

## Special Issue

# Enhanced Bioapplications of Biomolecules Mediated by Nanomaterials

### Message from the Guest Editors

Nanomaterials have revolutionized various fields, including biomolecules research and applications. Biomolecules such as proteins, nucleic acids, carbohydrates, and lipids form the basis of the chemistry of life. Using nanomaterials with biomolecules has led to significant advancements in diagnostics, therapeutics, and bioengineering. There are increasing applications of biomolecules in nanomaterials, with the study of related basic theory on optoelectronic chemistry developed quickly. In drug delivery, gold, silver, and magnetic nanoparticles can be conjugated with drugs or used as carriers to deliver therapeutic biomolecules like proteins and nucleic acids to targeted cells with enhanced efficacy and reduced side effects. This Special Issue will focus on the best contributions from a wide community of scientists to challenge and develop novel nanomaterials for biotarget molecules in drug delivery, disease diagnosis, tissue engineering, immunotherapy, and bioenergy processes. We invite both original research articles and review papers to be submitted for consideration.

### Guest Editors

Prof. Dr. Zhong Cao

Hunan Provincial Key Laboratory of Materials Protection for Electric Power and Transportation & Hunan Provincial Key Laboratory of Cytochemistry, School of Chemistry and Chemical Engineering, Changsha University of Science and Technology, Changsha 410114, China

Dr. Donghong Yu

Department of Chemistry and Bioscience, Aalborg University, DK-9220 Aalborg East, Denmark

### Deadline for manuscript submissions

closed (30 September 2025)



## Molecules

an Open Access Journal  
by MDPI

Impact Factor 4.6  
CiteScore 8.6  
Indexed in PubMed

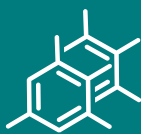


[mdpi.com/si/212383](https://mdpi.com/si/212383)

*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 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).