materials

IMPACT FACTOR 3.4

Indexed in: PubMed

CITESCORE 5.2

an Open Access Journal by MDPI

Diverse Nanomaterials Applied in Bio- and Electrochemical Sensing

Guest Editor:

Dr. Parvaneh Rahimi
TU Bergakademie Freiberg, Institute of Electronic and Sensor Materials, Freiberg, Germany

Deadline for manuscript submissions:
20 August 2024

Message from the Guest Editor

The field of nanotechnology has witnessed significant advancements in recent years, leading to the development of diverse nanomaterials with promising applications in bio- and electrochemical sensing. These nanomaterials possess unique properties such as a high surface-area-to-volume ratio, excellent conductivity, and exceptional catalytic activity, making them suitable candidates for sensing applications.

One of the extensively studied nanomaterials is carbon nanotubes (CNTs), which have shown remarkable potential in biosensing. CNTs can be utilized as nanoelectrodes for detecting a range of biomolecules, including DNA, proteins, and enzymes. Their large surface area allows for increased analyte adsorption, resulting in enhanced sensitivity. Moreover, CNTs can be functionalized with various biomolecules, such as antibodies and aptamers, enabling selective detection of target analytes.

In summary, diverse nanomaterials, including carbon nanotubes, metal nanoparticles, and semiconductor nanomaterials, have been extensively studied and applied in bio- and electrochemical sensing.

materials

IMPACT FACTOR 3.4 | Indexed in: PubMed | CITESCORE 5.2

an Open Access Journal by MDPI

Editor-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

Message from the Editor-in-Chief

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.
Journal Rank: JCR - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Materials Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
𝕏@Materials_Mdpi