PROGRAMME

European Winter Conference on Plasma Spectrochemistry

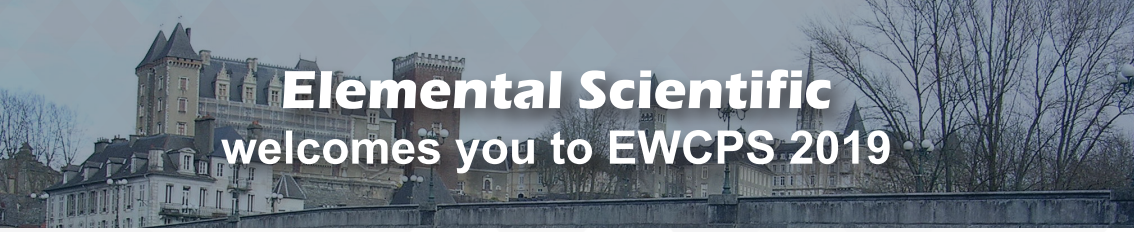
WITH THE SUPPORT OF

IPREM
Institut des sciences analytiques et de physico-chimie pour l'environnement et les matériaux

PAU BÉARN PYRÉNÉES
Communauté d'Agglomération

RÉGION Nouvelle-Aquitaine

Adera
Soutenir les acteurs de l'innovation



Elemental Scientific
welcomes you to EWCPS 2019

prep*FAST* IC

NWR193

What's New

Monday, February 4th Poster Session

- **MP-29 Improving laboratory efficiency with a combined prep*FAST* and chromatography method for chromium speciation** - C Derrick Quarles Jr, Michael Szoltysik, Patrick Sullivan, Maurice Reijnen

- **MP-30 Inline sample preparation system for micro volume clinical samples** - C Derrick Quarles Jr, Stephen Sudyka, Austin Schultz, M. Paul Field, Daniel Wiederin

- **MP-31 Automated laser ablation sampling for food safety** - C Derrick Quarles Jr, Todor Todorov, Ciaran O'Connor, Rob Hutchinson, Katherine McLachlin

- **MP-32 Advantages of inline dilution for LC-ICP MS based applications involving arsenic speciation** - C Derrick Quarles Jr, Patrick Sullivan, M. Paul Field, Daniel Wiederin

- **MP-63 High volume in-line syringe dilution system for ICPOES and ICP MS** - Andrew Toms, Austin Schultz, Daniel Wiederin

- **MP-64 Automated preconcentration and matrix removal for ultratrace determination of radium in environmental waters** - Nathan Saetveit, Aurelien Viscardi

Social

Monday, February 4th at 20:00 (8pm)

Join us for cocktails and hors d'oeuvres
Le Poulet à 3 Pattes
26 Blvd. des Pyrénées

Lunch

Wednesday, February 6th 12:25-14:00

Lunch Seminar
Monzepat Room
Conference Center

Elemental Scientific

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Table of contents

05 Welcome

06 Committees

08 Sponsors

10 General information

15 Social events

16 Programme schedule

18 Detailed programme

32 Poster sessions

56 Sponsors presentations

96 Notes

Dear Plasma Spectrochemists,
Dear Colleagues,

It is my great honor and pleasure to welcome you to the 2019 European Winter Conference on Plasma Spectrochemistry held from February 3 to 8, 2019, in Pau, a historical royal city set at the foot of the Pyrenees mountains. The current EWCPS-2019 is the 18th event in this well-established series of successful meetings organized by European research groups alternating yearly with the US conferences organized by Professor Ramon Barnes .

Once again, the Winter Plasma Spectrochemistry Conference brings together the major figures in the field and attracts over 500 participants to present their work and exchange on all the topics concerning analytical plasma spectrochemistry and related mass and emission spectrometric techniques, including fundamentals and instrumentation, sample introduction techniques, glow discharge, laser ablation, isotopic analysis, speciation and metallomics, quality control and industrial applications.

We are proposing outstanding plenary, keynote and heritage lectures as well as more than 70 contributed talks and 300 posters. The program is complemented by a number of special sessions, workshops and technical short courses taught by renowned experts. The EWCPS-2019 is hosting the exhibition where companies introduce and present their latest products in a warm and convivial atmosphere and setting.

I am particularly pleased to welcome Prof. José Ignacio Garcia Alonso and Dr. Magdalena Matczuk, the awardees of two prizes (2019 European Award for Plasma Spectrochemistry and the Rising Star Award for Plasma Spectrochemistry, respectively) sponsored by Agilent Technologies and promoting analytical plasma spectrochemical developments and applications in Europe. I am also happy to extend my congratulations to the two other laureates of the awards presented at the EWCPS-2019 - Dr. Dominic Hare, the Emerging Leader in Atomic Spectroscopy Awardee and Dr. Marcia Foster Mesko, the JAAS Emerging Investigator Lecturer.

I warmly and sincerely extend my welcome to the young scientists seeking to share and expand their experiences in plasma spectrochemistry and especially those who have won one of 12 PhD students grants covering their participation at the conference in exchange for a high-impact lecture. A Young Scientists Career event provides opportunities of networking and discussing with world leading scientists and companies managers the best ways to pursue a career in industry or academia.

I wish you all a productive and successful conference, an unforgettable cultural and culinary experience and lots of fun during the social events.

Ryszard Lobinski

Chair of the 2019 European Winter Conference on Plasma Spectrochemistry

Committees

Ryszard Lobinski
CNRS, Pau, France
Conference Chair

Joanna Szpunar
CNRS, Pau, France
Programme Chair

Hugues Paucot
UT2A Training & Consulting, Pau, France
Exhibition Coordinator

Scientific Committee

- Ramon Barnes, University of Massachusetts, USA
- Ewa Bulska, University of Warsaw, Poland
- Philip Doble, University of Technology, Sydney, Australia
- Olivier F.X. Donard, CNRS, Pau, France
- Jörg Feldmann, University of Aberdeen, UK
- Heidi Goenaga Infante, LGC, Teddington, UK
- Detlef Günther, ETH, Zurich, Switzerland
- Wei Hang, Xiamen University, China
- Volker Hoffmann, Leibniz Institute for Solid State and Materials Research, Dresden, German
- Norbert Jakubowski, BAM, Berlin, Germany
- Gunda Köllensperger, University of Vienna, Austria
- Maria Montes-Bayon, University of Oviedo, Spain
- Akitoshi Okino, Tokyo Institute of Technology, Japan
- Michael Sperling, University of Münster, Germany
- Joanna Szpunar, CNRS, Pau, France
- Yngvar Thomassen, National Institute of Occupational Health, Oslo, Norway
- Frank Vanhaecke, University of Ghent, Belgium
- Lu Yang, NRCC, Ottawa, Canada

Continuation committee

- Walter Goessler – EWCPS-2009 (Graz, Austria)
- Juan R. Castillo – EWCPS-2011 (Zaragoza, Spain)
- Joanna Szpunar – EWCPS-2013 (Krakow, Poland)
- Uwe Karst – EWCPS-2015 (Münster, Germany)
- Thomas Prohaska – EWCPS-2017 (Sankt Anton, Austria)
- Ryszard Lobinski -EWCPS-2019 (Pau, France)
- Justyna Wojcieszek – student member (Warsaw Technical University, Poland)
- Izabela Strzemińska – student member (University of Pau, France)

Organizing committee

- Sylvain Bérail, CNRS, IPREM, Pau, France
- Katarzyna Bierła, CNRS, IPREM, Pau, France
- Brice Bouyssiere, UPPA, IPREM, Pau, France
- Laurent Ouerdane, UPPA, IPREM, Pau, France
- Hugues Paucot, UT2A Training & Consulting, Pau, France
- Florence Pannier, UPPA, IPREM, Pau, France
- Martine Potin-Gautier, UPPA, IPREM, France
- Christophe Pécheyran, CNRS, IPREM, Pau, France
- Hugues Preudhomme, CNRS, IPREM, Pau, France
- Luisa Ronga, UPPA, IPREM, Pau, France

Local staff (IPREM, Pau, France)

- Ghaya Al-Choubassi
- Marie Carmen Poyo
- Robin Cellier
- Edith Cruzado Tafur
- Bastien Duval
- Asmodée Galy
- Javier Garcia Calleja
- Alexandr Ivaneev
- Jérémy Lamarche
- Robert Łobiński
- Lucile Marigliano
- Paulina Pisarek
- Andréa Romero Rama
- Izabela Strzemińska
- Cloé Veclin
- Mariam Zayter

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General information

CONFERENCE VENUE

The conference will be held in the Palais Beaumont, the historic conference centre with a panoramic view of the Pyrenees, just a few minutes' walk from the city center. We kindly remind you that the access to the Palais Beaumont is allowed only upon presenting the conference badge.

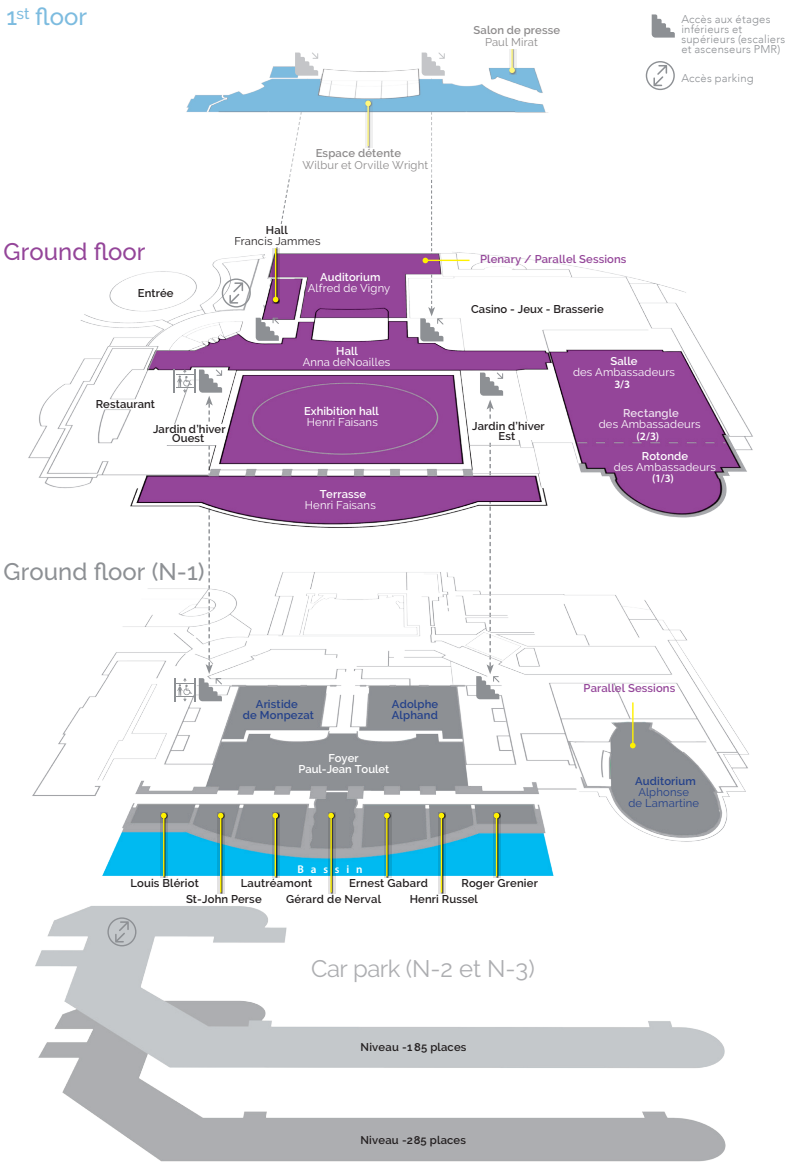
CONFERENCE SECRETARIAT

ADERA Congrès
162 avenue Albert Schweitzer
33608 Pessac Cedex, France
ewcps2019@adera.fr

LE PALAIS BEAUMONT

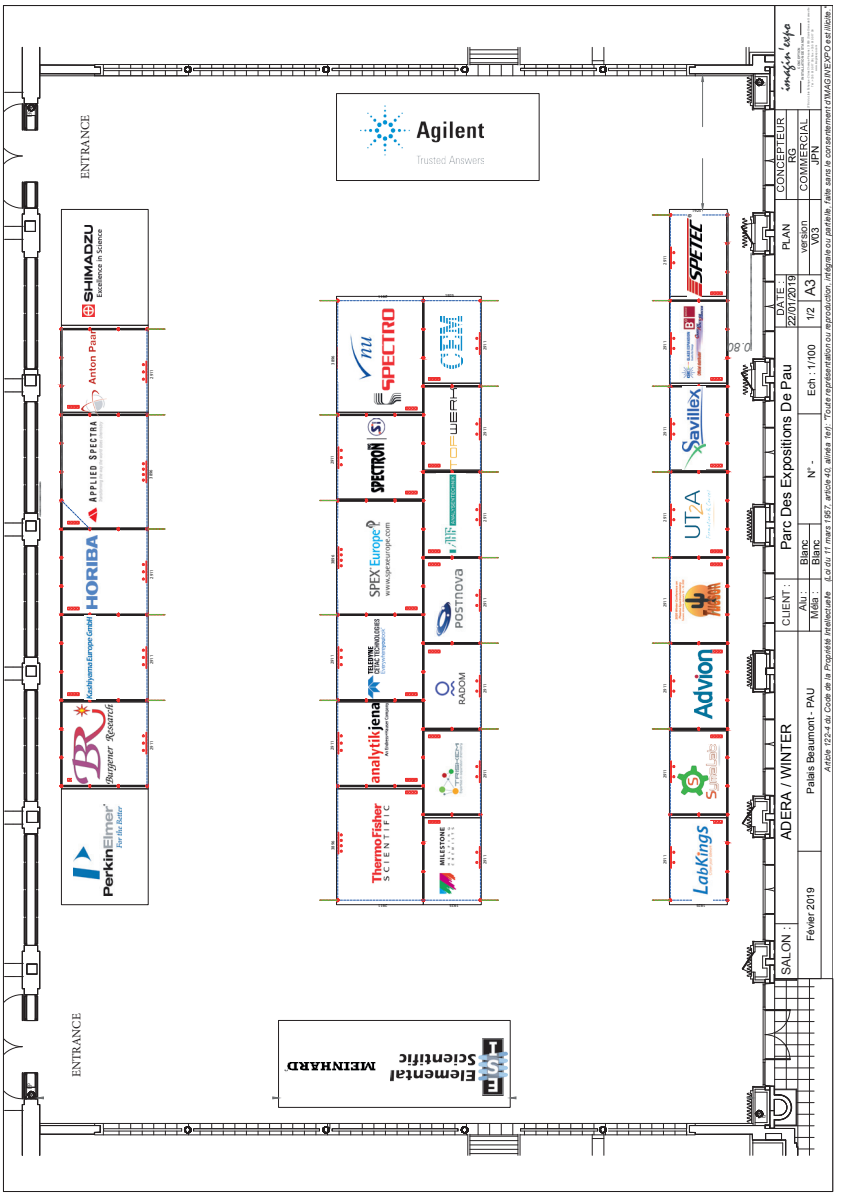
Allée Alfred de Musset
64000 Pau, France
Tel: +33 (0)8 05 02 20 15

Floor map


1st floor
Salon de presse
Paul Mirat
Accès aux étages inférieurs et supérieurs (escaliers et ascenseurs PMR)
Accès parking
Espace détente
Wilbur et Orville Wright
Ground floor
Hall
Francis Jammes
Plenary / Parallel Sessions
Auditorium
Alfred de Vigny
Entrée
Casino - Jeux - Brasserie
Hall
Anna deNoailles
Salle
des Ambassadeurs
3/3
Restaurant
Exhibition hall
Henri Faisans
Jardin d'hiver
Ouest
Jardin d'hiver
Est
Rectangle
des Ambassadeurs
(2/3)
Rotonde
des Ambassadeurs
(1/3)
Terrasse
Henri Faisans
Ground floor (N-1)
Parallel Sessions
Aristide
de Monpezat
Adolphe
Alphand
Foyer
Paul-Jean Toulet
Auditorium
Alphonse
de Lamartine
Bassin
Louis Blériot
St-John Perse
Lautréamont
Gérard de Nerval
Ernest Gabard
Henri Russel
Roger Grenier
Car park (N-2 et N-3)
Niveau -1 85 places
Niveau -2 85 places

Exhibition

The exhibition of analytical instruments, laboratory equipment and scientific literature will take place in the *Henri Faisans* hall. It will open on Sunday, February 3rd, 2019 at 19:00 and close on Friday, February 8th, 2019 at 11:00. Booths can be visited during coffee breaks, lunch breaks and poster sessions as well as during the lectures.



Lectures and oral presentations

All presentations should be displayed using the conference multimedia system. They should be prepared in .pptx format. The presenters are requested to upload their presentations at least 1 hour before the session during which the presentation will be given.

Posters

The maximum dimension of the posters is A0 (841 x 1189 mm). Poster sessions will take place in the *Salle Ambassadeurs*. The organizers will provide all the materials necessary to fix the posters onto the boards.

Notice : Monday and Tuesday posters should be displayed from Monday 8:30 till Tuesday 18:00; Wednesday and Thursday posters should be displayed from Wednesday 8:30 till Thursday 13:00. The presence of at least one of the authors in front of the poster is requested on the day of the corresponding session.

Short courses

A number of short courses given related to techniques and methods of plasma spectrochemistry will be given by the specialists in the field; the courses will take place on Sunday morning and early afternoon.

Vendors' Lunch seminars and workshops

A number of lunch seminars and workshops presenting the latest development in analytical instrumentation will be proposed by the EWCPS-2019 partners. They will be organized by :

• **Anton Paar** - Lunch seminar
(*room Monpezat*)
Monday, February 4th (12:25-14:00)

• **Shimadzu** – Lunch seminar
(*room Alphand*)
Monday, February 4th (12:25-14:00)

• **Agilent** :

– Workshop
(*Auditorium Alphonse de Lamartine*)
Monday, February 4th (17:30-19:00)

–Lunch seminar
(*room Alphand*)
Tuesday, February 5th (12:25-14:00)

• **Elemental Meinhard** - Lunch seminar
(*room Monpezat*)
Wednesday, February 6th (12:25-14:00)

• **Thermo Fisher Scientific** - Lunch seminar
(*room Alphand*)
Wednesday, February 6th (12:25-14:00)

• **Ametek Spectro** – Users' meeting
(*room Lautréamont*)
Wednesday, February 6th (17:30-19:00)

• **PerkinElmer** - Lunch seminar
(room Monpezat)
Thursday, February 7th (12:25-14:00)

• **Horiba** - Users' meeting
(*room Alphand*)
Wednesday, February 6th (17:30 – 19:00)

Glow Discharge Workshop

Workshop on analytical glow discharge will be held on Tuesday, 5th February, 11.00 -12.25 (room Gabard). The aim of this workshop is the exchange of information and experience between experts in the field of analytical glow discharge and newcomers.

Young Scientist Career Event

Young Scientist Career Event is scheduled on Thursday, February 7th at 17:30 (Monpezat room) and aimed to provide information about possible career options in science and research as well as job options in industry for young scientists at the end of their doctoral studies as well as for post-doc researchers that are looking for new challenges. The participating senior researchers from academia, public research organizations and private companies will give short presentations highlighting their expectations and criteria applied when hiring new staff. Then they will answer questions of the young audience and will be available for individual discussions with young researchers.

Social events

Offered to all the registered participants and accompanying persons :

• **Get-together party** will take place at the very beginning of the conference just after the opening session (evening February 3rd, 2019). The attendees will have an opportunity to meet old and make new friends and get the first taste of the South Western French cuisine accompanied by local wines.

