

Special Issue

Magnetic Nanoparticle-Based Materials: Synthesis and Biomedical Applications

Message from the Guest Editor

The development of magnetic nanoparticle-based materials has exponentially grown in recent years, with a great emphasis on biomedical applications. This Special Issue is devoted to the development and biomedical applications of magnetic nanoparticle-based systems. A focus on synthesis methods is justified due to the impact on surface chemistry, final shape, size distribution, crystallinity and magnetic properties. Nanoparticles with anisotropic shapes or nanoassemblies (nanorods, nanowires, nanotubes, nanosheets, nanoplates, nanocubes, nanoflowers) will also be explored. The biomedical applications include contrast agents for magnetic resonance imaging, combined magnetic hyperthermia/chemotherapy, drug delivery, theranostics, and multimodal cancer therapy. The development and applications of magnetic nanoparticle-based systems, such as magnetic liposomes, magnetic microemulsions, magnetic magnetogels, magnetic/plasmonic nanoparticles, magnetolipogels, and other hybrid magnetic nanosystems are also welcome to this Special Issue.

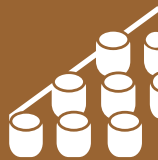
Guest Editor

Dr. Elisabete M. S. Castanheira

Physics Centre of Minho and Porto Universities (CF-UM-UP), University of Minho, Campus de Gualtar, 4710-057 Braga, Portugal

Deadline for manuscript submissions

closed (20 January 2023)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/65609

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

[mdpi.com/journal/
materials](https://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](https://mdpi.com/journal/materials)



About the Journal

Message from the Editorial Board

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.

Editors-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

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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)