

ON A VIBRATION PROBLEM OF ANTIPLANE STRAIN (SHEAR) OF  
ORTHOTROPIC NON-HOMOGENEOUS PRISMATIC SHELL-LIKE BODIES

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Vibration problem of an antiplane strain (shear) of orthotropic non-homogeneous prismatic shell-like bodies is considered when the shear moduli depending on the body projection (i.e., on a domain lying in the plane of interest) variables may vanish on a part of the boundary of the projection. In particular the shear moduli have the following form

$$\mu_{\alpha}(x_1, x_2) = \mu_0^{\alpha} x_2^{\kappa_{\alpha}}, \quad 0 \leq x_2 \leq l, \quad \mu_0^{\alpha}, \kappa_{\alpha}, l = \text{const} > 0, \quad \alpha = 1, 2.$$