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Analytic solutions of thermoelectric materials containing a circular hole with a straight crack

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Highlights

- The problem of infinite thin plate containing a circular hole with a straight crack is studied.
- The analytic solutions of the electric current density and total energy flux are derived.
- The electric current density intensity factor (EIF), the total energy flux density intensity factor (UIF) and the stress intensity factor (SIF) are obtained.
- The effects of circular hole radius and crack length on these field's intensity factors are discussed

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