



# Journal of Chromatography A



## NEWS SECTION

### Seventh International Symposium on Hyphenated Techniques in Chromatography and Hyphenated Chromatographic Analyzers, Bruges, Belgium, 6–8 February 2002

Following upon the 6th HTC-symposium in February 2000, **HTC 7** will again cover all fundamental aspects, instrumental developments and applications of the various hyphenated techniques (e.g. coupling of GC or LC to LC, GC and SFE-SFC; MS, FTIR, AED and other techniques coupled with GC, (HP)LC, SFC, CZE and FFF; PTV-GC-MS; on-line air traps-, purge-and-trap, extractors-, and GPC-GC (or LC); LC to NMR, Raman, FIA-DAD, light scattering; ITP-MS; SPME- and MESI-techniques). Emphasis will also be placed on sample preparation, sample introduction, miniaturization, microfabricated analytical devices and the design of hyphenated, on-line and at-line chromatographic process analyzers.

In addition to the conference programme (see Table 1), HTC-7 will also include:

**Short courses** on 4–5 February 2002 at the Novotel-Centrum in Bruges.

**Tutorials** will provide an overview of the basic principles, methods, developments and applications of a hyphenated chromatographic technique. They will provide a broad introduction to the subsequent oral sessions.

#### A technical exhibition

#### Product seminars

An **HTC-Award** will be presented to the most innovative

paper- or poster contribution of the Conference. An international jury, under the chairmanship of Professor P. Sandra, will judge the award. The HTC-7 award will be presented during the closing session.

**Call for papers.** Abstracts for last-minute poster presentations will be accepted up to December 15, 2001. Abstracts will be considered by a panel of referees for inclusion in the program. Authors will be informed whether or not their abstract has been accepted.

**Further Information.** Submission forms for papers, enquiries about the technical exhibition and all other information may be obtained from the HTC-7 Congress Secretariat, Ordibo bvba, Lucas Henninckstraat 18, B-2610 Wilrijk (Belgium); tel. +32 (0)58 523116; fax. +32 (0)58 514575; E-mail [htc@ordibo.be](mailto:htc@ordibo.be); URL <http://www.ordibo.be/htc>

#### Preliminary scientific programme

Aboul-Enen H.Y. and Ali I.

*Thermodynamic Study of the Enantiomeric Resolution of Flubiprofen by HPLC using Chiralpak AD-RH Column*

Adrian J., Pasch H.

