



## New Electrochemical Energy Storage Materials

Guest Editors:

**Dr. Zaiyuan Le**

**Dr. Xianyang Li**

**Dr. Pengcheng Xu**

**Dr. Wenyue Shi**

Deadline for manuscript  
submissions:

**closed (30 September 2024)**

### Message from the Guest Editors

Dear Colleagues,

The field of electrochemical energy storage, encompassing batteries, has witnessed remarkable progress and growth over recent years due to advancements in materials, design, and production techniques. This progress has resulted in greater energy density, longer battery life, and faster charging capabilities. Despite this success, the industry still faces numerous challenges that need to be overcome.

New materials are being developed to achieve these goals, including lithium–sulfur batteries, lithium-ion batteries, fuel cells, sodium-ion batteries, solid-state batteries, metal–air batteries, and supercapacitors with improved electrodes and electrolytes. Research can be approached through various methods and techniques, including material synthesis and characterization, device fabrication, testing and analytics, modeling and simulation.

This Special Issue aims to create advances in research and development of new electrochemical energy storage materials. Topics include, but are not limited to, synthesis, characterization, analysis, simulation and application from a perspective of electrochemistry and beyond.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Thomas J. Schmidt**

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

## 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.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**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)

## Contact Us

---

*Molecules* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/molecules](http://mdpi.com/journal/molecules)  
[molecules@mdpi.com](mailto:molecules@mdpi.com)  
[X@Molecules\\_MDPI](#)