19th International Mass Spectrometry Conference

PROGRAMME

IMSC2012 KYOTO

Kyoto International Conference Center

Saturday 15th September – Friday 21st September 2012

IMSC2012 KYOTO

Organizers of the 19th International Mass Spectrometry Conference

IMSF

International Mass Spectrometry Society

MSSJ

Mass Spectrometry Society of Japan

SCIENCE COUNCIL OF JAPAN 日本学術会議

Science Council of Japan

Table of Contents

Welcome Address from the Chair of the 19th IMSC

Yoshinao Wada

Chair of the 19th International
Mass Spectrometry Conference

On behalf of the Mass Spectrometry Society of Japan (MSSJ) and the Local Organizing Committee it is my great pleasure to welcome all delegates to the 19th IMSC in Kyoto, Japan.

It is a particular honor to stage this landmark event in Kyoto. The first IMSC held outside of Europe demonstrates the mass spectrometry community to be a global body.

The MSSJ was established in 1953, and held international meetings on mass spectrometry twice: "International Mass Spectrometry Conference (Japan)" on September 9-12, 1969 and "Biological Mass Spectrometry (BMS)" on September 20-24, 1992. In 1967 during the 4th IMSC in Berlin, Professor Ogata (Osaka University) discussed holding the IMSC in Japan with executives of four countries (UK, France, Germany and USA), but it did not come off due to the IMSC tradition and the long distance. Consequently, the meeting in 1969 was regarded as an "intermediate" between the 4th (Berlin) and 5th (Brussels) IMSCs. Twenty years later, Professor Matsuo (Osaka University) took a different approach, in which he recognized the importance of biological applications to mass spectrometry and added "Biological" to the name for the second meeting. The International Organizing Committee of the BMS'92 was held in Amsterdam during the 12th IMSC (1991). The venue of these meetings was here at the Kyoto International Conference Center.

The applications of mass spectrometry especially in the biological field have continued to grow and are a high stage of development, especially in the current post-genome era. In addition, the role of mass spectrometry is expanding in other fields and purposes: e.g. security and safety as well as curiosity about the uncharted territory of space. It should be stressed as well that the development of core technology is essential for mass spectrometry to meet these demands. The program committee has tried to reflect the developments of the fundamentals in physics and chemistry in the programme. Here, we have eight Plenary and Tutorial Lectures and 45 scientific sessions with Keynote Lectures in this abstract book.

Recovery from the 2008 financial recession has been slow and the world economy is facing many problems such as those in Europe. Japan is also struggling to recover from the stall in our economy triggered by the magnitude 9.0 earthquake in March 11, 2011, and the nuclear reactor accident that followed. The organizing committee was afraid of a severe impact of these problems on the preparation for this conference and participation at this meeting. However, at the time of printing this booklet, we were relieved that we already had 1,400 registered delegates, a total of 1,042 papers for 233 oral and 809 poster presentations, and 46 corporate registrations for exhibition and advertisement.

A conference of this size could not take place without the cooperation and support of many individuals, organizations and companies. The Science Council of Japan co-hosts this conference with MSSJ and provides sizable financial support. Moreover, the 19th IMSC is thus accorded high status among the international meetings held in Japan this year. Next, I would like to convey special thanks to a number of mass spectrometric companies, listed in this booklet. Without their financial support this conference could not have been arranged. The organizing committee is grateful to the Executive Board of the International Mass Spectrometry Foundation (IMSF) as well as to scientists from many countries for their help in arranging the scientific sessions.

The MSSJ has chosen Kyoto as the venue for this meeting. It is not only renowned as the former capital and cultural heart of Japan, but also for its place at the cutting edge of mass spectrometry research.

Welcome and enjoy the science and your stay in Kyoto.

Welcome Address from the President of the International Mass Spectrometry Foundation

Marcos N Eberlin
IMSF President

We are making Mass Spectrometry history here in Kyoto at our 19th International Mass spectrometry Conference!

For the first time ever, an IMSC is being held outside Europe. This is an extraordinary accomplishment for our society in its endeavor to become a fully international forum for the worldwide advance of the science and practice of MS through the promotion and dissemination of MS knowledge to everyone and everywhere. Our international conferences, which starting from Kyoto are held now biannually, are the main means for IMSF to achieve its goals; hence the importance of hosting IMSC across the different continents.

On behalf of the IMSF board and all of our ca. 40 affiliate MS societies, I therefore very enthusiastically welcome all the ca. 2000 IMSF participants to the city of Kyoto for the historical 19th IMSC. We are also glad to announce here in Kyoto several key IMSF actions to improve education and dissemination of MS knowledge. For example, the creation of MSpedia (www.internationalmspedia.com), an interactive web-site which has the goal to become the most authoritative source of free, web-based multi-lingual information about MS. This initiative has been generously sponsored by Waters Corporation. Also, IMSF will be selecting the site to host the inaugural international MS school in 2013. The IMSF funding for speakers to attend affiliate MS conferences has also been implemented and the South African Association for MS (SAAMS) has been the first to be sponsored. This program is designed to help spread the "MS-word" to under-resourced areas.

It is also my great pleasure to congratulate Dr. Ruedi Aebersold (nominated by the Swiss Group for Mass Spectrometry); Dr. Alexander Markarov (nominated by the British Society for Mass Spectrometry); and Dr. František Tureček (nominated by the Czech Society for Mass Spectrometry) who have been selected by IMSF affiliate societies to receive the Thomson medal for outstanding achievements in MS and for distinguished service to international MS, and Dr. Zheng Ouyang from Purdue University for who will receive the Curt Brunnée award, generously sponsored by Thermo Fisher Scientific and made to a young mass spectrometrist for outstanding contributions to the development of MS instrumentation.

For an even brighter future of MS, it is also a privilege for me, as the IMSF president, to congratulate the five young mass spectrometrists: Zoe Hall (University of Oxford), Nicolas Dietl (Technische Universität Berlin), Fan Chen (ETH Zürich), David Marshall (University of Wollongong) and Daniel G. Beach (University of Guelph) for being selected to receive the Journal of Mass Spectrometry Award generously sponsored by Wiley. We also congratulate the 26 students from all over the world who have received IMSF travel scholarships to help them attend the Kyoto Conference.

I also want to deeply thank Prof. Yoshinao Wada for the presidency and all his colleagues from the Japanese MS Society for participating in the organizing committee and for all their efforts that have resulted in a very-well organized conference full of MS novelties and both scientific and social excitement. Congratulations also to all of you who have contributed to the 19th IMSC; very well done indeed! Enjoy the conference, I am sure you will have a most enjoyable and rewarding time in Kyoto. And by the end of the week, please start planning your attendance at the 20th IMSC to be held in Geneva in 2014.

Previous, Current and Future IMSCs

1st Meeting	London, UK	1958	11th Meeting	Bordeaux, France	1988
2nd Meeting	Oxford, UK	1961	12th Meeting	Amsterdam, The Netherlands	1991
3rd Meeting	Paris, France	1964	13th Meeting	Budapest, Hungary	1994
4th Meeting	Berlin, Germany	1967	14th Meeting	Tampere, Finnland	1997
5th Meeting	Brussels, Belgium	1970	15th Meeting	Barcelona, Spain	2000
6th Meeting	Edinburgh, UK	1973	16th Meeting	Edinburgh, UK	2003
7th Meeting	Florence, Italy	1976	17th Meeting	Prague, Czech Republic	2006
8th Meeting	Oslo, Norway	1979	18th Meeting	Bremen, Germany	2009
9th Meeting	Vienna, Austria	1982	19th Meeting	Kyoto, Japan	2012
10th Meeting	Swansea, UK	1985	20th Meeting	Geneva, Switzerland	2014

Important Addresses:

Chair of the 19th International Mass Spectrometry Conference
Prof. Dr. Yoshinao Wada
Department of Molecular Medicine
Osaka Medical Center and Research Institute for Maternal and Child Health.
840 Murodo-cho, Izumi
Osaka 594-1101, Japan
Phone: +81 725 57 4105
Fax: +81 725 57 3021
E-mail: imsc@mch.pref.osaka.jp

19th IMSC Venue:
Kyoto International Conference Center (ICC Kyoto)
Takaragaike, Sakyo-ku
Kyoto 606-0001, Japan
Phone: +81 75 705 2001 (Sep. 15～21) / +81 75 705 1234
Fax:+81 75 705 1100
E-mail: ask@icckyoto.or.jp

Conference Secretariat:
c/o Congress Corporation
3-6-13 Awajimachi, Chuo-ku
Osaka 541-0047, Japan
Phone: +81 6 6229 2555
Fax: +81 6 6229 2556
E-mail: imsc2012@congre.co.jp

IMSF Governing, IMSF Executive and Local Organizing Committees

International Mass Spectrometry Foundation (IMSF)

Executive Committee

Marcos N Eberlin (Brazil) — President
John C Traeger (Australia) — Past President
Catherine E Costello (United States of America) — Vice President (Society)
Yoshinao Wada (Japan) — Vice President (Conference)
Dietmar Kuck (Germany) — Treasurer
G John Langley (United Kingdom) — Secretary
Einar Uggerud (Norway) — Region A Representative
Jen-taie Shiea (Taiwan) — Region B Representative
Paul M Mayer (Canada) — Region C Representative

International Mass Spectrometry Foundation (IMSF) - Affiliates

Argentina	**Gabriela M Cabrera**	Japan	**Ryuichi Arakawa**
Australia/New Zealand	**Stephen Blanksby**	Korea	**Kyuseok Song**
Austria	**Gunter Allmaier**	The Netherlands	**Christian H Grun**
Belgium	**Jan Van Boxclaer**	Norway	**Einar Uggerud**
Brazil	**Fabio Gozzo**	Peoples Republic of China	**Jin-Ying Li**
Canada	**Michael Siu**	Poland	**Piotr Stefanowicz**
Croatia	**Mario Cindric**	Portugal	**Maria Helena Florencio**
Czech Republic	**Michal Holcapek**	Romania	**Zaharie Moldovan**
Denmark	**Steen Pontoppidan**	Russia	**Albert Lebedev**
Egypt	**Ezzat Selim**	Singapore	**Manfred Raida**
Finland	**Tiina Kauppila**	Slovakia	**Vladimir Kovacik**
France	**Olivier Laprévote**	Slovenia	**Helena Prosen**
Germany	**Juergen Grotemeyer**	South Africa	**Egmont Rohwer**
Hellenic	**Anthony Tsarbopoulos**	Spain	**Damia Barcelo**
Hong Kong	**Terence Chuen-wai Poon**	Sweden	**Jonas Bergquist**
Hungary	**Laszlo Lelik**	Switzerland	**Marc Suter**
India	**Suresh Aggarwal**	Taiwan	**Yu-Ju Chen**
Ireland	**Edward Malone**	Ukraine	**Marina Kosevich**
Israel	**Tsippy Tamiri**	United Kingdom	**Susan Crosland**
Italy	**Gianluca Giorgi**	United States of America	**Scott McLuckey**

Local Organizing Committee

Yoshinao Wada — Chair
Koichi Tanaka — Co-Chair
Michisato Toyoda — Secretary
Takemichi Nakamura — Treasurer
Toshifumi Takao — Scientific Programme
Hiroshi Yamaoka — Social Programme
Mitsuo Takayama — Fund-Raising
Yasuo Mizooku — Company Support
Kazuo Furusawa — Local Support

Scientific Programme Committee

Toshifumi Takao — Chair

Local Members

Satoko Akashi
Satoka Aoyagi
Ryuichi Arakawa
Toshiyuki Azuma
Takeshi Bamba
Shigeo Hayakawa
Kenzo Hiraoka
Takafumi Hirata
Yasushi Ishihama
Morio Ishihara
Akira Ishii
Shigeki Kajihara
Shinobu Kudoh
Tsutomu Masujima
Jiro Matsuo
Hiroyuki Matsuzaki
Fuminori Misaizu
Keisuke Nagao
Yasuhide Naito
Takemichi Nakamura
Toyofumi Nakanishi
Takeshi Nakano
Yoshiya Oda
Tomoyuki Oe
Masataka Ohkubo
Hiroaki Sato
Takaya Satoh
Mitsutoshi Setou
Yosuke Shigematsu
Shuichi Shimma
Toshiki Sugai
Ryo Taguchi
Mitsuo Takayama
Takae Takeuchi
Koichi Tanaka
Michisato Toyoda
Yoshinao Wada
Kentaro Yamaguchi
Hiroshi Yamaoka

Overseas Members

Hyun Joo An
Stephen Blanksby
Dominic T W Chan
Ajai Chaudhary
Richard B Cole
Catherine E Costello
Catherine Fenselau
David Fenyö
Jean Futrell
Anastassios Giannakopulos
Peter Haglund
Myung Soo Kim
Jinying Li
Joseph A Loo
DaeWon Moon
Evgeny N Nikolaev
Bela Paizs
Gavin E Reid
Jentaie Shiea
Seung-Koo Shin
Jane Thomas-Oates
Vicki H Wysocki
Renato Zenobi
Roman A Zubarev

20th IMSC
International Mass Spectrometry Conference
Geneva, Switzerland
August 24–29, 2014

20th International Mass Spectrometry Conference
Geneva, Switzerland
August 24-29, 2014
Conference web site http://www.imsc2014.ch/

The 20th International Mass Spectrometry Conference will be held in Geneva, Switzerland. It will be jointly organized by the Swiss Group for Mass Spectrometry (SGMS), the French Mass Spectrometry Society (SFSM) and the Division of Mass Spectrometry of the Italian Chemical Society (DSM). Geneva, in the French-speaking part of Switzerland, is a buoyant, international city with an excellent infrastructure. Many international organizations have their headquarters in Geneva, including the UN and the WHO. Located in the heart of Europe, close to the Swiss alps, and well connected to many destinations worldwide by air and train, Geneva is a popular city that hosts many international conferences. We proudly invite you to attend the 20th IMSC in Geneva!

Venue
The conference will be held at the newly renovated International Conference Centre in Geneva (CICG; www.cicg.ch), a very modern, centrally located facility, which offers room for up to 2,200 persons.

Scientific Program
The program will consist of plenary lectures (including award lectures, and a couple of plenaries outside the area of mass spectrometry) and a technical program of 4 parallel sessions, grouped around 7 main topics that will reflect the latest developments in mass spectrometry. Keynote and contributed oral presentations will be complemented by workshops and poster sessions.

Accommodations
Geneva has a wide range of hotels – from five-star accommodations to an above average number of inexpensive accommodations for students and budget travelers that cost less than € 30 per night. 2,000 hotel rooms in all categories have already been tentatively reserved for 2014.

Exhibition and Sponsorship
An exhibition will be organized during IMSC2014. More detailed information will be available on the website or from the conference office in due time.

Organizing Committee
Marc Suter & Renato Zenobi (co-chairs). Ruedi Aebersold, Günter Allmaier, Silvia Catinella, Leopoldo Ceraulo, Julia Chamot-Rooke, Laurent Fay, Eric Forest, Gianluca Giorgi, Detlef Günther, Gerard Hopfgartner, Olivier Laprévote, Markus Stöckli.

Conference Office
the conference office will be in the hands of a professional conference organizer located in Geneva:
Symporg SA, Rue Rousseau 30, CH-1201 Genève, Switzerland
(www.symporg.ch. Contact: M. Bertrand Joehr, bjoehr@symporg.ch)

THOMSON MEDAL

The International Mass Spectrometry Foundation will present the 2012 **Thomson Medals** at the 19th International Mass Spectrometry Conference, Kyoto.

The winners are:

Prof. Ruedi Aebersold
Dr. Alexander Makarov
Prof. František Tureček

The award ceremony and lectures will be held in the Main Hall on Wednesday, 19th September, 08:00 (ceremony) and on Thursday, 20th September, 17:10 (lectures).

Ruedi Aebersold is the Professor in Molecular Systems Biology the ETH (Swiss Federal Institute of Technology) Zurich, Switzerland and the University of Zurich. He received his undergraduate and PhD degrees in cell biology from the Biozentrum at the University of Basel, Switzerland. He trained as a postdoctoral fellow at Caltech with Lee Hood and had his first faculty appointment at the University of British Columbia in Vancouver, Canada. In 1993 he moved to the University of Washington and in 2000 he co-founded, with Lee Hood and Alan Aderem, the Institute for Systems Biology in Seattle. In 2004 he assumed his present position at ETH Zurich and the University of Zurich in Switzerland. He serves on the advisory boards of a number of academic and private sector organizations.

His research is focused on the development and application of mass spectrometric techniques to study the proteome, the ensemble of proteins expressed by a cell or tissue. Specifically, his group has been interested in the quantitative analysis of the proteome, in developing publicly accessible, open source computational tools and data resources for the statistically sound analysis of large scale proteomics datasets, on the development of targeted mass spectrometric methods for the reproducible analysis of clinical samples and on the use of chemical reagents and mass spectrometry to probe to structure of protein complexes.

Prof. Ruedi Aebersold is the recipient of several awards for his research, including the ASBMB Herbert Sober award (2009) the Otto Naegeli Prize (2009), the ABRF Award (2008), the FEBS Buchner Medal (2006), the HUPO Achievement Award (2005), the ASMS Biemann medal (2002) and the 2003 World Technology award. He is a member of EMBO and has published more than 500 scientific papers.

Alexander A Makarov is Director of Research in Life Sciences Mass Spectrometry business of Thermo Fisher Scientific in Bremen, Germany since 2007. He obtained his MSc in Technical Physics from Moscow Physics-Engineering Institute (MPEI), Russia in 1989 and his PhD in Physics and Mathematics with Prof. A.A. Sysoev in 1992 in the same institution.

After two years in a post-doc position in Warwick University, UK, he joined a small high-tech company HD Technologies in Manchester, UK. There he has started his work on the Orbitrap mass analyzer. Following the acquisition of HD Technologies by Thermo Electron Corporation in 2000, Alexander has provided scientific leadership of the Orbitrap research and development which led to the commercial release of LTQ Orbitrap tandem mass spectrometer in 2005. Since then he continues to provide scientific guidance on further extensions of this instrument family as well as a new Exactive/ Q Exactive family of instruments. His research focuses on the strategic goal of bringing Orbitrap-based mass spectrometry into new analytical applications.

Dr. Makarov has been the recipient of several awards for his research, including Heinrich-Emmanuel Merck award (2007), Gold medal of Russian Mass Spectrometry Society (2007), Award of American Society of Mass Spectrometry for Distinguished Contribution in Mass Spectrometry (2008), Curt Brunnee research award of International Society for Mass Spectrometry (2009), Science and Technology Award of Human Proteome Organization (2011) and others. He is among authors of more than 40 papers and more than 50 patents and patent applications.

František Tureček is Professor of Chemistry at University of Washington, Seattle. He received a BS in Chemistry from Charles University, Prague, where he also obtained an M.S. and a Ph.D. in Organic Chemistry. In 1977-1987 he was Research Scientist at the J. Heyrovsky Institute of Physical Chemistry and Electrochemistry in Prague, Czechoslovakia. In 1987 he left Czechoslovakia, and after 11 months in a refugee camp in Austria he rejoined Fred McLafferty at Cornell University as a Post-Doctoral Associate and Lecturer. In 1990 joined the faculty at University of Washington where he chaired the Analytical Chemistry Division (1992-2007). His research interests range from fundamental topics of ion chemistry and reaction mechanisms through instrumentation and development of new analytical techniques to applications of mass spectrometry in diagnostics and newborn screening.

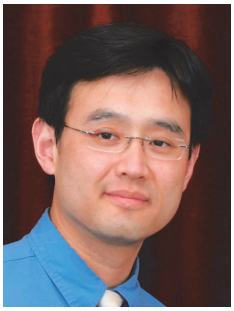
Prof. Tureček is author of over 360 scientific papers, over 20 review articles and book chapters, and 3 books, among them the 4th Edition of Interpretation of Mass Spectra. He served as Secretary and on several committees of the American Society for Mass Spectrometry and is an Honorary Member of the Czech Society of Mass Spectrometry. He is one of the founding Editors of Journal of Mass Spectrometry and has served on editorial and advisory boards of several journals.

CURT BRUNNÉE AWARD sponsored by ThermoFisher Scientific

This award is generously sponsored by ThermoFisher Scientific and is presented to an individual for **"outstanding contributions to the development of instrumentation for mass spectrometry by a person under the age of 45 at the time of award"**.

The award ceremony and lecture will be held in the Main Hall on Wednesday, 19th September, 08:00 (ceremony) and 08:30 (lecture).

The winner is: Dr. Zheng Ouyang



Zheng Ouyang is currently an Associate Professor in the Weldon School of Biomedical Engineering at Purdue University in West Lafayette, Indiana, USA. He started as an engineering student in Automatic Control at Tsinghua University in Beijing, China and obtained a bachelor's and a master's degree from the Department of Automation. He then went to the University of West Virginia in Morgantown, West Virginia, USA to study Raman spectroscopy and received his 2nd master's degree in Physical Chemistry. In 1997, he went to Purdue University to explore Mass Spectrometry and received his Ph. D in Analytical Chemistry in 2002. He stayed at Purdue as a postdoctoral fellow and later a research scientist and joined the Department of Biomedical Engineering as an assistant professor in 2007.

Dr. Ouyang has a broad interest in developing instrumentation and applications for mass spectrometry. He has established and maintained a research group consisting of students and researchers with knowledge and complementary skills in Engineering, Physics, and Chemistry. His main achievements in research include the electromagnetic and hydrodynamic simulation methods for ion transfer and mass analysis, algorithms and methods for signal and data processing, ion trap mass analyzers and arrays of simple geometries, discontinuous atmospheric pressure interface for miniature vacuum systems, low temperature plasma probe and paper spray ionization for direct chemical analysis, and miniature MS analysis systems for chemical analysis and biomedical diagnosis.

Dr. Ouyang has published more than 90 research papers and received several awards including the Wallace H. Coulter Foundation Early Career Translational Research Award in Biomedical Engineering, China National Natural Science Foundation Award for Distinguished Oversea Young Scholars, USA National Science Foundation Early Career Award, and the American Society for Mass Spectrometry Research Award.

5th Journal of Mass Spectrometry Awards Symposium

The **Journal of Mass Spectrometry** Award Symposium is held every 3 years on the occasion of the International Mass Spectrometry Conference. The fifth symposium will take place in conjunction with the 19th International Mass Spectrometry Conference in the Room B-1 on Thursday, 20th September, at 09:00.

The winners of the Postgraduate Awards are:

Fan Chen
ETH Zurich, Switzerland:
Integral Membrane Proteins by High-mass MALDI-MS: Direct Access to the Stoichiometry of their Complexes and to Posttranslational Modifications

Nicolas Dietl
Technical University Berlin, Germany:
Great Insights from a Small System: Structure and Reactivity of $[VPO_4]^{\cdot +}$ in comparison with $[V_2O_4]^{\cdot +}$

Zoe Hall
University of Oxford, UK:
Charge-State Dependent Compaction and Dissociation of Protein Complexes: Insights from Ion Mobility and Molecular Dynamics

David Marshall
University of Wollongong, Australia:
Odd Products from Even-electron Ions: Exploiting Charge-remote Bond Homolysis to Compare Bond Dissociation Energies

Daniel Beach *
University of Guelph, Canada
Quantitative Capabilities of Non-Target Analysis of Urine Using ESI-FAIMS-MS/MS
(* not attending Symposium)

Generous Sponsors of 19th International Mass Spectrometry Conference

Platinum Medal Sponsors

AB SCIEX

Agilent Technologies

JEOL

SHIMADZU
Excellence in Science

Thermo
SCIENTIFIC

Waters
THE SCIENCE OF WHAT'S POSSIBLE.™

Gold Medal Sponsor

BRUKER

Silver Medal Sponsors

HORIBA
Explore the future

Hudson
Surface
Technology

PEAK
SCIENTIFIC

PHOTONIS

Local Support Societies and Organizations

The Chemical Society of Japan
The Pharmaceutical Society of Japan
The Japan Society for Analytical Chemistry
The Japanese Biochemical Society
Japan Society for Bioscience, Biotechnology, and Agrochemistry
Japanese Society for Food Hygiene and Safety
The Japanese Society for the Study of Xenobiotics
Atomic Energy Society of Japan
The Japan Society of Applied Physics
The Atomic Collision Society of Japan
Japan Society for Environmental Chemistry
The Japan Institute of Metals
The Surface Science Society of Japan
The Ceramic Society of Japan
Japanese Society for Biomedical Mass Spectrometry
The Japan Society of Plasma Science and Nuclear Fusion Research
The Society of Polymer Science, Japan
The Japan Society of Calorimetry and Thermal Analysis
The Spectroscopical Society of Japan
The Vacuum Society of Japan
The Society for Biotechnology, Japan
Japan Analytical Instruments Manufacturers' Association
Japan Human Proteome Organization

Kyoto Prefecture
Kyoto City
Kyoto Chamber of Commerce and Industry
Kyoto Convention Bureau
Kyoto Prefectural Board of Education
The Kyoto Shimbun Newspaper Co., Ltd.

The Kato Memorial Bioscience Foundation
Suntory Institute for Bioorganic Research

Matrix Science K. K.
JCL Bioassay Corporation
DAINIHON JOCHUGIKU Co.,Ltd.
DAIICHI SANKYO COMPANY, LIMITED
Taisho Pharmaceutical Co., Ltd.
Ajinomoto Co., Inc.

Commemorative Organization for the Japan World Exposition '70

List of Exhibitors

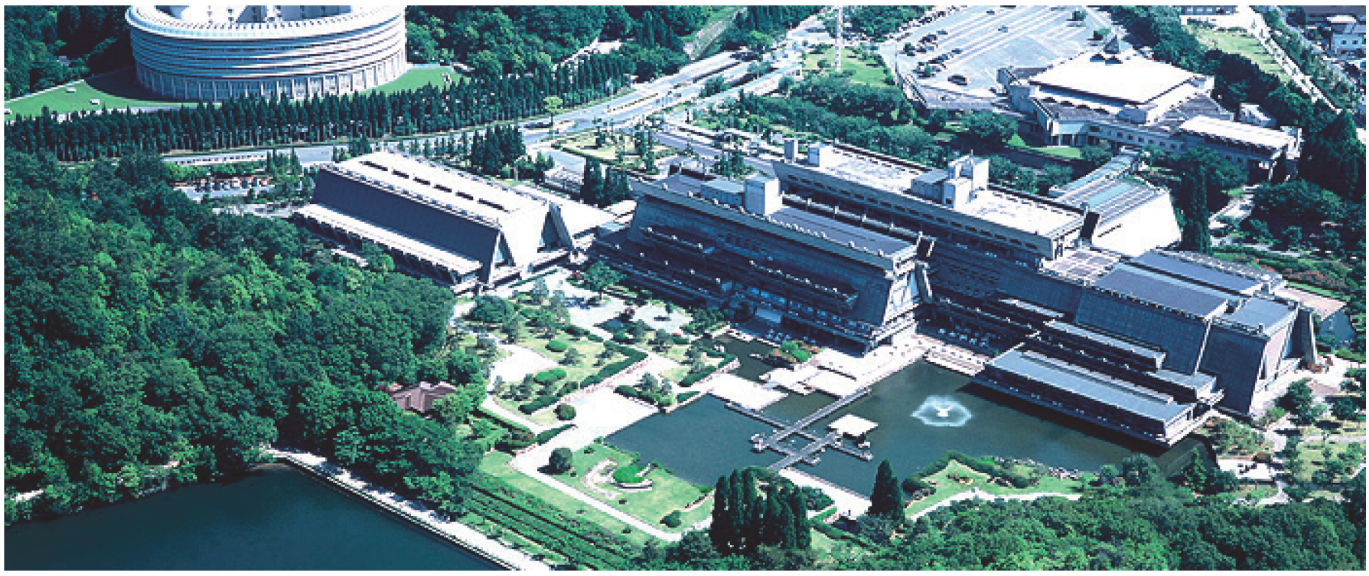
Company	Booth	Company Room
AB SCIEX	B	Room H
Advion, Inc.	5	
Agilent Technologies, Inc.	A	Room G
Antec	37	
APRIORI CORPORATION	38	
Biologica Co.	39	
Biotage JAPAN, Ltd.	4	
Bruker	E	Room J
CTC Analytics AG	2,3	
Fujitsu Limited	36, 43	
GL Sciences Inc.	49	
Hakuto Co., Ltd.	14	
HAMAMATSU PHOTONICS K.K.	45	
Hitachi, Ltd. Central Research Laboratory	7	
HORIBA,Ltd.	10,11	
Hudson Surface Tech	15,16	
INFOCOM CORPORATION	27	
IONICON Analytik GmbH	9	
IONICS Mass Spectrometry	38	
IonSense, Inc. / AMR, Inc.	48	
JCL Bioassay Corporation	50	
JEOL Ltd.	C	Room K
LECO Corporation	41	
LMS Co. Ltd.	42	
Matrix Science K.K.	29	
MS NOISE	6	
Nihon Pall Ltd.	44	
PEAK SCIENTIFIC JAPAN KK	12,13	
PHOTONIS USA	25,26	
Phytronix Technologies Inc.	28	
Polymer Factory Sweden AB	46	
Shimadzu Corporation	F	Room I
SYSTEM INSTRUMENTS CO., LTD	8	
Thermo Fisher Scientific	17~24	
ULVAC-PHI, Inc.	1	
VRS	30	
Waters Corporation	D	Room F
YMC Co., Ltd.	40	
Zivak Technologies	47	

List of Publications' Exhibitors

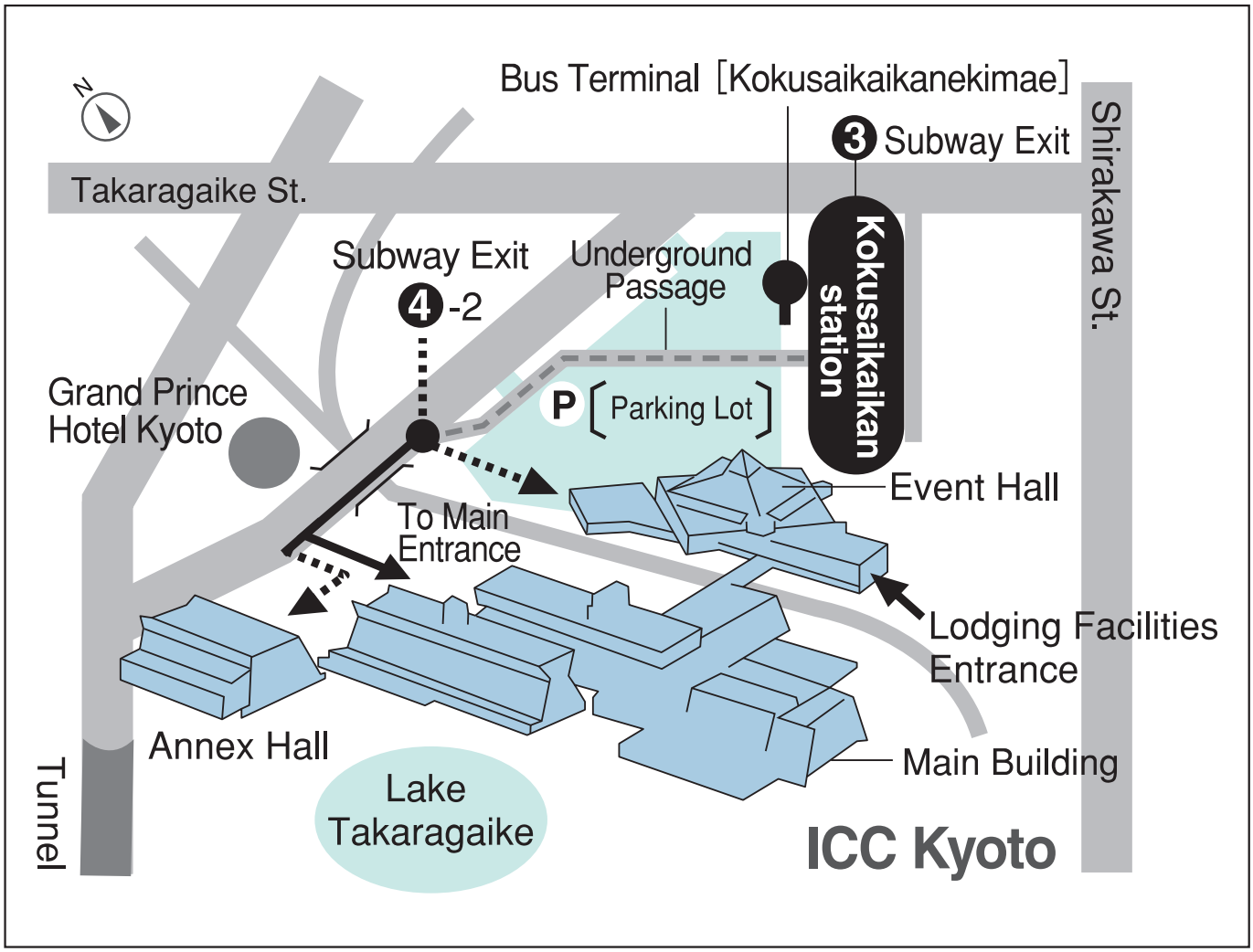
Company	Table
AAAS/Science	H
IM Publications LLP	I
Imtakt Corporation	E
Merck Ltd.,Japan	A
Mass Spectrometry Data Center, National Institute of Standards and Technology	D
The Mass Spectrometry Society of Japan / International Academic Printing Co., Ltd	G
NetWell Corporation	J
SGE Analytical Science Pty Ltd	F
Wiley	B&C

Conference Venue

Kyoto International Conference Center (ICC Kyoto)



ICC Kyoto Area Map



General Information

Conference Regulations

- Smoking is prohibited in the conference venue.
- Cell phones must be turned off during oral sessions.
- No photography and/or recording is allowed in any sessions, including posters.
- The placement of advertising in the conference venue is strictly prohibited unless approved by the conference organizers.
- No organized activities (even off-site) other than those approved by the conference organizers are allowed during conference week (15:30 on Sunday through 14:00 on Friday).
- Hardware, terminals, accessories, or any items for commercial advertisement may be displayed only in exhibit booths and corporate meeting rooms.

Official Conference Language

The official conference language is English. Simultaneous translation is not provided.

Registration Desk

The Registration Desk open hours:

Saturday, 15th September	09:30-17:00
Sunday, 16th September	09:30-19:00
Monday, 17th September	07:30-18:00
Tuesday, 18th September	
Wednesday, 19th September	
Thursday, 20th September	
Friday, 21st September	07:30-10:00

On-site registration ONLY AVAILABLE hours below (JPY cash or credit card is acceptable):

Sunday, 16th September	09:30-19:00
Monday, 17th September	07:30-18:00
Tuesday, 18th September	
Wednesday, 19th September	07:30-16:00
Thursday, 20th September	

The registration desk is located on Main Entrance.

Badges

The name badge must be worn and clearly displayed by each registered participant and accompanying person at all times during the conference. All participants will receive the badge upon registration. Access to the conference venue will not be granted without a proper name badge. If a participant loses or forgets to bring the name badge, a fixed handling fee of JPY 5,000 will be charged for a new name badge.

Registration Coverage

	Conference bag	19th IMSC programme	Abstract CD-ROM	Scientific programme	Exhibition	Opening Ceremony, Welcome Mixer & ARIGATO & SAYONARA
Regular	✓	✓	✓	✓	✓	✓
Student	✓	✓	✓	✓	✓	✓
Accompanying Person						✓

Accompanying persons are admitted to the Opening / Closing Ceremonies, Opening Plenary, Welcome Mixer and ARIGATO & SAYONARA ONLY. Accompanying persons will not be provided Conference bags.

Presentation Guidelines

−Oral Presentation

Length of presentations:

Plenary / Tutorial 45 minutes (introduction and 40 min talk)
Keynotes 40 minutes (introduction, 30 min talk, Q&A)
Other orals 20 minutes (15 min talk, Q&A)
Please adhere strictly to the start and finish times of the presentation. You should arrive in the session room 30 minutes before the start of your session.

Computer Data Projection

In order to avoid trouble arising from software incompatibility, the organizing committee recommends speakers to use their own laptop computer with an analog VGA (mini D-SUB 15 pin) connector for data projection. Please bring the AC 100V power adaptor for your computer. A VGA cable will be available to use.
Please bring your computer or USB flash drive with you to the session room 30 minutes before the start of your session and make sure you have tested your data projection in advance. Please visit the Speaker Preview Room one day before if you are using a USB flash drive. (See below for more details)
Please turn off the sleep-mode and screen saver of your computer prior to your presentation. The computer must be kept powered-on and AC 100V power supplied throughout the session to avoid any trouble.
All the meeting rooms are equipped with one projector that can be connected to either your laptop or a conference PC (for USB flash drive users). The data on the USB flash drive must be compatible with either the English version Power Point (2007, 2010) or Adobe Reader (ver. 10) on the Windows 7 conference PC.

Speaker Preview Room

Please check the compatibility of your data with the conference projection system in advance to ensure that your presentation can be correctly displayed. Speakers are fully responsible for the functionality of their presentations. If you bring a USB flash drive containing your presentation, please visit the Speaker Preview Room one day before. The Speaker Preview Room is Room 104 on the 1st floor.
A technician in the Speaker Preview Room (Room 104 on the 1st floor) may assist you to solve problems that you may have with your presentation.

Opening Hours:

Sunday, 16th September	13:00-17:00
Monday, 17th September	08:00-17:00
Tuesday, 18th September	07:30-18:00
Wednesday, 19th September	
Thursday, 20th September	

—Poster Presentations

There will be poster sessions from Monday to Thursday. Authors of odd-numbered posters will present during the first core time (11:10 to 12:20), authors of even-numbered posters will present during the second core time (13:30 to 14:40). Authors must be present at their posters during the core time. Authors have to wear a "presenter badge". Presenter badges are available at the poster reception desk located at the entrance to the Event hall. Poster boards are labeled with the number corresponding to the last three digit of presentation number in the Final Program. All posters must be set up before 08:00 from Monday through Thursday.
Mounting time is from 7:30 to 8:00 and removal time is 17:00 to 17:30 from Monday through Thursday. After removal time organizers are not responsible for returning posted material to the authors.
Poster board specification: 1.80 m wide and 1.2 m high. Pushpins should be attached to the poster board for you to use and are also available at the poster reception desk.

Poster Mounting time		7:30-8:00
Poster Core Time	Odd-number	11:10-12:20
	Even-number	13:30-14:40
Poster Removing time		17:00-17:30

Exhibition

The exhibition will take place in the Event Hall and Room C-1.

Exhibition Opening Hours:

Sunday, 16th September	13:00-18:00
Monday, 17th September	09:00-18:00
Tuesday, 18th September	
Wednesday, 19th September	
Thursday, 20th September	

Conference Proceedings

The plenary and keynote lectures will be published shortly after the meeting in "Advance in Mass Spectrometry vol.19" as a special issue of an open access journal "*Mass Spectrometry*". ⟨http://mass-spectrometry.jp⟩

Workshops

Workshops are scheduled 17:15-19:15 on Monday, Tuesday and Wednesday. For details, please see the Workshop pages in this programme book.

Corporate Luncheon Seminars

Corporate luncheon seminars are scheduled 12:20-13:30 on Monday, Tuesday, Wednesday and Thursday. For more information, see the Company Luncheon Seminars' pages in this programme book.

Company	Date	Venue
AB SCIEX	Monday, 17th September Tuesday, 18th September Wednesday, 19th September Thursday, 20th September	Room A
Advion	Tuesday, 18th September	Room E
Agilent Technologies	Monday, 17th September Wednesday, 19th September	Room E
AMR	Thursday, 20th September	Room D
Bruker	Wednesday, 19th September	Main Hall
	Thursday, 20th September	Room E
JEOL	Monday, 17th September	Room D
Thermo Fisher Scientific	Tuesday, 18th September	Main Hall
SHIMADZU	Monday, 17th September Thursday, 20th September	Main Hall
	Tuesday, 18th September Wednesday, 19th September	Room D
Waters	Monday, 17th September Tuesday, 18th September Wednesday, 19th September Thursday, 20th September	Room B-1

Corporate Meeting Rooms

Meeting rooms may be open 15:00-18:00 on Sunday and open all day Monday through Friday. Meeting rooms are located in 1st floor and 2nd floor of ICC Kyoto.
The following companies offer a meeting room as indicated:

AB Sciex	Room H
Agilent Technologies	Room G
Bruker	Room J
JEOL	Room K
SHIMADZU	Room I
Waters	Room F

Coffee Breaks

Soft drinks may be available after the morning oral sessions and before the afternoon oral sessions.

Lunch

Lunch is not included in the registration fee.

Social Activities

- **Welcome Mixer**, Sunday, 16th September, 18:30–20:00, Swan in ICC Kyoto. Conference name badge is required.
- **Conference Banquet**, Thursday, 20th September, 18:30–21:00, Grand Prince Hotel Kyoto. Banquet fee is not included in the registration. Banquet ticket printed on name badge is required. Tickets are already sold out.
- **ARIGATO & SAYONARA**, Friday, 21st September, 13:00–13:45, Swan in ICC Kyoto. Conference name badge is required.

Information Board

Information of conference programme, society meetings, Lost and Found items etc. will be displayed on the information boards, located entrance/registration area on the 1st floor.

Internet Connections / International Phones

Wireless LAN connection is available in Main Lounge, Main Lobby and at the entrance of Event hall (see page 27). Business center with internet connection and international telephone service are located on the 1st floor.

First Aid

If you need first aid, please contact the registration desk.

Cloakroom

The cloakrooms are located near the main Entrance. Valuables cannot be checked in the Cloakroom.

Opening Hours:

Sunday, 16th September	13:00-21:00
Monday, 17th September	07:30-20:00
Tuesday, 18th September	
Wednesday, 19th September	
Thursday, 20th September	
Friday, 21st September	07:30-15:00

Certificate of Attendance / Presentation

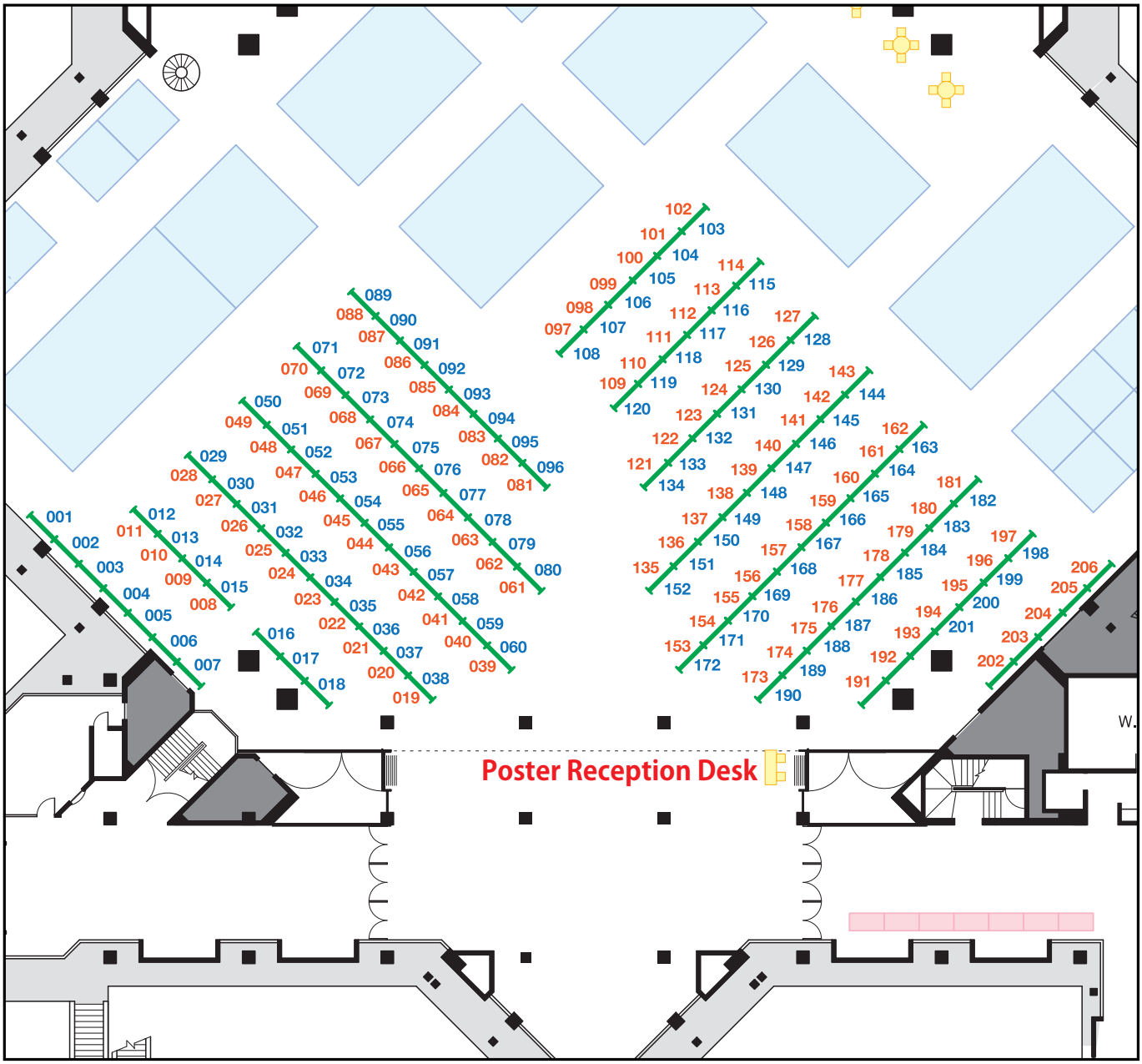
A certificate of attendance and/or presentation will be issued at registration desk.

Insurance

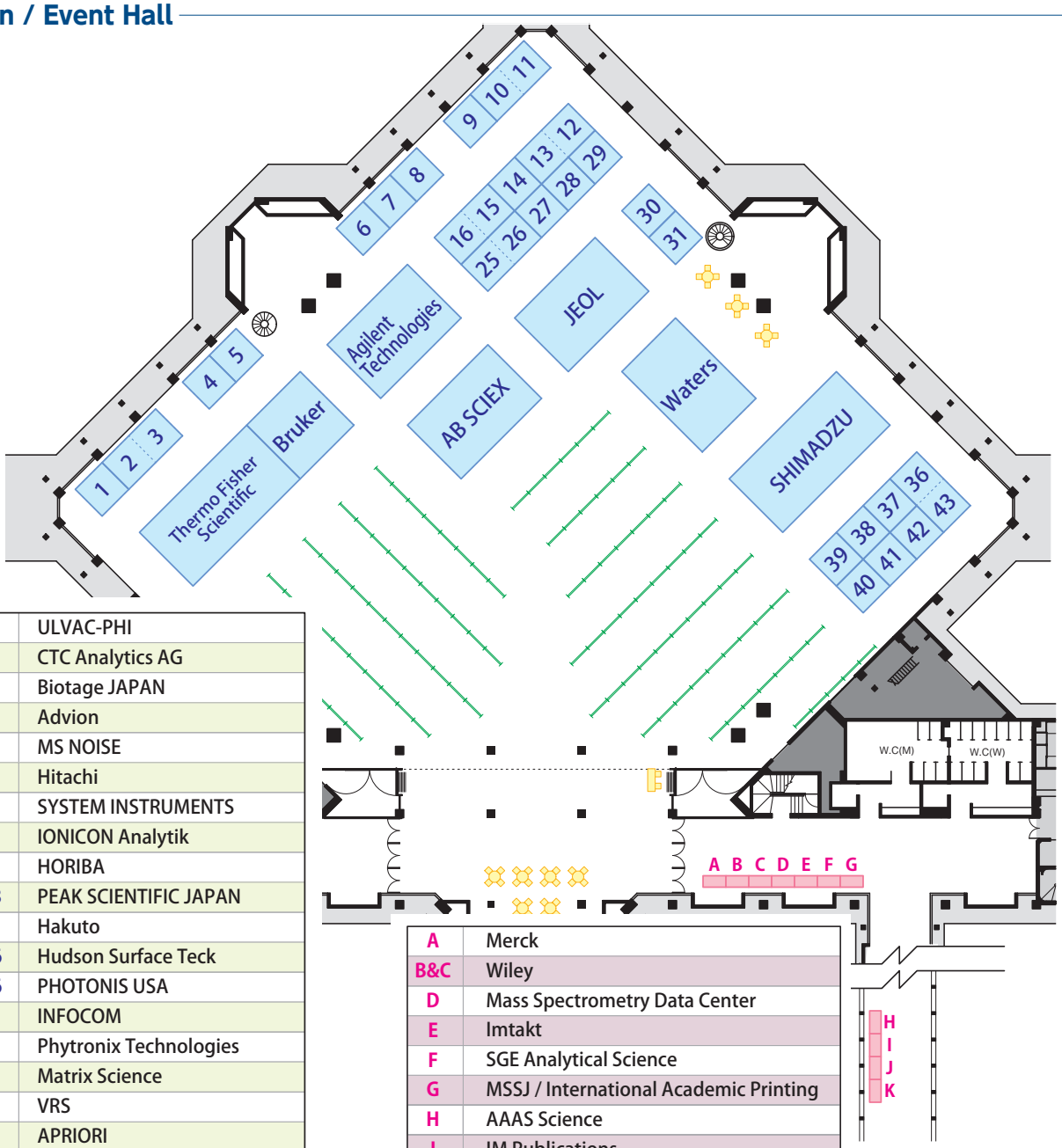
The conference organizers cannot accept liability for personal injuries sustained, or for loss or damage of properties belonging to conference participants (or their accompanying persons), either during or as result of the conference.
Please check validity of your insurance.

Venue Floor Plans

Poster Presentation / Event Hall



Exhibition / Event Hall

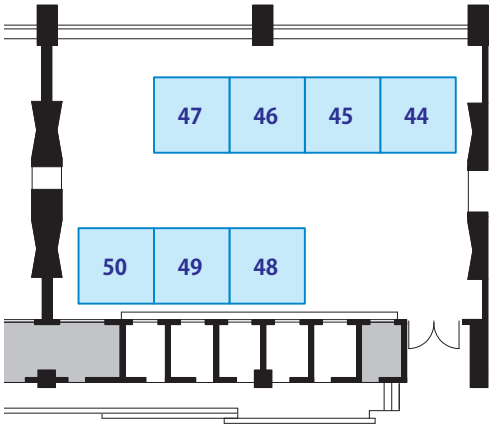


1	ULVAC-PHI
2,3	CTC Analytics AG
4	Biotage JAPAN
5	Advion
6	MS NOISE
7	Hitachi
8	SYSTEM INSTRUMENTS
9	IONICON Analytik
10,11	HORIBA
12,13	PEAK SCIENTIFIC JAPAN
14	Hakuto
15,16	Hudson Surface Teck
25,26	PHOTONIS USA
27	INFOCOM
28	Phytronix Technologies
29	Matrix Science
30	VRS
31	APRIORI
36,43	Fujitsu, ACD/Labs
37	Antec
38	IONICS Mass Spectrometry
39	Biologica
40	YMC
41	LECO Japan
42	LMS

44	Nihon Pall
45	HAMAMATSU PHOTONICS
46	Polymer Factory Sweden AB
47	Zivak Technologies
48	IonSense / AMR
49	GL Sciences
50	JCL Bioassay

A	Merck
B&C	Wiley
D	Mass Spectrometry Data Center
E	Imtakt
F	SGE Analytical Science
G	MSSJ / International Academic Printing
H	AAAS Science
I	IM Publications
J	NetWell
K	IMSC2014

Exhibition / Room C-1

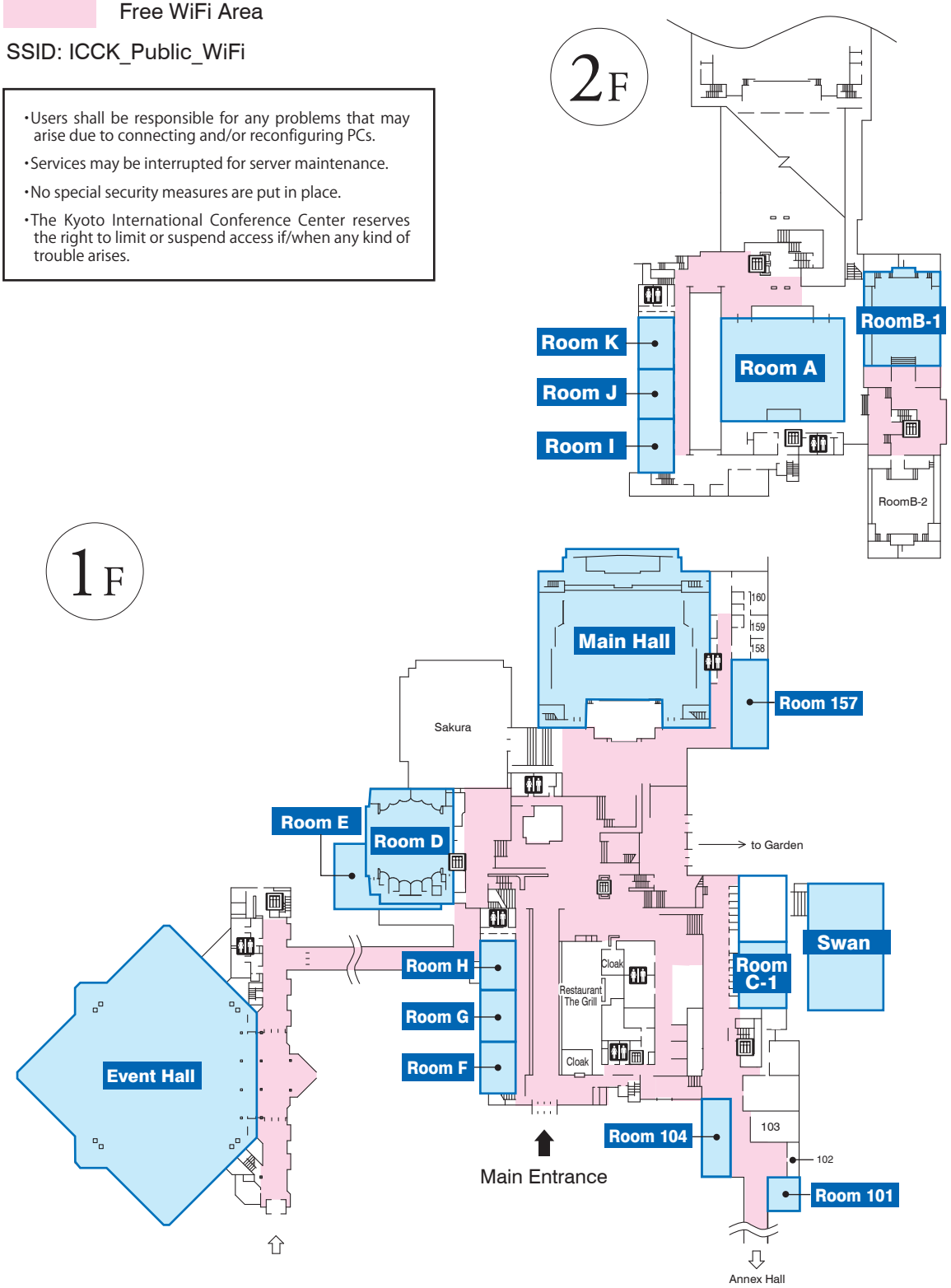


Wifi Map

Free WiFi Area

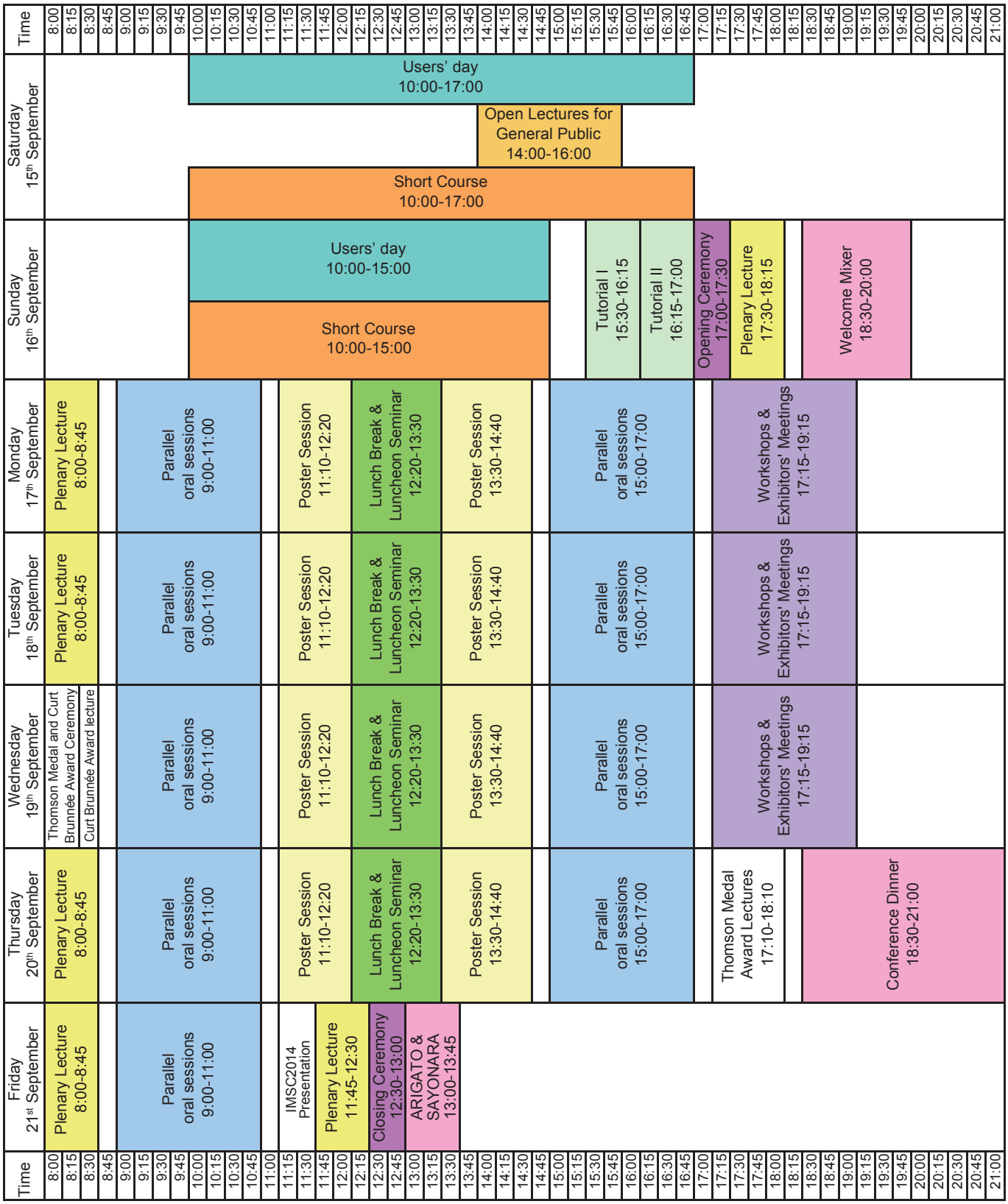
SSID: ICCK_Public_WiFi

- Users shall be responsible for any problems that may arise due to connecting and/or reconfiguring PCs.
- Services may be interrupted for server maintenance.
- No special security measures are put in place.
- The Kyoto International Conference Center reserves the right to limit or suspend access if/when any kind of trouble arises.



To Banquet
(Grand Prince Hotel Kyoto)

Week at a glance



Timetable

Saturday, 15th September

	Main Hall	Room A	Room 103	Room C-1	Room C-2
10:00		10:00–17:00	10:00–17:00	10:00–17:00	10:00–17:00
11:00					
12:00					
13:00		**Users' Day** (AB SCIEX)	**Short Course** Fragmentation Methods, Their Fundamentals and Application in Proteomics Roman A Zubarev	**Short Course** Introduction to Imaging Mass Spectrometry Mitsutoshi Setou	**Short Course** Fundamentals of Mass Spectrometry O David Sparkman & Jürgen Gross
14:00	14:00–16:00 **Open Lectures for General Public (in Japanese)**				
15:00					
16:00					
17:00					
18:00					
19:00					

Sunday, 16th September

	Main Hall	Room A	Room C-2	Swan
10:00		10:00–15:00 **Users' Day** (SHIMADZU)	10:00–15:00 **Short Course** Fundamentals of Mass Spectrometry O David Sparkman & Jürgen Gross	
15:00	15:30–16:15 **Tutorial (Plenary) Lecture 1** Nico M M Nibbering			
16:00	16:15–17:00 **Tutorial (Plenary) Lecture 2** Michael L Gross			
17:00	17:00–17:30 **Opening Ceremony**			
	17:30–18:15 **Plenary Lecture 1** Hiroyuki Hamada			
18:00				18:30–20:00 **Welcome Mixer**
19:00				

13:00–18:00 Exhibition (Event Hall & Room C-1)

Monday, 17th September

Life Sciences | Medical Sciences | Fundamentals | Isotope Ratio MS
Instrumentation | Ionization | Environment / Microorganism

	Main Hall	Room A	Room B-1	Room D	Room E	Event Hall
8:00	8:00–8:45 **Plenary Lecture 2** David E Clemmer					7:30–8:00 **Mounting Posters**
9:00	9:00–11:00 **Session 1** Developments in Tandem Mass Spectrometry - Hybrid Instrumentation "The whole is greater than the sum of its parts" (Aristotle). Chair: Morio Ishihara Keynote: Alexander A Makarov	9:00–11:00 **Session 2** Advances in Methods and MS Instrumentation for Biomolecule Characterization Chair: Vicki H Wysocki Keynote: Andrea Sinz	9:00–11:00 **Session 3** Structures and Dynamics of Atomic and Molecular Clusters Chair: Fuminori Misaizu Keynote: Knut R Asmis	9:00–11:00 **Session 4** Imaging-I Chair: Mitsutoshi Setou Keynote: Ron Heeren	9:00–11:00 **Session 5** Advances in Spray Ionization Techniques Chair: Charles N McEwen Keynote: Kentaro Yamaguchi	**Poster Viewing Time**
11:00						11:10–12:20 **Poster Core Time** (Odd-number)
12:00						
13:00	12:20–13:30 **Luncheon Seminar** (SHIMADZU)	12:20–13:30 **Luncheon Seminar** (AB SCIEX)	12:20–13:30 **Luncheon Seminar** (Waters)	12:20–13:30 **Luncheon Seminar** (JEOL)	12:20–13:30 **Luncheon Seminar** (Agilent Technologies)	**Poster Viewing Time**
14:00						13:30–14:40 **Poster Core Time** (Even-number)
15:00	15:00–17:00 **Session 6** Novel Approaches in Proteomics Analysis Chair: Roman Zubarev Keynote: Joshua J Coon	15:00–17:00 **Session 7** New Ionization Methods and Related Topics for the Next Generation Chair: Kenzo Hiraoka Keynote: Robert Cody	15:00–17:00 **Session 8** Collision Dynamics and Spectroscopy Using Ion Storage Rings and Traps Chair: Haruo Shiromaru Keynote: Steen Brøndsted Nielsen	15:00–17:00 **Session 9** Imaging-II Chair: Jiro Matsuo Keynote: Nick Winograd	15:00–17:00 **Session 10** Ion Mobility Spectroscopy Based on Instrument & Theoretical Development Chair: Toshiki Sugai Keynote: Alexandre A Shvartsburg	**Poster Viewing Time**
16:00						
17:00		17:15–19:15 **3rd Asian-Oceanic MS Conference (AOMSC3) Day-1**	17:15–19:15 **Workshop 1** Mass Spectrometry of Polymers and Industrial Materials Organizer: Hiroaki Sato	17:15–19:15 **Workshop 2** Hydrogen/Deuterium Exchange Mass Spectrometry Organizer: Yoshitomo Hamuro, Rachel Garlish	17:15–19:15 **(Reserved for MSSJ Local Meeting)**	17:00–17:30 **Removing Posters**
18:00						
19:00						

9:00–18:00 Exhibition (Event Hall & Room C-1)
(17:15–) Company Events and others (Room F, G, H, I, J, K)

Tuesday, 18th September

Life Sciences | Medical Sciences | Fundamentals | Isotope Ratio MS
Instrumentation | Ionization | Environment / Microorganism

	Main Hall	Room A	Room B-1	Room D	Room E	Event Hall
8:00						7:30–8:00 **Mounting Posters**
	8:00–8:45 **Plenary Lecture 3** Albert J R Heck					
9:00	9:00–11:00 **Session 11** Glycomics: From Disease Markers to Therapeutic Antibody Products Chair: Hyun joo An Keynote: Carlito Lebrilla	9:00–11:00 **Session 12** On-site Mass Spectrometry -Miniaturized Instruments and Allied Technologies- Chair: Shuichi Shimma Keynote: Zoltán Takáts	9:00–11:00 **Session 13** Accelerator Mass Spectrometry Chair: Hiroyuki Matsuzaki Keynote: Peter Steier	9:00–11:00 **Session 14** Ion-surface Collisions: Collision-induced Dissociation and Soft Landing Chair: Jean Futrell Keynote: Julia Laskin	9:00–11:00 **Session 15** Mass Spectrometry for Nuclear Applications and Safety Chair: Nobuo Takaoka Keynote: Yongzhong Ouyang	**Poster Viewing Time**
10:00						
11:00						11:10–12:20 **Poster Core Time** (Odd-number)
12:00						
13:00	12:20–13:30 **Luncheon Seminar** (Thermo Fisher Scientific)	12:20–13:30 **Luncheon Seminar** (AB SCIEX)	12:20–13:30 **Luncheon Seminar** (Waters)	12:20–13:30 **Luncheon Seminar** (SHIMADZU)	12:20–13:30 **Luncheon Seminar** (Advion)	**Poster Viewing Time**
14:00						13:30–14:40 **Poster Core Time** (Even-number)
15:00	15:00–17:00 **Session 16** Glycoanalytical Technology for Systems Glycobiology and Functional Glycomics Chair: Jane Thomas-Oates Keynote: Pauline M Rudd	15:00–17:00 **Session 17** Non-Covalent Ion–Molecule Interactions Chair: Seung-Koo Shin Keynote: Peter B Armentrout	15:00–17:00 **Session 18** Advances in Resolution and Accuracy of Isotope Ratio Analyses Chair: Takafumi Hirata Invited: Jochen Vogl	15:00–17:00 **Session 19** Mass Spectrometric Diagnosis Chair: Toyofumi Nakanishi Keynote: Renato Zenobi	15:00–17:00 **Session 20** The Ion formation and Dissociation Mechanisms in MALDI Chair: Myung Soo Kim Keynote: Richard Knochenmuss	**Poster Viewing Time**
16:00						
17:00		17:15–19:15 **3rd Asian-Oceanic MS Conference (AOMSC3) Day-2**	17:15–19:15 **Workshop 3** Careers in Mass Spectrometry Organizer: Tony Bristow	17:15–19:15 **Workshop 4** Mass++ and MassBank: Tools for Data Processing and Database on PC Organizer: Satoshi Tanaka, Takaaki Nishioka	17:15–19:15 **(Reserved for MSSJ Local Meeting)**	17:00–17:30 **Removing Posters**
18:00						
19:00						

9:00–18:00 Exhibition (Event Hall & Room C-1)
(17:15–) Company Events and others (Room F, G, H, I, J, K)

Wednesday, 19th September

Life Sciences | Medical Sciences | Fundamentals | Isotope Ratio MS
Instrumentation | Ionization | Environment / Microorganism

	Main Hall	Room A	Room B-1	Room D	Room E	Event Hall
8:00						7:30–8:00 **Mounting Posters**
	8:00–8:30 **Thomson Medal and Curt Brunnée Award Ceremony** 8:30–8:50 **Curt Brunnee Award Lecture**					
9:00	9:00–11:00 **Session 21** Platform Technology for Metabolomics Chair: Yoshiya Oda Keynote: Annie Evans	9:00–11:00 **Session 22** Instrumentation Developments in Mass Spectrometric Imaging Chair: Anastassios Giannakopulos Keynote: Bernhard Spengler	9:00–11:00 **Session 23** Gas Phase Fragmentation Mechanisms of Biomolecular Radicals Chair: Shigeo Hayakawa Keynote: Richard A J O'Hair	9:00–11:00 **Session 24** Regulated Bioanalysis Chair: Shinobu Kudoh Keynote: Tatsuo Kurokawa	9:00–11:00 **Session 25** New Approaches to Defining the Diversity of Glycans Chair: Catherine E Costello Keynote: Jane Thomas-Oates	**Poster Viewing Time**
10:00						
11:00						11:10–12:20 **Poster Core Time** (Odd-number)
12:00						
12:20–13:30	**Luncheon Seminar** (Bruker)	**Luncheon Seminar** (AB SCIEX)	**Luncheon Seminar** (Waters)	**Luncheon Seminar** (SHIMADZU)	**Luncheon Seminar** (Agilent Technologies)	
13:00						**Poster Viewing Time**
14:00						13:30–14:40 **Poster Core Time** (Even-number)
15:00	15:00–17:00 **Session 26** Lipidomics : Recent New Techniques and Applications Chair: Stephen Blanksby Keynote: Gavin E Reid	15:00–17:00 **Session 27** Progress in Microbiology Chair: Catherine Fenselau Keynote: Jeremy K Nicholson	15:00–17:00 **Session 28** IR Spectroscopy of Gas-phase Ions Chair: Dietmar Kuck Keynote: Philippe Maître	15:00–17:00 **Session 29** The Advances in Biological Mass Spectrometry in Drug Discovery and Development: Current State of the Art and Challenges Chair: Ajai Chaudhary Keynote: Ragu Ramanathan	15:00–17:00 **Session 30** Data Processing and Informatics for SIMS Chair: DaeWon Moon Keynote: David Castner	**Poster Viewing Time**
16:00						
17:00			17:15–19:15 **Workshop 5** Path to Next-Generation IMS: New Concepts, Advanced Instrumentation, and Leveraging the Ion-molecule Chemistry Organizer: Toshiki Sugai, Alexandre Shvartsburg	17:15–19:15 **Workshop 6** Mass Spectrometry for Food Safety Organizer: Jen-taie Shiea	17:15–19:15 (Reserved for MSSJ Local Meeting)	17:00–17:30 **Removing Posters**
18:00						
19:00						

9:00–18:00 Exhibition (Event Hall & Room C-1)
(17:15–) Company Events and others (Room F, G, H, I, J, K)

Thursday, 20th September

Life Sciences | Medical Sciences | Fundamentals | Isotope Ratio MS
Instrumentation | Ionization | Environment / Microorganism

	Main Hall	Room A	Room B-1	Room D	Room E	Event Hall
8:00	8:00–8:45 **Plenary Lecture 4** Hisayoshi Yurimoto					7:30–8:00 **Mounting Posters**
9:00	9:00–11:00 **Session 31** Native Mass Spectrometry and Structural Biology Chair: Satoko Akashi Keynote: Joseph A Loo	9:00–11:00 **Session 32** Formation and Dissociation of Peptide Radical Ions Chair: Dominic T W Chan Keynote: Roman A Zubarev	9:00–11:00 **Session 33** JMS Award Symposium Chair: Richard M Caprioli (Editor-in-Chief, JMS)	9:00–11:00 **Session 34** MS Informatics for Identification and Characterization Chair: Shigeki Kajihara Keynote: David Fenyö	9:00–11:00 **Session 35** Environment I Chair: Peter Haglund Keynote: Terry Bidleman	**Poster Viewing Time**
11:00						11:10–12:20 **Poster Core Time** (Odd-number)
12:00	12:20–13:30 **Luncheon Seminar** (SHIMADZU)	12:20–13:30 **Luncheon Seminar** (AB SCIEX)	12:20–13:30 **Luncheon Seminar** (Waters)	12:20–13:30 **Luncheon Seminar** (AMR INCORPORATED)	12:20–13:30 **Luncheon Seminar** (Bruker)	**Poster Viewing Time**
13:00						13:30–14:40 **Poster Core Time** (Even-number)
14:00	15:00–17:00 **Session 36** Advances in Ion Mobility Mass Spectrometry Chair: Joseph A Loo Keynote: Michael T Bowers	15:00–17:00 **Session 37** Challenges in High Resolution and High Accuracy Mass Measurement Mass Spectrometry Chair: Evgeny Nikolaev Keynote: Alan G Marshall	15:00–17:00 **Session 38** Mass Spectrometry for Metabolic Diseases Chair: Makoto Yoshino, Seiji Yamaguchi	15:00–17:00 **Session 39** MS Informatics for Quantitation Chair: David Fenyö Keynote: Jürgen Cox	15:00–17:00 **Session 40** Environment II Chair: Takeshi Nakano Keynote: Peter Haglund	**Poster Viewing Time**
15:00						
16:00						
17:00	17:10–18:10 **Thomson Medal Award Lectures**					17:00–17:30 **Removing Posters**
18:00						
19:00						Grand Prince Hotel Kyoto 18:30–21:00 **Banquet**

9:00–18:00 Exhibition (Event Hall & Room C-1)

Friday, 21st September

Life Sciences	Medical Sciences	Fundamentals	Isotope Ratio MS
Instrumentation	Ionization	Environment / Microorganism	

	Main Hall	Room A	Room B-1	Room D	Room E	Swan
8:00	8:00–8:45 **Plenary Lecture 5** Richard M Caprioli					
9:00	9:00–11:00 **Session 41** Chemistries of Trapped Ions and their Applications to Biological Mass Spectrometry Chair: Gavin E Reid Keynote: Scott A McLuckey	9:00–11:00 **Session 42** New Developments in Instruments and Detectors Chair: Takaya Sato Keynote: Evgeny N Nikolaev	9:00–11:00 **Session 43** Novel Proteomics Methodologies Chair: Yasushi Ishihama Keynote: Michael J MacCoss	9:00–11:00 **Session 44** Ambient Ionization Chair: Jentaie Shiea Keynote: Kenzo Hiraoka	9:00–11:00 **Session 45** Cell Biology / Cellular Pathways Chair: Renato Zenobi Keynote: Tsutomu Masujima	
10:00						
11:00	11:15–11:45 **IMSC 2014 Geneva Presentation**					
12:00	11:45–12:30 **Plenary Lecture 6** R Graham Cooks					
13:00	12:30–13:00 **Closing Ceremony**					13:00–13:45 **ARIGATO & SAYONARA**
14:00						

Sunday, 16th September Afternoon

Sun

Tutorial Lecture

15:30 – 16:15 Main Hall

Tutorial Lecture 1: Nico M M Nibbering

Chair: Ryuichi Arakawa
Kansai University, Japan

TL1-1530 15:30 – 16:15 **Selected examples of gas-phase ion chemistry studies.**

Nico M M Nibbering
Vrije Universiteit, Amsterdam, The Netherlands

Tutorial Lecture

16:15 – 17:00 Main Hall

Tutorial Lecture 2: Michael L Gross

Chair: Yoko Ohashi
RIKEN, Japan

TL2-1615 16:15 – 17:00 **"Can Mass Spectrometry Play a Role in Protein Biophysics and Structural Biology?"**

Michael L Gross, D Rempel, H Zhang, D Hambly, B Gau, J Chen, R Huang, J Zhang, L Jones, M Zhu
Washington University, St Louis, MO, USA

Plenary Lecture

17:30 – 18:15 Main Hall

Plenary Lecture 1: Hiroyuki Hamada

Chair: Koichi Tanaka
SHIMADZU Corp., Japan

PL1-1730 17:30 – 18:15 **Applied Conventional Technology- Look at Tradition for Our Future-**

Hiroyuki Hamada
Kyoto Institute of Technology, Kyoto, Japan

Monday, 17th September Morning

Plenary Lecture

08:00 – 08:45 Main Hall

Plenary Lecture 2: David E Clemmer

Chair: Peter J Derrick
Massey University, New Zealand

PL2-0800 08:00 – 08:45 **Development of Next Generation Ion Mobility/Mass Spectrometry Techniques**

David E Clemmer
Indiana University Department of Chemistry/Bloomington, IN/United States

Oral Session

09:00 – 11:00 Main Hall

Session 1: Developments in Tandem Mass Spectrometry - Hybrid Instrumentation "The whole is greater than the sum of its parts" (Aristotle).

