

# European Winter Conference on Plasma Spectrochemistry 2017

**Date: Sunday, 19/Feb/2017**

9:00am - 12:00pm	<p><b>SC Fundamentals: SHORT COURSE: Basic principles of ICP-MS</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> Finish Arena (ZIELSTADION) - SEMINAR ROOM Gertrud Gabl Chair: <b>Ramon Barnes</b> This course will introduce inductively coupled plasma (ICP) mass spectrometry (MS) for elemental, isotopic, and speciation analysis. The presentations will cover basic ICP-MS instrumentation and measuring concepts, as well as ICP-MS features, capabilities and applications. ICP operation, sample introduction and calibration techniques, and mass...</p>	<p><b>SC Isotopic Analysis: SHORT COURSE: Isotopic analysis</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SEMINAR ROOM (1st floor) Chair: <b>Frank Vanhaecke</b> Chair: <b>Jose Ignacio Garcia Alonso</b> In the first part of the short course, the sources of natural variation in the isotopic composition of the elements will be discussed. Specific attention will be devoted to elements with radiogenic nuclides (e.g., Sr, Pb) and to mass-dependent and mass-independent isotope fractionation. In the second part of the short course we will discuss the...</p>	<p><b>SC Speciation: SHORT COURSE: Speciation tools for analysis of biopolymers and small molecules and their application to life sciences</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> Finish Arena (ZIELSTADION) - SEMINAR ROOM Rudi Matt Chair: <b>Maria Montes Bayón</b> Chair: <b>Stephan Hann</b> (1) Technical requirements: selection and implementation of separation systems and interfaces. It will cover several examples for small molecule analysis in environmental and biological applications. (2) Introduction to different methods for relative and absolute quantification of elemental species.</p>	
10:00am - 4:00pm	<p><b>SC LA-ICP-MS: SHORT COURSE: Laser ablation ICP-MS</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> Finish Arena (ZIELSTADION) - SEMINAR ROOM Hannes Schneider Chair: <b>Bodo Hattendorf</b> Chair: <b>Jhanis J Gonzalez</b> This short course will cover fundamental and applied aspects of experiments using laser ablation as sampling tool for spatially resolved ICPMS analysis. It will discuss, on a basic level, the phenomena occurring during LA and ICPMS analyses most relevant for interpretation of analytical results.</p>			
1:00pm - 4:00pm	<p><b>SC AGILENT: TECHNICAL MEETING Agilent</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Glenn David Woods</b> Chair: <b>Naoki Sugiyama</b> ICP-MS/MS UNDERSTANDING MECHANISMS OF ICP-MS/MS FOR RESOLVING POLYATOMIC, ISOBARIC, AND OTHER SPECTRAL INTERFERENCES</p>	<p><b>SC Metrology: SHORT COURSE: Metrology in ICP-MS</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> Finish Arena (ZIELSTADION) - SEMINAR ROOM Rudi Matt Chair: <b>Zoltan Mester</b> An overview of the basics of Chemical Measurement Science will be given. Concepts related to measurement traceability, comparability and uncertainty will be discussed.</p>	<p><b>SC Nano: SHORT COURSE: ICP-MS and field-flow fractionation for nanomaterial analysis</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> Finish Arena (ZIELSTADION) - SEMINAR ROOM Gertrud Gabl Chair: <b>Petra Krystek</b> Chair: <b>Björn Meermann</b> Overview: i) Definition on nanomaterials &amp; nanoparticles and analytical techniques ii) Field-flow fractionation – History &amp; Theory iii) Applications: Nanomaterials &amp; FFF</p>	<p><b>SC SHIMADZU: TECHNICAL MEETING Shimadzu: TOTAL SOLUTIONS FOR FOOD ANALYSIS</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SEMINAR ROOM (1st floor) Uwe Oppermann, Helmar Wiltzsche, Jürgen Schramm</p>
4:00pm - 6:00pm	<p><b>ICE BREAKER: WINTER MARKET</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a></p>			
6:00pm - 6:20pm	<p><b>OPENING: Opening ceremony</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL</p>			
6:20pm - 7:20pm	<p><b>OPENING LECTURE: Opening lecture: SAM HOUK</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL</p> <p><b>MISNOMERS AND BAD TERMINOLOGY IN ICP SPECTROSCOPY</b> <u>Sam Houk</u> Iowa State University, United States of America</p>			
7:20pm - 7:50pm	<p><b>AWARD CEREMONY: AWARD CEREMONY: Spectroscopy Magazine and Agilent Plasma Awards</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL</p>			
7:50pm - 9:00pm	<p><b>EVENING RECEPTION: OPENING VENDOR EXHIBITION // AWARDEE RECEPTION // WINE&amp;CHEESE Party</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p>			

Date: Monday, 20/Feb/2017

8:30am - 9:00am	<b>FUN-PL 1: FUNDAMENTALS OF PLASMA SPECTROCHEMISTRY - PLENARY LECTURE 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Gary M Hieftje</b> Chair: <b>Florian Dutschke</b>  <b>Unique Atmospheric-Pressure Plasmas: Understanding Ionization, Fragmentation, and Other Chemical Processes</b> <b>Jacob T. Shelley<sup>1</sup>, Sunil P. Badal<sup>1</sup>, Andrew J. Schwartz<sup>2</sup>, Courtney L. Walton<sup>1</sup>, Kelsey L. Williams<sup>3</sup>, Yi You<sup>3</sup>, Garrett M. MacLean<sup>3</sup>, Gary M. Hieftje<sup>2</sup></b> 1: Department of Chemical and Chemical Biology, Rensselaer Polytechnic Institute, Troy, NY 12180 USA; 2: Department of Chemistry, Indiana University, Bloomington, IN 47405; 3: Department of Chemistry and Biochemistry, Kent State University, Kent, OH 44242, USA	
9:00am - 9:20am	<b>FUN-IL 1: FUNDAMENTALS OF PLASMA SPECTROCHEMISTRY - INVITED LECTURES 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Gary M Hieftje</b> Chair: <b>Florian Dutschke</b>  <b>ICP-MS: A better insight through computer modeling.</b> <b>Annemie Bogaerts, Maryam Aghaei</b> University of Antwerp, Belgium	
9:20am - 10:20am	<b>FUN-OL 1: FUNDAMENTALS OF PLASMA SPECTROCHEMISTRY - GENERAL SESSION 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Gary M Hieftje</b> Chair: <b>Florian Dutschke</b>  <b>Fundamental studies on the ions distribution in ICP-MS for ethanol-water matrices and its application to the determination of metals in bioethanol</b> <b>Carlos Sánchez-Rodríguez<sup>1</sup>, Charles-Philippe Lienemann<sup>2</sup>, José-Luis Todolí-Torró<sup>1</sup></b> 1: Department of Analytical Chemistry, Nutrition and Food Science. University of Alicante, Spain; 2: Analysis and Physics division. IFP Energies Nouvelles, France  <b>Coupling of laser ablation with halo-flowing atmospheric pressure afterglow-mass spectrometry as a new molecular imaging technique</b> <b>Valérie Anne Brückel<sup>1</sup>, Uwe Karst<sup>1</sup>, Michael Sperling<sup>1,2</sup>, Jacob T. Shelley<sup>3</sup></b> 1: University of Muenster, Institute of Inorganic and Analytical Chemistry, Corrensstraße 30, 48149 Muenster, Germany; 2: European Virtual Institute for Speciation Analysis, Mendelstraße 11, 48149 Muenster, Germany; 3: Rensselaer Polytechnic Institute, Department of Chemistry and Chemical Biology, 110 8th Street, Troy, NY 12180 USA  <b>Fundamental plasma investigation using microdroplets with ICP-TOFMS</b> <b>Lyndsey Hendriks, Alexander Gundlach-Graham, Detlef Günther</b> ETHZ, Switzerland  <b>Formation, tracking and transport of ion clouds in the inductively coupled plasma torch: a focus on brass components</b> <b>Maryam Aghaei, Annemie Bogaerts</b> University of Antwerp, Belgium  <b>Multiple ion source multi collector mass spectrometer</b> <b>Niko Kivel, Heiko-Dirk Potthast, Matthias Martin</b> Paul Scherrer Institute, Switzerland  <b>Benefits and Applicability of Attenuation Mode for ICP-OES Analyses</b> <b>Kenneth Neubauer, Erica Cahoon, Chady Stephan</b> PerkinElmer Inc., United States of America	
10:20am - 11:00am	<b>CO-MO 1: COFFEE BREAK (sponsored by Thermo Scientific)</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL	<b>MO-VE 1: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL
11:00am - 12:20pm	<b>FUN-OL 2: FUNDAMENTALS OF PLASMA SPECTROCHEMISTRY - GENERAL SESSION 2</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Gary M Hieftje</b> Chair: <b>Florian Dutschke</b>  <b>Enhanced sensitivity ICP-MS for routine analysis of geochemical samples by alkali fusion</b> <b>Lou Daniel<sup>1</sup>, Andrew Jason Ryan<sup>2</sup>, Rui Santos<sup>2</sup></b> 1: DTX Design Pty Ltd, Perth, Western Australia; 2: Analytik Jena, Germany  <b>Direct Undiluted Analysis of Fuels by ICP with POINT Organic Aerosol Sample Introduction System</b> <b>Gerhard Meyer</b> Promerus LLC, United States of America  <b>Argon-propane plasma for ionization of laser desorbed molecules</b> <b>Alexander Schütz, Sebastian Brandt, Felix David Klute, Joachim Franzke</b> Leibniz-Institut für Analytische Wissenschaften - ISAS - e.V., Germany	

### Femtosecond laser ablation ICPMS: Beam delivery by two-stage Fourier transform optical processing for high resolution depth profiling of metal layers

**Debora Käser, Joachim Koch, Detlef Günther**

ETH Zurich, Switzerland

### Determination of ultra-trace amounts of prosthesis-related metals in whole blood using volumetric absorptive micro-sampling and tandem ICP – Mass Spectrometry

**Lieve Balcaen<sup>1</sup>, Eduardo Bolea-Fernandez<sup>1</sup>, Kim Phan<sup>1</sup>, Martín Resano<sup>2</sup>, Frank Vanhaecke<sup>1</sup>**

1: Ghent University, Belgium; 2: University of Zaragoza, Spain

### High-sensitive Elemental Analysis of Single Human Cell using Droplet Injection ICP-AES/MS

**Takahiro Iwai<sup>1</sup>, Shunsuke Hosoda<sup>2</sup>, Satoshi Kohno<sup>2</sup>, Mari Aida<sup>2</sup>, Ken Kakegawa<sup>2</sup>, Tomoko Miyake<sup>2</sup>, Hidekazu Miyahara<sup>2</sup>, Yoshihisa Matsumoto<sup>3</sup>, Koichi Chiba<sup>1</sup>, Akitoshi Okino<sup>2</sup>**

1: Department of Applied Chemistry for Environment, Kwansai Gakuin University; 2: FIRST, Tokyo Institute of Technology; 3: Institute of Innovative Research, Tokyo Institute of Technology

### Soft Ionization by a homogeneous plasma or when plasma and ionization place are separated?

**Sebastian Brandt, Felix David Klute, Alexander Schütz, Joachim Franzke**

ISAS-Leibniz Institut für Analytische Wissenschaften, Germany

### LIQUID CRYSTAL DISPLAY SURFACE ANALYSIS FOR FAST DISPLAY FAILURE INVESTIGATION BY AMBIENT DESORPTION/IONIZATION MASS SPECTROMETRY

**Christopher Kuhlmann<sup>1</sup>, Sunil P. Badal<sup>2</sup>, Jacob T. Shelley<sup>2</sup>, Carsten Engelhard<sup>1</sup>**

1: Department Chemistry and Biology, University of Siegen, Adolf-Reichwein-Str. 2, 57076 Siegen, Germany; 2: Department of Chemistry and Chemical Biology, Rensselaer Polytechnic Institute, 110 8th Street, Troy, NY 12180 USA

12:20pm - 1:40pm	<b>LUN-MO: LUNCH BREAK: LIGHT LUNCH sponsored by ESI/Meinhard at the ESI/Meinhard booth</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a>	<b>MO-VE 2: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL
1:40pm - 2:20pm	<b>FUN-IL 2: FUNDAMENTALS OF PLASMA SPECTROCHEMISTRY - INVITED LECTURES 2</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Jacob Shelley</b> Chair: <b>Tristan Zimmermann</b>	
	<b>How does an ICP respond to the introduction of a single micro-droplet? (SPECTROSCOPY MAGAZINE AWARD LECTURE)</b> <b>George Chan<sup>1,2</sup></b> 1: Lawrence Berkeley National Lab, United States of America; 2: Department of Chemistry, Indiana University, Bloomington, United States of America	
	<b>Distance-of-Flight Mass Spectrometry for Atomic Analyses: Latest Results</b> <b>Steven James Ray<sup>1</sup>, Gary Hieftje<sup>2</sup>, Chris Enke<sup>3</sup>, David Koppenaal<sup>4</sup></b> 1: State University of New York at Buffalo, United States of America; 2: Indiana University, Department of Chemistry, Bloomington, IN, USA 47405; 3: University of New Mexico, Albuquerque, NM, USA, 98223; 4: Pacific Northwest National Laboratory, Richland, WA, 91181	
2:20pm - 3:30pm	<b>FUN-OL 3: FUNDAMENTALS OF PLASMA SPECTROCHEMISTRY - GENERAL SESSION 3</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Jacob Shelley</b> Chair: <b>Tristan Zimmermann</b>	
	<b>Spatio-temporal development of a dielectric barrier discharge for analytical applications</b> <b>Felix David Klute, Sebastian Burhenn, Antje Michels, Sebastian Brandt, Alexander Schütz, Joachim Franzke</b> Leibniz-Institut für Analytische Wissenschaften – ISAS – e.V., Dortmund, Germany	
	<b>Advancement in Single Particle ICP-MS – Significant Instrument Settings and their Implications on data Quality</b> <b>Chady Stephan, Hamid Badiei, Samad Bazargan, Aaron Hineman</b> PerkinElmer, Canada	
	<b>A robust signal processing approach for single particle-ICP-MS analysis with dwell times in both the millisecond and microsecond range</b> <b>Samad Bazargan, Hamid Badiei</b> PerkinElmer, Canada	
	<b>A Study of the Particle Frequency and Particle Size Methods to Measure Transport Efficiency for the Counting and Sizing of Nanoparticles by Single Particle ICP-MS</b> <b>Karen E. Murphy, Antonio R. Montoro Bustos, Jingyu Liu, Monique E. Johnson, Bryan Calderón Jiménez, George C. Caceres, Michael R. Winchester</b> National Institute of Standards and Technology, United States of America	
	<b>Focusing ions for ion trap based mass spectrometers - methods and applications</b> <b>Sebastian Brandt, Alexander Schütz, Felix David Klute, Joachim Franzke</b> Leibniz-Institut für Analytische Wissenschaften - ISAS - e.V., Germany	
	<b>Excitation and ionisation mechanisms in a complete dielectric barrier discharge (DBDI) and a partial dielectric barrier discharge (LTP)</b>	

**Felix David Klute<sup>1</sup>, Pascal Vogel<sup>1</sup>, Sebastian Brandt<sup>1</sup>, Charlotte Reiningger<sup>2</sup>, Daniel Thurston<sup>2</sup>, Paul B. Farnsworth<sup>2</sup>, Joachim Franzke<sup>1</sup>**

1: Leibniz-Institut für Analytische Wissenschaften – ISAS – e.V., Dortmund, Germany; 2: Department of Chemistry and Biochemistry, Brigham Young University, Provo, USA

**Determination of High Field Strength Elements (HFSE) in Soil & Mineral Samples by ICP Spectrometry after Microwave-Assisted High-Pressure Acid Digestion**

**Michael Raessler**

MPI Biogeochemie, Germany

3:30pm

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4:10pm

**CO-MO 2: COFFEE BREAK**

Location: [ARLBERG-well.com](http://ARLBERG-well.com) SOUTH HALL

3:40pm

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4:20pm

**MO-VE 3: VENDOR EXHIBITION**

Location: [ARLBERG-well.com](http://ARLBERG-well.com) SOUTH HALL

4:10pm

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4:40pm

**MET-PL: METROLOGY - PLENARY LECTURE**

Location: [ARLBERG-well.com](http://ARLBERG-well.com) NORTH HALL

Chair: **Zoltan Mester**

Chair: **Anika Retzmann**

**Metrological principles in plasma spectrochemistry**

**Lu Yang**

National Research Council Canada, Canada

4:40pm

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6:00pm

**MET-IL: METROLOGY - INVITED LECTURES**

Location: [ARLBERG-well.com](http://ARLBERG-well.com) NORTH HALL

Chair: **Zoltan Mester**

Chair: **Anika Retzmann**

**Speciation strategies for chromium in high carbon matrices using hyphenated QQQ-ICP-MS: Towards the production of new 'speciated' reference materials**

**Heidi Goenaga-Infante, Susana Nunez, Panayot Petrov, John Entwisle**

LGC Limited, United Kingdom

**Double-Spiking your way to successful isotope abundance measurements**

**Adam Mayer, Alexander Tennant, Michael Wieser**

University of Calgary, Astronomy and Physics Department, Calgary, Canada

**Who is afraid of Monte Carlo Simulations? An easy way to estimate combined measurement uncertainty using standard spreadsheet software**

**Thomas Walczyk**

Department of Chemistry; National University of Singapore (NUS), Singapore

**Plasma Spectrometry Contributions to Metrology in Chemistry\***

**Wolfhard Wegscheider**

Montanuniversität, Austria

6:00pm

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7:10pm

**MET-OL: METROLOGY - GENERAL SESSION**

Location: [ARLBERG-well.com](http://ARLBERG-well.com) NORTH HALL

Chair: **Zoltan Mester**

Chair: **Anika Retzmann**

**Comparison of performances between ICP-OES and ICP-MS in trace elements analysis on water and soils: the Italian experience of UNICHIM Proficiency Tests**

**Sandro Spezia, Maurizio Bettinelli, Giovanni Perego**

UNICHIM, Piazzale Morandi 2 – 20129 Milano, Italy

**Reducing the risk of inaccurate results when quantifying trace elements in seawaters using ICP-QQQ-MS**

**Tamas M Ugrai, Hakan Gürleyük, Geoff Leadbeater, Michelle Briscoe**

Brooks Applied Labs, United States of America

**Development of an apple juice certified reference material for cadmium, lead, total arsenic and arsenic species**

**Fransiska Dewi, Lay Peng Sim, Juan Wang, Benny Meng Kiat Tong, Richard Y.C Shin, Tong Kooi Lee**

Health Sciences Authority, Singapore, Singapore

**MULTI-ELEMENTAL DETERMINATION OF TRACE METALS IN MILK BY ON-LINE ISOTOPE DILUTION AND INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY USING A HIGH EFFICIENCY SAMPLE INTRODUCTION SYSTEM**

**Rachida Chekri, Nathalie Marchond, Thierry Guérin, Petru Jitaru**

Université Paris-Est, Anses, Laboratory for Food Safety, F-94700 Maisons-Alfort, France

**Application of isotope dilution, standard additions calibration strategies in ICP-MS analysis and external calibration strategy in high resolution ICP-OES analysis of Sr, Pb, Na, Cu in drinking water**

**Vladimir Ivanovich Dobrovolskiy, Aleksei Anatolievich Stakheev, Dmitriy Dmitrievich Frolov**

Russian Metrological Institute of Technical Physics and Radio Engineering, Russian Federation

**LA-ICP-MS as a tool for mapping of Ti, Al and V released from dental implants to soft tissues****Adam Sajnóg<sup>1</sup>, Anetta Hanć<sup>1</sup>, Krzysztof Makuch<sup>2</sup>, Ryszard Koczorowski<sup>2</sup>, Danuta Barałkiewicz<sup>1</sup>**

1: Adam Mickiewicz University in Poznan, Poland; 2: Karol Marcinkowski University of Medical Science in Poznan, Poland

**Determination of transferrin, albumin and electrolytes in human serum CRM by using isotope dilution HPLC/Laser ablation-ICP-MS****Liuxing Feng**

National Metrology Institute, China, China, People's Republic of

**7:30pm**

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**9:30pm****SC ASI: SHORT COURSE APPLIED SPECTRA INSTR.: LIBS-Laser induced breakdown spectroscopy**Location: [ARLBERG-well.com](http://ARLBERG-well.com) NORTH HALLChair: **Jhanis J Gonzalez**

This short course is intended to provide an overview of fundamentals, analysis modes, applications and future direction of Laser Induced Breakdown Spectroscopy (LIBS)

