



Application of Metabolomics in Food Fermentation

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Message from the Guest Editors

Dear Colleagues,

Fermentation is a biochemical process, underpinned by the activities of microorganisms, that transform substrates within raw materials. Via metabolism, fermenting organisms yield a plethora of low-molecular-weight compounds. These metabolites not only impart novel flavors and textures, but also enhance the nutritional value of the resultant fermented products.

Within the realm of food science, metabolomics serves as a powerful analytical tool that concurrently identifies and quantifies the diverse array of metabolites spawned by microbial metabolism during fermentation. The comprehensive profiling of these compounds offers invaluable insights into the myriad biochemical pathways and chemical transformations that define the fermentation process at various stages.

The focus of this Special Issue is to reveal the pivotal role of metabolomics as a state-of-the-art approach for pinpointing a vast spectrum of microbial metabolites within fermentation ecosystems, harness the prowess of high-throughput mass spectrometry technologies to dissect and understand the complex metabolite networks in fermented foods.





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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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