



**21st International Conference on Flow
Injection Analysis and Related Techniques
In Honor of the 80th Birthday of Prof. G. Christian**

Scientific/Social Program

**3-8 September 2017
St. Petersburg, Russia**

KL – Keynote lecture
IL – Invited lecture
OP – Oral Presentation
LT – Lightning talk
P – Poster Presentation

Sunday, September 3rd

Time	
18:30-20:00	Registration and Welcome cocktail: Flow analysis family party (Solo Sokos Hotel Palace Bridge, Birzhevoy Pereulok 2-4, Vasileostrovskiy)

Monday, September 4th (Tango Hall)

Time			
8:00-9:00		Registration (Solo Sokos Hotel Palace Bridge, Birzhevoy Pereulok 2-4, Vasileostrovskiy)	
9:00-9:20		Opening ceremony	
		Chair: <i>Duangjai Nacapricha and Wolfgang Frenzel</i>	
9:20-9:50	KL-1	Gary Christian	Innovations in the teaching of analytical chemistry: How they have evolved
9:50-10:20	KL-2	Marek Trojanowicz	Multicomponent radionuclide determinations in flow systems for monitoring of nuclear reactor operation and safety
10:20-10:50	KL-3	António Rangel	Applications of solid phase extraction and functionalized sorbent material in flow analysis
10:50-11:20	KL-4	Victor Cerdà	Hyphenation techniques in flow analysis
11:20-11:50		Coffee Break	

Chair: *Stanislawa Koronkiewicz and Paweł Kościelniak*

11:50-12:15	IL-1	Manuel Miró	Automatic flow-based physiologically based extraction tests for investigation of bioaccessible metal species in environmental solids and foodstuff
12:15-12:35	OP-1	Marcin Wieczorek	Development of the chemical H-point standard addition method on the basis of the gradient ratio flow-injection technique
12:35-12:55	OP-2	Shoji Motomizu	Computer-controlled mobile chemical analysis (CC-MCA) for multi-component determination
12:55-13:15	OP-3	Jaroon Jakmunee	A compact hydrodynamic sequential injection system for multi-parameter determination of soil quality
13:15-14:15		Lunch (Sevilla restaurant, Solo Sokos Hotel Palace Bridge)	

Chair: Raquel B.Mesquita and Petr Solich

14:15-14:35	<i>OP-4</i>	Andrey Bulatov	Automated sample pretreatment of food and pharmaceuticals based on stepwise injection system
14:35-14:55	<i>OP-5</i>	Mikhail Statkus	Subcritical water as an eluent for flow analysis systems including solid-phase extraction
14:55-15:15	<i>OP-6</i>	Purim Jarujamrus	Argentometric and complexometric titrations using thread-based analytical devices
15:15-15:35	<i>OP-7</i>	Kazuaki Ito	Simultaneous determination of inorganic nitrogen and phosphorous species in seawater samples
15:35-16:05	Coffee Break		

Chair: Joanna Kozak and Víctor Cerdà

16:05-16:25	<i>OP-8</i>	Phoonthawee Saetear	Temperature-dependent schlieren effect in liquid flow for chemical analysis
16:25-16:45	<i>OP-9</i>	Jirayu Sitanurak	Membraneless gas-separation microfluidic paper-based analytical device for green and direct analysis of concentrated hypochlorite in commercial household products
16:45-17:05	<i>OP-10</i>	Pathinan Paengnakorn	Novel simple dual electrochemical - colorimetric sensor systems /instrumentation
17:05-17:25	<i>OP-11</i>	Kei Toda	Analysis of atmospheric carbonyls in gaseous and particulate phases by using flow-based parallel plate wet denuder and particle collector: On site analysis in Kumamoto and on the top of Mt. Fuji
17:25-17:45	<i>OP-12</i>	Inga Markevičiūtė	Flow-through dialytic sampling and sample preparation in hyphenation to ion chromatography
18:00	Excursion: Dmitry Mendeleev's Memorial Museum Apartment (Saint Petersburg State University)		

Tuesday, September 5th

Time

9:30-15:00

Boat/bus trip (depending on the weather) to Peterhof.

