

THE WORLD COMES HERE.
TMS 2025
154th Annual Meeting & Exhibition



March 23–27, 2025
MGM Grand Las Vegas
Hotel & Casino
Las Vegas, Nevada, USA
#TMSAnnualMeeting



SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2025 SYMPOSIUM:

ELECTRONIC, MAGNETIC, AND ENERGY MATERIALS

Energy Technologies and CO2 Management

Clean and sustainable energy is of paramount importance for industrial productivity, economic development, and environmental protection. Governments throughout the world are seeking solutions to achieve NetZero within the next several decades. This symposium is open to participants from academia, industry, and government sectors, and will focus on new and efficient energy technologies such as innovative ore beneficiation, recycling, waste heat recovery, and emerging novel energy solutions. The sessions will cover a broad range of mature and new technological aspects of sustainable energy ecosystems, as well as processes that improve energy efficiency and reduce carbon dioxide and other greenhouse emissions. Contributions from all areas of production, use, and storage of energy raw materials are encouraged.

Topics include, but are not limited to:

- Energy and materials-efficient minerals extraction and processing, including waste heat recovery, materials recycling, and other methodologies for low cost energy materials production.
- Advances in design and optimization of renewable and low-carbon energy harvesting technologies and energy carriers, including theory, new technology concepts, simulations and demonstrations relevant to decarbonizing materials extraction and processing.
- Systems assessment for sustainable materials processing, including techno-economic, life cycle, circularity, technology scale-up and regulatory impacts.
- Low carbon technologies for advanced materials conversion, including carbon and other GHG Reduction Metallurgy in ferrous, nonferrous and reactive metals capture and mineralization, carbon upgrade to chemicals, and use of low carbon fuel and feedstock. Advances in materials for energy and carbon mitigation, such as infrared reflecting, endothermic and carbon absorbing materials for applications such as urban heat island mitigation and space cooling.

ORGANIZERS

Onuralp Yucel, Istanbul Technical University; **Chukwunwike Iloeje**, Argonne National Laboratory; **Shafiq Alam**, University of Saskatchewan; **Donna Guillen**, Idaho National Laboratory; **Fiseha Tesfaye**, Metso Metals Oy, Åbo Akademi University; **Lei Zhang**, University of Alaska Fairbanks; **Susanna Hockaday**, Curtin University, WASM; **Neale Neelameggham**, IND LLC; **Hong (Marco) Peng**, University of Queensland; **Nawshad Haque**, Commonwealth Scientific and Industrial Research Organization; **Alafara Baba**, University of Ilorin; **Tuan Nguyen**, University of Queensland; **Adam Powell**, Worcester Polytechnic Institute; **Thomas Battle**; **Duhan Zhang**, Massachusetts Institute of Technology

SYMPOSIUM SPONSORS

TMS Extraction & Processing Division, TMS Light Metals Division, TMS Energy Committee, TMS Recycling and Environmental Technologies Committee

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QUESTIONS?

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