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A novel family of salicylaldimine-based five-ring symmetric and non-symmetric banana-shaped mesogens derived from laterally substituted resorcinol: synthesis and characterization

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Supporting Information

DSC Profile:

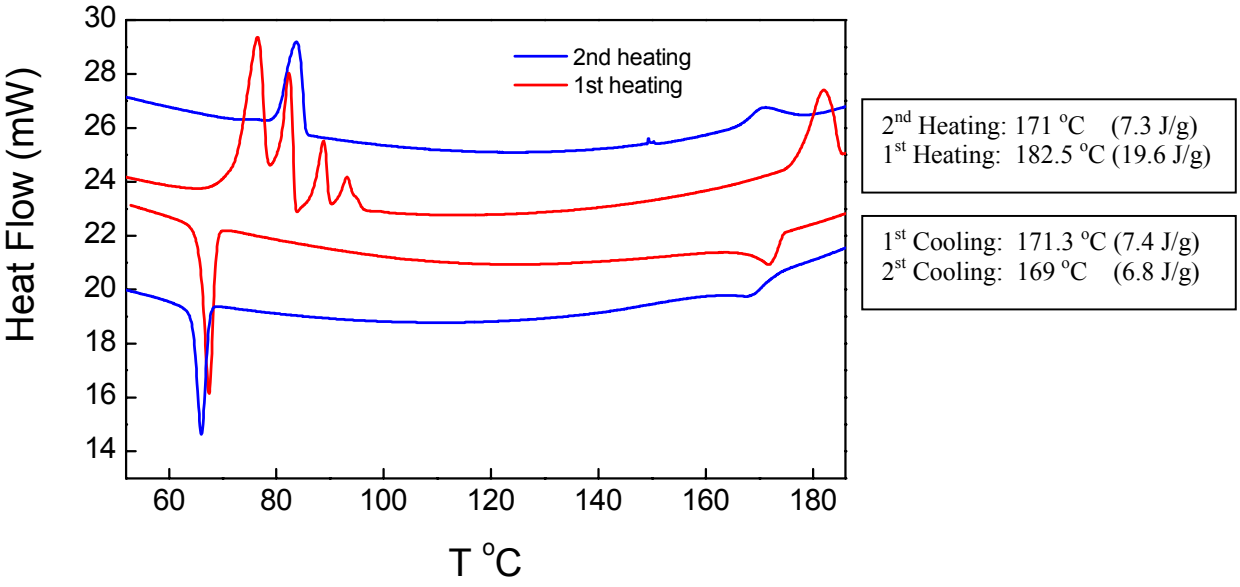

Figure: DSC thermograms of first and second heating/cooling cycles obtained for the compound **BC6-12**. Notice that for the isotropic-SmCP_A transition, the ΔH value of first cooling cycle is nearly half or less than half as compared to that for the first heating scan. While, during the subsequent runs, the ΔH value matches with that of first cooling scan.

Experimental

The detailed synthetic procedures and molecular structural characterization data has been presented for all the six different homologous series of banana-shaped mesogens and their intermediates.

General procedure for the synthesis of 4-(2-hydroxy-4-(*n*-alkoxy)benzylidine amino) benzoic acids **(2a-h, 2i, 2j** and **2l)**

To a stirred solution of aldehyde **1a-h** or **1i** or **1j** or **1l** (12 mmol, 1 equiv.) in ethanol (50 ml) was added 4-aminobenzoic acid (12 mmol, 1 equiv.) and the resulting reaction mixture was refluxed for 2 h in presence of a catalytic amount of acetic acid. After cooling, the product precipitated from the solution was collected by filtration and washed with ethanol for several times. The yellow solid thus obtained was purified by repeated recrystallization from absolute ethanol to get the product in 54 to 63 % of yield.

2a: A yellow solid; Phase sequence: Cr 232.3 ^{o}C (48.4 J/g) SmC 267.9 (5.2) N 279.4 (18.1) I; IR (KBr pellet): ν_{max} in cm^{-1} 2955, 2852, 1724, 1683, 1624, 1593 and 1299. ^{1}H NMR ($CDCl_3$, 200 MHz): 13.01 (s, 1H, 1 × -OH), 8.55 (s, 1H, -CH=N), 8.14 (d, J = 8.4 Hz, 2H, Ar), 7.33 - 7.29 (m, 3H, Ar), 6.52 (m, 2H, Ar), 4.05 (t, J = 6.5 Hz, 2H, 1 × -OCH_2), 1.85 - 1.25 (m, 6H, 3 × CH_2) and 0.94 (t, J = 6.9 Hz, 3H, 1 × CH_3); MS (FAB+): m/z for $C_{19}H_{21}NO_4$, Calculated: 327.2, Found: 327.1.

2b: A yellow solid; Phase sequence: Cr 224.4 ^{o}C (38.7 J/g) SmC 273.4 (4.0) N 277.7 (16.9) I; IR (KBr pellet): ν_{max} in cm^{-1} 2939, 2852, 1680, 1626, 1595 and 1294; ^{1}H NMR ($CDCl_3$, 200 MHz): 13.01 (s, 1H, 1 × -OH), 8.55 (s, 1H, -CH=N), 8.15 (d, J = 8.4 Hz, 2H, Ar), 7.33 - 7.29 (m, 3H, Ar), 6.52 (m, 2H, Ar), 4.02 (t, J = 6.5 Hz, 2H, 1 × OCH_2), 1.85-1.37 (m, 8 H, 4 × CH_2) and 0.92 (t, J = 6.7 Hz, 3H, 1 × CH_3); Elemental analysis: calculated (found): C 70.34 (70.79) %; H 6.80 (6.50) %; N 4.10 (3.98) %.

2c: A yellow solid; Phase sequence: Cr 220.0 ^{o}C (42.3 J/g) SmC 273.1 (40.8) I; IR (KBr pellet): ν_{max} in cm^{-1} 2923, 2853, 1724, 1680, 1626, 1595 and 1295. ^{1}H NMR ($CDCl_3$, 200 MHz): 13.01 (*s*, 1H, 1 × -OH), 8.55 (*s*, 1H, -CH=N), 8.13 (d, *J* = 8.4 Hz, 2H, Ar), 7.33 - 7.28 (m, 3H, Ar), 6.52 - 6.50 (m, 2H, Ar), 4.01 (t, *J* = 6.6 Hz, 2H, 1 × OCH_2), 1.86 - 1.26 (m, 10 H, 5 × CH_2) and 0.94 (t, *J* = 6.9 Hz, 3H, 1 × CH_3). MS (FAB+): m/z for $C_{21}H_{25}NO_4$, Calculated: 355.2, Found: 356.1; Elemental analysis: calculated (found): C 70.95 (71.10) %; H 7.09 (6.58) %; N 3.94 (3.59) %.

2d: A yellow solid; Phase sequence: Cr 218.7 ^{o}C (39.2 J/g) SmC 273.0 (26.3) I; IR (KBr pellet): ν_{max} in cm^{-1} 2924, 2855, 1680, 1626, 1593 and 1293; ^{1}H NMR ($CDCl_3$, 200 MHz): 13.01 (s, 1H, 1 × -OH), 8.55 (s, 1H, -CH=N), 8.14 (d, *J* = 8.3 Hz, 2H, Ar), 7.33 - 7.29 (m, 3H, Ar), 6.52 (m, 2H, Ar), 4.02 (t, *J* = 6.4 Hz, 2H, 1 × OCH_2), 1.85 - 1.31 (m, 12 H, 6 × CH_2) and 0.90 (t, *J* = 6.7 Hz, 3H, 1 × CH_3); MS (FAB+): m/z for $C_{22}H_{27}NO_4$, Calculated: 369.2, Found: 369.9.

