
**15TH Multidimensional
Chromatography
Workshop**

January 10 - February 12, 2024

Workshop Guidebook

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Full Program – MONDAY JANUARY 30, 2024

8:30 - 9:00 AM	Registration
9:00 - 9:30 AM	Opening Remarks
9:30 - 10:00 AM	KL01 Petr Vozka - Quantitative analysis of aliphatic olefins in fuels made from plastic waste by comprehensive two-dimensional gas chromatography
10:00 - 10:30 AM	KL02 Bob Pirok - challenges to achieve unsupervised optimization of heart-cut and comprehensive two-dimensional liquid chromatography separations
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10:30 - 11:00 AM	Coffee Break
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11:00 - 11:20 AM	OL01 Marie Pardon - systematic study of a selective comprehensive two-dimensional liquid chromatography interface with active solvent modulation to overcome the mobile phase incompatibility between HILIC and RPLC
11:20 - 11:40 AM	OL02 Ali Amini - Prototyping microfluidic devices for spatial multi-dimensional liquid chromatography by using Digital light processing 3D-printing
11:40 - 12:00 PM	OL03 Turaj Rahmani - Hyphenation of temperature-responsive chromatography and ultrafast chiral chromatography as a generic comprehensive two-dimensional method for the analysis of chiral pharmaceuticals
12:00 - 12:20 PM	OL04 Giorgia Purcaro - LC-GC×GC-TOF MS/FID: a powerful multidimensional technique for automated and reliable characterization of complex samples
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12:20 - 1:30 PM	Lunch sponsored by Agilent
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1:30 - 1:50 PM	OL05 Grant Ochoa - developing advanced chemometric analysis methods for GC×GC-TOFMS to facilitate in-depth jet and rocket fuel characterization
1:50 - 2:10 PM	OL06 Laura McGregor - comprehensive analysis of vehicle emissions using thermal desorption (TD) and GC×GC-TOF MS
2:10 - 2:30 PM	OL07 Eliane Lazzari - qualitative screening of catalytic pyrolysis wood-oil by means of GC×GC-TOFMS and soft ionization
2:30 - 2:50 PM	OL08 Romaine Klein - characterization of automobile material emissions by TD-GC×GC-TOFMS and correlation with odor hedonic perception in humans
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2:50 - 3:50 PM	Coffee Break and Poster session
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3:50 - 5:20 PM	Guided Discussion 1: data handling
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6:30 PM	Conference cocktail
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Full Program – TUESDAY January 31, 2023

8:30 - 9:00 AM	Registration
9:00 - 9:15 AM	Opening Remarks
9:15 - 9:45 AM	KL03 Arnaud Delobel -
9:45 - 10:15 AM	KL04 Taylor Hayward - assessment of fruit quality through volatile analysis using spme and thermal desorption with GC×GC-TOFMS
10:15 - 10:35 AM	FL01 Christina Kelly - simplifying method development for routine petroleum analysis using flow-modulated GC×GC-MS/FID FL02 Agathe Legendre - renewable gases exploration by TD-GCXGC-TOFMS
10:35 - 11:05 AM	Coffee Break sponsored by JEOL
11:05 - 11:25 AM	OL09 Jan Leppert - modular simulation of complex gas chromatographic systems
11:25 - 11:45 AM	OL10 Timothy Trinklein - simulating GC×GC-TOFMS data with realistic run-to-run shifting to evaluate the robustness of chemometric software
11:45 - 12:05 PM	OL11 Daniel Geschwender - automated alignment for quantitative pairwise differencing of two-dimensional chromatography data
12:05 - 12:25 PM	OL12 John Dane - A New Generation High Resolution MS for GC×GC Analysis
12:25 - 1:30 PM	Lunch
1:30 - 1:50 PM	FL03 Caitlin Cain - discovering compositional differences between aerospace fuels using comprehensive two-dimensional chromatography with time-of-flight mass spectrometry and chemometrics FL04 Laurie Savage - analysis of natural organic matter (NOM) adsorbed to granular activated carbon (GAC) biofilter medium by thermal desorption (TD) coupled to GC×GC-TOFMS
1:50 - 2:10 PM	FL05 Elsa Boudard - sampling body odor for healthcare monitoring: the need to control influential factors FL06 Kinjal Bhatt - lipid profiling of boar tainted and untainted pig plasma using GC×GC-TOFMS

