

Chirality from nowhere: spontaneous symmetry breaking in halogen-bonded, bent-core liquid crystals and observation of a Iso–N–N* phase sequence

Carsten Präsang, Adrian C. Whitwood and Duncan W. Bruce*

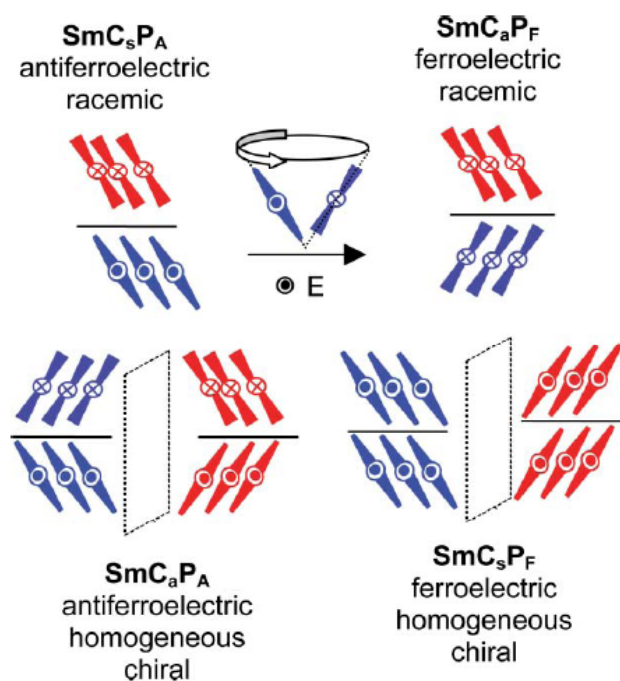
Supplementary Information

Complex	<i>n</i>	Phase Behaviour	Observations
2:1	4	C 113.5 Iso	microscope, 2 K min ^{-1a}
2:1	6	C 91.4 Iso	monotropic nematic simultaneous with cryst. at 71.1°C upon cooling 30 K min ^{-1b}
2:1	8	C (68.0 N* 68.1 N) 88.2 Iso	microscope, 2° and 3 K min ^{-1b}
2:1	10	C 80.4 Iso	monotropic nematic simultaneous with cryst. at 30 K min ^{-1b}
1:1	8	C (64.0 N) 79.4 Iso	microscope, 3 K min ^{-1c}

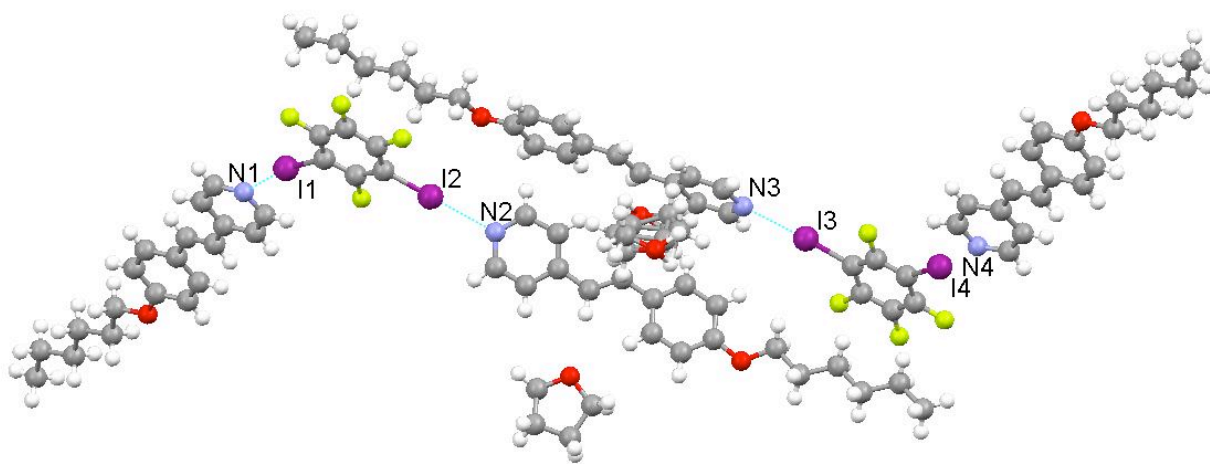
^a prepared by mixing stoichiometric amounts of stilbazole and *meta*-diiodotetrafluorobenzene and heating to isotropic state

