

TMS 2018
147th Annual Meeting & Exhibition**MARCH 11 – 15, 2018**
PHOENIX, ARIZONA**SUBMIT AN ABSTRACT TO:****CHARACTERIZATION****CHARACTERIZATION OF MINERALS, METALS, AND MATERIALS**

This symposium focuses on the advancements of characterization of minerals, metals, and materials and the applications of characterization results on the processing of these materials. Subjects include extraction & processing of various minerals, process-structure-property relationship of metal alloys, glasses and ceramics, polymers, composites, and carbon using functional and structural materials such as fibers, biomaterials, electronic, magnetic and optical materials, energy materials, newly developed advanced materials, pollutants, recycled, insulation materials, etc.

Advanced characterization methods, techniques, nondestructive evaluation, and instruments are emphasized. Areas of interest include:

- Novel methods, techniques, and instruments 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 and related devices for materials processing and manufacturing.
- Characterization of extraction and processing including process development and analysis of various processes
- Nondestructive evaluation of engineering materials and components with ultrasonic testing, acoustic emission, infrared thermography, radiography, etc.
- Instrumental developments for microstructure analysis and performance evaluation of materials, such as process integration, computer tomography (CT), X-ray diffraction, various microscopies (TEM, AFM, SEM, etc.), spectrophotometries, FIB techniques, TG/DTA/DSC, etc.
- 2D and 3D modeling for materials characterization

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 TMS2018 with awards for best posters. Selected papers would be recommended for publishing in TMS journals such as *JOM*.

ORGANIZERS

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ABSTRACT DEADLINE IS JULY 1, 2017. SUBMIT ONLINE AT www.programmaster.org/TMS2018.**QUESTIONS? CONTACT programming@tms.org**