

# Accepted Manuscript

Influence of specimen thickness on the creep behavior of a directional solidification nickel-based superalloy

Yebing Hu, Li Zhang, Congqian Cheng, Pengtao Zhao, Tieshan Cao, Guangping Guo, Jie Zhao



PII: S0042-207X(17)31910-3

DOI: [10.1016/j.vacuum.2018.01.032](https://doi.org/10.1016/j.vacuum.2018.01.032)

Reference: VAC 7781

To appear in: *Vacuum*

Received Date: 21 December 2017

Revised Date: 16 January 2018

Accepted Date: 19 January 2018

Please cite this article as: Hu Y, Zhang L, Cheng C, Zhao P, Cao T, Guo G, Zhao J, Influence of specimen thickness on the creep behavior of a directional solidification nickel-based superalloy, *Vacuum* (2018), doi: 10.1016/j.vacuum.2018.01.032.

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.

# Influence of specimen thickness on the creep behavior of a directional solidification nickel-based superalloy

Yebing HU<sup>a</sup>, Li ZHANG<sup>b</sup>, Congqian CHENG<sup>a</sup>, Pengtao ZHAO<sup>b</sup>, Tieshan Cao<sup>a</sup>,  
Guangping GUO<sup>b</sup>, Jie ZHAO<sup>a,\*</sup>

<sup>a</sup>*School of Materials Science and Engineering, Dalian University of Technology,  
Dalian 116024, P.R.C.*

<sup>b</sup>*Beijing Institute of Aeronautical Materials, Beijing 100095, P.R.C.*

\*Corresponding author

Jie ZHAO

School of Materials Science and Engineering

Dalian University of Technology

No.2 Lingong Road, Ganjingzi District, Dalian 116024, P.R.China

TEL: +86-411-8470-9076

E-mail: jiezhao@dlut.edu.cn

## Abstract:

The effects of thickness and surface signature on the creep life of a directionally solidified nickel based superalloy were investigated. The creep tests of ground specimens in the thickness of 0.61mm and 0.89mm, as well as polished ones with 0.66mm and 0.87mm in thickness were performed at 980°C/160MPa. Based on the

Download English Version:

<https://daneshyari.com/en/article/8044518>

Download Persian Version:

<https://daneshyari.com/article/8044518>

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