

Special Issue

Supramolecular Liquid Crystal Compounds—from Molecular Design to Functional Materials

Message from the Guest Editor

This Special Issue will highlight recent advances in the field of liquid crystalline materials, with a particular focus on supramolecular systems, self-assembled architectures, and materials exhibiting collective and cooperative phenomena resulting from non-covalent interactions. We encourage contributions that combine experimental and theoretical/computational approaches, particularly those that offer insights into the following:

- Supramolecular organization in liquid crystals;
- Novel nematic phases, including twist-bend, splay-bend, and polar nematics;
- Liquid crystals formed via hydrogen bonding, π - π interactions, or ionic interactions;
- Structure-property relationships in liquid crystalline dimers, oligomers, and complexes;
- Spectroscopic, electro-optical, and dielectric characterization;
- Molecular dynamics and first-principles simulations of mesophases;
- Functional applications in photonics, sensors, displays, and molecular electronics.

We invite original research articles, reviews, and short communications from both established and emerging researchers.

Guest Editor

Dr. Katarzyna Merkel

Faculty of Computer Science and Material Science, University of Silesia in Katowice, 40-007 Katowice, Poland

Deadline for manuscript submissions

20 June 2026



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/247157

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)



About the Journal

Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, and molecular biophysics. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. José L. Quiles
Department of Physiology, Institute of Nutrition and Food Technology
"Jose Mataix", Biomedical Research Center, University of Granada,
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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), PubMed, PMC, MEDLINE, Embase, CAPus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)