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Chemical Thermodynamic Properties of Compounds of Sodium, Potassium and Rubidium: An Interim Tabulation of Selected Values

D. D. Wagman, W. H. Evans, V. B. Parker and R. H. Schumm

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Interim Report

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Prepared for
Office of Standard Reference Data, NBS



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Table of Contents

1.	Introduction	1
2.	Explanation of the Contents of the Tables	2
2.1	Chemical Formulae and Physical States	2
2.2	Definition of Symbols for Thermodynamic Properties	3
2.3	Conventions Regarding Pure Substances	3
2.4	Conventions Regarding Solutions	4
3.	Units of Energy	6
4.	Internal Consistency of the Tables	7
4.1	Uncertainties	7
4.2	Relationship to Other Tables of Thermodynamic Data	8
5.	Arrangement of the Tables	8
Figure 1	Standard Order of Arrangement	11
Table A	Physical State Conventions	12
Table B	Conversion factors for Units of Molecular Energy	16
Tables of Selected Value of Thermodynamic Properties		17
	Compounds of Sodium	
	Compounds of Potassium	
	Compounds of Rubidium	

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ABSTRACT

Selected values are given for the thermochemical properties of the more common compounds of sodium and potassium. A more extensive set of selections is provided for rubidium compounds. The properties included, where data are available, are enthalpy of formation at 0 K and 298.15 K, $\Delta H_f(0)$ and $\Delta H_f(298)$, Gibbs energy of formation, entropy and heat capacity at 298.15 K; $\Delta G_f(298)$, $S(298)$ and $C_p(298)$, and the enthalpy difference between 0 K and 298.15 K, $H(298)-H(0)$. The values are consistent with the tables issued earlier in the NBS Technical Note 270 series.

Keywords: Enthalpy; entropy; Gibbs energy; heat capacity; potassium compounds; rubidium compounds; sodium compounds; standard reference data; thermochemical tables.

1. Introduction

This is an interim report on the evaluation of chemical thermodynamic properties of compounds of three of the alkali metals. It supplements the extensive set of selected values of chemical thermodynamic properties published as NBS Technical Note 270, parts 1-7. [1]. The values contained in this report are consistent with those in NBS Technical Note 270 and may be combined with them to establish the thermodynamic properties of processes.

Three tables are given here for the more common compounds of sodium and potassium and for all rubidium compounds for which data are available.

The tables contain values of the enthalpy and Gibbs energy of formation, ΔH_f° and ΔG_f° , entropy, S° , and heat capacity, C_p° , all at 298.15 K (25°C), the enthalpy of formation at 0 K, ΔH_f° , and the enthalpy difference between 0 K and 298 K, $H^\circ(298)-H^\circ(0)$. The substances included are inorganic compounds of these elements, compounds containing organic ligands that have one or two carbon atoms and their aqueous solutions.

No values are given in these tables for metal alloys or other solid solutions, fused salts, or for substances of undefined chemical composition.

The sodium and potassium tables are incomplete. They list properties of compounds evaluated in the course of preparing selections for compounds already published in the NBS Technical Note 270 series and an extensive collection of the properties of neutral electrolytes in aqueous solution at the hypothetical standard state of unit activity. The latter were calculated as the sum of the properties of the ions. Although selections will be needed for the properties of many more compounds of sodium and potassium, the selections given here should be sufficient for solution of a wide range of thermochemical problems.

The rubidium table is the complete set of selections now planned for inclusion in NBS Technical Note 270. It was prepared late in 1975. There may be a few revisions and additions based on newly reported data.

Users of these three tables are invited to comment on the selections, suggest substances for which values of properties are needed, correct errors and bring new measurements to our attention. All of these will help us improve the final tables.

2. Explanation of the contents of the tables

The following material, adapted from NBS Technical Note 270, provides definitions and conventions used in the tables.

2.1 Chemical Formulae and Physical States

The tables were reproduced from computer printout in which only capital (upper case) letters are available. Normal one-line chemical formulae are used, with the following modifications:

- Subscripts (counts of atoms) and superscripts (charge) are printed on line: $\text{NA2O2} = \text{Na}_2\text{O}_2$, $\text{NA+} = \text{Na}^+$.

- The digit "1" appears wherever necessary to separate the symbols of two chemical elements: $\text{NAIN1O3} = \text{NaNO}_3$.

- The centered dot, used in hydrates and minerals, is shown as a colon: $\text{NAIV1O4:2H2O} = \text{NaVO}_4 \cdot 2\text{H}_2\text{O}$.

- The physical state of the substance is appended to the chemical formula in parentheses: $\text{NA1O1H(C)} = \text{NaOH}$, crystalline. The abbreviations most commonly used to denote physical states are listed in Table A. Any other notations are explained in comments within the tables.

2.2 Definition of Symbols for Thermochemical Properties

The headings used in the tables and their meanings are:

DH0 $\equiv \Delta H_f^0$, standard heat of formation at 0 K;

DH298 $\equiv \Delta H_f^\circ$, standard heat of formation at 298.15 K;

DG298 $\equiv \Delta G_f^\circ$, standard Gibbs energy (formerly free energy), G, of formation at 298.15 K;

H298-H0 $\equiv H_{298}^\circ - H_0^\circ$, enthalpy, H, of the compound in the indicated state at 298.15 K referred to its value at 0 K. If the indicated state at 298 K is gas, the corresponding state at 0 K is the hypothetical ideal gas; if the state at 298 K is solid or liquid, the corresponding state at 0 K is the thermodynamically stable crystalline solid, unless otherwise specifically indicated.

S298 $\equiv S^\circ$, standard entropy, S, at 298.15 K;

C298 $\equiv C_p^\circ$; specific heat at constant pressure at 298.15 K.

The Gibbs free energy is related to the other quantities by:

$G = H - TS$, where T is the thermodynamic temperature. The enthalpy is related to the internal energy, E, by: $H = E + PV$, where P = pressure and V = volume.

All values refer to one mole of substance for the formula given.

2.3 Conventions Regarding Pure Substances

The values of the thermodynamic properties of the pure substances given in these tables are for the substances in their standard states. These standard states are defined as follows:

For a pure solid or liquid, the standard state at any temperature is the substance in the condensed phase under a pressure of one atmosphere.

For a gas the standard state at any temperature is the hypothetical ideal gas at unit fugacity, in which state the enthalpy is that of the real gas at the same temperature and at zero pressure.

The phase of a substance is indicated in parentheses at the end of the chemical formula. See section 2.1.

The values of ΔH_f° and ΔG_f° given in the tables represent the change in the appropriate thermodynamic quantity when one mole of the substance in its standard state is formed, isothermally at the indicated temperature, from the elements, each in its appropriate standard reference state. The standard reference state at 25°C for each element except phosphorus has been chosen to be the standard state that is thermodynamically stable at 25°C and at one atmosphere pressure.

For phosphorus the standard reference state is the crystalline white form; the more stable forms have not been well characterized thermochemically. The same reference states have been maintained for the elements at 0 K except for the liquid elements bromine and mercury for which the reference states have been chosen as the stable crystalline forms. The standard reference states for the elements are indicated in the tables by the fact that the values of ΔH_f° and ΔG_f° are exactly zero.

The values of S° represent the virtual or "thermal" entropy of the substance in the standard state at 298.15 K, omitting contributions from nuclear spins. Isotope mixing effects, etc., are also excluded except in the case of the hydrogen-deuterium (^1H - ^2H) system. Where data have been available only for a particular isotope, they have been corrected when possible to the normal isotopic composition.

The values of the enthalpies of formation of gaseous ionic species are computed on the convention that the value of ΔH_f° for the electron is zero. Conversions between 0 and 298.15 K are calculated using the value of $H_{298}^\circ - H_0^\circ = 1.481$ kcal per mole of electrons, and assuming that the values of $H_{298}^\circ - H_0^\circ$ for the ionized and un-ionized molecules are the same.

2.4 Convention Regarding Solutions

For all dissolved substances the composition of the solvent is indicated in parentheses following the chemical formula. Except in special cases, discussed below, the number of moles of the solvent associated with one mole of solute is stated explicitly. See section 2.1 and Table A for the conventions used.

In some cases the concentration of the solute can not be specified. These are indicated as "AU" (aqueous, unspecified) for water solutions and by "U" for non-aqueous and mixed media. In all these cases the solution may be assumed to be "dilute".

The standard state for a non-dissociated solute in aqueous solution is taken as the hypothetical ideal solution of unit molality, which has been designated as "std. state, $m = 1$ ". For strong electrolytes in aqueous solution the conventional standard state is the ideal solution of unit activity (unit mean molality). For non-aqueous solutions the standard state of the solute is the hypothetical ideal solution of unit mole fraction of solute (std. state, $x_2 = 1$). The designation "A" is used for strong electrolytes in the standard state and "AO" for undissociated species in water solution. In non-aqueous media the standard state defined above is indicated by appending "X" to the formula of the solvent. The convention "std. state, $m = 1$ " is used only rarely for non-aqueous media. For it, an "M" is appended to the formula of the solvent.

The value of ΔH_f° for a solute in its standard state is equal to the apparent molal enthalpy of formation of the substance in the infinitely dilute real solution, since the enthalpy of dilution of an ideal solution is zero. At this dilution the partial molal enthalpy is equal to the apparent molal quantity. At concentrations other than the standard state, the value of ΔH_f° represents the apparent enthalpy of the reaction of formation of the solution from the elements comprising the solute, each in its standard reference state, and the appropriate total number of moles of solvent. In this representation the value of ΔH_f° for the solvent is not required. The experimental value for a heat of dilution is obtained directly as the difference between the two values of ΔH_f° at the corresponding concentrations. At finite concentrations the partial molal enthalpy of formation differs from the apparent enthalpy.

The values of the thermodynamic properties tabulated for the individual ions in aqueous solution are based on the usually convention that the values of ΔH_f° , ΔG_f° , S° and C_p° for H^+ (aq, std. state, $m = 1$) are zero. The properties of a neutral electrolyte in aqueous solution in the standard state are equal to the algebraic sum of these values for the appropriate kinds and numbers of individual ions assumed to constitute the molecule of the given electrolyte. For an ionic species e.g., HSO_4^- , the properties tabulated refer to that undissociated ion, i.e. they are not equal to the sum of those for its constituent ions. By adopting the above convention with respect to aqueous H^+ , it follows that the thermodynamic relation $\Delta H_f^\circ = \Delta H_f^\circ - T(\Delta S_f^\circ + n \cdot 0.5S^\circ(H_2))$ holds for individual ionic species, with n equal to the algebraic value of the charge. For neutral electrolytes (and gaseous ions) the normal consistency relationship applies. See section 4.

3. Unit of Energy and Fundamental Constants

All of the energy values given in these tables are expressed in terms of the thermochemical calorie. This unit, defined as equal to 4.1840 joules, is generally accepted for the presentation of chemical thermodynamic data. Values reported in other units have been converted to calories by means of the conversion factors for molecular energy given in Table B.

The following values of the fundamental physical constants have been used in these calculations:

$$R = \text{gas constant} = 8.3143 \pm 0.0012 \text{ J/deg mol} = 1.98717 \pm 0.00029 \text{ cal/deg mol}$$

$$F = \text{Faraday constant} = 96487.0 \pm 1.6 \text{ coulombs/mol} = 23060.9 \pm 0.4 \text{ cal/volt equivalent}$$

$$Z = Nhc = 11.96258 \pm 0.00107 \text{ J/cm}^{-1} \text{ mol} = 2.85912 \pm 0.00026 \text{ cal/cm}^{-1} \text{ mol}$$

$$c_2 = \text{second radiation constant} = hc/k = 1.43879 \pm 0.00015 \text{ cm deg}$$

$$0^\circ\text{C} = 273.15 \text{ K}$$

These constants are consistent with those given in the Table of General Physical Constants, recommended by the National Academy of Sciences-National Research Council [2].

These values differ slightly from those recommended by CODATA [3] in 1973. However, adoption of the CODATA recommendations would change the values in the present tables by far less than their uncertainties (see section 4.1). Thus the present values may be said to be consistent with the 1973 set of fundamental constants. The formula weights in the tables have been calculated from the molecular formula using the 1961 Table of Relative Atomic Weights based on the atomic mass of $^{12}\text{C} = 12$ exactly [4]. Values are given to four decimal places for convenience in the computer processing. Use of the more recent atomic weights [8] would produce only insignificant changes in the tabulated thermodynamic values.

4. Internal Consistency of the Tables

All of the values given in these tables have been calculated from the original articles, using consistent values for all subsidiary and auxiliary quantities. The original data were corrected where possible for differences in energy units, molecular weights, temperature scales, etc. Thus we have sought to maintain a uniform scale of energies for all the substances in the tables. In addition the tabulated values of the properties of a substance satisfy all the known physical and thermodynamic relationships among these properties. The quantities ΔH_f° , ΔG_f° , and S° at 298.15 K satisfy the relation:

$$\Delta G_f^\circ = \Delta H_f^\circ - T \Delta S_f^\circ.$$

to the precision given. The special case of solutions is discussed in section 2.4. Furthermore the calculated value of any thermodynamic quantity for a reaction is independent of the path chosen for the evaluation.

In some cases newer data may have become available on certain substances after the values were selected for these tables. Because of the need to maintain the internal consistency of the tables, it is not always possible to incorporate these newer data into the tables without a detailed analysis of the effect of such a change. Unless great care is used, relatively significant errors in calculated values of ΔH° or ΔG° for specific reactions may result from the introduction of such data. See section 4.2.

4.1 Uncertainties

The uncertainty in any value in the tables depends on the uncertainties of all the determinations in the total chain of reactions used to establish the value.

In general, when uncertainties are not stated explicitly certain rules have been followed with respect to the number of significant figures recorded. Values are tabulated such that the overall uncertainty lies between 2 and 20 units of the last figure. On the other hand, values are given so that the experimental data from which they are derived may be recovered with an accuracy equal to that of the original quantities. Thus the number of significant figures for any one value in the tables need not represent the absolute accuracy of that value. For solutions of varying composition, values are frequently tabulated to more figures to make possible the recovery of enthalpies of solution and dilution. Similarly values of ΔH_f° and $\Delta H_f^\circ_{298.15}$ may be given to different numbers of significant figures. In this instance the quantity with the lesser number of figures is used to represent the uncertainty estimate. The larger number of figures is used for the other quantity to retain the significance of the temperature correction term.

The remarks above apply directly to the tables on sodium and potassium compounds. For rubidium uncertainties are stated explicitly immediately below the value of each property. (The form is ± 0.05 , where \pm means \pm).

4.2 Relationship to Other Tables of Thermodynamic Properties

The chemical thermodynamic properties in the present table may be combined with those published in NBS Technical Note 270 [1] in order to calculate the change in a property for a process. However we recommend against these values being combined with those in any other tabulation or with a property reported in an original research paper. In particular, we warn against indiscriminate combination with the CODATA Key Values for Thermodynamics [5-7].

There are several reasons for avoiding the combination of thermochemical data from more than one table. The most important is that different large-scale tables use different thermochemical properties of formation for substances that are ubiquitous in thermochemical measurements. Outstanding examples are the common inorganic acids and their ions. Another reason is that the groups preparing different tables may have relied on different measurements as the basis for selecting property values.

It is difficult to predict a priori how a change in one selected formation property would affect values assigned to other substances because of the way these are linked by complex networks. In general, it may be expected that the advantage of internal consistency of a table will be lost if values from several sources are combined and that experimental measurements may be reproduced poorly.

No general, simple algorithm can be suggested for overcoming this problem. If it becomes necessary to extend a table of data to substances other than those tabulated, the user is advised to consult the group that prepared the table about the procedure that he plans to use.

5. Arrangement of the Tables

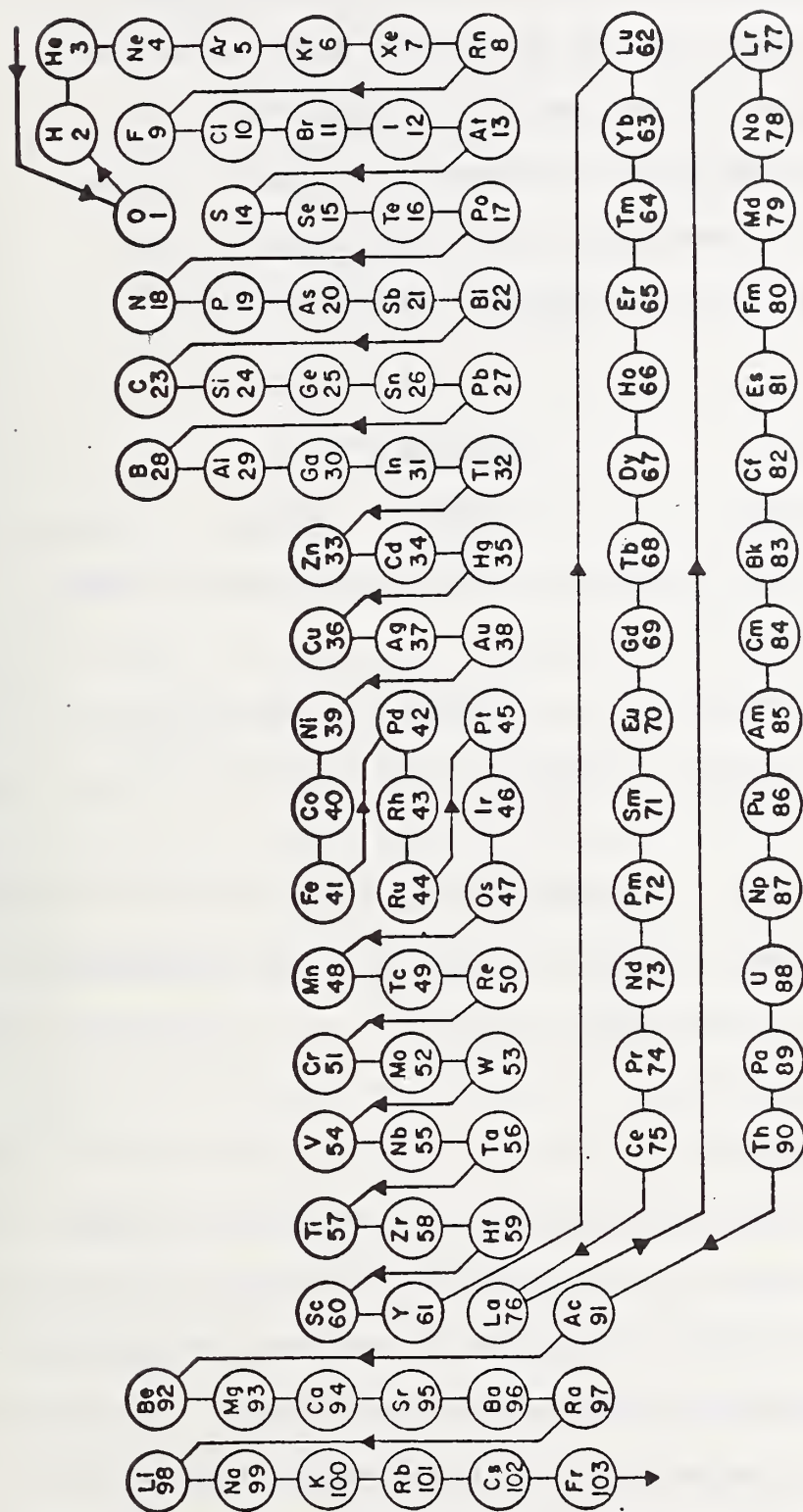
The compounds in the tables are entered according to the Standard Order of Arrangement, (see Figure 1), by the principle of latest position. In this scheme, a compound is listed under the element occurring latest in the list; water of hydration is neglected. Within a given element-table will be found all of the compounds of that element with elements occurring earlier in the order; the arrangement within a table follows the same ordering.

The selections for rubidium compounds were made late in 1975 by W. H. Evans. Those for sodium and potassium have been made by all of us and by former members of the Chemical Thermodynamics Data Center during the past decade. The extensive collection of properties of electrolytes in aqueous solution was prepared by R. H. Schumm. The tables have been printed using computer programs that are modifications of ones developed by Dr. J. B. Pedley, University of Sussex, Brighton, England, for the CATCH System of Thermochemical Tables.

References

1. Wagman, D. D. et al., NBS Technical Note 270-3 (1968), 270-4 (1969), 270-5 (1971), Parker, V. B. et al, NBS Technical Note 270-6 (1971), Schumm, R. H. et al, NBS Technical Note 270-7 (1973).
2. NBS Technical News Bulletin, October 1963.
3. CODATA Task Group on Fundamental Constants, CODATA Bulletin No. 11 (December 1973).
4. Cameron, A. E., and Wichers, E., J. Am. Chem. Soc. 84, 4192 (1962).
5. CODATA Task Group on Key Values for Thermodynamics, CODATA Bulletin No. 17 (January 1976).
6. Idem, CODATA Special Report No. 3 (September 1975).
7. Parker, V. B., Wagman, D. D. and Garvin, D., NBS Interagency Report, NBSIR 75-968 (January 1976).
8. Commission on Atomic Weights of IUPAC, Pure Appl. Chem. 21, 577 (1970).

STANDARD ORDER OF ARRANGEMENT



Standard Order of Arrangement of the Elements and Compounds
based on the
Periodic Classification of the Elements

Figure 1

TABLE A: Physical State Conventions

The following conventions are used to designate the physical state of a substance. These apply to the attached table and to the NBS Thermochemical Data Bank. This information appears in a parenthetical expression appended to the molecular formula. Some of the explanations imply a thermochemical value, particularly those for solutions. These normally are used in describing enthalpy measurements.

Basic Symbols

Explanation

(G)	Gaseous, e.g., in $\text{HCl}(\text{G})$ for $\text{HCl}(\text{g})$
(GS)	Gaseous reference standard state for an element, e.g., $\text{O}_2(\text{GS})$ for $\text{O}_2(\text{g})$
(C)	Crystalline, e.g., in $\text{NH}_4\text{Cl}(\text{C})$ for $\text{NH}_4\text{Cl}(\text{c})$
(CS)	Crystalline reference standard state for an element, e.g., in $\text{Rb}(\text{CS})$ for $\text{Rb}(\text{c})$
(L)	Liquid, e.g., in $\text{H}_2\text{O}(\text{L})$ for $\text{H}_2\text{O}(\ell)$
(LS)	Liquid reference standard state for an element, e.g., in $\text{Br}_2(\text{LS})$ for $\text{Br}_2(\ell)$
(AM)	Amorphous
(GL)	Glassy
(A)	Hypothetical standard state of the ideal aqueous solution at unit activity. For a neutral electrolyte the value of a property is equal to the algebraic sum of the values for the ions assumed to constitute the molecule of the electrolyte, e.g. $\text{HCl}(\text{A}) = \text{H}^+(\text{A}) + \text{Cl}^-(\text{A})$. For an ionic species this notation is commonly used to refer to the undissociated ion as written. e.g. $\text{HSO}_4^-(\text{A})$

SymbolExplanation

(AO)	Hypothetical standard state of the ideal aqueous solution at unit activity of the undissociated (non-ionized) species, e.g. HF(AO), HF ₂ ⁻ (AO). May also be used whenever the designation (A) could be ambiguous. Note that the descriptions HSO ₄ ⁻ (A) and HSO ₄ ⁻ (AO) are equivalent, but that HF(A) and HF(AO) are not.
(AU)	Aqueous solution of undefined, but usually dilute, concentration, e.g. XeO ₃ (AU).

