

ABSTRACT:

A homologous series of Schiffbaseesters, 4-chlorobenzylidene-4'-n-alkanoyloxyanilines, containing even number of carbons at the end groups of the molecules ($C_n-1H_{2n-1}COO-$, $n = 4, 6, 8, 10, 12, 14, 16$) were synthesized. The mesomorphic properties were investigated by differential scanning calorimetry (DSC) and polarizing optical microscopy (POM). It was found that the end groups of the molecules had an effect on the mesomorphic properties. n-Butanoyloxy was found non-mesogenic, whilst n-hexanoyloxy exhibited monotropic smectic phase. The higher members in this homologous series were enantiotropic smectogens.