

Special Issue

Advances in Nanomaterials for Perovskite Solar Cells

Message from the Guest Editor

Perovskite solar cells (PSCs) have received much attention in the last few years, and their power conversion efficiency has increased to over 25%. The efficiency of PSCs is comparable to silicon solar cells and is expected to be an important direction for a low-carbon society in the future. The development of new nanomaterials, such as hole/electron transporting materials, perovskite materials, and carbon materials, is a potential way to further enhance the power conversion efficiency and device stability. The aim of this Special Issue is to collect state-of-the-art contributions related to various applications of nanomaterials in the field of perovskite solar cells. This includes but is not limited to electrode materials, nanostructured perovskite materials, hole/electron transport materials, carbon materials, and their applications in perovskite solar cells. The authors are encouraged to highlight the advantageous features of these nanomaterials as well as to address their current limitations and challenges.

Guest Editor

Prof. Dr. Jingjing Chang

School of Microelectronics, Xidian University, 2 South Taibai Road, Xi'an 710071, China

Deadline for manuscript submissions

closed (15 December 2022)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/87419

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

[mdpi.com/journal/
nanomaterials](https://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](https://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.

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, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

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