

**25th International Symposium on
Electro- and Liquid Phase-Separation Techniques
(ITP2018)**

ITP2018

August 29 – September 1, 2018

Funai Tetsuro Auditorium / Katsura Hall

Kyoto University at Katsura

Nishikyo-ku, Kyoto, Japan

Honorary Chairs

Shigeru Terabe (Emeritus Professor, University of Hyogo, Japan)

Takeshi Hirokawa (Emeritus Professor, Hiroshima University, Japan)

Symposium Chair

Koji Otsuka (Kyoto University, Japan)

ITP2018

Funai Tetsuro Auditorium & Katsura Hall
Kyoto Univ. at Katsura, Kyoto, Japan

Wed, 29 August	
Funai Tetsuro Auditorium	
15:00 ~ 16:00	(Registration)

Thu, 30 August	
Opening / Funai Hall	
09:00 ~	Registration / Funai Lobby
09:30 ~ 09:40	ITP2018 Opening
Session 1 / Funai Hall	
09:40 ~ 10:20	PL-1 Wolfgang Lindner
10:20 ~ 10:50	KN-1 Bezhn Chankvetadze
10:50 ~ 11:20	KN-2 Marja-Liisa Riekkola
11:20 ~ 11:50	KN-3 Frantisek Foret
11:50 ~ 13:30	Lunch (on your own)
Session 2 / Katsura Hall	
13:30 ~ 13:50	O-1 Naoyuki Sugiyama
13:50 ~ 14:10	O-2 Pavel Kubáň
14:10 ~ 14:30	O-3 Kiyohito Shimura
14:30 ~ 14:50	O-4 Petr Kubáň
14:50 ~ 15:10	O-5 Tomasz Bączek
15:10 ~ 15:30	Coffee / Funai Lobby
Session 3 / Katsura Hall	
15:30 ~ 16:00	KN-4 David D. Y. Chen
16:00 ~ 16:30	KN-5 Bohuslav Gaš
16:30 ~ 16:50	O-6 Kyojiro Morikawa
16:50 ~ 17:10	O-7 Allison C. E. Bidulock
17:10 ~ 17:30	O-8 Kenji Sueyoshi
Exhibition / Funai Lobby	

Fri, 31 August	
09:00 ~	Registration / Funai Lobby
Session 4 / Katsura Hall	
09:15 ~ 09:45	KN-6 Ziad El Rassi
09:45 ~ 10:15	KN-7 Blanca H. Lapizco-Encinas
10:15 ~ 10:35	IN-1 Takeyuki Akita
10:35 ~ 11:05	KN-8 Václav Kašíčka
11:05 ~ 11:35	KN-9 Zhen Liu
11:35 ~ 12:05	KN-10 Marina F. M. Tavares
12:15 ~ 13:30	Lunch Seminar (by Shimadzu)
13:30 ~ 15:00	Poster / Funai Lobby
15:00 ~ 15:15	Coffee / Funai Lobby
Session 5 / Katsura Hall	
15:15 ~ 15:35	O-9 Shinya Kitagawa
15:35 ~ 15:55	O-10 Joseph Chamieh
15:55 ~ 16:15	O-11 Magda Dvohunová
16:15 ~ 16:35	O-12 Hiroka Kishi
16:35 ~ 16:55	O-13 Masaru Kato
19:00 ~ 20:30	Banquet / Hotel Keihan Grande
Exhibition / Funai Lobby	

Sat, 01 September	
Session 6 / Funai Hall	
09:10 ~ 09:40	KN-11 Yasushi Ishihama
09:40 ~ 10:10	KN-12 Michal J. Markuszewski
10:10 ~ 10:30	O-14 Hervé Cottet
Session 7 / Funai Hall	
10:40 ~ 11:15	PL-2 Takehiko Kitamori
11:15 ~ 11:50	PL-3 Yoshinobu Baba
11:50 ~ 12:20	ITP2018 Closing

Scope

ITP is one of the most recognized international symposium series that addresses the latest issues important to discovery, development and production in all areas of electro- and liquid phase-separations techniques in multiple disciplines.

Following previous successful meetings, the dynamic program in 2018 will again highlight a wide range of technologies that utilize electro- and liquid phase-separations, *e.g.*, capillary and microchip electrophoresis, electrokinetic chromatography and electrochromatography, two-dimensional electrophoresis, HPLC, UHPLC, micro- and nanoscale HPLC.

It is our distinct pleasure that the 25th International Symposium on Electro- and Liquid Phase- Separation Techniques (ITP2018) is held in Kyoto, Japan in August 29 – September 1, 2018.