Departure is from Solo Sokos Hotel Palace Bridge

15:00-16:30

Lunch (Nikolskiy Restaurant, Peterhof)

20:00

International Scientific Committee meeting (Old Tbilisi Restaurant)

Wednesday, September 6th

(Tango Hall)

Time

Chair: Marek Trojanowicz and Petr Chocholouš

8:30-8:55

IL-2

Peter C. Hauser

Microfluidic breadboard approach to flow methods

8:55-9:25

KL-5

Petr Solich

Role of monoliths in flow analysis

9:25-9:55

KL-6

Toshihiko Imato

Flow-based analysis on a compact disk-type microchip with electrogenerated chemiluminescence detection

9:55-10:25

KL-7

Paweł Kościelniak

On implementation of flow techniques to routine analysis

10:25-10:55

KL-8

Vladimir Kuznetsov

Flow injection analysis as interplay between kinetics and thermodynamics

10:55-11:25

Coffee Break

Chair: António Rangel and Burkhard Horstkotte

11:25-11:45

OP-13

Shaorong Liu

Chip-capillary hybrid device for micro-scale flow-injection analysis

11:45-12:05

OP-14

Kazuhiko Tsukagoshi

Tube radial distribution chromatography developed by combining an open-tubular capillary tube as separation column and commercial HPLC system

12:05-12:25

OP-15

Fernando Maya

Mixed-matrix disks containing micro/nanomaterials: novel supports for automated solid-phase extraction

12:25-12:45

OP-16

Stanislawa Koronkiewicz

A novel pulsed xenon flash lamp photoreactor and its potential applications in flow analysis

12:45-13:05

OP-17

Rattikan Chantiwas

Sequential injection-liquid microextraction with GC-FID for analysis of short-chain fatty acids in palm oil mill effluent

13:05-14:05

Lunch (Sevilla restaurant, Solo Sokos Hotel Palace Bridge)

Chair: Manuel Miró and Spas Kolev

14:05-14:25	<i>OP-18</i>	Ilkka Lähdesmäki	Multivariate analysis for FIA/SIA methods – a practical approach
14:25-14:45	<i>OP-19</i>	Chalermpong Saenjum	Flow techniques for the quality control in Miang (Traditional Fermented Tea) production in Northern Thailand: Standard and alternative methods
14:45-15:05	<i>OP-20</i>	Joanna Kozak	Flow-based chromium speciation analysis
15:05-15:25	<i>OP-21</i>	Raquel B.Mesquita	Soil/water interface assessment using sequential injection for multiparametric analysis
15:25-15:55	Coffee Break		

Chair: Kate Grudpan and Jin-Ming Lin

15:55-16:15	<i>OP-22</i>	Edgar Paski	A guide to the ISO/IEC 17025:2017 Standard for the analytical chemist
16:15-16:35	<i>OP-23</i>	Norio Teshima	Automated pre-column derivatization HPLC determination of aldehydes and acetone using simultaneous injection effective mixing flow analysis
16:35-16:55	<i>OP-24</i>	Waraporn Threeprom	Development of microfluidic spectrometric device for arsenic monitoring in water samples
16:55-17:15	<i>OP-25</i>	Melisa Rodas Ceballos	Coupling of MSFIA-LOV system with a homemade liquid scintillation detector for radionuclide determination at environmental levels
17:15-17:35	<i>OP-26</i>	Maliwan Amatatongchai	Selective amperometric flow injection analysis for carbofuran based on molecular imprinted polymer and gold-coated magnetite modified carbon nanotubes-paste electrode
18:00	Excursion: Hermitage Museum of St. Petersburg		

Thursday, September 7th (Tango Hall)

Time

Chair: José Luis F. Costa Lima and Toshihiko Imato

8:300-8:55	IL-3	Wolfgang Frenzel	The role of FIA/SIA in solving analytical problems in environmental research: A critical stock-taking
8:55-9:25	KL-9	Kate Grudpan	Employing modern information technology in flow and non-flow techniques: Modern (Green) chemical analysis
9:25-9:55	KL-10	Jin-Ming Lin	Nanoparticles-enhanced chemilumi-nescence of peroxymonocarbonate and its application in flow injection analysis
9:55-10:25	KL-11	Spas Kolev	Application of polymer inclusion membranes and beads in flow analysis
10:25-10:55	KL-12	Tatiana Tennikova	Polymer monoliths: past, present and perspectives
10:55-11:25	Coffee Break		

