

Origin and Stabilization of Novel Single Phase Variant, Smectic-F Among *nO.m* Compounds

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Smectic and comprehensive investigations on the phase transition studies of *p-n*-alkoxybenzylidene-*p-n*-alkyl anilines (*nO.m*'s) reveal the occurrence of direct smectic-F transition from isotropic liquid in higher homologues. We report the influence of terminal alkyl- and/or alkoxy-chain lengths on the manifestation and stabilization of this unique phase variant.

Key words: Smectic-F; Isotropic to Smectic-F; *nO.m*'s; Phase variant; Alkyl- and Alkoxy-chain Lengths.