

INVESTIGATION OF ELASTIC PROPERTIES
OF SINGLE CRYSTALS Bi_2TeO_5

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S u m m a r y

Results of the investigation of elastic properties of bismuth tellurite are presented. The sound velocity measurements were carried out by the echo-pulsed method on single crystal samples differently oriented. The elastic stiffness constants were calculated. The piezoelectric stress constants determined from results of the measurements by the resonance-antiresonance method and dielectric constants obtained in this work were used in calculations. The cross sections of slowness surfaces made by principal crystallographic planes were presented. The directions of pure modes were computed. The elastic behavior of single crystals Bi_2TeO_5 shows the presence of a weak anisotropy.