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Emerging Materials and Technologies for Post-Lithium-Ion Batteries

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Currently, the rechargeable lithium-ion battery is generally considered to be the best battery for EVs, as a compromise between the advantages and drawbacks among various traditional battery candidates (e.g., fuel cells, solar cells, lead-acid, Ni-Cd and Ni-MH batteries). However, the application of lithium-ion battery is limited owing to some practical challenges such as high cost (e.g., lithium and cobalt raw resources), low energy/power density for high rate application, and intrinsic safety risk using organic electrolyte. Therefore, it is crucial to develop novel materials and technologies beyond the lithium-ion batteries with low price, high energy/power density, and reliable safety.

In this special collection, potential topics include, but are not limited to:

- Sodium ion batteries;
- Lithium sulfur batteries;
- Metal air batteries;
- Solid state batteries;
- Supercapacitors;
- Fuel cells.

Dr. Hao Liu
Guest Editor

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Message from the Editor-in-Chief

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