

Special Issue

Advanced Materials for Photocatalytic and Photoelectrocatalytic Water-Splitting

Message from the Guest Editor

This Special Issue focuses on recent advances in materials design for photocatalytic and photoelectrocatalytic water splitting. Emphasis is placed on novel semiconductors, hybrid composites, and heterostructures that enhance light absorption, charge separation, and catalytic efficiency. Potential topics include synthesis strategies, mechanistic insights, and the performance optimization of materials for hydrogen and oxygen evolution reactions. Contributions addressing solar-to-hydrogen conversion, band engineering, and innovative catalyst-support architectures are encouraged, as well as those promoting sustainable energy solutions through next-generation water-splitting technologies.

Guest Editor

Dr. Lagnamayee Mohapatra

Department of Quantum System Engineering, Jeonbuk National University, Jeonju-si 54896, Republic of Korea

Deadline for manuscript submissions

31 May 2026



Molecules

an Open Access Journal
by MDPI

Impact Factor 4.6
CiteScore 8.6
Indexed in PubMed



mdpi.com/si/238972

Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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).