Special Issue

Recent Advances in Nanomaterials for Biomedical Applications

Message from the Guest Editor

Biomedical applications of nanomaterials are extremely versatile. New ideas, breakthrough results and novel technological developments are appearing on a near-daily basis. Functionalized metal nanoparticles, polymer nanoaggregates, liposomes and carbon-based nanomaterials find ever increasing applications in drug and gene delivery. Such nanomaterials possess advantages of controlled release, targeted delivery, co-delivery of several therapeutic or protective agents for combination therapies, improved treatment efficacy and reduced side effects. Furthermore, the plasmonic, fluorescent and magnetic properties of nanomaterials can be used to enhance imaging of cells, tissues and organs. On the other hand, the same properties can be used to achieve enhanced and localized photothermal and photodynamic therapies or magnetic hyperthermia. Nanomaterials also provide important advantages in the field of tissue engineering. They allow us to extend the functionality of scaffolds by modifying their mechanical and electrical properties, creating anisotropy and releasing single molecules and drugs in response to a change in environmental conditions.

Guest Editor

Dr. Leonid Gurevich
Department of Materials and Production, Aalborg University, DK-9220 Aalborg, Denmark

Deadline for manuscript submissions

20 January 2026

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/223184

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)