On some of the peculiarities of propagation of an elastic wave through a gradient transversely isotropic layer

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Abstract

© 2014 IEEE. The problem of diffraction of a plane elastic wave by a gradient transversely isotropic layer is studied. The diffraction problem is reduced to a boundary value problem for the layer. The grid method is used for solving the resulting boundary value problem. Diffraction of a plane longitudinal wave by the layer is considered. Peculiarities of the gain-frequency and the gain-angle characteristics of density of a normal component of an energy flow of a passed longitudinal wave are studied numerically.