

THICKNESS DEPENDENCE  
OF REFRACTIVITY IN WALL-ADJACENT  
EPITROPIC LIQUID CRYSTAL

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S u m m a r y

Peculiarities of the behavior of some optical characteristics of orientationally ordered wall-adjacent layers of nonmesogenic liquids – epitropic liquid crystals (ELC) – are analyzed. A suggested model develops the well-known Maier–Saupe–Neugebauer theory and takes a two-component structure of ELC (dynamic equilibrium between monomers and dimers) into account. The experimentally measured thickness and temperature dependences of the refractive index and the value of birefringence are in good agreement with theoretical calculations.