

PRELIMINARY PROGRAM



The final program will be published on January 10th 2019

| Sunday, February 3rd 2019 <i>Registration starts at 8:30</i> | |
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| Short courses | |
| 09:00-12:00 | SC-1 Metrology for spectrochemical measurements SC-2 Nanomaterials SC-3 Isotope and isotope dilution ICP MS |
| 13:30-16:30 | SC-4 ICP MS/MS fundamentals SC-5 Speciation analysis SC-6 Laser Ablation ICP MS SC-7 Single Particle and Single Cell Analysis |
| Opening ceremony <i>(Auditorium Alfred de Vigny)</i> | |
| 17:00-17:10 | Welcome (R. Lobinski) |
| 17:10-17:15 | Winter Plasma Conferences in Pau – 20 years ago and now |
| 17:15-17:25 | Address of the Mayor de Pau (F. Bayrou - <i>to be confirmed</i>) |
| 17:30-17:40 | Address of the Président of the UPPA (M. Amara) |
| 17:40-18:00 | History of Winter Plasma Conferences (R. Barnes) |
| 18:00-18:10 | Presentation of the conference sponsors |
| 18:10-18:25 | Presentation of Agilent Awards: European Plasma and Rising Star |
| 18:25-18:35 | Presentation of PhD grant laureates |
| 18:30-18:45 | <i>'Analytical chemistry: out of the box'</i> (F. Adams) |
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| 19:00- | WELCOME (get-together) PARTY Palais Beaumont |

| Monday, February 4th 2019 (Auditorium Alfred de Vigny) | |
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| 08 :30-09:15 | Plenary PLM-1: A. Bengtson Past and recent developments in Glow Discharge Optical Emission Spectroscopy (GD-OES) |
| 09 :15-09:40 | Keynote KM-1:V. Hoffmann Light element analysis by analytical glow discharges |
| 09:40-10 :05 | Keynote 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 |
| | Auditorium Alfred de Vigny |
| | Fundamentals (1) |
| 10:45-11 :10 | Keynote KM-2: X. Hou Microplasma-based atomic spectrometry: sample introduction, instrumentation and method development |
| | Auditorium Alphonse de Lamartine |
| | Glow discharge |
| 11 :10-11 :25 | OM-01: T. Iwai Development and Evaluation of On-site Impurity Detection System for Hydrogen Fuel using High-Power Pulsed Microplasma |
| 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 |
| 12 :25-14 :00 | Lunch <i>(Shimadzu lunch seminar, room Alphan)</i> <i>(Anton Paar lunch seminar, room Monpezat)</i> |
| 14 :00-15 :10 | Poster session |
| | Single particle analysis (1) |
| 15 :10-15 :35 | Keynote KM-4: H. Goenaga 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 |
| | Metallomics (1) |
| 15 :10-15 :35 | Keynote KM-5: 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 in microorganisms of metallophores content and metal transport by the use of isotopically enriched species |
| 16 :40-17 :20 | Heritage lecture: A. Montaser <i>Novel Plasma and Nebulization Techniques: The Plasma and Aerosol Generation Roadmaps</i> (Auditorium Alfred de Vigny) |
| 17:30- | Agilent Workshop <i>(Auditorium Alphonse de Lamartine)</i> |
| COMPANY NIGHT: ESI/Meinhard Perkin-Elmer | |

