

The '20th International Symposium on Electro- and Liquid Phase- Separation Techniques' took place on 6-9 October 2013 in the Hotel Beatriz Atlantis located in Puerto de la Cruz (Tenerife, Spain). The organizing committee was composed of several national and international renowned scientists and it was chaired by Dr. Javier Hernández Borges, from the University of La Laguna, and Prof. Alejandro Cifuentes, from the Institute of Food Science Research (CIAL, CSIC-UAM).

The first day, two opening plenary lectures were presented. Dr. Salvatore Fanali, from the Institute of Chemical Methodologies of Consiglio Nazionale delle Ricerche (Italy), gave an overview over different approaches developed in capillary chromatography and electrochromatography and its coupling with mass spectrometry, while Professor Ziad El Rassi, from Oklahoma State University of USA, described different strategies for profiling glycoproteins and their potential as biomarkers. The evening finished with a welcome cocktail in the terrace of the hotel.

Next morning started with 3 parallel sessions. The first one entitled 'Advanced food analysis and Foodomics-1' was mostly focused on the development and application of high-throughput approaches (metabolomics, proteomics or foodomics) for the analysis of foods, their constituents (e.g. bioactive compounds), contaminants (e.g. mycotoxins), etc. At the same time, in the session 'Nanotech & Microchips-1', different microchip devices, new manufacture methodologies and the application of two-dimensional microfluidic techniques for separation of DNA were presented by different speakers. Meanwhile, more theoretical lectures were taking place on 'Fundamentals-1' session. The second session was split into three parallel sessions entitled 'Hyphenated', 'Bioanalysis' and 'New Applications', focused on new perspectives in the use of separation techniques in these fields. Concerning the poster sessions, 147 communications were presented in two different sessions. It has to be highlighted the high quality level of the communications presented spanning a wide variety of topics such as chiral analysis, omics, forensic analysis, etc. After the first poster exhibition, the third session took place in three parallel sessions: session 3A focused on new sample preparation methodologies coupled to separation techniques, session 3B which described new methodologies based on separation techniques and session 3C dedicated to application of separation techniques for omics studies.

In the afternoon, parallel sessions scheduled were: 'Hyphenated-2' (session 4A), coupling of microchips and dielectrophoresis to separation techniques (session 4B) and 'Forensic and Methodologies' (session 4C). On Monday evening, after the fourth session, the social dinner was held in "La Gañanía" restaurant, located in a pleasant environment with fantastic views.

On the third day, the conference started with three parallel sessions. Session 5A focused on new achievements in the field of bioanalysis, session 5B concerned the power of nanotechnology and microchips in analysis, while session 5C presented new applications of capillary electrophoretic and chromatographic techniques. ITP 2013 incorporated a new session as compared with previous editions: the Young Scientists Plenary Session. This session took place on Tuesday at midday with the participation of seven young researchers who presented their interesting investigations. The scientific and organizing committee idea of

making this session as plenary was massively lauded because it gave the chance to all participants to attend this session and also to the young researchers to explain, discuss and defend their works in front of some of the most outstanding analytical chemists from all over the world. After lunch, Tuesday afternoon began with the fifth session which was divided into three parallel sessions and each session consisted of five lectures. The session 'Advanced food analysis and Foodomics-2' was mostly focused on the food security through metabolomics, but also on the analysis of bioactive compounds. At the same time, the 'Fundamentals-2' session was based on optimization of methods by LC or CE. Meanwhile the 'Hyphenated-3' session included new perspectives in the use of separation techniques coupled with mass spectrometry. The day ended with a trip to the wonderful National Park 'Las Cañadas del Teide' and a fantastic traditional Canarian folklore exhibition.

The morning of the last day of the conference was started by the Closing Plenary Lectures presented by Elena Ibáñez (from CIAL, CSIC-UAM, Spain) and Jonas Bergquist (from Uppsala University, Sweden). Prof. Ibáñez presented an interesting lecture on "Green Foodomics", where she showed practical, innovative and environmentally friendly applications performed in her laboratory. During the lecture it was also presented the development of these applications from the angle of other techniques, and the general strategy to measure the environmental impact of performed in the laboratory experiments. Later, Prof. Bergquist, with the lecture entitled "Population-based Omics", gave an overview over his running projects involving omics technologies with a particular focus on mass spectrometry-based metabolomics. Prof. Bergquist showed how non-targeted metabolomics strategies are opening new frontiers in the discovery of disease-specific markers and gave a few examples of very ambitious and impressive results obtained in his laboratory. Finally, in the closing ceremony, the '21st International Symposium on Electro- and Liquid Phase- Separation Techniques (ITP 2014)' to be held in Brazil, was presented by Prof. Marina F. M. Tavares.

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