

SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2022 SYMPOSIUM:

MATERIALS DESIGN

Recent Investigations and Developments of Titanium-containing High Entropy Alloys

High entropy alloys (HEAs) have been defined as alloys that have larger than 1.5R of configuration entropy (where R=8.314J/ (Kxmol) is the gas constant). These alloys possess a "high-entropy effect," "sluggish diffusion effect," and "severe lattice distortion effect." HEAs tend to exhibit attractive mechanical properties at elevated temperatures and good corrosion resistance. Titanium-based HEAs alloys are being investigated for potential biomedical and heat-resistant applications.

Unfortunately, symposia focusing on high entropy titanium alloys are lacking. This symposium is intended to address this need and topics of interest include (but are not limited to):

- High entropy titanium alloys, including alpha-beta alloys, metastable beta alloys, and stable beta alloys
- Advanced processing of high entropy titanium alloys
- Phase transformation and microstructural evolution in high entropy titanium alloys
- Mechanical behavior and performance of high entropy titanium alloys
- ICME, materials informatics, and machine learning for the discovery of composition-processing-microstructure-property relationships of high entropy titanium alloys

ORGANIZERS

Masahiko Ikeda, Kansai University Masato Ueda, Kansai University Carl J. Boehlert, Michigan State University Peter K. Liaw, University of Tennessee

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QUESTIONS? Contact programming@tms.org