

PITTCON Conference and Expo 2011

Abstracts

**Atlanta, Georgia, USA
13-18 March 2011**

Index

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Session 15

Plenary Lecture

Sunday Afternoon, Sidney J Marcus Auditorium

4:40 PM

Polyvalent DNA Architectures: New Modalities for Intracellular Gene Regulation and Detection

Symposia

Session 20

ACS-DAC: Metallomics - Analytical Chemistry of Bio-Metals - arranged by David W. Koppenaal, Pacific Northwest National Laboratory

Sunday Afternoon, Room 401

David W. Koppenaal, Pacific Northwest National Laboratory, Presiding

1:05

(20-1)

[New, Powerful Tools for Metallomics and Metallomic Analysis](#) Gary M. Hieftje, Indiana University, Alexander Graham, Carsten Engelhard, Charles Barinaga, Christie Enke, David Koppenaal, Duane Rogers, Gerardo Gamez, Jacob Shelley, Steven Ray, Volker Hoffmann, Wolfgang Buscher

1:40

(20-2)

[Elemental and Molecular Mass Spectrometries to Probe the Metalloproteomes](#) Joseph Caruso, University of Cincinnati

2:15

(20-3)

[Defining the Metalloproteomes of Microorganisms](#) Michael Adams, University of Georgia, Aleksandar Cvetkovic, Andrew Lancaster, Angeli Menon, Brian Vaccaro, Farris Poole, Jeremy Praisman, Joseph Scott, Michael Thorgersen, Sunil Kumar

2:50

(20-4)

[Determination of Metal-protein Loading in a Single Measurement: Particle Beam/Hollow Cathode-optical Emission Spectroscopy \(PB/HC-OES\)](#) R Kenneth Marcus, Clemson University, C Derrick Quarles

3:25

(20-5)

[Metallomics Approach for the Quantification of Transferrin Glycoforms in Seal Blood Samples](#) Andreas

Prange, GKSS

Symposia

Session 30

Advances in Bioanalytical Investigations of Diabetes - arranged by James Edwards, University of Maryland

Sunday Afternoon, Room 309

James Edwards, University of Maryland, Presiding

1:05

(30-1)

[Probing the Metabolome of Insulin Secreting Cells in Diabetic Models](#) Robert Kennedy, University of Michigan

1:40

(30-2)

[Quantitative Efforts to Prove that Diabetes is a Dual Hormone Disease](#) Dana Spence, Michigan State University

2:15

(30-3)

[New Proteomics Platforms for Diabetes Research](#) Richard D. Smith, Pacific Northwest National Laboratory, Anuj Shah, David Prior, Erin Baker, Gordon Anderson, Mikhail Belov, Thomas Metz, Wei-Jun Qian, William Danielson, Yehia Ibrahim

2:50

(30-4)

[Capillary LC-MS and Isotope Labeling for Metabolite Quantitation in Diabetic Complications](#) James Edwards, University of Maryland

3:25

(30-5)

[Continuous Glucose Sensors: The Impact of the Wound Healing Response on Sensor Function, and the Need for Calibration](#) James Brauker, Brauker Biotech, Inc.

Symposia

Session 40

Building and Characterizing Hot Spots in SERS - arranged by Michael J. Natan, Cabot Security Materials Inc.

Sunday Afternoon, Room 312

Michael J. Natan, Cabot Security Materials Inc., Presiding

1:05

(40-1)

[Building SERS Sensors Through Hot Spot Engineering](#) Martin Moskovits, University of California Santa Barbara

1:40

(40-2)

[SERS of Hot Spots: Single Molecules and Single Particles](#) Richard P. Van Duyne, Northwestern University

2:15

(40-3)

[Super-resolution Imaging of Single Molecule SERS Hot Spots](#) Katherine A. Willets, University of Texas at Austin

2:50

(40-4)

[Controlled Aggregation of Nanoparticles by Specific Biomolecular Interactions to Enhance Raman Scattering](#) Duncan Graham, University of Strathclyde, Anna Robson, Colette Dalton, David Thompson, Fiona McKenzie, Jennifer Dougan, Karen Faulds, Lee Barrett

3:25

(40-5)

[Encapsulated SERS Hotspots: What We Know and What We Don't](#) Michael J. Natan, Cabot Security Materials Inc.

Symposia

Session 50

Electrochemistry at Nanoscale and at Nanoparticles - arranged by Bo Zhang, University of Washington

Sunday Afternoon, Room 314

Bo Zhang, University of Washington, Presiding

1:05

(50-1)

[Electrochemistry of Single Particles by Electrocatalytic Amplification](#) Allen Bard, University of Texas at Austin, Hongjun Zhou, Seong Jung Kwon

1:40

(50-2)

[High-field Coulomb Transport in Ultra Thin Electrochemical Cells](#) Henry S. White, University of Utah, Jiewen Xiong, Jing Guo

2:15

(50-3)

[Electrocatalytic Properties of Core/Shell Nanoparticles](#) Richard M. Crooks, The University of Texas at Austin, David Yancey, Emily Carino

2:50

(50-4)

[Electrochemical and Electrocatalytic Response at Single Au Nanoparticles](#) Bo Zhang, University of Washington, Bikash Jena, Jonathan Cox, Stephen Percival, Yongxin Li

3:25

(50-5)

[Electrochemistry of Transition Metal Oxide Nanoparticles](#) Royce W. Murray, University of North Carolina

Symposia

Session 70

Novel Instrumentation and Methods in Biomass Analysis - arranged by John P. Baltrus, US Dept of Energy

Sunday Afternoon, Room 310

John P. Baltrus, US Dept of Energy, Presiding

1:05

(70-1)

[Discovery of Genes Enabling and Regulating Polysaccharide Secretion and Cellulose Biosynthesis](#) Federica Brandizzi, Michigan State University

1:40

(70-2)

[Using Neutron Crystallography to Reveal the Mechanism of Enzymes for Renewable Energy and the Environment](#) Paul Langan, Los Alamos National Laboratory

2:15

(70-3)

[Spectroscopic Characterization of Algal Lipids: Chemometric Correlation of NIR and FTIR Spectra with Lipids in Algal Biomass](#) Lieve M. Laurens, NREL, Ed Wolfrum, Ed Wolfrum

2:50

(70-4)

[Chemical Imaging Using Mass Spectroscopy and Raman Spectroscopy](#) Jonathan V. Sweedler, University of Illinois, Paul Bohn, Paul Bohn

3:25

(70-5)

[Imaging and Characterization of Small Molecules and Activities from Complex Biological Materials](#) Trent Northen, Berkeley Lab, Benjamin Bowen, Benjamin Bowen, Richard Baran, Richard Baran, Wolfgang Reindl, Wolfgang Reindl

Symposia

Session 80

Porous Metal-Organic Frameworks for Sensing and Separations - arranged by Nathaniel L. Rosi, University of Pittsburgh

Sunday Afternoon, Room 311

Nathaniel L. Rosi, University of Pittsburgh, Presiding

1:05

(80-1)

[Nanoscale Metal-Organic Frameworks for Biomedical Imaging and Drug Delivery](#) Wenbin Lin, University of North Carolina

1:40

(80-2)

[Sorption and Structure in Biologically-derived MOF Materials](#) Matthew J. Rosseinsky, The University of Liverpool

2:15

(80-3)

[Integration of MOF Thin Films with Mechanical Sensors for Chemical Detection](#) Mark D. Allendorf, Sandia National Laboratories

2:50

(80-4)

[Metal-Organic Frameworks for Selective Gas Adsorption](#) Hongcai Zhou, Texas A&M University

3:25

(80-5)

[New Biomolecule-based and NIR-emitting MOFs for Molecular Sensing and Separations](#) Nathaniel L. Rosi, University of Pittsburgh

Symposia

Session 90

Role of the Analytical Sciences in the Human Exploration of Space - arranged by Marc D. Porter, University

of Utah

Sunday Afternoon, Room 308

Marc D. Porter, University of Utah, Presiding

1:05

(90-1)

[Monitoring the Cabin Environment of a Spacecraft Using Analytical Instruments](#) Darrell Jan, NASA

1:40

(90-2)

[An Autonomous Electronic Nose to Monitor Air Quality Events on the International Space Station](#) Margaret A. Ryan, Jet Propulsion Laboratory

2:15

(90-3)

[Analytical Instrumentation Used To Monitor Air Quality in Manned Spacecraft](#) Thomas Limer, Wyle Laboratories

2:50

(90-4)

[Using Color to Monitor the Spacecraft Environment](#) Daniel B. Gazda, Wyle Integrated Science and Engineering Group

3:25

(90-5)

[Detection of Biomolecules by Colorimetric Solid Phase Extraction](#) Marc D. Porter, Nano Institute of Utah

Workshop

Session 100

Implementing AnIML 1.0 - arranged by Gary W. Kramer, NIST

Sunday Afternoon, Room 408

Gary W. Kramer, NIST, Presiding

1:05

(100-1)

[The AnIML From 30,000 Ft: What is AnIML and What Can You Do With It?](#) Burkhard A. Schaefer, BSSN Software

1:30

(100-2)

[What AnIML is Not](#) Gary W. Kramer, National Institute of Standards and Technology

1:55

(100-3)

[AnIML Technique Definition Document for Chromatography](#) Maren Fiege, Waters GmbH

2:35

(100-4)

[Crosswalking AnIML with Legacy Data Formats](#) Stuart J. Chalk, University of North Florida

3:00

(100-5)

[SEDD - An Introduction](#) Anand R. Mudambi, US EPA

3:25

(100-6)

[SEDD - Everything You Wanted to Know.....](#) Joseph F. Solsky, US Army Corps of Engineers

Workshop

Session 110

Startup Companies: Taking Your Idea from the Lab to Commercialization - arranged by Bruce Chase, Pair Technologies LLC

Sunday Afternoon, Room 409

Bruce Chase, Pair Technologies LLC, Presiding

1:05

(110-1)

[Licensing Lessons](#) Scott Jones, University of Delaware

1:40

(110-2)

[Venture Capital Funding for Early Stage Companies](#) Patrick J. Foley, Innovation Capital Advisors

2:15

(110-3)

[The Do's and Dont's of Starting Instrumentation Business](#) Rina K. Dukor, BioTools, Inc.

2:50

(110-4)

[Startup High Tech Companies: The Mountain or the Abyss?](#) Bruce Chase, Pair Technologies LLC

Organized Contributed Session

Session 113

ACS-DAC: General Analytical Methods

Sunday Afternoon, Room 403

Emily A. Smith, Iowa State University, Presiding

1:00

(113-1)

[Wireless Electrochemical Sensor with Optical Readout: Detection of Alcohol](#) Weiping Li, Auburn University, Curtis Shannon

1:20

(113-2)

[Metabolomic Fingerprinting of Three Strains of Rat Using Multi-reflecting Time of Flight Mass Spectrometry – Qualitative and Semi-quantitative Comparison of Fat, Diabetic and Control Zucker Rats Using Complementation by UHPLC and GC](#) Jeffrey Patrick, Leco Corporation, Joe Binkley, John Chakel, John Heim, Kevin Siek, Lee Ott

1:40

(113-3)

[Comparison of Results from Theoretical Sequence Search Engines and Peptide Mass Spectral Libraries for Selected Biological Samples](#) Jeri Roth, National Institute of Standards and Technology, Dmitrii Tchekhovskoi, Niksa Blonder, Paul Rudnick, Qian Dong, Stephen Stein, Yuri Mirokhin

2:00

(113-4)

[Scanning Angle Total Internal Reflection Raman Microscopy](#) Emily A. Smith, Iowa State University, Jason Lupoi, Kristopher McKee

2:35

(113-5)

[Observe Acetyl Group Formation from CO Reaction with Methylated H-MOR by Diffuse Reflectance Infrared Fourier-transform Spectroscopy](#) Xiaoyun Chen, The Dow Chemical Company, Andrzej Malek, Michael Neidig, Rik Tuinstra

2:55

(113-6)

[Novel MS Imaging Scheme for Concurrent Acquisition of High Mass Resolution, High Spatial Resolution, and](#)

[MSn Imaging](#) Young-Jin Lee, Iowa State University, David Perdian

3:15

(113-7)

[Ultrasonic Production of Nano-size Dispersions and Emulsions](#) K Hielscher, Hielscher Ultrasonics

Organized Contributed Session

Session 115

ACS Subdivision of Separation Science: New Self Assembled Nanomaterials for Enhanced Chemical Separations I

Sunday Afternoon, Room 315

Lisa A. Holland, West Virginia University, Presiding

1:00

(115-1)

[Characterization of Self-assembling Phospholipid Nanomaterials with Capillary Electrophoresis](#) Stephanie A. Archer-Hartmann, West Virginia University, Lisa Holland, Xingwei Wu

1:20

(115-2)

[Development of Metal-enhanced Fluorescent Nanocomposites for Studying the Effects of Metallic Nanostructures on Properties of Fluorescent Molecules](#) Jiao Chen, University of North Dakota, Nenny Fahrudin, William Thompson, Yuhui Jin

1:40

(115-3)

[Ionic Self-assembly of Low-dimensional Nanostructures from Thiocarbocyanine-Based GUMBOS](#) Sergio L. de Rooy, Louisiana State University, Bilal El-Zahab, Isiah Warner, Min Li, Susmita Das

2:00

(115-4)

[The Affinity Ratio - Its Pivotal Role in Gold Nanoparticle-based Competitive Colorimetric Aptasensors](#) Man Bock Gu, Korea University, Joong Huyn Kim, Su Jin Lee, Yeon Seok Kim

2:35

(115-5)

[Design of Size-dependent Plasmonic Nanoparticles for Probing of Multidrug Membrane Transporter of Single Living Cells in Real Time](#) X Nancy Xu, Old Dominion University, Kerry Lee, Prakash Nallathamby

2:55

(115-6)

[Nanomaterials for Sieving: Capillary Electrophoresis Separations of DNA](#) Lisa A. Holland, West Virginia University, Brandon Durney, Stephanie Archer-Hartmann

3:15

(115-7)

[Silica Based Thin-layer Chromatography Plates Templated Through Carbon Nanotubes](#) David Jensen, Brigham Young University, Andrew Dadson, Matthew Linford, Michael Vail, Richard Vanfleet, Ricky Wyman, Robert Davis, Supriya Kanyal

3:35

(115-8)

[Disassembling Self-assembled Materials: Acid Labile Surfactants in Chemical Separations](#) Charles A. Lucy, University of Alberta, Bob Stanley

Organized Contributed Session

Session 120

Advances in Analytical Instrumentation for Homeland Security - arranged by Mark A. Druy, Physical Sciences Inc.

Sunday Afternoon, Room 402

Mark A. Druy, Physical Sciences Inc., Presiding

1:00

(120-1)

[Mixture Analysis Using a Portable Raman Spectrometer](#) Edita Botonjic Sehic, Morpho Detection/Safran Group

1:20

(120-2)

[Differential Mobility Spectrometer as a Breakthrough Solution for Homeland Security Applications](#) Erkinjon G. Nazarov, Sionex Corp., Kenneth Markoski, Quan Shi

1:40

(120-3)

[Detecting Explosive Signature Vapors Using Surface-enhanced Raman Spectroscopy](#) Kevin M. Spencer, EIC Laboratories, Inc., James Sylvia, Sarah Spencer, Susan Clauson

2:00

(120-4)

[Laser-based Standoff Detection of Illicit Drug Production](#) Mickey Frish, Physical Sciences Inc, Matt Laderer, Richard Wainner, Tracy Janov

2:35

(120-5)

[Solving Real-world Emergency Response Challenges Using Fourier Transform Infrared Spectroscopy](#) Dustin Levy, Smiths Detection, Mark Norman, Peng Zou

2:55

(120-6)

[Field Analysis by SERS: Drugs, Explosives, Poisons and More](#) Stuart Farquharson, Real-Time Analyzers, Inc.

3:15

(120-7)

[Taking Spectroscopy to the Field: Implementation of Handheld Molecular Spectroscopy in Customs and Security](#) Craig Gardner, Thermo Fisher Scientific

3:35

(120-8)

[Energetic Material Detection for Homeland Security Applications](#) Vincent Lee, L-3 Communications CyTerra, Edward Bromberg, Neil Stewart, Ravi Konduri

Organized Contributed Session

Session 130

Paper Based Point-of-care Analytical Kits - arranged by Chenzhong Li, Florida International University

Sunday Afternoon, Room 316

Chenzhong Li, Florida International University, Presiding

1:00

(130-1)

[Bioactive Paper Sensors for Toxin and Pathogen Detection](#) John D. Brennan, McMaster University, Zakir Hossain

1:20

(130-2)

[A Simple Colorimetric "Dipstick" Test for a Broad Range of Targets in the Environment and Medicine Based on Functional DNA Nanotechnology](#) Yi Lu, University of Illinois at Urbana-Champaign, Debapriya Mazumdar, Seyed-Fakhreddin Torabi

1:40

(130-3)

[Inkjet-printed Paper/Polymer-based "Green" RFID and Wireless Sensor Nodes: The Final Step to Bridge Cognitive Intelligence, Nanotechnology, Biomonitoring and RF?](#) Manos Tentzeris, Georgia Tech

2:00

(130-4)

[Multifunctional Point-of-care Testing Disc for Whole Cell Bacteria Analysis](#) Chenzhong Li, Florida International University, Daniel Medina, Kalai Mathee, Katherine Vandenberg

2:35

(130-5)

[Microfluidics 2.0: Development of 2-Dimensional Paper Networks for POC Diagnostics](#) Paul Yager, University of Washington, Barry Lutz, Elain Fu, Jennifer Osoborn, Peter Kauffman, Sujatha Ramachandran

2:55

(130-6)

[Nanoparticle-based \(Bio\) Chemical Sensing Inks for Inkjet Printed Paperfluidic Devices](#) Daniel Citterio, Keio University, Kaori Kotera, Kento Maejima, Koji Abe, Koji Suzuki, Shota Imoto, Tomoaki Ii, Yuta Katayama

3:15

(130-7)

[Lateral Flow Nucleic Acid Biosensors for Biomedical and Environmental Applications](#) Guodong Liu, North Dakota State University, Anant Gurung, Hui Xu, Meenu Baloda, Yuqing He

3:35

(130-8)

[Improving Quantification of Microfluidic Paper-Based Analytical Devices \(PAD\) by Multiple Colorimetric and Electrochemical Detection](#) Jason M. Emory, Colorado State University, Charles Henry, Mallory Mentele, Orawon Chailapakul, Wijitar Dungchai

Oral

Session 140

Hand Held/Portable Measurements- Instrumentation

Sunday Afternoon, Room 404

Douglas W. Later, Torion Technologies, Inc., Presiding

1:00

(140-1)

[Recent Advances in Hand Held and Portable FTIR Spectrometers](#) John Seelenbinder, A2 Technologies, Alan Rein, Steve Donahue

1:20

(140-2)

[Blend Analysis of Next Generation Biofuels Using Portable Mid-infrared Instrumentation](#) Dylan Wilks, Wilks Enterprise, Inc., Sandra Rintoul

1:40

(140-3)

[Portable Raman and Infrared Spectrometers: The Future of In-situ Chemical Quality Control Instrumentation?](#) Heinz W. Siesler, University of Duisburg-Essen

2:00

(140-4)

[A Flexible, Portable Instrument Platform for FT-IR Analysis](#) Richard A. Larsen, Jasco, Inc., John Carriker, Jun Koshoubu, Ken-ichi Akao, Miyuki Shimomura, Toshiyuki Nagoshi

2:35

(140-5)

[Low Level Methane Detection](#) John R. Saffell, Alphasense Ltd.

2:55

(140-6)

[Solar-powered, Battery-operated Wireless Data Acquisition for Mobile Instruments](#) Vassili Karanassios, University of Waterloo, O Mihalovska, R Amini, R Chen, S Weagent, T Chen

3:15

(140-7)

[New Person Portable Gas Chromatograph - Toroidal Ion Trap Mass Spectrometer \(GC-TMS\) for Field Analysis of Volatile and Semivolatile Compounds](#) Douglas W. Later, Torion Technologies Inc., Charles Sadowski, Edgar Lee, Jeff Jones, Milton Lee

3:35

(140-8)

[Determination of Lipid Content in Algae Using Mid-infrared Spectroscopy](#) Dylan Wilks, Wilks Enterprise, Inc., Sandra Rintoul

Oral

Session 150

HPLC - Selectivity

Sunday Afternoon, Room 406

Michael Woodman, Agilent Technologies, Presiding

1:00

(150-1)

[RPLC Column Selectivity Comparisons Using the System Selectivity Cube and the Hydrophobic Subtraction Model of Column Characterization](#) Andrew R. Johnson, Drake University, Mark Vitha, Thomas Marrinan,

Timothy Urness

1:20

(150-2)

[Studies on Stationary Phase Selectivity for Solid-core Particles](#) Richard A. Henry, Supelco, Carmen Santasania, Wayne Way

1:40

(150-3)

[Peak Capacity Optimization in Comprehensive Two Dimensional Liquid Chromatography: A Practical Approach](#) Haiwei Gu, University of Minnesota, Peter Carr, Yuan Huang

2:00

(150-4)

[Monoliths with Surface Confined Ionic Liquid Phases for Liquid Chromatography](#) Lisandra Santiago-Capeles, State University of New York at Buffalo, Luis Colon

2:35

(150-5)

[Understanding Selectivity in Reversed Phase Chromatography – A Simplified Look at Column Selection](#) Ty Kahler, Restek Corporation, Amanda Rigdon, Rick Lake, Steve Kozel

2:55

(150-6)

[Unique Zirconium Cation Exchange Selectivity Differences: Phosphoric Versus Phosphorous Acid Coatings](#) Christopher R. Harrison, San Diego State University, James Thai

3:15

(150-7)

[Comparative Efficiencies of 1DLC and Fast-inline LCxLC in Analytical Separations](#) Lawrence W. Potts, Gustavus Adolphus College, Peter Carr

3:35

(150-8)

[Trimodal Nanopolymer/Silica Hybrid Stationary Phases – Column Chemistry, Chromatographic Properties, and Applications](#) Xiaodong Liu, Dionex Corporation, Christopher Pohl

Oral

Session 160

New Instrumentations and General Interests in Mass Spectrometry

Sunday Afternoon, Room 405

Daniel E. Austin, Brigham Young University, Presiding

1:00

(160-1)

[Development and Characterization of a Distance-of-flight Mass Spectrometer for Elemental Mass Spectrometry](#) Alexander G. Graham, Indiana University, Anthony Carado, Charles Barinaga, Christie Enke, David Koppenaal, Elise Dennis, Gary Hieftje, Steven Ray

1:20

(160-2)

[Ionization Mechanisms Related to Direct Analysis in Real Time \(DART\) and Atmospheric Pressure Chemical Ionization \(APCI\)](#) Ligu Song, University of Tennessee, David Cho, Deepak Bhandari, Kelsey Cook, Mary Ellen McNally, Ron Hoffman, Stephen Gibson

1:40

(160-3)

[Microfabricated Linear Ion Trap Mass Spectrometer](#) Daniel Austin, Brigham Young University, Aaron Hawkins, Brett Hansen, Hannah Quist

2:00

(160-4)

[Low-cost Field-portable Air Sampling Mass Spectrometer](#) Jerry F. Moore, MassThink

2:35

(160-5)

[Mechanisms of ESI-MS Selectivity and Sensitivity Enhancements when Detecting Anions in the Positive Mode Using Cationic Pairing Agents](#) Zachary S. Breitbach, The University of Texas at Arlington, Daniel Armstrong, Edra Dodbiba, Eranda Wanigasekara, Kevin Schug

2:55

(160-6)

[Facilitated Elemental Composition Determination Using Isotopic Fine Structure Resolved by a Multi-reflecting Time-of-flight Mass Analyzer](#) Kevin Siek, Leco Corporation, Jeffrey Patrick, Joe Binkley, John Chakel

3:15

(160-7)

[Characterization and Quantification of Phorbol and Phorbol Esters by Electrospray Ionization Mass Spectrometry, Tandem Mass Spectrometry and Fourier Transform Ion Cyclotron Resonance Mass Spectrometry](#) Balaji Viswanathan, Missouri University of Science and Technology, Racha Seemamahannop, Shubhen Kapila

3:35

(160-8)

[Accurate Mass Peak Deconvolution and Library Search for Quadrupole GC/MS Compound Identification](#) Ming Gu, Cerno Bioscience, Yongdong Wang

Oral

Session 170

Novel Biosensors for Disease Diagnosis

Sunday Afternoon, Room 407

Vincent Venturella, Ventura Associates, Presiding

1:00

(170-1)

[Development of a Surface Enhanced Raman Scattering \(SERS\) Immunoassay Array for Pancreatic Cancer Marker Screening](#) Jennifer H. Granger, University of Utah, Marc Porter, Matthew Firpo, Michael Granger, Sean Mulvihill

1:20

(170-2)

[Electrical Biosensor for Assessing Cancer Cell Behavior Upon Electrical Field Manipulation](#) Evangelia Hondroulis, Florida International University, Chenzhong Li

1:40

(170-3)

[Detection of an Anti-cancer Drug in a Colorimetric Binding Assay by Using Folic Acid Stabilized Gold Nanoparticles](#) Sandy Shuo Zhao, Universite de Montreal, Damien Colin, Jean-Francois Masson, Joelle Pelletier

2:00

(170-4)

[SPR Aptasensors Using Aptamers and Antibodies of the Target Protein RBP4 and Vaspin for Early Diagnosis of Type 2 Diabetes](#) Su Jin Lee, Korea University, Man Bock Gu

2:35

(170-5)

[Plasmonic Nanopore Arrays for Detection and Characterization of IgM Antibody Binding to Supported Lipid Bilayers](#) Nathan J. Wittenberg, University of Minnesota, Arthur Warrington, Brent Wright, Hyungsoon Im, Moses Rodriguez, Sang-Hyun Oh

2:55

(170-6)

[Continuous Monitoring of Metabolic Status with the Sliver Sensor in Mice](#) Miklos Gratzl, Case Western Reserve University, Lorrie Rice, McCandless Shawn, Sumitha Nair

3:15

(170-7)

[Biocompatible and Biodegradable Fluorescent Sensors](#) Mary K. Balaconis, Northeastern University, Heather Clark, J Matthew Dubach, Kevin Cash

3:35

(170-8)

[An Electrochemical Study of the Effect of Neomycin on Angiogenic Factor Induced Nitric Oxide Release](#) Raphael Trouillon, Imperial College London, Danny O'Hare

Sunday POSTER SESSION

Session 180

New Developments in Analytical Instrumentation and Software

Room 412A

(180-1 P)

[In-situ High Temperature, X-ray Analysis of Inorganic Materials](#) Akhilesh Tripathi, Rigaku Americas Corp

(180-2 P)

[DNAzyme-Based Logic Gates and Their Initial Circuits](#) Hui Wang, University of Florida, Weihong Tan

(180-3 P)

[The Effect of Elevated Temperature on Single Reflection Germanium FTIR-ATR Spectroscopy](#) Joseph P. Lucania, Harrick Scientific Products, Inc., Ali Kocak

(180-4 P)

[Advanced Visual Analyzer for Food and Packaging Products](#) Jean-Christophe Mifsud, Alpha MOS, Alain Gaudon, Carol Schneider, Matthew Branham, Mike Parada, Mitchell Lamboy, Xavier Bredzinski

(180-5 P)

[Analysis of Organic Acid Preservatives in Food by UHPLC](#) William Goodman, PerkinElmer, Jason Weisenseel, Njies Pedjie

(180-6 P)

[Investigation of Binding Targets of the Pro-Mutagen 2-Aminoanthracene in Fischer-344 Rats](#) Emilia O. Zargham, Southern Illinois University at Carbondale, Jay Means, Luke Tolley

(180-7 P)

[Characterization of ²³⁴U/²³⁸U Activity Ratios and Organic Complexation Species in Unregulated Wells Collected from the Southwestern Navajo Reservation](#) Nicole Campbell, Northern Arizona University, Jani Ingram

(180-8 P)

[The Beer's Law of Mass Spectrometry Again, Part II](#) Drew Sauter, nanoLiter, LLC

(180-9 P)

[Measurement of Rates of Indium Mediated Allylation at Indium Spheres](#) Walter Bowyer, Hobart and William Smith Colleges, Salvador Forte

(180-10 P)

[High Temperature Accelerating Rate Calorimeter \(ARC\)](#) Peter J. Rabovsky, NETZSCH Instruments NA, LLC

(180-11 P)

[Reduction of Emissions and Operating Costs of GCMS Usage With a New Ecology Mode](#) Richard Whitney, Shimadzu Scientific Instruments, C Mark Taylor, Nicole Lock, Zhuangzhi 'Max' Wang

(180-12 P)

[Extending the Range of High Temperature Simulated Distillation \(ASTM D7169\) to C120](#) Ngoc Nguyen, Phenomenex

(180-13 P)

[High Temperature, High Force, & High Precision Thermomechanical Analysis for Characterization of Thermal Expansion of Materials](#) Bob Fidler, NETZSCH Instruments N.A. LLC, Ekkehard Post

(180-14 P)

[A New High-speed Furnace for Simultaneous DSC/DTA-TGA of Materials Under Extreme Operating Conditions](#) Bob Fidler, NETZSCH Instruments N.A. LLC, Ekkehard Fueglein

(180-15 P)

[Multiple Mode Calorimeter Performance Tests for Material Characterization Studies](#) Peter J. Ralbovsky, NETZSCH Instruments NA, LLC

(180-16 P)

[Catalytic Combustion Ionization Method for Selective Detection of Methylene Functional Groups in Petroleum, Biofuel and Fame Samples including Differentiation between Saturated and Unsaturated Carbon Bonds](#) Paul L. Patterson, DETector Engineering & Technology

(180-17 P)

[Trace Water Determinations in Lithium-ion Battery Materials](#) John D. MacFarlane, JM Science, Inc., Momoko Nagaya

(180-18 P)

[Analysis of PPB Levels of Photochemical Smog Components in Air with a Portable Analyzer](#) John N. Driscoll, PID Analyzers, LLC, Jennifer Maclachlan

(180-19 P)

[Fault Tolerant Wireless Sensor Network](#) John N. Driscoll, PID Analyzers, LLC, Francesca Little, Joseph Kochocki, Kasey Armstrong, Mostapha Ziad, Nat Steinsultz, Nataliia Perova, Polievkt Perov, Walter Johnson

(180-20 P)

[Fast GC with PID and FUV Detectors in Field Environmental Analyses](#) John N. Driscoll, PID Analyzers, LLC, Phil Smith

(180-21 P)

[Designing a Portable Excitation-emission Matrix Spectrofluorometer for the Detection of Polyaromatic Hydrocarbons](#) Diana M. Chavez, University of Delaware, Karl Booksh, Yoon-Chang Kim

(180-22 P)

[Determination of Sensory Neuron-specific Receptor Agonist BAM8-22 in Plasma Samples Utilizing Microextraction by Packed Sorbent Online with Liquid Chromatography and Tandem Mass Spectrometry \(MEPS-LC-MS/MS\)](#) Mohamed Abdel-Rehim, AstraZeneca

(180-23 P)

[Solid Supported Liquid/Liquid Extraction with Surface Modified Diatomites](#) Jerry Wang, Tianjin International Institute of Biopharmaceutical Research

(180-24 P)

[Single Drop Microdiffusion - HPLC Determination of Volatile Carbonyl Compounds](#) Alexander Nazarenko, SUNY College at Buffalo, Brittany Gipple

(180-25 P)

[Studies of HPLC Separation by Mix-phases of Amides and C18](#) Qian Li, Agela Technologies

(180-26 P)

[Applications of a New HILIC Stationary Phase](#) Ken Butchart, Fortis Technologies, Mark Woodruff

(180-27 P)

[A New UHPLC Column for Polar Analyte Retention](#) Ken Butchart, Fortis Technologies, Mark Woodruff

(180-28 P)

[Applications of UPLC and UV Detections for Trace Level Analysis of DEHP in Red Blood Cells](#) Jianfeng Hong, Fenwal Inc., Robert Payton

(180-29 P)

[New Photoionization Source for TOF-Mass-Spectrometry and Their Applications](#) Andreas Walte, Airsense Analytics, Bert Ungethuem, Markus Eschner, Matthias Bente von Frowein, Mohammad Reza Saraji-Bozorgzad, Ralf Zimmermann, Wolf Muenchmeyer

(180-30 P)

[New Instrument Reveals Sorbents Performances for Refrigerator Odor and Ice-cube Taste](#) Henry Nowicki, PACS Testing, R&D, Training

(180-31 P)

[New Instrument Reveals Filter Needing Strategic Replacement in Drinking Water Plants](#) Henry Nowicki,
PACS Testing, R&D, Training

(180-32 P)

[Solid-phase Microextraction-Gas Chromatography Analysis of the Cuticular Hydrocarbons of Honey Bee \(*Apis mellifera*\) Brood](#) Norman E. Schmidt, Georgia Southern University, Leigh Sundem

POSTER SESSION

Session 190

Society for Applied Spectroscopy (SAS) Poster Session

Room 412A

(190-1 P)

[Laser Beam Profile Influence on Double Pulse Laser Ablation](#) Vasily Lednev, General Physics Institute,
Alexey Bunkin, Segey Pershin, Vladislav Luk'yanchenko

(190-2 P)

[Dissolution Studies of Bismuth Containing Stomach Relief Suspensions](#) Marcus A. Harrison, Kennesaw State
University, Marina Koether

(190-3 P)

[New Method for Micro-FTIR Sample Preparation](#) Mary L. Stellmack, McCrone Associates, Anna Teetsov

(190-4 P)

[Quenching of Naturally Occurring K-40 Cerenkov Radiation by Chromophores in Aqueous Solutions as Analytical Technique](#) Edgar A. Coronel, Universidad Mayor de San Andrés

(190-5 P)

[Induced Fluorescence Detection of Biological Warfare Agents Using Ultraviolet Light Emitting Diodes](#) Eric
Lynch, General Dynamics ATP

(190-6 P)

[Analysis of Dye-halide Interactions for the Development of an Aqueous Halide Indicator](#) Heather Robison,
The Ohio State University, J Clay Harris, Noel Paul

(190-7 P)

[Anatomy of Human Hair: Considerations for Hair Analysis](#) Kathryn S. Kalasinsky, Armed Forces Institute of Pathology

CONFERENCE NETWORKING

Sunday, March 13, 2011

1:30 PM

LC-MS Users Forum Facilitated by: Arindam Roy, Boehringer Ingelheim Ben Venue Laboratories, Room 217

Combinational Technique of Raman Images Facilitated by: Yasuski Nakata, Horiba, Room 218

Alternative Forms of Employment for the Scientific Professional Facilitated by: Robert Stevenson, American Laboratory/Labcompare, Room 215

Safety in the Laboratory Facilitated by: James Kaufman, The Laboratory Safety Institute, Room 216

Monday Morning, March 14, 2011

Award

Session 200

Chromatography Forum of the Delaware Valley Dal Nogare Award - arranged by Mary Ellen P. McNally, DuPont Crop Protection

Monday Morning, Room 314

Mary Ellen P. McNally, DuPont Crop Protection, Presiding

8:10

(200-1)

[Unified Theory of Extraction – Where Does SPME Fit?](#) Janusz Pawliszyn, University of Waterloo

8:45

(200-2)

[Monitoring Free Drug Concentrations](#) Marcel F. Musteata, Albany College of Pharmacy

9:20

(200-3)

[Ionic Liquids in Separations and Mass Spectrometry, A New Frontier](#) Daniel W. Armstrong, University of Texas at Arlington

10:10

(200-4)

[Directions in Separation Science to Register an Agricultural Product](#) Mary Ellen P. McNally, DuPont

10:45

(200-5)

[Nitrophenols: Measurement in Air and Rainwater by 2-Dimensional Chromatography and Very Long Path Detection](#) Purnendu K. Dasgupta, University of Texas at Arlington

Award

Session 210

Pittsburgh Conference Achievement Award - arranged by Amit Ghosh, PPG Industries, Inc.

Monday Morning, Room 312

Amit Ghosh, PPG Industries, Inc., Presiding

8:10

(210-1)

[Mass Spectrometry-based Tools for Probing Neuronal Communication](#) Lingjun Li, University of Wisconsin

8:45

(210-2)

[d-Amino Acids in our Brain?](#) Jonathan V. Sweedler, University of Illinois

9:20

(210-3)

[Monitoring Brain Chemistry In-vivo Using New Sampling and Analysis Methods](#) Robert Kennedy, University of Michigan

10:10

(210-4)

[Diagonal Capillary Electrophoresis](#) Norman Dovichi, University of Notre Dame, Roza Wojcik, Yihan Li

10:45

(210-5)

[Pushing the Limits of LC-MS Sensitivity and Throughput for Biomarker Discovery and Verification](#) Richard D. Smith, Pacific Northwest National Laboratory

Symposia

Session 220

ACS-DAC: Technology and Applications of Ion Mobility Spectrometry (IMS) - arranged by Mikhail Belov, Pacific Northwest National Laboratory

Monday Morning, Room 402

Mikhail Belov, Pacific Northwest National Laboratory, Presiding

8:05

(220-1)

[Development of a Bottom Up Proteomics Tool](#) John B. Hoyes, Waters

8:40

(220-2)

[New Developments in High-Resolution Overtone Mobility Spectrometry \(OMS\)](#) David E. Clemmer, Indiana University, Rebecca Glaskin, Ruwan Kurulugama, Stephen Valentine

9:50

(220-4)

[Sweeping IMS Voltage for Optimal Resolving Power](#) Herbert H. Hill, Washington State University, Eric Davis

10:25

(220-5)

[Liquid Chromatography Ion Mobility Quadrupole Time-of-flight Mass Spectrometry: A Novel Approach to Protein Identification and Quantitation](#) Mikhail Belov, Pacific Northwest National Laboratory, David Prior, Erin Baker, Richard Smith, Ruwan Kurulugama, William Danielson, Yehia Ibrahim

Symposia

Session 230

Driving Biological Discovery Using Proteomics - arranged by John R. Yates, The Scripps Research Institute

Monday Morning, Room 308

John R. Yates, The Scripps Research Institute, Presiding

8:05

(230-1)

[Discovery and Characterization of Novel Biochemical Pathways Using Mass Spectrometry-based Proteomics Approaches](#) Yingming Zhao, The University of Chicago

8:40

(230-2)

[A Proteomic Perspective of the Dynamic Interplay Between Viruses and Hosts](#) Ileana M. Cristea, Princeton University

9:15

(230-3)

[High Throughput Proteomic Methods for the Characterization of Integral Membrane Proteins](#) Christine Wu,
University of Pittsburgh School of Medicine

9:50

(230-4)

[Biological Insights from Quantitative Analysis of Receptor Tyrosine Kinase Signaling Networks](#) Forest M.
White, MIT

10:25

(230-5)

[Using Mass Spectrometry to Understand Protein Misfolding Diseases](#) John R. Yates, The Scripps Research
Institute

Symposia

Session 240

From Small Molecules to Nanomaterials: Innovative Approaches for Monitoring, Sensing and Imaging -
arranged by Stephane Petoud, University of Pittsburgh

Monday Morning, Room 310

Stephane Petoud, University of Pittsburgh, Presiding

8:05

(240-1)

[Nano-flare Probes for Detection mRNA and Small Molecules in Living Cells](#) David A. Giljohann, AuraSense
LLC, Chad Mirkin

8:40

(240-2)

[Semiconductor Nanocrystal Quantum Dots for Biological and Biomedical Applications](#) Mounji G. Bawendi,
MIT

9:15

(240-3)

[Single Molecule Analysis of Neurotransmitter Transporter Regulation with Drug-conjugated
Nanocrystals](#) Sandra Rosenthal, Vanderbilt University

9:50

(240-4)

[Development of Fluorescent Chemodosimeters Based on Organometallic Chemistry](#) Kazunori Koide,
University of Pittsburgh, Shin Ando

10:25

(240-5)

[Luminescent Polymetallic Lanthanide Compounds for Biologic Imaging: Dendrimers, Nanoparticles and Metal-organic Framework](#) Stephane Petoud, University of Pittsburgh

Symposia

Session 250

Identification and Analysis for Food Safety - arranged by Perry G. Wang, US FDA

Monday Morning, Room 401

Perry G. Wang, US FDA, Presiding

8:05

(250-1)

[New Analytical Approaches to Address Emerging Food Safety Issues](#) Steve Musser, FDA/Center for Food Safety and Applied Nutrition

8:40

(250-2)

[Simultaneous Analysis of Two Novel Brominated Flame Retardants in Fish Using HPLC-APCI-MS/MS](#) Guibin Jiang, Chinese Academy of Sciences, Jiayong Feng, Thanh Wang, Yawei Wang

9:15

(250-3)

[Discussion of Sample Preparation Techniques for the Determination of Chemical Contaminants in Foods](#) Alexander J. Krynitsky, U.S. FDA, Jon Wong, Kai Zhang

9:50

(250-4)

[Hepatotoxicity Assessment for Unknown Dietary Chemical Toxins Using Human HepG2/C3A and Rat MH1C1 Hepatoma Cells](#) Liangli Yu, University of Maryland, Thomas Flynn, Yitong Liu

10:25

(250-5)

[Liquid Extraction Surface Analysis \(LESA\) of Food Surfaces Employing Chip-Based NanoElectrospray Mass Spectrometry](#) Jack Henion, Advion BioSciences, Inc.

Symposia

Session 260

New Spectroscopic Approaches to Protein Structure - Understanding Amyloid Fibrils - arranged by Igor K. Lednev, University at Albany, SUNY

Monday Morning, Room 309

Igor K. Lednev, University at Albany, SUNY, Presiding

8:05

(260-1)

[Mid-infrared Pulse Shaping Permits the Pathway of Amyloid Aggregation to be Determined with Rapid-scan 2D IR Spectroscopy](#) Martin Zanni, University of Wisconsin-Madison

8:40

(260-2)

[Control of Supramolecular Chirality in Protein Fibrils](#) Laurence A. Nafie, Syracuse University, Dmitry Kourouski, Igor Lednev, Rina Dukor, Rosina Lombardi, Xuefang Lu

9:15

(260-3)

[X-ray Structures of Small Molecules Bound to Amyloid-like Fibrils Associated with Alzheimer's Disease](#) Meytal Landau, University of California Los Angeles, David Eisenberg, Jorge Barrio, Kym Faull, Michael Sawaya

9:50

(260-4)

[Structural Diversity of Amyloids](#) Leonid Breydo, University of California, Irvine, Charles Glabe

10:25

(260-5)

[Probing Protein Folding and Aggregation with 2D Correlation Raman Spectroscopy](#) Igor K. Lednev, University at Albany, SUNY, Vitali Sikirzhytski

Symposia

Session 270

Recent Developments and Applications of Chromatography (LC, UHPLC) and Hyphenated Techniques (LC-HRMS, UHPLC-HRMS) in Pharmaceutical and Biopharmaceutical Analysis - arranged by Arindam Roy, Boehringer Ingelheim Ben Venue Laboratories

Monday Morning, Room 405

Arindam Roy, Boehringer Ingelheim Ben Venue Laboratories, Presiding

8:05

(270-1)

[Analytical Strategies in the Development of Generic Drug Products: Role of Chromatography and Mass Spectrometry](#) Arindam Roy, Boehringer Ingelheim Ben Venue Laboratories, Bob Sullivan, Brent Kopper, Edward Enold, Michael Fricke

8:40

(270-2)

[Enhancing Sensitivity via Multiplex Ion Sampling and Ion Transmission: Impact on Impurity Profiling Applications](#) David A. Weil, Agilent Technologies, Julie Cichelli, Michael Woodman, Sheher Moshin

9:15

(270-3)

[Mass Spectrometric Approaches in Structural Characterization of Unknown Impurities \(Isoforms\) of Recombinant Human Interferon Alpha-2b](#) Birendra Pramanik, Merck & Co

9:50

(270-4)

[High Throughput Chromatography for Monoclonal Antibodies](#) Dell Farnan, Genentech

10:25

(270-5)

[Application of Non-traditional Ionization Sources for Use in Product Development](#) Todd Gillespie, Eli Lilly and Company, Bryan Castle, Joseph Mick, Steven Bandy, Todd Maloney

Workshop

Session 280

Analytical Chemistry and the Population: Ensuring the Quality of Biomarker Data in Long-Term Population Studies - arranged by Karen W. Phinney, National Institute of Standards and Technology (NIST)

Monday Morning, Room 409

Karen W. Phinney, National Institute of Standards and Technology (NIST), Presiding

8:05

(280-1)

[The National Health and Nutrition Examination Survey \(NHANES\): What Does it Mean for You?](#) Clifford Johnson, NCHS/CDC

8:40

(280-2)

[Nutritional Biomarkers – Measurement Issues and Opportunities](#) Rosemary L. Schleicher, Centers for Disease Control and Prevention, Christine Pfeiffer

9:15

(280-3)

[Challenges in the Development of Nutritional Reference Materials](#) Karen W. Phinney, National Institute of Standards and Technology, Katherine Sharpless, Lane Sander, Michele Schantz, Stephen Wise

10:05

(280-4)

[Standardization of Biochemical Measurements](#) Vesper W. Hubert, Centers for Disease Control and Prevention

10:40

(280-5)

[Reference Materials in Everyday Measurements](#) Catherine A. Rimmer, National Institute of Standards and Technology

Organized Contributed Session

Session 290

Ionophore-based Chemical Sensors I - arranged by Philippe Buhlmann, University of Minnesota

Monday Morning, Room 311

Philippe Buhlmann, University of Minnesota, Presiding

8:00

(290-1)

[Highly Selective Carbonate Sensors with Perfluorinated Matrixes](#) Li D. Chen, University of Minnesota, Debaprasad Mandal, Gianluca Pozzi, John Gladysz, Philippe Buhlmann

8:20

(290-2)

[The Prospects for Accurate Determination of the Single Ion Activities Based on Ionic Liquid Salt Bridge](#) Takashi Kakiuchi, Kyoto University, Hideaki Sakaida

8:40

(290-3)

[New Insights into Ion-to-electron Transduction in Solid-contact Polymeric Ion Sensors](#) Roland De Marco, Curtin University, Eric Bakker, Ewa Grygolicz-Pawlak, Jean-Pierre Veder, Kunal Patel, Pengchao Si

9:00

(290-4)

[Carbon Nanomaterials for Potentiometric Sensors](#) F Xavier Rius, Universitat Rovira I Virgili, F Javier Andrade, Jordi Riu, Pascal Blondeau

9:35

(290-5)

[pH Sensitive Nanocapsules with "Invisible" Walls](#) Erno Lindner, The University of Memphis, Bill Ganus, Eugene Pinkhassik, Sergey Degrunov

9:55

(290-6)

[Properties of Silica Nanoparticle/Teflon AF 2400 Composite Films](#) Stephen G. Weber, University of Pittsburgh, Abul Hussam, Dujuan Lu, Hong Zhang, Yanhong Yang

10:15

(290-7)

[Novel Approaches to that Reference Electrode Problem](#) Philippe Buhlmann, University of Minnesota, Li Chen, Tiantian Zhang, Xu Zou

10:35

(290-8)

[Application of Acrylic Material Based Optical and Potentiometric Ion Sensors in Bioanalysis](#) Lee Y. Heng, University Kebangsaan Malaysia

Organized Contributed Session

Session 300

New Advances in Microscopic Imaging Techniques - arranged by Brian R. Strohmeier, RJ Lee Group, Inc.

Monday Morning, Room 315

Brian R. Strohmeier, RJ Lee Group, Inc., Presiding

8:00

(300-1)

[Field Emission Scanning Electron Microscopes \(FEG-SEMs\) at the Frontiers of Energy Research](#) Natasha Erdman, JEOL, Naoki Kikuchi, Regina Campbell, Vern Robertson

8:20

(300-2)

[High Resolution Imaging for Cell Membrane Studies with the Helium Ion Microscope](#) Larry Scipioni, Carl Zeiss SMT, Inc., Dennis Brown, John Notte, Shawn McVey

8:40

(300-3)

[Electron-beam Microanalysis in the 21st Century](#) Patrick P. Camus, Thermo Fisher Scientific, David Rohde, Nick Bulloss

9:00

(300-4)

[See Inside Your Sample: Viewing SEM Samples in 3D](#) Christopher Booth, Gatan, Inc.

9:35

(300-5)

[Electron Microscopy as a Tool for Imaging, Characterization and Structural Analysis of Nanoparticles in Solution](#) Bridget Carragher, NanoImaging Services, Clinton Potter

9:55

(300-6)

[Advances in Particulate Characterization by Automated SEM/EDX](#) Frederick H. Schamber, ASPEX Corporation, Timothy Drake

10:15

(300-7)

[Exploring the Nano World with SEM/STEM](#) Kristin Bunker, RJ Lee Group, Inc., Gary Casuccio, Jacqueline Sturgeon, Judith Yang, Traci Lersch, Zhenyu Liu

10:35

(300-8)

[Electron Microscopy in Liquids](#) David C. Joy, University of Tennessee

Oral

Session 310

Advances in Fuels Analysis

Monday Morning, Room 408

Robert W. Baudoux, Sr., RWB Convention Mgt., Presiding

8:00

(310-1)

[Characterization of Lignin from Prairie Cordgrass and Switchgrass by GC-MS Analysis of Cupric Oxide and Nitrobenzene Oxidation Products and by Pyrolysis-GC-MS](#) Naga Vinod K. Bathula, South Dakota State University, Douglas Raynie

8:20

(310-2)

[Hypercrosslinked Polystyrene Chromatographic Phases for the Enhancement of Petroleomic Analysis of Nitrogen Species in Petroleum](#) Nicole E. Oro, University of Alberta, Charles Lucy

8:40

(310-3)

[Petroleomics: Analysis of Two Types of Crude Oils by Attenuated Total Reflectance Fourier Transform Infrared Spectroscopy \(ATR-FTIR\) and Principal Component Analysis](#) Geoffrey Klein, Christopher Newport University, Brendan Peacor

9:00

(310-4)

[Investigation of Photobleaching and Optical Trapping of Phycobiliprotein and the Tandem Conjugate by Single Molecule Recrossing Events and Fluorescent Correlation Spectroscopy](#) Yu Tian, Texas Tech University, Dimitri Pappas

9:35

(310-5)

[Determination of Low Level Methanol in Crude Oils \(ASTM D7059-04\) Improved by New Micro Channel Flow Technology in Gas Chromatography \(GC\)](#) Lee Marotta, PerkinElmer, Andrew Tipler, Heidi Grecsek

9:55

(310-6)

[Micro- Electron Spin Resonance \(ESR/EPR\) Spectrometry for On-line Monitoring and Portable Analysis](#) Christopher White, Active Spectrum, Inc.

10:15

(310-7)

[Detecting Fuel and Tire Manipulation in Professional Racing Using Handheld FTIR](#) Frank S. Higgins, A2 Technologies, John Seelenbinder, Steve Donahue

10:35

(310-8)

[Molecular Dynamic Study of Synthetic Base Stocks by NMR Spectroscopic Techniques](#) Amarjeet S. Sarpal, Indian Oil Corporation, Anju Chopra, Inder Singh, MI Sastry, Ravinder Kumar, Veena Rani Bansal

Oral

Session 320

CE-Bioanalytical I

Monday Morning, Room 406

Lisa A. Holland, West Virginia University, Presiding

8:00

(320-1)

[Capillary Electrophoretic Determination of Erythrocyte Aging - A Tool to Detect Blood Doping](#) Christopher R. Harrison, San Diego State University, Kimberly Walthall, Vukica Porobic

8:20

(320-2)

[N-Glycan Analysis by Microchip Electrophoresis for Screening of Esophageal Adenocarcinoma and Other](#)

[Esophageal Diseases](#) Indranil Mitra, Indiana University, Stephen Jacobson, Yehia Mechref, Yuening Zhang, Zane Hammoud, Zexi Zhuang

8:40

(320-3)

[Detection of HBOCs by Capillary Electrophoresis](#) Srilatha Vydha, San Diego State University, Christopher Harrison

9:00

(320-4)

[Development of a Micro-western Blotting Method for Analysis of Protein Mixtures](#) Gwendolyn Anderson, University of Michigan, Robert Kennedy

9:35

(320-5)

[Separation of Glycoaminoglycans by Capillary Electrophoresis Using a Polyamine Containing Electrolyte](#) Neil D. Danielson, Miami University, John Trombley, Richard Taylor, Thomas Loegel

9:55

(320-6)

[On-line Preconcentration, Derivatization, and Capillary Electrophoresis Separation of Amines](#) Jessica L. Felhofer, The University of Texas at San Antonio, Carlos Garcia, Karen Scida

10:15

(320-7)

[A Modular, Multi-Task Immunoaffinity Device Connected to Capillary Electrophoresis and Other Chromatographic Instruments for the Enrichment, Separation and Identification of Protein Biomarkers](#) Norberto Guzman, Princeton Biochemicals, Inc.

10:35

(320-8)

[Capillary Separations for the Determination of Circulating Steroids](#) Lisa A. Holland, West Virginia University, Jana Woofter, Stephanie Archer-Hartmann

Oral

Session 330

Nanotechnology: Preparation and Characterization of Biosensors

Monday Morning, Room 403

Joshua Smith, Armstrong Atlantic State University, Presiding

8:00

(330-1)

[Electrochemical Amplification of Signal from Interaction Bilayer/Biomolecules Using Immobilized Liposomes](#) Julia C. Reyes, Southern Illinois University, Punit Kohli

8:20

(330-2)

[Multiple Nanopores in Series for Enhanced Resistive-pulse Sensing](#) Zachary D. Harms, Indiana University, John Perry, Kaimeng Zhou, Stephen Jacobson

8:40

(330-3)

[Photonic Crystal Molecular Imprinted Photonic Crystal Recognition Motif for L-phenylalanine](#) Jia Luo, University of Pittsburgh, Sanford Asher

9:00

(330-4)

[Immunoassays with Noble Metal Nanoparticles](#) Anna A. Volkert, University of Iowa, Amanda Haes

9:35

(330-5)

[Logic Switchboard for Medical Diagnosis](#) Zhi Zhu, University of Florida, Mohammed Shukoor, Weihong Tan

9:55

(330-6)

[Analytical Utility of Surface Functionalized Porous Silicon](#) Heather Clark, University at Buffalo, Frank Bright

10:15

(330-7)

[Electromagnetic Pores Capable of Gating Ionic Current with Magnetic Material](#) Joseph Basore, Indiana University, Lane Baker, Nickolay Lavrik

10:35

(330-8)

[Ion Transport Through Nanopipette at Surfaces](#) Niya Sa, Indiana University, Lane Baker

Oral

Session 340

Neurochemistry

Monday Morning, Room 404

Leyda Z. Lugo-Morales, North Carolina State University, Presiding

8:00

(340-1)

[Quantitative Modulation of In-vivo Dopamine Release Using Iontophoresis](#) Anna M. Belle, University of North Carolina at Chapel Hill, Robert Wightman

8:20

(340-2)

[Quantitative Peptidomics of Spinal Cord from Mice Deficient in Endothelin Converting Enzyme-2](#) Xiaowen Hou, University of Illinois Urbana-Champaign, Jonathan Sweedler, Lakshmi Devi, Lydia Miller

8:40

(340-3)

[Antibody-linked Nanoparticles for Affinity-enhanced Microdialysis Study of Motivational Behaviors in the Decapod Crustacean](#) Claire M. Schmerberg, University of Wisconsin-Madison, Andrew Kozicki, Lingjun Li

9:00

(340-4)

[A Glucose Oxidase Voltammetric Microsensor for Real-time In-vivo Glucose Measurements](#) Leyda Z. Lugo-Morales, North Carolina State University, Leslie Sombers, Philip Loziuk

9:35

(340-5)

[Qualitative and Quantitative Analysis of Neurotransmitters and Neuropeptides in the Decapod Crustacean Nervous System by Gold-assisted Laser Desorption/Ionization](#) Hui Ye, University of Wisconsin, Madison, Lingjun Li, Matt Spencer, Yuzhuo Zhang

9:55

(340-6)

[Characterization of pH Change Cyclic Voltammograms at Scan Rates Above 400 V/s](#) Elizabeth S. Bucher, University of North Carolina at Chapel Hill, Pavel Takmakov, Richard Keithley, Robert Wightman

10:15

(340-7)

[Relative Quantitation of Neuropeptides at Multiple Developmental Stages of the American Lobster Using Novel \[i\]N,N\[i\]-Dimethyl Leucine Isobaric Tandem Mass Tags](#) Xiaoyue Jiang, University of Wisconsin, Madison, Feng Xiang, Junhua Wang, Lingjun Li

10:35

(340-8)

[In-vivo Voltammetric Monitoring of Extracellular Catecholamine in the Bed Nucleus of the Stria Terminalis](#)

[During Reward and Aversion Stimuli](#) Jinwoo Park, University of North Carolina at Chapel Hill, Khristy Fontillas, Regina Carelli, Richard Keithley, Robert Wheeler, Robert Wightman

Oral

Session 350

Process Analysis (Half Session)

Monday Morning, Room 316

Dean Tzeng, The Pittsburgh Conference, Presiding

8:00

(350-1)

[Improving the Reliability of Analytical and Sampling Systems in Challenging and Corrosive Environments](#) Marty Higgins, SilcoTek Corporation, David Smith, Gary Barone

8:20

(350-2)

[Cooling Membrane Microextraction as a Tool for Gas Sample Preparation](#) Ruifen Jiang, University of Waterloo

8:40

(350-3)

[Optimization of Nonadsorptive Polyethylene Glycol Acrylate as a Material for Microfluidics](#) Chad Rogers, Brigham Young University, Adam Woolley, Gregory Nordin

9:00

(350-4)

[Mass Spectrometry with Soft Photo Ionization for On-line Characterization of Organic Products from Industrial and Technical Combustion and Pyrolysis Processes](#) Ralf Zimmermann, Jont Mass Spectrometry Centre - Helmholtz Zentrum, Fendt Alois, Thomas Adam, Thorsten Streibel

Oral

Session 360

Process Analytical Chemistry (Half Session)

Monday Morning, Room 316

Dean Tzeng, The Pittsburgh Conference, Presiding

9:35

(360-1)

[Factors Affecting the Production of Broadband Acoustic Emission Signals and Their Use in Particle Characterization](#) Alison Nordon, University of Strathclyde, Anthony Gachagan, David Littlejohn, Gordon

Hayward, Manuel Tramontana, Nichola Townshend, Yvonne Carella

9:55

(360-2)

[Novel Instrumentation for Near Real Time Permeation Rates of Toxic Industrial Chemicals through Permeable Materials](#) Nathan L. Porter, Torion Technologies Inc., Aaron Orland, Christopher Bailey, Douglas Later, Edgar Lee, Russell Bonsteel

10:15

(360-3)

[Reaction Optimization and Monitoring with Online UPLC](#) Tanya Jenkins, Waters Corporation

10:35

(360-4)

[Maintaining a Stable Engineered Nanomaterials Process Through Material Characterization](#) Andrew W. Salamon, PerkinElmer Corporation, Chris Lynch

Oral

Session 370

UV Raman/Surface Enhanced Raman/Resonance Raman Applications

Monday Morning, Room 407

John F. Turner, Cleveland State University, Presiding

8:00

(370-1)

[Influence of Post-translational Modification on Protein Folding Dynamics - A UV Resonance Raman Study](#) Sulayman A. Oladepo, University of Pittsburgh, Sanford Asher

8:20

(370-2)

[DNA Sequence Detection Using Surface Enhanced Resonance Raman Spectroscopy \(SERRS\)](#) Karen Faulds, University of Strathclyde, Duncan Graham, Jennifer Dougan

8:40

(370-3)

[Silica Nanoshell on Dielectric Metal Nanoparticle Core: Synthesis and Application](#) Deok-im Jean, Miami University, Shouzhong Zou

9:00

(370-4)

[Towards New Sensing Schematics: Surface Enhanced Raman Scattering \(SERS\)-Based- Architectures and Sensing Schemes for Application to Detection and Identification of Biological Samples](#) Mikella E. Hankus, US Army Research Laboratory, Dimitra Stratis-Cullum, Paul Pellegrino

9:35

(370-5)

[Recent Studies of Coherent Vibrational Motion in Biomolecules](#) Paul Champion, Northeastern University

9:55

(370-6)

[Toward High-speed, Near-field Raman Acquisition Through Ag Nano Junctions](#) Steve Asiala, University of Notre Dame, Zachary Schultz

10:15

(370-7)

[UV Resonance Raman Study of Ion-peptide Interactions](#) Kan Xiong, University of Pittsburgh, Lu Ma, Sanford Asher

10:35

(370-8)

[Novel Tunable Wavelength Filters for Demanding Spectral Imaging Applications](#) John F. Turner, Cleveland State University, Nick Pallas, Rajesh Morampudi

POSTER SESSION

Session 380

Analytical Instrumentation Applied to Art and Archaeology

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(380-1 P)

[An Analytical Approach to the Detection and Quantification of Caffeine and Theobromine in Native American Pottery](#) Erin N. Capley, University of South Alabama, Alexandra Stenson, Gregory Waselkov

(380-2 P)

[Pigments in Dunhuang Wall Paintings](#) Weiqing Xu, Jilin University, Bomin Su, Jingjing Chang, Shuping Xu, Wenyuan Zhang

(380-3 P)

[Development of GC-MS and DART-MS Methods for the Qualitative and Quantitative Analysis of](#)

[Carbohydrates in Rock Paintings](#) Badrinath Dhakal, Eastern Michigan University, Ruth Ann Armitage

(380-4 P)

[Characterizing Archaeological Residues by Direct Analysis in Real Time Mass Spectrometry](#) Ruth Ann Armitage, Eastern Michigan University

(380-5 P)

[Determining the Survival of Potential Biomarkers in Archaeological Materials by DART-MS](#) Daniel Fraser, Lourdes College

(380-6 P)

[Provenance of Metal Artifacts Based on ICP-MS, LA-ICP-MS and Portable X-ray: An Evaluation of Techniques](#) James Thompson, Millsaps College, Jiyan Gu, Timothy Ward

POSTER SESSION

Session 390

Bioanalytical Electrochemistry

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(390-1 P)

[Chemically-isolated Electrodes as Probes for Scanning Electrochemical Microscopy](#) Rahul Thakar, Indiana University, Jeremy Wilburn, Lane Baker

(390-2 P)

[The Effect of Dopamine Transporter and D-2 Inhibition on Vesicular Nigrostriatal Dopamine Release](#) Ian M. Taylor, University of Pittsburgh, Adrian Michael, Zhan Shu

(390-3 P)

[Electrically Evoked Dopamine Release in C57BL/6 and Dopamine Transporter Knockout Mice](#) Zhan Shu, University of Pittsburgh, Adrian Michael, Ian Taylor

(390-4 P)

[A Versatile Detector for the Sensitive and Selective Measurement of Numerous Fat Soluble Vitamins and Antioxidants in Human Plasma and Plant Extracts](#) Ian N. Acworth, ESA - A Dionex Company, Bruce Bailey, John Waraska, Paul Gamache

(390-5 P)

[Free Radical Biology and Medicine: The Use of HPLC with Electrochemical Detection for the Measurement of Pro-oxidants, Damage Markers and Protective Mechanisms](#) Ian N. Acworth, ESA - A Dionex Company

(390-6 P)

[Detection of Coenzyme Q10 Radical on Silver Surface by In-situ Surface-enhanced Raman Scattering Spectroelectrochemistry](#) Dawei Li, East China University of Science & Technology, Dan Li, John Fossey, Yi-Tao Long

(390-7 P)

[The Diamonds are also the Analytical Chemist Best Friends Part 3 - The Use of Array of Boron Doped Diamond Electrodes for Electrochemical Detection in HPLC](#) Francois Dardoize, UPMC, Eric Mahe

(390-8 P)

[Spectral and Electrochemical Properties of Bis\(diimine\)copper\(II\) Complexes in Anionic, Cationic and Nonionic Micelles](#) Palaniandavar Mallayan, Bharathidasan University, Anitha Natarajan

POSTER SESSION

Session 400

Bioanalytical Uses for Liquid Chromatography

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(400-1 P)

[Reduction of Alpha-tocopherol Quinone in Vegetable Oil Deodorizer Distillates to Alpha-tocopherol \(Vitamin E\)](#) Sindhura Mogulla, University of Massachusetts Lowell, David Ryan, Eugene Rogers, Issa Bayala

(400-2 P)

[Analytical Performance of Capillary Ion Chromatography with Pulsed Amperometric Detection](#) Jun Cheng, Dionex Corporation, Christopher Pohl, Petr Jandik, Victor Barreto, Yan Liu

(400-3 P)

[Determination of Tryptophan Derived Neurotransmitters and Their Metabolites in Sea Lamprey Plasma Sample by Solid-phase Extraction and HPLC with Fluorescence Detection](#) Huiyong Wang, Michigan State University, Ke Li, Weiming Li, Yu-Wen Chung-Davidson

(400-4 P)

[Optimizing Instruments for Modern HPLC Columns](#) Wayne K. Way, Supelco, David Bell, Hillel Brandes, Richard Henry

(400-5 P)

[Impact of Reversed-phase Chiral Chromatography on the LC-MS Analysis of Drugs in Biological Fluids](#) David S. Bell, Supelco, Carmen Santasania, Craig Aurand, Jennifer Claus, Wayne Way

(400-6 P)

[Advantage of LT-ELSD: Universality, High Sensitivity further Enhanced with a New Detection Technology and Cost-Effectiveness for Multi-Element Analyses in Liquid Chromatography – A Complete Review Part I](#) Eric Verette, Sedere

(400-7 P)

[Advantage of LT-ELSD: Universality, High Sensitivity further Enhanced with a New Detection Technology and Cost-Effectiveness for Multi-Element Analyses in Liquid Chromatography – A Complete Review Part II](#) Eric Verette, Sedere

(400-8 P)

[Proteins and Peptides Separation with 2µm Non-porous High Resolution ODS Column](#) Itaru Yazawa, Imtakt Corporation

(400-9 P)

[A New Column for Glycoprotein Analysis and Purification](#) Ting Zheng, Dionex, Andy Woodruff, Christopher Pohl, Kelly Flook, Srinivasa Rao, Yury Agroskin

(400-10 P)

[Exploration of pH Gradient Ion-exchange Chromatography for High Resolution Protein Separations in Biotechnology and Proteomics](#) Wim Decrop, Dionex, Evert-Jan Sneekes, Marie-Jeanne Olivo, Remco Swart

(400-11 P)

[Automated Monoclonal Antibody Screening](#) Wim Decrop, Dionex, Evert-Jan Sneekes, Remco Swart

(400-12 P)

[Wide-pore Fused-core Particles for Rapid Protein Separations](#) Barry E. Boyes, Advanced Materials Technology, Brian Wagner, Joseph Kirkland, Stephanie Schuster

POSTER SESSION

Session 410

Food Science: Novel Analysis Methods and Lab Procedures

Room Red Area on Exposition Floor - Hall B, Aisle 400

(410-1 P)

[Photochemical Degradation of \$\beta\$ -Carotene in Carbon Tetrachloride and Hexane: Kinetics and Identification of Reaction Products](#) David W. Johnson, University of Dayton, Mark Masthay, Yuan Zhao

(410-2 P)

[Evaluation of Automated Photometric Determination of Free Sulfur Dioxide in Wines](#) Mari Klemm, Thermo Fisher Scientific, Annu Suoniemi-Kahara, Pekka Lehtonen

(410-3 P)

[Fully Automatic Determination of Sodium in Food Samples – Know the “True” Sodium Content](#) George E. Porter, Metrohm USA, Beate Dehédin, Christian Haider, Christine Thielen, Iris Kalkman

(410-4 P)

[Determination of the Oxidation Stability of Fat-containing Solid Foodstuffs](#) Jerry Rossman, Metrohm USA, Markus Kalcher

(410-5 P)

[A Survey of Trihalomethane and Haloacetic Acid Concentrations in Bottled Water](#) Aaron W. Brown, University of Memphis, Christina Henson, Derek Pegram, Gary Emmert, Paul Simone, William Stephens

(410-6 P)

[Solid-phase Microextraction in Food Analysis: Method Development Considerations and Artifact Formation](#) Sanja Risticevic, University of Waterloo, Eduardo Carasek, Fabio Augusto, Janusz Pawliszyn

(410-7 P)

[Extraction of Sodium Nitrophenol from Fish Tissue with Cleanert PEP-2](#) Wan Wang, Agela Technologies

(410-8 P)

[The Automated Analysis of Chloride and Acidity in Multiple Food Matrices](#) Lindsay Peddle, ManSci Inc., Lauren Park, Robert Menegotto

(410-9 P)

[Using LIMS to Maintain Regulatory Compliance in the Food Safety Laboratory](#) Colin Thurston, Thermo Fisher Scientific

(410-10 P)

[Determination of the Antioxidant Capacity in Cured Vanilla Beans](#) Maria Cañizares, Universidad Nacional Autonoma de Mexico, Adalith Rojas-Lopez

(410-11 P)

[An Automated Solid Phase Extraction \(SPE\) Method for the Determination of Chloramphenicol in Honey](#) Michael R. Halvorson, Gilson, Inc., Bruce Thompson, Megan Clay, Tim Hegeman

(410-12 P)

[Analysis of Lipids by HPLC-CAD](#) Marc Plante, ESA - A Dionex Company, Bruce Bailey, Christopher Crafts, Ian Acworth

(410-13 P)

[Production of Fish Candidate Reference Material for Hg Determination: Study of Parameters](#) Juliana Naozuka, UFABC, Cassiana Nomura, Rodrigo Chelegão, Vivian Montes de Oca Carioni

(410-14 P)

[Speciation of Inorganic Arsenic in Food by Hydride Generation Anion Exchange Liquid Chromatography](#)

[Atomic Fluorescence Spectrometry with Online Ultraviolet \(UV\) Digestion \(HG-LC-UV-AFS\)](#) Bin Chen, PS Analytical, Jitesh Thakur, Peter Stockwell, Warren Corns

(410-15 P)

[Automated Determination of Peroxide Value in Dark Colored Products](#) George E. Porter, Metrohm USA, James Neal-Kababick

(410-16 P)

[Characterization of Oxidative Stability for Oils and Fats by TG/DTA](#) Nobuaki Okubo, SII NanoTechnology Inc.

