



DECHEMA e.V.



International  
Water Association

# MICROPOL & ECOHAZARD 2007

5<sup>th</sup> IWA Specialised Conference  
on Assessment and Control  
of  
Micropollutants /  
Hazardous Substances in Water

17 – 20 June 2007

DECHEMA e.V., Frankfurt/Main, Germany



DECHEMA e.V.  
Society for Chemical Engineering  
and Biotechnology  
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## PROGRAMME



PROCESSNET  
EINE INITIATIVE VON DECHEMA UND VDI-GVC

[www.dechema.de/micropol](http://www.dechema.de/micropol)

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# INVITATION

## ► Invitation

In recent years several studies world-wide reported the identification of micropollutants such as pharmaceuticals, biocides, fluorinated compounds or ingredients of personal care products in wastewater, surface water, sediments, soils, ground water and even drinking water. Regarding micropollutants the **Micropol and Ecohazard Conference 2007** will encompass the currently emerging research in the fields of environmental chemistry, wastewater treatment, drinking water treatment, toxicity and risk assessment as well as regulations and management to minimise hazards for biota and humans. Additionally, the emerging issue of nanotechnology related industrial applications and environmental implications will be a special focus of the conference.

The combination of the **DECHEMA** and **IWA** conference series **Micropol and Ecohazard** for the first time provides an international platform for drinking water and wastewater engineers, environmental chemists, water managers, hydrogeologists, ecotoxicologists and toxicologists to discuss the removal and the effects of micropollutants and hazardous substances in water systems.

**We look forward to welcoming you in Frankfurt!**

## ► Co-Organiser

<b>DWA</b>	German Association for Water, Wastewater and Waste
<b>EUREAU</b>	European Union of National Associations of Water Suppliers and Waste Water Services
<b>EWA</b>	European Water Association
<b>GDCh</b>	Water Chemical Society
<b>GfKORR</b>	German Society for Corrosion Protection
<b>IAWR</b>	International Association of Waterworks in the Rhine catchment area
<b>ProcessNet</b>	Section Sustainable Production, Energy and Resources (SuPER) Subject Division Membrane Technology
<b>U.S. EPA</b>	United States Environmental Protection Agency
<b>VDI/GVC</b>	VDI-Society for Chemical and Process Engineering

## COMMITTEES

### ► Scientific Committee

<b>T.A. Ternes</b>	Federal Institute of Hydrology, Koblenz/D (Chair)
<b>A.I. Schäfer</b>	University of Edinburgh/UK (Co-Chair)
<b>H.-J. Brauch</b>	Water Technology Center, Karlsruhe/D
<b>W. Dott</b>	RWTH Aachen/D
<b>A. Englande</b>	Tulane University, New Orleans, LA/USA
<b>S.-U. Geißen</b>	Technical University Berlin/D
<b>M. Gibert</b>	Veolia Environment, Paris/F
<b>W. Giger</b>	EAWAG, Dübendorf/CH
<b>G. Hanke</b>	Research Centre of the European Commission, Ispra/I
<b>P. Heininger</b>	Federal Institute of Hydrology, Koblenz/D
<b>T. Hutchinson</b>	AstraZeneca PLC, Södertälje/S
<b>B.N. Jacobsen</b>	Avedoere Wastewater Services, Hvidovre/DK
<b>M.-L. Janex-Habibi</b>	CIRSEE – SUEZ ENVIRONNEMENT, Le Pecq/F
<b>M. Jekel</b>	Technical University Berlin/D
<b>C. Metcalfe</b>	Trent University, Petersborough/CDN
<b>J. Oehlmann</b>	University of Frankfurt am Main/D
<b>S.D. Richardson</b>	United States Environmental Protection Agency, Athens, GA/USA
<b>D. Sedlak</b>	University of California at Berkely, CA/USA
<b>H. Siegrist</b>	EAWAG, Dübendorf/CH
<b>H. Tanaka</b>	Kyoto University/JP
<b>G. Wolfaardt</b>	Reyerson University, Toronto/CDN

