

Formulation for multiple curved and kinked cracks problems in antiplane elasticity

ABSTRACT

Formulation in term of hypersingular integral equation for multiple curved and kinked cracks in antiplane elasticity are obtained using the complex variable function. The curved length coordinate technique and a suitable numerical scheme for such an integral are developed to solve numerically for the unknown function, which are later used to find the stress intensity factor, SIF.

Keyword: Curved length coordinate method; Hypersingular integral equation; Stress intensity factor