| Tuesday, February 5th 2019 (Auditorium Alfred de Vigny) | | | |
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| 08 :30-09 :15 | Plenary PLT-1: A. Makarov Orbitrap analyzer and plasma ion sources: couldn they work together? | | |
| 09 :15-09 :40 | Keynote 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 | Plenary PLT-2: B. Bodenmiller Highly multiplexed imaging of tissues with subcellular resolution by imaging mass cytometry | | |
| 10 :25-11 :00 | Coffee break | | |
| | Auditorium Alphonse de Lamartine | Auditorium Alfred de Vigny | Room Gabard |
| | Single particle analysis (2) | Metallomics (2) | |
| 11 :00-11 :25 | Keynote KT-3: A. Gundlach-Graham Monte Carlo simulations to characterize low-count-rate signals in ICP-TOFMS and applications to single-particle analysis | Keynote KT-2: M. Montes The combination of labelled antibodies and ICP-MS for biomarker analysis: recent progress and remaining challenges for multiplexing | GD workshop |
| 11 :25-11 :40 | OT-01: G. Galbács Analytical method development for nanoparticle characterization by SP ICP-MS: beyond monometallic spherical particles | OT-02: P. Singh Quantification of breast cancer biomarkers using immune histochemically assisted imaging by LA-ICP-MS | |
| 11 :40-11 :55 | OT-03: T. Vonderach Analysis of single cells transported via microdroplets using ICP-TOFMS | 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-05: K. Löschner Analysis of titanium dioxide nanoparticles in food by triple quadrupole and high resolution ICP-MS in single particle mode | OT-06: A. Jagielska Dependence of LA-ICP-MS results on the preparation of biological and clinical samples | |
| 12 :15-12 :25 | OT-07: G. Stadelmann Determination of total uranium amount in single particles by ID-MC-ICP-MS for characterization of particle reference materials | 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 <i>(Agilent lunch seminar, room Alphant)</i> | | |
| 14 :00-15 :10 | Poster session | | |
| | Nanoparticle/environmental analysis | Metallomics (3) | |
| 15 :10-15 :35 | Keynote KT-5: I. Dror Detection and characterization of nanoparticles in soil-water plant environments | Keynote KT-4: G. Köllensperger Novel workflows for metal-based anticancer drug research enabled by ICP-TOF-MS | |
| 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 | OT-10: D. Bishop Quantitative imaging of dystrophin using immunohistochemical-assisted imaging-mass spectrometry | |
| 15 :50-16 :05 | OT-11: J. Irrgeher Technology-critical elements (TCEs): Source characterization and assessment of environmental exposure | OT-12: C. Bresson Investigation of uranium effects on neuron-like cells: an interdisciplinary analytical approach | |
| 16 :05-16 :20 | OT-13: J. Jimenez-Lamana Nanoplastics, the new threat to environmental waters: how can ICP-MS help us to address this issue? | OT-14: S. Mari The use of plasma-assisted techniques to unravel the genetics of metal storage in seeds | |
| 16 :20-16 :35 | OT-15: G. Cornelis Laser ablation coupled to spICP-MS can quantify size and number concentration of inorganic nanomaterials in soils | OT-16: R. Alvarez-Fernandez Single cell analysis of selenized yeast using triple quadrupole ICP-MS | |
| 16 :40-17 :20 | Heritage lecture: G. Hieftje <i>And now what? (Reprise)</i> (Auditorium Alfred de Vigny) | | |
| 19:30- | HOT PLASMA PARTY (Domaine Cinquau) | | |

