

A Thermal Interface Crack Problem for Dissimilar Functionally Graded Isotropic Materials

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Abstract – The problem of determining the steady state temperature and flux fields in a material containing a plane crack along the interface of two dissimilar functionally graded isotropic materials is considered. The materials exhibit quadratic variation in the coefficients of heat conduction. Numerical values for the temperature and flux are obtained for some particular materials.

Keywords: Heat conduction, functionally graded materials, crack problems.