

Thermo Scientific Productivity Series

Bring your analytical challenges to our Interactive Applications Workshop

A Three-Track Learning Opportunity
Feel free to move between tracks.

1 ion chromatography and atomic spectroscopy

Discover how new innovations in ion chromatography and atomic spectroscopy will make it easier to get work done in your lab. In our technology forum we will be focusing on High Pressure Ion Chromatography (HPIC) which increases the speed and resolution of your analysis using 4 micron particle columns and how new developments in ICP-MS provide maximum sensitivity and matrix tolerance with best in class performance. Learn how to optimize procedures and method development in a novel interactive applications workshop where you choose the topic. If you are involved in trace element or ionic analysis in areas such as environmental chemistry, food safety, petrochemical, mining and manufacturing, this track is for you.

1 ion chromatography and atomic spectroscopy

2 gas chromatography and GC/mass spectrometry

3 liquid chromatography and LC/mass spectrometry

collaborate with the experts to **solve** your toughest analytical **challenges** at a city nearby!

Each program track features interactive sessions with our application experts to help you solve your analytical challenges. A range of application topics will be available for discussion after lunch. The exact program will be adjusted to match the needs of the group.

agenda

8:00 am Registration, continental breakfast, and informal mixer
8:30 am Opening Session – Thermo Scientific Product Solutions
9:00 am Select your track of interest – feel free to move between tracks

9:00 am **Exciting New Developments in ICP-MS Technology**
 Learn how we have combined the expertise of our elemental spectroscopy, magnetic sector and hybrid mass spectrometry design engineers to develop remarkable new capabilities in ICP-MS. See how developments in interface design, collision cell technology and software culminate in a new standard for sensitivity, matrix tolerance, interference removal and ease of use in the Thermo Scientific iCAP Q ICP-MS system.

9:45 am **New Frontiers in Trace Element Analysis**
 Learn how new technologies can be implemented to enhance analytical capabilities in trace element speciation using IC-ICP-MS and in routine analysis utilizing high throughput sample introduction devices and intelligent sample dilution tools.

10:30 am **Break**

10:45 am **Ion Chromatography: Theory and Principles**
 Discover the chemistry behind the industry leading ion chromatography systems. Learn the principles and application of chemical eluent suppression and reagent free ion chromatography (RFIC) and how they can be applied to real world samples for increased efficiency and reduced costs.

11:30 am **Capillary Ion Chromatography: The Future of IC**
 Discover how the capillary format is revolutionizing the technique of IC. From "IC on Demand", to increased mass sensitivity and reduced waste generation see why capillary is the future direction of ion chromatography.

12:15 pm **Lunch**

1:15 pm **Hot Application Topics**

2:15 pm **Break**

2:30 pm **Hot Application Topics**

3:30 pm **Informal Discussions and Close**

There is no charge to attend. Breakfast and lunch are provided.

See pages 2 & 3 for Workshop abstracts

Discover new analytical technologies introduced at Pittcon 2012

Thermo
SCIENTIFIC

ion chromatography and atomic spectroscopy

hot application workshop topics

This interactive workshop will be driven by attendee preference. A variety of topics will be available for discussion including new software developments and demonstrations, instrument optimization and troubleshooting, method development tips and tricks, and updates on popular environmental, forensics, food safety and pharmaceutical applications.

**A variety of Hot
Application Workshop
Topics available**

**Register
today!**

ION CHROMATOGRAPHY TOPICS

Environmental

Find out how ion chromatography is addressing the hot environmental topics of the day like bromate, arsenic, hexavalent chromium and perchlorate. Get up-to-date information on EPA IC methods. Learn how capillary HPIC provides on-demand analysis for environmental samples.

Power Generation

See how ion chromatography addresses the high purity water needs of the BWR and PWR nuclear power industries. Find out how IC can be applied to fossil plant concerns as well.

