

Special Issue

Advances in Thermal Management for Batteries

Message from the Guest Editors

Lithium-ion batteries are a promising technology for achieving the net-zero goal. Some of the current battery challenges such as lifetime and safety are very dependent on batteries operating temperature. A proper pack design as well as a thermal management system can overcome some of these barriers and ensure the batteries' safe operation. **In this Special Issue, we are looking forward to contributions in the following subject areas:**

- Multi-physics modelling of batteries;
- Impact of battery internal structure on heat generation;
- Impact of battery ageing on heat generation;
- Impact of battery ageing on battery safety;
- Thermal runaway modelling of a single cell or battery pack;
- Battery pack design for mitigating/delaying thermal propagation;
- Methodologies for manufacturing faulty cells to trigger thermal runaway;
- Battery heat release rate during thermal runaway for different chemistries/capacities/form factors;
- Novel thermal management technologies, especially for fast charging/severe climate conditions;
- Battery management system for optimal battery performance;
- Energy harvesting from battery packs.

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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