The symbols used above occasionally are modified by numbers to distinguish two substances in the same state that have the same molecular weight, as for isomers, : (AU2), (C3). They are also used in combination with descriptive material, e.g. (C:HE), (C:AL) etc. to mean "crystalline, hexagonal", "crystalline, alpha form" etc.

Special notations for substances in solutions

The notations for the "state" of a substance in solution may combine a definition of the system, e.g. HCl in 220 moles of water, and a specification of the thermochemical property associated with it. Usually the thermochemical property is the apparent integral enthalpy or free energy of formation or an absolute entropy, i.e. the formation properties of the solvent are not included. If a partial molal property is tabulated the notation D: ("D" for "differential") occurs as the first term in the state bracket. The notations given below illustrate the differences for integral and differential (partial molal) properties, and extrapolated values. Examples are given for aqueous, mixed, and non-aqueous solvents.

SymbolExplanation

H1CL(200H2O)	An aqueous solution of specified composition, e.g. one mole of HCl in 200 moles H ₂ O. The value of ΔH_f represents the apparent integral enthalpy of formation.
H1CL(D:200H2O) and H2O(D:H1CL+200H2O)	These represent the partial molal (enthalpy) of formation of the substance in a solution of specified concentration, e.g. the partial molal enthalpy of formation of HCl and H ₂ O respectively, in a solution consisting of 1 mole HCl and 200 moles H ₂ O.
U1CL4(H1CL104+50H2O)	This describes a solute dissolved in a mixed solvent, e.g. one mole of UCl ₄ in a mixture of 1 mole of HClO ₄ and 50 moles H ₂ O. The value of ΔH_f represents the apparent integral enthalpy of formation of the substance, UCl ₄ , in the medium.
U1CL4(H1CL104+ 50H2O:AU)	This represents a solute at an unspecified but usually dilute concentration in a solvent mixture of fixed composition.

SymbolExplanation

- U1CL4(D:H1N1O3+5OH2O) Specifies the partial molal (enthalpy) of formation of a substance in a mixed medium, e.g. the enthalpy of formation of 1 mole of UCl_4 in a large amount of a solution containing UCl_4 , HNO_3 and H_2O in the molar ratios 1:1:50.
- U1CL4(L(H1CL):AU) Specifies a thermochemical value extrapolated from those in a particular type of solution, e.g. the integral (enthalpy) of formation of UCl_4 at an unspecified concentration in water solution obtained by extrapolation from values in solutions containing HCl at varying concentrations.
- RB1I(C1H3C1N:S) Ideal solution of a substance (RbI) in a non-aqueous solvent (CH_3CN), the substance being in the standard state of unit activity on the molal scale unless otherwise indicated. (In some early entries in the Data Bank these are written ambiguously as (C1H3C1N)).
- RB1I(C1H3C1N:U) Solution of a substance (RbI) in a non-aqueous solvent (CH_3CN) at an unspecified concentration. This is analogous to (AU).
- RB1I(1000C1H3C1N) Solution of a substance (RbI) in a non-aqueous solvent (CH_3CN) at a specified concentration.

TABLE B

CONVERSION FACTORS FOR UNITS OF MOLECULAR ENERGY

	J/mol	cal/mol	cm ³ atm/mol	kWh/mol	Btu/lb-mol	cm ⁻¹ /molecule	eV/molecule
1 J/mol =	1	2.390057 x 10 ⁻¹	9.86923	2.77778 x 10 ⁻⁷	0.429923	8.35940 x 10 ⁻²	1.036409 x 10 ⁻⁵
1 cal/mol =	<u>4.18400</u>	1	41.2929	1.162222 x 10 ⁻⁶	1.798796	3.49757 x 10 ⁻¹	4.33634 x 10 ⁻⁵
1 cm ³ atm/mol =	<u>0.1013250</u>	2.42173 x 10 ⁻²	1	2.81458 x 10 ⁻⁸	4.35619 x 10 ⁻²	8.47016 x 10 ⁻³	1.050141 x 10 ⁻⁶
1 kWh/mol =	<u>3,600,000</u>	860,421	3.55292 x 10 ⁷	1	1,547,721	300,938	37.3107
1 Btu/lb-mol =	<u>2.32600</u>	5.55927 x 10 ⁻¹	22.9558	6.46111 x 10 ⁻⁷	1	1.944396 x 10 ⁻¹	2.41069 x 10 ⁻⁵
1 cm ⁻¹ /molecule =	11.96258	2.85912	118.0614	3.32294 x 10 ⁻⁶	5.14299	1	1.239812 x 10 ⁻⁴
1 eV/molecule =	<u>96487.0</u>	23060.9	952,252	2.68019 x 10 ⁻²	41482.0	<u>8065.73</u>	1

The underlined numbers represent the fundamental values used in deriving this table. The remaining factors were obtained by applying the relationships:

$$n_{ij} = n_{ik} \cdot n_{kj}$$

$$n_{ji} = n_{jk} \cdot n_{ki} = 1$$

TABLES OF SELECTED VALUES OF THERMODYNAMIC PROPERTIES

Enthalpy of Formation at 0 K

Enthalpy of Formation at 298.15 K

Gibbs Energy of Formation at 298.15 K

Enthalpy at 298.15 K

Entropy at 298.15 K

Heat Capacity at 298.15 K

NBS ALKALI METAL CMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K		DH298	DG298	H298 - H0	S298	CP298
FORMULA WT	DHO	DH298	DG298	H298 - H0	S298	CP298
1 NA(CS)	22.9898	0	0	1.54	12.24	6.75
2 NA(G)	22.9898	25.663	18.30	1.481	36.712	4.968
3 NA+(A)	22.9898	-57.39	-62.593		14.1	11.1
4 NA2O(C)	61.9790	-99.7				
5 NA2O2(C)	77.9784	-122.30				
6 NA1OH1(C)	39.9972	-101.723				
7 NA1OH(A)	39.9972	-112.36				
8 NA1OH(2.5H2O)	39.9972	-108.100				
9 NA1OH(3H2O)	39.9972	-109.053				
10 NA1OH(4H2O)	39.9972	-110.405				
11 NA1OH(4.5H2O)	39.9972	-110.847				
12 NA1OH(5H2O)	39.9972	-111.182				
13 NA1OH(6H2O)	39.9972	-111.633				
14 NA1OH(8H2O)	39.9972	-112.071				
15 NA1OH(10H2O)	39.9972	-112.248				
16 NA1OH(12H2O)	39.9972	-112.326				
17 NA1OH(15H2O)	39.9972	-112.370				
18 NA1OH(20H2O)	39.9972	-112.380				
19 NA1OH(25H2O)	39.9972	-112.364				
20 NA1OH(30H2O)	39.9972	-112.347				
21 NA1OH(40H2O)	39.9972	-112.316				
22 NA1OH(50H2O)	39.9972	-112.293				
23 NA1OH(75H2O)	39.9972	-112.261				
24 NA1OH(100H2O)	39.9972	-112.248				
25 NA1OH(150H2O)	39.9972	-112.242				
26 NA1OH(200H2O)	39.9972	-112.239				
27 NA1OH(300H2O)	39.9972	-112.244				
28 NA1OH(500H2O)	39.9972	-112.256				
29 NA1OH(800H2O)	39.9972	-112.270				
30 NA1OH(1000H2O)	39.9972	-112.276				
31 NA1OH1(1500H2O)	39.9972	-112.288				
32 NA1OH(2000H2O)	39.9972	-112.295				
33 NA1OH1(3000H2O)	39.9972	-112.305				
34 NA1OH1(5000H2O)	39.9972	-112.316				
35 NA1OH1(7000H2O)	39.9972	-112.322				
36 NA1OH1(10000H2O)	39.9972	-112.328				
37 NA1OH1(20000H2O)	39.9972	-112.337				
38 NA1OH1(50000H2O)	39.9972	-112.345				
39 NA1OH(100000H2O)	39.9972	-112.349				
40 NA1OH(00H2O)	39.9972	-112.36				
			-100.187	11.5		-24.4

NBS ALKALI METAL CPD.	THEMDO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	DH298	H298 - H0	S298	CP298
FORMULA WT	DHO	DG298			
41 NA101H:H2O(C)	58.0126	-175.557			
42 NA1H102(A)	55.9966	-95.71		19.8	
SCDIUM HYDROPEROXIDE; FROM NA+. H02-					
43 NA1F(C)	41.9882	-137.108			
44 NA1F(A)	41.9882	-136.89		10.8	-14.4
45 NA1F(50H2O)	41.9882	-136.833			
46 NA1F(75H2O)	41.9882	-136.798			
47 NA1F(100H2O)	41.9882	-136.783			
48 NA1F(150H2O)	41.9882	-136.775			
49 NA1F(200H2O)	41.9882	-136.771			
50 NA1F(300H2O)	41.9882	-136.775			
51 NA1F(500H2O)	41.9882	-136.786			
52 NA1F(600H2O)	41.9882	-136.600			
53 NA1F(1000H2O)	41.9882	-136.806			
54 NA1F(1500H2O)	41.9882	-136.818			
55 NA1F(2000H2O)	41.9882	-136.825			
56 NA1F(3000H2O)	41.9882	-136.835			
57 NA1F(5000H2O)	41.9882	-136.846			
58 NA1F(7000H2O)	41.9882	-136.852			
59 NA1F(10000H2O)	41.9882	-136.858			
60 NA1F(20000H2O)	41.9882	-136.867			
61 NA1F(50000H2O)	41.9882	-136.875			
62 NA1F(100000H2O)	41.9882	-136.879			
63 NA1F(00H2O)	41.9882	-136.89		36.2	
64 NA1H1F2(A)	61.5946	-212.73			
SCDIUM BIFLUORIDE. FROM NA+, HF2-					
65 NA1CL(C)	58.4428	-91.842		17.33	
66 NA1CL(A)	58.4428	-97.34		27.6	-21.5
67 NA1CL(9H2O)	58.4428	-97.820			
68 NA1CL(10H2O)	58.4428	-97.809			
69 NA1CL(12H2O)	58.4428	-97.770			
70 NA1CL(15H2O)	58.4428	-97.707			
71 NA1CL(20H2O)	58.4428	-97.614			
72 NA1CL(25H2O)	58.4428	-97.547			
73 NA1CL(30H2O)	58.4428	-97.496			
74 NA1CL(40H2O)	58.4428	-97.425			
75 NA1CL(50H2O)	58.4428	-97.381			
76 NA1CL(75H2O)	58.4428	-97.320			
77 NA1CL(100H2O)	58.4428	-97.291			
78 NA1CL(150H2O)	58.4428	-97.266			
79 NA1CL(200H2O)	58.4428	-97.257			
80 NA1CL(300H2O)	58.4428	-97.252			

NBS ALKALI METAL COMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA WT	DH298	DG298	H298 - H0	S298	CP298
81	NA1CL(500H20)	58.4428				
82	NA1CL(800H20)	58.4428	-97.255			
83	NA1CL(1000H20)	58.4428	-97.262			
84	NA1CL(1500H20)	58.4428	-97.267			
85	NA1CL(2000H20)	58.4428	-97.276			
		58.4428	-97.281			
86	NA1CL(300H20)	58.4428	-97.289			
87	NA1CL(500H20)	58.4428	-97.298			
88	NA1CL(700H20)	58.4428	-97.303			
89	NA1CL(1000H20)	58.4428	-97.309			
90	NA1CL(2000H20)	58.4428	-97.318			
91	NA1CL(5000H20)	58.4428	-97.326			
92	NA1CL(10000H20)	58.4428	-97.329			
93	NA1CL(00H20)	58.4428	-97.34			
94	NA1CL3(A)	129.3488	-91.4			
95	NA1CL10(A)	74.4422	-71.4		24.	
96	NA1CL102(C)	90.4416	-73.38			
97	NA1CL102(A)	90.4416	-73.3			38.3
98	NA1CL102:3H20(C)	144.4878	-285.08			
99	NA1CL103(C)	106.4410	-86.3			
100	NA1CL103(A)	106.4410	-81.1			52.9
101	NA1CL103(6H20)	106.4410	-82.78			
102	NA1CL103(8H20)	106.4410	-82.57			
103	NA1CL103(10H20)	106.4410	-82.41			
104	NA1CL103(12H20)	106.4410	-82.28			
105	NA1CL103(15H20)	106.4410	-82.11			
106	NA1CL103(20H20)	106.4410	-81.91			
107	NA1CL103(25H20)	106.4410	-81.78			
108	NA1CL103(30H20)	106.4410	-81.67			
109	NA1CL103(40H20)	106.4410	-81.53			
110	NA1CL103(50H20)	106.4410	-81.43			
111	NA1CL103(75H20)	106.4410	-81.30			
112	NA1CL103(100H20)	106.4410	-81.23			
113	NA1CL103(150H20)	106.4410	-81.16			
114	NA1CL103(200H20)	106.4410	-81.12			
115	NA1CL103(300H20)	106.4410	-81.09			
116	NA1CL103(500H20)	106.4410	-81.06			
117	NA1CL103(1000H20)	106.4410	-81.05			
118	NA1CL103(2000H20)	106.4410	-81.06			
119	NA1CL103(5000H20)	106.4410	-81.06			
120	NA1CL103(10000H20)	106.4410	-81.07			

NBS ALKAL1 METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN K CAL/MOL AND CAL/MOL.K	DHO	DH298	H298 - H0	S298	CP298	Formula	
						WT	DH0
121	NA1CL103(20000H2O)	105.4410	-81.08			105.4410	
122	NA1CL103(100000H2O)	106.4410	-81.09			106.4410	
123	NA1CL103(00H2O)	106.4410	-81.1			106.4410	
124	NA1CL104(C)	122.4404	-91.617			122.4404	
125	NA1CL104(A)	122.4404	-88.30	57.6		122.4404	-64.65
126	NA1CL104(3.25H2O)	122.4404	-90.48			122.4404	
127	NA1CL104(3.5H2O)	122.4404	-90.46			122.4404	
128	NA1CL104(4H2O)	122.4404	-90.41			122.4404	
129	NA1CL104(4.5H2O)	122.4404	-90.36			122.4404	
130	NA1CL104(5H2O)	122.4404	-90.31			122.4404	
131	NA1CL104(6H2O)	122.4404	-90.19			122.4404	
132	NA1CL104(8H2O)	122.4404	-89.98			122.4404	
133	NA1CL104(10H2O)	122.4404	-89.81			122.4404	
134	NA1CL104(12H2O)	122.4404	-89.66			122.4404	
135	NA1CL104(15H2O)	122.4404	-89.48			122.4404	
136	NA1CL104(20H2O)	122.4404	-89.24			122.4404	
137	NA1CL104(25H2O)	122.4404	-89.09			122.4404	
138	NA1CL104(30H2O)	122.4404	-88.97			122.4404	
139	NA1CL104(40H2O)	122.4404	-88.81			122.4404	
140	NA1CL104(50H2O)	122.4404	-88.70			122.4404	
141	NA1CL104(75H2O)	122.4404	-88.55			122.4404	
142	NA1CL104(100H2O)	122.4404	-88.47			122.4404	
143	NA1CL104(150H2O)	122.4404	-88.38			122.4404	
144	NA1CL104(200H2O)	122.4404	-88.34			122.4404	
145	NA1CL104(300H2O)	122.4404	-88.30			122.4404	
146	NA1CL104(500H2O)	122.4404	-88.27			122.4404	
147	NA1CL104(1000H2O)	122.4404	-88.26			122.4404	
148	NA1CL104(1500H2O)	122.4404	-88.25			122.4404	
149	NA1CL104(2000H2O)	122.4404	-88.26			122.4404	
150	NA1CL104(10000H2O)	122.4404	-88.27			122.4404	
151	NA1CL104(20000H2O)	122.4404	-88.28			122.4404	
152	NA1CL104(100000H2O)	122.4404	-88.29			122.4404	
153	NA1CL104(00H2O)	122.4404	-88.3			122.4404	
154	NA1CL104:H2O(C)	140.4558	-161.995			140.4558	
155	NA1BR(C)	102.8988	-86.296			102.8988	
156	NA1ER(A)	102.8988	-86.44	33.8	-22.8	102.8988	-87.44
157	NA1BR(6.5H2O)	102.8988	-87.178			102.8988	
158	NA1BR(8H2O)	102.8988	-87.165			102.8988	
159	NA1ER(10H2O)	102.8988	-87.099			102.8988	
160	NA1BR(12H2O)	102.8988	-87.026			102.8988	

FORMULA	WT	DHO	DH298	DG298	H298 - H0	S298
161	NA1BR(15H2O)	102.8988	-86.929			
162	NA18K(20H2O)	102.8988	-86.808			
163	NA1BR(25H2O)	102.8988	-86.722			
164	NA1BR(30H2O)	102.8988	-86.659			
165	NA1BR(40H2O)	102.8988	-86.574			
166	NA1BR(50H2O)	102.8988	-86.521			
167	NA1BR(75H2O)	102.8988	-86.450			
168	NA1BR(100H2O)	102.8988	-86.417			
169	NA1BR(150H2O)	102.8988	-86.386			
170	NA1BR(200H2O)	102.8988	-86.374			
171	NA1BR(300H2O)	102.8988	-86.366			
172	NA1BR(500H2O)	102.8988	-86.365			
173	NA1BR(800H2O)	102.8988	-86.369			
174	NA1BR(1000H2O)	102.8988	-86.372			
175	NA18K(1500H2O)	102.8988	-86.380			
176	NA1BR(2000H2O)	102.8988	-86.384			
177	NA1BR(3000H2O)	102.8988	-86.391			
178	NA1BR(5000H2O)	102.8988	-86.400			
179	NA1BR(7600H2O)	102.8988	-86.405			
180	NA1BR(10000H2O)	102.8988	-86.410			
181	NA1BR(20000H2O)	102.8988	-86.419			
182	MA1BR(50000H2O)	102.8988	-86.426			
183	NA18K(100000H2O)	102.8988	-86.429			
184	NA1BR(00H2O)	102.8988	-86.44			
185	NA1BR:2H2O(C)	138.9296	-227.524			
186	NA1BR3(A)	262.7168	-88.56	-88.18		65.6
187	NA1BR5(A)	422.5348	-91.4	-87.4		89.8
188	NA1BR10(A)	118.8982	-79.9	-70.6		24.
189	NA1BR103(C)	150.8970	-83.83			
190	NA1BR103(A)	150.8970	-77.4	-62.2		53.1
191	NA1BR103(50H2O)	150.8970	-77.788			
192	NA1BR103(75H2O)	150.8970	-77.647			
193	NA1BR103(100H2O)	150.8970	-77.570			
194	NA1BR103(150H2O)	150.8970	-77.488			
195	NA1BR103(200H2O)	150.8970	-77.446			
196	NA1BR103(300H2O)	150.8970	-77.406			
197	NA1BR103(500H2O)	150.8970	-77.378			
198	NA1BR103(800H2O)	150.8970	-77.366			
199	NA1BR103(1000H2O)	150.8970	-77.364			
200	NA1BR103(1500H2O)	150.8970	-77.361			

NBS ALKALI METAL CPD.	THERMO. PROPS.	(TN 270	FORMULA	WT	IN KCAL/MOL	AND CAL/MOL.K	DH298	DG298	H298 - H0	S298	CP298
					DHO						
201	NA1BR103(2000H20)		150.8970			-77.360					
202	NA1BR103(3000H20)		150.8970			-77.362					
203	NA1BR103(5000H20)		150.8970			-77.367					
204	NA1BR103(7000H20)		150.8970			-77.370					
205	NA1BR103(10000H20)		150.8970			-77.374					
206	NA1BR103(20000H20)		150.8970			-77.380					
207	NA1BR103(50000H20)		150.8970			-77.386					
208	NA1BR103(100000H20)		150.8970			-77.390					
209	NA1BR103(00H20)		150.8970			-77.4					
210	NA1BR2CL(A)		218.2608			-98.1	-93.3		59.2		
211	NA1I(C)		149.8942			-68.780					
212	NA1I(A)		149.8942			-70.58			40.7		-22.9
213	NA1I(4.5H20)		149.8942			-71.385					
214	NA1I(5H20)		149.8942			-71.471					
215	NA1I(6H20)		149.8942			-71.539					
216	NA1I(6.5H20)		149.8942			-71.544					
217	NA1I(8H20)		149.8942			-71.504					
218	NA1I(10H20)		149.8942			-71.408					
219	NA1I(12H20)		149.8942			-71.314					
220	NA1I(15H20)		149.8942			-71.193					
221	NA1I(20H20)		149.8942			-71.042					
222	NA1I(25H20)		149.8942			-70.938					
223	NA1I(30H20)		149.8942			-70.863					
224	NA1I(40H20)		149.8942			-70.764					
225	NA1I(50H20)		149.8942			-70.702					
226	NA1I(75H20)		149.8942			-70.619					
227	NA1I(100H20)		149.8942			-70.579					
228	NA1I(150H20)		149.8942			-70.541					
229	NA1I(200H20)		149.8942			-70.525					
230	NA1I(300H20)		149.8942			-70.512					
231	NA1I(500H20)		149.8942			-70.508					
232	NA1I(600H20)		149.8942			-70.511					
233	NA1I(1000H20)		149.8942			-70.514					
234	NA1I(1500H20)		149.8942			-70.522					
235	NA1I(2000H20)		149.8942			-70.526					
236	NA1I(3000H20)		149.8942			-70.532					
237	NA1I(4000H20)		149.8942			-70.537					
238	NA1I(5000H20)		149.8942			-70.541					
239	NA1I(7000H20)		149.8942			-70.546					
240	NA1I(10000H20)		149.8942			-70.550					

NBS ALKALI METAL CMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K
 DHO DH298

