

ASME 2015 International Electronic Packaging Technical Conference and Exhibition

ASME 2015 13th International Conference on Nanochannels, Microchannels, and Minichannels

# ASME 2015 International Technical Conference and Exhibition on Packaging (InterPACK 2015) July 6-9, 2015

The Fairmont San Francisco Hotel, San Francisco, California http://www.asmeconferences.org/InterPACKICNMM2015/

Abstract deadline: December 08, 2014

Authors and presenters are invited to participate in Topic 1.3 – Advances in Interconnect Technologies at InterPACK 2015 to expand international cooperation, understanding and promotion of efforts and disciplines in this area.

New packaging concepts are creating new 2D and 3D interconnection challenges as packaging density continues to increase. Consequently, interconnections are also becoming progressively smaller and denser, leading to new design, manufacturing and reliability challenges. Papers are invited in topics such as microscale solder joints, conductive adhesive joints, copper wire bonds, HDI substrate technologies with microvias, Through-Glass-Vias (TGVs), novel new interconnects including ones based on graphene and carbon nanotubes, and separable connector and socket technologies. We invite academic and industry researchers to report new findings on focus areas including but not limited to:

## Pb-FREE SOLDER TECHNOLOGIES

- Material level testing and product qualification
- Failure analysis and reliability under service loads (including creep and plasticity dominated, high temperature cycles, corrosive and combined loads)
- Length scale dependent mechanistic and thermal modeling techniques
- Material compositions for invoking homogenous microstructures
- Electromigration
- *Microstructure Evolution*

# MANUFACTURING, DESIGN AND TEST

- Advanced Interconnect Materials and Processes
- Advanced Underfill Materials Processes
- Ultra-fine Pitch Microbump and copper-studs Interconnection Technologies
- Low-cost and Alternative Interconnect Processes
- Failure Analysis and Reliability

#### CONDUCTIVE ADHESIVE JOINTS

- *Fiber reinforced conductive adhesive material systems*
- *Isotropic and anisotropic conductive adhesive systems (ICA and ACA)*
- Advances in Ag, Au & Ni based conductive adhesives
- Reliability (such as mechanical & electrical)
- Mechanical strength improvement strategies (relative to solder interconnects)

• Optimizing bulk and interface failure modes

#### CARBON BASED INTERCONNECT TECHNOLOGIES

- Manufacturing challenges for achieving optimally oriented carbon nanotubes (CNTs)
- Potentials and challenges of using graphene in electronic packaging

## ADVANCED INTERCONNECTS FOR 3D PACKAGING

- Microbumps
- Through-Silicon-Vias (TSV)
- Through-Glass-Vias (TGV)

As part of the peer-review process, and further review by the conference leadership, the highest quality papers will be recommended for publication in the ASME Journal of Electronic Packaging (JEP).

Thank You!

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