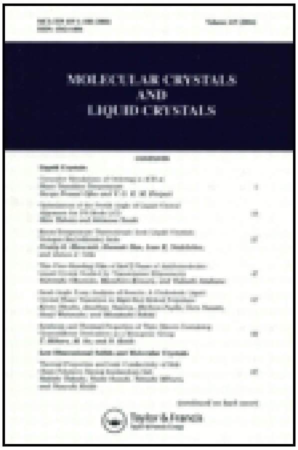

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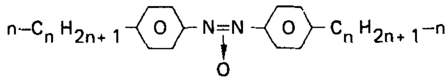
Azoxy benzene derivatives

Version of record first published: 03 Jan 2007.

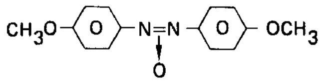
AZOXY BENZENE DERIVATIVES

• **Azoxybenzenes**

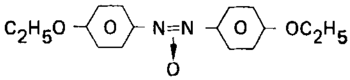


n	K_2		K_1		S		N		I	Ref.
3	–		•	65 *4.7*	–		•	[60.5] *0.13*	•	64
4	•	13 *0.50*	•	22 *2.9*	–		•	32 *0.06*	•	64
	–		•	19.6 *3.20*	–		•	32.5	•	167, 168
5	•	14 *0.40*	•	24 *3.0*	–		•	67.5 *0.16*	•	64
	–		•	19.6 *3.76*	–		•	32.5	•	167, 168
6 (1)	–		•	24 *2.79*	•	[17] *0.005*	•	54.5 *0.13*	•	64, 64 bis
	–		•	25.5 *4.12*	–		•	54.3	•	167, 168
7 (1)	–		•	34 *3.0*	•	54.5 *0.05*	•	71 *0.26*	•	64, 64 bis
8 (1)	–		•	39 *4.64*	•	64.5 *0.35*	•	67 *0.55*	•	64, 64 bis
9	–		•	45 *5.74*	•	76.5 *1.61*	–		•	64
10	•	35 *4.71*	•	50 *6.65*	•	76 *1.88*	–		•	64

(1) The smectic phases of compounds with n = 6, 7 and 8 are isomorphic together and they are identified as smectic A from texture (64 bis).

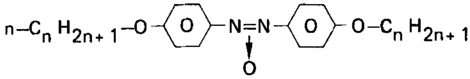
 (PAA)

K_2		K_1		N		I	Ref.
–		•	118 *7.70*	•	132 *0.176*	•	65
–		•	117 *7.28*	•	132 *0.178*	•	66
–		•	117.6 *7.25*	•	133.9 *0.175*	•	60
–		•	117.5 *6.79*	•	134.0 *0.150*	•	68
•	104.4 *5.63*	•	117.5 *7.26*	•	134.2 *0.181*	•	69
–		•	118.2 *7.067*	•	135.3 *0.137*	•	1, 67
–		•	117.5 *6.8*	•	134 *0.15*	•	70
–		•	115 *7.06*	•	135 *0.137*	•	3
–		•	119.5 *7.23*	•	136.5 *0.167*	•	71
•	104.5 *5.32*	•	119 *7.18*	•	133 *0.152*	•	72
		•	118.7 *7.1*	•	135.9 *0.18*	•	185



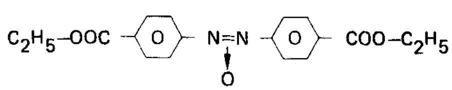
(PAP)

K		N		I	Ref.
•	136.6 *6.422*	•	167.5 *0.327*	•	1, 67
•	136.6 *6.42*	•	167.5 *0.32 to 0.4*	•	70
•	137.8 *6.55*	•	167.8 *0.51*	•	71
•	137 *6.18*	•	167.3 *0.39*	•	72
•	139.8 *6.3*	•	166 *0.37*	•	185



