Special Issue

Advances in Antimicrobial Nanoparticles

Message from the Guest Editor

According to World Health Organization, antimicrobial resistance (AMR) which is the ability of a microorganism (bacteria, viruses, parasites) to stop an antimicrobial (antibiotic, antiviral and antimalarial) from working against it, is becoming an increasingly serious threat to global public health. Standard treatments become ineffective, infections persist and may spread to others. Nanoparticles (NPs) are increasingly used to target microorganisms as an alternative to the development of new antibiotics. NPs can be used either in solution, lyophilized, coated or incorporated into drug delivery devices to treat infection diseases, generate microbial diagnostics and antimicrobial vaccines. Sources of NPs include polymers, natural compounds, metals, organic, inorganic, composites and others. Synergistic effects of nanotechnology with antibiotics, natural extracts and photo-radiation; the mechanism of action against microbes are also important parameters for fighting AMR.

Guest Editor

Dr. Ioannis Liakos

Center for Micro-BioRobotics, Istituto Italiano di Tecnologia (IIT), Viale Rinaldo Piaggio 34, Pontedera, 56025 Pisa, Italy

Deadline for manuscript submissions

closed (31 October 2021)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/40015

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

mdpi.com/journal/nanomaterials

MDPI

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/journal/nanomaterials

MDPI

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, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

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