



Antibacterial Nanomaterials Coating: Fabrication and Applications

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Message from the Guest Editor

Antimicrobial resistance (AMR) has become one of the major health issues in the 21st century. The problem of AMR has become more serious with the increase rate of antibiotic-resistant bacteria. Faced with this reality, the need for action to develop the strategy for antibacterial materials in health care is imperative. Nanomaterials are a very promising approach for the next-generation of antibacterial coatings. Antimicrobial surfaces are important in everyday applications, ranging from healthcare purposes to food and agricultural applications. Different fabrications can be utilised to design the antimicrobial surfaces, like the immobilisation of antibacterial agents into the matrix of materials, slow-release of antibacterial agents, functionalisation of surfaces to prevent the bacterial adhesion, and nanostructuring the surfaces to prevent and inhibit the growth of bacteria.

In this context, this Special Issue welcomes the submission of original research works as well as reviews dealing with antibacterial surfaces. Topics can range from fabrication to applications of antibacterial coatings.





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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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