Chair: Morio Ishihara
Osaka University, Japan

S01-0900 09:00 – 09:40 **[Keynote Lecture] Orbitrap-based hybrid mass spectrometers: synergy of analyzers**

Alexander A Makarov
ThermoFisher Scientific, Bremen, Germany

S01-0940 09:40 – 10:00 **High Mass Resolution MALDI TOF MS/MS With A Curved Field Reflectron (Or The CFR Comes Of Age)**

Andrew R Bowdler, Ian Brookhouse
Kratos Analytical Ltd, Manchester, UK

S01-1000 10:00 – 10:20 **High resolution, high aperture, high sensitivity TOF mass-spectrometers with expanded functionalities**

Aldan A Sapargaliyev[3], Igor F Spivak-Lavrov[2], Yerbol A Sapargaliyev[1,3]
[1]Scientific Center "REB", [2]Aktobe State University, Aktobe, Kazakhstan, [3]Scientific Center REB, Almaty, Kazakhstan

S01-1020 10:20 – 10:40 **On the way to the holy grail of CID (20 keV and C12 precursor ion): from MALDI-LinTOF/CF-RTOF- to MALDI-SpiralTOF/offset parabolic-RTOF-MS**

Guenter Allmaier[1], Ernst Pittenauer[1], Pavel Rehulka[2], Akihiko Kusai[3]
[1]Vienna University of Technology, Vienna, Austria, [2]University of Defence, Hradec Kralova, Czech Republic, [3]JEOL (Europe), Croissy-sur-Seine, France

S01-1040 10:40 – 11:00 **Identification of trace level process related impurities of small molecule Irbesartan, an angiotensin II receptor antagonist through MSMS analysis**

Saravanan Subramaniam, Raman Palvannanathan, Rampriya Uthayakumar, Govindarajan Chandramohan, Mohan Kasi, Arvind Thyagarajan, Manohar Venkat
Indian Institute of Chromatography & Mass Spectrometry

Monday, 17th September Morning

Oral Session

09:00 – 11:00 Room A

Session 2: Advances in Methods and MS Instrumentation for Biomolecule Characterization

Chair: Vicki H Wysocki
Ohio State University, USA

S02-0900 09:00 – 09:40 **[Keynote Lecture] Chemical Cross-Linking and Mass Spectrometry: A Fruitful Combination for Protein 3D-Structure Analysis**

Andrea Sinz
Martin-Luther University Halle-Wittenberg, Halle, Germany

S02-0940 09:40 – 10:00 **Applications of online- bioaffinity- mass spectrometry to structure and affinity determination of neurodegenerative proteins from brain material**

Stefan Slamnoiu[1], Camelia Vlad[1,2], Adrian Moise[1], Mihaela Stumbaum[1,2], Thomas Gronewold[2], Markus Perpeet[2], Michael Przybylski[1]
[1]Laboratory of Analytical Chemistry and Biopolymer Structure Analysis, Department of Chemistry, University of Konstanz, Germany
[2]SAW Instruments GmbH, Bonn, Germany

S02-1000 10:00 – 10:20 **Pinpointing individual sites that change conformation in large protein complexes by H/D exchange and ETD-MS**

Song Hongjian[1], Jeff M Brown[2], Steven D Pringle[2], Michael Morris[2], Kasper D Rand[1]
[1]Laboratory for Biomacromolecular Analysis, Advanced Drug Analysis Section, Department of Pharmacy, University of Copenhagen, Denmark, [2]Waters MS Technologies Centre, Manchester, UK.

S02-1020 10:20 – 10:40 **What happens on the histone multimers in the gas phase?**

Kazumi Saikusa[1], Sotaro Fuchigami[1], Kyohei Takahashi[1], Yuuki Asano[1], Aritaka Nagadoi[1], Hiroaki Tachiwana[2], Hitoshi Kurumizaka[2], Mitsunori Ikeguchi[1], Yoshifumi Nishimura[1], Satoko Akashi[1]
[1]Yokohama City University, Yokohama, Japan, [2]Waseda University, Tokyo, Japan

S02-1040 10:40 – 11:00 **Dibasic Site-Specific Proteolysis for Improved Bottom-Up and Middle-Down Proteomics**

Unige A Laskay[1], Upir Oxana[1], Luca Fornelli[1], Kozhinov N Anton[1], Michel Monod[2], Goran Mitulovic[3], Yury O Tsybin[1]
[1]Ecole Polytechnique Federale de Lausanne Switzerland, [2]Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland, [3]Medical University Vienna, Austria

Oral Session

09:00 – 11:00 Room B-1

Session 3: Structures and Dynamics of Atomic and Molecular Clusters

Chair: Fuminori Misaizu
Tohoku University, Japan

S03-0900 09:00 – 09:40 **[Keynote Lecture] Recent Advances in the Vibrational Spectroscopy of Mass-Selected Gas Phase Cluster Ions**

Knut R Asmis
Fritz-Haber-Institut der MPG, Berlin, Germany

S03-0940 09:40 – 10:00 **Laser desorption supersonic jet spectroscopy of neurotransmitter molecules and partial peptides of their receptors**

Shun-ichi Ishiuchi, Masaaki Fujii
Tokyo Institute of Technology, Yokohama, Japan

S03-1000 10:00 – 10:20 **The 'sticky business' of cleaning gas-phase membrane proteins: a detergent oriented perspective**

Antoni J Borysik, Carol V Robinson
University of Oxford

S03-1020 10:20 – 10:40 **Adsorption, Activation and Reaction of Molecules on Size-Selected Metal Cluster Ions**

Masahiko Ichihashi[1], Shinichi Hirabayashi[2]
[1]Toyota Technological Institute, Ichikawa, Japan, [2]Genesis Research Institute, Inc. Ichikawa, Japan

S03-1040 10:40 – 11:00 **Formation, Characterization and Reactivity of a Gaseous Adduct of Carbon Dioxide to Magnesium(I), HOMgCO2-**

Héloïse Dossmann (Soldi-Lose)[2], Carlos Afonso[3], Denis Lesage[2], Jean-Claude Tabet[2], Einar Uggerud[1]
[1]University of Oslo, [2]Pierre and Marie Curie University (Paris VI), [3]University of Rouen

Monday, 17th September Morning

Oral Session

09:00 – 11:00 Room D

Session 4: Imaging-I

Chair: Mitsutoshi Setou
Hamamatsu University School of Medicine, Japan

S04-0900 09:00 – 09:40 **[Keynote Lecture] Imaging molecular signals with multimodal imaging mass spectrometry**

Ron M Heeren
FOM-Institute AMOLF

S04-0940 09:40 – 10:00 **Single cell level mass spectrometry imaging for plant metabolites**

Young-Jin Lee[1,2]
[1]Iowa State University, Ames, USA/Iowa, [2]Ames Laboratory-USDOE, Ames, USA/Iowa

S04-1000 10:00 – 10:20 **Molecular Imaging of Cells and Tissues with Continuous Cluster Ion Beams**

Jiro Matsuo[1,2], Takaaki Aoki[1,2], Toshio Seki[1,2]
[1]Kyoto University, Kyoto, Japan, [2]JST, CREST

S04-1020 10:20 – 10:40 **Spatial Resolution of Metabolites during Barley Grain Development by Imaging Mass Spectrometric Analysis**

Manuela Peukert[1], Andrea Matros[1], Ales Svatos[2], Hans-Peter Mock[1]
[1]IPK Gatersleben, Germany, [2]MPI Jena, Germany

S04-1040 10:40 – 11:00 **Mass spectrometry imaging (MALDI-TOF/TOF) of drugs in a brain mouse model of Parkinson disease**

David Touboul[1], Hanane Kadar[1], Gael Le Douaron[2], Majid Amar[3], Bruno Figadère[2], Laurent Ferrié[2], Rita Raisman-Vozani[3], Alain Brunelle[1]
[1]ICSN CNRS, Gif-sur-Yvette, France, [2]UMR-8076 (BioCIS) Laboratoire de Pharmacognosie, Châtenay -Malabry, France, [3]INSERM UMR-S 975, CNRS UMR 7225, UPMC, CRIMC, Paris, France

Oral Session

09:00 – 11:00 Room E

Session 5: Advances in Spray Ionization Techniques

Chair: Charles N McEwen
University of the Sciences, USA

S05-0900 09:00 – 09:40 **[Keynote Lecture] Cold-Spray Ionization Mass Spectrometry**

Kentaro Yamaguchi
Tokushima Bunri University, Kagawa, Japan

S05-0940 09:40 – 10:00 **Mass Spectrometric Analyses of Isomeric Sugars, Lipids and their Conjugates: Introduction to "Charge-Localization Isomers"**

Yoko Ohashi[1,2], Masayuki Kubota[3], Takashi Hirano[2]
[1]RIKEN, Wako, Japan, [2]The Univ. of Electro.-Comm., Chofu, Tokyo, Japan, [3]ThermoFisher Sci. Co., Yokohama, Kanagawa, Japan

S05-1000 10:00 – 10:20 **"Supercharging" and "Subcharging" Proteins and Protein Complexes to Explore Electrospray Ionization**

Rachel R Loo, Rajeswari Lakshmanan, Jiang Zhang, Joseph A Loo
University of California-Los Angeles, Los Angeles, CA/USA

S05-1020 10:20 – 10:40 **Ionization Methods Requiring as little as the vacuum of the Mass Spectrometer to Produce Highly-Charged Ions from Surfaces or Solutions**

Sarah Trimpin
Wayne State University, Detroit, MI

S05-1040 10:40 – 11:00 **Rapid Characterization of Chemicals in Plant via Direct Electrospray Probe Coupling with Mass Spectrometry**

Hung Su, Chu-Nian Cheng, Min-Zong Huang, Jentaie Shiea
National Sun Yat-Sen Univrsity, Kaohsiung, Taiwan

Oral Session

15:00 – 17:00 Main Hall

Session 6: Novel Approaches in Proteomics Analysis

Chair: Roman A Zubarev
Karolinska Institutet, Sweden

S06-1500 15:00 – 15:40 **[Keynote Lecture] Instant Spectral Assignment for Rapid, High-Throughput Targeted Proteomics**

Derek J Bailey, Amelia C Peterson, Christopher M Rose, MIchael S Westphall, Joshua J Coon
University of Wisconsin-Madison/Madison, Wisconsin/USA

S06-1540 15:40 – 16:00 **Miniaturised Chemical Proteomics to Profile Clinically-relevant Kinase Inhibitors in Tumour Core Biopsies**

Ivo Chamrad[2], Uwe Rix[3], Manuela Gridling[1], Katja Parapatics[1], Andre C Mueller[1], Alexey Stukalov[1], Giulio Superti-Furga[1], Eric B Haura[3], Keiryn L Bennett[1]
[1]CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, [2]Palacký University, Olomouc, Czech Republic, [3]H. Lee Moffitt Cancer Center and Research Institute, Tampa, Florida, USA

S06-1600 16:00 – 16:20 **Combining ribosome profiling (ribosome captured mRNA sequencing) and mass spectrometry into an unprecedentedly comprehensive protein identification strategy.**

Gerben Menschaert[1], Petra Van Damme[1,2], Jeroen Crappe[1], Geert Baggerman[3,4], Wim Van Criekinge[1]
[1]Ghent University, Ghent, Belgium, [2]VIB (Flemish Institute for Biotechnology), Ghent, Belgium, [3]Antwerp University CFP (Center For Proteomics), Antwerp, Belgium, [4]VITO, Mol, Belgium

S06-1620 16:20 – 16:40 **Top-down mass spectrometry for comprehensive quantitative proteomics**

Ljiljana Pasa-Tolic, Shawna M Hengel, Si Wu, Zhixin Tian, David Stenoien, Rui Zhao, Nikola Tolic, Joshua T Aldrich, Da Meng, Ronald J Moore, Errol W Robbinson
Pacific Northwest National Laboratory

S06-1640 16:40 – 17:00 **In silico Compensation of Instrumental Response Fluctuations Improves Label-free Quantification of High-Resolution Proteomics Data**

Yaroslav Lyutvinskiy[1], Hongqian Yang[1], Dorothea Rutishauser[1], Hilkka Soininen[2], Roman Zubarev[1]
[1]Karolinska Institutet, Stockholm, Sweden, [2]University of Eastern Finland, Kuopio, Finland

Oral Session

15:00 – 17:00 Room A

Session 7: New Ionization Methods and Related Topics for the Next Generation

Chair: Kenzo Hiraoka
University of Yamanashi, Japan

S07-1500 15:00 – 15:40 **[Keynote Lecture] What is the Opposite of Pandora's Box? Direct Analysis, Ambient Ionization, and a New Generation of Atmospheric Pressure Ion Sources.**

Robert B Cody
JEOL USA, Inc.

S07-1540 15:40 – 16:00 **Temperature Dependence of Proton Transfer for Biomolecular Ions with Electrospray Ionization**

Shinji Nonose, Kazuki Yamashita, Ayako Sudo, Keishi Machida, Kanako Yokoyama, Minami Kawashima, Takashige Mori, Yuto Ohshima
Yokohama City University, Yokohama, Japan

S07-1600 16:00 – 16:20 **Design and Development of A Novel Nuclear Magnetic Resonance Detection for the Mass-selected Gas-Phase Ions by "Magnetic Resonance Acceleration" Technique**

Kiyokazu Fuke[1,2], Masahide Tona[1], Akimasa Fujihara[2], Haruki Ishikawa[3]
[1]Kobe University, Kobe, Japan, [2]Osaka Prefecture University, Osaka, Japan, [3]Kitasato University, Kanagawa, Japan

S07-1620 16:20 – 16:40 **New prospects for post-ionization mass spectrometry using ultrafast laser pulses**

Alessia Longobardo[2], Alisdair Macpherson[2], John Vickerman[1], Nick Lockyer[1,2]
[1]Manchester Interdisciplinary Biocentre, University of Manchester, Manchester, UK, [2]Photon Science Institute, University of Manchester, Manchester, UK

S07-1640 16:40 – 17:00 **Desorption/ionization induced by neutral clusters as matrix-free, soft, and efficient ion source for ion-trap mass spectrometry of biomolecules**

Markus Baur[1], Bong-Jun Lee[1], Christoph R Gebhardt[2], Michael Durr[1]
[1]University of Applied Sciences Esslingen, Esslingen, Germany, [2]Bruker Daltonik GmbH, Bremen, Germany

Monday, 17th September Afternoon

Oral Session

15:00 – 17:00 Room B-1

Session 8: Collision Dynamics and Spectroscopy Using Ion Storage Rings and Traps

Chair: Haruo Shiromaru
Tokyo Metropolitan University, Japan

S08-1500 15:00 – 15:40 **[Keynote Lecture] Spectroscopy of firefly luciferin and oxyluciferin anions in vacuo. Color tuning by a micro-environment?**

Steen Brøndsted Nielsen
Aarhus University, Aarhus, Denmark

S08-1540 15:40 – 16:00 **Electronic and photonic collision experiments on molecular ions with an electrostatic storage ring at KEK**

Tetsumi Tanabe[1,3], Manabu Saito[2], Koji Noda[3], Evgeni B Starikov[4]
[1]High Energy Accelerator Research Organization (KEK), Tsukuba, Japan, [2]Kyoto Prefectural University, Kyoto, Japan, [3]National Institute of Radiological Sciences, Chiba, Japan, [4]Chalmers University of Technology, Gothenburg, Sweden

S08-1600 16:00 – 16:20 **Cold chemical reactions between sympathetically cooled molecular ions and slow polar molecules**

Kunihiro OKADA[1], Takahiro FURUKAWA[1], Masanari ICHIKAWA[1], Michiharu WADA[2], Hans SCHUESSLER[3]
[1]Sophia University, Tokyo, Japan, [2]RIKEN, Saitama, Japan, [3]Texas A&M University, Texas, USA

S08-1620 16:20 – 16:40 **Development of a portable electrostatic ion storage ring in TMU**

Jun Matsumoto, Haruo Shiromaru
Tokyo Metropolitan University, Tokyo, Japan

S08-1640 16:40 – 17:00 **Investigation of a novel apparatus which combines ion trap - laser cooling technique with ICP-MS for trace isotope analysis**

Masanori Kitaoka, Yuta Yamamoto, Takuma Yoshida, Kyunghun Jung, Shuichi Hasegawa
The University of Tokyo, Tokyo, Japan

Oral Session

15:00 – 17:00 Room D

Session 9: Imaging-II

Chair: Jiro Matsuo
Kyoto University, Japan

S09-1500 15:00 – 15:40 **[Keynote Lecture] Nanoscale Chemical Imaging of Biomaterials with Cluster SIMS**

Nicholas Winograd
Penn State University

S09-1540 15:40 – 16:00 **TOF-SIMS imaging analysis of atherosclerotic aortic sinuses and gastric cancer tissues**

Eun-Soo Lee[1,2], Ji-Won Park[1,2], Se-Hwa Kim[1], Hyun Kyong Shon[1], Sohee Yoon[1], JuYeon Oh[1], Tae Geol Lee[1,2], Hark Kyun Kim[3], Daehee Hwang[4], DaeWon Moon[1,2]
[1]Center for Nano-Bio Technology, Korea Research Institute of Standards and Science, Daejeon, 305-340, Korea, [2]Department of Nano and Bio Surface Science, University of Science and Technology, Daejeon, 305-350, Korea, [3]National Cancer Center, Goyang, Republic of Korea, [4]School of Interdisciplinary Bioscience and Bioengineering, POSTECH, Pohang, Republic of Korea

S09-1600 16:00 – 16:20 **Diagnostic application of Imaging Mass Spectrometry**

Mitsutoshi Setou[1], Kiyoshi Ogawa[2], Akiko Kubo[3], Ikuko Yao[4], Masaaki Matsuura[5]
[1]Hamamatsu University School of Medicine, [2]Shimadzu, [3]Keio Universiy, [4]Kansai Medical University, [5]Japanese foundation for cancer research

S09-1620 16:20 – 16:40 **High-throughput analysis for metabolic dynamics and in situ metabolite imaging by MALDI mass spectrometry**

Daisuke Miura[1], Yoshinori Fujimura[1], Shin-ichi Yamaguchi[2], Noriyuki Ojima[2], Mitsuru Shindo[1], Hiroyuki Wariishi[1]
[1]Kyushu University, [2]Shimdzu Co., Kyoto, Japan

S09-1640 16:40 – 17:00 **Imaging of metabolites in plants and insects with high resolution AP-MALDI MSI**

Dhaka R Bhandari, Andreas Roempp, Bernhard Spengler
Justus Liebig University Giessen, Giessen, Germany

Oral Session

15:00 – 17:00 Room E

Session 10: Ion Mobility Spectroscopy Based on Instrument & Theoretical Development

Chair: Toshiki Sugai
Toho University, Japan

S10-1500 15:00 – 15:40
[Keynote Lecture] Pushing the frontier of high-definition ion mobility spectrometry using FAIMS

Alexandre A Shvartsburg, Gordon A Anderson, Richard D Smith
Pacific Northwest National Laboratory

S10-1540 15:40 – 16:00
Mobility of atomic and small molecular ions in cooled helium gas for investigation on interaction potentials and collision dynamics

Hajime Tanuma[1], Ryosuke Isawa[1], Jun-ichi Yamazoe[1], Shiro Matoba[2]
[1]Tokyo Metropolitan University, Tokyo, Japan, [2]Japan Atomic Energy Agency, Takasaki, Japan

S10-1600 16:00 – 16:20
Novel analytical approaches enabled by ultra-fast chip-based FAIMS separation coupled to mass spectrometry

Michael Ugarov[1], Yuqin Dai[1], Michael Flanagan[1], Michelle Romm[2], Vaughn Miller[2]
[1]Agilent Technologies, Santa Clara, USA, [2]Agilent Technologies, Wakefield, USA

S10-1620 16:20 – 16:40
Real-Time 2D separation with LC-DMS-TOF-MS: Increasing the Selectivity of High Resolution MS in Qualitative and Quantitative Analysis

J C Yves Le Blanc, Larry Campbell, Nic Bloomfield, Alexander V Loboda, Brad Schneider, Igor V Chernushevich
AB SCIEX, Concord, Canada

S10-1640 16:40 – 17:00
Isomer-selected photodissociation of carbon and silicon cluster ions with ion mobility mass spectrometry using a double reflectron time-of-flight mass spectrometer

Kiichirou Koyasu, Ryoichi Moriyama, Tomohiro Ohtaki, Jun Hosoya, Fuminori Misaizu
Tohoku University, Sendai, Japan

Monday, 17th September

Poster Session

Core Time : 11:10 - 12:20 (Odd number),
13:30 - 14:40 (Even number)

Event Hall

Session 1

Developments in Tandem Mass Spectrometry - Hybrid Instrumentation "The whole is greater than the sum of its parts" (Aristotle).

PMo-001 11:10 – 12:20
Boundary Activated Dissociation in a Low Pressure Linear Ion Trap in the presence of Nonlinear DC Fields

mircea guna
AB SCIEX, Concord, ON, Canada

PMo-002 13:30 – 14:40
ECD in an RF-Free Electromagnetostatic Cell on a Triple Quadrupole Mass Spectrometer

Yu Chu Lin[1], Samuel Bennett[1], Valery G Voinov[1,2], Douglas F Barofsky[1]
[1]Oregon State University, Corvallis, Oregon, U.S.A., [2]Pacific Institute of Bioorganic Chemistry, Vladivostok, Rusia

PMo-003 11:10 – 12:20
A rapid and sensitive liquid chromatography tandem mass spectrometry method for quantification of etoposide and etoposide chatechol in cerebrospinal fluid

Hsiao-Wei Liao[1,2], Yen-Shen Lu[3], Ching-Hung Lin[3], Ching-Hua Kuo[1,2]
[1]National Taiwan University, Taipei, Taiwan, [2]School of Pharmacy, College of Medicine, National Taiwan University, Taipei, Taiwan, [3]Department of Oncology, National Taiwan University Hospital, Taipei, Taiwan

PMo-004 13:30 – 14:40
Qualitative analysis of impurities in enalapril using liquid chromatography-ion trap time of flight hybrid mass spectrometry

FENG JI, QI Y LI, JING DONG
Shimdzu Co., Beijing,China

PMo-005 11:10 – 12:20
Qualitative Analysis of Gossypol, Free Gossypol, and Gossypol Derivatives in Cottonseeds By Electrospray Ionization Tandem Mass Spectrometry

Luying Zhou[1], Lai Chen[2], Jinting Yao[1], Hongyuan Hao[1], Hengtao Dong[1], Qiang Li[1]
[1]Shimadzu (China) Co., Ltd., Shanghai, China, [2]Shanghai Ocean University

PMo-006 13:30 – 14:40
Evaluation of the higher sensitive LC/MS/MS incorporates novel desolvation technologies to achieve low femto-gram LOQ

Shinjiro Fujita, Natsuyo Asano, Kazuo Mukaibatake
Shimadzu Corporation, Kyoto, Japan

PMo-007 11:10 – 12:20
Determination and pharmacokinetics of di-(2-ethylhexyl) phthalate in rats by ultra performance liquid chromatography with tandem mass spectrometry

Wan-Ling Chang-Liao[1], Lie-Chwen Lin[1,2], Tung-Hu Tsai[1,3]
[1]National Yang-Ming University, Taipei, Taiwan, [2]National Research Insitute of Chinese Medicine, [3]Taipei City Hospital, Taipei, Taiwan

PMo-008 13:30 – 14:40
Pharmacokinetics of Di-isononyl Phthalate in Freely Moving Rats by UPLC-MS/MS

Mei-Ling Hou[1], Tung-Hu Tsai[1,2]
[1]Institute of Traditional Medicine, School of Medicine, National Yang-Ming University, Taipei, Taiwan, [2]Department of Education and Research, Taipei City Hospital, Taipei, Taiwan

PMo-009 11:10 – 12:20
Pharmacokinetics of dibutyl phthalate by ultra performance liquid chromatography with tandem mass spectrometry in rats

Li-Wen Chang[1], Tung-Hu Tsai[1,2]
[1]National Yang-Ming University, Taipei, Taiwan, [2]Taipei City Hospital, Taipei, Taiwan

PMo-010 13:30 – 14:40
Separation of polar solutes by hydrophilic methacrylate-based monolithic columns via capillary electrochromatography coupled with UV-Vis and mass spectrometry detection.

Yung-Han Shih, Ching-Yi Wu, Cheng-Lan Lin, Pei-Zhu Liang, Hsi-Ya Huang
Chung Yuan Christian University, ChungLi, Taiwan

Session 2

Advances in Methods and MS Instrumentation for Biomolecule Characterization

PMo-011 11:10 – 12:20
The COrrelation Ion-Neutral Time Of Flight Mass Spectrometry (COIN-TOF_MS)

Victor Buridon[1], Cecile Teyssier[1], Hassan Abdoul-Carime[1], Bernadette Farizon[1], Michel Farizon[1], Tilmann D Mark[2]
[1]Universite de Lyon 1, Institut de Physique Nucleaire Lyon, Villeurbanne, France, [2]Institut fur Ionenphysik und Angewandte Physik, Leopold Franzens Universitat, Technikerstrasse 25, A-6020 Innsbruck, Austria

PMo-012 13:30 – 14:40
Automatic Disulfide Bond Assignment Using a1 Ion Screening by Mass Spectrometry for Structural Characterization of Protein Pharmaceuticals

Sheng-Yu Huang[2], Yu-Ting Hsieh[1], Chun-Hao Chen[1], Chao-Chi Chen[2], Wang-Chou Sung[3], Min-Yuan Chou[4], Sung-Fang Chen[1]
[1]National Taiwan Normal University, Taipei, Taiwan, [2]Mithra Biotechnology Inc., Taiwan, [3]National Health Research Institutes, Taiwan, [4]Industrial Technology Research Institute, Taiwan

Monday, 17th September

Mon

PMo-013 Determination of chloramphenicol in biological samples by gas chromatography-mass spectrometry
11:10 – 12:20

Suh-Jen J Tsai, Hsiu-Hua Huang, Pei-Yin Hsieh, Che-Wei Chang
Providence University, Taichung, Taiwan

PMo-014 Combining quantum mechanical and MS analysis to understanding the source of H+ during APPI of PAH dissolved in toluene
13:30 – 14:40

Arif Ahmed, Chell Ho Choi, Kim Sunghwan
Kyungpook National University, Daegu, Korea

PMo-015 Transformation of the Green Fluorescence Protein upon transfer from solution to the gas phase.
11:10 – 12:20

Vladimir Frankevich, Konstantin Barylyuk, Paviel Sagulenko, Renato Zenobi
Swiss Federal Institute of Technology, Zurich, Switzerland

PMo-016 Elucidation of CID and ETD based MS/MS Fragmentation for Analysis of Doubly Derivatized Steroids
13:30 – 14:40

Yu-Min Juang, Tzu-Fang She, Chien-Chen Lai
Institute of Molecular Biology,National Chung Hsing University, Taichung, Taiwan

PMo-018 Identification of protein ligands by FT-ICR-MS/MS
13:30 – 14:40

Adam A Dowle, Abbas Maqbool, Gavin H Thomas, Jerry Thomas
University of York

PMo-019 Absolute Internal Mass Calibration with Carbon Soot Ions for High Resolution MALDI 15T FT-ICR Mass Spectrometry
11:10 – 12:20

Choi Myoung Choul, Kyu Hwan Park, Hyun Sik Kim, Se Gyu Lee
Korea Basic Science Institute, Ochang, Korea

PMo-020 Identification of epitopes recognized by monoclonal antibodies raised against the meningococcal factor H binding protein
13:30 – 14:40

Agnese Faleri[1,2], Sebastien Brier[2], Laura Santini[2], Silvana Savino[2], Marzia Monica Giuliani[2], Mikkel Nissum[2], Mariagrazia Pizza[2], Vega Masignani[2], Nathalie Norais[2]
[1]University of Siena, Siena, Italy, [2]Novartis Vaccines and Diagnostics, Siena, Italy

PMo-021 Variable Temperature Ion Mobility Mass Spectrometry of Multimeric Protein Complexes
11:10 – 12:20

Kamila J Pacholarz, Perdita E Barran
University of Edinburgh, Edinburgh, United Kingdom

PMo-022 Full H/D Exchange for Improving Small Molecule and Peptide Identification with Electrospray Ionization
13:30 – 14:40

Sebastian Tittebrandt[1], Bernhard Spengler[2], Wolf D Lehmann[1]
[1]German Cancer Research Institute, Heidelberg, Germany, [2]Institute for Inorganic and Analytical Chemistry, University Giessen, Germany

PMo-023 SALDI-MS of oligopeptide using gold nanorods on ITO plates.
11:10 – 12:20

Masanori Fujii[1], Naotoshi Nakashima[1,2,3], Yasuro Niidome[1,2]
[1]Kyushu University, Fukuoka, Japan, [2]WPI I2CNER, [3]JST-CREST

PMo-024 Collision/Reaction cell for ICP-MS - a new Concept for an improved removal of low masses
13:30 – 14:40

Lothar Rottmann, Jung Gerhard, Tomoko Vincent
Thermo Fisher Scientfic, Bremen, Germany

PMo-025 Applications of online- bioaffinity- mass spectrometry to structure and affinity determination of neurodegenerative proteins from brain material
11:10 – 12:20

Stefan Slamnoiu[1], Camelia Vlad[1,2], Adrian Moise[1], Mihaela Stumbaum[1,2], Thomas Gronewold[2], Markus Perpeet[2], Michael Przybylski[1]
[1]Laboratory of Analytical Chemistry and Biopolymer Structure Analysis, Department of Chemistry, University of Konstanz, Germany, [2]SAW Instruments GmbH, Bonn, Germany

PMo-027 Determination of Opiates in Dried Blood Spots using Novel Flow-through Technology coupled to LC/MS/MS
11:10 – 12:20

Kenneth Lewis[2], Dennis NAGTALON[1]
[1]Agilent Technologies, [2]OpAns

PMo-029 Optimization of serum N-linked glycan profiling using MALDI-TOF mass spectrometry
11:10 – 12:20

Yongha In[1,2], Heysun Maeng[1,2], Sun Young Ahn[1,2], Chang Won Park[1,2], Yangsun Kim[1,2]
[1]HUDSON SURFACE TECHNOLOGY, FORT LEE, NJ, USA, [2]APPLIED SURFACE TECHNOLOGY INC., SUWON, KOREA

PMo-030 Analysis of Panax ginseng extracts by comprehensive Two-Dimensional Ultra High Performance Liquid Chromatography coupled with IT-TOF
13:30 – 14:40

Tatsunari Yoshida[1], Shin-ichi Yaguchi[2], Tsutomu Nishine[1], Hirohisa Mikami[1]
[1]Shimdzu Co., GADC, Japan, [2]Shimadzu Co., MSBU, Japan

PMo-031 Influence of Sample Preparation Techniques on the Sensitive Detection of Peptides by MALDI-MS
11:10 – 12:20

YUSAKU HIOKI, Hiroki Kuyama, Chikako Hamana, Kohei Takeyama, Koichi Tanaka
Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Corporation, Kyoto, Japan

PMo-032 Development of modified micro-array MALDI plates with carboxylated dopamine for the analysis of small molecules.
13:30 – 14:40

Duhee Park[1,2], Hyunjung Seo[1,2], Chang Won Park[1,2], Yangsun Kim[1,2]
[1]Applied surface technology Inc., Suwon, Korea, [2]Hudson Surface Technology, Inc., Fort Lee, NJ, USA

Monday, 17th September

PMo-033 11:10 – 12:20
Bonded Zwitterionic Stationary Phases and Mass Spectrometric Detection for Bioanalysis

Patrik Appelblad, Wen Jiang, Jonsson Tobias, Petrus Hemstrom
Merck SeQuant, Umea, Sweden

PMo-034 13:30 – 14:40
Quantitative Analysis of Free and Total Thyroid Hormones in Serum With and Without Online Sample Cleanup using LC/MS/MS

Rory Doyle, Kevin McCann
AGILENT TECHNOLOGIES

PMo-035 11:10 – 12:20
Selective introduction of 4-amidinobenzyl moiety into peptide N-terminus for straightforward de novo sequencing

Toru Yoshikawa, Masahiro Miyashita, Hisashi Miyagawa
Kyoto University, Kyoto, Japan

PMo-036 13:30 – 14:40
Extractive electrospray ionization mass spectrometry (EESI-MS) for sensitive detection of iodine-129

Zhongchen Wu[1], Yafei Zhou[2], Bin Jia[2], Huanwen Chen[2]
[1]Shandong Universitiy at Weihai,Weihai city,China/Shandong, [2]East China Institute of Technology,Nanchang city,China/Jiangxi

PMo-037 11:10 – 12:20
De novo peptide sequencing facilitated by N-terminal charge derivatization with high proton affinity

Yoichiro Nihashi, Hiroyuki Awane, Masahiro Miyashita, Hisashi Miyagawa
Kyoto University, Kyoto, Japan

PMo-038 13:30 – 14:40
Efficient and rapid multienzymatic limited digestion (MELD) method for complete protein characterization and bottom-up de novo sequencing

Gabriel Mazzucchelli[1], Tyler A Zimmerman[1], Marie-Alice Meuwis[1], Nicolas Smargiasso[1], Michel Degueldre[1], Dominique Baiwir[1], Laurent Leclerq[2], Edwin De Pauw[1]
[1]University of Liege, Liege, Belgium, [2]Johnson & Johnson Pharmaceutical R&D, Beerse, BELGIUM

PMo-039 11:10 – 12:20
ANALYSIS OF 8 KINDS OF ESTROGENS IN ENVIRONMENTAL WATER BY ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPH HYBRID TRIPLE QUADRUPOLE MASS SPECTROMRTER

hongyuan Hao, Jinting Yao, Luying Zhou, Hengtao Deng, Qiang Li
Shimadzu (China)Co., LTD. shanghai, china

PMo-040 13:30 – 14:40
Identification of metabolic pathways related to xylose fermentation performance in recombinant yeast by metabolome analysis

Hitoshi MITSUNAGA[1], Danang Waluyo[1], Haruyo Hatanaka[2], Takeshi Bamba[1], Eiichiro Fukusaki[1]
[1]Osaka University, Osaka, Japan, [2]Suntory Business Expert Limited.

PMo-041 11:10 – 12:20
Study using synthetic organic acids in Thermo Finnigan LTQ Orbitrap APCI. Application to the acidic fraction, from Brazilian marine oil.

Luzia Koike[1], Eugenio V Santos Neto[2], Rosane A Fontes[2], Rosane N Castro[3]
[1]Campinas State University - Campinas- Brazil- southeast, [2]Petrobras R&D Center,Rio de Janeiro, RJ., [3]Federal University of Rio de Janeiro, RJ.

PMo-042 13:30 – 14:40
Standard Samples to Establish Benchmark Metrics and Enable Optimization of Quantitative Proteomics Methods

Sean L Seymour[2], Xu Wang[1], Brian Williamson[1], Ignat Shilov[2], John F MacNamera[1], Christie L Hunter[2], Fadi A Abdi[1]
[1]AB SCIEX Framingham MA, [2]AB SCIEX Foster City CA

PMo-043 11:10 – 12:20
Improvement in Mass Measurement Accuracy and Resolving Power Using a New Compensated Fourier Transform Ion Cyclotron Resonance Cell

Nobuyuki Shimura[1], Magnus Palmblad[2], Jens Fuchser[3], Yuri E M Van Der Burgt[2], M Goekhan Baykut[3], André M Deelder[2]
[1]Bruker Daltonics K.K., Yokohama, Japan, [2]Leiden University Medical Center, Leiden, Netherlands, [3]Bruker Daltonik GmbH, Bremen, Germany

Session 3
Structures and Dynamics of Atomic and Molecular Clusters

PMo-044 13:30 – 14:40
Gas phase ion-molecule reactions of C2H5+ and C2H3+ with C2H2 using low-temperature drift tube mass spectrometer

Kenichi Iwamoto, Haruto IKUTA
Osaka Prefecture University, Osaka, Japan

PMo-045 11:10 – 12:20
Assembly Modulated Metallosupramolecular Polymer Formation Observed by CSI-MS and Other Analytical Methods

Masatoshi Kawahata[1], Kadzuya Hirata[2], Hiroshi Danjo[2], Kentaro Yamaguchi[1]
[1]Tokushima Bunri University, Kagawa, Japan, [2]Konan University, Kobe, Japan

PMo-046 13:30 – 14:40
Clusters of Water, Acetonitrile and Azeotropic Mixtures in Gas and Liquid Phases Studied by Liquid-ionization Tandem Mass Spectrometry

Masahiko Tsuchiya[1], Haruhiko Fukaya[2], Yoshiaki Kurita[3]
[1]Yokohama National University, Yokohama, Japan, [2]Tokyo University of Pharmacy, [3]Housei University

Monday, 17th September

PMo-047
11:10 – 12:20
ICP-MS and IR techniques used in metal detection and control of some new synthetized materials with bioactive potential

NICOLETA C VEDEANU[1], Ramona Stanescu[2], Dana Alina Magdas[3], Cezara Voica[3]
[1]"IULIU HATIEGANU" UNIVERSITY OF MEDICINE AND PHARMACY, CLUJ-NAPOCA, ROMANIA, [2]Babes-Bolyai University, Faculty of Physics, RO-400084, Cluj-Napoca, Romania, [3]National Institute for Research and Development for Isotopic and Molecular Technologies, RO-400293, Cluj-Napoca, Romania

PMo-048
13:30 – 14:40
Size-dependent structures of zinc oxide cluster ions studied by ion mobility mass spectrometry

Kunihiko Komatsu, Kiichirou Koyasu, Fuminori Misaizu
Tohoku University, Sendai, Japan

PMo-049
11:10 – 12:20
Photodissociation dynamics of mass-selected cluster ions examined by fragment-ion imaging

Hiroshi Hoshino, Yoshihiro Yamakita, Yoshitomo Suzuki, Masataka Saito, Kiichirou Koyasu, Fuminori Misaizu
Tohoku University, Sendai, Japan

Session 4
Imaging I

PMo-050
13:30 – 14:40
Chemical digestion for imaging mass spectrometry

junpei naito, shuya satoh, hiroyuki hashimoto
Canon Inc., Tokyo, Japan

PMo-051
11:10 – 12:20
Enhanced peptide molecular imaging by depositing ice in Time-of-Flight Secondary Ion Mass Spectrometry

Naofumi Aoki, Manabu Komatsu, Masafumi Kyogaku, Hiroyuki Hashimoto
Canon Inc., Tokyo, Japan

PMo-052
13:30 – 14:40
Direct and indirect imaging of secondary metabolites and enzymatic reactions in plant material by Desorption Electrospray Ionization

Bin Li[3], Nanna Bjarnholt[2], Camilla Knudsen[2], Janina Thunig[3], Steen H Hansen[3], Christian Janfelt[1,3]
[1]University of Copenhagen, Copenhagen, Denmark, [2]Dept. of Plant Biology and Biotechnology, University of Copenhagen, Copenhagen, Denmark, [3]Dept. of Pharmacy, Center for Advanced Drug Analysis, University of Copenhagen, Copenhagen, Denmark

PMo-053
11:10 – 12:20
Sub-Micrometer Imaging of Lipids and Trace Elements in Various Cells with ToF-SIMS and Laser-SNMS

Heinrich F Arlinghaus[1], Felix Draude[1], Sebastian Galla[1], Andreas Pelster[1], Martin Koersgen[1], Jutta Tentschert[2], Harald Jungnickel[2], Andrea Haase[2], Andreas Luch[2], Tanja Schwerdtle[3], Johannes Muething[4]
[1]Intitute of Physics, University of Muenster, Muenster, Germany, [2]German Federal Institute of Risk Assessment, Department of Product Safety, Berlin, Germany, [3]Institute of Food Chemistry, University of Muenster, Muenster, Germany, [4]Intiute of Hygiene, University of Muenster, Muenster, Germany

PMo-054
13:30 – 14:40
The potential use of reactive DESI to assess oxidative stress in the cell culture

Anna Bodzon-Kulakowska, Piotr Suder, Tomasz Cichon, Jerzy Silberring
AGH University of Science and Technology, Krakow, Poland

PMo-055
11:10 – 12:20
Higher sensitivity sub-micron spatial resolution TOF-SIMS bio-molecular imaging using interleaved Gas Cluster Ion Beam (GCIB) sputtering

Itsuko Ishizaki[1], John S Hammond[2], Takuya Miyayama[1], Gregory L Fisher[2]
[1]ULVAC-PHI, Inc., Kanagawa, Japan, [2]Physical Electronics USA, Chanhassen, MN, USA

PMo-056
13:30 – 14:40
Drug and metabolites study in whole body animal by High Definition MALDI imaging

Thanai Paxton[1], Motoji Oshikata[1], Emmanuelle Claude[2], Lars Bendahl[3], Ian Edwards[2], Paul Murray[2], Johannes P Vissers[2]
[1]Nihon Waters, Tokyo, Japan, [2]Waters Corporation, Manchester, UNITED KINGDOM, [3]H. Lundbeck A/S, Dk-2500 Valby, DENMARK

PMo-057
11:10 – 12:20
DESI-MS imaging of differences between physiological and morphine-treated rat brains.

Piotr Suder[1], Anna Bodzon-Kulakowska[1], Anna Drabik[1], Joanna Ner[1], Ewelina Paszynska[1], Jolanta H Kotlinska[2]
[1]AGH University of Science and Technology, Krakow, Poland, [2]Medical University of Lublin, Lublin, Poland

PMo-058
13:30 – 14:40
High-resolution TOF-SIMS Imaging reveals Multi-layered Barrier Structure of the Stratum Corneum of Skin

Akiharu Kubo[1], Itsuko Ishizaki[2], Akiko Kubo[1], Hiroshi Kawasaki[1], Yoshiharu Ohashi[2], Masayuki Amagai[1]
[1]Keio University, Tokyo, Japan, [2]ULVAC-PHI, Chigasaki, Japan

PMo-059
11:10 – 12:20
Quantitative MALDI Imaging of a Peptide Pharmaceutical for Drug Distribution Studies

Nozomi Takai, Yukari Tanaka, Ayahisa Watanabe
Shionogi & Co., Ltd., Osaka, Japan

PMo-060
13:30 – 14:40
Investigation of Zeolite Matrix for Analysis of Pharmacokinetics Using Imaging Mass Spectrometry with Laser Desorption/Ionization

Naoki Moriguchi[1], Hisanao Hazama[1], Tatsuya Fujino[2], Kunio Awazu[1]
[1]Osaka University, Osaka, Japan, [2]Tokyo Metropolitan University, Tokyo, Japan

PMo-061
11:10 – 12:20
Imaging the Penetration Behaviour of Topically Applied Drugs into Skin by Desorption Electrospray Ionization Mass Spectrometry

Janina Thunig[1], Rasmus Mortensen[2], Louise Bastholm-Jensen[2], Steen H Hansen[1], Christian Janfelt[1]
[1]Department of Pharmaceutics and Analytical Chemistry, University of Copenhagen, Copenhagen, Denmark, [2]New Products, LEO Pharma A/S, Ballerup, Denmark

PMo-062 Platinum Vapor Deposition Surface-Assisted Laser Desorption/Ionization for Mass Spectrometry Imaging of Small Molecules

13:30 – 14:40

Tomoyuki Ozawa[1,2], Hirotaka Hisatomi[2], Tetsuro Higashiisokawa[2], Hideya Kawasaki[2], Ryuichi Arakawa[2]
[1]Nissan Chemical Industries Ltd., Funabashi, Japan, [2]Kansai University, Osaka, Japan

PMo-063 Comparison of MALDI Imaging modalities using a Peptide Gel matrix for stem cell implantation

11:10 – 12:20

Duncan M Forster[1], Adam Mcmahon[1], Catherine Merry[1], Omar Belgacem[2]
[1]The University of Manchester, Manchester, United Kingdom, [2]Shimadzu, Manchester, United Kingdom

PMo-064 NALDI-IMAGING OF TUMORS: PHOSPHOETANOLAMINE EFFECT ON THE LIPID PROFILE OF A MELANOMA MODEL

13:30 – 14:40

Alessandra Tata[1], Anna Maria A P Fernandes[1], Vanessa G Santos[1], Rosana M Alberici[1], Carlos A Parada[2], Wellington Braguini[2], Luciana Veronez[2], Gabriela Silvia Bisson[2], Felippe H Z Reis[3], Luciane C Alberici[3], Marcos N Eberlin[1]
[1]ThoMSon Mass Spectrometry Laboratory, Institute of Chemistry, University of Campinas- UNICAMP, 13084-971, Campinas, SP, Brazil, [2]Departamento de Enfermagem Materno-Infantil e Saude Publica, Escola de Enfermagem de Ribeirao Preto, SP, Brazil, [3]Departamento de Fisica e Quimica, Faculdade de Ciencias Farmaceuticas de Ribeirao Preto, Universidade de Sao Paulo, Ribeirao Preto, SP, Brazil.

PMo-065 An optimized organ fixation technique for imaging and quantitative mass spectrometry for high energy phosphate-metabolites

11:10 – 12:20

Sugiura Yuki[1,2], Makoto Suematsu[1]
[1]Keio University, Tokyo, Japan, [2]Precursory Research for Embryonic Science and Technology (PRESTO)

PMo-066 A novel method to observe cell surface protein GRP78 expression by time of flight-secondary ion mass spectrometer (TOF-SIMS)

13:30 – 14:40

Hsiao-Ting Hsieh[2,3], Tsui-Yun Lo[1,3], Fu-Der Mai[1,2,3]
[1]Department of Biochemistry, School of Medicine, Taipei Medical University, Taipei, Taiwan, [2]Graduate Institute of Medical Science, Taipei Medical University, Taipei, Taiwan, [3]Biomedical Mass Imaging Research Center, Taipei Medical University, Taipei, Taiwan

PMo-067 Imaging Mass Spectrometry of Plant Tissue Slices: Comparison of MALDI-TOF MSI and MALDI-FTICR MSI

11:10 – 12:20

Katsutoshi Takahashi[1], Daisuke Miura[2]
[1]Institute of Advaned Industrial Science and Technology, Tsukuba,Japan, [2]Kyushu University, Fukuoka, Japan

PMo-068 MALDI-MS Imaging Atlas of Mouse Development

13:30 – 14:40

Takashi Nirasawa[1], Masaya Ikegawa[2]
[1]Bruker Daltonics K.K., Yokohama, Japan, [2]Kyoto Prefectural University of Medicine, Kyoto, Japan

PMo-069 MALDI imaging of desalted rat brain sections reveals the up- and down-regulation of phospholipids by ischemia

11:10 – 12:20

HAY-YAN J WANG[1], HSUAN-WEN WU[1], PING-JU TSAI[1,2], CHENG BIN LIU[1,3]
[1]Department of Biological Sciences, National Sun Yat-Sen University, Kaohsiung, Taiwan, [2]Department of Surgery, Yuan's General Hospital, Kaohsiung, Taiwan, [3]Department of Obstetrics and Gynecology, Veterans General Hospital-Kaohsiung, Kaohsiung, Taiwan

PMo-070 Visualization of Transdermal Drug Delivery by 2D-DESI Mass Spectrometry ----- a Novel Approach to Generate Pseudo Cross-sectional Skin Images

13:30 – 14:40

Akira Motoyama[1,2], Keishi Kihara[1], Yuichiro Mori[1], Mitsuo Takayama[2]
[1]Shiseido Co., Ltd, Yokohama, Japan, [2]Yokohama City University, Yokohama, Japan

PMo-071 Chemical sensor arrays for application in mass spectrometry on surfaces and tissues

11:10 – 12:20

Martina Lorey[1], Rabah Soliymani[1], Jari Yli-Kauhaluoma[2], Marc Baumann[1]
[1]Protein Chemistry Unit, University of Helsinki, Helsinki, Finland, [2]Division of Pharmaceutical Chemistry, University of Helsinki, Helsinki, Finland

PMo-072 The Sausage Omelette: Breakfast of (IMS) Champions or a Novel Quantitation Tool for Small Molecule Imaging?

13:30 – 14:40

Shannon Cornett[1], Katherine Kellersberger[1], Mark R Groseclose[2], David S Wagner[2], Stephan Castellino[2]
[1]Bruker Daltonics, Billerica, MA, USA, [2]GlaxoSmithKline, Research Triangle Park, NC, USA

PMo-073 To Digest or Not to Digest, That's the Question

11:10 – 12:20

Martin Schuerenberg[1], Christine Luebbert[1], Rainer Paape[1], Janine Rattke[1], Axel Walch[2], Sandra Rauser[2], Michael Becker[1]
[1]Bruker Daltonik GmbH, Bremen, Germany, [2]Helmholtz Center Munich, Neuherberg, Germany

PMo-074 Rapid assessment of drug and metabolite distribution in whole animal tissues via accurate mass imaging

13:30 – 14:40

Arnd Ingendoh[1], Cristine Quiason[2], Katherine Kellersberger[1], Brian Dean[2], Sheerin Shahidi-Latham[2]
[1]Bruker Daltonik GmbH, [2]Genentech Inc., South San Francisco, CA

PMo-075 Development of MALDI-MS Imaging of Metabolite and Protein in a Single Tissue Section

11:10 – 12:20

Ayumi Yamaguchi, Daisuke Miura, Yoshinori Fujimura, Hiroyuki Wariishi
Kyushu University, Fukuoka, Japan

PMo-076 Automated Tissue State Assignment for High Resolution FTMS MALDI Imaging Data

13:30 – 14:40

Paul Speir[1], Jens Fuchser[2], Soeren Deininger[2], Michael Becker[2], Katherine Kellersberger[1]
[1]Bruker Daltonics, Inc., [2]Bruker Daltonik GmbH, Bremen, Germany

Monday, 17th September

PMo-077 An Investigation of Spatiotemporal Metabolic Behaviors in Response to Pathological Progress using Multiple Mass Spectrometry Techniques
11:10 – 12:20

Miho Irie, Yoshinori Fujimura, Daiki Setoyama, Mayumi Yamato, Daisuke Miura, Hiroyuki Wariishi
Kyushu University, Fukuoka, Japan

PMo-078 Imaging Hair Analyses for Drugs: A New Perspective to Investigate Drug Use History
13:30 – 14:40

Tooru Kamata[1], Noriaki Shima[1], Akihiro Miki[1], Kei Zaitsu[1], Munehiro Katagi[1], Michiaki Tatsuno[1], Toyofumi Nakanishi[2], Takako Sato[2], Hitoshi Tsuchihashi[2], Koichi Suzuki[2]
[1]Forensic Science Laboratory, Osaka, Japan, [2]Osaka Medical College, Osaka, Japan

PMo-079 Easy ambient sonic-spray ionization mass spectrometry imaging (EASI-MSI).
11:10 – 12:20

Dragos Lostun[1], Mario F Mirabelli[1,2], Tanam S Hamid[1], Alexander Chramow[1], Demian R Ifa[1]
[1]York University, Toronto, ON, Canada, [2]University of Calabria, Cosenza, Italy

PMo-080 Optimization of conditions for acetylcholine detection in the nerve tissue sections by imaging mass spectrometry
13:30 – 14:40

Ikuko Yao[1,2], Yuki Sugiura[2,3], Nobuhiro Zaima[3], Mitsutoshi Setou[3], Seiji Ito[1]
[1]Kansai Medical University, Osaka, Japan, [2]Precursory Research for Embryonic Science and Technology (PRESTO), Tokyo, Japan, [3]Hamamatsu University School of Medicine, Hamamatsu, Japan

PMo-081 MALDI-IMS - The challenge of on-tissue digestion, a comparison of different protocols to improve imaging experiments
11:10 – 12:20

Hanna C Diehl, Julian Elm, Judith Baronner, Helmut E Meyer, Corinna Henkel
Medizinisches Proteom Center, Ruhr University Bochum, Germany

PMo-082 Molecular detection of breast cancer-related phosphatidylinositol by high-resolution imaging mass spectrometry
13:30 – 14:40

Masahiro Kawashima[1], Noriko Fukao[2], Minoru Suzuki[2], Taka-aki Sato[2], Koichi Tanaka[2], Nobuko Kawaguchi-Sakita[1], Masahiro Sugimoto[1], Takayuki Ueno[1], Kazuya Terasawa[3], Gozo Tsujimoto[3], Kazuharu Shimizu[3], Masakazu Toi[1]
[1]Department of Breast Surgery, Graduate School of medicine, Kyoto University, Kyoto, JAPAN, [2]Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Corporation, Kyoto, JAPAN, [3]Department of Cancer Omics Research, World-Leading Drug Discovery Research Center, Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, JAPAN

PMo-083 Oxygen defect chemistry proposed by zinc and antimony images in the dense tin dioxide ceramics by means of NanoSIMS 50
11:10 – 12:20

Isao Sakaguchi, Ken Watanabe, Hajime Haneda, Naoki Ohashi, Shunichi Hishita
National Institute for Materials Science, Tsukuba, Japan

PMo-084 MALDI Imaging of Metabolites Reconstructed by CE-MS Based Quantitative Analysis
13:30 – 14:40

Tsuyoshi Nakanishi[1], Takako Hishiki[2,3], Shigeki Kajihara[1], Kiyoshi Ogawa[1], Makoto Suematsu[2,3]
[1]Shimadzu Corporation, Kyoto, Japan, [2]School of Medicine, Keio University, Tokyo, Japan, [3]JST ERATO Suematsu Gas Biology Project, Tokyo, Japan

Session 5
Advances in Spray Ionization Techniques

PMo-085 New nano ESI source development for increased performance nanoLC-MS with plug-and-spray configuration
11:10 – 12:20

Reiko Kiyonami[2], Peter Soendergaard[1], Christian Ravnsborg[1], Vlad Zabrouskov[2]
[1]Thermofisher Scientific Odense Denmark, [2]Thermo Fisher Scientific San Jose CA

PMo-086 Electrostatic Spray Ionization and Microchips Emitter for On-Line MS Monitoring of Chemical and Electrochemical Reactions
13:30 – 14:40

Liang QIAO[1], Romain SARTOR[1], Elena TOBOLKINA[1], Dmitry MOMOTENKO[1], Mathieu ODIJK[2], Pekka PELJO[3], Hubert GIRAULT[1]
[1]ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE, SWITZERLAND, [2]UNIVERSITY OF TWENTE, ENSCHEDE, NETHERLANDS, [3]DEPARTMENT OF CHEMISTRY, AALTO UNIVERSITY, ESPOO, FINLAND

PMo-087 Miniaturized Peptide Sample Pretreatment Platform for Indirect Spray Analysis
11:10 – 12:20

Hoi Sze Yeung, Tak-Wah Dominic Chan
The Chinese University of Hong Kong, Hong Kong SAR, China

PMo-088 Novel off-line electrospray ion source with a disposable needle
13:30 – 14:40

Hideki Hasegawa, Hiroyuki Satake, Masao Suga, Yuichiro Hashimoto
Hitachi Ltd., Central Research Laboratory, Kokubunji, Japan

PMo-089 Movement of Ions and Charged Droplets from Atmospheric Region into the Gas Dynamic Interface
11:10 – 12:20

Natalia Fomina[1], Nikolai Gall[2], Sergey Masyukevich[1], Alexandra Kretinina[1], Lidiia Gall[1], Alexander Bazhenov[3], Sergey Bulovich[4]
[1]The Institute for Analytical Instrumentation RAS, Saint-Petersburg, Russia, [2]A. F.Ioffe Physico-Technical Institute of RAS, St.Petersburg, Russia, [3]All Russian Scientific Research Institute for Geology and Mineral Resources named of I. S.Gramberg, St. Petersburg, Russia, [4]Saint-Petersburg State Polytechnical University St.Petersburg, Russia

PMo-090 An introduction of a novel atmospheric pressure Micro/Nano-ESI ion source
13:30 – 14:40

Reza Javahery[1], Hui Qiao[1], Brett Larsen[2], Lorne E Taylor[2], Lisa Cousins[1]
[1]IONICS Mass Spectrometry, Toronto, Canada, [2]Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, Canada

Monday, 17th September

PMo-091 11:10 – 12:20
Electrospraying, Movement and Evaporation of Charged Droplets Using Rotating Gas Flows and Transverse Ion Extraction

Sergey Masyukevich[1], Nikolai Gall[2], Natalia Fomina[1], Mihail Lapushkin[2], Alexandra Kretinina[1]
[1]Institue for Analitical Instrumentation, Saint-Peterburg, Russia, [2]A.F.Ioffe Physico-Technical Institute of Russian Academy of Sciences, St. Petersburg,Russia

Session 6
Novel Approaches in Proteomics Analysis

PMo-092 13:30 – 14:40
A reference method for the SI-traceable quantification of somatropin in human serum using an isotopically labeled protein internal standard

Caroline E Pritchard[1], Milena Quaglia[2], Alison E Ashcroft[3], Gavin O'Connor[2]
[1]LGC, London, UK & University of Leeds, Leeds, UK, [2]LGC, London, UK, [3]Astbury Centre for Structural and Molecular Biology, University of Leeds, Leeds, UK

PMo-093 11:10 – 12:20
Large-scale LC-MS-based Profiling of Soluble Protein Complexes

Cuihong WAN[1], Pierre C Havugimana[1], Andrew Lugowski[1], Kathy Foltz[2], Andrew Emili[1]
[1]University of Toronto, Toronto, Canda, [2]University of California Santa Barbara, California, USA

PMo-094 13:30 – 14:40
Mass spectrometry-based sequencing of protein C-terminal peptide using alpha-carboxyl group specific derivatization and COOH capturing

Chihiro Nakajima, Hiroki Kuyama, Koichi Tanaka
Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Corporation, Kyoto, Japan

PMo-095 11:10 – 12:20
Identification of proteins with different expression profiles related to Nasal Polyps in Aspirin Intorelant Asthma(AIA) using MALDI-TOF/MS

Yukie Tanaka[1], Dai Susuki[2], Shigeharu Fujieda[2], Yutaka Fujii[1]
[1]Department of Molecular Biology and Chemistry,University of Fukui,Fukui,Japan, [2]Department of Otorhinolaryngology Head & Neck Surgery,University of Fukui,Fukui,Japan

PMo-096 13:30 – 14:40
Specific Racemization of a Cysteine Residue in the Hinge Region of Immunoglobulin Gamma 1 during Storage

Masato Amano[1], Naoki Kobayashi[1], Takashi Nakazawa[2], Susumu Uchiyama[3], Kiichi Fukui[3]
[1]Daiichi Sankyo, Hiratsuka, Japan, [2]Nara Women's University, Nara, Japan, [3]Osaka University, Osaka, Japan

PMo-097 11:10 – 12:20
Identification and affinity characterization of carbohydrate-binding epitopes in human Galectin-9 and rat Galectin-5 by proteolytic Excision-MS and bioaffinity analysis

Frederike Eggers[1], Adrian Moise[1], Sabine Andre[2], Hans-Joachim Gabius[2], Michael Przybylski[1]
[1]University of Konstanz, Konstanz, Germany, [2]Ludwig-Maximilians-University, Munich, Germany

PMo-098 13:30 – 14:40
Differentiation of isobaric residues in SPITC-derivatized tryptic peptides using MS/MS technique in a novel Curved Field Reflectron.

yuzo yamazaki, Keisuke Shima
Shimadzu Corporation, Kyoto, Japan

PMo-099 11:10 – 12:20
Study of hydrogen-induced cleavage of peptides with MALDI-ISD and sonolytic hydrolysis

Motoshi Sakakura, Mitsuo Takayama
Yokohama City University, Yokohama, Japan

PMo-100 13:30 – 14:40
Electrochemically Assisted Reduction of Disulfide Bonds of Peptides and Proteins With On-Line Mass Spectrometric Detection

Martin Eysberg, Agnieszka Kraj, Hendrik-Jan Brouwer, Nico Reinhoud, Jean-Pierre Chervet
Antec, Zoeterwoude, the Netherlands

PMo-101 11:10 – 12:20
Isotope dilution LC-ESI/MS/MS method for the determination of phenylthiohydantoin (PTH)-amino acids derived from Edman degradation products of proteins

Ryo Satoh, Takaaki Goto, Seon Hwa Lee, Tomoyuki Oe
Tohoku University

PMo-102 13:30 – 14:40
Mechanistic Study on Non-enzymatic Isomerization of N-terminal Amino Acids by Endogenous Aldehydes

Ryo Kajita, Takaaki Goto, Seon Hwa Lee, Tomoyuki Oe
Tohoku University, Sendai, Japan

PMo-103 11:10 – 12:20
Peptide fragmentation upon low and high energy CID in ESI and MALDI mass spectrometry: A statistical approach

Christine Enjalbal, Mathieu Dupre, Sonia Cantel, Jean Martinez
University of Montpellier 2

PMo-104 13:30 – 14:40
Rapid Asp-selective Acid Hydrolysis for Proteomic Workflows

Joe R Cannon, Catherine Fenselau
University of Maryland, College Park, MD United States

PMo-105 11:10 – 12:20
Optimization of matrix preparation methods for MALDI-ISD of protein

Ryunosuke Iimuro, Mitsuo Takayama
Yokohama City University, Yokohama, Japan

Monday, 17th September

PMo-106 Comparative Proteomic Analysis of Virulence Variations in Xanthomonas Campestris pv. Campestris Strain 17, 11 and P20H

13:30 – 14:40

Tao-Shan Chang, Chien-Chen Lai
National Chung Hsing University, Taichung, Taiwan/Institute of Molecular Biology College of Life Science

PMo-107 Proteomic Evidences for Starch Biosynthetic Pathway in Rice Endosperm

11:10 – 12:20

Chih-Wei Liu, Chien-Chen Lai
Institute of Molecular Biology,National Chung Hsing University, Taiwan

PMo-108 MALDI-TOF-MS-based proteomics for urinary biomarker discovery in gamma-irradiated mouse

13:30 – 14:40

Keita KIRIYAMA, Susumu YOSHIOKA, Daisuke IIZUKA, Hidehiko KAWAI, Shunsuke IZUMI
Hiroshima University, Hiroshima, Japan

PMo-109 LDI-MS on nanostructured materials for sensitive and efficient protein digest characterization

11:10 – 12:20

Mathieu Dupre[1], Sonia Cantel[1], Yannick Coffinier[2], Rabah Boukherroub[2], Jean Martinez[1], Christine Enjalbal[1]
[1]University of Montpellier, Montpellier, France, [2]University of Lille, Lille, France

PMo-110 Evaluation of peptide adsorption-controlled liquid chromatography-mass spectrometric (PAC-LC-MS) method to quantify peptides in biological fluids

13:30 – 14:40

Ryoya Goda[1], Ryo Yokoyama[2], Nobuhiro Kobayashi[1]
[1]Daiichisankyo, Co., Ltd., Tokyo, Japan, [2]KK AB Sciex, Tokyo, Japan

PMo-111 Comparative proteomics of CD133-positive liver cancer stem cells

11:10 – 12:20

Sheng-Ta Tsai[1,2], Chih-Chiang Tsou[3], Wan-Yu Mao[1], Wei-Chao Chang[1], Wen-Lian Hsu[3], Chia-Ning Shen[1,2], Chung-Hsuan Chen[1,2,4,5]
[1]Genomics Research Center, Academia Sinica, Nankang, Taipei, Taiwan, [2]Institute of Biochemistry & Molecular Biology, National Yang-Ming University, Taipei, Taiwan, [3]Institute of Information Science, Academia Sinica, Nankang, Taipei, Taiwan, [4]Department of Chemistry, National Taiwan University, [5]Institute of Atomic & Molecular Sciences, Academia Sinica

PMo-112 Quantitative proteomics approach with isotope dimethyl labeling for protein pathway analysis using high resolution mass spectrometry

13:30 – 14:40

Ping Sui, Konstantin Artemenko, Jonas Bergquist
Uppsala University, Uppsala, Sweden

PMo-113 MS-based proteogenomics and comparative proteomics help to identify novel key proteins in organisms with newly sequenced genomes

11:10 – 12:20

Rainer Cramer[1], Laurence V Bindschedler[1], Dana M Gheorge[2], Liam J McGuffin[1], Celia J Smith[1], Clara M Pliego Prieto[2], Pietro D Spanu[2]
[1]University of Reading, UK, [2]Imperial College London, UK

PMo-114 MALDI msn analysis of protein oxidation in major diseases

13:30 – 14:40

Lina Sellami[1], Claude Villard[1], Kamel Mabrouk[1], Therese Schembri[1], Didier Gigmes[1], Matthew Openshaw[2], Omar Belgacem[2], Daniel Lafitte[1]
[1]Aix Marseille Universite, Marseille, France, [2]Shimadzu, Manchester, United Kingdom

PMo-115 Quantitative Proteomics Using a Quadrupole-Orbitrap Mass Spectrometer (Q-Exactive): Application to the Analysis of Clinical Samples

11:10 – 12:20

Bruno Domon, Sebastien Gallien, Elodie Duriez
Luxembourg Clinical Proteomics Center CRP-Sante Luxembourg

PMo-116 Using Selected Reaction Monitoring to determine cell and drug specific profiles of caspase cleaved substrates in apoptosis

13:30 – 14:40

Kazutaka Shimbo[1,2], Gerald W Hsu[2], Huy Nguyen[2,3], Sami Mahrus[2], Jonathan C Trinidad[2], Alma L Burlingame[2], James A Wells[2,3]
[1]Institute for Innovation, Ajinomoto Co., Inc., Kawasaki, Japan, [2]Department of Pharmaceutical Chemistry, University of California, San Francisco, San Francisco, CA, [3]Department of Cellular and Molecular Pharmacology, University of California, San Francisco, San Francisco, CA

PMo-117 Rapid enzyme digestion system consisting of microwave and air bubble-mediated cooling.

