

33rd INTERNATIONAL SYMPOSIUM ON CHROMATOGRAPHY – ISC 2022

The International Symposium on Chromatography (ISC) has been organized since 1956 and it is one of the oldest conferences on separation science. This conference represents one of the most important meeting for discussions of all modes of chromatography and separation science in pharmaceutical, environmental, food, and health fields. Its 33rd edition was celebrated in Budapest (Hungary) from 18th to 22nd September 2022. The event was organized by the Hungarian Society for Separation Sciences, and the chairman of the symposium was the Prof. Attila Felinger. The final program included communications about new technologies, instrumentations and separation media for chromatographic, electrodriven separations, miniaturized/lab-on-chip systems, mass spectrometry hyphenation, and applications.

The ISC 2022 started on Sunday afternoon with an Opening Ceremony and Award Ceremony in which different awards, including the Halász Medal Award, the Csaba Horváth Memorial Award, the Ervin Sz. Kováts Award (for Young Scientists), the Prism-award (Hungarian Society for Separation Sciences), the Martin and Jubilee Medals (Chromatographic Society), and the Joseph Huber Name Lecture Award (Austrian Society of Analytical Chemistry) were presented. After that, two plenary lectures were exposed by Philip J. Marriot and Csaba Szántay about *“Journeys in GC×GC – Developing Ultra-High-Resolution Separations”* and *“The Human Factor in Scientific Thinking: The Illusions That We Live By”*, respectively. To conclude the first day, a welcome reception was held, including a Palinka tasting sponsored by Shimadzu.

On Monday morning, three parallel sessions were held. Two keynotes and four or six oral communications were presented in each session. After lunch, Shimadzu presented its vendor seminar entitled *“Better Together – Reaching Higher Peaks”* and the first poster session took place. After a coffee break, other two keynotes and six oral communications were also presented. All the sessions were focused on fundamentals and different applications of single chromatography (HPLC, GC, SFC) and two-dimensional systems for chiral or achiral separations.

On Tuesday, the same schedule was followed: two parallel sessions with keynotes presented by Simona Felletti and by Michael Lämmerhofer followed by two or three oral communications. After a coffee break and exhibition of the ISC sponsor, another two sessions including two keynotes and six oral presentations concerning the analysis of oligonucleotides by LC, LC-MS/MS, or SFC, and new approaches of 2D-LC and detectors took place. After lunch, the second vendor seminar by Thermo Fisher Scientific (*“Semi-preparative LC purification and analytical characterization of genetic chemical scissors for impurity precision profiling and genomic fingerprinting”*) and the poster session were presented. The day concluded with the presentation of two new keynotes and six oral communications.

On Wednesday the conference continued with the same dynamic, starting at 9:00 h with two parallel sessions and sponsor exhibitions. Throughout the morning, 2 keynotes and 14 oral presentations were held related to metabolomics, proteomics, clinical analysis, HILIC retention mechanisms, anion exchange stationary phases in IC, new stationary phases in LC, and some environmental applications. Subsequently, all attendees enjoyed lunch and the third poster session where the posters selected for the awards were presented. The conference ended with two keynotes and six oral presentations on different topics such as the analysis of intact protein by CZE-MS, the immobilization of enzymatic microreactors for Bottom-Up proteomic

studies, or *“The Role of Universal Detection in Modern Liquid Chromatography”*. To conclude the day, a wonderful Gala Dinner was held aboard a boat on the Danube River.

The last day (Thursday) started with two keynote lectures about the use of supercritical fluid chromatography and the coupling of liquid chromatography with mass spectrometry, followed by three oral communication about similar topics. At 11 h, the last two sessions started with keynotes related to isotachopheresis and proteomic analysis of cell lung cancer, and 3 oral communications in each session. The conference reached its final point after lunch, when the three last plenary lectures presented by Peter Schoenmakers (*“Separations, Dimensions, Actions and Reactions”*), Michal Holčapek (*“UHPSFC/MS in Lipidomic Quantitation: Towards the Clinical Screening of Pancreatic Cancer”*) and Tony Edge (*“An Assessment of Stationary Phase Selectivity in SFC”*) took place. The closing ceremony was celebrated with the presentation of the five poster awards, an introduction to the next ISC event in Liverpool (6 - 10th October 2024), and a farewell reception.

In summary, during these successfully four days (you can enjoy the photos of the congress at the following link: <https://isc2022.hu/gallery/>), 5 plenary lectures, 22 keynotes, 72 oral presentations, 2 vendor seminars, and more than 200 posters dealing with different aspects of separation techniques, extraction techniques, mass spectrometry detection, metabolomics approaches, biomedical diagnostics, etc. were presented.

Sandra Salido Fortuna

*Department of Analytical Chemistry, Physical Chemistry and Chemical Engineering
University of Alcalá*