

Special Issue

Synthesis and Applications of Gold Nanoparticles: 2nd Edition

Message from the Guest Editor

The pervasive utilization of gold nanoparticles (AuNPs) has stemmed from their distinctive optical, electronic, and physical attributes. AuNP applications continue to evolve, encompassing electronics, sensors, diagnostics, solar cells, catalysis, nanoengineering, photodynamic therapy, therapeutic agent delivery, and more. In this Special Issue, we eagerly anticipate exceptional contributions centered around the theme of "Synthesis and Applications of Gold Nanoparticles". Encompassing both fundamental principles and the latest advancements, this collection aims to spotlight the highly promising field of gold nanoparticles, with the aim to engage the widest possible audience. Embracing subjects such as AuNP synthesis, their integration with biologically compatible ligands, diagnostics, plasmon-based labeling and imaging, optical and electrochemical sensing, as well as disease-specific therapies, we invite dedicated researchers to submit original research papers or comprehensive review articles, allowing us to collectively present the forefront of progress in this dynamic field. We look forward to receiving your contributions.

Guest Editor

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Deadline for manuscript submissions

closed (20 June 2025)



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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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