11:10 – 12:20

Hyunjung Seo[1], Dong Min Kim[1,2], Chang Won Park[1,2], Yangsun Kim[1,2]
[1]HUDSON SURFACE TECHNOLOGY, FORT LEE, NJ, USA, [2]APPLIED SURFACE TECHNOLOGY INC., SUWON, KOREA

PMo-118 Biomarker Discovery and Validation with Nonglycosylated Tryptic Peptides from N-linked Glycoproteins in Human Plasma

13:30 – 14:40

Ju Yeon Lee[1,2], Jin Young Kim[1], Gun Wook Park[1,4], Kyung-Hoon Kwon[1], Yeong Hee Ahn[1], Myeong Hee Moon[2], Young Ki Paik[3], Jong Shin Yoo[1,4]
[1]Korea Basic Science Institute, O-chang Campus, Chungcheongbukdo, Korea, [2]Department of Chemistry, Yonsei University, Seoul, Korea, [3]Yonsei Proteome Research Center and Biomedical Proteome Research Center, Department of Biochemistry, Yonsei University, Seoul, Korea, [4]Graduate School of Science and Technology, Chungnam National University, Daejon, Korea

PMo-119 The application of biomarker discovery for atopic dermatitis and normalized spectral index based label free quantitation

11:10 – 12:20

Ki Na Yun[1], Gun Wook Park[1], Hye Kyoeng Min[1], Jong Shin Yoo[1], Seongmin Noh[2], Chang Ook Park[2], Kwang Hoon Lee[2], Jing Young Kim[1]
[1]Korea Basic Science Institute, Ochang, Korea, [2]Brain Korea 21 Project for Medical Science, Yonsei University College of Medicine, Seoul, Korea

Monday, 17th September

PMo-120 Multidimensional LC-MALDI Workflow for High Sensitivity Detection of Low-Abundance Peptides from Complex Samples

13:30 – 14:40

Shinichi Iwamoto[1], Yusaku Hioki[1], Ritsuko Tanimura[1], Yuki Ohta[1], Takashi Shimada[2], Koichi Tanaka[1]
[1]Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Corporation, Kyoto, Japan, [2]Life Science Research Center, Shimadzu Corporation, Tokyo, Japan

PMo-121 LC-ESI/MS analysis of protein modifications derived from a mixture of 13-HPODE and [13C18]-13-HPODE

11:10 – 12:20

Ryo Takahashi, Seon Hwa Lee, Takaaki Goto, Tomoyuki Oe
Tohoku University, Sendai, Japan

PMo-122 Systematic investigation of peptide fragmentation processes in HCD on an Orbitrap instrument using a computer Expert System

13:30 – 14:40

Annette Michalski, Neuhauser Nadin, Jurgen Cox, Matthias Mann
Max-Planck-Insitute of Biochemistry

PMo-123 Intraocular Lens Adsorbome: a Proteomic Study of Adsorbed Proteins onto Acrylic Materials and Its Implication in Secondary Cataract

11:10 – 12:20

Yi-Shiang Huang[1,2], Virginie Bertrand[1], Gabriel Mazzucchelli[1], Dimitriya Bozukova[3], Christophe Pagnoulle[3], Marie-Christine Durrieu[2], Edwin De Pauw[1], Marie-Claire De Pauw[1]
[1]University of Liege, Liege, Belgium, [2]University of Bordeaux 1, Bordeaux, France, [3]PhysIOL, Liege, Belgium

PMo-124 Analysis of SOD in cell line HepG2 by LC-nanospray-MS for screening natural antioxidants

13:30 – 14:40

Shih-Ying Dai, Kuo-Lung Ku
National Chiayi University, Chiayi City, Taiwan

PMo-125 Comparing and validating protein expression in multiple experimental conditions of antiviral immune response using clustering techniques on label-free LC-MS/MS data

11:10 – 12:20

Aivett Bilbao[1,2], Ying Zhang[1], Dario Bottinelli[3], Bandar Alghanem[1], Frederic Nikitin[2], Markus Mueller[2], Frederique Lisacek[2], Jeremy Luban[3], Caterina Strambio De Castillia[3], Emmanuel Varesio[1], Gerard Hopfgartner[1]
[1]Life Sciences Mass Spectrometry, School of Pharmaceutical Sciences, University of Geneva, University of Lausanne, Geneva, Switzerland, [2]Proteome Informatics Group, Swiss Institute of Bioinformatics, Geneva, Switzerland, [3]Department of Microbiology and Molecular Medicine, University of Geneva, Geneva, Switzerland

PMo-126 Identification of a modified amino acid residue in the heme protein using LC/MS/MS

13:30 – 14:40

Jun Watanabe[1], Yuki Ando[2], Keiko Matsumoto[1], Junko Iida[1], Shun Hirota[2]
[1]Shimadzu Corporation, Kyoto, Japan, [2]Nara Institute of Science and Technology, Nara, Japan

PMo-127 Population proteogenomics: qualitative and quantitative analysis of SNP and protein markers for obesity from plasma proteome

11:10 – 12:20

Nam Young Hong[1], Jin Nyoung Choi[1], Sarah Yang[2], Joohon Sung[2], Kwang Pyo Kim[1]
[1]Konkuk University, Seoul, Korea, [2]Seoul National University, Seoul, Korea

PMo-128 Optimization of chemical derivatization of nitro-peptides for fluorous solid-phase extraction.

13:30 – 14:40

Ji Hye Hong, Kyung-Cho Cho, Jeong Won Kang, Kwang Pyo Kim
Konkuk University, Seoul, Korea

PMo-129 Quantification of biological drugs in plasma by liquid chromatography-tamdem mass spectrometry.

11:10 – 12:20

Nozomu Kato[1], Takesada Shimura[2], Atsuko Takeuchi[4], Hisahide Nishio[3]
[1]Kobe University, Japan / Mitsubishi Tanabe Pharma Co., Osaka, Japan, [2]Mitsubishi Tanabe Pharma Co., Osaka, Japan, [3]Kobe University, Kobe, Japan, [4]Kobe pharmaceutical University, Kobe, Japan

PMo-130 Label-Free Semi-Quantitative Analysis of Histone Modification Dynamics using High-Resolution Mass Spectrometer

13:30 – 14:40

Kazuki Yamamoto, Yoko Chikaoka, Takeshi Kawamura, Takao Hamakubo, Tatsuhiko Kodama
Laboratory for System Biology and Medicine, Research Center for Advanced Science and Technology, The University of Tokyo, Tokyo, Japan

PMo-131 Simultaneous quantification of CYP1A2, 2D6, and 3A4 isoform proteins by liquid chromatography-tamdem mass spectrometry using a single internal standard peptide.

11:10 – 12:20

Nozomu Kato[2], Tetsuya Narita[1], Yasuhiro Yamada[2], Atsuko Takeuchi[1], Hisahide Nishio[2]
[1]Kobe Pharmaceutical University, Kobe, Japan, [2]Kobe University, Kobe, Japan

PMo-132 Testing of LC-MS/MS identification criteria for ricin protein

13:30 – 14:40

Martin T Söderström, Paula Vanninen
VERIFIN, Department of Chemistry, University of Helsinki, Finland

PMo-133 The Precision of Heavy-Light Peptide Ratios measured by MALDI-TOF Mass Spectrometry and its Application to LC-Free SISCAPA Protein Quantification

11:10 – 12:20

Detlev Suckau[1], Leigh Anderson[2], Morteza Razavi[2], Terry Pearson[2], Rainer Paape[1]
[1]Bruker Daltonik GmbH, [2]Andersson Forschung

PMo-134 Production of Standards for Quantitative Proteomics and Phosphoproteomics with Focus on ICP-MS and ESI-MS

13:30 – 14:40

Wolf D Lehmann
German Cancer Research Center (DKFZ)

Monday, 17th September

PMo-135 Exploring the dynamic range of label-free mass spectrometric quantification in complex samples
11:10 – 12:20

Stephanie Kaspar, Wolfgang Jabs, Markus Lubeck, Carsten Baessmann
Bruker Daltonik GmbH, Bremen, Germany

PMo-136 Multiple Products Monitoring Using Q-Exactive Mass Spectrometer (Q-MpM)
13:30 – 14:40

Je-Hyun Baek, Eugene C Yi
Molecular Medicine and Biopharmaceutical Sciences, Seoul National University, Seoul, Korea

PMo-137 In-Source Decay for the high-throughput sequencing of animal toxins
11:10 – 12:20

Loic Quinton[1], Michel Degueldre[1], Nicolas Gilles[2,3], Pierre Escoubas[3], Edwin De Pauw[1]
[1]Mass Spec Laboratory - University of Liège - BELGIUM, [2]CEA-iBiTEC-S-SIMOPRO- Gif-sur-Yvette - FRANCE, [3]VenomeTech- Valbonne- FRANCE

PMo-138 Screening and Quantitative Analysis of Specific Proteins in Clinical Samples by LC-ESI-MS/MS
13:30 – 14:40

Rieko Goto[1], Yasushi Nakamura[2], Shohei Shioyama[1], Yukiko Nishida[1], Tomonori Takami[1], Tokio Sanke[2]
[1]JCL Bioassay Corporation, Hyogo, Japan, [2]Wakayama Medical University, Wakayama, Japan

PMo-139 Analysis of modified amyloid beta peptide by Mass Spectrometry
11:10 – 12:20

Akutsu Hiroaki, Tsumura Naomi, Funakoshi Hiroshi, Nakamura Masao
Asahikawa Medical University, Asahikawa Japan

PMo-140 The trial of lower background in using a nanoelectrospray (nano ES) interface
13:30 – 14:40

Toshie Takahashi[1], Takashi Usui[2]
[1]University of Tokyo, Tokyo, Japan, [2]Nikkyo Technos, Co., Ltd. Tokyo, Japan

PMo-141 Fully automated chip-based nanoelectrospray combined with electron transfer dissociation for high throughput top-down proteomics
11:10 – 12:20

CORINA FLANGEA[1,2], CRISTINA MOSOARCA[1,3], MARILENA MANEA[4], CATALIN SCHIOPU[1,5], EUGEN SISU[5,6], ALINA D ZAMFIR[1,2]
[1]Aurel Vlaicu University, Arad, Romania, [2]National Institute for Research and Development in Electrochemistry and Condensed Matter, Timisoara, Romania, [3]West University Timisoara, Romania, [4]Zukunftskolleg, University of Konstanz, Germany, [5]Victor Babes University of Medicine and Pharmacy, Timisoara, Romania, [6]Chemistry Institute of Romanian Academy, Timisoara, Romania

PMo-142 Analysis of nitroproteome in S. cerevisiae using chemical approach
13:30 – 14:40

Jeong Won Kang[1], Na Young Lee[2], Kyung-Cho Cho[1], Sang-Hyun Park[2], Kwang Pyo Kim[1]
[1]Konkuk University, Seoul, Korea, [2]Seoul National University, Seoul, Korea

PMo-143 Mass spectrometric and bioaffinity MS investigations of proteins involved in metabolic and age related diseases
11:10 – 12:20

Marius I Iurascu[1], Claudia Cozma[1], Michael Gross[2], David Clemmer[3], Michael Przybylski[1]
[1]University of Konstanz, Konstanz, Germany, [2]Washington University in St. Louise, MO, USA, [3]Indiana University, Bloomington, IN, USA

PMo-144 Higher resolution improves top-down protein ID results on an Orbitrap mass analyzer for large (>40 kDa) proteins
13:30 – 14:40

Daisuke Higo[1], David Horn[2], Rosa Viner[2], Seema Sharma[2], Eduard Denisov[3], Alexander Makarov[3]
[1]Thermo fisher scientific, Yokohama, Japan, [2]Thermo Fisher Scientific, San Jose, CA, [3]Thermo Fisher Scientific (Bremen) GmbH, Bremen, GERMANY

PMo-145 HR/AM Targeted Peptide Quantification on Q Exactive: A Unique Combination of High Selectivity, High Sensitivity and High Throughput
11:10 – 12:20

Yi Zhang[2,3], Makoto Takahata[1], Zhiqi Hao[2,3], Markus Kellmann[2,3], Andreas Huhmer[2,3]
[1]Thermo Fisher Scientific K.K., Japan, [2]Thermo Scientific, San Jose, CA, [3]Thermo Scientific, Bremen, Germany

Session 7
New Ionization Methods and Related Topics for the Next Generation

PMo-146 Development of an Ion Source for the Analysis of Cuticular Hydrocabons from Living Insects and Steps toward Comprehensive Hydrocarbon Analysis
13:30 – 14:40

Alexander Pirkl[1], Ann-Christin Buelter[1], Joanne Y Yew[2,3], Klaus Dreisewerd[1]
[1]University of Muenster, Muenster, Germany, [2]Temasek Life Sciences Laboratory, Singapore, Singapore, [3]Department of Biological Sciences, National University of Singapore, Singapore

PMo-147 Oligonucleotide analysis by nanoparticle-assisted laser desorption/ionization mass spectrometry
11:10 – 12:20

Shu TAIRA[1], Daisaku KANEKO[1], Yasuko KONISHI-KAWAMURA-[2], Yuko ICHIYANAGI[3]
[1]JAPAN Advanced Institute of Science and Technology, [2]Ishikawa Prefectural University, [3]Yokohama National University

PMo-148 Temperature Dependence of Proton Transfer and Conformation Change for Ubiquitin Ions
13:30 – 14:40

Minami Kawashima, Ayako Sudo, Takashige Mori, Yuto Ohshima, Keishi Machida, Kanako Yokoyama, Kazuki Yamashita, Shinji Nonose
Yokohama City University, Yokohama, Japan

PMo-149 Development of a Dual Pressure Operating Hollow Cathode Glow Discharge Ion Source for Detection of Explosives and Explosive-related Compounds
11:10 – 12:20

Md Ahsan Habib, Lee Chuin Chen, Satoshi Ninomiya, Kenzo Hiraoka
University of Yamanashi, Kofu, Japan

Monday, 17th September

PMo-150 A Novel Source Design for the Analysis of both Polar and Non-Polar Species
13:30 – 14:40

Steve M Smith[1], Hilary Major[1], Steve Bajic[1], Anthony Bristow[2], Andrew Ray[2]
[1]Waters Corporation, Manchester, UK, [2]AstraZeneca, Macclesfield, UK

PMo-151 Sheath- flow PESI for Dry Samples
11:10 – 12:20

Md Obaidur Rahman, Yasuo Shida, Mridul Kanti Mandal, Satoshi Ninomiya, Lee Chuin Chen, Kenzo Hiraoka
University of Yamanashi,Kofu,Japan

PMo-152 An Electron Impact Ion Source for a Miniature Mass spectrometer
13:30 – 14:40

yide zhao, meiru guo, liang wang, yuhua xiao, taiguo li
Science and Technology on Vacuum & cryogenics Technology and Physics Laboratory, Lanzhou Institute of Physics, Lanzhou, China

PMo-153 Development of High Pressure Ion Sources with Operating Pressure Higher Than Atmospheric Pressure
11:10 – 12:20

Lee Chuin Chen, Matiur M Rahman, Mridul Kanti Mandal, Kenzo Hiraoka
University of Yamanashi, Kofu, Japan

PMo-154 Conformation Change for Insulin and Insulin Chain B Ions; Temperature Dependence of Proton Transfer
13:30 – 14:40

Ayako Sudo, Keishi Machida, Kanako Yokoyama, Minami Kawashima, Takashige Mori, Yuto Ohshima, Kazuki Yamashita, Shinji Nonose
Yokohama City University

PMo-155 Development of high sensitive low vacuum dielectric barrier discharge ionization method
11:10 – 12:20

Kazushige Nishimura[1], Shun Kumano[1], Masuyuki Sugiyama[1], Masuyoshi Yamada[1], Hidetoshi Morokuma[2], Yuichiro Hashimoto[1]
[1]Hitachi Ltd., Tokyo, Japan, [2]Hitachi High-Technologies Corp.,Ibaraki-ken, Japan

PMo-156 High ion yields of carbohydrates from frozen solution by UV-MALDI
13:30 – 14:40

Chi-Wei Liang, Po-Jul Chang, Yu-Jiun Lin, Yuan T Lee, Chi-Kung Ni
Academia Sinica, Taipei, Taiwan

PMo-157 ATMOSPHERIC PRESSURE PHOTOIONIZATION-MASS SPECTROMETRY OF ESTROGENIC COMPOUNDS
11:10 – 12:20

Oscar Nunez[1], Paolo Lucci[2], Encarnacion Moyano[1], Maria Teresa Galceran[1]
[1]University of Barcelona, Barcelona, Spain, [2]Pontificia Universidad Javeriana, Bogota, Colombia

PMo-158 Application of Electrospray Droplet Impact / SIMS to synthetic polymers
13:30 – 14:40

Rio Takaishi, Yuji Sakai, Satoshi Ninomiya, Kenzo Hiraoka
Clean Energy Research Center, University of Yamanashi, Yamanashi, Japan

PMo-159 Development of high pressure (>1 atm) probe electrospray ionization mass spectrometry
11:10 – 12:20

Md Matiur Rahman, Lee Chuin Chen, Kenzo Hiraoka
University of Yamanashi, Kofu, Japan

PMo-160 Development of an Atmospheric Pressure Laser Ionization Technique using a Novel 6 um-band Mid-Infrared Tunable Laser and Liquid Water Matrix
13:30 – 14:40

Ryuji Hiraguchi, Hisanao Hazama, Kunio Awazu
Osaka University, Osaka, Japan

PMo-161 Influence of source parameters on the detection and the fragmentation of aroma compounds using PTR-SRI-ToF MS
11:10 – 12:20

Xaviera Pennanec[1,2,3], Etienne Semon[1,2,3], Jean-Luc Le Quere[1,2,3]
[1]INRA, UMR1324 Centre des Sciences du Gout et de l'Alimentation, Dijon, France, [2]CNRS, UMR6265 Centre des Sciences du Gout et de l'Alimentation, Dijon, France, [3]Universite de Bourgogne, UMR Centre des Sciences du Gout et de l'Alimentation, Dijon, France

PMo-162 Expansion of an ionization technique in nonpolar solvents with cation tetrakis(3,5-bis(trifluoromethyl)-phenyl) borate
13:30 – 14:40

Atsushi Takamizawa[1,2], Naoto Niizuma[2], Takashi Korenaga[2]
[1]Japan Science and Technology Agency (JST), Saitama, Japan, [2]Tokyo Metropolitan University, Tokyo, Japan

PMo-163 Gas chromatographic separation and accurate mass determination by low temperature plasma ionization API-QTOF-MS
11:10 – 12:20

Asger W Noergaard, Vivi Kofoed-Soerensen, Peder Wolkoff, Per A Clausen
National Research Centre for the Working Environment, Denmark

PMo-164 Fast, High Throughput LC-MS/MS Method for Immunosuppressants Analysis Using Dual Probe Electrospray
13:30 – 14:40

Lisa Cousins, Heather Gamble, Hui Qiao, Frenny Ruparelia, George Scott, Sha Joshua Ye
IONICS Mass Spectrometry, Toronto, Canada

PMo-165 Evaluation of Pt-deposited Porous Alumina Target Plate with MALDI Spiral-TOFMS
11:10 – 12:20

Takafumi Sato[1], Kanae Teramoto[1], Yoshihisa Ueda[1], Tomohiko Tamura[2], Moriyuki Hamada[2], Ken-Ichiro Suzuki[2], Yoshinao Wada[3], Takashi Yanagishita[4], Hideki Masuda[4,5]
[1]JEOL ltd., Tokyo, Japan, [2]NITE Biological Resource Center, Kisarazu, Japan, [3]Osaka Medical Center and Research Institute for Maternal and Child Health, Osaka, Japan, [4]Tokyo Metropolitan University, Tokyo, Japan, [5]Kanagawa Academy of Science and Technology, Sagamihara, Japan

PMo-166 New Version of Desorption Corona Beam Ionization Source and Applications
13:30 – 14:40

Yupeng Cheng, Junsheng Zhang, Joseph Ting, Wenjian Sun
Shimadzu Research Laboratory (Shanghai) Co., Ltd, Shanghai, China

Monday, 17th September

PMo-167 Development of TLC/MS by LI-API and WAr-APPI (Photoionization in Argon Gas Contained Water) Method
11:10 – 12:20

yoshiyuki mochida, gennki kobayashi, futoshi matumoto
Kanagawa Univercity, Yokohama, Japan

PMo-168 Charged-droplet beam source using vacuum electrospray of an ionic liquid for secondary ion mass spectrometry (SIMS)
13:30 – 14:40

Yukio Fujiwara, Naoaki Saito, Hidehiko Nonaka, Shingo Ichimura
AIST, Tsukuba, Japan

PMo-169 High Throughput Molecular Weight Confirmation of Pharmaceutical Compounds Using DART MS Analysis with Ultra-fast Polarity Switching
11:10 – 12:20

Teruhisa Shiota[1], Hirotaka Honda[1], Jun Watanabe[2], Kazuo Mukaibatake[2], Junko Iida[2], Tsubasa Ibushi[3], Manabu Ueda[2]
[1]AMR, Inc., Tokyo, Japan, [2]Shimadzu Corporation, Kyoto, Japan, [3]Shimadzu Techno Research, Kyoto, Japan

PMo-170 Componential Analysis of Pepper of Various Origins Using DART-MS Using Ultra-fast Polarity Switching
13:30 – 14:40

FUMIHIKO USUI[1], Teruhisa Shiota[1], Manabu Ueda[2], Kazuo Mukaibatake[2], Junko Iida[2], Tsubasa Ibushi[3], Yasuhiko Bando[1], Jun Watanabe[2]
[1]AMR INCORPORATED Tokyo,Japan, [2]Shimadzu Corporation, Kyoto, Japan, [3]Shimadzu Techno Research, Kyoto, Japan

PMo-171 Gas Chromatography/Ambient Ionization Mass Spectrometry (GC/AMS) for the Analysis of Long Chain n-Alkanes in Crude Oil
11:10 – 12:20

Jentaie Shiea[1], Min-Zong Huang[1], Yi-Tzu Cho[2]
[1]RIKEN ASI, Wako, Japan, [2]Yuh-Ing Junior College of Health Care & Management, Kaohsiung, Taiwan

PMo-172 A Combined DSMC - CFD Approach for the Numerical Simulation of an Under-expanded Jet
13:30 – 14:40

Athanasios Zacharos[2], Ioannis Nikolos[3], Dimitris Papanastasiou[2], Roger Giles[1], Andrew Entwistle[1], Emmanuel Raptakis[2]
[1]Shimadzu Research Laboratory (EUROPE) LTD, [2]Fasmatech, Athens, GR, [3]Department of Production Engineering & Management, TUC, Chania, Crete, GR

PMo-173 Proposal of the New Method for 3DAP Analysis of Biological Molecules Utilizing Photocatalyst and Mesoporous Materials
11:10 – 12:20

Masato Morita, Mahito Shimizu, Yuya Hanaoka, Masanori Owari
The University of Tokyo, Tokyo, Japan

PMo-174 High Sensitivity Spray Ionization Approaches at AP and Vacuum with Matrices or Solution With or Without Voltage or a Laser
13:30 – 14:40

Charles N McEwen[1], Sarah Trimpin[2]
[1]University of the Sciences, [2]Wayne State University

PMo-175 Fundamental Aspects of Solvent free Atmospheric Pressure Chemical Ionization and Laser Diode Thermal Desorption Ionization Source (LDTD)
11:10 – 12:20

Pierre Picard[1], Real E Paquin[2]
[1]Phytronix Technologies Inc, Quebec, QC, Canada, [2]Universite Laval, Quebec, QC, Canada

PMo-176 Photo-ionisation mass spectrometry for on-line monitoring: Technology and real-time monitoring applications such as characterisation of the coffee-roasting and cigarette-smoking process
13:30 – 14:40

Ralf Zimmermann[1], Romy Hertz[1], Matthias Bente[2], Mohammad Saraji[2], Thorsten Streibel[1]
[1]Joint Mass Spectrometry Centre of University Rostock and Helmholtz Zentrum München, Oberschleissheim/Rostock, Germany, [2]Photonion GmbH, Schwerin Germany

Session 8
Collision Dynamics and Spectroscopy Using Ion Storage Rings and Traps

PMo-177 Design of Electrodynamic Ion Funnel-Stacked Ring Trap
11:10 – 12:20

Liulin Deng, T-W Dominic Chan
The Chinese University of Hongkong, Hongkong

PMo-178 Delayed electron emission and radiative cooling of stored molecular ions in TMU electrostatic ion storage ring
13:30 – 14:40

Toshiyuki Azuma[1,2], Motoshi Goto[1,3], Jun Matsumoto[3], Haruo Shiromaru[3], Takeshi Furukawa[2], Takuya Majima[2], Hajime Tanuma[2], Tsuneto Kanai[1], Erika Sunden[4], Klavs Hansen[4]
[1]RIKEN, Wako, Japan, [2]Department of Physics, Tokyo Metropolitan University, Tokyo, Japan, [3]Department of Chemistry, Tokyo Metropolitan University, Tokyo, Japan, [4]Department of Physics, University of Gothenburg, Gothenburg, Sweden

PMo-179 Develapment of a cryogenic ion storage ring in RIKEN
11:10 – 12:20

yoshinori enomoto, yuji nakano, takuya masunaga, toshiyuki azuma
RIKEN, Wako, Japan

Monday, 17th September

Session 9
Imaging II

PMo-180 13:30 – 14:40
Development of MALDI-MS-based imaging technique for visualizing the green tea polyphenol EGCG in mammalian tissues

Yoshinori Fujimura, Yoon Hee Kim, Takatoki Hagihara, Daichi Yukihira, Ayumi Yamaguchi, Miho Irie, Daisuke Miura, Hiroyuki Wariishi, Mitsuru Shindo, Hirofumi Tachibana
Kyushu University, Fukuoka, Japan

PMo-181 11:10 – 12:20
Development of micro-focusing electrospray droplet impact gun for SIMS analysis

YUJI SAKAI, RIO TAKAISHI, SATOSHI NINOMIYA, KENZO HIRAOKA
University of Yamanashi, Kofe, Japan

PMo-182 13:30 – 14:40
Dyeing Regions of Oxidative Hair Dyes in Human Hair Investigated by Nanoscale Secondary Ion Mass Spectrometry

Toru Kojima[1], Hiromi Yamada[1], Toshihiko Yamamoto[1], Miyuki Takeuchi[2], Yasuyuki Matsushita[3], Kazuhiko Fukushima[3]
[1]Hoyu Co., Ltd., Nagakute, Japan, [2]The University of Tokyo, Tokyo, Japan, [3]Nagoya University, Nagoya, Japan

PMo-183 11:10 – 12:20
Bio-imaging with Swift Heavy Ion Beams

Toshio Seki[1,2], Sho Shitomoto[1], Shunichiro Nakagawa[1], Takaaki Aoki[2,3], Jiro Matsuo[1,2]
[1]Kyoto University, Uji, Japan, [2]CREST,Tokyo, Japan, [3]Kyoto University, Kyoto, Japan

PMo-184 13:30 – 14:40
Secondary Ion Emission with Methanol Gas Cluster Ion Beam Irradiation

Shunichiro Nakagawa[1], Tosio Seki[1,4], Takaaki Aoki[3,4], Jiro Matsuo[2,4]
[1]Nuclear Engineering, Kyoto University, Uji, Japan, [2]Quantum Science and Engineering Center, Kyoto University, Uji, Japan, [3]Department of Electronic Science and Engineering, Kyoto University, Kyoto, Japan, [4]CREST, Japan Science and Technology Agency (JST), Tokyo, Japan

PMo-185 11:10 – 12:20
Development of Electrostatic Quadrupole Lens for MeV-SIMS Imaging

Sho Shitomoto[1], Toshio Seki[1,2], Takaaki Aoki[1,2], Jiro Matsuo[1,2]
[1]Kyoto University, Kyoto, Japan, [2]CREST, Tokyo, Japan

PMo-186 13:30 – 14:40
Evaluation of the Damage on a Polymer Sample Caused by Shave-off Section Processing

Teruhiko Tobe, Yoshihiro Morita, Atsuko Yamazaki, Makiko Fujii, Masanori Owari
The University of Tokyo, Tokyo, Japan

PMo-187 11:10 – 12:20
Study on Depth Resolution Factor of Shave-off Depth Profiling

Makiko FUJII, Yuya HANAOKA, Tatsuya TAKETSUGU, Masanori OWARI
The University of Tokyo, Tokyo, Japan

PMo-188 13:30 – 14:40
Tracing photosynthetic product accumulation in xylem cell wall using carbon isotope labeling

Miyuki Takeuchi, Akira Isogai
The university of Tokyo, Tokyo, Japan

PMo-189 11:10 – 12:20
Acceleration of gluconeogenesis of the host liver bearing human colon cancer metastases revealed by microscopic imaging mass spectrometry

Akiko Kubo[1], Mitsuyo Ohmura[1], Tsuyoshi Nakanishi[3], Shigeki Kajihara[3], Kiyoshi Ogawa[3], Makoto Suematsu[1,2]
[1]Keio University, Tokyo, Japan, [2]JST, ERATO Suematsu Gas Biology Project, Tokyo, Japan, [3]Shimadzu Corporation, Kyoto, Japan

PMo-190 13:30 – 14:40
Early Detection of Gastric Cancer using ToF-SIMS Metabolomic Imaging

Yong-Chien Ling[1], Shiou-Ling Lei[1], Chun-Chao Chang[2], Chia-Lang Fang[3], Fu-Der Mai[4]
[1]Department of Chemistry, National Tsing Hua University, Hsicnhu, Taiwan, [2]Department of Internal Medicine, Taipei Medical University, Taipei, Taiwan, [3]Department of Pathology, Taipei Medical University, Taipei, Taiwan, [4]Biomedical Mass Imaging research Center, Taipei Medical University, Taiwan

Session 10
Ion Mobility Spectroscopy Based on Instrument & Theoretical Development

PMo-191 11:10 – 12:20
Separation and identification of Structural isomers of Methylpyrazole by Differential Mobility Spectrometry

Kazuhide Inoue[1], Yasutohi Kawase[1], Masazumi Yasumoto[1], Seiji Horie[1], Shigeru Yamada[2], Ryoma Yamamoto[2]
[1]TAKARA BIO INC. Shiga, Japan, [2]K.K. AB SCIEX. Tokyo, Japan

PMo-192 13:30 – 14:40
Investigation of an IMS-TOF MS with a laser based ionisation under atmospheric conditions

Marvin Ihlenborg, Tassilo Muskat, Juergen Grotemeyer
CAU Kiel, Kiel, Germany

PMo-193 11:10 – 12:20
Separation of Isobaric Phosphopeptides using Differential Ion Mobility Spectrometry with Tandem Mass Spectrometry.

Chie Inagaki, Masato Aoshima, Takeshi Shibata, Shigeru Yamada, Sumie Ando
KK ABSCIEX, Tokyo , Japan

PMo-194 13:30 – 14:40
Integrative structure determination of protein assemblies using mass spectrometry, ion mobility and cross-linking.

Argyris Politis[1], Zoe Hall[1], Florian Stengel[2], Ruedi Abersold[2], Carol V Robinson[1]
[1]University of Oxford, [2]ETH Zurich

Monday, 17th September

PMo-195 Advances in Chip-based FAIMS/Triple Quadrupole MS: Instrumental Studies and Analytical Capabilities
11:10 – 12:20

Richard A Yost[1], Christopher R Beekman[1], Chia-Wei Tsai[1], Michael Ugarov[2], George Stafford[2]
[1]UNIVERSITY OF FLORIDA, Gainesville, Florida USA, [2]Agilent Technologies, Santa Clara, California USA

PMo-196 Selected Mobility Accumulation (SMA) in a Trapped Ion Mobility Mass Spectrometer (TIMS-MS)
13:30 – 14:40

Ulrich Giessmann, Melvin A Park, Desmond Kaplan, Mark Ridgeway
Bruker Daltonics, Billerica, MA, USA

PMo-197 Evaluation of the performance of microscale FAIMS for enhancement of quantitative analysis of metabolites and peptides
11:10 – 12:20

Robert W Smith[2], Lauren Brown[1], Danielle E Toutoungi[1], James Reynolds[2], Ashley Sage[3], Anthony W Bristow[4], Andrew Ray[4], Daniel Weston[5], Ian Wilson[5], Billy Boyle[1], Colin Creaser[2]
[1]Owlstone Ltd, [2]Loughborough University, Loughborough, United Kingdom, [3]Agilent Technologies, Stockport, United Kingdom, [4]AstraZeneca, Pharmaceutical Development, Macclesfield, United Kingdom, [5]AstraZeneca, DMPK Innovative Medicines, Alderley Park, United Kingdom

PMo-198 Develpment of Ion Trap Mobility Measurement System
13:30 – 14:40

Toshiki Sugai, Yoshihiko Sawanishi, Masashi Shinozaki, Sho Osaka
Toho University, Funabashi, Japan

PMo-199 Achieving High Resolution in a Benchtop Resistive Glass Drift Tube Ion Mobility Spectrometer
11:10 – 12:20

WILLIAM C NETOLICKY[1], PAULA HOLMES[1], FACUNDO FERNANDEZ[2], JOE TICE[3], BRIAN MUSSELMAN[3]
[1]Photonis USA, Sturbridge, USA, [2]Georgia Institute of Technology, Atlanta GA, USA, [3]IonSense Inc., Saugus MA, USA

Others

PMo-200 Direct detection of S-nitrosylated peptides with UV-MALDI MS using porphyrin and retinoic acid as a matrix additive
13:30 – 14:40

Makoto Watanabe[1], Rie Yamamoto[1], Shinichi Iwamoto[1], Yuko Fukuyama[1], Ritsuko Tanimura[1], Shin-Ichirou Kawabata[1], Taka-Aki Sato[1], Shunsuke Izumi[2], Koichi Tanaka[1]
[1]Shimadzu Corporation, Kyoto, Japan, [2]Hiroshima University, Higashi-Hiroshima, Japan

PMo-201 Bactericidal effects of atmospheric ions formed in ambient corona discharges
11:10 – 12:20

Rena Gonda, Yuya Yamakawa, Kanako Sekimoto, Mitsuo Takayama
Yokohama City University, Yokohama, Japan

PMo-202 Thermal Activation of Methane: Why [Ti,O,H]+ and [V,O,H]+ are More Than the Sum of Their Atoms.
13:30 – 14:40

Robert Kretschmer, Maria Schlangen, Helmut Schwarz
Technical University Berlin

PMo-203 Measurements of Proton and Alkali Ion Affinities using CID Spectra of High Performance Tandem Mass Spectrometer
11:10 – 12:20

KIMIO ISA[1], SHIGEKI MATSUMURA[2], RYUJI NAKADA[3]
[1]Jin-Ai University, Echizen City, Japan, [2]Headquarters of Fukui Prefecuture Police, Fukui City, Japan, [3]Fukui University, Fukui City, Japan

Tuesday, 18th September Morning

Plenary Lecture

08:00 – 08:45 Main Hall

Plenary Lecture 3: Albert J R Heck

Chair: Alma L Burlingame
UCSF, USA

PL3-0800 08:00 – 08:45 **A personal perspective on the role of mass spectrometry for protein analysis in proteomics and structural biology**

Albert J R Heck[1,2]
[1]Utrecht University, Utrecht, The Netherlands, [2]Netherlands Proteomics Centre

Oral Session

09:00 – 11:00 Main Hall

Session 11: Glycomics: From Disease Markers to Therapeutic Antibody Products

Chair: Hyun joo An
ChungNam National University, Korea

S11-0900 09:00 – 09:40 **[Keynote Lecture] Is high throughput glycomics possible?**

Carlito B Lebrilla
University of California, Davis

S11-0940 09:40 – 10:00 **Site specific characterization of O-GlcNAcylation on cytosolic and nuclear proteins using electron transfer dissociation mass spectrometry.**

Alma L Burlingame[1], Samuel Myers[1], Jonathan C Trinidad[1], Giselle Knudsen[1], Barbara Panning[1], Agnes Thalhammer[2], Ralf Schoepfer[2]
[1]UCSF, [2]University College, London

S11-1000 10:00 – 10:20 **Carbonyl trapping activity of pyridoxal 5'-phosphate in vitro and in vivo**

Roumyana Mironova[1], Ivaylo Ivanov[2], Valentin Lozanov[3], Silvia Russeva[3], Svetlana Simova[4], Ivan Ivanov[1], Toshimitsu Niwa[5]
[1]Institute of Molecular Biology Roumen Tsanev, Sofia, Bulgaria, [2]University of Sofia St. Kliment Ohridski, Sofia, Bulgaria, [3]Medical University, Sofia, Bulgaria, [4]Institute of Organic Chemistry with Centre of Phytochemistry, Sofia, Bulgaria, [5]Nagoya University Graduate School of Medicine, Nagoya, Japan

S11-1020 10:20 – 10:40 **Bioinformatics Platform for the Glycan Marker Discovery by Mass Spectrometry**

Jaehan Kim[1], Hyunjoo An[1], Carlito Lebrilla[2]
[1]Chungnam National University, Daejeon, Korea, [2]University of California, Davis, USA

S11-1040 10:40 – 11:00 **Characterization of Elastin Degraded Peptides in Chronic Obstructive Pulmonary Disease (COPD)**

Yong Y Lin[1], Toyonobu Usuki[2]
[1]St.Luke-Roosevelt Hospital Center, Columbia University College of Physicians and Surgeons, [2]Faculty of Materials and Sciences, Sophia University

Tuesday, 18th September Morning

Tue

Oral Session

09:00 – 11:00 Room A

Session 12: On-site Mass Spectrometry -Miniaturized Instruments and Allied Technologies-

Chair: Shuichi Shimma
National Cancer Center Research Institute, Japan

S12-0900 09:00 – 09:40 **[Keynote Lecture] In-vivo, Real-time Identification of Tissues in Human Surgical Environment by Rapid Evaporative Ionization Mass Spectrometry**

Zoltan Takats[1], Julia Balog[2], James Kinross[1], Christian Schafer[1], Laura Muirhead[1], Ottmar Golf[4], Laszlo Sasi-Szabo[3], Balazs Dezso[3], Kirill Veselkov[1]
[1]Imperial College, London, UK, [2]Medimass Ltd., Budapest, Hungary, [3]University of Debrecen, Debrecen, Hungary, [4]Justus Liebig University, Giessen, Germany

S12-0940 09:40 – 10:00 **Miniaturization of a Toroidal Ion Trap Mass Analyzer Composed of Cylindrical Electrodes**

Daniel E Austin, Nicholas Taylor, Jessica Higgs
Brigham Young University, Provo, Utah, USA

S12-1000 10:00 – 10:20 **Auto-sampling Explosives Trace Detection System using Mass Spectrometry**

Yuichiro Hashimoto, Hisashi Nagano, Yasuaki Takada, Yasutaka Suzuki, Hideo Kashima, Masakazu Sugaya, Yasunori Doi, Koichi Terada, Minoru Sakairi
Hitachi, Ltd. Central Research Laboratory

S12-1020 10:20 – 10:40 **Rapid Screening Chemicals in the Liquids and Solids via Mobile Ambient Mass Spectrometry (MAMS)**

Min-Zong Huang, Chu-Nian Cheng, Hung Su, Jentaie Shiea
National Sun Yat-Sen University, Kaohsiung, Taiwan

S12-1040 10:40 – 11:00 **Development of portable vacuum ultraviolet single photon ionization mass spectrometer for trace measurement of volatile organic compounds**

Yukio Yamamoto[1], Hiroyuki Yamada[2], Kenichi Tonokura[1]
[1]The University of Tokyo, Chiba, Japan, [2]National Traffic Safety and Environmental Laboratory, Tokyo, Japan

Oral Session

09:00 – 11:00 Room B-1

Session 13: Accelerator Mass Spectrometry

Chair: Hiroyuki Matsuzaki
The University of Tokyo, Japan

S13-0900 09:00 – 09:40 **Accelerator Mass Spectrometry - analysis of the rarest atom species for earth and environmental science**

Peter Steier
University of Vienna, Faculty of Physics

S13-0940 09:40 – 10:00 **Small scale radiocarbon dating and its applications to understand Antarctic ice sheet**

Yusuke Yokoyama[1], Yosuke Miyairi[1], Suga Hisami[2], Matsuzaki Hiroyuki[3], Ohkouchi Naohiko[2]
[1]University of Tokyo, Chiba, Japan, [2]JAMSTEC, Yokosuka, Japan, [3]University of Tokyo, Tokyo, Japan

S13-1000 10:00 – 10:20 **Beryllium 10 analysis for the Dome Fuji ice cores and cosmic-ray stratigraphy**

Kazuho Horiuchi[1], Shota Suguchi[1], Kensuke Suda[1], Tomoko Uchida[2], Takahiro Aze[3], Yusuke Yokoyama[4], Yasuyuki Muramatsu[5], Hiroyuki Matsuzaki[4], Hideaki Motoyama[6]
[1]Hirosaki University, Hirosaki, Japan, [2]IAA, Shirakawa, Japan, [3]Tokyo Institute of Technology, Tokyo, Japan, [4]The University of Tokyo, Tokyo, Japan, [5]Gakushuin University, Tokyo, Japan, [6]National Institute of Polar Research, Tokyo, Japan

S13-1020 10:20 – 10:40 **Quantifying soil formation and sediment yield in mountains watersheds using terrestrial cosmogenic nuclides**

Yuki Matsushi[1], Hiroyuki Matsuzaki[2]
[1]Kyoto University, Uji, Japan, [2]The University of Tokyo, Tokyo, Japan

S13-1040 10:40 – 11:00 **Iodine isotope system in environment: Natural system, anthropogenic system and influence from NPP accident**

Hiroyuki Matsuzaki[1], Maki Honda[2], Yasuto Miyake[1], Takeyasu Yamagata[2], Hironori Tokuyama[1], Yasuyuki Muramatsu[3]
[1]The University of Tokyo, Tokyo, Japan, [2]Nihon University, Tokyo, Japan, [3]Gakushuin University,Tokyo, Japan

Tuesday, 18th September Morning

Oral Session

09:00 – 11:00 Room D

Session 14: Ion-surface Collisions: Collision-induced Dissociation and Soft Landing

Chair: Jean H Futrell
Pacific Northwest National Laboratory, USA

S14-0900 09:00 – 09:40 **[Keynote Lecture] Ion-Surface Collisions in Mass Spectrometry: Activation, Dissociation and Soft-Landing**

Julia Laskin
Pacific Northwest National Laboratory, Richland, WA, USA

S14-0940 09:40 – 10:00 **Surface-induced Dissociation of Non-covalent Macromolecular Complexes**

Vicki H Wysocki[1,2], Mowei Zhou[1,2], Anne Blackwell[2], Royston Quintyn[1,2], Xin Ma[1,2], Shai Dagan[2]
[1]Ohio State University, Columbus, OH, USA, [2]University of Arizona, Tucson, AZ, USA

S14-1000 10:00 – 10:20 **Mimicking redox protein function by soft landing Co(Salen) ions on self-assembled monolayer surfaces**

Wen-Ping Peng[1], Grant Johnson[2], Julia Laskin[2]
[1]Department of Physics, National Dong Hwa University, Taiwan, [2]Pacific Northwest National Laboratory, Richland, WA

S14-1020 10:20 – 10:40 **Epitaxy and Nanostructure Growth by Electrospray Ion Beam Deposition: Nonvolatile Molecules, Peptides, Proteins**

Stephan Rauschenbach[1], Gordon Rinke[1], Matthias Pauly[1], Ludger Harnau[2,3], Klaus Kern[1,4]
[1]Max-Planck-Institute for Solid State Research, Stuttgart, Germany, [2]Max-Planck-Institute for Intelligente Systeme, Stuttgart, Germany, [3]Institute for Theoretical und Applied Physics, Univ. Stuttgart, Germany, [4]Institut de Physique de la Matiere Condensee, Ecole Polytechnique Federale de Lausanne, Switzerland

S14-1040 10:40 – 11:00 **Soft and Reactive Landing of Ions for the Fabrication of Bioactive Metal Surfaces**

Michael Volny, Joelle M Rolfs, Tim Elam, Frantisek Turecek
University of Washington, Seattle, USA

Oral Session

09:00 – 11:00 Room E

Session 15: Mass Spectrometry for Nuclear Applications and Safety

Chair: Nobuo Takaoka
Kyushu Univertsity, Japan

S15-0900 09:00 – 09:40 **[Keynote Lecture] Extractive Electrospray Ionization Mass Spectrometry for Uranium Chemistry Studies**

Huanwen Chen, Mingbiao Luo, Saijin Xiao, Yongzhong Ouyang, Yafei Zhou, Xinglei Zhang
East China Institute of Technology, Nanchang, P.R. China

S15-0940 09:40 – 10:00 **Importance of process blank in isotope ratio determination of uranium and plutonium in ultra trace levels**

Sunyoung Lee, Young Geun Ha, Jong-Ho Park, Kyuseok Song
Korea atomic energy research institute, Daejeon, Korea

S15-1000 10:00 – 10:20 **Fissiogenic noble gases anomaly associated with Fukushima-daiichi nuclear power plant disaster after the 3.11 Northeast Japan Earthquake**

Keiko Sato[1], Hidenori Kumagai[1], Naoyoshi Iwata[2], Hironobu Hyodo[3], Katsuhiko Suzuki[1]
[1]IFREE, JAMSTEC, Yokosuka, Japan, [2]Faculty of Science,Yamagata University, Yamagata, Japan, [3]RINS, Okayama University of Science, Okayama, JAPAN

S15-1020 10:20 – 10:40 **Investigations of Different Sample Matrices in Uranium Abundance Analysis Using the MTE Methodology**

Claudie K Black, Evelyn Zuleger, Joan Horta-Domenech, Martin Vargas Zuniga
Institute for Transuranium Elements, Joint Research Centre, European Commission, Karlsruhe, Germany

S15-1040 10:40 – 11:00 **Selective analysis of individual uranium particles with higher U-235 abundance by secondary ion mass spectrometry**

Fumitaka Esaka, Chi-Gyu Lee, Masaaki Magara, Takaumi Kimura
Japan Atomic Energy Agency, Ibaraki, Japan

Tuesday, 18th September Afternoon

Oral Session

15:00 – 17:00 Main Hall

Session 16: Glycoanalytical Technology for Systems Glycobiology and Functional Glycomics

Chair: Jane Thomas-Oates
University of York, UK

S16-1500 15:00 – 15:40 **[Keynote Lecture] Glycoanalytical technologies for systems glycobiology, biomakrer discovery & therapies**

Radka Fahey, Eugune Dempsey, Karna Marino, Amanda McCann, Pauline M Rudd
NIBRT - Ireland

S16-1540 15:40 – 16:00 **A Rapid-Throughput Platform for Quantitation of Site-Specific Glycosylation with Differentiation of Structural Isomers**

Serenus Hua[1], Chloe Hu[2], Charles C Nwosu[2], John S Strum[2], Carlito B Lebrilla[2], Hyun Joo An[1]
[1]Chungnam National University, Daejeon, South Korea, [2]University of California, Davis, USA

S16-1600 16:00 – 16:20 **Glycome Signature for Cancer Cell Identification**

Hyun joo An[1], Lauren Dimapasoc[2], Mary Saunders[2], Seunghyup Jeong[1], Jaehan Kim[1], Kit Lam[2], Carlito B Lebrilla[2]
[1]ChungNam National University, [2]University of California, Davis

S16-1620 16:20 – 16:40 **Enhancement of carbohydrate signal by diamond nanoparticles in MALDI-MS**

Chieh-Lin Wu[1], Chia-Chen Wang[2], Yin-Hung Lai[1], Yuan Tseh Lee[1], Yi-Sheng Wang[1,2]
[1]Academia Sinica, [2]National Yang-Ming University and Academia Sinica

S16-1640 16:40 – 17:00 **Electron-based fragmentation approaches for glycans and glycoconjugates**

Catherine E Costello, Joseph Zaia, Cheng Lin
Boston University School of Medicine

Oral Session

15:00 – 17:00 Room A

Session 17: Non-Covalent Ion-Molecule Interactions

Chair: Seung-Koo Shin
Pohang University of Schence and Technology, Korea

S17-1500 15:00 – 15:40 **[Keynote Lecture] The Thermochemistry of Non-Covalent Ion-Molecule**

Peter B Armentrout
University of Utah, Salt Lake City, USA

S17-1540 15:40 – 16:00 **Atomic metal anions: one-step dehydrogenation and defluoronation of linear and cyclic hydrocarbons, alcohols and their fluoronated analogues**

Paul M Mayer[1], Alex Mungham[1], Jeffery Butson[1], Jaleh Halvachizadeh[1], Dhiya Hassan[1], Sharon Curtis[1]
[1]University of Ottawa, Ottawa, Canada

S17-1600 16:00 – 16:20 **Structural and Energetic Effects in the Molecular Recognition of Peptides and Proteins by 18-Crown-6: Threshold Collision-Induced Dissociation and Theoretical Studies**

Mary T Rodgers, Ranran Wu
Wayne State University

S17-1620 16:20 – 16:40 **Cation and solvent effects on G-quadruplex nucleic acid structure: from the solution to the gas phase**

Valerie Gabelica[1], Adrien Marchand[1], Rubén Ferreira[2], Frédéric Rosu[1], Hisae Tateishi-Karimata[3], Daisuke Miyoshi[3,4], Naoki Sugimoto[3,4], Edwin De Pauw[1]
[1]University of Liege, Liège, Belgium, [2]Institute for Research in Biomedicine (IRB), Barcelona, Spain, [3]Frontier Institute for Biomolecular Engineering Research (FIBER), Konan University, Japan, [4]Faculty of Frontiers of Innovative Research in Science and Technology (FIRST), Konan University, Japan

S17-1640 16:40 – 17:00 **Noncovalent Binding of Tetracationic Porphyrin to Thrombin-Binding Aptamer DNA Destabilizes the Guanine-Quadruplex Structure**

Jongcheol Seo, Eun Sun Hong, Hye-Joo Yoon, Seung Koo Shin
Pohang University of Science and Technology (POSTECH)

Tuesday, 18th September Afternoon

Oral Session

15:00 – 17:00 Room B-1

Session 18: Advances in Resolution and Accuracy of Isotope Ratio Analyses

Chair: Takafumi Hirata
Kyoto University, Japan

S18-1500 15:00 – 15:40 **[Keynote Lecture] Advances in Isotope Ratio Mass Spectrometry and Required Isotope Reference Materials**

Jochen Vogl
BAM Federal Institute for Materials Research and Testing, Berlin, Germany

S18-1540 15:40 – 16:00 **An experimental study on stable isotopic fractionation of rare earth elements during the adsorption on iron and manganeseoxides**

Ryoichi Nakada[1], Masaharu Tanimizu[1,2], Yoshio Takahashi[1,2]
[1]Hiroshima University, Higashi-Hiroshima, Japan, [2]Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Nankoku, Koch

S18-1600 16:00 – 16:20 **The influence of the extreme climate conditions on Romanian fruit juices isotopic composition**

Dana Alina I Magdas[1], Romulus Puscas[1], Gabriela Cristea[1], Nicoleta Vedeanu[2]
[1]National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, ROMANIA, [2]Iuliu Hatiegan "University of Medicine and Pharmacy", Biophysics Department, Cluj-Napoca, Romania

S18-1620 16:20 – 16:40 **The Fe isotopic analysis using LAL-MC-ICPMS technique**

Satoki Okabayashi[1], Tetsuya Yokoyama[2], Takafumi Hirata[1]
[1]Kyoto University, Kyoto, Japan, [2]Tokyo Institute of Technology

S18-1640 16:40 – 17:00 **A novel technique for correction of instrumental mass bias in isotope ratio measurements**

Gina Chew, Thomas Walczyk
NUS Graduate School for Integrative Sciences and Engineering, National University of Singapore, Singapore

Oral Session

15:00 – 17:00 Room D

Session 19: Mass Spectrometric Diagnosis

Chair: Toyofumi Nakanishi
Osaka Medical College, Japan

S19-1500 15:00 – 15:40 **[Keynote Lecture] Ambient Mass Spectrometry for Detecting Biomarkers in Breath**

Renato Zenobi
ETH Zurich

S19-1540 15:40 – 16:00 **A Validation Assay for Cardiac Ischemia Biomarkers**

Robert J Cotter[1], Christine Jelinek[1], Jennifer Van Eyk[1], Kevin W Meyer[2], David Taggart[3]
[1]Johns Hopkins University School of Medicine, Baltimore, MD 21205, USA, [2]Perfinity Biosciences, West Lafayette, IN, USA, [3]John Radcliffe Hospital, Oxford, England

S19-1600 16:00 – 16:20 **Diagnosis, analysis of pathogenesis and therapies for transthyretin form of amyloidosis**

Yukio Ando
Department of Diagnostic Medicine, Graduate School of Medical Sciences, Kumamoto, Japan

S19-1620 16:20 – 16:40 **Cerebrospinal fluid proteomics: A new window for understanding human neurological disorders**

Masaya Ikegawa
Kyoto Prefectural University of Medicine

S19-1640 16:40 – 17:00 **Digging deeper into Small Cell Lung Cancer. Can targeted LC-MS reveal tomorrows diagnostic level?**

Silje B Torsetnes[1], Marianne S Nordlund[2], Elisabeth Paus[2], Trine G Halvorsen[1], Leon Reubsaet[1]
[1]University of Oslo, Oslo, Norway, [2]Central Laboratory - Radiumhospitalet, Oslo, Norway

Tuesday, 18th September Afternoon

Oral Session

15:00 – 17:00 Room E

Session 20: The Ion formation and Dissociation Mechanisms in MALDI

Chair: Myung Soo Kim
Seoul National University, Korea

S20-1500 15:00 – 15:40 **[Keynote Lecture] MALDI and Related Desorption / Ablation / Ionization Methods:A Solved Problem or Still a Mystery?**

Richard Knochenmuss
Tofwerk, Thun, Switzerland

S20-1540 15:40 – 16:00 **Ion yield and laser shot number-dependent variation of mass spectral pattern in MALDI of peptides; a thermal model for MALDI**

Yong Jin Bae, Kyung Man Park, Sung Hee Ahn, Myung Soo Kim
Seoul National University, Seoul, Korea

S20-1600 16:00 – 16:20 **Plume Expansion Dynamics of Ionic Liquid Matrices for Matrix-assisted Laser Desorption/Ionization**

I-Chung Lu, Sheng Lee, Yuan T Lee, Chi-Kung Ni
Academia Sinica, Taipei, Taiwan

S20-1620 16:20 – 16:40 **New Insights in MALDI In-Source Decay Process**

Daiki Asakawa[1,2], Nicolas Smargiasso[1], Edwin De Pauw[1]
[1]University of Liege, Liege, Belgium, [2]Yokohama City University, Yokohama, Japan

S20-1640 16:40 – 17:00 **CO2-Laser Atmospheric Pressure Ionization of Acoustically Levitated Droplets**

Arne Stindt[1], Merwe Albrecht[1], Ulrich Panne[1,2], Jens Riedel[1]
[1]BAM Federal Institute for Materials Research and Testing, Berlin, Germany, [2]Humboldt-Universitaet zu Berlin, Department of Chemistry, Berlin, Germany

Tuesday, 18th September

Poster Session

Core Time : 11:10 - 12:20 (Odd number),
13:30 - 14:40 (Even number)

Event Hall

Session 11

Glycomics: From Disease Markers to Therapeutic Antibody Products

PTu-001 11:10 – 12:20
Identification of Native N-linked Glycan Structures from Human Cancer Cell Using HPLC on a Microfluidic Chip and Time-of-Flight Mass Spectrometry

Jong-Moon Park[1], Kyeong-seob Lee[4], Na-Young Han[1], Eugene C Yi[3,4], Hookeun Lee[1,2]
[1]Lee Gil Ya Cancer and Diabetes Institute, Incheon, Republic of Korea, [2]College of Pharmacy, Gachon University, Republic of Korea, [3]Dept of Molecular Medicine and Biopharmaceutical Sciences Seoul National University, College of Medicine, Republic of Korea, [4]Dept.of Molecular Medicine and Biopharmaceutical Sciences Graduate school of Convergence Science and Technology Seoul National University, Republic of Korea

PTu-002 13:30 – 14:40
Development of Analytical Method of Keratan Sulfate Structure

Shigeyasu Ito, Hiroshi Fujita, Toshikazu Minamisawa
SEIKAGAKU CORPORATION, Tokyo, Japan

PTu-003 11:10 – 12:20
Detection of the Heterogeneous O-Glycosylation Profile of MT1-MMP Expressed in Cancer Cells by a Simple MALDI-MS Method

Takuya Shuo[1], Naohiko Koshikawa[1], Daisuke Hoshino[1], Tomoko Minegishi[1], Hiroko Ao-Kondo[2], Masaaki Oyama[2], Sadanori Sekiya[3], Shinichi Iwamoto[3], Koichi Tanaka[3], Motoharu Seiki[1]
[1]Division of Cancer Cell Research, Institute of Medical Science, University of Tokyo, Tokyo, Japan, [2]Medical Proteomics Laboratory, Institute of Medical Science, University of Tokyo, Tokyo, Japan, [3]Koichi Tanaka Mass Spectrom. Res. Lab., Shimadzu Corp., Kyoto, Japan

PTu-004 13:30 – 14:40
Age-related Changes in the Composition and Structure of Glycan released from Mouse Skin Tissues

Bum Jin Kim[1], Inae Kang[1], Su Hee Kim[1], Sureyya Ozcan[2], Lauren Dimapasoc[2], Ik-Soon Jang[3], Jong-Soon Choi[3], Hyun Joo An[1]
[1]Chungnam National University, Daejeon, Republic of Korea, [2]Department of Biochemistry, University of California Davis, Davis, CA95616, [3]Korea Basic Science Institute, 113 Gwahangno, Yuseong-gu, Daejeon, Korea

PTu-006 13:30 – 14:40
An MSn platform for detailed characterisation of both the peptide and the glycan moieties and the peptide/glycan linkage in glycoproteins.

Helen V Montgomery[1], Matthew E Openshaw[2], Omar Belgacem[2], Masaki Murase[3], Koichi Tanaka[3]
[1]Shimadzu Koichi Tanaka Mass Spectrometry Research Laboratory, Manchester, UK, [2]Kratos Analytical Ltd, Manchester, UK, [3]Shimadzu Corp. , Kyoto Japan

PTu-007 11:10 – 12:20
Comparative Study of Protein Concentration, Glycoform Profile and Site Occupancy of a Glycoprotein with Multiple Glycosylation Sites and Complex Glycans

Yi-Chun Ma, Guor-Rong Her
National Taiwan University, Taipei, Taiwan

PTu-008 13:30 – 14:40
Automated intact mass analysis for routine identity testing and quality tracking of recombinant monoclonal antibodies

Yoshihiko Morishita[1], Jette Wagtberg[2], Christian Albers[3], Laura Main[3], Wolfgang Jabs[3]
[1]Bruker Daltonics K.K., [2]Symphogen A/S, Lyngby, Denmark, [3]Bruker Daltonik GmbH, Bremen, Germany

PTu-009 11:10 – 12:20
Comprehensive Glycan Profiling of Exosomes Derived from Human Body Fluids for Disease Biomarker Discovery

Seunghyup Jeong[1], Do-Young Choi[2], Pyong-Gon Moon[3], Kwang Pyo Kim[2], Moon Chang Back[3], Hyun Joo An[1]
[1]Chungnam National University, Daejeon, South Korea, [2]Konkuk University, Seoul, South Korea, [3]Kyungbuk National University, Daegu, South Korea

PTu-010 13:30 – 14:40
Determination of core fucosylation in glycopeptides of monoclonal antibodies

Toshiji Kudo[1], Anja Resemann[2], Ulrike Schweiger-Hufnagel[2], Detlev Suckau[2], Daniel Kolarich[3]
[1]Bruker Daltonics K.K., [2]Bruker Daltonik GmbH, Bremen, Germany, [3]Max-Planck-Institut for Kolloid- und Grenzflaechenforschung, Berlin, Germany

PTu-011 11:10 – 12:20
Identification and structural analysis by chip-based nanoelectrospray mass spectrometry of novel brain-associated chondroitin/dermatan sulfate motifs

ALINA D ZAMFIR[1], CORINA FLANGEA[1], ROXANA M GHIULAI[2], DANIELA G SEIDLER[3]
[1]Aurel Vlaicu University, Arad, Romania, [2]Victor Babes University of Medicine and Pharmacy, Timisoara, Romania, [3]University of Muenster, Germany

PTu-012 13:30 – 14:40
Glycobiomarkers for atherothrombosis

Oliver Ozohanics[1], Lilla Turiak[1], Anita Jeko[1], Angel Puerta[2], Jose Carlos Diez-Masa[2], Mercedes de Frutos[2], Karoly Vekey[1], Laszlo Drahos[1]
[1]Research Centre for Natural Sciences Hungarian Academy of Sciences, Budapest, Hungary, [2]Institute of Organic Chemistry (CSIC), Juan de la Cierva 3 Madrid, 28006, Spain

PTu-013 11:10 – 12:20
Top-Down Mass Spectrometric Analysis of Glycosylated and Phosphorylated Proteins

Fujio Nishida[1], Anja Resemann[2], Lars Vorwerg[2], Paul Kowalski[3], Deltev Suckau[2]
[1]Bruker Daltonics K.K., Yokohama, Japan, [2]Bruker Daltonik GmbH, Bremen, Germany, [3]Bruker Daltonics, Inc., Billerica, MA, USA

Tuesday, 18th September

Tue

Session 12

On-site Mass Spectrometry -Miniaturized Instruments and Allied Technologies-

PTu-014 13:30 – 14:40
Design and Testing of a Miniature Magnetic Sector Mass Spectrometer

meiru guo, liang wang, yide zhao, yuhua xiao, taiguo li
Science and Technology on Vacuum & cryogenics Technology and Physics Laboratory, Lanzhou Institute of Physics, Lanzhou, China

PTu-016 13:30 – 14:40
Real-Time Monitoring of a Suzuki Reaction using a Hood-Based Compact Mass Spectrometer

Daniel Eikel, Jack Henion, Simon Prosser, Nigel Sousou, Collier Lee, Jamey Jones
Advion Inc., Ithaca, New York, USA

PTu-017 11:10 – 12:20
Explosives Trace Detection by Mass Spectrometry: An Automated Particle Sampler for Collecting Explosives Particles Adhering to Passenger's Baggage

Hisashi Nagano, Yuichiro Hashimoto, Yasuaki Takada, Yasutaka Suzuki, Hideo Kashima, Masakazu Sugaya, Yasunori Doi, Koichi Terada, Minoru Sakairi
Hitachi,Ltd.,Central Research Laboratory,Tokyo,Japan

PTu-019 11:10 – 12:20
Radio Frequency Mass Reflectrons with plane Discrete Electrodes

Alexander A Dyagilev, Eugeny Y Grachev, Vladimir V Zhuravlev, Eugeny V Mamontov
Ryazan State Radio Engineering University, Ryazan, Russia

PTu-020 13:30 – 14:40
Development of Low Pressure Dielectric Barrier Discharge Ionization Source and Vacuumed Headspace Method for Portable Mass Spectrometer

Shun Kumano[1], Masuyuki Sugiyama[1], Masuyoshi Yamada[1], Hidetoshi Morokuma[2], Kazushige Nishimura[1], Yuichiro Hashimoto[1], Hiroyuki Inoue[3]
[1]Hitachi, Ltd., Tokyo, Japan, [2]Hitachi High-Technologies Corp., Hitachinaka, Japan, [3]National Research Institute of Police Science, Kashiwa, Japan

PTu-021 11:10 – 12:20
Broad range detection in a low field FTICR instrument

Joel Lemaire[1], Vincent Kromer[1], Gwendoline Jamet[1], Clotilde Le Vot[1], Essyllt Louarn[1], Michel Heninger[1,2], Helene Mestdagh[1]
[1]LCP CNRS-Universite Paris Sud, Orsay, France, [2]ALYXAN, Orsay, france

PTu-022 13:30 – 14:40
Digital Linear Ion Trap in a Portable Mass Spectrometer

Zhengxu Huang[2], Hui Mu[1], Xiaoyu Meng[1], Junsheng Zhang[1], Lin Tao[1], Gongyu Jiang[1], Li Ding[1], Xu Wu[2], Zhen Zhou[2], Wenjian Sun[1], Zhong Fu[2]
[1]Shimadzu Research Laboratory, Shanghai, China, [2]Kunshan Hexin Mass Spectrometry Technology Co., Ltd, Kunshan, China

PTu-023 11:10 – 12:20
Photo ionisation time-of-flight mass spectrometry as a powerful tool for the on-line analysis of tobacco and wood combustion and pyrolysis

Christian Busch[1], Thorsten Streibel[1,2], Chuan Liu[3], Kevin G McAdam[3], Christian Radischat[1], Ralf Zimmermann[1,2]
[1]University of Rostock / Chair of Analytical Chemistry, Rostock, Germany, [2]Helmholtz Zentrum Muenchen / German Research Centre for Environmental Health, Neuherberg, Germany, [3]British American Tobacco / Group Research & Development Centre, Southampton, United Kingdom

PTu-024 13:30 – 14:40
Development of a multi-turn time-of-flight mass spectrometer with an atmospheric ionization

Masanobu Nakazono[1], Hiroki Andoh[1], Shinichi Miki[2], Michisato Toyoda[1,2]
[1]Osaka University, Osaka, Japan, [2]MSI. TOKYO, Chofu, Japan

PTu-025 11:10 – 12:20
Sample Gas Concentration and Pulsed Injection System for a Portable Ion Trap Mass Spectrometer

Hyun Sik Kim[1], Seung Yong Kim[1], Yong Hak Kim[1], Mo Yang[1], Minyoung Youn[1], Yong-Moon Lee[2]
[1]Korea Basic Science Institute, Ochang, Chungcheongbouk-do, 363-883 Korea, [2]Chungbuk National University,Cheongju, Chungcheongbouk-do, 361-763, Korea

Session 13

Accelerator Mass Spectrometry

PTu-026 13:30 – 14:40
Various erosion rates of weathered soil surfaces of mountain ridges in Tohoku District, Japan using in-situ cosmogenic nuclides depth profile.

Kazuyo Shiroya[1], Junichi Itoh[1], Yusuke Yokoyama[2], Hiroyuki Matsuzaki[2]
[1]Geological Survey of Japan, AIST, Tsukuba, Japan, [2]University of Tokyo

PTu-027 11:10 – 12:20
Estimation of Isotopic ratio of radioactive iodine (I-129/I-131) released from Fukushima Daiichi NPP accident

Yasuto Miyake[1], Hiroyuki Matsuzaki[1], Takeshi Fujiwara[1], Takumi Saito[1], Takeyasu Yamagata[2], Maki Honda[2], Yasuyuki Muramatsu[3]
[1]The University of Tokyo, Tokyo, Japan, [2]Nihon Universityo, Tokyo, Japan, [3]Gakushuin University, Tokyo, Japan

PTu-028 13:30 – 14:40
Depth profile and migration of 129I concentration in soil at Abukuma, Fukushima

Maki Honda[1], Hiroyuki Matsuzaki[2], Takeyasu Yamagata[1], Yoko Tuchiya[2], Chuichiro Nakano[2], Yuki Matsushi[3], Hisao Nagai[1], Yuji Maejima[4]
[1]Nihon university, Tokyo, Japan, [2]The University of Tokyo, [3]Disaster Prevention Research Institute Kyoto University, [4]National Institute for Agro-Environmental Sciences

Tuesday, 18th September

PTu-029 11:10 – 12:20
Progresses in sample treatment for BAMS analysis

Minyoung Youn[1], Seung Yong Kim[1], Yong Hak Kim Kim[1], Hyun Sik Kim[1], Jae-Gook Shin[2], Ji Hong Son[2], Soo Kyung Bae[2], Hyun Sic Chae[3]
[1]Korea Basic Science Institute, Ochang, Chungcheongbouk-do, 363-883 Korea, [2]Inje University College of Medicine, Busan, 614-735 Korea, [3]Sans Frontier Technology, Daejeon, 305-510 Korea

Session 14

Ion-surface Collisions: Collision-induced Dissociation and Soft Landing

PTu-030 13:30 – 14:40
Soft-sputtering of protein molecules using various gas cluster ion beams

Kousuke Moritani, Kosuke Goto, Issei Ihara, Norio Inui, Kozo Mochiji
University of Hyogo

PTu-031 11:10 – 12:20
Sensitive Ionization of Non-Volatile Analytes Using Multiply Charged Primary Ions in Desorption Electrospray Ionization Mass Spectrometry

zhiqiang zhu, Qiliang Gong, Yafei Zhou, Ning Xu, Haiwei Gu, Huanwen Chen, Tenggao Zhu
Jiangxi Key Laboratory for Mass Spectrometry and Instrumentation, East China Institute of Technology, Nanchang, Jiangxi Province, P. R.China

PTu-032 13:30 – 14:40
The Gas Phase Mechanism of 2-Furaldehyde Formation from Pentose Sugars: A Mass Spectrometric and Theoretical Study

Federico Pepi[1], Andreina Ricci[2], Simona Piccolella[2], Stefania Garzoli[1], Rino Ragno[1], Alexandros Patsilinakos[1], Pierluigi Giacomello[1]
[1]University of Rome Sapienza, Rome, Italy, [2]Second University of Naples, Caserta, Italy

Session 15

Mass Spectrometry for Nuclear Applications and Safety

PTu-033 11:10 – 12:20
SEPARATION AND MEASUREMENT OF URANIUM,PLUTONIUM AND NEODYMIUM IN SIMULATE SPENT NUCLEAR FUELS BY EXTRACTIONCHROMATOGRAPHY WITH ISOTOPE DILIUTION MASS SPECTROMETRY

Jinying Li[1,2,3], Guoping Xiao[2,3], Lei Shi[1,2,3]
[1]China Resources New Energy Group Co.,Ltd, [2]China Institute of Atomic Energy, Beijing,China;, [3]Chinese MS Society,Beijing, China

PTu-034 13:30 – 14:40
When was gold deposited ?

Nobuo Takaoka[1,6], Nobutaka Shimada[2], Masako Shima[3], Tomoki Nakamura[4,7], Keisuke Nagao[5], Hitoshi Sagawa[6,8], Ryuji Okazaki[4], Kazuhiko Shimada[4]
[1]Kyushu Univertsity, Fukuoka, Japan, [2]Kyushu University, Fukuoka, Japan, [3]National Science Musium, Tokyo, Japan, [4]Faculy of Sciences, Kyushu University, Fukuoka, Japan, [5]Faculy of Sciences, University of Tokyo, Tokyo, Japan, [6]Faculty of Sciences, Yamagata Univercity, Yamagata, Japan, [7]Faculty of Sciences, Tohoku University, Sendai, Japan, [8]Human Metabolome, Tsuruoka, Japan

PTu-035 11:10 – 12:20
Surface Desorption Atmospheric Pressure Chemical Ionization (DAPCI) Source based on Graphite needle

Xinglei Zhang, Saijin Xiao, Junqing Yang, Xifang Huang
East China Institute of Technology,Nanchang,China

PTu-036 13:30 – 14:40
Rapid 90Sr detection by MALDI-TOF-MS with a new matrix, dipicolinic acid obtained from an eastern Japan-traditional food, Natto.