### ► Organising Committee

<b>T. Track</b>	DECHEMA e.V., Frankfurt am Main/D (Chair)
<b>W. Dott</b>	RWTH Aachen/D
<b>S.-U. Geißen</b>	Technical University Berlin/D
<b>J. Oehlmann</b>	University of Frankfurt am Main/D
<b>S.D. Richardson</b>	United States Environmental Protection Agency, Athens, GA/USA
<b>H.P. Rohns</b>	Stadtwerke Düsseldorf AG/D
<b>H. Siegrist</b>	EAWAG, Dübendorf/CH
<b>T.A. Ternes</b>	Federal Institute of Hydrology, Koblenz/D

## PROGRAMME AT A GLANCE

### Sunday, 17 June 2007

16:30-19:00 Registration and Welcome Reception

### Monday, 18 June 2007

#### Max-Buchner-Hörsaal

09:00-09:30

Opening

09:30-10:15

Chair: T.A. Ternes

Plenary Lecture: W. Giger

10:15-10:45

Coffee Break

#### Max-Buchner-Hörsaal

#### Carl-Duisberg-Hörsaal

Chair:

T.A. Ternes; D.L. Sedlak

J. Oehlmann; J. Sumpter

#### Environmental Chemistry

#### Toxicity & Risk Assessment

10:45-11:10

N. Nakada

K. Schirmer

11:10-11:35

S.J. Rowland

T. Knacker

11:35-12:00

F.T. Lange

C. Metcalfe

12:00-12:25

D.L. Sedlak

K. Lenz

12:25-12:50

E. Hoehn

T. Schwartz

12:50-13:50

Lunch / Poster Session

#### Max-Buchner-Hörsaal

13:50-14:35

Chair: J. Oehlmann

Plenary Lecture: J. Sumpter

14:35-14:40

Break for Changing the Lecture Hall

#### Max-Buchner-Hörsaal

#### Carl-Duisberg-Hörsaal

Chair:

