

Program of the APCE-CECE-ITP-IUPAC 2022

November 6–10, 2022, Siem Reap (Angkor Wat), Cambodia

November 6, 2022 (Sunday)

	IUPAC Overview		<i>Malis Meeting Room</i>
	Chairs: Roberto Terzano (University of Bari) Annemieke Farenhorst (University of Manitoba)		
13:00-13:10	Introduction of IUPAC and Division VI – Chemistry and the Environment Roberto Terzano (University of Bari)		
13:10-13:35	A brief history of IUPAC Bipul Behari Saha (Sagar Group of Institutions)		
13:35-13:45	Global women's breakfast Hemda Garelick (Middlesex University)		
13:45-14:20	The global scenario and challenges of radioactive waste in the marine environment Nicholas Priest (Laval University)		
14:20-14:30	Carbon sequestration: Harmonizing carbon sequestration measurement – what does it mean and how we do it Diane Purchase (Middlesex University)		
14:30-14:50	Coffee Break		<i>Ballroom 3</i>
14:50-15:20	Techniques, tools, and markets for evaluating carbon sequestration Michelle Bailey (NIST)		
15:20-15:40	Minimizing environmental impacts of tyres and road wear particles Divina Navarro (University of Adelaide)		
15:40-16:00	Tyres and road wear particles: precursors of disinfection byproducts Lokesh Padhye (University of Auckland)		
16:30-16:45	Opening Ceremony		<i>Malis Meeting Room</i>
	Chairs: Doo Soo Chung (Seoul National University) František Foret (Czech Academy of Sciences)		
16:45-16:55	Jaroslav Janák Award for contribution to separation sciences to Martin Gilar (Waters Corporation)		
	Plenary Lectures		<i>Malis Meeting Room</i>
	Chair: František Foret (Czech Academy of Sciences)		
16:55-17:35	PL1	LC MS methods for analysis of therapeutic oligonucleotides and mRNA Martin Gilar (Waters Corporation)	
17:35-18:15	PL2	Ethics and emergency time Bettina Couderc (Institut Claudius Regaud)	
18:30-20:00	Welcome Reception		<i>Poolside Terrace</i>

November 7, 2022 (Monday)

		Poly- and Perfluoroalkyl Substances (PFAS) in the Environment (I) Chair: Rai Kookana (CSIRO Land and Water)	<i>Malis</i>
09:00-09:25	KN1	The complex challenges of poly- and perfluoroalkyl substances as environmental contaminants: A soil perspective Christopher P. Higgins (Colorado School of Mines)	
09:25-09:45	I1	Poly- and perfluoroalkyl substances: Personal observations on challenges for risk assessment and management of environmental contamination Karl Bowles (RPS AAP Consulting Pty Ltd)	
09:45-10:05	I2	Potential release of PFAS from spent engineered sorbents Melanie Kah (University of Auckland)	
10:05-10:25	I3	Electrostatic interactions of poly- and perfluoroalkyl substances (PFAS) with soil minerals Balwant Singh (University of Sydney)	
10:25-10:40	O1	Stabilisation treatments for PFAS in soils: Assessment of durability and longevity Divina Navarro (University of Adelaide)	
		Chemosensors Chairs: Jooheon Kim (Kyunghee University) Gabor Jarvas (University of Pannonia)	<i>Romdol Meeting Room</i>
09:00-09:25	KN2	Electrochemiluminescence to shed light on analytical science Jooheon Kim (Kyunghee University)	
09:25-09:45	I4	Electrochemiluminescence as a versatile tool for the selective detection of diagnostic biomarkers and environmental pollutants Jong-In Hong (Seoul National University)	
09:45-10:05	I5	Neural mechanism mimetic 2nd generation electronic nose Jin-Woo Oh (Pusan National University)	
10:05-10:20	O2	Preparation and characterization of metallic hybrid nanostructures for diclofenac detection Nguyen Thi Thanh Ngan (Vietnam Academy of Science and Technology)	
10:40-11:00	Coffee Break		<i>Ballroom 3</i>
		Poly- and Perfluoroalkyl Substances (PFAS) in the Environment (II) Chair: Melanie Kah (University of Auckland)	<i>Malis</i>
11:00-11:25	KN3	Per- and polyfluoroalkyl substances in a population of Filipino women: an ASEAN perspective on PFAS Michael C. Velarde (University of the Philippines Diliman)	
11:25-11:45	I6	Poly- and perfluoroalkyl substances (PFAS) in the land and water environments of Asia Rai S Kookana (CSIRO Land and Water)	
11:45-12:00	O3	PFAS in the Pearl River system Guang-Guo Ying (South China Normal University)	
12:00-12:15	O4	Metrology of PFAS Zoltan Mester (National Research Council of Canada)	
12:15-12:30	<i>Open Discussion</i>		
		Sample Preparation Chairs: Hong Heng See (Universiti Teknologi Malaysia) Jeongmi Lee (Sungkyunkwan University)	<i>Romdol Meeting Room</i>
11:00-11:25	KN4	Development and application of in-needle microextraction Sunyoung Bae (Seoul Women's University)	
11:25-11:45	I7	Electro-driven extraction based on a polymer inclusion membrane (PIM) sampling probe Hong Heng See (Universiti Teknologi Malaysia)	
11:45-12:00	O5	Alkaline poly(ethylene) glycol 8000-based solid-phase extraction (AP-SPE): A novel in-field compatible, rapid sample preparation method Soomin Lee (Deakin University)	