CP298

S298

H298 - H0

DG298

FORMULA WT	IN KCAL/MOL AND CAL/MOL.K	DH298	DG298	H298 - H0	S298
241 NA11(20000H2O)	149.8942	-70.559			
242 NA11(50000H2O)	149.8942	-70.566			
243 NA11(100000H2O)	149.8942	-70.569			
244 NA11(00H2O)	149.8942	-70.58			
245 NA11:2H2O(C)	185.9250	-211.065			
246 NA113(A)	403.7030	-69.7	-74.9	71.3	
247 NA110(A)	165.8936	-83.1	-71.8	12.8	
248 NA1103(C)	197.8924	-115.150			
249 NA1103(A)	197.8924	-110.3			
250 NA1103(500H2O)	197.8924	-110.37	-93.2	42.4	
251 NA1103(1000H2O)	197.8924	-110.31			
252 NA1103(2000H2O)	197.8924	-110.29			
253 NA1103(5000H2O)	197.8924	-110.28			
254 NA1103(10000H2O)	197.8924	-110.29			
255 NA1103(00H2O)	197.8924	-110.3			
256 NA1104(C)	213.8918	-101.6			
257 NA1104(AU)	213.8918	-92.6			
FROM NA+, IO4--(AU)					
258 NA2I2O(A)	315.7878		-144.9		
259 NA1H4I106(AU)	249.9226	-237.8			
FROM NA+,H4IO6- (AU)					
260 NA1I201H(A)	293.8060		-117.6		
261 NA2H3I106(AU)	271.9044	-294.4			
FROM 2NA+,H3IO6-2(AU)					
262 NA1I1CL2(A)	220.8002		-101.1		67.0
263 NA1I2CL(A)	312.2516	-90.3	-90.4		
264 NA1I1BR2(A)	309.7122		-92.0		
265 NA1BR1I2(A)	356.7076	-88.0	-88.9		61.3
266 NA1I1BR1CL(A)	265.2562		-97.6		
267 NA2S(C)	78.0436	-90.3	-86.4		19.
268 NA2S(A)	78.0436	-106.9	-104.7		24.7
269 NA2S(50H2O)	78.0436	-106.38			
270 NA2S(100H2O)	78.0436	-106.30			
271 NA2S(200H2O)	78.0436	-106.21			
272 NA2S(300H2O)	78.0436	-106.15			
273 NA2S(400H2O)	78.0436	-106.09			
274 NA2S(500H2O)	78.0436	-106.06			
275 NA2S(1000H2O)	78.0436	-105.94			
276 NA2S(5000H2O)	78.0436	-105.91			
277 NA2S2(A)	110.1076	-107.6	-106.2		35.0
278 NA2S3(A)	142.1716	-108.6	-107.6		44.0
279 NA2S4(A)	174.2356	-109.3	-108.7		52.9
280 NA2S5(A)	206.2996	-109.7	-109.5		61.8

NBS ALKALI METAL COMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA WT	DH298	DG298	H298 - H0	S298	CP298
281 NA2S103(A)	126.0418	-266.7	-241.5		21.	
282 NA2S104(C)	142.0412	-331.52	-303.39		35.73	30.42
283 NA2S104(A)	142.0412	-332.10	-303.16		33.0	-48.
284 NA2S104(28.37H2O)	142.0412	-333.491				
285 NA2S104(30H2O)	142.0412	-333.432				
286 NA2S104(40H2O)	142.0412	-333.165				
287 NA2S104(50H2O)	142.0412	-332.988				
288 NA2S104(60H2O)	142.0412	-332.840				
289 NA2S104(80H2O)	142.0412	-332.605				
290 NA2S104(100H2O)	142.0412	-332.420				
291 NA2S104(120H2O)	142.0412	-332.275				
292 NA2S104(140H2O)	142.0412	-332.184				
293 NA2S104(160H2O)	142.0412	-332.122				
294 NA2S104(180H2O)	142.0412	-332.076				
295 NA2S104(200H2O)	142.0412	-332.04				
296 NA2S104(250H2O)	142.0412	-331.980				
297 NA2S104(300H2O)	142.0412	-331.943				
298 NA2S104(350H2O)	142.0412	-331.918				
299 NA2S104(400H2O)	142.0412	-331.901				
300 NA2S104(500H2O)	142.0412	-331.879				
301 NA2S104(600H2O)	142.0412	-331.867				
302 NA2S104(700H2O)	142.0412	-331.860				
303 NA2S104(800H2O)	142.0412	-331.857				
304 NA2S104(900H2O)	142.0412	-331.855				
305 NA2S104(1000H2O)	142.0412	-331.855				
306 NA2S104(2000H2O)	142.0412	-331.872				
307 NA2S104(3000H2O)	142.0412	-331.892				
308 NA2S104(4000H2O)	142.0412	-331.907				
309 NA2S104(5000H2O)	142.0412	-331.92				
310 NA2S104(10000H2O)	142.0412	-331.958				
311 NA2S104(20000H2O)	142.0412	-331.992				
312 NA2S104(50000H2O)	142.0412	-332.027				
313 NA2S104(100000H2O)	142.0412	-332.047				
314 NA2S104(00H2O)	142.0412	-332.10				
315 NA2S203(AU)	158.1058	-270.7				
FROM 2NA+, S203-2(AU)						
316 NA2S204(A)	174.1052	-294.9	-268.7		50.	
317 NA2S206(AU)	206.1040	-401.2				
FROM 2NA+, S206-2(AU)						
318 NA2S207(AU)	222.1034	-449.7				
FROM 2NA+, S207-2(AU)						
319 NA2S208(A)	238.1028	-434.8	-390.6		87.5	
320 NA2S306(AU)	238.1680	-401.5				
FROM 2NA+, S306-2(AU)						

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K		DH298	DG298	H298 - H0	S298	CP298
FORMULA	WT	DH0	DH298	AND CAL/MOL.K		
321 NA2S4O6(AU)	270.2320	-407.36				
FROM 2NA+, S4O6--2(AU)						
322 NA2S5O6(AU)	302.2960	-410.3				
FROM 2NA+, S5O6--2(AU)						
323 NAHS(A)	56.0618	-61.6	-59.71		29.1	
FROM NA+,HS-						
324 NAHSO3(A)	104.0600	-207.06	-188.74		47.5	
FROM NA+,HSO3-						
325 NAHSO4(A)	120.0594	-269.47	-243.28		45.6	-9.
FROM NA+,HSO4-						
326 NAHSO4(110H2O)	120.0594	-270.16	-209.5			
327 NAHSO4(A)	152.1234					
FROM NA+,HSO4-						
328 NAHSO3F(AU)	122.0504	-250.4				
FROM NA+,SO3F-(AU)						
329 NA2SE(A)	124.9396		-94.3			
330 NA2SE103(C)	172.9378	-229.43				
331 NA2SE103(A)	172.9378	-236.5			31.	
332 NA2SE104(A)	188.9372	-258.0	-213.6		41.1	
333 NAHS(A)	102.9578	-53.6	-230.7		33.	
FROM NA+,HSE-			-52.1			
334 NAHSO3(A)	150.9560	-180.37	-160.95		46.4	
FROM NA+,HSEO3-						
335 NAHSO4(A)	166.9554	-196.4	-170.7		49.8	
FROM NA+,HSEO4-						
336 NA2TE103(AU)	221.5778	-257.4				
FROM 2NA+, TE03--2(AU)						
337 NAHSO4(A)	251.6262	-358.9				
FROM NA+,HSEO6-(AU)						
338 NA2F4TE106(AU)	273.6080	-406.9				
FROM 2NA+,H4TE06--2(AU)						
339 NA2PO1CL6(A)	468.6976		-263.		39.9	
340 NAHS(A)	65.0099	8.37	20.6			
341 NAHSO3(C)	68.9953	-85.720				
342 NAHSO3(A)	68.9953	-82.4	-71.5		47.6	-12.2
343 NAHSO3(4.5H2O)	68.9953	-83.21				
344 NAHSO3(5H2O)	68.9953	-83.19				
345 NAHSO3(6H2O)	68.9953	-83.14				
346 NAHSO3(8H2O)	68.9953	-83.08				
347 NAHSO3(10H2O)	68.9953	-83.03				
348 NAHSO3(12H2O)	68.9953	-82.99				
349 NAHSO3(15H2O)	68.9953	-82.95				
350 NAHSO3(20H2O)	68.9953	-82.89				
351 NAHSO3(25H2O)	68.9953	-82.85				
352 NAHSO3(30H2O)	68.9953	-82.82				

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K
 FORMULA WT DHO DH298

CP 298

S298

H298 - H0

DG298

353	NA1N102(40H20)	68.9953	-82.78		
354	NA1N102(50H20)	68.9953	-82.73		
355	NA1N102(75H20)	68.9953	-82.65		
356	NA1N102(100H20)	68.9953	-82.59		
357	NA1N102(150H20)	68.9953	-82.50		
358	NA1N102(200H20)	68.9953	-82.44		
359	NA1N102(300H20)	68.9953	-82.36		
360	NA1N102(00H20)	68.9953	-82.4		
361	NA1N103(C)	84.9947	-111.82	27.85	22.24
362	NA1N103(A)	84.9947	-106.95	49.1	-9.6
363	NA1O1N1C2(AU2)	84.9947	-68.6		
	SODIUM PERCXYNITRITE; FROM NA+,				
	ON02-(AU)				
364	NA1N103(6H20)	84.9947	-108.658		
365	NA1N103(8H20)	84.9947	-108.523		
366	NA1N103(10H20)	84.9947	-108.381		
367	NA1N103(12H20)	84.9947	-108.253		
368	NA1N103(15H20)	84.9947	-108.094		
369	NA1N103(20H20)	84.9947	-107.889		
370	NA1N103(25H20)	84.9947	-107.741		
371	NA1N103(30H20)	84.9947	-107.628		
372	NA1N103(40H20)	84.9947	-107.469		
373	NA1N103(50H20)	84.9947	-107.362		
374	NA1N103(75H20)	84.9947	-107.205		
375	NA1N103(100H20)	84.9947	-107.123		
376	NA1N103(150H20)	84.9947	-107.036		
377	NA1N103(200H20)	84.9947	-106.593		
378	NA1N103(300H20)	84.9947	-106.952		
379	NA1N103(400H20)	84.9947	-106.932		
380	NA1N103(500H20)	84.9947	-106.921		
381	NA1N103(600H20)	84.9947	-106.915		
382	NA1N103(700H20)	84.9947	-106.911		
383	NA1N103(800H20)	84.9947	-106.909		
384	NA1N103(1000H20)	84.9947	-106.906		
385	NA1N103(3000H20)	84.9947	-106.910		
386	NA1N103(5000H20)	84.9947	-106.915		
387	NA1N103(7000H20)	84.9947	-106.918		
388	NA1N103(10000H20)	84.9947	-106.922		
389	NA1N103(20000H20)	84.9947	-106.928		
390	NA1N103(50000H20)	84.9947	-106.935		
391	NA1N103(100000H20)	84.9947	-106.939		
392	NA1N103(00H20)	84.9947	-106.95		

NBS ALKALI METAL CMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K
 FORMULA WT DHO DH298 DG298 H298 - H0 S298 CP298

393	NA2N2O2(AU)	105.9918	-118.9				
	SCDIUM HYPONITRITE						
394	NA1H1N2O2(AU)	84.0100	-69.8				
	SODIUM HYPONITRITE: FROM NA+,HN2O2-(AU)						
395	NA1F1O3(AU)	101.9618	-290.9				
	SODIUM METAPHOSPHATE						
396	NA3P1O4(A)	163.9408	-477.5			-11.	
397	NA3P1O4(1000H2O)	163.9408	-473.6				
398	NA4F2O7(A)	265.9026	-772.4			28.	
399	NA4P2O7(2000H2O)	265.9026	-770.5				
400	NA1H2P1C2(AU)	87.9784	-204.1				
	FROM NA+, H2P02-(AU)						
401	NA1H2P1O3(AU)	103.9778	-289.1				
	FROM NA+, H2P03-(AU)						
402	NA1H2P1O3(600H2O)	103.9778	-289.1				
403	NA1H2P1C4(A)	119.9772	-367.21			35.7	
	FROM NA+, H2P04-						
404	NA1H2P1O4(400H2O)	119.9772	-366.82				
405	NA1H3P2O7(A)	199.9572	-601.5			65.	
	FROM NA+, H3P2O7-						
406	NA1H3P2O7(1200H2O)	199.9572	-601.5				
407	NA2H1P1O3(AU)	125.9596	-346.4				
	FROM 2NA+, HPO3-2(AU)						
408	NA2H1P1C3(800H2O)	125.9596	-346.3				
409	NA2H1P1O4(A)	141.9590	-423.61			20.2	
	FROM 2NA+, HPO4-2						
410	NA2H1P1C4(600H2O)	141.9590	-422.96				
411	NA2H2P2O7(A)	221.9390	-659.4			67.	
	FROM 2NA+, H2P2O7-2						
412	NA2H2P2O7(1200H2O)	221.9390	-659.4				
413	NA3H1P2O7(A)	243.9208	-715.9			53.	
	FROM 3NA+, HP2O7-3						
414	NA3H1P2O7(1200H2O)	243.9208	-715.9				
415	NA2P1O3F(A)	143.9500	-406.0				
416	NA1H1P1C3F(A)	121.9682	-349.0				
	FROM NA+, HPO3F-						
417	NA1AS1O2(A)	129.9102	-159.93			23.8	
418	NA3AS1O4(A)	207.8686	-384.44			3.4	
419	NA1H2AS1O3(A)	147.9256	-228.23			40.5	
420	NA1H2AS1O3(400H2O)	147.9256	-228.0				
421	NA1H2AS1O4(A)	163.9250	-274.78			42.	
422	NA1H2AS1O4(300H2O)	163.9250	-274.8				
423	NA2H1AS1O4(A)	185.9068	-331.40			27.8	
424	NA2H1AS1O4(400H2O)	185.9068	-331.2				
425	NA2AS1O3F(A)	187.8978	-370.78				

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN K CAL/MOL AND CAL/MOL.K	DH298	H298 - H0	S298	CP298
FORMULA WT	DH0			
426 NA1H1AS103F(A)	165.9160			
FRM NA+, HASCF-				
427 NA1SB102(A)	176.7386			
428 NA2SR2S4(A)	417.7356		15.7	
429 NA2SB2S4(400H2O)	417.7356	-167.2		
430 NA1BI1CL4(A)	373.7818	-167.2		
431 NA3BI1CL6(A)	490.6674			
432 NA1BI1BR4(A)	551.6058			
433 NA2BI1I4(A)	762.5772			
434 NA2NI4BI1CL6(A)	485.7163			
435 NA2C2(C)	70.0020	4.1		
SCDIUM CARBIDE				
436 NA2C103(C)	105.9890	-270.4	32.5	26.41
437 NA2C103(A)	105.9890	-276.62	14.6	
438 NA2C103(15H2O)	105.9890	-278.27		
439 NA2C103(20H2O)	105.9890	-278.13		
440 NA2C103(25H2O)	105.9890	-277.95		
441 NA2C103(30H2O)	105.9890	-277.78		
442 NA2C103(40H2O)	105.9890	-277.50		
443 NA2C103(50H2O)	105.9890	-277.30		
444 NA2C103(75H2O)	105.9890	-276.96		
445 NA2C103(100H2O)	105.9890	-276.76		
446 NA2C103(150H2O)	105.9890	-276.52		
447 NA2C103(200H2O)	105.9890	-276.38		
448 NA2C103(300H2O)	105.9890	-276.23		
449 NA2C103(400H2O)	105.9890	-276.15		
450 NA2C103(500H2O)	105.9890	-276.10		
451 NA2C103(600H2O)	105.9890	-276.07		
452 NA2C103(800H2O)	105.9890	-276.03		
453 NA2C103(1000H2O)	105.9890	-276.0		
454 NA2C103(2000H2O)	105.9890	-275.95		
455 NA2C103:H2O(C)	124.0044	-341.9	41.4	
456 NA2C103:7H2O(C)	232.0968	-765.1	97.8	
457 NA2C103:10H2O(C)	286.1430	-976.0	129.6	
458 NA2C204(C)	133.9996	-315.0		34.
SODIUM OXALATE				
459 NA2C204(A)	133.9996	-312.0	39.1	
460 NA2C204(1000H2O)	133.9996	-311.65		
461 NA1H1C2(C)	48.0202	24.7		
SCDIUM ACETYLIDE				
462 NA1C1H102(C)	68.0078	-158.02	3.767	19.76
SCDIUM FORMATE				
463 NA1C1H102(A)	68.0078	-159.10	36.	-9.9
464 NA1C1H1C2(400H2O)	68.0078	-158.97		

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA WT	DHO	DH298	H298 - H0	S298	CP298
465 NA1C1H102:2H20(C)	104.0386	-300.7	-257.4		44.4	
466 NA1C1H102:3H20(C)	122.0540	-358.4				
467 NA1H1C1C3(C)	84.0072	-226.5	-203.2		24.4	20.94
468 NA1H1C103(A)	84.0072	-222.78	-202.85		35.9	
FROM NA+, HC03-						
469 NA1H1C103(AU)	84.0072	-222.5				
470 NA101C1H3(C)	54.0244			3.374	26.43	16.60
SODIUM METHYLATE						
471 NA101C1H3(A)	54.0244	-103.63	-79.55		4.2	
472 NA101C1H3(60C1H301H)	54.0244	-105.42				
473 NA1H1C2C4(C)	112.0178	-258.6				
SODIUM BIXALATE						
474 NA1H1C2C4(A)	112.0178	-253.0	-229.52		49.8	
FROM NA+, HC204-						
475 NA1H1C2C4(400H20)	112.0178	-253.3				
476 NA1H1C2C4:H20(C)	130.0332	-330.8				
477 NA1C2H302(C)	82.0350	-169.41	-145.14		29.4	19.3
SODIUM ACETATE						
478 NA1C2H302(A)	82.0350	-173.55	-150.88		34.8	9.6
479 NA1C2H302(3H20)	82.0350	-170.320				
480 NA1C2H302(3.5H20)	82.0350	-170.790				
481 NA1C2H302(4H20)	82.0350	-171.140				
482 NA1C2H302(4.5H20)	82.0350	-171.430				
483 NA1C2H302(5H20)	82.0350	-171.660				
484 NA1C2H302(5.5H20)	82.0350	-171.858				
485 NA1C2H302(6H20)	82.0350	-172.020				
486 NA1C2H302(7H20)	82.0350	-172.270				
487 NA1C2H302(8H20)	82.0350	-172.450				
488 NA1C2H302(9H20)	82.0350	-172.584				
489 NA1C2H302(10H20)	82.0350	-172.680				
490 NA1C2H302(12H20)	82.0350	-172.800				
491 NA1C2H302(15H20)	82.0350	-172.905				
492 NA1C2H302(20H20)	82.0350	-172.994				
493 NA1C2H302(25H20)	82.0350	-173.056				
494 NA1C2H302(30H20)	82.0350	-173.091				
495 NA1C2H302(40H20)	82.0350	-173.143				
496 NA1C2H302(50H20)	82.0350	-173.178				
497 NA1C2H302(75H20)	82.0350	-173.232				
498 NA1C2H302(100H20)	82.0350	-173.264				
499 NA1C2H302(150H20)	82.0350	-173.307				
500 NA1C2H302(200H20)	82.0350	-173.335				
501 NA1C2H302(300H20)	82.0350	-173.370				
502 NA1C2H302(400H20)	82.0350	-173.391				
503 NA1C2H302(500H20)	82.0350	-173.407				

FORMULA	WT	DH0	DH298	DG298	H298 - H0	S298
504	NA1C2H3O2(600H2O)	82.0350	-173.418			
505	NA1C2H3O2(700H2O)	82.0350	-173.426			
506	NA1C2H3O2(800H2O)	82.0350	-173.434			
507	NA1C2H3O2(900H2O)	82.0350	-173.441			
508	NA1C2H3O2(1000H2O)	82.0350	-173.446			
509	NA1C2H3O2(1500H2O)	82.0350	-173.464			
510	NA1C2H3O2(2000H2O)	82.0350	-173.475			
511	NA1C2H3O2(3000H2O)	82.0350	-173.488			
512	NA1C2H3O2(4000H2O)	82.0350	-173.496			
513	NA1C2H3O2(5000H2O)	82.0350	-173.502			
514	NA1C2H3O2(7000H2O)	82.0350	-173.509			
515	NA1C2H3O2(10000H2O)	82.0350	-173.515			
516	NA1C2H3O2(20000H2O)	82.0350	-173.525			
517	NA1C2H3O2(50000H2O)	82.0350	-173.534			
518	NA1C2H3O2(100000H2O)	82.0350	-173.538			
519	NA1C2H3O2(00H2O)	82.0350	-173.55			
520	NA1C2H3O2:3H2O(C)	136.0812	-383.19	-318.57		61.2
521	NA1C2H3O2(1100C2H5O1H)	82.0350	-170.8			
522	C1H2O1H1C1O1C1NA(C) SODIUM HYDROXYACETATE	98.0344	-215.3			
523	C1H2O1H1C1C1C1NA(A)	98.0344	-213.3			
524	C1H2O1H1C1O1O1NA(110H2O)	98.0344	-213.57			
525	C1H2O1H1C1O1O1NA(15H2O)	98.0344	-213.46			
526	C1H2O1H1C1O1O1NA(20H2O)	98.0344	-213.38			
527	C1H2O1H1C1O1O1NA(25H2O)	98.0344	-213.32			
528	C1H2O1H1C1O1O1NA(30H2O)	98.0344	-213.27			
529	C1H2O1H1C1O1O1NA(40H2O)	98.0344	-213.17			
530	C1H2O1H1C1O1O1NA(50H2O)	98.0344	-213.10			
531	C1H2O1H1C1O1O1NA(100H2O)	98.0344	-212.99			
532	C1H2O1H1C1O1O1NA(200H2O)	98.0344	-213.0			
533	C1H2O1H1C1O1O1NA:1/2H2O(C)	107.0421	-250.7			
534	C1H(O1H)2C1O1C1O1NA(C) SODIUM DIHYDROXYACETATE	114.0338	-258.6			
535	C1H(O1H)2C1O1O1NA(200H2O)	114.0338	-253.9			
536	NA1O1C2H5(A)	68.0516	-87.1			
537	NA1O1C2H5(60C2H5O1H) SODIUM ETHYLATE	68.0516	-111.3			
538	NA1C2H5O2(C) SODIUM ETHYLENE GLYCOLATE	84.0510	-148.4			
539	NA1C2H6O2:C1H3O1H(C) SODIUM ETHYLENE GLYCOLATE:METHANOL	116.0936	-211.5			
540	C1H2O1H1C1O1O1NA:C1H2O1H1C1O1O1H(C) SODIUM ACID HYDROXYACETATE	174.0870	-377.0			

