

### FEBRUARY 14-18 DOWNTOWN NASHVILLE, TENNESSEE MUSIC CITY CENTER

### Connecting the Global Minerals, Metals, and Materials Community.



## Emerging Interconnect and Pb-free Materials for Advanced Packaging Technology

Continuing advances in microelectronic, optoelectronic, and nanoelectronic devices require new materials and technologies to meet the increasing electrical, thermal, mechanical, reliability, performance, and environmental demands placed on interconnects and packaging at all levels. This symposium will address current research in microstructure-design, processing, and properties of new and existing materials for emerging interconnects with special emphasis on Pb-free materials for advanced packaging technologies.

#### Topics of interest include:

- Emerging interconnect materials and technologies, e.g., 3D stacking including throughsilicon-vias, optoelectronic interconnects and flexible electronics
- Continuing challenges in implementing Pb-free solders for interconnect, plating, and thermal-interface-materials applications
- Developments in high temperature Pb-free solders and associated interconnects for automotive and power electronics
- Non-solder interconnect materials at chip and package levels
- Electromigration, thermomigration, stress-migration and mechanical effects
- Whisker growth in tin, tin-based alloys and other metallic systems
- Advanced characterization methods as applied to interconnect technology
- Fundamental materials behavior including phase transformations, computational thermodynamics, solidification, microstructure evolution, corrosion, mechanical, thermal, and electrical properties of solders and IMCs

#### Organizers include:

Albert T. Wu, National Central University (Taiwan) Yan Li, Intel Corporation (USA) Kazuhiro Nogita, The University of Queensland (Australia) Christopher Gourlay, Imperial College London (United Kingdom)

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