CECE Junior 2025 – Scientific Program

Institute of Analytical Chemistry of the Czech Academy of Sciences, Brno, Czech Republic

11.11.2025		
8:00	Registration	
9:00–9:15	Opening *František Foret, Roman Řemínek*	
9:15–10:00	PL1	Capillary electrophoresis - unnecessary due to AI? *Hermann Wätzig*
10:00–10:20	O1	Key factors influencing the efficiency and reproducibility of double-chained cationic surfactant coatings for protein separation in capillary electrophoresis *Chirapha Prakobdi*
10:20–10:40	O2	Taylor dispersion analysis of liposomes and the effect of carrier ampholytes on their integrity *Pavlína Dadajová*
10:40–11:10	Coffee break	
11:10–11:30	O3	Droplet microfluidics: A high-throughput platform for enzyme kinetics, inhibition screening, and therapeutic agent development *Lukáš Jordán*
11:30–11:50	O4	Development of micro-blot array diagnostic kit with nanoparticle-conjugated antigens for serological diagnosis of tropical diseases *David Pokorný*
11:50–12:10	O5	Label-free micro- and nanoparticle quantification via evaporated volume analysis (EVA) *Julie Weisová*
12:10–12:30	O5	Optical microscopy and evaporation-based analysis for quantification of nanoscale entities *Kateřina Uhrová*
12:30–13:00	Lunch break	
13:00–14:30	Poster session + Lab visit – Institute of Analytical Chemistry	
14:30–14:50	O7	HILIC-MS/MS for precise glutathione metabolism profiling *Miroslav Kubát*
14:50–15:10	O8	Simultaneous mapping of peptides and released N-glycans by HILIC-FLD-MS for quality control of protein biopharmaceuticals *Mykyta R. Starovoit*
15:10–15:30	O9	Patient-friendly LC–MS therapeutic drug monitoring in alternative matrices *Viktória Ďurčová*
15:30–15:50	O10	Modulation of high-pH mobile phase incompatible with the 2nd dimension column for SAX-RPLC of peptides *Derya Demir*
15:50–16:10	O11	Reaction kinetics analysis of fungal hyaluronidase TsHr *Jana Jílková*

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12.11.2025		
8:00	Registration	
9:00–9:45	PL2	TBA *Marek Minárik*
9:45–10:05	O12	Early type 2 diabetes screening by combining high-resolution capillary electrophoresis separation and machine learning supported data evaluation *Rebeka Török*
10:05–10:25	O13	Analysis of brain tissue N-glycosylation using capillary electrophoresis *Beatrix Kiss*
10:25–10:55	Coffee break	
10:55–11:15	O14	Data-driven gradient optimization in LC-MS/MS: From semi-experimental framework to applications in food phenolic analysis *Michal Kašpar*
11:15–11:35	O15	Fully automated sample preparation in-syringe online coupled to HPLC for vitamins analysis in vegan milk *Tar Tar Moe Htet*
11:35–11:55	O16	Automated analysis of proteins in dried plasma spot samples *Helena Hrušková*
11:55–12:15	O17	Nanofiber-based microextraction for environmental analysis *Ewelina Czyz*
12:15–12:35	O18	An automated platform for the monitoring of microfluidic immobilized enzyme reactors *Sanjay Lama*
12:35–13:30	Lunch break	
13:30–13:50	O19	Novel multipurpose matrix for a high resolution MALDI MS and multimodal imaging *Michal Javorek*
13:50–14:10	O20	Impedance-based detection of biofilm formation of *Staphylococcus aureus* and *Staphylococcus epidermidis* *Bengisu Yöney*
14:10–14:30	O21	Bioconjugates of upconversion nanoparticles for immunochemical detection of tumor biomarkers *Pavel Špaček*
14:30–14:50	O22	Physics for sensitivity, chemistry for selectivity: Planar spark and Ag/FexOy colloid substrates for SERS *Vít Pavelka*
14:50–15:10	O23	Development of microfluidic capillary electrophoresis with surface-enhanced Raman scattering detection (CE–SERS) *Lucie Březinová*
15:10–15:30	O24	Deuterated water amplified fluorescence detection in capillary electrophoretic separation of DNA *Jan Badin*
15:30–15:35	Closing *František Foret, Roman Řemínek*	

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Poster presentations	
P1	Absolute quantification of nanoparticles and nanoplastics for their chemical characterization *Hana Brožková*
P2	Fluorescein-based markers of isoelectric point as a tool tracking of pH gradient in highly sensitive isoelectric focusing analysis with laser-induced fluorescence detection *Pavlína Dadajová*
P3	Characterization of linear and branched cuticular hydrocarbons in *Blaptica dubia* using GC/Q-TOF and molecular sieve separation *Kateřina Hrabáková*
P4	Chromatographic techniques for the analysis of historical pharmaceuticals of plant origin *Tomáš Lener*
P5	Bringing liquid chromatography out of the lab: A compact UV-Vis detector for portable systems *Zuzana Maďarová*
P6	Co-cultivation of *Hypericum*-borne endophytes unlocked anthraquinone biosynthesis *Martina Matoušková*
P7	Acoustic alignment of bacteria toward piezoelectric biopolymer devices *Jakub Vejrosta*
P8	Optimization of electrospray ionization for MS/MS sequencing of Substance P *Adéla Veselá*

Note: Please prepare your poster in A0 portrait format.