

Synthesis and Characterization of a Novel Ferroelectric Liquid Crystal Compound Derived from L-tyrosine

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A novel ferroelectric liquid crystal compound, (S)-4-(2-chloro-3-(4-*n*-dodecyloxy)phenyl-propionato)-4'-(2-methyl)butyloxy-biphenylcarboxylate(CDPMBB) has been synthesized using L-tyrosine as chiral ingredient. The thermal and phase behaviour of the compound is studied by thermal microscopy (TM) and differential scanning calorimetry (DSC). The ferroelectric characterization is performed in terms of spontaneous polarization (P_s), which reveals that CDPMBB show high magnitude spontaneous polarization.

Keywords: CDPMBB; FLC; Spontaneous Polarization; Smectic-C*.