Special Issue

Surface-Enhanced Raman Scattering Biosensors: Technologies and Applications

Message from the Guest Editor

Surface-Enhanced Raman Scattering (SERS) Biosensors have numerous applications. This detection technology is advancing rapidly in chemistry, environmental science, food safety, materials science, medical diagnosis, biochemistry, and life sciences. On the one hand, it is motivated by the requirements of numerous and increasingly demanding biological and biomedical sensing applications; on the other hand, it is intimately tied to the availability of sensitive and repeatable ready-to-use SERS substrates. This Special Issue offers a unique chance to combine the results of these two research areas: SERS-based biosensor fabrication and application. Its primary goal is to review cutting-edge fabrication technologies (ranging from nanomaterials with tunable shapes and nanostructures to surface bio-functionalization) as well as cutting-edge applications, such as the detection of ex vivo biofluids and biomolecules, DNAs, and microRNAs; disease diagnosis; monitoring of cellular properties such as pH, temperature, and ion concentrations; and single-cell detection and identification.

Guest Editor

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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