Induced Smectic-G Phase through Intermolecular Hydrogen Bonding, Part XII: Thermal and Phase Behaviour of *p*-aminobenzonitrile: *p-n*-alkoxybenzoic acids

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Z. Naturforsch. **57a,** 184–188 (2002); received January 16, 2002

New liquid crystalline compounds involving intermolecular hydrogen bonding between mesogenic *p-n*-alkoxybenzoic acids (*n*ABA) (where *n* denotes the alkoxy carbon number varying from propyl- to decyl- and dodecyl-) and *p*-aminobenzonitrile (ABN) are synthesized. The thermal and phase behaviour of these materials is studied by Thermal Microscopy and Differential Scanning Calorimetry. A detailed IR spectral investigation in solid and solution states confirms the formation of H-bonding between *cyano* and –COOH groups of ABN and *n*ABA, respectively. Comparative thermal analyses of both free *p-n* alkoxybenzoic acids and H-bonded complexes suggest the induction of smectic-G phase in all the complexes.

Key words: H-bonding; *n*ABA; ABN; Smectic-G.