

عنوان مقاله:

Finite Difference Simulation of Elastic Wave Propagation in Continuously Nonhomogeneous Materials

محل انتشار:

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خلاصه مقاله:

Propagation of stress and displacement waves in onedimensional Functionally Graded (FG) media due to mechanical impact is investigated. Governing equations of FG slab due to impact loading is obtained, and numerical method which is based on Finite Difference Method (FDM) is applied to simulate displacement and stress wave propagation in one-dimensional FG media with different boundary conditions. Furthermore, the speed of displacement wave in different material constants is shown, and the effects of these constants on speed and amplitude of stress and displacement waves are studied.

کلمات کلیدی:

Elastic wave propagation, Functionally graded material, numerical simulation, Impact loading

لینک ثابت مقاله در پایگاه سیویلیکا:

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