November 7, 2022 (Monday)

12:00-12:15	O6	Extraction of intact proteins from biological fluids by non-immunoaffinity sample preparation method Katarína Marakova (Comenius University)
12:30-13:30	Lunch <i>Lotus Restaurant</i>	
	The Environment, Health and Food Safety Impact of Microplastics (I) <i>Malis</i> Chair: Hemda Garelick (Middlesex University)	
13:30-13:55	KN5	Microplastic pollution in the marine environment Fani Sakellariadou (University of Piraeus)
13:55-14:15	I8	Photodegradation of HDPE and assessing its contribution to microplastic pollution in coastal waters Lokesh P. Padhye (University of Auckland)
14:15-14:30	O7	Recent advances in the analysis and impact of microplastics in food Clementina Vitali (Wageningen University)
14:30-14:45	O8	Status of microplastics in India Bipul Behari Saha (Sagar Group of Institutions)
14:45-15:00	O9	An overview of the technologies for microplastic remediation Diane Purchase (Middlesex University)
	Pharmaceutical Analysis <i>Romdol Meeting Room</i> Chairs: Jong Seong Kang (Chungnam National University) Thi Thanh Ngan Nguyen (Vietnam Academy of Science and Technology)	
13:30-13:55	KN6	The effects of herbal primary processing on the change in composition of alkaloids from Magnoliae cortex evaluated by LC-MS/MS Jong Seong Kang (Chungnam National University)
13:55-14:20	KN7	Deep eutectic solvents in greener analytical chemistry and material science Jeongmi Lee (Sungkyunkwan University)
14:20-14:35	O10	Metabolomics study for the evaluation of toxicity by environmental pollutant Hyung Min Kim (Chungnam National University)
14:35-14:50	O11	Bioanalytic approaches to control target protein functions by modulating protein-protein interactions based on structural analysis Youngjoo Kwon (Ewha Womans University)
14:50-15:05	O12	Chiral HPLC and molecular modeling study for enantiodiscrimination of chiral amines as three naphthaldimine derivatives using amylose or cellulose derived chiral stationary phases Suraj Adhikari (Chosun University)
15:10-15:30	Coffee Break <i>Ballroom 3</i>	
	The Environment, Health and Food Safety Impact of Microplastics (II) <i>Malis</i> Chair: Diane Purchase (Middlesex University)	
15:30-15:50	I9	Microplastics contamination and their impacts in soil ecosystems Balwant Singh (University of Sydney)
15:50-16:05	I10	We need easy and feasible methods to quantify microplastics in drinking water or wastewater Hyunook Kim (University of Seoul)
16:05-16:20	O13	Environmental and human exposure associated consequences of micro- and nano-size plastic polymers Roland Kallenborn (Norwegian University of Life Sciences)
16:20-16:35	O14	Pesticide sorption by microplastics and other constituents in Prairie rivers Annemieke Farenhorst (University of Manitoba)
16:35-16:50	O15	From macroplastics to nanoplastics: The presence of plastic particles in personal hygiene products and their possible impact on the environment and on human health Hemda Garelick (Middlesex University)
16:50-17:00	<i>Open Discussion</i>	

