

Special Issue

Applications of Metal Nanomaterials in Detection and Spectral Analysis

Message from the Guest Editor

Nanomaterials have excellent performances in catalysis, optics, electricity, magnetism, chemistry and superconduction due to their special properties. Metal nanomaterials with excellent plasmonic properties have been widely used in spectrum technology for chemical analysis and molecular detection.

Plasmonic-based spectroscopy is a promising technique to probe and identify chemicals. Amplified by plasmonic nanostructured metals, the signal intensity of a target can be dramatically improved. Accordingly, it becomes possible to detect and distinguish the spectroscopic signature of a single molecule by SERS, and developing a novel metal nanostructure with a high density of "hot spots" has been a recent topic of intense discussion.

We invite researchers to contribute original and review articles regarding metal nanomaterials. Potential topics include the following: synthesis, modification, and functionalization of metal nanomaterials; application of metal nanomaterials as light concentrators, plasmonic substrates, optical sensors and signal amplifiers; in vitro and in vivo spectroscopy studies of chemicals and molecules with metal nanomaterials.

Guest Editor

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Deadline for manuscript submissions

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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.

Editor-in-Chief

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