Special Issue

Advances in Solid-State Batteries

Message from the Guest Editor

This Special Issue will address critical challenges in the development of solid-state batteries, including the synthesis of novel solid electrolytes to enhance ionic and/or electronic conductivity, electrochemical stability, and scalability. It additionally seeks the design of novel electrode composites with high capacity and fast kinetics at higher loadings under low pressure and low temperature. Additionally, it will focus on advanced characterization techniques and computational methods to better understand (electro)chemical and structural/mechanical degradation within functional batteries and predict their performance.

Potential topics include, but are not limited to:

The synthesis, processing, and properties of solid electrolytes;
The synthesis, processing, and properties of cathode materials for solid-state batteries;
The synthesis, processing, and properties of anodes (lithium metal/silicon/other anodes) for solid-state batteries;
Improving the interfacial compatibility of electrodes with solid electrolytes;
Anode-less solid-state batteries;
Strategies for inhibiting lithium dendrites.

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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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