	$\Delta_{fus}H$		42	413.2	DSC	[1989MAL/KAN]
$C_{36}H_{42}$	[116445-91-1]	1,4-*bis*-[4-(4′-*n*-butylbiphenyl)]butane				
	$\Delta_{trs}H$ *(liq cryst)*		12	404.2		
	$\Delta_{trs}H$ *(liq cr-liq)*		24	464.2	DSC	[1989MAL/KAN]
$C_{36}H_{44}N_2S_4$	[109537-97-5]	*bis*-[4-(5-heptyl-2-thienylmethylidenamino)phenyl]disulfide				
	$\Delta_{fus}H$		36.1	356.2		[1978KOS/BUD]
$C_{36}H_{46}O_4$	[92341-28-1]	4,4′-didecanoyloxydiphenyldiacetylene				
	$\Delta_{trs}H$		44.9	308		
	$\Delta_{fus}H$		42.2	403		[1996DOM/HEA]
$C_{36}H_{53}NO_5$	[171018-33-0]	17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-(1-oxoheptyloxy)-6,14-ethenomorphinan-7-methanol				
	$\Delta_{fus}H$		19.3	360		[1995STI/DUA]
$C_{36}H_{54}O_{12}$	[65201-68-5]	benzene hexa-*n*-pentanoate				
	$\Delta_{trs}H$	(13–390)	8.8	173.1		
	$\Delta_{trs}H$	(13–390)	15.3	313.2		
	$\Delta_{trs}H$	(13–390)	1.4	349.9		
	$\Delta_{fus}H$	(13–390)	30.3	379.5	AC	[2001ASA/SOR]
$C_{36}H_{60}O_6$	[53894-23-8]	triisononanyl trimellitate				
	Δ_vH	(334–372)	102.2	349	ME	[2000LIA/MA]
$C_{36}H_{62}O_4$	[2915-60-8]	ditetradecyl phthalate				
	Δ_vH	(416–465)	126	431	T	[1987STE/MAL, 1949PER/WEB]
$C_{36}H_{64}O_4$	[175848-69-8]	2,5-di-*n*-pentadecyloxy-1,4-benzoquinone				
	$\Delta_{trs}H$		21.7	385.9		
	$\Delta_{fus}H$		101.7	393.5	DSC	[1996KEE/VAN]
$C_{36}H_{66}$	[50715-02-1]	triacontylbenzene				
	Δ_vH	(501–778)	127	516		[1999DYK/SVO]
$C_{36}H_{70}O_4$	[26719-63-1]	1,4-butanediol dipalmitate				
	$\Delta_{fus}H$		162.4	339	DSC	[2008ZHA/WUM]
$C_{36}H_{72}$	[61868-14-2]	1-hexatriacontene				
	Δ_vH	(497–768)	127.4	512		[1999DYK/SVO]
$C_{36}H_{72}$	[61828-15-7]	triacontylcyclohexane				
	Δ_vH	(500–778)	126.3	515		[1999DYK/SVO]
$C_{36}H_{72}O_{18}$	[71092-62-1]	54-crown-18				
	$\Delta_{fus}H$		81.6	317.2	DSC	[1996YAN/YU]
$C_{36}H_{74}$	[630-06-8]	hexatriacontane				
	$\Delta_{trs}H$		11.73	347.3		
	$\Delta_{trs}H$		24.72	348.3		
	$\Delta_{fus}H$		81.6	350.2	DSC	[2006KHI/BOU]
	$\Delta_{trs}H$		0.47	343.6		
	$\Delta_{trs}H$		15.02	348.8		
	$\Delta_{trs}H$		28.52	347.1		
	$\Delta_{fus}H$		102.51	349.2	DSC	[2006WAN/TOZ]
	$\Delta_{trs}H$		30.3	347		
	$\Delta_{fus}H$		87.6	349	DSC	[2004MAR/KAI]
	$\Delta_{trs}H$	(80–370)	10.1	345.4		
	$\Delta_{trs}H$	(80–370)	32.1	346.8		

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$	(80–370)	87.5	348.9	AC	[1999WAN/TAN]
	$\Delta_{trs}H$		9.92	345.4		
	$\Delta_{trs}H$		30.54	347.1		
	$\Delta_{fus}H$		88.83	349.2		[1996DOM/HEA]
	Δ_vH	(534–565)	182.8	298	CGC	[2004CHI/HAN2]
	Δ_vH	(452–516)	157 ± 2	484	TE	[1994PIA/FON]
	Δ_vH	(535–571)	124.4	550	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{36}H_{74}$	[55517-89-0]	13-undecylpentacosane				
	Δ_vH	(548–580)	132.9	563	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{36}H_{74}$	[66576-73-6]	2-methylpentatriacontane				
	Δ_vH	(497–765)	128.7	512		[1999DYK/SVO]
$C_{36}H_{74}$	[67309-30-2]	18-methylpentatriacontane				
	$\Delta_{fus}H$		99	325.2	DSC	[2005IKE/YAM]
$C_{36}H_{74}O$	[6297-03-6]	19-oxaheptatriacontane				
	$\Delta_{trs}H$		10.88	333.2		
	$\Delta_{fus}H$		105.86	335.3	DSC	[2004TYA/BIS]
$C_{36}H_{74}O_{18}$	[na]	1,ω-dimethoxyheptadeca(oxyethylene)				
	$\Delta_{fus}H$		136.6	301.2	DSC	[1996YAN/YU]
$C_{36}H_{74}S$	[66577-23-9]	1-hexatriacontanethiol				
	Δ_vH	(518–793)	134	533	E	[1999DYK/SVO]
$C_{36}H_{75}N$	[102-87-4]	tridodecylamine				
	Δ_vH	(579–807)	82.1	594	A	[1987STE/MAL]
$C_{37}H_{48}N_6O_5S_2$	[155213-67-5]	2,4,7,12-tetraazatridecan-13-oic acid, 10-hydroxy-2-methyl-5-(1-methylethyl)-1-[2-(1-methylethyl)-4-thiazolyl]-3,6-dioxo-8,11-*bis*(phenylmethyl)-, 5-thiazolylmethyl ester (Ritonavir)				
	$\Delta_{fus}H$		57.9	395.5		[2002ZHO/ZHA]
$C_{37}H_{52}O_4$	[129108-06-1]	3β-n-octyloxy-17β-butyoxybenzoyloxy estradiol				
	$\Delta_{fus}H$		27.0	332	DSC	[1990YAN/EIR]
$C_{37}H_{68}$	[61828-28-2]	hexatriacontylbenzene				
	Δ_vH	(506–785)	128.8	521		[1999DYK/SVO]
$C_{37}H_{68}O_8$	[7299-99-2]	pentaerythritol tetra-2-ethylhexanoate				
	Δ_vH	(355–443)	126.4	370		[2007RAZ/MOK]
$C_{37}H_{70}O_6$	[30283-10-4]	1-caprylic-2-lauryl-3-myristic glycerol				
	Δ_vH	(464–526)	131.7	479	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{37}H_{74}$	[61828-16-8]	hentriacontylcyclohexane				
	Δ_vH	(505–785)	128.1	520		[1999DYK/SVO]
$C_{37}H_{74}$	[61868-15-3]	1-heptatriacontene				
	Δ_vH	(502–775)	129.2	517		[1999DYK/SVO]
$C_{37}H_{76}$	[7194-84-5]	heptatriacontane				
	Δ_vH	(534–565)	187.5	298	CGC	[2004CHI/HAN2]
	Δ_vH	(471–511)	155 ± 2	491	TE	[1994PIA/FON]
	Δ_vH	(541–778)	126.4	556	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{37}H_{76}$	[66577-06-8]	2-methylhexatriacontane				
	Δ_vH	(502–772)	130.5	517		[1999DYK/SVO]
$C_{37}H_{76}S$	[66577-07-9]	1-heptatriacontanethiol				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(523–799)	135.3	538	E	[1999DYK/SVO]
$C_{38}H_{30}$	[18909-18-7]	1-diphenylmethylene-4-triphenylmethyl-2,5-cyclohexadiene				
	$\Delta_{sub}H$	(348–394)	114.6	363	A	[1987STE/MAL]
$C_{38}H_{30}O_2$	[596-30-5]	*bis*(triphenylmethyl)peroxide				
	$\Delta_{sub}H$	(392–434)	158.1	407	A	[1987STE/MAL]
$C_{38}H_{50}O_4$	[71332-86-0]	4,4′-diundecanoyloxydiphenyldiacetylene				
	$\Delta_{trs}H$		18.1	339		
	$\Delta_{trs}H$		7.59	359		
	$\Delta_{fus}H$		36.2	399		[1996DOM/HEA]
$C_{38}H_{62}$	[85668-76-4]	5,6-dibutyl-5,6-*bis*-(4-*tert*-butylphenyl)-decane				
	$\Delta_{fus}H$		43.1	386	DSC	[1983KRA/BEC]
	$\Delta_{sub}H$		220.9		E,B	[1983KRA/BEC]
$C_{38}H_{67}NO_{10}$	[150785-53-8]	8,9-didehydro-N-demethyl-9-deoxo-4″,6,12-trideoxy-6,9-epoxy-N-ethylerythromycin				
	$\Delta_{fus}H$		36.7	434.9		[2002ZHO/ZHA]
$C_{38}H_{68}N_2O_2$	[312952-55-9]	N,N′-dihexadecanoylbenzene-1,2-diamine				
	$\Delta_{trs}H$		78	367.2		
	$\Delta_{fus}H$		32	388.2	DSC	[2000AKU/IUC]
$C_{38}H_{68}O_4$	[118476-26-9]	2,5-di-*n*-hexadecyloxy-1,4-benzoquinone				
	$\Delta_{trs}H$		6.8	357.7		
	$\Delta_{trs}H$		14.1	370.9		
	$\Delta_{trs}H$		19	389		
	$\Delta_{fus}H$		83	394.2	DSC	[1996KEE/VAN]
$C_{38}H_{68}S_8$	[105782-51-2]	2-[4,5-*bis*(octylthio)-1,3-dithiol-2-ylidene]-4,5-*bis*(octylthio)-1,3-dithiole				
	$\Delta_{trs}H$	(10–330)	0.16	94.3		
	$\Delta_{trs}H$	(10–330)	4.92	215.8		
	$\Delta_{fus}H$	(10–330)	89.3	322.5	AC	[1997TAN/ATA]
$C_{38}H_{70}$	[61828-29-3]	dotriacontylbenzene				
	$\Delta_v H$	(511–791)	130.4	526		[1999DYK/SVO]
$C_{38}H_{74}O_4$	[26719-47-1]	ditetradecyl sebacate				
	$\Delta_v H$		142.8	440	TGA	[1990KIS/SHO]
	$\Delta_v H$		170.6 ± 5.9	298	TGA	[1990KIS/SHO]
	$\Delta_v H$	(431–483)	135.5	446	A, T	[1987STE/MAL, 1949PER/WEB]
$C_{38}H_{76}$	[61828-17-9]	dotriacontylcyclohexane				
	$\Delta_v H$	(510–792)	129.8	525		[1999DYK/SVO]
$C_{38}H_{76}$	[61868-16-4]	1-octatriacontene				
	$\Delta_v H$	(507–782)	131	522		[1999DYK/SVO]
$C_{38}H_{76}$	[62978-78-3]	19-octatriacontene				
	$\Delta_{trs}H$		7.53	321		
	$\Delta_{trs}H$		34.31	338.4		
	$\Delta_{fus}H$		66.53	340.8	DSC	[2004TYA/BIS]
$C_{38}H_{78}$	[7194-85-6]	octatriacontane				
	$\Delta_v H$	(534–565)	192.6	298	CGC	[2004CHI/HAN2]
	$\Delta_v H$	(471–511)	160 ± 2	491	TE	[1994PIA/FON]
	$\Delta_v H$	(546–785)	128.5	561	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{38}H_{78}$	[66576-92-9]	2-methylheptatriacontane				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(507–779)	132.2	522		[1999DYK/SVO]
$C_{38}H_{78}S$	[66576-93-0] 1-octatriacontanethiol					
	$\Delta_v H$	(527–805)	136.7	542	E	[1999DYK/SVO]
$C_{39}H_{45}N_3O_2$	[500362-51-6] 4-hexyloxyphenyl-[6-(4-hexyloxyphenyl)methyl-9-methyl-9*H*-carbazol-3-yl-methylene)]amine					
	$\Delta_{fus}H$		25.4	459.2	DSC	[2002BEL/MAN]
$C_{39}H_{72}$	[55517-74-3] 17-phenyltritriacontane					
	$\Delta_v H$	(544–571)	147.1	557	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{39}H_{72}$	[61828-30-6] tritriacontylbenzene					
	$\Delta_v H$	(516–798)	132	531		[1999DYK/SVO]
$C_{39}H_{74}O_6$	[538-24-9] glycerol trilaurate					
	$\Delta_{fus}H$		123.51	319.5		[1996DOM/HEA]
	$\Delta_v H$		221.1		TGA	[2002GOO/GEL]
	$\Delta_v H$		147.1	438	TGA	[1990KIS/SHO]
	$\Delta_v H$		180.0 ± 6.3	298	TGA	[1990KIS/SHO]
	$\Delta_v H$	(458–520)	137.6	473	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{39}H_{76}O_4$	[17367-44-1] 1,3-propanediol, distearate					
	$\Delta_{fus}H$		110	329.8	DSC	[2007ABE/BOU]
$C_{39}H_{78}$	[61868-17-5] 1-nontriacontene					
	$\Delta_v H$	(512–788)	132.5	527		[1999DYK/SVO]
$C_{39}H_{78}$	[61828-18-0] triatriacontylcyclohexane					
	$\Delta_v H$	(515–798)	131.4	530		[1999DYK/SVO]
$C_{39}H_{78}$	[55517-75-4] 17-cyclohexyltritricontane					
	$\Delta_v H$	(570–602)	131.9	585	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{39}H_{78}O$	[22986-70-5] 20-nonatricontanone					
	$\Delta_{fus}H$		153	365.8		[2000NAK/SHI]
	$\Delta_{fus}H$		153	365.6	DSC	[1994NAK/TAK]
$C_{39}H_{80}$	[7194-86-7] nonatriacontane					
	$\Delta_v H$	(552–791)	130.3	567	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{39}H_{80}$	[66576-59-8] 2-methyloctatriacontane					
	$\Delta_v H$	(512–785)	133.8	527		[1999DYK/SVO]
$C_{39}H_{80}$	[857685-80-4] 18-butylpentatriacontane					
	$\Delta_{fus}H$		104	318.5	DSC	[2005IKE/YAM]
$C_{39}H_{80}S$	[66576-60-1] 1-nonatriacontanethiol					
	$\Delta_v H$	(531–811)	138.1	546	E	[1999DYK/SVO]
$C_{40}H_{38}N_4O_4$	[130048-21-4] *bis*-(4-*n*-butyl-1′-diazophenyl) isophthalate					
	$\Delta_{fus}H$		16.0	469.2	DSC	[1990JIN/KAN]
$C_{40}H_{40}N_2O_4$	[158547-48-9] 3,3′,4,4′-biphenyltetracarboxy-N,N′-*bis*-(4-*n*-hexylphenyl)diimide					
	$\Delta_{trs}H$ *(liq cryst)*		19.9	432.4		
	$\Delta_{trs}H$ *(liq cryst)*		26.2	513.8		
	$\Delta_{trs}H$ *(liq cr-liq)*		9.5	563.3		[1995EIS/DEN]
$C_{40}H_{46}O_8$	[161282-95-7] 6,7,9,10,12,13,15,16,18,19-decahydro-32,35-dimethoxy-31*H*-4,21-(methano[1,3]benzenomethano)-26,30-metheno-25*H*-dibenzo[q,z]-[1,4,7,10,13,16]hexaoxacycloheptacosin					
	$\Delta_{sub}H$		82 ± 2			[2008SUR]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{40}H_{50}$	[116422-73-2]	1,8-*bis*-[4-(4′-*n*-butylbiphenyl)]octane				
	$\Delta_{trs}H$ *(liq cryst)*		13.0	398.2		
	$\Delta_{trs}H$ *(liq cr-liq)*		27.0	414.2	DSC	[1989MAL/KAN]
$C_{40}H_{54}O_4$	[92341-29-2]	4,4′-didodecanoyloxydiphenyldiacetylene				
	$\Delta_{trs}H$		50.2	374		
	$\Delta_{fus}H$		44.0	401	DSC	[1996DOM/HEA]
$C_{40}H_{56}$	[7235-40-7]	β-carotene				
	$\Delta_{fus}H$		56.0	456		[2003TRE/KAS]
$C_{40}H_{72}O_4$	[175848-70-1]	2,5-di-heptadecyloxy-1,4-benzoquinone				
	$\Delta_{trs}H$		13.0	383.6		
	$\Delta_{fus}H$		120.9	395.3	DSC	[1996KEE/VAN]
$C_{40}H_{74}$	[61828-31-7]	tetratriacontylbenzene				
	Δ_vH	(520–804)	133.8	535		[1999DYK/SVO]
$C_{40}H_{80}$	[61868-18-6]	1-tetracontene				
	Δ_vH	(517–794)	134	532		[1999DYK/SVO]
$C_{40}H_{80}$	[61828-19-1]	tetratriacontylcyclohexane				
	Δ_vH	(520–804)	132.9	535		[1999DYK/SVO]
$C_{40}H_{82}$	[4181-95-7]	tetracontane				
	$\Delta_{trs}H$		2.51	345		
	$\Delta_{trs}H$		8.6	347.7		
	$\Delta_{fus}H$		143.94	354.6	DSC	[2006WAN/TOZ]
	$\Delta_{trs}H$		14.02	345.4		
	$\Delta_{fus}H$		133.44	353.2	DSC	[1992LOU/ROU]
	Δ_vH	(323–523)	203.5 ± 0.2	298	CGC	[2008CHI/WAN]
	Δ_vH	(557–798)	132.2	572	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{40}H_{82}$	[66576-48-5]	2-methylnonatricontane				
	Δ_vH	(517–791)	135.3	532		[1999DYK/SVO]
$C_{40}H_{82}$	[304457-95-2]	20-methylnonatriacontane				
	$\Delta_{fus}H$		120	331.4		[2004YAM/NEM]
	Note: DSC curve showed no solid-solid phase transition in the temperature range of T=(300 to 360) K					
$C_{40}H_{82}S$	[66576-49-6]	1-tetracontanethiol				
	Δ_vH	(535–817)	139.6	550	E	[1999DYK/SVO]
$C_{41}H_{44}N_2O_9$	[832684-74-9]	3,3′-di(N-cyclopropylmethyl)-4,5-epoxy-14-hydroxymorphinan-6-one-3-yl)carbonate				
	$\Delta_{fus}H$		17.5	490.6	DSC	[2004HAM/HAM]
$C_{41}H_{76}$	[61828-32-8]	pentatriacontylbenzene				
	Δ_vH	(525–810)	135.2	540		[1999DYK/SVO]
$C_{41}H_{76}O_8$	[41058-87-1]	3,5,5-trimethylhexanoic acid, 2,2-*bis*[[(3,5,5-trimethyl-1-oxohexyl)oxy]-methyl]-1,3-propanediyl ester				
	$\Delta_{fus}H$		51.3	304		[1996PYD/VAR]
$C_{41}H_{82}$	[66576-37-2]	1-hentetracontene				
	Δ_vH	(521–800)	135.8	536		[1999DYK/SVO]
$C_{41}H_{82}$	[61828-20-4]	pentatriacontylcyclohexane				
	Δ_vH	(524–810)	134.5	539		[1999DYK/SVO]
$C_{41}H_{84}$	[7194-87-8]	hentetracontane				
	$\Delta_{fus}H$		147.2	357.5		[2000PAU/MEH]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(562–804)	134.1	577	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{41}H_{84}$	[66575-38-3] 2-methyltetracontane					
	$\Delta_v H$	(521–797)	137.1	536		[1999DYK/SVO]
$C_{41}H_{84}$	[857685-81-5] 18-hexylpentatricontane					
	$\Delta_{fus}H$		107	314	DSC	[2005IKE/YAM]
$C_{41}H_{84}S$	[66576-39-4] 1-hentetracontanethiol					
	$\Delta_v H$	(539–822)	140.8	554	E	[1999DYK/SVO]
$C_{42}H_{28}$	[517-51-1] 5,6,11,12-tetraphenyltetracene					
	$\Delta_{sub}H$	(453–523)	160.6 ± 4.2	488		[1958HOY/PEP, 1970COX/PIL]
$C_{42}H_{36}O_{24}S_6$	[102088-39-1] 4-sulfonato-calix[6]arene					
	$\Delta_{fus}H$		242.2	534.8		[2005YAN/MAN]
$C_{42}H_{44}N_2O_4$	[158547-49-0] 3,3′,4,4′-biphenyltetracarboxy-N,N′-*bis*-(4-*n*-heptylphenyl)diimide					
	$\Delta_{trs}H$ *(liq cryst)*		18.8	411		
	$\Delta_{trs}H$ *(liq cryst)*		24.7	504.9		[1995EIS/DEN]
	$\Delta_{trs}H$ *(liq cr-liq)*		11.1	560.8		[1995EIS/DEN]
$C_{42}H_{52}N_2O_4S_2$	[109537-98-6] 1,2-*bis*-[4-(5-octyl-2-thienylmethylidenamino)-phenylcarboxyloxy]ethane					
	$\Delta_{fus}H$		57.4	369.2		[1978KOS/BUD]
$C_{42}H_{61}NO_4$	[425406-53-7] 2,7-dihexyloxy-9-(3,5-dihexyloxyphenyl)carbazole					
	$\Delta_{fus}H$		41.02	350.2	DSC	[2002PER/LOP]
$C_{42}H_{66}O_{12}$	[65201-69-6] benzene-hexa-*n*-hexanoate					
	$\Delta_{trs}H$	(13–393)	25.67	251.6		
	$\Delta_{trs}H$	(13–393)	12.27	291.5		
	$\Delta_{trs}H$	(13–393)	16.26	348.3		
	$\Delta_{fus}H$	(13–393)	33.5	368.7	AC	[1996DOM/HEA]
$C_{42}H_{78}$	[61828-33-9] hexatriacontylbenzene					
	$\Delta_v H$	(529–815)	129	544		[1999DYK/SVO]
$C_{42}H_{82}O_4$	[26719-48-2] dihexadecyl sebacate					
	$\Delta_v H$		149.8	460	TGA	[1990KIS/SHO]
	$\Delta_v H$		183.8 ± 6.4	298	TGA	[1990KIS/SHO]
$C_{42}H_{84}$	[21807-60-3] 1-dotetracontene					
	$\Delta_v H$	(526–806)	137.1	541		[1999DYK/SVO]
$C_{42}H_{84}$	[61828-21-5] hexatriactonylcyclohexane					
	$\Delta_v H$	(529–816)	135.8	544		[1999DYK/SVO]
$C_{42}H_{86}$	[7098-20-6] dotetracontane					
	$\Delta_{trs}H$		2.11	344.6		
	$\Delta_{trs}H$		8.46	348.6		
	$\Delta_{fus}H$		165.97	357.3	DSC	[2006WAN/TOZ]
	$\Delta_v H$	(323–523)	213.5	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(567–810)	136	582	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{42}H_{86}$	[66576-40-7] 2-methylhentetracontane					
	$\Delta_v H$	(526–803)	138.5	541		[1999DYK/SVO]
$C_{42}H_{86}$	[55470-97-8] 2,2,4,15,17,17-hexamethyl-7,12-*bis*(3,5,5-trimethylhexyl)octadecane					
	$\Delta_v H$	(512–575)	118.3	527	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{42}H_{86}S$	[66576-41-8] 1-dotetracontanethiol					

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(543–828)	142.1	558	E	[1999DYK/SVO]
$C_{42}H_{87}N$	[27911-72-4]	tritetradecylamine				
	$\Delta_v H$	(609–848)	86.6	624	A	[1987STE/MAL]
$C_{43}H_{53}N_3$	[500362-46-9]	4-octylphenyl-[6-(4-octylphenyl)methyl-9-methyl-9*H*-carbazol-3-ylmethylene)]amine				
	$\Delta_{fus}H$		33.1	425.2	DSC	[2002BEL/MAN]
$C_{43}H_{80}$	[66576-74-7]	heptatriacontylbenzene				
	$\Delta_v H$	(533–821)	138.3	548		[1999DYK/SVO]
$C_{43}H_{86}$	[66576-75-8]	heptatriacontylcyclohexane				
	$\Delta_v H$	(533–821)	137.4	548		[1999DYK/SVO]
$C_{43}H_{86}$	[66576-76-9]	1-tritetracontene				
	$\Delta_v H$	(530–812)	138.7	545		[1999DYK/SVO]
$C_{43}H_{88}$	[66576-76-9]	tritetracontane				
	$\Delta_v H$	(572–820)	137.7	587	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{43}H_{88}$	[66576-77-0]	2-methyldotetracontane				
	$\Delta_v H$	(530–809)	140	545		[1999DYK/SVO]
$C_{43}H_{88}S$	[66576-78-1]	1-tritetracontanethiol				
	$\Delta_v H$	(547–833)	143.2	562	E	[1999DYK/SVO]
$C_{44}H_{26}Br_4N_4$	[68772-71-4]	5,10,15,20-*tetrakis*(3-bromophenyl)porphine				
	$\Delta_{sub}H$		204 ± 4		GS	[2000PER/GOL]
$C_{44}H_{26}Br_4N_4$	[29162-73-0]	5,10,15,20-*tetrakis*(4-bromophenyl)porphine				
	$\Delta_{sub}H$		135 ± 4		GS	[2000PER/GOL]
$C_{44}H_{26}Cl_4N_4$	[22112-77-2]	5,10,15,20-*tetrakis*(4-chlorophenyl)porphine				
	$\Delta_{sub}H$		311 ± 5		GS	[2000PER/GOL]
$C_{44}H_{26}F_4N_4$	[27185-62-2]	5,10,15,20-*tetrakis*(2-fluorophenyl)porphine				
	$\Delta_{sub}H$		225 ± 8		GS	[2000PER/GOL]
$C_{44}H_{26}F_4N_4$	[37095-43-5]	5,10,15,20-*tetrakis*(4-fluorophenyl)porphine				
	$\Delta_{sub}H$		178 ± 4		GS	[2000PER/GOL]
$C_{44}H_{30}N_4$	[917-23-7]	5,10,15,20-tetraphenylporphine				
	$\Delta_{sub}H$	(626–707)	142 ± 3		Fluoresc	[2004STE/STI]
	$\Delta_{sub}H$	(543–555)	171 ± 2	550	ME	[2002TOR/CAM]
	$\Delta_{sub}H$		240 ± 7		GS	[2000PER/GOL]
	$\Delta_{sub}H$ *(I)*	(560–630)	267 ± 9			[1994GOL/PER]
	$\Delta_{sub}H$ *(II)*		185 ± 10			[1994GOL/PER]
	$\Delta_{sub}H$	(588–678)	110.9 ± 5.0	603	ME	[1987STE/MAL, 1970BON/CAT]
$C_{44}H_{48}N_2O_4$	[na]	3,3′,4,4′-biphenyltetracarboxy-N,N′-*bis*-(4-n-octylphenyl)diimide				
	$\Delta_{trs}H$ *(liq cryst)*		36.1	428.5		
	$\Delta_{trs}H$ *(liq cryst)*		21.3	499.2		
	$\Delta_{trs}H$ *(liq cr-liq)*		8.5	553.5		[1995EIS/DEN]
$C_{44}H_{63}N_3O_2$	[na]	2-[3,5-*bis*[4-(dodecyloxy)phenyl]-1*H*-pyrazol-1-yl]pyridine				
	$\Delta_{fus}H$		47.3	344.2		[2003MAY/TOR]
$C_{44}H_{80}O_4$	[175848-72-3]	2,5-di-*n*-nonadecyloxy-1,4-benzoquinone				
	$\Delta_{trs}H$		16.2	385.5		
	$\Delta_{fus}H$		134	396.2	DSC	[1996KEE/VAN]
$C_{44}H_{82}$	[66576-79-2]	octatriacontylbenzene				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(537–826)	139.7	552		[1999DYK/SVO]
$C_{44}H_{88}$	[66576-80-5]	octatriacontylcyclohexane				
	$\Delta_v H$	(537–827)	138.7	552		[1999DYK/SVO]
$C_{44}H_{88}$	[66576-81-6]	1-tetratetracontene				
	$\Delta_v H$	(534–818)	140.1	549		[1999DYK/SVO]
$C_{44}H_{90}$	[7098-22-8]	tetratetracontane				
	$\Delta_{fus}H$		145.5	360.9		[1995HAM/MEH]
	$\Delta_v H$	(323–523)	223.7 ± 0.9	298	CGC	[2008CHI/WAN]
	$\Delta_v H$		146	387		[1973IVA/GUJ]
	$\Delta_v H$	(577–821)	139.3	592	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{44}H_{90}$	[66576-82-7]	2-methyltritetracontane				
	$\Delta_v H$	(534–815)	141.5	549		[1999DYK/SVO]
$C_{44}H_{90}S$	[66576-83-8]	1-tetratetracontanethiol				
	$\Delta_v H$	(551–838)	144.1	566	E	[1999DYK/SVO]
$C_{45}H_{84}$	[66576-61-2]	nontriacontylbenzene				
	$\Delta_v H$	(541–832)	141	556		[1999DYK/SVO]
$C_{45}H_{86}O_6$	[60138-25-2]	(*dl*) 1-lauric-2-myristic-3-palmitic glycerol				
	$\Delta_v H$	(491–551)	147.8	506	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{45}H_{86}O_6$	[na]	(*dl*) 1-myristic-2-capric-3-stearic glycerol				
	$\Delta_v H$	(490–551)	148.4	505	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{45}H_{86}O_6$	[555-45-3]	glycerol trimyristate				
	$\Delta_{fus}H$		152.2	330.2		[1996DOM/HEA]
	$\Delta_v H$		199.05		TGA	[2002GOO/GEL]
	$\Delta_v H$		155.8	469	TGA	[1990KIS/SHO]
	$\Delta_v H$		199.2 ± 6.9	298	TGA	[1990KIS/SHO]
	$\Delta_v H$	(488–551)	147.8	503	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{45}H_{90}$	[66576-62-3]	nonatriacontylcyclohexane				
	$\Delta_v H$	(541–832)	140.1	556		[1999DYK/SVO]
$C_{45}H_{90}$	[66576-63-4]	1-pentatetracontene				
	$\Delta_v H$	(538–823)	141.5	553		[1999DYK/SVO]
$C_{45}H_{92}$	[7098-23-9]	pentatetracontane				
	$\Delta_v H$	(582–827)	141	597	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{45}H_{92}$	[66576-64-5]	2-methyltetratetracontane				
	$\Delta_v H$	(538–820)	142.9	553		[1999DYK/SVO]
$C_{45}H_{92}S$	[66576-65-6]	1-pentatetracontanethiol				
	$\Delta_v H$	(554–843)	145.6	569	E	[1999DYK/SVO]
$C_{46}H_{86}$	[66576-67-8]	tetracontylbenzene				
	$\Delta_v H$	(545–837)	142.3	560		[1999DYK/SVO]
$C_{46}H_{90}O_4$	[3072-03-5]	dioctadecyl sebacate				
	$\Delta_v H$		157.5	480	TGA	[1990KIS/SHO]
	$\Delta_v H$		197.7 ± 6.9	298	TGA	[1990KIS/SHO]
$C_{46}H_{92}$	[66576-68-9]	1-hexatetracontene				
	$\Delta_v H$	(542–828)	142.8	557		[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{46}H_{92}$	[66576-69-0]	tetracontylcyclohexane				
	$\Delta_v H$	(545–837)	141.3	560		[1999DYK/SVO]
$C_{46}H_{94}$	[7098-24-0]	hexatetracontane				
	$\Delta_{trs}H$		23.9	341.4		
	$\Delta_{fus}H$		151.4	360.7		[2003BRI/BOU]
	$\Delta_v H$	(323–523)	233.3	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(586–832)	142.8	601	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{46}H_{94}$	[66564-10-1]	2-methylpentatetracontane				
	$\Delta_v H$	(542–826)	144.2	557		[1999DYK/SVO]
$C_{46}H_{94}S$	[66564-11-2]	1-hexatetracontanethiol				
	$\Delta_v H$	(557–847)	146.7	572	E	[1999DYK/SVO]
$C_{47}H_{88}$	[66564-12-3]	hentetracontylbenzene				
	$\Delta_v H$	(549–842)	143.5	564		[1999DYK/SVO]
$C_{47}H_{90}O_6$	[na]	(*dl*) 1-myristic-2-lauric-3-stearic glycerol				
	$\Delta_v H$	(493–558)	150.5	508	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{47}H_{90}O_6$	[na]	(*dl*) 1-palmitic-2-capric-3-stearic glycerol				
	$\Delta_v H$	(507–559)	154.8	522	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{47}H_{94}$	[66564-13-4]	hentetracontylcyclohexane				
	$\Delta_v H$	(548–842)	142.8	563		[1999DYK/SVO]
$C_{47}H_{94}$	[66576-01-0]	1-heptatetracontene				
	$\Delta_v H$	(546–833)	143.9	561		[1999DYK/SVO]
$C_{47}H_{96}$	[7098-25-1]	heptatetracontane				
	$\Delta_v H$	(591–837)	144.2	606	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{47}H_{96}$	[66576-02-1]	2-methylhexatetracontane				
	$\Delta_v H$	(546–831)	145.3	561		[1999DYK/SVO]
$C_{47}H_{96}S$	[66576-03-2]	1-heptatetracontanethiol				
	$\Delta_v H$	(561–852)	147.6	576	E	[1999DYK/SVO]
$C_{48}H_{38}N_4$	[37083-40-2]	5,10,15,20-*tetrakis*(2-methylphenyl)porphine				
	$\Delta_{sub}H$		159 ± 5		GS	[2000PER/GOL]
$C_{48}H_{38}N_4$	[50849-45-1]	5,10,15,20-*tetrakis*(3-methylphenyl)porphine				
	$\Delta_{sub}H$		177 ± 5		GS	[2000PER/GOL]
$C_{48}H_{38}N_4$	[14527-51-6]	5,10,15,20-*tetrakis*(4-methylphenyl)porphine				
	$\Delta_{sub}H$		178 ± 3		GS	[2000PER/GOL]
$C_{48}H_{38}N_4O_4$	[22112-78-3]	5,10,15,20-*tetrakis*(4-methoxyphenyl)porphine				
	$\Delta_{sub}H$	(561–565)	213 ± 12	563	ME	[2002TOR/CAM]
$C_{48}H_{40}P_2$	[na]	2,2′-*bis*(di-4-toluenephosphino)-1,1′-binaphthyl				
	$\Delta_{fus}H$		41.98	528.3		[1997ZHA/GAO]
$C_{48}H_{90}$	[66576-04-3]	dotetracontylbenzene				
	$\Delta_v H$	(552–846)	144.9	567		[1999DYK/SVO]
$C_{48}H_{96}$	[66576-05-4]	dotetracontylcyclohexane				
	$\Delta_v H$	(552–847)	143.9	567		[1999DYK/SVO]
$C_{48}H_{96}$	[66576-06-5]	1-octatetracontene				
	$\Delta_v H$	(549–838)	145.4	564		[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{48}H_{98}$	[7098-26-2]	octatetracontane				
	$\Delta_v H$	(323–523)	243.0 ± 0.2	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(595–843)	145.9	610	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{48}H_{98}$	[66576-07-6]	2-methylheptatetracontane				
	$\Delta_v H$	(550–836)	146.5	565		[1999DYK/SVO]
$C_{48}H_{98}S$	[66576-08-7]	1-octatetracontanethiol				
	$\Delta_v H$	(564–856)	148.7	579	E	[1999DYK/SVO]
$C_{49}H_{92}$	[66576-09-8]	tritetracontylbenzene				
	$\Delta_v H$	(556–851)	145.9	571		[1999DYK/SVO]
$C_{49}H_{94}O_6$	[na]	(*dl*) 1-palmitic-2-lauryl-3-stearic glycerol				
	$\Delta_v H$	(506–567)	160	521	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{49}H_{98}$	[66576-19-1]	1-nonatetracontene				
	$\Delta_v H$	(553–843)	146.4	568		[1999DYK/SVO]
$C_{49}H_{98}$	[66576-11-2]	tritetracontylcyclohexane				
	$\Delta_v H$	(556–852)	144.9	571		[1999DYK/SVO]
$C_{49}H_{100}$	[7098-27-3]	nonatetracontane				
	$\Delta_v H$	(599–847)	147.5	614	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{49}H_{100}$	[66576-12-3]	2-methyloctatetracontane				
	$\Delta_v H$	(553–840)	147.9	568		[1999DYK/SVO]
$C_{49}H_{100}S$	[66576-13-4]	1-nonatetracontanethiol				
	$\Delta_v H$	(567–861)	149.7	582	E	[1999DYK/SVO]
$C_{50}H_{94}$	[66576-14-5]	tetratetracontylbenzene				
	$\Delta_v H$	(559–856)	147.1	574		[1999DYK/SVO]
$C_{50}H_{100}$	[63911-02-4]	1-pentacontene				
	$\Delta_v H$	(556–848)	147.8	571		[1999DYK/SVO]
$C_{50}H_{100}$	[66576-15-6]	tetratetracontylcyclohexane				
	$\Delta_v H$	(559–856)	146.2	574		[1999DYK/SVO]
$C_{50}H_{102}$	[6596-40-3]	pentacontane				
	$\Delta_{fus}H$		185	366.9		[1995HAM/MEH]
	$\Delta_v H$	(323–523)	252.5 ± 0.2	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(603–852)	149	618	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{50}H_{102}$	[66576-16-7]	2-methylnonatetracontane				
	$\Delta_v H$	(557–845)	148.8	572		[1999DYK/SVO]
$C_{50}H_{102}S$	[66576-17-8]	1-pentacontanethiol				
	$\Delta_v H$	(570–865)	150.7	585	E	[1999DYK/SVO]
$C_{51}H_{69}N_3$	[500362-48-1]	4-dodecylphenyl-[6-(4-dodecylphenyl)methyl-9-methyl-9*H*-carbazol-3-yl-methylene)]amine				
	$\Delta_{fus}H$		34.5	412.2	DSC	[2002BEL/MAN]
$C_{51}H_{96}$	[66576-18-9]	pentatetracontylbenzene				
	$\Delta_v H$	(562–860)	148.3	577		[1999DYK/SVO]
$C_{51}H_{98}O_6$	[60138-20-7]	1-myristic-2-palmitic-3-stearic glycerol				
	$\Delta_v H$	(508–572)	157.9	523	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{51}H_{98}O_6$	[555-44-2]	glycerol tripalmitate (tripalmitin)				
	$\Delta_{fus}H$		162.6	340.5	DSC	[2010HON/HUA]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		121	337.4	DSC	[2006LI/ROD]
	$\Delta_{fus}H$ (β)		177.2	339	DSC	[1999VAN/TEN]
	$\Delta_{fus}H$		179.37	338.9		[1996DOM/HEA]
	$\Delta_{v}H$		U 474.3		TGA	[2002GOO/GEL]
	$\Delta_{v}H$		166.3	483	TGA	[1990KIS/SHO]
	$\Delta_{v}H$		217.1 ± 7.6	298	TGA	[1990KIS/SHO]
	$\Delta_{v}H$	(506–572)	160.8	521	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{51}H_{100}ClN_5$	[106486-51-5]	2,4-*bis* N,N-didodecylamino-6-chloro-1,3,5-triazine				
	$\Delta_{fus}H$		34.25	307.5		[1986LAT/HOE]
$C_{51}H_{102}$	[na]	1-henpentacontene				
	$\Delta_{v}H$	(560–852)	148.6	575		[1999DYK/SVO]
$C_{51}H_{102}$	[66576-20-3]	pentatetracontylcyclohexane				
	$\Delta_{v}H$	(562–861)	147.4	577		[1999DYK/SVO]
$C_{51}H_{102}N_6$	[38565-86-5]	*tris* N,N-dioctylamino-1,3,5-triazine				
	$\Delta_{fus}H$		74.25	312.7		[1986LAT/HOE]
$C_{51}H_{104}$	[7667-76-7]	henpentacontane				
	$\Delta_{trs}H$		1.75	337		
	$\Delta_{trs}H$		5.3	343		
	$\Delta_{fus}H$		170.4	365.6		[1992SRC/KER]
	$\Delta_{v}H$	(607–857)	150.6	622	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{51}H_{104}$	[66575-81-3]	2-methylpentacontane				
	$\Delta_{v}H$	(560–850)	150	575		[1999DYK/SVO]
$C_{51}H_{104}S$	[66575-82-4]	1-henpentacontanethiol				
	$\Delta_{v}H$	(573–869)	151.6	588	E	[1999DYK/SVO]
$C_{52}H_{34}O_2$	[3432-73-3]	1,4-*bis*(2,4,5-triphenylcyclopentadienone-3-yl)benzene				
	$\Delta_{fus}H$	(300–650)	68.8	594.4		[2005SMI/KUL]
$C_{52}H_{98}$	[66575-84-6]	hexatetracontylbenzene				
	$\Delta_{v}H$	(566–864)	149.1	581		[1999DYK/SVO]
$C_{52}H_{104}$	[66575-85-7]	1-dopentacontene				
	$\Delta_{v}H$	(563–857)	149.8	578		[1999DYK/SVO]
$C_{52}H_{104}$	[66575-86-8]	hexatetracontylcyclohexane				
	$\Delta_{v}H$	(565–865)	148.5	580		[1999DYK/SVO]
$C_{52}H_{106}$	[7719-79-1]	dopentacontane				
	$\Delta_{trs}H$		17.1	352		
	$\Delta_{fus}H$		171.8	366.7		[1992SRC/KER]
	$\Delta_{v}H$	(323–523)	261.8 ± 1.5	298	CGC	[2008CHI/WAN]
	$\Delta_{v}H$	(611–861)	152	626	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{52}H_{106}$	[66575-87-9]	2-methylhenpentacontane				
	$\Delta_{v}H$	(563–854)	151.2	578		[1999DYK/SVO]
$C_{52}H_{106}O_{26}$	[na]	1,ω-dimethoxypentacosa(oxyethylene)				
	$\Delta_{fus}H$		209.7	316.2	DSC	[1996YAN/YU]
$C_{52}H_{106}S$	[66575-88-0]	1-dopentacontanethiol				
	$\Delta_{v}H$	(575–873)	152.6	590	E	[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{53}H_{98}O_6$	[na]	1,3-*bis*-hexadecanoyloxy-2-(9-*cis*-octadecenoyloxy)propane				
	$\Delta_{fus}H$		149.7	311.4		[1984PER, 1978TIM]
$C_{53}H_{100}$	[66575-89-1]	heptatetracontylbenzene				
	Δ_vH	(569–868)	150.1	584		[1999DYK/SVO]
$C_{53}H_{106}$	[66563-49-3]	heptatetracontylcyclohexane				
	Δ_vH	(568–869)	149.6	583		[1999DYK/SVO]
$C_{53}H_{106}$	[66577-50-2]	1-tripentacontene				
	Δ_vH	(566–861)	150.9	581		[1999DYK/SVO]
$C_{53}H_{108}$	[7719-80-4]	tripentacontane				
	Δ_vH	(615–866)	153.4	630	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{53}H_{108}$	[66575-90-4]	2-methyldopentacontane				
	Δ_vH	(566–858)	152.3	581		[1999DYK/SVO]
$C_{53}H_{108}S$	[66575-91-5]	1-tripentacontanethiol				
	Δ_vH	(578–877)	153.7	593	E	[1999DYK/SVO]
$C_{54}H_{102}$	[66575-92-6]	octatetracontylbenzene				
	Δ_vH	(572–873)	151.1	587		[1999DYK/SVO]
$C_{54}H_{108}$	[66575-93-7]	octatetracontylcyclohexane				
	Δ_vH	(571–873)	150.6	586		[1999DYK/SVO]
$C_{54}H_{108}$	[66575-94-8]	1-tetrapentacontene				
	Δ_vH	(569–865)	151.9	584		[1999DYK/SVO]
$C_{54}H_{108}O_{27}$	[182292-69-9]	81-crown-27				
	$\Delta_{fus}H$		155.6	314.2	DSC	[1996YAN/YU]
$C_{54}H_{110}$	[5856-66-6]	tetrapentacontane				
	$\Delta_{trs}H$		39	344.9		
	$\Delta_{fus}H$		177.2	368		[2003BRI/BOU]
	Δ_vH	(323–523)	271.0 ± 1.7	298	CGC	[2008CHI/WAN]
	Δ_vH	(618–870)	155	633	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{54}H_{110}$	[66575-95-9]	2-methyltripentacontane				
	Δ_vH	(569–863)	153.4	584		[1999DYK/SVO]
$C_{54}H_{110}S$	[66575-96-0]	1-tetrapentacontanethiol				
	Δ_vH	(581–881)	154.4	596	E	[1999DYK/SVO]
$C_{55}H_{102}O_6$	[na]	2-hexadecanoyloxy-1,3-*bis*-(9-*cis*-octadecenoyloxy)propane				
	$\Delta_{fus}H$		125.5	291.9		[1984PER, 1978TIM]
$C_{55}H_{104}$	[66575-98-2]	nontetracontylbenzene				
	Δ_vH	(575–877)	152.1	590		[1999DYK/SVO]
$C_{55}H_{110}$	[66575-99-3]	nonatetracontylcyclohexane				
	Δ_vH	(574–877)	151.6	589		[1999DYK/SVO]
$C_{55}H_{110}$	[66576-00-9]	1-pentapentacontene				
	Δ_vH	(572–869)	152.9	587		[1999DYK/SVO]
$C_{55}H_{112}$	[5846-40-2]	pentapentacontane				
	Δ_vH	(622–874)	156.3	637	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{55}H_{112}$	[66575-60-8]	2-methyltetrapentacontane				
	Δ_vH	(572–867)	154.3	587		[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{55}H_{112}S$	[66575-61-9]	1-pentapentacontanethiol				
	$\Delta_v H$	(584–885)	155	599	E	[1999DYK/SVO]
$C_{56}H_{48}O_{32}S_8$	[137407-62-6]	4-sulfonato-calix[8]arene				
	$\Delta_{fus}H$		350.6	543.1		[2005YAN/MAN]
$C_{56}H_{78}O_8$	[122356-76-7]	2,23,28,38-tetrakis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,18,19-decahydro-32,35-dimethoxy-31*H*-4,21-(methano[1,3]benzenomethano)-26,30-metheno-25*H*-dibenzo[q,z][1,4,7,10,13,16]hexaoxacycloheptacosin				
	$\Delta_{sub}H$		78 ± 1			[2008SUR]
$C_{56}H_{106}$	[66575-62-0]	pentacontylbenzene				
	$\Delta_v H$	(577–880)	153.2	592		[1999DYK/SVO]
$C_{56}H_{108}$	[66575-63-1]	1-hexapentacontene				
	$\Delta_v H$	(575–873)	154.5	588		[1999DYK/SVO]
$C_{56}H_{108}$	[66575-64-2]	pentacontylcyclohexane				
	$\Delta_v H$	(577–881)	152.4	592		[1999DYK/SVO]
$C_{56}H_{114}$	[7719-82-6]	hexapentacontane				
	$\Delta_v H$	(323–523)	279.7 ± 1.5	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(625–878)	157.8	640	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{56}H_{114}$	[66575-65-3]	2-methylpentapentacontane				
	$\Delta_v H$	(575–871)	155.9	588		[1999DYK/SVO]
$C_{56}H_{114}O_{28}$	[na]	1,ω-dimethoxyheptacosa(oxyethylene)				
	$\Delta_{fus}H$		224.6	315.2	DSC	[1996YAN/YU]
$C_{56}H_{114}S$	[66575-66-4]	1-hexapentacontanethiol				
	$\Delta_v H$	(586–888)	156	601	E	[1999DYK/SVO]
$C_{57}H_{54}N_6O_6$	[130048-22-5]	1,3,5-*tris*-(4-*n*-butyl-4′-diazophenyl)benzenetricarboxylate				
	$\Delta_{fus}H$		11.3	443.2	DSC	[1990JIN/KAN]
$C_{57}H_{104}O_6$	[537-39-3]	1,2,3-tri(*trans*-9-octadecenoyl)glycerol (trielaidin)				
	$\Delta_{fus}H$ *(I)*		157.07	314.8	DSC	
	$\Delta_{fus}H$ *(II)*		84.2	288	DSC	[2003VAN/VAN2]
$C_{57}H_{108}$	[66575-67-5]	henpentacontylbenzene				
	$\Delta_v H$	(580–884)	154.1	595		[1999DYK/SVO]
$C_{57}H_{108}O_6$	[2846-04-0]	1,3-distearic-2-oleic glycerol				
	$\Delta_v H$	(523–593)	165.8	538	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{57}H_{108}O_6$	[555-43-1]	glycerol tristearate				
	$\Delta_{fus}H$		203.26	345.7		[1996DOM/HEA]
	$\Delta_v H$		220.8		TGA	[2002GOO/GEL]
	$\Delta_v H$	(521–588)	167.5	536	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{57}H_{110}O_6$	[555-43-1]	tristearin				
	$\Delta_{fus}H$ (α)		115.4	328.1		
	$\Delta_{fus}H$ (β')		144.8	338.5		
	$\Delta_{fus}H$ (β)		293.5	345.6		[2009DAS/BRE]
	$\Delta_{fus}H$ *(I)*	(10–370)	197.6	345.9	AC	
	$\Delta_{fus}H$ *(I)*		195.8	346	DSC	
	$\Delta_{fus}H$ *(II)*	(10–370)	129.1	327.3	AC	
	$\Delta_{fus}H$ *(II)*		114.1	327.3	DSC	[2005MAT/VAN]
	$\Delta_v H$		174.9	506	TGA	[1990KIS/SHO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		236.2 ± 8.3	298	TGA	[1990KIS/SHO]
$C_{57}H_{114}$	[66575-68-6]	henpentacontylcyclohexane				
	$\Delta_v H$	(580–885)	153.3	595		[1999DYK/SVO]
$C_{57}H_{114}$	[66575-69-7]	1-heptapentacontene				
	$\Delta_v H$	(578–877)	154.6	593		[1999DYK/SVO]
$C_{57}H_{116}$	[5856-67-7]	heptapentacontane				
	$\Delta_v H$	(629–882)	158.9	644	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{57}H_{116}$	[66575-70-0]	2-methylhexapentacontane				
	$\Delta_v H$	(578–875)	155.9	593		[1999DYK/SVO]
$C_{57}H_{116}S$	[66575-75-1]	1-heptapentacontanethiol				
	$\Delta_v H$	(589–892)	156.7	604	E	[1999DYK/SVO]
$C_{58}H_{110}$	[66575-73-3]	dopentacontylbenzene				
	$\Delta_v H$	(583–888)	155.7	598		[1999DYK/SVO]
$C_{58}H_{116}$	[66575-74-4]	dopentacontylcyclohexane				
	$\Delta_v H$	(582–888)	154.3	597		[1999DYK/SVO]
$C_{58}H_{116}$	[66575-75-5]	1-octapentacontene				
	$\Delta_v H$	(580–881)	155.8	595		[1999DYK/SVO]
$C_{58}H_{118}$	[7667-78-9]	octapentacontane				
	$\Delta_v H$	(323–523)	288.5 ± 1.8	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(632–886)	160.3	647	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{58}H_{118}$	[66575-76-6]	2-methylheptapentacontane				
	$\Delta_v H$	(581–879)	156.8	596		[1999DYK/SVO]
$C_{58}H_{118}S$	[66575-77-7]	1-octapentacontanethiol				
	$\Delta_v H$	(591–895)	157.4	606	E	[1999DYK/SVO]
$C_{59}H_{85}N_3$	[500362-49-2]	4-hexadecylphenyl-[6-(4-hexadecylphenyl)methyl-9-methyl-9*H*-carbazol-3-yl-methylene)]amine				
	$\Delta_{fus}H$		52.1	405.2	DSC	[2002BEL/MAN]
$C_{59}H_{90}O_4$	[303-98-0]	2-[(2E,6E,10E,14E,18E,22E,26E,30E,34E)-3,7,11,15,19,23,27,31,-35,39-decamethyl-2,6,10,14,18,22,26,30,34,38-tetracontadecaen-1-yl]-5,6-dimethoxy-3-methyl-2,5-cyclohexadiene-1,4-dione (Ubidecarenone)				
	$\Delta_{fus}H$		82	322.5	DSC	[2006LI/ROD]
$C_{59}H_{112}$	[66575-78-8]	tripentacontylbenzene				
	$\Delta_v H$	(585–891)	155.9	600		[1999DYK/SVO]
$C_{59}H_{118}$	[66575-80-2]	tripentacontylcyclohexane				
	$\Delta_v H$	(585–892)	155	600		[1999DYK/SVO]
$C_{59}H_{118}$	[66575-79-9]	1-nonapentacontene				
	$\Delta_v H$	(583–885)	156.4	598		[1999DYK/SVO]
$C_{59}H_{120}$	[7667-70-0]	nonapentacontane				
	$\Delta_v H$	(635–890)	161.8	650	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{59}H_{120}$	[66575-49-3]	2-methyloctapentacontane				
	$\Delta_v H$	(583–882)	157.9	598		[1999DYK/SVO]
$C_{59}H_{120}S$	[66575-50-6]	1-nonapentacontanethiol				
	$\Delta_v H$	(593–899)	158.3	608	E	[1999DYK/SVO]
C_{60}	[99685-96-8]	buckminsterfullerene				
	$\Delta_{trs}H$		9.0	261.4	DSC	[1993DEB/DWO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(775–1033)	180 ± 2	298	ME	[2000SCH/MAT]
	$\Delta_{sub}H$	(789–907)	152.8 ± 0.1	897	GS	[1998PAN/MAL]
	$\Delta_{sub}H$		183.5 ± 1.0	298		[1998PAN/MAL]
	$\Delta_{sub}H$		179.2 ± 3.5	298		[1996GON/SUN, 1998PAN/MAL]
	$\Delta_{sub}H$	(730–990)	175.2 ± 2.9	860	ME,TE	[1995RIA/GIG]
	$\Delta_{sub}H$		181 ± 2.0	298	ME,TE	[1995RIA/GIG]
	$\Delta_{sub}H$		219.6		TGA	[1995YAS/TAK]
	$\Delta_{sub}H$	(546–722)	180 ± 10.0	634	UV	[94DAI/MAC]
	$\Delta_{sub}H$		158 ± 3.0	700	ME	[1994POP/DRA]
	$\Delta_{sub}H$		168.5 ± 1.2	298	ME	[1994POP/DRA, 1998PAN/MAL]
	$\Delta_{sub}H$		181.1 ± 2.6	298	ME	[1994KOR/SID, 1998PAN/MAL]
	$\Delta_{sub}H$		181.4 ± 2.3	700	MS	[1994SAI/LAK, 1992MAT/SAI]
	$\Delta_{sub}H$		158.6	773	ME	[1993MAT/SAI]
	$\Delta_{sub}H$		184.1 ± 3.1	298	GS	[1992PAN/CHA, 1998PAN/MAL]
	$\Delta_{sub}H$		183.2 ± 3.5	298	ME	[1992MAT/SAI, 1998PAN/MAL]
	$\Delta_{sub}H$		180.6 ± 1.5	298	ME	[1992ABR/OLA, 1998PAN/MAL]
	$\Delta_{sub}H$	(673–873)	159.0 ± 4.2		ME	[1992ABR/OLA2]
	$\Delta_{sub}H$		>163 (powder)		TGA	[1992CHE/KOR]
	$\Delta_{sub}H$	(640–800)	167.8 ± 5.4	707	ME,MS	[1991PAN/SAM]
	$\Delta_{sub}H$		U 138.5	600		[1991TOK/HAY]
	$\Delta_{sub}H$		U 90.0		ME,MS	[1990HAU/CON]
$C_{60}F_{16}$	[na]	hexadecafluorobuckminsterfullerene				
	$\Delta_{sub}H$		186 ± 9		ME,MS	[2000MAR/BOL]
$C_{60}F_{18}$	[172760-25-7]	octadecafluorobuckminsterfullerene				
	$\Delta_{sub}H$	(591–671)	197 ± 10	627	ME	[2002MAR/BOL]
$C_{60}F_{36}$	[na]	hexatriacontylfluorobuckminsterfullerene (4 isomer average)				
	$\Delta_{sub}H$	(422–525)	134 ± 6	473	MS	[1996BOL/MER]
$C_{60}F_{36}$	[150180-35-1]	hexatriacontylfluorobuckminsterfullerene				
	$\Delta_{sub}H$		139 ± 8			[2000PAP/KOL]
	$\Delta_{sub}H$	(408–539)	135 ± 8.0	466	ME,MS	[1999BOL/MAR]
$C_{60}F_{42}$	[na]	dotetracontylfluorobuckminsterfullerene				
	$\Delta_{sub}H$	(430–510)	110 ± 10		ME,MS	[2000EME/NIK]
$C_{60}F_{44}$	[na]	tetratetracontylfluorobuckminsterfullerene				
	$\Delta_{sub}H$	(430–510)	112 ± 6		ME,MS	[2000EME/NIK]
$C_{60}F_{44}O$	[na]	tetratetracontafluorotetratetracontahydro-[5,6]fullereno-C60-Ih-oxirene				
	$\Delta_{sub}H$	(430–510)	111 ± 3		ME,MS	[2000EME/NIK]
$C_{60}F_{46}$	[na]	hexatetracontylfluorobuckminsterfullerene				
	$\Delta_{sub}H$	(430–510)	114 ± 7		ME,MS	[2000EME/NIK]
$C_{60}F_{48}$	[143471-98-1]	octatetracontylfluorobuckminsterfullerene				
	$\Delta_{sub}H$	(395–528)	109 ± 7.0	476	ME,MS	[1999BOL/MAR, 2000BOL/GAL]
$C_{60}F_{48}$	[na]	fluorinated fullerene				
	$\Delta_{trs}H$		7	21.24		
	$\Delta_{fus}H$		NA			[1999DRU/GAL]
$C_{60}H_{16}$	[na]	hexadecahydrobuckminsterfullerene				
	$\Delta_{sub}H$		⩾186		E	[2000KOR/DOR, 2001DOR/LOB]
$C_{60}H_{36}$	[na]	hexatriacontylhydrobuckminsterfullerene				
	$\Delta_{sub}H$	(560–680)	162 ± 5		MS	[2000KOR/DOR, 2001DOR/LOB]
	$\Delta_{sub}H$		152	630		[2001DOR/LOB]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		175	298		[2001DOR/LOB]
$C_{60}H_{114}$	[66575-51-7] tetrapentacontylbenzene					
	Δ_vH	(588–895)	156.6	603		[1999DYK/SVO]
$C_{60}H_{120}$	[66575-52-8] 1-hexacontene					
	Δ_vH	(586–888)	157.1	601		[1999DYK/SVO]
$C_{60}H_{120}$	[66575-53-9] tetrapentacontylcyclohexane					
	Δ_vH	(587–895)	156	602		[1999DYK/SVO]
$C_{60}H_{122}$	[7667-80-3] hexacontane					
	$\Delta_{fus}H$		186.8	373.2	DSC	[1992LOU/ROU]
	Δ_vH	(323–523)	299.9 ± 2.0	298	CGC	[2008CHI/WAN]
	Δ_vH	(638–893)	163	653	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{60}H_{122}$	[66575-54-0] 2-methylnonapentacontane					
	Δ_vH	(586–886)	158.5	601		[1999DYK/SVO]
$C_{60}H_{122}S$	[66575-55-1] 1-hexacontanethiol					
	Δ_vH	(595–902)	159.1	610	E	[1999DYK/SVO]
$C_{61}H_{116}$	[66563-50-6] pentapentacontylbenzene					
	Δ_vH	(590–898)	157.5	605		[1999DYK/SVO]
$C_{61}H_{122}$	[66563-51-7] 1-henhexacontene					
	Δ_vH	(588–891)	158	603		[1999DYK/SVO]
$C_{61}H_{122}$	[66563-52-8] pentapentacontylcyclohexane					
	Δ_vH	(590–899)	156.6	605		[1999DYK/SVO]
$C_{61}H_{124}$	[7667-81-4] henhexacontane					
	Δ_vH	(642–897)	163.9	657	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{61}H_{124}$	[66563-53-9] 2-methylhexacontane					
	Δ_vH	(588–889)	159.4	603		[1999DYK/SVO]
$C_{61}H_{124}S$	[66563-54-0] 1-henhexacontanethiol					
	Δ_vH	(597–905)	159.6	612	E	[1999DYK/SVO]
$C_{62}H_{118}$	[66563-55-1] hexapentacontylbenzene					
	Δ_vH	(592–902)	158.4	607		[1999DYK/SVO]
$C_{62}H_{124}$	[66563-56-2] 1-dohexacontene					
	Δ_vH	(590–895)	158.6	605		[1999DYK/SVO]
$C_{62}H_{124}$	[66563-57-3] hexapentacontylcyclohexane					
	Δ_vH	(592–902)	157.5	607		[1999DYK/SVO]
$C_{62}H_{126}$	[7719-83-7] dohexacontane					
	Δ_vH	(323–523)	306.8 ± 0.1	298	CGC	[2008CHI/WAN]
	Δ_vH	(645–901)	165.2	660	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{62}H_{126}$	[66563-58-4] 2-methylhenhexacontane					
	Δ_vH	(590–892)	160.1	605		[1999DYK/SVO]
$C_{62}H_{122}S$	[66563-59-5] 1-dohexacontanethiol					
	Δ_vH	(599–908)	160.1	614	E	[1999DYK/SVO]
$C_{63}H_{120}$	[66563-60-8] heptapentacontylbenzene					
	Δ_vH	(595–905)	158.9	610		[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{63}H_{126}$	[66563-61-9]	heptapentacontylcyclohexane				
	$\Delta_v H$	(594–905)	158.2	609		[1999DYK/SVO]
$C_{63}H_{126}$	[66563-62-0]	1-trihexacontene				
	$\Delta_v H$	(593–899)	159.8	608		[1999DYK/SVO]
$C_{63}H_{126}N_6$	[106486-49-1]	*tris* N,N-didecylamino-1,3,5-triazine				
	$\Delta_{fus}H$		87.68	314.4		[1986LAT/HOE]
$C_{63}H_{128}$	[7719-84-8]	trihexacontane				
	$\Delta_v H$	(647–904)	116.7	662	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{63}H_{128}$	[66563-63-1]	2-methyldohexacontane				
	$\Delta_v H$	(593–897)	161.3	608		[1999DYK/SVO]
$C_{63}H_{128}S$	[66563-64-2]	1-trihexacontanethiol				
	$\Delta_v H$	(602–911)	161.1	617	E	[1999DYK/SVO]
$C_{64}H_{122}$	[66563-65-3]	octapentacontylbenzene				
	$\Delta_v H$	(597–908)	159.5	612		[1999DYK/SVO]
$C_{64}H_{128}$	[66563-66-4]	octapentacontylcyclohexane				
	$\Delta_v H$	(596–908)	158.8	611		[1999DYK/SVO]
$C_{64}H_{128}$	[66563-36-8]	1-tetrahexacontene				
	$\Delta_v H$	(595–902)	160.5	610		[1999DYK/SVO]
$C_{64}H_{130}$	[7719-87-1]	tetrahexacontane				
	$\Delta_v H$	(323–523)	315.4 ± 0.4	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(650–907)	168.3	665	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{64}H_{130}$	[66563-37-9]	2-methyltrihexacontane				
	$\Delta_v H$	(595–900)	161.9	610		[1999DYK/SVO]
$C_{64}H_{130}S$	[66563-38-0]	1-tetrahexacontanethiol				
	$\Delta_v H$	(604–914)	161.6	619	E	[1999DYK/SVO]
$C_{65}H_{124}$	[66563-39-1]	nonapentacontylbenzene				
	$\Delta_v H$	(599–911)	160.1	614		[1999DYK/SVO]
$C_{65}H_{130}$	[66563-40-4]	nonapentacontylcyclohexane				
	$\Delta_v H$	(599–912)	159.9	614		[1999DYK/SVO]
$C_{65}H_{130}$	[66563-41-5]	1-pentahexacontene				
	$\Delta_v H$	(597–905)	161.1	612		[1999DYK/SVO]
$C_{65}H_{132}$	[7719-88-2]	pentahexacontane				
	$\Delta_v H$	(653–910)	169	668	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{65}H_{132}$	[66563-42-6]	2-methyltetrahexacontane				
	$\Delta_v H$	(597–903)	162.5	612		[1999DYK/SVO]
$C_{65}H_{132}S$	[66563-43-7]	1-pentahexacontanethiol				
	$\Delta_v H$	(606–917)	162.1	621	E	[1999DYK/SVO]
$C_{66}H_{80}O_{10}$	[na]	1,3-*bis*[4-(4-tetradecyloxybenxoyloxy)benxoyloxy]naphthalene				
	$\Delta_{fus}H$		73.8	401.1	DSC	[2009GIM/CLE]
$C_{66}H_{80}O_{10}$	[na]	1,7-*bis*[4-(4-tetradecyloxybenxoyloxy)benxoyloxy]naphthalene				
	$\Delta_{trs}H$		15.4	418.2		
	$\Delta_{fus}H$		54	428.4	DSC	[2009GIM/CLE]
$C_{66}H_{109}NO_4$	[425406-55-9]	2,7-didodecyloxy-9-(3,5-didodecyloxyphenyl)carbazole				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		61.87	333.2	DSC	[2002PER/LOP]
$C_{66}H_{126}$	[66563-44-8]	hexacontylbenzene				
	Δ_vH	(602–914)	161.2	617		[1999DYK/SVO]
$C_{66}H_{132}$	[66563-45-9]	hexacontylcyclohexane				
	Δ_vH	(601–915)	160.5	616		[1999DYK/SVO]
$C_{66}H_{132}$	[66563-46-0]	1-hexahexacontene				
	Δ_vH	(599–908)	161.7	614		[1999DYK/SVO]
$C_{66}H_{134}$	[7719-89-3]	hexahexacontane				
	Δ_vH	(323–523)	324.0 ± 1.0	298	CGC	[2008CHI/WAN]
	Δ_vH	(656–914)	170	671	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{66}H_{134}$	[66563-47-1]	2-methylpentahexacontane				
	Δ_vH	(599–906)	163.1	614		[1999DYK/SVO]
$C_{66}H_{134}S$	[66563-48-2]	1-hexahexacontanethiol				
	Δ_vH	(607–920)	162.8	622	E	[1999DYK/SVO]
$C_{67}H_{128}$	[66563-72-2]	henhexacontylbenzene				
	Δ_vH	(603–917)	162.1	618		[1999DYK/SVO]
$C_{67}H_{134}$	[66563-73-3]	henhexacontylcyclohexane				
	Δ_vH	(603–917)	160.9	618		[1999DYK/SVO]
$C_{67}H_{134}$	[66563-74-4]	1-heptahexacontene				
	Δ_vH	(601–911)	162.3	616		[1999DYK/SVO]
$C_{67}H_{136}$	[7719-90-6]	heptahexacontane				
	Δ_vH	(659–937)	170.9	674	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{67}H_{136}$	[66563-75-5]	2-methylhexahexacontane				
	Δ_vH	(601–909)	163.7	616		[1999DYK/SVO]
$C_{67}H_{136}S$	[66563-76-6]	1-heptahexacontanethiol				
	Δ_vH	(609–922)	163.2	624	E	[1999DYK/SVO]
