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Nanomaterial-Based SERS Sensing and Detection Technology

Guest Editor:

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Deadline for manuscript submissions:

closed (20 December 2024)

Message from the Guest Editor

Dear Colleagues,

After decades of research and exploration, the advantages of SERS in detection, sensing and analysis have been gradually developed and widely used in materials science, biological science and other fields.

Substrate material was an important factor affecting SERS. In the past few years, nanomaterial-based SERS sensing has become an emerged field. Therefore, through theoretical discussion and experimental exploration, further exploring the relevant properties of these nanomaterials, optimizing their performance in SERS technology, and seeking innovative application fields of nanomaterial-based SERS sensing technology are important work for the further development of SERS technology.

As motivated by these, the Research Topic welcomes articles on, but not limited to, the following list of subjects, calling for either experimental and / or modelling results:

1. Synthesis and characterization of nanomaterials in SERS technology.
2. Design and structural characterization of nanoscale SERS substrate.
3. Machine learning tools in nanomaterial-based SERS technology.
4. Review of advances in nanomaterial-based SERS sensing technology.



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Special Issue



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Editor-in-Chief

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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