• **Lunches** and **coffee** will be served in the exhibition area

• **Guided visit of the Pau Castle** will take place on Friday, February 8th, 2019 afternoon; on request, additional visits on Tuesday, Wednesday (at 10:30 and 15:30) and Thursday (at 14:30) can be available. Several groups with English, French and Spanish speaking guides will be organized.

Optional (additional participation fee required) :

• The European Winter Conference on Plasma Spectrometry **Hot Plasma Party** (sponsored by Thermo Fisher Scientific) will be held in the traditional wine producing château "*Domain Cinquau*" surrounded by superb views of the Béarn countryside. You will be able to enjoy the rich atmosphere of this special place tasting not only some of the finest local wines, but also the best cuisine the Béarn region has to offer. The party will be animated by a band orchestra playing popular traditional and contemporary tunes.
The buses will leave from the conference center at 18:45.

• **Gala Dinner** will be held on Thursday, February 7th, 2019 evening will be a perfect opportunity to unwind, enjoy a meal with your new and old colleagues and be entertained. A five-course dinner with wine will be served in the exquisite the *Salle des Ambassadeurs* of the Palais Beaumont and accompanied by a music performance. At the end of the evening, you will have an opportunity to appreciate the Armagnac tasting.

Vendors' Social Evening Events
Several social events will be organized on Monday, February 4th and Wednesday, February 6th evenings by conference partners who will contact the participants directly with invitation and programme details.

SUNDAY

08:15 **Registration**

09:00

Short Courses
SC-1 Metrology for spectrochemical measurements (room Nerval)
SC-2 Nanomaterials (room Gabar)
SC-3 Isotope and isotope diluton ICP MS (room Lautreamont)

12:00

13:30

Short Courses
SC-4 ICP MS/MS fundamentals (room Nerval)
SC-5 Speciaton analysis (room Grenier)
SC-6 Laser Ablaton ICP MS (room Gabar)
SC-7 Single Particle and Single Cell Analysis (room Lautreamont)

16:30

17:00 **OPENING CEREMONY**
Auditorium Alfred de Vigny

19:15 **GET-TOGETHER PARTY**
Room Henri Faisans

MONDAY

08:30 **PLM-1:** A. Bengtson

09:15 **KM-1:** V. Hofmann

09:40 **KM-2:** J. Pisonero

10:05 **Coffee Break**

10:45 **KM-3:** T. Iwai	**KM-4:** Z. Weiss
11:10 **OM-01:** A. Hrdlička	**OM-02:** J. Fandiño
11:25 **OM-03:** E. B.-Fernandez	**OM-04:** B. Stankov
11:40 **OM-05:** M. Wong	**OM-06:** A. Ganeev
11:55 **OM-07:** I. Gornushkin	**OM-08:** L. Lobo
12:10 **OM-09:** A. Pastor	**OM-10:** V. Brückel

12:25 **LUNCH BUFFET -** Exhibition Hall
LUNCH SEMINARS - Rooms Alphand/Monpezat

14:00 **POSTER SESSION**

15:10 **KM-5:** H. Goenanga	**KM-6:** J. Ruiz
15:35 **OM-11:** F. Laborda	**OM-12:** A. Raab
15:50 **OM-13:** K. Inagaki	**OM-14:** T. Garcia-Barrera
16:05 **OM-15 :** D. Mozhayeva	**OM-16:** C. Swart
16:20 **OM-17:** K. Chun	**OM-18:** L. Ouerdane

16:35
16:40 **Heritage Lecture:** A. Montaser
Auditorium Alfred de Vigny

17:20
17:30 **Vendor's Event**
Auditorium Alphonse de Lamartine

19:00

20:00 **COMPANY NIGHT:**
Elemental Meinhard
Perkin Elmer

TUESDAY

08:30 **PLT-1:** A. Makarov

09:15 **KT-1:** K. Marcus

09:40 **PLT-2:** B. Bodenmiller

10:25 **Coffee Break**

11:00 **KT-3:** A. Gundlach-Graham	**KT-2:** M. Montes	**GD WORKSHOP**
11:25 **OT-01:** G. Galbács	**OT-02:** P. Singh	
11:40 **OT-03:** T. Vonderach	**OT-04:** M. Sperling	
11:55 **OT-05:** K. Löschner	**OT-06:** A. Jagielska	
12:10 **OT-07:** G. Stadelmann	**OT-08:** S. López-Sanz	

12:25 **LUNCH BUFFET -** Exhibition Hall
LUNCH SEMINAR - Room Alphand

14:00 **POSTER SESSION**

15:10 **KT-5:** I.Dror	**KT-4:** G. Köllensperger
15:35 **OT-09:** C. Engelhard	**OT-10:** D. Bishop
15:50 **OT-11:** G. Cornelis	**OT-12:** C. Bresson
16:05 **OT-13:** J. Wojcieszek	**OT-14:** S. Mari
16:20 **OT-15:** J. Irrgeher	**OT-16:** R. Alvarez-Fernandez

16:35
16:40 **Heritage lecture:** G. Hieftje
Auditorium Alfred de Vigny

17:20

19:30 **HOT PLASMA PARTY**
Domaine Cinquau
Sponsored by Thermo Fischer Scientific

WEDNESDAY

08:30 **PLW-1:** D. Günther

09:15 **PLW-2:** J. Laserna

10:00 **KW-1:** Ph. Doble

10:25 **Coffee Break**

11:00	**KW-2:** V. Zorba	**KW-3:** J.Feldmann
11:25	**OW-01:** P. Hansen	**OW-02:** B. Meermann
11:40	**OW-03:** R. Buchholz	**OW-02:** D. Pröfrock
11:55	**OW-05:** Van Elteren	**OW-06:** V. Nischwitz
12:10	**OW-07:** B. Wagner	**OW-08:** M. Horvat

12:25 **LUNCH BUFFET -** Exhibition Hall
LUNCH SEMINAR - Rooms Alphand/Monpezat

14:00 **POSTER SESSION**

15:10	**KW-4:** D. Bleiner	**KW-5:** C. Barbante
15:35	**OW-09:** M. Krachler	**OW-10:** E. Vasileva
15:50	**OW-11:** A. Limbeck	**0W-12:** E. Mavrakis
16:05	**OW-13:** A. Carvalho	**OW-14:** N. Sadiq
16:20	**OW-15:** M. Hola	**OW-16:** B. Godlewska

16:35
16:40 **Heritage lecture:** R. Russo
Auditorium Alfred de Vigny

17:20
17:30 **Vendor's event** (room Lautréamont)
Vendor's event (room Alphand)

19:00
20:00 **COMPANY NIGHT :** Agilent

THURSDAY

08:30 **PLTH-1:** J.I. Garcia Alonso

09:10 **KTH-1:** M. Matczuk

09:35 **KTH-2:** M. Foster Mesko

10:05 **KTH-3 :** D. Hare

10:40 **POSTER SESSION**

12:25 **LUNCH BUFFET -** Exhibition Hall
LUNCH SEMINAR - Room Monpezat

14:00	**KTH-4:** Lu Yang	**KTH-5:** A. Okino
14:25	**OTH-01:** T. Prohaska	**OTH-02:** M. Stiborek
14:40	**OTH-03:** Ph. Telouk	**OTH-04:** D. Rosenkranz
14:55	**OTH-05:** M. Bartosiak	**OTH-06:** M. Evertz
15:10	**OTH-07:** J. Vogel	**OTH-08:** C. Hommel
15:35	**OTH-09:** D. Malinovskiy	**OTH-10:** C. Abad
15:50	**OTH-11:** L. Banks	**OTH-12:** W. Goessler

16:05 **Coffee Break**

16:40 **Heritage lecture:** R.S. Houk
Auditorium Alfred de Vigny

17:30 **Young Scientists Career Event** Alphand room

19:00
20:00 **GALA DINER** Salle des Ambassadeurs

FRIDAY

08:30 **PLF-1 :** N. Jakubowski

09:10 **PLF-2:** F. Poitrasson

09:50 **OF-01** J. Kopp

10:05 **OF-02** J. Jimenez-Lamana

10:20 **Coffee Break**

11:00	**OF-03:** W. Lorenc	**OF-04:** M. Moldovan
11:15	**OF-05:**H. Isnard	**OF-06:** Z. Gajdosechova
11:30	**OF-07:** V. Volchek	**OF-08:** F. Chainet
11:45	**OF-09:** I. Komorowicz	**OF-10:** F. Lopez-Linares

12:00 **Closing Ceremony** Auditorium Alfred de Vigny

14:00 **GUIDED VISIT** of the Pau Castle

Detailed programme

Sunday, February 3rd 2019

Registration starts at 8:15	
Short Courses	
09:00 - 12:00	SC-1 Metrology for spectrochemical measurements (E. Bulska)
	SC-2 Nanomaterials (H. Goenaga Infante)
	SC-3 Isotope and isotope dilution ICP MS (J.I. Garcia Alonso)
13:30-16:30	SC-4 ICP MS/MS fundamentals (G. Woods and N. Sugiyama)
	SC-5 Speciation analysis (J. Szpunar)
	SC-6 Laser Ablation ICP MS (D. Günther and B. Hattendorf)
	SC-7 Single Particle and Single Cell Analysis (S. Huynh)

Opening ceremony (Auditorium Alfred de Vigny)	
17:00-17:10	**Welcome** - *Ryszard Lobinski*
17:10-17:15	Address of the Mayor of Pau - *François Bayrou* (or his representative)
17:15-17:25	Address of the President of the University of Pau - *Mohamed Amara* (or his representative)
17:25-17:35	Traditional music from Béarn
17:35-17:50	History of Winter Plasma Conferences - *Ramon Barnes*
17:50-17:55	Winter Plasma Conferences in Pau – 20 years ago and now – *Olivier Donard*
17:55-18:15	Presentations of the conference Platinum sponsors
18:15-18:25	Traditional music from Béarn
18:25-18:45	Special lecture: 'Analytical chemistry: out of the box' - *Freddy Adams*
18:45-19:00	EWCPS-2019 Awards
19:00-19:15	Traditional music of Béarn
	GET-TOGETHER PARTY (Room Henri Faisans Palais Beaumont)

Monday, February 4th 2019

Plenary session: Glow discharge (Auditorium Alfred de Vigny)	
Chair: Gary Hieftje	
08:30-09:15	PLM-1: A. Bengtson - *Past and recent developments in Glow Discharge Optical Emission Spectroscopy (GD-OES)*
09:15-09:40	KM-1: V. Hoffmann - *Light element analysis by analytical glow discharges*
09:40-10:05	KM-2: J. Pisonero - *Current pros and cons of GD-MS and LA-ICP-MS for high spatially resolved elemental analysis*
10:05-10:45	*Coffee break*

Parallel session: Fundamentals (1) (Auditorium Alfred de Vigny)	
Chair: R. Kenneth Marcus	
10:45-11:10	KM-3: T. Iwai - *Development of high-power pulsed microplasma emission source for ultrasmall sample analysis*
11:10-11:25	OM-01: A. Hrdlička - *Multielemental analysis with plasma pencil*
11:25-11:40	OM-03: E. Bolea-Fernandez - *In-cell chemistry to overcome spectral overlap in ICP-MS/(MS): the next step*
11:40-11:55	OM-05: M. Wong- *Electrospray single-cell inductively coupled plasma – mass spectrometry (ES-SC-ICP-MS)*
11:55-12:10	OM-07: I. Gornushkin - *Equilibrium chemistry of boron halides in plasma chemical reactors*
12:10-12:25	OM-09: M. A. Aguirre Pastor - *The use of a multiple inlet nebulizer in ICP-based techniques for spectrochemical analysis*

Parallel session: Glow discharge (Auditorium Alphonse de Lamartine)	
Chair: Volker Hoffmann	
10:45-11:10	KM-4: Z. Weiss - *Excitation and ionization of iron in argon and neon glow discharges: non-LTE considerations*
11:10-11:25	OM-02: J. Fandiño - *Concentric-electrodes atmospheric pressure glow discharge for the analysis of volatile organic compounds*
11:25-11:40	OM-04: B. Stankov - *Uncovering beryllium line with forbidden component*
11:40-11:55	OM-06: A. Ganeev - *New possibilities of time-of-flight mass spectrometry with pulsed glow discharge in combined hollow cathode*
11:55-12:10	OM-08: L. Lobo - *Quantification strategies for the analysis of major and minor components by means of pulsed Glow Discharge Time-of-Flight Mass Spectrometry*
12:10-12:25	OM-10: V. Brückel - *Mass spectral imaging of iodinated contrast agents in biological tissue samples by means of LA-FAPA-MS*
12:25-14:00	*Lunch* (*Exhibition Hall*) Shimadzu lunch seminar (*room Alphand*) Anton Paar lunch seminar (*room Monpezat*)
14:00-15:10	**Poster sessions** *(salle des Ambassadeurs)* **Fundamentals** (posters MP-1 – MP-44) **Glow Discharge Spectrochemistry** (posters MP-45 – MP-52) **Sample Introduction and Transport Phenomena** (MP-53 – MP-65)

Parallel session: Single particle analysis (1) (Auditorium Alfred de Vigny)	
Chair: Jan Preisler	
15:10-15:35	KM-5: H. Goenaga Infante - *The power of micro-second detection ICP-MS for the accurate determination of nanoparticle number concentration: Underpinning metrology for biomedical applications*
15:35-15:50	OM-11: F. Laborda - *About detectability and detection limits in single particle ICP-MS*
15:50-16:05	OM-13: K. Inagaki - *Multi-spray CGrid nebulizer for perfect matrix-matching in single-particle ICP-MS*
16:05-16:20	OM-15: D. Mozhayeva - *A novel data processing strategy for quantification of nanoparticles and dissolved metals in mixtures with SP-ICP-MS and microsecond time resolution*
16:20-16:35	OM-17: K. Chun - *Double-Viewing-Position SP-ICP-AES*

Parallel session: Metallomics (1) (Auditorium Alphonse de Lamartine)	
Chair: Joanna Szpunar	
15:10-15:35	KM-6: J. Ruiz - *New advances in the absolute quantification of biomolecules using ICP MS/MS and generic standards*
15:35-15:50	OM-12: A. Raab - *Pros and cons for the use of ICP-MS in proteomics*
15:50-16:05	OM-14: T. Garcia-Barrera - *Selenometabolites and selenoproteins mother-offspring transfer through human breast milk and cord serum by column switching ICP triple quadrupole MS*
16:05-16:20	OM-16: C. Swart - *Potential reference measurement procedures to quantify metalloproteins in CSF and serum*
16:20-16:35	OM-18: L. Ouerdane - *Screening of metallophores content and metal transport in microorganisms by the use of isotopically enriched species*

Plenary session: Heritage lecture (Auditorium Alfred de Vigny)	
Chair: Freddy Adams	
16:40-17:20	A. Montaser - *Mating with an elephant in atomic spectrometry*

Vendor's event (Auditorium Alphonse de Lamartine)	
17:30-19:00	Agilent Workshop

Company Night:	• **Elemental Meinhard** • **PerkinElmer**

Tuesday, February 5th 2019

Plenary session: New horizons of plasma spectrometry (1)
(Auditorium Alfred de Vigny)

Chair: Norbert Jakubowski

08:30-09:15	PLT-1: A. Makarov - *Orbitrap analyzer and plasma ion sources: could they work together?*
09:15-09:40	KT-1: K. Marcus - *Coupling of the liquid sampling-atmospheric pressure glow discharge to Orbitrap mass analyzers: changing the way we look at plasma source mass spectrometry*
09:40-10:25	PLT-2: B. Bodenmiller - *Highly multiplexed imaging of tissues with subcellular resolution by imaging mass cytometry*
10:25-11:00	*Coffee break*

Parallel session: Single particle analysis (2) (Auditorium Alphonse de Lamartine)

Chair: Heidi Goenaga Infante

11:00-11:25	KT-3: A. Gundlach-Graham - *Monte Carlo simulations to characterize low-count-rate signals in ICP-TOFMS and applications to single-particle analysis*
11:25-11:40	OT-01: G. Galbács - *Analytical method development for nanoparticle characterization by SP ICP-MS: beyond monometallic spherical particles*
11:40-11:55	OT-03: T. Vonderach - *Analysis of single cells transported via microdroplets using ICP-TOFMS*
11:55-12:10	OT-05: K. Löschner - *Analysis of titanium dioxide nanoparticles in food by triple quadrupole and high resolution ICP-MS in single particle mode*
12:10-12:25	OT-07: G. Stadelmann - *Determination of total uranium amount in single particles by ID-MC-ICP-MS for characterization of particle reference materials*

Parallel session: Metallomics (2) (Auditorium Alfred de Vigny)	
Chair: Gunda Köllensperger	
11:00-11:25	KT-2: M. Montes - *The combination of labelled antibodies and ICP-MS for biomarker analysis: recent progress and remaining challenges for multiplexing*
11:25-11:40	OT-02: P. Singh - *Quantification of breast cancer biomarkers using immune histochemically assisted imaging by LA-ICP-MS*
11:40-11:55	OT-04: M. Sperling - *Gadolinium retention in the human body following administration of gadolinium-based contrast agents: information obtained by elemental bioimaging*
11:55-12:10	OT-06: A. Jagielska - *Dependence of LA-ICP-MS results on the preparation of biological and clinical samples*
12:10-12:25	OT-08: S. López-Sanz - *Hydrodynamic separation techniques coupled ICP-MS for characterization of gold nanoparticles and dissolved gold species in in- vitro toxicological assays*
12:25-14:00	*Lunch (Exhibition Hall)* Agilent lunch seminar (*room Alphand*)
14:00-15:10	**Poster Sessions** (*Salle des ambassadeurs*) **Environmental and Geological Analysis** (posters TP-1 – TP-49) **Nanomaterial Analysis** (posters TP-50 – TP-71)

Parallel session: Nanoparticle/environmental analysis (Auditorium Alphonse de Lamartine)	
Chair: Francisco Laborda	
15:10-15:35	KT-5: I. Dror - *Detection and characterization of nanoparticles in soil-water plant environments*
15:35-15:50	OT-09: C. Engelhard - *ICP-MS with microsecond time resolution: on recent improvements and the detection of nanoparticles in environmental waters*
15:50-16:05	OT-11: G. Cornelis - *Laser ablation coupled to SP ICP-MS can quantify size and number concentration of inorganic nanomaterials in soils*
16:05-16:20	OT-13: J. Wojcieszek - *Model studies of the uptake and behaviour of CeO2 nanoparticles in radish (*Raphanus sativum L.*) using mass spectrometry techniques*
16:20-16:35	OT-15: J. Irrgeher - *Technology-critical elements (TCEs): Source characterization and assessment of environmental exposure*

Parallel session: Metallomics (3) (Auditorium Alfred de Vigny)	
Chair: Maria Montes-Bayon	
15:10-15:35	KT-4: G. Köllensperger - *Novel workflows for metal-based anticancer drug research enabled by ICP-TOF-MS*
15:35-15:50	OT-10: D. Bishop - *Quantitative imaging of dystrophin using immunohistochemical-assisted imaging-mass spectrometry*
15:50-16:05	OT-12: C. Bresson - *Investigation of uranium effects on neuron-like cells: an interdisciplinary analytical approach*
16:05-16:20	OT-14: S. Mari - *The use of plasma-assisted techniques to unravel the genetics of metal storage in seeds*
16:20-16:35	OT-16: R. Alvarez-Fernandez - *Single cell analysis of selenized yeast using triple quadrupole ICP-MS*

Plenary session: Heritage lecture (Auditorium Alfred de Vigny)	
Chair: Detlef Günther	
16:40-17:20	G. Hieftje - *And now what? (Reprise)*
19:30-24:00	**HOT PLASMA PARTY** sponsored by Thermo Fischer Scientific **(*Domaine Cinquau*)**

