Special Issue

Electronic Noses and Tongues as Biosensors

Message from the Guest Editor

Electronic systems, such as e-noses and e-tongues, are bioinspired instruments that mimic the senses of smell and taste. The response given by the receptors of these artificial systems achieve the recognition and estimation of the concentration of tested analytes. The transduction principle can be any easily-measured and miniaturized physical principle that can be linked with a chemical/biochemical reaction. Thus, electrochemical (potentiometric, amperometric, conductimetric), optical (absorbance, fluorescence, chemiluminescence), thermal, and piezoelectric transduction systems can be employed for both technologies. These sensor arrays (bioelectronics nose and tongues) are based on affinity and chemical interactions between analytes and different types of receptors (sensors). This Special Issue will be mainly concentrated on recent advances in e-noses and e-tongues.

Guest Editor

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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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