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. Topic 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.

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Deadline for manuscript submissions

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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

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