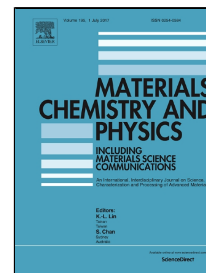


Accepted Manuscript

Structural Refinement in Austenitic Stainless Steel by Submerged Friction Stir Processing

K. Selvam, A. Prakash, H.S. Grewal, H.S. Arora



PII: S0254-0584(17)30395-4
DOI: 10.1016/j.matchemphys.2017.05.034
Reference: MAC 19707

To appear in: *Materials Chemistry and Physics*

Received Date: 27 December 2016

Revised Date: 06 May 2017

Accepted Date: 17 May 2017

Please cite this article as: K. Selvam, A. Prakash, H.S. Grewal, H.S. Arora, Structural Refinement in Austenitic Stainless Steel by Submerged Friction Stir Processing, *Materials Chemistry and Physics* (2017), doi: 10.1016/j.matchemphys.2017.05.034

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 proof before it is published in its final 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.

Highlights

- Friction stir processing of SS316L was done under submerged cooling conditions
- The processed sample shows significant refinement with rapid cooling
- A correlation between grain size and Zener-Holloman parameter was developed
- Deformation texture showed strong temperature and strain rate dependence
- Tribological properties showed strong correlation with the flow work and hardness

Download English Version:

<https://daneshyari.com/en/article/5447989>

Download Persian Version:

<https://daneshyari.com/article/5447989>

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