Special Issue

Advances in Nanomaterials and Nanocomposites for Catalytic Applications

Message from the Guest Editor

With the continuous environmental pollution and energy shortage, the design of novel catalysts to achieve efficient energy conversion and utilization is receiving enormous interest. Nanotechnology provides novel strategies to synthesize functional catalysts; the engineered catalysts at the nanoscale enable enhanced activity, selectivity, efficiency, and stability. There is an ongoing challenge to develop superior nanocatalysts in research on energy conversion/storage, environmental remediation, chemical synthesis, etc. We are currently organizing a Special Issue, "Advances in Nanomaterials and Nanocomposites for Catalytic Applications". We invite the submission of original research, reviews, and perspective articles on themes including, but not limited to:

- Synthesis and characterization of novel nanomaterials/nanocomposites with different morphologies, such as crystalline, etc.
- Mechanistic studies of catalytic reactions on nanomaterials/nanocomposites;
- Both experiments and theoretical calculations of catalysts and catalytic processes;
- Applications of nanomaterials in various catalytic processes, such as energy conversion, environmental remediation, and chemical synthesis.

Guest Editor

Dr. Balázs Zsirka

Research Group of Analytical Chemistry, Center for Natural Sciences, University of Pannonia, P.O. Box 158, 8201 Veszprem, Hungary

Deadline for manuscript submissions

20 January 2026

Crystals

an Open Access Journal by MDPI

Impact Factor 2.4
CiteScore 5.0

mdpi.com/si/219683

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

mdpi.com/journal/crystals

Crystals

an Open Access Journal by MDPI

Impact Factor 2.4
CiteScore 5.0

mdpi.com/journal/crystals

MDPI

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)