The ITP Symposium series continuously provides a forum for high-level scientific exchange between analytically oriented scientists from the whole world in a friendly atmosphere.

ITP2018 includes totally three days of lecture and poster sessions.

Official language is English.

Co-organized by

Graduate School of Engineering, Kyoto University

Supporting Scientific Organizations

The Chemical Society of Japan (CSJ)

The Japan Society for Analytical Chemistry (JSAC)

The Pharmaceutical Society of Japan (PSJ)

The Society for Chromatographic Sciences (SCS)

Committees

1) ITP2018 Honorary Chairs

Shigeru Terabe (Professor Emeritus, University of Hyogo, Japan)

Takeshi Hirokawa (Professor Emeritus, Hiroshima University, Japan)

2) ITP2018 Chair

Koji Otsuka (Kyoto University, Japan)

3) ITP2018 Scientific Committee:

Yoshinobu Baba (Nagoya University, Japan)

Bezhan Chankvetadze* (Tbilisi State University, Georgia)

David D. Y. Chen* (The University of British Columbia, Canada)

Alejandro Cifuentes* (National Research Council of Spain, Spain)

Ziad El Rassi* (Oklahoma State University, USA)

Salvatore Fanali* (Italian National Research Council, Italy)

Frantisek Foret* (Czech Academy of Sciences, Czech)

Carlos Garcia* (Clemson University, USA)

Bohuslav Gas* (Charles University, Czech)

Vaclav Kasicka* (Czech Academy of Sciences, Czech)

Takehiko Kitamori (The University of Tokyo, Japan)

Blanca H. Lapizco-Encinas* (Rochester Institute of Technology, USA)

Koji Otsuka* (Kyoto University, Japan)

Marja-Liisa Riekkola* (University of Helsinki, Finland)

Marina F.M. Tavares* (University of Sao Paulo, Brazil)

(* Member of the Permanent Scientific Committee)

4) ITP2018 Local Organizing Committee

Yasushi Ishihama (Kyoto University, Japan)

Takuya Kubo (Kyoto University, Japan)

Toyohiro Naito (Kyoto University, Japan)

5) ITP2018 Secretary

Yoko Osaka (Kyoto University, Japan)

6) ITP2018 PCO

Art Tourist Co., Ltd. (Nakagyo-ku, Kyoto 604-0031, Japan)

Sponsors

Shimadzu
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Poster Awards

The *Analytical Sciences* Poster Awards, sponsored by JSAC, will be offered to the best posters at ITP2018. All presented posters are evaluated based on a defined set of selection criteria, and the top two posters receive the awards. The Awards are presented at the Closing Ceremony.

Presentation Information

Oral Presentation

You should use your own PC. Only an LCD projector will be prepared in each room. An only cable with a D-sub 15pin connector will be prepared.

Poster Presentation

All posters should be put up on the poster boards by 13:00 on Friday, August 31, and should be removed by 12:00 on Saturday, September 1.

Poster Session (all posters on duty): Friday, August 31, 13:30–15:00

Poster Board Size: (W) 90 cm × (H) 150 cm

Lunch Seminar (sponsored by Shimadzu)

A lunch seminar will be held on Friday, August 31. All the delegates are welcome to participate in the seminar. Detailed information will be provided at the end of the morning session (Session 4) at the Katsura Hall on the Friday.

Exhibition

Exhibition will be available in the lobby of the Funai Tetsuro Auditorium in the Thursday afternoon (August 30) and Friday (August 31).

Symposium Banquet

You should have a ticket to join the Symposium Banquet. Advance purchase is required.

The ITP2018 symposium Banquet will be held on Friday, August 31 at 19:00 ~ 20:30 in the banquet hall of the Hotel Keihan Kyoto Grande. The hotel is located in front of the JR Kyoto Station, ca. 1 min walk from the Hachijo-guchi East Exit of the JR Station.

Hotel web site: <https://www.hotelkeihan.co.jp/kyoto/>



Phone: +81-75-661-0321

Registration Desk

The ITP2018 Symposium Registration Desk will be open at the 1st floor, Funai Tetsuro Auditorium according to the following schedule.

