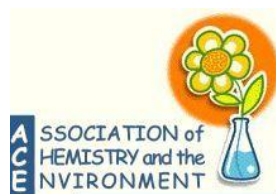


4th European Meeting on Environmental Chemistry

Plymouth, England
10 - 13 December 2003

Scientific Programme



Wednesday 10th December

17:00-19:30 WELCOME DRINKS RECEPTION AND REGISTRATION,
AND ASSEMBLY OF POSTERS

Thursday 11th December

08:45-09:00 WELCOME AND OPENING OF CONFERENCE

09:00-09:40 KEYNOTE ADDRESS

Professor Walter Giger

**Occurrence and Fate of Antibiotics as Trace Contaminants in Wastewaters,
Sewage Sludges and Surface Waters** *Page 3*

09:40-10:20 ORAL SESSION - **Detection and Toxicity of Environmental Organic Contaminants**
(Chaired by Prof. W. Giger, Swiss Federal Institute of Environmental Science and
Technology, Switzerland)

1835 - **Impedance Measurements as a Tool for the Detection of Endocrine
Disrupting Pollutants** *Page 7*

Vered Sacks-Granek, Israel
Judith Rishpon, Israel

1846 - **Toxicity and characterisation of unresolved complex mixtures of
hydrocarbons**

Emma Smith, UK
Paul Sutton, UK
Steve Rowland, UK
Peter Donkin, UK

10:20-10:50 COFFEE BREAK

10:50-12:10 ORAL SESSION - **Pollution Remediation**
(Chaired by Prof. M. Aresta, University of Bari, Italy)

1821 - **Electrochemically Assisted Fenton Reaction for Treatment of Aqueous
Triphenylmethane Dyes Solutions** *Page 11*

Elodie Guivarch, France
Nihal Oturan, France
Mehmet A Oturan, France

1866 - **Catalytic Destruction of Chlorinated Organics over V₂O₅/TiO₂-Based Catalysts** *Page 12*
 S Albonetti, Italy
 S Augustine, Italy
 Sonia Blasioli, Italy
 A Malandra, Italy
 S Scirè, Italy
 F Trifirò, Italy

1753 - **Analysis of the use of Collagen Fibrils to Accelerate the Dewatering of Sludge** *Page 13*
 Gennaro J Maffia, USA
 John Davis, USA

1868 - **Crab Carapace: A low-cost Biosorbent for the Removal of Toxic Metals from Aqueous Solutions** *Page 14*
 Ian Rae, UK
 Stuart Gibb, UK
 Shuguang Lu, UK

12:10-13:10 LUNCH

13:10-13:50 VIEWING OF POSTERS AND DISCUSSIONS WITH PRESENTERS

13:50-15:30 ORAL SESSION - **Pollutant Cycling in Soils**
 Chaired by Dr E. Lichtfouse, INRA-CMSE, France)

1764 - **Cyclodextrin-Enhanced Solubilization and Removal of Pentachlorophenol from Soils** *Page 17*
 Khalil Hanna, France
 Christine De Brauer, France
 Patrick Germain, France

1839 - **The Fate and Behaviour of Veterinary Antibiotics Applied to Soil in Manure** *Page 18*
 Paul Blackwell, UK
 Paul Kay, UK
 B Boxall, UK

1789 - **N M R Studies of Interactions between Organic Pollutants and Soil Components: A Mini Review** *Page 19*
 Anne-Marie Delort, France
 Bruno Combourieu, France
 N Haroune, France
 P Besse, France
 Martine Sancelme, UK

1872 - **³¹P-NMR Investigations of Phosphate Sorption Reactions in the Soil** *Page 20*
 Stefan Hunger, Germany
 Donald Sparks, USA

1765 - **Involvement of Soil Microflora in the Formation of Pesticide Bound Residues** *Page 21*
 Marie-Paule Charnay, France
 Christian Mougín, France
 Adrien Farrugia, France
 Enrique Barriuso, France

