Special Issue

Next-Generation Solid-State and Semi-Solid-State Batteries

Message from the Guest Editor

We invite you to contribute to our upcoming Special Issue, which aims to showcase cutting-edge research, innovative approaches, and critical reviews that advance our understanding and development of solid-state and semi-solid-state battery technologies. Research areas may include (but are not limited to) the following:

- Novel solid and semi-solid electrolyte materials with enhanced ionic conductivity and stability;
- Interface engineering strategies to mitigate electrode–electrolyte interfacial resistance;
- Advanced characterization techniques for solid-state battery components and interfaces;
- Scalable manufacturing processes for solid-state battery production;
- Lithium metal anode protection and dendrite suppression in solid-state systems;
- High-voltage cathode materials compatible with solid electrolytes;
- Fast-charging capabilities and mechanisms in solid-state batteries;
- Modelling and simulation of solid-state battery performance and degradation;
- Safety and thermal stability enhancements in all-solid-state batteries;
- Comparative studies between solid-state, semi-solid-state, and conventional liquid electrolyte batteries.

Guest Editor

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Deadline for manuscript submissions

closed (20 January 2025)

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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