$C_{68}H_{130}$	[66563-75-5]	dohexacontylbenzene				
	Δ_vH	(605–920)	162.6	620		[1999DYK/SVO]
$C_{68}H_{136}$	[66563-78-8]	dohexacontylcyclohexane				
	Δ_vH	(605–920)	161.5	620		[1999DYK/SVO]
$C_{68}H_{136}$	[66563-79-9]	1-octahexacontene				
	Δ_vH	(603–913)	162.8	618		[1999DYK/SVO]
$C_{68}H_{138}$	[7719-91-7]	octahexacontane				
	Δ_vH	(323–523)	331.9 ± 0.2	298	CGC	[2008CHI/WAN]
	Δ_vH	(661–920)	172.3	676	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{68}H_{138}$	[66563-80-2]	2-methylheptahexacontane				
	Δ_vH	(603–912)	164.3	618		[1999DYK/SVO]
$C_{68}H_{138}S$	[66563-81-3]	1-octahexacontanethiol				
	Δ_vH	(611–925)	163.6	626	E	[1999DYK/SVO]
$C_{69}H_{132}$	[66563-82-4]	trihexacontylbenzene				
	Δ_vH	(607–923)	163.1	622		[1999DYK/SVO]
$C_{69}H_{138}$	[66563-83-5]	1-nonhexacontene				
	Δ_vH	(605–916)	163.4	620		[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{69}H_{138}$	[66563-93-7]	trihexacontylcyclohexane				
	$\Delta_v H$	(607–923)	162	622		[1999DYK/SVO]
$C_{69}H_{140}$	[7719-92-8]	nonahexacontane				
	$\Delta_v H$	(664–923)	173.2	679	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{69}H_{140}$	[66563-94-8]	2-methyloctahexacontane				
	$\Delta_v H$	(605–914)	164.9	620		[1999DYK/SVO]
$C_{69}H_{140}S$	[66577-83-1]	1-nonahexacontanethiol				
	$\Delta_v H$	(612–928)	164.4	627	E	[1999DYK/SVO]
C_{70}	[115383-22-7]	fullerene - C70				
	$\Delta_{sub}H$	(864–1099)	199 ± 2	298	ME	[2000SCH/MAT]
	$\Delta_{sub}H$	(783–904)	189.8 ± 3.1	844	ME	[1996PIA/GIG]
	$\Delta_{sub}H$		200 ± 6.0	298		[1996PIA/GIG]
	$\Delta_{sub}H$		174 ± 3.0	740	ME	[1994POP/DRA]
	$\Delta_{sub}H$		193.4 ± 1.5	750	MS	[1994SAI/LAK]
	$\Delta_{sub}H$		186.6	788	ME	[1993MAT/SAI]
	$\Delta_{sub}H$	(673–873)	188.3 ± 4.2		ME	[1992ABR/OLA2]
	$\Delta_{sub}H$	(640–800)	180.0 ± 9.2	739	ME,MS	[1991PAN/SAM]
$C_{70}H_{134}$	[66577-84-2]	tetrahexacontylbenzene				
	$\Delta_v H$	(609–925)	163.6	624		[1999DYK/SVO]
$C_{70}H_{140}$	[66577-85-3]	1-heptacontene				
	$\Delta_v H$	(607–919)	163.9	622		[1999DYK/SVO]
$C_{70}H_{140}$	[66577-86-4]	tetrahexacontylcyclohexane				
	$\Delta_v H$	(608–926)	162.8	623		[1999DYK/SVO]
$C_{70}H_{142}$	[7719-93-9]	heptacontane				
	$\Delta_v H$	(323–523)	340.3 ± 0.3	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(666–926)	174.4	681	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{70}H_{142}$	[66577-87-5]	2-methylnonahexacontane				
	$\Delta_v H$	(607–917)	165.4	622		[1999DYK/SVO]
$C_{70}H_{142}S$	[66577-88-6]	1-heptacontanethiol				
	$\Delta_v H$	(614–930)	164.8	621	E	[1999DYK/SVO]
$C_{71}H_{136}$	[66577-89-7]	pentahexacontylbenzene				
	$\Delta_v H$	(611–928)	164.4	626		[1999DYK/SVO]
$C_{71}H_{142}$	[66577-90-0]	1-henheptacontene				
	$\Delta_v H$	(609–922)	164.4	624		[1999DYK/SVO]
$C_{71}H_{142}$	[66577-91-1]	pentahexacontylcyclohexane				
	$\Delta_v H$	(610–928)	163.3	625		[1999DYK/SVO]
$C_{71}H_{144}$	[7667-82-5]	henheptacontane				
	$\Delta_v H$	(669–928)	175.2	684	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{71}H_{144}$	[66577-92-2]	2-methylheptacontane				
	$\Delta_v H$	(609–920)	165.9	624		[1999DYK/SVO]
$C_{71}H_{144}S$	[66577-93-3]	1-henheptacontanethiol				
	$\Delta_v H$	(616–933)	165.1	631	E	[1999DYK/SVO]
$C_{72}H_{96}O_{48}$	[na]	*hexakis*(2,3,4-tri-O-acetyl)-α-cyclodextrin				
	$\Delta_{fus}H$		74.37	505.7		[2006BET/SOR]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{72}H_{138}$	[66577-94-4]	hexahexacontylbenzene				
	$\Delta_v H$	(613–931)	164.5	628		[1999DYK/SVO]
$C_{72}H_{144}$	[66577-95-5]	1-doheptacontene				
	$\Delta_v H$	(610–924)	165.3	625		[1999DYK/SVO]
$C_{72}H_{144}$	[66577-96-6]	hexahexacontylcyclohexane				
	$\Delta_v H$	(612–931)	163.8	627		[1999DYK/SVO]
$C_{72}H_{146}$	[7668-83-6]	doheptacontane				
	$\Delta_v H$	(323–523)	348.4 ± 0.3	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(671–931)	176.4	686	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{72}H_{146}$	[66577-97-7]	2-methylhenheptacontane				
	$\Delta_v H$	(611–923)	166.4	626		[1999DYK/SVO]
$C_{72}H_{146}S$	[66577-98-8]	1-doheptacontanethiol				
	$\Delta_v H$	(617–935)	165.8	632	E	[1999DYK/SVO]
$C_{73}H_{108}O_{12}$	[6683-19-8]	*tetrakis*[methylene-3-(3,5-di-*tert*-butyl-4-hydroxyphenylpropionate]methane				
	$\Delta_{fus}H$		65.95	385.8	DSC	[2009WEI/CHE]
$C_{73}H_{140}$	[66577-99-9]	heptahexacontylbenzene				
	$\Delta_v H$	(614–933)	165.4	629		[1999DYK/SVO]
$C_{73}H_{146}$	[66578-00-5]	heptahexacontylcyclohexane				
	$\Delta_v H$	(614–933)	164.2	629		[1999DYK/SVO]
$C_{73}H_{146}$	[66578-01-6]	1-triheptacontene				
	$\Delta_v H$	(612–927)	165.7	627		[1999DYK/SVO]
$C_{73}H_{148}$	[7667-84-7]	triheptacontane				
	$\Delta_v H$	(674–934)	177.1	689	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{73}H_{148}$	[66578-02-7]	2-methyldoheptacontane				
	$\Delta_v H$	(613–926)	166.9	628		[1999DYK/SVO]
$C_{73}H_{148}S$	[66577-64-8]	1-triheptacontanethiol				
	$\Delta_v H$	(619–938)	166.2	634	E	[1999DYK/SVO]
$C_{74}H_{142}$	[66577-65-9]	octahexacontylbenzene				
	$\Delta_v H$	(616–936)	165.8	631		[1999DYK/SVO]
$C_{74}H_{148}$	[66577-66-0]	octahexacontylcyclohexane				
	$\Delta_v H$	(615–936)	165	630		[1999DYK/SVO]
$C_{74}H_{148}$	[66577-67-1]	1-tetraheptacontene				
	$\Delta_v H$	(614–930)	166.2	629		[1999DYK/SVO]
$C_{74}H_{150}$	[7667-85-8]	tetraheptacontane				
	$\Delta_v H$	(323–523)	356.2 ± 0.1	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(676–936)	178.2	691	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{74}H_{150}$	[66577-68-2]	2-methyltriheptacontane				
	$\Delta_v H$	(615–928)	167.4	630		[1999DYK/SVO]
$C_{74}H_{150}S$	[66577-69-3]	1-tetraheptacontanethiol				
	$\Delta_v H$	(620–940)	166.9	635	E	[1999DYK/SVO]
$C_{75}H_{144}$	[66577-70-6]	nonahexacontylbenzene				
	$\Delta_v H$	(618–938)	166.3	633		[1999DYK/SVO]
$C_{75}H_{150}$	[66577-71-7]	nonahexacontylcyclohexane				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(617–632)	165.4	632		[1999DYK/SVO]
$C_{75}H_{150}$	[66577-72-8] 1-pentaheptacontene					
	$\Delta_v H$	(616–932)	166.7	631		[1999DYK/SVO]
$C_{75}H_{150}N_6$	[106486-50-4] *tris* N,N-didodecylamino-1,3,5-triazine					
	$\Delta_{fus}H$		119.19	320.3		[1986LAT/HOE]
$C_{75}H_{152}$	[7667-86-9] pentaheptacontane					
	$\Delta_v H$	(678–939)	179.4	693	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{75}H_{152}$	[66577-73-9] 2-methyltetraheptacontane					
	$\Delta_v H$	(616–931)	168.2	631		[1999DYK/SVO]
$C_{75}H_{152}S$	[66577-74-0] 1-pentaheptacontanethiol					
	$\Delta_v H$	(622–942)	167.2	637	E	[1999DYK/SVO]
C_{76}	[135113-15-4] fullerene - C76					
	$\Delta_{sub}H$	(637–911)	190 ± 7	764	ME	[1998BOL/MAR]
	$\Delta_{sub}H$	(834–1069)	206 ± 4.0	298	TE	[1997BRU/GIG]
$C_{76}H_{94}N_4$	[89372-90-7] 5,10,15,20-*tetrakis*(3,5-di-*tert*-butylphenyl)porphine					
	$\Delta_{sub}H$		209 ± 5			[2000PER/GOL]
$C_{76}H_{146}$	[66577-75-1] heptacontylbenzene					
	$\Delta_v H$	(619–941)	167	634		[1999DYK/SVO]
$C_{76}H_{152}$	[66577-76-2] heptacontylcyclohexane					
	$\Delta_v H$	(619–941)	165.8	634		[1999DYK/SVO]
$C_{76}H_{152}$	[66577-77-3] 1-hexaheptacontene					
	$\Delta_v H$	(617–935)	167.5	632		[1999DYK/SVO]
$C_{76}H_{154}$	[7667-87-0] hexaheptacontane					
	$\Delta_v H$	(323–523)	364.3 ± 0.3	298	CGC	[2008CHI/WAN]
	$\Delta_v H$	(680–941)	180.4	695	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{76}H_{154}$	[66577-78-4] 2-methylpentaheptacontane					
	$\Delta_v H$	(618–933)	168.7	633		[1999DYK/SVO]
$C_{76}H_{154}S$	[66577-79-5] 1-hexaheptacontanethiol					
	$\Delta_v H$	(623–945)	169.8	638		[1999DYK/SVO]
$C_{77}H_{148}$	[66577-80-8] henheptacontylbenzene					
	$\Delta_v H$	(621–943)	167.4	636		[1999DYK/SVO]
$C_{77}H_{154}$	[66577-81-9] henheptacontylcyclohexane					
	$\Delta_v H$	(620–943)	166.6	635		[1999DYK/SVO]
$C_{77}H_{154}$	[66577-82-0] 1-heptaheptacontene					
	$\Delta_v H$	(619–937)	167.9	634		[1999DYK/SVO]
$C_{77}H_{156}$	[7719-94-0] heptaheptacontane					
	$\Delta_v H$	(682–944)	181.4	697	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{77}H_{156}$	[66575-56-2] 2-methylhexaheptacontane					
	$\Delta_v H$	(620–936)	169.1	635		[1999DYK/SVO]
$C_{77}H_{156}S$	[66575-57-3] 1-heptaheptacontanethiol					
	$\Delta_v H$	(625–947)	168.2	640	E	[1999DYK/SVO]
$C_{78}H_{108}$	[125594-11-8] 2,3,6,7,10,11-*hexakis*(1-decynyl)triphenylene					
	$\Delta_{fus}H$		63	314.2	DSC	[1996DOM/HEA, 1990PRA/KOH]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{78}H_{150}$	[66327-30-8]	doheptacontylbenzene				
	$\Delta_v H$	(622–945)	167.3	637		[1999DYK/SVO]
$C_{78}H_{156}$	[66327-31-9]	doheptacontylcyclohexane				
	$\Delta_v H$	(622–945)	166.9	637		[1999DYK/SVO]
$C_{78}H_{156}$	[66327-32-0]	1-octaheptacontene				
	$\Delta_v H$	(621–940)	168.3	636		[1999DYK/SVO]
$C_{78}H_{158}$	[7719-85-9]	octaheptacontane				
	$\Delta_v H$	(638–691)	372.1 ± 3.7	298	CGC	[2008CHI/LIP]
	$\Delta_v H$	(685–946)	181.8	700	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{78}H_{158}$	[66327-33-1]	2-methylheptaheptacontane				
	$\Delta_v H$	(621–939)	169.9	636		[1999DYK/SVO]
$C_{78}H_{158}S$	[66375-13-1]	1-octaheptacontanethiol				
	$\Delta_v H$	(626–949)	168.8	641	E	[1999DYK/SVO]
$C_{79}H_{152}$	[66327-34-2]	triheptacontylbenzene				
	$\Delta_v H$	(623–947)	168	638		[1999DYK/SVO]
$C_{79}H_{158}$	[66327-35-3]	1-nonaheptacontene				
	$\Delta_v H$	(622–942)	169.1	637		[1999DYK/SVO]
$C_{79}H_{158}$	[66327-36-4]	triheptacontylcyclohexane				
	$\Delta_v H$	(623–948)	167.7	638		[1999DYK/SVO]
$C_{79}H_{160}$	[7719-86-0]	nonaheptacontane				
	$\Delta_v H$	(687–949)	182.7	702	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{79}H_{160}$	[66327-37-5]	2-methyloctaheptacontane				
	$\Delta_v H$	(622–940)	167.8	637		[1999DYK/SVO]
$C_{79}H_{160}S$	[66327-38-6]	1-nonaheptacontanethiol				
	$\Delta_v H$	(628–952)	169.1	643	E	[1999DYK/SVO]
$C_{80}H_{154}$	[66327-39-7]	tetraheptacontylbenzene				
	$\Delta_v H$	(625–949)	168.4	640		[1999DYK/SVO]
$C_{80}H_{160}$	[66327-40-0]	1-octacontene				
	$\Delta_v H$	(624–945)	169.4	639		[1999DYK/SVO]
$C_{80}H_{160}$	[66327-41-1]	tetraheptacontylcyclohexane				
	$\Delta_v H$	(625–950)	168	640		[1999DYK/SVO]
$C_{80}H_{162}$	[7667-88-1]	octacontane				
	$\Delta_v H$	(638–691)	379.6 ± 3.8	298	CGC	[2008CHI/LIP]
	$\Delta_v H$	(689–951)	183.6	704	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{80}H_{162}$	[66327-42-2]	2-methylnonaheptacontane				
	$\Delta_v H$	(624–943)	170.2	639		[1999DYK/SVO]
$C_{80}H_{162}S$	[66327-43-3]	1-octacontanethiol				
	$\Delta_v H$	(629–954)	169.6	644	E	[1999DYK/SVO]
$C_{81}H_{156}$	[66327-44-4]	pentaheptacontylbenzene				
	$\Delta_v H$	(636–952)	169.1	641		[1999DYK/SVO]
$C_{81}H_{162}$	[66327-45-5]	1-henoctacontene				
	$\Delta_v H$	(625–946)	169.3	640		[1999DYK/SVO]
$C_{81}H_{162}$	[66327-46-6]	pentaheptacontylcyclohexane				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(627–952)	168.4	642		[1999DYK/SVO]
$C_{81}H_{164}$	[7667-89-2] henoctacontane					
	$\Delta_v H$	(691–953)	184.5	706	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{81}H_{164}$	[66327-47-7] 2-methyloctancontane					
	$\Delta_v H$	(625–945)	170.9	640		[1999DYK/SVO]
$C_{81}H_{164}S$	[66327-48-8] 1-henoctacontanethiol					
	$\Delta_v H$	(630–955)	169.4	645	E	[1999DYK/SVO]
$C_{82}H_{158}$	[66327-49-9] hexaheptacontylbenzene					
	$\Delta_v H$	(628–954)	169.4	643		[1999DYK/SVO]
$C_{82}H_{164}$	[66327-50-2] 1-dooctacontene					
	$\Delta_v H$	(626–949)	157.6	641		[1999DYK/SVO]
$C_{82}H_{164}$	[66327-09-1] hexaheptacontylcyclohexane					
	$\Delta_v H$	(627–954)	168.5	642		[1999DYK/SVO]
$C_{82}H_{166}$	[7719-95-1] dooctacontane					
	$\Delta_v H$	(638–691)	387.2 ± 3.8	298	CGC	[2008CHI/LIP]
	$\Delta_v H$	(693–955)	185.3	708	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{82}H_{166}$	[66327-10-4] 2-methylhenoctacontane					
	$\Delta_v H$	(627–947)	171.3	642		[1999DYK/SVO]
$C_{82}H_{166}S$	[66327-11-5] 1-dooctacontanethiol					
	$\Delta_v H$	(631–957)	170	646	E	[1999DYK/SVO]
$C_{83}H_{160}$	[66327-12-6] heptaheptacontylbenzene					
	$\Delta_v H$	(628–955)	169.6	643		[1999DYK/SVO]
$C_{83}H_{166}$	[66327-13-7] heptaheptaconylcyclohexane					
	$\Delta_v H$	(629–956)	168.9	644		[1999DYK/SVO]
$C_{83}H_{166}$	[66327-14-8] 1-trioctacontene					
	$\Delta_v H$	(628–951)	170.4	643		[1999DYK/SVO]
$C_{83}H_{168}$	[7667-90-5] trioctacontane					
	$\Delta_v H$	(694–957)	186.5	709	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{83}H_{168}$	[66327-15-9] 2-methyldooctacontane					
	$\Delta_v H$	(628–949)	171.1	643		[1999DYK/SVO]
$C_{83}H_{168}S$	[66327-16-0] 1-trioctacontanethiol					
	$\Delta_v H$	(633–959)	170.2	648	E	[1999DYK/SVO]
C_{84}	[135113-16-5] fullerene - C84					
	$\Delta_{sub}H$	(658–980)	202 ± 4.0	853	ME	[1998BOL/MAR2]
	$\Delta_{sub}H$	(920–1190)	210 ± 6	950	TE	[1997PIA/PAL]
$C_{84}H_{112}O_{56}$	[na] *heptakis*(2,3,6-tri-O-acetyl)-β-cyclodextrin					
	$\Delta_{fus}H$		82.73	491.7		[2006BET/SOR]
$C_{84}H_{162}$	[66327-17-1] octaheptacontylbenzene					
	$\Delta_v H$	(630–957)	169.9	645		[1999DYK/SVO]
$C_{84}H_{168}$	[66327-18-2] octaheptacontylcyclohexane					
	$\Delta_v H$	(630–958)	169.5	645		[1999DYK/SVO]
$C_{84}H_{168}$	[66327-19-3] 1-tetraoctacontene					
	$\Delta_v H$	(629–953)	170.1	644		[1999DYK/SVO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Enthalpy	Compound / Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{84}H_{170}$	[7667-91-6]	tetraoctacontane				
	$\Delta_v H$	(638–691)	394.0 ± 3.9	298	CGC	[2008CHI/LIP]
	$\Delta_v H$	(696–960)	187.3	711	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{84}H_{170}$	[66327-20-6]	2-methyltrioctacontane				
	$\Delta_v H$	(629–951)	171.8	644		[1999DYK/SVO]
$C_{84}H_{170}S$	[66327-21-7]	1-tetraoctacontanethiol				
	$\Delta_v H$	(634–962)	170.8	649	E	[1999DYK/SVO]
$C_{85}H_{164}$	[66327-22-8]	nonheptacontylbenzene				
	$\Delta_v H$	(631–960)	170.6	646		[1999DYK/SVO]
$C_{85}H_{170}$	[66327-23-9]	nonheptacontylcyclohexane				
	$\Delta_v H$	(632–960)	169.8	647		[1999DYK/SVO]
$C_{85}H_{170}$	[66327-24-0]	1-pentaoctacontene				
	$\Delta_v H$	(630–955)	170.9	645		[1999DYK/SVO]
$C_{85}H_{172}$	[7719-96-2]	pentaoctacontane				
	$\Delta_v H$	(698–962)	187.9	713	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{85}H_{172}$	[66327-25-1]	2-methyltetraoctacontane				
	$\Delta_v H$	(631–953)	172.1	646		[1999DYK/SVO]
$C_{85}H_{172}S$	[66327-26-2]	1-pentaoctacontanethiol				
	$\Delta_v H$	(634–963)	170.8	649	E	[1999DYK/SVO]
$C_{86}H_{166}$	[66327-27-3]	octacontylbenzene				
	$\Delta_v H$	(633–962)	170.9	648		[1999DYK/SVO]
$C_{86}H_{172}$	[66327-28-4]	1-hexaoctacontene				
	$\Delta_v H$	(631–957)	171.5	646		[1999DYK/SVO]
$C_{86}H_{172}$	[66327-29-5]	octacontylcyclohexane				
	$\Delta_v H$	(632–962)	169.9	647		[1999DYK/SVO]
$C_{86}H_{174}$	[7667-92-7]	hexaoctacontane				
	$\Delta_v H$	(638–691)	402.1 ± 4.0	298	CGC	[2008CHI/LIP]
	$\Delta_v H$	(700–964)	188.6	715	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{86}H_{174}$	[66426-88-3]	2-methylpentaoctacontane				
	$\Delta_v H$	(632–956)	172.8	647		[1999DYK/SVO]
$C_{86}H_{174}S$	[66326-89-4]	1-hexaoctacontanethiol				
	$\Delta_v H$	(636–965)	171.1	651	E	[1999DYK/SVO]
$C_{87}H_{168}$	[66326-90-7]	henoctacontylbenzene				
	$\Delta_v H$	(633–963)	171	648		[1999DYK/SVO]
$C_{87}H_{174}$	[66326-91-8]	henoctacontylcyclohexane				
	$\Delta_v H$	(633–964)	170.6	648		[1999DYK/SVO]
$C_{87}H_{174}$	[66326-92-9]	1-heptaoctacontene				
	$\Delta_v H$	(633–959)	171.8	648		[1999DYK/SVO]
$C_{87}H_{176}$	[7667-93-8]	heptaoctacontane				
	$\Delta_v H$	(702–966)	189.3	717	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{87}H_{176}$	[66326-93-0]	2-methylhexaoctacontane				
	$\Delta_v H$	(633–957)	172.6	648		[1999DYK/SVO]
$C_{87}H_{176}S$	[66326-94-1]	1-heptaoctacontanethiol				

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(637–967)	171.7	652	E	[1999DYK/SVO]
$C_{84}H_{144}O_6$	[na]	2,3,6,7,10,11-*hexakis*[[(2R,4R,6R)-2,4,6-trimethyloctyl]oxy]-triphenylene				
	$\Delta_{trs}H$		38	141.2		
	$\Delta_{fus}H$		5.2	237.2		[2002SCH/LAS]
$C_{88}H_{170}$	[66326-95-2]	dooctacontylbenzene				
	$\Delta_v H$	(635–965)	171.3	650		[1999DYK/SVO]
$C_{88}H_{176}$	[66326-96-3]	dooctacontylcyclohexane				
	$\Delta_v H$	(635–966)	170.8	650		[1999DYK/SVO]
$C_{88}H_{176}$	[66326-97-4]	1-octaoctacontene				
	$\Delta_v H$	(634–961)	172.5	649		[1999DYK/SVO]
$C_{88}H_{178}$	[7667-94-9]	octaoctacontane				
	$\Delta_v H$	(638–691)	409.2 ± 4.1	298	CGC	[2008CHI/LIP]
	$\Delta_v H$	(703–967)	190.4	718	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{88}H_{178}$	[66326-98-5]	2-methylheptaoctacontane				
	$\Delta_v H$	(634–959)	173.3	649		[1999DYK/SVO]
$C_{88}H_{178}S$	[66326-99-6]	1-octacontanethiol				
	$\Delta_v H$	(639–969)	171.9	654	E	[1999DYK/SVO]
$C_{89}H_{172}$	[66327-00-2]	trioctacontylbenzene				
	$\Delta_v H$	(636–967)	172	651		[1999DYK/SVO]
$C_{89}H_{178}$	[66327-01-3]	1-nonaoctacontene				
	$\Delta_v H$	(635–962)	172.3	650		[1999DYK/SVO]
$C_{89}H_{178}$	[66327-02-4]	trioctacontylcyclohexane				
	$\Delta_v H$	(636–968)	171.5	651		[1999DYK/SVO]
$C_{89}H_{180}$	[7719-76-8]	nonaoctacontane				
	$\Delta_v H$	(705–969)	190.9	720	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{89}H_{180}$	[66327-03-5]	2-methyloctaoctacontane				
	$\Delta_v H$	(636–962)	173.6	651		[1999DYK/SVO]
$C_{89}H_{180}S$	[66327-04-6]	1-nonaoctacontanethiol				
	$\Delta_v H$	(639–970)	171.9	654	E	[1999DYK/SVO]
$C_{90}H_{174}$	[66327-05-7]	tetraoctacontylbenzene				
	$\Delta_v H$	(637–968)	171.7	652		[1999DYK/SVO]
$C_{90}H_{182}$	[7667-51-8]	nonacontane				
	$\Delta_v H$	(638–691)	416.4 ± 4.3	298	CGC	[2008CHI/LIP]
	$\Delta_v H$	(707–971)	191.6	722	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{91}H_{184}$	[7719-97-3]	hennonacontane				
	$\Delta_v H$	(708–973)	192.5	723	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{92}H_{186}$	[7667-95-0]	dononacontane				
	$\Delta_v H$	(638–691)	424.5 ± 4.0	298	CGC	[2008CHI/LIP]
	$\Delta_v H$	(710–975)	193	725	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{92}H_{186}O_{46}$	[na]	1,ω-dimethoxypentatetracosa(oxyethylene)				
	$\Delta_{fus}H$		374.8	324.2	DSC	[1996YAN/YU]
$C_{93}H_{188}$	[7667-96-1]	trinonacontane				
	$\Delta_v H$	(711–977)	194.1	726	A, E	[1987STE/MAL, 1966KUD/ZWO]

TABLE 11. Phase change enthalpies of C_{21} to C_{192} organic compounds—Continued

Molecular Formula	CAS Reg No / Compound / Enthalpy	Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{94}H_{190}$	[1574-32-9]	tetranonacontane				
	$\Delta_v H$	(713–978)	194.5	728	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{95}H_{192}$	[7667-97-2]	pentanonacontane				
	$\Delta_v H$	(714–980)	195.4	729	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{96}H_{194}$	[7763-13-5]	hexanonacontane				
	$\Delta_v H$	(716–982)	195.8	731	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{97}H_{196}$	[7670-25-9]	heptanonacontane				
	$\Delta_v H$	(717–983)	196.6	732	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{98}H_{198}$	[7670-26-0]	octanonacontane				
	$\Delta_v H$	(719–985)	196.9	734	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{99}H_{200}$	[7670-27-1]	nonanonacontane				
	$\Delta_v H$	(720–986)	197.8	735	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{100}H_{202}$	[6703-98-6]	hectane				
	$\Delta_{trs}H$		54.8	365.5		
	$\Delta_{fus}H$		331.8	338.5		[1970HAY]
	$\Delta_v H$	(721–988)	198.5	736	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{102}H_{180}O_6$	[501447-89-8]	2,3,6,7,10,11-*hexakis*[[(2R,4R,6R,8R)-2,4,6,8-tetramethyldecyl]oxy]triphenylene				
	$\Delta_{trs}H$		23.4	139.2		
	$\Delta_{fus}H$		6.6	236.2	DSC	[2002SCH/LAS]
$C_{192}H_{386}$	[96123-38-5]	*n*-dononacontahectane				
	$\Delta_{fus}H$		661.1	399.1	DSC	[1989STA/MAN]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
Ag (silver)						
$(C_5H_{10}O_2Ag)_2$	[7324-58-5]	silver 2,2-dimethylpropanoate (dimer)				
	$\Delta_{sub}H$		146.9 ± 8.9			[2001MAL/PAR]
Al (aluminum)						
C_3H_9Al	[75-24-1]	trimethylaluminum				
	$\Delta_{fus}H$		17.1		Sub-Vap	[2003FUL/RUZ]
		Note: Authors noted the large discrepancy between their calculated value based on the difference in the enthalpy of sublimation minus the enthalpy of vaporization and the published literature data.				
	$\Delta_{fus}H$		8.79	288.4		[1996DOM/HEA]
	$\Delta_{sub}H$	(243–285)	60.1			[2003FUL/RUZ]
	Δ_vH	(288–293)	43.0			[2003FUL/RUZ]
	Δ_vH	(336–400)	39.8	351		[1963MCC/MES]
	Δ_vH		63.2 ± 1.7			[1963MOR/SEL, 1982PIL/SKI]
	Δ_vH		41.1		BG	[1946BAM/LEV]
$C_4H_{10}AlCl$	[96-10-6]	diethylaluminium chloride				
	Δ_vH	(278–318)	50.5	293		[1991BUC/POT]
	Δ_vH	(273–473)	53.9	373		[1991BUC/POT]
$C_4H_{11}Al$	[871-27-2]	diethylaluminum hydride				
	Δ_vH		57.7 ± 2.1			[1967PAW, 1982PIL/SKI, 1965SHA/SCH]
	Δ_vH		46.9			[1965SHA/SCH]
$C_5H_5AlBr_3N$	[15348-61-5]	aluminum tribromide- pyridine complex				
	$\Delta_{sub}H$	(501–633)	71.2 ± 0.6		T	[1989GRI/KON]
	$\Delta_{sub}H$		83.3		B,E	[1967WIL/WAR]
$C_6H_{15}Al$	[97-93-8]	triethylaluminum				
	$\Delta_{fus}H$		10.6	225		[1996DOM/HEA]
	Δ_vH		73.2 ± 2.1			[1967PAW, 1982PIL/SKI, 1965SHA/SCH]
	Δ_vH		60.2			[1965SHA/SCH]
	Δ_vH		54.1		BG	[1946BAM/LEV]
$C_6H_{15}AlO$	[1586-92-1]	diethylaluminium ethoxide				
	Δ_vH	(403–463)	48.7 ± 0.8	433		[1974SHM/GOL]
$C_7H_{17}AlO$	[6083-26-7]	diethylaluminium propoxide				
	Δ_vH	(398–463)	51.0 ± 0.8	430		[1974SHM/GOL]
$C_8H_{19}Al$	[1191-15-7]	diisobutylaluminum hydride				
	Δ_vH		42.3 ± 2.1			[1967PAW, 1982PIL/SKI, 1965SHA/SCH]
	Δ_vH		35.6			[1965SHA/SCH]
$C_9H_{21}Al$	[102-67-0]	tripropylaluminum				
	Δ_vH		43 ± 2.0			[2002BAE/SHI]
	Δ_vH		42.5 ± 1.2			[1967PAW, 1982PIL/SKI]
$C_9H_{21}AlO_3$	[555-31-7]	aluminum isopropoxide				
	Δ_vH	(353–399)	48.1 ± 6.3	376		[1972BLE/FIE]
$C_{12}H_{27}Al$	[100-99-2]	triisobutylaluminium				
	Δ_vH	(273–322)	38.3	298		[1964SHA/TUB]
$C_{12}H_{27}AlO_3$	[3085-30-1]	tributoxyaluminum				
	Δ_vH	(503–533)	104.1	518	A, I	[1987STE/MAL, 1957WIL]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{27}AlO_3$	[3453-79-0]	triisobutoxyaluminum				
	$\Delta_v H$	(500–550)	139.4	515	A, I	[1987STE/MAL, 1957WIL]
$C_{12}H_{27}AlO_3$	[2269-22-9]	tri-sec-butoxyaluminum				
	$\Delta_v H$	(425–469)	81.5	440	A, I	[1987STE/MAL, 1957WIL]
$C_{15}H_3AlF_{18}O_6$	[17786-67-3]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)aluminun(III)				
	$\Delta_{sub}H$	(333–363)	52.0		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(324–344)	77.6 ± 6.2	334	BG	[1987GRI/LAZ2, 1988LAZ/GRI]
	$\Delta_{sub}H$		79.0 ± 6.5	298		[1987GRI/LAZ2]
	$\Delta_{sub}H$		74.1 ± 2.5			[1985IGU/GER, 1987GRI/LAZ2]
	$\Delta_{sub}H$	(323–347)	109.6 ± 3.8	335		[1972FON/POM]
$C_{15}H_{12}AlF_9O_6$	[14354-59-7]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)aluminum(III)				
	$\Delta_{sub}H$	(373–403)	74.0		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(363–423)	113.4 ± 1.3		GS	[1985MAT/KUW]
	$\Delta_{sub}H$	(369–392)	102.7 ± 3.2			[1978IGU/CHU2]
	$\Delta_{sub}H$		108 ± 2.0			[1977NAG, 1988GOL/SIT]
	$\Delta_{sub}H$		43.1	443		[1977VOL/MAZ]
	$\Delta_{sub}H$	(354–396)	93.7 ± 6.7	375		[1972FON/POM]
	$\Delta_{sub}H$		41.0			[1965FRA]
	$\Delta_{sub}H$		40.0			[1960BER/TRU, 1965BER/TRU]
	$\Delta_v H$	(349–411)	58.7 ± 0.7	380	BG	[1988LAZ/GRI]
	$\Delta_v H$	(392–484)	69.6 ± 0.5	438		[1978IGU/CHU2]
$C_{15}H_{21}AlO_6$	[13963-57-0]	*tris*(pentane-2,4-dionato)aluminum(III)				
	$\Delta_{fus}H$		35.2	463	DSC	[2004SAB/MAR]
	$\Delta_{fus}H$		32.7	458		[1971BEE/LIN2]
	$\Delta_{fus}H$		33.7	466.7		[1988LAZ/GRI]
	$\Delta_{sub}H$		107.1		DTA,TGA	[2009GAI/KUN]
	$\Delta_{sub}H$	(345–410)	101.8	378	ME	[2007SID/SID]
	$\Delta_{sub}H$	(376–467)	121.8 ± 1.5	298		[2006SEM/IGU]
	$\Delta_{sub}H$	(413–443)	93		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		120 ± 3.0	298	ME	[1977NAG, 1988RIB/FER4]
	$\Delta_{sub}H$	(432–464)	102.0 ± 3.2	448	BG	[1988LAZ/GRI]
	$\Delta_{sub}H$		47.1 ± 1.0			[1981TEG/FER]
	$\Delta_{sub}H$		118.9 ± 7.9			[1980SAC/HIL]
	$\Delta_{sub}H$		24.3	458		[1977VOL/MAZ]
	$\Delta_{sub}H$		121.7 ± 4.2	298		[1975IRV/RIB2]
	$\Delta_{sub}H$	(383–413)	66.1 ± 3.3	398		[1972FON/POM]
	$\Delta_{sub}H$		23.4			[1965FRA]
	$\Delta_{sub}H$	(417–476)	20.5			[1960BER/TRU, 1965BER/TRU]
	$\Delta_v H$		80.2		DTA,TGA	[2009GAI/KUN]
	$\Delta_v H$	(430–530)	78.7 ± 0.9	298	T	[1986GRI/LAZ]
$C_{16}H_{40}Al_2N_2$	[115381-27-6]	tetramethyl *bis*[μ-[N-(1-methylethyl)-2-propanaminto]]dialuminum(III)				
	$\Delta_{sub}H$		99.2		ME	[1988BRA/FAK]
$C_{18}H_{15}Al$	[841-76-9]	triphenylaluminum				
	$\Delta_{sub}H$	(432–477)	172 ± 5	455	ME,TE	[1984GOV/KAN]
$C_{24}H_{12}AlF_9O_6S_3$	[14054-83-2]	*tris*(1-(2-thenoyl)-4,4,4-trifluoro-1-,3-butanedione)aluminum(III)				
	$\Delta_{sub}H$		U 46.4			[1960BER/TRU, 1965BER/TRU]
$C_{27}H_{18}AlN_3O_3$	[2085-33-8]	*tris*(8-hydroxyquinolinato)aluminum(III)				
	$\Delta_{sub}H$		137.7		TGA	[1995YAS/TAK]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{30}H_{18}AlF_9O_6$	[14323-12-7]	*tris*(1-phenyl-4,4,4-trifluoro-1,3-butanedione)aluminum(III)				
	$\Delta_{sub}H$		U 55.2			[1960BER/TRU, 1965BER/TRU]
$C_{30}H_{27}AlO_6$	[14376-06-8]	*tris*(1-phenyl-1,3-butanedionato)aluminum(III)				
	$\Delta_{sub}H$	(462–478)	186.8 ± 2.1	470	ME,TE	[1995RIB/MON2]
	$\Delta_{sub}H$		195.2 ± 2.1	298		[1995RIB/MON2]
	$\Delta_{sub}H$		193.7 ± 0.3	298		[1983RIB/REI]
$C_{30}H_{30}F_{21}AlO_6$	[18716-26-2]	*tris*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyl-4,6-octanedionato)aluminum(III)				
	$\Delta_{sub}H$	(363–398)	71.1 ± 2.5	381		[1972FON/POM]
$C_{32}H_{16}AlClN_8$	[14154-42-8]	aluminum(III)-(phthalocyaninato)chloro complex				
	$\Delta_{sub}H$	(588–703)	236.4 ± 1.7		ME	[2000SEM/BAS]
$C_{32}H_{16}AlFN_8$	[51961-93-4]	aluminum(III)-(phthalocyaninato)fluoro complex				
	$\Delta_{sub}H$	(658–768)	266.9 ± 2.5		ME	[2000SEM/BAS]
$C_{33}H_{57}AlO_6$	[14319-08-5]	*tris*(2,2,6,6-tetramethyl-3,5-heptanedionato)aluminum(III)				
	$\Delta_{sub}H$	(413–443)	88		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		119 ± 3.0			[1977NAG, 1983RIB/REI]
AlB_3H_{12}	[16962-07-5]	aluminum borohydride				
	Δ_vH	(231–290)	30.0	260		[1940SCH/SAN]
Am (americium)						
($C_{15}H_3AmF_{18}O_6$)-2($C_{12}H_{27}O_4P$)	[58760-64-8]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)americium(III)- 2(tributylphosphate) complex				
	$\Delta_{sub}H$	(425–511)	133.9 ± 1.7	468	TRM	[1978DAV/TRA]
($C_{15}H_{12}AmF_9O_6$)-2($C_{12}H_{27}O_4P$)	[75101-27-8]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)americium(III)- 2(tributylphosphate) complex				
	$\Delta_{sub}H$	(509–545)	222.6 ± 29.2	527	TRM	[1978DAV/TRA]
$C_{24}H_{30}AmF_9O_6$)-2($C_{12}H_{27}O_4P$)	[75101-26-7]	*tris*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)americium(III)- 2(tributylphosphate) complex				
	$\Delta_{sub}H$	(438–493)	129.7 ± 23.4	465	TRM	[1978DAV/TRA]
$C_{33}H_{57}AmO_6$	[71817-66-8]	*tris*(2,2,6,6-tetramethyl-3,5-heptanedionato)americium(III)				
	$\Delta_{sub}H$	(373–423)	200.8		ME	[1979AMA/SAT]
As (arsenic)						
$CAsCl_2F_3S$	[762-86-7]	dichloro(trifluoromethylthio)arsine				
	Δ_vH	(293–373)	37.1	333		[1960EME/PUG]
CH_3AsBr_2	[676-70-0]	methyl dibromoarsine				
	Δ_vH	(293–333)	49.9	313		[1948RED/CHA2]
CH_3AsCl_2	[593-89-5]	methyl dichloroarsine				
	Δ_vH	(273–313)	41.0	293		[1948RED/CHA2]
CH_3AsF_2	[420-24-6]	methyl difluorarsine				
	Δ_vH	(244–350)	35.5	297	MM	[1946LON/EME]
$C_2AsClF_6S_2$	[819-39-6]	chloro *bis*(trifluoromethylthio)arsine				
	Δ_vH	(293–373)	39.6	333		[1960EME/PUG]
$C_2H_2AsCl_3$	[na]	β-chlorovinyldichloroarsine				
	Δ_vH	(339–383)	U88.3	354		[1947GOU/HOL]
$C_2H_2AsCl_3$	[34461-56-8]	(*cis*-2-chlorovinyl)dichloroarsine				
	Δ_vH	(341–382)	48.5	356		[1948WHI]
$C_2H_2AsCl_3$	[50361-05-2]	(*trans*-2-chlorovinyl)dichloroarsine				
	Δ_vH	(323–423)	54.5	338		[1950MAT/SUM]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_2H_2AsCl_3$	[na]	*trans*-β-(chlorovinyl)dichloroarsine				
	$\Delta_{fus}H$		17.1	270.7		[1996LEB/KUL]
$C_2H_2AsCl_3$	[541-25-3]	2-chlorovinyldichloroarsine				
	Δ_vH	(293–333)	53.4	313		[1948RED/CHA2]
$C_2H_2AsF_6N$	[1648-73-3]	(amino) *bis*(trifluoromethyl)arsine				
	Δ_vH	(313–358)	31.8	335		[1959CUL/EME]
$C_2H_5AsCl_2$	[598-14-1]	ethyl dichloroarsine				
	Δ_vH	(293–333)	44.6	313		[1948RED/CHA2]
$C_2H_5AsF_2$	[430-40-0]	ethyl difluorarsine				
	Δ_vH	(248–367)	33.9	307	MM	[1946LON/EME]
$C_2H_7AsO_2$	[75-60-5]	hydroxydimethyl arsine oxide				
	$\Delta_{fus}H$		24.46	470.8	DSC	[1990DON/DRE]
C_3AsF_9S	[75-60-5]	*bis*(trifluoromethyl) trifluoromethylthioarsine				
	Δ_vH	(263–312)	34	287		[1962EME/PAC]
C_3AsF_9Se	[816-45-5]	*bis*(trifluoromethyl) trifluoromethylselenoarsine				
	Δ_vH	(227–295)	34.8	261		[1962EME/PAC]
$C_3H_4AsF_6N$	[684-21-9]	(methylamino) *bis*(trifluoromethyl)arsine				
	Δ_vH	(293–355)	34.9	324		[1959CUL/EME]
$C_3H_7AsCl_2$	[926-53-4]	propyl dichloroarsine				
	Δ_vH	(293–333)	49.2	313		[1948RED/CHA2]
C_3H_9As	[593-88-4]	trimethyl arsine				
	$\Delta_{fus}H$		8.96	186.6		[1988NIS/SHE]
	Δ_vH	(240–280)	27.7 ± 0.2	260		[2001BAE]
	Δ_vH		28.9 ± 1.3			[1956LON/SAC, 1982PIL/SKI]
$C_3H_9AsO_3$	[6596-95-8]	trimethyl arsenite				
	Δ_vH	(300–335)	42.3 ± 1.3	298		[1953CHA/MOR, 1970COX/PIL]
$C_4As_4F_{12}$	[7547-15-1]	*tetrakis*(trifluoromethyl)tetraarsetane				
	$\Delta_{sub}H$	(317–354)	76.6	335		[1966COW/BUR]
$C_4HAs_2F_{12}N$	[3892-55-5]	imino*bis*[*bis*(trifluoromethyl)arsine]				
	Δ_vH	(357–398)	38.9	377		[1959CUL/EME]
$C_4H_6AsF_6N$	[1537-49-1]	(ethylamino) *bis*(trifluoromethyl)arsine				
	Δ_vH	(292–368)	32.8	330		[1959CUL/EME]
$C_4H_6AsF_6N$	[1537-48-0]	(dimethylamino) *bis*(trifluoromethyl)arsine				
	Δ_vH	(296–358)	35.6	327		[1959CUL/EME]
$C_4H_{11}As$	[692-42-2]	diethyl arsine				
	Δ_vH	(281–366)	35.2	273	MM	[2001BAE2]
	Δ_vH	(281–366)	34.2	298	MM	[2001BAE2]
$C_4H_{11}AsO_2$	[4964-27-6]	diethylarsinic acid				
	$\Delta_{fus}H$		19.9	411	DTA	[1970SMI/IRG]
$C_4H_{12}AsN$	[30880-19-4]	(dimethylamino) dimethylarsine				
	Δ_vH	(274–342)	36.7			[59MöD]
$C_5AsF_{13}Se$	[679-01-6]	heptafluoropropylseleno *bis*(trifluoromethyl)arsine				
	Δ_vH	(277–348)	40.3	312		[1962EME/PAC]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5H_7AsCl_2$	[170135-56-5]	*bis*(2-chlorovinyl)methylarsine				
	Δ_vH	(293–333)	55.6	313		[1948RED/CHA2]
$C_5H_{11}AsBr_2$	[64047-02-5]	pentyl dibromoarsine				
	Δ_vH	(293–333)	60	313		[1948RED/CHA2]
$C_5H_{15}AsN_2$	[41813-33-6]	*bis*(dimethylamino) methylarsine				
	Δ_vH	(273–333)	39.2			[1959MöD]
$C_6H_5AsCl_2$	[696-28-6]	phenyl dichloroarsine				
	Δ_vH	(313–333)	58.4	323		[1948RED/CHA2]
	Δ_vH	(335–529)	48.7	350		[1947STU]
C_6H_9As	[13652-20-5]	trivinylarsine				
	Δ_vH	(295–339)	35.6	310		[1957MAI/SEY, 1984BOU/FRI]
$C_6H_{12}AsN$	[64049-16-7]	cyano(ethyl)propylarsine				
	Δ_vH	(293–313)	54.6	303		[1948RED/CHA2]
$C_6H_{15}As$	[617-75-4]	triethylarsine				
	$\Delta_{fus}H$		11.06	181.8		[1996DOM/HEA]
	Δ_vH	(273–339)	38.1 ± 1.5	306		[2001BAE]
	Δ_vH	(290–379)	38.5 ± 0.7	334		[2001BAE]
	Δ_vH		43.1 ± 4.2			[1963LAU/TRO, 1982PIL/SKI]
$C_6H_{15}AsO_2$	[2870-87-3]	dipropylarsinic acid				
	$\Delta_{fus}H$		22.1	408	DTA	[1970SMI/IRG]
$C_6H_{15}AsO_3$	[3141-12-6]	arsenic (III) triethoxide				
	Δ_vH		47.9 ± 1.1		DSC	[1996DES/BRA]
	Δ_vH	(305–340)	50.6 ± 4.2	298		[1953CHA/MOR, 1970COX/PIL]
$C_6H_{18}AsN_3$	[6596-96-9]	*tris*(dimethylamino)arsine				
	$\Delta_{fus}H$		13.31	222.6		[2002SHE/KAR]
	Δ_vH	(288–359)	45.8			[1959MöD]
$C_8H_{12}AsNO_3$	[na]	dimethyl arsanilate				
	Δ_vH	(288–433)	48.8	303		[1947STU]
$C_8H_{18}AsO_2$	[2850-61-5]	dibutylarsinic acid				
	$\Delta_{fus}H$		29.5	412	DTA	[1970SMI/IRG]
$C_9H_{21}As$	[57538-64-4]	triisopropylarsine				
	Δ_vH	(346–405)	45.2 ± 0.5	376		[2001BAE]
$C_9H_{21}As$	[5852-57-3]	tripropylarsine				
	$\Delta_{fus}H$		14.6	180		[2002SHE/KAR2]
	Δ_vH	(314–420)	44.0 ± 0.7	367		[1995BAE/MIK, 2001BAE]
$C_9H_{21}AsO_3$	[15606-91-4]	arsenic (III) tripropoxide				
	Δ_vH		51.2 ± 1.8		DSC	[1996DES/BRA]
$C_9H_{21}AsO_3$	[39936-83-9]	arsenic (III) triisopropoxide				
	Δ_vH		80.1 ± 0.9		DSC	[1996DES/BRA]
$C_{10}H_{16}AsNO_3$	[na]	diethyl arsanilate				
	Δ_vH	(311–454)	54.2	326	A	[1987STE/MAL, 1947STU]
$C_{10}H_{23}AsO_2$	[4964-30-1]	dipentyl arsenic acid				
	$\Delta_{fus}H$		36	405	DTA	[1970SMI/IRG]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{27}AsO_2$	[6727-92-0]	dihexyl arsenic acid				
	$\Delta_{trs}H$		16.4	393		
	$\Delta_{fus}H$		24.35	405	DTA	[1970SMI/IRG]
$C_{12}H_{27}AsO_3$	[3141-10-4]	arsenic (III) tributoxide				
	Δ_vH		64.0 ± 1.8		DSC	[1996DES/BRA]
$C_{12}H_{27}AsO_3$	[51587-28-1]	arsenic (III) triisobutoxide				
	Δ_vH		75.7 ± 1.2		DSC	[1996DES/BRA]
$C_{13}H_{10}AsN$	[23525-22-6]	diphenylarsine carbonitrile				
	Δ_vH	(296–326)	84.6	311	A	[1987STE/MAL]
$C_{14}H_{31}AsO_2$	[6757-53-5]	diheptyl arsenic acid				
	$\Delta_{trs}H$		30.1	299		
	$\Delta_{fus}H$		20.3	389	DTA	[1970SMI/IRG]
$C_{15}H_{30}AsN_3S_6$	[17767-20-3]	*tris*(N,N-diethyldithiocarbamate)arsenic(III)				
	$\Delta_{sub}H$		124 ± 3	298		[1987AIR/DES]
$C_{15}H_{33}As$	[5852-59-5]	tripentylarsine				
	Δ_vH	(408–466)	62.3	432		[1932JON/DYK]
$C_{18}H_{15}As$	[603-32-7]	triphenylarsine				
	$\Delta_{sub}H$		98.3 ± 8.4			[1982PIL/SKI, 1964MOR/SEL]
	Δ_vH	(493–563)	75.7	508	A	[1987STE/MAL, 1949FOR/BOW]
$C_{18}H_{15}AsO$	[1153-05-5]	triphenylarsine oxide				
	$\Delta_{sub}H$		149.0 ± 5.4			[1994LIE/MAR]
$C_{18}H_{39}AsO_2$	[6727-94-2]	dinonyl arsenic acid				
	$\Delta_{trs}H$		24.3	383		
	$\Delta_{fus}H$		38.1	399	DTA	[1970SMI/IRG]
$C_{19}H_{37}AsO_7$	[155325-38-5]	(R)-1,2-dicapryloxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		41.8	347.7	DSC	[1993SER/SOT]
$C_{19}H_{37}AsO_7$	[155325-39-6]	(S)-1,2-dicapryloxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		37.66	346.7	DSC	[1993SER/SOT]
$C_{20}H_{43}AsO_2$	[6727-95-3]	di-n-decylarsinic acid				
	$\Delta_{trs}H$		24.5	380		
	$\Delta_{fus}H$		42.3	400	DTA	[1970SMI/IRG]
$C_{21}H_{42}AsN_3S_6$	[86431-46-1]	*tris*(dipropyldithiocarbamate)arsenic(III)				
	$\Delta_{sub}H$		145.1 ± 5.3	298	DSC,E	[1999NEV/GOU]
$C_{22}H_{47}AsO_2$	[6727-96-4]	di-*n*-undecyl arsenic acid				
	$\Delta_{trs}H$		30.1	384		
	$\Delta_{fus}H$		45.1	396	DTA	[1970SMI/IRG]
$C_{23}H_{45}AsO_7$	[155325-40-9]	(R)-1,2-dicaproxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		68.2	358.3	DSC	[1993SER/SOT]
$C_{23}H_{45}AsO_7$	[155325-41-0]	(S)-1,2-dicaproxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		54.39	358.5	DSC	[1993SER/SOT]
$C_{24}H_{51}AsO_2$	[6727-97-5]	di-n-dodecyl arsenic acid				
	$\Delta_{trs}H$		31.4	385		
	$\Delta_{fus}H$		49.4	398	DTA	[1970SMI/IRG]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{26}H_{55}AsO_2$	[6727-98-6]	di-n-tridecyl arsenic acid				
	$\Delta_{trs}H$		36.5	388		
	$\Delta_{fus}H$		52.7	396	DTA	[1970SMI/IRG]
$C_{27}H_{53}AsO_7$	[155325-42-1]	(R)-1,2-dilauryloxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		76.99	364.9	DSC	[1993SER/SOT]
$C_{27}H_{53}AsO_7$	[155325-43-2]	(S)-1,2-dilauryloxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		65.69	363.3	DSC	[1993SER/SOT]
$C_{27}H_{54}AsN_3S_6$	[48233-55-2]	*tris*(N,N-dibutyldithiocarbamate)arsenic(III)				
	$\Delta_{sub}H$		128 ± 3	298		[1994LIE/MAR]
$C_{27}H_{54}AsN_3S_6$	[41582-74-5]	*tris*(N,N-diisobutyldithiocarbamate)arsenic(III)				
	$\Delta_{sub}H$		128 ± 2	298	DSC,E	[1997DES/DES]
$C_{28}H_{59}AsO_2$	[6727-99-7]	di-*n*-tetradecyl arsenic acid				
	$\Delta_{trs}H$		39.3	390		
	$\Delta_{fus}H$		58.2	397	DTA	[1970SMI/IRG]
$C_{30}H_{63}AsO_2$	[6757-54-6]	di-*n*-pentadecyl arsenic acid				
	$\Delta_{trs}H$		46.4	390		
	$\Delta_{fus}H$		63.6	396	DTA	[1970SMI/IRG]
$C_{31}H_{61}AsO_7$	[146863-97-0]	(R)-1,2-dimyristoyloxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		289.5	373.7	DSC	[1992SER/TSI]
$C_{31}H_{61}AsO_7$	[146863-98-1]	(S)-1,2-dimyristoyloxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		267.8	374.7	DSC	[1992SER/TSI]
$C_{32}H_{67}AsO_2$	[6728-00-3]	di-*n*-hexadecyl arsenic acid				
	$\Delta_{trs}H$		47.4	389		
	$\Delta_{fus}H$		66.8	395	DTA	[1970SMI/IRG]
$C_{34}H_{71}AsO_2$	[6728-01-4]	di-*n*-heptadecyl arsenic acid				
	$\Delta_{trs}H$		50.9	390		
	$\Delta_{fus}H$		68.6	393	DTA	[1970SMI/IRG]
$C_{35}H_{69}AsO_7$	[146863-99-2]	(R)-1,2-dipalmitoyloxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		250.6	377.3	DSC	[1992SER/TSI]
$C_{35}H_{69}AsO_7$	[146864-00-8]	(S)-1,2-dipalmitoyloxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		206.3	377.2	DSC	[1992SER/TSI]
$C_{36}H_{75}AsO_2$	[6728-02-5]	di-*n*-octadecyl arsenic acid				
	$\Delta_{fus}H$		128.9	394	DTA	[1970SMI/IRG]
$C_{38}H_{79}AsO_2$	[6728-03-6]	di-*n*-nonadecyl arsenic acid				
	$\Delta_{fus}H$		144	393	DTA	[1970SMI/IRG]
$C_{39}H_{77}AsO_7$	[146864-01-9]	(R)-1,2-distearoyloxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		274.9	382.8	DSC	[1992SER/TSI]
$C_{39}H_{77}AsO_7$	[146864-02-0]	(S)-1,2-distearoyloxypropyl-3-arsonic acid				
	$\Delta_{fus}H$		180.3	382.4	DSC	[1992SER/TSI]
$C_{40}H_{83}AsO_2$	[6728-04-7]	di-n-eicosanyl arsenic acid				
	$\Delta_{trs}H$		40.0	383		
	$\Delta_{fus}H$		76.9	393	DTA	[1970SMI/IRG]
AsF_3	[7784-35-2]	arsenic trifluoride				
	Δ_vH		35.8	293		[1941RUS/RUN]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
AsH_3	[7784-42-1]	arsine				
	$\Delta_v H$		16.7	210		[1955SHE/GIA]
AsH_9Si_3	[15110-34-6]	trisilylarsine				
	$\Delta_v H$	(258–287)	41	272		[1962AMB/BOE]
As_2S_2	[1303-32-8]	arsenic (II) sulfide				
	$\Delta_v H$	(663–838)	69.6	750		[1968KUA/UST]
Au (gold)						
$C_7H_{10}AuF_3O_2$	[63470-53-1]	dimethyl(1,1,1-trifluoro-2,4-pentanedionato)gold(III)				
	$\Delta_{sub}H$	(265–300)	83.5			[2000OHT/CIC]
$C_8H_{18}Au_2F_6O_4$	[1095578-82-7]	tetramethyl *bis*[μ-2,2,2-trifluoroacetato]digold				
	$\Delta_{sub}H$	(296–325)	103.6 ± 2.9		ME	[2008BES/MOR]
$C_8H_{18}Au_2O_4$	[1067677-78-4]	*bis*[(μ-acetato)dimethylgold]				
	$\Delta_{sub}H$	(291–332)	100.9 ± 0.8	312	ME	[2007BES/BAI, 2008BES/MOR, 2007BES/MOR]
$C_{11}H_{12}AuNO$	[21158-63-4]	dimethyl(8-quinolinolato)gold				
	$\Delta_{sub}H$	(353–388)	121.2 ± 1.9		ME	[2008BES/MOR2]
$C_{11}H_{12}AuNS$	[1135482-91-5]	dimethyl(8-mercaptoquino)gold				
	$\Delta_{sub}H$	(359–418)	120.5 ± 1.7		ME	[2008MOR/ZHE]
$C_{14}H_{30}Au_2O_4$	[1067677-79-5]	*bis*[μ-(2,2-dimethylpropanoato]tetramethyldigold				
	$\Delta_{sub}H$	(295–323)	109.1 ± 2.1		ME	[2008BES/MOR, 2007BES/MOR]
$C_{18}H_{22}Au_2O_4$	[1095578-84-9]	*bis*[μ-(benzoate)]tetramethyldigold				
	$\Delta_{sub}H$	(363–403)	154.5 ± 1.5		ME	[2008BES/MOR]
$C_{20}H_{34}AuO_9PS$	[34031-32-8]	5-triethylphospine gold-2,3,4,6-tetra-O-acetyl-1-thio-β-(*d*)-glucopyranoside (auranofin)				
	$\Delta_{fus}H$		37.82	385		[1985LIN/RAT]
B (boron)						
CH_3BO	[13205-44-2]	borine carbonyl				
	$\Delta_v H$	(134–209)	19.7	194		[1947STU]
(CH_3N)–(BH_3)	[1722-33-4]	methylamine- borane complex				
	$\Delta_{sub}H$	(273–318)	78.7 ± 4.2		ME	[1959ALT/BRO]
CH_5BO_2	[13061-96-6]	dihydroxymethylborane				
	$\Delta_{sub}H$	(293–362)	64.1	308	A	[1987STE/MAL]
	$\Delta_{sub}H$	(298–338)	65.2	318		[1940BUR]
(CH_5N)–($C_3H_9BO_3$)	[na]	methylamine- trimethylborate complex				
	$\Delta_{sub}H$		58.2			[1951GOU/LIN]
$CH_{11}B_5$	[19495-55-7]	1-methylpentaborane (9)				
	$\Delta_v H$	(241–349)	32.7	295		[1963RYS/HAR]
C_2BF_5	[32038-87-2]	perfluorovinyldifluoroborine				
	$\Delta_v H$	(177–238)	26.6	207	T	[1960STA/STO]
$C_2BCl_2F_3$	[758-99-6]	perfluorovinyldichloroborine				
	$\Delta_v H$	(238–301)	31.5	269	T	[1960STA/STO]
$C_2H_3BF_2$	[358-95-2]	vinyldifluoroborane				
	$\Delta_v H$	(178–228)	22.6	203	T	[1960BRI/STO]
$C_2H_3BCl_2$	[3677-80-3]	vinyldichloroborane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(237–282)	27.7	260	T	[1960BRI/STO]
$(C_2H_3OF)-(BF_3)$	[353-44-6]	methylfluorocarbonyl- trifluoroboron complex				
	$\Delta_{sub}H$	(223–273)	26.3	248		[1957SUS/WUH]
$C_2H_5BCl_2O$	[16339-28-9]	ethoxydichloroborane				
	$\Delta_v H$		35.1 ± 0.8	298		[1931WIB/SUT, 1970COX/PIL]
$(C_2H_5B_3)-(C_3H_9N)$	[na]	1,5-dicarbopentaborane(5)- trimethylamine complex				
	$\Delta_{sub}H$	(220–253)	49.7	236		[1972BUR/REI]
$C_2H_6BCl_2N$	[1113-31-1]	dimethylaminodichloroborane				
	$\Delta_v H$		37.2 ± 1.3	298		[1951BUR/RAN, 1970COX/PIL]
$C_2H_6BF_2N$	[na]	dimethylaminodifluoroborane				
	$\Delta_{sub}H$	(308–353)	76.5	333		[1954BUR/BAN]
$C_2H_6B_4$	[na]	carborane-4				
	$\Delta_v H$	(241–287)	26.2	272		[1963SHA/KEI]
$C_2H_6B_4$	[20693-67-8]	1,6-dicarbahexaborane				
	$\Delta_{sub}H$	(190–209)	31.2	198	A	[1987STE/MAL]
$(C_2H_6O)-(BF_3)$	[na]	dimethyl ether—boron trifluoride complex				
	$\Delta_v H$	(311–346)	53.1	328		[1960MCL/TAM]
$C_2H_6ClBO_2$	[868-81-5]	dimethoxychloroborane				
	$\Delta_v H$		34.3 ± 1.2	298		[1931WIB/SUT, 1970COX/PIL]
$(C_2H_6S)-(BH_3)$	[13292-87-0]	dimethyl sulfide—borane complex				
	$\Delta_v H$	(273–314)	44.9	293		[1999DYK/SVO]
$C_2H_7B_5$	[20693-69-0]	2,4-dicarba-closo-heptaborane				
	$\Delta_v H$	(273–323)	31.6	288	I	[1976SHM/SHL]
$(C_2H_7N)-(BH_3)$	[74-94-2]	dimethylamine- borane complex				
	$\Delta_{sub}H$	(273–308)	77.4 ± 2.9		ME	[1969KEI/KAN]
$(C_2H_7N)-(C_3H_9BO_3)$	[na]	dimethylamine—methylborate complex				
	$\Delta_{sub}H$		70.3			[1951GOU/LIN]
C_2H_8BSb	[60646-39-1]	dimethylstibinoborine				
	$\Delta_v H$	(234–273)	32.1	254		[1959BUR/GRA]
$C_2H_{10}BP$	[4268-35-3]	dimethylphosphine borine				
	$\Delta_v H$	(303–383)	45.1	318		[1953HER/MAR]
$C_2H_{11}B_2N$	[23273-02-1]	N-dimethylaminodiborane				
	$\Delta_{fus}H$		1.41	218		[1955FUR/MCC]
	$\Delta_v H$	(220–267)	29.3	252		[1955FUR/MCC]
$C_2H_{12}B_{10}$	[16872-09-6]	1,2-dicarbadodecaborane (*o*-carborane)				
	$\Delta_{trs}H$	(5–310)	0.6	160		
	$\Delta_{trs}H$	(5–310)	3.77	275	AC	[2003YAM/HAY]
	$\Delta_{sub}H$	(283–333)	50.3	318	A	[1987STE/MAL]
	$\Delta_{sub}H$	(333–423)	49.4	348	A	[1987STE/MAL]
	$\Delta_{sub}H$		65.4 ± 1.0	298		[1982PIL/SKI, 1976MIR/PAV]
$C_2H_{12}B_{10}$	[16986-24-6]	1,7-dicarbadodecaborane (*m*-carborane)				
	$\Delta_{trs}H$	(5–310)	2.61	170		
	$\Delta_{trs}H$	(5–310)	4.41	284	AC	[2003YAM/HAY]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(283–333)	67.5	298	A	[1987STE/MAL]
	$\Delta_{sub}H$	(333–423)	63.3	348	A	[1987STE/MAL]
	$\Delta_{sub}H$		58.5 ± 1.0	298		[1982PIL/SKI, 1976MIR/PAV]
$C_2H_{12}B_{10}$	[20644-12-6]	1,12-dicarbododecaborane (*p*-carborane)				
	$\Delta_{sub}H$		61.3 ± 1.0	298		[1982PIL/SKI, 1976MIR/PAV]
$C_2H_{13}B_5$	[na]	1-ethylpentaborane (9)				
	Δ_vH	(273–383)	35.0	328		[1963RYS/HAR]
$C_3BF_9S_3$	[36884-78-3]	*tris*(trifluoromethylthio)borane				
	Δ_vH	(242–298)	33.9	270		[1999DYK/SVO]
$C_3H_5BF_2$	[819-69-2]	(allyl)difluoroborane				
	Δ_vH	(194–249)	28	221	T	[1960BRI/STO]
$C_3H_7BF_2$	[691-36-1]	(propyl)difluoroborane				
	Δ_vH	(195–248)	29.4	221	T	[1960BRI/STO]
(C_3H_7N)–(BH_3)	[na]	azetidine- borane complex				
	$\Delta_{sub}H$	(297–321)	67.9	309		[1956BUR/GOO]
$C_3H_9BO_3$	[121-43-7]	trimethylborate				
	Δ_vH	(304–340)	34.2	319		[1967CHR/SHI]
C_3H_9B	[593-90-8]	trimethylborane				
	$\Delta_{fus}H$		3.25	113.2		[1996DOM/HEA]
	Δ_vH		20.2 ± 0.1			[1961JOH/KIL, 1961SCO/MES]
	Δ_vH		23.9		BG	[1946BAM/LEV]
(C_3H_9B)–(C_2H_9NSi)	[na]	trimethylboron—silyldimethylamine complex				
	$\Delta_{sub}H$	(243–268)	51.4	255		[1954SUJ/WIT]
(C_3H_9B)–($C_7H_{13}N$)	[na]	trimethylboron—azabicyclo[2.2.2]octane complex				
	$\Delta_{sub}H$	(273–388)	79.6			[1948BRO/SUJ]
C_3H_9BS	[19163-05-4]	dimethyl(methylthio)borane				
	Δ_vH	(227–304)	31.6	265		[1999DYK/SVO]
$C_3H_9BS_2$	[19163-08-7]	methyl*bis*(methylthio)borane				
	Δ_vH	(300–373)	44.7	315		[1999DYK/SVO]
$C_3H_9BS_3$	[997-49-9]	*tris*(methylthio)borane				
	Δ_vH	(325–462)	44.9	394		[1999DYK/SVO]
	Δ_vH	(303–493)	51.6	398		[1967FIN/GAR2]
	Δ_vH	(303–493)	54.0 ± 0.8	298		[1967FIN/GAR2]
$C_3H_9B_3Cl_3N_3$	[703-86-6]	2,4,6-trichloro-1,3,5-trimethylborazine				
	$\Delta_{sub}H$	(363–404)	57.9	383.5	A	[1987STE/MAL, 1950BUR/KUL]
$C_3H_9B_3O_3$	[na]	methylboric acid anhydride				
	Δ_vH	(273–327)	37.4	288		[1940BUR]
(C_3H_9N)–(BF_3)	[420-20-2]	trimethylamine- boron trifluoride complex				
	$\Delta_{sub}H$	(373–413)	68.9	393	A	[1987STE/MAL, 1943BUR3]
