Special Issue

Novel Nanomaterials in Gas Sensors

Message from the Guest Editors

Gas sensors are applied as an important cornerstone of the digital sensing layer for the Internet of Things, and the innovation of sensitive materials, sensing devices, and sensing mechanisms is of great scientific value in improving gas sensing performance. For the development of novel gas sensing materials, several key scientific issues should be addressed: the structure–activity relationship between gas adsorption/desorption at the gas–solid interface, charge separation and transportation,and gas sensing mechanisms should also be clarified. In recent years, there have been several new strategies to improve the gas sensing performance of nanomaterials, such as reversible tautomerism of the covalent organic framework, the confinement effect of the core-shell nanostructure, micro/nanostructure regulation, and so on. All studies should put forward new insights into the dynamic process of gas sensing.

Guest Editors

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Deadline for manuscript submissions

closed (20 March 2025)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/201709

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