Welcome to Pittcon 2012

On behalf of the Pittcon 2012 Organizing Committee, welcome to this year’s conference and exposition in Orlando, the vibrant and sunny city that offers something for every schedule and every interest.

We are always excited to be in Orlando and are looking forward to a week of “getting connected.” Whether that means catching up with old friends and making new acquaintances; talking with exhibitors about their latest equipment; or discussing the latest innovations in laboratory science with leading experts participating in the Technical Program, Pittcon is the perfect place to indulge your scientific pursuits.

We are very pleased that ANYL (the Division of Analytical Chemistry of the American Chemical Society) will once again be contributing to our Technical Program along with other co-programming partnerships that include ALMA, Analítica Latin-America, Coblenz Society, IAEAC, JAIMA, Lab Manager magazine, PAI-NET, RSC, SAS, and SEAC.

To help conferees minimize scheduling conflicts, there will be no technical presentations between the hours of 11 am and 2 pm daily; this scheduling allows time to visit the exhibits without missing any important technical sessions.

In addition, Pittcon offers many amenities to enhance your conference experience. To help you track, organize, and retain all that is happening at Pittcon, be sure to download the new Pittcon 2012 mobile app for iPhone, Android, and web-enabled devices. Stop by Pittcon’s Booth 649 to pose for a most memorable souvenir photo. Other must see/do items include the robotic display in Technology Park, which is located in the center of the expo floor; apple booths; souvenir bag pickup; Employment Service; Tuesday and Thursday afternoon mixers; and the Capstone Lecture with mixer on Wednesday.

If you are planning to stay on to visit any of the Disney theme parks, take advantage of our discounted ($42 each) after 4 pm park tickets that will be sold at the Activities Booth. These may be used one time at any of the four Disney Parks.

I would like to thank C&EN, the flagship news magazine of the American Chemical Society, for producing the Pittcon 2012 eEdition and for their continuing support. This eEdition will prove to be an indispensable reference guide by providing a wealth of information regarding the many events and opportunities at Pittcon, as well as highlights about the Orlando area.

Finally, we would like to thank all our sponsors, exhibitors, and conferees for their ongoing support and hope that Pittcon continues to be a significant source for all your scientific needs. Your attendance helps us to continue our mission to advance scientific education, as the proceeds from Pittcon are used to fund science education and outreach programs at all levels from kindergarten through adult education.

Jon N. Peace
President, Pittcon 2012
Go Green with JASCO SFC
Supercritical Fluid Chromatography

Pittcon Booth #1407

Trust the World Leaders in SFC for over 20 Years

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JASCO 28600 Mary’s Court Easton MD 21601 Ph: 800-333-5272
# Technical Programs

## Bioanalytical

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
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<tbody>
<tr>
<td><strong>Sunday</strong></td>
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<tr>
<td>1 pm</td>
<td></td>
<td>Advances in Rapid Mixing Instruments for Analysis of Enzyme Activities, Room 206A</td>
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<td>1 pm</td>
<td></td>
<td>Biomedical Applications of NIR Fluorescence, Room 207B</td>
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<td>1 pm</td>
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<td>Noninvasive Biomedical Analysis, Room 300</td>
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<tr>
<td><strong>Monday</strong></td>
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<tr>
<td>8 am</td>
<td></td>
<td>Accessing Extracellular Fluid, Room 311B,</td>
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<td>8 am</td>
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<td>Biological Fluid/Tissue Proteomics: Advances &amp; Challenges, Room 207B</td>
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<td>8 am</td>
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<td>Bioanalytical Assays &amp; Sensors, Room 311A</td>
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<td>2 pm</td>
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<td>Analytical Instrumentation for Biomaterials at Practical use (PAI-NET), Room 206B</td>
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<td>2 pm</td>
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<td>Quantitation of Proteins: From Clinical Applications to Biotherapeutics, Room 307D</td>
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<td>2 pm</td>
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<td>Bioanalytical CE &amp; Microfluidics, Room 307C</td>
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<td><strong>Tuesday</strong></td>
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<td>8 am</td>
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<td>Analyzing Chemical Markers of Brain Injury &amp; Disease: Clinical Horizons, Room 311B</td>
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<td>Breath Analysis as Noninvasive Alternative for Medical Diagnostics, Room 207B</td>
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<td>The Great Protein Shootout: Instrumentation &amp; Technology for Targeted Analysis, Room 307D</td>
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<td>Ultrasensitive Measurements of Exocytosis from Unique Cell Systems, Room 310B</td>
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<td>2 pm</td>
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<td>Analysis of Neurochemical Systems I, Room 311B</td>
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<tr>
<td>2 pm</td>
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<td>Bioanalytical Capillary Separations, Room 307C</td>
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<tr>
<td><strong>Wednesday</strong></td>
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<td>8 am</td>
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<td>Conquering Diffusion Limit in Monitoring of Biomolecules &amp; Bioparticles, Room 307B</td>
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<td>Biomedical Innovations: Virus</td>
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<td><strong>Thursday</strong></td>
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<td>8 am</td>
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<td>Advanced Glycomics &amp; Glycoproteomics Approaches, Room 308D</td>
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<td>Advancing Analytical Technologies for Human Health &amp; Security, Room 300</td>
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<td>Current Status &amp; Trends in Chromatography &amp; Mass Spectrometry for Analysis of Biologics &amp; Small Molecules, Room 207B</td>
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<td>8 am</td>
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<td>Analysis of Neurochemical Systems II, Room 311B</td>
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<td>8 am</td>
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<td>Biomedical: Cancer Diagnosis/Treatment, Room 311A</td>
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<td>2 pm</td>
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<td>Analyzing Intrinsically Disordered Proteins, Room 307B</td>
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<td>Label-free Biosensing Techniques, Room 308C</td>
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<td>Single-molecule Technologies in Biological Explorations, Room 207B</td>
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<td>Genomics, Proteomics &amp; Metabolomics, Room 209A</td>
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## Monday