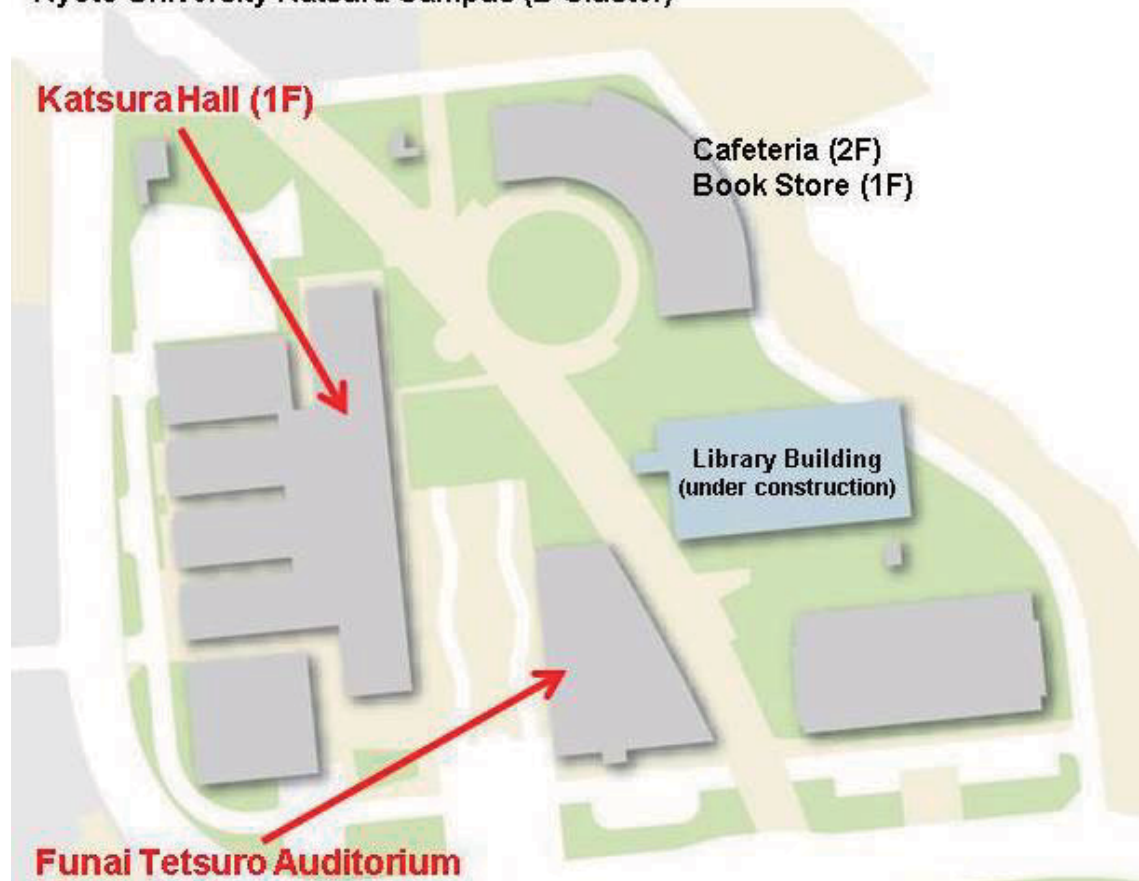
Wednesday,	August 29	15:00 ~ 16:00
Thursday,	August 30	9:00 ~ 17:00
Friday,	August 31	9:00 ~ 16:30
Saturday,	September 1	9:00 ~ 11:00

Symposium Venue

Funai Tetsuro Auditorium / Katsura Hall

Kyoto University, Katsura, Nishikyo-ku, Kyoto 615-8510, Japan

Kyoto University Katsura Campus (B Cluster)



Wi-Fi Connection

The Eduroam service is available in all area of the Kyoto University Katsura Campus, including the Funai Tetsuro Auditorium and Katsura Hall. Please use your personal Eduroam account for Wi-Fi connection.

If you do not have an Eduroam account, please contact the registration desk for a visitor's account.

History of ITP Symposium Series

No.	Year	Chair(s)	Place (Country)
1	1979	A. Adam & C. Schots	Baconfoy (Belgium)
2	1980	F.M. Everaerts	Eindhoven (The Netherlands)
3	1982	C.J. Holloway	Gosslar (Germany)
4	1984	Z. Prusik	Hradec Kralove (Czechoslovakia)
5	1986	F.M. Everaerts	Maastricht (The Netherlands)
6	1988	E. Kenndler	Vienna (Austria)
7	1990	D. Kaniansky	Tatranska Lomnica (Czechoslovakia)
8	1992	S. Fanali	Rome (Italy)
9	1994	F. Kilar	Budapest (Hungary)
10	1996	B. Gas	Prague (Czech)
11	1998	P.G. Righetti	Venice (Italy)
12	2000	D. Kaniansky & E. Kenndler	Bratislava (Slovak) – Vienna (Austria)
13	2002	M.L. Riekkola	Helsinki (Finland)
14	2004	S. Fanali & M.G. Quaglia	Rome (Italy)
15	2006	G. Peltre	Paris (France)
16	2008	V. Cucinotta	Catania (Italy)
17	2010	Z. El Rassi	Baltimore, MD (USA)
18	2011	B. Chankvetadze	Tbilisi (Georgia)
19	2012	Z. El Rassi	Baltimore (USA)
20	2013	A. Cifuentes & J. Hernández-Borges	Puerto de la Cruz (Spain)
21	2014	M. Tavares & E. Carrilho	Natal (Brazil)
22	2015	M.-L. Riekkola & Heli Sirén	Helsinki (Finland)
23	2016	Z. El Rassi & Blanca Lapizco-Encinas	Minneapolis (USA)
24	2017	M. Markuszewski	Sopot (Poland)
25	2018	K. Otsuka	Kyoto (Japan)
26	2019	H. Cottet & F. Couderc	Toulouse (France)

