Special Issue

Extraction Techniques for Sample Preparation

Message from the Guest Editors

Sample preparation has long been recognized as the bottleneck in the analytical process, estimated to account for 70% of the overall chemical analysis. Currently, sample preparation techniques can be categorized into three categories: sorbent-based techniques, organic solvent-based techniques, and techniques based on the use of supercritical or subcritical fluids. In the past decade, the miniaturization of these techniques has gained significant attention from the scientific community, along with the development of nanocomposite materials and next-generation solvents. Sample preparation techniques are frequently coupled with instrumental methodologies for the determination and quantitation of analytes, such as high-performance liquid chromatography (HPLC) or gas chromatography (GC), both of which can be paired with standard detectors or mass spectrometry (MS). This Special Issue aims to highlight sample preparation techniques that can be effectively applied in the extraction or micro-extraction of analytes from various matrices and their determination through instrumental methods or sensor-based approaches.

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Deadline for manuscript submissions

31 July 2026

Molecules

an Open Access Journal by MDPI

Impact Factor 4.6
CiteScore 8.6
Indexed in PubMed

mdpi.com/si/240783

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As the premier open access journal dedicated to molecular chemistry, now in its 29th 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 all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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