



Batteries

---

an Open Access Journal by MDPI

---

CiteScore: 6.6

Impact Factor: 4.8

Special Issue Reprint

## High-Performance Super-capacitors

**Edited by: Xin Chen**

Climate change is now a global concern, and new energy materials and devices are being extensively studied to reduce greenhouse gas emissions and help solve the climate change problem. Supercapacitor materials and devices are very promising due to their quick charge/discharge capabilities, high safety and long cycling lifetimes.

However, the success of supercapacitor technology, when competing with existing energy storage technologies, largely depends on the improvement of its critical properties, such as the energy storage capabilities of the supercapacitor materials and devices. Thus, the development of high-performance supercapacitor materials and devices is a critical and timely research direction of the field.

This Reprint discusses original research on frontier supercapacitor materials, including porous carbons, biochars, MXene, transition metal oxides, sulfides, and their composites, in addition to ion liquid electrolytes. Reviews on various cutting-edge supercapacitor technologies are also included. All of these are important for boosting the development of supercapacitor science and engineering, which are envisioned to help in powering up our future.

[mdpi.com/books/reprint/12264](https://mdpi.com/books/reprint/12264)