POSTER SESSION

Session 420

Hand Held/Portable Measurement Instruments

Room Red Area on Exposition Floor - Hall B, Aisle 400

(420-1 P)

[Liposome-based Laboratory and Point-of-care Methods for Cardiac Marker Detection](#) Katie Edwards, Cornell University, Antje Baeumner, Barbara Leonard, Katherine Meyers

(420-2 P)

[Testing Chloride with Diffusional Microtitration as a Part of a Cystic Fibrosis Screening Test](#) Mihailo V. Rebec, Diametron LLC, Ilya Brodskiy, Miklos Gratzl

(420-3 P)

[Portable Optical Carbon Dioxide Measurement Device](#) Hendrik Fischer, Hamburg University of Technology, Gerhard Matz, Joern Frank, Philipp Witte

(420-4 P)

[Measuring Particles of Diffuse Dust Sources](#) Joern Frank, Hamburg University of Technology, Gerhard Matz, Hendrik Fischer

POSTER SESSION

Session 430

Pharmaceutical - LC, HPLC

Room Red Area on Exposition Floor - Hall B, Aisle 400

(430-1 P)

[Analysis of Biomolecules by Ultra Performance Size Exclusion Chromatography](#) Paula Hong, Waters Corporation, Damian Morrison, Kenneth Fountain

(430-2 P)

[Analysis of Panax Ginseng by Comprehensive Two-dimensional Ultra High Performance Liquid Chromatography](#) Tanaka Ken-ichiro, Shimadzu Corporation, Dugo Paola, Mikami Hirohisa, Mondello Luigi, Nishine Tsutomu, Yoshida Tatsunari

(430-3 P)

[Measurement of Stability and Purity of Cell Penetrating Peptides used for siRNA Delivery](#) Bruce A. Bailey, Dionex, Christopher Crafts, Ian Acworth, John Waraska, Marc Plante, Michael Swartz

(430-4 P)

[Gradient HPLC-DAD Determination of the Antihypertensive Mixture of Amlodipine Besylate, Valsartan and Hydrochlorothiazide in Their Combined Pharmaceutical Tablets](#) Tarek S. Belal, Alexandria University, Rasha Shaalan

(430-5 P)

[Gradient HPLC-DAD Stability Indicating Determination of Miconazole Nitrate and Lidocaine Hydrochloride in Their Combined Oral Gel Dosage Form](#) Tarek S. Belal, Alexandria University, Rim Haggag

(430-6 P)

[Simple Sensitive and Semi-quantitative Analytical Approaches for Cleaning Validation Studies](#) Christopher Crafts, ESA - A Dionex Company, Bruce Bailey, Ian Acworth, Marc Plante

(430-8 P)

[Using Hexane Mixtures as Modifiers in SFC to Enhance Chiral Resolution of Racemic Pharmaceutical Compounds](#) Paul M. Lefebvre, Averca Discovery Services, Jeffery Kiplinger, Mickey Rego

(430-9 P)

[Automated Kinetic Forced Degradation Development and Validation](#) Lina Liu, Merck

(430-10 P)

[The High Temperature Capability, Chemical Stability, and Orthogonal Selectivity of Sub-2\[μm\] Carbon-Clad Zirconia](#) Daniel Nowlan, ZirChrom Separations, Inc, Bingwen Yan, Clayton McNeff, Kelly Johnson, Richard Henry

(430-11 P)

[Applications for Sub-2\[μm\] Zirconia-PBD Columns Using Traditional HPLC Instrumentation at Elevated pH and Temperature](#) Daniel Nowlan, ZirChrom Separations, Inc, Bingwen Yan, Clayton McNeff, Kelly Johnson, Richard Henry

(430-12 P)

[Simultaneous Analysis of Free Polyethylene Glycol \(PEG\) and PEGylated Proteins and the Evaluation of Various PEG Reagents by HPLC and Charged Aerosol Detection](#) Marc Plante, ESA - A Dionex Company, Bruce Bailey, Christopher Crafts, Ian Acworth, Tom Villasenor

(430-13 P)

[Analysis of Cationic Lipids Used as Transfection Agents for siRNA with Charged Aerosol Detection](#) Marc Plante, ESA - A Dionex Company, Bruce Bailey, Christopher Crafts, Ian Acworth

(430-14 P)

[Sensitive Analyses of Genotoxic Analytes by HPLC-ECD and HPLC-FLD](#) Marc Plante, ESA - A Dionex Company, Bruce Bailey, Christopher Crafts, Holger Franz, Ian Acworth, Susanne Fabel

(430-15 P)

[Utilizing of a Novel Organic/Inorganic Hybrid C18 Column for Efficient Method Development Over a Wide pH Range](#) Noriko Shoji, YMC Co., Ltd., Chie Yokoyama, Naohiro Kuriyama, Takashi Sato, Takatomo Takai

(430-16 P)

[A Quality by Design \(QbD\) Approach for the Development of a Soft Gelatin Capsule Product Dissolution Method](#) Ying Verdi, Upsher-Smith Laboratories, Inc., Kurt Roinestad, Paul Buck

(430-17 P)

[Characterization of an Excipient-Related Impurity in a Developmental Drug Product by HPLC](#) Jin Wang, Genentech, Ken Ngim, Sigrid Hubbell

(430-18 P)

[Automated Method Switching and System Optimization in a Walkup Environment](#) Darcy Shave, Waters Corporation

(430-19 P)

[High Sensitivity Analysis of Impurities in Pharmaceuticals by New Automated Pretreatment HPLC System](#) Keiko Yamabe, Shimadzu Corporation, Daisuke Nakayama, Hirohisa Mikami, Hiroshi Ohashi, Kanya Tsujii, Yosuke Iwata

(430-20 P)

[Measuring Peak Capacity of Reversed-Phase Columns for Small Molecule Compounds Using a Micro Liquid Chromatography System with Gradient Elution and a Supercritical Fluid Chromatography System with Temperature and Density Programming](#) Tunde A. Dioszegi, South Dakota State University, Douglas Raynie

POSTER SESSION

Session 440

SEAC Poster Session - Electroanalytical Chemistry

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(440-1 P)

[Detection of Adenosine and Dopamine Using HPLC with a Boron-doped Diamond Working Electrode](#) Johnna A. Birbeck, Wayne State University, Tiffany Mathews

(440-2 P)

[Potential-assisted Deposition of Cytochrome C on Mixed Thiol Monolayers on Gold for Selective Amperometric Sensing of Hydrogen Peroxide](#) Clare M. Kane, University of Illinois at Urbana-Champaign, Alexander Scheeline, Edward Chainani, Rachel Behrens

(440-4 P)

[Iridium Oxide \(\$\text{IrO}_x\$ \) Nanoparticles as Catalysts for Water Oxidation](#) Alessa Gambardella, The

University of North Carolina at Chapel Hill, Royce Murray

(440-5 P)

[Covalently Modified Microelectrodes for Amperometric Determination of Cholesterol](#) Tyler G. McCaslin, Berry College, Alice Suroviec

(440-6 P)

[Using Acetylcholinesterase to Determine Concentration Levels of Acetylcholine in Solution via Potentiometric Methods](#) Jessica Crumbley, Berry College, Alice Suroviec

(440-7 P)

[Nafion Coating Carbon Fiber Microelectrodes for Enhanced Detection of Adenosine](#) Ashley E. Ross, University of Virginia, B Jill Venton

(440-8 P)

[Low Cost and High Performance Polymer Patch Clamping Chip Enabling Cheaper and Faster Drug Development](#) Simone Tanzi, DTU Technical University of Denmark, Jonatan Kutchinsky, Rafael Taboryski

(440-9 P)

[Investigation of Guanine, Amino Acid and Peptide Adducts by Electrochemistry Electrospray FT ICR Mass Spectrometry](#) Dong W. Looi, University of Florida, Anna Brajter-Toth

(440-10 P)

[Electron Oxidation of p-aminophenol on Uniform Au Nanoparticle Arrays – Unusually Large Peak Separation](#) Lin Dai, Miami University, Shouzhong Zou

(440-11 P)

[Probing Mass Transfer with Electrochemistry in an Acoustically Levitated Drop](#) Edward T. Chainani, University of Illinois at Urbana-Champaign, Alexander Scheeline, Rachel Behrens, Zakhia Pierre

(440-12 P)

[Towards Micro Solid Oxide Fuel Cells for Portable Applications](#) Rafael Taboryski, DTU Technical University of Denmark, Kristian Andresen, Nini Pryds

(440-13 P)

[Electrochemiluminescence for the Direct Detection of TNT in Aqueous Solution](#) Hannah G. Lane, Elon University, Karl Sienerth

(440-14 P)

[Multianalyte Microphysiometry of Macrophage Metabolism Triggered by Oxidized Low Density Lipoprotein](#) Danielle W. Kimmel, Vanderbilt University, David Cliffel, William Dole

(440-15 P)

[The Structural and Electrochemical Properties of Nitrogen-containing Tetrahedral Amorphous Carbon \(Ta:C\) Thin-Film Electrodes](#) Xingyi Yang, Michigan State University, Greg Swain

(440-17 P)

[Electrocatalysis at Surface-immobilized Metal Nanoparticles Protected with a Rhodium-substituted Polyoxometate](#) Benjamin P. Gudorf, Miami University, James Cox, Kamila Wiaderek

(440-18 P)

[Electrochemical and Electrocatalytic Responses of Single Metal Nanoparticles](#) Jonathan T. Cox, University of Washington, Bikash Jena, Bo Zhang, Stephen Percival, Yongxin Li

(440-19 P)

[Pressure-Driven Nanoparticle Analysis Using Glass Nanopore Membranes: Pressure Reversal Methods for Recapturing Individual Nanoparticles](#) Wenjie Lan, University of Utah, Henry White

(440-20 P)

[The Metabolic Effects of Fluorescent Dyes Determined by Multianalyte Microphysiometry](#) Tesniem Shinawi, Vanderbilt University, David Cliffel

(440-21 P)

[Determination of the Stabilizers Antimony, Bismuth and Iodate in Electroless Nickel Baths as Substitutes for Lead](#) Michael Kubicsko, Metrohm USA, Barbara Zumbrägel

(440-22 P)

[Assembly of Shortened Carbon Nanotube Forests on Carbon-fiber Microelectrodes for Enhanced Electrochemical Detection of Dopamine](#) Ning Xiao, University of Virginia, B Jill Venton

(440-23 P)

[Quantitative Electrochemical Study of Surface Immobilized Photosystem I Using Scanning Electrochemical Microscopy](#) Gongping Chen, Vanderbilt University

(440-24 P)

[The Effect of Glassy Carbon Surface Pretreatments on the Electrografting and Spontaneous Grafting of Aryl Groups](#) Kristin K. Cline, Wittenberg University, Ashley Zkiab, Christa Snyder, Raymond Dudek, Sarah Watson

(440-25 P)

[Electrode Modification via Phenyl Diazonium Ion Reduction: Comparison of Ring Substitution Sites and Moieties](#) Megan E. Deeds, Capital University, William Clark

(440-26 P)

[Separation and Detection of Reactive Nitrogen Species from RAW 264.7 Cells Using Microchip Electrophoresis with Amperometric Detection](#) Dulan B. Gunasekara, University of Kansas, Christopher Culbertson, Derek Jensen, Emilie Mainz, Giuseppe Caruso, Matthew Hulvey, Susan Lunte

(440-27 P)

[Microelectrode Arrays Formed via Reduction of Chromate Ion](#) Jamie J. Schwefel, Capital University, William Clark

(440-28 P)

[Ionic Transport at Nanoconfinement Affected by Substrate Geometry and Composition](#) Warren D. Brown, Georgia State University

(440-29 P)

[Voltammetry of the Carboxylate Functionalized Particles-modified Electrodes](#) Jingyuan Chen, University of Fukui, Koichi Aoki, Tianbao Li

(440-30 P)

[Template-directed Fabrication of Well-defined Hierarchical Porous Gold Films for Electrochemical Applications](#) Bo Zhao, Virginia Commonwealth University, Maryanne Collinson

(440-31 P)

[Advances in Hydrogen Generation from PEM Electrolysis for Laboratory Applications](#) Katherine E. Ayers, Proton Energy Systems

(440-32 P)

[On-site Nitrogen Generation for Laboratory Applications](#) Katherine E. Ayers, Proton Energy Systems

(440-33 P)

[Memcapacitive Behaviors in Nanopores](#) Maksim M. Kvetny, Georgia State University, Gangli Wang, Juan Liu, Warren Brown

(440-34 P)

[Cationic and Anionic Transport Through a Single Conical Nanopore by Voltammetry and Simulation](#) Juan Liu, Georgia State University, Gangli Wang, Maksim Kvetny, Warren Brown

(440-35 P)

[Electrochemical and Electrogenenerated Chemiluminescent Studies of Ruthenium \(II\) Complex \[Ru\(pbt\)₂\(dpp\)\]\(PF₆\)₂](#) Erendra Manandhar, University of Southern Mississippi, Alvin Holder, Erick Moffett, Shijun Wang, Suman Parajuli, William Seawell, Wujian Miao

(440-36 P)

[Linear Sweep Anodic Stripping Voltammetric Determination of Lead and Copper in Water Samples Implicated in Human Mortality in Zamfara State, Nigeria](#) Wesley O. Okiei, University of Lagos, Aderinsola Adio, Michael Oluboyo, Modupe Ogunlesi, Oyeyemi Olaoye

(440-37 P)

[Electrodeposition on Nanoscale](#) Jeyavel Velmurugan, Queens College, CUNY, Michael Mirkin

(440-38 P)

[Determination of Trinitrotoluene by Electrogenenerated Chemiluminescence Quenching Method](#) Suman Parajuli, University of Southern Mississippi, Wujian Miao

(440-39 P)

[Voltammetric Detection of Rapid Hydrogen Peroxide Fluctuations in Living Tissue](#) James Roberts, North Carolina State University, Ally Mentock, Leslie Sombers

CONFERENCE NETWORKING

Monday, March 14, 2011

8:30 AM

Comprehensive 2D Gas Chromatography Facilitated by: Jack Cochran, Restek Corporation, Room 215

Non Invasive Biomedical Analysis Facilitated by: Wolfram Miekisch, University Hospital of Rostock, Room 216

What is the Fast Approach to get a LIMS Validated, Up and Running? Facilitated by: David Hurt, LabVantage Solutions, Inc., Room 217

Preparation of Difficult Samples for Systems Biological Analysis Facilitated by: Bradford Powell, US AMBRID, Room 218

Monday Afternoon, March 14, 2011

Award

Session 450

Charles N Reilley and Young Investigator Awards - SEAC - arranged by Andrew Ewing, University of Gothenburg

Monday Afternoon, Room 312

Andrew Ewing, University of Gothenburg, Presiding

2:10

(450-1)

[Surface Enhanced Raman Spectroelectrochemistry](#) Richard P. Van Duyne, Northwestern University

2:45

(450-2)

[The Application of Scanning Electrochemical Microscopy in the Development of Photoelectrochemical Systems](#) Allen Bard, University of Texas at Austin, Dodzi Zigah, Guanjie Liu, Heechang Ye, Hyon Seo Park, Joaquin Rodriguez-Lopez

3:20

(450-3)

[Holding Au Nanoparticles on Electrodes with Poly-ion Interactions](#) Royce W. Murray, University of North Carolina

4:10

(450-4)

[Electrochemical Sensors for Real-time Detection of Endogenous Neurotransmission in the Fruit Fly Brain](#) B Jill Venton, University of Virginia, Huaifang Fang, Trisha Vickrey

4:45

(450-5)

[Iontophoresis Monitored by Cyclic Voltammetry: A Quantitative Nano-volume Drug Delivery System](#) Robert M. Wightman, University of North Carolina at Chapel Hill

Symposia

Session 460

ACS-DAC: Advances in Differential Ion Mobility Spectrometry (FAIMS) - arranged by Alexandre Shvartsburg, Pacific Northwest National Laboratory

Monday Afternoon, Room 401

Alexandre Shvartsburg, Pacific Northwest National Laboratory, Presiding

2:05

(460-1)

[High-resolution FAIMS for Analyses of Peptides, Lipids, and Isotopes](#) Alexandre Shvartsburg, Pacific Northwest National Laboratory, David Clemmer, David Prior, David Singer, Giorgis Mezengie, Helen Cooper, Keqi Tang, Nathalie Leveque, Ralf Hoffmann, Richard Smith, Thomas Metz

2:40

(460-2)

[Enhanced Selectivity and Sensitivity in FAIMS](#) Richard A. Yost, University of Florida

3:15

(460-3)

[Tandem Differential Mobility Spectrometers with Chemical Orthogonality Through Cluster Reactions and Electric Field Fragmentation](#) Gary A. Eiceman, New Mexico State University, M Menlyadiev

3:50

(460-4)

[Applications of Developments in FAIMS with Mass Spectrometry Detection](#) Jim Kapron, Thermo Fisher Scientific

4:25

(460-5)

[High Sensitivity Analyses of Protein Modifications in Complex Cell Extracts Using LC-FAIMS-MS](#) Pierre Thibault, Université de Montréal, Chantal Durette, Eric Bonneil, Gaëlle Bridon, Louiza Mahrouche, Tara Muratore-Schroeder

Symposia

Session 470

Bionanotechnology in the Era of Molecular Medicine - arranged by Raoul Kopelman, University of Michigan

Monday Afternoon, Room 308

Raoul Kopelman, University of Michigan, Presiding

2:05

(470-1)

[Intracellular Detection by Nano-Flares](#) Chad Mirkin, Northwestern University

2:40

(470-2)

[Molecularly Targeted Biocompatible Nanoparticles enable Tumor Imaging and Therapy](#) Raoul Kopelman, University of Michigan

3:15

(470-3)

[Electrochemiluminescence of Semiconductor Nanocrystals and Their Application in Biosensing](#) Hong-Yuan Chen, Nanjing University

3:50

(470-4)

[Molecular Targeting of Tumor Cells Using Aptamer-Conjugates](#) Weihong Tan, University of Florida

4:25

(470-5)

[More Than One Way to See and to Beat Cancer Cells to Death with Gold Nanoparticles](#) Mostafa A. El-Sayed, Georgia Tech

Symposia

Session 480

Micro- and nano-instruments: Fast, Cheap and Under Wireless Control - arranged by Vassili Karanassios, University of Waterloo

Monday Afternoon, Room 309

Vassili Karanassios, University of Waterloo, Presiding

2:05

(480-1)

[ZnO Based SAW Devices for Lab-on-a chip Applications](#) William I. Milne, University of Cambridge, Andrew Flewitt, Greg Ashley, J Luo, Luis Garcia-Gancedo, X Du, Yonqin Fu

2:40

(480-2)

[The Miniaturization of Ion Trap Mass Spectrometers](#) J Michael Ramsey, University of North Carolina

3:15

(480-3)

[Miniature Ion Trap Mass Spectrometry Systems for Biomedical Diagnosis](#) Zheng Ouyang, Purdue University, He Wang, He Yang, Nicolas Manicke, R Graham Cooks

3:50

(480-4)

[Micro-scale Instruments for Environmental Sensing](#) Yogesh Gianchandani, University of Michigan

4:25

(480-5)

[Solar-powered, Battery-operated Micro- or Nano-plasmas on Postage-stamp Size Chips: Fundamentals, Applications and Wireless Data Acquisition](#) Vassili Karanassios, University of Waterloo

Symposia

Session 490

Selective Gas Sensing: Beyond Sensor Arrays - arranged by Radislav Potyrailo, GE Global Research

Monday Afternoon, Room 316

Radislav Potyrailo, GE Global Research, Presiding

2:05

(490-1)

[Beyond Sensor Arrays with Multivariable Sensing](#) Radislav Potyrailo, GE Global Research

2:40

(490-2)

[Potentiometry in Gas Phase](#) Jiri Janata, Georgia Institute of Technology

3:15

(490-3)

[Orthogonality in Gold Nanoparticle Chemiresistor Vapor Sensors](#) Arthur Snow, Naval Research Laboratory

3:50

(490-4)

[Microfabricated Gas Chromatographs with Microsensor Array Detectors for Sub-ppb Determinations of Complex Vapor Mixture Components](#) Edward T. Zellers, University of Michigan

4:25

(490-5)

[Nanosensors-cellphone Integration for Extended Chemical Sensing Network](#) Jing Li, NASA Ames Research Center, George Yu, Yijiang Lu

Symposia

Session 500

The Twenty-Second James L Waters Annual Symposium: The Development and Application of Instrumentation in Electron and Ion Microscopy - arranged by Rita M. Windisch, The Mercy Hospital of Pittsburgh

Monday Afternoon, Room 310

Rita M. Windisch, The Mercy Hospital of Pittsburgh, Presiding

2:05

(500-1)

[At the Frontiers of TEM and STEM](#) David C. Bell, Harvard University

2:40

(500-2)

[Electron Microscopy and Diffraction of Ordered Polymers and Biomaterials](#) David C. Martin, The University of Delaware

3:30

(500-3)

[Scanning Electron Microscopy – From War Surplus to the World's Favorite Imaging Tool](#) Joseph R. Michael, Sandia National Laboratories

4:05

(500-4)

[From Science Fiction to Fact - Ion Beam Microscopy](#) David C. Joy, University of Tennessee

Workshop

Session 510

UHPLC- Instrument Influences on Maximizing Separation Performance - arranged by Jason Anspach, Phenomenex

Monday Afternoon, Room 409

Jason Anspach, Phenomenex, Presiding

2:05

(510-1)

[New Column Technologies for Better and Faster Separations in UHPLC](#) Xiaoli Wang, Agilent Technologies, Jason Link, William Barber, Wu Chen

2:35

(510-2)

[Performance and Selectivity Options for HPLC and UPLC Separations](#) Kenneth J. Fountain, Waters Corporation, Uwe Neue

3:05

(510-3)

[UHPLC Separations Without System Limitations](#) Jason Anspach, Phenomenex, A Carl Sanchez, Lawrence Loo, Tivadar Farkas

3:50

(510-4)

[Scaling UHPLC Methods to an LC Format to Enable Method Transfer: Is this a Feasible Strategy for Pharmaceutical Analyses?](#) Gregory K. Webster, Abbott Laboratories, Joseph Pesek, Karissa Hammer, Thomas Cullen

4:20

(510-5)

[Bridging the Gap Between HPLC and UHPLC – Standardizing Column Geometry and Simplifying Method Development Strategies for Pharmaceutical Analysis](#) Todd Maloney, Eli Lilly and Company

Organized Contributed Session

Session 520

Ionophore-based Chemical Sensors II - arranged by Philippe Buhlmann, University of Minnesota

Monday Afternoon, Room 311

Philippe Buhlmann, University of Minnesota, Presiding

2:00

(520-1)

[Dynamic Distribution Maps of Acidity and Hypoxia Within Multicellular Tumor Spheroids Obtained with](#)

[Optode Microbeads and a MEMS Microelectrode Array](#) Miklos Gratzl, Case Western Reserve University

2:20

(520-2)

[Direct Detection of Protease Activities by Flash Chronopotentiometry with Polycation-Sensitive Polymeric Membrane Electrodes](#) Kebede L. Gemene, University of Michigan, Mark Meyerhoff

2:40

(520-3)

[Practical Applications of Polyion Sensors for Heparin, OSCS, and Humic Acid](#) Hakhyun Nam, Kwangwoon University, Geun Sig Cha, Hyunwoo Gu, Jae Ho Shin, Kihak Kwon, Mark Meyerhoff, Youngjea Kang

3:00

(520-4)

[Ion-Selective Micro-capsules with Additional Functionality](#) Elizabeth A. Hall, University of Cambridge, Jamie Walters, Pei-Lun Lin, Shahrukh Abbas

3:35

(520-5)

[Molecule Recognition by Fluorescent Ligands Using Abasic Site-containing Oligonucleotides](#) Norio Teramae, Tohoku University

3:55

(520-6)

[Ion-gel Based Potentiometric Ion Sensors](#) Yu Qin, Nanjing University, Liangxia Xie

4:15

(520-7)

[Practical Realization of Large Scale Chemical Sensor Networks: Can ISEs Play a Role?](#) Dermot Diamond, Dublin City University

4:35

(520-8)

[Non-invasive Application of Ion Selective Microelectrodes to Chemical Characterization in the Boundary Layer of Living Cells](#) Peter J. Smith, Marine Biological Laboratory, Mark Messerli

Organized Contributed Session

Session 530

Monolithic Chromatography and Its Modern Applications - arranged by Perry G. Wang, US FDA

Monday Afternoon, Room 315

Perry G. Wang, US FDA, Presiding

2:00

(530-1)

[Affinity Monolith Chromatography: Recent Developments and Applications](#) David S. Hage, University of Nebraska

2:20

(530-2)

[Small but Powerful – Miniaturized Norbornene-based Monolithic Columns for Biomedical Chromatography](#) Frank M. Sinner, Joanneum Research and Medical University of Graz, Agnes Prasch, Andreas Zimmer, Christina Gatschelhofer, Christoph Magnes, Martin Griesbacher, Michael Buchmeiser, Ruth Prassl, Sandra Falk, Thomas Pieber

2:40

(530-3)

[Application of Monolithic Chromatography in Drug Discovery and Development](#) Yvan Vander Heyden, VUB - FABI

3:00

(530-4)

[Applications of Monolithic Chromatography in Support of Pharmaceutical Development for Drug Substances and Formulations](#) Zhong Li, Merck Research Laboratories, Naijun Wu

3:35

(530-5)

[High Throughput GLP Bioanalysis Using Monolithic Columns](#) Shimin Wei, Novartis Institutes for Biomedical Research, Francis Tse, Jie Zhang, Tom Smith

3:55

(530-6)

[Modification of Polymer Monoliths with Nano-particles for Bioanalytical Micro-extraction, Separation and Flow-through Reactors](#) Brett Paull, Dublin City University, Damian Connolly, Hassas Alwael, Patrick Floris

4:35

(530-8)

[Application of Monolithic Columns in the Analysis of Illicit Drug Samples](#) Kim McFadden, Letterkenny Institute of Technology

Oral

Session 540

Advances in Liquid Fuels Analysis

Monday Afternoon, Room 408

Robert G. Brown, Lancaster Laboratories, Inc., Presiding

2:00

(540-1)

[Application of Cantilever Enhanced Photoacoustic FTIR for Oil Analysis](#) Ismo Kauppinen, Gasera Ltd., Juho Uotila, Jussi Raittila

2:20

(540-2)

[Rapid Determination of Polycyclic Aromatic Hydrocarbons in Technical Oils with Gas Chromatography Tandem Mass Spectrometry](#) Kyle Anderson, Missouri University of Science and Technology, Balaji Viswanathan, Racha Seemamahannop, Shubhen Kapila, Vander Tumiatti

2:40

(540-3)

[Determination of Mercury Species in Crude Oil by Speciated Isotope Dilution Gas Chromatography Inductively Coupled Plasma Mass Spectrometry](#) Mizanur Rahman, Duquesne University, HM Skip Kingston, Matt Pamuku, Timothy Fahrenholz

3:00

(540-4)

[High Selectivity GC-AED for the Analysis of Phenols from Environmental and Diesel Samples by Derivatization with Ferrocene Carboxylic Acid](#) Waldemar Weber, University of Muenster, Jan Andersson

3:35

(540-5)

[Molecular Level Characterization and Compositional Archive for the Deepwater Horizon Oil Spill by FT-ICR Mass Spectrometry](#) Amy M. McKenna, Florida State University

3:55

(540-6)

[A Systematic Approach to Upgrade and Characterize Bio-oils](#) Hiranmayee Kandala, South Dakota State University, Douglas Raynie

4:15

(540-7)

[PPM Level Biodiesel Detection with a Portable Mid-IR Analyzer](#) Sandra Rintoul, Wilks Enterprise, Inc., Dylan Wilks

4:35

(540-8)

[Production and Characterization of Bio-oil Produced by Pyrolysis](#) Vara Prasad Reddy Sakampally, South Dakota State University, Douglas Raynie

Oral

Session 550

CE-Bioanalytical II

Monday Afternoon, Room 406

Elizabeth Harris, MannKind Corporation, Presiding

2:00

(550-1)

[Quantitative Determination of Oxidant-induced Nitrosylation in Colonic Epithelial Cells Using Capillary Gel Electrophoresis with Laser Induced Fluorescence Detection](#) Siyang Wang, Louisiana Tech University, June Feng, Magdalena Maracine, Tak Aw

2:20

(550-2)

[Analysis of Biogenic Amines in an Individual Drosophila Larval Nerve Cord by CE-FSCV](#) Huaifang Fang, University of Virginia, B Jill Venton, Trisha Vickrey

2:40

(550-3)

[Optimization of Capillary Electrophoresis Separations for Detection of Amphetamine and Amino Acid Neurotransmitters In-vivo](#) Christopher Green, University of Virginia, B Jill Venton

3:00

(550-4)

[On-line Photolytic Optical Gating with an Ultraviolet-Light Emitting Diode for the Analysis of Biogenic Amines in Insect Antennal Lobes by Micellar Electrokinetic Capillary Chromatography](#) Elyssia M. Steinwinter, University of Arizona, Craig Aspinwall

3:35

(550-5)

[Enhanced CIEF Systems Coupling with MALDI-FTMS for Neuropeptide Analysis](#) Zichuan Zhang, University of Wisconsin, Junhua Wang, Limei Hui, Lingjun Li

3:55

(550-6)

[Analysis of Nanoparticle-protein Interactions by Capillary Electrophoresis](#) Shang Zeng, University of California, Riverside, Ni Li, Wenwan Zhong

4:15

(550-7)

[Probing Interaction Between Proteins and Nanomaterials with Analytical Separation](#) Wenwan Zhong, University of California, Riverside, Lei Ren, Ni Li, Shang Zeng

4:35

(550-8)

[Gold Nanoparticles Deposited Capillaries as Pre-concentration Devices for In-capillary Micro-extraction Capillary Electrophoresis: Application to the Urine Analysis of Monohydroxy Metabolites of Polycyclic Aromatic Hydrocarbons](#) Huiyong Wang, Michigan State University, Andres Campiglia, Knobel Gaston, Korina Claimag

Oral

Session 560

Developments in Sample Preparation for Biomolecule Analysis

Monday Afternoon, Room 404

Denise Wilkins, Bechtel Bettis, Inc., Presiding

2:00

(560-1)

[Development of a Dual-capillary Electroosmotic Sampling System for Spatially Resolved Analysis of the Extracellular Space of Hippocampal Tissue](#) Amy Hamsher, University of Pittsburgh, Stephen Weber

2:20

(560-2)

[Development and Evaluation of Biocompatible and Reusable Octadecyl-Polyacrylonitrile \(C18-PAN\) Coating for High Throughput Automated 96-Blade Solid Phase Microextraction System Coupled with LC-MS/MS](#) Fatemeh S. Mirnaghi, University of Waterloo, Janusz Pawliszyn, Leonard Sidisky, Yong Chen

2:40

(560-3)

[Why MALDI, SIMS and DART Sensitivity Improves 10 to 100x Using Nanoliter Sample Preparation](#) Drew Sauter, nanoLiter, LLC

3:00

(560-4)

[Whole Blood Analysis Utilizing Microextraction by Packed Syringe \(MEPS\) Online with LC-MS/MS](#) Mohamed Abdel-Rehim, AstraZeneca

3:35

(560-5)

[Solid-phase Microextraction Method for Monitoring Endogenous Compounds in the Pre-frontal Cortex of Freely Moving Rats During Deep Brain Stimulation](#) Erasmus Cudjoe, University of Waterloo, Clement Hamani, Janusz Pawliszyn

3:55

(560-6)

[High Recovery Method of HybridSPE-Phospholipid of Biological Samples Prior To LC/MS Analysis](#) Xiaoning Lu, Supelco, Michael Monko, Michael Ye

4:15

(560-7)

[QuEChERS Approach to Determine Pharmaceuticals and Toxins in Whole Blood](#) Joan M. Stevens, Agilent Technologies, Ritu Arora

4:35

(560-8)

[Magnetic Nanomaterial-based Bioconjugation in Pre-concentration for Rapid MALDI-MS Screening of Bacterial Contamination in Water](#) Zhongxian Guo, Public Utilities Board, Ying Liu

Oral

Session 570

Forensic Analysis: Drugs, Gases, Fibers and Fingerprints

Monday Afternoon, Room 402

John Kokosa, MDRC, Presiding

2:00

(570-1)

[Characterization of Synthetic Cannabinoids in "Spice" Samples by Gas Chromatography-Time of Flight Mass Spectrometry \(GC-TOFMS\) and Multi Reflecting-Time of Flight Mass Spectrometry \(MR-TOFMS\)](#) Joe Binkley, LECO Corporation, John Heim, Kevin Siek, Mark Merrick

2:20

(570-2)

[Forensic Identification of Isomeric Substituted Phenethylamines and Related Drug Substances Using GC-MS and GC-IRD Methods](#) Randall Clark, Auburn University, Jack DeRuiter, Karim Abdel-Hay, Tamer Awad

2:40

(570-3)

[Detector Array with Gas Chromatography](#) Hendrik Fischer, Hamburg University of Technology, Gerhard Matz, Joern Frank

3:00

(570-4)

[Selection of Aptamers to Determine Exposure to Sulpher Mustard](#) Parag A. Parekh, University of Florida, Christopher Batich, Claudine Chegini, Gregory Schultz, Weihong Tan

3:35

(570-5)

[Solid-phase Microextraction Based Air Sampling Device for Field Analysis by GG-TMS](#) Douglas W. Later, Torion Technologies Inc., Anthony Rands, Edgar Lee, Jakob Later, Nathan Porter

3:55

(570-6)

[Automated Targeted Detection of Trace Exogenous Materials in Fingerprints with Raman Chemical Imaging](#) Steven Christesen, US Army ECBC, Ashish Tripathi, Augustus Fountain, Darren Emge, Erik Emmons, Jason Guicheteau, Phillip Wilcox

4:15

(570-7)

[Chemometric Discrimination of Textile Fibers Treated with Structurally-similar Dye Pairs](#) Katie M. White, University of Central Florida, Mary Williams, Michael Sigman

4:35

(570-8)

[Simultaneous Separation and Detection of the Illicit Drugs and Their Salt Forms Using LC/MS with Hypercarb Columns](#) Guifeng Jiang, Thermo Fisher Scientific, Diab Elmashni, Kathryn Preston, Sergio A Guazzotti, Terry Zhang

Oral

Session 580

FTIR/Raman/Laser Spectroscopy/Imaging

Monday Afternoon, Room 405

Richard Bormett, Renishaw, Inc., Presiding

2:00

(580-1)

[Spectroscopic Studies of Human Hair Using a Cantilever Based Photoacoustic Detection](#) Jaakko Lehtinen, University of Turku, Jyrki Kauppinen, Tom Kuusela

2:20

(580-2)

[Can FTIR Spectroscopy Predict the Cotton Fiber Strength?](#) Yongliang Liu, USDA, ARS, Gary Gamble, Thibodeaux Devron

2:40

(580-3)

[ATR Applications to Food Products and Packaging – Practical Considerations](#) Richard Spragg, PerkinElmer LAS, Ben Perston, Dean Brown

3:00

(580-4)

[SEIRA Substrate Fabrication by Physical Vapor Deposition: New Insights into the SEIRA Enhancement of Silver and Gold Films for the Average User](#) Michelle Killian, University of South Carolina at Aiken, Chad Leverette, Eliel Villa-Aleman, Scott Crittenden

3:35

(580-5)

[A Spectroscopic Technique for the Decoupled Measurement of Physical and Chemical Absorption in Reactive Solvent Systems](#) Jackson R. Switzer, Georgia Institute of Technology, Amy Rohan, Charles Eckert, Charles Liotta, Pamela Pollet, Ryan Hart

3:55

(580-6)

[Quantum Cascade Laser Based Gas Analyzer Developed for Detection of Nitrogen Components in Automotive Test Beds](#) Ruth Lindley, Cascade Technologies

4:15

(580-7)

[Ultimate Synchrotron Infrared Microspectroscopic Image Fidelity with FPA and Dedicated Optics](#) David Wetzel, Microbeam Molecular Spectroscopy Laboratory, Michael Nasse

4:35

(580-8)

[Application of Quantum Cascade Laser Based Sensing to Aerosol Fill Line Leak Detection](#) Michael McCulloch, Cascade Technologies

Oral

Session 590

HPLC - Bioanalytical

Monday Afternoon, Room 403

David Hwang, Chevron, Presiding

2:00

(590-1)

[Simplifying Analysis of Concentrated Carbohydrate Samples Using Ion Chromatography with Pulsed Amperometric Detection](#) Petr Jandik, Dionex Corporation, Jun Cheng, Ting Zheng

2:20

(590-2)

[Considerations in Automating pH Control for Chromatographic Separations of Biological Macromolecules](#) Thomas E. Wheat, Waters Corporation, Daniel Root, Patricia McConville

2:40

(590-3)

[Separations of Biological Compounds through Liquid Chromatography Using Electrospun Polyhydroxyalkanoates](#) Cherie Owens, The Ohio State University, Susan Olesik

3:00

(590-4)

[Optimization of Capillary LC System with PFET Detection for Fast Separation](#) Yansheng Liu, University of Pittsburgh, Adrian Michael, Anne Andrews, Jing Zhang, Stephen Weber

3:35

(590-5)

[Development and Validation of High Performance Liquid Chromatography/ UV Method for Simultaneous Determination of Urinary Uric Acid, Hypoxanthine and Creatinine](#) MK Nimanthi W. Ekanayake, University of Colombo, SSBD Soysa

3:55

(590-6)

[Recent Developments in the Analysis of Free and Bound Amino Acids](#) Thomas E. Wheat, Waters Corporation, Patricia McConville

4:15

(590-7)

[Effect of First Dimension Phase Selectivity in Comprehensive Two Dimensional High Performance Liquid Chromatography](#) Haiwei Gu, University of Minnesota, Changyub Paek, Marcelo Filgueira, Peter Carr, Yuan Huang

4:35

(590-8)

[Enhanced Efficiency Through the Development of Open-tubular Enhanced Fluidity Liquid Chromatography](#) Gwenaelle S. Philibert, The Ohio State University, Susan Olesik

Oral

Session 600

HPLC - Pharmaceutical

Monday Afternoon, Room 407

Mary A. Kaiser, DuPont Corporate Center for Analytical Sciences, Presiding

2:00

(600-1)

[Column Selectivity in Reversed-phase Liquid Chromatography Using LC/MS Compatible Mobile Phases](#) William J. Long, Agilent Technologies, Anne Mack, James Evans, John Henderson Jr

2:20

(600-2)

[The Charged Aerosol Detection: An Enabling Technology from Discovery to Production](#) Ian N. Acworth, ESA - A Dionex Company

2:40

(600-3)

[Comprehensive and Simple Set of Test Compounds Used for the Determination of the Order of Utility of HPLC Columns of Wide Chiral Recognition Ability](#) Tivadar Farkas, Phenomenex, Inc., A Carl Sanchez, Liming Peng

3:00

(600-4)

[Challenges in the Analytical Method Development for Drug Product Containing a Steroid Active Pharmaceutical Ingredient](#) Irena Nikcevic, Merck & Co, Abu Rustum, Min Li, Peter Sajonz, Robert Markovich

3:35

(600-5)

[Compendial Methods Adjusted to Use Superficially Porous Columns](#) William J. Long, Agilent Technologies, Anne Mack, John Henderson Jr

3:55

(600-6)

[Novel Method Development Strategy for Impurity Profiling](#) Jerry Wang, Tianjin International Institute of Biopharmaceutical Research

4:15

(600-7)

[Development of a Validated Stability-indicating UPLC Assay Method for Levocetirizine](#) Sunil Dhaneshwar, Bharati Vidyapeeth University, Vidhya Bhusari

4:35

(600-8)

[Myths in Ultra-high-pressure Liquid Chromatography](#) Michael W. Dong, Genentech, Nik Chetwyn

Oral

Session 610

New Technologies for Medical Diagnostic Testing

Monday Afternoon, Room 314

Michael McGinley, Phenomenex, Presiding

2:00

(610-1)

[Novel Multiplexed Antibody Detection Assays Using Surface Enhanced Raman Scattering](#) David A. Eustace, Renishaw Diagnostics Ltd, Ewen Smith, Graeme McNay, Ian Cook, Kirstin Lynn

2:20

(610-2)

[Multiparameter Diagnostic Slide for the Point-of-care Testing of Metabolic Profiles in the ICU](#) Punkaj Ahuja, Case Western Reserve University, Brian Hemphill, Maria Peshkova, Miklos Gratzl

2:40

(610-3)

[Integrated Impedance Detection of Protein Concentration](#) Casper H. Clausen, DTU Nanotech, Lars Andresen, Mikkel Mar, Romén Rodriguez-Trujillo, Winnie Svendsen

3:00

(610-4)

[Characterization of Ovarian Malignancy by Fourier Transform Infrared Spectroscopy](#) Gunjan Tyagi, National Physical Laboratory, Deepak Jangir, Ranjana Mehrotra

3:35

(610-5)

[Light Emitting Diodes and a Monochrome Detector to Measure Chromoionophore Response in Optode Based Chemical Sensors](#) Brian Hemphill, Case Western Reserve University, Miklos Gratzl

3:55

(610-6)

[Fluorescent Probes for Selective Detection of Reactive Oxygen Species Based on Non-oxidative Mechanisms](#) Kui Chen, Louisiana State University, Shreveport, Annie Wilson, Brian Salvatore, Christopher Graham, Jamie Johnson, John Provenza

POSTER SESSION

Session 615

ACS Division of Analytical Chemistry Poster Session

Room Red Area on Exposition Floor - Hall B, Aisle 400

(615-1 P)

[In-capillary Preconcentration for Protein Analysis by Capillary Electrophoresis](#) Sarah A. Bashaw, Skidmore College, Kimberley Frederick

(615-2 P)

[Electroosmotic Flow and Ion-current Rectification in Pyramidal-pore Mica Membranes](#) Gregory W. Bishop, University of Florida, Charles Martin, Marcos Lopez, Pu Jin

(615-3 P)

[Organic Vapor Sensors Based on Swellable Organically Modified Silica Actuators](#) Paul L. Edmiston, College of Wooster, Jane Leisure

(615-4 P)

[Concentration of Thallium \(I\) on Functionalized Magnetic Nanoparticles](#) Eugenia Eftimie Totu, University Politehnica Bucharest, Aurelia Cristina Nechifor, Gheorghe Nechifor, Stefan Ioan Voicu

(615-5 P)

[A Surface Plasmon Resonance Sensor on a Compact Disk-like Microfluidic Device](#) Akihide Hemmi, Mebius Advanced Technology Ltd., Akihiro Moto, Hizuru Nakajima, Katsumi Uchiyama, Koji Nakano, Nobuaki Soh, Takashi Usui, Tatsuya Tobita, Toshihiko Imato

(615-6 P)

[The Effect of Purification and Pretreatment \(of Carbon Nanotubes\) on the Electrochemical Behavior of Carbon-nanotube Modified Gold Electrodes](#) Tina H. Huangt, Lafayette College, Jessica Frey

(615-7 P)

[An Angle-scanning Surface Plasmon Resonance Imaging System](#) Wei Jin, Zhejiang University, Chao Zhou, Qinhan Jin, Ying Mu, Ying Zhang

(615-8 P)

[Monitoring Biomarkers of Osteoclastogenesis Using Centrifugal Microfluidic Devices](#) Robert D. Johnson, Murray State University, Elizabeth Ellison, Jessica Moore

(615-9 P)

[Evaluation of Coating Materials in CE Using Real-time Measurements of EOF](#) Sondra Lipshutz, Skidmore College, Kimberley Frederick

(615-10 P)

[An Integrated Nucleic Acids Purification and Amplification System Using Microfabricated Glass Structures](#) Ying Mu, Zhejiang University, Qingqing Wu, Qinhan Jin, Wei Jin

(615-11 P)

[Raman Active Au/FePt Hybrid Nanoparticles for Rare Protein Isolation and Quantification](#) Ismail Ocsoy, University of Florida, Mohammed Shukoor, Weihong Tan

(615-12 P)

[Low Light Intensity Surface Plasmon Sensing Element](#) Wolfgang U. Spindel, Miami University, Gilbert Pacey, Matthew Bachus

(615-13 P)

[Investigation of Oxygen Plasma Etching for Gold Microneedle Arrays](#) Funda Tongay, University of Florida

(615-14 P)

[Biocatalyzed Synthesis of Polymeric Naturally Biodegradable Nanotubes from Plant Cell Wall Material](#) Hector M. Caicedo, University of Florida, Luisa Dempere, Wilfred Vermerris

(615-15 P)

[Profiling Acid/base/neutral Water Contaminants via SPAD at Alkaline pH](#) Sanka N. Atapattu, McMaster University, Jack Rosenfeld, Jordan Fortuna

(615-16 P)

[Effectiveness of Metals Remediation Using Various Materials Determined by ICP/AES and ICP/MS](#) Chelsie Beck, University of West Florida, Pamela Vaughan

(615-17 P)

[Development of a Novel Magnetic Imaging System Useful in Art Conservation and Authentication](#) Nathan W. Bower, Colorado College, Matt Reuer, Steve Burt

(615-18 P)

[Uncovering Dimensional Variability in Standard Microtiter Plate Types](#) John T. Bradshaw, Artel, Alex Rogers, Ceara Sargent, Geoff Sawyer, George Rodrigues, Tanya Knaide

(615-19 P)

[Determination of Pharmaceutical and Personal Care Products in Waste Water by Capillary Electrophoresis with UV Detection](#) Stephen E. Gibbons, Missouri University of Science and Technology, Chuan Wang, Qihua Wu, Xiaoliang Cheng, Yinfu Ma

(615-20 P)

[Leveraging Social Media to Educate the Public About Sustainability Practices](#) Jennifer Maclachlan, PID Analyzers, LLC

(615-21 P)

[Polynuclear Aromatic Hydrocarbon Determinations in Biofuel Matrices](#) Thomas P. Yavaraski, University of Michigan, Avery Demond, Margarita Otero Diaz

(615-22 P)

[Computer Based Analysis of Congested NO₂ Spectrum](#) Thresa Wells, Spelman College, Kamilah Mitchell, Peter Chen

(615-23 P)

[Comparison of Volatile Organic Compounds in the Exhaust Emissions of Generators Fueled by Diesel with Different Oxygenate Additives](#) Ngee Sing Chong, Middle Tennessee State University, Luke Bolin

(615-24 P)

[Development of a Biomedical Diagnostic Method Based on Exhaled Breath Analysis by GC-MS](#) Ngee Sing

Chong, Middle Tennessee State University, Ankit Patel

(615-25 P)

[Development of Methods for Quantitative Analysis Synthetic Cannabinoid Substances](#) Ngee Sing Chong, Middle Tennessee State University, Vanessa Hobbs

(615-26 P)

[Fluorescent Derivatization of Allylthiocyanate for Detection of the Glucosinolate Sinigrin](#) Neil D. Danielson, Miami University, David Gorchoy, Erin Guth, Lauren Linz, Matthew Collins

(615-27 P)

[Sol-gel Immobilized CdSe Quantum Dots as Multiple Repetitive Uses Fluorophores in Peroxyoxalate Chemiluminescence Analysis](#) Chu-Ngi Ho, East Tennessee State University, Travis Heath

(615-28 P)

[Overcoming the Recalcitrance of Cellulosic Conversion via Acid and Base Pre-treatment Processes](#) Beng Guat Ooi, Middle Tennessee State University, Ashley Rambo, Miguel Hurtado

(615-29 P)

[Synthesis and Characterization of Pyrazoline and Its Metal Complexes with Co\(II\), Ni\(II\) and Mn\(II\) Ions](#) Pankajkumar S. Patel, Sheth LH Science College, Mansa, Bharkumar Patel

(615-30 P)

[Determination of Phosphorous Levels in the Milwaukee River](#) Scott A. Schlipp, University of Wisconsin-Milwaukee

(615-31 P)

[Steady State and Time-correlated Single Photon Counting Fluorescence Determination of Critical Micelle Concentration and Aggregation Number of Rhamnolipid Biosurfactant Micelles](#) Angela R. Soemo, University of Arizona, Jeanne Pemberton, Lucinda Begay, Raina Maier

(615-32 P)

[Fluorescence Enhancement](#) William R. Thompson, University of North Dakota, Jiao Chen, Julia Xiaojun Zhao, Nenny Fahrudin

(615-33 P)

[Products from the Oxidation of Biodiesel Blends](#) Jan T. Andersson, University of Münster, Heinrich Luftmann, Stefan Hildebrandt

(615-34 P)

[Monitoring the Uptake of Glycosphingolipids in \[i\]Plasmodium Falciparum\[/i\]-infected Erythrocytes Using Both Fluorescence Microscopy and Capillary Electrophoresis with Laser-induced Fluorescence Detection](#) David C. Essaka, University of Washington, Colin Whitmore, John White, Monica Palcic, Norman Dovichi, Ole Hindsgaul, Pradipsinh Rathod

(615-35 P)

[Characterization of Novel pH Sensitive Dyes](#) Gabor Patonay, Georgia State University, Gala Chapman, Maged Henary

(615-36 P)

[The Role of Charge in NIR Dye –Biomolecule Interactions](#) Gabor Patonay, Georgia State University, Garfield Beckford, Maged Henary, Sergey Alyabyev

(615-37 P)

[Computer Numerical Control \(CNC\) Milling for Rapid Production of Poly\(dimethylsiloxane\) \(PDMS\) Microfluidic Devices](#) James M. Karlinsey, Penn State Berks, Eric LeVan, Patrick Bauer

(615-38 P)

[Micro-scale Visible Spectroscopy Using a Liquid Crystal Tunable Filter](#) Gary A. Mabbott, University of St. Thomas, Luke Markstrom

(615-39 P)

[Electrochemical Synthesis, Characterization and Cell-imaging of Glutathione-capped CdTe/CdS Core/Shell Quantum Dots](#) Wujian Miao, University of Southern Mississippi, Cunwang Ge, Tianyi Zhang, Tingting Chen, Yu Zhao

(615-40 P)

[Detection of Toxic Industrial Chemicals](#) Paul J. Rauch, General Dynamics ATP, Dennis Wolf, M Todd Griffin, Marc Wise, R (Bruce) Warmack

(615-41 P)

[Synthesis and Characterization of Dithiolate-protected Copper Nanoparticles with Interesting Electrochemical and Optical Features](#) Donald A. Robinson, Georgia State University, Gangli Wang, Zhenghua Tang

(615-42 P)

[Characterization of Soil Obtained from Joshua Tree National Park](#) David P. Schrum, The University of Redlands, Lillian Hensleigh

(615-43 P)

[Improved Optical Density Cell Design with Enhanced Dynamic Range Using a Nonlinear Variable Path Length](#) Jing Shen, Halliburton, Christopher Jones, Mark Proett, Mickey Pelletier, Robert Atkinson

(615-44 P)

[Analysis of Fluorophore-bound Carbohydrates via HPLC](#) Bridget G. Trogden, Mercer University, Luke Cohen, Marielle Youmans

(615-45 P)

[Determination of Niacinamide in Cereal Samples: Focus on Proper Sample Preparation](#) Karyn M. Usher, West Chester University, Bryan Cetroni, Dmitry Kochev

(615-46 P)

[A Paper Strip Based Immunosensing System for the Determination of C-Reactive Protein Using Electrogenated Chemiluminescence](#) Shijun Wang, University of Southern Mississippi, Miao Wujian, Tommy Maestri

(615-47 P)

[A Hand Held Differential Ion Mobility Spectrometer for the Rapid Detection and Identification of Vapor Phase Chemical Species](#) William Wu, General Dynamics Armament and Technical Products, Eric Wallis, Paul Rauch

(615-49 P)

[Use of an Inductively Coupled Plasma Atomic Emission Spectrometer as an Empirical Formula Detector for Gas Chromatography](#) Carl Young, Wake Forest University

POSTER SESSION

Session 620

Agriculture

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(620-1 P)

[Fast Gas Chromatography Hyphenated to Time-of-flight Mass Spectrometry for the Determination of Pesticides](#) Alessandro Casilli, DANI Instruments S.p.A., Manuela Bergna

(620-2 P)

[GCxGC/TOF-MS for Pesticide Determination](#) Alessandro Casilli, DANI Instruments S.p.A., Manuela Bergna

(620-3 P)

[Determination of Carbon in Soil Extract for Microbial Bio-Mass-Carbon Quantification](#) Daniele Cavalli, University of di Milano, Guido Giazzi, Liliana Krotz, Pietro Marino

(620-4 P)

[Using Ion Chromatography as a Tool in the Characterization of the Phytosiderophores in Root Exudates](#) Christopher P. Hallen, Bloomsburg University, Broc Wenrich, George Davis

(620-5 P)

[Using Net Analyte Signal \(NAS\) to Identify an Adulterant in Extra Virgin Olive Oil](#) Kevin Higgins, Idaho State University, Constantinos Georgiou, John Kalivas

(620-6 P)

[Urea Ammonium Nitrate \(UAN\) Concentration Analysis Using the Combination of Digital Density Meters and Refractometers](#) Darren S. Wilson, Anton Paar USA

POSTER SESSION

Session 630

Application of Mass Spectrometry

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(630-1 P)

[A Liquid Chromatography Tandem Mass Spectrometry-Based Method for Analysis of Total Testosterone in Human Serum](#) Witold Woroniecki, AB SCIEX, Elliott Jones, Hua-fen Liu, Lisa Sapp, Renee Huang

(630-3 P)

[A New Configuration of Ion Attachment Chamber Connected to Quadrupole Mass Spectrometry](#) Seiji Takahashi, Meisei University, Toshihiro Fujii, Yuki Katoh, Yuki Kitahara

(630-4 P)

[Analytical Method Development for the Measurement of Lipid-Related Exometabolome Species of *S. Cerevisiae* by Tandem Mass Spectrometry](#) Tao Sun, Duquesne University, Mitchell Johnson

(630-5 P)

[Measurement of 1 -200 m/z Scan Range Using the Planar Integrated Micro Mass Spectrometer \(PIMMS\)](#) Gregory Quiring, TUHH - Technische Universität Hamburg-Harburg, Henning Wehrs, Joerg Mueller, Maria Reinhardt, Regulo Ramirez Wong

(630-6 P)

[Imaging Mass Spectrometry Meets 3D Cell Culture Systems](#) Haohang Li, University of Notre Dame, Amanda Hummon

(630-7 P)

[Development of a Novel Proton-transfer-reaction Mass Spectrometry \(PTR-MS\) Instrument for Monitoring and Quantifying Airborne Molecular Contaminations in Cleanroom Environments](#) Christian Lindinger, Ionicon Analytik, Alfons Jordan, Eugen Hartungen, Hans Seehauser, Jost Kames, Lukas Maerk, Philipp Sulzer, Simone Juerschik, Tilmann Maerk

(630-8 P)

[Beadless Stretched-sample Preparation Method for Enhanced Spatial Resolution in Mass Spectrometry Imaging of Nervous Tissues](#) Eric J. Lanni, University of Illinois at Urbana-Champaign, Jonathan Sweedler, Kevin Tucker, Stanislav Rubakhin

(630-9 P)

[Monitoring Hydrogen and Gaseous Fuels Using a Double-focusing Mass Spectrometer](#) Gottfried Kibelka, OI Analytical, Chad Cameron, Ken Kuhn, Omar Hadjar, Scott Kassan

(630-10 P)

[An Evaluation of Strategies for Small-molecule Analysis by MALDI Mass Spectrometry: What Are the Limits?](#) James A. Kelley, National Institutes of Health, Christopher Lai, Lawrence Phillips, Qian Sun

(630-11 P)

[A Multi-faceted MS Strategy for de novo Sequencing of the Nodule-specific Cysteine-rich Peptides in *Medicago Truncatula*](#) Chenxi Jia, University of Wisconsin-Madison, Hui Ye, Jean-Michel Ané, Lingjun Li, Maegen Howes-Podoll

(630-12 P)

[Flow Injection Electrospray Ionization Mass Spectrometry \(FI-ESI-MS\) Gradient Ratio Standard Addition \(GR-SA\) for Non-chromatographic Quantification of Pharmaceutical Active Ingredients](#) Dana Hostetler, Georgia Institute of Technology, Facundo Fernandez

(630-13 P)

[LC-MSMS Method Development for Steroid Panel Analysis in Human Serum](#) Beth Fernandez, AB Sciex, David Lavorato, Elliott Jones, Hua-fen Liu, John McFarlane, Lisa Sapp, Renee Huang

(630-14 P)

[The Analysis of Testosterone by LC-MS/MS: A Comparison to Immunoassay](#) Beth Fernandez, AB Sciex, Hua-fen Liu, John McFarlane, Judy Stone, Renee Huang

(630-15 P)

[Determination of Lead in Whole Blood: A Comparison of Inductively Coupled Plasma Mass Spectrometry Results by Three Calibration Preparation Techniques](#) Sarah J. Cambern, Mayo Clinic, Matthew Hanley, Melissa Maras, Steven Eckdahl

(630-16 P)

[Improving Synthesis Lab Productivity Using Thermal Desorption/MS to Rapidly Monitor Chemical Reactions](#) Jennifer A. Burgess, Waters, Joseph Romano, Michael Balogh, Peter Lee

(630-17 P)

[High-throughput Sample Preparation and Analysis of Biological and Synthetic Analytes Using Ionic Liquid Matrices by MALDI-MS on a Digital Microfluidic Chip](#) Sirantha Perera, University of Texas at Arlington, Daniel Armstrong, Hyejin Moon, Yasith Nanayakkara

(630-18 P)

[Analysis of the Essential Oil from the Leaves of Bambusa Vulgaris, A Useful Phytomedicine for Gonorrhoea and Skin Eruptions in HIV/AIDS](#) Morufu A. Ademoye, University of Lagos, Modupe Ogunlesi, Wesley Okiei

(630-19 P)

[Gas Chromatographic Analysis of the Dried Leaves of Coix lacryma-jobi, A Phytomedicine for Asthma](#) Edith Ofor, University of Lagos, Modupe Ogunlesi, Wesley Okiei

(630-20 P)

[GC-MS Analysis of the Essential Oil from the Fresh Leaves of Tridax Procumbens](#) Modupe Ogunlesi, University of Lagos, Adeyemi Egunyomi, Sunday Udele, Wesley Okiei

POSTER SESSION

Session 640

Bioanalytical Applications for Clinical/Biomedical Uses

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(640-1 P)

[Rapid Infrared Microspectroscopy Method for Diagnosis and Assessment of Interstitial Cystitis/Painful Bladder Syndrome](#) Emily A. Birkel, Ohio State University, CA Tony Buffington, Jason Gilleran, Luis Rodriguez-Saona

(640-2 P)

[Determination of Roxithromycin in Human Plasma by LC-MS/MS Method](#) Bharat Dholariya, Amneal Pharmaceuticals Co

(640-3 P)

[Investigation of Urinary Sarcosine and Related Biomarkers in Prostate and Other Urological Cancers Using LC/MS/MS](#) Sanjeewa Gamagedara, Missouri University of Science and Technology, Anthony Kaczmarek, Xiaoliang Cheng, Yinfa Ma, Yongqing Jiang

(640-4 P)

[A Novel Algorithm for Quantitative Analysis of Plasma Free Metanephrines by Automated Online Solid-phase Extraction LC/MS/MS](#) Michael Jarvis, AB Sciex, Martin Sibum, Patrick Quinn-Paquet, Stella Schindler, Sylvie Beaudet

(640-5 P)

[Electroanalytical Determination of Ciprofloxacin Antibiotic in Pure and Drug Formulation Forms](#) Abdel-Nasser M. Kawde, King Fahd University, Nouri Hassan

(640-6 P)

