Special Issue

High-Performance Supercapacitors

Message from the Guest Editor

Lightweight, high-performance, and environmentally friendly energy storage and generation devices, such as those based on hydropower, solar energy, and wind energy in addition to lithium ion batteries and supercapacitors (SCs), are one of the key solutions to relieving the heavy burden on the current energy infrastructure, modern electronic industry, and the environment. In comparison to conventional batteries, SCs offer higher power density, amenability for large-scale production, faster charge-discharge rate along with remarkable cycling stability, rendering them potential energy storage device contenders in EV.

The most crucial factor for the preparation of efficient SCs are the selection of materials and fabrication of high-performance electrode materials with high electrical conductivity to ensure rapid chargedischarge.

Keywords

high-performance supercapacitors energy devices cyclic voltammetry galvanostatic charge-discharge electrochemical impedance spectroscopy flexible supercapacitors

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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