Special Issue

Advances in Electrode Materials for Advanced Batteries

Message from the Guest Editor

In this Special Issue, we look forward to contributing to solving the above problems in the following three aspects: The understanding of chemical and physical mechanisms of battery degradation is the first step to develop more reliable and durable systems, which will allow us to improve the performance of commercial electrodes or develop new materials based on advanced characterization and theoretical models. Secondly, battery safety is always a prerequisite for the development of lithium-ion battery technology. We must pay attention to the safety of batteries and prevent overheating during charging. Finally, the transition from idealized experiments in the laboratory to industrial commercial production is emphasized. Topics include, but are not limited to:

- Improvement of commercialized electrode materials;
- Development of next-generation electrode materials;
- Enhancement of battery safety;
- Advanced characterization methods;
- Technologies to increase the initial Coulombic efficiency;
- Fast validation strategies to determine the performance of materials;
- The gaps between laboratorial and practical batteries.

Guest Editor

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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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