[Investigating the Metabolism of Dynorphin A 1-17, an Opioid Neuropeptide, in Peripheral Tissues and the Central Nervous System](#) Courtney D. Kuhnline, The University of Kansas, Giuseppe Caruso, Susan Lunte

(640-7 P)

[\[sup\]1\[1/sup\]H NMR Based Metabolic Profiling of Serum for the Detection of Pancreatic Cancer](#) Kwadwo Owusu-Sarfo, Purdue University, Bowei Xi, Daniel Raftery, Elena Chiorean, GA Nagana Gowda, Narasimhamurthy Shanaiah, Vincent Asiago

(640-8 P)

[Glycation of Cyclic GMP by Methylglyoxal and Glyoxal: An In-vitro Study of Advanced Glycation Endproducts](#) Praveen K. Pampati, University of Rhode Island, Joel Dain, Sreekanth Suravajjala

(640-9 P)

[An Efficient Method to Cross-link Aptamers and Proteins](#) Ruowen Wang, University of Florida, Kwame Sefah, Weihong Tan

(640-10 P)

[1H-NMR Study of Monocrotaline and Its Metabolites in Human Blood](#) Yicheng Yang, London Metropolitan University

(640-11 P)

[Rotational Tracking of Single Plasmonic and Fluorescent Particles in Living Macrophages](#) KhanhVan T. Nguyen, Clemson University, Jeffrey Anker, Kenneth Christensen, Lawrence Fernando, Winfried Moeller, Zhiqiang Yang

(640-13 P)

[Silicon Photonic Microring Resonator Arrays for Multiplexed Cytokine Secretion Assays](#) Matthew S. Luchansky, University of Illinois at Urbana-Champaign, Ryan Bailey

(640-14 P)

[One-Step Nanoparticle-based Homogeneous Assay for Influenza Virus](#) Jeremy D. Driskell, University of Georgia, Ralph Tripp

(640-15 P)

[Determination of the Nanoparticle-protein Corona via Flow Field Flow Fractionation](#) Jonathan T. Ashby, University of California, Riverside, Wenwan Zhong

POSTER SESSION

Session 650

Bioanalytical Applications of Capillary Electrophoresis

Room Red Area on Exposition Floor - Hall B, Aisle 400

(650-1 P)

[Investigation of Correlations of Modified Nucleosides Levels in Urine Samples with Urologic Cancers by Using Capillary Electrophoresis](#) Qihua Wu, Missouri University of Science and Technology, Anthony Kaczmarek, Sanjeewa Gamagedara, Yinfu Ma, Yongqing Jiang

(650-2 P)

[Development and Characterization of Stabilized, Biomimetic Chromatographic Stationary Phase Matrices](#) Seid M. Adem, Wabash College, Craig Aspinwall

POSTER SESSION

Session 660

Bioanalytical Sampling and Sample Preparation

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(660-1 P)

[Supported Liquid Extraction \(SLE+\) - Comparison of Larger Bed Formats to Allow the Extraction of Larger Matrix Volumes](#) Lee D. Williams, Biotage GB Limited, Claire Desbrow, Gary Dowthwaite, Helen Lodder, Rhys Jones, Richard Calverley, Steve Jordan

(660-2 P)

[The Determination of Glipizide in Plasma](#) Wan Wang, Agela Technologies

(660-3 P)

[Design and Implementation of a Multi-cell Reactor for the Pretreatment of Biological Samples Using the Advanced Oxidation Process](#) Stefanie A. Bragg, University of Tennessee-Knoxville, Ziling Xue

(660-5 P)

[Development of an SDS-PAGE Method for Detection of Trace Proteases in Bovine Serum Albumin](#) Larissa C. Harwick, Abbott Laboratories, Ewa Lang, Jeffrey Fishpough, Kevin Rupprecht, Martin Lopez, Svetoslava Stamenova

(660-6 P)

[Proteomics Sample Preparation Considering High Pressure, Temperature and Chemical Effect Simultaneously](#) Hema Sudha Chatragadda, Duquesne University, HM Skip Kingston, Kalyan Paila

(660-7 P)

[Optimization of Solid Phase Extraction for the Analysis of Benzodiazapines from Plasma](#) Luisa Pereira, Thermo Fisher Scientific, Tim Liddicoat, Tony Edge, Yat Hui

(660-8 P)

[Flow Field Flow Fraction for Rapid Separation and Clean-up of Biological Samples](#) Samantha Schachermeyer, University of California, Riverside, Wenwan Zhong

(660-9 P)

[Metabolic Profiling in Plasma Patients Administered with Tranexamic Acid](#) Barbara Bojko, University of Waterloo, Janusz Pawliszyn, Marcin Wasowicz

(660-10 P)

[Selective Extraction of Genotoxic Impurities Using Polymeric Ionic Liquid-based Sorbent Coatings in Solid-phase Microextraction](#) Tien D. Ho, The University of Toledo, Anthony Canestraro, Jared Anderson

(660-11 P)

[Design and Synthesis of New Generation Polymeric Ionic Liquid-based Sorbent Coatings for Solid-phase Microextraction](#) Yunjing Meng, The University of Toledo, Jared Anderson, Jennifer Dudek

(660-12 P)

[Black Belt Lean Tools for Process Improvements](#) Maroof H. Qurashi, NSWC, Crane

POSTER SESSION

Session 670

Bioanalytical/Pharmaceutical

Room Red Area on Exposition Floor - Hall B, Aisle 400

(670-1 P)

[Uptake of Metals by Hair via Melanin: The Role of Selected Components of Melanin in this Process](#) Mark T. Stauffer, University of Pittsburgh at Greensburg, Kelly Casoni

(670-2 P)

[Probing the Effect of Fluoridation on Tooth Erosion with Flame Atomic Absorption Spectrometry](#) Mark T. Stauffer, University of Pittsburgh at Greensburg, Monica Abdelshahid

(670-3 P)

[Improved Biomonitoring Method for Multi-elemental Analysis \(Cd, Hg, Pb, Se, and Mn\) of Whole Human Blood by Inductively Couple Plasma Dynamic Reaction Cell Mass Spectrometry \(ICP-DRC-MS\)](#) Deanna R. Jones, Centers for Disease Control and Prevention, Jeff Jarrett, Kathleen Caldwell, Robert Jones

(670-4 P)

[Monitoring the Alteration in Urea Released as Nitrogen](#) Fahima M. Helaly, National Research Centre

(670-5 P)

[Development of a Generalized Method for Determination of Elemental Impurities in Support of USP<232> and <233>](#) Michelle E. Cree, Catalent Pharma Solutions, Kimberly Davis, Sam Jones

(670-6 P)

[Nutritional Supplement Contamination Quantification: Elemental Analysis by EPA Method 6020A and Total Zinc and Antimony and Antimony Speciation by EPA Method 6800](#) Gregory M. Zinn, Duquesne University, Curtis Frantz, HM Skip Kingston, Mizanur Rahman, Scott Faber

(670-7 P)

[Analysis of Copper and Iron Associated to Protein Using SEC-UV- SIMAAS](#) Angerson N. Nascimento, University of São Paulo, Juliana Naozuka, Pedro Oliveira

(670-8 P)

[Influence of Intentionally Introduced Easily Ionizable Elements in Inductively Coupled Plasma Optical Emission Spectroscopy \(ICP-OES\) and Laser-Induced Breakdown Spectroscopy \(LIBS\)](#) Emily R. Schenk, Florida International University, Jose Almirall

(670-9 P)

[Automatic Twin Vessel Recrystallizer: Absolute Purity Evaluation by Determination of Critical \[i\]T\[/i\]\[sub\]0\[/sub\] Value for 100% Pure Compound by DSC](#) Osamu Nara, Tohoku Pharmaceutical University

(670-10 P)

[Metabolomics-based Early Detection of Esophageal Adenocarcinoma](#) Jian Zhang, Purdue University, Daniel Raftery, Liu Lingyan, Nagana Gowda, Wei Siwei, Zane Hammoud

(670-11 P)

[Understanding Liquid Handling Behavior of Automated Pipetting Platforms](#) John T. Bradshaw, Artel, Keith Albert

(670-12 P)

[Supported Liquid-liquid Extraction based on Diatomaceous Earth Modified by Different Treatment](#) Wang Wan, Agela Technologies

(670-13 P)

[Development of a Generic Automated Sample Preparation Method for Conventional and Amorphous Solid Dispersion Formulations](#) Jessica Kogan, Merck & Co, Brian Kozlowski, Christopher John, Joanna Everitt

(670-14 P)

[A Fluorinated Mixed Mode Ion Exchange Stationary Phase for Solid Phase Extraction](#) Neil D. Danielson, Miami University, Ling Zhou

(670-15 P)

[Enhancing Efficiency of Trace Metals Analysis Using Generic Method Validation by ICP-OES](#) Ila Patel, Genentech, CJ Venkatramani, Kavita Mistry

(670-16 P)

[Speciation of Inorganic, Methyl and Ethyl Mercury in Blood Using Isotope-dilution and Solid-phase Microextraction with Gas Chromatography Coupled to Inductively-coupled Plasma Mass Spectrometry](#) Carl P. Verdon, Centers for Disease Control and Prevention, Kathleen Caldwell, Mark Fresquez, Robert Jones

POSTER SESSION

Session 680

Data Analysis, Computer Modeling & Simulation

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(680-1 P)

[Multi-variable and Multi-group ROC Curve Analyses for Qualitative and Quantitative Analysis](#) Waleed M. Maswadeh, US Army, ECBC, A Peter Snyder

(680-2 P)

[High Resolution Coherent Two Dimensional Spectroscopy and Computer Based Data Analysis Programs: Application to Nitrogen Dioxide](#) Kamilah Mitchell, Spelman College

(680-3 P)

[Interactive Charts: A Powerful New Tool for Understanding Chromatography Data](#) James A. Schibler, Dionex Corporation, Jay Lorch, Shawn Anderson

(680-4 P)

[Identification of Metabolites in Complex NMR Spectra Using Ratio Analysis of Peak Integrals](#) Siwei Wei, Purdue University, Daniel Raftery, Fariba Tayyari, Jian Zhang, Lingyan Liu, Naganagowda Gowda, Tao Ye

(680-5 P)

[High-sensitivity Measurement of Benzene for the Mapping Short-interval Transients in Environmental Monitoring](#) Brian Bischof, Baseline-MOCON, Adam Gniewek

(680-6 P)

[Blogging in the Lab: A Research Information Management System \(RIMS\) for Faculty](#) Stuart J. Chalk, University of North Florida

(680-7 P)

[New Methods for Analyzing High Resolution Multidimensional Spectra](#) Peter C. Chen, Spelman College, Kamilah Mitchell, Thresa Wells

(680-8 P)

[Introduction of Analytical Environmental Efficiency to the Evaluation of Green Analytical Methodologies for Chemical Pollutants](#) Ayumi Kawamura, Tokai University, Yoshika Sekine

(680-9 P)

[Signal Processing for a Portable Multi Sensor Gas Chromatograph](#) Joern Frank, Hamburg University of Technology, Gerhard Matz, Hendrik Fischer

(680-10 P)

[Stability and Molecular Structure of Some Vanadium Complexes Effective in Biological Systems: A Quantum Mechanical Study](#) Rakhshan Hakimelahi, Islamic Azad University

POSTER SESSION

Session 690

Drug Discovery

Room Red Area on Exposition Floor - Hall B, Aisle 400

(690-1 P)

[Improved Purification of Lead Generation Compounds by Flash Chromatography](#) Rakesh Bose, Grace, Kathy Lawrence, Scott Anderson

(690-2 P)

[Improved Isolation and Purification of Natural Products by Flash Chromatography](#) Rakesh Bose, Grace, Kathy Lawrence, Scott Anderson

(690-3 P)

[Chemical Comparison of Two Species of Notopterygium by High-Performance Liquid Chromatography–Photodiode Array Detection–Electrospray Ionization Tandem Mass Spectrometry](#) Jing Dong, Shimadzu International Trading Co. Limited, Guoqiang Liu, Lei Cao, Shizhong Chen, Yuki Hashi

(690-4 P)

[Mass Spectrometry Based Identification and Structure Elucidation of Oleamide as a Ligand of Plasmodium Falciparum Thioredoxin Reductase](#) Ranjith Munigunti, Auburn University, Angela Calderon, Nicholas Nelson, Vanisree Mulabagal

(690-5 P)

[Exploring the Diversity on \(THPM\) Scaffold for Novel Thiazolopyrimidines, Characterization by X-ray Diffraction, Anticancer Activity](#) Bharat B. Baldaniya, M G Science Institute

(690-6 P)

[Simultaneous Pharmacokinetic Profile and Metabolite Identification Using Accurate Mass High Resolution Mass Spectrometry Technique](#) Suma Ramagiri, AB Sciex, Hesham Ghobarah, Jeffry Miller, Jim Ferguson, Tanya Gamble

POSTER SESSION

Session 700

Education/Teaching

Room Red Area on Exposition Floor - Hall B, Aisle 400

(700-1 P)

[Synthesis and Analysis of Aspirin: An Instrumental Approach for Non-science Majors and High School](#)

[Students](#) Christa A. Currie, College of Mount St Joseph

(700-2 P)

[Marketing High Technology Service Aspects and Considerations Part V](#) John F. Litton, Diesner Ag

(700-3 P)

[Distribution of Iron\(III\)-Trion Chelates, and Determination of Their Formation Constants: A Multiweek Instrumental Analysis Laboratory Project](#) Mark T. Stauffer, University of Pittsburgh at Greensburg, Chang-Hyeock Byeon, Daniel Soisson

(700-4 P)

[A New Approach to Teaching Instrumental Analysis Laboratory](#) Grace Zoorob, Vanderbilt University, David Cliffl

(700-5 P)

[Engaging the Millennial Chemistry Major in Analytical Lectures and Labs](#) Gretchen E. Potts, University of Tennessee at Chattanooga

(700-6 P)

[Application of Acid Rain in the Northern Japan During 2006-2011 to Environmental Education](#) Masahiko Kan, Hokkaido University of Education

(700-7 P)

[Project STONE \(Science Teaching for Ohio's New Economy\)](#) Suzanne K. Lunsford, Wright State University

POSTER SESSION

Session 710

Food Science Using GC/MS and LC/MS

Room Red Area on Exposition Floor - Hall B, Aisle 400

(710-1 P)

[Analysis of the Off-odour Profile of Food Products Using a Micro-chamber/ Thermal Extraction System and](#)

[Thermal Desorption \(TD\)-GC/TOF MS Detection](#) Roberts M. Gareth, Markes International, Daniel Cooper

(710-2 P)

[The Use of Pyrolysis GC-MS to Characterize Natural and Artificial Sweeteners](#) Karen Jansson, CDS Analytical, Inc., Gary Deger, Steve Wesson, Thomas Wampler

(710-3 P)

[Evaluating Food Products for Furan and Other Volatile Organic Compounds](#) Roger Bardsley, Teledyne Tekmar, Nathan Valentine, Tyler Trent

(710-4 P)

[Evaluating Consumer Products for Low Level Contaminants with High Temperature Dynamic Headspace](#) Roger Bardsley, Teledyne Tekmar, Tyler Trent

(710-5 P)

[A Survey of Residual Solvents in Various Inks Used in Consumer Product Packaging](#) Roger Bardsley, Teledyne Tekmar, Tyler Trent

(710-6 P)

[Comparison of SPME to Active SPME for the Analysis of Aromas and Fragrances in Foods and Consumer Products](#) Thomas X. Robinson, Entech Instruments, Inc., Christopher Casteel, Daniel Cardin

(710-7 P)

[Head Space Solid Phase Microextraction \(HS-SPME\) Gas Chromatography Mass Spectroscopy \(GCMS\) Analysis of Volatile Components of Garlic](#) Jack Williams, Mercyhurst College, Candee Chambers, Jessica Clemente

(710-8 P)

[Multi-reflecting Time of Flight Mass Spectrometry with UPLC for the Qualitative Comparison of Nutrients, Antioxidants and Potential Contaminants in Process Train Samples from Wine Processing](#) Jeffrey Patrick, Leco Corporation, Joe Binkley, John Chakel, Kevin Siek, Matthew Giardina

(710-9 P)

[Analysis of Flavor Chemicals](#) Edward Limowski, TTB, Janet Scalese

(710-10 P)

[Determination of Impurities in Ethyl Alcohol Used in Alcoholic Beverages](#) Vivek R. Dhole, Thermo Fisher Scientific, Balasubramanian Sitharaman, Inderjit Kaur

(710-11 P)

[Simultaneous Multi-element Stable Isotope Analysis of Green Coffee Bean to Assess Its Geographic Origin](#) Mami S Ohashi, Jasco International Co., Ltd., Hideto Kakimi, Mari Sugihara, Naoto Iwasaki

(710-12 P)

[Volatile Organic Compounds in Every Day Food](#) Tyler Trent, Teledyne Tekmar, Nathan Valentine, Roger Bardsley

(710-13 P)

[Analysis of Volatile Organic Compounds in Different Beverages](#) Tyler Trent, Teledyne Tekmar, Nathan Valentine, Roger Bardsley

(710-14 P)

[Dioxins in Rice: How Are They Distributed?](#) Francesca Fasano, IZS-CREAA, Antonio La Rosa, Carla Cappa, Ivana Bottazi, Marco Montafia, Maria Cesarina Abete, Maria Leogrande, Paola Spagnolo, Riccardo Nespoli

(710-15 P)

[A Survey of Retail Lavender Essential Oils to Detect Adulterations](#) Gary H. Naisbitt, Utah Valley University, Amberlee Neibuar

(710-16 P)

[Identification of Various Pink-red Pigments Formed by Reacting Various Amino Acids with Onion \(*Allium cepa* L.\) Thiosulfates Using High Performance Liquid Chromatography with Diode Array Detector and Tandem Mass Spectrometry](#) Yohannes H. Rezenom, Texas A&M University, Bhimanagouda Patil, David Russell, Eun Jin Lee, Sun Yoo Kil

(710-17 P)

[Quantification of Aflatoxins in Peanuts Using UHPLC-single Quadrupole Mass Spectrometry](#) Sharanya Reddy, PerkinElmer Inc, Adam Patkin, Avinash Dalmia, Daniel Pentek, David Negrotti

(710-18 P)

[Characterization of Nutrients and Actives in Herbal Supplements and Nutraceuticals Using UHPLC-Multi-reflecting Time-of-flight Mass Spectrometry – Comparison of Suppliers and Dosage forms of Green Tea, Ginger and Acai Berry Extracts](#) Jeffrey Patrick, Leco Corporation, Joe Binkley, John Chakel, Kevin Siek

(710-19 P)

[Pesticide Analysis Workflow Using GC/MS and LC/MS Techniques](#) Chinkai Meng, Agilent Technologies, Philip Wylie

(710-20 P)

[Use of a Copper Disposable Voltammetric Electronic Tongue to Detect Adulteration Process of Whiskeys](#) Thiago Paixao, Universidade Federal do ABC/UFABC, Wander Novakowski

POSTER SESSION

Session 720

Liquid Chromatography Chemical and Physical Refinements

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(720-1 P)

[Selection of Column for the Analysis of Polar Compounds](#) Luisa Pereira, Thermo Fisher Scientific, Dafydd Milton, Monica Dolci, Tony Edge

(720-2 P)

[Use of Silica Based and Porous Graphitic Carbon at Elevated Temperatures in Liquid Chromatography](#) Luisa Pereira, Thermo Fisher Scientific, Harald Ritchie, Tony Edge

(720-3 P)

[The Inter- and Intraparticle Obstruction Factors in Size-exclusion Chromatography](#) Dustin Richard, Florida State University, Andre Striegel

(720-4 P)

[Fine Fibrous Stationary Phases in Microcolumn Liquid Chromatography](#) Yoshihiro Saito, Toyohashi University

of Technology, Ikuo Ueta, Kenichi Nakane, Kiyokatsu Jinno, Shingoro Shirai, Yusuke Moriwake

(720-5 P)

[Characterization and Evaluation of a Novel C18 Column Based on Organic/inorganic Hybrid Silica for High-performance Liquid Chromatography](#) Noriko Shoji, YMC Co., Ltd., Naohiro Kuriyama, Takashi Sato, Takatomo Takai

(720-6 P)

[Use of High-speed Wavelength Switching in UHPLC Methods Using Fluorescence Detection](#) Frank Steiner, Dionex Corporation, Fraser McLeod, Holger Franz, Markus Martin

(720-7 P)

[High Performance Liquid Chromatography of Nitro Pesticides with Surface Ionization Detection](#) Takuya Suga, Meisei University, Hiromi Arimoto, Seiji Takahashi, Toshihiro Fujii

(720-8 P)

[Examining the Selectivities of Several C18 and Modified C18 Phases: Advantages of Phenyl and Pentafluorophenyl \(PFP\) Phases](#) Thomas J. Waeghe, MAC-MOD Analytical Inc., Carl Zimmerman, Robert Moody

(720-9 P)

[Development of Covalently Modified Small Particle Stationary Phases for Ion Chromatography](#) Muhammad F. Wahab, University of Alberta, Charles Lucy

(720-10 P)

[Convenient Analysis of Amine Oxide Surfactants in Complex](#) Mark M. Miller, Reckitt Benckiser Inc.

POSTER SESSION

Session 730

Pharmaceutical - Extraction, GPC, Others

Room Red Area on Exposition Floor - Hall B, Aisle 400

(730-1 P)

[Evaluation of Antifungal and Antibacterial Activity of the Extracts and Crude of the Leaf, Stem Bark and Root of Picralima Nitida](#) Lilian I. Oguguo, University of Uyo, Cecilia Igwilo, Olusoji Ilori

(730-2 P)

[Analysis of Lipid Based Dietary Supplements for Residual Chlorinated Pesticide Using Advanced Fully Automated GPC-SPE-Evaporation](#) James Neal-Kababick, Flora Research, Jeff Wiseman, Jennifer Salmons, Tom Dobbs

(730-3 P)

[Evaluation and Improvement of the USP Assay Methods for the Aminoglycoside Antibiotics Kanamycin and Amikacin](#) Lipika Basumallick, Dionex, Deanna Hurum, Jeffrey Rohrer

(730-4 P)

[Submicron Injectable Lipid Emulsion Particle Size Distributions of Unprecedented Accuracy and Resolution](#) Kerri-Ann A. Hue, Particle Sizing Systems, Dave Nicoli, Patrick O'Hagan

(730-5 P)

[Determination of Active Pharmaceutical Ingredients \(API\) and Counterions: A Comparison Between Hydrophilic Interaction Chromatography \(HILIC\) and Mixed-Mode Chromatography](#) Xiaodong Liu, Dionex Corporation, Christopher Pohl

(730-6 P)

[Supported Liquid Phase Microextraction Probes for Pharmacokinetic Studies](#) Marcel F. Musteata, Albany College of Pharmacy, Nathan Rogers, Paul Donabella, Robert Levin

(730-7 P)

[Quality and Substantivity Testing of Fragrances With an Electronic Nose](#) Jean-Christophe Mifsud, Alpha MOS, Carol Schneider, Matthew Branham, Mike Parada, Mitchell Lamboy, Xavier Bredzinski

CONFERENCE NETWORKING

Monday, March 14, 2011

4:30 PM

Career Placements for Scientists Facilitated by: John Guarniere, RCE Associates, Room 215

Analytical Methods for Oil-contaminated Seafood from the Gulf Oil Spill Facilitated by: Jack Cochran, Restek Corporation, Room 216

Process Analytical Technology (PAT) Topics Facilitated by: James Rydzak, GSK, Room 217

Harsh Environment Mass Spectroscopy Facilitated by: Gottfried Kibelka, Harsh Environment Mass Spectroscopy Society, Room 218

Tuesday Morning, March 15, 2011

Award

Session 740

Bomem-Michelson Award - arranged by Robin Garrell, University of California Los Angeles

Tuesday Morning, Room 312

Robin Garrell, University of California Los Angeles, Presiding

8:10

(740-1)

[Two-dimensional Infrared \(2D IR\) Correlation Spectroscopy — Progress in a Quarter Century](#) Isao Noda, The Procter & Gamble Company

8:45

(740-2)

[Advances in Infrared Spectroscopy for Time-resolved Polymer Studies](#) Christian Pellerin, University of Montreal, Damien Mauran

9:20

(740-3)

[Spatial Differentiation of Polymer Microdomains Using Nanoscale Infrared Spectroscopy](#) Curtis Marcott, Light Light Solutions, Craig Prater, Isao Noda, Kevin Kjoller, Michael Lo

10:10

(740-4)

[Chemical Imaging for Molecular Pathology](#) Rohit Bhargava, University of Illinois at Urbana-Champaign

10:45

(740-5)

[Vibrational Spectroscopy as a Probe of Structure Development in Electro-spun Fibers](#) Bruce Chase, University of Delaware, John Rabolt

Award

Session 750

Pittsburgh Analytical Chemistry Award - arranged by Adrian C. Michael, University of Pittsburgh

Tuesday Morning, Room 314

Adrian C. Michael, University of Pittsburgh, Presiding

8:10

(750-1)

[Magnetorotation Based Ultra-small Biomedical Platforms for Real-time Monitoring of 3-dimensional Morphology Development in Single Cells: From Bacteria to Cancer](#) Raoul Kopelman, University of Michigan

8:45

(750-2)

[Molecular Transfer and Transport: What Controls the Conductance?](#) Mark A. Ratner, Northwestern University

9:20

(750-3)

[Nanoclinics and Nanoplexes: Biomedical Applications of Nanosystems](#) Paras N. Prasad, State University of New York at Buffalo

10:15

(750-4)

[Elucidation of Molecular Foundation of Cancer](#) Weihong Tan, University of Florida

10:50

(750-5)

[Label-free Chemical Analysis on the Nanometer Scale Using Tip-enhanced Raman Spectroscopy \(TERS\)](#) Renato Zenobi, ETH Zürich

Symposia

Session 760

ACS Subdivision of Separation Science: Chip Based Separations - arranged by Carlos Garcia, The University of Texas at Austin

Tuesday Morning, Room 315

Carlos Garcia, The University of Texas at Austin, Presiding

8:05

(760-1)

[Separation Based Lab-on-a-chip Devices for In-vivo Monitoring](#) Susan M. Lunte, University of Kansas

8:40

(760-2)

[Microfluidic Separations Using Phospholipids for Fluid Steering and Enhanced Chemical Selection](#) Lisa A. Holland, West Virginia University, Stephanie Archer-Hartmann, Ted Langan, Xingwei Wu

9:15

(760-3)

[Using Microchip-based Electrophoresis to Monitor Cellular Release: Integration of Pumping, Injection Valves and Electrochemical Detection](#) R Scott Martin, Saint Louis University

9:50

(760-4)

[Contactless Conductivity Detection in Low-cost Microfluidic Systems](#) Emanuel Carrilho, Universidade De São Paulo

10:25

(760-5)

[Photo-controllable Components for Microfluidic Devices](#) Vincent T. Remcho, Oregon State University, Jintana Nammoonnoy, Myra Koesdjojo

Symposia

Session 770

Applications of Mass Spectrometry in Environmental Toxicology Research - arranged by Yinsheng Wang, University of California Riverside

Tuesday Morning, Room 309

Yinsheng Wang, University of California Riverside, Presiding

8:05

(770-1)

[Radiation- and Photo-induced Damage to DNA in Cells and Human Skin: Measurement by HPLC-ESI-MS/MS](#) Jean Cadet, CEA/Grenoble, Jean-Luc Ravanat, Thierry Douki

8:40

(770-2)

[Mass Spectrometry Studies of New Drinking Water Disinfection Byproducts and Health Effects](#) Xing-Fang Li, University of Alberta

9:15

(770-3)

[Exploring the Link Between Urban Aerosols and DNA Adducts](#) Paul Vouros, Northeastern University, Euripides Stephanou, James Glick, Joshua Klaene

9:50

(770-4)

[Mass Spectral Studies of Quinones from Flavonoids and Estrogens Reveal Their Structure-Related Stability, DNA Depurination Ability, and Health Effects](#) Michael L. Gross, Washington University in St Louis, Daryl Giblin, Tingting Tu

10:25

(770-5)

[Mass Spectrometry for the Structure Elucidation and Quantification of Bulky Oxidatively Induced DNA Lesions](#) Yinsheng Wang, University of California, Riverside

Symposia

Session 780

Microfluidics, Cells, and the Analysis of Disease States - arranged by Dimitri Pappas, Texas Tech University

Tuesday Morning, Room 308

Dimitri Pappas, Texas Tech University, Presiding

8:05

(780-1)

[Digital Microfluidics for Cell Culture and Analysis](#) Aaron R. Wheeler, University of Toronto

8:40

(780-2)

[Microfluidics, Cells, and the Analysis of Disease States](#) James P. Landers, University of Virginia

9:15

(780-3)

[On-chip Analysis of Hypoxia and Apoptosis](#) Dimitri Pappas, Texas Tech University

9:50

(780-4)

[Monitoring Endocrine Systems on a Chip](#) Robert Kennedy, University of Michigan

10:25

(780-5)

[Microfluidic-based High Throughput Screening of Communication Between Different Cell Types](#) Dana Spence, Michigan State University

Symposia

Session 790

Sampling and Sample Preparation in Metabolomics LC/MS, Challenges and Future Directions - arranged by Janusz Pawliszyn, University of Waterloo

Tuesday Morning, Room 310

Janusz Pawliszyn, University of Waterloo, Presiding

8:05

(790-1)

[Sample Preparation for Metabonomics: An Overview](#) Ian D. Wilson, AstraZeneca

8:40

(790-2)

[Lipidomic Sample Processing and Mass Spectrometry](#) Hongbin Xu, University of Ottawa, Alexandre Blanchard, Daniel Figeys, Hu Zhou, Maroun Bou-Khalil, Steffany Bennett, Weimin Hou

9:15

(790-3)

[Sampling and Sample Preparation of Tissue in Metabolomics](#) Elizabeth Want, Imperial College, Perrine Masson

9:50

(790-4)

[High Performance Isotope Labeling LC/MS for Quantitative and Comprehensive Metabolome Profiling](#) Liang Li, University of Alberta

10:25

(790-5)

[Solid-phase Microextraction Techniques in Metabolomics](#) Heather L. Lord, University of Waterloo

Symposia

Session 800

The State-of-the-Art Technologies from Japan: Analytical Instruments with/for Nano-Bio Technology I - arranged by Koichiro Matsuda, Japan Analytical Instruments Manufacturers' Association (JAIMA)

Tuesday Morning, Room 311

Koichiro Matsuda, Japan Analytical Instruments Manufacturers' Association (JAIMA), Presiding

8:05

(800-1)

[Femto-liter Reactor Array for Single-molecule Bioanalysis](#) Hiroyuki Noji, Osaka University

8:40

(800-2)

[Nanobiodevice Based Single Cell Analysis for Cancer Diagnosis and In-vivo Imaging for Stem Cell Therapy](#) Yoshinobu Baba, Nagoya University

9:15

(800-3)

[Nanotechnology for In-vivo Bio-molecular Imaging](#) Hisataka Kobayashi, NCI/NIH

9:50

(800-4)

[Nanotechnology for On-chip Cellomics Screening](#) Kenji Yasuda, Tokyo Medical and Dental University

10:25

(800-5)

[Microfluidic Devices for Single Cell and Small Volume Analyses](#) Christopher T. Culbertson, Kansas State University, Eve Metto, Eve Metto

Workshop

Session 810

Emerging Drugs, Tests, and Analyses in the Toxicology Field - arranged by Kory Kelly, Phenomenex

Tuesday Morning, Room 409

Kory Kelly, Phenomenex, Presiding

8:05

(810-1)

[The Application of LC-MS/MS to Clinical Toxicology: Tricks and Traps](#) Les Edinboro, Quest Diagnostics

8:40

(810-2)

[A Streamlined Method for Drugs of Abuse from Urine Using LC/MS/MS that Significantly Reduces Cost per Sample](#) Sky Countryman, Phenomenex

9:15

(810-3)

[Applying Mass Spectrometry to Achieve Accurate Analysis of a Wide Array of New Drugs](#) William Ofsa, NMS Labs

10:05

(810-4)

[Solving hCG Issues in Doping Control by LC/MS/MS](#) Borislav Starcevic, University of California Los Angeles, Anne Taylor, Anthony Butch

10:40

(810-5)

[Spice: Unraveling the Mystery](#) Charles Kazarian, Navy Drug Screening Laboratory

11:15

(810-6)

[Ion/Matrix Suppression in LC-MS/MS: Causes, Evaluation, Solutions and Monitoring](#) Frank W. Crow, Mayo Clinic, Eric Korman, Loralie Langman

Organized Contributed Session

Session 815

ACS Subdivision of Separation Science: New Self Assembled Nanomaterials for Enhanced Chemical Separations II (Half Session)

Tuesday Morning, Room 402

Stephanie Archer-Hartmann, West Virginia University, Presiding

8:00

(815-1)

[Functionalized Polyoctatetrayne Coated Silica Surfaces as Unique Chromatographic Separation Media](#) Susan V. Olesik, Ohio State University, Joseph Zewe

8:20

(815-2)

[Micelle-ELFSE Methods for Rapid Electrophoretic Separations of DNA](#) James W. Schneider, Carnegie Mellon University, Angela Holmen, Max Fahrenkopf, Stephen Istivan

8:40

(815-3)

[Self-assembled Guanosine Gels for Enantiomer Separation](#) Yingying Dong, Rensselaer Polytechnic Institute, Linda McGown

9:00

(815-4)

[Design of Optical Nano Rulers for Sizing of Single Nanoparticles Using Optical Microscopy and Spectroscopy](#) X Nancy Xu, Old Dominion University, Prakash Nallathamby, Tao Huang

Organized Contributed Session

Session 820

Forensic Analysis at the Crime Scene and in the Lab - arranged by Igor K. Lednev, University at Albany, SUNY

Tuesday Morning, Room 401

Igor K. Lednev, University at Albany, SUNY, Presiding

8:20

(820-1)

[Stimulating New Technology Development for Forensic Purposes: Mission and Funding Strategy of the National Institute of Justice and the Department of Defense](#) Michael J. Salyards, US Army Criminal Investigation Laboratory, Brigid O'Brien, Minh Nguyen

9:20

(820-2)

[Working in a Modern Forensic Laboratory: TV vs Reality](#) George Herrin, Georgia Bureau of Investigation

10:15

(820-4)

[Application of Surface-enhanced Raman Spectroscopy to Trace Analysis of Crime Scene Evidence](#) John R. Lombardi, City College of New York

10:35

(820-5)

[Raman Spectroscopy for a Confirmatory Identification of Body Fluid Traces](#) Igor K. Lednev, University at Albany, SUNY, Aliaksandra Sikirzhytskaya, Vitali Sikirzhytski

Organized Contributed Session

Session 830

New Frontiers in Sub-Microbore Scale Ion Chromatography - arranged by Kannan Srinivasan, Dionex Corporation

Tuesday Morning, Room 316

Kannan Srinivasan, Dionex Corporation, Presiding

8:00

(830-1)

[Progress in Open Tubular Ion Chromatography: One Step Backward, Two Steps Forward?](#) Purnendu K. Dasgupta, University of Texas at Arlington, Shaorong Liu

8:20

(830-2)

[New Capillary Scale Chromatographic Materials for Use in Ion Chromatography](#) Christopher Pohl, Dionex

Corporation

8:40

(830-3)

[Application of Capillary Ion Chromatography for the Analysis of Samples of Environmental Origin](#) Caterina Giuriati, Syndial SpA, Alfredo Gorni, Franco Abballe, Kannan Srinivasan, Maria Cristina Cristofori

9:00

(830-4)

[Application of a Sub-microbore Ion Chromatography System to Metabolomics](#) Karl Burgess, University of Glasgow, Andy Pitt, Ken Cook, Paul Dewsbury

9:35

(830-5)

[Transferring Ion Chromatographic Methods from 4 mm Columns to Capillary Format](#) Paul R. Haddad, University of Tasmania, Boon Ng, Christopher Pohl, Greg Dicoski, Robert Shellie, Yan Liu

9:55

(830-6)

[New Developments in Capillary Ion Chromatography and Its Applications](#) Yan Liu, Dionex Corporation, Christopher Pohl, Victor Barreto

10:15

(830-7)

[Industrial Applications of Sub-Microbore Ion Chromatography](#) Rida S. Al-Horr, The Dow Chemical Company

10:35

(830-8)

[Capillary Chelation Ion Chromatography Using Monolithic Chelating Ion Exchangers](#) Brett Paull, Dublin City University

Oral

Session 840

Bioanalytical Analysis

Tuesday Morning, Room 403

Allen J. Sharkins, The Pittsburgh Conference, Presiding

8:00

(840-1)

[Needle Trap Devices in Biomedical Breath Analysis: Versatile Interface Between Patient and Lab](#) Phillip J.

Trefz, University of Rostock, Jochen Schubert, Ralf Zimmermann, Wolfram Miekisch

8:20

(840-2)

[HPLC Analysis of Carboxylic Acids After Derivatization With Aryldiazoalkanes: Application to Trace Level Lipase Analysis](#) David Cunningham, Abbott Diagnostics

8:40

(840-3)

[A Simple, One-step Analytical Method for the Analysis of Fatty Acids in Natural Products](#) Robert Freeman, Frontier Laboratories, A Hosaka, Ichi Watanabe, T Yuzawa

9:00

(840-4)

[New High-resolution Strong Cation Exchange Phases for Protein and Monoclonal Antibody Analysis](#) Srinivasa Rao, Dionex Corporation, Christopher Pohl, Yuanxue Hou, Yury Agroskin

9:35

(840-5)

[Optimization of Conditions Towards Faster and More Sensitive Determination of Monoamine Neurotransmitters by HPLC](#) Jing Zhang, University of Pittsburgh, Adrian Michael, Andrea Jaquins-Gerstl, Anne Andrews, Moe Zhao, Stephen Weber, Xiaomi Xu, Yansheng Liu

9:55

(840-6)

[Simultaneous In-vivo Monitoring of Amino Acid and Monoamine Neurotransmitters in the Striatum of Freely Moving Rats after Fluoxetine Dose Using Solid Phase Microextraction and Microdialysis](#) Erasmus Cudjoe, University of Waterloo, de Lannoy Ines, Huadong Sun, Janusz Pawliszyn, Victor Saldivia

10:15

(840-7)

[Characterization and Detection of Inducible Nitric Oxide Synthase \(iNOS\) as a Pain Biomarker](#) Naumih M. Noah, State University of New York at Binghamton, Omowunmi Sadik, Saamia Alam

10:35

(840-8)

[Metabolic Profiling of Resveratrol by On-line Trap-and-Elute HPLC-MS after Enzymatic Processing through Human Liver Hepatocytes](#) Samuel H. Yang, University of Texas at Arlington, Aaron Morgan, Kevin Schug

Oral

Session 850

Bioanalytical Mass Spectrometry I

Tuesday Morning, Room 408

A Pete Snyder, DOD Dept of Army, Presiding

8:00

(850-1)

[ESI-MS/MS Quantification of D-Amino Acids Using an In-line D-Amino Acid Oxidase Bioreactor](#) Yi Zheng, Jackson State University

8:20

(850-2)

[Detection of Metal Cations Using Ion Pairing Reagents in the Positive Ion Mode ESI-MS](#) Chengdong Xu, University of Texas at Arlington, Daniel Armstrong, Edra Dodbiba, Xiaotong Zhang, Zachary Breitbach

8:40

(850-3)

[Effect of Phospholipids and Formulation Agents in LDTD-MS/MS Analysis of Dextrorphan in Human and Rat Plasma](#) Patrice Tremblay, Phytronix Technologies, Pierre Picard, Serge Auger

9:00

(850-4)

[Identifying and Quantifying Hydroxyl Radical Oxidation Products in Peptides and Proteins Using Improved Mass Spectrometric Techniques](#) Jessica Saladino, University of Georgia, Joshua Sharp

9:35

(850-5)

[ESI-MS Protein Analysis with In-line Capillary-channeled Polymer \(C-CP\) Fiber SPE Technique](#) Carolyn E. Quarles, Clemson University, R Kenneth Marcus

9:55

(850-6)

[Quantitative Analysis of Total and Species of Glutathione in Plasma Without Calibration Curves Using EPA RCRA Method 6800](#) Timothy Fahrenholz, Duquesne University, HM Skip Kingston, Kalyan Paila, Matt Pamuku

10:15

(850-7)

[A New MALDI Matrix in Mass Spectrometry and Its Use in SPME-MALDI](#) Sirantha Perera, University of Texas at Arlington, Daniel Armstrong, Eranda Wanigasekara

10:35

(850-8)

[Cu\(I\) & Cu\(II\)-Amyloid Peptide Complexes Studied in Physiological Conditions by Nanoelectrospray Ionization Mass Spectrometry](#) Yu Lu, Ecole Polytechnique Fédérale De Lausanne, Hubert Girault

Oral

Session 860

CE Separation Strategies

Tuesday Morning, Room 406

Mary Ellen P. McNally, DuPont Crop Protection, Presiding

8:00

(860-1)

[Submicrometer Plate Heights for Proteins Using CEC: Mechanism and Applications](#) Bingchuan Wei, Purdue University, Mary Wirth

8:20

(860-2)

[Optimizing a Short-end Electrophoretically Mediated Micro-analysis \(EMMA\) Assay for Creatinine](#) Aravinda Seneviratne, Bucknell University, Sarah Schubert, Timothy Strein

8:40

(860-3)

[Separation of Trivalent Anions by CE Using a Phosponium-based Tetracationic Reagent](#) Qing Feng, University of Texas at Arlington, Daniel Armstrong, Eranda Wanigasekara

9:00

(860-4)

[An Amphipathic Polymer as a Buffer Additive for Capillary Zone Electrophoretic Separations of Proteins](#) Christopher R. Harrison, San Diego State University, Stephanie Archibald

9:35

(860-5)

[Capillary Isoelectric Focusing of Proteins with Field-free Remobilization](#) Brooke M. Koshel, Purdue University, Mary Wirth, Yimin Hua

9:55

(860-6)

[Finite-Difference Simulation of Adsorption Effects in Partition Chromatography](#) Joseph T. Maloy, Seton Hall University, Antonio Macaluso, Fei Hao

10:15

(860-7)

[Varied Electroosmotic Flows From Mixed Onium Buffer Additives](#) Christopher R. Harrison, San Diego State University, James Sanchez

10:35

(860-8)

[Comparison of MEKC and OT-CEC for the Separation of Acetylcholinesterase Inhibitors – Optimization of LOD and LOQ Using CE-MS](#) Constantina P. Kapnissi-Christodoulou, University of Cyprus, Irene Nikolaou

Oral

Session 870

Electrochemistry: Method Development

Tuesday Morning, Room 407

Johna Leddy, University of Iowa, Presiding

8:00

(870-1)

[The Evolution of Electrochemical Detection: Current Applications and Future Potential](#) Ian N. Acworth, ESA - A Dionex Company

8:20

(870-2)

[Determining Electrode Reaction Mechanisms with Cyclic Square Wave Voltammetry](#) Lawrence A. Bottomley, Georgia Institute of Technology, David Futur

8:40

(870-3)

[Development of Carbon Nanotube Microelectrodes for Neurotransmitter Sensing](#) Christopher Jacobs, University of Virginia, B Jill Venton, Ning Xiao

9:00

(870-4)

[Photolytic Cleavage and Amperometric Detection of \[i\]S\[/i\]-Nitrosothiols in Biological Fluids](#) Daniel A. Riccio, University of North Carolina at Chapel Hill, Mark Schoenfisch

9:35

(870-5)

[Improving Sensitivity While Maintaining Temporal Resolution with Fast-scan Cyclic Voltammetry](#) Richard B. Keithley, University of North Carolina at Chapel Hill, Elizabeth Bucher, Jinwoo Park, Pavel Takmakov, Robert Wightman

9:55

(870-6)

[Cyclic Square Wave Voltammetry of Redox Active Adsorbates](#) Megan A. Damm, Georgia Institute of Technology, Lawrence Bottomley

10:15

(870-7)

[Size-exclusive Nanosensor: A Conceptual Approach](#) Omowunmi A. Sadik, State University of New York at Binghamton, Qiong Wang, Samuel Kikandi, Sarah Burns

10:35

(870-8)

[Amperometric Nitric Oxide Sensor with Integrated Reference Electrode for Biological Studies](#) Benjamin J. Privett, University of North Carolina at Chapel Hill, Mark Schoenfisch, Rebecca Hunter

Oral

Session 880

Liquid Chromatography/Mass Spectroscopy - Instrumentation and Applications to Peptide and Protein

Tuesday Morning, Room 405

Gary W. Yanik, PDR Chiral, Inc., Presiding

8:00

(880-1)

[A Comparison of Amino Acid Analysis \(AAA\) Using Ultra-high Pressure Liquid Chromatography-Time of Flight Mass Spectrometry \(UHPLC-TOF\) and Capillary Electrophoresis-Time of Flight Mass Spectrometry \(CE-TOF\)](#) Bob Giuffre, Agilent Technologies, Dat Phan, Dawn Stickle, Raymond Lombardi

8:20

(880-2)

[UFMS - Ultrafast LCMS for UFLC – Warp 10 / First Contact!](#) Robert Classon, Shimadzu Scientific Instruments, Masatoshi Takahashi, William Hedgepeth

8:40

(880-3)

[Application of High Resolution LC-MS/MS and High Field NMR Spectroscopy to the Discovery of Novel Bioactive Natural Products by Microbial Genome Mining](#) Lijiang Song, University of Warwick, Bertrand Agile, Christophe Corre, Gregory Challis, Luisa Laureti

9:00

(880-4)

[Affecting Reversed-Phase/MS Peptide Separations on High Performance Silica Particles](#) Richard A. Henry, Supelco, Craig Aurand, David Bell, Hillel Brandes, Wayne Way

9:35

(880-5)

[Quantification of Alpha Amanitin in Water by HPLC – Electrospray Mass Spectrometry](#) Joe V. Wooten, Centers for Disease Control and Prevention, Christopher Pittman, Rudolph Johnson

9:55

(880-6)

[Integrated Multidimensional Liquid Chromatography Mass Spectrometry for High Throughput Proteome Analysis](#) Lihua Zhang, Chinese Academy of Sciences, Huiming Yuan, Yuan Zhou, Yukui Zhang, Zhen Liang, Zuo Cheng Liang

10:15

(880-7)

[Differential Proteomic Analysis of a Beta-arrestin 1,2 Double Knockout](#) Jordan J. Stobaugh, University of North Carolina at Chapel Hill, Brenna Richardson, James Jorgenson, Kaitlin Fague

10:35

(880-8)

[UHPLC-MS Analysis of Proteins Using Polyacrylamide Brush Layers as HILIC Stationary Phases](#) Zhaorui Zhang, Purdue University, Mary Wirth

Oral

Session 890

Sensors I

Tuesday Morning, Room 404

Emil Ciurczak, Cadral Technical Group, Presiding

8:00

(890-1)

[Fluorescent Chemical and Biophysical Sensing and Imaging Through Scattering Environments](#) Jeffrey N. Anker, Clemson University, Amanda Patrick, Donald Vanderveer, Hongyu Chen, KhanhVan Nguyen, Zhiqiang Yang

8:20

(890-2)

[Direct Imaging of Exhausted Breath Ethanol on a Novel Chemiluminescence Method by Immobilized Enzyme](#) Takahiro Arakawa, Tokyo Medical and Dental University, Daishi Takahashi, Hirokazu Saito, Hiroyuki Kudo, Kita Kazutaka, Kohji Mitsubayashi, Xing Wang

8:40

(890-3)

[Towards the Artificial Nose for the Detection of Indoor Air Polluting Carbonyl Species](#) Bhavana A. Deore, NRC Steacie Institute for Molecular Sciences, Danial DM Wayner, Duncan Stewart, Gerardo Diaz-Quijada

9:00

(890-4)

[Nanotube and Nanowire-based Sensor Arrays for Detection of Explosives](#) Christopher R. Field, U.S. Naval Research Laboratory, Arthur Snow, Hyun Jin In, Pehr Pehrsson, Susan Rose-Pehrsson

9:35

(890-5)

[Multiplexed Biosensing Using Whispering Gallery Mode Imaging](#) Heath A. Huckabay, The University of Kansas, Kevin Armendariz, Robert Dunn

9:55

(890-6)

[Two-photon pH Sensing Inside Live Cells Using Photonic Explorers for Biomedical Use with Biologically Localized Embedding \(PEBBLE\)](#) Aniruddha Ray, University of Michigan, Ann Arbor, Gwangseong Kim, Raoul Kopelman, Tamir Epstein, Yong-Eun Lee Koo

10:15

(890-7)

[Diphenylalanine Peptide Nanowires for Sensing Applications](#) Luigi Sasso, Technical University of Denmark, Jaime Castillo-Leon, Jenny Emnéus, Winnie Svendsen

10:35

(890-8)

[Simultaneous Detection of Multiplexed IgG Proteins using Giant Magnetoresistive Sensors](#) Michael C. Granger, University of Utah, Di Hu, Jennifer Granger, Marc Porter, Mohan Vattipalli, Rachel Millen

POSTER SESSION

Session 900

Bioanalytical Applications of Fluorescence/Luminescence

Room Red Area on Exposition Floor - Hall B, Aisle 400

(900-1 P)

[Is There a Relationship Between the Color of Chesapeake Bay Shark Teeth and Metals in the Water?](#) Mark T. Stauffer, University of Pittsburgh at Greensburg, Autumn Eckert

(900-2 P)

[Characterizing Spectral Properties and Performance of Novel Squarylium Dyes with Multiple Carboxylic Acid Residues as Protein Probes](#) Stephanie E. Rockett, Wake Forest University, Christa Colyer, Hiroyuki Nakazumi, Keita Iehara, Takeshi Maeda

(900-3 P)

[Rare Protein Detection by a Dual-aptamer System](#) Xiaohong Tan, University of Florida, Weihong Tan

(900-4 P)

[Developing Luminescent Lanthanide Nanoparticles for Bioapplications](#) Kirsten M. Reeves, Armstrong Atlantic State University, Boris Makhinson, Eric Werner, Joshua Smith, Misti Gurley

(900-5 P)

[Double Roles of Single-Walled Carbon Nanotubes in Redox Reaction—How They Perform as Oxidants as well as Catalysts in Aqueous Solution](#) Ren Lei, University of California, Riverside, Wenwan Zhong

(900-6 P)

[Aptamer Binding Affinity Measurement Using Fluorescence-Based Flow Cytometry](#) Cheryl DeJournette, Auburn University, Christopher Easley

(900-7 P)

[Reducing Sample Volume for UV-VIS and Fluorescence Instruments – Teaching Old Dogs New Tricks](#) Richard A. Larsen, Jasco, Inc., Hisashi Masago, John Carriker, Satoko Suzuki, Takako Hiraike

(900-8 P)

[Single Molecule-Detection and Microfluidics: Generating Systems for the In-vitro Diagnostics of Stroke](#) Brandon M. Young, Louisiana State University

(900-9 P)

[Identification and Quantitation of Bacillus Spores Using Fluorescence Detection](#) Paul C. DeRose, National Institute of Standards and Technology, Neeti Goel, Sandra Da Silva

(900-10 P)

[In-vitro and In-vivo Toxicity of Fluorescent Silica Nanoparticles](#) Yang Zhao, University of North Dakota, Julia Xiaojun Zhao, Min Wu, Yuihui Jin

POSTER SESSION

Session 910

Bioanalytical Sensors

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(910-1 P)

[High Sensitive and Selective SERS Detection of Ions and Small Molecules Using Silica-coated Silver Nanosensors](#) Zhiqiang Yang, Clemson University, Hongyu Chen, Jeffrey Anker, KhanhVan Nguyen, Ryan Widejko

(910-2 P)

[Enzyme-based Fluorescence Lateral Flow Biosensor](#) Hui Xu, North Dakota State University, Anant Gurung, Guodong Liu, Meenu Baloda

(910-3 P)

[Aptamer Hydrogel Based OCM Biosensor for Detection of Avian Influenza Virus](#) Ronghui Wang, University of Arkansas, Chuanmin Ruan, Jianhan Lin, Jingjing Zhao, Yanbin Li

(910-4 P)

[Visual Detection of Single Nucleotide Polymorphism with Hairpin Oligonucleotide-Functionalized Gold Nanoparticles](#) Meenu Baloda, North Dakota State University, Anant Gurung, Guodong Liu, Hui Xu, Kang Zeng, Xibao Zhang, Yuqing He

(910-5 P)

[Magnetic Relaxation Switches \(MRSw\) for Protein Detection](#) Suwussa Bamrungsap, University of Florida, Weihong Tan

(910-6 P)

[Quantum Dots Doped Polymeric Optical Ion-selective Sensors Based on Inner-filter Effect](#) Valeriya Bychkova, Oregon State University, Alexey Shvarev, James Ingle, Natalia Pylypiuk, Vincent Remcho

(910-7 P)

[Fabrication of Mg²⁺ - Selective Electrodes Based on Carbon Nanotubes and Their Applications in Aqueous Solutions of Physiological Composition](#) Xuefei Guo, University of Cincinnati, William Heineman

(910-8 P)

[Aptamer – Nanoparticle Strip Biosensors for the Detection of Multiple Proteins](#) Anant S. Gurung, North Dakota State University, Guodong Liu, Hui Xu, Meenu Baloda, Yuqing He

(910-9 P)

[Surface Treatment to Enhance the Surface Stress of Microcantilever Sensors](#) Haifeng Ji, Drexel

(910-10 P)

[Nitric Oxide-releasing Polyurethane Glucose Sensor Membranes](#) Ahyeon Koh, University of North Carolina at Chapel Hill, Alexis Carpenter, Bin Sun, Daniel Riccio, Mark Schoenfisch

(910-11 P)

[Immunomagnetic Nanoparticles Based Electrochemical Biosensor Instrument for Quantitative Detection of Foodborne Pathogenic Bacteria](#) Jianhan Lin, University of Arkansas, Chuanmin Ruan, Ronghui Wang, Yanbin Li

(910-12 P)

[Quantifying the Effect of Polymeric NO-release on Subcutaneous Wound Healing](#) Scott P. Nichols, University of North Carolina at Chapel Hill, Bruce Klitzman, Mark Schoenfisch, Nga Le

(910-14 P)

[Model Biomembranes for Sensing Applications](#) Alexandra R. Petlick, University of Notre Dame, Zachary Schultz

(910-15 P)

[Ultrasensitive Detection of DNA on a Dipstick Nucleic Acid Biosensor](#) Meenu Baloda, North Dakota State University, Anant Gurung, Guodong Liu, Hui Xu

(910-16 P)

[Visual Detection of Hg²⁺ in Aqueous Solution Using Gold Nanoparticles and Thymine-rich Hairpin DNA Probes](#) Yuqing He, Guangzhou Institute of Dermatology, Guodong Liu

(910-17 P)

[Dual-labels Based High Sensitive Dry-reagent Strip Biosensors for Protein Assay](#) Hui Xu, North Dakota State University, Anant Gurung, Guodong Liu, Meenu Baloda

POSTER SESSION

Session 920

Chemical Methods

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(920-1 P)

[The Creation, Separation, and Identification of Aromatic Ketones Through a New Synthesis Method](#) Nicholas J. Parise, La Roche College

(920-2 P)

[Ergonomic Improvements for Equipment in Pure Gases and Gas Mixtures for Analysis](#) Jean-luc Blanc, Air Liquide, Prisca Brunel

(920-3 P)

[A New Reductimetric Reagent: Iron \(II\) in Acetic Acid Medium and in the Presence of Orthophosphate and Its Application](#) Vijaya Raju Kurimella, Andhra University

(920-4 P)

[ImmunoPCR for High Sensitivity Measurements of Cellular Secretion](#) Bowei Li, Florida State University

(920-5 P)

[Bioengineered Recombinant Single-chain Fragment Variable \(scFv\) Antibody for Electrochemical Immunoassay of B-type Natriuretic Peptide \(BNP\)](#) Jeongyeon Choi, Kwangwoon University, Bo Hee Maeng, Eunhye Lim, Geun Sig Cha, Hakhyun Nam, Hyunwoo Gu, Jae Ho Shin, Jiyeon Lee, Ki Hak Gwon, Sukkyu Kim, Yong Hwan Kim

(920-6 P)

[New Spectrophotometric Method for Determination of Cobalt \(II\)](#) Rashmikant M. Patel, Atul Ltd, Kaplesh Parikh

POSTER SESSION

Session 930

FTIR, Raman, NIR, Biospectroscopy - Materials Analysis

Room Red Area on Exposition Floor - Hall B, Aisle 400

(930-1 P)

[Spectral Characterization of the Virtual Image Phased Array \(VIPA\)](#) Jonathan Damsel, Cleveland State University, John Turner

(930-2 P)

[Applications of Terahertz Spectroscopy](#) David C. Hufnagle, Miami University, Ohio, Gilbert Pacey, Wolfgang Spindel

(930-3 P)

[Raman Spectra and Conformational Stability of Gaseous, Liquid, and Solid CF₃CF₂CH₂NH₂ and CF₃CF₂CH₂ND₂](#) Joshua J. Klaassen, University of Missouri-Kansas City, Gamil Guirgis, Ikhlas Darkhalil, James Durig

(930-4 P)

[Improving Mineral Spectra Reproducibility Using Single Reflection Diamond FTIR-ATR Spectroscopy](#) Joseph P. Lucania, Harrick Scientific Products, Inc., Ali Kocak

(930-5 P)

[A Generalized Dispersion and Output Field Amplitude Law for the Virtual Image Phased Array \(VIPA\)](#) Rajesh Morampudi, Cleveland State University, John Turner

(930-6 P)

[Investigation of Nanoporous Gold as a SERS Substrate](#) Jessica M. Pearson, University of Notre Dame, Zachary Schultz

(930-7 P)

[An Automated Method to Measure Permeation of Liquids Through a Polymer Membrane Using a FT-IR Flow Cell](#) James M. Sloan, US Army Research Laboratory

(930-8 P)

[A Spectroelectrochemical Study of an Antitumor Active Derivative of 1,4-naphthoquinone](#) Maraizu Ukaegbu, Howard University, Charles Hosten, Nkechi Enwerem, Oladapo Bakare

(930-9 P)

[Localized and Propagating Surface Plasmons Co-Enhanced Raman Spectroscopy Based on Attenuated Total Reflection for Detecting Adenine](#) Weiqing Xu, Jilin University, Bing Zhao, Shuping Xu, Yu Liu

(930-10 P)

[Functionalized Nanoparticles as Multiplexed Raman Probes for Nanoscale Imaging](#) Corey M. Kownacki, University of Notre Dame, Bradley Smith, James Marr, Jeffrey Baumes, Zachary Schultz

(930-11 P)

[Coherent Anti-Stokes Raman Spectroscopic Imaging of Cellular Membranes](#) Stacey L. Carrier, University of Notre Dame, James Day, Zachary Schultz

(930-12 P)

[Surface-enhanced Raman Spectroscopy: Substrates and Analyzers You Can Use](#) Frank Inscore, Real-Time Analyzers, Inc.

(930-13 P)

[Infrared and Raman Dynamic Imaging for the Examination of Chemical Reactions](#) Richard A. Larsen, Jasco, Inc., John Carriker, Jun Koshoubu, Ken-ichi Akao, Miyuki Shimomura, Yoshiko Kubo

(930-14 P)

[Interaction Between Pefloxacin and Some Metal Ions in the Solid State](#) Aeronke A. Adepoju-Bello, University of Lagos, Gloria Ayoola, Herbert Coker, Ifeoma Ezeagu, Olusegun Abioye

(930-15 P)

[Trace Gas Detection Using Low-power, Spatially-coherent Light for Cavity-enhanced FTIR](#) David Bomse, Mesa Photonics, Daniel Kane

(930-16 P)

[Advances in the Measurement of Cotton Fiber Maturity Using Near Infrared \(NIR\) Instruments](#) James Rodgers, USDA-ARS-SRRC, Chanel Fortier, Sho Yeung Kang, Xiaoliang Cui

(930-17 P)

[Development of Portable Raman Imaging Spectrometers](#) Hisamitsu Higashiyama, ST Japan, Akira Sakamoto, Emi Koseto-Horyu, Kouji Masutani, Shukichi Ochiai

(930-18 P)

[Enhanced Surface Plasmon Resonance Sensing of Arsenic-protein Interaction](#) Chang Liu, Florida International University, Chenzhong Li, Vittoria Balsamo

(930-19 P)

[Process Optimization in Microreactors Based on Flow Rate Manipulation and Real-time Non-invasive Measurements by Raman Spectrometry](#) Alison Nordon, University of Strathclyde, Charlotte Wiles, David Littlejohn, John Girkin, Paul Dallin, Paul Watts, Sergey Mozharov

(930-20 P)

[Application of Near-infrared Multispectral Imaging Microscopy for Visualization of Lower Critical Solution Temperature Phase Transition of Individual Hydrogel Particles](#) Irena Mejac, Marquette University, Chieu Tran, Hye-Hun Park, Randall Lee, William Bryan

(930-21 P)

[Correlating Pore Size Distribution and Surface Area to the SERS Activity of Caged Gold Nanoparticles](#) Marie Carmelle S. Pierre, University of Iowa, Amanda Haes

(930-22 P)

[Development of a High Throughput Screening Assay for the Assessment of Nanoparticle Toxicity in Human Blood](#) John W. Thompson, University of Minnesota, Christy Haynes, Sara Love

POSTER SESSION

Session 940

Fuels and Petrochemicals Analysis

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(940-1 P)

[Engine Oil Evaporation and Combustion Process in Diesel Engines: Fast In-cylinder and Exhaust Gas Mass Spectrometer Measurements](#) Andreas Behn, Hamburg University of Technology, Eike Wolgast, Gerhard Matz, Matthias Feindt, Sven Krause, Wolfgang Thiemann

(940-2 P)

[Fast Direct Inlet Systems for In-cylinder and Exhaust Gas Mass-Spectrometry on Diesel Engines](#) Matthias Feindt, Hamburg University of Technology, Andreas Behn, Eike Wolgast, Gerhard Matz, Sven Krause, Wolfgang Thiemann

(940-3 P)

[Chemical Fingerprinting of Biodiesel Fuels Using GC-MS and Correlation to Fuel Efficiency Using Chemometric Methods](#) Amber M. Hupp, College of the Holy Cross, Sarah Boehm

(940-4 P)

[A New Concept of GCxGC/TOF-MS for Fuel and Analysis](#) Alessandro Casilli, DANI Instruments S.p.A., Manuela Bergna

(940-5 P)

[Characterization of the Compositional Space of Naval Mobility Fuels Using a Novel Automated Classification Algorithm](#) Nathan J. Begue, US Naval Research Laboratory, Robert Morris

(940-6 P)

[A Raman-based Portable Fuel Analyzer](#) Stuart Farquharson, Real-Time Analyzers, Inc.