Date: Tuesday, 21/Feb/2017

<p>8:30am - 9:00am</p>	<p><b>SPEC-PL: SPECIATION - PLENARY LECTURE (AGILENT PLASMA AWARD)</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Jörg Feldmann Chair: Magdalena Dorothea Blanz</p> <p><b>Conferring a molecular dimension to ICP MS: chemical speciation analysis and -omics</b> <u>Joanna Szpunar</u> CNRS, Institut des Sciences Analytiques et de Physico-chimie pour l'Environnement et les Matériaux, IPREM UMR 5254, Héloparc, 2, av. Pr. Angot, 64053 Pau</p>	
<p>9:00am - 9:20am</p>	<p><b>SPEC-IL 1: SPECIATION - INVITED LECTURE 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Jörg Feldmann Chair: Magdalena Dorothea Blanz</p> <p><b>The Importance of Plasma Spectrochemistry for Arsenic Speciation Analysis</b> <u>Walter Goessler</u> University of Graz, Austria</p>	
<p>9:20am - 10:00am</p>	<p><b>SPEC-OL 1: SPECIATION - GENERAL SESSION 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Jörg Feldmann Chair: Magdalena Dorothea Blanz</p> <p><b>Determination of the total content of drug-related chlorine and chlorine speciation in human blood plasma using high performance liquid chromatography – tandem ICP-mass spectrometry (HPLC-ICP-MS/MS)</b> <u>Balazs Klencsar</u><sup>1</sup>, Eduardo Bolea-Fernandez<sup>1</sup>, Maria R. Florez<sup>1</sup>, Lieve Balcaen<sup>1</sup>, Filip Cuyckens<sup>3</sup>, Frederic Lynen<sup>2</sup>, Frank Vanhaecke<sup>1</sup> 1: Ghent University, Department of Analytical Chemistry, Krijgslaan 281-S12, 9000 Ghent, Belgium; 2: Ghent University, Department of Organic and Macromolecular Chemistry, Krijgslaan 281-S4bis, 9000 Ghent, Belgium; 3: Janssen R&amp;D, Pharmacokinetics, Dynamics &amp; Metabolism, Turnhoutseweg 30, 2340 Beerse, Belgium</p> <p><b>Small selenium species in human liver cells: Investigations of their cytotoxicity, bioavailability and metabolism by means of isotope dilution (HPLC-) ICP-QQQ-MS methods</b> <u>Talke Anu Marschall</u><sup>1</sup>, Julia Bornhorst<sup>1</sup>, Björn Meermann<sup>2</sup>, Doris Kühnelt<sup>3</sup>, Tanja Schwerdtle<sup>1</sup> 1: University of Potsdam, Germany; 2: Federal Institute of Hydrology Koblenz, Germany; 3: University of Graz, Austria</p> <p><b>Quantification of Selenoprotein P in serum using isotopically-enriched seleno-peptides and species-specific isotope dilution inductively coupled plasma mass spectrometry</b> <u>Christian Deitrich</u><sup>1</sup>, Susana Cuello-Nunez<sup>1</sup>, Diana Kmietek<sup>1</sup>, Frank Torma<sup>1</sup>, Maria-Estela Del Castillo Busto<sup>2</sup>, Paola Fiscaro<sup>2</sup>, Heidi Goenaga-Infante<sup>1</sup> 1: LGC, Queens Road, Teddington, TW11 0LY, United Kingdom; 2: Laboratoire National de Métrologie et d'Essais (LNE), 1, Rue Gaston Boissier - 75724 Paris cedex 15, France</p> <p><b>Optimized arsenic speciation using anion exchange HPLC-ICP-MS for lichen air pollution biomonitoring</b> <u>Eve Mariel Kroukamp</u><sup>1</sup>, Patricia Belinda Crosby Forbes<sup>1</sup>, Taddese Wondimu<sup>2</sup> 1: University of Pretoria; 2: Ontario Ministry of the Environment and Climate Change, University of Johannesburg</p>	
<p>10:00am - 10:40am</p>	<p><b>CO-TU 1: COFFEE BREAK</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p>	<p><b>TU-VE 1: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p>
<p>10:40am - 12:20pm</p>	<p><b>VS-VENDOR SESSION: Vendor oral presentations</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Carsten Engelhard Chair: Anna Reese</p> <p><b>Improved Interface for High Sensitivity ICP-MS - Having Ion Kinetic Energy and Matrix Suppression Control</b> <u>Iouri Kalinitchenko</u>, Peter Zdaril Analytik Jena AG, Germany</p> <p><b>Improvement of the limit of detection for SP-ICP-MS using a desolvator and pseudo resolution to remove interferences with the HR-ICP-MS AttoM.</b> <u>Ariane Karine Donard</u>, Phil Shaw Nu Instruments, United Kingdom</p> <p><b>Profiling Extractable and Leachable elements in ophthalmic drug containers, in accordance with USP&lt;232&gt; by ICP-MS and ICP-OES</b> <u>Paige Elana Solomon</u>, Jenny Nelson Agilent Technologies, United States of America</p> <p><b>Single Cell ICP-MS – Monitoring the uptake of ionic and nanoparticulate metals in individual cells</b> <u>Chady Stephan</u>, Hamid Badiei, Samad Bazargan PerkinElmer, Canada</p>	



### The Combination of Superior Interference Suppression and Ease of Use – Recent Developments for Trace Elemental Analysis

**Christoph Wehe, Shona McSheehy Ducos, Lothar Rottmann, Julian D. Wills, Marcus Manecki**  
Thermo Fisher Scientific, Germany

### Development of Reference Materials and Methodology for Inorganic Speciation Analysis

**Patricia L Atkins**  
SPEX CertiPrep, United States of America

### Direct Determination of impurities in fuels and naphtha – A new approach using pneumatic nebulization and the ARCOS MultiView ICP-OES

**Dirk Wüstkamp**  
SPECTRO Analytical Instruments GmbH, Germany

### Method development for the analysis of biological samples by ICP-MS – sample preparation methods and instrument features

**Rene Chemnitzer, Sebastian Wuenschel, Peio Riss, Iouri Kalinitchenko, Andrew Ryan**  
Analytik Jena AG, Germany

### Determination of contaminants in beer using ICP-MS spectrometry

**Uwe Oppermann<sup>1</sup>, Jürgen Schram<sup>2</sup>, Ludivine Fromentoux<sup>3</sup>, Jan Knoop<sup>1</sup>**  
1: Shimadzu Europa GmbH, Germany; 2: University of applied Sciences, 47798 Krefeld, Germany; 3: Shimadzu France, Marne La Vallee, France

### How do microwaves support an Analytical Chemist in his daily work?

**Linda Kuenstl**  
Anton Paar GmbH, Austria

12:20pm - 2:00pm	<b>LUN-AGILENT: LUNCH SEMINAR: Panel discussion - Enabling Technologies for Emerging Talents</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> ARLBERGSAAL		LUN-TU: LUNCH BREAK	
12:20pm - 3:40pm	<b>TU-VE 2: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL			
2:00pm - 3:40pm	<b>POSTER 1 - APP I: POSTER SESSION 1: Applications I</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL  <b>Determination of trace elements in healthy and malfunctioning hearts of mice</b> <b>Fabian Zimmermann<sup>1</sup>, Tibor Kempf<sup>2</sup>, Julia Bode<sup>1</sup>, Carla Vogt<sup>1</sup></b> 1: Leibniz Universität Hannover, Germany; 2: Medizinische Hochschule Hannover, Germany  <b>Feasibility Study for the Determination of Vitamin B12 in Nutritional Products by Inductively Coupled Plasma Mass Spectrometry</b> <b>Lawrence. Hazel Pacquette, Karen Schimpf</b> Abbott Nutrition, United States of America  <b>Has ICP-MS helped to improve the quality of data obtained from geological samples?</b> <b>Thomas C. Meisel<sup>1</sup>, Peter C. Webb<sup>2</sup></b> 1: General and Analytical Chemistry, Montanuniversität Leoben, Austria; 2: The Open University, Milton Keynes, United Kingdom  <b>ICP Detection Limits Versus Speed of Analysis</b>	<b>POSTER 1 - EL: POSTER SESSION 1: Elemental analysis</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL  <b>Technology-critical and hazardous elements in the environment.</b> <b>Lisa Fischer<sup>1</sup>, Geoffrey Smith<sup>2</sup>, Kenneth W. Bruland<sup>2</sup>, Stephan Hann<sup>1</sup></b> 1: BOKU Vienna, Austria; 2: UCSC University of California, Santa Cruz  <b>Ultra-trace analysis of silver in biological samples</b> <b>Marie Rinne<sup>1</sup>, Amir Eliezer<sup>2</sup>, Uta Bußmeyer<sup>2</sup>, Cyrille Gasquères<sup>2</sup>, Carla Vogt<sup>1</sup></b> 1: Leibniz Universität Hannover, Germany; 2: aap Implantate AG  <b>Minerals determination in food matrices using MP-AES</b> <b>Marine Nicolas, Céline Fagnière Rime, Sylvie Merinat, Brigitte Rey, Eric Poitevin, Nicola Galaffu</b> Nestle Research Center, Switzerland  <b>Element concentrations in needles as an indicator for traffic influence on the environment</b> <b>Jitka Hegrová<sup>1</sup>, Stefan Tanda<sup>2</sup>, Oliver Steiner<sup>2</sup>,</b>	<b>POSTER 1 - FUN: POSTER SESSION 1: Plasma source fundamentals</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL  <b>Effect of plasma turbulence on the Thomson scattering process</b> <b>Myoung-Jae Lee<sup>1</sup>, Young-Dae Jung<sup>2</sup></b> 1: Department of Physics and Research Institute for Natural Sciences, Hanyang University, Seoul 04763, South Korea; 2: Department of Applied Physics and Department of Bionanotechnology, Hanyang University, Ansan, Kyunggi-Do 15588, South Korea  <b>ICP-MS matrix suppression cancelation effect after applying the positive voltage to the skimmer cone</b> <b>Aleksandr Pupyshev<sup>1</sup>, Iouri Kalinitchenko<sup>2</sup>, Olga Weisheit<sup>2</sup></b> 1: Ural Federal University, Russian Federation; 2: Analytik Jena, Germany  <b>Reduction of the Argon Consumption to less than 2 L min<sup>-1</sup> by Gas Recycling: A new Approach in Inductively Coupled Plasma Optical Emission Spectrometry</b> <b>Helmar Wiltsche, Paul Tirk, Matthias Wolfgang</b>	<b>POSTER 1 - MET: POSTER SESSION 1: Metrology</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL  <b>Achieving metrological traceability for dPCR measurements of DNA via QQQ-ICPMS quantification of phosphorous: Advances and remaining challenges</b> <b>Raquel Larios, Alexandra Whale, Jim Huggett, Alison Woolford, Heidi Goenaga-Infante</b> LGC, United Kingdom  <b>Revisiting the Importance of Oxidation State Equilibrium of Selenium in Isotope Dilution Inductively Coupled Plasma Mass Spectrometry</b> <b>Yong-Hyeon Yim, Sook Heun Kim, Boram Kim</b> KRIS, Korea, Republic of (South Korea)  <b>Mathematical aspects of detection in LA-ICP-MS</b> <b>Alex Ulianov<sup>1</sup>, Othmar Müntener<sup>1</sup>, Urs Schaltegger<sup>2</sup>, François Bussy<sup>1</sup>, Niklaus</b>

<p><b>Sanja Asendorf, Nora Bartsch, Matthew Cassap</b> Thermo Fisher Scientific, Bremen, Germany</p>	<p><b>Walter Goessler<sup>2</sup>, Roman Ličbinský<sup>1</sup>, Petr Anděl<sup>3</sup></b> 1: Transport Research Centre, , Líšeňská 33a, 636 00 Brno, Czech Republic; 2: University of Graz, Institute of Chemistry Analytical Chemistry, Universitätsplatz 1, 8010 Graz, Austria; 3: Faculty of Environmental Sciences, Czech University of Life Sciences Prague, Kamýcká 129, 165 21 Praha 6 – Suchbátka, Czech Republic</p>	<p>Graz University of Technology, Institute of Analytical Chemistry and Food Chemistry</p>	<p><b>Hürlimann<sup>1,3</sup>, Federico Galster<sup>1,4</sup></b> 1: Institute of Earth Sciences, University of Lausanne, Switzerland; 2: Section of Earth and Environmental Sciences, University of Geneva, Switzerland; 3: Lausanne University Hospital, Switzerland; 4: Department of Geological Sciences, University of Texas at Austin, USA</p>
<p><b>Optimization and validation of a sensitive IC-ICPMS method for the quantification of Cr (VI) in surface and drinking waters, field study.</b> <b>Els Van Meenen</b> Els Van Meenen, Belgium</p>	<p><b>DETERMINATION OF ALUMINIUM IN SOY-BASED FOOD: TOTAL CONTENT AND SOLUBLE FRACTION</b> <b>Raquel F. Milani<sup>1,2</sup>, Marcelo A. Morgano<sup>2</sup>, Solange Cadore<sup>1</sup></b> 1: University of Campinas, Institute of Chemistry, Campinas, Brazil; 2: Instituto de Tecnologia de Alimentos, Centro de Ciência e Qualidade de Alimentos, Campinas, Brazil</p>	<p><b>Mechanism of signal enhancement in Jet Interface/ICP sector field mass spectrometer</b> <b>Naoko Nonose<sup>1</sup>, Masaki Ohata<sup>1</sup>, Hiroyuki Fujimoto<sup>1</sup>, Makiko Shimura<sup>2</sup>, Satoshi Kawada<sup>3</sup>, Tsutomu Miura<sup>1</sup></b> 1: National Metrology Institute of Japan, Japan; 2: Thermo Fisher Scientific Japan, Japan; 3: National Institute for Materials Science, Japan</p>	<p><b>Exact Matrix-Matching Inductively Coupled Plasma-Optical Emission Spectroscopy for the Analysis of Cu and K in Infant Formula</b> <b>Sung Woo Heo, Myung-sub Han, Youngran Lim, Yong-Hyeon Yim</b> KRIS, Korea, Republic of (South Korea)</p>
<p><b>Carbon matrix effects on atomic emission in inductively coupled plasma atomic emission spectrometry</b> <b>Emma Pérez Hernández, Raquel Serrano Corado, Guillermo Grindlay Lledó, Luis Gras García, Juan Mora Pastor</b> University of Alicante, Spain</p>	<p><b>Application of ICP-QQQ - MS for multielemental trace determination of As, Cd, Cr, Hg, Mn, Ni, Sb, Se, Sn and Pb in human hair</b> <b>Anouar Nouioui<sup>1</sup>, Abderrazek Hedili<sup>1</sup>, Marie-Laure Milliard<sup>2</sup>, Frédérique Bessueille<sup>2</sup>, Linda Avouni-Derouiche<sup>2</sup></b> 1: Laboratoire de toxicologie et environnement LR12SP07 -centre d'assistance médicale et urgente. 10 rue Abou kacem Echebbi Montfleury, Tunis.Tunisie.; 2: Institut des Sciences Analytiques - Univ Lyon, CNRS, Université Claude Bernard Lyon 1, Ens de Lyon, UMR 5280, 5 rue de la Doua, F-69100 VILLEURBANNE, France</p>	<p><b>Evolution in Double-pass Cyclonic Spray Chamber Performance</b> <b>Geoffrey Coleman<sup>1</sup>, Brian Lato<sup>1</sup>, Andrew Toms<sup>2</sup></b> 1: Meinhard - Elemental Scientific Glassblowing, United States of America; 2: Elemental Scientific, Canada</p>	<p><b>IUPAC Commission on Isotopic Abundances and Atomic Weights - CIAAW</b> <b>Johanna Irrgeher<sup>1</sup>, Thomas Prohaska<sup>2</sup>, Michael E. Wieser<sup>3</sup>, Thomas Walczyk<sup>4</sup>, Juris Meija<sup>5</sup></b> 1: Helmholtz-Centre Geesthacht, Germany; 2: University of Natural Resources and Life Sciences, Austria; 3: University of Calgary, Canada; 4: National University of Singapore; 5: National Research Council Canada, Canada</p>
<p><b>Multi-element analysis of petroleum crude oils using an Agilent 7900 ICP-MS</b> <b>Jenny Nelson<sup>1,2</sup></b> 1: UC Davis, United States of America; 2: Agilent Technologies, Inc., 5301 Stevens Creek Blvd, Santa Clara, CA 95051</p>	<p><b>Titanium measurement of clinical samples using CRC-ICP-MS and Sector field-ICP-MS</b> <b>Tomoko Vincent, Shona McSheehy Ducos</b> Thermo Scientific, Germany</p>	<p><b>Mobility of N+ ions in a helium gas by a quantal treatment of the cross sections.</b> <b>Syhem Lias<sup>1</sup>, Moncef Bouledroua<sup>2</sup>, Kamel Alioua<sup>3</sup></b> 1: Mohamed-Cherif Messaadia University - Souk Ahras, Algeria; 2: Badji Mokhtar University - Annaba, Algeria; 3: Mohamed-Cherif Messaadia University - Souk Ahras, Algeria</p>	<p><b>Table-top XUV mass spectrometry for nano-scale chemical imaging</b> <b>Yunieski Arbelo Peña<sup>1,2</sup>, Davide Bleiner<sup>1,2</sup></b> 1: Empa - Swiss Federal Laboratories for Materials Science and Technology, Switzerland; 2: University of Zürich</p>
<p><b>Titanium measurement of clinical samples using CRC-ICP-MS and Sector field-ICP-MS</b> <b>Tomoko Vincent, Shona McSheehy Ducos</b> Thermo Scientific, Germany</p>	<p><b>DETERMINATION OF SILVER IN WOUND DRESSING MATERIALS BY ICP-MS</b> <b>Radka Pechancová<sup>1</sup>, David Milde<sup>1</sup>, Šárka Hradilová<sup>2</sup></b> 1: Regional Centre of Advanced Technologies and Materials, Palacký University, Faculty of Science, Department of Analytical Chemistry, 17. listopadu 12, 771 46 Olomouc, Czech Republic; 2: Regional Centre of Advanced Technologies and Materials, Palacký University, Faculty of Science, Department of Physical Chemistry, 17. listopadu 12, 771 46 Olomouc, Czech Republic</p>	<p><b>Dielectric Barrier Discharge Ionization for the Analysis of Peroxide Explosives by Mass Spectrometry</b> <b>Sebastian Hagenhoff, Heiko Hayen</b> University of Muenster, Germany</p>	<p><b>PLASMA- AND SPRAY-BASED AMBIENT DESORPTION / IONIZATION MASS SPECTROMETRY FOR QUANTITATIVE AGENT SCREENING ON TLC PLATES</b> <b>Christopher Kuhlmann, Carsten Engelhard</b> Department Chemistry and Biology, University of Siegen,</p>
<p><b>Multi-elemental characterization of anode materials used for</b></p>	<p><b>Multi-elemental characterization of anode materials used for</b></p>	<p><b>PLASMA- AND SPRAY-BASED AMBIENT DESORPTION / IONIZATION MASS SPECTROMETRY FOR QUANTITATIVE AGENT SCREENING ON TLC PLATES</b> <b>Christopher Kuhlmann, Carsten Engelhard</b> Department Chemistry and Biology, University of Siegen,</p>	<p>8/31</p>



<p><b>cathodic corrosion protection of offshore structures using ICP-MS/MS</b></p> <p><b><u>Nathalie Voigt</u></b><sup>1,2</sup>, <b>Tristan Zimmermann</b><sup>1,3</sup>, <b>Johanna Irrgeher</b><sup>1</sup>, <b>Daniel Pröfrock</b><sup>1</sup></p> <p>1: Helmholtz Zentrum Geesthacht, Germany; 2: Fachhochschule Lübeck; 3: University of Hamburg</p>	<p>Adolf-Reichwein-Str. 2, 57076 Siegen, Germany</p>
<p><b>Analysis of ultra-pure water and high-purity chemicals with the Agilent 8900 ICP-QQQ</b></p> <p><b><u>Kazuo Yamanaka</u></b>, <b>Naoki Sugiyama</b>, <b>Michiko Yamanaka</b></p> <p>Agilent Technologies, Japan</p>	<p><b>Effect of molecular gases in inductively coupled plasma optical emission spectrometry: On the seeming enhancement of elements such as arsenic and selenium</b></p> <p><b><u>Monika Winkler</u></b>, <b>Helmar Wiltsche</b></p> <p>TU Graz, Austria</p>
<p><b>Online separation and determination of <sup>226</sup>Ra and trace metals from high salinity wastewater and seawater</b></p> <p><b><u>Wei Wang</u></b><sup>1</sup>, <b>Douglas Evans</b><sup>1</sup>, <b>Karla Newman</b><sup>1</sup>, <b>Andrew Toms</b><sup>2</sup></p> <p>1: Trent University, Canada; 2: ESI Elemental Scientific, USA</p>	<p><b>Investigation of Lithium-Ion Battery Electrolytes by Gas Chromatography - Barrier Ionization Discharge Detector</b></p> <p><b><u>Constantin Lürenbaum</u></b>, <b>Xaver Mönnighoff</b>, <b>Steffen Fischer</b>, <b>Martin Winter</b>, <b>Sascha Nowak</b></p> <p>University of Münster, MEET - Battery Research Center, Germany</p>
<p><b>Biopharmaceuticals: ICP-MS for the determination of the origin of the colour of protein preparations</b></p> <p><b><u>Verena Knaupp</u></b>, <b>Georg Drabner</b></p> <p>Roche Diagnostics GmbH, Germany</p>	
<p><b>Elemental Analysis of Challenging Geological Samples Made Easy</b></p> <p><b><u>Ewa Maria Pruszkowski</u></b>, <b>Aaron Hineman</b></p> <p>PerkinElmer Inc., United States of America</p>	
<p><b>REE matrices – how accurately determine contaminations?</b></p> <p><b><u>Ewa Maria Pruszkowski</u></b>, <b>Ken Neubauer</b></p> <p>PerkinElmer Inc., United States of America</p>	
<p><b>Accurate determination of Eu, and Sm in ultra-pure barium carbonate materials by ICP-QQQ</b></p> <p><b>Xiang-cheng Zeng</b><sup>1</sup>, <b>Shu-chao Wu</b><sup>2</sup>, <b>Juan-e Song</b><sup>1</sup>, <b>Naoki Sugiyama</b><sup>3</sup>, <b><u>Glenn Woods</u></b><sup>4</sup></p> <p>1: Agilent Technologies, China, People's Republic of China; 2: Zhejiang Institute of Geology &amp; Mineral Resources, People's Republic of China; 3: Agilent Technologies, Inc.; 4: Agilent Technologies, LDA UK Ltd</p>	

