

Press Release

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GC x GC(qMS) Comprehensive Chromatography New windows on the chemical world

GC x GC(qMS) provides more information on samples / Powerful analysis for a perfect cost/benefit ratio

Shimadzu, one of the world's leading developers of analytical instrumentation, offers an outstanding solution in Comprehensive Chromatography. Providing GC x GC(qMS) technology with the patented Zoex modulator a new dimension in the evaluation of complex samples is added. This new accessory complements the successful GC and GC(qMS) series of Shimadzu, GC-2010 and GCMS-QP2010 Plus.

GC x GC(qMS) Comprehensive Chromatography reveals that in chemical terms the world is much more complex than one-dimensional separation techniques show. Almost any matrix consists of more chemical species than detected previously. In Comprehensive Chromatography two columns of different stationary phases are used to achieve a two-dimensional separation.

GC x GC(qMS) targets applications of qualitative and quantitative analysis of natural products such as petrochemical samples and flavor

and fragrance compounds. But environmental, clinical or biological samples e.g. plant tissue extracts can also be analyzed.

The perfect match

Shimadzu is a leader in the development of Fast GC with the introduction of the first GC particularly designed for Fast GC: the GC-2010. The detectors of the GC-2010 have a very small minimum filter time constant of 4 ms as well as a maximum data acquisition frequency of 250 Hz for all detectors offered including FID, ECD, FTD (also called NPD), FPD and TCD.

The GC-2010 and the Zoex modulator are the perfect match for Comprehensive GC. The very fast detectors enable correct representation of the very narrow peaks obtained. The GCMS-QP2010 Plus features the fastest acquisition rates in a quadrupole instrument with a maximum of 50 scans per second.

The Zoex modulator is an interface between the two columns. The modulator accumulates the compounds from the first column, then focusses and injects them into the second column. The unique Zoex loop-type modulator has several advantages:

- no moving parts near the column.
- a single valve mounted outside the GC oven.
- provides the narrowest chemical pulses.

The GCImage software allows qualitative as well as quantitative analysis including MS library search in the NIST spectral library.

Zoex Corporation, based in Houston, Texas, USA has driven the commercial development of GC x GC from its earliest days. Today, Zoex GC x GC systems are installed throughout the world in such applications as petroleum, flavors and fragrances, environmental, forensic, and health related analysis.

Caption: Well suited for Comprehensive Chromatography:
Shimadzu's GCMS-QP2010 Plus

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