Special Issue

Advances in Hybrid Supercapacitors: Materials, Devices, Models, Systems, and Applications

Message from the Guest Editors

Hybrid supercapacitors are an emerging class of energy storage devices that combine the high power density of supercapacitors with the high energy density of batteries, offering a unique set of advantages that make them ideal for a wide range of applications. These devices are designed to provide a high level of power output in short bursts, making them well-suited for applications that require rapid charging and discharging, such as those related to electric vehicles or power tools. This Special Issue is focused on the recent advances in the field of hybrid supercapacitors, covering topics such as electrode materials, electrolytes, current collectors, device designs, modeling and simulations, energy management systems, applications, and safety issues. Contributions may cover, but are not limited to:

- Metal-ion hybrid supercapacitors;
- Battery-type supercapacitors;
- Aqueous hybrid supercapacitors
- Pb-carbon batteries;
- Ammonium ion capacitors;
- Oxide-based pseudocapacitors;
- Asymmetric supercapacitor.

Guest Editors

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Message from the Editor-in-Chief

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