Special Issue

Solid-State Batteries: How Safe Are They?

Message from the Guest Editors

Being a revolutionary technology, solid-state batteries (SSBs) have the potential to transform the energy storage sector. Their promising features, such as higher energy density, faster charging, and wider operating temperatures, make them perfect for electric vehicles, electronics, smart grids, and aviation industries. Perhaps the most important advantage is their enhanced safety. Unlike conventional lithium-ion batteries with flammable liquid electrolytes, solid-state batteries utilize non-flammable solid electrolytes, significantly reducing the risk and threats of fire and explosion. However, a critical question remains: **how safe are solid-state batteries in reality?** This Special Issue of *Batteries* aims to discover the current state of knowledge regarding solid-state battery safety. We welcome submissions that address the following key areas:

- **Fundamental Mechanisms of Safety**.
- **Safety Challenges and Risks**.
- **Safety by Design**.
- **Life Cycle Analysis Considerations**.

We encourage submissions of original research articles, insightful reviews, and thought-provoking opinion pieces.

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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