(C_3H_9N)–(B_2F_4)	[3801-72-7]	trimethylamine- diboron tetrafluoride (tetramer)				
	$\Delta_{sub}H$	(366–399)	65.1	382		[1958FIN/SCH]
(C_3H_9N)–(BH_3)	[75-22-9]	trimethylamine- borane complex				
	$\Delta_{sub}H$	(273–363)	56.9 ± 0.8		ME	[1959ALT/BRO]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(296–367)	57.0	311	A	[1987STE/MAL, 1937BUR/SCH]
$(C_3H_9N)-(C_3H_6BCl_2N)$	[na]	trimethylamine- dimethylaminoboron dichloride complex				
	$\Delta_{sub}H$	(293–342)	66.1 ± 1.7	317		[1952BRO/OST]
$C_3H_{10}BN$	[4023-40-9]	N-methylaminodimethylborane				
	$\Delta_{sub}H$		56.9 ± 0.8	298		[1988GOL/SIT, 1966GOO/MAN]
$C_3H_{12}BN$	[na]	borine trimethylamine				
	Δ_vH	(136–195)	19.9	180		[1937BUR/SCH]
$C_3H_{12}B_{10}O_2$	[18178-04-6]	*o*-carboranecarboxylic acid				
	$\Delta_{sub}H$		97.0 ± 1.7	298		[1982PIL/SKI, 1970GAL/MAR]
$C_3H_{12}B_{10}O_2$	[18581-81-2]	*m*-carboranecarboxylic acid				
	$\Delta_{sub}H$		97.7 ± 0.7	298		[1982PIL/SKI, 1970GAL/MAR]
$C_3H_{12}B_{10}O_2$	[23087-98-1]	*p*-carboranecarboxylic acid				
	$\Delta_{sub}H$		96.3 ± 0.7	298		[1982PIL/SKI, 1970GAL/MAR]
$C_3H_{14}B_{10}$	[16872-10-9]	methyl-*o*-carborane				
	$\Delta_{sub}H$		63.8 ± 0.6	298		[1982PIL/SKI, 1976MIR/PAV]
$C_3H_{14}B_{10}O$	[19610-34-5]	hydroxymethyl-*o*-carborane				
	$\Delta_{sub}H$		77.0 ± 1.3	298		[1982PIL/SKI, 1976MIR/PAV]
$C_3H_{14}B_{10}O$	[53257-04-8]	hydroxymethyl-*m*-carborane				
	$\Delta_{sub}H$		78.3 ± 1.3	298		[1982PIL/SKI, 1976MIR/PAV]
$C_3H_{14}B_{10}O$	[35795-98-3]	hydroxymethyl-*p*-carborane				
	$\Delta_{sub}H$		83.9 ± 1.3	298		[1982PIL/SKI, 1976MIR/PAV]
$C_3H_{15}B_5$	[na]	1-isopropylpentaborane (9)				
	Δ_vH	(273–398)	37.2	335		[1963RYS/HAR]
C_4BClF_6	[669-89-6]	*bis*(perfluorovinyl)chloroborine				
	Δ_vH	(280–322)	35.6	301	T	[1960STA/STO]
C_4H_6BCl	[10147-89-4]	divinylchloroborane				
	Δ_vH	(275–298)	33.0	286	T	[1960BRI/STO]
C_4H_6BF	[1537-50-4]	divinylfluoroborane				
	Δ_vH	(193–273)	25.8	233	T	[1960BRI/STO]
$(C_4H_{10}O)-(BF_3)$	[na]	diethyl ether—boron trifluoride complex				
	Δ_vH	(283–353)	55.1	318		[1960MCL/TAM]
$C_4H_{10}BClO_2$	[20905-32-2]	diethoxychloroborane				
	Δ_vH		38.9 ± 0.8	298		[1931WIB/SUT, 1970COX/PIL]
$C_4H_{11}BO_2$	[4426-47-5]	dihydroxy-*n*-butylborane				
	$\Delta_{sub}H$	(303–340)	69.9 ± 0.8	321	BG	[1956MAT/ERI]
$(C_4H_{11}N)-(C_3H_9B)$	[na]	N,N-dimethylethylamine—trimethylborane complex				
	Δ_vH	(303–339)	58.2	321		[1960KAE/STO]
$C_4H_{12}BClN_2$	[6562-41-0]	*bis*(dimethylamino)chloroborane				
	Δ_vH		41.8 ± 2.1	298		[1951BUR/RAN, 1970COX/PIL]
$C_4H_{12}B_2Br_4N_2$	[25928-66-9]	dibromo(dimethylamino)borane dimer				
	$\Delta_{sub}H$		87.4 ± 22.2		BG	[1983SPI/KOL]
$C_4H_{12}B_2O_4$	[7318-94-7]	tetramethoxydiboron				
	Δ_vH		44.7			[1972FIN/GAR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(273–348)	44.0	310		[1960BRO/MCC]
$(C_4H_{12}GeO)-(BF_3)$	[na]	trimethylmethoxygermane—boron trifluoride complex				
	$\Delta_{sub}H$	(289–306)	59.5	297	SG	[1961GRI/ONY]
$C_4H_{16}B_{10}$	[17032-21-2]	dimethyl-*o*-carborane				
	$\Delta_{sub}H$		65.3 ± 07	298		[1982PIL/SKI, 1976MIR/PAV]
$C_4H_{17}B_5$	[na]	1-sec-butylpentaborane (9)				
	$\Delta_v H$	(299–428)	41.4	364		[1963RYS/HAR]
$C_4H_{18}B_4N_2$	[na]	1,4-piperazinediyl *bis*(diborane(6))				
	$\Delta_{sub}H$	(318–346)	63.9	332		[1968BUR/IAC]
$(C_5H_5N)-(BBr_3)$	[3022-54-6]	boron tribromide- pyridine complex				
	$\Delta_{sub}H$	(523–602)	65.8 ± 0.2		T	[1989GRI/KON]
			105.5 ± 1.1	393	C	[1989GRI/KON]
$(C_5H_{10}O)-(BF_3)$	[na]	tetrahydopyran—boron trifluoride complex				
	$\Delta_v H$	(323–368)	60.9	345		[1960MCL/TAM2]
$(C_5H_{11}N)-(BCl_3)$	[na]	piperidine- boron trichloride complex				
	$\Delta_{sub}H$		76.1		GS	[1960GRE/WAD]
$(C_5H_{11}N)-(BH_3)$	[na]	piperidine- borane complex				
	$\Delta_{sub}H$	(342–380)	87.8	361		[1956BUR/GOO]
$C_5H_{16}B_{10}$	[na]	isopropenyl-*o*-carborane				
	$\Delta_v H$	(323–473)	36.7	398		[1963FEI/BOB]
$C_5H_{16}B_{10}O_2$	[19528-60-0]	1-acetoxymethyl-*o*-carborane				
	$\Delta_v H$		56.5	569		[1974DIT/SKO4]
$C_5H_{19}B_5$	[na]	1-methyl-2-sec-butylpentaborane				
	$\Delta_v H$	(301–423)	41.0	362		[1963RYS/HAR]
$C_5H_{21}B_3N_2S$	[37956-18-6]	1,2,3,3,4,4,5,5,6,6-decahydro-1,3,3,5,5-pentamethyl-2*H*-1,3,5,2,4,6-thiadiazatriborine				
	$\Delta_{sub}H$		57.7			[1972BUR]
C_6BF_9	[815-70-3]	*tris*(perfluorovinyl)borine				
	$\Delta_v H$	(297–335)	41.1	316	T	[1960STA/STO]
$C_6H_5BBr_2$	[4151-77-3]	phenylboron dibromide				
	$\Delta_v H$	(391–433)	43.9 ± 2.1	412	T	[1967FIN/GAR]
$C_6H_5BCl_2$	[873-51-8]	phenylboron dichloride				
	$\Delta_v H$	(273–318)	33.7 ± 0.8	296	T	[1967FIN/GAR]
$C_6H_{10}B_2N_4$	[16998-91-7]	pyrazabole				
	$\Delta_{fus}H$		11.83	354.3	DSC	[1993DOM/SER]
$C_6H_{12}BCl_3O_3$	[na]	*tris*(2-chloroethyl) orthoborate				
	$\Delta_v H$	(390–448)	57.7	419		[1946JON/THO]
$C_6H_{12}BNO_3$	[283-56-7]	2,8,9-trioxa-5-aza-1-boratricyclo[3.3.3.O^{1,5}]undecane				
	$\Delta_{trs}H$		4.54	466.7		
	$\Delta_{fus}H$		8.78	499.4	DSC	[1984WEI/LEF]
	$\Delta_{sub}H$		111.9 ± 0.9	418	C	[1984VOR/MIR]
$C_6H_{13}BO_2$	[10173-39-4]	1-butaneboronic acid, cyclic ethylene ester				
	$\Delta_v H$		40.2	329		[1970FIN/GAR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{15}B$	[97-94-9]	triethylborane				
	$\Delta_{fus}H$		11.85	180.3		[1996DOM/HEA]
	Δ_vH		33.6	293		[1983HOU2]
	Δ_vH		36.8 ± 0.4			[1963POP/SKI, 1982PIL/SKI]
$C_6H_{15}BO_3$	[150-46-9]	triethylborate				
	Δ_vH	(302–382)	41.0	317		[1967CHR/SHI]
	Δ_vH	(302–382)	38.2	391		[1967CHR/SHI]
$C_6H_{15}BS_3$	[998-26-5]	triethylthioborane				
	Δ_vH		61.5 ± 2.1			[1966FIN/GAR, 1970COX/PIL]
$C_6H_{15}B_3O_3$	[3043-60-5]	triethylboroxin				
	Δ_vH	(347–424)	46.0	362	EB	[1990SPR/GRE]
$C_6H_{16}BN$	[na]	(N-ethylamino)diethylborane				
	Δ_vH		60.7 ± 0.8			[1967SMI/GOO, 1982PIL/SKI]
$C_6H_{17}B_5Br_2Si_2$	[66798-29-6]	2,4-*bis*(bromodimethylsilyl)-2,4-dicarbo-closo-heptaborane (7)				
	Δ_vH	(388–463)	53.1	403	I	[1979GOL/SHM]
$C_6H_{17}B_5Cl_2Si_2$	[28699-83-4]	2,4-*bis*(chlorodimethylsilyl)-2,4-dicarbo-closo-heptaborane (7)				
	Δ_vH	(359–439)	46.2	374	I	[1979GOL/SHM]
$C_6H_{18}BN$	[1722-26-5]	triethylaminoborane				
	Δ_vH		69.7 ± 0.8			[1967SMI/GOO, 1970COX/PIL]
$C_6H_{18}BN_3$	[4254-29-6]	*tris*(triethylamino)borane				
	Δ_vH		46.9 ± 0.8			[1951BUR/RAN, 1970COX/PIL]
$C_6H_{19}B_5Si_2$	[59351-11-0]	2,4-*bis*(dimethylsilyl)-2,4-dicarba-closo-heptaborane				
	Δ_vH	(373–453)	41.3	388	I	[1976SHM/SHL]
$C_6H_{20}B_2N_2$	[na]	dimethylaminomethyl borane cyclic dimer				
	Δ_vH	(311–357)	57.8	314		[1966MIL/MUR]
$C_6H_{20}B_{10}$	[23835-38-3]	1-butyl-*o*-carbaborane (12)				
	Δ_vH	(433–534)	77.3 ± 3.8	298	EB	[1980SHU/VAR]
	Δ_vH	(433–534)	50.6 ± 1.3	571	EB	[1980SHU/VAR]
$C_6H_{20}B_{10}$	[51952-46-6]	1-isobutyl-*o*-carbaborane (12)				
	Δ_vH	(427–536)	72.8 ± 2.1	298	EB	[1980SHU/VAR]
	Δ_vH	(427–536)	49.1 ± 0.9	564	EB	[1980SHU/VAR]
$C_6H_{20}B_{10}$	[70312-25-3]	1-butyl-*m*-carbaborane (12)				
	Δ_vH	(406–527)	67.7 ± 0.8	298	EB	[1980SHU/VAR]
	Δ_vH	(406–527)	46.7 ± 0.6	537	EB	[1980SHU/VAR]
$C_6H_{20}B_{10}$	[na]	1-isobutyl-*m*-carbaborane (12)				
	Δ_vH	(400–488)	64.1 ± 2.8	298	EB	[1980SHU/VAR]
	Δ_vH	(400–488)	44.6 ± 1.3	532	EB	[1980SHU/VAR]
$C_7H_7BCl_2$	[na]	*p*-tolyldichloroborane				
	$\Delta_{fus}H$		4.39	301		[1973FIN/GAR]
$(C_7H_9N)-(BH_3)$	[na]	2,6-dimethylpyridine- borane complex				
	$\Delta_{sub}H$	(358–378)	83.8	368	T	[1956BRO/DOM]
$C_7H_{14}BNO_3$	[283-62-5]	2,9,10-trioxa-5-aza-1-boratricyclo[4.3.3.0^{1,6}]dodecane				
	$\Delta_{sub}H$		105.2 ± 0.6	390	C	[1984VOR/MIR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound: Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_7H_{15}BO_2$	[30169-71-2]	1-butaneboronic acid, cyclic trimethylene ester				
	$\Delta_v H$		43.1	348		[1970FIN/GAR]
$C_7H_{15}B_3F_3N_3$	[20453-68-3]	1,2,3,4,5-pentamethyl-6-(trifluorovinyl)borazaine				
	$\Delta_v H$	(280–324)	18.4	302		[1999DYK/SVO]
$C_7H_{22}B_{10}$	[75482-33-6]	1-pentyl-*o*-carbaborane (12)				
	$\Delta_v H$	(446–549)	84.3 ± 6.0	298	EB	[1980SHU/VAR]
	$\Delta_v H$	(446–549)	52.0 ± 1.5	571	EB	[1980SHU/VAR]
$C_7H_{22}B_{10}$	[75482-35-8]	1-pentyl-*m*-carbaborane (12)				
	$\Delta_v H$	(421–544)	74.6 ± 2.4	298	EB	[1980SHU/VAR]
	$\Delta_v H$	(421–544)	48.6 ± 0.8	555	EB	[1980SHU/VAR]
$C_8H_{12}B_2Cl_6O_5$	[na]	1,3-diethyl-1,3-*bis*(trichloroacetoxy)-1,3-diboroxane				
	$\Delta_{fus}H$		24.22	327.2		[1995DAB/DOM]
$C_8H_{16}BNO_3$	[283-64-7]	2,10,11-trioxa-5-aza-1-boratricyclo[4.4.3.01,6]tridecane				
	$\Delta_{sub}H$		102.2 ± 1.0	390	C	[1984VOR/MIR]
$C_8H_{16}B_2O_5$	[na]	1,3-diacetoxy-1,3-diethyl-1,3-diboroxane				
	$\Delta_{fus}H$		21.6	377.2		[1995DAB/DOM]
$C_8H_{17}BO_2$	[31044-62-9]	1-butaneboronic acid, cyclic tetramethylene ester				
	$\Delta_v H$		76.6	364		[1970FIN/GAR]
$C_8H_{18}BBr$	[5674-70-4]	dibutylboron bromide				
	$\Delta_v H$	(293–363)	50.6	328		[1953SKI/TEE]
$C_8H_{18}BCl$	[1730-69-4]	dibutylboron chloride				
	$\Delta_v H$	(293–363)	48.2	328		[1953SKI/TEE]
$C_8H_{18}BNO_3$	[283-65-8]	2,10,11-trioxa-5-aza-1-boratricyclo[4.4.4.0^{1,6}]tetradecane				
	$\Delta_{sub}H$		97.9 ± 1.0	418	C	[1984VOR/MIR]
$C_8H_{18}B_{10}O_3$	[146959-04-8]	1,2-dicarbadodecaborane(12)-1-carboperoxoic acid 1,1-dimethyl-2-propynyl ester				
	$\Delta_{fus}H$		16	374		[1999DIB/PIS2]
	$\Delta_{sub}H$	(329–343)	120.7 ± 7.4		ME	[1999DIB/PIS]
$C_8H_{18}B_{10}O_3$	[146959-05-9]	1,7-dicarbadodecaborane(12)-1-carboperoxoic acid 1,1-dimethyl-2-propynyl ester				
	$\Delta_{fus}H$		29.4	360		[1999DIB/PIS2]
	$\Delta_{sub}H$	(317–334)	80.1 ± 6.1		ME	[1999DIB/PIS]
$C_8H_{19}BO_2$	[10394-51-1]	1-butaneboronic acid, diethyl ester				
	$\Delta_v H$		43.3	346		[1970FIN/GAR]
$C_8H_{20}B_2O$	[7318-84-5]	tetraethyldiboroxane				
	$\Delta_v H$	(343–421)	42.9	358	EB	[1990SPR/GRE]
$C_8H_{20}B_2O_4$	[1630-81-5]	tetraethoxydiboron				
	$\Delta_v H$	(273–358)	52.9	315		[1960BRO/MCC]
$C_8H_{24}B_2N_4$	[1630-79-1]	tetra(dimethylamino)diboron				
	$\Delta_v H$	(296–408)	52.7	352		[1960BRO/MCC2]
$C_8H_{24}B_{10}$	[20740-05-0]	1-hexyl-*o*-carbaborane (12)				
	$\Delta_v H$		86.2 ± 1.4	298		[1982PIL/SKI, 1978GAL/PAV]
	$\Delta_v H$	(458–530)	93.5 ± 6.0	298	EB	[1980SHU/VAR]
	$\Delta_v H$	(458–530)	54.1 ± 2.1	601	EB	[1980SHU/VAR]
$C_8H_{24}B_{10}$	[75482-36-9]	1-hexyl-*m*-carbaborane (12)				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(434–544)	79.8 ± 2.4	298	EB	[1980SHU/VAR]
	$\Delta_v H$	(434–544)	50.7 ± 1.0	572	EB	[1980SHU/VAR]
$C_8H_{23}B_5Si_2$	[59351-10-9]	2,4-*bis*(trimethylsilyl)-2,4-dicarba-closo-heptaborane				
	$\Delta_v H$	(373–473)	45.0	388	I	[1976SHM/SHL]
$C_9H_{11}BO_2$	[4406-77-3]	benzeneboronic acid, cyclic trimethylene ester				
	$\Delta_v H$		47.3	426		[1970FIN/GAR]
$C_9H_{15}BCl_6O_3$	[na]	*tris*(2,2′-dichloroisopropyl) orthoborate				
	$\Delta_v H$	(488–513)	77.0	465		[1946JON/THO]
$C_9H_{21}B$	[1116-61-6]	tripropylborane				
	$\Delta_v H$		41.8 ± 1.3			[1963GAL/VAR, 1982PIL/SKI]
	$\Delta_v H$	(273–393)	40.0		BG	[1946BAM/LEV]
$C_9H_{21}B$	[1776-66-5]	triisopropylborane				
	$\Delta_v H$		41.8 ± 1.3			[1963GAL/VAR, 1982PIL/SKI]
	$\Delta_v H$	(273–393)	40.0		BG	[1946BAM/LEV]
$C_9H_{21}BO_3$	[688-71-1]	tripropylborate				
	$\Delta_v H$	(340–453)	52.3	355		[1980THO/SMI]
	$\Delta_v H$	(358–452)	47.6	452		[1967CHR/SHI]
$C_9H_{21}BO_3$	[5419-55-6]	triisopropylborate				
	$\Delta_v H$	(338–412)	42.4	412		[1967CHR/SHI]
$C_9H_{21}BS_3$	[998-38-9]	tri(propylthio)borane				
	$\Delta_v H$	(423–483)	76.2	453		[1967FIN/GAR2]
	$\Delta_v H$	(423–483)	87.0 ± 2.1	298		[1967FIN/GAR2]
$C_9H_{22}BNO$	[na]	butyl(dimethylamino)methoxyborane				
	$\Delta_v H$	(369–427)	48.1	384	EB	[1973GAL/BRY]
	$\Delta_v H$		58.2 ± 2.5	298		[1973GAL/BRY]
$C_{10}H_{13}BO_2$	[4406-76-2]	benzeneboronic acid, cyclic tetramethylene ester				
	$\Delta_v H$		57.3	441		[1970FIN/GAR]
$C_{10}H_{15}BO_2$	[31044-59-4]	benzeneboronic acid, diethyl ester				
	$\Delta_v H$		67.4	332		[1970FIN/GAR]
$C_{11}H_{24}B_{10}O_3$	[na]	3-methyl-3-(7-isopropyl-*m*-carboranoylperoxy)-1-butyne				
	$\Delta_v H$	(353–368)	140.6 ± 4.4	360	ME	[1999DIB/PIS2]
$C_{11}H_{24}B_{10}O_3$	[146959-06-0]	1,2-dicarbadodecaborane(12)-1-carboperoxoic acid 2-(1-methylethyl)-1,1-dimethyl-2-propynyl ester				
	$\Delta_{sub}H$	(345–362)	125.1 ± 7.0		ME	[1999DIB/PIS]
$C_{11}H_{24}B_{10}O_3$	[na]	1,7-dicarbadodecaborane(12)-1-carboperoxoic acid, 7-(1-methylethyl)-1,1-dimethyl-2-propynyl ester				
	$\Delta_{fus}H$		32.4	368		[1999DIB/PIS2]
$C_{12}H_{10}BBr$	[5123-17-1]	diphenylboron bromide				
	$\Delta_v H$	(436–516)	60.2 ± 2.5	476	T	[1967FIN/GAR]
$C_{12}H_{10}BCl$	[3677-81-4]	diphenylboron chloride				
	$\Delta_v H$	(363–485)	41.4 ± 2.1	424	T	[1967FIN/GAR]
$C_{12}H_{21}B$	[16664-33-8]	dodecahydro-9-boraphenalene				
	$\Delta_v H$	(304–404)	53.1	319	A	[1987STE/MAL]
$C_{12}H_{27}B$	[122-56-5]	tributylboron				
	$\Delta_v H$	(293–363)	54.7	328		[1953SKI/TEE]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{27}BO_3$	[688-74-4]	tributylborate				
	$\Delta_v H$	(380–504)	58.1	395		[1980THO/SMI]
	$\Delta_v H$	(390–491)	55.9	405		[1967CHR/SHI]
$C_{12}H_{27}BO_3$	[13195-76-1]	triisobutylborate				
	$\Delta_v H$	(372–472)	51.7	483		[1967CHR/SHI]
$C_{12}H_{27}BS_3$	[998-46-9]	tri(butylthio)borane				
	$\Delta_v H$	(440–503)	83.9	471		[1967FIN/GAR2]
	$\Delta_v H$	(440–503)	95.8 ± 2.1	298		[1967FIN/GAR2]
$C_{12}H_{30}B_8$	[223268-31-3]	1,10-dipentyl-1,10-dicarbadecaborane				
	$\Delta_{fus}H$		14.7	269.7		[1999DOU/BOT]
$C_{14}H_{26}B_2N_4$	[14695-69-3]	4,4,8,8-tetraethylpyrazabole				
	$\Delta_{trs}H$		28.61	342.4		
	$\Delta_{fus}H$		3.22	379.2	DSC	[1993DOM/SER]
$C_{15}H_{32}B_{10}O_5$	[141695-58-1]	2,5-dimethyl-(2-*tert*-butylperoxy-5-*m*-carboranoylperoxy)-3-hexyne				
	$\Delta_v H$	(353–366)	86.8 ± 5.4	360	ME	[1999DIB/PIS2]
$C_{15}H_{33}BO_3$	[621-78-3]	tripentylborate				
	$\Delta_v H$	(410–505)	67.7	425		[1980THO/SMI]
$C_{15}H_{33}BS_3$	[1116-74-1]	tri(pentylthio)borane				
	$\Delta_v H$	(446–503)	92.3	474		[1967FIN/GAR2]
	$\Delta_v H$	(446–503)	104.6 ± 2.1	298		[1967FIN/GAR2]
$C_{18}H_{12}BCl_3O_3$	[7539-58-2]	*tris*(4-chlorophenoxy)borane				
	$\Delta_v H$	(428–476)	30.6 ± 0.9	452	MM	[1973WIL/FEN]
$C_{18}H_{12}BCl_3O_3$	[42080-72-8]	*tris*(3-chlorophenoxy)borane				
	$\Delta_v H$	(476–524)	49.6 ± 1.6	500	MM	[1973WIL/FEN]
$C_{18}H_{15}B$	[960-71-4]	triphenylborane				
	$\Delta_{sub}H$		103.8 ± 2.5	360	TE,ME	[1984GOV/KAN2]
	$\Delta_{sub}H$		92.1 ± 2.5	298		[1978STE3]
	$\Delta_{sub}H$		81.6 ± 2.1			[1982PIL/SKI, 1967FIN/GAR]
	$\Delta_v H$	(423–568)	64.3	438	A	[1987STE/MAL]
	$\Delta_v H$	(423–548)	64.4 ± 2.1	486		[1967FIN/GAR]
$C_{18}H_{33}B$	[1088-01-3]	tricyclohexylboron				
	$\Delta_{sub}H$		81.6 ± 4.2	298		[1982PIL/SKI, 1967FIN/GAR]
$C_{18}H_{34}B_2N_4$	[77189-78-7]	4,4,8,8-tetrapropylpyrazabole				
	$\Delta_{fus}H$		33.0	382.2	DSC	[1993DOM/SER]
$C_{21}H_{12}BN_3O_3$	[42080-77-3]	*tris*(4-cyanophenoxy)borane				
	$\Delta_v H$	(448–506)	46.2 ± 2.0	477	MM	[1973WIL/FEN]
$C_{21}H_{21}BO_3$	[14643-62-0]	*tris*(4-methylphenoxy)borane				
	$\Delta_v H$	(475–525)	76.1 ± 1.7	500	MM	[1973WIL/FEN]
$C_{21}H_{21}BO_3$	[14750-98-2]	*tris*(3-methylphenoxy)borane				
	$\Delta_v H$	(477–523)	77.1 ± 2.2	500	MM	[1973WIL/FEN]
$C_{21}H_{21}BO_6$	[42080-76-2]	*tris*(3-methoxyphenoxy)borane				
	$\Delta_v H$	(440–496)	57.8 ± 2.4	468	MM	[1973WIL/FEN]
$C_{21}H_{21}BO_6$	[42080-75-1]	*tris*(4-methoxyphenoxy)borane				
	$\Delta_v H$	(448–500)	42.4 ± 2.7	474	MM	[1973WIL/FEN]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{23}H_{24}BNO_2$	[345342-83-8]	4-benzyl-5,6-dimethyl-2,5-diphenyl-1,3-dioxa-4-aza-2-boracyclohexane				
	$\Delta_{fus}H$		13	408.2		[2001KLI/LUB]
$C_{29}H_{26}BCl_2NO_2$	[345342-96-3]	4-benzhydryl-2,5-di(4′-chlorophenyl)-4,5-dimethyl-1,3-dioxa-4-aza-2-boracyclohexane				
	$\Delta_{fus}H$		23.96	453.2		[2001KLI/LUB]
		Note: Sample may have experienced partial decomposition as authors report a mass decrease at melting.				
$C_{29}H_{28}BNO_2$	[345342-93-0]	4-benzhydryl-5,6-dimethyl-2,5-diphenyl-1,3-dioxa-4-aza-2-boracyclohexane				
	$\Delta_{fus}H$		28.43	431.2		[2001KLI/LUB]
$C_{31}H_{32}BNO_2$	[345342-82-7]	4-benzhydryl-5,6-dimethyl-2,5-di(4′-methylphenyl)-1,3-dioxa-4-aza-2-boracyclohexane				
	$\Delta_{fus}H$		32.48	453.2		[2001KLI/LUB]
$C_{33}H_{30}BNO_2$	[345342-99-6]	4-benzhydryl-5,6-dimethyl-2-(1′-naphthyl)-5-phenyl-1,3-dioxa-4-aza-2-boracyclohexane				
	$\Delta_{fus}H$		25.48	454.2		[2001KLI/LUB]
BH_3O_3	[10043-35-3]	boric acid				
	$\Delta_{sub}H$	(326–363)	174.1 ± 4.7	345	GS	[2007PAN/ANT]
B_2F_4	[13965-73-6]	diboron tetrafluoride				
	$\Delta_{sub}H$	(178–209.5)	35.5	193		[1958FIN/SCH]
B_2H_6	[19287-45-7]	diborane				
	Δ_vH	(118–179)	15.3	164		[1961DIT/PER]
	Δ_vH		14.2	180	C	[1959PAR/MAC]
	Δ_vH		12.6	210	C	[1959PAR/MAC]
	Δ_vH		10.5	240	C	[1959PAR/MAC]
	Δ_vH		7.3	270	C	[1959PAR/MAC]
B_2D_6	[20396-66-1]	perdeuterodiborane				
	Δ_vH	(118–179)	15.3	164		[1961DIT/PER]
$B_3Br_3H_3N_3$	[13703-88-3]	2,4,6-tribromoborazine				
	$\Delta_{sub}H$	(342–395)	86.2 ± 0.4		I	[1966LAU/SCA]
	Δ_vH	(404–415)	47.0 ± 5.1	409	I	[1966LAU/SCA]
$B_3Cl_3H_3N_3$	[933-18-6]	2,4,6-trichloroborazine				
	$\Delta_{sub}H$	(303–353)	70.5 ± 0.4		I	[1966LAU/SCA]
	$\Delta_{sub}H$	(313–357)	71.1			[1955BRO/LAU]
	Δ_vH	(363–409)	49.6 ± 0.2	386	I	[1966LAU/SCA]
	Δ_vH	(360–386)	47.8	373		[1955BRO/LAU]
$B_3F_3H_3N_3$	[13779-24-3]	2,4,6-trifluoroborazine				
	$\Delta_{sub}H$	(273–454)	63.1 ± 0.1		I	[1966LAU/SCA]
$B_3H_6N_3$	[6569-51-3]	borazaole				
	$\Delta_{fus}H$	(13–310)	10.61	215.8	AC	[1992KUL/LEB, 1991LEB/KUL]
$B_3H_{12}N_3$	[13871-09-5]	hexahydroborazine				
	$\Delta_{sub}H$	(321–349)	104.6 ± 12.6		ME	[1969LEA/LON, 1971LEA]
$(NH_3)-(B_3H_7)$	[na]	ammonia- triborane complex				
	$\Delta_{sub}H$	(306–328)	71.5 ± 0.4		ME	[1959ALT/BRO]
	$\Delta_{sub}H$	(304–327)	71.5			[1959WES/LEV]
Ba (barium)						
$(C_{10}H_2BaF_{12}O_4)-(C_{12}H_{24}O_6)$	[143737-48-8]	*bis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)barium(II)-18-crown-6 complex				
	$\Delta_{sub}H$	(412–468)	104.9 ± 1.3	440		[1995TOB/WAT]
	$\Delta_{sub}H$	(428–473)	115 ± 2	450	T	[1993SYO/GOL]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{22}H_{38}BaO_4$	[155138-07-1]	*bis*(2,2,6,6-tetramethylheptan-3,5-dionato)barium(II)				
	$\Delta_{sub}H$		NA			[1994ALI/MAL]
	$\Delta_{sub}H$		90.2			[1993TOB/LAN]
$C_{34}H_{42}BaCu_2F_{24}O_8$	[16034-35-2]	*tetrakis*(hexafluoroisopropoxy)*bis*(2,2,6,6-tetramethylheptan-3,5-dionato)barium(II)dicopper(II)				
	$\Delta_{sub}H$	(383–448)	102.7	416		[1996LAB/HUB]
$C_{56}H_{80}BaF_{24}O_{12}Y_2$	[160669-81-8]	*tetrakis*(hexafluoroisopropoxy)*tetrakis*(2,2,6,6-tetramethylheptan-3,5-dionato)barium(II)diyttrium(III)				
	$\Delta_{sub}H$	(360–403)	84.8	382		[1996LAB/HUB]
Be (beryllium)						
C_2H_6Be	[506-63-8]	dimethyl beryllium				
	Δ_vH	(373–453)	88.7	388		[1952COA/GLO]
$C_{10}H_2BeF_{12}O_4$	[19648-82-9]	*bis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)beryllium(II)				
	$\Delta_{sub}H$	(289–349)	66.1	319	BG	[1987GRI/LAZ2]
$C_{10}H_8BeF_6O_4$	[13939-10-1]	*bis*(1,1,1-trifluoro-2,4-pentanedionato)berylium(II)				
	$\Delta_{sub}H$	(354–383)	85.3 ± 6.3	368	BG	[1987GRI/LAZ2, 1988LAZ/GRI]
	$\Delta_{sub}H$		88.0 ± 6.5	298		[1987GRI/LAZ2]
	$\Delta_{sub}H$		U 30.5			[1960BER/TRU, 1965BER/TRU]
	Δ_vH	(387–474)	59.8 ± 0.4	431	BG	[1988LAZ/GRI]
$C_{10}H_{14}BeO_4$	[10210-64-7]	*bis*(2,4-pentanedionato)berylium(II)				
	$\Delta_{fus}H$		15.7	381.2	DSC	[1983MUR/HIL]
	$\Delta_{sub}H$		95.3 ± 2.0			[1988RIB/PIL]
	$\Delta_{sub}H$		94 ± 1.0	298	ME	[1977NAG, 1988RIB/FER4]
	$\Delta_{sub}H$		82.3		BG	[1988LAZ/GRI]
	$\Delta_{sub}H$		91 ± 1.4	298	C	[1985MUR/SAK]
	$\Delta_{sub}H$		85.3 ± 3.5		DSC	[1983MUR/HIL]
	$\Delta_{sub}H$		U 35.6			[1960BER/TRU, 1965BER/TRU]
	Δ_vH	(382–511)	65.7 ± 1.1	447	BG	[1988LAZ/GRI]
$C_{12}H_{18}Be_4O_{13}$	[19049-40-2]	*hexakis*(aceto)-oxotetraberyllium				
	$\Delta_{sub}H$	(390–451)	115.3	420.5	A	[1987STE/MAL]
	$\Delta_{sub}H$ *(monoclinic)*		115.3			[1959SEM/GOR]
	$\Delta_{sub}H$ *(I)*	(394–422)	132.6	408		[1955MOM/SEK]
	$\Delta_{sub}H$ *(II)*	(426–446)	113.4	436		[1955MOM/SEK]
$C_{20}H_{12}BeF_6O_4$	[14052-07-4]	*bis*(1-phenyl-4,4,4-trifluoro-1,3-butanedionato)beryllium(II)				
	$\Delta_{sub}H$		U 35.8		I	[1960BER/TRU, 1965BER/TRU]
$C_{20}H_{18}BeO_4$	[14128-75-7]	*bis*(benzoylacetonato)berylium(II)				
	$\Delta_{sub}H$	(416–438)	151.6 ± 1.8	427	TE,ME	[1995RIB/MON2]
	$\Delta_{sub}H$		158.0 ± 1.8	298		[1995RIB/MON2]
	$\Delta_{sub}H$		142.3 ± 1.4	298	C	[1983RIB/REI]
$C_{22}H_{38}BeO_4$	[36915-22-7]	*bis*(2,2,6,6-tetramethylheptane-3,5-dionato)berylium				
	$\Delta_{sub}H$		84.2		BG	[1988LAZ/GRI]
	Δ_vH	(383–525)	65.1	454	BG	[1988LAZ/GRI]
BeF_2	[7787-49-7]	beryllium fluoride				
	$\Delta_{sub}H$	(713–795)	236.4 ± 2.9	750	TE	[1965BLA/GRE]
	$\Delta_{sub}H$		231.8 ± 1.7	755	MS	[1965BLA/GRE]
	Δ_vH	(823–1223)	222.8	923	TE,ME,GS	[1963GRE/FOS]
	Δ_vH	(802–1021)	209.6	911		[1958SEN/STO]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(821–1002)	196.6	911		[1958NOV/SEM]
	$\Delta_v H$	(745–968)	212.9	856	GS	[1954SEN/SNY]
Bi (bismuth)						
CH_5Bi	[60458-17-5]	methylbismuth				
	$\Delta_v H$	(190–258)	29.9	224		[1961AMB]
C_2H_7Bi	[1438-45-4]	trimethylbismuth				
	$\Delta_v H$	(206–250)	32.7	228		[1961AMB]
C_3H_9Bi	[593-91-9]	trimethylbismuth				
	$\Delta_v H$	(215–380)	35.8	298		[1961AMB]
	$\Delta_v H$		36.0 ± 1.3			[1954LON/SAC, 1982PIL/SKI]
	$\Delta_v H$		34.8		BG	[1946BAM/LEV]
C_6H_9Bi	[65313-35-1]	trivinylbismuth				
	$\Delta_v H$	(293–346)	48.5	308		[1957MAI/SEY, 1984BOU/FRI]
$C_6H_{15}Bi$	[617-77-6]	triethylbismuth				
	$\Delta_{fus}H$		8.7	145.8		[1989NIS/RAB]
	$\Delta_v H$		46.0 ± 4.2			[1963LAU/TRO, 1982PIL/SKI]
	$\Delta_v H$	(301–343)	43.9	322		[1957MAI/SEY]
$C_{15}H_{30}BiN_3S_6$	[20673-31-8]	*tris*(N,N-diethyldithiocarbamate)bismuth(III)				
	$\Delta_{sub}H$		213 ± 3	298		[1994LIE/MAR]
$C_{18}H_{15}Bi$	[603-33-8]	triphenylbismuth				
	$\Delta_{sub}H$		110.9 ± 8.4	298		[1982PIL/SKI, 1979STE]
$C_{21}H_{42}BiN_3S_6$	[57407-97-3]	*tris*(dipropyldithiocarbamate)bismuth(III)				
	$\Delta_{sub}H$		285.2 ± 5.0		DSC,E	[1999NEV/GOU]
$C_{27}H_{54}BiN_3S_6$	[34410-99-6]	*tris*(N,N-dibutyldithiocarbamate)bismuth(III)				
	$\Delta_{sub}H$		202 ± 3	298		[1994LIE/MAR]
$C_{27}H_{54}BiN_3S_6$	[90285-80-6]	*tris*(N,N-diisobutyldithiocarbamate)bismuth(III)				
	$\Delta_{sub}H$		147 ± 3	298	DSC,E	[1997DES/DES]
$BiCl_3$	[7787-60-2]	bismuth (III) chloride				
	$\Delta_{sub}H$	(371–468)	124.7		ME	[1966CUB, 1959DAR/YOS]
	$\Delta_{sub}H$	(371–468)	118.8 ± 0.4	420	ME	[1959DAR/YOS]
Br (bromine)						
$BrFO_3$	[25251-03-0]	perbromyl fluoride				
	$\Delta_v H$	(188–291)	25.3	250		[1972JOH/OHA]
BrF_3	[7787-71-5]	bromine trifluoride				
	$\Delta_v H$	(311–428)	45.9	326		[1952OLI/GRI]
BrF_5	[7789-30-2]	bromine pentafluoride				
	$\Delta_v H$	(297–314)	30.6	304		[1956ROG/SPE]
	$\Delta_v H$	(213–297)	31.2	255		[1931RUF/MEN]
BrN_3O_6	[66794-51-2]	bromine(III) nitrate				
	$\Delta_v H$		81.1	271		[1961SCH/TAG]
Br_2	[7726-95-6]	bromine				
	$\Delta_v H$	(343–383)	29.8	358		[1973BLA/IHL]
	$\Delta_v H$	(297–389)	31.3	312		[1955FIS/BIN]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
HBr	[7726-95-6]	hydrogen bromide				
	$\Delta_v H$		17.6	206	C	[1928GIA/WIE]
Ca (calcium)						
$C_{22}H_{38}CaO_4$	[3618-89-0]	*bis*(2,2,6,6-tetramethylheptan-3,5-dionato)calcium(II)				
	$\Delta_{sub}H$		72		GS	[1990YUH/KIK]
Cd (cadmium						
C_2H_6Cd	[506-82-1]	dimethyl cadmium				
	$\Delta_{trs}H$		1.52	254.4		
	$\Delta_{fus}H$		7.84	270.5		[1956LI]
	$\Delta_v H$	(271–378)	37.1 ± 0.1	324		[1985SOK/BAE, 2001BAE]
	$\Delta_v H$	(270–295)	38.9	282		[1956LI]
	$\Delta_v H$		37.9 ± 0.1			[1949CAR/HAR2, 1982PIL/SKI]
	$\Delta_v H$		35.4		BG	[1946BAM/LEV]
$C_4H_{10}Cd$	[592-02-9]	diethyl cadmium				
	$\Delta_v H$	(286–362)	46.0 ± 0.4	324		[1985SOK/BAE, 2001BAE]
	$\Delta_v H$		46.0 ± 2.1			[1949CAR/HAR, 1982PIL/SKI]
$C_4H_{16}CdCl_2N_8S_4$	[28813-21-0]	*trans*-dichloro-*tetrakis*(thiourea)cadmium(II)				
	$\Delta_{sub}H$	(377–405)	75 ± 20			[1970ASH]
$C_6H_{14}Cd$	[5905-48-6]	dipropyl cadmium				
	$\Delta_v H$	(312–373)	54.2 ± 0.4	342		[1985SOK/BAE, 2001BAE]
$C_8H_{18}Cd$	[3431-67-2]	dibutyl cadmium				
	$\Delta_v H$	(336–376)	67.7 ± 1.2	356		[1985SOK/BAE, 2001BAE]
$C_{10}H_{14}CdCl_2N_6O_2$	[na]	[cadmium(1-methylcytosine)$_2$Cl$_2$]				
	$\Delta_{sub}H$	(483–503)	135.3 ± 20	493	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		145 ± 20	298		[1984BUR/MOR]
$C_{10}H_{14}CdO_4$	[14689-45-3]	*bis*(2,4-pentanedionato)cadmium(II)				
	$\Delta_{sub}H$	(438–448)	144.9 ± 22	443	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		154 ± 22	298		[1984BUR/MOR]
$C_{10}H_{20}CdN_2S_4$	[14239-68-0]	*bis*(diethyldithiocarbamate)cadmium(II)				
	$\Delta_{sub}H$	(433–469)	133.2	451		[1987STE/MAL]
$C_{14}H_{28}CdN_2S_4$	[55519-99-8]	*bis*(dipropyldithiocarbamate)cadmium(II)				
	$\Delta_{sub}H$		199 ± 1	298	DSC,E	[1992DEC/AIR]
$C_{18}H_{12}CdN_2O_2$	[14245-29-5]	*bis*(8-hydroxyquinolinato)cadmium(II)				
	$\Delta_{sub}H$		201.7 ± 7.5	298	ME	[1994RIB/MAT]
	$\Delta_{sub}H$	(438–448)	144.9 ± 22	443	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		154 ± 22	298		[1984BUR/MOR]
$C_{18}H_{36}CdN_2S_4$	[14566-86-0]	*bis*(dibutyldithiocarbamate)cadmium(II)				
	$\Delta_{sub}H$		123 ± 3	298	DSC,E	[1991DES/DES]
$C_{18}H_{36}CdN_2S_4$	[69090-75-1]	*bis*(diisobutyldithiocarbamate)cadmium(II)				
	$\Delta_{sub}H$		281 ± 2	298	DSC,E	[1994SOU/PIN]
$C_{20}H_{16}CdN_2O_2$	[15685-78-6]	*bis*(8-hydroxy-2-methylquinolinate)cadmium(II)				
	$\Delta_{sub}H$	(537–554)	190.9 ± 7.3	546	ME	[1998RIB/MAT3]
	$\Delta_{sub}H$		203.3 ± 7.3	298		[1998RIB/MAT3]
$C_{44}H_{28}CdN_4$	[14977-07-2]	5,10,15,20-tetraphenylporphine cadmium(II)				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		222 ± 6		GS	[2000PER/GOL]
$CdCl_2$	[10108-64-2]	cadmium chloride				
	Δ_vH	(875–1026)	132.6	950		[1958BLO/WEL]
Ce (cerium)						
$C_{15}H_{15}Ce$	[1298-53-9]	*tris*(cyclopentadienyl)cerium				
	$\Delta_{sub}H$	(528–653)	104.6 ± 2.1			[1973BOR/KRA]
$CeBr_3$	[14457-87-5]	cerium(III) bromide				
	$\Delta_{sub}H$	(887–1003)	300 ± 10	298	TE	[2000VIL/BRU]
$CeCl_3$	[7790-86-5]	cerium(III) chloride				
	$\Delta_{sub}H$	(955–1070)	331 ± 5	298	TE	[2000VIL/BRU]
CeI_3	[7790-87-6]	cerium(III) iodide				
	$\Delta_{sub}H$	(910–1031)	295 ± 10	298	TE	[2000VIL/BRU]
Cf (californium)						
($C_{15}H_3CfF_{18}O_6$)-2($C_6H_{14}OS$)	[123611-97-2]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)californium-dipropyl sulfoxide (1:2) complex				
	$\Delta_{sub}H$	(402–434)	93.6 ± 6.0		GS,TRM	[1989AIZ/FED]
($C_{15}H_3CfF_{18}O_6$)-2($C_{12}H_{27}OP$)	[123628-36-4]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)californium-tributylphosphine oxide (1:2) complex				
	$\Delta_{sub}H$	(431–485)	130.6 ± 1.9		GS,TRM	[1989AIZ/FED]
($C_{15}H_3CfF_{18}O_6$)-2($C_{12}H_{27}O_4P$)	[123712-43-6]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)californium- tributylphosphate (1:2) complex				
	$\Delta_{sub}H$	(413–451)	133.0 ± 6.1		GS,TRM	[1989AIZ/FED]
Cl (chlorine)						
$ClFO_3$	[7616-96-6]	perchloryl fluoride				
	Δ_vH	(164–228)	19.2	226	MM	[1958KOE/GIA]
	Δ_vH		19.3	226	C	[1958KOE/GIA]
ClF_3	[7790-91-2]	chlorine trifluoride				
	Δ_vH	(299–317)	27.5	313		[1997SAK/HOR]
	Δ_vH	(226–303)	28.4	288		[1951GRI/BER]
ClNO	[2696-92-6]	nitrosyl chloride				
	Δ_vH	(203–258)	25.3	230		[1949PAR/WYN]
$ClNO_3$	[14545-72-3]	chlorine nitrate				
	Δ_vH		30.5			[1961SCH/BRA]
Cl_2O_6	[12442-63-6]	dichlorine hexaoxide				
	Δ_vH	(273–318)	52.3	295		[1990LOP/SIC]
HCl	[7647-01-0]	hydrogen chloride				
	$\Delta_{sub}H$	(121–133)	19.7	127		[1990SER/LAR]
	$\Delta_{sub}H$	(134–150)	19.6	142		[1990SER/LAR]
	Δ_vH		16.2	188	C	[1928GIA/WIE2]
Co (cobalt)						
C_3CoNO_4	[14096-82-3]	cobalt nitrosyl tricarbonyl				
	Δ_vH	(272–353)	36.3	287		[1947STU]
C_4HCoO_4	[16842-03-8]	hydridocobalt tetracarbonyl				
	Δ_vH	(273–295)	28.0		GS	[1980ROT/ORC]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_3CoO_4Si$	[14652-62-1]	silyl tetracarbonyl cobalt				
	$\Delta_v H$	(263–357)	37.8	310	T	[1969AYL/CAM]
$C_4H_{16}Cl_2CoN_8S_4$	[22738-43-8]	*trans*-dichloro-*tetrakis*(thiourea)cobalt(II)				
	$\Delta_{sub}H$	(356–382)	129 ± 20			[1970ASH]
$C_7H_5CoO_2$	[na]	(cyclopendienyl) cobalt dicarbonyl				
	$\Delta_v H$	(313–369)	52.1 ± 0.7			[2000SZT/BAE]
$C_8Co_2O_8$	[10210-68-1]	octacarbonyldicobalt				
	$\Delta_{sub}H$	(264–278)	84.3 ± 0.5	271	TE	[1995GAR/CHA]
	$\Delta_{sub}H$	(288–315)	103.8	301.5	A	[1987STE/MAL, 1968BAE]
	$\Delta_{sub}H$		65.2 ± 3.3	298		[1982PIL/SKI, 1975GAR/CAR]
	$\Delta_{sub}H$	(207–287)	75.3 ± 6.3		EM	[1973CAR/ROB]
$C_8H_2Co_2O_8Si$	[23591-62-0]	silylene *bis*(tetracarbonylcobalt)				
	$\Delta_v H$	(297–335)	38.7	316	T	[1969AYL/CAM]
$C_8H_{10}Cl_2CoN_6O_2$	[74543-51-4]	[cobalt(cytosine)$_2$Cl$_2$]				
	$\Delta_{sub}H$	(483–523)	151.8 ± 14	503	ME	[1984BUR/MOR]
	$\Delta_{sub}H$	(483–523)	162 ± 14	298	ME	[1984BUR/MOR]
C_9CoMnO_9	[35646-82-3]	nonacarbonylcobaltmanganese				
	$\Delta_{sub}H$		85 ± 2	308	C	[1998ADD/CON]
	$\Delta_{sub}H$		72 ± 2	298	C	[1998ADD/CON]
C_9CoO_9Re	[15039-80-2]	nonacarbonylcobaltrhenium				
	$\Delta_{sub}H$		94 ± 4	313	C	[1998ADD/CON]
	$\Delta_{sub}H$		83 ± 4	298	C	[1998ADD/CON]
$C_{10}BrCo_3O_9$	[19439-14-6]	(bromomethylidyne)tricobaltenneacarbonyl				
	$\Delta_{sub}H$		99.6 ± 1.7	298		[1982PIL/SKI, 1975GAR/CAR]
$C_{10}ClCo_3O_9$	[13682-02-5]	(chloromethylidyne)tricobaltenneacarbonyl				
	$\Delta_{sub}H$		117.6 ± 2.5	298		[1982PIL/SKI, 1975GAR/CAR]
$C_{10}H_8Cl_4CoN_2$	[14361-73-0]	[cobalt(2-chloropyridine)$_2$Cl$_2$]				
	$\Delta_{sub}H$	(345–365)	101.2 ± 6.7	355	DSC	[1982MOR]
$C_{10}H_8Cl_4CoN_2$	[14361-78-5]	[cobalt(3-chloropyridine)$_2$Cl$_2$]				
	$\Delta_{sub}H$	(345–365)	77.0 ± 4.2	355	DSC	[1982MOR]
$C_{10}H_{10}Co$	[1277-43-6]	dicyclopentadienyl cobalt				
	$\Delta_{sub}H$		72.1 ± 0.1			[1988TOR/BAR2]
	$\Delta_{sub}H$		70.3 ± 4.2	298		[1982PIL/SKI, 1975TEL/KIR]
$C_{10}H_{14}CoO_4$	[14024-48-7]	*bis*(2,4-pentanedionato)cobalt(II)				
	$\Delta_{sub}H$	(433–463)	149		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(322–371)	130.1 ± 6.3	298	ME	[1990MAL/ALI]
	$\Delta_{sub}H$		118.7 ± 2.2	298		[1985MUR/SAK]
	$\Delta_{sub}H$		81.2	370		[1970GOE/BLO]
	$\Delta_{sub}H$		U 62.8			[1960BER/TRU, 1965BER/TRU]
$C_{12}Co_4O_{12}$	[17786-31-1]	tetracobaltdodecacarbonyl				
	$\Delta_{sub}H$		96.2 ± 4.2	298		[1982PIL/SKI, 1974CON/SKI]
$C_{12}H_{14}Cl_2CoN_2$	[13869-67-5]	cobalt(2-methylpyridine)$_2$Cl$_2$				
	$\Delta_{sub}H$	(345–365)	86.6 ± 3.8	355	DSC	[1982MOR]
$C_{14}H_{10}Br_2CoN_2S_2$	[21422-14-0]	[cobalt(benzothiazole)$_2$Br$_2$]				
	$\Delta_{sub}H$	(381–399)	124.7 ± 4.1	390	DSC	[1973MOR/MCN]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_3CoF_{18}O_6$	[16702-37-7]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)cobalt(III)				
	$\Delta_{sub}H$	(333–363)	73.0		TGA	[2000FAH/BAR]
$C_{15}H_{12}CoF_9O_6$	[16827-64-8]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)cobalt(III)				
	$\Delta_{sub}H$	(373–403)		119	TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		168 ± 2.0	407	C	[1988RIB/FER]
	$\Delta_{sub}H$		114 ± 4.0	298		[1988RIB/FER]
		(383–433)	108.8 ± 0.4		GS	[1985MAT/KUW]
$C_{15}H_{21}CoO_6$	[21679-46-9]	*tris*(2,4-pentanedionato)cobalt(III)				
	$\Delta_{fus}H$		93.9	478	DSC	[2004SAB/MAR]
		Note: Value is abnormally large compared with Cr(acac)$_3$- may undergo decomposition				
	$\Delta_{sub}H$	(433–463)	138		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		NA			[1994GER/GER]
	$\Delta_{sub}H$	(318–382)	134.6 ± 4.0	298	ME	[1990MAL/ALI]
	$\Delta_{sub}H$		142.6 ± 6.9	471	DSC	[1987MUR/HIL]
	$\Delta_{sub}H$		86.3			[1971ASH]
	$\Delta_{sub}H$		107.1	390		[1970GOE/BLO]
	$\Delta_{sub}H$		74.9 ± 4.6			[1964WOO/JON]
	$\Delta_{sub}H$		U 13.0			[1961BER/DOW]
$C_{15}H_{30}CoN_3S_6$	[13963-60-5]	*tris*(diethyldithiocarbamato)cobalt(III)				
	$\Delta_{sub}H$	(448–587)	95 ± 6	518		[1979CAV/HIL2]
$C_{16}H_{14}Br_2CoN_2O_2$	[22974-96-5]	[cobalt(2-methylbenzoxazole)$_2$Br$_2$]				
	$\Delta_{sub}H$	(345–390)	111.1 ± 4.2	368	DSC	[1982MOR, 1974MOR/MCN]
$C_{16}H_{14}Cl_2CoN_2O_2$	[52657-96-2]	[cobalt(2-methylbenzoxazole)$_2$Cl$_2$]				
	$\Delta_{sub}H$	(345–390)	92.4 ± 2.5	368	DSC	[1982MOR, 1974MOR/MCN]
$C_{16}H_{14}Br_2CoN_2S_2$	[26225-02-5]	[cobalt(2-methylbenzothiazole)$_2$Br$_2$]				
	$\Delta_{sub}H$	(335–354)	115.1 ± 4.1	345	DSC	[1973MOR/MCN]
$C_{16}H_{14}Cl_2CoN_2S_2$	[26225-01-4]	[cobalt(2-methylbenzothiazole)$_2$Cl$_2$]				
	$\Delta_{sub}H$	(332–356)	122.6 ± 1.2	345	SC	[1973MOR/MCN]
$C_{18}H_{12}CoN_2O_2$	[13978-88-6]	*bis*(8-hydroxyquinolinato)cobalt(II)				
	$\Delta_{sub}H$		205.3 ± 4.0	298	ME	[1994RIB/MAT]
	$\Delta_{sub}H$	(533–569)	185.7 ± 9	551	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		200 ± 10	298		[1984BUR/MOR]
$C_{18}H_{14}CoN_4$	[41283-94-7]	dibenzotetra-aza-annulene cobalt(II) complex				
	$\Delta_{sub}H$		178.2 ± 16.7	360		[1982ZVE/VIN]
$C_{18}H_{18}Br_2CoN_2O_2$	[52230-48-5]	[cobalt(2,5-dimethylbenzoxazole)$_2$Br$_2$]				
	$\Delta_{sub}H$	(345–390)	95.4 ± 4.6	368	DSC	[1982MOR, 1974MOR/MCN]
$C_{18}H_{18}Cl_2CoN_2O_2$	[52230-47-4]	[cobalt(2,5-dimethylbenzoxazole)$_2$Cl$_2$]				
	$\Delta_{sub}H$	(345–390)	104.6 ± 5.8	368	DSC	[1982MOR, 1974MOR/MCN]
$C_{20}H_{16}CoN_2O_2$	[17992-18-6]	*bis*(8-hydroxy-2-methylquinolinate)cobalt(II)				
	$\Delta_{sub}H$	(457–473)	196.1 ± 5.9	465	ME	[1998RIB/MAT3]
	$\Delta_{sub}H$		204.4 ± 5.9	298		[1998RIB/MAT3]
$C_{22}H_{38}CoO_4$	[13986-53-3]	*bis*(2,2,6,6-tetramethyl-3,5-heptanedionato)cobalt(II)				
	$\Delta_{sub}H$	(433–463)	143		TGA	[2000FAH/BAR]
$C_{24}H_{12}CoF_9O_6S_3$	[41875-84-7]	*tris*(1-(2-thenoyl)-4,4,4-trifluoro-1,3-butanedione)cobalt(III)				
	$\Delta_{sub}H$		45.6			[1961BER/DOW]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{24}H_{12}CoF_9O_9$	[64137-83-3]	*tris*(2-furoyltrifluoroacetonato)cobalt(III)				
	$\Delta_{sub}H$		35.6			[1961BER/DOW]
$C_{30}H_{18}CoF_9O_6$	[31125-84-5]	*tris*(1-phenyl-4,4,4-trifluoro-1,3-butanedionato)cobalt(III)				
	$\Delta_{sub}H$		51.0			[1961BER/DOW]
$C_{30}H_{27}CoO_6$	[14524-55-1]	*tris*(1-phenyl-1,3-butanedionato)cobalt(III)				
	$\Delta_{sub}H$		39.0			[1961BER/DOW]
$C_{32}H_{16}CoN_8$	[3317-67-7]	cobalt (II) phthalocyanine				
	$\Delta_{sub}H$		183.7 ± 13.8		ME	[1970BON/CAT]
$C_{32}H_{46}CoN_2O_4$	[18347-53-8]	*bis*(2,2,6,6-tetramethyl-3,5-heptanedionato)(2,2′-bipyridyl)cobalt(II)				
	$\Delta_{sub}H$		126 ± 4.0		B	[1996CHA/EMM]
	$\Delta_{sub}H$		130.3		UV/Vis	[1996CHA/EMM]
	$\Delta_{sub}H$		124.4		MEM	[1996CHA/EMM]
$C_{33}H_{57}CoO_6$	[14877-41-3]	*tris*(2,2,6,6-tetramethyl-3,5-heptanedionato)cobalt(III)				
	$\Delta_{sub}H$	(433–463)		132	TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		126 ± 3.0	298	C	[1988RIB/FER]
$CoBr_2$	[7789-43-7]	cobalt(II) bromide				
	$\Delta_{sub}H$	(764–911)	207 ± 4.0	802	TE	[1997BAR/BRU]
	$\Delta_{sub}H$		216 ± 1.0	298		[1997BAR/BRU]
Cr (chromium)						
C_6CrO_6	[13007-92-6]	chromium hexacarbonyl				
	$\Delta_{sub}H$	(309–347)	63.3	328	GS	[2002PAN/MAL]
	$\Delta_{sub}H$	(266–272)	65.7	269	TE	[1995GAR/CHA]
	$\Delta_{sub}H$	(323–391)	68.5 ± 1.1			[1993BAE]
	$\Delta_{sub}H$	(288–423)	68.5	355.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		68.9 ± 2	298		[1984ALT/CON]
	$\Delta_{sub}H$		70.0 ± 2	298	C	[1983RIB/REI]
	$\Delta_{sub}H$	(240–280)	71.6 ± 1.7	260	ME	[1980BOX/ERN, 1979DAA/ERN]
	$\Delta_{sub}H$		69.5	298	C	[1975ADE/BRO]
	$\Delta_{sub}H$		72.0 ± 4.2	298		[1982PIL/SKI, 1975PIT/PIL]
	$\Delta_{sub}H$	(274–301)	71.5 ± 0.8	288	BG	[1966BON]
	$\Delta_{sub}H$	(319–411)	69.3			[1952REZ/SHV]
	$\Delta_{sub}H$		71.9			[1935HIE/ROM]
	$\Delta_{sub}H$	(308–408)	63.6	358	MM	[1934WIN/BLA]
	Δ_vH	(309–424)	62.5	324		[1947STU]
$C_8H_3CrNO_5S$	[55293-31-7]	thiazole(pentacarbonyl)chromium				
	$\Delta_{sub}H$	(270–301)	102.0 ± 2.7	286	ME	[1979DAA/ERN]
$C_8H_4CrN_2O_5$	[71127-65-6]	pyrazole(pentacarbonyl)chromium				
	$\Delta_{sub}H$	(270–303)	88.4 ± 1.8	287	ME	[1979DAA/ERN]
$C_8H_9CrNO_5$	[15228-26-9]	trimethylamine(pentacarbonyl)chromium				
	$\Delta_{sub}H$	(248–293)	80.2 ± 0.7	271	ME	[1980BOX/ERN]
$C_8H_9CrO_5P$	[26555-09-9]	trimethylphosphine(pentacarbonyl)chromium				
	$\Delta_{sub}H$		91.2 ± 1.6		ME	[1980BOX/ERN]
$C_8H_{12}CrMoO_8$	[71561-64-3]	chromium molybdenum tetraacetate				
	$\Delta_{sub}H$		165.0 ± 8.4			[1982PIL/SKI]
$C_8H_{12}Cr_2O_8$	[15020-15-2]	tetra-μ-acetatodichromium(II)				
	$\Delta_{sub}H$	(330–340)	299.6 ± 10	335	ME,TE	[1984CAR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		313.8 ± 27.0	298		[1982PIL/SKI, 1979DAA/ERN]
	$\Delta_{sub}H$		145		E	[1979CAV/GAR]
$C_9H_4CrN_2O_5$	[66179-02-0]	pyrazine(pentacarbonyl)chromium				
	$\Delta_{sub}H$		99.7		ME	[1979DAA/ERN]
$C_9H_5ClCrO_3$	[12082-03-0]	chlorobenzenechromium tricarbonyl				
	$\Delta_{sub}H$		102.5 ± 4.2	298		[1982PIL/SKI, 1975ADE/BRO]
$C_9H_6CrO_3$	[12082-08-5]	benzene chromium tricarbonyl				
	$\Delta_{sub}H$		91.2	298	C	[1975ADE/BRO]
	$\Delta_{sub}H$		U 58.6			[1961FIS/FRI, 1973CON/SKI]
	$\Delta_{sub}H$	(364–370)	97.9		TE	[1959COR/SCH, 1973CON/SKI]
$C_{10}H_5CrNO_5$	[14740-77-3]	pyridine(pentacarbonyl)chromium				
	$\Delta_{sub}H$	(294–317)	103.2 ± 1.8	306	ME	[1979DAA/ERN]
$C_{10}H_8CrO_3$	[12125-72-3]	cycloheptatriene chromium tricarbonyl				
	$\Delta_{sub}H$		94.1	298	C	[1975ADE/BRO]
$C_{10}H_8CrO_3$	[12125-87-0]	η^6-toluene(tricarbonyl)chromium				
	$\Delta_{sub}H$		93.0 ± 2.0	298	C	[1984ALT/CON]
	$\Delta_{sub}H$		94.6 ± 4.2	298		[1982PIL/SKI, 1975ADE/BRO]
$C_{10}H_8CrO_3$	[12116-44-8]	η^6-anisole(tricarbonyl)chromium				
	$\Delta_{sub}H$		104.2 ± 2.0	298	C	[1984ALT/CON]
$C_{10}H_{10}Cr$	[1271-24-5]	chromocene				
	$\Delta_{sub}H$		71.0	298		[1984BAE/BAR2]
	$\Delta_{sub}H$		62.8 ± 4.2	298		[1982PIL/SKI, 1975TEL/KIR]
	$\Delta_{sub}H$		69.9 ± 1.7			[1977TEL/RAB]
	$\Delta_{v}H$	(452–519)	49.5 ± 1.5	485		[1984BAE/BAR2]
$C_{10}H_{14}CrO_4$	[14024-50-1]	*bis*(2,4-pentanedionato)chromium(II)				
	$\Delta_{sub}H$	(330–370)	129.8 ± 8.7	298	ME	[1990MAL/ALI]
	$\Delta_{sub}H$		111	439	T	[1981MAS/BAR]
$C_{10}H_{11}CrNO_5$	[15710-39-1]	piperidine(pentacarbonyl)chromium				
	$\Delta_{sub}H$	(265–298)	93.5 ± 1.9	282	ME	[1979DAA/ERN]
$C_{11}H_8CrO_3$	[na]	styrenetricarbonyl chromium				
	$\Delta_{fus}H$		25.28	354.4		[2003SMI/LEB]
$C_{11}H_8CrO_4$	[12146-36-0]	norbornadienechromium tetracarbonyl				
	$\Delta_{sub}H$		89.0 ± 4.0	298		[1982PIL/SKI, 1977BRO/CON]
$C_{11}H_8CrO_4$	[12153-11-6]	η^6-acetophenone(tricarbonyl)chromium				
	$\Delta_{sub}H$		107.0 ± 0.6	298	C	[1984ALT/CON]
$C_{11}H_8CrO_5$	[12125-87-0]	η^6-methyl benzoate(tricarbonyl)chromium				
	$\Delta_{sub}H$		114.0 ± 5.0	298	C	[1984ALT/CON]
$C_{11}H_{11}CrNO_3$	[12109-10-3]	η^6-N,N-dimethylaniline(tricarbonyl)chromium				
	$\Delta_{sub}H$		118.4 ± 10	298	C	[1984ALT/CON]
$C_{12}H_{10}CrO_3$	[na]	α-methylstyrenetricarbonyl chromium				
	$\Delta_{fus}H$		27.4	360		[2003SMI/LEB]
$C_{12}H_{12}Cr$	[1271-54-1]	dibenzenechromium				
	$\Delta_{sub}H$	(323–363)	89.4	343	A	[1987STE/MAL]
	$\Delta_{sub}H$		78.2 ± 6.3	298		[1982PIL/SKI, 1973CON/SKI]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		82.0 ± 2.1		ME	[1973UMI/FED]
	$\Delta_{sub}H$		90.6 ± 0.3			[1969AND/WES2]
	$\Delta_{sub}H$		78.2 ± 6.2	298		[1958FIS/SCH]
$C_{12}H_{12}CrO_3$	[12129-67-8]	mesitylene chromium tricarbonyl				
	$\Delta_{sub}H$		108.4	298	C	[1975ADE/BRO]
	$\Delta_{sub}H$		U 64.4			[1961FIS/SCH, 1977TEL/RAB]
$C_{12}H_{12}CrO_3$	[32913-41-0]	(1,2,4-trimethylbenzene) chromium tricarbonyl				
	$\Delta_{sub}H$		U 33.5			[1961FIS/SCH, 1977TEL/RAB]
$C_{13}H_8CrO_3$	[12110-37-1]	(1,2,3,4,4a,8a-h-naphthalene)tricarbonyl chromium				
	$\Delta_{sub}H$		107 ± 3	298	C	[1979CON/MAR]
$C_{15}H_3F_{18}CrO_6$	[14592-80-4]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)chromium(III)				
	$\Delta_{sub}H$	(333–363)		46	TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		164 ± 4.0	426	C	[1987RIB/FER]
	$\Delta_{sub}H$		112 ± 4.0	298		[1987RIB/FER]
	$\Delta_{sub}H$	(333–360)	123.0 ± 1.3	335		[1972FON/POM]
$C_{15}H_{12}CrF_9O_6$	[14592-89-2]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)chromium(III)				
	$\Delta_{sub}H$	(373–403)	71		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		182 ± 4.0	426	C	[1987RIB/FER]
	$\Delta_{sub}H$		117 ± 4.0	298		[1987RIB/FER]
	$\Delta_{sub}H$	(373–438)	115.1 ± 0.8		GS	[1985MAT/KUW]
	$\Delta_{sub}H$	(403–423)	112.5 ± 4.8			[1978CHU/IGU]
	$\Delta_{sub}H$		53.6	447		[1977VOL/MAZ]
	$\Delta_{sub}H$	(377–413)	108.8 ± 1.3	395		[1972FON/POM]
	Δ_vH	(424–486)	76.7 ± 0.6	455		[1978CHU/IGU]
$C_{15}H_{18}CrO_3$	[12088-11-8]	hexamethylbenzene chromium tricarbonyl				
	$\Delta_{sub}H$		123.0 ± 4.0	298	C	[1975ADE/BRO, 1977BRO/CON]
$C_{15}H_{21}CrO_6$	[21679-31-2]	*tris*(2,4-pentanedionato)chromium(III)				
	$\Delta_{fus}H$		35.9	486	DSC	[2004SAB/MAR, 1988LAZ/GRI]
	$\Delta_{fus}H$		34	489		[1987LAZ/GRE]
	$\Delta_{fus}H$		28.7	487		[1984MUR/HIL]
	$\Delta_{fus}H$		35.2	490		[1971BEE/LIN2]
	$\Delta_{fus}H$		28.4	489		[1970MEL/MER2]
	$\Delta_{sub}H$		120.8		TGA,DTA	[2009GAI/KUN]
	$\Delta_{sub}H$	(345–410)	128.2	378	ME	[2007SID/SID]
	$\Delta_{sub}H$	(320–388)	127.6	354	ME	[2005SEM/IGU]
	$\Delta_{sub}H$	(374–418)	111.6	396	GS	[2002PAN/MAL]
	$\Delta_{sub}H$		133.8 ± 4.2			[2001FED/GEL]
	$\Delta_{sub}H$	(413–443)	91.0		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(350–375)	126.8 ± 4.2	298	ME	[1990MAL/ALI]
	$\Delta_{sub}H$	(457–486)	113.0 ± 4.8		BG	[1988LAZ/GRI, 1987GRI/LAZ]
	$\Delta_{sub}H$		132.1 ± 1.9	298	C	[1985MUR/SAK]
	$\Delta_{sub}H$		28.9	463		[1977VOL/MAZ]
	$\Delta_{sub}H$		112.1	390		[1970GOE/BLO]
	$\Delta_{sub}H$	(363–393)	40.2 ± 1.7	378		[1972FON/POM]
	$\Delta_{sub}H$		110.9 ± 0.8	298	HSA	[1970MEL/MER, 1970MEL/MER2]
	$\Delta_{sub}H$		123 ± 3.0	298	ME	[1977NAG, 1988RIB/FER4, 1967HIL/IRV] [1967HIL/IRV]
	Δ_vH		89.9		DTA,TGA	[2009GAI/KUN]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		79.4 ± 4.2			[2001FED/GEL]
	$\Delta_v H$	(490–536)	82.2 ± 2.0	513	BG	[1988LAZ/GRI]
$C_{16}H_{20}Cr$	[na]	*bis*(ethylbenzene)chromium				
	$\Delta_v H$		75.3 ± 8.4			[1973TEL/RAB, 1982PIL/SKI]
$C_{18}H_{24}Cr$	[1274-07-3]	*bis*(η^6-1,3,5-trimethylbenzene)chromium				
	$\Delta_{sub}H$		104 ± 1	298	C	[1979CON/MAR]
$C_{20}H_{16}Cr$	[33085-81-3]	*bis*(naphthalene)chromium				
	$\Delta_{sub}H$		105.0 ± 10			[1979CON/MAR]
$C_{20}H_{28}Cr$	[na]	*bis*(1,2-diethylbenzene)chromium				
	$\Delta_v H$		75.3 ± 8.4			[1973TEL/RAB, 1982PIL/SKI]
$C_{21}H_{30}Cr$	[na]	(1,2-diisopropylbenzene)isopropylbenzenechromium				
	$\Delta_v H$		100.4 ± 8.4			[1973TEL/RAB, 1982PIL/SKI]
$C_{23}H_{15}CrO_5P$	[14917-12-5]	triphenylphosphine(pentacarbonyl)chromium				
	$\Delta_{sub}H$	(324–347)	170.2 ± 6.8	336	ME	[1980BOX/ERN]
$C_{24}H_{24}Cr_2N_4O_4$	[67634-82-6]	*tetrakis*(6-methyl-2-hydroxypyridyl)dichromium(II)				
	$\Delta_{sub}H$		150.0 ± 4.0	298		[1982PIL/SKI, 1981CAV/GAR]
$C_{24}H_{36}Cr$	[na]	*bis*(1,2-diisopropylbenzene)chromium				
	$\Delta_v H$		100.4 ± 8.4			[1973TEL/RAB, 1982PIL/SKI]
$C_{24}H_{36}Cr$	[12156-66-0]	*bis*(η^6-hexamethylbenzene)chromium				
	$\Delta_{sub}H$		119 ± 4	298	C	[1979CON/MAR]
$C_{30}H_{27}CrO_6$	[16432-36-3]	*tris*(1-phenyl-1,3-butanedionato)chromium(III)				
	$\Delta_{sub}H$		186 ± 2	298	C	[1987RIB/FER]
$C_{30}H_{30}F_{21}CrO_6$	[17966-86-8]	*tris*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyl-4,6-octanedionato)chromium(III)				
	$\Delta_{sub}H$	(323–353)	37.7 ± 0.8	338		[1972FON/POM]
$C_{33}H_{57}CrO_6$	[14434-47-0]	*tris*(2,2,6,6-tetramethyl-3,5-heptanedionato)chromium(III)				
	$\Delta_{sub}H$	(413–443)	85		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		133 ± 2	298	C	[1987RIB/FER]
CrI_2	[13478-28-9]	chromium(II) iodide				
	$\Delta_{sub}H$	(943–1054)	298.7	298		[1956ALL]
Cs (cesium)						
$C_5H_9CsO_2$	[20442-70-0]	cesium pivalate				
	$\Delta_{sub}H$		163.5 ± 7.2			[1998KHO/RYK]
CsI	[7789-17-5]	cesium iodide				
	$\Delta_{sub}H$		195.6	298	GS	[1998PAN/MAL]
	$\Delta_{sub}H$		193.1	298	T	[1985VEN/PRA, 1998PAN/MAL]
	$\Delta_{sub}H$		193.1	298	T	[1984COR, 1998PAN/MAL]
