

Abstract

Aly A Abdel-Halim

A Thermoelastic Half Space Problem under the Action of Heat Sources and Body Forces with Two Relaxation Times

The two-dimensional problem for a half space is considered within the context of the theory of thermoelasticity with two relaxation times under the action of body forces and heat sources that permeate the medium. Laplace and exponential Fourier transform techniques are used to obtain the solution in the transformed domain by a direct approach. The inverse double transform is evaluated numerically. Numerical results are computed for the temperature, displacement and stress distributions then presented graphically.