15:30-16:00 COFFEE BREAK

16:00-17:20	ORAL SESSION - Ecotoxicology (Chaired by Prof. S. Rowland, University of Plymouth, UK)
1879 -	New Bioassay to Evaluate Toxicity of Chemical Pollutants using the Marine Luminescent Bacteria Vibrio Fischeri <i>Page 25</i> Elena Fulladosa, Spain Jean-Claude Murat, France Isabel Villaescusa, Spain
1803 -	Impact of Styren on Lysosomal Stability in Mussel Blood Cells <i>Page 26</i> E Mamaca, France Stéphane Le Floch, France
1781 -	Monitoring of Selected Steroidal Hormones and Estrogen Active Industrial Chemicals within the ARCEM Project <i>Page 27</i> Philipp Hohenblum, Austria O Gans, Austria G Lorbeer, Austria W Moche, Austria S Scharf, Austria
1807 -	Risk Assessment for Birds Feeding on Invertebrates in Diphacinone Rodenticide Baited Areas on Hawaii <i>Page 28</i> J J Johnston, USA W C Pitt, USA R T Sugihara, USA J D Eisemann, USA T M Primus, USA
17:20-17:25	Presentation of EMEC5 (Prof. M. Aresta, University of Bari, Italy)
17:25-17:30	Presentation of EMEC6 (Dr B. Jovancevic, University of Belgrade, Yugoslavia)
18:00	POSTER DRINKS RECEPTION

Friday 12th December

09:00-09:40	KEYNOTE ADDRESS Professor Ron Beckett Characterisation of Environmental Particles and Macromolecules by Field-Flow Fractionation <i>Page 29</i>
09:40-10:20	ORAL SESSION - Particle Chemistry (Chaired by Prof. R. Beckett, Monash University, Australia)
1900 -	Imaging Natural Aquatic Colloids and Particles by Environmental Scanning Electron Microscopy <i>Page 33</i> Paul Redwood, UK Jamie Lead, UK
1883 -	Phosphate-Carbonate Interactions With Iron Oxides <i>Page 34</i> R Rahnemaie, The Netherlands Tjisse Hiemstra, The Netherlands Willem H. van Riemsdijk, The Netherlands
10:20-10:50	COFFEE BREAK
10:50-12:10	ORAL SESSION - Clean Technology (Chaired by Dr S. Gibb, Highland Research Institute, Scotland, UK)

- 1917 - **Enhanced Fixation of Carbon Dioxide into Macroalgae used as Source of Chemicals and Fuels** **Page 37**
Michele Aresta, Italy
E Cecere, Italy
A. Dibenedetto, Italy
M Narracci, Italy
A. Petrocelli, Italy
C Perrone, Italy
- 1880 - **Interaction Between Fungal Inoculant and Pesticide Affects Microbial Respiration and Enzyme Activities in Soil Microsomes** **Page 38**
Silvia Fragoeiro, UK
Naresh Magan, UK
- 1800 - **Trapping and Immobilization of Toxic Elements (Cr, Ni, Cu, Zn) by Pseudomonas SP. During the Alteration of Waste Confinement Matrix** **Page 39**
Georges Aouad, France
Valerie Geoffroy, France
Jean-Marie Meyer, France
Jean Louis Crovisier, France
Peter Stille, France
- 1910 - **Are Zeolites Capable Of Modifying The Yield Of Marine Micro-Algae Cultures? – A Case Study With *Emiliania huxleyi* And a Zeolitic-Nature Product** **Page 40**
Adriano Fachini, Portugal
M Teresa S D Vasconcelos, Portugal
- 12:10-13:10 LUNCH
- 13:10-13:50 VIEWING OF POSTERS AND DISCUSSIONS WITH PRESENTERS
- 13:50-15:10 ORAL SESSION - **Atmospheric Chemistry and Air Pollution**
(Chaired by Dr C. Collins, Imperial College London, UK)
- 1848 - **Comparison of Collection Substrates for Automated Individual Analysis of Atmospheric Particles by Sem-Eds** **Page 43**
Marie Choël, France
Karine Deboudt, France
Pascal Flament, France
János Osán, Hungary
- 1832 - **Nitrous Oxide Decomposition over Copper Doped Mixed Lanthanide Oxides** **Page 45**
M Morris, Ireland
J C Wenger, Ireland
Eoin Brennan, Ireland
- 1801 - **Coadsorption at the Air-Water Interface Likely Explains some Pollutants Transfer to the Atmosphere: Benzene and Lead Case** **Page 46**
Mustapha Sadiki, France
François Quentel, France
Catherine Elléouet, France
Jean-Pierre Hufuguen, France
Jacques Jestin, France
Dominique Andrieux, France
René Olier, France
Mireille Privat, France