| Wednesday, February 6th 2019 (Auditorium Alfred de Vigny) | |
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| 08:30-09:15 | Plenary PLW-1: D. Günther Contributions to automated element imaging by Laser Ablation ICP-Mass Spectrometry |
| 09:15-10:00 | Plenary PLW-2: J. Laserna Laser-induced breakdown spectroscopy: the secret life of surfaces and other captivating insights |
| 10:00-10:25 | Keynote KW-1: Ph. Doble Atomic Oncology: Personalising cancer radiation treatments with LA-ICP-MS |
| 10:25-11:00 | Coffee break |
| | Auditorium Alfred de Vigny |
| | Laser ablation and LIBS (1) |
| | Auditorium Alphonse de Lamartine |
| | Environmental analysis (1) |
| 11:00-11:25 | Keynote KW-1: V. Zorba New and emerging femtosecond laser sampling approaches in laser induced breakdown spectroscopy |
| 11:25-11:40 | Keynote KW-2 J. Feldmann Elemental speciation in biological and environmental samples involves natural nanoparticles and molecular species |
| 11:25-11:40 | OW-01: P. Hansen Simple modeling of LIBS plasma parameters for extraterrestrial applications |
| 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-03: R. Buchholz ⁵⁷ Fe-enriched iron oxide nanoparticles – long term fate and cell tracking determined by LA-ICP-MS and MRI |
| 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-05: van Elteren Rules of thumb for fast and high-quality LA-ICPMS imaging in single pulse or continuous scanning mode |
| 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-07: B. Wagner Laser ablation ICP MS for analytical recycling of iron-gall ink indicator papers |
| 12:10-12:25 | OW-08: M. Horvat Traceability of oxidized mercury measurements in air |
| 12:25-14:00 | Lunch <i>(ESI/Meinhard lunch seminar, room Monpezat)</i> <i>(Thermo lunch seminar, room Alphanth)</i> |
| 14:00-15:10 | Poster session |
| | Laser ablation and LIBS (2) |
| | Environmental analysis (2) |
| 15:10-15:35 | Keynote KW-3: D. Bleiner Laser Ablation 3D Chemical Mapping with X-ray Lasers |
| 15:10-15:35 | Keynote KW-4: C. Barbante Mass spectrometry under the ice |
| 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 |
| 15:35-15:50 | OW-10: E. Vasileva Monitoring of priority and emerging contaminants in the open ocean |
| 15:50-16:05 | OW-11: A. Limbeck Development of laser based procedures for stoichiometry analysis of ternary boride thin films |
| 15:50-16:05 | OW-12: E. Mavrikis Investigating arsenate uptake in <i>C. reinhardtii</i> cells using Single Cell ICP-MS and its effect on lipid remodelling using ambient MS |
| 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 |
| 16:05-16:20 | OW-14: N. Sadiq You've got to be helping me! Determination of ¹²⁹ I / ¹²⁷ I in kelp samples using ICP-MS/MS |
| 16:20-16:35 | OW-15: M. Hola Feasibility of Nanoparticle-Enhanced Laser Ablation Inductively Coupled Plasma 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 |
| 16:40-17:20 | Heritage lecture: R. Russo - <i>A Career History of Laser Ablation for Chemical Analysis</i> (Auditorium Alfred de Vigny) |
| 17:30- | Ametek Spectro users meeting (room Lautréamont) Horiba users' meeting (room Alphanth) |
| COMPANY NIGHT : Agilent | |

Thursday, February 7th 2019
(Auditorium Alfred de Vigny)

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| 08:30-09:10 | Plenary PLTH-1: Agilent European Plasma 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 | Keynote TH-1: Agilent Rising Plasma Star Awardee: M. Matczuk Joint forces of ICP-MS-based techniques for effective examination of the intracellular processing of gold nanoparticles | |
| 09:35 -10:05 | Keynote TH-2: RSC Lectureship Márcia Foster Mesko Green sample preparation methods for further determination of metals and non-metals by atomic spectrometric techniques | |
| 10:05-10:40 | Keynote TH-3 Spectroscopy Awardee: D. Hare Atomic pathology: The past, present and future of elemental imaging in medical research | |
| 10 :40-12:40 | Poster session | |
| 12 :40-14:00 | Lunch <i>(Perkin-Elmer lunch seminar, room Monpezat)</i> | |
| | Auditorium Alfred de Vigny | Auditorium Alphonse de Lamartine |
| | Isotope ratio analysis | Fundamentals (2) |
| 14:00-14:25 | Keynote TH-3: Lu Yang Absolute isotope amount ratio measurements by MC-ICP MS | Keynote KTH-4: A. Okino Non-contact mass spectrometry of adhesive compounds on heat-sensitive surface using temperature-controllable plasma jet |
| 14:25-14 :40 | OTH-01: T. Prohaska The isotopic challenge: metrological approaches for accurate isotope measurements | OTH-02: M. Stiborek Cold Plasma: way to improve repeatability of metal analysis in sub-microliter volumes? |
| 14:40-14:55 | OTH-03: Ph.Telouk Copper isotopic composition as a biomarkers for liver cancer : a large cohort study | OTH-04: D. Rosenkranz Matrix matched validation procedure for single cell measurements with automated μ -flow injection |
| 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 | 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-07: J. Vogel Triple isotope fractionation exponents of elements measured by MC-ICP-MS - an example of Mg | OTH-08: C. Hommel Optimization possibilities for difficult matrices with ETV-ICP OES |
| 15:35-15 :50 | OTH-09: D. Malinovskiy Accurate determination of lithium and boron isotope ratios by MC-ICPMS with normalisation to an internal standard | OTH-10: C. Abad Critical evaluation of optical spectrometry vs mass spectrometry for stable isotope analysis |
| 15:50-16:05 | OTH-11: L. Banks Developing low-volume solution ICP-MS for high-precision uranium isotope analysis | 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 | |
| 16:40-17:30 | Heritage lecture: R.S. Houk More Misnomers, Misconceptions, and Musings in ICP Spectroscopy (Auditorium Alfred de Vigny) | |
| 17:30-19:00 | Young Scientists Career Event <i>to be confirmed</i> | |
| 20:00 | GALA DINNER (Palais Beaumont) | |

