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Special Issue Reprint

Recent Advances in Volatile Organic Compound Analysis as Diagnostic Biomarkers

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Volatile organic compounds (VOCs) are a diverse group of carbon-based molecules that are volatile at ambient temperatures and are emitted by an organism as a result of metabolic processes of cells and associated microbiome. The qualitative and quantitative profile of VOCs in biological fluids can vary depending on the physiological changes. Therefore, the pattern of volatile metabolites may reflect the presence of several diseases. This has been intensively investigated in the last few decades, resulting in an increasing number of studies focused on new volatile biomarker discovery.

This reprint aimed to summarize the recent findings related to VOCs detected in various biological fluids such as breath, urine and feces for biomedical applications. The content covers various topics, including but not limited to biomedical/medical application of VOC analysis, biomarker discovery, and novel approaches for sampling and analyzing VOCs.

