

2026 Winter Conference on Plasma Spectrochemistry

presented by the International Atomic Spectrometry Association

January 11th - 17th, 2026

El Conquistador Tucson, A Hilton Resort

Tucson, AZ, USA

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General Information

LOCATION of all oral sessions, posters, short courses, exhibits, vendor breakfasts, and lunch-and-learns is the El Conquistador Tucson, A Hilton Resort (the conference hotel).

CONFERENCE REGISTRATION / INFO DESK is located across from the Exhibition area (Turquoise Ballroom) and will be open Friday, Janaury 9 to Saturday, January 17.

ORAL PRESENTERS should check the program to verify the time of their presentation. All orals will be held in the Presidio Ballroom. Bring your presentation on a USB drive to the A/V table in the back of the ballroom 30 min. prior to the start of the session. Format should be PowerPoint that can run on a PC with a 16:9 aspect ratio.

POSTER PRESENTERS should hang their posters by 9 am on the day they are to present in the Turquoise Ballroom. Poster should remain up all day. Poster viewing times are: 10:00 - 10:30 am, 12:00 - 1:00 pm, and 3:15 - 4:00pm. Presenters should be at their posters during the morning and afternoon viewing sessions. Posters should be taken down by 5:00 pm.

The maximum poster size is 8 ft wide by 4 ft tall. We suggest using a smaller size, but keeping a landscape format.

SHORT COURSES are held Friday, Jan. 9 – Tuesday, Jan. 13 and cover a veriety of introductory and fundamental topics. Conference and course registration is required to attend these. See the conference website for additional information.

EXHIBITS are held in the Turquoise Ballroom and will be open for the following hours:

Monday (Opening)	6:30 PM – 9:30 PM
Tuesday	9:00 AM – 5:00 PM
Wednesday	9:00 AM – 5:00 PM
Thursday	9:00 AM – 5:00 PM

VENDOR SPONSORED EVENTS take place throughout the week. Prior registration with each vendor is required for attendance. See list of options below:

Breakfast-n-Learn:

Tuesday: PerkinElmer
Wednesday: Texas Scientific Products

Lunch-n-Learn:

Monday: Agilent Technologies
Tuesday: Agilent Technologies
Milestone
Wednesday: Elemental Scientific, Inc.
Thursday: Agilent Technologies
Glass Expansion

Evening Events:

Tuesday: Elemental Scientific;
Thermo Fisher Scientific
Wednesday: Agilent Technologies
Thursday: Awards Reception (open to all)

SPECIAL EVENTS open to all and are included with registration (badge required):

Welcome Mixer: Sunday at 5:50 PM in Presidio Foyer

Exhibit Opening Reception sponsored by ESI: Monday at 6:30 pm in Turquoise Ballroom

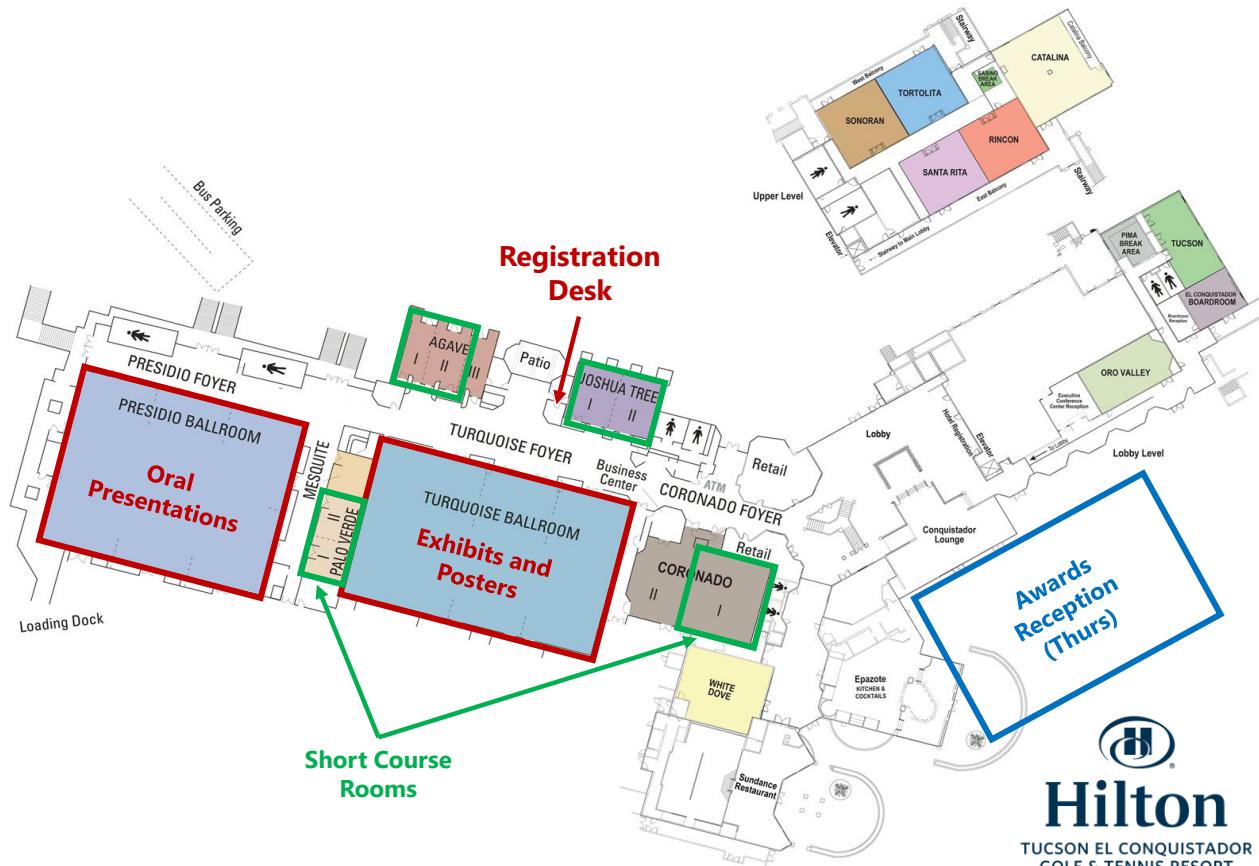
Awards Reception: Thursday at 6:30 PM poolside by the fire pits.

Schedule At-A-Glance

Consult full program for exact times of presentations

Time	Sunday January 11, 2026	Monday January 12, 2026	Tuesday January 13, 2026	Wednesday January 14, 2026	Thursday January 15, 2026	Friday January 16, 2026	Saturday January 17, 2026
7:00			PerkinElmer Breakfast-n-Learn	Texas Scientific Products Breakfast-n-Learn			
8:00							
8:00		Conference Opening	Clases - JAAS Award	Ranville - Nu Pioneer Award	Theiner - Spectroscopy Award		
8:15		Winefordner Session - Hieftje Hahn	Engelhard (Particle Analysis)	Kelinske (Agilent)	Schaumloffel (Imaging)	Heritage Lecture - Majidi	Gomez (GD)
8:30				Feldmann (Fluorine)	Hiddeßen (Imaging)		
8:45					Biskupič (Imaging)		
9:00		Gunther (Laser Ablation)	Herek (ESI Vendor)	Sauvageot (Fluorine)	Punshon (Imaging)	Olesik (Single Particle)	Orejas (GD)
9:15			Lockwood (Particle)	Lang (Fluorine)		Montes-Bayon (Single Particle)	Bengtson (GD)
9:30		Riedo (Space)	Grüner (Particle)				Fuchs (GD)
9:45							
10:00		Break (sponsored by Spectron)	Break + Posters (sponsored by RF VII)	Break + Posters	Break + Posters	Break	Break
10:15							
10:30		Farcy (Space)	Pergantis (Particle Analysis)	Jorabchi (Fluorine)	Quarles (Imaging)	Gajdosechova (Food)	Shelley (Nov)
10:45							
11:00		Hineman (PE Vendor)	Cirtiu (Particle)	Mueller (Fluorine)	Szakas (Laser Ablation)	Bettmer (Food)	VK (Nov IL)
11:15		Cottle (Geology)	Montoro Bustos (Particle)	Gonzalez de Vega (Fluor)	Taylor (Laser Ablation)	Christopher (Food)	Closing
11:30			Billmoria (Particle)	Martinez (Fluorine)	Brunnbauer (LA)	Cheung (Food)	
11:45		Williams (Space IL)					
12:00							
12:15			Lunch (Agilent Lunch-n-Learn)	Lunch + Posters (Agilent and Milestone Lunch-n-Learns)	Lunch + Posters (ESI Lunch-n-Learn)	Lunch + Posters (Agilent and Glass Expansion Lunch-n-Learns)	Lunch
12:30							
12:45							
13:00							
13:15							
13:30		Chan (Isotopic Analysis)	Carrier (Environmental)	Erdahl (Speciation)	Zorba (LIBS)	Parsons (Clin)	
13:45			Kaiser (Environmental)	Conklin (Speciation)			
14:00		Masone (GE Vendor, 5 min)	Donais (Archeometry)	Amidon (Speciation)	Kim (LIBS)	Heitland (Clin)	
14:15		Goodman (Isotopes)	Gunlach-Graham (Env)	Hourigan (Novel Inst.)	Celani (LIBS, IL)	Jackson (Clin)	
14:30		Houk (Isotopes)	Dempsey (Ametek Vendor)	Clases - Nu Young Scientist Award	Andrews (LIBS)	Kuchynka (Clin)	
14:45		Retzmann (Isotopes)	Resano (Single Particle)	Coppola (Milestone 5min)	Porizka (LIBS)	Stouffer (Clin)	
15:00		Palacz (Isotopes)				Luneau (Clin)	
15:15							
15:30		Break (sponsored by Spectron)	Break + Posters (sponsored by RF VII)	Break + Posters	Break + Posters		Break
15:45							
16:00	Limbeck (Single Particle)	Rush (Isotopes)	Wiederin (Semiconductor)	Sankaran (Novel Methods)	Gonzalez (LIBS)	Hu (Clin)	
16:15		Johns (Energy)					
16:30	Manard (Single Particle)	Battistella (Energy)	Palsulich (Semiconductor)	Suárez Priede (Spec)	Jung (LIBS)	Redondo Fernandez (Clin)	
16:45				Szlamkowicz (Nuc)	Kota (LIBS)	Palmer (Clin)	
17:00	Adamson (Laser ablation)	Paton (Energy)	Mezhenny (Semiconductor)	Athmer (Env)			
17:15				Marcus (Novel Methods)	Reminiscing About WPC - Meyer, Hieftje, Jakubowski, Schneider, Montes-Bayon, Olesik, and Gunther	Ohanian (Clin)	
17:30	Keenan (Laser ablation)			Enomoto (Novel Meth.)		Aramendía Marzo (Clin)	
17:45	Bradly (Laser ablation)	Heritage Lecture - Scheeline	Heritage Lecture - Pappas	Ray (Novel Methods)		Liu (Clin)	
18:00							
18:15							
18:30							
18:45							
19:00	Opening mixer	Exhibit opening (sponsored by Elemental Scientific)	Elemental Scientific and Thermo Vendor events	Agilent Vendor event	Awards reception Open to all		
19:15							
19:30							
19:45							
20:00+							

