



Electrical Characterization of Wide Bandgap Devices for Modern Power Electronics

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Message from the Guest Editor

Dear Colleagues,

The design and characterization of wide-bandgap (WBG) devices for modern power electronics, to be used especially in high-voltage/high-frequency/high-temperature applications, require intensive experimental and modelling efforts for the analysis of the critical aspects of their operation under specific bias conditions. In recent years, for instance, silicon carbide (SiC) and gallium nitride (GaN) have been extensively investigated. These semiconductors, if compared to the conventional Si and GaAs technologies, promise the realization of smaller, faster, and more efficient and rugged devices well-suited for different fields that involve both power generation and power conversion processes, such as renewable energy systems and electrical traction drivers. However, several technological issues must be resolved in order to make the realization of WBG devices more cost-effective.

The aim of this Special Issue is to collect research papers concerned with the superior electrical characteristics of WBG devices able to improve the current and future power electronics.





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Message from the Editor-in-Chief

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