	$\Delta_{sub}H$		191.1	298	MS	[1984VIS/HIL, 1998PAN/MAL]
Cu (copper)						
$C_6H_{12}CuN_2S_4$	[137-29-1]	*bis*(dimethyldithiocarbamate)copper				
	$\Delta_{sub}H$		156.0 ± 0.3	298	C	[1995RIB/REI]
	$\Delta_{sub}H$	(443–473)	147.4 ± 0.8	458	A	[1987STE/MAL, 1978TAV/NEE]
	$\Delta_{sub}H$		149.0 ± 2.5		GC	[1976TAV/NEE]
	$\Delta_v H$	(443–473)	147.4	458		[1999DYK/SVO]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{12}Cu_2O_8$	[24411-13-0]	*tetrakis*(acetato)dicopper(II)				
	$\Delta_{sub}H$	(321–360)	106.1 ± 0.9	298	ME,TE	[1990RIB/RIB]
$C_8H_{14}CuN_4O_4$	[14221-10-4]	*bis*(dimethylglyoxime)copper(II)				
	$\Delta_{sub}H$		93.1 ± 0.8	298	TE,ME	[1990RIB/RIB]
$C_{10}H_2CuF_{12}O_4$	[14781-45-4]	*bis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)copper(II)				
	$\Delta_{sub}H$		108 ± 6	298	C	[1988RIB/FER3]
	$\Delta_{sub}H$		NA			[1978IGU/CHU]
$C_{10}H_8CuF_6O_4$	[14324-82-4]	*bis*(1,1,1-trifluoro-2,4-pentanedionato)copper(II)				
	$\Delta_{sub}H$	(373–403)	112		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(342–359)	113.3 ± 2.4	350	TE	[1995RIB/MON]
	$\Delta_{sub}H$		115.9 ± 2.4	298		[1995RIB/MON]
	$\Delta_{sub}H$	(342–359)	114.4 ± 1.6	350	ME	[1995RIB/MON]
	$\Delta_{sub}H$		117.0 ± 1.6	298		[1995RIB/MON]
	$\Delta_{sub}H$		112 ± 3.0	298	C	[1988RIB/FER3]
	$\Delta_{sub}H$	(383–463)	110.0 ± 0.8		GS	[1985MAT/KUW]
	$\Delta_{sub}H$		NA			[1978IGU/CHU]
	$\Delta_{sub}H$		U 50.6			[1960BER/TRU, 1965BER/TRU]
$C_{10}H_{14}CuO_4$	[13395-16-9]	*bis*(2,4-pentanedionato)copper(II)				
	$\Delta_{sub}H$	(363–443)	121.6 ± 1.4	403	ME	[2009SID/SID]
	$\Delta_{sub}H$	(413–443)	120		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(377–398)	122.5 ± 1.2	387	TE	[1995RIB/MON]
	$\Delta_{sub}H$		127.0 ± 1.2	298		[1995RIB/MON]
	$\Delta_{sub}H$	(377–398)	122.6 ± 0.7	387	ME	[1995RIB/MON]
	$\Delta_{sub}H$		127.1 ± 1.2	298		[1995RIB/MON]
	$\Delta_{sub}H$		122.3 ± 1.1	393	ME	[1995RIB/MON]
	$\Delta_{sub}H$		127.0 ± 1.1	298		[1995RIB/MON]
	$\Delta_{sub}H$		116.6 ± 2.0	298	C	[1994RIB/FER]
	$\Delta_{sub}H$	(315–386)	115.1 ± 2.1	298		[1991MAL/ALI]
	$\Delta_{sub}H$		142.6 ± 6.9	471	DSC	[1987RIB/FER]
	$\Delta_{sub}H$		107.1 ± 5.7	492		[1987MUR/HIL]
	$\Delta_{sub}H$		127.5 ± 3.2	298		[1985MUR/SAK]
	$\Delta_{sub}H$		154 ± 22	298		[1984BUR/MOR]
	$\Delta_{sub}H$		109.9 ± 3.4	298	C	[1984RIB/RIB]
	$\Delta_{sub}H$		57.1		TE	[1981TEG/FER]
	$\Delta_{sub}H$		NA			[1978IGU/CHU]
	$\Delta_{sub}H$		109.6			[1972BOL, 2000DUN]
	$\Delta_{sub}H$		106.1		TG	[1971ASH]
	$\Delta_{sub}H$		109 ± 6	400		[1970GOE/BLO]
	$\Delta_{sub}H$		57.3		DSC	[1971BEE/LIN2]
	$\Delta_{sub}H$		62.8			[1962JON/YOW]
$C_{10}H_{16}CuN_2O_2$	[14404-35-4]	*bis*(4-amino-3-penten-2-onato)copper				
	$\Delta_{sub}H$	(393–463)	114.2 ± 1.3			[2003STA/BAI]
$C_{10}H_{20}CuN_2S_4$	[13681-87-3]	*bis*(diethyldithiocarbamate)copper(II)				
	$\Delta_{sub}H$	(420–465)	149.1 ± 0.4	442.5	A	[1987STE/MAL, 1978TAV/NEE]
	$\Delta_{sub}H$		103.8 ± 2.4			[1979CAV/HIL2]
	$\Delta_{sub}H$		116.2 ± 1.3			[1979CAV/HIL]
	$\Delta_{sub}H$		149.0 ± 2.5			[1976TAV/NEE]
	$\Delta_{sub}H$		87 ± 1.7		I	[1969DAS/WEN]
$C_{12}H_{12}CuF_6O_4$	[13681-87-3]	*bis*(1,1,1-trifluorohexane-2,4-dione)copper(II)				
	$\Delta_{sub}H$		119.1 ± 1.7	298	ME	[1998RIB/GON]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_{18}CuO_4$	[14781-49-8]	*bis*(3-methyl-2,4-pentanedionato)copper(II)				
	$\Delta_{sub}H$		130.7 ± 1	396.7	ME	[1992RIB/FER3]
	$\Delta_{sub}H$		135.6 ± 1	298	ME	[1992RIB/FER3]
	$\Delta_{sub}H$		132.7 ± 2.5	298	C	[1992RIB/FER3]
$C_{14}H_{16}CuF_6O_4$	[33896-35-4]	*bis*(1,1,1-trifluoro-5-methylhexane-2,4-dione)copper(II)				
	$\Delta_{sub}H$		122.4 ± 0.9	298	ME	[1998RIB/GON]
$C_{14}H_{28}CuN_2S_4$	[14354-07-5]	*bis*(dipropyldithiocarbamate)copper				
	$\Delta_{sub}H$	(440–465)	129.5 ± 2.9	452.5	A	[1987STE/MAL, 1978TAV/NEE]
	$\Delta_{sub}H$		118.4 ± 3.3			[1978TAV/NEE]
	$\Delta_{v}H$	(422–453)	118.4	437		[1999DYK/SVO]
$C_{16}H_8CuF_6O_4S_2$	[13928-09-1]	*bis*(thenoyltrifluoroacetonate)copper(II)				
	$\Delta_{sub}H$		167.9 ± 7.4	298	C	[2006RIB/SAN2]
$C_{16}H_8CuF_6O_6$	[13928-10-4]	*bis*(4,4,4-trifluoro-1-(2-furanyl)butane-1,3-dione)copper(II)				
	$\Delta_{sub}H$		161.1 ± 2.1	298	ME	[1998RIB/GON]
$C_{16}H_{20}CuF_6O_4$	[na]	*bis*(pivaloyltrifluoroacetonato)copper				
	$\Delta_{v}H$	(381–443)	76.5 ± 2.0		GS	[1993SYO/GOL]
$C_{16}H_{20}CuF_6O_4$	[150026-91-8]	*bis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)copper (II)				
	$\Delta_{sub}H$		120.2 ± 1.0	298	ME	[1998RIB/GON]
	$\Delta_{sub}H$	(353–379)	102 ± 3	366	T	[1993SYO/GOL]
	$\Delta_{v}H$	(381–443)	76.5 ± 2	412	T	[1993SYO/GOL]
$C_{16}H_{20}CuF_6O_4$	[220869-88-5]	*bis*(1,1,1-trifluoro-5-methylheptane-2,4-dione)copper(II)				
	$\Delta_{sub}H$		122.5 ± 0.9	298	ME	[1998RIB/GON]
$(C_{16}H_{20}CuF_6O_4)-(C_{10}H_{20}O_5)$	[na]	*bis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)copper (II)-15-crown-5 complex				
	$\Delta_{v}H$	(368–443)	80.2 ± 2	405	T	[1993SYO/GOL]
$C_{16}H_{20}CuF_6O_4-(C_{10}H_{20}O_5)$	[na]	*bis*(pivaloyltrifluoroacetonato)copper- 15-crown-5 complex				
	$\Delta_{v}H$	(368–443)	80.2 ± 2.0		GS	[1993SYO/GOL]
$C_{16}H_{26}CuO_4$	[15716-72-0]	*bis*(5,5-dimethyl-2,4-hexanedionato)copper(II)				
	$\Delta_{sub}H$		NA			[1978IGU/CHU]
$C_{18}H_{12}CuN_2O_2$	[10380-26-6]	*bis*(8-hydroxyquinolinato)copper(II)				
	$\Delta_{sub}H$		168.7 ± 7.3	298	ME	[1994RIB/MAT]
	$\Delta_{sub}H$	(478–503)	160.3 ± 3	491	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		170 ± 3	298		[1984BUR/MOR]
$C_{18}H_{14}CuN_4$	[41283-96-9]	dibenzotetra-aza-annulene copper(II) complex				
	$\Delta_{sub}H$	(493–553)	99.7 ± 8.7	523	T	[1983FER/QUA]
$C_{18}H_{30}CuO_4$	[15321-96-7]	*bis*(2,2-dimethylheptan-3,5-dionato)copper(II)				
	$\Delta_{sub}H$	(344–364)	125.0 ± 1.3	354	TE	[1995RIB/MON]
	$\Delta_{sub}H$	(344–364)	127.8 ± 1.3	298	TE	[1995RIB/MON]
	$\Delta_{sub}H$	(344–364)	125.1 ± 0.5	354	ME	[1995RIB/MON]
	$\Delta_{sub}H$	(344–364)	127.9 ± 0.5	298	ME	[1995RIB/MON]
	$\Delta_{sub}H$		122.8 ± 1.7	298		[1984RIB/RIB]
$C_{18}H_{30}CuO_4$	[17653-77-9]	*bis*(2,6-dimethylheptan-3,5-dionato)copper(II)				
	$\Delta_{sub}H$		118.0 ± 347	298		[1984RIB/RIB]
$C_{18}H_{36}CuN_2S_4$	[13927-71-4]	*bis*(dibutyldithiocarbamate)copper				
	$\Delta_{v}H$	(423–468)	121.8	445		[1999DYK/SVO]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{36}CuN_2S_4$	[51205-55-1]	*bis*(diisobutyldithiocarbamate)copper				
	$\Delta_v H$	(425–445)	101.8	435		[1999DYK/SVO]
$C_{20}H_{12}CuF_6O_4$	[14126-89-7]	*bis*(4,4,4-trifluoro-1-phenylbutane-1,3-dione)copper(II)				
	$\Delta_{sub}H$		172.1 ± 3.1	298	ME	[1998RIB/GON]
$C_{20}H_{16}CuN_2O_2$	[14522-43-1]	*bis*(8-hydroxy-2-methylquinolinate)copper(II)				
	$\Delta_{sub}H$	(402–419)	166.5 ± 3.4	410	ME	[1998RIB/MAT3]
	$\Delta_{sub}H$	(402–419)	172.1 ± 3.4	298	ME	[1998RIB/MAT3]
$C_{20}H_{18}CuO_4$	[14128-84-8]	*bis*(1-phenylbutane-1,3-dionato)copper(II)				
	$\Delta_{sub}H$	(429–450)	152.2 ± 1.7	439	TE	[1995RIB/MON]
	$\Delta_{sub}H$	(429–450)	159.3 ± 1.7	298	TE	[1995RIB/MON]
	$\Delta_{sub}H$	(429–450)	152.2 ± 1.9	439	ME	[1995RIB/MON]
	$\Delta_{sub}H$	(429–450)	159.3 ± 1.9	298	ME	[1995RIB/MON]
	$\Delta_{sub}H$		160 ± 4	298	C	[1979RIB/REI]
$C_{20}H_{20}CuF_{14}O_4$	[38926-19-1]	*bis*(1,1,1,2,2,3,3-hetafluoro-7,7-dimethyloctane-4,6-dionato)copper(II)				
	$\Delta_{sub}H$		122.8 ± 0.7	298	ME	[1998RIB/GON]
	$\Delta_{sub}H$		NA			[1978IGU/CHU]
$C_{20}H_{34}CuO_4$	[141752-16-3]	*bis*(2,2,6-trimethylheptan-3,5-dionato)copper(II)				
	$\Delta_{sub}H$	(346–362)	127.4 ± 0.7	354	ME	[1995RIB/MON]
	$\Delta_{sub}H$		130.2 ± 0.7	298		[1995RIB/MON]
	$\Delta_{sub}H$	(346–362)	127.8 ± 1.5	354	TE	[1995RIB/MON]
	$\Delta_{sub}H$		130.6 ± 1.5	298		[1995RIB/MON]
	$\Delta_{sub}H$		129.0 ± 1.3	351	ME	[1995RIB/MON]
	$\Delta_{sub}H$		131.7 ± 1.3	298		[1995RIB/MON]
	$\Delta_{sub}H$		126.4 ± 1.1	298		[1984RIB/RIB]
$C_{22}H_{24}CuN_2O_2$	[15214-38-7]	*bis*[(4-phenylimino)-2-pentanoato)]copper(II)				
	$\Delta_{sub}H$		128.1 ± 0.8	298	ME,TE	[1990RIB/RIB]
$C_{22}H_{36}CuF_2O_4$	[1148044-73-8]	*bis*(2,2,6,6-tetramethyl-4-fluoroheptane-2,4-dionato)copper(II)				
	$\Delta_{sub}H$	(392–453)	115.6 ± 1.1	422	ME	[2008ZHE/MOR2]
$C_{22}H_{38}CuO_4$	[14040-05-2]	*bis*(2,2,6,6-tetramethyl-heptane-3,5-dionato)copper(II)				
	$\Delta_{sub}H$	(375–435)		96 ± 2	GS	[2009JOH/SEL]
	$\Delta_{sub}H$		127.6 ± 0.4	361	TE	[2001COL/LAU]
	$\Delta_{sub}H$		127.2 ± 1.7	351	TE	[2001COL/LAU]
	$\Delta_{sub}H$	(433–463)	120		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(400–430)	74.8		TGA,DTA	[1996YUA/MEN]
	$\Delta_{sub}H$	(392–415)	100	404	T	[1996RAP/DES]
	$\Delta_{sub}H$		124.5 ± 0.8	372	ME	[1995RIB/MON]
	$\Delta_{sub}H$		129.1 ± 0.8	298		[1995RIB/MON]
	$\Delta_{sub}H$	(362–452)	124.6	407		[1993TOB/LAN]
	$\Delta_{sub}H$	(418–473)	123.6	445		[1992WAF/MUS]
	$\Delta_{sub}H$		105.9		GS	[1990YUH/KIK]
	$\Delta_{sub}H$		111.6			[1988FED/VOI, 1993TOB/LAN]
	$\Delta_{sub}H$		122.8 ± 6.5	298	C	[1984RIB/RIB]
	$\Delta_{sub}H$		112		C	[1979IGU/CHU]
	$\Delta_v H$	(468–519)	77.8 ± 0.8			[1979IGU/CHU]
$C_{24}H_{30}CuN_4O_4$		*bis*(N-benzoyl-N′,N′-diethylureato)copper (II)				
	$\Delta_{sub}H$		180.9 ± 3.7	298	C	[2001RIB/RIB2]
$C_{28}H_{16}CuF_6O_4$	[30983-56-3]	*bis*(4,4,4-trifluoro-1-(2-naphthalenyl)butane-1,3-dione)copper(II)				
	$\Delta_{sub}H$		208.4.1 ± 4.9	298	ME	[1998RIB/GON]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{30}H_{22}CuO_4$	[58179-06-9]	*bis*(dibenzyoylmethanato)copper(II)				
	$\Delta_{sub}H$		230.7 ± 8.2	298	C	[2006RIB/SAN2]
$C_{30}H_{54}CuO_6$	[952723-42-1]	*bis*(2,6-dimethyl-6-methoxydodecane-3,5-dionato) copper (II)				
	Δ_vH	(340–395)	126.6 ± 1.9	367	ME	[2006LIS/SEM]
$C_{32}H_{16}CuN_8$	[na]	copper(II) α-phthalocyanine				
	$\Delta_{sub}H$		114		TGA	[1995YAS/TAK]
$C_{32}H_{16}CuN_8$	[147-14-8]	copper(II) β-phthalocyanine				
	$\Delta_{sub}H$	(618–713)	231.8 ± 2.1		ME	[2000SEM/BAS]
	$\Delta_{sub}H$		211.1		TGA	[1995YAS/TAK]
	$\Delta_{sub}H$	(657–863)	266.1			[1969HAM]
	$\Delta_{sub}H$	(657–722)	266.1 ± 5.1		ME	[1965CUR/SHA, 1970BON/CAT]
$C_{39}H_{59}F_{12}O_8CuY$	[160364-36-3]	*bis*(hexafluoroisopropoxy)*tris*(2,2,6,6-tetramethylheptan-3,5-dionato)copper(II)yttrium(III)				
	$\Delta_{sub}H$	(370–410)	81.2	390		[1996LAB/HUB]
$C_{44}H_{28}CuN_4$	[14172-91-9]	5,10,15,20-tetraphenylporphine copper(II)				
	$\Delta_{sub}H$		160 ± 5		GS	[2000PER/GOL]
Dy (dysprosium)						
$C_{15}H_{15}Dy$	[12088-04-9]	*tris*(cyclopentadienyl)dysprosium(III)				
	$\Delta_{sub}H$		105.0 ± 2.1			[1973DEV/BOR]
$C_{30}H_{30}DyF_{21}O_6$	[18232-98-3]	*tris*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)dysprosium(III)				
	$\Delta_{sub}H$	(370–385)	156.5 ± 2.9		ME	[1971SWA/KAR]
$C_{33}H_{57}DyO_6$	[15522-69-7]	*tris*(2,2,6,6-tetramethylpentane-2,4-dionato)dyprosium(III)				
	$\Delta_{sub}H$	(373–388)	171.5	380	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(388–413)	152.7	400	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(410–456)	133.5	433	BG	[1969SIC/DUB]
	Δ_vH	(456–500)	86.2		BG	[1969SIC/DUB]
$DyBr_3$	[14456-48-5]	dysprosium tribromide				
	$\Delta_{sub}H$	(878–1151)	289 ± 6.0	298	TE	[1999BRU/VAS]
$DyCl_3$	[10025-74-8]	dysprosium trichloride				
	$\Delta_{sub}H$	(924–1214)	283 ± 5.0	298	TE	[1999BRU/VAS]
DyI_3	[15474-63-2]	dysprosium triiodide				
	$\Delta_{sub}H$	(889–1157)	282 ± 4.0	298	TE	[1999BRU/VAS]
Er (erbium)						
$C_{15}H_{12}ErF_9O_6$	[70332-27-3]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)erbium(III)				
	$\Delta_{sub}H$	(473–494)	79.5 ± 11.5	484		[1996ZVE/CHE]
$C_{15}H_{15}Er$	[39330-74-0]	*tris*(cyclopentadienyl)erbium(III)				
	$\Delta_{sub}H$	(503–558)	97.2 ± 3.2	530		[1996ZVE/CHE]
	$\Delta_{sub}H$		97.1 ± 3.3			[1973DEV/BOR]
$C_{24}H_{33}Er$	[130521-76-5]	*tris*[(1,2,3,4,5-η)-1-(1-methylethyl)-2,4-cyclopentadien-1-yl]erbium(III)				
	$\Delta_{sub}H$	(464–502)	78.6 ± 3.0	483		[1996ZVE/CHE]
$C_{30}H_{30}ErF_{21}O_6$	[17978-75-5]	*tris*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)erbium(III)				
	$\Delta_{sub}H$	(349–362)	154.8 ± 4.2		ME	[1971SWA/KAR]
$C_{33}H_{57}ErO_6$	[14319-09-6]	*tris*(2,2,6,6-tetramethylheptane-3,5-dionato)erbium(III)				
	$\Delta_{sub}H$		130.8 ± 2.2	298	DSC	[1999SAN/PET]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(471–505)	93.9 ± 4.6	488		[1996ZVE/CHE]
	$\Delta_{sub}H$	(363–418)	154	390	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(358–381)	149.3 ± 1.7		ME	[1971SWA/KAR]
	$\Delta_{sub}H$	(410–454)	133.2	432	BG	[1969SIC/DUB]
	Δ_vH	(454–490)	85.6		BG	[1969SIC/DUB]
Eu (europium)						
$C_{15}H_3EuF_{18}O_6$	[14592-81-5]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)europium(III)				
	$\Delta_{sub}H$	(340–380)	129.4 ± 9.5			[2007MAL/ALI]
		Note: Authors report that the vapor phase consists largely of dimers				
$C_{33}H_{57}EuO_6$	[15522-71-1]	*tris*(2,2,6,6-tetramethylheptane-3,5-dionato)europium(III)				
	$\Delta_{sub}H$	(363–433)	179.9	398	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(373–423)	180		ME	[1979AMA/SAT]
	$\Delta_{sub}H$	(430–466)	165.4	448	BG	[1969SIC/DUB]
	Δ_vH	(466–490)	87.4		BG	[1969SIC/DUB]
F (fluorine)						
F_3NO	[13847-65-9]	trifluoroamine oxide				
	Δ_vH	(116–191)	16.1			[1968FOX/MAC]
F_5I	[7783-66-6]	iodine pentafluoride				
	Δ_vH	(283–378)	39.3	330		[1971OSB/SCH]
HF	[7664-39-3]	hydrogen fluoride				
	Δ_vH	(240–290)	25.2	265		[1934CAM/CAM]
	Δ_vH	(190–320)	25.2	255		[1924SIM]
Fe (iron)						
$C_2FeN_2O_4$	[13682-74-1]	dicarbonyldinitrosyl iron				
	$\Delta_{sub}H$	(272–291)	47.2	281.5	A	[1987STE/MAL]
$C_4FeI_2O_4$	[14878-30-9]	irontetracarbonyl diiodide				
	$\Delta_{sub}H$		86.0 ± 4.0	298		[1982PIL/SKI, 1979CON/DEM]
$C_4H_6FeO_4Si_2$	[26469-80-7]	tetracarbonyl disilyl iron				
	Δ_vH	(329–377)	43.8	353	T	[1969AYL/CAM3]
$C_4H_{16}Cl_2FeN_8S_4$	[28813-18-5]	*trans*-dichloro-*tetrakis*(thiourea)iron(II)				
	$\Delta_{sub}H$	(372–405)	110 ± 20			[1970ASH]
C_5FeO_5	[13463-40-6]	iron pentacarbonyl				
	Δ_vH	(254–304)	40.1 ± 0.5	279		[1974GIL/SUL]
	Δ_vH	(266–353)	39.0	309		[1970VAL/KIL]
	Δ_vH		38.1 ± 0.4	298		[1959LEA/SPI]
	Δ_vH		40.2 ± 0.8			[1959COT/FIS, 1982PIL/SKI]
	Δ_vH	(266–378)	37.6	281		[1947STU]
$C_6H_5FeIO_3$	[12189-10-5]	allylirontricarbonyl iodide				
	$\Delta_{sub}H$		84.5 ± 4.0	298		[1982PIL/SKI, 1979CON/DEM]
$C_7H_6FeO_3$	[na]	1,3-butadiene iron tricarbonyl				
	Δ_vH		49.0 ± 4.2			[1976BRO/CON, 1982PIL/SKI]
$C_8H_6Fe_2O_6S_2$	[14878-96-7]	hexacarbonyl*bis*(methanethiolato)diiron				
	$\Delta_{sub}H$		102.8	333	C	[1995CON/GOB]
	$\Delta_{sub}H$		109.8	298		[1995CON/GOB]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9Fe_2O_9$	[15321-51-4]	diiron nonacarbonyl				
	$\Delta_{sub}H$	(296–314)	135.3	305	A	[1987STE/MAL]
	$\Delta_{sub}H$		75.3 ± 21.0	298		[1982PIL/SKI, 1972CON/SKI]
$C_9H_{12}FeO$	[na]	*bis*(1,3-butadiene)ironcarbonyl				
	$\Delta_{sub}H$		76.1 ± 4.2	298		[1982PIL/SKI, 1976BRO/CON]
$C_{10}H_{10}Fe$	[102-54-5]	ferrocene				
	$\Delta_{fus}H$		17.8	448.5	DSC	[2008LOU/PIN]
	$\Delta_{fus}H$		17.49	447.6	DSC	[2001DAB/MIS]
	$\Delta_{trs}H$		0.9	163.9		
	$\Delta_{trs}H$		4.14	242		
	$\Delta_{fus}H$		17.78	448.2		[1981OGA/SOR, 1969JOE/GJA]
	$\Delta_{sub}H$		73.3 ± 1.9	298	ME	[2008LOU/PIN]
	$\Delta_{sub}H$	(298–304)	73.2 ± 1.9	301	ME	[2008LOU/PIN]
	$\Delta_{sub}H$		72.7 ± 0.2	298	C	[2008LOU/PIN]
	$\Delta_{sub}H$	(290–363)	72.7 ± 0.2	298	GS	[2007EME/VER]
	$\Delta_{sub}H$		72.6 ± 0.1	313	C	[2006MON/SAN]
	$\Delta_{sub}H$		73.3 ± 0.1	298	C	[2006MON/SAN]
	$\Delta_{sub}H$		74.9 ± 1.7	298	C	[2004SAN/SCH]
	$\Delta_{sub}H$		73.3 ± 0.1	298	C	[2001KIY/MIN]
	$\Delta_{sub}H$		73.1 ± 1.4	333	DSC	[2001ROJ/ORO, 2007EME/VER]
	$\Delta_{sub}H$		74.1 ± 1.4	298	DSC	[2001ROJ/ORO, 2007EME/VER]
	$\Delta_{sub}H$		74.3 ± 0.4	298	ME	[1995TOR/GUD2]
	$\Delta_{sub}H$		73.2 ± 0.7	298	C	[1995TOR/GUD2]
	$\Delta_{sub}H$	(292–300)	72.5 ± 1.0	296	ME	[1990RIB/MON]
	$\Delta_{sub}H$		72.4 ± 1.0	298		[1990RIB/MON]
	$\Delta_{sub}H$	(294–302)	70.3 ± 1.0	298	ME	[1989MIN, 1990RIB/MON]
	$\Delta_{sub}H$	(278–309)	72.1 ± 0.4	294	ME	[1988TOR/BAR2]
	$\Delta_{sub}H$		71.9 ± 0.4	298		[1988TOR/BAR2]
	$\Delta_{sub}H$	(348–446)	64.6	397	A	[1987STE/MAL]
	$\Delta_{sub}H$		75.6 ± 0.4	298	TE,ME,DM	[1983JAC/VAN]
	$\Delta_{sub}H$		74.0 ± 2	298	TE	[1981PEL/TOM]
	$\Delta_{sub}H$	(328–398)	70.0 ± 2		DSC	[1980MUR/CAV]
	$\Delta_{sub}H$	(328–398)	71.9 ± 2.0	298	DSC	[1980MUR/CAV, 2007EME/VER]
	$\Delta_{sub}H$		72.6 ± 1.4	298	ME	[1980CAL/DIA]
	$\Delta_{sub}H$	(348–451)	67.9	298		[1977BAR/GAI, 2007EME/VER]
	$\Delta_{sub}H$		73.6 ± 0.4	298		[1982PIL/SKI, 1975TEL/KIR]
	$\Delta_{sub}H$		74.1 ± 1.7	298	TCM	[1973DEK/OON]
	$\Delta_{sub}H$	(385–455)	84.0 ± 2.0		DSC	[1971BEE/LIN]
	$\Delta_{sub}H$	(385–455)	87.6 ± 2.0	298	DSC	[1971BEE/LIN, 2007EME/VER]
	$\Delta_{sub}H$		72.7 ± 2	298	ME	[1969AND/WES]
	$\Delta_{sub}H$		76.6 ± 1	298	ME	[1962EDW/KIN]
	$\Delta_{sub}H$	(295–303)	76.8 ± 0.9	298	ME	[1960EDW/KIN, 2007EME/VER]
	$\Delta_{sub}H$	(323–367)	83.3		ME	[1959COR/SCH]
	$\Delta_{sub}H$	(323–367)	84.7	298	ME	[1959COR/SCH, 2007EME/VER]
	$\Delta_{sub}H$	(357–455)	70.5	406		[1952KAP/KES]
	$\Delta_{sub}H$	(357–455)	73.7	298	BG	[1952KAP/KES, 2007EME/VER]
	$\Delta_{v}H$	(456–523)	47.3	471	A	[1987STE/MAL, 1999DYK/SVO]
	$\Delta_{v}H$	(451–523)	49.8	466	A	[1987STE/MAL, 1977BAR/GAI]
	$\Delta_{v}H$	(519–604)	44.7	561	EB	[1972NIS/SOK]
	$\Delta_{v}H$	(519–604)	64.7 ± 0.4	298	EB	[1972NIS/SOK, 2007EME/VER]
	$\Delta_{v}H$		47.3	456		[1952KAP/KES]
$C_{10}H_{10}Fe_2O_6S_2$	[28829-01-8]	hexacarbonyl*bis*(ethanethiolato)diiron				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		105.4	340	C	[1995CON/GOB]
	$\Delta_{sub}H$		112	298	C	[1995CON/GOB]
$C_{10}H_{14}FeO_4$	[14024-17-0]	*bis*(2,4-pentanedionato)iron(II)				
	$\Delta_{sub}H$	(330–368)	131.2 ± 8.7	298	ME	[1990MAL/ALI]
	$\Delta_{sub}H$		117.6	385		[1970GOE/BLO]
$C_{11}H_8FeO_3$	[12093-05-9]	cyclooctatetraeneirontricarbonyl				
	$\Delta_{sub}H$		87.0 ± 4.0	298		[1982PIL/SKI, 1979CON/DEM]
$C_{11}H_{10}FeO$	[12093-10-6]	ferrocenecarboxaldehdye				
	$\Delta_{trs}H$		11.6	317.4		
	$\Delta_{fus}H$		2.5	397.2	DSC	[2008LOU/PIN]
	$\Delta_{trs}H$		0.89	293.5		
	$\Delta_{trs}H$		13.3	317		
	$\Delta_{fus}H$	(13–405)	2.76	397.6	AC	[2007KAN/SOR]
	$\Delta_{trs}H$		11.7	316.4		
	$\Delta_{fus}H$		2.05	396.7		[1978DAN/LEA]
	$\Delta_{sub}H$		89.7 ± 5.1	298	ME	[2008LOU/PIN]
	$\Delta_{sub}H$	(302–312)	89.9 ± 5.1	305	ME	[2008LOU/PIN]
	$\Delta_{sub}H$		87.9 ± 3.5	298	ME	[2008LOU/PIN]
	$\Delta_{sub}H$	(302–312)	87.3 ± 3.5	310	ME	[2008LOU/PIN]
$C_{12}H_{12}FeO$	[1271-55-2]	acetylferrocene				
	$\Delta_{sub}H$	(329–358)	115.6 ± 2.5	298		[1981PEL/TOM]
$C_{12}H_{12}FeO$	[1273-86-5]	ferrocenemethanol				
	$\Delta_{fus}H$		23.82	351.4	DSC	[2001DAB/MIS]
	$\Delta_{sub}H$	(313–320)	102.8 ± 0.5	298	GS	[2007EME/VER]
	$\Delta_{v}H$	(353–393)	87.0 ± 0.8	298	GS	[2007EME/VER]
$C_{12}H_{14}Fe$	[1273-89-9]	ethylferrocene				
	$\Delta_{fus}H$		12.29	273.9		[2003KOZ/KAR, 2003KAR/KOZ]
	$\Delta_{v}H$	(297–320)	65.1 ± 2.7	308	ME	[2003KAR/KOZ]
$C_{12}H_{14}Fe$	[1291-47-0]	1,1′-dimethylferrocene				
	$\Delta_{fus}H$		17.66	312.6	DSC	[2008LOU/PIN]
	$\Delta_{sub}H$		84.5 ± 1.9	298	ME	[2008LOU/PIN]
$C_{12}H_{14}FeO$	[1277-49-2]	1-ferrocenyl ethanol				
	$\Delta_{fus}H$		14.75	343.7	DSC	[2008LOU/PIN]
	$\Delta_{fus}H$		26.65	366.5	DSC	[2001DAB/MIS]
	$\Delta_{sub}H$		102.4 ± 0.9	298	C	[2008LOU/PIN]
$C_{12}Fe_3O_{12}$	[17685-52-8]	triiron dodecacarbonyl				
	$\Delta_{sub}H$		96.0 ± 21.0	298		[1982PIL/SKI, 1972CON/SKI]
$C_{13}H_{14}FeO$	[1271-79-0]	propanoyl ferrocene				
	$\Delta_{fus}H$		19.2	311.6	AC	[2009KRO/DRU]
	$\Delta_{fus}H$		19.7	311.6	DSC	[2009KRO/DRU]
	$\Delta_{sub}H$		99.0 ± 1.5	298	GS	[2009KRO/DRU]
	$\Delta_{v}H$		80.7 ± 0.8	298	GS	[2009KRO/DRU]
$C_{13}H_{16}Fe$	[1273-92-3]	propylferrocene				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{trs}H$		1.23	186.7		
	$\Delta_{fus}H$		12.7	276.8	AC	[2009KRO/DRU]
	$\Delta_{fus}H$		14.6	278.2	DSC	[2009KRO/DRU]
	Δ_vH		69.4 ± 0.8	298	GS	[2009KRO/DRU]
$C_{13}H_{16}FeO$	[34978-83-1]	*bis*(1,3-cyclohexadiene)ironcarbonyl				
	$\Delta_{sub}H$		95.0 ± 4.2	298		[1982PIL/SKI, 1976BRO/CON]
$C_{13}H_{17}NFe$	[1271-86-9]	N,N-dimethyl(aminomethyl) ferrocene				
	$\Delta_{fus}H$		14.6	281.5	DSC	[2008LOU/PIN]
	$\Delta_{trs}H$		0.32	134		
	$\Delta_{fus}H$		15.01	280.9		[2003KAR/KOZ]
	$\Delta_{fus}H$		15.01	279.9		[2002KAR/SHE]
	Δ_vH		73.8 ± 0.4	298	C	[2008LOU/PIN]
	Δ_vH	(295–319)	66.3 ± 3.9	307	ME	[2003KAR/KOZ]
$C_{14}H_{10}Fe_2O_4$	[12154-95-9]	*bis*(η^5-cyclopentadienylirondicarbonyl)				
	$\Delta_{fus}H$		30.8	472.9		[2008KOZ/MAR]
$C_{14}H_{14}FeO_2$	[1273-94-5]	1,1′-diacetylferrocene				
	$\Delta_{sub}H$	(360–400)	91.9 ± 2.5	298		[1981PEL/TOM]
$C_{14}H_{18}Fe$	[31904-29-7]	n-butylferrocene				
	$\Delta_{fus}H$		21.43	281.5		[2002KOZ/KAR, 2003KAR/KOZ]
	Δ_vH	(315–333)	75.0 ± 3.0	324	ME	[2003KAR/KOZ]
$C_{14}H_{18}Fe$	[1273-97-8]	1,1′-diethylferrocene				
	$\Delta_{fus}H$	(5–300)	21.03	236.9	AC	[1999DOM/KAR]
$C_{15}H_3F_{18}FeO_6$	[17786-67-3]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)iron(III)				
	$\Delta_{sub}H$	(333–363)	60.0		TGA	[2000FAH/BAR]
$C_{15}H_{12}F_9FeO_6$	[14526-22-8]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)iron(III)				
	$\Delta_{sub}H$	(373–403)	96.0		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(378–438)	104.6 ± 0.8		GS	[1985MAT/KUW]
	$\Delta_{sub}H$		80.3	433		[1977VOL/MAZ]
	$\Delta_{sub}H$		128.9	345		[1970GOE/BLO]
	$\Delta_{sub}H$		87.0			[1960BER/TRU, 1965BER/TRU]
	Δ_vH	(392–428)	87.0 ± 1.2	410		[1978CHU/IGU]
$C_{15}H_{18}FeOS_2$	[122380-51-2]	1,4,6-oxadithiacyclooctan-5-ylferrocene				
	$\Delta_{fus}H$		24.4	383.3	DSC	[1992HUA/WAN]
$C_{15}H_{21}FeO_6$	[14024-18-1]	*tris*(2,4-pentanedionato)iron(III)				
	$\Delta_{fus}H$		30.1	459	DSC	[2004SAB/MAR]
	$\Delta_{fus}H$		25.3	460	DSC	[2004SAB/MAR]
	$\Delta_{fus}H$		22.6	462		[1984MUR/HIL]
	$\Delta_{fus}H$		25.9	454		[1970MEL/MER2]
	$\Delta_{sub}H$	(413–443)	112		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		118		TGA	[1997GIL/BOT]
	$\Delta_{sub}H$	(369–388)	124.6 ± 0.9	378	TE, ME	[1996RIB/MON]
	$\Delta_{sub}H$		128.6 ± 0.9	298		[1996RIB/MON]
	$\Delta_{sub}H$	(338–355)	114.2 ± 1.5			[1992GER/GER]
	$\Delta_{sub}H$	(309–360)	126.4 ± 3.1	298	ME	[1990MAL/ALI]
	$\Delta_{sub}H$		138.4 ± 5.2	298	C	[1985MUR/SAK]
	$\Delta_{sub}H$		100	395	T	[1981MAS/BAR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		113.6 ± 3.8			[1980SAC/HIL]
	$\Delta_{sub}H$		99 ± 0.8			[1979RIB/REI, 1981MAS/BAR, 1970MEL/MER2]
	$\Delta_{sub}H$		114.2	385		[1970GOE/BLO]
	$\Delta_{sub}H$		65.3 ± 3.3	298		[1982PIL/SKI, 1968HIL/IRV2]
	$\Delta_{sub}H$		97.9		I	[1964FAR/JON]
	$\Delta_{sub}H$		81.6			[1960BER/TRU, 1965BER/TRU]
$C_{15}H_{30}FeN_3S_6$	[34768-31-5]	*tris*(diethyldithiocarbamoto)iron(III)				
	$\Delta_{sub}H$		65.7 ± 1.7	246		[1970DAS/WEN]
$C_{17}H_{14}FeO$	[1272-44-2]	benzoylferrocene				
	$\Delta_{fus}H$	(6–372)	29.9	380.7	AC	[2008KRO/DRU]
	$\Delta_{sub}H$	(342–379)	119.9 ± 0.7	298	GS	[2007EME/VER]
	$\Delta_{sub}H$	(358–382)	116.3 ± 6	298	TE,ME	[1983PEL/GIG]
	$\Delta_{v}H$	(384–429)	98.2 ± 0.3	298	GS	[2007EME/VER]
$C_{17}H_{16}Fe$	[32994-54-0]	(phenylmethyl)ferrocene				
	$\Delta_{fus}H$	(6–372)	26.8	349.9	AC	[2008KRO/DRU]
	$\Delta_{sub}H$	(312–341)	109.3 ± 0.7	298	GS	[2007EME/VER]
	$\Delta_{v}H$	(351–377)	90.6 ± 0.6	298	GS	[2007EME/VER]
$C_{17}H_{22}FeO_2S_2$	[122395-65-7]	1,9-dioxa-4,6-dithiacyclundecan-5-ylferrocene				
	$\Delta_{fus}H$		29.4	371.7	DSC	[1992HUA/WAN]
$C_{18}H_{27}FeO_6$	[13978-46-6]	*tris*(3-methylpentane-2,4-dionato)iron(III)				
	$\Delta_{sub}H$		164.5	422		[1992RIB/FER]
$C_{19}H_{26}FeO_2S_3$	[122395-70-4]	1,9-dioxa-4,6,12-trithiacycltetracecan-5-ylferrocene				
	$\Delta_{fus}H$		40.0	367.1	DSC	[1992HUA/WAN]
$C_{19}H_{26}FeO_3S_2$	[122395-66-8]	1,9,12-trioxa-4,6-dithiacyclotetradecan-5-ylferrocene				
	$\Delta_{fus}H$		32.1	349.7	DSC	[1992HUA/WAN]
$C_{20}H_{30}Fe$	[12126-50-0]	*bis*(η^5-pentamethylcyclopentadientyl)iron				
	$\Delta_{trs}H$		4.3	402.6		
	$\Delta_{trs}H$		4.87	503.7	DSC	[2008LOU/PIN]
		Note: Decomposed upon melting				
	$\Delta_{sub}H$		99.0 ± 2.4	298	ME	[2008LOU/PIN]
	$\Delta_{sub}H$	(355–376)	95.7 ± 2.4	365	ME	[2008LOU/PIN]
	$\Delta_{sub}H$		96.8 ± 0.6	298	C	[2001KIY/MIN]
$C_{24}H_{12}F_9FeO_6S_3$	[14319-78-9]	*tris*(1-(2-thenoyl)-4,4,4-trifluoro-1,3-butanedione)ironIII)				
	$\Delta_{sub}H$		U 46.4			[1960BER/TRU, 1965BER/TRU]
$C_{24}H_{18}FeO_2$	[12180-80-2]	1,1′-dibenzoylferrocene				
	$\Delta_{sub}H$	(358–381)	109.3 ± 6	298	TE,ME	[1983PEL/GIG]
$C_{30}H_{27}FeO_6$	[14323-17-2]	*tris*(benzoylacetonato)iron(III)				
	$\Delta_{sub}H$		U 45.6		I	[1964FAR/JON]
$C_{33}H_{57}FeO_6$	[14876-47-2]	*tris*(2,2,6,6-tetramethylheptan-3,5-dionato)iron(III)				
	$\Delta_{sub}H$	(413–443)	111		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(360–378)	128.5 ± 0.9	369	TE,ME	[1996RIB/MON]
	$\Delta_{sub}H$		129.3 ± 1.2	298		[1996RIB/MON]
	$\Delta_{sub}H$		106.7		ME	[1973BRU/CUR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{45}H_{33}FeO_6$	[14405-49-3]	*tris*(dibenzoylmethano)iron(III)				
	$\Delta_{sub}H$		U 31.8		I	[1964FAR/JON]
	[7789-46-0]	iron(II) dibromide				
Br_2Fe	$\Delta_{sub}H$	(655–833)	197.6 ± 2.0	744	TE,ME	[1996BAR/BRU]
	$\Delta_{sub}H$		208 ± 2.0	298		[1996BAR/BRU]
	$\Delta_{sub}H$	(680–720)	196 ± 8	700	TE	[1996BAR/BRU, 1960SIM/GRE]
	$\Delta_{sub}H$	(673–962)	197 ± 2	817	GS	[1996BAR/BRU, 1955MAC/GRE]
	$\Delta_{sub}H$		210 ± 6	298		[1996BAR/BRU, 1955MAC/GRE]
	$\Delta_{sub}H$	(623–718)	197 ± 4	670	ME	[1996BAR/BRU, 1955MAC/GRE]
$FeCl_2$	[7758-94-3]	iron(II) dichloride				
	$\Delta_{sub}H$	(693–866)	198.9 ± 2.0	780	TE,ME	[1996BAR/BRU]
	$\Delta_{sub}H$		204 ± 4.0	298		[1996BAR/BRU]
	$\Delta_{sub}H$	(694–745)	189 ± 8	719	TE	[1960SIM/GRE, 1996BAR/BRU]
	$\Delta_{sub}H$	(621–658)	186 ± 12	640	MS	[1958SCH/POR, 1996BAR/BRU]
	$\Delta_{sub}H$		193 ± 12	298		[1958SCH/POR, 1996BAR/BRU]
FeF_2	[7789-28-8]	iron(II) difluoride				
	$\Delta_{sub}H$	(958–1178)	263 ± 2.0	1068	TE,ME	[1996BAR/BRU]
	$\Delta_{sub}H$		271 ± 2.0	298		[1996BAR/BRU]
	$\Delta_{sub}H$	(848–1142)	263 ± 3	995	ME	[1976ZHU/ALI, 1996BAR/BRU]
	$\Delta_{sub}H$		270 ± 3	298		[1976ZHU/ALI, 1996BAR/BRU]
Ga (gallium)						
C_3H_9Ga	[1445-79-0]	trimethyl gallium				
	$\Delta_{fus}H$		11.8		Sub-Vap	[2003FUL/RUZ]
	$\Delta_{fus}H$		11.05	257.9		[1996DOM/HEA]
	$\Delta_{sub}H$	(225–257)	47.4			[2003FUL/RUZ]
	$\Delta_{sub}H$	(247–257)	45.2	252	A	[1987STE/MAL]
	Δ_vH	(259–263)	35.6			[2003FUL/RUZ]
	Δ_vH		33.1 ± 0.8			[1958LON/SAC, 1982PIL/SKI]
	Δ_vH		32.6			[1933KRA/TOO, 1958FOW/MOR]
$C_4H_{10}ClGa$	[30914-08-0]	diethylgallium chloride				
	Δ_vH	(273–333)	59.9	303		[1991BUC/POT]
C_6H_9Ga	[1188-13-2]	trivinyl gallium				
	Δ_vH	(298–373)	U 72.6	335		[1962OLI/STE]
		Note: Decomposition noted above 333 K				
$C_6H_{15}Ga$	[1115-99-7]	triethyl gallium				
	$\Delta_{fus}H$		11.64	193.5		[1996DOM/HEA]
	Δ_vH	(299–387)	43.1 ± 1.6	343		[2001BAE, 2001BAE/CHE]
	Δ_vH		38.5 ± 0.4			[1973KOL/RAB, 1982PIL/SKI]
$C_9H_{21}Ga$	[54514-59-9]	triisopropyl gallium				
	Δ_vH	(298–373)	49.0	335		[1962OLI/STE]
$C_9H_{21}Ga$	[29868-77-7]	tripropyl gallium				
	Δ_vH	(316–385)	46.6 ± 0.5	350		[2001BAE]
	Δ_vH	(298–373)	49.2	335		[1962OLI/STE]
$C_{11}H_{24}GaNS_2$	[253595-30-1]	di-*tert*-butyl gallium dimethyldithiocarbamate				
	Δ_vH	(374–427)	43 ± 1		TGA	[1999KEY/BOT]
$C_{11}H_{24}GaNS_2$	[253595-34-5]	dibutyl gallium dimethyldithiocarbamate				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(385–424)	53 ± 1		TGA	[1999KEY/BOT]
$C_{11}H_{24}GaNS_2$	[253595-35-8]	di-sec-butyl gallium dimethyldithiocarbamate				
	$\Delta_v H$	(366–425)	44 ± 1		TGA	[1999KEY/BOT]
$C_{12}H_{27}Ga$	[15677-44-8]	tributyl gallium				
	$\Delta_v H$	(330–378)	51.6 ± 1.3	354		[2001BAE]
	$\Delta_v H$	(426–507)	56.2	441	A	[1987STE/MAL]
$C_{13}H_{28}GaNS_2$	[253595-32-3]	di-*tert*-butyl gallium diethyldithiocarbamate				
	$\Delta_v H$	(372–419)	48 ± 6		TGA	[1999KEY/BOT]
$C_{15}H_3F_{18}GaO_6$	[19648-92-1]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)gallium(III)				
	$\Delta_{sub}H$	(333–363)	53.0		TGA	[2000FAH/BAR]
$C_{15}H_{12}F_9GaO_6$	[15453-83-5]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)gallium(III)				
	$\Delta_{sub}H$	(373–403)	75.0		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(378–433)	118.8 ± 1.7		GS	[1985MAT/KUW]
	$\Delta_{sub}H$	(386–401)	89.4 ± 6.7			[1978IGU/CHU2]
	$\Delta_v H$	(401–459)	75.6 ± 0.5	430		[1978IGU/CHU2]
$C_{15}H_{21}GaO_6$	[14405-43-7]	*tris*(pentane-2,4-dionato)gallium(III)				
	$\Delta_{sub}H$	(413–433)	90.0		TGA	[2000FAH/BAR]
$C_{15}H_{32}GaNS_2$	[253595-33-4]	di-*tert*-butyl gallium dipropyldithiocarbamate				
	$\Delta_v H$	(365–424)	46 ± 1		TGA	[1999KEY/BOT]
$C_{16}H_{36}Ga_4S_4$	[135283-83-9]	$[((CH_3)_3C)Ga(\mu 3\text{-}S)]_4$				
	$\Delta_{sub}H$	(367–380)	110	373	TGA	[1997GIL/BOT]
$C_{16}H_{36}Ga_4Se_4$	[13528-84-0]	$[((CH_3)_3C)Ga(\mu 3\text{-}Se)]_4$				
	$\Delta_{sub}H$	(375–388)	119	381	TGA	[1997GIL/BOT]
$C_{16}H_{36}Ga_4Te_4$	[135258-40-1]	$[((CH_3)_3C)Ga(\mu 3\text{-}Te)]_4$				
	$\Delta_{sub}H$	(391–422)	131	406	TGA	[1997GIL/BOT]
$C_{20}H_{44}Ga_4S_4$	[166331-96-0]	$[(C_2H_5(CH_3)_2C)Ga(\mu 3\text{-}S)]_4$				
	$\Delta_{sub}H$	(369–382)	124	375	TGA	[1997GIL/BOT]
$C_{20}H_{44}Ga_4Se_4$	[176100-40-6]	$[(C_2H_5(CH_3)_2C)Ga(\mu 3\text{-}Se)]_4$				
	$\Delta_{sub}H$	(395–407)	137	375	TGA	[1997GIL/BOT]
$C_{20}H_{44}Ga_4Te_4$	[176100-41-7]	$[(C_2H_5(CH_3)_2C)Ga(\mu 3\text{-}Te)]_4$				
	$\Delta_{sub}H$	(416–432)	140	324	TGA	[1997GIL/BOT]
$C_{24}H_{52}Ga_4S_4$	[166331-97-1]	$[((C_2H_5)_2(CH_3)C)Ga(\mu 3\text{-}S)]_4$				
	$\Delta_{sub}H$	(407–420)	137	413	TGA	[1997GIL/BOT]
$C_{24}H_{52}Ga_4Se_4$	[187612-49-3]	$[((C_2H_5)_2(CH_3)C)Ga(\mu 3\text{-}Se)]_4$				
	$\Delta_{sub}H$	(388–420)	147	404	TGA	[1997GIL/BOT]
$C_{24}H_{52}Ga_4Te_4$	[176100-42-8]	$[((C_2H_5)_2(CH_3)C)Ga(\mu 3\text{-}Te)]_4$				
	$\Delta_{sub}H$	(432–447)	151	439	TGA	[1997GIL/BOT]
$C_{28}H_{60}Ga_4S_4$	[187612-47-1]	$[((C_2H_5)_3C)Ga(\mu 3\text{-}S)]_4$				
	$\Delta_{sub}H$	(432–444)	149	438	TGA	[1997GIL/BOT]
$C_{28}H_{60}Ga_4Se_4$	[187612-51-7]	$[((C_2H_5)_3C)Ga(\mu 3\text{-}Se)]_4$				
	$\Delta_{sub}H$	(452–464)	156	458	TGA	[1997GIL/BOT]
$C_{28}H_{60}Ga_4Te_4$	[187612-52-8]	$[((C_2H_5)_3C)Ga(\mu 3\text{-}Te)]_4$				
	$\Delta_{sub}H$	(444–456)	156	450	TGA	[1997GIL/BOT]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{33}H_{57}O_6Ga$	[34228-15-4]	*tris*(2,2,6,6-tetramethylheptan-3,5-dionato)gallium(III)				
	$\Delta_{sub}H$	(413–443)	87.0		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		102.1		ME	[1973BRU/CUR]
$GaBr_3$	[13450-88-9]	gallium tribromide				
	$\Delta_{sub}H$	(300–357)	92.5 ± 2.0	298	TE	[2009BRU/PIA]
($GaBr_3$)–(NH_3)	[54955-92-9]	gallium tribromide- ammonia complex				
	$\Delta_{sub}H$		67.4 ± 1.3			[1975TRU/SUV]
$GaCl_3$	[13450-90-3]	gallium trichloride				
	$\Delta_{fus}H$		11.12	349.6	DSC	[2007CHU/ZEL]
	$\Delta_{sub}H$	(289–308)	89 ± 2	298	TE	[2010BRU/PIA]
	$\Delta_{sub}H$	(313–349)	87.1 ± 1.2	298	T	[2007CHU/ZEL]
	$\Delta_{v}H$	(351–421)	72.7 ± 0.2	349	T	[2007CHU/ZEL]
($GaCl_3$)–(NH_3)	[50599-24-1]	gallium trichloride- ammonia complex				
	$\Delta_{sub}H$		75.6 ± 1.3			[1975TRU/SUV]
GaF_3	[7783-51-9]	gallium trifluoride				
	$\Delta_{sub}H$	(808–958)	252 ± 4	298	TE	[2010BRU/PIA]
GaI_3	[13450-91-4]	gallium triiodide				
	$\Delta_{sub}H$	(345–401)	100.5 ± 2.0	298	TE	[2010BRU/PIA]
Gd (gadolinium)						
$C_{10}H_{10}ClGd$	[11087-14-2]	*bis*(cyclopentadienyl)gadolinium chloride				
	$\Delta_{sub}H$	(338–438)	138.5 ± 2.1		ME	[1971HAU]
$C_{15}H_{15}Gd$	[1272-21-5]	*tris*(cyclopentadienyl)gadolinium				
	$\Delta_{sub}H$	(513–623)	106.7 ± 2.9			[1973BOR/KRA]
$C_{30}H_{30}F_{21}GdO_6$	[17631-67-3]	*tris*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)gadolinium(III)				
	$\Delta_{sub}H$	(362–385)	154.8 ± 0.8		ME	[1971SWA/KAR]
$C_{33}H_{57}GdO_6$	[14768-15-1]	*tris*(2,2,6,6-tetramethylpentane-2,4-dionato)gadolinium(III)				
	$\Delta_{sub}H$		166.1 ± 3.5	298	DSC	[1999SAN/PET]
	$\Delta_{sub}H$		78.8 ± 1.5			[1996TSY/DYA2, 2000GIE]
	$\Delta_{sub}H$	(383–418)	181.2	400	ME	[1981AMA/SAT]
	$\Delta_{sub}H$			163.6	ME	[1973BRU/CUR]
	$\Delta_{sub}H$	(420–456)	161.3	438	BG	[1969SIC/DUB]
	$\Delta_{v}H$	(456–500)	90.2		BG	[1969SIC/DUB]
Ge (germanium)						
$CHCl_5Ge$	[21572-22-5]	trichloro(dichloromethyl)germane				
	$\Delta_{v}H$	(303–423)	47.9	318		[1975SOK/KAR]
CH_2Cl_4Ge	[21572-18-9]	trichloro(chloromethyl)germane				
	$\Delta_{v}H$	(303–423)	45.9	318		[1975SOK/KAR]
CH_3Cl_3Ge	[993-10-2]	methyltrichlorogermane				
	$\Delta_{v}H$	(293–385)	37.4	308		[1971GON/KAR]
CH_4Cl_2Ge	[1111-82-6]	methyldichlorogermane				
	$\Delta_{v}H$	(281–346)	34.5	313	SG	[1961GRI/ONY]
	$\Delta_{v}H$	(273–290)	33.1	281		[1961AMB/BOE]
CH_5BrGe	[30123-09-2]	methylbromogermane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(273–333)	33.3	303	SG	[1961GRI/ONY]
CH_5ClGe	[29914-10-1]	methyl chlorogermane				
	$\Delta_v H$	(241–263)	25.8	252		[1961AMB/BOE]
CH_6Ge	[1449-65-6]	methylgermane				
	$\Delta_v H$	(159–230)	16.6	194	SG	[1961GRI/ONY]
	$\Delta_v H$	(164–197)	21.4	181		[1961AMB/BOE]
CH_6GeS	[16643-16-8]	(methylthio)germane				
	$\Delta_v H$	(223–291)	29.8	257		[1999DYK/SVO]
$CH_{12}Ge_3Si$	[20576-06-1]	trigermylmethylsilane				
	$\Delta_v H$	(301–378)	39.1	339		[1968DUT/ONY]
$C_2H_5Cl_3Ge$	[993-42-0]	trichloro(ethyl)germane				
	$\Delta_v H$	(293–415)	41.9	308		[1971GON/KAR]
C_2H_7ClGe	[21961-73-9]	dimethylchlorogermane				
	$\Delta_v H$	(273–288)	29.4	280		[1961AMB/BOE]
C_2H_8Ge	[1449-64-5]	dimethylgermane				
	$\Delta_v H$	(196–228)	26.5	212		[1961AMB/BOE]
$C_2H_{10}Ge_2$	[23830-51-5]	1,1-dimethyldigermane				
	$\Delta_v H$	(259–295)	31.8	277		[1969GEO/MAC]
$C_2H_{10}Ge_2$	[23830-52-6]	1,2-dimethyldigermane				
	$\Delta_v H$	(258–295)	29.3	277		[1969GEO/MAC]
$C_2H_{12}Ge_2Si$	[23830-52-6]	digermyldimethylsilane				
	$\Delta_v H$	(297–381)	34.4	339		[1968DUT/ONY]
C_3H_9ClGe	[1529-47-1]	trimethylchlorogermane				
	$\Delta_v H$	(293–363)	36.3	308		[1972DIT/SKO2]
	$\Delta_v H$	(273–341)	34.4	307	SG	[1961GRI/ONY]
C_3H_9FGe	[661-37-0]	trimethylfluorogermane				
	$\Delta_{sub}H$	(250–284)	40.0	267	SG	[1987STE/MAL, 1961GRI/ONY]
	$\Delta_v H$	(285–345)	32.4	315	SG	[1961GRI/ONY]
$C_3H_{12}GeSi$	[18365-18-0]	(trimethylsilyl)germane				
	$\Delta_v H$	(288–314)	30.3	301		[1968DUT/ONY]
$C_3H_{12}Ge_2$	[20478-15-3]	1,1,1-trimethyldigermane				
	$\Delta_v H$	(273–327)	36.1	300		[1968DUT/ONY]
$C_3H_{12}Ge_2$	[23830-53-7]	1,1,2-trimethyldigermane				
	$\Delta_v H$	(268–294)	33.5	281		[1969GEO/MAC]
$C_4H_9Cl_3Ge$	[4872-26-8]	butyltrichlorogermanium				
	$\Delta_v H$	(313–453)	49.2	328		[1975SOK/KAR2]
	$\Delta_v H$	(337–377)	45.8	352		[1972GON/KAR]
$C_4H_{12}Ge$	[865-52-1]	tetramethylgermane				
	$\Delta_{fus}H$		7.45	184.4		[1970VAL/KIL]
	$\Delta_v H$		28.1 ± 0.1	285	C	[1970VAL/KIL]
	$\Delta_v H$		27.6 ± 2.1			[1969SHA/FED, 1982PIL/SKI]
$C_4H_{12}GeO$	[6163-67-3]	trimethylmethoxygermane				
	$\Delta_v H$	(273–335)	32.4	304	SG	[1961GRI/ONY]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_{12}GeO_4$	[992-91-6]	tetramethoxygermane				
	$\Delta_v H$	(264–303)	48.7	298		[2008PAN/FUL]
	$\Delta_v H$		40.2 ± 0.4			[1970SHA/FED, 1977PED/RYL]
	$\Delta_v H$	(303–385)	44.0	344		[1958BRA/KAY]
$C_4H_{12}GeS_4$	[21736-70-9]	tetra(methylthia)germane				
	$\Delta_{fus}H$		14.2	284.1	DSC	[1998FUE/STR]
$C_5H_{11}Cl_3Ge$	[25425-26-7]	pentyltrichlorogermanium				
	$\Delta_v H$	(323–473)	51.9	338		[1975SOK/KAR2]
	$\Delta_v H$	(305–475)	49.7	320		[1972GON/KAR]
$C_6H_5Cl_3Ge$	[1074-29-9]	phenyltrichlorogermane				
	$\Delta_v H$	(343–473)	55.4	358		[1972SOK/KAR]
$C_6H_{13}Cl_3Ge$	[35460-93-6]	hexyltrichlorogermanium				
	$\Delta_v H$	(315–491)	51.1	329		[1972GON/KAR]
$C_6H_{15}BrGe$	[1067-10-3]	bromotriethylgermane				
	$\Delta_v H$	(303–463)	48.3	318		[1971GON/KAR]
$C_6H_{18}Ge_2O$	[2237-93-6]	hexamethyldigermoxane				
	$\Delta_v H$	(291–345)	44.1	318	SG	[1961GRI/ONY]
$C_7H_7Cl_3Ge$	[6181-21-1]	benzyltrichlorogermane				
	$\Delta_v H$	(373–473)	58.8	388		[1972SOK/KAR]
$C_7H_{15}Cl_3Ge$	[1190-86-9]	heptyltrichlorogermanium				
	$\Delta_v H$	(323–506)	52.3	338		[1972GON/KAR]
$C_8H_{20}Ge$	[57596-76-6]	pentyl(trimethyl)germane				
	$\Delta_v H$	(303–423)	44.3	318		[1975SOK/KAR2]
$C_8H_{20}Ge$	[597-63-7]	tetraethylgermane				
	$\Delta_{fus}H$		12.31	180.3		[1996DOM/HEA]
	$\Delta_v H$	(253–293)	43.4	273	GS	[1992GAZ/SCH]
	$\Delta_v H$		45.7 ± 0.4	298	C	[1977PEA/FUC]
	$\Delta_v H$	(337–436)	46.1	352		[1974MOG/HOC]
	$\Delta_v H$		44.8 ± 1.3			[1964BIL/COT, 1982PIL/SKI]
$C_8H_{20}GeO_4$	[14165-55-0]	tetraethoxygermane				
	$\Delta_v H$	(259–303)	56.7	298		[2008PAN/FUL]
	$\Delta_v H$		53.9	389		[1988GRI/CHE, 2008PAN/FUL]
	$\Delta_v H$		53.6	406		[1977BAL/RUD, 2008PAN/FUL]
	$\Delta_v H$		43.1 ± 0.4			[1970SHA/FED, 1977PED/RYL]
	$\Delta_v H$	(328–414)	47.9	371		[1958BRA/KAY]
	$\Delta_v H$		46.6	403		[1953JOH/FRI, 2008PAN/FUL]
$C_{10}H_{24}GeO_2$	[26452-74-4]	*tert*-butylperoxytriethylgermane				
	$\Delta_v H$		43.5 ± 4.2			[1971RAB/KIP, 1982PIL/SKI]
$C_8H_{24}Ge_4O_4$	[7749-82-8]	octamethyltetragermoxane				
	$\Delta_{sub}H$		68.2 ± 4.2	298		[1982PIL/SKI, 1972VOL/SMO]
	$\Delta_v H$	(333–473)	51.4	403		[1972VOL/SMO]
$C_{10}H_{25}GeN$	[756-66-1]	triethyl(diethylamino)germane				
	$\Delta_v H$	(303–463)	50.9	318		[1970GON/KAR]
	$\Delta_v H$		46.0 ± 4.8			[1971KOL/RAB, 1982PIL/SKI]
$C_{12}H_{12}Ge$	[1675-58-7]	diphenylgermane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		11.91	240.2		[1980LEB/KIP]
$C_{12}H_{28}Ge$	[994-65-0]	tetrapropylgermane				
	Δ_vH	(353–493)	54.7	368	A	[1987STE/MAL]
	Δ_vH		61.5 ± 4.2			[1964POP/SKI, 1982PIL/SKI]
$C_{12}H_{28}GeO_4$	[128426-02-8]	tetrapropoxygermane				
	Δ_vH	(343–453)	63.3	358	A	[1987STE/MAL]
	Δ_vH	(369–465)	55.0	417		[1958BRA/KAY]
	Δ_vH		55.6			[1953JOH/FRI]
$C_{12}H_{28}GeO_4$	[na]	tetraisopropoxygermane				
	Δ_vH	(313–453)	60.4	328	A	[1987STE/MAL]
	Δ_vH	(355–444)	54.9	400		[1958BRA/KAY]
$C_{12}H_{30}ClGeN_3$	[na]	*tris*(diethylamino)chlorogermane				
	Δ_vH	(363–493)	64.4	378		[1970GON/KAR]
$C_{12}H_{30}Ge_2Hg$	[4149-28-4]	*bis*(triethylgermyl)mercury				
	Δ_vH	(383–403)	64.8	393		[1972BRA/KAR]
	Δ_vH		62.8 ± 4.2			[1972KOL/RAB, 1982PIL/SKI]
$C_{12}H_{30}Ge_2$	[993-62-4]	hexaethyldigermane				
	Δ_vH		62.8			[1963RAB/TEL, 1982PIL/SKI]
$C_{12}H_{30}Ge_2O$	[2538-70-7]	hexaethyldigermoxane				
	Δ_vH		58.6 ± 4.2			[1971RAB/KIP, 1982PIL/SKI]
$C_{16}H_{12}Ge$	[1675-59-8]	(diethynyl)diphenylgermane				
	$\Delta_{fus}H$	(8–326)	20.1	320		[1975LEB/MIL]
	$\Delta_{sub}H$		133.9		BE	[1975LEB/MIL]
	Δ_vH	(305–337)	110.8	320	A	[1987STE/MAL]
$C_{16}H_{18}Ge$	[na]	1,1-diphenylgermanocyclopentane				
	$\Delta_{fus}H$		14.45		DSC	[1988CAR/DYS]
	$\Delta_{sub}H$		104.6 ± 2.8	298		[1988CAR/DYS]
	Δ_vH	(294–322)	87.6 ± 2.8		ME	[1988CAR/DYS]
$C_{16}H_{36}Ge$	[1067-42-1]	tetrabutylgermane				
	$\Delta_{fus}H$		19.1	198.6		[1971SHA/YAK]
$C_{16}H_{36}GeO_4$	[25063-27-8]	tetrabutoxygermane				
	Δ_vH	(394–519)	62.4	456		[1958BRA/KAY]
	Δ_vH		59.6			[1953JOH/FRI]
$C_{16}H_{36}GeO_4$	[1085941-13-4]	tetraisobutoxygermane				
	Δ_vH	(369–482)	59.9	426		[1958BRA/KAY]
$C_{16}H_{36}GeO_4$	[na]	tetra-sec-butoxygermane				
	Δ_vH	(365–475)	59.9	420		[1958BRA/KAY]
$C_{16}H_{36}GeO_4$	[1085941-54-3]	tetra-*tert*-butoxygermane				
	Δ_vH	(364–460)	53.8	412		[1958BRA/KAY]
$C_{18}HF_{15}Ge$	[42371-50-6]	*tris*(pentafluorophenyl)germane				
	$\Delta_{fus}H$	(7–500)	34.9	405	AC	[1997SMI/LEB2]
$C_{18}H_{42}Ge_2Hg$	[24004-54-4]	*bis*(triisopropylgermyl)mercury				
	Δ_vH	(373–483)	68.7	388		[1972BRA/KAR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		54.4 ± 4.2			[1972KOL/RAB, 1982PIL/SKI]
$C_{20}H_{18}Ge$	[4049-97-2]	triphenyl vinylgermanium				
	$\Delta_{sub}H$		98.7 ± 1.6	298	ME,TE	[1988CAR/JAM2]
$C_{24}H_{20}Ge$	[1048-05-1]	tetraphenylgermane				
	$\Delta_{sub}H$	(402–480)	148.6	441	A	[1987STE/MAL]
	$\Delta_{sub}H$		156.9 ± 4.2	298		[1982PIL/SKI, 1969ADA/CAR]
$C_{24}H_{20}GeO_4$	[1085941-60-1]	tetraphenoxygermane				
	$\Delta_v H$		37.4 ± 0.4			[1970SHA/FED, 1977PED/RYL]
$C_{26}H_{20}Ge$	[4131-49-1]	triphenyl phenylethynylgermane				
	$\Delta_{sub}H$		107.5 ± 1.5	298	ME,TE	[1988CAR/JAM2]
$C_{28}H_{28}Ge$	[1048-05-1]	tetrabenzylgermane				
	$\Delta_{sub}H$		168.6 ± 8.4	298		[1982PIL/SKI, 1970CAR/CAR]
$C_{32}H_{16}Cl_2GeN_8$	[19566-97-3]	dichlorophthalocyaninatogermane				
	$\Delta_{sub}H$			147.4		[1972MAR/LOP]
$C_{36}H_{30}Ge_2O$	[2181-40-0]	*bis*(triphenyl germanium) oxide				
	$\Delta_{sub}H$		98.0 ± 1.5	298	ME,TE	[1988CAR/JAM2]
$C_{36}H_{30}Ge_2$	[2816-39-9]	hexaphenyldigermane				
	$\Delta_{sub}H$		151.3			[1972MAR/LOP]
	$\Delta_{sub}H$		209.2 ± 4.2	298		[1982PIL/SKI, 1970CAR/CAR]
$GeBr_2$	[24415-00-7]	germanium dibromide				
	$\Delta_{fus}H$		11.6	409.2	DSC	[2006ZEL/CHU2]
$GeBr_4$	[13450-92-5]	germanium tetrabromide				
	$\Delta_{fus}H$	(5–315)	12.85	299.3	AC	[1999BER/ZEL]
	$\Delta_{sub}H$	(273–299)	58.6 ± 1.2	298		[2004ZEL/CHU]
	$\Delta_v H$	(299–373)	46.6 ± 0.3	298		[2004ZEL/CHU]
$GeCl_4$	[10038-98-9]	germanium tetrachloride				
	$\Delta_{fus}H$		8.52	221.7		[1986DEV/GUS]
	$\Delta_{sub}H$	(187–221)	44.6 ± 0.2		MG	[1964BAL/DON]
GeF_2	[13940-63-1]	germanium difluoride				
	$\Delta_{fus}H$		9.25	(corrected to 298 K)		[1971ADA/MAR]
	$\Delta_{sub}H$		82.8 ± 4.2	298	MS	[1971ADA/MAR]
	$\Delta_{sub}H$		93.3 ± 10.5	298		[1971ADA/MAR]
GeI_2	[13573-08-5]	germanium diiodide				
	$\Delta_{fus}H$		33.3	701.2		[2003ZEL/TIT]
GeI_4	[13573-08-5]	germanium tetraiodide				
	$\Delta_{fus}H$		19.1	419		[1998ZEL/MIN]
	$\Delta_{sub}H$		87.1 ± 3	298		[1999TIT/ZEL]
	$\Delta_{sub}H$		86.7 ± 3	298		[1999TIT/ZEL]
	$\Delta_{sub}H$	(323–420)	76.5 ± 5.7	298	TE	[1987FER/STR]
	$\Delta_v H$	(419–613)	64.2 ± 0.2	419		[1999TIT/ZEL2]
Ge_4H_{10}	[14691-47-5]	tetragermane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		32.8			[1959AMB]
Ge_5H_{12}	[15587-39-0]	pentagermane				
	$\Delta_v H$		34.6			[1959AMB]
GeH_6Si	[13768-63-3]	germylsilane				
	$\Delta_v H$	(190–250)	25.0	220		[1963SPA/MAC]
Ha (hahnium)						
$HaCl_5$	[146837-09-4]	hahnium(V) pentachloride				
	$\Delta_{sub}H$		<120	298		[1996TUR/EIC]
$HaOCl_3$	[143928-41-0]	hahnium(V) oxychloride				
	$\Delta_{sub}H$	(298–607)	152 ± 18	298		[1996TUR/EIC]
Hf (hafnium)						
$C_{10}H_{10}Cl_2Hf$	[12116-66-4]	*bis*(cyclopentadienyl)hafnium dichloride				
	$\Delta_{sub}H$		110.2 ± 2.9	298	ME	[2001DIO/PIE]
	$\Delta_{sub}H$	(394–447)	100.3	420.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		106.7 ± 2.1	298		[1982PIL/SKI, 1976KIR/TEL]
	$\Delta_{sub}H$		100.4 ± 1.3			[1977BAL/BAR]
	$\Delta_{sub}H$		107.3 ± 2.4	298		[1968KIS/DIL, 2001DIO/PIE]
$C_{12}H_{16}Hf$	[37260-88-1]	*bis*(cyclopentadienyl)dimethyl hafnium				
	$\Delta_{sub}H$	(295–316)	81.1 ± 1.9	303	ME	[2008MOR/ZHE]
$C_{18}H_{30}HfN_2$	[159338-62-2]	*bis*(cyclopentadienyl)hafnium *bis*(diethylamide)				
	$\Delta_{sub}H$	(328–365)	130.5 ± 1.0	346	ME	[2008MOR/ZHE]
$C_{20}H_{16}F_{12}HfO_8$	[17475-68-2]	*tetrakis*(1,1,1-trifluoro-2,4-pentanedionato)hafnium(IV)				
	$\Delta_{fus}H$		40.1	398	DSC	[2008ZHE/MOR]
	$\Delta_{sub}H$	(358–393)	133.0 ± 1.8	376	GS	[2008MOR/ZHE]
	$\Delta_{sub}H$	(358–398)	126.5 ± 1.8			[2008ZHE/MOR]
	$\Delta_{sub}H$	(383–438)	129.7 ± 3.8		GS	[1985MAT/KUW]
	$\Delta_{sub}H$	(383–438)	124.7 ± 3.8		GS	[1985MAT/KUW]
	$\Delta_v H$	(403–423)	84.7 ± 3.1	413	GS	[2008MOR/ZHE]
	$\Delta_v H$	(403–423)	83.2 ± 2.0	413		[2008ZHE/MOR]
$C_{20}H_{28}HfO_8$	[17475-67-1]	*tetrakis*(pentane-2,4-dionato)hafnium(IV)				
	$\Delta_{sub}H$	(408–433)	138.7 ± 7.4	420	GS	[2008MOR/ZHE]
	$\Delta_{sub}H$	(408–443)	130.4 ± 6.1	425		[2008ZHE/MOR]
	$\Delta_{sub}H$		150.6 ± 4.2			[1991TEL/LAR]
$C_{32}H_{40}F_{12}HfO_8$	[916441-69-5]	*tetrakis*(1,1,1-trifluoro-5,5-dimethyl-2,4-hexanedionato)hafnium(IV)				
	$\Delta_{sub}H$	(383–423)	135.3 ± 1.7	403	GS	[2008MOR/ZHE]
		Note: the enthalpy of sublimation that was reported in the paper, 97.5 ± 1.7 kJ/mole, was not consistent with the reported Antoine constants. We have recalculated the the enthalpy of sublimation assuming that the reported Antoine constants are correct.				
