

## Special Issue

# The Design and Synthesis of Advanced Energy Catalytic Materials

### Message from the Guest Editor

The field of advanced energy catalytic materials has recently seen remarkable progress. Researchers have developed a range of sophisticated materials, such as single-atom catalysts, metal-organic frameworks (MOFs), and 2D materials, that exhibit exceptional catalytic properties. Advances in nanotechnology, materials science, and computational modeling have facilitated the design of catalysts with high activity, selectivity, and stability. For example, breakthroughs in the synthesis of nanostructured catalysts have led to enhanced performance in energy conversion processes like fuel cells and hydrogen production. Furthermore, the integration of computational tools has allowed for the precise tuning of catalyst properties, accelerating the discovery of new materials. In order to cope with the design and synthesis of advanced energy catalytic materials becoming a topic of interest in industry and academia, an increasing number of researchers are entering the field, and the number of related papers is growing quickly. Thus, we are committed to providing a platform for the dissemination of high-quality papers in the field of advanced energy catalytic materials.

---

### Guest Editor

Dr. Wanliang Yang

School of Chemistry and Chemical Engineering, Guizhou University,  
Guiyang 550025, China

---

### Deadline for manuscript submissions

closed (10 October 2025)



## Crystals

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.4  
CiteScore 5.0



[mdpi.com/si/214927](https://mdpi.com/si/214927)

*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, CAPlus / SciFinder, and other databases.

#### Journal Rank:

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