

ENVIRONMENTALLY ASSISTED CRACKING: THEORY AND PRACTICE

Environmentally assisted cracking (EAC) has become a significant limit for the lifetime of material components in harsh environments in many fields, such as naval, oil, and natural gas, as well as advanced nuclear power plants. The purpose of this symposium is to provide a forum to foster the discussion of the critical problems of EAC and recent advances in models and experiments.

This symposium seeks technical papers related to modeling and/or experimental studies of various types of EAC, such as stress corrosion cracking, hydrogen embrittlement, corrosion fatigue, and liquid metal embrittlement. The symposium will encompass the following themes:

- Models to understand EAC mechanisms and predict service life of material components
- Test methods for the performance assessment of EAC in the laboratory and in-service environments
- Stress corrosion cracking of alloys in nuclear reactors or seawater environments
- Fracture and fatigue of pipeline steels in hydrogen environment
- Degradation of materials in liquid metal environment

ORGANIZERS

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PROCEEDINGS PLANS

Papers from this symposium will be a part of the *TMS2017 Supplemental Proceedings* volume. Manuscripts for accepted abstracts are due September 1.

SYMPOSIUM SPONSORS

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