Special Issue

Advanced Semiconductor Device Design and Performance Improvement

Message from the Guest Editors

Wide-bandgap (WBG) semiconductor materials have emerged as a fundamental element of modern electronics, particularly for applications that require high efficiency, durability, and performance. Unlike traditional silicon-based devices, which are limited by their relatively narrow bandgap, WBG materials such as gallium nitride, silicon carbide, gallium oxide, and more offer significant advantages in power, radiofrequency (RF), and optoelectronic applications due to their superior thermal conductivity, higher breakdown voltage, faster switching capabilities, and tunable bandgap. In this Special Issue, we accept papers on the development of new device designs, validated by experimental measurements, device and defect characterization confirming performance improvements, and numerical simulations validating experimental results. Additional papers not covered in this definition but related to wide-bandgap devices can be considered for publication.

Guest Editors

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Dr. Isabella Rossetto

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Deadline for manuscript submissions

20 January 2026

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/244397

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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