

Special Issue

Application of Nanomaterials in Biomedical Imaging and Cancer Therapy

Message from the Guest Editor

This Special Issue of *Nanomaterials* will cover the most recent advances in biomedical applications of nanomaterials in medical imaging, drug delivery, and cancer therapy. In biomedical diagnostic and therapeutic applications, nanomaterials such as gold nanoparticles can act as a contrast agent and dose enhancer in image-guided nanoparticle-enhanced radiotherapy using kilovoltage cone-beam computed tomography. Similarly, magnetic nanoparticles made of iron or iron oxide can act as a contrast agent in magnetic resonance imaging and an enhancer in thermotherapy, such as hyperthermia. For the rapid progress of synthesis technology, nanomaterials with variables of size, shape, composition, morphology, and surface chemistry can easily be fabricated through precise control. In addition, integrating functional ligands in the particles can enable them to perform multiple biomedical functions on the molecular and cellular level simultaneously.

Guest Editor

Dr. James C L Chow

Department of Radiation Oncology, University of Toronto and Radiation Medicine Program, Princess Margaret Cancer Centre, University Health Network, Toronto, ON M5G 1X6, Canada

Deadline for manuscript submissions

closed (20 November 2021)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/48604

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

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



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, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General
Chemical Engineering)