

# TMS2015

144<sup>th</sup> Annual Meeting & Exhibition

March 15-19, 2015 • Walt Disney World  
Orlando, Florida, USA

**Connecting the global minerals, metals, and materials community.**



## Plan Now to Attend:

### Pb-free Solders and Emerging Interconnect and Packaging

The symposium covers research advances in electronic interconnecting materials and their technologies, with special emphasis on Pb-free solders and new materials and structures for next-generation interconnects. Advances in microelectronic, optoelectronic and nanoelectronic devices continue to 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. In this symposium, emerging interconnect and packaging technologies will be examined, as well as insights into existing technologies, including Pb-free and RoHS-compliant materials and processes. Topics include:

- Interconnect materials, manufacturing, and reliability from chip assembly to printed wiring board level interconnections
- Interconnects for emerging technologies, including 3D packaging, through silicon vias (TSVs), wafer level package (WLP), interconnects on flexible electronic modules and nanomaterials technology
- Pb-free solder reliability, including tin whisker formation and mitigation, electromigration, thermomigration, thermal aging and stressing, thermomechanical reliability, thermal and mechanical fatigue, and drop performance
- Pb-free solder intermetallic compound (IMC) formation, crystallography, mechanical and physical properties, thermodynamics, and kinetics
- Advanced characterization methods as applied to interconnect technology
- Developments in high-temperature Pb-free solders and associated interconnects for automotive and power electronics
- Fundamental materials behavior
- Continuing challenges in implementing Pb-free solders and RoHS-compliant materials

*Selected papers will be submitted for publication to the Journal of Electronic Materials.*

#### Sponsored by:

- TMS Functional Materials Division (formerly EMPMD)
- Electronic Packaging and Interconnection Materials Committee

#### Organized by:

John Elmer, Lawrence Livermore National Laboratory (USA)	Kwang-Lung Lin, National Cheng Kung University (Taiwan)
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**For more information on how to participate, visit:**

[www.tms.org/TMS2015](http://www.tms.org/TMS2015)

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