

# Special Issue

## Defects in Crystals

### Message from the Guest Editors

Defects are an intrinsic feature of materials, meaning that perfect solids or crystals (without defects) do not exist in nature as dictated by thermodynamic constraints of order and disorder in solids.

Imperfections in crystalline solids play a critical role in solid-state science since it can determine a variety of properties of materials such as mechanical resistance, spectroscopic behaviour, and mass transport. Thereby, defect-driven phenomena are of great importance in solid-state chemistry, physics, and engineering. The existence of defects occurs from nanomaterials to bulk materials, of single composition or composites, and may affect the material's performance in several orders of magnitude.

Given the importance of defects in material science as a multidisciplinary topic, we invite researches and scientists to contribute to the Special Issue Defects in Crystals.

---

### Guest Editors

Dr. Alexandre A.S. Goncalves

Prof. Dr. Cristiane Alves Pereira

Dr. Liping Zhang

Prof. Dr. Samo Kralj

Dr. Kele Tatiane Gomes Carvalho

---

### Deadline for manuscript submissions

closed (30 May 2022)



## Crystals

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.4  
CiteScore 5.0



[mdpi.com/si/68499](https://mdpi.com/si/68499)

*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)