

Special Issue

Low-Cost Environmental Gas Sensors

Message from the Guest Editors

The global burden of disease attributable to ambient air pollution is at a historical high, with over 6.6 million deaths per year. In order to fill the void in fine-scale air pollution data caused by the sparse locations of regulatory air quality monitors, low-cost environmental gas sensors are needed for sampling personal microenvironments using wearable or portable devices. The goal of this Special Issue is to provide an overview of the recent progress in the design, development, and application of miniaturized gas sensors for monitoring pollutants such as ozone in ambient air. The scientific areas of interest include, but are not limited to:

- Materials used, including metal oxides, carbon nanomaterials, and composite and hybrid materials;
- Models and computational approaches for the interaction between the analyte and sensor nanostructure;
- Sensor miniaturization, low-cost, and low-power consumption design;
- Novel measurement methods (e.g., impedance, resonance, etc., as opposed to common chemiresistive sensors);
- Sensor array design to measure multiple pollutants simultaneously;
- Applications such as wearable and smartphone-connected sensors.

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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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