El Conquistador Tucson



2026 Winter Conference on Plasma Spectrochemistry Program

Sunday, January 11, 2026

Advances in Laser Ablation and Single-Particle Methods

(Presidio Ballroom)

Session Chair: Andreas Limbeck, TU Wien

16:00 IL-01: Recent Advances in Single Particle Analysis Using LA-ICP-MS,

Andreas Limbeck, Institute of Chemical Technologies and Analytics, TU Wien,
Elias Foisner, David Ken Gibbs, Laura Kronlachner, Lukas Brunnbauer

**16:30 IL-02: Unlocking Single-Particle Detection with ICP-MS: A Tool for Uranium
and Actinide Monitoring,** Benjamin Manard, Oak Ridge National Laboratory

**17:00 IL-03: Single Particle Analysis by LA-ICP-ToF-MS: Insights into Particle
Generation, Aerosol Transport, and U-Pb Geochronology,** Morgan Adamson,
University of California, Santa Barbara, John Cottle, Andrew Kylander-Clark,
Lukas Schlatt

**17:20 Su-01: Advancements in Laser Ablation Laser Ionization (LALI) for Simplified
Solid Sample Analysis,** Fergus Keenan, Exum Instruments, Jeff Williams

17:35 Su-02: Ultrafast burst LA-ICP-MS analysis, Veronica Bradley, LBNL

17:50 Welcome mixer

Monday, January 12, 2026

08:00 CONFERENCE OPENING REMARKS – Derrick Quarles and Jacob Shelley

Plenary Session Honoring James D. Winefordner

(Presidio Ballroom)

Session Chair: Jacob Shelley, Rensselaer Polytechnic Institute

08:10 PI-01: Getting to Know Jim Winefordner, Gary Hieftje, Indiana University

08:35 PI-02: Laser-Induced Breakdown Spectroscopy: Fundamental Physics, Sampling Approaches, and Applications - In memory of James D. Winefordner, David Hahn, University of Arizona, Daniel Diaz

Laser Ablation Advances

(Presidio Ballroom)

Session Chair: George Chan, Berkeley Lab

09:00 IL-04: A Detailed View into Laser Ablation -Inductively Coupled Plasma Mass Spectrometry, Detlef Günther, ETH Zürich, Dylan Kaeser, Thibaut Van Acker, Joachim Koch, Bodo Hattendorf

Geology and Space Exploration

(Presidio Ballroom)

Session Chair: George Chan, Berkeley Lab

09:30 IL-05: CLPS-LIMS: A laser-based mass spectrometer system for the chemical composition analysis of lunar regolith on the lunar south pole, Andreas Riede, University of Bern, Peter Keresztes Schmidt, Peter Wurz

10:00 BREAK – Sponsored by Spectron, LLC

10:30 IL-06: PLASMA: A Miniature LA-MIP-MS for in situ Geochemical and Isotopic Analysis of Planetary Materials, Ben Farcy, CRESST, University of Maryland, Department of Astronomy, College Park MD, 20742; NASA Goddard Sp, Madeline Raith, Ricardo Arevalo Jr., Jacob Graham, Carolina Torrez Sanchez, Amy McAdam, Mazdak Taghioskoui, Ryan Danell, Desmond Kaplan, Jane Lee, Anthony Yu

11:00 M-01: Advances in Atomic Spectroscopy: Product Innovations and Applications, Aaron Hineman, PerkinElmer, Ruth Merrifield, Erica Cahoon

11:15 IL-07: New Tools for High Spatial Resolution Petrochronology: Towards Laser Ablation Split Stream 2.0?, John Cottle, University of California Santa Barbara, Morgan Adamson, Andrew Kylander-Clark, Lukas Schlatt, Ciaran O'connor

11:45 IL-08: Exploring Laser Ablation Molecular Isotopic Spectrometry as a Tool for Planetary Exploration, Kelsey Williams, Los Alamos National Laboratory, Ronald Martinez, Soumya Ray, Carey Legett IV, Samuel Clegg

12:05 LUNCH

Isotopic Analysis

(Presidio Ballroom)

Session Chair: Benjamin Manard, Oak Ridge National Laboratory

13:30 IL-09: Advancing Nuclear Safeguards with Laser Induced Breakdown Spectroscopy, George Chan, Berkeley Lab

14:00 M-02: Sample Introduction: The Achilles' Heel of ICP, Justin Masone, Glass Expansion, Inc.

14:05 M-03: Lead isotope fingerprinting in individual mineral particles using spICP-TOF-MS and spMC-ICP-MS, Aaron Goodman, Colorado School of Mines

14:25 IL-10: Do Nuclidic Mass, Nuclear Spin and Hyperfine Structure Affect Ionization and Isotope-Ratio Measurements in ICP-MS?, R. Sam Houk, Iowa State University

14:45 M-04: Introducing MC-MICAP-MS: Metal isotope abundance ratio measurements using a N₂-based plasma ion source, Anika Retzmann, University of Calgary, Ashok Menon, Michael Wieser

15:00 M-05: High Precision Uranium Isotope Ratio Measurement Using a Novel MC-ICP-MS, Zenon Palacz, Isotopx Ltd, Simon Nelms, Matt Hockley, Steve Guilfoyle

15:15 BREAK – Sponsored by Spectron, LLC

16:00 M-06: Extreme ultraviolet laser ionization multi-collector mass spectrometry for nanoscale isotopic analyses, Lydia Rush, Pacific Northwest National Laboratory, Carmen Menoni, Colleague Duffin

Energy Applications

(Presidio Ballroom)

Session Chair: Beatrice Battistella, BAM

16:15 M-07: From Molten Salt Reactors to Materials Science: Advanced Molecular Effusion Dynamics by Knudsen Effusion Mass Spectrometry (KEMS)..
Ben Johns, MS Instruments

16:30 IL-11: Lithium Isotope Fractionation in Lithium-Ion Batteries: a Benchmark

for Performance and Aging?, Beatrice Battistella, Bundesanstalt für Materialforschung und -prüfung (BAM), Dalia Morcillo, Jochen Vogl, Sebastian Recknagel, Carlos Abad

17:00 M-08: How can single particle and single cell ICP-MS help us to understand the risk of Hg bioaccumulation from offshore decommissioning?,

Lhiam Paton, Australian Nuclear Science and Technology Organisation, Sandra Kiesel, Matthias Elinkmann, David Clases, Fernando Fernandez-Mendoza, Jörg Feldmann

Heritage Lecture

(Presidio Ballroom)

Session Chair: Gary Hieftje, Indiana University

17:30 HL-01: Sparks, Pinches, and People: a Retrospective on Transient Discharges

Before LIBeration, Alexander Scheeline, University of Illinois at Urbana-Champaign

Exhibit Opening and Reception

(Turquoise Ballroom)

18:30 Exhibit Opening and Reception – sponsored by Elemental Scientific Inc.

Tuesday, January 13, 2026

JAAS Emerging Investigator Lectureship

(Presidio Ballroom)

Session Chair: Rebecca Garton, RSC

08:00 AW-01: Honey, I Shrunk the Plastics - Tracking Down Pollutants at the

Microscale, David Clases, NanoMircoLab, Analytical Chemistry, Institute of Chemistry, University of Graz, Graz, Austria, Christian Neuper, Katharina Kronenberg, Matthias Elinkmann, Hauer Rapfael, Manuel Candussi, Bernhard Grüner, Christian Hill, Raquel Gonzalez de Vega

Particle Analysis Approaches I

(Presidio Ballroom)

Session Chair: David Clases, University of Graz

08:30 IL-12: Recent Advancements in Mass Spectrometry for Direct Particle

Detection and Beyond, Carsten Engelhard, BAM & University of Siegen, Annika Schardt, Johannes Schmitt, Maren Kipping, Kristof Van Laerhoven, Maximilian Heide, Manuel Heinelt, Cristian C. Escobar-Carranza

09:00 T-01: Novel Automation Platform for Syringe-Driven Microsample Dilutions and Analytical Introduction, Tyler Herek, Elemental Scientific

09:15 T-02: Performance of hyphenated OF2i and ICP-TOF-MS for particle identification and charactersiation, Thomas Lockwood, University of Graz, David Clases

09:35 T-03: Combined optical and mass spectrometric analysis of single microparticles via in-line microscopy-SP ICP-MS, Bernhard Grüner, NanoMircoLab, Analytical Chemistry, Institute of Chemistry, University of Graz, Graz, Austria, Raphael Hauer, Matthias Elinkmann, Raquel Gonzalez de Vega, Christian Hill, Ulrich Hohenester, David Clases

09:55 BREAK and POSTER SESSION (Turquoise Ballroom) – **Sponsored by RF VII, Inc.**

Particle Analysis Approaches II

(Presidio Ballroom)

Session Chair: Carsten Engelhard, BAM and University of Siegen

10:30 IL-13: ICP-MS as a Sensitive Carbon Detector for Nanoplastics and Organic

Molecules, Spiros Pergantis, University of Crete / Visiting Prof. New York University Abu Dhabi, Kolita Jinadasa, Nikos Lydakis-Simantiris, Manolis Tsapakis, Ioanna Kalantzi, Georgia Panagou

11:00 T-04: Detection of metallic multinanoparticles in biological fluids by sp-ICP-MS, Ciprian Mihai Cirtiu, Laurie Daigle, UQTR, Normand Fleury, Simon Ricard

11:20 T-05: Extending the Linear Dynamic Range of Single Particle ICP-MS for the Quantification of Microplastics, Antonio R. Montoro Bustos, National Institute of Standards and Technology, George Caceres, Monique E. Johnson, John Molloy, Sang Bok Lee

