



SUBMIT AN ABSTRACT FOR THE FOLLOWING SYMPOSIUM

ELECTRONIC, MAGNETIC, AND ENERGY MATERIALS

Energy Technologies and CO₂ Management: Resource Efficient Processes

Clean and sustainable energy is of paramount importance for industrial activities, economic development, environment and public welfare. Aiming to reach NetZero, researchers in both academia and industry as well as policymakers are now putting tremendous efforts into the generation, storage and applications of clean energy. This symposium is open to participants from academia, industry and government sectors, which will focus on new and efficient energy technologies including innovative ore beneficiation, smelting technologies, recycling and 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, processes that improve energy efficiency, reduce thermal intensity and pollutants, and reduce carbon dioxide and other greenhouse emissions. Contributions from all areas of production, use and storage of energy raw materials will be welcomed.

Topics include, but are not limited to:

- Energy Efficient Technologies for Minerals, Metals & Materials Processing
- Renewable Energy Resources to Reduce the Consumption of Traditional Fossil Fuels
- Waste Heat Recovery and Other Industrial Energy Efficient Technologies
- Energy Education and Energy Regulation
- Scale-up, Stability, and Life-Cycle Analysis of Energy Technologies and Improvement of Existing Energy-Intensive Processes
- Design, Operation, and Optimization of Processes for Energy Generation (e.g., Carbon Capture) and Conversion of Energy Carriers
- Energy Efficiency Improvement in Process Engineering (e.g., for biomass conversion and improved combustion) and Electrical Engineering (e.g., for power conversion and developing smart grids)
- Emission Control, CO₂ Capture and Conversion
- Carbon Sequestration Techniques
- CO₂ and Other Greenhouse Gas Reduction Metallurgy in ferrous (iron & steel making and forming), non-ferrous and reactive metals including Critical Rare-earth Metals
- Sustainability and Life Cycle Assessment of Energy Systems
- Thermodynamics and Modelling for Sustainable Metallurgical Processes

- Circular Economy and Developing Resource Efficiency Model for Cutting Down the Transport from Remote Places

Note regarding publication: Authors seeking an oral presentation opportunity must submit a manuscript for the Energy Technology proceedings or be accepted for publication in a TMS journal.

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