

Special Issue

Single-Crystalline Composite Materials (Second Edition)

Message from the Guest Editors

Single-crystalline composite materials are widely used in the modern aerospace, automotive, energy, and electronic industries. Despite the often-higher costs of obtaining products made of them, they are characterized by unique properties, distinguishing them from other materials. The properties of single-crystalline composite materials depend largely on the type and concentration of defects created in the final product. The defect structures—formed during crystallization and after potential subsequent material processing, e.g., heat treatment—can be influenced by many factors: the production technology used, the geometry of the final product, the types and amounts of dopants, etc.

The above issues, combined with the need to produce single-crystalline composites with new, different, and better properties, make it necessary to study the defect structures used for the development of existing crystal properties and creation of new ones, as well as for the modification of the parameters of their production. We welcome you to submit papers on different aspects of the production, processing, and properties of single-crystalline composite materials.

Guest Editors

Dr. Jacek Krawczyk

Institute of Materials Engineering, Faculty of Science and Technology,
University of Silesia in Katowice, 75 Pułku Piechoty 1a St., 41-500
Chorzów, Poland

Prof. Dr. Włodzimierz Bogdanowicz

Institute of Materials Engineering, Faculty of Science and Technology,
University of Silesia in Katowice, 41-500 Chorzów, Poland

Prof. Dr. Limei Zheng

School of Physics, Shandong University, Jinan 264209, China

Deadline for manuscript submissions

20 November 2025



Crystals

an Open Access Journal
by MDPI

Impact Factor 2.4
CiteScore 5.0



mdpi.com/si/212155

Crystals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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)