

## Special Issue

# Macromolecules, Particles, and Colloids in Ionic Liquids: Structure, Stability, and Function

### Message from the Guest Editors

Ionic liquids (ILs) have emerged as powerful solvents and co-solvents in soft matter science due to their tunable physicochemical properties, thermal stability, and negligible vapor pressure. Their unique solvation and interfacial characteristics enable the stabilization of proteins, polymers, DNA/RNA, nanoparticles, and colloids, offering new avenues for drug delivery, catalysis, biomolecular preservation, and nanostructure fabrication. This Special Issue of *Molecules* invites original research and reviews on ILs in soft matter systems—including macromolecules, colloids, and nanoscale assemblies. We welcome experimental, theoretical, and simulation studies that explore the following:

- Solvation and stabilization of macromolecules;
- Biocompatible ILs in biopreservation and drug delivery;
- Self-assembly in ILs or deep eutectic solvents;
- IL-templated nanoparticle and hybrid material synthesis;
- Interfacial interactions and phase behavior;
- Molecular simulations of IL–macromolecule systems;
- Green solvent strategies in polymer and colloid processing.

We look forward to receiving your contributions.

---

### Guest Editors

Dr. Qi Han

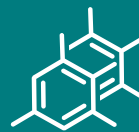
Prof. Dr. Zhengfei Chen

Prof. Dr. Tamar Greaves

---

### Deadline for manuscript submissions

20 December 2025



## Molecules

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.6  
CiteScore 8.6  
Indexed in PubMed



[mdpi.com/si/242819](https://mdpi.com/si/242819)

*Molecules*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[molecules@mdpi.com](mailto:molecules@mdpi.com)

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





# Molecules

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.6  
CiteScore 8.6  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

---

### Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Reaxys, CaPlus / SciFinder, MarInLit, AGRIS, and other databases.

#### Journal Rank:

JCR - Q2 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.1 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).