

Symposium 30:

Advanced Materials and Processing for Power Electronics Application

Power electronics(SiC, GaN, Ga₂O₃), which is a key technology for energy saving, is applicable to a wide range of fields such as electricity, electronic devices, industrial equipment, automobiles, railroads, and the like, and great growth is expected in world markets. For further expansion of the market of power electronics, it is indispensable to develop high performance heat resistant passive components, high performance heat dissipation insulating substrate, bonding technology, wiring technology, etc. at the same time as development of high performance power devices and modules. To realize power devices in the next-generation, In this symposium, we will discuss about the development of the various high heat-resistant parts, and evaluation technologies for improving reliability or, a power electronics application.

<PROPOSED SESSION TOPICS>

- Electro-ceramics and applications
- High temperature electronic materials
- High temperature passive component
- Highly heat-resistant resistor
- Multi layered ceramic capacitor (MLCC)
- Circuit board (ceramic circuit board)
- Metalized heat-dissipating substrate
- Metalized ceramic substrate
- Advanced characterization techniques, properties and reliability testing
- Modeling, simulation for life time prediction

<ORGANIZERS>

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<INVITED LECTURES>

Tentative invited lecture information is posted in the following URL;
http://www.ceramic.or.jp/pacrim13/list_of_invited_speakers.html#30