Special Issue

Chemical Sensors for Toxic Chemical Detection: 2nd Edition

Message from the Guest Editor

The increasing focus on chemical sensing of toxic chemicals is driven by rising health, environmental, and safety standards. Toxic chemicals, such as inorganic species, gases, carcinogens, and pesticides, are used across various sectors, and even trace exposures can have long-term adverse effects. Chemical sensors offer key advantages, including low cost, portability, simplicity, selectivity, and durability. This Special Issue invites original research and reviews on recent advances and challenges in chemical sensor development for detecting toxic chemicals. Topics of interest include:

- Trends in electrochemical sensors (immunosensors, biosensors, DNA-based, etc.) for toxic chemical detection;
- Carbon nanomaterials in chemical sensing systems;
- Composite materials as sensing elements;
- Biochips and microarrays in sensor production;
- Optical sensors and arrays for harmful substance detection;
- Acoustic-wave-based sensors;
- Sensors based on living organisms, tissues, and cells;
- Metal nanoparticles in sensing toxic chemicals.

Guest Editor Josipa Dugeč
Assistant

Guest Editor

Dr. Marijo Buzuk
Department of General and Inorganic Chemistry, Faculty of Chemistry and Technology, University of Split, 21000 Split, Croatia

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

mdpi.com/journal/sensors

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Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro
Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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