Special Issue

Rechargeable Batteries for Energy Storage

Message from the Guest Editor

As a result of fossil fuel depletion and environmental pollution, the societal transition towards a carbon-free energy model is of paramount importance. Rechargeable batteries, which enable the mutual conversion between chemical energy and electricity, offer the benefit of the efficient use of renewable energy and facilitate our daily lives. However, with the increasing growth of modern society, no single battery type can fulfill every application scenario, and there is a strong demand to explore new battery types to cater to diverse energy demands, from portable electronics to electric vehicles and grid storage. This Special Issue focuses on current developments in rechargeable batteries, such as non-aqueous batteries, aqueous batteries, solid-state batteries, monovalent-ion batteries, and multivalent-ion batteries. Potential topics include, but are not limited to:

- Electrode and electrolyte materials;
- Auxiliary materials;
- Electrode/electrolyte interfaces;
- Characterization techniques and electrochemical measurements;
- DFT calculations;
- Battery failure diagnosis;
- Battery configuration design.

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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