



Eur**Analysis** **Geneva 2023**

27–31 August 2023
Switzerland

**Analytical Probing
of Complex Systems**

PROGRAMME

Spectroelectrochemistry within everyone's reach



When combining two techniques became the perfect solution for your research

3 year
instrument warranty

Advanced instruments for getting the most of your experiments through a dedicated and easy to use software. A complete solution for obtaining synchronized optical and electrochemical data. Spectra are obtained while electrochemical processes are taken place in the system under study.

Typical applications

- Identify and check chemical structures
- Surface characterization of new materials in photo-voltaics, batteries, ...
- Determine oxidation states in organic and inorganic compounds
- Follow electrocatalysis reactions optically
- Improve the limit of detection thanks to surface enhanced RAMAN spectroscopy (SERS)

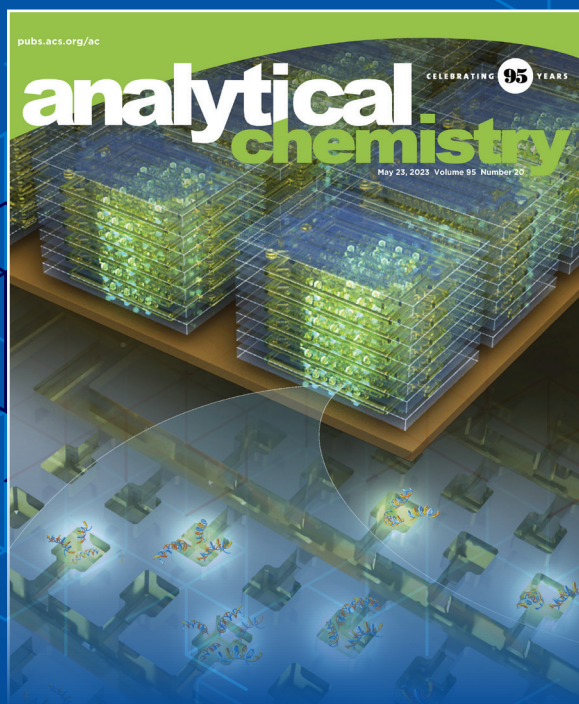
Key benefits

- Integrated solutions
- Outstanding results quicker and easier thanks to intuitive DropView SPELEC dedicated software
- Complete knowledge of your sample
- Results validated by two techniques
- Work with any kind of electrochemical, optical and spectroelectrochemical cell

 **Metrohm**
DropSens

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2022
IMPACT FACTOR **7.4**

EDITOR-IN-CHIEF
Jonathan V. Sweedler



2022
IMPACT FACTOR **8.9**

EDITOR-IN-CHIEF
J. Justin Gooding

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SCS
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Fundamental Research



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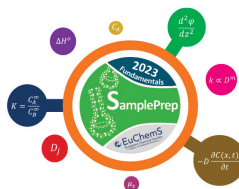
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 π School of Engineering

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für Angewandte Wissenschaften

zhaw



**Swiss National
Science Foundation**



GENEVA
CONVENTION BUREAU



Room B

Exit only

Geneva Forum Office

Building Entrance

Esplanade

Welcome Desk, Badges

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

- Geneva, 2023**

EXHIBITORS INFORMATION



Agilent Technologies

Booth 14



Booth 6

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BGB Analytik's employees are well trained in chemical analysis, and they attach great importance to competent customer support and advice. Able to rely on the many years of experience and knowledge of its employees, the company can offer its customers the best possible solution in the field of chromatography.

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Eaglenos Co., Ltd., founded in 2018, specializes in the development, manufacture and marketing of diagnostic devices for home care and health managements. Powered by cutting edge technologies in electrochemistry, microfluidics, signal acquisition and automation, Eaglenos has quickly become a leading force in precise POCT products targeting diabetes, hyperuricemia, cardiovascular and cerebrovascular diseases. We have successfully launched blood gas biochemical analyzer, electrolyte analyzer and supporting cartridges, blood glucose/lactate/ β -Ketone /uric acid meter and supporting test stripes, and most recently continuous monitoring devices.

Eaglenos has the first-class R&D and GMP production site in Nanjing, China, and branch offices in the United States and Europe. We have successfully established three pillar technology platforms: a leading electrochemical detection technology platform, a high-sensitivity multi-channel signal acquisition and processing platform, and an integrated microfluidic and automated processing platform. Eaglenos has since obtained the IOS 13485 certification, 14 NMPA certificates, 3 FDA record certificates, and 13 CE certificates. Inspired by our core values of "quality, innovation, collaboration and responsibility", Eaglenos is committed to providing state of the art health management products and highest quality services to people around the world, and becoming a guardian of human health.

www.eaglenos.com



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Extrasynthese is an independent company, established since 1986 in Lyon area (France), specialized in natural products chemistry. We are expert in extraction, synthesis, biosynthesis, purification and analysis of small molecules from the plant kingdom. We offer a large catalog of phytochemicals analytical standards. We offer R&D technical services to our customers and we regularly participate to collaborative research projects funded by the European Commission.

www.extrasynthese.com



Booth 5

For more than 40 years Hiden Analytical has been a global leader in the design and manufacture of scientific instruments for research, development and production applications. In vacuum, gas, surface and plasma processes our quadrupole mass spectrometers have gained worldwide recognition for their precision and outstanding performance.

As a privately-owned company our reputation is built on creating close, positive relationships with our clients. Many customers work at the forefront of new technology - in the fields of plasma research, surface science, vacuum processing and gas analysis. To maintain this reputation we have, over the years, established exceptional levels of technical expertise in these areas within our company.

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www.lni-swissgas.eu/en/



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Subsidiaries in Germany, Switzerland, France and the U.S. • Worldwide sales in 150 countries • More than 25,000 products

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Our products are among the world's most reliable analytical systems. They are used, for example, in industry, healthcare, biotechnology, environmental analysis and research. Numerous patents and international certifications underscore the high quality of our products and the competence of our employees.

www.mn-net.com/ch



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Metrohm offers a comprehensive portfolio of analytical technologies, from titration and ion chromatography to electrochemistry and near infrared and Raman spectroscopy, both for use in the laboratory and for process applications. In close collaboration with our customers, we identify, provide and implement customised solutions that meet their unique needs.

Metrohm customers benefit from Swiss quality products, competent expert advice and qualified on-site service.

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Molnár-Institute is registered vendor to the US FDA, CDC and other regulatory bodies. DryLab has pioneered systematic, knowledge-based analytical development outcomes long before regulatory agencies across the world encouraged such submissions. Widely implemented by thought leaders, DryLab's in-silico modeling contributes substantially to the paradigm shift towards a science- and risk driven perspective on HPLC Quality Control and -Assurance.

www.molnar-institute.com



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Animal ID: Microchips for livestock identification tags

Immobilizer: Microchips for access and immobilizer systems

Industrial IoT: Microchips for Access control interrogator (reader) devices and Industrial automation including Automated Guided Vehicle (AGV)

NFC tag: Near Field Communication microchip with energy harvesting, tampering detection and web authentication feature

Sensor interface chip and module: Microchip with sensor interface AFE for Galvanostat, Potentiostat (voltammetry, amperometry, OCP) and voltage sensor

www.sic.co.th

Booth 2

SPECTRO is one of the worldwide leading suppliers of analytical instruments, employing optical emission (stationary and mobile Arc/Spark OES, ICP-OES) and X-ray fluorescence spectrometry (XRF) technology, used for the elemental analysis of materials in industry, research and academia.

SPECTRO's products are known for their superior technical capabilities that deliver measurable benefits to the customer. From its foundation in 1979 until today, more than 50,000 analytical instruments have been delivered to customers around the world. SPECTRO is a business unit of AMETEK, Inc. – a leading global manufacturer of electronic instruments and electromechanical devices with annualized sales of approximately \$5.5 billion.

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SHORT COURSES

F01. FROM METHOD VALIDATION TO METHOD PERFORMANCE ASSESSMENT: THE BENEFITS OF THE ANALYTICAL METHODS LIFE CYCLE CONCEPT

Dr. Jean-Marc Roussel, Prof. Serge Rudaz

Date: August 27th, 2023, 9:00-16:30

Room: 9 (level 2)

1. What is the Analytical Method Life Cycle concept?
ICH Q14 draft guideline and USP chapter insights The analytical method performance assessment steps during method life cycle.
 2. Analytical methods robustness: Why and how
The need for a Method Operable Design Region
Use of Design of Experiments in robustness studies
Using prediction intervals in robustness assessment
 3. Method validation: the “Old” and the “New”
A 30-year history: the 3 periods of method validation concept
To understand the “New”, we must know the “Old”:
“You’ll be linear, Son!”
True or Accurate?
“New” concepts in calibration function assessment
Calibration functions comparison
“New” concepts in accuracy assessment
Prediction and tolerance intervals
What about uncertainty of measurements?
 4. Analytical methods on-going performance assessment
Use of control charts for method performance monitoring
-

F02. CHEMOMETRICS

Prof. Federico Marini

Date: August 27th, 2023, 9:00-16:30

Room: 14 (level 2)

1. Introduction to chemometrics
Data representation, from data matrices matrix to the multivariate space
 2. Exploratory data analysis
PCA and bilinear modeling. Other projection methods.
Clustering
 3. Predictive modeling
Multivariate regression (MLR, PCR and PLS) and classification (PLS-DA and SIMCA)
 4. Validation of chemometric models
 5. Integrating information from multiple blocks of data through data fusion (hints)
-

M02. POTENTIOMETRIC PROBES AND MEMBRANE ELECTRODES

Prof. Eric Bakker, Dr. Elena Zdrachek

Date: August 27th, 2023, 9:00-12:00

Room: 2 (level -1)

Membrane electrodes are ubiquitous measurement tools in analytical chemistry for the detection of a range of ionic species, including pH, and gases. They are very low power and lend themselves well for handheld and wearable applications. Yet, for many researchers their function is still a mystery. Join us and learn from experts in the field.

1. How do membrane electrodes work? Understanding underlying fundamental principles and materials aspects. Selectivity, binding constants, permselectivity
 2. Principal characteristics of ionophores. Influence of structure on sensor lifetime. Design of reliable all-solid-state membrane electrodes.
 3. Established and state of the art reference electrode concepts. Liquid junction potentials. Potential errors and pitfalls.
 4. Practical aspects: the importance of symmetry, ion activities vs. concentration measurements, the value of membrane electrodes in speciation analysis.
 5. Questions & Answers
-

M04. NANOPORE TECHNOLOGY FOR THE DETECTION OF BIOPOLYMERS

Dr. Chan Cao, Dr. Juan Francisco Bada Juarez

Date: August 27th, 2023, 9:00-12:00

Room: 13 (level 2)

Nanopore technology is an emerging tool for the detection of various biopolymers such as DNA and proteins. In this course, we will focus on explaining the principles of nanopore technology and emphasize on how versatile and sensitive nanopores can be for diverse applications, including DNA sequencing and protein fingerprinting. The students will have the opportunity to experiment with biological nanopores on a halfday course.

Lecture (45 min):

1. Introduction of biological nanopores: theory and data analysis
2. Nanopores for DNA and protein sequencing
3. Nanopores sensing and fingerprinting: from small molecules to proteins

Experimental training (2 h):

1. Demo on DNA detection (45-60 min)
 2. Practical training (sample brought by the participants or sample given by the lecturer) (45-60 min)
-

A01. VOLTAMMETRIC SENSING DEVICES FOR IN SITU TRACE METAL MONITORING IN AQUATIC SYSTEMS

Dr. Mary-Lou Tercier-Waeber, Dr. Nicolas Layglon

Date: August 27th, 2023, 13:00-16:30

Room: 10 (level 2)

Trace metals in aquatic ecosystems are highly reactive. Their dynamics play critical roles in the functioning of ecosystems, where they may act as essential micronutrients or hazardous chemicals. The relationships between metal sources, exposures and their impact on aquatic ecosystem functioning and human health are complex. Voltammetric techniques have key features for the development of field deployable sensing tools to deeper understand these relationships. Join us and learn from experts in the field.

