Special Issue

Perovskite Nanostructures: From Material Design to Applications

Message from the Guest Editors

In the past decade, perovskite materials have attracted great scientific and technological interest due to their interesting opto-electronic properties. Nanostructuring of the perovskites due to their reduced dimensions are advantageous in offering large surface area, controlled transport and charge-carrier mobility, strong absorption and photoluminescence, and confinement effects. These features, together with the unique tunability in composition, shape, and functionalities in addition to the ability to form efficient, low-cost, and light-active structures make the perovskite nanocrystals efficient functional components for multiple applications ranging from photovoltaics and batteries to lasing and light-emitting diodes. The purpose of this Special Issue is to give an overview of the latest experimental findings concerning the tunability in composition, shape, functionalities, growth conditions, and synthesis procedures of perovskite structures and to identify the critical parameters for producing materials with functional characteristics.

Guest Editors

Dr. Dimitra Vernardou

Department of Electrical & Computer Engineering, Hellenic Mediterranean University, Estavromenos, 71410 Heraklion, Greece

Dr. Athanasia Kostopoulou

Foundation for Research and Technology-Hellas (FORTH), Institute of Electronic Structure and Laser (IESL), Heraklion, Greece

Deadline for manuscript submissions

closed (20 September 2021)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/39832

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)