NBS ALKALI METAL CPD.	THERMO. PROPS.	(TN 270 SERIES) IN KCAL/MDL AND CAL/MOL.K	DH298	H298 - H0	S298	CP298
FORMULA WT	DH0	DH298	DG298	H298 - H0	S298	CP298
541 NA1C2H5O2:C2H5OH(C)		130.1208	-220.1			
SODIUM ETHYLENE GLYCOLATE:ETHANOL						
542 NA1C2H5O2:C2H6O2(C)		146.1202	-264.7			
SODIUM ETHYLENE GLYCOLATE:GLYCOL						
543 C1H2O1NA1C1O1O1NA(C)		120.0162	-247.9			
DISODIUM HYDROXYACETATE						
544 NA1C1H2C1O2NA(300H2O)		120.0162	-257.1			
DISODIUM HYDROXYACETATE						
545 NA1C1H2C1O2NA:2H2O(C)		156.0470	-394.2			
DISODIUM HYDROXYACETATE DIHYDRATE						
546 NA1H1C1O3:NA2C1O3:2H2O(C)		226.0270	-641.17			
547 3NA1H1C1O3:NA2C1O3(C)		358.0106	-951.9			
548 NA1C2CL3O2(C)		185.3700	-178.9			
SODIUM TRICHLOROACETATE						
549 NA1C2CL3O2(A)		185.3700	-180.8			
550 C1CL3C1C1O1NA(400H2O)		185.3700	-180.77			
551 NA1C2CL1H2O2(A)		116.4800	-177.20			
SODIUM CHLOROACETATE						
552 NA1C2CL2H1C2(A)		150.9250	-179.8			
SODIUM DICHLOROACETATE						
553 NA1C2CL2H1O2(400H2O)		150.9250	-177.14			
554 C1H1CL2C1O1O1NA(400H2O)		150.9250	-179.8			
555 NA1I:3C1H3C1H(C)		246.0220	-248.6			
556 NA1C2H5S1O4(600H2O)		148.1138	-266.2			
SODIUM ETHYLSULFATE						
557 (C1H1O)2:2NA1H1S1O3(800H2O)		266.1572	-512.1			
GLYOXAL SODIUM BISULFITE						
558 (C1H1O)2:2NA1H1S1O3:H2O(C)		284.1726	-589.8			16.4
559 NA1C1N(C)		49.0077	-20.99			
(C,I,CUBIC)						
560 NA1C1N(C2)		49.0077	-21.69			
(C,I,ORTHORHOMBIC)						
561 NA1C1N(A)		49.0077	-21.4		36.6	
562 NA1C1N(200H2O)		49.0077	-21.0			
563 NA1C1N:1/2H2O(C)		58.0154	-56.35			
564 NA1C1N:2H2O(C)		85.0385	-162.47			
565 NA1C1N(C)		65.0071	-96.89		23.1	20.7
566 NA1C1N1O(A)		65.0071	-92.3		39.6	
567 NA1N1H1C1N(AU)		64.0224	-29.2			
SODIUM CYANAMIDE						
568 N1H2C1O1O1NA(C)		83.0225	-213.7			
SODIUM CARBAMATE						
569 NA1C1N1H2O2(AU)		83.0225	-77.7			
SODIUM SALT OF NITROMETHANE						
570 N1H2C1H2C1O1O1NA(A)		97.0497	-169.67			
SODIUM SALT OF GLYCINE						
			-137.871		42.6	

571	NA1C2N1H4O2(AU2)	97.0497				
	SODIUM SALT OF NITROETHANE					
572	N1H2C1H2C1O1O1NA(200H2O)	97.0497				
573	NA1C1N1I2(A)	302.6165	-169.7			
574	NA1(C1N1)2I(A)	201.9300	23.02			
575	NA1C1N1S(C)	81.0717	-40.75			
576	NA1C1N1S(A)	81.0717	-39.12	-40.44	48.6	1.5
577	NA1C1N1S(4H2O)	81.0717	-40.264			
578	NA1C1N1S(4.5H2O)	81.0717	-40.295			
579	NA1C1N1S(5H2O)	81.0717	-40.317			
580	NA1C1N1S(6H2O)	81.0717	-40.313			
581	NA1C1N1S(7H2O)	81.0717	-40.269			
582	NA1C1N1S(8H2O)	81.0717	-40.212			
583	NA1C1N1S(9H2O)	81.0717	-40.149			
584	NA1C1N1S(10H2O)	81.0717	-40.086			
585	NA1C1N1S(12H2O)	81.0717	-39.972			
586	NA1C1N1S(15H2O)	81.0717	-39.838			
587	NA1C1N1S(20H2O)	81.0717	-39.684			
588	NA1C1N1S(25H2O)	81.0717	-39.580			
589	NA1C1N1S(30H2O)	81.0717	-39.504			
590	NA1C1N1S(40H2O)	81.0717	-39.397			
591	NA1C1N1S(50H2O)	81.0717	-39.328			
592	NA1C1N1S(75H2O)	81.0717	-39.227			
593	NA1C1N1S(100H2O)	81.0717	-39.175			
594	NA1C1N1S(150H2O)	81.0717	-39.123			
595	NA1C1N1S(200H2O)	81.0717	-39.099			
596	NA1C1N1S(300H2O)	81.0717	-39.077			
597	NA1C1N1S(400H2O)	81.0717	-39.070			
598	NA1C1N1S(500H2O)	81.0717	-39.065			
599	NA1C1N1S(800H2O)	81.0717	-39.060			
600	NA1C1N1S(1000H2O)	81.0717	-39.062			
601	NA1C1N1S(2000H2O)	81.0717	-39.069			
602	NA1C1N1S(3000H2O)	81.0717	-39.074			
603	NA1C1N1S(4000H2O)	81.0717	-39.079			
604	NA1C1N1S(5000H2C)	81.0717	-39.082			
605	NA1C1N1S(7000H2O)	81.0717	-39.087			
606	NA1C1N1S(10000H2O)	81.0717	-39.091			
607	NA1C1N1S(20000H2O)	81.0717	-39.098			
608	NA1C1N1S(50000H2O)	81.0717	-39.106			
609	NA1C1N1S(100000H2O)	81.0717	-39.109			
610	NA1C1N1S(00H2O)	81.0717	-39.12			

NBS ALKALI METAL COMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA WT	DHO	DH298	DG298	H298 - H0	S298	CP298
611 NAICINIS(9C2H5O1H)	81.0717	-39.82					
612 NAICINIS(10C2H5O1H)	81.0717	-39.90					
613 NAICINIS(12C2H5O1H)	81.0717	-40.15					
614 NAICINIS(15C2H5O1H)	81.0717	-40.55					
615 NAICINIS(20C2H5O1H)	81.0717	-41.05					
616 NAICINIS(25C2H5O1H)	81.0717	-41.25					
617 NAICINIS(30C2H5O1H)	81.0717	-41.37					
618 NAICINIS(30C2H5O1H)	81.0717	-41.63					
619 NAICINIS(100C2H5O1H)	81.0717	-41.79					
620 NAICINIS(200C2H5O1H)	81.0717	-41.87					
621 NAICINIS:2S1O2(C)	209.1973	-203.4					
622 NIH2C1S1S1NA(A)	115.1517	-49.9					
SODIUM DITHIOCARBAMATE; FROM NA+, CNS2H2-							
623 NHIC(S2NA2)(A)	137.1335	-97.4					
DISODIUM DITHIOIMINOCARBONATE; FROM 2NA+, NHCS2-2							
624 NA1H1S1(01H)6(A)	154.1282	-477.2				44.7	
625 NA2S11F6(C)	188.0560	-695.4					
626 NA2S11F6(A)	188.0560	-685.8				57.4	
627 NA2S11F6(630H2O)	188.0560	-685.1					
628 NA1H1S11F6(400H2O)	166.0742	-628.0					
629 NA1SN1CL3(A)	248.0368	-173.8				76.	
630 NA2SN1CL6(AU)	377.3876	-346.7					
FROM 2NA+, SNCL6-2(AU)							
631 NA1SN1BR3(A)	381.4068	-147.0				74.	
632 NA1HPB1O2(A)	263.1866	-143.49					
FROM NA+, HPB02-							
633 NA1PB1(01H)3(A)	281.2020	-200.2					
634 NA1PB1CL3(A)	336.5388	-164.5					
635 NA1PB1BR3(A)	469.9068	-144.6					
636 NA1PB1I3(A)	610.8930	-110.1					
637 NA2PB1I4(A)	760.7872	-186.1					
638 NA2PB1P207(A)	427.1130	-605.0					
639 NA6PB1P207(AU)	519.0722	-1430.9					
640 NA6PB(P207)2(AU)	693.0156	-1430.9					
641 NA1B1O2(C)	65.7996	-234.3			2.780	17.57	15.76
642 NA1B1O2(A)	65.7996	-241.99				5.2	
643 NA1B1O2(220H2O)	65.7996	-242.0					
644 NA1B1O3(AU)	81.7990	-220.4					
645 NA1B1O3:4H2O(C)	153.8606	-505.3					
646 NA2B4O7(C)	201.2194	-784.2			7.262	45.30	44.64
647 NA2E4O7(GL)	201.2194	-779.3				44.39	44.42
ENTROPY IS 44.39+X							

NBS ALKALI METAL CPD. THERMC. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K

FORMULA	WT	DHO	KCAL/MOL	DH298	DG298	H298 - H0	S298	CP298
648	NA2B4O7(A)		201.2194		-747.8			
649	NA2B4O7·4H2O(C)		273.2810					
650	NA2B4O7·5H2O(C)		291.2964		-1077.3			
651	NA2B4O7·10H2O(C)		381.3734		-1500.7			147.
652	NA2O:3B2O3(C)		270.8396		-1097.5			
653	NA2C:3B2O3(GL)		270.8396		-1089.1			
654	NA2C:4B2O3(C)		340.4598		-1408.2			
655	NA2O:4B2O3(GL)		340.4598		-1394.2			
656	NA1B1H4(C)		37.8328		-29.62	3.890	24.21	20.74
657	NA1B1H4(A)		37.8328	-43.100	-35.28		40.5	
658	NA1B1H4(350H2O)		37.8328		-45.789			
659	NA1B1H4·2H2O(C)		73.8636		-187.6		43.	
660	NA1B(O1H)4(A)		101.8304		-378.62		38.6	
661	NA1H2B1C3:H2O2(A)		117.8298		-315.4			
662	NA1H1B4O7(A)		179.2376		-704.4			
	FROM NA+, HB4O7-							
663	NA1B1F4(A)		109.7944		-433.8		58.	
664	NA1B1F2(O1H)2(A)		105.8124		-383.1			
665	NA1B1F3O1H(A)		107.8034		-422.4		54.	
666	NA1AL1O2(C)		81.9701		-270.96		16.9	17.52
667	NA1AL1O2(A)		81.9701		-277.0		9.	
668	NA1AL1(O1H)4(A)		118.0009		-413.6		42.	
669	NA3AL1F6(C)		209.9413		-789.0		57.0	51.60
	CRYOLITE							
670	NA3AL1F6(AU)		209.9413		-775.1			
671	NA1AL(S1O4)2(A)		242.0945		-619.		-53.2	
	FROM NA+, 2SO4-2, AL+3							
672	NA3GA1O3(A)		186.6876		-336.			
673	NA1H2GA1O3(A)		142.7240		-241.			
674	NA2H1GA1O3(A)		164.7058		-269.			
	FROM 2NA+, HGAO3-2							
675	NA1GA1BK4(A)		412.3458		-194.1		22.7	
676	NA1TL1(C1N)4(A)		331.4314		105.			
677	NA2ZN1O2(A)		143.3484		-217.04			
678	NA1H1ZN1O2(A)		121.3666		-171.85			
	FROM NA+, HZN02-							
679	NA1ZN(O1H)3(A)		139.3820		-228.54			
680	NA2ZN(O1H)4(A)		179.3792		-330.42			
681	NA1ZN1CL3(A)		194.7188		-191.8			
682	NA2ZN1CL4(A)		253.1616		-284.8			
683	NA1ZNIER3(A)		328.0868		-169.9			
684	NA1ZN1I3(A)		469.0730		-132.3			
685	NA2ZN1I4(A)		618.9672		-206.5			
686	NA2ZN1(C1N)4(A)		215.4212		-33.0		82.	

NBS ALKALI METAL CMPD. THERMC. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA WT	DHO	DH298	DG298	H298 - H0	S298	CP298
687 NA2ZNI(CINIS)4(A)	343.6772			-73.5			
688 NA2CDI02(A)	190.3784			-193.2			
689 NA1H1CDI02(A)	168.3966			-149.5			
690 NA1CD(OIH)3(A)	186.4120			-206.5			
691 NA2CD(OIH)4(A)	226.4092			-306.5			
692 NA1CD1CL3(A)	241.7488	-191.5		-179.0		62.6	
693 NA1CD1BR3(A)	375.1168			-160.0			
694 NA1CD1I3(A)	516.1030			-124.6			
695 NA2CD1I4(A)	665.9972	-196.5		-200.7		106.	
696 NA2CD(N3I)4(A)	326.4600			164.2			
697 NA2CD1P207(A)	332.3230			-614.3			
698 NA1CD(CIN)3(A)	213.4435			22.2			
699 NA2CD(CIN)4(A)	262.4512	-12.5		-3.9		105.	
700 NA1CD(CINIS)3(A)	309.6355			-17.3			
701 NA1HG1CL3(A)	329.9388	-150.3		-136.5		64.	
702 NA2HG1CL4(A)	388.3816			-247.2		98.	
703 NA1HG1BR3(A)	463.3068	-127.5		-124.6		76.	
704 NA2HG1BR4(A)	566.2056	-217.8		-213.9		102.	
705 NA1HG1I3(A)	604.2930	-93.9		-98.1		86.	
706 NA2HG1I4(A)	754.1872	-171.0		-175.8		114.	
707 NA1HG(CIN)3(A)	301.6335	37.5		48.1		67.9	
708 NA2HG(CIN)4(A)	350.6412	11.0		22.6		101.1	
709 NA1HG(CINIS)3(A)	397.8255			15.9			
710 NA2HG(CINIS)4(A)	478.8972	-36.8		-26.9		137.	
711 NA2CU102(A)	141.5184			-169.1			
712 NA1H1CU102(A)	119.5366			-124.4			
713 NA1CU1CL2(A)	157.4358			-120.0			
714 NA2CU1CL3(A)	215.8786			-215.			
715 NA1CU(CIN)2(A)	138.5656			-1.0			
716 NA2CU(CIN)3(A)	187.5733			-28.7			
717 NA3CU(CIN)4(A)	236.5810			-52.4			
718 NA3CU(CINIS)4(A)	364.8370	-93.7		-100.8		196.	
719 NA1AG1CL2(A)	201.7658	-116.0		-114.1		69.4	
720 NA1AG1BR2(A)	290.6778			-103.8			
721 NA2AG1BR3(A)	393.5766			-193.2			
722 NA1AG1I2(A)	384.6686			-83.4			
723 NA2AG1I3(A)	534.5628	-158.3		-162.0		88.7	
724 NA3AG1I4(A)	684.4570			-237.9			
725 NA1AG(CIN)2(A)	182.8956	7.2		10.4		60.	
726 NA1AG(SICIN)2(A)	247.0236			-11.2			

Formula	Formula WT	DHO	DH298	DG298	H298 - H0	S298
727 NA2AG(S1C1N)3(A)	328.0953			-53.3		
728 NA3AG(S1C1N)4(A)	409.1670			-94.1		
729 NA1AU1CL4(A)	361.7688	-134.4		-118.81		77.9
730 NA1AU1BR4(A)	539.5928	-103.2		-102.6		
731 NA1AU(C1N)2(A)	271.9926	0.5		5.7		55.
732 NA1AU(S1C1N)2(A)	336.1206			-2.4		
733 NA1AU(S1C1N)4(A)	452.2844			71.6		
734 NA2NI(C1N)4(A)	208.7612	-26.9		-12.4		80.
735 NA3(CC(N1O2)6)(C)	403.9356	-339.6				
736 NA3(CO(N1O2)6)(14000H2O)	403.9356	-322.2				
737 NA3CO(C1N)6(A)	284.0100					97.9
738 NA(CC(N1H3)2(N1O2)2(C2O4))(C)	296.0154	-358.6				
739 NA1FE(S1O4)2(A)	270.9600			-427.0		
740 NA3FE(C1N)6(A)	280.9238	-37.9		-13.5		106.9
741 NA3FE(C1N)6(500H2O)	280.9238	-37.29				
742 NA3FE(C1N)6(800H2O)	280.9238	-37.25				
743 NA3FE(C1N)6(1000H2O)	280.9238	-37.30				
744 NA3FE(C1N)6(2000H2O)	280.9238	-37.33				
745 NA3FE(C1N)6(3000H2O)	280.9238	-37.38				
746 NA3FE(C1N)6(5000H2O)	280.9238	-37.45				
747 NA3FE(C1N)6(10000H2O)	280.9238	-37.54				
748 NA3FE(C1N)6(20000H2O)	280.9238	-37.61				
749 NA3FE(C1N)6(50000H2O)	280.9238	-37.69				
750 NA3FE(C1N)6(100000H2O)	280.9238	-37.74				
751 NA4FE(C1N)6(A)	303.9136	-120.7		-84.28		79.1
752 NA3FE1C10(C1N)5(C)	282.9165	-119.9				
753 NA3FE1C10(C1N)5(A)	282.9165	-126.1				
754 NA3FE1C10(C1N)5(AU)	282.9165	-125.7				
755 NA3FE1C10(C1N)5:7H2O(C)	409.0243	-611.2				
756 NA1H3FE(C1N)6(A)	237.9682	51.5				
757 NA2H2FE(C1N)6(A)	259.9500	-5.9		32.18		80.
758 NA3H1FE(C1N)6(A)	281.9318	-63.3		-27.38		84.
759 NA1H2FE1C10(C1N)5(A)	238.9529	-11.1				
760 NA2H1FE1C10(C1N)5(A)	260.9347	-68.8				
761 NA1PD1CL3(A)	235.7488			-128.6		
762 NA2PD1CL4(A)	294.1916	-239.6				90.
763 NA2PD1CL6(A)	365.0976	-258.		-224.8		93.
764 NA1PC1BR3(A)	369.1168			-111.4		
765 NA2PD1BR4(A)	472.0156	-203.6		-201.2		98.
766 NA2PD1BR6(A)	631.8336			-205.3		

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	DH0	DH298	DG298	H298 - H0	S298	CP298
FORMULA WT						
767 NA2PD1I4(A)	659.5972		-163.2			
768 NA2PD1I6(A)	913.8060		-165.9			
769 NA2PD(N102)4(A)	336.4016		-146.3			
770 NA2PD(C1N)4(A)	256.4512		25.0			
771 NA2PD(C1N1S)4(A)	384.7072		-27.1			
772 NA3RH1CL6(C)	384.5924	-366.7				
773 NA3RH1CL6(A)	384.5924	-375.0				
774 NA3RH1CL6(AU)	384.5924	-375.0				
775 NA3RH1CL6:12H2O(C)	600.7772	-1215.4				
776 NA1RU104(A)	188.0574		-121.3			
777 NA2RU104(A)	211.0472		-197.8			
778 NA2RU104(AU)	211.0472	-227.5				
IN 0.97 NA1D1H						
779 NA1FT1CL3(A)	324.4388		-117.2			
780 NA2PT1CL4(A)	382.8816	-235.1		68.		
781 NA2PT1CL6(C)	453.7876	-266.8				
782 NA2PT1CL6(A)	453.7876	-276.		80.8		
783 NA2PT1CL6(AU)	453.7876	-275.8				
784 NA2PT1CL6:2H2O(C)	489.8184	-412.7				
785 NA2PT1CL6:6H2O(C)	561.8800	-696.7				
786 NA2PT1BR4(AU)	560.7056	-204.				
787 NA2PT1BR6(C)	720.5236	-218.5				
788 NA2PT1BR6(AU)	720.5236	-229.				
789 NA2PT1BR6:6H2O(C)	828.6160	-647.1				
790 NA2PT1I6(AU)	1002.4960	-166.				
791 NA2PT(C1N)4(A)	345.1412		43.7			
792 NA2IR1CL6(AU)	450.8976	-262.9				
793 NA3IR1CL6(AU)	473.8874	-351.7				
794 NA2OS1CL6(C)	448.8976	-268.				
795 NA1MN104(A)	141.9254	-186.8		59.8		
796 NA2NN104(A)	164.9152	-271.		42.		
797 NA1MN1CL3(A)	184.2868		-210.8			
798 NA4MN(CIN)6(A)	303.0046	-97.				
799 NA1HE104(A)	273.1874	-245.6		62.2	7.9	
800 NA2FE1CL6(A)	444.8976	-297.		88.		
801 NA2CR104(C)	161.9732	-320.8		40.7		
802 NA2CR104(A)	161.9732	-325.38		40.2		
803 NA2CR104(AU)	161.9732	-325.2				
IN 6000H2O + 0.1N NAOH						
804 NA2CH104(10H2O)	161.9732	-328.1				
805 NA2CR104(800H2O)	161.9732	-324.5				
806 NA2CR104:4H2O(C)	234.0348	-604.2				

NBS ALKALI METAL CMPD. THERMO. PRUPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K

FORMULA	WT	DH0	DH298	DG298	H298 - H0	S298	CP298
807	NA2CR104:10H20(C)	342.1272	-1022.7				
808	NA2CH207(C)	261.9674	-472.9				
809	NA2CR207(A)	261.9674	-471.0	-436.2		90.8	
810	NA2CR207(200H20)	261.9674	-470.5				
811	NA2CR207(300H20)	261.9674	-470.3				
812	NA2CR207(400H20)	261.9674	-470.1				
813	NA2CH207(500H20)	261.9674	-470.0				
814	NA2CR207(600H20)	261.9674	-469.9				
815	NA2CR207(800H20)	261.9674	-469.8				
816	NA2CR207(1000H20)	261.9674	-469.7				
817	NA2CR207(1200H20)	261.9674	-469.6				
818	NA2CR207:2H20(C)	297.9982	-615.4				
819	NA1H1CR104(A)	139.9914	-267.3	-245.4		58.1	
820	NA2CR104:4NA101H(C)	321.9620	-730.6				
821	NA2MO104(C)	205.9172	-350.89	-323.69		38.1	33.87
822	NA2MO104(A)	205.9172	-353.3				
823	NA2MO104(AU)	205.9172	-353.1	-325.1		34.7	
IN DILUTE NaOH							
824	NA2MO104:2H20(C)	241.9480	-492.8				
825	NA2MO105(1100H20)	221.9166	-327.5				
826	NA2MO106:H20(C)	255.9314	-396.4				
827	NA2MO108:2H20(C)	305.9456	-422.2				
828	NA2MO108:4H20(C)	341.9764	-561.2				
829	NA2MO207(C)	349.8554	-536.58				
830	NA1H1MO105(1100H20)	199.9348	-279.2	-491.92		59.9	51.90
831	MO1F6:2NA1F(C)	293.9068	-660.2				
832	NA2W104(C)	293.8272	-370.2	-342.8		38.5	33.40
833	NA2W104(A)	293.8272	-371.9				
834	NA2W104(AU)	293.8272	-371.6				
IN DILUTE NaOH							
835	NA2W104:2H20(C)	329.8580	-511.5				
836	NA2W106:H20(C)	343.8414	-418.8				
837	NA2W108:2H20(C)	393.8556	-438.2				
838	NA2W207(C)	525.6754	-575.0	-530.0		60.8	51.36
839	NA2W4013(C)	989.3718	-993.7				
840	NA5H1W6021(AU)	1555.0444	-1682.6				
841	W1F6:2NA1F(C)	381.8168	-705.3				
842	NA1V103(C)	121.9300	-273.85	-254.34		27.2	23.32
843	NA1V103(A)	121.9300	-269.7	-249.9		26.	
844	NA3V104(C)	183.9090	-420.14	-391.42		45.3	39.40
845	NA3V104(A)	183.9090	-420.14				
846	NA3V104:1/2H20(C1)	192.9167	-456.4	-402.7			
(C:ORTH0)							

