



SUBMIT AN ABSTRACT FOR THE FOLLOWING SYMPOSIUM

ELECTRONIC, MAGNETIC, AND ENERGY MATERIALS

Phase Stability, Phase Transformations, and Reactive Phase Formation in Electronic Materials XXV

Phases play a crucial role in determining a material's properties. The manipulation of phase transformations provides a highly effective route to designing material microstructures optimized for specific needs. This is the 25th in a series of TMS symposia addressing the stability, transformation, and formation of phases during the fabrication, processing, and utilization of electronic materials and devices. It aims at microelectronic technologies to advanced energy technologies, including electronic packaging materials, interconnection materials, integrated circuit materials, optoelectronic materials, energy storage and generating materials.

Topics of interest include, but are not limited to:

- Phase stability, transformation, formation, and morphological evolution of electronic packaging materials (such as Pb-free solders, low-temperature solder, thermal interface material (TIM), Cu-to-Cu bonding materials, transient liquid phase bonding, etc).
- Phase stability, transformation, formation, and morphological evolution of advanced energy technologies (such as cathode and anode materials in battery, solid-state electrolyte, etc).
- Understanding microstructure evolution under external field and its underlying mechanism. This includes electromigration, thermomigration, stress-migration, etc.
- Advanced characterization and modeling methods as applied to phase stability, transformation, and formation.

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