	$\Delta_{sub}H$	(386–423)	121.5 ± 0.8	404		[2008ZHE/MOR]
	$\Delta_v H$	(426–493)	92.1 ± 1.3	460	GS	[2008MOR/ZHE]
	$\Delta_v H$	(424–472)	91.2 ± 0.3	448		[2008ZHE/MOR]
$C_{44}H_{76}HfO_8$	[63370-90-1]	*tetrakis*(2,2,6,6-tetramethyl-3,5-heptanedionaot)hafnium(IV)				
	$\Delta_{trs}H$		15.8	446		
		Note: The enthalpy includes a solid/solid transition that occurs at 433 K				
	$\Delta_{fus}H$		5.4	630	DSC	[2008ZHE/MOR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(453–553)	103.5 ± 0.6	503	GS	[2008MOR/ZHE]
	$\Delta_{sub}H$	(368–428)	136.6 ± 4.2	398	ME	[2008MOR/ZHE]
$HfCl_4$	[13499-05-3]	hafnium tetrachloride				
	$\Delta_{sub}H$	(398–500)	97.9 ± 1.2	499	T	[1994TAN/BOS]
	$\Delta_{sub}H$	(353–433)	107.9 ± 0.8			[1973IZM/KHO]
Hg (mercury)						
CH_3BrHg	[506-83-2]	methylmercuric bromide				
	$\Delta_{sub}H$	(258–297)	67.6 ± 1.6	277.5	V	[1987STE/MAL, 1951CHA/SKI]
CH_3ClHg	[115-09-3]	methylmercuric chloride				
	$\Delta_{sub}H$	(278–307)	64.9 ± 1.6	298	V	[1987STE/MAL, 1982PIL/SKI, 1950HAR/PRI, 1951CHA/SKI]
CH_3HgI	[143-36-2]	methylmercuric iodide				
	$\Delta_{sub}H$	(263–290)	65.3 ± 1.6	276	V	[1951CHA/SKI]
C_2H_5BrHg	[107-26-6]	ethylmercuric bromide				
	$\Delta_{sub}H$	(285–303)	76.5 ± 2.9	294	V	[1987STE/MAL, 1982PIL/SKI, 1951HAR/PRI, 1951CHA/SKI]
C_2H_5ClHg	[107-27-7]	ethylmercuric chloride				
	$\Delta_{sub}H$	(283–303)	76.2 ± 2.9	293	V	[1987STE/MAL, 1982PIL/SKI, 1951HAR/PRI, 1951CHA/SKI]
C_2H_5HgI	[2440-42-8]	ethylmercuric iodide				
	$\Delta_{sub}H$	(286–303)	79.7 ± 2.9	294.5	V	[1987STE/MAL, 1982PIL/SKI, 1951HAR/PRI, 1951CHA/SKI]
C_2H_6Hg	[593-74-8]	dimethyl mercury				
	Δ_vH	(275–367)	36.7 ± 0.1	321		[2001BAE]
	Δ_vH		34.6 ± 0.8			[1950HAR/PRI, 1982PIL/SKI]
$C_2F_6HgS_2$	[1085746-33-3]	*bis*(trifluoromethylthio)mercury				
	Δ_vH	(353–423)	49.9	368		[1999DYK/SVO]
$C_4H_{10}Hg$	[627-44-1]	diethyl mercury				
	Δ_vH		44.8 ± 1.7			[1951HAR/PRI, 1982PIL/SKI]
	Δ_vH		44.9			[1935JON/EVA]
$C_4H_{16}Cl_2HgN_8S_4$	[28813-22-1]	*trans*-dichloro-*tetrakis*(thiourea)mercury(II)				
	$\Delta_{sub}H$		101 ± 20			[1970ASH]
$C_6H_{14}Hg$	[628-85-3]	dipropyl mercury				
	Δ_vH		55.2 ± 1.3			[1952MOR/PRI, 1982PIL/SKI]
$C_6H_{14}Hg$	[1071-39-2]	diisopropyl mercury				
	Δ_vH		53.6 ± 1.7			[1952MOR/PRI, 1982PIL/SKI]
$C_{10}H_{14}Cl_2HgN_6O_2$	[na]	[mercury(1-methylcytosine)$_2$Cl$_2$]				
	$\Delta_{sub}H$	(428–443)	150.8 ± 19	435	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		159 ± 19	298		[1984BUR/MOR]
$C_{10}H_{20}HgN_2S_4$	[14239-51-1]	*bis*(diethyldithiocarbamate) mercury complex				
	$\Delta_{sub}H$	(378–403)	47.6	390.5		[1987STE/MAL]
$C_{12}H_{12}Hg$	[587-85-9]	diphenylmercury				
	$\Delta_{sub}H$	(314–303)	112.8 ± 0.8	298	ME	[1958CAR/STR]
$C_{12}H_{30}Ge_2Hg$	[4149-28-4]	*bis*(triethylgermyl)mercury				
	Δ_vH	(383–403)	64.8	393		[1972BRA/KAR]
$C_{12}H_{30}HgSi_2$	[4149-29-5]	*bis*(triethylsilyl)mercury				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(383–433)	64.0	398		[1972BRA/KAR]
$C_{14}H_{14}Hg$	[780-24-5]	*bis*(benzyl)mercury				
	$\Delta_{sub}H$	(350–390)	88.7 ± 2.1		ME, TE	[1984CAR/SPE]
$C_{14}H_{28}HgN_2S_4$	[21439-56-5]	*bis*(dipropyldithiocarbamate)mercury(II)				
	$\Delta_{sub}H$		200 ± 2	298	DSC, E	[1992DEC/AIR]
$C_{16}H_{10}Hg$	[6077-10-7]	*bis*(phenylethynyl)mercury				
	$\Delta_{sub}H$	(350–390)	99.2 ± 1.4		ME, TE	[1984CAR/SPE]
$C_{18}H_{36}HgN_2S_4$	[21439-58-7]	*bis*(dibutyldithiocarbamate)mercury(II)				
	$\Delta_{sub}H$		193 ± 3	298	DSC,E	[1991DES/DES]
$C_{18}H_{36}HgN_2S_4$	[79001-48-2]	*bis*(diisobutyldithiocarbamate)mercury(II)				
	$\Delta_{sub}H$		247 ± 1	298	DSC,E	[1994SOU/PIN]
$C_{18}H_{42}Ge_2Hg$	[24004-54-4]	*bis*(triisopropylgermyl)mercury				
	$\Delta_v H$	(373–483)	68.7	388		[1972BRA/KAR]
HgF_2	[7783-39-3]	merucric fluoride				
	$\Delta_{sub}H$	(496–629)	136 ± 4	298		[2008BRU/PIA]
HgI_2	[7774-29-0]	mercuric iodide				
	$\Delta_{fus}H$		20.3	537	Sub-Vap	[2002SU/ZHU]
	$\Delta_{sub}H$		84.4		UV	[2002SU/ZHU]
	$\Delta_v H$	(537–610)	64.0	574	UV	[2002SU/ZHU]
Ho (holmium)						
$C_{15}H_{15}Ho$	[1272-22-6]	*tris*(cyclopentadienyl)holmium(III)				
	$\Delta_{sub}H$		102.1 ± 2.1			[1973DEV/BOR]
	$\Delta_{sub}H$	(338–348)	119.7 ± 2.1		ME	[1971HAU, 1971HAU2]
$C_{33}H_{57}HoO_6$	[15522-73-3]	*tris*(2,2,6,6-tetramethylheptane-3,5-dionato)holmium(III)				
	$\Delta_{sub}H$		131.0 ± 2.9		DSC	[1993AIR/SAN]
	$\Delta_{sub}H$	(363–418)	152.7	390	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(420–458)	131.4	439	BG	[1969SIC/DUB]
	$\Delta_v H$	(458–500)	84.6		BG	[1969SIC/DUB]
I (iodine)						
HI	[10034-85-2]	hydrogen iodide				
	$\Delta_v H$		19.8	238	C	[1929GIA/WIE]
In (indium)						
C_3H_9In	[3385-78-2]	trimethyl indium				
	$\Delta_{fus}H$		14.3	358.7		[1991URY/RON]
	$\Delta_{sub}H$	(274–313)	62.7	294		[2004FUL/RUZ]
	$\Delta_{sub}H$		48.5 ± 2.5	298		[1982PIL/SKI, 1968CLA/PRI]
	$\Delta_{sub}H$	(328–362)	57.7	344	A	[1987STE/MAL, 1941LAU/GIL]
$C_6H_{15}In$	[923-34-2]	triethyl indium				
	$\Delta_{fus}H$		13.09	237.6		[1996DOM/HEA]
	$\Delta_{fus}H$		13.01	237.6		[1996DOM/HEA]
	$\Delta_v H$	(326–376)	45.0 ± 0.7	351		[2001BAE, 2001BAE/CHE]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{21}In$	[3015-98-3]	tripropyl indium				
	$\Delta_v H$	(400–483)	52.0	441		[1999DYK/SVO]
$C_9H_{21}In$	[17144-80-8]	triisopropyl indium				
	$\Delta_v H$	(318–366)	52.3 ± 0.7	342		[2001BAE]
	$\Delta_v H$	(394–478)	51.0	336		[1999DYK/SVO]
$C_{12}H_{27}In$	[15676-66-1]	tributyl indium				
	$\Delta_v H$	(444–539)	58.5	459	A	[1987STE/MAL]
$C_{15}H_{12}F_9InO_6$	[15453-87-9]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)indium(III)				
	$\Delta_{sub}H$	(378–428)	112.1 ± 1.3		GS	[1985MAT/KUW]
	$\Delta_v H$	(398–478)	77.4 ± 0.6	438		[1978IGU/CHU2]
$C_{15}H_{30}InN_3S_6$	[15741-07-8]	*tris*(diethyldithiocarbamate)indium(III)				
	$\Delta_{sub}H$		176.7 ± 3.3	298	DSC,E	[2000SOU/OLI]
$C_{20}H_{48}In_2P_4$	[115381-28-7]	*bis*[μ-[*bis*(1,1-dimethylethyl)phosphino)]]tetramethyldiindium(III)				
	$\Delta_{sub}H$		130.0		ME	[1988BRA/FAK]
$C_{21}H_{42}InN_3S_6$	[87052-01-5]	*tris*(dipropyldithiocarbamate)indium(III)				
	$\Delta_{sub}H$		372.8 ± 3.4	298	DSC,E	[2000SOU/OLI]
$C_{21}H_{42}InN_3S_6$	[85883-33-6]	*tris*(diisopropyldithiocarbamate)indium(III)				
	$\Delta_{sub}H$		279.5 ± 3.5	298	DSC,E	[2000SOU/OLI]
$C_{27}H_{54}InN_3S_6$	[85883-33-6]	*tris*(dibutyldithiocarbamate)indium(III)				
	$\Delta_{sub}H$		358.3 ± 3.2	298	DSC,E	[2000SOU/OLI]
$C_{27}H_{54}InN_3S_6$	[85129-27-7]	*tris*(diisobutyldithiocarbamate)indium(III)				
	$\Delta_{sub}H$		182.0 ± 3.3	298	DSC,E	[2000SOU/OLI]
$C_{33}H_{57}InO_6$	[34269-03-9]	*tris*(2,2,6,6-tetramethylheptan-3,5-dionato)indium(III)				
	$\Delta_{sub}H$		129.3		ME	[1973BRU/CUR]
$InBr_3$	[13465-09-3]	indium(III) bromide				
	$\Delta_{sub}H$		147 ± 4	298	TE	[1997BRU/PAL]
$InCl_3$	[10025-82-8]	indium(III) chloride				
	$\Delta_{sub}H$	(495–648)	152 ± 4	570	TE	[1998BRU/PIA]
	$\Delta_{sub}H$		158 ± 4	298		[1998BRU/PIA]
	$\Delta_{sub}H$		150.4	710		[1994OPP/KRA]
	$\Delta_{sub}H$		161.1	298		[1994OPP/KRA, 1998BRU/PIA]
	$\Delta_{sub}H$	(453–572)	151.1 ± 1.2	489	MS	[1988DEF/CHA]
	$\Delta_{sub}H$		155.6 ± 1.2	298		[1988DEF/CHA, 1998BRU/PIA]
	$\Delta_{sub}H$	(478–563)	161.1 ± 1.6	524		[1988DEF/CHA]
	$\Delta_{sub}H$		168.5 ± 1.6	298		[1988DEF/CHA, 1998BRU/PIA]
	$\Delta_{sub}H$	(623–773)	156.3	698		[1974KUN/HOS]
	$\Delta_{sub}H$		166.6	298		[1974KUN/HOS, 1998BRU/PIA]
InI_3	[13510-35-5]	indium(III) iodide				
	$\Delta_{sub}H$	(399–479)	136 ± 5.0	298	TE,ME	[1997BRU/GIU]
Ir (iridium)						
$C_7H_7IrO_4$	[14023-80-4]	dicarbonyl-2,4-pentanedionato iridium complex				
	$\Delta_{sub}H$	(306–333)	94.1 ± 2.7		ME	[2009MOR/SEM]
	$\Delta_{sub}H$	(286–325)	92.0 ± 1.3	306	ME	[1978JES/ERN, 1987STE/MAL]
$C_7H_{13}Cl_2IrO_2$		*bis*(chloroethylene)-2,4-pentanedionato iridium complex				
	$\Delta_{sub}H$	(281–298)	89.5 ± 4.2	290	ME	[1978JES/ERN, 1987STE/MAL]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_9H_{15}IrO_2$	[52654-27-0]	*bis*(ethylene)-2,4-pentanedionato iridium complex				
	$\Delta_{sub}H$	(283–311)	82.8 ± 4.2	297	ME	[1978JES/ERN, 1987STE/MAL]
$C_{11}H_{19}IrO_2$	[66467-05-8]	*bis*(propylene)-2,4-pentanedionato iridium complex				
	$\Delta_{sub}H$	(269–304)	90 ± 1.3	287	ME	[1978JES/ERN]
$C_{12}O_{12}Ir_4$	[11065-24-0]	tetrairidiumdodecacarbonyl				
	$\Delta_{sub}H$		104.6 ± 20	298		[1982PIL/SKI, 1974CON/SKI]
$C_{12}H_{15}IrO_2$	[32660-96-1]	(pentamethylcyclopentadienyl)(dicarbonyl)iridium (I)				
	$\Delta_{sub}H$	(297–332)	105.0 ± 3.4		ME	[2009MOR/SEM]
$C_{13}H_{19}IrO_2$	[12154-84-6]	(acetylacetonato)(1,5-cyclooctadiene)iridium (I)				
	$\Delta_{sub}H$	(335–370)	111.7 ± 1.7		ME	[2009MOR/SEM]
$C_{13}H_{19}IrO_6$	[66467-07-0]	*bis*(vinyl acetate)-2,4-pentanedionato iridium complex				
	$\Delta_{sub}H$	(325–344)	120.5 ± 2.9	333	ME	[1978JES/ERN]
$C_{13}H_{19}IrO_6$	[66467-08-1]	*bis*(methyl acrylate)-2,4-pentanedionato iridium complex				
	$\Delta_{sub}H$	(311–335)	117.2 ± 5	323	ME	[1978JES/ERN]
$C_{14}H_{19}Ir$	[122644-88-3]	(methylcyclopentadienyl)(1,5-cyclooctadiene)iridium (I)				
	$\Delta_{sub}H$	(304–310)	124.6 ± 5.0		ME	[2009MOR/SEM]
	Δ_vH	(310–330)	88.1 ± 1.3		ME	[2009MOR/SEM]
$C_{15}H_{21}IrO_6$	[15635-87-7]	*tris*(2,4-pentanedionato)iridium(III)				
	$\Delta_{sub}H$		128			[2001MOR/ZHA]
	$\Delta_{sub}H$	(423–473)	129.3 ± 0.8		GS	[2000MOR/SEM]
	$\Delta_{sub}H$	(383–433)	130.5 ± 3.4		ME	[2000MOR/SEM]
	$\Delta_{sub}H$	(387–513)	101.6 ± 1.8		MCV	[2000MOR/SEM]
	$\Delta_{sub}H$	(468–518)	86.6 ± 1.7		SMZG	[2000MOR/SEM]
	$\Delta_{sub}H$		NA			[1994GER/GER]
La (lanthanum)						
$C_{15}H_{15}La$	[1272-23-7]	*tris*(cyclopentadienyl)lanthanum				
	$\Delta_{sub}H$		114.6 ± 4.0	298		[1982PIL/SKI, 1974DEV/RAB]
	$\Delta_{sub}H$	(548–663)	102.1 ± 2.9			[1973BOR/KRA]
$C_{30}H_{30}F_{21}LaO_6$	[19106-89-9]	*tris*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)lanthanum(III)				
	$\Delta_{sub}H$	(387–403)	145.2 ± 2.9		ME	[1971SWA/KAR]
$C_{33}H_{57}LaO_6$	[14319-13-2]	*tris*(2,2,6,6-tetramethylheptan-3,5-dionato)lanthanum(III)				
	$\Delta_{sub}H$		156.0 ± 4.6		DSC	[1997SAN/ROC, 2000GIE]
	$\Delta_{sub}H$		116.1 ± 8.4			[1996TSY/DYA]
	$\Delta_{sub}H$		107.9 ± 4.6			[1996TSY/DYA2, 2000GIE]
	$\Delta_{sub}H$	(388–423)	179.5	405	ME	[1981AMA/SAT]
	$\Delta_{sub}H$		164.4		ME	[1973BRU/CUR]
	$\Delta_{sub}H$	(450–520)	143.6	485	BG	[1969SIC/DUB]
Li (lithium)						
C_2H_5Li	[811-49-4]	ethyl lithium				
	$\Delta_{sub}H$	(298–333)	116.6	315.5	A	[1987STE/MAL, 1962CHA]
C_4H_9Li	[109-72-8]	butyl lithium				
	$\Delta_{sub}H$	(333–368)	109.7	350.5	A	[1987STE/MAL, 1962LEB/MIR]
	Δ_vH		107.1 ± 2.9			[1961FOW/MOR, 1982PIL/SKI]

Note: Authors of Ref. [1961FOW/MOR] noted that the experimental data was not very reproducible, and subject to considerable error.

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_5HF_6LiO_2$	[22466-51-9]	(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)lithium				
	$\Delta_{sub}H$	(453–523)	149.5 ± 3.5			[2006FIL/SYS]
	Note: Above value calculated assuming the vapor phase is a dimer					
$C_5H_4F_3LiO_2$	[127892-64-2]	(1,1,1-trifluoro-2,4-pentanedionato)lithium				
	$\Delta_{sub}H$	(453–523)	145.6 ± 3.0			[2006FIL/SYS]
	Note: Above value calculated assuming the vapor phase is a dimer					
$C_8H_{10}F_3LiO_2$	[22441-09-4]	(2-2-dimethyl-6,6,6-trifluoro-3,5-hexanedionato)lithium				
	$\Delta_{sub}H$	(453–523)	182.0 ± 2.3			[2006FIL/SYS]
	Note: Above value calculated assuming the vapor phase is a dimer					
$C_{11}H_{19}LiO_2$	[22441-13-0]	(2,2,6,6-tetramethylheptane-3,5-dionato)lithium				
	$\Delta_{sub}H$	(400–450)	191.2 ± 7.1		ME,MS	[2006FIL/STA]
	$\Delta_{sub}H$	(444–543)	181.1 ± 2.8			[2006FIL/SYS]
	$\Delta_{sub}H$	(537–545)	198.0 ± 15.1			[2006FIL/SYS]
	$\Delta_{sub}H$	(444–549)	178.3 ± 2.0			[2006FIL/SYS]
	$\Delta_{sub}H$		174.5		ME	[1973BRU/CUR]
	Note: Above four values calculated assuming the vapor phase is a tetramer					
	Δ_vH	(550–581)	95.6 ± 1.3			[2006FIL/SYS]
	Note: Above value calculated assuming the vapor phase is a tetramer					
LiF	[7789-24-4]	lithium fluoride				
	$\Delta_{sub}H$	(1073–1121)	268.2 ± 4.2			[1959SCH/MAR, 1958EIS/ROT]
	$\Delta_{sub}H$	(957–1113)	267.8 ± 4.2			[1958POR/SCH]
Lu (lutetium)						
$C_{15}H_{15}Lu$	[1272-24-8]	*tris*(cyclopentadienyl)lutetium(III)				
	$\Delta_{sub}H$		123.0 ± 2.9			[1973DEV/BOR]
$C_{15}H_{21}LuO_6$	[17966-84-6]	*tris*(2,4-pentanedionato)lutetium(III)				
	$\Delta_{sub}H$	(403–433)	79 ± 13	418		[1983TRE/BER]
$C_{33}H_{57}LuO_6$	[15497-45-2]	*tris*(2,2,6,6-tetramethylpentane-2,4-dionato)lutetium(III)				
	$\Delta_{sub}H$		135.8 ± 2.9	298	DSC	[1999SAN/PET]
	$\Delta_{sub}H$	(363–413)	154.8	390	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(420–448)	134.2	434	BG	[1969SIC/DUB]
	Δ_vH	(448–490)	83.6		BG	[1969SIC/DUB]
Mg (magnesium)						
$C_{10}H_{10}Mg$	[1284-72-6]	*bis*(cyclopentadienyl) magnesium				
	$\Delta_{sub}H$		68.2 ± 1.3	298		[1982PIL/SKI, 1967HUL/REI, 1967TUR]
$C_{10}H_{22}Mg$	[19978-31-5]	*bis*(2,2-dimethylpropyl)magnesium				
	$\Delta_{sub}H$	(318–348)	160.0 ± 2.0	333	ME	[1983AKK/SCH]
$C_{18}H_{12}MgN_2O_2$	[14639-28-2]	*bis*(8-hydroxyquinolinato)magnesium(II)				
	$\Delta_{sub}H$		230.2 ± 4.0	298	ME	[1994RIB/MAT]
$C_{20}H_{16}MgN_2O_2$	[14406-92-9]	*bis*(8-hydroxy-2-methylquinolinate)magnesium(II)				
	$\Delta_{sub}H$	(533–549)	212.2 ± 6.5	541	ME	[1998RIB/MAT3]
	$\Delta_{sub}H$	(533–549)	224.3 ± 6.5	298	ME	[1998RIB/MAT3]
$C_{28}H_{54}MgN_2O_4$	[302351-10-6]	(N,N,N′,N′-tetramethylethylenediamine)*bis*((2,2,6,6-tetramethyl-3,5-heptanedionato)magnesium				
	$\Delta_{fus}H$		58.3 ± 5.2		DTA	[2008MAR/SEL]
	$\Delta_{sub}H$		83.2 ± 2.3		TGA	[2008MAR/SEL]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{31}H_{61}MgN_3$		(N,N,N′,N′,N″-pentamethyldiethylenetriamine) *bis*(2,2,6,6-tetramethyl-3,5-heptanedionato)magnesium				
	$\Delta_{fus}H$		19.0	352.7	DTA	[2009MAR/SEL]
	$\Delta_{sub}H$		77.0		Fus+Vap	[2009MAR/SEL]
	Δ_vH	(373–441)	59 ± 1		TGA	[2009MAR/SEL]
$C_{44}H_{76}Mg_2O_8$	[236095-55-9]	*tetrakis*(2,2,6,6-tetramethyl-3,5-heptanedianato)dimagnesium				
	Δ_vH	(395–476)	67 ± 2		TGA	[2009MAR/SEL]
MgF_2	[7783-40-6]	magnesium fluoride				
	$\Delta_{sub}H$	(1220–1450)	359.8	1330	MS	[1962BER/MAR]
	$\Delta_{sub}H$	(1273–1513)	327.3 ± 4.3	1400	TE	[1964GRE/KO]
	$\Delta_{sub}H$		348.2 ± 4.3	298		[1964GRE/KO]
Mn (manganese)						
$C_4H_{16}Cl_2MnN_8S_4$	[28813-17-4]	*trans*-dichloro-*tetrakis*(thiourea)manganese(II)				
	$\Delta_{sub}H$	(382–409)		133 ± 20		[1970ASH]
C_5BrMnO_5	[14516-54-2]	bromo(pentacarbonyl)manganese				
	$\Delta_{sub}H$		58.6 ± 8.4	298		[1982PIL/SKI, 1972CON/SKI]
	$\Delta_{sub}H$		88.0 ± 2.0	298	C	[1982CON/ZAF]
C_5ClMnO_5	[14100-30-2]	chloro(pentacarbonyl)manganese				
	$\Delta_{sub}H$		58.6 ± 8.4	298		[1982PIL/SKI, 1972CON/SKI]
	$\Delta_{sub}H$		91 ± 9			[1982CON/ZAF]
C_5IMnO_5	[14879-42-6]	iodo(pentacarbonyl)manganese				
	$\Delta_{sub}H$		77.4 ± 1.4	298	C	[1982CON/ZAF]
$C_5H_3MnO_5Si$	[15770-61-3]	silyl pentacarbonyl manganese				
	Δ_vH	(294–391)	39.6	343	T	[1969AYL/CAM2, 1967AYL/CAM]
$C_6F_3MnO_5$	[13601-14-4]	pentacarbonyl(trifluoromethyl)manganese				
	$\Delta_{sub}H$		77.8 ± 1.0	298	C	[1982CON/ZAF]
$C_6H_3MnO_5$	[13601-24-6]	methyl(pentacarbonyl)manganese				
	$\Delta_{sub}H$		60.3 ± 1.0			[1982PIL/SKI, 1974BRO/CON]
	$\Delta_{sub}H$	(293–403)	60.2			[1958HIE/WAG]
$C_7F_3MnO_6$	[14099-62-8]	pentacarbonyl(trifluoroacetyl)manganese				
	$\Delta_{sub}H$		79 ± 5	298	C	[1982CON/ZAF]
$C_7H_3MnO_6$	[13963-91-2]	acetyl(pentacarbonyl)manganese				
	$\Delta_{sub}H$		80 ± 7	298	C	[1982CON/ZAF]
$C_8H_5MnO_3$	[12079-65-1]	cyclopentadienyl(tricarbonyl)manganese				
	$\Delta_{fus}H$		18.9	350.1	DSC	[2008PIC/CAN]
	$\Delta_{sub}H$		72.2 ± 3.9	294	ME	[2008PIO/CAN]
	$\Delta_{sub}H$		72.0 ± 3.9	298	ME	[2008PIO/CAN]
	$\Delta_{sub}H$		75.8 ± 0.4	305	C	[2008PIO/CAN]
	$\Delta_{sub}H$		76.0 ± 0.4	298	C	[2008PIO/CAN]
	$\Delta_{sub}H$	(323–353)	52.7 ± 3.1	338		[1982PIL/SKI, 1965EVS/SHM, 1970BAE/DEM]
	$\Delta_{sub}H$	(335–343)	64.2 ± 11.6	339	ME	[1959COR/SCH, 2008PIO/CAN]
	Δ_vH	(353–489)	50.8	421		[1970BAE/DEM]
$C_8H_{10}Cl_2MnN_6O_2$	[74543-44-5]	[manganese-(cytosine)$_2$Cl$_2$]				
	$\Delta_{sub}H$	(433–453)	U 146 ± 21	443	ME	[1984BUR/MOR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}MnO_{10}Re$	[14693-30-2]	decacarbonylmanganeserhenium				
	$\Delta_{sub}H$		109 ± 4	363	C	[1998ADD/CON]
	$\Delta_{sub}H$		86 ± 4	298		[1998ADD/CON]
	$\Delta_{sub}H$	(363–440)	68.6	401	MM	[1971BAE/DEM]
	Δ_vH	(440–463)	56.5	451		[1971BAE/DEM]
$C_{10}Mn_2O_{10}$	[10170-69-1]	decacarbonyldimanganese				
	$\Delta_{sub}H$		80.3 ± 4.2	298		[1982PIL/SKI, 1958GOO/FAI]
	$\Delta_{sub}H$		92.3 ± 2.1	298	C	[1982CON/ZAF]
	$\Delta_{sub}H$	(351–428)	80.3 ± 2.1	390	MM	[1971BAE/DEM]
	$\Delta_{sub}H$		62.8 ± 4.2			[1960COT/MON]
		Note: The latter value is likely an enthalpy of vaporization				
	Δ_vH	(428–463)	60.7 ± 1.3	446		[1971BAE/DEM]
$C_{10}H_6Mn_2O_8S_2$	[21321-38-0]	*bis*(μ-methanethiolato)octacarbonyldimanganese				
	$\Delta_{sub}H$		114.2 ± 0.8	340	C	[1995CON/GOB2]
$C_{10}H_{10}Mn$	[1271-27-8]	*bis*(cyclopentadienyl)manganese				
	$\Delta_{sub}H$	(298–445)	72.4	371.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		75.7 ± 1.7	298		[1982PIL/SKI, 1971TEL/RAB]
	$\Delta_{sub}H$		72.4			[1956WIL/COT]
	Δ_vH	(378–435)	58.0	393	A	[1987STE/MAL]
$C_{10}H_{14}MnO_4$	[14024-58-9]	*bis*(2,4-pentanedionato) manganese(II)				
	$\Delta_{sub}H$	(390–440)	139.3 ± 2.5	298	ME	[1990MAL/ALI]
	$\Delta_{sub}H$		87.0	343		[1981MAS/BAR]
	$\Delta_{sub}H$		88.7			[1972BOL, 2000DUN]
	$\Delta_{sub}H$		88.7	400		[1970GOE/BLO]
$C_{11}H_5MnO_5$	[13985-77-8]	phenyl(pentacarbonyl)manganese				
	$\Delta_{sub}H$		84.9 ± 4.4	298	C	[1982CON/ZAF]
$C_{12}H_5MnO_6$	[15612-92-7]	benzoyl(pentacarbonyl)manganese				
	$\Delta_{sub}H$		123 ± 3	298	C	[1982CON/ZAF]
$C_{12}H_7MnO_5$	[14049-86-6]	benzyl(pentacarbonyl)manganese				
	$\Delta_{sub}H$		84.5 ± 0.7	298	C	[1982CON/ZAF]
$C_{15}H_{12}F_9MnO_6$	[14526-24-0]	*tris*(1,1,1-trifluoro-2,4-pentanedionato) manganese(III)				
	$\Delta_{sub}H$	(378–413)	120.5 ± 9.2		GS	[1985MAT/KUW]
	$\Delta_{sub}H$		117.3			[1971ASH]
	$\Delta_{sub}H$		77.8			[1964WOO/JON]
$C_{15}H_{21}MnO_6$	[14284-89-0]	*tris*(2,4-pentanedionato) manganese(III)				
	$\Delta_{fus}H$		27.7	421.9	DSC	[2004SAB/MAR]
	$\Delta_{sub}H$	(320–380)	124.7 ± 3.8	298	ME	[1990MAL/ALI]
	$\Delta_{sub}H$		120 ± 10	298	E	[1988RIB/FER2]
	$\Delta_{sub}H$		99.0	392		[1981MAS/BAR]
	$\Delta_{sub}H$		113	370		[1970GOE/BLO]
	$\Delta_{sub}H$		77.8 ± 0.8	298		[1982PIL/SKI, 1968HIL/IRV]
$C_{18}H_{12}MnN_2O_2$	[14495-13-7]	*bis*(8-hydroxyquinolinato) manganese(II)				
	$\Delta_{sub}H$		194.6 ± 10.4	298	ME	[1994RIB/MAT]
	$\Delta_{sub}H$	(615–650)	208.4 ± 14	633	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		226 ± 14	298		[1984BUR/MOR]
$C_{20}H_{16}MnN_2O_2$	[14515-78-7]	*bis*(8-hydroxy-2-methylquinolinate)manganese(II)				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(521–541)	199.6 ± 7.2	531	ME	[1998RIB/MAT3]
	$\Delta_{sub}H$		211.2 ± 7.2	298		[1998RIB/MAT3]
$C_{30}H_{27}MnO_6$	[14376-07-9]	*tris*(1-phenylbutane-1,3-dionato)manganese(III)				
	$\Delta_{sub}H$		195 ± 10	298	E	[1988RIB/FER2]
$C_{33}H_{57}MnO_6$	[14324-99-3]	*tris*(2,2,6,6-tetramethylheptane-3,5-dionato)manganese(III)				
	$\Delta_{sub}H$		140 ± 10	298	E	[1988RIB/FER2]
$C_{44}H_{28}MnN_4$	[31004-82-7]	5,10,15,20-tetraphenylporphine manganese (II)				
	$\Delta_{sub}H$		175 ± 1		UV	[1993SHE/KAR]
MnF_2	[7782-64-1]	manganese (II) fluoride				
	$\Delta_{sub}H$		318.4 ± 8.4	298		[1964KEN/EHL]
Mo (molybenum)						
C_6MoO_6	[13939-06-5]	molybdenum hexacarbonyl				
	$\Delta_{sub}H$	(265–300)	77.7			[2000OHT/CIC]
	$\Delta_{sub}H$	(316–423)	69.1	331	A	[1987STE/MAL]
	$\Delta_{sub}H$	(240–285)	76.9 ± 0.9	263	ME	[1979DAA/ERN, 1980BOX/ERN]
	$\Delta_{sub}H$		73.8 ± 1.0			[1975PIL/WAR, 1974BAR/PIL]
	$\Delta_{sub}H$	(343–383)	69.7	363		[1960MON/COT]
	$\Delta_{sub}H$	(323–403)	72.5			[1952REZ/SHV]
	$\Delta_{sub}H$	(292–308)	72.8			[1947LAN/GER]
	$\Delta_{sub}H$		68.2			[1935HIE/ROM]
$C_7H_3MoNO_5$	[17594-16-0]	acetonitrile molybdenum pentacarbonyl				
	$\Delta_{sub}H$	(260–279)	105.8 ± 5.6	298		[1980CAV/ERN]
$C_8F_{12}Mo_2O_8$	[36608-07-8]	dimolybdenum tetratrifluoroacetate				
	$\Delta_{sub}H$	(330–370)	113.6 ± 1.7	350	ME,TE	[1984CAR]
$C_8H_{12}CrMoO_8$	[71561-64-3]	chromium molybdenum tetraacetate				
	$\Delta_{sub}H$		165.0 ± 8.4			[1982PIL/SKI]
$C_8H_{12}Mo_2O_8$	[na]	dimolybdenum tetraacetate				
	$\Delta_{sub}H$	(400–420)	170.5 ± 7	410	ME,TE	[1984CAR]
$C_8H_{12}Mo_2O_8$	[14221-06-8]	tetra-μ-acetatodimolybdenum(II)				
	$\Delta_{sub}H$		129 ± 1	491	C	[2008SLY/KON]
	$\Delta_{sub}H$		165.0 ± 8.4	298		[1982PIL/SKI, 1979CAV/GAR]
$C_8H_{24}MoN_4$	[100207-68-9]	*tetrakis*(dimethylamino)molybdenum				
	$\Delta_{sub}H$		88.4 ± 3	376	C	[1979ADE/CAV]
	$\Delta_{sub}H$		72.4 ± 6	298	C	[1979ADE/CAV, 1982PIL/SKI]
$C_9H_9MoN_3O_3$	[15038-48-9]	*tris*(acetonitrile) molybdenum tricarbonyl				
	$\Delta_{sub}H$	(283–308)	111.3 ± 3.0	298		[1980CAV/ERN]
	$\Delta_{sub}H$		96.0 ± 10.0	298		[1982PIL/SKI, 1978ADE/CON]
$C_{10}H_5MoNO_5$	[14324-76-6]	pyridine(pentacarbonyl)molybdenum				
	$\Delta_{sub}H$	(283–299)	102.0 ± 2.0	291	ME	[1979DAA/ERN]
$C_{10}H_8MoO_3$	[12125-77-8]	cycloheptatriene(tricarbonyl)molybdenum				
	$\Delta_{sub}H$		88.0 ± 4.0	298		[1982PIL/SKI, 1977BRO/CON]
$C_{10}H_{10}Cl_2Mo$	[12184-22-4]	dichloro*bis*(η^5-2,4-cyclopentadien-1-yl)molybdenium				
	$\Delta_{sub}H$		100.4 ± 4.2	298	E	[1976TEL/RAB]
$C_{10}H_{10}I_2Mo$	[12184-29-1]	*bis*(η^5-2,4-cyclopentadien-1-yl)diiodomolybdenium				
	$\Delta_{sub}H$		100.4 ± 4.2	298	E	[1976TEL/RAB]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{11}MoNO_5$	[19456-57-6]	piperidine(pentacarbonyl)molybdenum				
	$\Delta_{sub}H$	(275–289)	121.9 ± 5.1	282	ME	[1979DAA/ERN]
$C_{10}H_{12}Mo$	[1291-40-3]	*bis*(η^5-2,4-cyclopentadien-1-yl)dihydromolybdenium				
	$\Delta_{sub}H$		81.4 ± 1.0		ME	[1990DIA/DIO]
	$\Delta_{sub}H$		92.5 ± 2.1			[1976TEL/RAB]
$C_{11}H_8MoO_4$	[12146-37-1]	norbornadienemolybdenumtetracarbonyl				
	$\Delta_{sub}H$		92.0 ± 4.0	298		[1982PIL/SKI, 1977BRO/CON]
$C_{12}H_{12}Mo$	[12129-68-9]	dibenzene molybdenum				
	$\Delta_{sub}H$		94.6 ± 8			[1970COX/PIL, 1961FIS/FRI]
$C_{12}H_{16}Mo$	[39333-52-3]	dimethyldicyclopentadienylmolybdenum				
	$\Delta_{sub}H$		70.4 ± 4.2	298		[1982PIL/SKI, 1980DEP]
$C_{12}H_{20}Mo_2O_8$	[41880-55-1]	*tetrakis*[μ-(propanoato-O:O′)]dimolybdenum				
	$\Delta_{sub}H$		129.0 ± 1.1	491	C	[2008SLY/KON]
$C_{12}H_{36}Mo_2N_6$	[51956-20-8]	*hexakis*(dimethylamine)dimolybdenum(II)				
	$\Delta_{sub}H$		111 ± 8	298	C	[1979ADE/CAV, 1981CAV/CON]
$C_{14}H_{20}Mo_2O_8$	[na]	di-μ-acetato*bis*(pentane-2,4-dionato)dimolybdenum(II)				
	$\Delta_{sub}H$		163.0 ± 5.0	298		[1982PIL/SKI, 1979CAV/GAR]
$C_{16}H_{14}Mo_2N_2O_4$	[na]	di(6-methyl-2-hydroxypyridyl)diacetatodimolybdenum(II)				
	$\Delta_{sub}H$		161.0 ± 4.0	298		[1982PIL/SKI, 1981CAV/GAR]
$C_{18}H_{15}MoN_3O_3$	[15279-79-5]	*tris*(pyridine)tricarbonylmolybdenum				
	$\Delta_{sub}H$		142.0 ± 10.0	298		[1982PIL/SKI, 1978ADE/CON]
$C_{18}H_{42}Mo_2O_6$	[62521-20-4]	*hexakis*(isopropoxy)dimolybdenum				
	$\Delta_{sub}H$		113 ± 10	298	C	[1981CAV/CON]
$C_{24}H_{24}Mo_2N_4O_4$	[67634-80-4]	tetra(6-methyl-2-hydroxypyridyl)dimolybdenum(II)				
	$\Delta_{sub}H$		157.0 ± 3.0	298		[1982PIL/SKI, 1981CAV/GAR]
$C_{24}H_{56}Mo_2O_8$	[79376-50-4]	*octakis*(isopropoxy)dimolybdenum(II)				
	$\Delta_{sub}H$		137.0 ± 15	298	C	[1981CAV/CON]
MoF_6	[7783-77-9]	molybdenum hexafluoride				
	Δ_vH	(318–363)	27.4	340		[1968NIS/NIK]
N (nitrogen)						
BrClFN	[145543-68-6]	bromochlorofluoroammonia				
	Δ_vH	(240–310)	30.2	275		[1996SLA/NOV]
BrF_2N	[15605-95-5]	bromodifluoroammonia				
	Δ_vH	(180–250)	23.2	215		[1996SLA/NOV]
Br_2FN	[145543-67-5]	dibromofluoroammonia				
	Δ_vH	(280–350)	33.6	315		[1996SLA/NOV]
Br_3N	[15162-90-0]	nitrogen tribromide				
	Δ_vH	(380–450)	44.1	415		[1996SLA/NOV]
Cl_2FN	[17417-38-8]	dichlorofluoroammonia				
	Δ_vH	(200–280)	25.7	240		[1996SLA/NOV]
Cl_3N	[10025-85-1]	nitrogen trichloride				
	Δ_vH	(280–440)	32.9	360		[1996SLA/NOV]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
HNO_3	[7697-37-2]	nitric acid				
	$\Delta_v H$	(273–356)	38.6	312		[1966HOL]
NH_3	[7664-41-7]	ammonia				
	$\Delta_{sub}H$	(177–195)	31.2			[1937OVE/GIA]
	$\Delta_v H$	(293–392)	22.7	308		[1979ZAN/THO]
	$\Delta_v H$	(199–241)	23.5	239		[1937OVE/GIA]
	$\Delta_v H$		23.4	239	C	[1937OVE/GIA]
NH_3O	[7803-49-8]	hydroxylamine				
	$\Delta_{sub}H$	(261–280)	64.2			[1965BAC/BET]
	$\Delta_{sub}H$	(273–298)	U 46.5	285		[1941BOD]
NH_4Br	[12124-97-9]	ammonium bromide				
	$\Delta_{sub}H$		183.7	550	I	[1971CAL/SMI]
	$\Delta_{sub}H$		187.9	298		[1955LUF]
NH_4Cl	[12125-02-9]	ammonium chloride				
	$\Delta_{sub}H$		168.6	550	I	[1971CAL/SMI]
	$\Delta_{sub}H$	(308–363)	176.6 ± 0.4		TE	[1961WAG/NEU]
	$\Delta_{sub}H$		177	298		[1955LUF]
NH_4I	[12027-06-4]	ammonium iodide				
	$\Delta_{sub}H$		182	298		[1955LUF]
NH_4CN	[12211-52-8]	ammonium cyanide				
	$\Delta_{sub}H$		84.5	298		[1955LUF]
NH_4SCN	[1762-95-4]	ammonium thiocyanate				
	$\Delta_{sub}H$		133.9	298		[1955LUF]
NO	[10102-43-9]	nitric oxide				
	$\Delta_v H$		13.8	212	C	[1929JOH/GIA]
N_2	[7727-37-9]	nitrogen				
	$\Delta_v H$	(63–126)	6.1	78		[1967EDE/THO]
	$\Delta_v H$		5.6	77		[1933GIA/CLA]
N_2F_4	[10036-47-2]	tetrafluorohydrazene				
	$\Delta_v H$		26.4	200		[1958COL/KEN]
N_2H_4	[302-01-2]	hydrazene				
	$\Delta_{sub}H$		U 46.0			[1941GIG/RUN, 2001GIO]
	$\Delta_v H$	(288–353)	44.5	303		[1949SCO/OLI]
$N_2H_4O_2S$	[7803-58-9]	sulfamide				
	$\Delta_{sub}H$	(347–358)	101.5 ± 1.0			[1997DEZ/POI, 1959TAK/SHI]
$N_2H_4O_3$	[6484-52-2]	ammonium nitrate				
	$\Delta_{sub}H$	(349–438)	178.7			[1962BRA/JUN]
	$\Delta_{sub}H$		174.9	298		[1955LUF]
N_2O	[10024-94-2]	nitrous oxide				
	$\Delta_{fus}H$		6.5	182.4		[1974ATA/CHI]
	$\Delta_{sub}H$	(68–80)	25.1 ± 0.4	74	LE	[1974BRY/CAZ]
	$\Delta_{sub}H$	(148–182)	24.6	161		[1935BLU/GIA]
	$\Delta_{sub}H$	(103–123)	23.6	113	MG	[1930BLA/VAN]
	$\Delta_v H$		16.5	184.7		[1974ATA/CHI]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(182–236)	16.1	221		[1945HOG]
Na (sodium)						
C_4H_9ONa	[865-48-5]	sodium *tert*-butoxide				
	$\Delta_{sub}H$		NA			[1990VOR/ZVE]
$C_6H_{13}ONa$	[67638-48-6]	sodium methyldiethylmethoxide				
	$\Delta_{sub}H$		NA			[1990VOR/ZVE]
$C_7H_{15}ONa$	[53535-82-3]	sodium triethylmethoxide				
	$\Delta_{sub}H$		NA			[1990VOR/ZVE]
$C_{16}H_{13}O_3Na$	[57495-14-4]	sodium ketoprofen				
	$\Delta_{fus}H$		20.8	457		[1997HIL/MUL]
$C_{32}H_{40}F_{12}NaO_8Pr$	[93557-93-8]	sodium *tetrakis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)praseodymate				
	$\Delta_{sub}H$	(423–483)	155 ± 2	453	T	[1993SYO/GOL]
$C_{32}H_{40}F_{12}NaO_8Tb$	[12576-88-4]	sodium *tetrakis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)terbate				
	$\Delta_{sub}H$	(418–473)	163 ± 3	445	T	[1993SYO/GOL]
$C_{32}H_{40}F_{12}NaO_8Y$	[12576-89-5]	sodium *tetrakis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)yttrate				
	$\Delta_{sub}H$	(418–503)	130 ± 3	460	T	[1993SYO/GOL]
	$\Delta_{sub}H$	(463–503)	142 ± 12	483		[1993SYO/GOL]
Nb (niobium)						
$C_5H_{15}NbO_5$	[1066-25-7]	niobium pentamethoxide				
	$\Delta_{sub}H$		80.3 ± 10.5		ME,E	[1972TEL/RAB, 1977TEL/RAB]
$C_{10}H_{10}Cl_2Nb$	[12793-14-5]	*bis*(cyclopentadienyl)niobium dichloride				
	$\Delta_{sub}H$		127.4 ± 4.4	298	ME	[2001DIO/PIE]
$C_{10}H_{25}NbO_5$		pentaethylniobate				
	$\Delta_v H$	(376–414)	107.6	391	A	[1987STE/MAL]
$NbBr_5$	[13478-45-8]	niobium(V) pentabromide				
	$\Delta_{sub}H$	(298–479)	115 ± 18	298		[1996TUR/EIC]
	$\Delta_{sub}H$		112.5	298		[1996TUR/EIC, 1991KNA/KUB]
$NbCl_5$	[10026-12-7]	niobium(V) pentachloride				
	$\Delta_{sub}H$	(298–479)	94	298		[1996TUR/EIC, 1991KNA/KUB]
	$\Delta_{sub}H$		95 ± 16	298		[1996TUR/EIC]
$NbCl_3O$	[113597-20-1]	niobium(V) oxychloride				
	$\Delta_{sub}H$	(298–607)	128.5	298		[1996TUR/EIC, 1991KNA/KUB]
	$\Delta_{sub}H$		124 ± 16	298		[1996TUR/EIC]
Nd (neodymium)						
$C_{15}H_{15}Nd$	[1273-98-9]	*tris*(cyclopentadienyl)neodymium(III)				
	$\Delta_{sub}H$	(533–633)	108.8 ± 3.8			[1973BOR/KRA]
	$\Delta_{sub}H$	(338–438)	134.7 ± 2.1		ME	[1971HAU, 1971HAU2]
$C_{30}H_{30}F_{21}NdO_6$	[17978-76-6]	*tris*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)neodymium(III)				
	$\Delta_{sub}H$	(387–402)	155.2 ± 2.9		ME	[1971SWA/KAR]
$C_{33}H_{57}NdO_6$	[15492-47-4]	*tris*(2,2,6,6-tetramethylheptane-3,5-dionato)neodymium(III)				
	$\Delta_{sub}H$		159.1 ± 3.4	298	DSC	[1999SAN/PET]
	$\Delta_{sub}H$		92.9 ± 2.5			[1996TSY/DYA2, 2000GIE]
	$\Delta_{sub}H$	(378–423)	177	400	ME	[1981AMA/SAT]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(430–491)	158.4	460	BG	[1969SIC/DUB]
	Δ_vH	(491–510)	99.1		BG	[1969SIC/DUB]
Ni (nickel)						
$(C_3NiO_3)-(C_3F_9P)$	[na]	*tris*(trifluoromethyl)phosphine—nickel tricarbonyl complex				
	Δ_vH	(273–323)	31.2	298		[1958EME/SMI]
C_4NiO_4	[13463-39-3]	nickel tetracarbonyl				
	$\Delta_{sub}H$		41.6 ± 0.5			[1953WAL]
	Δ_vH	(277–412)	29.8	344		[1970BAE]
	Δ_vH		27.6 ± 1.3			[1957FIS/COT, 1982PIL/SKI]
	Δ_vH		28.0			[1955SPI/STA]
	Δ_vH		27.2	298		[1955SPI/STA]
	Δ_vH		30.2 ± 0.1			[1953WAL]
	Δ_vH	(250–315)	29.5	265		[1947STU]
	Δ_vH		30.1			[1942SUG/SAT, 1955SPI/STA]
	Δ_vH		27.2			[1903DEW/JON, 1955SPI/STA]
$C_4H_{16}Cl_2N_8NiS_8$	[28813-19-6]	*trans*-dichloro-*tetrakis*(thiourea)nickel(II)				
	$\Delta_{sub}H$	(409–447)	74 ± 20			[1970ASH]
$C_6H_{12}N_2NiS_4$	[15521-65-0]	*bis*(dimethyldithiocarbamate)nickel				
	Δ_vH	(448–478)	139.9 ± 2.1	463	A	[1987STE/MAL, 1978TAV/NEE, 1999DYK/SVO]
$C_8F_{18}NiO_2P_2$	[15188-79-1]	dicarbonyl*bis*[*tris*(trifluoromethyl)phosphine]nickel				
	$\Delta_{sub}H$	(293–302)	47.2	298		[1966BUR/STR]
$C_8F_{28}NiP_4$	[14917-18-1]	*tetrakis*[*bis*(trifluoromethyl)phorphinous fluoride]nickel				
	$\Delta_{sub}H$	(305–331)	66.6	318		[1966BUR/STR]
$C_{10}H_8F_6NiO_4$	[14324-83-5]	*bis*(1,1,1-trifluoro-2,4-pentanedionato)nickel(II)				
	$\Delta_{sub}H$	(416–473)	157.7 ± 3.3		GS	[1985MAT/KUW]
$C_{10}H_{10}Ni$	[1271-28-9]	*bis*(cyclopentadienyl) nickel				
	$\Delta_{sub}H$		71.5 ± 0.6			[1988TOR/BAR2]
	$\Delta_{sub}H$		70.2 ± 1.5	298		[1984BAE/BAR2]
	$\Delta_{sub}H$	(353–419)	72.4 ± 1.3	298	MM	[1982PIL/SKI, 1975TEL/KIR, 1967TUR]
$C_{10}H_{14}NiO_4$	[3264-82-2]	*bis*(2,4-pentanedionato)nickel(II)				
	$\Delta_{sub}H$	(357–420)	126.4 ± 4.4	298	ME	[1990MAL/ALI]
	$\Delta_{sub}H$		108.2 ± 5	207	DSC	[1987MUR/HIL]
	$\Delta_{sub}H$		108.2 ± 4.9	480	DSC	[1987RIB/FER]
	$\Delta_{sub}H$		155 ± 80	298	C	[1985MUR/SAK]
	$\Delta_{sub}H$	(378–403)	127.7 ± 10	381	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		132 ± 10	298	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		69.0		I	[1971ASH]
	$\Delta_{sub}H$		95.4	400		[1970GOE/BLO]
	$\Delta_{sub}H$		69.0			[1960BER/TRU, 1965BER/TRU]
$C_{10}H_{20}N_2NiS_4$	[14267-17-5]	*bis*(diethyldithiocarbamato)nickel(II)				
	$\Delta_{sub}H$	(448–478)	157.3 ± 6.0		C	[1989RIB/REI]
	$\Delta_{sub}H$	(440–478)	152 ± 0.8	459	A	[1987STE/MAL, 1978TAV/NEE]
	$\Delta_{sub}H$	(507–650)	98.8 ± 6	579	DSC	[1979CAV/HIL2]
	$\Delta_{sub}H$	(443–543)	91.9 ± 6	493	DSC	[1979CAV/HIL2]
	$\Delta_{sub}H$		151.9 ± 2.1			[1976TAV/NEE]
	$\Delta_{sub}H$		61.1 ± 1.7		I	[1969DAS/WEN]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{12}H_8N_2NiO_4$	[17653-01-9]	*bis*(picolinato)nickel(II)				
	$\Delta_{sub}H$		76.6		I	[1963WOO/JON]
$C_{13}H_6F_{24}N_2Ni_2O_3P_4$	[14402-98-3]	μ-carbonyldicarbonyl*bis*[μ-[(methylimino)*bis*[*bis*(trifluoromethyl)phophine]]]dinickel				
	$\Delta_{sub}H$	(370–390)	92.3	380		[1968SIN/BUR]
$C_{14}H_{10}NiO_4$	[14263-01-5]	*bis*(salicyladehydato)nickel(II)				
	$\Delta_{sub}H$		85.4		I	[1963WOO/JON]
$C_{14}H_{12}N_2NiO_2$	[14283-99-9]	*bis*(salicyliminato)nickel(II)				
	$\Delta_{sub}H$		158.2		I	[1963WOO/JON]
$C_{14}H_{12}N_2NiO_4$	[14363-30-5]	*bis*(salicylaldoximato)nickel(II)				
	$\Delta_{sub}H$	(403–423)	106.6 ± 29	413		[1984BUR/MOR]
	$\Delta_{sub}H$		112 ± 29	298		[1984BUR/MOR]
$C_{14}H_{28}N_2NiS_4$	[14516-30-4]	*bis*(dipropyldithiocarbamate)nickel				
	$\Delta_{sub}H$		147.2 ± 5.0		C	[1989RIB/REI]
	$\Delta_{sub}H$		126.1 ± 0.8			[1978TAV/NEE]
	Δ_vH	(433–462)	126.1	448		[1999DYK/SVO]
$C_{14}H_{28}N_2NiS_4$	[15694-55-0]	*bis*(diisopropyldithiocarbamate) nickel complex				
	$\Delta_{sub}H$		148.0 ± 5.0		C	[1989RIB/REI]
	$\Delta_{sub}H$	(442–477)	143.4 ± 2.1	459.5	A	[1987STE/MAL, 1978TAV/NEE]
$C_{16}H_8F_6NiO_2S_4$	[14239-90-8]	*bis*(monothiothenoyltrifluoroacetonate)nickel (II)				
	$\Delta_{sub}H$		161.0 ± 5.1	298	C	[2007RIB/SAN2]
$C_{16}H_{14}N_2NiO_2$	[14167-20-5]	N,N-*bis*(salicylidene)ethylenediaminonickel(II)				
	$\Delta_{sub}H$	(459–545)	149.8 ± 7.0		ME	[1999ALI/MAL]
$C_{16}H_{16}N_2NiO_2$	[57377-56-7]	*bis*(2-hydroxyacetophenamine)nickel(II)				
	$\Delta_{sub}H$	(486–582)	130.2 ± 7.2		GS	[2009ARO/MAL]
$C_{18}H_{12}N_2NiO_2$	[14100-15-3]	*bis*(8-hydroxyquinolinato)nickel(II)				
	$\Delta_{sub}H$		175.4 ± 6.7	298	ME	[1994RIB/MAT]
	$\Delta_{sub}H$	(468–503)	129.9 ± 6	486	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		139 ± 6	298		[1984BUR/MOR]
$C_{18}H_{14}N_4Ni$	[39251-81-5]	dibenzotetra-aza-annulene nickel(II) complex				
	$\Delta_{sub}H$	(463–553)	116.6 ± 5.5	508	T	[1983FER/QUA]
$C_{18}H_{20}N_2NiO_2$	[1161880-17-6]	*bis*(2-hydroxypropiophenamine)nickel (II)				
	$\Delta_{sub}H$	(443–552)	113.0 ± 7.5		GS	[2009ARO/MAL]
$C_{18}H_{36}N_2NiS_4$	[13927-77-0]	*bis*(dibutyldithiocarbamate)nickel				
	$\Delta_{sub}H$		132.6 ± 5.0		C	[1989RIB/REI]
	Δ_vH	(438–562)	136.6	500		[1999DYK/SVO]
$C_{18}H_{36}N_2NiS_4$	[28371-07-5]	*bis*(diisobutyldithiocarbamate)nickel				
	$\Delta_{sub}H$		133.6 ± 5.0		C	[1989RIB/REI]
	$\Delta_{sub}H$	(423–443)	152.1 ± 1.3	433		[1987STE/MAL, 1978TAV/NEE]
	Δ_vH	(453–473)	124	463		[1999DYK/SVO]
$C_{20}H_{16}N_2NiO_2$	[15200-70-1]	*bis*(8-hydroxy-2-methylquinolinate)nickel(II)				
	$\Delta_{sub}H$	(489–505)	170.9 ± 3.7	496	ME	[1998RIB/MAT3]
	$\Delta_{sub}H$		180.9 ± 3.7	298		[1998RIB/MAT3]
$C_{22}H_{38}NiO_4$	[14481-08-4]	*bis*(2,2,6,6-tetramethylheptane-3,5-dionato)nickel(II)				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(453–493)	111		MEM	[1999EMM/PIC]
	$\Delta_{sub}H$		145.2 ± 10		ME	[1978IRV/SCH]
$C_{22}H_{42}N_2NiO_2S_4$	[1005000-26-9]	N,N-dibutyl-N′-thenoylthiourea				
	$\Delta_{sub}H$		204.7 ± 3.4	298	C	[2008RIB/SCH]
$C_{22}H_{42}N_2NiO_2S_4$	[1005000-14-5]	N,N-diisobutyl-N′-thenoylthiourea				
	$\Delta_{sub}H$		203.2 ± 2.4	298	C	[2008RIB/SCH]
$C_{22}H_{44}N_2NiS_4$	[55935-69-8]	*bis*[*bis*(3-methylbutyl)dithiocarbamate]nickel				
	$\Delta_{sub}H$	(429–468)	164.5	448		[1999DYK/SVO]
$C_{32}H_{16}N_8Ni$	[14055-02-8]	nickel(II) phthalocyanine				
	$\Delta_{sub}H$		144.6		TGA	[1995YAS/TAK]
$C_{44}H_{28}N_4Ni$	[14172-92-0]	5,10,15,20-tetraphenylporphine nickel(II)				
	$\Delta_{sub}H$		152 ± 4		GS	[2000PER/GOL]
$NiBr_2$	[13462-88-9]	nickel(II) bromide				
	$\Delta_{sub}H$	(714–969)	207 ± 4.0	841	TE	[1997BAR/BRU]
	$\Delta_{sub}H$		226 ± 1.0	298		[1997BAR/BRU]
$NiFr_2$	[10028-18-9]	nickel(II) fluoride				
	$\Delta_{sub}H$	(1054–1106)	332.2 ± 4.1		ME	[1964EHL/KEN]
Np (neptunium)						
($C_{10}H_2F_{12}NpO_6$)–(C_3H_9OP)	[106617-32-7]	*bis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)neptunium(IV) dioxide- trimethylphospine oxide adduct				
	$\Delta_{sub}H$	(370–418)	90 ± 3			[1988GRE/SID]
$C_{20}H_4F_{24}NpO_8$	[110900-26-0]	*tetrakis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)neptunium(IV)				
	$\Delta_{sub}H$	(314–375)	81 ± 3			[1988GRE/SID, 1987GRE/SID]
($C_{20}H_4F_{24}NpO_8$)–(C_3H_9OP)	[110934-11-7]	*tetrakis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)neptunium(IV)- trimethylphospine oxide adduct				
	$\Delta_{sub}H$	(353–404)	100 ± 4			[1988GRE/SID]
$C_{32}H_{40}F_{12}NpO_8$	[99791-99-8]	*tetrakis*(1,1,1-trimethyl-5,5,5-hexafluoro-2,4-pentanedionato)neptunium(IV)				
	$\Delta_{sub}H$	(374–424)	106 ± 3			[1988GRE/SID, 1987GRE/SID]
$C_{40}H_{40}F_{28}NpO_8$	[27988-02-9]	*tetrakis*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)neptunium(IV)				
	$\Delta_{sub}H$	(350–368)	147.7 ± 2.9	359	ME	[1970SWA/KAR]
O (oxygen)						
H_2O_2	[7722-84-1]	hydrogen peroxide				
	Δ_vH	(277–363)	48.5	320		[1924MAA/HIE]
Os (osmium)						
$C_{10}H_{10}Os$	[1273-81-0]	*bis*(cyclopentadienyl)osmium (osmocene)				
	$\Delta_{sub}H$	(393–506)	72.9 ± 1.4			[1984BAE/BAR]
	$\Delta_{sub}H$		80.5 ± 1.7	298		[1984BAE/BAR]
	$\Delta_{sub}H$		75.3			[1959FIS/GRU]
	Δ_vH	(506–563)	56.3 ± 1.3	535		[1984BAE/BAR]
$C_{12}O_{12}Os_3$	[15696-40-9]	triosmium dodecacarbonyl				
	$\Delta_{sub}H$	(349–396)	134.4 ± 0.4			[1999CHA/GAR]
	$\Delta_{sub}H$		104.6 ± 20	298		[1982PIL/SKI, 1974CON/SKI]
	$\Delta_{sub}H$	(423–543)	108.4	483		[1974GAI/BAE]
	Δ_vH	(497–543)	101.7	520		[1974GAI/BAE2]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
P (phosphorous) (see main table for organophosphorous compounds)						
Br_3P	[7789-60-8]	tribromophosphine				
	$\Delta_v H$		48.5			[1996OVC/MAK, 1963HAR/HOL]
PBr_3S	[3931-89-3]	thiophosphoryl bromide				
	$\Delta_{sub}H$		NA		GSM	[1941NIT/SEK]
Cl_3P	[7719-12-2]	trichlorophosphine				
	$\Delta_v H$		32.6			[1996OVC/MAK, 1963HAR/HOL]
Cl_5P	[10026-13-8]	pentachlorophosphorous				
	$\Delta_{sub}H$		67.4 ± 2.3	390		[1973POL/POL]
	$\Delta_{sub}H$		71.1 ± 5.0	298		[1973POL/POL]
F_2HOP	[14939-34-5]	hydrophosphoryl difluoride				
	$\Delta_v H$	(220–271)	36.1	245	T	[1967CHA/CAV]
F_2HPS	[13780-63-7]	hydrothiophosphoryl difluoride				
	$\Delta_v H$	(188–258)	29.1	223	T	[1967CHA/CAV]
F_2N_3OP	[38005-28-6]	difluorophosphoryl azide				
	$\Delta_v H$		36.4	296		[1972ONE/SHR]
F_5P	[7647-19-0]	phosphorous pentafluoride				
	$\Delta_v H$	(179–189)	17.2	184	QM	[1937LIN/ROH]
F_6NP_3	[56564-56-8]	*tris*(difluorophosphino)amine				
	$\Delta_v H$		31.2			[1975ARN/RAN]
$F_6N_3P_3$	[15599-91-4]	trimeric phosphonitrilic fluoride				
	$\Delta_{sub}H$	(273–300)	53.6		T	[1958HAB/UEN]
	$\Delta_{sub}H$		NA			[1958STE/LAN]
	$\Delta_v H$		32.1			[1958HAB/UEN]
$F_8N_4P_4$	[14700-00-6]	tetrameric phosphonitrilic fluoride				
	$\Delta_{sub}H$	(273–303)	58.2		T	[1958HAB/UEN]
	$\Delta_{sub}H$		NA			[1958STE/LAN]
	$\Delta_v H$		37.3			[1958HAB/UEN]
$P_3Cl_6N_3$	[940-71-6]	phosphonitrilic chloride (trimer)				
	$\Delta_{sub}H$		76.1			[1943AUD/STE]
$P_3Cl_6N_3$	[940-71-6]	hexachlorocyclotriphosphazene				
	$\Delta_{fus}H$		23.5	388.6	AC,DC	[1999LEB/KUL2]
$P_4Cl_8N_4$	[2950-45-0]	octachlorocyclotetraphosphazene				
	$\Delta_{fus}H$		32.2	400.6	AC,DC	[1999LEB/KUL2]
PH_3	[7803-51-2]	phosphine				
	$\Delta_{sub}H$	(129–140)	17.2		MM	[1937STE/GIA]
	$\Delta_v H$		14.6 ± 0.1	186		[1939FRA/CLU]
	$\Delta_v H$		14.6	185		[1937STE/GIA]
Pb (lead)						
C_2H_8Pb	[30691-92-0]	dimethylplumbane				
	$\Delta_v H$	(173–223)	25.5	198		[1960AMB]
$C_3H_{10}Pb$	[7442-13-9]	trimethylplumbane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(193–243)	31.1	218		[1960AMB]
$C_4H_{12}Pb$	[75-74-1]	tetramethyllead				
	$\Delta_{fus}H$		10.8	242.9		[1996DOM/HEA]
	$\Delta_v H$		38.1 ± 0.4			[1959GOO/SCO, 1982PIL/SKI]