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<th>Time</th>
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<tr>
<td>8 am</td>
<td>Extreme Electrochemistry: Electrochemistry in Microstructures &amp; Nanostructures, Room 206B</td>
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<tr>
<td>2 pm</td>
<td>Electrochemistry Methodology I, Room 311C</td>
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## Tuesday

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<tr>
<td>2 pm</td>
<td>Electrochemistry for Biological Applications, Room 311C</td>
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## Wednesday

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<th>Time</th>
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<tr>
<td>8 am</td>
<td>Carbon Nanotubes in Electrochemistry, Room 311B</td>
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<tr>
<td>8 am</td>
<td>Electrochemistry, Room 311C</td>
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<tr>
<td>2 pm</td>
<td>Electrochemistry methodology II, Room 311C</td>
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## Thursday

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<tr>
<td>2 pm</td>
<td>Electrochemical Imaging in Neurochemistry with Microelectrodes &amp; Nanoelectrodes, Room 206A</td>
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## Environment & Fuels

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<tr>
<td><strong>Sunday</strong></td>
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<tr>
<td>1 pm</td>
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<td>Environmental Analysis: Air Contaminants, Room 209A</td>
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<tr>
<td>8 am</td>
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<td>Environmental Analysis: Protocols, Room 209B</td>
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<td>2 pm</td>
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<td>Environmental Analysis: Novel Applications, Room 209B</td>
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<tr>
<td>8 am</td>
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<td>Advanced in Fuels &amp; Petrochemicals analysis I, Room 307A</td>
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<td>2 pm</td>
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<td>Advanced in Fuels &amp; Petrochemicals Analysis II, Room 307A</td>
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## Data

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<tr>
<td><strong>Monday</strong></td>
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<tr>
<td>8 am</td>
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<td>Analysis &amp; Manipulation, Room 310A</td>
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<tr>
<td><strong>Thursday</strong></td>
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<tr>
<td>8 am</td>
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<td>Chemometrics, Room 311D</td>
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<td>2 pm</td>
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<td>Unleashing ANIMI 1.0: Adoption Strategies for New ASTM Data Standards, Room 313</td>
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## Electrochemistry

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<tr>
<th>Day</th>
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<tr>
<td><strong>Sunday</strong></td>
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<tr>
<td>1 pm</td>
<td></td>
<td>New Advances in Electrochemical Neurotransmitter Detection, Room 311B</td>
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<td>1 pm</td>
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<td>Inorganic Electrochemistry, Room 311C</td>
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See Technical Programs page 5
Excellence in Science

Founded on the basis of "Solutions for Science," Shimadzu has been a world leader in the analytical instrumentation industry for over 135 years. Our goal has always been to find the best solutions for research, development and applications to meet your specific disciplinary needs. At Pittcon 2012, we’ll be showcasing our full range of instruments while unveiling a series of new solutions in our continuing pursuit of technological excellence.

Visit Booth 1806 to learn about our wide range of innovative instruments:

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- Balances
- Biotech / MALDI
- EDX / XRF / XRD
- Fluorescence
- FTIR
- GC
- GC / MS
- HPLC / UFLC / UHPLC
- LC / MS / MS
- Particle Size
- Software
- Testing Machines
- Thermal
- TOC / TN / TP
- UV-VIS-NIR

Pittcon 2012 Heritage Award: Honoring Genzo Shimadzu, Sr. and Jr.

Find out more at Booth #1806

www.ssi.shimadzu.com
### Thursday
- **8 am** | Forensic Analysis: From Lab to the Crime Scene, Room 206C
- **2 pm** | Forensic Analysis: Applications, Room 206C

### General
- **Sunday**
  - **1 pm** | Looking Ahead to a New Era of Analytical Chemistry Education, Room 308B
  - **1 pm** | High-throughput Chemical Analysis, Room 310B
  - **1 pm** | Laboratory Management, Room 313
  - **1 pm** | Sampling & Sample Preparation, Room 307D

#### Food Analysis
- **Tuesday**
  - **8 am** | Food & Beverage Analysis, Room 209B
  - **2 pm** | High-throughput Analysis for Food Safety, Room 311A

