Poster ☐ Oral ☐
A decisão final será do Comitê Técnico.

Electrochemical behavior of UNS S41003 and Endur 300 in different concentrations of Brine

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New Abstract

Endur 300 is a new low carbon martensitic stainless steel. Due to its corrosion and enhanced mechanical properties, it is a potential competitor for other mild stainless steels such as UNS S41003. This work aims to compare both alloys in different concentrations of Cl^- electrolytes to simulate the marine environment. Electrochemical impedance spectroscopy and linear polarization showed that both alloys present similar corrosion resistance. The main difference to mechanical properties such as Vickers hardness, in which the martensitic microstructure of Endur 300 stood out.

Keywords: Corrosion, Stainless steels, ASTM UNS S41003, Endur 300.

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