



## Hybrid Molecular Ferroelectrics-Hallmarks and Design

Guest Editors:

**Dr. Martina Vrankić**

Division of Materials Physics and  
Center of Excellence for  
Advanced Materials and Sensing  
Devices, Ruđer Bošković Institute,  
Bijenička 54, 10000 Zagreb,  
Croatia

**Dr. Takeshi Nakagawa**

Center for High Pressure Science  
& Technology Advanced  
Research, Beijing 100094, China

Deadline for manuscript  
submissions:

**closed (20 August 2021)**

### Message from the Guest Editors

Intensive research on molecular ferroelectrics (MFs) with controllable magnetoelectric (ME) properties has triggered a targeted quest for developing reproducible synthetic pathways to prepare hybrid ferroelectrics hallmarking multiple bistability. As a first and mandatory step, rational synthesis defines the key features of the final product, leading to one of the most critical obstacles that are still challenging researchers today—how to single out the molecular ferroelectrics from the numerous crystalline materials? Thus, one of the major driving forces delicately correlates the symmetry-breaking phenomena during the paraelectric-to-ferroelectric phase transition in MFs and resulting functional properties, thus highlighting a mandatory role of structural investigations in the course of ME response tuning.

The Special Issue on “Hybrid Molecular Ferroelectrics—Hallmarks and Design” outlines up-to-date progress in the bistable molecular ferroelectrics’ family by delivering specific breakthroughs captured using pressure/temperature-induced X-ray powder diffraction experiments along with detailed electrical and magnetic measurements.





# crystals



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Alessandra Toncelli

Department of Physics, University of Pisa, 56126 Pisa, Italy

## 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.

## 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](#), [CAPus / SciFinder](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (*Crystallography*) / CiteScore - Q2 (*Condensed Matter Physics*)

## Contact Us

---

*Crystals* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/crystals](http://mdpi.com/journal/crystals)  
[crystals@mdpi.com](mailto:crystals@mdpi.com)  
[X@Crystals\\_MDPI](#)