*Two-dimensional Chromatography: A 'Deep Insight' Tool for Polymers*

- Ali I. and Aboul-Enein H.Y.  
*Speciation of Arsenic and Chromium Metal Ions by RP-HPLC*  
Amirav A., Gordin A. and Fialkov A.  
*Supersonic GC-MS*  
Amirav A. and Granot O.  
*A New Approach for Electron Ionization LC-MS*  
Apers S., Van Meenen E., Pieters L. en Vlietinck A.J.  
*Determination of the Ethanol Content of Ethanol/Water Mixtures by Means of Head-Space GC/MS*  
Bartle K.  
*Hyphenation in chromatography: the potential and the challenge*  
Beens J., Dallüge J., Adahchour M. and Brinkman U.A.Th.  
*Comprehensive Two-Dimensional Gas Chromatography (GCxGC) and its Applicability to the Analysis of Complex Mixtures*  
Benijts T., Dams R., Lambert W. and De Leenheer A.P.  
*Applicability of High Performance Liquid Chromatography Coupled to Ion Trap Based Mass Spectrometry in the Analysis of Endocrine Disrupting Chemicals*  
Berek D.  
*Strategies for Liquid Chromatographic Separation of Synthetic Complex Polymer Systems*  
Bicchi C.  
*PDMS Stir Bar in Sample Preparation of the Volatile and Semi-Volatile Fraction of Matrices of Vegetable Origin*  
Billiet H.A.H., Guijt-van Duijn R., Laugere F., Baltussen E., Schasfoort R., van der Steen  
*Monitoring Bioprocesses by the use of micro-chip based separation and detection techniques*  
Blagodatskikh I.V., Sutkevich M.V., Sitnikova N.L., Philippova O.E.  
*Polymers with strongly interacting groups. Molecular weight characterization using GPC/LS*  
Bouyssièrre B., Baco F., Savary L. and Lobinski R.  
*GC-ICP MS for Speciation of Arsenic and Mercury in Petroleum Products*  
Cai Z.  
*Capillary Liquid Chromatography/High-Resolution Mass Spectrometry Analysis of Deoxyribo- and Ribonucleotides*  
Castro-Perez J., Major H., Dourdeville T., DellaRovere D. and Preece S.  
*The Use of Variable Flow Chromatography for the Detection and Identification of In-Vivo Metabolites using a Hybrid Quadrupole Orthogonal Time of Flight Mass Spectrometer*  
Chen Y.-I, Su Y.-S. and Jen J.-F.  
*Determination of Dichlorvos by On-Line Microwave-assisted Extraction to Headspace SPME and GC/ECD*  
Cortés H.J.  
*Recent Advances in the Characterization of Synthetic Macromolecules*  
Czaplicka M. and Klejnowski K.  
*Determination of Volatile Organic Compounds in the ambient Air – A Comparison of Methods*  
de Bruijn E.A.  
*Hyphenated Techniques in Anticancer Drug Monitoring*  
de Haseth J.A., Todebush R.A. and Jarman J.L.  
*Capillary Electrophoresis/Fourier Transform Infrared Spectrometry*  
De Ruyck H., Daeseleire E., De Ridder H. and Van Renterghem R.  
*Development and Validation of a Liquid Chromatography-Electrospray Tandem Mass Spectrometry Method for Anthelmintics in Milk*  
Desmet G., Clicq D., Vervoort N. and Baron G.V.  
*Advantages of Shear-driven Flows for the Miniaturization of Chromatographic Systems*  
Devreese B., Janssen K., Vanrobaeys F., Van Herp F. and Van Beeumen J.  
*Automated nano LC-MS/MS IN a proteomic study of Xenopus laevis neuroendocrinal cells*  
De Zayas-Blanco F., García-Falcón M.S., Cancho-Grande B., Pérez Lamela C., Falqué-López E. and Simal-Gándara J.  
*Liquid Chromatographic Determination of Sulfamethazine in milk by Solid Phase Extraction*  
Ding W.H., Wu C.Y., Ho Y.H.  
*Determination of Alkylbenzyltrimethyl Ammonium Chlorides by Capillary Zone Electrophoresis*  
Espejo R., Valter K., Simona M., Janin Y. and Arrizabalaga Ph.  
*Determination of Alkylphenol Endocrine Disruptors in Geneva Wastewater*  
Falqué-López E., Lamas-Montes A., Pomares-Botana E., Sánchez-Bello P. and Vaamonde Liste A.  
*Aromatic Profile of 'Ribeiro' Wines by Gas Chromatography-Sniffing*  
Falqué-López E. and Moreno-Santos A.  
*Comparative evaluation of three HPLC-methods (detection by fluorimetry) for the analysis of resveratrol*  
Falqué-López E., Guedes-Pinho P., Ferreira A.C. and Hogg T.  
*Analysis of Volatile Components of Touriga Nacional Wines by SPME- and LLE-GC-MS*  
Fitzpatrick F., van der Horst A., Philipsen H. and Schoenmakers P.  
*Characterisation of Fluorinated Copolymers Using NPLC-ESI-TOF-MS*  
Garrigós M.C., Reche F., Marín M.L. and Jiménez A..  
*Determination of Aromatic Amines Formed from Azo Colorants in Toy Products*  
Geldart S.E., Seelenbinder J.A., Robb C.R. and Brown P.R.  
*LC-IR: Structure Analysis in Real-Time*  
Goenaga Infante H., Van Campenhout K., Blust R. and Adams F.C.  
*Capabilities of High Performance Liquid Chromatography Coupled to Axial Inductively Coupled Plasma Time-of-flight Mass Spectrometry for Multi-elemental Speciation Studies of Ultra-trace Metals Associated with Metallothioneins in Common Carp Cytosols*  
Govaerts C., Rozenski J., Orwa J.J., Van Schepdael A., Roets E. and Hoogmartens J.  
*Q/oaTOF MS and liquid chromatography ion-trap MS for characterization of circular polypeptides in polymyxin antibiotics*  
Högnadóttir A. and Rouseff R.L.  
*Comparison of GC-olfactometry and GC-FID Detection of the Components in Orange Essence Oil*  
Hura C., Covaci A., Leanca M., Hura B.A. and Aldea J.M.  
*GC Determination of Pesticide Residues in Maternal Body in Iassy District from Romania*

Hyötyläinen T., Kallio M., Jussila M., Hartonen K., Palonen S. and Riekkola M.-L.