	$\Delta_v H$	(298–308)	35.7	303		[1929TAN/NAG]
$C_5H_9F_5Pb$	[812-34-0]	(pentafluoroethyl)trimethyllead				
	$\Delta_v H$	(295–329)	39.1	312	T	[1960KAE/PHI]
$C_8H_{20}Pb$	[78-00-2]	tetraethyllead				
	$\Delta_{fus}H$		9.11	141.4		[1996DOM/HEA]
	$\Delta_v H$		56.6 ± 1.0	298	C	[1980ABR/IRV]
	$\Delta_v H$	(311–456)	57.3	326		[1947STU]
	$\Delta_v H$		56.9 ± 2.5			[1956GOO/SCO, 1982PIL/SKI]
	$\Delta_v H$	(273–343)	56.3	308		[1936BUC/NOR]
	$\Delta_v H$	(351–423)	56.7	387		[1935JON/EVA]
$C_{10}H_2F_{12}O_4Pb$	[19648-88-5]	*bis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)lead(II)				
	$\Delta_{sub}H$	(368–413)	111.7 ± 1.3		GS	[1997KRI/SYS]
$C_{10}H_{14}O_4Pb$	[15282-88-9]	*bis*(2,4-pentanedionato)lead(II)				
	$\Delta_{sub}H$	(393–444)	102.4 ± 5.0		GS	[1997KRI/SYS]
	$\Delta_{sub}H$		87.0		LE	[1994GER/GER2, 1997KRI/SYS]
$C_{10}H_{20}N_2PbS_4$	[17549-30-3]	*bis*(diethyldithiocarbamate)lead complex				
	$\Delta_{sub}H$	(444–482)	129.9 ± 2.5	463	A	[1987STE/MAL, 1978TAV/NEE]
$C_{10}H_{20}O_4Pb$	[56767-12-5]	lead(II) pentanoate				
	$\Delta_{fus}H$		12.6	355.6	DSC	[2008MAR/RAM]
$C_{12}H_{10}Br_2Pb$	[3134-29-6]	diphenyl lead dibromide				
	$\Delta_{sub}H$	(298–398)	141.8 ± 0.8	298	ME	[1988GOL/SIT, 1976BUT/CAR]
$C_{16}H_{20}F_6O_4Pb$	[21751-12-2]	*bis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)lead(II)				
	$\Delta_{sub}H$	(393–463)	117.5 ± 2.8		GS	[1997KRI/SYS]
$C_{18}H_{12}N_2PbO_2$	[14976-96-6]	*bis*(8-hydroxyquinolinato)lead(II)				
	$\Delta_{sub}H$		187.1 ± 6.2	298	ME	[1994RIB/MAT]
$C_{18}H_{15}BrPb$	[894-06-4]	triphenyl lead bromide				
	$\Delta_{sub}H$	(298–398)	134.7 ± 3.3	298	ME	[1988GOL/SIT, 1976BUT/CAR]
$C_{18}H_{15}IPb$	[894-07-5]	triphenyl lead iodide				
	$\Delta_{sub}H$	(298–398)	130.1 ± 0.4	298	ME	[1988GOL/SIT, 1976BUT/CAR]
$C_{20}H_{20}F_{14}O_4Pb$	[21600-78-2]	*bis*(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato)lead(II)				
	$\Delta_{sub}H$		75.0			[1992NYM/DES]
$C_{22}H_{38}O_4Pb$	[21319-43-7]	*bis*(2,2,6,6-tetramethyl-3,5-heptanedionato)lead(II)				
	$\Delta_{sub}H$	(373–398)	117.5 ± 2.8		GS	[1997KRI/SYS]
	$\Delta_{sub}H$		66.9		LE	[1994GER/GER2, 1997KRI/SYS]
	$\Delta_{sub}H$		86.0			[1992NYM/DES]
	$\Delta_{sub}H$		74.1		ME	[1973BRU/CUR]
$C_{24}H_{20}Pb$	[595-89-1]	tetraphenyl lead				
	$\Delta_{sub}H$	(412–480)	151	446		[1987STE/MAL]
	$\Delta_{sub}H$	(412–474)	159 ± 1	298	ME,TE	[1977KAN/MOR]
	$\Delta_{sub}H$		194.6 ± 6.3	298	E	[1982PIL/SKI, 1972CAR/LAY]
	$\Delta_{sub}H$	(298–316)	U 80.2	298	ME	[1962CAR/COO]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		82.8	298		[1972NEW]
$C_{32}H_{16}N_8Pb$	[15187-16-3]	lead(II) phthalocyanine				
	$\Delta_{sub}H$		156.3		TGA	[1995YAS/TAK]
	$\Delta_{sub}H$	(542–663)	195.7			[1984MRW/STA]
PbF_2	[7783-46-2]	lead(II) fluoride				
	$\Delta_{sub}H$		267.8			[1969ZMB/HAS, 1971ADA/MAR]
PbI_2	[10101-63-0]	lead(II) iodide				
	$\Delta_{sub}H$	(598–640)	173.1 ± 1.6	298	ME	[1996KON/COR]
	$\Delta_{sub}H$	(474–582)	167.7 ± 1.3	298	MS	[1996KON/COR, 1985HIL/BEN]
	$\Delta_{sub}H$	(900–1150)	182.5 ± 1.0	298		[1996KON/COR, 1979ABA/MAL]
	$\Delta_{sub}H$	(563–613)	165.2 ± 1.8	298	ME	[1996KON/COR, 1964DUN/THO]
	$\Delta_{sub}H$	(579–650)	166.4 ± 1.0	298	ME	[1996KON/COR, 1939NIW/SAT]
	$\Delta_{sub}H$	(923–1073)	165.5 ± 3.0	298	GS	[1996KON/COR, 1929JEL/RUD]
PbSe	[12069-00-0]	lead selenide				
	$\Delta_{sub}H$	(835–1047)	226 ± 1		TE	[1993BRU/PIA]
Pd (palladium)						
$C_8H_{10}Pd$	[1271-03-0]	(cyclopentadienyl)allyl palladium				
	$\Delta_{sub}H$	(291–333)	49.9	312	A	[1987STE/MAL, 1976ZOR/RAC]
$C_{10}H_2F_{12}O_4Pd$	[64916-48-9]	*bis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)palladium(II)				
	$\Delta_{sub}H$	(318–368)	93.5 ± 0.6			[2005ZHA/STA]
	$\Delta_{sub}H$	(293–313)	84.6 ± 1.6		ME	[2000ZHA/STA]
	$\Delta_{l}^{g}H$	(371–398)	67.8 ± 1.4			[2005ZHA/STA]
$C_{10}H_8F_6O_4Pd$	[63742-52-9]	*bis*(1,1,1-trifluoro-2,4-pentanedionato)palladium(II)				
	$\Delta_{sub}H$	(332–378)	115.2 ± 1.4		ME	[2000ZHA/STA]
	$\Delta_{sub}H$	(423–448)	105.0 ± 0.8		GS	[1985MAT/KUW]
$C_{10}H_{10}F_6N_2O_2Pd$	[203874-01-5]	*bis*(1,1,1-trifluoro-4-imino-2-pentanonato)palladium(II)				
	$\Delta_{sub}H$	(332–386)	110.9 ± 0.7		ME	[2000ZHA/STA]
$C_{10}H_{14}O_4Pd$	[14024-61-4]	*bis*(2,4-pentanedionato)palladium(II)				
	$\Delta_{sub}H$	(402–452)	121.5 ± 1.5			[2005ZHA/STA]
	$\Delta_{sub}H$		111.6			[2001MOR/ZHA]
	$\Delta_{sub}H$	(347–416)	130.1 ± 2.8		ME	[2000ZHA/STA]
	$\Delta_{sub}H$	(330–394)	122.7 ± 8.6	298		[1991MAL/ALI]
	$\Delta_{sub}H$	(363–393)	127.6 ± 17	378	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		132 ± 17	298		[1984BUR/MOR]
$C_{10}H_{20}N_2PdS_4$	[15170-78-2]	*bis*(diethyldithiocarbamate)palladium(II)				
	$\Delta_{sub}H$	(493–517)	153.1 ± 1.9			[2005ZHA/STA]
	$\Delta_{sub}H$		153.1 ± 1.9			[1999ZEM/STA]
	$\Delta_{l}^{g}H$	(520–558)	107.6 ± 1.2			[2005ZHA/STA]
$C_{12}H_{28}O_4P_2PdS_4$	[52442-37-2]	palladium(II) diisopropyldithiophosphate				
	$\Delta_{sub}H$	(384–413)	137.2 ± 5.6			[2005ZHA/STA]
$C_{13}H_{18}O_2Pd$	[12130-90-4]	acetylacetonato(2,4-cyclooctadienyl)palladium(II)				
	$\Delta_{sub}H$	(344–362)	130.1 ± 6.3			[2005ZHA/STA]
$C_{16}H_{20}F_6O_4Pd$	[77964-87-5]	*bis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)palladium(II)				
	$\Delta_{sub}H$	(315–357)	131.4 ± 1.9		ME	[2000ZHA/STA]
$C_{16}H_{20}F_6O_6Pd$	[301198-67-4]	*bis*(1,1-dimethyl-1-methoxy-5,5,5-trifluoro-2,4-pentanedionato)palladium(II)				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(315–369)	113.8 ± 1.2		ME	[2000ZHA/STA]
$C_{18}H_{12}N_2O_2Pd$	[14638-30-3]	*bis*(8-hydroxyquinolinato)palladium(II)				
	$\Delta_{sub}H$	(483–503)	158.5 ± 4	493	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		168 ± 4	298		[1984BUR/MOR]
$C_{20}H_{12}F_6O_4Pd$	[85159-01-9]	*bis*(4,4,4-trifluoro-1-phenyl-1,3-butanedionato)palladium(II)				
	$\Delta_{sub}H$	(386–452)	148.6 ± 1.4		ME	[2000ZHA/STA]
$C_{20}H_{18}O_4Pd$	[15186-07-9]	*bis*(1-phenyl-1,3-butanedionato)palladium(II)				
	$\Delta_{sub}H$	(410–471)	152.9 ± 1.4		ME	[2000ZHA/STA]
$C_{22}H_{38}O_4Pd$	[15214-66-1]	*bis*(2,2,6,6-tetramethyl-2,4-heptanedionato)palladium(II)				
	$\Delta_{sub}H$	(343–401)	125.4 ± 1.4		ME	[2000ZHA/STA]
$C_{44}H_{28}N_4Pd$	[76775-77-4]	5,10,15,20-tetraphenylporphine palladium(II)				
	$\Delta_{sub}H$		207 ± 5		GS	[2000PER/GOL]
Pm (promethium)						
$C_{33}H_{57}O_6Pm$	[67840-53-3]	*tris*(2,2,6,6-tetramethylheptan-3,5-dionato)promethium(III)				
	$\Delta_{sub}H$	(433–463)	131.8			[1979LEB/BER]
Pr (praseodymium)						
$C_{15}H_{15}Pr$	[11077-59-1]	*tris*(cyclopentadienyl)praseodymium				
	$\Delta_{sub}H$		125.5 ± 3.0	298		[1982PIL/SKI, 1974DEV/RAB]
	$\Delta_{sub}H$	(533–653)	113.0 ± 1.7			[1973BOR/KRA]
	$\Delta_{sub}H$	(338–438)	131.0 ± 2.1		ME	[1971HAU, 1971HAU2]
$C_{32}H_{40}F_{12}O_8NaPr$	[93557-93-8]	sodium *tetrakis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)praseodymate				
	$\Delta_{sub}H$	(423–483)	155 ± 2	453	T	[1993SYO/GOL]
$C_{33}H_{57}O_6Pr$	[15492-48-5]	*tris*(2,2,6,6-tetramethylpentane-2,4-dionato)praseodymium(III)				
	$\Delta_{sub}H$		104.3 ± 2.6			[1996TSY/DYA2, 2000GIE]
	$\Delta_{sub}H$		163.0 ± 3.6		DSC	[1993AIR/SAN, 2000GIE]
	$\Delta_{sub}H$	(383–423)	178.7	403	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(450–495)	165.4	473	BG	[1969SIC/DUB]
	Δ_vH	(495–530)	109.2		BG	[1969SIC/DUB]
$PrBr_3$	[13536-53-3]	praseodymium(III) bromide				
	$\Delta_{sub}H$		288 ± 4	900	TE	[2000VIL/BRU2]
	$\Delta_{sub}H$		306 ± 4	298		[2000VIL/BRU2]
	$\Delta_{sub}H$		292	298		[2000VIL/BRU2]
$PrCl_3$	[10361-79-2]	praseodymium(III) chloride				
	$\Delta_{sub}H$		317 ± 4	1000	TE	[2000VIL/BRU2]
	$\Delta_{sub}H$		340 ± 4	298		[2000VIL/BRU2]
	$\Delta_{sub}H$		324	298		[2000VIL/BRU2]
PrI_3	[13813-23-5]	praseodymium(III) iodide				
	$\Delta_{sub}H$		263 ± 4	900	TE	[2000VIL/BRU2]
	$\Delta_{sub}H$		280 ± 4	298		[2000VIL/BRU2]
	$\Delta_{sub}H$		275	298		[2000VIL/BRU2]
Pt (platinum)						
$C_8H_{14}Pt$	[1271-07-4]	cyclopentadienyltrimethylplatinum				
	$\Delta_{sub}H$		77.8 ± 2.0	298		[1982PIL/SKI, 1977TEL/RAB]
$C_{10}H_8F_6O_4Pt$	[67596-99-0]	*cis-bis*(trifluoroacetylacetonoato) platinum				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(412–461)	106.2 ± 2.1			[2006ZHA/BAI]
$C_{10}H_8F_6O_4Pt$	[76740-70-0]	*trans-bis*(trifluoroacetylacetonoato) platinum				
	$\Delta_{sub}H$	(437–496)	109.9 ± 2.9			[2006ZHA/BAI]
$C_{10}H_{14}O_4Pt$	[15170-57-7]	*bis*(2,4-pentanedionato)platinum(II)				
	$\Delta_{sub}H$		105.9			[2001MOR/ZHA]
	$\Delta_{sub}H$	(363–383)	129.4 ± 9	373	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		133 ± 9	298		[1984BUR/MOR]
$C_{10}H_{20}N_2PtS_4$	[15730-38-8]	*bis*(diethyldithiocarbamate)platinum(II)				
	$\Delta_{sub}H$		157.1 ± 2.0			[1999ZEM/STA]
$C_{12}H_{16}Pt$	[42613-14-9]	dicyclopentadienyldimethylplatinum				
	$\Delta_{sub}H$		83.7 ± 3.5	298		[1982PIL/SKI, 1977TEL/RAB]
Pu (plutonium)						
$C_{40}H_{40}F_{28}O_8Pu$	[28041-99-8]	*tetrakis*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)plutonium(IV)				
	$\Delta_{sub}H$	(349–363)	153.5 ± 7.9	356	ME	[1970SWA/KAR]
Rb (rubidiuim)						
$C_5H_9O_2Rb$	[70205-79-7]	rubidium pivalate				
	$\Delta_{sub}H$		167.1 ± 5.6			[1998KHO/RYK]
Re (rhenium)						
$C_4H_6Br_4O_4Re_2$	[75027-96-2]	*bis*(μ-acetato)tetrabromodirhenium stereoisomer (or 75081-56-0)				
	$\Delta_{sub}H$ *(cis)*	(410–510)	66.6			[1984STE/ALI]
	$\Delta_{sub}H$ *(trans)*	(410–510)	59.9			[1984STE/ALI]
$C_4H_6Cl_4O_4Re_2$	[62320-69-8; 100495-10-1]	*bis*(μ-acetato)tetrachlorodirhenium stereoisomer				
	$\Delta_{sub}H$ *(cis)*	(450–560)	72.8			[1984STE/ALI]
	$\Delta_{sub}H$ *(trans)*	(450–560)	64.7			[1984STE/ALI]
C_5BrO_5Re	[14220-21-4]	bromopentacarbonylrhenium				
	$\Delta_{sub}H$		92.1 ± 2		C	[1983ALT/CON]
C_5ClO_5Re	[14099-01-5]	chloropentacarbonylrhenium				
	$\Delta_{sub}H$		110.9 ± 2		C	[1983ALT/CON]
C_5HO_5Re	[16457-30-0]	rhenium hydride pentacarbonyl complex				
	$\Delta_{sub}H$	(279–369)	45.1	324	A	[1987STE/MAL]
$C_6H_3O_5Re$	[14524-92-6]	rhenium methylpentacarbonyl complex				
	$\Delta_{sub}H$	(315–380)	65.2	347.5	A	[1987STE/MAL, 1960HIE/BRA]
	$\Delta_{sub}H$		70.0 ± 2	298	C	[1983ALT/CON]
	$\Delta_{sub}H$		65.3 ± 1.0	298		[1982PIL/SKI, 1974BRO/CON]
	$\Delta_{sub}H$	(313–383)	64.9			[1958HIE/WAG]
$C_{10}O_{10}MnRe$	[14693-30-2]	manganese rhenium decacarbonyl				
	Δ_vH	(440–463)	56.5	451		[1971BAE/DEM]
$C_{10}O_{10}Re_2$	[14285-68-8]	dirhenium decacarbonyl				
	$\Delta_{sub}H$		100.9 ± 2	298		[1983ALT/CON]
	$\Delta_{sub}H$		93.3 ± 4.2	298		[1982PIL/SKI, 1974BRO/CON]
	$\Delta_{sub}H$	(363–450)	77.6	406	MM	[1971BAE/DEM]
	$\Delta_{sub}H$		79.5			[1961GIN, 1971BAE/DEM]
	Δ_vH	(454–483)	68.7	468		[1971BAE/DEM]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
Rh (rhodium)						
$C_7H_7O_4Rh$	[14874-82-9]	dicarbonyl-2,4-pentanedionatorhodium complex				
	$\Delta_{sub}H$	(276–301)	87 ± 2.9	289	ME	[1978JES/ERN, 1987STE/MAL]
$C_9H_{13}Cl_2O_2Rh$	[12282-04-1]	*bis*(chloroethylene)-2,4-pentanedionatorhodium complex				
	$\Delta_{sub}H$	(275–288)	117.2 ± 7.1	281	ME	[1978JES/ERN, 1987STE/MAL]
$C_9H_{15}O_2Rh$	[12082-47-2]	*bis*(ethylene)-2,4-pentanedionatorhodium complex				
	$\Delta_{sub}H$	(282–301)	97.9 ± 7.1	292	ME	[1978JES/ERN, 1987STE/MAL]
$C_{10}H_{14}O_4Rh$	[69047-66-1]	*bis*(2,4-pentanedionato)rhodium(II)				
	$\Delta_{sub}H$	(383–447)	173.2 ± 7.0	298		[1991MAL/ALI]
$C_{11}H_{19}O_2Rh$	[12282-38-1]	*bis*(propylene)-2,4-pentanedionatorhodium complex				
	$\Delta_{sub}H$	(270–296)	86.2 ± 1.7	283	ME	[1978JES/ERN, 1987STE/MAL]
$C_{13}H_{19}O_6Rh$	[31724-87-5]	*bis*(vinylacetate)-2,4-pentanedionatorhodium complex				
	$\Delta_{sub}H$	(309–328)	121.3 ± 3	319	ME	[1978JES/ERN]
$C_{13}H_{19}O_6Rh$	[31724-88-6]	*bis*(methyl acrylate)-2,4-pentanedionatorhodium complex				
	$\Delta_{sub}H$	(311–327)	111.7 ± 4.6	319	ME	[1978JES/ERN]
$C_{15}H_{21}O_6Rh$	[14284-92-5]	*tris*(2,4-pentanedionato)rhodium(II)				
	$\Delta_{sub}H$		118.8			[2001MOR/ZHA]
	$\Delta_{sub}H$		NA			[1994GER/GER]
$C_{16}O_{16}Rh_6$	[28407-51-4]	hexarhodiumhexadecacarbonyl				
	$\Delta_{sub}H$		117.2 ± 20.0	298		[1982PIL/SKI, 1975BRO/CON]
Ru (ruthenium)						
C_5O_5Ru	[16406-48-7]	ruthenium pentacarbonyl				
	Δ_vH	(243–323)	42.2	283		[1991KOE/BOR]
$C_{10}H_{10}Ru$	[1287-13-4]	*bis*(cyclopentadienyl)ruthenium (ruthenocene)				
	$\Delta_{sub}H$	(383–479)	76.2 ± 1.4			[1984BAE/BAR]
	$\Delta_{sub}H$		82.7 ± 1.7	298		[1984BAE/BAR]
	$\Delta_{sub}H$		77.6 ± 1.6			[1967TUR]
	Δ_vH	(479–544)	53.6 ± 1.4	511		[1984BAE/BAR]
$C_{15}H_3F_{18}O_6Ru$	[16827-63-7]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)ruthenium(III)				
	$\Delta_{sub}H$	(299–313)	114.1 ± 1.0	306	ME	[2001RIB/MON]
	$\Delta_{sub}H$		114.5 ± 1.0	298	ME	[2001RIB/MON]
$C_{15}H_{12}F_9O_6Ru$	[16702-38-8]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)ruthenium(III)				
	$\Delta_{sub}H$	(346–467)	131.4 ± 4.6		ME	[2009MOR/ZHE]
	$\Delta_{sub}H$	(350–369)	126.8 ± 1.0	360	ME	[2001RIB/MON]
	$\Delta_{sub}H$		129.9 ± 1.0	298	ME	[2001RIB/MON]
	$\Delta_{sub}H$	(383–423)	90.0 ± 3.0			[1996BYK/MOR]
$C_{15}H_{21}O_6Ru$	[14284-93-6]	*tris*(2,4-pentanedionato)ruthenium(III)				
	$\Delta_{sub}H$	(374–434)	129.1 ± 2.0		ME	[2009MOR/ZHE]
	$\Delta_{sub}H$	(394–441)	148.8 ± 1.7	418	ME	[2009SID/SID]
	$\Delta_{sub}H$	(377–435)	128.9 ± 1.9		ME	[2007IGU/SEM]
	$\Delta_{sub}H$		126.6			[2001MOR/ZHA]
	$\Delta_{sub}H$	(423–493)	127.0 ± 0.9			[1996BYK/MOR]
	$\Delta_{sub}H$	(398–413)	139.7 ± 2.5	406	ME	[1993RIB/GIE]
	$\Delta_{sub}H$		145.1 ± 2.5	298	ME	[1993RIB/GIE]
$C_{24}H_{36}F_3O_6Ru$	[na]	*tris*(1,1,1-trifluoro-5,5-dimethyl-2,4-hexandianato)ruthenium(III)				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(322–347)	75.7 ± 3.3		ME	[2009MOR/ZHE]
$C_{33}H_{54}F_3O_6Ru$	[na]	*tris*(2,2,6,6-tetramethyl-4-fluoro-3,5-heptanedianato)ruthenium(III)				
	$\Delta_{sub}H$	(353–393)	130.0 ± 2.7		ME	[2009MOR/ZHE]
$C_{33}H_{57}O_6Ru$	[38625-54-6]	*tris*(2,2,6,6-tetramethyl-3,5-heptanedionato)ruthenium(III)				
	$\Delta_{sub}H$	(353–393)	149.2 ± 2.2		ME	[2009MOR/ZHE]
S (sulfur)						
Br_2OS	[507-16-4]	thionyl bromide				
	$\Delta_v H$	(313–439)	43.6	330		[1999DYK/SVO]
Br_2S_2	[13172-31-1]	disulfur dibromide				
	$\Delta_v H$	(365–503)	53.9	380		[1999DYK/SVO]
Br_2FO_2S	[13536-61-3]	sulfuryl bromide fluoride				
	$\Delta_v H$	(236–333)	32.0	251		[1999DYK/SVO]
ClF_2NO_2S	[30913-20-3]	difluoroamidosulfuryl chloride				
	$\Delta_v H$	(232–290)	31.2	261		[1971ZAB/SHR]
ClFOS	[14177-25-4]	thionyl chloride fluoride				
	$\Delta_v H$	(212–304)	27.7	227		[1999DYK/SVO]
$ClFO_2S$	[13637-84-8]	sulfuryl chloride fluoride				
	$\Delta_v H$	(211–300)	29.0	226		[1999DYK/SVO]
$ClFO_5S_2$	[13637-85-9]	pyrosulfuryl chloride fluoride				
	$\Delta_v H$	(284–396)	40.8	299		[1999DYK/SVO]
$ClHO_3S$	[7790-94-5]	chlorosulfonic acid				
	$\Delta_v H$	(324–454)	45.8	339		[1999DYK/SVO]
Cl_2OS	[7719-09-7]	thionyl chloride				
	$\Delta_v H$	(257–372)	32.4	272		[1999DYK/SVO]
Cl_2O_2S	[7791-25-5]	sulfuryl chloride				
	$\Delta_v H$	(357–365)	34.5	272		[1999DYK/SVO]
$Cl_2O_5S_2$	[7791-27-7]	pyrosulfuryl dichloride				
	$\Delta_v H$	(325–450)	44.7	340		[1999DYK/SVO]
Cl_2S	[10545-99-0]	sulfur chloride				
	$\Delta_v H$	(265–348)	43.8	280		[1999DYK/SVO]
Cl_2S_2	[10025-67-9]	disulfur dichloride				
	$\Delta_v H$	(306–439)	41.1	321		[1999DYK/SVO]
FHO_3S	[7789-21-1]	fluorosulfonic acid				
	$\Delta_v H$	(343–459)	55.7	358		[1999DYK/SVO]
FNS	[18820-63-8]	thiazyl fluoride				
	$\Delta_v H$	(270–299)	21.7	285		[1999DYK/SVO]
F_2HPS	[13780-63-7]	hydrothiophosphoryl difluoride				
	$\Delta_v H$	(188–258)	29.1	223	T	[1967CHA/CAV]
F_2N_2S	[500010-01-5]	dinitrogen sulfur difluoride				
	$\Delta_v H$	(192–281)	23.9	207		[1999DYK/SVO]
F_2OS	[7783-42-8]	thionyl fluoride				
	$\Delta_v H$	(173–244)	23.7	188		[1999DYK/SVO]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
F_2O_2S	[2699-79-8]	sulfuryl fluoride				
	$\Delta_v H$	(160–233)	20.0	175		[1999DYK/SVO]
F_2O_4S	[13997-94-9]	peroxysulfuryl difluoride				
	$\Delta_v H$	(198–248)	25.7	223		[1975GAM/SIC]
$F_2O_5S_2$	[13036-75-4]	pyrosulfuryl difluoride				
	$\Delta_v H$	(240–346)	31.4	255		[1999DYK/SVO]
$F_2O_8S_3$	[13709-33-6]	trisulfur octoxide difluoride				
	$\Delta_v H$	(296–419)	40.7	311		[1999DYK/SVO]
F_2S_2	[16860-99-4]	disulfur difluoride				
	$\Delta_v H$	(153–196)	14.9	168		[1999DYK/SVO]
F_3NO_3S	[6816-12-2]	N,N-difluorohydroxylamine-O-fluorosulfonate				
	$\Delta_v H$	(206–272)	24.6	239		[1963LUS/CAD]
F_3NS	[501679-94-3]	N-fluorosulfur difluoride amide				
	$\Delta_v H$	(213–246)	24.1	230		[1969GLE/MEW]
F_3NS	[15930-75-3]	nitrogen fluoride sulfide				
	$\Delta_v H$	(184–268)	23.1	199		[1999DYK/SVO]
F_4OS	[13809-54-1]	sulfur oxide tetrafluoride				
	$\Delta_v H$	(166–240)	21.4	181		[1999DYK/SVO]
$F_4O_5S_2$	[44982-62-9]	disulfur pentoxide tetrafluoride				
	$\Delta_v H$	(246–353)	18.0	261		[1999DYK/SVO]
F_4S	[7783-60-0]	sulfur tetrafluoride				
	$\Delta_v H$	(170–250)	21.1	185		[1999DYK/SVO]
	$\Delta_v H$	(160–224)	24.6	192		[1955BRO/ROB]
$F_6O_3S_2$	[81439-35-2]	pentafluorosulfur fluorosulfane				
	$\Delta_v H$	(228–273)	32.2	250		[1962COH/MAC]
F_6S	[2551-62-4]	sulfur hexafluoride				
	$\Delta_{sub} H$		23.2 ± 0.01	186		[1994OHT/YAM]
	$\Delta_{sub} H$	(175–207)	23.3	191		[1932KLE/HEN]
$F_{10}O_2S_2$	[12395-41-4]	thiosulfuryl decafluoride				
	$\Delta_v H$	(239–344)	31.8	242		[1999DYK/SVO]
$F_{10}S_2$	[5714-22-7]	disulfur decafluoride				
	$\Delta_v H$	(226–322)	30.1	241		[1999DYK/SVO]
	$\Delta_v H$	(222–273)	29.6	237		[1962COH/MAC]
$F_{14}O_2S_3$	[108021-40-5]	$SF_5OSF_4OSF_5$				
	$\Delta_v H$		33.4			[1963PAS/ROB]
$F_{18}O_4S_4$	[na]	$SF_5OSF_4OOSF_5OSF_5$				
	$\Delta_v H$		47.5			[1963PAS/ROB]
H_2S	[7783-06-4]	hydrogen sulfide				
	$\Delta_{sub} H$	(128–142)	22.5	135	MG	[1951CLA/COC]
	$\Delta_{sub} H$	(164–187)	25.4	175		[1936GIA/BLU]
	$\Delta_v H$	(185–228)	19.5	200		[1999DYK/SVO]
	$\Delta_v H$	(228–363)	18.6	243		[1999DYK/SVO]
	$\Delta_v H$	(187–213)	21.9	200		[1936GIA/BLU]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
H_2S_2	[13465-07-1]	dihydrogen disulfide				
	$\Delta_v H$	(256–367)	34.0	271		[1999DYK/SVO]
	$\Delta_v H$		33.8 ± 0.1	293	C	[1958FEH/HIT]
$H_2S_2O_7$	[7783-05-3]	pyrosulfuric acid				
	$\Delta_{fus}H$		23.81	308.4		[1961DAC/WYA]
H_2S_3	[13845-23-3]	dihydrogen trisulfide				
	$\Delta_v H$	(328–474)	43.1	343		[1999DYK/SVO]
	$\Delta_v H$		45.5 ± 0.2	293	C	[1958FEH/HIT]
H_2S_4	[13465-25-5]	dihydrogen tetrasulfide				
	$\Delta_v H$	(384–547)	52.2	399		[1999DYK/SVO]
	$\Delta_v H$		56.8 ± 0.3	293	C	[1958FEH/HIT]
H_2S_5	[13465-24-4]	dihydrogen pentasulfide				
	$\Delta_v H$	(426–592)	61.5	441		[1999DYK/SVO]
	$\Delta_v H$		68.4 ± 0.6	293	C	[1958FEH/HIT]
NHS_7	[293-42-5]	heptasulfur imide				
	$\Delta_{fus}H$		18.83	386.7		[1975HAM/KUD]
SO_2	[7446-09-5]	sulfur dioxide				
	$\Delta_v H$	(200–263)	24.9	263		[1938GIA/STE]
	$\Delta_v H$		24.9	263	C	[1938GIA/STE]
SO_3	[7446-11-9]	sulfur trioxide				
	$\Delta_v H$	(290–318)	46.7	290		[1985KON/STR]
	$\Delta_v H$	(290–318)	45.5 ± 0.8	298		[1985KON/STR]
	$\Delta_v H$	(353–473)	32.4	368		[1963ABE/TIL]
SO_3	[7446-11-9]	γ-sulfur trioxide				
	$\Delta_{fus}H$	(16–332)	9.35	290.2	AC	[1989KON/STR]
Sb (antimony)						
CH_5Sb	[23362-09-6]	methylstibine				
	$\Delta_v H$	(223–273)	27.4	248		[1959BUR/GRA]
C_2H_7Sb	[23362-10-9]	dimethylstibine				
	$\Delta_v H$	(241–273)	30.8	257		[1959BUR/GRA]
C_2H_8BSb	[60646-39-1]	dimethylstibinoborine				
	$\Delta_v H$	(234–273)	32.1	254		[1959BUR/GRA]
$C_3Cl_2F_9Sb$	[420-74-6]	*tris*(trifluoromethyl)antimony dichloride				
	$\Delta_v H$	(243–323)	38.8	283		[1957DAL/EME]
C_3F_9Sb	[432-05-3]	*tris*(trifluoromethyl)stibine				
	$\Delta_v H$	(215–343)	34.7	279		[1957DAL/EME]
C_3H_9Sb	[594-10-5]	trimethylstibine				
	$\Delta_v H$	(249–296)	32.5 ± 0.01	298		[2010FUL/MOR]
	$\Delta_v H$		28.9 ± 1.3			[1955LON/SAC, 1982PIL/SKI]
	$\Delta_v H$		31.2		BG	[1946BAM/LEV]
$C_4H_{12}Sb_2$	[41422-43-9]	tetramethylbistibine				
	$\Delta_v H$	(325–358)	46.9	341		[1959BUR/GRA]
C_6H_9Sb	[5613-68-3]	trivinylstibine				
	$\Delta_v H$	(293–363)	38.7	308		[1957MAI/SEY, 1984BOU/FRI]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_6H_{15}Sb$	[617-85-6]	triethylstibine				
	$\Delta_{fus}H$		9.45	153.9		[1996DOM/HEA]
	Δ_vH	(238–309)	47.6	260		[2006FUL/RUZ]
	Δ_vH	(238–309)	45.6	298		[2006FUL/RUZ]
	Δ_vH	(238–309)	44.2	320		[2006FUL/RUZ]
	Δ_vH	(238–309)	41.4	360		[2006FUL/RUZ, 1946BAM/LEV]
	Δ_vH	(238–309)	38.3	400		[2006FUL/RUZ, 1946BAM/LEV]
	Δ_vH	(193–333)	39.9 ± 1.3	306		[2001BAE]
	Δ_vH		43.5 ± 4.2			[1963LAU/TRO, 1982PIL/SKI]
	Δ_vH	(273–393)	41.8		BG	[1946BAM/LEV]
$C_6H_{15}Sb$	[138260-00-1]	*tert*-butyldimethylantimony				
	$\Delta_{sub}H$	(248–283)	43.5 ± 0.01	266		[2010FUL/MOR]
	Δ_vH	(288–308)	41.1 ± 0.01	298		[2010FUL/MOR]
$C_{15}H_{30}N_3S_6Sb$	[22914-48-3]	*tris*(N,N-diethyldithiocarbamate)antimony(III)				
	$\Delta_{sub}H$		160 ± 2	298		[1994LIE/MAR]
$C_{18}H_{15}Sb$	[603-36-1]	triphenylantimony				
	$\Delta_{sub}H$		106.3 ± 8.4	298		[1982PIL/SKI, 1960BIR]
	Δ_vH	(503–553)	83.3	518	A	[1987STE/MAL, 1949FOR/BOW]
$C_{21}H_{42}N_3S_6Sb$	[226980-30-9]	*tris*(dipropyldithiocarbamate)antimony(III)				
	$\Delta_{sub}H$		169.5 ± 6.1		DSC,E	[1999NEV/GOU]
$C_{27}H_{54}N_3S_6Sb$	[14907-93-8]	*tris*(N,N-dibutyldithiocarbamate)antimony(III)				
	$\Delta_{sub}H$		179 ± 3	298		[1994LIE/MAR]
$C_{27}H_{54}N_3S_6Sb$	[41594-79-0]	*tris*(N,N-diisobutyldithiocarbamate)antimony(III)				
	$\Delta_{sub}H$		157 ± 3	298	DSC, E	[1997DES/DES]
Sc (scandium)						
$C_{15}H_3F_{18}O_6Sc$	[18990-42-6]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentadionato)scandium(III)				
	$\Delta_{sub}H$	(333–363)	55.0		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(313–348)	60.2 ± 1.2		I	[1978KOM/GUR]
$C_{15}H_{12}F_9O_6Sc$	[14634-68-5]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)scandium(III)				
	$\Delta_{sub}H$	(373–403)	78.0		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(363–433)	117.6 ± 1.7			[1985MAT/KUW]
	$\Delta_{sub}H$	(366–413)	53.2 ± 1.0		I	[1978KOM/GUR]
	Δ_vH	(397–457)	82.2 ± 0.8	427		[1978CHU/IGU]
$C_{15}H_{15}Sc$	[1298-54-0]	*tris*(cyclopentadienyl)scandium				
	$\Delta_{sub}H$		97.1 ± 3.5	298		[1982PIL/SKI, 1974DEV/RAB]
$C_{15}H_{21}O_6Sc$	[14284-94-7]	*tris*(2,4-pentanedionato)scandium(III)				
	$\Delta_{fus}H$		28.8	460		[1970MEL/MER2]
	$\Delta_{sub}H$	(413–443)	95		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(393–453)	58.2 ± 0.8		I	[1978KOM/GUR]
	$\Delta_{sub}H$		99.6 ± 0.8	298	HSA	[1970MEL/MER, 1970MEL/MER2]
$C_{33}H_{57}O_6Sc$	[15492-49-6]	*tris*(2,2,6,6-tetramethylheptan-3,5-dionato)scandium(III)				
	$\Delta_{sub}H$	(375–424)	97 ± 1		TG-TS	[2009SEL/RAG]
	$\Delta_{sub}H$	(413–443)	90		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$		79.6 ± 2.4			[1997SAN/ROC]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(434–465)	77 ± 2		TG-TS	[2009SEL/RAG]
Se (seleniuim)						
$CBrF_3Se$	[753-95-7]	trifluoromethylselenyl bromide				
	$\Delta_v H$		30.9			[1980GOM/WEI]
$CClF_3Se$	[1495-26-7]	trifluoromethylselenyl chloride				
	$\Delta_v H$		27.6			[1980GOM/WEI]
COSe	[1603-84-5]	carbon oxyselenide				
	$\Delta_v H$	(221–252)	22.1	236		[1999DYK/SVO]
	$\Delta_v H$	(156–251)	21.7	236		[1947STU]
	$\Delta_v H$		22.1	211		[1937PUR/ZAH]
CSSe	[5951-19-9]	carbon selenide sulfide				
	$\Delta_v H$	(226–359)	35.5	241		[1999DYK/SVO]
	$\Delta_v H$	(273–357)	33.6	288		[1914STO/WIL, 1984BOU/FRI]
CSe_2	[506-80-9]	carbon diselenide				
	$\Delta_{sub}H$	(218–229)	46.3	224	A	[1987STE/MAL, 1966GAT/DRA]
	$\Delta_v H$	(230–290)	39.1	245		[1999DYK/SVO]
	$\Delta_v H$	(290–337)	35.9	305		[1999DYK/SVO]
	$\Delta_v H$		37.2 ± 0.8			[1966GAT/DRA, 1982PIL/SKI]
	$\Delta_v H$	(273–323)	39.0	288		[1947IVE/PIT, 1984BOU/FRI]
CHF_3Se	[55446-31-6]	trifluoromethaneselenol				
	$\Delta_v H$		22.5			[1980GOM/WEI]
CH_3FO_3Se	[17697-13-1]	fluoroselenic acid, methyl ester				
	$\Delta_v H$		46.9			[1967PAE/KUR]
CH_3F_3SeSi	[753-96-8]	silyl trifluoromethyl selenide				
	$\Delta_v H$	(213–277)	28.0	245		[1962EBS/EME]
C_2BrF_5Se	[6123-59-7]	(pentafluoroethane) selenyl bromide				
	$\Delta_v H$	(242–293)	34.5	267		[1999DYK/SVO]
C_2ClF_5Se	[6123-50-8]	(pentafluoroethane) selenyl chloride				
	$\Delta_v H$	(215–289)	30.3	252		[1999DYK/SVO]
C_2F_3NOSe	[20334-48-9]	trifluoromethyl selenium isocyanate				
	$\Delta_v H$	(233–284)	29.5	259		[1968WEL/WUL]
C_2F_3NSSe	[21438-06-2]	trifluoromethyl selenium thiocyanate				
	$\Delta_v H$	(233–383)	25.9	258		[1968WEL/WUL]
C_2F_3NSSe	[691-07-6]	trifluoromethane sulphenyl selenocyanate				
	$\Delta_v H$	(263–313)	33.3	288		[1963EME/HAA]
C_2F_3NSe	[1717-49-3]	trifluoromethyl selenocyanate				
	$\Delta_v H$		37.9			[1980GOM/WEI]
	$\Delta_v H$	(233–273)	37.6	253		[1968WEL/WUL]
$C_2F_3NSe_2$	[20563-91-1]	trifluoromethyl selenium selenocyanate				
	$\Delta_v H$	(223–268)	26.6	245		[1968WEL/WUL]
C_2F_6Se	[371-79-9]	*bis*(trifluoromethyl)selenide				
	$\Delta_v H$		24.4			[1980GOM/WEI]
CF_6Se_2	[372-65-6]	*bis*(difluoromethyl) diselenide				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		33.1			[1980GOM/WEI]
$C_2H_3F_3Se$	[1544-45-2]	methyl(trifluoromethyl)selenide				
	$\Delta_v H$	(209–294)	27.7	251		[1999DYK/SVO, 1963EME/WEL]
C_2H_6Se	[593-79-3]	dimethyl selenide				
	$\Delta_{fus}H$		8.5	185.1		[1991RAB/SHE]
	$\Delta_v H$	(280–318)	30.3 ± 0.1	295		[1999DYK/SVO, 1997BAE]
	$\Delta_v H$	(278–313)	31.9	295	I	[1994KAR/FRA]
$C_2H_6Se_2$	[7101-31-7]	dimethyl diselenide				
	$\Delta_{fus}H$		8.55	190.8		[1991RAB/SHE]
	$\Delta_v H$	(288–313)	74.9	300	I	[1994KAR/FRA]
	$\Delta_v H$		42.0 ± 1.0	298	C	[1989VOR/KLY]
C_3AsF_9Se	[816-45-5]	*bis*(trifluoromethyl) trifluoromethylselenoarsine				
	$\Delta_v H$	(227–295)	34.8	261		[1962EME/PAC]
C_3BrF_7Se	[662-44-2]	(heptafluoro-1-propane) selenyl bromide				
	$\Delta_v H$	(251–298)	35	274		[1999DYK/SVO, 1963EME/WEL]
C_3ClF_7Se	[662-46-4]	(heptafluoro-1-propane) selenyl chloride				
	$\Delta_v H$	(223–289)	33.4	256		[1999DYK/SVO, 1963EME/WEL]
C_3F_5NSe	[20334-51-4]	pentafluoroethyl selenocyanate				
	$\Delta_v H$	(254–293)	32.0	273		[1968WEL/WUL]
$C_3H_2F_6Se_2$	[691-25-8]	*bis*[(trifluoromethyl)seleno]methane				
	$\Delta_v H$	(273–359)	35.4	315		[1999DYK/SVO, 1963EME/WEL]
$C_3H_3F_5Se$	[6123-56-4]	methyl pentafluoroethyl selenide				
	$\Delta_v H$	(234–286)	31.9	260		[1999DYK/SVO]
$C_3H_3F_7SeSi$	[1647-59-2]	(heptafluoropropyl)selenyl silane				
	$\Delta_v H$	(233–393)	33.1	263		[1999DYK/SVO, 1962EBS/EME]
$C_3H_4F_5NSe$	[6123-53-1]	(pentafluoroethyl)seleno methylamine				
	$\Delta_v H$	(243–318)	33.8	280		[1999DYK/SVO]
C_3H_5FOSe	[367-52-2]	fluoroselenoacetic acid, Se-methyl ester				
	$\Delta_v H$	(273–333)	46.3	303		[1999DYK/SVO]
$C_3H_5F_3Se$	[690-25-5]	ethyl(trifluoromethyl)selenide				
	$\Delta_v H$	(223–254)	31.6	238		[1999DYK/SVO, 1963EME/WEL]
$C_3H_6F_3NSe$	[690-32-4]	N,N-dimethyl(trifluoromethyl)selenenamide				
	$\Delta_v H$	(231–321)	28.1	276		[1963EME/WEL]
$C_4F_{10}Se$	[6123-61-1]	*bis*(pentafluoroethyl)selenide				
	$\Delta_v H$	(232–295)	31.6	263		[1999DYK/SVO]
$C_4F_{10}Se_2$	[6123-49-5]	*bis*(pentafluoroethyl) diselenide				
	$\Delta_v H$	(272–318)	40.0	295		[1999DYK/SVO]
$C_4HF_{10}NSe_2$	[6123-55-3]	*bis*[(pentafluoroethyl)seleno]amine				
	$\Delta_v H$	(270–322)	38.3	296		[1999DYK/SVO]
$C_4H_3F_7Se$	[662-45-3]	methyl(heptafluoropropyl) selenide				
	$\Delta_v H$	(232–324)	30.8	278		[1999DYK/SVO, 1963EME/WEL]
$C_4H_4N_2O_2Se$	[92754-59-1]	selenobarbituric acid				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(449–486)	141 ± 4.0	466	TE	[1999BRU/PIA]
C_4H_4Se	[288-05-1]	selenophene				
	$\Delta_{sub}H$	(208–243)	47.1	225		[1951MIL/PAO]
	Δ_vH	(234–300)	40.8	272		[1999DYK/SVO]
	Δ_vH		38.1 ± 0.7	298	C	[1989VOR/KLY]
	Δ_vH	(234–387)	34.0	249		[1947STU]
$C_4H_5F_5Se$	[6123-57-5]	ethyl(pentafluoroethyl) selenide				
	Δ_vH	(241–311)	34.8	276		[1999DYK/SVO]
$C_4H_6F_5NSe$	[6123-52-0]	1,1,2,2,2-pentafluoro-N,N-dimethylethane selenamide				
	Δ_vH	(256–320)	34.8	288		[1999DYK/SVO]
C_4H_6Se	[57796-75-5]	divinyl selenide				
	Δ_vH		42.0 ± 1.0	298	C	[1989VOR/KLY]
C_4H_8OSe	[5368-46-7]	1,4-oxaselenane				
	Δ_vH	(352–429)	46.6	367		[1999DYK/SVO]
$C_4H_{10}Se$	[627-53-2]	diethyl selenide				
	Δ_vH	(243–381)	39.7	258		[1999DYK/SVO]
	Δ_vH		38.9 ± 1.0	298	C	[1989VOR/KLY]
	Δ_vH		38.9 ± 4.2			[1936MER/SCH, 1982PIL/SKI]
	Δ_vH	(298–308)	36.8	303		[1929TAN/NAG]
$C_4H_{10}Se_2$	[628-39-7]	diethyl diselenide				
	Δ_vH		47.1 ± 0.9	298	C	[1989VOR/KLY]
$C_5AsF_{13}Se$	[679-01-6]	heptafluoropropylseleno *bis*(trifluoromethyl)arsine				
	Δ_vH	(277–348)	40.3	312		[1962EME/PAC]
$C_5H_3F_{10}NSe_2$	[6123-54-2]	N,N-*bis*[(pentafluoroethyl)seleno]methylamine				
	Δ_vH	(282–324)	38.3	303		[1999DYK/SVO]
$C_5H_5F_7Se$	[755-44-2]	ethyl(heptafluoropropyl) selenide				
	Δ_vH	(243–333)	36.0	288		[1999DYK/SVO, 1963EME/WEL]
$C_5H_6F_7NSe$	[755-79-3]	N,N-dimethyl(heptafluoropropyl)selenenamide				
	Δ_vH	(228–321)	30.8	274		[1963EME/WEL]
$C_6F_{14}Se$	[755-81-7]	*bis*(heptafluoropropyl) selenide				
	Δ_vH	(228–343)	34.5	286		[1999DYK/SVO, 1963EME/WEL]
$C_6F_{14}Se_2$	[755-51-1]	*bis*(heptafluoropropyl) diselenide				
	Δ_vH	(260–348)	37.7	304		[1999DYK/SVO, 1963EME/WEL]
C_6H_6Se	[645-96-5]	benzene selenol				
	Δ_vH	(331–458)	45.4	395		[1999DYK/SVO]
$C_6H_{14}Se$	[37773-02-7]	diisopropyl selenide				
	Δ_vH		43.1 ± 1.0	298	C	[1989VOR/KLY]
C_7H_8Se	[4346-64-9]	methyl phenyl selenide				
	Δ_vH	(273–291)	52.5	282		[1999DYK/SVO]
$C_8H_6N_2Se$	[25660-64-4]	4-phenyl-1,2,3-selenadiazole				
	$\Delta_{sub}H$	(275–343)	91.2 ± 1.7	309	ME	[1974ARS]
	$\Delta_{sub}H$		94.1 ± 0.8	298	GS	[1973ARS/SHA]
	$\Delta_{sub}H$	(327–345)	90.7	336	A	[1987STE/MAL]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{18}Se$	[14835-66-6]	dibutyl selenide				
	$\Delta_v H$		47.3 ± 1.0	298	C	[1989VOR/KLY]
$C_{10}H_{22}Se$	[14835-67-7]	dipentyl selenide				
	$\Delta_v H$		51.9 ± 1.0	298	C	[1989VOR/KLY]
$C_{12}H_{10}Se$	[1132-39-4]	diphenyl selenide				
	$\Delta_{sub}H$	(302–324)	116.7 ± 2.5	313	ME	[1980MOR/WAT]
	$\Delta_v H$	(379–575)	63.4	394		[1999DYK/SVO]
	$\Delta_v H$	(378–575)	61.9	393	A	[1987STE/MAL]
	$\Delta_v H$		63.6 ± 2.5			[1973BAR/MOR, 1982PIL/SKI]
$C_{14}H_{14}Se_2$	[1482-82-2]	dibenzyl diselenide				
	$\Delta_{sub}H$	(291–330)	130.5		ME	[1974ARS, 1973ARS/SHA]
Cl_2OSe	[7791-23-3]	selenium oxychloride				
	$\Delta_v H$	(352–476)	59.1	367		[1999DYK/SVO]
	$\Delta_v H$	(353–453)	46.9	403		[1971NIS/TRE]
D_2Se	[13536-95-3]	hydrogen selenide-d_2				
	$\Delta_v H$	(202–256)	22.2	217		[1999DYK/SVO]
F_2OSe	[7783-43-9]	seleninyl difluoride				
	$\Delta_{fus}H$		8.08	288		[1979CAR/CLA, 1977BOU/CAR]
	$\Delta_v H$	(316–420)	52.1	331		[1999DYK/SVO]
	$\Delta_v H$		46.9 ± 0.8	298	C	[1979CAR/CLA]
	$\Delta_v H$		46.7			[1977BOU/CAR]
F_4Se	[13465-66-2]	selenium tetrafluoride				
	$\Delta_v H$	(297–398)	46.4	312		[1999DYK/SVO]
F_6Se	[7783-79-1]	selenium hexafluoride				
	$\Delta_{sub}H$		24.96 ± 0.04	205	C	[1996OHT/OSA]
	$\Delta_{sub}H$	(194–226)	23.5	210		[1932KLE/HEN]
F_6O_2Se	[27069-91-6]	*transbis*(fluoroxy) tetrafluoroselenium				
	$\Delta_v H$	(241–286)	26.5	263		[1970SMI/CAD]
Si (silicon)						
CH_2Cl_4OSi	[18157-08-9]	chloromethoxytrichlorosilane				
	$\Delta_v H$	(273–323)	9.3	288		[1958FRO/ROC]
CH_3Cl_3Si	[75-79-6]	methyltrichlorosilane				
	$\Delta_{fus}H$		8.95	197.4		[1996DOM/HEA]
	$\Delta_v H$	(328–358)	30.7	343		[1967GOL/LAP]
	$\Delta_v H$	(287–337)	31.2	302	I	[1954JEN/CHA]
	$\Delta_v H$		31.0 ± 2.1			[1969AGA/HAJ, 1982PIL/SKI]
$(CH_3Cl_3Si)_2-(C_6H_{15}N_3)$	[na]	*bis*-1,3,5-trimethyl-1,3,5-triazacyclohexane- methyltrichlorosilane				
	$\Delta_{sub}H$	(298–354)	74.0 ± 2.8			[1984GOL/LEV]
CH_3NSi	[18081-38-4]	isocyanosilane				
	$\Delta_{sub}H$	(253–304)	48.8	279	A	[1987STE/MAL, 1956MAC]
CH_4Cl_2Si	[42430-97-7]	(dichloromethyl)silane				
	$\Delta_v H$	(283–319)	32.5	301		[1957KAE/STO]
CH_4Cl_2Si	[75-54-7]	methyldichlorosilane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(275–314)	28.3	290	I	[1954JEN/CHA]
CH_5BrSi	[1631-88-5]	methylbromosilane				
	$\Delta_v H$	(283–295)	28.5	289		[1958EBS/EME]
CH_5ClSi	[10112-09-1]	(chloromethyl)silane				
	$\Delta_v H$	(246–297)	27.5	271		[1957KAE/STO]
CH_6OSi	[2171-96-2]	methoxysilane				
	$\Delta_v H$	(184–216)	25.8	201		[1961STE/MAC]
CH_8Si_2	[13498-43-6]	methyldisilane				
	$\Delta_v H$	(190–273)	26.8	231	T	[1966ABE/MAC]
$C_2H_3Cl_3Si$	[75-94-5]	trichlorovinylsilane				
	$\Delta_v H$	(291–356)	34.2	306	I	[1954JEN/CHA]
$C_2H_3Cl_5Si$	[684-00-4]	1,2-dichloroethyltrichlorosilane				
	$\Delta_v H$	(375–453)	45.7	390	I	[1954JEN/CHA]
$C_2H_4Cl_6Si_2$	[2504-64-5]	*bis*(trichlorosilyl)ethane				
	$\Delta_v H$	(364–432)	48.6	379	I	[1954JEN/CHA]
C_2H_4Si	[1066-27-9]	silylacetylene				
	$\Delta_v H$	(215–251)	22.0	233		[1963EBS/FRA]
$C_2H_5Cl_3Si$	[115-21-9]	ethyltrichlorosilane				
	$\Delta_{fus}H$		6.96	165.3		[1996DOM/HEA]
	$\Delta_v H$	(303–363)	35.1	318		[1970SOK/KAR]
	$\Delta_v H$	(301–368)	35.9	316	I	[1954JEN/CHA]
$C_2H_5F_3OSi$	[460-55-9]	ethoxytrifluorosilane				
	$\Delta_v H$	(206–248)	26.8	227		[1949EME/HEA]
$C_2H_3F_3O_2Si$	[6876-44-4]	silyl trifluoroacetate				
	$\Delta_v H$	(273–293)	30.7	283	A	[1987STE/MAL, 1967EBS/THO]
$C_2H_6Cl_2Si$	[75-78-5]	dichlorodimethylsilane				
	$\Delta_{fus}H$		8.83	199		[1996DOM/HEA]
	$\Delta_v H$	(301–345)	31.5	316	I	[1954JEN/CHA]
$C_2H_6Cl_2Si$	[1789-58-8]	dichloroethylsilane				
	$\Delta_v H$	(279–346)	31.5	294	I	[1954JEN/CHA]
	$\Delta_v H$	(301–345)	31.6	316		[1954DAV/JEN]
$C_2H_6Cl_4Si_2$	[4518-98-3]	1,1,2,2-tetrachloro-1,2-dimethyldisilane				
	$\Delta_v H$	(300–375)	42.4	337		[1967REE/URR]
$C_2H_6F_3NSi$	[812-14-6]	1,1,1-trifluoro-N,N-dimethylaminosilane				
	$\Delta_v H$	(225–288)	28.5	273		[1961GRO/KLE]
C_2H_9NSi	[2875-98-1]	dimethylaminosilane				
	$\Delta_{sub}H$	(228–264)	58.8	246	A	[1987STE/MAL, 1954SUJ/WIT]
$C_2H_{10}Si_2$	[870-26-8]	1,2-dimethyldisilane				
	$\Delta_v H$	(227–273)	25.4	258		[1962CRA/MAC]
$C_2H_{11}NSi_2$	[14396-26-0]	N,N-dimethyldisilanylamine				
	$\Delta_v H$	(207–273)	35.4	240	T	[1963ABE/MAC]
$C_3H_4Cl_3NSi$	[2621-01-4]	trichloro-β-cyanoethylsilane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(343–443)	53.5	358		[1978SHM/SHL]
$C_3H_4Cl_3NSi$	[1071-22-3]	β-trichlorosilylpropionitrile				
	$\Delta_{fus}H$		21.24	307.9		[1975KOS/SAM]
$C_3H_5Cl_3Si$	[107-37-9]	allyltrichlorosilane				
	$\Delta_v H$	(319–388)	40.1	333	I	[1954JEN/CHA]
$C_3H_6Cl_4Si$	[2550-06-3]	γ-chloropropyltrichlorsilane				
	$\Delta_v H$	(313–443)	49.7	328		[1972SOK/BRA]
	$\Delta_v H$	(360–452)	46.4	375	I	[1954JEN/CHA]
$C_3H_6Cl_4Si$	[na]	β-chloropropyltrichlorisilane				
	$\Delta_v H$	(313–443)	46.9	328		[1972SOK/BRA]
$C_3H_8Cl_2OSi$	[1825-75-8]	dichloroethoxymethylsilane				
	$\Delta_v H$	(313–373)	45.4	328	EB	[2010DON/WU]
	$\Delta_v H$	(239–373)	38.0	254		[1947STU]
C_3H_9BrSi	[2857-97-8]	bromotrimethylsilane				
	$\Delta_v H$		32.6 ± 2.1			[1967BAL/LAP, 1982PIL/SKI]
C_3H_9ClSi	[75-77-4]	chlorotrimethylsilane				
	$\Delta_{trs}H$		0.7	185.1		
	$\Delta_{fus}H$		9.68	218		[1996DOM/HEA]
	$\Delta_v H$	(274–325)	30.8	289		[1964CAP/FRI]
	$\Delta_v H$	(276–329)	30.2	291		[1954JEN/CHA]
	$\Delta_v H$		30.1 ± 1.7			[1967BAL/LAP, 1982PIL/SKI]
$C_3H_{10}OSi$	[1066-40-6]	trimethylsilanol				
	$\Delta_v H$	(291–357)	46.8	306	A	[1987STE/MAL]
	$\Delta_v H$		45.6 ± 1.7			[1969AGA/HAJ, 1982PIL/SKI]
	$\Delta_v H$	(291–358)	44.2	324	I	[1953GRU/OST]
$C_3H_{11}NSi$	[74897-01-1]	N,N-dimethyl(methylsilyl)amine				
	$\Delta_v H$	(273–317)	28.2	296		[1958EBS/EME]
$C_3H_{13}NSi_2$	[18145-61-4]	N-methyldi(methylsilyl)amine				
	$\Delta_v H$	(303–351)	32.2	327		[1958EBS/EME]
$C_3H_{15}NSi_3$	[18145-64-7]	tri(methylsilyl)amine				
	$\Delta_v H$	(323–378)	33.7	350		[1958EBS/EME]
$C_4H_2Cl_6SSi_2$	[18145-50-1]	2,5-*bis*(trichlorosilyl)thiophene				
	$\Delta_v H$	(374–519)	55.6	388		[1981DIT/SKO]
$C_4H_8Cl_2Si$	[10138-21-3]	dichloroethylvinylsilane				
	$\Delta_v H$	(318–395)	38.1	333	I	[1954JEN/CHA]
$C_4H_9Cl_3Si$	[5936-98-1]	(trichloromethyl)trimethylsilane				
	$\Delta_{trs}H$		11.16	285.3		
	$\Delta_{fus}H$		7.36	405.3	DTA,DSC	[1994BRA/DOU]
$C_4H_9Cl_3Si$	[18171-74-9]	*tert*-butyltrichlorosilane				
	$\Delta_{trs}H$		6.01	206.4		
	$\Delta_{fus}H$		6.69	373.4	DTA,DSC	[1994BRA/DOU]
$C_4H_9F_6NSi_2$	[28245-41-2]	1,1,1-trifluoro-N-(1-methylpropyl)-N-(trifluorosilyl)silanamine				
	$\Delta_v H$	(193–233)	25.8	213		[1973BEC/RUC]
$C_4H_{10}Cl_2Si$	[1719-53-5]	dichlorodiethylsilane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(321–401)	39.2	336	I	[1954JEN/CHA]
$C_4H_{10}F_3NSi$	[28245-37-6]	(N,N-diethylamino)trifluorosilane				
	$\Delta_v H$	(208–274)	27.4	241		[1974DIT/SKO3]
$C_4H_{10}F_3NSi$	[28245-40-1]	(N-*tert*-butylamino)trifluorosilane				
	$\Delta_v H$	(208–250)	33.6	229		[1973AYL/ELL]
$C_4H_{10}Si$	[765-33-3]	1-methylsilacyclobutane				
	$\Delta_v H$		25.1	298	C	[1991VOR/KLY3]
$C_4H_{12}Si$	[75-76-3]	tetramethylsilane				
	$\Delta_{fus}H$		6.74	174		[1996DOM/HEA]
$C_4H_{12}Si$	[542-91-6]	diethylsilane				
	$\Delta_v H$		30.0 ± 0.4			[1972PED/ISE, 1982PIL/SKI]
$C_4H_{12}Cl_2OSi_2$	[2401-73-2]	1,3-dichlorotetramethyldisiloxane				
	$\Delta_v H$	(303–403)	40.3	318		[1971SOK/KAR]
$C_4H_{12}O_3Si$	[1185-55-3]	methyltrimethoxysilane				
	$\Delta_v H$		34.3 ± 0.6	298	C	[1988VOR/BAR]
	$\Delta_v H$		34.3 ± 0.3	298	EB	[1985KLY/DAN]
$C_4H_{12}O_4Si$	[681-84-5]	tetramethoxysilane				
	$\Delta_v H$	(364–393)	38.0	379	EB	[1989KAT/TAN]
	$\Delta_v H$		41.4 ± 0.7	298	C	[1988VOR/BAR]
	$\Delta_v H$		41.4 ± 0.2	298	EB	[1985KLY/DAN]
	$\Delta_v H$	(309–394)	41.0	324		[1980THO/SMI]
$C_4H_{12}Si$	[75-76-3]	tetramethylsilane				
	$\Delta_v H$		26.0 ± 0.6	298	C	[1988VOR/BAR]
	$\Delta_v H$		26.2 ± 0.4			[1972PED/ISE, 1982PIL/SKI]
	$\Delta_v H$		24.2 ± 0.1	299	C	[1941AST/KEN]
$C_4H_{12}S_4Si$	[3931-76-8]	tetra(methylthia)silane				
	$\Delta_{trs}H$		11.63	288.6		
	$\Delta_{fus}H$		2.18	304.5	DSC	[1998FUE/STR]
$C_4H_{13}NSi$	[16513-17-0]	N,1,1,1-tetramethylsilanamine				
	$\Delta_v H$		37.4 ± 0.8	298	C	[1991VOR/KLY]
	$\Delta_v H$		36.0 ± 2.1			[1967BAL/LAP, 1982PIL/SKI]
$C_4H_{14}N_2Si$	[4693-04-3]	*bis*(dimethylamino)silane				
	$\Delta_v H$	(288–344)	32.4	316	T	[1964AYL/PET]
$C_4H_{16}N_2Si_2$	[18148-05-5]	N,N,N′,N′-tetramethyldisilanyldiamine				
	$\Delta_v H$	(311–354)	39.3	332	T	[1963ABE/MAC]
$C_5H_6Cl_2SSi$	[18243-72-6]	2-(methyldichlorosilyl)thiophene				
	$\Delta_v H$	(341–467)	46.4	356		[1981DIT/SKO]
$C_5H_9F_6NOSSi$	[34556-30-4]	S,S-*bis*(trifluoromethyl)-N-(trimethylsilyl)sulfoximine				
	$\Delta_v H$		33.5	378	I	[1972SAU/SHR]
$C_5H_9F_6PSSi$	[38680-96-5]	*bis*(trifluoromethyl)(trimethylsilylthio)phosphine				
	$\Delta_v H$	(273–328)	46.6	301		[1973GOS/MIL]
$C_5H_{10}F_3NSi$	[33552-49-7]	1-(trifluorosilyl)piperidine				
	$\Delta_v H$	(250–282)	33.9	266		[1973AYL/ELL]
$C_5H_{12}Si$	[na]	1,2-dimethylsilacyclobutane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		33.1	298	C	[1991VOR/KLY3]
		Note: The authors list the compound as 1,2-dimethylsilacyclobutane in Table 1 and as 1,1-dimethylsilacyclobutane in Table 2 of their paper.				