11:40 T-06: Assessing the suitability of using microbeads as proxies to cells for transport efficiency determination in single cell ICP-MS, Kharmen Billimoria, LGC Ltd., Armando Sánchez Cachero, Sara Neves, Paula Menero Valdes, Aneta Sikora, Heidi Goenaga Infante

12:00 LUNCH and POSTERS

Environmental, Forensic, and Archeological Analyses

(Presidio Ballroom)

Session Chair: Spiros Pergantis, University of Crete

13:00 IL-14: Elemental Profiling of Tire Rubber in Traffic Homicide Cases: A New Forensic Trace Evidence, Matthieu Baudelot, University of Central Florida, John Lucchi, James McAleer

13:30 T-07: Rapid actinide determination method by extraction chromatography coupled to triple quadrupole ICP-MS for Radiological Emergency Response, Coralie Carrier, ASNR, Andréa Olivier, Danièle Dias Varela, Azza Habibi

13:45 T-08: Gaining a deeper understanding of multi-dimensional nanoparticle data using UMAP and HDBSCAN, Lukas Schlatt, Nu Instruments, David Clases, Mickaël Tharaud, Pascal Bohleber

14:00 IL-15: Portable Spectroscopy Characterization of Fabrics in William Perkin and Other Publications, Mary Kate Donais, Saint Anselm College, Tom Tague

14:20 T-09: mipTOF: A platform for Mobile, Real-Time Quantitative Analysis of Metals in Air, Alexander Gundlach-Graham, TOFWERK, Jay Slowik, Andre Prevot, Ed Fortner, John Jayne, Martin Tanner

14:40 T-10: Advancing Trace Elemental Analysis with the New SPECTROGREEN MS, Janel Dempsey, SPECTRO Analytical Instruments Inc.

14:45 IL-16: Buckets of ions, buckets of tears? Quantification strategies in single-event ICP-MS, Martín Resano, University of Zaragoza, Antonio Bazo, Eduardo Bolea-Fernandez, Ana Rua-Ibarz, Maite Aramendía Marzo

15:15 BREAK and POSTER SESSION (Turquoise Ballroom) – **Sponsored by RF VII, Inc.**

Semiconductor Manufacturing and Analysis

(Presidio Ballroom)

Session Chair: Derrick Quarles, Elemenetal Scientific, Inc.

16:00 IL-17: ICPMS as a 24/7 Process Sentinel for Ultra-Trace Metal and Nanoparticle Detection in Chemicals and on Wafers in Semiconductor Manufacturing, Daniel Wiederin, Elemental Scientific, Inc.

16:30 IL-18: Enhancing Semiconductor Yield through Ultra-Trace Contamination Control Using ICP-MS, David Palsulich, Micron Technology, Ben Greenwood

17:00 IL-19: Model Systems Development for Trace Metals Recovery and Analysis, Sergey Mezhenny, Intel Corp.

Heritage Lecture

(Presidio Ballroom)

Session Chair: Patrick Parsons, Wadsworth Center

17:30 HL-02: Atomic Spectrometry at the CDC Over the Decades: Sample Prep and Instrumentation in Accredited Methods, Steve Pappas

Vendor-Sponsored Events

18:30 Thermo Scientific sponsored event – Registration with vendor required

19:00 Elemental Scientific sponsored event – Registration with vendor required

Tuesday Posters

(Turquoise Ballroom)

Energy Applications

TP-01: **Elemental Analysis in Jet Fuel by direct injection with Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) in single quadrupole and triple quadrupole modes,** Yan Cheung, Agilent Technologies,

TP-02: **Elemental Impurity Profiling in NdFeB Magnets Using ICP-OES,** Ana-Sarahi Garcia-Gonzalez, Agilent Technologies, Maria G. Amundarain Villegas

TP-03: **High-Throughput ICP-OES Analysis of Elements in Brines from Direct Lithium Extraction,** Ana-Sarahi Garcia-Gonzalez, Agilent Technologies

TP-04: **Streamlined Elemental Analysis of Recovered Copper for Lithium Battery Foil Remanufacturing,** Ana-Sarahi Garcia-Gonzalez, Agilent Technologies

TP-05: **Automated ICP-OES Analysis of Metals in Black Mass Battery Materials,** Ana-Sarahi Garcia-Gonzalez, Agilent Technologies, Christine Rivera, Macy Harris

TP-06: **Multi-Element Analysis of Vanadium RedOx Flow Batteries by 8900 Triple Quad ICP-MS,** Bert Woods, Agilent Technologies

TP-07: **Rapid Analysis of Elemental Impurities in Li-ion Battery Samples by an ICP-OES and an Autodilutor,** Sima Singha, Agilent Technologies Inc.

TP-08: **Enhancing Lithium-Ion Battery Production: Automated and Sustainable Elemental Analysis Using an ICP-OES,** Sima Singha, Agilent Technologies Inc.

TP-09: **Reliable Trace-Level Phosphorus Detection in High-TDS Produced Water by ICP-OES,** Melyssa Ostler, Creedence Energy

TP-10: **Improving Black Mass Analysis: A Hybrid Approach Using ICPE-9820 and EDX-7200,** Hamed Ataee, Shimadzu Scientific Instruments, Columbia, Maryland, United States, Alexander Nellessen

TP-11: **Elemental Analysis of Lithium-Ion Battery Materials Using the ICPE-9820,** Heather Trenary, Shimadzu Scientific Instruments, Inc, Kosuke Naka, Kana Matsuno, Yuichiro Matsui, Tadashi Taniguchi

TP-12: **Advanced Analysis of REEs and other Critical Elements Using ICP-MS,** Mike Mourgas, Daniel Kutscher, Thermo Fisher Scientific, , Sabrina Antonio, Tomoko Vincent

TP-13: **REE determination in wastewater and effective doubly charged interference removal by ICP-MS,** Loy Craig Jones, Agilent Technologies
Environmental, Forensic, and Archeological Analyses

TP-14: **Ultra-Trace Analysis of Tetraethyl Lead (TEL) Using GC-ICPMS: Supporting Regulatory Compliance,** Louis Wagner, ALS Environmental

TP-16: **Enhanced ICP-MS automation for environmental applications,** Stasia Vannoni, Elemental Scientific, Marissa Sutton, Kevin Wiederin, Daniel Wiederin

TP-17: **An ICP-OES method for determining Rare Earth Element Composition in Macroalgae,** Daniel Mulugeta, HOPO Therapeutics, Joshua Godshaw, Julian Rees

TP-18: **Characterization of Fiber Samples by X-Ray Fluorescence Spectrometry and Laser-Induced Breakdown Spectroscopy,** Melis Kocak, Saint Anselm College, Melody Oakes, Ruth Ann Armitage, Mary Kate Donais

TP-19: **Handheld X-Ray Fluorescence Spectrometry Analysis of Pigments in the Alva De Mars Chapel Arts Center Ceiling Murals,** Melody Oakes, Saint Anselm College, Melis Kocak, Mary Kate Donais

TP-20: **Leveraging Superior Robustness and Intelligent Dilution Workflows for Improved Productivity in ICP-MS Analysis,** Mike Mourgas, Daniel Kutscher, Thermo Fisher Scientific, Sabrina Antonio, Bhagyesh Surekar

TP-45: **Uranium and critical mineral analysis of water and aquatic plants from Western Navajo Nation by ICP-MS,** Justin Wilbanks, Northern Arizona University, Jani Ingram

TP-47: **Investigation of Potential Elemental Contaminants in the Little Colorado River,** Arizona Trout, Northern Arizona University, Jani Ingram

Geological Analyses

TP-21: **Withdrawn**

TP-22: **Comparative Evaluation of Sample Preparation Techniques for Accurate REE Analysis in Geological Materials,** Genell Addison, The Chemours Company, Jane Ramsey

TP-23: **Multi-element hydride generation ICP-MS determination of critical elements from mine-waste,** Zikri Arslan, US Geological Survey, Cyrus Berry

Isotopic Measurements

TP-15: **Automated purification meets nitrogen plasma: Direct and reliable Fe isotopic analysis with MC-MICAP-MS,** Anika Retzmann, University of Calgary, Hadassah Dubois Recin, Michael Wieser

TP-24: **Simple and Effective Method Parameters for the Correction of Zn, As, and Se due to the Presence of Doubly Charged Isobars using MassHunter Software in Enhanced Resolution Mode,** Jeffrey Sayen, Agilent Technologies

TP-25: **Accurate and Precise Isotope Ratio Analysis Using Triple Quadrupole ICP-MS: Optimizing Method Conditions on the Agilent 8900 to Analyze $^{87}\text{Sr}/^{86}\text{Sr}$ Ratios in the Presence of ^{87}Rb ,** Jeffrey Sayen, Agilent Technologies

TP-26: **Accurate Determination of Chlorine Isotope Ratio Analysis by 8900 ICP-MS,** Bert Woods, Agilent Technologies

TP-27: **Improved workflow and sample throughput for MC-ICP-MS isotopic analysis through automation,** Gwyneth Gordon, Arizona State University, Tyler Goepfert, Will Swenson, Michael Manhart, Paul Field

TP-28: **Withdrawn**

TP-29: **Withdrawn**

TP-30: **Analytical Capabilities of a Novel, High Precision Multicollector ICP-MS,** Steve Guilfoyle, Isotopx Ltd, Simon Nelms, Matt Hockley, Zenon Palacz

TP-31: **Incredible or Impossible? Defining the limits of what is possible for MC-ICP-MS/MS with the Neoma MS/MS MC-ICP-MS,** Tony Cade, Thermo Fisher Scientific, Grant Craig, Markus Pfeiffer, Claudia Bouman

TP-32: **Improving sensitivity and precision of HR-ICP-MS isotope ratio measurements with the Jet Interface,** Tony Cade, Thermo Fisher Scientific, Hauke Vollstaedt, Laura Bracciali

TP-33: **Advancing high-precision Lu-Hf isotope analysis in natural and synthetic samples using MC-ICPMS,** Molly Paul, Oak Ridge National Laboratory