	<p><b>CHALLENGES IN OSMIUM DETERMINATION IN PHARMACEUTICAL PRODUCTS BY ICP-MS</b></p> <p><b>David Milde<sup>1</sup>, Tomáš Pluháček<sup>1,2</sup>, Martin Kuba<sup>1</sup></b> 1: Palacky University Olomouc, Czech Republic; 2: Institute of Microbiology of the CAS, Prague, Czech Republic</p> <hr/> <p><b>Determination of ultra-trace level impurities in high-purity metal samples by ICP-QQQ</b></p> <p><b>Naoki Sugiyama, Michiko Yamanaka</b> Agilent technologies Japan, Japan</p> <hr/> <p><b>Panoramic analysis of water based process streams for recovery of technology-critical elements; comparing ICP-OES, ICP-MS and ICP-HR-MS</b></p> <p><b>Bernd Mees<sup>1,2</sup>, Kristof Tirez<sup>2</sup>, Gijs Du Laing<sup>1</sup></b> 1: Ghent University, Faculty of Bioscience Engineering, Department of Applied Analytical and Physical Chemistry, Coupure links 653, B-9000 Gent, Belgium; 2: Flemish Institute for Technological Research (VITO), Boeretang 200, 2400 Mol, Belgium</p>		
<p><b>POSTER 1 - MT: POSTER SESSION 1: Metallomics</b> Location: ARLBERG-well.com NORTH HALL</p> <p><b>IN VITRO INVESTIGATIONS ON CISPLATIN – A COMPARISON STUDY OF RESISTANT AND SENSITIVE CELLS</b></p> <p><b>Luis Gálvez<sup>1</sup>, Michaela Schwaiger<sup>1</sup>, Petra Volejnik<sup>1</sup>, Petra Heffeter<sup>2</sup>, Walter Berger<sup>2</sup>, Gunda Koellensperger<sup>1</sup></b> 1: Institute of Analytical Chemistry, University of Vienna, Währinger Strasse 38, 1090 Vienna (Austria).; 2: Institute of Cancer Research, Medical University of Vienna, Borschkegasse 8A, 1090 Vienna (Austria).</p> <hr/> <p><b>Multielement analysis in serum and cerebrospinal fluid – the combination of flow injection-ICP-tandem mass spectrometry and on-line isotope dilution</b></p> <p><b>Luca Bamonti, Sarah Theiner, Gunda Koellensperger</b> Institute of Analytical Chemistry, University of Vienna, Austria</p>	<p><b>POSTER 1 - SI: POSTER SESSION 1: Sample introduction and sample preparation</b> Location: ARLBERG-well.com SOUTH HALL</p> <p><b>EVALUATION OF SAMPLE PREPARATION METHODS FOR ELEMENTAL PROFILING OF WINE BY ICP-MS: COMPARISON OF DIRECT DILUTION, MICROWAVE DIGESTION, AND FILTRATION</b></p> <p><b>Joshua Godshaw<sup>1</sup>, Helene Hopfer<sup>3</sup>, Jenny Nelson<sup>1,2</sup>, Susan Ebeler<sup>1</sup></b> 1: Department of Viticulture and Enology, University of California, Davis, One Shields Ave, Davis, CA 95616; 2: Agilent Technologies, Inc., 5301 Stevens Creek Blvd, Santa Clara, CA 95051; 3: Department of Food Science, The Pennsylvania State University, University Park, PA 16802</p> <hr/> <p><b>Achieving High Throughput ICP-MS Analysis with Low Sample Volumes</b></p> <p><b>David Price<sup>1</sup>, Phil Holdship<sup>2</sup>, Pierre</b></p>	<p><b>POSTER 1 - SPEC: POSTER SESSION 1: Speciation</b> Location: ARLBERG-well.com SOUTH HALL</p> <p><b>Analysis of organophosphates as aging products of lithium ion battery electrolytes by LC-ICP-SF-MS</b></p> <p><b>Vadim Kraft<sup>1</sup>, Britta Vortmann<sup>1</sup>, Yannick Philipp Stenzel<sup>1</sup>, Martin Winter<sup>1,2</sup>, Sascha Nowak<sup>1</sup></b> 1: MEET Battery Research Center, University of Münster, Germany; 2: Helmholtz-Institute Münster, Germany</p> <hr/> <p><b>COMPLEMENTARY SPECIATION ANALYSIS OF ORGANOPHOSPHATES AS AGING PRODUCT OF LITHIUM ION BATTERY ELECTROLYTES BY MEANS OF GC-ICP-SF-MS AND 2D-IC-ICP-MS</b></p> <p><b>Yannick Philipp Stenzel, Jennifer Menzel, Vadim Kraft, Martin Winter, Sascha Nowak</b> University of Münster, Germany</p> <hr/> <p><b>Chromium speciation analysis in dairy products by HPLC-ICP-</b></p>	<p><b>POSTER 1 - VENDORS I: POSTER SESSION 1: Vendors I</b> Location: ARLBERG-well.com FOYER</p> <p><b>Speciation of Arsenic in pharmaceutical products using HPLC-ICP-MS</b></p> <p><b>Olivier Carmier<sup>1</sup>, Alain Desprez<sup>2</sup>, Jean-Pierre Lener<sup>2</sup>, Gaultier Decock<sup>1</sup></b> 1: Eurofins Biopharma, Les Ulis, France; 2: Agilent Technologies, France</p> <hr/> <p><b>Investigation of the potential of the ICP-QQQ for the quantification of metals in organic solvents and LC-ICP-QQQ for separation of metal complexes by GPC</b></p> <p><b>Charles-Philippe Lienemann<sup>1</sup>, Alain Desprez<sup>2</sup>, Sylvain Carbonneaux<sup>1</sup>, Fabien Chainet<sup>1</sup>, Frédérique Bessueille<sup>3</sup>, Marie-Laure Milliard<sup>3</sup></b> 1: Direction Physique et Analyse, IFP Energies Nouvelles, F-69360 Solaize, France; 2: Agilent Technologies, France, Parc</p>

<p><b>Selenopeptide analysis of cellular glutathione peroxidase in mouse livers after intravenous injection of 82Selenium-enriched selenomethionine</b></p>	<p><b>Bonnand<sup>2</sup>, Paul Watson<sup>3</sup></b> 1: PerkinElmer, United Kingdom; 2: Department of Earth Sciences, University of Oxford, United Kingdom; 3: ESI Ltd, Warrington, United Kingdom</p>	<p><b>MS and the study of species interconversion</b></p> <p><b>Fanny Hernandez<sup>1</sup>, Florence Cormant<sup>1</sup>, Nassima Merrad<sup>1</sup>, Fabienne Séby<sup>2</sup>, Laurent Noël<sup>3</sup>, Petru Jitaru<sup>1</sup>, Thierry Guérin<sup>1</sup></b> 1: Université de Paris-Est, Anses, Laboratory for Food Safety, F-94710 Maisons-Alfort, France; 2: Ultra-traces Analyses Aquitaine (UT2A), F-64053 Pau, France; 3: Direction Générale de l'Alimentation (DGAL), F-75732 Paris, France</p>	<p>Technopolis - ZA Courtaboeuf, 3 avenue du Canada, F-91978, Les Ulis; 3: Université de Lyon, Institut des Sciences Analytiques, UMR 5280 (CNRS, Université Lyon1, ENS Lyon), 5 rue de la Doua, F-69100 Villeurbanne, France</p>
<p><b>Hiroki Otsuka, Sho Nishida, Naoki Furuta</b> Chuo Univeraity, Japan</p>	<p><b>Coupling dispersive liquid-liquid microextraction with inductively coupled plasma based techniques</b></p> <p><b>Emma Pérez Hernández, David Martínez Rubio, Daniel Torregrosa Carretero, Guillermo Grindlay Lledó, Luis Gras García, Juan Mora Pastor</b> University of Alicante, Spain</p>	<p><b>Determination of inorganic arsenic in rice, paddy soil, and pore water by ion chromatography coupled with inductively coupled plasma mass spectrometry</b></p> <p><b>Sang-Ho Nam, Min-Young Park, Sung-Hoon Son, Sul-Woo Kwon</b> Mokpo National University, Korea, Republic of (South Korea)</p>	<p><b>Advanced software solutions for integrated elemental speciation by IC, LC and GC coupled to ICP-MS</b></p> <p><b>Julian David Wills, Daniel Kutscher, Shona McSheehy Ducos, Antonella Guzzonato</b> Thermo Scientific, Germany</p>
<p><b>TOTAL AND FRACTIONATED IRON, FERRITIN CONCENTRATION AND Fe:FERRITIN RATIOS IN DIFFERENT MALIGNANCY BREAST CANCER CELL LINES: ON THE SEARCH FOR CANCER BIOMARKERS</b></p>	<p><b>A high temperature total sample consumption system for blood analysis via ICP-MS</b></p> <p><b>Maria Esperanza Garcia-Ruiz<sup>1</sup>, Águeda Cañabate<sup>2</sup>, Martín Resano<sup>1</sup>, José Luis Todolí<sup>2</sup></b> 1: UNIVERSIDAD DE ZARAGOZA, Spain; 2: Universidad de Alicante, Spain</p>	<p><b>Development of an HILIC-ESI-MS method for lanthanides speciation in nuclear fuel treatment processes</b></p> <p><b>Blanchard Evelyne<sup>1,2</sup>, Bresson Carole<sup>1</sup>, Nonell Anthony<sup>1</sup>, Benoit Martelat<sup>3</sup>, Chartier Frédéric<sup>3</sup></b> 1: CEA Saclay, DEN, DANS, DPC, SEARS, LANIE, 91191 Gif-sur-Yvette, France; 2: Sorbonne Univ, UPMC, 75005 Paris, France; 3: CEA Saclay, DEN, DANS, DPC, 91191 Gif-sur-Yvette, France</p>	<p><b>Chromium speciation analysis by IC-ICP-MS under Empower software</b></p> <p><b>Simone Korstian<sup>1</sup>, Helmut Ernstberger<sup>2</sup>, Thomas Kolb<sup>3</sup></b> 1: PerkinElmer, Germany; 2: PerkinElmer, UK; 3: Metrohm, Germany</p>
<p><b>Determination of Lead (Pb) distribution in individual Chlamydomonas reinhardtii cells by means of Single-Cell - ICP-MS</b></p>	<p><b>Advantages of Flexible Auto-dilution Sample Introduction Solutions for ICP OES</b></p> <p><b>Nora Bartsch, Sanja Asendorf, Matthew Cassap</b> Thermo Fisher Scientific, Bremen, Germany</p>	<p><b>FLUORINE SPECIATION USING IC-ICP-MS/MS: AN APPLICATION FOR FLUORIDE AND FLUOROACETATE IN TEA</b></p> <p><b>Nor Laili Azua Jamari, Andrea Raab, Eva Krupp, Joerg Feldmann</b> Trace Element Speciation Laboratory (TESLA), Department of Chemistry, University of Aberdeen, Aberdeen, AB24 3UE, Scotland, United Kingdom.</p>	<p><b>Current Trends, Analytical Workflows and a Case Study in Extractables and Leachables Analysis, combining LC/MS, GC/MS and ICP-MS data analysis</b></p> <p><b>Paige Elana Solomon, Jenny Nelson</b> Agilent Technologies, United States of America</p>
<p><b>Determination of Lead (Pb) distribution in individual Chlamydomonas reinhardtii cells by means of Single-Cell - ICP-MS</b></p>	<p><b>Analysis of fuel samples by on-line chemical vapor generation using a Flow Blurring® multiple nebulizer in ICP-OES</b></p> <p><b>Miriam García Martínez, Miguel Ángel Aguirre, Antonio Canals</b> University of Alicante, Spain</p>	<p><b>Ultra-Trace Speciation Analysis of Arsenic in Milk by Anion Exchange-HPLC coupled to ICP-MS</b></p> <p><b>Axelle Leufroy, Julie Zinck, Thierry Guérin, Petru Jitaru</b> Université Paris-Est, Anses, Laboratory for Food Safety, F-94700 Maisons-Alfort, France</p>	<p><b>Direct, Rapid Analysis of Undiluted Seawater using ICP-MS with an Aerosol Dilution System</b></p> <p><b>Glenn David Woods<sup>1</sup>, Shaun Fletcher<sup>2</sup></b> 1: Agilent Technologies LDA UK Ltd., 5500 Lakeside, Cheadle Royal Business Park, Stockport. SK8 3GR, United Kingdom; 2: Environment Agency Starcross Laboratory Staplake Mount Starcross Exeter EX6. 8FD, United Kingdom</p>
<p><b>NEW STRATEGIES FOR SENSITIVE IMMUNODETECTION OF MMP-11 IN BREAST CANCER PATIENTS</b></p>	<p><b>Direct Analysis of High Purity Acids by Online Dilution and the Method of Standard Additions</b></p> <p><b>Brad McKelvey, Geoff Badham</b> Seastar Chemicals, Canada</p>	<p><b>Performance Characteristics of the OptiSolids XL High Solids Nebulizer for Analysis of</b></p>	<p><b>Practical Benefits of Abundance Sensitivity Using ICP-QQQ</b></p> <p><b>Glenn David Woods<sup>1</sup>, Amir Liba<sup>2</sup>, Yasuyuki Shikamori<sup>3</sup></b> 1: Agilent Technologies LDA UK Ltd., 5500 Lakeside, Cheadle Royal Business Park, Stockport. SK8 3GR, United Kingdom; 2: Agilent Technologies, Inc., 2850 Centerville</p>
<p><b>Single cell analysis by inductively coupled</b></p>	<p><b>Electrospray-ICP-AES for Small Amount Sample Analysis</b></p> <p><b>Ken Kakegawa, Abe Tetsuya, Shunsuke Hosoda, Naoto Yarie, Mari Aida, Hidekazu Miyahara, Akitoshi Okino</b> Tokyo Institute of Technology, Japan</p>		

**plasma mass spectrometry to study the quantitative uptake of As**

**Ana Lopez-Serrano Oliver<sup>1</sup>, Sören Meyer<sup>2</sup>, Tanja Schwerdtle<sup>2</sup>, Norbert Jakubowski<sup>1</sup>**

1: The Federal Institute of Materials Research and Testing (BAM), Richard-Willstätter-Str. 11, 12489, Berlin Germany; 2: University of Potsdam. Institute of Nutritional Science Department of Food Chemistry Arthur-Scheunert-Allee 114-116 D-14558 Nuthetal, OT Bergholz-Rehbrücke Germany

**Quantitative Analysis of Nanoparticles and Membrane Proteins in Single Cells by Laser Ablation Inductively Coupled Plasma-Mass Spectrometry**

**Lingna Zheng, Meng Wang, Wei-Yue Feng**  
IKey Laboratory for Biomedical Effects of Nanomaterials and Nanosafety, Institute of High Energy Physics, Chinese Academy of Sciences

**Organic Materials by ICPOES**

**Gerhard Meyer<sup>1</sup>, Sergei Leikin<sup>2</sup>**

1: Promerus LLC, 9921 Brecksville Rd. Brecksville, Ohio 44141 United States of America; 2: Texas Scientific Products LLC, 11941 Hilltop Road, Suite 15, Argyle, TX 76226 USA

**Method Development for Trace Elemental Analysis of Manganese in Lithium Ion Battery Electrolytes by Means of Inductively Coupled Plasma-Sector Field-Mass Spectrometry (ICP SF MS)**

**Lenard Hanf, Kristina Wentker, Martin Winter, Sascha Nowak**  
University of Münster, Germany

**Lipophilic arsenic containing compounds in Globicephala melas (long-finned pilot whale)**

**Johannes Florian Kopp, Zuzana Gajdosechova, Andrea Raab, Eva Krupp, Jörg Feldmann**  
University of Aberdeen, United Kingdom

**Method development for quantification of selenocysteine in yeast samples by HPLC-ICP MS**

**Katarzyna Bierla, Ryszard Lobinnski, Joanna Szpunar**  
CNRS, Institut des Sciences Analytiques et de Physico-chimie pour l'Environnement et les Matériaux, IPREM UMR 5254, Hélioparc, 2, av. Pr. Angot, 64053 Pau, France

**Stability of selenium compounds in enriched pea sprouts**

**Ana Kroflič<sup>1,2</sup>, Bernhard Michalke<sup>3</sup>, Vekoslava Stibilj<sup>1,2</sup>**

1: Department of Environmental Sciences, Jožef Stefan Institute, Ljubljana, Slovenia; 2: Jožef Stefan International Postgraduate School, Ljubljana, Slovenia; 3: Research Unit Analytical BioGeoChemistry, Helmholtz Zentrum München, Neuherberg, Germany

**Speciation of As, Cr and Sb in bottled water samples using hyphenated technique HPLC/ICP-DRC-MS**

**Wiktor Lorenc, Monika Marcinkowska, Adam Sainóg, Danuta Barakiewicz**  
Adam Mickiewicz University in Poznan, Poland

**The multi-methodical application of using ICP-MS in combination with off-line thermal desorption GC-MS and direct-inlet MS for the identification of organometallic substances**

**Franky Puype**  
Institute for Testing and Certification, Czech Republic

**Testing for maximum levels of inorganic arsenic in rice via hydride generation ICP-MS**

**David J. Bellis<sup>1</sup>, Danielle Cawdron<sup>1</sup>, Helmut Ernstberger<sup>2</sup>, David Price<sup>2</sup>**

Road, Wilmington, DE 19808-1610, United States of America; 3: Agilent Technologies Japan Ltd., 9-1 Takakura-Machi, Hachioji-shi, Tokyo-To 192-8510, Japan

**Inline Preconcentration and Matrix Removal for Determination of Ultratrace Metals in Semiconductor-grade Phosphoric and Sulfuric Acid**

**Nathan Joe Saetveit, Daniel Wiederin**  
Elemental Scientific, United States of America

**Multi element determination of various biological matrices using a unique calibration**

**Peio Riss, Rene Chemnitzer, Andrew Ryan**  
Analytik Jena AG, France

**Rare Earth Elemental Trace Analysis in Granite and Sandstone by High Resolution ARRAY ICP-OES and ICP-MS with iCRC technology**

**Rene Chemnitzer, Heike Gleisner, Rui Santos, Sebastian Wünscher, Jan Scholz, Andrew Jason Ryan**  
Analytik Jena, Germany

**Simultaneous Multielement Determination in Urine and Serum Samples by Quadrupole Cell ICP-MS using FAST-Technique**

**Dr.Jörg Michel**  
PerkinElmer LAS (Germany) GmbH, Germany

**Speciation of Arsenic in Drugs and Excipients for compliance with USP <232> and ICH Q3D**

**Jonathan Sims, Helmut Ernstberger**  
PerkinElmer, United Kingdom

**Using a Desolvating Nebulizer System with Inductively Coupled Plasma Mass Spectrometry: Key Optimization Parameters**

**Bill Spence, Fred Smith, Peter Winship**  
Teledyne CETAC Technologies, United

1: Campden BRI, Chipping Campden, United Kingdom; 2: PerkinElmer, United Kingdom	States of America
<p><b>On-line fractionation of aqueous samples using acoustic standing wave particle manipulation with ICP-OES</b></p> <p><b><u>Felix Horak</u></b>, Cosima Koch, Bernhard Lendl, Andreas Limbeck</p> <p>Vienna University of Technology, Austria</p>	<p><b>Direct determination of Al, B, Co, Cr, Mo, Ti, V and Zr in HF acid-digested nickel alloy using the Agilent 4210 Microwave Plasma-Atomic Emission Spectrometer</b></p> <p><b><u>Elizabeth Kulikov</u></b>, <b><u>Alejandro Amorin</u></b></p> <p>Agilent Technologies Melbourne, Australia</p>
<p><b>Development of an HPLC-ICP-MS method for the speciation analysis of different contrast agents in environmental samples</b></p> <p><b><u>Marijan Ercegovic</u></b><sup>1,2</sup>, <b><u>Daniel Pröfrock</u></b><sup>1</sup></p> <p>1: Helmholtz-Centre for Materials and Coastal Research, Institute of Coastal Research, Department for Marine Bioanalytical Chemistry, Max-Planck-Strasse 1, D-21502 Geesthacht, Germany; 2: University of Hamburg, Department of Chemistry, Institute for Inorganic and Applied Chemistry, Martin-Luther-King-Platz 6, 20146 Hamburg, Germany</p>	<p><b>Easy &amp; fast determination of trace elements in clinical samples using quadrupole ICP-MS</b></p> <p><b><u>Jan Knoop</u></b><sup>1</sup>, <b><u>Nils Garnebode</u></b><sup>2</sup>, <b><u>Konstantin Kartaschew</u></b><sup>2</sup>, <b><u>Uwe Oppermann</u></b><sup>1</sup>, <b><u>Ludivine Fromentoux</u></b><sup>3</sup></p> <p>1: Shimadzu Europa GmbH, Germany; 2: Shimadzu Deutschland GmbH, Germany; 3: Shimadzu France S.A.S., France</p>
<p><b>Speciation analysis of iodine in drinking water and raw water using IC-ICPMS and SEC-ICPMS</b></p> <p><b><u>Maki Asami</u></b>, <b><u>Sho Nishida</u></b>, <b><u>Naoki Furuta</u></b></p> <p>Chuo University, Japan</p>	<p><b>Determination of heavy metals in Italian wine using ICP-MS</b></p> <p><b><u>Uwe Oppermann</u></b><sup>1</sup>, <b><u>Jürgen Schram</u></b><sup>2</sup>, <b><u>Ludivine Fromentoux</u></b><sup>3</sup>, <b><u>Jan Knoop</u></b><sup>1</sup>, <b><u>Nils Garnebode</u></b><sup>4</sup></p> <p>1: Shimadzu Europa GmbH, Germany; 2: University of applied Sciences, Krefeld, Germany; 3: Shimadzu France, Marne La Vallee, France; 4: Shimadzu Deutschland GmbH, Germany</p>
<p><b>High Sensitivity Tin Speciation Using a New GC Interface with Sector Field High Resolution ICP-MS</b></p> <p><b><u>Torsten Lindemann</u></b>, <b><u>Antonella Guzzonato</u></b>, <b><u>Shona McSheehy Ducos</u></b></p> <p>Thermo Fisher Scientific (Bremen) GmbH, Germany</p>	
<p><b>Collaborative study on mercury and methylmercury quantification in fish samples from the German Environmental Specimen Bank</b></p> <p><b><u>Paola Fisicaro</u></b><sup>1</sup>, <b><u>Emilia Vasileva</u></b><sup>2</sup>, <b><u>Ina Fettig</u></b><sup>3</sup>, <b><u>Jan Koschorreck</u></b><sup>3</sup>, <b><u>Christian Piechotta</u></b><sup>4</sup>, <b><u>Caroline Oster</u></b><sup>1</sup>, <b><u>Enrica Alasonati</u></b><sup>1</sup>, <b><u>Maria Estela Del Castillo Busto</u></b><sup>1</sup>, <b><u>Sabine Azemard</u></b><sup>2</sup></p> <p>1: Biomedical and Inorganic Chemistry Department, LNE, France; 2: Environment laboratory, IAEA, Monaco; 3: Umwelt Bundesamt, Germany; 4: Bundesanstalt fuer Materialforschung und -pruefung (BAM), Germany</p>	



