### Accepted Manuscript

Title: Chryseobacterium indologenes MUT.2 bacterial biopolymer as a novel green inhibitor protecting carbon steel corrosion in acidic solution

Authors: Amin Alipour, Ali Bahrami, Ehsan Saebnoori

PII: S2213-3437(18)30396-8

DOI: https://doi.org/10.1016/j.jece.2018.07.017

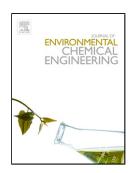
Reference: JECE 2512

To appear in:

Received date: 5-3-2018 Revised date: 3-7-2018 Accepted date: 7-7-2018

Please cite this article as: Alipour A, Bahrami A, Saebnoori E, Chryseobacterium indologenes MUT.2 bacterial biopolymer as a novel green inhibitor protecting carbon steel corrosion in acidic solution, *Journal of Environmental Chemical Engineering* (2018), https://doi.org/10.1016/j.jece.2018.07.017

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.



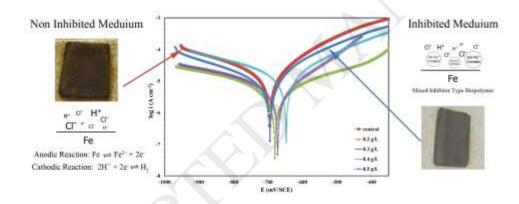
## ACCEPTED MANUSCRIPT

# Chryseobacterium indologenes MUT.2 bacterial biopolymer as a novel green inhibitor protecting carbon steel corrosion in acidic solution

Amin Alipour<sup>a</sup>, Ali Bahrami<sup>a,\*</sup>, Ehsan Saebnoori<sup>b</sup>

\*Corresponding E-mail: a\_bahrami@mut.ac.ir, Tel.:+98 (912) 4708390/+98 2122974599

#### **Graphical abstract**



#### **Highlights**

- The biopolymer concentration can affect the anticorrosive property.
- Biopolymer concentration of 0.5 gL<sup>-1</sup> has the best inhibition efficiency of 58%.
- Increasing the temperature can decrease the inhibition efficiency.
- The Chryseobacterium indologenes MUT.2 biopolymer can act as a mixed inhibitor.
- The biopolymer can make a barrier on metal surface by physisorption.

<sup>&</sup>lt;sup>a</sup> Malek Ashtar University of Technology, Tehran, Iran

<sup>&</sup>lt;sup>b</sup>Advanced Materials Research Center, Department of Materials Engineering, Najafabad Branch, Islamic Azad University, Najafabad, Iran

#### Download English Version:

# https://daneshyari.com/en/article/6663920

Download Persian Version:

https://daneshyari.com/article/6663920

<u>Daneshyari.com</u>