



Liquid Crystals and Their Advanced Applications

Guest Editors:

Dr. Yang Liu

Department of Electrical and Electronic Engineering, Donghua University, Shanghai, China

Prof. Dr. Dae-Shik Seo

Department of Electrical and Electronic Engineering, Yonsei University, 262 Seongsanno, Seodaemun-gu, Seoul 120-749, Republic of Korea

Deadline for manuscript submissions:

closed (30 June 2023)

Message from the Guest Editors

Liquid crystals (LCs) are fascinating electro-optically anisotropic materials, and have been utilized to modulate light in various devices—especially the most successful liquid crystal displays (LCDs). Research on LCs is interdisciplinary, with contributions from chemistry, materials, physics, optics, electronics, and information technologies, etc. This Special Issue therefore aims to highlight recent developments and novel trends in LCs and their applications in numerous disciplines. Problem-oriented full-length/short-communication articles as well as all-encompassing review articles are solicited. The suitable topics include, but are not limited to:

- Preparation and characterization of LCs, 2D LCs, nano-LC hybrids, etc.;
- Alignment and the order of LCs, 2D LCs, nano-LC hybrids, etc.;
- LC-based optical components and devices, such as LCDs, LC lenses, LC lasers, LC filters, LC gratings, etc.;
- LC elastomers and devices;
- Devices making use of metasurfaces with integrated LCs;
- Computational simulation and theoretical modelling of LCs and LC devices;
- Artificial intelligence (AI) technologies for LCs and LC devices;





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](#), [CAPlus / 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

mdpi.com/journal/crystals
crystals@mdpi.com
[X@Crystals_MDPI](#)