Wednesday, February 6th 2019

Plenary session: Laser-assisted plasma spectrometry (Auditorium Alfred de Vigny)	
Chair: Rick Russo	
08:30-09:15	PLW-1: D. Günther - *Contributions to automated element imaging by Laser Ablation ICP-Mass Spectrometry*
09:15-10:00	PLW-2: J. Laserna - *Laser-induced breakdown spectroscopy: the secret life of surfaces and other captivating insights*
10:00-10:25	KW-1: Ph. Doble - *Atomic oncology: personalising cancer radiation treatments with LA-ICP-MS*
10:25-11:00	*Coffee break*

Parallel session: Laser ablation and LIBS (1) (Auditorium Alfred de Vigny)	
Chair: Philip Doble	
11:00-11:25	KW-2: V. Zorba - *New and emerging femtosecond laser sampling approaches in laser induced breakdown spectroscopy*
11:25-11:40	OW-01: P. Hansen - *Simple modeling of LIBS plasma parameters for extraterrestrial applications*
11:40-11:55	OW-03: R. Buchholz - *^{57}Fe-enriched iron oxide nanoparticles – long term fate and cell tracking determined by LA-ICP-MS and MRI*
11:55-12:10	OW-05: J. van Elteren - *Rules of thumb for fast and high-quality LA-ICPMS imaging in single pulse or continuous scanning mode*
12:10-12:25	OW-07: B. Wagner - *Laser ablation ICP MS for analytical recycling of iron-gallium ink indicator papers*

Parallel session: Environmental analysis (1) (Auditorium Alphonse de Lamartine)	
Chair: Carlo Barbante	
11:00-11:25	KW-3 J. Feldmann - *Elemental speciation in biological and environmental samples involves natural nanoparticles and molecular species*
11:25-11:40	OW-02: B. Meermann - *An automated single algae-ICP-ToF-MS approach for the investigation of metal uptake in single diatoms*
11:40-11:55	OW-04: D. Pröfrock - *Assessing legacy pollution and new inorganic contaminants in complex environmental samples using ICP-MS based techniques*

11:55-12:10	OW-06: V. Nischwitz - *Improving mass balance for size resolved elemental speciation of environmental water samples using FFF online with ICP-MS*
12:10-12:25	OW-08: M. Horvat - *Traceability of oxidized mercury measurements in air*
12:25-14:00	*Lunch (Exhibition Hall)* Elemental Meinhard lunch seminar (room Monpezat) Thermo Fisher Scientific lunch seminar (room Alphand)
14:00-15:10	**Poster sessions** *(salle des Ambassadeurs)* **Imaging and Bioimaging** (posters WP-1 - WP-20) **Laser Ablation of Plasma Spectrochemistry** (WP-21 – WP-35) **Laser-Induced Breakdown Spectroscopy** (WP-36 – WP-45) **Biological and Clinical Analysis** (WP-46 – WP-73)

Parallel session: Laser ablation and LIBS (2) (Auditorium Alfred de Vigny)

Chair: Johannes van Elteren

15:10-15:35	KW-4: D. Bleiner - *Laser ablation 3D chemical mapping with X-ray lasers*
15:35-15:50	OW-09: M. Krachler - *Quantitative assessment of spatial inhomogeneity of major and minor uranium isotopes in solid nuclear materials using LA-MC-ICP-MS*
15:50-16:05	OW-11: A. Limbeck - *Development of laser based procedures for stoichiometry analysis of ternary boride thin films*
16:05-16:20	OW-13: A. Carvalho - *Multi-energy calibration and sample fusion as alternatives for quantitative analysis of high silicon content samples by LIBS*
16:20-16:35	OW-15: M. Hola - *Feasibility of Nanoparticle-Enhanced Laser Ablation Inductively Coupled Plasma MS*

Parallel session: Environmental analysis (2) (Auditorium Alphonse de Lamartine)

Chair: Jörg Feldmann

15:10-15:35	KW-5: C. Barbante - *Mass spectrometry under the ice*
15:35-15:50	OW-10: E. Vasileva - *Monitoring of priority and emerging contaminants in the open ocean*
15:50-16:05	OW-12: E. Mavrakis - *Investigating arsenate uptake in C. reinhardtii cells using Single Cell ICP-MS and its effect on lipid remodelling using ambient MS*

16:05-16:20	OW-14: N. Sadiq - *You've got to be kelping me! Determination of $^{129}I/^{127}I$ in kelp samples using ICP-MS/MS*
16:20-16:35	OW-16: B. Godlewska-Żyłkiewicz - *Studies of biosorption of nano and ionic forms of gold by green algae in surface water by HPLC-ICP MS*

PLENARY SESSION: HERITAGE LECTURE (Auditorium Alfred de Vigny)	
Chair: Javier Laserna	
16:40-17:20	R. Russo - *A career history of laser ablation for chemical analysis*

VENDOR'S EVENT	
17:30-19:00	ETV User Club arranged by SPECTRO (AMETEK) (*room Lautréamont)*
17:30-19:00	Horiba Users Meeting *(room Alphand)*

	COMPANY NIGHT: Agilent

Thursday, February 7th 2019

Plenary session: Award session (Auditorium Alfred de Vigny)	
Chair: Ryszard Lobinski	
08:30-09:10	**PLTH-1: Agilent European Plasma Spectrochemistry Awardee:** J.I. Garcia Alonso - *A paradigm change in isotopic measurements by Mass Spectrometry: isotope abundances, molar fractions and linear regression calculations*
09:10-09:35	**KTH-1: Agilent Rising Star in Plasma Spectrochemistry Awardee**: M. Matczuk - *Joint forces of ICP-MS-based techniques for effective examination of the intracellular processing of gold nanoparticles*
09:35 -10:05	**KTH-2: JAAS Emerging Investigator Lecture**: M. Foster Mesko - *Green sample preparation methods for further determination of metals and non-metals by atomic spectrometric techniques*
10:05-10:40	**KTH-3 Emerging Leader in Atomic Spectroscopy Awardee**: D. Hare - *Atomic pathology: The past, present and future of elemental imaging in medical research*
10:40- 12:25	**Poster sessions** **Stable Isotope Analysis** (posters THP1 – THP-69) **Advanced Materials and Industrial Analysis** (THP-70 – THP-81) **Petroleum and Semiconductor Materials** (THP-82 – THP-86)
12:25-14:00	*Lunch (Exhibition Hall)* PerkinElmer lunch seminar (*room Monpezat*)

Parallel session: Isotope ratio analysis (Auditorium Alfred de Vigny)	
Chair: José Ignacio Garcia Alonso	
14:00-14:25	KTH-4: Lu Yang - *Absolute isotope amount ratio measurements by MC-ICP MS*
14:25-14:40	OTH-01: T. Prohaska - *The isotopic challenge: metrological approaches for accurate isotope measurements*
14:40-14:55	OTH-03: Ph. Telouk - *Copper isotopic composition as a biomarkers for liver cancer : a large cohort study*
14:55-15:10	OTH-05: M. Bartosiak - *Determination of Fe isotopic composition using MC-ICP-MS for the elucidation of the iron uptake mechanisms in yeast mutants*
15:10-15:35	OTH-07: J. Vogel -*Triple isotope fractionation exponents of elements measured by MC-ICP-MS - an example of Mg*

15:35-15:50	OTH-09: D. Malinovskiy - *Accurate determination of lithium and boron isotope ratios by MC-ICP-MS with normalisation to an internal standard*
15:50-16:05	OTH-11: L. Banks - *Developing low-volume solution ICP-MS for high-precision uranium isotope analysis*

Parallel session: Fundamentals (2) (Auditorium Alphonse de Lamartine)	
Chair: Kazumi Inagaki	
14:00-14:25	KTH-5: A. Okino - *Non-contact mass spectrometry of adhesive compounds on heat-sensitive surface using temperature-controllable plasma jet*
14:25-14:40	OTH-02: M. Stiborek - *Cold Plasma: way to improve repeatability of metal analysis in sub-microliter volumes?*
14:40-14:55	OTH-04: D. Rosenkranz - *Matrix matched validation procedure for single cell measurements with automized µ-flow injection*
14:55-15:10	OTH-06: M. Evertz - *Plasma-based techniques: a versatile tool to gather insights into lithium losses of lithium ion batteries*
15:10-15:35	OTH-08: C. Hommel - *Optimization possibilities for difficult matrices with ETV-ICP OES*
15:35-15:50	OTH-10: C. Abad - *Critical evaluation of optical spectrometry vs mass spectrometry for stable isotope analysis*
15:50-16:05	OTH-12: W. Goessler - *Changes of size-resolved element distributions in particulate matter induced by New Year's Eve fireworks*
16:05-16:40	*Coffee break*

Plenary session: Heritage lecture (Auditorium Alfred de Vigny)	
Chair: Ramon Barnes	
16:40-17:30	R.S. Houk - More misnomers, misconceptions, and musings in ICP spectroscopy
17:30-19:00	Young Scientists Career Event (*Alphand room*)
20:00	**GALA DINNER** *(Salle des Ambassadeurs)*

Friday, February 8th 2019

Plenary session: New horizons of plasma spectrometry (2) (Auditorium Alfred de Vigny)	
Chair: Thomas Prohaska	
08:30-09:10	PLF-1: N. Jakubowski - *Method development for single cell analysis by use of ICP-MS and ICP-TOFMS*
09:10-09:50	PLF-2: F. Poitrasson - *Exploring adventure in the land of MC-ICP-MS*
09:50-10:05	OF-01: J. Kopp - *Trace element profiling in very small volumes of human serum for the application in large cohorts*
10:05-10:20	OF-02: J. Jimenez-Lamana - *Nanoplastics, the new threat to environmental waters: how can ICP-MS help to address this issue ?*
10:20-11:00	*Coffee break*

Parallel session: Elemental speciation (Auditorium Alfred de Vigny)	
Chair: Ewa Bulska	
11 :00-11 :15	OF-03: W. Lorenc - *Study of speciation of As, Cr and Sb in bottled flavored and functional drinking water samples using advanced analytical techniques IEC/SEC-HPLC/ICP-DRC-MS and ESI-MS^n*
11:15-11:30	OF-05: H. Isnard - *Hyphenation between capillary electrophoresis and multi collector inductively coupled plasma mass spectrometry for isotope ratio measurements*
11:30-11:45	OF-07: V. Volchek - *The use of hyphenated techniques (CZE-ICP-MS, HPLC-ICP-OES) for the study of inorganic complexes*
11:45-12:00	OF-09: I. Komorowicz - *Arsenic speciation analysis in liquid and solid samples by hyphenated technique HPLC/ICP-DRC-MS*

Parallel session: Petroleum analysis (Auditorium Alphonse de Lamartine)	
Chair: Zofia Kowalewska	
11:00-11:15	OF-04: M. Moldovan - *Determination of sulfur-containing compounds in crude oil products by GC-ICP-MS/MS*
11:15-11:30	OF-06: Z. Gajdosechova - *Headspace analysis of Hg in petroleum hydrocarbons*
11:30-11:45	OF-08: F. Chainet - *Speciation of trace contaminants in the refinery industry using gas chromatography coupled to ICP-MS/MS*

11:45-12:00	OF-10: F. Lopez-Linares - *Application of Single Particle Inductively Coupled Plasma-Mass Spectrometry (sp-ICP-MS) in the petroleum industry*

PLENARY SESSION (Auditorium Alfred de Vigny) - Closing ceremony
Closing remarks - *Ryszard Lobinski*
EWCPS-2019 Poster Awards
Invitation to the EWCPS-2021 - *Johannes van Elteren*

14:00-	Guided visit of Pau Castle

Posters - Monday, February 4th

Fundamentals

MP-1 **Study on carbon-induced signal enhancement in ICP MS: an approach from a spatial distribution of analyte signal intensities in the plasma** - Tomoko Ariga, Yanbei Zhu, Kazumi Inagaki

MP-2 **Advantages of sophisticated sample introduction accessories for the trace element analysis of wear metals in organic sample matrices by ICP OES** - Sanja Asendorf, Nora Bartsch, Sebastian Weyermann

MP-3 **Capabilities and performance of quadrupole based LA ICP MS** - Dhinesh Asogan, Daniel Kutscher

MP-4 **Ultra trace analysis of noble metals in rock samples using triple quadrupole ICP MS** - Dhinesh Asogan, Daniel Kutscher

MP-5 **Multielement analysis of coolant and antifreeze products using ICP OES** - Nora Bartsch, Sanja Asendorf, Sebastian Weyermann

MP-6 **Simultaneous quantification od iodine and other elements relevant for high level nuclear waste under acidic conditions via ICP MS for determination of sorption isotherms on Ca-bentonite** - Kristina Brix, Ralf Kautenburger, Christina Hein, Jonas Sander, Guido Kickelbick

MP-7 **Electrochemistry coupled to flowing atmospheric pressure afterglow mass spectrometry for metabolism studies of polycyclic aromatic hydrocarbons** - Valerie Bruckel, Michael Sperling, Uwe Karst

MP-8 **Revolutionizing sample preparation for trace metal analysis with single reaction chamber (SRC) microwave digestion** - Giulio Colnaghi, Gianpaolo Rota, Diego Carnaroglio

MP-9 **Accurate LA-ICP MS analysis of mineral phases using non-matrix matched reference materials** - Leonid Danyushevsky, Jay Thompson, C Ashley Norris

MP-10 **Application of a transient ICP MS measurement for samples with high salinity** - Christina Hein, Kristina Brix, Ralf Kautenburger

MP-11 **Speciation of phosphorous-based decomposition products in lithium ion battery electrolytes by HPLC ICP-SF-MS** - Jonas Henschel, Yannick Stenzel, Martin Winter, Sascha Nowak

MP-12 **Development of a microwave-assisted digestion protocol for trace metal analysis in different types of polymers using ICP MS/MS** - Lars Hildebrandt, Tristan Zimmermann, Anna Reese, Daniel Proefrock

MP-13 **High performance ICP MS plasma consuming ½ of argon. Standard Fassel torch, robust, high matrix tolerant.** - Iouri Kalinitchenko, Martin Gleisner, Wolfram Weisheit, Rene Chemnitzer, Margrit Killenberg

MP-14 **Particle analysis of lithium ion battery materials** - Till-Niklas Kroger, Simon Wiemers-Meyer, Martin Winter, Sascha Nowak

MP-15 **A chemometric approach to access doubly charged and oxide formations and sensitivity for USP < 232> elements on liquid drug samples using aerosol dilution for ICP MS** - Rodolfo Lorencatto, Gabriel Gustinelli Arantes De Carvalho, Pedro Vitoriano De Oliveira

MP-16 **Development of an oyster tissue certified reference material for the analysis of total mercury and its use in proficiency testing** - Jong Wha Lee, Hwijin Kim, Euijin Hwang, Jwahaeng Park, Sung Woo Heo, Yong- Hyeon Yim, Youngran Lim, Myung Chul Lim, Kyoung-Seok Lee

MP-17 **Barrier Ionization Discharge (BID) detector – A powerful GC detector to quantify permanent gases and light hydrocarbons, evolved from lithium ion batteries** - Marco Leising, Fabian Horsthemke, Martin Winter, Sascha Nowak

MP-18 **High sensitivity, fast scanning, sector field ICP MS – Improving sensitivity for laser ablation with the Jet interface** - Torsten Lindemann, Joachim Hinrichs, Grant Craig, Johannes Schwieters

MP-19 **Multi-energy and multi-isotope calibration: strategies for the determination of nutrients and contaminants in meat by ICP-OES and ICP MS** - Julymar Marcano, Ana Beatriz Santos Silva, Ana Rita Araujo Nogueira

MP-20 **Comparison of 193 nm and 266 nm wavelengths for elemental bio-imaging by laser ablation inductively coupled plasma** - Katherine Mclachlin, Leif Summerfield, Robert Hutchinson, David Douglas, Ciaran O'Connor

MP-21 **Using triple quadrupole ICP MS in routine analysis of environmental and food samples** - Simon Nelms, Daniel Kutscher

MP-22 **Overcoming the challenges in pharmaceutical analyses, with a focus on OTC allergy tablet analysis with ICP OES** - Kenneth Neubauer, Erica Cahoon

MP-23 **Ultra-high precision with ICP OES using continuous real-time simultaneous internal standardization** - Kenneth Neubauer, Wim Van Bussel, Erica Cahoon

MP-24 **Comprehensive software for data reduction of LA-ICP MS data sets** - Ashley Norris, Leonid Danyushevsky

MP-25 **Flat capillary solution cathode glow discharge: a useful modification for improved analytical performance and fundamental characterization.** - Jaime Orejas, Nicholas Hazel, Andrew Schwartz, Steven Ray

MP-26 **Characterization and evaluation of a surface wave plasma as an ionization source for mass spectrometry -** Jaime Orejas, Ludovic Sudrie, Juslan Lo, Laurent Therese, Louis Latrasse, Philippe Guillot

MP-27 **Quantitative and qualitative analysis of liquid samples by spatial heterodyne Raman spectroscopy -** David Palasti, Ardian Gojani, Gabor Galbacs, Igor Gornushkin

MP-28 **A novel calibration strategy for the accurate quantification of elemental species using HPLC-ICP MS -** Panayot Petrov, Heidi Goenaga Infante

MP-29 **Improving laboratory efficiency with a combined prepFAST and chromatography method for chromium speciation -** C Derrick Quarles Jr, Michael Szoltysik, Patrick Sullivan, Maurice Reijnen

MP-30 **Inline sample preparation system for micro volume clinical samples -** C Derrick Quarles Jr, Stephen Sudyka, Austin Schultz, M. Paul Field, Daniel Wiederin

MP-31 **Automated laser ablation sampling for food safety -** C Derrick Quarles Jr, Todor Todorov, Ciaran O'Connor, Rob Hutchinson, Katherine Mclachlin

MP-32 **Advantages of inline dilution for LC-ICP MS based applications involving arsenic speciation -** C Derrick Quarles Jr, Patrick Sullivan, M. Paul Field, Daniel Wiederin

MP-33 **High-performance LA-ICP TOF MS imaging combining the Cobalt LA cell and ICP TOF -** Martin Rittner, Ciprian Stremtan

MP-34 **Using multi-lines post-analysis data processing for the enhancement of ICP-OES performances** Cedric Rivier, Sarah Baghdadi, Marielle Crozet, Jean-Luc Dautheribes, Sophie Gracia, Sebastien Picart

MP-35 **Space charge effect behind hyperskimmer in ICP MS -** Serguei Savtchenko, Hamid Badiei, Bohdan Atamanchuk, Dickson Cheung, Paul Farnsworth, Jessica Larsen

MP-36 **Recent advances in detection, quantification and population distribution of single and dual analytes in single cell and single particle ICP MS -** Stephan Chady, Ruth Merrifield, Samad Bazargan

MP-37 **Applications of dual analyte analysis of metals in single - particle and single cell ICP MS -** Stephan Chady, Ruth Merrifield, Samad Bazargan

MP-38 **Application ICP MS and ICP-OES for measurement of trace elemental impurities and certified target value in CRM -** Tatiana Stolboushkina, Aleksei Stakheev, Vladimir Dobrovolskiy

MP-39 **The effect of instrument sensitivity on sample throughput -** Eike Thamm, Iouri Kalinitchenko

MP-40 **Determination of nanoparticles using ICP MS -** Eike Thamm, Peio Riss

MP-41 **Improvements in the determination of uncertainties of isotopic ratios for uranium samples thanks to IAEA Round Robin** - Olivier Vigneau, Nadege Arnal, Christophe Winkelmann

