Special Issue

Innovative Chemical Approaches in Food Safety, Food Analysis, and Food Quality

Message from the Guest Editors

Food safety is associated with human health and significantly affects global public health in developing and developed countries. The complexity, cumulative nature, and diversity of food safety aggravate the risks of global governance. Innovative chemical approaches in food safety and food analysis have revolutionized food packaging and preservation by enhancing the shelf life, safety, and quality of food products. Key advancements include active packaging, which incorporates antimicrobial agents to prevent contamination; intelligent packaging that monitors food conditions in real-time; and biodegradable materials that reduce environmental impact. In food preservation, natural preservatives, natural products, plant extracts, and functional materials effectively inhibit spoilage and pathogens without compromising food quality. Monitoring and detecting food safety and quality through chromatography techniques, these methods study food safety from a chemical perspective, promising a future of safer, longer-lasting, and more sustainable food products.

Guest Editors

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Deadline for manuscript submissions

closed (30 June 2025)



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