Chair: Elias Zagatto and Norio Teshima

11:25-11:45	OP-27	Petr Chocholouš	Various approaches in the on-line solid-phase extraction for trace metals analysis
11:45-12:05	OP-28	Burkhard Horstkotte	Lab-in-syringe automated of head-space extraction coupled online to FID-GC for sensitive determination of BTEX in surface waters
12:05-12:25	OP-29	Joana Miranda	Measurement of iron (III) in waters by microsequential injection solid phase spectrometry using an hexadentate 3-hydroxy4-pyridinone chelator as a color reagent
12:25-12:45	OP-30	Lawrence Nugbienyo	Determination of acetylator phenotypes in humans. SWIA determination of procainamide in urine and saliva
12:45-13:05	OP-31	Ryoichi Ishimatsu	Probing radical anion of pyrene with electrogenerated chemiluminescence
13:05-14:05	Lunch (Sevilla restaurant, Solo Sokos Hotel Palace Bridge)		

Chair: Fernando Maya and Gulnara Safina

14:05-14:10	LT-1	Marcel Alaboud	An automated magnetic dispersive solid phase microextraction in a fluidized
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			reactor for the determination of fluoroquinolone antimicrobial drugs in baby food samples
14:10-14:15	<i>LT-2</i>	Hana Sklenarova	Automation of luciferase determination in a sequential injection system with chemiluminescence detection for cytotoxicity testing
14:15-14:20	<i>LT-3</i>	Elodie Mattio	3D printed lab-on-valve for lead and cadmium quantification in water
14:20-14:25	<i>LT-4</i>	Ana Machado	Development of a noninvasive technique for monitoring glucose levels in saliva by sequential injection determination
14:25-14:30	<i>LT-5</i>	Daria Kanashina	A novel microextraction technique for HPLC-MS/MS determination of insecticides in beverages
14:35-14:40	<i>LT-6</i>	Kanokwan Kiwfo	Novel simple flow set-ups/Procedures for kinetic study
14:40-14:45	<i>LT-7</i>	Daria Nechaeva	Voltammetric determination of hydrogen sulfide in marine fuel using paper-based microfluidic devices
14:45-14:50	<i>LT-8</i>	Yuliia Miekh	Simultaneous kinetic spectrophotometric sequential injection determination of two reducing agents with 18-molybdo-2-phosphate heteropoly complex
14:50-14:55	<i>LT-9</i>	Vera Somova	New variant of hydrophilic interaction liquid chromatography for determining highly polar drugs in body fluid
14:55-15:00	<i>LT-10</i>	Joonchul Shin	Forensic profiling device (FPD): Real-time estimation of postmortem interval (PMI) from bacteria analysis with smartphone-based electrochemical immunosensor
15:00-15:30	Coffee Break		
15:30-17:30	Poster Session/Lightning Talk poster session		
19:00	Gala Dinner (Palace of Prince Alexander Bezborodko). «The first ball of Natasha Rostova» based on the novel "War and Peace" by Leo Tolstoy. Bus transfer is from Solo Sokos Hotel Palace Bridge		
23:30	Bus transfer from Palace of Prince Alexander Bezborodko to Solo Sokos Hotel Palace Bridge		
0:40	St. Petersburg Drawbridge Show. Departure is from Solo Sokos Hotel Palace Bridge		

Friday, September 8th
(Tango Hall)

Time

Chair: Peter C. Hauser and Marcin Wieczorek

9:00-09:25	<i>IL-4</i>	Dmitry Kirsanov	The use of chemometrics in flow-injection analysis
9:25-9:55	<i>KL-12</i>	Elias Zagatto	Fluidized bed in flow analysis
9:55-10:25	<i>KL-13</i>	Duangjai Nacapricha	Lab on paper: effective and low-cost way to do microfluidic analysis
10:25-10:45	<i>OP-32</i>	Justyna Paluch	Sequential injection system with in-line solid phase mini-column extraction for zinc and copper determination
10:45-11:05	<i>OP-33</i>	Hyo-II Jung	A fully automated photo-thermal system for diagnosis of diabetes mellitus by capturing the sialic acid expressed on the erythrocyte membranes
11:05-11:25	<i>OP-34</i>	Wasin Wongwilai	Cost effective alternative precision agriculture: Chiang Mai Model
11:25-11:45	<i>OP-35</i>	Gulnara Safina	Measuring the rate of cellular uptake of nanoparticles using surface plasmon resonance
11:45	Closing ceremony		