*Evaluation of the Quantitativity of Comprehensive Two-Dimensional Gas Chromatographic Method for the Analysis of PAHs and PCBs*

Hyötyläinen T., Kuosmanen K., Shimmo M., Andersson T., Hartonen K. and Riekkola M.-L.

*Combining Various Extraction Techniques with Multidimensional Chromatography*

Irth H.

*BioHyphenation - the on-line coupling of high-performance separation techniques to biochemical assays*

Jakab A. and Forgács E.

*Comparative Analysis of different Plant Oils by HPLC-APCI-MS*

Jimidar M., De Smet M., Sneyers R., Van Ael W., Janssens W. and Cockaerts P.

*Capillary Electrophoresis as an Orthogonal technique in HPLC validation*

Justinová M., Power F., Orinák A., Tokár Z., Flórián K. and Orináková R.

*Pyrolysis Injector in HRGC Optimization of Brown Coal – Waste Plastic Pyrolysate Composition*

Klitzke C.F., Calafatti S.A., de Abreu L.R.P., Pedrazzoli J. Jr., Medeiros M.H.G. and Di Mascio P.

*Characterization and quantitative determination of azithromycin in human plasma by high-performance liquid chromatography-electrospray ionization tandem mass spectrometry*

Koal Th, Asperger A., Efer J. and Engewald W.

*Multicomponent Analysis of Trace level Pesticides in Natural and Drinking Water by Means of Fast On-Line SPE/LC/Tandem-MS*

Koleva I.I., van Beek T.A., Niederländer H.A.G.

*HPLC with On-line antioxidant activity assays - A convenient Approach for Screening Complex Matrices for Radical Scavenging Components*

Kósa A., Cserháti T., Forgács E., Morais H., Mota T., Ramos A.C.

*Classification of Chili Powders by High Performance Liquid Chromatography-Diode Array Detection*

Kristenson E.M., Ramos L., J.J. Vreuls R.J.J., Brinkman U.A.Th.

*Miniaturised Automated Sample Preparation Approaches combined with gas chromatography*

Krull I.S., Wang Y., Zhong H., Mistry K., Cortes H. and Grinberg N.

*Synthetic Organic Polymer Analysis Using CGE and SEC/CEC Approaches*

Kuosmanen K., Hyötyläinen T., Hartonen K. and Riekkola M.-L.

*On-line Coupling of Pressurised Hot Water Extraction - Microporous Membrane Liquid-Liquid Extraction to Chromatographic Techniques in the Analysis of Polyaromatic Compounds in Environmental Samples*

Lee M.-R. and Chou Ch.-Ch.

*Analysis of Organotin Compounds in Water Using Headspace Solid Phase Microextraction with Gas Chromatography – Mass Spectrometry*

Lee M.-R. and Chou C.-C.

*Determination of Amphetamine and Methamphetamine in serum by SPME-LC-ESI/MS*

Lenz E., Taylor S., Sinclair I., Collins C., Wilson I., Loudon D. and Handley A.

*The Combination of HPLC Using Superheated Water as an Eluent With On-line NMR, IR, UV and MS*

Lewis A.C., Lee A.L., Hamilton J. and Bartle K.D.

*Atmospheric analysis using comprehensive gas chromatography*

Ling D., Liu B., Wu G., Zou L. and Cao J.

*On Pretreatment of Air Samples for GC-MS Analysis - Carbonized Fibrous Resin as a Sorbent for Polycyclic Aromatic Hydrocarbons (Pahs) Determination*

Lobinski R.

*Complementarity of ICP MS and electrospray MS/MS detection in HPLC and CZE of Metallocompounds in Biology and Medicine*

Lores M., Llompert M., González-García R., González Barreiro C. and Cela R.

