

Special Issue

Research and Application of Wide Band Gap Semiconductors

Message from the Guest Editors

The emerging generation of power semiconductor devices based on wide bandgap (WBG) semiconductors is revolutionizing the power device market. Improved material quality and painstaking R&D efforts have enabled superior device performances for 4H-SiC MOSFETs and GaN HEMTs when compared to equivalent Si-based solutions. However, the success of future generation devices relies upon addressing several scientific challenges.

- Optimization of material growth towards low defect density substrates and thick epi layers.
- Comprehensive understanding of the role of defects in the electrical and thermal performance of final devices.

This Special Issue aims to highlight and collect the latest advancements in device fabrication, material growth, device electro-thermal modeling and simulations, lateral and vertical novel device configurations, reliability tests and measurements, as well as converter- and system-related solutions for both WBG and UWBG devices.

Guest Editors

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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 guestedited by leading experts in selected topics of interest.

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