Special Issue

Material Science and Electrochemistry in Battery Processing and Manufacturing

Message from the Guest Editors

Lithium-ion batteries are some of the most important technologies used for energy storage, and the increasing need for electrical vehicles and grid energy storage continues to stimulate the rapid growth of the lithium-ion battery market. Many excellent battery materials, processing and manufacturing technologies have been developed for low-cost, high-performance, and safe lithium-ion batteries. However, the diversified market and fast-growing battery manufacturing requires more fundamental and engineering support from academia. In this Special Issue, we will outline the status of battery processing and manufacturing technologies, propose strategies for tackling challenges and issues in this field, and provide valuable references for the academic and industrial battery community. Topics of interest include (but are not limited to):

- Battery material synthesis and challenges in scaling up;
- Electrode formulation and processing;
- Battery design;
- Battery testing and diagnosis techniques;
- Battery material recycling and upcycling;
- Battery materials characterization;
- Solid state battery manufacturing.

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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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