

## Special Issue

# Imaging Chemical Dynamics by Liquid Cell (Scanning) Transmission Electron Microscopy

### Message from the Guest Editors

Advances in both experimental hardware and imaging methodologies have led to a rapid expansion of the use of in situ liquid stages for high-resolution (scanning) transmission electron microscopy observations of dynamic processes that are fundamentally important to chemistry, structural biology and materials science. New advances in dose control and the use of artificial intelligence to analyse the large and complex datasets generated by liquid cell experiments are promising to expand the frontiers of our understanding of liquid systems/interfaces in wide-ranging applied technologies in the medical sciences, the environment and clean renewable energy. The purpose of this Special Issue is to provide a forum for scientists to share the current state of the art in liquid cell microscopy and to define a pathway for future developments. Articles dealing with all aspects of the theory, practice and applications of liquid cell microscopy are welcome.

### Guest Editors

Prof. Dr. Nigel D. Browning

Pacific Northwest National Laboratory, School of Engineering & School of Physical Sciences, University of Liverpool, Liverpool L69 3GQ, UK

Dr. B. Layla Mehdi

School of Engineering & School of Physical Sciences, University of Liverpool, Liverpool L69 3GQ, UK

### Deadline for manuscript submissions

closed (15 January 2022)



## Molecules

an Open Access Journal  
by MDPI

Impact Factor 4.6  
CiteScore 8.6  
Indexed in PubMed



[mdpi.com/si/61159](https://mdpi.com/si/61159)

*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 30th 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 15.1 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).