Special Issue

Miniaturized Gas Sensors

Message from the Guest Editors

Gas sensors are present in a wide range of applications in industries and consumer life. The sensor need is growing exponentially to facilitate connected objects used in automotive and commercial markets. Hazardous gas detection is crucial for safety and becomes useful for home and office environments for decision help through health monitoring. In recent years, smart city and smart home projects have driven the need for advanced gas sensors working at room temperature. Advancements in semiconductor technology, developments in nanomaterials, and new manufacturers are leading toward gas sensor miniaturization. Power consumption should be minimized to be implemented in embedded systems, and the number of them will increase to enhanced gas detection through wireless communication and collaboration between sensor nodes. Miniaturized and low power gas sensors are also actual needs to be embedded into various devices, such as smartphones or wearable objects in emerging applications. This Special Issue aims to generate discussions on the latest advances in research on gas sensing technologies and more particularly the challenges and the opportunities offered by miniaturized gas sensors.

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