NBS ALKALI METAL CMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K		DH298	DG298	H298 - H0	S298	CP298
847	NA3V104:1/2H20(C2) (C, PSEUDOSALT,)	192.9167	-456.6			
848	NA3V104:2H20(C2) (C, ORTHO)	219.9398	-564.1			
849	NA3V104:7/2H20(C2) (C, PSEUDOSALT,)	246.9629	-672.8			
850	NA3V104:7H20(C2) (C, ORTHO)	310.0168	-921.9			
851	NA3V104:8H20(C2) (C, PSEUDOSALT,)	328.0322	-993.0			
852	NA3V104:10H20(C2) (C, ORTHO)	364.0630	-1132.4			
853	NA3V104:10H20(C3) (C, PSEUDOSALT,)	364.0630	-1133.5			
854	NA3V104:12H20(C3) (C, ORTHO)	400.0938	-1272.5			
855	NA3V104:12H20(C4) (C, PSEUDOSALT,)	400.0938	-1273.8			
856	NA4V207(C)	305.8390	-697.62	-650.46	76.1	64.47
857	NA4V207:2H20(C)	341.8698	-839.6			
858	NA4V207:10H20(C)	485.9930	-1405.7			
859	NA4V207:12H20(C)	522.0238	-1546.9			
860	NA4V207:18H20(C)	630.1162	-1970.9			
861	NA1H2V1C4(A)	139.9454	-338.0	-306.6	43.	
862	NA1H3V207(A)	239.8936		-508.1		
863	NA3H1V207(A)	283.8572		-616.2		
864	NA4F2V10028(A)	1051.3784		-2096.		
865	NA5H1V10028(A)	1073.3602		-2154.	124.	
866	NA1TA1F6(A)	317.9282	-2365.	-271.8		
867	NA2TA1F7(A)	359.9164		-405.4		
868	NA1MG1FE(C1N)6(A)	259.2562		-0.8		
869	NA2MG1FE(C1N)6(A)	282.2460		-73.0		
870	NA1CA1FE(C1N)6(A)	275.0242		-24.5		
871	NA2CA1FE(C1N)6(A)	298.0140		-96.6		
872	NA1SR1FE(C1N)6(A)	322.5642		-25.9		

FORMULA	WT	DH0	DH298	DH298	H298 - H0	S298	Cp298
1	K(CS)	0	0	0	1.695	15.34	7.07
2	K+(A)		-60.32	-67.70		24.5	5.2
3	K2O(C)		-86.4				
4	K1O1H(C)		-101.521				
5	K1O1H(A)		-115.29	-105.29		21.9	-30.3
6	K1O1H(3F2O)		-112.204				
7	K1O1H(3.5H2O)		-112.644				
8	K1O1H(4H2O)		-113.039				
9	K1O1H(4.5H2O)		-113.409				
10	K1O1H(5H2O)		-113.698				
11	K1O1H(6H2O)		-114.028				
12	K1O1H(8H2O)		-114.430				
13	K1O1H(10H2O)		-114.657				
14	K1O1H(12H2O)		-114.796				
15	K1O1H(15H2O)		-114.920				
16	K1O1H(20H2O)		-115.007				
17	K1O1H(25H2O)		-115.034				
18	K1O1H(30H2O)		-115.050				
19	K1O1H(40H2O)		-115.072				
20	K1O1H(50H2O)		-115.086				
21	K1O1H(75H2O)		-115.104				
22	K1O1H(100H2O)		-115.114				
23	K1O1H(150H2O)		-115.129				
24	K1O1H(200H2O)		-115.139				
25	K1O1H(300H2O)		-115.156				
26	K1O1H(400H2O)		-115.166				
27	K1O1H(500H2O)		-115.175				
28	K1O1H(600H2O)		-115.182				
29	K1O1H(700H2O)		-115.188				
30	K1O1H(800H2O)		-115.193				
31	K1O1H(900H2O)		-115.198				
32	K1O1H(1000H2O)		-115.201				
33	K1O1H(1500H2O)		-115.215				
34	K1O1H(2000H2O)		-115.223				
35	K1O1H(3000H2O)		-115.234				
36	K1O1H(4000H2O)		-115.240				
37	K1O1H(5000H2O)		-115.246				
38	K1O1H(7000H2O)		-115.252				
39	K1O1H(10000H2O)		-115.258				
40	K1O1H(20000H2O)		-115.267				

NBS ALKALI METAL COMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	DH298	DG298	H298 - H0	S298	CP298
FORMULA WT	DH0				
41 K101H(50000H2O)	56.1094	-115.274			
42 K101H(100000H2O)	56.1094	-115.279			
43 K101H(00H2O)	56.1094	-115.29			
44 K101H:H2O(C)	74.1248	-180.105			
45 K101H:3/2H2O(C)	83.1325	-215.262			
46 K1H102(A)	72.1088	-98.64	-83.8	30.2	
POTASSIUM HYDROPEROXIDE: FROM K+, H02-					
47 K1F(C)	58.1004	-135.58	-128.53	15.91	11.72
48 K1F(A)	58.1004	-139.82	-134.34	21.2	-20.3
49 K1F(3.5H2O)	58.1004	-138.155			
50 K1F(4H2O)	58.1004	-138.441			
51 K1F(4.5H2O)	58.1004	-138.670			
52 K1F(5H2O)	58.1004	-138.850			
53 K1F(6H2O)	58.1004	-139.101			
54 K1F(8H2C)	58.1004	-139.362			
55 K1F(10H2O)	58.1004	-139.478			
56 K1F(12H2O)	58.1004	-139.536			
57 K1F(15H2O)	58.1004	-139.579			
58 K1F(20H2O)	58.1004	-139.607			
59 K1F(25H2O)	58.1004	-139.617			
60 K1F(30H2O)	58.1004	-139.625			
61 K1F(40H2O)	58.1004	-139.633			
62 K1F(50H2O)	58.1004	-139.639			
63 K1F(75H2O)	58.1004	-139.649			
64 K1F(100H2O)	58.1004	-139.655			
65 K1F(150H2O)	58.1004	-139.666			
66 K1F(200H2O)	58.1004	-139.674			
67 K1F(300H2O)	58.1004	-139.688			
68 K1F(400H2O)	58.1004	-139.699			
69 K1F(500H2O)	58.1004	-139.707			
70 K1F(600H2O)	58.1004	-139.713			
71 K1F(700H2O)	58.1004	-139.719			
72 K1F(800H2O)	58.1004	-139.724			
73 K1F(900H2O)	58.1004	-139.728			
74 K1F(1000H2O)	58.1004	-139.731			
75 K1F(1500H2O)	58.1004	-139.745			
76 K1F(2000H2O)	58.1004	-139.753			
77 K1F(3000H2O)	58.1004	-139.764			
78 K1F(4000H2O)	58.1004	-139.771			
79 K1F(5000H2O)	58.1004	-139.776			
80 K1F(7000H2O)	58.1004	-139.782			

NBS ALKAL1 METAL CMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K
 FORMULA WT DH298 H298 - H0 S298 CP298

FORMULA WT	DH298	H298 - H0	S298	CP298
81 K1F(10000H2C)	-139.788			
82 K1F(20000H2C)	-139.797			
83 K1F(50000H2C)	-139.805			
84 K1F(100000H2C)	-139.809			
85 K1F(00H2O)	-139.82			
86 K1F:2H2C(C)	-278.116			
87 K1H1F2(A)	-215.66	46.6		
POTASSIUM EIFLUORIDE: FROM K+, HF2-				
88 K1CL(C)	-104.385			
89 K1CL(A)	-100.27			
90 K1CL(12H2O)	-100.720	38.0		-27.4
91 K1CL(15H2O)	-100.635			
92 K1CL(20H2O)	-100.533			
93 K1CL(25H2O)	-100.460			
94 K1CL(30H2O)	-100.409			
95 K1CL(40H2O)	-100.343			
96 K1CL(50H2O)	-100.302			
97 K1CL(75H2O)	-100.247			
98 K1CL(100H2O)	-100.220			
99 K1CL(150H2O)	-100.198			
100 K1CL(200H2O)	-100.189			
101 K1CL(300H2O)	-100.185			
102 K1CL(500H2O)	-100.188			
103 K1CL(600H2O)	-100.191			
104 K1CL(800H2O)	-100.196			
105 K1CL(1000H2O)	-100.200			
106 K1CL(1500H2O)	-100.208			
107 K1CL(2000H2O)	-100.213			
108 K1CL(3000H2O)	-100.220			
109 K1CL(4000H2O)	-100.225			
110 K1CL(5000H2O)	-100.229			
111 K1CL(7000H2O)	-100.234			
112 K1CL(10000H2O)	-100.239			
113 K1CL(20000H2O)	-100.248			
114 K1CL(50000H2O)	-100.256			
115 K1CL(100000H2O)	-100.260			
116 K1CL(00H2O)	-100.27			
117 K1CL3(A)	-96.5			
118 K1CL10(A)	-76.5			
119 K1CL102(A)	-63.6			
120 K1CL103(C)	-69.645			
74.5550	-85.9			
74.5550	-76.2			
106.5538	-93.890			
122.5532				
74.5550	-96.5			
145.4610	-76.5			
90.5544	-63.6			
106.5538	-69.645			
122.5532				

NBS ALKALI METAL CMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA WT	DHO	DH298	H298 - H0	S298	CP298
121 K1CL103(A)	122.5532	-84.0	-68.5		63.3	
122 K1CL103(100H2O)	122.5532	-84.55				
123 K1CL103(150H2O)	122.5532	-84.31				
124 K1CL103(200H2O)	122.5532	-84.20				
125 K1CL103(300H2O)	122.5532	-84.09				
126 K1CL103(400H2O)	122.5532	-84.05				
127 K1CL103(500H2O)	122.5532	-84.03				
128 K1CL103(1000H2O)	122.5532	-83.99				
129 K1CL103(3000H2O)	122.5532	-83.97				
130 K1CL103(10000H2O)	122.5532	-83.98				
131 K1CL103(100000H2O)	122.5532	-83.99				
132 K1CL103(100H2O)	122.5532	-84.0				
133 K1CL104(C)	138.5526	-103.430	-72.46		36.1	26.34
134 K1CL104(A)	138.5526	-91.23	-69.76		68.0	
135 K1CL104(600H2O)	138.5526	-91.33				
136 K1CL104(700H2O)	138.5526	-91.31				
137 K1CL104(800H2O)	138.5526	-91.30				
138 K1CL104(900H2O)	138.5526	-91.29				
139 K1CL104(1000H2O)	138.5526	-91.28				
140 K1CL104(5000H2O)	138.5526	-91.22				
141 K1CL104(10000H2O)	138.5526	-91.21				
142 K1CL104(100000H2O)	138.5526	-91.22				
143 K1CL104(00H2O)	138.5526	-91.23				
144 K1BR(C)	119.0110	-94.120				
145 K1BR(A)	119.0110	-89.37	-92.55		44.2	-28.7
146 K1BR(10H2O)	119.0110	-90.195				
147 K1BR(12H2O)	119.0110	-90.084				
148 K1BR(15H2O)	119.0110	-89.954				
149 K1BR(20H2O)	119.0110	-89.860				
150 K1BR(25H2O)	119.0110	-89.713				
151 K1BR(30H2O)	119.0110	-89.643				
152 K1BR(40H2O)	119.0110	-89.549				
153 K1BR(50H2O)	119.0110	-89.490				
154 K1BR(75H2O)	119.0110	-89.407				
155 K1BR(100H2O)	119.0110	-89.368				
156 K1BR(150H2O)	119.0110	-89.332				
157 K1BR(200H2O)	119.0110	-89.317				
158 K1BR(300H2O)	119.0110	-89.306				
159 K1BR(500H2O)	119.0110	-89.303				
160 K1BR(800H2O)	119.0110	-89.305				

FORMULA WT	IN KCAL/MOL	DM0	DM298	H298 - H0	S298	CP298
161 K1BR(1000H2O)	119.0110		-89.307			
162 K1BR(1500H2O)	119.0110		-89.313			
163 K1BR(2000H2O)	119.0110		-89.317			
164 K1BR(3000H2O)	119.0110		-89.324			
165 K1BR(4000H2O)	119.0110		-89.328			
166 K1BR(5000H2O)	119.0110		-89.332			
167 K1BR(7000H2O)	119.0110		-89.336			
168 K1BR(10000H2O)	119.0110		-89.341			
169 K1BR(20000H2O)	119.0110		-89.349			
170 K1BR(50000H2O)	119.0110		-89.356			
171 K1BR(100000H2O)	119.0110		-89.360			
172 K1BR(00H2O)	119.0110		-89.37			
173 K1BR3(A)	278.8290		-91.49			
174 K1BR5(A)	438.6470		-94.3			
175 K1BR10(A)	135.0104		-82.8			
176 K1BR103(C)	167.0092		-90.130			
177 K1BR103(A)	167.0092		-80.3			
178 K1BR103(500H2O)	167.0092		-80.34			
179 K1BR103(600H2O)	167.0092		-80.32			
180 K1BR103(800H2O)	167.0092		-80.31			
181 K1BR103(1000H2O)	167.0092		-80.30			
182 K1BR103(5000H2O)	167.0092		-80.27			
183 K1BR103(10000H2O)	167.0092		-80.28			
184 K1BR103(100000H2O)	167.0092		-80.30			
185 K1BR103(00H2O)	167.0092		-80.3			
186 K1BR2CL(A)	234.3730		-101.0			
187 K1I(C)	166.0064		-78.370			
188 K1I(A)	166.0064		-73.51			
189 K1I(8H2O)	166.0064		-74.848			
190 K1I(10H2O)	166.0064		-74.658			
191 K1I(12H2O)	166.0064		-74.509			
192 K1I(15H2O)	166.0064		-74.342			
193 K1I(20H2O)	166.0064		-74.149			
194 K1I(25H2O)	166.0064		-74.019			
195 K1I(30H2O)	166.0064		-73.927			
196 K1I(40H2O)	166.0064		-73.803			
197 K1I(50H2O)	166.0064		-73.724			
198 K1I(75H2O)	166.0064		-73.620			
199 K1I(100H2O)	166.0064		-73.565			
200 K1I(150H2O)	166.0064		-73.512			
171 K1BR(1000H2O)	119.0110		-89.307			
172 K1BR(1500H2O)	119.0110		-89.313			
173 K1BR(2000H2O)	119.0110		-89.317			
174 K1BR(3000H2O)	119.0110		-89.324			
175 K1BR(4000H2O)	119.0110		-89.328			
176 K1BR(5000H2O)	119.0110		-89.332			
177 K1BR(7000H2O)	119.0110		-89.336			
178 K1BR(10000H2O)	119.0110		-89.341			
179 K1BR(20000H2O)	119.0110		-89.349			
180 K1BR(50000H2O)	119.0110		-89.356			
181 K1BR(100000H2O)	119.0110		-89.360			
182 K1BR(00H2O)	119.0110		-89.37			
183 K1BR3(A)	278.8290		-91.49			
184 K1BR5(A)	438.6470		-94.3			
185 K1BR10(A)	135.0104		-82.8			
186 K1BR103(C)	167.0092		-90.130			
187 K1BR103(A)	167.0092		-80.3			
188 K1BR103(500H2O)	167.0092		-80.34			
189 K1BR103(600H2O)	167.0092		-80.32			
190 K1BR103(800H2O)	167.0092		-80.31			
191 K1BR103(1000H2O)	167.0092		-80.30			
192 K1BR103(5000H2O)	167.0092		-80.27			
193 K1BR103(10000H2O)	167.0092		-80.28			
194 K1BR103(100000H2O)	167.0092		-80.30			
195 K1BR103(00H2O)	167.0092		-80.3			
196 K1BR2CL(A)	234.3730		-101.0			
197 K1I(C)	166.0064		-78.370			
198 K1I(A)	166.0064		-73.51			
199 K1I(8H2O)	166.0064		-74.848			
200 K1I(10H2O)	166.0064		-74.658			
201 K1I(12H2O)	166.0064		-74.509			
202 K1I(15H2O)	166.0064		-74.342			
203 K1I(20H2O)	166.0064		-74.149			
204 K1I(25H2O)	166.0064		-74.019			
205 K1I(30H2O)	166.0064		-73.927			
206 K1I(40H2O)	166.0064		-73.803			
207 K1I(50H2O)	166.0064		-73.724			
208 K1I(75H2O)	166.0064		-73.620			
209 K1I(100H2O)	166.0064		-73.565			
210 K1I(150H2O)	166.0064		-73.512			
171 K1BR(1000H2O)	119.0110		-89.307			
172 K1BR(1500H2O)	119.0110		-89.313			
173 K1BR(2000H2O)	119.0110		-89.317			
174 K1BR(3000H2O)	119.0110		-89.324			
175 K1BR(4000H2O)	119.0110		-89.328			
176 K1BR(5000H2O)	119.0110		-89.332			
177 K1BR(7000H2O)	119.0110		-89.336			
178 K1BR(10000H2O)	119.0110		-89.341			
179 K1BR(20000H2O)	119.0110		-89.349			
180 K1BR(50000H2O)	119.0110		-89.356			
181 K1BR(100000H2O)	119.0110		-89.360			
182 K1BR(00H2O)	119.0110		-89.37			
183 K1BR3(A)	278.8290		-91.49			
184 K1BR5(A)	438.6470		-94.3			
185 K1BR10(A)	135.0104		-82.8			
186 K1BR103(C)	167.0092		-90.130			
187 K1BR103(A)	167.0092		-80.3			
188 K1BR103(500H2O)	167.0092		-80.34			
189 K1BR103(600H2O)	167.0092		-80.32			
190 K1BR103(800H2O)	167.0092		-80.31			
191 K1BR103(1000H2O)	167.0092		-80.30			
192 K1BR103(5000H2O)	167.0092		-80.27			
193 K1BR103(10000H2O)	167.0092		-80.28			
194 K1BR103(100000H2O)	167.0092		-80.30			
195 K1BR103(00H2O)	167.0092		-80.3			
196 K1BR2CL(A)	234.3730		-101.0			
197 K1I(C)	166.0064		-78.370			
198 K1I(A)	166.0064		-73.51			
199 K1I(8H2O)	166.0064		-74.848			
200 K1I(10H2O)	166.0064		-74.658			
201 K1I(12H2O)	166.0064		-74.509			
202 K1I(15H2O)	166.0064		-74.342			
203 K1I(20H2O)	166.0064		-74.149			
204 K1I(25H2O)	166.0064		-74.019			
205 K1I(30H2O)	166.0064		-73.927			
206 K1I(40H2O)	166.0064		-73.803			
207 K1I(50H2O)	166.0064		-73.724			
208 K1I(75H2O)	166.0064		-73.620			
209 K1I(100H2O)	166.0064		-73.565			
210 K1I(150H2O)	166.0064		-73.512			

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K
 DHO DH298

CP298

S298

H298 - H0

DG298

FORMULA WT	IN KCAL/MOL AND CAL/MOL.K	DH298	DG298	H298 - H0	S298	CP298
201 K11(200H2O)	166.0064	-73.488				
202 K11(300H2O)	166.0064	-73.466				
203 K11(400H2O)	166.0064	-73.457				
204 K11(600H2O)	166.0064	-73.452				
205 K11(800H2O)	166.0064	-73.451				
206 K11(900H2O)	166.0064	-73.452				
207 K11(1000H2O)	166.0064	-73.453				
208 K11(2000H2O)	166.0064	-73.459				
209 K11(3000H2O)	166.0064	-73.465				
210 K11(4000H2O)	166.0064	-73.469				
211 K11(5000H2O)	166.0064	-73.473				
212 K11(7000H2O)	166.0064	-73.477				
213 K11(10000H2O)	166.0064	-73.481				
214 K11(20000H2O)	166.0064	-73.489				
215 K11(50000H2O)	166.0064	-73.496				
216 K11(100000H2O)	166.0064	-73.500				
217 K11(00H2O)	166.0064	-73.51				
218 K113(A)	419.8152	-72.6	-80.0		81.7	
219 K110(A)	182.0058	-86.0	-76.9		23.2	
220 K1103(C)	214.0046	-119.83	-100.00		36.20	
221 K1103(A)	214.0046	-113.2	-98.3		52.8	
222 K1103(500H2O)	214.0046	-113.32				
223 K1103(600H2O)	214.0046	-113.28				
224 K1103(800H2O)	214.0046	-113.25				
225 K1103(1000H2O)	214.0046	-113.23				
226 K1103(2000H2O)	214.0046	-113.19				
227 K1103(10000H2O)	214.0046	-113.18				
228 K1103(100000H2O)	214.0046	-113.19				
229 K1103(00H2O)	214.0046	-113.2				
230 K1104(AU)	230.0040	-95.5				
FRM K+, IC4-(AU)						
231 K2I20(A)	348.0122	-240.7	-155.1			
232 K1H4I106(AU)	266.0348					
FRM K+, H4I06-(AU)						
233 K1I201H(A)	309.9182		-122.7			
234 K2H3I1C6(AU)	304.1268					
FRM 2K+, H3I06-2(AU)						
235 K1I1CL2(A)	236.9124		-106.2			
236 K1I2CL(A)	328.3638		-93.2		77.6	
237 K1I1B2(A)	329.8244		-97.1			
238 K1R6I12(A)	372.8198		-90.9		71.7	
239 K1I1BP1CL(A)	281.3684		-102.7			
240 K2S(A)	110.2680		-112.7		45.5	

