

## Special Issue

# Synthesis, Characterization, and Application of Highly Energetic Materials

### Message from the Guest Editor

Highly energetic material is a material that can react quickly and release heat energy under the stimulation of a small amount of external energy. Some reactions are accompanied by loud popping sounds and bright flames. In particular, due to the small size, high activity, and large contact area, nano-sized highly energetic materials have certain surface, volume, and quantum size effects, which have received more research attention. Because of their outstanding heat release ability, energetic materials have been widely used in igniters, thrusters, detonators, sensors, welding repairs, binders, and many other fields. Any novelty and promising breakthroughs are encouraged to be submitted to this research topic. This Special Issue aims to gather the latest results in simulation, synthesis, advanced characterization, and potential applications of highly energetic materials.

### Guest Editor

Dr. Xiaogang Guo

Chongqing Key Laboratory of Inorganic Special Functional Materials,  
College of Chemistry and Chemical Engineering, Yangtze Normal  
University, Chongqing 408100, China

### Deadline for manuscript submissions

closed (30 June 2025)



## Molecules

an Open Access Journal  
by MDPI

Impact Factor 4.6  
CiteScore 8.6  
Indexed in PubMed



[mdpi.com/si/189663](https://mdpi.com/si/189663)

*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 experimental organic chemistry, and now in its 25th 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 multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all 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).