Masaki Koike, Kaori Chiba-Kamoshida
National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan

PTu-038 13:30 – 14:40
Spatially Resolved Analysis of Uranium and Plutonium Isotope Ratios in Environmental Samples by Laser Ablation MC-ICP-MS

Siarhei Bulyha[1], Stefanie Kappel[2], Thomas Prohaska[2]
[1]International Atomic Energy Agency, [2]University of Natural Resources and Life Sciences BOKU, Vienna

Session 16

New Approaches to Defining the Diversity of Glycans

PTu-039 11:10 – 12:20
MALDI MS analysis of N-glycan structures of a cell adhesion molecule, CADM1, in various cancer cells

Tomoko Maruyama[1], Mika Sakurai-Yageta[1], Kaoru Kaneshiro[2], Sadanori Skiya[2], Shinichi Iwamoto[2], Koichi Tanaka[2], Yoshinori Murakami[1]
[1]The Institute of Medical Science, The University of Tokyo, Tokyo,Japan, [2]Shimadzu Corporation, Kyoto, Japan

PTu-040 13:30 – 14:40
Isolation and identification of glycopeptides with isomeric glycans by lectin-column chromatography and negative-ion MALDI-QIT-TOF MSn

Kazuko Hirose, Junko Amano
Laboratory of Glycobiology, The Noguchi Institute, Tokyo, Japan

PTu-041 11:10 – 12:20
A workflow for identification of isobaric isoforms of glycans using off-line MALDI-MSn system

Shuuichi Nakaya, Yuzo Yamazaki
Shimadzu Corporation, Kyoto, Japan

Tuesday, 18th September

PTu-042
13:30 – 14:40
Negative-ion fragmentation of neutral N-glycans derivatized with 3-aminoquinoline and other non-acidic reagents

Takashi Nishikaze, Kaoru Kaneshiro, Shin-Ichirou Kawabata, Koichi Tanaka
Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Corporation, Kyoto, Japan

Session 17
Non-Covalent Ion–Molecule Interactions

PTu-043
11:10 – 12:20
Atomic metal anions: one-step dehydrogenation and defluoronation of linear and cyclic hydrocarbons, alcohols and their fluoronated analogues

Paul M Mayer, Alex Mungham, Jeffery Butson, Jaleh Halvachizadeh, Dhiya Hassan, Sharon Curtis
University of Ottawa, Ottawa, Canada

PTu-044
13:30 – 14:40
Energetics of dissociation of polycyclic aromatic hydrocarbons in interstellar environments

Brandi J West[1], Christine Joblin[2,3], Valerie Blanchet[3], Andras Bodi[4], Balint Sztaray[5], Paul M Mayer[1]
[1]University of Ottawa, Ottawa, Canada, [2]IRAP/CNRS, Toulouse, France, [3]Universite de Toulouse UPS, Toulouse, France, [4]Paul Scherrer Institut, Villigen, Switzerland, [5]University of the Pacific, Stockton, USA

PTu-045
11:10 – 12:20
Gas Phase Acid-Base Chemistry of Cysteine and Serine Homologs

John C Poutsma, Corbin Muetterties, Vincent Yannello, Ashley Janiga
College of William and Mary, WIlliamsburg, VA, USA

PTu-046
13:30 – 14:40
Mass spectrometric analysis of 1,3,5-Trinitroperhydro-1,3,5-triazine (RDX)

Sehwan Park[1], Soo Gyeong Cho[2], Eun Mee Goh[2], Sungman Lee[3], Sung-Suk Koh[3], Jeongkwon Kim[1]
[1]Chungnam National University, Daejeon, South Korea, [2]Agency for Defense Development, Daejeon, South Korea, [3]Sensor Tech Inc., Kyunggi-Do, South Korea

PTu-047
11:10 – 12:20
Formation of hydrated amino acid ions and estimation of their first hydrated shell

Mami Sakai, Kanako Sekimoto, Mitsuo Takayama
Yokohama City University, Yokohama, Japan

PTu-048
13:30 – 14:40
Mass Spectrometry Studies of Metal Triflates and Triflimides and Their Interactions with Lewis Bases

Jean-Francois Gal[1], Ilaria Monfardini[1], Claudio Iacobucci[1], Lionel Massi[1], Sandra Olivero[1], Elisabet Dunach[1], Kalev Kasemets[2], Peeter Burk[2]
[1]University of Nice-Sophia Antipolis, Nice, France, [2]University of Tartu, Tartu, Estonia

PTu-049
11:10 – 12:20
Mass spectrometric approaches to enantioselective complexation system in solution

Motohiro Shizuma[1], Hirofumi Sato[1], Takashi Nakakoji[2], Hideya Kawasaki[2], Kaori Asano[3], Tsuyoshi Matsuzaki[3], Takeyuki Suzuki[3], Keiji Hirose[4], Yoshito Tobe[4], Ryuichi Arakawa[2], Daisuke Ono[1]
[1]Osaka Municipal Tech. Res. Inst., Osaka, Japan, [2]Kansai University, Osaka, Japan, [3]ISIR, Osaka University, Osaka, Japan, [4]Graduate School of Engineering Science, Osaka University, Osaka, Japan

PTu-050
13:30 – 14:40
Characteristic hydration of saccharides isolated from liquid beams

Namiki Toyama
Genesis Research Institute, Inc., Chiba, Japan

PTu-051
11:10 – 12:20
Evaluation of intermolecular association of glycosaminoglycan oligosaccharides using nanoelectrospray ionization mass spectrometry

Yuya Otsuka, Toshikazu Minamisawa
Seikagaku corporation, Tokyo, Japan

PTu-052
13:30 – 14:40
Enantioselective binding characteristics of amino acid to chiral copper(II) complex using electrospray ionization mass spectrometry coupling with the deuterium-labeled method

Takashi Nakakoji[1], Hirofumi Sato[2], Hiroyuki Miyake[3], Hideya Kawasaki[1], Ryuichi Arakawa[1], Daisuke Ono[2], Motohiro Shizuma[2]
[1]Kansai University, Osaka, Japan, [2]Osaka Municipal Technical Research Institute, Osaka, Japan, [3]Osaka City University, Osaka, Japan

PTu-053
11:10 – 12:20
MECHANISTIC INVESTIGATION OF ECO-FRIENDLY IODINATION OF AROMATIC DERIVATIVES BY MASS SPECTROMETRY

Diogo Oliveira-Silva, Andre F Rodrigues-Oliveira, Marcelo Serigatti, Cristiano Raminelli
Universidade Federal de Sao Paulo - Campus Diadema, Diadema, Brazil

PTu-054
13:30 – 14:40
Comparing the dissociation energies of non-covalent complexes measured with BIRD and RRKM modelling of CID

Justin B Renaud[1], Lan Liu[2], John Klassen[2], Paul M Mayer[1]
[1]University of Ottawa, [2]University of Alberta

PTu-055
11:10 – 12:20
Molecular recognition in gas phase: a method for quantitative analysis of protein-ligand interactions energy by CID-MS.

Andrey Dyachenko[1], Sergio Madurga[1,2], Ernest Giralt[1,2]
[1]Institute for Research in Biomedicine, Barcelona, Spain, [2]Department of Organic Chemistry, Universidad de Barcelona, Barcelona, Spain

PTu-056
13:30 – 14:40
Gas-phase basicity of 2-furaldehyde

Simona Piccolella[1], Andreina Ricci[1], Federico Pepi[2], Alexandros Patsilinakos[2], Rino Ragno[2], Stefania Garzoli[2], Pierluigi Giacomello[2]
[1]Second University of Naples, Caserta, Italy, [2]'Sapienza' University of Rome, Rome, Italy

Tuesday, 18th September

PTu-057 11:10 – 12:20
Non-covalent interaction between peptides and its effect on the dissociation process of Bradykinin Molecule

Chuan-Fan Ding, Chen Chen, Xiaodan He
Fudan University, Shanghai, China

Session 18
Advances in Resolution and Accuracy of Isotope Ratio Analyses

PTu-058 13:30 – 14:40
A continuous flow system for quantitatively preparation and isotopic measurement of radiogenic argon.

Tatiana Velivetckaia, Aleksandr Ignatev, Sergey Budnitskiy
Far East Geological Institute FEB Russian Academy of Sciences, Vladivostok, Russia

PTu-059 11:10 – 12:20
High precision analysis stable isotopes of sulfur (32S, 33S, 34S) using UV laser fluorination continuous He flow mass spectrometry

Aleksandr V Ignatev, Tatiana Velivetckaia
Far East Geological Institute, FEB RAS, Vladivostok, Russia

PTu-060 13:30 – 14:40
MC-ICPMS: enhanced ion yields for high precision measurement of sub-fg Pu and high mass resolution for S isotope measurements.

Jerome A Johemko[1], Charles B Douthitt[2], Johannes Schwieters[3], Claudia Bouman[3], Nicholas Lloyd[3]
[1]Thermo Fisher Scientific, Honolulu, USA, [2]Thermo Fisher Scientific, San Jose, CA, USA, [3]Thermo Fisher Scientific GmbH, Bremen, Germany

PTu-061 11:10 – 12:20
A COMPARATIVE STUDY OF CALCIUM AND STRONTIUM METABOLISM IN THE SHEEP MODEL USING CA-41 AND SR-84 ISOTOPIC TRACERS

Fransiska Dewi[1,2], Tim Schulze-Koenig[3], Annette Liesegang[4], Johanna Irrgeher[5], Claudia Weigt[6], Gisela Kuhn[6], Hans-Arno Synal[3], Thomas Prohaska[5], Thomas Walczyk[1,2,7]
[1]NUS Graduate School for Integrative Sciences and Engineering, National University of Singapore, Singapore, [2]Department of Chemistry (Science), National University of Singapore, Singapore, [3]Laboratory of Ion Beam Physics, Swiss Federal Institute of Technology (ETH), Switzerland, [4]Institute of Animal Nutrition, Vetsuisse Faculty, University of Zurich, Germany, [5]Division of Analytical Chemistry, University of Natural Resources and Life Sciences (BOKU), Austria, [6]Institute of Biomechanics, Swiss Federal Institute of Technology (ETH), Switzerland, [7]Department of Biochemistry (Medicine), National University of Singapore, Singapore

PTu-062 13:30 – 14:40
Recent advance in MC-ICP-MS as a tool for the absolute determination of isotopic composition of heavy elements

Masaharu Tanimizu
Japan Agency for Marine-Earth Science and Technology

PTu-063 11:10 – 12:20
MEASUREMENT OF IRON TRANSFER FROM DIET TO BRAIN IN THE RAT MODEL

Jiehua Chen, Shahreena Shahnavas, Nadia Singh, Wei Yi Ong, Thomas R Walczyk
National University of Singapore, Singapore

PTu-064 13:30 – 14:40
Elemental mapping of Eu, Yb, Hf, Pb, Th and U for zircon using high resolution laser ablation-ICP-Mass spectrometry

Kentaro Hattori[1], Shu-hei Sakata[1], Hideki Iwano[2], Takafumi Hirata[1]
[1]Kyoto University, Kyoto, Japan, [2]Kyoto Fission Track Co.Ltd., Kyoto, Japan

PTu-065 11:10 – 12:20
The estimation of the effect of initial 230Th disequilibrium on U-Pb dating of young zircon crystal by LA-ICPMS

Shu-hei Sakata[1], Hideki Iwano[2], Kenshi Maki[1], Takaomi D Yokoyama[1], Takahumi Hirata[1]
[1]Kyoto University, Kyoto, Japan, [2]Kyoto Fission Track Co. Ltd., Kyoto, Japan

Session 19
Mass Spectrometric Diagnosis

PTu-066 13:30 – 14:40
Developing a human cancer diagnostics system based on the probe electrospray ionization-mass spectrometry and Bayesian statistics

Kentaro Yoshimura[1], Lee Chuin Chen[2], Mridul Kanti Mandal[3], Kunio Tanabe[1,5], Michio Hara[4], Hideki Fujii[4], Masayuki Takeda[6], Kenzo Hiraoka[3], Sen Takeda[1]
[1]Department of Anatomy and Cell Biology, Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi, [2]Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi, [3]Clean Energy Research Center, University of Yamanashi, [4]Department of Surgery, Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi, [5]Faculty of Science and Engineering, Waseda University, [6]Department of Urology, Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi

PTu-067 11:10 – 12:20
Ultrasensitive Multiplexed Detection of miRNAs Using Gold Nanoparticles and LDI-TOF MS

Hyunook Kang, Seol-Hye Hong, Woon-Seok Yeo
Konkuk University, Seoul, Korea

PTu-068 13:30 – 14:40
Mapping longitudinal proteomic expression levels in brain tissue for an amyloid Alzheimer's disease mouse model using shotgun based mass spectrometry

Ganna Shevchenko[1], Kim Kultima[2], Jonas Bergquist[3], Kina Höglund[4,5], Lars Andersson[5], Magnus Wetterhall[6]
[1]Uppsala University, Uppsala, Sweden, [2]Uppsala University, Uppsala, Sweden, [3]Uppsala University, Uppsala, Sweden, [4]AstraZeneca, Södertälje, Sweden, [5]AstraZeneca, Södertälje, Sweden, [6]Uppsala University, Uppsala, Sweden

PTu-069 11:10 – 12:20
Serum metabolome analysis for early detection of colorectal cancer

Masaru Yoshida[1,2,3], Shin Nishiumi[1], Yoshihiro Izumi[1], Atsuki Matsubara[1], Takeshi Azuma[1]
[1]Division of Gastroenterology, Department of Internal Medicine, Kobe University Graduate School of Medicine, Kobe, Japan, [2]The Integrated Center for Mass Spectrometry, Kobe University Graduate School of Medicine, Kobe, Japan, [3]Division of Metabolomics Research, Kobe University Graduate School of Medicine, Kobe, Japan

Tuesday, 18th September

PTu-070
13:30 – 14:40

Analysis of Drugs and Steroid Hormones in Human Saliva and Serum using Column-switching Ultra-fast LC/MS/MS with On-line Analyte Purification

Yukiko Hirabayashi[1], Takashi Shinagawa[2], Joji Suzuki[2], Toshio Kaji[2]
[1]Central Research Laboratory, Hitachi, Ltd., Tokyo, Japan, [2]Hitachi Yokohama Hospital, Hitachi, Ltd., Kanagawa, Japan

PTu-071
11:10 – 12:20

Acylglycine: A Potential Biomarker for the Clinical Diagnosis of Inborn Metabolic Disorders

Bonnie Fong[1,2], Sidney Tam[2], Kelvin Leung[1]
[1]Department of Chemistry, Hong Kong Baptist University, Hong Kong, [2]Department of pathology and Clinical Biochemistry, Queen Mary Hospital, Hong Kong

PTu-072
13:30 – 14:40

Clinical application of rapid bacterial identification using mass spectrometry

Kazuyuki Sogawa[1], Masaharu Watanabe[1], Fumio Nomura[1,2]
[1]Chiba University Hospital, Chiba, Japan, [2]Chiba University, Chiba, Japan

PTu-073
11:10 – 12:20

Lectin-capturing and peptide affinity enrichment-based identification of cancer biomarker TIMP1 by high-resolution FT-ICR MS

Yeong Hee AHN, Kwang Hoe KIM, Park Min SHIN, Eun Sun JI, Jong Shin YOO
Korea Basic Science Institute, Cheongwon, Korea

PTu-074
13:30 – 14:40

Relating ESI-MS response with polar-, structural- and primary- characteristics of neuropeptides: Developing a deeper understanding

Birthe V Nielsen, Daniel A Abaye, Frank Pullen, Minh T Nguyen
University of Greenwich, School of Science, Chatham Maritime, Kent, ME4 4TB, UK

PTu-075
11:10 – 12:20

Fabrication of a titanium based MALDI bacterial chip for rapid, sensitive and direct analysis of pathogenic bacteria

Hui-Fen Wu[1,2,3], Judy Gopal[1,2], Nazim Hasan[1]
[1]Department of Chemistry, National Sun Yat-Sen University, [2]Center for Nanoscience and Nanotechnology, National Sun Yat-Sen University, [3]Doctoral Degree Program in Marine Biotechnology, National Sun Yat - Sen University,

PTu-076
13:30 – 14:40

An optimized membrane proteins enrichment strategy for the bottom-up mass spectrometry approach

Sravani Musunuri, Ganna Shevchenko, Magnus Wetterhall, Jonas Bergquist
Uppsala University, Uppsala, Sweden

PTu-077
11:10 – 12:20

alpha-Tocopherol suppresses lipid peroxidation and behavioral impairment in mouse model of Down syndrome

Mototada Shichiri[1,2], Noiriko Ishida[1], Yoshihisa Hagihara[1], Yasukazu Yoshida[1], Hiroshi Tamai[2], Etsuo Niki[1]
[1]National Institute of Advanced Industrial Science and Technology (AIST), Osaka, Japan, [2]Department of Pediatrics, Osaka Medical College, Osaka, Japan

PTu-078
13:30 – 14:40

PGRN: a novel therapeutic target and biomarker for insulin resistance and obesity identified by differential proteome analysis

Matsubara Toshiya[1,2], Minami Kohtaro[2], Yokoi Norihide[2], Nishimura Osamu[2], Seino Susumu[2]
[1]Shimadzu Co., Kyoto, Japan, [2]Kobe University Graduate School of Medicine, Hyogo, Japan

PTu-079
11:10 – 12:20

Direct molecular analysis by pico-drop sweat trapping from a single gland on a finger

Harue Hiramoto[1], Kanako Honda[1], Naohiro Tsuyama[1], Hajime Mizuno[1], Iwao Sakane[2], Sachiko Date[3], Tsutomu Masujima[1,3]
[1]Graduate School of Biomedical Sciences, Hiroshima University, Hiroshima, Japan, [2]ITO EN Ltd., Shizuoka, Japan, [3]Quantitative Biology Center, RIKEN, Japan

PTu-080
13:30 – 14:40

Identifications of amyloidogenic proteins in FFPE tissue sections by MALDI-imaging coupled with on-tissue digestion and immunohistochemical/ microscopic examinations

Toyofumi Nakanishi[1], Minako Ito[1], Takashi Nirasawa[2], Teruo Ueno[1], Motomu Tsuji[1], Takayuki Takubo[1]
[1]Osaka Medical College, Takatsuki, Japan, [2]Bruker Daltonics K.K., Yokohama, Japan

PTu-081
11:10 – 12:20

LC-MS/MS based basal and ACTH-stimulated serum concentrations of adrenal and gonadal steroid homones and its application on heterozygote CYP21A2 mutations

Alexandra E Kulle[1], Juergen Hedderich[2], Dorothee Roessner[1], Jessica Schmitz[1], Lena Niermeyer[1], Paul-Martin Holterhus[1], Felix G Riepe[1]
[1]University Hospital Schleswig-Holstein / Children's Hospital, Kiel, Germany, [2]University Hospital schleswig-Hosltein/Institute of Mediacal Informatics and Statistics, Kiel, Germany

PTu-082
13:30 – 14:40

Discovery of novel urinary biomarker candidates for diagnosis of prostate cancer

Kenji NAKAYAMA[1], Takahiro INOUE[2], Sadanori SEKIYA[3], Minoru SUZUKI[3], Hiroki TSUMOTO[1], Shin-Ichiro KAWABATA[3], Shinichi IWAMOTO[3], Kazuharu SHIMIZU[1], Osamu OGAWA[2], Gozo TSUJIMOTO[1], Koichi TANAKA[3]
[1]Department of Cancer Omics Research, World-Leading Drug Discovery Research Center, Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, JAPAN, [2]Department of Urology, Graduate School of Medicine, Kyoto University, Kyoto, JAPAN, [3]Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Corporation, Kyoto, JAPAN

PTu-083
11:10 – 12:20

Mass spectrometric determination of carcinoid syndrome tumor marker 5-HIAA in human serum

Niina Tohmola[1], Outi Itkonen[2], Sakari Joenvaara[1], Risto Renkonen[1,2], Esa Hamalainen[2]
[1]University of Helsinki, Helsinki, Finland, [2]Helsinki University Central Hospital, Helsinki, Finland

Tuesday, 18th September

PTu-084 13:30 – 14:40
Chip-based electrospray ionization tandem mass spectrometry a novel tool for rapid diagnostic of Fabry disease

MIRELA GALUSCA[1], CORINA FLANGEA[1], CRISTINA MOSOARCA[1,2], CLAUDIA COZMA[3], ALINA D ZAMFIR[1]
[1]Aurel Vlaicu University, Arad, Romania, [2]Physics Department, West University Timisoara, Vasile Parvan Blvd. 4, 300223, Timisoara, Romania, [3]Laboratory of Analytical Chemistry and Biopolymer Structure Analysis, Department of Chemistry, University of Konstanz, 78457 Konstanz, Germany

PTu-085 11:10 – 12:20
Performance Evaluation of an Analytical LC-MS/MS Method for Accurate Measurement of 25-OH Vitamin-D in Serum

Heather Gamble, Changtong Hao, Sha Joshua Ye, George Scott
IONICS Mass Spectrometry, Toronto, Canada

PTu-086 13:30 – 14:40
Phosphoproteomic analysis of an EGFR/HER2 targeted drug-resistant gastric cancer cell line

Yong Yook Lee[1], Minjueng Kang[1], Byoung-Kyu Cho[1], Hwang-Phill Kim[2], Tae-You Kim[2], Eugene C Yi[1]
[1]Molecular Medicine and Biopharmaceutical Sciences, Seoul National University, Seoul, Korea, [2]Cancer Research Institute, Seoul National University Hospital, Seoul, Korea

PTu-087 11:10 – 12:20
A Fast Method for Quantitative Determination of Methotrexate in Human Serum by a LC-MS/MS

Sha Joshua Ye, Heather Gamble, George Scott
IONICS Mass Spectrometry, Toronto, Canada

PTu-088 13:30 – 14:40
Chip Based MicroLC-MS for Small Molecules Analysis

Remco van Soest[1], Xiang Zhu[1], Xiaohong Chen[2], Nicole Hebert[1], Hua-Fen Liu[2]
[1]Eksigent/AB SCIEX, [2]AB SCIEX

PTu-089 11:10 – 12:20
Accurate Mass LC-MS/MS Profiling of Synthetic Cannabinoids

Benjamin J Figard[1], Christopher L Pennington[2], Jeff Dahl[3], Susan Leonard[4], Jorge R Smith[1]
[1]Shimadzu Scientific Instruments, South Central Region, Houston, TX, USA, [2]Rice University, Core Mass Spectrometry Facility, Houston, TX, USA, [3]Shimadzu Scientific Instruments, Columbia, MD, [4]Shimadzu Scientific Instruments, Marlborough, MA

PTu-090 13:30 – 14:40
A simple GC/MS procedure for vitamin D metabolite analysis

Anna M Przyborowska[1], Graham D Carter[2], Julia C Jones[2], John M Halket[1,2,3]
[1]King's College London, UK, [2]Imperial College Healthcare NHS Trust, London, UK, [3]Imperial College, London, UK

PTu-091 11:10 – 12:20
Highly sensitive method for arginine vasopressin in human plasma determined by LC-MS/MS

Shin-ichiro Nitta[1], Yasuko Tsukazaki[1], Naoto Senda[1,5], Shigeru Yamada[2], Kazunobu Yamamoto[2], Mark M Garner[3], Hesham Ghobarah[3], Kunihiko Koriyama[4], Kinya Kubo[5]
[1]Mitsubishi Chemical Medience Corporation, Tsukuba, Japan, [2]AB SCIEX, Tokyo, Japan, [3]AB SCIEX, Toronto, Canada, [4]Shimadzu Corporation, Kyoto, Japan, [5]Chromosome Engineering Research Center, Tottori University, Tottori, Japan

Session 20
The Ion formation and Dissociation Mechanisms in MALDI

PTu-092 13:30 – 14:40
More and Less Susceptible Amino Acid Residues to In-source Decay of Protein and Peptide in Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry

Mitsuo Takayama, Issei Osaka, Motoshi Sakakura, Ryunosuke Iimuro
Yokohama City University, Yokohama, Japan

PTu-093 11:10 – 12:20
New MALDI matrices for negative-mode metabolomics

Stephan R Fagerer, Simone Nielsen, Alfredo J Ibanez, Renato Zenobi
ETH Zurich, Zurich, Switzerland

PTu-094 13:30 – 14:40
Surface plasmon-induced cluster ion formation from Au, Ag, Pt, and Cu irradiated by visible laser

Dilshadbek T Usmanov, Lee Chuin Chen, Kenzo Hiraoka
University of Yamanashi, Kofu, Japan

PTu-095 11:10 – 12:20
Design and synthesis of new efficient MALDI-MS matrices for low-molecular weight metabolites in negative ionization mode.

Mitsuru Shindo, Terai Yasuaki, Yukihira Daichi, Miura Saisuke, Fujimura Yoshinori, Matsumoto Kenji, Wariishi Hiroyuki
Kyushu University, Fukuoka, Japan

PTu-096 13:30 – 14:40
Femtosecond Time-Resolved Mass Spectrometry for Desorption Dynamics of Tetracene Ion from Tetracene-doped Anthracene Crystals

Minagishi Yuuki, Morimoto Daisuke, Matsumoto Jun, Shiromaru Haruo, Hashimoto Kenro, Tatsuya Fujino
Tokyo Metropolitan University, Tokyo, Japan

PTu-097 11:10 – 12:20
Matrix-assisted variable wavelength laser desorption ionization of peptides; Influence of the matrix absorption coefficient on expansion cooling

Sung Hee Ahn, Yong Jin Bae, Myung Soo Kim
Seoul National University, Seoul, Korea

PTu-098 13:30 – 14:40
Accompanying Compounds induced dehydration of Reserpine in Matrix-assisted Laser Desorption/Ionization Process

Takehiro Watanabe, Tohru Yamagaki
Suntory institute for bioorganic research, Osaka, Japan

Tuesday, 18th September

PTu-100 13:30 – 14:40
Highly-Soft-Ionization of Organic Compounds and Polymers by Using Semiconductor Nanoparticels Sample Plate

Tetsu Yonezawa[1], Hayashi Shinji[2], Suganuma Takashi[3], Hideya Kawasaki[3], Ryuichi Arakawa[3]
[1]Hokkaido University, Sapporo, Hokkaido, Japan, [2]Kobe University, Kobe, Hyogo, Japan, [3]Kansai Uniersity, Suita, Osaka, Japan

PTu-101 11:10 – 12:20
Desorption/Ionization efficiency of 20 common amino acids in SALDI-MS using platinum nanoflowers on silicon substrate

Shuhei Nitta, Hideya Kawasaki, Ryuichi Arakawa
Kansai University, Osaka, Japan

PTu-102 13:30 – 14:40
Hydrogen Removing and Compound Properties of Aromatic Carboxylic Acids for Negative-ion Generation in Matrix-assisted Laser Desorption/Ionization Mass Spectrometry

Tohru Yamagaki, Takehiro Watanabe
Suntory Institute for Bioorganic Research, Osaka, Japan

PTu-103 11:10 – 12:20
Matrix-assisted Laser Desorption Ionization Mass Spectrometry Using Cation-Substituted Zeolite Surface

Takashi Asano[1], Junya Suzuki[2], Tatsuya Fujino[2]
[1]Metropolitan Police Department, Tokyo, Japan / Hokkaido University, Hokkaido, Japan, [2]Tokyo Metropolitan University, Tokyo, Japan

PTu-104 13:30 – 14:40
Correlation of Ionized Carbohydrate Structure with Peak Intensity of Negative Ion Mass Spectrometry: First Principles Study

Hiromitsu Takaba[1], Ryuji Miura[1], Ai Suzuki[1], Nozomu Hatakeyama[1], Kazuko Hirose[2], Takashi Nishikaze[2], Junko Amano[2], Akira Miyamoto[1]
[1]Tohoku University, [2]The Noguchi Institute

PTu-105 11:10 – 12:20
Statistical Investigation of Metabolite Structure to Reveal the Principle for Preferred Ionization in MALDI using 9-Aminoacridine

Daichi Yukihira, Yoshinori Fujimura, Mitsuru Shindo, Daisuke Miura, Hiroyuki Wariishi
Kyushu University, Fukuoka, Japan

PTu-106 13:30 – 14:40
Matrix clusters distribution from monomer to clusters with the mass at mega Dalton's region

Szu-Hsueh Lai[1,2], Kuang-Hua Chang[1], Jung-Lee Lin[1], Chung-Hsuan Chen[1,2]
[1]Genomics Research Center, Academia Sinica, Taipei, Taiwan, [2]Department of Chemistry, National Taiwan University, Taiwan

PTu-107 11:10 – 12:20
The initial ion velocity of MALDI-TOFMS matrix DCTB and affect upon the mass accuracy of high molecular weight radical ions.

Mark F Wyatt[1], Thorsten Jaskolla[2]
[1]EPSRC Nat. Mass Spec. Service Centre, Swansea University, UK, [2]Institute of Medical Physics and Biophysics, University of Muenster, Germany

Session 41
Chemistries of Trapped Ions and their Applications to Biological Mass Spectrometry

PTu-108 13:30 – 14:40
Gas-Phase Fragmentation of Reducing Sugar Modified Small Oligosaccharides

Chiharu Konda[1], Brad Bendiak[2], Yu Xia[1]
[1]Purdue University, West Lafayette, IN, USA, [2]University of Colorado Denver, Aurora, CO, USA

PTu-109 11:10 – 12:20
Radiosensitizers investigated using electrospray ionization mass spectrometry

Linda Feketeova[1], Niels Bassler[2], Brita S Sørensen[2], Michael R Horsman[2], Jonathan White[1], Richard A J O'Hair[1]
[1]School of Chemistry, The University of Melbourne, Parkville, Victoria, Australia, [2]Department of Experimental Clinical Oncology, Aarhus University Hospital, Aarhus C, Denmark

Session 42
New Developments in Instruments and Detectors

PTu-110 13:30 – 14:40
Expected possibilities of a new type gas-dynamic interface for preliminary separation and transportation of ions into a mass analyzer

Valeriy V Raznikov, Vladislav V Zelenov
The Branch of Institute for Energy Problems of Chemical Physics, Chernogolovka, Russia

PTu-111 11:10 – 12:20
Dramatically Improved Hydrocarbons Analysis with the 5975-SMB GC-MS with Cold EI

Alexander B Fialkov, Aviv Amirav, Alexander Gordin
Tel Aviv University, Tel Aviv, Israel

PTu-112 13:30 – 14:40
Suitability of dual solid probe FT-ICR-MS system for gas-phase acidity and basicity measurements of low volatile compounds.

Ivari Kaljurand, Ivo Leito, Ilmar A Koppel
University of Tartu, Tartu, Estonia

PTu-113 11:10 – 12:20
Development of mass spectrometer equipped with ECRIS and its application to isotopic analysis of Mo

Tsuyoshi Nagamatsu[1,2], Masanori Kidera[1], Masayoshi Toda[3], Tatsuhiko Tanaka[2], Kazuya Takahashi[1]
[1]RIKEN, Wako, Japan, [2]Tokyo University of Science, Shinjuku-ku, Japan, [3]Tokyo University of Marine Science and Technology, Minato-ku, Japan

PTu-114 13:30 – 14:40
Analysis of ion cloud dynamics in diffrent geometry orbitrap mass-analyzers using Particle-in-Cell code based computer simulations

Gleb Vladimirov[1,2], Eugene N Nikolaev[1,2,3]
[1]Institute for Energy Problems of Chemical Physics, Russian Academy of Sciences, Moscow, Russia, [2]Emanuel Institute of Biochemical Physics of Russian Academy of Sciences, Moscow, Russia, [3]Institute of biomedical chemistry, Russian Academy of Medical Sciences, Moscow, Russia

Tuesday, 18th September

PTu-115 11:10 – 12:20 Characteristics of a laser assisted vacuum-type electrospray droplet beam source

Satoshi Ninomiya, Lee Chuin Chen, Yuji Sakai, Kenzo Hiraoka
University of Yamanashi, Kofu, Japan

PTu-116 13:30 – 14:40 New plasma-based ion source mass spectrometer (ECRIS-MS) and its application to rapid detection of volatile compounds

Tatsuya Urabe[1], Masanori Kidera[1], Yasuo Seto[2], Kazuya Takahashi[1], Michiko Kitagawa[1]
[1]RIKEN, [2]National Research Institute of Police Science

PTu-117 11:10 – 12:20 Adaptive Noise reduction in MALDI TOF Mass Spectrometers

Ian Brookhouse, Andrew R Bowdler, Ian Sherwood
Kratos Analytical Ltd.,Manchester,England

PTu-118 13:30 – 14:40 Development of an ion transmission enhanced tandem ion guide system for triple quadruple mass spectrometer

DAISUKE OKUMURA, MANABU UEDA, TOMOHITO NAKANO
Shimadzu Co., Kyoto, Japan

PTu-119 11:10 – 12:20 The A-Wave principle: new way to design ion guides and similar devices

Alexander S Berdnikov[1], Nicolay R Gall[2]
[1]Institute for Analytical Instrunentation, St.Petersburg, Russian Federation, [2]Ioffe's Physical and Technical Institute RAS, St.Petersburg, Russian Federation

PTu-120 13:30 – 14:40 COUPLING OF AN INERT ION CHROMATOGRAPHIC SYSTEM WITH ICP-Q-MS FOR ROBUST AND ACCURATE ELEMENTAL SPECIATION

Tomoko Vincent[1], Daniel Kutscher[1], Lothar Rottmann[1], Julian Wills[1], Shona McSheehy[1], Detlef Jenen[2]
[1]Thermo Fisher Scientific, Bremen, Germany, [2]Dionex, Switzerland

PTu-121 11:10 – 12:20 A Two-Dimensional Particle Tracking Velocimetry Investigation for Visualization of Gas Flow inside the Ion Funnel

Diamantis Kounadis[1], Dimitris Papanastasiou[1], Ioannis Orfanopoulos[1], Alexander Lekkas[1], Ioannis Nikolos[2], Emmanuel Raptakis[1]
[1]Fasmatech Science and Technology SA, Athens, Greece, [2]Technical University of Crete, Department of Production Engineering and Management, Chania, Crete, Greece

PTu-122 13:30 – 14:40 Source Cleaning in Maldi Mass Spectrometers by UV Laser Desorption

John M Allison, Andrew Eaton
Kratos Analytical Ltd

PTu-123 11:10 – 12:20 Compensating for Space Charge Effects and Increasing the Mass Accuracy and Dynamic Range of Quadrupole Ion Trap Mass Spectrometers

Jae Schwartz, Philip M Remes
Thermo Fisher Scientific, San Jose USA/CA

PTu-124 13:30 – 14:40 Further expansion of the MCP ion detector output linearity using a current buffering concept.

ETSUO IIZUKA, MOTOHIRO SUYAMA, TOSHIYUKI UCHIYAMA, YUYA WASHIYAMA, KATSUYUKI ISHIGURO
HAMAMATSU PHOTONICS K. K., IWATA, JAPAN

PTu-125 11:10 – 12:20 Sensitivity improvement of MCP-based Ion Detectors for Mass Spectrometry

Masahiro Hayashi[1], Yuya Washiyama[1], Tetsuya Matsushita[1], Akio Suzuki[1], Shigetomo Shiki[2], Masataka Ohkubo[2]
[1]Hamamatsu Photonics K.K., Hamamatsu, Japan, [2]National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan

PTu-126 13:30 – 14:40 Round Focusing Magnetic Prisms for Surface Treatment Devices

Valentina A Mikhalevich, Viacheslav D Sachenko
Institute for Analytical Instrumentation of RAS, St.Petersburg, Russia

PTu-127 11:10 – 12:20 From conventional Proton-Transfer-Reaction Mass Spectrometry (PTR-MS) to a universal trace gas analyzer

Lukas Märk[1], Alfons Jordan[1], Achim Edtbauer[1], Eugen Hartungen[1], Simone Jürschik[1], Philipp Sulzer[1], Tilmann D Märk[1,2]
[1]IONICON Analytik GmbH., Innsbruck, Austria, [2]Institut für Ionenphysik und Angewandte Physik / Leopold Franzens Universität Innsbruck, Innsbruck, Austria

PTu-128 13:30 – 14:40 A Novel Precursor Isolation Method using Digital Ion Trap Mass Spectrometer

Kei Kodera, Masafumi Jinno, Kiyoshi Watanabe, Makoto Hazama, Masaji Furuta, Sadanori Sekiya, Kaori Kinoshita, Hidenori Takahashi, Kosuke Hosoi, Toshinori Kobayashi, Shinichi Iwamoto, Koichi Tanaka
Shimadzu Co., Kyoto, Japan

PTu-129 11:10 – 12:20 A high accuracy FDM field solver for prediction of non-linear resonances in electrodynamic ion traps.

Matthew C Gill[1], Alexander Berdnikov[2], Roger Giles[1]
[1]Shimadzu Research Laboratory (Europe) LTD, Manchester, UK, [2]Institute for Analytical Instrumentation, Rizhskij pr. 26, 190103, St. Petersburg, Russia.

PTu-130 13:30 – 14:40 More than one order of magnitude higher sensitivities with Proton-Transfer-Reaction Time-of-Flight Mass Spectrometry (PTR-TOFMS)

Eugen Hartungen[2], Alfons Jordan[2], Achim Edtbauer[2], Akio Shimono[1], Simone Jürschik[2], Philipp Sulzer[2], Lukas Märk[2], Tilmann D Märk[2,3]
[1]Shoreline Science Research Inc., Tokyo, Japan, [2]IONICON Analytik GmbH., Innsbruck, Austria, [3]Institut für Ionenphysik und Angewandte Physik / Universität Innsbruck, Innsbruck, Austria

PTu-131 11:10 – 12:20 A curtain-gas filter that widely protects a mass spectrometer from neutral molecule contaminations

Hermann Wollnik, Gary Eiceman, Alexander Tarassov, Ryan Blase, Stephen Devila
New Mexico State University, Las Cruces, USA

Tuesday, 18th September

Tue

PTu-132 13:30 – 14:40 High Mass Microscope-mode MALDI Imaging Mass Spectrometry

Yuto Yanagihara[1], Masahiro Hayashi[1], Yasuhide Naito[2]
[1]Hammatsu Photonics K.K., Iwata,Japan, [2]GPI,Hamamatsu,Japan

PTu-133 11:10 – 12:20 Analysis of neurosteroids by GC-APPI-MS/MS

Tina J Suominen, Markus Haapala, Anna Takala, Raimo A Ketola, Risto Kostiainen
Helsinki University, Helsinki, Finland

PTu-134 13:30 – 14:40 Potential of direct probe for drug and pharmaceutical

HARUO HOSODA, NORIYUKI IWASAKI, JOUJI SETA, YOSHIHIKO MORISHITA
Bruker Daltonics.k.k.,Yokohama,Japan

PTu-135 11:10 – 12:20 Development of high-speed data-streaming system for time-of-flight mass spectrometry

Ken-ichi Bajo[1], Osamu Fujioka[2], Shingo Ebata[1], Morio Ishihara[3], Kiichiro Uchino[4], Hisayoshi Yurimoto[1]
[1]Hokkaido University, Sapporo, Japan, [2]National Instruments Japan Corporation, Tokyo, Japan, [3]Osaka University, Toyonaka, Japan, [4]Kyushu University, Kasuga, Japan

PTu-136 13:30 – 14:40 Mass coverage range enhancement of reflectron time-of-flight mass spectrometers by superconducting nano-stripline detectors

Nobuyuki Zen[1], Koji Suzuki[1], Shigetomo Shiki[1], Masahiro Ukibe[1], Masaki Koike[1], Alessandro Casaburi[2], Mikkel Ejrnaes[2], Roberto Cristiano[2], Masataka Ohkubo[1]
[1]National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan, [2]National Research Council, Pozzuoli, Italy

PTu-137 11:10 – 12:20 An Improvement of MCP Dynamic Range for TOF MS Application

Yusuke Hayase, Uchiyama Toshiyuki, Ishiguro Katsuyuki
Hamamatsu Photonics, Iwata, Japan

Session 44

Ambient Ionization

PTu-138 13:30 – 14:40 Specific analyte ionization using negative atmospheric ions formed in atmospheric pressure corona discharges

Kanako Sekimoto, Mitsuo Takayama
Yokohama City University, Yokohama, Japan

PTu-139 11:10 – 12:20 Probe Electrospray and Nanoelectrospray Ionization for Direct Biomolecule Analysis and Cancer Diagnostics

Mridul Kanti Mandal[1], Lee Chuin Chen[2], Kentaro Yoshimura[3], Subhrakanti Saha[1], Obaidur Rahman[1], Matiur Rahman[1], Yasuo Shida[1], Satoshi Ninomiya[2], Sen Takeda[3], Kenzo Hiraoka[1]
[1]Clean Energy Research Center, University of Yamanashi, Japan, [2]Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi, Japan, [3]Department of Anatomy and Cell Biology, Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi, Japan

PTu-140 13:30 – 14:40 Development of ultra high sensitive ambient ionization mass spectrometry using Leidenfrost phenomenon-assisted thermal desorption

Subhrakanti Saha[1], Lee Chuin Chen[2], Mridul Kanti Mandal[1], Kenzo Hiraoka[1]
[1]Clean Energy Research Center, University of Yamanashi, Japan, [2]Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi, Japan

PTu-141 11:10 – 12:20 Scanning Probe Electrospray Ionization for Ambient Mass Spectrometry

Yoichi Otsuka[1], Sayuri Shide[2], Junpei Naito[1], Masafumi Kyogaku[1], Hiroyuki Hashimoto[1], Ryuichi Arakawa[2]
[1]Frontier Research Center, Canon Inc., Tokyo, Japan, [2]Faculty of Chemistry, Materials and Bioengineering, Kansai University, Osaka, Japan

PTu-142 13:30 – 14:40 Simultaneous Ionization of Nonpolar and Polar Compounds by Laser Ablation Electrospray Ionization with Heated Gas Jet

Anu Vaikkinen[1], Bindesh Shrestha[2], Akos Vertes[2], Risto Kostiainen[1], Tiina J Kauppila[1]
[1]University of Helsinki, Helsinki, Finland, [2]George Washington University, Washington DC, USA

PTu-143 11:10 – 12:20 Desorption atmospheric pressure photoionization-mass spectrometry for direct analysis of tetrahydrocannabinol from Cannabis sativa samples

Tiina J Kauppila[1], Anu Flink[1], Ulla-Maija Laakkonen[2], Laura Aalberg[2], Raimo A Ketola[1]
[1]University of Helsinki, Helsinki, Finland, [2]National Bureau of Investigation, Vantaa, Finland

PTu-144 13:30 – 14:40 Open Spot Ambient Ionization Technology for Near-Instant Determination of Sample Characteristics by using DART-MS

Musselman D Brian, Joseph LaPointe, Elizabeth Crawford
IonSense, Inc.

PTu-145 11:10 – 12:20 Plasma pencil atmospheric mass spectrometry for the detection and measurement of micronutrients in complex solutions

Lo Edward, Maria J Stein, David G Castner, Buddy D Ratner
University of Washington, Seattle, United States of America

PTu-146 13:30 – 14:40 Rapid screening and quantitation of pesticides in fruit commodities by Direct Analysis in Real Time (DART) ambient ionization mass spectrometry

Elizabeth A Crawford, Brian D Musselman
IonSense, Inc., Saugus, MA, USA

Tuesday, 18th September

PTu-147 11:10 – 12:20
Study of fragmentaion behaviors for atmospheric negative ion adducts of phenylalanine homologues using atmospheric pressure corona discharge ionization mass spectrometry

Natsuki Matsuda, Nami Sugasawa, Chika Mifune, Kanako Sekimoto, Mitsuo Takayama
Yokohama City University, Yokohama, Japan

PTu-148 13:30 – 14:40
Unusual radial cation formation of arginine by atmospheric pressure corona discharge ionization (APCDI)

Atsushi Wada, Kanako Sekimoto, Mitsuo Takayama
Yokohama City University, Yokohama, Japan

PTu-149 11:10 – 12:20
Theoretical and experimental studies of ionization of explosive compounds using dielectric barrier discharge ionization

Hirotaka Yabushita[1], Hirofumi Nagao[1], Toshinobu Hondo[1], Michisato Toyoda[2]
[1]HORIBA STEC,Co.,Ltd., Kyoto, Japan, [2]Osaka University, Osaka, Japan

PTu-150 13:30 – 14:40
Quantification of six anti-diabetic drugs in human plasma by indirect spray FT ICR mass spectrometry

Wan Li, T W Dominic Chan
The University of Hong Kong, Hong Kong, China

PTu-151 11:10 – 12:20
Physical process hierarchy in ion movement inside a gas dynamic interface for the mass-spectrometer with ambient ionization.

Nicolay R Gall[1], Alexander S Berdnikov[2], Lidia N Gall[2]
[1]Ioffe Physico Technical Inst. of Russian Academt of Sciences, St.Petersburg, Russia,, [2]Institute for Analytical Instrumentation, St.Petersburg, Russia

PTu-152 13:30 – 14:40
Using Thin Layer Chromatography Spray (TLC spray) Ionization Mass Spectrometry to Analyze Drugs in Whole Blood

Yi-Tzu Cho[1], Chu-Nian Cheng[2], Hung Su[2], Jentaie Shiea*[2]
[1]Yuh-Ing Junior College of Health Care & Management, Kaohsiung, Taiwan, [2]National Sun Yat-Sen Univ., Kaohsiung, TAIWAN

PTu-153 11:10 – 12:20
Ambient surface mass spectrometry of polymers and molecules using PADI - Optimising parameters, improving repeatability and damage effects

Tara L Salter, Ian S Gilmore
National Physical Laboratory, Teddington, UK

PTu-154 13:30 – 14:40
Thermal Dissociation Atmospheric Chemical Ionization Mass Spectrometry with a Miniature Source for Selective Trace Detection of Dimethoate in Fruit Juices

yongzhong ouyang, Tiqiang zhang, Tenggao Zhu, Huanwen Chen
East China Institute of Technology,Nanchang, P.R. China

PTu-155 11:10 – 12:20
Mass analysis of the ions generated by corona discharge ionizers in ambient air

Kenkichi Nagato
Kochi National College of Technology, Nankoku, Japan

PTu-156 13:30 – 14:40
Rapid Screening of Camphor Wood by Surface Desorption Atmospheric Pressure Chemical Ionization Mass Spectrometry

Jianping Yan, Huanwen Chen
Jiangxi Key Laboratory for Mass Spectrometry and Instrumentation, East China Institute of Technology, Nanchang, Jiangxi, China

PTu-157 11:10 – 12:20
Hydrocarbons Analysis by Desorption Atmospheric Pressure Chemical Ionization

Fred Paul mark Jjunju Jjunju[1,2], Badu_Tawiah K Abraham[2], Li Anyin[2], Roqan S Iman[1], Graham R Cooks[2]
[1]King Abdullah University of Science and Technology (KAUST), Physical Science and Engineering Division, Thuwal 23955-6900, Saudi Arabia, [2]Derpartment of Chemistry Purdue University

PTu-158 13:30 – 14:40
Rapid Detection of Bacterial Lipids, Metabolites and Signalling Compounds by Liquid Extraction Surface Analysis Mass Spectrometry

Martin R Paine[1], Nicole A Pianegonda[1], Philip J Barker[2], Todd W Mitchell[1], Michael J Manefield[3], Scott A Rice[3], Stephen J Blanksby[1]
[1]University of Wollongong, Wollongong, Australia, [2]BlueScope Steel Research, Port Kembla, Australia, [3]University of New South Wales, Sydney, Australia

PTu-159 11:10 – 12:20
A hydrodynamically optimized nanoelectrospray source with 100% transmission

Matthias Pauly[1], Mario Sroka[2], Stephan Rauschenbach[1], Julius Reiss[2], Gordon Rinke[1], Alyazan Albargash[1], Jörn Sesterhenn[2], Klaus Kern[1]
[1]Max Planck Institute for Solid State Research, Stuttgart, Germany, [2]Technical University Berlin, Berlin, Germany

PTu-160 13:30 – 14:40
Direct analysis of asphaltene by DART FT MS

Hugues PREUD'HOMME[1], Felipe CARDOSO[2,3], Bruno GRASSL[4], Brice BOUYSSIERE[1], Herve CARRIER[2]
[1]IPREM / LCABIE, University of Pau, Pau, France, [2]LFC-R, UMR 5150, University of Pau, Pau France, [3]Centro de Pesquisas Leopoldo Americo Miquez de Mello, PETROBRAS/CENPES, Rio de Janeiro, Brazil, [4]IPREM / ECP, UMR 5254, University of Pau, France

Session 45
Cell Biology / Cellular Pathways

PTu-161 11:10 – 12:20
BRIDGING BETWEEN LIFE SCIENCES AND MATERIAL SCIENCES: MASS SPECTROMETRIC PROTEIN AND METABOLITE ANALYSIS FOR THE PRODUCTION OF BIO-BASED CHEMICALS

Michiel Akeroyd, Rob van der Hoeven, Rene Verwaal, Stefan Turk, Fredoen Valianpour, Marcel Tilborg, Maurien Olsthoorn
DSM Biotechnology Center / Delft / The Netherlands

Tuesday, 18th September

PTu-162 Large Bio-particle Detection Technologies and Their Applications
13:30 – 14:40

Chung Hsuan Chen
Genomics Research Center/Academia Sinica, Taipei, Taiwan

PTu-163 Comparison between Single-cell and traditional MALDI-MS-based workflows for metabolome studies in Saccharomyces cerevisiae.
11:10 – 12:20

Alfredo J Ibanez[1], Stephan R Fagerer[1], Matthias Heinemann[2], Renato Zenobi[1]
[1]ETH Zurich, Zurich, Switzerland, [2]University of Groningen, Groningen, The Netherlands

PTu-164 The Cuticular Structure and Lipid Composition of Arabidopsis thaliana Organs and Cells Determined by TOF-SIMS
13:30 – 14:40

Gregory L Fisher[1], Philip C Wong[2], Christopher Buschhaus[2], John Hammond[1], Reinhard Jetter[2]
[1]Physical Electronics, Minnesota, USA, [2]University of British Columbia, British Columbia, Canada

PTu-166 Proteomic Interrogation of MDSC Exosomes by Bottom-up, Middle-out and Top-down strategies
13:30 – 14:40

Catherine Fenselau[1], Meghan Burke[1], Waeowalee Choksawangarn[1], Avantika Dhabaria[1], Joseph Cannon[1], Suzanne Ostrand-Rosenberg[2]
[1]University of Maryland, College Park MD, USA, [2]University of Maryland, Baltimore County, USA

PTu-167 Identification of novel cytokinin degradation pathway during adventitious caulogenesis in Pinus pinea L. cotyledons with quadrupole-time of flight mass spectrometry
11:10 – 12:20

Ondrej Novak[2], Candela Cuesta[3], Karel Dolezal[1,2], Lucie Szucova[2], Lukas Spichal[2], Belén Fernández[3], Ana Rodríguez[3], Miroslav Strnad[2]
[1]Institute of Experimental Botany AS CR, Czech Republic, [2]Laboratory of Growth Regulators, Faculty of Science, Palacky University & Institute of Experimental Botany AS CR, Slechtitelu 11, Olomouc, CZ-783 71, Czech Republic, [3]Área de Fisiología Vegetal, Departamento Biología de Organismos y Sistemas, Instituto de Biotecnología de Asturias, Universidad de Oviedo, Oviedo, E-33071, Spain.

PTu-168 Activation Kinetics and Dimerization of STAT5 Proteins Followed by Quantitative Mass Spectrometry
13:30 – 14:40

Martin E Boehm, Lorenz Adlung, Marcel Schilling, Ursula Klingmueller, Wolf-Dieter Lehmann
German Cancer Research Center Heidelberg

PTu-169 Lapatinib-resistant gastric cancer cells express cancer stem cell-like cell surface antigens
11:10 – 12:20

Minjueng Kang[1], Hwang-Phill Kim[2], Young-dong Yoo[1], Yong-Tae Kwon[1], Tae-You Kim[1,2], Eugene C Yi[1]
[1]Molecular Medicine and Biopharmaceutical Sciences, Seoul National University, Seoul, Korea, [2]Cancer Research Institute, Seoul National University Hospital, Seoul, Korea

PTu-170 Tissue specific profiling of the Arabidopsis thaliana auxin metabolome
13:30 – 14:40

Ondrej Novak[1,2], Eva Henykova[1,2], Ilkka Sairanen[2], Mariusz Kowalczyk[2], Tomas Pospisil[3], Karin Ljung[2]
[1]Palacky University & Institute of Experimental Botany AS CR, Olomouc, Czech Republic, [2]Umea Plant Science Centre, Umea, Sweden, [3]Centre of the Region Hana for Biotechnological and Agricultural Research, Faculty of Science, Olomouc, Czech Republic

PTu-171 In Situ Pressure Probe Picoliter Single-Cell Sap Sampling and Mass Spectrometry Metabolite Profiling of Living Plants
11:10 – 12:20

Yousef Gholipour[1], Rosa Erra-Balsells[2], Hiroshi Nonami[1]
[1]Ehime University, Matsuyama, Japan, [2]University of Buenos Aires, Argentina

PTu-172 In-situ Analysis of Plant Bioactive Molecules by Live Single-cell Mass Spectrometry
13:30 – 14:40

Shuichi Matsuda[1], Sachiko Date[2], Hajime Mizuno[1], Naohiro Tsuyama[1], Takanori Harada[1], Tsutomu Masujima[1,2]
[1]Graduate School of Biomedical Sciences, Hiroshima University, Hiroshima, Japan, [2]Quantitative Biology Center (QBiC), RIKEN, JAPAN

PTu-174 2D-DIGE analysis of the role of S-nitrosoglutathione reductase in lipopolysaccharide-challenged mice
13:30 – 14:40

Kentaro Ozawa[1], Hiroki Tsumoto[1], Wei Wei[2], Chi-Hui Tang[2], Akira T Komatsubara[3], Hiroto Kawafune[3], Kazuharu Shimizu[1,4], Limin Liu[2], Gozoh Tsujimoto[1,3]
[1]World-Leading Drug Discovery Research Center, Kyoto University, Kyoto, Japan, [2]Department of Microbiology and Immunology, University of California, San Francisco, USA, [3]Department of Genomic Drug Discovery Science, Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan, [4]Department of Nanobio Drug Discovery, Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan

PTu-175 Proteomic analysis of low temperature resistant system in bacteria
11:10 – 12:20

Kadoya Ryosuke, Kasahara Yasuhiro
Hokkaidou University, Sapporo, Japan

PTu-176 IgSF11 is a member of the immunoglobulin superfamily that promotes both neuronal adhesion and cell proliferation
13:30 – 14:40

Erika Hayashi[1], Hiroaki Akutsu[2], Hiroshi Funakoshi[2], Yokichi Hayashi[2]
[1]Hokkaido University,Sapporo,Japan, [2]Asahikawa Medical University,Asahikawa, Japan

PTu-177 Live Single-cell Mass Spectrometry for Tracing Metabolic Processes in Organelle
11:10 – 12:20

HAJIME MIZUNO[1], NAOHIRO TSUYAMA[1], SACHIKO DATE[2], TAKANORI HARADA[1], TSUTOMU MASUJIMA[1,2]
[1]Hiroshima University, Hiroshima, Japan, [2]QBiC, RIKEN, Osaka, Japan

PTu-178 Development of Micro-area-specific Extracting Analysis for Molecules in Tissue Section
13:30 – 14:40

Sachiko DATE[1], Tsutomu MASUJIMA[1,2]
[1]RIKEN QBiC, Osaka, Japan, [2]Hiroshima University, Hiroshima, Japan

Tuesday, 18th September

PTu-179
11:10 – 12:20
In-situ Analysis of Phototropic Molecules in plant by Live Singe-cell Mass Spectrometry

TAKASHI FUJII[1], SACHIKO DATE[2], HAJIME MIZUNO[1], NAOHIRO TSUYAMA[1], TSUTOMU MASUJIMA[1,2]
[1]Hiroshima University, Hiroshima, Japan, [2]Quantitative Biology Center (QBiC), RIKEN, JAPAN

PTu-180
13:30 – 14:40
Analysis of Specific Molecules in Allergic Granule by Live Single-cell Mass Spectrometry

YUKI YAMAMOTO[1], SACHIKO DATE[2], HAJIME MIZUNO[1], NAOHIRO TSUYAMA[1], TSUTOMU MASUJIMA[1,2]
[1]Hiroshima University, Hiroshima, Japan, [2]Quantitative Biology Center (QBiC), RIKEN, JAPAN

PTu-181
11:10 – 12:20
Time Dependent Changes of Intracellular-Signal-Relating Small Compounds in Allergy Model Cell Line, RBL-2H3

Toshiya Shinasue[1], Yui Okamura[1], Hajime Mizuno[1], Naohiro Tsuyama[1], Sachiko Date[2], Tsutomu Masujima[1,2]
[1]Graduate School of Biomedical Sciences, Hiroshima University, Hiroshima, Japan, [2]Quantitative Biology Center, RIKEN, Japan

PTu-182
13:30 – 14:40
Brain proteomics reveals early molecular signature of pathology in pre-symptomatic mouse model of Alzheimer's disease

Hongqian Yang[1], Jessica L Wittnam[2], Roman A Zubarev[1,3], Thomas A Bayer[2]
[1]Karolinska Institute, Stockholm, Sweden, [2]University Medicine Göttingen,Göttingen, Germany, [3]Science for Life Laboratory, Stockholm, Sweden

PTu-184
13:30 – 14:40
Realtime molecular analysis of allergenic response in single mast cell by fluorescence probe-assisted Live Single-cell MS

Yosuke Kawai[1], Naohiro Tsuyama[1], Hajime Mizuno[1], Sachiko Date[2], Tsutomu Masujima[1,2]
[1]Hiroshima University Graduate School of Biomedical & Health Sciences, Hiroshima, Japan, [2]Quantitative Biology Center (QBiC), RIKEN, Osaka, Japan

PTu-185
11:10 – 12:20
A host-pathogen interaction network study of Shigella flexneri infection of human cells targeting key metabolic enzymes

Asa Wahlander[1], Bernd Roschitzki[1], Paolo Nanni[1], Claudia Fortes[1], Christian Trachsel[1], Nicole Freed[2], Simon Barkow-Oesterreicher[1], Christian Panse[1], Jonas Grossmann[1], Petra Tienz[2], Dirk Bumann[2], Ralph Schlapbach[1]
[1]Functional Genomics Center Zurich, FGCZ, [2]Infection Biology Biozentrum, University Basel, Basel, Switzerland

PTu-186
13:30 – 14:40
A highly specific and sensitive determination of the sterols in silkworm larva by HPLC/APCI-MS/MS for the investigation to insect steroidogenesis.

Fumihiko Igarashi, Juri Hikiba, Takayoshi Nakaoka, Minoru Suzuki, Hiroshi Kataoka
Department of Integrated Biosciences, Graduate School of Frontier Sciences, The University of Tokyo, Kashiwa, Japan.

Polymer sciences

PTu-187
11:10 – 12:20
Evolved gas analysis of a Japanese lacquer film

Noriyasu Niimura
JEOL, Tokyo, Japan

PTu-188
13:30 – 14:40
Structural characterization of ethylene-vinyl acetate copolymers using high-resolution MALDI-TOFMS with a spiral ion trajectory

Hiroaki Sato[1], Hidenobu Aizawa[1], Sayaka Nakamura[1], Takafumi Sato[2]
[1]National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan, [2]JEOL Ltd., Akishima, Japan

PTu-189
11:10 – 12:20
Determination of Volatile Organic Compounds in Polypropylene Raw Materials by Thermal Desorption-Gas Chromatography/Mass Spectrometry and Head Space-Gas Chromatography-Mass/Spectrometry

Shuqi Sun, Ying Zhang, Song Chen, Yang Song
SINOPEC Beijing Research Institute of Chemical Industry, Beijing, China

PTu-190
13:30 – 14:40
Characterization of a multi-component liquid crystalline copolyester by high-resolution MALDI-spiral-TOF-MS

Banri Hashimoto, Takanori Sasaki, Hajime Ohtani
Nagoya Institute of Technology,Aichi,Japan

PTu-191
11:10 – 12:20
Mass-analysis of enzymatic hydrolysis of nylon by argon cluster SIMS

Kensuke Iuchi, Kosuke Moritani, Kozo Mochiji, Keisuke Nagai, Kazuki Iida, Seiji Negoro
University of Hyogo, Hyogo, Japan

PTu-192
13:30 – 14:40
Characterization of poly(ethylene oxide-propylene oxide) alkyl ether (R-EO-PO) copolymer by LC-ESI-MS

Haruka Yamada[1], Hirotaka Hisatomi[1], Mendra Ritonga[2], Sana Ito[2], Masaki Morita[2], Hideya Kawasaki[1], Ryuichi Arakawa[1]
[1]Kansai University, Suita, Japan, [2]Niitaka Co., Ltd., Osaka, Japan

PTu-193
11:10 – 12:20
Novel Method for Verification of Trace Amounts of Polymer Contaminants in Photoresist Solution

Min-Soo Suh, Da-Hee Lee, Taehyo Choi, Minjung Kim, Dongju Oh, Jung Dae Park, Pilkwon Jun, Jong Soo Kim
Samsung Electronics, Hwasung, Korea

PTu-194
13:30 – 14:40
Differential Analysis in sulfenamide-based vulcanizing accelerators for rubber products by High mass Accuracy MS and Multivariate Statistical Technique

Takahiro Goda, Hiroki Nakajima, Satoshi Yamaki, Tsutomu Nishine, Masaru Furuta, Naoki Hamada
Shimadzu Co., Kyoto, Japan

Tuesday, 18th September

PTu-195 11:10 – 12:20 **Diagnostics of degradation levels for thermoplastics using pyrolysis-GCxGC-TOFMS**

Fumie Kabashima, Fumihiko Tsuchiya
LECO Japan Corporation

Others

PTu-196 13:30 – 14:40 **Yellow Sand and Seawater Interaction from viewpoint of Silica Speciation**

Miho Tanaka[1], Kazuya Takahashi[2]
[1]Tokyo University of Marine Science and Technology, Tokyo, Japan, [2]RIKEN, Wako, Japan

PTu-197 11:10 – 12:20 **High Plasmalogen Content in the Gut of Silkworm (Bombyx mori)**

Takako Aboshi, Ritsuo Nishida, Naoki Mori
Kyoto University

PTu-198 13:30 – 14:40 **Characterization on Oxidation and Hydrolysis of Titanium Ion Using ESI-MS**

Io Ryumae, Miho Tanaka
Tokyo University of Marine Science and Technology

PTu-199 11:10 – 12:20 **The Development of Multi Elemental Analysis of Ferromanganese Nodule by LA-ICP-MS**

Junichi Hirata, Miho Tanaka
Tokyo University of Marine Science and Technology, Tokyo, Japan

PTu-200 13:30 – 14:40 **Study on Reaction Process of the Complexation of Silicomolybdic and Phosphomolybdic Acids by ESI-MS**

Mariko Takahashi, Miho Tanaka
Tokyo University of Marine Science and Technology, Tokyo, Japan

PTu-201 11:10 – 12:20 **The Development of Analytical Method for Speciation of Transition Metal Ions in Seawater by CE-ESI-MS**

Daisuke Nakamoto, Masashi Wakasugi, Miho Tanaka
Tokyo University of Marine Science and Technology, Tokyo, Japan

PTu-202 13:30 – 14:40 **Identification of Silk Proteins Excavated from the Ruin of the Makimuku Site in 3-4 AD Japan by MALDI Mass Spectrometry**

Kazuki Kawahara[1], Miho Muguruma[1], Teruhiko Hashimoto[2], Kaoru Terasawa[2], Atsuko Miyaji[1], Takashi Nakazawa[1]
[1]Nara Women's University, Nara, Japan, [2]Research Center for Makimuku-Gaku, Nara, Japan

Wedensday, 19th September Morning

Award Lecture

08:30 – 08:50 Main Hall

Curt Brunnée Award Lecture

Chair: Catherine E Costello (IMSF Vice-President)
Boston University School of Medicine, USA

AW1-0830 Curt Brunnée Award Lecture
08:30 – 08:50

Zheng Ouyang
Purdue University in West Lafayette, USA

Oral Session

09:00 – 11:00 Main Hall

Session 21: Platform Technology for Metabolomics

Chair: Yoshiya Oda
Eisai Inc, USA

S21-0900 [Keynote Lecture] New generation high-field Orbitrap instrumentation in untargeted metabolic profiling
09:00 – 09:40

Annie M Evans, Qiang Liu, Brandi Bridgewater, Matthew Mitchell, Hongping Dai, Corey DeHaven, Sandy Stewart
Metabolon, Durham, NC, USA

S21-0940 Improving comprehensive analysis for myxobacterial secondary metabolome mining
09:40 – 10:00

Thomas Hoffmann[1,2], Daniel Krug[1,2], Rolf Mueller[1,2]
[1]Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Saarbruecken/Germany, [2]Pharmaceutical Biotechnology, Saarland University, Saarbruecken/Germany

S21-1000 Understanding alterations of platelets metabolism during storage by using UPLC-Q-TOF-MS strategy.
10:00 – 10:20

Giuseppe Paglia[1,2], Olafur E Sigurjonsson[3], Manuela Magnusdottir[2], Steinun Thorlacius[2], Sveinn Gudmundsson[3], Bernhard O Palsson[2], Ines Thiele[2]
[1]University of Iceland, Reykjavik, Iceland, [2]Center for Systems Biology, University of Iceland, Reykjavik, Iceland, [3]The Blood Bank, Landspitali-University Hospital, Reykjavik, Iceland

S21-1020 Neuroactive Steroids in Plasma Measured by a Novel Mass Spectrometry Platform
10:20 – 10:40

Andre Kopoyan, Karin M Green, Kristina M Deligiannidis, Scott A Shaffer
University of Massachusetts Medical School, Worcester, MA, USA

S21-1040 Metabolomics Studies Using a Versatile Microfluidic Platform
10:40 – 11:00

Steven A Cohen, Giuseppe Astrarita, Giorgis Isaac, Angela Doneanu, Jay Johnson, Jim Murphy
Waters Corporation, Milford, USA

Wedensday, 19th September Morning

Wed

Oral Session

09:00 – 11:00 Room A

Session 22: Instrumentation Developments in Mass Spectrometric Imaging

Chair: Anastassios Giannakopulos
ThermoFisher Scientific, Germany

S22-0900 09:00 – 09:40 **[Keynote Lecture] High Resolution in Mass and Space: New Developments and Trends in MALDI Mass Spectrometry Imaging**

Bernhard Spengler, Andreas Römpp, Sabine Guenther, Oliver Schulz, Yvonne Schober, Zoltan Takats, Klaus-Peter Hinz, Christian Lotze, Joerg-Ulrich Poetzl, Christian Schinz
Justus Liebig University, Giessen, Germany

S22-0940 09:40 – 10:00 **Development and Applications of New Stigmatic Mass Microscope with High Mass and Spatial Resolving Power using Multi-Turn Time-of-Flight Mass Spectrometer**

Jun Aoki, Hisanao Hazama, Kunio Awazu, Michisato Toyoda
Osaka University, Osaka, Japan

S22-1000 10:00 – 10:20 **An Evolution of TOF-SIMS for Biological Samples: From 2D Imaging to 3D FIB-TOF Tomography**

John S Hammond, Gregory L Fisher, Scott R Bryan
Physical Electronics, Chanhassen, Minnesota, USA

S22-1020 10:20 – 10:40 **Study of Toxin Distribution in Sprouted Potatoes by Electrospray Laser Desorption Ionization Imaging Mass Spectrometry (ELDI/IMS)**

Yichia Huang[1], Min-Zong Huang[1], Yi-Tzu Cho[2], Jentaie Shiea[1]
[1]National Sun Yat-sen University, Kaohsiung, Taiwan, [2]Yuh-Ing Junior College of Health Care & Management, Kaohsiung, Taiwan

S22-1040 10:40 – 11:00 **Conventional and stigmatic laser desorption/ionization-imaging mass spectrometry applied to analyses of organic layers in electronic devices**

Yuko Tachibana[1], Yoji Nakajima[1], Tsuguhide Isemura[1], Kiyoshi Yamamoto[1], Takaya Satoh[2], Jun Aoki[3], Michisato Toyoda[3]
[1]Asahi Glass Co., Ltd., Yokohama, Japan, [2]JEOL Ltd. , Akishima Tokyo, Japan, [3]Osaka University, Osaka, Japan

Oral Session

09:00 – 11:00 Room B-1

Session 23: Gas Phase Fragmentation Mechanisms of Biomolecular Radicals

Chair: Shigeo Hayakawa
Osaka Prefecture Uiniversity, Japan

S23-0900 09:00 – 09:40 **[Keynote Lecture] Gas Phase Chemistry of Biomolecular Radicals - An Overview**

Michael Leeming[1,2], William A Donald[1,2], Richard A J O'Hair[1]
[1]The University of Melbourne Victoria 3010 AUSTRALIA, [2]ARC Centre of Excellence for Free Radical Chemistry and Biotechnology

S23-0940 09:40 – 10:00 **Mechanism of "Oxygen rearrangement" in mass spectrometry**

Nino G Todua, Karl K Irikura, Stephen E Stein, Anzor I Mikaia
National Institute of Standards and Technology

S23-1000 10:00 – 10:20 **The Cn Ions Formed by the Dissociation of an N-terminal Deuterohemin Containing Hexapeptide**

Xinhua Guo, Bing Wang, Jiayi Yu
Jilin University, Changchun, China

S23-1020 10:20 – 10:40 **Isomerization of Radical Peptide Ions and Subsequent Radical-Induced Dissociations**

Ivan Keung Chu
Department of Chemistry, The University of Hong Kong, Hong Kong, China

S23-1040 10:40 – 11:00 **Cascade Dissociations of Peptide Cation Radicals**

Frantisek Turecek
University of Washington, Seattle, WA, USA

Wedensday, 19th September Morning

Oral Session

09:00 – 11:00 Room D

Session 24: Regulated Bioanalysis

Chair: Shinobu Kudoh
Shimadzu Techno-Research, Inc., Japan

S24-0900 09:00 – 09:40 **[Keynote Lecture] Drug regulation and bio-analysis**

Tatsuo Kurokawa
Keio University, Tokyo, Japan

S24-0940 09:40 – 10:00 **Bioanalytical method validation: Process of preparation and notable points of the draft Japanese guideline**

Noriko Katori
National Institute of Health Sciences, Tokyo, Japan

S24-1000 10:00 – 10:20 **Using of Multistage Mass Spectrometry Techniques in Combinations with Electrophoretic and Chromatographic Separation Techniques for Analysis of Biological Samples**

Jozef Marak, Andrea Stanova, Monika Kondekova, Monika Radicova, Nikoleta Biherczova, Katarina Krcova
Comenius University, Bratislava, Slovak Republic

S24-1020 10:20 – 10:40 **Quantitative Analysis of Beta casomorphin-7 by SRM using stable isotope labeled peptide as internal standard**

Xiaomin Song[1], Thiri Zaw[1], Ardeshir Amirkhani[1], Andrew Clarke[2], Mark Molloy[1]
[1]APAF Macquarie University, Sydney, Australia, [2]A2 Co Ltd, Australia

S24-1040 10:40 – 11:00 **Accurate Mass MS/MS an Attractive Option For the Quantification of Biotherapeutics in DMPK Studies**

Robert S Plumb[1,2], Christopher Evans[3], Paul D Rainville[1], Joanne Mather[1]
[1]Waters Corporation, [2]Imperial College, London, UK, [3]GlaxoSmithKline, DMPK, PA, USA

Oral Session

09:00 – 11:00 Room E

Session 25: New Approaches to Defining the Diversity of Glycans

Chair: Catherine E Costello
Boston University School of Medicine, USA

S25-0900 09:00 – 09:40 **[Keynote Lecture] Development and Application of a Rapid and Sensitive Method for Screening Cellular Models of Congenital Disorders of Glycosylation**

Jane Thomas-Oates[1,2,3], Salina Abdul Rahman[1,2,3], Jennifer E Dodd[1,3], Ed Bergstrom[1,2,3], David A Ashford[1,2,4], Jerry Thomas[1,2,4], Daniel Ungar[1,4]
[1]University of York, York, UK, [2]Centre of Excellence in Mass Spectrometry, [3]Department of Chemistry, [4]Department of Biology

S25-0940 09:40 – 10:00 **Studies of Oligosaccharides and Monosaccharides by LEISD MALDI and 2D-CID-ESI Mass Spectrometry Techniques**

shuying Liu[1,2], hongmei Yang[1], Debin Wan[1]
[1]Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, changchun, China, [2]2Changchun University of Chinese Medicine, 130117, China

S25-1000 10:00 – 10:20 **A new approach to the rational synthesis of MALDI matrix. Keeping functional groups and its location but changing the stereochemistry**

Maria L Salum[2], Lucia M Itovich[2], Hiroshi Nonami[1], Rosa Erra-Balsells[2]
[1]Ehime University, Matsuyama, Japan, [2]University of Buenos Aires, Argentina

S25-1020 10:20 – 10:40 **Automated Identification of Intact Glycopeptides from Complex Samples**

Christopher Becker[1], Marshall Bern[1], Yong Kil[1], Doron Kletter[2], Mudita Singhal[2], Julian Saba[3], David Horn[3], Sergei Snovida[4], Rosa Viner[3]
[1]Protein Metrics Inc., [2]Palo Alto Research Center, Palo Alto, CA, USA, [3]Thermo Fisher Scientific, San Jose, CA, USA, [4]Institute of Biological Chemistry, Academia Sinica, Taipei, TAIWAN

S25-1040 10:40 – 11:00 **Ion mobility mass spectrometry of IgG Fc glycopeptides from different subclasses**

Michiko Tajiri[1], Yayoi Hongo[2], Takemichi Nakamura[2], Kenji Hirose[3], Yoshinao Wada[1]
[1]Osaka Medical Center and Research Institute for Maternal and Child Health, Izumi, Japan, [2]RIKEN, Wako, Japan, [3]Nihon Waters K.K., Osaka, JAPAN

Wedensday, 19th September Afternoon

Oral Session

15:00 – 17:00 Main Hall

Session 26: Lipidomics : Recent New Techniques and Applications

Chair: Stephen J Blanksby
University of Wollongong, Australia

S26-1500 15:00 – 15:40
[Keynote Lecture] High-Resolution 'Shotgun' Mass Spectrometry and Chemical Labeling for Comprehensive and Quantitative Lipidome Profiling of Disease

Cassie J Fhaner[1], Hong Ji[2], Richard J Simpson[2], Gavin E Reid[1]
[1]Michigan State University, USA, [2]Latrobe University, Australia

S26-1540 15:40 – 16:00
Tandem MS Methods For Assignment Of Double Bonds And Chain Branching In Fatty Acid Methyl Esters

Tom Brenna, Rinat Ran-Ressler, Peter Lawrence
Cornell University, Ithaca, New York, USA

S26-1600 16:00 – 16:20
The Missing Link between Neurodegeneration and Sphingolipid Metabolism: Integration of Lipidomics and Proteomics

Sarita Hebbar, Mayura Nakade, Dominik Schwudke
National Centre for Biological Sciences, Tata Institute of Fundamental Research, Bangalore, India

S26-1620 16:20 – 16:40
What is a complete lipidome? A snipers approach to shotgun analysis of the human lens.

