

REFRACTOMETRY OF LiRbSO₄ CRYSTALS

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S u m m a r y

Making use of the Obreimov photographic method, the dependences of birefringence Δn_i of LiRbSO₄ crystals have been studied in wide spectral (250–800 nm) and temperature (100–600 K) ranges, as well as the influence of uniaxial mechanical stresses on them. The anomalies of Δn_i at successive phase transitions (PTs), namely, paraelectric — incommensurate — commensurate ferroelastic — ferroelectric — paraelectric phases, have been discovered. The values of Δn_i for LiRbSO₄ crystals are found to be rather sensitive to the uniaxial stress action. Displacements of PT points under the uniaxial stress action as well as both an extension and a narrowing of the temperature intervals of incommensurate and ferroelectric phases have been revealed.