2e: A yellow solid; Phase sequence: Cr 215.5 ^{o}C (31.8 J/g) SmC 270.9 (44.1) I; IR (KBr pellet): ν_{max} in cm^{-1} 2922, 2853, 1688, 1630, 1597 and 1294; ^{1}H NMR ($CDCl_3$, 200 MHz): 13.01 (s, 1H, 1 × -OH), 8.55 (s, 1H, -CH=N), 8.15 (d, *J* = 8.5 Hz, 2H, Ar), 7.34 - 7.29 (m, 3H, Ar), 6.50 (m, 2H, Ar), 4.02 (t, *J* = 6.5 Hz, 2H, 1 × OCH_2), 1.85 - 1.29 (m, 14 H, 7 × CH_2) and 0.90 (t, *J* = 6.7 Hz, 3H, 1 × CH_3); MS (FAB+): m/z for $C_{23}H_{29}NO_4$, Calculated: 383.2, Found: 383.2; Elemental analysis: calculated (found): C 72.02 (72.45) %; H 7.63 (7.13) %; N 3.66 (3.49) %.

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2f: A yellow solid; Phase sequence: Cr 210.1 ^{o}C (29.6 J/g) SmC 264.0 (38.7) I; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2852, 1680, 1627, 1597 and 1299 cm^{-1}; ^{1}H NMR ($CDCl_3$, 200 MHz): 13.01 (s, 1H, 1 × -OH), 8.55 (s, 1H, -CH=N), 8.15 (d, *J* = 8.5 Hz, 2H, Ar), 7.34 - 7.30 (m, 3H, Ar), 6.54 (m, 2H, Ar), 4.02 (t, *J* = 6.6 Hz, 2H, 1 × OCH_2), 1.81 - 1.25 (m, 16 H, 8 × CH_2) and 0.89 (t, *J* = 6.6 Hz, 3H, 1 × CH_3); MS (FAB+): m/z for $C_{24}H_{31}NO_4$, Calculated: 397.2, Found: 398.2.

2g: A yellow solid; Phase sequence: Cr 208.8 ^{o}C (32.8 J/g) SmC 266.3 (34.8) I; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2852, 1680, 1627, 1597 and 1294; ^{1}H NMR ($CDCl_3$, 200 MHz): 13.01 (s, 1H, 1 × -OH), 8.55 (s, 1H, -CH=N), 8.14 (d, *J* = 8.3 Hz, 2H, Ar), 7.33-7.29 (m, 3H, Ar), 6.52 (m, 2H,

Ar), 4.02 (t, *J* = 6.4 Hz, 2H, 1 × OCH_2), 1.85-1.30 (m, 18 H, 9 × CH_2) and 0.90 (t, *J* = 6.7 Hz, 3H, 1 × CH_3); Elemental analysis: calculated (found): C 72.95 (73.26) %; H 8.09 (8.01) %; N 3.41 (3.44) % for $C_{25}H_{33}NO_4$.

2h: A yellow solid; Phase sequence: Cr 205.1 ^oC (30.0 J/g) SmC 267.0 (44.8) I; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2852, 1681, 1626, 1596 and 1294. ^1H NMR ($CDCl_3$, 200 MHz): 13.01 (*s*, 1H, 1 × -OH), 8.55 (*s*, 1H, -CH=N), 8.15 (d, *J* = 8.5 Hz, 2H, Ar), 7.33 - 7.29 (m, 3H, Ar), 6.53 - 6.50 (m, 2H, Ar), 4.02 (t, *J* = 6.6 Hz, 2H, 1 × OCH_2), 2.17-1.28 (m, 20 H, 10 × CH_2) and 0.87 (t, *J* = 6.7 Hz, 3H, 1 × CH_3); MS (FAB+): m/z for $C_{26}H_{35}NO_4$, Calculated: 425.3, Found: 426.0.

2i: A yellow solid; Phase sequence: Cr 194.6 ^oC (28.0 J/g) SmC 257.0 (28.6) I; IR (KBr pellet): ν_{max} in cm^{-1} 2919, 2851, 1681, 1626, 1597 and 1296; ^1H NMR spectrum could not be obtained for this compound as it was found to be insoluble in deuturated solvents such as $CDCl_3$, DMSO-d_6 and CD_3COCD_3. Even on warming the heterogeneous (sample+solvent) mixture the solubility could not be improved. (MS (FAB+): m/z for $C_{30}H_{43}NO_4$, Calculated: 481.3, Found: 481.3; Elemental analysis: calculated (found): C 74.79 (74.40) %; H 9.00 (9.41) %; N 2.91 (2.75) %.

2j: A yellow solid; Phase sequence: Cr_1 188.0 ^oC (12.1 J/g) Cr_2 191.1 (10.8) SmC 253.9 (33.6) I; IR (KBr pellet): ν_{max} in cm^{-1} 2919, 2851, 1681, 1625, 1597 and 1299. ^1H NMR spectrum could not be obtained for this compound as it was found to be insoluble in deuturated solvents such as $CDCl_3$, DMSO-d_6 and CD_3COCD_3. Even on warming the heterogeneous (sample+solvent) mixture the solubility could not be improved. MS (FAB+): m/z for $C_{32}H_{47}NO_4$, Calculated: 509.3, Found: 509.9; Elemental analysis: calculated (found): C 75.39 (75.02) %; H 9.30 (9.79) %; N 2.71 (2.55) %.

2k A yellow solid; Cr_1 180.8 ^oC (11.6 J/g) Cr_2 185.4 (10.7) M_1 231.5 (3.1) M_2 243.2 (21.7) I; IR (KBr pellet): ν_{max} in cm^{-1} 2918, 2850, 1680, 1627, 1597 and 130; ^1H NMR spectrum could not be obtained for this compound as it was found to be insoluble in deuturated solvents such as $CDCl_3$, DMSO-d_6 and CD_3COCD_3. Even on warming the heterogeneous (sample+solvent) mixture the solubility could not be improved. MS (FAB+): m/z for $C_{36}H_{55}NO_4$, Calculated: 565.4, Found:

566.3; Elemental analysis: calculated (found): C 76.40 (76.24) %; H 9.80 (10.32) %; N 2.48 (2.33) %.

General procedure for the synthesis of substituted 1,3-phenylene bis[4-(2-hydroxy-4-*n*-alkyloxybenzylidene amino) benzoates] (Series **BC1-n** to **BC6-n**)

4-(2-Hydroxy-4-*n*-alkoxybenzylidineamino)benzoic acid **2b-h** or **2i** or **2j** or **2k** 4.2 mmol, 2.1 equiv.) and the corresponding substituted resorcinol (2 mmol, 1 equiv.) were dissolved in dry dichloromethane (100 ml) and stirred under nitrogen atmosphere for some time. After the addition of DCC (5 mmol) and a catalytic amount of DMAP, the reaction mixture was stirred at rt for 48 h. Precipitated dicyclohexylurea was filtered off and the solvent was removed *in vacuo*. The solid substance obtained was purified by repeated recrystallizations from a mixture of absolute Ethanol-CH_2Cl_2 (9:1) till a constant isotropic transition temperature was observed. Yields after purification were found to be in the range of 55 – 63 %. Molecular structural data obtained for each homologue is given below.

BC1-n series: 2-Methyl-1,3-phenylene bis[4-(2-hydroxy-4-*n*-alkoxybenzylidene amino) benzoate]

BC1-7: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2937, 2860, 1735, 1627, 1594 and 1515; ^1H NMR (200 MHz, $CDCl_3$): δ 13.38 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.27 (d, J = 8.4 Hz, 4H, Ar), 7.37 (d, J = 8.6 Hz, 4H, Ar), 7.33 - 7.29 (m, 3H, Ar), 7.15 (d, J = 8.0 Hz, 2H, Ar), 6.52 – 6.50 (m, 4H, Ar), 4.01 (t, J = 6.6 Hz, 4H, 2 × OCH_2), 2.13 (s, 3H, Ar-CH_3), 1.85-1.32 (m, 20H, 10 × CH_2) and 0.89 (t, J = 6.6 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{49}H_{54}N_2O_8$, Calculated: 798.4, Found: 799.7. Elemental analysis: calculated (found): C 73.66 (73.64) %; H 6.81 (6.72) %; N 3.51 (3.59) %.