MP-42 **Solving doubly charged ion interferences using ICP MS/MS with nitrous oxide -** Naoki Sugiyama

MP-43 **Uses of Agilent 8900 ICP MS/MS for nuclear applications -** Alain Desprez

MP-44 **Improvement of the nanoparticle size limit of detection for SP-ICP-MS using a desolvating nebuliser and peak detection algorithm optimisation to distinguish small particles from ionic background with the HR-ICP-MS Attom -** Ariane Donard, Phil Shaw,Madjid Hadioui, K. Newman

Glow Discharge Spectrochemistry

MP-45 **A new approach for effective ionisation of elements with high ionisation potential such as fluorine and oxygen in pulsed glow discharge mass spectrometry with using a neon plasma -** Viktoriia Chuchina, Alexander Ganeev, Anna Gubal, Nikolay Solovyev, Yegor Lyalkin, Oleg Glumov, Viktor Yacobson

MP-46 **Deciphering the lithium ion movement in lithium ion batteries: determination of the isotopic abundances of 6Li and 7Li -** Marcel Diehl, Sascha Nowak, Martin Winter

MP-47 **Application of glow discharge mass spectrometry for analyzing Si/C-composite anodes for lithium ion batteries – determining the influence of the state of charge and dry film thickness -** Marcel Diehl, Karina Ambrock, Alex Friesen, Sascha Nowak, Martin Winter

MP-48 **Fast analysis of direct injected gaseous samples using radiofrequency pulsed glow discharge time-of-flight mass spectrometry -** Jonatan Fandino, Marcos Bouza, David Blanco, Alfredo Sanz-Medel, Jorge Pisonero, Nerea Bordel

MP-49 **Direct quantification of high-ionisation energy elements by pulsed glow discharge mass spectrometry – a study of different discharge gases -** Anna Gubal, Alexander Ganeev, Viktoriia Chuchina, Nikolay Solovyev, Ilja Gorbunov, Oleg Glumov, Viktor Yacobson

MP-50 **Gallium analysis using s-pulsed fast flow glow discharge mass spectrometry -** Joachim Hinrichs, Torsten Lindemann, Johannes Schwieters

MP-51 **Analysis of highly boron-doped diamond thin films: comparison of GD-OES, SIMS and Raman spectroscopy -** Zdenek Weiss, Petr Ascheulov, Andrew Taylor, Jan Lorincik, Matvei Aleshin, Vincent Mortet

MP-52 **Spatially-resolved glow discharge mass spectrometry analysis -** Piotr Konarski, Joachim Ażgin, Maciej Miśnik, Aleksander Zawada

Sample Introduction and Transport Phenomena

MP-53 **Direct analysis of gold and silver nanoparticles of different sizes from dried droplets using substrateassisted laser desorption single particle ICP MS -** Jakub Bělehrad, Marek Stiborek, Jan Preisler

MP-54 **Development of a low dispersion laser chamber for ultra-fast, automated imaging of biological and geological materials -** David N. Douglas, Leif Summerfield, Shane Hilliard

MP-55 **Coupling digital microfluidics with ICP MS for single nanoparticle or cell analysis -** Valerie Geertsen, Theo Jourdain, Florent Malloggi

MP-56 **Using online-LASIL for stoichiometry determination of Fe doped $SrTiO_3$ thin films -** Christopher Herzig, Johannes Frank, Maximilian Morgenbesser, Alexander K. Opitz, Jurgen Fleig, Andreas Limbeck

MP-57 **Isotopic, multi-elemental and nanoparticle microanalysis with a new micro-flow uptake device for direct injection nebulization in ICP MS -** Pascale Louvat, Mickael Tharaud, Matthieu Buisson, Claire Rollion-Bard, Marc Benedetti

MP-58 **Online microdroplet calibration for size and concentration determination of nanoparticle mixtures by ICP-TOF-MS -** Kamyar Mehrabi, Detlef Gunther, Alexander Gundlach-Graham

MP-59 **Applications of FFF combined with ICP MS to nanoparticle and colloid measurements in the environment -** Robert Reed, James Ranville, Angie Barber, Chad Cuss

MP-60 **Single-cell analysis enabled by ICP-TOF-MS -** Anna Schoeberl, Sophie Neumayer, Andreas Schweikert, Gerrit Hermann, Sarah Theiner, Gunda Koellensperger

MP-61 **Development of a new direct injection nebulizer for single-particle/cell ICP MS -** Miyashita Shin-Ichi, Fujii Shin-Ichiro, Inagaki Kazumi

MP-62 **Stable and radiogenic isotope ratio measurements of cave and marine coral samples using multicollector ICP MS with a desolvating nebulizer sample introduction accessory -** Fred Smith, Damon Green, Victor Polyak

MP-63 **High volume in-line syringe dilution system for ICPOES and ICP MS -** Andrew Toms, Austin Schultz, Daniel Wiederin

MP-64 **Automated preconcentration and matrix removal for ultratrace determination of radium in environmental waters -** Nathan Saetveit, Aurelien Viscardi

MP-65 **Weighted averaging based spectrum processing scheme for skin cancer detection based on laser-Induced breakdown spectroscopy measurements** - Ekta Srivastava, Euiseok Hwang , Sungho Jeong, Janghee Choi

Posters - Tuesday, February 5th

Environmental and Geological Analysis

TP-1 **Assessment of hyperaccumulation of selected metals by native plants growing in polluted Peruvian post-mining areas -** Edith Maricela Cruzado Tafur, Lisard Torro I Abat, Katarzyna Bierla, Joanna Szpunar

TP-2 **Examination of heavy metal contamination found in raisins, sultanas and currants by ICP-MS** Patricia Atkins, Elaine Hasty

TP-3 **Contamination, adulteration and counterfeiting: an examination of sources and concentrations of heavy metals present in food, spices, beverages and drinking water -** Patricia Atkins

TP-4 **Examination of elemental composition and toxic metals in bread spreads -** Patricia Atkins, Elaine Hasty

TP-5 **Tracing source and mobility of metals and metalloids in a hydrosystem impacted by past mining activities (Morelos state, Mexico) -** Aurelie Barats, Christophe Renac, Anna Maria Orani, Gael Durrieu, Humberto Saint Martin, Marisa Vicenta Esteller, Sofia Garrido Hoyos

TP-6 **U-Pb dating of carbonates by fs-LA-ICP-MS -** Fanny Claverie, Guilhem Hoareau, Christophe Pecheyran, Olivier Chailan, Jean-Pierre Girard

TP-7 **Determination of trace metals and organometals (Hg, Sn) in high altitude lake waters of the Pyrenees -** Bastien Duval,2, Emmanuel Tessier, Alberto De Diego, Arana Gorka, Olaia Linero, David Amouroux

TP-8 **Development of complementary CE-MS methods for speciation analysis of metal based antifouling biocides in surface water -** Sebastian Fasbender, Ann-Katrin Doring, Björn Meermann

TP-9 **Trace- and ultra-trace analysis of high mineralized ground waters -** Lisa Fischer, Stephan Hann

TP-10 **Trace metals in particulate matter emitted by marine engines – potential environmental and health impact-** Zuzana Gajdosechova, Martin Couillard, Joel Corbin, Stéphanie Gagne

TP-11 **Speed up your productivity - High throughput measurement of drinking water -** Martin Gleisner

TP-12 **Reliability of the direct ICP-MS analysis of volcanic ash nanoparticles -** Alexandr Ivaneev, Stephane Faucher, Natalia Fedyunina, Vasily Karandashev, Mikhail Ermolin, Petr Fedotov, Gaetane Lespes

TP-13 **Palladium determination after solid phase extraction on strongly basic anion resins -** Katarzyna Kińska, Monika Sadowska, Joanna Kowalska, Beata Krasnodębska-Ostręga

TP-14 **Development and validation of analytical procedures for reference measurements of mercury in marine environment compartments with direct and species specific isotope dilution analysis and hyphenated ICPMS techniques -** Agnieszka Krata, Emiliya Vasileva-Veleva, Marcin Wojciechowski, Ewa Bulska

TP-15 **Determination of methylmercury using liquid chromatography – photochemical vapour generation – atomic fluorescence spectroscopy (LC-PVG-AFS) – A comparison with ICP-MS** - Shaun Lancaster, Joerg Feldmann, Eva Krupp, Warren Corns

TP-16 **Quantitative analysis of Pb in soils in multimedia environment using fsLA and ICP-MS** - Min Young Lee, Sung Hwa Choi, Eun Ji Kim, Yu Ri Lee, Eun Mi Choi, Kyung Su Park

TP-17 **Application of ICP-MS/MS for determination of chromium in environmental matrices** - Barbara Leśniewska, Beata Godlewska-Żyłkiewicz

TP-18 **Determination of major and trace elements in geological samples by laser ablation solution sampling inductively coupled plasma mass spectrometry -** Xiuhong Liao, Zhaochu Hu

TP-19 **Laser ablation inductively coupled plasma mass spectrometry for the quantitative analysis of pellets of plant materials -** Pierre Masson, Thierry Dalix

TP-20 **Biomonitoring of titanium contamination in moss samples by ICP-OES -** Pierre Masson, Patrice Soule

TP-21 **Determination of heavy metals in certified fish samples using ICP-mass spectrometry** - Uwe Oppermann, Ludivine Fromentoux, Pravin Konde, Joyce Lim

TP-22 **Quantitative analysis of contaminants in beverages using ICP-mass spectrometry** - Uwe Oppermann, Jan Knoop, Johannes Hesper

TP-23 **Temporal variation of priority and emerging contaminants in sediment core from Kiel Bay, western Baltic sea -** Anna Maria Orani, Emiliya Vasileva-Veleva

TP-24 **Distribution of Se in French forest ecosystems compartments -** Paulina Pisarek, Maïte Bueno, Yves Thiry, Manuel Nicolas, Herve Gallard 4, Isabelle LeHecho

TP-25 **Method development aiming at the determination of mineral nutrients in vegetable tissues by MIP-OES to underpin agricultural research -** Daiane Placido Torres, Adilson Bamberg, Carlos Posser Silveira

TP-26 **Analysis of wines by ICP-MS using TotalQuant -** Ewa Pruszkowski

TP-27 **Accurate analysis of seawaters by HR-ICP-OES and ICP-MS -** Peio Riss, Lionel Lumet

TP-28 **Corrosion protection of offshore wind farms: a new - potential source of inorganic contaminants for the marine environment ? -** Anna Reese, Nathalie Voigt, Tristan Zimmermann, Johanna Irrgeher , Daniel Profrock

TP-29 **Optimization of a HPLC mixed-mode column methodology coupled to ICP-MS for selenium speciation in natural waters -** Andrea Romero Rama, David Amouroux, Maite Bueno

TP-30 **Seasonal variations on dissolved selenium speciation in Lake Kinneret -** Andrea Romero Rama, Yaron Be'eri-Shlevin, Assaf Sukenik, Maïte Bueno, Emmanuel Tessier, David Amouroux

TP-31 **ICP-OES assessment of silver distribution in plant material after exposure to capped Ag-NPs -** Sanda Rončević, Ivan Nemet, Petra Peharec Štefanić, Zrinka Gale, Bernardo Marciuš

TP-32 **Determination of trace, minor and major elements in steel using the PlasmaQuantMS® -** Rui Santos

TP-33 **PlasmaQuantMS®: a precise, accurate and versatile tool -** Rui Santos

TP-34 **Stability of silver-based nanoparticles at environmentally relevant concentrations in seawater monitored by SP-ICP-MS -** Alexander Urstoeger, Andreas Wimmer , Michael Schuster

TP-35 **Asymmetric flow field-flow fractionation (AF4) ICP-MS studies of the sorption of lead on nanoplastics -** Cloé Veclin, Anne-Catherine Pierson-Wickmann, Julien Gigault, Melanie Davranche, Hind El Hadri, Stephanie Reynaud, Bruno Grassl, Elise Deniau, Javier Jimenez-Lamana, Joanna Szpunar

TP-36 **Application of seaFAST-pico system and SF-ICP-MS for determination of uranium concentration and its isotopic ratios in seawater -** Irena Wysocka, Emilia Vassileva

TP-37 **Development of analytical procedure for determination of lanthanides at ng.L-1 level in mineral waters -** Irena Wysocka, Anna Rogowska

TP-38 **Fast and high throughput digestion method for soil and sediment analysis using a modified graphite digestion system -** Dian Wen, Dong Yan, Glenn Woods

TP-39 **Calibration for space-resolved laser ablation ICP-MS of tree rings -** Adrian Wichser, Matthias Trottmann, Jorg Niederberger, Davide Bleiner

TP-40 **Silver nanoparticles in natural water bodies - is it only humans who are to blame ? -** Andreas Wimmer, Michael Schuster

TP-41 **Determination of 239Pu, 240Pu concentration and 240Pu/239Pu atom ratio in seawater using an isotope dilution sector field-inductively coupled plasma-mass spectrometry -** Masatoshi Yamada, Jian Zheng

TP-42 **Assessment of heavy metals in surficial marine sediments from the Lebanese coast (Eastern Mediterranean) -** Mariam Zayter, Celine Mahfouz, Milad Fakhri, Hugues Preud'homme

TP-43 **"Bulk and trace elements» in saline water produced from the Danish North Sea: The chemical analysis and the trends in the retrieved data -** Sofie Gottfredsen, Niels Schovsbo, Karen Feilberg

TP-44 **Rapid analysis of Rare Earth Elements in freshwater by ICP-MS with online preconcentration** Johanna Ziebel, Loic Martin, Christophe Hissler, Cedric Guignard

TP-45 **Screening of metals in surface and drinking waters using semi quantitative analysis ICP-MS -** Jeroen Noerens, Els Van Meenen

TP-46 **Bio-indication of traffic impact on forest ecosystems -** Jitka Hegrová, Oliver Steiner, Petr Anděl, Stefan Tanda, Walter Goessler, Vilma Jandová, Roman Ličbinsky

TP-47 **Evaluation of lead in drinking water in daycare centres -** Elham Zeinijahromi, John Younger, Theron White, Jessica Popadynetz, Lorinda Butlin, David W. Kinniburgh

TP-48 **Microwave-assisted acid digestion of cannabis product -** David Reishofer, Melanie Wolf

TP-49 **ICP OES and LIBS approaches for the analysis of nickeliferous minerals -** Elizabet Abad Peña, Edenir Rodrigues Pereira-Filho, Marco Aurelio Speranca, Felipe Manfroi Fortunato, Tiago Augusto Castelani, Margarita Edelia Villanueva Tagle, Maria Teresa Larrea Marin, Mario Simeón Pomares Alfonso

Nanomaterial analysis

TP-50 **Analytical issues for the characterization of nanomaterials in consumer products for regulatorypurposes -** Francois Auger, Guillaume Bucher, Mathieu Menta, Lucile Marigliano, Olivier F.X. Donard, Fabienne Seby

TP-51 **Determination of nanopowders using MIP-OES operating in a single particle mode -** Magdalena Bartosiak, Jacek Giersz, Krzysztof Jankowski

TP-52 **Analytical monitoring of biological synthesis of selenium nanoparticles using PCVG-MIP-OES and UV-Vis spectrophotometry and their further application as a mercury detoxifying agent -** Magdalena Bartosiak, Jacek Giersz, Krzysztof Jankowski

TP-53 **Automated solution for processing complex data sets generated in single particle and single cell analysis by ICP-TOF-MS -** Olga Borovinskaya, Luca Flamigni, Daniele Chiaretti, Oestlund Fredrik

TP-54 **Study of the ion cloud profiles from gold and silver nanoparticles in ICP-MS -** Joshua Fuchs, Maryam Aghaei, Harald Rosner, Tilo Schachel, Michael Sperling, Annemie Bogaerts, Uwe Karst

TP-55 **Contribution to SP-ICP-MS accurate spherical gold nanoparticles size determination: a comparison with small angle X-ray scattering -** Valerie Geertsen, Olivier Tache, Elodie Barruet, Frederic Gobeaux, Jean-Luc Lacour

TP-56 **Single particle ICP-MS as screening method for detection of nanoparticles -** Ana Gimenez-Ingalaturre, Celia Trujillo, Eduardo Bolea, Juan Castillo, Francisco Laborda

TP-57 **Optimization and application of single particle ICP-MS to TiO2 nanoparticles analysis in foodstuffs -** Lucas Givelet, Petru Jitaru, Delphine Boutry, Jean-Francois Damlencourt, Thierry Guerin

TP-58 **Synthesis and characterization of tellurium based nanoparticules through a multitechnique platform including hyphenated ICP-MS techniques -** Beatriz Gomez Gomez, Jon Sanz Landaluce, Teresa Perez Corona, Yolanda Madrid Albarran

TP-59 **Challenges and solutions for measuring small sized nanoparticles -** Chia-Chin(donna) Hsu, Ching-Heng(jones) Hsu, Yen-Ying(brian) Liao, Michiko Yamanaka, Yoshinori Shimamura, Glenn Woods, Chiu-Hun Su

TP-60 **Interaction of silver nanoparticules with agricultural soils: effects to size and chemical form -** Monica Iglesias, Laura Torrent, Eva Margui, Manuela Hidalgo

TP-61 **Size characterization and speciation of gold and silver nanoparticles and their ionic counterparts by hydrodynamic chromatography coupled to ICP-MS -** Maria Jimenez, Daniel Isabal, Maria Gomez, Francisco Laborda, Juan Castillo

TP-62 **The potential of single particle ICP-MS for the characterization of metallic nanoparticles in complex clinical and toxicological samples -** Maria Jimenez-Moreno, Sergio Fernandez-Trujillo, Angel Rios, Rosa Carmen Rodriguez Martin-Doimeadios

TP-63 **Different nanoparticles characterization: comparison of different sample introduction strategies using inductively coupled plasma mass spectrometry (ICPMS) -** Jovana Kocić, Detlef Günther, Bodo Hattendorf

TP-64 **New calibration approaches for Ag-NPs characterization in complex samples by SP-ICP-MS -** Diego Leite, Raquel Sanchez, Carlos Sanchez, José Luis Todoli, Maite Aramendia, Martin Resano

TP-65 **Evaluating TiO2 nanoparticles in sunscreens by single particle ICP-MS (SP-ICP-MS) -** Riccardo Magarini, Helmut Ernstberger, Enrico Sabbioni

TP-66 **Development of a novel analytical strategy for the identification and quantification of nanoplastics by ICPMS -** Lucile Marigliano, Javier Jimenez-Lamana, Stephanie Reynaud, Bruno Grassl, Elise Deniau, Joanna Szpunar

TP-67 **Asymmetrical flow field-flow fractionation hyphenated with ICP-MS for trace level analysis of engineered silver nanoparticles in river water -** Florian Meier, Robert Reed, Roland Drexel

TP-68 **Extracting nanoparticles: how is it done in SP-ICP-MS with microsecond time resolution, when continuous background is present? -** Darya Mozhayeva, Carsten Engelhard

TP-69 **Heteroatom incorporation during MFI crystallization as measured by single particle inductively coupled plasma mass spectrometry -**Jenny Nelson, Tracy Davis

TP-70 **Investigating the impact of nano-pesticides on plants, soil and waste water sludge using SP-ICP-MS -** Jenny Nelson, Arturo Keller, Yuxiong Huang

TP-71 **Analysis of chromium immobilization on zero-valent iron nanoparticles by ICP-OES -** Ivan Nemet, Sanda Rončević, Leontina Toth

TP-72 **Use of a mini-channel in AF4-ICP-MS for detection and characterization of titanium dioxide nanoparticles in consumer products -** David Ojeda, Eduardo Bolea, Francisco Laborda, Juan Castillo

