Influence of substituting thioester for ester group and alkyloxy for alkyl chain on liquid-crystalline polymorphism of certain azobenzene derivatives.

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In this paper we report on a synthesis and basic characterisation (polarising optical microscopy, differential scanning calorimetry, thermo-optical analysis) of four new liquid-crystalline compounds. These are 4''-heptylphenyl 4-[(4'-nonyloxyphenyl)diazenyl]benzoate and its three derivatives differentiating from the parent compound either by having a sulphur atom in the ester group or an oxygen atom in the heptyl chain or both these features, thus constituting a cross-section of four new groups of derivatives. We describe and compare their liquid-crystalline polymorphism and comment on the effect such structure changes have on appearing mesophases, and their temperature range.

Słowa kluczowe

azobenzene, thioester, structural modifications, thiophenol

Adres publiczny

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