Special Issue

Advances in Biosensor Technology for Analysis of Food Safety and Quality Control

Message from the Guest Editors

Ensuring global food safety and maintaining quality standards are paramount concerns, driving the escalating demand for rapid, sensitive, and cost-effective analytical techniques. Biosensor technology has emerged as a potent solution. Recent strides in biosensor platforms have substantially elevated detection the limits for various contaminants. The miniaturization and integration of biosensors with microfluidic systems have ushered in on-site monitoring capabilities, diminishing reliance on centralized laboratories and streamlining decision-making processes within the food industry. Moreover, the integration of nanomaterials and nanotechnology has bolstered biosensor sensitivity and selectivity, enabling precise detection of trace-level analytes. Advanced signal transduction mechanisms, including electrochemical, optical, and piezoelectric transducers, have broadened the spectrum of detectable analytes and achieved multiplexing capabilities. Recent advancements in biosensor technology have democratized access to food safety monitoring, empowering consumers, producers, and regulators alike to conduct on-the-spot analyses with minimal expertise.

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Message from the Editor-in-Chief

Foods (ISSN 2304-8158) is an open access and peer reviewed scientific journal that publishes original articles, critical reviews, case reports, and short communications on food science. Articles are released monthly online, with unlimited free access. Currently, Foods has been indexed by the Science Citation Index Expanded (SCIE - Web of Science), PubMed, and Scopus. Our aim is to encourage scientists, researchers, and other food professionals to publish their experimental and theoretical results as much detail as possible. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global food science community.

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