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**TMS 2017**  
146<sup>th</sup> Annual Meeting & Exhibition



**February 26 – March 2, 2017**  
**San Diego, California, USA**

## **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 researches in microstructure-design, processing, and properties of new and existing materials for emerging interconnects and Pb-free materials for advanced packaging technologies.

Topics of interest include:

- Emerging interconnect materials and technologies, e.g., 3D stacking, including through-silicon-vias (TSVs), optoelectronic interconnects, Internet of Things (IoT) and flexible electronics
- Continuing challenges in implementing Pb-free solders for interconnect, plating, and thermal interface material (TIM) applications
- Developments in high temperature Pb-free solders and associated interconnects for automotive and power electronics
- Developments in low temperature Pb-free solder alloys and fine pitch solder joints
- Non-solder interconnect materials at chip and package levels
- Electromigration, thermomigration, stress-migration, and mechanical effects
- Whisker growth in Sn, Sn-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 intermetallic compounds
- Additive manufacturing for electronics industry

### **ORGANIZERS**

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### **PROCEEDINGS PLANS**

Selected papers from this symposium may be published in the TMS journal, *Journal of Electronic Materials*.

### **SYMPOSIUM SPONSOR**

TMS Electronic Packaging and Interconnection Materials Committee

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