Jane M Deeley, Jessica R Hughes, Shane R Ellis, Jo Ann Seng, Roger J Truscott, Stephen J Blanksby, Todd W Mitchell
University of Wollongong, Wollongong, Australia

S26-1640 16:40 – 17:00
Toward Total Structural Analysis of Complex Lipids: Electrospray Ionization Multiple-stage Linear ion-trap with High-resolution Mass spectrometric Analysis of Intact Ions

Fong-Fu Hsu
Washington University School of Medicine in St. Louis

Oral Session

15:00 – 17:00 Room A

Session 27: Progress in Microbiology

Chair: Catherine Fenselau
University of Maryland, USA

S27-1500 15:00 – 15:40
[Keynote Lecture] Translating metabolic phenotyping and systems medicine into clinical Practise: Understanding gut microbial-host Interactions in personal and public healthcare problems

Jeremy K Nicholson
Imperial College London

S27-1540 15:40 – 16:00
Distribution and identification of molecular interactions between tomato roots and bacterial biofilms

Delphine Debois[1], Emmanuel Jourdan[2], Nicolas Smargiasso[1], Marc Ongena[3], Philippe Thonart[2], Edwin De Pauw[1]
[1]University of Liege, Liege, Belgium, [2]Walloon Centre for Industrial Biology, Liege, Belgium, [3]Gembloux Agro-Bio Tech, Gembloux, Belgium

S27-1600 16:00 – 16:20
Identification of Protein Biomarkers as Diagnostic Targets for Invasive Aspergillosis using Discovery and Targeted Proteomics

Chengsi Huang[1,3], Jason McCarthy[2], Marta Feldmesser[2], Vicki H Wysocki[1,3]
[1]University of Arizona, Tucson, AZ, USA, [2]Albert Einstein College of Medicine, Yeshiva University, Bronx, NY, USA, [3]Ohio State University, Columbus, OH, USA

S27-1620 16:20 – 16:40
Microbial genome mining for novel bioactive natural products with high resolution LC-MS/MS

Lijiang Song[1], JuanPa Gomez-Escribano[2], Luisa Laureti[3], Eshwar Mahenthiralingam[4], Bertrand Agile[3], Meryvn Bibb[2], Gregory Challis[1]
[1]University of Warwick, Coventry, UK, [2]John Innes Centre, Norwich, UK, [3]University of Nancy, Nancy, France, [4]University of Cardiff, Cardiff, UK

S27-1640 16:40 – 17:00
Novel accurate bacterial identification by MALDI-TOFMS based on ribosomal protein coding in S10-spc-alpha Operon at Stain level

HIROTO TAMURA[2], YUDAI HOTTA[2,3], HIROAKI SATO[4], KEISUKE SHIMA[1], AKIFUMI HOSODA[2], NORIYUKI OJIMA[1]
[1]SHIMADZU Corporation, Analytical & Measuring Instruments Division, [2]School of Agriculture, Meijo University, [3]Formulation Technology Institute, Kumiai Chemical Industry Co., [4]Research Institute for Environmental Management Technology, National Institute of Advanced Industrial Science and Technology

Wedensday, 19th September Afternoon

Oral Session

15:00 – 17:00 Room B-1

Session 28: IR Spectroscopy of Gas-phase Ions

Chair: Dietmar Kuck
Bielefeld University, Germany

S28-1500 15:00 – 15:40 **[Keynote Lecture] IR Photodissociation Spectroscopy: A new dimension to Tandem Mass Spectrometry**

Philippe Maitre
Paris Sud University / CNRS - Orsay - FRANCE

S28-1540 15:40 – 16:00 **Intracavity infrared multiple photon dissociation spectroscopy of transition metal carbene cations: Agostic interactions or not?**

Joost M Bakker[1,2], Vivike Lapoutre[1], Andrew Sweeney[3], Abhigya Mookherjee[3], Peter B Armentrout[3]
[1]FOM Institute for Plasma Physics Rijnhuizen, The Netherlands, [2]Radboud University Nijmegen, The Netherlands, [3]University of Utah, Salt Lake City, USA

S28-1600 16:00 – 16:20 **Gas-Phase Structure and Chemistry of the Radical Cation of DNA base-pair dGdC**

George N khairallah[1], Linda Feketeova[1], Bun Chan[2], Vincent Steinmetz[3], Philippe Maitre[3], Leo Radom[2], Richard A O'Hair[1]
[1]University of Melbourne, Melbourne, Australia, [2]The University of Sydney, NSW 2006, Australia, [3]Universite Paris Sud, Orsay Cedex, 91405, France

S28-1620 16:20 – 16:40 **Infrared spectroscopic studies on isomerization reactions of ionized molecular clusters**

Yoshiyuki Matsuda, Naohiko Mikami, Asuka Fujii
Tohoku University, Sendai, Japan

S28-1640 16:40 – 17:00 **IR-MPD investigation of steric constraints on hydrogen bonding in dicarboxylic acid ions**

Christine Merkert, Fabian Menges, Yevgeniy Nosenkov, Gereon Niedner-Schatteburg
TU Kaiserslautern, Germany

Oral Session

15:00 – 17:00 Room D

Session 29: The Advances in Biological Mass Spectrometry in Drug Discovery and Development: Current State of the Art and Challenges

Chair: Ajai K Chaudhary
Merck and Company, USA

S29-1500 15:00 – 15:40 **[Keynote Lecture] Advances in the Application of Mass Spectrometry to Drug Metabolism and Pharmacokinetics Studies**

Ragu Ramanathan[1,2]
[1]Bristol-Myers Squibb, [2]Department of Biotransformation, Princeton, New Jersey 08540, USA

S29-1540 15:40 – 16:00 **Development of stable isotope labeling by essential nutrients in cell culture (SILEC) coupled with LC-MS for drug target discovery**

Ian A Blair, Nathaniel W Snyder, Zinan Zhou, Andrew Worth, Sankha S Basu
University of Pennsylvania, Philadelphia, PA 19104, USA

S29-1600 16:00 – 16:20 **High-resolution metabolic profiling towards G-protein coupled receptors: rapid and comprehensive screening of histamine H4 receptor ligands**

Jeroen Kool[1], Anders F Rudebeck[1], Frank Fleurbaaij[1], Saskia Nijmeijer[1], David Falck[1], Rogier Smits[2], Henry F Vischer[1], Rob Leurs[1], Wilfried M Niessen[1]
[1]VU University, Amsterdam, The Netherlands, [2]Griffin Discoveries B.V., The Netherlands

S29-1620 16:20 – 16:40 **THE ROLE OF MASS SPECTROMETRY IN DRUG DISCOVERY AND DEVELOPMENT**

ANTHONY TSARBOPOULOS
UNIVERSITY OF PATRAS, PATRAS, GREECE

S29-1640 16:40 – 17:00 **Evaluation of fully automated DBS extraction system with LC-MS/MS systems for Sartans and Statins using different DBS card types**

Souki Kanda[3], YASUHIKO BANDO[1,2], Takemoto Kawamukai[1], Hiroshi Hike[1], Amane Sakurai[3]
[1]AMR,Inc., [2]Biosys Technologies,Inc., Tokyo, Japan, [3]Toray Research Center, Inc., Kanagawa, Japan

Wedensday, 19th September Afternoon

Oral Session

15:00 – 17:00 Room E

Session 30: Data Processing and Informatics for SIMS

Chair: DaeWon Moon
Center for Nano-Bio Technology, Korea Research Institute of Standards and Science, Korea

S30-1500 15:00 – 15:40 **[Keynote Lecture] Image and Spectral Processing for ToF-SIMS Analysis of Biological Materials**

David G Castner
University of Washington, Seattle, USA

S30-1540 15:40 – 16:00 **Multivariate analysis application to ToF-SIMS data of organic layers**

Yasuko Kajiwara[1,2], Satoka Aoyagi[2,3]
[1]MGC Inc., Tokyo, Japan, [2]Tottori University, Tottori, Japan, [3]Shimane University. Shimane, Japan

S30-1600 16:00 – 16:20 **The Full Spectrum protocol: how to provide quantitative analysis for matrix elements in heterogeneous nanometer scale layers with ToF-SIMS**

Matthieu Py[1], Jean-Paul Barnes[2], Jiro Matsuo[1,3]
[1]Kyoto University, Uji, Japan, [2]CEA-Leti, MINATEC Campus, Grenoble, France, [3]JST-CREST

S30-1620 16:20 – 16:40 **Evaluation of secondary ions from lysozyme and peptides using G-SIMS and g-ogram**

Satoka Aoyagi[1], Ian S Gilmore[2], Ichiro Mihara[3]
[1]Shimane University, Matsue, Japan, [2]National Physical Laboratory, UK, [3]Kuraray Co., Ltd., Kurashiki, Japan

S30-1640 16:40 – 17:00 **Ab initio peak identification for SRM/MRM data**

Ken Aoshima[1], Koikegami Shigeru[3], Fukuda Mitsuru[3], Takahashi Kentaro[1], Matsuura Kentaro[1], Watanabe Hideki[1], Sato Yoshiaki[1], Uehara Taisuke[1], Kimura Takayuki[1], Nakamura Tatsuji[1], Parry Howell[2], Tanaka Satoshi[2], Utsunomiya Shin-ichi[2], Kajihara Shigeki[2], Tanaka Koichi[2], Oda Yoshiya[1]
[1]Eisai Co. Ltd., Tsukuba, Japan, [2]Shimadzu Corp., Kyoto, Japan, [3]Ibio-Tech

Wedensday, 19th September

Poster Session

Core Time : 11:10 - 12:20 (Odd number),
13:30 - 14:40 (Even number)

Event Hall

Session 21

Platform Technology for Metabolomics

PWe-001 11:10 – 12:20 **Negative ion tandem mass spectrometry of prenylated fungal metabolites and their derivatives**

Ramona Heinke, Norbert Arnold, Ludger A Wessjohann, Juergen Schmidt
Leibniz Institute of Plant Biochemistry, Halle, Germany

PWe-002 13:30 – 14:40 **Metabolome profiling of human embryonic stem cells by gas chromatography-mass spectrometry**

Takashi Suzuki[1], Masahiro Miyoshi[2], Katsuhiro Nakagawa[1], Hirofumi Suemori[3], Shinichiro Chuma[3], Norio Nakatsuji[3]
[1]Shimadzu Co., Kyoto, Japan, [2]Shimadzu Analytical and Measuring Center Inc., Kyoto, Japan, [3]Kyoto University, Kyoto, Japan

PWe-003 11:10 – 12:20 **Metabolic characterization by mass spectrometry of Cordyceps bassiana mycelium cultivated under various culture medium and light conditions**

Sun-Hee Hyun[1], Seok-Young Lee[1], So-Hyun Kim[1], Gi-Ho Sung[2], Seong Hwan Kim[3], Hyung-Kyoon Choi[1]
[1]College of Pharmacy, Chung-Ang University, Seoul, Korea, [2]Mushroom Research Division, Department of Herbal Crop Research, National Institute of Horticultural & Herbal Science, Suwon, Korea, [3]Department of Microbiology, Dankook University, Cheonan, Korea

PWe-004 13:30 – 14:40 **Electrochemical simulation of Phase I and II Drug Metabolism, A Powerful Technique for Metabolite Characterization and Synthesis**

Jean-Pierre Chervet[1], Agnieszka Kraj[1], Hendrik-Jan Brouwer[1], Nico Reinhoud[1], Martin Eysberg[1], Uwe Karst[2]
[1]Antec, Zoeterwoude, the Netherlands, [2]Institut fur Anorganische und Analytische Chemie, Westfalische Wilhelms-Universitat, Munster, Germany

PWe-005 11:10 – 12:20 **Identification of a new plasma biomarker of Alzheimer Disease using metabolomics technology**

YOSHIAKI SATO[1], Ikumi Suzuki[1], Tatsuji Nakamura[1], Francois Bernier[1], Ken Aoshima[1], Yoshiya Oda[2]
[1]Eisai Product Creation Systems, Tsukuba, Japan, [2]Eisai Product Creation Systems, Andover, MA 01810

PWe-006 13:30 – 14:40 **Metabolic profiling of mouse brain with MALDI-FT-ICR imaging mass spectrometry technique**

Kazunori Saito[1], Daisuke Miura[2], Fujimura Yoshinori[2], Nirasawa Takashi[1], Wariishi Hiroyuki[2]
[1]Bruker Daltonics K.K., [2]Kyushu University

PWe-007 11:10 – 12:20 **Ultra Fast Analysis of Amino Acids in Cultured Cell Extracts Using UHPLC/MS/MS**

Taku TSUKAMOTO[1], Yuki SATO[2], Satoshi YAMAKI[1]
[1]Shimdzu Co., Kyoto, Japan, [2]Shimadzu GLC Ltd., Tokyo, Japan

PWe-008 13:30 – 14:40 **Untargeted screening of pesticides metabolites by LC-HRMS: a tool for human exposure evaluation?**

Emilien L JAMIN[1,2], Nathalie BONVALLOT[1,2,3,4], Marie TREMBLAY-FRANCO[1,2], Jean-Pierre CRAVEDI[1,2], Cecile CHEVRIER[4], Sylvaine CORDIER[4], Laurent DEBRAUWER[1,2]
[1]INRA, UMR1331, Toxalim, Research Centre in Food Toxicology, F-31027 Toulouse, France, [2]Toulouse University, INPT, UPS, UMR1331, F- 31062 Toulouse, France, [3]EHESP School of public health, Rennes Sorbonne Paris Cite, France, [4]INSERM UMR 1085 IRSET Institut de recherche en sante, environnement, travail, Rennes, France

PWe-009 11:10 – 12:20 **Metabolite profiling of Makgeolli with Different Wild Yeast Strains Saccharomyces cerevisiae 98-5 and Pichia anomala 197-13 During Fermentation**

HyeRyun Kim, JeoungMae Son, JaeHo Kim, ByungHak Ahn
Korea Food Research Institute, Gyeonggido, Korea

PWe-010 13:30 – 14:40 **Plant metabolite analysis using comprehensive two dimensional gas chromatograph quadruple mass spectrometer**

Shuichi Kawana, Katsuhiro Nakagawa, Yuki Sakamoto, Riki Kitano, Haruhiko Miyagawa
Shimdzu Co., Kyoto, Japan

PWe-011 11:10 – 12:20 **Differentiation of German and Roman Chamomiles by Comprehensive Chemical Fingerprinting using Ultra Performance Supercritical Fluid Chromatography Coupled**

Shinnosuke Horie[1], Motoji Oshikata[1], Michael D Jones[2], Bharathi Avula[3], Kate Yu[2], Yan-Hong Wang[3], Mei Wang[3], Dominic Moore[2], Warren Potts[2], Ikhlas Khan[3]
[1]Nihon Waters, Osaka, Japan, [2]Waters Corporation, Milford, MA, [3]University of Mississippi, Oxford, MS

PWe-012 13:30 – 14:40 **Synthesis of 13C6- and 13C12-dabsyl chloride to perform amine-targeted clinical profiling**

Tetsuo Ishida, Hiroyuki Tanaka, Kihachiro Horiike
Shiga University of Medical Science, Shiga, Japan

PWe-013 11:10 – 12:20 **Use of culture media fingerprinting by LTQ FT Ultra MS to predict human embryonic implantation potential**

Eduardo Morgado Schmidt[1,2], Elaine C Cabral[1], Sylvia Sanches Cortezzi[3], Marcello Garcia Trevisan[4], Christina Ramires Ferreira[1], Edson J Borges[5], Marcos Nogueira Eberlin[1]
[1]UNICAMP/ ThoMSon Mass Spectrometry Laboratory, Campinas, Brazil., [2]Nova Analitica Importacao e Exportacao LTDA, Sao Paulo, Brazil., [3]Sapientiae Institute Educational and Research Center in Assisted Reproduction, Sao Paulo, Brazil., [4]Institute of Exact Sciences, Federal University of Alfenas, Alfenas, Brazil., [5]Fertility Assisted Fertilization Center, Sao Paulo, Brazil.

Wedensday, 19th September

Wed

PWe-014
13:30 – 14:40

Ionic liquid-based microextraction for sensitive determination of urinary aromatic amines by liquid chromatography-mass spectrometry

Jingyueh Jeng, Cheng-Yuan Shih
Chia nan University of Pharmacy & Science, Tainan, Taiwan

PWe-015
11:10 – 12:20

Adjustment of total cellular metabolite concentration by flow-injection analysis mass spectrometer for metabolomic study

Guan-yuan Chen[1], Ching-hua Kuo[1,2]
[1]School of Pharmacy, College of Medicine, National Taiwan University, Taipei, Taiwan, [2]The Metabolomics Core Laboratory, Center of Genomic Medicine, National Taiwan University, Taiwan

PWe-016
13:30 – 14:40

Metabolomics of Curcuma: approaching by studying constituents of wide range polarity using LC-DAD-ECD-MS

Paramitha Messayu, Kuo-Lung Ku
National Chiayi University, Chiayi, Taiwan

PWe-017
11:10 – 12:20

Effect of glucose addition against ion suppression by sodium chloride

Megumi Wakimoto[1], Yui Okamura[1], Hajime Mizuno[1], Naohiro Tsuyama[1], Sachiko Date[2], Tsutomu Masujima[1,2]
[1]Graduate School of Biomedical Sciences, Hiroshima University, Hiroshima, Japan, [2]Quantitative Biology Center (QBiC), RIKEN, Japan

PWe-018
13:30 – 14:40

Discriminant analysis of Curcuma species grown in different origins using mass spectrometry

Jueun Lee[1,2], Youngae Jung[1], Geum Sook Hwang[1,3]
[1]Korea Basic Science Institute, Seoul, Republic of Korea, [2]Sungkyunkwan Univ. Natural Sciences Campus, Suwon, Republic of Korea, [3]Graduate School of Analytical Science and Technology, Chungnam University, Daejeon, Republic of Korea

PWe-019
11:10 – 12:20

Copper Stress Induced Global Metabolites Profiling of Burdock Roots by 1H NMR, GC-MS and UPLC-QTOF MS Analysis

Youngae Jung[1], Miyoung Ha[1,2], Geum-Sook Hwang[1,3]
[1]Korea Basic Science Institute, Soeul, Korea, [2]Sungkyunkwan University, Suwon, Korea, [3]Graduate School of Analytical Science and Technology, Chungnam National University, Daejoen, Korea

PWe-020
13:30 – 14:40

The impact of high-resolution MS techniques on the discovery of novel natural products from myxobacteria

Yasuhiko Maekawa[1], Daniel Krug[2,3], Thomas Hoffmann[2,3], Aiko Barsch[4], Gabriela Zurek[4], Rolf Mueller[2,3]
[1]Bruker Daltonics K.K., Yokohama, Japan, [2]Helmholtz Institute for Pharmaceutical Research, Saarbrucken, Germany, [3]Saarland University, Saarbrucken, Germany, [4]Bruker Daltonik GmbH, Bremen, Germany

PWe-021
11:10 – 12:20

Differential analysis of fermented beverage using fast polarity switching TOFMS acquisition with high mass accuracy and multivariate analysis

Satoshi Yamaki, Manami Kobayashi, Takahiro Goda, Tsutomu Nishine
Shimdzu Co., Kyoto, Japan

PWe-022
13:30 – 14:40

Simultaneous Quantitative and Qualitative measurements for Primary Metabolism Investigations using a Quadrupole-Time-of-Flight Mass Spectrometer

Noriyuki Iwasaki[1], Don Richards[3], Mark Savage[4], Angus Nedderman[4], Carsten Baessmann[2]
[1]Bruker Daltonics K.K., [2]Bruker Daltonik GmbH, Bremen, Germany, [3]Bruker UK Ltd, Coventry, UK, [4]Unilabs Bioanalytical Solutions, Sandwich, UK

PWe-023
11:10 – 12:20

Development of accelerate quantification analysis for hydrophilic metabolites using ionparing chromatography with a high-speed triple quadrupole mass spectrometer

Hashim Zanariah[2], Yudai Denpo[2], Tairo Ogura[1], Ichiro Hirano[1], Takeshi Bamba[2], Eiichiro Fukusaki[2]
[1]Shimadzu Co., Kyoto, Japan, [2]Osaka University, Osaka, Japan

PWe-024
13:30 – 14:40

Metabolic changes during aging complementary GC-EI-MS and GC-APCI-TOF-MS analysis of a short-lived mitochondrial knockdown of Caenorhabditis elegans

Jouji Seta[1], Verena Tellstroem[3], Aiko Barsch[3], Gabriele Zurek[3], Carsten Jaeger[2], Bernd Kammerer[2]
[1]Bruker Daltonics K.K., [2]Center for Biological Systems Analysis (ZBSA), University Freiburg, Germany, [3]Bruker Daltonik GmbH, Bremen, Germany

PWe-025
11:10 – 12:20

Development of automated data processing tool for large scale MRM experiment in metabolomics study

Hiroshi Tsugawa[1], Mitsuhiro Kanazawa[2], Atsushi Ogiwara[2], Takeshi Bamba[1], Eiichiro Fukusaki[1]
[1]Osaka University, Osaka, Japan, [2]Reifycs Inc., Tokyo, Japan

PWe-027
11:10 – 12:20

LC-MS/MS-based plasma metabonomics: finding potential biomarkers for lung cancer

Wei Yang[1], Yanhua Chen[1], Cong Xi[1], Ruiping Zhang[1], Yongmei Song[2], Jiuming He[1], Jinfa Bai[1], Qimin Zhan[2], Lvhua Wang[2], Nan Bi[2], Zeper Abliz*[1]
[1]Institute of Materia Medica, Chinese Academy of Medical Sciences and PekingUnionMedicalCollege, Beijing, P. R. China, [2]Cancer Institute and Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, P. R. China

PWe-028
13:30 – 14:40

Metabolomics and its application to high resolution phenotype analysis

Eiichiro Fukusaki
Osaka University, Osaka, Japan

PWe-029
11:10 – 12:20

Implementation of a Data Independent MS/MS Acquisition Strategy for Metabolites Identification in a Metabolomics MS-based Workflow

Emmanuel Varesio, Gerard Hopfgartner
University of Geneva, Geneva, Switzerland

Wedensday, 19th September

PWe-030 13:30 – 14:40
Alkyl chloroformate - mediated derivatization - extraction platform for parallel GC-MS and LC-MS based metabolomics

Petr Simek, Petr Husek, Helena Zahradnickova, Jana Cimlova, Lucie Rimnacova
Biology Centre, Czech Academy of Sciences

PWe-031 11:10 – 12:20
Aberrant Metabolism and Its Response to Treatment in Esophageal Squamous Cell Carcinoma Revealed by Plasma Metabolomics Study

Jing Xu[1], Yanhua Chen[1], Ruiping Zhang[1], Yongmei Song[2], Nan Bi[2], Jiuming He[1], Jinfa Bai[1], Lvhua Wang[2], Qimin Zhan[2], Zeper Abliz[1]
[1]Institute of Materia Medica, Peking Union Medical College, Beijing, China, [2]Cancer Institute & Cancer Hospital, Peking Union Medical College, Beijing

Session 22
Instrumentation Developments in Mass Spectrometric Imaging

PWe-032 13:30 – 14:40
Imaging mass spectrometry and structural analysis of lipids directly on tissue specimens using a high resolution MALDI-TOF-TOF tandem mass spectrometer

Shuichi Shimma[2], Ayumi Kubo[3], Takaya Satoh[3], Hisanao Hazama[1], Kunio Awazu[1], Michisato Toyoda[1]
[1]Osaka University, Osaka, Japan, aaa, [2]National Cancer Center Research Institute, Tokyo, Japan, [3]JEOL Ltd., Tokyo, Japan

PWe-033 11:10 – 12:20
Observation of distributions of Strontium and Cesium stable isotopes in tissues sections of medaka by a new mass imaging system

Shinichiro Ikeda, Jun Aoki, Michisato Toyoda
Osaka University, Osaka, Japan

Session 23
Gas Phase Fragmentation Mechanisms of Biomolecular Radicals

PWe-034 13:30 – 14:40
Investigation of fragmentation routes of steroid ethers via MIKES and B2*E-linked-scan techniques.

Heiko Bannick, Juergen Grotemeyer
Institut of Physical Chemistry University of Kiel, Kiel, Germany

PWe-035 11:10 – 12:20
Marked difference in fragmentation pathway between chemi-excitation and collision-induced excitation of CT-induced decomposition products of dioxetanes in negative-mode MALDI-TOF-MS/MS

Hisako K Ijuin, Mamoru Ohashi, Masatoshi Tanimura, Nobuko Watanabe, Masakatsu Matsumoto
Kanagawa University, Hiratsuka, Japan

PWe-036 13:30 – 14:40
Fragmentation of the [M + Na]+ and [M + Li]+ Ions of Multiply Benzyloxy-substituted Arenes under ESI/CID conditions

Dietmar Kuck[1], Sandra Heitkamp[1], Matthias C Letzel[1], Ishtiaq Ahmed[2], Karsten Krohn[2]
[1]Bielefeld University, [2]University of Paderborn

PWe-037 11:10 – 12:20
A functional group substitution effect on the free radical initiated peptide sequencing (FRIPS) method

Han Bin Oh[1], Jihye Lee[1], Hyeyeon Park[1], Kun Cho[1,2], Bongjin Moon[1]
[1]Sogang University, Seoul, Korea, [2]Korea Basic Science Institute, Ochang, Korea

Session 24
Regulated Bioanalysis

PWe-038 13:30 – 14:40
Evaluation of peptide fractionation strategies used in proteome analysis

Chih-Wei Chiu, Chun-Lun Chang, Sung-Fang Chen*
National Taiwan Normal University, Taipei, Taiwan

PWe-039 11:10 – 12:20
Simultaneous analysis of 8-oxo-7, 8-dihydroguanine and 8-oxo-7, 8-dihydro-2'-deoxyguanosine in plasma by liquid chromatography-tandem mass spectrometry with automated solid-phase extraction

Yi-Hung Tsai, Mu-Rong Chao
Department of Occupational Safety and Health, Chung Shan Medical University, Taichung 402, Taiwan

PWe-041 11:10 – 12:20
Quantitative analysis of nine N-nitrosamines in human urine by isotope-dilution liquid chromatography-tandem mass spectrometry with on-line solid-phase extraction

Ming-Yen Hsieh, Chiung-Wen Hu
Department of Public Health, Chung Shan Medical University, Taichung, Taiwan

PWe-042 13:30 – 14:40
Ultra-Performance Liquid Chromatography/Mass Spectrometric Method for the determination of venlafaxine and its metabolite in plasma: Application to pharmacokinetic study

Sunil Kumar Dubey[1], Hemanth Jangala[1], R N Saha[1], S Pasha[2]
[1]Birla Institute Of Technology & Science, Pilani, India, [2]Institute of Genomics and Integrative Biology, Mall Road, Delhi, India

PWe-043 11:10 – 12:20
Quantitative evaluation of synthase and hemisynthase activity of glucosamine-6P synthase by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry

Vincent Guerineau, David Touboul, Florence Wieczorek, Marie-Ange Badet-Denisot, Bernard Badet, Alain Brunelle, Philippe Durand
ICSN CNRS, Gif sur Yvette, France

Wedensday, 19th September

Wed

PWe-044 13:30 – 14:40
Optimization of ESI method for the LC-MS analysis of phosphorylated peptide

Issey Osaka, Mitsuo Takayama
Yokohama City University

PWe-045 11:10 – 12:20
Amino acid analysis by LC/MS with LC columns designed for hydrophilic compounds

Hiroko Arai[1], Tsuneaki Kaneko[1], Taketoshi Kanda[1], Yanli Guo[2], Osamu Shirota[2]
[1]Shiseido, [2]Shiseido China

PWe-046 13:30 – 14:40
Accelerate Method Development using Fast Screening of Mobile Phases Additives and Solvents for Optimum Sensitivity in LC-MS

Mikael LEVI, Stephane MOREAU
Shimadzu France, Noisiel, France

PWe-047 11:10 – 12:20
Effective Strategies for Phospholipid Removal using Supported Liquid Extraction (SLE) with LC-MS/MS Analysis

Gavin J Jones, Lee Williams, Rhys Jones, Maiko Kaneko, Steve Jordan
Biotage, Cardiff, UK

PWe-048 13:30 – 14:40
Simultaneous determination seven hydroxyacids by capillary electrophoresis and liquid chromatography mass spectrometry

Yen-Ling Chen, Pei-Yu Liu
Kaohsiung Medical University, Kaohsiung , Taiwan

PWe-049 11:10 – 12:20
Fast determination of phosphopeptides by nanoLC-MS/MS in biological samples

Rong-Chun Chen, Chi-Yu Lu
Department of Biochemistry, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan

PWe-050 13:30 – 14:40
Derivatization of lipoic acid for analysis by capillary liquid chromatography and mass spectrometry

Chia-Ju Tsai, Chia-Hsien Feng
Department of Fragrance and Cosmetic Science, College of Pharmacy, Kaohsiung Medical University, Kaohsiung, Taiwan

PWe-051 11:10 – 12:20
Highly-Selective Reaction Monitoring (H-SRM) with Automated Mass and Resolution Calibration in Testing of Anabolic Steroids in Equine Plasma and Urine

Harald Oser[1], Hans Schweingruber[1], Mary L Blackburn[1], Shane E Tichy[1], Cornelius E Uboh[2]
[1]Thermo Scientific, San Jose, CA USA, [2]Pennsylvania Equine Toxicology and Research Laboratory

PWe-052 13:30 – 14:40
Selective enrichment of histidine-tagged proteins and peptides on MALDI plate

shin-yi Huang, Yu-Chie Chen
Department of Applied Chemistry, National Chiao Tung University, Taiwan

PWe-053 11:10 – 12:20
Determination of Fluconazole and 5-Fluoro Cytosine in human plasma and cerebrospinal fluid using protein precipitation and LC-MS/MS

Carmen A de Kock, Peter J Smith, Jennifer Norman, Lubbe Wiesner
University of Cape Town, Cape Town, South Africa

Session 25
Glycoanalytical Technology for Systems Glycobiology and Functional Glycomics

PWe-054 13:30 – 14:40
Studies on the selective binding of divalent metals to cyclodextrins by ESI mass spectrometry

Xiaodan He, chuanfan Ding
Fudan University,Shanghai,China

PWe-055 11:10 – 12:20
Dual Lectin-based Enrichment Method of N-linked Glycopeptides Using Asymmetrical Flow Field-Flow Fractionation and Applications to Human Blood Serum

Jinyong Kim[1], Duk Jin Kang[2], Myeong Hee Moon[1]
[1]Yonsei University, Seoul, Korea, [2]Korea Research Institute of Standards and Science, Daejeon, South Korea

PWe-056 13:30 – 14:40
A nanoprobe-based strategy combined with HILIC enrichment for targeted glycoprotein profiling

Kai-Yi Wang[1,2], Ying-Wei Lu[3], Chun-Cheng Lin[3], Yu-Ju Chen[1,2,4]
[1]Department of Chemistry, National Taiwan University, Taipei, Taiwan, [2]Nano Science and Technology Program, Taiwan International Graduate Program, Institute of Physics, Academia Sinica, Taipei, Taiwan, [3]Department of Chemistry, National Tsing Hua University , Hsinchu, Taiwan, [4]Institute of Chemistry, Academia Sinica, Taipei, Taiwan

PWe-057 11:10 – 12:20
Alteration of glycan profile during early-stage of mesenchymal stem cells differentiation

Noritaka Hashii, Ryosuke Kuribayashi, Nana Kawasaki
National Institute of Health Sciences, Tokyo, Japan

PWe-058 13:30 – 14:40
Data-dependent acquisition system for N-linked glycopeptides using MALDI-DIT-TOF MS

Masaki Murase, Hidenori Takahashi, Yosihiro Yamada, Sadanori Sekiya, Shigeki Kajihara, Shinichi Iwamoto, Koichi Tanaka
Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Corp, Kyoto, Japan

PWe-059 11:10 – 12:20
SRM analysis of chondroitin sulfate terminal regions

Harumi Osago[1], Tomoko Shibata[2], Suguru Kuwata[3], Michihaya Kono[3], Nobumasa Hara[1], Kazuo Yamada[1], Yuji Uchio[3], Mikako Tsuchiya[1]
[1]Dept. of Biochem., Faculty of Med., Shimane Univ., Shimane, Japan, [2]Cent. for Integ. Res. in Sci., Shimane Univ., Shimane, Japan, [3]Dept. of Orthopaedic Surgery, Faculty of Med., Shimane Univ., Shimane, Japan

Wedensday, 19th September

PWe-060 Novel Bioinformatics Tool: Interpretation of Glycan Mass Spectra with Metal Adducts and Multiple Adduct Combinations
13:30 – 14:40

Julian Saba[2], Kentaro Takahara[1], Ningombam Meitei[3], Arun Apte[3]
[1]Thermo Fisher Scientific, Yokohama, Japan, [2]Thermo Fisher Scientific, San Jose, CA, [3]PREMIER Biosoft, Palo Alto, CA

PWe-061 Determination of Extensive Glycosylation on Glycoproteins and Glycolipids in High-density Lipoprotein using Mass Spectrometry
11:10 – 12:20

Jincui Huang, Hyeyoung Lee, Nancy Rivera, Angela M Zivkovic, Jennifer Smilowitz, Bruce J German, Carlito B Lebrilla
University of California, Davis

Session 26

Lipidomics : Recent New Techniques and Applications

PWe-062 Quantitative analyses of phosphatidylcholine hydroperoxides in oxidized lipoproteins by LC/MS
13:30 – 14:40

Shu-Ping Hui[1], Toshihiro Sakurai[1,2], Seiji Takeda[1], Shigeki Jin[1], Hirotoshi Fuda[1], Takao Kurosawa[3], Hitoshi Chiba[1]
[1]Hokkaido University, Sapporo, Japan, [2]Research Fellow of the Japan Society for the Promotion of Science, Japan, [3]Faculty of Pharmaceutical Sciences, Health Sciences University of Hokkaido, Ishikari-Tobetsu, Hokkaido, Japan

PWe-064 In situ analysis of soybean and nuts by Probe Electrospray Ionization mass spectrometry. Sequential ionization of carbohydrates and lipids
13:30 – 14:40

Gabriela Petroselli[1], Mridul K Mandal[2], Lee C Chen[2], Kenzo Hiraoka[2], Hiroshi Nonami[3], Rosa Erra-Balsells[1]
[1]University of Buenos Aires, [2]Yamanashi University, [3]Ehime University

PWe-065 Comprehensive Lipid Profiling with Multiplexed Precursor Ion Scanning using the New AB SCIEX QTRAP® 4500 LC/MS/MS System
11:10 – 12:20

Tomoko Nembai, Toshiyuki Yamazaki, Noriko Fueki, Kaoru Karasawa
K.K.ABSCIEX

PWe-066 Comprehensive fatty acid profiling using a single lipidomic approach
13:30 – 14:40

futoshi sato[1], Giorgis Isaac[2], Amrita Cheema[3], Kieran J Neeson[2], Jeff Goshawk[2], Jayne Kirk[2], Andrew Baker[2], Alan Millar[2], Albert J Fornace Jr [3], Jim Langridge[2], Giuseppe Astarita[2]
[1]Nihon Waters K.K., Tokyo, Japan, [2]Waters Corporation, Milford, US, [3]Georgetown University, Washington D.C., US

PWe-067 MALDI-TOF MS analysis of phosphatidic acid using phosphate capture molecule, Phos-tag
11:10 – 12:20

Mai Urikura[1], Yoshino Kondo[1], Jun-ichi Morishige[1], Tamotsu Tanaka[2], Kiyoshi Satouchi[1]
[1]Fukuyama University, Fukuyama, Japan, [2]University of Tokushima Graduate School, Tokushima, Japan

PWe-068 Novel Non-targeted Lipidomic Quantitation using HILIC-HPLC/MS
13:30 – 14:40

Eva Cifkova, Miroslav Lisa, Michal Holcapek
University of Pardubice, Pardubice, Czech Republic

PWe-069 Shotgun analysis of lipid extract from mouse brain by using comprehensive LC/MS
11:10 – 12:20

Jisun Yoo, Eun Jung Bae, Taeseong Park, Young Hwan Kim
Korea Basic Science Institute, Ochang, Korea

PWe-070 Top-Down Analysis of Lipoproteins by On-Line Field-Flow Fractionation and ESI-MS-MS
13:30 – 14:40

Ki Hun Kim, Ju Yong Lee, Myeong Hee Moon
Yonsei University, Seoul, Korea

PWe-071 Potential Biomarkers of Coronary Artery Disease by Flow Field-Flow Fractionation and Nanoflow LC-ESI-MS-MS
11:10 – 12:20

Seul Kee Byeon, Ju Yong Lee, Myeong Hee Moon
Yonsei University, Seoul, Korea

PWe-072 Profiling of the Oxidized Phospholipids in Human Lipoprotein by Nanoflow LC-ESI-MS-MS
13:30 – 14:40

Ju Yong Lee, Myeong Hee Moon
Yonsei University, Seoul, South Korea

PWe-073 Discovery of lipid markers by LC-ESI/MS for early detection of low dose radiation exposure
11:10 – 12:20

Nai-Chun Huang, Jui-Ping Li, Chia-Hwa Chen, Chung-Shi Yang, Jen-Kun Chen
National Health Research Institutes, Zhunan, Taiwan

PWe-074 Characterization of moquito cuticular lipids for age, species, and sex discrimination by MALDI-IT-TOF-MS
13:30 – 14:40

Kevin A Schug[1], Sheheli Islam[1], Jaroslaw Krzywinski[2], Seoung Bum Kim[3]
[1]The University of Texas at Arlington, Arlington TX USA, [2]Liverpool School of Tropical Medicine, Liverpool UK, [3]Korea University, Seoul, Korea

PWe-075 Liquid extraction surface analysis for local profile of lipid molecular species on mammalian tissue slices
11:10 – 12:20

Ryo Taguchi[1], Akinori Mizuno[1], Yoshiki Mizuno[1], Miho Goto[1], Kazutaka Ikeda[2]
[1]Chubu University, Kasugai, Aichi, Japan, [2]Institue for Advanced Biosciences, Keio University,Yamagata, Japan

PWe-076 Comprehensive Standardized Methods of Lipid Profiling
13:30 – 14:40

Toshiyuki Yamazaki, Noriko Fueki, Nembai Tomoko, Karasawa Kaoru
AB SCIEX, Tokyo, Japan

Wedensday, 19th September

PWe-077
11:10 – 12:20

The utility of acetonitrile-related adducts formed in APCI sources for localization of double bonds in lipids

Josef Cvacka[1], Vladimir Vrkoslav[1], Eva Hakova[2], Petra Horka[1,2]
[1]Institute of Organic Chemistry and Biochemistry AS CR, v.v.i., Prague, Czech Republic, [2]Charles University in Prague, Prague, Czech Republic

PWe-078
13:30 – 14:40

New mass spectrometric methods for structural characterization of hydrocarbons

Vladimir Vrkoslav, Josef Cvacka
Institute of Organic Chemistry and Biochemistry AS CR, v.v.i., Prague, Czech Republic

PWe-079
11:10 – 12:20

Comparison of triacylglycerols in commercial DHA supplements utilizing MALDI-TOF-TOF tandem MS with spiral ion trajectory

Ayumi Kubo, Yoshiyuki Itoh, Masahiro Hashimoto, Jun Tamura
JEOL Ltd., Tokyo, Japan

PWe-080
13:30 – 14:40

Analysis of oxidized lipid derived volatiles by Gas Chromatography/Mass Spectrometry

Shoji KAKUTA[1], Yasuhiko BANDO[2], Eiichiro FUKUSAKI[1], Takeshi BAMBA[1]
[1]Osaka University, Osaka, Japan, [2]AMR Inc., Tokyo, Japan

PWe-081
11:10 – 12:20

Structural analysis of triacylglycerols using desorption electrospray ionization mass spectrometry with precursor ion scanning and neutral loss scanning

Mayuko Morita[1,2], Toshie Takahashi[3], Ryo Taguchi[2,4]
[1]Kyoto Prefectural University of Medicine, Kyoto, Japan, [2]Department of Metabolome, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, [3]Department of Biochemistry and Molecular Biology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, [4]Department of Biomedical Sciences,Colledge of Life and Health Sciences,Chubu University, Kasugai, Japan

PWe-082
13:30 – 14:40

Multidimensional lipidomics for untargeted and targeted analyses

Giuseppe Astarita[2], Marc V Gorenstein[2], Andrew Baker[2], Mark A Ritchie[1], John P Shockcor[2]
[1]Waters Pacific, Singapore, [2]Waters, Milford, MA, USA

PWe-083
11:10 – 12:20

Development of comprehensive identification and quantification of polyunsaturated fatty acids and eicosanoids in human plasma using LC-MS/MS

Fumiyuki Nakagawa[1], Katsutaro Morino[2], Atsushi Ishikado[2], Chiho Ikeda[1], Yoko Hoshiya[1], Hiroshi Maekawa[2]
[1]JCL Bioassay Corporation, Osaka, Japan, [2]Shiga University of Medical Science, Shiga, Japan

PWe-084
13:30 – 14:40

Chiral HPLC/MS Analysis of Triacyglycerol Enantiomers and Regioisomers

Miroslav Lisa, Michal Holcapek
Univerzity of Pardubice, Pardubice, Czech Republic

PWe-085
11:10 – 12:20

Structural analysis of oxidized triacylglycerols by using MALDI-SpiralTOF-TOF tandem mass spectrometer with high precursor ion selectivity and high-energy CID

Akihiko Kusai[2], Ayumi Kubo[1], Yoshiyuki Itoh[1], Masahiro Hashimoto[1], Yoshihisa Ueda[1]
[1]JEOL Ltd., Tokyo, Japan, [2]JEOL (Europe) SAS, CROISSY-SUR-SEINE, France

PWe-086
13:30 – 14:40

Development of a high-throughput lipid profiling method by using a quadrupole orbitrap mass spectrometer and an automated lipid identification software

Takayuki Yamada[1], Takato Uchikata[1], Shigeru Sakamoto[2], Yasuto Yokoi[3], Eiichiro Fukusaki[1], Takeshi Bamba[1]
[1]Dept. Biotech., Grad. Sch. Eng., Osaka Univ., Suita, JAPAN, [2]Thermo Fisher Scientific, Yokohama, JAPAN, [3]Mitsui Knowledge Industry, Tokyo, JAPAN

PWe-087
11:10 – 12:20

Simultaneous profiling of polar lipids by supercritical fluid chromatography/ tandem mass spectrometry with methylation

Jaewon Lee[1], Shin Nishiumi[2], Masaru Yoshida[2], Eiichiro Fukusaki[1], Takeshi Bamba[1]
[1]Osaka University, Osaka, Japan, [2]Kobe University, Kobe, Japan

PWe-088
13:30 – 14:40

A screen using DART-MS to identify novel components of a pheromone synthesis pathway in Drosophila melanogaster

Yin Ning Chiang[1], Joanne Y Yew[1,2]
[1]National University of Singapore, Singapore, Singapore, [2]Temasek Life Sciences Laboratory, Singapore, Singapore

PWe-089
11:10 – 12:20

Inter-strain comparative lipidomics of microalgae using an online multi-dimensional HILIC-RP-UPLC-QToF-MS

Jeremy Dietrich Netto[1], Sophie Fon Sing[2,3], William Ditcham[4], Michael Borowitzka[2], Mark Ritchie[1]
[1]Waters Pacific Private Limited, Singapore, [2]School of Biological Sciences and Biotechnology, Murdoch University, Australia, [3]Muradel Proprietary Limited, Australia, [4]Separation Science and Metabolomics Laboratory, Murdoch University, Australia

PWe-090
13:30 – 14:40

Lipid identification through MS and MS/MS analyses combined with new database search software

Rainer Paape, Aiko Barsch, Jens Fuchser, Andrea Schneider, Ulrike Anders, Sebastian Goetz, Detlev Suckau
Bruker Daltonik Gmbh, Bremen, Germany

PWe-091
11:10 – 12:20

Lipidomic profiling of mammalian brain and biofluids by RP-LC/MS: Global approaches and structural analysis using LTQ-Orbitrap.

Benoit COLSCH, Samia BOUDAH, Christophe JUNOT
CEA, Gif-sur-Yvette, France

Wedensday, 19th September

PWe-092
13:30 – 14:40
Development of ultra-high sensitive detection method of sphingosine-1 -phosphate and its related sphingoids by LC/MS/MS

Daisuke Saigusa, Tomohiro Takahashi, Shiori Ootaku, Daisuke Jinno, Asuka Inoue, Michiyo Okutani, Takaaki Abe, Naoto Suzuki, Junken Aoki, Yoshihisa Tomioka
Tohoku University, Miyagi, Japan

PWe-093
11:10 – 12:20
Mass spectrometry based assessment chimeric mouse liver metabolite profiles following oral dosing of troglitazone

Alan J Barnes[1], Neil J Loftus[1], David R Baker[1], Ian Wilson[2], Yoshio Morikawa[3]
[1]Shimadzu Corporation, Manchester, United Kingdom, [2]Astra Zeneca, Alderley Park, UK, [3]PhoenixBio Co. Ltd, Higashi-Hiroshima, Japan

PWe-094
13:30 – 14:40
High-throughput lipid profiling system for dried plasma spots by using online-supercritical fluid extraction-supercritical fluid chromatography/mass spectrometry

Takato Uchikata, Atsuki Matsubara, Eiichiro Fukusaki, Takeshi Bamba
Osaka University, Osaka, Japan

PWe-095
11:10 – 12:20
Systems based LC-MS metabolite profiling of mice treated with ethanol enriched liquid diets

Ashton Simon[1], Neil J Loftus[1], Alan J Barnes[1], Filippos Michopoulos[2], Ian Wilson[2], Ji Cheng[3]
[1]Shimadzu Corporation, Manchester, United Kingdom, [2]Astra Zeneca, Alderley Park, UK, [3]University of Southern California, Los Angeles, USA

PWe-096
13:30 – 14:40
Identification of Insect Species by Direct UV-Laser Desorption/ Ionization Mass Spectrometry of Cuticular Lipids and Pheromones

Jacqueline Chin[1,2], Qi Ling Koh[3], Joanne Yew[1,2]
[1]Temasek Life Sciences Laboratory, Singapore, [2]National University of Singapore, Singapore, [3]Nanyang Technological University, Singapore

PWe-097
11:10 – 12:20
Systems-Based Approaches to Elucidating Gender-Specific Mechanisms in the Etiology of Atherosclerosis

F L D'Alexandri[1], Dmitry Grapov[2], Peddiniti Gopalacharyulu[3], T L Pedersen[2], A Razuvaev[1], S Arvidson[1], H Hedin[1], K Lund[1], T Gustavsson[1], K Caidahl[1], Jesper Z Haeggstrom[1], R Laaksonen[4], M Janis[4], T Hyotylainen[3], M Oresic[3], J W Newman[2], Craig E Wheelock[1]
[1]Karolinska Institute, [2]United States Department of Agriculture ARS Western Human Nutrition Research Center, Davis, CA, USA, [3]VTT Technical Research Centre of Finland, Espoo, Finland, [4]Zora Biosciences, Oy, Espoo, Finland

PWe-098
13:30 – 14:40
Molecular lipidomic workflow solution identifies a single lipid marker for the diagnosis of statin myalgia

Kim Ekroos[1], Dimple Kauhanen[1], Tuulia Sylvänne[1], Kirill Tarasov[1], Reini Hurme[1], Giulianna Mombelli[2], Cesare R Sirtori[3], Michael Phillips[4], Marie-Pierre Dube[4], Nathalie Laplante[4], Jean-Claude Tardif[4], Reijo Laaksonen[1]
[1]Zora Biosciences, Espoo, Finland, [2]Niguarda Hospital, Milan, Italy, [3]University of Milan, Milan, Italy, [4]Montreal Heart Institute, Montreal, Canada

PWe-099
11:10 – 12:20
Development of comprehensive glycerophospholipid profiling methods using liquid chromatography / high-speed triple quadrupole mass spectrometry

Suzumi M Tokuoka[1], Yoshihiro Kita[1], Masaki Yamada[1,2], Takao Shimizu[1]
[1]The University of Tokyo, Tokyo, Japan, [2]Shimadzu Corporation, Kyoto, Japan

PWe-100
13:30 – 14:40
Development of a comprehensive detection method for quantifying eicosanoids using high-speed liquid chromatography / mass spectrometry

Masaki Yamada[1,2], Yoshihiro Kita[1], Suzumi Tokuoka[1], Takao Shimizu[1]
[1]The University of Tokyo, Tokyo, Japan, [2]Shimadzu Co., Kyoto, Japan

PWe-101
11:10 – 12:20
Formation and collision-induced dissociation (CID) of unsaturated fatty acid-alkali metal anionic complexes: A new approach for determining double bond position

Michael C Thomas, Thomas Gallagher, Geoffrey W Nette
Independent Marine Biochemical Research, Dunwich, Australia

PWe-102
13:30 – 14:40
Phosphoinositides analysis by liquid chromatography and mass spectrometry

Federico Torta, Pradeep Narayanaswamy, Michael P Sheetz, Markus R Wenk
National University of Singapore, Singapore, Singapore

Session 27
Progress in Microbiology

PWe-103
11:10 – 12:20
Secondary metabolite profile of Fusarium oxysporum by LCMS using QTOF,different sources, ion modes and metal solution post-column addition

Adriana M Cirigliano[1], Brenda V Bertinetti[1], Maria A Rodriguez[2], Alicia M Godeas[2], Gabriela M Cabrera[1]
[1]Depto Quimica Organica y UMYMFOR-CONICET Buenos Aires University, Buenos Aires, Argentina, [2]Depto Biodiversidad y biología experimental Buenos Aires University, Buenos Aires, Argentina

PWe-104
13:30 – 14:40
Pyruvate Phosphate Dikinase Phosphorylation Increases Lipid Production in Rhodopseudomonas palustris: a Phosphoproteomic Analysis

Chia-Wei Hu[2], Miao-Hsia Lin[1,3], Tsun-Hsuan Yi[2], Hsuan-Cheng Huang[4], Wei-Chi Ku[1], Chia-Feng Tsai[5], Yu-Ju Chen[5], Naoyuki Sugiyama[6], Yasushi Ishihama[1,6], Hsueh-Fen Juan[2,7], Shih-Hsiung Wu[2]
[1]Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan, [2]Institute of Molecular and Cellular Biology, National Taiwan University, Taipei, Taiwan, [3]Institute of Biological Chemistry, Academia Sinica, Taipei, Taiwan, [4]Institute of Biomedical Informatics and Center for Systems and Synthetic Biology, National Yang-Ming University, Taipei, Taiwan, [5]Institute of Chemistry, Academia Sinica, Taipei, Taiwan, [6]Institute for Advanced Biosciences, Keio University, Daihoji, Tsuruoka, Japan, [7]Department of Life Sciences, National Taiwan University, Taipei, Taiwan

Wedensday, 19th September

PWe-105
11:10 – 12:20
Rapid and Simple Characterization of Mycolic Acids in the Suborder Corynebacterineae Using MALDI Spiral-TOFMS

Kanae Teramoto[1], Takafumi Sato[1], Shinichi Mukosaka[1], Tomohiko Tamura[2], Moriyuki Hamada[2], Ken-ichiro Suzuki[2]
[1]JEOL Ltd., Tokyo, Japan, [2]NITE Biological Resource Center, Kisarazu, Japan

PWe-106
13:30 – 14:40
Evaluation of Proteomic Profile with Principal Component Analysis in Group A Streptococci

Akira Okamoto[1], Taguchi Yoshihiro[2]
[1]Aichi University of Education, Aichi, Japan, [2]Chuo University, Tokyo, Japan

PWe-107
11:10 – 12:20
Glycopeptidolipids with novel peptide composition from Mycobacterium avium-intracellulare complex

Naoya Ichimura, Takeshi Kasama
Tokyo Medical and Dental University, Tokyo, Japan

PWe-108
13:30 – 14:40
Identification of Medically Important Candida Species by LC-Selective Tandem Mass Spectrometry

Po-Chih Chang[1], Muralidhar Reddy[1], Chien-Liang Chen[1], Tsung C Chang[2], Hsien-Chang Chang[3], Yen-Peng Ho[1]
[1]Department of Chemistry, National Dong Hwa University, Hualien, Taiwan, [2]Department of Medical Laboratory Science and Biotechnology, National Cheng-Kung University, Taiwan, [3]Department of Biomedical Engineering, National Cheng-Kung University, Taiwan

PWe-109
11:10 – 12:20
Metabolome of Aspergillus: Towards the Early Diagnosis of Invasive Aspergillosis

Havlicek Vladimir[1], Strohalm Martin[1], Kavan Daniel[1], Lemr Karel[1], Schug Kevin[2], Sulc Miroslav[1]
[1]Institute of Microbiology, Prague, Czech Republic, [2]University of Texas at Arlington, TX, USA

PWe-110
13:30 – 14:40
Design Of Specific methodology For The Identification Of Beta-Lactamase Producing Enterobacteriaceae Using MALDI Mass Spectrometry

Emmanuel Q wey[1], Matthew Openshaw[2], Philippa Hart[2], Omar Belgacem[2], Pranav Somaiya[3], Shervanthi Homer-Vanniasinkam[3], Indran Balakrishnan[1]
[1]Royal Free Hospital Foundation Trust London United Kingdom, [2]Shimadzu, Manchester, United Kingdom, [3]NPIMR-UCL, London, United Kingdom

PWe-111
11:10 – 12:20
Differentiation of Single Attachment versus Double Attachment of Phycoerythrobilin Chromophores to Phycobiliproteins of Fremyella diplosiphon Cyanobacteria using MALDI Mass Spectrometry

M Nazim Boutaghou[2], Christina M Kronfel[2], Leanora S Hernandez[2], Avijit Biswas[2], Wendy M Schluchter[2], Richard B Cole[1,2]
[1]Université Pierre et Marie Curie (Paris 6), Paris, France, [2]University of New Orleans, New Orleans, LA, USA

PWe-112
13:30 – 14:40
The study and characterization of growth factors produced by murine herpes virus using multistage MS techniques

Andrea Stanova, Jozef Marak, Miroslava Supolikova, Livia Cikova, Frantisek Golais, Pavol Kois
Comenius University, Bratislava, Slovak Republic

PWe-113
11:10 – 12:20
MALDI Mass Spectrometry and MALDI-MS/MS Investigation into Chemically Induced Peptides of Beta-Lactamase Producing Enterobacteriaceae

Emmanuel Q Wey[2], Philippa J Hart[1], Matthew Openshaw[1], Omar Belgacem[1], Pranav Somiya[3], Shervanthi Homer-Vanniasinkam[3], Indran Balakrishnan[2]
[1]Shimadzu, UK, [2]Royal Free Hospital NHS Foundation Trust, London , UK, [3]NPIMR-UCL, London, UK

PWe-114
13:30 – 14:40
Exploring the Patellamide Biosynthetic Pathway

Shirran L Sally[1], Fuszard Matthew[1], Koehne Jesko[1], Bent Andrew[1], Houssen Wael[2], Jaspars Marcel[2], Botting H Catherine[1], Naismith H James[1]
[1]University of St Andrews, [2]University of Aberdeen

PWe-115
11:10 – 12:20
Liquid chromatography-electrospray ionization mass spectrometry for metabolism studies of mogroside V by Ganoderma lucidum mycelium

Chun-Hui Chiu, Ting-Jang Lu
National Taiwan University, Taipei, Taiwan

PWe-116
13:30 – 14:40
Identification of Bacteria and Fungi by Rapid Evaporative Ionization Mass Spectrometry

Ákos Szekeres[1], Imola Körtvélyessyné Györi[2], Júlia Balogh[2], Tamás Szaniszló[3], Katalin Dr Kristóf[3], Judit M Dr Molnár[3], Zoltán Dr Takáts[4]
[1]Masprom Ltd., Budapest, Hungary, [2]Medimass Ltd., Budapest, Hungary, [3]Semmelweis University, Budapest, Hungary, [4]Imperial College London, London, UK

PWe-117
11:10 – 12:20
Lysosomal storage diseases diagnostics in dry blood spots by fluorimetry and multiple reaction monitoring mass spectrometry

Claudia Cozma[1], Marius-Ionut Iurascu[1], Laura Ion[1], Stefan Maeser[2], Michael Przybylski[1]
[1]University of Konstanz, Germany, [2]Centogen GmbH, Germany

Session 28
IR Spectroscopy of Gas-phase Ions

PWe-118
13:30 – 14:40
UV action spectroscopy of peptides and proteins via photodissociation of iodine labelled tyrosine residues.

Benjamin B Kirk[1], Adam T Trevitt[1], Haibo B Yu[1], Yuanqi Tao[2], Benjamin N Moore[2], Ryan R Julian[2], Stephen J Blanksby[1]
[1]University of Wollongong, Wollongong, Australia, [2]University of California, Riverside, USA

Wedensday, 19th September

Session 29

The Advances in Biological Mass Spectrometry in Drug Discovery and Development: Current State of the Art and Challenges

PWe-120 13:30 – 14:40 **Influence of end-capping reagent of LC column on sensitive determination using LC/MS**

Chiaki Aoyama, Yuko Yui, Kensuke Okusa, Kosuke Osaka, Takao Tamura, Masakazu Takahashi
GL Sciences Inc., Iruma, Japan

PWe-121 11:10 – 12:20 **Simultaneous, Fast Analysis of Melamine and Analogues in Pharmaceutical Components Using Q Exactive - Benchtop Orbitrap LC-MS/MS**

Kate J Comstock, Hongxia (Jessica) Wang, Tim Stratton, Yingying Huang
Thermofisher Scientific

PWe-122 13:30 – 14:40 **Measurement and Optimization of Organic Chemical Reaction Yields by GC-MS with Supersonic Molecular Beams**

Aviv Amirav, Alexander Gordin, Youlia Hagooly, Shlomo Rozen, Bogdan Belgorodsky, Boaz Seemann, Hanit Marom, Michael Gozin, Alexander B Fialkov
Tel Aviv University

PWe-123 11:10 – 12:20 **The Utility of a Novel High Resolution Quadrupole Time-of-Flight Mass Spectrometer for Improved Characterization of Antibodies and Immuno-Conjugates**

Asish Chakraborty[1], St John Skilton[1], Steve Pringle[2], Nick Tomczyk[2], Weibin Chen[1]
[1]Waters, Milford, USA, [2]Water MS Technologies, Manchester UK

PWe-124 13:30 – 14:40 **Method Development for Quality Control of Traditional Chinese Herbal Medicine- Guizhi Tang by HPLC and Electrospray Ion Trap Mass Spectrometry**

Ming-Yu Chao, Ying-Yu Kuo, Jui-Ching Chen, Che-Yi Lin, Yuan-Ling Ku, Leah Lo
Medical and Pharmaceutical Industry Technology and Development Center, Taipei, Taiwan (R.O.C.)

PWe-125 11:10 – 12:20 **High-throughput sequence determination of screened 90 micron single beads on which a cyclic octa-peptide is immobilized**

Kiyoshi NOKIHARA[1], Takafumi OHYAMA[1], Noriko ONO[1], Takeshi KASAMA[2]
[1]HiPep Laboratories, Kyoto, Japan, [2]Tokyo Medical and Dental University, Tokyo, Japan

PWe-127 11:10 – 12:20 **MsXelerator: A Software Platform for (Reactive) Drug Metabolite Detection and Identification using High-Resolution Mass Spectrometry and Post-Acquisition Data Mining**

Marco Ruijken
MsMetrix, Maarssen, the Netherlands

PWe-128 13:30 – 14:40 **Non-targeted identification of novel Buspirone metabolites using a Spectral Similarity score derived from common fragment ion and neutral loss species**

Kirsten Hobby, Alan Barnes, Neil Loftus
Shimadzu MSO, Manchester, UK

PWe-129 11:10 – 12:20 **Analysis of interaction between TNF-alpha and anti-TNF-alpha agents by hydrogen deuterium exchange/mass spectrometry**

Shiori Nakazawa[1,2], Noritaka Hashii[2], Nana Kawasaki[1,2]
[1]Hokkaido University, Sapporo, Japan, [2]National Institute of Health Sciences, Tokyo, Japan

PWe-130 13:30 – 14:40 **Validation and application of UHPLC-ESI-MS/MS method for the quantification of probe-drugs and metabolites of CYP3A4 and UGT1A1 in pharmacokinetics study**

Daryl Kim Hor Hee, Zhangyan Yao, Lawrence Soon-U Lee
National University of Singapore, Singapore

PWe-131 11:10 – 12:20 **MALDI High Resolution Mass Spectrometry in the Identification of Atorvastatin and Its Oxidative Metabolites**

Robert Jirasko[1], Veronika Jedlickova[1], Tomas Mikysek[1], Michal Holcapek[1], Ales Svatos[2], Martin Kunes[3], Milan Nobilis[3]
[1]Department of Analytical Chemistry, Faculty of Chemical Technology, University of Pardubice, Studentska 573, 53210 Pardubice, Czech Republic, [2]Max Planck Inst. Chem. Ecol,. Res. Grp. Mass Spectrometry, D-07745 Jena, Germany, [3]Faculty of Pharmacy, Charles University, Heyrovskeho 1203, CZ-50005 Hradec Kralove, Czech Republic

PWe-132 13:30 – 14:40 **Metabolic Stability Screening Workflow using a Second Generation High Resolution Accurate Mass Benchtop Instrument**

Shigeru Sakamoto[1], Sun Hai-Ling[3], Soohoo Daniel[3], Comstock Kate[2], Stratton Tim[2]
[1]ThermoFisher Scientific, Yokohama, Japan, [2]Thermofisher Scientific, San Jose, CA, USA, [3]Gilead Sciences, Foster City, CA, USA

Wedensday, 19th September

Wed

PWe-133 Development of High Performance Liquid Chromatography Tandem Mass Spectrometry Method for Analysis of Bacopaside-I in Rat Urine and Feces Samples

11:10 – 12:20

Sontaya Sookying[2], Kornkanok Ingkaninan*[2], Dumrongsak Pekthong[3], Sarawut Oo-puthinan[3], Jie Xing[1], Zhaoqi Zhan[1]

[1]Shimadzu (Asia Pacific) Pte Ltd, 79 Science Park Drive, #02-01/08, CINTECH IV, Singapore, [2]Department of Pharmaceutical Chemistry and Pharmacognosy, Faculty of Pharmaceutical Sciences, Naresuan University, Phitsanulok 65000, Thailand, [3]Department of Pharmacy Practice, Faculty of Pharmaceutical Sciences, Naresuan University, Phitsanulok 65000, Thailand

PWe-134 Novel Mass Spectrometry Based Method for Quantitation of Antibody Drug Conjugates

13:30 – 14:40

Kim Alving[1], James Stefano[1], Richard Gregory[2], Diego Gianolio[2], William Brondyk[1], Pradeep Dhal[1], Aharon Cohen[1], Bing Wang[1]

[1]Genzyme - A Sanofi company, [2]Sanofi Oncology

PWe-135 Method for the direct injection and on-line sample clean-up of whole methanolic extracts from dried blood spots

11:10 – 12:20

Reiko Iizuka[1], Motoji Oshikata[1], Paul Rainville[2], Jennifer Simeone[2], Thomas Wheat[2], Robert Plumb[2]

[1]Nihon Waters, Tokyo, Japan, [2]Waters, Milford, MA

PWe-136 Metabolite analysis using a novel relationship and database driven software platform approach for screening and understanding metabolism

13:30 – 14:40

Etsuko Suzuki[1], Motoji Oshikata[1], Mark Wrona[2], David Deans[3], Jeff Goshawk[3], Debadeep Bhattacharya[2], Joanne Mather[2], Robert Plumb[2]

[1]Nihon Waters, Tokyo, Japan, [2]Waters Corporation, Milford, MA, [3]Waters, Manchester, UK

PWe-137 HILIC-UHPLC-MS/MS determination of entecavir in rat plasma, urine and plasma ultrafiltrate using various sample preparation techniques

11:10 – 12:20

Lucie Novakova[1], Hana Vlckova[1], Tomas Gottvald[1], Jaroslav Janak[1], Frantisek Trejtnar[2], Jana Mandikova[2], Petr Solich[1]

[1]Charles University in Prague, Faculty of Pharmacy in Hradec Kralove, Department of analytical chemistry, [2]Department of Pharmacology and Toxicology, Faculty of Pharmacy, Charles University in Prague, Heyrovskeho 1203, 500 05 Hradec Kralove, Czech Republic

PWe-138 Determining The Pharmacokinetics And Metabolic Fate Of A Novel Anti-Cancer Compound Using LC/MS/MS With Comprehensive Data Collection

13:30 – 14:40

Shunya Sasaki[1], Motoji Oshikata[1], Joanne Mather[2], Robert Plumb[3], Ian Wilson[4]

[1]Nihon Waters, Tokyo, Japan, [2]Waters Corporation, Milford, MA, [3]Imperial College, London, UK, [4]AstraZeneca, Macclesfield, UK

PWe-139 Development of a Highly Sensitive Methodology for Quantitative Determination of Fexofenadine in Microdose Studies by Multiple Injection Method Using UHPLC-MS/MS

11:10 – 12:20

Yukari Tanaka[1,2], Yutaka Yoshikawa[2], Hiyoyuki Yasui[2]

[1]SHIONOGI & CO., LTD., Osaka, Japan, [2]Kyoto Pharmaceutical University, Kyoto, Japan

PWe-140 Mass spectrometric analysis of ginsenosides in Panax ginseng root and callus using pseudo two-dimensional liquid chromatogram

13:30 – 14:40

Yumiko Ueno[1], Issey Osaka[2], Hirotaka Hisatomi[1], Shu Taira[3], Hideya Kawasaki[1], Ryuichi Arakawa[1]

[1]Kansai University,Suita,Japan, [2]Yokohama City University, Yokohama, Japan, [3]Japan Advanced Institute of Science and Technology, Nomi, Japan

PWe-141 Metabolic site elucidation of glucuronide metabolites using ion mobility and molecular modeling

11:10 – 12:20

Motoji Oshikata[1], Masayo Yabu[1], Yutaka Takahashi[2,3], Mitsuo Takayama[3]

[1]Nihon Waters, Tokyo, Japan, [2]MS Solution, Tokyo, Japan, [3]Graduate School of Nanobioscience, Yokohama City University, Yokohama, Japan

PWe-142 Mimicking of the phase I metabolism of drugs by photocatalytic reactions

13:30 – 14:40

Miina Ruokolainen, Tiina Sikanen, Petri Kylli, Risto Kostiainen, Tapio Kotiaho

University of Helsinki, Helsinki, Finland

PWe-143 Streamlining the Metabolite Identification Workflow Using High Resolution QTOF Data and Mass-MetaSite.

