
**14TH Multidimensional
Chromatography
Workshop**

January 30 - February 1, 2023

Workshop Guidebook

Thank you to our sponsors for making this event possible. It is your generous support that enriches the conference program and allows us to operate the conference with free registration for all attendees.



Full Program – MONDAY JANUARY 30, 2023 – Registration: [here](#)

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

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 - 2D-LC/MS in a regulated biopharma environment: challenges and applications
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-TOF-MS
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	<i>Coffee Break sponsored by JEOL</i>
3:20 - 4:50 PM	<i>Guided Discussion 2</i>
5:00 PM	<i>LECO tasting and science event</i>

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	<i>Closing</i>

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
- P07 Allie Ferranti** Volatile profiling of bananas and banana pulp during ripening
- P08 Thibaut Dejong** Simultaneous multiple spme fibers sampling to maximize the sample potential
- P09 Clémence Gély** separation of cross-linked hyaluronic acid hydrogel digestates by LC×LC-MS

The poster list will be updated with last minute posters