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 Trobkinhoff, 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-µECD
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, 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
This meeting is possible through the generosity of our valuable sponsors.