Special Issue

Recent Advances of Spectrometric and Spectroscopic Techniques in Food Quality and Safety

Message from the Guest Editors

Spectrometric and spectroscopic techniques, including mass spectrometry, infrared and Raman spectroscopy, ion mobility spectrometry, differential mobility spectrometry, etc., are the major techniques for the study of food quality and safety nowadays. They are ideal tools in the evaluation of functional components, such as proteins and lipids, as well as key components related to food safety, such as pesticide residues, pollutants, authentication, and illicit adulterants. Spectrometry and spectroscopy is also the cornerstone of many modern biochemical techniques, such as proteomics and metabolomics.

This Special Issue will introduce recent advances of spectrometric and spectroscopic techniques in food quality and safety evaluations, explorations, and prospects the future application trends. Topics including, but not limited to, novel sample preprocessing methods, probing, ambient ionization (DART, DESI), structure elucidation, database searching, hyphenation (GC×GC-MS, LC×LC-MS, IMS-MS, etc.), chemometrics/nontargeted identification using spectrometric and spectroscopic techniques.

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As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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