TP-73 **AF4-ICP-MS as a powerful tool for the study of platinum nanoparticles in water samples -** Rosa Rodriguez Martin-Doimeadios, Armando Sanchez-Cachero, Nuria Rodriguez Farinas, Angel Rios

TP-74 **Simultaneous measurement of multiple isotopes and elements in nanoparticles using a multi-collector ICPMS with microsecond speed electronics and wide range Daly ion counters -** Phil Shaw, Takafumi Hirata, Mirai Ishida, Philip Freedman, Shuji Yamashita

TP-75 **Calculation considerations for characterizing silver nanoparticles with different properties in environmental samples by single particle inductively coupled plasma mass spectrometry -** Laura Torrent, Francisco Laborda, Monica Iglesias, Eva Margui, Manuela Hidalgo

TP-76 **Characterization of silver species released from clays coated with silver nanoparticles in in vitro gastrointestinal digestion using AF4-ICP-MS -** Celia Trujillo, Eduardo Bolea, Isabel Abad-Alvaro, Josefina Perez-Arantegui, Francisco Laborda, Juan Castillo

TP-77 **Detection of nanoparticles released from metallic food additives by single particle ICP-MS -** Celia Trujillo, Ana Gimenez-Ingalaturre, Josefina Perez-Arantegui, Francisco Laborda, Juan Castillo

TP-78 **New algorithms for enhancing particle detection in SP-ICP-MS -** Jani Tuoriniemi, Geert Cornelis

TP-79 **Nanoparticle analysis in semiconductor grade chemical reagents -** Michiko Yamanaka, Yoshinori Shimamura, Chia-Chin (donna) Hsu, Glenn Woods

TP-80 **Determination of substrate-assisted laser desorption ICP-MS transport efficiency of gold nanoparticles -** František Zelenák, Viktor Kanický, Jan Preisler

TP-81 **Analysis of nanoparticles in organic solvents using single particle ICP-MS with multi-spray CGrid nebulizer -** Koyo Ido, Shin-Ichi Miyashita, Yanbei Zhu, Tomoko Ariga, Shin-Ichiro Fujii, Akiko Hokura, Kazumi Inagaki

TP-82 **In vitro gold nanoparticles uptake into tumour cells: an analysis by SP-ICP-MS -** Johanna Noireaux, Romain Grall, Marie Hullo, Sylvie Chevillard, Emilie Brun, Caroline Oster, Katrin Loeschner, Paola Fisicaro

TP-83 **Analysis of titanium dioxide nanoparticles in biological fluids using single particle ICP-MS -** Samantha Salou, Ciprian Mihai Cirtiu

TP-84 **Overcoming spectral overlap in the characterization of iron nanoparticles by means of single-particle ICP-mass spectrometry (SP-ICP-MS): chemical versus physical resolution -** Ana Rua-Ibarz, Guillermo Pozo, Eduardo Bolea-Fernandez, Frank Vanhaecke, Xochitl Dominguez, Kristof Tirez

TP-85 **Comparison of SP-ICP-MS and SMPS: Different measurement principles for the determination of the size of nanomaterials -** Philipp Reichardt, Florian Steinberg, Frank Bierkandt, Jutta Tentschert, Sandra Wagener, Daniel Rosenkranz,2, Peter Laux, Andreas Luch

TP-86 **Nanoparticles biodistribution studies: Optimization of lung digestion protocols for TiO2 NPs analyses by SP-ICP-MS -** Ibtihel Ben-Dhiab

TP-87 **The role of single particle ICP-MS with microsecond time resolution in a multi-technique approach for unveiling the biological fate of ingested nanoparticles -** Federica Aureli, Francesca Ferraris, Sara Savini, Jessica Ponti, Dora Mehn, Andrea Raggi, Francesca Iacoponi, Douglas Gilliland, Luigi Calzolai, Francesco Cubadda

Posters - Wednesday, February 6th

Imaging and Bioimaging

WP-1 **Nano Secondary Ion Mass Spectrometry (NanoSIMS) for nanoparticle and trace element imaging in mammalian cells -** Maria Angels Subirana, Sarah Thomas, Felix Glahn, Gerd Hause, Sina Riemschneider, Martin Herzberg, Dirk Dobritzsch, Dirk Schaumlöffel

WP-2 **LA-ICP MS study of Ag nanoparticle transport in a 3-dimensional in vitro model -** Akihiro Arakawa, Norbert Jakubowski, Sabine Flemig, Heike Traub, Mate Rusz,Gunda Koellensperger, Daigo Iwahata, Takafumi Hirata

WP-3 **Complementary bioimaging by means of LA-ICP MS and MALDI-MS - Detection of adofluorine P in mouse heart tissue after myocardial infarction -** Rebecca Buchholz, Moritz Wildgruber, Uwe Karst

WP-4 **Gadolinium in human brain sections and co-localization with other elements after macrocyclic GBCA administration -** Ahmed El-Khatib, Helena Radbruch, Sabrina Trog, Boris Neumann, Friedmann Paul, Arend Koch, Michael Linscheid, Eyk Schellenberger, Norbert Jakubowski

WP-5 **Laser ablation ICP MS for simultaneous quantitative imaging of iron and ferroportin in hippocampus region of human brain tissues with Alzheimer's disease -** Beatriz Fernandez, Maria Cruz-Alonso, Susana Junceda, Aurora Astudillo, Ana Navarro, Rosario Pereiro

WP-6 **Bioconjugated gold nanoclusters as labels in quantitative imaging of metallothioneins in ocular tissues by LA-ICP MS -** Beatriz Fernandez, Maria Cruz-Alonzo, Montserrat Garcia, Hector Gonzalez-Iglesias, Rosario Pereiro

WP-7 **Isotopically-enriched tracers and ICP–MS methodologies to study zinc supplementation in singlecells of retinal pigment epithelium in vitro -** Beatriz Fernandez, Sara Rodriguez-Menendez, Hector Gonzalez-Iglesias, Montserrat Garcia, Lydia Alvarez, Jose Ignacio Garcia Alonso, Rosario Pereiro

WP-8 **Thulium spiked gel for internal standardisation in LA ICP MS bioimaging: quantitative elemental distribution of uranium in kidney tissue -** Nagore Grijalba, Alexandre Legrand, Yann Gueguen, Valerie Holler, Celine Bouvier-Capely

WP-9 **Application of laser ablation inductively coupled plasma mass spectrometry for investigation of Li, Mn, Co and Ni deposition patterns on carbonaceous anodes in lithium ion batteries -** Patrick Harte, Martin Winter,2, Sascha Nowak

WP-10 **LA-ICP MS as a tool for assessment of the accumulation of minerals and trace elements in the arterial wall samples with advanced atherosclerotic lesions -** Adam Sajnóg, Anetta Hanć, Bogna Gryszczyńska, Wacław Majewski, Maria Iskra, Danuta Barałkiewicz

WP-11 **Investigation of the delivery of platinum bisphosphonates to hard bone tissue using LA-ICP MS -** Lukas Schlatt, Barbara Crone, Robin Nadar, Sander Leeuwenburgh, Michael Sperling,3, Uwe Karst

WP-12 **Nanoparticles as tags for protein tissue analysis using laser ablation inductively coupled plasma and mass spectrometry -** Michaela Tvrdoňova, Roman Hrstka, Masařik Michal, Marcela Vlcnovska, Marketa Vaculovicova, Viktor Kanicky 5, Tomas Vaculovic

WP-13 **Imaging of specific proteins by LA-ICP MS -** Tomas Vaculovic, Michaela Tvrdonova, Marketa Vaculovicova, Marcela Vlcnovska, Viktor Kanický, Michal Masarik, Roman Hrstka, Hana Polanska

WP-14 **Bioimaging of proteins in human ocular tissue sections by LA-ICP MS using isotopically enriched silver nanoclusters as labels -** Eva Valencia, Maria Cruz-Alonzo, Beatriz Fernandez, Hector Gonzalez-Iglesias 5, Rosario Pereiro

WP-15 **Super resolution reconstruction for bioimaging by LA ICP MS -** Mika Westerhausen, David Bishop,2, Nerida Cole, Jonathan Wanagat, Philip Doble

WP-16 **Combination of high sensitivity and a fast full mass range scanning capability for imaging by laser ablation ICP MS: performance of the high resolution ICP MS AttoM ES -** Ariane Donard, Phil Shaw, Leon Eldridge

WP-17 **Investigation of galvanic anode metal uptake in individual marine organisms (Corophium volutator) via complementary ETV-ICP MS/LA-ICP MS -** Marcus Von Der Au, Hannah Karbach, Anna Maria Bell, Sebastian Buchinger, Bolle Bauer, Uwe Karst, Björn Meermann

WP-18 **Evaluation of ionization efficiency/sensitivity enchancement for a range of aerosol delivery systems for LA-ICP MS -** Martin Šala, Vid Simon Šelih, Johannes T. Van Elteren

WP-19 **Evaluation of the state-of-the-art LA-ICP MS systems for elemental imaging of decorative glass object -** Vid Simon Šelih, Martin Šala, Johannes T. Van Elteren, Thibaut Van Acker, Frank Vanhaecke

WP-20 **Image analysis for 2D LA-ICP MS bioimaging -** Stephan Wagner, Katharina Halbach, Till Luckenbach, Stefan Scholz, Thorsten Reemtsma

Laser Ablation Plasma Spectrochemistry

WP-21 **Of laser ablation and standards when analyzing hard biological materials -** Matthieu Baudelet, Mauro Martinez

WP-22 **Quantitative determination of Cu via LA-ICP MS in single triple negative breast tumor cells after treatment with a new Cu phosphine complex -** Legna Andreina Colina Vegas, Thibaut Van Acker, Wilmer Villarreal, Alzir Azeved Batista, Olivier De Wever, Joaquim Araujo Nobrega, Frank Vanhaecke

WP-23 **Data processing software for LA-ICP MS -** Veronika Dillingerova, Viktor Kanicky, Vaculovic Tomas

WP-24 **Assessment of ns-LA coupled to MC-ICP MS for Fe isotopic analysis of meteoritic materials -** Claudia Gonzalez De Vega, Marta Costas Rodriguez, Thibaut Van Acker, Steven Goderis, Frank Vanhaecke

WP-25 **Provenance determination of ancient Roman imperial coinage with tandem LA-ICP MS/LIBS -** Felix Horak, Jakob Willner, Manfred Schreiner,3, Andreas Limbeck

WP-26 **A LA-ICP MS quantification strategy for the determination of particle-bound Hg as collected in air monitoring filters -** Gonzalo Huelga-Suarez, David Douglas, Heidi Goenaga-Infante

WP-27 **Improving accuracy and precision in LA-MC-ICP MS -** Penelope Lancaster

WP-28 **Adaptation and improvement of an elemental mapping method for lithium ion battery electrodes via of laser ablation inductively coupled plasma mass spectrometry -** Sascha Nowak, Patrick Harte, Maximilian Mense, Timo Schwieters, Marco Evertz, Martin Winter

WP-29 **Solid-spiking piking matrix matched isotope dilution laser ablation ICP MS for simultaneous determination of cadmium and chromium in sediments -** Javier Teran-Baamonde, Alatzne Carlosena, Rosa Soto-Ferreiro, Jose Andrade-Garda, Soledad Muniategui-Lorenzo

WP-30 **Accurate measurement of uranium isotope ratios in solid samples by laser ablation multi-collector inductively coupled plasma mass spectrometry -** Zsolt Varga, Michael Krachler, Adrian Nicholl, Markus Ernstberger, Thierry Wiss, Maria Wallenius, Klaus Mayer

WP-31 **Preparation and characterization of polymer-based multi elemental reference materials** - Julia Bode, Julia Schubert, Sabrina Stein, Carla Vogt

WP-32 **High Performance Thin Layer Chromatography coupled with LA-ICP MS and LDI/MALDI-FTICRMS to study asphaltenes -** Remi Moulian, Sandra Mounicou, Carine Arnaudguilhem, Johann Lemaitre, Juan Sebastian Ramirez-Pradilla,5, Marie Hubert-Roux,, Caroline Barrere-Mangote, Carlos Afonso,, Brice Bouyssiere, Pierre Giusti

WP-33 **Imaging artifacts in elemental bioimaging via LA-ICPMS due to excessive fluence and poor tissue preservation** - Joke Belza, Thibaut Van Acker, Eduardo Bolea-Fernandez, Frank Vanhaecke

WP-34 **Energy density control for selective ablation of biological material from a glass substrate using a nanosecond 193 nm laser -** Thibaut Van Acker, Stijn Van Malderen, Joke Belza, Eduardo Bolea-Fernandez, Frank Vanhaecke

WP-35 **Calibration methods for spatial determination of Platinum-based chemotherapy agents in tumor samples using LA-ICP MS bioimaging -** Ana Mendez-Vicente, Alexandre Calon, Nerea Bordel, Jorge Pisonero

Laser-Induced Breakdown Spectroscopy

WP-36 **Depth profiling of UV-light degradation of modern art materials using LIBS -** Lukas Brunnbauer, Laura Pagnin, Manfred Schreiner, Andreas Limbeck

WP-37 **Investigation of polymer degradation under corrosive conditions using tandem LA-ICP MS/LIBS -** Lukas Brunnbauer, Maximilian Mayr, Silvia Larisegger, Michael Nelhiebel, Johann Lohninger, Andreas Limbeck

WP-38 **Laser-induced breakdown spectroscopy in analysis of building materials -** Aleš Hrdlička, Jitka Hegrova, Jan Novotny, David Prochazka, Karel Novotny, Viktor Kanický, Jozef Kaiser

WP-39 **Quantitative multielemental mapping of biological samples by laser-induced breakdown spectroscopy: a case study of pig tissues -** Patrick Janovszky, Albert Keri, Lukas Brunnbauer, Andreas Limbeck, Gabor Galbács

WP-40 **Composition and morphology analysis of bimetallic nanoparticules generated in a spark discharge plasma -** Albert Keri, Henrik Bali, Lajos Villy, Attila Kohut, Tibor Ajtai, Zsolt Geretovszky, Gabor Galbács

WP-41 **Real-time sample surface height control and intensity normalization for laser-induced breakdown spectroscopy analysis of edible salts -** Yonghoon Lee, Hyang Kim, Sang-Ho Nam, Kyung-Sik Ham

WP-42 **Optimization and detailed spectroscopic characterization of an improved spatial heterodyne laser-induced breakdown spectroscopy setup -** David Palasti, Miklos Veres, Istvan Rigo, Zsolt Geretovszky, Eva Kovacs-Szeles, Ardian Gojani, Igor Gornushkin, Gabor Galbacs

WP-43 **Experimental optimization and assessment of the performance of laser-induced breakdown spectroscopy for the quantitative analysis of 20+ trace elements in uranium dioxide -** David Jenő Palasti, Adam Belteki, Eva Kovacs-Szeles, Andrey Berlizov, Gabor Galbacs

WP-44 **Shaping LIBS into a suitable tool for direct characterization of single nanoparticles: a brave new world -** Pablo Purohit, J. Javier Laserna

WP-45 **Advanced analysis of Li7La3Zr2O12 (LLZO) using LIBS: determination of the H-content -** Stefan Smetaczek, Veronika Zeller, Daniel Rettenwander, Jurgen Fleig, Andreas Limbeck

Biological and Clinical Analysis

WP-46 **A systematic comparison between millisecond and microsecond dwell time SP-ICP MS for the selective discrimination of silver nanoparticles from ionic silver as required for biomedical applications -** Isabel Abad-Alvaro, Beatriz Gomez-Gomez, Dorota Bartczak, Susana Cuello-Nunez, Yolanda Madrid, Heidi Goenaga-Infante

WP-47 **Quantification of protein modifications using a multielemental ICP MS/MS generic strategy -** Francisco Calderon Celis, Jorge Ruiz Encinar

WP-48 **Quantification of cancer biomarkers in single cells using metal-tagged antibodies and SC-ICP MS -** Mario Corte-Rodriguez, Javier Alonso-Garcia, Maria Montes-Bayon, Norbert Jakubowski, Ulrich Panne

WP-49 **A higher order method for the determination of total phosphorus in human serum -** Fransiska Dewi, Wesley Zongrong Yu, Benny M. K. Tong, Ho Wah Leung, Richard Y. C. Shin, Tang Lin Teo, Tong Kooi Lee

WP-50 **Conventional immuno-PCR in combination with inductively coupled plasma mass spectrometry for the determination of proteins: human epidermal growth factor receptor 2 (HER2) -** Alejandro Fernandez Asensio, Luisa Maria Sierra Zapico, Elisa Blanco Gonzalez, Maria Montes-Bayon

WP-51 **Analysis of chromium and other trace elements in whole blood -** Martin Gleisner

WP-52 **IDMS based quantification methods for metalloproteins as potential biomarkers for Alzheimer's disease -** Julia Gleitzmann, Sabrina Peters, Christine Brauckmann, Claudia Swart

WP-53 **Mass spectrometry imaging in clinical pathology: MMP-11 as a breast cancer biomarker -** Raquel Gonzalez De Vega, David Clases, Maria Luisa Fernandez-Sanchez, Noemi Eiro, Luis Gonzalez, Francisco Vizoso, Uwe Karst, Alfredo Sanz-Medel, Philip Doble

WP-54 **High resolution imaging of explant cultures to predict cisplatin resistance in anticancer therapy -** Calum Greenhalgh, Ellie Karekla, J. Howard Pringle, Amy Managh

WP-55 **Analysis of trace impurities in sunflower oil by HR-ICP OES –** Peio Riss, Margrit Killenberg, Sebastian Wunscher, Jan Scholz

WP-56 **Multi-element determination in populations of single cells by ICP MS** - Tetsuo Kubota, Michiko Yamanaka, Glenn Woods

WP-57 **New strategy for sensitive detection of circulating tumoral cells (CTCs) for breast cancer diagnostic -** Andrea Larraga, Noemi Eiro, Francisco J. Vizoso, Maria Luisa Fernandez-Sanchez

WP-58 **Optimization of protein quantification via isotope dilution ICP MS of a standard reference protein -** Nora Lemke, Ahmed El-Khatib, Franz Theuring, Jochen Vogl, Norbert Jakubowski

WP-59 **Platinum nanoclusters as metal labels to determine specific proteins in biological samples by bimodal detection (LA-ICP MS and fluorescence) -** Ana Lores Padin, Maria Cruz-Alonso, Hector Gonzalez-Iglesias, Beatriz Fernandez, Rosario Pereiro

WP-60 **Modified method of single cell analysis by quadrupole ICP MS -** Judy Lum, Kelvin Leung

WP-61 **Investigating hereditary hemochromatosis by means of LA-ICP MS/MS -** Jennifer-Christin Muller, Lisa Trager, Andrea Steinbicker, Michael Sperling, Uwe Karst

WP-62 **Advances in triple quadrupole ICP MS for clinical research analysis -** Simon Nelms, Chris Harrington, Geoff Carpenter, Jonathan Dart, Craig Mills, Daniel Kutscher

WP-63 **An integrated LC-ICP MS and LC-ESI-MS approach for the characterization of purified selenoprotein P -** Laurent Ouerdane, Jérémy Lamarche, Luisa Ronga, Katarzyna Bierla, Joanna Szpunar, Ryszard Łobiński

WP-64 **Direct analysis of trace elements in beer and wort by ICP OES -** Michael Petrich, Olaf Paulsen, Tuur Mertens, Daniela Grothusheitkamp, Thomas Kunz, Erica Cahoon

WP-65 **Challenges in bio-monitoring – total and single particle analysis -** Ewa Pruszkowski

WP-66 **Size exclusion chromatography ICP MS for trace level detection of gadolinium species accumulated in rat brain one month after single intravenous injection with gadolinium contrast agents -** Izabela Strzemińska, Cecile Factor, Philippe Robert, Joanna Szpunar, Ryszard Łobiński

