

Accepted Manuscript

Experimental and Numerical Investigation of Stress Corrosion Cracking of Sensitized Type 304 Stainless Steel under High-Temperature and High-Purity Water

Tomoyuki Fujii, Keiichiro Tohgo, Akihiro Kenmochi, Yoshinobu Shimamura

PII: S0010-938X(15)00194-8

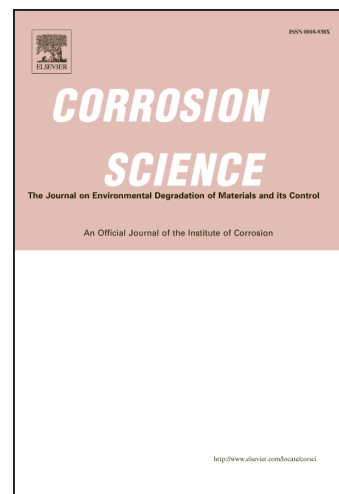
DOI: <http://dx.doi.org/10.1016/j.corsci.2015.05.001>

Reference: CS 6286

To appear in: *Corrosion Science*

Received Date: 26 January 2015

Accepted Date: 1 May 2015



Please cite this article as: T. Fujii, K. Tohgo, A. Kenmochi, Y. Shimamura, Experimental and Numerical Investigation of Stress Corrosion Cracking of Sensitized Type 304 Stainless Steel under High-Temperature and High-Purity Water, *Corrosion Science* (2015), doi: <http://dx.doi.org/10.1016/j.corsci.2015.05.001>

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.

**Experimental and Numerical Investigation of
Stress Corrosion Cracking of Sensitized Type 304 Stainless Steel
under High-Temperature and High-Purity Water**

**Tomoyuki Fujii, Keiichiro Tohgo, Akihiro Kenmochi
and Yoshinobu Shimamura**

**Department of Mechanical Engineering, Shizuoka University
3-5-1, Johoku, Naka-ku, Hamamatsu 432-8561, Japan**

Corresponding author: Dr. T. Fujii

E-mail: ttfujii@ipc.shizuoka.ac.jp

Tel & Fax: +81-53-478-1029

Abstract

This paper deals with experimental and numerical investigation of stress corrosion cracking of stainless steel under simulated environment of boiling water reactors. Constant tensile load tests were conducted in high-temperature and high-purity water. The number and maximum length of cracks increase with increasing applied stress and testing time. The length of micro-cracks is

Download English Version:

<https://daneshyari.com/en/article/7895333>

Download Persian Version:

<https://daneshyari.com/article/7895333>

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