Special Issue

Study on Nanomaterials for Supercapacitors, Fuel Cells and Batteries

Message from the Guest Editor

Advanced electrochemical energy storage devices have attracted increasing research interests due to their wide applications in portable electronics, electric vehicles, and large-scale energy storage. Developing high-performance materials is one of the leading topics of today's electrochemical energy storage research. Nanomaterials show some unique advantages for various supercapacitors and batteries. Their reduced sizes and dimensions usually increase the rate performance of electrochemical energy storage devices due to the short distances for ion and electron transport within the particles. Nanomaterials typically show large surface area, which permits a high contact area with the electrolyte, thus ensuring a fast reaction kinetics at the electrode/electrolyte interface. This Special Issue is aimed at presenting the current state-of-the-art theoretical developments and practical applications of nanomaterials to improve the performance of electrochemical energy storage devices. It aims to attract both academic and industrial researchers in order to foster the current knowledge of nanomaterials and to present new ideas for future applications and new technologies.

Guest Editor

Dr. Chunlong Dai

School of Materials Science & Engineering, Sichuan University, Chengdu 610064, China

Deadline for manuscript submissions

closed (20 March 2024)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/178674

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

mdpi.com/journal/nanomaterials

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/journal/nanomaterials

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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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)

MDPI