November 7, 2022 (Monday)

	Advances in CE <i>Romdol Meeting Room</i>	
	Chairs: David D. Y. Chen (University of British Columbia) Blanca H. Lapizco-Encinas (Rochester Institute of Technology)	
15:30-15:55	KN8	Capillary electrophoresis migration time alignment with the help of tandem mass spectrometry data David D. Y. Chen (University of British Columbia)
15:55-16:15	I11	Moving reaction boundary electrophoresis Chengxi Cao (Shanghai Jiao Tong University)
16:15-16:35	I12	Improved method for the determination of aqueous nitrate and nitrite concentration using capillary electrophoresis Gábor Járvas (University of Pannonia)
16:35-16:55	O16	Exhaled breath condensate, saliva and sweat: Alternative, non-invasive biological samples suitable for medical diagnostics by CE and HPLC Petr Kubáň (Institute of Analytical Chemistry of the CAS)
17:00-18:30	Poster Session <i>Ballroom 3</i> Chair: Tomasz Bączek (Medical University of Gdańsk)	

November 8, 2022 (Tuesday)

	Separations <i>Malis Meeting Room</i>	
	Chairs: Hermann Wätzig (Technische Universität Braunschweig) Irena Vovk (National Institute of Chemistry)	
09:00-09:25	KN9	Separation science to ensure the quality of mRNA vaccines and biopharmaceuticals Hermann Wätzig (Technische Universität Braunschweig)
09:25-09:50	KN10	Effective separation of glycoproteins due to the difference of sugar chains in liquid chromatography Takuya Kubo (Kyoto University)
09:50-10:10	I13	Some news for CE and fatty acid separations François Couderc (Université de Toulouse)
10:10-10:25	O17	Biological sample analysis by hydrophilic interaction chromatography Makoto Tsunoda (University of Tokyo)
	Molecular Diagnosis <i>Romdol Meeting Room</i>	
	Chairs: Weihong Tan (Hunan University) Min-Sik Kim (DGIST)	
09:00-09:25	KN11	The foundation of molecular medicine: A chemical biology approach Weihong Tan (Hunan University)
09:25-09:45	I14	Fluorescent Imaging and analysis by using de novo formation of fluorophores in biosamples Yan Lee (Seoul National University)
09:45-10:00	O18	Hybrid film based on gold nanoparticles, reduced graphene oxide and polydopamine towards electrochemical detection of circulating tumor cells Thi Thu Vu (Vietnam Academy of Science and Technology)
10:00-10:15	O19	Metabolomics in the analysis of gastrointestinal stromal tumor samples Michał J. Markuszewski (Medical University of Gdańsk)
10:25-11:00	Coffee Break <i>Ballroom 3</i>	
	CE Theory <i>Malis Meeting Room</i>	
	Chairs: Andras Guttman (University of Pannonia) Bohuslav Gaš (Charles University)	
11:00-11:25	KN12	The fundamental aspects of capillary sodium dodecyl sulfate gel electrophoresis Andras Guttman (University of Pannonia)
11:25-11:50	KN13	Capillary electrophoresis as a tool for kinetics and thermodynamics of biomolecular and metal complex systems Nobuhiko Iki (Tohoku University)