BC1-8: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2932, 2847, 1741, 1625, 1596, and 1176; ^1H NMR (400 MHz, $CDCl_3$): δ 13.34 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.27 (d, J = 8.5 Hz, 4H, Ar), 7.36 (d, J = 8.5 Hz, 4H, Ar), 7.33 - 7.29 (m, 3H, Ar), 7.14 (d, J = 8.2 Hz, 2H, Ar), 6.53 - 6.50 (m, 4H, Ar), 4.04 (t, J = 6.6 Hz, 4H, 2 × OCH_2), 2.13 (s, 3H, Ar-CH_3),1.84-1.29 (m,

24H, 12 × CH_2) and 0.88 (t, *J* = 6.5 Hz, 6H, 2 × CH_3); ^{13}C NMR (100 MHz, $CDCl_3$): δ 164.41, 164.19, 163.15, 153.51, 150.43, 134.05, 131.76, 126.81, 126.84, 124.01, 121.33, 119.96, 112.87, 108.15, 101.69, 68.44, 31.83, 29.33, 29.23, 29.10, 26.02, 22.66, 14.08 and 10.14; MS (FAB+): m/z for $C_{51}H_{58}N_2O_8$, Calculated: 826.4, Found: 827.9; Elemental analysis: calculated (found): C 74.07 (73.84) %; H 7.07 (7.19) %; N 3.39 (3.28) %.

BC1-9: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2923, 2849, 1741, 1625, 1598, and 1176; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.34 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.27 (d, *J* = 8.5 Hz, 4H, Ar), 7.36 (d, *J* = 8.5 Hz, 4H, Ar), 7.33 - 7.29 (m, 3H, Ar), 7.15 (d, *J* = 8.1 Hz, 2H, Ar), 6.52 – 6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.6 Hz, 4H, 2 × OCH_2), 2.14 (s, 3H, Ar-CH_3),1.83-1.29 (m, 28H, 14 × CH_2) and 0.89 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{53}H_{62}N_2O_8$, Calculated: 854.5, Found: 855.1; Elemental analysis: calculated (found): C74.45 (74.26) %; H 7.31 (7.60) %; N 3.28 (3.26) %.

BC1-10: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2922, 2848, 1740, 1624, 1599 and 1177; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.35 (s, 2H, 2 × OH), 8.58 (s, 2H, 2 × -CH=N), 8.28 (d, *J* = 8.4 Hz, 4H, Ar), 7.37 (d, *J* = 8.4 Hz, 4H, Ar), 7.33 - 7.29 (m, 3H, Ar), 7.15 (d, *J* = 8.0 Hz, 2H, Ar), 6.54 - 6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 2.14 (s, 3H, Ar-CH_3),1.84 - 1.28 (m, 32H, 16 × CH_2) and 0.89 (t, *J* = 6.4 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{55}H_{66}N_2O_8$, Calculated: 882.5, Found: 883.2; Elemental analysis: calculated (found): C 74.80 (75.12) %; H 7.53 (7.44) %; N 3.17 (3.20) %.

BC1-11: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2922, 2848, 1741, 1625, 1271 and 1177; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.34 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.27 (d, *J* = 8.4 Hz, 4H, Ar), 7.36 (d, *J* = 8.4 Hz, 4H, Ar), 7.34 - 7.29 (m, 3H, Ar), 7.15 (d, *J* = 8.1 Hz, 2H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 2.14 (s, 3H, Ar-CH_3),1.83 - 1.28 (m, 36H, 18 × CH_2) and 0.89 (t, *J* = 6.5 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{57}H_{70}N_2O_8$, Calculated: 910.5, Found: 911.1; Elemental analysis: calculated (found): C 75.14 (74.88) %; H 7.74 (7.89) %; N 3.07 (3.00) %.

BC1-12: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2922, 2849, 1740, 1625, 1271 and 1176; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.34 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.27 (d, *J* = 8.5 Hz, 4H, Ar), 7.36 (d, *J* = 8.5 Hz, 4H, Ar), 7.34 - 7.29 (m, 3H, Ar), 7.15 (d, *J* = 8.2 Hz, 2H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 2.14 (s, 3H, Ar-CH_3),1.82 - 1.27 (m, 40H, 20 × CH_2) and 0.89 (t, *J* = 6.7 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{59}H_{74}N_2O_8$, Calculated: 938.5, Found: 939.5; Elemental analysis: calculated (found): C 75.14 (74.88) %; H 7.74 (7.89) %; N 3.07 (3.00) %.

BC1-16: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2921, 2849, 1740, 1625, 1271 and 1177; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.33 (s, 2H, 2 × OH), 8.60 (s, 2H, 2 × CH=N), 8.34 (d, *J* = 8.4 Hz, 4H, Ar), 7.46 (d, *J* = 8.4 Hz, 4H, Ar), 7.39 - 7.35 (m, 3H, Ar), 7.19 (d, *J* = 8.0 Hz, 2H, Ar), 6.61 - 6.57 (m, 4H, Ar), 4.10 (t, *J* = 6.6 Hz, 4H, 2 × OCH_2), 2.17 (s, 3H, Ar-CH_3), 1.89 - 1.31 (m, 56H, 28 × CH_2) and 0.89 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{67}H_{90}N_2O_8$, Calculated: 1050.7, Found: 1051.9; Elemental analysis: calculated (found): C 76.54 (76.67) %; H 8.63 (9.12) %; N 2.65 (2.66) %.

BC1-18: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2849, 1740, 1625, 1271 and 1177; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.34 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.27 (d, *J* = 8.6 Hz, 4H, Ar), 7.36 (m, 4H, Ar), 7.33 - 7.29 (m, 3H, Ar), 7.14 (d, *J* = 8.2 Hz, 2H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 2.13 (s, 3H, Ar-CH_3), 1.84 - 1.26 (m, 64H, 32 × CH_2) and 0.88 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{71}H_{98}N_2O_8$ (found): C 77.12 (77.00) %; H 8.92 (9.42) %; N 2.53 (2.49) %.

BC1-22: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2849, 1740, 1625, 1271 and 1177; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.34 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.27 (d, *J* = 8.5 Hz, 4H, Ar), 7.36 (d, *J* = 8.5 Hz, 4H, Ar), 7.32 - 7.29 (m, 3H, Ar), 7.15 (d, *J* = 8.1 Hz, 2H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 2.14 (s, 3H, Ar-CH_3), 1.82 - 1.26 (m, 80H, 40 × CH_2) and 0.88 (t, *J* = 6.5 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{79}H_{114}N_2O_8$, Calculated: 1218.9, Found: 1219.8; Elemental analysis: calculated (found): C 77.79 (77.65) %; H 9.42 (9.85) %; N 2.30 (2.13) %.

BC2-n series: 5-Methyl-1,3-phenylene bis[4-(2-hydroxy-4-*n*-alkoxybenzylidene amino)benzoate]

BC2-7: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 3448, 2924, 2851, 1728, 1628, 1595 and 1272; ^1H NMR (200 MHz, $CDCl_3$): δ 13.35 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.23 (d, *J* = 8.2 Hz, 4H, Ar), 7.35 (d, *J* = 8.2 Hz, 4H, Ar), 7.29 (d, *J* = 9.3 Hz, 2H, Ar), 7.01 (s, 3H, Ar), 6.53 - 6.49 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 2.44 (s, 3H, Ar-CH_3), 1.84 - 1.32 (m, 20H, 10 × CH_2) and 0.90 (t, *J* = 6.0 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{49}H_{54}N_2O_8$, Calculated: 798.4, Found:799.8; Elemental analysis: calculated (found): C 73.66 (74.13) %; H 6.81 (6.42) %; N 3.51 (3.60) %.

