Special Issue

Recent Advancements in Nanomaterials for Biomolecular Monitoring in Miniaturized Sensing Platforms

Message from the Guest Editors

There is an increasing demand for miniaturized platforms that support the on-site monitoring of biomolecules such as pathogens, metabolites, proteins, and genetic material. Nanomaterials have facilitated the stable detection of these biomolecules with high sensitivity and specificity and can be applied to the transducing elements of wearable and implantable platforms. Efficient nanomaterial performance requires cutting-edge interdisciplinary contributions from researchers in the basic sciences and engineering, as well as from medical professionals. Topics of interest for this Special Issue include (but are not limited to) the following research areas:

- Point-of-care devices:
- Wearable and implantable sensors;
- Microfluidic sensors:
- Novel sensing strategies and redox cycling amplification;
- Novel nanomaterial for sensing;
- Sensing and drug delivery integration;
- Nanomaterials for robotics application in sensing.

We hope that covering a wide range of such appealing topics in our issue will not only serve as a valuable repository but will also motivate future researchers interested in biomedical diagnostics and nanoscience.

Guest Editors

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closed (30 June 2025)



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Biosensors is a leading journal, devoted to fast publication of the latest achievements, technological developments and scientific research in the exciting multidisciplinary area of biosensors. Both experimental and theoretical papers are published, including all aspects of biosensor design, technology, proof of concept and application. Special issues are devoted to specific technologies and applications, and a selection of the most outstanding papers each year is recognized. Pushing the boundaries of the discipline, we invite original papers, as well as timely reviews on cutting edge fields within the subject area.

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