WP-67 **Study of the use of biocompatible nanostructures to improve cisplatin performance in cell models: ferritin as nanocage -** Daniel Turiel-Fernandez, Jorg Bettmer, Elisa Blanco, Maria Montes-Bayon

WP-68 **A microwave-digestion approach for determination of osmium in chemical drug to meet the requirement of USP< 232>/< 233> -** Xiangcheng Zeng, Kazuhiro Sakai, Glenn Woods

WP-69 **Arsenic speciation in human urine after ingestion of husked rice -** Tatiana Pedron, Bruno Batista, Fernanda Paniz, Bruna Freire, Gustavo Barcelos

WP-70 **Leaching experiment followed by trace element analysis in fermentation media -** Katja Montan, Oliver Popp, Michael Molhoj

WP-71 **Mercury determination in dried blood spots -** Martin Resano, Raul Garde, Flavio Nakadi, Marcia Da Veiga, Julio Cruces

WP-72 **A feasible approach for determining bromine and iodine in human hair using interference-free plasma based technique -** Diogo Novo, Rodrigo Pereira, Alessandra Henn, Vanize Costa, Erico Flores, Marcia Mesko

WP-73 **Ultra trace U/Th dating of archaeological biominerals applying fsLA-HR-ICPMS -** Asmodée Galy, Loïc Martin, Fanny Claverie, Gaëlle Barbotin, Edwige Pons-Branchu, Nicholas J. Conard, Guillaume Porraz, Aurore Val, Chantal Tribolo, Norbert Mercier, Christophe Pécheyran

Posters – Thursday, February 7th

Stable Isotope Analysis

THP-1 **Provenancing of fish via elemental and strontium isotopic analysis of hard and soft tissues by (MC-) ICP MS -** Melanie Diesner, Andreas Zitek, Christine Opper, Maximilian Wrede, Anastassiya Tchaikovsky, Stephan Hann, Thomas Prohaska

THP-2 **Determination of lead isotope ratios in Antarctic snow by quadrupole ICP-DRC-MS using a total-consumption sample introduction system -** Francisco Ardini, Andrea Bazzano, Frank Vanhaecke, David Cappelletti, Marco Grotti

THP-3 **Isotopic and multi-elemental signatures as indicators of origin of sparkling wines -** Robin Cellier, Sylvain Berail, Julien Barre, Ekaterina Epova, Olivier Donard

THP-4 **Tracing the geographical origin of food products with multielement fingerprinting, isotope ratios and chemometrics: the case of Rocha pear -** Ines Coelho, Ana Matos, Ana Nascimento, Joao Bordado, Olivier F.X. Donard, Ekaterina Epova, Sylvain Berail, Isabel Castanheira

THP-5 **Microsampling approaches for isotopic analysis: focus on Wilson's disease patients -** Mcarmen Garcia Poyo, Maite Aramendia, Martin Resano, Sylvain Berail, Christophe Pecheyran

THP-6 **Factors determining limits of detection -** Martin Gleisner

THP-7 **Serum magnesium isotopic signature in type I diabetes -** Rosa Grigoryan, Marta Costas-Rodriguez, Steven Van Laecke, Marijn Speeckaert, Frank Vanhaecke

THP-8 **Strontium isotope ratio used as provenance indicator for milk samples from different regions in Slovenia -** Staša Hamzić Gregorčič, Tea Zuliani,2, Nives Ogrinc

THP-9 **Comparison of four mass spectrometric techniques for lithium isotopic measurements -** Hélène Isnard, Michel Aubert, Gwendoline Buzance, Laurence Longuet, Mylene Marie, Anthony Nonell, Fabien Pilon, Michel Tabarant, Karine Vielle

THP-10 **Bringing white into light: a multi-analytical approach studying lead-white pigments in paintings -** Stefan Kradolfer, Laura Hendriks, Irka Hajdas, Bodo Hattendorf, Hans-Arno Synal, Detlef Günther

THP-11 **Elemental and isotopic analysis of serum from agerelated macular degeneration patients by means of single-collector and multi-collector sector field ICP - mass spectrometry -** Lara Lobo, Marta Aranaz, Marta Costas-Rodriguez, Rosario Pereiro, Frank Vanhaecke

THP-12 **Direct determination of isotopic ratio of chromium species by HPLC–low resolution multicollector ICP MS -** Cuc Thi Nguyen-Marcińczyk, Jakub Karasiński, Marcin Wojciechowski, Ewa Bulska, Ludwik Halicz

THP-13 **Sr and Pb isotope ratio analyses and its application to investigate cultural interactions in ancient Nubia (2nd millennium BC) -** Anika Retzmann, Tristan Zimmermann, Johanna Irrgeher, Daniel Profrock, Julia Budka, Thomas Prohaska

THP-14 **Trace of anthropogenic nitrate in groundwater by isotopic proxies in Kumamoto area, Japan -** Naoto Sugimoto, Masasuke Sakiyama, Takahiro Hosono, Masaharu Tanimizu

THP-15 **Calibration of Mg isotope amount ratios and delta values -** Jochen Vogl, Olaf Rienitz, Bjorn Brandt, Simone Kasemann, Rebecca Kraft, Dmitry Malinovsky, Anette Meixner, Janine Noordmann, Savelas Rabb, Jan Schuessler, Robert Vocke, Martin Rosner

THP-16 **Stable isotope ratio analysis of Pb, S and Sr in plant available element fractions: targeted sampling and onsite interferent separation by diffusive gradients in thin films (DGT) -** Stefan Wagner, Ondrej Hanousek, Jakob Santner, Markus Puschenreiter, Walter Wenzel, Thomas Prohaska

THP-17 **Submicrogram sulfur isotope analysis by EA-MC-ICPMS -** Aaron Wilkins, Thomas Prohaska, Kerri Miller, Johanna Irrgeher, Michael Wieser

THP-18 **Hg isotopic measurements for atmospheric mercury at the Cape Hedo atmosphere and aerosol monitoring station (CHAAMS), Japan -** Akane Yamakawa, Akinori Takami, Yuji Takeda, Yoshizumi Kajii, Shungo Kato

THP-19 **Analysis of anthropogenic Gd emissions into the German North Sea and potential new insights by the analysis of Gd isotope ratios in MRI contrast agents -** Tristan Zimmermann, Ole Klein, Tobias Orth, Bettina Oppermann, Anika Retzmann, Johanna Irrgeher, Daniel Profrock

THP-20 **On-line coupling of a liquid chromatograph to a multicollector ICP MS for the direct measurement of Pb isotope ratios in samples of archaeological interest -** Pelayo Alvarez Penanes, Mariella Moldovan, J. Ignacio Garcia Alonso

THP-21 **Past environmental pollution in an industrial site: using stable lead isotopic analysis to identify multiple contamination sources -** Loris Calgaro, Alessandro Bonetto, Elena Badetti, Antonio Marcomini

THP-22 **Determination of $^{236}U/^{238}U$ ratios in environmental samples using ICP MS/MS -** Silvia Diez-Fernandez, Carole Bresson, Frederic Chartier, Olivier Evrard, Amelie Hubert, Hugo Jaegler, Anthony Nonell, Fabien Pointurier, Hélène Isnard

THP-23 **Submicrogram sulfur isotope analysis by EA-MC-ICP MS -** Aaron Wilkins, Thomas Prohaska, Kerri Miller, Johanna Irrgeher, Michael Wieser

THP-24 **Comparison of different mass bias correction procedures for the measurement of Hg species-specific isotope ratios by gas chromatography coupled to multicollector ICP MS -** Laura Suarez Criado, Jose Ignacio Garcia Alonso, Silvia Queipo Abad, Pablo Rodriguez Gonzalez

THP-25 **IUPAC Commission on Isotopic Abundances and Atomic Weights –** CIAAW - Johanna Irrgeher, Thomas Prohaska, Juris Meija

Elemental Speciation and Metallomics

THP-26 **Combining speciation analysis, multielement fingerprints and multivariate statistics to identify mussel farming sites affected by environmental inorganic arsenic of volcanic origin -** Federica Aureli, Mauro Esposito, Andrea Raggi, Francesca Iacoponi, Giuseppe Picazio, Teresa Bruno, Francesca Ferraris, Sara Savini, Francesco Cubadda

THP-27 **"Not your kid's apple juice»: an examination of arsenic content in american and european hard ciders -** Patricia Atkins, Elaine Hasty

THP-28 **Trace elements bioaccumulation and As biotransformation in sponges: uses of ICP MS methodologies -** Aurelie Barats, Anna Maria Orani, Eva Ternon, Olivier Thomas

THP-29 **The fascinating world of arsenic speciation in mushrooms -** Simone Braeuer, Jan Borovička, Walter Goessler

THP-30 **The use of ICP MS for the characterization of selenocompounds in bio-stimulated selected tomato varieties -** Ewa Bulska, Eliza Kurek, Magdalena Michalska-Kacymirow, Olga Kościuczuk, Anna Tomiak

THP-31 **Hyphenated techniques for the characterisation and application of metal labelled antibodies -** David Clases, Raquel Gonzalez De Vega, Philip Doble

THP-32 **Provision of calibration services to underpine selenium speciation measurements in the clinic: results from a phase I trial of selenium in cancer patients -** Maria Estela Del Castillo Busto, Christian Ward-Deitrich, Michael Jameson, Heidi Goenaga-Infante

THP-33 **Towards high throughput in speciation monitoring -** Helmut Ernstberger, Eve Kroukamp, Simone Korstian

THP-34 **Identification of cobalamin analogues in canine and equine urine via LC-MS-MS -** George Ganio, Paul Zahra, Katherine Ganio

THP-35 **Experimental and analytical approaches to elucidate the role of phytoplankton in biotic and abiotic mercury (Hg) transformation -** Javier Garcia-Calleja, Thibaut Cossart, Zoyne Pedrero, Laurent Ouerdane, Emmanuel Tessier, Vera Slaveykova, David Amouroux

THP-36 **Ultratrace analysis of germanium species in natural waters by cryotrapping with ICP MS and ICP MS/MS detection -** Adrian Garcia-Figueroa, Montserrat Filella, Tomaš Matoušek

THP-37 **Investigation of transition metal species in lithium ion battery electrolytes by means of CE-ICP MS – a new approach to reveal the dissolution mechanism of transition metals from cathode materials -** Lenard Hanf, Martin Winter, Sascha Nowak

THP-38 **Studies on the influence of metal ions on maize (Zea mays) using LA-ICP MS and ESI-MS/MS -** Anetta Hanć, Arleta Małecka, Piotr Kachlicki, Adam Sajnog, Wiktor Lorenc, Danuta Barałkiewicz

THP-39 **Determination of the geographic origin of spices using elemental analysis after microwave digestion -** Elaine Hasty, Tina Restivo, Jenny Nelson, Courtney Tanabe, Greg Gilleland, Lindsey Whitecotton

THP-40 **Maternal dietary habits, levels of selected elements and fatty acids composition in human milk from coastal and inland areas of Slovenia -** Marta Jagodic, Janja Snoj Tratnik,, Doris Potočnik, Darja Mazej, Tome Eftimov, Nives Ogrinc, Milena Horvat

THP-41 **Tools for elemental speciation in clay - from CE-ICP MS speciation to miniaturised clay column experiments using LC-ICP MS -** Ralf Kautenburger, Kristina Brix, Christina Hein, Jonas Sander, Guido Kickelbick

THP-42 **Boron isotope - amount ratio analysis via MC-ICP MS in seawater and freshwater samples after microsublimation -** Ole Klein, Tristan Zimmermann, Johanna Irrgeher, Daniel Pröfrock

THP-43 **Development of a LC-ICP MS with a counter gradient method for quantification of decomposition products of lithium ion battery electrolytes -** Kristina Koesters, Jonas Henschel, Martin Winter, Sascha Nowak

THP-44 **Validated procedures of isotope dilution ICP MS coupled with HPLC for determination of selenium species in food samples -** Agnieszka Krata, Marcin Wojciechowski, Jakub Karasiński, Eliza Kurek, Ewa Bulska

THP-45 **Natural and ^{82}Se-labelled selenomethionine certified reference materials -** Kelly Leblanc, Phuong Mai Le, Jianfu Ding, Zoltan Mester

THP-46 **Speciation of arsenic in alcoholic beverages using LC ICP MS/MS -** Jolette Macaulay, Connie Samson, Carolyn Barry, Cory Murphy, Beata Kolakowski

THP-47 **An investigation on the influence of the chemical forms of arsenic for the accurate determination of total arsenic in rice -** Sang Ho Nam, Won Bae Lee, Yonghoon Lee

THP-48 **Snapshots of metal speciation via liquid chromatography inductively coupled plasma mass spectrometry -** Heather Neu, Kiwon Ok, Sergei Alexishin, James Polli, Maureen Kane, Sarah Michel

THP-49 **Feasibility study for the determination of arsenic species in nutritional products and raw ingredients by HPLC ICP MS -** Lawrence Pacquette, Jenny Nelson, Courtney Tanabe

THP-50 **Simultaneous iodine and bromine speciation analysis in infant formula using HPLC-ICP MS** - Lawrence Pacquette, Jenny Nelson

THP-51 **Application of ICP MS technique for investigation of new possibilities in extraction of trace metals using NADES -** Lena Ruzik, Natalia Osowska

THP-52 **Development and validation of a method for ultra-trace - speciation analysis of chromium in foodstuff by HPLC ICP MS using species specific isotope dilution -** Marina Saraiva

THP-53 **Quantitative LA-ICP-TOF-MS bioimaging** - Andreas Schweikert, Sarah Theiner, Anna Schoeberl, Sophie Neumayer, Bernhard K. Keppler, Gunda Koellensperger

THP-54 **Complexation strategy for SEC-ICP MS for the analysis of protein adducts with ethylmercury from thiomersal in influenza vaccines** - Philipp Strohmidel, Michael Sperling, Uwe Karst

THP-55 **Elemental analysis of the changes in the metal profiles and arsenic species during wine processing** - Courtney Tanabe, Jenny Nelson, Susan Ebeler

THP-56 **Multi-elemental (As, Sn and Hg) speciation in wines by HPLC- or GC-ICP MS** - Véronique Vacchina, Ekaterina Epova, Sylvain Berail, Olivier Donard, Fabienne Seby

THP-57 **Lead in wine : total concentrations, speciation and isotopic signatures** - Véronique Vacchina, Ekaterina Epova, Fanny Claverie, Sylvain Berail, Christophe Pecheyran, Fabienne Seby, Olivier Donard

THP-58 **Evaluation of a complete workflow for the determination of arsenic species in fish and rice** - Wolfram Weisheit, Rene Chemnitzer, Katharina Vlach, Philipp-Frederic Schulz

THP-59 **Development of SEC–ICP MS/MS method to evaluate the formation of DNA-protein complexes** - Ines Zarfaoui, Frederique Bessueille-Barbier, Agnes Hagege, Linda Ayouni-Derouiche

THP-60 **Comprehensive speciation analysis of metal complexes in coconut water as a model for method development for studies of plant endosperm metallome** - Ghaya Alchoubassi, Katarzyna Kinska, Katarzyna Bierla, Joanna Szpunar

THP-61 **Simultaneous analysis of selenium and arsenic in drinking water with LC-ICP MS** - Xu Junjun, Lu Qiu-Yan, Glenn Woods

THP-62 **The formation of plant-based antimony nanoparticles by inorganic Sb species** - Bill Maher, Tona Sanchez-Palacios, Christopher Johnston, Simon Foster

THP-63 **Exploring the generation of volatile mercury species by cryotrapping with ICP MS detection** - Radek Židek, Lucie Juhaszova, Inga Petry-Podgorska, Jan Kratzer, Tomaš Matoušek

THP-64 **Determination of selenoproteins in human serum from lung cancer patients by IDA-SEC-AP-ICP-QQQ-MS** - Belen Callejon-Leblic, Jose Luis Gomez-Ariza, Antonio Pereira Vega, Tamara Garcia-Barrera

THP-65 **Metals traffic and metabolomic alterations caused by the antagonistic interaction of cadmium and selenium using organic and inorganic mass spectrometry** - Gema Rodriguez Moro, Rocio Baya Arenas, Jose Luis Gomez-Ariza, Francisco Navarro Roldan, Tamara Garcia-Barrera

THP-66 **Investigation of arsenolipids in brain and muscle tissues of skipjack tuna using HPLC-mass spectrometry** - Michael Stiboller, Fabiana P. Freitas, Tanja Schwerdtle, Kevin A. Francesconi, Georg Raber

THP-67 **Comparison of two sensitive methods for the - quantification of Cr (VI) in surface and drinking waters with IC-ICP MS and LC-ICP QQQ** - Els Van Meenen, Jeroen Noerens

THP-68 **Quantitative speciation analysis for the in vivo study of iron metabolism and bioavailability from formula milk fortified with isotopically stable enriched iron oxohydroxide nanoparticles -** Rafaella Regina Peixoto, Sonia Fernandez-Menendez, Belen Fernandez-Colomer, Alfredo Sanz-Medel, Solange Cadore, Maria Luisa Fernandez-Sanchez

THP-69 **LA-ICP MS in brain imaging -** Olga Minaeva, Ning Hua, Nicola Lupoli, Erich Franz, Xiuping Liu, Sarah Rind, Katherine Babcock, Juliet Moncaster, Lee Goldstein

Advanced Materials and Industrial analysis

THP-70 **Rapid determination of lithium ion battery materials using ICP OES** - Wenkun Feng, Jeannie Ni, Glenn Woods

THP-71 **Analysis of complex metal oxide thin films by online-LASIL with ICP MS detection -** Christopher Herzig, Johannes Frank, Maximilian Morgenbesser, Alexander K. Opitz, Jurgen Fleig, Andreas Limbeck

THP-72 **Determination of Ba, Cs, Mo, Zr and U in SIM Fuel samples by ICP OES and ICP MS for the study of fission products behavior during a nuclear severe accident -** Alexandre Labet, Matthieu Aubert, Serge Pontremoli, Christophe Winkelmann, Claire Le Gall

THP-73 **Metallurgical analysis with Avio 500 ICP OES: dealing with matrices and interferences -** Benoit Martelat, Kenneth Neubauer, Wim Van Bussel, Aaron Hineman, Erica Cahoon

THP-74 **The evaluation of aluminium magnesium hydrotacite concentrations in Ziegler-Natta polymerized polyolefins for the prediction of discolouring processes -** Franky Puype

THP-75 **Validation of limits of quantitation in seawaters and brines by HR ICP OES -** Peio Riss

THP-76 **Determination of trace elements in line-rich matrices using HR-Array ICP OES –** Peio Riss, Sandro Spille, Margrit Killenberg, Sebastian Wunscher

THP-77 **Laser ablation chemical mapping of high efficiency Kesterite solar cells with lithium alloying -** Matthias Trottmann, Adrian Wichser, Davide Bleiner

THP-78 **High precision with ICP OES - What is possible in real examples and in routine? -** Dirk Wuestkamp, Oliver Primm

THP-79 **Ultra trace analysis in high purity materials by ICP OES -** Dirk Wuestkamp, Oliver Primm, Nicole Grabiger

THP-80 **Multiscale elemental analysis of buried materials and interfaces -** Patrick Chapon, Sofia Gaiaschi, Jocelyne Marciano

THP-81 **Direct solid sampling process accompanying analysis with ETV-ICP OES - Monitoring the feedstock quality of coal conversion processes -** Thomas Vogt, Daniela Vogt, Carla Vogt

Petroleum and Semiconductor Materials

THP-82 **Variable volatility of organic analyte forms in direct analysis, using ICP OES, HR-CS FAAS and HR-CS MAS - drawback or benefit? -** Zofia Kowalewska, Karolina Brzezińska

THP-83 **Towards a greener approach for microwave assisted acid digestion of refractory petroleum crude samples using a single reaction chamber system followed by ICP techniques -** Francisco Antonio Lopez-Linares, Fe Aguilar, Jorge Hernandez, Laura Poirier

THP-84 **Determination of chlorides in crude oils by direct dilution using ICP MS/MS -** Jenny Nelson, Laura Poirier, Francisco Lopez-Linares

THP-85 **In-service oil analysis with ICP OES following ASTM D5185 -** Kenneth Neubauer, Erica Cahoon, Chady Stephan, Autumn Wassmuth

THP-86 **Ethanol direct analysis of phosphorus, sulfur, copper and iron with the Avio 500 ICP OES –** Wim Van Bussel, Huynh Suong, Kenneth Neubauer, Erica Cahoon

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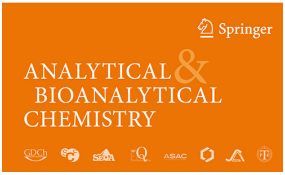

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Burgener Research est un développeur et fabricant de nébuliseurs analytiques à haute stabilité, haute sensibilité pour ICP, ICP-MS et applications spécifiques. Les nébuliseurs Burgener Research ne se bouchent pas, sont durables et faciles à entretenir. Notre nébuliseurs sont fabriqués à partir de téflon, de peek ou d'acier inoxydable et analyser des échantillons à des débits allant de 200 nanolitres à 100 ml / min. Cette vaste sélection de produits garantit la disponibilité d'un nébuliseur pour tous les besoins, car ils sont largement utilisés dans une variété de domaines allant des analyses ICP courantes à des applications industrielles plus spécifiques.