1. Trace metals in aquatic systems: sources, behavior, environmental and socio-economic impacts.
 2. Criteria and challenging for development of reliable submersible voltammetric sensing devices
 3. Voltammetric techniques and innovative antifouling gel-integrated microsensors: principle, metal species selectivity, sensitivity
 4. Field applications: metal sources, temporal and spatial behavior, processes influencing metal speciation and bioavailability
 5. Demonstration: on-chip sensor preparation, detection of a range of trace metals in natural samples
-

A03. INTRODUCTION TO INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY (ICPMS)

Dr. Bodo Hattendorf

Date: August 27th, 2023, 13:00-16:30

Room: 13 (level 2)

1. Fundamental Aspects of ICPMS
 - Ion Source Characteristics
 - Mass Spectrometer Types
 - Operating Conditions
 - Figures of Merit
 2. Sample Introduction
 - Solution-based
 - Solid Sampling
 3. Method Development
 - Spectral Interferences
 - Matrix Effects
 - Data Acquisition
-

A04. MASS SPECTROMETRY IMAGING (MSI)

Prof. Martina MarchettiDeschmann

Date: August 27th, 2023, 13:00-16:30

Room: 1 (level -1)

1. Elemental & Molecular MSI (Ionization Techniques & Mass Analyzers)
 2. MSI Workflows and Sample Preparation Strategies for:
 - Lipids & Metabolites
 - Proteins & Peptides
 - Glycans
 - MS-based Immunoimaging
 3. Data Analysis
-

A05. (MICROFLUIDIC) PAPER-BASED ANALYTICAL DEVICES – (M)PADS FROM BASICS TO APPLICATIONS

Prof. Daniel Citterio

Date: August 27th, 2023, 13:00-16:30

Room: 4 (level -1)

1. General introduction
 2. Microfluidic patterning of paper substrates
 3. Printing technologies and (μ)PADs
 4. Microfluidics without valves: sequential reagent delivery, sample volume control
 5. Major signal detection methods (quantitative and semi-quantitative)
 6. Challenges specific to (μ)PADs
 7. Selected examples of (μ)PADs
 8. Questions & Answers
-

A07. TRENDS IN BIOANALYSIS

Prof. Raluca-Ioana van Staden

Date: August 27th, 2023, 13:00-16:30

Room: 2 (level -1)

1. Principles of molecular recognition in bioanalysis
 2. Tools used in bioanalysis
 3. Mechanism of molecular recognition of biomolecules
 4. Reliable design of the tools used in bioanalysis
 5. Validation of methods used for bioanalysis
 6. Applications of bioanalysis in biomedical analysis, pharmaceutical analysis, environmental analysis and food analysis.
-

A08. LIQUID CHROMATOGRAPHY/MASS SPECTROMETRY ANALYSIS OF PROTEINS: FUNDAMENTALS AND APPLICATIONS

Prof. Saša M. Miladinović, Dr. Jovan Simićević

Date: August 27th, 2023, 13:00-16:30

Room: 3 (level -1)

Liquid chromatography/mass spectrometry (LC/MS) analysis of proteins is a technique used to separate, identify, and quantify proteins in complex mixtures. In the course on LC/MS analysis of proteins, participants may learn about the fundamentals of LC/MS, as well as the various types of LC/MS instrumentation systems used for protein analysis. The course will also cover the interpretation and analysis of LC/MS data, and the use of software for data processing and analysis.

In the second section of the course selected examples on proteomics applications in life sciences research will be presented. All aspects of a LC/MS research project will be covered, starting from the biological/ medical question, through sample-type and -OMICS technology selection, method development and implementation, data analysis and finally interpretation of the obtained results. The section will focus on instruments utilized, quantitative approaches and computational tools, as to provide the participant with a comprehensive view of how proteomics is integrated in life science industry research.

PROGRAMME AT A GLANCE

| Sunday August 27, 2023 | | | | | |
|------------------------|-------------------------|----------------------------------|--|---|---|
| | Lobby | Room A | Room 1 | Room 2 | Room 3 |
| 9:00 | | | | M02 Potentiometric Probes and Membrane Electrodes <i>E. Bakker</i> <i>E. Zdrachek</i> | |
| 12:00 | LUNCH | | | | |
| 13:00 | | | A04 Mass Spectrometry Imaging (MSI) <i>M. Marchetti-Deschmann</i> | A07 Trends in Bioanalysis <i>R. van Staden</i> | A08 Liquid Chromatography/Mass Spectrometry Analysis of Proteins: Fundamentals and Applications <i>S. Miladinovic</i> <i>J. Simicevic</i> |
| 16:30 | BREAK | | | | |
| 17:00 | | PL-1 <i>D. Günther</i> | | | |
| 17:40 | | PL-2 <i>U. Sauer</i> | | | |
| 18:15 | | Opening Ceremony | | | |
| 18:30 | Welcome Cocktail | | | | |
| 21:00 | | | | | |

| | Room 4 | Room 9 | Room 10 | Room 13 | Room 14 |
|-------|--|---|--|--|--|
| 9:00 | | F01 From Method Validation to Method Performance Assessment: The Benefits of the Analytical Methods Life Cycle Concept <i>J.-M. Roussel</i> <i>S. Rudaz</i> | | M04 Nanopore Technology for the Detection of Biopolymers <i>C. Cao</i> <i>J. Bada Juarez</i> | F02 Chemometrics <i>F. Marini</i> |
| 12:00 | LUNCH | | | | |
| 13:00 | A05 Microfluidic) Paper-Based Analytical Devices – (μ)PADs From Basics to Applications <i>D. Citterio</i> | F01 From Method Validation to Method Performance Assessment: The Benefits of the Analytical Methods Life Cycle Concept <i>J.-M. Roussel</i> <i>S. Rudaz</i> | A01 Voltammetric Sensing Devices for In Situ Trace Metal Monitoring in Aquatic Systems <i>M.-L. Tercier-Waeber</i> <i>N. Layglon</i> | A03 Introduction to ICP-MS <i>B. Hattendorf</i> | F02 Chemometrics <i>F. Marini</i> |
| 16:30 | BREAK | | | | |
| 17:00 | | | | | |
| 17:40 | | | | | |
| 18:15 | | | | | |
| 18:30 | | | | | |
| 21:00 | | | | | |

| Monday August 28, 2023 | | | | |
|------------------------|---|---|---------------------------------------|---|
| | Session 1 Room A | Session 2 Room B | Session 3 Room E/F | Session 4 Room C |
| 9:00 | PL-3 <i>S. Borisov</i> | | | |
| 9:50 | KN1-1 <i>B. Mizaikoff</i> | KN1-2 <i>G. Desmet</i> | KN1-3 <i>J. M. Amigo</i> | KN1-4 <i>A. Heck</i> |
| 10:20 | COFFEE BREAK | | | |
| | S1-1 Optical Sensors | S1-2 Separation Science | S1-3 Analytical Spectroscopy | S1-4 Mass Spectrometry |
| 10:45 | IT1-1 <i>D. Papkovsky</i> | IT1-2 <i>L. Niu</i> | IT1-3 <i>L. Torrent</i> | IT1-4 <i>M. Marchetti-Deschmann</i> |
| 11:00 | OP1-1-1 <i>M. Bergkamp</i> | OP1-2-1 <i>F. Michel</i> | OP1-3-1 <i>M. Izzi</i> | OP1-4-1 <i>M. Muto</i> |
| 11:15 | OP1-1-2 <i>P.-L. Chang</i> | OP1-2-2 <i>V. Testa</i> | OP1-3-2 <i>M. Brogly</i> | OP1-4-2 <i>H. Shikano</i> |
| 11:30 | OP1-1-3 <i>M. Reza Hormozi-Nezhad</i> | OP1-2-3 <i>E. Conteroso</i> | OP1-3-3 <i>M. Metsälä</i> | OP1-4-3 <i>E. Giaretta</i> |
| 11:45 | OP1-1-4 <i>J. Rueangsuwan</i> | OP1-2-4 <i>I. Molnár</i> | OP1-3-4 <i>V. Loianno</i> | OP1-4-4 <i>A. Frolova</i> |
| 12:00 | LUNCH | | | |
| 13:30 | PL-4 <i>L. Emmenegger</i> | | | |
| 14:20 | KN2-1 <i>R. Gyurcsanyi</i> | KN2-2 <i>D. Guillarme</i> | KN2-3 <i>S. Kruss</i> | KN2-4 <i>L. Bigler</i> |
| | S2-1 Chemical Sensors and Biosensors | S2-2 Separation Science | S2-3 Analytical Spectroscopy | S2-4 Mass Spectrometry |
| 14:50 | IT2-1 <i>A. Michalska</i> | IT2-2 <i>L. Nováková</i> | IT2-3 <i>S. Kishigami</i> | OP2-4-1 <i>Y. Zhou</i> |
| 15:05 | OP2-1-1 <i>A. D. Buskermolen</i> | OP2-2-1 <i>T. Kist</i> | OP2-3-1 <i>N. Matsumoto</i> | OP2-4-2 <i>J. Harrison</i> |
| 15:20 | OP2-1-2 <i>D. Kalogianni</i> | OP2-2-2 <i>N. Nitika</i> | OP2-3-2 <i>L. Voronina</i> | OP2-4-3 <i>M. G. Basilicata</i> |
| 15:35 | OP2-1-3 <i>T. M. Chang</i> | OP2-2-3 <i>S. Joshi</i> | OP2-3-3 <i>M. Schleep</i> | OP2-4-4 <i>L. Coulier</i> |
| 15:50 | PS1 - COFFEE BREAK & POSTER SESSION | | | |
| | S3- 1 Chemical Sensors and Biosensors | S3-2 Separation Science | S3-3 Analytical Spectroscopy | S3-4 Mass Spectrometry |
| 17:00 | IT3-1 <i>M. J. Lobo-Castañón</i> | IT3-2 <i>S. Miladinovic</i> | IT3-3 <i>D. Bleiner</i> | IT3-4 <i>M. Wälle</i> |
| 17:15 | OP3-1-1 <i>M. Jarczewska</i> | OP3-2-1 <i>Á. Dienes-Nagy</i> | OP3-3-1 <i>T. Nauser</i> | OP3-4-1 <i>X.J. Tan</i> |
| 17:30 | OP3-1-2 <i>G. Ozcelikay</i> | OP3-2-2 <i>J. Mušović</i> | OP3-3-2 <i>Y.-H. Yim</i> | OP3-4-2 <i>S. Fazzolari</i> |
| 17:45 | | OP3-2-3 <i>M.-A. Boillat</i> | OP3-3-3 <i>D. Käser</i> | OP3-4-3 <i>L. Hendriks</i> |
| 18:00 | | | | |

| | Tuesday August 29, 2023 | | | | |
|-------|--|-------------------------------------|---|---|--|
| | Session 1 Room A | Session 2 Room B | Session 3 Room C | Session 4 Room E/F | Session 5 Room 3 |
| 9:00 | PL-5 <i>P. Picotti</i> | | | | |
| 9:50 | KN3-1 <i>S. A. Özkan</i> | KN3-2 <i>D. Marko</i> | KN3-3 <i>R. Anand</i> | KN3-4 <i>L. Hall</i> | |
| 10:20 | COFFEE BREAK | | | | |
| | S4-1 Chemical Sensors and Biosensors | S4-2 Food | S4-3 Analytical Nanoscience | S4-4 Analytical Science and Global Health | |
| 10:45 | IT4-1 <i>F. Zelder</i> | IT4-2 <i>N.-M. Christopoulou</i> | IT4-3 <i>M. Segundo</i> | IT4-4 <i>P. Wang</i> | |
| 11:00 | OP4-1-1 <i>T. Forrest</i> | OP4-2-1 <i>D. Kalogianni</i> | OP4-3-1 <i>C. Adelantado Sánchez</i> | OP4-4-1 <i>P. Fuchsmann</i> | |
| 11:15 | OP4-1-2 <i>Y. Miyahara</i> | OP4-2-2 <i>D. Özyurt</i> | OP4-3-2 <i>D. Mandler</i> | OP4-4-2 <i>H. Malani</i> | |
| 11:30 | OP4-1-3 <i>J. Bobacka</i> | OP4-2-3 <i>J. Folz</i> | OP4-3-3 <i>N. Kumar</i> | OP4-4-3 <i>D.-C. Gheorghe</i> | |
| 11:45 | OP4-1-4 <i>M. Tabata</i> | OP4-2-4 <i>S. Sentellas</i> | | OP4-4-4 <i>J. Valis</i> | |
| 12:00 | LUNCH | | | | |
| 13:30 | PL-6 <i>K. Plaxco</i> | | | | |
| 14:20 | KN4-1 <i>S. Campuzano Ruiz</i> | KN4-2 <i>L. Winkel</i> | KN4-3 <i>A. Gundlach-Graham</i> | KN4-4 <i>V. Slaveykova</i> | |
| | S5-1 Chemical Sensors and Biosensors | S5-2 Environmental | S5-3 Analytical Nanoscience | S5-4 Metabolomics and Proteomics | ROUNDTABLE |
| 14:50 | IT5-1 <i>T. Lindfors</i> | IT5-2 <i>T. Martz</i> | IT5-3 <i>T. Van Acker</i> | IT5-4 <i>N. Huwa</i> | Greenness of official standard sample preparation methods Moderator: <i>M. Segundo</i> Speakers: <i>S. Ozkan, S. Pedersen-Bjergaard, F. Michael</i> |
| 15:05 | OP5-1-1 <i>P. Kassal</i> | OP5-2-1 <i>K. Debruille</i> | OP5-3-1 <i>I. Abrao Nemeir</i> | OP5-4-1 <i>A. Menendez-Pedriz</i> | |
| 15:20 | OP5-1-2 <i>K. Mikhelson</i> | OP5-2-2 <i>Y. Mai</i> | OP5-3-2 <i>V. Horvath</i> | OP5-4-2 <i>D. Cecconi</i> | |
| 15:35 | OP5-1-3 <i>S. Cajigas</i> | | OP5-3-3 <i>M. Matczuk</i> | OP5-4-3 <i>P. Zhu</i> | |
| 15:50 | PS2 - COFFEE BREAK & POSTER SESSION | | | | |
| | S6-1 Chemical Sensors and Biosensors | S6-2 Food | S6-3 Analytical Science and Global Health | S6-4 Mass Spectrometry | |
| 17:00 | IT6-1 <i>F. Mariani</i> | IT6-2 <i>S. Ražić</i> | OP6-3-1 <i>S. Ganorkar</i> | IT6-4 <i>J. Smith</i> | |
| 17:15 | OP6-1-1 <i>M. Gamella</i> | OP6-2-1 <i>S. C. Litescu</i> | OP6-3-2 <i>I. Korbi</i> | OP6-4-1 <i>I. González Mariño</i> | |
| 17:30 | OP6-1-2 <i>R. Van Echelpoel</i> | OP6-2-2 <i>H. Wollseifen</i> | OP6-3-3 <i>J. Verdonck</i> | OP6-4-2 <i>P. Kanchana</i> | |
| 17:45 | OP6-1-3 <i>M. Bartosik</i> | OP6-2-3 <i>P. Sulzer</i> | OP6-3-4 <i>F. Carnamucio</i> | | |
| 18:00 | | | | | |
| 16:00 | TS-01 Agilent Seminar Room 9 New Solutions for Chromatography and Mass Spectrometry | | | | |