Poster Presentations,

Thursday, September 7th

15:30-17:30

P-1 Andrey Shishov, Vasil Andruch, Andrey Bulatov, Rodolfo G. Wuilloud «Application of the ionic liquid in automated systems»

P-2 Andrey Shishov, Ivan Sviridov, Irina Timofeeva, Natalia Chibisova, Leonid Moskvin, Andrey Bulatov «An effervescence tablet-assisted switchable solvent-based microextraction: On-site preconcentration of steroid hormones in water samples followed by HPLC-UV determination»

P-3 Aleksei Pochivalov, Irina Timofeeva, Christina Vakh, Andrey Bulatov «Switchable hydrophilicity solvent membrane-based microextraction for HPLC determination of fluoroquinolones in shrimps»

P-4 Autchara Paukpol, Jaroon Jakmunee «Automatic sequential injection greener anodic stripping voltammetry with monosegmented flow for simultaneous determination of cadmium and lead in soil samples»

P-5 Bülent Ergun, Murat Soyseven, Rüstem Kecili and Göksel Arli «Development of HPLC-DAD and HPLC-ELSD-based analytical methods for the analysis of fluconazole in real samples»

P-6 Carlos Calderilla, Fernando Maya, Luz O. Leal, Víctor Cerdá «3D printed extraction device with integrated features for the automated determination of chromium (VI)»

P-7 Carlos Calderilla, Fernando Maya, Luz O. Leal, Víctor Cerdá «3D printed integrated device for disk-based automated solid-phase extraction»

P-8 Chikako Cheong, Yuji Fujitani, Hiroyuki Hagino, Yasuhito Igarashi, Mizuo Kajino, Masaki Ohata «Development of automated flow system for measuring oxidative potential of PM2.5»

P-9 Dalibor Šatinský, Petr Chocholouš, Ivana Jíchová, Petr Solich «Sequential injection hydrophilic interaction chromatography in SIC system – a new approach for determination of resveratrol and polydatin»

P-10 Dalibor Šatinský, Jiří Chvojka, Slavomíra Zatrochová, Ivona Lhotská, Martina Parmová «Nanofiber polymers as a novel sorbents for coated stir bar sorptive extraction»

P-11 Daria Polikarpova, Daria Dzema, Liudmila Kartsova «Application of strong basic nano-sized anionite for the capillary electrophoresis separation and on-line concentration of inorganic anions and organic acids»

P-12 Göksel Arli, Murat Soyseven, Rüstem Kecili «HPLC analysis of rosuvastatin calcium in drug tablets»

P-13 Hayato Araki, Hiroya Murakami, Yuta Miki, Ruri Horiba, Bunji Uno, Yukihiro Esaka, Norio Teshima «Development of highly sensitive quantitative method of acetaldehyde-DNA adducts by LC-ESI-MS/MS»

P-14 Hiroaki Matsuura, Ayane Uchino, Shura Sakamoto, Shunichi Uchiyama «Amperometric measurement of hydrogen peroxide using nitrogen-decorated carbon fiber electrodes fabricated by stepwise electrolysis»

P-15 Hiroya Murakami, Hayato Araki, Yuta Miki, Bunji Uno, Yukihiro Esaka, Norio Teshima «Development of HILIC-ESI-MS/MS method for DNA adductomics»

P-16 Ivana Šrámková, Veronika Jirsíková, Hana Sklenářová, Dalibor Šatinský «Nanofibres as a novel sorbent for SPE in sequential injection system»

P-17 Joanna Kozak, Justyna Paluch, Marta Konieczna, Marcin Wieczorek, Paweł Kościelniak «Flow titration based on titrant dilution factor»

P-18 Jantima Upam, Philippe Banet, Pierre-Henri Aubert, Kontad Ounnunkad, Jaroon Jakmunee «Sequential injection-differential pulse voltammetric immunosensor for hepatitis B surface antigen using silver nanoparticles as electrochemical probe on the modified screen printed electrode»