TP-46: Development of a Synthetic Matrix-Matched Reference Material for In Situ Lead Isotope Analysis of Sphalerite Using Laser Ablation Multi-Collector Inductively Coupled Plasma Mass Spectrometry (LA-MC-ICP-MS), Zhaoping Yang, Geological Survey of Canada Northern Division, 601 Booth Street, Ottawa, ON K1A 0E8, CA, Simon Jackson, Bruce Kjarsgaard, Shuangquan Zhang, Suzanne Paradis, Christopher Lawley, Matthew Polivchuk, Alain Grenier

TP-48: Determination of Mercury isotopes using An Automated Total Mercury Analyzer, Hakan Gurleyuk, Brooks Applied Labs, Elizabeth Crowther, Dalton Reynolds, Vedat Yilmaz

Single-Particle Analysis Approaches

TP-34: Ultrahigh Mass Resolution Approach for Interference-free Isotopic Analysis of Particle Suspensions using the LS-APGD/Orbitrap-FTMS Booster, Suraj Shrestha, Clemson University, Joseph Goodwin, Sarah Szakas, Hunter Andrews, Benjamin Manard, R. Kenneth Marcus

TP-35: ICP-OES Analysis Strategies for High TDS Fracking Fluids Utilizing the PQ 9200 Elite, Jesus Acapulco, Analytik Jena, Jessica Gant,

TP-36: Withdrawn

TP-37: LA-SP-ICP-MS of upconversion nanoparticles: fundamental studies and immunochemical applications, Jan Preisler, Masaryk University, Jaromir Stranik, Vilem Svojanovsky, Antonin Hlavacek, Jakub Macala, Zdenek Farka, Ivana Maslanova, David Clases, Petr Skladal, Pavel Bouchal, Ales Cermak

TP-38: Advancing Nanomaterial Measurement Science with Single Particle Inductively Coupled Plasma Mass Spectrometry (spICP-MS), Antonio R. Montoro Bustos, National Institute of Standards and Technology, Monique E. Johnson, George Caceres, Karen Murphy, Michael Winchester

TP-39: Derivation of Particle Number Concentration from the Size Distribution: Theory and Applications, Antonio R. Montoro Bustos, National Institute of Standards and Technology, Natalia Farkas, John Kramar, George Caceres, Monique E. Johnson, Matthias Roesslein, Elijah Petersen

TP-40: Gaining a deeper understanding of multi-dimensional nanoparticle data using UMAP and HDBSCAN, Lukas Schlatt, Nu Instruments, David Clases, Mickaël Tharaud, Pascal Bohleber

TP-41: **Utilization of a cryo cell in laser ablation single-particle inductively coupled plasma quadrupole mass spectrometry for the analysis of nanoparticle suspensions,** Elias Foisner, Institute of Chemical Technologies and Analytics, TU Wien, David Ken Gibbs, Andreas Limbeck

TP-42: **Laser ablation single-particle inductively coupled plasma quadrupole mass spectrometry for the analysis of nanoparticle composition,** Elias Foisner, Institute of Chemical Technologies and Analytics, TU Wien, Laura Kronlachner, Andreas Limbeck

TP-43: **Refining Detection: Recommended Settings for Nanoparticle Analysis in Organic Matrices by Single Particle ICP-MS (spICP-MS),** Jonathan Sloneker, University of new Orléans, Jenny Nelson, David Clases, Thomas Lockwood, Estrella Rogel, Francisco Lopez-Linares, Phoebe Zito

TP-44: **The search for biogenic nanoparticles in living organisms using single particle ICP-MS analysis,** Miguel Gómez-Sánchez, University of Oviedo, Carlos López-Portugués, Tomer First, Maryia Mishyna, Jörg Bettmer, Maria Montes-Bayón

Wednesday, January 14, 2026

Nu Award for Pioneers in Inorganic Mass Spectrometry

(Presidio Ballroom)

Session Chair: Lukas Schlatt, Nu Instruments

08:00 AW-02: Putting Particles in Plasmas: How Single Particle ICP-MS Advances Environmental Geoscience, Jim Ranville, Colorado School of Mines

Detection of Fluorine and Fluorinated Compounds

(Presidio Ballroom)

Session Chair: Jörg Feldmann, University of Graz

08:30 W-01: Latest Advancements in Sample Automation Workflows on ICP-MS and ICP-OES, Mark Kelinske, Agilent

08:45 IL-20: The dark side of analytical chemistry: fluorine with atomic spectrometry, Jörg Feldmann, Viktoria Mueller, Andrea Raab, Raquel Gonzalez de Vega

09:15 W-02: Advanced characterization of PFAS in plastics: from selective extraction to speciation by LC-HRMS and LC-ICP-MS/MS, Paul Sauvageot, IFP Energies nouvelles, Rond-point de l'échangeur de Solaize, BP3, 69360 Solaize, France, Fabien Chainet, Alexandra Berlizoz-Barbier, Raquel Gonzalez de Vega, Jörg Feldmann, Charles-Philippe Lienemann

09:35 W-03: Detection of fluorine anions using the liquid sampling - atmospheric pressure glow discharge / Orbitrap coupling, Dehlia Lang, Clemson University, R. Kenneth Marcus

09:50 BREAK and POSTER SESSION – Turquoise Ballroom

10:30 IL-21: Post-plasma polyatomic ion formation: new strategies in nonmetal detection, Kaveh Jorabchi, Georgetown University

11:00 W-04: Why Molecular Detection Isn't Enough: The Case for Advanced Elemental Methods in PFAS Analysis, Viktoria Mueller, University of Graz, Marc Preihs, Joerg Feldmann, Raquel Gonzalez de Vega, Klaus Zanger, Till Schroeder, Robert Brodschneider

11:20 W-05: From Molecules to Particles: Expanding the BaF+ approach for Comprehensive Fluorine Analysis by ICP-MS, Raquel Gonzalez de Vega, TESLA, Analytical Chemistry, Institute of Chemistry, University of Graz, Graz, Austria

11:40 W-06: Fluoride quantification in human teeth using LIBS: a new tool for environmental medicine, Mauro Martinez, Icahn School of Medicine at Mount Sinai, Manish Arora

12:00 LUNCH and POSTERS – Turquoise Ballroom

Speciation Analysis

(Presidio Ballroom)

Session Chair: Katarzyna Bierla, CNRS

13:00 IL-22: Beyond total selenium- advances in ICP MS assisted selenium speciation studies, Katarzyna Bierla, CNRS, Magdalena Borowska, Javier Jimenez Lamana, Joanna Szpunar, Ryszard Lobinski

13:30 W-07: Characterization of chromium reactions in dynamic reaction cell mode on a PerkinElmer NexION 5000 for biological matrices, Sarah Erdahl, Mayo Clinic, Steven Eckdahl, Colleague Jannetto, Joshua Bornhorst

13:45 W-08: Investigating matrix effects on analysis of arsenic species in non-rice baby foods, Sean Conklin, US FDA

14:00 W-09: Establishment of Reference Range Intervals for Arsenic, Mercury, and Lead In Hair for a Healthy Adult Population., Madysen Amidon, Mayo Clinic, Anna Bitzer, Colleague Jannetto, Joshua Bornhorst

14:15 W-10: Enhanced Linear Dynamic Range for Single-Collector ICP-MS Detectors, Jeremy Hourigan, University of California, Santa Cruz

Nu Young Scientist Award

(Presidio Ballroom)

Session Chair: Lukas Schlatt, Nu Instruments

14:30 AW-03: Gotta Catch 'Em All – Expanding the Grasp of Single particle ICP-MS – David Clases, University of Graz

15:00 W-11: A Total Workflow Approach to Sample Prep, Michael Coppola, Milestone Inc.

15:05 BREAK and POSTER SESSION – Turquoise Ballroom

Novel Plasmas and Methods I

(Presidio Ballroom)

Session Chair: Steven Ray, University at Buffalo

16:00 IL-23: Fixing plasma-based nitrogen fixation through optical spectroscopy, Mohan Sankaran, University of Illinois Urbana-Champaign

IASA Student Awards

(Presidio Ballroom)

Session Chair: Steven Ray, University at Buffalo

16:30 W-12: Characterization of Biogenic Se Nanoparticles and Their Protein Corona Using Complementary Mass Spectrometric Techniques, Andrés Suárez Priede, University of Oviedo, Gemma Fernández-García, Ángel Manteca, Mario Corte-Rodríguez, Paula Díez, Jörg Bettmer

16:45 W-13: Tandem Ion Chromatography – Inductively Coupled Mass Spectroscopy Detection of Iodine and Selenium Under Trace Level Redox Conditions, Ilana Szlamkowicz, Pacific Northwest National Laboratory, Vasileios Anagnostopoulos

17:00 W-14: Investigation of phosphorus-containing antiscalants and detergents and their possible degradation products via IC-ICP-MS, Mathis Athmer, University of Münster, Anna M. Röhnel, Torben J. Maas, Stefan B. Haderlein, Uwe Karst

Novel Plasmas and Methods II

(Presidio Ballroom)

Session Chair: Steven Ray, University at Buffalo

17:15 IL-24: Microplasma Ionization Coupled to Ultrahigh Resolution Mass Spectrometry: Moving Towards Elemental and Isotopic Analysis Without Chemical Separations, R. Kenneth Marcus, Clemson University

17:45 W-15: Analysis of Gases Used in Semiconductor Manufacturing Using GED-MSAG-ICP-MS, Hatsuki Enomoto, Rorze IAS Inc., Kohei Nishiguchi, Tatsu Ichinose, Katsu Kawabata

18:00 IL-25: Novel Microwave-Based Systems for Atomic Spectrometry, Steven Ray, State University of New York at Buffalo, Budhikka Kumara, Mitchell Stry, Yidi Xiao

Vendor Sponsored Event

18:30 Agilent Technologies sponsored event – Registration with vendor required

Wednesday Posters

(Turquoise Ballroom)

Detection of Fluorine and Fluorinated Compounds

WP-01: **Detection of Per and Poly-Fluoroalkyl (PFAS) Compounds in Water by Segmented Flow Plasma Degradation Followed by Fluoride Detection,** Mitchell Stry, SUNY Buffalo, Steven Ray

WP-02: **Combustion Ion Chromatography versus Microwave-Induced Combustion with ICPMS/MS: A Comparative Approach for Fluorine Analysis,** Franziska Peer, University of Graz

Glow Discharge Spectroscopy

WP-03: **A Microwave-Boosted Grimm-Style Glow Discharge Lamp for Atomic Emission Spectrophotometry,** Mitchell Stry, SUNY Buffalo, Steven Ray