1895 -	Combined use of Compound Specific $\delta^{13}\text{C}$ and δD Stable Isotope Measurements to Aid the Source Apportionment of PAH Mick Cooper, UK C G Sun, UK C E Snape, UK	Page 47
15:10-15:40	COFFEE BREAK	
15:40-17:20	ORAL SESSION - Water Pollution: Detection and Treatment (Chaired by Dr A-M Delort, CNRS-Universite Blaise Pascal, France)	
1760 -	Impact of Metal Coagulant (Aluminium or Iron) over UV Disinfection of Storm Flow P Sauvignet, UK G Glasgow, UK B Morrow, UK C White, UK	Page 51
1877 -	Dgt as a Tool for the Assessment of Bioavailable Metals in Wastewater Rémy Buzier, France Marie-Hélène Tusseau-Vuillemin, France Jeanne Garric, France Jean-Marie Mouchel, France	Page 52
1782 -	Biodegradability Improvement Using Advanced Chemical Oxidation at High Temperature in High Polluted Effluents J Sanz, Spain J Lombraña, Spain F Varona A Urkiaga	Page 53
1787 -	Use of Electronic Nose Technology for the Detection of Microbial Chemical and Contaminates in Water Olinda Canhoto, UK Naresh Maga, UK	Page 54
1894 -	Distribution of PAH in Baltic Sediments and Water Column Uuve Kirso, Estonia Lia Paalme, Estonia Martin Voll, Estonia	Page 55
19:00	DEPART BY COACH FROM THE ENTRANCE OF THE MOAT HOUSE HOTEL FOR CONFERENCE DINNER AND DISCO AT KITLEY HOUSE	

Saturday 13th December

09:00-10:00	ORAL SESSION - Marine Chemistry and Marine Pollution (Chaired by Prof. P. Worsfold, University of Plymouth, UK)	
1778 -	Remarkable Changes in the Trace Metal Speciation in Estuarine Sediment caused by Juncus Maritimus Ana Mucha, Portugal Marisa Almeida, Portugal Teresa Vasconcelos, Portugal	Page 59
1837 -	Mercury in Suspended Material of Water Ecosystems Yury Fedorov, Russia	Page 60

	1855 - Biogeochemical Cycling of Dissolved Organic Carbon (DOC) and Dissolved Organic Nitrogen (DON) in the Plym Estuary, Southwest England El-Sayed Badr, UK Eric Achterberg, UK Alan Tappin, UK Steve Hill, UK	Page 61
10:00-10:30	ORAL PRESENTATION BY ACE YOUNG RESEARCHER OF THE YEAR (2003 winner: Davide Vione)	
	1806 - Phenol Nitration and Photonitration in Aqueous Solution Davide Vione, Italy Valter Maurino, Italy Claudio Minero, Italy Ezio Pelizzetti, Italy	Page 44
10:30-11:00	COFFEE BREAK	
11:00-12:20	ORAL SESSION - Analytical Methods in Environmental Science (Chaired by Dr J. Schwarzbauer, Aachen University, Germany)	
	1930 - A Single Injection Screening Method for Tetra-Octa Chlorinated PCDD/F's in Fish and Flyash Matrices using GC-Triple Quadrupole MS/MS Keith Worrall, UK Anthony Newton, UK Ramesh Rao, UK David Wood, UK	Page 65
	1759 - Optical Sensor for Seven Sulfonamides in Drinking, Ground and Surface Water with Difficult Matrices Jens Tschmelak, Germany Michael Kumpf, Germany Guenther Proll, Germany Gunter Gauglitz, Germany	Page 66
	1867 - Radiocarbon as an Inverse Tracer of Fossil Fuel-Derived Contaminants in Sediments Helen White, USA Christopher Reddy, USA Timothy Eglinton, USA	Page 67
	1893 - General Problems Related to the Analysis of Polycyclic Aromatic Hydrocarbons in Water - Experiences of a Proficiency Test Provider Patricia Schubert-Ullrich, Austria Rainer Schuhmacher, Austria Wolfgang Kandler, Austria Rudolf Krska, Austria	Page 68
12:20	CLOSE OF CONFERENCE	
12:30	LUNCH	