*The Potential of “On-Fibre” SPME for Photochemistry Studies of Environmental Pollutants*

Luque de Castro M.D. and Luque-García J.L.

*Strategies for improving leaching of acid herbicides from soil prior to chromatographic separation*

Luque-García J.L., Herrera M.C. and Luque de Castro M.D.

*Hyphenating Subcritical Solvent Extraction – Preconcentration – Chromatographic Separation – Fluorescence Derivatization – Detection for the Determination of Pesticides in Foods.*

Luque-García J.L., Prados-Rosales R.C. and Luque de Castro M.D.

*Focused Microwave-assisted Soxhlet Extraction of N-Methylcarbamates from Soil and River Sediment prior to Coupled Preconcentration – Chromatographic Separation – Post Column Derivatization – Fluorescence Detection*

Lynch Th.P.

*Developments in process chromatography*

McBrien M., Williams A. and Kolovanov E.

*Fully Automated Method Development - LC, MS, UV-Vis and Chromatographic Prediction*

Mallet C.R., Mazzeo J., Neue U.D.

*Direct analysis of basic drugs in cell culture lysate using on-line extraction LC/MS/MS*

Marko-Varga G.

*Latest developments made in MicroTech developments integrated to Mass Spectrometry in the area of Protein Profiling (proteomics)*

Marriott Ph.J., Shellie R., Ong R., Western R. and Morrison P.

*Comprehensive Two-Dimensional Gas Chromatography – GC Hyphenation As Good As It Gets*

Melchert H.-U., Pollok D., Pabel E., Rubach K. and Stan H.-J.

*Determination of Tocopherols and Tocoquinones/~hydroquinones by GC/MS and Preseparation with Sephadex LH 20*

Mileiko V., Melnikova I., Ivanova S., Grigorian T. and Denisova E.

*Gas Analysis in Medical Diagnostic.*

Milošević A., Giacometti J. and Milin C.

