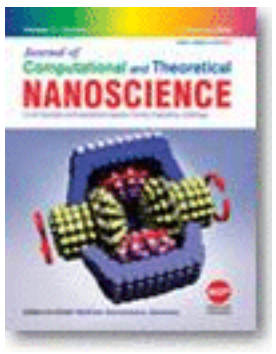

Deformation Due to Thermal Source in Micropolar Thermoelastic Media with Thermal and Conductive Temperatures

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Abstract | References | Citations | Supplementary Data | Article Media | Metrics | Suggestions

The two-dimensional problem of micropolar thermoelastic material with two temperatures in the context of Lord-Shulman theory is investigated. As an application of the problem, a particular type of thermal source is considered and the problem is solved numerically by using a finite element method. The components of displacement, stress, microrotation, temperature field and conductive temperature are obtained. The resulting quantities are depicted graphically for a special model. Appreciable effect of two temperatures is observed on various resulting quantities.

Keywords: FINITE ELEMENT METHOD; MICROPOLAR THERMOELASTICITY; TWO-TEMPERATURE MODEL
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