Special Issue

High Capacity Anode Materials for Lithium-Ion Batteries

Message from the Guest Editors

Although lithium-ion batteries have been employed in electric vehicles, there is a continuous demand to increase the capacity of battery electrode materials, including both the anode and cathode. In this Special Issue, we seek papers on the design, synthesis, characterization, and mechanistic understanding of high-capacity anode materials for lithium-ion batteries. Topics of interest include, but are not limited to, the following:

- Lithium metal anodes;
- Alloying-type anode materials;
- Conversion reaction-type anode materials;
- Carbon-based anode materials;
- Composite anode materials, such as silicon-graphite composites;
- Advanced and emerging characterizations of high-capacity anode materials;
- Interface between solid electrolyte and anode materials;
- Design of high-capacity anode materials using first-principle computation;
- The modelling, simulation, and optimization of high-capacity anodes;
- The advanced manufacturing of high-capacity anode materials;
- The thermal safety of anode materials.

Guest Editors

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Deadline for manuscript submissions

15 December 2025

Batteries

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 6.6

mdpi.com/si/157724

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Message from the Editor-in-Chief

Take the opportunity to publish your original scientific work or a review paper concerning battery materials, battery technology or battery application within this new open access journal. Along with material science, the journal also addresses engineering and multidisciplinary research topics, such as cell and system design or storage system integration. Publishing proffers visibility for the benefit of other experts and facilitates discussion of the research results within the field. You are invited to publish your work, read published papers and to participate in topical discussions.

Editor-in-Chief

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