3:40pm - 4:40pm	<b>SPEC-OL 2: SPECIATION - GENERAL SESSION 2</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Maria Montes Bayón</b> Chair: <b>Anna Maria Rathgeb</b>  <b>Hg detoxification in organs of Pilot Whales</b> <b>Eva M. Krupp<sup>1</sup>, Zuzana Gajdosechova<sup>1</sup>, Mohammed Lawan<sup>1</sup>, Urgast Dagmar<sup>1</sup>, Brownlow Andrew<sup>2</sup></b> 1: University of Aberdeen, United Kingdom; 2: Scottish Marine Animal Stranding Scheme, Inverness	
	<b>Iodine in seaweed - occurrence, speciation, bioavailability and risk assessment</b> <b>Jens J. Sloth, Rie R. Rasmussen, Susan L. Holdt, Max Hansen</b> Technical University of Denmark, Denmark	
	<b>Not only seafood can contain a lot of arsenic</b> <b>Simone Braeuer<sup>1</sup>, Jan Borovička<sup>2</sup>, Walter Goessler<sup>1</sup></b> 1: Institute of Chemistry - Analytical Chemistry, University of Graz, Austria; 2: Nuclear Physics Institute, v.v.i., The Czech Academy of Sciences, Rež near Prague, Czech Republic	
	<b>Stability of iodine species determined by HPLC-ICP-QQQ after enzymatic extraction</b> <b>Ana Jerše<sup>1,2</sup>, Ana Kroflič<sup>1,2</sup>, Vekoslava Stibilj<sup>1,2</sup></b> 1: "Jožef Stefan" Institute, Ljubljana, Slovenia; 2: Jožef Stefan International Postgraduate School, Ljubljana, Slovenia	
	<b>Speciation Analysis of Organophosphorus Aging Products of Lithium Ion Battery Electrolytes by means of GC-ICP-SF-MS</b> <b>Yannick Philipp Stenzel, Constantin Lürenbaum, Martin Winter, Sascha Nowak</b> University of Münster, Germany	
	<b>New Calibration Techniques for ICP-MS for the Speciation and Ultra Trace Analysis of Technetium</b> <b>David Clases<sup>1</sup>, Marvin Birka<sup>1</sup>, Michael Sperling<sup>1,2</sup>, Uwe Karst<sup>1</sup></b> 1: University of Muenster, Germany; 2: European Virtual Institute for Speciation Analysis (EVISA), Germany	
4:40pm - 5:20pm	<b>CO-TU 2: COFFEE BREAK</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL	<b>TU-VE 3: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL
5:20pm - 6:30pm	<b>SPEC-OL 3: SPECIATION - GENERAL SESSION 3</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Maria Montes Bayón</b> Chair: <b>Anna Maria Rathgeb</b>  <b>The Modern Toolbox for Speciation Analysis: Getting Ready for Routine Application</b> <b>Daniel Kutscher, Shona McSheehy Ducos</b> Thermo Fisher Scientific, Germany  <b>Speciation analysis of arsenic in seafood and seaweed based on stepwise extraction of water-soluble and non-polar species</b> <b>Mesay Mulugeta Wolle, Sean D. Conklin</b> US Food and Drug Administration, United States of America  <b>Determination of Arsenicals in Atmospheric Aerosols by HPLC-ICPQQMS</b> <b>Stefan Tanda<sup>1</sup>, Oliver Steiner<sup>1</sup>, Jitka Hegrova<sup>2</sup>, Roman Licbinsky<sup>2</sup>, Walter Goessler<sup>1</sup></b> 1: University of Graz, Institute of Chemistry, Department of Analytical Chemistry, Austria; 2: Transport Research Centre, Czech Republic  <b>Chemical analysis of Permafrost samples using LIMS</b> <b>Andreas Riedo<sup>1,2</sup>, Euan Monaghan<sup>1</sup>, Marek Tulej<sup>2</sup>, Peter Wurz<sup>2</sup>, Pascale Ehrenfreund<sup>1</sup></b> 1: Leiden Observatory, Leiden University, The Netherlands; 2: Physics Institute, Space Research and Planetary Sciences, University of Bern, Switzerland  <b>Arsenic Speciation in Wine by HPLC-ICP-MS - FDA EAM 4.10 Extension method</b> <b>Jenny Nelson<sup>1,2</sup>, Courtney Tanabe<sup>1</sup>, Helene Hopfer<sup>1,2</sup>, Susan Ebeler<sup>1,2</sup>, Sean Conklin<sup>3</sup>, Kevin Kubachka<sup>4</sup>, Robert Wilson<sup>4</sup></b> 1: Dept. Viticulture & Enology, University of California, Davis, CA, 95616, USA.; 2: Food Safety & Measurement Facility, University of California, Davis, CA, 95616; 3: US FDA, Center for Food Safety and Applied Nutrition, College Park, MD 20866, USA; 4: US FDA Forensic Chemistry Center, Cincinnati, OH 45237; USA  <b>Gas chromatography coupled to triple quadrupole ICP-MS quantification of organophosphate pesticides in honey bee products after miniaturized QuEChERS extraction</b> <b>David Munoz<sup>1</sup>, Julio Landero<sup>2</sup>, Joan Stevens<sup>3</sup>, Jenny Nelson<sup>3</sup></b> 1: Autonomous University of Yucatan, Merida, Yucatan, Mexico; 2: University of Cincinnati, Cincinnati OH, USA; 3: Agilent Technologies, Inc., Santa Clara, CA, USA  <b>Material analysis of solid fuels by ETV-ICP-OES – Speciation of Sulfur and Oxygen</b> <b>Daniela Bauer<sup>1</sup>, Thomas Vogt<sup>1</sup>, Dirk Wüstkamp<sup>2</sup></b> 1: TU Bergakademie Freiberg, Institut for Analytical Chemistry; 2: SPECTRO Analytical Instruments GmbH, Germany	
8:30pm - 11:00pm	<b>PLASMA PARTY: APRES PLASMA PARTY @POSTKELLER</b> Location: <a href="http://POSTKELLER">POSTKELLER</a> // <a href="http://PICCADILLY">PICCADILLY</a>	

Date: Wednesday, 22/Feb/2017

8:30am - 9:00am	<b>CO-WED 1: WAKE-UP COFFEE</b> (sponsored by TOFWERK) Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL	<b>WED-VE 1: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL	
9:00am - 9:30am	<b>ISO-PL: ISOTOPE RATIO ANALYSIS - PLENARY LECTURE</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Heidi Goenaga-Infante Chair: Anastassiya Tchaikovsky  <b>Current trends in high-precision isotopic analysis using multi-collector ICP-mass spectrometry</b> <b>Frank Vanhaecke</b> Ghent University, Belgium		
9:30am - 9:50am	<b>ISO-IL 1: ISOTOPE RATIO ANALYSIS - INVITED LECTURE 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Heidi Goenaga-Infante Chair: Anastassiya Tchaikovsky  <b>New developments in isotopic tracing of trace metals in earth, environmental and planetary sciences</b> <b>Mark Rehkämper</b> Dept. of Earth Science & Engineering, Imperial College London, UK		
9:50am - 10:10am	<b>ISO-OL 1: ISOTOPE RATIO ANALYSIS - GENERAL SESSION 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Heidi Goenaga-Infante Chair: Anastassiya Tchaikovsky  <b>Development of <math>\delta^{37}\text{Cl}</math> isotope analysis by Ion Chromatography/MC-ICPMS and its application for studying biodegradation of perchlorate</b> <b>Yevgeni Zakon<sup>1,2</sup>, Ludwik Halicz<sup>2,3</sup>, Zeev Ronen<sup>4</sup>, Faina Gelman<sup>2</sup></b> 1: Department of Chemistry, The Hebrew University, Jerusalem 91904, Israel; 2: Geological Survey of Israel, Jerusalem 95501, Israel; 3: Faculty of Chemistry, Biological and Chemical Research Centre, University of Warsaw, 02-089 Warsaw, Poland; 4: Ben-Gurion University of the Negev, Sede Boqer Campus, 84990 Midreshet Ben-Gurion, Israel  <b>MEASUREMENT OF LEAD, STRONTIUM AND MERCURY ISOTOPE RATIOS BY MULTICOLLECTOR ICP-MS USING LINEAR REGRESSION IN COMBINATION WITH TRANSIENT SIGNALS</b> <b>Jose Ignacio Garcia Alonso, Aida Reguera Galán, Mariella Moldovan, Silvia Queipo Abad, Pablo Rodríguez González</b> University of Oviedo, Spain		
10:10am - 10:50am	<b>CO-WED 2: COFFEE BREAK</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL	<b>WED-VE 2: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL	
10:50am - 11:10am	<b>ISO-IL 2: ISOTOPE RATIO ANALYSIS - INVITED LECTURE 2 (AGILENT RISING STAR AWARD)</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Heidi Goenaga-Infante Chair: Anastassiya Tchaikovsky  <b>Multi-isotope tracers to investigate processes in river catchment systems: Selected application examples using B, Mo, Sr, Pb, and Ti isotope ratios assessed by MC ICP-MS</b> <b>Johanna Irrgeher<sup>1</sup>, Florian Dutschke<sup>1,2</sup>, Anna Reese<sup>1,2</sup>, Anika Retzmann<sup>3</sup>, Tristan Zimmermann<sup>1,2</sup>, Thomas Prohaska<sup>3</sup>, Michael E. Wieser<sup>4</sup>, Andreas Zitek<sup>3</sup>, Daniel Proefrock<sup>1</sup></b> 1: Helmholtz-Centre Geesthacht, Germany, Institute of Coastal Research, Marine Bioanalytical Chemistry; 2: University of Hamburg, Germany, Department of Chemistry, Inorganic and Applied Chemistry; 3: University of Natural Resources and Life Sciences Vienna, Austria, Dept. of Chemistry, Division of Analytical Chemistry, VIRIS Laboratory; 4: University of Calgary, Canada, Dept. of Physics and Astronomy, Stable Isotope Laboratory		
11:10am - 12:00pm	<b>ISO-OL 2: ISOTOPE RATIO ANALYSIS - GENERAL SESSION 2</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Heidi Goenaga-Infante Chair: Anastassiya Tchaikovsky  <b>Optimization of a new fully automated sample preparation system for the isotopic analysis of Sr, Pb and Nd in sediment digests via MC ICP-MS</b> <b>Tristan Zimmermann<sup>1</sup>, Anika Retzmann<sup>2</sup>, Johanna Irrgeher<sup>1</sup>, Thomas Prohaska<sup>2</sup>, Daniel Proefrock<sup>1</sup></b> 1: Helmholtz-Zentrum Geesthacht, Institute of Coastal Research, Marine Bioanalytical Chemistry, Max-Planck Str. 1, 21502 Geesthacht, Germany; 2: University of Natural Resources and Life Sciences, Vienna, Department of Chemistry, Division of Analytical Chemistry, VIRIS Laboratory, Konrad-Lorenz-Str. 24, 3430 Tulln, Austria  <b>Spectral Insights: Multi-dimensional approach to evaluate the diagenetic status of skeletal remains with respect to strontium isotope ratio measurements</b> <b>Anika Retzmann<sup>1</sup>, Magdalena Blanz<sup>2</sup>, Johanna Irrgeher<sup>3</sup>, Andreas Zitek<sup>1</sup>, Jörg Feldmann<sup>2</sup>, Thomas Prohaska<sup>1</sup></b> 1: University of Natural Resources and Life Sciences, Vienna, Department of Chemistry, Division of Analytical Chemistry, VIRIS Laboratory, Konrad-Lorenz-Str. 24, 3430 Tulln, Austria; 2: University of Aberdeen, College of Physical Sciences, Department of Chemistry, Trace Element Speciation Laboratory Aberdeen (TESLA), Meston Walk, Aberdeen AB24 3UE, Scotland, UK; 3: Helmholtz-Centre Geesthacht, Institute of Coastal Research, Marine Bioanalytical Chemistry, Max-Planck Str. 1, 21502 Geesthacht, Germany		

	<p><b>Water-rock interactions and fluid flow behavior within an alpine karst spring system (Johnsbachtal, Austria) - A multi-proxy approach including 87Sr/86Sr and <math>\delta^{26}\text{Mg}</math> signatures</b></p> <p><b>Dorothee Hippler<sup>1</sup>, Marcus Spitz<sup>1</sup>, Jessica A. Stammeier<sup>1</sup>, Oliver Nebel<sup>2</sup>, Gerfried Winkler<sup>3</sup>, Martin Dietzel<sup>1</sup></b>  1: Graz University of Technology, Austria; 2: Monash University Melbourne, Australia; 3: University of Graz, Austria</p>		
	<p><b>Iron isotopic analysis of finger-prick blood via multi-collector inductively coupled plasma mass spectrometry after volumetric absorptive microsampling (VAMS)</b></p> <p><b>Yulia Anoshkina, Marta Costas-Rodríguez, Frank Vanhaecke</b>  Department of Analytical Chemistry, Ghent University, Belgium</p>		
	<p><b>Determination of europium isotope ratios in natural waters by MC-ICP-MS</b></p> <p><b>Gabriel Gustinelli Arantes de Carvalho<sup>1,2</sup>, Pedro Vitoriano Oliveira<sup>2</sup>, Lu Yang<sup>1</sup></b>  1: National Research Council Canada, Ottawa, Canada; 2: Institute of Chemistry, University of Sao Paulo, Brazil</p>		
12:00pm - 1:40pm	<b>LU-WED: LUNCH BREAK</b>	<b>LUN-THERMO: LUNCH SEMINAR</b> <b>Thermo Scientific: Performance for all applications, technology for all challenges</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> <b>ARLBERGSAAL</b>	<b>WED-VE 3: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> <b>SOUTH HALL</b>
1:40pm - 2:00pm	<p><b>ISO-IL 3: ISOTOPE RATIO ANALYSIS - INVITED LECTURE 3</b>  Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> <b>NORTH HALL</b>  Chair: <b>Heidi Goenaga-Infante</b>  Chair: <b>Anastassiya Tchaikovsky</b></p> <p><b>Hyphenated MC ICP-MS methods for environmental research</b></p> <p><b>Sylvain, Jean-Baptiste Bérail, David Amouroux, Emmanuel Tessier, Sylvain Bouchet, Julien Barre, Joana Cavalheiro, Zoyne Pedrero, Gilles Bareille, Christophe Pecheyran, Olivier, François-Xavier Donard</b>  CNRS - University of Pau, IPREM, France</p>		
2:00pm - 2:40pm	<p><b>ISO-OL 3: ISOTOPE RATIO ANALYSIS - GENERAL SESSION 3</b>  Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> <b>NORTH HALL</b>  Chair: <b>Heidi Goenaga-Infante</b>  Chair: <b>Anastassiya Tchaikovsky</b></p> <p><b>Copper isotopic fractionation in the intestine of transgenic mice</b></p> <p><b>Kerri A. Miller<sup>1</sup>, Catherine M. Keenan<sup>2</sup>, Alexander P. Tennant<sup>1</sup>, Keith A. Sharkey<sup>2</sup>, Michael E. Wieser<sup>1</sup></b>  1: Department of Physics and Astronomy, University Of Calgary, Canada; 2: Hotchkiss Brain Institute, Department of Physiology and Pharmacology, University of Calgary, Canada</p> <p><b><math>\mu</math>-Dried-Droplets as standards for Tandem single particle LIBS/LA-ICP-MS analysis</b></p> <p><b>Felix Horak, Andreas Limbeck</b>  Vienna University of Technology, Austria</p> <p><b>Separation of Uranium and Plutonium by capillary electrophoresis coupled with MC-ICPMS for isotope ratio measurements</b></p> <p><b>Benoît Martelat<sup>1</sup>, Hélène Isnard<sup>1</sup>, Laurent Vio<sup>1</sup>, Frédéric Chartier<sup>2</sup></b>  1: Den – Service d'Etudes Analytiques et de Réactivité des Surfaces (SEARS), CEA, Université Paris-Saclay, F-91191, Gif sur Yvette, France; 2: Den – Physico-Chemistry Department (DPC), CEA, Université Paris-Saclay, F-91191, Gif sur Yvette, France</p> <p><b>Species-specific Hg isotope ratio measurements in fish by using HPLC and cold vapour MC-ICPMS: Insights into mass discrimination correction</b></p> <p><b>Dmitriy Malinovskiy, John Entwisle, Philip Dunn, Heidi Goenaga-Infante</b>  LGC, United Kingdom</p>		
3:20pm - 3:50pm	<p><b>MT-PL: METALLOMICS - PLENARY LECTURE</b>  Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> <b>NORTH HALL</b>  Chair: <b>Stephan Hann</b>  Chair: <b>Luis Gálvez</b></p> <p><b>It is metallomics, isn't it?</b></p> <p><b>Luis Galvez Montano<sup>1</sup>, Sarah Theiner<sup>1</sup>, Michaela Schwaiger<sup>1</sup>, Stephan Hann<sup>2</sup>, Gunda Koellensperger<sup>1</sup></b>  1: University of Vienna, Austria; 2: University of Natural Resources and Life Sciences, BOKU-Vienna</p>		
3:40pm - 4:20pm	<b>CO-WED 3: COFFEE BREAK</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> <b>SOUTH HALL</b>	<b>WED-VE 4: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> <b>SOUTH HALL</b>	
3:50pm - 4:10pm	<p><b>MT-IL 1: METALLOMICS - INVITED LECTURE 1</b>  Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> <b>NORTH HALL</b>  Chair: <b>Stephan Hann</b>  Chair: <b>Luis Gálvez</b></p> <p><b>ICP-MS based strategies to monitor the fate of nanostructured drugs in cell models</b></p> <p><b>Maria Montes Bayón, Mario Corte, Roberto Álvarez-Fernández, Daniel Turiel, Jenifer Garcia, Jörg Bettmer, Elisa Blanco</b>  University of Oviedo, Spain</p>		
4:10pm - 5:50pm	<p><b>MT-OL: METALLOMICS - GENERAL SESSION</b>  Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> <b>NORTH HALL</b>  Chair: <b>Stephan Hann</b>  Chair: <b>Luis Gálvez</b></p>		

**Single Cell Analysis Based on Inductively Coupled Plasma Mass Spectrometry****Lingna Zheng, Meng Wang, Weiyue Feng**

Institute of High Energy Physics, China, People's Republic of

**The highly sensitive analytical method of the metabolite: Development of the metal tag reagents for the low molecular weight hydrophilic compound.****Daigo Iwahata, Hiroshi Miyano**

Ajinomoto. co., inc., Japan

**Application of 2D-IC-ICP-MS and GC-SF-ICP-MS for the Speciation of Organophosphates in Lithium Ion Battery Electrolytes****Yannick Philipp Stenzel, Jennifer Menzel, Vadim Kraft, Martin Winter, Sascha Nowak**

University of Münster, Germany

**Application of ICP-MS/MS for the clinical determination of chromium (VI) in human erythrocytes and chromium in blood, plasma and urine****Peter Heitland, Helmut D. Köster**

Medical Laboratory Bremen, Germany

**Towards routine capillary electrophoresis hyphenation to ICP-MS****Hannah U. Holtkamp, Stuart J. Morrow, Mario Kubanik, Christian G. Hartinger**

University of Auckland, New Zealand

**Elemental analysis and imaging of human fingerprints: a new technique for forensic sciences****Meng Wang**

INSTITUTE OF HIGH ENERGY PHYSICS, CHINESE ACADEMY OF SCIENCES, China, People's Republic of

**Advances in single-cell ICP-MS for determining elemental distributions in cell populations****Emmanouil Mavrakis<sup>1</sup>, Nikos Lydakis-Symantiris<sup>2</sup>, Chady Stephan<sup>3</sup>, Riccardo Magarini<sup>3</sup>, Spiros Pergantis<sup>1</sup>**

1: Department of Chemistry, University of Crete, Greece; 2: Department of Environmental and Natural Resources Engineering, University of Applied Sciences Crete; 3: Perkin Elmer

**Pt-based cytostatics: Where are they accumulated?****Tomas Vaculovic<sup>1,2</sup>, Michaela Tvrdonova<sup>1</sup>, Michal Masarik<sup>3</sup>, Hana Polanska<sup>3</sup>, Viktor Kanicky<sup>1,2</sup>**

1: Masaryk University, Faculty of Science, Czech Republic; 2: Masaryk University, CEITEC, Czech Republic; 3: Masaryk University, Faculty of Medicine, Czech Republic

**A novel take on ion interaction chromatography for fast and sensitive arsenic speciation analysis in rice using LC-ICP-MS****Helmut Ernstberger<sup>1</sup>, Ken Neubauer<sup>2</sup>**

1: PerkinElmer, United Kingdom; 2: PerkinElmer, USA

**DEVELOPMENT OF ANALYTICAL APPROACHES TO UNRAVEL METAL COMPLEXES AND MORE SPECIFICALLY METALLOPHORES IMPLICATED IN METAL HOMEOSTASIS IN CELLS****Laurent Querdane, Shuanglong Wang, Ryszard Lobinski**

LCABIE/IPREM UMR5254, France

6:00pm  
-  
8:00pm**WED-VE 5: VENDOR EXHIBITION**  
(Evening social mixer at  
ESI/Meinhard booth)  
Location: [ARLBERG-well.com](http://ARLBERG-well.com) SOUTH  
HALL**YOUNG SCIENTISTS: Young  
Scientists Career Event**  
Location: [ARLBERG-well.com](http://ARLBERG-well.com) NORTH  
HALL