NBS ALKALI METAL COMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K		FORMULA	WT	DH0	DH298	DG298	H298 - H0	S298	CP298
241	K2S2(A)	142.3320		-113.4	-116.4			55.8	
242	K2S3(A)	174.3960		-114.4	-117.8			64.8	
243	K2S4(A)	206.4600		-115.1	-116.9			73.7	
244	K2S5(A)	238.5240		-115.5	-119.7			82.6	
245	K2S103(A)	158.2662		-272.5	-251.7			42.	
246	K2S104(C)	174.2656		-343.69					
247	K2S104(A)	174.2656		-337.96	-313.37			53.8	-60.
248	K2S2C3(AU)	190.3302		-276.5					
	FROM 2K+, S2O3-2(AU)								
249	K2S2O4(A)	206.3296		-300.7	-278.9			71.	
250	K2S2O6(AU)	238.3284		-407.0					
	FROM 2K+, S2O6-2(AU)								
251	K2S2O7(AU)	254.3278		-455.5					
	FROM 2K+, S2O7-2(AU)								
252	K2S2O8(A)	270.3272		-440.6	-400.8			108.3	
253	K2S3O6(AU)	270.3924		-407.3					
	FROM 2K+, S3O6-2(AU)								
254	K2S4O6(AU)	302.4564		-413.22					
	FROM 2K+, S4O6-2(AU)								
255	K2S5O6(AU)	334.5204		-416.1					
	FROM 2K+, S5O6-2(AU)								
256	K1H1S(C)	72.1740		-63.36					
257	K1H1S(A)	72.1740		-64.5	-64.82			39.5	
	FROM K+, HS-								
258	K1H1S1O3(A)	120.1722		-209.99	-193.85			57.9	
	FROM K+, HS03-2								
259	K1H1S1O4(A)	136.1716		-272.40	-248.39			56.0	-15.
	FROM K+, HS04-								
260	K1H1S2O4(A)	168.2356			-214.6				
	FROM K+, HS2O4-								
261	K1S1O3F(AU)	138.1626		-253.3					
	FROM K+, S03F-(AU)								
262	K2SE(A)	157.1640			-104.5				
263	K2SE1O3(A)	205.1622		-242.3	-223.8			52.1	
264	K2SE1O4(A)	221.1616		-263.8	-240.9			61.9	
265	K1H1SE(A)	119.0700		-56.5	-57.2			43.	
	FROM K+, HSE-								
266	K1H1SE1O3(A)	167.0682		-183.30	-166.06			56.8	
	FROM K+, HSE03-								
267	K1H1SE1O4(A)	183.0676		-199.3	-175.8			60.2	
	FROM K+, HSE04-								
268	K2TE1O3(AU)	253.8022		-263.2					
	FROM 2K+, TE03-(AU)								
269	K1H5TE1C6(AU)	267.7364		-361.8					
	FROM K+, H5TEC6-(AU)								

NBS ALKALI METAL COMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA WT	DHO	IN KCAL/MOL AND CAL/MOL.K	DH298	DC298	H298 - H0	S298	CP298
270 K2H4TE106(AU) FROM 2K+, H4TE06(AU)	305.8324		-412.7					
271 K2PO1CL6(A)	500.9220				-273.			
272 K1N3(A)	81.1221	5.44			15.5		50.3	
273 K1N102(C) FROM K+, N3-	85.1075		-88.490					
274 K1N102(A)	85.1075		-85.3		-76.6		58.0	-18.1
275 K1N103(C)	101.1069		-118.220					
276 K1N103(A)	101.1069		-109.88		-94.31		59.5	-15.5
277 K1O1N102(AU2) POTASSIUM NITRATE POTASSIUM PEROXYNITRITE; FROM K+, ON02-(AU)	101.1069		-71.0					
278 K1N103(15H2O)	101.1069		-111.679					
279 K1N103(20H2O)	101.1069		-111.393					
280 K1N103(25H2O)	101.1069		-111.187					
281 K1N103(30H2O)	101.1069		-111.030					
282 K1N103(40H2O)	101.1069		-110.811					
283 K1N103(50H2O)	101.1069		-110.659					
284 K1N103(75H2O)	101.1069		-110.427					
285 K1N103(100H2O)	101.1069		-110.298					
286 K1N103(150H2O)	101.1069		-110.154					
287 K1N103(200H2O)	101.1069		-110.076					
288 K1N103(300H2O)	101.1069		-109.994					
289 K1N103(400H2O)	101.1069		-109.953					
290 K1N103(500H2O)	101.1069		-109.928					
291 K1N103(600H2O)	101.1069		-109.911					
292 K1N103(700H2O)	101.1069		-109.900					
293 K1N103(800H2O)	101.1069		-109.891					
294 K1N103(900H2O)	101.1069		-109.884					
295 K1N103(1000H2O)	101.1069		-109.879					
296 K1N103(1500H2O)	101.1069		-109.866					
297 K1N103(2000H2O)	101.1069		-109.861					
298 K1N103(3000H2O)	101.1069		-109.856					
299 K1N103(5000H2O)	101.1069		-109.855					
300 K1N103(10000H2O)	101.1069		-109.857					
301 K1N103(20000H2O)	101.1069		-109.861					
302 K1N103(50000H2O)	101.1069		-109.866					
303 K1N103(100000H2O)	101.1069		-109.870					
304 K1N103(100H2O)	101.1069		-109.88					

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA WT	DH298	H298 - H0	S298	CP298
305 K2N2O2(AU) POTASSIUM HYPONITRITE SUM 2K+, N2O2-2(AU)	138.2162	-124.7			
306 K1H1N2O2(AU) POTASSIUM HYPONITRITE SUM K+, HN2C2-(AU)	100.1222	-72.7			
307 K1P1O3(AU) POTASSIUM METAPHOSPHATE	118.0740	-293.8			
308 K3P1O4(A)	212.2774	-486.3	-446.6	21.0	
309 K4P2O7(A)	330.3514	-784.1	-729.5	70.	
310 K1H2P1O2(A) SUM K+, H2P02-	104.0906	-207.0			
311 K1H2P1O3(AU) SUM K+, H2P03-(AU)	120.0900	-292.0			
312 K1H2P1O4(C)	136.0894	-375.40	-338.98	32.23	
313 K1H2P1O4(A)	136.0894	-370.14	-337.87	46.1	
314 K1H3P2O7(A) SUM K+, H3P2O7-	216.0694	-604.4	-551.3	75.	
315 K2H1F1C3(AU) SUM 2K+, HP03-2(AU)	158.1840	-352.2			
316 K2H1P1O4(A) SUM 2K+, HP04-2	174.1834	-429.47	-395.74	41.0	
317 K2H2P2O7(A) SUM 2K+, H2P2C7-2	254.1634	-665.2	-615.9	88.	
318 K3H1P2O7(A) SUM 3K+, HF2O7-3	292.2574	-724.7	-674.5	84.	
319 K2P1O3F(A) SUM K+, H2AS04-	176.1744	-416.2			
320 K1H1F1O3F(A)	138.0804	-354.1	-354.1		
321 K1AS1O2(A)	146.0224	-162.86	-151.36	34.2	
322 K3AS1O4(A)	256.2252	-393.23	-358.10	34.6	
323 K1H2AS1O3(A) SUM K+, H2AS03-	164.0378	-231.16	-208.05	50.9	
324 K1H2AS1C4(A) SUM K+, H2AS04-	180.0372	-277.71	-247.74	52.	
325 K2H1AS1C4(A) SUM 2K+, HAS04-2	218.1312	-337.26	-306.22	48.6	
326 K2AS1O3F(A)	220.1222		-380.99		
327 K1H1AS1O3F(A) SUM K+, HAS03F-	182.0282		-321.30		
328 K1SE1O2(A)	192.8508		-149.02		
329 K2SE2S4(A)	449.9600		-159.2		
330 K1B11CL4(A)	389.8940		-182.8		
331 K3B11CL6(A)	539.0040		-381.61		
332 K1B11BR4(A)	567.7180		-157.9		
333 K1B11I4(A)	755.6996		-117.6		

NBS ALKALI METAL CPD. THERMC. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K		DH0	DH298	DG298	H298 ~ H0	S298	CP298
FORMULA WT							
334	K2N1H4B11CL6(A)	517.9407					
335	K2C103(C)	138.2134	-275.0	-333.0		37.4	27.65
POTASSIUM CARBONATE							
336	K2C103(A)	138.2134	-282.48	-261.57		35.4	
337	K2C103(25H2O)	138.2134	-282.43				
338	K2C103(50H2O)	138.2134	-282.40				
339	K2C103(75H2O)	138.2134	-282.34				
340	K2C103(100H2O)	138.2134	-282.29				
341	K2C103(150H2O)	138.2134	-282.22				
342	K2C103(200H2O)	138.2134	-282.16				
343	K2C103(300H2O)	138.2134	-282.08				
344	K2C103(400H2O)	138.2134	-282.02				
345	K2C103(500H2O)	138.2134	-281.97				
346	K2C103(600H2O)	138.2134	-281.92				
347	K2C103(800H2O)	138.2134	-281.86				
348	K2C103(1000H2O)	138.2134	-281.8				
349	K2C103(1500H2O)	138.2134	-281.69				
350	K2C103(2000H2O)	138.2134	-281.60				
351	K2C103:0.5H2O(C)	147.2211	-311.4				
352	K2C103:1.5H2O(C)	165.2365	-384.4	-342.4		48.1	
353	K2C204(C)	166.2240	-321.3				
POTASSIUM OXALATE							
354	K2C204(A)	166.2240	-317.8	-296.5		59.9	
355	K2C204(25H2O)	166.2240	-317.96				
356	K2C204(30H2O)	166.2240	-317.89				
357	K2C204(40H2O)	166.2240	-317.80				
358	K2C204(50H2O)	166.2240	-317.73				
359	K2C204(75H2O)	166.2240	-317.63				
360	K2C204(100H2O)	166.2240	-317.58				
361	K2C204(150H2O)	166.2240	-317.51				
362	K2C204(200H2O)	166.2240	-317.49				
363	K2C204(400H2O)	166.2240	-317.46				
364	K2C204(1000H2O)	166.2240	-317.48				
365	K2C204(1500H2O)	166.2240	-317.50				
366	K2C204(2000H2O)	166.2240	-317.52				
367	K2C204(3000H2O)	166.2240	-317.55				
368	K2C204(4000H2O)	166.2240	-317.58				
369	K2C204(5000H2O)	166.2240	-317.60				
370	K2C204(7000H2O)	166.2240	-317.62				
371	K2C204(10000H2O)	166.2240	-317.65				
372	K2C204(20000H2O)	166.2240	-317.69				
373	K2C204(50000H2O)	166.2240	-317.72				

NBS ALKALI METAL CMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K
 DHO DH298

CP298

S298

H298 - H0

DG298

FORMULA WT

DHO

FORMULA WT

DH298

IN KCAL/MOL

AND CAL/MOL.K

DH298

Formula	Formula WT	DH298	H298 - H0	DG298	S298	CP298
574 K2C2O4(10000H2O)	166.2240	-317.74				
375 K2C2O4(00H2O)	166.2240	-317.8				
376 K2C2O4:H2O(C)	184.2394	-392.8				
POTASSIUM OXALATE (HYDRATE)						
377 K1C1H1O2(C)	84.1200	-162.3				
POTASSIUM FORMATE						
378 K1C1H1O2(A)	84.1200	-162.03	-151.6	46.	-15.8	
379 K1C1H1O2(400H2O)	84.1200	-161.8				
380 K1H1C1O3(C)	100.1194	-229.8	-207.2	30.0		
POTASSIUM BICARBONATE						
381 K1H1C1O3(A)	100.1194	-225.71	-207.96	46.3		
K+, HCO3-						
382 K1H1C1O3(1500H2O)	100.1194	-225.1				
383 K1O1C1H3(A)	70.1366	-106.56	-84.66	14.6		
POTASSIUM METHYLATE						
384 K1O1C1H3(60C1H3O1H)	70.1366	-108.2				
385 K1H1C2O4(A)	128.1300	-255.9	-234.63	60.2		
PCTASSIUM BIOXALATE: K+, HC2O4-						
386 K1H1C2O4(500H2O)	128.1300	-256.2				
387 K1C2H3O2(C)	98.1472	-172.82				
PCTASSIUM ACETATE						
388 K1C2H3O2(A)	98.1472	-176.48	-155.99	45.2	3.7	
389 K1C2H3O2(4.5H2O)	98.1472	-174.320				
390 K1C2H3O2(5H2O)	98.1472	-174.530				
391 K1C2H3O2(5.5H2O)	98.1472	-174.682				
392 K1C2H3O2(6H2O)	98.1472	-174.810				
393 K1C2H3O2(7H2O)	98.1472	-175.010				
394 K1C2H3O2(8H2O)	98.1472	-175.160				
395 K1C2H3O2(9H2O)	98.1472	-175.268				
396 K1C2H3O2(10H2O)	98.1472	-175.360				
397 K1C2H3O2(12H2O)	98.1472	-175.490				
398 K1C2H3O2(15H2O)	98.1472	-175.610				
399 K1C2H3O2(20H2O)	98.1472	-175.748				
400 K1C2H3O2(25H2O)	98.1472	-175.833				
401 K1C2H3O2(30H2O)	98.1472	-175.886				
402 K1C2H3O2(40H2O)	98.1472	-175.964				
403 K1C2H3O2(50H2O)	98.1472	-176.020				
404 K1C2H3O2(75H2O)	98.1472	-176.108				
405 K1C2H3O2(100H2O)	98.1472	-176.158				
406 K1C2H3O2(150H2O)	98.1472	-176.215				
407 K1C2H3O2(200H2O)	98.1472	-176.248				
408 K1C2H3O2(300H2O)	98.1472	-176.290				
409 K1C2H3O2(400H2O)	98.1472	-176.315				
410 K1C2H3O2(500H2O)	98.1472	-176.332				

NBS ALKALI METAL CMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	DH0	DH298	H298 - H0	S298	CP298
FORMULA WT	DH298	DG298			
411 K1C2H3O2(600H2O)	98.1472	-176.344			
412 K1C2H3O2(800H2O)	98.1472	-176.361			
413 K1C2H3O2(900H2O)	98.1472	-176.368			
414 K1C2H3O2(1000H2O)	98.1472	-176.373			
415 K1C2H3O2(1500H2O)	98.1472	-176.393			
416 K1C2H3O2(2000H2O)	98.1472	-176.404			
417 K1C2H3O2(3000H2O)	98.1472	-176.417			
418 K1C2H3O2(4000H2O)	98.1472	-176.425			
419 K1C2H3O2(5000H2O)	98.1472	-176.431			
420 K1C2H3O2(7000H2O)	98.1472	-176.438			
421 K1C2H3O2(10000H2O)	98.1472	-176.445			
422 K1C2H3O2(20000H2O)	98.1472	-176.455			
423 K1C2H3O2(50000H2O)	98.1472	-176.464			
424 K1C2H3O2(100000H2O)	98.1472	-176.468			
425 K1C2H3O2(00H2O)	98.1472	-176.48			
426 C1H2O1H1C1O1O1K(C)	114.1466	-217.5			
POTASSIUM HYDROXYACETATE					
427 K1C1H2O1H1C1O1O(A)	114.1466	-216.2			
428 C1H2O1H1C1O1O1K(200H2O)	114.1466	-216.0			
429 C1H2O1H1C1O1O1K:1/2H2O(C)	123.1543	-254.7			
POTASSIUM HYDROXYACETATE HEMIHYDRATE					
430 K1O1C1H2C1H3(A)	84.1638	-92.2			
PCTASSIUM ETHYLATE					
431 K1O1C1H2C1H3(60C2H5O1H)	84.1638	-115.9			
432 5(K2C1O3:3/2H2O):4K1H1C1O3(C)	1226.6601	-2840.			
433 K1C2CL3O2(A)	201.4822	-183.7			
POTASSIUM TRICHLOROACETATE					
434 K1C2CL3C2(50H2O)	201.4822	-183.8			
435 K1C2CL1H2O2(A)	132.5922	-180.13			
POTASSIUM CHLOROACETATE					
436 K1C2CL2H1O2(A)	167.0372	-182.7			
POTASSIUM DICHLOROACETATE					
437 (C1H1O)2:2K1H1S1O3(C)	298.3816	-531.1			
GLYOXAL POTASSIUM BISULFITE					
438 (C1H1O)2:2K1H1S1O3(800H2O)	298.3816	-518.2			
439 K1C1N(C)	65.1199	-27.10			15.4
(C.I.CUBIC)					
440 K1C1N(A)	65.1199	-24.3			47.0
441 K1C1N(200H2O)	65.1199	-24.0			
442 K1C1N1O(C)	81.1193	-100.04			
PCTASSIUM CYANATE					
443 K1C1N1O(A)	81.1193	-95.2			50.0
444 K1C1H2N1O2(AU)	99.1347	-80.6			
PCTASSIUM SALT OF NITROMETHANE: K+					
CH2NO2-					

NBS ALKALI METAL CPD.	THERMO. PROPS. (TN 270)	SERIES) IN KCAL/MOL AND CAL/MOL.K	DH298	DG298	H298 - H0	S298	CP298
FORMULA	WT	DHO	DH298	DG298	H298 - H0	S298	CP298
445 K101C1C101N1H2(C) POTASSIUM OXAMATE	127.1453	-220.5					
446 K1C2N1H4O2(A)	113.1619	-172.60	-142.98	53.0			
447 K1C2N1H4O2(A2) POTASSIUM SALT OF GLYCINE: K+, C2NH4O2-	113.1619	-90.6					
448 K1C1N1I2(A) POTASSIUM SALT OF NITROETHANE: K+, C2NH4O2-	318.9287		-35.17				
449 K1I(C1N)2(A) K+, CN12-	218.0422		17.91				
450 K1C1N1S(C) POTASSIUM THIOCYANATE	97.1839	-47.84	-40.70	23.3	20.6		
451 K1C1N1S(A)	97.1839	-42.05	-45.55	59.0			
452 K1C1N1S(2H2O)	97.1839	-44.690					
453 K1C1N1S(2.5H2O)	97.1839	-44.560					
454 K1C1N1S(3H2O)	97.1839	-44.440					
455 K1C1N1S(4H2O)	97.1839	-44.220					
456 K1C1N1S(4.5H2O)	97.1839	-44.112					
457 K1C1N1S(5H2O)	97.1839	-44.010					
458 K1C1N1S(6H2O)	97.1839	-43.840					
459 K1C1N1S(7H2O)	97.1839	-43.688					
460 K1C1N1S(8H2O)	97.1839	-43.570					
461 K1C1N1S(9H2O)	97.1839	-43.458					
462 K1C1N1S(10H2O)	97.1839	-43.360					
463 K1C1N1S(12H2O)	97.1839	-43.195					
464 K1C1N1S(15H2O)	97.1839	-43.015					
465 K1C1N1S(20H2O)	97.1839	-42.805					
466 K1C1N1S(25H2O)	97.1839	-42.661					
467 K1C1N1S(30H2O)	97.1839	-42.557					
468 K1C1N1S(40H2O)	97.1839	-42.418					
469 K1C1N1S(50H2O)	97.1839	-42.330					
470 K1C1N1S(75H2O)	97.1839	-42.204					
471 K1C1N1S(100H2O)	97.1839	-42.139					
472 K1C1N1S(150H2O)	97.1839	-42.074					
473 K1C1N1S(200H2O)	97.1839	-42.043					
474 K1C1N1S(300H2O)	97.1839	-42.015					
475 K1C1N1S(400H2O)	97.1839	-42.003					
476 K1C1N1S(500H2O)	97.1839	-41.998					
477 K1C1N1S(1000H2O)	97.1839	-41.994					
478 K1C1N1S(1500H2O)	97.1839	-41.998					
479 K1C1N1S(2000H2O)	97.1839	-42.001					
480 K1C1N1S(3000H2O)	97.1839	-42.005					
481 K1C1N1S(4000H2O)	97.1839	-42.010					

NBS ALKALI METAL CMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	DH298	DG298	H298 - H0	S298	CP298
FORMULA WT	DHO	DH298	DH0	DH298	CP298
482 K1C1N1S(5000H2O)	97.1839	-42.012			
483 K1C1N1S(7000H2O)	97.1839	-42.017			
484 K1C1N1S(10000H2O)	97.1839	-42.021			
485 K1C1N1S(20000H2O)	97.1839	-42.028			
486 K1C1N1S(50000H2O)	97.1839	-42.036			
487 K1C1N1S(100000H2O)	97.1839	-42.039			
488 K1C1N1S(00H2O)	97.1839	-42.05		35.7	
489 K1C1N1S:0.5S1O2(C)	129.2153	-88.9		71.2	
490 K1C1N1S:2S1O2(C)	225.3095	-209.8			
491 K1C1N1S2H2(A)	131.2639	-52.8			
PCTASSIUM DITHIOCARBAMATE: K+, CNS2H2-					
492 K2C1N1S2H(A)	169.3579	-103.2			
DIPOTASSIUM DITHIOIMINOCARBONATE: 2K+, CNS2H2					
493 K1H1S11(01H)6(A)	170.2404	-482.3			
494 K2S11F6(C)	220.2804	-709.			
495 K2S11F6(A)	220.2804	-691.6		78.2	
496 K1SN1CL3(A)	264.1510	-176.7		87.	
497 K2SN1CL6(C)	409.6120	-355.6			
498 K2SN1CL6(AU)	409.6120	-352.5			
FROM 2K+, SNCL6-2(AU)					
499 K1SN1BR3(A)	397.5190	-149.9		85.	
500 K1H1PB1O2(A)	279.2988	-150.6			
501 K1PB1(01H)3(A)	297.3142	-148.60			
		-205.3			
502 K1PB1CL3(A)	352.6510	-169.6			
503 K1PB1BR3(A)	486.0190	-149.7			
504 K1PB1I3(A)	627.0052	-115.2			
505 K2PB1I4(A)	793.0116	-196.3			
506 K2PB1P2O7(A)	459.3374	-615.2			
507 K6PB1P2O7(AU)	615.7454	-1448.5			
508 K1B1O2(A)	81.9118	-244.92		15.6	
509 K2B4O7(A)	233.4438	-758.0			
510 K2O:4B2O3(C)	372.6842	-1422.3			
511 K2O:4B2O3(GL)	372.6842	-1405.0			
512 K1B1H4(C)	53.9450	-54.21		25.48	23.08
513 K1B1H4(A)	53.9450	-48.81		50.9	
514 K1B1(01H)4(A)	117.9426	-381.55		49.0	
515 K1H2B1O3:H2O2(A)	133.9420	-320.5			
FROM K+, H2B03:H2O2-					
516 K1H1B4O7(A)	195.3498	-709.5			
K+, HB4O7-					
517 K1B1F4(C)	125.9066	-448.69		36.4	26.4
518 K1B1F4(A)	125.9066	-426.8		68.	
519 K1B1F2(ClH)2(A)	121.9246	-423.1			
		-388.2			
		-426.8	5.09		
		-436.7			