BC2-8: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 3446, 2922, 2852, 1729, 1628, 1594 and 1272; ^1H NMR (200 MHz, $CDCl_3$): δ 13.35 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.23 (d, *J* = 8.4 Hz, 4H, Ar), 7.35 (d, *J* = 8.2 Hz, 4H, Ar), 7.29 (d, *J* = 9.3 Hz, 2H, Ar), 7.01 (s, 3H, Ar), 6.53 - 6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 2.44 (s, 3H, Ar-CH_3),1.84 - 1.31 (m, 24H, 12 × CH_2) and 0.90 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{51}H_{58}N_2O_8$, Calculated: 826.4, Found: 827.8; Elemental analysis: calculated (found): C 74.07 (74.50) %; H 7.07 (7.00) %; N 3.39 (3.50) %.

BC2-9: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 3446, 2921, 2853, 1731, 1624, 1594 and 1274; ^1H NMR (200 MHz, $CDCl_3$): δ 13.35 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.24 (d, *J* = 8.4 Hz, 4H, Ar), 7.35 (d, *J* = 8.4 Hz, 4H, Ar), 7.29 (d, *J* = 9.3 Hz, 2H, Ar), 7.01 (s, 3H, Ar), 6.54 - 6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 2.44(s, 3H, Ar-CH_3),1.84 - 1.29 (m, 28H, 14 × CH_2) and 0.89 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{53}H_{62}N_2O_8$, Calculated: 854.5, Found: 855.1; Elemental analysis: calculated (found): C 74.45 (74.66)%; H 7.31 (7.29)%; N 3.28 (3.40)%.

BC2-10: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 3446, 2921, 2853, 1731, 1626, 1593 and 1275; ^1H NMR (200 MHz, $CDCl_3$): δ 13.34 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.23 (d, *J* = 8.4 Hz, 4H, Ar), 7.35 (d, *J* = 8.2 Hz, 4H, Ar), 7.29 (d, *J* = 9.3 Hz, 2H, Ar), 7.01 (s, 3H, Ar), 6.53 - 6.49 (m, 4H, Ar), 4.02 (t, *J* = 6.6 Hz, 4H, 2 × OCH_2), 2.44 (s, 3H, Ar-CH_3),1.84 - 1.28 (m,

32H, 16 × CH_2) and 0.89 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{55}H_{66}N_2O_8$, Calculated: 882.5, Found: 883.7; Elemental analysis: calculated (found): C 74.80 (75.23) %; H 7.53 (7.39) %; N 3.17 (3.34) %.

BC2-11: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 3445, 2920, 2853, 1732, 1624, 1594 and 1275; ^1H NMR (200 MHz, $CDCl_3$): δ 13.33 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.24 (d, *J* = 8.2 Hz, 4H, Ar), 7.36 (d, *J* = 8.2 Hz, 4H, Ar), 7.30 (d, *J* = 9.3 Hz, 2H, Ar), 7.01 (s, 3H, Ar), 6.54 - 6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.6 Hz, 4H, 2 × OCH_2), 2.44 (s, 3H, Ar-CH_3),1.84 - 1.28 (m, 36H, 18 × CH_2) and 0.89 (t, *J* = 6.8 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{57}H_{70}N_2O_8$, Calculated: 910.5, Found: 911.6; Elemental analysis: calculated (found): C 75.14 (75.59) %; H 7.74 (7.74) %; N 3.07 (3.17) %.

BC2-12: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 3445, 2919, 2852, 1731, 1630, 1594 and 1276; ^1H NMR (200 MHz, $CDCl_3$): δ 13.33 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.23 (d, *J* = 8.2 Hz, 4H, Ar), 7.35 (d, *J* = 8.2 Hz, 4H, Ar), 7.29 (d, *J* = 9.3 Hz, 2H, Ar), 7.01 (s, 3H, Ar), 6.53 - 6.49 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 2.44 (s, 3H, Ar-CH_3), 1.84 - 1.27 (m, 40H, 20 × CH_2) and 0.88 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{59}H_{74}N_2O_8$, Calculated: 938.5, Found: 940.0; Elemental analysis: calculated (found): C 75.43 (75.89) %; H 7.95 (8.34) %; N 2.99 (3.02) %.

BC2-16: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 3448, 2919, 2852, 1732, 1624, 1594 and 1276; ^1H NMR (400 MHz, $CDCl_3$): δ 13.40 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.23 (d, *J* = 8.4 Hz, 4H, Ar), 7.35 (d, *J* = 8.4 Hz, 4H, Ar), 7.30 (d, *J* = 8.5 Hz, 2H, Ar), 7.01 (s, 3H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.04 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 2.44 (s, 3H, Ar-CH_3),1.84 - 1.25 (m, 56H, 28 × CH_2) and 0.88 (t, *J* = 6.4 Hz, 6H, 2 × CH_3); ^{13}C NMR (100 MHz, $CDCl_3$): δ 164.41, 164.40, 164.18, 163.10, 153.44, 151.37, 134.02, 131.70, 127.00, 121.24, 119.93, 112.87, 112.74, 108.13, 101.70, 68.44, 31.93, 29.70, 29.60, 29.36, 29.10, 26.00, 22.69 and 14.07; Elemental analysis: calculated for $C_{67}H_{90}N_2O_8$ (found): C 76.54 (76.23) %; H 8.63 (8.23) %; N 2.65 (2.70) %.

BC2-18: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 3450, 2919, 2852, 1732, 1624, 1594 and 1275; ^1H NMR (400 MHz, $CDCl_3$): δ 13.34 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.23 (d, *J* = 8.6 Hz, 4H, Ar), 7.34 (d, *J* = 8.6 Hz, 4H, Ar), 7.30 (d, *J* = 9.3 Hz, 2H, Ar), 7.01 (s, 3H, Ar), 6.52 - 6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.6 Hz, 4H, 2 × OCH_2), 2.44 (s, 3H, Ar-CH_3), 1.84 - 1.26 (m, 64H, 32 × CH_2) and 0.88 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{71}H_{98}N_2O_8$ (found): C 77.00 (77.41) %; H 8.92 (9.06) %; N 2.53 (2.62) %.

BC2-22: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 3450, 2918, 2851, 1732, 1637, 1595 and 1276; ^1H NMR (400 MHz, $CDCl_3$): δ 13.34 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.23 (d, *J* = 8.6 Hz, 4H, Ar), 7.34 (d, *J* = 8.6 Hz, 4H, Ar), 7.30 (d, *J* = 9.3 Hz, 2H, Ar), 7.01 (s, 3H, Ar), 6.52 - 6.51 (m, 4H, Ar), 4.01 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 2.44 (s, 3H, Ar-CH_3), 1.84 - 1.10 (m, 80H, 40× CH_2), 0.88 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{79}H_{114}N_2O_8$, Calculated: 1218.9, Found: 1220.4; Elemental analysis: calculated (found): C 77.77 (78.29) %; H 9.43 (9.88) %; N 2.30 (2.17) %.

BC3-n series: 4-Chloro-1,3-phenylene bis[4-(2-hydroxy-4-*n*-alkoxybenzylidene amino) benzoate]

BC3-7: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2853, 1732, 1626, 1593 and 1258; ^1H NMR (200 MHz, $CDCl_3$): δ 13.33 (brs, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.28 (d, *J* = 8.6 Hz, 2H, Ar), 8.23 (d, *J* = 8.6 Hz, 2H, Ar), 7.55 (d, *J* = 8.6 Hz, 1H, Ar), 7.38 - 7.28 (m, 7H, Ar), 7.18 (dd, J_1 = 8.8 Hz, J_2 = 2.4 Hz, 1H, Ar), 6.53 - 6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 1.85 - 1.32 (m, 20H, 10 × CH_2) and 0.90 (t, *J* = 6.0 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{48}H_{51}ClN_2O_8$, Calculated: 818.4, Found: 819.7; Elemental analysis: calculated (found): C 70.39 (70.64) %; H 6.28 (6.74) %; N 3.42 (3.28) %.

