

## 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 charge–discharge.

#### Keywords

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

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