

TMS2016
145th Annual Meeting & Exhibition

FEBRUARY 14-18 DOWNTOWN NASHVILLE,
TENNESSEE MUSIC CITY CENTER

Connecting the Global Minerals, Metals, and Materials Community.



ICME Infrastructure Development for Accelerated Materials Design: Data Repositories, Informatics, and Computational Tools

This symposium will provide a venue for presenting focused research and development related to accelerating materials design and innovation for fielding new materials and processes using the ICME approach. It aims to gather a diverse interdisciplinary group of prominent materials scientists and engineers to present work on the development of infrastructure tools to facilitate ICME in a wide array of materials classes, which can include metals, composites, ceramics, and polymers. While all material classes are welcomed, the focus of this symposium is on the models, databases, simulation tools, and general infrastructure development that support ICME efforts in an almost material-agnostic manner.

We are seeking abstracts in the following general topic areas:

- Open standards and data repositories, including resource and data type registries
- Workflow tools for extracting, transforming, and analyzing data related to microstructure and properties
- Informatics-based tools and data mining approaches
- Uncertainty quantification and propagation in both models and experiments
- Data management tools, especially for large datasets
- Validation and verification tools and methods for linking simulations with experiments
- Integration tools and methods for linking processing-structure-property relationships

Organizers include:

Carelyn Campbell, National Institute of Standards and Technology (USA)

Dongwon Shin, Oak Ridge National Laboratory (USA)

Jiadong Gong, QuesTek Innovations (USA)

Sheng Yen Li, National Institute of Standards and Technology (USA)

Francesca Tavazza, National Institute of Standards and Technology (USA)

Mark A. Tschopp, U.S. Army Research Laboratory (USA)

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