

## Special Issue

# Advances in Electrolyte Materials for Solid-State Batteries

### Message from the Guest Editors

Solid-state batteries (SSBs) have emerged as a key technology for overcoming the limitations of conventional energy storage systems, attributed to their exceptional intrinsic safety and higher energy density. SSBs are now at a critical juncture towards commercialization, where the development of solid electrolytes remains a decisive factor for their commercial viability. However, existing solid electrolyte materials still face challenges that hinder widespread application. This Special Issue aims to provide a comprehensive overview of recent advances in solid electrolyte materials, including review articles summarizing their development and original research papers focused on performance enhancement and applications. By gathering cutting-edge research, this Special Issue seeks to accelerate the progress of solid electrolytes and facilitate the commercialization of SSBs. Key focus areas include the following:

- Ion transport mechanisms;
- Stability optimization;
- Interface engineering;
- Advanced characterization: multiscale analysis techniques;
- Scalable fabrication;
- Emerging design paradigms
- .....

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### Deadline for manuscript submissions

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## Batteries

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## About the Journal

### 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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