Wednesday August 30, 2023

| | Session 1 Room A | Session 2 Room B | Session 3 Room C | Session 4 Room E/F | Session 5 Room 3 |
|-------|--|---|--|--|--|
| 9:00 | PL-7 <i>H. Singer</i> | | | | |
| 9:50 | KN5-1 <i>J. Gooding</i> | KN5-2 <i>M.-L. Tercier-Waeber</i> | KN5-3 <i>D. Citterio</i> | KN5-4 <i>K. Bakeev</i> | |
| 10:20 | COFFEE BREAK | | | | |
| | S7-1 Electroanalysis | S7-2 Environmental | S7-3 Field Deployable and Paper-Based Devices | S7-4 Analytical Science in Industry | S7-5 DAC EuChems Study Group - Chemometrics |
| 10:45 | IT7-1 <i>O. Niwa</i> | IT7-2 <i>M. C. Schumann</i> | IT7-3 <i>J.-M. Segura</i> | IT7-4 <i>S. C. Burnage</i> | OP7-5-1 <i>C. Beleites</i> |
| 11:00 | OP7-1-1 <i>A. Izadyar</i> | OP7-2-1 <i>J. Lang</i> | OP7-3-1 <i>V. Pagkali</i> | OP7-4-1 <i>A. Kerstan</i> | OP7-5-2 <i>A. S. Lourenço</i> |
| 11:15 | OP7-1-2 <i>L. Švorc</i> | OP7-2-2 <i>P. Mahlambi</i> | OP7-3-2 <i>D. Barzallo</i> | OP7-4-2 <i>M. Olsthoorn</i> | OP7-5-3 <i>J.-M. Roger</i> |
| 11:30 | OP7-1-3 <i>Y. Ueno</i> | OP7-2-3 <i>L. Madikizela</i> | OP7-3-3 <i>M. Conrad</i> | OP7-4-3 <i>W. Ruiz</i> | OP7-5-4 <i>A. de Juan</i> |
| 11:45 | OP7-1-4 <i>D. K.Y. Wong</i> | OP7-2-4 <i>R. Nussbaum</i> | OP7-3-4 <i>N. Tyagi</i> | OP7-4-4 <i>S. Schoenemeier</i> | OP7-5-5 <i>F. Marini</i> |
| 12:00 | LUNCH | | | | |
| 13:30 | PL-8 <i>G. Köllensperger</i> | | | | |
| 14:20 | KN6-1 <i>S. Pedersen-Bjergaard</i> | KN6-2 <i>E. Heath</i> | KN6-3 <i>R. Heeren</i> | KN6-4 <i>C. Meyer</i> | |
| | S8-1 Electroanalysis | S8-2 Environmental | S8-3 Life Sciences | S8-4 Analytical Science in Industry | |
| 14:50 | IT8-1 <i>S. Baluchová</i> | IT8-2 <i>R. Kaegi</i> | IT8-3 <i>R. Martinent</i> | IT8-4 <i>A. Shrivastava</i> | |
| 15:05 | OP8-1-1 <i>M. Brycht</i> | OP8-2-1 <i>E. Pinilla-Gil</i> | OP8-3-1 <i>A. Hoffmann</i> | OP8-4-1 <i>R. Wälichli</i> | |
| 15:20 | OP8-1-2 <i>G. Moro</i> | OP8-2-2 <i>M. Petrova</i> | OP8-3-2 <i>S. Sentallas</i> | OP8-4-2 <i>M. Stelova</i> | |
| 15:35 | | OP8-2-3 <i>M. Vetter</i> | OP8-3-3 <i>M. Linssen</i> | OP8-4-3 <i>C. Demuth</i> | |
| 15:50 | PS3 - COFFEE BREAK & POSTER SESSION | | | | |
| | S9-1 Electroanalysis | S9-2 Sample Preparation | S9-3 Life Sciences | S9-4 Analytical Science in Industry | S9-5 DAC EuChems Study Group - Bioanalytics |
| 17:00 | IT9-1 <i>C. Cao</i> | IT9-2 <i>R. M. Marcé</i> | IT9-3 <i>S. Taira</i> | IT9-4 <i>G. Calderisi</i> | OP9-5-1 <i>R.-I. Stefan-van Staden</i> |
| 17:15 | OP9-1-1 <i>S. Irem Kaya</i> | OP9-2-1 <i>Z. Yang</i> | OP9-3-1 <i>C. Lescano</i> | OP9-4-1 <i>M. Tobiszewski</i> | OP9-5-2 <i>G. Ozcelikay</i> |
| 17:30 | OP9-1-2 <i>J. Barek</i> | OP9-2-2 <i>K. Jakab</i> | OP9-3-2 <i>G. Visconti</i> | OP9-4-2 <i>J. Trafkowski</i> | OP9-5-3 <i>R.-M. Ilie-Mihai</i> |
| 17:45 | OP9-1-3 <i>E. Thomas</i> | OP9-2-3 <i>F. Michel</i> | | OP9-4-3 <i>A. Agarwal</i> | OP9-5-4 <i>G. Gauglitz</i> |
| 18:00 | | | | | |

14:20 **Job Fair**
Espace Wangari Maathai

16:00 **TS-02 Springer / RSC Seminar | Room 9**

17:00 **Job Fair**
Espace Wangari Maathai

| | Thursday August 31, 2023 | | | |
|-------|-------------------------------|-----------------------------|--------------------------------------|--|
| | Session 1 Room A | Session 2 Room B | Session 3 Room E | Session 4 Room C |
| 9:00 | PL-9 J. P. Kutter | | | |
| 9:50 | KN7-1 K. Chumbimuni-Torres | KN7-2 R. Zenobi | KN7-3 C. Lucy | KN7-4 P. Dittrich |
| 10:20 | COFFEE BREAK | | | |
| | S10-1 Electroanalysis | S10-2 Mass Spectrometry | S10-3 Analytical Science Eduation | S10-4 Microfluidics and Flow Analysis |
| 10:45 | IT10-1 P. Hauser | IT10-2 J. Schorr | IT10-3 G. Schwarz | IT10-4 S. Nagl |
| 11:00 | OP10-1-1 O. Sarakhman | OP10-2-1 K. Pawlak | OP10-3-1 M. Vogel | OP10-4-1 A. Rangel |
| 11:15 | OP10-1-2 T. Krizek | OP10-2-2 R. Silvestre | OP10-3-2 A. Rigol | OP10-4-2 R. Mesquita |
| 11:30 | OP10-1-3 M. Amiri | OP10-2-3 F. Di Francesco | OP10-3-3 J.-M. Segura | OP10-4-3 M. A. Vargas Muñoz |
| 11:50 | Awards PL-10 D. Barcelo | | | |
| 12:20 | Awards PL-11 A. Bäumner | | | |
| 12:50 | Closing Ceremony | | | |
| 13:30 | LUNCH | | | |

DETAILED PROGRAMME

Sunday, August 27, 2023

| | | |
|-------|-------------------------------------|---|
| | PLENARY Room A Chair: E. Bakker | |
| 17:00 | PL-1 | Historical View on Analytical Sciences in Switzerland <i>Detlef Günther</i> |
| 17:40 | PL-2 | Identifying Metabolic Regulation through Metabolomics <i>Uwe Sauer</i> |
| 18:15 | | Opening Ceremony |

Monday, August 28, 2023 - AM

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| | PLENARY Room A Chair: E. Bakker | |
| 9:00 | PL-3 | Luminescent sensors: making the invisible visible <i>Sergey Borisov</i> |

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| | PARALLEL SESSION 1 Room A | |
| | KEYNOTE Chair: D. Papkovsky | |
| 9:50 | KN1-1 | Mid-Infrared Photonics: From Emerging Technology to Enabling Tool <i>Boris Mizaikoff</i> |

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| | S1-1 OPTICAL SENSORS Chair: S. Borisov | |
| 10:45 | IT1-1 | Assessing and minimising measurement artefacts in phosphorescence lifetime based sensing <i>Dmitri Papkovsky</i> |
| 11:00 | OP1-1-1 | Real-time continuous monitoring of dynamic concentration profiles with biosensing by particle motion <i>Max Bergkamp</i> |
| 11:15 | OP1-1-2 | Continuous blood typing within capillary via packing-enhanced nanoscattering of gold nanoparticles <i>Po-Ling Chang</i> |
| 11:30 | OP1-1-3 | Machine Learning-Assisted Biothiols Detection using Multicolor Plasmonic Patterns Enabled by Controlled Growth of Silver on Gold Nanorods <i>Mohammad Reza Hormozi-Nezhad</i> |
| 11:45 | OP1-1-4 | Reversible Thermochromic Polydiacetylene/Zinc(II)/Cadmium Selenide Quantum Dots Nanocomposites for Optical Sensing Applications <i>Jirapa Rueangsuwan</i> |

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| | PARALLEL SESSION 2 Room B | |
| | KEYNOTE Chair: L. Niu | |
| 9:50 | KN1-2 | New Ways to Prepare More Performant Stationary Phase Supports for Liquid Chromatography <i>Gert Desmet</i> |

S1-2 SEPARATION SCIENCE | Chair: G. Desmet

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| 10:45 | IT1-2 | HPLC and cylindrical PAGE purification of RNA aptamers with single nucleotide resolution <i>Li Niu</i> |
| 11:00 | OP1-2-1 | Investigation of the Retention Mechanisms of Porous Graphitic Carbon as Stationary Phase in HPLC <i>Frank Michel</i> |
| 11:15 | OP1-2-2 | Pegda-Based Ionic Imprinted Polymers for Selective Binding of Lithium <i>Valentina Testa</i> |
| 11:30 | OP1-2-3 | Hyphenated thermogravimetry–gas chromatography–mass spectrometry: a successful technique for the analysis of complex materials and thin films <i>Eleonora Conterosito</i> |
| 11:45 | OP1-2-4 | Actual developments in HPLC modeling <i>Imre Molnár</i> |

PARALLEL SESSION 3 | Room E/F

KEYNOTE | Chair: L. Torrent

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| 9:50 | KN1-3 | Analysis of complex biological samples with Confocal Raman Imaging and Chemometrics. A case study: Microplastics in Tissues <i>Jose Manuel Amigo</i> |
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S1-3 ANALYTICAL SPECTROSCOPY | Chair: D. Bleiner

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|-------|---------|---|
| 10:45 | IT1-3 | Exploring the Versatility of X-ray Techniques for Nanoparticles Characterization and Quantification <i>Laura Torrent</i> |
| 11:00 | OP1-3-1 | Analytical spectroscopical assessment of the interaction between metal nanoantimicrobials and lipid membranes <i>Margherita Izzi</i> |
| 11:15 | OP1-3-2 | Polarization-Modulation InfraRed Reflection Absorption Spectroscopy (PM-IRRAS): an innovative tool for «in situ» characterization of polymer coatings <i>Maurice Brogly</i> |
| 11:30 | OP1-3-3 | Combining high sensitivity laser infrared spectroscopy with gas chromatography <i>Markus Metsälä</i> |
| 11:45 | OP1-3-4 | On the Measurement of the Mutual Diffusivity of Binary Gas Mixtures with FTIR Spectroscopy <i>Valerio Loianno</i> |

PARALLEL SESSION 4 | Room C

KEYNOTE | Chair: M. Marchetti-Deschmann

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| 9:50 | KN1-4 | Sizing and counting particles by high-resolution native charge detection mass spectrometry <i>Albert Heck</i> |
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S1-4 MASS SPECTROMETRY | Chair: A. Heck

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| 10:45 | IT1-4 | Localizing N-glycan Changes in Aging Skin by MALDI FTICR MS Imaging <i>Martina Marchetti-Deschmann</i> |
| 11:00 | OP1-4-1 | Pyrylium based derivatization imaging mass spectrometer revealed the localization of L-DOPA <i>Makoto Muto</i> |

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| 11:15 | OP1-4-2 | Optimization of the use of Py-Tag for next generation derivatization reagents in imaging mass spectrometry <i>Hitomi Shikano</i> |
| 11:30 | OP1-4-3 | Transition metal identification and speciation in cultural heritage samples by MALDI FT-ICR MS as salen complexes <i>Elena Giaretta</i> |
| 11:45 | OP1-4-4 | Determination of hydrolysis products of organophosphorus nerve agents in soil and plant materials using liquid chromatography and tandem mass spectrometry <i>Anastasiia Frolova</i> |

Monday, August 28, 2023 - PM

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| PLENARY Room A Chair: D. Bleiner | | |
| 13:30 | PL-4 | Spectroscopy with Quantum Cascade Lasers for High-Precision Gas Analysis <i>Lukas Emmenegger</i> |

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| PARALLEL SESSION 1 Room A | | |
| KEYNOTE Chair: V. Horvath | | |
| 14:20 | KN2-1 | High affinity synthetic ligands for protein and virus sensing <i>Róbert Gyurcsanyi</i> |

