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论文

Al—Li单晶体锯齿流变的产生机制

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摘要： 不同时效状态下Al—Li单晶体应变速率敏感性的变化不同．单个锯齿的应力幅度防应变的增加不规则变化，和锯齿的经历时间无关；锯齿的应力幅度和经历时间在峰值时效状态主要分布在较小值的范围内．这些变化可以用切割δ′粒子产生锯齿流变解释．

关键词： 应变速率敏感性 应力幅度 经历时间 锯齿流变

MECHANISM FOR THE OCCURRENCE OF SERRATED FLOW IN Al-Li SINGLE CRYSTALS

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Abstract: Strain rate sensitivity varies in a different mariner in Al-Li single crystalsunder different ageing conditions. Stress drops change irregularly with increasing strain andbear no relation to elapsed time for individual serrations. Stress drops and elapsed time duringserrated flow Primarily distribute within their low values under peak aged condition, comparedwith underaged and overaged states. These behaviors may be explained by sheared σ′ particlesinducling serrated flow.

Keywords: strain rate sensitivity stress drop elapsed time serrated flow

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