P-19 Jong-Il Rhee, Budi Wibowotomo, Jong-Bang Eun «Optimization of the sequential injection analysis system for determination of a non-nutritive sweetener, saccharin»

P-20 Kateřina Fikarová, Burkhard Horstkotte, Hana Sklenářová, Petr Solich «Automated continuous in-syringe dispersive liquid-liquid extraction and back-extraction for the determination of nitrophenols in environmental samples»

P-21 Keisuke Nakakubo, Zhu Jun Feng, Hiroaki Nomada, Kinichi Morita, Hiroaki Yoshioka and Yuji Oki «3D-Printed lens molds by gallium surface control for on-demand fabrication of optical sensing system»

P-22 Kinichi Morita, Kazuhira Sakamoto, Dulal Chandra Kabiraz, Masashi Takahashi, Toshikazu Kawaguchi «Automated immunosensor system for real sample analysis»

P-23 Kitti Phojuang, Wasin Wongwilai, Kate Grudpan «Internet of Things (IoT) bridging chemical analysis for agriculture: Experiences in Chiang Mai»

P-24 Anastasia Kravchenko, Ekaterina Kolobova, Liudmila Kartsova, Elena Bessonova «Determination of biogenic amines in urine sample using ionic liquids covalent coated quartz capillaries by capillary electrophoresis»

P-25 Ksenia Cherkashina, Aleksei Pochivalov, Christina Vakh «A fully automated cloud point microextraction approach using octylamine for the separation and preconcentration of tetracyclines in honey»

P-26 Lucie Zelená, Jakub Fibigr, Lucie Hyršová, Burkhard Horstkotte, Manuel Miró, Hana Sklenářová «3D-printed Franz diffusion cell – another approach in automation of permeation studies using Sequential Injection Analysis»

P-27 Marcin Wieczorek, Karolina Starzec, Maria Madej, Paweł Knihnicki, Jolanta Kochana, Paweł Kościelniak «Flow manifold for chemical H-point standard addition method implemented to electrochemical analysis based on the electrostriction phenomenon»

P-28 Murat Soyseven, Rüstem Kecili, Göksel Arli «Analysis of sertraline hydrochloride using RP-HPLC-DAD and HPLC-ELSD systems»

P-29 Nadia Ollivier, Elodie Mattio, Bruno Coulomb, Damien Bonne, Fabien Robert-Peillard, Jean-Luc Boudenne «Modified 3D-printed device for mercury determination in waters»

P-30 Rana Chehab, Bruno Coulomb, Fabien Robert-Peillard, Jean-Luc Boudenne «Multi-syringe chromatography system for the on-line analysis of inorganic chloramines»

P-31 Natalia Volodina, Andrey Shishov, Andrey Bulatov «On-line in-syringe deep eutectic solvents extraction coupled with HPLC-UV for the determination of caffeine in drinks»

P-32 Prakit Chuntib, Kontad Ounnunkad, Jaroon Jakmunee, Philippe Banet, Pierre-Henri Aubert «Development of flow based sandwich-type electrochemical immunosensor for Prostate Specific Antigen (PSA) assay»

P-33 Prapin Wilairat, Waleed Alahmad, Thanakorn Pluangklang, Thitirat Mantim, Victor Cerdá, Nuanlaor Ratanawimarnwong, Duangjai Nacapricha «Determination of dissolved ammonia and sulfide with on-line membraneless vaporization coupled with contactless conductivity detection»

P-34 Raquel B. R. Mesquita, Tânia C. F. Ribas, Charles Croft, M. Ines G.S. Almeida, Spas D. Kolev, António O. S. S. Rangel «Polymer inclusion membranes (PIMs) as an alternative solid phase extraction (SPE) material: Comparison studies between batch and flow procedure»

P-35 Rüstem Kecili, Murat Soyseven, Göksel Arli «Determination of benzocaine in pharmaceutical compounds using RP-HPLC-DAD and HPLC-ELSD systems»

P-36 Ryoichi Ishimatsu, Kinichi Morita, Yuji Oki, Toshihiko Imato «Applications of a portable UV-Vis spectrometer for enzymatic reactions»

P-37 S. O. Baban, K. A. Saleem «Flow injection spectrophotometric system for determination of Metronidazole by 2,4-(DHB) as a reagent using degassing and temperature controlling system»