*SPE method for Separation of Lipid Classes: Comparative Study*

- Mondello L.  
*Advanced Analytical Techniques for the Characterization of Complex Matrices: Multidimensional and Fast GC Methods*  
Muccitelli H.U., Shen MA., Stacey C., Sander P., Ingendoh A.  
*Mass Spectral Library for Rapid Identification of Phenolic Acids Analyzed by ESI-Ion Trap Mass Spectrometry*  
Myers P.  
*Electrically driven separations*  
Niessen W.  
*Analytical needs and challenges in LC-MS*  
Novotny M.  
*Biochemical Investigations Using the Coupling of Capillary Electrochromatography with Tandem Mass Spectrometry*  
Orinák A., Orináková R., Bennighoven A., Andrich V., Justinová M. and Jacenková K.  
*Interface for Thin Layer Chromatography Coupling with TOF-SIMS.*  
Pelzing M., Macht M., Palloch P., Ingendoh A.  
*High sensitive CE-AutoMS2 coupling for the identification and characterization of proteins*  
Popp P. and Hauser B.  
*Membrane extraction of organic compounds in combination with large volume injection - GC/ECD, GC/MS and mobile GC analysis*  
Priego-López E., Luque de Castro M.D.  
*Pervaporation – Gas Chromatography Coupling for the Determination of Phenol Derivatives in Water and Soil*  
Raffael B. and Simoneau C.  
*Rapid identification and quantification of contaminants from a European collection of recycled food contact PET by headspace GC-MS and comparison to conventional liquid extraction*  
Rasulev U.Kh., Iskhakova S., Khasanov U. and Mikhailin A.  
*Atmosphere-pressure thermodesorption surface-ionization indicator of narcotics*  
Reche F., Garrigós M.C., Marín M.L. and Jiménez A.  
*Determination of N-Nitrosamines in Latex by Sequential Supercritical Fluid Extraction and Derivatization*  
Regnier F., Sioma C., Riggs L., Zhang R., Liu P., Li X., and Chakraborty A.  
*Multidimensional separations in proteomics*  
Reboreda Rodríguez B., Cancho Grande B., García Falcón S., Pérez Lamela C., Falqué López E. and Simal Gándara J.  
*Comparison of SPME and SPE for the Determination of  $\alpha$ - and  $\beta$ -Endosulfan in Water by GC/ECD*  
Rivero Martino F.A., Fernández Sánchez M.L. and Sanz-Medel A.  
*Trace Element Speciation in Milk Whey by Size Exclusion Chromatography Coupled On-Line to ICP-MS*  
Rosenberg E.  
*New aspects of speciation analysis by atmospheric pressure ionisation-MS techniques*  
Rosenfeld J.M.  
*Before the Hyphen: Preparation of Biomedical and Environmental Samples for Analysis by Hyphenated Techniques*  
Ross A.B., Junyapoon S., Bartle K.D., Jones J. and Williams A.  
*Development of Pyrolysis-GC with selective Detection: Coupling of Pyrolysis-GC to Atomic Emission Detection (py-GC-AED)*  
Reche F., Garrigós M.C., Marín M.L. and Jiménez A.  
*Determination of N-Nitrosamines in Latex by Sequential Supercritical Fluid Extraction and Derivatization*  
Sandra P. and David F.  
*Hyphenation in Capillary GC. From Complex Sophisticated to Simple Robust Systems*  
Santora L.C., Kaymakcalan Z., Sakorafas P., Krull I.S. and Grant K.  
*Characterization of Noncovalent Complexes of Recombinant Human Monoclonal Antibody and Antigen Using Cation Exchange, Size Exclusion Chromatography and BIAcore*  
Santora L.C., Krull I.S. and Grant K.  
*Determination of Molecular Weights of Recombinant Monoclonal Antibodies and Noncovalent Antigen TNF $\alpha$  Trimer Using Q-TOF Mass Spectrometry*  
Sartoratto A. and Augusto F.  
*Assessment of Volatile Constituents of some Brazilian Aromatic Plants by Headspace SPME-GC*  
Saurina J., Latorre R.M. and Hernández-Cassou S.  
*Continuous flow derivatization system coupled to capillary zone electrophoresis for the determination of amino acids*  
Schoenmakers P.  
*Hyphenated and Multidimensional Techniques for Separating Polymers*  
Schweiger-Hufnagel U., Schneider A., Schneider B., Ingendoh A.  
*Nano-LC/MS/MS of Enzymatic Digests for Sensitive Identification of Isolated Proteins and Complex Protein Mixtures.*  
Scruel O., Dupont I.E., Lontie J.-F., Carpentier Y.A. and Deloyers L.  
*Improvement of Extraction Conditions for Tocopherol Assessment by HPLC in Biological Samples*  
Sentellas S., Moyano E., Puignou L. and Galceran M.T.  
*Determination of Heterocyclic Aromatic Amines in Urine by CE-MS and CE-MS/MS*  
Synovec R.  
*Hyphenated Chromatographic Analyzers with Chemometrics: A Powerful Combination*  
Taylor L.  
*Quantitative coupling of SFE with GC and HPLC*  
Tuytten R., Lemièrre F., Embrechts J., Van Dongen W., Esmans E.L. and Slegers H.  
*Simultaneous Determination of the Nucleoside Mono-, Di- and Triphosphates of Adenosine, Guanosine, Thymidine and Uridine by -Pair HPLC-ESMS*  
van der Horst A. and Schoenmakers P.J.  
*Comprehensive Two Dimensional Liquid Chromatography of Polymers*  
van Deursen M.M., Janssen H.-G.  
*Comprehensive LCxGC for the analysis of triglycerides*  
van Deursen M.M., Beens J.  
*Identification of group types and quantification of target compounds in petroleum using comprehensive GCxGC coupled to time-of-flight mass spectrometry*  
van Mispelaar V., Janssen H.-G., Tas A. and Schoenmakers P.J.  
*Generating and Processing Large Sets of Chromatographic Data: Comprehensive Chromatography and Chemometrics*

Varesio E., Mitulovic G., Chervet J.P., Swart R.  
*Multidimensional Capillary LC/MS: The New Standard in Proteomics*

Verpoorte S.

*Chip-based Analysis: Separations and Beyond*

Walsh J.W., Nixon G., Cooke B. and Denoulet B.

*Analysis of Acidic Compounds by Capillary Chromatography*

Walsh J.W., Nixon G., Cooke B. and Denoulet B.

