Special Issue

Advanced Materials for Lithium Ion Batteries

Message from the Guest Editor

Improvements in the performance of lithium ion batteries are needed to meet the energy storage requirements for electrical vehicles, portable electronics and other applications. These performance improvements depend on the development of new and advanced materials. Needed improvements include electrode materials with increased capacity, extended voltage range and long lifetime (e.g., cyclability) as well as electrolyte materials with high conductivity and stability. The performance of battery materials depends critically on their microstructures, which requires the development of materials processing techniques to obtain the desired microstructures and morphologies. This special issue will focus on materials and processes for obtaining lithium ion battery anodes, cathodes and electrolytes that meet the increasing performance demands in mobile energy storage.

Guest Editor

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Message from the Editor-in-Chief

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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