Short Communication

Effect of *Ochrobactrum sp.* on the Corrosion Behavior of 10MnNiCrCu Steel in Simulated Marine Environment

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doi: 10.20964/2020.03.55

Received: 15 November 2019 / Accepted: 3 January 2020 / Published: 10 February 2020

In this research, the corrosion behavior of 10MnNiCrCu steel in simulated marine environment containing *Ochrobactrum sp.* was studied by open circuit potential(OCP), electrochemical impedance spectra(EIS), polarization curves and scanning electronic microscopy(SEM). The results showed that the *Ochrobactrum sp.* developed a biofilm on the steel surface during its exponential growth period, which slowed down the corrosion rate of the steel temporarily. In the growth stability period, the consumption of dissolved oxygen and uneven cover of biofilm resulted in the oxygen concentration difference on the surface of the steel, which aggravated the local corrosion.

Keywords: Microbiologically influenced corrosion (MIC); *Ochrobactrum*; Electrochemical method; SEM

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