



Functionalized Gold Nanoparticles: Synthesis, Properties and Biomedical Applications

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Message from the Guest Editor

Among numerous types of nanoparticles, which are widely applied in diverse fields of science and industry, gold nanoparticles attract a special attention because of unique electrical, optical, catalytic and biological properties. Gold nanoparticles, due to their low toxicity and potential biocompatibility, are especially desirable in medicine for transporting and unloading of drugs and pharmaceuticals. On the other hand, gold nanoclusters exhibiting high fluorescence are particularly useful in biological imaging and cancer diagnostics. Assemblies of gold nanoparticles formed on solid surfaces are constructed for development of new types or electrochemical, plasmonic and piezoelectric sensors.

There is no doubt that studies on gold nanoparticles are multidisciplinary and involve many complex phenomena and processes.

This Special Issue of *Nanomaterials* aims to publish original high-quality research papers covering the most recent advances as well as comprehensive reviews addressing state-of-the-art topics in the field of gold nanoparticle preparation, functionalization and application.





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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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