

## Special Issue

# Semiconductor Nanocrystal Studies for Optoelectronic Applications

### Message from the Guest Editors

The field of semiconductor nanocrystal studies has witnessed remarkable advancements in recent years, heralding a new era of possibilities for optoelectronic applications. Semiconductor nanocrystals, also known as quantum dots, possess unique size-dependent optical and electronic properties that can be precisely engineered by controlling their size, shape, and composition. These remarkable nanoscale crystals exhibit quantum confinement effects, enabling them to emit, absorb, and manipulate light with unprecedented efficiency and versatility. As a result, they hold immense potential for a wide range of optoelectronic applications, including, but not limited to, displays, lighting, solar cells, sensors, and biomedical imaging.

Join us on this journey to unravel the mysteries of semiconductor nanocrystals and unlock their immense potential for revolutionizing the world of optoelectronics. Submit your groundbreaking research and insightful reviews to be part of this exciting Special Issue of the journal *Crystals*.

---

### Guest Editors

Prof. Dr. Hao-chung Kuo

Department of Photonics & Graduate Institute of Electro-Optical Engineering, College of Electrical and Computer Engineering, National Chiao Tung University, Hsinchu 30010, Taiwan

Dr. Yu-Heng Hong

Semiconductor Research Center, Hon Hai Research Institute, Taipei 11492, Taiwan

---

### Deadline for manuscript submissions

closed (30 April 2024)



## Crystals

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.4  
CiteScore 5.0



[mdpi.com/si/181540](https://mdpi.com/si/181540)

*Crystals*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[crystals@mdpi.com](mailto:crystals@mdpi.com)

[mdpi.com/journal/  
crystals](https://mdpi.com/journal/crystals)





# Crystals

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.4  
CiteScore 5.0



[mdpi.com/journal/  
crystals](https://mdpi.com/journal/crystals)



## 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, PI, 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, CAPus / SciFinder, and other databases.

#### Journal Rank:

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