ITP2018 Scientific Program

Thursday, August 30

ITP2018 Opening / Funai Hall

9:30 ~ 9:40

Session 1 / Funai Hall

Chairs: Bezhn Chankvetadze and Marja-Liisa Riekkola

9:40 ~ 10:20 PL-1

Enantioselective 2D-LC Concepts and their Implementation to Screen and to Analyze D-Amino Acids and other Target Compounds

Wolfgang Lindner (1), Kenji Hamase (2), Ulrich Woiwode (3), Michael Lämmerhofer (3)

(1) Institute of Analytical Chemistry, University of Vienna, Austria;

(2) Graduate School of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan;

(3) Institute of Pharmaceutical Sciences, Pharmaceutical (Bio)Analysis, University of Tübingen, Germany

10:20 ~ 10:50 KN-1

Capillary Electrophoresis as a Powerful Tool for Understanding Chiral Recognition Mechanisms by Cyclodextrins

Bezhn Chankvetadze

Institute of Physical and Analytical Chemistry, School of Exact and Natural Sciences, Tbilisi State University, Tbilisi, Georgia

10:50 ~ 11:20 KN-2

From Biomacromolecule Isolations to their Interactions

Marja-Liisa Riekkola (1), Evgen Multia (1), Thanaporn Liangsupree (1), Jörgen Samuelsson (2), Torgny Fornstedt (2), Patrik Forssén (2), Katariina Öörni (3), Matti Jauhainen (4)

(1) Department of Chemistry, P.O. Box 55, FIN-00014 University of Helsinki, Helsinki, Finland;

(2) Department of Engineering and Chemical Sciences, Karlstad University, 651 88 Karlstad, Sweden;

(3) Wihuri Research Institute, Haartmaninkatu 8, FIN-00290 Helsinki, Finland;

(4) Minerva Foundation Institute for Medical Research, Tukholmankatu 8, 00290 Helsinki, Finland

11:20 ~ 11:50 KN-3

What Does it Take to Concentrate 20 ml Sample Volume by Isotachopheresis?

Frantisek Foret (1), Vladimira Datinska (1), Ivona Voracova (1), Pantea Gheibi (2), Yann Astier (2), Jan Berka (2)

(1) Czech Academy of Sciences, Institute of Analytical Chemistry, Brno, Czech Republic;

(2) Roche Sequencing Solutions, Pleasanton, CA, USA

Lunch Break

11:50 ~ 13:30

(on your own)

Session 2 / Katsura Hall *Chairs: Frantisek Foret and Zhen Liu*

- 13:30 ~ 13:50 **O-1** **Direct Profiling of Kinome Activities Using Kinase-Specific Substrate Peptides**
Naoyuki Sugiyama, Dai Sakamoto, Junna Nakazono, Kazutaka Yachigo, Hsin-Yi Chang, Yasushi Ishihama
Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan
- 13:50 ~ 14:10 **O-2** **New Trends in Direct coupling of Liquid Phase Microextraction to Capillary Electrophoresis for Analyses of Biological Fluids**
Pavel Kubáň, Miloš Dvořák, Lenka Ryšavá, Martin Lučaj
Institute of Analytical Chemistry of the Czech Academy of Sciences, Veveří 97, Brno, CZ-60200, Czech Republic
- 14:10 ~ 14:30 **O-3** **Immunoaffinity Capillary Isoelectric Focusing: Two Micro Platforms for Charge-variant Analysis of Protein**
Kiyohito Shimura
School of Medicine, Fukushima Medical University, Fukushima, Japan
- 14:30 ~ 14:50 **O-4** **Double Opposite End Injection in Capillary Electrophoresis: Simultaneous Analysis of Anions and Cations in Diagnosis of Cystic Fibrosis**
Petr Kubáň (1), Pavol Ďurč (1), Julia Lačná (1), František Foret (1), Eva Pokojová (2), Jana Skříčková (2), Hana Vinohradská (3), Milan Dastyč (3), Lukáš Homola (4)
(1) Bioanalytical Instrumentation, CEITEC Masaryk University, Brno, Czechia;
(2) Department of Respiratory Diseases and TB, University Hospital Brno, Brno, Czechia;
(3) Department of Clinical Biochemistry, University Hospital Brno, Brno, Czechia;
(4) Cystic Fibrosis Centre and Clinic of Pediatric Infectious Diseases, University Hospital Brno, Brno, Czechia
- 14:50 ~ 15:10 **O-5** **Measurements of Amino Acids in Plasma, Cerebrospinal Fluid and Exhaled Breath Condensates in Pediatric Patients with Acute Lymphoblastic Leukemia**
Lucyna Konieczna (1), Maciej Niedźwiecki (2), Magdalena Pyszka (1), Magdalena Okońska (1), Tomasz Bączek (1)
(1) Department of Pharmaceutical Chemistry, Medical University of Gdańsk, Gdańsk, Poland;
(2) Department of Pediatrics, Hematology, Oncology and Endocrinology, Medical University of Gdańsk, Gdańsk, Poland

