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A short view on the stress corrosion cracking and the prospect of eco-friendly inhibitors

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Metallic materials will continue to have challenges related to fracture, transcrystalline, and hydrogen embrittlement corrosion due to severe area of application that is unavoidable. The study into the performance of metallic materials has shown that corrosion mechanism through stress corrosion cracking often occurs vis-viz due to the electrochemical and reduction reaction. The phase diagram is important to solve problems related to hot corrosion, hydrogen embrittlement, intergranular corrosion, and stresses corrosion cracking challenges. The need to look into the defining mechanism from the researcher cannot be underestimated. These overviews provide insight on related problem definition and formulation towards corrosion challenges and possible assessment of the corrosion inhibitors.

Topics

Phase transitions, Metallic materials, Corrosion, Hydrogen embrittlement

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