Special Issue

Next-Generation Materials and Advanced Characterisation Techniques for Practical Li-Ion Batteries

Message from the Guest Editor

The scientific scope of the Special Issue comprises (but is not strictly limited to) the following topics:

- Novel functionable active materials with potential practical significance (advanced cathodes based on NMC and LFP, silicon-based materials, etc.);
- New-generation electrolytes and their properties (conductivity, stability, electrochemical window, safety, ionic liquid based, solid electrolytes, etc.);
- Efficient coating technologies that can substitute the conventional slurry-based process (ultrathick active material coatings, electrochemical deposition, electrophoretic deposition, 3D printing, etc.);
- Anode-free Li-metal batteries (practical anode current collectors and full-cell performance);
- Advanced current collectors for practical LIBs (benefits from their properties, corrosion and corrosion inhibition, low thickness and weight, morphology);
- Applicable modern techniques for the characterisation of practically relevant parameters of LIBs and LIB materials, monitoring of safety, ageing and in situ mechanical properties (electrochemical dilatometry, measurements under external pressure, impedance-based methods, acoustic signal detection, etc.).

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.

Editor-in-Chief

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