*Intermediate Polarity GC Stationary Phases.*

Williams A., McBrien M. and Lashin V.

*Transforming Data into Knowledge – LC, MS, UV-Vis and Chemometrics*

Wilson I.

*The Use of HPLC-ICPMS In Metabolism Studies for Compounds Containing Bromine, Chlorine and Sulphur*

Wolfender J.-L.

*Importance of LC-hyphenated techniques in the search of new lead compounds from plants and for the quality control of phytopharmaceuticals*

Wu J. and Watson A.H.

*Imaging Detection for Capillary Isoelectric Focusing (cIEF) and Its Applications to Biotechnology Pharmaceutical Samples*

Zahradnicková H., Bouman E.A.P., Šimek P. and Dusbábek F.

*GC/MS Study of Semiochemicals in Ixodes ricinus Ticks*

Ziari M., Frankema W., Kok W. and Schoenmakers P.

*Characterization of Ultra-High-Molecular-Mass Polymers*

Ziemer W., Müller H., Kugel M., Wortberg M., Neu H.-J.

*Automated multi-analyte analysis of industrial waste water by on-line GC-MS*

Zhang L., Ping X. and Yang Z.

*Determination of Microcystin-LR in Surface Water using High-Performance Liquid Chromatography/Tandem Electrospray Mass Spectrometry*

#### Short courses (4 and 5 February 2002)

1. Philip J. Marriott, *Comprehensive Two-Dimensional Gas Chromatography (GCxGC) and Cryogenic Modulation in GC*. One-day short course, Tuesday, 5 February

2. Milos V. Novotny and Fred E. Regnier, *Hyphenated Techniques in Proteomics and Glycobiology*. One-day short course, Monday, 4 February

3. Robert E. Synovec, *Advances in Process Monitoring and Analysis Technologies*. One-day short course, Tuesday, 5 February

4. Jan C.J. Bart, Matthias Kuch, Hauke Wilcken and Jochen Geyer-Lippmann, *The use of Hyphenated Flash Pyrolysis Techniques*. One-day short course, Tuesday 5 February

5. Peter J. Schoenmakers, Fiona Fitzpatrick and Maya Ziari, *Separation and Characterization of Synthetic Polymers*. Two-day short course, Monday-Tuesday, 4-5 February

6. Peter Meyers and David Barrow, *Microchemistry Chips: Fabrication, Function and Application*. One-day short course, Monday 4 February

7. Larry T. Taylor, *Sample Preparation for Chromatography employing Super (near) Critical Fluids*. One-day short course, Monday, 4 February

8. Konrad Grob and Maurus Biedermann, *Large Volume On-Column Injection*. Two-day short course, Monday-Tuesday, 4-5 February

9. Ian D. Wilson, *Current Practice of HPLC-NMR and HPLC-NMR-MS*. Half-day short course, Tuesday, 5 February (morning).

10. Ian D. Wilson and F. Abou Shakra, *HPLC-ICPMS, Instruments and Applications*. Half-day short course, Tuesday, 5 February (afternoon)

11. Ira S. Krull, *Derivatizations for improved Separation, Detection and Identification, Emphasizing Biopolymers*. Half-day short course, Tuesday, 5 February (morning)

#### Tutorials

1: *ICP time-of-flight mass spectrometry: a fast transient detector for environmental analysis*

Adams F. and Goenaga Infante H.

2: *As molecules grow . . .*

Schoenmakers P.

3: *Proteomics- What it is, Why it is of such interest today, and Where it is going tomorrow*

Krull I.S.

4: *Membrane Extraction with Sorbent Interface, Theory and Practice*

Pawliszyn J.

5: *Introduction towards the implementation of miniaturized LC-MS in biomedical research*

Esmans E.L. and Lemièrre F.

6: *“Hot needle” or “fast autosampler” injection into vaporizing GC injectors? How to get samples into a hot injector*

Grob K.

7: *Empty or packed liners for classical split or splitless injection?*

Grob K.

8: *Reverse engineering of polymeric materials*

Bart J.C.J.

9: *Comparison of Sorption Based Sample Preparation Techniques*

Baltussen E.A., David F., Sandra P. and Cramers C.A.