

CALL FOR ABSTRACTS

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TMS 2018
147th Annual Meeting & Exhibition



MARCH 11 – 15, 2018
PHOENIX, ARIZONA

SUBMIT AN ABSTRACT TO:

CORROSION

ENVIRONMENTALLY ASSISTED CRACKING: THEORY AND PRACTICE

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

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

- Models to understand EAC mechanisms and predict the lifetime of structural materials in harsh environments
- Experimental methods for the performance test of EAC in the laboratory and real environments
- Development of physics-based approaches or multiscale models for EAC monitoring and prognostics
- Fracture and fatigue of alloys in hydrogen environment
- Stress corrosion cracking of alloys in high-temperature water, seawater, or other environment
- Degradation of materials in liquid metal environment
- EAC in additively manufactured parts
- EAC in high-entropy alloys

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TMS Structural Materials Division

TMS Corrosion and Environmental Effects Committee; TMS Mechanical Behavior of Materials Committee

ABSTRACT DEADLINE IS JULY 1, 2017. SUBMIT ONLINE AT www.programmaster.org/TMS2018.

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