Coffee Break / Funai Tetsuro Auditorium

15:10 ~ 15:30

Session 3 / Katsura Hall *Chairs: David D. Y. Chen and Bohuslav Gaš*

- 15:30 ~ 16:00 **KN-4** **Top Down Analysis of Protein Structural Variation and Structural Dynamics with Capillary Electrophoresis Directly Coupled to High Resolution Mass Spectrometry**
Lingyu Wang (1), Xiuxiu Zhao (2), Yue Shen (2), Guanbo Wang (2), David D. Y. Chen (1,2)
(1) Department of Chemistry, University of British Columbia, Vancouver, BC V6T 1Z1, Canada;
(2) School of Chemistry and Materials Science, Nanjing Normal University, Nanjing, Jiangsu 210023, China
- 16:00 ~ 16:30 **KN-5** **What the Advanced Software Can Tell You When You Perform Electrophoresis Separation**
Bohuslav Gaš
Faculty of Science, Charles University, Prague, Czech Republic
- 16:30 ~ 16:50 **O-6** **Liquid Chromatography Using 100 mm Long Extended-Nano Channel for 105 Plate Numbers**
Kyojiro Morikawa (1), Yutaka Kazoe (1), Hisashi Shimizu (1), Yusuke Shimizu (2), Kazuma Mawatari (1) and Takehiko Kitamori (1)
(1) Graduate School of Engineering, The University of Tokyo, Tokyo, Japan;
(2) Hitachi High-Technologies Corporation, Tokyo, Japan
- 16:50 ~ 17:10 **O-7** **Integrated Internal Standards Improve Precision without Increasing Complexity in Microchip Capillary Electrophoresis**
Allison C.E. Bidulock (1,2), Pavel Dubský (1), Albert van den Berg (2), Jan C.T. Eijkel (2)
(1) Department of Physical and Macromolecular Chemistry, Charles University in Prague, Czech Republic;
(2) BIOS-Lab on a Chip Group, MESA+ Institute of Nanotechnology, MIRA Institute for Biomedical Technology and Technical Medicine, Max Planck Center for Complex Fluid Dynamics, University of Twente, The Netherlands
- 17:10 ~ 17:30 **O-8** **Convex-concave Cartridge-connected Digital Electrophoresis Devices for Multi-dimensional Fractionation**
Kenji Sueyoshi, Yuki Uwagawa, Tatsuro Endo, Hideaki Hisamoto
Graduate School of Engineering, Osaka Prefecture University, Osaka, Japan