#### Wednesday
- **8 am** | Addressing Challenges in Dietary Supplement Analysis, Room 313
- **2 pm** | Industry, Academic & Government Responses to Emerging Food Contaminants, Room 31

#### Thursday
- **8 am** | Food Analysis for Metals & Contaminants, Room 209B
- **2 pm** | Food Products & Components, Room 209B

### Forensics and Homeland Security
- **Tuesday**
  - **8 am** | Explosive Material Detection, Room 310B
  - **2 pm** | Explosive Sensing: From Homeland Security to Military Applications, Room 206B

#### Wednesday
- **8 am** | Analytical Chemistry in Natural Products: Analitica Latin America, Room 206B
- **8 am** | It’s Not Your Grandmother’s Quant Course Anymore: New Tactics for a New Age, Room 206A
- **2 pm** | Education Innovation, Room 308A

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Don’t be irrational! Come celebrate Pi Day at the iChromatography booth #3326 at Pittcon on March 14th, where at 1:59PM we’ll become PiChromatography! We’ll have exciting Pi trivia contests and give away cool Pi products – you’ll have so much fun you won’t be able to express it in exact terms! So come on by, and enjoy some Pi with us!
### Technical Programs Page 5

#### Thursday

**8 am**  
Applications: Quality & Safety, Room 307D

**2 pm**  
Elemental Speciation in Real world: Clinical, Industrial & Environmental Applications, Room 311B

**2 pm**  
Characterization of Polymers & Plastics, Room 308A

**2 pm**  
Chemical Methods, Room 307D

#### Mass Spectrometry

**Sunday**

**1 pm**  
Mass Spectrometry, Room 310A

#### Monday

**8 am**  
Imaging Mass Spectrometry: Chemical Insights into Biomedicine & Pharmaceutics WebCasting, Room 206C

#### Tuesday

**8 am**  
Fundamentals of Ambient Mass Spectrometry: Chemical Analysis of Things as They Are, Room 206C

#### Wednesday

**8 am**  
Miniature Mass Spectrometries: Reaching for the Exponential on Growth Curve, Room 207A

**2 pm**  
Hydrogen-deficient Radicals for Biomolecular Characterization by MS (ACS-ANYL), Room 308B

**2 pm**  
Alternatives in High-resolution Mass Spectrometry, Room 308C

**2 pm**  
Bioanalytical Mass Spectrometry, Room 310A

#### Thursday

**8 am**  
Ion Cyclotron Resonance Mass Spectrometry: Recent Developments, Room 206B

#### Micro- & Nanoscale

**Sunday**

**1 pm**  
Novel Analytical Chemistry for Nanotoxicity Assays, Room 207A

**1 pm**  
Bioanalytical Microfluidics, Room 308D

**1 pm**  
Microscopic Analysis & Imaging Methods, Room 209B

**1 pm**  
Applications of Nanoparticles for Bioanalysis, Room 206B

#### Monday

**8 am**  
Analytical Applications of Chemically Patterned Surfaces & Films, Room 207A

**8 am**  
Biomedical Nanotechnology, Room 307B

**8 am**  
MTAS for Bioanalysis, Room 307D

**8 am**  
Microfluidics/Lab-on-a-Chip I: Bioanalytical, Room 309A

**2 pm**  
Bioanalytical Microfluidics & Emerging Nanotechnologies WebCasting, Room 206C

**2 pm**  
Implantable Nanosensors, Room 207A

#### Tuesday

**8 am**  
Nanofluidics in Analysis & Sample Preparation, Room 308D

**8 am**  
State-of-the-Art Technologies from Japan: Analytical Instruments with/for Nanochemistry Technology I (JAIMA), Room 207A

**8 am**  
GC-on-a-Chip: The Next Generation, Room 313

**2 pm**  
State-of-the-Art Technologies from Japan: Analytical Instruments with/for Nanochemistry Technology II (JAIMA), Room 207A

**2 pm**  
Microfluidics/Lab-on-a-Chip II: Bioanalytical, Room 309A

#### Wednesday

**8 am**  
Integrated Microfluidics (AcS-Anyl), Room 308B

**8 am**  
Bioanalytical Nanoscience, Room 307A

#### Sensing Technologies

**Wednesday**

**2 pm**  
Detection Strategies for Microfluidic Devices, Room 207B

**2 pm**  
Biomedical Applications of Nanotechnology, Room 307D

**2 pm**  
Microfluidics/Lab-on-a-Chip: Bioanalytical, Biomedical & Pharmaceutical, Room 309A

**2 pm**  
Nanotechnology: MS & Lab-on-a-Chip, Room 307A

#### Thursday

**8 am**  
Fluorescence/Luminescence Nano & General Applications, Room 309B

**8 am**  
Nanotechnology: Microscopy & Imaging, Room 307A

**2 pm**  
Nanotechnology meets Liquid Chromatography: Nanomaterial-based Stationary Phases, Room 308D
### Thursday

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<tr>
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<tr>
<td>2 pm</td>
<td>LC/MS Quantification of Protein Therapeutics in Drug Discovery &amp; Development, Room 206B</td>
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<td>8 am</td>
<td>Portable Instruments: Applications, Room 309A</td>
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<tr>
<td>8 am</td>
<td>Sensors I, Room 311D</td>
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<tr>
<td>2 pm</td>
<td>Sensors II, Room 311D</td>
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### Wednesday

