## **ELECTRONIC MATERIALS**

## **SOLAR CELL SILICON**

There is an expanding interest in silicon for solar energy and electronics. The past decade has seen an unsurpassed growth in the solar industry and, despite the recession, growth has continued and costs have been cut dramatically along the production value chain. The most important feedstock for crystalline solar cells is high-purity silicon. For the industry to mature and grow into green production, improvements in Si production, refining and crystallization processes, emission control, and recycling needs to be carried out.

Abstracts are being solicited for the following topics:

- Silicon feedstock production (reduction of silica and silica ores, advances in furnace design and process intensification, novel techniques of silicon production, thermodynamic and kinetic modelling)
- Silicon refining and behavior of impurities (all types of metallurgical upgrading approaches: solvent refining, slag refining, electrolysis/FCC Cambridge process, gas blowing/oxidation refining, plasma refining, vacuum refining, solidification techniques, optimization of the Siemens-like routes)
- Advanced silicon separation and all types of wafering techniques, thin flexible silicon films, interaction of materials
  with silicon during the processes, and novelties in ingot growth
- Life-cycle assessment of solar silicon processing
- · Recycling of solar silicon components, solar cells, and electronic components
- Characterization of silicon materials for solar cells

## **ORGANIZERS**

Shadia Ikhmayies, Al Isra University, Jordan Neale Neelameggham, Ind LLC, USA York Smith, University of Utah, USA Huayi Yin, MIT, USA

## **SPONSORS**

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