Influence of the nitro group position on the liquid-crystalline polymorphism of symmetrical azobananas: bis(4-alkyl-4'-hydroxyazobenzene) nitroisophtalates

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Three series of azobananas are investigated with the nitro group in the 2, 4 and 5 position.

$$A=C_nH_{2n+1}; X=NO_2$$

The most interesting polymorphism show the first series [1]. Except the nematic mesophase interesting, banana-type, mesophases were detected. The second family is monomorphic with one banana-type mesophase. The third group of compounds have no mesophases. Structure and dielectric properties of investigated mesophases are presented. These results are compared with the other derivatives of nitro-isophtalic acids [2,3].

References:

- [1]. K. Żygadło and Z. Galewski, Liquid-Crystalline Polymorphism of Symmetrical Azobananas: bis(4-(4-alkylphenyl)azophenyl) 2-nitroisophtalates, submitted to the MCLC. [2]. H.T.Nguyen, J.P.Bedel, J.C.Rouillon, J.P.Marcerou and M.F.Achard, Pramana, 61, 395(2003).
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