



GC, MS and GC-MS Analytical Methods: Opportunities and Challenges

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Deadline for manuscript
submissions:
closed (31 August 2023)

Message from the Guest Editors

Gas chromatography (GC) is an analytical technique that is used to separate volatile components from incredibly complex matrices (such as smoke, fuel spills, etc.) and those of an extremely varied nature for their subsequent identification and/or quantification. GC has also been coupled to multiple detectors, such as mass spectrometers (MS), which are significantly high-sensitivity (in the ppb range) devices for the analysis and exact identification of previously separated components. Recently, several researchers have applied MS as a chemosensor, a procedure in which each fragment ion (m/z ratio) acts as a sensor and its abundance is equivalent to the signal of the sensor, in order to elucidate the total characteristic profile of each sample, which is as unique as a fingerprint; this method allows an analytical problem to be resolved without the need to identify the compounds. This trend has also been observed among other GC-coupled detectors, such as ion mobility spectroscopy or even UV-Vis spectroscopy.





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Message from the Editor-in-Chief

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