

Editorial



ISSS 2005 – 11th International Symposium on Separation Sciences

Separation Sciences are a very lively field and research results have led to applications nobody dared to dream about some years ago. This fact was once more reflected during the 11th International Symposium on Separation Sciences which took place at Pardubice, Czech Republic, on September 12–14, 2005. Organized jointly by the Central European Group for Separation Sciences (CEGSS), the Group for Chromatography and Electrophoresis of the Czech Chemical Society and the Department of Analytical Chemistry, University of Pardubice the Symposium attracted 340 participants from 25 countries, most of them from central Europe, but some from distant countries – USA, Canada, Australia, Japan, Taiwan, Iran and Egypt.

76 lectures and 200 posters covering various fields of chromatographic, electrophoretic and related analytical separation techniques, with special attention on multidimensional, miniaturized and ultra-fast separations, LC/MS, LC/MS/MS, LC/NMR techniques and sample handling and pre-treatment formed the scientific frame of the meeting.

Furthermore progress in nano-flow HPLC and separations on HPLC-chip columns, miniaturization trends in chiral separations and in field-flow fractionation, new achievements in hyphenated techniques were addressed, including combination of ultra-performance liquid chromatography with mass spectrometry, miniaturized devices interfacing capillary electrophoresis with mass-spectrometry.

Many contributions were devoted to the development and testing of new types of stationary phases: inorganic and organic-polymer based monolithic continuous separation media, columns suitable for hyphenated LC/MS and LC/NMR, or molecular imprinted polymers and immunosorbents for sample preparation and enrichment.

Great attention in the audience was directed towards the contributions on fundamental aspects of separation techniques. Lectures on multi-dimensional chromatographic separations, focusing especially on comprehensive two-dimensional liquid chromatography, on new achievements improving our understanding of the retention mechanism with respect to the sample structure and possibilities of applications of pH gradients in reversed-phase chromatography, proved to be especially attractive.

Also optimization approaches for chromatographic, electrophoretic and field-flow fractionation separations were discussed. Contributions in the field of electrophoretic and electrochromatographic methods in open capillaries focused on organic trace analysis and separations of peptides, proteins, microorganisms and biomarkers of alcohol abuse. Many new environmental, pharmaceutical, industrial, food analysis, biomedical and biochemical applications were shown and major advances in glycomic and proteomic separations were clearly demonstrated. 15 manufacturers exhibited new instruments, columns and materials.

In addition to the rich scientific program, the participants had ample opportunity for networking. Perfect weather conditions highlighted the historic centre of Pardubice and the medieval Pardubice castle was a wonderful venue of a reception.

Nevertheless, the contents presented in Pardubice are too valuable to be restricted to the participants. To make the scientific achievements accessible also for those scientists who could not attend the Symposium this issue of the Journal of Separation Science offers a selection of the best presentations thus reflecting the high standard of the Separation Sciences.

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