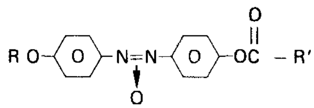
n	K		S_B	S_C		N		I	Ref.
3	•	115.5 *6.429*	–	–		•	123.6 *0.161*	•	1, 67
	•	115.5 *6.43*	–	–		•	123.6 *0.13*	•	70
	•	118.3 *6.43*	–	–		•	124.0 *0.28*	•	71
4	•	102.0 *5.005*	–	–		•	136.7 *0.247*	•	1, 67
	•	104 *5.0*	–	–		•	135 *0.13*	•	70
	•	105.8 *5.0*	–	–		•	136.6 *0.41*	•	71
5	•	75.5 *3.487*	–	–		•	123.2 *0.173*	•	1, 67
	•	81 *3.49*	–	–		•	119 *0.12*	•	70
	•	77 *3.68*	–	–		•	122 *0.26*	•	168
	K_I	67.5 *5.45*	K						
6	•	81.0 *10.4*	–	–		•	128.2 *0.36*	•	69
	•	81.3 *9.892*	–	–		•	120.1 *0.250*	•	73.1
	•	81.3 *9.89*	–	–		•	129.1 *0.25*	•	70
	•	79.6 *9.67*	–	–		•	127.7 *0.49*	•	71
	•	81 *9.88*	–	–		•	129 *0.250*	•	3
7	•	74.4 *9.870*	–	•	95.4 *0.381*	•	124.2 *0.243*	•	1, 67
	•	74 *9.77*	–	•	95 *0.380*	•	124 *0.243*	•	3
	•	70 *9.5*	–	•	91.5 *0.38*	•	123.3 *0.41*	•	183

n	K		S_B		S_C		N		I	Ref.
8	•	79.5 *10.080*	–		•	107.7 *0.282*	•	126.1 *0.344*	•	1, 67
	•	80 *10.070*	–		•	108 *0.282*	•	126 *0.343*	•	3
	•	79	–		•	107 *0.282*	•	125	•	28
9	•	75.5 *9.123*	–		•	113.0 *0.395*	•	121.5 *0.422*	•	1, 67
	•	76 *9.11*	–		•	113 *0.394*	•	122 *0.421*	•	3
10	•	78.2 *9.221*	–		•	120.6 *0.554*	•	123.4 *0.752*	•	1, 67
	•	78 *9.21*	–		•	121 *0.553*	•	123 *0.751*	•	3
11	•	80.8 *9.821*	–		•	121.4 *2.407*	–		•	1, 67
12	•	81.7 *10.05*	–		•	122.0 *2.861*	–		•	1, 67
16	K_I	89.5	•	91.1 *1.49*	•	115.5 *4.38*	–		•	74
	K_{II}	$\underbrace{82-84.5 \quad K_I \quad 89.5}_{15.38}$	S_B							
18	•	94.1 *18.9*	•	99.0 *2.53*	•	115.3 *5.41*	–		•	51
	•	94.1 *18.90*	•	99.0 *2.526*	•	115.3 *5.410*	–		•	1, 67
	•	94.8 *18.9*	•	100.1 *2.52*	•	116.2 *5.40*	–		•	11, 49
	•	94.2 *18.95*	•	99 *2.53*	•	115.3 *5.28*	–		•	74
	K_{IV}	46–48	K_I K_{II} K_{III}	94.2 91.2 86	S_B					



K 114 S_A 115 I Ref. 75

4.7 *1.2*

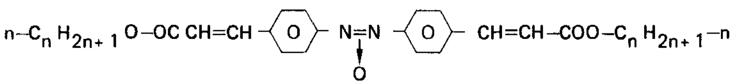


R	R'	K (1)		N		I	Ref.
CH_3-	$-(CH_2)_2-Cl$	•	81 *6.1*	•	126 *0.1*	•	223
C_2H_5-	$-(CH_2)_2-Cl$	•	88 *8.1*	•	143 *0.14*	•	223
C_4H_9-	$-(CH_2)_2-Cl$	•	72	•	131 *0,14*	•	223
CH_3-	$-(CH_2)_2-Br$	•	82	•	117 *0,07*	•	223
C_2H_5-	$-(CH_2)_2-Br$(2)	•	91 *5.5*	•	136 *0.13*	•	223
C_4H_9-	$-(CH_2)_2-Br$(2)	•	78	•	126	•	223
CH_3-	$-CH=CH_2$	•	87 *6.1*	•	147 *0.1*	•	223
C_2H_5-	$-CH=CH_2$	•	110–114 *7*	•	160 *0.19*	•	223
C_4H_9-	$-CH=CH_2$	•	69	•	145 *0.18*	•	223

(1) Some of these compounds exhibit a very complex crystalline polymorphism. See the ref. 223 for more informations.

