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Recent Advances in Biosensor Applications for Food Products

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Message from the Guest Editors

Biosensors are devices used to detect the presence or concentration of a biological analyte, such as a biomolecule, a biological structure or a microorganism. Biosensors generally have the advantages of fast response, low cost and high specificity, playing an important role in in situ detection. Food quality and safety are not only related to people's health but also affect societal stability; therefore, food quality and safety detection have always received significant attention.

Currently, a variety of biosensors, including electrochemical, optical, piezoelectric and calorimetric biosensors, have been developed for the detection of food quality (e.g., food ripeness and freshness and food additives) and food safety (e.g., pathogens, antibiotics, biotoxins and pesticide residues). The combination of biomaterials and nanomaterials (e.g., polymers, particles and clusters) has shown great potential for effective detection. Nevertheless, most of the existing biosensors still need modifications to improve their stability, selectivity and sensitivity.



Specialsue





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Message from the Editor-in-Chief

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