BC3-8: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2923, 2852, 1733, 1631, 1594 and 1255; ^1H NMR (200 MHz, $CDCl_3$): δ 13.34 (brs, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.28 (d, *J* = 8.6 Hz, 2H, Ar), 8.27 (d, *J* = 8.8 Hz, 2H, Ar), 7.55 (d, *J* = 8.8 Hz, 1H, Ar), 7.38 -7.28 (m, 7H, Ar), 7.18 (dd, J_1 = 8.8 Hz, J_2 = 2.6 Hz, 1H, Ar), 6.55-6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 1.84 - 1.31 (m, 24H, 12 × CH_2) and 0.90 (t, *J* = 6.2 Hz, 6H, 2 × CH_3); Elemental

analysis: calculated for $C_{50}H_{55}ClN_2O_8$ (found): C 70.89 (70.77) %; H 6.55 (6.31) %; N 3.31 (3.12) %.

BC3-9: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2919, 2851, 1732, 1624, 1593 and 1260; ^1H NMR (200 MHz, $CDCl_3$): δ 13.32 (brs, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.28 (d, *J* = 8.4 Hz, 2H, Ar), 8.23(d, *J* = 8.4 Hz, 2H, Ar), 7.55 (d, *J* = 8.8 Hz, 1H, Ar), 7.39 -7.29 (m, 7H, Ar), 7.18 (dd, J_1 = 8.8 Hz, J_2 = 2.6 Hz, 1H, Ar), 6.53-6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 1.84 - 1.29 (m, 28H, 14 × CH_2) and 0.89 (t, *J* = 6.8 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{52}H_{59}ClN_2O_8$, Calculated: 874.4, Found: 875.9; Elemental analysis: calculated (found): C 71.36 (71.82) %; H 6.80 (7.00) %; N 3.20 (3.06) %.

BC3-10: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2850, 1733, 1634, 1594 and 1257; ^1H NMR (400 MHz, $CDCl_3$): δ 13.33 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.28 (d, *J* = 8.5 Hz, 2H, Ar), 8.23 (d, *J* = 8.5 Hz, 2H, Ar), 7.55 (d, *J* = 8.8 Hz, 1H, Ar), 7.36 (d, *J* = 8.4 Hz, 2H, Ar), 7.35 (d, *J* = 8.4 Hz, 2H, Ar), 7.33 (d, *J* = 2.4 Hz, 1H, Ar), 7.30 (d, *J* = 8.7 Hz, 2H, Ar), 7.18 (dd, J_1 = 8.7 Hz, J_2 = 2.6 Hz, 1H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 1.82 - 1.28 (m, 32H, 16 × CH_2) and 0.89 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); ^{13}C NMR (100 MHz, $CDCl_3$): δ 164.44, 164.18, 163.47, 163.22, 153.74, 153.63, 149.92, 147.61, 134.08, 131.98, 131.78, 130.46, 126.51, 126.19, 124.23, 121.35, 120.43, 117.91, 112.86, 108.17, 101.68, 68.45, 31.92, 29.57, 29.33, 29.10, 26.01, 22.69 and 14.10; Elemental analysis: calculated for $C_{54}H_{63}ClN_2O_8$ (found): C71.81 (71.85) %; H 7.04 (7.30) %; N 3.10 (3.60) %.

BC3-11: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2918, 2850, 1733, 1624, 1594 and 1260; ^1H NMR (200 MHz, $CDCl_3$): δ 13.30 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.29 (d, *J* = 8.6 Hz, 2H, Ar), 8.23 (d, *J* = 8.6 Hz, 2H, Ar), 7.56 (d, *J* = 8.8 Hz, 1H, Ar), 7.39 - 7.28 (m, 7H, Ar), 7.18 (dd, J_1 = 8.8 Hz, J_2 = 2.6 Hz, 1H, Ar), 6.54 - 6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 1.84 - 1.28 (m, 36H, 18 × CH_2) and 0.89 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{56}H_{67}ClN_2O_8$ (found): C 72.22 (71.73) %; H 7.26 (7.51) %; N 3.01 (2.78) %.

BC3-12: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2852, 1745, 1634, 1594 and 1249; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.32 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.28 (d, *J* = 8.6 Hz, 2H, Ar), 8.23 (d, *J* = 8.6 Hz, 2H, Ar), 7.55 (d, *J* = 8.6 Hz, 1H, Ar), 7.39-7.29 (m, 7H, Ar), 7.18 (dd, J_1 = 8.8 Hz, J_2 = 2.6 Hz, 1H, Ar), 6.54 - 6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 1.84 - 1.27 (m, 40H, 20 × CH_2) and 0.88 (t, *J* = 6.8 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{58}H_{71}ClN_2O_8$ (found): C 72.61 (72.91) %; H 7.47 (7.85) %; N 2.92 (2.80) %.

BC3-16: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2852, 1746, 1630, 1594 and 1249; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.32 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.28 (d, *J* = 8.6 Hz, 2H, Ar), 8.23 (d, *J* = 8.8 Hz, 2H, Ar), 7.55 (d, *J* = 8.6 Hz, 1H, Ar), 7.39 - 7.28 (m, 7H, Ar), 7.18 (dd, J_1 = 8.8 Hz, J_2 = 2.6 Hz, 1H, Ar), 6.53 - 6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 1.84 - 1.26 (m, 56H, 28 × CH_2) and 0.88 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{66}H_{87}ClN_2O_8$ (found): C 73.98 (74.08) %; H 8.19 (8.26) %; N 2.62 (2.48) %.

BC3-18: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2852, 1746, 1630, 1595 and 1249; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.33 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.28 (d, *J* = 8.7 Hz, 2H, Ar), 8.24 (d, *J* = 8.8 Hz, 2H, Ar), 7.55 (d, *J* = 8.8 Hz, 1H, Ar), 7.38 - 7.28 (m, 7H, Ar), 7.18 (dd, J_1 = 8.7 Hz, J_2 = 2.6 Hz, 1H, Ar), 6.53 - 6.50 (m, 4H, Ar), 4.05 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 1.84 - 1.26 (m, 64H, 32 × CH_2) and 0.88 (t, *J* = 6.2 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{66}H_{87}ClN_2O_8$ (found): C 74.56 (74.30)%; H 8.50 (8.61)%; N 2.49 (3.02)%.

BC3-22: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2917, 2852, 1736, 1630, 1596 and 1253; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.29 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.28 (d, *J* = 8.6 Hz, 2H, Ar), 8.23 (d, *J* = 8.6 Hz, 2H, Ar), 7.55 (d, *J* = 8.8 Hz, 1H, Ar), 7.38 - 7.28 (m, 7H, Ar), 7.18 (dd, J_1 = 8.6 Hz, J_2 = 2.4 Hz, 1H, Ar), 6.53 - 6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 1.84 - 1.26 (m, 80H, 40 × CH_2) and 0.88 (t, *J* = 6.6 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{78}H_{111}ClN_2O_8$ (found): C 75.54 (75.10) %; H 9.02 (9.11) %; N 2.26 (2.31) %.

