Course on Comprehensive 2D Gas Chromatography with Particular Emphasis on MS Hyphenation

Who should attend

PhDs, post-docs, and in general University researchers involved in separation science, and who are interested in boosting the power of their GC methods; GC operators working in the petrochemical, pharmaceutical, flavour & fragrance, environmental, tobacco, and food industrial fields; GC analysts focused on biological studies.

Accomodation

A classy hotel located in in the centre of Messina made a special price arrangement for the course partecipants. Additionally, we have arranged free-of-charge transportation from and to the hotel, in the morning and evening respectively.

How to arrive in Messina

There are two airports relatively near to Messina, specifically Reggio Calabria and Catania. Upon your arrival (inform us on your flight plan in due time), we will arrange free-ofcharge transport from the airport to Messina.



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An outstanding theoretical/practical comprehensive 2D GC-mass

spectrometry (GC×GC-MS) course will be **held** in **September**

(26-29) 2016, in Messina (Italy)



4-day theoretical and "hands on the instrument" GC×GC-MS course using cryogenic and flow modulators, and 5 types of mass spectrometry (single quadrupole, triple quadrupole, low and high-resolution ToF, and quadrupole ToF)

Organized by:

Prof. Luigi Mondello

Prof. Peter Q. Tranchida

Sponsored by:

Agilent Technologies

Waters THE SCIENCE OF WHAT'S POSSIBLE

Local Organization

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Course on Comprehensive 2D Gas Chromatography

4-day theoretical and "hands on the instrument" GC×GC-MS course using cryogenic modulators, and 5 types of mass spectrometry (single/triple quadrupole, low and high-resolution ToF, and quadrupole ToF)

An outstanding comprehensive 2D GC-mass spectrometry (GC×GC-MS) theoretical/practical courses will be held in September (26-29) 2016, Messina (Italy). The course will last 4 days and is organized by two world-recognized leaders in the field of GC×GC-MS analysis, namely Prof. Luigi Mondello and Prof. Peter Q. Tranchida. There will be a maximum of only 16 persons allowed. The price of the 4-day course is 2,500 Euro, comprising: travel to and from the hotel, coffee and lunch breaks, and the course dinner.

This special event is sponsored by five worldleading instrumental companies: Shimadzu, Leco, Agilent, Waters, and JSB.



Learn with the masters of GC×GC-MS in a world-premier event (September 2016)





Dr. Mariosimone Zoccal



with Particular Emphasis on MS Hyphenation

Point-by-point description of the theoretical course

- The shortcomings of 1D GC: all the instances in which 1D GC separations fall far from the analytical requirements, and you need more separation power, will be illustrated and discussed

- The basics of GC×GC: historical aspects, evolution, and principles of GC×GC will be described in great detail

- Method optimization: you will be shown all the "tricks of the trade", from proper column choice, to the application of the best gas flows/linear velocities and temperature program conditions, to finish with the selection of the most appropriate modulation and detection conditions

- 3D GC×GC-MS: the most powerful analytical tool today-available for the analysis of volatiles will be discussed, in particular, within the context of single/triple quadrupole (qMS/QqQ MS), low-/highresolution time-of-flight (LR ToF MS/HR ToF MS), and quadrupole time of flight (Q-ToF) mass spectrometric detection

- Flow modulation: all the advantages (and disadvantages) of this low-costing alternative to cryogenic fluids will be described and discussed

- GC×GC softwares: the main functions of three commercially-available software, namely Chromsquare (Shimadzu), ChromaTOF (Leco), and GC Image (GC Image) will be shown.

Details of the practical course

- Two practical sessions will be held simultaneously, with a maximum number of 8 persons per session

- You will be shown how to set-up both cryogenic and flow modulators

- "Hands on the instrument" applications using 5 types of MS instrumentation:

GC×GC-qMS GC×GC-QqQMS GC×GC-LR ToF MS

GC×GC-HR ToF MS GC×GC-Q-ToF MS GC×GC-APGC QqQ MS

- "Hands on the software" use of Chromsquare, ChromaTOF, and GC Image - In the final afternoon session you can "run our own sample"





Prof. Luigi Mondello