Date: Thursday, 23/Feb/2017

<p>8:30am - 9:00am</p>	<p><b>LA-PL: LASER-ASSISTED ANALYSIS / GLOW DISCHARGE - PLENARY LECTURE 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Cornel Venzago</b> Chair: <b>Daniel Pröfrock</b></p> <p><b>Laser Ablation Influence on Elemental and Isotopic Analysis</b> <b>Richard E Russo</b><sup>1,2</sup> 1: Lawrence Berkeley National Laboratory, United States of America; 2: Applied Spectra Inc.</p>	<p><b>NANO-PL: NANOMATERIAL ANALYSIS - PLENARY LECTURE</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> ARLBERGSAAL Chair: <b>Norbert Jakubowski</b> Chair: <b>Andreas Zitek</b></p> <p><b>ICP-MS - a powerful and versatile tool in "Nanolytics"</b> <b>Biörn Meermann</b><sup>1</sup>, <b>María Montes Bayón</b><sup>2</sup>, <b>Daniel Turiel Fernández</b><sup>2</sup>, <b>Thomas Ternes</b><sup>1</sup>, <b>Wolfgang Tremel</b><sup>3</sup>, <b>Frank Vanhaecke</b><sup>4</sup>, <b>Kristina Wichmann</b><sup>3</sup> 1: Federal Institute of Hydrology, Department G2 – Aquatic Chemistry, Am Mainzer Tor 1, 56068 Koblenz, Germany; 2: Universidad de Oviedo, Department of Physical and Analytical Chemistry, C/Julían Clavería 8, 33006 Oviedo, Spain; 3: University of Mainz, Institute of Inorganic Chemistry and Analytical Chemistry, Duesbergweg 10-14, 55128 Mainz; 4: Ghent University, Department of Analytical Chemistry, Campus Sterre, Krijgslaan 281-S12, 9000 Ghent, Belgium</p>
<p>9:00am - 9:20am</p>	<p><b>LA-IL 1: LASER-ASSISTED ANALYSIS / GLOW DISCHARGE - INVITED LECTURES 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Cornel Venzago</b> Chair: <b>Daniel Pröfrock</b></p> <p><b>High-Resolution LA-ICP-TOFMS Imaging: From Instrumentation to Interpretation</b> <b>Alexander Gundlach-Graham</b><sup>1</sup>, <b>Gunnar Schwarz</b><sup>1</sup>, <b>Marcel Burger</b><sup>1</sup>, <b>Paolo S. Garofalo</b><sup>2</sup>, <b>Bodo Hattendorf</b><sup>1</sup>, <b>Detlef Günther</b><sup>1</sup> 1: ETH Zurich, Switzerland; 2: University of Bologna, Italy</p>	<p><b>NANO-IL 1: NANOMATERIAL ANALYSIS - INVITED LECTURE 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> ARLBERGSAAL Chair: <b>Norbert Jakubowski</b> Chair: <b>Andreas Zitek</b></p> <p><b>Nanoanalysis with Mass Spectrometry: On the Benefits of Microsecond Time Resolution in ICP-Q-MS</b> <b>Carsten Engelhard</b>, <b>Ingo Streng</b>, <b>Darya Mozhayeva</b> University of Siegen, Germany</p>
<p>9:20am - 10:10am</p>	<p><b>LA-OL 1: LASER-ASSISTED ANALYSIS / GLOW DISCHARGE - GENERAL SESSION 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Cornel Venzago</b> Chair: <b>Daniel Pröfrock</b></p> <p><b>Characterisation of new thin film solar cell photovoltaic devices using the state-of-the-art pulsed radiofrequency glow discharge time of flight mass spectrometry</b> <b>Beatriz Fernandez-Garcia</b>, <b>Rosario Pereiro</b>, <b>Alfredo Sanz-Medel</b> 1: Department of Physical and Analytical Chemistry, University of Oviedo, c/Julian Clavería, 8, 33006, Oviedo, Spain.</p> <p><b>Laser Induced Breakdown Spectroscopy for High Resolution Mapping of Core Samples</b> <b>C. Derrick Quarles Jr.</b><sup>1</sup>, <b>Francisco Lopez-Linares</b><sup>2</sup>, <b>Toni Miao</b><sup>2</sup>, <b>Laura Poirier</b><sup>2</sup>, <b>Jhanis J. Gonzalez</b><sup>1,3</sup> 1: Applied Spectra, Inc, United States of America; 2: Chevron, United States of America; 3: Lawrence Berkeley Laboratory, United States of America</p> <p><b>LA-ICP-MS analysis of size segregated ultrafine airborne particulates</b> <b>Andreas Limbeck</b><sup>1</sup>, <b>Sabrina Rovelli</b><sup>2</sup>, <b>Winfried Nischkauer</b><sup>1</sup>, <b>Domenico Cavallo</b><sup>2</sup> 1: TU Wien, Austria; 2: University of Insubria, Italy</p> <p><b>A comparison of signal suppression rates and particle size distributions for ns- and fs-LA-ETV-ICPMS for pure and alloyed metallic standards</b> <b>Hale Ceren Yilmaz</b>, <b>Bodo Hattendorf</b> ETH Zurich, Switzerland</p> <p><b>Investigation of Lithium Ion Battery Electrodes by means of Sector Field-Glow Discharge-Mass Spectrometry (SF-GD-MS)</b> <b>Marco Evertz</b>, <b>Timo Schwieters</b>, <b>Markus Börner</b>, <b>Martin Winter</b>, <b>Sascha Nowak</b> University of Münster</p>	<p><b>NANO-OL 1: NANOMATERIAL ANALYSIS - GENERAL SESSION 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> ARLBERGSAAL Chair: <b>Norbert Jakubowski</b> Chair: <b>Andreas Zitek</b></p> <p><b>Single particle ICP-MS characterization of engineered nanoparticles uptake and bioaccumulation by edible plants</b> <b>Justyna Wojcieszek</b><sup>1</sup>, <b>Javier Jiménez-Lamana</b><sup>2</sup>, <b>Lena Ruzik</b><sup>1</sup>, <b>Monika Asztomborska</b><sup>3</sup>, <b>Maciej Jarosz</b><sup>1</sup>, <b>Joanna Szpunar</b><sup>2</sup> 1: Warsaw University of Technology, Poland; 2: CNRS-UPPA, Pau, France; 3: University of Warsaw, Poland</p> <p><b>Determination of the stoichiometry CdSe/ZnS quantum dot to antibody in bioconjugates by asymmetric flow field-flow fractionation coupled on-line to elemental mass spectrometry (ICP-QQQ)</b> <b>Diego Bouzas-Ramos</b><sup>1</sup>, <b>Jorge Ruiz Encinar</b><sup>1</sup>, <b>José I. García Alonso</b><sup>2</sup>, <b>José M. Costa-Fernández</b><sup>1</sup>, <b>Alfredo Sanz-Medel</b><sup>1</sup> 1: Analytical Spectrometry Research Group, Department of Physical and Analytical Chemistry, University of Oviedo, Julián Clavería 8, Oviedo, Spain; 2: Enriched Stable Isotopes Research Group, Department of Physical and Analytical Chemistry, University of Oviedo, Julián Clavería 8, Oviedo, Spain</p> <p><b>Laser-Assisted Introduction of Nanoparticles to ICP MS</b> <b>Iva Benesova</b><sup>1,2</sup>, <b>Kristyna Dlabkova</b><sup>1</sup>, <b>Frantisek Zelenak</b><sup>1</sup>, <b>Tomas Vaculovic</b><sup>1,2</sup>, <b>Viktor Kanicky</b><sup>1,2</sup>, <b>Jan Preisler</b><sup>1,2</sup> 1: Department of Chemistry, Faculty of Science, Masaryk University, Brno, Czech Republic; 2: Central European Institute of Technology (CEITEC), Masaryk University, Brno, Czech Republic</p> <p><b>Exposure of Lactuca sativa to silver nanoparticles: Characterization of their uptake</b></p>



			<p><b>and translocation by Single Particle Inductively Coupled Plasma Mass Spectrometry.</b></p> <p><b>Laura Torrent, Eva Marguá, Manuela Hidalgo, <u>Mònica Iglesias</u></b> Chemistry Department. Universitat de Girona, Spain</p> <hr/> <p><b>Single particle ICP-MS for the detection of inorganic nanoparticles in food and biological samples</b></p> <p><b>Katrin Loeschner</b> National Food Institute, Technical University of Denmark, Denmark</p>
10:10am - 10:50am	<p><b>CO-THU 1: COFFEE BREAK</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p>		<p><b>THU-VE 1: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p>
10:50am - 11:30am	<p><b>LA-IL 2: LASER-ASSISTED ANALYSIS / GLOW DISCHARGE - INVITED LECTURES 2</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Cornel Venzago</b> Chair: <b>Daniel Pröfrock</b></p> <p><b>Trends and challenges in Glow Discharge Mass Spectrometry for Direct Analysis of Innovative Materials.</b></p> <p><b>Jorge Pisonero, Jonatan Fandino, Alfredo Sanz-Medel, Nerea Bordel</b> University of Oviedo, Spain</p> <hr/> <p><b>Taming Laser-Generated Ions for Their Use in Mass Spectrometry</b></p> <p><b>Bodo Hattendorf<sup>1</sup>, Lorenzo Querci<sup>1</sup>, Victor Varentsov<sup>2</sup>, Detlef Günther<sup>1</sup></b> 1: ETH Zurich, Switzerland; 2: bFacility for Antiproton and Ion Research in Europe (FAIR GmbH), Darmstadt, Germany</p>		<p><b>NANO-IL 2: NANOMATERIAL ANALYSIS - INVITED LECTURE 2</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> ARLBERGSAAL Chair: <b>Norbert Jakubowski</b> Chair: <b>Andreas Zitek</b></p> <p><b>Quantification and Identification of Nanoparticles in Consumer Products and the Environment</b></p> <p><b>Frank von der Kammer<sup>1</sup>, Antonia Praetorius<sup>1</sup>, Milica Velimirovic<sup>1</sup>, Andreas Gondikas<sup>2</sup>, Jana Navratilova<sup>3</sup>, Alexander Gundlach-Graham<sup>4</sup>, Eli Goldberg<sup>4</sup>, Detlef Guenther<sup>4</sup>, Thilo Hofmann<sup>1</sup></b> 1: University of Vienna, Austria; 2: University of Gothenburg; 3: US Environmental Protection Agency; 4: ETH Zurich</p> <hr/> <p><b>Highly multiplexed imaging of tissues with subcellular resolution by imaging mass cytometry</b></p> <p><b>Bernd Bodenmiller</b> University of Zurich, Switzerland</p>
11:30am - 12:10pm	<p><b>LA-OL 2: LASER-ASSISTED ANALYSIS / GLOW DISCHARGE - GENERAL SESSION 2</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: <b>Cornel Venzago</b> Chair: <b>Daniel Pröfrock</b></p> <p><b>Formation of particles during laser ablation ICP-MS</b></p> <p><b>Markéta Holá<sup>1</sup>, Hana Nováková<sup>1</sup>, Jakub Ondráček<sup>2</sup>, Michal Vojtíšek<sup>3</sup>, Viktor Kanický<sup>1,4</sup></b> 1: CEITEC, Masaryk University, Brno, Czech Republic; 2: Faculty of Mechanical Engineering, Czech Technical University of Prague, Czech Republic; 3: Institute of Chemical Process Fundamentals of the ASCR, Prague, Czech Republic; 4: Faculty of Science, Masaryk University, Brno, Czech Republic</p> <hr/> <p><b>Analysis of minor and trace elements in polymers using Tandem LA/LIBS</b></p> <p><b>Maximilian Bonta, Andreas Limbeck</b> TU Wien, Austria</p> <hr/> <p><b>QUANTITATIVE ELEMENTAL ANALYSIS OF POLYMERS BY LASER ABLATION-INDUCTIVELY COUPLED PLASMA</b></p> <p><b>Angela Villaseñor Milán<sup>1</sup>, Marina Bocconcelli<sup>2</sup>, José Luis Todolí<sup>1</sup></b> 1: Department of Analytical Chemistry, Nutrition and Food Sciences, University of Alicante, Spain; 2: Total Research &amp; Technology Feluy, Belgium</p> <hr/> <p><b>Investigation of the impact of surface cleaning procedures on near surface depth profiling using Glow Discharge Optical Emission Spectroscopy</b></p> <p><b>Kjell Arne Bengtson, Mats Randelius</b> Swerea KIMAB AB, Sweden</p>		<p><b>NANO-OL 2: NANOMATERIAL ANALYSIS - GENERAL SESSION 2</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> ARLBERGSAAL Chair: <b>Norbert Jakubowski</b> Chair: <b>Andreas Zitek</b></p> <p><b>Quantification of AgNPs in single cells by Single Particle/Single cell inductively coupled plasma mass spectrometry and Mass Cytometry</b></p> <p><b>Ana Lopez-Serrano Oliver<sup>1</sup>, Sabine Baumgart<sup>2</sup>, Andreas Gruetzkau<sup>2</sup>, Norbert Jakubowski<sup>1</sup>, Andrea Haase<sup>3</sup></b> 1: BAM, Federal Institute of Materials Research and Testing, Richard-Willstätter-Str. 11, 12489, Berlin Germany; 2: DRFZ, German Rheumatism Research Centre Berlin, Charitéplatz 1, 10117 Berlin; 3: BfR, The Federal Institute for Risk Assessment Department of Product Safety at, Max-Dohrn-Str. 8-10</p> <hr/> <p><b>Single Particle ICP-MS: quantifying exposure and dose of gold and silver NPs to freshwater alga</b></p> <p><b>Ruth Corrin Merrifield<sup>1</sup>, Chady Stephan<sup>2</sup>, Jamie Lead<sup>1</sup></b> 1: University of South Carolina, United States of America; 2: PerkinElmer, Inc., Canada</p> <hr/> <p><b>Development and optimization of an extraction process for the semi quantitative determination of titanium dioxide nanoparticles in environmental samples using cFFF hyphenated to ICP-MS/MS</b></p> <p><b>Florian Dutschke<sup>1,2</sup>, Daniel Proefrock<sup>1</sup></b> 1: Helmholtz-Zentrum Geesthacht, Germany; 2: Universität Hamburg, Germany</p> <hr/> <p><b>The challenges of analysing Titanium and TiO2 nanoparticles in biological matrices</b></p> <p><b>Dagmar Koller, Jonathan Powell</b> MRC-EWL, United Kingdom</p>
12:10pm - 1:50pm	<p><b>LU-TELEDYNE CETAC: LUNCH SEMINAR Teledyne Cetac - Recent</b></p>	<p><b>LU-THU: LUNCH BREAK</b></p>	<p><b>THU-VE 2: VENDOR EXHIBITION</b></p>

	<p><b>advancements &amp; accessories in Atomic Spectroscopy</b> Location: <b>HOTEL POST - Seminar room</b></p>	<p>Location: <b>ARLBERG-well.com SOUTH HALL</b></p>
<p>1:50pm - 2:20pm</p>	<p><b>BI-PL: BIOIMAGING - PLENARY LECTURE (sponsored by ThermoFisher Scientific)</b> Location: <b>ARLBERG-well.com NORTH HALL</b> Chair: <b>Andreas Limbeck</b> Chair: <b>Anna-Maria Kriechbaum</b></p> <p><b>THE QUANTITATIVE ELEMENTAL MICROSCOPE: FOR WHAT IS IT GOOD FOR?</b> <b>Norbert Jakubowski<sup>1</sup>, Heike Traub<sup>1</sup>, Diego Estéban-Fernández<sup>1</sup>, Simone Hösi<sup>1</sup>, Ulrich Panne<sup>1</sup>, Daniela Drescher<sup>2</sup>, Tina Büchner<sup>2</sup>, Janina Kneipp<sup>2</sup>, Irene Moraleja<sup>3</sup>, Guido Sauter<sup>4</sup>, Hartmut Schlüter<sup>4</sup>, Ronald Simon<sup>4</sup>, Boris Neumann<sup>5</sup></b> 1: Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin, Germany; 2: Humboldt-University of Berlin, Department of Chemistry, Berlin, Germany; 3: Universidad Complutense de Madrid, Madrid, Spain; 4: University Medical Center Hamburg-Eppendorf, Hamburg, Germany; 5: Proteome Factory AG, Berlin, Germany</p>	
<p>1:50pm - 3:40pm</p>	<p><b>NANO-OL 3: NANOMATERIAL ANALYSIS - GENERAL SESSION 3</b> Location: <b>ARLBERG-well.com ARLBERGSAAL</b> Chair: <b>Björn Meermann</b> Chair: <b>Andreas Zitek</b></p> <p><b>Single Particle ICP-MS: Keeping the feet on the ground</b> <b>Francisco Laborda<sup>1</sup>, Isabel Abad-Alvaro<sup>1</sup>, Eduardo Bolea<sup>1</sup>, Juan R. Castillo<sup>1</sup>, Miguel A. Gomez-Gonzalez<sup>2</sup>, Javier Jimenez-Lamana<sup>3</sup>, Joanna Szpunar<sup>3</sup></b> 1: Group of Analytical Spectroscopy and Sensors (GEAS). Institute of Environmental Sciences (IUCA). University of Zaragoza. Zaragoza, Spain; 2: Department of Materials and London Centre for Nanotechnology. Imperial College London. London, UK; 3: Laboratoire de Chimie Analytique Bio-inorganique et Environnement (LCABIE). UMR 5254-IPREM. CNRS-UPPA. Pau, France</p> <p><b>Characterization of 3-nm (and smaller?) metal nanoparticles by inductively coupled plasma mass spectrometry with and without flow injection</b> <b>Ram P. Lamsal<sup>1</sup>, Gregory Jerkiewicz<sup>1</sup>, Steve Baranton<sup>2</sup>, Christophe Coutanceau<sup>2</sup>, Diane Beauchemin<sup>1</sup></b> 1: Queen's University, Canada; 2: University of Poitiers, France</p> <p><b>Imaging of Cerium Oxide Nanoparticles in Rat Lung Tissue by Means of LA-ICP-MS</b> <b>Dörthe Dietrich<sup>1</sup>, Antje Vennemann<sup>2</sup>, Martin Wiemann<sup>2</sup>, Michael Sperling<sup>1,3</sup></b> 1: University of Münster, Germany; 2: IBE R&amp;D gGmbH, Münster, Germany; 3: European Virtual Institute for Speciation Analysis, Münster, Germany</p> <p><b>EVALUATION OF DIFFERENT INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY-BASED IMMUNOASSAYS FOR THE DETERMINATION OF AFLATOXIN M1 IN MILK</b> <b>Emma Pérez Hernández, Guillermo Grindlay Lledó, Francisco Marco de la Calle, Pascual Martínez Peinado, Juan Mora Pastor</b> University of Alicante, Spain</p> <p><b>Characterization of nanoparticles uptake and adsorption by red microalgal cells using single particle ICP-MS</b> <b>Shin-ichi Miyashita<sup>1</sup>, Hiroaki Mitsuhashi<sup>2</sup>, Shin-ichiro Fujii<sup>1</sup>, Mitsuru Abo<sup>2</sup>, Akiko Takatsu<sup>1</sup>, Kazumi Inagaki<sup>1</sup></b> 1: National Metrology Institute of Japan (NMIJ)/AIST, Japan; 2: Meiji University, Japan</p> <p><b>Simultaneous on-line detection of SiO<sub>2</sub>, TiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> particles in toothpaste by asymmetric flow field-flow fractionation hyphenated to inductively coupled plasma mass spectrometry</b> <b>Manuel Correia, Katrin Loeschner</b> National Food Institute, Technical University of Denmark, DK-2860 Søborg, Denmark</p> <p><b>Characterization of metallic nanoparticles in tattoo ink using Asymmetrical Flow Field-Flow Fractionation coupled with ICP-MS</b> <b>Robert Reed<sup>1</sup>, Soheyl Tadjiki<sup>1</sup>, Tony Pfaffe<sup>2</sup>, Evelin Moldenhauer<sup>2</sup>, Thorsten Klein<sup>2</sup></b> 1: Postnova Analytics Inc., Salt Lake City, Utah, United States of America; 2: Postnova Analytics GmbH, Landsberg am Lech, Germany</p> <p><b>Extension and validation of FFF online with ICP-MS for the quantification of carbon in natural and engineered (nano)particles</b> <b>Volker Nischwitz<sup>1</sup>, Nina Gottselig<sup>2</sup>, Anna Missong<sup>2</sup>, Erwin Klumpp<sup>2</sup></b> 1: Central Institute for Engineering, Electronics and Analytics (ZEA-3), Forschungszentrum Jülich, Jülich, Germany; 2: Institute of Bio- and Geosciences, Agrosphere (IBG-3), Forschungszentrum Jülich, Jülich, Germany</p>	
<p>2:20pm - 2:40pm</p>	<p><b>BI-IL: BIOIMAGING - INVITED LECTURES</b> Location: <b>ARLBERG-well.com NORTH HALL</b> Chair: <b>Andreas Limbeck</b> Chair: <b>Anna-Maria Kriechbaum</b></p> <p><b>Image metrics for retrieval of lateral resolution and angular blur in 2D LA-ICP-MS</b> <b>Johannes Teun van Elteren<sup>1</sup>, Andrei Izmer<sup>2</sup>, Vid Simon Šelih<sup>1</sup>, Frank Vanhaecke<sup>2</sup></b> 1: National Institute of Chemistry, Ljubljana, Slovenia; 2: Ghent University, Ghent, Belgium</p>	
<p>2:40pm -</p>	<p><b>BI-OL 1: BIOIMAGING - GENERAL SESSION 1</b> Location: <b>ARLBERG-well.com NORTH HALL</b></p>	

3:40pm

Chair: **Andreas Limbeck**  
Chair: **Anna-Maria Kriechbaum****Quantitative imaging of potential protein biomarkers in oral cancer tissues with LA-ICP-MS using bioconjugated gold nanoclusters****María Cruz-Alonso<sup>1</sup>, Beatriz Fernandez<sup>1</sup>, Aurora Astudillo<sup>2</sup>, Juan Carlos de Vicente<sup>3</sup>, Rosario Pereiro<sup>1</sup>, Alfredo Sanz-Medel<sup>1</sup>**

1: Dept. of Physical &amp; Analytical Chemistry, University of Oviedo, Julian Claveria 8, 33006 Oviedo, Spain; 2: BioBanco del Principado de Asturias, Hospital Universitario Central de Asturias, 33011 Oviedo, Spain; 3: Department of Maxillofacial Surgery, Hospital Universitario Central de Asturias, 33011 Oviedo, Spain

