Special Issue

Nanostructured Materials for Electrochemical Energy Storage

Message from the Guest Editors

Many efforts are currently made to increase the limited capacity of energy storage systems such as Li-ion batteries and supercapacitors using insertion and/or conversion electrodes. The way to reach this goal is to move to nanostructured materials because the larger surface to volume ratio of particles and the reduction of the electron and Li path length imply a larger specific capacity. Additionally, nanoparticles can accommodate such a dilatation/contraction during cycling, resulting in a calendar life compatible with a commercial use. This Special Issue will focus on the advanced nanomaterials for energy storage that are the most promising for practical applications. Both theoretical and experimental papers, communications, and reviews related to nanostructured materials for electrochemical energy storage are all welcome. Keywords

- Nanostructures
- Energy storage
- Batteries
- Supercapacitors
- Conversion mechanism
- Advanced electrodes

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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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