| Friday, February 8th 2019 (Auditorium Alfred de Vigny) Speciation & Environmental | | | | | |
|--|---|---------------------------------------|---|-----------------------------|---------------------------|
| 08 :30-09 :15 | Plenary PLF-1 (N. Jakubowski) Method development for single cell analysis by use of ICP-MS and ICP-TOFMS | | | | |
| 09 :15-10 :00 | Plenary PLF-2 (F. (F. Poitrasson) Exploring the Earth with MC-ICP-MS | | | | |
| 10 :00-10 :25 | KF-1: Aggarwal Plasma spectrochemistry in India | | | | |
| 10 :25-11 :00 | Coffee break | | | | |
| | <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center; background-color: #f2f2f2;"> Auditorium Alfred de Vigny </td> <td style="width: 50%; text-align: center; background-color: #e6e6fa;"> Auditorium Alphonse de Lamartine </td> </tr> <tr> <td style="text-align: center; background-color: #f2f2f2;"> Elemental speciation </td> <td style="text-align: center; background-color: #e6e6fa;"> Petroleum analysis </td> </tr> </table> | Auditorium Alfred de Vigny | Auditorium Alphonse de Lamartine | Elemental speciation | Petroleum analysis |
| Auditorium Alfred de Vigny | Auditorium Alphonse de Lamartine | | | | |
| Elemental speciation | Petroleum analysis | | | | |
| 11 :00-11 :15 | OF-01: W. Lorenc Study on 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-MSn | | | | |
| 11:15-11:30 | OF-03: H. Isnard Hyphenation between capillary electrophoresis and multi collector inductively coupled plasma mass spectrometry for isotope ratio measurements | | | | |
| 11:30-11:45 | OF-05: V. Volchek The use of hyphenated techniques (CZE-ICP-MS, HPLC-ICP-OES) for the study of inorganic complexes | | | | |
| 11:45-12:00 | OF-07: I. Komorowicz Arsenic speciation analysis in liquid and solid samples by hyphenated technique HPLC/ICP-DRC-MS | | | | |
| 12:00-12:30 | OF-02: M. Moldovan Determination of sulfur-containing compounds in crude oil products by GC-ICP-MS/MS | | | | |
| 11:15-11:30 | OF-04: Z. Gajdosechova Headspace analysis of Hg in petroleum hydrocarbons | | | | |
| 11:30-11:45 | OF-06: F. Chainet Speciation of trace contaminants in the refinery industry using gas chromatography coupled to ICP-MS/MS | | | | |
| 11:45-12:00 | OF-08: F. Lopez-Linares Application of Single Particle Inductively Coupled Plasma-Mass Spectrometry (sp-ICP-MS) in the Petroleum Industry | | | | |
| 12:00-12:30 | Closing ceremony (Auditorium Alfred de Vigny) | | | | |
| 14:00- | Guided visit of the Pau Castle | | | | |