BC4-n series: 4,6-Dichloro-1,3-phenylene bis[4-(2-hydroxy-4-*n*-alkoxy benzylidene- amino) benzoate]

BC4-7: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2924, 2855, 1752, 1629, 1594 and 1251; ^1H NMR (400 MHz, $CDCl_3$): δ 13.33 (s, 2H, 2 × -OH), 8.57 (s, 2H, 2 × -CH=N), 8.26 (d, *J* = 8.6 Hz, 4H, Ar), 7.65 (s, 1H, Ar), 7.40 (s, 1H, Ar), 7.36 (d, *J* = 8.6 Hz, 4H, Ar), 7.31 (d, *J* = 9.3 Hz, 2H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.01 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 1.84 - 1.25 (m, 20H, 10 × CH_2) and 0.90 (t, *J* = 6.7 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{48}H_{50}Cl_2N_2O_8$, Calculated: 852.3, Found: 853.7.

BC4-8: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2923, 2854, 1752, 1632, 1594 and 1251; ^1H NMR (400 MHz, $CDCl_3$): δ 13.33 (s, 2H, 2 × -OH), 8.57 (s, 2H, 2 × -CH=N), 8.26 (d, *J* = 8.5 Hz, 4H, Ar), 7.65 (s, 1H, Ar), 7.40 (s, 1H, Ar), 7.36 (d, *J* = 8.6 Hz, 4H, Ar), 7.31 (d, *J* = 9.3 Hz, 2H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.01 (t, *J* = 6.6Hz, 4H, 2 × OCH_2), 1.84 - 1.25 (m, 24H, 12 × CH_2) and 0.89 (t, *J* = 6.5 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{50}H_{54}Cl_2N_2O_8$, Calculated: 880.3, Found: 883.4; Elemental analysis: calculated (found): C 68.08 (68.0) %; H 6.18 (6.02) %; N 3.18 (3.68) %.

BC4-9: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2922, 2853, 1752, 1633, 1594 and 1251; ^1H NMR (400 MHz, $CDCl_3$): δ 13.33 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.26 (d, *J* = 8.5 Hz, 4H, Ar), 7.65 (s, 1H, Ar), 7.40 (s, 1H, Ar), 7.36 (d, *J* = 8.5 Hz, 4H, Ar), 7.32 (d, *J* = 8.8 Hz, 2H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.01 (t, *J* = 6.6 Hz, 4H, 2 × OCH_2), 1.84 - 1.29 (m, 28H, 14 × CH_2) and 0.88 (t, *J* = 6.4 Hz, 6H, 2 × CH_3); ^{13}C NMR (100 MHz, $CDCl_3$): δ 164.49, 164.30, 164.18, 163.29, 153.94, 146.23, 134.10, 132.00, 125.88, 125.06, 121.43, 119.74, 112.87, 108.20, 101.73, 68.46, 31.88, 29.52, 29.36, 29.24, 29.09, 26.00, 22.66 and 14.07; MS (FAB+): m/z for $C_{52}H_{58}Cl_2N_2O_8$, Calculated: 908.4, Found: 909.7; Elemental analysis: calculated (found): C 68.62 (68.70) %; H 6.43 (6.30) %; N 3.08 (3.59) %.

BC4-10: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2922, 2852, 1752, 1630, 1594 and 1251; ^1H NMR (200 MHz, $CDCl_3$): δ 13.32 (s, 2H, 2 × -OH), 8.57 (s, 2H, 2 × -CH=N), 8.27 (d, *J* = 8.6 Hz, 4H, Ar), 7.65 (s, 1H, Ar), 7.40 (s, 1H, Ar), 7.37 (d, *J* = 8.6 Hz, 4H, Ar), 7.32 (d, *J* = 9.2

Hz, 2H, Ar), 6.54 - 6.49 (m, 4H, Ar), 4.02 (t, J = 6.5Hz, 4H, 2 × OCH_2), 1.84 - 1.28 (m, 32H, 16 × CH_2) and 0.89 (t, J = 6.1 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{54}H_{62}Cl_2N_2O_8$, Calculated: 936.4, Found: 937.9; Elemental analysis: calculated (found): C 69.15 (69.19) %; H 6.66 (6.61) %; N 2.99 (3.35) %.

BC4-11: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2921, 2852, 1752, 1631, 1594 and 1251; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.32 (s, 2H, 2 × -OH), 8.57 (s, 2H, 2 × -CH=N), 8.27 (d, J = 8.6 Hz, 4H, Ar), 7.65 (s, 1H, Ar), 7.40 (s, 1H, Ar), 7.37 (d, J = 8.6 Hz, 4H, Ar), 7.29 (d, J = 9.1 Hz, 2H, Ar), 6.55 - 6.51 (m, 4H, Ar), 4.02 (t, J = 6.6 Hz, 4H, 2 × OCH_2), 1.84 - 1.28 (m, 36H, 18 × CH_2) and 0.89 (t, J = 6.6 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{56}H_{66}Cl_2N_2O_8$, Calculated: 964.4, Found: 966.7; Elemental analysis: calculated (found): C 69.63 (69.70) %; H 6.89 (6.70) %; N 2.90 (2.97) %.

BC4-12: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2921, 2852, 1752, 1631, 1594 and 1252; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.33 (s, 2H, 2 × -OH), 8.57 (s, 2H, 2 × -CH=N), 8.27 (d, J = 8.7 Hz, 4H, Ar), 7.65 (s, 1H, Ar), 7.40 (s, 1H, Ar), 7.37 (d, J = 8.7 Hz, 4H, Ar), 7.31 (d, J = 8.5 Hz, 2H, Ar), 6.55 - 6.50 (m, 4H, Ar), 4.02 (t, J = 6.5 Hz, 4H, 2 × OCH_2), 1.85 - 1.27 (m, 40H, 20 × CH_2) and 0.88 (t, J = 6.0 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{58}H_{70}Cl_2N_2O_8$, Calculated: 992.5, Found: 994.6; Elemental analysis: calculated (found): C 69.63 (69.70) %; H 6.89 (6.70) %; N 2.90 (2.97) %.

BC4-16: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2852, 1751, 1629, 1594 and 1252; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.31 (s, 2H, 2 × -OH), 8.57 (s, 2H, 2 × -CH=N), 8.27 (d, J = 8.0 Hz, 4H, Ar), 7.65 (s, 1H, Ar), 7.40 (s, 1H, Ar), 7.36 (d, J = 8.0 Hz, 4H, Ar), 7.30 (d, J = 8.5 Hz, 2H, Ar), 6.53 - 6.50 (m, 4H, Ar), 4.02 (t, J = 6.0 Hz, 4H, 2 × OCH_2), 1.84 - 1.26 (m, 56H, 28 × CH_2) and 0.88 (t, J = 6.0 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{66}H_{86}Cl_2N_2O_8$ (found): C 71.65 (71.46) %; H 7.84 (7.51) %; N 2.53 (3.02) %.

BC4-18: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2852, 1753, 1631, 1594 and 1252; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.32 (s, 2H, 2 × -OH), 8.57 (s, 2H, 2 × -CH=N), 8.26 (d, J = 8.6 Hz, 4H, Ar), 7.65 (s, 1H, Ar), 7.40 (s, 1H, Ar), 7.36 (d, J = 8.6 Hz, 4H, Ar), 7.31 (d, J = 9.3

Hz, 2H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.01 (t, J = 6.6 Hz, 4H, 2 × OCH_2), 1.84 - 1.26 (m, 64H, 32 × CH_2) and 0.88 (t, J = 6.6 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{70}H_{94}Cl_2N_2O_8$ (found): C 72.33 (71.78) %; H 8.15 (7.89) %; N 2.41(2.89) %.

BC4-22: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2919, 2851, 1753, 1631, 1594 and 1252; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.29 (s, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.26 (d, J = 8.4 Hz, 4H, Ar), 7.65 (s, 1H, Ar), 7.41 (s, 1H, Ar), 7.36 (d, J = 8.6 Hz, 4H, Ar), 7.30 (d, J = 9.2 Hz, 2H, Ar), 6.52 - 6.50 (m, 4H, Ar), 4.02 (t, J = 6.5 Hz, 4H, 2 × OCH_2), 1.82 - 1.26 (m, 80H, 14 × CH_2) and 0.88 (t, J = 6.4 Hz, 6H, 2 × CH_3).

