Special Issue

Thin Film-Electrode Based on Nanomaterials

Message from the Guest Editor

With the increasing intensification of energy and environmental issues, green renewable energies have become research foci. Electrochemical energy storage technology is not restricted by geographical and topographical environments and can directly store and release electrical energy, thus attracting widespread attention in emerging markets and scientific research fields. Thin-film electrodes based on nanomaterials and their structures play key roles in supporting a multitude of coupled physicochemical processes that include electronic, ionic, and diffusive transport in electrode and electrolyte phases, electrochemical reactions, and material phase changes, as well as mechanical and thermal stresses, thus determining the storage energy density and power density, conversion efficiency, performance lifetime, and system cost and safety. The purpose of this Special Issue of *Nanomaterials* is to promote outstanding research concerning all aspects in the realm of thin-film electrodes based on nanomaterials for electrochemical energy storage technologies, focusing on state-of-the-art progress, developments, and new trends. We look forward to receiving your contributions.

Guest Editor

Dr. Zengsheng Ma

National–Provincial Laboratory of Special Function Thin Film Materials, School of Materials Science and Engineering, Xiangtan University, Xiangtan 411105, China

Deadline for manuscript submissions

closed (30 January 2023)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/101106

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

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)