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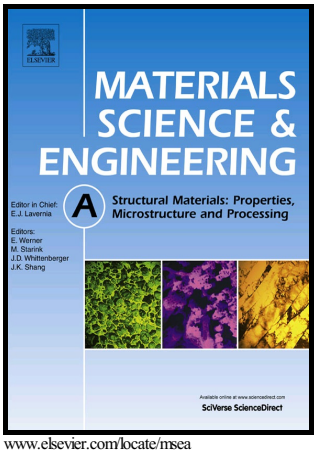
P.F. Zhou, D.H. Xiao, Z. Wu, X.Q. Ou



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PII: S0921-5093(18)31411-4
DOI: https://doi.org/10.1016/j.msea.2018.10.035
Reference: MSA37030

To appear in: *Materials Science & Engineering A*

Received date: 2 July 2018
Revised date: 8 October 2018
Accepted date: 9 October 2018

Cite this article as: P.F. Zhou, D.H. Xiao, Z. Wu and X.Q. Ou, Al $_{0.5}$FeCoCrNi high entropy alloy prepared by selective laser melting with gas-atomized pre-alloy powders, *Materials Science & Engineering A,* https://doi.org/10.1016/j.msea.2018.10.035

$Al_{0.5}FeCoCrNi$ high entropy alloy prepared by selective laser melting with gas-atomized pre-alloy powders

P.F. Zhou [a, b], D.H. Xiao [a, b, *], Z. Wu [c], X.Q. Ou [a]

([a] State Key Laboratory of Powder Metallurgy, Central South University, Changsha 410083, China

[b] Science and Technology on High-strength Structural Materials Laboratory, Central South University, Changsha 410083, China

[c] College of Materials Science and Engineering, Hunan University, Changsha 410082, China)

Abstract

The $Al_{0.5}FeCoCrNi$ HEA was fabricated by selective laser melting (SLM) with gas-atomized pre-alloy powders. The BCC phase in the powders transforms to FCC phase in the SLM-processed sample. The SLM-processed sample has excellent tensile properties with the yield strength and ultimate tensile strength of 579 MPa and 721 MPa, respectively.

Keywords: Selective laser melting; High entropy alloy; Phase transformation; Mechanical properties

*Corresponding author: D.H. Xiao (**daihongx@csu.edu.cn)**

Fax: +86-731-88710855. Tel: +86-731-88877880