

Special Issue

Improving Biosensor Performance Using Surface Chemistry

Message from the Guest Editor

Although many biosensors perform well in buffer solutions and research laboratory settings, transitioning to messier biological materials in clinical laboratories can often be challenging. Biological materials are full of other proteins, lipids, and even whole cells, which can interfere with sensor performance. Non-specific adsorption from these unwanted compounds can mask the sensor signal, block biomarker binding sites, and cause false negatives to be registered, greatly reducing biosensor performance in biological media. A variety of surface chemistries, surface coatings, and bio-interfaces have been developed to reduce non-specific adsorption and improve biosensor performance. In this Special Issue, we aim to collect a series of papers on unique and high-performing surface modifications and interfaces that improve biosensor performance, and allow biosensors to be used in real clinical samples, as well as in other areas such as water monitoring or food safety. These techniques are crucial to allowing biosensors to be used in real-world samples, and as such, we believe it is important to highlight new advances in biosensor surface chemistries to improve performance.

Guest Editor

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Deadline for manuscript submissions

31 July 2026



Biosensors

an Open Access Journal
by MDPI

Impact Factor 5.6
CiteScore 9.8
Indexed in PubMed



mdpi.com/si/256400

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About the Journal

Message from the Editor-in-Chief

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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