A Study on the Synthesis of the Liquid Crystalline Compounds with Fluorine Atoms as Lateral Substiuents in Core unit Together with Isothiocyanate Group on Terminal unit.

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The liquid crystalline compounds with fluorine atoms as lateral substiuents in core unit together with isothiocyanate group on terminal unit were designed and synthesized. For example, we have synthesized 2,3,2'-trifluro-3'-isothiocyanato-4-(4-pentylcyclohexyl)biphenyl, which exhibited the nematic phase in relatively narrow range. Physical properties of these compounds are studied. It is expected that the introduction of alkyl group into terminal will exhibit nematic phase of wider range.

Poster presentation