

Special Issue

Innovative Separation Strategies for Bioactive Compounds from Plants: Methods, Mechanisms, and Applications

Message from the Guest Editors

The study of plant-derived bioactive compounds has gained significant attention due to their wide range of biological properties and potential applications in pharmaceuticals, nutraceuticals, cosmetics, and functional foods. However, the efficient separation, purification, and characterization of these compounds remains challenging due to their structural diversity, low abundance, and the complexity of plant matrices. This Special Issue aims to highlight recent advances and innovative methodologies in the separation of bioactive phytochemicals, including cutting-edge chromatographic techniques, membrane-based processes, solid-phase extraction, green and sustainable approaches, and integrated analytical platforms. Contributions focusing on methodological developments, process optimization, mechanistic understanding, and novel applications in biological systems are all welcome.

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