$C_5H_{12}Si$	[2295-12-7]	1,1-dimethylsilacyclobutane				
	$\Delta_{fus}H$		6.76	155.5		[1975GUS/KAR]
	$\Delta_v H$		32.1	356		[1975GUS/KAR]
	$\Delta_v H$		33.0 ± 0.8	298	I	[1974BES/MAR]
	$\Delta_v H$		34.7 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
$C_5H_{12}Si$	[754-05-2]	vinyltrimethylsilane				
	$\Delta_{fus}H$		7.66	141.7		[1996DOM/HEA]
	$\Delta_v H$		33.1 ± 0.6	298	C	[1988VOR/BAR]
$C_5H_{13}NSi$	[216-90-7]	trimethylsilylethyleneimine				
	$\Delta_{fus}H$		10.5	192.5		[1999KUL/LEB]
$C_5H_{14}OSi$	[1825-62-3]	ethoxytrimethylsilane				
	$\Delta_v H$		38.4 ± 0.6	298	C	[1988VOR/BAR]
	$\Delta_v H$		38.4 ± 0.3	298	EB	[1985KLY/DAN]
	$\Delta_v H$	(223–349)	35.1	238		[1947STU]
$C_5H_{14}O_3SSi$	[57557-66-1]	trimethoxy[(methylthio)methyl]silane				
	$\Delta_v H$		40.2 ± 0.6	298	C	[1989VOR/SOR]
$C_5H_{14}Si$	[760-32-7]	methyldiethylsilane				
	$\Delta_v H$		34.6 ± 0.7	298	C	[1988VOR/BAR]
$C_5H_{15}NSi$	[2083-91-2]	pentamethylsilanamine				
	$\Delta_v H$		33.6 ± 0.8	298	C	[1991VOR/KLY]
	$\Delta_v H$		31.8 ± 1.7			[1967BAL/LAP, 1982PIL/SKI]
	$\Delta_v H$	(313–357)	31.7	335		[1958EBS/EME]
$C_5H_{20}O_5Si_5$	[6166-86-5]	1,3,5,7,9-pentamethylcyclopentasiloxane				
	$\Delta_v H$		47.0 ± 0.9	298	C	[1991VOR/KLY2]
$C_6H_4Cl_4Si$	[2003-90-9]	(2-chlorophenyl)trichlorosilane				
	$\Delta_v H$	(406–472)	52.1	439	EB	[1974BES/MAR]
$C_6H_4Cl_4Si$	[2003-89-6]	(3-chlorophenyl)trichlorosilane				
	$\Delta_v H$	(398–463)	50.7	430	EB	[1974BES/MAR]
$C_6H_5Cl_3Si$	[98-13-5]	phenyl trichlorosilane				
	$\Delta_{fus}H$		11.66	233.4		[1996DOM/HEA]
	$\Delta_v H$	(333–453)	51.1	348		[1970SOK/KAR]
	$\Delta_v H$	(375–470)	47.9	390	I	[1954JEN/CHA]
$C_6H_5F_3Si$	[368-47-8]	trifluorophenylsilane				
	$\Delta_v H$	(242–371)	40.1	257		[1947STU]
$C_6H_8Cl_4SSi_2$	[4480-01-7]	2,5-*bis*(methyldichlorosilyl)thiophene				
	$\Delta_v H$	(405–522)	55.7	420		[1981DIT/SKO]
C_6H_8Si	[694-53-1]	phenylsilane				
	$\Delta_{fus}H$		8.4	201		[2006ZEL/CHU]
	$\Delta_v H$	(238–390)	36.6 ± 0.3	314		[2006ZEL/CHU]
$C_6H_9F_6NSi$	[17599-55-2]	1,1,1-trimethyl-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]silanamine				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		30.5	358	I	[1972SWI/BAB]
$C_6H_{10}Cl_2Si$	[3651-23-8]	diallydichlorosilane				
	$\Delta_v H$	(254–390)	47.9	269		[1947STU]
$C_6H_{11}NSi_2$	[4459-07-8]	N-phenyldisilazane				
	$\Delta_v H$	(298–356)	34.9	327	T	[1969AYL/HAK]
$C_6H_{12}Si$	[6224-91-5]	1-trimethylsilyl-1-propyne				
	$\Delta_{fus}H$		10.96	204.5		[1993KUL/LEB, 1997LEB/KUL]
$C_6H_{12}Si$	[10654-12-9]	1,1-dimethyl-1-silacyclopent-3-ene				
	$\Delta_{fus}H$		7.77	166.8		[2000BYK/LEB]
$C_6H_{12}Si$	[3514-67-8]	1-methyl-1-vinylsilacyclobutane				
	$\Delta_v H$		33.1	298	C	[1991VOR/KLY3]
$C_6H_{12}Si_2$	[1627-98-1]	1,1,3,3-tetramethyl-1,3-disilacyclobutane				
	$\Delta_v H$		39.5	391		[1975GUS/KAR]
$C_6H_{14}Si$	[30681-90-4]	1,1,2-trimethylsilacyclobutane				
	$\Delta_v H$		36.0	298	C	[1991VOR/KLY3]
$C_6H_{14}Si$	[1072-54-4]	1,1-dimethylsilacyclopentane				
	$\Delta_v H$		37.7 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
$C_6H_{14}Si$	[2295-13-8]	1,1,3-trimethylsilacyclobutane				
	$\Delta_v H$		35.5	298	C	[1991VOR/KLY3]
$C_6H_{15}ClSi$	[994-30-9]	chlorotriethylsilane				
	$\Delta_v H$	(268–419)	42.9	419		[1947STU]
$C_6H_{15}ClSi$	[18162-48-6]	*tert*-butyldimethylchlorosilane				
	$\Delta_{trs}H$		7.75	203.6		
	$\Delta_{fus}H$		5.6	358.1	DTA,DSC	[1994BRA/DOU]
$C_6H_{15}FO_3Si$	[358-60-1]	triethoxyfluorosilane				
	$\Delta_v H$	(291–373)	40.3	332	I	[1949EME/HEA]
$C_6H_{15}NOSi_2$	[na]	pentamethyldisilanyl isocyanate				
	$\Delta_v H$	(320–377)	44.2	348		[1963URE/MAC]
$C_6H_{15}NSi_2$	[1560-29-8]	pentamethyldisilanyl cyanide				
	$\Delta_v H$	(335–402)	46.9	350		[1962CRA/URE]
$C_6H_{16}OSi$	[1825-63-4]	propoxytrimethylsilane				
	$\Delta_v H$		34.3 ± 0.6	298	C	[1988VOR/BAR]
	$\Delta_v H$		34.3 ± 0.3	298	C	[1985KLY/DAN]
$C_6H_{16}OSi$	[1825-64-5]	isopropoxytrimethylsilane				
	$\Delta_v H$		31.8 ± 0.6	298	C	[1988VOR/BAR]
	$\Delta_v H$		31.8 ± 0.4	298	EB	[1985KLY/DAN]
$C_6H_{16}OSi$	[597-52-4]	triethylsilanol				
	$\Delta_v H$	(298–413)	50.6	355	I	[1953GRU/OST]
$C_6H_{16}O_2Si$	[78-62-6]	diethoxydimethylsilane				
	$\Delta_v H$		43.1 ± 0.7	298	C	[1988VOR/BAR]
	$\Delta_v H$		43.1 ± 0.3	298	EB	[1985KLY/DAN]
	$\Delta_v H$	(254–386)	43.3	269		[1947STU]
$C_6H_{16}O_3SSi$	[66785-19-1]	trimethoxy[2-(methylthio)ethyl]silane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		45.2 ± 0.7	298	C	[1989VOR/SOR]
$C_6H_{16}O_3SSi$	[53696-79-0]	[(ethylthio)methyl]trimethoxysilane				
	$\Delta_v H$		41.4 ± 0.6	298	C	[1989VOR/SOR]
$C_6H_{16}Si$	[756-81-0]	dimethyldiethylsilane				
	$\Delta_v H$		38.9 ± 0.6	298	C	[1988VOR/BAR]
$C_6H_{16}Si$	[617-86-7]	triethylsilane				
	$\Delta_v H$		37.4 ± 0.6	298	C	[1988VOR/BAR]
	$\Delta_v H$	(303–373)	33.5		EB, I	[1975BRA/KAR]
	$\Delta_v H$		36.4 ± 1.3			[1972PED/ISE, 1982PIL/SKI]
$C_6H_{16}Si_2$	[1627-98-1]	1,1,3,3-tetramethyl-1,3-disilacyclobutane				
	$\Delta_{fus}H$		10.26	266		[1996DOM/HEA, 1975GUS/KAR]
	$\Delta_v H$		36.7 ± 1.1	298	I	[1974SHM/SHL]
	$\Delta_v H$		41.0 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
$C_6H_{17}B_5Br_2Si_2$	[66798-29-6]	2,4-*bis*(bromodimethylsilyl)-2,4-dicarbo-closo-heptaborane (7)				
	$\Delta_v H$	(388–463)	53.1	403	I	[1979GOL/SHM]
$C_6H_{17}B_5Cl_2Si_2$	[28699-83-4]	2,4-*bis*(chlorodimethylsilyl)-2,4-dicarbo-closo-heptaborane (7)				
	$\Delta_v H$	(359–439)	46.2	374	I	[1979GOL/SHM]
$C_6H_{18}Cl_2O_2Si_3$	[na]	1,5-dichlorohexamethyltrisiloxane				
	$\Delta_v H$	(299–457)	49.8	314		[1947STU]
$C_6H_{18}OSi_2$	[107-46-0]	hexamethyldisiloxane				
	$\Delta_{fus}H$		11.92	204.9		[1996DOM/HEA]
	$\Delta_v H$	(300–383)	36.9	315	EB	[1986FLA]
	$\Delta_v H$	(293–361)	33.1	327		[1971DIT/SKO]
	$\Delta_v H$		37.2 ± 1.7			[1964GOO/LAC, 1982PIL/SKI]
	$\Delta_v H$	(309–411)	36	324	EB	[1961SCO/MES]
	$\Delta_v H$		34.6 ± 0.1	332	C	[1961SCO/MES]
	$\Delta_v H$		33.1 ± 0.1	351	C	[1961SCO/MES]
	$\Delta_v H$		31.3 ± 0.1	373	C	[1961SCO/MES]
	$\Delta_v H$		37.2 ± 1.7			[1947STU]
$C_6H_{18}O_3Si_3$	[541-05-9]	hexamethylcyclotrisiloxane				
	$\Delta_{fus}H$		11.8	335.2		
	$\Delta_{fus}H$		16.61	335.2		[1996DOM/HEA, 1971ALV/DAL]
	$\Delta_{sub}H$	(297–335)	55.2 ± 0.4	316		[1953OST/GRU]
	$\Delta_v H$	(342–419)	40.8	357	EB	[1986FLA]
	$\Delta_v H$	(353–403)	39.7	368		[1974BRA/KAR]
	$\Delta_v H$	(339–407)	39	373		[1971DIT/SKO]
	$\Delta_v H$	(343–388)	39.7	365		[1953OST/GRU]
$C_6H_{18}Si_2$	[1450-14-2]	hexamethyldisilane				
	$\Delta_{trs}H$		9.75	221.8		
	$\Delta_{fus}H$		3.02	287.7		[1996DOM/HEA]
	$\Delta_v H$	(305–387)	36.3	320	EB	[1986TAK/ISH]
	$\Delta_v H$		37.4 ± 0.4			[1972PED/ISE, 1982PIL/SKI]
	$\Delta_v H$	(288–310)	37.2			[1959SUG/SEK, 1986TAK/ISH]
	$\Delta_v H$	(294–334)	36.8			[1941BRO/DAV, 1986TAK/ISH]
$C_6H_{19}B_5Si_2$	[59351-11-0]	2,4-*bis*(dimethylsilyl)-2,4-dicarba-closo-heptaborane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(373–453)	41.3	388	I	[1976SHM/SHL]
$C_6H_{19}NSi_2$	[999-97-3]	hexamethyldisilazane				
	$\Delta_v H$		42.2 ± 0.9	298	C	[1991VOR/KLY]
	$\Delta_v H$	(294–395)	36.0	344		[1972DIT/SKO2]
	$\Delta_v H$		41.4 ± 2.1			[1966BEE/MOR, 1982PIL/SKI]
$C_6H_{19}N_3Si$	[na]	*tris*(dimethylamino)silane				
	$\Delta_v H$	(309–387)	41.1	348	T	[1964AYL/PET]
$C_6H_{21}N_3Si_3$	[1009-93-4]	hexamethylcyclotrisilizane				
	$\Delta_{fus}H$		15.17	254.4		[1996DOM/HEA]
	$\Delta_v H$	(342–456)	45.6	399		[1972DIT/SKO2]
$C_7H_8Cl_2Si$	[18173-99-4]	benzyl dichlorosilane				
	$\Delta_v H$	(318–467)	58.5	333		[1947STU, 1999DYK/SVO]
$C_7H_8Cl_2Si$	[149-74-6]	phenyldichloromethylsilane				
	$\Delta_v H$	(309–479)	51.2	323		[1947STU, 1999DYK/SVO]
$C_7H_8Cl_2Si$	[13272-80-5]	dichloro-4-tolylsilane				
	$\Delta_v H$	(319–469)	58	334		[1947STU, 1999DYK/SVO]
$C_7H_8F_2Si$	[13272-80-5]	difluoromethylphenylsilane				
	$\Delta_v H$	(303–413)	44.6	318		[1999DYK/SVO]
$C_7H_9F_8NOSSi$	[77589-40-3]	2,2,3,3,4,4,5,5-octafluoro-1,1,2,3,4,5-hexahydro-1-[(trifluoromethyl)silyl]imino]thiophene-1-oxide				
	$\Delta_v H$		31.4	383		[1981ABE/SHR2]
$C_7H_9F_9N_2OSSi$	[62609-67-0]	1,1,1-trifluoro-N-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-N′-(trimethylsilyl)methanesulfonimidamide				
	$\Delta_v H$		39.3	429	I	[1977KIT/SHR, 1999DYK/SVO]
$C_7H_{15}NO_3Si$	[2288-13-3]	1-methyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		82 ± 0.8			[1989VOR/BAR]
$C_7H_{16}O_3SSi$	[57877-58-4]	trimethoxy[(2-propenylthio)methyl]silane				
	$\Delta_v H$		38.6 ± 0.5	298	C	[1989VOR/SOR]
$C_7H_{17}ClSi$	[18817-17-9]	(1-chloroethyl)diethylmethylsilane				
	$\Delta_v H$	(353–445)	41.8	400		[1999DYK/SVO]
$C_7H_{17}NSi$	[na]	N-(β-trimethylsilyethyl)ethylenimine				
	$\Delta_{fus}H$		10.62	176.5		[1996DOM/HEA]
$C_7H_{18}OSi$	[1825-65-6]	butyl trimethylsilyl ether				
	$\Delta_v H$	(344–397)	38.5	359	EB	[1969SHE/LAN, 1984BOU/FRI]
$C_7H_{18}O_3SSi$	[94358-36-8]	trimethoxy[3-(methylthio)propyl]silane				
	$\Delta_v H$		43.5 ± 0.6	298	C	[1989VOR/SOR]
$C_7H_{18}O_3SSi$	[40532-52-3]	[2-(ethylthio)ethyl]trimethoxysilane				
	$\Delta_v H$		41.4 ± 0.7	298	C	[1989VOR/SOR]
$C_7H_{18}O_3Si$	[2031-67-6]	triethoxymethylsilane				
	$\Delta_v H$		45.1 ± 0.7	298	C	[1988VOR/BAR]
	$\Delta_v H$		45.1 ± 0.4	298	EB	[1985KLY/DAN]
	$\Delta_v H$	(272–416)	45.2	287		[1947STU]
$C_7H_{18}SSi$	[3553-78-4]	(*n*-butylthio)trimethylsilane				
	$\Delta_v H$		40.6 ± 2.1			[1967BAL/LAP, 1982PIL/SKI]
$C_7H_{18}Si$	[757-21-1]	methyltriethylsilane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		40.5 ± 0.6	298	C	[1988VOR/BAR]
$C_7H_{18}Si$	[999-03-1]	methyldipropylsilane				
	$\Delta_v H$		35.9 ± 0.7	298	C	[1988VOR/BAR]
$C_7H_{18}Si$	[18442-00-7]	methyldiisopropylsilane				
	$\Delta_v H$		32.4 ± 0.8	298	C	[1988VOR/BAR]
$C_7H_{19}NSi$	[996-50-9]	N,N-diethyl-1,1,1-trimethylsilanamine				
	$\Delta_v H$		37.9 ± 0.8	298	C	[1991VOR/KLY]
$C_7H_{20}Si_2$	[2117-28-4]	methylene-*bis*(trimethylsilane)				
	$\Delta_v H$	(323–407)	40.3 ± 0.3	365	QM	[1975GUS/KUL, 1975GUS/KAR]
$C_7H_{20}Si_2$	[2117-28-4]	hexamethyldisilylmethane				
	$\Delta_{fus}H$		11.11	140.7		[1996DOM/HEA, 1975GUS/KAR]
$C_7H_{21}NSi_2$	[920-68-3]	N,1,1,1-tetramethyl-N-(trimethylsilyl)silanamine				
	$\Delta_v H$		38.1 ± 0.8	298	C	[1991VOR/KLY]
	$\Delta_v H$		38.9 ± 2.1			[1967BAL/LAP, 1982PIL/SKI]
$C_8H_{10}Cl_2OSi$	[18236-80-1]	dichloroethoxyphenylsilane				
	$\Delta_v H$	(325–496)	56.3	340		[1999DYK/SVO]
$C_8H_{10}Cl_2Si$	[1125-27-5]	dichloroethylphenylsilane				
	$\Delta_v H$	(316–503)	51.3	331		[1999DYK/SVO]
$C_8H_{11}ClSi$	[768-33-2]	chlorodimethylphenylsilane				
	$\Delta_v H$	(302–467)	52.2	317		[1999DYK/SVO]
	$\Delta_v H$	(303–466)	49.7	318		[1947STU]
$C_8H_{11}FSi$	[454-57-9]	fluorodimethylphenylsilane				
	$\Delta_v H$	(303–423)	49.6	318		[1999DYK/SVO]
$C_8H_{12}Si$	[1112-55-6]	tetravinylsilane				
	$\Delta_v H$		42.7 ± 0.7	298	C	[1988VOR/BAR]
$C_8H_{12}Si$	[766-77-8]	dimethylphenylsilane				
	$\Delta_v H$	(298–432)	45.3	293		[1947STU]
$C_8H_{15}NO_3Si$	[2097-18-9]	1-ethenyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		85 ± 0.8			[1989VOR/BAR]
$C_8H_{16}Cl_4O_4Si$	[18290-84-1]	*tetrakis*(2-chloroethoxy)silane				
	$\Delta_v H$	(447–500)	81.1	473		[1999DYK/SVO, 1946JON/THO]
$C_8H_{17}NO_3Si$	[2097-16-7]	1-ethyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		81 ± 0.9			[1989VOR/BAR]
$C_8H_{17}NO_3Si$	[18225-19-9]	1,7-dimethyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		92 ± 0.8			[1989VOR/BAR]
$C_8H_{17}NO_4Si$	[3463-21-6]	1-ethoxy-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		81 ± 0.8			[1989VOR/BAR]
$C_8H_{18}F_3NOSi_2$	[na]	$CF_3C[OSi(CH_3)_3]=NSi(CH_3)_3$				
	$\Delta_v H$	(316–350)	41.8	333		[1970VON/GLE]
$C_8H_{18}O_3Si$	[78-08-0]	vinyltriethoxysilane				
	$\Delta_v H$		50.2 ± 0.8	298	C	[1988VOR/BAR]
	$\Delta_v H$		50.2 ± 0.4	298	EB	[1985KLY/DAN]
	$\Delta_v H$	(334–421)	46.2	349	I	[1954JEN/CHA]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_8H_{19}NSi$	[42525-64-4]	N-(β-trimethylsilylethyl)trimethylenimine				
	$\Delta_{fus}H$	(7–305)	12.9	199.4	AC	[1996DOM/HEA]
$C_8H_{19}NSi$	[na]	triethylsilylethyleneimine				
	$\Delta_{fus}H$		14.25	183.6		[2001SMI/LEB]
$C_8H_{20}Cl_2OSi_2$	[18825-03-1]	1,3-dichloro-1,1,3,3-tetraethyldisiloxane				
	Δ_vH	(343–463)	53.6	358		[1971SOK/KAR, 1999DYK/SVO]
$C_8H_{20}O_3SSi$	[57557-74-1]	[3-(ethylthio)propyl]trimethoxysilane				
	Δ_vH		41.8 ± 0.6	298	C	[1989VOR/SOR]
$C_8H_{20}O_3SSi$	[57557-68-3]	[(butylthio)methyl]trimethoxysilane				
	Δ_vH		41.6 ± 0.6	298	C	[1989VOR/SOR]
$C_8H_{20}O_3SSi$	[57557-69-4]	trimethoxy[[(2-methylpropyl)thio]methyl]silane				
	Δ_vH		38.7 ± 0.6	298	C	[1989VOR/SOR]
$C_8H_{20}O_3SSi$	[57557-70-7]	[[(1,1-dimethylethyl)thio]methyl]trimethoxysilane				
	Δ_vH		50.6 ± 0.7	298	C	[1989VOR/SOR]
$C_8H_{20}O_3Si$	[78-07-9]	ethyltriethoxysilane				
	Δ_vH	(338–426)	47.0	353	I	[1954JEN/CHA]
$C_8H_{20}O_4Si$	[78-10-4]	tetraethoxysilane				
	$\Delta_{trs}H$		13.2	187.7		
	$\Delta_{fus}H$		11.14	191		[1992VAN/COR]
	Δ_vH	(323–442)	53.9	298	SG	[1995VAN/COR]
	Δ_vH	(323–442)	52.3	298	SG	[1995VAN/COR]
	Δ_vH	(404–437)	40.9	419	EB	[1989KAT/TAN]
	Δ_vH		48.5 ± 0.3	298	EB	[1985KLY/DAN]
	Δ_vH	(313–440)	50.0	328		[1980THO/SMI]
	Δ_vH	(273–344)	U 33.9			[1973DYA/VIG]
	Δ_vH	(289–441)	49.5	304		[1947STU]
$C_8H_{20}Si$	[995-89-1]	dimethyldipropylsilane				
	Δ_vH		40.2 ± 0.6	298	C	[1988VOR/BAR]
$C_8H_{20}Si$	[631-36-7]	tetraethylsilane				
	$\Delta_{fus}H$		13.01	189.4		[1990DOM/HEA]
	Δ_vH		39.0 ± 0.7	298	C	[1988VOR/BAR]
	Δ_vH		39.7 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
	Δ_vH	(272–426)	43.3	287		[1947STU]
$C_8H_{20}Si$	[998-14-1]	ethyldipropylsilane				
	Δ_vH		37.9 ± 0.6	298	C	[1988VOR/BAR]
$C_8H_{20}Si$	[17591-40-1]	ethyldiisopropylsilane				
	Δ_vH		38.1 ± 0.7	298	C	[1988VOR/BAR]
$C_8H_{20}Si$	[30736-07-3]	di-*tert*-butylsilane				
	Δ_vH	(242–288)	41.4	257		[2005FUL/RUZ]
$C_8H_{21}NO_3Si$	[na]	γ-aminopropyltriethoxysilane				
	Δ_vH	(363–492)	55.8	388		[1976DIT/SKO]
$C_8H_{23}B_5Si_2$	[59351-10-9]	2,4-*bis*(trimethylsilyl)-2,4-dicarba-closo-heptaborane				
	Δ_vH	(373–473)	45.0	388	I	[1976SHM/SHL]
$C_8H_{24}Cl_2O_3Si_4$	[2474-02-4]	1,7-dichloro-1,1,3,3,5,5,7,7-octamethyltetrasiloxane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(326–495)	53.8	341		[1999DYK/SVO]
$C_8H_{24}N_4Si$	[1624-01-7]	*tetrakis*(dimethylamino)silane				
	$\Delta_v H$	(361–415)	40.0	388	T	[1964AYL/PET]
$C_8H_{24}O_2Si_3$	[107-51-7]	octamethyltrisiloxane				
	$\Delta_v H$	(346–446)	43.2	361	EB	[1986FLA]
	$\Delta_v H$		39.7 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
	$\Delta_v H$	(345–417)	40.2	381		[1971SKO/DIT]
$C_8H_{24}O_4Si_4$	[556-67-2]	octamethylcyclotetrasiloxane				
	$\Delta_{trs}H$		4.87	258		
	$\Delta_{fus}H$		23.77	290.5		[1996DOM/HEA, 1975MEK/KAR, 1971ALV/DAL]
	$\Delta_{sub}H$		64 ± 2		B	[1953OST/GRU, 1960JON]
	$\Delta_v H$		57.0 ± 0.8	298	C	[1991VOR/KLY2]
	$\Delta_v H$	(361–469)	47.6	376	EB	[1986FLA]
	$\Delta_v H$	(334–423)	44.1	378		[1971DIT/SKO]
	$\Delta_v H$	(303–428)	56.1	298	I	[1954OST/GRU]
	$\Delta_v H$	(303–428)	48.5	373	I	[1954OST/GRU]
	$\Delta_v H$	(303–428)	45.6	398	I	[1954OST/GRU]
$C_8H_{24}O_{12}Si_8$	[57348-79-5]	octamethyldodecaoxooctasilicon				
	$\Delta_{sub}H$	(463–563)	110.5	513	A	[1987STE/MAL, 1975TIT/CHU]
$C_8H_{24}Si_3$	[3704-44-7]	octamethyltrisilane				
	$\Delta_v H$		46.0 ± 0.8			[1972PED/ISE, 1982PIL/SKI]
$C_8H_{28}N_4Si_4$	[1020-84-4]	octamethylcyclotetrasilazane				
	$\Delta_{fus}H$		25.05	367.7		[1996DOM/HEA]
	$\Delta_v H$	(388–513)	52.3	450		[1972DIT/SKO2]
$C_9H_9F_5Si$	[1206-46-8]	pentafluorophenyl(trimethyl)silane				
	$\Delta_{fus}H$		8.4	233		[2006ZEL/CHU]
	$\Delta_v H$	(273–440)	40.6 ± 0.3	357		[2006ZEL/CHU]
$C_9H_{14}OSi$	[1529-17-5]	phenoxytrimethylsilane				
	$\Delta_v H$		56.9 ± 0.8	298	C	[1988VOR/BAR]
$C_9H_{19}NO_3Si$	[26053-77-0]	1-propyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		84 ± 0.8			[1989VOR/BAR]
$C_9H_{19}NO_3Si$	[2097-17-8]	1-(1-methylethyl)-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		92 ± 0.9			[1989VOR/BAR]
$C_9H_{19}NO_3Si$	[56492-01-4]	1,3,7-trimethyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		101 ± 0.8			[1989VOR/BAR]
$C_9H_{20}OSi$	[13871-89-1]	cyclohexyl trimethylsilyl ether				
	$\Delta_v H$	(364–441)	45.1	379	EB	[1969SHE/LAN]
$C_9H_{22}O_3SSi$	[53696-83-6]	triethoxy[(ethylthio)methyl]silane				
	$\Delta_v H$		42.3 ± 0.6	298	C	[1989VOR/SOR]
$C_9H_{22}Si$	[994-44-5]	propyltriethylsilane				
	$\Delta_v H$		40.0 ± 0.7	298	C	[1988VOR/BAR]
$C_9H_{22}Si$	[998-29-8]	tripropylsilane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		39.1 ± 0.7	298	C	[1988VOR/BAR]
$C_9H_{22}Si$	[999-35-9]	methyldibutylsilane				
	$\Delta_v H$		36.2 ± 0.7	298	C	[1988VOR/BAR]
$C_9H_{23}NSi$	[5277-20-3]	1,1,1-triethyl-N-(1-methylethyl)silanamine				
	$\Delta_v H$		38.6 ± 0.8	298	C	[1991VOR/KLY]
$C_9H_{23}NSi$	[17887-11-5]	1,1,1-triethyl-N-propylsilanamine				
	$\Delta_v H$		41.5 ± 0.8	298	C	[1991VOR/KLY]
$C_9H_{24}Si_2$	[2295-05-8]	1,3-propanediyl-*bis*(trimethylsilane)				
	$\Delta_v H$	(338–443)	43.1 ± 0.5	390	QM	[1975GUS/KUL, 1975GUS/KAR]
$C_9H_{24}Si_2$	[2295-05-8]	1,3-hexamethyldisilylpropane				
	$\Delta_{fus}H$		16.05	223.7		[1996DOM/HEA, 1975GUS/KAR]
$C_9H_{24}Si_3$	[1627-99-2]	1,1,3,3,5,5-hexamethyl-1,3,5-trisilacyclocyclohexane				
	$\Delta_{fus}H$		16.5	269.3		[1996DOM/HEA, 1975GUS/KAR]
$C_9H_{27}NSi_3$	[1586-73-8]	*tris*(trimethylsilyl)amine				
	$\Delta_{trs}H$		7.9	244.2		
	$\Delta_{fus}H$		1.77	337.2		[1971MUR/BRE]
	$\Delta_v H$		54.4 ± 8.4			[1967BAL/LAP, 1982PIL/SKI]
$C_{10}H_9F_7Si$	[122571-42-0]	trimethyl(4-trifluoromethylphenyl)silane				
	$\Delta_v H$	(296–460)	47.4 ± 0.2	378		[2006ZEL/CHU]
$C_{10}H_{14}Si$	[3944-08-9]	1-phenyl-1-methyl-1-silacyclobutane				
	$\Delta_{fus}H$		12.28	210		[1996DOM/HEA]
$C_{10}H_{14}Si$	[1125-26-4]	vinyldimethylphenylsilane				
	$\Delta_{fus}H$		12.26	190.7		[1996DOM/HEA]
$C_{10}H_{16}OSi$	[704-43-8]	(2-methoxyphenyl)trimethylsilane				
	$\Delta_v H$		59.4 ± 0.8	298	C	[1988VOR/BAR]
$C_{10}H_{16}OSi$	[17876-90-3]	(3-methoxyphenyl)trimethylsilane				
	$\Delta_v H$		56.1 ± 0.8	298	C	[1988VOR/BAR]
$C_{10}H_{16}OSi$	[877-68-9]	(4-methoxyphenyl)trimethylsilane				
	$\Delta_v H$		56.9 ± 0.8	298	C	[1988VOR/BAR]
$C_{10}H_{16}OSi$	[17902-31-7]	*m*-tolyl trimethylsilyl ether				
	$\Delta_v H$	(371–398)	49.7	384	EB	[1969SHE/LAN]
$C_{10}H_{16}OSi$	[17902-32-8]	*p*-tolyl trimethylsilyl ether				
	$\Delta_v H$	(374–402)	49.8	388	EB	[1969SHE/LAN]
$C_{10}H_{16}O_3SSi$	[57557-71-8]	trimethoxy[(phenylthio)methyl]silane				
	$\Delta_v H$		56.4 ± 0.7	298	C	[1989VOR/SOR]
$C_{10}H_{18}Si$	[na]	5-trimethylsilyl-2-norbornene				
	$\Delta_{fus}H$		6.84	201.6		[1994LEB/SMI2]
$C_{10}H_{20}O_2Si$	[13081-67-9]	diallyl(diethoxy)silane				
	$\Delta_v H$	(342–459)	48.3	357	A	[1987STE/MAL]
$C_{10}H_{21}NO_3Si$	[71229-51-1]	1,3,7,10-tetramethyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		115 ± 0.9			[1989VOR/BAR]
$C_{10}H_{24}O_2Si$	[2031-63-2]	dipropyldiethoxysilane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		46.5 ± 0.7	298	C	[1988VOR/BAR]
	$\Delta_v H$		46.4 ± 0.3	298	EB	[1985KLY/DAN]
$C_{10}H_{24}O_3SSi$	[57557-72-9]	triethoxy[2-(ethylthio)ethyl]silane				
	$\Delta_v H$		46.9 ± 0.7	298	C	[1989VOR/SOR]
$C_{10}H_{24}Si$	[994-59-2]	diethyldipropylsilane				
	$\Delta_v H$		41.5 ± 0.7	298	C	[1988VOR/BAR]
$C_{10}H_{24}Si$	[995-24-4]	methyltripropylsilane				
	$\Delta_v H$		42.6 ± 0.6	298	C	[1988VOR/BAR]
$C_{10}H_{24}Si$	[998-61-8]	ethyldibutylsilane				
	$\Delta_v H$		39.9 ± 0.7	298	C	[1988VOR/BAR]
$C_{10}H_{24}Si$	[17591-42-3]	ethyldiisobutylsilane				
	$\Delta_v H$		39.8 ± 0.7	298	C	[1988VOR/BAR]
$C_{10}H_{25}NO_2Si_3$	[27602-22-8]	1,1,1,3,5,5,5-heptamethyl-3-(2-cyanoethyl)trisiloxane				
	$\Delta_v H$	(367–511)	59.5	382	A	[1987STE/MAL]
$C_{10}H_{25}NSi$	[6022-10-2]	pentaethylsilanamine				
	$\Delta_v H$		42.2 ± 1.0	298	C	[1991VOR/KLY]
$C_{10}H_{25}NSi$	[17940-20-4]	N-(1,1-dimethylethyl)-1,1,1-triethylsilanamine				
	$\Delta_v H$		40.3 ± 0.9	298	C	[1991VOR/KLY]
$C_{10}H_{26}O_3Si_3$	[110505-51-6]	1,1,3,3-tetraethyl-5,5-dimethylcyclotrisiloxane				
	$\Delta_{trs}H$		0.13	195		
	$\Delta_{fus}H$		9.52	260		[1996DOM/HEA]
$C_{10}H_{28}O_4Si_3$	[17928-13-1]	1,5-diethoxy-1,1,3,3,5,5-hexamethyltrisiloxane				
	$\Delta_v H$	(314–470)	56.2	329	A	[1987STE/MAL]
$C_{10}H_{30}OSi_4$	[1360-31-2]	*bis*[(pentamethyl)disilanyl] ether				
	$\Delta_v H$	(376–456)	49.3	376		[1962CRA/URE]
$C_{10}H_{30}O_3Si_4$	[17928-28-8]	methyl *tris*(trimethylsiloxy)silane				
	$\Delta_v H$	(362–476)	49.5	377	EB	[1986FLA]
$C_{10}H_{30}O_3Si_4$	[141-62-8]	decamethyl tetrasiloxane				
	$\Delta_v H$	(366–479)	50.3	381	EB	[1986FLA]
	$\Delta_v H$	(343–454)	48.2	358	A	[1987STE/MAL, 1971SKO/DIT]
$C_{10}H_{30}O_5Si_5$	[541-02-6]	decamethyl cyclopentasiloxane				
	$\Delta_{fus}H$		20.37	226.2		[1971ALV/DAL]
	$\Delta_v H$		59.0 ± 1.0	298	C	[1991VOR/KLY2]
	$\Delta_v H$	(383–496)	52.1	398	EB	[1986FLA]
	$\Delta_v H$	(364–472)	49.0	379	A	[1987STE/MAL, 1971DIT/SKO]
	$\Delta_v H$		48.1 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
$C_{10}H_{30}Si_4$	[865-76-9]	decamethyltetrasilane				
	$\Delta_v H$		52.3 ± 1.7			[1972PED/ISE, 1982PIL/SKI]
$C_{10}H_{31}NSi_4$	[1787-38-8]	1,1,3,3-tetramethyl-1,3-*bis*(trimethylsilyl)disilazane				
	$\Delta_v H$	(378–435)	58.0	393	A	[1987STE/MAL, 1963URE/MAC]
		Note: Molecular formula given in paper is not consistent with chemical name				
$C_{11}H_{16}Si$	[na]	vinyldimethylbenzylsilane				
	$\Delta_{fus}H$		11.6	204.1		[1996DOM/HEA]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{11}H_{18}O_3SSi$	[53696-80-3]	trimethoxy[[(phenylmethyl)thio]methyl]silane				
	$\Delta_v H$		56.1 ± 0.7	298	C	[1989VOR/SOR]
$C_{11}H_{20}OSi$	[17962-20-8]	triallylethoxy silane				
	$\Delta_v H$	(349–473)	48.4	364	A	[1987STE/MAL]
$C_{11}H_{20}OSi_2$	[14920-92-4]	pentamethylphenyl disiloxane				
	$\Delta_v H$	(347–474)	53.3	362	A	[1987STE/MAL]
	$\Delta_v H$	(347–474)	44.4	410		[1974ENG/WOO]
$C_{11}H_{20}O_3Si_3$	[na]	1,1,3,3,5-pentamethyl-5-phenylcyclotrisiloxane				
	$\Delta_v H$	(396–503)	48.0	450		[1974DIT/SKO]
$C_{11}H_{24}O_3Si$	[13080-95-0]	vinyltripropoxysilane				
	$\Delta_v H$		52.3 ± 0.9	298	C	[1988VOR/BAR]
	$\Delta_v H$		52.3 ± 0.4	298	EB	[1985KLY/DAN]
$C_{11}H_{26}Si$	[994-63-8]	ethyltripropylsilane				
	$\Delta_v H$		41.0 ± 0.7	298	C	[1988VOR/BAR]
$C_{11}H_{26}Si$	[1001-48-5]	methyldipentylsilane				
	$\Delta_v H$		40.3 ± 0.7	298	C	[1988VOR/BAR]
$C_{11}H_{26}Si$	[na]	methyldi(2,2-dimethylpropyl)silane				
	$\Delta_v H$		38.1 ± 0.1	298	C	[1988VOR/BAR]
$C_{11}H_{27}NSi$	[133943-80-3]	1,1,1-triethyl-N-(1-methylbutyl)silanamine				
	$\Delta_v H$		46.9 ± 1.0	298	C	[1991VOR/KLY]
$C_{11}H_{28}O_4Si_4$	[35331-58-9]	8,8,10,10,12,12-hexamethyl-7,9,11,13-tetrasiloxa-6,8,10,12-tetrasilaspiro[5,7]tridecane				
	$\Delta_v H$	(393–504)	47.6	408	A	[1987STE/MAL]
	$\Delta_v H$	(393–504)	48.8	449		[1974DIT/SKO]
$C_{11}H_{28}O_4Si_4$	[na]	hexamethyl(silacyclohexyl)cyclotetrasiloxane				
	$\Delta_v H$	(403–504)	48.89	453		[1974DIT/SKO2]
$C_{12}H_9Cl_3Si$	[18030-62-1]	2-(trichlorosilyl)biphenyl				
	$\Delta_{trs}H$		0.06	289.5		
	$\Delta_{fus}H$		20.72	339.2		[1974GEI/DZH, 1996DOM/HEA]
	$\Delta_v H$	(461–552)	67.1	476	A	[1987STE/MAL]
$C_{12}H_9Cl_3Si$	[18030-61-0]	4-(trichlorosilyl)biphenyl				
	$\Delta_{fus}H$		18.57	372.9		[1996DOM/HEA, 1974GEI/DZH]
	$\Delta_v H$	(479–573)	75.7	494	A	[1987STE/MAL]
$C_{12}H_{10}Cl_2Si$	[80-10-4]	dichlorodiphenylsilane				
	$\Delta_v H$	(465–555)	62.5	480	A, I	[1987STE/MAL, 1954JEN/CHA]
	$\Delta_v H$		69.5 ± 4.2			[1966RIN/ONE, 1982PIL/SKI]
$C_{12}H_{10}F_2Si$	[312-40-3]	difluorodiphenylsilane				
	$\Delta_v H$	(392–516)	50.7	407	A	[1987STE/MAL]
$C_{12}H_{13}NSi$	[na]	(N,N-diphenylamino)silane				
	$\Delta_v H$	(425–495)	50.4	460	T	[1969AYL/HAK2]
$C_{12}H_{20}Cl_8O_4Si$	[na]	*tris*(2,2′-dichloroisopropyl) orthosilicate				
	$\Delta_v H$	(517–532)	U 172.7	524		[1946JON/THO]
$C_{12}H_{20}O_3Si$	[780-69-8]	triethoxyphenylsilane				
	$\Delta_v H$		58.3 ± 0.9	298	C	[1988VOR/BAR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(344–506)	61.8	359		[1947STU]
$C_{12}H_{20}Si$	[1112-66-9]	tetraallylsilane				
	$\Delta_{fus}H$		25.5	244		[2004SMI/LEB]
$C_{12}H_{28}O_4Si$	[682-01-9]	tetrapropoxysilane				
	$\Delta_v H$		49.8 ± 0.8	298	C	[1988VOR/BAR]
	$\Delta_v H$	(307–563)	66.9	322	A	[1987STE/MAL]
	$\Delta_v H$		49.8 ± 0.4	298	EB	[1985KLY/DAN]
$C_{12}H_{28}O_4Si$	[1992-48-9]	tetraisopropoxysilane				
	$\Delta_v H$	(327–438)	52.7	342		[1980THO/SMI]
$C_{12}H_{28}Si$	[994-66-1]	tetrapropylsilane				
	$\Delta_v H$		42.2 ± 0.7	298	C	[1988VOR/BAR]
$C_{12}H_{28}Si$	[998-41-4]	tributylsilane				
	$\Delta_v H$		42.9 ± 0.7	298	C	[1988VOR/BAR]
$C_{12}H_{28}Si$	[6485-81-0]	triisobutylsilane				
	$\Delta_v H$		40.0 ± 0.7	298	C	[1988VOR/BAR]
$C_{12}H_{28}Si$	[17591-43-4]	ethyldipentylsilane				
	$\Delta_v H$		41.2 ± 0.7	298	C	[1988VOR/BAR]
$C_{12}H_{28}Si$	[18159-61-0]	ethyldiisopentylsilane				
	$\Delta_v H$		42.6 ± 0.7	298	C	[1988VOR/BAR]
$C_{12}H_{30}HgSi_2$	[4149-29-5]	*bis*(triethylsilyl)mercury				
	$\Delta_v H$	(383–433)	64.0	398		[1972BRA/KAR]
$2(C_6H_{15}N_3)-Cl_4Si$	[na]	*bis*-1,3,5-trimethyl-1,3,5-triazacyclohexane- tetrachlorosilane complex				
	$\Delta_{sub}H$	(298–354)	76.1 ± 4.6			[1984GOL/LEV]
$C_{12}H_{30}O_3Si_3$	[2031-79-0]	hexaethyl cyclotrisiloxane				
	$\Delta_{trs}H$		0.46	160		
	$\Delta_{trs}H$		11.82	242.3		
	$\Delta_{fus}H$		11.42	280.2		[1990DOM/HEA]
	$\Delta_v H$	(385–524)	57.9	400	A	[1987STE/MAL]
	$\Delta_v H$	(434–516)	58.7	449	A	[1987STE/MAL, 1954JEN/CHA]
$C_{12}H_{31}N_3Si$	[15730-66-2]	N,N,N′,N′,N″,N′-hexamethylsilanetriamine				
	$\Delta_v H$		58.4 ± 1.0	298	C	[1991VOR/KLY]
$C_{12}H_{36}O_4Si_5$	[141-63-9]	dodecamethyl pentasiloxane				
	$\Delta_v H$	(395–515)	55.4	410	EB	[1986FLA]
	$\Delta_v H$	(389–498)	50.3	404	A	[1987STE/MAL, 1971SKO/DIT]
	$\Delta_v H$		53.1 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
$C_{12}H_{36}O_4Si_5$	[3555-47-3]	*tetrakis*(trimethylsiloxy)silane				
	$\Delta_v H$	(398–494)	52.3	413	EB	[1986FLA]
$C_{12}H_{36}O_6Si_6$	[540-97-6]	dodecamethyl cyclohexasiloxane				
	$\Delta_{fus}H$		28.58	269		[1971ALV/DAL]
	$\Delta_v H$	(411–531)	56.1	426	EB	[1986FLA]
	$\Delta_v H$	(340–509)	62.6	355	A	[1987STE/MAL, 1971DIT/SKO]
$C_{12}H_{36}Si_5$	[4098-98-0]	*tetrakis*(trimethylsilyl)silane				
	$\Delta_{trs}H$	(203–298)	42	243.7	DSC	[2001SON/HUA]
	$\Delta_{trs}H$		11.57	241.2	DTA	[1971MUR/BRE]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
		Note: Compound sublimed, fusion values not reported.				
	$\Delta_{sub}H$		83.7 ± 20.9	298		[1982PIL/SKI, 1972PED/ISE]
$C_{12}H_{36}Si_6$	[4098-30-0]	dodecamethylcyclohexasilane				
	$\Delta_{trs}H$		16.7	352.4		
	$\Delta_{fus}H$		4.2	528.8		[1986CAO/WES]
$C_{13}H_{14}Si$	[776-76-1]	methyldiphenylsilane				
	Δ_vH		64.6 ± 0.8	298	C	[1988VOR/BAR]
$C_{13}H_{19}NO_4Si$	[63071-93-2]	1-(2-phenoxylmethyl)-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		108 ± 0.8			[1989VOR/BAR]
$C_{13}H_{26}O_2Si_3$	[546-44-1]	1,1,1,3,5,5,5-heptamethyl-3-phenyl trisiloxane				
	$\Delta_{fus}H$		18.29	226.8		[1996DOM/HEA]
	Δ_vH	(357–492)	61.5	372	A	[1987STE/MAL]
$C_{13}H_{26}O_4Si_4$	[10448-09-6]	2,4,4,6,6,8,8-heptamethyl-2-phenylcyclotetrasiloxane				
	Δ_vH	(397–514)	65.6	412	A	[1987STE/MAL]
$C_{13}H_{30}O_3SSi$	[57557-75-2]	[3-(butylthio)propyl]triethoxysilane				
	Δ_vH		47.1 ± 0.6	298	C	[1989VOR/SOR]
$C_{13}H_{30}Si$	[18414-75-0]	decyltrimethylsilane				
	Δ_vH	(340–513)	57.8	355		[1947STU]
$C_{13}H_{30}Si$	[1001-46-3]	methyldihexylsilane				
	Δ_vH		42.6 ± 0.7	298	C	[1988VOR/BAR]
$C_{14}H_6F_{10}Si$	[10536-62-6]	di(pentafluorophenyl)dimethylsilane				
	Δ_vH	(366–463)	55.3 ± 0.6	414		[2006ZEL/CHU]
$C_{14}H_{16}O_2Si$	[6843-66-9]	diphenoxydimethylsilane				
	Δ_vH		64.4 ± 0.9	298	C	[1988VOR/BAR]
$C_{14}H_{16}Si$	[7535-07-1]	ethyldiphenylsilane				
	Δ_vH		66.1 ± 0.8	298	C	[1988VOR/BAR]
$C_{14}H_{19}NO_5Si$	[79791-55-2]	2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane-1-methanol benzoate ester				
	$\Delta_{sub}H$		109 ± 0.9			[1989VOR/BAR]
$C_{14}H_{21}NO_3Si$	[63330-92-7]	1-(2-phenylethyl)-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	$\Delta_{sub}H$		108 ± 0.9			[1989VOR/BAR]
$C_{14}H_{32}Si$	[10175-53-8]	triethyloctylsilane				
	Δ_vH	(347–535)	56.1	361		[1947STU]
$C_{14}H_{32}Si$	[17591-45-6]	ethyldihexylsilane				
	Δ_vH		44.8 ± 0.7	298	C	[1988VOR/BAR]
$C_{14}H_{32}Si$	[994-76-3]	dipropyldibutylsilane				
	Δ_vH		44.0 ± 0.8	298	C	[1988VOR/BAR]
$C_{14}H_{33}NSi$	[17995-32-3]	N,N-dibutyl-1,1,1-triethylsilanamine				
	Δ_vH		56.3 ± 1.0	298	C	[1991VOR/KLY]
$C_{14}H_{33}NSi$	[133943-79-0]	1,1,1-triethyl-N,N-*bis*(1-methylpropyl)silanamine				
	Δ_vH		51.4 ± 0.9	298	C	[1991VOR/KLY]
$C_{14}H_{33}NSi$	[133943-81-4]	1,1,1-triethyl-N-octylsilanamine				
	Δ_vH		59.1 ± 1.0	298	C	[1991VOR/KLY]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{14}H_{42}O_2Si_6$	[1787-37-7]	*bis*[(pentamethyl)disilanoxy]disilane				
	Δ_vH	(442–474)	62.2	457		[1962CRA/URE]
$C_{14}H_{42}O_5Si_6$	[107-52-8]	tetradecamethyl cycloheptasiloxane				
	Δ_vH	(449–545)	56.9	464	EB	[1986FLA]
	Δ_vH	(397–522)	56.6	412	A	[1987STE/MAL, 1971SKO/DIT]
$C_{14}H_{42}O_7Si_7$	[107-50-6]	tetradecamethyl cycloheptasiloxane				
	$\Delta_{fus}H$		20.88	237.7		[1971ALV/DAL]
	Δ_vH	(359–537)	58.6	374	A	[1987STE/MAL]
	Δ_vH	(431–548)	60.6	446	EB	[1986FLA]
$C_{15}H_{18}OSi$	[1825-59-8]	methyldiphenylethoxysilane				
	Δ_vH	(373–512)	72.9			[2008WU/JIA]
$C_{15}H_{21}NO_5Si$	[100446-65-9]	4-methylbenzoic acid 2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undec-1-ylmethyl ester				
	$\Delta_{sub}H$		123 ± 0.9			[1989VOR/BAR]
$C_{15}H_{21}NO_6Si$	[94697-86-6]	4-methoxybenzoic acid 2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undec-1-ylmethyl ester				
	$\Delta_{sub}H$		143 ± 0.9			[1989VOR/BAR]
$C_{15}H_{34}Si$	[994-78-5]	propyltributylsilane				
	Δ_vH		45.0 ± 0.8	298	C	[1988VOR/BAR]
$C_{15}H_{34}Si$	[6485-78-5]	tripentylsilane				
	Δ_vH		48.1 ± 0.8	298	C	[1988VOR/BAR]
$C_{15}H_{34}Si$	[17922-08-6]	triisopentylsilane				
	Δ_vH		43.8 ± 0.7	298	C	[1988VOR/BAR]
$C_{15}H_{34}Si$	[17908-09-7]	dodecyltrimethylsilane				
	Δ_vH	(364–546)	62.0	379		[1947STU]
$C_{16}H_{12}Si$	[1675-57-6]	diphenyldiethynylsilane				
	$\Delta_{fus}H$		19.67	316.2		[1996DOM/HEA]
$C_{16}H_{20}O_2Si$	[17964-48-6]	*bis*(2-methylphenoxy)dimethylsilane				
	Δ_vH		63.6 ± 0.8	298	C	[1988VOR/BAR]
$C_{16}H_{20}O_2Si$	[17964-47-5]	*bis*(3-methylphenoxy)dimethylsilane				
	Δ_vH		61.5 ± 0.8	298	C	[1988VOR/BAR]
$C_{16}H_{20}O_2Si$	[17964-49-7]	*bis*(4-methylphenoxy)dimethylsilane				
	Δ_vH		65.3 ± 0.9	298	C	[1988VOR/BAR]
$C_{16}H_{20}O_2Si$	[2553-19-7]	diethoxydiphenylsilane				
	Δ_vH	(385–569)	71.5	399		[1947STU]
$C_{16}H_{22}O_3Si_3$	[1693-51-2]	1,1,3,3-tetramethyl-5,5-diphenylcyclotrisiloxane				
	$\Delta_{fus}H$		22.19	338		[1996DOM/HEA]
	Δ_vH	(439–523)	66.9	481		[1974DIT/SKO]
$C_{16}H_{22}O_3Si_3$	[31751-60-7]	*cis* 1,1,3,5-tetramethyl-3,5-diphenylcyclotrisiloxane				
	Δ_vH	(423–541)	66	532		[1972DIT/SKO2]
$C_{16}H_{22}O_3Si_3$	[31751-59-4]	*trans* 1,1,3,5-tetramethyl-3,5-diphenylcyclotrisiloxane				
	Δ_vH	(397–535)	66.4	466		[1972DIT/SKO2]
$C_{16}H_{32}O_4Si_4$	[177-49-1]	6,12,18,24-tetraoxa-5,7,13,19-tetrasilatetraspiro[4,1,4,1,4,1,4,1]tetracosane				
	Δ_vH	(452–583)	67.6	467	A	[1987STE/MAL]
	Δ_vH	(452–583)	69.5	518		[1974DIT/SKO2]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{16}H_{32}O_4Si_4$	[na]	tetra(silacyclopentyl)cyclotetrasiloxane				
	Δ_vH	(452–583)	69.5	517		[1974DIT/SKO2]
$C_{16}H_{36}O_3Si_2$	[349140-64-3]	11-(1,1,3,3-tetramethyldisiloxanyl)undecanoic acid, methyl ester				
	$\Delta_{fus}H$		23.5	233.3		[2004RYA/LEB]
$C_{16}H_{36}O_4Si$	[4766-57-8]	tetrabutoxysilane				
	Δ_vH		52.0 ± 1.0	298	C	[1988VOR/BAR]
	Δ_vH	(333–479)	79.6	348	A	[1987STE/MAL]
$C_{16}H_{40}O_4Si_4$	[1451-99-6]	octaethyl cyclotetrasiloxane				
	$\Delta_{trs}H$		12.22	208.2		
	$\Delta_{fus}H$		13.71	213.4		[1990DOM/HEA]
	Δ_vH	(420–574)	69.2	435	A	[1987STE/MAL]
$C_{16}H_{46}O_7Si_6$	[18143-15-2]	1,11-diethoxy-1,1,3,3,5,7,7,9,9,11,11-dodecamethylhexasiloxane				
	Δ_vH	(376–547)	66.9	391	A	[1987STE/MAL]
$C_{16}H_{48}O_6Si_7$	[541-01-5]	hexadecamethylheptasiloxane				
	Δ_vH	(443–468)	63.8	459	EB	[1986FLA]
	Δ_vH	(443–551)	60.8	458	A	[1987STE/MAL, 1971SKO/DIT]
$C_{16}H_{48}O_8Si_8$	[556-68-3]	hexadecamethyl cyclooctasiloxane				
	Δ_vH	(378–563)	66.6	391	A	[1987STE/MAL]
	Δ_vH	(454–576)	64.5	469	EB	[1986FLA]
$C_{17}H_{26}O_4Si_4$	[13093-12-4]	hexamethyl(silaacenaphthenyl)cyclotetrasiloxane				
	Δ_vH	(466–548)	68.6	507		[1974DIT/SKO2]
$C_{17}H_{32}O_2Si$	[na]	3-methyl-3-[2-cyclohexylpropylperoxy]-1-trimethylsilyl-1-butyne				
	Δ_vH	(307–318)	74.2 ± 2.0		ME	[1999DIB/LUS]
$C_{17}H_{38}Si$	[18558-18-4]	tetradecyltrimethylsilane				
	Δ_vH	(393–573)	70.9	408		[1947STU]
$C_{18}H_{15}ClSi$	[76-86-8]	triphenylchlorosilane				
	$\Delta_{fus}H$		26.88	370.6		[1996DOM/HEA]
$C_{18}H_{28}O_2Si_3$	[797-77-3]	1,1,1,5,5,5-hexamethyl-3,3-diphenyltrisiloxane				
	$\Delta_{fus}H$		22.75	270.5		[1996DOM/HEA]
$C_{18}H_{28}O_4Si_4$	[18604-02-9]	2,2,4,4,6,8-hexamethyl-6,8-diphenylcyclotetrasiloxane				
	Δ_vH	(459–576)	70.5	474	A	[1987STE/MAL]
$C_{18}H_{28}O_4Si_4$	[1693-44-3]	1,1,3,3,5,5-hexamethyl-7,7-diphenylcyclotetrasiloxane				
	$\Delta_{fus}H$		42.73	305		[1996DOM/HEA]
$C_{18}H_{40}Si$	[2929-52-4]	trihexylsilane				
	Δ_vH		51.0 ± 0.7	298	C	[1988VOR/BAR]
$C_{18}H_{40}Si$	[51502-64-8]	ethyldioctylsilane				
	Δ_vH		47.3 ± 0.7	298	C	[1988VOR/BAR]
$C_{18}H_{48}Si_6$	[76750-22-6]	1,2,3,4,5,6-hexamethyl-1,2,3,4,5,6-hexaethylcyclohexasilane				
	$\Delta_{trs}H$		3.8	226.3		
	$\Delta_{fus}H$		1.8	439.2		[1986CAO/WES]
$C_{18}H_{54}O_7Si_8$	[556-69-4]	octadecamethyl octasiloxane				
	Δ_vH	(378–563)	67.7	393	A	[1987STE/MAL]
	Δ_vH	(464–586)	68.4	479	EB	[1986FLA]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{18}H_{54}O_9Si_9$	[556-71-8]	octadecamethyl cyclononasiloxane				
	$\Delta_{fus}H$		25.64	246.2		[1971ALV/DAL]
	Δ_vH	(463–584)	67.9	478	A	[1987STE/MAL]
	Δ_vH	(473–578)	68	488	EB	[1986FLA]
$C_{19}H_{18}O_3Si$	[3439-97-2]	methyltriphenoxysilane				
	Δ_vH		71.5 ± 0.9	298	C	[1988VOR/BAR]
$C_{20}H_{20}OSi$	[1516-80-9]	ethoxytriphenylsilane				
	$\Delta_{sub}H$		142.7 ± 1.0			[1988VOR/BAR]
	Δ_vH	(440–617)	89.7	455		[1947STU]
$C_{20}H_{21}ClOSi_2$	[53634-34-7]	1,3-dimethyl-1,1,3-triphenyl-3-chlorodisiloxane				
	Δ_vH	(468–626)	69.0	547		[1974DIT/SKO]
$C_{20}H_{30}O_3Si_3$	[108543-32-4]	1,1,3,3-tetraethyl-5,5-diphenylcyclotrisiloxane				
	$\Delta_{fus}H$		18.37	279.1		[1996DOM/HEA]
$C_{20}H_{44}O_4Si$	[na]	*tetrakis*(1-ethylpropoxy)silane				
	Δ_vH	(371–427)	89.2	386	A	[1987STE/MAL]
$C_{20}H_{50}Si_5$	[75217-22-0]	decaethylcyclopentasilane				
	$\Delta_{trs}H$		16.3	254.8		
	$\Delta_{fus}H$		1.4	440.1		[1986CAO/WES]
$C_{20}H_{58}O_9Si_8$	[18724-16-6]	1,15-diethoxy-1,1,3,3,5,5,7,7,9,9,1,1,13,13,15,15-hexadecamethyloctasiloxane				
	Δ_vH	(406–585)	79.7	421	A	[1987STE/MAL]
$C_{20}H_{60}O_8Si_9$	[2652-13-3]	eicosamethylnonasiloxane				
	Δ_vH	(417–581)	85.9	432	A	[1987STE/MAL]
$C_{20}H_{60}O_{10}Si_{10}$	[18772-36-6]	eicosamethylcyclodecasiloxane				
	$\Delta_{fus}H$		39.76	265.8		[1971ALV/DAL]
	Δ_vH	(480–603)	71.3	495	A	[1987STE/MAL]
$C_{21}H_{22}Si$	[1747-92-8]	tribenzylsilane				
	Δ_vH	(460–637)	81.9	475	A	[1987STE/MAL]
$C_{21}H_{24}OSi_2$	[14920-93-5]	1,1,3-trimethyl-1,3,3-triphenyl disiloxane				
	Δ_vH	(494–624)	80	509	A	[1987STE/MAL]
	Δ_vH	(495–624)	64.4	560		[1974DIT/SKO]
$C_{21}H_{24}O_3Si_3$	[6138-53-0]	*trans* 1,3,5-trimethyl-1,3,5-triphenylcyclotrisiloxane				
	$\Delta_{fus}H$		43.66	320.9		[1996DOM/HEA, 1975MEK/KAR2]
	Δ_vH	(483–586)	76.1	534		[1972DIT/SKO]
$C_{21}H_{24}O_3Si_3$	[3424-57-5]	*cis* 1,3,5-trimethyl-1,3,5-triphenylcyclotrisiloxane				
	$\Delta_{fus}H$		43.07	374.3		[1996DOM/HEA, 1975MEK/KAR2]
	Δ_vH	(473–551)	80.6	512		[1972DIT/SKO]
$C_{21}H_{46}Si$	[18753-02-1]	triheptylsilane				
	Δ_vH		57.4 ± 0.8	298	C	[1988VOR/BAR]
$C_{21}H_{46}Si$	[51502-65-9]	methyldidecylsilane				
	Δ_vH		57.4 ± 0.8	298	C	[1988VOR/BAR]
$C_{22}H_{24}O_3Si$	[55893-94-2]	methyl*tris*(2-methylphenoxy)silane				
	Δ_vH		68.2 ± 0.9	298	C	[1988VOR/BAR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{22}H_{24}O_3Si$	[55893-95-3]	methyl*tris*(3-methylphenoxy)silane				
	$\Delta_v H$		66.9 ± 0.8	298	C	[1988VOR/BAR]
$C_{22}H_{24}O_3Si$	[55893-96-4]	methyl*tris*(4-methylphenoxy)silane				
	$\Delta_v H$		70.3 ± 0.9	298	C	[1988VOR/BAR]
$C_{22}H_{40}O_4Si$	[na]	dimethyldi-[3-methyl-3-*tert*-amylperoxy-1-butinyl]silane				
	$\Delta_v H$	(318–338)	92.0 ± 1.6		ME	[1999DIB/LUS]
$C_{22}H_{48}Si$	[51502-66-0]	ethyldidecylsilane				
	$\Delta_v H$		58.7 ± 0.8	298	C	[1988VOR/BAR]
$C_{22}H_{66}O_{11}Si_{11}$	[18766-38-6]	docosamethyl cycloundecasiloxane				
	$\Delta_{fus}H$		17.73	216.2		[1971ALV/DAL]
	$\Delta_v H$	(496–620)	74.5	511	A	[1987STE/MAL]
$C_{23}H_{30}O_3Si_3$	[67102-99-2]	1,1,1,3,5-pentamethyl-3,5,5-triphenyltrisiloxane				
	$\Delta_v H$	(521–678)	69.8	536	A	[1987STE/MAL]
$C_{24}F_{20}Si$	[1524-78-3]	tetra(pentafluorophenyl)silane				
	$\Delta_{fus}H$		46.9	518		[2006ZEL/CHU]
	$\Delta_{sub}H$	(433–517)	128 ± 1.2	475		[2006ZEL/CHU]
	$\Delta_v H$	(463–565)	80.6 ± 0.4	514		[2006ZEL/CHU]
$C_{24}H_{20}O_4Si$	[1174-72-7]	tetraphenoxysilane				
	$\Delta_{sub}H$		124.7 ± 1.2			[1988VOR/BAR]
$C_{24}H_{20}Si$	[1048-08-4]	tetraphenylsilane				
	$\Delta_{sub}H$	(428–484)	51.2	456	A	[1987STE/MAL]
	$\Delta_{sub}H$		156.9 ± 1.7	298		[1978STE4]
	$\Delta_{sub}H$		149.4 ± 1.7	298	ME,TE	[1974CAL/KAN]
	$\Delta_{sub}H$	(428–489)	51.0		MG	[1973MCC/SMI]
	$\Delta_{sub}H$		51.0			[1972NEW, 1986MAR/LOE]
$C_{24}H_{22}N_2Si$	[22519-45-5]	N,N,N′N′-tetraphenyl silane diamine				
	$\Delta_v H$	(410–473)	59.1	425	A	[1987STE/MAL]
	$\Delta_v H$	(410–473)	57.3	441	T	[1969AYL/HAK2]
$C_{24}H_{52}O_4Si$	[7425-86-7]	tetrahexyloxysilane				
	$\Delta_v H$	(454–573)	87.0	469	A	[1987STE/MAL]
$C_{24}H_{52}Si$	[18765-09-8]	trioctylsilane				
	$\Delta_v H$		59.8 ± 0.8	298	C	[1988VOR/BAR]
$C_{24}H_{72}O_{12}Si_{12}$	[18919-94-3]	tetracosamethyl cyclododecasiloxane				
	$\Delta_{fus}H$		15.45	234.2		[1971ALV/DAL]
	$\Delta_v H$	(508–636)	76.6	523	A	[1987STE/MAL]
$C_{25}H_{40}O_2Si_2$	[na]	norethindrone pentamethyldisiloxy ether				
	$\Delta_{fus}H$		22.9	355		[1996DOM/HEA]
$C_{26}H_{26}OSi_2$	[807-28-3]	1,3-dimethyl-1,1,3,3-tetraphenyldisiloxane				
	$\Delta_{fus}H$		26.58	322		[1996DOM/HEA]
	$\Delta_v H$	(518–616)	93.3	533	A	[1987STE/MAL]
	$\Delta_v H$	(518–685)	64.4	602		[1974DIT/SKO]
$C_{26}H_{26}O_3Si_3$	[1438-86-4]	1,1-dimethyl-3,3,5,5-tetraphenylcyclotrisiloxane				
	$\Delta_{fus}H$		28.2	361.1		[1996DOM/HEA]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{27}H_{30}O_2Si$	[na]	3-methyl-3-*tert*-butylperoxy-1-triphenylsilyl-1-butyne				
	$\Delta_v H$	(378–398)	115.9 ± 3.2		ME	[1999DIB/LUS]
$C_{27}H_{58}Si$	[51502-67-1]	trinonylsilane				
	$\Delta_v H$		61.8 ± 0.8	298	C	[1988VOR/BAR]
$C_{28}H_{28}O_4Si$	[16714-40-2]	*tetrakis*(2-methylphenoxy)silane				
	$\Delta_v H$		76.2 ± 1.0	298	C	[1988VOR/BAR]
$C_{28}H_{28}O_4Si$	[16714-54-8]	*tetrakis*(3-methylphenoxy)silane				
	$\Delta_v H$		73.6 ± 0.9	298	C	[1988VOR/BAR]
$C_{28}H_{28}O_4Si$	[16714-41-3]	*tetrakis*(4-methylphenoxy)silane				
	$\Delta_v H$		97.1 ± 1.0	298	C	[1988VOR/BAR]
$C_{28}H_{32}O_2Si$	[na]	3-methyl-3-*tert*-amylperoxy-1-triphenylsilyl-1-butyne				
	$\Delta_v H$	(378–393)	120.3 ± 5.8		ME	[1999DIB/LUS]
$C_{28}H_{32}O_2Si_3$	[67103-00-8]	1,1,1,3-tetramethyl-3,5,5,5-tetraphenyltrisiloxane				
	$\Delta_v H$	(549–678)	82.6	564	A	[1987STE/MAL]
$C_{28}H_{32}O_2Si_3$	[67142-05-6]	1,1,3,5-tetramethyl-1,3,5,5-tetraphenyltrisiloxane				
	$\Delta_v H$	(566–666)	90.9	581	A	[1987STE/MAL]
$C_{28}H_{32}O_2Si_3$	[3982-82-9]	1,3,3,5-tetramethyl-1,1,5,5-tetraphenyltrisiloxane				
	$\Delta_v H$	(544–686)	88.3	559	A	[1987STE/MAL]
$C_{28}H_{32}O_4Si_4$	[1693-47-6]	1,1,3,3-tetramethyl-5,5,7,7-tetraphenylcyclotetrasiloxane				
	$\Delta_{trs}H$		0.24	186.5		
	$\Delta_{trs}H$		1.05	271.5		
	$\Delta_{fus}H$		27.05	346.2	AC	[1996DOM/HEA, 1976KUL/DZH]
$C_{28}H_{32}O_4Si_4$	[77-63-4]	1,1,5′,7′-tetramethyl-1′,3′,5,7-tetraphenylcyclotetrasiloxane				
	$\Delta_{fus}H$		24.62	373.4	AC	[1996DOM/HEA]
$C_{29}H_{34}O_2Si$	[261766-67-0]	3-methyl-3-*tert*-hexylperoxy-1-triphenylsilyl-1-butyne				
	$\Delta_v H$	(383–398)	126.3 ± 3.0		ME	[1999DIB/LUS]
$C_{29}H_{44}O_6Si_2$	[179108-75-9]	4-[[1-oxo-11-(1,1,3,3-tetramethyldisiloxanyl)undecyl]oxy]benzoic acid, 4-methoxyphenyl ester				
	$\Delta_{trs}H$		20.1	322		
	$\Delta_{fus}H$		5.4	331		[2004RYA/LEB]
$C_{29}H_{44}O_6Si_2$	[349149-95-7]	4-methoxybenzoic acid, 4-[[1-oxo-11-(1,1,3,3-tetramethyldisioxanyl)undecyl]oxy]phenyl ester				
	$\Delta_{trs}H$		24.3	324		
	$\Delta_{fus}H$		4.7	334		[2004RYA/LEB]
$C_{30}H_{40}F_{30}O_3Si_4$	[na]	1,1,1,3,5,5,5-hepta(γ-trifluoropropyl)-3-*tris*(γ-trifluoropropyl)siloxytrisiloxane				
	$\Delta_v H$	(502–652)	64.3	671		[1974DIT/SKO3]
$C_{30}H_{64}Si$	[18765-73-6]	*tris*(decyl)silane				
	$\Delta_v H$		65.3 ± 0.8	298	C	[1988VOR/BAR]
$C_{32}H_{16}Cl_2N_8Si$	[19333-10-9]	silicon phthalocyanine dichloride				
	$\Delta_{sub}H$		151.3			[1972MAR/LOP]
$C_{32}H_{70}Si_{10}$	[206868-23-7]	1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-eicosamethyl-1,10-diphenyldecasilane				
	$\Delta_{fus}H$		56.1	391.2		[2001YAT/MIN]
$C_{33}H_{34}O_2Si_3$	[67103-01-9]	1,1,3-trimethyl-1,3,5,5,5-pentaphenyltrisiloxane				
	$\Delta_v H$	(603–711)	91.3	618	A	[1987STE/MAL]
$C_{33}H_{34}O_2Si_3$	[3390-61-2]	1,3,5-trimethyl-1,1,3,5,5-pentaphenyltrisiloxane				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(575–625)	87.3	590	A	[1987STE/MAL]
$C_{33}H_{34}O_4Si_4$	[32395-60-1]	1,3,5-trimethyl-1,3,5,7,7-pentaphenylcyclotetrasiloxane				
	$\Delta_v H$	(523–676)	86.9	600		[1974DIT/SKO]
$C_{34}H_{76}Si_{11}$	[386719-88-6]	1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11-docosamethyl-1,11-diphenylundecasilane				