(940-7 P)

[Near Infrared Monitoring of Heavy Crude Oils for Production and Transportation Processes](#) Toni Miao, Chevron, Ajit Pradhan, Michael Moir

(940-8 P)

[High-performance Liquid Chromatography Method for Determination of Anhydrosugars and Other Degradation Products Derived From Fast Pyrolysis of Lignocellulosic Biomass](#) Qi Li, Mississippi State University, El Barbary Hassan, Fei Yu, Philip Steele

(940-9 P)

[Fast Determination of Impurities in Propane-propylene Streams Using a Pulsed Flame Photometric Detector \(PFPD\) and a New Capillary PLOT Column](#) Laura Chambers, OI Analytical, Gary Engelhart, Hank Hahn

(940-10 P)

[Determination of Sulfur in Natural Gas by Pulsed Flame Photometric Detector \(PFPD\)](#) Laura Chambers, OI Analytical, Gary Engelhart, Hank Hahn

(940-11 P)

[Column Selection for Speciation of Sulfur Compounds in Natural Gas](#) Richard Morehead, Restek Corporation, Bill Bromps, Gary Stidsen, Jaap de Zeeuw

(940-12 P)

[PLOT Column Choices for ppb Level Detection of Sulfur Compounds](#) Johan Kuipers, Agilent Technologies, Frans Biermans, Helena Jacobse, Max Erwine

(940-13 P)

[Use of a Discrete Analyzer to Measure Key Reactants and Reaction Products in Bioethanol Research Studies](#) Elizabeth A. Badgett, OI Analytical, Gary Engelhart, William Lipps

(940-14 P)

[Determination of Monoethanolamine in Presence of Hydrazine in IPHWR Steam-water Circuits Using Derivatization Ion Chromatography](#) Sangita D. Kumar, Bhabha Atomic Research Centre, AG Kumbhar, Arijit Sengupta, D Ayushi, G Venkateswaran

(940-15 P)

[Development of an Analytical Method for Quantification of Glycerol in Biodiesel from Different Vegetable Oils Using a Copper Electrode as Amperometric Flow Detector](#) Thiago Paixao, Universidade Federal do ABC/UFABC, Aleksander Maruta

(940-16 P)

[Determination of Low-level Total Acid Number in Mineral Oils](#) George E. Porter, Metrohm USA, Beate Dehédin, Christian Haider, Thomas Smith

(940-17 P)

[Automated Photometric Determination of Total Acid Number in Petrochemical Samples](#) Lauren Park, Mantech Inc., Robert Menegotto

(940-18 P)

[Assessing Accessible Cellulose Binding Sites on Maize Cell Wall Mutants by Using Fluorescently Labeled Cellulose Binding Proteins](#) Hector M. Caicedo, University of Florida, Wilfred Vermerris

(940-19 P)

[On-line Analysis for Measuring Hydrogen and Oxygen Production by Transition Metal Catalyst in Light Driven Synthesis](#) Derek J. Pegram, University of Memphis, Bhasker Radaram, Gary Emmert, Paul Simone, Xuan Zhao

(940-20 P)

[Extraction Induced by Emulsion Breaking: A Novel Strategy for the Trace Metals Determination in Diesel Oil Samples by Electrothermal Atomic Absorption Spectrometry](#) Ricardo J. Cassella, Universidade Federal Fluminense, Carlos Eduardo de Paula, Claudio Lima, Daniel Brum

POSTER SESSION

Session 950

Ionophore-based Chemical Sensors Poster Session

Room Red Area on Exposition Floor - Hall B, Aisle 400

(950-1 P)

[Inkjet Printed Paper-based Immuno-Chemical Sensing Chips for Water Quality Monitoring](#) Yuta Katayama, Keio University, Daniel Citterio, Koji Abe, Koji Suzuki, Shota Imoto, Tomoaki Ii

(950-2 P)

[Ion-Selective \[micro\]-Capsules](#) Jamie D. Walters, University of Cambridge, Elizabeth Hall

(950-4 P)

[Nanoporous Waveguide Sensor for Highly Sensitive Label-free Detection of Biomolecules](#) Kazuhiro Hotta, Tohoku University, Akira Yamaguchi, Norio Teramae

(950-5 P)

[A Microfluidic Device to Track Dynamic Potassium and Sodium Changes During Spreading Depolarization Events in the Brain](#) Chi Leng Leong, Imperial College London, Andrew deMello, Delphine Feuerstein, Martyn Boutelle, Michelle Rogers, Xize Niu

(950-6 P)

[Chemical Sensors for In-situ Monitoring of Collector Chemicals in Complex Copper Mine Effluents](#) Nicole M. Settergren, University of Minnesota Twin Cities, Jon Thompson, Krista Kutz, Li Chen, Philippe Buhlmann

(950-7 P)

[Functionalization and Polymerization of Fluorous Oligoethers for Use in Ion-Selective Electrodes](#) Sarah E. Wegwerth, University of Minnesota, Elizabeth Lugert-Thom, Louis Pitet, Marc Hillmyer, Philippe Buhlmann

(950-8 P)

[Improving Fluoride Detection in Potentiometric Ion-selective Electrodes with Macrocyclic Polyamide Compounds](#) Jeremy T. Mitchell-Koch, Emporia State University, Kristin Bowman-James, Qiyang Zhang

(950-9 P)

[Design of Label-free Molecular Beacon Based on the Abasic Site-binding Fluorescent Molecule and Its Application to DNA Sensing](#) Sato Yusuke, Tohoku University, Norio Teramae, Seiichi Nishizawa

(950-10 P)

[Observation of Enzyme Adsorption/Desorption Dynamics at Mesoporous Silica Film Using Nanoporous Waveguide Sensor](#) Hiroyuki Arafune, Tohoku University, Akira Yamaguchi, Kazuhiro Hotta, Norio Teramae, Tetsuji Itoh

POSTER SESSION

Session 960

Neurochemistry

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(960-1 P)

[Suppression of Gliosis at the Microdialysis Probe Site](#) Andrea Jaquins-Gerstl, University of Pittsburgh, Adrian Michael

(960-2 P)

[Bipolar Electrode Sample Preconcentration for In-vivo Quantification of Neuropeptides](#) Colin Jennings, University of Michigan, Mark Burns, Robert Kennedy

(960-3 P)

[Probing Simultaneous Dopamine Release in Different Brain Regions In-vivo Using Fast-Scan Cyclic Voltammetry](#) Pavel Takmakov, University of North Carolina at Chapel Hill, Robert Wightman

(960-4 P)

[Characterization of Subacute \$MnCl_2\$ Exposure on Striatal Dopamine](#) Madiha Khalid, Wayne State University, Rabab Aoun, Tiffany Mathews

(960-5 P)

[Alterations in Striatal Dopamine Dynamics in Brain-derived Neurotrophic Factor-deficient Mice Characterized by Fast Scan Cyclic Voltammetry](#) Francis K. Maina, Wayne State University, Tiffany Mathews

(960-6 P)

[Discovering D-amino Acid-containing Neuropeptides Using Mass Spectrometry-based Techniques](#) Lu Bai, University of Illinois at Urbana-Champaign, Elena Romanova, Jonathan Sweedler

(960-7 P)

[New Approach for Alzheimer's Disease Biomarker Analysis Using Micro Immunosensors](#) Shradha V. Prabhulkar, Florida International University, Chenzhong Li, John Cirrito, Rudolph Piatyszek

(960-8 P)

[Release of D-Aspartate and D-Glutamate in the Aplysia Central Nervous System in Response to Raised](#)

[External Potassium](#) Ting Shi, University of Illinois, Cory Scanlan, Jonathan Sweedler, Ota Nobutoshi, Stanislav Rubakhin

POSTER SESSION

Session 970

Pharmaceutical - IR, NIR, Raman

Room Red Area on Exposition Floor - Hall B, Aisle 400

(970-1 P)

[Updating a Near-infrared \(NIR\) Multivariate Calibration Model Formed with Lab Prepared Pharmaceutical Tablet Types to New Tablet Types in Full Production](#) Jeremy A. Farrell, Idaho State University, John Kalivas, Kevin Higgins

(970-2 P)

[Study of Drug-polymer Intermolecular Interactions Using Fourier Transform Infrared Spectroscopy and Multivariate Curve Resolution](#) Kaho Kwok, Purdue University, Alfred Rumondor, Lindsay Wegiel, Lynne Taylor

(970-3 P)

[Incoming Packaging Component Identification Using a Handheld Raman Spectrometer](#) Jeremy A. Linoski, Thermo Fisher Scientific, Christopher Brown, Robert Brush, Robert Green, Wayne Jalenak

(970-4 P)

[Analysis of Counterfeit Packaging Using Raman Imaging and Generalized Two-dimensional Correlation Spectroscopy](#) Kaho Kwok, Purdue University, Lynne Taylor

(970-5 P)

[Surface Wetting of Sample Substrates for Ingredient Specific Particle Sizing](#) Terry Paske, ChemImage Corporation, Ryan Priore

(970-6 P)

[Detection and Characterization of PEG Excipients in the Drug Formulations by FT-IR](#) Jayalakshmi Venkatanarayanan, Capsugel Division Pfizer, Jessica Faraci, Olga Gilicky, QingQing Chen, Vishal Saxena

POSTER SESSION

Session 980

Society for Laboratory Automation (SLAS) Poster Session

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(980-2 P)

[A Multipurpose Automated Flow Analytical System for Minute Sample Volumes](#) Felynnia R. Rainey,
University of Memphis, Erno Lindner, Fernando Garay

(980-3 P)

[Comparison of the Measurement Accuracy of Automated and Manual Analytical Syringes](#) Luisa Pereira,
Thermo Fisher Scientific, Anila Khan, Ruth Lewis, Stephen Aspey

(980-4 P)

[Automated Ion Chromatographic Determinations Over Six Orders of Magnitude](#) N Harihara Subramanian,
Metrohm USA, Frank Portala, Stefanie Czyborra, Thomas Hartmann

(980-5 P)

[Improved Data Quality Through Automated Sample Preparation](#) Rebecca Veeneman, Agilent Technologies,
William Wilson

CONFERENCE NETWORKING

Tuesday, March 15, 2011

8:30 AM

How To Test Adulterated Foods? Facilitated by: Perry Wang, US FDA, Room 218

Integrating Analytical Chemistry into the Undergraduate Science Curriculum Facilitated by: Lisa Webb,
Christopher Newport University, Room 215

Should Innovation be Protected as a Trade Secret or a Patent? Facilitated by: Geoffrey White, McNeese
Wallace & Nurick LLC, Room 217

How Can I Share My Data with Others? Facilitated by: Anand Mudambi, US EPA, Room 216

Tuesday Afternoon, March 15, 2011

Award

Session 990

Pittsburgh Spectroscopy Award - arranged by Allen J. Sharkins, The Pittsburgh Conference

Tuesday Afternoon, Room 312

Allen J. Sharkins, The Pittsburgh Conference, Presiding

2:10

(990-1)

[The Sticky Fingers of Influenza Visualized by Modern Solution NMR](#) Adriaan Bax, National Institutes of Health, Justin Lorieau

2:45

(990-2)

[Magic Angle Spinning Solid State NMR Structural Studies of Proteins Modified with Paramagnetic Tags](#) Christopher P. Jaroniec, The Ohio State University

3:35

(990-3)

[Solution NMR Studies of Mitochondrial Carriers](#) James J. Chou, Harvard Medical School, Marcelo Berardi

4:10

(990-4)

[New NMR Methods for Structural Studies of Larger RNAs](#) Michael F. Summers, University of Maryland Baltimore County

Symposia

Session 1000

ACS Subdivision of Separation Science: Second Century Innovations on Chiral Separations - arranged by Shahab Shamsi, Georgia State University

Tuesday Afternoon, Room 316

Shahab Shamsi, Georgia State University, Presiding

2:05

(1000-1)

[New Chiral Selectors for LC, SFC, CE, GC and Sensors](#) Daniel W. Armstrong, University of Texas at Arlington

2:40

(1000-2)

[Analytical Separations in CE, CEC, and PAGE Using Molecular Micelles](#) Isiah M. Warner, Louisiana State University, Bilal El-Zahab, Leonard Moore, Monica Sylvain, Susmita Das

3:15

(1000-3)

[Second Century Approaches for Improved Chiral Separations and Detection Using Capillary Electrophoresis-Mass Spectrometry \(CE-MS\)](#) Shahab Shamsi, Georgia State University, Jun He, William Bragg

3:50

(1000-4)

[Use of Supercritical Fluid Chromatography for Chiral Method Development Screening and Analysis](#) Gregory K. Webster, Abbott Laboratories

4:25

(1000-5)

[Lab-on-a-chip: A Key Platform for Chiral Separation and Drug Screening](#) Bingcheng Lin, Dalian Institute of Chemical Physics, Chinese Academy of Sciences

Symposia

Session 1010

Advanced Carbon Materials for Microanalysis and Microfabrication - arranged by Richard L. McCreery, University of Alberta

Tuesday Afternoon, Room 310

Richard L. McCreery, University of Alberta, Presiding

2:05

(1010-1)

[Functional Microelectronic Devices Based on Carbon Surfaces](#) Richard L. McCreery, National Institute for Nanotechnology/University of Alberta, Adam Bergren, Andrew Bonifas, Bryan Szeto, Haijun Yan, Jie Ru

2:40

(1010-2)

[C-MEMS and C-NEMS](#) Marc J. Madou, University of California, Irvine

3:15

(1010-3)

[Micro- and Nanofabrication of Carbon Materials](#) Mark McDermott, University of Alberta, Gregory Kiema, Rongbing Du, Solomon Ssenyange

3:50

(1010-4)

[Microfabricating Sensor Arrays for In-vivo Neuroscience with Carbon](#) Gregory McCarty, North Carolina State University

4:25

(1010-5)

[Fabrication and Use of Carbon Microelectrodes Formed from Pyrolyzed Photoresist Films](#) Robert M. Wightman, University of North Carolina at Chapel Hill

Symposia

Session 1020

Advances in Microscale Liquid Chromatography - arranged by Robert Kennedy, University of Michigan

Tuesday Afternoon, Room 308

Robert Kennedy, University of Michigan, Presiding

2:05

(1020-1)

[Recent Advances in LC/MS and CE/MS for Comprehensive Protein Characterization](#) Barry L. Karger, Northeastern University

2:40

(1020-2)

[Fast Capillary HPLC at High Temperature and Pressure](#) Stephen G. Weber, University of Pittsburgh, Jing Zhang, Xiaomi Xu, Yansheng Liu, Ying Yi

3:15

(1020-3)

[Microfabricated Chemical Separation Devices with Integrated Electrospray Ionization](#) J Michael Ramsey, University of North Carolina, Andrew Chambers, J Scott Mellors, Roswitha Ramsey

3:50

(1020-4)

[Fabrication and Chromatographic Performance of Micro-pillar Array Columns](#) Gert Desmet, Vrije Universiteit Brussel, Frederik Detobel, Sebastiaan Eeltink, Wim De Malsche

4:25

(1020-5)

[Silica Colloidal Crystals for High Efficiency Protein CEC](#) Mary J. Wirth, Purdue University

Symposia

Session 1030

Alternative Mass Spectrometers for Elemental Analysis (Society for Applied Spectroscopy) - arranged by Gary M. Hieftje, Indiana University

Tuesday Afternoon, Room 314

Gary M. Hieftje, Indiana University, Presiding

2:05

(1030-1)

[A New Time-of-flight Mass Spectrometer for Glow-discharge Analysis](#) Norbert Jakubowski, BAM, Agnez Tempez

2:40

(1030-2)

[Distance-of-flight Mass Analysis: A New Tool for Atomic Spectrometry](#) Christie G. Enke, University of New Mexico, Alexander Graham, Anthony Carado, Charles Barinaga, David Koppenaal, Elise Dennis, Gary Hieftje, Steven Ray

3:15

(1030-3)

[Development and Use of Orbital Trapping Techniques for Elemental Analysis](#) David W. Koppenaal, Pacific Northwest National Laboratory, Anthony Carado, Charles Barinaga, Martin Liezers

3:50

(1030-4)

[High-resolution, High-sensitivity Mass Analyzers for ICP-MS](#) Lothar Rottmann, Thermo Fisher Scientific

4:25

(1030-5)

[Array Detectors for Truly Simultaneous Mass Analysis](#) Gary M. Hieftje, Indiana University, Alexander Graham, Charles Barinaga, David Koppenaal, Gregory Schilling, Jeremy Felton, M Bonner Denton, Roger Sperline, Steven Ray

Symposia

Session 1040

Analysis of Pharmaceuticals Present as Water Pollutants: LC-MS Challenges and Solutions - arranged by Dil M. Ramanathan, Kean University

Tuesday Afternoon, Room 309

Dil M. Ramanathan, Kean University, Presiding

2:05

(1040-1)

[Pharmaceuticals in the Environment: State of the Science and Current Issues](#) Susan Richardson, U.S. EPA

2:40

(1040-2)

[Pharmaceutical Substances as New Contaminants of Aquatic Systems: State of the Art and Future Goals](#) Helene Budzinski, University Bordeaux 1

3:15

(1040-3)

[Positive and Negative Ionization LC-MS for Detection of Pharmaceuticals in Drinking Water](#) Brian Buckley, Rutgers University, He Yang, Min Yoon

3:50

(1040-4)

[Analysis of Pharmaceuticals in Water by Liquid Chromatography Tandem Mass Spectroscopy Using Isotope Dilution](#) Rebecca Trenholm, Southern Nevada Water Authority, Brett Vanderford, Douglas Mawhinney, Shane Snyder

4:25

(1040-5)

[High Resolution Mass Spectrometry for Detecting, Characterizing and Quantifying](#) Rebeca Pinhancos, Kean University, Dil Ramanathan

Symposia

Session 1050

New Frontiers in the Design and Applications of Monolithic Separation Media - arranged by Frantisek Svec, Lawrence Berkeley National Laboratory

Tuesday Afternoon, Room 401

Frantisek Svec, Lawrence Berkeley National Laboratory, Presiding

2:05

(1050-1)

[Nanotechnology and Monoliths: Polymer-based Monoliths Functionalized with Nanoparticles](#) Frantisek Svec, Lawrence Berkeley National Laboratory

2:40

(1050-2)

[Capillary and Microbore Ion Exchange Materials Utilizing Polymeric Monoliths](#) Christopher Pohl, Dionex Corporation

3:15

(1050-3)

[Single Monomer Synthesis of Polymeric Monoliths for Capillary Liquid Chromatography](#) Milton L. Lee, Brigham Young University, H Dennis Tolley, Kun Liu, Pankaj Aggarwal, Xin Chen, Yuanyuan Li

3:50

(1050-4)

[High-efficiency Monolithic Silica Columns for HPLC](#) Nobuo Tanaka, GL Sciences, Inc., Masakazu Takahashi, Masayoshi Ohira, Shota Miyazaki

4:25

(1050-5)

[Monolithic Columns for Liquid Chromatography](#) Luis A. Colon, University at Buffalo, Ivonne Ferrer Lassala, John Vinci, Lisandra Santiago-Capeles, Stefan Vujcic

Symposia

Session 1060

The State-of-the-Art Technologies from Japan: Analytical Instruments with/for Nano-Bio Technology II - arranged by Koji Suzuki, Keio University

Tuesday Afternoon, Room 311

Koji Suzuki, Keio University, Presiding

2:05

(1060-1)

[Development of Atmospheric Scanning Electron Microscope](#) Mitsuo Suga, JEOL Ltd.

2:40

(1060-2)

[Imaging Mass Spectrometry in Life Science Fields](#) Masaru Furuta, Shimadzu Corporation

3:15

(1060-3)

[Multimodal Spectroscopic Microscopy for Nano-bio Imaging](#) Yasushi Nakata, Horiba

3:50

(1060-4)

[Innovative Electron Microscopy for Nano-bio Technology](#) Xiao Feng Zhang, Hitachi High Technologies America

4:25

(1060-5)

[Characterizing Nanoparticles Used in Bio Applications](#) Mark Bumiller, Horiba

Workshop

Session 1070

Successful Integration of Fast LC with MS Detection - arranged by Philip J. Koerner, Phenomenex

Tuesday Afternoon, Room 409

Philip J. Koerner, Phenomenex, Presiding

2:05

(1070-1)

[Fast Profiling of Biological Tissues and Fluids in the Context of Metabolic Research](#) Michael E. Lassman, Merck & Co, Alice Steffani, Dan Xie, David McLaren, Elizabeth Somers, Jose Castro-Perez, Margaret Wu, Robert Myers, Rory Rohm, Stephen Previs, Taro Akiyama, Theresa Mclaughlin, Thomas Roddy

2:35

(1070-2)

[Realizing Ultra-high Performance with UHPLC-MS/MS Using Core-shell Sorbents and Considerations for Instrument Optimization](#) A Carl Sanchez, Phenomenex, Monika Kansal

3:05

(1070-3)

[Implementing Sub 2 um and Fused-core Particle Chromatography for Fast LC in the Regulated Bioanalytical Environment](#) Jennifer Cunliffe, Merck, Jim Shen, Robert Clement, Roger Hayes

3:50

(1070-4)

[High Sensitivity and Throughput for Dried Blood Spot Analysis Using Microflow LC Interfaced to Electrospray Ionization](#) Hesham Ghobarah, AB SCIEX, David Neyer, J Bryce Young, Jay Corr, Mauro Aiello, Thomas Covey

4:20

(1070-5)

[High Productivity Columns with LC/MS Applications](#) Maureen Joseph, Agilent Technologies, Anne Mack, William Barber

Workshop

Session 1075

SEFA Technology Demonstrations - Affinity Group - arranged by David Sutton, SEFA

Tuesday Afternoon, Room 402

David Sutton, SEFA, Presiding

2:05

(1075-1)

[SEFA 1 - Fume Hood Testing - ASHRAE 10](#) Jon Zboralski, Thermo Scientific, Kurt Rindoks

2:35

(1075-2)

[SEFA 8 - Laboratory Grade Casework](#) Wayne Cathey, CampbellRhea, Mike Patton

3:05

(1075-3)

[SEFA 9 -Ductless Hoods](#) Kevin Gilkison, Labconco Corporation, Kevin McGough, Stephan Hauville

3:35

(1075-4)

[SEFA 10 - Adaptable Casework Systems](#) Dana Dahlgren, Kewaunee Scientific Corporation

Organized Contributed Session

Session 1080

Selectivity, Selectivity, Selectivity: The New Mantra for High Performance Analysis - arranged by Mike Lee, Milestone Development Services

Tuesday Afternoon, Room 403

Mike Lee, Milestone Development Services, Presiding

2:00

(1080-1)

[Increasingly Complex Multiple Component Bioanalysis Using UHPLC-HRMS in Support of Drug Discovery](#) Timothy V. Olah, Bristol-Myers Squibb

2:20

(1080-2)

[The Role of High Resolution Accurate Mass LC/MS in Complex Sample Analyses](#) Lester Taylor, Agilent Technologies, Ken Imatani

2:40

(1080-3)

[Perhaps Chemical Specificity \(Selectivity\) Depends Most on Chromatographic Resolution: Controlling Retention and Resolution While Managing the Trade-offs in Speed and Sensitivity](#) Mark J. Hayward, Lundbeck Research, Chi Zhang, David Budac, Qing Ping Han, Xu Zhang

3:00

(1080-4)

[Laminar Flow based Technology: Better Selectivity with High Sensitivity](#) Dragan Vuckovic, IONICS Mass Spectrometry Group

3:35

(1080-5)

[High Performance UPLC-AMS for Matrix Independent Metabolite Quantitation](#) Stephen R. Dueker, Vitalea Science

3:55

(1080-6)

[Evaluation of an Electrophoretically-programmable Notch Filter for Intact Protein Isolation and Enrichment](#) Chuck Witkowski, Protein Discovery, Inc.

4:15

(1080-7)

[Targeted Protein Analysis by Peptide Mass Spectrometry: A System that Excels at Selectivity and Structural Specificity](#) Michael MacCoss, University of Washington, Brendan MacLean, Daniela Tomazela, Michael Bereman

4:35

(1080-8)

[Temperature Control to Optimize Selectivity with Nanospray LC-MS/MS](#) Gary A. Valaskovic, New Objective Inc.

Organized Contributed Session

Session 1090

Specialty Gas - arranged by Tracey Jacksier, Air Liquide

Tuesday Afternoon, Room 315

Tracey Jacksier, Air Liquide, Presiding

2:00

(1090-1)

[Atmospheric Monitoring by Open-path FT-IR Spectroscopy: The Need for Good Spectral Reference Data](#) Peter R. Griffiths, University of Idaho, Limin Shao

2:20

(1090-2)

[How Traceable Reference Materials Can Improve the Quality of Your Data](#) Rob Wessel, VSL Dutch Metrology Institute, Stefan Persijn

2:40

(1090-3)

[A Quantitative Infrared Spectral Library of Vapor Phase Chemicals: Construction, Applications and](#)

[Limitations](#) Steven W. Sharpe, Pacific Northwest National Lab/DOE, Robert Sams, Timothy Johnson

3:00

(1090-4)

[Analysis of Metallic and Non-metallic Hydride Gases in Specialty Gases](#) Bill Geiger, CONSCI Ltd

3:35

(1090-5)

[Modeling of Liquid-vapor Equilibrium in Liquefied Refinery Calibration Standards](#) Daniel Bartel, Airgas Specialty Gases

3:55

(1090-6)

[Quantitative Analysis of Gas Mixtures Desorbed from Type 3a Zeolites Using TGA/IR and Predictive Augmented Classical Least Squares](#) Kathleen Alam, Sandia National Laboratories

4:15

(1090-7)

[Continuous Measurement of Trace Toxic Gases Based on Aqueous Sampling, Chemical Derivatization and Colorimetric Detection](#) Jian Hou, Gow-Mac Instrument Co.

4:35

(1090-8)

[Moisture Analysis in Monosilane Gas](#) Hiroyuki Ono, Taiyo Nippon Sanso Sanso Corporation

Oral

Session 1100

Bioanalytical Electrochemistry

Tuesday Afternoon, Room 405

Stephen Gozo, Celgene Corporation, Presiding

2:00

(1100-1)

[DNA Detection Using Electrochemiluminescence from Electrospun Nanofibers](#) Michael C. Beilke, The Ohio State University, Susan Olesik

2:20

(1100-2)

[Studies of High Molecular Weight Polyanion Extraction and Transport Through Plasticized Polymeric Films Doped with Tridodecylmethylammonium Chloride](#) Andrea K. Bell, University of Michigan, Mark Meyerhoff

2:40

(1100-3)

[Surface Nanostructure Determines the Structure and Sensitivity of Electrodeposited 1–10 nm Thick Membranes of Overoxidized Polypyrrole \(OPPY\)](#) Abraham Boateng, University of Florida, Anna Brajter-Toth

3:00

(1100-4)

[Enhancing the Sensitivity of Immobilized Organoselenium-based Amperometric Sensors for Sub-micromolar Detection of \[i\]S\[/i\]-Nitrosothiols](#) Lajos Höfler, University of Michigan, Mark Meyerhoff, Wenyi Cai

3:35

(1100-5)

[Electrochemical Measurements of Chromaffin Cell Secretion in DOCA-salt Hypertension](#) Matthew J. Fhaner, Michigan State University, Greg Swain, James Galligan

3:55

(1100-6)

[Development of Chemically Isolated Electrodes \(CIEs\) for Electrochemical Measurements of Biological Systems](#) Jeremy P. Wilburn, Indiana University, Lane Baker, Rahul Thakar

4:15

(1100-7)

[Cellular Uptake and Subcellular Localization of Targeted and Non-targeted pH Polyacrylamide Nanosensors](#) Tamir Epstein, University of Michigan, Mark Lloyd, Prasanta Dutta, Raoul Kopelman, Robert Gatenby, Veronica Estrella, Yong-Eun Koo Lee

4:35

(1100-8)

[Electrodes Modified with Oppositely Charged Nanoparticles for Sensing](#) Marcin Opallo, Institute of Physical Chemistry PAS, Adam Lesniewski, Anna Celebanska, Dorota Tomaszewska, Joanna Niedziolka-Jonsson, Katarzyna Szot, Maciej Paszewski

Oral

Session 1110

Bioanalytical Mass Spectrometry II

Tuesday Afternoon, Room 408

Sam Subramaniam, Miles College, Presiding

2:00

(1110-1)

[Neuropeptidomic Investigation of Feeding Behavior via Multifaceted Mass Spectral Approaches](#) Yuzhuo Zhang, University of Wisconsin, Junhua Wang, Lingjun Li

2:20

(1110-2)

[Separation of Proteins on Capillary-channeled Polymer \(C-CP\) Films with Analysis by Matrix-assisted Laser Desorption Ionization-mass Spectroscopy \(MALDI-MS\)](#) Benjamin T. Manard, Clemson University

2:40

(1110-3)

[Mass Spectrometry-based Analysis of Cerebrospinal Fluid from GFAP Overexpressor Mice for Proteome Biomarker Discovery in Alexander Disease](#) Robert Cunningham, University of Wisconsin, Madison, Albee Messing, Lingjun Li, Paige Jany

3:00

(1110-4)

[Structural Investigation of CCL5 Protein and CCL5-Glycosaminoglycan Complex Using Mass Spectrometry](#) Caroline Watson, Complex Carbohydrate Research Center, UGA, James Prestegard, Joshua Sharp, Vitor Pomin, Xu Wang

3:35

(1110-5)

[Quantitative Analysis of Alpha-galactosidase -An Activity in Liver, Brain, and Kidney Tissue Lysates from Mice Using EPA RCRA Method 6800 \(Isotope Dilution Mass Spectrometry\) with Nano-ESI-QTOF-MS/MS](#) Timothy Fahrenholz, Duquesne University, HM Skip Kingston, Michael Passineau

3:55

(1110-6)

[Monitoring of Antifibrinolytic Concentration in Patients Undergo Cardiac Surgery - High Throughput SPME-LC-MS/MS Analysis vs Standard Techniques](#) Barbara Bojko, University of Waterloo, Dajana Vuckovic, Ehsanul Hoque, Erasmus Cudjoe, Fatemeh Mirnaghi, Janusz Pawliszyn, Marcin Wasowicz

4:15

(1110-7)

[Discovery of Neuropeptides in the Blue Crab Callinectes Sapidus: Prediction, Detection and Distribution](#) Weifeng Cao, University of Wisconsin-Madison, Limei Hui, Lingjun Li, Yuzhuo Zhang

4:35

(1110-8)

[UPLC/MS/MS Detection of Mast Cell-Secreted Mediators with Roles in Allergic Response](#) Audrey F. Meyer, University of Minnesota, Christy Haynes, Joseph Dalluge

Oral

Session 1120

Biospectroscopy

Tuesday Afternoon, Room 406

Martha Knight, CC Biotech LLC, Presiding

2:00

(1120-1)

[Photochemical Generation of Surface-immobilized Gradients for the Rapid Multi-parameter Investigation of Selectin-mediated Leukocyte Rolling](#) Christine T. Herman, University of Illinois at Urbana-Champaign, Gregory Potts, Madeline Michael, Ryan Bailey

2:20

(1120-2)

[Investigations on Microorganism Suspension Parameters with Raman Spectroscopy](#) A Peter Snyder, DOD Dept of Army, Ashish Tripathi, Christesen Steven, Darren Emge, Jason Guicheteau, Rabih Jabbour

2:40

(1120-3)

[New Panel for SERS-Based Screening of Influenza Viral Nucleoproteins Using Anti-Influenza Aptamer](#) Pierre Negri, University of Georgia, Richard Dluhy

3:00

(1120-4)

[Fourier Transform Infrared Spectroscopic Study of DNA-drug Interaction](#) Deepak K. Jangir, National Physical Laboratory, Gunjan Tyagi, Ranjana Mehrotra, Sonika Charak, Suman Kundu

3:35

(1120-5)

[Instrumental Comparison of Atomic Spectroscopy Methods for Determining Metal Loading Percentages of Cr³⁺, Fe³⁺, and Ni²⁺ within Apo-transferrin](#) C Derrick Quarles, Clemson University, Julia Brumaghim, R Kenneth Marcus

3:55

(1120-6)

[Structure and Function of the Peptide Epitope of Ovarian Cancer Biomarker CA125](#) Rebecca J. Whelan, Oberlin College, Kathleen Knudson, Kevin Hu, Lee Moore, Zach Berman

4:15

(1120-7)

[Fluorescence Measurements of Cell Membrane Receptor Organization and Cellular Factors Affecting Membrane Reorganization](#) Emily A. Smith, Iowa State University, Dipak Mainali, Neha Arora, Suzanne

Sander

4:35

(1120-8)

[AFM and SERS of DNA on Nanostructured Silver Surfaces](#) Kelsey R. Beavers, Georgia Institute of Technology, Lawrence Bottomley, Nicole Marotta

Oral

Session 1130

Electrochemistry: Electrodes and Sensors

Tuesday Afternoon, Room 407

Chenzhong Li, Florida International University, Presiding

2:00

(1130-1)

[Formation of Mixed Inorganic-organic Microelectrode Arrays Utilizing Reduction of Chromate and Diazonium Ions](#) William J. Clark, Capital University, Jamie Schwefel, Megan Deeds

2:20

(1130-2)

[A Three Step Charge Hopping Model for Cyclic Voltammetry Simulation and Its Application to a Peptide Nucleic Acids Self-assembled Monolayer](#) Xing Yin, University of Pittsburgh, David Waldeck

2:40

(1130-3)

[Development of an Integrated Multiple-analyte Electrochemical Biosensor for Use in Segmented Microdialysate Streams from Brain Injury Patients](#) Michelle Rogers, Imperial College, Andrew De Mello, Chi Leng Leong, Delphine Feuerstein, Martyn Boutelle, Xize Niu

3:00

(1130-4)

[Fabrication of Glass-coated Nano-disk Electrodes at High Success Rates](#) Koichi Aoki, University of Fukui

3:35

(1130-5)

[Monitoring Hydrogen Peroxide Evolution at Oxidase-modified Carbon Fiber Microelectrodes Using Fast Scan Cyclic Voltammetry](#) Leslie Sombers, North Carolina State University

3:55

(1130-6)

[The Transport of Ions, Biomolecules and Nanoclusters at Single Nanopipettes and Nanopores](#) Gangli Wang, Georgia State University, Juan Liu, Warren Brown

4:15

(1130-7)

[Using Fast-scan Cyclic Voltammetry to Simultaneously Measure Dopamine Release and Caged Glutamate Photoactivation in Brain Tissue](#) Michael A. Johnson, University of Kansas, Gregory Osterhaus, Jenny Fulks, Kenneth Stensrud, Richard Givens

4:35

(1130-8)

[Plasma Electrochemical Sensor for Bioaerosols](#) Daren J. Caruana, UCL, Dimitris Sarantaridis

Oral

Session 1140

Sensors II

Tuesday Afternoon, Room 404

Fu-Tyan Lin, The Pittsburgh Conference, Presiding

2:00

(1140-1)

[Novel Microarray Platform for High-throughput Bioanalysis with SPR Imaging](#) Matthew J. Linman, University of California, Riverside, Abdennour Abbas, Quan Cheng

2:20

(1140-2)

[Label-free Screening of Drug Efficacy Using SPR Sensors Modified with Peptide Monolayer](#) Jean-Francois Masson, Universite de Montreal, Huy Ong, James Fethiere, Joelle Pelletier, Olivier Bolduc

2:40

(1140-3)

[Flexible Nanostructured Conducting Poly\(amid\) Acid Plasmonic Sensors](#) Boling Deng, Binghamton University

3:00

(1140-4)

[MEMS Multielectrode Platform for Assessing the Interrelationship Between Oxygenation Status and Drug Efficacy in Multicellular Tumor Spheroids](#) Disha B. Sheth, Case Western Reserve University, Christian Zorman, Miklos Gratzl

3:35

(1140-5)

[Measuring the Effect of Illuminated Spot Size on Signal-to-noise Ratios in Surface Enhanced Raman Spectroscopy](#) David Thompson, Sam Houston State University

3:55

(1140-6)

[DNA-Functionalized Arrays of Optical Microring Resonators for Rapid, Label-free Evaluation of DNA-encoded Antibody Libraries \(DEAL\)](#) Adam L. Washburn, University of Illinois at Urbana-Champaign, Ryan Bailey

4:15

(1140-7)

[Photon Regulated Biochemical Cascades Reaction by Azobenzene-Modified DNA Probe](#) Mingxu You, University of Florida, Ruowen Wang, Weihong Tan

4:35

(1140-8)

[SERS Detection of Environmental Contaminants With Films Over Etched Nanospheres and Nanohole Arrays](#) Jean-Francois Masson, Universite de Montreal, Audrey Provencher-Girard, Debby Correia Ledo

POSTER SESSION

Session 1150

Bioanalytical Applications of GC/MS, LC/MS, Raman

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1150-1 P)

[The Volatile and Semivolatile Chemical Composition of the Uropygial Secretion of the Gray Catbird \(*Dumetella carolinensis*\): Implications for Avian Health and Disease Transmission](#) Clara L. Shaw, Oberlin College, Amy Austin, Jordan Rutter, Mary Garvin, Rebecca Whelan

(1150-2 P)

[Isolation and Identification of Cytotoxic Constituents from \[*i*\]Artemisia Douglasiana\[/*i*\]](#) Himali K. Somaweera, California State University Sacramento, Gary Lai, Mary McCarthy Hintz

(1150-3 P)

[Analysis of the Non-thermal Effects of Microwave Radiation on Acetylcholinesterase Using Covalent Labeling Techniques and Mass Spectrometry](#) Ryan D. Konik, Westminster College, Helen Boylan

(1150-4 P)

[Analysis of Creatine and Creatinine in a Biological Fluid Using LC-MS/MS](#) Luisa Pereira, Thermo Fisher Scientific, Tim Liddicoat, Tony Edge, William Faulkner

(1150-5 P)

[In-situ Tip Enhanced Raman Spectroscopy of Lipid Bilayers](#) James M. Marr, University of Notre Dame, Zachary Schultz

(1150-6 P)

[Successful Applications of Autosampler Needle Seat Back-flush to Reduce Carryover in Bioanalytical Methods Using Common HPLC Hardware when Standard Washing Procedures are Ineffective](#) Fabio Garofolo, Algorithme Pharma, Marie-Pierre Taillon, Milton Furtado

(1150-7 P)

[Selection of Buffer Additives for Liquid Liquid Extraction \(LLE\) Procedure to Remove Matrix Effect Due to Phospholipids in Bioanalysis](#) Fabio Garofolo, Algorithme Pharma, Mathieu Lahaie, Melanie Bergeron, Milton Furtado

(1150-8 P)

[Impact of Side Reactions Involving Strong Cation Exchange Solid Phase Extraction \(SPE\) Mechanism on Bioanalytical Assay Accuracy by Using LC-MS/MS](#) Fabio Garofolo, Algorithme Pharma, Jean-Nicholas Mess, Milton Furtado

(1150-9 P)

[Efficiency, Reproducibility, Accuracy and Linearity Evaluation of Filtration Plates During Protein Precipitation \(PPT\) to Remove Phospholipids in Bioanalysis by LC-MS/MS](#) Fabio Garofolo, Algorithme Pharma, Catherine Dicaire, Milton Furtado

(1150-10 P)

[Is Your Instrument Really Crosstalk Free? Determination and Impact Evaluation of Interfering Collision Cell Induced Crosstalk During Bioanalysis](#) Fabio Garofolo, Algorithme Pharma, Louis-Philippe Morin, Valerie Vincent

(1150-11 P)

[Systematic and Expanded Investigation of High and Unexpected Positive Deviation for Quality Control Samples \(QCs\) During GLP Incurred Samples Analysis by LC-MS/MS](#) Fabio Garofolo, Algorithme Pharma,

Georges El-Kadissi, Milton Furtado

(1150-12 P)

[Application of Hydrophilic Interaction Liquid Chromatography \(HILIC\) with High pH Mobile Phase in LC-ESI\(+\)-MS/MS to Reach Optimal Sensitivity for Bioanalysis](#) Fabio Garofolo, Algorithme Pharma, Eugénie-Raphaëlle Bérubé, Milton Furtado

(1150-13 P)

[Detection of Phospholipids by Ion Pairing Reagents in the Positive Ion Mode Electrospray Ionization Mass Spectrometry](#) Edra Dodbiba, University of Texas at Arlington, Chengdong Xu, Daniel Armstrong, Eranda Wanigasekara, Tharanga Payagala

(1150-14 P)

[Laser Desorption/Ionization Mass Spectrometry of Bacterial Signaling Molecules](#) Venkateswarlu Panchagnula, National Chemical Laboratory, Ajeet Singh, Deepika Dhaware, Dipankar Ghosh

(1150-15 P)

[Super Critical Fluid Based LC/MS/MS For Bioanalysis Pros and Cons](#) Robert S. Plumb, Waters, Paul Rainville

(1150-17 P)

[High-resolution Peptide Mapping Using Sub-two Micron Columns](#) Melissa J. Wilcox, Grace Davison Discovery Sciences, Juergen Maier-Rosenkrantz, Reno Nguyen

POSTER SESSION

Session 1160

Clinical/Toxicology Analysis

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1160-1 P)

[Automated Analysis of Anabolic Steroids in Human Urine Using Cleanup Tips and GC/MS](#) Oscar G. Cabrices, University of South Carolina, Stephen Morgan, William Brewer

(1160-2 P)

[Development of a Simple and Fast Method for the Measurement by LC-MSMS of Salivary Cortisol, Androstenedione and Testosterone](#) Michael Jarvis, AB Sciex, Bruno Casetta

(1160-3 P)

[Determination of 1,25-Dihydroxy Vitamin D3 and D2 in Serum Samples Utilizing High-Resolution Mass Spectrometry](#) Michael Jarvis, AB Sciex, Andre Schreiber, Lisa Sapp

(1160-4 P)

[A Simplified Workflow for the Analysis of 25-hydroxyvitamin D3 and 25-hydroxyvitamin D2 Using Commercially Available Plasma Calibrators and Controls](#) Adam P. Latawiec, AB Sciex

(1160-5 P)

[Analysis of Calcifediol and Calcitriol in a Biological Fluid Using LC-MS/MS](#) Luisa Pereira, Thermo Fisher Scientific, Joanne Gartland, Tim Liddicoat, Tony Edge

(1160-6 P)

[Quantitative Analysis of Phytoestrogen Compounds from Urine by Trap-and-Elute HPLC-ESI-MS Featuring Restricted Access Media](#) Samuel H. Yang, University of Texas at Arlington, Aaron Morgan, Kevin Schug

(1160-7 P)

[Quantitative Determination of Urinary Pteridine Levels in Prostate and Other Urological Cancers](#) Sanjeewa Gamagedara, Missouri University of Science and Technology, Anthony Kaczmarek, Stephen Gibbons, Yinfa Ma

(1160-8 P)

[Extraction of Tamoxifen and Metabolites Using Supported Liquid Extraction \(SLE\) Prior to UPLC-MS/MS Analysis](#) Lee D. Williams, Biotage GB Limited, Claire Desbrow, Gary Dowthwaite, Helen Lodder, Rhys Jones, Richard Calverley, Steve Jordan

(1160-9 P)

[Development of a Fast Extraction and LC/MS/MS Analysis Method for Benzodiazepines and Metabolites in Blood and Urine](#) Amanda Rigdon, Restek Corporation, Jaap de Zeeuw, Michael Coyer, Michelle Misselwitz, Rick Lake, Steve Kozel, Ty Kahler

(1160-10 P)

[Short and Long Term Stability of Eight Phthalate Metabolites and Their Glucuronide Conjugates in Human Urine](#) Ella Samandar, Centers for Disease Control and Prevention, Antonia Calafat, John Reidy, Larry Needham, Manori Silva

(1160-11 P)

[Hepatotoxicity of Oil Dispersants Measured with In-vitro Fluorescence Endpoint Assays](#) Michael F. Santillo, US Food and Drug Administration, Omari Bandele, Paddy Wiesenfeld

(1160-12 P)

[Development of Rapid LC/MS/MS-based Methods for Confirmatory Analysis of Opiates and Benzodiazepines](#) Spencer D. Bonnerup, Gustavus Adolphus College, Dwight Stoll, Jonna Berry, Tomas Liskutin

POSTER SESSION

Session 1170

Electrochemistry: Method Development and Applications

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1170-1 P)

[Glucose Sensor Based on Redox Polymer in -cyclodextrin Inclusion on Glassy Carbon Electrode](#) Amos M. Mugweru, Rowan University, Marc Luliucci

(1170-2 P)

[A Glucose Oxidase-modified Carbon Foam Electrode for Use in Flow Injection Analysis](#) Michael J. Samide, Butler University, Nathan Tavenor

(1170-3 P)

[A Hybrid Material Based Hydrogel/Nanoparticle for Monitoring Glucose and Hydrogen Peroxide](#) Valber Pedrosa, UNESP, Aleksandr Simonian, Alexander Revzin

(1170-4 P)

[Amperometric Sensing of S-nitrosothiols Based on Their Photo-induced Decomposition: Optically Switchable Determination Nitric Oxide and S-nitrosothiols](#) Da Yeon Sung, Kwangwoon University, Geun Sig Cha, Hakhyun Nam, Jae Ho Shin, Sung A Hong

(1170-5 P)

[Studies of the Electrochemical Reduction of S-Nitrosothiols](#) Bo Peng, The University of Michigan, Mark Meyerhoff

(1170-6 P)

[Iridium Oxide Nanoparticles: Characterization and Electrochemical Behavior](#) Natalie S. Bjorge, The University of North Carolina at Chapel Hill, Royce Murray

(1170-7 P)

[Resistive Pulse Analysis of Microgel Passage Through Nanopores](#) Grant R. Hendrickson, Georgia Institute of Technology, Andrew Lyon, Deric Holden, Henry White

(1170-8 P)

[Exploring the Mechanical Flexibility of Hollow Microgels](#) Emily S. Herman, Georgia Institute of Technology, Andrew Lyon, Grant Hendrickson, Michael Smith

(1170-9 P)

[Probe Construction for Applications in Electrochemical Atomic Force Microscopy](#) Kirstin Morton, Indiana University, Jeremy Wilburn, Lane Baker, Lesley Sevcik, Maksymilian Derylo

(1170-10 P)

[SECM Characterization of Cu\(I\) Formation During the Anodic Dissolution of Copper in Acidic Medium](#) Alex Silva, Universidade de São paulo, Maiara Salles, Mauro Bertotti, Pollyana Castro, Thiago Paixao, Tiago Ferreira

(1170-11 P)

[Flow Injection Analysis of Ethambutol in Anti-tuberculosis Drugs Using a Carbon Based Composite Electrode as Amperometric Detector](#) Denise Lowinsohn, UFJF, Camila Perantoni, Felipe Semaan, Renato Matos

(1170-12 P)

[Amperometric Detection of Ascorbic Acid in Honey Using Ascorbate Oxidase](#) Renato C. Matos, UFJF, Denise Lowinsohn, Marcos Cerqueira, Maria Auxiliadora Matos, Vanezia Silva

(1170-13 P)

[Spectroelectrochemical Study of Redox Metalloproteins by Using Optically Transparent Boron-doped Diamond Electrode in Transmission Thin Layer Cell](#) Chen Qiu, Michigan State University, Denis Proshlyakov, Greg Swain

(1170-14 P)

[Direct Electron Transfer of Ascorbate Oxidase Through Lectin-Carbohydrate Formation](#) Valber Pedrosa, UNESP, Aleksandr Simonian, Dmitri Ivnitcki

(1170-15 P)

[Determination of the 2-\(Dibutylamino\)ethanol Free Radical Potential in Acetonitrile/Benzene Solutions Using Electrogenerated Chemiluminescence](#) Daniel A. McCurry, University of Southern Mississippi, Wujian Miao

(1170-16 P)

[Electrochemical Behavior of Electroactive Species in Binary Mixtures of Solvents](#) Tiago Ferreira, Universidade Federal de São Paulo, Mauro Bertotti

(1170-17 P)

[An Electrochemically-based Total Organic Carbon \(TOC\) Analyzer for Earth and Planetary Science Applications](#) Shannon Stroble, Tufts University, Samuel Kounaves

(1170-18 P)

[Study of the Electrogenerated Chemiluminescence in the Radical Annihilation Mode by Scanning Electrochemical Microscopy](#) Mei Shen, University of Texas at Austin, Alexander Nepomnyaschii, Allen Bard, Joaquin Rodriguez-Lopez

POSTER SESSION

Session 1180

Fluorescence/Luminescence in Bioanalytical and Materials Applications

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1180-1 P)

[Signal Amplification of Protein Immunoassay Based on Fluorescence Measurement of Non-Fluorescent Zinc-Sulfide Nanoparticles](#) Chad L. Cowles, University of Nevada, Xiaoshan Zhu

(1180-2 P)

[Ultrasensitive Detection of Gene Expression Levels in Living Cells Using Fluorescence Cross-Correlation Spectroscopy](#) Yan Chen, University of Florida, Michael Mavros, Peng Lu, Weihong Tan

(1180-3 P)

[A Fluorometric Assay Used to Monitor Liposomal Membrane Potential and Determine Valinomycin Concentration](#) Megan E. Herscher, Florida Gulf Coast University, Jessica Strnad, Jose Barreto, Patricia Barreto

(1180-4 P)

[Aptamer-based Light-switching Excimer Beacon for Target Detection](#) Jin Huang, University of Florida, Kemin Wang, Weihong Tan

(1180-5 P)

[Toxicity Test With Daphnia Magna by Ingestion of Fluorescent Microbeads](#) Minori Kamaya, Kogakuin University

(1180-6 P)

[Optimization and Characterization of Luminescent Europium Complex Based Nanoparticles](#) Boris Makhinson, Armstrong Atlantic State University, Alexandra Duncan, Eric Werner, Joshua Smith

(1180-7 P)

[A Multiplexed Molecular Beacon Assay for the Early Detection of Breast Cancer Metastasis](#) Amy Ong, Kalamazoo College, Erik Guetschow, Jennifer Furchak, Will Black

(1180-8 P)

[Squarylium Dyes As Non-covalent Protein Labels: A Study by Fluorimetry and Capillary Electrophoresis](#) Theresa Swanson, Wake Forest University, Christa Colyer, Hiroyuki Nakazumi, Takeshi Maeda

(1180-9 P)

[Development of an Intracellular pH Biosensor Using Fluorescent Proteins](#) Jiarui Wang, Excellgen, Inc, Han Shubo, Paul Xu

(1180-10 P)

[Time-resolved Chemiluminescent Detection of Active Oxygen Species in the TiO₂ Photocatalytic Reaction](#) Xing-zheng Wu, Fukuoka Institute of Technology, Lingyue Min

(1180-11 P)

[Synthesis of Fluorescent Ag Nanoclusters and Polymer Micro-particles and Their Application for Cell Marker](#) Weiqing Xu, Jilin University, Chongyang Liang, Fei Sun, Shuping Xu, Xumei Wang

(1180-12 P)

[An Exonuclease III Aided Amplification Method for Molecular Detection](#) Lu Peng, University of Florida, Weihong Tan

(1180-13 P)

[Developing Dye Bleaching Assays for Quantifying the Photocatalytic Production of Destructive Hydrophobic Radicals, Oxidants and Reductants \(ROR\): Sudan Red \(IV\), and Nile Red Dyes Encapsulated in Micelles and Liposomes as Molecular Targets](#) Patricia D. Barreto, Florida Gulf Coast University, Jessica Strnad, Jose Barreto, Shane Finn

(1180-14 P)

[Creating Stable Lanthanide Based Luminescent Nanoparticles for Bioanalysis](#) Joshua Smith, Armstrong Atlantic State University, Alexandra Duncan, Boris Makhinson, Dunn Jolie, Eric Werner, Kirsten Reeves

(1180-15 P)

[Helical Conjugated Polyelectrolyte Based Biomacromolecule Sensing with Fluorescence Correlation Spectroscopy](#) Danlu Wu, University of Florida, Kirk Schanze

POSTER SESSION

Session 1190

Gas Chromatography and Liquid Chromatography: General Applications

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1190-1 P)

[Cyclofructan 6 \(CF6\) Based Stationary Phases for Hydrophilic Interaction Liquid Chromatography \(HILIC\)](#) Qiu Haixiao, The University of Texas at Arlington, Daniel Armstrong

(1190-2 P)

[A Rapid Ionic Liquid-based Water Quantitation Method, at any/all Concentrations](#) Dilani A. Jayawardhana, University of Texas at Arlington, Chunlei Wang, Daniel Armstrong, Ke Huang

(1190-3 P)

[A New Phenyl-type Stationary Phase and Its Uses](#) Xiaodong Liu, Dionex Corporation, Christopher Pohl, Mark Tracy

(1190-4 P)

[Investigation on the Extent of Organic Contamination in High Purity Water Using HPLC Equipped with Ultrasensitive Diode Array Detector and LC-MS](#) Maricar Tarun, EMD Millipore, Michael Kraft, Naegele Edgar, Stephane Mabic

(1190-5 P)

[The Use of Cyclofructans as Novel Chiral Selectors for Gas Chromatography](#) Ying Zhang, University of Texas at Arlington

(1190-6 P)

[Rotary Valves, Then and Now - An Improved Design - A New Industry Standard](#) Gordon McFarlane, Analytical Flow Products, Yves Gamache

POSTER SESSION

Session 1200

GC-MS Methodology

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1200-1 P)

[Improvements in GC Inlet Liner Inertness for the Analysis of Active Analytes Applications](#) Limian Zhao, Agilent Technologies, Alan Broske, David Mao, Lindy Miller, Mitch Hastings

(1200-2 P)

[Automated Static and Dynamic Headspace Analysis with Dual LTM-GC-MS for the Determination of VOCs and Off-flavor Compounds in Water](#) Jun Tsunokawa, Gerstel KK, Kikuo Sasamoto, Nobuo Ochiai, Teruyo Leda

(1200-3 P)

[Quantification of Polycyclic Aromatic Hydrocarbon Metabolites in Human Urine Using Triple Quadrupole Gas Chromatography Tandem Mass Spectrometry](#) Debra A. Trinidad, Centers for Disease Control and Prevention, Andreas Sjodin, Erin Pittman, Lovisa Romanoff, Zheng Li

(1200-4 P)

[Analysis of Polycyclic Aromatic Hydrocarbons from Diesel Engine Particulates Using Direct Sampling Thermal Desorption, Time-of-flight Mass Spectrometry and Novel Data Analysis Software](#) Kurt Thaxton, ALMSCO International, Alun Cole, Daniel Cooper, Nick Bukowski, Paul Morris

(1200-5 P)

[Determination of Nerve Gas Hydrolysis Products in Biological Samples by Selectable One-dimensional or Two-dimensional Gas Chromatography-Mass Spectrometry after Tert.-butyldimethylsilyl Derivatization](#) Yasuo Seto, National Research Institute of Police Science, Hirooki Kanda, Isaac Ohsawa, Kikuo Sasamoto, Koichiro Tsuge, Mieko Kanamori-Kataoka, Nobuo Ochiai, Takafumi Satoh, Takeshi Ohmori

(1200-6 P)

[Determination of the Extent of Isotopic Fractionation During Permeation Passive Sampling of Volatile Organic Compounds in Air](#) Suresh Seethapathy, University of Waterloo, Daniel Hunkeler, Ramon Aravena, Tadeusz Gorecki, Todd McAlary

(1200-7 P)

[Efficient Headspace Analysis of Viscous Matrices](#) Lindsey Pyron, EST Analytical, Anne Jurek, Doug Meece, Jeff Sheriff, Jim Monk

(1200-8 P)

[Determination of Volatile Petroleum Hydrocarbons](#) Lindsey Pyron, EST Analytical, Anne Jurek, Doug Meece

(1200-9 P)

[Optimizing Standard Preparation for 8260 Analysis](#) Lindsey Pyron, EST Analytical, Anne Jurek, Doug Meece

(1200-10 P)

[Application of Comprehensive Scanning for Low-level Identification and Quantification of Organic Contaminants Using a GC-single Quadrupole Mass Spectrometer](#) Eric Phillips, Thermo Fisher Scientific, Jessie Butler, Jim Edwards, Trisa Robarge

(1200-11 P)

[Reduction in GC-MS Downtime by Utilizing a Novel Interface](#) Luisa Pereira, Thermo Fisher Scientific, Paul Wheeler, Rob Bunn

(1200-12 P)

[Large Volume Full Evaporation Technique \(LVFET\) with Dynamic Headspace and GC-MS for Analysis of Odor Compounds in Aqueous Samples](#) Nobuo Ochiai, Gerstel KK, Andreas Hoffmann, Kikuo Sasamoto

(1200-13 P)

[Quantitative Analysis of Acetaldehyde in Food Using On-fiber Derivatization](#) Kristel Kaseleht, Tallinn University of Technology/CCFFT, Ildar Nisamedtinov, Toomas Paalme

(1200-14 P)

[Utilization of GC-TOFMS and Automated Sample Derivatization for High Throughput Workplace Urine Drug Testing by SAMHSA Guidelines](#) John R. Heim, LECO Corporation, Doug Staples, Joe Binkley

(1200-15 P)

[Comparative Analysis of Lipophilic Wood Extractives by GCxGC-TOFMS for Enhanced Chromatographic Resolution and Compound Identification](#) John R. Heim, LECO Corporation, Joe Binkley, Roderquita Moore

(1200-16 P)

[Investigation of Vasocactive Ion Content of Herbs](#) Mahir Gulec, GATA

(1200-17 P)

[Defining the Retention Times of 209 PCB Congeners Using GCxGC-TOFMS](#) Cory Fix, Leco Corporation, Mark Libardoni

(1200-18 P)

[Comprehensive GCxGC/TOF-MS Analysis of Pesticides in Lettuce Extracts](#) Daniel Cooper, Markes International, Damien Rosser, Gareth Roberts, Nick Bukowski

(1200-19 P)

[Evaluation of a Novel Time-of-flight Mass Spectrometer Coupled to a Comprehensive Two-dimensional Gas Chromatograph for Screening Halogenated Persistent Organic Pollutants in Complex Samples](#) Nick Bukowski, ALMSCO International, Damien Rosser, Daniel Cooper, Gerhard Horner, Kurt Thaxton

(1200-20 P)

[Optimization of GC Parameters for Fast GC on Selective and Short Nano Stationary Phase Microbore Columns Using GC-FID and GC-MS Techniques](#) Allen Britten, Cape Breton University, Krishnat Naikwadi

(1200-21 P)

[Analysis of Pesticide Residues in JonaGold Apples Using QuEChERS Approach and Comprehensive Two-Dimensional Gas Chromatography-Time of Flight Mass Spectrometry \(GCxGC-TOFMS\)](#) Joe Binkley, LECO Corporation, Doug Staples, John Heim

(1200-22 P)

[A New Supersonic GC-MS with Advanced Capabilities](#) Aviv Amirav, Tel Aviv University, Alexander B Fialkov, Alexander Gordin, Eli Flaxer, Tal Alon

(1200-23 P)

[Problem of Analysis of Volatile Organic Compounds in Toxicological Screening](#) Elena I. Savelieva, Research Institute, Andrey Radilov, Anton Ukolov, Elena Ivleva, Lyudmila Gustyleva, Nadezhda Koryagina, Ol'ga Orlova

(1200-24 P)

[Increasing Sample Throughput for EPA Method 8270 by Employing a Split Injection](#) Jack Cochran, Restek Corporation, Chris English, Gary Stidsen, Jaap de Zeeuw, Michelle Misselwitz, Neil Mosesman

POSTER SESSION

Session 1210

HPLC - Instrumentation and Systems

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1210-1 P)

[LC System Design Attributes that Contribute to Enhanced MS Performance and Match Typical MS Lab Work Flows](#) Tanya Jenkins, Waters Corporation, Elizabeth Hodgdon, Jim Usowicz, Patricia McConville

(1210-2 P)

[Utilization of Palladium Hydrogen Reference Electrode for Amperometric Detection in ion Chromatography](#) Jun Cheng, Dionex Corporation, Christopher Pohl, Petr Jandik, Yan Liu

(1210-3 P)

[Automating Chromatographic Analysis of Proteins](#) Thomas E. Wheat, Waters Corporation, Daniel Root, Patricia McConville

(1210-4 P)

[Development and Evaluation of a Holistically Designed Analytical Supercritical Fluid Chromatography System](#) Andrew Aubin, Waters Corp, Aaron Lebeau, Kurt Joudrey, Peter Pino

(1210-5 P)

[A Complete Solution for Method Linearity in HPLC and UHPLC](#) Frank Steiner, Dionex Corporation, Andreas Brunner, Fraser McLeod, Tobias Fehrenbach

(1210-6 P)

[Development of High Temperature HPLC Instrumentation for the Characterization of Polyolefins](#) Benjamin Monrabal, Polymer Char, Alberto Ortin, Juan Sancho-Tello, Pilar Del Hierro

POSTER SESSION

Session 1220

Liquid Chromatography Column Development and Evaluation

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1220-1 P)

[Development and Validation of Analytical Methods for Simultaneous Estimation of Diazepam and Propranolol in Combined Dosage Form](#) Pareshkumar U. Patel, SK Patel College of Pharmacy

(1220-2 P)

[Decreasing Method Development Costs](#) David Allen, Merial

(1220-3 P)

[Alkyl Polymethacrylate Monolithic Columns for Capillary Liquid Chromatography](#) Zeid A. Allothman, King Saud University, Hadeel Al Abdelmoneim, Yacine Badjah Hadj Ahmed

(1220-5 P)

[The Impact of Fittings in Ultra-high Performance Liquid Chromatography Applications](#) Eric L. Beemer, IDEX Health & Science LLC, Caitlin McEathron, John Batts

(1220-6 P)

[Understanding Separations in HILIC Chromatography: We're not in Water Anymore](#) David S. Bell, Supelco, Carmen Santasania, Craig Aurand, Wayne Way

(1220-7 P)

[Development of Column Packing Materials and Methods for Proteomics Application Using LC/MS Detection](#) Barry E. Boyes, Advanced Materials Technology, Darryl Johnson, Joseph DeStefano, Ron Orlando, Stephanie Schuster

(1220-8 P)

[Trace Analysis of Organic Acids in Power Station Water by HPLC](#) Deenadayalan K. Chetty, Durban University of Technology, Arthi Ramrung, Kandasamy Moodley

(1220-9 P)

[The Use of Methyl-\[beta\]-Cyclodextrin to Regulate Cholesterol Coating of a C18 Stationary Phase](#) Jason W. Coym, University of South Alabama, Omar Hashmi, Shauna Charlton

(1220-10 P)

[Validating Analytical Methods with Charged Aerosol Detection](#) Christopher Crafts, ESA - A Dionex Company, Bruce Bailey, Ian Acworth, Marc Plante

(1220-11 P)

[Dual Gradient UHPLC Platform Providing Simple Solutions to Complex Analytical Challenges](#) Christopher Crafts, ESA - A Dionex Company, Bruce Bailey, Frank Steiner, Fraser McLeod, Ian Acworth, Marc Plante

(1220-12 P)

[Supercritical Fluid Chromatography Using Sub 2 um Chromatographic Particles](#) Andrew Aubin, Waters Corp, Uwe Neue

(1220-14 P)

[Characterization of the Surfactants Used in Oil Dispersants by Reversed-phase High Pressure Liquid Chromatography and Charged Aerosol Detection](#) Marc Plante, ESA - A Dionex Company, Bruce Bailey, Christopher Crafts, Ian Acworth

(1220-15 P)

[Investigation into the Retention Mechanism of a Zwitterionic Stationary Phase](#) Amber M. Hupp, College of the Holy Cross, Brian Blum

POSTER SESSION

Session 1230

Pharmaceutical - MS, LC-MS

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1230-1 P)

[Utilization of Multi-reflecting Time of Flight Mass Spectrometry to Characterize Innovator and Generic Forms of Cold Medicine with Multiple Active Ingredients](#) Jeffrey Patrick, Leco Corporation, Joe Binkley, John Chakel, Kevin Siek

(1230-2 P)

[Determination of Chlorpyrifos and Its Metabolites in Cell Media Using Liquid Chromatography/electrospray Ionization Tandem Mass Spectrometry](#) Feng Liang, University of Georgia, Alvin Terry, Michael Bartlett

(1230-3 P)

[Quantification of Intracellular siRNA and Its metabolites by LC-MS](#) Cary McGinnis, University of Georgia, Michael Bartlett

(1230-4 P)

[Protein/Enzyme – Functionalized Nanoparticles for Studying Medicinal Plants by CE and MS-Based Methods](#) Yiming Liu, Jackson State University, Shulin Zhao, Xun Liao

POSTER SESSION

Session 1240

Process Posters

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1240-1 P)

[Performance Improvements in Benchtop XRF Technology and Their Benefit for Industrial Applications](#) David Coler, PANalytical, Greg Wortman, Kimberly Halkiotis

(1240-2 P)

[Sample Preparation by Borate Fusion of Catalyst and High Silica Samples for ICP-OES Analysis: Method Development and Results](#) Philippe Daigle, Corporation Scientifique Claisse, Chantal Audet, Dominique Levesque, John Anzelmo, Luc Bérubé

(1240-3 P)

[The Separation of High Polar Compounds](#) Qian Hu, Agela Technologies

(1240-4 P)

[Full Evaluation of the Automated Cold Fiber Device Using Compounds with a Large Range of Volatility](#) Ruifen Jiang, University of Waterloo, Erasmus Cudjoe, Jamie Warren, Sanja Risticvic

(1240-5 P)

[Determine Vanadium of High Alloy Steel by ICP-AES](#) Nie Lingqing, Baosteel Technology Center, Wang Hongqing

(1240-6 P)

[Electrodes Modified with Surface-silanized, Nanoporous Sol-gel Films Fabricated by Electrochemically Initiated Deposition](#) Layla B. Mehdi, Miami University, David Ranganathan, James Cox

(1240-7 P)

[Raman Analysis of Pharmaceutical Powders and Tablets](#) Alison Nordon, University of Strathclyde, David Littlejohn, John Andrews, Luke Bellamy, Nichola Townshend, Pamela Allan, Paul Dallin

(1240-8 P)

[Laser Induced Breakdown Spectroscopy: Slurry Samples Analysis](#) Jagdish P. Singh, Mississippi State University, Fang-Yu Yueh, Krishna Ayyalasomayajula, Laura Smith

(1240-9 P)

[Soil Metabolism and Microcalorimetry: A Unique Combination](#) Hameed Ullah, UNICAMP, Claudio Airoidi, Imdad Ullah, Imtiaz Ahmad, Jose Simoni

(1240-10 P)

[Preliminary Performance Study on an On-line Cyanide Analyzer in Precious Metal Mining Operations](#) William C. Lipps, OI Analytical, Gary Engelhart, Karl Williams

(1240-11 P)

[Simple Approach for Rapid Sample Screening](#) Neil D. Paz, New Mexico State University

POSTER SESSION

Session 1250

Raman Applications and Instrumentation

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1250-1 P)

[Eye Safe Raman at 1550 nm](#) Stuart Farquharson, Real-Time Analyzers, Inc.

