Special Issue

Chemical Sensor Development Using Nanomaterials

Message from the Guest Editors

Recent research on chemical sensors utilizing nanoparticles, nanosheets, nanowires, and graphene has significantly advanced the field of sensing technology, driven by the unique properties of these nanomaterials. These materials offer high surface-to-volume ratios, tunable physicochemical properties, and excellent electrical conductivity, making them ideal for detecting various chemical species with enhanced sensitivity, selectivity, and response times. We invite authors to submit original research and review articles related to hybridized nanoparticles, nanorods, nanosheets, and other nano-platforms for chemical sensing applications. Potential topics include, but are not limited to:

- Nanoparticle surface functionalization in chemical sensor design;
- Nanowire surface functionalization in chemical sensor development;
- Nanosheet surface functionalization and geometric deformation in chemical sensor design;
- Arraying/patterning nanomaterials for higher sensitivity and selectivity;
- Portable chemical sensor development;
- Chemical sensor design for environmental and biomedical applications;
- Chemical sensor development for toxic chemical detection;
- Chemical sensor development for narcotic materials.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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