

## ENERGY, ENVIRONMENT, AND MATERIALS PROCESS ENGINEERING: AN EPD SYMPOSIUM IN HONOR OF RAMANA REDDY

This symposium, held in honor of Professor Ramana Reddy, will provide a forum where industrial, research institutes, and university professionals, can interact and exchange with other stakeholders to facilitate the advancement of materials processes and engineering. The impact of Reddy's work and achievements is in the introduction and application of process engineering principles to the quantitative description of materials processing reactions and industrial operations. His contributions include the development of the Reddy-Blander model, by which the impurities capacities of oxide melts can be predicted a priori with the fundamental structure and thermodynamic properties data of melts. He has formulated quantitative methodologies based on first principles of thermodynamics, phase equilibria, and kinetics to: design of slags and fluxes for production and purification of metals and alloys; development of novel ionic liquid electrolytes for materials processing; design materials for Fuel Cells and Capacitors; use of thermodynamic approaches to predict thermo-physical properties of materials for industrial applications; nuclear energy waste separation and remediation; and thermal energy storage.

Abstracts are requested in the following areas:

- Thermodynamics and kinetics of metallurgical reactions
- Electrochemical processing of materials
- Plasma processing of materials
- Composite materials and heterostructures ionic liquids
- Fuel cells and capacitors
- Thermal energy storage
- Design of slags and fluxes for production and purification of metals and alloys
- Energy efficient and environmental cleaner technologies
- Process modeling

## **ORGANIZERS**

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## **PROCEEDINGS PLANS**

A stand-alone proceedings volume is planned for this symposium. Manuscripts for accepted abstracts are due September 1.

## **SYMPOSIUM SPONSORS**

TMS Energy Committee TMS Hydrometallurgy and Electrometallurgy Committee

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