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Advances in Biosensors for Food Safety Control and Management

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Message from the Guest Editors

Food safety is critical for nutrition, health, and overall quality of life. As a result, there is an increasing demand for food safety and quality control. Biosensors can be specifically designed for this purpose because they have the potential to enable low-cost, time-effective, fast, precise, and accurate measurements. Biosensors are generally highly selective, offering several options for onsite and real-time food safety assessment. Additionally, to increase their sensitivity, transducer surfaces can be modified with several materials, such as metallic- and/or carbon-based nanoparticles and magnetic materials. To broaden the use of biosensors, advancements in transducer materials, equipment, and software, as well as multiplexed analysis, are necessary.

Several biosensors have been developed to assess common food contaminants, such as (illegal) additives, pesticides, antibiotics, pathogens, toxins, and drugs. Therefore, biosensors are expected to play an increasingly essential role in food safety control and management.



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Message from the Editor-in-Chief

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