Special Issue

Advanced Materials for Thermoelectric Energy Conversion

Message from the Guest Editors

This Special Issue aims to showcase the research and innovation achievements of high-performance thermoelectric conversion materials. The research content will cover the following aspects:
Discovery of new thermoelectric conversion materials, exploring new three-dimensional and low-dimensional thermoelectric conversion materials;
Research on new theoretical methods for thermoelectric conversion and corresponding experimental techniques;
Performance and characteristics of various thermoelectric materials;
Research using density functional theory and first-principles computational methods;
Application of the Boltzmann transport equation to analyze the transport properties of materials;
Study of the impact of dynamics of anharmonic lattices on heat transport in materials;
Exploration of the characteristics and mechanisms of lattice heat transport and electronic transport;
Study of the influence of phonon coherence effect on material properties using molecular dynamics based on machine learning potential to conduct research;
Evaluation of the energy conversion efficiency of materials.

Guest Editors

Prof. Dr. Zhenhong Dai
Department of Physics, Yantai University, Yantai 264005, China
Prof. Dr. Yinchang Zhao
Department of Physics, Yantai University, Yantai 264005, China

Deadline for manuscript submissions

closed (30 June 2025)

Crystals

an Open Access Journal by MDPI

Impact Factor 2.4
CiteScore 5.0

mdpi.com/si/223593

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)