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**TMS 2020**

**149<sup>th</sup> Annual Meeting & Exhibition**

February 23-27, 2020 • San Diego, California, USA



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## Materials Design

### Hume-Rothery Symposium: Thermodynamics, Phase Equilibria and Kinetics for Materials Design and Engineering

Computational methods have become essential tools for materials and process development. The CALPHAD method has been known as one of the pillars of integrated computational materials engineering among these tools because of its focus on alloy systems that are of practical interest to industry. CALPHAD calculations are being coupled to an array of process simulations, such as solidification and phase field simulations. Today, CALPHAD databases are available for thermochemical properties, diffusion mobilities and molar volume and unite data from experimental measurements and atomistic simulations.

The focus of this symposium is to gain an overview of the state-of-the-art of computational and experimental methods in the field of thermochemistry, phase equilibria and kinetics of inorganic materials and application of the results to solve engineering problems.

**This session is by invitation only.**

#### ORGANIZERS

**Carelyn Campbell**, National Institute of Standards and Technology, USA

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

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