

Special Issue

Power Electronic Devices: Design, Fabrication, Packaging and Reliability Analysis

Message from the Guest Editor

In this Special Issue, we aim to showcase cutting-edge research and comprehensive reviews that address the latest advancements and emerging trends in power electronic devices. We are particularly interested in contributions that present novel device structures, innovative fabrication processes, advanced packaging solutions and reliability evaluation methodologies that can accelerate the deployment of next-generation power electronics across various economic sectors. Topics of interest include, but are not limited to, the following:

- Novel device designs and concepts for power semiconductors
- Advanced fabrication techniques for Si, SiC, GaN, Ga₂O₃, diamond and other wide-bandgap materials
- Packaging technologies including thermal management, interconnection and module integration
- Reliability assessment, failure analysis and lifetime-prediction methodologies
- Characterization techniques and modeling of power devices
- Applications of power electronic devices in renewable energy, automotive, industrial and consumer sectors

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 guestedited by leading experts in selected topics of interest.

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.4 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).