BC5-n series: 2-Nitro-1,3-phenylene bis[4-(2-hydroxy-4-*n*-alkoxybenzylidene amino) benzoate]

BC5-8: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2924, 2855, 1742, 1593, 1365, 1169; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.26 (brs, 2H, 2 × -OH), 8.56 (s, 2H, 2 × -CH=N), 8.20 (d, J = 8.4 Hz, 4H, Ar), 7.68 (t, J = 7.8 Hz 1H, Ar), 7.42 (d, J = 8.4 Hz, 2H, Ar), 7.37 (d, J = 8.6 Hz, 4H, Ar), 7.30 (d, J = 9.3 Hz, 2H, Ar), 6.57 - 6.50 (m, 4H, Ar), 4.03 (t, J = 6.4 Hz, 4H, 2 × OCH_2), 1.84 - 1.31 (m, 24H, 12 × CH_2) and 0.88 (t, J = 6.8 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{50}H_{55}N_3O_{10}$, Calculated: 857.4, Found: 858.8; Elemental analysis: calculated (found): C 69.97 (70.36) %; H 6.47 (6.90) %; N 4.90 (4.94) %.

BC5-9: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2923, 2854, 1742, 1537, 1365, 1170; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.26 (s, 2H, 2 × -OH), 8.56 (s, 2H, 2 × -CH=N), 8.19 (d, J = 8.5 Hz, 4H, Ar), 7.66 (t, J = 8.5 Hz 1H, Ar), 7.42 (d, J = 8.4 Hz, 2H, Ar), 7.34 (d, J = 8.4 Hz, 4H, Ar), 7.30 (d, J = 9.2 Hz, 2H, Ar), 6.52 - 6.51 (m, 4H, Ar), 4.02 (t, J = 6.6 Hz, 4H, 2 × OCH_2), 1.82 - 1.29 (m, 28H, 14× CH_2) and 0.88 (t, J = 7.0 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{52}H_{59}N_3O_{10}$, Calculated: 885.4, Found: 886.9; Elemental analysis: calculated (found): C 70.49 (70.64) %; H 6.71 (6.73) %; N 4.74 (4.75) %.

BC5-10: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2925, 2855, 1743, 1629, 1594, 1364, 1168; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.26 (s, 2H, 2 × -OH), 8.56 (s, 2H, 2 × -CH=N), 8.19 (d, J = 8.4 Hz, 4H, Ar), 7.68 (t, J = 8.4 Hz 1H, Ar), 7.42 (d, J = 8.4 Hz, 2H, Ar), 7.35 (d, J = 8.4 Hz,

4H, Ar), 7.31 (d, *J* = 9.2 Hz, 2H, Ar), 6.53-6.51 (m, 4H, Ar), 4.01 (t, *J* = 6.6 Hz, 4H, 2 × OCH_2), 1.84 - 1.28 (m, 32H, 16× CH_2) and 0.88 (t, *J* = 6.4Hz, 6H, 2 × CH_3).

BC5-11: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2919, 2852, 1736, 1593, 1536, 1364, 1171; ^1H NMR (400 MHz, $CDCl_3$): δ 13.28 (s, 2H, 2 × -OH), 8.55 (s, 2H, 2 × -CH=N), 8.19 (d, *J* = 8.6 Hz, 4H, Ar), 7.66 (t, *J* = 8.6 Hz 1H, Ar), 7.42 (d, *J* = 8.4 Hz, 2H, Ar), 7.34 (d, *J* = 8.6 Hz, 4H, Ar), 7.30 (d, *J* = 9.3 Hz, 2H, Ar), 6.55 - 6.45 (m, 4H, Ar), 4.04 (t, *J* = 6.6 Hz, 4H, 2 × OCH_2), 1.84 - 1.27 (m, 36H, 18 × CH_2) and 0.88 (t, *J* = 6.4 Hz, 6H, 2 × CH_3); ^{13}C NMR (100MHz, $CDCl_3$): δ 164.36, 164.08, 163.34, 163.23, 153.96, 143.81, 137.44, 134.09, 132.12, 131.66, 125.25, 121.72, 121.43, 112.71, 108.16, 101.50, 68.36, 31.90, 29.60, 29.58, 29.54, 29.33, 29.02, 25.60, 22.68 and 14.12; MS (FAB+): m/z for $C_{56}H_{67}N_3O_{10}$, Calculated: 941.5, Found: 943.1; Elemental analysis: calculated (found): C 71.39 (71.85) %; H 7.17 (7.00) %; N 4.45 (4.49) %.

BC5-12: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2918, 2853, 1736, 1592, 1541, 1364, 1172; ^1H NMR (200 MHz, $CDCl_3$): δ 13.29 (s, 2H, 2 × -OH), 8.56 (s, 2H, 2 × -CH=N), 8.20 (d, *J* = 8.6 Hz, 4H, Ar), 7.67 (t, *J* = 7.8 Hz 1H, Ar), 7.42 (d, *J* = 8.4 Hz, 2H, Ar), 7.35 (d, *J* = 8.4 Hz, 4H, Ar), 7.28 (d, *J* = 9.2 Hz, 2H, Ar), 6.53 - 6.50 (m, 4H, Ar), 4.02 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2), 1.84 - 1.27 (m, 40H, 20× CH_2) and 0.88 (t, *J* = 6.8 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{58}H_{71}N_3O_{10}$ (found): C 71.80 (72.24) %; H 7.38 (7.37) %; N 4.33 (4.38) %.

BC5-16: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2927, 2853, 1742, 1594, 1536, 1365, 1169; ^1H NMR (400 MHz, $CDCl_3$): δ 13.31 (s, 2H, 2 × -OH), 8.56 (s, 2H, 2 × -CH=N), 8.20 (d, *J* = 8.5 Hz, 4H, Ar), 7.67 (t, *J* = 8.3 Hz 1H, Ar), 7.42 (d, *J* = 8.4 Hz, 2H, Ar), 7.35 (d, *J* = 8.4 Hz, 4H, Ar), 7.31 (d, *J* = 9.2 Hz, 2H, Ar), 6.52 - 6.51 (m, 4H, Ar), 4.01 (t, *J* = 6.5 Hz, 4H, 2 × OCH_2), 1.83 - 1.26 (m, 56H, 28× CH_2) and 0.88 (t, *J* = 6.4 Hz, 6H, 2 × CH_3).

BC5-18: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2852, 1742, 1593, 1535, 1364, 1170; ^1H NMR (400 MHz, $CDCl_3$): δ 13.28 (s, 2H, 2 × -OH), 8.56 (s, 2H, 2 × -CH=N), 8.19 (d, *J* = 8.4 Hz, 4H, Ar), 7.67 (t, *J* = 8.5 Hz 1H, Ar), 7.42 (d, *J* = 8.4Hz, 2H, Ar), 7.35 (d, *J* = 8.5 Hz, 4H, Ar), 7.30 (d, *J* = 9.3 Hz, 2H, Ar), 6.52-6.50 (m, 4H, Ar), 4.01 (t, *J* = 6.4 Hz, 4H, 2 × OCH_2),

1.83 - 1.26 (m, 64H, 32× CH_2) and 0.88 (t, J = 6.3 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{70}H_{95}N_3O_{10}$ (found): C 73.85 (73.77) %; H 8.41 (8.43) %; N 3.69 (3.54) %.

