Special Issue

High Energy Lithium-Ion Batteries

Message from the Guest Editor

Since the invention of Li-ion batteries (LIBs) in the 1990s, the past decades have witnessed the booming of LIB-supported applications, typical examples being portable electronics and electric vehicles. Nevertheless, the rapid upgrading of current society, especially its intellectualization, is driving an increasing demand for high-energy-density batteries technologies. Moreover, the need for high-energy LIBs is rather urgent for electric vehicles to increase their endurance to overcome “range anxiety”. Therefore, we are calling for papers on this Special Issue to promote current research on this topic, which covers the main components of LIBs (cathode, anode, electrolyte) and their characterizations and fundamental understandings in the purpose of high-energy LIBs. Potential topics include but are not limited to:

- High-capacity cathode materials;
- Anionic redox;
- High-capacity anode materials;
- Wide-voltage-window electrolyte;
- Solid electrolyte interface engineering;
- Full cell design;
- Advanced characterization techniques;
- Density-functional-theory method on batteries.

Guest Editor

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Deadline for manuscript submissions

closed (30 November 2023)

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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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