

Special Issue

Thermal Management System for Lithium-Ion Batteries

Message from the Guest Editors

Lithium-ion batteries (LIBs) have been widely used as power sources for both industry and daily life. This is mainly due to the salient features of LIBs, such as high energy density, high power output, low self-discharge rate and little memory effect. Nonetheless, the performances of LIBs are highly dependent on the operating temperature. A higher temperature would cause accelerated battery degradation with shortened lifetime and even thermal runaway, and a lower temperature would cause reduced discharge capacity and rate, leading to mileage anxiety and sudden power failure. Research on the thermal and energy storage performances of LIBs is still limited in terms of thermal and safety design in demanding application scenarios. This Special Issue, “**Thermal Management System for Lithium-Ion Batteries**”, aims to present and disseminate the most recent advances in the thermal management of LIBs under various application conditions. Keywords:

- liquid cooling and its hybrid forms
- air cooling
- phase-change materials and coupled cooling
- refrigeration cooling
- thermal safety performance
- dynamic thermal performance under operating conditions

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