Friday, August 31

Session 4 / Katsura Hall *Chairs: Ziad El Rassi and Blanca H. Lapizco-Encinas*

- 9:15 ~ 9:45 **KN-6** **Nano-structured Material Based Monolithic Stationary Phases for HPLC and CEC**
Ziad El Rassi (1), Cemil Aydoğan (2), Nisansala Ganewatta (1)
(1) Department of Chemistry, Oklahoma State University, Stillwater, OK, USA;
(2) Department of Food Engineering, Bingöl University, 12000 Bingöl, Turkey
- 9:45 ~ 10:15 **KN-7** **Fine-tuning Dielectrophoretic Particle Assessments**
Blanca H. Lapizco-Encinas
Microscale Bioseparations Laboratory and Biomedical Engineering Department, Rochester Institute of Technology, Rochester NY, USA.
- 10:15 ~ 10:35 **IN-1** **Design and Development of Multi-Mode HPLC Stationary Phases for Chiral Separation of Amino Acids and Related Compounds**
Takeyuki Akita (1), Kenji Ueki (1), Masashi Mita (2), Kenji Hamase (1)
(1) Graduate School of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan;
(2) Shiseido Co., Ltd., Tokyo, Japan
- 10:35 ~ 11:05 **KN-8** **Affinity Capillary Electrophoresis Applied for Quantitative Evaluation of the Binding Strength and Specificity of Noncovalent Molecular Interactions**
Václav Kašička, Renáta Konášová, Martin Růžička, Dušan Koval, Lukáš Severa, Filip Teplý
Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences, Flemingovo 2, 166 10 Prague 6, Czechia
- 11:05 ~ 11:35 **KN-9** **Functionalized Mesoporous Silica Nanoparticles for High-specificity Sample Enrichment, High-performance Labeling and High-efficiency Separation of Biomolecules**
Zhen Liu, Xianghua Pan, Yang Chen, Xinpei He, Zhanchen Guo
State Key Laboratory of Analytical Chemistry for Life Science, School of Chemistry and Chemical Engineering, Nanjing University, Nanjing 210023, China
- 11:35 ~ 12:05 **KN-10** **Metabolomics Approaches to Study Gestational Exposure to Air Pollution**
Marina F.M. Tavares (1), Andréa T. Faccio (1), Amanda V.B. das Doreas (2), Daniel R. Oliveira (1), Mariana M. Veras (3), Paulo Saldiva (3), Massuo J. Kato (1), Ernani Pinto Jr. (2), Joao P.S. Farah (1)
(1) Institute of Chemistry, University of Sao Paulo, Sao Paulo, Brazil;
(2) School of Pharmaceutical Sciences, University of Sao Paulo, Sao Paulo, Brazil;
(3) Faculty of Medicine, University of Sao Paulo, Sao Paulo, Brazil

Lunch Seminar / Lecture Room (A2-306)

12:15 ~ 13:30 sponsored by Shimadzu

Poster Session / Funai Tetsuro Auditorium

13:30 ~ 15:00

Coffee Break / Funai Tetsuro Auditorium

15:00 ~ 15:15

Session 5 / Katsura Hall *Chairs: Václav Kašíčka and Marina F.M. Tavares*

- 15:15 ~ 15:35 **O-9** **Separation of Water-insoluble and Neutral Linear Synthetic Polymer in Non-aqueous Electrophoresis Using Ionic Surfactant**
Shinya Kitagawa, Nao Fukai, Soichiro Uchida, Kazuki Usui, Hajime Ohtani
Graduate School of Engineering, Nagoya Institute of Technology, Nagoya, Japan
- 15:35 ~ 15:55 **O-10** **Monitoring the Size of Pharmaceutical Microemulsions during Lipolysis by Taylor Dispersion Analysis Using Fluorescent Detection**
Joseph Chamieh (1), Habib Merdassi (1), Jean-Christophe Rossi (1), Vincent Jannin (2), Frédéric Demarne (2), Hervé Cottet (1)
(1) Institut des Biomolécules Max Mousseron (IBMM, UMR 5247 CNRS, Université de Montpellier, Ecole Nationale Supérieure de Chimie de Montpellier), Campus Triolet, Place Eugène Bataillon, CC 1706, 34095 Montpellier Cedex 5, France;
(2) GATTEFOSSE SAS, 36, Chemin de Genas, 69804 Saint-Priest, France
- 15:55 ~ 16:15 **O-11** **New Generation of Software for Electrokinetic Chromatography**
Magda Dohunová, Michal Malý, Pavel Dubský
Department of Physical and Macromolecular Chemistry, Faculty of Science, Charles University in Prague, Albertov 6, 128 43 Prague 2, Czech Republic
- 16:15 ~ 16:35 **O-12** **A Novel Multiplex LC-MS Based on Frequency Division Multiplexing for Simultaneous Analyses of Plural Samples**
Hiroka Kishi, Takashi Kumazaki, Shinya Kitagawa, Hajime Ohtani
Department of Life Science and Applied Chemistry, Nagoya Institute of Technology, Gokisocho, Showa, Nagoya, Aichi, Japan
- 16:35 ~ 16:55 **O-13** **Rapid and Quantitative Analytical Methods of Liposomal Drugs**
Masaru Kato
School of Pharmacy, Showa University, Tokyo, Japan

