Special Issue

Recent Advances in Volatile Organic Compounds Analysis in Various Matrices

Message from the Guest Editors

Volatile organic compounds (VOCs) are a diverse group of carbon-based molecules which gain a lot of scientific attention in the last years. VOCs are responsible for the aroma of food products, can inform about metabolic changes in the body, can signal molecules for plant and bacteria, and play a role in the environment. The constant development of the analytical methods used for VOCs detection is on the rise, allowing for better profiling of several chemical classes in various matrices and better understanding the roles of VOCs. The increasing number of studies shows that VOCs possess different biological activities, including antimicrobial, antiviral, antioxidant, and others. The most interesting topic is the formation of VOCs during processing, discovering the metabolic pathways and possibilities of their modification allowing to obtain desired products of defined flavor properties. This Special Issue will be covering various topics, including but not limited to analytical advancements, biomedical/medical application of VOCs analysis, biomarker discovery, food aroma, and forensic and environmental sciences. Studies on the application of omics approaches are welcome.

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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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