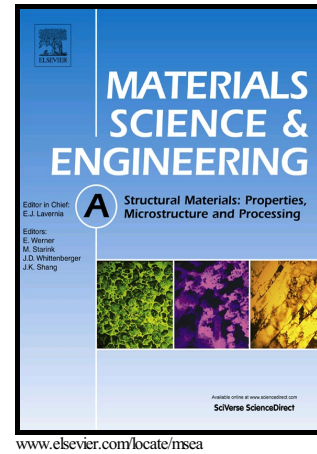


Author's Accepted Manuscript

Effects of deformation routes on the evolution of microstructure, texture and tensile properties of AA5052 aluminum alloy

M. Howeyze, A.R. Eivani, H. Arabi, H.R. Jafarian



PII: S0921-5093(18)30875-X
DOI: <https://doi.org/10.1016/j.msea.2018.06.081>
Reference: MSA36636

To appear in: *Materials Science & Engineering A*

Received date: 29 April 2018
Revised date: 20 June 2018
Accepted date: 21 June 2018

Cite this article as: M. Howeyze, A.R. Eivani, H. Arabi and H.R. Jafarian, Effects of deformation routes on the evolution of microstructure, texture and tensile properties of AA5052 aluminum alloy, *Materials Science & Engineering A*, <https://doi.org/10.1016/j.msea.2018.06.081>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Effects of deformation routes on the evolution of microstructure, texture and tensile properties of AA5052 aluminum alloy

M. Howeyze, A.R. Eivani^{*}, H. Arabi, H.R. Jafarian

School of Metallurgy and Materials Engineering, Iran University of Science and Technology, Tehran, Iran.

Abstract

Effects of deformation routes on the evolution of dislocation density, microstructure, texture and mechanical properties of AA5052 aluminum alloy during equal channel angular pressing (ECAP) were investigated in this research. The results of microstructural study showed that homogeneous ultrafine grain structures with average grain size of less than 500 nm were developed after 6 passes ECAP regardless of route of deformation. Although, route C was found to be more effective in grain size

^{*} Corresponding author, Email: aeivani@iust.ac.ir, Tel: +98 21 77 240 540, Fax: +98 21 77 240 480.

Download English Version:

<https://daneshyari.com/en/article/7971622>

Download Persian Version:

<https://daneshyari.com/article/7971622>

[Daneshyari.com](https://daneshyari.com)