Special Issue

Recent Advances in Microstructure and Properties of Metals and Alloys

Message from the Guest Editors

Metallic materials are polycrystalline materials widely used in the production of many elements and engineering structures. The microstructure and technological production process of alloys are fundamental determinants of their mechanical, thermal, and electrical properties. This Special Issue will present the latest achievements in testing the properties of metallic materials produced using various manufacturing technologies, including heat treatment. as well as considerations regarding the relationship between innovative technological parameters. manufacturing technologies, and welding and production methods, the microstructure whose evolution they influence, and the properties of the obtained products. This Special Issue on "Recent Advances in Microstructure and Properties of Metals and Alloys" aims to provide a comprehensive analysis of the latest research in the field of metals, their alloy microstructures, and their implications for material performance.

Guest Editors

Dr. Marzena Lachowicz

Department of Metal Forming, Welding and Metrology, Wroclaw University of Science and Technology, Lukasiewicza 5 Street, 50-370 Wroclaw, Poland

Dr. Erdem Karakulak

Brunel Centre for Advanced Solidification Technology, Brunel University London, Uxbridge UB8 3PH, UK

Deadline for manuscript submissions

20 June 2025



an Open Access Journal by MDPI

Impact Factor 2.4 CiteScore 4.2



mdpi.com/si/215565

Crystals
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
crystals@mdpi.com

mdpi.com/journal/ crystals





an Open Access Journal by MDPI

Impact Factor 2.4 CiteScore 4.2



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, Pl, 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, CAPlus / SciFinder, and other databases.

Journal Rank:

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

