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عنوان مقاله:

Consolidation Around a Heat Source in an Isotropic Fully Saturated Rock with Porous Structure in Quasi-Static State

محل انتشار:

فصلنامه مکانیک جامد, دوره 8, شماره 1 (سال: 1395)

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خلاصه مقاله:

The titled problem of coupled thermoelasticity for porous structure has been solved with an instantaneous heat source acting on a plane area in an unbounded medium. The basic equations of thermoelasticity, after being converted into a one-dimensional form, have been written in the form of a vector-matrix differential equation and solved by the eigenvalue approach for the field variables in the Laplace transform domain in closed form. The deformation, temperature and pore pressure have been determined for the space time domain by numerical inversion from the .Laplace transform domain. Finally the results are analyzed by depicting several graphs for the field variables

کلمات کلیدی:

Consolidation, Porous, Isotropic, Thermoelasticity, Quasi-Static

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