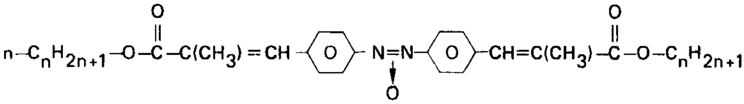
(2) Stable melting point at 112°C. No enthalpy given.

• **Di-Azoxycinnamates**



n	K_2		K_1		S_C		S_A		I	Ref.
2	–		•	135.7 *5.21*	•	267 *2.77*	–		•	76
3	–		•	120.7 *3.96*	–		•	252 *1.66*	•	76
4	–		•	111.2 *3.93*	•	222 *1.64*	–		•	76
5	–		•	99.4 *3.70*	•	142.9 *0.01*	•	203 *1.47*	•	76
6	–		•	95.1 *6.66*	•	156.1 *0.05*	•	188.7 *1.53*	•	76
7	•	80 *3.31*	•	92 *3.39*	•	160 *0.09*	•	182.5 *1.46*	•	76
8	–		•	92.4 *7.40*	•	162.3 *0.14*	•	175.3 *1.47*	•	76
9	–		•	94.3 *7.67*	•	161.3 *0.16*	•	170.7 *1.44*	•	76
10	–		•	97.6 *8.47*	•	159.0 *0.19*	•	165.2 *1.41*	•	76
11	•	81–88	•	97.3 *8.512*	•	156.1 *0.218*	•	160.2 *1.327*	•	76,49
12	–		•	101.6 *9.59*	•	152.8 *0.21*	•	156.2 *1.33*	•	76
16	•	81–88 *0.58*	•	107.1 *13.91*	•	133.0 *0.29*	•	135.0 *1.14*	•	76
	•	88 *0.578*	•	107.1 *13.911*	•	133 *0.289*	•	135 *1.138*	•	49

• **Di–n azoxymethyl cinnamates**



n	K_2		K_1		S_C	S_A		N		I	Ref.
1	–		•	145.4 *10.9*	–	•	135	•	176.5 *0.09*	•	76
2	–		•	110 *7.9*	–	•	125 *0.26*	•	141 *0.29*	•	54, 1
	•	75 *1.9*	•	108.9 *7.37*	–	•	135.1 *0.41*	•	140.7 *0.09*	•	76
3	–		•	72 *6.69*	–	•	119 *0.26*	•	131 *0.29*	•	1, 54
	–		•	74.2 *7.72*	–	•	129 *0.43*	•	131.3 *0.10*	•	76
4	–		•	61 *9.08*	–	•	100 *0.69*	–		•	1, 54
	–		•	62 *8.64*	–	•	102.3 *0.77*	–		•	76
5	–		•	61 *9.56*	–	•	100 *0.81*	–		•	1, 54
	•	55 *2.37*	•	60.8 *7.10*	–	•	100.1 *0.91*	–		•	76

n	K_2		K_1		S_C		S_A		I	Ref.
6	–		•	55 *5.98*	–		•	91 *0.96*	•	1, 54
	•	47.5 *0.25*	•	54.0 *5.8*	–		•	90.7 *1.03*	•	76
7	–		•	52 *6.21*	–		•	90 *1.14*	•	1, 54
	–		•	53.1 *6.29*	–		•	90.6 *1.28*	•	76
8	–		•	63 *13.9*	•	[55]	•	89 *1.39*	•	1, 54
	–		•	63.0 *14.41*	–		•	88.4 *1.48*	•	76
9	–		•	67 *6.45*	•	78	•	88 *1.57*	•	1, 54
	•	57 *0.58*	•	68.4 *9.39*	–		•	88.8 *1.75*	•	76
10	–		•	66 *8.93*	•	73 *0.24*	•	88 *1.72*	•	1, 54
	•	54 *0.65*	•	65.0 *10.88*	•	74.2 *< 0.01*	•	88.0 *1.83*	•	76
11	–		•	68 *9.80*	•	77	•	87 *2.15*	•	1, 54
	–		•	73.0 *11.539*	•	78.3 *< 0.01*	•	85.7 *2.046*	•	76,49
12	–		•	79 *15.7*	•	83 *∼ 0.24*	•	87 *2.01*	•	1, 54
	–		•	79.0 *17.32*	•	83.7 *0.03*	•	87.9 *2.23*	•	76
16	•	70 *5.706*	•	75.6 *14.525*	•	84.4 *3.242*	–		•	49,76