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**TMS2024**  
153<sup>rd</sup> Annual Meeting & Exhibition

MARCH 3–7, 2024  
HYATT REGENCY ORLANDO  
ORLANDO, FLORIDA, USA  
#TMSAnnualMeeting



**SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2024 SYMPOSIUM:**

**MATERIALS SYNTHESIS AND PROCESSING**

**Materials Processing Fundamentals: Iron and Steel Production**

This symposium is dedicated to materials processing including: synthesis, analysis, design, monitoring, and control of metals, materials, and metallurgical processes and phenomena. This symposium is cross-functional in nature and is open to all materials and their relevant synthesis and production processes. At TMS 2024 a particular focus will be placed on the fundamentals of iron and steel production including ladle processing, casting, rolling, forging, and subsequent surface treatments. Typically dedicated to the fundamental understanding of materials manufacturing processes, this symposium is also dedicated to advances which increase efficiency, yield, or environmental friendliness of said processes. As non-limiting examples subjects might include:

- Use of Artificial Intelligence or Big Data in the control or optimization of industrial processes.
- Modelling or optimization of recycle streams and scrap loops.
- Measurement and control of process parameters
- Modeling transport phenomena in materials processing and metallurgical processes involving iron, steel, nonferrous metals, and composites.
- Thermodynamics, kinetics, and physical chemistry of materials processes and modelling thereof.

Materials processing abstracts on topics other than iron and steel may be considered for presentation.

**ORGANIZERS**

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