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<th>Time</th>
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<tr>
<td>8 am</td>
<td>Advances in Capillary Scale Ion Chromatography, Room 308D</td>
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<td>8 am</td>
<td>UHPLC Beyond Reversed Phase &amp; Small Molecules, Room 308C</td>
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<tr>
<td>8 am</td>
<td>Bioanalytical Separations I, Room 307C</td>
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<tr>
<td>2 pm</td>
<td>Modeling Chromatographic Systems (ACS-ANYL), Room 308D</td>
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<tr>
<td>2 pm</td>
<td>Liquid Chromatography: Small-Molecule Separations, Room 307C</td>
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### Tuesday

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<tr>
<td>8 am</td>
<td>Increasing Importance of Temperature in Liquid Chromatography, Room 308C</td>
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<tr>
<td>8 am</td>
<td>Liquid Chromatography: Instrumental Aspects, Room 307C</td>
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<td>2 pm</td>
<td>Fast Separations (ACS-ANYL), Room 308B</td>
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<td>2 pm</td>
<td>Novel Methods in Trace Analysis Using Ion Chromatography, Room 308D</td>
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### Monday

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<tr>
<td>8 pm</td>
<td>Application of Surface-enhanced Raman Spectroscopy to Real-World Problems, Room 308A</td>
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<tr>
<td>8 am</td>
<td>Advances in Instrumentation: Atomic Spectroscopy, Room 307A</td>
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<tr>
<td>2 pm</td>
<td>The 23rd James L. Waters Symposium: Recognizing Pioneers in the Development &amp; Application of Portable Handheld X-ray Fluorescence Spectrometers WebCasting, Room 300</td>
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<tr>
<td>2 pm</td>
<td>Bioanalytical Spectroscopy, Room 308D</td>
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<tr>
<td>2 pm</td>
<td>SERS/Resonance Raman: Applications, Room 309B</td>
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### Sunday

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<tr>
<td>1 pm</td>
<td>Bioanalytical Sensors, Room 311A</td>
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### Saturday

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<tr>
<td>8 am</td>
<td>Orthogonal Sensing System for Homeland Security Applications, Room 308C</td>
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### Ionophore-based Chemical Sensors

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<tr>
<td>8 am</td>
<td>Ionophore-based Chemical Sensors I, Room 311A</td>
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<tr>
<td>8 am</td>
<td>Fluorescence/Luminescence in Bioanalytical &amp; Sensor Applications, Room 309B</td>
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<tr>
<td>8 am</td>
<td>Sensors III, Room 311D</td>
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<td>Sensors II, Room 311D</td>
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### Analytical Techniques for Nanotoxicology

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<th>Time</th>
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<tbody>
<tr>
<td>2 pm</td>
<td>Analytical Techniques for Nanotoxicology, Room 311A</td>
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<tr>
<td>2 pm</td>
<td>Microfluidics/Lab-on-a-Chip: others, Room 309A</td>
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<tr>
<td>2 pm</td>
<td>Nanotechnology: Other Applications, Room 307A</td>
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### Spectroscopy

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<td>8 am</td>
<td>Application of Vibrational Spectroscopic Techniques to Art Conservation &amp; Archaeology, Room 308A</td>
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<td>1 pm</td>
<td>Molecular Spectroscopy Advances, Room 309B</td>
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### Nuclear Spectroscopy

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<tr>
<td>9:35 am</td>
<td>Advances in Instrumentation: Gc, Room 307A</td>
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**Download New Mobile App**

The Pittcon 2012 app serves as your all-in-one event guide by putting everything you need to know right onto your mobile device. The app is compatible with all web-enabled phones, including Apple iPhone, iPod Touch, and iPad; Android phones; and all other web-enabled devices. Check on Pittcon’s website for the appropriate QR code to obtain your download and keep current with the 2012 show.
## Awards

**Sunday**

- **4:30 pm** Presentation of the 2012 Pittcon Heritage Award, posthumously honoring the founders of Shimadzu—Chapin Theater
- **4:45 pm** Plenary lecture: Ambient Ionization & Mini Mass Spectrometers: In situ MS for everyone—Chapin Theater

**Monday**

- **8 am** Dal Nogare Award—Room 206A
- **8 am** Pittsburgh Conference Achievement Award—Room 300
- **2 pm** Charles N.Reilley & Young Investigator Awards—Room 206A

**Tuesday**

- **8 am** Bomem-Michelson Award—The Coblentz Society/ABB—Room 206B
- **8 am** Pittsburgh Analytical Chemistry Award—Room 300

**Wednesday**

- **8 am** ACS Division of Analytical Chemistry Award for Young Investigators in Separation Science: Ionic liquids in Microextraction & Separation Methods—Room 300
- **8 am** Pittsburgh Analytical chemistry Award—Room 300
- **2 pm** Ralph N. Adams Award—Room 300
- **2 pm** Williams-Wright Award—The Coblentz Society, Room 206A
- **5 pm** Capstone lecture—Chapin Theater

