Special Issue

Sensors Based on Electrophysiology Measurements

Message from the Guest Editor

The past two decades have seen an exponential growth in investigations focused on developing analytical devices inspired from measurements typical to a traditional electrophysiology setups. The working principles rely on the ability to measure tiny changes in the ionic currents through a conducting pathway created in a supporting membrane upon specific or nonspecific interactions with analytes of interest. The large interest in this technology was fueled by the promise of fast and reliable DNA sequencing. However, this principle was extended for a large variety of sensing applications. The goal of this SI is to present recent advancements in this field that employ unregulated synthetic nanopores, wild-type or modified pore-forming proteins reconstituted into bilayer lipid membranes, and natural or artificial channels that include conductance regulation mechanisms upon exposure to physical or chemical stimuli. Original research articles and reviews that address the most recent advancements in sensing approaches identical or similar to an electrophysiology setup are welcome. For more details, please clink: mdpi.com/si/37622

Guest Editor

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Deadline for manuscript submissions

closed (30 April 2021)

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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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