



## High-Performance Supercapacitor

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### Message from the Guest Editors

Dear Colleagues,

The increased concern regarding the depletion of fossil fuels and the emanation of greenhouse gases necessitates the advancements of energy storage devices for the effective utilization of renewable energy sources. In this scenario, high-performance energy storage devices (batteries and supercapacitors) are the best candidates to tackle the present and future energy crises. Although supercapacitors deliver less specific energy than batteries, they are unavoidable in practical applications, especially in hybrid electric vehicles and electronic gadgets.

Unprecedented strategies need to be developed to boost the specific energy of supercapacitors. The main focus should be centered on their important components, namely, active electrode materials, separators, and electrolytes. Further, an in-depth understanding of electrode kinetics and the various factors influencing their overall performance is crucial to achieving a higher efficiency of energy storage and its utilization. With this in mind, this Special Issue is designed to compile recent advancements in the field of high-performance supercapacitors for next-generation energy applications.





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