Special Issue

Advanced Carbon Nanomaterials for Sensor Applications

Message from the Guest Editors

Due to the abundance of carbon materials in nature, a novel device based on 1D, 2D, and 3D carbon-based materials is particularly appealing. These materials' diverse structural compositions provide a number of novel physicochemical properties, rendering them ideal choices for sensing applications. However, one must tailor their physicochemical characteristics for a specific functional application without compromising performance. In this context, numerous carbon-based sensor materials have been developed to date via functionalization, heteroatom doping, molecular engineering, interlayer chemistry, and so on. New gadgets are also being developed that are based on optical, luminescence, fluorescence, surface plasmon, electrochemical, colorimetry, and polarization phenomena. Though the available works address a wide range of sensing applications, there is a lack of understanding about commercialization and practicality. Therefore, this issue invites manuscripts that address issues related to sensing of healthcare-related biomolecules, environmental hazard chemical species , industrial manufacturing, food, pharmaceutical, etc.

Guest Editors

Prof. Dr. Lijun Wu

Guangdong Provincial Key Laboratory of Nanophotonic Functional Materials and Devices, School of Optoelectronic Science and Engineering, South China Normal University, Guangzhou 510006, China

Prof. Dr. Jagadeesh Suriyaprakash

Guangdong Provincial Key Laboratory of Nanophotonic Functional Materials and Devices, School of Information and Optoelectronic Science and Engineering, South China Normal University, Guangzhou 510006, China

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

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editors-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Prof. Dr. Yuguang Ma
State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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