(1250-2 P)

[Development of a Spatial Heterodyne Raman Spectrometer](#) Nathaniel R. Gomer, University of South

Carolina, Christopher Gordon, S Michael Angel

(1250-3 P)

[Chemical Identification of Sparse Samples – Morphologically Directed Raman Microprobe](#) Linda H. Kidder, Malvern Instruments, E Neil Lewis, Janie Dubois, Kenneth Haber

(1250-4 P)

[Body Fluid Identification Using Near IR Raman Spectroscopy](#) Vitali Sikirzhytski, State University of New York at Albany, Aliaksandra Sikirzhytskaya, Igor Lednev

(1250-5 P)

[Raman Spectroscopic Signature of Sweat and Its Potential Application to Forensic Body Fluid Identification](#) Aliaksandra Sikirzhytskaya, State University of New York at Albany, Igor Lednev, Vitali Sikirzhytski

(1250-7 P)

[A New Approach for Fluorescence Subtraction in Raman Spectroscopy](#) Li Qun, B&W TEK, Inc., Kerith Wang

POSTER SESSION

Session 1260

Separation Science - TLC, LC, HPLC, SFC

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1260-1 P)

[TLC / HPTLC / MS / LT-ELSD Coupling: New Development and Optimization](#) Eric Verette, Sedere, Francis Maquin, François Bretin, Henry Gangloff, Pierre Bernard-Savary, Véronique De Nailly

(1260-2 P)

[Evaluation of Phosphonium Based Ionic and Zwitterionic Stationary Phases for Hydrophilic Interaction Liquid Chromatography \(HILIC\)](#) Eranda Wanigasekara, University of Texas at Arlington, Daniel Armstrong, Haixiao Qiu, Jonathan Smuts

(1260-3 P)

[The Separation and Purification Method of Iridoids](#) Qian Hu, Agela Technologies

(1260-4 P)

[New HPLC Chiral Stationary Phases Using Anionic Aromatic-functionalized Cylofructans](#) Ping Sun, The University of Texas at Arlington, Daniel Armstrong, Ross Woods, Sirantha Perera, Zachary Breitbach

(1260-5 P)

[Profiling and Characterization of Hydrophobic Dimer and Trimer Acids by Normal and Reversed Phase UHPLC and by SFC](#) Michael Woodman, Agilent Technologies, Elaine Ricicki, John Kimmel

(1260-6 P)

[Effects of Sampling Time on the Resolving Power of On-line LCxLC](#) Yuan Huang, University of Minnesota, Haiwei Gu, Marcelo Filgueira, Peter Carr

(1260-8 P)

[Method Development Parameters for Preparative Separations Using Supercritical Fluid Chromatography](#) Jo-Ann M. Jablonski, Waters Corporation, Christopher Hudalla, Damian Morrison, Kenneth Fountain, Steven Collier

(1260-9 P)

[Optimizing Chromatographic Media and Separation Conditions Using Supercritical Fluid Chromatography](#) Jo-Ann M. Jablonski, Waters Corporation, Christopher Hudalla, Damian Morrison, Kenneth Fountain, Steven Collier

(1260-10 P)

[Fast Chiral Separations by SFC Using Reduced Particle Size](#) Rui Chen, Waters Corporation, Jacquelyn Cole, Lakshmi Subbarao, Ziqiang Wang

(1260-11 P)

[The Development and Utilization of Sub-2 Micron Chromatography Columns for SFC Applications](#) Matthew Przybyciel, ES Industries

(1260-12 P)

[Rapid Fabrication of Silica Core-shell Particles for HPLC Applications](#) John D. Brennan, McMaster University,

Hanjiang Dong

(1260-13 P)

[Long Microcapillary Columns at Elevated Temperatures and Pressures for Use in Gradient Elution Liquid Chromatography in Proteomics and Metabolomics](#) Edward G. Franklin, University of North Carolina at Chapel Hill, James Jorgenson

(1260-14 P)

[Functionalization of Capillary-channeled Polymer \(C-CP\) Fibers Using Adsorption of Polyethylene Glycol \(PEG\) for High Performance Liquid Chromatography \(HPLC\) Stationary Phases](#) Jennifer J. Pittman, Clemson University, Kenneth Christensen, R Kenneth Marcus

(1260-15 P)

[Development and Evaluation of New Chiral Columns for the Next Generation of Supercritical Fluid Chromatography Applications](#) Paul M. Lefebvre, Averca Discovery Services, David Kohler, Jeffery Kiplinger, Matthew Przybyciel, Mickey Rego

(1260-16 P)

[Investigation into the Anion Effect on an Ionic Liquid \(IL\) Based Stationary Phase for Supercritical Fluid Chromatography \(SFC\)](#) Jonathan P. Smuts, University of Texas at Arlington, Daniel Armstrong, Eranda Wanigasekara

(1260-17 P)

[Ionic Liquid Based Stationary Phases for Rapid Separation of Pharmaceutically Active Ingredients in SFC](#) Eranda Wanigasekara, University of Texas at Arlington, Daniel Armstrong, Jonathan Smuts

(1260-18 P)

[New Developments of On-line Electrolytic Eluent Generation Devices for Ion Chromatography](#) Yan Liu, Dionex Corporation, Christopher Pohl, Zhongqing Lu

CONFERENCE NETWORKING

Tuesday, March 15, 2011

4:30 PM

Laboratory Standardization: Applications, Benefits and Challenges Facilitated by: Julianne Botelho, Centers for Disease Control and Prevention (CDC), Room 217

The Role of Analytical Chemists in an Age of High End Instrumentation and Robotization Facilitated by:

Jennifer Maclachlan, PID Analyzers, LLC, Room 218

US EPA Organic GC/MS and GC Methods Facilitated by: Wayne Whipple, US EPA, Room 215

ICP-MS and Chromatography for Metals Speciation Facilitated by: Larry Irr, Bechtel Marine Propulsion Corporation, Room 216

Wednesday Morning, March 16, 2011

Award

Session 1270

ACS Subdivision of Chromatography and Separation Chemistry Young Investigator Award - arranged by Susan Olesik, Ohio State University

Wednesday Morning, Room 312

Susan Olesik, Ohio State University, Presiding

8:10

(1270-1)

[New Advances in Capillary Electrophoresis-Mass Spectrometry for Metabolomics](#) Philip Britz-McKibbin, McMaster University

8:45

(1270-2)

[Mass Spectrometry-based Metabolomics as a Unique Biochemical Approach for Therapeutic Discovery](#) Gary Siuzdak, Scripps

9:20

(1270-3)

[Towards a Standardized Metabolomics Repository](#) Oliver Fiehn, Genome Center, Gert Wohlgemuth, Tobias Kind

10:10

(1270-4)

[Role of Separation Science in Biomarker Discovery: Opportunities and Pitfalls](#) Haleem J. Issaq, SAIC-Frederick, Inc.

10:45

(1270-5)

[What the Heck is that? The Challenge of Metabolite Identification in Metabolomics](#) David S. Wishart, University of Alberta

Symposia

Session 1280

Advanced Analytical Tools for Rare Tumor Cell Detection and Molecular Profiling - arranged by Weihong Tan, University of Florida

Wednesday Morning, Room 309

Weihong Tan, University of Florida, Presiding

8:05

(1280-1)

[Advanced Analytical Tools for Rare Circulating Tumor Cell Detection and Molecular Profiling](#) Vladimir P. Zharov, University of Arkansas for Medical Sciences

8:40

(1280-2)

[Molecular Analysis of Tumor Cells](#) Weihong Tan, University of Florida

9:15

(1280-3)

[High-throughput Digital Single Molecule/Cell Genetic Analysis Using Microfluidic Emulsion Generator Arrays](#) Yong Zeng, University of California, Berkeley, Joe Shuga, Luoping Zhang, Martyn Smith, Richard Mathies, Richard Novak

Symposia

Session 1290

Bioelectrocatalysis: From Bioanalytical Sensors to Bioenergy - arranged by Shelley Minteer, Saint Louis University

Wednesday Morning, Room 315

Shelley Minteer, Saint Louis University, Presiding

8:05

(1290-1)

[Double Potential Pulse Coulometry for Enzyme-Electrode Tissue Cholesterol Analysis](#) Jim Burgess, Case Western Reserve University, Richard West

8:40

(1290-2)

[Nonconventional Sugar Oxidizing Redox Enzymes for Biofuel Cells Applications](#) Lo Gorton, Lund University

9:15

(1290-3)

[Photosystem I Protein Films Interfaced to Electrodes for Solar Energy Conversion](#) David Cliffler, Vanderbilt University, Gongping Chen, Kane Jennings, Peter Ciesielski

9:50

(1290-4)

["Smart" Biofuel Cells Controlled by Biocomputing Systems](#) Evgeny Katz, Clarkson University

10:25

(1290-5)

[From Enzymes to Metabolons: Improving Metabolic Flux in Enzymatic Biofuel Cells](#) Shelley Minter, Saint Louis University

Symposia

Session 1300

Development of Standoff Detection Approaches for CBRNE Threats - arranged by Sanford Asher, University of Pittsburgh

Wednesday Morning, Room 308

Sanford Asher, University of Pittsburgh, Presiding

8:05

(1300-1)

[21st Century Challenges for the Detection of CBRNE Threats](#) Augustus W. Fountain, RDECOM, ECBC, Jason Guicheteau, Steven Christesen, William Pearman

8:40

(1300-2)

[Factors Affecting the Short-range Standoff Raman Interrogation of Contaminated Surfaces](#) Steven Christesen, US Army ECBC, Ashish Tripathi, Augustus Fountain, Darren Emge, Erik Emmons, Ian Pardoe, Jason Guicheteau, Phillip Wilcox

9:15

(1300-3)

[A Rapid Photoablation-LIF Search Method for Surface-bound Chemical Agents Coupled with a Raman Identifier](#) Thomas J. Kulp, Sandia National Laboratories, Jeffrey Headrick, Roger Farrow, Scott Bisson, Thomas Reichardt

9:50

(1300-4)

[Field Test Performance of a Multimodal, Standoff Checkpoint Explosives Detection System \(CPEDS\) Incorporating LIBS, TEPS, and Raman Spectroscopy](#) Alan R. Ford, Alakai Defense Systems, Chris Stefano, Darius Vunck, Ed Dottery, Frank Vilaridi, Jeremy Rose, Jim Bernier, Ken Pohl, Rob Waterbury, Tom Blank, Troy McVay

10:25

(1300-5)

[Deep UV Raman Cross Sections, Albedo and Photochemistry of Energetic Materials: Prospects for Standoff Detection](#) Sanford A. Asher, University of Pittsburgh, Balakishore Yellampalle, Brian Lemoff, David Tuschel, Todd Vargson

Symposia

Session 1310

Directions in Seafood Testing From Recent Regulatory Actions - arranged by Randall K. Pegg, Florida State College

Wednesday Morning, Room 311

Randall K. Pegg, Florida State College, Presiding

8:05

(1310-1)

[HOW Program to Assure Safe Gulf Seafood](#) W S. Otwell, University of Florida

8:40

(1310-2)

[High Sensitivity Multi-drug Residue Analysis in Seafood by LC-MS/MS: Developing Robust Methods that Meet Industry Regulatory Needs](#) Lauryn Bailey, Eurofins CAL, Curt Jarand, John Ruether

9:15

(1310-3)

[Seafood Species Identification for Regulatory Compliance and to Prevent Economic Fraud: Current Molecular Methodologies](#) LeeAnn Applewhite, Applied Food Technologies

9:50

(1310-4)

[Third Party Certification Audits for Seafood](#) Patricia A. Wester, Eurofins

10:25

(1310-5)

[Risk-based Drivers in Analytical Methodologies: Role of Negative Ion Mass Spectroscopy for Polychlorinated Camphenes \(PCC\) in Fish Tissues](#) Randall K. Pegg, Florida State College

Symposia

Session 1315

High Resolution Optical Imaging in Cells and Organs - arranged by Adrian C. Michael, University of Pittsburgh

Wednesday Morning, Room 401

Adrian C. Michael, University of Pittsburgh, Presiding

8:05

(1315-1)

[Two-photon Imaging of Synaptic Plasticity and Pathology in the Living Mouse Cortex](#) Wen-Biao Gan, New York University School of Medicine

8:40

(1315-2)

[Imaging Neurotransmission at Individual Synapses in the Brain with Fluorescent Small Molecule Probes](#) Dalibor Sames, Columbia University

9:15

(1315-3)

[Superresolution Meets Neurobiology: Live-cell Imaging of CNS Synapses at the Nanoscale](#) Valentin Nagerl, University of Bordeaux 2/CNRS

9:50

(1315-4)

[How Cells Crawl: Advance of the Leading Edge by a Continuous Actin Filament Network](#) Dylan T. Burnette, NICHD, National Institutes of Health, Bechara Kachar, Jennifer Lippincott-Schwartz, Prabuddha Sengupta

10:25

(1315-5)

[Nanoscopic Imaging with STORM](#) Xiaowei Zhuang, Harvard University

Symposia

Session 1320

Implementing Ultra-high-pressure LC (UHPLC) in Pharmaceutical Analysis: Best Practices and Potential Issues - arranged by Michael W. Dong, Genentech

Wednesday Morning, Room 316

Michael W. Dong, Genentech, Presiding

8:05

(1320-1)

[UHPLC in Pharmaceutical Analysis: Perspectives, Performance and Issues](#) Michael W. Dong, Genentech, Derrick Yazzie, Nik Chetwyn

8:40

(1320-2)

[UHPLC in Pharmaceutical Process Development - Comparison with Theoretical Promise](#) Naijun Wu, Merck & Co, Ashley Bradley, Theresa Natishan

9:15

(1320-3)

[Method Transfer Between HPLC and UHPLC: Issues and Solutions](#) Klaus Witt, Agilent Technologies, Konstantin Shoykhet, Monika Dittmann, Peter Stemer

9:50

(1320-4)

[Implementation of UHPLC in Pharmaceutical QC Laboratories](#) Qinglin Tang, Merck & Co, Abu Rustum, Jinjian Zheng, Neil Dias, Robert Markovich

10:25

(1320-5)

[Ultra-high-pressure LC\(UHPLC\) for Therapeutic Proteins Characterization](#) Taylor Zhang, Genentech

Symposia

Session 1330

Infrared Spectroscopy at High Speed: From Milliseconds to Picoseconds (Society for Applied Spectroscopy) - arranged by Peter R. Griffiths, University of Idaho

Wednesday Morning, Room 314

Peter R. Griffiths, University of Idaho, Presiding

8:05

(1330-1)

[Infrared Imaging of Cellular Processes in Real Time](#) Lisa M. Miller, Brookhaven National Laboratory, Megan Bourassa, Randy Smith

8:40

(1330-2)

[Picosecond Time-resolved Infrared Spectroscopy in Conventional and Supercritical Fluids](#) Mike George, University of Nottingham

9:15

(1330-3)

[Ultrafast IR Photon Time of Flight](#) Eric B. Brauns, University of Idaho

9:50

(1330-4)

[Time Resolved Infrared Spectroscopy Using Focal Plane Arrays](#) John F. Rabolt, University of Delaware

10:25

(1330-5)

[Stopped-flow Studies of Inorganic Reactions with an Ultra-rapid-scanning FT-IR Spectrometer](#) Peter R. Griffiths, University of Idaho, Matthew Reback, Rachel Faulkner, Thomas Bitterwolf

Symposia

Session 1340

Nanotechnology in Infectious Disease - arranged by Richard A. Dluhy, University of Georgia

Wednesday Morning, Room 310

Richard A. Dluhy, University of Georgia, Presiding

8:05

(1340-1)

[Gold Nanoparticles, Antibodies, and Surface Enhanced Raman Spectroscopy: Integrated Tools for Early Disease Detection](#) Marc D. Porter, Nano Institute of Utah

8:40

(1340-2)

[The Electrical Detection of Disease Markers Using Nanowires Interfaced with Viruses](#) Reginald M. Penner, University of California, Irvine

9:15

(1340-3)

[SERS Detection of Nucleic Acids and Biomarkers for Disease Diagnosis](#) Duncan Graham, University of Strathclyde, Aaron Hernandez, Alastair Ricketts, Danny Van Lierop, Ewen Smith, Jennifer Dougan, Julie Redden, Karen Faulds, Karen Fitchett, Kate Dempsey, MacAskill Alexandra, Ross Stevenson, Stacey Laing

9:50

(1340-4)

[Plasmon Nanostructures in Diagnostics](#) Joseph Irudayaraj, Purdue University

10:25

(1340-5)

[Novel Nanorod Array Substrates as a Platform for SERS-Based Biosensing of Infectious Disease](#) Richard A. Dluhy, University of Georgia

Workshop

Session 1350

What, Then, Shall We Teach? Discussions on the Analytical Chemistry Curriculum - arranged by Michael J. Samide, Butler University

Wednesday Morning, Room 409

Michael J. Samide, Butler University, Presiding

8:05

(1350-1)

[Teaching Students to Think as Analytical Chemists: The Role of the Textbook](#) David Harvey, DePauw University

8:35

(1350-2)

[Teaching Undergraduate Analytical Chemistry Curriculum: Principles Versus Fixed Content](#) Olujide T. Akinbo, Butler University, Michael Samide

9:05

(1350-3)

[Components of a Research-Supportive Undergraduate Chemistry Curriculum](#) Thomas Wenzel, Bates College

9:35

(1350-4)

[Preparation for Graduate Studies: What We Measure, What We Need](#) Alexander Scheeline, University of Illinois at Urbana-Champaign

10:05

(1350-5)

[Preparing Students for Careers in Industry - What Are We Looking For and How Can We Help Students Prepare for the Future?](#) Jeffrey R. Gilbert, Dow AgroSciences

Oral

Session 1360

Advances in Thermal Analysis (Half Session)

Wednesday Morning, Room 408

Yinfa Ma, Missouri University of Science & Technology, Presiding

8:00

(1360-1)

[Special Glovebox/Hot Cell Thermal Analysis and Thermophysical Properties Instrumentation for Nuclear](#)

[Applications](#) Jack Henderson, Netzsch Instruments North America LLC

8:20

(1360-2)

[Microscale Thermogravimetric Analysis of Carbon Nanotube Purity](#) Elisabeth Mansfield, National Institute of Standards and Technology, Aparna Kar, Stephanie Hooker

8:40

(1360-3)

[Gas Analyzer for Continuous Monitoring of Hydrogen Sulfide in Gas Streams Based on Novel Detection Scheme](#) Sayed A. Marzouk, UAE University, Mohamed Al Marzouqi

9:00

(1360-4)

[Thermal Analysis - Mass Spectrometry for Organic Profiling Applying a New Instrumental Concept Allowing Simultaneous Soft and Hard Ionization](#) Mohammad Reza Saraji-Bozorgzad, Photonion GmbH, Andreas Walte, Erwin Kaisersberger, Ralf Zimmermann, Robert Geissler, Thomas Denner, Thorsten Streibel

Oral

Session 1370

Food Science: Novel Methods and Techniques

Wednesday Morning, Room 402

Kelly Akers, Prospect Scientific, Inc., Presiding

8:00

(1370-1)

[Monitoring the Reactivity of Lipophilic Antioxidants Under Inert Conditions Using QCM Electrodes](#) Robert B. Congdon, Binghamton University, Ailing Zhou, Omowunmi Sadik

8:20

(1370-2)

[Combination of SPME as Non-invasive Sample Preparation Technique and GCxGC-TOFMS for High Resolution Metabolite Profiling in Apples](#) Sanja Risticvic, University of Waterloo, Janusz Pawliszyn

8:40

(1370-3)

[Food Process and Quality Control Using Ion Mobility Spectrometry](#) Wolfgang Vautz, Leibniz-Institute for Analytical Sciences

9:00

(1370-4)

[Application of Cantilever Enhanced Photoacoustic FTIR for Food Analysis](#) Ismo Kauppinen, Gasera Ltd., Juho Uotila, Jussi Raittila

9:35

(1370-5)

[Improving the Analysis of Fatty Acid Methyl Esters Using Automated Sample Preparation Techniques](#) Rebecca Veeneman, Agilent Technologies, William Wilson

9:55

(1370-6)

[Performance Characteristics of the Programmed Temperature Vaporization \(PTV\) Inlet](#) Neil D. Paz, New Mexico State University

10:15

(1370-7)

[Nitrogen/Protein Determination in Canned Meat by Flash Combustion](#) Liliana Krotz, Thermo Fisher Scientific, Guido Giuzzi

10:35

(1370-8)

[Study of the Deoxynivalenol and Deoxynivalenol-3-glucoside Evolution within Industrial Production of Bread and Wholemeal Crackers. Exploiting a DOE Approach Combined with the Validation of Dedicated LC-MS/MS Strategies](#) Michele Suman, Barilla SpA - Food Research Labs, Agnese Manzitti, Chiara Dall'Asta, Dante Catellani, Elena Bergamini, Gianni Galaverna

Oral

Session 1380

GC-MS Instrument Development

Wednesday Morning, Room 406

Gary L. Emmert, The University of Memphis, Presiding

8:00

(1380-1)

[Impurity Identification Using GC/MS QTOF](#) Douglas Stevens, Waters Corporation, Anthony Newton, Steven Lai

8:20

(1380-2)

[The Determination of Low-level Nitrosamines in Beer Using a GC-MS System with a Novel Micro-channel Heartcut Device](#) Andrew Tipler, PerkinElmer, Lee Marotta, William Goodman

8:40

(1380-3)

[A New Integrated Solution for TGA-GC-MS](#) Bob Fidler, NETZSCH Instruments N.A. LLC, Ekkehard Post, Erwin Kaisersberger

9:00

(1380-4)

[Progress in Inertness Performance for Mid Polarity Capillary GC Columns](#) Kenneth G. Lynam, Agilent Technologies, John Harland

9:35

(1380-5)

[A Novel Chip-based Flow Modulator for Comprehensive Two-dimensional Gas Chromatography](#) Luigi Mondello, University of Messina

9:55

(1380-6)

[Analysis of Complex Matrices by GC/MS/MS with Column Backflush: The Productivity and Economic Benefits of Different Backflush Configurations](#) Terry Sheehan, Agilent Technologies, Chinkai Meng

10:15

(1380-7)

[Challenging Applications Analysis by GC-MS with Supersonic Molecular Beams – An Alternative to LC-MS](#) Aviv Amirav, Tel Aviv University, Alexander B Fialkov, Alexander Gordin

10:35

(1380-8)

[Time of Flight Technology: The Most Powerful Tool for Supporting Fast GC and GCxGC](#) Alessandro Casilli, DANI Instruments S.p.A., Manuela Bergna

Oral

Session 1390

Homeland Security/Forensics with Mass Spectrometry (Half Session)

Wednesday Morning, Room 403

Michael E. Sigman, University of Central Florida, Presiding

8:00

(1390-1)

[An Automated Sample Preparation System Combined with SPME-GC/MS for the Differentiation of Bacillus Endospores](#) Stephen A. Lammert, Torion Technologies Inc., Anthony Rands, Cory Taylor, Douglas VanDerwerken, Edgar Lee, H Dennis Tolley, John Williams, Milton Lee, Richard Robison, Tai Truong, Y Li

8:20

(1390-2)

[Quantitative Analysis of Nerve Agent Surrogates and Drugs of Abuse Using Solid Phase Extraction \(SPE\) and Isotope Dilution Mass Spectrometry \(IDMS\) via Electrospray Ionization - Time of Flight - Mass Spectrometry \(ESI-TOF-MS\)](#) Rebecca L. Wagner, Duquesne University, HM Skip Kingston

8:40

(1390-3)

[Comparison of RAMFAC \(Rapid Multivariate Factorization\) with AMDIS \(Automated Mass Spectral Deconvolution and Identification System\) Deconvolution and Identification Algorithms for Use on a Person Portable GC-MS \(Gas Chromatograph-Mass Spectrometer\) Instr](#) Joseph L. Oliphant, Torion Technologies Inc., Chad Grant, Douglas Later, Edgar Lee, Nathan Porter

9:00

(1390-4)

[Advancing Fire Debris Analysis Through Chemometrics](#) Michael E. Sigman, University of Central Florida, Caitlin Rinke, Erin Waddell, Jennifer Lewis, Mary Williams

Oral

Session 1400

Materials Characterization Techniques for Nanoparticles and Nanodevices

Wednesday Morning, Room 405

Kellen M. Harkness, Vanderbilt University, Presiding

8:00

(1400-1)

[Surface Characterization of Monolayer-protected Gold Nanoparticles by Ion Mobility-Mass Spectrometry](#) Kellen M. Harkness, Vanderbilt University, David Cliffl, John McLean

8:20

(1400-2)

[Spectroscopic and Electrophoretic Analysis of the Temporal Stability of Cysteine Capped CdSe Nanoparticles](#) Jared S. Baker, State University of New York at Buffalo, David Watson, Jeremy Nevins, Kathleen Coughlin, Luis Colon

8:40

(1400-3)

[Three-dimensional Nanofluidic Devices formed by Electron Beam Induced Etching](#) John M. Perry, Indiana University, Stephen Jacobson, Zachary Harms

9:00

(1400-4)

[The Use of Photoacoustic NDIR Based Multi-gas Analysis in Monitoring the Carbon Nanotubes Synthesis](#) Ismo Kauppinen, Gasera Ltd., Albert Nasibulin, Alekski Helle, Arto Branders, Esko Kauppinen, Juha Fonsen, Toma Susi

9:35

(1400-5)

[Gold Nanoparticles, Aggregates and Agglomerates: Synthesis, Physico-chemical Characterization and Biological Effects](#) Katherine M. Tyner, FDA/CDER

9:55

(1400-6)

[Integrated Thermal Analysis and Related Hyphenated Techniques for the Characterization of Multi-walled Carbon Nanotubes](#) Andrew W. Salamon, PerkinElmer Corporation, Amy Zhao, E Sahle-Demessie

10:15

(1400-7)

[Monitoring Nanoparticle Stability in Biological Conditions Using Time Dependent Dynamic Light Scattering](#) Karl Sebby, National Institute of Standards and Technology

10:35

(1400-8)

[One-pot Hydrothermal Synthesis of Plasmonic Silver Nanobelts via Citrate Reduction in the Presence of HCl and Their Orientation-dependent Scattering Properties](#) Zhiqiang Yang, Clemson University, Haijun Qian, Hongyu Chen, Jeffrey Anker, KhanhVan Nguyen

Oral

Session 1410

Microfluidics/Lab-on-a-Chip

Wednesday Morning, Room 404

Kimberley Frederick, Skidmore College, Presiding

8:00

(1410-1)

[Transendothelial Electrical Resistance \(TEER\) Measurements on a Microfluidic Based Blood Brain Barrier \(BBB\) Mimic](#) Paul A. Vogel, Michigan State University

8:20

(1410-2)

[Quantitative Microdialysis Sampling of Biogenic Amines Using a Lab-on-a-Chip Device](#) David E. Scott, University of Kansas, Phil Livanec, Pradyot Nandi, Ryan Grigsby, Susan Lunte

8:40

(1410-3)

[Plate Reader Determination of a Well-based Microfluidic Device for Determination of Biological Events](#) Stephen T. Halpin, Michigan State University, Dana Spence

9:00

(1410-4)

[Monitoring Protein Oxidative Damage in Aging and Alzheimer 's Disease](#) June Feng, Louisiana Tech University, Bryant Hollins, Cheng Zhang, Hui Xia, James Spaulding, Kermit Murray, Magdalena Maracine, Siyang Wang, Steven Soper, Tak Aw

9:35

(1410-5)

[Cell Shuttling for Single Cell Measurement in a Microfluidic Chip with Embedded DEP Electrodes](#) Yuchun Chen, Simon Fraser University, Paul Li

9:55

(1410-6)

[Membrane Protein Biosensing with Plasmonic Nanopore Arrays and Pore-spanning Lipid Membranes](#) Nathan J. Wittenberg, University of Minnesota, Antoine Lesuffleur, Hyungsoon Im, Nathan Lindquist, Sang-Hyun Oh

10:15

(1410-7)

[Integrated Acoustic Cell Trapping and Polymerase Chain Reaction: A Novel Method to Detect Food-borne Pathogens](#) Brian L. Poe, University of Virginia, Björn Hammarström, James Landers, Johan Nilsson, Laurell Thomas

10:35

(1410-8)

[Comparison of Inlet Geometry in Microfluidic Cell Affinity Chromatography](#) Peng Li, Texas Tech University, Dimitri Pappas

Oral

Session 1420

New Techniques and Applications in Microscopy (Half Session)

Wednesday Morning, Room 408

Yinfa Ma, Missouri University of Science & Technology, Presiding

9:35

(1420-1)

[Direct Observation of Transient Ostwald Crystallization Ordering from Racemic Serine Solutions](#) Victoria Hall, Purdue University, Garth Simpson

9:55

(1420-2)

[Multimodal Spectral Imaging of Cells Using a Transmission Diffraction Grating on a Light Microscope](#) Dragan Isailovic, University of Toledo, Tyler Copus, Yang Xu

10:15

(1420-3)

[In-vivo Study of Size-dependent Transport and Biocompatibility of Single Silver Nanoparticles](#) Kerry J. Lee, Old Dominion University, Lauren Browning, Prakash Nallathamby, X Nancy Xu

10:35

(1420-4)

[Molecule Recognition Imaging by Frequency Shift Detection in Liquid](#) Takuya Matsumoto, Osaka University, Tomoji Kawai, Toshi Kawahara

Oral

Session 1430

Pharmaceutical - IR, NIR, Raman

Wednesday Morning, Room 407

Katherine Bakeev, The University of Western Alabama, Presiding

8:00

(1430-1)

[Mid-IR Spectroscopy and Chemometrics as a Quality Control Tool for Traditional and Herbal Medicines](#) Ben B. Perston, PerkinElmer, Chris Lynch, Dean Brown, Jian-Bo Chen, Patrick Courtney, Qun Zhou, Suqin Sun

8:20

(1430-2)

[Rapid Screening of Counterfeit Drugs Using Portable Spectrometers](#) Ravi Kalyanaraman, Bristol-Myers Squibb

8:40

(1430-3)

[Integrating Dissolution Testing into the Undergraduate Chemistry Laboratory Curriculum](#) Irene Kimaru, St John Fisher College, Fang Zhao, Kimberly Chichester

9:00

(1430-4)

[Production of Mid-and Long-wave IR Standard Spectra from Remote Laser-induced Breakdown Spectroscopy for Explosives and Pharmaceuticals](#) A Peter Snyder, DOD Dept of Army, Alan Samuels, Clayton Yang, Ei Brown, Sudhir Trivedi, Uwe Hommerich

9:35

(1430-5)

[NIR and Mid-IR Imaging of Polymorph Mixtures](#) Richard Spragg, PerkinElmer LAS, Dean Brown, Jerry Sellors

9:55

(1430-6)

[Pharmaceutical Analysis from Start to Finish by Raman Spectroscopy](#) Michael Donahue, Real-Time Analyzers, Inc.

10:15

(1430-7)

[Interaction of Hyperspectral Pixel Size and Optical Characteristics of Pharmaceutical Samples](#) Gabor J. Kemeny, Middleton Research, Gina Stuessy

10:35

(1430-8)

[Sizing Standard Development for Raman Chemical Imaging](#) Ryan Priore, ChemImage Corporation, Michael Fuhrman, Oksana Klueva, Oksana Olkhovyk

POSTER SESSION

Session 1440

Capillary Electrophoresis Applications

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1440-1 P)

[Selection of Aptamers for Small Molecules Using Quantum Dots and Capillary Electrophoresis](#) Jeff Guthrie, Eastern Michigan University

(1440-2 P)

[Analysis of Haloacetic Acids in Drinking Water Using Liquid-Liquid Microextraction and Capillary Electrophoresis](#) Jill P. Williamson, University of Memphis, Gary Emmert, Paul Simone

(1440-3 P)

[Analysis of Methotrexate and Its Eight Metabolites in Cerebrospinal Fluid by Solid-phase Extraction and Triple-stacking Capillary Electrophoresis](#) Shou-Mei Wu, Kaohsiung Medical University

(1440-4 P)

[Efficiency of Milk Species Identification by Capillary Electrophoresis, FPLC and SDS-PAGE](#) Abd El-Moneim Afify, Cairo University

(1440-5 P)

[On-line Biomolecule Characterization Using Phospholipid Additives for Capillary Electrophoresis](#) Stephanie A. Archer-Hartmann, West Virginia University, Lisa Holland

(1440-6 P)

[Cleavable Tag Immunoassay by Poly \(EthyleneTerephthalate\)-Toner Microfluidic Devices](#) Doo Soo Chung, Seoul National University, Ah Rahn Kim, Joo Yeon Kim, Kihwan Choi, Seo Bong Chang

(1440-7 P)

[Development of Microfluidic Based Devices for Stability and Integrity Testing of Biopharmaceuticals in Developing Countries](#) Jessica S. Creamer, University of Kansas, Susan Lunte

(1440-8 P)

[Capillary Electrophoresis with Polyelectrolyte Multilayers for Chiral Separations](#) Christa A. Currie, College of Mount St Joseph, Christine Woods, Mara Faillace

(1440-9 P)

[Capillary Electrophoresis of Glycoproteins Using a Polyamine Containing Electrolyte](#) Neil D. Danielson, Miami University, Thomas Loegel

(1440-10 P)

[Separation and Detection of Oligosaccharide to Characterize Enzymatic Digestion Using Capillary Electrophoresis Mass Spectrometry](#) Ted Langan, West Virginia University, Lisa Holland

(1440-11 P)

[Application of Aptazyme Cleavage to Detect Small Biomolecules with Capillary Gel Electrophoresis and Laser-induced Fluorescence](#) Lydia H. Manger, Kalamazoo College, Eric Parker, Jennifer Furchak

(1440-12 P)

[Effect of Surfactant Headgroup Structure on Enantioselectivity of Amino Acid Based Chiral Surfactants in Capillary Electrophoresis](#) Ashok Mohanty, National Metallurgical Laboratory, Jayant Sircar, Kalyan Gupta, Sanchita Chakravarty

(1440-13 P)

[Using Capillary Electrophoresis as an Alternative Assay for Total Antioxidant Capacity \(TAC\)](#) William N. Napoli, Bucknell University, Timothy Strein

(1440-14 P)

[Analyzing Methylated Arginines Using Capillary Electrophoresis and Laser Induced Fluorescence Detection](#) Christa Snyder, Wittenberg University, Susan Lunte, Thomas Linz

(1440-15 P)

[Determination of a Panel of Neurotransmitters in Human Urine Using Capillary Electrophoresis with UV/VIS Detection](#) David J. Weiss, University of Colorado at Colorado Springs, Andrew Subudhi, Cara Beat, Jordan Snell, Kyle Culhane, Lynn Riester, Mimi Shin, Pengxin Liu, Randy Robinson, Sarah Gehrke

(1440-16 P)

[Chiral Capillary Electrophoretic Separation of Tetrahydroisoquinoline-derived Neurotoxins](#) Hao Wu, Jackson State University, Yiming Liu

(1440-17 P)

[Capillary Electrophoresis Sieving of DNA Using Phospholipid Additives](#) Brandon C. Durney, West Virginia University

POSTER SESSION

Session 1450

High Throughput Chemical Analysis

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1450-1 P)

[Reducing Extra-column Effects in HPLC for Microbore Applications](#) Rich LaPolla, IDEX Health & Science LLC, Geoff Todosiev, Jaime Martain

(1450-2 P)

[Analysis of Amines Using Post-column Derivatization by Ultra High Performance Liquid Chromatography](#) Satoe Iijima, JASCO Corporation, David Tognarelli, Masao Bounoshita, Muneo Saito, Toshihiko Miyaji, Yasuyo Sato

(1450-3 P)

[High Resolution Separations Using Fused-core Columns with Non-C18 Bonded Phases](#) Stephanie A. Schuster, Advanced Materials Technology, Joseph DeStefano, Timothy Langlois, William Johnson

(1450-4 P)

[The Application of UHPLC to Reduce Sample Analyses Times](#) William Hedgepeth, Shimadzu, Masatoshi Takahashi

(1450-5 P)

[A Handheld Microfluidic Sample Chopper for Phase Sensitive Detection](#) Kennon S. Deal, Auburn University

(1450-7 P)

[Capillary Ion Chromatography Applications with Monolith Concentrators](#) John E. Madden, Dionex Corporation, Christopher Pohl, Kannan Srinivasan, Navette Shirakawa

(1450-8 P)

[High Throughput Trace Analysis Using SERS-Active Microplates](#) Stuart Farquharson, Real-Time Analyzers, Inc.

(1450-9 P)

[Determination of Vinorelbine with Hydrophilic Interaction High Performance Liquid Chromatography \(HILIC\)](#) Anna Zhang, Tianjin Bonna-Agela Technologies Co., Ltd.

(1450-10 P)

[Determination of Bicalutamide with High Performance Liquid Chromatography](#) Anna Zhang, Tianjin Bonna-Agela Technologies Co., Ltd.

(1450-11 P)

[The Effects of Plate Type on the Prevalence of Cross-well Contamination While Using Automated Solid Phase Extraction Instruments](#) Lucas Marshall, Aegis Sciences Corporation, Chantel Bender, David Black, Dennis Crouch, Gemma Campbell, Rebecca Heltsley, Tim Robert, Viola Meadors

(1450-12 P)

[Novel Approach to Compound Management of Active Pharmaceutical Ingredients](#) Christopher Crafts, ESA - A Dionex Company, Bruce Bailey, Ian Acworth, Marc Plante

(1450-13 P)

[Scalability of Columns across HPLC and UHPLC Instruments](#) John W. Henderson Jr, Agilent Technologies, Anne Mack, Maureen Joseph, William Long

(1450-14 P)

[An Advanced Base Deactivated Capillary Column for the Analysis of Volatile Amines Ammonia and Alcohols](#) Jaap de Zeeuw, Restek Corporation, Gary Stidsen, Jack Cochran, Jason Thomas, Neil Mosesman, Richard Morehead

(1450-15 P)

[High Throughput Determination of Individual Liposome Content for Drug Delivery](#) Michael Heien, University of Arizona

(1450-16 P)

[The Comparison of Methods of Protein Precipitation, SLE and MAS to Treat Dexamethasone in Plasma](#) Yong Han, Tianjin Bona Agela Technologies Co., Ltd

(1450-17 P)

[High Throughput Screening and Rapid Sample Cleanup based on Segmented-flow Nano-ESI Mass Spectrometry](#) Shuwen Sun, University of Michigan

(1450-18 P)

[Fast Mass Spectrometry Analysis with Supersonic Molecular Beams – Combining Fast Sampling and Ultra Fast GC-MS](#) Alexander Gordin, Tel Aviv University, Alexander B Fialkov, Aviv Amirav, Mati Morag

(1450-19 P)

[The Extraction Recovery of Urine After Collection From Disposable Diapers and Other Absorbent Materials](#) Xiaoliu Zhou, Centers for Disease Control and Prevention, Amber Bishop, Antonia Calafat, Larry Needham, Xiaolyun Ye

POSTER SESSION

Session 1460

Liquid Chromatography/Mass Spectroscopy - Instrumentation and Applications to Peptide and Protein

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1460-1 P)

[The Advantages of a Single Quadropole Mass Spectrometer in Method Development for UV implementation](#) Sue D'Antonio, Agilent Technologies, Andre Szczesniewski, Lynne Marshall

(1460-2 P)

[Comparison of a dc-GD Source to an rf-GD Source for a LC-PB/GDMS System](#) C Derrick Quarles, Clemson University, Carolyn Quarles, R Kenneth Marcus

(1460-3 P)

[SFC/MS and LC/MS Analysis of Bio-Diesel Fuels](#) Stacy M. Tremintin, AB SCIEX, Anna Marques, Debora Santos, Takeo Sakuma

(1460-4 P)

[Use of Single Quad Mass Spectrometry in Method Development](#) Sue D'Antonio, Agilent Technologies, Lynne Marshall

(1460-5 P)

[Comprehensive LC of Real Complex Samples](#) Luigi Mondello, University of Messina, Paola Donato, Paola Dugo

(1460-6 P)

[Multidimensional Separations for Differential Proteomic Analysis of a Beta-arrestin 1,2 Double](#)

[Knockout](#) Kaitlin M. Fague, University of North Carolina at Chapel Hill, Brenna Richardson, James Jorgenson, Jordan Stobaugh

(1460-7 P)

[Nonenzymatic Glycation of Guanosine 5'-triphosphate \(GTP\) by Methyl Glyoxal and Glucosamine: An In-vitro Study of AGE Formation](#) L S. Lasker, University of Rhode Island, Joel Dain, Menashi Cohenford, Puneet Gupta

(1460-8 P)

[Separation of Phospho- and Glyco- peptides Using Capillary Porous Graphitic Carbon for the Proteomic Study of Oncology Patients](#) Luisa Pereira, Thermo Fisher Scientific, Duncan Smith, John Griffiths, Valeria Barattini

(1460-9 P)

[Two-dimensional SEC/RP Capillary LC for Top-down Proteomics Analysis](#) Evert-Jan Sneekes, Dionex, Marco Karsten, Remco Swart, Wim Decrop

(1460-10 P)

[Comparison of Reversed Phase Nano LC Workflows Applicable for Routine Proteomics Analysis](#) Evert-Jan Sneekes, Dionex, Marco Karsten, Remco Swart, Wim Decrop

POSTER SESSION

Session 1470

Microfluidics/Lab-on-a-Chip

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1470-1 P)

[Optimization of an Electrically Actuated Inkjet Based Cyanide Detection System](#) Stuart J. Chalk, University of North Florida, Christopher Long, Jarrod Mousa

(1470-2 P)

[Microfluidic Inverse Phase ELISA via Manipulation of Magnetic Beads](#) Hong Chen, University of Rhode Island, Assem Abolmatty, Mohammad Faghri

(1470-3 P)

[A Microfluidic Device for the Automated Preparation of Free Fatty Acids](#) Cindy T. Duong, Florida State University, Michael Roper

(1470-4 P)

[Push-pull Microdialysis Coupled with Capillary Electrophoresis for In-vivo Monitoring Amino Acid Neurotransmitters](#) Maojun Gong, University of Michigan, Robert Kennedy

(1470-5 P)

[Microfluidic Interface of Liquid Surfaces to Vacuum-based Analyses \(TOF-SIMS\)](#) James P. Cowin, Pacific Northwest National Laboratory, Li Yang, Martin Ledema, Zewah Zhu

(1470-6 P)

[Cell-affinity Based Microfluidic Devices for Cancer Cell Metastasis Study](#) Yan Liu, Texas Tech University, Dimitri Pappas

(1470-7 P)

[A Microscale Method for the Visual and Label-Free Quantitation of DNA: Bacterial Detection, Nucleated Cell Counting and More](#) Jingyi Li, University of Virginia, Daniel Leslie, Doris Haverstick, James Landers, Nicolas Barker

(1470-8 P)

[Motility Assays of *Caulobacter Crescentus* in Microfluidic Devices](#) Andrew S. Wilkens, Indiana University, David Klysela, Pamela Brown, Stephen Jacobson, Yves Brun

(1470-9 P)

[Microfluidic Proteolytic Digestion in Porous Monolithic Column with Electro-osmotic Pumping](#) Eric Chen, Hofstra University, Kevin Liaw, Ling Huang, Marvin Go

(1470-10 P)

[The Miniaturized Microflow Cytometer: Challenges, Trade-Offs and Traps](#) Peter B. Howell, NRL

(1470-11 P)

[Agarose Droplet Microfluidics for Highly Parallel Single Molecule and Single Cell Analysis](#) Xuefei Leng, Xiamen University, Chaoyong Yang, Longjiao Yu, Wenhua Zhang, Zhichao Guan

(1470-12 P)

[Rehydratable Gel for Upholding Nanoliter Solutions and Its Application in Protein Crystallization](#) Yuefang Li, The Chinese University of Hong Kong, Bo Zheng

(1470-13 P)

[Multiplexed DNA Extractions and Infrared Temperature Controlled Polymerase Chain Reactions in Disposable Polyester-toner Chips](#) Yiwen Ouyang, University of Virginia, Brian Poe, James Landers

(1470-14 P)

[Fluorescence Detection of NDA Derivatized Primary Fatty Amines in Microdroplets](#) Sean C. Pawlowski, Duquesne University, David Gallaher, Mitchell Johnson

(1470-15 P)

[Lab-on-a-chip Sensing Device to Assess DNA Damage at Single Cell Level](#) Pratikkumar Shah, Florida International University, Chenzhong Li, Shradha Prabhulkar

(1470-16 P)

[Lab-on-a-chip for Detection of Triglycerides based on a Replaceable Enzyme Carrier](#) Jing-Juan Xu, Nanjing University

(1470-17 P)

[Flexible Microfluidic System for Integrated Purification and Detection of Small RNA from Cell Lysates](#) Runtao Zhong, University of California, Riverside, Ni Li, Wenwan Zhong

(1470-19 P)

[Polymer Chip for Amperometric Detection of Neurotransmitter Release from Single Cells](#) Rafael Taboryski, DTU Technical University of Denmark, Simon Tylsgaard Larsen, Simone Tanzi

(1470-20 P)

[Microfluidic Chip with Integrated Conducting Polymer Electrodes for Electroporation of Biological Cells](#) Rafael Taboryski, DTU Technical University of Denmark, Kristian Andresen

(1470-21 P)

[Sensitive Colorimetric Immunoassay on Paper-based Microdevices Using Antibody-gold Nanoparticle Conjugate and Silver Amplification](#) Xiujun Li, Harvard University, Amy Goodale, Chao-min Cheng, George Whitesides, Xinyu Liu, Zhihong Nie

(1470-23 P)

[Optically Coded Functional Microbeads for Smart Fabrication of Cell Array Chips](#) Man Bock Gu, Korea University, Jihoon Kim, Joomyung Ahn, Joong Hyun Kim

(1470-24 P)

[Sample Preparation Microfluidic Cartridge for On-line Adjustment of Osmolarity in Miniaturized Cell-based Analysis Systems](#) Sara Talaei, EPFL-IMT-SAMLAB, Nico de Rooij, Peter van der Wal

(1470-25 P)

[Ion Transport Properties of Nanofluidic Channels under Alternating Electric Fields](#) Brett W. Hildenbrand, Indiana University, Stephen Jacobson

(1470-26 P)

[Effect of AC Frequency on Extraction Kinetics of Drop-to-drop Microextraction on a Digital Microfluidic Device](#) Pavithra Wijethunga, The University of Texas at Arlington, Daniel Armstrong, Hyejin Moon, Yasith Nanayakkara

(1470-27 P)

[Developing a Microfluidic Platform for the Study of Neuronal Regeneration of *Aplysia Californica*](#) Chang Young Lee, University of Illinois at Urbana-Champaign, Jonathan Sweedler, Ming Zhong

(1470-28 P)

[Integrated Microfluidic System Containing Two Dimensional Separation and MS Identification for Proteomics Analysis](#) Yu Liang, Dalian Institute of Chemical Physics, Lihua Zhang, Yukui Zhang, Zhen Liang, Zhongpeng Dai, Zuo Cheng Liang

(1470-29 P)

[High Throughput Active Lithography with Anisotropic Etched Structures](#) Pradeep Ramiah Rajasekaran, Southern Illinois University, Chuanhong Zhou, Eddie Umana, Kexin Jiao, Punit Kohli

(1470-30 P)

[Label-free Quantitation of Peptide Release from Neurons Using Microfluidic Devices and Mass Spectrometry](#) Zhong Ming, University of Illinois at Urbana-Champaign, Jonathan Sweedler

(1470-31 P)

[A Truly Three Dimensional Fabrication Technique of Microfluidics](#) Zhaoyang Huang, Jacksonville University

POSTER SESSION

Session 1480

Nanomaterials: Synthesis, Characterization, and Applications

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1480-1 P)

[Highly Stable Mesoporous Silica Nanoparticles for Drug Delivery Applications](#) Nardine Abadeer, University of Minnesota Twin Cities, Christy Haynes, Yu-Shen Lin

(1480-2 P)

[Studies of Physical and Biological Interfaces with Scanning Ion Conductance Microscopy \(SICM\)](#) Yi Zhou, Indiana University-Bloomington, Chiao-Chen Chen, Lane Baker

(1480-3 P)

[Self-assembly of Carbon Nanotubes and Gold Nanoparticles for Label Free Localized Surface Plasmon Resonance \(LSPR\) Based Biosensing](#) Tony J. Gnanaprakasa, Auburn University, Aleksandr Simonian

(1480-4 P)

[TERS and DFT of 4''-trimethylsilylethylsulfanyl-4,4'-di\(phenyleneethynylene\) Benzene Thiol Adsorbed on Silver](#) Charles Hosten, Howard University, Melissa Fletcher, Orest Glembocki, Sharka Prokes

(1480-5 P)

[A Study of Nano Size Standard Material Validation by the Photon Correlation Spectroscopy \(PCS\) Method](#) Tatsuo Igushi, Horiba, Kazuto Sakai, Tanaka Satoru, Tetsuji Yamaguchi

(1480-6 P)

[Near-infrared Light-responsive Core-Shell Nanogel for Targeted Drug Delivery](#) Huaizhi Kang, Xiamen University, Weihong Tan, Yu-Fen Huang

(1480-7 P)

[Influence of Localized Electromagnetic Field Strength to the Surface Enhancements in Raman and Infrared Measurements Probed by Molecules Differing in Molecular Length](#) Yen-Chen Liou, National Chung-Hsing University, Jyisy Yang

(1480-8 P)

[Design and Synthesis of CdSe Quantum Dots for Biological Applications](#) Maria L. McAtee, University of Toledo, Jon Kirchhoff, Kristi Cook, Liyanaaratchige Tillekeratne

(1480-9 P)

[CD Modified Monodisperse Gold Nanoparticles for Chiral Separations in Capillary Electrophoresis](#) Kristi Mock, University of Toledo, Jon Kirchhoff, Liyanaaratchige Tillekeratne, Santosh Kumar, Shontell Wright, Terry Bigioni

(1480-10 P)

[Optimization of the Synthesis of Amine-modified Silica Nanoparticles as a Platform for Fluorescent Nanosensors](#) John M. Provenza, Louisiana State University, Shreveport, Kui Chen, Laura McCormick

(1480-11 P)

[Novel Synthesis of Conducting Polymers](#) Arunas Ramanavicius, Vilnius University, Aida Vaitkuviene, Almira Ramanaviciene, Viktor Mazeiko, Vilma Ratautaite, Yasemin Oztekin

(1480-13 P)

[Study of Possibility for Low Volume Cell for Zeta Potential and Size Distribution of Submicron Particles](#) Satoru Tanaka, Horiba, Guillaume Revillod, Makoto Nagura, Shigemi Tochino, Tatsuo Igushi, Tetsuji Yamaguchi

(1480-14 P)

[Carbon Nanotubes-Perylene-Quantum Dot Nanocomposites as an Active Layer in a Hybrid Bulk Heterojunction Solar Cell](#) Joseph E. Weaver, Southern Illinois University, Mallika Dasari, Punit Kohli

(1480-16 P)

[Carbon Nanotube Templated Fabrication of High Strength Microsieves](#) Andrew L. Davis, Brigham Young University, Richard Vanfleet, Robert Davis

(1480-17 P)

[Synthesis and Characterization of ZnS/ZnO Semiconductor Nanoparticles](#) Daniel Hall, Central Washington University

(1480-18 P)

[Micro-laser Generated by Nonlinear Optical Crystal Grown in the Micro-pens](#) Kexin Jiao, Southern Illinois University at Carbondale, Chuanhong Zhou, Pradeep Ramiah Rajasekaran, Punit Kohli

(1480-19 P)

[Self-assembly of a Bifunctional DNA Nano-carrier](#) Wang Kelong, University of Florida, Guizhi Zhu, Jin Huang, Mingxu You, Weihong Tan

(1480-20 P)

[Controlling Localized Surface Plasmon Resonance Wavelengths via Physically Deforming Gold and Silver Nanoparticles](#) Venkata Shilpa Varahagiri, Clemson University, Hongyu Chen, Jeffrey Anker, Marian Kennedy, Zhiqiang Yang

(1480-21 P)

[Fractionation of Luminescent Carbon Nanoparticles by Ion-exchange Chromatography](#) John C. Vinci, State University of New York at Buffalo, Luis Colon

POSTER SESSION

Session 1490

Novel Fuels, Energy and Petrochemical Research

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1490-1 P)

[On-line Determination of Mercury in Sour Natural Gas Streams](#) Matthew A. Dexter, P S Analytical, C Anthony

Rogers, Peter Stockwell, Warren Corns

(1490-2 P)

[Studies of Zirconia and Hafnia Monolithic Structures Used for the Electrokinetic Pumping of Methanol](#) Ivonne M. Ferrer Lassala, State University of New York at Buffalo, Luis Colon

(1490-3 P)

[Surface Modification of n-TiO₂ and Carbon Modified \(CM\) n-TiO₂ Electrodes to Enhance the Photoelectrocatalysis of Oxygen Evolution](#) Mourad Frites, Duquesne University, Khan Shahed

(1490-4 P)

[Using Direct Mercury Analysis for Real Time Characterization of Cement Kiln Feed Materials](#) Johan Nortje, Milestone, Inc.

(1490-5 P)

[Rapid Response, Nanostructured, Microcantilever Sensor for Hydrogen Detection](#) James Patton, University of Tennessee Knoxville, Barton Smith, Michael Sepaniak, Nickolay Lavrik, Panos Datskos, Scott Hunter

(1490-6 P)

[Thermal Analysis Techniques for Studying Li-ion Cells and Materials of Construction](#) Peter J. Ralbovsky, NETZSCH Instruments NA, LLC

(1490-7 P)

[Catalytic Electroreduction of CO₂ by \[Rh\(bpc\)₂\]\[PF₆\]](#) Anthony M. Rizzuto, Elon University, Karl Sienerth

(1490-8 P)

[Oxygen Reduction Reaction on Size and Shape Controlled Platinum Nanocubes](#) Yongan Tang, Miami University, Shouzhong Zou

(1490-9 P)

[Investigation of Gas Flow in Nanochannels and Polymer Effect on the Gas Flow Using Single Molecule Imaging System](#) Cheng Xiaoliang, Missouri University of Science and Technology, Baojun Bai, Qihua Wu, Yinfa Ma

(1490-10 P)

[Enhancement of Photoresponse DNA Nanomotor Conversion Efficiency by Silver Nanoparticle Antennas](#) Quan Yuan, University of Florida, Ruowen Wang, Weihong Tan, Yunfei Zhang

(1490-11 P)

[Bioethanol Production of Sweet Potato by Co-immobilization of Saccharolytic Mold and Yeast](#) Shang-Shyng Yang, China University of Science and Technology, Wen-Shiang Lee

(1490-12 P)

[Multivariate Optimization of the Determination of Zinc in Diesel Oil Employing a Novel Extraction Strategy Based on the Emulsion Breaking](#) Ricardo J. Cassella, Universidade Federal Fluminense, Carlos Eduardo de Paula, Daniel Brum, Lima Claudio, Luiz Fernando Caldas

POSTER SESSION

Session 1500

Oil Spill Posters

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1500-2 P)

[Trace Amount Analysis of Dispersants in Water Matrices by Liquid Chromatography-Tandem Mass Spectrometry](#) Buu N. Tran, Wadsworth Center, New York State Department of Health, Kenneth Aldous, Richard Okoniewski, Robert Jansing

(1500-3 P)

[High Throughput Method for the Determination of PAHs in Seafood by QuEChERS-SBSE-GC-MS](#) Edward A. Pfannkoch, Gerstel, Inc., Jacqueline Whitecavage, Jeffery Moran, John Stuff

(1500-4 P)

[Detection of Environmental Contaminants Caused by the Oil Spill in the Gulf of Mexico by GC/MS and HPLC](#) Sky Countryman, Phenomenex, Jeff Layne, Kory Kelly, Zeshan Aqeel

(1500-5 P)

[PAH Analysis in Fish by GC/MS Using OuEHChERS/dSPE Sample Preparation](#) Kenneth G. Lynam, Agilent Technologies, Joan Stevens

(1500-6 P)

[Fast Screening for PolyAromatic Hydrocarbons in Seafood Using Quechers Sample Preparation with LC-Fluorescence](#) Jennifer A. Burgess, Waters, Joseph Romano, Mark Benvenuti

(1500-7 P)

[Photooxidation Products of Petroleum and Its Components](#) Jan T. Andersson, University of Münster, Eiman Fathalla, Stefan Bobinger

(1500-8 P)

[OuEChERS Extraction Methodology Implemented in the Extraction and Determination of PAHs in Shellfish and Finfish from the Gulf Oil Crisis](#) Joan M. Stevens, Agilent Technologies, Michael Szelewski

(1500-10 P)

[New Applications of Heart-cut Multidimensional GC](#) Richard Whitney, Shimadzu Scientific Instruments, C Mark Taylor, Zhuangzhi 'Max' Wang

(1500-11 P)

[Dynamic Headspace Determination of Volatile Organic Compounds in a Tar Ball from the Gulf of Mexico](#) Laura Chambers, OI Analytical, Gary Engelhart, Hank Hahn

(1500-12 P)

[Optimizing the Determination of Extractable Petroleum Hydrocarbons \(EPH\) by SPE-1 Automated Processing Station](#) Qihui Ni, Bonna-Agela Technologies Inc

(1500-13 P)

[Stable Carbon Isotope Fingerprinting of Raw and Weathered Petroleum Using an Isotopic Total Organic Carbon Analyzer](#) James G. Slaton, OI Analytical, Elizabeth Badgett, Gary Engelhart

(1500-14 P)

[Analysis of Fish and Shellfish from the Gulf of Mexico by Gas Chromatography-Time of Flight Mass Spectrometry \(GC-TOF MS\) and Comprehensive Two-dimensional Gas Chromatography \(GCxGC\)-TOF MS](#)

[Using QuEChERS Extraction Approach](#) Doug Staples, LECO Corporation, Joe Binkley, John Heim

(1500-15 P)

[BP Gulf Oil Spill: Analysis of BTEX in Mississippi Canyon 252 Crude Oil Using Purge-and-Trap GC-MS with a Unique Cyanopropylphenyl Stationary Phase](#) Jack Cochran, Restek Corporation, Chris English, Gary Stidsen, Jaap de Zeeuw, Michelle Misselwitz, Neil Mosesman, Roy Lautamo

(1500-16 P)

[The Detection of Oil and Grease in Seawater by EPA Method 1664A](#) David P. Gallagher, Horizon Technology, Inc., Michael Ebitson

(1500-17 P)

[The Effect of Seawater on the Automated Solid Phase Extraction of Diesel and Oil Range Organics for EPA Method 8015B](#) David P. Gallagher, Horizon Technology, Inc., Michael Ebitson

(1500-18 P)

[Early Monitoring for Hydrocarbons in the Lake Pontchartrain Basin Following the BP/Deepwater Horizon Oil Spill](#) Phillip Voegel, Southeastern Louisiana University, Caitlyn Guice

CONFEREE NETWORKING

Wednesday, March 16, 2011

8:30 AM

How Can Advanced Analytical Technology be Used for Forensic Intelligence Operations? Facilitated by: Kevin Lothridge, National Forensic Science Technology Center, Room 216

Quantitative Analysis by Laser Ablation (LIBS, LA-ICP-MS or OES) Facilitated by: Greg Klunder, Lawrence Livermore National Laboratory, Room 217

Biofuels - What Do We Need to Know To Effectively Use, Store and Transport Them Facilitated by: Michael Cheng, Chevron Energy and Technology Company, Room 215

UPLC Current Trends and Directions in the Workplace Facilitated by: Mary Ellen McNally, Dupont, Room 218

Wednesday Afternoon, March 16, 2011

Award

Session 1510

Ralph N Adams Award - arranged by Robert M. Wightman, University of North Carolina

Wednesday Afternoon, Room 312

Robert M. Wightman, University of North Carolina, Presiding

2:10

(1510-1)

[LC-LC-MS for the Analysis of Complex Mixtures of Proteins](#) James W. Jorgenson, University of North Carolina, Brenna Richardson, Jordan Stobaugh, Kaitlin Fague

2:45

(1510-2)

[Glycoscience: Endless Inspiration for New Separations and Measurements](#) Milos V. Novotny, Indiana University

3:20

(1510-3)

[Microfabricated Chemical Instrumentation: Microsystems for Acquiring Chemical and Biochemical Information](#) J Michael Ramsey, University of North Carolina

4:10

(1510-4)

[Pushing Limits: Small-Scale Chemical Analysis of Attoliter Transmitter Vesicles](#) Andrew Ewing, University of Gothenburg

4:45

(1510-5)

[Segmented Flow Microfluidics for Method Interfacing at the Microscale](#) Robert Kennedy, University of Michigan

Award

Session 1520

Williams-Wright Award - arranged by Brian C. Smith, Spectros Associates

Wednesday Afternoon, Room 314

Brian C. Smith, Spectros Associates, Presiding

2:10

(1520-1)

[Volume Fractions in Chemometric Calibration](#) Howard Mark, Mark Electronics, David Heaps, Donald Dahm, Kevin Dahm, Paul Gemperline, Ronald Rubinovitz

2:40

(1520-2)

[Solution of the Inverse Problem in Diffuse Reflection](#) Donald J. Dahm, Rowan University

3:10

(1520-3)

[Thermo-kinetic Models of Near-infrared Spectra from Time-evolving Systems](#) Paul J. Gemperline, East Carolina University

3:40

(1520-4)

[Using Multiplicative Scatter Correction Effectively](#) David W. Hopkins, NIR Consultant

4:10

(1520-5)

[Direct vs. Indirect Validation of Empirical Calibrations](#) Richard Kramer, Applied Chemometrics, Inc.

4:40

(1520-6)

[Traps and Pitfalls when Applying Chemometrics to Biomedical Problems](#) Jerry Workman, Liberty University

Symposia

Session 1530

ACS Subdivision of Separation Science: Quality by Design in HPLC: The Balance Between Chromatography and Chemometrics - arranged by Brian Bidlingmeyer, Agilent Technologies, Inc.