November 8, 2022 (Tuesday)

11:50-12:10	I15	Nonlinear electrokinetics effects enable high-resolution separations Blanca H. Lapizco-Encinas (Rochester Institute of Technology)
12:10-12:30	I16	Electrolytes in nanoscale Bohuslav Gaš (Charles University)
	Biosensors <i>Romdol Meeting Room</i> Chairs: Jiří Homola (Institute of Photonics and Electronics of the CAS) Alejandro Cifuentes (Institute of Food Science Research)	
11:00-11:25	KN14	Plasmonic biosensors for biomedicine Jiří Homola (Institute of Photonics and Electronics of the CAS)
11:25-11:50	KN15	Recent advances in rapid and accurate diagnosis of COVID-19 using nanoplasmonic biosensors Jaebum Choo (Chung-Ang University)
11:50-12:05	O20	The development of nanoparticles for improved SERS detection Vladimir Jonas (Masaryk University)
12:05-12:25	I17	From cellulose (and other biopolymers) to functional sensors Carlos D. Garcia (Clemson University)
12:30-13:30	Lunch <i>Lotus Restaurant</i>	
	Environmental Analysis <i>Malis Meeting Room</i> Chairs: Michael Breadmore (University of Tasmania) Takuya Kubo (Kyoto University)	
13:30-13:55	KN16	Continuous autonomous environmental monitoring by capillary electrophoresis Michael Breadmore (University of Tasmania)
13:55-14:15	I18	Evidence of hexavalent chromium formation and plant uptake in agricultural soils after simulated fires Roberto Terzano (University of Bari)
14:15-14:30	O21	Instrumental neutron activation analysis of PM10 and PM2.5 samples collected at Daejeon in Korea Jong-Hwa Moon (Korea Atomic Energy Research Institute)
	Food Analysis <i>Romdol Meeting Room</i> Chairs: Kihwan Choi (Korea Research Institute of Standards and Science) François Couderc (Université de Toulouse)	
13:30-13:55	KN17	Challenges in chromatographic analyses of phytonutrients in plant extracts and food Irena Vovk (National Institute of Chemistry)
13:55-14:20	KN18	Accurate determination of mycotoxins and organic nutrient by isotope dilution-liquid chromatography tandem mass spectrometry Kihwan Choi (Korea Research Institute of Standards and Science)
14:20-14:40	O22	Milk protein assays by capillary electrophoresis for nutrition evaluation Walter Feng (SCIEX)
14:40-15:00	O23	New methodologies for improving safety and bioactivity in green foodomics Elena Ibáñez (Institute of Food Science Research)
15:00-15:30	Coffee Break <i>Ballroom 3</i>	
	Molecular Level Chemistry <i>Malis Meeting Room</i> Chairs: Yun Hee Jang (DGIST) Yves Lansac (Université de Tours)	
15:30-15:55	KN19	Evolution of scanning probe microscopy to nanoscale molecular analysis Sang-Joon Cho (Park Systems Corp)
15:55-16:15	I19	Morphology control of PEDOT:PSS polyelectrolyte by hard-cation-soft-anion ionic liquids: Microscopic observation by molecular dynamics simulation Yun Hee Jang (DGIST)
16:15-16:35	I20	Protamine-controlled reversible DNA packaging: A molecular glue Yves Lansac (Université de Tours)

November 8, 2022 (Tuesday)