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| S2-1 CHEMICAL SENSORS AND BIOSENSORS Chair: M. Lobo-Castañón | | |
| 14:50 | IT2-1 | Polymeric Nanofibers as Sensors – Towards Lab on a Mat <i>Agata Michalska</i> |
| 15:05 | OP2-1-1 | Continuous biomarker monitoring with single molecule resolution by measuring free particle motion <i>Alissa D. Buskermolen</i> |
| 15:20 | OP2-1-2 | Using a 3D printer for low-cost construction of the sensing areas of self/rapid tests <i>Despina Kalogianni</i> |
| 15:35 | OP2-1-3 | Gold Decorated Polyaniline toward Glucose Oxidation <i>Tso-fu Mark Chang</i> |

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| 15:50 | PS1 | Coffee Poster |
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| S3-1 CHEMICAL SENSORS AND BIOSENSORS Chair: R. Gyurcsanyi | | |
| 17:00 | IT3-1 | Aptamer-based detection of emerging cancer biomarkers to guide cancer diagnosis and management <i>María Jesús Lobo-Castañón</i> |
| 17:15 | OP3-1-1 | Application of aptamer-based biosensors for electrochemical detection of heavy metal cations <i>Marta Jarczewska</i> |
| 17:30 | OP3-1-2 | Electrochemical bioplatfrom for interrogating the most common and carcinogenic human papillomavirus DNA <i>Goksu Ozcelikay</i> |

| PARALLEL SESSION 2 Room B | | |
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| KEYNOTE Chair: F. Kalman | | |
| 14:20 | KN2-2 | Taking the characterization of biopharmaceutical products to the next level by improving speed and selectivity of chromatography <i>Davy Guilleme</i> |
| S2-2 SEPARATION SCIENCE Chair: F. Kalman | | |
| 14:50 | IT2-2 | How to optimize SFC-MS methods effectively using current state-of-the art instrumentation <i>Lucie Nováková</i> |
| 15:05 | OP2-2-1 | Time Efficiency: A Wonderful but Little-known Performance Indicator in Separation Sciences <i>Tarso Kist</i> |
| 15:20 | OP2-2-2 | Continuous manufacturing of monoclonal antibodies: Dynamic control of multiple integrated polishing chromatography steps using BioSMB <i>Nitika Nitika</i> |
| 15:35 | OP2-2-3 | A native multi-dimensional monitoring workflow for at-line characterization of mAb titer, size, charge, and glycoform heterogeneities in cell culture supernatant <i>Srishti Joshi</i> |
| 15:50 | PS1 | Coffee Poster |
| S3-2 SEPARATION SCIENCE Chair: D. Guilleme | | |
| 17:00 | IT3-2 | LC-MS Analysis of Antibiotics in Fermentation Medium <i>Sasa Miladinovic</i> |
| 17:15 | OP3-2-1 | Targeted quantification of odour-active thiols in wine by LC-MS/MS using in situ on-line derivatization <i>Ágnes Dienes-Nagy</i> |
| 17:30 | OP3-2-2 | Separation of e-waste metals using green aqueous two-phase systems based on functionalized ionic liquids and deep eutectic solvents <i>Jasmina Mušović</i> |
| 17:45 | OP3-2-3 | Electrospray Ionization Drift Tube Ion Mobility Spectrometer with Ultra-High Resolving Power: Design and Optimization <i>Marc-Aurèle Boillat</i> |
| PARALLEL SESSION 3 Room E/F | | |
| KEYNOTE Chair: S. Kishigami | | |
| 14:20 | KN2-3 | Near infrared imaging of nanosensors for biomedical applications <i>Sebastian Kruss</i> |
| S2-3 ANALYTICAL SPECTROSCOPY Chair: J.M. Amigo | | |
| 14:50 | IT2-3 | Biosynthetic trifluoromethyl (CF₃) methionine labelling to probe structures and dynamics of virus coat proteins and molecular chaperone oligomers by ¹⁹F NMR spectroscopy <i>Satoshi Kishigami</i> |
| 15:05 | OP2-3-1 | Absolute quantification of pure free radical reagents by combination of effective magnetic moment method and quantitative electron paramagnetic resonance method <i>Nobuhiro Matsumoto</i> |
| 15:20 | OP2-3-2 | Vibrational spectroscopy of blood plasma glycoproteins <i>Liudmila Voronina</i> |

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| 15:35 | OP2-3-3 | Challenges during evaluation, qualification, and implementation of an NMR spectrometer in an GMP environment <i>Mario Schleep</i> |
| 15:50 | PS1 | Coffee Poster |
| | S3-3 ANALYTICAL SPECTROSCOPY Chair: S. Kruss | |
| 17:00 | IT3-3 | Laser Induced XUV Spectrometry (LIXS): Even Better Than the Real LIBS <i>Davide Bleiner</i> |
| 17:15 | OP3-3-1 | Improvement of fuel-cells based on data from multiple analytical techniques <i>Thomas Nauser</i> |
| 17:30 | OP3-3-2 | Cross-validation of ID ICP/MS, RBS, and MEIS for determination of Absolute Mole Fractions of Elements in Nanometer-Thick Metal Alloy Films <i>Yong-Hyeon Yim</i> |
| 17:45 | OP3-3-3 | Capabilities of LA-N₂-MICAP-MS for Direct Solid Analysis <i>Dylan Käser</i> |
| | PARALLEL SESSION 4 Room C | |
| | KEYNOTE Chair: S. Miladinovic | |
| 14:20 | KN2-4 | Structure Elucidation of Iron Chelators Produced by Microorganisms <i>Laurent Bigler</i> |
| | S2-4 MASS SPECTROMETRY Chair: M. Wälle | |
| 14:50 | OP2-4-1 | Rapid profiling the glycosylation effects on cellular entry of SARS-CoV-2 using MALDI-MS with high mass detection <i>Yuye Zhou</i> |
| 15:05 | OP2-4-2 | Comparative Analysis of Haemoglobin Solution and Gas Phase Stability Using Mass Spectrometry <i>Julian Harrison</i> |
| 15:20 | OP2-4-3 | In vitro and in vivo assessments of metabolic stability, pharmacokinetic and pharmacodynamic properties of a potent dual inhibitor of 5-lipoxygenase and soluble epoxide hydrolase by mass spectrometry-based approaches <i>Manuela Giovanna Basilicata</i> |
| 15:35 | OP2-4-4 | Considerations for developing an analytical strategy for fast small molecule MS-based screening in complex samples in industrial biotechnology <i>Leon Coulier</i> |
| 15:50 | PS1 | Coffee Poster |
| | S3-4 MASS SPECTROMETRY Chair: B. Hattendorf | |
| 17:00 | IT3-4 | “Direct” Thorium-Lead dating of gem quality corundum by laser ablation ICP-TOF-MS <i>Markus Wälle</i> |
| 17:15 | OP3-4-1 | Signal beat on quantification accuracy of spodumene by LA-ICPMS <i>XiJuan Tan</i> |
| 17:30 | OP3-4-2 | Single-cell analysis using a downward-pointing vertical ICP-TOFMS <i>Sandro Fazzolari</i> |
| 17:45 | OP3-4-3 | Compound Specific Radiocarbon (14C) Dating of Our Colourful Past: from Theory to Practice <i>Laura Hendriks</i> |

Tuesday, August 29, 2023 - AM

PLENARY | Room A | Chair: M. Suter

9:00 PL-5 **Decoding the protein dance: probing the proteome-wide choreography of protein conformational changes**
Paola Picotti

PARALLEL SESSION 1 | Room A

KEYNOTE | Chair: F. Zelder

9:50 KN3-1 **Modern designs of molecularly imprinted polymers for electrochemical sensing and analysis: Recent developments and future prospects**
Sibel A. Özkan

S4-1 **CHEMICAL SENSORS AND BIOSENSORS** | Chair: S. Özkan

10:45 IT4-1 **A Disassembly Approach for Analyte Detection**
Felix Zelder

11:00 OP4-1-1 **All Covalently Bound Ion-Selective Membranes for Increased Stability in Potentiometric Sensing**
Tara Forrest

11:15 OP4-1-2 **SAM/AgCl mixed phase modification of silver surface for functionalization with biomolecules and stabilization of electromotive force**
Yuji Miyahara

11:30 OP4-1-3 **Determination of benzoate in cranberry and lingonberry using a solid-contact ion-selective electrode**
Johan Bobacka

11:45 OP4-1-4 **Sensing of cancer related-cell membrane proteins using ion-sensitive field-effect transistors for liquid biopsy**
Miyuki Tabata

PARALLEL SESSION 2 | Room B

KEYNOTE | Chair: N.M. Christopoulou

9:50 KN3-2 **Emerging mycotoxins in the food chain: challenges and perspectives**
Doris Marko

S4-2 **FOOD** | Chair: S. Ražić

10:45 IT4-2 **Development of dipstick-type DNA biosensors for visual identification of olive cultivar origin**
Natalia-Maria Christopoulou

11:00 OP4-2-1 **A rapid strip test for molecular identification of the European sardine, *Sardina pilchardus*, Walbaum, 1792 (Osteichthyes)**
Despina Kalogianni

11:15 OP4-2-2 **Development of a new method for determination of total antioxidant capacity of the macroalgae using fiber optic reflectance spectrophotometer**
Dilek Özyurt

11:30 OP4-2-3 **Tracking transformations of dietary metabolites through gut microbial metabolism**
Jacob Folz

11:45 OP4-2-4 **Recovery of phenolic compounds from olive tree leaves: characterization of deep eutectic solvent extracts**
Sonia Sentellas

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| PARALLEL SESSION 3 Room C | | |
| KEYNOTE Chair: A. Gundlach-Graham | | |
| 9:50 | KN3-3 | Expanding the droplet microfluidic toolkit: Electrokinetic manipulation of droplet composition <i>Robbyn Anand</i> |
| S4-3 ANALYTICAL NANOSCIENCE Chair: R. Anand | | |
| 10:45 | IT4-3 | Advancing measurements at nanoscale: analytical strategies to evaluate encapsulation efficiency, drug release and nanoparticles concentration <i>Marcela Segundo</i> |
| 11:00 | OP4-3-1 | Capillary electrophoresis coupled to ICP-MS: a new promising analytical tool for separation and detection of nanoplastic particles <i>Carlos Adelantado Sánchez</i> |
| 11:15 | OP4-3-2 | Speciation of Nanoparticles by Imprinting <i>Daniel Mandler</i> |
| 11:30 | OP4-3-3 | Nanoscale Investigation of Heterogenous Catalytic Processes using Tip-Enhanced Raman Spectroscopy <i>Naresh Kumar</i> |
| PARALLEL SESSION 4 Room E/F | | |
| KEYNOTE Chair: E. Bakker | | |
| 9:50 | KN3-4 | Engineering biology to bring diagnostics to low resource areas <i>Lisa Hall</i> |
| S4-4 ANALYTICAL SCIENCE AND GLOBAL HEALTH Chair: L. Hall | | |
| 10:45 | IT4-4 | Development of Dried Milk Spots Sampling Method for Comprehensive Human Milk Composition Analysis: A Novel Analytical Approach for Global Health Studies <i>Peiheng Wang</i> |
| 11:00 | OP4-4-1 | Development of a novel dynamic headspace Vacuum In-Tube Extraction (VITEX) method for volatile compounds <i>Pascal Fuchsmann</i> |
| 11:15 | OP4-4-2 | LC-MS characterization and stability assessment elucidates role of charge variants in the degradation of monoclonal antibody therapeutics <i>Himanshu Malani</i> |
| 11:30 | OP4-4-3 | Fast screening of biological fluids for VSIG1 – a diagnostic tool for gastric cancer <i>Damaris-Cristina Gheorghe</i> |
| 11:45 | OP4-4-4 | Classification pipeline for in vivo Raman spectroscopy-aided colorectal cancer detection <i>Jan Valis</i> |

PLENARY | Room A | Chair: J. Gooding

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| 13:30 | PL-6 | Counting molecules, dodging blood cells: continuous, real-time molecular measurements directly in the living body <i>Kevin Plaxco</i> |
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PARALLEL SESSION 1 | Room A

KEYNOTE | Chair: T. Lindfors

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| 14:20 | KN4-1 | Precision medicine: The rise of electrochemical biosensing at the molecular level <i>Susana Campuzano Ruiz</i> |
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S5-1 CHEMICAL SENSORS AND BIOSENSORS | Chair: F. Mariani

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| 14:50 | IT5-1 | Low-cost Flexible Laminated Graphene Paper Solid-contact Ion-selective Electrodes <i>Tom Lindfors</i> |
| 15:05 | OP5-1-1 | Inkjet Printing in the Development of Solid-State Potentiometric Sensors <i>Petar Kassal</i> |
| 15:20 | OP5-1-2 | Peculiarities of the potentiometric response of ion-selective membranes containing two neutral ionophores <i>Konstantin Mikhelson</i> |
| 15:35 | OP5-1-3 | Long-term continuous monitoring of biomarkers with single-molecule resolution: which molecular mechanisms are limiting? <i>Sebastian Cajigas</i> |

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| 15:50 | PS2 | Coffee Poster |
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S6-1 CHEMICAL SENSORS AND BIOSENSORS | Chair: S. Campuzano Ruiz

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| 17:00 | IT6-1 | Smart Wound Dressings for the Real-Time Monitoring of the Healing Status <i>Federica Mariani</i> |
| 17:15 | OP6-1-1 | Electrochemical bioplatfroms for sensing food derived nucleic acids: Aiding personalized nutrition <i>María Gamella</i> |
| 17:30 | OP6-1-2 | Validated portable device for the qualitative and quantitative electrochemical detection of MDMA, ready for on-site use <i>Robin Van Echelpoel</i> |
| 17:45 | OP6-1-3 | Electrochemical biosensing platforms in molecular oncology for clinical sample analysis <i>Martin Bartosik</i> |