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	DHO	DH298	H298 - H0	S298	CP298
FORMULA WT	DH298	DG298			
520 K1B1F301H(C)	123.9156				
521 K1B1F301H(A)	123.9156				
522 K1B1F301H(400H2O)	123.9156	-405.8		64.	
523 K2B3F40301H(C)	251.6362				
524 K2B3F40301H(800H2O)	251.6362				
525 K1A1L102(A)	98.0823				
526 K1A1L(C1H)4(A)	134.1131	-264.5		20.	
527 K3AL1F6(AU)	258.2779	-377.9		53.	
528 K1A1L(S1O4)2(C)	258.2067				
529 K1A1L(S1O4)2(A)	258.2067	-535.40		48.9	46.12
FROM AL+3, K+, 25042-		-540.		-42.8	
530 K1A1L(S1O4)2(AU)	258.2067				
531 K1A1L(S1O4)2:H2O(C)	276.2221				
532 K1A1L(S1O4)2:2H2O(C)	294.2375				
533 K1A1L(S1O4)2:3H2O(C)	312.2529				
534 K1A1L(S1O4)2:12H2O(C)	474.3915	-1228.98		164.3	155.6
535 K3GA1O3(A)	235.0242				
536 K1H2GA1O3(A)	158.8362	-351.			
FRM K+, H2GAO3		-246.			
537 K2H1GA1O3(A)	196.9302				
FROM 2K+, HGAC3-2		-299.			
538 K1GA1BR4(A)	428.4580				
539 K1TL(C1N)4(A)	347.5436	-199.2		33.1	
		100.			
540 K2ZN1O2(A)	175.5728				
541 K1H1ZN1C2(A)	137.4788	-227.25			
542 FROM K+, HZN02-		-176.96			
K1ZN1O3H3(A)					
543 K2ZN(O1H)4(A)	155.4942				
544 K1ZN1CL3(A)	211.6036	-233.65			
	210.8310	-340.63			
		-196.9			
545 K2ZN1CL4(A)	285.3860				
546 K1ZN1BR3(A)	344.1990	-294.6			
547 K1ZN1I3(A)	485.1852	-175.0			
548 K2ZN1I4(A)	651.1916	-137.4			
549 K2ZN(C1N)4(A)	247.6456	-216.7			
		-28.6		103.	
550 K2ZN(C1N)4(600H2O)	247.6456				
551 K2ZN(C1N1S)4(A)	375.9016				
552 K2CD1O2(A)	222.6028	-83.7			
553 K1H1CD1C2(A)	184.5088	-203.4			
FRM K+, HCD02-		-154.6			
554 K1CD(O1H)3(A)	202.5242				
		-211.6			
555 K2CD(O1H)4(A)	258.6336				
556 K1CD1CL3(A)	257.8610	-316.7			
557 K1CD1BR3(A)	391.2290	-184.1			
558 K1CD1I3(A)	532.2152	-165.1			
		-129.7			
				73.0	

NBS ALKALI METAL COMPD. THERMC. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA WT	DHO	DH298	DG298	H298 - H0	S298	CP298
559 K2CD1I4(A)	698.2216	-202.3		-210.9		127.	
560 K1CD(N3)3(A)	277.5623			159.1			
561 K2CD(N3)4(A)	358.6844			174.1			
562 K2CD1P207(A)	364.5474			-624.5			
563 K1CD(C1N)3(A)	229.5557			17.1			
564 K2CD(C1N)4(A)	294.6756	-18.3		-14.1		126.	
565 K2CD(C1N)4(800H2O)	294.6756	-18.3					
566 K1CD(C1N)3(A)	325.7477			-22.4			
567 K1HG1CL3(A)	346.0510	-153.2		-141.6		75.	
568 K2HG1CL4(A)	420.6060	-253.0		-242.2		119.	
569 K1HG1BR3(A)	479.4190	-130.4		-129.7		86.	
570 K2HG1BR4(A)	598.4300	-223.6		-224.1		123.	
571 K1HG1I3(A)	620.4052	-96.8		-103.2		97.	
572 K2HG1I4(A)	786.4116	-176.8		-186.0		135.	
573 K1HG(C1N)3(A)	317.7457	34.6		43.0		78.3	
574 K2HG(C1N)4(A)	382.8656	5.2		12.4		122.	
575 K1HG(C1N)3(A)	413.9377			10.8			
576 K2HG(C1N)4(A)	511.1216	-42.6		-37.1		158.	
577 K2CU1O2(A)	173.7428			-179.3			
578 K1H1CU1C2(A)	135.6488			-129.5			
579 K1CU1CL2(A)	173.5480			-125.1			
580 K1CU1CL3(A)	209.0010			-225.			
581 K1CU(C1N)2(A)	154.6778			-6.1			
582 K2CU(C1N)3(A)	219.7977			-38.9			
583 K3CU(C1N)4(A)	284.9176			-67.7			
584 K3CU(C1N)3(A)	413.1736	-102.5		-116.1		227.	
585 K1AG1CL2(A)	217.8780	-118.9		-119.2		75.8	
586 K1AG1BR2(A)	306.7900			-108.9			
587 K2AG1BR3(A)	425.8010			-203.4			
588 K1AG1I2(A)	400.7808			-88.5			
589 K2AG1I3(A)	566.7872	-164.1		-172.2		109.5	
590 K3AG1I4(A)	732.7936			-253.2			
591 K1AG(C1N)2(A)	199.0078	4.3		5.3		71.	
592 K1AG(S1C1N)2(A)	263.1358			-16.3			
593 K2AG(S1C1N)3(A)	360.3197			-63.5			
594 K3AG(S1C1N)4(A)	457.5036			-109.4			
595 K1AU1CL4(A)	377.8810	-137.3		-123.92		88.3	
596 K1AU1BR4(A)	555.7050	-106.1		-107.7		104.8	
597 K1AU(C1N)2(A)	288.1048	-2.4		0.6		65.	
598 K1AL(S1C1N)2(A)	352.2328			-7.5			

NBS ALKALI METAL COMPD. THEPMG. PROPS. (TN 270 SERIES) IN K CAL/MOL AND CAL/MOL.K	DH298	H298 - H0	S298	CP298
FORMULA WT	DHO	DH298	DH298	CP298
599 K1AU(S1C1N)4(A)	468.3966		66.5	
600 K2NI(C1N)4(A)	240.9856		-22.6	
601 K(CC(N1F3)2(N1O2)4)(C)	316.1186		101.	
602 K(CC(N1F3)2(N1O2)4)(300C0H2O)	316.1186			
603 K3(CO(C2O4)3)(20000H2O)	440.2992			
604 K3(CO(C2O4)3):3H2O(C)	494.3454			
605 K3CC(C1N)6(C)	332.3466		96.0	73.8
606 K3CC(C1N)6(A)	332.3466		129.1	
607 K(CO(N1H3)2(N1O2)2C2O4)(C)	312.1276			
608 K(CC(N1H3)2(N1O2)2C2O4){17000H2O}	312.1276			
609 K1FE(S1O4)2(A)	287.0722		-432.1	
610 K1FE(C1N)6-2(AO)	251.0564		-69.4	
611 K1FE(C1N)6-3(AO)	251.0564		95.2	
612 K3FE(C1N)6(C)	329.2604		-30.97	75.60
613 K3FE(C1N)6(A)	329.2604		-28.8	
FROM 3K+, FE(CN)6-3				
614 K3FE(C1N)6(500H2O)	329.2604		-46.41	
615 K3FE(C1N)6(600H2O)	329.2604		-46.34	
616 K3FE(C1N)6(800H2O)	329.2604		-46.30	
617 K3FE(C1N)6(1000H2O)	329.2604		-46.28	
618 K3FE(C1N)6(2000H2O)	329.2604		-46.26	
619 K3FE(C1N)6(5000H2O)	329.2604		-46.30	
620 K3FE(C1N)6(10000H2O)	329.2604		-46.35	
621 K3FE(C1N)6(20000H2O)	329.2604		-46.42	
622 K3FE(C1N)6(50000H2O)	329.2604		-46.50	
623 K3FE(C1N)6(100000H2O)	329.2604		-46.55	
624 K4FE(C1N)6(C)	368.3624		-142.0	
625 K4FE(C1N)6(A)	368.3624		-132.4	
FROM 4K+, FE(CN)6-4				
626 K4FE(C1N)6(400H2O)	368.3624		-131.71	
627 K4FE(C1N)6(500H2O)	368.3624		-131.60	
628 K4FE(C1N)6(1000H2O)	368.3624		-131.45	
629 K4FE(C1N)6(2000H2O)	368.3624		-131.42	
630 K4FE(C1N)6(5000H2O)	368.3624		-131.50	
631 K4FE(C1N)6(10000H2O)	368.3624		-131.59	
632 K4FE(C1N)6(20000H2O)	368.3624		-131.82	
633 K4FE(C1N)6(50000H2O)	368.3624		-131.91	
634 K4FE(C1N)6:3H2O(C)	422.4086		-281.14	148.
635 K3FE1C(C1N)5(C)	331.2531		-350.5	
636 K3FE1C(C1N)5(A)	331.2531		-138.9	
637 K3FE1C(C1N)5(AU)	331.2531		-134.9	
638 K3FE1C(C1N)5:7/2H2O(C)	394.3070		-134.5	
			-384.0	

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K		DH298	H298 - H0	S298	CP298
FORMULA	WT	DHO			
639	K1H2FE(C1N)6(AU)	253.0724			
640	K1H3FE(C1N)6(A)	75.0			
641	K1H3FE(C1N)6(AU)	254.0804			
642	K2H1FE(C1N)6(AU)	254.0804			
643	K2H2FE(C1N)6(A)	291.1664			
		292.1744	21.97	101.	
644	K2H2FE(C1N)6(AU)	292.1744			
645	K3H1FE(C1N)6(A)	330.2684			
646	K3H1FE(C1N)6(AU)	330.2684	-42.70	115.	
647	K1H2FE1C10(C1N)5(A)	255.0651			
648	K1H2FE1C10(C1N)5(AU)	255.0651			
649	K2H1FE1C10(C1N)5(A)	293.1591			
650	K2H1FE1C10(C1N)5(AU)	293.1591			
651	K1PD1CL3(A)	251.8610	-133.7		
652	K2PD1CL4(C)	326.4160			
653	K2PD1CL4(A)	326.4160	-259.7	111.	
		326.4160	-245.4		
654	K2PD1CL4(AU)	326.4160			
655	K2PD1CL6(C)	397.3220			
656	K2PD1CL6(A)	397.3220	-242.0	79.	
657	K2PD1CL6(AU)	397.3220	-238.2	114.	
658	K1PD1BR3(A)	385.2290			
		385.2290	-116.5		
659	K2PD1BR4(C)	504.2400			
660	K2PD1BR4(A)	504.2400			
661	K2PD1BR4(AU)	504.2400	-211.4	119.	
662	K2PD1BR6(A)	664.0580			
663	K2PD1I4(A)	692.2216			
		692.2216	-215.5		
664	K2PD1I6(A)	946.0304			
665	K2PD(N102)4(A)	368.6260	-176.1		
666	K2PD(C1N)4(A)	288.6756	-156.5		
667	K2PD(C1N)4(A)	416.9316	15.		
668	K3RH1CL6(C)	432.9290	-37.3		
		432.9290	-377.		
669	K3RH1CL6(A)	432.9290			
670	K1RU104(A)	204.1696			
671	K2RU104(A)	243.2716			
672	K1PT1CL3(A)	340.5510			
673	K2PT1CL4(C)	415.1060			
		415.1060	-252.6		43.1
674	K2PT1CL4(A)	415.1060			
675	K2PT1CL4(AU)	415.1060	-223.5	89.	
676	K2PT1CL6(C)	486.0120			
677	K2PT1CL6(A)	486.0120	-259.1	79.8	
678	K2PT1CL6(AU)	486.0120	-252.	101.6	
		486.0120	-281.6		

NBS ALKALI METAL CPD.	THERMO. PROPS.	(TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	DH298	H298 - H0	S298	CP298
FORMULA	WT	DHO	DG298			
679	K2PT1BR4(C)	592.9300	-219.8			
680	K2PT1BR4(AU)	592.9300	-210.			
681	K2PT1BR6(C)	752.7480	-246.4			
682	K2PT1BR6(AU)	752.7480	-235.			
683	K2PT1I6(AU)	1034.7204	-172.			
684	K2(FT(N102)4)(C)	457.3160				64.9
685	K2(PT(N102)CL3)(C)	425.6585				50.4
686	K2(PT(N102)2CL2)(C)	436.2110				53.3
	CIS					
687	K2(FT(N102)3CL)(C)	446.7635				62.8
688	K(PT(N1H3)CL3)(C)	357.5817	-181.6			
689	K2PT(C1N)4(A)	377.3656				
690	K2IR1CL6(C)	483.1220	33.5			
691	K2IR1CL6(AU)	483.1220	-281.			
692	K3IR1CL6(C)	522.2240	-268.7			
693	K3IR1CL6(AU)	522.2240	-369.			
694	K2OS1CL6(C)	481.1220	-285.			
695	K1MN104(C)	158.0376	-200.1	41.04		28.10
696	K1MN104(A)	158.0376	-189.7	70.2		
697	K1MN104(140H20)	158.0376	-190.24			
698	K1MN104(200H20)	158.0376	-190.09			
699	K1MN104(300H20)	158.0376	-189.99			
700	K1MN104(500H20)	158.0376	-189.86			
701	K1MN104(1000H20)	158.0376	-189.87			
702	K1MN104(1500H20)	158.0376	-189.75			
703	K1MN104(2000H20)	158.0376	-189.73			
704	K1MN104(5000H20)	158.0376	-189.70			
705	K1MN104(10000H20)	158.0376	-189.71			
706	K1MN104(00H20)	158.0376	-189.7			
707	K2MN104(A)	197.1396	-277.	63.		
708	K1MN1CL3(A)	200.3990	-255.1			
			-215.9			
709	K4MN(C1N)6(A)	367.4534	-108.			
710	K1RE104(A)	289.2996	-248.5			2.0
711	K2RE1CL6(A)	477.1220	-303.	72.6		
712	K2CN104(C)	194.1976	-333.70	109.		
713	K2CN104(A)	194.1976	-331.24	6.805		34.89
			-309.36			
714	K2CR104(17H20)	194.1976	-322.61			
715	K2CN104(20H20)	194.1976	-332.53			
716	K2CR104(25H20)	194.1976	-332.38			
717	K2CR104(35H20)	194.1976	-332.25			
718	K2CN104(45H20)	194.1976	-332.03			

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	DHO	DH298	DG298	H298 - H0	S298	CP298
FORMULA WT						
719 K2CR104(55H2O)	194.1976	-331.86				
720 K2CR104(60H2O)	194.1976	-331.72				
721 K2CR104(75H2O)	194.1976	-331.57				
722 K2CR104(100H2O)	194.1976	-331.40				
723 K2CR104(200H2O)	194.1976	-331.17				
724 K2CR104(300H2O)	194.1976	-331.09				
725 K2CR104(400H2O)	194.1976	-331.06				
726 K2CR104(500H2O)	194.1976	-331.04				
727 K2CR104(600H2O)	194.1976	-331.03				
728 K2CR104(800H2O)	194.1976	-331.02				
729 K2CR104(1000H2O)	194.1976	-331.03				
730 K2CR104(2000H2O)	194.1976	-331.06				
731 K2CR104(4000H2O)	194.1976	-331.09				
732 K2CR104(5000H2O)	194.1976	-331.10				
733 K2CR104(10000H2O)	194.1976	-331.12				
734 K2CR104(20000H2O)	194.1976	-331.15				
735 K2CR104(50000H2O)	194.1976	-331.18				
736 K2CR104(100000H2O)	194.1976	-331.19				
737 K2CR104(0.7H2S104+700H2O)	194.1976	-332.31				
738 K2CR104(1.400H2S104+700H2O)	194.1976	-332.59				
739 K2CR104(3.500H2S104+700H2O)	194.1976	-332.87				
740 K2CR104(7.000H2S104+700H2O)	194.1976	-333.03				
741 K2CR104(14.000H2S104+700H2O)	194.1976	-333.31				
742 K2CR104(17.500H2S104+700H2O)	194.1976	-333.47				
743 K2CR104(35.000H2S104+700H2O)	194.1976	-334.35				
744 K2CR104(70.000H2S104+700H2O)	194.1976	-336.91				
745 K2CR104(87.500H2S104+700H2O)	194.1976	-338.51				
746 K2CR104(140.000H2S104+700H2O)	194.1976	-343.69				
747 K2CR104(175.000H2S104+700H2O)	194.1976	-347.96				
748 K2CR207(C)	294.1918	-492.8	-449.9	69.6	52.50	
749 K2CR207(A)	294.1918	-476.8	-446.4	111.6		
750 K2CR207(200H2O)	294.1918	-477.5				
751 K2CR207(400H2O)	294.1918	-477.3				
752 K2CR207(500H2O)	294.1918	-477.1				
753 K2CR207(600H2O)	294.1918	-477.0				
754 K2CR207(700H2O)	294.1918	-476.9				
755 K2CR207(800H2O)	294.1918	-476.8				
756 K2CR207(900H2O)	294.1918	-476.7				
757 K2CR207(1000H2O)	294.1918	-476.6				
758 K2CR207(1500H2O)	294.1918	-476.4				

NBS ALKALI METAL COMPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	DH0	DH298	DG298	H298 - H0	S298	CP298
FORMULA WT	DH298					
759 K2Cr2O7(2000H2O)	294.1918	-476.2				
760 K2Cr2O7(3000H2O)	294.1918	-475.8				
761 K2Cr2O7(4000H2O)	294.1918	-475.6				
762 K2Cr2O7(5000H2O)	294.1918	-475.5				
763 K2Cr2O7(10000H2O)	294.1918	-474.2				
764 K2Cr2O7(0.1H1CL104+1000H2O)	294.1918	-474.0				
765 K2Cr2O7(0.14H1CL104+1500H2O)	294.1918	-473.6				
766 K2Cr2O7(0.23H1CL104+25000H2O)	294.1918	-473.0				
767 K2Cr2O7(2.800H2S104+28000H2O)	294.1918	-475.86				
768 K2Cr2O7(5.600H2S104+28000H2O)	294.1918	-475.90				
769 K2Cr2O7(14.00H2S104+2800H2O)	294.1918	-475.82				
770 K2Cr2O7(28.00H2S104+2800H2O)	294.1918	-475.74				
771 K2Cr2O7(56.00H2S104+2800H2O)	294.1918	-475.60				
772 K2Cr2O7(70.00H2S104+2800H2O)	294.1918	-475.64				
773 K2Cr2O7(140.00H2S104+28000H2O)	294.1918	-475.78				
774 K2Cr2O7(280.0H2S104+2800H2O)	294.1918	-478.64				
775 K2Cr2O7(350.0H2S104+2800H2O)	294.1918	-480.56				
776 K2Cr2O7(560.0H2S104+2800H2O)	294.1918	-486.84				
777 K2Cr2O7(700.0H2S104+2800H2O)	294.1918	-493.60				
778 K2Cr2O7(800.0H2S104+2800H2O)	294.1918	-501.00				
779 K2Cr2O4:CR103(C)	346.1878	-608.	-250.5		68.5	
780 KI1ICR104(A)	156.1036	-270.2				
781 K3C4104F(C)	252.2980	-470.6				
782 K1CL:CR103(C)	174.5492	-248.7				
783 K1CR(S104)2(C)	283.2212	-512.				
784 K1CR(S1C4)2(AU)	283.2212	-562.0				
785 K1CR(S104)2:H2O(C)	301.2366	-592.				
786 K1CR(S104)2:2H2O(C)	319.2520	-669.				
787 K1CR(S104)2:6H2O(C)	391.3136	-966.0				
788 K1CR(S104)2:12H2O(C)	499.4060	-1389.2				
789 K1N1H4CR104(C)	173.1343	-307.8				
790 K1N1H4CR104(AU)	173.1343	-302.5				
791 K2MC104(C)	238.1416	-358.2				
792 K2MC104(A)	238.1416	-359.1				
793 K2MC104(AU)	238.1416	-358.9	-335.3		55.5	
794 K2W104(A)	326.0516	-377.7				
795 KSH1W6021(A)	1635.6054	-1697.2				
796 K1W1CL6(C)	435.6700	-235.4				
797 K2W1CL7(C)	510.2250	-338.4				
798 K1V103(C)	138.0422	-276.0				

NBS ALKALI METAL CPD. THERMO. PROPS. (TN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA WT	DHO	DH298	DG298	H298 - H0		S298	CP298
799 K1V1C3(A)	138.0422		-272.6	-255.0			37.	
800 K3V1O4(A)	232.2456			-418.0				
801 K1H2V1O4(A)	156.0576		-340.9	-311.7			54.	
802 K1H3V2O7(A)	256.0058			-513.2				
803 K3H1V2O7(A)	332.1938			-631.5				
804 K4H2V1O028(A)	1115.8272			-2117.				
805 K5H1V1O028(A)	1153.9212		-2380.	-2180.			176.	
806 K1TA1F6(A)	334.0404			-276.9				
807 K2TA1F7(A)	392.1408			-415.6				
808 K1MG1FE(C1N)6(A)	275.3684			-5.9				
809 K2MG1FE(C1N)6(A)	314.4704			-83.2				
810 K1CA1FE(C1N)6(A)	291.1364			-29.6				
811 K2CA1FE(C1N)6(A)	330.2384			-106.8				
812 K1SR1FE(C1N)6(A)	338.6764			-31.0				

NBS RUBIDIUM CMPDS THERMC PRMPS (IN270 SERIES) IN KCAL/MOL AND CAL/MOL.K 3/76
 FORMULA WT DHO DH258 DG258 H258 - H0 S298 CP298

1	RB(CS)	85.4678	0	0	0	1.790 ±-0.005	18.35 ±-0.007	7.424 ±-0.005	
HULTIGREN, P.; DESAI, P. D.; HAWKINS, D. I.; GLEISER, M.; KELLEY, K. K.; AND WAGMAN, D. D. SELECTED VALUES OF THE THERMODYNAMIC PROPERTIES OF THE ELEMENTS (AMFP. SEC. METALS, METALS PARK, OH, 1973)									
2	FB(G)	85.4678	15.639 ±-0.050	15.33 ±-0.05	12.69 ±-0.05	1.481 ±-0.002	40.626 ±-0.005	4.968 ±-0.004	
THERMAL FUNCTIONS FROM STATISTICAL CALCULATIONS IN HULTIGREN, R.; DESAI, P. D.; HAWKINS, D. I.; GLEISER, M.; KELLEY, K. K.; AND WAGMAN, D. D. REFLECTED VALUES OF THE THERMODYNAMIC PROPERTIES OF THE ELEMENTS (AMER. SOC. METALS, METALS PARK, OH, 1973)									
3	RB*(C)	85.4678	115.965 ±-0.050	117.137 ±-0.050	-67.87 ±-0.03		25.04 ±-0.05		
4	RB*2(G)	85.4678	745.10 ±-0.06	747.76 ±-0.06					
5	RB*3(G)	85.4678	1660.0 ±-2.0	1664.1 ±-2.0					
6	RB*(A)	85.4678		-60.03 ±-0.03					
7	RB1#2(C)	117.4666		-66.6 ±-0.5					
8	RB2#(C)	186.9350		-81. ±-3.					
9	RB2#(G)	186.9350		-12. ±-5.					
10	RB2#2(C)	202.9344		-112.8 ±-2.5					
11	RB1#(C)	86.4758		-12.5 ±-0.3					
12	RB1#1H(C)	102.4752		-59.95 ±-0.15					
13	RB1#1H(G)	102.4752	-56. ±-2.	-57. ±-2.					
14	RB1#1H(A)	102.4752		-115.00 ±-0.03	-105.46 ±-0.03		26.47 ±-0.05		
15	PR1#1H: E2#(C)	120.4906		-178.58 ±-0.15					
16	PR1#1H: 2H2#(C)	138.5060		-251.73 ±-0.15					
17	(PR1#1H)2(G)	204.9504		-157. ±-12.					

