Special Issue

Nanostructured Sensors

Message from the Guest Editor

Sensors are instrumental analytical devices for the selective detection of different analytes. A sensor contains a selective layer that can react with a target molecule and a transducer that can transform this interaction into a physical signal (optical, chemical, electrical, thermal, etc.). Sensor technology has made much progress through the development of nanomaterials. The surface effects in nanostructures caused by the high surface-to-volume ratio are the major factors that have enhanced sensor performance. This Special Issue will attempt to cover recent advances in nanostructured sensors. Indeed, the nanomaterial's composition (oxide, metal, etc.) and characteristics such as structure, morphology, crystallinity (together with roughness, porosity, grain size, etc.) and their influence on the sensor performance, including sensor i) sensitivity, ii) selectivity, iii) the time interval required for the measurements, and finally iv) the stability, will be investigated.

Guest Editor

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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 nanometerscale 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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