

Abstract

Two new series of chiral bent-core liquid crystals has been designed which has the direct attachment of cholesterol moiety to the central core. By attaching the chiral moiety directly to the central core, frustrated mesophase i.e. TGB (Twist Grain Boundary) phase has been stabilised by long range. The central core plays a vital role in the stabilisation of the frustrated phase. The compounds synthesized also displays BP (Blue Phase) and Ncyb*(Cybotactic Nematic) which has been confirmed by POM (Polarizing Optical Microscopy) and DSC (Differential Scanning Calorimetry) studies.