

Special Issue

Novel Materials in Li-Ion Batteries

Message from the Guest Editors

Lithium-ion batteries play a pivotal role in modern energy storage and supply, making continuous innovation in this technology vital for driving the clean energy revolution. The performance of LIBs is closely tied to the characteristics of their positive and negative electrode materials. Therefore, significant advancements can be achieved by exploring novel materials for both electrodes, such as oxides, phosphates, and sulfides, and by optimizing electrolyte and separator materials to enhance battery capacity and safety.

Papers on theory, experiments, design, simulation, etc., will be considered for publication, and we expect that many will contain aspects of all of these. Topics of interest include, but are not limited to, the following:

- Lithium-ion battery
- Ionic conductors and electrolytes
- Computational materials science
- Finite element analysis
- Computational fluid dynamics
- Phase field simulation
- Molecular dynamics
- Machine learning
- Advanced characterization technology
- Multiscale simulation and optimization
- Quantum computing
- Artificial intelligence
- Emerging battery technologies
- Battery recycling
- Environmentally friendly materials.

Guest Editors

Dr. Pengwei Li

School of Materials Science and Engineering, Northeastern University, Shenyang, China

Prof. Dr. Shaohua Luo

School of Materials Science and Engineering, Northeastern University, Shenyang, China

Deadline for manuscript submissions

closed (20 January 2025)



Inorganics

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 5.3



mdpi.com/si/180796

Inorganics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
inorganics@mdpi.com

[mdpi.com/journal/
inorganics](https://mdpi.com/journal/inorganics)





Inorganics

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 5.3



[mdpi.com/journal/
inorganics](https://mdpi.com/journal/inorganics)



About the Journal

Message from the Editor-in-Chief

Inorganic chemistry remains a lynchpin of modern chemistry, not only embracing the function and reactivity of combinations of most elements of the periodic table, but also providing a footing for studies of materials, catalysts, drugs, fuels and industrial chemicals. Arguably, the role and reach of inorganics in society have never been as great as today. Adventurous research at the heart and at the extremes of inorganic chemistry is vital to further advances and Inorganics offers authors the opportunity to publish exciting new research in an open access format.

Editor-in-Chief

Prof. Dr. Duncan H. Gregory

School of Chemistry, University of Glasgow, University Avenue, Glasgow G12 8QQ, UK

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Chemistry, Inorganic and Nuclear) / CiteScore - Q2 (Inorganic Chemistry)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).