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TMS 2025
154th Annual Meeting & Exhibition



March 23–27, 2025
MGM Grand Las Vegas
Hotel & Casino
Las Vegas, Nevada, USA
#TMSAnnualMeeting



SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2025 SYMPOSIUM:

MATERIALS DEGRADATION AND DEGRADATION BY DESIGN

Steels in Extreme Environments

Limits on damage tolerance of metals in extreme environments are grand technical challenges of today's industry. The sophisticated design of steels for applications in extreme environments is often demanding due to complex, dynamic, and multi-scale damage processes amplified by environmental effects. This symposium is dedicated to discussing advancements in structural steels exposed to a range of extreme environments and their failure analysis. These include, but are not limited to, hydrogen embrittlement, CO₂ degradation, cryogenic temperatures, thermal cycling, irradiation, stress corrosion cracking, and creep failure at elevated temperatures, as well as the synergistic effects of these environments. The discussion will also address diverse load-bearing scenarios such as forming, fatigue, and high-rate conditions.

ORGANIZERS

Hyunseok Oh, University of Wisconsin-Madison; **Lawrence Cho**, Colorado School Of Mines; **Jeongho Han**, Hanyang University; **Motomichi Koyama**, Tohoku University; **Peeyush Nandwana**, Oak Ridge National Laboratory; **Fnu Kasturi Narasimha Sasidhar**, University of Wisconsin-Madison

SYMPOSIUM SPONSORS

TMS Structural Materials Division, TMS Steels Committee

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QUESTIONS?

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