Banquet / Hotel Keihan Kyoto Grande

19:00 ~ 20:30 Ticket required

Saturday, September 1

Session 6 / Funai Hall

Chairs: Yasushi Ishihama and Michał J. Markuszewski

- 9:10 ~ 9:40 **KN-11** **Chromatography-Driven Global and Targeted Proteomics**
Yasushi Ishihama
Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan
- 9:40 ~ 10:10 **KN-12** **Complementary Metabolomic Analysis of Clinical Samples Hyphenated to Advanced Calculation Methods**
Michał J. Markuszewski, Wiktoria Struck-Lewicka, Magdalena Buszewska-Forajta, Renata Bujak, Emilia Dagher-Wojtkowiak, Paweł Wiczling, Julia Jacyna, Marta Kordalewska, Małgorzata Waszczuk-Jankowska, Szymon Macioszek, Małgorzata Patejko, Anna Stefaniak, Danuta Siluk, Roman Kaliszan
Department of Biopharmaceutics and Pharmacodynamics, Medical University of Gdansk, Gdansk, Poland
- 10:10 ~ 10:30 **O-14** **Mobility Shift Affinity Capillary Electrophoresis at High Ligand Concentrations: Real Life Applications in Cosmetics**
Nesrine Ouadah (1), Claudine Moire (2), Fabien Brothier (2), Jean-François Kuntz (2), Michal Malý (3), Pavel Dubský (3), Hervé Cottet (1)
(1) IBMM, University of Montpellier, CNRS, ENSCM, Montpellier, France;
(2) L'Oréal Research & Innovation, Aulnay-Sous-Bois, France;
(3) Charles University, Faculty of Science, Department of Physical and Macromolecular Chemistry, Prague, Czech Republic

Session 7 / Funai Hall

Chair: Koji Otsuka

- 10:40 ~ 11:15 **PL-2** **Nanofluidics Device for Total System Integration of Femto-Liter Protein Analysis**
Takehiko Kitamori
Department of Applied Chemistry, School of Engineering, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656, Japan
- 11:15 ~ 11:50 **PL-3** **Nanobiodevices and AI for Future Healthcare**
Yoshinobu Baba
Department of Chemistry and Biotechnology, Department of Advanced Medical Sciences and ImPACT Research Center for Advanced Nanobiodevices, Nagoya University, Nagoya, Japan

ITP2018 Closing / Funai Hall

- 11:50 ~ 12:10 **Poster Award Ceremony / Invitation to ITP2019 (Hervé Cottet)**
- 12:10 ~ 12:20 **Closing Remarks (Koji Otsuka)**

Poster Session

[Friday, August 31, 13:30 ~ 15:00 / Funai Tetsuro Auditorium]

- P-01 Separation of Inorganic Anions by Capillary Ion Chromatography with UV Detection Using Poly(vinylimidazole-co-ethylene dimethacrylate) Monolithic Column**
Shu-Ling Lin, Ming-Ren Fuh
Department of Chemistry, Soochow University, Taipei, Taiwan
- P-02 Development of Micro-nanofluidic Device for DNA Separation and Label-free Detection**
Taiga Ajiri (1), Takao Yasui (2, 3), Haruya Kasa (4), Masatoshi Maeki (5), Akihiko Ishida (5), Hirofumi Tani (5), Junji Nishii (4), Yoshinobu Baba (2, 3), Manabu Tokeshi (3, 5)
(1) Graduate School of Chemical Sciences and Engineering, Hokkaido University, Sapporo, Japan;
(2) Department of Biomolecular Engineering, Graduate School of Engineering, Nagoya University, Nagoya Japan;
(3) ImPACT Research Center for Advanced Nanobiodevices, Nagoya University, Nagoya, Japan;
(4) Research institute for Electronic Science, Hokkaido University, Sapporo, Japan;
(5) Division of Applied Chemistry, Faculty of Engineering, Hokkaido University, Sapporo, Japan
- P-03 Transient ITP-CZE Determination of Fluoride in Saline Samples**
K. Fukushi (1), J. Tsujimoto (2), T. Hattori (3), H. Hotta (3), K. Matsumoto (3), H. Inui (1)
(1) Kobe University Biosignal Research Center, Kobe, Japan;
(2) Maritime Disaster Prevention Center West Japan Regional Office, Kobe, Japan;
(3) Kobe University Graduate School of Maritime Sciences, Kobe, Japan
- P-04 Gel Free and Label Free Approach for Capturing and Identification of Differentially Expressed Fuome**
Chanida Puangpila (1), Ziad El Rassi (2)
(1) Department of Chemistry, Faculty of Science, Chiang Mai University, Chiang Mai, Thailand;
(2) Department of Chemistry, Oklahoma State University, Stillwater, OK, USA
- P-05 Control of Molecular Interactions between Lipid Stationary Phase by Magnetic Force**
Yukihiro Okamoto (1), Ryo Kawakami (1), Masayori Suwa (2), Keishi Suga (1), Hiroshi Umakoshi (1)
(1) Graduate School of Engineering Science, Osaka University, Osaka, Japan;
(2) Graduate School of Science, Osaka University, Osaka, Japan
- P-06 Detection of the Target Compound and its Metabolites by Nano Ultra Performance Liquid Chromatography Coupled with Tandem Mass Spectrometry**
Chun-Yi Wu, Chi-Yu Lu
Department of Biochemistry, College of Medicine, Kaohsiung Medical University, 100, Shih-Chuan 1st Road, Kaohsiung, 80708, Taiwan
- P-07 Derivatization and Extraction of Polar Organic Compounds from Aqueous Solution**
Chia-Ju Tsai, Fang-Yi Liao, Chia-Hsien Feng
Department of Fragrance and Cosmetic Science, College of Pharmacy, Kaohsiung Medical University, Kaohsiung, Taiwan