**Laser ablation with high speed and high spatial resolution: emerging applications in biological imaging****Amy J Managh, Tharwat Abduljabbar, Helen J Reid, Barry L Sharp**

Loughborough University, LE11 3TU, United Kingdom

**Elemental bioimaging for the investigation of Wilson's disease by means of LA-ICP-MS****Oliver Hachmöller<sup>1</sup>, Andree Zibert<sup>2</sup>, Hans Zischka<sup>3</sup>, Michael Sperling<sup>1,4</sup>, Hartmut H.-J. Schmidt<sup>2</sup>, Uwe Karst<sup>1</sup>**

1: Institute of Inorganic and Analytical Chemistry, University of Münster; 2: Experimental Transplant Hepatology, University Hospital Münster; 3: Institute of Molecular Toxicology and Pharmacology, Helmholtz Center Munich; 4: European Virtual Institute for Speciation Analysis (EVISA)

**High resolution LA-ICP-MS imaging in three dimensional tumor spheroids****Sarah Theiner<sup>1</sup>, Stijn Van Malderen<sup>2</sup>, Thibaut Van Acker<sup>2</sup>, Anton Legin<sup>3</sup>, Michael Jakupec<sup>3</sup>, Bernhard Keppler<sup>3</sup>, Frank Vanhaecke<sup>2</sup>, Gunda Koellensperger<sup>1</sup>**

1: Institute of Analytical Chemistry, University of Vienna, Vienna, Austria; 2: Department of Analytical Chemistry, Ghent University, Ghent, Belgium; 3: Institute of Inorganic Chemistry, University of Vienna, Vienna, Austria

**Elemental Bioimaging in Plant Tissue Sections: Techniques for Overcoming Interferences and Reducing High Background Concentrations****Georgina Madeleine Thyssen<sup>1</sup>, Michael Holtkamp<sup>1</sup>, Michael Sperling<sup>1,2</sup>, Uwe Karst<sup>1</sup>**

1: University of Münster, Germany; 2: European Virtual Institute for Speciation Analysis, Germany

**Characterizing cisplatin induced ototoxicity using ICP-MS and laser ablation ICP-MS****Lauren Amable<sup>1</sup>, Eric Shide<sup>1</sup>, Andrew Breglio<sup>2</sup>, Aaron Rusheen<sup>2</sup>, Katharine Fernandez<sup>2</sup>, Chady Stephan<sup>3</sup>, Lisa Cunningham<sup>2</sup>**

1: National Institute on Minority Health and Health Disparities, National Institutes of Health, Bethesda, MD, United States of America; 2: National Institute on Deafness and Other Communication Disorders, National Institutes of Health, Bethesda, MD, United States of America; 3: Perkin Elmer, Shelton, CT, United States of America

3:40pm  
-  
5:30pm**POSTER 2 - APP II: POSTER SESSION 2: Applications II**  
Location: [ARLBERG-well.com](http://ARLBERG-well.com)  
SOUTH HALL**Checking the supposed provenance of conflict minerals based on LA-ICP-MS data and statistics****Hans-Eike Gäbler, Wilhelm Schink, Timo Gawronski**  
Bundesanstalt für Geowissenschaften und Rohstoffe, Germany**Determination of Br and I in polymers by ICPMS****Georgia Sanabria**  
Evans Analytical Group, France**ELEMENTAL DIFFERENCES IN SINGLE VINEYARD PINOT NOIR WINES FROM SIX SUB-APPELLATIONS****Helene Hopfer<sup>1</sup>, Courtney Tanabe<sup>2</sup>, Joshua Godshaw<sup>2</sup>, Susan Ebeler<sup>2</sup>, Jenny Nelson<sup>2</sup>, Roger Boulton<sup>2</sup>**

1: Department of Food Science, The Pennsylvania State University, University Park, PA 16802; 2: Department of Viticulture and Enology, University of

**POSTER 2 - BI: POSTER SESSION 2: Bioimaging**  
Location: [ARLBERG-well.com](http://ARLBERG-well.com)  
NORTH HALL**Characterizing human contaminant exposure and elimination by laser ablation ICP-MS****Brian Jackson<sup>1</sup>, Tracy Punshon<sup>1</sup>, Marc Weisskopf<sup>2</sup>, Matthew Rand<sup>3</sup>**

1: Dartmouth College, United States of America; 2: Harvard School of Public Health, United States of America; 3: University of Rochester, United States of America

**High resolution laser ablation NWRimage system for single cell imaging****Diego Esteban-Fernandez<sup>2</sup>, Heike Traub<sup>3</sup>, Norbert Jakobowski<sup>3</sup>, Katherine McLachlin<sup>1</sup>, Leif Summerfield<sup>1</sup>, Rob Hutchinson<sup>1</sup>**

1: Electro Scientific Industries, United States of America; 2: Shimadzu, Spain; 3: BAM, Germany

**The impact of reaction and collision cell ICP-MS on laser ablation bio-imaging****POSTER 2 - ENV: POSTER SESSION 2: Environmental analysis**  
Location: [ARLBERG-well.com](http://ARLBERG-well.com)  
NORTH HALL**Monitoring of aluminium, used as a coagulant in a potable water treatment plant, field study.****Annick Francine Josée Willemen**  
Water-link, Belgium**ICP-MS, a useful technique for the determination of uranium and estimation of alfa activity in natural and drinking water****Alfredo Diaz<sup>1</sup>, Antonia Camacho<sup>2</sup>, Isabel Serrano<sup>2</sup>, Ricard Devesa<sup>1</sup>**

1: Aigues de Barcelona, Spain; 2: INTE, Institut de Tècniques Energètiques. Polytechnical University of Catalonia

**Humic substance derived ligands as iron chelators in the ocean****Anna Maria Rathgeb<sup>1</sup>, Tim Causon<sup>1</sup>, Regina Krachler<sup>2</sup>, Stephan Hann<sup>1</sup>**  
1: BOKU Vienna, Austria; 2: University of Vienna, Austria**POSTER 2 - GDMS: POSTER SESSION 2: Glow discharge mass spectrometry**  
Location: [ARLBERG-well.com](http://ARLBERG-well.com)  
SOUTH HALL**Calibration Approaches in Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry (LA-ICP-MS) and Sector Field Glow Discharge-Mass Spectrometry (SF-GD-MS)****Timo Schwieters, Marco Evertz, Markus Börner, Martin Winter, Sascha Nowak**  
University of Münster**Determination of trace elements in silicon carbide wafers using GD-MS and LA-ICP-MS****Sehoon Jung, Sunhye Kim**  
Research Institute of Industrial Science and Technology, Korea, Republic of (South Korea)**Matrix Independent Calibrations in Glow Discharge Mass Spectrometry****Cristina Gonzalez-Gago<sup>1</sup>, Petr Smid<sup>2</sup>,**

<p>California, Davis, One Shields Ave, Davis, CA 95616</p>	<p><b>C. Derrick Quarles Jr.<sup>1</sup>, Renata Kuras<sup>2</sup>, Beata Janasik<sup>2</sup>, Wojciech Wasowicz<sup>2</sup>, Agnieszka Perkowska-Ptasinska<sup>3</sup>, Lucyna Kozłowska<sup>4</sup>, Maciej Stepnik<sup>5</sup>, Katarzyna Domeradzka-Gajda<sup>5</sup>, Jhanis J. Gonzalez<sup>1,6</sup></b></p>	<p><b>Determination of phosphorus in high dissolved solids solutions to assess nutrient behaviour in ancient oceans</b> <b>Stephen Reid</b> University of Leeds, United Kingdom</p>	<p><b>Volker Hoffmann<sup>3</sup>, Thomas Hofmann<sup>2</sup>, Cornel Venzago<sup>2</sup></b> 1: Oviedo University, Spain; 2: Evonik Technology &amp; Infrastructure GmbH, Germany; 3: Leibniz Institute for Solid State and Materials Research Dresden, Germany</p>
<p><b>Elemental profiles of whiskies allow differentiation by type and region by inductively coupled plasma – optical emission spectroscopy (ICP-OES)</b> <b>Jenny Nelson<sup>1,2</sup>, Helene Hopfer<sup>4</sup>, Greg Gilleland<sup>3</sup>, Susan Ebeler<sup>1,2</sup></b> 1: Department of Viticulture &amp; Enology, University of California, Davis, CA, USA; 2: Food Safety &amp; Measurement Facility, University of California, Davis, CA, USA; 3: Agilent Technologies, Inc., Santa Clara, CA, USA; 4: Department of Food Science, The Pennsylvania State University, University Park, PA, USA</p>	<p>1: Applied Spectra, Inc, United States of America; 2: Department of Biological and Environmental Monitoring, Nofer Institute of Occupational Medicine, Poland; 3: Department of Transplantation Medicine, Nephrology and Internal Diseases, Transplantation Institute, Medical University of Warsaw, Poland; 4: Department of Dietetics, Faculty of Human Nutrition and Consumer Sciences, Warsaw University of Life Sciences, Poland; 5: Department of Toxicology and Carcinogenesis, Nofer Institute of Occupational Medicine, Poland; 6: Lawrence Berkeley National Laboratory, United States of America</p>	<p><b>Applications of Isotopic Measurements for Determination of Long Lived Radionuclides in the Open Ocean</b> <b>Emilia Vassileva<sup>1</sup>, Irena Wysocka<sup>1,2</sup>, Eunmi Han<sup>1</sup></b> 1: IAEA Environment Laboratories, Monaco; 2: Polish Geological Institute National Research Institute</p>	<p><b>Calibration factors in Fast Flow Glow Discharge Mass Spectrometry (FF-GD-MS): Continuous vs. Pulsed Mode</b> <b>Joachim Hinrichs, Shona McSheehy Ducos</b> Thermo Fisher Scientific, Germany</p>
<p><b>Development of new strategies based on HPLC- and LA-ICP-MS to study the Zinc-Metallothionein system in the human eye and its implication in Age Related Macular Degeneration</b> <b>Beatriz Fernandez-Garcia<sup>1,2</sup>, Sara Rodriguez-Menendez<sup>1,2</sup>, Héctor González-Iglesias<sup>2,3</sup>, Montserrat García<sup>2,3</sup>, Lydia Alvarez<sup>2</sup>, M. Luisa Fernández<sup>1</sup>, Miguel Coca-Prados<sup>2,4</sup>, Rosario Pereiro<sup>1,2</sup>, Alfredo Sanz-Medel<sup>1</sup></b> 1: Department of Physical and Analytical Chemistry, University of Oviedo, c/Julian Clavería, 8, 33006, Oviedo, Spain; 2: Instituto Universitario Fernández-Vega, Fundación de Investigación Oftalmológica, Universidad de Oviedo, Spain.; 3: Instituto Oftalmológico Fernández-Vega, Avda. Dres. Fernández-Vega, 34, 33012, Oviedo, Spain.; 4: Department of Ophthalmology and Visual Science, Yale University School of Medicine, New Haven, CT. 06510, USA.</p>	<p><b>COMPARATIVE STUDY ON THE EFFECT OF ULTRA-TRACE MERCURY IN PLASTIC WASTES IN THE KUWAIT BEACHES</b> <b>Abdul Hadi Bu-Olayan, BV Thomas</b> KUWAIT UNIVERSITY, Kuwait</p>	<p><b>COMPARATIVE STUDY ON THE EFFECT OF ULTRA-TRACE MERCURY IN PLASTIC WASTES IN THE KUWAIT BEACHES</b> <b>Abdul Hadi Bu-Olayan, BV Thomas</b> KUWAIT UNIVERSITY, Kuwait</p> <p><b>Magnetic nanoparticles coated with ionic liquid for the pre-concentration of Pb in drinking water and the subsequent quantification by FI-ICP-OES</b> <b>Sara Hossein Zadegan, Winfried Nischkauer, Katharina Bica, Andreas Limbeck</b> TU Wien, Austria</p>	<p><b>SiCRIT Mass Spectrometry: Simple, Smart and Sensitive</b> <b>Jan-Christoph Wolf<sup>1</sup>, Klemens Maria Thaler<sup>2</sup>, Klaus Wutz<sup>1</sup>, Christoph Haisch<sup>2</sup>, Reinhard Niessner<sup>2</sup></b> 1: Plasmion GmbH, Alter Postweg 4, 86159 Augsburg, Germany; 2: Institut für Wasserchemie und Chemische Balneologie der TU-München, Marchioninstr. 17, 81377, Germany</p>
<p><b>Mapping Ti, Al and V originated from dental implants in oral mucosa tissue by LA-ICP-MS</b> <b>Adam Sajnog<sup>1</sup>, Anetta Hanć<sup>1</sup>, Krzysztof Makuch<sup>2</sup>, Ryszard Koczorowski<sup>2</sup>, Danuta Barakiewicz<sup>1</sup></b></p>	<p><b>Measurement of elements in airborne particulate matter: comparison between real-time monitoring data and filter-collection data</b> <b>Ryohei Fukushi, Takashi Nakazawa, Sho Nishida, Naoki Furuta</b> Chuo University, Japan</p>	<p><b>Measurement of elements in airborne particulate matter: comparison between real-time monitoring data and filter-collection data</b> <b>Ryohei Fukushi, Takashi Nakazawa, Sho Nishida, Naoki Furuta</b> Chuo University, Japan</p> <p><b>Direct analysis of gaseous mercury in ambient air by inductively coupled plasma mass spectrometry coupled with gas to particle conversion-gas exchange technique</b> <b>Masaki Ohata<sup>1</sup>, Kohei Nishiguchi<sup>2</sup></b> 1: National Metrology Institute of Japan, Japan; 2: J-Science Lab Co. Ltd.</p>	<p><b>Determination of Dissolved Trace Zn in Seawater with Different Salinity by flow injection</b></p>



1: Adam Mickiewicz University in Poznan, Poland; 2: Karol Marcinkowski University of Medical Science in Poznan, Poland

### LA-ICP-QQMS for the High Resolution Elemental Bio-Imaging of Trace Elements

David Clases<sup>1</sup>, David Bishop<sup>2</sup>, Philip Doble<sup>2</sup>, Uwe Karst<sup>1</sup>

1: University of Muenster, Germany; 2: University of Technology Sydney, Australia

### Investigating Biogenic versus Diagenetic Arsenic Incorporation in Sheep's Teeth

Magdalena Dorothea Blanz<sup>1,2</sup>, Kate Britton<sup>3</sup>, Eva Krupp<sup>1</sup>, Jörg Feldmann<sup>1</sup>

1: Trace Element Speciation Laboratory (TESLA), University of Aberdeen, United Kingdom; 2: Archaeology Institute, University of the Highlands and Islands, Orkney College UHI, Kirkwall, Orkney, KW15 1LX, Scotland, UK; 3: Department of Archaeology, University of Aberdeen, St. Mary's, Elphinstone Road, Aberdeen, AB24 3UF, Scotland, UK

### Bioimaging of Metallothioneins in ocular tissue sections by LA-ICP-MS using bioconjugated gold nanoclusters

María Cruz-Alonso<sup>1</sup>, Beatriz Fernandez<sup>1,2</sup>, Lydia Alvarez<sup>2,3</sup>, Héctor Gonzalez-Iglesias<sup>2,3</sup>, Heike Traub<sup>4</sup>, Norbert Jakubowski<sup>4</sup>, Rosario Pereiro<sup>1,2</sup>

1: Dept. of Physical & Analytical Chemistry, University of Oviedo, Julian Claveria 8, 33006 Oviedo, Spain; 2: Instituto Universitario Fernández-Vega, Fundación de Investigación Oftalmológica, Universidad de Oviedo, Spain; 3: Instituto Oftalmológico Fernández-Vega, Avda. Dres. Fernández-Vega, 34, 33012, Oviedo, Spain; 4: BAM federal Institute for Materials Research and Testing, Richard-Willstaetter-Strass 11, 12489 Berlin, Germany

### second gas induction elution method with Flame Atomic Absorption Spectrometry

Zhong Yuan Wang<sup>1</sup>, Hong Kang Zhang<sup>2</sup>

1: South China Sea Environmental Monitoring Center, People's Republic of China; 2: Zhongkai University of Agriculture and Engineering, People's Republic of China

### Utilising Prescriptive and Intelligent Dilution for the High Throughput Analysis of Metals in Wastewaters

Niel Williams<sup>1</sup>, Peter Winship<sup>1</sup>, Jon Peters<sup>1</sup>, Graham Coe<sup>2</sup>, Philip Mosley<sup>2</sup>, James Hannan<sup>3</sup>

1: Teledyne CETAC Technologies, United States of America; 2: Thames Water, United Kingdom; 3: Thermo Fisher Scientific, United Kingdom

### DETERMINATION OF Ce, Eu, Gd, La, Sm AND Yb IN MINERAL FERTILIZER BY ICP-MS

Pedro Vitoriano Oliveira<sup>1</sup>, Alexandre Minami Fioroto<sup>1</sup>, Luiza Gimenes Rodrigues Albuquerque<sup>1</sup>, Fábio Ferreira da Silva<sup>2</sup>, Rodolfo Lorençatto<sup>2</sup>, Pedro Vitoriano Oliveira<sup>1</sup>

1: Institute of Chemistry, University of Sao Paulo, SP, Brazil; 2: Agilent Technologies Brasil Ltda., Barueri, SP, Brasil

### Stabilization of potable water containers with silver ions in emergency situations - challenges for sampling and analysis

Gerald Bauer

CBRN-Defence School "Lise Meitner", Austrian Armed Forces, Austria

### Investigation of the speciation change of chlorine, bromine and iodine in the process of advanced water treatment in a public water treatment plant

Naoya Ohata, Sho Nishida, Naoki Furuta

Chuo university, Japan

### Magnetic solid-phase extraction using ZSM-5 zeolite/Fe<sub>2</sub>O<sub>3</sub> as a sorbent for determination of cadmium, mercury and lead in urine samples



		<p><b>prior to inductively coupled plasma optical emission spectrometry</b></p> <p><b>Paola Baile Pomares, Lorena Vidal Martínez, Miguel Ángel Aguirre Pastor, Antonio Canals Hernández</b> Universidad de Alicante, Spain</p>	
		<p><b>ICP-QQQ for low level gallium analysis in natural waters</b></p> <p><b>Brian Jackson</b> Dartmouth College, United States of America</p>	
<p><b>POSTER 2 - ISO: POSTER SESSION 2: Isotope ratio analysis</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p> <p><b>Tracing the origin of the “black gold”: Elemental and isotopic pattern of the sturgeon caviar and the influence of water, feeding and processing</b></p> <p><b>Anastassiya Tchaikovsky<sup>1</sup>, Andreas Zitek<sup>1</sup>, Johanna Irrgeher<sup>2</sup>, Christine Opper<sup>1</sup>, Rudolf Scheiber<sup>1</sup>, Thomas Prohaska<sup>1</sup></b> 1: University of Natural Resources and Life Sciences, Department of Chemistry – VIRIS Laboratory, Konrad-Lorenz-Strasse 24, 3430 Tulln, Austria; 2: Helmholtz-Centre for Materials and Coastal Research, Institute for Coastal Research, Dept. for Marine Bioanalytical Chemistry, Max-Planck-Strasse 1, 21502 Geesthacht, Germany</p>	<p><b>POSTER 2 - LA/LIBS: POSTER SESSION 2: Laser-assisted analysis</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL</p> <p><b>Short-Circuit Determination by Spatially Resolved Analysis of the Quantitative Lithium Distribution on Cycled Lithium Ion Battery Electrodes via Laser Ablation - Inductively Coupled Plasma - Optical Emission Spectrometry (LA-ICP-OES)</b></p> <p><b>Constantin Lürenbaum, Britta Vortmann-Westhoven, Martin Winter, Sascha Nowak</b> MEET - Battery Research Center, Germany</p>	<p><b>POSTER 2 - NANO: POSTER SESSION 2: Nanomaterial characterisation and analysis</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL</p> <p><b>Use of ultrafiltration and AF4-ICP-MS for the study of silver released from silver nanoparticles-based clay additives used in animal feeding</b></p> <p><b>Isabel Abad-Alvaro, Eduardo Bolea, Francisco Laborda, Juan R. Castillo</b> Group of Analytical Spectroscopy and Sensors (GEAS). Institute of Environmental Sciences (IUCA). University of Zaragoza. Zaragoza, Spain</p>	<p><b>POSTER 2 - VENDORS: POSTER SESSION 2: Vendors II</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> FOYER</p> <p><b>Analysis of macro- and micronutrients in soils and fertilizers by ICP-OES</b></p> <p><b>Nick Spivey<sup>1</sup>, Ken Neubauer<sup>1</sup>, Helmut Ernstberger<sup>2</sup></b> 1: PerkinElmer, USA; 2: PerkinElmer, UK</p>
<p><b>The application of Sr isotope ratios to study human migration in the late Bronze Age in Stillfried/March (AT)</b></p> <p><b>Anna-Maria Kriechbaum<sup>1,3</sup>, Anika Retzmann<sup>1</sup>, Monika Griebler<sup>2</sup>, Thomas Prohaska<sup>1</sup></b> 1: University of Natural Resources and Life Sciences, Department of Chemistry – VIRIS Laboratory, Konrad-Lorenz-Strasse 24, 3430 Tulln, Austria; 2: Austrian Academy of Sciences, Institute for Oriental and European Archaeology, Postgasse 7, 1010 Vienna, Austria; 3: University of Vienna, Institute of Prehistoric and Historical Archaeology, Franz-Klein-Gasse 1, 1190 Vienna, Austria</p>	<p><b>Reconstruction of the 3D full elemental profile of Ceriodaphnia dubia using multimodal registration approaches</b></p> <p><b>Stijn J. M. Van Malderen<sup>1</sup>, Brecht Laforce<sup>1</sup>, Thibaut Van Acker<sup>1</sup>, Charlotte Nys<sup>2</sup>, Maarten De Rijcke<sup>2</sup>, Colin Janssen<sup>2</sup>, Olga Borovinskaya<sup>3</sup>, Laszlo Vincze<sup>1</sup>, Frank Vanhaecke<sup>1</sup></b> 1: Department of Analytical Chemistry, Ghent University, Campus Sterre, Krijgslaan 281 - S12, 9000 Ghent, Belgium; 2: Department of Applied Ecology and Environmental Biology, Ghent University, Jozef Plateaustraat 22, 9000 Ghent, Belgium; 3: TOFWERK AG, Uttigenstrasse 22, 3600 Thun, Switzerland</p>	<p><b>Reconsidering hydrodynamic chromatography coupled to ICP-MS for the analysis of nanomaterials</b></p> <p><b>Maria S. Jimenez, Maria T. Gomez, Francisco Laborda, Juan R. Castillo</b> Group of Analytical Spectroscopy and Sensors (GEAS). Institute of Environmental Sciences (IUCA). University of Zaragoza. Zaragoza, Spain</p>	<p><b>Analysis of trace elements and nutrients in food by ICP-MS</b></p> <p><b>Helmut Ernstberger<sup>1</sup>, Ewa Pruszkowski<sup>2</sup></b> 1: PerkinElmer, United Kingdom; 2: PerkinElmer, USA</p> <p><b>Food analysis for macro- and micronutrients with ICP-OES</b></p> <p><b>Nick Spivey<sup>1</sup>, Ken Neubauer<sup>1</sup>, Helmut Ernstberger<sup>2</sup></b> 1: PerkinElmer, USA; 2: PerkinElmer, UK</p>
<p><b>Unlocking isotopic and elemental archives in marine phosphorites: a case study from the Precambrian-Cambrian boundary</b></p>	<p><b>LA icpTOF – a reliable tool for rapid elemental imaging of carbonates</b></p> <p><b>Ciprian Cosmin Stremtan<sup>1</sup>, Olga Borovinskaya<sup>2</sup>, Virgil Drăgușin<sup>3</sup>, Dominique Blamart<sup>4</sup></b> 1: Teledyne CETAC Technologies, Omaha, NE 68144, USA; 2: TOFWERK AG, Thun, CH-3600,</p>	<p><b>Analysis of gold and silver nanoparticles and their aggregates by means of spICP-MS using millisecond and microsecond dwell times</b></p> <p><b>Joshua Fuchs<sup>1</sup>, Michael Sperling<sup>2</sup>, Uwe Karst<sup>1</sup></b> 1: University of Muenster, Institute of Inorganic and Analytical Chemistry, Corrensstr 28/30, Münster, 48149, Germany; 2: European Virtual Institute for Speciation Analysis, Mendelstr. 11, Münster, 48149, Germany</p>	<p><b>Improvement in high mass abundance sensitivity for multicollector ICP-MS using a novel ion optics design that reduces several factors that contribute to peak tailing.</b></p> <p><b>Phil Shaw, Mark Mills, Yvan Gerard, Ye Zhao, Andrew Burrows</b> Ametek Nu Instruments, United Kingdom</p> <p><b>Impurity Analysis in Low-Boiling Point Gasoline by High Resolution ARRAY ICP-OES</b></p> <p><b>Jan Scholz, Margrit Killenberg, Andrew Jason Ryan</b> Analytik Jena, Germany</p>

