Special Issue

Critical Materials and Interface Engineering for All-Solid-State Lithium Batteries

Message from the Guest Editors

Solid-state lithium metal batteries feature a wider operational temperature range and longer service life, making them more suitable for high-performance applications in future transportation systems, portable devices, and energy storage systems. This Special Issue aims to publish original research and review articles that highlight the latest advancements in the design and fabrication of solid-state electrolytes. Additionally, studies on theoretical calculations related to lithium metal interface engineering in all-solid-state batteries are also encouraged. Potential topics include, but are not limited to, the following:

- Solid-state electrolytes, including solid polymer electrolytes, inorganic electrolytes, and various composite electrolytes;
- Advanced characterization techniques and theoretical calculations/simulations of solid-state electrolytes;
- Artificial intelligence and machine learning for solid-state electrolytes;
- Interfacial design and modification within all-solid-state lithium metal batteries;
- Safety enhancement strategies and evaluations.

Guest Editors

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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.

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