## Shuttle Bus Routes

### Conference Shuttle Bus Service

Schedule of service between hotels on shuttle bus routes and Orange County Convention Center:

**Sunday, March 11**

- **9 am–Noon** 20–25 minutes
- **Noon–4 pm** 15 minutes
- **4–8 pm* 20–25 minutes

**Monday, March 12**

- **6:30–9:30 am** 15 minutes
- **9:30 am–3:30 pm** 20–25 minutes
- **3:30–6:30 pm* 15 minutes

**Evening Networking**

Departure from OCCC at 7:30 pm—For attendees of Monday evening conferee networking sessions ONLY

**Tuesday, March 13**

- **7–10 am** 15 minutes
- **10 am–3 pm** 20–25 minutes
- **3–6 pm* 15 minutes

**Wednesday, March 14**

- **7–10 am** 15 minutes
- **10 am–3 pm** 20–25 minutes
- **3–7 pm* 15 minutes

**Thursday, March 15**

- **7–10 am** 15 minutes
- **10 am–3 pm** 20–25 minutes
- **3 pm–6 pm* 15 minutes

*Last coaches depart OCCC or venue to return to hotels
Activities & Attractions

Child Care On-Site At Camp Pittcon
High-quality, convenient child care will be available within the Orange County Convention Center during Pittcon 2012. Pittcon will provide a subsidized child care program that will utilize the expertise of a nationally known professional child care organization. Each member of the Camp Pittcon staff is a child care professional trained to supervise and entertain your child. We are committed to making your Pittcon 2012 experience family-friendly. Fees, hours, and additional information are available at www.pittcon.org.

Mixers and Networking

Sunday Mixer after the Plenary Lecture
Enjoy complimentary refreshments and snacks while you view informative posters and meet your colleagues. This event is an annual tradition where many conference meet each other year after year. It takes place immediately following the Plenary Lecture in the Valencia room.

Wednesday Mixer after the Capstone Lecture
New this year! Enjoy a complimentary mixer immediately following the Capstone Lecture in the Valencia Room.

Exposition Mixers
There will be complimentary mixers on the exposition floor Tuesday, 2–4 pm, and Thursday, 1–3 pm. Take a break from your busy day to enjoy snacks and refreshments. It’s a great chance to network, too!

Twitter Café
Tweet #pittcon. Share something interesting you encounter at Pittcon 2012 with fellow conference at the Twitter Café. The café will be located at the Pittcon booth and is a perfect spot to send your Tweets during the conference. Tweets using #pittcon will be displayed on select screens in Technology Park.

Pittcon Store
The Pittcon Store (formerly the “Activities Booth”) is located in the Hall B Corridor across from Room 207. The store is an ideal place to purchase souvenirs and fun items to remind you of Pittcon 2012 all year long. Pittcon’s new 2012 mascot and apparel, gift, and business items are available at affordable prices. Stop by to see what we have to offer.

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- Extended Dynamic Range™ option
- Singles or Sets

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- Symmetrical Rise/Fall Time
- Reduces Time Jitter

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- Ion Guides or Drift Tubes
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See us at Pittcon at Booth 2070 for the latest in sensor and detector solutions for your analytical instrument.

Learn how our detectors and sensors will make your instrument better.

PHOTONIS USA
660 Main Street
Sturbridge, MA 01566
1 (508) 347 4000
sales@usa.photonis.com
www.photonis.com
### Local Attractions

