ANISOTROPY OF ELASTIC PROPERTIES OF CRYSTALS $Cd_xHg_{1-x}Te$ (x = 0,2; 1,0)

V. F. Machulin, Ya. M. Olikh, I. O. Lysiuk

Institute of Semiconductor Physics,
Nat. Acad. of Sci. of Ukraine
(*45, Nauky Prosp., Kyiv 03028, Ukraine*)

S u m m a r y

Elastic moduli C_{ij} for CdTe and $Cd_{0,2}Hg_{0,8}Te$, both known earlier and updated from measurements of the propagation speeds of volume longitudinal (υ_L) and transversal (υ_S) ultrasonic waves are presented. The obtained values C_{ij} are used for calculation of an anisotropy of υ_L, υ_S and velocities of a surface Rayleigh wave (υ_R) in basic crystallographic planes (100), (110), and (111). The comparative analysis of the anisotropy of elastic characteristics for the investigated materials is performed, and crystallographic directions with their maximum elastic affinity are found.