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**TMS 2023**  
152<sup>nd</sup> Annual Meeting & Exhibition

MARCH 19–23, 2023  
SAN DIEGO CONVENTION CENTER &  
HILTON SAN DIEGO BAYFRONT  
SAN DIEGO, CALIFORNIA, USA  
#TMSANNUALMEETING



**SUBMIT AN ABSTRACT BY JULY 1 FOR THE FOLLOWING TMS2023 SYMPOSIUM:**

**MECHANICS & STRUCTURAL RELIABILITY**

**High Temperature Creep Properties of Advanced Structural Materials**

Given the simultaneous development of high temperature alloys and manufacturing processes, it is necessary to investigate the effects on creep properties of these coexisting advancements. With the resurgence of high temperature refractory alloys and oxide dispersion alloys through the relatively new material class of multi-principal element alloys and the advent of other such superalloys, it is critical to re-examine conventional behaviors of creep as these new alloys introduce additional mechanisms that have not been traditionally observed. Beyond compositional advances, there have been exceptional fabrication and processing advances in the last decade such as those in additive manufacturing that directly impact the creep properties of these materials.

This symposium focuses on the new challenges and new opportunities in advanced structural materials for service under extreme conditions and poses a reconsideration of what is thought to be typical high temperature creep behavior given this ever changing materials landscape.

**ORGANIZERS**

**Gianmarco Sahragard-Monfared**, University of California, Davis  
**Mingwei Zhang**, Lawrence Berkeley National Laboratory  
**Jeffery Gibeling**, University of California, Davis

**SYMPOSIUM SPONSORS**

TMS Structural Materials Division  
TMS High Temperature Alloys Committee

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