Special Issue

Gallium Nitride (GaN)-Based Power Electronic Systems

Message from the Guest Editors

This Special Issue focuses on Gallium Nitride (GaN)-Based Power Electronic Systems, a rapidly advancing field that is redefining power electronics. The issue will cover significant advancements across several key areas of GaN technology. Topics include GaN epitaxy and addressing material growth challenges in producing high-quality GaN substrates for device fabrication. GaN device design and fabrication processes will be explored to optimize performance and scalability. System integration and packaging of GaN devices will focus on improving efficiency, reducing losses, improving thermal management, and ensuring compact system design. Reliability analysis will provide insights into the stability and durability of GaN-based systems under harsh environments. Additionally, contributions on novel applications of GaN in high-efficiency power conversion and high-frequency power electronics are encouraged, along with discussions on emerging challenges and trends in the field. By showcasing research in these areas, this Special Issue aims to advance the development of GaN-based power systems and promote innovation in power electronics.

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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.

Editor-in-Chief

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