Special Issue

Gas Sensor: Optimization and Application

Message from the Guest Editors

Gas sensors are critical devices that detect the presence of gasses in various environments, contributing significantly to safety, health, and environmental monitoring. The field of gas sensors is continually evolving, driven by the need for improved sensitivity, selectivity, and stability. This Special Issue delves into the latest advancements in gas sensor technology, exploring optimization techniques and diverse applications. We seek papers covering the following areas: (1) novel materials and nanostructures for gas sensing, including metal oxides, polymers, and nanocomposites; (2) innovative fabrication methods and device integration; (3) advancements in sensor sensitivity, selectivity, and response time; (4) characterization techniques and performance evaluation under various conditions; (5) the development and validation of theoretical models and simulations for gas sensing; and (6) real-world applications of gas sensors in areas such as environmental monitoring, industrial safety, medical diagnostics, and smart systems.

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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 multidimensional network.

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