



crystals



an Open Access Journal by MDPI

Wide-Bandgap Semiconductor Materials, Devices and Systems

Guest Editors:

Prof. Dr. Hongyu Yu

School of Microelectronics,
Southern University of Science
and Technology, Shenzhen
518055, China

Prof. Dr. Qing Wang

School of Microelectronics,
Southern University of Science
and Technology, Shenzhen
518055, China

Deadline for manuscript
submissions:

closed (11 January 2024)

Message from the Guest Editors

This Special Issue is titled ‘Wide-Bandgap Semiconductor Materials, Devices and Systems’, and the materials include but are not limited to GaN, Ga₂O₃, SiC, ZnO, AlN, and diamond. More specifically, the scope of this Issue covers common key technological research topics for the study of material properties, device performance and system design of wide-bandgap semiconductors. The topics of interest are as follows: Material epitaxy (epitaxial structure design, material and electrical characterization, etc.); microelectronic fabrication processes (etching process research, ohmic contact improvement, breakdown voltage enhancement, gate dielectric engineering, etc.); novel device design and application (monolithic integrated devices, vertical devices, multi-gate devices, sensors, ferroelectric devices, etc.); semiconductor device physics (device reliability, failure analysis, modeling, etc.); and advanced system integration (power supply systems, power amplifier architecture, circuit efficiency improvement, advanced packaging, etc.). The above topics are just for your reference. Any related topics not mentioned above are also acceptable for this Special Issue.



mdpi.com/si/127715

Special Issue



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](#), [CAPus / SciFinder](#), and [other databases](#).

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

Contact Us

Crystals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/crystals
crystals@mdpi.com
[X@Crystals_MDPI](#)