

Special Issue

Advances in Antimicrobial Nanomaterials

Message from the Guest Editor

Dear colleagues,

Over the last two decades, there has been a significant increase in the use of nanodrugs as innovative tools to combat the antimicrobial resistance of pathogens. Scientists are primarily interested in metal nanoparticles as innovative tools to combat pathogen resistance to conventional antimicrobial agents. The antimicrobial activity of several metals, metal oxides, metal halides, and bimetallic nanoparticles has been well documented. Moreover, functionalization of nanoparticles with chemotherapeutic drugs is not only a promising nanoplatform for combating bacterial resistance but may also reduce the dose of the drug and, thus, its toxicity.

On the other hand, antimicrobial nanoparticles can be entrapped in polymer membranes to form hybrid nanoparticles or nanocomposites. It is also possible to improve the therapeutic efficacy of nanoparticles and reduce their toxicity by modifying the surface with ligands or antibodies.

We are interested in manuscripts that report new antimicrobial protocols related to various nano-sized materials but also provide reviews of the subject.

Guest Editor

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