PARALLEL SESSION 2 | Room B

KEYNOTE | Chair: M. Suter

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| 14:20 | KN4-2 | Analytical advancements in speciation analysis to explore trace element cycling in the environment <i>Lenny Winkel</i> |
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S5-2 ENVIRONMENTAL | Chair: L. Winkel

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| 14:50 | IT5-2 | Testing the Chalcogenide Fe³⁺ Electrode in Seawater <i>Todd Martz</i> |
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| 15:05 | OP5-2-1 | 3D-Printed microreactor for “in-situ” detection of ammonia in natural water <i>Kurt Debruille</i> |
| 15:20 | OP5-2-2 | Robust and portable ion chromatography-based nutrient analyser for in-field nitrite and nitrate monitoring in water <i>Yonglin Mai</i> |
| 15:50 | PS2 | Coffee Poster |
| S6-2 FOOD Chair: D. Marko | | |
| 17:00 | IT6-2 | Greener Approach to Determination of Free Tryptophan in Cold-pressed Oils by Reversed-Phase Dispersive Liquid-Liquid Microextraction and High-Performance Liquid Chromatography <i>Slavica Ražić</i> |
| 17:15 | OP6-2-1 | Phytosomes use to enhance the anti-ageing effectiveness of nutraceuticals and cosmeceutics <i>Simona Carmen Litescu</i> |
| 17:30 | OP6-2-2 | Analysis of PFAS from food samples <i>Hans Wollseifen</i> |
| 17:45 | OP6-2-3 | The Chocolate Benchmark: Evaluating latest PTR-MS Advancements <i>Philipp Sulzer</i> |
| PARALLEL SESSION 3 Room C | | |
| KEYNOTE Chair: T. van Acker | | |
| 14:20 | KN4-3 | High-Throughput Quantification and Classification of Nanoparticles and Microparticles with Single Particle ICP-TOFMS <i>Alexander Gundlach-Graham</i> |
| S5-3 ANALYTICAL NANOSCIENCE Chair: A. Gundlach-Graham | | |
| 14:50 | IT5-3 | Exploring the potential of laser ablation as a means of sample introduction for microplastics characterization via inductively coupled plasma-mass spectrometry operated in single-particle mode <i>Thibaut Van Acker</i> |
| 15:05 | OP5-3-1 | Monitoring lag-phase α-synuclein aggregation in various conditions using RT-fast <i>Imad Abrao Nemeir</i> |
| 15:20 | OP5-3-2 | A generic approach based on long-lifetime fluorophores for the assessment of protein binding to polymer nanoparticles by fluorescence anisotropy <i>Viola Horvath</i> |
| 15:35 | OP5-3-3 | Application of capillary electrophoresis coupled to ICP-MS/MS for examination of cisplatin encapsulation in liposome nanocarriers <i>Magdalena Matczuk</i> |
| 15:50 | PS2 | Coffee Poster |
| S6-3 ANALYTICAL SCIENCE AND GLOBAL HEALTH Chair: P. Wang | | |
| 17:00 | OP6-3-1 | Extension of LC-MS Stability Studies of Eltrombopag Olamine to In-silico Simulations: An Effort to Exploit Drug Related Substances in Drug Discovery <i>Saurabh Ganorkar</i> |
| 17:15 | OP6-3-2 | Development of an analytical method for a fast and accurate determination of elemental impurities in drug products by ICP-MS with a quantification based on isotopic dilution <i>Ines Korbi</i> |

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| 17:30 | OP6-3-3 | How to Overcome Analytical Challenges Commonly Encountered in the Analysis of Cr and Cr(VI) in Environmental and Biological Matrices Using (μLC-)ICP-MS <i>Jelle Verdonck</i> |
| 17:45 | OP6-3-4 | Interaction between Gemcitabine and divalent metal cations: a speciation study with implication in nanomedicine <i>Federica Carnamucio</i> |

PARALLEL SESSION 4 | Room E/F

KEYNOTE | Chair: N. Huwa

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| 14:20 | KN4-4 | Environmental metabolomics for unraveling the toxicity mechanisms of metals and nanoparticles in phytoplankton species <i>Vera Slaveykova</i> |
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S5-4 METABOLOMICS AND PROTEOMICS | Chairs: P. Picotti, V. Slaveykova

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| 14:50 | IT5-4 | Insights into the Responses of the mTOR Pathway to Growth-Affecting Signals in Zebrafish PAC2 Cells using Targeted Phosphoproteomics <i>Nikolai Huwa</i> |
| 15:05 | OP5-4-1 | Optimization of MSI technologies for environmental toxicology: A case study with Zebrafish eleutheroembryos <i>Albert Menendez-Pedriza</i> |
| 15:20 | OP5-4-2 | The histone code of pancreatic cancer stem cells by nanoLC-MS/MS based epiproteomics <i>Daniela Cecconi</i> |
| 15:35 | OP5-4-3 | Development and validation of an untargeted LC-MS metabolomics method with post-column infusion for matrix effect monitoring in plasma and feces <i>Pingping Zhu</i> |

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| 15:50 | PS2 | Coffee Poster |
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S6-4 MASS SPECTROMETRY | Chair: J. Schorr

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| 17:00 | IT6-4 | A “Hot” Date with Capsaicinoids: Molecular Networking meets TRPV1 <i>Joshua Smith</i> |
| 17:15 | OP6-4-1 | Fast semi-quantification of plasticizer metabolites in urine by the use of a guard column coupled to mass spectrometry <i>Iria González Mariño</i> |
| 17:30 | OP6-4-2 | Propose ‘NO’ to heart disease! Tracer-based metabolomics: Profiling Nitric Oxide (NO) metabolites in a 3D cell culture model <i>Pandian Kanchana</i> |

PARALLEL SESSION 5 | Room 3

ROUNDTABLE

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| 14:50 | Greenness of official standard sample preparation methods <i>Moderator: Marcela Segundo</i> | |
| 15:50 | <i>Speakers: Sibel Ozkan, Stig Pedersen-Bjergaard, Frank Michael</i> | |

TECHNICAL SEMINAR | Room 9

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| 16:00 | TS-01 | Agilent Seminar - New Solutions for Chromatography and Mass Spectrometry |
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PLENARY | Room A | Chair: M. Suter

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| 9:00 | PL-7 | Environmental Mass Spectrometry: the long road from sensitive target to comprehensive non-target screening <i>Heinz Singer</i> |
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PARALLEL SESSION 1 | Room A

KEYNOTE | Chair: O. Niwa

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| 9:50 | KN5-1 | Single Molecule Electrochemistry: From electrochemically modulating single molecule fluorescence to counting single proteins for quantitative analysis <i>Justin Gooding</i> |
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S7-1 ELECTROANALYSIS | Chair: K. Plaxco

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| 10:45 | IT7-1 | Electrochemical performance of nitrogen doped carbon films and their application for electroanalysis for biological fluid <i>Osamu Niwa</i> |
| 11:00 | OP7-1-1 | Electrochemical study of recombinant manganese peroxidase from maize along with nanocomposite materials for glucose detection <i>Anahita Izadyar</i> |
| 11:15 | OP7-1-2 | Biochar - nontraditional and green electrode material for miniaturized electrochemical sensors <i>Lubomír Švorc</i> |
| 11:30 | OP7-1-3 | Promotion and inhibition of electrochemical reaction for electroactive small molecules on monolayer graphene surface <i>Yuko Ueno</i> |
| 11:45 | OP7-1-4 | A Physically Small, Antifouling Sensor for Selective Detection of Dopamine <i>Danny K.Y. Wong</i> |

PARALLEL SESSION 2 | Room B

KEYNOTE | Chair: E. Heath

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| 9:50 | KN5-2 | Trace metal monitoring in aquatic systems: emphasis on the development and application of in situ metal bioavailability-oriented sensing tools <i>Mary-Lou Tercier-Waeber</i> |
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S7-2 ENVIRONMENTAL | Chair: R. Kägi

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| 10:45 | IT7-2 | Does “push-pull” agriculture, as practiced by farmers, alter the composition of plant volatiles in fields to promote biological pest control? <i>Meredith Christine Schumann</i> |
| 11:00 | OP7-2-1 | An on-site sample preparation approach for plant eco-metabolomics and its application to agroecosystems in East Africa <i>Jakob Lang</i> |
| 11:15 | OP7-2-2 | Preparation and application of low-cost adsorbents for the removal of antiretroviral drugs in wastewater <i>Precious Mahlambi</i> |
| 11:30 | OP7-2-3 | Antibiotics invading South African waters: Analytical perspectives from a developing country with limited laboratory infrastructure <i>Lawrence Madikizela</i> |

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| 11:45 | OP7-2-4 | Ultrasensitive pH Sensing in Natural Waters towards in situ Measurements <i>Robin Nussbaum</i> |
| PARALLEL SESSION 3 Room C | | |
| KEYNOTE Chair: J.-M. Segura | | |
| 9:50 | KN5-3 | Clinical assays with paper, naked eye or camera: simplicity versus sensitivity? <i>Daniel Citterio</i> |
| S7-3 FIELD DEPLOYABLE AND PAPER-BASED DEVICES Chair: D. Citterio | | |
| 10:45 | IT7-3 | Drug Quantification in Whole Blood using a Paper-Analytical Device for Point-Of-Care Therapeutic Drug Monitoring <i>Jean-Manuel Segura</i> |
| 11:00 | OP7-3-1 | Fabrication of electrochemical paper-based devices by programmable drawing <i>Varvara Pagkali</i> |
| 11:15 | OP7-3-2 | Development of a screening method for total sulfonamides in environmental waters using pipette tip solid-phase extraction with smartphone-based fluorimetric detection <i>Diego Barzallo</i> |
| 11:30 | OP7-3-3 | Standard Addition for Immunoassays <i>Monika Conrad</i> |
| 11:45 | OP7-3-4 | Effect of substrate porosity in the analysis of residues using Surface Enhanced Raman Spectroscopy (SERS) <i>Nikita Tyagi</i> |
| PARALLEL SESSION 4 Room E/F | | |
| KEYNOTE Chair: S. C. Burnage | | |
| 9:50 | KN5-4 | Vibrational Spectroscopy for Process Understanding <i>Katherine Bakeev</i> |
| S7-4 ANALYTICAL SCIENCE IN INDUSTRY Chair: K. Bakeev | | |
| 10:45 | IT7-4 | Application of digitalisation tools for efficient data processing, electronic lab notetaking, and population and use of databases in UHPLC method development of peptide and protein-based pharmaceuticals <i>Samual Charles Burnage</i> |
| 11:00 | OP7-4-1 | Rapid, automated Characterization of Microplastics and various other Samples from Materials to bio using Laser Direct Infrared Imaging and Spectroscopy <i>Andreas Kerstan</i> |
| 11:15 | OP7-4-2 | Advanced MS and NMR technologies for deep insights into plant-based food <i>Maurien Olsthoorn</i> |
| 11:30 | OP7-4-3 | Direct Phospholipid Speciation of Lipid Feedstock Using A New THF-Based HILIC-ICPMS Approach <i>Wladimir Ruiz</i> |
| 11:45 | OP7-4-4 | Thermal decomposition of lithium-ion-battery electrolyte and the influence on the cell performance <i>Sabrina Schoenemeier</i> |

PARALLEL SESSION 5 | Room 3

S7-5 DAC EUCHEMS STUDY GROUP - CHEMOMETRICS

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| 10:45 | OP7-5-1 | Sampling Strategies for Plant Analysis: Dealing with many Nested Sources of Variance <i>Claudia Beleites</i> |
| 11:00 | OP7-5-2 | Development and GMP Validation of a NIR/PLS-based Assay and Water Content Analysis for Extended-Release Tablets <i>Ana Sofia Lourenço</i> |
| 11:15 | OP7-5-3 | xx-CovSel: A family of variable selection methods in chemometrics <i>Jean-Michel Roger</i> |
| 11:30 | OP7-5-4 | Interpreting fluorescence hyperspectral images. From bilinear to hybrid multilinear models <i>Anna de Juan</i> |
| 11:45 | OP7-5-5 | Integrating information from multiple sources through data fusion <i>Federico Marini</i> |

Wednesday, August 30, 2023 - PM

PLENARY | Room A | Chair: B. Hattendorf

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| 13:30 | PL-8 | Single cell metallomics <i>Gunda Köllensperger</i> |
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PARALLEL SESSION 1 | Room A

KEYNOTE | Chair: R. M. Marcé

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| 14:20 | KN6-1 | Conducting vial electromembrane extraction and development of generic methods <i>Stig Pedersen-Bjergaard</i> |
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S8-1 ELECTROANALYSIS | Chair: C. Cao

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| 14:50 | IT8-1 | New trends in the development of boron-doped diamond electrodes: Approaches based on heteroepitaxy and additive manufacturing <i>Simona Baluchová</i> |
| 15:05 | OP8-1-1 | The influence of the surface pretreatment of a boron-doped diamond electrode on the determination of selected pesticides <i>Mariola Brycht</i> |
| 15:20 | OP8-1-2 | Paper-based electrochemical biosensors for the detection of circulating miRNA signature: a tool towards decentralized management of Lung Cancer <i>Giulia Moro</i> |

