Special Issue

Carbon Nanoarchitectures for Electrochemical Energy Storage and Battery Applications

Message from the Guest Editor

Due to the rapid depletion of fossil fuels and increasingly serious environmental issues facing the world, sustainable renewable energy conversion devices are now receiving great attention, as are sustainable energy storage devices. Recently, carbon-based nanomaterials have been extensively studied as excellent candidates for electrochemical energy storage applications due to their high conductivity, chemical stability, enhanced surface area, and excellent electrical properties. This Special Issue will focus on discussing the synthesis, design, development, and fundamental advances made in various carbon-based nanoarchitectures (graphene, carbon nanotubes, carbon nanofibers, carbon quantum dots, etc.) for applications in electrochemical energy storage. We invite researchers to submit their original results on relevant topics. All types of contributions, including full-length research articles, review articles, and short communications, are welcome.

Guest Editor

Prof. Dr. Wei-Ren Liu

Department of Chemical Engineering, Chung Yuan Christian University, Taoyuan City 320, Taiwan

Deadline for manuscript submissions

10 February 2026

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/224070

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

mdpi.com/journal/nanomaterials

MDPI

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/journal/nanomaterials

MDPI

About the Journal

Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones
School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)