Special Issue

Recent Advances in Performance of Materials for Li-Based Rechargeable Batteries

Message from the Guest Editor

In recent decades, the performance of Li-based rechargeable batteries has achieved higher rankings for specific energy, power and for cycle life. Undoubtedly, research efforts are also going in the direction of finding more sustainable solutions, considering the sky rocketing prices for many critical raw materials needed in the manufacturing of conventional Li-based batteries. Therefore, considerations for research in life cycle assessments (LCA) of battery and battery materials grow in relevance, focusing not only on manufacturing, but also on recycling, so as to cover the whole battery value chain. Having all this in mind, I am pleased to invite researchers in the field to submit their manuscripts to this Special Issue. The topics of interest include, but are not limited to, the preparation, properties, and applications of materials containing:

- Novel or improved anode and cathode materials;
- Improved stability of novel electrolytes and their additives;
- Modelling efforts for performance degradation predictions;
- Efforts towards achieving higher energy or power capabilities;
- Testing protocols for battery performance evaluation.

Guest Editor

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Deadline for manuscript submissions

closed (20 June 2023)

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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