



materials



an Open Access Journal by MDPI

Nanoparticles for Biological Imaging and Treatment Applications

Guest Editor:

Prof. Israel Gannot

Department of Biomedical Engineering, Tel Aviv University, Tel-Aviv 6997801, Israel.
The Malone Center for Engineering in Healthcare (<https://malonecenter.jhu.edu>)
Department of Electrical and Computer Engineering, Whiting School of Engineering;
Department of Biomedical Engineering; School of Medicine Johns Hopkins University, Baltimore MD

Deadline for manuscript submissions:

closed (31 December 2020)

Message from the Guest Editor

The progress in nanotechnology, wave propagation in tissue, and understanding of disease biological markers enables new and powerful methods for early detection, treatment, and monitoring.

Nanoparticles can be used for treatment by themselves or enhance chemotherapeutic agents' effect on the disease. Nanocages can carry drugs and can release them in a controllable way in an area where they are needed. This can be done with outside energy or self-opening when in a certain conditions (i.e., pH). Various imaging modalities such as MRI, magnetic particle imaging, magnetoacoustics, thermal imaging, and other optical methods are adapted, further developed or totally new and used for nanoparticle imaging. Imaging can be done with big expensive machines or portable bedside instruments. Nanoparticles are excellent vehicles for development of theranostics applications.

This Special Issue has been created to report all these fascinating advances in medical applications. We are seeking high-level manuscripts that report the newest results in the field.



mdpi.com/si/35314

Special issue



an Open Access Journal by MDPI

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

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.

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

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)