

Special Issue

Microstructure Characterization and Design of Alloys, 2nd Edition

Message from the Guest Editors

We set up this Special Issue to present cutting-edge research that explores innovations in the relationship between crystal structures and the optimization of ferrous and non-ferrous alloys. Potential topics for submissions to this Special Issue include, but are not limited to, the following:

- Computational techniques for the design of ferrous and non-ferrous alloys with potential applications in structural components. The modeling of crystalline structures and thermodynamic states.
- The optimization of heat treatments and mechanical processing through experimental and computational techniques, such as thermomechanical processing methodologies, the modeling of crystalline structures in deformed materials, and kinetic metallurgical processes.
- The modification of crystal structures: advances in the characterization of modified structures through innovative processes involving plastic deformation, as well as their relationship to the mechanical and tribological performance of alloys.

Guest Editors

Dr. Carlos Figueroa

Prof. Dr. Arnaldo Bedolla-Jacuiende

Prof. Dr. Jacinto Cortéz Pérez

Dr. Melvyn Alvarez Vera

Deadline for manuscript submissions

1 August 2026



Crystals

an Open Access Journal
by MDPI

Impact Factor 2.4
CiteScore 5.0



mdpi.com/si/240067

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, CAPlus / SciFinder, and other databases.

Journal Rank:

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