<p><b>Jessica Alexandra Stammeier<sup>1</sup>, Dorothee Hippler<sup>1</sup>, Oliver Nebel<sup>3</sup>, Florian Mittermayer<sup>1</sup>, Cyrill Grengg<sup>1</sup>, Albrecht Leis<sup>2</sup>, Martin Dietzel<sup>1</sup></b> 1: Graz University of technology, Austria; 2: JR AquaConSol GmbH, Graz, Austria; 3: Monash University, Melbourne, Australia</p>	<p>Switzerland; 3: Institute of Speleology "Emil Racoviță", Bucharest, 050711, Romania; 4: Laboratoire des Sciences du Climat et de l'Environnement LSCE-IPSL, CEA-CNRS-UVSQ, Gif-Sur-Yvette CEDEX, France</p>	<p><b>Inductively Coupled Plasma Mass Spectrometry</b> <b>Albert Kéri<sup>1</sup>, Ildikó Kálomista<sup>1</sup>, Dorina Dobó<sup>2</sup>, Koppány Levente Juhász<sup>2</sup>, András Sági<sup>2</sup>, Gábor Galbács<sup>1</sup></b> 1: Dept. of Inorg. and Anal. Chem., University of Szeged, H-6720 Szeged, Dóm sq. 7, Hungary; 2: Dept. of Appl. and Environ. Chem., University of Szeged, H-6720 Szeged, Rerrich B. sq. 1, Hungary</p>	<p><b>Iron Isotope Ratios in Biological Samples by PLASMAQUANT® MS</b> <b>Rui Santos, Rene Chemnitzer, Sebastian Wuenscher, Peio Riss, Katharina Vlach, Andrew Ryan, Jan Scholz</b> Analytik Jena AG, Germany</p>
<p><b>Sr and Nd chromatographic separation procedure for precise isotope ratio measurement using TIMS and MC ICP methods-MS</b> <b>Maria Streletskaia, Maria Zaytceva, Natalia Soloshenko</b> Institute of Geology and Geochemistry UB RAS, Russia</p>	<p><b>Investigation of the cause of elemental fractionation in laser ablation-inductively coupled plasma mass spectrometry</b> <b>Yusuke Ono, Daiki Yamada, Sho Nishida, Naoki Furuta</b> Chuo university, Japan</p>	<p><b>Determination of Graphene Oxide Nanosheets in Biological Tissues Using Post-Administration Labeling with Oligonucleotide-Conjugated Gold Nanoparticles</b> <b>Po-Jui Wang<sup>1</sup>, Pei-Xin Lai<sup>2</sup>, Cheng-Kuan Su<sup>2</sup>, Chih-Ching Huang<sup>2</sup>, Yuh-Chang Sun<sup>1</sup></b> 1: Department of Biomedical Engineering and Environmental Sciences, National Tsing Hua University, Hsinchu, 30013, Taiwan.; 2: Department of Bioscience and Biotechnology, National Taiwan Ocean University, Keelung, 20224, Taiwan.</p>	<p><b>Routine Analysis of Total Arsenic in Californian Wines using the AGILENT 4200/4210 MP-AES</b> <b>Courtney Tanabe<sup>1,2</sup>, H Hopfer<sup>1,2,3</sup>, Greg Gillegand<sup>4</sup>, A Liba<sup>4</sup>, S.E. Ebeler<sup>1,2</sup>, Jenny Nelson<sup>1,2,4</sup>, Elizabeth Kulikov<sup>5</sup></b> 1: Dept. Viticulture &amp; Enology, University of California, Davis, CA, USA; 2: Food Safety and Measurement Facility, University of California, Davis, CA, USA; 3: Dept. Food Science, The Pennsylvania State University, University Park, PA, USA; 4: Agilent Technologies, Inc., Santa Clara, CA, USA; 5: Agilent Technologies Australia, VIC, AU</p>
<p><b>Determination of lead isotope ratios in seawater</b> <b>Emilia Vassileva<sup>1</sup>, Irena Wysocka<sup>1,2</sup></b> 1: IAEA Environment Laboratories, Monaco; 2: Polish Geological Institute National Research Institute</p>	<p><b>Bloodhound technology from ESI: ultrafast signals</b> <b>Katherine McLachlin, Leif Summerfield, Rob Hutchinson, Ciaran O'Connor</b> Electro Scientific Industries, United States of America</p>	<p><b>Fate of nanoparticles in environmental matrix: Dissolution Study</b> <b>Alessandro Bonetto, Andrea Brunelli, Elena Badetti, Antonio Marcomini</b> University Cà Foscari, Venice, Italy</p>	<p><b>Ultra-High Speed Analysis of Soil Extracts using an Advanced Valve System Installed on an AGILENT 5110 SVDV ICP-OES</b> <b>Elizabeth Kulikov, John Cauduro</b> Agilent Technologies Australia, VIC, AU</p>
<p><b>Investigation of elemental and isotopic fingerprints in riverine sediments from the German Elbe catchment</b> <b>Anna Reese<sup>1,2</sup>, Johanna Irrgeher<sup>1</sup>, Tristan Zimmermann<sup>1,2</sup>, Daniel Pröfrock<sup>1</sup></b> 1: Helmholtz-Centre for Materials and Coastal Research, Institute of Coastal Research, Department for Marine Bioanalytical Chemistry, Max-Planck-Strasse 1, D-21502 Geesthacht, Germany; 2: University of Hamburg, Department of Chemistry, Institute for Inorganic and Applied Chemistry, Martin-Luther-King-Platz 6, 20146 Hamburg, Germany</p>	<p><b>Application of LA-ICP-MS in the search of elements pattern in feathers of Red-breasted flycatcher (Ficedula parva)</b> <b>Anetta Hanc<sup>1</sup>, Piotr Zduniak<sup>2</sup>, Wiktor Lorenc<sup>1</sup>, Kiraz Erciyas-Yavuz<sup>3</sup>, Danuta Barakiewicz<sup>1</sup></b> 1: 1Department of Trace Element Analysis by Spectroscopy Method, Faculty of Chemistry, Adam Mickiewicz University; 2: Department of Avian Biology and Ecology, Faculty of Biology, Adam Mickiewicz University; 3: Ornithology Research Center, Ondokuz Mayıs University, Kurupelit Samsun, Turkey</p>	<p><b>Interaction studies of silver nanoparticles with soils using inductively coupled plasma techniques</b> <b>Laura Torrent, Mònica Iglesias, Eva Marguí, Manuela Hidalgo</b> Chemistry Department, University of Girona, Spain</p>	<p><b>Improved Productivity for the Determination of Metals in Oil Samples using the AGILENT 5110 RADIAL VIEW (RV) ICP-OES WITH ADVANCED VALVE SYSTEM</b> <b>Elizabeth Kulikov, Neli Drvodelic</b> Agilent Technologies Australia, VIC, AU</p>
<p><b>MEASUREMENT OF COPPER, LEAD AND ANTIMONY ISOTOPE RATIOS IN 27 EARLY BRONZE AGE ARTEFACTS BY MULTICollector ICP-MS.</b> <b>Jose Ignacio Garcia Alonso, Aida Reguera Galán, Mariella Moldovan, Rosario Pereiro, Lara Lobo</b> University of Oviedo, Spain</p>	<p><b>Assuring the geographical origin of food products by labelling with rare earth elements and detection using solution based and laser ablation ICP-MS</b> <b>Christoph Walkner, Donata Bandoniene, Daniela Zettl, Thomas Meisel</b> Chair of General and Analytical Chemistry, Montanuniversität Leoben, Austria</p>	<p><b>IMPLEMENTATION OF CE-SP-ICP-MS FOR SEPARATION OF SILVER NANOPARTICLES WITH DIFFERENT SURFACE COATINGS</b> <b>Darya Mozhayeva, Carsten Engelhard</b> University of Siegen, Germany</p>	<p><b>Determination of ultra-trace level impurities in high-purity metal samples by ICP-QQ</b> <b>Naoki Sugiyama, Michiko Yamanaka</b> Agilent Technologies, 9-1, Takakura-machi, Hachioji-shi, Tokyo 192-8510, Japan</p>
<p><b>Experimental evaluation and minimization of memory effect in isotope ratio determination of boron with high</b></p>	<p><b>Benefits of Fast Data Acquisition with Laser Ablation and Quadrupole ICP-MS</b> <b>Jason Day<sup>1</sup>, Sally Gibson<sup>1</sup>, David Price<sup>2</sup>, Rob Hutchinson<sup>3</sup></b> 1: Department of Earth Sciences, University of Cambridge, United Kingdom; 2: PerkinElmer, United Kingdom; 3: Electro Scientific</p>	<p><b>NEW POSSIBILITIES FOR ONLINE PRE-CONCENTRATION, SEPARATION, AND CHARACTERIZATION OF NANOPARTICLES IN</b></p>	<p><b>Fundamental Studies of a Nitrogen Microwave Plasma for</b></p>

<p><b>resolution multi-collector inductively coupled plasma source mass spectrometry (MC-ICPMS)</b></p> <p><b>Suresh Kumar Aggarwal<sup>1,2</sup>, Tzu-Hao Wang<sup>2</sup>, Chen-Feng You<sup>2,3</sup>, Chuan-Hsiung Chung<sup>2</sup></b></p> <p>1: Fuel Chemistry Division, BARC, Mumbai 400085, India; 2: 2Dep. Earth Sciences, National Cheng-Kung University, Tainan 70101, Taiwan; 3: Earth Dynamic System Research Centre, NCKU, Tainan, Taiwan</p>	<p>Industries, Inc, United Kingdom</p> <p><b>Qualitative discrimination analysis of corn hybrids by laser-induced breakdown spectroscopy</b></p> <p><b>Dávid Jenő Palásti<sup>1</sup>, Anikó Metzinger<sup>1</sup>, Éva Kovács-Széles<sup>2</sup>, Gábor Galbács<sup>1</sup></b></p> <p>1: Department of Inorganic and Analytical Chemistry, University of Szeged, Hungary; 2: Hungarian Academy of Sciences, Centre for Energy Research, Budapest, Hungary</p>	<p><b>COMPLEX SAMPLES WITH CE-SP-ICP-MS</b></p> <p><b>Darya Mozhayeva, Ingo Strengre, Carsten Engelhard</b></p> <p>University of Siegen, Germany</p> <p><b>Sample introduction and calibration procedures for characterizing nanoparticulate suspensions by single particle ICP-MS</b></p> <p><b>Adam Laycock, Nathalie Tepe, Frank von der Kammer, Thilo Hofmann</b></p> <p>University of Vienna, Department of Environmental Geosciences, Austria</p>	<p><b>Analytical Emission Spectrometry</b></p> <p><b>Nahid Chalyavi<sup>1</sup>, Peter S. Doidge<sup>1</sup>, Richard J. S. Morrison<sup>1</sup>, Guthrie B. Partridge<sup>2</sup></b></p> <p>1: Agilent Technologies Melbourne, Australia; 2: Agilent Technologies Santa Clara, USA</p> <p><b>Application of a new interface to the <math>\delta 34\text{S}</math> speciation analysis of volatile organic compounds in crude oil by GC-MC-ICP-MS.</b></p> <p><b>Grant Craig, Antonella Guzzonato, Christopher Brodie, Shona McSheehy Ducos, Claudia Bouman</b></p> <p>Thermo Fisher Scientific (Bremen) GmbH, Hannakunath Str. 11, 28199 Bremen, Germany</p>
<p><b>Elemental composition and Sr isotopic ratio for authentication of primary agricultural products on the example of Asparagus from Bassano del Grappa and early potatoes in Southern Italy</b></p> <p><b>Carmela Zannella<sup>1</sup>, Diana Agrelli<sup>1</sup>, Christine Oppert<sup>2</sup>, Thomas Prohaska<sup>2</sup>, Paola Adamo<sup>1</sup></b></p> <p>1: Department of Agricultural Sciences - University of Naples Federico II, Portici (NA), Italy; 2: Department of Chemistry - VIRIS Laboratory, University of Natural Resources and Life Sciences, Tulln, Austria</p>	<p><b>Quantification of trace elements in sintered silicon carbide by inductively coupled plasma-mass spectrometry with laser ablation in liquid and isotope-dilution analysis</b></p> <p><b>Masahide Fujiwara<sup>1</sup>, Koki Hirosawa<sup>1</sup>, Ryo Machida<sup>1</sup>, Naoko Nonose<sup>2</sup>, Sho Nishida<sup>1</sup>, Naoki Furuta<sup>1</sup></b></p> <p>1: Chuo University, Japan; 2: National Metrology Institute of Japan, Japan</p>	<p><b>Understanding silver nanoparticle deposition in rat following inhalation exposure using laser ablation-ICPMS</b></p> <p><b>Tim Marczylo<sup>1</sup>, Chang Guo<sup>1</sup>, Alison Buckley<sup>1</sup>, Alan Hodgson<sup>1</sup>, James Warren<sup>1</sup>, Kian Fang Chung<sup>2</sup>, Martin Leonard<sup>1</sup>, Rachel Smith<sup>1</sup></b></p> <p>1: Toxicology Department, Public Health England, United Kingdom; 2: National Heart &amp; Lung Institute, Imperial College London</p>	<p><b>Alternative sample preparation and analysis approach for ICH/USP controlled metals by ICP-MS</b></p> <p><b>Radhey S. Dhuria<sup>1</sup>, Vinay Jain<sup>1</sup>, Gaurav Kapadnis<sup>1</sup>, Samir Vyas<sup>1</sup>, Peter Planitz<sup>2</sup></b></p> <p>1: Center of Excellence Agilent Technologies, Manesar, India; 2: Agilent Techn. Walbronn, Germany</p>
<p><b>Development of a rapid and quantitative nickel purification technique for accurate nickel isotopic analysis in geochemical reference materials</b></p> <p><b>Yuki Kobayashi<sup>1</sup>, Shotaro Takano<sup>2</sup>, Masaharu Tanimizu<sup>1</sup></b></p> <p>1: Kwansai Gakuin University, Japan; 2: Institute for Chemical Research, Kyoto University, Japan</p>	<p><b>Hydrocolloid gels and chelating media disks as calibration standards in LA-ICP-MS imaging</b></p> <p><b>Vid Simon Šelih<sup>1</sup>, Martin Šala<sup>1</sup>, Johannes T. van Elteren<sup>1</sup>, Zdenka Šlejkovec<sup>2</sup></b></p> <p>1: National Institute of Chemistry Slovenia, Hajdrihova 19, Ljubljana, Slovenia; 2: Jožef Stefan Institute, Jamova 39, Ljubljana, Slovenia</p>	<p><b>The Quantification and Particle Sizing of Gold Nanoparticles in Biological Matrices Employing ICP-MS with Low Volume, Syringe Driven Sample Introduction Technology</b></p> <p><b>Tim Marczylo<sup>1</sup>, Peter Winship<sup>2</sup></b></p> <p>1: Public Health England, United Kingdom; 2: Teledyne CETAC Technologies, United States of America</p>	<p><b>Simultaneous determination of various elements in infant formula using ICP-MS 2030</b></p> <p><b>Ludivine Fromentoux<sup>1</sup>, Jan Knoop<sup>2</sup>, Uwe Oppermann<sup>2</sup>, Konstantin Kartaschew<sup>3</sup></b></p> <p>1: Shimadzu France SAS, Marne La Vallée, France; 2: Shimadzu Europa GmbH, Duisburg, Germany; 3: Shimadzu Deutschland GmbH, Duisburg, Germany</p>
<p><b>Development of a methodology for the accurate and precise measurement of compound-specific Hg isotopic composition in human and other biological samples by GC-MC-ICPMS.</b></p> <p><b>Silvia Queipo-Abad, Pablo Rodríguez-González, José Ignacio García-Alonso</b></p> <p>University of Oviedo, Spain</p>	<p><b>Investigation of the kinetic energy distribution generated with a Laser Ablation-Ion Funnel (LAFU) source</b></p> <p><b>Lorenzo Querci<sup>1</sup>, Victor Varentsov<sup>2</sup>, Detlef Günther<sup>1</sup>, Bodo Hattendorf<sup>1</sup></b></p> <p>1: aLaboratory of Inorganic Chemistry, ETH Zurich, Vladimir-Prelog-Weg 1, Zurich, Switzerland; 2: Facility for Antiproton and Ion Research in Europe (FAIR GmbH), Darmstadt, Germany</p>	<p><b>Limits of detection for a wide range of metallic nanoparticles using Nu AttoM HR-ICP-MS with microsecond acquisition times.</b></p> <p><b>Karla Newman<sup>1</sup>, Ariane Karine Donard<sup>2</sup>, Phil Shaw<sup>2</sup></b></p> <p>1: Water Quality Centre, Trent University; 2: Nu Instruments, United Kingdom</p>	<p><b>Determination of heavy metals in flavored e-liquids using ICP-OES</b></p> <p><b>Uwe Oppermann<sup>1</sup>, Ludivine Fromentoux<sup>2</sup>, Mirna Markusi<sup>3</sup>, Jan Knoop<sup>1</sup></b></p> <p>1: Shimadzu Europa GmbH, Germany; 2: Shimadzu France, Marne La Vallée, France; 3: Shimadzu d.o.o. Zagreb, Croatia</p>
<p><b>Chemical and Pb-isotopic zonality of galena (Berezovskoe deposit, Middle Urals): LA-Q-ICP-MS и HR-MC-ICP-MS data</b></p> <p><b>Evgeny Shagalov<sup>1,2</sup>, Maria Zaytceva<sup>1</sup>, Maria</b></p>	<p><b>Depth Profiling of Galvanoaluminium-Nickel Coatings on Steel by UV- and VIS-LIBS: Hints to wavelength-dependent plasma coupling influencing the effective ablation rate</b></p> <p><b>Morris Jhāngi Joseph Weimerskirch<sup>1</sup>, Tristan</b></p>	<p><b>LA-ICP-MS in combination with traditional toxicology techniques to investigate in vitro percutaneous absorption of silver nanoparticles</b></p> <p><b>C. Derrick Quarles Jr.<sup>1</sup>, Maciej Stepnik<sup>2</sup>, Katarzyna Domeradzka-Gajda<sup>2</sup>, Beata Janasik<sup>3</sup>, Wojciech</b></p>	<p><b>Analysis of Platinum Group Elements (PGEs) in road dust using the Agilent 8900</b></p>



