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Behavior of comb-shaped liquid crystalline stereoregular cyclolinear methylsiloxane copolymers with chiral mesogenic groups at the air/water interface

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Abstract

Surface pressure isotherms, surface potential isotherms and morphology directly at the air-water interface of a series of comb-shaped liquid crystalline stereoregular cyclolinear methylsiloxane copolymers with chiral mesogenic groups of two types were investigated. The effects of the chemical structure of the mesogenic groups, stereoregularity of the copolymer, the temperature of the sub-phase on the thermodynamic and electrical properties of the surface layer were assessed.