P-38 Svetlana Soloveva, Liudmila Kartsova, Elena Bessonova «HPLC/MS determination of anti-TB drugs and their metabolites in human plasma for optimization therapeutic treatment of tuberculosis»

P-39 Sofya Lebedinets, Aleksei Pochivalov, Christina Vakh «Determination of meropenem in biological fluids»

P-40 Susana S. M. P. Vidigal, Francisco M. Campos, António O. S. S. Rangel «Determination of the thermodynamic binding constants of hydroxycinnamic acids with BSA using a flow-based approach with fluorimetric detection»

P-41 Tsutomu Nagaoka, Hiroshi Shiigi, Yojiro Yamamoto «Metal coating on plastic/inorganic device surface by metal nanoparticle plating technique»

P-42 T. Suekane, S. Motomizu, T. Kaneta, L.N. Moskvin and J. Simon «Computer-controlled mobile chemical analysis (CC-MCA) for air pollutants by coupling collection/enrichment techniques»

P-43 T. Alexandra Ferreira, Jose A. Rodriguez, Carlos A. Galán-Vidal, Enrique Barrado «On-line determination of Cr (VI) by adsorptive cathodic stripping voltammetry on a immobilized magnetic poly(ionic liquid) modified electrode»

P-44 Takuya Aoyanagi, Yuta Miki, Hiroya Murakami, Yoshinori Inoue, Norio Teshima «Comprehensive research on solid phase extraction adsorbent for hydrophilic compounds»

P-45 Tu Yifeng «The development of FIA based electrochemiluminescent analysis»

P-46 Naho Watanabe, Sae Iwata, Masaki Kounoura, Yuta Nakashima, Hiroyuki Ohashi, Kinichi Morita, Yuji Oki, Satoru Kuhara, Kosuke Tashiro «Evaluation on the effect of titanium substrate surface irradiated with vacuum ultraviolet light on cultivation of fibroblast and its difference»

P-47 Malyn Ungsurungsie, Kate Grudpan, Chalermpong Saenjum «HPLC investigation of anthocyanin in purple rice bran and potential use in cosmeceutical products»

P-48 Tinakorn Kanyanee, Kanchuma Ngamakarn, Narongporn Pungwiwat, Sunanta Wangkarn, Kate Grudpan «Moving drop manipulation for capillary electrophoresis injection with contactless conductivity detector for some ions analysis»

P-49 Wanpen Khongpet, Somchai Lapanantnoppakhun, Chanida Puangpila, Jaroon Jakmunee «Development of hydrodynamic sequential Injection system for determination of phosphate»

P-50 Zhu Jun Feng, Keisuke Nakakubo, Hirokazu Higuchi, Kinichi Morita, Hiroaki Yoshioka and Yuji Oki «Simple and cheap spectroscopy system specified for 260/280 nm using silicone optical technology»

P-51 Alba González, Sabrina Clavijo, Víctor Cerdà «SIA-LOV system coupled to large volume injection-programmable temperature vaporization-gas chromatography for the fully automated determination of estrogenic compounds»

P-52 Gabriela Chango, Edwin Palacio, Víctor Cerdà «Potentiometric Chip-Multipumping Flow System for Simultaneous Determination of Fluoride, Chloride, pH and Redox potential in Water Samples»

P-53 Donagi Esparza, Marina Villar, Luz O. Leal, Víctor Cerdà, Laura Ferrer «Extraction and preconcentration of radioiodine throughout a MSFIA-LOV system previous liquid scintillation counter detection»

P-54 Rogelio Rodríguez-Maese, Luz O. Leal, Laura Ferrer, Víctor Cerdà «Multicommutated flow system for automatic solid phase extraction of cadmium from tobacco samples previous ICP-MS detection»

P-55 Mohamad Subhi Sammani, Sabrina Clavijo, Víctor Cerdà «High performance liquid chromatographic method for simultaneous determination of four flavanols in different food supplements and pharmaceutical formulations»

P-56 Inga Markeviciute, Wolfgang Frenzel «Evaluation of flow-through dialysis probes for sampling and sample preparation of complex samples: hyphenation to flow analysis and ion chromatography

P-57 Hyo-Il Jung, Leila Kashefi-Kheyrbadi «A highly sensitive microfluidic- based electrochemical aptasensor for detection of Bisphenol A»