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Applications of Nanoparticles for anti-(Cancer Drug Delivery, Bacterial Activity) and SERS Applications

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Message from the Guest Editors

Dear Colleagues,

Nanoparticles have emerged as a promising tool in various fields of biomedical research due to their unique physical, chemical, and biological properties.

Anticancer drug delivery: Nanoparticles have been extensively studied for their potential use in targeted drug delivery for cancer therapy. Various types of nanoparticles, such as liposomes, dendrimers, and gold nanoparticles, have been developed and tested for their efficacy in delivering anticancer drugs to tumor cells.

Antibacterial activity: Nanoparticles have also shown potential as antibacterial agents due to their ability to disrupt bacterial membranes and inhibit bacterial growth.

Nanostructured materials for SERS applications: Surface-enhanced Raman scattering (SERS) has emerged as a powerful spectroscopic technique for ultrasensitive detection and the identification of various molecules.

In conclusion, this Special Issue highlights the potential applications of nanoparticles in anticancer drug delivery and antibacterial activity. This issue will also cover applications of nanostructured SERS substrates in bio/chemical sensing, imaging, and environmental monitoring.



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Special Issue



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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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