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| 15:50 | PS3 | Coffee Poster |
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S9-1 ELECTROANALYSIS | Chair: J. Gooding

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| 17:00 | IT9-1 | Label-free detection of protein post-translational modifications with a biological nanopore <i>Chan Cao</i> |
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| 17:15 | OP9-1-1 | Fabrication of ZnO Nanoparticles Assisted Molecularly Imprinted Polymer-Based Electrochemical Sensor for the Selective Determination of Sorafenib <i>S. Irem Kaya</i> |
| 17:30 | OP9-1-2 | Voltammetry and Amperometry of Biologically Active Organic Compounds - Where We Are Heading 100 Years After the Discovery of Polarography <i>Jiri Barek</i> |
| 17:45 | OP9-1-3 | Electrochemical detection of enzymatic assay in microfluidic channels <i>Eline Thomas</i> |

PARALLEL SESSION 2 | Room B

KEYNOTE | Chair: H. Singer

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| 14:20 | KN6-2 | Chemical uptake and potential health risks of using treated wastewater in agriculture: An analytical perspective <i>Ester Heath</i> |
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S8-2 ENVIRONMENTAL | Chairs: M.L. Tercier-Waeber, M. C. Schuhmann

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| 14:50 | IT8-2 | Potential of Electron Microscopy for Micro – Nanoplastic analysis <i>Ralf Kaegi</i> |
| 15:05 | OP8-2-1 | Low-cost and miniaturised determination of atmospheric gaseous elemental mercury by passive sampling and voltammetric detection on screen-printed gold electrodes <i>Eduardo Pinilla-Gil</i> |
| 15:20 | OP8-2-2 | Factors controlling the mercury entry and bottom-up transfer in aquatic trophic webs <i>Mariia Petrova</i> |
| 15:35 | OP8-2-3 | Improved target, suspect- and non-target analysis of environmental contaminants using a GC-El&CI-TOF-MS system <i>Marleen Vetter</i> |

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| 15:50 | PS3 | Coffee Poster |
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S9-2 SAMPLE PREPARATION | Chair: S. Pedersen-Bjergaard

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| 17:00 | IT9-2 | Development of multi-residue methods for the determination of high production volume chemicals in muscle, skin and liver of seafood <i>Rosa M. Marcé</i> |
| 17:15 | OP9-2-1 | TBC <i>Zhugen Yang</i> |
| 17:30 | OP9-2-2 | Study of variations in polymer inclusion membranes for antibiotic separation from milk <i>Kristóf Jakab</i> |
| 17:45 | OP9-2-3 | Comprehensive Investigation of different Coatings and Adsorbents for SPME and their Influence on Analytical Performance <i>Frank Michel</i> |

PARALLEL SESSION 3 | Room C

KEYNOTE | Chair: R. Martinent

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| 14:20 | KN6-3 | Imaging mass spectrometry in translational spatial biology <i>Ron Heeren</i> |
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| S8-3 LIFE SCIENCES Chair: S. Taira | | |
| 14:50 | IT8-3 | Discovery of Antimicrobials Against Multidrug-Resistant Pathogens from Unexplored Natural Sources <i>Rémi Martinent</i> |
| 15:05 | OP8-3-1 | Novel RP-HPLC based assay for selective and sensitive endotoxin quantification <i>Anika Hoffmann</i> |
| 15:20 | OP8-3-2 | Identification of wine markers in ancient pottery using liquid chromatography coupled to tandem mass spectrometry (LC-MS/MS) <i>Sonia Sentallas</i> |
| 15:35 | OP8-3-3 | Towards Continuous Cytokine Monitoring in Organ-based Platforms <i>Maud Linssen</i> |
| 15:50 | PS3 | Coffee Poster |
| S9-3 LIFE SCIENCES Chair: R. Heeren | | |
| 17:00 | IT9-3 | Understanding mental health from single hair by nanoparticle-assisted laser desorption/ionization mass spectrometry imaging <i>Shu Taira</i> |
| 17:15 | OP9-3-1 | Fast determination of total malondialdehyde in urine by HPLC-MS/MS <i>Chango Lescano</i> |
| 17:30 | OP9-3-2 | Calibrating from within: multitargeted quantification of chronic kidney disease-related endogenous metabolites using an LC-MS/MS internal calibration approach <i>Gioele Visconti</i> |
| PARALLEL SESSION 4 Room E/F | | |
| KEYNOTE Chair: F. Kalman | | |
| 14:20 | KN6-4 | Commercializing cell and gene therapies: A perspective from the analytical quality control function <i>Christoph Meyer</i> |
| S8-4 ANALYTICAL SCIENCE IN INDUSTRY Chair: G. Calderisi | | |
| 14:50 | IT8-4 | Rapid Estimation of Size-Based Heterogeneity in Monoclonal Antibodies by Machine Learning-Enhanced Dynamic Light Scattering <i>Anuj Shrivastava</i> |
| 15:05 | OP8-4-1 | Lean Approach to Analytical Procedure Development for Therapeutic Synthetic Peptides <i>Ruben Wälchli</i> |
| 15:20 | OP8-4-2 | Simulation of Intraluminal Performance of Lipophilic Weak Bases in Fasted Healthy Adults Using DDDPlus™ <i>Marina Stelova</i> |
| 15:35 | OP8-4-3 | Selected Highlights in Analytical Chemistry at the ZHAW Wädenswil <i>Caspar Demuth</i> |
| 15:50 | PS3 | Coffee Poster |
| S9-4 ANALYTICAL SCIENCE IN INDUSTRY Chair: C. Meyer | | |
| 17:00 | IT9-4 | Sequence confirmation and impurity characterization of therapeutic oligonucleotides – A quality by design approach <i>Giovanni Calderisi</i> |

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| 17:15 | OP9-4-1 | Green solvents and reagents selection with multi-criteria decision analysis <i>Marek Tobiszewski</i> |
| 17:30 | OP9-4-2 | Dealing with Moving 1D-Targets in Purity Analyses of Biopharmaceuticals Using 2D-LC Coupled to Mass Spectrometry <i>Jens Trafkowski</i> |
| 17:45 | OP9-4-3 | Characterizing nanoparticles: Determining size distribution and elemental composition simultaneously, using SMPS-ICPMS <i>Ayush Agarwal</i> |

PARALLEL SESSION 5 | Room 3

S9-5 DAC EUCHEMS STUDY GROUP - BIOANALYTICS

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| 17:00 | OP9-5-1 | Sensitive platforms for fast on-site screening of food <i>Raluca-Ioana Stefan-van Staden</i> |
| 17:15 | OP9-5-2 | Introduction to Electrochemical Biosensor <i>Ozcelikay Goksu</i> |
| 17:30 | OP9-5-3 | DNA mismatch repair assessment in gastric and colon cancers using stochastic microdisks <i>Ruxandra-Maria Ilie-Mihai</i> |
| 17:45 | OP9-5-4 | Biosensors in Environment and Diagnostics <i>Guenter Gauglitz</i> |

TECHNICAL SEMINAR | Room 9

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| 16:00 | TS-02 | Springer / RSC Seminar |
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Thursday, August 31, 2023 - AM

PLENARY | Room A | Chair: F. Kalman

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| 9:00 | PL-9 | Microfluidic devices for analytical and pharmaceutical applications <i>Jörg P. Kutter</i> |
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PARALLEL SESSION 1 | Room A

KEYNOTE | Chair: E. Bakker

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| 9:50 | KN7-1 | Universal electrochemical biosensor for all HIV types <i>Karin Chumbimuni-Torres</i> |
| 10:20 | Coffee Break | |
| | S10-1 ELECTROANALYSIS Chair: K. Chumbimuni-Torres | |
| 10:45 | IT10-1 | Purpose-Made Capillary Electrophoresis Instrumentation <i>Peter Hauser</i> |
| 11:00 | OP10-1-1 | Electrochemical screening of lipase activity in pancreatic preparations <i>Olha Sarakhman</i> |
| 11:15 | OP10-1-2 | Application of capillary electrophoresis in controlled drug release studies <i>Tomas Krizek</i> |

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| 11:30 | OP10-1-3 | An ECL Sensor based on N-CQDs as Homogenous Luminophore and Copper (II) Picrate as Electrode Modifier for Determination of Creatinine <i>Mandana Amiri</i> |
| | PARALLEL SESSION 2 Room B | |
| | KEYNOTE Chair: J. Smith | |
| 9:50 | KN7-2 | Do Biomolecules Retain their Native Conformation in the Gas Phase? <i>Renato Zenobi</i> |
| 10:20 | Coffee Break | |
| | S10-2 MASS SPECTROMETRY Chair: R. Zenobi | |
| 10:45 | IT10-2 | Holistic analysis of a Swiss karst spring using on-site, in-situ RPLC-HRMS/MS and laboratory based IC-HRMS/MS <i>Johannes Schorr</i> |
| 11:00 | OP10-2-1 | LC-MS/MS-based strategy for studying the influence of environmental conditions on saponin content in plant organs <i>Saponaria officinalis</i>, L. <i>Katarzyna Pawlak</i> |
| 11:15 | OP10-2-2 | OctoChemDB: A Web Service for Efficient Dereplication of Natural Products using High-Resolution Mass Spectra <i>Ricardo Silvestre</i> |
| 11:30 | OP10-2-3 | Comprehensive GCXGC high resolution MS and selective isolation of chemicals in the investigation of human chemosignals elicited from emotional stimulation <i>Fabio Di Francesco</i> |
| | PARALLEL SESSION 3 Room E | |
| | KEYNOTE Chair: M. Vogel | |
| 9:50 | KN7-3 | Glimpses into an Analytical Chemistry Textbook of the Future <i>Charles Lucy</i> |
| 10:20 | Coffee Break | |
| | S10-3 ANALYTICAL SCIENCE EDUCATION Chairs: C. Lucy, G. Schwarz | |
| 10:45 | IT10-3 | Support for understanding analytical chemistry by questions and videos <i>Gunnar Schwarz</i> |
| 11:00 | OP10-3-1 | Remote teaching in Analytical Chemistry – Lessons learned during COVID-19 pandemic <i>Martin Vogel</i> |
| 11:15 | OP10-3-2 | Case-based active learning in BSc and MSc subjects of analytical chemistry for the improvement of soft skills <i>Anna Rigol</i> |
| 11:30 | OP10-3-3 | A modern curriculum for educating industry-oriented specialists in analytical and bioanalytical chemistry <i>Jean-Manuel Segura</i> |
| | PARALLEL SESSION 4 Room C | |
| | KEYNOTE Chair: S. Nagl | |
| 9:50 | KN7-4 | Open droplet arrays for multimodal analysis at high throughput <i>Petra Dittrich</i> |

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| 10:20 | Coffee Break | |
| | S10-4 MICROFLUIDICS AND FLOW ANALYSIS Chairs: P. Dittrich, J.P. Kutter | |
| 10:45 | IT10-4 | Digital Microfluidic Analytical Systems with Integrated Chemical Sensor and Antimicrobial Surfaces <i>Stefan Nagl</i> |
| 11:00 | OP10-4-1 | Addressing some challenges on metal ions determination in dynamic water systems using flow-based approaches <i>António Rangel</i> |
| 11:15 | OP10-4-2 | Monitoring dynamic water systems with microfluidic paper-based devices for in-situ analysis <i>Raquel Mesquita</i> |
| 11:30 | OP10-4-2 | Automated solid phase extraction and fluorimetric detection with a flow-based method for the determination of tetracyclines in wastewater <i>María Alejandra Vargas Muñoz</i> |
| | AWARDS Room A Chairs: M. Segundo, Slavica Ražić | |
| 11:50 | PL-10 | DAC Award: Microplastics in the Aquatic Environment: Green Analytical Protocols, Vectors of Pharmaceuticals and Risk to Biota <i>Damia Barcelo</i> |
| 12:20 | PL-11 | Robert Kellner Award: Where nanomaterials can be a unique tool for the improvement of biosensors <i>Antje Bäumner</i> |
| | PLENARY Room A | |
| 12:50 | Closing Ceremony | |

POSTERS

Monday Poster Session PS-1

ANALYTICAL SPECTROSCOPY

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| PS1-01 | Development of a micro-sampling SPE method for drug separation from human serum coupled to a SERS sensing assay for molecular quantification of relevant drugs in TDM <i>Isidro Badillo-Ramírez</i> |
| PS1-02 | Interaction of the alkaloid fagaronine and other benzo[c]phenanthridine alkaloids with G-quadruplexes <i>Pavel Hannig</i> |
| PS1-03 | Enhancement of luminescence signal by deuterated water <i>Lenka Mádi</i> |
| PS1-04 | Encapsulation of Vecuronium Bromide by Sugammadex Studied by SERS <i>Snezana Miljanic</i> |
| PS1-05 | Real-Time Monitoring of Hydrogenation Reaction at the Nanoscale using Tip-Enhanced Raman Spectroscopy <i>Anastasiia Moskalenko</i> |
| PS1-06 | Multi-elemental analysis of hair by energy dispersive x-ray spectroscopy without sample grinding and mineralization <i>Katarzyna Pawlak</i> |
| PS1-07 | Application of Vibrational Spectroscopy Coupled with Chemometrics for the Discrimination of Organic vs. Conventional Culture Systems for Red Grape Extracts <i>Cristiana Radulescu</i> |
| PS1-08 | Analytical spectroscopic characterization of green copper nanoparticles for antimicrobial applications <i>Margherita Izzi</i> |
| PS1-09 | Advanced method for simultaneous determination of Pb, Al, and Fe using HR-CS GF-AAS for the analysis of Antarctic moss and lichens <i>Ondřej Zvěřina</i> |