2:10 - 2:30 PM **FL07 Lina Mikaliunaite** - computational method for untargeted determination of cycling yeast metabolites using comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry

FL08 Wan Sin Heng - rapid detection of bacteria in food using static-headspace comprehensive two-dimensional gas chromatography (HS-GCxGC)

2:30 - 2:50 PM **FL09 Rushali Dargan** - using two-dimensional gas chromatography to understand decomposition odour in the canadian environment

FL10 Sonia Schöneich - tile-based fisher ratio analysis of comprehensive three-dimensional gas chromatography with mass spectrometry detection data

2:50 - 3:20 PM ***Coffee Break sponsored by JEOL***

3:20 - 4:50 PM ***Guided Discussion 2***

5:00 PM ***LECO tasting and science event***

Full Program – WEDNESDAY FEBRUARY 1, 2023

8:30 - 9:00 AM	Registration
9:00 - 9:15 AM	Opening Remarks
9:15 - 9:35 AM	OL13 James Harynuk - blueberries and wheat and beer, oh my! Adventures in the application of GC×GC to foodomics
9:35 - 9:55 AM	OL14 Tatiana Cucu - Lager beer flavour profiling by stir bar sorptive extraction, GC×GC separation and time-of-flight mass spectrometry
9:55 - 10:15 AM	OL15 Andrea Schincaglia - Chromatographic fingerprint of Pistacia vera fruits: an aromatic tour around the world
10:15 - 10:35 AM	FL11 Trenton Davis - discovery of exhaled breath volatile metabolites for detecting pseudomonas aeruginosa cystic fibrosis lung infections FL12 Micaela Galletta - Untargeted characterization of the volatile fraction and targeted determination of chiral lactones in Marsala wines by means of flow-modulation headspace SPME-chiralGC×polarGC-ToFMS
10:35 - 11:05 AM	Coffee Break
11:05 - 11:25 AM	OL16 Mariosimone Zoccali - determination of xenobiotics in food samples through reduced sample preparation coupled to cryogenic-modulation GC×GC combined with triple-quadrupole mass spectrometry
11:25 - 11:45 AM	OL17 Damien Eggermont - exploring the cup of coffee using GC×GC-MS combined with multiple combination of headspace extractions
11:45 - 12:05 PM	OL18 Marco Beccaria - two-dimensional gas chromatography-based techniques for lipidomics investigations
12:05 - 12:25 PM	OL19 Flavio A Franchina - method development and optimization for monitoring probe exhaled breath metabolites using parallel MS-based analytical platforms
12:25 - 1:30 PM	Lunch
1:00 - 1:20 PM	OL20 Caroline Gauchotte-Lindsay - novel pipeline for elucidation of high-level chemical mechanisms using non-targeted analysis by comprehensive two-dimensional gas chromatography coupled with mass spectrometry

1:20 - 1:40 PM	OL21 Steven Mascrez - Bursting the chromatographic fingerprint by combining vacuum-assisted headspace, multi-cumulative trapping SPME, and GC×GC
1:40 - 2:00 PM	OL22 Joe Binkley - application of a unique dual detection GC×GC-TOFMS/FID setup for reliable qualitative and quantitative fragrance analysis
2:40 - 3:10 PM	OL23 Thomas Gröger - The use of comprehensive two-dimensional gas chromatography for pharmaceutical applications: Investigation of complex drugs.
3:10 - 4:30 PM	Closing

POSTER LIST

- P01 Anika Lokker** non-destructive identification of prehistoric adhesives by HS-GCXGC-TOFMS: preliminary study
- P02 Grégory Bauwens** validation of the LC-GC×GC-ToFMS/fid platform for mineral oil analysis through the comparison with the result of interlaboratory trials
- P03 Sheri Schmidt** multiomics study of wheat volatiles
- P04 Lina Mikaliunaite** development of a valve-based GC×GC-QMS instrument for highly volatile sample analysis
- P05 Laura McGregor** comparing the aroma profiles of whisky by SPME-GC×GC-TOF MS
- P06 Hans-Gerd Janssen** using only the second half of your GC×GC instrument: an easy way to fast GC

The poster list will be updated with last minute posters