

BOUNDARY VALUE PROBLEMS FOR AN INFINITE LAYER WITH VOIDS

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Abstract

In the present paper the basic BVPs of equilibrium linear theory for materials with voids are investigated for an infinite layer. The representation of regular solution of the system of equations in the considered theory is constructed by means of the elementary (harmonic, bi-harmonic and meta-harmonic) functions. Using the Fourier transform the BVPs are solved effectively (in quadratures) for the infinite layer.