

## Special Issue

# High Energy Density Supercapacitors: Acquisition, Characterization, and Application: 2nd Edition

### Message from the Guest Editors

The aim of this Special Issue is to publish high-quality research papers addressing the current and future advances in the development, characterization and application of supercapacitors.

Supercapacitors are materials that exhibit high power densities but low energy densities; thus, to further improve the energy densities of supercapacitors, it is important to design and synthesize new electrode materials. Also, in ideal energy storage systems, long-term stability and energy/power characteristics are crucial.

topics:

Methodologies for improving the energy density of supercapacitors, such as doping the active electrode with pseudocapacitive materials; transition metal oxides/rare earths or doping with electronically conducting polymers; the manufacture of three-dimensional (3-D) structures; the use of active carbon electrodes with a large surface; and the modification of the functional groups on the surfaces of electrodes, etc. Obtaining and characterizing supercapacitors and applying their special properties by integrating them into wearable or implantable biomedical devices, rechargeable sensors, military applications, automobiles, emerging technologies, etc.

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### Guest Editors

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## Batteries

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