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III型界面裂纹的非对称动态扩展问题

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摘要: 采用复变函数论的方法, 对III型界面裂纹的非对称动态扩展问题进行了研究. 通过自相似函数的方法可以获得解析解的一般表达式. 应用该法可以迅速地将所论问题转化为Riemann-Hilbert问题, 并求得了非对称扩展裂纹分别在集中载荷、阶跃载荷作用下的解析解. 利用这些解并采用叠加原理, 就可以求得任意复杂问题的解.

关键词: 复变函数; III型界面裂纹; 自相似函数; 解析解

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