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Nanostructured Materials for Electrochemical Energy Storage

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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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Special Issue



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Message from the Editor-in-Chief

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