WP-04: **Glow Discharge Optical Emission Spectrometry Elemental Mapping For Quantitative Analysis of Nanoparticle Uptake in Cancer Cells,** Rajendra Joshi, Texas Tech University, Madelyn Blakeman, Sarwesh Karna, McKenna McKay, Dimitri Pappas, Gerardo Gamez

WP-05: **Winters Plasma Glow: GDMS & GDOES Onshoring and the AI-Enabled Future of Materials,** Ben Johns, MS Instruments

WP-04: **Raster Reality: Leveraging Pixel-by-Pixel Scanning Surface Mapping with GDMS-Q,** Ben Johns, Piotr Konarski, Łukasiewicz Research Network - Tele and Radio Research Institute, Jarosław Lepczak, Wojciech Pawlak, Aleksander Zawada

Novel Plasmas and Methods

WP-06: **A Novel Standard Addition Method for the Measurement of Lithium Isotope Ratios Using ICP-MS,** Yidi Xiao, University at Buffalo

WP-07: **Optical Emission Spectroscopy and Model Diagnostics of Nitrogen–Copper Plasma in an Open-Jet Atmospheric System,** Marc Andrie Bermundo, University of the Philippines Baguio

WP-08: **Effect of Background Gas Speed on Laser-induced Plasmas and Shock Waves.**, Joseph Lee, University of Arizona, Emily Schorr, Zachary Yang, James Threadgill, David Hahn, Daniel Diaz

WP-20: **Multimodal Analysis of Single-Particles Optically Levitated in Air via Raman, Laser-Induced Breakdown Spectroscopy and Mass Spectrometry,** Carlos Eduardo Nogales Herrera, Rensselaer Polytechnic Institute, George Chan, Jacob Shelley

WP-32: **Analysis of Organic Matrix Samples with a Novel N2 ICP-OES Utilizing Air as a Nebulizer Gas,** Mike Plantz, Radom Instruments, Dylan Rehbein, Ashok Menon

WP-37: **Chemical Characterization of Pressed Pellets Using Laser-Induced Breakdown Spectroscopy,** Emily Schorr, Zach Yang, University of Arizona, Tyler Wilson, Joseph Lee, David Hahn, Daniel Diaz

WP-45: **Understanding Peptide Fragmentation Pathways within the Atmospheric-Pressure Solution-Cathode Glow Discharge Coupled with Mass Spectrometry,** Jared Viggers, Rensselaer Polytechnic Institute, Jacob Shelley, Josefina Hufgard

WP-47: **Evaluation of the Influence of MICAP-OES Operating Parameters on Its Analytical Capabilities,** Jorge Pérez Vázquez, University of Alicante, Raquel Serrano, Luis Gras, Guillermo Grindlay, Ashok Menon,

Nuclear Elemental Analysis

WP-09: **Design and Integration of Analytical Instrumentation into a Glovebox for Nuclear Applications,** Aurelien Viscardi, Elemental Scientific, Romain Sueur, Derrick Quarles

WP-10: **Advanced Applications of Microextraction-ICP-MS: the Analysis of Particles and Nuclear Materials,** Jordan Stanberry, Oak Ridge National Laboratory, Dehlia Lang, Hunter Andrews, Brian Ticknor, Cyril Thompson, Benjamin Manard

WP-11: **Simultaneous Quantification of Trace Contaminants and Lithium Isotopes in FLiBe Molten Salt by Tandem ICP-MS (ICP-MS/MS),** Lee Hughes, Pacific Northwest National Laboratory, Colleague Scott, Kirby Hobbs, Amanda French, Nicholas Richard, Isaac Arquist, Joern Larsen, Jake Quincey, Tristan Johnson, Johnny Williams, Alan Kruizenga

WP-12: **Microchemistry Analyses for Post-Detonation Nuclear Forensics,** Nicholas Richard, Pacific Northwest National Laboratory, Colleague Scott, Pratt Sandra, Kali Melby, Karen Noyes, Matt Douglas, Lori Metz

WP-13: Radium in the Human Heart: Ultra-sensitive Analysis with ICP-QQQ-MS, Jessica Linson, University of Missouri-Columbia, Sergey Tolmachev, John Brockman

WP-14: Streamlined Determinations of Fission and Activation Products using ICP MS/MS, Thomas Komay, University of Nevada - Las Vegas

Sample Introduction: Improvements and New Methods

WP-15: Improve your ICP-MS productivity and workflow with the ADS2/AVS, Loy Craig Jones, Agilent Technologies

WP-16: Use of HBF4 as a replacement for HF during microwave assisted digestion of silicates and titano-alumino-silicate materials., Zachary Atlas, Anton Paar, USA, Markus Michaelis, Peter Kettisch, Shanyce Nicholson, Klaus Pichler-Joebstl

WP-17: Optimizing Microwave Digestion for Trace Element Determination in Fly Ash, Alicia Stell, CEM Corporation, Macy Harris, Michael Howe

WP-18: High-precision single-stage inline autodilution up to 1000x for ICPMS, Stasia Vannoni, Elemental Scientific

WP-19: Direct Sampling of Organic Chemicals in Primary Vessels for Trace Metal Analysis by ICPMS, Connor Branick, Elemental Scientific Inc

WP-21: Revisiting Aerosol Transport in Single Particle Inductively Coupled Plasma Mass Spectrometry: Solvent, Ions, and Nanomaterials, Guillermo Grindlay, University of Alicante, Daniel Torregrosa, Antonio Montoro-Bustos, Luis Gras

WP-22: Inline Ultraviolet Photolysis Integration for Reduced Metal Complexing and Sample Preparation in Isotopic and Trace Metal Analyses, William Swenson, Elemental Scientific Inc., Paul Field, Michael Manhart

WP-23: Integrated Automated Sample Introduction for High-Precision, Low-Volume Isotopic Analysis in Biomedical and Forensic Applications, William Swenson, Elemental Scientific Inc., Paul Field, Michael Manhart, Michael Kipp, Rosa Grigoryan, Tyler Goepfert, Gwyneth Gordon

WP-24: Automated Production of PPQ Level Organic Solvents, Laura Lawlor, Elemental Scientific, Inc., Addison Seckar-Martinez, Jay Shrestha

WP-25: Improving Washout & Efficiency in High-Throughput ICP-MS Testing Laboratory, Ryan Brennan, Glass Expansion, Inc.

WP-26: High Efficiency Sample Introduction System for Superior ICP-MS Performance of Single-Cell, Single-Particle, Nanoparticle, and Low-Volume Analysis, Ryan Brennan, Glass Expansion, Inc.

WP-27: Automation of Iodine Serum and Urine Assay via the ESI PrepFAST-IC, David Eaton, Mayo Clinic, Anna Bitzer, Nick Bohlim, Joshua Bornhorst, Colleague Jannetto

WP-28: Withdrawn

WP-29: Withdrawn

WP-30: Performance of an Advanced Automated Off-Line Sample Dilution and Standard Preparation Station for Use with Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES), Fred Smith, Teledyne CETAC Technologies

WP-46: Replacing Gravimetry: A Metrological Route For Aerosol Mass Calibration Using ICP-MS, Zuzana Gajdosechova, National Research Council of Canada, Kelvin Risby, Cyprien Hugues Dominique Jordain, Adam Meyer Boies, Timothy A. Sipkens, Jalal Norooz-Oliaee, Joel C. Corbin

Speciation Analysis

WP-31: On-line vs. Off-line Sample Preparation for Environmental Speciation Analysis in Metallomics Using ICP-MS, Jelle Verdonck, KU Leuven, Katrien Poels, Jeroen Vanoirbeek, Lode Godderis

WP-33: Effects of ICP-MS Plasma Robustness on Different Metal Oxidation States and their Determination, Loy Craig Jones, Agilent Technologies

WP-34: Rapid and Accurate Isotopic Analysis of Methylmercury and Inorganic Mercury With An Automated Methylmercury Analyzer, Hakan Gurleyuk, Brooks Applied Labs, Elizabeth Crowther, Vedat Yilmaz, Dalton Reynolds, David Bolstad, Bob Brunette

WP-35: Using a OneFAST Micro-Liquid Chromatography System Coupled to ICP-MS for the Accurate Determination of Metal Species, Jelle Verdonck, KU Leuven, Katrien Poels, Jeroen Vanoirbeek, Lode Godderis, Erik Smolders

WP-36: Withdrawn

WP-38: Speciation Analysis of Mercury in Seafood by LC-ICP-MS, Hamed Ataee, Shimadzu Scientific Instruments, Columbia, Maryland, United States, Kosuke Naka, Yujing Jiang, Natsuki Iwata, Tadashi Taniguchi

WP-39: The Detection Of Mercury in Invasive Carp Tissue Using Inductively Coupled Plasma-Mass Spectrometer Triple Quadropole: Are Carps a Viable Source Of Fishmeal In Aquafeed?, Yahminiy Ganesh, University of New Orleans, Louisiana, Phoebe Zito, Abigail Host, Robert P Bourgeois, Gaylord Gibson, Abigail Bockus, Stephanie Archer, Edward Osborn

Ultra-trace Measurements

WP-40: Ultra-Trace Element Characterization in High-Purity Copper Using Combined ICP-OES and ICP-MS Techniques, Ana-Sarahi Garcia-Gonzalez, Agilent Technologies, Bert Woods

WP-41: Analysis of Organic Solvents at PPQ, Mason Spilinek, Elemental Scientific, Inc., Austin Schultz, Suhas Ketkar, Daniel Wiederin

WP-42: Assessing reaction gas purity and the effects on gas phase cation reactivity within ICP-MS/MS, Amanda French, Pacific Northwest National Laboratory, Kirby Hobbs, Isaac Arnquist, Tyler Schlieder, Lee Hughes, Thomas Komay, Colleague Scott

WP-43: Effects of gas purity on backgrounds of collision reaction cell multi-collector inductively coupled plasma mass spectrometers, Tyler Schlieder, Pacific Northwest National Laboratory, Colleague Scott, Amanda French, Kirby Hobbs, Lee Hughes, Nicholas Richard, Isaac Arnquist

Thursday, January 15, 2026

Spectroscopy Emerging Leader in Atomic Spectroscopy

(Presidio Ballroom)