11:10 – 12:20

Lester C Taylor[1], Ismael Zamora[2], Gabriele Cruciani[2]

[1]Agilent Technologies, [2]Molecular Discovery Ltd

PWe-144 The development of multistatin method for determination of statins, their metabolites and interconversion products in human serum

13:30 – 14:40

Hana Vlckova, Karolina Skraskova, Pavel Svoboda, Helena Tomsikova, Petr Solich, Lucie Novakova

Charles University in Prague, Faculty of Pharmacy, Hradec Kralove, Czech Republic

PWe-145 Electrochemical generation of oxidative and reductive metabolites of selected drugs and their UHPLC/MS/MS characterization

11:10 – 12:20

Michal Holcapek[1], Robert Jirasko[1], Veronika Jedlickova[1], Tomas Mikysek[1], Milan Nobilis[2], Lenka Skalova[2]

[1]University of Pardubice, Czech Repubic, [2]Faculty of Pharmacy, Charles University, Hradec Kralove, Czech Republic

PWe-146 In-depth pharmaco-phosphoproteomics using meter-long monolithic columns to evaluate molecular-targeting drugs

13:30 – 14:40

Masaki Wakabayashi[1], Ayaka Sato[1], Mio Iwasaki[1], Naoyuki Sugiyama[2], Yasushi Ishihama[1]

[1]Kyoto University, Kyoto, Japan, [2]Keio University, Tsuruoka, Japan

Wedensday, 19th September

PWe-147
11:10 – 12:20
A Semi-Automated Method for Sequencing Oligonucleotides using ISD and Pseudo-MS3 on a MALDI-Ion Trap-TOF Mass Spectrometer

Matthew E Openshaw[1], Omar Belgacem[1], Marco Smith[2]
[1]Shimadzu, Manchester, UK, [2]GlaxoSmithKline, Stevenage, UK

PWe-148
13:30 – 14:40
Caco-2 PERMEABILITY STUDIES AND DETERMINATION BY LC/MSMS OF MEMANTINE

Banu Erdem[1], Seval Korkmaz[2], Murat Onul[3], Engin Bayram[3]
[1]Marmara University Faculty of Engineering Department of Bioengineering, [2]Abdi Ibrahim Pharmaceuticals Inc., Istanbul, Turkey, [3]Ant Teknik Cih. Ltd. Sti.,Istanbul, Turkey

PWe-149
11:10 – 12:20
Development of mass sepctrometric method for pharmacokinetic study of Herceptin

Jin Nyoung Choi[1], Jeong Won Kang[1], Do Young Choi[1], Gyu-Tae Park[2], Soyong Jang[2], Kwang Pyo Kim[1]
[1]Konkuk University, Seoul, Korea, [2]CKD Reasearch Institute, Yongin, Korea

PWe-150
13:30 – 14:40
Caco-2 PERMEABILITY STUDIES AND DETERMINATION BY LC/MSMS OF THIOCTIC ACID

Murat Onul[1], Seval Korkmaz[2], Banu Erdem[3]
[1]Ant Teknik, Istanbul, Turkey, [2]Abdi Ibrahim Pharmaceuticals Inc., Istanbul, Turkey, [3]Marmara University Faculty of Engineering, Departmant of Bioengineering, Istanbul, Turkey

PWe-151
11:10 – 12:20
Chemical modificomics: Alternative analytical platform for efficient biomarker discovery

Tomoyuki Oe
Tohoku University, Sendai, Japan

PWe-152
13:30 – 14:40
Metal Modified Nanoparticle as a Probe for Quantitative Analysis of Clodronate Drug by MALDI-MS in Human Plasma

Wei Hsu[1], Yi-Chi Ho[1], Mei-Chun Tseng[1], An-Kai Su[1], Ping-Yu Lin[1], Huan-Ting Wu[2], Chun-Cheng Lin[2], Ming-Ren Fuh[3], Yu-Ju Chen[1]
[1]Institute of Chemistry, Academia Sinica, Taipei, Taiwan, [2]Department of Chemistry, Tsing Hua University, Hsinchu, Taiwan, [3]Department of Chemistry, Soochow University, Taipei, Taiwan

PWe-153
11:10 – 12:20
Caco-2 PERMEABILITY STUDIES AND DETERMINATION BY LC/MSMS OF TRIMEBUTINE

Murat Yayla[1], Seval Korkmaz[2], Banu Erdem[3], Murat ONUL[4]
[1]Ant Teknik, Ankara, Turkey, [2]Abdi Ibrahim Pharmaceutical Inc.,Turkey, [3]Marmara University Faculty of Engineering, Department of Bioengineering, Istanbul, Turkey, [4]Ant Teknik, Istanbul, Turkey

PWe-154
13:30 – 14:40
Caco-2 PERMEABILITY STUDIES AS A NEW ALTERNATIVE MODEL TO BIOEQUIVALENCE AND BIOWAIVER TESTS

Seval Korkmaz
Abdi Ibrahim Pharmaceuticals, Istanbul, TURKEY

PWe-156
13:30 – 14:40
Selectivity test: Potential Interfering substances evaluation during LDTD-MS/MS quantification

Alex Birsan, Serge Auger, Annick Dion-Fortier, Pierre Picard
Phytronix Technologies, Quebec, Canada

PWe-157
11:10 – 12:20
Intact Monoclonal Antibody Characterization Using A Bench-Top Orbitrap Mass Spectrometer

Zhiqi Hao[1], Yi Zhang[1], Dave Horn[1], Shiaw-Lin Wu[2], Patrick K Bennett[1], Andreas F Huhmer[1]
[1]Thermo Fisher Scientific, [2]Barnett Institute, Northeastern University, Boston, MA

PWe-158
13:30 – 14:40
Novel approaches in the imitation of oxidative drug metabolism by electrochemistry-mass spectrometry

Hjalmar P Permentier[1], Eslam Nouri-Nigjeh[1,2], Andries P Bruins[1], Rainer Bischoff[1]
[1]University of Groningen, Groningen, The Netherlands, [2]New York State Center of Excellence in Bioinformatics and Life Sciences, Buffalo, USA

PWe-159
11:10 – 12:20
Analysis of lipid composition in stimulated human cancer cells by LC-MS/MS following treatment with protolichesterinic acid isolated from Cetraria islandica

Finnur F Eiriksson[1,2], Baldur B Sigurdsson[2], Sesselja S Omarsdottir[1], Helga M Ogmundsdottir[1], Margret Thorsteinsdottir[1,2]
[1]University of Iceland, Reykjavik, Iceland, [2]ArcticMass, Reykjavik, Iceland

PWe-160
13:30 – 14:40
UHPLC-MS-MS with Precursor Ion Scanning, Neutral Loss Scanning and Polarity Switching for the Detection of Glutathione Conjugates of Reactive Metabolites

Richard B van Breemen, Ke Huang
University of Illinois College of Pharmacy, Chicago, IL USA

Session 30
Data Processing and Informatics for SIMS

PWe-161
11:10 – 12:20
Comparison of titanate nanosheets by G-SIMS and g-ogram

Ichiro Mihara[1], Satoka Aoyagi[2], Keizo Nakagawa[3]
[1]Kuraray CO., LTD, Tokyo, Japan, [2]Shimane University, Shimane, Japan, [3]The University of Tokushima, Tokushima, Japan

PWe-162
13:30 – 14:40
Adaptive Thresholding for Three-Dimensional Wavelet Denoising of TOF-SIMS Images : Toward Digital Staining of Pathological Specimens

Koichi Tanji, Manabu Komatsu, Hiroyuki Hashimoto
Canon Inc. Tokyo, Japan

Wedensday, 19th September

Wed

Session 43

Novel Proteomics Methodologies

PWe-163 11:10 – 12:20 **Elucidating the aberrant PK Profiles of Monoclonal Antibody by Proteomics Approaches**

Wai Siang Law[1], A P Warren[1], P Lloyd[1], J Sims[1], J Balthasar[2], Carsten Krantz[1]
[1]Novartis Pharma AG, Basel, Switzerland, [2]Department of Pharmaceutical Sciences School of Pharmacy and Pharmaceutical Sciences University at Buffalo, The State University of New York, Buffalo, New York 14260

PWe-165 11:10 – 12:20 **Mass spectrometry-based non-invasive proteomic analysis of human skin keratins for discovery of biomarkers of oxidative skin damage**

Seon Hwa Lee, Kohei Miyamoto, Takaaki Goto, Tomoyuki Oe
Tohoku University, Sendai, Japan

PWe-166 13:30 – 14:40 **RELATIVE QUANTITATION OF TMT-LABELED PROTEOMES FOCUS ON QUANTITATIVE PRECISION AND ACCURACY**

Rosa I Viner[1], Michaela Scigelova[2], Martin Zeller[2], Madalina Oppermann[2], Thomas Moehring[2], Vlad Zabrouskov[1]
[1]Thermo Fisher Scientific, San Jose, USA, [2]Thermo Fisher Scientific, Bremen, Germany

PWe-167 11:10 – 12:20 **Mobility Assisted Data Independent Label-Free LC-MS Analysis of Citrobacter rodentium Infected Mouse Colon**

Maki Terasaki[1], Chris Hughes[2], Johannes P Vissers[2], James Collins[3], Gad Frankel[3]
[1]Nihon Waters K. K., Tokyo, Japan, [2]Waters, Manchester , UK, [3]Imperial College, London, UK

PWe-168 13:30 – 14:40 **A method for isolation of endogenous disulfide-containing peptides from a biological sample.**

Caroline D Pereira[1], Naoto Minamino[2], Toshifumi Takao[1]
[1]Institute for Protein Research, Osaka University, Osaka, Japan, [2]National Cardiovascular Center, Osaka, Japan

PWe-169 11:10 – 12:20 **A Targeted Quantitative Phosphoproteomic Approach using iTRAQ-Labelled Synthetic Peptides as Internal Standards**

Andre C Mueller, Leonhard Heinz, Kumaran Kandasamy, Manuela Bruckner, Christoph L Baumann, Giulio Superti-Furga, Keiryn L Bennett
CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences/Vienna/Austria

PWe-170 13:30 – 14:40 **The study of aging processes using in vitro glycation experiments applied to low density lipoproteins using MALDI Mass Spectrometry**

Omar Belgacem[1], Matthew Openshaw[1], Grazyna Sobald[2], Katharina Pock[3], Gerald Stuebiger[4]
[1]Shimadzu, Manchester, UK, [2]Dept. of Nuclear Medicine, Medical University Vienna, Austria, [3]Octapharma Pharmazeutika Produktionsges.m.b.H, Vienna, Austria, [4]Center of Biomolecular Medicine and Pharmacology, Medical University Vienna, Austria

PWe-171 11:10 – 12:20 **Phosphoprotein analysis using a combination of an online monolithic trypsin-immobilized enzyme reactor and TiO2 enrichment column with tandem mass spectrometry**

Kun Cho[1], Hyo Jin Hwang[2], Jisun Yoo[1], Jin Young Kim[1], Young Hwan Kim[1], Han Bin Oh[2]
[1]Korea Basic Science Institute, Ochang, South Korea, [2]Department of Chemistry, Sogang University, Seoul, South Korea

PWe-172 13:30 – 14:40 **Label-Free Phosphopeptide Quantitation and Occupancy Determination from a Single Protein Using LC-MALDI**

Oliver Drews, Anja Resemann, Waltraud Evers, Eckhard Belau, Asperger Arndt, Detlev Suckau
Bruker Daltonik GmbH, Bremen, Germany

PWe-173 11:10 – 12:20 **Ion-Trap Quantitative Proteomics of Glycoproteome from Pancreatic Cancer Patients based on the Label-Free and iTRAQ Approaches**

Anna Drabik[1], Piotr Suder[1], Marek Sierzega[2], Radoslaw Pach[2], Jan Kulig[2], Anna Bodzon-Kulakowska[1], Jerzy Silberring[1,3]
[1]AGH University of Science and Technology, Krakow, Poland, [2]Jagiellonian University Medical College, Krakow, Poland, [3]Polish Academy of Sciences, Gliwice, Poland

PWe-174 13:30 – 14:40 **Screening of Oxidative Stress induced LDL-modifications using (LC-)MALDI-MS(/MS) based Lipoproteomics**

Gerald Stübiger[1], Ulrike Resch[1], Michael Wuczkowski[2], Helmut Sinzinger[1], Omar Belgacem[3]
[1]Medical University Vienna, Vienna, Austria, [2]Technoclone GmbH, Vienna, Austria, [3]Shimadzu, Manchester, UK

PWe-176 13:30 – 14:40 **In-depth human proteome analysis by one-shot LC-MS/MS with meter-scale monolithic silica capillary columns**

Mio Iwasaki[1], Masaki Wakabayashi[1], Naoyuki Sugiyama[2], Nobuo Tanaka[3], Yasushi Ishihama[1]
[1]Kyoto University, [2]Keio University, Yamagata, Japan, [3]GL Sciences, Tokyo, Japan

PWe-177 11:10 – 12:20 **Automated Quality Control of Biopharmaceutical N-/C-Terminal Sequences by Routine Top-Down Mass Spectrometry**

Rainer Paape[2], Anja Resemann[2], Lars Vorwerg[2], Jens Hoehndorf[2], Detlev Suckau[2], Hank Wang[1]
[1]Bruker Daltonics Inc., Beijing, China, [2]Bruker Daltonik GmbH, Bremen, Germany

PWe-178 13:30 – 14:40 **Evaluation of targeted proteomic approaches on a Q-TOF system**

Carsten Funke, Stepahnie Kasper, Wolfgang Jabs, Carsten Baessmann
Bruker Daltonik GmbH

PWe-179 11:10 – 12:20 **Electron Transfer Dissociation differentiates the isobaric deamidation products Aspartate and IsoAspartate.**

Andrea Kiehne[1], Ralf Hartmer[1], Laxmi Adhikary[2], Anand Khedkar[2], Harish Iyer[2], Raju Mukherjee[2]
[1]Bruker Daltonik GmbH, [2]Biocon

Wedensday, 19th September

PWe-180
13:30 – 14:40

Identification and quantification of concentration-dependent biomarkers in MCF-7/BOS cells exposed to 17beta-estradiol by 2-D DIGE and label-free proteomics

Mike Collodoro, Pascale Lemaire, Gauthier Eppe, Virginie Bertrand, Rowan Dobson, Gabriel Mazzucchelli, Joelle Widart, Edwin De Pauw, Marie-Claire A Gillet
Liege University, Liege, Belgium

PWe-181
11:10 – 12:20

Quantitative phosphoproteome analysis of apoptotic human cell cultures using SILAC combined with complementary ESI-MS techniques

Yumiko Matsuyama[1], Benjamin Mueller[2], Wolfgang Jabs[3], Carsten Baesmann[3], Stephanie Kaspar[3], Karsten Niehaus[4], Thomas Noll[2], Raimund Hoffrogge[2]
[1]Bruker Daltonics K.K., Yokohama, Japan, [2]Institute of Cell Culture Technology, Faculty of Technology, Bielefeld University, Germany, [3]Bruker Daltonik GmbH, Bremen, Germany, [4]Proteome and Metabolome Research, Faculty of Biology, Bielefeld University, Germany

PWe-182
13:30 – 14:40

Validating a novel Parkinson's Disease SRM-based assay using automated sample preparation

Christine A Jelinek[1], Liana Rosenthal[1], Yan Jia[1], Kevin W Meyer[2], Ted Dawson[1], Robert J Cotter[1]
[1]Johns Hopkins School of Medicine, Baltimore, United States of America, [2]Perfinity Biosciences, West Lafayette, United States of America

PWe-183
11:10 – 12:20

In vitro phosphorylation to manipulate the abundance profiles in proteomic samples

Shunsuke Takagi[1], Haruna Imamura[1], Masaki Wakabayashi[1], Naoyuki Sugiyama[2], Yasushi Ishihama[1]
[1]Kyoto University, Kyoto, Japan, [2]Keio University, Yamagata, Japan

PWe-184
13:30 – 14:40

Identification of kinase substrates by siRNA-induced kinase knock-down coupled with quantitative phosphoproteomics

Ayaka Sato[1], Sayaka Iwano[1], Wei-Chi Ku[1], Masaki Wakabayashi[1], Naoyuki Sugiyama[2], Fumiko Toyoshima[1], Yasushi Ishihama[1]
[1]Kyoto University, Kyoto, Japan, [2]Keio University, Yamagata, Japan

PWe-185
11:10 – 12:20

Comprehensive Targeted Quantitative Proteomics - Assessing Quantitation Quality of Highly Multiplexed Assays

Christie L Hunter, Sean L Seymour
AB SCIEX, Foster City, CA, United States

PWe-186
13:30 – 14:40

Global profiling and quantification of histones, histone PTM's and histone-modifying enzymes in mesenchymal stem cells using a multiplexed SRM assay

Mei Ying Han[1], Bryan Krastins[2], Alejandra Garces[2], Victoria V Lunyak[3], Benjamin Blackwell[3], David Sarracino[2], Amol Prakash[2], Shadab Ahmad[2], Maryann S Vogelsang[2], Mary F Lopez[2]
[1]Thermo Fisher Scientific, Yokohama, Japan, [2]BRIMS, Thermo Fisher Scientific, Cambridge, MA, [3]Buck Institute for Research on Aging, Novato, CA

PWe-187
11:10 – 12:20

Polyhedral approach to comprehensive quantitative analysis for membrane proteomics

Kazuaki Takafuji, Seiji Takashima, Akira Kikuchi
Osaka University, Osaka, Japan

PWe-188
13:30 – 14:40

Separation of polypeptides by isoelectric point focusing in electrospray-friendly solution using multiple-junction capillary fractionator

Konstantin Chingin[1], Juan Astorga-Wells[1,2], Mohammad Pirmoradian Najafabadi[1,2], Thorleif Lavold[2], Roman A Zubarev[1,3]
[1]Karolinska Institutet, Stockholm, Sweden, [2]Biomotif AB, Stockholm, Sweden, [3]Science for Life Laboratory, Stockholm, Sweden

PWe-189
11:10 – 12:20

Comprehensive variability analysis of nutrients absorption mechanism in small intestine by quantitative proteomics

Takashi Nishiyama, Shushi Nagamori, kazuaki Takafuji, Yoshikatsu Kanai
Osaka University Graduate School of Medicine, Suita, Japan

Others

PWe-190
13:30 – 14:40

Laser Spectroscopic Investigations of 1,3-Dichloro-2-fluorobenzene by REMPI and MATI Spectroscopy

Sascha Krüger, Juergen Grotemeyer
Kiel University, Kiel, Germany

PWe-191
11:10 – 12:20

Selective Extraction and Absolute Quantification of Glutathione using Nanoengineered Micro Gold Shells and LDI-TOF MS

Jeongwook Lee, Woon-Seok Yeo
Konkuk University, Korea

PWe-192
13:30 – 14:40

Coulomb-Interaction-Induced Effects on Xe Isotopic Ion FT-ICR Mass Spectra: A Many-Particle Simulation Using GRAPE

Makoto Fujiwara, Naohisa Happo, Koichi Tanaka
Hiroshima City University, Hiroshima, Japan

PWe-193
11:10 – 12:20

Analysis of flavonoids by Graphene-Based SALDI-TOF MS

Min-Wei Chien[1], Ching-Yuan Su[2], Lain-Jong Li[3], Chien-Chen Lai[1]
[1]Institute of Molecular Biology,National Chung Hsing University, Taiwan, [2]Department of Electronic Engineering, Chang Gung University, Taiwan, [3]Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan

PWe-194
13:30 – 14:40

Quantification of eight catechins and caffeine in black, white and green tea samples using UHPLC coupled to tandem mass spectrometry

Karolina Skraskova, Michaela Mudrova, Hana Vlckova, Lucie Novakova
Charles University in Prague, Faculty of Pharmacy in Hradec Kralove, Hradec Kralove, Czech Republic

Wedensday, 19th September

PWe-195
11:10 – 12:20

Low-energy ion scattering (LEIS) study of Cs-sputtering effects on III-V semiconductor hetero-structures during SIMS analysis

Helena Tellez[1], David M McPhail[1], Jose M Vadillo[2]
[1]Imperial College, London, UK, [2]University of Malaga, Malaga, Spain

PWe-196
13:30 – 14:40

Quality control of multilayered/ nanoheterostructured solar cells by secondary ion mass spectrometry and ion beam etching techniques

Jose M Vadillo[1], Diana J Padilla[1], Helena Tellez[2], John W Druce[2], David S McPhail[2], Jose J Laserna[1]
[1]University of Málaga, [2]Imperial College

PWe-197
11:10 – 12:20

Ultra high pressure comprehensive two-dimensional liquid chromatography combined with hybrid mass spectrometry for the elucidation of carotenoids in chilired peppers

Marcus Mreyen[1], Francesco Cacciola[2,3], Paola Donato[3,4], Daniele Giuffrida[5], Germana Torre[3], Paola Dugo[3,4], Luigi Mondello[3,4]
[1]Shimadzu Europa GmbH, Duisburg, Germany, [2]Chromaleont S.r.l., Messina, Italy, [3]Dipartimento Farmaco-chimico, Messina, Italy, [4]Centro Integrato di Ricerca (C.I.R.), Roma, Italy, [5]Dipartimento di Scienze degli Alimenti e dell' Ambi, Messina, Italy

PWe-198
13:30 – 14:40

Identification of Organic Contaminants on Silicon Surface by Mass Spectrometry

Yoon Mi Lee, Sang Yoon Shin, Jung Dae Park, Pil Kwon Jun, Jong Soo Kim
Semiconductor Business, Samsung Electronics / Gyeonggi-Do, Korea

PWe-199
11:10 – 12:20

Comprehensive Targeted Compound Identification Using Pseudo-Precursor Ion Scan and Neutral Loss Scan for Degradation Analysis of Electrolytes

Kaoru Karasawa, Toshiyuki Yamazaki, Sumie Ando
ABSCIEX

PWe-200
13:30 – 14:40

Analysis of degradation products in electrolyte for rechargeable lithium-ion battery through high mass accuracy MSn and multivariate statistical technique

Hiroki Nakajima, Yamaki Satoshi, Nishine Tsutomu, Furuta Masaru
Shimadzu Co., Kyoto, Japan

PWe-201
11:10 – 12:20

GC/MS Determination of N-Nitrosamines in Rubber Teats

Peng Gao, Jun Fan, Li X Deng, Hong T Huang
SHIMADZU(CHINA)CO.,LTD,ShangHai,China

PWe-202
13:30 – 14:40

Analysis of black tea by GC-MS and high-resolution UPLC-MS

Christian Grün, Boudewijn Hollebrands, Julien Boelhouwer
Unilever R&D, Vlaardingen, The Netherlands

Thursday, 20th September Morning

Plenary Lecture

08:00 – 08:45 Main Hall

Plenary Lecture 4: Hisayoshi Yurimoto

Chair: Robert J. Cotter
Johns Hopkins University School of Medicine, USA

PL4-0800 08:00 – 08:45 **Science of asteroid sample return mission "HAYABUSA"**

Hisayoshi Yurimoto
Hokkaido University, Sapporo, Japan

Oral Session

09:00 – 11:00 Main Hall

Session 31: Native Mass Spectrometry and Structural Biology

Chair: Satoko Akashi
Yokohama City University, Japan

S31-0900 09:00 – 09:40 **[Keynote Lecture] Integrating Native Mass Spectrometry and Top-Down MS for Defining Protein Interactions Important in Biology and Medicine**

Joseph A Loo
University of California-Los Angeles, USA

S31-0940 09:40 – 10:00 **Ion mobility-mass spectrometry for the study of conformational space and topology of proteins and protein-DNA complexes**

Frank Sobott
Antwerp University, Antwerp/Belgium

S31-1000 10:00 – 10:20 **Structure of a Beta-Crystallin Heterodimer by Ion Mobility and Radical Probe Mass Spectrometry**

Kevin Downard[1], Yuichi Kokabu[2], Mitsunori Ikeguchi[2], Satoko Akashi[2]
[1]University of Sydney, [2]Yokohama City Unversity

S31-1020 10:20 – 10:40 **Application of Backbone Amide Hydrogen/Deuterium Exchange-Mass Spectrometry (HDX-MS) to Characterize Protein-Ligand Interactions and Protein-Protein Interactions**

Yoshitomo Hamuro
ExSAR, Monmouth Junction, NJ, USA

S31-1040 10:40 – 11:00 **An integrated workflow for structural mass spectrometry: combining X- linking technology with ionmobility for the structural characterisation of macromolecular assemblies**

Florian Stengel[1], Argyris Politis[2], Zoe Hall[2], Eri Sakata[3], Helena Hernandez[2], Alexander Leitner[1], Thomas Walzthoeni[1], Carol V Robinson[2], Ruedi Aebersold[1,4]
[1]Department of Biology, Institute of Molecular Systems Biology, ETH Zurich, [2]Department of Chemistry, University of Oxford, Chemistry Research Laboratory, Mansfield Road, Oxford, UK, [3]Laboratory of Protein Metabolism, Tokyo Metropolitan Institute of Medical Science, Setagaya-ku, Tokyo, 156-8506, Japan, [4]Faculty of Science, University of Zurich, Switzerland

Thursday, 20th September Morning

Oral Session

09:00 – 11:00 Room A

Session 32: Formation and Dissociation of Peptide Radical Ions

Chair: Dominic T.W. Chan
The Chinese University of Hong Kong, Hong Kong SAR

S32-0900 09:00 – 09:40 **[Keynote Lecture] Formation and Dissociation of Peptide Radical Ions**

Roman A Zubarev
Karolinska Institutet, Stockholm, Sweden

S32-0940 09:40 – 10:00 **Ab initio MO Study on the Fragmentation Mechanisms of Protonated Phosphopeptides in "On-Resonance" and "Off-Resonance" Pulsed Gas Introduction Collision-Induced Dissociations**

Takae Takeuchi[1,2], Ayaka Takahashi[1], Erika Sugawara[1], Tomoko Kimura[1], Yuka Kurosaki[1], Shigeki Kajihara[3], Hiroko Morinaga[4], Shinichi Iwamoto[3], Koichi Tanaka[3]
[1]Department of Chemistry, Faculty of Science, Nara Women's University, Nara, Japan, [2]National Institute of Advanced Industrial Science and Technology (AIST), Ikeda, Osaka, Japan, [3]Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Corporation, Kyoto, Japan, [4]Technical Research Laboratory, Shimadzu Corporation, Kyoto, Japan

S32-1000 10:00 – 10:20 **Electron transfer dissociation of protonated disulfide linked peptides and analogs without S-S bond**

Shigeo Hayakawa[1], Shinya Matsumoto[1], Michisato Toyoda[2], Yasushi Shigeri[3], Michiko Tajiri[4], Yoshinao Wada[4]
[1]Osaka Prefecture Uiniversity,Sakai,Japan, [2]Osaka University, Toyonaka, Japan, [3]AIST, Ikeda, Japan, [4]Osaka MCHRI, Izumi, Japan

S32-1020 10:20 – 10:40 **Ionization energy of gas phase proteins and its dependence on charge state and structure**

Alexandre Giuliani[1], Alexksandar R Milosavljevic[2], Konrad Hinsen[1], Francis Canon[1], Laurent Nahon[1], Matthieu Refregiers[1]
[1]Synchrotron SOLEIL, Gif-sur-Yvette, France / INRA, CEPIA, Nantes, France, [2]University of Belgrade, Institute of Physics, Belgrade, Serbia

S32-1040 10:40 – 11:00 **Direct ECD and CID sequencing intra disulfide C-terminal loops of non-tryptic natural peptides**

Tatiana Y Samgina, Yegor A Vorontsov, Konstantin V Karandashev, Albert T Lebedev
M.V.Lomonosov Moscow State University

Oral Session

09:00 – 11:00 Room B-1

Session 33: JMS Award Symposium

Chair: Richard M Caprioli
Vanderbilt University,Nashville,TN,USA / Editor-in-Chief, Journal of Mass Spectrometry

S33-0900 09:00 – 09:20 **JMS Award -Overview and Award Ceremony-**

Richard M Caprioli[1, 2]
[1]Vanderbilt University, Nashville, TN, USA, [2]Editor-in-Chief, Journal of Mass Spectrometry

S33-0920 09:20 – 09:40 **Integral Membrane Proteins by High-mass MALDI-MS: Direct Access to the Stoichiometry of their Complexes and to Posttranslational Modifications**

FAN CHEN[1], Sabina Gerber[2], Katrin Heuser[2], Volodymyr Kokhov[2], Christian Lizak[2], Kaspar Locher[2], Renato Zenobi[1]
[1]Department of Chemistry and Applied Biosciences, ETH Zurich, Switzerland, [2]Institute of Molecular Biology and Biophysics, ETH Zurich, Swizterland

S33-0940 09:40 – 10:00 **Great Insights from a Small System: Structure and reactivity of [VPO4]+ in comparison with [V2O4]+.**

Nicolas Dietl, Maria Schlangen, Helmut Schwarz
Technical University Berlin, Berlin, Germany

S33-1000 10:00 – 10:20 **Charge-State Dependent Compaction and Dissociation of Protein Complexes: Insights from Ion Mobility and Molecular Dynamics**

Zoe Hall[1], Argyris Politis[1], Matthew F Bush[1,2], Lorna J Smith[1], Carol V Robinson[1]
[1]University of Oxford, Oxford, UK, [2]University of Washington, Seattle, USA

S33-1020 10:20 – 10:40 **Odd products from even-electron ions: Exploiting charge-remote bond homolysis to compare bond dissociation energies**

David L Marshall[1], Martin Paine[1], Philip J Barker[2], Stephen J Blanksby[1]
[1]University of Wollongong, Wollongong, Australia, [2]BlueScope Steel Research, Port Kembla, Australia

Thursday, 20th September Morning

Oral Session

09:00 – 11:00 Room D

Session 34: MS Informatics for Identification and Characterization

Chair: Shigeki Kajihara
Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Co., Japan

S34-0900 09:00 – 09:40 **[Keynote Lecture] The value of different types of information in MS based identification**

David Fenyö
New York University, New York, NY, USA

S34-0940 09:40 – 10:00 **Improving endogenous peptide sequence characterization using electron-capture dissociation and collision-induced dissociation.**

Eisuke Hayakawa[1], Gerben Menschaert[2], Walter Luyten[1], Geert Baggerman[3], Liliane Schoofs[1]
[1]K.U. Leuven, Leuven, Belgium., [2]Ghent University,Ghent, Belgium, [3]VITO, MOL, Belgium

S34-1000 10:00 – 10:20 **LipidXplorer software supports high-throughput shotgun lipidomics at any mass spectrometer platform and acquisition mode**

Ronny Herzog[1], Dominik Schwudke[2], Kai Schuhmann[1], Julio Sampaio[1], Andrej Shevchenko[1]
[1]Max Planck Institute of Cell Biology and Genetics, Dresden, Germany, [2]National Centre for Biological Science, Bangalore, India

S34-1020 10:20 – 10:40 **MassBank: Public Mass Spectral Database**

Takaaki Nishioka, Yoshito Nihei, Yuya Ojima, Tasuku Ikeda
Nara Institute of Science and Technology, Nara, Japan

S34-1040 10:40 – 11:00 **MSPTM-DB: a known PTM database for high-speed and accurate search available on the "ProteoAnalysis" web site**

Akiyasu C Yoshizawa[1], Tsuyoshi Tabata[2], Takayuki Kimura[2], Ken Aoshima[2], Yoshiya Oda[2], Shigeki Kajihara[1], Koichi Tanaka[1]
[1]Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Corporation, Kyoto, Japan, [2]Eisai Product Creation Systems, Eisai Corporation, Ltd., Tsukuba, Japan

Oral Session

09:00 – 11:00 Room E

Session 35: Environment I

Chair: Peter Haglund
Umeå University, Sweden

Thu

S35-0900 09:00 – 09:40 **[Keynote Lecture] Chiral Chemicals as Tracers of Sources and Fate Processes in a World of Changing Climate**

Terry F Bidleman[1,2,3], Liisa M Jantunen[2], Perihan B Kurt-Karakus[4], Fiona Wong[5]
[1]Chemistry Department, Umeå University, Umeå, Sweden, [2]Centre for Atmospheric Research Experiments, Environment Canada, Egbert, ON, Canada, [3]Department of Chemistry, University of Toronto, Toronto, ON, Canada, [4]Department of Environmental Engineering, Bahcesehir University, Istanbul, Turkey, [5]Department of Applied Environmental Science (ITM), Stockholm University, Stockholm, Sweden

S35-0940 09:40 – 10:00 **POLLUTION OF MOSCOW AIR: GC/MS STUDY OF SNOW SAMPLES**

Olga V Polyakova[1], Viatcheslav V Artaev[2], Dmitry M Mazur[1], Albert T Lebedev[1]
[1]M.V.Lomonosov Moscow State University, [2]LECO Corporation, 3000 Lakeview Avenue, St. Joseph, MI,USA

S35-1000 10:00 – 10:20 **AQUEOUS-PHASE REACTIONS OF ATMOSPHERICALLY RELEVANT VOLATILE ORGANIC COMPOUNDS THROUGH TANDEM MASS SPECTROMETRY: AN INTRIGUING STORY OF AEROSOL FORMATION**

Rafal Szmigielski, Krzysztof Jan Rudzinski, Inna Kuznietsova
Institute of Physical Chemistry Polish Academy of Sciences, Warsaw, Poland

S35-1020 10:20 – 10:40 **HRAM Screening and Quantitative Analysis of Pesticides in Environmental & Food Matrices using a bench top LCMS Orbitrap system**

Dipankar Ghosh, Charles Yang, Leo Wang, Jonathan Beck
Thermo Fisher Scientific

S35-1040 10:40 – 11:00 **Development and validation of methodology using liquid chromatography-tandem mass spectrometry (LC-MS/MS) for monitoring for use of anabolic steroids in animals**

Simon J Hird, George Stubbings
The Food and Environment Research Agency

Thursday, 20th September Afternoon

Oral Session

15:00 – 17:00 Main Hall

Session 36: Advances in Ion Mobility Mass Spectrometry

Chair: Joseph A Loo
University of California-Los Angeles, USA

S36-1500 15:00 – 15:40 **[Keynote Lecture] Peptide and protein aggregation: Mechanisms, inhibition and disease**

Michael T Bowers
University of California at Santa Barbara, Santa Barbara CA USA

S36-1540 15:40 – 16:00 **Behavior of intrinsically disordered regions within a protein complex of Swi5-Sfr1 characterized by IM-MS and SAXS**

Kazumi Saikusa[1], Naoyuki Kuwabara[2], Yuichi Kokabu[1], Yu Inoue[1], Mamoru Sato[1], Hiroshi Iwasaki[3], Toshiyuki Shimizu[2], Mitsunori Ikeguchi[1], Satoko Akashi[1]
[1]Yokohama City University, Yokoham, Japan, [2]University of Tokyo, Tokyo, Japan, [3]Tokyo Institute of Technology, Yokohama, Japan

S36-1600 16:00 – 16:20 **Probing Protein Quaternary Structures by Surface Induced Dissociation and Ion Mobility - Mass Spectrometry**

Mowei Zhou[1,2], Shai Dagan[1], Vicki H Wysocki[1,2]
[1]University of Arizona, Tucson, United States, [2]Ohio Sate University, Columbus, Ohio, United States

S36-1620 16:20 – 16:40 **Energy-resolved ion mobility tandem mass spectrometry: A new approach for probing fragmentation pathways involving ion isomerization**

Yayoi Hongo[1], Takemichi Nakamura[1], Takae Takeuchi[2], Shunya Takahashi[1], Hiroyuki Koshino[1]
[1]RIKEN, Wako, Japan, [2]Nara Women's University

S36-1640 16:40 – 17:00 **Understanding protein-DNA Interactions and Tumorigenic Mutations in IDPs: IM-MS rises to the challenge**

Ewa Jurneczko[1], Faye Cruickshank[1], Penka Nikolova[2], Ian Campuzano[3], Michael Morris[3], Perdita E Barran[1]
[1]The University of Edinburgh, [2]King's College London, London, UK, [3]Waters Corporation, Manchester, UK

Oral Session

15:00 – 17:00 Room A

Session 37: Challenges in High Resolution and High Accuracy Mass Measurement Mass Spectrometry

Chair: Evgeny N. Nikolaev
The Institute for energy problems of chemical physics Russian Academy of Sciences, Russia

S37-1500 15:00 – 15:40 **[Keynote Lecture] Mass Resolution and Mass Accuracy: How Much is Enough?**

Alan G Marshall, Greg T Blakney, Nathan K Kaiser, Yuan Mao, Amy M McKenna, Ryan P Rodgers, Brian M Ruddy, Christopher L Hendrickson
Florida State University,Tallahassee, Florida, U.S.A.

S37-1540 15:40 – 16:00 **Enhanced Fourier transform and filter diagonalization method mass spectrometry for top-down analysis of antibodies and petroleomics**

Yury O Tsybin, Ünige A Laskay, Luca Fornelli, Konstantin O Zhurov, Anton N Kozhinov
Ecole Polytechnique Federale de Lausanne, Switzerland

S37-1600 16:00 – 16:20 **Characterization and Selective Classification of Petroleum Crude Oils using High Resolution Time-of-Flight Mass Spectrometry**

Clecio Klitzke[2], Marcos Eberlin[2], Kevin Siek[1], Jeffrey S Patrick[1], Joe Binkley[1], Yuri Corillo[2]
[1]LECO Corporation, [2]UNICAMP, ThoMSon Mass Spectrometry Laboratory, Campinas, São Paulo Brasil

S37-1620 16:20 – 16:40 **Detailed structure analysis of fluorinated polymer by means of pyrolysis comprehensive two-dimensional gas chromatography / high-resolution time-of-flight mass spectrometry**

Yoji Nakajima, Yuko Arinami, Tsuguhide Isemura, Kiyoshi Yamamoto
Asahi Glass Co., Kanagawa, Japan

S37-1640 16:40 – 17:00 **Dynamically harmonized FTICR cell with specially shaped electrodes for compensation of inhomogeneity of the magnetic field.**

Yury Kostyukevich[1], Gleb Vladimirov[1], Eugene Nikolaev[1,2,3]
[1]Institute for Energy problems of chemical physics, Russia, [2]Emanuel Institute of Biochemical Physics of Russian Academy of Sciences, Moscow, Russia, [3]Institute of Biomedical Chemistry of Russian Academy of Medical Sciences, Moscow, Russia

Thursday, 20th September Afternoon

Oral Session

15:00 – 17:00 Room B-1

Session 38: Mass Spectrometry for Metabolic Diseases

Chair: Makoto Yoshino
Kurume University, Japan
Seiji Yamaguchi
Shimane University, Japan

S38-1500 15:00 – 15:20 **LC/MS/MS analysis of protein-bound uremic toxins in hemodialysis patients**

Toshimitsu Niwa[1], Yoshiharu Itoh[2], Atsuko Ezawa[2], Kaori Kikuchi[2], Yoshinari Tsuruta[3]
[1]Nagoya University, Nagoya, Japan, [2]Biomedical Research Laboratories, Kureha Corporation, Tokyo, Japan, [3]Meiyo Clinic, Aichi, Japan

S38-1520 15:20 – 15:40 **Early indicator of hepatic fibrosis in patients with chronic hepatitis C: discovery, assay optimization and clinical validation**

Fumio Nomura[1], Kazuyuki Sogawa[1], Kenta Noda[1], Toshihide Miura[1], Yoshio Kodera[2], Osamu Yokosuka[1]
[1]Chiba University, Chiba, Japan, [2]Kitasato University, Kanagawa, Japan

S38-1540 15:40 – 16:00 **Liquid chromatography-mass spectrometry based analysis of the cerebrospinal fluid metabolome for the study of inborn errors of metabolism**

Maria del Mar Amadore[2], Foudil Lamari[2,5], Benoit Colsch[1], Fanny Mochel[2,3], Francois Seguin[4], Frederic Sedel[2], Christophe Junot[1]
[1]CEA, Gif-sur-Yvette, France, [2]Pitie-Salpetriere Hospital, AP-HP & University Pierre and Marie Curie, Paris, France, [3]INSERM UMR S975, Paris, France, [4]INSERM U1082, Paris, France, [5]Department of Metabolic Biochemistry- Pitie-Salpetriere Hospital, Paris, France

S38-1600 16:00 – 16:20 **Highly sensitive and specific clinical diagnostics of lysosomal storage diseases using multiple reaction monitoring mass spectrometry, fluorimetry, and affinity-proteomics**

Michael Przybylski[1], Claudia Cozma[1], Marius I Iurascu[1], Laura Ion[1], Adolf Muehl[2], Alina Petre[1,3], Michael L Gross[3], Stefan Maeser[2]
[1]University of Konstanz, Konstanz, Germany, [2]Centogene GmbH, Freiburg & Rostock, Germany, [3]Washington University St. Louis, St. Louis, MO, USA

S38-1620 16:20 – 16:40 **Mass spectrometry in newborn screening of fatty acid oxidation disorders - diagnostic approach using lymphocytes**

Yosuke Shigematsu[1], Ikue Hata[1], Go Tajima[2]
[1]University of Fukui, Fukui, Japan, [2]Hiroshima University Graduate School of Biomedical Sciences, Hiroshima, Japan

S38-1640 16:40 – 17:00 **Application of in-vitro probe acylcarnitine assay using tandem mass spectrometry for the evaluation of mitochondrial fatty acid oxidation**

Jamiyan Purevsuren, Hironori Kobayashi, Yuki Hasegawa, Kenji Yamada, Tomoo Takahashi, Seiji Yamaguchi
Shimane University School of Medicine, Shimane, Japan

Oral Session

15:00 – 17:00 Room D

Session 39: MS Informatics for Quantitation

Chair: David Fenyö
New York University, USA

S39-1500 15:00 – 15:40 **[Keynote Lecture] Detection of differential expression of splice variants in the MaxQuant framework for quantitative proteomics**

Jürgen Cox[1,2], Nagarjuna Nagaraj[1,2], Cornelia Schoenbauer[1,2], Frank Schnorrer[1,2], Matthias Mann[1,2]
[1]Max Planck Institute for Biochemistry, Martinsried, Germany, [2]Max Planck Institute for Biochemistry

S39-1540 15:40 – 16:00 **Peptide Yields Depend on Digestion Conditions**

Stein E Stephen, Yuxue Liang, Eric Yan
National Institute of Standards and technology, Gaithersburg, MD, USA

S39-1600 16:00 – 16:20 **Quantitative Proteomics of Embryonic Stem Cells Differentiation to Cardiomyocytes**

Ekaterina Mostovenko, André M Deelder, Christine L Mummery, Robert Passier, Magnus Palmblad
Leiden University Medical Center, Leiden, Netherlands

S39-1620 16:20 – 16:40 **Estimation of relative protein abundance and statistical analysis of proteomic data from multiple iTRAQ experiments, to assess micronutrient deficiencies.**

Ingo Ruczinski, Keith P West, Robert N Cole, Kerry Schulze, Shelley Herbrich, Parul Christian, Jim D Yager, John D Groopman
Johns Hopkins University, Baltimore MD, USA

S39-1640 16:40 – 17:00 **Accurate mass quantitation of in vivo plasma samples using high resolution QTof and MSE data analysis across a global network**

McDonald Stephen[1], Mark Wrona[1], Julie Laterreur[2], Nigel Ewing[3], Eric Lanlois[2], Joanne Mather[1], Debadeep Bhattacharya[1], Robert S Plumb[1]
[1]Waters Corporation, Milford, USA, [2]Vertex, Laval, Canada, [3]Vertex, Cambridge, USA

Thursday, 20th September Afternoon

Oral Session

15:00 – 17:00 Room E

Session 40: Environment II

Chair: Takeshi Nakano
Osaka University, Japan

S40-1500 15:00 – 15:40 **[Keynote Lecture] Powerful GC-ToF-MS Techniques for Quantification of Legacy Pollutants and Screening and Identification of Emerging Pollutants**

Peter S Haglund, Conny Danielsson, Mikael Harju, Patricia Moreira-Bastos, Ulrika Olofsson
Umeå University, Umeå, Sweden

S40-1540 15:40 – 16:00 **Dioxin Food Crises and New POPs: Challenges in Analyses**

Jef Focant
University of Liege, Liege, Belgium

S40-1600 16:00 – 16:20 **New Perspectives in the Mass Spectroscopy Determination of Dioxin-like Substances in Environmental and Food Samples**

Angel Garcia-Bermejo[2], Manuela Abalos[1], Lisa Mattioli[1], Maria Jose Gonzalez[2], Belen Gomara[2], Esteban Abad[1]
[1]Lab. of Dioxins, IDAEA-CSIC, [2]Department of Instrumental Analysis and Environmental Chemistry, IQOG-CSIC

S40-1620 16:20 – 16:40 **GC-MS studies on POPs in Brazilian Ecosystems**

Joao Paulo M Torres[1], Jose Lailson-Brito[2], Paulo R Dorneles[1], Rodrigo O Meire[1], Larissa S Cunha[1], Daniele Botaro[1], Giselle C Saldanha[3], Claudio E Azevedo e Silva[1], Dayse Aline M Rocha[1], Olaf Malm[1], Karl W Schramm[4], Begona Jimenez[5]
[1]Universidade Federal do Rio de Janeiro, Brazil, [2]Universidade do Estado do Rio de Janeiro - MAQUA, Brazil, [3]Instituto Federal de Educacao Tecnologica - Rondonia, Brazil, [4]Helmholtz Centrum, Munich, Germany, [5]Instituto de Quimica Organica General - CSIC, Spain

S40-1640 16:40 – 17:00 **Structural Analysis of Cyclodextrin Inclusion Complexes Formed in Nonpolar Solvents**

Toshiyuki Kida, Haruyasu Asahara, Takuya Iwamoto, Mitsuru Akashi
Osaka University, Suita, Japan

Award Lecture

17:10 – 18:10 Main Hall

Thomson Medal Award Lecture

Chair: Marcos N. Eberlin (IMSF President)
University of Campinas, Brazil

AW2-1710 17:10 – 18:10 **Thomson Medal Award Lecture**

Ruedi Aebersold
ETH, Switzerland

Alexander Makarov
ThermoFisher Scientific, Germany

František Tureček
University of Washington, USA

Thursday, 20th September

Poster Session

Core Time : 11:10 - 12:20 (Odd number),
13:30 - 14:40 (Even number)

Event Hall

Session 31

Native Mass Spectrometry and Structural Biology

PTh-001 11:10 – 12:20
Development, Evaluation and Comparison of Calibration Standards for MALDI-MS in the > 100 kDa m/z Range

Simon Weidmann[1], Konstantin Barylyuk[1], Stefanie Maedler[1,2], Renato Zenobi[1]
[1]ETH Zurich, Zurich, Switzerland, [2]Current address: York University, Toronto, Canada

PTh-002 13:30 – 14:40
Relative electrospray response factor in homodimer-monomer equilibrium system of DNA oligonucleotides

Konstantin Barylyuk[1], Xueshu Xie[2], Renato Zenobi[1]
[1]ETH Zurich, Zurich, Switzerland, [2]Karolinska Institutet, Stockholm, Sweden

PTh-003 11:10 – 12:20
Protein Flexibility is Key to Cisplatin Cross-linking in Calmodulin

Huilin Li, Stephen A Wells, J E Jimenez-Roldan, Rudolf A Römer, Yao Zhao, Peter J Sadler, Peter B O'Connor
University of Warwick, Coventry, UK

PTh-004 13:30 – 14:40
High resolution hydrogen/deuterium exchange mass spectrometry maps contact surfaces of VEGF and a novel recombinant monoclonal antibody fragment (CIGB-166A)

Marta Vilaseca[1], Marina Gay[1], Andrey Dyachenko[2], Claudio Diema[1], Mar Vilanova[1], Michael Goldflam[2], Humberto Lamdan[3], Ernest Giralt[2], Gabriel Padron[3]
[1]Mass Spectrometry Core Facility, Institute for Research in Biomedicine, IRBBarcelona, Barcelona, Spain, [2]Institute for Research in Biomedicine, IRBBarcelona, Barcelona, Spain, [3]Centro Ingenieria Genetica y Biotecnologia, CIGB, La Habana, Cuba

PTh-005 11:10 – 12:20
Following amyloid fibril formation by ion mobility spectrometry mass spectrometry: are all pathways the same?

Charlotte A Scarff, Lydia Young, Aneika C Leney, Lucy A Woods, Sheena E Radford, Alison E Ashcroft
University of Leeds, Leeds, United Kingdom.

PTh-006 13:30 – 14:40
Structural Characterisation of Protein Complexes by Chemical Cross-linking and Ion Mobility-Mass Spectrometry

Antonio Calabrese, Danielle Williams, Yanqin Liu, Tara L Pukala
University of Adelaide, Adelade, Australia

PTh-007 11:10 – 12:20
The effect of gas molecules for the structural dynamics of GAPDH revealed by mass spectrometry coupled with H/D exchange

Tatsuya Yamamoto, Yasuaki Kabe, Makoto Suematsu
Japan Science and Technology Agency / Keio University, Tokyo, Japan

PTh-008 13:30 – 14:40
A systematic survey of protein kinase specificity by in vitro phosphoproteomic approaches

Haruna Imamura[1], Naoyuki Sugiyama[2], Masaki Wakabayashi[1], Yasushi Ishihama[1]
[1]Kyoto University, Kyoto, Japan, [2]Keio University, Tsuruoka, Japan

PTh-009 11:10 – 12:20
Cellobiose dehydrogenase represents a real challenge for hydrogen/deuterium exchange mass spectrometry

Petr Man[1,2], Alan Kadek[1,2], Roland Ludwig[3], Petr Novak[1,2], Petr Halada[1]
[1]Institute of Microbiology v.v.i., Prague, Czech Republic, [2]Faculty of Science, Charles University in Prague, Czech Republic, [3]University of Natural Resources and Applied Life Sciences, Vienna, Austria

PTh-010 13:30 – 14:40
Improved analysis of biopharmaceutical samples using an MS-only Orbitrap mass spectrometer

Maciej P Bromirski, Jan-Peter Hauschild, Eduard Denisov, Eugen Damoc, Alexander Makarov
Thermo Fisher Scientific, Bremen, Germany

PTh-011 11:10 – 12:20
Topology of cytochrome P450 2B4 and cytochrome b5 interaction and membrane orientation by photoactivable nanoprobes/chemical cross-linking and mass spectrometry

Tomas Jecmen[1,2], Monika Koberova[2], Bozena Kubickova[2], Petr Novak[1,2], Petr Hodek[2], Jiri Hudecek[2], Miroslav Sulc[1,2]
[1]Institute of Microbiology, Prague, Czech Republic, [2]Charles University, Prague, Czech Republic

PTh-012 13:30 – 14:40
Structural Examination of hexadecameric and octameric G-quadruplexes, exchange-studies and H/D-exchange on Supramolecular Architectures

Dominik Sattler[1], José M Rivera[2], Christoph A Schalley[1]
[1]Freie Universität Berlin , Berlin , Germany, [2]University of Puerto Rico, Río Piedras, San Juan, Puerto Rico

PTh-013 11:10 – 12:20
Identification of on-pathway intermediates of beta-2 microglobulin fibril formation

Lucy A Woods, Claire J Sarell, Sheena E Radford, Alison A Ashcroft
University of Leeds, Leeds, UK

PTh-014 13:30 – 14:40
Mapping the interaction between Hsp90 and TOM by chemical cross-linking coupled to mass spectrometry

Fabio C Gozzo, Alana R Figueiredo, Carlos I Ramos, Leticia M Zanphorlin, Lisandra M Gava
University of Campinas, Campinas, Brazil

Thursday, 20th September

PTh-015
11:10 – 12:20
Chemical Cross-linking Coupled to Mass Spectrometry Applied to the Characterization of the Interaction Domains in FimX-PilZ Complex

Mariana Fioramonte[1], Cristiane R Guzzo[2], Shaker C Farah[2], Fabio C Gozzo[1]
[1]University of Campinas, [2]University of São Paulo

PTh-016
13:30 – 14:40
Inter-molecular interactions of SMC proteins studied by MS under non-denaturing condition and HDX-MS

Susumu Uchiyama[1], Masanori Noda[1], Rie Takino[1], Yuya Miyahara[1], Kazuki Kawahara[2], Yuki Hosokawa[1], Daisuke Motooka[1], Shota Nakamura[1], Tadayasu Ohkubo[1], Kiichi Fukui[1]
[1]Osaka University, [2]Nara Women's University

Session 34

MS Informatics for Identification and Characterization

PTh-017
11:10 – 12:20
StavroX - a software for analyzing crosslinked products in protein interaction studies.

Michael Götze, Jens Pettelkau, Sabine Schaks, Konstanze Bosse, Christian Ihling, Fabian Krauth, Romy Fritzsche, Uwe Kühn, Andrea Sinz
Martin-Luther-University,Halle,Germany

PTh-018
13:30 – 14:40
Electrospray mass spectrometry for detailed mechanistic studies of an aldolreaction catalyzed with L-proline

Mohammed Wasim Alachraf, Wolfgang Schrader
Max Planck Institut for Coal research

PTh-019
11:10 – 12:20
LC/MS and surface ionization techniques in classification of red wine

Petr Bednar[1], Barbora Papouskova[1], Lucie Hartmanova[1], Karel Hron[2], Jan Stavek[3], Josef Balik[3], Renata Myjavcova[1], Petr Bartak[1], Eva Tomankova[3], Karel Lemr[1]
[1]Regional Centre of Advanced Technologies and Materials, Department of Analytical Chemistry, Faculty of Science, Palacky University, Olomouc, Czech Republic, [2]Department of Mathematical Analysis and Applications of Mathematics, Faculty of Science, Palacky University, [3]Department of Post-Harvest Technology of Horticultural Products, Faculty of Horticulture in Lednice, Mendel University in Brno

PTh-020
13:30 – 14:40
Higher-Order Structural Characterization of an IgG2 Monoclonal Antibody by Disulfide Mapping and Hydrogen Deuterium Exchange Mass Spectrometry

Taiji Kawase[1], Kenji Hirose[1], Joomi Ahn[2], Stephane Houel[2], Asish Chakraborty[2], Ying Qing Yu[2], Justin B Sperry[3]
[1]Nihon Waters, Tokyo, Japan, [2]Waters Corporation, Milford, MA, [3]Analytical R&D, Biotherapeutics Pharm. Sci., Pfizer Inc., Chesterfield, MO

PTh-021
11:10 – 12:20
Compound search technique for overlapping peaks of LC/MS with a unique algorithm for simultaneous multicomponent identification

Yuka Noritake[1], Haruo Shimada[1], Yoshimasa Nakatani[1], Rakan Matsui[1], Kazumasa Kinoshita[2], Satoru Kamikubo[2], Yasuo Shida[3]
[1]Shiseido Research Center, Yokohama, Japan, [2]Bio Chromato, Inc., Fujisawa, Japan, [3]Clean Energy Research Center, University of Yamanashi, Koufu, Japan

PTh-022
13:30 – 14:40
To determine the activity of Essential Oil from Blumea eriantha from Indian origin by HSGC and GCMS.

Jitendra G Kelkar[1], Deepti Kulkarni[1], Ajit Datar[1], Dheeraj Handique[1], Aarti Karkhanis[1], Prajakta Pednekar[2]
[1]Shimadzu Analytical (India) Pvt Ltd, Mumbai, India, [2](2)Guru Nanak Institute of Research and Development, G. N. Khalsa College, Matunga, Maharashtra, India

PTh-023
11:10 – 12:20
Screening of antioxidants present in unripe Manilkara zapota fruit of Indian origin by using LCMS/MS.

Shailendra A Rane[1], Deepti Bhandarkar[1], Rashi Kochhar[1], Shruti Raju[1], Bhairavi Saraf[1], Ajit Datar[1], Jeetendra Kelkar[1], Bhagyashree Jadhav[2]
[1]Shimadzu Analytical (India) Pvt Ltd, Mumbai, India, [2](2)Bioanalytical Department, Ramnarain Ruia College, Matunga, Maharashtra, India.

PTh-024
13:30 – 14:40
Rapid development of functional extensions for mass spectrometry using freeware Mass++

Howell E Parry[1], Satoshi Tanaka[1], Tsuyoshi Tabata[2], Ken Aoshima[2], Yoshiya Oda[2], Shinichi Utsunomiya[1], Shigeki Kajihara[1], Koichi Tanaka[1]
[1]Shimadzu Corporation, [2]Eisai Co., Ltd.

PTh-025
11:10 – 12:20
UHPLC-MS/MS, an Alternative Solution to Conventional Biosensor Approach for Quorum Sensing Signalling Molecules Detection in Complex Environmental Samples

Chuan Hao (Grant) Tan[2,4], Kai Shyang Koh[4], Scott A Rice[2,4,5], Yan Zhou[2,3], Staffan Kjelleberg[4,5], Wun Jern Ng*[2,3], Peiting Zeng[1], Zhaoqi Zhan[1]
[1]Shimadzu (Asia Pacific) Pte Ltd, Singapore, Singapore, [2]Advanced Environmental Biotechnology Centre, Singapore, Singapore, [3]Nanyang Environment and Water Research Institute, Singapore, Singapore, [4]Singapore Centre on Environmental Life Sciences Engineering, Nanyang Technological University, Singapore, Singapore, [5]The Centre for Marine Bio-Innovation, The University of New South Wales, Sydney, Australia

PTh-027
11:10 – 12:20
Strategy for key odor component discovery using GC×GC-TOFMS

Fumihiko Tsuchiya, Fumie Kabashima, Wataru Uchikawa, Michiko Kanai
LECO Japan, Tokyo, Japan

PTh-028
13:30 – 14:40
Coordination Polymer Formation Observed by Cold-Spray Ionization Mass Spectrometry

Kazuaki Ohara, Kentaro Yamaguchi
Tokushima Bunri University, Sanuki, Japan

Thursday, 20th September

PTh-029 Mass Spectral Libraries for Analysis of Complex Plant Metabolomics Datasets - Algorithms
11:10 – 12:20

Wm Gary Mallard[1], Steve Stein[1], Yuri Mirokhin[1], Nirina Rabe Andriamaharavo[1], John Halket[2]
[1]National Institute of Standards and Tecnology, Gaithersburg, MD USA, [2]Kings College, London, UK

PTh-030 Structure estimation of triacylglycerol by comparing calculated peak pattern with high energy CID spectrum using MALDI-TOF-TOF tandem MS
13:30 – 14:40

Takaya Satoh, Kubo Ayumi, Hizume Takuhiro, Sato Takayoshi, Ueda Yoshihisa
JEOL Ltd.

PTh-031 Identification of antioxidants in Fructus aurantii and its quality evaluation3 using a new on-line combination of analytical techniques
11:10 – 12:20

ZONGTAO LIN[2], JING DONG[1], HONG WANG[2], YING XU[2], YUKI HASHI[3], SHIZHONG CHEN[2]
[1]Shimadzu(China), Beijing, China, [2]School of Pharmaceutical Sciences, Peking University, Beijing, China, [3]Shimadzu (China) Co., Ltd., Shanghai Office,ShangHai, China

PTh-032 Use specific proteins of Taiwan tea as biomarkers for the certification of origin
13:30 – 14:40

Han-Ju Chien, Chien-Chen Lai
Institute of molecular biology/National Chung Hsing University, Taichung, Taiwan

PTh-033 JobRequest - an easy-to-use software platform for proteomic analysis - and ProteoAnalysis, its application for protein identification.
11:10 – 12:20

Tsuyoshi Tabata[1], Akiyasu C Yoshizawa[2], Takayuki Kimura[1], Tatsuji Nakamura[1], Ken Aoshima[1], Yoshiya Oda[1], Shigeki Kajihara[2], Koichi Tanaka[2]
[1]Eisai Product Creation Systems / Eisai Co., Ltd., [2]Koichi Tanaka Laboratory of Advanced Science and Technology, Shimadzu Corporation

PTh-034 Fragmentation analysis of glucuronide metabolites using hybrid ion-trap/ orbitrap mass spectrometer with electrospray ionization
13:30 – 14:40

Kazuyoshi Nozaki[1], Mitsuo Takayama[2]
[1]Astellas Pharma Inc, Tsukuba, Japan, [2]Yokohama City University, Yokohama, Japan

PTh-035 Proteomic analysis of salt-responsive ubiquitin-related proteins in rice root.
11:10 – 12:20

Yen-Fu Chen[1], Chang-Sheng Wang[2], Chien-Chen Lai[1]
[1]Institute of Molecular Biology College of Life Science, National Chung Hsing University, Taichung, Taiwan, [2]Department of Agronomy, National Chung Hsing University, Taichung, Taiwan

PTh-036 Application of high speed LC-MSMS technology towards unambiguous characterization of degraded products of Lenalidomide, an anticancer molecule
13:30 – 14:40

Janani Thyagarajan, Raman Palavannathan, Saravanan Subramanyam, Govindarajan Chandramohan, Mohan Kasi, Manohar VENKAT
Indian Institute of Chromatography & Mass Spectrometry

PTh-037 Metabolite ID analysis using UNIFI, a novel database driven software platform approach for screening and understanding metabolism
11:10 – 12:20

Milar Alan[1], Mark Wrona[1], Stephen Mcdonald[1], Robert Plumb[2], Joanne Mather[1]
[1]Waters Corporation, [2]Imperial College, London, UK

PTh-038 Metabolite Identification Workflow Software
13:30 – 14:40

Graham A McGibbon[1], Vitaly Lashin[2], Alexey Aminov[2], Dmitry Mitushev[2], Hans de Bie[1]
[1]Advanced Chemistry Development (ACD/Labs), Toronto, Canada, [2]ACD Ltd., Moscow, Russia

PTh-039 Integration of spectral library in standard data processing pipeline for shotgun proteomics data
11:10 – 12:20

Junko Kimata[1], Kai Fritzemeier[2], Torsten Ueckert[2], Bernard Delanghe[2]
[1]Thermo Fisher Scientific K.K., Yokohama, Japan, [2]Thermo Fisher Scientific (Bremen) GmbH, Bremen, Germany

PTh-040 Application of MALDI-TOF Mass Spectrometry Characterization in the Development of Nano-porous Metallophthalocyanin Sensor Electrodes
13:30 – 14:40

Siau Gek Ang, Chuan Ming Yap, Guo Qin Xu
National University of Singapore

PTh-041 Highly accurate chemical formula prediction tool utilizing high-resolution mass spectra, MS/MS fragmentation, heuristic rules, and isotope pattern matching
11:10 – 12:20

Tomas Pluskal[1], Taisuke Uehara[2], Mitsuhiro Yanagida[1]
[1]Okinawa Institute of Science and Technology, Onna, Japan, [2]Eisai Co. Ltd., Tsukuba, Japan

Session 35
Environment I

PTh-042 SBSE probe desorption GC-IT-MS analysis of degradation products of esfenvalerate obtained by chemical oxidation process
13:30 – 14:40

Renata Colombo, Marcos Roberto V Lanza, Janete H Yariwake
University of Sao Paulo/IQSC, Sao Carlos, Brazil

Thursday, 20th September

PTh-043
11:10 – 12:20

Adosorption property of PCB 209 congeners by gamma-cyclodextrin polymer

Yasunori Fukuda[1], Kazuhiro Miyawaki[1], Eiichi Kato[1], Toshiyuki Kida[2], Takeshi Nakano[2], Mitsuru Akashi[2]
[1]NEOS Co.,Ltd., Konan, Japan, [2]Osaka University, Suita/Japan

PTh-044
13:30 – 14:40

Charge exchange ionization in reversed-phase liquid chromatography-atmospheric pressure photoionization mass spectrometry of hormones

David Matejicek
Mendel University in Brno, Brno, Czech Republic

PTh-045
11:10 – 12:20

Identification of Biodegradation Products of High-Molecular-Weight Perfluorinated Compounds Using Two-Dimensional Liquid Chromatography/ High-Resolution Mass Spectrometry

Atsushi Yamamoto[1,2], Hirotaka Hisatomi[1], Daisuke Ono[3], Shuusuke Takemine[4], Mikiya Kitagawa[5], Hideya Kawasaki[1], Ryuichi Arakawa[1]
[1]Kansai University, Suita, Japan, [2]Osaka City Inst. Pub. Health Environ. Sci., Osaka, Japan, [3]Osaka Municipal Tech. Res. Inst., Osaka, Japan, [4]Hyogo Pref. Inst. Environ. Sci., Hyogo, Japan, [5]Nippon Dionex K.K., Osaka, Japan

PTh-046
13:30 – 14:40

Current status of organophosphorus compounds contaminants in Maizuru Bay, Japan

Emi Yatsuzuka[1], Hiroya Harino[1], Chiaki Yamao[1], Masaaki Ueno[2], Madoka Ohji[3]
[1]Kobe College, [2]Kyoto University, [3]Tokyo University of Agriculture and Technology

PTh-047
11:10 – 12:20

Tandem SPE clean up/extraction: strategy to minimize matrix effects on LC-MS determination of endocrine disrupters and pharmaceuticals in sewage samples

Robson J Afonso[1], Fernanda B Queiroz[2], Julio C Silva[3], Rafaela P Gomes[1,2], Mauricio X Coutrim[1,2], Sergio F Aquino[1]
[1]Federal University of Ouro Preto/Minas Gerais/Brazil, [2]Molecular Characterization/Mass Spectrometry Laboratory, [3]Federal University of Minas Gerais/Minas Gerais/Brazil

PTh-048
13:30 – 14:40

Simultaneous analysis of anionic, amphoteric and non-ionic surfactants using ultra-high speed LC-MS/MS

Keiko Matsumoto, Jun Watanabe, Junko Iida
Shimadzu Corporation., Kyoto, Japan

PTh-049
11:10 – 12:20

Limitations of a commercially available plasma air purifier

Stefan Schmid[1], Andreas Gerecke[2], Herbert Haechler[3], Hubert Hilbi[4], Simon Weidmann[1], Renato Zenobi[1]
[1]ETH Zurich, Zurich, Switzerland, [2]Swiss Federal Laboratories for Material Science and Technology, Dubendorf, Switzerland, [3]University of Zurich, Zurich, Switzerland, [4]Ludwig-Maximilians-Universitaet, Munich, Germany

PTh-050
13:30 – 14:40

Multi-component quantitative analysis of pharmaceuticals and personal care products in the environment by LC-MS/MS with fast polarity switching

Natsuyo Asano, Kiyomi Arakawa, Shinjiro Fujita, Manabu Ueda, Kazuo Mukaibatake, Ichiro Hirano
Shimadzu Co., Kyoto, Japan

PTh-051
11:10 – 12:20

Screening and library search of Environmental pollutants in Japanese environmental water using LC-MS/MS

Ushio Takeda[1], Kozue Asakura[1], Yuji Kakazu[1], Andre Schreiber[2]
[1]AB SCIEX, Tokyo, Japan, [2]AB SCIEX, Concord, Canada

PTh-052
13:30 – 14:40

OPTIMIZATION OF SOLID PHASE EXTRACTION FOR PERFLUORINATED COMPOUNDS ANALYSIS IN WATER SAMPLE

Chinagarn Kunacheva, Tanaka Shuhei, Fujii Shigeo, Suzuki Yuji, Chularueangaksorn Pattarawan
Kyoto University, Kyoto, Japan

PTh-053
11:10 – 12:20

Analytical method and homolog distribution of OH-PCBs in ambient Air

Yuki Haga[1], Motoharu Suzuki[2], Masahiro Tsurukawa[1], Yoshiya Yamoto[3], Chisato Matsumura[1], Takeshi Nakano[4]
[1]Hyogo Pref. Inst. of Env. Sci., Kobe, Japan, [2]Kobe University, Kobe, Japan, [3]Kansai University, Osaka, Japan, [4]Osaka University, Osaka, Japan

PTh-054
13:30 – 14:40

Application of combined UPLC-TOF-MS and combustion ion chromatography for electrolytic degradation mechanism of PFOS in water

Shogo Taniguchi[1], Ayumi Hashiguchi[2], Rabindra R Giri[1], Hiroaki Ozaki[1]
[1]Osaka Sangyo University, Osaka, Japan, [2]Kyoto University, Kyoto, Japan

PTh-055
11:10 – 12:20

2,3,7,8-tetrachlorodibenzo-p-dioxin congener in breast milk among 3 hot spots in Vietnam

Manh D Ho[1], Teruhiko Kido[1], Rie Okamoto[1], Tai T Pham[2], Muneko Nishijo[2], Hideaki Nakagawa[2], Shoko Maruzeni[2], Hung N Nguyen[3], Nhu D Dang[3]
[1]Kanazawa University, Kanazawa, Japan, [2]Kanazawa Medical University, Japan, [3]Ha Noi Medical University, Vietnam

PTh-056
13:30 – 14:40

Profiling waters from natural sources and areas of oil sands activity using Fourier transform ion cyclotron resonance mass spectrometry

Mark P Barrow[1], John V Headley[2], Kerry M Peru[2], Brian Fahlman[2], Richard Frank[3], L Mark Hewitt[3]
[1]University of Warwick, Coventry, United Kingdom, [2]Environment Canada, Saskatoon, Canada, [3]Environment Canada, Burlington, Canada

PTh-057
11:10 – 12:20

Analysis of biomarkers of the pesticide imazalil using LC/MS/MS.

Moosa Faniband, Bo A Jönsson, Christian H Lindh
Occupational and Environmental Medicine, Lund University, Sweden

Thursday, 20th September

PTh-058
13:30 – 14:40
Mass spectrometric investigation of mechanisms for methane formation from epicuticular wax under aerobiosis and UV

helge Egsgaard[1], Dan Bruhn[2,3], Teis MIkkelsen[2], Morten M Rolsted[3], Per Ambus[2]
[1]Department of Chemical and Biochemical Engineering,, [2]Department of Chem. and Biochem. Engineering, Technical University of Denmark, Denmark, [3]Department of Biology,University of Copenhagen, Denmark

PTh-059
11:10 – 12:20
Application of HPLC/MS in determination of heroin metabolites in saliva an urine samples

Marijana Curcic[2], Vesna Milovanovic[3], Biljana Ciric[4], Marina Pijanovic[5], Vesna Kilibarda[4], Slavica Vucinic[4], Nobutake Sato[1], Takeshi Nakano[6], Biljana Antonijevi[2]
[1]Nihon Waters, Tokyo, Japan, [2]University of Belgrade, Belgrade, Serbia, [3]Serbian Chemicals Agency, Belgrade, Serbia, [4]Poison Control Center, Belgrade, Serbia, [5]Medilab Polyclinic, Cacak, Serbia, [6]Osaka University, Osaka, Japan

PTh-060
13:30 – 14:40
Analysis method of polybrominateddiphenylether using GC-MS and GC-MS/MS coupled with automated identification and quantification system with a database

Katsuhiro Nakagawa, Tomoaki Kondo, Kouki Tanaka, Yuki Sakamoto, Shuichi Kawana, Haruhiko Miyagawa
Shimadzu Co., Kyoto, Japan

PTh-061
11:10 – 12:20
LC-HRMS investigation of the human in vitro metabolism of brominated flame retardants using APPI and ESI.

