



Metabolomics Analysis in Food Authentication and Traceability

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Deadline for manuscript
submissions:

8 February 2025

Message from the Guest Editors

Food fraud takes place when food products or food labeling are substituted, tampered with or misrepresented for economic gain. Food fraud is estimated to cost the global food industry USD 10-15 billion per year. Transparency and trust in global food chains have emerged as growing concerns for regulators, consumers, and food businesses due to recurring incidents of food fraud globally. To rebuild trust in this market, effective regulatory-based deterrents, advanced scientific-based detection/identification methods, and food fraud prosecution are required to maintain integrity in food control systems.

From the perspective of modern analytical chemistry, the internal chemical composition between authentic and fraud foods should be different. Metabolomics is a methodology for holistically qualitative and quantitative analysis of as many low-molecular-weight metabolites as possible in a biological system under specific conditions, which provides a powerful tool for food authentication and traceability.





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Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies have shown utility for elucidating mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

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