

Special Issue

Emerging Food Processing and Novel Approaches for Extraction and Application of Bioactive Compounds

Message from the Guest Editors

Recent trends based on 21st Century consumer demands for healthy and functional foods boosted the application of naturally occurring bioactive compounds (e.g., polyphenols, phytosterols, fatty acids, flavonoids, caffeine, carotenoids, essential oils, etc.) In this sense, extraction, stability during the process, and applications of these valuable molecules have attracted attention in the food, pharmaceutical, and cosmetic industries. Research showed that conventional extraction and processing technologies have several limitations such as low efficiency and degradation of bioactive compounds due to long processing time. Therefore, emerging food processing technologies and innovative approaches for the extraction and application of bioactive compounds, including phytochemicals, have been recently explored in various regions of the world. These attractive technologies include extractions based on ohmic, microwave, radiofrequency, infrared, pulsed electric fields, moderate electric fields, ultrasound, high voltage electrical fields, high-pressure processing, combined technologies, and other innovative approaches.

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