

Special Issue

Hybrid Molecular Ferroelectrics-Hallmarks and Design

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.

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Deadline for manuscript submissions

closed (20 August 2021)



Crystals

an Open Access Journal
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Impact Factor 2.4
CiteScore 5.0



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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

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