<table>
<thead>
<tr>
<th>Attraction</th>
<th>Address</th>
<th>Hours</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatica Sea World’s Water Park</td>
<td>5800 Water Play Way</td>
<td>10 am–5 pm</td>
<td><a href="http://aquaticabyseaworld.com">aquaticabyseaworld.com</a></td>
</tr>
<tr>
<td>Central Florida Zoo &amp; Botanical Gardens</td>
<td>3755 NW Highway 17-92 Sanford, FL 9 am–5 pm</td>
<td><a href="http://centralfloridazoo.org">centralfloridazoo.org</a></td>
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</tr>
<tr>
<td>Cirque du Soleil</td>
<td>Downtown Disney—Walt Disney World Resort 6–9 pm Tuesday–Saturday <a href="http://cirquedusoleil.com">cirquedusoleil.com</a></td>
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<tr>
<td>Discovery Cove</td>
<td>6000 Discovery Cove Way</td>
<td>9 am–5:30 pm</td>
<td><a href="http://discoverycove.com">discoverycove.com</a></td>
</tr>
<tr>
<td>Disney’s Animal Kingdom</td>
<td>Walt Disney World Resort 9 am–5 pm <a href="http://disneyworld.com">disneyworld.com</a></td>
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<tr>
<td>Disney’s Typhoon Lagoon</td>
<td>Water Park Walt Disney World Resort 10 am–5 pm <a href="http://disneyworld.com">disneyworld.com</a></td>
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<tr>
<td>Epcot Center</td>
<td>1200 Epcot Resort Blvd. 9 am–9 pm <a href="http://disneyworld.com">disneyworld.com</a></td>
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<tr>
<td>Exotic Car Gallery</td>
<td>4190 Millenia Blvd. 10 am–8 pm</td>
<td><a href="http://exoticcargallery.com">exoticcargallery.com</a></td>
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<tr>
<td>Indy Racing Experience</td>
<td>3450 N. World Dr. 4 pm–Dusk <a href="http://indyracingexperience.com">indyracingexperience.com</a></td>
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<tr>
<td>Magic Kingdom</td>
<td>Walt Disney World Resort 9 am–8 pm <a href="http://disneyworld.com">disneyworld.com</a></td>
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<tr>
<td>Orlando Premium Outlets</td>
<td>8200 Vineyard Ave. 10 am–11 pm Mon.–Sat., 10 am–9 pm Sunday <a href="http://premiumoutlets.com">premiumoutlets.com</a></td>
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<tr>
<td>Orlando Science Museum</td>
<td>777 East Princeton St. 10 am–5 pm <a href="http://osc.org">osc.org</a></td>
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<tr>
<td>Sea World Orlando</td>
<td>7007 Sea World Dr. 9 am–7 pm</td>
<td><a href="http://seaworldorlando.com">seaworldorlando.com</a></td>
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</tr>
<tr>
<td>Ultimate Airboat Rides</td>
<td>1495 Riviera Dr. Kissimmee, FL (Hotel pick up available) 8 am–9 pm <a href="http://aorlandoairboats.com">aorlandoairboats.com</a></td>
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<tr>
<td>Universal Isle of Adventure</td>
<td>1000 Universal Studios Plaza 9 am–6 pm <a href="http://universalarlando.com">universalarlando.com</a></td>
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<tr>
<td>Universal Studios</td>
<td>1000 Universal Studio Plaza 9 am–6 pm <a href="http://universalarlando.com">universalarlando.com</a></td>
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</tbody>
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### Dining Guide

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>American</td>
<td>310 Lakeside</td>
<td>301 E. Pine Street</td>
<td>407-373-0310</td>
</tr>
<tr>
<td></td>
<td>Bananas Modern American Diner</td>
<td>924 N. Mills Avenue</td>
<td>407-480-2200</td>
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<tr>
<td></td>
<td>Bistro 1501</td>
<td>1501 International Drive</td>
<td>407-995-7053</td>
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<tr>
<td></td>
<td>Citron: An American Brasserie</td>
<td>4040 Central Florida, Parkway</td>
<td>407-393-462</td>
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<tr>
<td></td>
<td>City Fire</td>
<td>7958 Via Dellagio Way</td>
<td>407-722-8888</td>
</tr>
<tr>
<td>Asian Chinese, Japanese, &amp; Thai</td>
<td>Amura</td>
<td>7786 W. Sand Lake Road</td>
<td>407-370-0007</td>
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<tr>
<td></td>
<td>Ming Court</td>
<td>9188 International Drive</td>
<td>407-351-9988</td>
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<td></td>
<td>Oishi Japanese Restaurant</td>
<td>1025 International Drive</td>
<td>407-465-0088</td>
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<td></td>
<td>Thai Thani</td>
<td>11025 International Drive</td>
<td>407-239-9733</td>
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<td></td>
<td>Twist Asian Fusion</td>
<td>45 W. Crystal Lake</td>
<td>407-648-9898</td>
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<tr>
<td>Creole, Cajun, Southwestern &amp; Caribbean</td>
<td>Cuba Libre Restaurant &amp; Rum Bar</td>
<td>9101 International Drive</td>
<td>407-226-1600</td>
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<tr>
<td></td>
<td>Emeril’s Restaurant</td>
<td>6000 Universal Blvd.</td>
<td>407-224-2424</td>
</tr>
<tr>
<td></td>
<td>Margaritaville at Universal</td>
<td>Orlando Citywalk</td>
<td>407-224-2155</td>
</tr>
<tr>
<td></td>
<td>Tommy Bahama’s Restaurant &amp; Bar</td>
<td>9101 International Drive</td>
<td>321-281-5888</td>
</tr>
<tr>
<td>Greek</td>
<td>Greek Flame Taverna</td>
<td>7600 Dr. Phillips Blvd.</td>
<td>407-370-4624</td>
</tr>
<tr>
<td></td>
<td>Taverna Op</td>
<td>9101 International Drive</td>
<td>407-351-8660</td>
</tr>
<tr>
<td>Indian</td>
<td>Passage to India</td>
<td>6129 Westwood Blvd.</td>
<td>407-351-3456</td>
</tr>
<tr>
<td></td>
<td>Saffron Indian Cuisine Orlando</td>
<td>7724 W. Sand Lake Road</td>
<td>407-674-8899</td>
</tr>
<tr>
<td>Italian</td>
<td>Buca di Beppo</td>
<td>8001 S. Orange Blossom Trail</td>
<td>407-859-7844</td>
</tr>
</tbody>
</table>
Café Trastevere
825 N. Magnolia Ave.
407-839-0235