^b crystallised from thf at ambient temperature

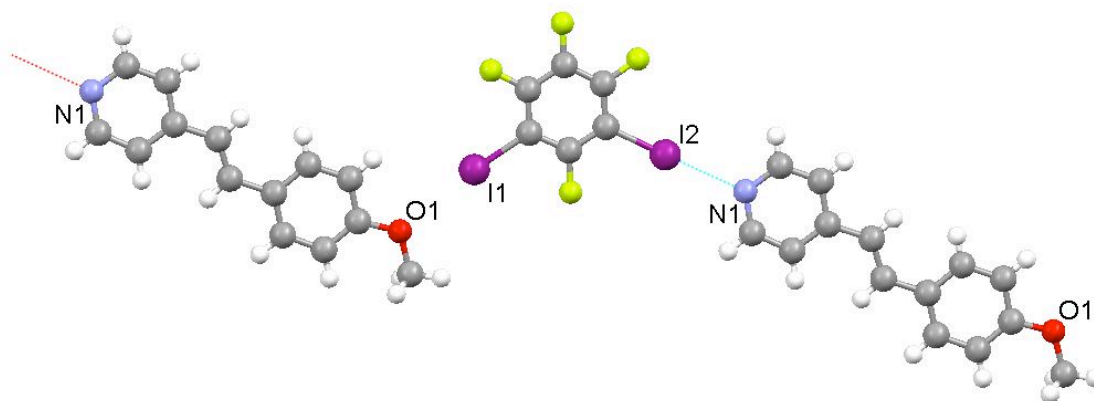
^c prepared by mixing 1.1 equivalents of 8-stilbazole and 1,3-diiodotetrafluorobenzene and heating to the isotropic state



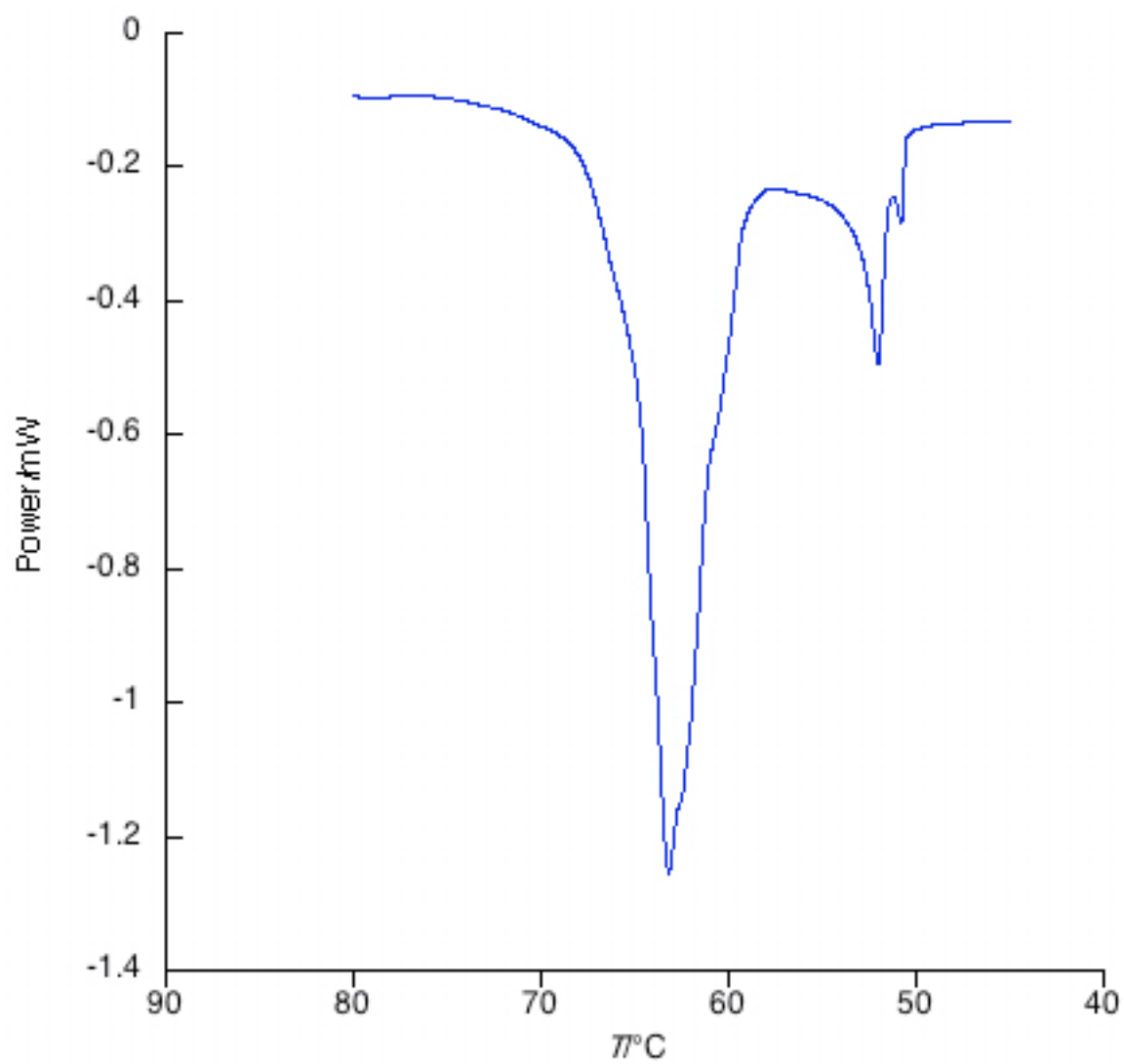
Arrangments in the SmCP (B₂) phases from reference 1, copyright RSC



Molecular Structure of **1-6** showing the two, independent molecules and the THF solvate molecules, one of which is disordered.



Labelled molecular structure of the 1:1 complex between 4-methoxystilbazole and 1,3-diiodotetrafluorobenzene.



DSC trace for **1-8** on cooling showing Iso-N, N-N* and N*-Crys transition.