16:35-16:55	I21	An artificial neuronal device, Cu_{2-x}Se ultrathin film memristor via atomic layer deposition Seonghoon Lee (Seoul National University)
16:55-17:10	O24	Analysis of semi-ionic C-F bonds on photoreduced graphene oxide Joon Ching Juan (University of Malaya)
	Biomarkers <i>Romdol Meeting Room</i> Chairs: Sam F. Y. Li (National University of Singapore) Yan Lee (Seoul National University)	
15:30-15:55	KN20	Integrative analysis of metabolomics and glycomics data for identifying markers of asthma in serum and sputum samples Sam F. Y. Li (National University of Singapore)
15:55-16:15	I22	Integrative multi-omic analysis to study autism spectrum disorders Min-Sik Kim (DGIST)
16:15-16:35	I23	Activity of natural compounds against Alzheimer investigated by foodomics Alejandro Cifuentes (Institute of Food Science Research)
16:35-16:50	O25	N-Glycosylation alteration of serum and salivary immunoglobulin A as a possible biomarker in oral mucositis Andras Guttman (University of Debrecen)
16:50-17:05	O26	Exploration of the metabolic alterations of short-chain fatty acids and TCA cycle intermediates in human plasma with gastric disorders Wonwoong Lee (Woosuk University)
17:30-19:30	Banquet <i>Ballroom</i>	

November 9, 2022 (Wednesday)

	Imaging <i>Malis Meeting Room</i> Chairs: Kyubong Jo (Sogang University) Svetlana M. Krylova (York University)	
09:30-09:50	I24	Microscopic DNA sequence visualization Kyubong Jo (Sogang University)
09:50-10:10	I25	Bending short dsDNA: structure and mechanical properties Nam Ki Lee (Seoul National University)
10:10-10:30	O27	Nanoparticle tag counting for tissue imaging using infrared laser ablation Jan Preisler (Masaryk University)
	Tools for Biology <i>Romdol Meeting Room</i> Chairs: Tomasz Bączek (Medical University of Gdańsk) Jongcheol Seo (POSTECH)	
09:30-09:55	KN21	Off-line clean-up and on-line preconcentration new approaches prior to capillary electrophoresis separations of drugs and endogenous substances Tomasz Bączek (Medical University of Gdańsk)
09:55-10:15	I26	UV sterilization of Bacillus atrophaeus spores on various conditions Jeongkwon Kim (Chungnam National University)
10:15-10:35	I27	Proximity labeling, an enzymatic tool for spatial biology Hyun-Woo Rhee (Seoul National University)
10:35-11:00	Coffee Break <i>Ballroom 3</i>	

November 9, 2022 (Wednesday)

	Affinity in CE <i>Malis Meeting Room</i>	
	Chairs: Sergey Krylov (York University) Nobuhiko Iki (Tohoku University)	
11:00-11:25	KN22	Transient incomplete separation of species with close diffusivity to study stability of affinity complexes Sergey Krylov (York University)
11:25-11:45	I28	Affinity capillary electrophoretic study of noncovalent molecular interactions using uncorrected and ionic strength corrected actual mobilities of the species involved Václav Kašička (Czech Academy of Sciences)
11:45-12:05	I29	Using capillary electrophoresis to make aptamer selection a quantitative process Svetlana M. Krylova (York University)
12:05-12:20	O28	(1R,2S)-N-Dodecyl-n-methylephedrinium bromide as a chiral selector in enantioseparations using capillary electrophoresis Pavel Jáč (Charles University)
	Biomolecule Analysis <i>Romdol Meeting Room</i>	
	Chairs: Hanne Røberg-Larsen (University of Oslo) Nam Ki Lee (Seoul National University)	
11:00-11:25	KN23	Quantitative analysis of oligo: mRNA vaccine, gene therapy and mRNA end capping Seo Bong Chang (SCIEX)
11:25-11:45	I30	Selective detection of protein acetylation by NMR spectroscopy Jung Ho Lee (Seoul National University)
11:45-12:05	I31	New analytical approach for distinguishing biomolecular topologies using ion mobility spectrometry-mass spectrometry Jongcheol Seo (POSTECH)
12:05-12:20	O29	Oxysterols are secreted from non-alcoholic fatty liver disease (NAFLD) induced organoids Hanne Røberg-Larsen (University of Oslo)
12:30-13:30	Lunch <i>Lotus Restaurant</i>	
	Column Technology <i>Malis Meeting Room</i>	
	Chairs: František Švec (Charles University) Václav Kašička (Czech Academy of Sciences)	
13:30-13:55	KN24	Porous polymer monoliths: A universal tool in chromatography František Švec (Charles University)
13:55-14:15	I32	Acrylate monolith precursor having carboxy surface and its functionalization with polar, non-polar, and chiral ligands for capillary electrochromatographic separation Ziad El Rassi (Oklahoma State University)
14:15-14:35	O30	Recent developments in the synthesis of high-performance anion-exchange materials based on hyperbranched polymers Christopher Pohl (Thermo Fischer Scientific)
14:35-14:50	O31	New studies on poly(ethylene glycol)-based hydrogels in electrophoresis Chenchen Liu (Kyushu University)
	Mass Spectrometry <i>Romdol Meeting Room</i>	
	Chairs: Oliver J. Schmitz (University of Duisburg-Essen) Jeongkwon Kim (Chungnam National University)	
13:30-13:50	I33	APCI, APPI, APLI, and DBD: Uncommon ionization methods for GC-MS Oliver J. Schmitz (University of Duisburg-Essen)
13:50-14:10	I34	Machine learning in mass spectrometry analysis and microplastic analysis Han Bin Oh (Sogang University)