To see our complete product selection, please visit our webpage at www.burgener.com
Pour voir notre sélection complète de produits, visitez notre site internet www.burgener.com

CEM Corporation is the world leader in microwave sample preparation for ICP-OES and ICP-MS. The industry leading MARS 6 microwave digestion system brings unparalleled simplicity to trace metals sample preparation. MARS 6 is the perfect solution for labs digesting large number of samples a day as it can digest up to 40 samples in a single batch. It is also the perfect tool for digestion of difficult samples using the new iPrep vessel which can reach temperatures of up to 300 °C to completely solubilize challenging inorganic matrices. With the precise control of iWave, contactless in-situ temperature measurement, the MARS 6 is the safest and easiest-to-use microwave digestion system available.
We continue to innovate new products and accessories to solve a wide variety of applications from speciation to the most difficult sample matrices. Our latest innovation, the Discover SP-D Clinical focuses on an underserved market that requires microwave systems to work with very small sample sizes and volumes. The small cavity of the Clinical is designed specifically for these sample types and the accompanying 4 and 10 mL sample vials can work with volumes as low as 500 µL.
www.cem.com

Courtage Analyses Services. For more than 20 years we are the specialist in sample preparation, digestion and introduction for metal analysis by ICP, ICP-MS, AAS, IC etc. thanks to our skill, we became official dealer, mostly in France, European and African French speaking countries of leading designer and producer companies like

• GLASS EXPANSION with nebulizer, spray chamber, torch and cones. holder of several patents and owner of the registered trademarks like SeaSpray, Vitricon, D-Torch, TruFlo, IsoMist Eluo ect…

• SAVILLEX with PFA labware, acids distillers, graphite heating plate, sample introduction system, necessary for all ultra traces metal analysis by ICP/MS and ICP-IR/MS, the most efficient distillers on the market will allow you to obtain the purest acids while achieving significant savings for your laboratory

• BERGHOF with Hight-pressure vessels and microwave digestion. Holder of 4 patents the Speedwave XPERT can digest samples impossible with competition All µ-wave digestion vessels got a 3 years warranty.

• ANALYTIKA European CRM standard solutions producer by primary method design offering also RM standard and custom blend solutions, ultra-pure acids and solid pure material if you want to prepare yourself your standard.

• ENVIRONMENTAL EXPRESS with sample digestion in PP tubes in graphite HotBlock,

• PHOTRON with hollow cathode lamp for AAS

We also design enclosures, versatile and economical, to protect samples on autosampler, but also workers from toxic exhaust.

For laboratories also involved in Isotope Ratio measurement, we also offer a range of consumables CHNOS and EA-IR-MS instruments from all brands.

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Elemental Scientific designs and produces a full range of automation, online monitoring and sample introduction systems for the determination of trace element concentrations in liquid. Our extensive portfolio contains sample introduction devices for all models of ICPMS, ICPAES and ICPOES instruments. Elemental Scientific also provides complete sample introduction kits for specific trace metal and non-metal applications, including semiconductor pure chemicals, environmental, clinical, organic solvents, isotope ratio, and many other types of trace metal determinations. www.ICPMS.com

Elemental Scientific Lasers has a range of products to meet the diverse needs of ICP-MS users and the vastly different applications that they perform. From the NWR266macro designed with industrial bulk analysis in mind, to the NWRimage with its sub 1 micron laser spot designed for bioimaging at the cellular level, Elemental Scientific Lasers has a solution to meet your requirements.
www.NWRLasers.com

MEINHARD® is the partner of choice for many of the world's plasma spectroscopy instrument manufacturers. As a leading manufacturer and global supplier of high precision nebulizers and scientific glassware; our clients demand the highest levels of design, manufacturing, delivery, and customer service. For over 40 years MEINHARD® has had a rich legacy of meeting critical requirements ranging from applications that require high sensitivity to the fastest throughput, MEINHARD® can supply products for all ICP and ICPMS needs. www.Meinhard.com

HORIBA Scientific, part of HORIBA Instruments, Inc., headquartered in the United States, provides an extensive array of instruments and solutions for applications across a broad range of scientific R&D and QC measurements. HORIBA Scientific is a world leader in OEM Spectroscopy, elemental analysis, fluorescence (including the PTI brand), forensics, GDS, ICP, particle characterization, Raman, spectroscopic ellipsometry, sulphur-in-oil, water quality, SPRi and XRF. Our instruments are found in universities and industries around the world. Proven quality and trusted performance have established widespread confidence in the HORIBA Brand.

Building on a long tradition of pursuing innovative technology to advance scientific efforts, we have acquired renowned companies such as Société Générale d'Optique (1969), SPEX (1988), Dilor (1995), SOFIE (1996), Jobin Yvon (1997), IBH (2003), GenOptics (2009), and Photon Technology International (2014).

The HORIBA Group of worldwide companies, part of HORIBA, Ltd. headquartered in Kyoto, Japan, provides an extensive array of instruments and systems for applications ranging from automotive R&D, process and environmental monitoring, in-vitro medical diagnostics, semiconductor manufacturing and metrology, to a broad range of scientific R&D and QC measurements.
Web site : horiba.com/scientific

Kashiyama. In the design and manufacturing fields of vacuum pumps for Semiconductor and FPD manufacturers, our core business, we continue to maintain No.1 market share within the Japanese market. The primary focus of our customer-oriented approach is to gain a full understanding of our customers' requirements to provide suitable products on-time.
With the founding of Kashiyama Europe GmbH in 2018, Kashiyama Industries Ltd wishes meet the requirements of the European market and respond to the increasingly complex needs of the customers with creative solutions.
Our main business is the development and manufacturing of oil-free dry vacuum pumps as energy saving, low maintenance multistage, roots pumps. The focus of our approach is to support our customers with optimal technology for their different usages in the semi-conductor technique, analytical or branch-specific vacuum equipment, as well as R&D.
Based on the concept of «Total Cost of Ownership», we are proud to serve our customers in every stage from design to maintenance for their daily business activities, to meet their needs and to support with our yearlong experience as one of the market leaders. To this purpose, we have our worldwide service-network.

Labkings. At LabKings we provide high quality products (100% compatibility), with an excelent level of service to the laboratory community. We service or valued customers with a one-stop-shop experience combined with the best communication possible, reliable on-time delivery and a high quality standard.
LabKings is a specialist in ICP & ICP-MS consumables and has access to all major manufacturers in the Analaytical Chemistry industry.
We supply:
Torches, Spraychambers, Nebulizers, Injectors, Skimmer & Sampler cones, pump tubing, etc.
LabKings provides certified standard solutions for both Inorganics ICP, ICP-MS and Organics -GC, GC-MS, HPLC use. Our NIST traceable standard solutions are produced by an accredited laboratory according to ISO / IEC 17025 / Guide 34 (A2LA). Quality systems of the manufacturer is tested by NSF-ISR ISO registered (9001: 2008). All our standard solutions are provided with a Certificate of Analysis (CofA) & Safety Data Sheet (SDS) documentation. Labkings also offers Custom Made Solutions.

Please feel free to browse our site (www.labkings.com) to get a better understanding of our products and services and to purchase products or to contact us for a quote (info@labkings.com). For our availability in stock you can contact the LabKings team at: +31-35-2400142 or via the mail.
We are happy to assist you.
We love to meet you at our booth in Pau opposite the catering lane. We welcome you with a glass of wine complementary to our Dutch cheese. We also have our mascotte Professor Elementius T-shirts and USB sticks to remember us by. You are very welcome!

Milestone: Innovative laboratory microwave systems and mercury analyzes
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At Milestone, we help chemists providing the most innovative technology for sample
preparation and direct mercury analysis. Milestone has been active since 1988 in the
field of advanced sample preparation. We are the acknowledged industry leader in microwave instrumentation technology holding over 50 patents and more than 20.000 sample preparation instruments installed worldwide covering government, academic, contract, and manufacturing industries. Our industry-leading technology on sample preparation for trace metal analysis and organic contaminants, in combination with fast,
responsive service and applications support, allows Milestone to provide great ownership experience. Milestone offers industry-leading solutions for Microwave Digestion for AA, ICP and ICP-MS analysis, Microwave Extraction, Acid Purification, Direct Mercury Analysis, Microwave-Assisted Synthesis and Microwave Ashing. Milestone is headquartered in Italy and has offices in Germany, Switzerland, the Unites States, China, Japan and Korea; Milestone operates worldwide through a network of over 100 exclusive factory-trained distributors.

PerkinElmer – The Most Trusted Name in Elemental Analysis
With about 11,000 employees serving over 150 countries, PerkinElmer is a $2.3 billion global leader committed to innovating for a healthier world. We are passionate about providing customers with an unmatched experience as they help solve critical issues especially impacting the diagnostics, discovery and analytical solutions markets.
PerkinElmer has been at the forefront of inorganic analytical technology for over 50 years. With a comprehensive product line that includes the most powerful ICP-MS systems, flexible ICP-OES systems, high-performance Graphite Furnace AA systems and Flame AA systems, we can provide the ideal solution no matter what the specifics of your application.
We understand the unique and varied needs of the customers and markets we serve. And we provide integrated solutions that streamline and simplify the entire process from sample handling and analysis to the communication of test results.
With tens of thousands of installations worldwide, PerkinElmer systems are performing inorganic analyses every hour of every day. Behind that extensive network of products stands the industry's largest and most-responsive technical service and support staff. Factory-trained and located in 150 countries, they have earned a reputation for consistently delivering the highest levels of personalized, responsive service in the industry.

Postnova, founded in 1997 as a Spin-Off from Technical University Munich and now located in Landsberg am Lech, Germany with subsidiaries in Salt Lake City, USA and Malvern, UK, is the leading manufacturer of analytical instruments based on the principle of Field-Flow Fractionation (FFF). With an application range of 1 nm to 100 µm and 1000 Da up to several MDa, FFF is indisputably one of the most potent and flexible analytical tools for the fractionation of organic and inorganic nano- and microparticles as well as synthetic and biological polymers, proteins, viruses, antibodies, liposomes or exosomes both in complex aqueous and organic matrices. To cover these various applications, Postnova provides the complete range of FFF instrumentation including Asymmetrical Flow FFF, Electrical Asymmetrical Flow FFF, Centrifugal FFF, Thermal FFF and Gravitational SPLITT along with sophisticated detection systems such as e.g., UV-vis Spectroscopy (PN3200 UV), Multi-Angle Light Scattering (PN3600 MALS), Dynamic Light Scattering (e.g. Malvern Zetasizer), Intrinsic Viscosity (PN3300 Visco), Refractive Index (PN3100 RI) and Inductively-Coupled Plasma Mass Spectrometry (e.g. Agilent 7900 ICP-MS). With this modular approach that combines high-resolution fractionation with powerful detection; Postnova offers a comprehensive characterization platform that can be tailored to your needs to solve your analytical challenges.

RADOM

RADOM architects a new frontier in instrumentation to bring a robust plasma source to the field of analytical spectroscopy. Radom offers the MICAP plasma source that maybe coupled to both OES and MS detection instruments. By allowing standard sample introduction, standard glassware, and offering throughput specfications equivalent to typical ICP, the MICAP plasma source is available to be coupled to any MS instrument in a modular fashion. The N2 -MICAP source provides a much “cleaner” background spectrum than the ICP; absence of argon-based interferences greatly simplifies analysis of isotopes such as 40 Ca, 56 Fe, and 75 As, which typically suffer from spectral interferences in ICP-MS. The major plasma species measured from the N2 -MICAP source include NO^+ , N_2^+ , N^+ , N_3^+ , O_2^+ , N_4^+ , and H_2O^+ ; and there are no observed plasma-background species above mass-to-charge 60. Absence of troublesome argon-based spectral interferences is a compelling advantage of the MICAP source. For example, with MICAP-TOFMS, the limit of detection for arsenic is less than 100 ng L^{-1} even in a 1% NaCl solution; with ICP-MS, $^{35}Cl^{40}Ar^+$ interferes with $^{75}As^+$ and arsenic analysis is difficult-to-impossible in chlorine-containing matrice [Anal. Chem. 2018,90,22,13443-13450].
If you are interested in advancing your research in Laser Ablation, Speciation, Complex matrices and others, without the interferences of Argon while achieving high detection limits please contact sales@radomcorp.com

The Royal Society of Chemistry is the world's leading chemistry community, advancing excellence in the chemical sciences. With over 50,000 members and a knowledge business that spans the globe, we are the UK's professional body for chemical scientists, supporting and representing our members and bringing together chemical scientists from all over the world.
A not-for-profit organisation with a heritage that spans 175 years, we have an ambitious international vision for the future. Around the world, we invest in educating future generations of scientists. We raise and maintain standards. We partner with industry and academia, promoting collaboration and innovation. We advise governments on policy. And we promote the talent, information and ideas that lead to great advances in science.
In a complex and changing world, chemistry and the chemical sciences are essential. They are vital in our everyday lives and will be vital in helping the world respond to some of its biggest challenges.
We're working to shape the future of the chemical sciences – for the benefit of science and humanity.

Savillex provides a full range of PFA labware products and technologies designed to minimize contamination and maximize data quality for trace metals analysis. Our jars, vials, bottles, and digestion vessels are all produced from virgin, high-purity PFA resin and offered in various shapes and sizes. Savillex's market-leading DST Series of acid purification systems have given thousands of analytical labs around the world the ability to produce their own ultra, high-purity acid (10 ppt) resulting in significant cost savings and dependable acid quality.
Recently, Savillex introduced the HPX Series of PFA-coated inert hotplates which help diminish contamination during sample prep and also maximize hotplate longevity by virtually eliminating system corrosion. When it finally comes to analysis, Savillex optimizes your ICP-OES and ICP-MS by offering a complete line of PFA sample introduction systems.
When your applications demand the lowest levels of detection, Savillex has a solution that meets your needs.

Shimadzu. Instruments and solutions at top level reliability and performance

Shimadzu as a worldwide leading manufacturer of analytical instrumentation provides essential tools for quality control of consumer goods and articles of daily use, in food, beverages and agriculture as well as in all areas of environmental and consumer protection. Since more than 140 years, Shimadzu has been at the service of science ensuring precise, reliable diagnoses and analyses in food, chemistry, pharmacy and medicine. Shimadzu´s innovative solutions in field of atomic- and molecular spectroscopy, chromatography, mass spectrometry and material testing ensure the highest level of reliability and performance.

Shimadzu's Inductively Coupled Plasma Mass Spectrometer ICPMS-2030 supports an extensive range of analysis from trace levels to high concentrations. It is ideal for the elemental analysis of sample solutions, in particular where the lowest detection limits are demanded. The system configuration includes a user-friendly software package with two "assistant" functions to simplify analysis. The spectrometer is designed for high stability, high sensitivity and low interferences. The unique energy saving features such as the patented minitorch developed by Shimadzu resulting in low running costs.

Spectroscopy magazine. For the past 33 years, Spectroscopy's mission has been to enhance the productivity, efficiency, and the overall value of spectroscopy as a practical analytical technology across a variety of fields. Scientists, technicians, and laboratory managers gain proficiency and competitive advantage for the real-world issues they face through unbiased, peer-reviewed technical articles, trusted troubleshooting advice, and best practices application solutions. Spectroscopy is indexed in the Science Citation Index, Web of Science: Science Citation Index Expanded, Journal Citation Reports, and EBSCOhost.

Spectron. Since 1988, Spectron, Inc. has been manufacturing and supplying quality cones and consumables to the ICP & ICP-MS community worldwide. With extensive experience in ICP-MS and ICP-OES techniques, we bring a unique level of expertise to the manufacturing process. Developing Partnerships with companies like Agilent Technologies and others, Spectron is continually improving and updating our techniques and processes, keeping up with the critical demands of our growing industry. Spectron manufactures sampler and skimmer cones for all the major brands of ICP mass spectrometers including Agilent, GBC, MicroMass/GV, Nu Instruments, PerkinElmer and Thermo Fisher. We offer our customers the highest quality consumables and accessories available anywhere. Through our website and with the aid of local dealers, our products and services are available around the globe. Spectron stands behind all the products we sell. Whether sample cones, glassware, detectors or accessories, we are committed to the highest level of customer satisfaction and support. Our experienced engineers and state-of-the-art equipment enable us to help bring your concepts through the design, prototype, and final production stages. If you desire, we are strategically configured to scale up rapidly, as your business grows, keeping pace with your needs.

Spetec GmbH, founded in1987 and located in Erding, Germany, is the leading supplier of peristaltic pumps. Spetec engineering offers products for the modern laboratory, such as a comprehensive selection of various tubing made to meet the most stringent specifications for peristaltic and syringe pumps. Thanks to the highest quality and precision, Spetec became the leading supplier of peristaltic pumps. A comprehensive selection of various tubing types for their application is offered as well. Over the years, Spetec has also developed a broad range of clean room solutions. Today Spetec delivers individual clean room solutions ranging from the mobile Laminar Flow Box to complex, turnkey clean room systems. Spetec also offers the maintenance and certification of clean room systems according to DIN ISO.
Based on many years of experience in clean room technology, the area of laser safety business has emerged. Individual laser safety systems are offered according to customer requirements. Innovative, application-oriented products are created through the combination of in-house development, design and fabrication centralised under one roof.
Spetec provides customized products that can be tailored to your needs and specifications.

SPEX Europe is the European division of SPEX CertiPrep Group representing SPEX CertiPrep, SPEX SamplePrep and Katanax throughout the EMEA region. We manufacture Certified Reference Materials for AA, IC, ICP, ICP-MS, GC, GC-MS, HPLC, LC-MS. We offer custom made solutions based on your lab's individual needs.
We also provide superior laboratory equipment such as cryogenic mills, presses and fusion fluxers that have become the industry standard for reliability and durability being used in a variety of analytical techniques including ICP.
Katanax Fusion Fluxers are the ideal fusion instruments for preparing difficult samples for ICP. Electric fusion fluxers are able to dissolve the most difficult matrices into a solution in minutes.
Safe- No need for concentrated acids or HF
Fast- Solid sample to solution in 20 minutes
Efficient- Difficult samples such as silica, alumina, zirconium and titanium can be dissolved
No metal contamination- Use of ceramic parts eliminates metal contamination
A full range of fusion fluxes are available for different sample types including non-borate fluxes. Crucibles are also available in platinum or graphite.

