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ANAHEIM CONVENTION CENTER & ANAHEIM MARRIOTT
ANAHEIM, CALIFORNIA, USA
#TMSAnnualMeeting

SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2022 SYMPOSIUM:

CORROSION

Environmental Degradation of Additively Manufactured Alloys

Over the past ten years, Additive Manufacturing (AM) has grown and expanded throughout different areas of application. A lot of effort has been focused on the processing parameters and powder quality to improve the mechanical properties of additive manufactured materials. These materials often possess significant differences in microstructure as compared with more traditionally produced materials. Given these microstructural differences, evaluation of environmental degradation of additively-produced materials is essential for the prediction of performance and life in harsh environments. Additively processed structural materials could potentially be used in aviation, space, marine, and industrial applications.

This symposium welcomes contributions that will foster discussion on how additively produced materials degrade in:

- Corrosive environments
- Stress corrosion cracking
- High temperature, oxidizing environments
- Harsh environments while under mechanical stress
- High radiation environments

This symposium is sponsored by the Corrosion and Environmental Effects committee of TMS and co-sponsored by Additive Manufactured Committee of TMS.

Keywords: Environmental degradation, additive manufacturing, corrosion, oxidation, high temperature structural alloys, internal oxidation, stresses, mass loss, oxide scale, water vapor, characterization, environment, radiation, stress corrosion cracking, aqueous corrosion

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