CHEMICAL IMAGING AND CHEMICAL MICROSCOPY

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| PS1-10 | Assessing Environmental Damage in Parchment by MALDI MS, ATR/FTIR & Raman Imaging <i>Martina Marchetti-Deschmann</i> |
| PS1-11 | Nanoparticles as a new tool to diagnose ischemic stroke <i>Jan Biskupič</i> |

CHEMICAL SENSORS AND BIOSENSORS

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| PS1-12 | Fentanyl Specific Sensor using a Molecularly Imprinted Polymer <i>Percy Calvo-marzal</i> |
| PS1-13 | The comparison of MIP-based sensors developed for the detection of antiviral drugs with quantum chemical calculations <i>Ahmet Cetinkaya</i> |
| PS1-14 | Au Metallized Polyethylene Terephthalate (PET) by Supercritical CO₂-assisted Metallization toward Flexible Electrochemical Biosensors <i>Chun-Yi Chen</i> |
| PS1-15 | Sensitive detection of patulin in water and apple juice samples <i>Catalina Cioates Negut</i> |
| PS1-16 | A novel time-dependent potentiometric glucose biosensor <i>Polyxeni Damala</i> |

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| PS1-17 | Nanostructured Zn doped TiO₂ - carbon paste sensor for electrochemical determination of ofloxacin in water <i>Khaled Elgendy</i> |
| PS1-18 | Separation-Free Enzyme-Immunosensor with Magnetic-Field-Driven Accumulation of Immunocomplexes and Pulsed-Delivery of Substrate <i>Gabriel Junquetti</i> |
| PS1-19 | Visual detection of microRNAs from urine samples using a lateral flow strip <i>Despina Kalogianni</i> |
| PS1-20 | Fe²⁺/Fe³⁺ in internal solution of classical ISEs: prospects for the use in non-zero current modes <i>Valentina Keresten</i> |
| PS1-21 | In-Situ Formation of a Solid-State Ag/AgCl Reference Membrane Using Intense Pulsed Light Photoreduction <i>Sara Krivacic</i> |
| PS1-22 | Planar reference electrodes based on ionic liquids <i>Julia Kuczak</i> |

FLUORESCENT PROBES AND PROTEIN ENGINEERING

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|--------|---|
| PS1-23 | Development of On-site Applicable Fluorescent Probe for Fire Blight <i>Ji Hye Jin</i> |
| PS1-24 | A Novel Fluorescent Complex for Targeting Human Glioblastoma, Consisting of Dipolar Dye, Caveolin-Targeting Peptide, and Serum Albumin Proteins <i>Jisoo Kang</i> |

FOOD SCIENCE ANALYTICS

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| PS1-25 | Application of miniaturized solid-phase microextraction coupled with gas chromatography-mass spectrometry for determination food additives in beverages <i>Mereke Alimzhanova</i> |
| PS1-26 | Mineral Content of Spanish Commercial Honey Samples <i>Daniela Andrei</i> |
| PS1-27 | Determination of Sugar Contents of Some Fruits According to the Degree of Ripening by HPLC-ELSD <i>Göksel Arli</i> |
| PS1-28 | Enhancing Bulgur Production through Artificial Intelligence for Sustainable Food Production <i>Adem Atmaca</i> |
| PS1-29 | Method development for the determination of water-soluble vitamins in enteral food with LC-MS <i>Lidija Brkljačić</i> |
| PS1-30 | DNA-based detection of olive oil adulteration with other plant oils using a single rapid test <i>Natalia-Maria Christopoulou</i> |
| PS1-32 | Ultrasensitive assay of atrazine in food and water samples <i>Andreea-Roxana Niculae</i> |
| PS1-33 | Lateral flow assay for DNA-based visual distinction between three important tuna species from tissue samples and heat-processed cooked mixtures <i>Isidora Gkini</i> |

MASS SPECTROMETRY

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| PS1-34 | CADMIUM accumulation in organ tissues after inhalation of cadmium-based nanoparticles <i>Michaela Bahelková</i> |
| PS1-35 | An On-line SPE-UHPLC-HRMS Method for the Determination of 11 Classes of Per- and Polyfluoroalkyl Substances (PFAS) in Water <i>Masho Hilawie Belay</i> |
| PS1-36 | Developing Mass Spectrometry Methods for the Characterisation of Viper Venoms <i>Aurore Buff</i> |
| PS1-37 | Point of care breath analysis in chronic liver disease with a focus on NAFLD – a SIFT-MS pilot study <i>Kseniya Dryahina</i> |
| PS1-38 | Characterization of a prototype thermal desorption unit for high-throughput headspace analysis <i>Heorhiy Marchenko</i> |
| PS1-39 | Gender change in the aspect of assessing the athlete's biological passport <i>Anna Jarek</i> |
| PS1-40 | Determination of trace vancomycin in fishery products by liquid chromatography tandem mass spectrometry <i>Jinchul Kim</i> |
| PS1-42 | Development of prediction models for effective optimization of make-up solvent composition in SFC-MS with different ionization sources <i>Katerina Plachka</i> |
| PS1-43 | Improved compound identification in GC analysis using an EI&CI-TOFMS <i>Marleen Vetter</i> |
| PS1-44 | Analytical mass spectrometry method for quantification of TriPPPPro-prodrugs and their metabolites in cell extracts <i>Michelle Vogts</i> |
| PS1-46 | Towards Mass Spectrometry Analysis of Organoids and Gastruloids <i>Malgorzata Zawadzka</i> |
| PS1-47 | Response of <i>Saccharomyces cerevisiae</i> Lalvin EC1118™ to tetraconazole-based fungicides: a metabolomic approach <i>Raquel Rial-Otero</i> |

OPTICAL SENSORS

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| PS1-48 | Grafting nanoMIPs onto core-shell gold silica nanoparticles Au@SiO₂@nMIP <i>Thea Serra</i> |
| PS1-49 | Solvatochromic ionophore-based optical creatinine sensors <i>Nikolai Tiuftiakov</i> |
| PS1-50 | A Tunable Colorimetric Carbon Dioxide Sensor Based on Ion-Exchanger- and Chromoionophore- Doped Hydrogel <i>Yupu Zhang</i> |
| PS1-51 | Development of Conjugated Polymers for High-Detectivity Organic Photodetectors <i>In Hwan Jung</i> |

SEPARATION SCIENCE

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| PS1-52 | Selective solid phase extraction of U(VI) ions based on new ion-imprinted polymer and its application for determination of uranium in waters, wine and honey <i>Ivanka Dakova</i> |
| PS1-53 | Reducing flow-induced peak broadening in electric field gradient focusing by using AC electro-osmotic flow <i>Tinne De Moor</i> |
| PS1-54 | First method based on gas chromatography-mass spectrometry for the simultaneous quantification of ethinyl estradiol and drospirenone in contraceptive formulations <i>Iria González Mariño</i> |
| PS1-55 | Quantitative analysis of reference gas mixture using a gas chromatograph with a thermal conductivity detector under unstable retention time of peaks <i>Nobuhiro Matsumoto</i> |
| PS1-56 | Development of materials as adsorbent for recovery of high-molecular weight polycyclic aromatic hydrocarbons from non-aqueous medium <i>Albina Mikhralieva</i> |
| PS1-57 | Long-Term Retention Time Stability in SFC <i>Veronika Pilarova</i> |
| PS1-58 | Simultaneous Analysis of Chromium Species Using μLC-ICP-MS <i>Jelle Verdonck</i> |
| PS1-59 | Evaluation of extraction potential of novel silica IL-based fibers using headspace solid-phase microextraction for the determination of organophosphorus insecticides in real samples <i>Kateryna Yavir</i> |
| PS1-60 | Electrostatic Repulsion Hydrophilic Interaction Liquid Chromatography: an underrated separation method for charged analytes <i>Dominik Dörfel</i> |

ENVIRONMENTAL ANALYTICAL SCIENCE

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| PS1-61 | Phosphorus removal and recycled from tertiary effluent in sewage treatment plant using graphene modified with magnetic nanoparticles (M@GO) <i>Andrea Muñoz-García</i> |
| PS1-62 | Why is paper recycling NOT a one-size-fits-all process: A case study on multi-residue analysis of semi-volatile pollutants in South African recycling paper grades using accelerated solvent extraction with gas chromatography-mass spectrometry <i>Lawrence Madikizela</i> |
| PS1-63 | Passive sampling of semi volatile organic compounds in urban atmospheres near petrochemical parks <i>Rosa M. Marcé</i> |
| PS1-64 | A low-cost portable system for on-site detection of soil pH and potassium levels using 3D printed sensors <i>Matthew Mccole</i> |
| PS1-65 | The Application of Electroanalysis for the Monitoring of the Photocatalytic Degradation of the Herbicide MCPA <i>Wesley McCormick</i> |
| PS1-66 | Multi-process control of trace contaminants fate in surface waters probed at nano-scale by using asymmetrical flow field flow fractionation linked to ICP-MS <i>Isabelle Worms</i> |
| PS1-67 | Development of Urban Particulate Matter Reference Material for the Analysis of Hazardous Chemicals and Source Identification <i>Yong-Hyeon Yim</i> |

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| PS1-68 | Assessment of microwave assisted extraction efficiency for the determination of herbicides in soil and maize cob: cumulative and health risks assessment <i>Sandisiwe Zondo</i> |
| PS1-69 | Enrichment and clean-up of steroid hormones from water samples <i>Hans Wollseifen</i> |

ANALYTICAL LIFE SCIENCE

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| PS1-70 | Preparation of volatile gas-based probe and its application in identification of drug resistant bacteria <i>Lan Zhang</i> |
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CHEMICAL SENSORS AND BIOSENSORS

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| PS1-71 | Screen-printed DNA-based sensors for detection of the prostate cancer biomarker miR-21 – a feasibility study <i>Biosen</i> <i>Davide Migliorelli</i> |
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SEPARATION SCIENCE

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| PS1-73 | The impact of column hardware on efficiency in liquid chromatography <i>Dóra Zelenyánszki</i> |
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CHEMICAL SENSORS AND BIOSENSORS

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| PS1-74 | Constructing Colorimetric Vernier Caliper for Distance-Based Self-Powered Signal Transduction Using an Array Optical Sensor <i>Aori Qileng</i> |
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Tuesday Poster Session PS-2

ANALYTICAL LIFE SCIENCE

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| PS2-01 | SPME analysis of organic compound of Lactobacillus plantarum 17M and its antagonistic activity against Erwinia amylovora <i>Kazhybek Ashimuly</i> |
| PS2-02 | Evaluation of Phytocannabinoid Bioavailability Rates using the Caco-2 Cell Model <i>Zuzana Binova</i> |
| PS2-03 | Simultaneous analysis of 5 biomarkers of oxidative and nitrative stress in urine by SPE+HILIC-MS/MS <i>Gabriela Cristina Chango Lescano</i> |
| PS2-04 | Vibrio-Sequins - dPCR-traceable DNA standards for quantitative metagenomics of Vibrio spp. <i>Sabrina Flütsch</i> |
| PS2-05 | Kdo substitution and endotoxin quantification using the novel chemical Kdo-DMB-LC endotoxin content assay <i>Anika Hoffmann</i> |
| PS2-06 | Error propagation studies in microRNA quantification <i>Theodore Christopoulos</i> |
| PS2-07 | Method development for detection and determination of carotenoids in the cap of the middle spotted woodpecker <i>Katarzyna Lech</i> |

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| PS2-09 | New challenges in early diagnosis of cancer <i>Habil Raluca Ioana Stefan-van Staden</i> |
| PS2-10 | Hyphenated MS-Methods as a Tool for Orthogonal Metabolite Annotation in On-Line Breath Analysis with SESI-HRMS <i>Stamatios Giannoukos</i> |

ANALYTICAL NANOSCIENCE

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| PS2-11 | New nanopores sensors for the detection of DNA <i>Juan Francisco Bada Juarez</i> |
| PS2-12 | A novel Cu(II)-Schiff base complex catalyzed synthesis of Synthesis of Benzamide Derivatives via C-H Bond Functionalization of Arenes <i>Mehdi Khalaj</i> |
| PS2-13 | Granulometric characterization and quantification of TiO₂ nanoparticles in pharmaceutical products by single particle ICP-MS <i>Ines Korbi</i> |
| PS2-14 | Analytical chemical characterization of engineered nanomaterials in complex sample matrices <i>Jan Labuda</i> |
| PS2-15 | Development of a nanoparticle-based lateral flow assay for malaria prognostic <i>Julia Pedreira</i> |
| PS2-16 | Studying the entropic pulling of Hsp70/DnaK at the single-molecule level using a biological nanopore <i>Verena Rukes</i> |
| PS2-17 | DFT and dynamics simulation studies to understand probing of folic acid using β-cyclodextrin functionalized copper nanoclusters and vitamin B6 cofactor pyridoxal by displacement approach <i>Suban Sahoo</i> |
| PS2-18 | Direct and Selective Quantification of Cr(VI) in Waste Waters using Raffinose Capped Silver Nanoparticles as Sensitive Optical Sensor <i>Penka Vasileva</i> |