Symalab is specialized in the manufacture and distribution of technical consumables and equipment for AAS, ICP and ICP-MS. Distributor since 2013 of the company Precision Glassblowing, our range, made up of original manufacturer parts, covers the needs ranging from consumables for sample changers, nebulizers, torches, peristaltic pump tubes to cones for ICP-MS, spray chambers, connectors...
In 2018, we became a direct distributor of the Environemental Express brand, manufacturer of HotBlock® heating blocks and associated consumables (PP tubes, Filtermates, Flipmates, etc.).
That same year, we entered into a distribution partnership with GBC Scientifics to represent their ICP-TOF-MS model: truly simultaneous ICP-MS analysis.
Creator of the concept, we are the manufacturers of the PureProtec® removable protection enclosures with HEPA 13 ventilation and filtration. This allows you to protect your sample changers, heating blocks and especially your staff. Our advantage: we adapt to your constraints and not the other way around.
Equipped with a professional 3D printer FDM and SLA, our design office can produce your unique pieces or small series with ultra-trace quality plastics.
We are also one of the few specialists in consumables for CHONS (Dumas) - protein analysis by combustion where we distribute/manufacture tin, silver, brass, reagents, quartz or metal tubes, etc.
Finally, our company is an official distributor of the Altec brand, manufacturer of the AMA 254 mercury analyzer without sample preparation.

Thermo Fisher Scientific Inc. is the world leader in serving science, with revenues of more than $20 billion and approximately 70,000 employees globally. Our mission is to enable our customers to make the world healthier, cleaner and safer. We help our customers accelerate life sciences research, solve complex analytical challenges, improve patient diagnostics, deliver medicines to market and increase laboratory productivity. Through our premier brands – Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific and Unity Lab Services – we offer an unmatched combination of innovative technologies, purchasing convenience and comprehensive services.

We are proud to be supporting the 2019 European Winter Conference on Plasma Spectrochemistry and look forward to meeting you at our booth to show you powerful, easy-to-use solutions for routine and research trace elemental analysis.

Thermo Scientific trace elemental analysis instruments deliver quality, reproducible data from any sample type. With a streamlined and intuitive interface, our innovative solutions make it easy for operators at any experience level to analyze samples in accordance with even the strictest regulations and legislation, so you can have total confidence in your results.

Learn more at thermofisher.com/TEA

TOFWERK designs and delivers state-of-the-art time-of-flight (TOF) mass spectrometers (MS) for a broad range of laboratory and field applications. Our research product line includes the icpTOF, Vocus PTR-TOF, IMS-TOF, and EI-TOF for GC. Additionally, our engineers and scientists collaborate with research laboratories and OEM customers to develop custom MS solutions based on our modular design platform.

At the 2019 European Winter Conference on Plasma Spectrochemistry, we are spotlighting our icpTOF, which couples the Thermo Scientific iCAP RQ to a TOFWERK TOF mass analyzer. The iCAP QR provides versatile sample introduction, robust ICP, simple access to cones and lenses and the Qcell technology. The TOF adds simultaneous all-element detection, linear response and mass resolving power >6000, while maintaining QMS-equivalent sensitivity. With high-speed mass spectral acquisition and simultaneous analysis of all isotopes, the icpTOF is the ideal ICP-MS detector for multi-element single particle analysis or laser ablation imaging.

More information at: https://www.tofwerk.com/products/icptof/

TELEDYNE CETAC TECHNOLOGIES. Teledyne CETAC Technologies is a worldwide leader in sample introduction and sample handling equipment for elemental analysis. For over 25 years CETAC has been supplying high quality products that help atomic spectrometrists do more with their atomic absorption, inductively coupled plasma atomic emission and inductively coupled plasma mass spectrometry equipment, expanding the scope of possible measurements and pushing the boundaries of productivity. CETAC products and services are used in every industry where rapid and accurate determination of elemental trace levels are required, including semiconductor manufacturing, environmental analysis and petrochemical manufacturing. Headquartered in Omaha, Nebraska, USA, CETAC also maintains a European office in the UK, and is connected to a global network of distributors and service providers. www.teledynecetac.com

Triskem International SAS. Founded in 2007, Triskem International SAS is an independent French company that develops, manufactures and commercialises highly selective resins used in the separation, purification and recuperation of specific elements. Triskem Resins are used for

- Environmental monitoring, decommissioning and radiation protection
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TrisKem's expertise in separation chemistry and its wide range of resins with different selectivities provides a number of opportunities to solve analytical problems through sample preparation.
Frequently the problems encountered are centred on removing matrix interfering with the instrumental measurement.
ICP-MS is an example. Isobaric interferences have often to be removed in order to allow accurate determination of your analytes.
Selectivity for the analyte of interest is important in these cases. Extraction chromatography is widely used in various analytical applications, food provenancing, in geochronology and dating (e.g. U/Pb, Nd/Sm, Sr isotope ratios,...).
Since 2009, Triskem International has set up Research and Development projects in collaboration with universities and research centres worldwide.
Our R&D team is working on the development of new resins and methods in order to help you with your separation needs. Having a special separation need, willing to participate in a R&D project or looking for a partner to commercialize a new technology you have developed, please do not hesitate to contact us.
More information
Website: www.triskem.com - Contact: Steffen Happel - shappel@triskem.fr

UT2A Training & Consulting is born from researchers' willing to share their know-how in the domains of inorganic analysis and speciation. Trainings & consulting UT2A is a training centre, spin-off of the University of Pau and the Adour Countries (UPPA), and partner of the Bio-inorganic Analytical Chemistry laboratory and Environment / IPREM (UMR CNRS / UPPA 5254). Hardly with more than 18 years of experiment in the organization of training courses, and accompanied by more and more numerous experts in other analytical sciences than those who constitute our heart of business, we are at your disposal to help you develop the field of your analytical activities.
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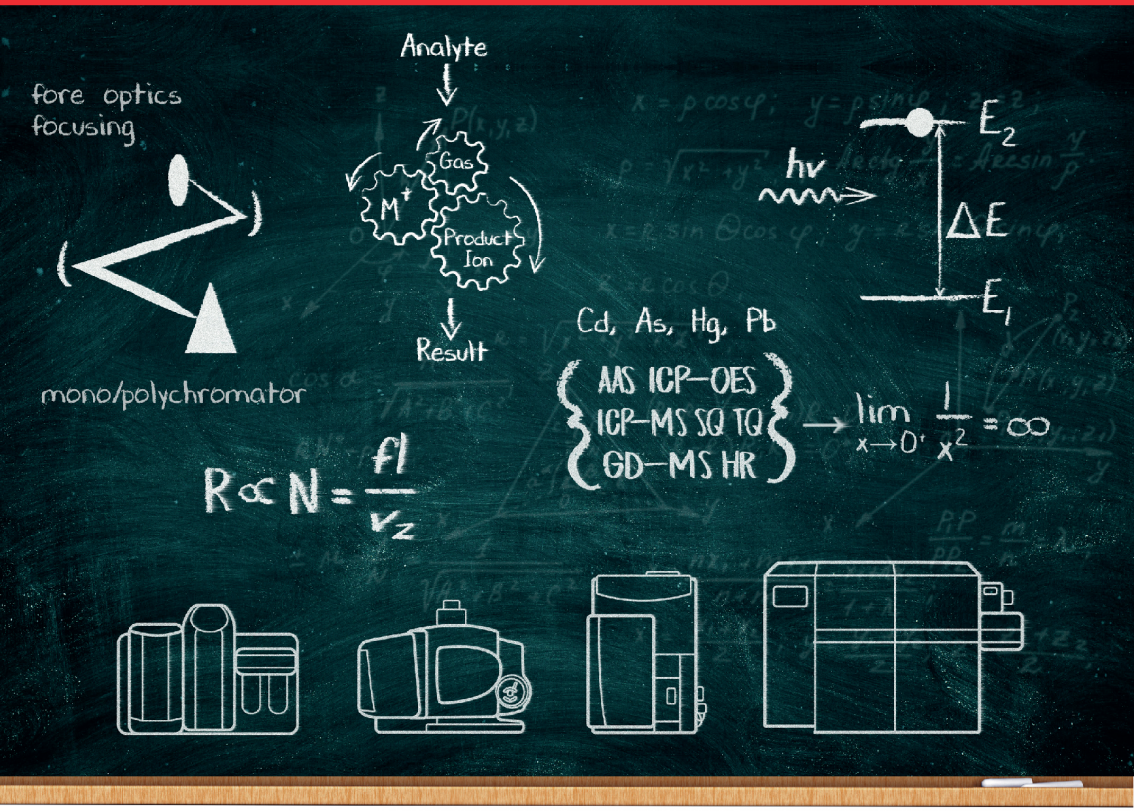

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Learn more - visit the Thermo Fisher Scientific booth or attend our lunch seminar on Wednesday, February 6.

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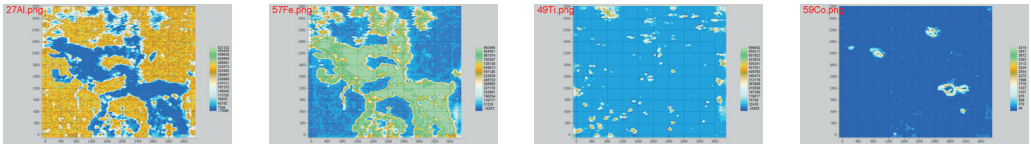

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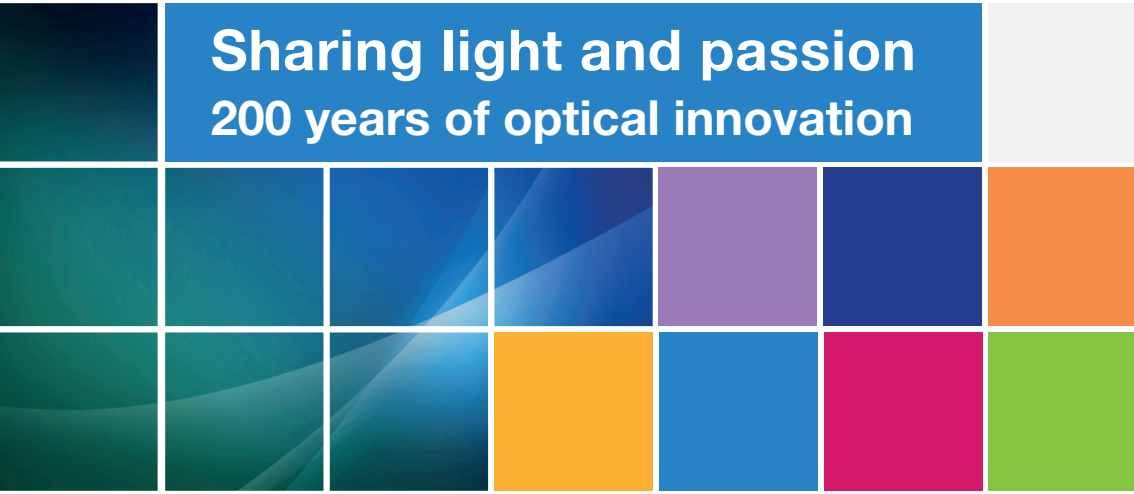

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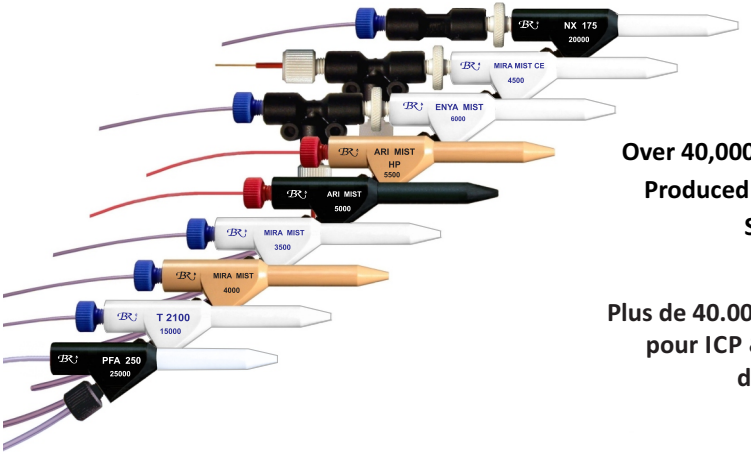

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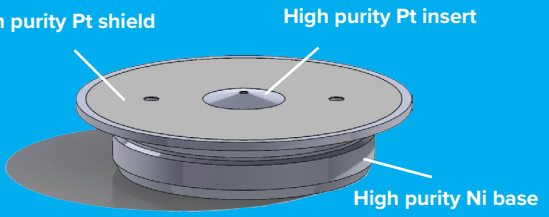
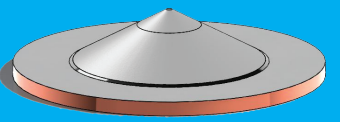
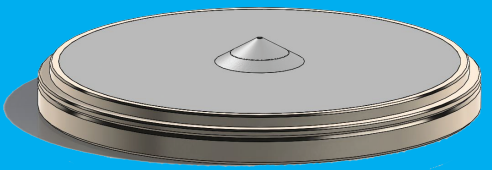


SC4014ps-Pt: compare to (N8145028)



VG1026ps-Pt: compare to (3601289)



HP2006ps-Pt: compare to (G3280-67056)

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CETAC products and services are used in every industry where rapid and accurate determination of elemental trace levels are required, including semiconductor manufacturing, environmental analysis and petrochemical manufacturing. Headquartered in Omaha, Nebraska, USA, CETAC also maintains a European office in the UK, and is connected to a global network of distributors and service providers.

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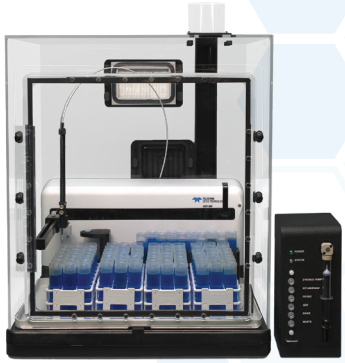
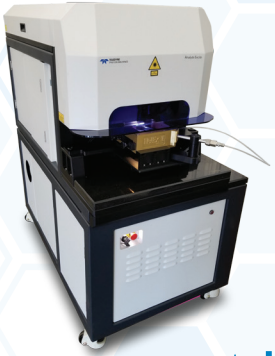
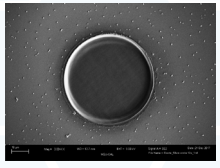


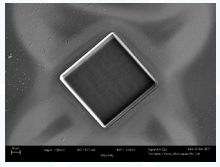
SDX HPLD

SimPrep

Aridus3







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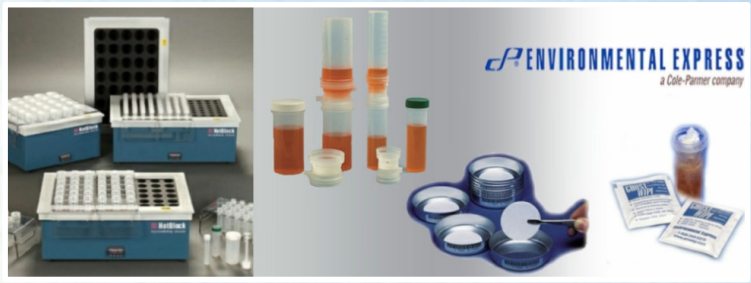

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NOTES

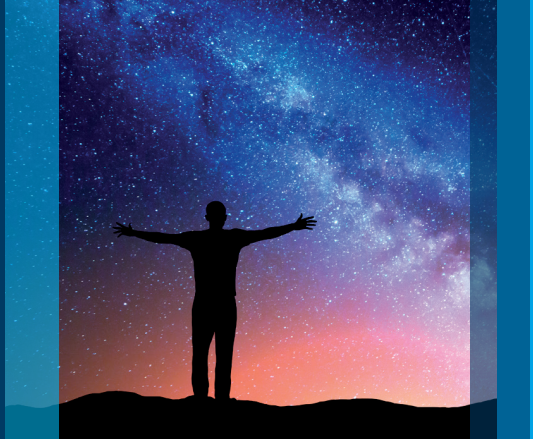
NOTES

2020 Winter Conference on Plasma Spectrochemistry
Tucson, Arizona, January 12 – 18, 2020

The **2020 Winter Conference on Plasma Spectrochemistry**, 21st in a series of biennial meetings sponsored by the *ICP Information Newsletter*, features developments in plasma spectrochemical analysis by inductively coupled plasma (ICP), dc plasma (DCP), microwave plasma (MIP), glow discharge (GDL, HCL), and laser sources (LA, LIBS). The meeting will be held Monday, January 13 through Saturday, January 18, 2020, in Tucson, Arizona, (www.visitTucson.org) at the El Conqistador Tucson Resort (www.hiltonelconquistador.com). Professional development short courses at introductory and advanced levels and manufacturers' seminars will be offered Friday through Monday, January 10-13. Spectroscopic instrumentation and accessories will be shown during a three-day exhibition from January 14 to 16, and workshops on New Plasma Instrumentation, Clinical ICP-MS, Isotope Analysis, Elemental Imaging and Mass Cytometry, and Elemental Speciation methodology will be presented Tuesday thru Friday afternoons.

The continued growth in popularity of plasma sources for atomization and excitation in atomic spectroscopy and ionization in mass spectrometry and the need to discuss recent developments of these discharges in spectrochemical analysis stimulated the organization of this meeting. The Conference will bring together international scientists experienced in applications, instrumentation, and theory in an informal setting to examine recent progress in the field. Approximately 500 participants from 30 countries are expected to attend. Over 300 papers describing applications, fundamentals, and instrumental developments with plasma sources will be presented. The title submission deadline is July 12, 2019.

Six plenary and 34 invited lectures will highlight advances in these areas. Four afternoon poster sessions will feature applications, automation, and new instrumentation. Six Heritage Lectures will be presented by distinguished scientists and investigators, who have contributed significantly to the development of plasma spectrochemistry and will address critical development areas in sample introduction, instrumentation, elemental speciation, plasma source mass spectrometry, and novel software and hardware. Awards for outstanding young investigators and senior researchers also will be presented. Plenary, invited, and submitted papers will be published in September 2020 as the official Conference proceedings.



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Agilent activities at EWCPS 2019

Agilent continues to give the strongest support to the Atomic Spectroscopy community, contributing to new solution developments and supporting the "European Plasma and Rising Star" awards.

Don't miss the chance to win the "elemental travel mug" by playing our virtual game at the Agilent booth.

Software Demo

Monday to Friday
Agilent booth

ICP-MS MassHunter and ICP GO live demos.

03 ICP-MS/MS fundamentals

Sunday 03 February
13:30 - 16:30

Understanding Mechanisms of ICP-MS/MS for Resolving Polyatomic, Isobaric, and Other Spectral Interferences.

05 Lunch Seminar

Tuesday 05 February
12:25 - 14:00
Room Alphand

Pushing boundaries in Life Science Research.

Lunch box will be offered.

04 MassHunter Workshop

Monday 04 February
17:30 - 18:30
Auditorium Alphonse de Lamartine

Hands on workshop on MassHunter Software for ICP-MS and ICP-QQQ.

06 Company Night

Wednesday 06 February

Join us for a fun evening with delicious food at the Hippodrome. Availability is limited so please book your place early to avoid disappointment.

Register here: www.agilent.com/en/promotions/agilent-at-ewcps2019