

C O N T E N T S

Foreword

Introduction by

A. BJØRSETH, Central Institute for Industrial
Research, Oslo, Norway

SESSION I - SAMPLING AND SAMPLE TREATMENT

Recent concepts in sampling methodology

B. JOSEFSSON, Department of Analytical and Marine
Chemistry, Chalmers University of Technology, University
of Göteborg, Sweden

A new method for the quantitative analysis of organochlorine
pesticides and polychlorinated biphenyls 16

M. GODEFROOT, M. STECHELE, P. SANDRA and M. VERZELE,
Laboratory for Organic Chemistry, State University of
Ghent, Belgium

Concentration and identification of the main organic micro-
pollutants classes in waters 24

A. SDIKA, R. CABRIDENC and C. HENNEQUIN,
IRCHA, Vert-le-Petit, France

Recovery of organic micropollutants 38

A. SDIKA, C. HENNEQUIN and R. CABRIDENC,
IRCHA, Vert-le-Petit, France

Influence of humus with time on organic pollutants and
comparison of two analytical methods for analysing organic
pollutants in humus water 42

G.E. CARLBERG and K. MARTINSEN, Central Institute for
Industrial Research, Oslo, Norway

Improved accumulation of organophosphates from aqueous media
by formation of ion-associates with tetraphenylarsonium
cation 45

V. DREVENKAR, Z. FRÖBE, B. STENGL and B. TKALCEVIC,
Institute for Medical Research and Occupational Health,
Zagreb, Yugoslavia

The use of ECD and FID fingerprint techniques for the evaluation of river water purification contaminated with organic pollutants 48

M. PICER, Centre for Marine Research, Rudjer Boskovic Institute, Zagreb, Yugoslavia

ekkerkerk

F.J.J. BRINKMANN, National Institute for Water Supply, Voorburg, The Netherlands

SESSION II - GAS-CHROMATOGRAPHY

Sampling techniques for capillary GC

K. GROB Jr., Kantonales Labor, Zürich, Switzerland

Recent developments of selective detectors in GC

E. MANTICA, Politecnico - Istituto di Chimica Industriale "G. Natta", Milano, Italy

Progress in column technology 93

A. VENEMA, Akzo Research, Corporate Research Department, Arnhem, The Netherlands

Recent developments in capillary column preparation 99

P. SANDRA, M. VAN ROELBOSCH, I. TEMMERMAN and G. REDANT, Laboratory of Organic Chemistry, State University of Ghent, Belgium

Techniques for quantitation and identification of organic micropollutants by high resolution gas chromatography and element specific emission spectroscopy 105

L. STIEGLITZ and G. ZWICK, Institut für Heisse Chemie, Kernforschungszentrum Karlsruhe, Federal Republic of Germany

Applications in gas chromatography 113

C. O'DONNELL, Water Resources Division, An Foras Forbartha, Dublin, Ireland

The use of fused-silica capillary columns in gas chromatography and gas chromatography/mass spectrometry 118

D. MEEK and W.J. REID, Water Research Centre, Stevenage Laboratory, United Kingdom

The determination of linear PTGC retention indices for use in environmental organics analysis 133

H. KNÖPPEL, M. DE BORTOLI, A. PEIL, H. SCHAUENBURG and H. VISSERS, Commission of the European Communities, Joint Research Centre Ispra, Italy

SESSION III - SEPARATION AND ANALYSIS OF NON-VOLATILE

COMPOUNDS

- Developments in selective detectors for HPLC 141
H. POPPE, Laboratory for Analytical Chemistry, University
of Amsterdam, The Netherlands
- Kopplung eines Hochleistungschromatographen mit einem 149
Massenspektrometer
K. LEVSEN, Institute of Physical Chemistry, University of
Bonn, Federal Republic of Germany
- Identification of non-volatile organic compounds in water 159
B. CRATHORNE and C.D. WATTS, Water Research Centre,
Marlow, United Kingdom
- Routine HPLC of polynuclear aromatic hydrocarbons 174
C. O'DONNELL, Water Resources Division, An Foras Forbartha,
Dublin, Ireland
- Evaluation of a mass detector for HPLC determination of 178
organic compounds in water
K.J. CONNOR and A. WAGGOTT, Water Research Centre, Stevenage
Laboratory, United Kingdom
- Determination of polycyclic aromatic hydrocarbons (PAH's) at 188
the low ng/l level in the Biesbosch water storage reservoirs
(Neth.) for the study of the degradation of chemicals in
surface waters
N. VAN DEN HOED and Ms M.T.H. HALMANS, Koninklijke/Shell-
Laboratorium, Amsterdam; J.S. DITS, N.V. Waterwinningbedrijf
Brabantse Biesbosch, The Netherlands
- Assessment of a moving belt type HPLC-MS interface with 193
respect to its use in organic water pollution analysis
H. SCHAUBENBURG, H. SCHLITT and H. KNÖPPEL, Commission
the European Communities, Joint Research Centre, Ispra
Italy

