Dynamics and phase transitions of 4-bromobenzylidene-4'-pentyloxyaniline and 4-bromobenzylidene-4'-hexyloxyaniline as studied by dielectric spectroscopy.

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Signicant dierences in phase sequence and dynamics between 4-bromob enzylidene-40-p entyloxyaniline(5BBA)and-bromob enzylidene-40-heksyloxyaniline(6BBA)substances were detected by broadband dielectric spectroscopy.In the smectic A (6BBA),the smectic B(found in both substances)and the smectic E(5BBA)phases the relaxation was ascribed to reorientations of the molecules
around the short axes.Slow dynamics detected in the smectic E and in two crystalline phases of 5BBAwas ascrib ed to conformational changes of molecular chains.Coexistence of Cr(I)andCr(I I)conformationally disordered crystal(CONDIS)phases was observed and vitrication of Cr(I I)was identied with help of polarizing microscopy.

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