Chromeleon 7.1

Come see why Chromeleon 7.1 is the leading CDS for your lab. See how e-workflows and built in wizards makes getting results fast and easy.

Carbohydrates and Amino Acids

Explore how ion chromatography can be used to determine carbohydrates from simple sugars to complex oligosaccharides in a wide variety of sample matrices. Learn how amino acids can be determined directly without any pre-column or post-column derivatization.

Foods and Beverages

Find out how ion chromatography can be used to determine arsenic species in foods and beverages. See how IC is used to routinely determine common anions, cations, organic acids, biogenic amines, carbohydrates and metals in food and beverage samples.

Chemicals and Petrochemicals

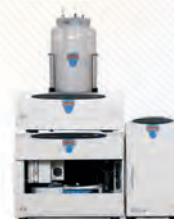
Learn how ion chromatography addresses the diverse needs of the chemicals and petrochemicals market. See how combustion IC can be used to determine trace components in many sample types.

Pharmaceuticals

Discover the power of ion chromatography to analyze both the active components and excipients in pharmaceutical formulations. See how IC can aid in cleaning validation of manufacturing and process equipment.

Electronics and Semiconductors

Discover how ion chromatography can be used to address trace contamination issues in semiconductor manufacturing. Find out how to monitor high purity water system. See how IC can be used in plating application for both electrolytic and electroless deposition applications.



Thermo Scientific Dionex
ICS-5000 RFIC system



Thermo Scientific Dionex
Chromeleon software



Thermo Scientific 4 µm LC Column



Thermo Scientific ICS 4000

ATOMIC SPECTROSCOPY TOPICS

Getting Ready for USP 233: Elemental Impurity Testing using ICP and ICP-MS and 21 CFR Part 11 Compliance

The USP has published a revised metals impurities list (USP 232) and a new analysis procedure (USP 233), that describes the use of ICP-OES and ICP-MS for determining metal impurities in pharmaceutical products. We'll describe the use of ICP-OES and ICP-MS for the determination of the 16 target elements specified in the new USP chapters and describe the software features required for full 21 CFR Part 11 compliance.

How to Improve Matrix Tolerance in ICP-MS

Learn some universally applicable hints and tips that you can use when setting up any ICP-MS system for optimal matrix tolerance and long term stability.

Implementing Collision Cells for Interference Free Environmental Analysis

Confused as to whether collision cells can be applied to environmental analysis? Unsure as to how to implement Cell Technology? We'll describe all the common interferences in environmental analysis, explain how collision reaction cells work and show you how best to apply the technology in your laboratory.

Optimizing ICP Sample introduction for Best Performance and Sample Throughput.

Picking the best nebulizer, spray chamber and sample handling system can be confusing, especially with the wide choice of sampling components available. This session will break down the options and advise you on optimal configurations for all common sample matrices.

Cr Speciation by LC- & IC-ICP-MS

There are many options to consider when applying chromatographic separation methods to elemental speciation. We will address the requirements for accurate speciation analysis of Chromium and compare both HPLC and Ion Chromatographic techniques hyphenated to ICP-MS.

Arsenic and Mercury Speciation Measurements in Food and Beverages

Sample preparation and derivatization can be just as important as the analysis itself in elemental speciation. This presentation will examine sample preparation and analysis techniques for arsenic and mercury referencing application examples including the analysis of fish tissue and fruit juices.

Multi-element Analysis in Food and Beverage Products

AAS, ICP-OES and ICP-MS can all be used successfully for elemental analysis in food and beverages. Determine which solution is best for your application and learn how to be ready for future needs as analytical requirements become more demanding and diverse.



Thermo Scientific iCAP Q ICP-MS



Thermo Scientific iCAP 6000 Series ICP spectrometer



Thermo Scientific ICE 3500 Dual Atomizer AAS

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To view the complete agenda, abstracts and extended list of applications for customizing your workshop visit

www.thermoscientific.com/productivity

This is a **FREE** event!