Wednesday Afternoon, Room 311

Brian Bidlingmeyer, Agilent Technologies, Inc., Presiding

2:05

(1530-1)

[Practical Chemometrics for HPLC Optimization and Understanding](#) Loren Wrisley, Pfizer

2:40

(1530-2)

[Chemometrics, Automation, and Quality by Design](#) Mike McBrien, Advanced Chemistry Development

3:15

(1530-3)

[Quality by Design: Selectivity Exploration of HPLC Separations](#) Imre L. Molnar, Molnar-Institute, Hans Rieger

3:50

(1530-4)

[Quality by Design in HPLC: The Balance Between Chromatography and Chemometrics](#) Moheb Nasr, FDA/CDER/ONDQA

4:25

(1530-5)

[HPLC Method Development with an Eye on Quality by Design](#) John W. Dolan, LC Resources

Symposia

Session 1540

Current Status and Trends in Characterization of Protein Therapeutics by Mass Spectrometry: Recent Advances and Applications - arranged by Guodong Chen, Bristol-Myers Squibb Company

Wednesday Afternoon, Room 406

Guodong Chen, Bristol-Myers Squibb Company, Presiding

2:05

(1540-1)

[Applying Ion Mobility-Mass Spectrometry to Structural Characterization of Therapeutic Proteins](#) Weibin Chen, Waters Corporation, Asish Chakraborty

2:40

(1540-2)

[Advances in Quantitative Analysis of Protein Therapeutics Using Mass Spectrometry](#) Guodong Chen, Bristol-Myers Squibb

3:15

(1540-3)

[Characterization of Molecular Variants in Protein Therapeutics by Mass Spectrometry](#) Li Tao, Bristol-Myers Squibb, Reb Russell

3:50

(1540-4)

[Advancement of Analytical and Computational Tools for Analysis of Highly Modified Proteins](#) Benjamin A. Garcia, Princeton University

4:25

(1540-5)

[Mass Spectrometry Methods to Analyze Higher Order Structure of Protein Therapeutics](#) Lisa M. Jones, Washington University, James Carroll, Justin Sperry, Michael Gross

Symposia

Session 1550

Development of Instrumentation and Chemometry in Brazil - arranged by Alexandre Brown, NurnbergMesse Brasil

Wednesday Afternoon, Room 315

Alexandre Brown, NurnbergMesse Brasil, Presiding

2:05

(1550-1)

[Recent Progress in Science and Technology in Brazil](#) Jailson B. De Andrade, UFBA

2:40

(1550-2)

[Recent Developments in Laser Induced Breakdown Spectrometry \(LIBS\): A Case Study Aiming at Plant Nutrition Diagnosis](#) Francisco J. Krug, University of São Paulo, Dário Santos Júnior

3:15

(1550-3)

[Use of Raman Imaging and Chemometrics for the Study of Pharmaceutical Formulations of Semi-solid and Pellets](#) Ronei J. Poppi, UNICAMP, Andre de Souza, Marcia Breitzkreitz

3:50

(1550-4)

[Near Infrared in the Sugar Cane Industry](#) Wokimar T. Garcia, CTC - Brazil

4:25

(1550-5)

[Multiple Criteria Decision Making for Chromatographic and Electrophoretic Separations](#) Roy E. Bruns, Universidade Estadual de Campinas

Symposia

Session 1560

Ion Mobility-Mass Spectrometry Applied to Frontier Challenges in Chemical Biology - arranged by Brandon T. Ruotolo, University of Michigan

Wednesday Afternoon, Room 310

Brandon T. Ruotolo, University of Michigan, Presiding

2:05

(1560-1)

[From Solution to the Gas Phase: An Issue for Application of Mass Spectrometry to Structural](#)

[Biology](#) Thomas Wyttenbach, University of California Santa Barbara, Michael Bowers

2:40

(1560-2)

[Developing Multidimensional Ion Mobility Techniques for the Analysis of Complex Mixtures](#) David E. Clemmer, Indiana University, Nick Pierson, Stephen Valentine

3:15

(1560-3)

[Accelerating Natural Product Discovery with Structural Mass Spectrometry](#) John A. McLean, Vanderbilt University, Brian Bachmann, Cody Goodwin, Dagmara Derewacz, Larissa Fenn, Nichole Lareau, Ruth McNeese

3:50

(1560-4)

[Characterizing Protein-ligand Interactions by Ion Mobility and Mass Spectrometry](#) Joseph Loo, University of California, Los Angeles

4:25

(1560-5)

[Development of Ion Mobility-Mass Spectrometry as a High-throughput Approach for Structural Genomics](#) Brandon T. Ruotolo, University of Michigan, Linjie Han, Russell Bornschein, Suk-Joon Hyung, Yueyang Zhong

Symposia

Session 1570

Nano and Microfluidic Systems in Bioanalysis - arranged by Susan M. Lunte, University of Kansas

Wednesday Afternoon, Room 309

Susan M. Lunte, University of Kansas, Presiding

2:05

(1570-1)

[Metals in Microfluidics - Coupling Plasmonics, Electron Transfer and Nanofluidics in an Integrated Microfluidic Structure](#) Paul W. Bohn, University of Notre Dame, Nicholas Contento, Sean Branagan

2:40

(1570-2)

[Point-of-care System for Automated Genotyping: Monitoring Infectious Diseases](#) Steven A. Soper, Louisiana State University

3:15

(1570-3)

[Single-cell Analysis on Microdevices](#) Nancy Allbritton, University of North Carolina

3:50

(1570-4)

[Development of Microchip Based Methodology for the Detection of Substances Related to Nitric Oxide Generation and Metabolism](#) Susan M. Lunte, University of Kansas

4:25

(1570-5)

[Microfluidics 2.0: 2-Dimensional Paper Networks for POC Diagnostics in the Developed and Developing Worlds](#) Paul Yager, University of Washington

Symposia

Session 1580

Novel Molecular Spectrometric Methods for Environmental Quality Survey (International Association of Environmental Analytical Chemistry) - arranged by Antje Baeumner, Cornell University

Wednesday Afternoon, Room 308

Antje Baeumner, Cornell University, Presiding

2:05

(1580-1)

[Atmospheric Aerosol Characterization: Possibilities and Limits of Off-line and On-line Mass Spectrometric Techniques](#) Thorsten Hoffmann, Johannes Gutenberg Universität Mainz

2:40

(1580-2)

[Novel Mass Spectrometry Methods for Uncovering New Drinking Water Disinfection By-products](#) Susan Richardson, U.S. EPA

3:15

(1580-3)

[Ambient Mass Spectrometry Ionization Sources based on Electrical Discharges](#) Steven J. Ray, Indiana University, Ana Gonzalvez, Gary Hieftje, George Chan, Jacob Shelley, Kevin Pfeuffer

3:50

(1580-4)

[Tip-enhanced Raman Scattering Tackling Nanoscale Challenges in Life Science Topics](#) Volker Deckert, IPHT

4:25

(1580-5)

[Dynamics and Fine Structure of Chemical Plumes in Ambient Air from Point Sources Using Ion Mobility Spectrometers](#) Gary A. Eiceman, New Mexico State University, H Schmidt

Workshop

Session 1590

Special Workshop - Lab Manager Bootcamp - arranged by Mario DiUbaldo, LabX

Wednesday Afternoon, Room 409

Mario DiUbaldo, LabX, Presiding

2:05

(1590-1)

[Special Workshop - Lab Manager Bootcamp](#) Greg Gregory, Teams Rock

Organized Contributed Session

Session 1600

Surface Analysis of Organic Systems Including Paints and Coatings (Half Session) - arranged by Christina Mastromatteo, Lubrizol Advanced Materials, Inc.

Wednesday Afternoon, Room 408

Christina Mastromatteo, Lubrizol Advanced Materials, Inc., Presiding

2:00

(1600-1)

[Zeta Potential and Surface Characteristics of Formulated Coatings](#) Ana Morfesis, Malvern Instruments, Inc.

2:20

(1600-2)

[Polymer Modification Using Ultra-Low Energy Plasmas](#) Scott G. Walton, US Naval Research Laboratory, Evgeniya Lock

2:40

(1600-3)

[The Use of Time-of-Flight Secondary Ion Mass Spectrometry for the Analysis of Paint Components](#) Albert Schnieders, Tascon USA, Inc.

3:00

(1600-4)

[The Rotating Disk Method for Zeta Potential Measurement](#) Paul J. Sides, Carnegie Mellon University

Oral

Session 1610

Bioanalytical Electrochemistry and Biosensors

Wednesday Afternoon, Room 405

William R. LaCourse, University of Maryland, Baltimore County, Presiding

2:00

(1610-1)

[Measuring Dopamine Release and Uptake in Rats After Treatment with Carboplatin](#) Sam V. Kaplan, University of Kansas, Gregory Osterhaus, Jenny Fulks, Michael Johnson

2:20

(1610-2)

[Detection of Stimulated Adenosine Release by Fast-scan Cyclic Voltammetry: A Comparison of Multiple Brain Regions](#) Megan L. Pajski, University of Virginia, B Jill Venton

2:40

(1610-3)

[Distinguishing Splanchnic Nerve and Chromaffin Cell Stimulation in Murine Adrenal Slice Using Fast-scan Cyclic Voltammetry](#) Paul L. Walsh, University of North Carolina at Chapel Hill, Jelena Petrovic, Robert Wightman

3:00

(1610-4)

[Design and Optimization of Optically Active Biosensors](#) Nnavneet Dogra, Southern Illinois University, Punit Kohli

3:35

(1610-5)

[Signal Amplification by Cation Exchange in ZnSe Nanocrystals](#) Jingjing Yao, University of California, Riverside, Wenwan Zhong

3:55

(1610-6)

[Development of a Semi-Synthetic, Highly Selective Biogel That Mimics the Nuclear Pore Complex](#) Sean Bird, Indiana University, Lane Baker

4:15

(1610-7)

[SPR on Microhole Arrays for Detection of Biomarker in Crude Biological Fluids](#) Julien Breault-Turcot,

Universite de Montreal, Jean-Francois Masson, Ludovic Live, Olivier Bolduc

4:35

(1610-8)

[Fluorous Modified Silica Nanoparticles Enhance Solute Permeability of Teflon AF 2400 Membranes](#) Hong Zhang, University of Pittsburgh, Amir Faraji, Stephen Weber

Oral

Session 1620

Chemometrics

Wednesday Afternoon, Room 402

Alice Chen, The Pittsburgh Conference, Presiding

2:00

(1620-1)

[Analysis of Comprehensive Two Dimensional Liquid Chromatography-diode Array Detector Data after Automated Chromatographic Alignment](#) Robert C. Allen, Virginia Commonwealth University, Sarah Rutan

2:20

(1620-2)

[Automated Detection of Toxic Industrial Chemicals by Airborne Passive Infrared Spectrometry](#) Hua Yu, University of Iowa, Gary Small

2:40

(1620-3)

[Information-theoretic Approach for In-situ Process Analytical Technology \(PAT\) Monitoring via Raman Spectroscopy](#) Wee Chew, Institute of Chemical and Engineering Sciences

3:00

(1620-4)

[Automated Calibration Updating Strategies for Continuous Monitoring Applications](#) Qiaohan Guo, University of Iowa, Gary Small

3:35

(1620-5)

[Determining the Temperature of Aqueous Samples Directly from Near-infrared Spectra](#) Chamathca P. Kuda-Malwathumullage, The University of Iowa, Gary Small

3:55

(1620-6)

[Spectral Multivariate Calibration Without Reference Samples via Tikhonov Regularization](#) Joshua Ottaway, Idaho State University, Jeremy Farrell, John Kalivas

4:15

(1620-7)

[Nocturnal Hypoglycemic Alarm Based on Near-IR Spectroscopy](#) Sanjeewa Rasika Karunathilaka Ranasinghe Pathirajage, University of Iowa, Gary Small

4:35

(1620-8)

[Chemometric Analysis of Beverages Following Separation by Comprehensive Two Dimensional Liquid Chromatography with Diode Array Detection](#) Hope P. Bailey, Virginia Commonwealth University, Haiwei Gu, Peter Carr, Sarah Rutan, Yuan Huang

Oral

Session 1630

Food Science: Product Characterization

Wednesday Afternoon, Room 316

Fu-mei Lin, The Pittsburgh Conference, Presiding

2:00

(1630-1)

[Rapid Determination of Polyphenol Antioxidants in Green Tea and Pomegranate Juice](#) Brian M. De Borba, Dionex Corporation, Jeffrey Rohrer, Pranathi Perati

2:20

(1630-2)

[Challenges in the Characterization of St. John's Wort Standard Reference Materials](#) Rachel A. Lieberman, National Institute of Standards and Technology, Catherine Rimmer, Lane Sander, Melissa Phillips

2:40

(1630-3)

[Quality and Rancidity Control of Nut Mix Using an Electronic Nose](#) Jean-Christophe Mifsud, Alpha MOS, Carol Schneider, Mike Parada, Mitchell Lamboy

3:00

(1630-4)

[Application of Comprehensive Two-dimensional Gas Chromatography Coupled with Time-of-flight Mass Spectrometry \(2D-GC-TOFMS\) in Botanical Origin Characterization of Polish Honeys](#) Tomasz Dymerski, Gdansk University of Technology, Suresh Seethapathy, Tadeusz Gorecki, Tomasz Chmiel, Waldemar Wardencki

3:35

(1630-5)

[Determination of Sialic Acids in Infant Formulas: Comparison of Two Liquid Chromatography Methods](#) Deanna C. Hurum, Dionex Corporation, Jeffrey Rohrer

3:55

(1630-6)

[Analysis of Essential Amino Acid Composition of Virginia Game by Gas Chromatography Mass Spectrometry](#) Nina K. Randolph, Christopher Newport University, Geoffrey Klein, Lisa Webb

4:15

(1630-7)

[Characterization of the Volatile Components of Blue Honeysuckle Berries Using Comprehensive Two-Dimensional Gas Chromatography with Time-of-Flight Mass Spectrometry \(GCxGC-TOFMS\)](#) Tomasz Chmiel, Gdansk University of Technology, Ahmed Mostafa, Tadeusz Gorecki, Tomasz Dymerski, Waldemar Wardencki

Oral

Session 1640

Gas Chromatography - Methodology

Wednesday Afternoon, Room 401

Rekha Shah, R/S Tech-Prob Solutions, LLC, Presiding

2:00

(1640-1)

[Understanding the True Purity of High Purity Gases Used in Gas Chromatography](#) Frank Kandl, Airgas

2:20

(1640-2)

[Field GCxGC Using Micro-fabricated Glass Lab-on-a-chip](#) Alastair C. Lewis, NCAS, Alice Harling, Chris Rhodes, Halliday Jaydene, Jacqueline Hamilton, Keith Bartle, Martin Milton, Richard Lidster, Vargha Gergely

2:40

(1640-3)

[Analytical Method Development and Advances for Analysis of Claus Process Streams in the Laboratory](#) Richard McCaffrey, BASF Corporation, Al Maglio

3:00

(1640-4)

[Petro- and Environmental Applications of Microwave-based Ultra Fast GC for the Analysis of Petro-](#)

[hydrocarbons and Polychlorinated Biphenyls \(PCBs\)](#) Aaron Mendez, PAC, Bachar Baki, Chunlong (Carl) Zhang

3:35

(1640-5)

[Novel Method of Sample Preparation for Polyols and Development of a Capillary Gas Chromatographic Method as a Limit Test for Toxic Adulterants, Ethylene Glycol and Diethylene Glycol](#) Kornepati V. Ramakrishna, United States Pharmacopeia, Eduardo Lim, Galina Holloway, Wahab Samir

3:55

(1640-6)

[Gas Chromatographic Determination of Impurities Profiles in Polytetrafluoroethylene \(PTFE\) Polymer](#) Jitendra K. Rathour, Gujarat Fluorochemicals Limited, Rajeev Chauhan, Sudhir Mohan

4:15

(1640-7)

[Carbon Dioxide and Methane Emissions from Kaoping River and Chenchin Lake in Taiwan](#) Shang-Shyng Yang, China University of Science and Technology, Cheng-Hsiung Chang, I-Chu Chen, Ying-Chien Chung

4:35

(1640-8)

[Safety Requirements for Gas Chromatography Gas Delivery Systems](#) Frank Kandl, Airgas

Oral

Session 1650

GC-MS Homeland Security/Forensics/Method Development (Half Session)

Wednesday Afternoon, Room 404

David Nabirahni, Pace University, Presiding

2:00

(1650-1)

[Evaluation of GC-TOFMS with Automated Sample Derivatization for Urinary Drug Screening According to Substance Abuse and Mental Health Services Administration \(SAMHSA\) Guidelines](#) John R. Heim, LECO Corporation, Doug Staples, Joe Binkley

2:20

(1650-2)

[Simple Device for Calibration of Hand-portable GC-MS Systems for Field Applications](#) Edgar D. Lee, Torion Technologies Inc., Charles Sadowski, H Dennis Tolley, Jacolin Murray, Jesse Contreras, Milton Lee, Xiaofeng Xie

2:40

(1650-3)

[Simultaneous Determination of Cyanide and Thiocyanate in Biofluids by Chemical Ionization Gas Chromatography Mass-Spectrometry](#) Raj Bhandari, South Dakota State University, Brian Logue, Dillon Hanrahan, Gary Rockwood, Robert Oda

3:00

(1650-4)

[Extraction and Analysis of the Essential Oil from the Leaves of Adenia Cissampeloides, An Anti- hypertensive Phytomedicine Using GC-MS](#) Modupe Ogunlesi, University of Lagos, Anthony Eniola, Edith Ofor, Wesley Okiei

Oral

Session 1660

GC-MS Methods for Environmental Issues (Half Session)

Wednesday Afternoon, Room 404

Ibolya Molnar-Perl, L Eotvos University, Presiding

3:35

(1660-1)

[Large Volume Injection for Gas Chromatography Using a Commercially-Available, Unmodified Splitless Injector](#) Jack Cochran, Restek Corporation

3:55

(1660-2)

[Comparing the Advantages and Limitations of Tandem Mass Spectrometry, High Resolution Mass Spectrometry, and Electron Capture Detection for Analysis of Polybrominated Diphenyl Ethers \(PBDEs\) in Fish](#) Susan A. Mackintosh, University at Buffalo, Diana Aga, Grazina Pacepavicius, Lisa Zimmerman, Mehran Alaei

4:15

(1660-3)

[Derivatization and Fragmentation Pattern Analysis of Natural and Synthetic Steroids, as Their Trimethylsilyl Derivatives by Gas Chromatography Mass Spectrometry: Analysis of Dissolved and Dispersed Steroids in Environmental Water Samples](#) Ibolya Molnár-Perl, L.Eötvös University, Andras Helenkar, Aniko Vasantis-Zsigrai, Nora Andrasi, Zaray Gyula

4:35

(1660-4)

[Automated Analysis of Haloacetic Acids in Water Samples](#) Dalel Benali-Raclot, Veolia Environnement, David Benanou

Oral

Session 1670

Homeland Security: Explosives and Residue Detection

Wednesday Afternoon, Room 403

Brian R. Strohmeier, RJ Lee Group, Inc., Presiding

2:00

(1670-1)

[Eye-safe Standoff Fusion Detection \(ESFD\) of CBE Threats](#) Matthew P. Nelson, ChemImage Corporation, Patrick Treado, Paul Mangold, Robert D'Agostino, Robert Schweitzer

2:20

(1670-2)

[Selective Determination of Triacetone Triperoxide Explosive Using Electrogenated Chemiluminescence](#) Wujian Miao, University of Southern Mississippi, Suman Parajuli

2:40

(1670-3)

[Differential Reflective Spectroscopy Applied to Detection of Explosives](#) Thierry Dubroca, University of Florida, Karthik Vishwanathan, Rolf Hummel

3:00

(1670-4)

[Development of Novel Chromatographic Systems for the Identification of Homemade Inorganic Explosives](#) Greg Dicoski, University of Tasmania, Cameron Johns, Eadaoin Tyrrell, Paul Haddad

3:35

(1670-5)

[Fast Identification of Conventional and Peroxide-based Explosives with SPME-Direct Analysis in Real Time-Mass Spectrometry](#) Kerstin Gierlach, Federal Criminal Police Office of Germany, Rasmus Schulte-Ladbeck

3:55

(1670-6)

[Improvement in the Sampling and Analysis of Nitroaromatic and Nitroamine Explosives Using Solid Phase Micro Extraction and an Improved Hand Portable GC-TMS](#) Nathan L. Porter, Torion Technologies Inc., Douglas Later, Edgar Lee, Jakob Later, Joseph Oliphant, Tai Truong

4:15

(1670-7)

[XPS Surface Characterization of Gunshot Residue \(GSR\): A Complement to Forensic SEM/EDS Analysis](#) Brian R. Strohmeier, RJ Lee Group, Inc., A Schwoeble, John Piasecki

Oral

Session 1680

Studies of Novel Drug Delivery

Wednesday Afternoon, Room 407

Dutt Vinjamoori, Martek Biosciences, Presiding

2:00

(1680-1)

[A Study of Pore Structures in a Sirolimus-eluting Stent](#) Kevin B. Biggs, Cordis Corporation, Cynthia Maryanoff, Karin Balss

2:20

(1680-2)

[Real-time Monitoring of Microgel Erosion via Light Scattering](#) Michael H. Smith, Georgia Institute of Technology, Andrew Lyon, Emily Herman, Jeffrey Gaulding

2:40

(1680-3)

[Bivalent Aptamers for Multi-targeting Leukemia/lymphoma Diagnosis and Drug Delivery](#) Guizhi Zhu, University of Florida, Weihong Tan

3:00

(1680-4)

[Investigating Cancer Cell Targeting and Endocytic Internalization of Nanocarriers for Targeted Drug Delivery](#) Gwangseong Kim, University of Michigan, Leshern Karamchand, Martin Philbert, Raoul Kopelman, Shouyan Wang, Yong-Eun Koo Lee

3:35

(1680-5)

[Multifunctional Aptamer-conjugated Magnetic Nanoparticles for Targeted Chemotherapy and MRI Imaging](#) Tao Chen, University of Florida, Mohammed Shukoor, Ruowen Wang

3:55

(1680-6)

[Photosensitive Micelles Formed by Amphiphilic MR Contrast Agents for Drug Carrier](#) Yushi Heta, Keio University, Akihiro Tanimoto, Daniel Citterio, Hiroki Hifumi, Kentaro Kumaki, Koji Suzuki

4:15

(1680-7)

[Novel Electrochemical Microfluidic Device for Drug Partitioning Studies at the Interface Between Two](#)

[Immiscible Electrolyte Solutions](#) Aleksandra Glosnicka, DTU Nanotech, David Sabourin, Henrik Jensen, Jacob Moresco Lange, Jaime Castillo-Leon, Maria Deryabina, Winnie Svendsen

POSTER SESSION

Session 1690

Genomics, Proteomics and Other "Omics"

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1690-1 P)

[In-vitro Galactation of Human Serum Albumin \(HSA\): A Study of HSA's Galactation Sites by Mass Spectrometry](#) Menashi Cohenford, Marshall University, Leslie Frost, Muhammad Chaudhry

(1690-2 P)

[Alterations to the Human Phosphoproteome with Exposure to Low-level Ionizing Radiation](#) Kevin W. Kastner, University of Notre Dame, Amanda Hummon, Joseph Maciuba

(1690-3 P)

[Comparative Label-free LC-MS/MS Analysis of Colorectal Adenocarcinoma and Metastatic Cells Treated with 5-Fluorouracil](#) Paul A. Lambert, University of Notre Dame, Amanda Hummon, Kerry Bauer

(1690-4 P)

[Validation of Workstation for Isolation of B-carotene from Spiked Serum Samples](#) Sikander Gill, Aurora Instruments, Dong Liang, Rajwant Gill

(1690-5 P)

[Automated Genomic DNA Isolation](#) Sikander Gill, Aurora Instruments, Dong Liang, Fang Gao, Rajwant Gill, YingPeng Cai

(1690-6 P)

[Uncovering the Stoichiometries of Progenitor Botulinum Neurotoxins /A through /G Using a Label-free Mass Spectrometric Method](#) Hercules Moura, Centers for Disease Control and Prevention, Adrian Woolfitt, John Barr, Maria Solano, Rebecca Terilli

(1690-7 P)

[\[sup\]1\[/sup\]H and \[sup\]31\[/sup\]P NMR-Based Metabolite Profiling of Human Hepatocellular Carcinoma](#) Yuliana Suryani, Purdue University, Amanda Cooper, Carl Murphy, Daniel Raftery, GA Nagana Gowda, Mary Maluccio, N James Skill, Siwei Wei

(1690-8 P)

[LC-MS/MS-Based Discovery of miR-145 Targets in Colorectal Cancer](#) Kerry M. Bauer, University of Notre Dame

(1690-9 P)

[Extractives of Loblolly Pine by Solid-phase Extraction and Gas Chromatography-Mass Spectrometry: Affected and Unaffected by Fusiform Rust \[*Cronartium Quercuum* f.sp. *Fusiforme*\]](#) Cherrelle Esekie, Clark Atlanta University, Allisha Blood, Roderquita Moore

(1690-10 P)

[Analytical Characterization of Anti-Alpha-Fetoprotein \(AFP\) Antibodies and the Effect on Diagnostic Immunoassay Performance](#) Ryan Bonn, Abbott Laboratories, Barbara Merchant, Glamarie Burgos, Jeffrey Fishpaugh, Sam Diep, Stefan Hershberger, Tracey Rae

(1690-11 P)

[Exploring Conformation Space for Natural Product Discovery](#) Nichole M. Lareau, Vanderbilt University, Brian Bachmann, Cody Goodwin, John McLean, Larissa Fenn

(1690-12 P)

[Development of Novel Fluorescent Reagents for Easy and Highly-sensitive Detection of Proteins and Its Application in Proteomic Research](#) Yoshio Suzuki, AIST, Atsunori Hiratsuka, Kenji Yokoyama, Nao Sakaguchi, Nobuyuki Takagi, Shinohara Atsushi, Tomoyuki Chimuro

(1690-13 P)

[Two-dimensional \(2D\) Protein Separation in an Integrated Plastic Microfluidic Device](#) Ke Liu, University of Florida, Champak Das, Hugh Fan, Pan Gu

(1690-14 P)

[Metabolism of Triclocarban in Sprague Dawley Rats](#) Xiaoyun Ye, Centers for Disease Control and Prevention, Antonia Calafat, Earl Gray, Johnathan Furr, Larry Needham, Xiaoliu Zhou

(1690-15 P)

[Accurate Estimation of the One-electron Redox Potentials of Cobalt Corrinoids: A Case Study of MeCbl and AdoCbl Cofactors](#) Manoj Kumar, University of Louisville, Pawel Kozlowski

(1690-16 P)

[Protein Separation with Polyionic Polymer Brush Nanosponges for MALDI-MS Analysis](#) Bojan Mitrovic, Southern Illinois University at Carbondale, Colleen Scott, Daniel Dyer, Gary Kinsel, Ven Ney Wong

POSTER SESSION

Session 1700

Liquid Chromatography/Mass Spectroscopy - Applications to Life Science

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1700-1 P)

[Method Development for the Screening of Total Testosterone in Human Serum](#) Gabrielle D. Gay, Centers for Disease Control and Prevention, Julianne Botelho, Vesper Hubert

(1700-3 P)

[Simultaneous High Throughput Metabolic Stability Quantitation and Drug Soft Spot Metabolite Analysis Using a New Style TOF LCMS](#) Elliott Jones, AB SCIEX, Hesham Ghojarah, Suma Ramagiri

(1700-4 P)

[Analysis of Benzodiazepines in Human Urine Using Disposable Pipette Extraction \(DPX\) and LC-MS/MS](#) Pakritsadang Kaewsuya, University of South Carolina, Sparkle Ellison, Stephen Morgan, William Brewer

(1700-5 P)

[Advanced Glycation Endproducts of Human Serum Albumin and Fibrinogen with Glyceraldehyde and Methylglyoxal](#) Champika Seneviratne, University of Rhode Island, Joel Dain, Menashi Cohenford, Xeixi Liu

(1700-6 P)

[High-resolution Accurate Mass Multi-reflecting Time-of-flight Mass Spectrometry Utilized to Facilitate](#)

[Metabolite Identification](#) Kevin Siek, Leco Corporation, Jeffrey Patrick, Joe Binkley, John Chakel

(1700-7 P)

[Permeation of Lotion Preservatives Through Latex and Nitrile Gloves](#) Michael J. Samide, Butler University, Joshua Evans

(1700-8 P)

[LC-MS/MS Analysis of Drugs in Whole Blood : A Unique Solution for Total Automation and Undisturbed Detection](#) Karl-Siegfried Boos, Medical Center of the University, Rosa Morello

(1700-9 P)

[Influence of Data Processing Algorithms and Confounding Variables onto Results of Breath Analysis](#) Sabine Kischkel, University of Rostock, Jochen Schubert, Phillip Trefz, Wolfram Miekisch

(1700-10 P)

[A Simple Automated Approach to the Reduction and Quantification of Matrix Effects in LC/MS/MS Bioanalysis Assays](#) Robert S. Plumb, Waters, Iggy Kass, Marian Twohig, Paul Rainville

(1700-11 P)

[Utilization of Programmable Auto-blend Algorithm to Obtain Ideal Mobile Phase pH for Bioanalytical LC/MS/MS Assays](#) Paul Rainville, Waters Corporation, Robert Plumb, Thomas Wheat

(1700-12 P)

[Comprehensive Analysis of Small Molecule Neurotransmitters and Their Metabolites in Rat Brain Dialysate by Ultra High Performance Liquid Chromatography-Tandem Mass Spectrometry](#) Peng Song, University of Michigan, Neil Hershey, Robert Kennedy

(1700-13 P)

[Development of Off-line 2D-LC Tandem Mass Spectrometry for Comprehensive Tissue Proteome Analysis](#) Nan Wang, University of Alberta, Li Liang

(1700-14 P)

[Development and Evaluation of Coatings for Automated 96-blade SPME System Capable of Extracting Wide Polarity Range of Analytes from Biological Fluids](#) Fatemeh S. Mirnaghi, University of Waterloo, Janusz

Pawliszyn, Leonard Sidisky, Yong Chen

POSTER SESSION

Session 1710

Magnetic Resonance - NMR/EPR

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1710-1 P)

[NMR as an Analytical Tool to Characterize Colloidal Suspensions](#) David Fairhurst, XiGo Nanotools LLC, Stuart Prescott, Terence Cosgrove

(1710-2 P)

[Quantitative Nuclear Magnetic Resonance Spectroscopy Taking Advantage of the High Selectivity for Pharmaceutical Analysis in Aqueous and Nonaqueous Solutions](#) Alaa Salem, United Arab Emirates University

(1710-3 P)

[Allyl-silica Hybrid Monoliths: NMR Study of the Sol-gel Solution](#) Wenjuan Guo, University at Buffalo, Luis Colon

(1710-4 P)

[Probing Bile Salt Micelle Size Using Pulsed Field Gradient Diffusion Nuclear Magnetic Resonance Spectroscopy](#) Adam R. Meier, Bucknell University, David Rovnyak, Jenna Yehl, Timothy Strein

(1710-5 P)

[A New Generation of Certified Reference Materials by the Quantitative \$^1\text{H-NMR}\$ Technique \(qNMR\)](#) Vickie Yearick, Supelco, Alexander Ruck, Christine Hellriegel, Jurg Wuthrich, Matthias Nold, Michael Weber, Rudolf Kohling

(1710-6 P)

[Nanoparticles for Electron Paramagnetic Resonance \(EPR\) Based Oxygen and NO Sensing](#) Hyung Ki Yoon, University of Michigan, Hoe Jin Hah, Raoul Kopelman, Valery Khrantsov, Yong-Eun Koo Lee

POSTER SESSION

Session 1720

Materials Science

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1720-1 P)

[Computational Investigations and Surface Characterization of Metal Carbide Surfaces and Their Reactions with Phosphate Esters](#) David W. Johnson, University of Dayton, John Hils, Vladimir Benin

(1720-3 P)

[Towards Breaking Diffraction Limit with Self-assembled Array of Microlens in a Far-field Microscope](#) Chuanhong Zhou, University of Illinois at Carbondale, Jason Locklin, Justin Wolff, Punit Kohli, Ramiah Rajasekaran Pradeep, Satyabrata Samanta

(1720-4 P)

[International Green Construction Code \(IgCC\) and Beyond - Rapid Screening of VOC Emissions Using Micro-scale Chambers](#) Caroline Widdowson, Markes International, Elizabeth Woolfenden

(1720-5 P)

[Enhanced Data Analysis Tools for the Measurement of Trace Odour Compounds in Complex GC/MS Product Emission Profiles](#) Caroline Widdowson, Markes International, Elizabeth Woolfenden

(1720-6 P)

[High Temperature HPLC Separations Using a Diamond-based Core-shell Reversed-phase Material](#) Chuan-Hsi Hung, Brigham Young University, Andrew Dadson, Landon Weist, Matthew Linford, Michael Vail

(1720-7 P)

[Au₁₃₆\(Durene\)₂₇\(PhC₂S\)₂₂ Nanoclusters with 1.35 eV Optical Band Gap Protected by Mixed Monothiol Phenylethanethiol and 1, 4 Dithiol Durene](#) Zhenghua Tang, Georgia State University, Bokossa Nadia, Donald Robinson, Gangli Wang, Xu Bin

(1720-8 P)

[Delonix Regia Extract as Eco-friendly Corrosion Inhibitor for Copper in HNO₃ Solution](#) Olusegun K. Abiola, Federal University of Petroleum Resources

(1720-9 P)

[Talinum Triangulare Extract as Potential Non-toxic Corrosion Inhibitor for Aluminum in HCl Solution](#) Alice I. Babatunde, University of Lagos, Olusegun Abiola

(1720-11 P)

[Lutetium Oxyorthosilicate Powder Synthesis Using Mild Reaction Conditions](#) Emily M. Landis, Westminster College, Peter Smith

(1720-12 P)

[Analyzing the Orientation of 4,5-Diazafluoren-9-one Using FT Raman, STM, and DFT](#) Rhonda P. McCoy, Howard University, Alberto Vivoni, Charles Hosten, Ray Butcher

(1720-13 P)

[New Novel Carbon Materials for Breakthrough Improvements in Solid Phase Extraction](#) Jon D. Thompson, United Science, Douglas Fryer

(1720-14 P)

[Spectroscopic Investigation of the Formation of Divalent of Samarium in Barium Tetraborate Matrices](#) Nathan A. Stump, Winston-Salem State University, Mareo Jeffreys, Mario Pehaire

(1720-15 P)

[A Surface Plasmon Tunable Filter for Chemical Imaging](#) Nick Pallas, Cleveland State University, John Turner

(1720-16 P)

[State of Water Molecules and Silanol Groups in Opal Minerals: A Near Infrared Spectroscopic Study of Opals from Slovakia](#) Alfred A. Christy, University of Agder, Daniel Kluvanec, Miroslav Bobon

(1720-17 P)

[Textured Coatings with Ag₃VO₄ Solid Lubricant Reservoirs](#) Brandon Luster, Southern Illinois University at Carbondale, Darcy Stone, Dinesh Singh, Kyriaki Polychronopoulou, Punit Kohli, Rebholz Claus, Samir Aouadi

(1720-18 P)

[Structural and Optical Characterization of Na_{0.5}Bi_{0.5}TiO₃ Thin Film Prepared by Sol-Gel Method](#) Kanhaiya S.

Ojha, Guru Ghasidas Central University, Parmendar Bajpai

(1720-19 P)

[Comparative Study on "Bulk" Laser Ablation ICP-OES and ICP-MS](#) Jerzy Mierzwa, Tennessee State University

(1720-20 P)

[Characterization of Polymer Carbon Sieves, Graphitized Polymer Carbons and Graphitized Carbon Blacks for Carbon Purification Processes](#) Leonard Sidisky, Supelco, Daniel Shollenberger, Michael Keeler, William Betz

(1720-21 P)

[Total Organic Carbon \(TOC\) Analysis of Concrete and Aggregate Materials for Rapid Assessment of Organic Impurities](#) Jeffrey R. Lane, OI Analytical, Gary Engelhart, James Slaton

(1720-22 P)

[Combined X-ray Diffraction and 3 Dimensional CT Analysis for Microstructural Characterization of Materials](#) Iuliana Cernatescu, PANalytical, Brian Litteer, Katherine Macchiarola, Rekhi Sandeep

POSTER SESSION

Session 1730

Pharmaceutical - NMR, Others

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1730-1 P)

[Utilization of 1H NMR Spectroscopy as an Analytical Technique for Reaction Monitoring and Quantitation of Complex Reaction Mixtures: A Case Study](#) Kyle Eckenroad, Merck & Co, Tyson Chasse

(1730-2 P)

[Improved Purification of Carbohydrate Based Drugs in Glycochemistry Applications Using the Flash Chromatography System](#) Rakesh Bose, Grace, Scott Anderson

(1730-3 P)

[Application and Correlations of Zeta Potential Measurements in Protein Aggregation Evaluation](#) Charles Lai, Hospira, Inc., Ana Morfesis, Eduardo Villegas, Janie Dubois, Jone-Shin Deng

(1730-4 P)

[Bitterness Comparison of Original and Generic Products Using Electronic Tongue](#) Mitchell Lamboy, Alpha MOS, C Matsunaga, E Tokuyama, Jean-Christophe Mifsud, Koichi Yochida, M Yochida, T Irie, T Uchida, Xavier Bredzinski

(1730-5 P)

[Testing the Odor Masking Efficiency of Coating in Tablets with an Electronic Nose](#) Mitchell Lamboy, Alpha MOS, Carol Schneider, Jean-Christophe Mifsud, Matthew Branham, Mike Parada, Xavier Bredzinski

(1730-6 P)

[Comparison of a Novel Coated Cellulose Carbamate Stationary to Similar Commercially Available Phases for Pharmaceutical Chiral Chromatography Applications](#) Gregory K. Webster, Abbott Laboratories, Leslie Brown, Nagaraja Rao

(1730-7 P)

[Evaluation of a Mixed Stationary Phase for Pharmaceutical Chiral Chromatography Applications](#) Gregory K. Webster, Abbott Laboratories, Leslie Brown, Nagaraja Rao

(1730-8 P)

[Selection and Evaluation of Antioxidants for Pharmaceutical Dosage Formulations](#) Gregory K. Webster, Abbott Laboratories, Angie Morris, Ian Acworth

(1730-9 P)

[Achieving 24 Hour Turnaround from Sample Submission and Initial QC to Final Purified and Confirmed Drug Discovery Lead Compounds](#) Mark A. Bayliss, Virscidian Inc., Joseph Simpkins, Josephine Archinal, Martin Fuhr, Stephane Murphy, Utz-Peter Jagusch

(1730-10 P)

[Isolation and Antihyperlipidemic Activity of Phytosterols From the Fruits of Lagenaria Siceraria \(Molina\) Standl](#) Ravi P. Kalsait, Sharad Pawar College of Pharmacy, Ashok Saoji, Kishor Bhusari, Pramod Khedekar

(1730-11 P)

[Formulation of Paste of Picralima Nitida and Comparison of Antimicrobial Activity with Gentamicine and Tribotan Cream](#) Lilian I. Oguguo, University of Uyo, Cecilia Igwilo, Olusoji Ilori

(1730-12 P)

[Feasibility of the Ultrafiltration Procedure when Studying Pharmacological Effect of Anthracyclines and Taxanes](#) Yuliya Shakalisava, Dublin City University, Fiona Regan, Louise McKeon

(1730-13 P)

[Synthesis, Anticancer Activity and QSAR Studies of Some New Tetrahydropyrimidines](#) Janaki S. Desai, K K S J Mannagar Science College

POSTER SESSION

Session 1740

Pharmaceutical Uses of Liquid Chromatography

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(1740-1 P)

[Investigation into the Stability of HILIC Based Cetirizine Assay](#) Luisa Pereira, Thermo Fisher Scientific, Derek Hillbeck, Richard Ludwig, Tony Edge

(1740-3 P)

[D-Luciferin Chemical Synthesis and Chiral Analysis by HPLC](#) Ettigounder Ponnusamy, Sigma-Aldrich, Mark Nowlan

(1740-4 P)

[Use of a Generic Orthogonal Screening Process for the Analysis of Forced Degradation Samples and Development of Stability-indicating HPLC Methods](#) Manisha Srivastava, Vertex Pharmaceuticals Inc, Henrik Rasmussen, Stefanie Baril

(1740-5 P)

[Two Dimensional HPLC Analysis of Complex Pharmaceutical Samples](#) Sarah Stowers, Genentech, Ken Ngim, Qiqing Zhong

(1740-6 P)

[Determining Integrity of Chromatographic Methods by Comparing Spectroscopic Data Sets Obtained Before and After Separation](#) Andrew M. Wolters, GlaxoSmithKline

(1740-7 P)

[Increasing UHPLC Column Lifetime without Sacrificing Separation Quality](#) Jason Anspach, Phenomenex, Jeff Layne, Peter Rahn, William Cash

(1740-8 P)

[Evaluation of the Chromatographic Purity of Estradiol Using Supercritical Fluid Chromatography](#) Andrew Aubin, Waters Corp, Michael Jones

(1740-9 P)

[A Comparison of Compendia Normal Phase LC Methods Run Under Supercritical Fluid Chromatography Conditions](#) Andrew Aubin, Waters Corp, Michael Jones

(1740-10 P)

[Automating Gradient Method Development in Flash Chromatography for Greater Productivity and Minimizing Solvent Use](#) Rakesh Bose, Grace, Adam Lesniowski, Dennis McCreary, Kathy Lawrence, Scott Anderson

(1740-11 P)

[UPLC Methods Development Using Orthogonal Stationary Phases and a Quality by Design \(QbD\) Approach](#) Kenneth J. Fountain, Waters Corporation, Damian Morrison, Hillary Hewitson

(1740-12 P)

[Chromatographic and Deuterium NMR Characterization of 4- \(propylamino\)-methyl Benzoic Acid Silica \(4-PAMBAS\) Prepared by Reductive Schiff Base Coupling of Propylamino Silica with 4-carboxybenzaldehyde](#) Mahinda E. Gangoda, Kent State University, Asanka Wijekoon, Roger Gregory

(1740-13 P)

[UHPLC/LT-ELSD Advancements in the Pharmaceutical Field: High Sensitivity Emphasizing a New Detection Technology. Quantitative Performance and Applications](#) Davy Guillarme, University of Geneva, Cedric Schelling, Christophe Francey, Eric Verette, Henry Gangloff, Jean-Luc Veuthey, Michel Dreux

(1740-14 P)

[Optimizing the Purification of Chiral Compounds Utilizing a Benchtop Multi-purpose Preparative HPLC System](#) Michael R. Halvorson, Gilson, Inc., Luke Roenneburg, Megan Clay

(1740-15 P)

[Evaluation of a Benchtop Preparative HPLC System for the Purification of Compounds via Flash Chromatography, Normal-phase or Reverse-phase Chromatography](#) Michael R. Halvorson, Gilson, Inc., Luke Roenneburg, Megan Clay

(1740-16 P)

[A Sensitive HPLC Method for Insulin and Insulin-related Compounds in Insulin Inhalation Powder Using Fused-core Particle Technology](#) Elizabeth Harris, Mannkind Corporation

POSTER SESSION

Session 1750

Physical Measurements

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1750-1 P)

[Design and Optimization of a Permeation Testing System for Biocompatible Polymer Films](#) Adrian Verwolf, National Institute of Standards and Technology

(1750-2 P)

[Physical Color Appearance Determination of a Drug Substance Utilizing a Commercially Available Color Guide](#) Jennifer J. Alligood, Metrics, Inc., Ashley Dunning, Credle Harris, David Nelson, Joe Cobb, Ken Jones, Kimberly Lupo, Lauren Brock, Lauren McNeil, Marjorie Misiura

(1750-3 P)

[Measuring Drug Supersaturation in the Presence of Additives and Simulated GI Fluids](#) Jon Mole, Sirius Analytical, Inc, Elizabeth Frake, John Comer, Karen Osman, Karl Box, Sam Judge

(1750-4 P)

[Dissolution of Drugs in the Presence of Additives Under Conditions of Changing pH to Simulate GI Transit](#) Jon Mole, Sirius Analytical, Inc, Elizabeth Frake, John Comer, Karen Osman, Karl Box, Sam Judge

POSTER SESSION

Session 1760

Polymers and Plastics

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1760-1 P)

[Evaluating an Industrial Approach to Size-Exclusion Chromatography of Difficult-to-dissolve Polymers](#) Kelsey McNeel, Florida State University, Andre Striegel, Dustin Richard

(1760-2 P)

[Odor Quality Analysis of Colored Cap Liners Used for Beverage](#) Mitchell Lamboy, Alpha MOS, Carol Schneider, Jean-Christophe Mifsud, Matthew Branham, Mike Parada, Xavier Bredzinski

(1760-3 P)

[Determination of VOC and SVOC Emissions from Vehicle Interiors by TD-GC/TOF-MS: A Novel Approach to VDA 278](#) Ilaria Ferrante, DANI Instruments S.p.A., Manuela Bergna

(1760-4 P)

[Using Specialized MS Additive Libraries to Determine the Composition of Various Tire \(Rubber\) Formulations](#) Robert Freeman, Frontier Laboratories, Ichi Watanabe, K Matsui, Marion Hoch

(1760-5 P)

[Determination of Polybrominated Diphenylethers in a High Impact Polystyrene Certified Reference Material by Isotope Dilution Gas Chromatography-Mass Spectrometry](#) Dalho Kim, Korea Research Inst. of Standards and Science, Jehoon Ryu, Jungho Han

(1760-6 P)

[Analysis of Powder Coatings by Pyrolysis-GC/MS](#) Thomas Wampler, CDS Analytical, Inc., Gary Deger, Karen Jansson, Steve Wesson

(1760-7 P)

[Determination of Phthalate Esters in Child Care Products and Children's Toys by Gas Chromatography/ Mass](#)

[Spectrometry \(GCMS\)](#) Richard Whitney, Shimadzu Scientific Instruments, C Mark Taylor, Zhuangzhi Wang

(1760-8 P)

[Studying both the Thermal and UV-curing Behavior of Inks, Adhesives, and Coatings by Photo-DSC and In-situ Dielectric Analysis](#) Bob Fidler, NETZSCH Instruments N.A. LLC, Stephan Knappe

(1760-9 P)

[Wafer Based Fabrication of Optical Polymer Elements](#) Jiri Cech, DTU, Christian Holme, Rafael Taboryski

(1760-10 P)

[Production of Poly--Hydroxybutyrate \(PHB\) by a Thermophilic Strain of Bacillus and Pseudomonas Species](#) Patience O. Olajide, Obafemi Awolowo University

(1760-11 P)

[Conductivity Enhancement of PEDOT/PSS Films Through a Treatment with Organic Solvent](#) Sung Koo Lee, KITECH, EunHee Lim, Kyeong K Lee Lee

(1760-12 P)

[Development of a Simplified CRYSTEX Apparatus for the Analysis of Xylene Solubles in Polypropylene](#) Benjamin Monrabal, Polymer Char, Alberto Ortin, Juan Sancho-Tello, Pilar Del Hierro

(1760-13 P)

[Improvement of TG Resolution by Heating Rate Conversion Simulation Method](#) Nobuaki Okubo, SII NanoTechnology Inc.

(1760-14 P)

[Characterization of UV Curing Polymers by Photochemical Reaction DSC System](#) Nobuaki Okubo, SII NanoTechnology Inc.

POSTER SESSION

Session 1770

Process Analytical Chemistry

Room Red Area on Exposition Floor - Hall B, Aisle 400

(1770-1 P)

[Development of Total Organic Carbon Instrument – Reactor and Process Design for Analyzing Large Amounts of Solid Samples](#) Bilal Bayram, Terralab Co., Bülent Atamer, Ufuk Ozgen

(1770-2 P)

[Spatial Distribution within Pin-printed Features](#) Nadine Kraut, University at Buffalo, Ka Yung

(1770-3 P)

[The NeSSI Platform - It is not a Monster!](#) Gordon McFarlane, Analytical Flow Products, Yves Gamache

(1770-4 P)

[Combined Near-line Water Monitoring and Field Sample Analysis Using Automated Laboratory Based, EPA Approved, Methods](#) Lauren Park, Mantech Inc., Robert Menegotto

(1770-5 P)

[An Image Based Real Time Concentration Measurement Technique for Digital Microfluidic Devices](#) Pavithra Wijethunga, The University of Texas at Arlington, Hyejin Moon

(1770-6 P)

[Development of a Highly Sensitive Analysis Method of Copper in Wastewater of Electronics Industry](#) Seoung-Kyo Yoo, Withtech, Inc., Hai-Young Jeong

CONFEREE NETWORKING

Wednesday, March 16, 2011

4:30 PM

Quantitative Mass Spectrometry of Proteins and Protein Modifications as Biomarkers of Disease Facilitated by: Maria Ospina, Center for Disease Control and Prevention, Room 216

New Methods for Glycoproteomics Facilitated by: Carlito Lebrilla, University of California, Room 215

Mid-IR Spectroscopy Facilitated by: Sohrab Zarrabian, YAS Photonics, Room 218

Chemical Images for the Analysis of Materials Facilitated by: Brandon Yee, Daylight Solutions, Room 217

Thursday Morning, March 17, 2011

Symposia

Session 1780

Achievements and Challenges in Mass Spectrometry - arranged by Michael Thurman, University of Colorado

Thursday Morning, Room 310

Michael Thurman, University of Colorado, Presiding

8:05

(1780-1)

[Advancing ESI-MS Interface Technologies for High Sensitivity Proteomics](#) Keqi Tang, Pacific Northwest National Laboratory, Ioan Marginean, Richard Smith, Ryan Kelly

8:40

(1780-2)

[Photodegradation of Dilute Aqueous Solutions of Androstenedione and Testosterone in Near UV Light: LC-QTOF MS Analysis of Phototransformation Products](#) Robert B. Young, Colorado State University, Douglas Mawhinney, Shane Snyder, Thomas Borch

9:15

(1780-3)

[Identification of Unknowns in Environmental Water Samples Using Accurate Mass Strategies](#) Imma Ferrer, University of Colorado, Michael Thurman

9:50

(1780-4)

[The Analysis of Degradation Products from Advanced Oxidation Processes in Complex Matrices Using High Resolution and Ultra High Resolution Mass Spectrometry Techniques with an "Omics" Approach](#) Leonidas A. Perez-Estrada, University of Alberta, Jonathan Martin, Mohamed Gamal El-Din

10:25

(1780-5)

[Spectral Accuracy of Molecular Ions in an LTO Orbitrap Mass Spectrometer](#) John C. Erve,

Symposia

Session 1790

Analytical Pyrolysis - arranged by Kent J. Voorhees, Colorado School of Mines

Thursday Morning, Room 315

Kent J. Voorhees, Colorado School of Mines, Presiding

8:05

(1790-1)

[Investigations into the Pyrolysis Mechanisms of Lignin Model Compounds](#) Phillip F. Britt, Oak Ridge National Laboratory, AC Buchanan, Michelle Kidder

8:40

(1790-2)

[Evaluation of Polymer Degradation and Modification by Analytical Pyrolysis Technique](#) Hajime Ohtani, Nagoya Institute of Technology

9:15

(1790-3)

[Insights into Lignin Chemistry and Decomposition Through ¹³C-tetramethylammonium Hydroxide Thermochemistry with Applications to Ecological and Biofuels Research](#) Timothy R. Filley, Purdue University

9:50

(1790-4)

[Non-discriminated Analytical Pyrolysis: Development and Applications](#) Tadeusz Gorecki, University of Waterloo, Juergen Poreschmann, Ziba Parsi

10:25

(1790-5)

[Analytical Pyrolysis as a Tool for the Characterization of Natural Macromolecular Organic Matter - Reappraisal of its Applications in Agricultural and Environmental Sciences](#) Francisco J Gonzalez-Vila, IRNAS-CSIC, Gonzalo Almendros

Symposia

Session 1800

Challenges and Emerging Strategies in Analytical Science Education - arranged by Carol Korzeniewski, Texas Tech University

Thursday Morning, Room 403

Carol Korzeniewski, Texas Tech University, Presiding

8:05

(1800-1)

[Research, Metacognition, and Mentoring for Maintaining Students in STEM](#) Isiah M. Warner, Louisiana State University, Sandra McGuire, Zakiya Wilson

8:40

(1800-2)

[Analytical Chemistry: Come One, Come All!](#) Jeanne E. Pemberton, University of Arizona, Jani Ingram

9:15

(1800-3)

[Creating Science Innovators by "Hooking" Freshmen on Research at The University of Texas at Austin](#) Keith J. Stevenson, University of Texas at Austin

9:50

(1800-4)

[Peer-reviewed, Open Access Electronic Resources for Analytical Science Education](#) Cynthia K. Larive, University of California, Riverside

10:25

(1800-5)

[Analytical Chemistry Education](#) Stephen G. Weber, University of Pittsburgh, Mark Vitha, Peter Carr

Symposia

Session 1810

Electrochemical Analysis in Neuronal Systems - arranged by Adrian C. Michael, University of Pittsburgh

Thursday Morning, Room 312

Adrian C. Michael, University of Pittsburgh, Presiding

8:05

(1810-1)

[Moving Beyond Dopamine: FSCV for Real-time Detection of Adenosine and Donadotrophin Releasing Hormone Changes](#) B Jill Venton, University of Virginia, Katarzyna Glanowska, Megan Pajski

8:40

(1810-2)

[Unraveling Serotonergic Signaling Mechanisms in the Enteric Nervous System](#) Bhavik A. Patel, University of Brighton

9:15

(1810-3)

[Evolution of Wireless Fast-Scan Cyclic Voltammetry](#) Paul A. Garris, Illinois State University, Charles Blaha, Kendall Lee, Kevin Bennet, Pedram Mohseni

9:50

(1810-4)

[Longitudinal, Multisite Electrochemical Recordings to Probe Dopamine Release During Cognition](#) Paul E. Phillips, University of Washington

10:25

(1810-5)

[Voltammetric Investigations of Dopamine Subdomains in the Striatum](#) Adrian C. Michael, University of Pittsburgh, Andrea Jaquins-Gerstl, Keith Moquin, Yuexiang Wang

Symposia

Session 1820

New Developments in Forensic Science: Analytical Chemistry Comes to the Crime Scene - arranged by Jose R. Almirall, Florida International University

Thursday Morning, Room 309

Jose R. Almirall, Florida International University, Presiding

8:05

(1820-1)

[The Development of Composite Analytical Signatures for Material Forensics](#) Douglas C. Duckworth, Pacific Northwest National Laboratory, Garret Hart, Helen Kreuzer, James Ehleringer, James McKinley, Jason West

8:40

(1820-2)

[Optimized Sampling and Analysis Strategies for Trace Contraband Detection – Explosives and Narcotics](#) Greg Gillen, National Institute of Standards and Technology

9:15

(1820-3)

[LIBS Technology for Field Forensics](#) Andrzej W. Miziolek, US Army Research Laboratory

9:50

(1820-4)

[The Marriage of Forensic Science and Analytical Chemistry Coming of Age?](#) Claude Roux, University of Technology, Sydney, Alison Beavis, Chris Lennard, Lucas Blanes, Michael Dawson, Philip Doble, Xanthe Spindler

10:25

(1820-5)

[Forensic Examination of Trace Evidence: What is the State of the Art?](#) Jose R. Almirall, Florida International University

Symposia

Session 1830

New Enantiomeric Separation Approaches for the Pharmaceutical Industry - arranged by Daniel W.

Armstrong, University of Texas at Arlington

Thursday Morning, Room 308

Daniel W. Armstrong, University of Texas at Arlington, Presiding

8:05

(1830-1)

[Development of Cyclofructan – Based Phases and Their Mechanism of Action](#) Daniel W. Armstrong, University of Texas at Arlington

8:40

(1830-2)

[Chromatographic Separation of Enantiomers in Pharmaceutical Discovery and Development](#) Christopher J. Welch, Merck Research Laboratories

9:15

(1830-3)

[Enantiomeric Separation of Nonprotein Amino Acids](#) Antal Peter, University of Szeged, Istvan Ilisz

9:50

(1830-4)

[Solubility Optimized Supercritical Fluidal Purification in Drug Discovery](#) Kyung H. Gahm, Amgen

10:25

(1830-5)

[HPLC Enantiomeric Separations of Pharmaceuticals Using Polar Organic Mobile Phases](#) JT Lee, Supelco/Sigma-Aldrich, William Campbell

Workshop

Session 1840

What Does It Take To Run a Laboratory: Current Issues (ALMA) - arranged by Dennis F. Swijter, IFF R&D

Thursday Morning, Room 218

Dennis F. Swijter, IFF R&D, Presiding

8:05

(1840-1)

[Green Solvent Systems for Chemical Processes](#) Charles L. Liotta, Georgia Institute of Technology, Charles Eckert, Pamela Pollet

8:40

(1840-2)

[Laboratory Capital Asset Strategies - Balancing Replacement with New Capital Needs](#) Kevin Hool, United States Pharmacopeia, Alan Potts, Bei Ma, Jeffery Johnson

9:15

(1840-3)

[The True Costs of Running an Analytical Lab](#) Gregory W. Bowen, Battelle

10:05

(1840-4)

[Getting the Most from your Analytical Dollar: Building Successful Customer/Supplier Relationships](#) Sherri Bassner, Intertek ASA

10:40

(1840-5)

[Solving the Puzzle: Bringing Visibility to Accountability](#) Connor Jordan, Competitive Solutions, Inc.

Organized Contributed Session

Session 1845

ACS-DAC: Advances in Analytical Separations (Half Session)

Thursday Morning, Room 311

8:00

(1845-1)

[Static Headspace, GC MS Detection of Residual Solvents — A Possible Simultaneous Identification and Quantitation Method](#) Alyssa Ashley, U.S. Pharmacopeia, Alan Potts, Chunhua Pan, Heather Joyce, Jennifer Belsky, Patricia White, Samir Wahab

8:20

(1845-2)

[Trace Analysis of Non-volatile Heterocyclic Aromatic Amines in Cigarette Smoke Condensate and Its Fractions by Silylation-GC-MS](#) Siyuan Liu, Virginia Tech, Betsy Bombick, Larry Taylor, Michael Borgerding, William Coleman

8:40

(1845-3)

[Development of New Hydrophilic Interaction Liquid Chromatographic Stationary Phase Based on Derivatized Cyclofructans](#) Nilusha L. Padivitage, University of Texas at Arlington, Daniel Armstrong

Oral

Session 1850

Continued Advances in Atomic Spectroscopy

Thursday Morning, Room 314

Steven B. Dorn, Momentive Performance Materials, Presiding

8:00

(1850-1)

[Achieving Extreme Productivity and Cost Efficiency with ICP-OES for Demanding Environmental Analysis Applications](#) Andrew Clavering, Thermo Fisher Scientific, Fergus Keenan, Martin Nash, Matthew Cassap

8:20

(1850-2)

[Accelerated Quantification of Metals in Solid Silica and Silicates by LA-ICP-MS](#) Runbo Li, PQ Corporation, Istvan Halasz

8:40

(1850-3)

[Design of a Simple Tungsten Coil Electrothermal Vaporization Device for ICP Emission Spectrometry](#) Summer N. Hanna, Wake Forest University, Bradley Jones, Clifton Calloway

9:00

(1850-4)

[Development of a Boron Scavenger for the Determination of Trace Metals by Borate Fusion and ICP-OES](#) Philippe Daigle, Corporation Scientifique Claisse, Dominique Levesque, Luc Bérubé, Mélanie Bédard

9:35

(1850-5)

[Laser-induced Breakdown Spectroscopy \(LIBS\) Analysis of Metals in Solutions with Ultra-low Absolute Detection Limits](#) Erica Cahoon, Florida International University, Jose Almirall

9:55

(1850-6)

[Characterization of a New High Performance Inert Nebulizer for ICP Spectrometry](#) Jerry Dulude, Glass Expansion, Jol Desmarchelier

10:15

(1850-7)

[Multi-element Analysis of River Sediment Samples by ICP-MS after Microwave Assisted Digestion](#) Samuel M. Abegaz, Columbus State University

Oral

Session 1860

Electrochemical Microscopy and Electrochemical Methods for Materials Characterization

Thursday Morning, Room 405

Jane Chan, Bechtel Bettis, Inc., Presiding

8:00

(1860-1)

[Electrochemical Imaging and Differentiation of Redox Probes Through Porous Synthetic Membranes](#) Maksymilian A. Derylo, Indiana University, Jeremy Wilburn, Kirstin Morton, Lane Baker, Lesley Sevcik

8:20

(1860-2)

[Optode-bead-based Dynamic Chemical Imaging of 2D Surfaces](#) Punkaj Ahuja, Case Western Reserve University, Miklos Gratzl, Sumitha Nair

8:40

(1860-3)

[Monolithic, High Surface Area, Conducting Materials for Electrochemically Modulated Liquid Chromatography](#) Franchessa M. Sayler, The University of Alabama, Amy Grano, Jan-Henrik Smått, Martin Bakker

9:00

(1860-4)

[Scanning Electrochemical Microscopy Approach to the Design of Oxygen Reduction Catalysts](#) Cynthia G. Zoski, New Mexico State University, Jose Fernandez, Kasun Imaduwege

9:35

(1860-5)

[Factors Affecting Quantitative Measurements of Ion Currents through Nanoporous Membranes with Scanning Ion Conductance Microscopy \(SICM\)](#) Chiao-Chen Chen, Indiana University-Bloomington, Lane Baker

9:55

(1860-6)

[Monolayer Protected Clusters Presenting Wire Molecules](#) Brian N. Turner, Vanderbilt University, David Cliffl, Gongping Chen

10:15

(1860-7)

[Electron Transfer Kinetics of Ferrocene Carboxylic Acid at Boron-doped Diamond Electrodes: A Comparison of an Aqueous Electrolyte and an Ionic Liquid](#) Doo Young Kim, Michigan State University, Greg Swain, Hyoun Woo Kim, Ju Chan Yang

10:35

(1860-8)

[Electrochemical Scanning Ion-conductance Microscopy](#) Celeste A. Morris, Indiana University, Chiao-Chen Chen, Lane Baker

Oral

Session 1870

Environmental Analysis: Drinking Water

Thursday Morning, Room 404

David Benanou, Anjou Recherche Veolia Water, Presiding

8:00

(1870-1)

[Characterization of Emerging Disinfection By-products by SBSE-GC-MS](#) David Benanou, Anjou Recherche Veolia Water, Christophe Tondelier, Dalel Benali-Raclot

8:20

(1870-2)

[Using Automated On-line Standard Addition to Compensate for Matrix Effects in Real World Drinking Water Monitoring Studies](#) William E. Stephens, University of Memphis, Aaron Brown, Gary Emmert, Meggan Larson, Paul Simone

8:40

(1870-3)

[Oxidative Removal of Selected Pharmaceutical and Personal Care Products in Drinking Water Treatments](#) Qihua Wu, Missouri University of Science and Technology

9:00

(1870-4)

[Determination of Trace Amount of Ethylene Glycol and Its Analogs in Water Matrices by Liquid Chromatography-tandem Mass Spectrometry](#) Buu N. Tran, Wadsworth Center, New York State Department of Health, Anthony Bucciferro, Kenneth Aldous, Richard Okoniewski, Robert Jansing

9:35

(1870-5)

[Diurnal Variations in Trihalomethane Concentrations in Drinking Water Distribution Systems](#) Aaron W. Brown, University of Memphis, Gary Emmert, Michael Brown, Paul Simone

9:55

(1870-6)

[The Need for High Purity Water in Quantification of PPCPs in Environmental Waters](#) Maricar Tarun, EMD Millipore, Chuan Wang, Stephane Mabic, Yinfu Ma

10:15

(1870-7)

[Structural Determination of the Products from the Reaction of Haloacetic Acid with Nicotinamide in Drinking Water Analysis](#) Patricia L. Ranaivo, The University of Memphis, Charles Webster, Gary Emmert, Jeffrey Swan, Paul Simone, Steven Symes

10:35

(1870-8)

[Solid-phase Microextraction Coupled to Liquid Chromatography for the Extraction of Pharmaceutical Pollutants in Water Samples Utilizing an Electrospun Carbon Nanofiber Coating](#) Toni E. Newsome, The Ohio State University, Joseph Zewe, Susan Olesik

Oral

Session 1880

Environmental Analysis: Gases, Aerosols, Particulates

Thursday Morning, Room 408

Paul S. Simone, Jr., The University of Memphis, Presiding

8:00

(1880-1)

[Gaseous Pollutant Analysis in the Terahertz Frequency Range](#) Ryan M. Smith, University of Iowa, Gary Small, Mark Arnold

8:20

(1880-2)

[Detection of Biohazardous Effect of Atmospheric Particulate Matter by Measuring Bioluminescence Intensity of Marine Bacterium \[*Vibrio fischeri*\]](#) Shiro Ikeda, Tokai University, Masafumi Oikawa, Yoshika Sekine

8:40

(1880-3)

[Sensitive Analysis of Ambient Greenhouse Gases by Using Cantilever Enhanced Photoacoustic Cell and Quantum Cascade Laser](#) Juho Uotila, Gasera Ltd., Ismo Kauppinen, Jussi Raittila, Jyrki Kauppinen

9:00

(1880-4)

[Biochemical Gas Sensor \(Bio-sniffer\) for Evaluating Detoxification of Environmental Formaldehyde](#) Kohji Mitsubayashi, Tokyo Medical and Dental University, Daishi Takahashi, Gen Itabashi, Hiroyuki Kudo, Takahiro Arakawa, Tomoko Gessei, Yuki Suzuki

9:35

(1880-5)

[PPM Mixture of Formaldehyde: Analysis and Gas Cylinder Stability](#) Kenneth Wong, American Air Liquide, Melissa Collins, Sophie Lombard, Valerie Bossoutrot

9:55

(1880-6)

[Microscale Aerosol Sampling Coupled to Capillary Electrophoresis \(CE\)](#) Hao Tang, Texas Tech University, Jonathan Thompson

10:15

(1880-7)

[Evaluation of Cook Stove Intervention Projects in Peru by Measuring Urinary Polycyclic Aromatic Hydrocarbon Metabolites](#) Zheng Li, Centers for Disease Control and Prevention, Andreas Sjodin, Kevin Horton, Lovisa Romanoff, Luke Naeher, Manuel Aguilar-Villalobos

10:35

(1880-8)

[Selective Detection of Vapors and Their Mixtures Using Individual Passive RFID Vapor Sensors](#) Nandini Nagraj, General Electric, Andrew Burns, Cheryl Surman, Radislav Potyrailo, William Morris

Oral

Session 1890

Food Science: Elemental Analyses (Half Session)

Thursday Morning, Room 401

Sarah Shockey, The Pittsburgh Conference, Presiding

8:00

(1890-1)

[Analysis of Ni and V as Markers of Oil Contamination in Fish](#) Zoe Grosser, PerkinElmer, Inc, Laura Thompson, Lorraine Foglio

8:20

(1890-2)

[Atomic Absorption: Feeding the Food Safety Market](#) Hazel R. Dickson, Thermo Fisher Scientific, Adrian Holley, Rebecca Price

8:40

(1890-3)

[Simultaneous Multi-element Analysis of High Matrix Food Samples by ICP-MS](#) Jianmin Chen, PerkinElmer,

Inc., Kenneth Neubauer, Zoe Grosser

9:00

(1890-4)

[Determination of Bismuth by Flow-injection Technique Using Solid Membrane Electrode](#) Suham T. Ameen, Tikrit University, Shatha Yhyaa

Oral

Session 1900

Food Science: Pesticides and Pollutants (Half Session)

Thursday Morning, Room 401

Sarah Shockey, The Pittsburgh Conference, Presiding

9:35

(1900-1)

[Improved Durability of Pesticide and Pollutant Analyses by GC/MS and GC/MS/MS in Food Matrices](#) William H. Wilson, Agilent Technologies, Michael Szelewski, Rebecca Veeneman

9:55

(1900-2)

[A Comprehensive Approach to Pesticide Residue Monitoring, Including Non-target Analysis, for Fruits, Vegetables, and Nuts, Using QuEChERS, LC-MS/MS, and GCxGC-TOFMS](#) Jack Cochran, Restek Corporation, Andre Schreiber, Jason Thomas, Julie Kowalski, Michelle Misselwitz, Rebecca Wittrig

10:15

(1900-3)

[New Generation GC Columns for the Accurate Quantification of EPA and EU PAH in Food Stuffs and Environment](#) Johan Kuipers, Agilent Technologies, John Oostdijk, Laura Provoost, Max Erwine

10:35

(1900-4)

[Fast Simultaneous Clean-up and Analysis for Organo-chlorinated Pesticides and Polychlorinated Biphenyls of Fat Content in Environmental Marine Samples Using Automated Pressurized Liquid Extraction \(PLE\) and Power Prep Clean-up System](#) Amel Al-Rashdan, Kuwait Institute for Scientific Research, Ibtisam Al-salam, Murad Helaleh

Oral

Session 1910

Improvements in Sample Preparation Technologies (Half Session)

Thursday Morning, Room 217

Maria K. Ferguson, PA Dept of Environmental Protection, Presiding

8:00

(1910-1)

[Bonded Ionic Liquids as Extraction Phases for Solid-phase Microextraction](#) Christa Graham, The University of Toledo, Jared Anderson

8:20

(1910-2)

[Fundamentals and Applications of Needle Trap Devices](#) Heather L. Lord, University of Waterloo, Janusz Pawliszyn, Weiqiang Zhan

8:40

(1910-3)

[Single Reaction Chamber \(SRC\) Technology: An Entirely New Approach in Microwave Sample Preparation](#) Tim Michel, Milestone, Inc., Don Potter

9:00

(1910-4)

[Eliminating the High pH Step in the Automated Solid Phase Extraction of Semi-volatile Organic Compounds from Water for EPA Method 8270](#) William R. Jones, Horizon Technology, Inc., Julie McGettrick, Kevin Dinnean

Oral

Session 1920

Laboratory Informatics: Regulatory Issues to New Software Tools

Thursday Morning, Room 215

Elias Absey, Waters Corporation, Presiding

8:00

(1920-1)

[International Regulation of Laboratory Informatics](#) Sandy Weinberg, Clayton State University, Qiu Fang

8:20

(1920-2)

[New Challenges in Microbiology/Environmental Testing - Reducing Paper, Increasing Productivity](#) Robert Toal, Lonza, Bob Voelkner

8:40

(1920-3)

[The Path and Benefits for an Integrated Analytical Laboratory Workflow: Efficient Interfaces Between Electronic Documentation and Laboratory Activities within Analytical Sciences](#) Karen McCune, Eli Lilly and Company

9:00

(1920-4)

[Development of a Markup Language for Scientific Experiments: ExptML](#) Stuart J. Chalk, University of North Florida

9:35

(1920-5)

[Marketing Hi Tech Service - Aspects and Considerations Part V](#) John F. Litton, Diesner Ag

9:55

(1920-6)

[Self-sufficient Laboratory Management System for Products' Quality Control](#) JR Lee, JRL Consulting

10:15

(1920-7)

[Data Visualization and Dashboards – A Useful Tool for the Lab?](#) Robert Jackson, CSols, Inc.

