Oral Presentation

(Low-)flow modulation comprehensive 2D GC-MS: a limited-cost ultra high resolution approach for flavour & fragrance analysis

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The present contribution will describe on recent evolution of flow modulation (FM) comprehensive two-dimensional gas chromatography (GC×GC), within the context of mass spectrometry (MS) hyphenation. In particular, it will be shown how intensive research on an FM model has enabled a great reduction in gas flows making the combination of GC×GC and MS now much easier. It is noteworthy that the flow-modulation approach enables ultra high-resolution GC separations at a much lower cost compared to cryogenic modulation. Specific examples will be shown involving flavours & fragrances, and their analysis using FM GC×GC combined with single quadrupole, triple quadrupole, and high-resolution time-of-flight mass spectrometry.