Special Issue

Advancements and Applications of Biomimetic Sensors Technologies

Message from the Guest Editor

Biomimetic sensors are innovative technologies that draw inspiration from biological systems to design and develop sensors capable of mimicking or replicating certain functions or properties found in living organisms, including a series of partially selective chemical sensors or biosensors. These sensors mimic the structure, function, and principles of biological systems to achieve superior performance and have gained significant attention due to their potential to offer unique capabilities and advantages across various fields. Recent advancements and applications of biomimetic sensor technologies include the following: enhanced sensing abilities, miniaturization and integration, biological recognition elements, flexible and versatile platforms, bioinspired materials and structures, real-time monitoring and control, biomedical applications, environmental monitoring, robotics and autonomous systems, and bio-inspired sensing mechanisms.

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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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