

Special Issue

Advanced Nanoscale Bactericidity

Message from the Guest Editor

This Special Issue of *Nanomaterials* on “Advanced Nanoscale Bactericidity” is devoted to the ambitious search for emerging efficient nano-enabled agents, counterfeiting the antibiotic resistance of pathogenic bacterial micro-organisms in a highly targeted, smart manner at the nanoscale. This problem should be definitively and quickly solved to save lives, focusing on a variety of aspects—chemical, physical, microbiological, etc. Moreover, innovative nanomaterials—colloidal nanoparticles, nanotextures etc.—and nano-treatment procedures are rapidly emerging to enable this service, promising highly focused, facile high-tech applications without pronounced side effects. This issue will present a synergistic collection of innovative research studies and their results, which could in the near future pave the way to emerging, pioneering key enabling approaches to antibacterial treatment and anti-fouling protection.

Guest Editor

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Deadline for manuscript submissions

closed (31 March 2023)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/134114

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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.

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