NPS PURIDIUM CMPDS THERMOPROPS (TN270 SERIES) IN KCAL/MOL AND CAL/MOL.K 3/76
 FORMULA WT DH0 DH298

CP298

S298

H298 - H0

DG298

Formula	DH0	DH298	DG298	H298 - H0	S298	CP298
18 RB1F(C)	104.4662	-133.3				
19 RB1F(G)	104.4662	-78.65	-83.4	2.29	56.6	9.53
SPECTRAL DATA FROM ROSEN. BAND LENGTH FROM AKISHIN AND RAMBIDI, ZHUR. NEORG. KHIM, 4, 768 (1959)						
20 RB1F(A)	104.4662	-1.12	-1.5	-0.15	-1.0	-0.15
21 RB1F(100H2F)	104.4662	-139.39	-134.51		25.7	
22 RB1F(150H2F)	104.4662	-0.08	-0.08		-0.3	
23 RB1F(200H2F)	104.4662	-139.40				
24 RB1F(300H2F)	104.4662	-0.08				
25 RB1F(400H2F)	104.4662	-139.428				
26 RB1F(500H2F)	104.4662	-0.08				
27 RB1F(600H2F)	104.4662	-139.419				
28 RB1F(800H2F)	104.4662	-0.080				
29 RB1F(1000H2F)	104.4662	-139.450				
30 RB1F(1500H2F)	104.4662	-0.080				
31 RB1F(2000H2F)	104.4662	-139.473				
32 RB1F(3000H2F)	104.4662	-0.080				
33 RB1F(5000H2F)	104.4662	-139.482				
34 RB1F(10000H2F)	104.4662	-0.080				
35 RB1F(20000H2F)	104.4662	-139.491				
36 RB1F(50000H2F)	104.4662	-0.080				
37 RB1F(100000H2F)	104.4662	-139.501				
38 RB1F:1.5H2F(C)	131.4893	-139.509				

NPS RUBIDIUM CMFDS THERMO PROPS (IN 270 SERIES) IN KCAL/MOL AND CAL/MOL.K 3/76	FORMULA WT	DPO	DG298	H298 - H0	S298	CP298
39 RB1F(H1C101N1H2:S) IN FORMAMIDE	104.4662	-138.57 ±-0.20				
40 RB2F2(G)	208.9324	-204. ±-5.				
41 RB1H1F2(C) THERMAL FUNCTIONS FROM BURNEY, G. A.; AND WESTRUM, E. F., JR.; J. PHYS. CHEM. 65, 349 (1961)	124.4726	-219.52 ±-0.21	-204.5 ±-0.2	3.932 ±-0.004	28.7 ±-0.0	18.97 ±-0.02
42 RB1CL(C) THERMAL FUNCTIONS FROM PAUKOV, I.E.; AND KHIPIOVICH, L. M.; ZHUR. FIZ. KHIM. 43, 2678 (1969), REINTERPRETED AT NBS	120.9208	-104.080 ±-0.051	-97.47 ±-0.05	2.917 ±-0.004	22.92 ±-0.04	12.52 ±-0.04
43 RB1CL(G) SPECTRAL DATA FROM ROSEN. BOND LENGTH FROM AKISHIN AND RAMBIDI, ZHUR. NEORG. KHIM, 4, 768 (1959)	120.9208	-55.11 ±-1.12	-60.0 ±-1.2	2.40 ±-0.15	59.6 ±-1.0	8.78 ±-0.15
44 RB1CL(A)	120.9208	-99.98 ±-0.03	-59.24 ±-0.03		42.54 ±-0.05	
45 RB1CL(50H1C101H) IN FORMIC ACID	120.9208	-103.1 ±-0.1				
46 RB1CL(H1C101N1H2:S) IN FORMAMIDE	120.9208	-103.35 ±-0.05				
47 RB1CL(H1C101N1H1C1H3:S) IN N-METHYLFORMAMIDE	120.9208	-103.21 ±-0.05				
48 RB1CL(C4H802:S) IN 20 PERCENT DIETHANE-WATER	120.9208	-100.38 ±-0.05				
49 RB1CL(C1H301H:U) IN METHANOL	120.9208	-101.86 ±-0.08				
50 (RB1CL)2(G)	241.8416	-150. ±-5.				
51 RB1CL103(C) S AND CP FROM KELLEY, K. K.; AND KING, E. G.; US BUR. MINES BULL. 592, 149P (1961)	168.9190	-95.1 ±-0.3	-70.6 ±-0.3		36.3 ±-0.4	24.66 ±-0.05
52 RB1CL103(A)	168.9190	-83.7 ±-0.2	-68.7 ±-0.2		67.8 ±-0.5	
53 RB1CL104(C)	184.9184	-104.50 ±-0.10	-73.54 ±-0.10		39.2 ±-0.5	
54 RB1CL104(A)	184.9184	-90.94 ±-0.08	-69.93 ±-0.08		72.5 ±-0.5	
55 RB1CL104(C4H8S102) IN SULFOLANE	184.9184	-102.25 ±-0.25				
56 RB1CL104(H1C101N1H2:S) IN FORMAMIDE	184.9184	-100.36 ±-0.13				

NBS PUBIDUM CMPDS	THERM PRØPS (TN270 SERIES)	IN KCAL/MØL AND CAL/MØL.K	3/76	DH298	DG298	H298 - H0	S298	CP298
		FØRMULA WT	DHO					
57	RB1CL1Ø4(H1C1Ø1N1H1C1H3:S)	184.9184	-101.70					
	IN N-METHYLFØRMAMIDE		+0.13					
58	RB1CL1Ø4(H1C1Ø1N(C1H3)2:S)	184.9184	-106.35					
	IN N,N-DIMETHYLFØRMAMIDE		+0.13					
59	RB1BR(C)	165.3768	-92.714	-91.24	3.124	26.28	12.63	
	THERMAL FUNCTIONS FRØM CLUSTIUS, K.:		+0.052	+0.005				
	GØLDMANN, J.; AND PERLICK, A.; Z.							
	NATURFØRSCH. 4A, 424 (1949), REINTEGRAT-							
	ED AT NBS							
60	RB1BR(G)	165.3768	-42.15	-52.1	2.47	62.4	8.87	
	SPECTRAL DATA FRØM RØSEN. BOND LENGTH		+1.02	+1.3				
	FRØM AKIUSHIN AND RAMBIDI, ZHUR. NØRG.							
	KHIM, 4, 768 (1955)							
61	RB1ER(A)	165.3768	-89.08	-92.72	48.74			
			+0.08	+0.08				
62	RB1BR(H1C1Ø1N1H2:S)	165.3768	-93.56					
	IN FØRMAMIDE		+0.25					
63	PB1RR3(C)	325.1948	-100.0					
			+1.3					
64	RB1RR1Ø3(C)	213.3750	-91.72	-70.52	38.9			
			+0.50	+0.50				
65	RB1BR1Ø3(A)	213.3750	-80.0	-67.5	68.0			
			+0.4	+0.4				
66	RB1BR1CL2(C)	236.2828	-116.0	-99.7	35.1			
			+1.5	+0.5				
67	RB1BR2CL(C)	280.7388	-112.5	-99.1	36.6			
			+1.0	+0.5				
68	RB1I(C)	212.3722	-79.593	-78.60	3.190	28.30	12.71	
	THERMAL FUNCTIONS FRØM CLUSTIUS, K.:		+0.123	+0.07				
	GØLDMANN, J.; AND PERLICK, A.; Z.							
	NATURFØRSCH. 4A, 424 (1949), REINTEGRAT-							
	ED AT NBS							
69	RB1I(G)	212.3722	-31.74	-42.2	2.51	64.3	8.92	
	SPECTRAL DATA FRØM RØSEN. BOND LENGTH		+1.12	+1.3				
	FRØM AKIUSHIN AND RAMBIDI, ZHUR. NØRG.							
	KHIM, 4, 768 (1959)							
70	RB1I(A)	212.3722	-73.22	-80.20	55.6			
			+0.07	+0.07				
71	PB1I(1ØØØ1H2C1H2C1H2N1H2)	212.3722	-84.20					
	ETHYLENEDIAMINE		+0.15					
72	RB1I(H1C1Ø1N1H2:S)	212.3722	-79.47					
	IN FØRMAMIDE		+0.13					
73	RB1I(H1C1Ø1N1H1C1H3:S)	212.3722	-78.16					
	IN N-METHYLFØRMAMIDE		+0.15					
74	RB1I(H1C1Ø1N1(C1H3)2:S)	212.3722	-86.32					
	IN N,N-DIMETHYLFØRMAMIDE		+0.15					

75	RB1I(C1H3C141N1H1C1H3:S2) IN N-METHYLACETAMIDE ***COMPOUND OUT OF ORDER***	212.3722	-80.08 ±-0.15				
76	RB1I(C1H3C1N:U) IN ACETONITRILE	212.3722	-81.60 ±-0.15				
77	RB1I2(C)	466.1810	-82.7 ±-0.3	-81.0 ±-0.1	54.3 ±-0.5		
78	RB1I103(C)	260.3704		-101.9 ±-0.7			
79	RB1I103(A)	260.3704	-112.9 ±-0.5	-98.5 ±-0.5	57.3 ±-0.8		
80	RB1I1CL2(C)	283.2782	-106.1 ±-1.0				
81	RB1I1CL4(C)	354.1842	-129.4 ±-0.5	-105.3 ±-0.5	58. ±-1.		
82	RB1I1BR2(C)	372.1902	-96.0 ±-0.5				
83	RB1I1BR1CL(C)	327.7342	-102.3 ±-0.5				
84	RB2S(C)	202.9996	-86.2 ±-1.0				
85	RB2S(500H20)	202.9996	-111.0 ±-1.0				
86	RB1S208-(A0)	277.9910	-378.7 ±-0.7	-334.9 ±-0.7	98.3 ±-1.0		
87	RB2S104(C) THERMAL FUNCTIONS FROM PAUKOV, I. E.; AND LAVRENTJEVA, M. N.; ZHUR. FIZ. KHIM. 42, 1842 (1968)	266.9972	-340.795 ±-0.075	-314.76 ±-0.07	47.19 ±-0.05	32.04 ±-0.05	
88	RB2S104(G)	266.9972	-259. ±-6.				
89	RB2S104(A)	266.9972	-337.38 ±-0.05	-313.71 ±-0.05	62.9 ±-0.5		
90	RB2S104(500H20)	266.9972	-337.161 ±-0.050				
91	RB2S104(800H20)	266.9972	-337.156 ±-0.050				
92	RB2S104(1000H20)	266.9972	-337.157 ±-0.050				
93	RB2S104(1500H20)	266.9972	-337.164 ±-0.050				
94	RB2S104(2000H20)	266.9972	-337.170 ±-0.050				
95	RB2S104(3000H20)	266.9972	-337.183 ±-0.050				

NBS RUBIDIUM CMPDS THERMO PROPS (TN270 SERIES) IN KCAL/MØI AND CAL/MØL.K	3/76	DH298	DG298	H298 - HO	S298	CP298
FORMULA WT	DHO					
96 RB2S1Ø4(5000H2Ø)	266.5972	-337.204 ±-0.050				
97 RB2S1Ø4(1000H2Ø)	266.5972	-337.242 ±-0.050				
98 RB2S1Ø4(2000H2Ø)	266.5972	-337.276 ±-0.050				
99 RB2S1Ø4(5000H2Ø)	266.5972	-337.310 ±-0.050				
100 RB2S1Ø4(1000H2Ø)	266.5972	-337.329 ±-0.050				
101 RB2S1Ø4(2000H2Ø)	266.5972	-337.343 ±-0.050				
102 RB2S1Ø4(5000H2Ø)	266.9972	-337.356 ±-0.050				
103 RB1S1H(C) CP FROM TEICHERT, W.; Z. ANØRG. ALLGEM. CHEM. 247, 113 (1941)	118.5398	-53.8 ±-1.1				14.6 ±-1.0
104 RB1S1H(1000H2Ø)	118.5398	-64.5 ±-1.0				
105 RB1H1S1Ø4(C)	182.5374	-277.0 ±-0.5				
106 RB1S1Ø2F(C)	168.5290	-225.7 ±-0.7				
107 RB1I:3S1Ø2(C)	404.5606	-324.0 ±-1.0				
108 RB2SE1Ø3(C)	297.8938	-225.7 ±-0.5				
109 RB2SE1Ø4(C)	313.8932	-266.3 ±-0.1				
110 RB1B1SE(C) CP FROM TEICHERT, W.; Z. ANØRG. ALLGEM. CHEM. 247, 113 (1941)	165.4358	-57.2 ±-0.5				15.7 ±-1.0
111 RB2TE1BR6(C)	777.5896	-401.6 ±-0.5				
112 RB1N3(C)	127.4879	-0.9 ±-0.1				
113 RB1N1Ø3(C) CP FROM MUSTAJØKI, A., ANN. ACAD. SCI. FENNICA [A] VI, NØ 9, 16P (1958)	147.4727	-118.32 ±-0.05				35.2 ±-1.0
114 RB1N1Ø3(A)	147.4727	-94.48 ±-0.05				64.0 ±-0.1
115 RB1N1H2(C)	101.4905	-27.0 ±-0.5				
116 RB1P2P1Ø4(C)	182.4552	-373.39 ±-0.10				

NBS PURIDIUM CMPDS THERMAL PRØPS (TN270 SERIES) IN KCAL/MØL AND CAL/MØL. K 3/76
 FØRMULA WT DHO DR298

		DG299	H298 - H0	S298	CP298
117 RB1PIF6(C)	230.4320	-562.9 ±-1.0		53.02 ±-0.15	35.4 ±-0.1
THERMAL FUNCTIØNS FRØM STAVELEY, L. A. K.; GPEY, N. R.; AND LAYZELL, M. J.; Z. NATURFØRSCH. 18A, 148 (1963)					
118 RB1SP(C)	207.2178	-23.9 ±-1.5			
119 RB1SR2(C)	328.5678	-24.5 ±-1.5			
120 RB3SB(C)	378.1534	-41.5 ±-1.0			
121 RB3SB7(C)	1108.6534	-74.1 ±-5.0			
122 RB5SB4(C)	914.3350	-106.1 ±-4.0			
123 SB1CL3:3RB1CL(C)	590.8714	-410.2 ±-0.8			
124 (7RB1RR:3SB1BR3)(C)	2242.0686	-884.6 ±-2.0			
125 RB2C1Ø3(C)	230.9450	-270.41 ±-0.22	5.851 ±-0.010	43.34 ±-0.10	28.11 ±-0.06
THERMAL FUNCTIØNS FRØM PAUKØV, I. E.; KBRIFLØVICH, L. M.; AND LUK'YANGØVA, I. G.; 7HUR. FIZ. KHIM. 45, 2451 (1971)					
126 RB2C1Ø3(A)	230.9450	-281.90 ±-0.10		44.5 ±-1.0	
127 RB2C1Ø3(5.76B2Ø)	230.9450	-280.0 ±-0.5			
128 RB2C1Ø3:H2Ø(C)	248.9604	-346.1 ±-0.2			
129 RB2C1Ø3:1.5H2Ø(C)	257.9681	-383.4 ±-0.2			
130 RB2C1Ø3:3.5H2Ø(C)	293.9989	-523.6 ±-0.2			
131 PR1R1C1Ø3(C)	146.4852	-230.2 ±-0.4		28.7 ±-1.0	
132 RB1H1C1Ø3(A)	146.4852	-225.42 ±-0.10		50.84 ±-0.50	
133 (3RR2C1Ø3:2RP1H1C1Ø3:4.5H2Ø)(C)	1066.8747	-1606.2 ±-0.8			
134 RB1C1N(C)	111.4857		4.159 ±-0.010	33.67 ±-0.05	16.20 ±-0.02
THERMAL FUNCTIØNS FRØM SUGISAKI, M.; MATSUC, I.; SUGA, H.; AND SEKI, S.; BULL. CHEM. SOC. JAPAN 41, 1747 (1968)					
135 RB2S1IF6(C)	313.0120	-695.9 ±-2.5			
136 RB2GE1CL6(C)	456.2436	-350.0 ±-1.5		72.5 ±-2.5	

NBS RUBIDIUM COMPOUNDS THERMO PROPS (IN 270 SERIES) IN KCAL/MOL AND CAL/MOL	FORMULA	WT	DH0	DH298	DG298	H298 - H0	S298	CP298
137 RB2SN1CL6(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	502.3436	-364.0 +-1.0	-328.6 +-1.0	90.25 +-0.05	54.27 +-0.05			
138 RB2SN1RR6(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	765.0796			106.4 +-0.1	54.54 +-0.05			
139 PB1I2:2RB1I(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	885.7432	-108.2 +-0.4						
140 PB1I2:2PB1I:4H2O(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	957.8048	-488.9 +-0.5						
141 RB1B1O2(C) THERMAL FUNCTIONS FROM PAUKOV, I. E.; KRIFFLIVICH, L. M.; AND POPOV, A. P.; ZHUR. FIZ. KHIM. 45, 1295 (1971)	128.2776					3.181 +-0.010	22.54 +-0.06	17.7 +-0.1
142 RB1B1F4(C) CP FROM DWORIN, A. S.; AND BREDIG, M. A.: J. CHEM. ENG. DATA 15, 505 (1970)	172.2724	-449.3 +-2.5						22.7 +-0.3
143 PB1R1CL4(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	238.0908	-224.7 +-0.5						
144 RB1R1(C11O4)4(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	494.0812	-185.7 +-1.3						
145 PB1AL1(SE1O4)2:12H2O(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	614.5493	-1303.3 +-2.5						
146 RB2ZN1CL4(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	378.1176	-319.3 +-0.2						
147 RB2ZN1BR4(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	555.9416	-277.14 +-0.03						
148 RB1CL:2N1S1O4(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	282.3524	-346.4 +-0.1						
149 CU1CL2:2RB1CL(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	376.2876	-266.3 +-0.2						
150 CU1CL2:2PB1CL:4H2O(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	448.3492	-547.2 +-0.2						
151 PB1AG4I5(C) H-RO AND CP FROM TOPAL, L. E.; AND OWENS, B. B.; J. PHYS. CHEM. 72, 2106 (1968)	1151.4658	-138.82 +-1.05	-143.0 +-0.1	17.092 +-0.010	68.24 +-0.05			
152 RB2AG1I3(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	659.5188	-176.2 +-0.4						
153 RB1NI1CL3(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	250.5368	-182.7 +-0.2						
154 PR1CP1CL3(C) S AND CP FROM MORFEE, R. G. S.; STAVELEY, L. A. K.; WALTERS, S. T.; AND WIGLEY, D. L.: PHYS. CHEM. SOLIDS. 13, 132 (1960)	250.7600	-184.4 +-0.3						

NBS RUBIDIUM COMPOUND THERMOCALORIMETRY SERIES (TIN270 SERIES) IN KCAL/MOL AND CAL/MOL.K	FORMULA	WT	DH0	DR298	DG298	H298 - H0	S298	CP298
155	RB2C61CL4(C)	371.6808	-288.3	↓-0.3				
156	RB2C61CL5(C)	452.6016	-394.0	↓-0.3				
157	RB1FE1CL3(C)	247.6738	-190.8	↓-0.2				
158	RB2FE1CL4(C)	368.5946	-294.6	↓-0.2				
159	RB2PT1CL4(C)	507.8376	-255.4	↓-0.3				
160	RB2PT1CL6(C)	578.7436	-299.	↓-3.	-267.	99.	↓-5.	
161	RB1[PT1NH3CL3](C)	403.9475	-182.4	↓-0.3				
162	RB2IR1CL6(C)	575.8536	-282.	↓-4.				
163	RB1MN1CL3(C)	246.7648	-225.30	↓-0.15				
164	RB1RE164(C)	335.6654	-255.9	↓-0.3	-238.1	65.5	↓-0.8	
165	RB2CR164(C)	286.9292	-338.0	↓-2.0	↓-0.2			
166	RB3CP164F(C)	391.3954	-472.1	↓-2.0				
167	RB3CR1CL6(C)	521.1174	-461.2	↓-0.6				
168	RB3CR2CL9(C)	679.4724	-604.0	↓-0.8				
169	RB3V1CL6(C)	520.0634	-470.9	↓-1.0				
170	RB3V2CL9(C)	677.3644	-616.6	↓-1.3				
171	RB1NR163(C)	226.3720						
172	RB1NR1CL6(C)	391.0918	-307.1	↓-1.3	-301.5			
173	RB2NR161CL5(C)	457.1060	-424.	↓-6.				
174	RB1TA1CL6(C)	479.1338	-326.9	↓-0.8				
175	RB1TI1CL3(C)	239.7268	-250.1	↓-1.5				
176	RB2TI1CL4(C)	360.6476	-358.0	↓-2.0				

177	RB2TI1CL6(C)	431.5536	-425.	
			±-3.	
178	RB2TI1RR6(C)	698.2496	-359.7	
			±-0.8	
179	RB3TI1BR6(C)	783.7574	-425.5	
			±-0.7	
180	RB3TI2BR9(C)	1071.3844	-563.5	
			±-0.8	
181	PR1GD(Fe(C1N)6)(C)	454.6722	-75.9	
			±-1.5	
182	PR1CE(FF(C1N)6):2H2O(C)	473.5730	-192.8	
			±-1.0	
183	TH1CL4:2RB1CL(C)	615.6917	-512.0	
			±-1.0	
184	TH1CL4:2RB1CL:9H2O(C)	777.8303	-1154.6	
			±-1.8	
185	TH1CL4:4RB1CL(C)	857.5333	-728.0	
			±-1.5	
186	PB2MG(SE104)2(6400H2O)	481.1628	-517.38	
			±-1.20	
187	PB2MG(SE104)2:6H2O(C)	589.2552	-937.6	
			±-1.2	
188	PB1CA1CL3(C)	231.9068	-299.5	
			±-0.2	
189	NA1RB2CP1CL6(C)	458.6394	-456.5	
			±-0.5	
190	K1RB1CL2(C)	195.4758	-208.87	
			±-0.05	

TOTAL COMPOUNDS 191

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16. ABSTRACT (A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.) Selected values are given for the thermochemical properties of the more common compounds of sodium and potassium. A more extensive set of selections is provided for rubidium compounds. The properties included, where data are available, are enthalpy of formation at 0 K and 298.15 K, $\Delta H_f(0)$ and $\Delta H_f(298)$, Gibbs energy of formation, entropy and heat capacity at 298.15 K, $\Delta G_f(298)$, $S(298)$ and $C_p(298)$ and the enthalpy difference between 0 K and 298.15 K, $H(298)-H(0)$. The values are consistent with the tables issued earlier in the NBS Technical Note 270 series.			
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