

عنوان مقاله:

An Exact Solution for Lord-Shulman Generalized Coupled Thermoporoelasticity in Spherical Coordinates

محل انتشار:

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خلاصه مقاله:

In this paper, the generalized coupled thermoporoelasticity model of hollow and solid spheres under radial symmetric loading condition (r, t) is considered. A full analytical method is used and an exact unique solution of the generalized coupled equations is presented. The thermal, mechanical and pressure boundary conditions, the body force, the heat source and the injected volume rate per unit volume of a distribute water source are considered in the most general forms and where no limiting assumption is used. This generality allows simulate varieties of applicable problems. At the end, numerical results are presented and compared with classic theory of thermoporoelasticity

کلمات کلیدی:

Coupled Thermoporoelasticity, Lord-shulman, Hollow sphere, Exact solution

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