- P-08** **Determination of 13-cis-Retinoic Acid and its Metabolites in Plasma by On-line Preconcentration Capillary Electrophoresis**
Ying-Xuan Huang, Yen-Ling Chen
Department of Fragrance and Cosmetic Science, Kaohsiung Medical University, Kaohsiung, Taiwan
- P-09** **Development of Injection Zones in Capillary Zone Electrophoresis**
Magda Dovhunová, Martin Dvořák, Michal Kalus
Department of Physical and Macromolecular Chemistry, Faculty of Science, Charles University in Prague, Albertov 6, 128 43 Prague 2, Czech Republic
- P-10** **pI Markers in Isoelectric Focusing – the Quest for Good Focusers**
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- P-11** **Highly-sensitive Microchip Electrophoretic Analysis by LVSEP-FASI**
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- P-12** **Polymer-Enhanced Capillary Transient Isotachopheresis Selection for DNA Aptamers Targeting Cell Surface**
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- P-13** **PeakMaster 6 – Free Affinity Capillary Electrophoresis (ACE) Simulator**
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- P-14** **Simultaneous Determination of Anions and Cations in Water and Biological Samples by Capillary Electrophoresis with a Capacitively Coupled Contactless Conductivity Detector Using Capillary Filling Method**
Sachio Yamamoto (1), Haruka Fujiwara (1), Katsushi Maruyama (1), Mitsuhiro Kinoshita (1,2), Shigeo Suzuki (1,2)
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- P-15** **Development of High Resolution Monolithic Silica Capillary Columns for a Nano-Flow FD-LC-MS/MS Method**
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Chih-Hsiang Chang (1), Eito Yamamoto (1), Hsin-Yi Chang (1), Naoyuki Sugiyama (1), Juri Rappsilber (2,3) and Yasushi Ishihama (1)
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Yukihiro Esaka, (1), Tomoki Fujii (1), Kenji Hisato (1), Takuhei Yamamoto (1), Hiroya Murakami (2), Yasushi Ishihama (3), Bunji Uno (1)
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- P-18 Capillary Electrophoresis for Detection of Ultratrace Uranyl Ions in Radioactive Samples by Way of Fluorescent Probe Selection for Actinide Ions from a Chemical Library**
Tomoko Haraga(1), Kazuki Ouchi (2), Yoshiyuki Sato (1), Hitoshi Hoshino (3), Rei Tanaka (4), Takashi Fujihara (4), Hideki Kurokawa (4), Masami Shibukawa (4), Ken-ichiro Ishimori (1), Yutaka Kameo (1), Shingo Saito (4)
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- P-19 Single Nucleotide Separation by Tetra-PEG Capillary Electrophoresis**
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- P-20 Metaproteome Analysis of Mouse Tissues and Feces**
Yuta Sakamoto (1), Mariko Ito (1), Yoichiro Kashiwagi (2), Takenori Nozaki (2), Shinya Murakami (2), Naoyuki Sugiyama (1), Yasushi Ishihama (1)
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- P-21 Highly Sensitive Enzyme Activity Assay Using Reagent-release Capillaries with Double Sweeping**
Kenji Sueyoshi, Ryota Sanuki, Tatsuro Endo, Hideaki Hisamoto
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- P-23 Retention Characteristics of Carbon Materials-coated Columns for Halogenated Aromatic Compounds in Liquid Chromatography**
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- P-24** **Development of Silica-monolithic Capillaries Modified with Poly(ethylene glycol)-conjugated Fullerenes for LC Separations of Glycoproteins**
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- P-25** **Thermal-responsive Magnetic Nanoparticle Conjugated with a Molecularly Imprinted Polymer for Selective Drug Releasing**
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- P-26** **Molecularly Imprinted Hydrogels for the Selective Fluorescent Detection of Bovine Serum Albumin**
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