

عنوان مقاله:

Dynamic Recrystallization by Necklace Mechanism During Hot Deformation of 316 Stainless Steel

محل انتشار:

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نویسندگان:

M. Jafari - *Department of Materials Engineering, Isfahan University of Technology, Isfahan, ۸۴۱۵۶-۸۳۱۱۱, Iran*

A. Najafizadeh - *Department of Materials Engineering, Isfahan University of Technology, Isfahan, ۸۴۱۵۶-۸۳۱۱۱, Iran*

J. Rasti - *Department of Materials Engineering, Isfahan University of Technology, Isfahan, ۸۴۱۵۶-۸۳۱۱۱, Iran*

خلاصه مقاله:

The aim of this study is to investigate the nucleation of new grains by necklacing mechanism during dynamic recrystallization (DRX). The material used is 316 stainless steel. In order to modeling the deformation behavior during hot rolling, one-hit compression tests were performed at temperature range of 950-1100 °C with strain rates of 0.01-1s⁻¹. The result shows that at the temperature of 1000 °C with the strain rate of 0.1 s⁻¹, DRX developed by necklace mechanism, it is far from completeness over the steady state stress. By contrast the hardness increased by development of DRX. The final microstructure is very heterogeneous and comprises of very fine and coarse grains due to the occurrence of partial DRX. The results also show that the necklace structure developed by increasing Zener-Hollomon parameter (Z

کلمات کلیدی:

Dynamic recrystallization, NecklaceMechanism, 316 Stainless Steel

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