Special Issue

Battery Safety: Challenges and Perspectives

Message from the Guest Editor

Lithium-ion batteries (LiBs) have penetrated deeply into all levels of society at a rate that has exceeded our understanding of the attendant risks and hazards. They are found in a wide range of devices of diverse sizes, from mobile phones via micromobility devices (e.g., e-bikes) to electric vehicles (EV) and grid-scale battery energy storage systems (BESS). Even though relatively safe, like all technology, LiBs fail, and the ever-growing number of LiBs is likely to result in more failures. It is mandatory to review and progress with the safety of LiBs as the technology landscape is changing fast. This Special Issue aims to highlight new research concerning safety on various levels, from a single cell to grid-scale BESS. You are invited to submit your original research, reviews and opinion pieces on the topics of chemistry changes, the evolution of battery management systems, pack design or ways to mitigate or combat thermal runaway. These can be experimental or modeling studies. Materials concerning legislations and standards and assessments of the impact of LiBs' failure on the surrounding environment (car parks, households, ferries) are also welcomed.

Guest Editor

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Deadline for manuscript submissions

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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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