



## Antimicrobial Nanocomposites for Biomedical Applications

Guest Editors:

**Dr. Carmen Steluța Ciobanu**

National Institute of Materials  
Physics, 405A Atomistilor Street,  
P.O. Box MG7, 077125 Magurele,  
Romania

**Prof. Dr. Ștefania Mariana  
Raită**

Faculty of Veterinary Medicine,  
University of Agronomical  
Sciences and Veterinary Medicine  
of Bucharest, 105 Splaiul  
Independentei, 050097  
Bucharest, Romania

**Dr. Ciprian Florin Furnaris**

Faculty of Veterinary Medicine,  
University of Agronomical  
Sciences and Veterinary Medicine  
of Bucharest, 105 Splaiul  
Independentei, 050097  
Bucharest, Romania

Deadline for manuscript  
submissions:

**closed (10 October 2023)**

### Message from the Guest Editors

It is well known that infections are difficult to treat due to the fact that the microorganisms involved can easily adapt to treatment with common antibiotics. In this context, the development of new antimicrobials based on nanocomposite biomaterials with antimicrobial properties is of great interest to the scientific community. This new type of antimicrobials could reduce the use of conventional antibiotics and the development of drug-resistant microbes in the healthcare domain, leading to a reduction in hospitalization costs and an improvement in patients' quality of life.

The main aim of this Special Issue will be to highlight the latest advances in the development and complex characterization of new antimicrobial nanocomposites for biomedical application (infection prevention and treatment, prevention of bacterial colonization and biofilm formation, bone fillers, dentistry, wound dressings, drug delivery and other relevant applications). We invite all colleagues to share contributions that include the development of antimicrobial nanocomposites, their complex characterization and their potential biomedical applications.





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](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)