

Special Issue

Lithium-Ion Batteries: Design, Preparation, Reaction Mechanisms of Electrode Materials, and Battery Life Evaluation

Message from the Guest Editors

With the development of “low-carbon goals” and the current market growth of portable electronic products, electric vehicles, and large-scale energy storage systems, high-performance lithium-ion batteries (LIBs) have attracted extensive attention on the basis of designing and preparing new electrode materials. Additionally, a systematic and thorough understanding of the structure and chemical mechanisms of the batteries will provide other insights to develop advanced and safe electrode materials for LIBs, and guide the development of high-performance batteries. This Special Issue on LIBs will focus on electrode material technologies and working mechanisms, as well as battery life evaluation. In this Special Issue, topics of interest include, but are not limited to:

- Novel lithium-ion materials: positive, negative, and electrolytes;
- Electrode design;
- Electrode preparation technologies;
- Working and reaction mechanisms of electrode materials;
- Structure and chemical evolution of electrode materials;
- New in situ and online sensing principles and approaches to monitor degradation phenomena;
- Battery life evaluation.

Guest Editors

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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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