November 9, 2022 (Wednesday)

14:10-14:25	O32	Ionization by Au⁺: A new tool for mass spectrometry of volatile organic compounds Antonin Bednarik (Masaryk University)
14:25-14:40	O33	Development of certified reference materials for the determination of bisphenol A in polycarbonate/acrylonitrile-butadiene-styrene (PC/ABS) Dong Kyu Lim (Korea Research Institute of Standards and Science)
14:50-15:30	Coffee Break <i>Ballroom 3</i>	
	Instrumentation <i>Malis Meeting Room</i> Chairs: Petr Kubáň (Czech Academy of Sciences) Jung Ho Lee (Seoul National University)	
15:30-15:50	I35	Development of Fourier transform infrared spectroscopy for chimney telemetry system Jong Hae Lee (S-Fac)
15:50-16:10	I36	Better analysis with nanobio-conjugated sensing platforms for biomedical applications Sang Hyuk Lee (Kyungpook University)
16:10-16:30	O34	High sensitivity portable gas chromatography Sun Jong Baek (Bioneer)
16:30-16:45	O35	"In-vivo" study of the kinetics of changes in the plant saps composition by laboratory-built capillary electrophoresis device Natália Melicherová (Czech Academy of Sciences)
	Microfluidics <i>Romdol Meeting Room</i> Chairs: Steven Ray Wilson (University of Oslo) Han Bin Oh (Sogang University)	
15:30-15:55	KN25	One-flow synthesis of functional chemicals via diverse phase separation steps Dong-pyo Kim (POSTECH)
15:55-16:15	I37	Coupling organoids and organ-on-a-chip with liquid chromatography-mass spectrometry Steven Ray Wilson (University of Oslo)
16:15-16:30	O36	3D printing of porous materials integrated miniaturized fluidic devices for electrokinetic DNA extraction and soil analysis Hari Kalathil Balakrishnan (Deakin University)
16:50-17:30	Poster Awards <i>Ballroom 3</i> Chair: Tomasz Bączek (Medical University of Gdańsk)	

November 10, 2022 (Thursday)

09:00-12:00	Scientific Discussions and Closing Ceremony
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List of poster presentations

