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**TMS2019**  
148<sup>th</sup> Annual Meeting & Exhibition

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March 10–14, 2019  
San Antonio, Texas, USA

**JOIN US FOR THIS TMS2019 SYMPOSIUM:**

**MATERIALS DESIGN**

**Hume-Rothery Symposium – Bulk and Interfacial Thermodynamics of Complex Materials: Insights Derived from Integrating Modeling and Experiment**

This symposium will survey recent progress in the predictive modeling and measurement of bulk and interfacial thermodynamic and kinetic properties of materials. Progress in this area has been critical over the past decade in enabling strategies for accelerated materials design, and is increasingly being leveraged in the area of advanced manufacturing.

The focus of the symposium will be to bring together experts in first-principles thermodynamic calculations, advanced experimental characterization and thermochemistry methods, and CALPHAD modeling to assess the current state of the art as it relates to complex materials. Of special interest will be strategies for making links across these areas, to enable advanced fundamental understanding and accurate modeling of materials with multicomponent chemistries and disordered structures. Six sessions are planned, covering topics of bulk and interfacial thermodynamic and chemical properties, in alloys, complex oxides and related structural and functional materials.

**The session is by invitation only.**

**ORGANIZERS**

**Raymundo Arroyave**, Texas A & M University, USA

**Michael C. Gao**, National Energy Technology Laboratory, USA

**Jeffrey J. Hoyt**, McMaster University, Canada

**Saryu Jindal Fensin**, Los Alamos National Laboratory, USA

Nearly 4,000 presentations are planned  
at more than 80 symposia at TMS2019.

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today to register and book housing.