

TMS 2015

144th Annual Meeting & Exhibition

March 15-19, 2015 • Walt Disney World
Orlando, Florida, USA

Connecting the global minerals, metals, and materials community.



Plan Now to Attend:

Materials Processing Fundamentals

The key interest areas to be covered in this symposium are all aspects of the fundamentals, synthesis, analysis, design, monitoring, and control of metals, materials, and metallurgical processes and phenomena.

Topics will include:

- The experimental, analytical, physical and computer modeling of physical chemistry and thermodynamics
- Modeling on the transport phenomena in materials processing and metallurgical processes involving iron, steel, non-ferrous metals, and composites
- Second-phase particles in metals and processes, such as non-metallic inclusions and bubbles in metals (steel, aluminum, silicon, magnesium etc...) or gas bubbles in slag or electrolyte (foaming, gas evolution or injection...); the fundamentals (experimental studies or theoretical studies) on the nucleation, growth, motion, and removal of these second-phase particles from the molten metal or reactors
- Physical chemistry, thermodynamics, and kinetics for the production and refining of rare earth metals
- Control of industrial processes in the field of extraction and processing of metals and materials: novel sensors for hostile-environment materials processes, such as online inclusion detection, temperature, and velocity in molten materials, surface condition of hot moving products, etc.; innovative online sampling and analysis techniques; models for real-time process control and quality monitoring systems

Sponsored by:

- TMS Extraction & Processing Division
- Process Technology and Modeling Committee

Organized by:

James Yurko, Materion Brush Beryllium and Composites (USA)
Antoine Allanore, Massachusetts Institute of Technology (USA)
Lifeng Zhang, University of Science and Technology Beijing (China)
Jonghyun Lee, University of Massachusetts (USA)
Laura Bartlett, Texas State University (USA)

**For more information on how
to participate, visit:**

www.tms.org/TMS2015

Questions? Contact programming@tms.org