SPECTROSCOPY OF INTRINSIC AND IMPURITY BANDS IN LOW MOLECULAR AND POLYMER LIQUID CRYSTALS

SERGEY V. SHIYANOVSKII[a] and VLADIMIR I. SUGAKOV, *Institute for Nuclear Research, Ukrainian Academy of Sciences, 252022, Kiev-22, Ukraine*.

The theory of absorption spectra of liquid crystals is developed taking into account static and resonant intermolecular interactions. We calculate spectra using the diagram technique and the moment method for Green functions. We show that intermolecular interactions in partly ordered anisotropic systems cause band splitting in two polarizations and the blue shift of bands in the case of oblique propagation of extraordinary wave.

[a]Present address: Liquid Crystal Institute, Kent State University, Kent, OH 44242-0001