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Advanced Nanomaterials for LSPR and SERS Applications

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Message from the Guest Editors

Surface-enhanced Raman spectroscopy (SERS) and localized surface plasmon resonance (LSPR) have both been used to provide highly sensitive detection of molecules. Like surface plasmon resonance (SPR) sensors, LSPR sensors, which are usually based on metallic nanoparticles or nanostructured substrates, detect molecular binding based on changes in refractive index.

This Special Issue focuses on the recent progress in the design and application of nanomaterials for LSPR and SERS applications. Potential topics include, but are not limited to, the following: (1) Nanomaterials that can be used as SERS and LSPR substrates; (2) Nanomaterials that can be used to enhance the detection performance (sensitivity, specificity, etc.) of LSPR and SERS sensors; (3) Nanomaterials that can be used for sample preparation in LSPR and SERS applications; (4) Nanomaterials that can be used as Raman nanoprobes; (5) Nanomaterials that can be used to capture target molecules for LSPR and SERS sensing; (6) Synthesis, assembly, and functionalization of nanomaterials for SERS and LSPR applications.



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Special Issue



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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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