

Special Issue

Recent Advances in Photoelectrochemical Biosensors

Message from the Guest Editor

Photoelectrochemical (PEC) biosensors have emerged as transformative tools in analytical science, combining the sensitivity of photoelectrochemistry with the specificity of biorecognition elements. These systems leverage light-induced electron transfer processes to detect biological and environmental analytes, offering advantages such as high sensitivity, rapid response, and miniaturization potential. Recent advancements in material science have significantly enhanced PEC biosensor performance. This Special Issue invites contributions that explore cutting-edge developments in PEC biosensors, focusing on their design, functionalization, and applications in healthcare, environmental monitoring, and biomimetic sensing. We welcome original research articles, reviews, and perspectives that highlight novel methodologies, mechanistic insights, or applications of PEC biosensors. Submissions should emphasize scalability, reproducibility, and relevance to real-world challenges. For inquiries or to submit a manuscript, please contact the . Join us in advancing photoelectrochemical biosensing to create impactful solutions for a healthier and sustainable future.

Guest Editor

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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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