<p><b>Streletskaia<sup>1</sup>, Daria Kiseleva<sup>1</sup>, Sergei Sustavov<sup>2</sup></b> 1: Institute of geology and geochemistry UB RAS, Russian Federation; 2: Ural State Mining University, Russian Federation</p>	<p><b>Oliver Nagy<sup>2</sup>, Ariane Giesriegl<sup>2</sup>, Wolfgang Kautek<sup>2</sup></b> 1: University of Vienna, Faculty of Physics, Austria; 2: University of Vienna, Faculty of Chemistry, Department of Physical Chemistry, Austria</p>	<p><b>Wasowicz<sup>3</sup>, Jhanis J. Gonzalez<sup>1,4</sup></b> 1: Applied Spectra, Inc, United States of America; 2: Department of Toxicology and Carcinogenesis, Nofer Institute of Occupational Medicine, Poland; 3: Department of Biological and Environmental Monitoring, Nofer Institute of Occupational Medicine, Poland; 4: Lawrence Berkeley National Laboratory, United States of America</p>	<p><b>Triple Quadrupole ICP-MS in MS/MS mode</b> <b>Alain Desprez<sup>1</sup>, Glenn Woods<sup>2</sup>, Dominique Demare<sup>3</sup></b> 1: Agilent Technologies France, Parc Technopolis – ZA Courtaboeuf, 3 avenue du Canada, F-91978 Les Ulis; 2: Agilent Technologies UK, 5500 Lakeside, Cheadle Royal Business Park, Stockport, Cheshire, SK8 3GR; 3: IFSTTAR, Route de Bouaye - CS4 - 44344 Bouguenais Cedex - Bâtiment Darcy</p>
<p><b>Application of ICP-MS Neptune Plus multi-collector and ICP-MS NexION 300s quadrupole spectrometers for LA-ICP-MS U-Pb dating of zircon: comparison and evaluation</b> <b>Maria Zaitceva<sup>1</sup>, Alexander Pupyshev<sup>2</sup>, Sergei Votyakov<sup>1</sup></b> 1: Institute of Geology and Geochemistry UB RAS, Russian Federation; 2: Ural Federal University, Russian Federation</p>	<p><b>Analysis of SiO<sub>2</sub>-enforced conducting polymer using ICP-MS and LIBS</b> <b>Heung Bin Lim, Eunji Kim</b> Dankook Univ., Korea, Republic of (South Korea)</p>	<p><b>Possibilities and Challenges of spICP-MS</b> <b>Michiko Yamanaka<sup>1</sup>, Steve Wilbur<sup>2</sup>, Naoki Sugiyama<sup>1</sup></b> 1: Agilent Technologies International Japan, Ltd., Japan; 2: Agilent Technologies, Inc.</p>	<p><b>Single Particle ICP-MS as an online detector for Field-Flow Fractionation</b> <b>Robert Reed<sup>1</sup>, Soheyl Tadjiki<sup>1</sup>, Tony Pfaffe<sup>2</sup>, Evelin Moldenhauer<sup>2</sup>, Florian Meier<sup>2</sup>, Thorsten Klein<sup>2</sup></b> 1: Postnova Analytics Inc., United States of America; 2: Postnova Analytics GmbH, Landsberg am Lech, Germany</p>
<p><b>Analysis of radioactive iodine-129 by ICP-QQQ using MS/MS mode and a new octopole reaction cell with axial acceleration</b> <b>Yasuyuki Shikamori<sup>1</sup>, Kazumi Nakano<sup>1</sup>, Naoki Sugiyama<sup>1</sup>, Maki Honda<sup>2</sup>, Aya Sakaguchi<sup>2</sup>, Keisuke Sueki<sup>2</sup></b> 1: Agilent Technologies, Japan; 2: University of Tsukuba, Center for Research in Isotopes and Environmental Dynamics (CRIED)</p>	<p><b>Geochemical characteristics of hydrothermal fluids observed along Median Tectonic Line in Mie-Prefecture, Japan</b> <b>Masaharu Tanimizu<sup>1</sup>, Ryo Nakai<sup>1</sup>, Naoto Sugimoto<sup>1</sup>, Yasunori Mori<sup>2</sup></b> 1: Kwansei Gakuin Univ., Japan; 2: Mie Prefecture Health and Environment Research Institute</p>	<p><b>Detection of aluminum nanoparticles in biological media and in vitro</b> <b>Benjamin Krause<sup>1</sup>, Holger Sieg<sup>1</sup>, Thomas Meyer<sup>4</sup>, Philipp Reichardt<sup>1</sup>, Julia Tentschert<sup>1</sup>, Harald Jungnickel<sup>1</sup>, Peter Laux<sup>1</sup>, Albert Braeuning<sup>1</sup>, Valerie Fessard<sup>2</sup>, Fabienne Gauffre<sup>3</sup>, Irina Estrela-Lopis<sup>4</sup>, Alfonso Lampen<sup>1</sup>, Andreas Luch<sup>1</sup></b> 1: German Federal Institute of Risk Assessment (BfR), Department of Chemical and Product Safety, Max-Dohrn-Strasse 8-10, 10589 Berlin, Germany; 2: ANSES, French Agency for Food, Environmental and Occupational Health Safety, Fougères Laboratory, 10B rue Claude Bourgelat, 35306, Fougères Cedex, France; 3: Institut des Sciences Chimiques de Rennes, UMR-CNRS 6226, Université de Rennes 1, France; 4: Institute of Medical Physics and Biophysics, University of Leipzig, Härtelstrasse 16-18, 04275 Leipzig, Germany</p>	<p><b>Development of a new Quantification concept for the Characterization of Nanoparticle Solutions with Hydrodynamic Chromatography</b></p>
<p><b>Modelling elemental distributions and <sup>87</sup>Sr/<sup>86</sup>Sr ratios in river water based on catchment geology: challenges and applications</b> <b>Andreas Zitek<sup>1</sup>, Anastassiya Tchaikovsky<sup>1</sup>, Johanna Irrgeher<sup>2</sup>, Thomas Prohaska<sup>1</sup></b> 1: University of Natural Resources and Life Sciences Vienna, Austria; 2: Helmholtz Centre Geesthacht, Germany</p>	<p><b>DETERMINATION OF <sup>239</sup>PU, <sup>240</sup>PU AND <sup>241</sup>AM IN URINE BY MC-</b></p>	<p><b>DETERMINATION OF <sup>239</sup>PU, <sup>240</sup>PU AND <sup>241</sup>AM IN URINE BY MC-</b></p>	<p><b>DETERMINATION OF <sup>239</sup>PU, <sup>240</sup>PU AND <sup>241</sup>AM IN URINE BY MC-</b></p>

### ICP-MS AFTER THEIR SIMULTANEOUS SEPARATION FROM THE MATRICE

**Mechthild Burow**, Myroslav Zoriy

Forschungszentrum Jülich GmbH, Department Safety and Radiation Protection, Germany

### Procedures for precise isotopic analysis of trace Pu in environmental materials by multi-static MIC-ICPMS

**James Andrew Dunne**, John W. Cairns, Preen Patel, Allan J. Pidduck

AWEMaterials and Analytical Science, AWE plc, Aldermaston, Reading, Berkshire, RG7 4PR, UKplc., United Kingdom

### Systematic Assessment of the Potential of Elemental and Strontium Isotopic Signatures for Provenancing of Fruit Raw Products on the Example of Strawberries - Part II

**Christine Opper**<sup>1</sup>, Sylvie Bonnet<sup>1</sup>, Johanna Irrgeher<sup>2</sup>, Konstantin Leonhartsberger<sup>1</sup>, Caroline Eigner<sup>1</sup>, Melanie Diesner<sup>1</sup>, Thomas Prohaska<sup>1</sup>

1: University of Natural Resources and Life Sciences, Austria; 2: Helmholtz-Centre for Materials and Coastal Research, Geesthacht, Germany

### connected to Single Particle Inductively Coupled Plasma Mass Spectrometry

**Daniel Rosenkranz**<sup>1</sup>, René Matschaß<sup>1</sup>, Jutta Tentschert<sup>1</sup>, Norbert Jakubowski<sup>2</sup>, Ulrich Panne<sup>2</sup>, Peter Laux<sup>1</sup>, Philipp Reichert<sup>1</sup>, Andreas Luch<sup>1</sup>

1: German Federal Institute for Risk Assessment (BfR), Max-Dohrn-Strasse 8-10, 10589 Berlin, Germany; 2: German Federal Institute for Material and Research (BAM), Richard-Willstätter-Strasse 11, 12489 Berlin, Germany

5:30pm

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6:50pm

### BI-OL 2: BIOIMAGING - GENERAL SESSION 2

Location: [ARLBERG-well.com](http://ARLBERG-well.com) NORTH HALL

Chair: **Andreas Limbeck**

Chair: **Anna-Maria Kriechbaum**

### Quantitative Bioimaging by LA-ICP-MS for Studying the Migration of Silver from Silver-coated Endoprostheses

**Michael Sperling**<sup>1,2</sup>, Mandy Großgarten<sup>1</sup>, Ann-Christin Niehoff<sup>1</sup>, Astrid Jeibmann<sup>3</sup>, Werner Paulus<sup>3</sup>, Uwe Karst<sup>1</sup>

1: University of Münster, Institute of Inorganic and Analytical Chemistry, Münster, Germany; 2: European Virtual Institute for Speciation Analysis, Münster, Germany; 3: University Hospital Münster, Institute of Neuropathology, Münster, Germany

### Bioimaging of Zn and MMP-11 in Breast Cancer Tissues by LA-ICP-MS and MALDI-IMS

**Raquel Gonzalez de Vega**<sup>1</sup>, Maria Luisa Fernandez-Sanchez<sup>1</sup>, Noemi Eiró<sup>2</sup>, Francisco Vizoso<sup>2</sup>, Alfredo Sanz-Medel<sup>1</sup>, Uwe Karst<sup>3</sup>

1: Department of Physical and Analytical Chemistry, University of Oviedo, Spain; 2: Research Unit, Hospital de Jove Foundation, Gijón, Spain; 3: Institute of Inorganic and Analytical Chemistry, University of Münster, Germany

### Spatially resolved quantification of gadolinium in human brain thin sections by means of LA-ICP-MS after administration of gadolinium-based contrast agents

**Stefanie Fingerhut**<sup>1</sup>, Ann-Christin Niehoff<sup>1</sup>, Michael Sperling<sup>1,2</sup>, Astrid Jeibmann<sup>3</sup>, Werner Paulus<sup>3</sup>, Thomas Niederstadt<sup>4</sup>, Thomas Allkemper<sup>4</sup>, Walter Leonhard Heindel<sup>4</sup>, Markus Holling<sup>5</sup>, Uwe Karst<sup>1</sup>

1: University of Münster, Institute of Inorganic and Analytical Chemistry, Germany; 2: European Virtual Institute for Speciation Analysis (EVISA), Germany; 3: University Hospital Münster, Institute of Neuropathology, Germany; 4: University Hospital Münster, Institute of Clinical Radiology, Germany; 5: University Hospital Münster, Department of Neurosurgery, Germany

### New strategies for analysis of biological samples via ICP-MS

**Martin Resano**<sup>1</sup>, Esperanza García-Ruiz<sup>1</sup>, Diego Pereira Leite<sup>1</sup>, Maite Aramendía<sup>2</sup>, Luis Rello<sup>3</sup>, Águeda Cañabate<sup>4</sup>, José Luis Todolí<sup>4</sup>, Eduardo Bolea-Fernández<sup>5</sup>, Lieve Balcaen<sup>5</sup>, Frank Vanhaecke<sup>5</sup>, Sylvain Bérail<sup>6</sup>, Christophe Pécheyran<sup>6</sup>

1: University of Zaragoza, Spain; 2: Centro Universitario de la Defensa, Spain; 3: "Miguel Servet" University Hospital, Spain; 4: University of Alicante, Spain; 5: Ghent University, Belgium; 6: CNRS - Université de Pau et des Pays de l'Adour, France



	<p><b>Quantitative LA-ICP-MS of single cells: Comparison of single spot ablation and imaging</b>  <b>Konrad Loehr</b>, Antje Herrmann, Norbert Jakubowski  BAM, Germany</p>	
	<p><b>Application of LA-ICP-MS, EDX and confocal microscopy for imaging and quantifying Cd, Cu, Zn and Pb in tissues of pea (Pisum sativum L.)</b>  <b>Anetta Hanc<sup>1</sup></b>, Arleta Malecka<sup>2</sup>, Agnieszka Kutrowska<sup>2</sup>, Danuta Barankiewicz<sup>1</sup>  1: Department of Trace Element Analysis by Spectroscopy Method, Faculty of Chemistry, Adam Mickiewicz University in Poznan, Poland; 2: Department of Biochemistry, Faculty of Biology, Adam Mickiewicz University</p>	
	<p><b>Laser ablation inductively coupled plasma mass spectrometry in elemental imaging of inorganic and biological materials</b>  <b>Viktor Kanicky<sup>1,2</sup></b>, Michaela Vasinova Galiova<sup>1,2</sup>, Marketa Hola<sup>1,2</sup>, Tomas Vaculovic<sup>1,2</sup>  1: Masaryk University, Faculty of Science, Brno, Czech Republic; 2: Masaryk University, Central European Institute of Technology, Brno, Czech Republic</p>	
<p>6:50pm - 8:00pm</p>	<p><b>THU-VE 3: VENDOR EXHIBITION</b>  Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p>	
<p>8:00pm - 10:00pm</p>	<p><b>Agilent EVENT: AGILENT Evening event: TALENT PEAKS - BIFANG ALM</b>  Location: BIFANG ALM</p>	<p><b>PerkinElmer EVENT: PERKIN ELMER Evening event: SKI MUSEUM St.ANTON</b>  Location: SKI MUSEUM SANKT ANTON</p>

Date: Friday, 24/Feb/2017

<p>8:30am - 9:00am</p>	<p><b>APP-PL: APPLICATIONS AND FUTURE TRENDS - PLENARY LECTURE</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Steven James Ray Chair: Florian Dutschke</p> <p><b>A Brief Gaze into the Plasma Spectrochemistry Crystal Ball</b> <u>Gary M Hieftje</u> Indiana University, United States of America</p>		
<p>9:00am - 9:40am</p>	<p><b>APP-IL: APPLICATIONS AND FUTURE TRENDS - INVITED LECTURES</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Steven James Ray Chair: Florian Dutschke</p> <p><b>Hg fractionation, speciation, fish: New tools to unravel the global cycling of Hg</b> <u>Olivier F.X. Donard</u><sup>1</sup>, David Amouroux<sup>1</sup>, Sylvain Berail<sup>1</sup>, Emmanuel Tessier<sup>1</sup>, Julien Barre<sup>1</sup>, Mathilde Monperrus<sup>1</sup>, Zoyne Pedrero<sup>1</sup>, Russel D. Day<sup>2</sup> 1: Institut des Sciences Analytiques et de Physicochimie pour l'Environnement et le Matériaux, Pau, (France); 2: NIST, Hollings Marine Laboratory, Charleston (USA)</p>		
	<p><b>Traditional elemental speciation and newcomers</b> <u>Jörg Feldmann</u>, Eva Krupp, Johannes Kopp, Nor Laili A. Jamari, Andrea Raab University of Aberdeen, United Kingdom</p>		
<p>9:40am - 10:50am</p>	<p><b>APP-OL 1: APPLICATIONS AND FUTURE TRENDS - GENERAL SESSION 1</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Steven James Ray Chair: Florian Dutschke</p> <p><b>Advances in Nuclear Forensics</b> <u>M. Paul Field</u><sup>1</sup>, Kayron N. Tevepaugh<sup>2</sup>, Brian W. Ticknor<sup>2</sup>, Hwan Kim<sup>1</sup>, Shalina C. Bottorff<sup>2</sup>, Cole R. Hexel<sup>2</sup> 1: Elemental Scientific, United States of America; 2: Oak Ridge National Labs, United States of America</p>		
	<p><b>Dual-channel Concentric Grid Nebulizer for applying online standard addition ICP-OES</b> <u>Kazumi Inagaki</u>, Rina Matsushita, Koyo Ido, Shin-ichi Miyashita, Shin-ichiro Fujii National Metrology Institute of Japan (NMIJ)/AIST, Japan</p>		
	<p><b>Application of high pressure microwave-assisted digestion flow system for juice and milk sample preparation</b> <u>Thiago Linhares Marques</u><sup>1</sup>, Joaquim Araújo Nóbrega<sup>1</sup>, Helmar Wiltsche<sup>2</sup>, Monika Winkler<sup>2</sup>, Günter Knapp<sup>2</sup> 1: Group for Applied Instrumental Analysis, Department of Chemistry, Federal University of São Carlos, 13565-905, São Carlos, SP, Brazil; 2: Institute of Analytical Chemistry and Food Chemistry, Graz University of Technology, 8010, Graz, Styria, Austria</p>		
	<p><b>Rapid multi-elemental imaging using LA-ICP-TOFMS in combination with collision/reaction cell technology</b> <u>Marcel Burger</u><sup>1</sup>, Gunnar Schwarz<sup>1</sup>, Alexander Gundlach-Graham<sup>1</sup>, Debora Käser<sup>1</sup>, Jérôme Käslin<sup>1</sup>, Bodo Hattendorf<sup>1</sup>, Daniela Rubatto<sup>2</sup>, Detlef Günther<sup>1</sup> 1: ETH Zürich, Switzerland; 2: University of Bern, Switzerland</p>		
	<p><b>Application of femtosecond laser ablation multicollector inductively coupled plasma mass spectrometry (fs-LA-MC-ICP-MS) for tin isotope ratio analysis in cassiterite</b> <u>Marie Schulze</u><sup>1</sup>, Ingo Horn<sup>2</sup>, Carla Vogt<sup>1</sup> 1: Leibniz Universität Hannover, Institut für Anorganische Chemie, Germany; 2: Leibniz Universität Hannover, Institut für Mineralogie, Germany</p>		
	<p><b>A 213 nm Laser Ablation System in Conjunction with ICP-TOFMS for High-Resolution, High-Speed and Multi-Elemental Imaging</b> <u>Gunnar Schwarz</u>, Joachim Koch, Bodo Hattendorf, Detlef Günther Laboratory of Inorganic Chemistry, ETH Zurich, Vladimir-Prelog-Weg 1, CH-8093 Zurich, Switzerland</p>		
	<p><b>INVESTIGATION OF AGED LITHIUM ION BATTERY ELECTRODES BY MEANS OF LA-ICP-MS AND ICP-OES</b> <u>Timo Schwieters</u>, Marco Evertz, Martin Winter, Sascha Nowak University of Münster, MEET Battery Research Center, Germany</p>		
<p>10:50am - 11:20am</p>	<table border="1"> <tr> <td data-bbox="320 1883 916 1962"> <p><b>CO-FRI 1: COFFEE BREAK</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p> </td> <td data-bbox="920 1883 1503 1962"> <p><b>FRI-VE 1: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p> </td> </tr> </table>	<p><b>CO-FRI 1: COFFEE BREAK</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p>	<p><b>FRI-VE 1: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL</p>
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<p>11:20am - 12:50pm</p>	<p><b>APP-OL 2: APPLICATIONS AND FUTURE TRENDS - GENERAL SESSION 2</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL Chair: Steven James Ray Chair: Florian Dutschke</p> <p><b>Measuring of BaF by ICP-QMS/QMS for Determination of F in Drinking Water</b> <u>Yanbei Zhu</u><sup>1</sup>, Kazumi Nakano<sup>2</sup>, Yasuyuki Shikamori<sup>2</sup></p>		

1: NMIJ/AIST; 2: Agilent Technologies (Japan)

**How can TOF contribute to LA-ICP-MS applications?****Olga Borovinskaya<sup>1</sup>, Martin Tanner<sup>1</sup>, Hao Wang<sup>2</sup>, Julien Mercadier<sup>3</sup>, Jon Woodhead<sup>4</sup>**

1: TOFWERK AG, 3600 Thun, Switzerland; 2: Swiss Gemological Institute SSEF, 4051 Basel, Switzerland; 3: Université de Lorraine, 54506 Vandoeuvre-Les-Nancy, France; 4: School of Earth Sciences, University of Melbourne, Melbourne, VIC 3010, Australia

**The Analysis of Brines by ICP-OES****Kenneth Neubauer, Erica Cahoon, Chady Stephan**

PerkinElmer Inc., United States of America

**Table-top XUV Plasma-Laser for Chemical Imaging****Davide Bleiner<sup>1,2</sup>, Yunieski Arbelo<sup>1</sup>, Francesco Barbato<sup>1</sup>, Greta Patzke<sup>2</sup>**

1: Swiss Federal Laboratories for Materials &amp; Technology (Empa), Switzerland; 2: University of Zurich

**Validation of an Online Sequential extraction (OSE) method for the Elemental Characterisation of Fine Dust Sources****Nicole Asante<sup>1</sup>, Volker Nischwitz<sup>1</sup>, Bernd G. Lottermoser<sup>2</sup>**

1: Forschungszentrum Juelich, Germany; 2: RWTH Aachen University, Germany

**Matrix-matched calibration in LA-ICP-MS of silicate, phosphate and carbonate minerals: application of G-Probe samples****Daria Kiseleva**

Institute of Geology and Geochemistry UB RAS, Russian Federation

**Trace Element Analysis of Gemstones using LA-ICP-TOF-MS****Hao A.O. Wang, Michael S. Krzemnicki**

Swiss Gemological Institute SSEF, Switzerland

**Determination of radium in natural waters using IC-ICP-MS after on-line preconcentration****Hakan Gurleyuk, Tamas Ugrai**

Brooks Applied Labs, United States of America

**Few-body physics with ultracold potassium rubidium mixtures****Ridha Horchani**

Dhofar university, Oman

1:30pm -	<b>FRI-VE 2: VENDOR EXHIBITION</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> SOUTH HALL	<b>LU-FRI: LIGHT LUNCH (LIGHT LUNCH SPONSORED BY ESI/Meinhard)</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a>
2:00pm -	<b>SKI RACE: SKI RACE @ZIELSTADION (sponsored by Agilent, AMETEK/Spectro, Analytik Jena, Meinhard/ESI, Perkin Elmer, Solutions 4 Science, Shimadzu and Thermo Fisher)</b> Location: <a href="http://SKIING SLOPE - ARLBERG-well.com">SKIING SLOPE - ARLBERG-well.com</a> Finish Arena (ZIELSTADION) Chair: <b>Stephan Hann</b> Chair: <b>Norbert Jakubowski</b>	
6:00pm -	<b>CONFERENCE DINNER: CONFERENCE DINNER (beverages sponsored by Analytik Jena, Meinhard/ESI, Teledyne/Cetac and Thermo Fisher)</b> Location: <a href="http://ARLBERG-well.com">ARLBERG-well.com</a> NORTH HALL	
9:00pm		