- P1 Analysis of biogenic amines and benzo[α]pyrene in black pepper prepared under various cooking methods**
Byungjoo Yoo, [Hyunwoo Ahn](#), Kwang-GeunLee
- P2 Analysis of furan in red pepper powder treated by three methods - boiling, roasting, and frying**
Sookyong Kim, [Seung-Woo Ha](#), Kwang-Geun Lee
- P3 Arduino-based autosampler for an in-house built capillary electrophoresis instrument**
[Petra Itterheimová](#), Martin Kubáň, František Foret, Petr Kubáň
- P4 Biodegradation degree analysis and examination of biodegradable resin PHA (Poly hydroxy alkanooate) in composting and natural soil condition**
Han Chang Hoon, [Lee Se Jin](#), Won Cheol Hyun
- P5 Biomaterial actuator of M13 bacteriophage in tunable gap plasmonic color film for diagnosing lung cancer**
[Thanh Mien Nguyen](#), Gyeong-Ha Bak, You Hwan Kim, Tae-Young Jeong, TaeYeon Kim, YeongHwa Kim, Jeong Seok Han, YeNi Cho, Jin-Woo Oh
- P6 Characterization of isomeric lipid-A species from *Pseudomonas aeruginosa* by non-aqueous CE-MS/MS with collision-induced dissociation**
[Viktor Sándor](#), Anikó Kilar, Bettina Ürmös, Ibrahim Aissa, Ágnes Dörnyei
- P7 Characterization of tau proteome in human cerebrospinal fluid**
[Andrej Kovac](#), Juraj Piestansky, Petra Majerova, Jozef Hanes
- P8 Chiral resolution of thyroxine enantiomers using chiral crown ether column by UPLC-tandem mass spectrometry**
[Suraj Adhikari](#), Jisun Lee, Wonjae Lee, Hye-Ran Yoon
- P9 Chiral separation and determination of the absolute configuration of bioactive indole-containing pyrazino[2, 1-b]quinazoline-3,6-diones for metabolism study**
[Long Solida](#), Song Sousdey, Ven Sovannaroth, Emilia Sousa
- P10 Correlation analysis between volatile compounds and α -dicarbonyl compounds in various beans as responses to different roasting conditions**
Gaeun Lee, [Haeun Lee](#), Kwang-Geun Lee
- P11 Determination of nutrient concentration in cyanobacterial liquid culture by CE and ICP-MS**
[Natália Melicherová](#), Tomáš Vaculovič, Radka Kočí, Martin Trtílek, Jana Lavická, František Foret
- P12 Determination of vancomycin in livestock and fishery products using liquid chromatography-tandem mass spectrometry**
Bohyun Shin, [Chohee Jeong](#), Sang Beom Han
- P13 Development of a new biomarker model for predicting preterm birth in cervicovaginal fluid**
Ji-Youn Lee, [Sun Koung Joung](#), Dong-Kyu Lee, Sang Beom Han
- P14 Development of the simultaneous analytical methods of nine compounds in Magnoliae cortex treated with the herbal primary processing using HPLC**
[Chong Woon Cho](#), Young Sik Park, Hyung Min Kim, Jong Seong Kang
- P15 Development of UHPLC-MS/MS method for the analysis of topotecan in plasma and vitreous humor samples for application in retinoblastoma therapy**
Barbora Mudrova, Katerina Hrabakova, Petr Kozlik, Jakub Sirc, [Zuzana Bosakova](#)
- P16 Discovery of potential quality marker of Duliang herbal formula for migraine via network pharmacology and LC-PDA-MS/MS analysis**
[Duc Thanh Chu](#), Chong Woon Cho, Hyung Min Kim, Jong Seong Kang
- P17 Dissipation patterns and dietary risk assessments of acrinathrin and cyenopyrafen in sweet pepper using LC-MS/MS and GC-MS/MS**
[Jung-Hoon Jung](#), Seong-Hoon Jeong, Jong-Wook Song, Jong-Su Seo, Jong-Hwan Kim
- P18 Dissipation patterns and risk assessment of the insecticides propiconazole, hexaconazole, tetraniliprole, and isopyrazam in green pepper using LC-MS/MS**
[Seong-Hoon Jeong](#), Jung-Hoon Jung, Jong-Wook Song, Jong-Su Seo, Jong-Hwan Kim