	$\Delta_{fus}H$		57.8	398.2		[2001YAT/MIN]
$C_{36}H_{30}Si_2$	[1450-23-3]	hexaphenyldisilane				
	$\Delta_{sub}H$		209.2 ± 2.1	298	ME,TE	[1974CAL/KAN]
$C_{36}H_{30}Si_3O_3$	[512-63-0]	hexaphenylcyclotrisiloxane				
	$\Delta_{trs}H$		1.13	455		
	$\Delta_{fus}H$		39.3	466		[2000LEB/SMI]
$C_{48}H_{40}Si_4O_4$	[546-56-5]	octaphenylcyclotetrasiloxane				
	$\Delta_{trs}H$		44.8	459.2		
	$\Delta_{fus}H$		1.26	473.2	DSC	[2001MAT/SHC]
	$\Delta_{trs}H$		2.22	348		
	$\Delta_{trs}H$		46.4	463		
	$\Delta_{fus}H$		1.13	475		[2000LEB/SMI]
	$\Delta_{trs}H$		2.9	349.8		
	$\Delta_{trs}H$		43.8	462.8		
	$\Delta_{fus}H$		1.95	478.1		[1979SMI]
Br_3HSi	[7789-57-3]	tribromosilane				
	$\Delta_v H$	(273–393)	34.8	333		[1934SCH/BIC]
Cl_2H_2Si	[4109-96-0]	dichlorosilane				
	$\Delta_v H$	(290–350)	22.2 ± 0.7			[1986VOR/BAL]
Cl_3HSi	[10025-78-2]	trichlorosilane				
	$\Delta_v H$	(303–325)	24.9	314		[1967LAP/NIS]
	$\Delta_v H$	(275–305)	27.2	290	I	[1954JEN/CHA]
Cl_4Si	[10026-04-7]	silicon tetrachloride				
	$\Delta_{fus}H$		7.72	204.7		[1985DEV/GUE]
	$\Delta_{sub}H$	(175–204)	43.3 ± 0.1		MG	[1964BAL/DON]
	$\Delta_v H$	(298–313)	29.9	305		[1973JAI/YAD]
	$\Delta_v H$	(273–326)	30.4	288		[1964CAP/FRI]
	$\Delta_v H$	(275–330)	30.2	290	I	[1954JEN/CHA]
	$\Delta_v H$	(273–333)	30.1	303		[1936KEA]
FH_3Si	[13537-33-2]	fluorosilane				
	$\Delta_v H$	(145–167)	18.5	156		[1944EME/MAD]
FH_5Si_2	[14537-73-6]	disilanyl fluoride				
	$\Delta_v H$	(178–227)	26.3	202	T	[1963ABE/MAC]
F_2H_2Si	[13824-36-7]	difluorosilane				
	$\Delta_v H$	(151–167)	19.9	159		[1944EME/MAD]
F_2H_4NPSi	[36875-96-4]	silylaminodifluorophosphine				
	$\Delta_v H$	(200–273)	34.3	236		[1972ARN/EBS]
F_3ISi	[16865-60-4]	trifluoroiodosilane				
	$\Delta_v H$	(139–227)	21.3	183		[1973AYL/ELL2]
F_3HSi	[13465-71-9]	trifluorosilane				
	$\Delta_v H$	(156–168)	20.1	162		[1944EME/MAD]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$F_3H_3Si_2$	[15195-26-3]	1,1,1-trifluorodisilane				
	$\Delta_{sub}H$	(195–209)	39.2	202		[1972SOL/BUR]
F_4Si	[7783-61-1]	silicon tetrafluoride				
	$\Delta_{sub}H$	(148–183)	25.8			[1930PAT/PAP]
H_5ClSi_2	[14565-98-1]	disilanyl chloride				
	Δ_vH	(227–273)	29.3			[1962CRA/URE]
H_5ISi_2	[14380-76-8]	disilanyl iodide				
	Δ_vH	(274–363)	33.9	318		[1960WAR/MAC]
H_7NSi_2	[5702-11-4]	disilazane				
	Δ_vH	(177–250)	23.4	213	SG	[1969AYL/HAK3]
H_9PSi_3	[15110-33-5]	trisilylphosphine				
	Δ_vH	(243–284)	36.4	263		[1962AMB/BOE2]
H_9SbSi_3	[14798-31-3]	trisilylstibine				
	Δ_vH		32.0			[1963AMB/BOE]
$H_{10}Si_4$	[7783-29-1]	tetrasilane				
	Δ_vH	(273–369)	35.6		T	[1946EME/MAD]
$H_{10}OSi_4$	[14809-36-0]	*bis*(disilanyl) ether				
	Δ_vH	(273–363)	36.4	318		[1960WAR/MAC]
Sm (samarium)						
$C_{15}H_{15}Sm$	[1298-55-1]	*tris*(cyclopendienyl)samarium(III)				
	$\Delta_{sub}H$	(513–633)	109.6 ± 1.7			[1973BOR/KRA]
$C_{15}H_{21}O_6Sm$	[14589-42-5]	*tris*(2,4-pentanedionato)samariumIII)				
	$\Delta_{sub}H$	(293–413)	U 20 ± 2			[1985SER/ZAG]
$C_{30}H_{30}F_{21}O_6Sm$	[17631-69-5]	*tris*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)samarium(III)				
	$\Delta_{sub}H$	(379–394)	158.6 ± 1.7		ME	[1971SWA/KAR]
$C_{33}H_{57}O_6Sm$	[15492-50-9]	*tris*(2,2,6,6-tetramethylheptan-3,5-dionato)samarium(III)				
	$\Delta_{sub}H$		149.7 ± 3.3	298	DSC	[1999SAN/PET]
	$\Delta_{sub}H$	(378–418)	180.7	398	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(430–468)	150.6	447	BG	[1969SIC/DUB]
	Δ_vH	(468–500)	93.0		BG	[1969SIC/DUB]
SmI_2	[32248-43-4]	samarium diiodide				
	Δ_vH	(1008–1155)	255.9 ± 5.3	1082		[1974HIR/CAS]
Sn (tin)						
C_3H_9BrSn	[1066-44-0]	trimethyltin bromide				
	Δ_vH		47.3 ± 4.2			[1957PED/SKI, 1982PIL/SKI]
C_3H_9ISn	[811-73-4]	trimethyltin iodide				
	Δ_vH		48.1 ± 4.2			[1957PED/SKI, 1982PIL/SKI]
$C_4H_9F_3Sn$	[754-25-6]	(trifluoromethyl)trimethyltin				
	Δ_vH	(276–323)	37.5	300	T	[1960KAE/PHI]
$C_4H_{12}S_4Sn$	[210298-57-0]	tetra(methylthia)tin				
	$\Delta_{fus}H$		24.1	307.5	DSC	[1998FUE/STR]
$C_4H_{12}Sn$	[594-27-4]	tetramethyltin				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		9.23	218.2	DSC	[1989SHE/RAB, 1974UTS/BAC]
	Δ_vH	(273–350)	32.6 ± 0.2	311		[2001BAE]
	Δ_vH	(313–393)	31.3		GC	[1992HAW]
	Δ_vH		31.1 ± 0.1	298	C	[1980ABR/IRV]
	Δ_vH		32.8 ± 0.1	298		[1970VAL]
	Δ_vH		33.1 ± 1.3			[1963DAV/POP, 1982PIL/SKI]
	Δ_vH		30.5	298		[1936THO/LIN]
	Δ_vH	(273–308)	33.4	290	I	[1930BUL/HAU]
	Δ_vH	(308–355)	31.6	331	I	[1930BUL/HAU]
	Δ_vH		33.1	298	I	[1930BUL/HAU]
	Δ_vH	(298–308)	31.6	303		[1929TAN/NAG]
$C_5H_9F_5Sn$	[812-35-1]	(pentafluoroethyl)trimethyltin				
	Δ_vH	(295–329)	35.6	312	T	[1960KAE/PHI]
$C_5H_{12}Sn$	[754-06-3]	trimethylvinyltin				
	Δ_vH		37.2 ± 2.1			[1959PED/SKI, 1982PIL/SKI]
$C_5H_{14}Sn$	[3531-44-0]	ethyl trimethyltin				
	Δ_vH		37.7 ± 1.7			[1963DAV/POP, 1982PIL/SKI]
	Δ_vH	(243–381)	38.4	258		[1947STU]
	Δ_vH	(273–336)	37.0	304	I	[1930BUL/HAU]
	Δ_vH	(336–384)	34.9	360	I	[1930BUL/HAU]
$C_6H_{16}Sn$	[3531-45-1]	trimethylpropyltin				
	Δ_vH	(261–405)	43.8	276		[1947STU]
	Δ_vH	(286–328)	41.4	307	I	[1930BUL/HAU]
	Δ_vH	(328–405)	38.0	366	I	[1930BUL/HAU]
$C_6H_{16}Sn$	[3531-46-2]	trimethylisopropyltin				
	Δ_vH		40.6 ± 2.1			[1966COL/SKI, 1982PIL/SKI]
$C_6H_{18}Sn_2$	[661-69-8]	hexamethyldistannane				
	Δ_vH		50.2 ± 4.2			[1957PED/SKI, 1982PIL/SKI]
$C_7H_{18}OSn$	[1067-21-6]	triethylmethoxystannane				
	Δ_vH	(312–435)	49.9	273	MM	[2001BAE2]
	Δ_vH	(312–435)	48.7	298	MM	[2001BAE2]
$C_7H_{18}Sn$	[3531-47-3]	*tert*-butyltrimethyltin				
	Δ_vH		54.0 ± 4.2			[1966COL/SKI, 1982PIL/SKI]
$C_8H_{12}Sn$	[1112-55-6]	tetravinyltin				
	Δ_vH	(313–393)	40.5		GC	[1992HAW]
$C_8H_{15}F_5Sn$	[2925-46-4]	(pentafluoroethyl)triethyltin				
	Δ_vH	(303–343)	39.2	323	T	[1960KAE/PHI]
$C_8H_{18}Cl_2Sn$	[683-18-1]	di-*n*-butyltindichloride				
	$\Delta_{fus}H$		22.75	316.2		[1974UTS/BAC2]
$C_8H_{20}Sn$	[597-64-8]	tetraethyltin				
	$\Delta_{fus}H$		9.15	142.1		[1996DOM/HEA]
	Δ_vH	(293–455)	46.6 ± 0.6	374		[2001BAE]
	Δ_vH	(313–393)	42.4		GC	[1992HAW]
	Δ_vH		50.6 ± 0.2	298	C	[1980ABR/IRV]
	Δ_vH		51.0 ± 2.1			[1963DAV/POP, 1982PIL/SKI]
$C_9H_{14}Sn$	[934-56-5]	phenyltrimethyltin				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$		52.3 ± 4.2			[1959PED/SKI, 1982PIL/SKI]
$C_{10}H_{16}Sn$	[4314-94-7]	benzyltrimethyltin				
	$\Delta_v H$		56.5 ± 4.2			[1959PED/SKI, 1982PIL/SKI]
$C_{10}H_{24}O_2Sn$	[14570-10-6]	triethyltin *tert*-butylperoxide				
	$\Delta_v H$		48.8 ± 2.1			[1971RAB/KIP, 1982PIL/SKI]
$C_{10}H_{25}NSn$	[na]	(N,N-diethylamino)triethyltin				
	$\Delta_v H$		50.2 ± 4.2			[1971KOL/RAB, 1982PIL/SKI]
$C_{12}H_{27}BrSn$	[na]	tributyltin bromide				
	$\Delta_v H$		83.7 ± 12.6			[1959PED/SKI, 1982PIL/SKI]
$C_{12}H_{20}Sn$	[7393-43-3]	tetraallyltin				
	$\Delta_v H$	(333–393)	52.0		GC	[1992HAW]
$C_{12}H_{27}ClSn$	[1461-22-9]	tri-*n*-butyltin chloride				
	$\Delta_{fus}H$		11.43	260.2		[1974UTS/BAC2]
$C_{12}H_{28}Sn$	[2176-98-9]	tetrapropyl tin				
	$\Delta_v H$	(343–457)	55.0 ± 0.7	400		[2001BAE]
	$\Delta_v H$	(333–393)	60.8		GC	[1992HAW]
	$\Delta_v H$	(361–470)	52.5	376	A	[1987STE/MAL]
	$\Delta_v H$		65.4 ± 2.5	298	C	[1980ABR/IRV]
	$\Delta_v H$		66.9 ± 2.1			[1963DAV/POP, 1982PIL/SKI]
	$\Delta_v H$		60.7			[1935JON/EVA]
$C_{12}H_{28}Sn$	[2949-42-0]	tetraisopropyl tin				
	$\Delta_v H$	(342–441)	48.0 ± 0.7	392		[2001BAE]
	$\Delta_v H$	(333–393)	56.4		GC	[1992HAW]
	$\Delta_v H$		64.9 ± 4.2			[1966COL/SKI, 1982PIL/SKI]
$C_{12}H_{30}OSn_2$	[1112-63-6]	*bis*(triethyltin)oxide				
	$\Delta_v H$		52.3 ± 2.1			[1971RAB/KIP, 1982PIL/SKI]
$C_{12}H_{30}Sn_2$	[993-63-5]	hexaethyldistannane				
	$\Delta_v H$		62.8 ± 4.2			[1966TEL/RAB, 1982PIL/SKI]
$C_{15}H_{26}O_2Sn$	[na]	triethyltin dimethylphenylperoxide				
	$\Delta_v H$		56.5 ± 2.1			[1971RAB/KIP, 1982PIL/SKI]
$C_{16}H_{18}Sn$	[53561-93-6]	1,1-diphenylstannolane				
	$\Delta_{sub}H$		106.8 ± 5.5	298	B	[1988CAR/JAM]
$C_{16}H_{36}Sn$	[1461-25-2]	tetrabutyl tin				
	$\Delta_v H$	(389–462)	67.8 ± 0.5	425		[2001BAE]
	$\Delta_v H$		82.8 ± 2.1			[1963DAV/POP, 1982PIL/SKI]
$C_{16}H_{36}Sn$	[3531-43-9]	tetraisobutyl tin				
	$\Delta_v H$	(391–451)	53.6 ± 1.1	421		[2001BAE]
$C_{17}H_{20}Sn$	[19814-46-1]	hexahydro-1,1-diphenylstannin				
	$\Delta_v H$		75.0 ± 1.5			[1988CAR/JAM]
$C_{20}H_{18}Sn$	[2117-48-8]	triphenyl vinyl tin				
	$\Delta_{sub}H$		114.1			[1985CAR/LAY]
$C_{20}H_{18}O_2Sn$	[900-95-8]	(acetyloxy)triphenylstannane				
	$\Delta_{fus}H$		41.92	397.6		[1990DON/DRE]
$C_{24}H_{20}Sn$	[595-90-4]	tetraphenyl tin				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		37.2	502.2	DSC	[1969VIC/WAL]
	$\Delta_{sub}H$	(393–461)	151.7	427	A	[1987STE/MAL]
	$\Delta_{sub}H$		161.1 ± 4.2	298		[1982PIL/SKI, 1969ADA/CAR2]
	$\Delta_{sub}H$	(428–454)	152.5 ± 0.6		TE	[1969KEI/KAN]
	$\Delta_{sub}H$	(393–461)	151.8 ± 1.1		ME	[1969KEI/KAN]
	$\Delta_{sub}H$		59.5	298		[1972NEW, 1986MAR/LOE]
	$\Delta_{sub}H$	(298–316)	U	298	ME	[1962CAR/COO, 1970CAR/LAY]
			66.0 ± 21.2			
$C_{27}H_{20}Sn$	[1247-08-1]	triphenyl phenylethynyl tin				
	$\Delta_{sub}H$		137.6			[1985CAR/LAY]
$C_{32}H_{16}Cl_2N_8Sn$	[18253-54-8]	tin(IV) phthalocyanine dichloride				
	$\Delta_{sub}H$		218.4 ± 17.6		ME	[1970BON/CAT]
$C_{32}H_{16}N_8Sn$	[15304-57-1]	tin(II) phthalocyanine				
	$\Delta_{sub}H$		123.4 ± 10.0		ME	[1970BON/CAT]
$C_{36}H_{30}Sn_2$	[1064-10-4]	hexaphenyl ditin				
	$\Delta_{sub}H$		188.3 ± 4.2	298	ME,TE	[1969KEI/KAN]
$C_{44}H_{26}N_8Sn$	[219130-47-0]	diphenyl tin(IV) phthalocyanine				
	$\Delta_{sub}H$		174.9 ± 18.8		ME	[1970BON/CAT]
$C_{60}H_{78}OSn_2$	[na]	*hexakis*(2-methyl-2-phenylpropyl)distanoxane				
	$\Delta_{fus}H$		71.81	417.7	DSC	[1990DON/DRE]
$SnBr_4$	[7789-67-5]	stannic bromide				
	$\Delta_{sub}H$	(257–299)	62.4	278		[1941SEK]
SnI_4	[7790-47-8]	stannic iodide				
	$\Delta_{v}H$	(418–523)	57.2	423		[1936NEG]
	$\Delta_{sub}H$	(366–414)	75.6	390		[1941SEK]
Sr (strontium)						
$SrCl_2$	[10476-85-4]	strontium chloride				
	$\Delta_{sub}H$		328.9 ± 4.8	298	LE	[1965LOE/KEN]
Ta (tantalum)						
$C_5H_{15}O_5Ta$	[865-35-0]	tantalum pentamethoxide				
	$\Delta_{sub}H$		88.3 ± 13.4		ME,E	[1972TEL/RAB]
$C_{10}H_{25}O_5Ta$	[na]	pentaethyltantalate				
	$\Delta_{v}H$	(388–424)	72.6	403	A	[1987STE/MAL]
$TaBr_5$	[13451-11-1]	tantalum(V) pentabromide				
	$\Delta_{sub}H$		127 ± 18	298		[1996TUR/EIC]
	$\Delta_{sub}H$		121.9	298		[1996TUR/EIC, 1991KNA/KUB]
TaI_5	[14693-81-3]	tantalum(V) pentaiodide				
	$\Delta_{sub}H$	(573–655)	120.9			[1978ABA/MAL]
Tb (terbium)						
$C_{15}H_{15}Tb$	[1272-25-9]	*tris*(cyclopentadienyl)terbium(III)				
	$\Delta_{sub}H$		103.8 ± 1.7			[1973DEV/BOR]
$C_{32}H_{40}F_{12}NaO_8Tb$	[12576-88-4]	sodium *tetrakis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)terbate				
	$\Delta_{sub}H$	(418–473)	163 ± 3	445	T	[1993SYO/GOL]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{33}H_{57}O_6Tb$	[15492-51-0]	*tris*(2,2,6,6-tetramethylhettane-3,5-dionato)terbium(III)				
	$\Delta_{sub}H$		138.4 ± 2.6	298	DSC	[1999SAN/PET]
	$\Delta_{sub}H$	(373–420)	173.6	396	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(420–433)	151	426	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(420–454)	141.5	437	BG	[1969SIC/DUB]
	Δ_vH	(454–500)	87		BG	[1969SIC/DUB]
Te (tellurium)						
C_2H_6Te	[593-80-6]	dimethyl telluride				
	$\Delta_{trs}H$		0.7	164.1		
	$\Delta_{fus}H$		7.77	201.9		[1998SHE/NIS]
	Δ_vH	(298–367)	34.4	313		[1999DYK/SVO]
	Δ_vH	(273–372)	35.6 ± 0.1	323		[1997BAE, 1996BAE/POD]
	Δ_vH	(267–369)	36.9	282	BG	[1996VAN/COR]
	Δ_vH	(267–369)	36.1 ± 1.0	298	BG	[1996VAN/COR]
	Δ_vH		37.4 ± 0.7	298	C	[1989VOR/KLY]
	Δ_vH		36.0 ± 2.1			[1988TEL/LAR]
C_4H_6Te	[63000-06-6]	divinyl telluride				
	$\Delta_{fus}H$		9.59	182.6		[1999NIS/SHE]
	Δ_vH		44.8 ± 0.8	298	C	[1989VOR/KLY]
	Δ_vH		38.1 ± 2.1			[1988TEL/LAR]
$C_4H_{10}Te$	[627-54-3]	diethyl telluride				
	$\Delta_{fus}H$		7.62	161.5		[1996SHE/KAM]
	Δ_vH	(295–411)	41.8	310		[1999DYK/SVO]
	Δ_vH	(273–415)	41.6 ± 0.2	344		[1996BAE/POD]
	Δ_vH		41.6 ± 0.8	298	C	[1989VOR/KLY]
$C_6H_{14}Te$	[64501-17-3]	dipropyl telluride				
	Δ_vH	(298–434)	45.5 ± 0.3	366		[1996BAE/POD]
	Δ_vH		46.5 ± 0.7	298	C	[1989VOR/KLY]
$C_6H_{14}Te$	[51112-72-2]	diisopropyl telluride				
	Δ_vH	(298–399)	40.4 ± 0.1	349		[1996BAE/POD]
$C_6H_{14}Te_2$	[79971-42-9]	dipropyl ditelluride				
	Δ_vH		52.7 ± 1.0	298	C	[1989VOR/KLY]
$C_8H_{18}Te$	[38788-38-4]	dibutyl telluride				
	Δ_vH	(303–423)	53.4 ± 0.1	358		[1996BAE/POD]
	Δ_vH		51.0 ± 1.0	298	C	[1989VOR/KLY]
$C_8H_{18}Te$	[82817-01-0]	diisobutyl telluride				
	Δ_vH	(303–410)	47.6 ± 0.1	356		[1996BAE/POD]
$C_8H_{18}Te$	[83817-20-3]	di-sec-butyl telluride				
	Δ_vH	(303–372)	49.6 ± 0.9	338		[1996BAE/POD]
$C_8H_{18}Te_2$	[77129-69-2]	dibutyl ditelluride				
	Δ_vH		57.3 ± 1.0	298	C	[1989VOR/KLY]
$C_{10}H_{22}Te$	[71475-88-2]	dipentyl telluride				
	$\Delta_{fus}H$		23.1	215.4		[1994TEL/SHE]
	Δ_vH	(343–403)	59.5 ± 0.8	373		[1996BAE/POD]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_{22}Te$	[110346-75-3]	diisopentyl telluride				
	$\Delta_v H$	(343–403)	51.9 ± 0.7	373		[1996BAE/POD]
$C_{12}H_{10}Te$	[1202-36-4]	diphenyl telluride				
	$\Delta_{fus}H$		15.35	268.4		[1996TEL/SHE]
$TeCl_4$	[10026-07-0]	tellurium tetrachloride				
	$\Delta_{sub}H$		105 ± 2	298		[1994DAL/FER]
	$\Delta_v H$	(506–660)	77	583	GS	[1930SIM]
TeF_6	[7783-80-4]	tellurium hexafluoride				
	$\Delta_{sub}H$	(194–233)	25.6	214		[1932KLE/HEN]
TeI_4	[7790-48-9]	tellurium tetraiodide				
	$\Delta_{sub}H$	(420–480)	95.1			[2007KUT/POL]
Th (thorium)						
$C_{20}H_{16}F_{12}O_8Th$	[17500-72-0]	*tetrakis*(1,1,1-trifluoropentan-2,4-dionato)thorium(IV)				
	$\Delta_{sub}H$		154.6	298	GS,HA	[1986GAR/JAN]
$C_{40}H_{40}F_{28}O_8Th$	[23841-30-7]	*tetrakis*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dionato)thorium (IV)				
	$\Delta_{sub}H(\alpha)$		151.2	298	GS,HA	[1986GAR/JAN]
	$\Delta_{sub}H(\beta)$		130.6	298	GS,HA	[1986GAR/JAN]
	$\Delta_{sub}H$	(344–367)	138.5 ± 3.3	355	ME	[1970SWA/KAR]
$C_{44}H_{76}O_8Th$	[18865-73-1]	*tetrakis*(2,2,6,6-tetramethylheptan-3,5-dionato)thorium(IV)				
	$\Delta_{sub}H$	(391–409)	152.3 ± 3.3	400	ME	[1970SWA/KAR]
Ti (titaniuim)						
$(C_2H_3N)-Cl_4Ti$	[13682-81-0]	titanium trichloride- acetonitrile (1:1 complex)				
	$\Delta_{sub}H$		123		T	[1970HES/PER]
$2(C_2H_3N)-Cl_4Ti$	[15227-64-2]	titanium trichloride- acetonitrile (1:2 complex)				
	$\Delta_{sub}H$		171.5		T	[1970HES/PER]
$(C_4H_8O)-(Cl_4Ti)$	[15005-09-1]	titanium trichloride- tetrahydrofuran (1:1 complex)				
	$\Delta_{sub}H$		140.2		T	[1970HES/PER]
$2(C_4H_8O)-(Cl_4Ti)$	[31011-57-1]	titanium trichloride- tetrahydrofuran (1:2 complex)				
	$\Delta_{sub}H$		205.4		T	[1970HES/PER]
$(C_4H_8S)-(Cl_4Ti)$	[14281-72-2]	titanium trichloride- tetrahydrothiophene (1:1 complex)				
	$\Delta_{sub}H$		124.3		T	[1970HES/PER]
$2(C_4H_8S)-(Cl_4Ti)$	[16893-00-8]	titanium trichloride- tetrahydrothiophene (1:2 complex)				
	$\Delta_{sub}H$		181.2		T	[1970HES/PER]
$C_5H_5Cl_3Ti$	[1270-98-0]	cyclopentadienyltitanium trichloride				
	$\Delta_{sub}H$	(354–404)	89.8	379	A	[1987STE/MAL]
	$\Delta_{sub}H$		104.6 ± 8.4	298		[1982PIL/SKI, 1977TEL/RAB]
	$\Delta_{sub}H$		89.1 ± 0.8			[1977BAL/BAR]
$(C_5H_{10}O)-(Cl_4Ti)$	[22538-12-1]	titanium trichloride- tetrahydropyran (1:1 complex)				
	$\Delta_{sub}H$		139.3		T	[1970HES/PER]
$2(C_5H_{10}O)-(Cl_4Ti)$	[31011-56-0]	titanium trichloride- tetrahydropyran (1:2 complex)				
	$\Delta_{sub}H$		305.4		T	[1970HES/PER]
$(C_8H_8O)-(Cl_4Ti)$	[31011-60-6]	titanium trichloride- acetophenone (1:1 complex)				
	$\Delta_{sub}H$		163.6		T	[1970HES/PER]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
2(**C_8H_8O**)–(**Cl_4Ti**)	[31011-61-7]	titanium trichloride- acetophenone (1:2 complex)				
	$\Delta_{sub}H$		277.8		T	[1970HES/PER]
$C_8H_{24}N_4Ti$	[3275-24-9]	titanium tetradimethylamide				
	Δ_vH	(353–418)	53.8 ± 3.0	383		[1984BAE/MIK, 2001BAE/MIK]
$C_{10}H_{10}Ti$	[1271-29-0]	*bis*(cyclopentadienyl)titanium				
	$\Delta_{sub}H$		58.5 ± 8.0	298		[1982PIL/SKI, 1971TEL/RAB]
$C_{10}H_{10}Cl_2Ti$	[1271-19-8]	*bis*(cyclopentadienyl)titanium dichloride				
	$\Delta_{sub}H$		124.4 ± 2.9	298	ME	[2001DIO/PIE]
	$\Delta_{sub}H$	(418–533)	124.4	475.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		118.8 ± 2.1	298		[1982PIL/SKI, 1977TEL/RAB]
	$\Delta_{sub}H$		111.7 ± 1.7			[1977BAL/BAR]
	$\Delta_{sub}H$		96.2			[1969DIL/KIS]
	$\Delta_{sub}H$		102 ± 13	298		[1968KIS/DIL, 2001DIO/PIE]
$C_{12}H_{10}O_2Ti$	[12129-51-0]	*bis*(cyclopentadienyl)dicarbonyl titanium				
	$\Delta_{sub}H$		84.2 ± 3.5	298	ME	[1987DIA/DIA]
$C_{12}H_{16}Ti$	[1271-66-5]	*bis*(cyclopentadienyl)dimethyltitanium				
	$\Delta_{sub}H$		79.5 ± 8.4	298		[1982PIL/SKI, 1977TEL/RAB]
$C_{12}H_{28}O_4Ti$	[546-68-9]	tetraisopropyl titanate				
	Δ_vH	(336–459)	62.3	351	A	[1987STE/MAL]
$C_{12}H_{28}O_4Ti$	[3087-37-4]	tetrapropyl titanate				
	Δ_vH	(411–479)	111.9	426	A	[1987STE/MAL]
(**$C_{13}H_{10}O$**)–(**Cl_4Ti**)	[23368-15-2]	titanium trichloride- benzophenone (1:1 complex)				
	$\Delta_{sub}H$		249.4		T	[1970HES/PER]
2(**$C_{13}H_{10}O$**)–(**Cl_4Ti**)	[31011-63-9]	titanium trichloride- benzophenone (1:2 complex)				
	$\Delta_{sub}H$		287.9		T	[1970HES/PER]
$C_{14}H_{10}F_6O_4Ti$	[1282-45-7]	*bis*(cyclopentadienyl)titanium *bis*(trifluoroacetate)				
	$\Delta_{sub}H$		108.0 ± 8.0	298		[1982PIL/SKI, 1981CAL/DIA]
$C_{16}H_{36}O_4Ti$	[5593-70-4]	tetrabutoxy titanium				
	Δ_vH	(462–564)	89.7	477	A	[1987STE/MAL]
	Δ_vH	(443–493)	85.0 ± 3.1	458	A	[1987STE/MAL, 1978GRA/KON]
$C_{16}H_{36}O_4Ti$	[7425-80-1]	tetraisobutoxy titanium				
	Δ_vH	(436–529)	77.4	451	A	[1987STE/MAL]
$C_{16}H_{36}O_4Ti$	[873376-17-1]	tetra-sec-butoxy titanium				
	Δ_vH	(378–414)	76.8	393	A	[1987STE/MAL]
	Δ_vH	(370–476)	67.1	385	A	[1987STE/MAL]
$C_{16}H_{36}O_4Ti$	[119279-48-0]	tetra-*tert*-butoxy titanium				
	Δ_vH	(386–486)	55.9	401	A	[1987STE/MAL]
	Δ_vH	(322–388)	62.6	337	SG	[1958BRA/SWA, 1984BOU/FRI]
	Δ_vH		66.1 ± 3.3	298	SG	[1958BRA/SWA, 1966BRA/HIL]
$C_{16}H_{36}O_4Ti$	[5593-70-4]	titanium (IV) tetrabutylate				
	Δ_vH	(323–418)	47.6 ± 0.7	370		[2002BAE/SHI2]
$C_{16}H_{40}N_4Ti$	[na]	titanium (IV) *tetrakis*(diethylamide)				
	Δ_vH	(423–463)	94.6 ± 4.0	443		[2001BAE/MIK]
$C_{20}H_{44}O_4Ti$	[na]	*tetrakis*(1,1-dimethylpropoxy)titanium				
	Δ_vH	(397–430)	67.8	412	A	[1987STE/MAL]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_v H$	(361–423)	71.0	376	SG	[1958BRA/SWA, 1984BOU/FRI]
	$\Delta_v H$		77.4 ± 3.8	298	SG	[1958BRA/SWA, 1966BRA/HIL]
$C_{20}H_{44}O_4Ti$	[na]	*tetrakis*(1-ethylpropoxy)titanium				
	$\Delta_v H$	(385–445)	103.6	400	A	[1987STE/MAL]
$C_{20}H_{44}O_4Ti$	[na]	*tetrakis*(3-methylbutoxy)titanium				
	$\Delta_v H$	(407–493)	119.7	422	A	[1987STE/MAL]
$C_{20}H_{44}O_4Ti$	[10585-24-7]	tetrapentoxytitanium				
	$\Delta_v H$	(484–558)	103.4	499	A	[1987STE/MAL]
$C_{20}H_{44}O_4Ti$	[10585-26-9]	tetra-*tert*-pentoxytitanium				
	$\Delta_v H$	(361–423)	71.1	376	A	[1987STE/MAL]
$C_{22}H_{20}Ti$	[1273-09-2]	*bis*(cyclopentadienyl)diphenylltitanium				
	$\Delta_{sub}H$		88 ± 8			[1982DIA/SAL]
$C_{22}H_{40}O_8Ti$	[852536-12-0]	*bis*[1,1-diemthylethyl-3-oxobutanoato]*bis*(2-propanolato)titanium				
	$\Delta_{sub}H$		85.4			[2008KUN/SHI]
$C_{24}H_{20}O_4Ti$	[12156-48-8]	*bis*(benzoato)*bis*(η^5-2,4-cyclopentadien-1-yl)titanium				
	$\Delta_{sub}H$		112 ± 8			[1981CAL/DIA]
$C_{24}H_{24}Ti$	[See Note]	*bis*(cyclopentadienyl)dibenzyltitanium				
	$\Delta_{sub}H$		83.7 ± 8.4	298		[1982PIL/SKI, 1977TEL/RAB]
		Note: There is no reference to [1977TEL/RAB] in Chemical Abstracts under the given chemical name. Rather, Chemical Abstracts lists the paper under *bis*(cyclopentadienyl)diphenyltitanium.				
$C_{24}H_{52}O_4Ti$	[na]	*tetrakis*(1,1-dimethylbutoxy)titanium				
	$\Delta_v H$	(414–454)	94.6	429	A	[1987STE/MAL]
$C_{24}H_{52}O_4Ti$	[na]	*tetrakis*(1-methyl-ethylpropoxy)titanium				
	$\Delta_v H$	(412–460)	86.2	427	A	[1987STE/MAL]
$C_{24}H_{52}O_4Ti$	[na]	tetrahexyloxy titanium				
	$\Delta_v H$	(520–581)	94.8	535	A	[1987STE/MAL]
$C_{28}H_{52}O_6Ti$	[80570-88-3]	diisopropoxy*bis*(2,2,6,6-tetramethyl-3,5-heptanedionato) titanium				
	$\Delta_{sub}H$	(353–413)	98.6 ± 2.7	383		[2001TUR/KRI]
	$\Delta_{sub}H$	(273–403)	104.1	338		[1997KOJ/KAD, 2001TUR/KRI]
$C_{30}H_{28}Fe_2Ti$	[65274-19-3]	*bis*(cyclopentadienyl)diferrocenyl titanium				
	$\Delta_{sub}H$		150 ± 15			[1982DIA/SAL]
Br_4Ti	[7789-68-6]	titanium (IV) tetrabromide				
	$\Delta_{sub}H$	(283–306)	62.4	294		[1941SEK]
Cl_4Ti	[7550-45-0]	titanium (IV) tetrachloride				
	$\Delta_v H$	(250–423)	37.5	265		[1966LUC]
	$\Delta_v H$	(363–415)	37.9	378		[1959PIK/FOS]
	$\Delta_v H$	(313–357)	39.8	335	I	[1953SCH/ZEP]
F_3Ti	[13470-08-1]	titanium (III) trifluoride				
	$\Delta_{sub}H$	(759–865)	237.2 ± 1.7	810		[1967ZMB/MAR]
I_4Ti	[7720-83-4]	titanium (IV) tetraiodide				
	$\Delta_v H$	(433–643)	58.5	538		[1947BLO/CAM]
Tl (thallium)						
C_3H_9Tl	[3003-15-4]	trimethylthallium				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{fus}H$		16.74	311.2		[1965PRI/JAC]
	$\Delta_{sub}H$	(258–304)	57.3	285	CATH	[1965PRI/JAC, 1987STE/MAL]
	Δ_vH	(311–360)	40.6	335	I,MM	[1965PRI/JAC]
	Δ_vH	(328–349)	37.9	338	I	[1946GIL/JON]
$C_6H_{15}Tl$	[687-82-1]	triethylthallium				
	Δ_vH	(282–465)	41.9	297		[1947STU]
TlF	[7789-27-7]	thallium(I) fluoride				
	$\Delta_{sub}H$		142.7	298		[1967KEN/CUB]
Tm (thulium)						
$C_{15}H_{15}Tm$	[1272-26-0]	*tris*(cyclopentadienyl)thulium				
	$\Delta_{sub}H$		111.3 ± 3.5	298		[1982PIL/SKI, 1974DEV/RAB]
	$\Delta_{sub}H$		98.7 ± 1.7			[1973DEV/BOR]
	$\Delta_{sub}H$	(338–438)	109.2 ± 2.1		ME	[1971HAU, 1971HAU2]
$C_{33}H_{57}O_6Tm$	[15631-58-0]	*tris*(2,2,6,6-tetramethylheptane-3,5-dionato)thulium(III)				
	$\Delta_{sub}H$		131.3 ± 2.9	298	DSC	[1999SAN/PET]
	$\Delta_{sub}H$	(363–418)	156.1	390	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(410–446)	131.4	428	BG	[1969SIC/DUB]
	Δ_vH	(446–490)	84.1		BG	[1969SIC/DUB]
U (uranium)						
$C_6H_{18}O_6U$	[69644-82-2]	uranium hexamethoxide				
	$\Delta_{sub}H$		102.9 ± 8.4			[1991TEL/LAR]
$C_{10}H_2F_{12}O_6U$	[67316-66-9]	*bis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)uranium dioxide complex				
	$\Delta_{sub}H$	(370–425)	147	397.5	A	[1987STE/MAL]
	$\Delta_{sub}H$	(423–470)	147 ± 4			[1978EKS/RAN]
$C_{15}H_{15}ClU$	[11087-14-2]	*tris*(cyclopentadienyl)uranium chloride				
	$\Delta_{sub}H$	(338–348)	115.9 ± 2.1		ME	[1971HAU, 1971HAU2]
$C_{16}H_{16}U$	[na]	*bis*(cyclooctatetraene)uranium				
	$\Delta_{sub}H$	(400–500)	107.9 ± 3.3			[1979TEL/RAB, 1977BED]
	$\Delta_{sub}H$		114.2 ± 4.8	298		[1979TEL/RAB, 1977BED]
$C_{20}H_{20}F_{30}O_{10}U_2$	[137220-74-7]	*bis*[*pentakis*(trifluoroethoxy)]diuranium				
	$\Delta_{sub}H$		NA			[1991SEV/ALI]
$C_{20}H_{22}Cl_2F_{12}O_6U$	[136211-24-0]	*bis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)dichlorouranium- *bis*(tetrahydropyran)				
	$\Delta_{sub}H$	(316–387)	79.1	352	T	[1991GIL/SAG]
$C_{20}H_{28}O_8U$	[65137-03-3]	*tetrakis*(pentane-2,4-dionato)uranium(IV)				
	$\Delta_{sub}H$		148.1 ± 4.6			[1991TEL/LAR]
$C_{22}H_{38}O_6U$	[50707-86-9]	*bis*(2,2,6,6-tetramethylheptane-3,5-dionato)dioxouranium				
	$\Delta_{sub}H$	(370–412)	151.6 ± 1.9	404	ME	[1993RIB/MON]
	$\Delta_{sub}H$		156.9 ± 1.9	298		[1993RIB/MON]
	$\Delta_{sub}H$		126 ± 9			[1978EKS/RAN]
$C_{40}H_{40}F_{28}O_8U$	[23797-50-4]	*tetrakis*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)uranium(IV)				
	$\Delta_{sub}H$		68.2		BG	[1977DES]
	$\Delta_{sub}H$		64.3 ± 3.2		C	[1977DES]
	$\Delta_{sub}H$	(343–367)	143.5 ± 1.3	355	ME	[1970SWA/KAR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{40}H_{68}O_{12}U$	[133952-93-9]	*tetrakis*(2,6-dimethyl-2-methoxy-3,5-heptanedionato)uranium(IV)				
	$\Delta_{sub}H$	(344–377)	121.7 ± 18	350		[1991SEV/KRA]
$C_{44}H_{76}O_8U$	[na]	*tetrakis*(2,2,6,6-tetramethyl-3,5-heptanedionato)uranium(IV)				
	$\Delta_{sub}H$	(372–478)	152.2 ± 3.3	425	ME	[1977BED/HUS]
	$\Delta_{sub}H$	(392–409)	149.0 ± 1.3	400	ME	[1970SWA/KAR]
$C_{44}H_{76}O_{12}U$	[133952-92-8]	*tetrakis*(2,6,6-trimethyl-2-methoxy-3,5-heptanedionato)uranium(IV)				
	$\Delta_{sub}H$	(387–428)	160.7 ± 6.3	408		[1991SEV/KRA]
UF_6	[7783-81-5]	uranium hexafluoride				
	$\Delta_{v}H$	(337–389)	29.5	352		[1953OLI/MIL]
V (vanadium)						
$C_{10}H_8F_6O_5V$	[52081-94-4]	*bis*(1,1,1-trifluoro-2,4-pentanedionato)oxovanadium(IV)				
	$\Delta_{sub}H$	(423–473)	119.7 ± 0.8			[1985MAT/KUW]
$C_{10}H_{10}Cl_2V$	[12083-48-6]	*bis*(cyclopentadienyl)vanadium dichloride				
	$\Delta_{sub}H$		140.1 ± 7.4	298	ME	[2001DIO/PIE]
$C_{10}H_{10}V$	[1277-47-0]	*bis*(cyclopentadienyl)vanadium				
	$\Delta_{sub}H$	(323–338)	57.4	330.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		58.6 ± 4.2	298		[1982PIL/SKI, 1971TEL/RAB]
$C_{10}H_{14}O_5V$	[3153-26-2]	*bis*(2,4-pentanedionato)oxovanadium(IV)				
	$\Delta_{sub}H$		140.7 ± 4.0	493	DSC	[1987MUR/HIL2]
	$\Delta_{sub}H$	(418–443)	91.5	430.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		192.4	461	C	[1986JAM/PIL]
	$\Delta_{sub}H$		140.4 ± 1.1	298	C	[1986JAM/PIL]
$C_{10}H_{17}NO_5V$	[122343-53-7]	amine*bis*(pentane-2,4-dionato)oxovanadium				
	$\Delta_{sub}H$		29.0	370	DSC	[1989SHI/SHI]
$C_{12}H_{12}V$	[12129-72-5]	*bis*(benzene)vanadium				
	$\Delta_{sub}H$		70 ± 10			[1982PIL/SKI]
$C_{12}H_{27}O_4V$	[1801-76-9]	vanadic acid, tributyl ester				
	$\Delta_{v}H$	(395–435)	90.2	410	A	[1987STE/MAL]
$C_{12}H_{27}O_4V$	[19120-62-8]	vanadic acid, triisobutyl ester				
	$\Delta_{v}H$	(383–418)	82.2	398	A	[1987STE/MAL]
$C_{12}H_{27}O_4V$	[17838-66-3]	vanadic acid, tri-sec-butyl ester				
	$\Delta_{v}H$	(378–413)	82.4	393	A	[1987STE/MAL]
$C_{12}H_{27}O_4V$	[1686-24-4]	vanadic acid, tri-*tert*-butyl ester				
	$\Delta_{v}H$	(348–385)	71.4	363	A	[1987STE/MAL]
$C_{14}H_{16}V$	[36955-47-2]	benzene(ethylbenzene)vanadium				
	$\Delta_{sub}H$	(453–483)	69.5	468		[1972UMI/VAN]
$C_{15}H_{12}F_9O_6V$	[15695-88-2]	*tris*(1,1,1-trifluoro-2,4-pentanedionato)vanadium(III)				
	$\Delta_{sub}H$	(383–433)	118.4 ± 2.1			[1985MAT/KUW]
$C_{15}H_{18}V$	[36955-49-4]	benzene(isopropylbenzene)vanadium				
	$\Delta_{sub}H$	(453–483)	83.7	468		[1972UMI/VAN]
$C_{15}H_{18}BrNO_5V$	[24263-16-9]	3-bromopyridine*bis*(acetylacetonato)oxovanadium				
	$\Delta_{sub}H$		59.4	402	DSC	[1989SHI/SHI]
$C_{15}H_{19}NO_5V$	[24263-31-8]	pyridine*bis*(acetylacetonato)oxovanadium				

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$		47.8	404	DSC	[1989SHI/SHI]
$C_{15}H_{21}O_6V$	[13476-99-8]	*tris*(2,4-pentanedionato)vanadium(III)				
	$\Delta_{fus}H$		30.0	460		[1971BEE/LIN2]
	$\Delta_{fus}H$		23.8	460		[1970MEL/MER2]
	$\Delta_{sub}H$		102.9 ± 0.8	298	HSA	[1970MEL/MER, 1970MEL/MER2]
$C_{16}H_{18}N_2O_5V$	[24263-13-6]	3-cyanopyridine *bis*(acetylacetonato)oxovanadium				
	$\Delta_{sub}H$		79	391	DSC	[1989SHI/SHI]
$C_{16}H_{18}N_2O_5V$	[24263-14-7]	4-cyanopyridine*bis*(acetylacetonato)oxovanadium				
	$\Delta_{sub}H$		75.6	399	DSC	[1989SHI/SHI]
$C_{16}H_{20}V$	[36955-48-3]	*bis*(ethylbenzene)vanadium				
	$\Delta_{sub}H$	(453–483)	72.0	468		[1972UMI/VAN]
$C_{16}H_{21}NO_5V$	[24263-33-0]	4-methylpyridine*bis*(acetylacetonato)oxovanadium				
	$\Delta_{sub}H$		56.9	421	DSC	[1989SHI/SHI]
$C_{18}H_{24}V$	[36472-53-4]	*bis*(isopropylbenzene)vanadium				
	$\Delta_{sub}H$	(453–483)	86.2	468		[1972UMI/VAN]
$C_{32}F_{16}N_8OV$	[128675-60-5]	(hexadecafluorophthalocyaninato)oxovanadium				
	Δ_vH	(590–670)	52.7 ± 1.0	630	ME	[2008SEM/BAS]
$C_{32}H_{16}N_8OV$	[13930-88-6]	oxovanadium phthalocyanine				
	Δ_vH	(578–672)	46.5 ± 0.7	625	ME	[2008SEM/BAS]
W (tungsten)						
C_6O_6W	[14040-11-0]	tungsten hexacarbonyl				
	$\Delta_{sub}H$	(265–288)	77.7	276	TE	[1995GAR/CHA]
	$\Delta_{sub}H$	(338–423)	74.9 ± 1.3			[1993BAE]
	$\Delta_{sub}H$	(333–433)	74.4	348	A	[1987STE/MAL]
	$\Delta_{sub}H$	(250–292)	78.9 ± 1.1	271	ME	[1980BOX/ERN, 1979DAA/ERN]
	$\Delta_{sub}H$		73.2	298	C	[1975ADE/BRO]
	$\Delta_{sub}H$		76.5 ± 1.3			[1975PIL/WAR]
	$\Delta_{sub}H$	(339–410)	69.7			[1952REZ/SHV]
	$\Delta_{sub}H$		74.1			[1935HIE/ROM]
$C_7H_3NO_5W$	[15096-68-1]	acetonitrile tungsten pentacarbonyl				
	$\Delta_{sub}H$	(271–303)	98.1 ± 2.0	298		[1980CAV/ERN]
$C_8H_4N_2O_5W$	[39017-11-3]	pyrazole(pentacarbonyl)tungsten				
	$\Delta_{sub}H$	(287–327)	112.5 ± 2.4	307	ME	[1979DAA/ERN]
$C_8H_6N_2O_4W$	[16800-45-6]	*bis*(acetonitrile)tetracarbonyltungsten				
	$\Delta_{sub}H$	(294–313)	131.0 ± 6.0	298		[1980CAV/ERN]
$C_8H_9NO_5W$	[15228-32-7]	trimethylamine(pentacarbonyl)tungsten				
	$\Delta_{sub}H$		89.1 ± 2.1			[1979DAA/ERN, 1980BOX, 1980BOX/ERN]
$C_8H_9O_5PW$	[26555-11-3]	trimethylphosphine(pentacarbonyl)tungsten				
	$\Delta_{sub}H$	(283–327)	93.8 ± 1.5	305	ME	[1980BOX/ERN]
$C_9H_4N_2O_5W$	[65761-19-5]	pyrazine(pentacarbonyl)tungsten				
	$\Delta_{sub}H$	(287–321)	108.4 ± 1.3	304	ME	[1979DAA/ERN]
$C_9H_4N_2O_5W$	[65761-20-8]	pyridazine(pentacarbonyl)tungsten				
	$\Delta_{sub}H$		106.4 ± 2.5			[1979DAA/ERN, 1980BOX, 1980BOX/ERN]
$C_9H_9N_3O_3W$	[16800-47-8]	*tris*(acetonitrile) tungsten tricarbonyl				
	$\Delta_{sub}H$	(308–333)	103.4 ± 6.0	298		[1980CAV/ERN]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{10}H_5NO_5W$	[14586-49-3]	pyridine(pentacarbonyl)tungsten				
	$\Delta_{sub}H$	(285–313)	109.7 ± 2.7	299	ME	[1979DAA/ERN]
$C_{10}H_8O_3W$	[12128-81-3]	cycloheptatrienetungstentricarbonyl				
	$\Delta_{sub}H$		92	298	C	[1977BRO/CON, 1982PIL/SKI]
$C_{10}H_{10}Cl_2W$	[12184-31-5]	dichloro*bis*(η^5-2,4-cyclopentadien-1-yl)tungsten				
	$\Delta_{sub}H$		120.7 ± 8.6	298	ME	[2001DIO/PIE]
	$\Delta_{sub}H$		104.6 ± 4.2			[1976TEL/RAB]
$C_{10}H_{10}I_2W$	[12184-31-5]	*bis*(η^5-2,4-cyclopentadien-1-yl)diiodotungsten				
	$\Delta_{sub}H$		104.6 ± 4.2			[1976TEL/RAB]
$C_{10}H_{11}NO_5W$	[31082-68-5]	piperidine(pentacarbonyl)tungsten				
	$\Delta_{sub}H$	(289–327)	106.4 ± 1.0	308	ME	[1979DAA/ERN]
$C_{10}H_{12}W$	[1271-33-6]	dicyclopentadienyltungsten dihydride				
	$\Delta_{sub}H$	(313–323)	84.6 ± 1.6		ME	[1990DIA/DIO]
	$\Delta_{sub}H$		96.2 ± 2.1	298		[1982PIL/SKI, 1979CAL/DIA, 1976TEL/RAB]
$C_{12}H_{12}W$	[12089-23-5]	dibenzene tungsten				
	$\Delta_{sub}H$		106	298	ME	[1974ZOR/UMI]
$C_{12}H_{16}W$	[39333-53-4]	*bis*(η^5-2,4-cyclopentadien-1-yl)dimethyltungsten				
	$\Delta_{sub}H$		74.6 ± 4.2			[1980DEP]
$C_{12}H_{36}N_6W$	[68941-84-4]	*hexakis*(dimethylamino)tungsten				
	$\Delta_{sub}H$		164.0 ± 5	461	C	[1979ADE/CAV]
	$\Delta_{sub}H$		89.1 ± 7	298	C	[1979ADE/CAV]
$C_{12}H_{36}N_6W_2$	[54935-70-5]	*hexakis*(dimethylamino)ditungsten				
	$\Delta_{sub}H$		186.5 ± 5	451	C	[1979ADE/CAV]
	$\Delta_{sub}H$		113.3 ± 6	298	C	[1979ADE/CAV]
$C_{23}H_{15}O_5PW$	[26555-11-3]	triphenylphosphine(pentacarbonyl)tungsten				
	$\Delta_{sub}H$	(340–364)	162.2 ± 8.3	352	ME	[1980BOX/ERN]
$C_{23}H_{15}O_8PW$	[23306-41-4]	triphenylphosphite(pentacarbonyl)tungsten				
	$\Delta_{sub}H$	(308–348)	120.2 ± 6.6	328	ME	[1980BOX/ERN]
WCl_4O	[13520-78-0]	tungsten(IV) oxychloride				
	$\Delta_{sub}H$	(396–447)	63.7 ± 1.7	421	DSM	[1983CAS/PON]
WF_6	[7783-82-6]	tungsten hexafluoride				
	Δ_vH	(290–343)	25.8	316		[1968NIS/NIK]
Xe (xenon)						
XeF_2	[13709-36-9]	xenon difluoride				
	Δ_vH	(553–663)	53.5	568		[1983HOU]
XeF_4	[13709-61-0]	xenon tetrafluoride				
	Δ_vH	(553–663)	60.0	568		[1983HOU]
Y (yttrium)						
$C_{15}H_3F_{18}O_6Y$	[18911-76-7]	*tris*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)yttrium(III)				
	$\Delta_{sub}H$	(310–365)	91.6 ± 8.5		ME	[1999ALI/MAL]
$C_{15}H_{15}Y$	[1294-07-1]	*tris*(cyclopentadienyl)yttrium				
	$\Delta_{sub}H$		111.7 ± 3.5	298		[1982PIL/SKI, 1974DEV/RAB]
	$\Delta_{sub}H$		99.2 ± 3.3			[1973DEV/BOR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{15}H_{21}O_6Y$	[15554-47-9]	*tris*(2,4-pentanedionato)yttrium(III)				
	$\Delta_{sub}H$		98 ± 16			[1984TRE/BER]
$C_{33}H_{57}O_6Y$	[15632-39-0]	*tris*(2,2,6,6-tetramethylheptan-3,5-dionato)yttrium(III)				
	$\Delta_{fus}H$		51.8	440		[2004FUL/RUZ2]
	$\Delta_{sub}H$	(395–434)	141.6			[2004FUL/RUZ2]
	$\Delta_{sub}H$	(358–387)	151.0 ± 0.8	372	TE	[2001COL/LAU]
	$\Delta_{sub}H$	(357–377)	153.1 ± 0.4	366	TE	[2001COL/LAU]
	$\Delta_{sub}H$	(403–433)	135.9		TG,DTA	[1997YUA/YAN]
	$\Delta_{sub}H$		117.0			[1997SAN/ROC]
	$\Delta_{sub}H$	(382–412)	126.0	397	T	[1996RAP/DES]
	$\Delta_{sub}H$		117.0			[1993TOB/LAN]
	$\Delta_{sub}H$		115.7			[1993TOB/LAN]
	$\Delta_{sub}H$		138.5		GS	[1990YUH/KIK]
	$\Delta_{sub}H$	(363–418)	156.9	388	ME	[1981AMA/SAT]
	$\Delta_{sub}H$		130.8		ME	[1973BRU/CUR]
	Δ_vH	(450–455)	89.5			[2004FUL/RUZ2]
	Δ_vH		66.5		GS	[1990YUH/KIK]
$C_{32}H_{40}F_{12}O_8NaY$	[12576-89-5]	sodium *tetrakis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)yttrate				
	$\Delta_{sub}H$	(418–503)	130 ± 3	460	T	[1993SYO/GOL]
	$\Delta_{sub}H$	(463–503)	142 ± 12	483		[1993SYO/GOL]
Yb (ytterbium)						
$C_{15}H_{15}Yb$	[1295-20-1]	*tris*(cyclopentadienyl)ytterbium				
	$\Delta_{sub}H$		108.8 ± 3.5	298		[1982PIL/SKI, 1974DEV/RAB]
	$\Delta_{sub}H$		96.2 ± 2.9			[1973DEV/BOR]
$C_{15}H_{21}O_6Yb$	[14284-98-1]	*tris*(2,4-pentanedionato)ytterbium(III)				
	$\Delta_{sub}H$	(364–404)	93.3			[1981SMI/MAR]
$C_{30}H_{30}F_{21}O_6Yb$	[18323-96-1]	*tris*(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dionato)ytterbium(III)				
	$\Delta_{sub}H$	(339–356)	154.8 ± 3.3		ME	[1971SWA/KAR]
$C_{33}H_{57}O_6Yb$	[15492-52-1]	*tris*(2,2,6,6-tetramethylpentane-2,4-dionato)ytterbium(III)				
	$\Delta_{sub}H$		131.1 ± 2.7	298	DSC	[1999SAN/PET]
	$\Delta_{sub}H$	(363–413)	156.9	388	ME	[1981AMA/SAT]
	$\Delta_{sub}H$	(410–444)	133.3	427	BG	[1969SIC/DUB]
	Δ_vH	(444–494)	82.8		BG	[1969SIC/DUB]
Zn (zinc)						
C_2H_6Zn	[544-97-8]	dimethyl zinc				
	$\Delta_{trs}H$		1.06	210.3		
	$\Delta_{fus}H$		6.83	230.1		[1996DOM/HEA]
	Δ_vH	(273–313)	30.4 ± 0.1			[1997BAE]
	Δ_vH		29.5 ± 0.4			[1949CAR/HAR, 1982PIL/SKI]
	Δ_vH	(248–318)	29.9	283	BG	[1946BAM/LEV]
$C_4H_{10}Zn$	[557-20-0]	diethyl zinc				
	$\Delta_{fus}H$	(18–273)	18.05	239.8		[1987GIB/GRI]
	Δ_vH		37.9	298		[1983HOU2]
	Δ_vH		40.2 ± 2.1			[1949CAR/HAR, 1982PIL/SKI]
	Δ_vH	(250–391)	39.9	265		[1947STU]
	Δ_vH		40.2		BG	[1946BAM/LEV]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_4H_{16}Cl_2N_8S_4Zn$	[28813-20-9]	*trans*-dichloro-*tetrakis*(thiourea) zinc(II)				
	$\Delta_{sub}H$	(351–382)	90 ± 20			[1970ASH]
$C_6H_{14}Zn$	[628-91-1]	dipropyl zinc				
	Δ_vH	(313–370)	42.1 ± 0.4	341		[1984SOK/BAE2]
	Δ_vH		45.6 ± 2.5			[1949CAR/HAR, 1982PIL/SKI]
	Δ_vH		39.5			[1949HAT/SUT]
	Δ_vH		40.3		BG	[1946BAM/LEV]
$C_6H_{14}Zn$	[625-81-0]	diisopropyl zinc				
	Δ_vH	(303–345)	41.8 ± 0.5	324		[1984SOK/BAE2]
	Δ_vH	(310–338)	47.4	324		[1946THO]
$C_8H_{18}Zn$	[1119-90-0]	dibutyl zinc				
	Δ_vH	(305–379)	50.7 ± 0.3	342		[1984SOK/BAE]
	Δ_vH		54.4 ± 3.3			[1949CAR/HAR, 1982PIL/SKI]
	Δ_vH		45.3			[1949HAT/SUT]
	Δ_vH		42.9		BG	[1946BAM/LEV]
$C_8H_{18}Zn$	[7446-94-8]	di-*sec*-butyl zinc				
	Δ_vH	(287–372)	40.9 ± 0.2	330		[1984SOK/BAE]
$C_8H_{18}Zn$	[na]	diisobutyl zinc				
	Δ_vH	(288–372)	44.6 ± 0.2	330		[1984SOK/BAE]
$C_8H_{18}Zn$	[16636-96-7]	di-*tert*-butyl zinc				
	$\Delta_{fus}H$		45.3	300		[1984SOK/BAE]
	Δ_vH	(300–322)	49.3 ± 0.8	311		[1984SOK/BAE]
$C_{10}H_{14}O_4Zn$	[14024-63-6]	*bis*(2,4-pentanedionato)zinc(II)				
	$\Delta_{sub}H$		132.6 ± 8	298	C	[1985MUR/SAK, 1988RIB/PIL]
	$\Delta_{sub}H$		117 ± 3			[1980SAC/HIL]
$C_{10}H_{20}N_2S_4Zn$	[14324-55-1]	*bis*(diethyldithiocarbamate)zinc(II)				
	$\Delta_{sub}H$		115 ± 15	298	DSC,E	[2000DEA/SOU]
	$\Delta_{sub}H$	(401–444)	143.1	422.5	A	[1987STE/MAL]
	$\Delta_{sub}H$		142.7 ± 2.5		GC	[1976TAV/NEE]
$C_{10}H_{22}Zn$	[14402-93-8]	dipentyl zinc				
	Δ_vH		48.6			[1949HAT/SUT]
$C_{12}H_{26}Zn$	[13822-55-4]	dihexyl zinc				
	Δ_vH		56.2			[1949HAT/SUT]
$C_{14}H_{28}N_2S_4Zn$	[15694-56-1]	*bis*(dipropyldithiocarbamate)zinc(II)				
	$\Delta_{sub}H$		147 ± 2	298	DSC, E	[1992DEC/AIR]
$C_{14}H_{30}Zn$	[14402-95-0]	diheptyl zinc				
	Δ_vH		62.3			[1949HAT/SUT]
$C_{18}H_{12}N_2O_2Zn$	[13978-85-3]	*bis*(8-hydroxyquinolinato)zinc(II)				
	$\Delta_{sub}H$		183.2 ± 6.3	298	ME	[1994RIB/MAT]
	$\Delta_{sub}H$	(473–513)	167.9 ± 6	493	ME	[1984BUR/MOR]
	$\Delta_{sub}H$		178 ± 6	298		[1984BUR/MOR]
$C_{18}H_{36}N_2S_4Zn$	[136-23-2]	*bis*(dibutyldithiocarbamate)zinc(II)				
	$\Delta_{sub}H$		107 ± 3	298	DSC,E	[1991DES/DES]
$C_{18}H_{36}N_2S_4Zn$	[36190-62-2]	*bis*(diisobutyldithiocarbamate)zinc(II)				
	$\Delta_{sub}H$		283 ± 2	298	DSC,E	[1994SOU/PIN]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
$C_{20}H_{16}N_2O_2Zn$	[14128-73-5]	*bis*(8-hydroxy-2-methylquinolinate)zinc(II)				
	$\Delta_{sub}H$	(437–556)	172.0 ± 5.0	541	ME	[1998RIB/MAT3]
	$\Delta_{sub}H$		179.4 ± 5.0	298		[1998RIB/MAT3]
$C_{22}H_{38}O_4Zn$	[14363-14-5]	*bis*(2,2,6,6-tetramethylheptan-3,5-dianato)zinc(II)				
	$\Delta_{sub}H$		136		ME	[1973BRU/CUR]
$C_{22}H_{44}N_2S_4Zn$	[15337-18-5]	*bis*(dipentyldithiocarbamate)zinc(II)				
	$\Delta_{sub}H$		127 ± 3	298	DSC,E	[2000DEA/SOU]
$C_{32}F_{16}N_8Zn$	[14320-04-8]	1,2,3,4,8,9,10,11,15,16,17,18,22,23,24,25-hexadecafluorophthalocyanine zinc(II)				
	$\Delta_{v}H$	(658–711)	56.5 ± 0.4	685	ME	[2008SEM/BAS]
$C_{32}H_{16}N_8Zn$	[14320-04-8]	zinc(II) phthalocyanine				
	$\Delta_{v}H$	(664–709)	48.1 ± 1.8	686	ME	[2008SEM/BAS]
$C_{44}H_{28}N_4Zn$	[14074-80-7]	5,10,15,20-tetraphenylphorphine zinc (II)				
	$\Delta_{sub}H$	(555–567)	183 ± 3	559	ME	[2002PAT/CAM]
	$\Delta_{sub}H$	(555–567)	196 ± 3	298	ME	[2002PAT/CAM]
	$\Delta_{sub}H$	(563–663)	213 ± 3			[1994PER/NAN, 2002PAT/CAM]
	$\Delta_{sub}H$		109	666	UV/Vis	[1971EDW/DOL, 2002PAT/CAM]
	$\Delta_{sub}H$		208 ± 4		GS	[2000PER/GOL]
Cl_2Zn	[7646-85-7]	zinc chloride				
	$\Delta_{v}H$	(695–826)	134.5	760		[1958BLO/WEL]
F_2Zn	[7783-49-5]	zinc fluoride				
	$\Delta_{sub}H$	(901–1125)	252.4	1015	ME	[1973BIE/EIC]
Zr (zirconium)						
$C_{10}H_{10}Cl_2Zr$	[1291-32-3]	*bis*(cyclopentadienyl)zirconium dichloride				
	$\Delta_{sub}H$		108.5 ± 4.6	298	ME	[2001DIO/PIE]
	$\Delta_{sub}H$	(393–457)	100.3	425	A	[1987STE/MAL]
	$\Delta_{sub}H$		105.0 ± 2.1	298		[1982PIL/SKI, 1976KIR/TEL]
	$\Delta_{sub}H$		100.4 ± 1.7			[1977BAL/BAR]
	$\Delta_{sub}H$		96.7			[1969DIL/KIS]
	$\Delta_{sub}H$		103 ± 13	298		[1968KIS/DIL, 2001DIO/PIE]
	$\Delta_{v}H$	(394–425)	71 ± 5			[2008ARU/MAT]
$C_{12}H_{16}Zr$	[1291-32-3]	*bis*(cyclopentadienyl)dimethylzirconium				
	$\Delta_{sub}H$		81.2 ± 2.1	298		[1982PIL/SKI, 1976KIR/TEL]
$C_{12}H_{36}N_4Zr$	[175923-04-3]	*tetrakis*(methylethylamino)zirconium (IV)				
	$\Delta_{sub}H$	(278–333)	79.4 ± 2.4		ME	[2009MON/NUT]
		Note: Authors state in the paper that the compound is a liquid at room temperature. Figure 3 in the paper shows that the plot of ln P versus 1/T is linear over the entire temperature range. The authors refer to the enthalpy as the enthalpy of sublimation. We have taken the value to be the enthalpy of vaporization given the authors' statement that the compound is a liquid. The compound's melting point temperature is unknown.				
$C_{16}H_{36}O_4Zr$	[na]	tetra-*tert*-butoxy zirconium				
	$\Delta_{v}H$	(374–587)	56.6	389	A	[1987STE/MAL]
$C_{20}H_4F_{24}O_8Zr$	[19530-02-0]	*tetrakis*(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)zirconium(IV)				
	$\Delta_{sub}H$	(333–363)	59.0		TGA	[2000FAH/BAR]
	$\Delta_{v}H$	(366–456)	48.6 ± 0.6	411	T	[1996MOR/SYS]
$C_{20}H_{16}F_{12}O_8Zr$	[17499-68-2]	*tetrakis*(1,1,1-trifluoro-2,4-pentanedionato)zirconium(IV)				
	$\Delta_{sub}H$	(373–403)	94		TGA	[2000FAH/BAR]

TABLE 12. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular Formula	CAS Reg No Enthalpy	Compound Temp (K) Range	$\Delta_{trans}H_m$ (kJ mol^{-1})	T_m (K)	Method	Reference
	$\Delta_{sub}H$	(368–398)	133.6 ± 2.0	383	SMZG	[1996MOR/SYS]
	$\Delta_{sub}H$		118.7 ± 3.1	298	C	[1992RIB/FER2]
	$\Delta_{sub}H$	(383–438)	126.4 ± 1.7		GS	[1985MAT/KUW]
	$\Delta_{sub}H$	(383–438)	119.2 ± 1.7		GS	[1985MAT/KUW]
$C_{20}H_{28}O_8Zr$	[17501-44-9]	*tetrakis*(2,4-pentanedionato)zirconium(IV)				
	$\Delta_{sub}H$	(413–443)	126		TGA	[2000FAH/BAR]
	$\Delta_{sub}H$	(403–433)	138.8 ± 2	418	SMZG	[1996MOR/SYS]
	$\Delta_{sub}H$		125.8 ± 2.9	298	C	[1992RIB/FER2]
	$\Delta_{sub}H$		132.0 ± 6.8	463		[1987MUR/HIL2]
	$\Delta_{sub}H$		116 ± 34			[1984TRE/BER]
$C_{20}H_{44}O_4Zr$	[na]	*tetrakis*(1,1-dimethylpropoxy)zirconium				
	Δ_vH	(392–426)	68	407	A	[1987STE/MAL]
$C_{20}H_{44}O_4Zr$	[na]	tetra-*tert*-pentoxyzirconium				
	Δ_vH	(361–435)	74.1	361	A	[1987STE/MAL]
$C_{22}H_{20}Zr$	[51177-89-0]	*bis*(cyclopentadienyl)diphenylzirconium				
	$\Delta_{sub}H$		92.0 ± 4.2			[1976KIR/TEL]
$C_{24}H_{52}O_4Zr$	[na]	*tetrakis*(1,1-dimethylbutoxy)zirconium				
	Δ_vH	(406–449)	93.3	421	A	[1987STE/MAL]
$C_{24}H_{52}O_4Zr$	[na]	*tetrakis*(1-methyl-1-ethylpropoxy)zirconium				
	Δ_vH	(423–460)	91.4	438	A	[1987STE/MAL]
$C_{32}H_{40}F_{12}O_8Zr$	[56044-44-1]	*tetrakis*(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato) zirconium(IV)				
	$\Delta_{sub}H$	(408–449)	87 ± 1			[2008ARU/MAT]
	$\Delta_{sub}H$	(388–423)	134.9 ± 1.6	406	SMZG	[1996MOR/SYS]
$C_{44}H_{76}O_8Zr$	[18865-74-2]	*tetrakis*(2,2,6,6-tetramethylheptan-3,5-dionato)zirconium(IV)				
	$\Delta_{trs}H$		11.6	446		
		Note: value also includes the enthalpy of the solid/solid transition at 438 K				
	$\Delta_{fus}H$		5.7	616	DSC	[2008ZHE/MOR]
	$\Delta_{trs}H$		4.86	387.1		
	$\Delta_{trs}H$		16.38	430.3		[2004FUL/RUZ2]
	$\Delta_{sub}H$	(411–463)	85.4	437	GS	[2008JEE/ARO]
	$\Delta_{sub}H$	(413–443)	120		TGA	[2000FAH/BAR]
$ZrCl_4$	[10026-11-6]	zirconium tetrachloride				
	$\Delta_{sub}H$	(405–518)	98.9 ± 0.5	512	T	[1994TAN/BOS]
ZrF_4	[7783-64-4]	zirconium tetrafluoride				
	$\Delta_{sub}H$	(696–856)	240.0 ± 0.1	298	TE	[1994KON/HIL]
	$\Delta_{sub}H$	796	243	298	MS	[1965SID/AKI, 1994KON/HIL]
	$\Delta_{sub}H$	(983–1177)	241.1 ± 0.1	298		[1964FIS/PET, 1994KON/HIL]
	$\Delta_{sub}H$	(681–913)	242.6 ± 1.7	298	MS	[1963AKA/BEL, 1994KON/HIL]
	$\Delta_{sub}H$	(713–873)	232.3 ± 1.2	298		[1963GAL/TUM, 1994KON/HIL]
	$\Delta_{sub}H$	(983–1081)	239.9 ± 0.2	298		[1958CAN/NEW, 1994KON/HIL]
	$\Delta_{sub}H$	(890–1150)	241.8 ± 0.6	298	GS	[1954SEN/SNY2, 1994KON/HIL]

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