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# **Synthesis and Applications of Gold Nanoparticles**

Guest Editor:

#### Prof. Dr. Wen-Huei Chang

Department of Applied Chemistry, National Pingtung University, Pingtung, Taiwan

Deadline for manuscript submissions: closed (20 August 2023)

### Message from the Guest Editor

Gold nanoparticles have become one of the most widely used nanomaterials due to their unique optical, electronic, and physical properties. The range of applications for AuNPs is growing rapidly and includes electronics, sensors, diagnostics, solar cells, catalysis, nanoengineering, photodynamic therapy, and therapeutic agent delivery, among others.

This Special Issue will accept outstanding contributions related to the topic, "Synthesis and Applications of Gold Nanoparticles", covering areas ranging from the basic concepts to the up-to-date results concerning the very promising use of gold nanoparticles, and hopefully reaching the widest audience possible. The topics include synthesis, conjugation with biological AuNP and biocompatible ligands, diagnostics, plasmon-based labeling and imaging, optical and electrochemical sensing, and therapy for various diseases. I warmly invite researchers involved in the broad areas of gold nanoparticle research to contribute original research papers or review articles to this Special Issue, presenting the current progress in this field.









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### **Editor-in-Chief**

#### Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

### 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, metalorganic 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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*Nanomaterials* Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/nanomaterials nanomaterials@mdpi.com X@nano\_mdpi