Session Chair: Will Wetzel, *Spectroscopy*

08:00 AW-04: High-Dimensional Elemental Mapping in Biology: Advances and Challenges in LA-ICP-TOFMS, Sarah Theiner, University of Vienna, Nu Instruments, Gunda Koellensperger, Bernhard Keppler, Walter Berger, Petra Heffeter, Stijn Van Malderen, Frank Vanhaecke, Martin Sala, Anna Schoeberl, Andreas Schweikert, Martin Schaier

Elemental Imaging

(Presidio Ballroom)

Session Chair: Hunter Andrews, Oak Ridge National Laboratory

08:30 IL-26: Challenges and prospects of atomic spectrometry for elemental imaging at micro and nanoscale, Dirk Schaumlöffel, CNRS, IPREM, Iris Henriquez Valido, Maria Angels Subirana

09:00 Th-01: Simultaneous elemental and molecular imaging using laser ablation (LA)-inductively coupled plasma (ICP)- and atmospheric pressure chemical ionization (APCI)-mass spectrometry (MS), Lena Hiddeßen, University of Münster, Lea Würfel, Rickmer Braren, Irina Heid, Uwe Karst

09:20 Th-02: Seeing the Unseen: Chemical and 3D Imaging Insights into Microplastics in Biological Matrices, Jan Biskupič, Masaryk University, Jana Hložková, Peter Scheer, Petra Procházková, Tomáš Zikmund, Lucie Šudomová, Gabriela Kalčíková, Jozef Kaiser, Michaela Kuchynka

09:40 Th-03: Development of Free Data Processing Software Modules for Users at the Biomedical National Elemental Imaging Resource, Tracy Punshon, Dartmouth College, Brian Jackson, Joshua Levy

10:00 BREAK and POSTER SESSION – Turquoise Ballroom

10:30 IL-27: Advancements in high-speed imaging by LIBS and LA-ICP-MS, Derrick Quarles, Elemental Scientific, Benjamin Manard, Hunter. Andrews, Alex Zirakparvar

11:00 Th-04: Optimization of LA-ICP-MS for Single Cell and Single Particle Analysis, Sarah Szakas, Oak Ridge National Laboratory, Benjamin Manard, Brian Sanders

11:20 Th-05: Comparison of 193 and 266 nm laser systems for high-speed, quantitative bioimaging by LA-ICP-TOFMS, Tristen Taylor, Elemental Scientific Lasers, Leif Summerfield, David Douglas, Ciaran O'Connor

11:40 Th-06: On the two-phase sample transport of carbon in LA-ICP-MS, Lukas Brunnbauer, TU Wien, Institute of Chemical Technologies and Analytics, Getreidemarkt 9/164, 1060 Vienna, Austria, David Ken Gibbs, Detlef Günther, Andreas Limbeck

12:00 LUNCH and POSTERS – Turquoise Ballroom

Laser Ablation Fundamentals and Applications

(Presidio Ballroom)

Session Chair: Vassilia Zorba, Berkeley Lab

13:00 Th-07: LA-ICP-MS approach for the determination of hair strontium in ancient Andean mummies, Dulasiri Amarasinghe, Hampshire College, Bernardo Arriaza, David Blumenstiel

13:15 Th-08: Manufacturing and evaluating new glass reference materials designed specifically for analyses of Soda-Lime Glass by LA-ICP-MS., Ela Bakowska, Corning RDC, Arlene Clark, Misty Riesbeck, Brian Rice, Abigail Austin, Brendan Murray, David Baker, David McEnroe, Robert Schaut, Jamie Vargeson, Cody Cushman

Laser-Induced Breakdown Spectroscopy (LIBS)

(Presidio Ballroom)

Session Chair: Vassilia Zorba, Berkeley Lab

13:30 IL-28: Towards Remote Isotope Detection with Femtosecond Filaments, Vassilia Zorba, Berkeley Lab

14:00 Th-09: Filamentation-assisted remote LIBS under atmospheric turbulence, Changmin Kim, Lawrence Berkeley National Laboratory

14:15 IL-29: Handheld LIBS as a Field-Deployable Tool for Chemometric Timber Identification, Caelin Celani, University of Delaware, Erin Price, Kierra Cano, Helder Carneiro, Karl Booksh, James Jordan, Michael Ketterer, Pamela McClure, Megahn Pinedo, Kent Elliott, Tyler Coplen

14:35 IL-42: Real-Time Elemental and Isotopic Analysis of Molten Salts Using Laser-Induced Breakdown Spectroscopy, Hunter Andrews, Oak Ridge National Laboratory, Zechariah Kitzhaber, Daniel Orea, Kevin Robb, Benjamin Manard, Joanna McFarlane

15:05 Th-10: Withdrawn

15:05 BREAK and POSTER SESSION – Turquoise Ballroom

16:00 IL-30: Laser-Induced Breakdown Spectroscopy: Global Perspectives on Applications, Technology, and Fundamentals, Jhanis Gonzalez, Applied Spectra

16:30 Th-11: Quantification of Oxygen Vacancies in Perovskite-type Materials via Laser-induced Breakdown Spectroscopy, Valentin Jung, TU Wien, Institute of Chemical Technologies and Analytics, Getreidemarkt 9/164, 1060 Vienna, Austria, Maximilian Weiss, Alexander Karl Opitz, Andreas Limbeck

16:45 Th-12: Towards rapid, real-time Pu isotope detection in laser plasmas, Maya Kota, UC Berkeley

Reminiscing About Winter Conference Over the Years

(Presidio Ballroom)

Session Chair: Ken Marcus, Clemson University

17:00 INFO ON 2027 EUROPEAN WINTER PLASMA CONFERENCE – Spiros Pergantis

17:05 R-01: It All Began a Long, Long Time Ago, Gerhard Meyer, Promeris LLC

17:17 R-02: Perspectives on the Winter Conference on Plasma Spectrochemistry, Gary Hieftje, Indiana University

17:29 R-03: For What is a Winter Conference on Plasma Spectrochemistry Good for?, Norbert Jakubowski, Spetec GmbH

17:41 R-04: Over 40 Years of Innovation, Applications and Parties: A Vendor Perspective, Chuck Schneider, Agilent Technologies

17:53 R-05: Revisiting Winter Conference on Plasma Spectrochemistry memories....in Tucson again, Maria Montes-Bayón, University of Oviedo

18:05 R-06: Remembering the Opportunities and Impact of More Than 40 Years of Winter Conferences on Plasma Spectrochemistry, John Olesik, The Ohio State University

18:17 R-07: From a Niche Application to a Central Analytical Method - LA-ICP-MS, Detlef Günther, ETH Zürich

Awards Receptions

(Location: Poolside by the firepits)

18:30 Conference Awards Reception – Open to all attendees

Thursday Posters

(Turquoise Ballroom)

Biomedical and Clinical ICP-MS

ThP-01: **Analysis of Mercury in Urine Using an Agilent 8900 Triple-Quadrupole Inductively Coupled Plasma Mass Spectrometer (ICP-QQQ-MS) for Biomonitoring and Emergency Response Applications,** Mark Fresquez, CDC

ThP-02: **Withdrawn**

ThP-03: **Withdrawn**

ThP-04: **Direct Microextraction of Dried Blood Spots for Rapid, Multielement Quantification via ICP-MS,** Cameron Stouffer, Clemson University, R. Kenneth Marcus

ThP-05: **Comparison of Sample Preparation Techniques for Multi-Element Analysis in Human Breast Milk by ICP-QQQ,** Ramsey Steiner, Dartmouth College, Brian Jackson, Jami Josefson, Robert Sargis, Brigid Gregg

ThP-06: **The Quantification of Toxic and Essential Elements in Hair Using Hot Block Digestion and Agilent 8800 and 8900 ICP-QQQ,** Gregory Zinn, Doctors Data Inc., Dean Bass

ThP-07: **A Quantitative Extraction Method for Trace Levels of Pb in Cellulose Absorbents,** Madison Pearson, HOPO Therapeutics, Joshua Godshaw, Daniel Mulugeta, Julian Rees

ThP-08: **Evaluation of the TRAXStation for whole blood automation within a clinical laboratory,** Anna Bitzer, Mayo Clinic, David Eaton, Sarah Erdahl, Michelle Wermers, Joshua Bornhorst, Colleague Jannetto, Owen Madigan, Patrick Messina, Cameron Kresko

ThP-09: **Redevelopment of a Method For Aluminum, Chromium, Cobalt and Manganese Trace Metals Panel Using the Perkin Elmer Nexion 5000,** Allie Moore, Mayo Clinic, Sarah Erdahl, Joshua Bornhorst, Colleague Jannetto

ThP-10: **The Comparison of Greiner Bio-One Vacuette Tube 6-mL NH Trace Elements Sodium Heparin Tube and BD Metal Free Whole Blood EDTA Tube, and the Establishment of a Reference Range for Aluminum Whole Blood Analysis.** Ashley Roney, Mayo Clinic, Sarah Erdahl, Joshua Bornhorst, Colleague Jannetto

ThP-11: Determination of the most effective isotope for the measurement of Zinc in serum to avoid Barium interference using Inductively Coupled Plasma Mass Spectrometry (ICP-MS), Hiwote Woldeyesus, Mayo Clinic, Colleague Jannetto, Joshua Bornhorst

ThP-12: Analysis of 24 Element Impurities in Pharmaceuticals in Ethanol Using ICP-MS Compliant with ICH Q3D Guidelines, Heather Trenary, Shimadzu Scientific Instruments, Inc, Yujing Jiang, Tadashi Taniguchi

ThP-13: Utilizing ICP-QQQ-MS and instrumental neutron activation analysis to investigate the chemical digestion of small biological samples: Analysis of Cr, Fe, Hg, S, Se and Zn in mouse livers, Alison Hartman, University of Missouri Research Reactor, Stacy Crane, Austin Maher, Alexis Radtke, John Brockman, Matthew Pitts

ThP-14: Development of in-house baby food reference materials for thallium and other toxic elements, Charles Barber, US FDA, Human Foods Program, Laishawn Duncan, Patrick Gray

ThP-15: Trace element analysis of human placenta by tandem ICP-MS/MS: a comparison between "formalin-fixed" and paired "fresh-frozen" specimens for exposure assessment studies, Joseph Teson, Wadsworth Center, New York State Department of Health, Patrick Parsons, Richard Miller, Thomas O'Connor, Carolyn Salafia, Rebecca Schmidt, Amy Elliott, Cindy McEvoy, Eliot Spindel, Jessie Buckley, Julie Herbstman

