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

Dr. Min Zeng

Dr. Nantao Hu

Dr. Jianhua Yang

Dr. Tao Wang

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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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