

Accepted Manuscript

Title: The role of acetic acid or H^+ in initiating crevice corrosion of N80 carbon steel in CO_2 -saturated NaCl solution

Authors: Y.Z. Li, N. Xu, X.P. Guo, G.A. Zhang

PII: S0010-938X(16)31266-5

DOI: <http://dx.doi.org/10.1016/j.corsci.2017.08.028>

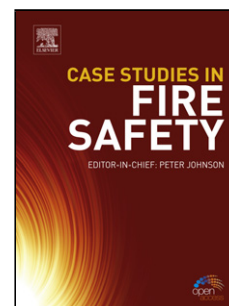
Reference: CS 7181

To appear in:

Received date: 26-11-2016

Revised date: 20-8-2017

Accepted date: 23-8-2017



Please cite this article as: Y.Z.Li, N.Xu, X.P.Guo, G.A.Zhang, The role of acetic acid or H^+ in initiating crevice corrosion of N80 carbon steel in CO_2 -saturated NaCl solution, Corrosion Science <http://dx.doi.org/10.1016/j.corsci.2017.08.028>

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The role of acetic acid or H^+ in initiating crevice corrosion of N80 carbon steel in CO_2 -saturated NaCl solution

Y. Z. Li N. Xu X. P. Guo G. A. Zhang*

*Key Laboratory of Material Chemistry for 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; Tel.: +86-27-87559068; Fax: +86-27-87543632

E-mail address: zhangguoan@gmail.com (G.A. Zhang)

Highlights:

- Crevice corrosion could be initiated by concentration difference either HAc or H^+ .
 - The total corrosion rate inside and outside crevice decreases after connection.
 - The corrosion rate inside crevice becomes higher than that outside crevice.
 - Equilibrium potential of HAc reduction is more positive than that of H^+ reduction.
 - Greater galvanic effect and more severe crevice corrosion in the solution with HAc.
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