

7th Multidimensional Chromatography Workshop - MOECC

Tuesday January 5th, 2016

8:30 am Registration and Coffee

9:00 am Opening Remarks

9:10 am GCxGC in the environmental field: from target to non-target analysis
Lourdes Ramos (*CSIC, Madrid Spain*)

9:50 am Modulation in GCxGC: the past, the present and the future
Tadeusz Gorecki, (*University of Waterloo, Waterloo, ON, Canada*)

10:20 am Morning Break

10:50 am A universal flow modulator for comprehensive two-dimensional gas chromatography
John V. Seeley, Stacey K Seeley (*Oakland University, Rochester MI, USA*)

11:15 am gcxGC: The Importance of Second Dimension Column Length in Promoting True Peak Capacity Increase Comprehensive Two-Dimensional Gas Chromatography
Jack Cochran (*Restek Corporation, Bellefonte PA*), Mark Merrick (*LECO, St Joseph, MI, USA*)

11:40 am A quadrupole time-of-flight mass spectrometer coupled to multidimensional gas chromatography using atmospheric pressure chemical ionization: Analysis of environmental samples by GCxGC-MS using and LC-MS instrument
Karl Jobst (*Ontario Ministry of the Environment and Climate Change, Toronto, ON Canada*)

12:05 pm Lunch Break

1:00 pm Characterization of mixed-halogen dioxins and furans in fire debris using GCxGC-TOFMS and APGC-MS/MS
Frank Dorman (*Pennsylvania State University, State College PA, USA*)

1:25 pm Seeking for organ-specific VOC signatures in human cadaveric decomposition
P.-H. Stefanuto, L. Dubois, R. Loyd, G. Delporte, P. Delvenne, **J.-F. Focant** (*University of Liege, Liege Belgium*)

1:50 pm GCxGC-TOFMS profiling of decomposition odour during the early post-mortem period for disaster victim recovery
P Armstrong, KD Nizio, **Katelynn A Perrault**, SL Forbes (*University of Technology, Sydney, Australia*)

2:10 pm Novel Ultra-Fast Quad and Triple Quad Detectors for GCxGC
Flavio A. Franchina, G Purcaro, PQ Tranchida, L Mondello (*U of Messina, Italy*)

2:30 pm Afternoon Break

2:50 pm Differentiating bacteria associated with cystic fibrosis lung infections using GCxGC-TOFMS
Katie D. Nizio, KA Perrault, AN Troobnikoff, M Ueland, S Mohsin, J Iredell, P Middleton, SL Forbes (*University of Technology, Sydney, Australia*)

3:10 pm Application of GCxGC-HRMS and Mass Defect Plots for Complex Sample Characterization
Jonathan D Byer, J Binkley (*LECO Corporation, St Joseph, MI, USA*)

3:30 pm Blood Serum Metabolomics Using GC- and GCxGC with High Resolution Time-of-Flight Mass Spectrometry (HRT)
David E Alonso, J Binkley, L Fell (*LECO Corporation, St. Joseph, MI USA*)

3:50 pm Traditional Belgian beers and Canadian Microbrewery, can GCxGC taste the difference?
P-H Stefanuto, N Ochiai, J-F Focant (*University of Liege, Liege, Belgium*)

Wednesday January 6th, 2016

8:30 am Registration and Coffee

9:00 am Method Validation in GCxGC: Advances and Perspectives
Jean-Marie Dimandja (*Georgia Tech University, Atlanta, GA, USA*)

9:25 am Separation without Fragmentation: GCxGC coupled with high-resolution mass spectrometry and soft ionization sources
Robert B Cody, (*JEOL USA, Peabody, MA USA*)

9:45 am A comparison of fresh and used aircraft oil for the identification of toxic substances linked to aerotoxic syndrome
Dave Megson (*Ryerson University, Toronto, ON Canada*)

10:05 am Morning Break

10:30 am The Quantification of SCCPs in sediment samples by GCxGC- μ ECD
Alina Muscalu (*Ontario Ministry of the Environment and Climate Change, Toronto, ON Canada*)

10:50 am Speciation of compounds of interest in petroleum products using GCxGC and TOF-MS with variable ionisation
Matthew Edwards, Laura McGregor, Steve Smith, Nick Bukowski (*Markes International Ltd, Llantrisant, UK*)

11:10 am Identification of Organic Acids in Used Engine Oil Residues by Pyrolysis-Comprehensive 2D Gas Chromatography-Time of Flight Mass Spectrometry
Paul V. Harvath (*Materials Laboratory, General Motors, Warren, MI, USA*)

11:30 am Non-targeted Analysis of Samples from the Oil Sands Area of Alberta, Canada
Carlos Manzano, D Muir, C Marvin (*Environment Canada, Burlington ON, Canada*)

11:50 am Combining GCxGC and the Kendrick mass defect approach towards the characterization of waters associated with shale gas systems
Paula Piotrowski (*Pennsylvania State University, State College PA, USA*)

12:10 pm Lunch Break

1:00 pm GCxGC-TOFMS Comparison of PDMS Stir Bar Sorptive Extraction and Liquid-liquid Extraction for the Determination of Emerging Contaminants in Wastewater

Kyra Murell, (*Pennsylvania State University, State College PA, USA*)

1:20 pm GC x GC Using Vacuum UV Detection for Selectivity and Structure Identification

Bill Winniford, WC Siegler, A Sandlin, J Reyes, K Sun, J Griffith (*The Dow Chemical Company, Freeport TX, USA*)

1:40 pm Vacuum Ultra-Violet (VUV) Absorption Spectroscopy - An Alternative for GCxGC Detection

Dale Harrison, (*VUV Analytics, Cedar Park, TX, USA*)

2:00 pm 2DLC-MS using Multiple Heart-Cutting Mode for RNase B – Glycoprotein

Bob Giuffre (*Agilent Technologies, Wilmington, DE USA*)

2: 20 pm **Afternoon Break**

2:40 pm Reversed phase x reversed phase liquid chromatography as a powerful analytical tool in the analysis of complex food samples

Francesco Cacciola, P Donato, F Rigano, P Dugo, L Mondello (*University of Messina, Italy*)

3:00 pm The Use of Artificial Neural Networks for the Prediction of Chromatographic Retention Time in the Identification of Pharmaceuticals and Illicit Drugs Metabolites in Environmental Waters

Richard Bade, L Bijlsma, L Barron, T Miller, JV Sancho, M Ibanez, N Thomaidis, F Hernandez (*University Jaume I, Castellon, Spain*)

3:20 pm Using Differential Ion-mobility Spectrometry as a Separation Tool to Improve LC-MS/MS Analysis

Chunyan Hao, M Noestheden (*SCIEX*), X Zhao, H Lee, D Morse (*Ontario Ministry of the Environment and Climate Change, Toronto, ON Canada*)

3:40 pm Simultaneous determination of Oxybenzone, Octocrylene, Avobenzone, Cis & Trans – Homosalate and Octisalate in human sunscreen lotion by high-performance liquid chromatography with ultraviolet detection

Masood Bhatti, N Theivendra, J Yu (*Alpha Laboratories, Toronto, ON, Canada*)

4:00 pm **Closing Remarks**

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