BC6-n series: 4-Nitro-1,3-phenylene bis[4-(2-hydroxy-4-*n*-alkoxybenzylidene amino) benzoate]

BC6-6: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2931, 2853, 1738, 1626, 1593, 1519, 1346 and 1256; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.27 (brs, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.29 (d, J = 8.3 Hz, 1H, Ar), 8.26 - 8.22 (m, 4H, Ar), 7.42 (d, J = 2.2 Hz, 1H, Ar), 7.39 - 7.35 (m, 5H, Ar), 7.32 (d, J = 6.2 Hz, 2H, Ar), 6.55 -6.49 (m, 4H, Ar), 4.02 (t, J = 6.6 Hz, 4H, 2 × OCH_2), 1.88 - 1.26 (m, 16H, 8 × CH_2) and 0.92 (t, J = 6.4 Hz, 6H, 2 × CH_3).

BC6-7: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2924, 2853, 1738, 1626, 1593,1520,1346 and 1257; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.27 (brs, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.29 (d, J = 9.5 Hz, 1H, Ar), 8.26 - 8.22 (m, 4H, Ar), 7.42 (d, J = 2.3 Hz, 1H, Ar), 7.40 - 7.35 (m, 5H, Ar), 7.32 (d, J = 9.4 Hz, 2H, Ar), 6.55-6.51 (m, 4H, Ar), 4.03 (t, J = 6.4 Hz, 4H, 2 × OCH_2), 1.85 - 1.32 (m, 20H, 10 × CH_2) and 0.89 (t, J = 6.6 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{48}H_{51}N_3O_{10}$ (found): C 69.40 (69.62) %; H 6.19 (6.36) %; N 5.06 (4.95) %.

BC6-8: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2923, 2852, 1739, 1633, 1594,1520,1347 and 1252; ^{1}H NMR (200 MHz, $CDCl_3$): δ 13.27 (brs, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.29 (d, J = 9.5 Hz, 1H, Ar), 8.26 - 8.22 (m, 4H, Ar), 7.41 (d, J = 2.3 Hz, 1H, Ar), 7.40 - 7.35 (m, 5H, Ar), 7.32 (d, J = 8 Hz, 2H, Ar), 6.55 -6.51 (m, 4H, Ar), 4.03 (t, J = 6.0 Hz, 4H, 2 × OCH_2), 1.85 - 1.31 (m, 24H, 12 × CH_2) and 0.90 (t, J = 6.0 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{50}H_{55}N_3O_{10}$ (found): C 69.99 (69.68) %; H 6.46 (6.34) %; N 4.89 (4.82) %.

BC6-10: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2923, 2853, 1736, 1626, 1594,1518,1347 and 1256; ^{1}H NMR (400 MHz, $CDCl_3$): δ 13.27 (s, 2H, OH), 8.57 (s, 2H, 2 × CH=N), 8.27 (d, J = 8.7 Hz, 1H, Ar), 8.25 (d, J = 8.7 Hz, 2H, Ar), 8.23 (d, J = 8.4 Hz, 2H, Ar), 7.42 (d, J = 2.3 Hz, 1H, Ar), 7.40 - 7.35 (m, 5H, Ar), 7.31 (d, J = 8.8 Hz, 2H, Ar), 6.53 - 6.51 (m, 4H, Ar), 4.04 (t, J = 6.5 Hz, 4H, 2 × OCH_2), 1.83 - 1.28 (m, 32H, 16 × CH_2) and 0.88 (t, J = 6.6 Hz, 6H, 2 × CH_3); ^{13}C NMR (100 MHz, $CDCl_3$): δ 164.45, 164.37, 164.11, 163.62, 163.44, 163.38, 163.33, 155.19,

153.97, 153.91, 145.56, 139.21, 134.10, 132.15, 131.92, 127.10, 125.66, 125.62, 121.49, 121.43, 119.90, 119.01, 112.75, 112.70, 108.23, 108.17, 101.53, 68.40, 31.93, 29.71, 29.67, 29.60, 29.57, 29.37, 25.98, 22.70 and 14.13; Elemental analysis: calculated (found): C 70.95 (71.07) %; H 6.94 (6.64) %: N 4.59 (4.63) % for $C_{54}H_{63}N_3O_{10}$.

BC6-11: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2919, 2853, 1736, 1633, 1593, 1518, 1347 and 1257; ^1H NMR (200 MHz, $CDCl_3$): δ 13.31 (brs, 2H, 2 × OH), 8.58 (s, 2H, 2 × CH=N), 8.29 (d, *J* = 8.5 Hz, 1H, Ar), 8.26 - 8.22 (m, 4H, Ar), 7.41 (d, *J* = 2.3 Hz, 1H, Ar), 7.39 - 7.35 (m, 5H, Ar), 7.28 (d, *J* = 6 Hz, 2H, Ar), 6.55 - 6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.0 Hz, 4H, 2 × OCH_2), 1.84 - 1.28 (m, 36H, 18 × CH_2) and 0.89 (t, *J* = 6.0 Hz, 6H, 2 × CH_3); MS (FAB+): m/z for $C_{56}H_{67}N_3O_{10}$, Calculated: 941.5, Found: 942.9.

BC6-12: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2918, 2853, 1738, 1641, 1592,1520, 1356 and 1259; ^1H NMR (200 MHz, $CDCl_3$): δ 13.28 (brs, 2H, 2 × OH), 8.58 (s, 2H, 2 × CH=N), 8.29 (d, *J* = 8.5 Hz, 1H, Ar), 8.26 - 8.22 (m, 4H, Ar), 7.41 (d, *J* = 2.3 Hz, 1H, Ar), 7.39 - 7.35 (m, 5H, Ar), 7.29 (d, *J* = 6 Hz, 2H, Ar), 6.54 - 6.53 (m, 4H, Ar), 4.02 (t, *J* = 6.0 Hz, 4H, 2 × OCH_2), 1.84 - 1.27 (m, 40H, 20 × CH_2) and 0.88 (t, *J* = 6.0 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{58}H_{71}N_3O_{10}$ (found): C 71.80 (71.77) %; H 7.37 (7.14) %; N 4.33 (4.37) %.

BC6-16: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2918, 2852, 1736, 1641, 1594, 1523, 1356 and 1258; ^1H NMR (200 MHz, $CDCl_3$): δ 13.28 (brs, 2H, 2 × OH), 8.57 (s, 2H, 2 × CH=N), 8.29 (d, *J* = 6 Hz, 1H, Ar), 8.26 - 8.22 (m, 4H, Ar), 7.41 (d, *J* = 2.3 Hz, 1H, Ar), 7.39 - 7.34 (m, 5H, Ar), 7.27 (d, *J* = 6 Hz, 2H, Ar), 6.54 - 6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.0 Hz, 4H, 2 × OCH_2), 1.84 - 1.26 (m, 56H, 28 × CH_2) and 0.88 (t, *J* = 6.0 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{66}H_{87}N_3O_{10}$ (found): C 73.23 (73.06) %; H 8.10 (7.89) %; N 3.88 (3.96) %.

BC6-18: A yellow solid; IR (KBr pellet): ν_{max} in cm^{-1} 2920, 2852, 1741, 1641, 1595,1522, 1354 and 1254; ^1H NMR (200 MHz, $CDCl_3$): δ 13.29 (brs, 2H, 2 × OH), 8.58 (s, 2H, 2 × CH=N), 8.29 (d, *J* = 6 Hz, 1H, Ar), 8.26 - 8.22 (m, 4H, Ar), 7.41 (d, *J* = 2.3 Hz, 1H, Ar), 7.39 - 7.34 (m, 5H, Ar), 7.28 (d, *J* = 6 Hz, 2H, Ar), 6.54 - 6.51 (m, 4H, Ar), 4.02 (t, *J* = 6.0 Hz, 4H, 2 × OCH_2),

1.84 - 1.26 (m, 64H, 32 × CH_2) and 0.88 (t, J = 6.0 Hz, 6H, 2 × CH_3); Elemental analysis: calculated for $C_{70}H_{95}N_3O_{10}$ (found): C 73.85 (73.74) %; H 8.41 (8.21) %; N 3.69 (3.77) %.