10:35

(1920-8)

[How Much Virtualization and Consolidation Can Be Applied in a LIMS?](#) David Hurt, LabVantage Solutions, Inc.

Oral

Session 1930

Novel Stationary Phases for Liquid and Thin Layer Chromatography (Half Session)

Thursday Morning, Room 216

Sky Countryman, Phenomenex, Presiding

8:00

(1930-1)

[Pellicular Stationary Phases Created Using Graphite Cores with Porous Nanodiamond Shells for use in High pH Reversed-phase HPLC](#) Landon A. Wiest, Brigham Young University, Andrew Dadson, Chuan-Hsi Hung, David Jensen, Matthew Linford, Michael Vail, Rebecca Olsen

8:20

(1930-2)

[Hafnia and Zirconia Monolithic Columns for Liquid Chromatography](#) Stefan Vujcic, State University of New York at Buffalo, Luis Colon

8:40

(1930-3)

[Synthesis, Packing and Evaluation of Oganosilica Hybrid Particles for UPLC](#) Amber D. Moore, State University of New York at Buffalo, Luis Colon

9:00

(1930-4)

[Novel Silica Based Reversed-phase Thin Layer Chromatography Plates Manufactured Using Carbon Nanotubes as the Framework](#) Supriya S. Kanyal, Brigham Young University, Andrew Dadson, David Jensen, Jun Song, Matthew Linford, Michael Vail, Richard Vanfleet, Robert Davis

Oral

Session 1940

Pharmaceutical - HPLC

Thursday Morning, Room 407

Melissa Wilcox, Grace Davison Discovery Sciences, Presiding

8:00

(1940-1)

[Development and Validation of an HPLC Stability Indication Method for Identification and Assay of Elemental Iron\(II\) in Pharmaceutical Drug Product Using Reversed-phase HPLC](#) Neil C. Dias, Merck & Co, Abu Rustum

8:20

(1940-2)

[Ultra Performance Liquid Chromatography for the Separation and Characterization of Intact Proteins](#) Kenneth J. Fountain, Waters Corporation, Damian Morrison, Hillary Hewitson, Paula Hong

8:40

(1940-3)

[Comparative Chemical Analysis of Branded and Generic Latanoprost Ophthalmic Formulations by an Optimized Rapid UHPLC Method](#) Dujuan Lu, University of Pittsburgh, Alethea Hein, Lei Hong, Michael Pokabla, Robert Noecker, Stephen Weber, Xiaomi Xu

9:35

(1940-5)

[A Novel Stability-indicating Reversed-phase HPLC Method for Simultaneous Identification and Quantitation of Betamethasone Sodium Phosphate, Betamethasone Acetate, and Their Impurities and Degradation Products in Pharmaceutical Dosage Form](#) Jun Lu, Merck & Co, Abu Rustum, Yuchien Wei

9:55

(1940-6)

[Stress Degradation Studies on 5- Fluorouracil Using High Performance Liquid Chromatography: The ICH Guidance in Practice](#) Ranjana Mehrotra, National Physical Laboratory, Nisha Yadav, Parul Singh

10:15

(1940-7)

[Unique Selectivity Improves Separation of Polar Compounds by HPLC and UHPLC](#) Melissa J. Wilcox, Grace Davison Discovery Sciences, Laura Kaepflinger, Michael Early, Reno Nguyen

Oral

Session 1950

Physical Measurement-technology (Half Session)

Thursday Morning, Room 216

Sky Countryman, Phenomenex, Presiding

9:35

(1950-1)

[Ultrasonic Pulsed Doppler \(USPD\), A Novel Backscatter Technique for Characterizing Particles and Nanoparticles and Flows of Suspensions](#) Steven Africk, Prodyne Corp.

9:55

(1950-2)

[Investigation of Hydrodynamic Processes Accompanying of Underwater Metal Nano-particles Formation under Laser Ablation](#) Valery Bulatov, Technion-Israel Institute of Technology, Grigory Toker, Israel Schechter, Tatiana Kovalchuk

10:15

(1950-3)

[Photoelectric Effects in Carbon Nanotube Films Containing Quantum Dots](#) Jerome P. Ferrance, Pettit Applied Technologies, Ameet Juriani, John Pettit, Kenith Meissner

10:35

(1950-4)

[Analyte and Ion Transport with Plasma-based Ambient Desorption/Ionization Mass Spectrometry Sources](#) Kevin P. Pfeuffer, Indiana University, Eyal Elish, Gary Hieftje, Jacob Shelley, Steven Ray

Oral

Session 1960

Sampling and Sample Preparation for Environmental Applications

Thursday Morning, Room 316

Rabih E. Jabbour, Science Applications International Corporation, Presiding

8:00

(1960-1)

[The QuEChERS Extraction Approach and GC-MS for PAHs, Pesticides, and PCBs in Seafood](#) Jack Cochran, Restek Corporation, Jason Thomas, Julie Kowalski, Michelle Misselwitz

8:20

(1960-2)

[Extraction of Dioxins in Deionized Water and Particulate Laden River Water Using Automated SPE and SPE Disks](#) Michael Ebitson, Horizon Technology, Inc., David Gallagher

8:40

(1960-3)

[A New Automated Solvent Extraction System for Matrix Simplification and Analyte Preconcentration Prior to Analysis](#) Craig Ranger, Microfluidica LLC

9:00

(1960-4)

[Effect of Membrane Thickness and Exposure Area on the Uptake Kinetics of a Polydimethylsiloxane-based Permeation Passive Air Sampler](#) Suresh Seethapathy, University of Waterloo, Tadeusz Gorecki

9:35

(1960-5)

[Incremental Sampling Methodology – ITRC Status Report](#) Mark Bruce, TestAmerica, Larry Penfold, Marvin Heskett

9:55

(1960-6)

[Accumulation Rates and Partitioning of PAHs into PDMS Thin-films and Black Worms from Aqueous Samples](#) Heather L. Lord, University of Waterloo, Gangfeng Ouyang, George Dixon, Janusz Pawliszyn, Sandra Mok, Zhipei Qin

10:15

(1960-7)

[Direct Sampling of Chemicals from the Exoskeletons of Live Honeybees Using Solid Phase Microextraction](#) Norman E. Schmidt, Georgia Southern University, Donovan Albarado, Jason Edmondson, Michael Bergeron

10:35

(1960-8)

[Further Optimization of Solid Phase Extraction Disks for the Rapid Processing of Large Volume Environmental Water Samples for EPA Method 1694](#) William R. Jones, Horizon Technology, Inc., Julie McGettrick, Kevin Dinnean

Oral

Session 1970

SERS and Fluorescence Spectroscopic Characterization of Nanomaterials

Thursday Morning, Room 402

Mustafa Culha, Yeditepe University, Presiding

8:00

(1970-1)

[Cellular Imaging with Sugar-coated Conjugated Polymer Nanoparticles](#) Sheng Lin, Clemson University, Kenneth Christensen, Lawrence Fernandez, Prakash Kandel

8:20

(1970-2)

[Optimization of Strain Promoted Azide-alkyne Cycloaddition for the Development of Microarray Technology via Surface Enhanced Raman Spectroscopy](#) Sharon Martin, University of Georgia, Geert-Jan Boons, Jun Guo, Richard Dluhy

8:40

(1970-3)

[Dynamic Imaging and Tracking of Surface-enhanced Raman Active Nanoparticle Clusters in Solution](#) Alastair W. Wark, University of Strathclyde, Alison McLintock, Duncan Graham, Robert Stokes, W Ewen Smith

9:00

(1970-4)

[Synthesis of Biomacromolecule Mediated Ag Au Core-Shell Nanoparticles and their Performance as SERS Labels](#) Mustafa Culha, Yeditepe University, Burak Caglayan, Mehmet Kahraman, Sonay Ali

9:35

(1970-5)

[Disk on Pillar Substrates for Surface Enhanced Raman Spectroscopic Analysis](#) Sabrina M. Wells, University of Tennessee, Kevin Shuford, Michael Sepaniak, Nickolay Lavrik

9:55

(1970-6)

[New Nanotechnology Platform and Sensors Using Electrospun Nanofibers](#) Bryce Davis, The University of California, Riverside, Quan Cheng

10:15

(1970-7)

[Conjugated Polymer Nanoparticles for Sensitive Fluorescence Detection of mRNA in Cells](#) Prakash L. Kandel, Clemson University, Kenneth Christensen, Lawrence Fernando

10:35

(1970-8)

[Surface-enhanced Raman-based Optical Probes for Biological Systems](#) Steven R. Emory, Western Washington University, Adam Jansons, Alicia Mangubat, Elizabeth Wellner, Hannah Sturtevant, Mitch Kiriluk, Nicole Koeppen, Sherry Funston, Simon Finsand

Oral

Session 1980

Surface Analysis and Surface Imaging Methods

Thursday Morning, Room 406

Stephanie Archer-Hartmann, West Virginia University, Presiding

8:00

(1980-1)

[Combination of Temperature Program Reduction and X-ray Photoelectron Spectroscopy for Identification of Active Species on Catalyst Surfaces](#) John P. Baltrus, U.S. Department of Energy/NETL, David Berry, Dushyant Shekhawat, Sittichai Natesakhawat

8:20

(1980-2)

[Surface Characterization of Disposable Laboratory Gloves by X-ray Photoelectron Spectroscopy \(XPS\)](#) Brian R. Strohmeier, RJ Lee Group, Inc., John Piasecki

8:40

(1980-3)

[One- and Two-dimensional Surface Amine Gradients by Controlled-rate Infusion](#) Balamurali Kannan, Virginia Commonwealth University, Daniel Dong, Daniel Higgins, Maryanne Collinson

9:00

(1980-4)

[Synchrotron Infrared Microspectroscopy FPA Enhanced Images of Single Modified Starch Granules](#) David Wetzel, Microbeam Molecular Spectroscopy Laboratory, Michael Nasse

9:35

(1980-5)

[Custom-synthesized Polymeric Reagents at Surfaces](#) Nitesh Madaan, Brigham Young University, Aaron Terry, Adam Woolley, Helmut Schlaad, John Harb, Joshua Robinson, Matthew Linford, Robert Davis

9:55

(1980-6)

[Nonlinear Optical Imaging of Organic Crystal Nucleogenesis](#) Garth Simpson, Purdue University

10:15

(1980-7)

[InSb FPA Image Pixel Counting: Advantages and Limitations for Solid Mixture Quantitation](#) Mark Boatwright, Kansas State University, David Wetzel

10:35

(1980-8)

[Mid-IR and Near-IR FPA Chemical Imaging: Complementary for Biological Materials](#) David Wetzel, Microbeam Molecular Spectroscopy Laboratory, Mark Boatwright

Oral

Session 1990

Vibrational Spectroscopy for Process Analysis (Half Session)

Thursday Morning, Room 217

Maria K. Ferguson, PA Dept of Environmental Protection, Presiding

9:35

(1990-1)

[Characterization of Pigment/Polymer Processing Using In-situ Spectroscopy](#) David Wilsdon, University of Strathclyde, Alison Nordon, David Littlejohn, Ewan Polwart, Jill Johnson, Rupert McIntyre, Suresh Thennadil

9:55

(1990-2)

[Pilot Plant Successive Unit Process Efficiency](#) David Wetzel, Microbeam Molecular Spectroscopy Laboratory, Iva-Tyiran Florin, Jeff Gwartz, Mark Boatwright, Ricardo Lopes, Tyler Nickoley

10:15

(1990-3)

[Performance Evaluation of the Adaptive Regression by Subspace Elimination](#) Bryon Herbert, University of Delaware

10:35

(1990-4)

[Improvements in Mid-infrared ATR Probe Technology for In-situ Process Measurements](#) Allyson C. McIntyre, University of Strathclyde, Alison Nordon, David Littlejohn, Gary Colquhoun, Viacheslav Artyushenko

Oral

Session 2000

X-ray Techniques

Thursday Morning, Room 409

Linda E. Rukavina, PPG Industries, Inc., Presiding

8:00

(2000-1)

[Multi-dimensional X-ray Investigation of Building Materials - Powder Diffraction to Computed Tomography Analyses](#) Jennifer Anderson, PANalytical, Gabriel Blai, Herbert Poellmann, Roger Meier, Uli Riedl

8:20

(2000-2)

[X-ray Excited Optical Technique for Chemical Imaging in Scattering Environments](#) Hongyu Chen, Clemson University, Amanda Patrick, Donald Vanderveer, Jeffrey Anker, Zhiqiang Yang

8:40

(2000-3)

[Fusion - How to Accurately Improve the Throughput by Eliminating the Loss on Ignition Preparation Steps](#) Laura Oelofse, Rigaku Americas Corp

9:00

(2000-4)

['Ready to Go' Fused Bead Application Package for Raw Materials Developed for X-ray Fluorescence Analysis](#) Rainer Schramm, FLUXANA GmbH & Co.KG

9:35

(2000-5)

[Development of Confocal 3D-XRF Instrument and Nondestructive Depth Analysis of Forensic Samples](#) Kouichi Tsuji, Osaka City University, Nakano Kazuhiko, Nakazawa Takashi

9:55

(2000-6)

[Development, Validation, and Characterization of Optic-enabled XRF for Trace Element Analysis of Human Body Fluids](#) Kathryn G. McIntosh, State University of New York at Albany, Alexei Vershinin, Matthew Cusack, Patrick Parsons, Z Chen

10:15

(2000-7)

[Elemental Analysis of Waste Water from Industrial Sources Using Total Reflection X-ray Fluorescence \(TXRF\) Spectroscopy](#) Michael Beauchaine, Bruker AXS

10:35

(2000-8)

[Analysis of Metal Alloys by WDXRF Using a Wide-ranging-oxide Application for Metals Prepared as Fused Beads](#) Greg Wortman, PANalytical, David Coler, Kimberly Halkiotis

POSTER SESSION

Session 2010

Bioanalytical Applications of Mass Spectrometry

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2010-1 P)

[Graphene Oxide-aptamer Conjugates as MALDI-MS Matrix for Biomolecule Analysis](#) Emir Yasun, University of Florida, Basri Gulbakan

(2010-2 P)

[Application of MALDI-TOF-MS and ESI-MS in Characterization of Antibodies](#) Helen Xie, Abbott Laboratories, Carol Ramsay, Cheng Zhao, Jeffrey Fishpough, Panfilo Ozaeta

(2010-3 P)

[Biomarkers of Di\(isononyl\)cyclohexane-1,2-dicarboxylate \(DINCH\)](#) Manori Silva, Centers for Disease Control and Prevention, Antonia Calafat, Earl Gray, Ella Samandar, James Preau, Johnathan Furr

(2010-4 P)

[Direct 2 & 3D Metabolic Profiling of Flower Petals Using Laser Ablation Electrospray Ionization Mass Spectrometry](#) Brent Reschke, Protea Biosciences, Akos Vertes, Matthew Powell

(2010-5 P)

[Metabolic Profiling of Biofluids by Laser Ablation Electrospray Ionization Mass Spectrometry \(LAESI-MS\)](#) Matthew J. Powell, Protea Biosciences, Inc., Brent Reschke

(2010-6 P)

[The Effects of Glycation on the Physical and Kinetic Properties of Human Erythrocyte Glutathione Peroxidase](#) Sreekanth Suravajjala, University of Rhode Island, Joel Dain, Menashi Cohenford, Praveen Pampati

(2010-7 P)

[Analysis of Amino Acids and Amines in Physiological Samples by LC/MS/MS Using Isotope Coded Tags](#) Scott Daniels, AB SCIEX, Babu Purkayastha, Jim Krol, Michael Jarvis

(2010-8 P)

[The Use of MALDI-TOF Mass Spectrometry in the Analysis and Troubleshooting of Complex Protein Mixtures in Diagnostic Products](#) Jason W. Kieltyka, Abbott Laboratories, Eric Lundquist, Maryanne Himmelsbach

(2010-9 P)

[Characterization of Adduct Formation Between Chromium Diimine Complexes and DNA Utilizing HPLC-ESI-MS and Gel Electrophoresis Methods](#) James H. Wade, Furman University, Christian Baker, Hillary Rodgers, John Wheeler, Noel Kane-Maguire, Richard Graybill, Sandra Wheeler, Taylor Harris

(2010-10 P)

[Gas-phase Anion-electron Reactions of Nucleic Acids and Phosphopeptides](#) Hangtian Song, University of Michigan, Hyun Ju Yoo, Kristina Hakansson, Peng Song, Robert Kennedy

(2010-11 P)

[Development of a Reference Measurement Procedure to Quantify Urinary Albumin](#) Ashley Beasley, National Institute of Standards and Technology, David Bunk, Karen Phinney

(2010-12 P)

[Gas-phase Ion-electron and Ion-photon Reactions of Pronase-derived Glycopeptides](#) Wen Zhou, University of Michigan, Kristina Hakansson

(2010-13 P)

[The Proteomic Analysis of Trypanosoma Cruzi Intracellular Amastigotes](#) Xiang Zhu, University of Georgia, Brent Weatherly, James Atwood, Marshall Bern, Ron Orlando

POSTER SESSION

Session 2020

Bioanalytical Applications of Microfluidics/Lab-on-a-Chip

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2020-1 P)

[Fluid Property Characterization of Phospholipids and Its Application in Non-mechanical Valving in Microfluidic Systems](#) Xingwei Wu, West Virginia University, Lisa Holland

(2020-2 P)

[Coupling of a Microfluidic Device to HPLC for the Detection of Fluorescently Tagged Amines](#) Andrew P. Davic, Duquesne University, David Gallaher, Mitchell Johnson, Sean Pawlowski

(2020-3 P)

[The Use of Polyimide Filters for Improving Infrared-based PCR Amplification in Microfluidic Devices](#) Jenny Lounsbury, University of Virginia, James Landers, Natalie Coult

(2020-4 P)

[Amplification of Short Tandem Repeat \(STR\) Regions of the Genome for Forensic DNA Analysis in a Plastic Microfluidic Device](#) Jenny Lounsbury, University of Virginia, James Landers, Natalie Coult

(2020-5 P)

[Development of On-chip Extraction and Analysis of Nucleic Acid Cancer Biomarkers](#) Jayson V. Pagaduan, Brigham Young University, Adam Woolley, Weichun Yang

(2020-6 P)

[Ion-permeable Membrane for On-chip Preconcentration and Separation of Cancer Marker Proteins](#) Pamela N. Nge, Brigham Young University, Adam Woolley, Weichun Yang

(2020-7 P)

[Simulation of Concentration Waveforms in Microfluidic Cell Chambers](#) Xinyu Zhang, Florida State University, Michael Roper

(2020-8 P)

[Particle and Amyloid Fibril Isolation by DC Insulation Gradient Dielectrophoresis \(DC-iGDEP\)](#) Sarah J. Staton, Arizona State University, Indu Kheterpal, Kang Ping Chen, Mark Hayes, Paul Jones, Samuel Gilman, Thomas Taylor

(2020-9 P)

[A Simple and Rapid Method for Measurement of Dissociation Constants of High-affinity DNA Aptamers Against Proteins and Small Molecules](#) Jiaming Hu, Auburn University, Christopher Easley

(2020-10 P)

[Monolithic On-chip Membrane Micro-valves Fabricated in Thermoplastics – Application in a Portable Genetic Analyzer](#) Mateusz Hupert, Louisiana State University, Hong Wang, Hui-Wen Chen, Proyag Datta, Steven Soper

(2020-11 P)

[Manipulation and Capture of Red Blood Cells with DC Insulator-based Gradient Dielectrophoresis](#) Paul V. Jones, Arizona State University, Mark Hayes, Sarah Staton

(2020-12 P)

[Fluorescence Measurements of Apoptosis Temporal Dynamics in a Microfluidic Chip](#) Michelle M. Martinez, Texas Tech University, Dimitri Pappas

(2020-14 P)

[Microfluidic Multi-chamber Perfusion System to Test Cellular Synchronization](#) Tuan Truong, Florida State University, Michael Roper

(2020-15 P)

[Aptamer – Nanoparticle Strip Biosensors for the Detection of Thrombin](#) Anant S. Gurung, North Dakota State University, Hui Xu, Liu Guodong, Meenu Baloda, Yuqing He

(2020-16 P)

[Capillary-channeled Polymer Fibers as a Platform for Detection of Disease Biomarkers](#) Christopher O. Obondi, Clemson University, Kenneth Christensen, Robert Bostic

POSTER SESSION

Session 2030

Bioanalytical Applications of Vibrational Spectroscopy

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2030-1 P)

[Synchrotron Radiation – Infrared Microspectroscopy Investigations of the Effect of \$\[\text{Cr}\(\text{diimine}\)_3\]^{3+}\$ Complexes on Human Lung Cancer Cells](#) Alexis C. Wong, Furman University, Bayden Wood, Carolyn Dillon, Elizabeth Carter, John Wheeler, Ljiljana Puskar, Mark Tobin, Noel Kane-Maguire, Sandra Wheeler

(2030-2 P)

[Coherent Anti-stokes Raman Spectroscopy of Erythrocyte Bacteriocin Interactions](#) James M. Day, University of Notre Dame, Shaun Lee, Stacey Carrier, Zachary Schultz

(2030-3 P)

[Prediction of Empirical Raman Bandshapes for Automated Analyses](#) Nikolas J. Neric, Cleveland State University, John Turner

POSTER SESSION

Session 2040

Chemometrics

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2040-1 P)

[Determining Microalgal Biodiversity as Novel Environmental Indicator - Combining Spectroscopy, Imaging and Prior Information Through Bayesian Statistics](#) Frank Vogt, University of Tennessee, Eduard Duranty, Morgan McConico, Rebecca Horton

(2040-2 P)

[Algorithm for Background Removal for Comprehensive Two-dimensional Liquid Chromatography](#) John G. Mallory, Virginia Commonwealth University, Robert Allen, Sarah Rutan

(2040-3 P)

[Chemometric Assisted Detection and Classification of Ignitable Liquids in Fire Debris](#) Caitlin N. Rinke, University of Central Florida, Erin Waddell, Mary William, Michael Sigman

(2040-4 P)

[Techniques for Resolving Hydrogen Peroxide and pH Fluctuations In-vivo Using Fast Scan Cyclic Voltammetry](#) Jonathan V. Touns, University of North Carolina at Chapel Hill, Gregory McCarty, Leslie Sombers, Marina Spanos

(2040-5 P)

[Data Analysis in Multivariable RFID Vapor Sensors](#) Cheryl Surman, General Electric, Matthew Pietrzykowski, Radislav Potyrailo, Sridhar Dasaratha, TS Vignesh

POSTER SESSION

Session 2050

Chromatography Columns and Their Attributes

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2050-1 P)

[Guard Column Choice: Finding the Balance Between Cost and Analytical Performance](#) Steve Kozel, Restek Corporation, Amanda Rigdon, Jaap de Zeeuw, Julie Kowalski, Michelle Misselwitz, Rick Lake, Ty Kahler

(2050-2 P)

[High-performance SEC Column for the Improved Separation of Low-molecular-weight Range Substances](#) Kanna Ito, Showa Denko America, Inc., Masatoshi Murakami, Motoaki Kamachi, Ryuji Takahashi, Takashi Kotsuka

(2050-3 P)

[Comparison of Chromatographic Performances of the Custom-made HPLC Columns and Commercial C₁₈ Column](#) Pamornrat Kueseng, Trace Analysis and Biosensor Research Center, Chongdee Thammakhet, Panote Thavarungkul, Proespichaya Kanatharana

(2050-4 P)

[Impact of LC System Band-spread Upon UPLC Separations](#) Patricia McConville, Waters Corporation, Charles

Phoebe, Daniel Root, Tanya Jenkins, Thomas Wheat

(2050-5 P)

[Packing Materials with Advanced Technologies \(High Strength, Modified Silica Gel Design\) for Preparative HPLC Separation of Peptide and Protein](#) Noriko Shoji, YMC Co., Ltd., Masakatsu Omote, Naohiro Kuriyama, Takatomo Takai

(2050-6 P)

[Methods for Increased Sample Throughput with Dirty Samples](#) Alan D. Broske, Agilent Technologies, Limian Zhao, William Wilson

POSTER SESSION

Session 2060

Environmental

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2060-1 P)

[Determination of Trace Levels of Pb\(II\) in Battlefield Soil Extracts by Sequential Extraction and Electrothermal Atomization Atomic Absorption Spectroscopy \(ETAAS\)](#) Scott A. Schlipp, University of Wisconsin-Milwaukee, Anne Wierzbinski, Joseph Aldstadt

(2060-2 P)

[On-line Measurements of Arsenic and Mercury Using Atomic Fluorescence Spectrometry](#) Bin Chen, PS Analytical, Matthew Dexter, Peter Stockwell, Warren Corns

(2060-3 P)

[Antimony Speciation in Sweeteners Using Liquid Chromatography Hydride Generation Atomic Fluorescence Spectrometry \(HPLC -HGAFS\)](#) Bin Chen, PS Analytical, Peter Stockwell, Warren Corns

(2060-4 P)

[Mercury Speciation and Total Mercury in Fish and Seafood Products](#) Warren T. Corns, PS Analytical, Bin Chen, Peter Stockwell

(2060-5 P)

[Size-based Phytotoxicity of Silica Nanoparticles to \[i\]Arabidopsis thaliana\[/i\]](#) Danielle L. Herrod, University of North Carolina at Chapel Hill, Mark Schoenfisch

(2060-6 P)

[On-line Determination of Water Soluble Zinc in PM10 Using Flame Atomic Absorption Spectroscopy. An Investigation of Bioavailability](#) Chaudhary Azam Mukhtar, Vienna University of Technology

(2060-7 P)

[Correlation Analysis for Improvement of Reproducibility of Trace Determination by Means of Laser-Induced Breakdown Spectrometry](#) Andrey Popov, MV Lomonosov Moscow State University, Nikita Zorov, Timur Labutin

(2060-8 P)

[Performance Characteristics and Comparison of Continuous and Batch Mode Hydride Generation for Trace Elemental Determination by ICP and ICPMS](#) Nathan J. Saetveit, Elemental Scientific, Austin Schultz, Daniel Wiederin

(2060-9 P)

[A Sequential Extraction Approach to Evaluation and Comparison of Selected Metals in Soils from Around the United States](#) Mark T. Stauffer, University of Pittsburgh at Greensburg, Daniel Soisson

(2060-10 P)

[Cold-trapping with a Coil Trap for the Determination and Speciation of Arsenic by Flow Injection/Hydride Generation/Atomic Fluorescence Spectrometry](#) Nan Wang, University of Massachusetts Amherst, Julian Tyson

(2060-11 P)

[Effect of Geographical Location on Trace-metal Pollutants from Coal-fired Power Plants Using Lichens as Biomonitors](#) Edward A. Yearly, Thomas More College, William Wetzel

(2060-12 P)

[Simultaneous Sampling and Analysis of Indoor Air Infested by *Cimex lectularius* L. \(Hemiptera: Cimicidae\) with Solid Phase Microextraction, Thin Film Microextraction and Needle Trap Device](#) Sanja Risticvic, University of Waterloo, In-Yong Eom, Janusz Pawliszyn

(2060-13 P)

[Biosurfactant Leaching Experiments of Uranium Contaminated Soils](#) Sara Asselin, Northern Arizona University, Jani Ingram

(2060-14 P)

[Extraction of Phthalates in Solid and Liquid Matrices](#) David E. Knowles, Dionex, Brett Murphy, Brian Dorich, Bruce Richter, Eric Francis, Jennifer Peterson, Richard Carlson

(2060-15 P)

[Automated SPE for Wastewater Analysis: EPA 600 Series Methods](#) David E. Knowles, Dionex, Brett Murphy, Brian Dorich, Bruce Richter, Eric Francis, Richard Carlson

(2060-16 P)

[Analysis of Ergosterol for the Detection of Mold in Soils by Automated On-ber Derivatization Headspace Extraction-SPME-GC/MS](#) Jamie M. Warren, University of Waterloo, Don-Roger Parkinson, Janusz Pawliszyn

(2060-17 P)

[Isolation of a Novel Metal Binding Peptide from Blood Plasma of the Marine Mussel, \[i\] Mytilus edulis \[i\] and Its Potential Role as a Biomarker of Metal Contamination](#) Rahul S. Manmode, University of Massachusetts Lowell, Chetankumar Malepati, David Ryan

POSTER SESSION

Session 2070

Environmental Analysis

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2070-1 P)

[Optimization of the Multivariate Analysis of Mixtures of Arsenate/Phosphate](#) Stuart J. Chalk, University of North Florida, Jennifer Charlton, Mhai Hin

(2070-2 P)

[A Semi-automated Method for the Measurement of Total Kjeldahl Nitrogen \(TKN\) at Concentrations Below](#)

[100 µg N/L in Environmental Samples](#) Lynn Egan, Lachat Instruments- A Hach Company Brand

(2070-3 P)

[Photon Trapping Spectroscopy: Prototype Design, Optimization, and Application](#) John A. Frost, University of Wisconsin-Milwaukee, Joseph Aldstadt, Peter Geissinger, Ryan Schmeling

(2070-4 P)

[Spectral Measurement of Small Volume Sample Using Polyhedral Optics](#) In Sung Kang, SCINCO, Kyung Won Ro, Park Young Dong

(2070-5 P)

[Investigation of the Interactions of Surfactant/Polyelectrolyte Complexes with Water Soluble Organics Dyes Using Ultraviolet Visible Spectroscopy and Multivariate Least Square Analysis](#) Dion Rivera, Central Washington University, Brittany Best, Ryan Scheffelmaier

(2070-6 P)

[Development of a Flow Injection Analysis-sensor-on-a-valve Device for Monitoring the Water Disinfectant Silver \(I\) Ion During Spaceflight Missions](#) Jill P. Williamson, University of Memphis, Gary Emmert, Paul Simone

(2070-7 P)

[Further Adventures in Phytoremediation: Revisiting the Uptake of Arsenic by Sunflower](#) Mark T. Stauffer, University of Pittsburgh at Greensburg, Loris Solic

(2070-8 P)

[Automated Method for the Turbidimetric Measurement of Sulfate in Flowback Water](#) Lynn Egan, Lachat Instruments- A Hach Company Brand

(2070-9 P)

[Development of Electrostatically Attached Hyperbranched Condensation Polymers for Use in Sulfur Speciation](#) Sheetal Bhardwaj, Dionex Corporation, Christopher Pohl, Kannan Srinivasan

(2070-10 P)

[Utilization of Ionic Liquids for the Preconcentration of Pesticides and Pharmaceuticals from Water Using](#)

[Traditional and In-situ Dispersive Liquid-liquid Microextraction](#) Tianhao Li, The University of Toledo, Jared Anderson

(2070-11 P)

[In Cell Clean-up Using ASE: Tips in Selection of Sorbents and Solvents](#) David E. Knowles, Dionex, Brett Murphy, Brian Dorich, Bruce Richter, Eric Francis, Richard Carlson

(2070-12 P)

[Implications of Deforestation on Soil Nutrients of Lagos State, Nigeria](#) Abiodun T. Afolabi, Lagos State University

(2070-13 P)

[Soil Extraction Cell: An Alternate Method of Soil Extraction for Organics](#) Joseph M. Boyd, Environmental Express

(2070-14 P)

[Establishing Key Soil Functional Properties Using Low Cost Infrared Analysis – Nutrition and Contamination](#) Robert J. Packer, PerkinElmer, Ben Perston, Chris Lynch, Olivier Savard, Patrick Courtney

(2070-15 P)

[Optodes for Aquatic O₂ and pCO₂ Measurements: Experiences and New Developments](#) Anders Tengberg, Aanderaa Data Instruments an ITT Analytics Company, Jarle Heltne, Jostein Hovdenes

(2070-16 P)

[Wireless Chemical Sensor Network Incorporating Polymer Membrane Ion-selective Electrodes](#) Aleksandar Radu, Dublin City University, Cormac Fay, Dermot Diamond, Finbarr Quinlan, Salzitsa Anastasova

(2070-17 P)

[Integration of Thin-film Gold Electrodes on a Cyclic Olefin Copolymer Microfluidic Device for the Analysis of Perchlorate in Drinking Water by Conductivity Detection](#) Jason M. Emory, Colorado State University, Charles Henry, Donald Cropek, Jana Gertsch

POSTER SESSION

Session 2080

Environmental Analysis: Biological Matrices

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2080-1 P)

[Analysis of Micro Nutrients in Water](#) Jay Gandhi, Metrohm USA, Brian Wilson

(2080-2 P)

[The Use of Willow \(*Salix spp.*\) Leaves as a Biomonitor for Atmospheric Mercury](#) David W. Lehmpuhl, Colorado State University Pueblo, Brian Vanden Heuvel, James Carsella, William Christman

(2080-4 P)

[Fully Automated Multi-step Cleanup of Tissues for PAH Analysis](#) Jennifer Salmons, J2 Scientific, Jeff Wiseman, Thomas Dobbs

(2080-5 P)

[Comparison of Mold Odor Analysis in Water by PTC and Solid-phase Microextraction \(SPME\)](#) Nathan Valentine, Teledyne Tekmar, Roger Bardsley, Tyler Trent

(2080-6 P)

[The Evaluation of Organic Contaminants in Biofuel Matrices](#) Thomas P. Yavaraski, University of Michigan, Avery Demond, Margarita Otero Diaz

(2080-7 P)

[Environmental Contamination Risk Assessment for Elemental Analysis of Biological Specimens](#) Darcy Fjosne, Mayo Clinic, Matthew Hanley, Nate Hines, Steven Eckdahl

(2080-8 P)

[Nitrogen/Protein Determination in Brewery Industry Products by Flash Combustion Using Large Sample Weight in Alternative to Kjeldahl Method](#) Geert Van D'Huynslager, Boortmalt, Guido Giazzi, Jean-Louis Brix, Liliana Krotz, Roel Wuyts

(2080-9 P)

[Detection of Biohazardous Effect of House Dust by Measuring Bioluminescence Intensity of Marine](#)

[Bacterium \[i\]Vibrio Fischeri\[/i\]](#) Masafumi Oikawa, Tokai University, Shiro Ikeda, Yoshika Sekine

(2080-10 P)

[Detection of Norovirus in Clams \(\[i\]Mercenaria Mercenaria\[/i\]\) Deployed in Hampton Roads \(VA\) Waterways](#) Lisa S. Webb, Christopher Newport University, Tiffany Elston

POSTER SESSION

Session 2090

Environmental Analysis: Gases and Particulates in Air

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2090-1 P)

[One System for Trace and High Level Air Monitoring – The Future of Ambient Air and Soil Gas Analysis](#) Stephen Davies, Markes International, David Wevill, Matthew Bates

(2090-4 P)

[Simple and High Collection Efficiency Sampling Method for Monitoring of Carbonyl Compounds in Air](#) Opas Bunkoed, Trace Analysis and Biosensor Research Center, Chongdee Thammakhet, Panote Thavarungkul, Proespichaya Kanatharana

(2090-5 P)

[Measurement of Total Carbon Concentration in Air Using Laser Induced Breakdown Spectroscopy](#) Vivek Dikshit, Mississippi State University, Fang-Yu Yueh, Jagdish Singh, Jinesh Jain, Krishna Ayyalasonmayajula, Nouredine Melikechi

(2090-6 P)

[A Fluorescence Sensor for the Detection of Alcohol Vapors](#) Jonathan Fong, University of Tennessee Knoxville

(2090-7 P)

[Benefits of Radial Passive Samplers](#) Katherine K. Stenerson, Supelco, James Desorcie, Kristen Schultz

(2090-8 P)

[Accurate Monitoring of Sulfur Compounds in Fused Silica Lined Canisters Utilizing a New Approach for Water Removal During Field Sampling](#) Thomas X. Robinson, Entech Instruments, Inc., Christopher Casteel, Daniel Cardin

(2090-10 P)

[Environmental Tobacco Smoke Contamination in Smoking Premises: Determination of Variables that can Differentiate Between Different Type of Premises](#) Juan M. Sanchez, University of Girona, Anna Godayol, Emili Besalu, Enriqueta Antico, Monica Alonso

(2090-11 P)

[The Use of Pyrolysis GC-MS to Characterize Indoor Dust](#) Karen Jansson, CDS Analytical, Inc., Gary Deger, Steve Wesson, Thomas Wampler

(2090-12 P)

[Gaseous Phases Characterization Using an Elemental Analyzer by Automatic Direct Injection](#) Ilaria Baneschi, Institute of Geosciences and Earth Resources, CNR, Guido Giuzzi, Liliana Krotz, Luigi Dallai, Massimo Guidi

(2090-13 P)

[Adaptation of an Ambient Ion Monitor for Detection of Amines](#) Philip J. Silva, USDA-ARS, Nanh Lovanh

POSTER SESSION

Session 2100

Environmental Analysis: Nanotechnology

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2100-1 P)

[Development and Evaluation of Nano Stationary Phase GC Capillary Columns for the Analysis of Basic/amino Group Containing Compounds](#) Allen Britten, Cape Breton University, Krishnat Naikwadi

(2100-2 P)

[Investigation of Nano Stationary Phase Capillary Columns and Fast Temperature Programming for Fast GC](#) Krishnat Naikwadi, J & K Scientific, Allen Britten, Stephen MacDonald

(2100-3 P)

[Development and Evaluation of Highly Phenylated Nano Stationary Phase GC Capillary Columns for Environmental Analysis Using GC and GC-MS](#) Krishnat Naikwadi, J & K Scientific, Allen Britten

(2100-4 P)

[Development and Evaluation of New Generation of Highly Stable and Selective Nano Stationary Phase GC Capillary Columns for Environmental Analysis Using GC-FID and GC-MS](#) Krishnat Naikwadi, J & K Scientific, Allen Britten

(2100-5 P)

[Measurement of Atrazine Based on a Nanotubules Membrane Sensor](#) Shasheng Huang, Shanghai Normal University, Li Bifen

(2100-6 P)

[Stripping Voltammetric Detection of Pb\(II\), Cd\(II\) and Zn\(II\) Using a Bimetallic Hg-Bi/single-walled Carbon Nanotubes Composite Electrode](#) Ruizhuo Ouyang, University of Tennessee, Clarissa Tatum, James Chambers, Zhenqian Zhu, Ziling Xue

(2100-7 P)

[Silver Nanoparticles as Catalyst for Reductive Degradation of Five Major Hazardous Textile Dye Chromophores in Aqueous Solution](#) Gaurang M. Patel,

(2100-8 P)

[Effect of Rhamnolipid Biosurfactants on the Dispersion of Metal Oxide Nanoparticles in Water](#) Angela R. Soemo, University of Arizona, Brooke Hurlburt, Jeanne Pemberton, Raina Maier

POSTER SESSION

Session 2110

Environmental Analysis: Organic Constituents

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2110-1 P)

[Environmental Monitoring of Polycyclic Aromatic Hydrocarbons in Lichen Using Capillary Electrophoresis and Gas Chromatography-Mass Spectrometry](#) James R. Kraly, Keene State College, Andrew Abeleira, Jacob

Meier

(2110-2 P)

[EPA Method 8270 Analysis Using Narrow-bore GC Columns and Ultra-fast Data Acquisition with a New Quadrupole GCMS System](#) Richard Whitney, Shimadzu Scientific Instruments, C Mark Taylor, Zhuangzhi 'Max' Wang

(2110-3 P)

[Applications of Comprehensive GCxGCMS Using a Quadrupole Mass Spectrometer With Ultra-high Scan Speed](#) Richard Whitney, Shimadzu Scientific Instruments, C Mark Taylor, Zhuangzhi 'Max' Wang

(2110-4 P)

[A Strategy to Separate and Detect Steroids Using Capillary Electrophoresis](#) Jana Woofter, West Virginia University, Jennifer Stueckle, Lisa Holland, Stephanie Archer-Hartmann, Tiffany Dolan

(2110-5 P)

[New Method for Extraction of Endocrine Disruptors in Water Sample Based on Molecularly Imprinted Polymer](#) Kaynoush Naraghi, Polyintell, Céline Pérollier, Delphine Derrien, Olivier Lépine, Sami Bayoudh

(2110-6 P)

[Analysis of Isomers of High-molecular Weight Polycyclic Aromatic Hydrocarbons in Drinking Water via Solid-phase Nanoextraction and Laser-excited Time-resolved Shpol'skii Spectroscopy](#) Walter B. Wilson, University of Central Florida, Andres Campiglia, Huiyong Wang

(2110-7 P)

[Determination of Polycyclic Aromatic Hydrocarbons in Water Samples via Solid-phase Extraction with BEA Zeolites and High-performance Liquid Chromatography](#) Walter B. Wilson, University of Central Florida, Andreia Costa, Andres Campiglia, Huiyong Wang, Jose Dias, Silvia Dias

(2110-8 P)

[Analysis of Polybrominated Diphenyl Ethers \(PBDEs\) in Complex Matrices by Gas Chromatography with Multi Reflecting-Time of Flight Mass Spectrometry \(GC-MR-TOFMS\)](#) Joe Binkley, LECO Corporation, John Heim, Kevin Siek, Mark Merrick, Viatcheslav Artaev

(2110-9 P)

[Analysis of Polychlorinated Biphenyls \(PCBs\) in Fish Oil Supplements by Gas Chromatography with Multi Reflecting-Time of Flight Mass Spectrometry \(GC-MR-TOFMS\)](#) Joe Binkley, LECO Corporation, John Heim, Kevin Siek, Mark Merrick, Viatcheslav Artaev

(2110-10 P)

[Organochlorine Pesticides in Soils from Sinu River Valley, Colombia](#) Jose L. Marrugo, University of Cordoba, Amado Navarro

(2110-11 P)

[Ultrasensitive Detection of Pesticides in Drinking Water with a Simple, Rapid, and High Quality Analysis](#) Kenneth J. Rosnack, Waters Corporation, Eleanor Riches, Gareth Booth, James Morphet, Joseph Romano, Paul Silcock, Peter Hancock

(2110-12 P)

[Analysis of Pesticide Residues in Fruit Commodities by Comprehensive Two-dimensional Gas Chromatography-Time of Flight Mass Spectrometry \(GCxGC-TOFMS\) and QuEChERS Extraction Approach](#) Doug Staples, LECO Corporation, Joe Binkley, John Heim

(2110-13 P)

[Environmental Wildlife Protection: Pesticide Poisoning Identified Using a Broad-scope UPLC-TOF Screening Approach](#) Kenneth J. Rosnack, Waters Corporation, Anna Giela, Eleanor Riches, George Keenan, Hilary Major, James Morphet, Jennifer Watson, Joanne Cardwell, Joseph Romano, Michael Taylor, Paul Silcock, Peter Hancock

(2110-14 P)

[Investigation of Corrosion Inhibitors and Inhibitive Effect of Some Novel Organic Dyes on the Corrosion of 2S Aluminum in Alkaline Media](#) Popatbhai K. Patel, M. G. Science Institute

(2110-15 P)

[Validation of Volatile Organic Compound by USEPA Method 8260C](#) Tyler Trent, Teledyne Tekmar

(2110-16 P)

[California Oxygenates and 8260](#) Lindsey Pyron, EST Analytical, Anne Jurek, Doug Meece

(2110-17 P)

[Environmental Assessment of Daura Refinery Site-evaluation of Hydrocarbon Pollution in the Soil](#) Mahmood M. Barbooti, Montclair State University, Adil Hamadi

(2110-18 P)

[Automated Fractionation of Extractable Petroleum Hydrocarbons from Soil](#) Geoff Davies, Biotage GB Limited, Gary Dowthwaite, Helen Lodder, Richard Calverley, Steve Jordan

(2110-19 P)

[Total Petroleum Hydrocarbons in Agricultural Soils of the Sinu Basin, Colombia](#) Amado E. Navarro, Technological University, Jose Marrugo

(2110-20 P)

[More Than Just Litter: Quantification of Compounds Leached from Cigarettes](#) Matthew D. Stephens, University of Tennessee at Chattanooga, Gretchen Potts

(2110-21 P)

[Environmental Sites in Southwest Louisiana](#) Joseph Sneddon, McNeese State University

(2110-22 P)

[Comparison of Needle Trap and Solid-phase Microextraction Coupled with Portable Gas Chromatograph-Toroidal Ion Trap Mass Spectrometer \(GC-TMS\) for On-site Applications](#) Jamie M. Warren, University of Waterloo, Janusz Pawliszyn

(2110-23 P)

[An On-site Biosensor for Determination of Phenolic Contaminants Using Disposable SWCNTs-AuNPs-Tyrosinase Modified Screen Printed Electrodes](#) Yuanting Li, East China University of Science & Technology, Dawei Li, Wei Song, Yi-Tao Long

(2110-24 P)

[Specific and Selective MS Detection for Environmental Analysis by Ion Chromatography](#) Steven R. Brown, Dionex, Leo (Jinyuan) Wang, Marcus Miller, William Schnute

(2110-25 P)

[Research on Interference Free Degasser for Mass Spec](#) Liu Quan, Idex Health and Science

(2110-26 P)

[Occurrence of Antidepressants in Fish: Field and Laboratory Studies](#) Melissa M. Schultz, The College of Wooster, Elizabeth Sakach, Heiko Schoenfuss

(2110-27 P)

[Development and Application of Miniaturized High-resolution Time-of-Flight Mass Spectrometer "MULTUM-S II"](#) Shuichi Shimma, Osaka University, Michisato Toyoda, Shinichi Miki

(2110-28 P)

[Investigation of Trimethoprim Degradation in Free Chlorine and Permanganate Oxidation Systems Using LC-MS/MS](#) Chuan Wang, Missouri University of Science and Technology, Craig Adams, Honglan Shi, Terry Timmons, Yinfa Ma

(2110-29 P)

[Standardizing Solid Phase Microextraction - Gas Chromatography/Mass Spectroscopy Analysis Using p-Cymene in a Saturated Methylene Chloride Vapor](#) Norman E. Schmidt, Georgia Southern University, Amanda Smith, Janna Matson, Koomi Orr, Michael Bergeron

POSTER SESSION

Session 2120

Environmental Analysis: Water and Waste

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2120-1 P)

[Development and Optimization of a Portable Field Kit for the Analysis of Trihalomethanes and Haloacetic Acids Concentrations in Drinking Water](#) Meggan L. Larson, The University of Memphis, Gary Emmert, Patricia Panaivo, Paul Simone, Yin Yee Choo

(2120-2 P)

[A Semi-automated Portable Field Kit for the Analysis of Trihalomethanes and Haloacetic Acids in Drinking Water](#) Yin Yee Choo, University of Memphis, Gary Emmert, Meggan Larson, Patricia Ranaivo, Paul Simone

(2120-3 P)

[Determination of Haloacetic Acids in Aqueous Environments by Solid Phase Extraction Using Automated Sample Processing Instrumentation](#) Tom Dobbs, J2 Scientific, Jeff Wiseman, Jennifer Salmons

(2120-4 P)

[Assay of Environmental Samples for Perchlorate and Nitrate Anions by Ion Chromatography Coupled with Conductivity Detection](#) Jennifer Fedorowski, University of Maryland Baltimore County, Michelle Lorah, William LaCourse

(2120-5 P)

[Titration, An Over 200 Year Old Method Gives Exact Quantitative Answers of Actual Problems in Environment and New Materials](#) Juergen Peters, SI-Analytics GmbH

(2120-6 P)

[Quantitation of Fluoroacetic Acid and Fluoroacetamide with Mass Spectrometric Detection](#) Marcus Miller, Dionex, Jinyuan Wang, William Schnute

(2120-7 P)

[Meeting the US Environmental Protection Agency Drinking Water Requirements with a UV/ Persulfate Analyzer](#) Stephen Lawson, Teledyne Tekmar, Nathan Valentine, Tyler Trent

(2120-8 P)

[Formation of Chloroalkylphenols by the Reaction of Alkylphenols and Residual Chlorine in Chlorinated Tap Water](#) Noriko Yoshida, Tokai University, Takio Kitahara

(2120-9 P)

[A Market Basket Survey of the Chemical Quality of 30 Bottled Water Samples in Central Indiana](#) Olujide T. Akinbo, Butler University, Bre Suggs, Crystal Hon, Joshua Blackwell, Joshua Taylor, Leigh Weston, Morgan Cox

(2120-10 P)

[Determination of Volatile Organic Compounds \(VOCs\) in Various Drinking Water Sources by GC/MS Using EPA Method 524.2](#) Nathan Valentine, Teledyne Tekmar, Roger Bardsley, Tyler Trent

(2120-11 P)

[Investigation of Oxidative and PAC Removal of Selected Pharmaceuticals in Various Oxidation Systems in Drinking Water Treatment by Using LC-MS/MS](#) Chuan Wang, Missouri University of Science and Technology, Craig Adams, Honglan Shi, Terry Timmons, Yinfa Ma

(2120-12 P)

[A New Ion-chromatography Column for the Rapid and High-resolution Separation of Oxyhalides](#) Takashi Kotsuka, Showa Denko America, Inc., Hirotsugu Nakanishi, Kanna Ito, Masatoshi Murakami, Motoaki Kamachi, Satoshi Tsuruoka

(2120-13 P)

[Microbore Columns: A Contribution to Green Chemistry](#) Jay Gandhi, Metrohm USA, Andrea Wille, Katinka Meike Ruth, Thomas Hartmann

(2120-14 P)

[Simultaneous Determination of Total Bound Nitrogen \(TNb\) and Total Organic Carbon \(TOC\) in Aqueous Samples](#) Jeffrey R. Lane, OI Analytical, Gary Engelhart, William Lipps

(2120-15 P)

[Effect of Particulate Matter on Total Organic Carbon \(TOC\) Analysis of Environmental Water Samples](#) Jeffrey R. Lane, OI Analytical, Gary Engelhart, James Slaton, William Lipps

(2120-16 P)

[A New SPE Media for the Enrichment of Trace Acrylamide in Water](#) Qian Li, Agela Technologies

(2120-17 P)

[Determination of Chloroanilines: Liquid Chromatography or Gas Chromatography? Analysis of Chloroanilines in Waste Water by LC/MS-MS](#) Lauriane Barritaud, Veolia Environment, Research & Innovation, Gaëla Leroy, Valérie Ingrand

(2120-18 P)

[Cyanide Concentration Changes in Environmental Water Samples as a Function of Sample Preservation, and Holding Time](#) William C. Lipps, OI Analytical, Gary Engelhart

(2120-19 P)

[Preconcentration of Some Metal Ions by Three Agarose Based Chelating Adsorbents in Water](#) Hashem Akhlaghi, Islamic Azad University

(2120-20 P)

[Determination of Arsenic in Water by Quartz Crystal Microbalance](#) Chengbei Li, University of Massachusetts, Amherst, Julian Tyson

(2120-21 P)

[Automated Simplified Total KJELDAHL Nitrogen by Flow Injection Analysis](#) Scott Tucker, Hach

(2120-22 P)

[The Rapid Measurement of Chemical Oxygen Demand in a Variety of Sample Matrices Utilizing a New Green Technology](#) Lindsay Peddle, ManSci Inc., Robert Menegotto

(2120-23 P)

[Automated Multi-parameter Analysis Including Triple Wavelength Color Measurement and UV254](#) Lindsay Peddle, ManSci Inc., Lauren Park, Robert Menegotto

(2120-24 P)

[Real-time BOD Estimations by COD Analysis on an Automated BOD/COD Dual Platform System](#) Lindsay Peddle, ManSci Inc., Lauren Park, Robert Menegotto

(2120-25 P)

[Monitoring and Modeling the Occurrence of Priority Substances in Wastewater](#) Lisa Jones, Dublin City University, Antoin Lawlor, David Styles, Fiona Regan

(2120-26 P)

[Determination of Cerium Ion by Polymeric Membrane and Coated Graphite Electrode Based on Novel Pendant Armed Macrocyclic](#) Perna Singh, Indian Institute of Technology, Roorkee

(2120-27 P)

[Polymeric Membrane and Coated Graphite Electrode for Potentiometric Determination of Zn\(II\) Ions at Nano](#)

[Level Using Macrocyclic Ligand Having Two Methacrylate Arms](#) Ashok K. Singh, Indian Institute of Technology, Roorkee, Prerna Singh

(2120-28 P)

[A Quick and Low Cost Technique to Detect Heavy Metals in Wastewater](#) Yasith S. Nanayakkara, The University of Texas at Arlington, Daniel Armstrong, Hyejin Moon

(2120-29 P)

[Comparison of Different Column Dimensions for HPLC-ICP-MS Inorganic Speciation in Water and Food](#) Zoe Grosser, PerkinElmer, Inc, Kenneth Neubauer, Lee Davidowski, Pamela Perrone

(2120-30 P)

[Digital and Intelligent - Handheld Instruments for Optical Oxygen Measurement](#) Frank D. Honold, WTW GmbH

(2120-31 P)

[Saltwater Intrusion Analysis Using A High Temperature Carbon Analyzer with Static Pressure Concentration Technology](#) Stephen Lawson, Teledyne Tekmar, Nathan Valentine, Stephen Proffitt, Tyler Trent

(2120-32 P)

[Headspace Karl Fischer Titration for the Analysis of Moisture in Traceable Standards and High Value Materials](#) George E. Porter, Metrohm USA, James Neal-Kababick

(2120-33 P)

[Development of Novel Sampling Materials for Monitoring of Pesticides in Surface Waters](#) Fiona Regan, Dublin City University

POSTER SESSION

Session 2130

Gas Chromatography

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2130-1 P)

[Versatile Automated Pyrolysis GC Combining a Filament Type Pyrolyser with a Thermal Desorption Unit](#) Eike Kleine-Benne, Gerstel GmbH & Co. KG, Bernd Rose

(2130-2 P)

[Determination of Organophosphorus, Organic Chloride and Carbamates Residues in the Vegetables by Auto Solid Phase Extraction/Gas Chromatography](#) Jianwang Li, Bonna-agela

(2130-3 P)

[The Benefits of High Temperature Analysis in Solving Analytical Challenges in Gas Chromatography](#) Ngoc Nguyen, Phenomenex

(2130-4 P)

[Electrodeposition of Polyphenol Films for Use as Gas Chromatographic Stationary Phases](#) William H. Steinecker, Miami University, Caitlin Keller, Gilbert Pacey, James Cox

(2130-5 P)

[Field Analysis of Elemental Sulfur in Drywall by GC/ECD](#) Rajeshmal Singhvi, US EPA

(2130-6 P)

[A Comparison of Ionic Liquid and Polymer Based Capillary Columns for the Analysis of FAME Isomers](#) Leonard Sidisky, Supelco, Greg Baney, James Desorcie, Katherine Stenerson, Yizeng Ni

(2130-7 P)

[New Developments with Ionic Liquid Capillary Columns](#) Leonard Sidisky, Supelco, Greg Baney, James Desorcie, Katherine Stenerson, Yizeng Ni

(2130-8 P)

[Rapid Operational Behavior in Thermal Gradient Programmed Gas Chromatography \(TGPGC\) Technology](#) Wayne A. Rubey, University of Dayton, Research Institute, Richard Striebich

(2130-9 P)

[Petroleum Fingerprinting Methods in Environmental Samples](#) Alejandro Gonzalez, DCG Partnership

(2130-10 P)

[Using a "Small GC" on Top of Your Analytical GC to Improve Method Performance](#) Trisa Robarge, Thermo Fisher Scientific, Daniela Cavagnino, Eric Phillips, Fausto Munari, Jim Edwards

(2130-11 P)

[A New Single-stage Cryogenic Modulator for Comprehensive Two Dimensional Gas Chromatography \(GC×GC\)](#) Ahmed Mostafa, University of Waterloo, Tadeusz Gorecki

(2130-12 P)

[Towards Development of a Fast GC Based Point of Care Human Breath Analyzer](#) Edward Overton, Louisiana State University

(2130-13 P)

[Monitoring Trihalomethane Concentrations in Drinking Water Using Capillary Membrane Sampling-Gas Chromatography with Pulsed Discharge Photoionization Detection](#) Derek J. Pegram, University of Memphis, Gary Emmert, Michael Brown, Paul Simone

(2130-14 P)

[Rapid Temperature Programming and Retention Prediction on Novel Packed-capillary Columns in Gas Chromatography](#) Yoshihiro Saito, Toyohashi University of Technology, Ikuo Ueta, Kiyokatsu Jinno, Mitsuru Inoue, Tomoya Miura

(2130-15 P)

[The Utility of Headspace Grade Solvents in the Analysis of Organic Volatile Impurities](#) Katherine K. Stenerson, Supelco, Shyam Verma

(2130-16 P)

[GC Inlet Liner – An Important Contributor to the Inertness of the Sample Flow Path](#) Limian Zhao, Agilent Technologies, Alan Broske, Allen Vickers, David Mao, Lindy Miller, Mitch Hastings

(2130-17 P)

[Form and Function PART II: Understanding the Complex World of GC Inlet Liners](#) Scott L. Grossman, Restek Corporation, Corby Hilliard, Gary Stidsen, Jack Cochran

(2130-18 P)

[Modes of Activity in Gas Chromatography Inlet Liners, Their Chromatographic Evidence, and the Probes Used to Explore Them](#) Scott L. Grossman, Restek Corporation, Corby Hilliard, Gary Stidsen, Jack Cochran

POSTER SESSION

Session 2140

Homeland Security and Forensic Analysis

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2140-1 P)

[Integrated Continuous Flow Polymerase Chain Reaction and Micro-capillary Electrophoresis \(CFPCR- \$\mu\$ CE\) System with Bioaffinity Pre-concentration](#) Samuel K. Njoroge, Louisiana State University, Magorzata Witek, Mateusz Hupert, Steven Soper

(2140-2 P)

[Forensic Gel Ink Analysis Using Capillary Electrophoresis](#) Scott Minchenberg, Hofstra University, Andrew O'Connell, Ling Huang

(2140-3 P)

[Evaluation of Detection Performance of Commercially Available Portable Ion Mobility Spectrometers for Chemical Warfare Agents](#) Takafumi Satoh, National Research Institute of Police Science, Isaac Ohsawa, Koichiro Tsuge, Mieko Kanamori-Kataoka, Shintaro Kishi, Takeshi Ohmori, Yasuo Seto

(2140-4 P)

[Chemometric Classification of Gunshot Residues Based on Electrochemical Information](#) Maiara Salles, Universidade de São Paulo, Mauro Bertotti, Thiago Paixao

(2140-5 P)

[Electrochemical Detection of 2,4-Dinitrotoluene at a 3-Dimensionally Ordered Macroporous \(3DOM\) Carbon Electrode](#) Eric J. Olson, University of Minnesota, Andreas Stein, Melissa Fierke, Philippe Buhlmann

(2140-6 P)

[Selection of the Optimal Containment Vessel for the Storage of Explosives Training Aids](#) Katylynn Beltz, Florida International University, Kenneth Furton

(2140-7 P)

[Field Test at Airport and Train Station by High-throughput Walkthrough Portal for Detecting Improvised Explosive Devices \(IEDs\)](#) Hisashi Nagano, Hitachi, Ltd., Masuyuki Sugiyama, Minoru Sakairi, Yasuaki Takada, Yasutaka Suzuki, Yuichiro Hashimoto

(2140-8 P)

[An Evaluation of a Field-portable NIR Hand-held for the Detection and Identification of Controlled Substances and Explosives](#) Kirk M. Grates, NFSTC, Joan Ring

(2140-9 P)

[Physical and Chemical Description of Coated X-Bullets](#) Gary H. Naisbitt, Utah Valley University, Joshua Knapton, Klinton Epperson, Paul Lawrence

(2140-10 P)

[Assessment of Spatial Heterogeneity in Soil Samples Using Laser-based Elemental Analysis Techniques for Forensic Applications](#) Sarah C. Jantzi, Florida International University, Jose Almirall

(2140-11 P)

[Analysis of Hand Odor Utilizing Various Extraction Techniques to Provide a Comprehensive Assessment of Volatile Components](#) Jessica Wirks-Brown, Florida International University, Kenneth Furton

(2140-12 P)

[Direct Analysis of Amphetamines in Urine by Headspace APCI/ITMS](#) Makoto Hashimoto, Hitachi High-Technologies, Hidetoshi Morokuma, Hiroyuki Inoue, Masako Ishimaru, Masuyoshi Yamada, Takefumi Yokokura, Tsukasa Shishika, Yuichiro Hashimoto

(2140-13 P)

[Use of Orotin Transfer Reaction Time-of-Flight Mass Spectrometry for the Analytical Detection of Illicit and Controlled Prescription Drugs at Room Temperature via Direct Headspace Sampling](#) Lukas Maerk, Ionicon Analytik, Bishu Agarwal, Christian Lindinger, Christopher Mayhew, Fredrik Petersson, Peter Watts, Philipp Sulzer, Simone Juerschik, Tilmann Maerk

(2140-14 P)

[Development of a Model System Using Three-dimensional Hepatocyte Culture for Drug Metabolism](#)

[Study](#) Tatsuyuki Kanamori, National Research Institute of Police Science, Hiroyuki Inoue, Kenji Kuwayama, Kenji Tsujikawa, Yuko Iwata

(2140-15 P)

[Fast Analysis of Illicit Drug Residues on Currency Using Superficially Porous LC Columns with LC/MS/MS](#) Anne E. Mack, Agilent Technologies, William Long

(2140-16 P)

[Differentiation of Methylenedioxybenzylpiperazines and Methoxymethylbenzylpiperazines by GC-IRD and GC-MS](#) Randall Clark, Auburn University, Jack DeRuiter, Karim Abdel-Hay, Tamer Awad

(2140-17 P)

[Hyper Mapping of Gunshot Residue Particles Using Scanning Electron Microscope and Energy Dispersive X-ray Spectrometer](#) Zachariah Oommen, Albany State University, Alexander Delirico, Michelle Fowler

(2140-18 P)

[Advanced Pneumatic Control for Headspace Gas Chromatography](#) Jared Bushey, Agilent Technologies, Bob Henderson, William Wilson

(2140-19 P)

[Use of Inkjet Printing Technology to Produce Test Materials for Trace Explosive Analysis](#) Eric Windsor, National Institute of Standards and Technology, Greg Gillen, Marcela Najarro

POSTER SESSION

Session 2150

Laboratory Informatics

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2150-1 P)

[Enterprise Standardization to Lower the TCO of LIMS](#) Michelle C. Sharron, Thermo Fisher Scientific

(2150-3 P)

[Risk Based Laboratory Data Migration](#) William Devorick, CSols, Inc.

