Special Issue

Development of Nanomaterials and Their Applications in Sensor Detection

Message from the Guest Editor

This Special Issue is devoted to reports on research based on the utilization of nanomaterials in sensor applications. Nanomaterials derive their extraordinary properties from quantum confinement and lattice modifications. A field of sensors relies on various materials and devices to capture physical, chemical or biological stimuli and produce output signals. Development of sensor materials for high selectivity, high stability, and other aspects is highly desirable. High chemical reactivity improved electronic and optical properties of nanomaterials; physical properties of nanomaterials can be suitably tuned to get maximum selectivity in sensor applications. These nanomaterials may be used in sensing devices as the active element to capture the stimulus, as well as the transducers to convert the change due to stimuli into observable output signals, or as the circuit components for sensing applications. The performance of sensing materials depends on their microstructural properties, such as morphology, crystalline phase, etc. Therefore, research on different approaches of synthesis of nanomaterials and their utilization in sensing applications is of great importance.

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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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