Special Issue

Recent Advances in GaN Power Devices

Message from the Guest Editor

Gallium nitride (GaN) power devices have seen significant advancements in recent years, revolutionizing the field of power electronics. Recent research has focused on improving the performance and reliability of GaN power devices. Advancements in epitaxial growth techniques, such as Metal–Organic Chemical Vapor Deposition (MOCVD), have enabled the fabrication of high-quality GaN layers with reduced defect densities. Additionally, novel device structures have been introduced to mitigate current collapse and enhance breakdown voltage. Packaging technologies have also been developed to optimize the thermal and electrical performance of GaN power devices. Furthermore, efforts have been made to address reliability concerns through process optimization and device design. As a result of these advancements, GaN power devices are poised to enable the production of more efficient, compact, and reliable power conversion systems in various industries.

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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 guest-edited by leading experts in selected topics of interest.

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