Special Issue

Supercapacitors: From Porous Materials to Applications

Message from the Guest Editor

The energy crisis and rapid growth in global pollution are major issues over the world. Because of the evolution of modern industries, the vast development of electronic devices has prompted an increasing demand for energy. Electrochemical energy conversion is considered to be the most effective technology for storing energy. One of the most commonly used electrical energy storage devices is the supercapacitor. Electrode materials play a decisive role in obtaining higher energy densities. Porous materials are widely used electrode materials due to their high surface areas and porosities. The architecture and microstructure of porous materials, such as pore size distribution, pore size, and pore connectivity, are considered to be key factors for determining electrochemical performance. This Special Issue focuses on "Supercapacitors: From Porous Materials to Applications". The present Special Issue will address developments in the field of the design and development of porous materials, including porous carbons, MOFs, COFs, transition metal oxides/sulfides, and so on for supercapacitor applications. Dr. Pei-Hsin Young

Guest Editor

Dr. Pei-Hsin (Christine) Young

Department of Chemical and Materials Engineering, National Yunlin University of Science and Technology, Yunlin 64002, Taiwan

Deadline for manuscript submissions

closed (5 May 2023)



Micromachines

an Open Access Journal by MDPI

Impact Factor 3.0 CiteScore 6.0 Indexed in PubMed



mdpi.com/si/122230

Micromachines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
micromachines@mdpi.com

mdpi.com/journal/ micromachines





an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



About the Journal

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

Editor-in-Chief

Prof. Dr. Ai-Qun Liu

Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.2 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).

