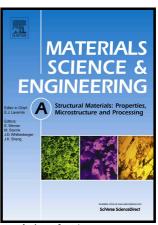
Author's Accepted Manuscript

Effects of post-processing on cyclic fatigue response of a titanium alloy additively manufactured by electron beam melting

Xiaoli Shui, Kenta Yamanaka, Manami Mori, Yoshihiko Nagata, Kenya Kurita, Akihiko Chiba



www.elsevier.com/locate/msea

PII: S0921-5093(16)31287-4

DOI: http://dx.doi.org/10.1016/j.msea.2016.10.059

Reference: MSA34261

To appear in: Materials Science & Engineering A

Received date: 17 June 2016 Revised date: 28 August 2016 Accepted date: 18 October 2016

Cite this article as: Xiaoli Shui, Kenta Yamanaka, Manami Mori, Yoshihiko Nagata, Kenya Kurita and Akihiko Chiba, Effects of post-processing on cyclic fatigue response of a titanium alloy additively manufactured by electron bear melting, *Materials Science & Engineering A* http://dx.doi.org/10.1016/j.msea.2016.10.059

This is a PDF file of an unedited manuscript that has been accepted fo publication. As a service to our customers we are providing this early version o 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

ACCEPTED MANUSCRIPT

Effects of post-processing on cyclic fatigue response of a titanium alloy additively manufactured by electron beam melting

Xiaoli Shui^{a,b}, Kenta Yamanaka^{a*}, Manami Mori^c, Yoshihiko Nagata^d, Kenya Kurita^d, Akihiko Chiba^a

^aInstitute for Materials Research, Tohoku University, 2-1-1 Katahira, Aoba-ku, Sendai 980-8577, Japan

^bDepartment of Materials Processing, Graduate School of Engineering, Tohoku University, 6-6-11 Aoba, Aramaki, Aoba-ku, Sendai 980–8579, Japan

^cDepartment of Materials and Environmental Engineering, National Institute of Technology, Sendai College, 48 Nodayama, Medeshima-Shiote, Natori 981-1239, Japan ^dKoiwai Co., Ltd., 244-6 Haneo, Odawara 256-0804, Japan

*Corresponding author: Kenta Yamanaka. Tel.: +81 22 215 2118. Fax: +81 22 215 2116. E-mail: k_yamanaka@imr.tohoku.ac.jp

Abstract

To establish the benefits of electron beam melting (EBM) for the fabrication of Ti–6Al–4V alloy components, it is necessary to properly understand the fatigue performance of the alloy. In the present study, we investigated the high-cycle fatigue behaviors of EBM-fabricated Ti–6Al–4V alloy component samples and systematically

Download English Version:

https://daneshyari.com/en/article/5456765

Download Persian Version:

https://daneshyari.com/article/5456765

<u>Daneshyari.com</u>