- P19 Effect of roasting after sugar-soaking on the level of volatile compounds, total polyphenols, total flavonoids, and isoflavones in black soybean (*Glycine max* (L.) Merr)**
Jaehee Choi, [Daehyeop Lee](#), Kwang-Geun Lee
- P20 Electrospray ionization charge-detection mass spectrometry (ESI-CDMS) for analysis of microplastics**
Elaura Gustafson, George Gao, Kate Hales, [Daniel E. Austin](#)
- P21 Electrospray ionization-mass spectrometry with reducing agents**
[Yunseop Choi](#), Sanghwang Park, Jongcheol Seo
- P22 Emission behavior of VOC and formaldehyde from cut edges in building products**
[Man-Goo Kim](#), Jun-Ho Park
- P23 Evaluation of different ionic liquids for electromembrane extraction across a hollow polymer inclusion membrane for analysis of herbicides**
[Ye Tim Pung](#), Sabita Samy, Hong Heng See
- P24 Food supplements - fact or fiction?**
[Maja Bensa](#), Vesna Glavnik, Irena Vovk
- P25 From basic research to application: A high performance immune-affinity based extracorporeal virus capture system**
[G. Jarvas](#), D. Szerenyi, H. Jankovics, F. Vonderviszt, J. Tovari, L. Takacs, F. Foldes, B. Somogyi, F. Jakab, A. Guttman
- P26 Gold nanoparticles – from synthesis to extraction of biological thiols and CE-LIF analysis**
[Věra Dosedělová](#), Petr Kubáň
- P27 Headspace in-tube microextraction capillary electrophoresis mass spectrometry**
[Joon Yub Kwon](#), Doo Soo Chung
- P28 Highly efficient three-phase single drop microextraction coupled with a commercial capillary electrophoresis instrument**
[Sunkyung Jeong](#), Joseph E. Valdez, Natalia Miękus, Joon Yub Kwon, Wooyong Kwon, Tomasz Bączek, Doo Soo Chung
- P29 Highly sensitive analysis of cationic ink by large volume sample stacking with an electroosmotic flow-nonaqueous capillary electrophoresis**
[Jiwoong Seol](#), Sunkyung Jeong, Eunjung Kwon, Seung-Hoon Bahng, Doo Soo Chung
- P30 Host-guest chemistry of CB[7] and imipramine: Impact on the protonation site**
[Jiyeon Lee](#), Hyerim Kim, Jongcheol Seo
- P31 Hybrid similarity search algorithm applications in identifying unknown compounds in a variety of products using mass spectrometry: consumer chemical products and drug analogues**
[Jin Woo Kim](#), So Yeon Lee, Han Bin Oh, Bong June Sung
- P32 Ion mobility mass spectrometry of phosphorylated tau peptides from Alzheimer's disease brain**
[Petra Majerova](#), Andrej Kovac
- P33 Liquid extraction surface analysis-capillary electrophoresis/2C4D for the simultaneous analysis of cations and anions on lithium battery anode surface**
[Sunkyung Jeong](#), Byung-Hee Choi, Jonggeol Kim, Hee-Sun Yun, Doo Soo Chung
- P34 MALDI-MS of semiconductor nanoparticles with porphyrin matrices and focused electrospray deposition**
[Sanghwang Park](#), Jiyeon Lee, Jongcheol Seo
- P35 Microplastic pollution in Athens Riviera, Gr.**
Ioanna Maria Trifona, [Fani Sakellariadou](#)
- P36 Miniaturized liquid junction-based ESI interfaces**
[Roman Řemínek](#), Elizaveta Vereshchagina, Andreas Vogl, Tomáš Václavěk, František Foret
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