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Preface

The 10th *Symposium on Handling of Environmental and Biological Samples in Chromatography* was organized by the International Association of Environmental Analytical Chemistry (IAEAC) and the ESWE Institute for Water Research and Water Technology/University of Mainz – Applied Hydrochemistry. The symposium was held from 1–4 April 2001 in Mainz and Wiesbaden, both beautiful cities located at the River Rhine in the centre of Germany. The meeting offered an excellent opportunity to bring together more than 200 scientists working at universities, public research organizations and industries from 24 countries all over the world.

The symposium covered all qualitative and quantitative areas of chromatography, including technical development, theoretical considerations, and applications of the techniques in environmental, biological, pharmaceutical analysis and other fields. There were 62 lectures and 82 poster presentations consisting of the following symposium topics:

- Waste water cluster (WWC)
- Molecularly imprinted polymers for chemical analysis (MICA)
- Pharmaceuticals in the environment
- Proteomics
- Speciations
- Sampling/extraction techniques
- Biological samples.

WWC and MICA correspond to two large cluster projects funded by the European Union: during the sessions of the WWC, topics including the understanding of the transformation, fate and toxicity of selected groups of industrial pollutants discharged into the water resources were addressed and solutions obtained by using complementary sampling and advanced measuring techniques. During four MICA

sessions a lot was presented dealing with molecularly imprinted polymers, which are an interesting novel class of sorbents for analytical separation science. They have become increasingly attractive for solid-phase extraction (SPE) because of their tailor-made selectivity.

Pharmaceuticals, endocrine disrupting compounds and their transformation products have been identified all over the world as contaminants of emerging environmental concern. Several analytical methods, typically based on mass spectrometry after chromatographic separation and trace enrichment by SPE were presented during the symposium to determine complex mixtures of these compounds in aqueous environmental samples.

During the *Proteomics* session, which was included for the first time in the symposium series, several techniques were presented to study the proteome and thus aiming to understand qualitative and quantitative changes of proteins and their interdependence as brought about by cellular processes. Especially the potential of proteomics for the environmental sciences, e.g. the bacterial biodegradation was highlighted.

One major outcome in the *Speciation* session was the essentiality of non-destructive sampling methods in order to be capable for identifying e.g. the oxidation state of the different chemical forms of an element.

Furthermore, various modern *Sampling and extraction techniques* as well as their application for the analysis of *Biological samples* were highlighted during the meeting.

Not only the extensive theoretical scientific programme, but also the practical sample handling in the form of a wine tasting in the picturesque

Rheingau and the individual performances during the symposium dinner made this symposium a success and a remarkable and memorable event for all participants.

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