(2150-4 P)

[The Cure for Your Biobanking Informatics Challenges](#) Don Crossett, Thermo Fisher Scientific

POSTER SESSION

Session 2160

Liquid Chromatography/Mass Spectroscopy - Applications to Natural Products, Chemicals and Pharmaceutical

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2160-1 P)

[Simple Separation and Detection Techniques for the Analysis of Carbohydrates](#) Bruce A. Bailey, Dionex, Christopher Crafts, Ian Acworth, John Waraska, Marc Plante

(2160-2 P)

[Use of Electrochemical Flow Cells to Facilitate Early Stage Characterization of Drug Metabolites and Reactive Species](#) Ian N. Acworth, ESA - A Dionex Company, John Waraska, Paul Gamache

(2160-3 P)

[Use of Charged Aerosol Detection as an Orthogonal Quantification Technique for Drug Metabolites in Safety Testing \(MIST\)](#) Christopher Crafts, ESA - A Dionex Company, Bruce Bailey, Ian Acworth, John Waraska, Marc Plante

(2160-4 P)

[Analysis of Perfluorinated Compounds in Water by HPLC-MS/MS](#) Mathilde Chachignon, Veolia Environment, Research & Innovation, Gaëla Leroy, Valérie Ingrand

(2160-5 P)

[Optimization of Digestion Condition for the Reliable Measurement of Formaldehyde-hemoglobin Adducts](#) Maria Ospina, Centers for Disease Control and Prevention, Alina Costin, Hubert Vesper

(2160-6 P)

[Simultaneous Multi-targeted and Unknown Screening of Forensic Urine Samples by LC/MS/MS with Automated Library Searching for Compound Identification](#) Doina Caraiman, AB Sciex, Andre Schreiber, Lisa Sapp, Michael Jarvis, Nadia Pace

(2160-7 P)

[Determination of Triazine Herbicides Using Single Quad LC/MS with Field Free APCI Source](#) Avinash Dalmia, PerkinElmer Inc., Daniel Pentek, Thomas White

(2160-8 P)

[Chromatographic Separation and Fragmentation Assignment for Collision Induced Dissociation Patterns of Primary Fatty Acid Amides](#) Erin B. Divito, Duquesne University, Mitchell Johnson

(2160-9 P)

[Automated Analysis of Melamine and Cyanuric Acid Using LC/MS/MS and GC/MS/MS](#) Pakritsadang Kaewsuya, University of South Carolina, Alexander Krynitsky, Stephen Morgan, William Brewer

(2160-10 P)

[The Effect of Sugars and Sugar Like Compounds on Melamine: A Study of Melamine's Maillard Products](#) Weixi Liu, University of Rhode Island, Champika Seneviratne, Joel Dain, Menashi Cohenford

(2160-11 P)

[Determination of Total Available Trace Hydrazine in Pharmaceutical Intermediates and APIs by LC-MS](#) Jesse Martinez, Abbott Laboratories, Gregory Brill, Kevin Gernhardt

(2160-12 P)

[Analytical Characterization of Commercial SPS and MPS by Ion Chromatography and Mass Spectrometry](#) Melissa M. Phillips, National Institute of Standards and Technology, Ryan Brennan, Thomas Moffat

(2160-13 P)

[Extending LC-MS/MS Linear Dynamic Range for High Sensitivity Quantitative Analysis of Drugs in Dried Blood Spots](#) Suma Ramagiri, AB Sciex, Feng Zhong, Hesham Ghobarah, Mauro Aiello

(2160-14 P)

[Ensuring High Sensitivity and Consistent Response in UHPLC-MS Analyses](#) Frank Steiner, Dionex Corporation, Fraser McLeod, Markus Martin, Tobias Fehrenbach

(2160-15 P)

[LC/MS/MS Screening of Pesticides in Textiles](#) Stacy M. Tremintin, AB SCIEX, Andre Schreiber, Anna Marques, April Thomas

(2160-16 P)

[Simultaneous Screening Method for Residual Veterinary Drugs in Milk and Honey Using LC/MS/MS after QuEChERS Clean-up](#) Stacy M. Tremintin, AB SCIEX, Andre Schreiber, YunYun Zou

(2160-17 P)

[Target and Non-target Screening for Pesticide Residues in Food Samples Using High Resolution and Accurate Mass LC/MS/MS](#) Stacy M. Tremintin, AB SCIEX, Andre Schreiber, Christopher Borton

(2160-18 P)

[High Resolution Mass Spectrometry for Detecting Pharmaceuticals Present as Pollutants in Water](#) Stacy M. Tremintin, AB SCIEX, Andre Schreiber, Christopher Borton, Nadia Pace

(2160-19 P)

[Quantitation of Multi-Class Antibiotics in Milk Using Multiplexed Online SPE-LC-MS/MS](#) Stacy M. Tremintin, AB SCIEX, Andre Schreiber, Christopher Borton, YunYun Zou

(2160-20 P)

[Comparison of High and Low pH Mobile Phases Using Wrong-way-round Electrospray Ionization LC-MS/MS for the Simultaneous Analysis of Antibiotics and Hormones](#) Jerry Tso, University at Buffalo, Diana Aga

(2160-21 P)

[Measurement of Nicotine, Cotinine and Trans-3'-hydroxycotinine in Meconium by Liquid Chromatography – Tandem Mass Spectrometry](#) Meng Xu, Battelle Memorial Institute, John Bernert, Ricky Alexander, Yang Xia

(2160-22 P)

[Determination of Free Oxaliplatin in Human Plasma Ultrafiltrate by LC-MS/MS](#) Q A. Xu, UT MD Anderson Cancer Center, Kirk Culotta, Lisa Norberg, Mary Johansen, Timothy Madden

(2160-23 P)

[Development and Validation of an LC/MS/MS Method for Determination of Estrogens and Their Metabolites in Human Serum](#) Chang Cheng, University of Oklahoma, Bibo Xu, Jingguo Hou, Shaorong Liu, Sheng Wang, Zimeng Yan

(2160-24 P)

[Quantification of Antisense Phosphorothioate DNA and Its n-1 Metabolites by LC-MS](#) Buyun Chen, University of Georgia, Michael Bartlett

POSTER SESSION

Session 2170

Materials Science/Detection and Precision

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2170-1 P)

[Measuring Trace and Ultra Trace Levels of Impurities in Silica-based Materials by ICP-MS](#) Ela Bakowska, Corning Incorporated, Anna Nached, David Clarke, Stephen Kuenzli

(2170-2 P)

[Comparison of Quantification Strategies for Steel Analysis by Laser Induced Breakdown Spectroscopy](#) Timur Labutin, MV Lomonosov Moscow State University, Andrey Popov, Irina Seliverstova, Nikita Zorov

(2170-3 P)

[Automated, Precise Introduction of High TDS Samples at Flow Rates Below 10 \[micro\]L/min by ICPMS](#) Nathan J. Saetveit, Elemental Scientific, Cory Gross, Daniel Wiederin

(2170-4 P)

[Laser Induced Breakdown Spectroscopy of Gas Mixtures](#) Vivek Dikshit, Mississippi State University, Fang-Yu Yueh, Jagdish Singh, Kemal Eseller, Nouredine Melikechi, T Miller

(2170-5 P)

[Evaluation of Cl-CS Reactions for Cl Determination by High Resolution Continuum Source Flame Molecular](#)

[Absorption Spectrometry](#) José A. Gomes Neto, São Paulo State University, Bradley Jones, Joaquim Nóbrega, Jorge Raposo

POSTER SESSION

Session 2180

Safety Issues

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2180-1 P)

[Direct Determination of Ultra Trace Levels of BPA and Phenols in Water and Bottles](#) William C. Schnute, Dionex Corporation, Jinyuan Wang, William Miller

(2180-2 P)

[Chemistry and Cosmetics: The Analysis of Lipstick for Toxic Compounds and Elements Using Mass Spectroscopy](#) Patricia L. Atkins, SPEX CertiPrep, Ralph Obenauf, Thomas Mancuso, Vanaja Sivakumar

(2180-3 P)

[Toy Analysis for Consumer Safety Using Dynamic Headspace Technique](#) Ilaria Ferrante, DANI Instruments S.p.A., Manuela Bergna, Roberta Lariccia

(2180-4 P)

[Thermal Hazards Screening Using Multiple Mode Calorimetry \(MMC\) and Differential Scanning Calorimetry \(DSC\)](#) Peter J. Ralbovsky, NETZSCH Instruments NA, LLC

(2180-5 P)

[CWA Vapor Characterization at the General Population Level \(GPL\)](#) Gary Moffett, U. S. Army, Eric Garff

POSTER SESSION

Session 2190

Sample Preparation for Environmental Analysis

Room Blue Area on Exposition Floor - Hall B, Aisles 3900-4500

(2190-2 P)

[The Direct Analysis of Residual Bisphenol A, Phthalates and Brominated Fire Retardants in Consumer Products Using Thermal Desorption-GC/MS](#) Robert Freeman, Frontier Laboratories, A Hosaka, Ichi Watanabe, T Yuzawa

(2190-3 P)

[Post-column Chemistry for Improved Optical Absorption Detection](#) Jay Gandhi, Metrohm USA, Heinz Krienbühl, Jörg Kleimann, Katinka Meike Ruth

(2190-4 P)

[Fractionation of Extractable Petroleum Hydrocarbons \(EPH\) from Water and Soil Using an Automated Method](#) Michael R. Halvorson, Gilson, Inc., Patrick Sullivan, Robert Widholm

(2190-5 P)

[Automated QuEChERS Extraction for the Confirmation of Pesticide Residues in Foods Using LC/MS/MS](#) Edward A. Pfannkoch, Gerstel, Inc., Fredrick Foster, Joan Stevens, Jon Wong, Kai Zhang, Paul Roberts, Peter Stone

(2190-6 P)

[Improved Method for Measuring Urinary Hydroxylated Metabolites of Polycyclic Aromatic Hydrocarbons by Semi-automated Liquid-liquid Extraction and Gas Chromatography High-resolution Mass Spectrometry \(GC/HRMS\)](#) Erin N. Pittman, Centers for Disease Control and Prevention, Andreas Sjodin, Debra Trinidad, Donald Hilton, James Hand, Lovisa Romanoff, Sandra Lester, Zheng Li

(2190-7 P)

[Biomonitoring of Methyl-polycyclic Aromatic Hydrocarbon Metabolites in Human Urine by Gas Chromatography/Triple Quadrupole Tandem Mass Spectrometry](#) Lovisa Romanoff, Centers for Disease Control and Prevention, Andreas Sjodin, Debra Trinidad, Donald Hilton, Erin Pittman, Zheng Li

(2190-8 P)

[An Alternate GPC Cleanup Column Configuration to Save Time and Solvent While Meeting Resolution Requirements](#) Jennifer Salmons, J2 Scientific, Jeff Wiseman, Thomas Dobbs

(2190-9 P)

[Development of a New Design of Needle Trap Device for Improved Desorption](#) Jamie M. Warren, University of Waterloo, Janusz Pawliszyn

(2190-10 P)

[An Alternative Solid Phase Extraction Procedure for Determining Trace Levels of Nitroaromatics and Nitroamines \(EPA Method 8330\)](#) Michael Ebitson, Horizon Technology, Inc., David Gallagher

(2190-11 P)

[SPME-LC Fibers for a Variety of Applications](#) Katherine K. Stenerson, Supelco, Craig Aurand, Leonard Sidisky, Robert Shirey, Young Chen

(2190-12 P)

[The Sampling of Thiol Compounds by Automated Headspace In-needle-derivatized-NTD-GC/MS and On-fiber-derivatization-SPME- GC/MS Techniques](#) Jamie M. Warren, University of Waterloo, Don-Roger Parkinson, Janusz Pawliszyn

(2190-13 P)

[Task-specific Solid-phase Microextraction Using Polymeric Ionic Liquid Sorbent Coatings](#) Qichao Zhao, The University of Toledo, Jared Anderson

POSTER SESSION

Session 2200

Sensors

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2200-1 P)

[Determination of Water Soluble Petroleum Hydrocarbons Using the Quartz Crystal Microbalance](#) Bobby Pejic, CSIRO Earth Science & Resource Engineering, Andrew Ross, Matthew Myers

(2200-2 P)

[Rapid Detection of 35S DNA Sequences by Nanoparticle Based Immunomagnetic Separation and SERS](#) Burcu Guven, Hacettepe University, Ismail Boyaci, Nese Basaran-Akgul, Ugur Tamer

(2200-3 P)

[Ionic Liquid Self-assembled Monolayers as Partition Layer for Surface Enhanced Raman](#)

[Spectroscopy](#) Audrey Provencher-Girard, Universite de Montreal, Andreea Schmitzer, Jean-Francois Masson

(2200-4 P)

[Sensitive Detection of Melamine by Surface Enhanced Raman Spectroscopy](#) Nur Yazgan, Hacettepe University, Ali Topcu, Ismail Boyaci, Ugur Tamer

(2200-5 P)

[Electrochemical Detection of Silver Nanoparticles Using Chemically-modified Carbon Paste Electrodes](#) Veronica Okello, State University of New York at Binghamton, Samuel Kikandi

(2200-6 P)

[Electrochemical Studies of the Interactions of Congo Red and -Sheet Breaker Peptides with -Amyloid Films \(Cys-A12-28\)](#) Raheleh Partovi-Nia, The University of Western Ontario, Heinz-Bernhard Kraatz, Samaneh Beheshti

(2200-7 P)

[Electrochemical Citrate Sensor](#) Tsunghsueh Wu, University of Wisconsin Platteville, Meghan Mcgivern

(2200-8 P)

[Biosensors Based on the Plasmonic Properties of Bimetallic Nanohole Arrays](#) Maxime Couture, Universite de Montreal, Jean-Francois Masson

(2200-9 P)

[Molecular Design of Calixarene-based Fluorogenic Probes Which Exhibit High Selectivity for Rare Metal ions](#) Takashi Arimura, AIST, Takuya Nishioka, Yoichi Tsuchiya

(2200-10 P)

[Nanoparticle Infused Polymers Developed for CBRNE Sensors](#) Matthew Bachus, Miami University, Gilbert Pacey, Wolfgang Spindel

(2200-11 P)

[Fluorescence Detection of Lead\(II\) Ions Through Their Induced Catalytic Activity of DNazymes](#) Chi-Lin Li, National Taiwan University

(2200-12 P)

[Evaluation of Immobilization Techniques on the Efficiency of Immunosensors](#) Almira Ramanaviciene, Vilnius University, Arunas Ramanavicius, Asta Kausaite, Asta Makareviciute, Justina Kirlyte, Leva Baleviciute, Yasemin Oztekin, Zigmantas Balevicius

(2200-13 P)

[Properties of Biosensors Based on Ionic Liquid Self-assembled Monolayers](#) Mathieu Ratel, Université de Montréal, Andreea Schmitzer, Jean-Francois Masson, Mathieu Branca

(2200-14 P)

[Next Generation Glucose Sensor Membranes via Sol-Gel Chemistry](#) Wesley L. Storm, University of North Carolina at Chapel Hill, Mark Schoenfisch

(2200-15 P)

[Development of Detection System for Laser Based Photoacoustic Spectroscopy](#) Lakshmi M. Prasad, Sri Krishnadevaraya University, K Malakondaiah, Ramesh Datla

(2200-16 P)

[Disposable Amperometric Magnetosensors for the Specific Detection of Clinically Relevant Bacteria](#) José M. Pingarrón, UCM, Ernesto García, José García, María Pedrero, Pedro García, Susana Campuzano

(2200-17 P)

[Tailoring Porous Silicon Surface for Analyte Response](#) Caley A. Caras, SUNY, University at Buffalo, Frank Bright, Justin Reynard, Nadine Kraut, Randi Cattoi, Yoon Cha

(2200-18 P)

[Toward Catecholamine Responsive Silicon Nanoparticles](#) Jonathan L. Hardin, State University of New York at Buffalo, Frank Bright, Heather Clark, Khalid Ahsan

(2200-19 P)

[Influence of Fluoroionophore Density in Mesoporous Silica on Lithium Ion Response](#) Yuki Hiruta, Keio University, Daniel Citterio, Koji Suzuki

(2200-20 P)

[Nanopore Based Sequence Specific Detection of P53 Core Domain](#) Yi-Tao Long, East China University of Science & Technology, Dawei Li, Hai-Yan Wang, Yi-Lun Ying

(2200-21 P)

[Effects of Analyte on the Porous Silicon Surface Chemistry](#) Randi E. Cattoi, University at Buffalo, Caley Caras, Frank Bright, Justin Reynard, Nadine Kraut

(2200-22 P)

[Improvements in DNA Aptamer Selection Using Proximity Ligation](#) Joonyul Kim, Auburn University, Christopher Easley

(2200-23 P)

[Effect of Conformation on Kinetic Interaction Between Trypsin Inhibitor and Proteases by FIA-QCM](#) Rui Zhao, Chinese Academy of Sciences, Guoquan Liu, Qundan Zhang, Yanyan Huang

(2200-24 P)

[Rigid Conducting Composites as Resistance Based Sensors for Petroleum Leaks in Transportation Pipes](#) Imogene Blignaut, Dublin City University, Fiona Regan, Sonia Ramirez-Garcia

(2200-25 P)

[New Ion-selective Sensor Materials for Food, Environmental, Biomedical and Industrial Applications](#) Ingo Haag, Supelco, Caspar Demuth, Ingrid Hayenga, Michael Jeitziner, Nicola Staheli

(2200-26 P)

[An Automated On-line Electrochemical Chlorine Dioxide Sensor](#) John N. Myers, Miami University, Gilbert Pacey, William Steinecker, Zechariah Sandlin

(2200-27 P)

[New Solid State TI Selective Sensor](#) Yuri G. Vlasov, Saint-Petersburg State University, Dmitry Kalyagin, Yuri Ermolenko

(2200-28 P)

[Reflectometric Interference Spectroscopy-based Biosensing System](#) Toshifumi Takeuchi, Kobe University

(2200-29 P)

[Dual Amplification Strategy for Ultrasensitive Immunosensor for Cancer Biomarker Based on Nanoparticles and Multienzyme Labels](#) Bernard S. Munge, Salve Regina University, Amy Coffey, Jaimee Doucette

(2200-30 P)

[Measuring Binding Kinetics of Ligands with Tethered Receptors by Fluorescence Polarization and Total Internal Reflection Fluorescence](#) Ka-Cheung Kwok, Hong Kong Baptist University

POSTER SESSION

Session 2210

Separation Methods for Food Science

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2210-1 P)

[UHPLC Amino Acid Analysis Using Superficially Porous 2.7 Micron and Totally Porous 1.8 mMicron Columns](#) John W. Henderson Jr, Agilent Technologies, Anne Mack, William Champion, William Long

(2210-2 P)

[Determination of the Composition of Natural Products by HPLC with Charged Aerosol Detection](#) Ian N. Acworth, ESA - A Dionex Company, Bruce Bailey, Paul Gamache

(2210-5 P)

[Clean-up of Baby Food Samples Using Gel Permeation Chromatography](#) Elizabeth A. Badgett, OI Analytical, Laura Chambers

(2210-6 P)

[Rapid UHPLC Analysis of Sudan Dyes and Para Red in Chili Powder](#) William Goodman, PerkinElmer, Padmaja Prabhu

(2210-7 P)

[Emissions of Carbonyl Compounds from Foods Stored in a Household Refrigerator](#) Shinichiro Murata, Tokai University

(2210-8 P)

[Extension of a LC-UV/Fluorescence/Mass Spectrometry Method for Pyridoxine in Dietary Supplements to Additional Formulations](#) Wayne R. Wolf, USDA, ARS, BHNRC, FCMDL, Renata Atkinson, Robert Goldschmidt

(2210-9 P)

[Evaluation of Methods for the Characterization and Quantification of Polysorbates and Impurities Along with Other Surfactants and Emulsifiers Used in the Food and Pharmaceutical Industries](#) Christopher Crafts, ESA - A Dionex Company, Bruce Bailey, Ian Acworth, Marc Plante

(2210-10 P)

[Bacon Quality Control and Smoking Process Monitoring With an Electronic Nose](#) Mitchell Lamboy, Alpha MOS, Carol Schneider, Jean-Christophe Mifsud, Matthew Branham, Mike Parada, Xavier Bredzinski

(2210-11 P)

[Quantitation of Underivatized Omega-3 and Omega-6 Fatty Acids in Foods by HPLC and Charged Aerosol Detection](#) Marc Plante, ESA - A Dionex Company, Bruce Bailey, Christopher Crafts, Ian Acworth

(2210-12 P)

[Characterization of Castor Oil by HPLC and Charged Aerosol Detection](#) Marc Plante, ESA - A Dionex Company, Bruce Bailey, Christopher Crafts, Ian Acworth

(2210-13 P)

[Simple and Direct Analysis of Falcarinol and Other Polyacetylenic Oxylipins in Carrots by Reverse Phase HPLC and Charged Aerosol Detection](#) Marc Plante, ESA - A Dionex Company, Bruce Bailey, Christopher Crafts, Ian Acworth

(2210-15 P)

[Use of E-nose for Sensory Qualitative and Quantitative Product Retro-formulation](#) Matthew Branham, Alpha MOS, Carol Schneider, Jean-Christophe Mifsud, Mike Parada, Mitchell Lamboy, Xavier Bredzinski

(2210-16 P)

[Advances in Solvent Extraction and Analysis](#) SM Rahmat Ullah, Dionex Corporation, Christopher Pohl, Kannan Srinivasan

POSTER SESSION

Session 2220

Separation Science - GC, Electrophoresis, Monolith, Others

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2220-1 P)

[Amino Acid Based Chiral Ionic Liquids as Potential GC Stationary Phases](#) Irene Kimaru, St John Fisher College, Brendan Clifford, Shannon Peterson

(2220-2 P)

[Potential of Comprehensive Two-dimensional Gas Chromatography Coupled to a Very Fast Quadrupole Mass Spectrometer \(20000 AMU/SEC\)](#) Luigi Mondello, University of Messina, Giorgia Purcaro, Peter Tranchida

(2220-3 P)

[Sensitive Determination of Phycobiliproteins and Intact Cyanobacteria Using Dual-wavelength CE-LIF](#) Benjamin A. Vaughan, Wake Forest University, Christa Colyer

(2220-4 P)

[Caparison Study Coomassie Brilliant Blue R-250 Stains in Quantitative Densitometry Analysis of SDS-PAGE Protein Separations](#) Martin R. Lopez, Abbott Laboratories, Jeffrey Fishpough, Kevin Rupprecht, Larissa Harwick, Ryan Bonn, Tracey Rae

(2220-5 P)

[Preparation and Characterization of an MIP Monolithic Column with Norepinephrine as Template for the CEC Chiral Separation](#) Chuen-Ying Liu, National Taiwan University, Bao-Yu Huang

(2220-6 P)

[Selective Hydrogels Based on FG-Repeat Nups of the NPC](#) Alicia K. Friedman, Indiana University, Lane Baker, Sean Bird

(2220-7 P)

[Replacing Gel in Protein Electrophoresis with a Silica Colloidal Crystal](#) Robert E. Birdsall, Purdue University, Brooke Koshel, Mary Wirth

(2220-8 P)

[Protein, Lignin and Cellulose Recovery from Ionic Liquid-dissolved Biomass: Biofuel Technology](#) Victor Essel, South Dakota State University, Douglas Raynie

(2220-9 P)

[Modification of Capillary-channeled Polymer \(C-CP\) Fibers with a Functionalized Triazine Linker Molecule to Develop an Immobilized Metal Affinity Chromatography \(IMAC\) Stationary Phase for HPLC](#) Jennifer J. Pittman, Clemson University, R Kenneth Marcus, Rhett Smith

(2220-10 P)

[Determination of Lysozyme Throughput and Yield on Nylon-6 Capillary-channeled Polymer \(C-CP\) Fibers by Ion Exchange Chromatography](#) Kelum M. Randunu, Clemson University, R Kenneth Marcus

POSTER SESSION

Session 2230

Strategies for Measurement of Novel Therapeutics and Disease States

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2230-2 P)

[Aptamer/dsDNA–Gold Nanoparticle Conjugates for Targeted Cancer Therapy](#) Yu-Fen Huang, National Tsing Hua University, Yi-Syun Shiao

(2230-3 P)

[Quantitative Analysis of the Interaction of Nano-sized Drug Carriers with Whole Cells Using Atomic Force Microscopy](#) Lana L. Norman, Florida International University, Rakesh Guduru

(2230-4 P)

[GC-MS Analysis of the Extracts and Components from Musa Paradisiaca](#) Elizabeth A. Osibote, University of Lagos, Modupe Ogunlesi, Omowunmi Sadik, Samuel Kikandi, Wesley Okiei

(2230-5 P)

[Analysis of the Essential Oil from the Leaves of Scorparia Dulcis. A Phytomedicine for Diabetes](#) Wesley O. Okiei, University of Lagos, Edith Ofor, Modupe Ogunlesi, Nelson Ihediba

(2230-6 P)

[Spectroscopic Discrimination of Human Fingernail in Relation to Personal Health Condition by Laser Induced Breakdown Spectroscopy](#) Taesam Kim, Northern Illinois University, Chhiu-Tsu Lin

(2230-8 P)

[Self-regulation System of Glucose Level with Chemo-mechanical Drug Release Function](#) Kohji Mitsubayashi, Tokyo Medical and Dental University, Daishi Takahashi, Hiroyuki Kudo, Munkhbayar Munkhjargal, Ryodai Kato, Takahiro Arakawa, Yuki Matsuura

(2230-9 P)

[Wearable Glucose Sensor for Non-invasive Biomonitoring on Rabbit Eye Site](#) Kohji Mitsubayashi, Tokyo Medical and Dental University, Daishi Takahashi, Hideo Hiramatsu, Hiroyuki Kudo, Ming Xing Chu, Takahiro Arakawa, Yoshitaka Hiranuma

(2230-10 P)

[FT-IR Analysis of Normal and Malignant Mouse Colorectal Tissues: A Study Employing Chemometric Analysis](#) Menashi Cohenford, Marshall University, Basil Rigas, Chris Brown, Muhammad Chaudhry, Saroj Sigdel, Seung Jin Lim

POSTER SESSION

Session 2240

X-ray Analysis

Room Red Area on Exposition Floor - Hall B, Aisle 400

(2240-1 P)

[The Analysis of Particulate Matter on Air Filters Using Polarizing Secondary Target Energy Dispersive XRF](#) David Coler, PANalytical, Greg Wortman, Kimberly Halkiotis

(2240-2 P)

[Analysis of Low Levels of Phosphorous in Gasoline by High Power Wavelength Dispersive XRF](#) David Coler, PANalytical, Greg Wortman, Kimberly Halkiotis

(2240-3 P)

[X-ray Powder Diffraction Study of Iron Oxide Hydroxide, Akaganeite Formed in the Presence of Chloride or Fluoride Ion](#) Matashige Oyabu, Kanazawa Institute of Technology, Kunio Fukuno, Makoto Tsubata, Ryo Satoh

(2240-4 P)

[X-ray Fluorescence Micro-analysis of Materials for Solar Cell and Lithium-ion Battery](#) Hashimoto Bunji, Horiba, Bando Atsushi, Nishikawa Satoko, Ohno Hitomi, Uchihara Hiroshi, Yokoyama Masaaki

(2240-5 P)

[Non-destructive Materials Identification Using Finger-printing Analysis](#) Kimberly Halkiotis, PANalytical, David Coler, Greg Wortman

(2240-6 P)

[Dimensional Standard for Micro-CT for the Quantification of 3D Voids Structures](#) Brian M. Patterson, Los Alamos National Laboratory, Christopher Hamilton, Darcie Dennis-Koller, Ellen Cerreta, Juan Escobedo-Diaz

Thursday Afternoon, March 17, 2011

Symposia

Session 2250

ACS-DAC: Analytical Chemistry/Characterization at the Interfaces - arranged by Nicholas Winograd, Penn State University

Thursday Afternoon, Room 310

Nicholas Winograd, Penn State University, Presiding

2:05

(2250-1)

[Probing the Structure of Peptides and Proteins at Biological Interfaces](#) David G. Castner, University of Washington

2:40

(2250-2)

[Digging Deeper: Looking Below the Surface to Buried Layers and Interfaces with Hard X-ray and Standing](#)

[Wave Photoemission](#) Charles S. Fadley, University of California Davis

3:15

(2250-3)

[Challenges in Biointerphase Science](#) Michael Grunze, Universität Heidelberg, Patrick Koelsch

3:50

(2250-4)

[Molecular Organization at Air-aqueous Salt and Lipid Interfaces: Advances in Vibrational Sum Frequency Spectroscopy](#) Heather C. Allen, Ohio State University

4:25

(2250-5)

[Molecular Depth Profiling of Biomaterials with Cluster Ions and the Characterization of Buried Interfaces](#) Nicholas Winograd, Penn State University

Symposia

Session 2260

Advanced Stationary Phases and Supports for Liquid Chromatography - arranged by Matthew R. Linford, Brigham Young University

Thursday Afternoon, Room 308

Matthew R. Linford, Brigham Young University, Presiding

2:05

(2260-1)

[Ion-exchange Stationary Phases based on Polymeric Monoliths](#) Paul R. Haddad, University of Tasmania, Christopher Pohl, David Schaller, Emily Hilder, Kenneth Saunders, Wei Boon Hon

2:40

(2260-2)

[Innovative Particles Enable Advances in Chromatographic Separation Devices and Sample Preparation](#) David S. Bell, Supelco/Sigma-Aldrich, Leonard Sidisky, Mark Robillard, Paul Ross

3:15

(2260-3)

[Core-Shell Particles for HPLC Prepared from Nanodiamond-Polymer Multilayers on Diamond, Zirconia, and Graphite](#) Matthew R. Linford, Brigham Young University, Andrew Dadson, CH Hung, Landon Wiest, Michael Vail

3:50

(2260-4)

[Advances in Hybrid Organic/Inorganic Chromatographic Packing Materials](#) Kevin D. Wyndham, Waters Corporation, Bonnie Alden, Cheryl Boissel, Christopher Hudalla, Daniel Waltsh, James Cook, Jonathan Turner, Pamela Iraneta, Scott McCall, Thomas Walter, Uwe Neue

4:25

(2260-5)

[Carbon Nanotube Templated Microfabrication of Chromatography Media](#) Robert C. Davis, Brigham Young University, Andrew Dadson, Jun Song, Matthew Linford, Michael Vail, Richard Vanfleet, Ricky Wyman, Supriya Kanyal

Symposia

Session 2270

Nanofabricated Fluidic Devices for Biochemical Measurements - arranged by Stephen C. Jacobson, Indiana University

Thursday Afternoon, Room 309

Stephen C. Jacobson, Indiana University, Presiding

2:05

(2270-1)

[Single Molecule DNA Characterization Using Nanofabricated Fluidic Devices](#) J Michael Ramsey, University of North Carolina, Chad Mair, Hanno Weitering, J P Alarie, Jinsheng Zhou, Laurent Menard

2:40

(2270-2)

[Nanochannels for Molecular Identification and Sorting](#) Harold Craighead, Cornell University

3:15

(2270-3)

[Measuring Holes and Gaps with Ion Conductance Microscopy](#) Lane A. Baker, Indiana University

3:50

(2270-4)

[Three-dimensional Nanofluidic Metrology](#) Samuel M. Stavis, National Institute of Standards and Technology

4:25

(2270-5)

[Experimental and Theoretical Studies of Microchannel-nanochannel Interface Effects](#) Juan G. Santiago, Stanford University, Ali Mani, Thomas Zangle

Organized Contributed Session

Session 2280

Achievements and Challenges in Mass Spectrometry - arranged by Imma Ferrer, University of Colorado

Thursday Afternoon, Room 314

Imma Ferrer, University of Colorado, Presiding

2:00

(2280-1)

[Ultra Performance Mass Spectrometry Without Compromise: High Resolving Power Multi-reflecting Time-of-flight Technology with High Speed Data Acquisition](#) John A. Chakel, LECO

2:20

(2280-2)

[The Impact of GC Tandem Quadrupole Mass Spectrometry on Food Safety Analysis](#) Philip L. Wylie, Agilent Technologies

2:40

(2280-3)

[A Perspective on Direct Analysis in Real-Time \(DART\)](#) A John Dane, JEOL USA, Inc., Robert Cody

3:00

(2280-4)

[Analysis of Environmental Samples with Ultra High Definition LC/QTOF-MS and Accurate Mass: How Much Resolving Power is Enough?](#) Michael Thurman, University of Colorado, Imma Ferrer

3:35

(2280-5)

[Challenges in Sample Preparation Prior to the Analysis of Compounds Using Tandem Mass Spectrometry Methods](#) Michael R. Halvorson, Gilson, Inc.

3:55

(2280-6)

[Contaminants Identified in Environmental Waters Using a ToF Screening Approach](#) Kenneth J. Rosnack, Waters Corporation, Eleanor Riches, James Morphet, Joseph Romano, Paul Silcock, Peter Hancock

4:15

(2280-7)

[Screening and Quantitation of Targeted and Non-targeted Environmental Pollutants in Water Samples](#) Andre Schreiber, AB SCIEX, Christopher Borton, Pace Nadia

Organized Contributed Session

Session 2285

ACS-DAC: Microfluidics and Micro Separations (Half Session) - arranged by Keqi Tang, Pacific Northwest National Laboratory

Thursday Afternoon, Room 311

Keqi Tang, Pacific Northwest National Laboratory, Presiding

2:00

(2285-1)

[On-chip Western Blotting for Assessment of Aberrantly Glycosylated IgA1 in IgA Nephropathy](#) Mei He, University of California, Berkeley, Amy Herr, Bruce Julian, Hitoshi Suzuki, Jan Novak

2:20

(2285-2)

[Analysis of Tetracycline Antibiotic Residues in Food Sample Using Microchip Capillary Electrophoresis with Pulsed Amperometric Detection](#) Yan Liu, Northern Michigan University, Erik Veen, James Bergen-Hartigen

2:40

(2285-3)

[Droplet Manipulation and Application in Capillary Separations](#) Jing Nie, University of Michigan, Robert Kennedy

3:00

(2285-4)

[On-line Microdialysis Sampling Coupled to Microchip Electrophoresis with Electrochemical Detection of Nitrite with a Miniaturized Platform](#) Anne Regel, University of Kansas, Dave Johnson, David Scott, Erik Naylor, Pradyot Nandi, Ryan Grigsby, Seth Gabbart, Susan Lunte

3:20

(2285-5)

[An Integrated Droplet-on-Demand Microfluidics for Droplet Generation, Manipulation, Extraction, CE Separation and NanoESI-MS Detection](#) Xuefei Sun, Pacific Northwest National Laboratory, Keqi Tang, Richard Smith, Ryan Kelly

Organized Contributed Session

Session 2290

Analytical Pyrolysis - arranged by Robert J. Helleur, Memorial University of Newfoundland

Thursday Afternoon, Room 315

Robert J. Helleur, Memorial University of Newfoundland, Presiding

2:00

(2290-1)

[Elevated Pressure-Pyrolysis-Catalysis-GC/MS Studies of Fuel Sources](#) Thomas Wampler, CDS Analytical, Inc., Karen Jansson, Karen Jansson

2:20

(2290-2)

[Development of a Novel High Performance Micro-furnace Pyrolyzer for Pyrolysis-GC Incorporating a Ceramic Tube Heater for Advanced Characterization of Polymeric Materials](#) Chu Watanabe, Frontier Laboratories, Ohtani Hajime, Ohtani Hajime, Robert Freeman, Robert Freeman, Shin Tsuge, Shin Tsuge, Watanabe Ichi, Watanabe Ichi

2:40

(2290-3)

[Direct Probe CI-MS and APCI-MS for Direct Materials Analysis](#) Robert P. Lattimer, Lubrizol, Michael Polce, Michael Polce

3:00

(2290-4)

[Thermally Assisted Hydrolysis and Methylation Coupled with MALDI-MS Analysis](#) Kent J. Voorhees, Colorado School of Mines, Casey McAlpin, Casey McAlpin

3:35

(2290-5)

[The Contribution of Analytical Pyrolysis to the Development of Novel Compounds From Biopolymers](#) Daniele Fabbri, University of Bologna

3:55

(2290-6)

[Analysis of Catechins and Condensed Tannins by Thermally-assisted Hydrolysis/Methylation-GC/MS](#) Robert Helleur, Memorial University of Newfoundland, Farzad Shadkami, Farzad Shadkami

4:15

(2290-7)

[High Yield of Levoglucosan From the Catalytic Conversion of Beech Wood Using Py-GC/MS/FID](#) Dietrich Meier, vTI-Institute of Wood Technology and Wood Biology, Akeem Azeez, Akeem Azeez, Jurgen Odermatt, Jurgen Odermatt

4:35

(2290-8)

[Quantifying Bioenergy Feedstock Traits on Biofuels Conversion Efficiency via Analytical Pyrolysis](#) Akwasi Boateng, USDA-ARS

Oral

Session 2300

Bioanalytical Analysis: Diabetes (Half Session)

Thursday Afternoon, Room 401

Leslie Sombers, North Carolina State University, Presiding

2:00

(2300-1)

[Metabolomic Analysis of Glucose Stimulated Insulin Secretion in Beta-Cells](#) Matthew A. Lorenz, University of Michigan, Robert Kennedy

2:20

(2300-2)

[A Novel High Throughput Fluorescence Method for Quantitatively Monitoring Lactic Acid Formation in Diabetic Environments](#) Adam W. Giebink, Michigan State University, Dana Spence

2:40

(2300-3)

[A Passively Operated Microfluidic Device for Stimulation, Secretion Sampling, and Confocal Imaging of Single Pancreatic Islets](#) Leah Godwin, Auburn University, Christopher Easley

3:00

(2300-4)

[Tracking the Fate of Glucose Carbons in INS-1 Cells by Liquid Chromatography-ESI Mass Spectrometry](#) Chunhai Ruan, University of Michigan, Robert Kennedy

Oral

Session 2310

Clinical/Toxicology Analysis

Thursday Afternoon, Room 402

Robert G. Brown, Lancaster Laboratories, Inc., Presiding

2:00

(2310-1)

[Microchip Electrophoresis Analysis of Methylarginines in Plasma for the Detection of Cardiovascular Disease](#) Thomas Linz, University of Kansas, Susan Lunte

2:20

(2310-2)

[LC/MS Identification of Pharmaceutical Impurities Found in Drug Formulation Development](#) Charles Pan, Novartis, Frances Liu

2:40

(2310-3)

[Roadside Detection of Illegal Drugs in Saliva](#) Chetan Shende, Real-Time Analyzers, Inc.

3:00

(2310-4)

[Rapid and Non-invasive Quantification of Serum Propofol via Human Breath Analysis Using Ion Mobility Spectrometry](#) Wolfgang Vautz, Leibniz-Institute for Analytical Sciences, Eike Carstens, Thorsten Perl

3:35

(2310-5)

[Determination of Mercury Species in Whole Blood by Speciated Isotope Dilution SPME-GC-ICP-MS with Microwave-assisted Isotope Equilibration and Extraction](#) Mizanur Rahman, Duquesne University, HM Skip Kingston, Timothy Fahrenholz

3:55

(2310-6)

[Quantification and Stability of Cr III and Cr VI in Urine Determined by HPLC-ICP-DRC-MS](#) Elena N. Dodova, Battelle Memorial Institute, Carl Verdon, Kathleen Caldwell, Robert Jones

4:15

(2310-7)

[High Throughput and Highly Sensitive LC/MS/MS Assay for Quantification of 25-Hydroxy Vitamin D2 and 25-Hydroxy Vitamin D3 in Dried Blood Spots](#) Suma Ramagiri, AB Sciex, Adam Latawiec, Lisa Sapp, Micheal Jarvis, Robert Ellis

4:35

(2310-8)

[Identification of Human Pathogen Microorganisms Using Ion Mobility Spectrometry](#) Wolfgang Vautz, Leibniz-Institute for Analytical Sciences, Jürgen Nolte, Melanie Jünger, Michael Quintel, Thorsten Perl

Oral

Session 2320

Environmental Analysis: Organic Constituents

Thursday Afternoon, Room 316

Lara P. Autry, U.S. Environmental Protection Agency, Presiding

2:00

(2320-1)

[Direct Determination of sub-ppb N-Methyl Carbamates by UPLC-MS/MS](#) William C. Schnute, Dionex

Corporation, Jinyuan Wang, William Miller

2:20

(2320-2)

[High Speed Analysis of Pesticides Using Supercritical Fluid Chromatography Coupled with Mass Spectroscopy](#) David Tognarelli, Jasco Inc.

2:40

(2320-3)

[Comparison of N-Carbamate Pesticides Exposure from Consumption of Domestic and Imported Fruits and Vegetables](#) Olujide T. Akinbo, Butler University, Margaret Spolnik

3:00

(2320-4)

[Analysis of Naphthenic Acids and Phenolic Compounds in Spent Caustic from Refinery Plants by SBSE - "In Liner" Derivatization - TDS-GC/MS](#) Christophe Tondelier, Veolia, Auriane Diamand, Dalel Benali-Raclot, David Benanou

3:35

(2320-5)

[Using a Dean's Switch to Optimize a Single GC/MS for the Analysis of Volatile and Semi-volatile Analytes in Environmental Matrices](#) William Goodman, PerkinElmer, Andrew Tipler, Lee Marotta

3:55

(2320-6)

[Accurate Mass Identification and Sensitive Quantitation of PAHs with Single Quadrupole GC/MS Operating in Full Scan Mode](#) Jianping "JP" Chen, Connecticut Department of Environmental Protection, Ming Gu, Yongdong Wang

4:15

(2320-7)

[Using Automated Solid Phase Extraction to Aid in the Detection of Poly-Aromatic Hydrocarbons in Seawater](#) David P. Gallagher, Horizon Technology, Inc., Michael Ebitson

4:35

(2320-8)

[Welcome to EPA Method 1664B for Oil and Grease Analysis](#) Joseph Stefkovich, Xenosep Technologies, Patricia Vincent

Oral

Session 2330

Fluorescence/Luminescence in Bioanalytical and General Applications

Thursday Afternoon, Room 405

John F. Jackovitz, University of Pittsburgh, Presiding

2:00

(2330-1)

[Photophysics of an Analyte-responsive Ionic Liquid](#) Ka Yung, University at Buffalo, Frank Bright, Gary Baker, Gregg Martinez, Nadine Kraut, Peter Byrley

2:20

(2330-2)

[Improved Performance in Proximity Ligation Assays and Aptamer Selection Approaches Using Asymmetric DNA Hybridization](#) Christopher J. Easley, Auburn University, Jiaming Hu, Joonyul Kim

2:40

(2330-3)

[Detection of Biomarkers for Breast Cancer Metastasis Using a Molecular Beacon-Based Assay](#) Jennifer R. Furchak, Kalamazoo College, Amy Ong, Carolyn Walsh, Erik Guetschow, Will Black

3:00

(2330-4)

[A Fast Scanning TCSPC Fluorescence Lifetime Imaging System for Cellular Protein Dynamics](#) Lin L. Chandler, Horiba

3:35

(2330-5)

[Genetically Encoded Bioluminescent Indicators for Real-time Dual Imaging of Protease Activities in Living Cells](#) Akira Kanno, The University of Tokyo, Takeaki Ozawa, Yoshio Umezawa

3:55

(2330-6)

[SI Traceability of the Output Concentration of Mercury Vapor Generators](#) Gerald D. Mitchell, National Institute of Standards and Technology, Jeff Ryan, Stephen Long

4:15

(2330-7)

[Exploiting the Photoluminescence from Porous Silicon](#) Justin M. Reynard, SUNY, University at Buffalo, Caley Caras, Frank Bright, Nadine Kraut, Randi Cattoi, Yoon Cha

4:35

(2330-8)

[Nanoplasmonic Sensing of Nucleic Acids Using Fluorescent Core-shell Nanoparticles](#) Danny Brouard,

Universite Laval

Oral

Session 2340

HPLC - Environment and Energy

Thursday Afternoon, Room 403

Michael Woodman, Agilent Technologies, Presiding

2:00

(2340-1)

[Quantitative Analysis of Carbonyl-DNPH Derivatives by UHPLC/UV](#) Terry Zhang, Thermo Fisher Scientific, Diab Elmashni, Guifeng Jiang

2:20

(2340-2)

[Improving the Performance of Post-column Reaction-ion Chromatography for Measuring Haloacetic Acid Concentrations in Drinking Water](#) Christina M. Henson, University of Memphis, Gary Emmert, Patricia Ranaivo, Paul Simone, William Stephens

2:40

(2340-3)

[Development of New Ion Chromatography Separation Phases for Haloacetic Acids Analysis](#) Rong Lin, Dionex Corporation, Christopher Pohl, Kannan Srinivasan

3:35

(2340-5)

[Recent Advances on a New Detection Concept for Ion Chromatography](#) Kannan Srinivasan, Dionex Corporation, Christopher Pohl, Purnendu Dasgupta, Sheetal Bhardwaj, Yongjing Chen

3:55

(2340-6)

[Analyzing Sulfur Compounds in Fuels that are Difficult to Hydrodesulfurize](#) Jan T. Andersson, University of Münster, Margarete Nocun

4:15

(2340-7)

[Comparative Study of Core Shell and sub-2 \$\mu\text{m}\$ HPLC Columns at Elevated Temperature and Extended Column Length: Application to Pharmaceutical Analysis](#) Heba Shaaban, University of Waterloo, Tadeusz Gorecki

4:35

(2340-8)

[Developing HPLC Methods for Characterizing Phenolic Compounds in New Hampshire Maple Sap](#) Elizabeth A. Brady, University of New Hampshire, Barrett Rock, Christopher Devine, Martha Carlson, Sterling Tomellini, Walter Shortle

Oral

Session 2350

HPLC - New Packing Materials

Thursday Afternoon, Room 406

Frank Dorman, Penn State University, Presiding

2:00

(2350-1)

[UHPLC Columns Packed with Sub-micron Silica Particles for RPLC-MS of Proteins](#) Sampath Ranasinghe Kodithuwakkuge, Purdue University, Charu Yerneni, Mary Wirth, Oyeleye Alabi

2:20

(2350-2)

[Superficially Porous vs Completely Porous Silica as Chromatographic Supports for Chiral Stationary Phases in HPLC](#) Ross Woods, University of Texas at Arlington, Daniel Armstrong, William Barber, Zachary Breitbach

2:40

(2350-3)

[Packing and Performance Characterization of 1.2 \[micro\]m Superficially Porous Particles Packed in Capillary Columns for Liquid Chromatography](#) Laura E. Blue, University of North Carolina at Chapel Hill, James Jorgenson

3:00

(2350-4)

[Comparison of Different Reversed-Phase/Cation-Exchange/Anion-exchange Trimodal Stationary Phases](#) Xiaodong Liu, Dionex Corporation, Christopher Pohl

3:35

(2350-5)

[Enhanced Stationary Phase Selectivity for UHPLC Separations Based Upon a Core-Shell Technology](#) Lawrence Y. Loo, Phenomenex, Inc., A Carl Sanchez, Jason Anspach, Thuylinh Tran, Tivadar Farkas

3:55

(2350-6)

[High Temperature - High Efficiency Liquid Chromatography Using Sub-2 μm Coupled Columns for the](#)

[Analysis of Non-Steroidal Anti-inflammatory Drugs and Veterinary Antibiotics in Environmental Samples](#) Heba Shaaban, University of Waterloo, Tadeusz Gorecki

4:35

(2350-8)

[Design of Widely-applicable Chiral Stationary Phases for HPLC](#) Ping Sun, The University of Texas at Arlington, Daniel Armstrong, Zachary Breitbart

Oral

Session 2360

Laboratory Informatics: Implementation Issues and Solutions

Thursday Afternoon, Room 215

Vincent Venturella, Ventura Associates, Presiding

2:00

(2360-1)

[Why You Should Get Rid of That Good Old Paper Notebook](#) Debra Toburen, Agilent Technologies, David Heiger, Marc Mandelbaum

2:20

(2360-2)

[Predicting and Avoiding Laboratory Informatics Project Failures before Startup](#) Robert Whitehead, ChemWare Inc, Conor Ward, Jason Asher

2:40

(2360-3)

[How to Maximize Throughput by Minimizing Testing](#) David Hurt, LabVantage Solutions, Inc.

3:00

(2360-4)

[Building a Business Case for LIMS](#) Shah Kim, Thermo Fisher Scientific

3:35

(2360-5)

[Leveraging the Power of an Enterprise LIMS Solution](#) Colin Thurston, Thermo Fisher Scientific

3:55

(2360-6)

[Can SAP be Integrated into Lab Processes?](#) Steve Bolton, Labtronics Inc.

4:15

(2360-7)

[Expertise-enabled Laboratory Informatics for Quality Assurance/Quality Control in Specialty Chemicals](#) JR Lee, JRL Consulting

4:35

(2360-8)

[Take Control of Your Laboratory Data](#) Brad Snyder, Agilent Technologies, David Heiger, Ed Guthrie, Marc Mandelbaum

Oral

Session 2370

Liquid Chromatography/Mass Spectroscopy - Applications to Natural Products, Chemicals and Pharmaceutical

Thursday Afternoon, Room 218

Robert Classon, Shimadzu Scientific Corporation, Presiding

2:00

(2370-1)

[Controlling Contamination in LC/MS – The Bridge Over Troubled Water!](#) Robert Classon, Shimadzu Scientific Instruments, Masatoshi Takahashi, William Hedgepeth

2:20

(2370-2)

[Determination of Water-soluble Vitamins in Food-matrix SRMs](#) Melissa M. Phillips, National Institute of Standards and Technology, Katherine Sharpless, Lane Sander, Stephen Wise

2:40

(2370-3)

[Comprehensive Analysis of Water Soluble B Vitamins in Foods and Beverages by LC-MS/MS](#) Stacy M. Tremintin, AB SCIEX, Andre Schreiber, Christopher Borton, Rebecca Wittrig

3:00

(2370-4)

[Evaluation of Isoflavone Composition in Dietary Supplements via Liquid Chromatography-particle Beam/Mass Spectrometry \(LC-PB/MS\)](#) Carolyn E. Quarles, Clemson University, R Kenneth Marcus

3:35

(2370-5)

[Multi-mycotoxin Analysis for Grain Products Using LC-MS/MS and LC with High Resolution Mass](#)

[Spectrometry](#) Feng Shi, Food and Drug Administration

3:55

(2370-6)

[Development of High-Throughput LC/MS/MS for Prescribed Pain Management Drugs from Biologicals Employing Solid Phase Extraction](#) Joan M. Stevens, Agilent Technologies, Ritu Arora

4:15

(2370-7)

[Surface Modification and HPLC-MS/MS Analysis of Water-Soluble, Monolayer-Protected Quantum Dots](#) Deon T. Miles, Sewanee: The University of the South, Adrienne Borchardt, Elizabeth Henry, Joseph Giesen, Kevin Kittredge

4:35

(2370-8)

[Direct Determination of Endothall by Ion Chromatography with Mass Spectrometric Detection](#) William C. Schnute, Dionex Corporation, Jinyuan Wang, William Miller

Oral

Session 2380

Methods Development in Atomic Spectroscopy

Thursday Afternoon, Room 409

Joe Wreen, Fripp Environmental Network, Presiding

2:00

(2380-1)

[Effect of Chilled Spray Chamber Design on ICP-MS Performance](#) Jerry Dulude, Glass Expansion, Vesna Dolic

2:20

(2380-2)

[Evaluation of Elemental Contamination in Nutritional Supplements by EPA Methods 6020A and 6800 Using Inductively Coupled Plasma-Mass Spectrometry](#) Gregory M. Zinn, Duquesne University, Amanda Anderson, HM Skip Kingston, Mizanur Rahman, Scott Faber

2:40

(2380-3)

[Biomonitoring for Manganese in Whole Blood: ETAAS or ICP-MS?](#) Meredith L. Praamsma, State University of New York at Albany, John Arnason, Patrick Parsons

3:00

(2380-4)

[Time-resolved Measurements of Sample Heating by a Laser Induced Air Plasma in Orthogonal Dual-pulse Laser Induced Breakdown Spectroscopy](#) Janna K. Register, University of South Carolina, S Michael Angel

3:35

(2380-5)

[Analysis of Volatile Organic Solvents by ICP-AES Using an Enhanced Nebulizer System with a Low Temperature Condenser](#) Fred G. Smith, CETAC Technologies

3:55

(2380-6)

[Experimental Measurements and Modeling to Understand Analyte Transport, Solvent Loading and Excitation in ICP-OES](#) John Olesik, Ohio State University, Josh Dettman, Sam Miller

4:15

(2380-7)

[Analysis of Precious Metals for Jewelry Products Using High Precision ICP-OES Methodology](#) Andrew Clavering, Thermo Fisher Scientific, Fergus Keenan, Martin Nash

4:35

(2380-8)

[Sample Introduction and Treatment Strategies for Improved Elemental Analysis by Solution-cathode Glow Discharge](#) Michael R. Webb, University of North Carolina, Michael Fritz, Todd Doroski

Oral

Session 2390

Nucleic Acid Analysis (Half Session)

Thursday Afternoon, Room 401

Leslie Sombers, North Carolina State University, Presiding

3:35

(2390-1)

[Label-free Detection of DNA and Screening of Single-nucleotide Polymorphisms Using Silicon Photonic Microring Resonators](#) Abraham J. Qavi, University of Illinois at Urbana-Champaign, Jared Kindt, Ryan Bailey, Thomas Mysz

3:55

(2390-2)

[Investigation of Binding Interactions including Thermodynamics of Association for Diimine Complexes of Cr\(III\) with DNA](#) Angela C. Zeigler, Furman University, Brandon Thompson, John Wheeler, Kristen Watts, Leslie HigueraMontoya, Morgan Sprinkle, Noel Kane-Maguire, Sandra Wheeler, Theta Brown

4:15

(2390-3)

[Anti-DNA: RNA Antibodies for the Sensitive Detection of microRNAs Utilizing Arrays of Silicon Photonic Microring Resonators](#) Jared T. Kindt, University of Illinois at Urbana-Champaign, Abraham Qavi, Ryan Bailey

4:35

(2390-4)

[Denaturing PAGE Analysis of Oligo RNA and DNA Molecules Synthesized In-vitro by Primase and DNA Polymerase from Sulfolobus Solfataricus](#) Zhongfeng Zuo, University of Pittsburgh, Michael Trakselis

Oral

Session 2400

Pharmaceutical - GC, MS, LC-MS, MS-MS

Thursday Afternoon, Room 407

Elizabeth Harris, MannKind Corporation, Presiding

2:00

(2400-1)

[Fast Residual Solvent Analysis with Improved Oven Ventilation](#) Stephen MacDonald, Zip Scientific

2:20

(2400-2)

[Development of a Gas Chromatographic Method for the Analysis of Chlorobutanol in Pharmaceutical Products](#) Kornepati V. Ramakrishna, United States Pharmacopeia, Eduardo Lim, Galina Holloway, Samir Wahab

2:40

(2400-3)

[Implementation of Accurate Mass and Spectral Accuracy Compound Confirmation on Open Access Quadrupole LC/MS Systems](#) Yongdong Wang, Cerno Bioscience, Ming Gu

3:00

(2400-4)

[Comparison of LC Coupled to Tandem Quadrupole MS and Time of Flight MS For Quantification and Identification of Drugs and Metabolites in Plasma](#) Robert S. Plumb, Waters, Joanne Mather, Paul Rainville

3:35

(2400-5)

[Bioanalysis of Biotherapeutics on Dried Blood Spot Cards Using Ultra High Sensitivity MS/MS Coupled to Sub 2um LC](#) Paul Rainville, Waters Corporation, Christopher Evans, Robert Plumb

3:55

(2400-6)

[Choosing An Appropriate Trace Element Analysis Technique to Address the Future Proposed Changes in US Pharmacopeia \(USP\)](#) Matthew Cassap, Thermo Fisher Scientific, Fergus Keenan, Martin Nash, Meike Hamester

4:15

(2400-7)

[Fe-TAMs Mirroring Drug Metabolism and More](#) Longzhu Q. Shen, Carnegie Mellon University, Dwight Tshudy, Edward Zovinka, Natalya Khanina, Terrence Collins

4:35

(2400-8)

[To the Detection and Quantification of Drug Metabolites Using the Simultaneous Collection of MRM and MS/MS Data: A Case Study](#) Robert S. Plumb, Waters, Ian Wilson

Oral

Session 2410

Polymers and Plastics

Thursday Afternoon, Room 216

Cecil Dybowski, University of Delaware, Presiding

2:00

(2410-1)

[High Speed, Environmentally Friendly Analysis of Polymer Additives Using Supercritical Fluid Extractions and Supercritical Fluid Chromatography](#) David Tognarelli, Jasco Inc.

2:20

(2410-2)

[Multi-detector Size-exclusion Chromatography Analysis of Ultrasonically Degraded Copolymers](#) Mallory Harlow, Florida State University, Andre Striegel

2:40

(2410-3)

[Effect of Multiwall Carbon Nanotubes on Mechanical and Rheological Properties of Poly\(trimethylene terephthalate\)](#) Veena Choudhary, Indian Institute of Technology, Delhi, Anju Gupta

3:00

(2410-4)

[HyperDSC Characterization of Polyketone Copolymers](#) Peng Ye, PerkinElmer, Andrew Salamon, Kevin Menard, Nik Boer, Robert Packer

3:35

(2410-5)

[Structural and Physical Characterization of Methyl Methacrylate with Higher Acrylate/Diacrylate Water Borne Latexes](#) Sweta Bajpai, Harcourt Butler Technological Institute, Indira Nigam, JSP Rai

3:55

(2410-6)

[Application of GC/MS, FTIR, and \[¹H-NMR in a Failure Investigation of a Polycarbonate Component](#) Benjamin C. Paulson, Chemir Analytical Services, Aaron Cassely, Rachel Linck

4:15

(2410-7)

[Synthesis and Characterization of Novel Azo Polymeric Dyes with Good Dyeing Properties](#) Smita M. Jauhari, Sardar Vallabhbhai National Institute of Technology, Medha Joshi

4:35

(2410-8)

[Identification of Materials with the Solid Phase Photoacoustic Spectroscopy](#) Jussi Raittila, Gasera Ltd., Aleksii Helle, Ismo Kauppinen, Jari Rautiainen, Juho Uotila, Jyrki Kauppinen

Oral

Session 2420

Preparation, Characterization, and Toxicity of Biological Nanomaterials

Thursday Afternoon, Room 312

X Nancy Xu, Old Dominion University, Presiding

2:00

(2420-1)

[Cytotoxic and Therapeutic Effects of Stable and Purified Silver Nanoparticles on Tumor Cells](#) X Nancy Xu, Old Dominion University, Prakash Nallathamby

2:20

(2420-2)

[Hydrodynamic Chromatography Characterization of the Size and Shape of a Nanocage Drug Delivery Vesicle](#) Andre Striegel, Florida State University, Amanda Brewer

2:40

(2420-3)

[Bioparticle Deformation Under the Influence of Electric Fields](#) Josemar A. Castillo, Arizona State University, Mark Hayes

3:00

(2420-4)

[Fundamental Study of Cellular Response after Exposure to TiO₂ Nanoparticles](#) Melissa A. Maurer-Jones, University of Minnesota, Christy Haynes

3:35

(2420-5)

[Combinatorial Discovery and Characterization of Upconverting Nanocrystal Probes for Biological Imaging](#) Emory M. Chan, Lawrence Berkeley National Laboratory, Bruce Cohen, Delia Milliron, Gang Han

3:55

(2420-6)

[A Reconfigurable Three-dimensional DNA Nanostructure Regulated by Photons](#) Da Han, University of Florida, Jin Huang, Mingxu You, Quan Yuan, Weihong Tan, Zhi Zhu

4:15

(2420-7)

[Design of Single Plasmonic Nanoparticle Optical Probes for Study of Multidrug ABC Membrane Transporter in Single Living Cells](#) Kerry J. Lee, Old Dominion University, Lauren Browning, Prakash Nallathamby, Tao Huang, X Nancy Xu

4:35

(2420-8)

[Silver and Patchy Silica-Coated Silver Nanowires: Synthesis, Characterization, Growth Mechanism and their use as SERS Substrates](#) Simona Hunyadi Murph, Savannah River National Laboratory

Oral

Session 2430

Quality Assurance and Method Development (Half Session)

Thursday Afternoon, Room 408

Hubert MacDonald, The Pittsburgh Conference, Presiding

2:00

(2430-1)

[A Strategy for Development and Implementation of Solution Reference Standards](#) Michael Julius, Eli Lilly and Company, Matthew Borer, Patrick Jansen

2:40

(2430-3)

[A Low Cost, Universal, Liquid Drop Detector for Variety of Compounds: Validated with Industria](#)

[Biocides](#) Yasith S. Nanayakkara, The University of Texas at Arlington, Daniel Armstrong, Hyejin Moon

3:00

(2430-4)

[The NIST Atmospheric Methane Gas Standard Scale](#) Jennifer Carney, National Institute of Standards and Technology, George Rhoderick, Walter Miller

Oral

Session 2440

Separation Science - Extraction, Absorption, Monolith, ICP, FFF, Others

Thursday Afternoon, Room 404

Martha Knight, CC Biotech LLC, Presiding

2:00

(2440-1)

[Extraction of Borate from Water Using Boron Selective Task-specific Ionic Liquids](#) Manishkumar D. Joshi, The University of Toledo, Jared Anderson

2:20

(2440-2)

[Correlation of the Fundamental Properties of Basal and Edge-plane Carbon Nanorods with the Selectivity of Adsorption](#) Joseph W. Zewe, The Ohio State University, Jonathan Clark, Susan Olesik, Tian Lu

2:40

(2440-3)

[Analyte Diffusion on Lauryl and Butyl Acrylate Porous Polymer Monoliths](#) Michelle M. Bushey, Trinity University, Michael Dzierlenga, Zoe LaPier

3:00

(2440-4)

[Determination of Electrolytes in Human Serum: Comparison of Results for Ion-exchange Separated Samples and Non-separated Samples](#) Thomas W. Vetter, National Institute of Standards and Technology, Karen Murphy, Ryan Brennan, Savelas Rabb, Stephen Long

3:35

(2440-5)

[Eliminating End-effect Band Spreading in Field-flow Fractionation Separations](#) Fred Senftleber, Jacksonville University, Christopher Gannon

3:55

(2440-6)

[Unique Chiral Selectors for Primary Amines and Their Applications in HPLC, SFC and NMR](#) Ping Sun, The University of Texas at Arlington, Daniel Armstrong

4:15

(2440-7)

[Protein Separation by a Centrifuged Membrane Device](#) Martha Knight, CC Biotech LLC, Thomas Finn

4:35

(2440-8)

[Molecular Separation in a Drop Using Isoelectric Focusing](#) Noah Weiss, Arizona State University, Antonio Garcia, Mark Hayes

Oral

Session 2450

Versatility of Electrochemical Analysis

Thursday Afternoon, Room 217

Parastoo Hashemi, University of North Carolina at Chapel Hill, Presiding

2:00

(2450-1)

[Electrocatalytic Oxidation of Phenolic Estrogenic Compounds at a Nickel Modified Glassy Carbon Electrode](#) Grace W. Muna, Indiana University South Bend, Adam Kaylor, Bonnie Jaskowski

2:20

(2450-2)

[Spectroelectrochemistry and Voltammetry of Metalloporphyrines](#) Michael Ryan, Marquette University, Florentina Tutunea

2:40

(2450-3)

[Measurement of Dopamine Transporter Activity in the Larval Drosophila CNS](#) Trisha Vickrey, University of Virginia, B Jill Venton

3:00

(2450-4)

[Stabilizing Chronically Implanted Ag/Ag Cl Reference Electrodes for In-vivo Neurochemical Applications](#) Parastoo Hashemi, University of North Carolina at Chapel Hill, Julie Gras-Najjar, Paul Walsh, Pavel Takmakov, Robert Wightman, Thomas Guillot

3:35

(2450-5)

[Microfabricated pH-stat Slide for Reagentless and Calibration-free Determination of Enzyme Markers in Clinical Samples](#) Miklos Gratzl, Case Western Reserve University, Christian Zorman, Disha Sheth, John Stanton

3:55

(2450-6)

[Size-dependent Electrochemical Reactivity of Metal Nanoparticles](#) Francis P. Zamborini, University of Louisville, Olga Ivanova

4:15

(2450-7)

[Specification Check of Zircaloy for Cobalt and Nickel Using Square Wave Adsorptive Stripping Voltammetry \(SW-ADSV\)](#) Lata R. Sawant, Bhabha Atomic Research Centre, K Ramakumar, V Venugopal

4:35

(2450-8)

[Field-Deployable Electrochemical Sensors for Heavy Metals Detection](#) Abdel-Nasser M. Kawde, King Fahd University