

### عنوان مقاله:

Multicrystalline Materials Analysis Based on Their Microstructure with Emphasis on Predicting Forming Limit Diagrams

# محل انتشار:

مجله علم مواد و مهندسی ایران, دوره 18, شماره 2 (سال: 1400)

تعداد صفحات اصل مقاله: 26

# نویسندگان:

Sedigeh Mohamadnejad Zanjani - department of mechanical engineering, Faculty of Mechanical engineering, University of Guilan, Rasht, Iran

Ali Basti - Department of Mechanical engineering, Faculty of mechanical engineering, University of Guilan, Rasht, Iran

Reza Ansari - Department of mechanical engineering, Faculty of Mechanical engineering, University of Guilan, Rasht, Iran

#### خلاصه مقاله:

Phenomenological methods are more diagnostic tools than a predictor, so multi-crystalline material approaches based on their microstructures have been proposed during the last years. The purpose of this research is to review methods taking into account the effect of microstructures and texture deformation on predicting the behavior of sheet metals. These methods can be categorized into six general groups: Taylor-type models, crystal plasticity finite element methods, strain gradient methods, methods that consider dislocations, self-consistent methods, methods based on fast Fourier transform. This paper attempts to explain and compare these methods that have been used to forecasting .forming limits or stress-strain curves

**کلمات کلیدی:**Polycrystalline Materials, Forming Limit, Homogenization methods, Microstructures.

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/1602710