SESSION IV - MASS-SPECTROMETRY

- Apport de la spectrométrie de masse avec collisions. (CID/MS 7
MS) à l'étude des micropolluants organiques
A. CORNU, Service d'Etudes Analytiques, Commissariat à
l'Energie Atomique. Grenoble. France

SESSION V - DATA PROCESSING

- Software systems for mass spectrometry - Remarks in view of GC/MS analysis of water pollutants 219
D. HENNEBERG, Max-Planck-Institut für Kohlenforschung, Mühlheim/Ruhr, Federal Republic of Germany
- Compilation of an inventory of organic pollutants in the aqueous environment 231
A. WAGGOTT and H.V. BRITCHER, Water Research Centre, Stevenage Laboratory, United Kingdom
- Status of the computerized compilation of mass-spectra of organic pollutants 238
P. GROLL, Institut für Heisse Chemie, Kernforschungszentrum Karlsruhe, Federal Republic of Germany
- Current status of the compilation of reference data
A. CORNU, Service d'Etudes Analytiques, Commissariat à l'Energie Atomique, Grenoble, France

SESSION VI - SPECIFIC ANALYTICAL PROBLEMS

A. Organic halogens

- Determination of organic halogens; a critical review of sum parameters 249
R.C.C. WEGMAN, Unit for Residue Analysis, National Institute of Public Health, The Netherlands
- Volatile halogenated hydrocarbons in river water, ground water, drinking water and swimming-pool water in the Federal Republic of Germany 264
M. SONNEBORN, S. GERDES, R. SCHWABE, Institute of Water, Soil and Air Hygiene, Federal Health Office, Berlin, Federal Republic of Germany
- Simultaneous determination of total purgable organo-chlorine, -bromine and -fluorine compounds in water by ion-chromatography 272
F. ZUERCHER, Federal Institute for Water Resources and Water Pollution Control, Switzerland
- Etude des trihalomethanes dans l'eau potable de Barcelone - Evolution de l'efficacité des filtres à charbon actif 277
J. RIVERA and F. VENTURA, Institut Quimica Bio-Organica, Consejo Superior de Investigaciones Cientificas, Barcelona, Spain

Analysis of trihalomethanes formed during drinking water chlorination	282
L. SCHOU and J. KRANE, University of Trondheim, Department of Chemistry, NLHT; H. ØDEGAARD, Div. of Hydraulic and Sanitary Engineering, University of Trondheim, Norwegian Institute of Technology; G.E. CARLBERG, Central Institute for Industrial Research, Oslo, Norway	
B. Phenolic and other compounds	
Determination of phenolics in the aquatic environment	286
L. RENBERG, National Swedish Environment Protection Board, Special Analytical Laboratory, Wallenberg Laboratory, Stockholm, Sweden	
Analysis of alkylphenols in an aqueous matrix containing aromatic hydrocarbons	298
D. BOTTA, F. MORANDI and E. MANTICA, Politecnico - Istituto di Chimica Industriale "G. Natta", Milano, Italy	
Analysis of nitrogenous organic substances in water	311
M. ELMGHARI-TABIB, C. LE CLOIREC, J. MORVAN and G. MARTIN, Ecole Nationale Supérieure de Chimie de Rennes, France	
The electroanalysis of organic pollutants in aquatic matrices	323
W.F. SMYTH and M.R. SMYTH, Department of Chemistry, University College Cork, and National Institute for Higher Education, Dublin, Ireland	
Determination of nonylphenols and nonylphenoethoxylates in secondary sewage effluents	330
C. SCHAFFNER, E. STEPHANOU and W. GIGER, Swiss Federal Institute for Water Resources and Water Pollution Control Switzerland	
Determination of phenols in water by HPLC	335
M. SONNEBORN, E. PABEL and R. SCHWABE, Institute of Water Soil and Air Hygiene, Federal Health Office, Berlin, Federal Republic of Germany	
Surfactants survey in the surface waters in the Paris-area	339
C. HENNEQUIN, M. ROGGER and N. BOURGEOIS, Institut National de Recherche Chimique Appliquée, France	
<u>CONCLUSIONS</u> by the Coordinators of the Working Parties	34
List of participants	
Index of authors	365