Special Issue

Advanced Nanostructured Materials in Biomedical Applications: Synthesis and Characterization

Message from the Guest Editors

This SI focuses on the latest advancements in the synthesis, characterization, and application of nanostructured materials within the biomedical field. The utilization of nanostructured materials, including nanoparticles, nanocomposites, and nanocoatings, has revolutionized therapeutic and diagnostic approaches, offering new solutions for drug delivery, regenerative medicine, and medical imaging. Contributions that explore innovative synthesis techniques, detail the characterization of nanostructured materials, and demonstrate their efficacy and safety in biomedical applications are invited for submission. Papers that discuss the mechanistic insights into the interactions between nanostructures and biological systems, as well as the scalability of production processes, are particularly welcome. Reviews that summarize recent advances and the current state of the art in this rapidly evolving field are also encouraged.

Guest Editors

Prof. Dr. Alexandru Mihai Grumezescu

Department of Science and Engineering of Oxide Materials and Nanomaterials, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, RO-011061 Bucharest, Romania

Prof. Dr. Dan Eduard Mihăiescu

Department of Organic Chemistry, Faculty of Chemical Engineering and Biotechnologies, National University of Science and Technology Politehnica Bucharest, 011061 Bucharest, Romania

Deadline for manuscript submissions

20 August 2025

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/203890

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

mdpi.com/journal/materials

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/materials

MDPI

About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)