Christini’s Ristorante Italiano
7600 Dr. Phillips Blvd.
407-345-8779

Cariera’s Cucina Italiano
7600 Dr. Phillips Blvd.
407-351-1187

Timpano Italian Chophouse
7488 W. Sand Lake Road
407-248-0429

Mediterranean
Anatolia Mediterranean Cuisine
7600 Dr. Phillips Blvd.
407-352-6766

Cedar’s Restaurant
7732 W. Sand Lake Road
407-351-6000

Shiraz Grill
6427 Westwood Blvd.
407-284-1273

Mexican & Southwestern
El Patron Mexican Restaurant & Cantina
12167 S. Apoke Vineland Road
407-238-5300

Don Pablos
8717 International Drive
407-354-1345

Seafood
Big Fin Seafood Kitchen
8046 W. Sand Lake Road
407-615-8888

McCormick & Schmick’s Orlando
4200 Conroy Road
407-226-6515

Lombardi’s Seafood Grill at Universal Studios Orlando
6000 Universal Blvd.
407-224-3663

Oceanaire Seafood Room
9101 International Drive
407-363-4801

Steak
Capital Grille–Orlando
9101 International Drive
407-370-4392

Flemings
8030 Via Della Gio Way
407-352-5706

Ruth Chris Steak House
7501 W. Sand Lake Road
407-226-3900

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“Glass” is so 20th century.

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Pittcon Short Courses

For more information, contact the Pittsburgh Conference, Short Course Registration:

300 Penn Center Blvd., Ste. 332, Pittsburgh, PA 15235-5503
800-825-3221
412-825-3220
fax: 412-825-3224

Sunday, March 11
- Advanced Excel II (laptop computer required)
- Characterization of Coated Polymers
- Chemometric Techniques for Quantitative Analysis
- Essentials of Modern HPLC 2 & UHPLC: Practice, Operation, Troubleshooting & Method Development
- Food Safety Management System: Hazards & Risk Assessments, Regulations & Analytical Strategies
- Highly Successful Strategies for LC/MS Quantitation: Current Applications & Emerging Technologies
- Industrial Problem Solving Using Thermal Analysis Techniques
- Interpretation of Electrospray Mass Spectra of Small Molecules
- LC-MS-MS (QqQ, Q to F, Q TRAP & Orbitrap) of Endocrine Disruptors, Pharmaceuticals, Illicit Drugs, Perfluorinated Compounds & Nanomaterials in the Environment
- Multivariate Analysis for the Life Sciences
- Sample Prep for Chromatography
- Solid-phase Microextraction
- Statistically Sound Calibration Studies, Detection Limits, & Quantitation Limits—Part 2 of 2: Computer Workshop
- Digital Imaging for Materials & Products Characterization: Laboratory Applications
- How to Launch 100 Percent of Liquid Samples into ESI Mass Spectrometers & More About the Nanoliter Regime
- Introduction to ICP-MS
- Hyperspectral Imaging Applied to Complex Particulate Solids Systems
- Long-term Archival of Laboratory data
- Primer on XRF Spectrometry: Instrumentation

Sunday, March 11/
Monday, March 12
Two-Day Courses
- Infrared Spectral Interpretation: A Strategic Approach
- Sampling & Sample Preparation

Monday, March 12
- Advanced Excel III: Matrix Algebra on a Spreadsheet (laptop computer required)
- Analytical Metrology
- Designing & Implementing the Electronic Laboratory
- Hazardous Wastes: Sampling, Sample Preparation (leaching tests), Compliant Analysis using ICP-AES & MS, Regulations, Risk Assessment & Recycling
- High-throughput Method Development for Drug Analysis by LC/MS/MS
- Introduction to Inductively Coupled Plasma Atomic Emission Spectrometry
- Laboratory Accreditation: Meeting Technical Requirements
- LC/MS Strategies for Identification of Impurities, Degradants & Metabolites
- LIMS & ELN: How to Select, Plan & Implement the Right Software Solutions for your Laboratory
- Real-time PCR
- Safety in the Laboratory—Part 1
- The Pharmaceutical Business: From Drug Discovery through Product Launch
- Advanced Closed Domains (particles, grains, cells, etc.) Morphological & Morphometrical Characterization by 2D & 3D Imaging
- Examples of Analytical Data Treatment using Microsoft Excel Fundamentals of Good Laboratory Design
- Lab-on-a-Chip Devices 1
- Physical Chemistry of Macromolecules—Part 1: Basic Principles
- Side Illuminated Optical Fiber Sensor with High Density of Sensing Points
- Business Basics for the Life Science Industry
- Lab-on-a-Chip Devices 2
- Nanoparticles & Risk Assessment
- Physical Chemistry of Macromolecules—Part 2: Methods of Analysis
- Strategies to Effectively Manage Challenged Informatics Implementations