ThP-16: The New York State Biomonitoring Proficiency Testing Program for Trace Elements: A tool to improve interlaboratory harmonization for human exposomic studies, Kayla Mehigan, Wadsworth Center, NY State Dept. of Health, Jenny Scholl, Christopher Palmer, Patrick Parsons

ThP-41: Improvement of Hg Detection by ICP-MS in Clinical and Biological Sample Analysis, Mary Kay Amistadi, ALEC Lab - University of Arizona

ThP-42: Unleashing the power of mass cytometry (CyTOF) to evaluate the cellular uptake of radiopharmaceutical analogues in individual cells, Miguel Gómez-Sánchez, University of Oviedo, Elisa Blanco-González, María Montes-Bayón, Martin Behe, Roger Schibli, Elisa Rioja-Blanco,

ThP-43: Effects of storage conditions on the short- and long-term stability of six arsenic species in human urine, Key-Young Choe, California Department of Public Health, Jianwen She

Chemometrics, AI, and ML in Atomic Spectrometry

ThP-17: **Automation in Trace Metal Analysis of Engine Coolants**, Luke Gormley, Agilent Technologies

ThP-18: **Leveraging an AI/ML Based Approach for Semiquantitative Analysis Using ICP-OES for Sample Preparation and Screening**, Mike Mourgas, Daniel Kutscher, Thermo Fisher Scientific, , Sukanya Sengupta, Torben Stichel

ThP-19: **Statistical Model for Quantitative Analysis of TiSiC coatings via GD-OES**, Dominik Fuchs, Institute of Chemical Technologies and Analytics, TU Wien, Arno Gitschthaler, Lukas Brunnbauer, Maximilian Podsednik, Philipp Dörflinger, Eleni Ntemou, Daniel Primetzhofer, Helmut Riedl-Tragenreif, Andreas Limbeck

ThP-20: **Multi-Energy Calibration and Multi-Isotope Calibration to Evaluate in Vitro Bioaccessibility and Bioavailability of Metals in Fish From a Mining Region in Brazil**, George Donati, Wadsworth Center, New York State Department of Health, Jemmyson de Jesus, Karl Yang

ThP-21: **Calibration by Proxy Analysis of Pipe Tobacco By ICP-MS**, Hanieh Helli, Wake Forest University, Bradley T Jones, Beatriz Martins Fontoura

Food Science

ThP-22: **Toxic Elements in Food Spices: A Critical Analysis Using ICP-MS and ICP-OES Techniques**, Bert Woods, Agilent Technologies, Ana-Sarahi Garcia-Gonzalez

ThP-23: **Efficient Trace Metal Analysis in Complex Food Matrices Using ICP-MS and Microwave Digestion**, Alicia Stell, CEM Corporation, Samuel Heckle, Michael Howe

ThP-24: **Vitamin B12 Measurement in Dietary Supplements by HPLC-ICP-MS**, Mesay M. Wolle, Food and Drug Administration

ThP-25: **Soil or Simulant? Assessment of Crop Nutrients and Toxic Metals in Off-World Agriculture**, Beatriz Fontoura, University of Scranton, Sally Lee, Rafael Loureiro, Britney Vergara

ThP-26: **Elemental Analysis by Inductively Coupled Plasma Mass Spectrometry Using Triple Quadrupole Reaction Gas Technology for Toxic and Nutrient Elements in Foods**, Claudia Martinez Lopez, Patrick Gray

ThP-27: **Nutrient and Toxic Element Profiling of Plant-Based Proteins Using ICP-MS**, Jelle Verdonck, KU Leuven, Katrien Poels, Jeroen Vanoirbeek, Lode Godderis

Laser Ablation

ThP-28: Performing 3D Elemental Analysis for Complex Materials Characterization, Fergus Keenan, Exum Instruments, Jeff Williams, Andrew Laroche, Ellen Williams

ThP-29: Hands-On STEM Education Using Gemstone Analysis by LA-ICP-MS, Misty Riesbeck, Corning Research and Development Incorporated, Ela Bakowska, Michael Carson, Julianne Santilli

ThP-30: Rapid and Accurate Determination of Trace Elements in Copper Concentrate Fused Beads, Ross Coenen, Elemental Scientific, Inc.

ThP-31: LA-ICP-MS imaging-based elemental fingerprinting to detect tire wear particles in zebrafish guts, Lukas Brunnbauer, Institute of Chemical Technologies and Analytics, TU Wien, Šimon Juračka, Michaela Vykypělová, Lucie Vrlíková, Elisabeth Eitenberger, Pavel Porizka, Ondřej Adamovský, Jozef Kaiser, Gabriela Kalčíková

ThP-32: Cryogenic laser ablation: Evaluating benefits, innovations in sample chamber design, and optimized ablation parameters, Lucas Smith, Lewis Banks, Teledyne Photon Machines, Remi Dallmayr, Ciprian Stremlan, Pascal Bohleber, Colleague Mervič, Martin Sala, Stijn Van Malderen

ThP-33: Combining femtosecond laser ablation and ultra-fast washout sample chambers; an evaluation of ablation craters and the application to multi-element mapping, Lucas Smith, Teledyne Photon Machines, Lewis Banks, Ciprian Stremlan, Martin Sala, Stijn Van Malderen

ThP-34: Combination of a laser-ablation chamber and particle collection system for preparation of nebulization ICP-MS solutions, Magdalena Jackson, University of Central Florida, Matthieu Baudelet

Laser-Induced Breakdown Spectroscopy (LIBS)

ThP-35: Rotational Raman Scattering Spectroscopy Diagnostics of Laser-Induced Plasmas, Ezekiel Branch, Texas Tech University, Gerardo Gamez, Marco Lerma, Rohan Ganesh

ThP-36: Investigation of Cathodic Delamination at Metal-Polymer Interfaces using D-S cells and LIBS, Valentin Jung, Institute of Chemical Technologies and Analytics, TU Wien, Lars Varain, Michael Nelhiebel, Günter Fafilek, Andreas Limbeck

ThP-37: Design and Optimization of a new microwave resonator for Laser-induced breakdown spectroscopy (LIBS)., Buddhika Kumara, University at Buffalo

ThP-38: Design and Optimization of a new microwave plasma source for atomic emission spectrometry to determine total organic fluorine concentration in gaseous samples., Buddhika Kumara, University at Buffalo

Friday, January 16

Heritage Lecture

(Presidio Ballroom)

Session Chair: Ken Marcus, Clemson University

08:00 HL-03: Measurement Science & Governance: Shaping National Policy and Politics, Vahid Majidi

Single Particle Analysis Approaches III

(Presidio Ballroom)

Session Chair: Jörg Bettmer, University of Oviedo

09:00 IL-31: Can the number, size, and elemental composition of nanoparticles and microparticles be accurately measured in environmental colloids and suspensions using single particle-Inductively Coupled Plasma-Time of Flight Mass Spectrometry alone?, John Olesik, The Ohio State University, Madeleine Lomax-Vogt, Lucas Carter, Stanislav Kutuzov, Paolo Gabrielli, Ryan Sullivan, Greg Lowry

09:30 IL-32: Combined single cell/particle ICP-MS and mass cytometry data for biomedical research, Maria Montes-Bayón, University of Oviedo, Sara Gonzalez Morales, Paula Díez, Mario Corte-Rodríguez, Jörg Bettmer

10:00 BREAK

Food Analysis

(Presidio Ballroom)

Session Chair: Zuzana Gajdosechova, NRC Canada

10:30 IL-33: The Nano Truth in Every Bite: CRMs for Nanoparticle Analysis in Food, Zuzana Gajdosechova, National Research Council of Canada, Filip Gregar, Monique E. Johnson, Antonio R. Montoro Bustos, Katrin Loeschner

11:00 IL-34: Tracing Natural Particles in Wild Mushrooms by ICP-MS Techniques, Jörg Bettmer, University of Oviedo, Andrés Suárez-Priude, Miguel Gómez-Sánchez, Simone Bräuer, Matthias Elinkmann, Raquel Gonzalez de Vega, David Clases

11:20 F-01: Validation of NIST method protocols for quantification of Cd, Hg and Pb in food sample matrices using isotope dilution ICP-MS approaches, Steven Christopher, Colleen Bryan Sallee

11:40 F-02: Elemental analysis in Food Products with Advance Automatic Dilution Sample Introduction System and Half Mass Correction by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS), Yan Cheung, Agilent Technologies

11:55 LUNCH

Biomedical and Clinical ICP-MS

(Presidio Ballroom)

Session Chair: Maro Ohanian, MD Anderson Cancer Center

13:30 IL-35: Mercury speciation in whole blood: why Liquid Chromatography with Vapor Generation coupled to ICP-MS is preferable to GC-ID-ICP-MS for biomonitoring studies., Patrick Parsons, Wadsworth Center, New York State Department of Health, Emily Pacer, Christopher Palmer

14:00 F-03: Distribution of thallium and other toxic metals in human clinical specimens following criminal or accidental poisoning, Peter Heitland, MVZ Medical Laboratory Bremen GmbH, Siegfried Krell

14:20 F-04: Simultaneous Imaging of Metal Ions and Transporters in Mouse Intestine Using LA-ICP-TOF-MS and Immunotagging, Brian Jackson, Ramsey Steiner, Tracy Punshon, Thomas Bartnikas, Milan Prajapati

14:40 F-05: Next-Generation Stroke Therapy Enabled by Correlative Elemental and Structural Imaging, Michaela Kuchynka, Masaryk University, Victoria Parobkova, Jan Biskupič, Jaroslava Jamrichová, Marcela Vlčnovská, Jana Hložková, Peter Scheer, Pavel Bobal, Pavel Porizka, Tomáš Zikmund, Jozef Kaiser

15:00 F-06: Quantification and Characterization of Isolated Exosomes by ICP-MS via Combination of Chelation Reaction and Metal Antibody Tag Detection for Clinical Monitoring., Cameron Stouffer, Clemson University, Carolina Mata, Grace Orendorff, R. Kenneth Marcus

15:15 F-07: Characterization of Trace Elements in Four Candidate Caprine Liver Reference Materials via an Interlaboratory Study, Deanna Luneau, Wadsworth Center, Patrick Parsons

15:30 BREAK

16:00 IL-36: Sorting chip online coupled with ICP-MS for circulating tumor cells detection, Bin Hu, Wuhan University