W. Giger; C. Metcalfe

J. Oehlmann; J. Sumpter

#### Environmental Chemistry

#### Toxicity & Risk Assessment

14:40-15:05

K. Nowak

J.N. Brown

15:05-15:30

M. Burkhardt

U. Zoller

15:30-15:55

E. Eriksson

H. Maes

15:55-16:25

Coffee Break

16:25-16:50

L.M. Puijker

L.A. Hamilton

16:50-17:15

A.R. Fernández-Alba

S. Meric

17:15-17:40

M.D. Celiz

A. DeAngelo

17:40-18:05

L. Guzzella

C. Rodriguez

18:05-20:30

Poster Discussion/Poster Party with Beer and Pretzel

## PROGRAMME AT A GLANCE

**Tuesday, 19 June 2007**

**Max-Buchner-Hörsaal**

09:00-09:45 *Chair: B.N. Jacobsen*  
**Plenary Lecture: M. Fürhacker**

09:45-09:50 **Break for Changing the Lecture Hall**

**Max-Buchner-Hörsaal**

**Carl-Duisberg-Hörsaal**

*Chair: B.N. Jacobsen; S.-U. Geißen G. Hanke; M. Fürhacker*

**Wastewater Treatment**

**Regulations and Management**

09:50-10:15 H. Wenzel H. Yamagata

10:15-10:40 C. Blöcher M.L. Janex-Habibi

10:40-11:10 **Coffee Break**

11:10-11:35 H. Andersen N. Adler

11:35-12:00 T. Okuda J.F.M. Versteegh

12:00-12:25 C. Miege C. Schramm

12:25-12:50 K. Press-Kristensen B. Heinzmann

12:50-14:15 **Lunch / Poster Session**

**Max-Buchner-Hörsaal**

14:15-15:00 *Chair: S.D. Richardson*  
**Plenary Lecture: J. Fawell**

15:00-15:05 **Break for Changing the Lecture Hall**

**Max-Buchner-Hörsaal**

**Carl-Duisberg-Hörsaal**

*Chair: G. Wolfaardt; M. Gibert H.-P. Rohns; S.D. Richardson*

**Wastewater Treatment**

**Drinking Water Treatment**

15:05-15:30 R.A. Deeb P. Andrzejewski

15:30-15:55 S. Weiss J.W.A. Charrois

15:55-16:25 **Coffee Break**

16:25-16:50 T. Reemtsma S.D. Richardson

16:50-17:15 A. Joss H. De Wever

17:15-17:40 D. Aga C. Zwiener

17:40-18:05 W. Shi A. Loi-Brügger

18:05 End of Scientific Programme

19:30 **Conference Dinner**

## PROGRAMME AT A GLANCE

**Wednesday, 20 June 2007**

**Max-Buchner-Hörsaal**

08:45-09:30 *Chair: T.A. Ternes*  
**Plenary Lecture: U. von Gunten**

09:30-09:45 **Nomination: Poster Price Award**

09:45-09:50 **Break for Changing the Lecture Hall**

**Max-Buchner-Hörsaal**

**Carl-Duisberg-Hörsaal**

*Chair: H. Siegrist, M. Jekel M.L. Janex-Habibi; A.I. Schäfer*

**Wastewater Treatment**

**Drinking Water Treatment**

09:50-10:15 R. Gori I. Kim

10:15-10:40 M. Cirja J. Carlson

10:40-11:05 **Coffee Break**

**Max-Buchner-Hörsaal**

11:05-11:50 *Chair: A.I. Schäfer*  
**Plenary Lecture: T. Wintgens**

11:50-11:55 **Break for Changing the Lecture Hall**

**Max-Buchner-Hörsaal**

**Carl-Duisberg-Hörsaal**

*Chair: H. Siegrist, M. Jekel M.L. Janex-Habibi; A.I. Schäfer*

**Wastewater Treatment**

**Drinking Water Treatment**

11:55-12:20 M.C. Dodd R. Ramirez-Zamora

12:20-12:45 A. Ried S.J. Khan

12:45-13:10 A. Putschew C. Baus

13:10-13:50 **Lunch / Poster Session**

**Max-Buchner-Hörsaal**

13:50-14:35 *Chair: H. Siegrist*  
**Plenary Lecture: M.R. Wiesner**

14:35-14:40 **Break for Changing the Lecture Hall**

**Max-Buchner-Hörsaal**

**Carl-Duisberg-Hörsaal**

*Chair: H. Siegrist, M. Jekel M.L. Janex-Habibi; A.I. Schäfer*

**Wastewater Treatment**

**Drinking Water Treatment**

14:40-15:05 J. Benner S.E. Duirk

15:05-15:30 H.F. Schroeder S. Echigo

15:30-15:55 C. Kazner T.L. Huang

15:55-16:00 **Break for Changing the Lecture Hall**

**Max-Buchner-Hörsaal**

16:00-16:15 **Closing Remarks: A.I. Schäfer; T.A. Ternes**

## Sunday, 17 June 2007

16:30  
–  
19:00 **Registration and Welcome Reception**

## Monday, 18 June 2007

Max-Buchner-Hörsaal

09:00 **Opening**

*Chair: T.A. Ternes, Federal Institute of Hydrology, Koblenz/D*

09:30 **PLENARY LECTURE**  
**Polar organic contaminants in the aquatic environment**  
W. Giger, EAWAG, Dübendorf/CH

10:15 **Coffee Break**

## Environmental Chemistry

Max-Buchner-Hörsaal

*Chair: T.A. Ternes, Federal Institute of Hydrology, Koblenz/D;  
D.L. Sedlak, University of California at Berkeley, CA/USA*

