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Aromatic acid derivatives

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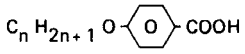
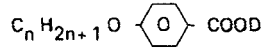
AROMATIC ACID DERIVATIVES

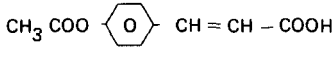


n	K_2		K_1		S_C		N		I	Ref.
3	•	121 *1.9*	•	146.5 *4.0*	–		•	153.5 *0.6*	•	1 *1 bis*
4	–		•	147.5 *4.5*	–		•	159 *0.7*	•	1 *1 bis*
			•	147.0 *4.70*				160.5 *0.57*		6
5	–		•	125 *5.2*	–		•	149 *0.5*	•	1 *1 bis*
	–		•	124 *4.31*	–		•	152 *0.44*	•	5
6	•	75 *1.6*	•	107 *3.3*	–		•	153 *0.8*	•	1 *1 bis*
7	–		•	92 94 *4.6*	•	98 100 *2.6*	•	146 147 *0.6*	•	2 1 *1 bis*
	–		•	96 *2.22*	•	104 *0.35*	•	151 *0.88*	•	4
8	•	71.1 *2.49*	•	100.7 *3.03*	•	107.5 *0.270*	•	147.3 *0.490*	•	3
	•	75 *4.3*	•	101 *2.6*	•	108 *0.3*	•	146 *4.6*	•	1 *1 bis*
	–		•	97.5 *3.03*	•	107 *0.27*	•	150.5 *0.49*	•	4
	•	71 *2.48*	•	97.5 *3.03*	•	107 *0.27*	•	150 *0.49*	•	183
9	–		•	94 92 *8.0*	•	117 118 *0.4*	•	143 145 *0.6*	•	2 1 *1 bis*
10	–	86 *5.2*	•	96 97 *2.5*	•	122 125 *0.4*	•	142 143 *0.7*	•	2 1 *1 bis*

n	K_2		K_1		S_C		N		I	Ref.
11	–		•	84 96 *9.6*	•	128 129 *0.5*	•	139 140 *0.6*	•	2 1 1 bis
12	–	83 *4.3*	•	95 90 *3.9*	•	129 133 *0.8*	•	137 137 *0.6*	•	2 1 1 bis
	–		•	92.4 *8.52*	•	132.3 *0.43*	•	138.6 *0.48*	•	203
	•	[74.1] *0.86*	–		•		ibid.			
13	–		•	100 *11.1*	•	135 *1.0*	•	137 *0.6*	•	1 1 bis
14	–		•	96 *9.4*	•	135 *2.0*	–		•	1 1 bis
	–		•	93.2 *8.47*	•	132.5 *1.8*	–		•	203
15	–		•	102 *12.4*	•	134 *2.3*	–		•	1 1 bis
16	–		•	102 *11.6*	•	133 *2.3*	–		•	1 1 bis
17	–		•	104 *13.0*	•	132 *2.2*	–		•	1 1 bis
18	–		•	105 *13.3*	•	132 *2.9*	–		•	1 1 bis
	–		•	106.5 *16.1*	•	135.5 *3.18*	–		•	203
	•	[98]	–		•		ibid.			

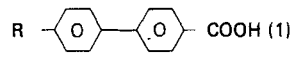


n	K_3		K_2		K_1		S		I	Ref.
18	–		–		•	101.2 *15.7*	•	129.2 *3.44*	•	12
	–		•	92.7 *8.73*	–		•	id	•	12
	•	67.2	–		–		•	id	•	12



					Ref.
	K	208.7 *7.61*	I		1.32

• **Biphenylcarboxylic acids**

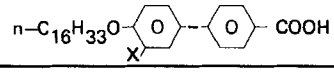


R	K_2		K_1		S_C (2)		N (2)		I	Ref.
(R) $CH_3-CH_2-CH(CH_3)-CH_2O-$	•	238	•	239 *4.7*	–		•	249 *0.9*	•	9
(E) ——— *	–		•	239 *4.6*	–		•	249 *0.9*	•	9
(R) $CH_3-(CH_2)_3-CH(CH_3)-CH_2O-$	•	167	•	171 *2.8*	•	224 *0.9*	•	245 *1.2*	•	9
(E) ——— * (3)	•	165 *1.7*	•	171 *1.8*	•	215 *1.1*	•	229 *0.9*	•	9
(R) $C_6H_5-CH_2-CH(CH_3)-CH_2O-$	–		•	205.5 *4.75*	•	213.5 *0.5*	•	241 *0.9*	•	9
(E) ——— *	–		•	205 *4.7*	•	213 *0.5*	•	241 *0.8*	•	9
$n-C_{12}H_{25}O-$	•	84.5 *8.54*	•	161.4 *8.18*	•	249 *8.06*	–		•	76
$n-C_{14}H_{29}O-$	•	153.2 *2.16*	•	156.9 *4.56*	•	244 *8.24*	–		•	76
$n-C_{15}H_{31}O-$	•	138 *2.88*	•	156.5 *5.10*	•	240 *9.16*	–		•	76
$n-C_{16}H_{33}O-$	•	140 *3.28*	•	154.9 *5.32*	•	241 *10.24*	–		•	76

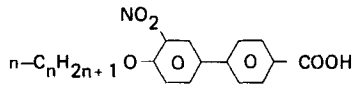
(1) (E) : enantiomer ; the smectic C and the nematic mesophases are chinal : S_C^*, N*.
(R) : racemic ; classical smectic C and nematic mesophases : S_C, N.

(2) For chinal compounds the identification of the S_C and N mesophases was done by J. Billard – Ref. 94 –
For the other compounds the identification was done by D. Demus and H. Sachmann – Ref. 47 –

(3) S_{Cg}, N_g for 2–methul hexylalcohol configuration R (+) – Ref. 77 –



X		K		S_C		I	Ref.
–Cl		•	117.5 *17.0*	•	208 *3.70*	•	76
–Br	(I)	•	122 *3.66*	•	202 *3.42*	•	76
	(II)	•	124.5 *14.3*	•	202	•	76



n	K_2	K_1	S_C	S_D	S_A	N	I	Ref.
6	–	• 133.4 *9.6*	• 163.3	–	• 213.5 *0.14*	• 218.3 *0.54*	•	176
12		• 97.5 *18.2*	• 198.2 *0.28*	–	• 208.9 *2.32*	–	•	176
14	–	• 114.5 *17.5*	• 195.0 *0.34*	–	• 206.5 *1.34*	–	•	176
15	• 121.2 *6.15*	• 124.4 *11.5*	• 195.2 *0.49*	–	• 203.2 *0.74*	–	•	176
16	–	• 126.8 *19.8*	• 171	• 197.2 *1.44*	• 201.9	–	•	76
	–	• 126.8 *18.2*	• 171 *0.32*	• 198.5 *0.68*	• 199.8 *0.395*	–	•	176
18	• 85	• 124.6 *21.4*	• 156 *0.44*	• 197 *1.18*	–	–	•	176