ANALYTICAL SCIENCE AND GLOBAL HEALTH

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| PS2-19 | Quality by Design Approach for a Multicomponent Quantification Using HPLC-PDA and HPLC-MS: Application to Dosage Form and Biological Body Fluids <i>Naser Al-tannak</i> |
| PS2-20 | Expanding the exposomics toolbox towards metals <i>Simone Braeuer</i> |
| PS2-21 | 3D stochastic microsensor based on graphene for the simultaneous determination of p53, HER-3, and HER-4 <i>Catalina Cioates Negut</i> |
| PS2-22 | Stochastic sensors as new tools for the assay of CA72-4, CA19-9, CA12-5 and CEA in biological samples <i>Ruxandra-Maria Ilie-Mihai</i> |
| PS2-23 | Comparison of different sample preparation techniques for degradation products of nerve agents in biological fluids <i>Engin Koçak</i> |
| PS2-24 | Enzyme-based platform immunoassay for the simultaneous quantification of drug and anti-drug antibodies <i>Frans Kokojka</i> |

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| PS2-26 | Fast screening of biological and food samples using miniplatforms based on 3D stochastic microsensors <i>Andreea-Roxana Niculae</i> |
| PS2-27 | Harnessing programmable zwitterionic coacervates as versatile sensing platforms <i>Francesca Torrini</i> |

CHEMICAL SENSORS AND BIOSENSORS

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| PS2-28 | The development of a MIP-based electrochemical sensors for antiviral drug detection using different electroanalytical techniques <i>Ahmet Cetinkaya</i> |
| PS2-29 | Online biomass monitoring of <i>Chlorella vulgaris</i> cultures by dielectric spectroscopy <i>Juan Limon Petersen</i> |
| PS2-30 | Electrochemical classification of benzodiazepines: a comprehensive approach combining insights from voltammetry and liquid chromatography – mass spectrometry <i>Jonas Schram</i> |
| PS2-31 | A label-free insight into the molecular aspects of electrochemical DNA sensors for mercury ion detection <i>Anna Szymczyk</i> |
| PS2-32 | Paper-based Device for Point-of-care Nucleic Acid Quantification Combining CRISPR/Cas System and Personal Glucose Meter <i>Yohei Tanifuji</i> |
| PS2-33 | Platform for verification of electrochemical sensors for biomedical applications <i>Alwin Verschueren</i> |
| PS2-34 | Self-powered optical potentiometric sensors array based on electronic paper <i>Yaotian Wu</i> |
| PS2-35 | Hierarchical architectures of graphene as sensitive membranes for electrochemical sensors <i>Volodymyr Zaitsev</i> |

ELECTROANALYSIS

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| PS2-36 | In-depth Study of Tyrosine Oxidation Using Electrochemistry, Capillary Electrophoresis, and Mass Spectrometry <i>Seydehelahe Bagherimetkazini</i> |
| PS2-37 | Modification-free boron-doped diamond as a sensing material for direct and reliable detection of the anti-HIV drug nevirapine <i>Simona Baluchová</i> |
| PS2-38 | Simultaneous voltammetric determination of prothioconazole and bixafen on a boron-doped diamond electrode <i>Mariola Brycht</i> |
| PS2-39 | The development of molecularly imprinted polymer-based electrochemical sensor for the selective and sensitive determination of tolcapten <i>Student Fatma Budak</i> |
| PS2-40 | Molecularly imprinted sensor based on CNFs for voltammetric detection of dasatinib <i>M. Emin Çorman</i> |
| PS2-41 | The application of the modified carbon paste electrode in voltammetric sensing of ibuprofen <i>Ana Đurović</i> |
| PS2-42 | All-solid-state potentiometric sensors based on graphene oxide as novel ion-to-electron transducer for nitrate and nitrite detection in environmental waters <i>Renato Gil</i> |

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| PS2-43 | Spectroelectrochemical approaches for the qualitative and quantitative analysis of acetaldehyde in wine, fentanyl in drug of abuse and pesticide detection <i>Laura García-Alcalde</i> |
| PS2-44 | On-site simultaneous determination of calcipotriol and betamethasone in topical pharmaceutical formulations and surface water samples using an intelligent mini platform based on carbon nanotubes-gold nanoparticles screen-printed electrode modified with calix[6]arene <i>Bianca-Maria Tuchiu</i> |
| PS2-45 | An electrochemical sensor for trace analysis of morphine in human serum and saliva <i>Mandana Amiri</i> |

ENVIRONMENTAL ANALYTICAL SCIENCE

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| PS2-46 | Uncovering the multiple adsorption mechanisms of heavy metals by eggshells <i>Yair Amar</i> |
| PS2-47 | Assessment of metal content in agricultural soils and vegetables and their risk to human health in rural Roma communities in Transylvania, Romania <i>Mihail Simion Beldean-Galea</i> |
| PS2-48 | Conception of a test gas system for simulating complex air mixtures of biogenic volatile organic compounds in the ppt range <i>Jennifer Braun</i> |
| PS2-49 | Development of a multiresidue method including organotins, based on liquid chromatography coupled to tandem mass spectrometry, for the quantification of emerging micropollutants in Gammarus fossarum <i>Mathilde Duny</i> |
| PS2-50 | Strategies for on-site determination of trace elements in officinal plants by stripping voltammetry <i>Laura Favilli</i> |
| PS2-51 | Determination of Benzo(a)pyrene adsorbed onto plant pollen samples by microwave extraction and HPLC-FLD <i>Juan Jesús Hidalgo-Barquero</i> |
| PS2-52 | Fingerprinting of Chlorinated Paraffins and Olefins in Sewage Sludge of a Swiss Wastewater Treatment Plant <i>Jules Hutter</i> |
| PS2-53 | Tyre wear ingredients: Markers and environmental behaviour in soil <i>Susanne Kern</i> |
| PS2-54 | Analysis of Per- and Polyfluoroalkyl Substances in Aqueous Samples by SPE and LC-MS/MS according to EPA Draft Method 1633 <i>Hans Wollseifen</i> |

ANALYTICAL SCIENCE EDUCATION

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| PS2-55 | Analytical similarity assessment of biosimilars: Global regulatory landscape, recent studies and major advancements in orthogonal platforms <i>Srishti Joshi</i> |
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FOOD SCIENCE ANALYTICS

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| PS2-56 | Determination of 2-chloroethanol as a marker of fumigant ethylene oxide in sesame seeds by HS-SPME-GC-MS <i>Frank Michel</i> |
| PS2-57 | Development and analysis of flavonoids and phenolic acids from mandarin fruits by LC-DAD/MS <i>Luna Maslov Bandic</i> |

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| PS2-58 | Evaluating the potential of Irish Faba Beans as a protein alternative using multiple analytical techniques (FAAS, GFAAS & Kjeldahl Method) <i>Laura Mcdaid</i> |
| PS2-59 | A novel HPLC-DAD method for determination of hydrogen peroxide in milk <i>Liudmila Istomina</i> |
| PS2-60 | Continuous monitoring of Lactoferrin for real-time process control <i>Claire Michielsen</i> |
| PS2-61 | Classification of Soybean Paste Products Using Laser-Induced Breakdown Spectroscopy, Inductively-Coupled Plasma Optical Emission Spectroscopy, and Inductively-Coupled Plasma Mass Spectrometry <i>Sang Ho Nam</i> |
| PS2-62 | Developing analytical method for the determination of Inpyrfluxam and its metabolites residues in agricultural products <i>Inju Park</i> |
| PS2-63 | Stability of water-soluble vitamins in enteral food <i>Kristina Pregiban</i> |

MASS SPECTROMETRY

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| PS2-64 | GC/MS/MS as a the best technique for detection and identification of long-term steroid markers in doping control <i>Anna Jarek</i> |
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METABOLOMICS AND PROTEOMICS

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| PS2-66 | Investigation of bioactive metabolites in 36 Iris species and cultivars grown under different cultivation conditions <i>Tereza Jaegerová</i> |
| PS2-67 | Adaptative response to tetraconazole-based fungicides shapes the proteome of <i>Saccharomyces cerevisiae</i> Lalvin EC1118™ <i>Raquel Rial-Otero</i> |
| PS2-68 | Development of a HILIC-MS/MS method for covering short, medium and long chain acyl-CoA in one analytical run <i>Madhulika Singh</i> |
| PS2-69 | SCORE-metabolite-ID – Identification of metabolites from complex mixtures by correlation of 1D-1H or 2D-HSQC NMR, MS and LC data <i>Stephanie Watermann</i> |
| PS2-70 | Application of microdialysis combined with UHPLC-QTOF/MS to screen for endogenous metabolites in aquatic organisms as biomarkers of exposure to an emerging contaminant, triclosan <i>Yu He</i> |
| PS2-71 | Untargeted urinary metabolomics for identification of bladder cancer biomarkers using HPLC-MS <i>Anastasiia Frolova</i> |

ELECTROANALYSIS

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| PS2-72 | Electrochemical Approach on Interaction of Nerve Agent Metabolite and Albumin <i>Nurgul Karadas Bakirhan</i> |
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Wednesday Poster Session PS-3

ANALYTICAL LIFE SCIENCE

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| PS3-01 | The study of topotecan sorption/desorption kinetics for poly(2-hydroxyethyl methacrylate) gels by UHPLC-MS/MS <i>Zuzana Bosakova</i> |
| PS3-02 | Synthesis, Characterization, and Anticancer Evaluation of Phenanthroline-Based Macrocyclic Ligand and Nickel Complex: DNA Binding and Thermal Stability Studies <i>Emmanuel Ohaekenyem</i> |
| PS3-03 | A technique to analyze and measure the amount of tar generated from the pyrolysis of waste tyres <i>Sergejs Osipovs</i> |
| PS3-04 | Development of a high-throughput screening assay to identify glutathione S-transferase (GST P1) inhibitors for potential use in cancer treatment <i>Sarah A. P. Pereira</i> |
| PS3-05 | An automated deconvolution model for enabling real time measurement of N-glycans for mAbs using fluorescence detection <i>Anuj Shrivastava</i> |
| PS3-06 | Polyampholite hydrogels organized by dynamic bonds <i>Esra Su</i> |
| PS3-07 | Pregnancy as a factor influencing the change of the steroid profile in terms of assessment of athlete's biological passport <i>Marzena Wojtowicz-Zawadka</i> |
| PS3-08 | Development of a multi-targeted UHPLC-MS/MS method for steroid profiling in biological samples <i>Mathieu Galmiche</i> |
| PS3-09 | Construction of a generalized interaction model for molecular pattern-recognition of pectic heteropolysaccharides by TLR4 <i>Gyuhwan Hyun</i> |

ANALYTICAL SCIENCE IN INDUSTRY

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| PS3-10 | Trace Determination of Silicones in Pharmaceutical Devices Using Inductively Coupled Plasma-Optical Emission Spectrometry (ICP-OES) <i>Peter Franzmann</i> |
| PS3-11 | Bio-based antimicrobial peptides for smart response self-disinfected surfaces <i>Sutida Jansod</i> |
| PS3-12 | Residual enzyme limit test by UHPLC-MS <i>Naomi Lagarde</i> |

CHEMOMETRICS

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| PS3-13 | Systematic assessment of feature selection methods with PLS-DA model for photonic in vitro detection of lung cancer <i>Harun Hano</i> |
| PS3-14 | Taking the individual bias out of examining comparability of biosimilars: A case study on monoclonal antibody therapeutics <i>Srishti Joshi</i> |
| PS3-15 | Unified Approach to Univariate Analytical Calibration <i>Paweł Kościelniak</i> |

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| PS3-16 | A model for the identification of wood-derived mordant dyes in cultural heritage objects using mass spectrometry and chemometric tools <i>Katarzyna Lech</i> |
| PS3-17 | Leveraging physics-informed machine learning to expand use of electronic tongues for environmental applications <i>Amy Mueller</i> |

ELECTROANALYSIS

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| PS3-18 | Sensitive detection and electrochemical evaluation of the anticancer drug tofacitinib in pharmaceutical and biological samples using two different electrodes <i>Fatma Budak</i> |
| PS3-20 | Electrode design and analysis of Cr doping into NASICON-structured Na₃V₂(PO₄)₃ cathode with self-carbon-coating <i>Jaekook Kim</i> |
| PS3-21 | Combining Electroanalysis with Photocatalysis: Moving Beyond Remediation <i>Padraig McDonagh</i> |
| PS3-22 | Biosensor development: Employing Self-Assembled Monolayers and Electrochemical Transducers <i>Jennifer McLeod</i> |
| PS3-23 | Fabrication of cobalt oxide-supported carbon paste electrode for sensitive and selective Levofloxacin sensing <i>Tijana Mutić</i> |
| PS3-24 | Ultrasensitive fluoride detection in aquatic environments <i>Andrea Nonis</i> |
| PS3-25 | Mercury: from atmospheric pollution into blood. Ultrasonic microextraction and disposable screen-printed gold electrodes for voltammetric monitoring of HG in blood samples <i>María Del Rosario Palomo Marín</i> |
| PS3-26 | Development of a Novel Molecularly Imprinted Polymer-Based Electrochemical Sensor for the Selective Determination of Ethyl Methylphosphonic Acid <i>Sermet Sezigen</i> |
| PS3-27 | Self-referencing Pulstrode: Further Optimization and New Electrode Designs <i>Ayian Speck</i> |
| PS3-28 | Sensitive simultaneous electrochemical determination of reduced and oxidized glutathione in urine sample using modified carbon paste electrode <i>Zorica Stojanović</i> |
| PS3-29 | Electrochemical determination of phenolic antioxidant BHT in cosmetic and food samples <i>Ruxandra-Maria Ilie-Mihai</i> |

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