Special Issue

Electrical Characterization of Wide Bandgap Devices for Modern Power Electronics

Message from the Guest Editor

The design and characterization of wide-bandgap (WBG) devices for modern power electronics, to be used especially in high-voltage/high-frequency/hightemperature 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.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

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