Monday, March 12/
Tuesday, March 13
One-and-a-Half-Day Courses (Monday thru Tuesday)
- Basic HPLC: Fundamentals, Applications & Troubleshooting
- HPLC method development for LC/MS
- Statistics for the Nonstatistician with
### Tuesday, March 13
- Analytical Organic Mass Spectrometry
- Applications of Solvent Microextraction (SME) & Liquid Phase Microextraction (LPME) for Chemical Analyses
- Applying LEAN Principles in the Analytical Laboratory
- Introduction to Bioseparations
- Introduction to Patents & Patenting for Chemists
- Modern Methods for Chemometric Analysis
- Residual Solvents: Understanding Requirements & Practical Strategies for Compliance
- Safety in the Laboratory—Part 2: Supervisory Skills for Technical Managers
- Technical Writing at Work
- Coaching as a Powerful Leadership Tool
- Enantiomeric Separations
- How to Select an ICP-MS: The Most Important Analytical Considerations
- Introduction to GLP Regulations & Bioanalytical Method Validation by LC/MS/MS
- LIMS/ELN: Reaching the Promised Land—LEAN Lab Operations & Integrated Quality System
- Physical Chemistry of Macromolecules—Part 3: Characterization of Structures
- Sampling for Particle Size Analysis
- Applications of Two-dimensional X-ray Diffraction
- Color Measurement: More Than Just Aesthetics
- Cost-effective Data Management in Laboratories
- Developing & Implementing Calibration Programs: Going Paperless
- Instrument Control Fundamentals
- Ion Mobility Spectrometry
- Managerial Effectiveness: Setting Clear Expectations
- Professional Analytical Chemists in Industry: What Does an Analytical Chemist Do?
- Screening for Restricted Elements using HH or PXRF
- Size by Dynamic Light Scattering & Zeta Potential Characterization
- Solving Industrial Problems Using Rheometry & Rheology
- Solving Industrial Problems Using Rheometry & Rheology

### Tuesday, March 13/
**Wednesday, March 14**
**One-and-a-Half-Day Course**
- OSHA 10-hour General Industry: Emphasis on laboratory Setting

### Tuesday, March 13/
**Wednesday, March 14**
**One-Day Course**
- Raw Data, Results & Reportable Values: Compliant Approach to QC Laboratory Data Management

### Wednesday, March 14
- Building Successful Partnerships & Vendor Relationships
- Business Writing at Work
- Concepts in Sustainability & Green Chemistry
- Emerging IT for the Laboratory
- Highlights of FDA GLP
- How to be More Effective Chemical Hygiene Officer
- Impurities in Pharmaceuticals: Survey Course
- Introduction to Clean Room Technology
- LC/MS: Method Development & Applications to Small Molecules
- Measurement & Interpretation of pH in Aqueous, Partially Aqueous & Nonaqueous Solutions & Mobile Phases; Buffer Preparation for Aqueous & Partially Aqueous Solutions
- Practical Introduction to NIR & Raman Spectroscopy
- Speciation Analyses for Environmental, Nutrition & Industrial Applications
- Stability Testing of Pharmaceutical Products
- Understanding & Using Markup Languages in Analytical Chemistry
- Basic HPLC Method Development
- Introduction to Total Reflectance X-ray
- Optimizing Performance with Consistent Results in Gas Chromatography
- Advances in Countercurrent Chromatography & Related Techniques
- From “Lab-on-Chip” Now to “Chip-in-Lab”: Miniaturized Capillary Electrophoresis (CE)
- Maintaining Calibration Programs: Compliance Perspective (483s, warning letters & consent decree)
- Preparative HPLC: Fundamentals & Applications

### Wednesday, March 14/
**Thursday, March 15**
**Two-Day Courses**
- Basic Theory, Instrumentation & Applications of Vibrational Spectroscopy (Raman, mid-infrared & near-infrared) in Materials Science
- Chemoinformatic Methods to Extract Information from Life Sciences Data ISO 17025: Requirements & How to Comply

### Thursday, March 15
- Attack the Variance, Course 1: Tools to Understand Variance in Analytical Methods
- Chemical Reaction Hazards
- Conducting Effective Out-ofspecs/Out-of-trend investigations
- Confidence in Analytical Results & Measurement Uncertainty
- Enhancing Communication & Influence
- Fundamentals & Practical Application of Size-exclusion Chromatography
- Fundamentals of Particle-size Analysis with Emphasis on Light Scattering Techniques
- Introduction to Medical Device Industry
- Personal Protective Equipment in the Laboratory
- Qualification & Validation of Laboratory Instruments & Equipment for Regulatory & QS Compliance (IQ, OQ, PQ)
- Quality Assurance in Real-time PCR
- Solid-state Light Sources: How to Utilize Benefits of Light-emitting Diodes & Laser Diodes as the Light Sources of 21st Century
- Validation, Verification & Transfer of Pharmaceutical Analytical Methods
- Writing Testable & Verifiable User Requirements for Computerized Laboratory Systems
- Hydrophilic Interaction Chromatography [HILIC]: Companion to Reverse Phase HPLC
- Regulatory Update: Global Impact of IEC 61010-1 3rd Edition on Laboratory & Test & Measurement Equipment Approvals
- Maintaining Validated State of Analytical Laboratory Instrumentation in GMP/GLP Environments
- Mid-infrared Quantum Cascade Lasers: Applications in Environmental Monitoring & Medical Diagnostics