

# THE WORLD COMES HERE.

# TMS 2023

## 152<sup>nd</sup> Annual Meeting & Exhibition

MARCH 19–23, 2023  
SAN DIEGO CONVENTION CENTER &  
HILTON SAN DIEGO BAYFRONT  
SAN DIEGO, CALIFORNIA, USA  
#TMSANNUALMEETING



**SUBMIT AN ABSTRACT BY JULY 1 FOR THE FOLLOWING TMS2023 SYMPOSIUM:**

### MATERIALS PROCESSING

## Advances in Pyrometallurgy: Developing Low Carbon Pathways

Carbon intensive industries are at a crossroads. Long term manufacturing plans using pyrometallurgical processes all include decarbonization levers: we must solve the problem of fossil-based reduction and fossil-based power generation processes for metals production. This symposium will explore innovative and diverse strategies for the enablement of low carbon industries in the high temperature metals and materials processing fields. In particular, the following processes shall be investigated:

- Electrolysis and electrification of metallurgical processes
- High temperature electrolytic routes for metal and alloy production
- Use of hydrogen and other alternative non carbonaceous reducing agents
- Biofuels and other non-fossil reagents for metallurgical applications
- Direct and in-direct use of solar energy in high temperature processing
- Energy efficiency and waste heat recovery concepts applied to pyrometallurgical operations

This symposium will also include a problem driven session illustrating the pathways taken in industry to reduce carbon dependency. This session will feature invited speakers and include a panel discussion.

#### ORGANIZERS

**Camille Fleuriault**, Eramet Norway  
**Joalet Steenkamp**, Mintek  
**Dean Gregurek**, RHI Magnesita  
**Jesse White**, Elkem Carbon Solutions  
**Quinn Reynolds**, Mintek  
**Phillip Mackey**, P.J. Mackey Technology, Inc.  
**Susanna Aletta Carolina Hockaday**, Gam Aesa

#### SYMPOSIUM SPONSORS

TMS Extraction & Processing Division  
TMS Pyrometallurgy Committee



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**QUESTIONS?**  
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