



**SUBMIT AN ABSTRACT BY JULY 1**

**MARCH 14-18, 2021 • ORLANDO WORLD CENTER MARRIOTT  
ORLANDO, FLORIDA, USA  
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**SUBMIT AN ABSTRACT TO:**

## **CHARACTERIZATION**

# **CHARACTERIZATION OF MINERALS, METALS AND MATERIALS 2021**

The symposium focuses on the advancements of characterization of the minerals, metals, and materials and the applications of characterization results on the processing of these materials. Subjects include, but not limited to, extraction & processing of various types of minerals, process-structure-property relationship of metal alloys, glasses, ceramics, polymers, composites, semiconductors and carbon using as functional and structural materials. Advanced characterization methods, techniques, and new instruments are emphasized.

Areas of interest include, but are not limited to:

- Novel methods and techniques for characterizing materials across a spectrum of systems and processes.
- Characterization of mechanical, thermal, electrical, optical, dielectric, magnetic, physical, and other properties of materials.
- Characterization of structural, morphological, and topographical natures of materials at micro- and nano-scales.
- Characterization of extraction and processing including process development and analysis.
- Advances in instrument developments for microstructure analysis and performance evaluation of materials, such as computer tomography (CT), X-ray and neutron diffraction, electron microscopy (SEM, FIB, and TEM etc.), spectroscopy (EDS, WDS, EBSD) techniques, etc.
- 2D and 3D modelling for materials characterization.

Symposium Dynamics: This symposium encourages, but does not demand, accompanying proceedings papers for each oral presentation. Awards will be presented for individuals who provide the best combination of oral presentation and written proceedings paper. In addition, a poster session will be organized at this symposium with awards for best posters.

## **ORGANIZERS**

**Jian Li**, CanmetMATERIALS, Canada  
**Mingming Zhang**, ArcelorMittal Global R&D, USA  
**Bowen Li**, Michigan Technological University, USA  
**Sergio Monteiro**, Military Institute of Engineering, Brazil

## **SYMPOSIUM SPONSORS**

TMS Extraction & Processing Division  
TMS Materials Characterization Committee

**Abstract Deadline is July 1, 2020. Submit online at  
[www.programmaster.org/TMS2021](http://www.programmaster.org/TMS2021).**

**Questions?**  
Contact [programming@tms.org](mailto:programming@tms.org)