Special Issue

Nitride Compound Light Emitting Diodes

Message from the Guest Editors

To further increase the application potential of nitride LEDs, the use of other regions of the electromagnetic spectrum is highly desirable, and current the improvement of LED efficiency is based on the development of innovative routes from material growth to the device fabrication process. Indeed, LEDs with high external quantum and wall plug efficiencies require epitaxial layers with low defect densities, a highly radiative active region, doped layers with high carrier concentrations and low resistivities for efficient carrier injection and low power consumption, and a high extraction efficiency. Optimizing all these parameters via epitaxial techniques involves structural, optical, and electrical engineering in terms of strain management. quantum confinement, polarization discontinuity, device design, etc. Combining these approaches, will then lead to the emergence of high-efficiency green-red and ultra-violet LEDs and enable new applications and key technologies to be developed.

Guest Editors

Dr. Julien Brault

Dr. Wang Lai

Dr. M. Ajmal Khan

Dr. Mohamed Al Khalfioui

Deadline for manuscript submissions

closed (28 February 2021)



an Open Access Journal by MDPI

Impact Factor 2.4 CiteScore 5.0



mdpi.com/si/41589

Crystals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
crystals@mdpi.com

mdpi.com/journal/ crystals





an Open Access Journal by MDPI

Impact Factor 2.4 CiteScore 5.0



About the Journal

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.

Editor-in-Chief

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

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, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Crystallography) / CiteScore - Q2 (Condensed Matter Physics)