16:30 F-08: Comprehensive Characterization of Liposomal Metal-Based Drug Formulations Using Hyphenated Asymmetrical Field-Flow Fractionation,
Guillermo Redondo Fernandez, LGC Ltd, Dorota Bartczak, Zoltan Varga,
Heidi Goenaga Infante

16:50 F-09: Matrix-Matched Calibration Strategies For Trace Elements In Blood And Urine By Icp-Ms: Integrating Biomonitoring And Occupational Exposure Studies, Christopher Palmer, New York State Department of Health, Charelle Trim,
Kayla Mehigan, Garret Smith, Peter Chutcharavan, Patrick Parsons

17:10 IL-37: ICPMS in Acute Myeloid Leukemia (AML), Maro Ohanian, MD Anderson Cancer Center

17:30 F-10: Use of Oxygen Gas and Voltages to Decrease Iodine Counts in ICP-MS Analysis, Anna Bitzer, Mayo Clinic, David Eaton, Joshua Bornhorst,
Colleague Jannetto

17:45 F-11: Bringing LIBS to the clinical analysis lab using a novel calibration strategy for quantitative elemental analysis of Dried Blood Spots,
Maite Aramendia Marzo, Universidad de Zaragoza

18:00 F-12: Quantitative LA-ICP-MS Imaging of Metal Distributions in Lung and Colon Disease, Rui Liu, University of New Mexico, Xiang Xue, Alicia Bolt,
Matthew Campen, Changjian Feng

Saturday, January 17

Glow Discharge Spectroscopy

(Presidio Ballroom)

Session Chair: Jacob Shelley, Rensselaer Polytechnic Institute

08:30 IL-38: Characterization of Particles from the Nano to the Micro Scale via

Glow Discharge Spectroscopy, Gerardo Gamez, Texas Tech University,

Rajendra Joshi, Madelyn Blakeman, Sarwesh Karna, Ezekiel Branch

09:00 IL-39: Fundamental insights on the Solution Cathode Glow Discharge,

Jaime Orejas, University of Oviedo, Yinchenxi Zhang, Aitor Ruiz-Rodriguez,

Cristina Lopez-Perandones, Jorge Pisonero, Nerea Bordel

09:30 Sa-01: Comparison of GD-OES compositional depth profiles in continuous and pulsed mode of operation, Arne Bengtson, Spektrab, David Malmstrom

09:45 Sa-02: Comparing GD-OES and ToF-SIMS analysis of H-loaded TiN/Ti coating

systems, Dominik Fuchs, TU Wien, Institute of Chemical Technologies and

Analytics, Getreidemarkt 9/164, 1060 Vienna, Austria, Elmar Gull,

Phillip Rückeshäuser, Helmut Riedl-Tragenreif, Andreas Limbeck

10:00 BREAK

Novel Plasmas and Methods III

(Presidio Ballroom)

Session Chair: Jacob Shelley, Rensselaer Polytechnic Institute

10:30 IL-40: Recent Advances in Acoustic Ion Manipulation, Jacob Shelley,

Rensselaer Polytechnic Institute, Julia Danischewski, Yi You, Josefina Hufgard, Jens

Riedel

11:00 IL-41: Withdrawn

Conference Closing

(Presidio Ballroom)

11:00 CLOSING AND ANNOUNCEMENT OF THE 2028 MEETINGS

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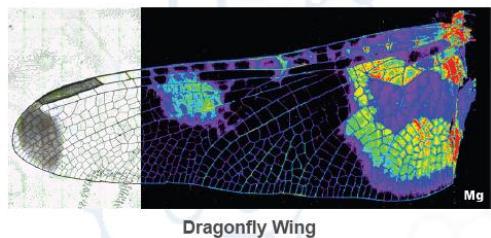
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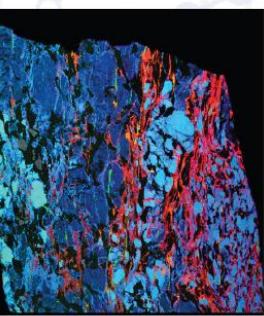
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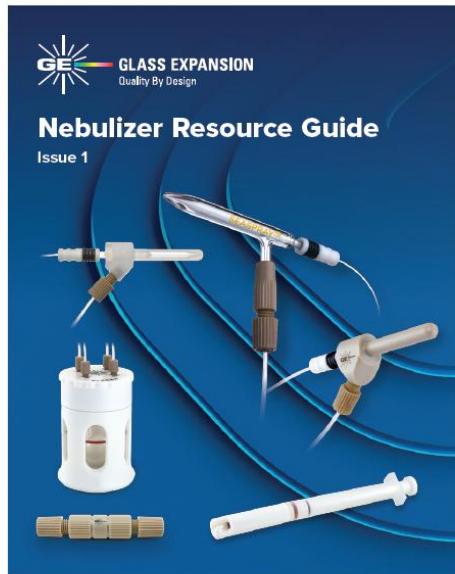


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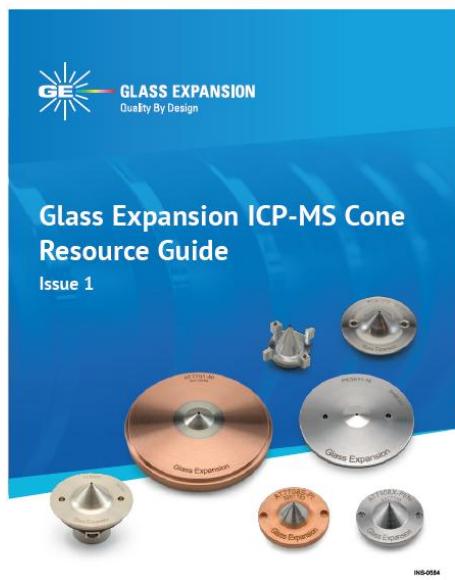
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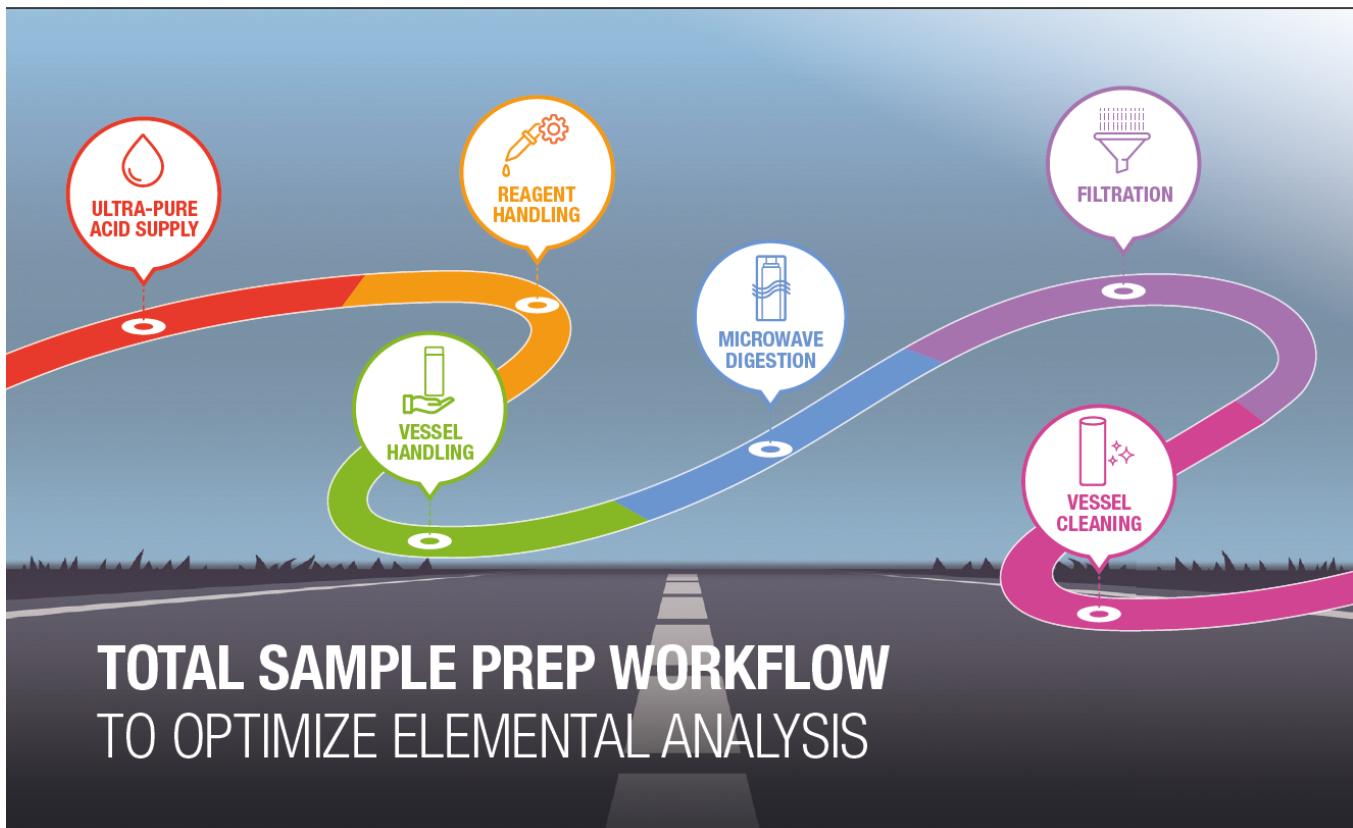
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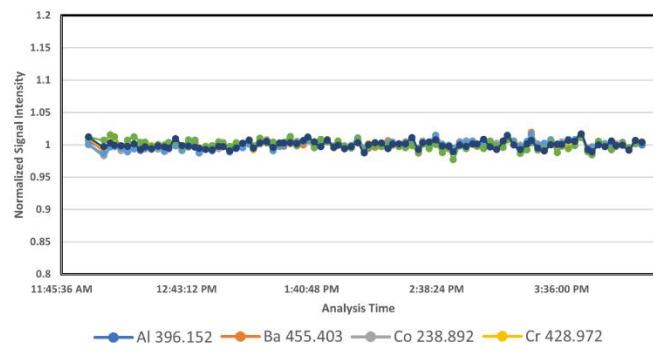
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Co 238.892	196928.80	1256.09	0.64
Cr 428.972	42232.57	213.96	0.51
Mn 259.372	1422382.53	8768.05	0.62
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