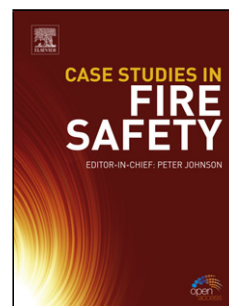


## Accepted Manuscript

Title: Semiconductivities of passive films formed on stainless steel bend under erosion-corrosion conditions

Authors: L. Zeng, X.P. Guo, G.A. Zhang, H.X. Chen

PII: S0010-938X(18)30662-0  
DOI: <https://doi.org/10.1016/j.corsci.2018.08.045>  
Reference: CS 7681



To appear in:

Received date: 10-4-2018  
Revised date: 19-7-2018  
Accepted date: 22-8-2018

Please cite this article as: Zeng L, Guo XP, Zhang GA, Chen HX, Semiconductivities of passive films formed on stainless steel bend under erosion-corrosion conditions, *Corrosion Science* (2018), <https://doi.org/10.1016/j.corsci.2018.08.045>

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.

# Semiconductivities of passive films formed on stainless steel bend under erosion-corrosion conditions

L. Zeng<sup>a</sup>, X.P. Guo<sup>b</sup>, G.A. Zhang<sup>b,\*</sup>, H.X. Chen<sup>a,\*</sup>

<sup>a</sup>*School of Mechanical and Electrical Engineering, Wuhan Institute of Technology, Wuhan, 430205, P. R. China*

<sup>b</sup>*Key Laboratory for Material Chemistry of Energy Conversion and Storage, Ministry of Education, Hubei Key Laboratory of Materials Chemistry and Service Failure, School of Chemistry and Chemical Engineering, Huazhong University of Science and Technology, Wuhan 430074, P.R. China*

\*Corresponding author.

E-mail address: [pg01074075@163.com](mailto:pg01074075@163.com) (H. Chen).

## Highlights:

- Passive films at stainless steel bend under erosion-corrosion conditions are n-type semiconductor.
- Donor density of point defects within passive film is higher at the extrados of the stainless steel bend.
- Diffusivity of point defects is faster at the extrados of the bend
- The passive layer at the extrados of bend contains less  $\text{Fe}_3\text{O}_4$  and  $\text{Fe}_2\text{O}_3$ .

Download English Version:

<https://daneshyari.com/en/article/11007816>

Download Persian Version:

<https://daneshyari.com/article/11007816>

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