

POLARIZATION PARAMETER
IN THE ISING MODEL AND ITS
INFLUENCE ON THERMODYNAMIC
PROPERTIES OF AN EPITROPIC
LIQUID-CRYSTALLINE SYSTEM

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S u m m a r y

A modified one-dimensional Ising model, which describes an orientationally ordered state in a near-surface epitropic liquid-crystalline (ELC) layer, has been considered. The modification consists in introducing the parameter of "polarization" α into the intermolecular potential. The spatial alignment distribution in the layer and the thermodynamic properties of such a model, in particular, the heat capacity, have been obtained. A comparison of those properties with the thermodynamic properties of the earlier considered model, which takes into account the orientational influence of the layers on one another through an "internal" field with a characteristic parameter γ^* , has been made.