





an Open Access Journal by MDPI

Advances of GaN-Based Semiconductor Materials

Guest Editors:

Dr. Tao Wang

Electron Microscopy Laboratory, School of Physics, Peking University, Beijing 100871, China

Dr. Fang Liu

State Key Laboratory for Mesoscopic Physics and Frontiers Science Center for Nanooptoelectronics, School of Physics, Peking University, Beijing 100871, China

Deadline for manuscript submissions:

closed (25 June 2023)

Message from the Guest Editors

GaN-based semiconductor materials have obtained tremendous attention due to their appealing applications in solid-state lighting and power devices. They are critical to the development of next-generation optoelectronic and electronic devices. Additionally, recent advances of nitride ferroelectrics are promising to the new-generation microelectronic memory, acoustic devices, and quantum devices, which will accelerate the multifunctional and integrated development of ferroelectric functionality and microelectronics. To obtain high-quality GaN materials is of great significance for practical applications of devices. However, some of growth mechanisms of GaN are still unclear, especially, the mechanisms of GaN grown on foreign substrates.

We aim to investigate the epitaxial growth mechanisms of nitride semiconductors. In addition, the relationship of microstructures and physical properties, particularly in the scale of nanometers, is deserved to be comprehensively investigated. This Special Issue will also cover works relating to relative applications of GaN-based devices.











an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Alessandra Toncelli Department of Physics, University of Pisa, 56126 Pisa, Italy

Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (*Crystallography*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us