CHARLOTTE MARTEAU[1], SYLVIE CHEVOLLEAU[1], ISABELLE JOUANIN[1], ELISABETH PERDU[1], GEORGES DE SOUSA[2], ROGER RAHMANI[2], DANIEL ZALKO[1], LAURENT DEBRAUWER[1]
[1]INRA, UMR 1331, Toxalim/AXIOM/Metatoul, Toulouse, FRANCE, [2]INRA, UMR 1331, Toxalim, Sophia Antipolis, FRANCE

PTh-062
13:30 – 14:40
Information of the behavior of the persistent organic pollutants in the sea around Japan

Masahiro Tsurukawa[1], Motoharu Suzuki[2], Yuki Haga[1], Chisato Matsumura[1], Takeshi Nakano[3], Masayuki Kunugi[4]
[1]HYOGO Prefectural Institute of Environmental Sciences, Kobe, Japan, [2]Kobe University, Kobe, Japan, [3]Osaka University, Osaka, Japan, [4]Tokyo University of Science, Chiba, Japan

PTh-063
11:10 – 12:20
LC/ESI(-)-MS/MS analyses of the biotransformation products of dibenzo-p-dioxin by Sphingobium sp. strain KK2

Allyn H Maeda, Emi Aoki, Robert A Kanaly
Yokohama City University, Yokohama, Japan

PTh-064
13:30 – 14:40
Analysis of Sea-Dumped Chemical Warfare Agents from Sediment Samples Taken at in Baltic Sea

Ullastiina Hakala, Martin Söderström, Olli Kostiainen, Jenni Taipalus, Paula Vanninen
VERIFIN/Department of Chemistry/University of Helsinki, Finland

PTh-065
11:10 – 12:20
Online SPE LC-MSMS for screening and quantifying anti-cancer drugs and metabolites in hospital's wastewaters and rivers

Mikael Levi[2], Claude Villard[3], Therese Schembri[3], Anja Gruening[1], Stephane Moreau[2], Pierre Boissery[4], Daniel Lafitte[2]
[1]Shimadzu Europa GmbH, Duisburg, Germany, [2]Shimadzu France SAS, Marne la Vallee, France, [3]Aix Marseille Universite, Marseille , France, [4]Agence de l' Eau Rhone Mediterranee & Corse, Marseille, France

PTh-066
13:30 – 14:40
Identification of chlorinated aromatics as impurity of chlorinated paraffins by GC-HRMS or GC-HR-Tof-MS

Takumi Takasuga[1], Takeshi Nakano[2], Yasuyuki Shibata[3]
[1]Shimadzu Techno-Research Inc., Kyoto, Japan, [2]Osaka University, Osaka, Japan, [3]National Institute for Environmental Studies, Tsukuba, Japan

PTh-068
13:30 – 14:40
Determination of absolute configuration of PCB atropisomer and analysis of enantiomeric excess in the human sample

Takeshi Nakano[1], Chisato Matsumura[2], Masahiro Tsurukawa[2], Toshihiro Okuno[2], Mitsunobu Toda[1], Tadashi Mori[1], Yoshihisa Inoue[1]
[1]Osaka University, Suita, Japan, [2]Hyogo prefectural Institute of Environmental Sciences

PTh-069
11:10 – 12:20
Analysis of natural organic dyestuffs extracted from textiles.

Ivan Viden, David Kohout, Jiri Kosina, Josef Chudoba
Institute of Chemical Technology, Prague, Czech Republic

PTh-070
13:30 – 14:40
Atmospheric pressure ionisation and ion mobility novel techniques for the analysis of the POPs on the Stockholm convention including dioxins

Bert van Bavel[1], Jody Dunstan[2], Peter Hancock[2], Rhys Jones[2], Ingrid Ericson[1], Jessika Hagberg[1]
[1]MTM Research Center, Örebro University, Sweden, [2]Waters Corporation, Manchester, Great Britian

PTh-071
11:10 – 12:20
Mixed-mode Liquid Chromatography/ Tandem Mass Spectrometry Analysis of Glyphosate and Its Application in Exposure Study

Chunyan Hao[1], Christopher B Edge[2], David Morse[1], Dean G Thompson[3], Jeff E Houlahan[2]
[1]Ontario Ministry of the Environment, [2]Biology Department, University of New Brunswick, [3]Great Lakes Forestry Center, Canadian Forest Service

PTh-072
13:30 – 14:40
Desorption atmospheric pressure photoionization-mass spectrometry for the determination of chemical composition of atmospheric aerosols

Evgeny Parshintsev[1], Ingrid Lamazere[1,2], Jose Ruiz-Jimenez[1], Tiina Kauppila[1], Kari Hartonen[1], Tapio Kotiaho[1], Marja-Liisa Riekkola[1]
[1]University of Helsinki, Helsinki, Finland, [2]IUT Paul Sabatier, Castres, France

Thursday, 20th September

Session 36

Advances in Ion Mobility Mass Spectrometry

PTh-073 11:10 – 12:20
Evaluating multiplex fragmentation and ion mobility separations to improve the quality of rapid LCMS peptide mapping analyses for biotherapeutic proteins.

KATSUTOSHI NAGASE[1], KENJI HIROSE[1], Scott Berger[2], Henry Shion[2], St John Skilton[2], Weibin Chen[2]
[1]Waters, Tokyo, Japan, [2]Waters Corporation, Milford, MA

PTh-074 13:30 – 14:40
Conformational and functional analysis for quality control of protein drugs using ion mobility mass spectrometry

Haruhiko Kamada[1,2], Masaki Inoue[1], Yasuhiro Abe[1], Kazuya Nagano[1], Kenji Hirose[3], Yasuo Tsutsumi[1,2], Shin-ichi Tsunoda[1,2]
[1]NIBIO, Osaka, Japan, [2]Osaka University, Osaka, Japan, [3]Nihon Waters KK, Tokyo, Japan

PTh-075 11:10 – 12:20
Effects of hydrophobic oligopeptides on the aggregation process of Parkinson`s disease target protein alpha-Synuclein

Kathrin Lindner[1], Christiaan Karreman[1], Hanne Gerding[1], Marcel Leist[1], Michael Gross[2], David Clemmer[3], Michael Przybylski[1]
[1]University of Konstanz, Konstanz, Germany/Baden-Württemberg, [2]Washington University St. Louis, St. Louis, USA/MO, [3]Indiana University, Bloomington, USA/IN

PTh-076 13:30 – 14:40
Analysis of different conformers of carbonic anhydrase2 using ion mobility coupled with electrospray ionization

KENJI HIROSE[1], TAIJI KAWASE[1], YOSHIAKI NABUCHI[2], MITSUO TAKAYAMA[2]
[1]Nihon Waters K.K., Osaka, Japan, [2]Yokohama City University, Kanagawa, Japan

PTh-077 11:10 – 12:20
The Accuracy and Reproducibility of Calibration in Trapped Ion Mobility Spectrometry

Victor Fursey, Mark Ridgeway, Desmond Kaplan, Melvin A Park
Bruker Daltonics, Billerica, MA, USA

PTh-078 13:30 – 14:40
Enhancement of Nanowire Formation by Mixing Multiple Modified Amyloid Peptides: Mechanism and Application

Hiroki Sakai[1], Ken Watanabe[1], Christian Bleiholder[2], Thomas Wyttenbach[2], Michael T Bowers[2], Kazuyasu Sakaguchi[1]
[1]Department of Chemistry, Faculty of Science, Hokkaido University, Sapporo, Japan, [2]Department of Chemistry and Biochemistry, University of California, Santa Barbara, California, USA

PTh-079 11:10 – 12:20
Internal energy of ions in travelling wave ion mobility spectrometry: dependence on instrument parameters and ion properties

Denis Morsa, Valerie Gabelica, Edwin A De Pauw
Mass Spectrometry Laboratory, University of Liege

PTh-080 13:30 – 14:40
An ion mobility mass spectrometer with an axial sector TOF analyzer

Alexey A Sysoev, Alexander A Sysoev, Sergey S Poteshin, Denis M Chernyshev
National Research Nuclear University MEPhI, Moscow, Russia

PTh-081 11:10 – 12:20
Energy-resolved ion-mobility tandem mass spectrometry: a new tool for probing gas-phase isomerization and fragmentation of small molecules

Yayoi Hongo[1], Takemichi Nakamura[1], Takae Takeuchi[2]
[1]RIKEN, Wako, Japan, [2]Nara Women's University, Nara, Japan

PTh-082 13:30 – 14:40
Separation of Peptide Sequence Isomers by Capillary Electrophoresis Coupled with Ion Mobility Mass Spectrometer

Yury E Glazyrin[1,2], Gleb G Mironov[2], Robert N Ben[2], Maxim V Berezovski[2]
[1]Krasnoyarsk State Medical University, Krasnoyarsk, Russia, [2]University of Ottawa, Ottawa, Canada

Session 37

Challenges in High Resolution and High Accuracy Mass Measurement Mass Spectrometry

PTh-083 11:10 – 12:20
Challenges in high resolution and accuracy mass measurement for drug discovery and development using FT ICR and Orbitrap mass spectrometers

Zenzaburo Tozuka
Osaka University

PTh-085 11:10 – 12:20
Silicon speciation in petroleum products using a multi-technical approach by Mass Spectrometry for a better understanding of catalyst poisoning

Fabien Chainet[2], Jeremie Ponthus[1,2], Charles-Philippe Lienemann[2], Marion Courtiade[2], Olivier François X Donard[3]
[1]IFP Energies Nouvelles, [2]IFP Energies Nouvelles, Solaize, France, [3]LCABIE-IPREM, UMR 5254, CNRS UPPA, Pau, France

PTh-086 13:30 – 14:40
Development and validation of high resolution liquid chromatography-time of flight method of Bacopaside-I and metabolites for pharmacokinetic study

Sontaya Sookying[2], Kornkanok Ingkaninan*[2], Dumrongsak Pekthong[3], Sarawut Oo-puthinan[3], JIE XING[1], Zhaoqi Zhan[1]
[1]Shimadzu (Asia Pacific) Pte Ltd, Singapore, [2]Department of Pharmaceutical Chemistry and Pharmacognosy, Faculty of Pharmaceutical Sciences, Naresuan University, Phitsanulok 65000, Thailand, [3]Department of Pharmacy Practice, Faculty of Pharmaceutical Sciences, Naresuan University, Phitsanulok 65000, Thailand

PTh-087 11:10 – 12:20
Characterization of Humic and Fulvic acid fractions separated by size exclusion chromatography and application of 15T FT-ICR MS

Min-Hui Son, Yoon-Seok Chang
POSTECH, Pohang, Korea

Thursday, 20th September

PTh-088 13:30 – 14:40
Dependence of Field Evaporation in Three-Dimensional Atom Probe on the Crystallographic Orientation

Mahito Shimizu, Masato Morita, Yuya Hanaoka, Masanori Owari
The University of Tokyo, Tokyo, Japan

PTh-089 11:10 – 12:20
Theoretical Verification of a Strategy for Determining Elemental Composition Based on Ultrahigh-resolution Mass Spectrometric Data

Tatsuhiko Nagao[1], Daichi Yukihira[1], Yoshinori Fujimura[1], Kazunori Saito[2], Daisuke Miura[1], Hiroyuki Wariishi[1]
[1]Kyushu University, Fukuoka, Japan, [2]Bruker Daltonics K.K., Yokohama, Japan

PTh-090 13:30 – 14:40
Analysis of Wedelia trilobata flower extract using Liquid Chromatography-Orbitrap Mass Spectrometry

Jhih-Yang Huang[1], Ean-Tun Alex Liaw[1], Chien-Kuo Han[2], Ming-Feng Chen[3], Jean Chih-Chun Huang[1]
[1]National Pingtung University of Science & Technology, Pingtung, Taiwan, [2]Asia University, Taichung, Taiwan, [3]National Cheng Kung University, Tainan, Taiwan

PTh-091 11:10 – 12:20
Relevance of Gas and Pressure for Thermalization of Cluster Ions in the Hexapole Ion Trap of a FT-ICR Mass Spectrometer

Jürgen H Gross, Doris Lang, Iris Mitsch
Heidelberg University, Heidelberg, Germany

Session 38
Mass Spectrometry for Metabolic Diseases

PTh-092 13:30 – 14:40
A quantitative analytical method for determining the levels of glucose-dependent insulinotropic polypeptides GIP1-42 and GIP3-42 in human plasma using LC-MS/MS/MS

Atsushi Miyachi[1], Nana Morimoto[1], Yuichiro Yamada[2], Ken-ichi Harada[3]
[1]SANWA KAGAKU KENKYUSHO CO.,Mie,Japan, [2]Akita University School of Medicine, Akita, Japan, [3]Meijo University, Nagoya, Japan

PTh-093 11:10 – 12:20
Metabolomic Analysis of Autism Spectrum Disorders Using Saliva

KEIJI GAMOH, KAZUTAKA SUGAI
Kochi University, Kochi, Japan

PTh-094 13:30 – 14:40
Affintiy - Mass Spectrometry: A Proteome Signature for Intra-Uterine Growth Restriction Reveals Pathological Protein Glycosylation Abberations in Umbilical Cord Blood

Manja Wölter[1], Claudia Röwer[1], Cornelia Koy[1], Ulrich Pecks[2], Michael O Glocker[1]
[1]Proteome Center Rostock, [2]Womens Clinic, University of Aachen

PTh-095 11:10 – 12:20
Automated Analysis of 25-hydroxyvitamin D2 and D3 with APCI-MS/MS Coupled with ZIVAK ONH-200BD Sample Preparation System

MURAT CELIK, HASAN OZGEN
ZIVAK TECHNOLOGIES, KOCAELI, TURKEY

PTh-096 13:30 – 14:40
A LC/MS/MS Method Enables Simultaneous Detection of Diagnostic Biomarkers of Alkaptonuria, Ornithine Carbamoyltransferase Deficiency and Neuroblastoma Disease

Chien-Chen Lai[1], Wei-Yi Hsu[2], Fuu-Jen Tsai[2]
[1]National Chung Hsing University, Taichung, Taiwan, [2]Department of Medical Research, China Medical University Hospital, Taichung, Taiwan

PTh-097 11:10 – 12:20
Development of a high sensitive quantitation method for serum C-peptide by isotope-dilution mass spectrometry

Tomoya Kinumi, Mari Goto, Akiko Takatsu
National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan

PTh-098 13:30 – 14:40
Label-Free Screening for Epigenetic Drug Discovery Using Mass Spectrometry to Monitor Protein and Nucleic Acid Modification Events

Jennifer Rossi, Peter Rye, Lauren Frick, Hisashi Iwase, Masahiro Maeda, William LaMarr
Agilent Technologies

PTh-099 11:10 – 12:20
Comprehensive analysis of human proteome in hippocampus tissue from Alzheimer disease patient.

hyekyeong Min[1], Hyung Joo Lee[2], Se-Young Kim[1], Gun Wook Park[1], In Jung Ji[1], Kyung-Hoon Kwon[1], Jong Shin Yoo[1], Young Mok Park[1], Jin Young Kim[1]
[1]Korea Basic Science Institute,Ochang-eup,Cheongwon-gun,Chungbuk,Korea, [2]Yonsei Proteome Research Center, Yonsei University, Seoul, Korea

PTh-100 13:30 – 14:40
Rapid and sensitive determination of the intermediates of advanced glycation end products in human nail by UPLC-ESI-TOF-MS

Jun Zhe MIN[1], Makoto Yamamoto[1], Tatsuya Higashi[2], Kenichiro Todoroki[1], Koichi Inoue[1], Toshimasa Toyo'oka[1]
[1]School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka, Japan, [2]Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan

PTh-101 11:10 – 12:20
Determination of flavonoids in infected plants using LC-MS/MS

Jong Sung Jin[1], Hae Gyeong Kim[1], Mee Sung Lee[1], Mi Jin Kim[1], Sung Chul Shin[2]
[1]Korea Basic Science Institute, Busan, Korea, [2]Gyeongsang National University, Jinju, Korea

Thursday, 20th September

PTh-102
13:30 – 14:40
Development of methods to identify previously unknown secondary metabolites from myxobacteria based on a comprehensive metabolic profiling workflow

Thomas Hoffmann[2,3], Daniel Krug[2,3], Clive Seymour[1], Gabriela Zurek[4], Aiko Barsch[4], Rolf Mueller[2,3]
[1]Bruker BioSciences Pty. Ltd., Preston, Australia, [2]Pharmaceutical Biotechnology, Saarland University, Saarbruecken, Germany, [3]Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS), Saarbruecken, Germany, [4]Bruker Daltonik GmbH, Bremen, Germany

PTh-103
11:10 – 12:20
Use of proton-affinitive derivatization in HPLC-positive-ESI-MS analysis of biologically important carboxylic acids

Hajime Kato, Shin Mitsuzuka, Kowa Yamashita, Mitsuteru Numazawa
Tohoku Pharmaceutical University, Sendai, Japan

PTh-104
13:30 – 14:40
Comprehensive CID with accurate mass measurement for analyte identification in metabolomics and natural products: HPLC-TOF-MS analysis with database searching

Joe Binkley, Binkley Joe, Kevin Siek, Li Zhang
LECO Corporation

PTh-105
11:10 – 12:20
Acylcarnitine analysis by ESI-MS/MS with smaller amount of sample and rapid analytical time

Hironori Kobayashi[1], Yuichi Mushimoto[1], Yuki Hasegawa[1], Kenji Yamada[1], Jamiyan Purevsuren[1], Tomoo Takahashi[1], Toshikazu Minohata[2], Junko Iida[2], Yamaguchi Seiji[1]
[1]Shimane University, Izumo, Japan, [2]Shimadzu Corporation, Kyoto, Japan

PTh-106
13:30 – 14:40
Simultaneous determination of acylcarnitines and amino acids for inborn error of metabolism using UPLC/MS/MS

Haruka Oda[1], Yasuhiro Maeda[1], Tetsuya Ito[1], Yuji Hotta[1], Yoko Nakajima[1], Sayaka Kato[1], Shinji Saito[1], Naruji Sugiyama[2], Kazunori Kimura[1]
[1]Nagoya City University, Nagoya, Japan, [2]Aichi-Gakuin University, Nagoya Japan

Session 39
MS Informatics for Quantitation

PTh-107
11:10 – 12:20
An Attempt to Quantitative Analysis for Clinical Proteomics by Nano LC-nano-ESI-SRM-MS Using Stable Isotope-labeled Iodoacetanilide as well as N-Ethylmaleimide

Sadamu Kurono[1,2], Yuka Kaneko[1,2], Shuji Matsuura[1], Satomi Niwayama[3]
[1]Osaka University, Osaka, Japan, [2]Wako Pure Chemical Industries, Ltd., Osaka, Japan, [3]Texas Tech University, Lubbock, TX

PTh-108
13:30 – 14:40
Multivariate analysis software to support large scale MRM study

Atsushi Ogiwara[1], Hisae Anyoji[1], Jun Watanabe[2], Junko Iida[2], Mitsuhiro Kanazawa[1]
[1]Reifycs, Inc., Tokyo, Japan, [2]Shimadzu Corporation, Kyoto, Japan

PTh-109
11:10 – 12:20
High Pressure Acid Dissolution of alpha-alumna for trace elements determination by ICP-MS

Jung Ki Suh, Chang Soo Kim
Korea Research Institute for Standards and Science, 267 Gajeong Ro, Yuseong Gu, Daejeon 305-340, Rep. of Korea

Session 40
Environment II

PTh-110
13:30 – 14:40
High-Speed Survey Method for Photo-degradation Products of Pharmaceuticals Using UV-LED Lighting Device and DART-TOF Mass Spectrometer

Toshio Tashima[1], Kaori Asano[2], Takeyuki Suzuki[2], Tsuyoshi Matsuzaki[2], Takeshi Nakano[3]
[1]GeneStem Co. Ltd., Osaka, Japan, [2]The Institute of Scientific and Industrial Research, Osaka University, Osaka, Japan, [3]Research Center for Environmental Preservation, Osaka University, Osaka, Japan

PTh-111
11:10 – 12:20
Hydrophilic-interaction liquid chromatography (HILIC)-tandem mass spectrometry for quantification of oseltamivir and zanamivir in surface water and sediment samples

Ryohei Takanami, Hiroaki Ozaki, Rabindra Raj Giri, Shogo Taniguchi, Shintaro Hayashi
Osaka Sangyo University, Osaka, Japan

PTh-112
13:30 – 14:40
Determination of chlorinated/brominated polycyclic aromatic hydrocarbons (Cl/BrPAHs) in flue gas and ash from waste incinerator

Liang Tang[1], Yuichi Miyake[1], Yuichi Horii[2], Kiyoshi Nojiri[2], Nobutoshi Ohtsuka[2], Takashi Amagai[1]
[1]University of Shizuoka, Shizuoka, Japan, [2]Center for Environmental Science in Saitama, Kazo, Japan

PTh-113
11:10 – 12:20
SELECTIVE EXTRACTION OF ORGANOHALOGENS FROM GCxGC-HRTofMS DATA FOR GLOBAL ANALYSIS OF ENVIRONMENTAL AND BIOLOGICAL SAMPLES

Shunji Hashimoto, Yasuyuki Zushi, Akihiro Fushimi, Yoshikatsu Takazawa, Kiyoshi Tanabe, Yasuyuki Shibata
National Institute for Environmental Studies, Tsukuba, Japan

PTh-114
13:30 – 14:40
Electrospray mass spectrometric observation of the interaction between environmental pollutants and biologic compounds

Hiroshi Moriwaki, Takahiro Nakagawa
Shinshu University

PTh-115
11:10 – 12:20
Characterization of organic pollutants in River Water by GC/MS ion profiles

Zaharie Moldovan[1], Olivian Marincas[1], Veronica Avram[1], Florina Tusa[1], Alfredo C Alder[2]
[1]National Institute for Research and Development of Isotopic and Molecular Technology, Cluj-Napoca, Romania, [2]Swiss Federal Institute of Aquatic Science and Technology, EAWAG, Environmental Chemistry Department, Dbendorf, Switzerland

Thursday, 20th September

PTh-116
13:30 – 14:40

A Sensitive measurement of sucralose and acesulfame in inland and offshore waters around Japan by LC/MS and LC/MS/MS.

Shigeru Suzuki[1], Atsuko Hasegawa[2], Rina HIguchi[1], Takahiro Yamaguchi[1], Hisato Nishikawa[1], Takuhei Miyaki[1], Chiaki Oshima[1], Ryosuke Otsubo[1]
[1]Chubu University,Aichi,Japan, [2]Kanagawa Environmental Research Center, Kanagawa Japan

PTh-117
11:10 – 12:20

Real-time ambient air monitoring using selected ion flow tube-mass spectrometry (SIFT-MS)

Vaughan S Langford[1], Murray J McEwan[1,2]
[1]Syft Technologies Limited, Christchurch, New Zealand, [2]University of Canterbury, Christchurch, New Zealand

PTh-118
13:30 – 14:40

Development of UPLC-MS/MS method with large volume injection for simultaneous determination of regulated pesticides in drinking water.

Jun Yonekubo, Nobutake Sato
Nihon Waters K.K.,Japan

PTh-119
11:10 – 12:20

Development of Automated Identification and Quantification System with a Database

Kiwao Kadokami[1], Terumi Miyazaki[5], Chiaki Karaki[1], Daisuke Jinya[2], Tomomi Iwamura[2], Kaori Ohkubo[4], Takashi Miyawaki[3], Yoko Nakazono[4], Kouji Takahashi[3]
[1]The University of Kitakyushu, Kitakyushu, Japan, [2]Kitakyushu City Institute of Environmental Sciences, [3]Fukuoka Institute of Health and Environmental Sciences, [4]Saga Prefectural Institute of Public Health and Pharmaceutical Research, [5]Nippon Steel Kankyo Engineering

PTh-120
13:30 – 14:40

Metal speciations in environmental and clinical applications

Yeuk-Ki Tsoi, Kelvin Sze-Yin Leung
Hong Kong Baptist University, Hong Kong

PTh-121
11:10 – 12:20

Occurrence of 92 pharmaceuticals in river water in agricultural or urban areas

Koya Komori, Mizuhiko Minamiyama, Yutaka Suzuki
Public Works Research Institute, Tsukuba, Japan

PTh-122
13:30 – 14:40

Application of tandem mass spectrometry for the structure confirmation of a wide range of peptides synthesized by cyanobacteria Woronichinia naegeliana

Beata Bober[1,2], Zbigniew Lechowski[2], Jan Bialczyk[2], Piotr Suder[3], Ken-ichi Harada[1]
[1]Meijo University, Nagoya, Japan, [2]Jagiellonian University, Krakow, Poland, [3]University of Science and Technology, Krakow, Poland

PTh-123
11:10 – 12:20

A search for active ingredients in cigarette smoke that modify significant biomolecules

Shizuyo Horiyama[1], Chie Honda[1], Kiyoko Suwa[1], Kiyoharu Nishide[1], Yuta Takahashi[1], Kazuki Nakamura[1], Masaru Kunitomo[1], Hirofumi Sato[2], Motohiro Shizuma[2], Mitsuo Takayama[3]
[1]Mukogawa Women's University, Nishinomiya, Japan, [2]Osaka Municipal Technical Research Institute, Osaka, Japan, [3]International Graduate School of Arts and Sciences, Yokohama, Japan

PTh-124
13:30 – 14:40

Development of smoke diagnostic assays: When the smoke clears, will it end up in the wine bottle?

Yoji Hayasaka, Gayle Baldock, Mango Parker, Kevin Pardon, Cory Black, Markus Herderich
The Australian Wine Research Institute

PTh-125
11:10 – 12:20

Ions Observed in DART-MS Analysis of Pharmaceuticals Containing Various Functional Groups on Normal and Reverse Phase TLC Plates

Kaori Asano[1], Toshio Tashima[2], Takeyuki Suzuki[1], Tsuyoshi Matsuzaki[1], Takeshi Nakano[3]
[1]The Institute of Scientific and Industrial Research, Osaka University, [2]GeneStem Co., Ltd, [3]Research Center for Environmental Preservation, Osaka University

PTh-126
13:30 – 14:40

Concentration profiles of PCB congeners in Steller sea lion, Hokkaido, Japan

Keiko Kubo[1], Katsuyuki Yamaguchi[2], Wakana Yamada[3], Tsuyoshi Ishinazaka[4], Masaki Mitsuhashi[6], Kaoru Hattori[5], Shunitz Tanaka[1]
[1]Hokkaido University, Sapporo, Japan, [2]Hokkaido Research Organization, Sapporo, Japan, [3]Hokkaido University, Hakodate, Japan, [4]Shiretoko Nature Foundation, Rausu, Japan, [5]Fisheries Research Agency, Kushiro, Japan, [6]Hokkaido Research Organization, Kushiro, Japan

PTh-127
11:10 – 12:20

Investigation of metabolites formed during activated sludge treatment of clarithromycin

Masakazu Morita[1], Koya Komori[2], Mizuhiko Minamiyama[2]
[1]NS Environmental Science Consultant Co., Tokyo, Japan, [2]Public Works Research Institute, Ibaraki, Japan

PTh-128
13:30 – 14:40

A NEW CHEMOMETRIC APPROACH FOR THE QUANTITATION OF STEROIDAL COMPOUNDS IN WASTEWATER BY GCxGC-TOFMS

Matias Kopperi, Jose Ruiz-Jimenez, Kari Hartonen, Marja-Liisa Riekkola
University of Helsinki, Finland

PTh-129
11:10 – 12:20

High-Resolution Tandem Mass Spectrometry Analysis of the Interactions of Oligonucleotides with Selected River Basin Specific Pollutants

Janna Anichina, Andre Schreiber, Ron Bonner, Takeo Sakuma
AB SCIEX, Concord, Canada

Thursday, 20th September

PTh-130 Formation of Hydroxy Polychlorinated Biphenyl
13:30 – 14:40

Shiho Fukuzawa[1], Takeshi Morita[1], Masahiro Shimase[1], Akinobu Kunitake[1], Takanori Sakiyama[2], Tameo Okumura[3]
[1]Nippon Steel Kankyo Engineering Co., Ltd., Chiba, Japan, [2]Osaka City Institute of Public Health and Environmental Sciences, Osaka, Japan, [3]Environmental Pollution Control Center, Osaka Prefectural, Government, retirement

PTh-131 High Resolution LC-MS for Screening and Quantitative Analysis of Antibiotics in Drinking Water using an Orbitrap and Online Sample Preparation
11:10 – 12:20

Jonathan R Beck, Dipankar Ghosh, Charles T Yang
Thermo Fisher Scientific, San Jose, USA

PTh-132 Rapid screening and confirmation of emerging contaminants in UK river waters by UHPLC-IT-TOF
13:30 – 14:40

David R Baker[1], John Bagnall[2], Alan J Barnes[1], Barbara Kasprzyk-Hordern[2], Neil J Loftus[1]
[1]Shimadzu Co., Manchester, UK, [2]University of Bath, Bath, UK

PTh-133 Degradation of Pentachlorobenzene by Fungi Screened from Nature
11:10 – 12:20

Ajeng A Sari[1], Sanro Tachibana[2], Kazutaka Itoh[2]
[1]The United Graduate School of Agriculture Sciences, Ehime University, Matsuyama, Japan, [2]Department of Applied Bioscience, Faculty of Agriculture, Ehime University

PTh-134 Analysis of thermal products of chlorpyrifos using LC/FTMS
13:30 – 14:40

Yoshinari Yamoto[1], Takanori Sakiyama[2], Hideya Kawasaki[1], Ryuichi Arakawa[1], Takeshi Nakano[3]
[1]Kansai University, Osaka, Japan, [2]Osaka City Institute of Public Health and Env. Sciences, Osaka, Japan, [3]Osaka University, Osaka, Japan

PTh-135 Behavior of Hexabromocyclododecane (HBCD) stereoisomers in water,sediment, and biological samples.
11:10 – 12:20

Hitomi Hasegawa[1,2], Masatoshi Watanabe[1], Shigeru Suzuki[2]
[1]Nagoya City Env.Sci.Res.Inst., Nagoya, Japan, [2]Chubu University, Kasugai, Japan

PTh-136 LC/MS/MS determination of hair-dye ingredients in products, water and urine:estimation of human exposure and environmental release.
13:30 – 14:40

Mari Takazawa, Shigeru Suzuki
CHUBU University,Aichi,Japan

PTh-137 Qualitative analysis of waste leachate by using exact mass of LC/Q-ToFMS/MS
11:10 – 12:20

Akira Murakami[1], Shigeru Suzuki[1], Masahiko Takino[2]
[1]CHUBU University,Aiti,Japan, [2]Agilent Technologies,Tokyo,Japan

PTh-138 Investigation of Perfluorinated compounds in Osaka-bay over past three years
13:30 – 14:40

Shusuke Takemine[1,2], Chisato Matsumura[1], Katsuya Yamamoto[1], Masahiro Tsurukawa[1,2], Takeshi Nakano[2], Akira Kondo[2]
[1]Hyogo Prefectural Institute of Environmental Sciences, Kobe, Japan, [2]Graduate School of Engineering Osaka University, Osaka, Japan

PTh-139 Computational Chemistry Study on Negative Ion Chemical Ionization Mechanism of Peroxyacetyl Nitrate
11:10 – 12:20

Yasuyuki ITANO[1], Mamoru SAKAI[1], Yasuhiro SADANAGA[2], Hiroshi BANDOW[2]
[1]Osaka City Institute of Public Health and Environmental Siences, Osaka, Japan, [2]Osaka Prefecture University, Sakai, Japan

PTh-140 Analysis of inadvertent PCBs contained in consumer goods
13:30 – 14:40

Masanobu Yokota[1], Akiko Sawada[1], Yoshikuni Deguchi[1], Takeshi Nakano[2]
[1]Kaneka Techno Research Corporation, Hyogo, Japan, [2]Osaka University, Osaka, Japan

PTh-141 Method development for simultaneous analysis of hydroxylated polychlorinated biphenyl by GC-ECNI/MS in biota sample
11:10 – 12:20

Eguchi Akifumi[1], Nomiyama Kei[1], Katsuhiko Nakagawa[2], Tanaka Kouki[2], Miyagawa Haruhiko[2], Tanabe Shunsuke[1]
[1]Center for Marine Environmental Studies (CMES), Ehime University, Matsuyama, Japan, [2]Shimadzu Corporation, Japan

PTh-142 Suspended solid as a disturbance of PFOS analysis in case of wastewater
13:30 – 14:40

Hitomi Oka[1], Akiko Sawada[1], Yoshikuni Deguchi[1], Takeshi Nakano[2]
[1]Kaneka Techno Research Corporation, Hyogo, Japan, [2]Osaka University, Osaka, Japan

PTh-143 Analysis of Metabolites emitted by Soil-Derived Fungi using Ion Mobility Spectrometry based on GC/MS Data Analysis
11:10 – 12:20

Shoko Ichii[1], Tomoko Kimura[2], Haruna Tanaka[1], Sachiyo Kaneko[3], Yoko Kiuchi[3], Takahito Suzuki[4], Toshiki Sugai[5], Takae Takeuchi[1,6]
[1]Department of Chemistry, Graduate School of Humanities and Sciences, Nara Women's University, Nara, Japan, [2]Department of Chemistry, Faculty of Science, Nara Women's University, Nara, Japan, [3]Department of Biological Science, Graduate School of Humanities and Sciences, Nara Women's University, Nara, Japan, [4]Department of Biological Science, Faculty of Science, Nara Women's University, Nara, Japan, [5]Department of Chemistry, Faculty of Science, Toho University, Funabashi, Chiba, Japan, [6]National Institute of Advanced Industrial Science and Technology (AIST), Osaka Japan

PTh-144 Measurement of brominated flame retardants in the environment near factories by LC/MS/MS.
13:30 – 14:40

Itaru Oue, Shigeru Suzuki
CHUBU University,Aichi,Japan

PTh-145 Determination of sulfonamides and tetracyclines in livestock wastewater using hybrid ion trap - time of flight mass spectrometer
11:10 – 12:20

Youngmin Hong[1], Hyunook Kim[2]
[1]Dong-il Shimadzu Corp., Seoul, Korea, [2]Department of Energy & Environmental System Engineering, The University of Seoul, Seoul, Korea

Thursday, 20th September

PTh-146
13:30 – 14:40
Dechlorane Plus, a highly chlorinated flame retardant in Japanese environment samples.

Takanori Sakiyama[1], Takeshi Nakano[2]
[1]Osaka City Institute of Public Health and Environmental Sciences, Osaka, Japan, [2]Osaka University, Osaka, Japan

PTh-147
11:10 – 12:20
Multi-residue method for rapid screening of veterinary drugs in muscle matrices by UHPLC-MS/MS

Youngmin Hong[1], Sujeong Park[2], Insun Lee[1], Minhye Lee[1]
[1]Dong-il Shimadzu Corp. , Seoul, Korea, [2]Animal, Plant and Fisheries Quarantine and Inspection Agency, Seoul, Korea

PTh-148
13:30 – 14:40
Development of LC-MS/MS method to monitor pharmaceuticals in environmental wastewater

Youngmin Hong, Insun Lee, Minhye Lee
Dongil Shimadzu, Seoul, Korea

PTh-149
11:10 – 12:20
Analysis of Ultraviolet Absorbers in Urine Samples by Functionalized Nanomaterial-assisted Electrospray Mass Spectrometry

Tzung-Jie Yang, Maw-Rong Lee
National Chung Hsing university, Taichung, Taiwan

PTh-150
13:30 – 14:40
Determination of diuretics in urine using immobilized-multiwalled carbon nanotubes hollow fiber liquid-phase microextraction combined with liquid chromatography-mass spectrometry

Tse-Tsung Ho, Maw-Rong Lee
National Chung Hsing university, Taichung, Taiwan

PTh-151
11:10 – 12:20
In-line preconcentration capillary electrophoresis-electrospray ionization-mass spectrometry for the analysis of haloacetic acids in tap water

Sih-Hua Hung, Guor-Rong Her
National Taiwan University, Taipei, Taiwan(R.O.C)

PTh-152
13:30 – 14:40
Effects of silver on Chlamydomonas reinhardtii; insights from proteome analysis and physiological endpoints

Marc J Suter, Smitha Pillai, Holger Nestler, Rene Schoenenberger, Renata Behra, Kristin Schirmer
Eawag, Dubendorf, Switzerland

PTh-154
13:30 – 14:40
on-site analysis of gases emitted from soils using MULTUM-S II

Takahiro Anan[1], Shuichi Shimma[2], Yo Toma[3], Yasuyuki Hashidoko[4], Ryusuke Hatano[4], Morio Ishihara[1], Jun Aoki[1], Michisato Toyoda[1]
[1]Osaka University,Osaka,Japan, [2]National Cancer Center Research Institute, Tokyo, Japan, [3]Ehime University, Ehime, Japan, [4]Hokkaido University, Hokkaido, Japan

PTh-155
11:10 – 12:20
Level of Dechlorane Plus in ambient air and development of monitoring method

Koichiro MATSUMOTO[1], Yuko ODASHIMA[1], Yuji KASHIMA[1], Takanori SAKIYAMA[2], Takeshi NAKANO[3]
[1]Japan Environmental Sanitation Center, Kanagawa, Japan, [2]Osaka City Institute of Public Health and Environmental Sciences, Osaka, Japan, [3]Graduate School of Engineering, Osaka University, Osaka, Japan

PTh-156
13:30 – 14:40
Determination of hydroxylated polycyclic aromatic hydrocarbons in mariner's urine by high performance liquid chromatography-tandem mass spectrometry

Tetsuya Hirai[1,2], Hiroaki Kinoshita[1], Hideo Okamura[2], Yoshiji Yano[2], Takeshi Nakano[2]
[1]Otsuka Pharmaceutical Co., Tokushima, Japan, [2]Graduate School of Maritime Sciences Kobe University, Kobe, Japan

PTh-157
11:10 – 12:20
Thermal solid phase extraction for GC-MS analysis of complex samples

Vivi Kofoed-Soerensen, Asger W Noergaard, Peder Wolkoff, Per Axel Clausen
National Research Centre for the Working Environment (NRCWE)

PTh-158
13:30 – 14:40
Organic coatings of engineered nanomaterials characterized by mass spectrometry

Per Axel Clausen, Renie Birkedal, Vivi Kofoed-Sorensen, Asger W Norgaard, Keld A Jensen
National Research Centre for the Working Environment, Denmark (pac@nrcwe.dk)

PTh-159
11:10 – 12:20
Simultaneous determination of cationic and anionic compounds using a high-speed polarity switching ESI and an online-SPE LC-MS/MS

Shoji F Nakayama[1], Yayoi Suzuki[1], Tairo Ogura[2], Ichiro Hirano[2], Mitsuha Yoshikane[3]
[1]National Institute for Environmental Studies, Tsukuba, Japan, [2]Shimadzu Corporation, Kyoto, Japan, [3]The University of Tokyo, Kashiwanoha, Japan

PTh-160
13:30 – 14:40
The analysis of olefine and aromatic hydrocarbon in hydrocarbon mixture using Multi-Dimensional GC/GCMS system

LiBin Liu, GuiXiang Yang, TaoHong Huang, Lei Cao
Shimadzu Co.,Beijing, China

PTh-161
11:10 – 12:20
A Novel Sensing Material for Iron(III) Ions based on Poly (gamma-Glutamic acid)-grafted-3,4-dihydro-3-2' -ethylhydroxyl-6-methyl-1,3,2H-benzoxazine

Nuorn Choothong[1], Attaphon Kaewvilai[1], Apirat Laobuthee[1,2], Amornrat Lertworasirikul[1,2]
[1]Kasetsart University, Bangkok, Thailand, [2]Center of Advanced Studies in Industrial Technology, Faculty of Engineering, Kasetsart University

Thursday, 20th September

PTh-162
13:30 – 14:40

Analysis of perfluorinated compounds in sediment samples from wastewater canal of Pancevo industrial area, Serbia

Vladimir P Beskoski[1], Shuusuke Takemine[2], Takeshi Nakano[3], Latinka Slavkovic-Beskoski[4], Gordana Gojgic-Cvijovic[1], Mila Ilic[1], Srdjan Miletic[1], Miroslav M Vrvic[1,5]

[1]Institute of Chemistry, Technology and Metallurgy, University of Belgrade, Serbia, [2]Hyogo Prefectural Institute of Environmental Science, Kobe, Japan, [3]Center for Advanced Science and Innovation, Osaka University, Japan, [4]Institute of Nuclear Sciences, [5]Faculty of Chemistry, University of Belgrade, Serbia

PTh-163
11:10 – 12:20

Study of On-site sampling method for Dioxin in water with high concentrations of suspended solids.

Takeshi Enomoto[1], Miho Okimoto[1], Chuanpit Boonyoy[2], Areerat Jaksakul[2], Ruchaya Boonyatumanond[2], Genta Takahashi[5], Kenji Tawara[5], Tohru Matsumura[3], Takeshi Nakano[4]

[1]JEOL Ltd.,Tokyo,Japan, [2]ERTC,Pathumthani,Thailand, [3]IDEA Consultant Inc.,Shizuoka,Japan, [4]Osaka University, Osaka, Japan, [5]Hyogo Environmental Advancement Association,Kobe,Japan

PTh-164
13:30 – 14:40

Multi-residue analysis of pesticides in animal and fishery products, and their processed foods by dual-column GC-MS/MS

Eiji Ueno, Haruka Ohno, Minae Watanabe, Harumi Oshima, Eiichi Mikami

Aichi Prefectural Institute of Public Health, Nagoya, Japan

PTh-165
11:10 – 12:20

Simultaneous analysis of cationic, anionic and neutral surfactants from different matrices using LCMS/MS.

Rashi Kochhar[1], Shruti Raju[1], Deepti Bhandarkar[1], Bhairavi Saraf[1], Shailendra Rane[1], Jitendra Kelkar[1], Ajit Datar[1], Zhaoqi Zhan[2]

[1]Shimadzu Analytical (India) Pvt.Ltd., Mumbai, India, [2]Shimadzu Asia Pacific Pte.Ltd.

Food safety

PTh-166
13:30 – 14:40

Detection of Melamine in Human Renal Uric Acid Stone by Matrix-Assisted Laser Desorption / Ionization Time-Of-Flight Mass Spectrometry (MALDI-TOF MS)

Chia-Fang Wu[1], Chia-Chu Liu[2,3,4,5], Jentaie Shiea[6], Yi-Tzu Cho[7], Yii-Her Chou[2,3], Bai-Hsiun Chen[8], Chao-Yi Chien[1], Shu-Pin Huang[2,3], Wen-Jeng Wu[2,3,9], Jung-Tsung Shen[9], Mei-Yu Chang[9], Chun-Hsiung Huang[2,3], Ai-Wen Chang[2], Ming-Tsang Wu*[1,4,10,11]

[1]Department of Public Health, Kaohsiung Medical University, Kaohsiung, Taiwan, [2]Department of Urology, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, [3]Department of Urology, Faculty of Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan, [4]Graduate Institute of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan, [5]Pingtung Hospital, Department of Health, Executive Yuan, Pingtung, Taiwan, [6]Department of Chemistry, National Sun Yat-Sen University, Kaohsiung, Taiwan, [7]Department of Cosmetic Applications and Management, Yuh-Ing Junior College of Health Care & Management, Kaohsiung, Taiwan, [8]Department of Laboratory Medicine, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan, [9]Department of Urology, Kaohsiung Municipal Hsiao-Kang Hospital, Kaohsiung, Taiwan, [10]Department of Family Medicine, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan, [11]Center of Environmental and Occupational Medicine, Kaohsiung Municipal Hsiao-Kang Hospital, Kaohsiung, Taiwan

PTh-167
11:10 – 12:20

Urinary oxidative metabolites of di(2-ethylhexyl)phthalate can predict the daily intake of phthalate-tainted foods in Taiwanese children

I-Chen Wu[1], Chia-Fang Wu[2], Jentaie Shiea[3], Bai-Hsiun Chen[4], Jiunn-Ren Wu[5], Ming-Tsang Wu*[2,6,7]

[1]Division of Gastroenterology, Department of Internal Medicine, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan, [2]Department of Public Health, Kaohsiung Medical University, Kaohsiung, Taiwan, [3]Department of Chemistry, National Sun Yat-Sen University, Kaohsiung, Taiwan, [4]Department of Laboratory Medicine, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, [5]Department of Pediatrics, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, [6]Department of Family Medicine, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan, [7]Center of Environmental and Occupational Medicine, Kaohsiung Municipal Hsiao-Kang Hospital, Kaohsiung, Taiwan

PTh-168
13:30 – 14:40

LC-MS analysis of neonicotinoid insecticides in the crops using a novel selective solid-phase extractant having dipole type functional group

Toshio Miwa[1], Isao Saito[1], Atsushi Yamamoto[1], Yoshinori Inoue[2], Mitsuru Saito[2]

[1]Chubu University, Aichi, Japan, [2]Nippon Filcon Co., Tokyo, Japan

PTh-169
11:10 – 12:20

Studies on Residual Characteristics of Growth Regulator 6-BA in Bean Sprout

Wan-Hee Seo, Young-Mo Jeong, Soon-Kil Cho, Bong-Suk Oh

Jeonnam Provincial Office, National Agricultural Products Quality Management Service, MIFAFF, Korea

PTh-170
13:30 – 14:40

Improvement of Determination Method for Pesticide Residues in Bean Sprout

Soon-Kil Cho, Wan-Hee Seo, Young-Mo Jeong, Ji-Mi Cho

Jeonnam Provincial Office, National Agricultural Products Quality Management Service, MIFAFF, Korea

PTh-171
11:10 – 12:20

Screening of five mycotoxins by using immunoaffinity column and HPLC-orbitrapMS in processed foods

Dong Sik Jeong, Seung Lim Baek, Dae Hyun Kim, Jong Ho Lee, Cheong-Tae Kim

NONGSHIM Co., LTD., Seoul, South Korea

PTh-172
13:30 – 14:40

Simultaneous determination of melamine and its analogues in various processed foods using LTQ-orbitrap HRMS

JONG HO LEE, DONGSIK JEONG, DAE HYUN KIM, CHEONG-TAE KIM

NONGSHIM Co., Ltd., Seoul, Korea

PTh-174
13:30 – 14:40

Determination of DNA adducts originating from methyleugenol using isotope-dilution UPLC-ESI-MS/MS

Wolfram Engst[1], Kristin Herrmann[1], Fabian Schumacher[1], Simone Florian[1], Klaus E Appel[2], Hansruedi Glatt[1]

[1]German Institute of Human Nutrition Potsdam- Rehbrücke, Nuthetal, Germany, [2]Federal Institute for Risk Assessment, Berlin, Germany

Thursday, 20th September

PTh-175
11:10 – 12:20
Exploring the application of a universal method for pesticide screening in foods using a high data acquisition speed MS/MS

Hirano Ichiro[1], Yuka Fujito[2], Kiyomi Arakawa[1], Yusuke Inohana[1]
[1]Shimadzu Corporation, Kyoto, Japan, [2]Shimadzu Analytical and Measuring Center Inc., Kyoto, Japan

PTh-176
13:30 – 14:40
Multi-class pesticide analysis in challenging vegetable matrices using fast 5 msec MRM with 15 msec polarity switching

Yuka Fujito[1], Yusuke Inohana[2], Kiyomi Arakawa[2], Hirano Ichiro[2]
[1]Shimadzu Analytica & Measuring Center, Inc., Kyoto, Japan, [2]Shimadzu Co., Kyoto, Japan

PTh-177
11:10 – 12:20
High Throuput Quantitative Analysis of Multi-mycotoxin in Beer-based Drinks using UHPLC-MS/MS

Masayoshi Tamura[1], Keiko Matsumoto[2], Jun Watanabe[2], Junko Iida[2], Yasushi Nagatomi[1], Naoki Mochizuki[1]
[1]Asahi Group Holdings, LTD., Ibaraki, Japan, [2]Shimdzu Co., Kyoto, Japan

PTh-178
13:30 – 14:40
Molecular Imprinted Polymer@Magnetic Nanoparticles Combined with Liquid Chromatography Mass Spectrometry for Determination of Glycoalkaloids in Potato

Cheng-Hsin Yeh, Maw-Rong Lee
National Chung Hsing University, Taichung, Taiwan

PTh-179
11:10 – 12:20
Determination of cyromazine and melamine in chicken eggs by using QuEChERS coupled with liquid chromatography tandem mass spectrometry

Pei-Cheng Wang, Ren-Jye Lee, Chi-Chung Chou, Maw-Rong Lee
National Chung Hsing University, Taichung, Taiwan

PTh-180
13:30 – 14:40
DIFFERENTIATION OF FARMED FISH AND WILD SEAFISH USING ISOTOPIC SIGNATURES

Lian Jie Bay[1], Jaime Wong[1], Daniel Fliegel[2], Sheot Harn Joanne Chan[3], Thomas R Walczyk[1]
[1]National University of Singapore, Singapore, [2]National Institute of Nutrition and Seafood Research, Bergen, Norway, [3]Health Sciences Authority, Singapore

PTh-181
11:10 – 12:20
Evaluation of a new ion source to improve the limit of quantitation for chloramphenicol on a UHR-TOF

Karin Wendt, Thomas Zey, Amalia Apalategui, Carsten Baessmann, Peter Brechlin
Bruker Daltonik GmbH, Bremen, Germany

PTh-182
13:30 – 14:40
MASS SPECTROMETRY IDENTIFICATION AND CHARACTERIZATION OF GIBBERELLINES IN FRUITS

ENCARNACION MOYANO, GABINO BOLIVAR-SUBIRATS, HECTOR GALLART-AYALA, MARIA TERESA GALCERAN
Barcelona University, Barcelona, Spain

PTh-183
11:10 – 12:20
EVALUATION OF ATMOSPHERIC PRESSURE IONIZATION SOURCES FOR MASS SPECTROMETRIC ANALYSIS OF PHENICOL DRUGS

ELIDA ALECHAGA, ENCARNACION MOYANO, MARIA TERESA GALCERAN
Barcelona University, Barcelona, Spain

PTh-184
13:30 – 14:40
High-throughput simultaneous analysis of pesticide residues in food by supercritical fluid chromatography/tandem mass spectrometry

Megumi Ishibashi[1], Ando Takashi[2], Sakai Miho[2], Matsubara Atsuki[1], Uchikata Takato[1], Fukusaki Eiichiro[1], Bamba Takeshi[1]
[1]Osaka University, Osaka, Japan, [2]Miyazaki Agricultural Research Institute, Miyazaki, Japan

PTh-185
11:10 – 12:20
Chromatographic Separation of Chrysene and Triphenylene in Smoked Fish

Mirja L Hokkanen, Marika N Jestoi, Kimmo E Peltonen
Finnish Food Safety Authority Evira, Helsinki, Finland

PTh-186
13:30 – 14:40
Assessing the impact of a novel ion source design in food safety applications using MS/MS detection

Neil J Loftus[1], Simon Hird[2], David Baker[1], Alan Barnes[1]
[1]Shimadzu, Manchester, UK, [2]FERA, York, UK

PTh-187
11:10 – 12:20
Development and applications of a pesticide multiresidue analysis turn-key system utilizing UHPLC-Orbitrap MS and post data processing

James Chang[2], Jon Wong[3], Kai Zhang[3], Serei Thach[4], Paul Yang[4], Charles Yang[2], Kristi Akervik[2], Maciej Bromirski[2], Yoko Yamagishi[1], Dipankar Ghosh[2]
[1]Thermo Fisher Scientific K.K., Yokohama, Japan, [2]ThermoFisher Scientific, San Jose, CA, [3]Food and Drug Administration, Center for Food Safety and Applied Nutrition, MD, [4]Ontario Ministry of the Environment, Ontario, Canada

PTh-188
13:30 – 14:40
Multi-residue method for the confirmation of six avermectin residues in food products of animal origin by liquid-chromatogrphy tandem mass spectrometry

Myeong-Ae Kim, Jeong Woo Kang, Myung-Sin Lim, Young Hoon Bong, Chae-Mi Lim, Seoung-Wan Son
Animal, Plant and Fisheries Quarantine and Inspection Agency, Anyang, Korea

PTh-189
11:10 – 12:20
Multi-residue analysis of 59 pesticides in raw bovine milk using GC-MS/MS and UPLC-MS/MS

JinYoung Shin, Dong-Gyu Kim, Kyung Yuk Ko, MeeKyung Kim, Chae-Mi Lim, Seong-Wan Son
Animal, Plant and Fisheries Quarantine and Inspection Agency, Anyang, Korea

Thursday, 20th September

Others

PTh-190
13:30 – 14:40
Untargeted Plasma Metabolomics using 13C-Glucose: Glycated-Metabolites as Novel Biomarkers for Aging and Diabetes

Daiki Setoyama, Yoshinori Fujimura, Hiroyuki Wariishi, Daisuke Miura
Kyushu University, Fukuoka, Japan

PTh-191
11:10 – 12:20
The examination of high-throughput, high-sensitive and more-ecological measurement by micro flow UHPLC/MS/MS system

Seiji Horie[1], Kazuhide Inoue[1], Masazumi Yasumoto[1], Kayoko Hagiwara[2], Shigeru Yamada[2], Yasutoshi Kawase[1]
[1]TAKARA BIO INC., Shiga, Japan, [2]K.K. AB SCIEX, Tokyo, Japan

PTh-192
13:30 – 14:40
Screening analysis for drugs of abuse by LC-MS/MS enables fast polarity switching MRM triggered product ion scanning on the fly

Toshikazu Minohata[1], Ichiro Hirano[1], Junko Iida[1], Keiko Kudo[2], Noriaki Ikeda[2], Kei Zaitsu[3], Noriaki Shima[3], Munehiro Katagi[3], Hitoshi Tsuchihashi[4], Koichi Suzuki[4]
[1]Shimadzu Co., Kyoto, Japan, [2]Kyushu University, Fukuoka, Japan, [3]Osaka Prefectural Police, Osaka, Japan, [4]Osaka Medical Collage, Takatsuki, Japan

PTh-193
11:10 – 12:20
HPLC method scouting system using ultra high performance liquid chromatography coupled to single quadrupole mass spectrometer

Yusuke Inohana, Taku Tsukamoto, Hidetoshi Terada, Kiyomi Arakawa, Ichiro Hirano
Shimadzu Co., Kyoto, Japan

PTh-194
13:30 – 14:40
Detection of Emerging Legal Highs and Common Drugs of Abuse in Drug Seizures by Fast LC-MS/MS Method

Kheng Aik Lim[1], Yuan Yuan Cheryl Yeo[1], Peiting Zeng[2], Lijie Yu[1], Mei Ching Ong[1], Tiong Whei Angeline Yap[1]
[1]Health Sciences Authority, Singapore, [2]Shimadzu (Asia Pacific) Pte Ltd, Singapore

PTh-195
11:10 – 12:20
Untargeted detection of novel abused substances using high-resolution time-of-flight mass spectrometry with comprehensive collision-induced dissociation

Michiko Kanai[1], Kevin Siek[2], Joe Binkley[2], Jeffrey S Patrick[2], David Alonso[2]
[1]LECO Japan Corporation, Tokyo, Japan, [2]LECO Corporation, MI, USA

PTh-196
13:30 – 14:40
Identification of triazolam, etizolam and their metabolites by liquidchromatography tandem mass spectrometry

Mayumi Matsui[1], Toshikazu Minohata[1], Noriko Shoji[2], Naohiro Kuriyama[2], Chie Yokoyama[2], Keiko Matsumoto[1], Jun Watanabe[1], Junko Iida[1]
[1]Shimadzu Corporation, Kyoto, Japan, [2]YMC Co., LTD., Komatsu, JAPAN

PTh-197
11:10 – 12:20
Determination of Prohibited Components in Hair Dyes by Solid Phase Extraction Coupled with Liquid Chromatography-Tandem Mass Spectrometry

Chung-Yu Chen, Tsai-Jung Lin, Maw-Rong Lee
National Chung Hsing University, Taichung, Taiwan

PTh-198
13:30 – 14:40
Doubly-Etched Microfabricated Gas Chromatography Columns for High Resolution Mass Spectrometry

Sanggoo Kim, Sung Min Lim, Sejong Yong
Korea Basic Science Institute

PTh-199
11:10 – 12:20
Coupling of Capillary Electrophoresis with Solvent Assisted Inlet Ionization-Mass Spectrometry Using a Poly(dimethylsiloxane)-based Sheath Liquid Interface

Che-Wei Wang, Guor-Rong Her
National Taiwan University, Taipei, Taiwan

PTh-200
13:30 – 14:40
The Development of a Sheathless CE/ESI-MS interface Based on Thin Conducting Liquid Film

Ju-Li Huang, Ren-Yu Hsu, Guor-Rong Her
National Taiwan University, Taipei, Taiwan

PTh-201
11:10 – 12:20
Proteome analysis with molecular simulation can reveal the TTR amyloidogenesis

Kenji Miura[1], Naoya Hatano[1], Mika Ohta[1], Hirotaka Sato[2], Aki Sugano[1], Eiichi Maeda[1], Yoshiyuki Sakaki[3], Ken-ichi Yamamura[4], Yutaka Takaoka[1]
[1]Kobe University Graduate School of Medicine, Kobe, Japan, [2]Iwate Medical University School of Dentistry, Iwate, Japan, [3]Toyohashi University of Technology, Aichi, Japan, [4]Kumamoto University, Kumamoto, Japan

Friday, 21st September Morning

Plenary Lecture

08:00 – 08:45 Main Hall

Plenary Lecture 5: Richard M Caprioli

Chair: Dominic M Desiderio
University of Tennessee Health Science Center, USA

PL5-0800 08:00 – 08:45 **Molecular Imaging of Tissues by Mass Spectrometry: Looking Beyond the Microscope**

Richard M Caprioli
Vanderbilt University, Nashville, TN, USA

Oral Session

09:00 – 11:00 Main Hall

Session 41: Chemistries of Trapped Ions and their Applications to Bio- logical Mass Spectrometry

Chair: Gavin E Reid
Michigan State University, USA

S41-0900 09:00 – 09:40 **[Keynote Lecture] Bioconjugation in the Gas Phase: New Chemistry for Tandem Mass Spectrometry**

Scott A McLuckey
Purdue University

S41-0940 09:40 – 10:00 **Trap that Fat: Structure elucidation of ionized lipids by selective ion-molecule reactions and radical directed dissociation**

Huong T Pham[1], Alan T Maccarone[1], Tony Ly[2], Adam J Trevitt[1], Larry J Campbell[3], Todd W Mitchell[1], Stephen J Blanksby[1]
[1]University of Wollongong, Wollongong, Australia, [2]University of Dundee, UK, [3]AB Sciex, Concord, Canada

S41-1000 10:00 – 10:20 **Harvesting High-Level Structural (Stereo- and Anomric-) Information from Oligosaccharides with Single Sugar Resolution - A Tandem Mass Spectrometric Approach**

Chiharu Konda[1], Frank A Londry[2], Brad Bendiak[3], Yu Xia[1]
[1]Purdue University, West Lafayette, IN, USA, [2]AB Sciex, Concord, Ontario, Canada, [3]University of Colorado Denver, Aurora, CO , USA

S41-1020 10:20 – 10:40 **Measurement of the Peptide Ion Temperature by Using N-Acylated Dipeptide Tags as Internal Standards**

Seung Koo Shin, Jongcheol Seo, Min-Soo Suh, Hye-Joo Yoon
Pohang University of Schence and Technology, Pohang, Korea

S41-1040 10:40 – 11:00 **Gas phase reactions of trapped bioorganic ions**

Gianluca GIORGI
University of Siena

Friday, 21st September Morning

Fri

Oral Session

09:00 – 11:00 Room A

Session 42: New Developments in Instruments and Detectors

Chair: Takaya Sato
JEOL, Japan

S42-0900 09:00 – 09:40 **[Keynote Lecture] From supercomputer modeling to highest mass resolution in FT ICR**

Evgeny N Nikolaev[1,2]
[1]The Institute for energy problems of chemical physics Russian Academy of Sciences, [2]The Institute of biochemical physics Russian Academy of Sciences

S42-0940 09:40 – 10:00 **A New magnetic TOF Detector with 1.5 ns Pulse Width and Very High Dynamic Range**

Dick Stresau, Yair Benari, Kevin Hunter
ETP Electron Multipliers, Melrose Park (Sydney), Australia

S42-1000 10:00 – 10:20 **Novel Compact Double Focusing Mass-Analyzer for Biochemical and Elemental Analysis.**

Viacheslav D Sachenko, L N Gall, R N Gall
Institute for analytical Instrumentation of RAS

S42-1020 10:20 – 10:40 **Penning traps and ICR MS in physics research: From highly-charged atomic ions to metal-clusters to short-lived atomic nuclei**

Lutz Schweikhard
University of Greifswald, Greifswald, Germany

S42-1040 10:40 – 11:00 **A multi-reflection time of flight mass spectrograph for short-lived nuclei and heavy molecules**

Peter Schury[1], Michiharu Wada[2], Yuuta Ito[1,2], Sarah Naimi[2], Hermann Wollnik[3], Tetsu Sonoda[2], Sousuke Nakamura[1,2]
[1]Tsukuba University, Ibaraki, Japan, [2]RIKEN, Wako, Japan, [3]Geissen University, Geissen, Germany

Oral Session

09:00 – 11:00 Room B-1

Session 43: Novel Proteomics Methodologies

Chair: Yasushi Ishihama
Kyoto University, Japan

S43-0900 09:00 – 09:40 **[Keynote Lecture] Shifting Proteomics from a Hypothesis Generating Workflow to a Hypothesis Testing Workflow**

Michael J MacCoss[1], Jarrett Egertson[1], Michael Bereman[1], Richard Johnson[1], Christine C Wu[2], Brendan MacLean[1]
[1]University of Washington, [2]University of Pittsburgh

S43-0940 09:40 – 10:00 **Profiling of Human Kinome Using In Vitro Kinase Assay in Combination with Quantitative Phosphoproteomics**

Naoyuki Sugiyama[1], Masaki Gouda[2], Haruna Imamura[3], Masaru Tomita[1], Yasushi Ishihama[1,3]
[1]Institute for Advanced Biosciences, Keio University, Tsuruoka, Japan, [2]Carna Biosciences, Inc., Kobe, Japan, [3]Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan

S43-1000 10:00 – 10:20 **In-depth analysis of human proteome by High Resolution Isoelectric Focusing (HiRIEF)-LC-MS/MS**

Kie Kasuga, Rui M Branca, Henrik J Johansson, Janne Lehtiö
Karolinska Institutet / Science for Life Laboratory, Stockholm, Sweden

S43-1020 10:20 – 10:40 **Enrichment of plasma membrane proteins using cationic nanoparticle pellicles**

Waeowalee Choksawangkarn[1], Sung-Kyoung Kim[1], Joe Cannon[1], Nathan Edwards[2], Sang Bok Lee[1,3], Catherine Fenselau[1]
[1]Department of Chemistry and Biochemistry, University of Maryland, College Park, Maryland 20742, United States, [2]Department of Biochemistry and Molecular & Cellular Biology, Georgetown University Medical Center, Washington, D. C. 20074, United States, [3]Korea Advanced Institute of Science and Technology, Daejeon 305-701, Korea

S43-1040 10:40 – 11:00 **Informatics-Assisted Label-free EDC-MRM Quantitation for Targeted Signaling Pathway Analysis**

Yi-Ting Wang[2,3], Chia-Feng Tsai[1,4], Pei-Yi Lin[1], Hsin-Yi Wu[1], Szu-Hua Pan[6], Sung-Liang Yu[5], Pan-Chyr Yang[3,7], Yu-Ju Chen[1,2,4]
[1]Institute of Chemistry, Academia sinica, Taiwan, [2]Chemical Biology and Molecular Biophysics Program, Taiwan International Graduate Program, Institute of Chemistry, Academia Sinica, Taipei, Taiwan, [3]Institute of Biochemical Sciences, National Taiwan University, Taipei, Taiwan, [4]Department of Chemistry, National Taiwan University, Taipei, Taiwan, [5]Department of Clinical Laboratory Sciences and Medical Biotechnology, College of Medicine, National Taiwan University, Taipei, Taiwan, [6]Institute of Biomedical Science, Academia Sincia, Taipei, Taiwan, [7]College of Medicine, National Taiwan University, Taipei, Taiwan

Friday, 21st September Morning

Oral Session

09:00 – 11:00 Room D

Session 44: Ambient Ionization

Chair: Jentaie Shiea
National Sun Yat-Sen University, Taiwan

S44-0900 09:00 – 09:40 **[Keynote Lecture] Ambient desorption/ ionization mass spectrometry for minimal samples**

Kenzo Hiraoka[1], Mridul K Mandal[1], Lee C Chen[1], Hideki Fujii[2], Kentaro Yoshimura[2], Sen Takeda[2]
[1]University of Yamanashi,Kofu,Japan, [2]University of Yamanashi, Chuo, Japan

S44-0940 09:40 – 10:00 **Advances in Ambient Ionization and Imaging using DART and Microplasma Ion Sources**

Facundo M Fernandez[1], Joel Keelor[1], Rachel Bennett[1], Prabha Dwivedi[1], Joshua Symonds[2], Reuben Gann[1], Thomas Orlando[1,2]
[1]Georgia Institute of Technology/School of Chemistry and Biochemistry, Atlanta, GA, USA, [2]Georgia Institute of Technology, School of Physics

S44-1000 10:00 – 10:20 **Monitoring intra- and inter-day human breath metabolic signatures supports the existence of individual phenotypes**

Pablo M-L Sinues[1], Lukas Meier[1], Christian Berchtold[1], Noriane Sievi[2], Giovanni Camen[2], Malcolm Kohler[2], Renato Zenobi[1]
[1]ETH, Zurich, Switzerland, [2]University Hospital Zurich, Zurich, Switzerland

S44-1020 10:20 – 10:40 **Alternative Desorption/Ionization Processes of Low-Temperature Plasma Probe Ambient Mass Spectrometry**

Joshua S Wiley, Jobin Cyriac, Jacob T Shelley, R Graham Cooks
Purdue University, West Lafayette, IN, USA

S44-1040 10:40 – 11:00 **Analysis of Polar Components in Heavy Oils by Gas Chromatography Electrospray Ionization Mass Spectrometry (GC-ESI/MS) and Multivariate Analysis**

Chu-Nian Cheng[1], Yi-Tzu Cho[2], Hung Su[1], Jentaie Shiea[1]
[1]National Sun Yat-Sen Univrsity, Kaohsiung, Taiwan, [2]Yuh-Ing Junior College of Health Care & Management, Kaohsiung, Taiwan

Oral Session

09:00 – 11:00 Room E

Session 45: Cell Biology / Cellular Pathways

Chair: Renato Zenobi
ETH Zurich, Switzerland

Fri

S45-0900 09:00 – 09:40 **[Keynote Lecture] Future of Cell Analyses and Mass Spectrometry**

Tsutomu Masujima
Hiroshima University, Hiroshima, Japan/RIKEN QBiC, Suita, Japan

S45-0940 09:40 – 10:00 **Telling the Biological Story - Post Processing of -Omics Data**

Michael Kohl[1], Hagen Meckel[1], Maike Ahrens[1], Helmut E Meyer[1], Martin Hofmann-Apitius[2], Martin Eisenacher[1]
[1]Medizinisches Proteom-Center, Ruhr University, Bochum, Germany, [2]Fraunhofer Institute for Algorithms and Scientific Computing SCAI, Sankt Augustin, Germany

S45-1000 10:00 – 10:20 **Realtime Molecular Analysis of Single Cell State by Fluorescence-assisted Live Single-cell Mass Spectrometry**

Naohiro Tsuyama[1], Hajime Mizuno[1], Takanori Harada[1], Sachiko Date[2], Tsutomu Masujima[1,2]
[1]Hiroshima University Graduate School of Biomedical & Health Sciences, Hiroshima, Japan, [2]Quantitative Biology Center (QBiC), RIKEN, Osaka, Japan

S45-1020 10:20 – 10:40 **Multi-omics Approach to study the effect of rapamycin treatment on a human cell line**

Sudha Rajagopalan, Siji Joseph, Guha Nilanjan, Syed S Lateef, Yugandhar Reddy
Agilent Technologies India Pvt.Ltd

S45-1040 10:40 – 11:00 **Screening and identification of sulfur mustard metabolites from in vitro samples using different LC-MS experiments for new biomarker development**

Mia Halme[1], Maija Pesonen[2], Marja Hagström[3], Markku Pasanen[2], Paula Vanninen[1]
[1]VERIFIN, Department of Chemistry, University of Helsinki, Finland, [2]School of Pharmacy, Faculty of Health Sciences, University of Eastern Finland, Finland, [3]Center of Drug Research, Faculty of Pharmacy, University of Helsinki, Finland

Friday, 21st September Morning

Plenary Lecture

11:45 – 12:30 Main Hall

Plenary Lecture 6: R Graham Cooks

Chair: Yoshinao Wada
Osaka MCHRI, Japan

PL6-1145 11:45 – 12:30 **Through a Glass Darkly: Glimpses into the Future of Mass Spectrometry**

R Graham Cooks
Purdue University, West Lafayette, IN/USA

Workshop

Monday, 17th September, 17:15-19:15

Workshop 1 (Room B-1):
Mass Spectrometry of Polymers and Industrial Materials

Organizer: Hiroaki Sato

Scope of Session: Mass spectrometry is commonly used as a technique for the characterization of polymeric industrial materials. This session will discuss the recent progress in the structural characterization of polymers (especially for degraded materials) by advanced mass spectrometry such as high-resolution techniques and ion separation techniques.

Keywords: Structural characterization, High-resolution TOF, Ion mobility, Polymer degradation

Workshop 2 (Room D):
Hydrogen/Deuterium Exchange Mass Spectrometry

Organizers: Yoshitomo Hamuro, Rachel A Garlish

Scope of Session: Hydrogen/deuterium exchange mass spectrometry (HDX-MS) is an increasingly popular protein characterization method. This session covers both the application and new method development of HDX-MS. The application of HDX-MS includes higher order structure analysis, protein-ligand interaction, and protein-protein interaction, particularly epitope mapping. Method development includes opportunities for higher resolution analysis using ETD fragmentation, data generation automation, and data extracting software.

Keywords: Hydrogen/deuterium exchange, Higher order structure, Protein-ligand interaction, Protein-protein interaction, Epitope mapping, ETD fragmentation, Automation, Software

Tuesday, 18th September, 17:15-19:15

Workshop 3 (Room B-1):
Careers in Mass Spectrometry

Organizer: Anthony W T Bristow
Chair: John Langley

Scope of Session: The session is designed to outline a variety of career paths that begin and stay within mass spectrometry and also expand beyond a starting point in mass spectrometry. Several international speakers will briefly describe their career paths (for example: academia, industry, instrument manufacturer). These short presentations will outline the choices made during career development, any challenges encountered and the opportunities available in the different career pathways. In addition, there will be a presentation that describes the current job market for people with a background in mass spectrometry and more broadly in analytical science. The workshop will be very interactive, and we actively encourage attendees to question the speakers about their careers and the choices made.

Workshop 4 (Room D):
Mass++ and MassBank: Tools for Data Processing and Database on PC

Organizers: Satoshi Tanaka, Takaaki Nishioka

Scope of Session: Mass++ (mass plus plus) is freeware for viewing and manipulating various types of mass spectrometric data. Mass++ 2.1.0, which was released recently, is easy to use as search engines such as Mascot and MassBank. MassBank is a public repository for sharing mass spectra of small molecules among research community. A bottleneck in metabolomics is to submit a large amount of mass spectra from LC-MS as the queries to database searches manually. Mass++ and MassBank projects have collaboratively developed a tool that relieves the users from the repeated manual works. Two projects will give tutorials of their tools.

Key words: Freeware, Proteomics, Metabolomics, Multi-vendor, Chemical identification

Wednesday, 19th September, 17:15-19:15

Workshop 5 (Room B-1):
Path to Next-generation IMS: New Concepts, Advanced Instrumentation, and Leveraging the Ion-molecule Chemistry

Organizers: Toshiki Sugai, Alexandre A Shvartsburg

Scope of Session: Ion mobility separations coupled to mass spectrometry have become a mainstream analytical tool, and both conventional IMS and FAIMS are available in commercial systems now applied in various areas. This workshop will look beyond established products and methods into qualitatively new approaches that would take IMS to the next level. Topics of presentations and discussion will include multi-stage platforms of much greater specificity and peak capacity, use of ion-molecule chemistry to expand the separation space and modify resolution of specific targets, and various integrative measurements incorporating the IMS dimension.

