

THE WORLD COMES HERE.
TMS2025
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:

DATA-DRIVEN AND COMPUTATIONAL MATERIALS DESIGN

Thermodynamics and Kinetics of Alloys III

The thermodynamics and kinetics of alloys play a pivotal role in understanding and optimizing their properties and performance. This proposed "Thermodynamics and Kinetics of Alloys" symposium will be a unique forum for researchers working in the field of both experiment and modeling to exchange knowledge, discuss the latest advancements, and explore future directions of thermodynamics and kinetics of alloys.

This symposium will cover a wide range of topics related to experimental-computational synergy of alloys, including, but not limited to:

- Leverage theoretical insights, computational tools, and AI methods to develop advanced models that link alloy composition, microstructure, and properties, aiming to enhance mechanical, magnetic, electronic, and photonic performance in multicomponent alloys
- Utilize cutting-edge synthetic tools, advanced characterization techniques, and high-throughput autonomous experimental methods to investigate and accelerate understanding of the thermodynamic stability and kinetic behaviors of alloys
- Integrate experimental and computational multi-scale modeling approaches to deepen the understanding of alloy thermodynamics and kinetics, fostering a synergy between experimental and computational methodologies to drive innovation in alloy research

ORGANIZERS

Chuan Zhang, CompuTherm LLC; **Dilpuneet Aidhy**, Clemson University; **Bin Ouyang**, Florida State University; **Jicheng Zhao**, University of Maryland

SYMPOSIUM SPONSORS

TMS Functional Materials Division, TMS Structural Materials Division, TMS Alloy Phases Committee

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QUESTIONS?

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