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TMS 2024

153rd Annual Meeting & Exhibition

MARCH 3–7, 2024
HYATT REGENCY ORLANDO
ORLANDO, FLORIDA, USA
#TMSAnnualMeeting

SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2024 SYMPOSIUM:

MECHANICS OF MATERIALS

Structure-Property Relationships of Bulk Metallic Glasses

Rapidly undercooling metallic liquids can bypass crystallization and lead to the formation of metals that lack atomic long-range order. Major advances in the fundamental understanding of glass formation and alloy design have promoted the development of so-called bulk metallic glasses, with critical casting thicknesses up to several centimeters. However, the characterization of structure, how it changes over time and with temperature, how it governs glass forming ability and crystallization, and how it determines 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-Property Relationships of Bulk 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:

- Atomic structure and its link to properties
- Stability, structural relaxation, and crystallization
- Glass-forming ability and the glass transition
- Mechanical behavior and physical properties
- Atomistic simulations, modelling and theory

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

ORGANIZERS

Sebastian Kube, University of California Santa Barbara, USA
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SYMPOSIUM SPONSORS

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QUESTIONS?
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