Workshop 6 (Room D):
Mass Spectrometry for Food Safety

Organizer: Jentaie Shiea

Scope of Session: Recent food incidents have drawn the public's awareness of how food supply is regulated and inspected to be deemed safe for consumption. The common food harmful substances include foodborne microorganisms, mycotoxins, chemical residues, pesticides, melamine, plasticizers, and chemical contaminants from food packaging and processing. Only trace amount of these harmful substances is sufficient to cause harmful health effects. Thus, mass spectrometry plays a critical role as an excellent analytical tool to identify food contaminants accurately and efficiently. This workshop explores the recent advances and application of mass spectrometry to food safety, and challenges in food sample preparation.

Keywords: Food safety, Mass spectrometry, Foodborne microorganisms, Mycotoxins, Chemical residues, Pesticides, Food packaging and processing

The 3rd Asian-Oceanic Mass Spectrometry Conference (AOMSC-3)

Australian and New Zealand Society for Mass Spectrometry (ANZSMS)
Chinese Mass Spectrometry Society (CMSS)
Hong Kong Society of Mass Spectrometry (HKSMS)
Indian Society for Mass Spectrometry (ISMAS)
Korean Society for Mass Spectrometry (KSMS)
Mass Spectrometry Society of Japan (MSSJ)
Singapore Society for Mass Spectrometry (SSMS)
Taiwan Society for Mass Spectrometry (TSMS)

Day 1 (Monday, 17th September) 17:15-19:15 (Room A)

"OMICS and Biologcial Mass Spectrometry"

Chair: Yu-Ju Chen (TSMS) / Tohru Yamagaki (MSSJ)

1	Top-down analysis of lipoproteins by on-line field-flow fractionation and ESI-MS-MS	Ki Hun Kim; Ju Yong Lee; **Myeong Hee Moon**	Korea
2	Serum metabolome analysis for early detection of colorectal cancer	**Masaru Yoshida**; Shin Nishiumi; Yoshihiro Izumi; Atsuki Matsubara; Takeshi Azuma	Japan
3	Identification of insect species by direct UV-laser desorption/ ionization mass spectrometry of cuticular lipids and pheromones	Jacqueline Chin; Qi Ling Koh; **Joanne Yew**	Singapore
4	Acylglycine: a potential biomarker for the clinical diagnosis of inborn metabolic disorders	Bonnie Fong; Sidney Tam; **Kelvin Leung**	Hong Kong
5	Caco-2 permeability studies as a new alternative model to bioequivalence and biowaiver tests	**Seval Korkmaz**	Turkey
6	Clinical application of rapid bacterial identification using mass spectrometry	**Kazuyuki Sogawa**; Masaharu Watanabe; Fumio Nomura	Japan

Day 2 (Tuesday, 18th September) 17:15-19:15 (Room A)

"New Technologies"

Chair: Myeong Hee Moon (KSMS) / Kanako Sekimoto (MSSJ)

1	Radiosensitizers investigated using electrospray ionization mass spectrometry	**Linda Feketeova**; Niels Bassler; Brita S Sørensen; Michael R Horsman; Jonathan White; Richard A J O'Hair	Australia
2	Combining quantum mechanical and MS analysis to understanding the source of H+ during APPI of PAH dissolved in toluene	Arif Ahmed; Chell Ho Choi; **Kim Sunghwan**	Korea
3	Application of high speed LC-MSMS technology towards unambiguous characterization of degraded products of Lenalidomide, an anticancer molecule	**Janani Thyagarajan**; Raman Palavannathan; Saravanan Subramanyam; Govindarajan Chandramohan; Mohan Kasi; Manohar Venkat	India
4	Sensitive ionization of non-volatile analytes using multiply charged primary ions in desorption electrospray ionization mass spectrometry	**Zhiqiang Zhu**; Qiliang Gong; Yafei Zhou; Ning Xu; Haiwei Gu; Huanwen Chen; Tenggao Zhu	China
5	Hydrocarbons analysis by desorption atmospheric pressure chemical ionization	**Fred Paul mark Jjunju Jjunju**; Badu_Tawiah K Abraham; Li Anyin; Roqan S Iman; Graham R Cooks	Saudi Arabia
6	Miniaturized peptide sample pretreatment platform for indirect spray analysis	**Hoi Sze Yeung**; Tak-Wah Dominic Chan	Hong Kong
7	Large bio-particle detection technologies and their applications	**Chung Hsuan Chen**	Taiwan

Pre-Conference Programme

Mass Spectrometry Summer School 2012

The Kansai-area colloquium in Mass Spectrometry Society of Japan (MSSJ) will take place a mass spectrometry summer school for students and young scientists as a joint workshop of the 19th IMSC. The purpose of the workshop is to make research colleagues among young scientists in several countries. This summer school will be mainly composed of group discussion and free discussion. The venue place, Koyasan (Mount Koya), is the center of Shingon Buddhism, an important Buddhist sect which was introduced to Japan in 805 by Kobo Daishi. In the 1200-years history and UNESCO World Cultural Heritage Sites, participants will enjoy scientific discussion with touching Japanese culture. Through this opportunity, the collaboration in the young generation in mass spectrometry will be closely united.
The details of the summer school are as follows:
Date: 13th – 14th September
Venue: Ekoin temple (497 Koyasan, Koya-cho, Ito-gun, Wakayama, Japan)
Number of participants: 60
Finally, this summer school is financially supported by MSSJ, 19th IMSC and Kato Biomedical Memorial Foundation. The organizer would like to thank for these supports.

Short Course

Fundamentals of Mass Spectrometry

Instructor: O David Sparkman, Pacific Mass Spectrometry Facility, Chemistry Department, College of the Pacific, University of the Pacific, Stockton, CA USA
Jürgen Gross, Org.-Chem. Inst. der Universität, Heidelberg, Germany
Schedule: Saturday, 15th September, 10:00 – 17:00
Sunday, 16th September, 10:00 – 15:00

A two-day course on the interpretation of mass spectra of organic compounds. Starting at the introductory level, the course is intended to provide the fundamentals for an understanding of the basic principles and applications of mass spectrometry of organic molecules.
Key topics of the short course are ionization processes, the formation and interpretation of isotopic patterns, uses of high-resolution and accurate mass for molecular formula determination, and an introduction to the fragmentation pathways of odd-electron and even-electron ions. Information regarding available mass spectral databases will be provided along with how to use them with all types of organic mass spectrometry including MS/MS data. With an emphasis on the analysis of small molecules, you will learn to systematically employ all of the above mass spectral data for compound identification and structure elucidation.
To complete the course, compact lectures on instrumentation and its common modes of operation, as well as on the basics of widespread soft ionization methods such as chemical ionization (CI), field desorption (FD including LIFDI), electrospray ionization (ESI), and matrix-assisted laser desorption/ionization (MALDI) will be included.

Fragmentation Methods, Their Fundamentals and Application in Proteomics

Instructor: Professor Roman A Zubarev, Karolinska Institutet, Stockholm, Sweden
Schedule: Saturday, 15th September, 10:00 – 17:00

Fragmentation of biomolecules in tandem mass spectrometry is the basis for structure identification of polypeptides, which is a cornerstone of proteomics. The excitation methods for fragmentation fall into three categories: slow or rapid heating, electronic excitation, and radical initiation. What happens to a peptide when it is excited by one of the three methods? What makes the bond break and the molecule fall apart? Why do negative ions fragment differently than positive ions? How fast does bond rupture happen and how much energy is required? The answer to these questions will be given during the course. Collisional dissociation in an ion trap or by infrared irradiation (slow heating), collisions in a qTOF or Orbitrap instrument (rapid heating), ultraviolet dissociation (electronic excitation), electron capture/transfer dissociation and electron ionization dissociation (radical initiation) will be discussed. On a practical note, real-life examples of peptide fragmentation will be considered, MS/MS spectra explained, and de novo sequencing illustrated. Analysis of peptide modifications will also be considered in detail.

Introduction to Imaging Mass Spectrometry

Instructor: Mitsutoshi Setou, Hamamatsu University School of Medicine, Hamamatsu, Shizuoka, Japan
Schedule: Saturday, 15th September, 10:00 – 17:00

Matrix-assisted laser desorption/ionization (MALDI)-imaging mass spectrometry (IMS) is emerging as a powerful tool for investigating the distribution of molecules, such as proteins and metabolites, within biological systems through the direct analysis of thin tissue sections. Unique among imaging methods, MALDI-IMS can determine the distribution of hundreds of unknown compounds in a single measurement and identify the molecules on tissue sections. Recently, Mass Microscopes were introduced to the research community, enabling us to detect conventional molecules in tissue structures by optical microscopes with an objective lens, as well as volatile ones using an atmospheric ion source chamber. Altogether, this offers the opportunity to visualize molecular distributions with more high-spatial resolution by the minimum laser diameter ($< 10\,\mu$m) and identify them from their individual fragmentation patterns. Moreover, our group together with the Japanese foundation for cancer research have developed an analyzing software for IMS datasets. Using this software, we can easily extract meaningful signals based on common and/or specific expressions from enormous IMS datasets. This course covers the fundamental principal and techniques of MALDI-IMS, assuming no previous experience in IMS or basic mass spectrometry. The following topics are covered: introduction to principles and applications of IMS technology, such as making tissue sections, applying matrices onto tissue sections, acquiring IMS datasets from tissue sections, creating ion images from the IMS dataset, and statistical analyses of data.

Open Lecture for General Public (in Japanese)

The Conference co-chair Koichi Tanaka will deliver a lecture to high school & university students and young researchers on science, technology and study. (pre-registration required)
Schedule: Saturday, 15th September, 14:00 – 16:00
Venue: Main Hall, ICC Kyoto

Users' Day

AB SCIEX	Room A	Saturday, 15th September	10:00-17:00

10:00 Registration
10:30-12:10 Seminar sessions
12:30-16:00 "Kyoto experince with AB SCIEX"
Leave the venue for Kyoto downtown by bus for Lunch & Attraction

Shimadzu	Room A	Sunday, 16th September	10:00-15:00

10:30 Biological Profiling: Complementary Qualitative and Quantitative Analysis using IT-TOF and QQQ Mass Spectrometry
Kevin Schug, Department of Chemistry & Biochemistry, University of Texas at Arlington, U.S.A
11:25 Top-down Proteomics using MALDI ISD and MS^n
Daniel Lafitte, University Aix-Marseille, France
12:10 GC×GC-qMS with chemical ionization for highly specific, sensitive, and quantitative steroids
J Thomas Brenna, Professor, Cornell University, U.S.A
12:40 Serum Metabolome Analysis for Early Detection of Colorectal Cancer
Masaru Yoshida, Chief, Division of Metabolomics Research, Kobe University Graduate School of Medicine, Japan

The registration will open from 9:00AM and the Users' Day starts from 10:00AM. Some other presentations are planned.
The presentations will last until 13:15 and then we will host a lunch event featuring buffet style food and drinks from
13:30 in the Gold Room, Grand Prince Hotel Kyoto, close to the congress location. We also encourage you to enjoy
Japanese traditional attractions with us!

Company Luncheon Seminars

AB SCIEX

Monday, 17th September 12:20-13:30 Room A
Moderator: Mark Cafazzo (AB SCIEX)

Advancing technologies and workflow solutions for successful lipidomics research and identification and quantitation of lipid species

Prof. Stephen Blanksby (University of Wollongong, Wollongong, Australia)
Fadi Abdi (AB SCIEX)

This luncheon seminar will focus on the use of innovative mass spec technologies and workflow solutions for lipidomics research and qualitative and quantitative studies of lipid species.

Tuesday, 18th September 12:20-13:30 Room A
Moderator: Johnny Cardenas (AB SCIEX)

Transformative MS-Technologies and Workflows for Biotherapeutics

Gary Impey (AB SCIEX)
Byung-Hee Shin (AB SCIEX, Korea)

This luncheon seminar will focus on the use of innovative mass spectrometry technologies and workflow solutions for biotherapeutics applications and bioanalytical quantitation analysis.

Wedensday, 19th September 12:20-13:30 Room A
Moderator: Fabienne Le Floch (AB SCIEX)

New technologies and workflows to enhance General Unknown Screening applications for food, environmental, or toxicological testing

Lauryn Bailey (AB SCIEX)
Janna Anichina (AB SCIEX)

This luncheon seminar will present innovative mass spectrometry technologies and software enhancing general unknown screening workflows for use in food safey testing, environmental analysis and forensic toxicology applications.

Thursday, 20th September 12:20-13:30 Room A
Moderator: Mark Cafazzo (AB SCIEX)

Pushing the limits of global quantitative strategies for Proteomics

Prof. Rudolf Aebersold (ETH Zurich, Zurich, Switzerland)
Sean L. Seymour (AB SCIEX)

This luncheon seminar will focus on the use of innovative mass spectrometry technologies and workflow solutions for proteomics and biomarker research including MS/MSALL with SWATH™ Acquisition strategy.

Advion

Tuesday, 18th September 12:20-13:30 Room E

Moderator: Daniel Eikel, Ph.D.

Chip-based Nanoelectrospray Seminar

Dr. Ryo Taguchi, Dr. Zoltan Takats, Dr. Kim Ekroos, Dr. Daniel Eikel

IMSC Meeting attendees are invited to attended Advion's Luncheon to be held on 18 September. Leading scientists present their work with Advion's chip-based nanoelectrospray ion source technology. In addition, a new chip-based nanoelectrospray ion source will be introduced at the meeting.

Moderated by Advion's Product Manager, Daniel Eikel, Ph.D., the meeting includes brief presentations that highlight the key aspects of work being conducted in lipids analysis, metabolomics, liquid extraction analysis, and proteomics.

Agilent Technologies

Monday, 17th September 12:20-13:30 Room E

Moderator: Maryann Shen, Ph.D.

(1) Novel Approaches for Phosphoprotein Analysis using ICP-QQQ

Amir Liba Ph.D. (Agilent Technologies)

(2) High Sensitivity Protein Identification from a pathway perspective

Keith Waddell (Agilent Technologies)

This workshop will focus on new technology that can be brought to bear in the field of proteomics.
The new ICP-triple quadrupole mass spectrometer from Agilent allows low level analysis of phosphopeptides to help identify where in chromatograms the phospho groups are. The technology involving the filtering of oxygen adducts on the phosphorus element through the Q3 region has enabled low level detection in the same sensitivity range that would normally be expected on a LC/MS set up for phosphopeptide analysis. This offers possibilities for absolute quantitation and avoidance of the use of radioactive 32P.
The new ion funnel based Q-TOF LC/MS/MS system allows a deeper level of protein identification. Combined with new HPLC-Chip based technology and improved data dependent software this technology has now been used to enable linkage of protein ID to protein, metabolite and gene pathway analysis. The combination of transcriptomics, metabolomics and proteomics allows true integrated biology.

Wednesday, 19th September 12:20-13:30 Room E

Moderator: Maryann Shen, Ph.D.

1) Recent Advances of Plant Metabolomics Based on Mass Spectrometry

Kazuki Saito, Ph.D. (Riken Plant Science Center)

Metabolomics plays a major role in plant functional genomics and biotechnology. We have established an excellent analytical platform of plant metabolome based on the combination of multiple mass spectrometers. This presentation will describe the recent development of cutting-edge metabolomics technology and successful application in plant functional genomics and crop biotechnology.

2) Advances in Instrumentation and Software: Data Directed Multi-Omics Mining of Biological Pathways

Theodore Sana, Ph.D. (Agilent Technologies)

The field of Metabolomics requires rigorous statistical analysis and confident identification of metabolites. This session will also explore the use of transcriptomics, proteomics and metabolomics to elucidate an integrated biology approach to determine biological changes in disease systems. Pathway analysis software has enabled a viewing of the changes in metabolites from a pathway perspective rather than from just a metabolite perspective. This integrated approach allows linkage on a Multiomic level and allows better confirmation and understanding of biological change.

3) Metabolic Profiling of Yeast Sterols Using the Agilent 7200 Series GC/Q-TOF System

Terry Sheehan, Ph.D. (Agilent Technologies)

Targeted analysis of the relative levels of ergosterol biosynthesis pathway intermediates was combined with an untargeted approach, empowered by accurate mass high resolution GC/Q-TOF technology, to obtain the most comprehensive results. EI spectral information was complemented with MS/MS accurate mass product ion spectral data to confirm the identity of the compounds accumulated in yeast as a result of drug treatment.

Bruker

Wednesday, 19th September 12:20-13:30 Main Hall

Moderator: Clive Seymour

1. Innovations in Mass Spectrometry

Dr. Arnd Ingendoh(Bruker Daltonik Germany)

2. MALDI Imaging Mass Spectrometry: Practical Considerations

Prof. Richard Caprioli (Vanderbilt University School of Medicine, Nashville TN)

3. Exact and fast: QTOF Technology for Qualitative and Quantitative Analysis

Dr. Peter Brechlin (Bruker Daltonik Germany)

Currently,. a wide range of novel mass spec apppoaches for clinical, pharmaceutical analysis, proteomics as well as for applied markets like food safety, forensics and environment is developing. This is truly driven by recent innovations in instrumentation, methods and technology. The seminar will provide an overview of the current status of mass spectrometry for those new approaches.

Thursday, 20th September 12:20-13:30 Room E

Moderator: Rohan Thakur

Game Changing Technologies in MRM Analysis

Removing bottlenecks from sample to reports in MRM analysis

Jonathan McNally (Bruker Daltonics)

An introduction to a triple quadrupole designed for a singular purpose - to reliably quantify thousands of real samples in the fastest 'Sample-to-Report' time possible. Delivering exceptional precision, accuracy, linearity, and a wide dynamic range for your multiple reaction monitoring (MRM) assays. Innovations in software and ionization technology make it a 'game changer' for routine high-sensitivity, quantitative analysis.

JEOL

Monday, 17th September 12:20–13:30 Room D

Moderator: Yoshihisa Ueda

1. Direct Analysis in Real Time (DART®): new applications and future prospects

Robert B Cody, Jr.

New applications and future prospects of the Direct Analysis in Real Time (DART®) technology will be presented by Dr. Robert B. Cody, one of the inventors of the technology.

2. Analyses of lipids using SpiralTOF™ MALDI-TOF-TOF tandem MS: structural analyses and highly selective imaging

Jun Tamura

Analyses of simple and complex lipids using SpiralTOF™ MALDI-TOF-TOF tandem MS will be presented. Structural analyses of lipids, including regio-specific analysis of triacylglycerols, utilizing high precursor ion selectivity and high-energy collision induced dissociation capability of the SpiralTOF™ and highly selective imaging of lipids on biological specimens utilizing high mass resolving power and high mass accuracy of the SpiralTOF™ will be discussed.

IonSense/AMR

Thursday, 20th September 12:20–13:30 Room D

Moderator: Yasuhiko Bando (AMR, Inc.)

1. DART-MS Strategies for Rapid Screening and Quantitation of Pesticides

Elizabeth Crawford (IonSense, Inc.)

Pesticides and fungicides can be detected rapidly by using DART-MS. The capability for screening and quantitation of residues in order to efficiently monitor produce products before reaching the consumer market is the topic of this presentation. The Direct Analysis in Real Time (DART) ambient ionization technique offers the ability to rapidly screen the surface of produce for pesticides by a direct swabbing method and permits direct analysis of fruit juices in seconds. With automated sample introduction rapid screening and quantitative measurements can be completed using DART ionization coupled to high resolution accurate mass and triple quadrupole mass spectrometers.

2. OpenSpot® Mass Spectrometry tools for Real-Time Quality Assessment using DART ionization sources

Brian Musselman (IonSense, Inc.)

The rapid sampling of DART-MS permits monitoring of reaction products in seconds per sample using only a few microliters of sample. A rapid desorption system that allows for both detection of the acids by negative ion detection of the deprotonated molecule. The utility of this method for quality control experiments will be discussed using determination of fatty acids from edible oil. In these experiments the mesh is attached to a variable-current power supply that can deliver sufficient current to heat the sample at a rate > 20X faster than the conventional DART cartridge heater.

As monitoring of the production of fatty acids is completed in seconds per sample the method shows promise as a tool for detection of low and moderate levels of contaminants, monitoring the progress of biofuel production, detection of adulterants and non-specific threats.

3. Advantages of Using DART Ionization with Different Types of Mass Specs

Teruhisa Shiota (AMR, Inc.)

Various examples of DART-MS analysis will be presented to illustrate the advantages of using the Direct Analysis in Real Time ionization method with different types of mass spectrometers such as single/triple quadrupole and Orbitrap. The new DART ID CUBE features more powerful heating mechanism to allow analyses of metal organic complexes and pigments that were difficult to analyze with the conventional DART ionization sources.

Shimadzu

Monday, 17th September 12:20-13:30 Main Hall

Moderator: Iwamoto Shinichi (Shimadzu)

"Let's Fish Mass"

Koichi Tanaka (Shimadzu)
Daniel J Capon (Blood Systems Research Institute San Francisco, U.S.A)

Tuesday, 18th September 12:20-12:30 Room D

Moderator: Neil Loftus (Shimadzu)

"Challenges in (un)-supervised LC-MS/MS)-based metabolomics."

Gérard Hopfgartner (School of Pharmaceutical Sciences,University of Geneva, University of Lausanne, Geneva, Switzerland)

Qualitative and quantitative analysis of endogenous and exogenous compounds in biological fluids such as plasma or urine is mainly performed using high performance liquid chromatography with mass spectrometric detection. While high resolution mass spectrometry is gaining of interest for unsupervised analysis and compound identification triple quadrupoles still play an important role for sensitive and accurate quantitation of targeted analytes simultaneously in the positive and negative mode. Due to the large polarity range of the metabolites multiple separation strategies need to be considered including reversed phase, HILIC or ANP chromatography, generally in the ultra-high pressure mode. As the analytes of interest are covering a large dynamic range of at least 5-6 orders of magnitude direct injection of urine or the supernatant after plasma protein precipitation are of limited interest. Pooling extracts from different sample preparation (protein precipitation and liquid liquid extraction) procedures starting with different sample volume is one approach which equalizes the analytes of interest and allows them to be analyzed in a single run. In that case column-switching is used as an injector for the LC separation. Finally, as most of the compounds are endogenous construction of calibration curves in the matrix investigated for quantification is challenging requiring the use of surrogate matrices or surrogate analytes.

Wedensday, 19th September 12:20-13:30 Room D

Moderator: Jeff Dahl (Shimadzu Scientific Instruments Inc.)

"Ultra Fast and Sensitive: Shimadzu UHPLC-Triple Quadrupole Mass Spectrometers "

Richard van Breemen (University of Illinois, UIC/NIH Botanical Center for DietarySupplements Research,U.S.A)

UHPLC-MS-MS applications of the new Shimadzu LCMS-8040 and LCMS-8080 triple quadrupole mass spectrometers will be discussed with an emphasis on the quantitative analysis of natural products in clinical specimens and botanical dietary supplements. The Nexera UHPLC system was used as an ideal complement for the ultra fast LCMS-8040 and the ultra sensitive LCMS-8080. Examples include the quantitative analysis of carotenoids, retinol and retinyl esters in human liver biopsies and serum, hepatotoxic pryolizidine alkaloids in borage oil dietary supplements, anthocyanidins in freeze-dried grapes, and enzyme assays for the inhibition of cytochrome P450 enzymes by hops and prenylated flavonoids from hops. UHPLC combined with fast and sensitive tandem mass spectrometry facilitated separations that were up to 12-fold faster and more sensitive than previous methods.

Thursday, 20th September 12:20-13:30 Main Hall

Moderator: Yoshinao Wada (Osaka MCH)

" Induction of Pluripotency of Defined Factors"

Shinya Yamanaka (Center for iPS Cell Research and Application, Kyoto University, Japan)

Induced pluripotent stem (iPS) cells were originally generated from mouse and human fibroblasts by retroviral introduction of Oct3/4, Sox2, c-Myc, and Klf4. iPS cells are similar to embryonic stem (ES) cells in morphology, proliferation, gene expression, and most importantly, pluripotency. Compared to ES cells, iPS cells have less ethical controversy and can be generated from various genetically identified individuals including disease patients or those having specific human leukocyte antigen (HLA) types. Patient-specific iPS cells provide unprecedented opportunities in disease research, drug screening, and toxicology. A bank of iPS cells constructed from HLA-homozygous donors would provide significant resources for stem cell therapy. However, recent reports of tumor formation following transplantation, and the large diversity between iPS cell clones highlight potential problems. Furthermore, the mechanism of reprogramming remains unclear.

In addition to fibroblasts, iPS cells can be generated from various somatic cells, such as hepatic cells, gastric epithelial cells, neural cells, dental pulp cells, peripheral blood cells, and cord blood cells. As alternatives to retroviral transduction, iPS cells can be generated by lentiviruses, adenoviruses, plasmids, transposons, recombinant proteins, or synthesized mRNA. Recently, we reported an integration-free induction method using episomal vectors. This method can induce human iPS cells efficiently and reproducibly. Regarding iPS cell induction factors, we discovered that L-Myc and the transcription factor Glis1, which is strongly expressed in the unfertilized egg, can establish iPS cells with a high efficiency and quality, replacing the oncogene c-Myc. Other reports suggest that chemicals can further enhance induction efficiency.

Each induction experiment can result in up to 100 or more independent iPS cell clones. These iPS cell clones may vary qualitatively, considering responses to in vitro directed differentiation protocols and their propensity to produce tumors. In fact, we have previously shown that the origins of mouse iPS cells have profound effects on tumorigenicity. It is therefore essential to

determine the best origins, the best induction protocols, and the best methods to evaluate iPS cell clones and subclones for future clinical applications. From this point of view, the need for genetic and epigenetic analyses, such as DNA methylation, histone modification, and genomic imprinting becomes more significant. It is also important to note that iPS cell within a clone can be heterogeneous, despite their common derivation from a single progenitor cell. This is likely because the process requires multiple cell division and cannot be completed by the four exogenous factors alone. Additional endogenous factors are required to achieve full reprogramming. Better understanding of the reprogramming mechanism will facilitate more uniform and complete reprogramming during iPS cell generation.

Thermo Fisher Scientific

Tuesday, 18th September 12:20-13:30 Main Hall

NEW Mass Spectrometry Technologies from Thermo Fisher Scientific

August Specht Ph.D. (Thermo Fisher Scientific SanJose USA)

New LC-MS, GC-MS, ICP-MS and IOMS instruments from Thermo Fisher Scientific deliver exciting new capabilities to solve critical analytical challenges . Technology breakthroughs enable systems that deliver higher performance – faster - and with sample prep and software to support key application workflows. Learn about the new TSQ 8000 GC/MS,a robust instrument that delivers unstoppable prouctivity for MS/MS simplicity. The new Exactive Plus LC/MS is a next generation orbitrap system for routine screening and quantitation. The iCAP Q ICP-MS offers leading sensitivity, increased productivity and simplified operation with the smallest footprint in the industry. Come learn about these important new systems and see many test cases demonstrating their impressive performance in key applications.

Waters

Wedensday, 19th September 12:20-13:30 Room B-1

Moderator: Kenji Hirose (Waters)

Characterisation of Large Molecules by Advanced Mass Spectrometry

Dr St John Skilton (Waters)

Abstract: As the market for Biotherapeutics accelerates and as Biosimilars are increasingly developed, the analytical market has boomed because of the power and detail available from mass spectrometry. Waters has developed a number of unique tools for this market and they have been further refined, augmented and enhanced in response to immediate need. For an organisation like Waters, these tools are now moving towards being incorporated into system solutions that are regulated – the first time that an analytical instrument vendor has taken on this challenge.

In this seminar we will examine the progress that has been made so far in designing and implementing advanced tools, the work in moving these tools into a routine framework, where non-specialists are able to access relevant technology with ease. In addition, the future pathway will be explored with a view to extending this to ever larger molecules and ever greater complexity.

Tuesday, 18th September 12:20-13:30 Room B-1

Moderator: Futoshi Sato (Waters)

Advances in Mass Spectrometry for Protein Biomarker Discovery

Dr. Jim Langridge (Waters)

Abstract: Advances in liquid chromatography and mass spectrometry are driving the ability to rapidly and accurately characterise complex systems samples. This workshop will focus upon these advances and the associated informatics to integrate proteomics with other 'omics data streams.

Wedensday, 19th September 12:20-13:30 Room B-1

Moderator: Motoji Oshikata (Waters)

Advances in Drug Metabolism and Bioanalysis

Dr. Robert Plumb (Waters)

Abstract: The Drug Metabolism and Pharmacokinetics has seen new scientific challenges and important regulatory changes over recent years. These changes and challenges require new innovative thinking and solutions to meet the business and scientific needs. Join the Waters DMPK team ain this session to discuss recent advancements in metabolite identification, bioanalysis and the analysis of therapeutic proteins. The session will be interactive with technology updates from the Waters staff, industry perspectives from leading scientist and open forum discussions.

Thursday, 20th September 12:20-13:30 Room B-1

Moderator: Futoshi Sato (Waters)

Novel Tools for the Analysis of Complex Mixtures Using an "Omics-Based" Approach

Dr. John Shockcor (Waters)

Abstract: During this presentation, gene expression and its involvement in lipid metabolism and energy homeostasis will be discussed. Learn how to characterize the metbolic effects of Peroxisome Proliferator Activated Receptor (PPAR)-pan drug on white adipose tissue (WAT) using a mass spectrometry based lipidomic approach. Find out if the observed effects of drug administration resulted in up-regulated fatty acid oxidation or increased fatty acid sequestration and elongation.

Company Information

Exhibitors

AB SCIEX Pte. Ltd — Booth B

500 Old Connecticut Path, Framingham, MA 01701, USA.
Phone 508-383-7700
www.absciex.com

AB SCIEX helps to improve the world we live in by enabling scientists and laboratory analysts to push the limits in their field and address the complex analytical challenges they face. The company's global leadership and world-class service and support in the mass spectrometry industry have made it a trusted partner to thousands of the scientists and lab analysts worldwide who are focused on basic research, drug discovery and development, food and environmental testing, forensics and clinical research. With over 25 years of proven innovation, AB SCIEX excels by listening to and understanding the ever-evolving needs of its customers to develop reliable, sensitive and intuitive solutions that continue to redefine what is achievable in routine and complex analysis. For more information, please go to www.absciex.com. Follow AB SCIEX on Twitter @ABSCIEX and on Facebook.

Advion, Inc. — Booth 5

10 Brown Road, Ithaca, NY 14850 USA
Yoshiharu Naito (info.advj@advion.com)
Amy Lummus (alummus@advion.com

Advion develops, manufactures and globally supports mass spectrometers, chip-based ion sources, microfluidic flow chemistry systems and consumables for life science and related industries. We seek to enhance analysis performance and workflows. Using our deep scientific and engineering knowledge of mass spectrometry and microfludics, we leverage our passionate employees' commitment to create quality, flexible and fit-for-purpose solutions. More about Advion, Inc. can be found on their website, www.advion.com.

Agilent Technologies, Inc. — Booth A

5301 Stevens Creek Blvd Santa Clara, CA 95051 USA
1-800-227-9770
www.agilent.com/chem/contact

Agilent Technologies is the world-wide leader in mass spectrometry, with proven, reliable GC/MS, LC/MS, CE/MS, and ICP-MS instruments and solutions for diverse application areas including pharmaceutical, food safety, environmental, forensic, metabolomic, proteomic analysis and clinical research. Agilent mass spectrometers work seamlessly with our industry-leading GC, LC, SPE and CE separation technologies. This comprehensive portfolio of innovative instruments uses MassHunter software which provides a single, consistent user interface that dramatically accelerate data acquisition, processing and reporting. With our sample preparation supplies, separation columns, Agilent provides complete solutions which are backed by Agilent's legendary world-wide service and support organization that ensures 24/7 reliability, maximum uptime and productivity.

Antec

Booth 37

Industrieweg 12, 2382NV, Zoeterwoude the Netherlands
info@myAntec.com
TEL +31-71-5813333
FAX +31-71-5813334

Antec is a worldwide supplier of Electrochemistry (EC) and (U)HPLC hardware used upfront MS, for the on-line coupling of EC with LC/MS. The award winning ROXY™ EC and ROXY™ EC/LC Systems are on display. They are known for their superior performance and unique features, e.g., versatility - they fit with any MS!
In many cases, Electrochemistry complements MS and allows for faster and superior MS analysis with substantial cost savings. Typical examples are in the mimicking and prediction of drug/xenobiotic metabolism, Protein chemistry, i.e., reduction of disulfide bonds, oxidative stability of nutrients and healthcare products, etc.
Special drivers are available and will be introduced such as XCalibur (Thermo) to allow easy instrument control and operation. Other products such as the new chip based electrochemical flow cells and new electrodes for optimal disulfide bond reduction in proteomics will be shown.

APRIORI CORPORATION

Booth 31

1-7, KANDA-SUDACHO, CHIYODA-KU, TOKYO 101-0041, JAPAN
KOICHIRO NAKADA
info@apriori.co.jp
TEL: 03-5296-5521
www.apriori.co.jp

Syft Technologies' Voice200® is based on the technology of Selected ion flow tube mass spectrometry (SIFT-MS) and it provides capability to detect and quantifies volatile organic compounds (VOCs) and certain inorganic compounds down to part-per-trillion concentrations in real-time usually with no sample preparation. The instrument is user-friendly and can be operated by non-technical personnel.
These characteristics mean that SIFT-MS can easily be applied to the variety of R&D and manufacturing field such as Ambient air monitoring and other environmental and occupational safety, Medical and breath research, Food and flavour research, Monitoring hydrocarbons in oil and gas exploration and drilling operations, and Detection of residual fumigants and other toxic industrial compounds in shipping and air-freight containers, etc.
If you need to detect or quantify VOCs rapidly and accurately, SIFT-MS Voice200® has a solution for you.

Biologica Co.

Booth 39

Ohsu 4-10-40 Naka-ku, Nagoya 460-0011
sales@biologica.co.jp
www.biologica.co.jp

Biologica exhibits the products as distributor of Antec and New objective that are ROXY, EC potentiostat for online EC/MS, and electrospray tips and Nano-column for LC/MS respectively.

Biotage JAPAN, Ltd.

Booth 4

1-14-4, Kameido, Koto-ku,Tokyo, Japan 136-0071
Japan_info@biotage.com

Sample preparation doesn't have to be difficult or time consuming. Biotage offers instrumentation and consumables for many industries, including pharmaceutical, environmental, forensic, clinical and food testing. Through our application chemists and many application notes, we are here to help you establish the most cost-effective and appropriate sample preparation prior to LC/MS, GC/MS or other analytical method. We will present a poster with title of "Effective Strategies for Phospholipid Removal using Supported Liquid Extraction (SLE) with LC-MS/MS" on 19th September. Stop by booth #4 and poster #PWe-047 at IMSC 2012 to speak to one of our Technical Representatives!

Bruker

Booth E

Bruker Daltonics K.K. Japan Office
3/9, Moriya-cho Kanagawa-ku Yokohama-city, KANAGAWA 221-0022 Japan
Yasuhiko Maekawa
045-440-0471
info@bruker-daltonics.jp
http://www.bdal.com

While you've always known us as the leader in MALDI TOF and TOF/TOF technology, today Bruker Daltonics is about so much more. From pioneering ultra-high resolution mass spectrometry with the maXis series of LC-MS/MS qTOFs, to developing the most compact GC-MS/MS on the market, Bruker is your partner for system solutions and workflows to enhance your productivity and provide the answers to your analytical challenges.

CTC Analytics AG

Booth 2,3

www.palsystem.com
info@ctc.ch

CTC Analytics AG, a privately owned Swiss and ISO 9001/13485 registered company, is a leader in front-end automation for gas and liquid chromatography. Over the course of the last 25 years we have invested in the continuous development of a flexible, highly reliable, advanced laboratory sample handling platform, primarily designed for use by researchers and scientists in the pharmaceutical, life science, chemical, environmental and food & flavor industries. The PAL products are distributed through OEM channels as well as through a selected net of independent CTC distributors around the world.
CTC Analytics shows at IMSC 2012 its brand new Sample Prep Automation system - the PAL RTC. This unique PAL System features a Robotic Tool Changer and completely new Software, the Cycle Composer 3. The PAL RTC is the new platform for efficiently automating complex sample preparation steps.
Wherever increased precise and accurate sample loading/throughput, fast cycles, modular architecture in combination with flexibility, near zero carryover and exceptional reproducibility is required the PAL product family is the right choice.

Fujitsu Limited / Advanced Chemistry Development, Inc.

Booth 36,43

Fujitsu:
9-3, Nakase 1-chome, Mihamaku, Chiba City, Ciba 261-8588, Japan
ACD/Labs Team
Computational Science and Engineering Solution Div.
Technical Computing Solutions Unit
tcsu-acd@ml.css.fujitsu.com
TEL:(043)299-3680 FAX:(043)299-3011
Advanced Chemistry Development, Inc(ACD/Labs):
8 King Street East, Suite 107,Toronto, Ontario, Canada M5C 1B5
info@acdlabs.com
Phone: Toll free (USA & Canada): 1-800-304-3988
Voice: 1 (416) 368-3435
Fax: 1 (416) 368-5596

Advanced Chemistry Development, Inc., (ACD/Labs) is a chemistry software company that develops and commercializes enterprise and desktop solutions to support R&D efforts, and preserve and re-use legacy chemical and analytical knowledge. We also provide integration with existing informatics systems and undertake custom projects including enterprise-level automation. ACD/Labs develops desktop and enterprise software solutions for chemical, biochemical, and pharmaceutical R&D. Our expertise lies in vendor-neutral spectroscopic and chromatographic data processing and prediction, physicochemical and ADMET property prediction, analytical knowledge management, interactive reporting, and integrating analytical data with chemical structures to help protect and leverage valuable research knowledge.

GL Sciences Inc.

Booth 49

22-1 Nishishinjyuku 6-chone,Shinjyuku-ku,Tokyo,163-1130 Japan
world@gls.co.jp

GL Sciences is a Japanese chromatograph maker who deals with consumables and equipments from sample preparation to analysis. As HPLC columns, InertSustain series(C18, C8, Phenyl, NH2) have been developed and manufactured from Silica Gel which was controlled. InertSustain are very inertness, longer durability and high sensitivity. For GC analysis, Gas Leak Detector LD239 is an high sensitivity, convenience, and incredible downsizing to use. Let's try to use.

Hakuto Co., Ltd. — Booth 14

1-13, Shinjuku 1-Chome, Shinjuku-Ku, Tokyo 160-8910, Japan
SECOND SALES DEPT. ELECTRONIC EQUIPMENT DIV.
Tel +81-3-3225-8939(Direct), Fax +81-3-3225-9011

Hakuto Co., Ltd. has started handling of Alcatel Lucent's Vaccum (adixen) products in addition to Pfeiffer Vacuum products as an exclusive distributor in Japan since July, 2011.
Pfeiffer Vacuum has produced and developed advanced vacuum pumps, measurements and analysis equipments since they founded in 1890. Pfeiffer Vacuum invented turbopump at first in the world more than 50 years ago. Thank to continue to innovate their technology, Pfeiffer Vacuum becomes as leading company in this field to provide optimized vacuum environment for a wide variety of customers in all of the world.
Jan. 2010 Pfeiffer Vacuum Technology AG acquired Trinos Vacuum System.
Dec. 2010 Pfeiffer Vacuum Technology AG acquired Alcatel Lucent's Vaccum Technology Unit (adixen).
From standard turbopumps to pumps especially suited for mass spectrometry and electron microscopy, we deliver perfect vacuum solutions that will allow your analytical instrument to exceed expectations.

HAMAMATSU PHOTONICS K.K. — Booth 45

314-5 Shimokanzo, Iwata-City, Shizuoka Pref., 438-0193, Japan
E-mail: salespro@etd.hpk.co.jp
TEL: 0539-62-5248, FAX: 0539-62-2205
Web site: http://www.hamamatsu.com/

Hamamatsu Photonics, as a technological group of light, is pursuing the limit of light,
carving out unexplored fields one after another, and taking an active part in a wide range of fields.
We manufacture and sell MCP (micro channel plate) assemblies for TOF-MS.

Hitachi, Ltd., Central Research Laboratory — Booth 7

1-280, Higashi-koigakubo, Kokubunji-shi, Tokyo, 185-8601, Japan
https://www8.hitachi.co.jp/inquiry/hqrd/rd/en/form.jsp

Hitachi Central Research Laboratory (HCRL), nestled among the natural flora of the Musashino area, was established in 1942 by the founder of Hitachi, Ltd., Mr. Namihei ODAIRA, with the mission of “Confronting today's developmental challenges as well as pursuing research for 10 to 20 years in the future.” HCRL has fostered three core technologies: Measurement Technology, beginning with the electron microscope in 1942; Electronics, beginning with the transistor in 1952; and Computing, beginning with general purpose computers in 1956. These three core technologies have been fused together and further developed, contributing to Hitachi's large-scale businesses in energy generation, semiconductor devices, computers and communications. Today, we continue to strive to create new technologies in the fields of information and communication, electronics, life sciences and measurement technology.

HORIBA, Ltd.

Booth 10, 11

2 Miyanohigashi, Kisshoin, Minami-ku Kyoto 601-8510 Japan
http://www.horiba.com info.hstec@jp.horiba.com

The HORIBA Group of worldwide companies provides an extensive array of instruments and systems for applications ranging from automotive R&D, process and environmental monitoring, in-vitro medical diagnostics, semiconductor manufacturing and metrology, to a broad range of scientific R&D and QC measurements. Proven quality and trustworthy performance have established widespread confidence in the HORIBA Brand.
"HORIBA - Your Trusted Technology Partner"
Realize your optimal manufacturing process and improve your Overall Equipment Efficiency with world-class analysis, monitoring, and control technology from HORIBA - the company you can trust to adapt to your needs and always be there to provide expertise and support today, tomorrow, and into the future.
HORIBA-STEC "MICROPOLE System" is one of the world's most compact and lightest* residual gas analyzers with the capability to detect trace gas in a low vacuum. We explored the possibility of using this system under various conditions and designed a mass detector with 9 quadrupoles. (*From HORIBA STEC 2011 research)

Hudson Surface Tech

Booth 15,16

2 Executive Dr, Suite 580, Fort Lee, NJ, USA
Don Lee
www.maldiplate.com

Hudson Surface Technology is the leading source for single-use third party sample plates for MALDI-MS for ABSciex, Bruker, Shimadzu and JEOL instruments. μFocus MALDI targets provide precisely defined hydrophilic islands on a hydrophobic surface so that your dried drop sample spots are focused onto repeatable, defined spots. HST offers these in standard formats for ABSciex, Bruker, Shimadzu and JEOL instruments, and also include ITO slide glass for MALDI imaging. For instruments, HST offers protein sample prep system which is Rapid Enzyme Digestion System (REDS) and μMatrix Spotter as well.

INFOCOM CORPORATION

Booth 27

Sumitomo Fudosan Harajuku Building, 2-34-17, Jingumae, Shibuya-ku, Tokyo 150-0001, Japan
http://infocom-science.jp/ info-science@infocom.co.jp

Innovative software solutions for data analysis of mass spectroscopy are exhibited.
PEAKS is a complete software package for proteomics mass spectrometry data analysis. It effectively performs peptide and protein identification, PTM and mutation characterization, as well as results validation, visualization and reporting.
SIMCA multivariate analysis software is designed for easy use by researchers using mass spectroscopy. From the complexity of the spectral fingerprints generated in proteomics, metabolomics, chemical and food samples, SIMCA easily distills the latent information by using PCA, OPLS-DA, OPLS and O2PLS.
MetaCore is an integrated knowledge database and software suite for pathway analysis of experimental data, genomics, proteomics and metabolomics. It's manually curated database contains human protein-protein, protein-DNA and protein compound interactions, metabolic

and signaling pathways, supported by proprietary ontologies and controlled vocabulary. AnalyzerPro is vendor-independent data-mining/deconvolution software for mass spectrometry. Its proprietary algorithms provide accurate components which existing software is unable to determine without additional information.

IONICON Analytik GmbH — Booth 9

Eduard-Bodem-Gasse 3 6020 Innsbruck Austria
Phone +43 512 214 800
Email: info@ionicon.com
Web: http://www.ionicon.com

IONICON is the world's leading PTR-MS company, producing ultra-sensitive mass spectrometers for real-time trace gas analysis featuring unique Proton-Transfer-Reaction Mass Spectrometry as well as related technologies such as Switchable Reagent Ions (SRI), where besides H3O+ also NO+, O2+, Kr+ and Xe+ are available as reagent ions to be used in IONICON's universal trace gas analyzers (patent pending). The IONICON product portfolio includes ultra-sensitive quadrupole and high-resolution time of flight based systems, capable of reaching a market-leading detection limit < 1 pptv with an excellent linear dynamic range of more than 6 orders of magnitude and mass resolution up to 8000 m/Δm. Application areas include VOC monitoring and quantification in environmental and biological research, atmospheric chemistry, emissions, exhaust and industrial process monitoring, food, flavor & fragrance science, breath analysis and illicit substances detection. In Japan IONICON PTR-MS instruments are available exclusively through Shoreline Science Research, Inc. (http://www.shorelinesci.jp).

IONICS Mass Spectrometry — Booth 38

32 Nixon Road, Bolton, Ontario, Canada, L7E 1W2
Erik Hansen (905-857-5665 ext. 242, erikh@ionics.ca)

Founded in 2001, IONICS develops and manufactures triple quad mass spectrometers with industry leading sensitivity, robustness and throughput. Our recently launched second generation 3Q Series 100 and 3Q Series 200 offer the end user a broad range of capabilities that benefit from IONICS advances in source design, ion path and signal detection. IONICS instruments are available with a multi-option dual source which enables ESI/ESI, ESI/APCI and APCI/APCI configurations. Data acquisition, processing and reporting is facilitated with our MolAna Software. IONICS offers a full range of service and support options including method development support and is committed to enabling our users to achieve the highest quality results day-after-day. Continually innovating, IONICS has a commitment to producing the most sensitive and robust triple quads, which are capable of pushing the limits of detection to new levels.

IonSense, Inc. / AMR, Inc.

Booth 48

999 Broadway, Suite 404, Saugus, MA 01906
Phone 781 231 1739 www.ionsense.com
AMR, Inc.
Phone +81-3-5731-2281 www.amr-inc.co.jp/

DART is a novel open air ionization methodology that enables ionization of compounds from gas, liquids, and solid at atmospheric pressure. IonSense develops DART® (Direct Analysis in Real Time) technology for mass spectrometry. The company completes product development, manufacturing, as well as sales and marketing activities associated with the interface of DART®SVP and OpenSpot® Sample Card enable ID-CUBE® sources to commercial mass spectrometers from Agilent, Thermo, AB-SCIEX, Bruker, JEOL, Waters and most recently Shimadzu API-series instruments.

JCL Bioassay Corporation

Booth 50

1-4-2, Shinsenri-higashimachi, Toyonaka-shi, Osaka 560-0082, Japan
Head Office +81-6-4863-5020
Yokohama Office +81-45-478-0747
Email info@jclbio.com
http://www.jclbio.com/

JCL Bioassay Corporation is a leading Contract Research Organization (CRO) for bioanalysis in Japan. Our researchers have a wealth of knowledge in bioanalysis as well as acquired skills since the establishment of our company. By using state-of-the-art analytical instruments, our researchers have been able to produce a top-notch level work in ultramicro analysis. This has led to the continuous growth of our company as a leader in the bioanalytical field in Japan.
Our corporate group made its way into the world's largest U.S. market in 2010.
We will adapt our world's top-ranked technologies to the U.S. market, and streamline our operations to improve price competitiveness. With the collaboration of both domestic and overseas laboratories, we aim to be the top bioanalytical CRO in the world.

JEOL Ltd.

Booth C

1-2, Musashino 3-chome, Akishima,Tokyo,196-8558,JAPAN
http://www.jeol.com, phone:+81-42-543-1111

JEOL has been challenging to the state-of-the-art technology including Spiral TOF (MALDI-TOF), DART-MS, GC-TOF, Double-focusing magnetic sector MS, GC-QMS.
JEOL energetically realizes our aim of becoming a "Global Solutions Provider for Advanced Technology."

LECO Corporation — Booth 41

Sumitomofudosan-Shiba Bldg.4, Shiba Minato-ku, Tokyo 105-0014
marcom@leco.co.jp
http://www.leco.co.jp

We, LECO, provide GC-TOFMS and LC-TOFMS.
Pegasus4D and PegasusHT have great strength in Screening.
Pegasus GC-HRT and Citius LC-HRT deliver unmatched mass resolution and mass accuracy.
We are presenting several papers on Citius LC-HRT, Pegasus GC-HRT and Pegasus 4D. (PTu-195, PTh-027, PTh-195, S37-1600, etc.)
Please come and stop by at our booth#41 to feel LECO's excellence in separation and resolution.

LMS Co., Ltd. — Booth 42

3-6-7 Hongo, Bunkyo-Ku, Tokyo, 113-0033 Japan
SI division Mr. Yoichi Kadooka
http://www.prosolia.com/

Prosolia, Inc. is a scientific instrument company developing and marketing novel sample introduction technologies for mass spectrometry. Our portfolio scientific analytical tool are part of workflows that reduce complexity and accelerate results. Desorption Electrospray Ionization (DESI) is our flagship product. DESI enables rapid spot sampling and chemical imaging of surfaces under ambient conditions using mass spectrometry. Prosolia's current products retro-fit onto instruments produced by the major instrument companies including AB SCIEX, Thermo Scientific, Waters, Agilent, Bruker and LECO Corp.

Matrix Science K.K. — Booth 29

KN-Bldg 3F, 6-10-12 Sotokanda, Chiyoda, Tokyo 1010021 Japan.
TEL:+ 81-3-5807-7895
FAX:+81-3-5807-7896
http://www.matrixscience.com Info-jp@matrixscience.com

Mascot Server is a powerful search engine which uses mass spectrometry data to identify proteins from primary sequence databases. We will exhibit new version V2.4, and presenting a new feature, "Database Manager", " Report Builder " and more.
Mascot Distiller offers a single, intuitive interface to mass spectrometry data files from Agilent, AB SCIEX, Bruker, Shimadzu, Thermo, and Waters. A unique algorithm, which fits each peak to a calculated isotope distribution, processes the raw data into high quality, de-isotoped peak lists. Optional toolboxes support Mascot search result review, automatic and manual de novo sequencing, batch processing and quantitation.

MS NOISE

Booth 6

1, boulevard des noyers pompons ZAC des vauguillettes – Atelier 4 89100 SENS – France
Contact : Pieter DEKOCKER
Email : contact@msnoise.com
Website : www.msnoise.com or www.ionbench.com

" MS Noise™ and IonBench™, for a quiet lab !
Laboratories are often noisy due to vacuum pumps, waterchillers, compressors , nitrogen generators, ultrasonic cleaners…This noise makes working conditions around equipments uncomfortable and tiring. The solution? MS Noise™ Acoustic Enclosures or Ionbench™ mass spectrometers benches !
We are focused on acoustic insulation in laboratories. MS Noise is designing, producing and delivering high quality solutions to reduce the noise generated by any kind of equipment in laboratories. MS Noise enclosures reduce noise to an acceptable, safe and comfortable level for people who work around traditionally noisy equipments. Ms Noise enclosures reduce noise level between 15 to 20 dB(A) (avg. 80%)
IonBench is manufacturing mobile benches for Mass Spectrometry or HPLCs applications,
Our products fits virtually all models from leading mass spectrometers manufacturers ".

Nihon Pall Ltd.

Booth 44

6-5-1, Nishishinjuku, Shinjuku-ku, Tokyo, 163-1325 Japan
Reiji Kobayashi(reiji_kobayashi@ap.pall.com)

The Acrodisc MS (mass spectrometry) syringe filter is the first and only LCMS (liquid Chromatography mass spectrometry) certified, disposable, 25 mm syringe filter. It has a unique 0.2 μm WWPTFE (water-wettable polytetrafluoroethylene) membrane and an HDPE (high density polyethylene) housing. The WWPTFE membrane and the HDPE housing combination are extremely low in extractables. Less extractables mean less chromatographic and MS interference, less contribution to MS background, and less ion suppression (or enhancement) for better overall LCMS performance.

- LCMS certified – Be confident about your LCMS (Liquid Chromatography/Mass Spectrometry) results. The Acrodisc MS syringe filter is the first LCMS-certified filter with extremely low levels of extractables to minimize interference in LCMS chromatograms.
- Low ion suppression/enhancement – Obtain accurate results the first time and reduce the need for retesting. The Acrodisc MS syringe filters will not interfere with the ionization process which is the heart of the LCMS technique.

PEAK SCIENTIFIC JAPAN KK

Booth 12,13

2F Fuji Building 28 2-7-26 Kita Aoyama Minato-Ku, Tokyo 107-0061 Japan
Tel No +81 (0) 3-6864-0468
Contact: Hye Seung Dresser – Territory Manager Japan
http://www.peakscientific.co.jp

Peak Scientific Instruments Ltd are a manufacturer of laboratory Gas Generators including nitrogen, hydrogen and zero air suitable to operate most laboratory analytical applications such as LCMS (liquid chromatography mass spectroscopy) and GC (Gas chromatography).
With varying flow rates, purities & pressures of gas generators, available with or without internal air compressors, Peak are confident to offer the complete solution to your total Gas requirements. Our Gas Generators provide a safe & economical alternative to combustible bottled Gas cylinders offering a constant purity resulting in accurate analysis.
Our Service & Support is world class. Without fail our expert engineers fix problems at the first visit and you can find them all around the world- not that you will need them very often. Even though our Laboratory Gas Generators take the strain in the lab, they deliver all your gas requirements smoothly- and reliably.

PHOTONIS USA

Booth 25, 26

660 Main Street, Sturbridge, MA USA 01566
Mr. Bruce Laprade (b.laprade@usa.photonis.com)
Ms. Valerie Grib (v.grib@usa.photonis.com)
Mr. John Harper (j.harper@usa.photonis.com)
Phone: +1 508 347 4000
Fax: +1 508 347 3849
http://www.photonis.com/en/ism/88-mass-spectrometry.html

PHOTONIS USA is the world's leader in the design and manufacture of mass spectrometer, residual gas and ion mobility detectors and sensors. We hold a number of patents on our products which ensures that PHOTONIS detectors bring quality analysis.
PHOTONIS manufactures a wide range of custom and standard products for most major mass spectrometers, including:

- Channeltron® Electron Multipliers for extended life and enhanced sensitivity;
- Time-of-Flight detectors which are the world's fastest to reduce time jitter errors;
- Microchannel Plates (MCPs) - we manufacture the widest range of geometries, sizes, shapes and configurations to suit most requirements;
- Resistive Glass Products which enhance ion transport efficiency through capillary tubes, drift tubes, ion guides, and collision cells.

PHOTONIS introduces a new Ion Mobility Analyzer which can be used as a stand-alone product or coupled with a mass spectrometer. It features a high resolving power for simple and quick analysis.

Phytronix Technologies Inc. — Booth 28

4535, Wilfrid-Hamel blvd, suite 120, Quebec City, Canada, G1P 2J7
info@phytronix.com
www.phytronix.com

The leader in high throughput solution in mass spectrometry presents the LDTD-96 and LDTD-384 ion sources. These platforms are the unique way to achieve up to 1400 samples analysis per hours. This shotgun approach introduces the sample into the mass spectrometer by fast Laser Diode Thermal Desorption (LDTD) process combined to an atmospheric pressure chemical reactions (LDTD-APCI). No matter what your application field is, the LDTD technology is an unmatchable alternative to increase your throughput.

Polymer Factory Sweden AB — Booth 46

Teknikringen 48
114 28 Stockholm, Sweden
Andreas Nyström, CEO
andreas.nystrom@polymerfactory.com
Jonas Bengtsson, Project Manager
jonas.bengtsson@polymerfactory.com

Polymer Factory is a provider of advanced dendritic and polymeric materials, such as dendrimers and dendrons, and a contract research company. We are committed to deliver cutting edge know-how and groundbreaking materials to accelerate our customer's success in material and life science. Our products are used to support research and development projects in a broad array of applications, ranging from pharmaceuticals to semiconductor materials.
Polymer Factory is also the sole provider of SpheriCal®; a series monodisperse calibration standards that offer mass spectroscopy users time-saving sample preparation plus highly-accurate calibration. By combining excellent long-term stability with evenly-spaced calibration points, SpheriCal® was developed to help users increase the frequency and quality of their MALDI calibrations.
To learn more about Polymer Factory or SpheriCal®, head to our webpage at www.PolymerFactory.com.

Shimadzu Corporation — Booth F

1 Nishinokyo Kuwabara-cho,Nakagyo-ku,Kyoto 604-8511,Japan
imsc2012@group.shimadzu.co.jp

Shimadzu Corporation is approving IMSC2012 (The 19th International Mass Spectrometry Conference) as a platinum sponsor.
We present newly-developed Ultra Fast Technologies and three new triple quadrupole mass spectrometers: LCMS-8040 which incorporates newly ion optics and collision cell technology to provide higher MRM sensitivity, LCMS-8080 which developed to realize high sensitivity less than a low femtogram even if in a complicated matrix represented by plasma, and GCMS-TQ8030 which is the first domestically product at IMSC2012. Moreover we provide various plans, such as user's day and a luncheon seminar. We all are looking forward to your participation of IMSC2012.

SYSTEM INSTRUMENTS CO., LTD — Booth 8

776-2 Komiya, Hachioji, Tokyo 192-0031,Japan
TEL:81-42-648-0533 FAX: 81-42-646-8228
Email: sice@sic-tky.com
http://www.sic-tky.com/

System Instruments Co., Ltd is a manufacturer of analytical instruments. We have the biggest share of the market of Nitrogen Gas Generator for LCMS in Japan .System instruments insist on offering our customers the products of best quality and fast maintenance services.
We have a wide range of Nitrogen Gas Generator lineup. The composite and separate types can satisfy customers who have enough space or not.
The best-selling Nitrogen Gas Generator is Model 30F,which can be used for the LCMS of Various brands. Model 30F can produce 30L/min Nitrogen Gas of over 95% purity.
Model 30F is installed with a Built-in type Hi-performance oil free scroll Compressor, which can continuously run16000 hours. And with a Low lever Noise of 47dB(A) . The Internal Drain System that can help customers stay out of the troublesome drain works. Model 30F also has an emergency Drain System .

Thermo Fisher Scientific — Booth 17-24

355 River Oaks Parkway San Jose, CA 95134 US
+1(408)965-6000
http://www.thermoscientific.com/

The Thermo Scientific brand represents Thermo Fisher Scientific's broad range of laboratory solutions for the life sciences industries. Our product offerings include chromatography and mass spectrometry products as well as guaranteed support to meet your analysis needs.

ULVAC-PHI, Inc. — Booth 1

370 Enzo, Chigasaki, Kanagawa, 253-8522, Japan
marketing@ulvac-phi.com

ULVAC-PHI, Inc., started as a joint venture of Physical Electronics (PHI) and ULVAC, Japan. We are now the world's leading manufacture of advanced surface analysis apparatus aiming to the number one product of SIMS, XPS, and AES. Surface characterization technique is an essential technology in materials research and development, not only for basic research for new materials, green energy and biotechnology, but also the manufacturing sector. At IMSC exhibition, we mainly exhibit the latest time-of-flight secondary ion mass spectrometry (TOF-SIMS) PHI TRIFT V nanoTOF, and its brand-new application using gas cluster ion beam (GCIB). It includes biological tissue imaging, polymer materials characterizations, and organic thin film device.

VRS

Booth 30

Vantage House 26A Northenden Road, Sale Manchester M33 3BR UK
Dr David Jones
E-mail:- djones@vrs-uk.net
Phone:- ++ 44 161 976 4000
Mobile:- ++ 44 7932 303 005
www.vrs-uk.net

VRS are the leading Recruitment Consultancy specialising in jobs within Analytical Chemistry, predominantly Mass Spectrometry & Chromatography (HPLC, GC, LC-MS, GC-MS, ICP-MS, MALDI, etc).
With office locations in the US and Europe we provide unparalleled expertise to jobseekers and employers globally.
To jobseekers VRS provide an exciting and diverse range of job opportunities within Analytical Chemistry, both laboratory-based and customer facing (Sales, Engineering, Marketing) roles. We can also provide you with in depth industry knowledge and advice.
To employers we identify high calibre professionals at all levels of seniority across a wide spectrum of disciplines, meeting both temporary and permanent staffing needs.
www.vrs-uk.net

Waters Corporation

Booth D

Worldwide and Americas Headquarters
34 Maple Street Milford, MA 01757 USA
Tel. 1-508-478-2000
http://www.waters.com/imsc

Waters Corporation, (NYSE:WAT), creates business advantages for laboratory-dependent organizations by delivering practical and sustainable innovation in the areas of liquid chromatography and mass spectrometry, two vital enabling technologies for today's state-of-the-art analytical laboratories.
Waters instruments and software enable significant advancements in such areas as healthcare delivery, clinical research, forensic toxicology, sports medicine, drug discovery and development, environmental management, food and beverage quality control, food safety testing, and water quality analysis worldwide.
Waters helps its customers meet client expectations and satisfy delivery timetables, make profound discoveries, manage laboratory operations, manufacture quality products, and meet current Good Manufacturing Process (cGMP) and Good Laboratory Practice (GLP) requirements and comply with federal and international regulatory guidelines for the testing and manufacture of generic and brand name drugs.
Pioneering a connected portfolio of liquid chromatography and mass spectrometry products, laboratory consumables, laboratory informatics, and post-sale support services, Waters' technology breakthroughs and laboratory solutions provide an enduring platform for customer success. Visit www.waters.com for more information.

YMC Co., Ltd.

Booth 40

YMC Karasuma-Gojo Bldg., 284 Daigo-cho, Karasuma Nishiiru Gojo-dori, Shimogyo-ku, Kyoto 600-8106, Japan
sales@ymc.co.jp
http://www.ymc.co.jp
http://www.keyboardchemistry.com

Our company provides columns and bulk packings for HPLC, UHPLC, SFC, LC, SEC, and flash chromatography for the analysis and purification of small and large molecules. Innovative products include the YMC Triart family of hybrid particles with C18, C8, phenyl, and Diol-HILIC phases, YMC BioPro ion exchange materials for analysis and purification of biomolecules, YMC DispoPackAT flash cartridges, and distribution of various stationary phases built on particles from 1.9 to 150 um. In addition to columns and bulk packings, our company also provides flowreactor systems for chemical synthesis, hydrogenation, and photoreaction, and their related products such as syringe pumps, hydrogen generator, and protein crystallization system.

Zivak Technologies

Booth 47

TÜBITAK MAM TEKSEB A Blok No:AL9 TÜBITAK Gebze Yerleşkesi 41470 Kocaeli / Türkiye
Hüseyin Avni ÇAVDAR
Phone Number: +90 212 210 5435
avni.cavdar @zivak.com
Elif Esin TANIŞ
Phone Number: +90 212 210 5435
elif.tanis @zivak.com
http://www.zivak.com

Zivak Technologies was founded in 2005 at the TÜBİTAK Marmara Research Centre Technological Free Zone, MARMARA TEKNOKENT A.Ş. It's principal aim was to develop and produce analysis kits for the parameters that are needed to be analyzed in food industry, health sector, and in environmental issues.
In 2006, the firm has addded to its range of activities the acquisition of the LC/MS/MS platforms that the kits run on, and has implemented changes in their design to obtain a greater degree of analytical precision and ease of use in order to increase the service quality and customer satisfaction.

Publications' Exhibitors

AAAS/Science — Table H

Web: www.sciencemag.jp , www.aaas.org
Visit the Japanese language portal today – www.sciencemag.jp

Since its founding in 1848, the American Association for the Advancement of Science (AAAS) and its members have worked together to advance science and serve society. As part of these efforts, AAAS publishes Science, a multidisciplinary peer-reviewed journal, featuring scientific research articles and reports and providing commentaries on recent news and events from around the world.
Beyond Science, AAAS offers programs focused on science policy, international cooperation, science education, advancing human rights, diversity, and career development for scientists.

IM Publications LLP — Table I

6 Charlton Mill, Charlton, Chichester, West Sussex PO18 0HY, UK.
Contact: Ian Michael (ian@impublications.co.uk)
www.impublications.com

EJMS—European Journal of Mass Spectrometry is a peer review journal covering all areas of mass spectrometry. Whilst "European" in its publishing base, its distribution, editors and authors are truly global. EJMS provides high quality science at a fair price.
As well as regular research papers, EJMS publishes reviews, and a new series of "EJMS Protocols", which detail practical details of how to be successful with experiments in mass spectrometry. Letters benefit from extremely rapid publication—under three weeks.

Imtakt Corporation — Table E

Kyoto Research Park, Kyoto 600-8813, Japan
info@imtakt.com

Imtakt HPLC columns have been designed with exceptional craftsmanship and decades of industry experience. Our columns give chromatographers: High Resolution; 25-50 % Lower Pressure: Novel Chemistry and Improved Selectivity. We offer a wide variety of unique stationary phases as follows: Cadenza series (High resolution and various ODS phases), Unison Family (Improved traditional C18, C8, Phenyl, Silica and Amino phases), Scherzo C18 Family (Multi-mode ODS phases), Presto (non-porous ODS for large molecules such as peptides and proteins).

Merck Ltd.,Japan — Table A

Arco Tower 5F 1-8-1 Shimomeguro, Meguro-ku, Tokyo, Japan, 153-8927
Phone 0120-013-326, WEB http://www.merckmillipore.jp/chemicals

Merck Millipore, a division of Merck KGaA, Darmstadt, Germany with worldwide headquarters located in Billerica, Massachusetts, is a life sciences organization that, in partnership with its customers, creates innovative solutions for research, development and production worldwide. With a range of more than 40,000 products, Merck Millipore is a top tier supplier of tools and technologies to the life science industry.,

Mass Spectrometry Data Center, National Institute of Standards and Technology — Table D

100 Bureau Drive, MS 8320
Bldg 221, Room A111
Gaithersburg, MD 20899-8320
Phone: 301 975 2521
Email: anzor@nist.gov
Web: http://webbook.nist.gov/chemistry/

The NIST Mass Spectrometry Data Center (MSDC) is a part of Chemical and Biochemical Reference Data Division (CBRDD; http://www.nist.gov/mml/chemical_properties/index.cfm), the Material Measurement Laboratory (MML; http://www.nist.gov/mml/) within the National Institute of Standards and Technology (NIST, http://www.nist.gov/index.html) . MSDC is responsible for the development of reliable reference mass spectral databases for the identification and analysis of chemical compounds by mass spectrometry. The Center is located on the NIST main campus in Gaithersburg, MD.
NIST/EPA/NIH Mass Spectral Library with Search Program (Data Version: NIST 11, Software Version 2.0g. http://www.nist.gov/srd/nist1a.cfm). This database is a product of a steady, comprehensive evaluation and has been widely used for compound identification by mass spectrometry. It includes spectra from both GC-MS instruments and tandem mass spectrometers. This library encompasses four classes of data (1) a library of 243,893 electron ionization mass spectra for almost 212,961 unique compounds, (2) a gas chromatography retention index database, containing 346,757 Kovats retention index values for about 70,835 compounds covering both polar and non-polar columns, (3) an MS-MS library consisting of 95,409 spectra of over 12,568 ions obtained on qtof, HCD,triple quadrupole and ion trap mass spectrometers. (4) NIST Peptide Mass Spectral Libraries, for use in identifying peptides and their parent proteins - freely available for download (http://peptide.nist.gov/).

The Mass Spectrometry Society of Japan
International Academic Printing Co., Ltd. — Table G

4-19 Takadanobaba 4-chome, Shinjuku-ku, Tokyo 169-0075, Japan
Web: http://www.mssj.jp/
Email: mssj-post@bunken.co.jp

The Mass Spectrometry Society of Japan (MSSJ) was established in 1953. Now a membership includes over 1,200 scientists providing an array of scientific data on relevant topics for more than half a century. The MSSJ sponsors the Annual Conference on Mass Spectrometry that is attended by more than 800 scientists, and publishes the two journals, Journal of the Mass Spectrometry Society of Japan and Mass Spectrometry. The latter one is an open access journal and available online from http://mass-spectrometry.jp/.
International Academic Printing Co., Ltd. (KOKUSAI-BUNKEN INSATSUSHA, Tokyo) is licensed from MSSJ to publish Advances in Mass Spectrometry Vol. 19, Proceedings of 19th IMSC as well as the above two journals. If you like to order it, please contact us via E-mail (pub-post@bunken.co.jp).

NetWell Corporation

Table J

1-26-1 Shinjyuku, Shinjyuku-ku Tokyo 160-0022, Japan
Website: http://www.netwell.co.jp/life-science/
Email address: bio-info@netwell.co.jp
Tel, 03-5368-3459
Fax, 03- 3226-2860

NetWell shows and demonstrates three Cutting Edge Software working on Windows, two for Biological Molecular Structure Analysis using MS, MS/MS and MSn data, and one for MALDI IMS, manufactured by PREMIER Biosoft USA.
"SimGlycan®" predicts the Structure of Glycans and Glycopeptides using MS data. SimGlycan® accepts the experimental MS/MS or MSn data, matches them with its own database of theoretical fragments and generates a list of probable candidate structures. Each structure is scored to reflect how closely it matches your experimental data. In the case of glycopeptide qualitative analysis, information such as Protein ID, Protein Name, Source, peptide sequence, peptide mass etc are made available for identified glycopeptides.
"SimLipid" is a Comprehensive High Throughput Informatics Tool for Characterizing Lipids using precursors and product ions data from MS and MS/MS data.
"MALDIVision" is our "Hot" Software such as a Comprehensive Data Processing and Visualization Software for MALDI Imaging Mass Spectrometric Data.

SGE Analytical Science Pty Ltd

Table F

7 Argent Place, Ringwood, Victoria 3134, Australia
Tel: +61 (0) 3 9837 4200
Fax: +61 (0) 3 9874 5672
Email: support@sge.com
Website: http://www.sge.com/

ETP Electron Multipliers, a wholly owned subsidiary of SGE is a world leader in the design and manufacture of ion detection and ion optics technologies for use in mass spectrometers.
A wide variety of models has been designed and built to cover most common types of mass spectrometer, including ICP-MS, GC-MS, LC-MS/MS and MALDI across all mass analyzer types, quadrupole, ion trap, magnetic sector and time of flight.
SGE's ETP Electron Multipliers team has over 100 years combined experience in the design and fabrication of detectors for mass spectrometry applications.
This expertise integrates with SGE's worldwide technical and distribution network enabling a global presence.

Wiley

Booth B&C

Frontier Koishikawa Bldg. 4F, 1-28-1 Koishikawa, Bunkyo-ku, Tokyo, Japan
marketing@wiley.co.jp

Visit the Wiley stand and discover the full range of Mass Spectrometry products and services we offer to support research, practice and professional development in the field - from journals, books, reference works, databases, magazines to free access websites. View the new look Mass Spectrometry channel on spectroscopyNOW.com; pick up sample copies of Mass Spectrometry Reviews, Journal of Mass Spectrometry, Rapid Communications in Mass Spectrometry. Browse our latest books which can be purchased at a 20 % discount, and discover many of our print books and references which are also available in digital formats such as e-books.

Author Index

Author Index

Author Index

C

Author Index

D

Author Index

Author Index

G

H

Author Index

Author Index

I

Author Index

J

K

Author Index

Author Index

Author Index

Author Index

M

Author Index

Author Index

N

Author Index

O

Author Index

P

Author Index

Author Index

Author Index

Author Index

T

Author Index

Author Index

U

V

W

Author Index

X

Y

Author Index

Z

Author Index