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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:

MECHANICS OF MATERIALS

Structure and Dynamics of Metallic Glasses

Rapidly undercooling metallic liquids can bypass crystallization and lead to the formation of metals that lack atomic long-range order. However, the characterization of structure, its dynamic evolution over time, its dependence on temperature, how it governs glass forming ability and crystallization, and how it determines the mechanical behavior and physical properties remains a major challenge. This symposium provides a platform to discuss the recent progress made on this front, and how this knowledge can be harnessed to design new metallic glass materials for advanced structural and functional applications. The Structure and Dynamics in Metallic Glasses symposium brings together a broad range of materials researchers for a technical exchange and a discussion of the scientific issues driving research in this field.

The topics of interest include:

- Structure at the atomic level and beyond
- Mechanisms and dynamics of structural relaxation and crystallization
- Glass-forming ability, glass transition, and stability
- Dependence of mechanical and physical properties on structure and dynamics
- Novel alloys, processing, and manufacturing methods
- New approaches to modeling, machine learning, and accelerated discovery

The symposium will emphasize experimental, computational, and theoretical aspects of the structure and dynamics in metallic glasses.

ORGANIZERS

Sebastian Kube, University Of Wisconsin - Madison; **Katharine Flores**, Washington University in St. Louis; **Daniel Soppa**, Erich Schmid Institute; **Yonghao Sun**, The Chinese Academy of Sciences; **A. Lindsay Greer**, University of Cambridge; **Peter Derlet**, Paul Scherrer Institut

SYMPOSIUM SPONSORS

TMS Structural Materials Division, TMS Mechanical Behavior of Materials Committee

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QUESTIONS?

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