10:45 **Occurrence of 70 pharmaceutical and personal care products in Tone River basin in Japan**

*N. Nakada, K. Komori, Y. Suzuki, Public Works Research Institute, Tsukuba/J; C. Konishi, I. Howa, Murata Keisokuki Service Co., Ltd., Yokohama/J; H. Tanaka, Kyoto University/J*

11:10 **The environmental fate of prozac and valium in water, sewage-treated soils and crops**

*C.H. Redshaw, C.E. West, S.T. Belt, S.J. Rowland, University of Plymouth/UK*

11:35 **Occurrence of perfluoroalkyl sulfonates and carboxylates in German drinking water sources compared to other countries**

*E.T. Lange, M. Wenz, C.K. Schmidt, H.-J. Brauch, DVGW-Technologiezentrum Wasser (TZW), Karlsruhe/D*

12:00 **Steroid hormone sources and fate in agricultural watersheds**  
*E.P. Kolodziej, J. Loyo-Rosales, D.L. Sedlak, University of California at Berkeley, CA/USA*

12:25 **Natural attenuation potential of downwelling streams for perfluorochemicals and other emerging contaminants**

*E. Hoehn, EAWAG, Dübendorf/CH; M. Plumlee, M. Reinhard, Stanford University, CA/USA; A. Ringer, H. Ashktorab, Water Use Efficiency Unit, San José, CA/USA*

12:50 **Lunch / Poster Session**

## Sunday, 17 June 2007

16:30  
–  
19:00 **Registration and Welcome Reception**

## Monday, 18 June 2007

Max-Buchner-Hörsaal

09:00 **Opening**

*Chair: T.A. Ternes, Federal Institute of Hydrology, Koblenz/D*

09:30 **PLENARY LECTURE**  
**Polar organic contaminants in the aquatic environment**  
W. Giger, EAWAG, Dübendorf/CH

10:15 **Coffee Break**

## Toxicity and Risk Assessment

Carl-Duisberg-Hörsaal

*Chair: J. Oehlmann, University of Frankfurt am Main/D;  
J. Sumpter, Brunel University, Uxbridge/UK*

10:45 **Who is chasing who? A call for a more integrated approach to reduce the load of micropollutants in the environment**

*K. Schirmer, Helmholtz Centre for Environmental Research, Leipzig/D*

11:10 **Impact of the veterinary pharmaceutical ivermectin on aquatic organisms: an ERAPharm case study**

*T. Knacker, K. Duis, N. Moldan, ECT Oekotoxikologie GmbH, Flörsheim/D; A. Wehrhan, I. Rönnefahrt, Umweltbundesamt, Dessau/D; J. Garric, CEMA-GREF, Lyon/F; J. Tarazona, INIA, Madrid/E; T.A. Ternes, Federal Institute of Hydrology, Koblenz/D; A. Boxall, University of York/UK; B. Halling-Sørensen, University of Pharmaceutical Science, Copenhagen/DK*

11:35 **The effects of the anti-depressant fluoxetine on the reproductive success of fish exposed at environmentally relevant concentrations**

*C. Metcalfe, H. Van Bruinessen, Trent University, Peterborough/CDN*

12:00 **Monitoring, removal and risk assessment of cytostatic drugs in hospital waste water**

*K. Lenz, S.N. Mahnik, N. Weissenbacher, University of Natural Resources and Applied Life Sciences Vienna/A; R.M. Mader, P. Krenn, Medical University of Vienna/A; S. Hann, G. Koellensperger, University of Natural Resources and Applied Life Sciences Vienna/A; M. Uhl, Umweltbundesamt GmbH, Vienna/A; S. Knasmüller, F. Ferk, W. Bursch, Medical University of Vienna/A; M. Fürhacker, University of Natural Resources and Applied Life Sciences Vienna/A*

12:25 **Quantification of antibiotic resistances and efflux pump activities in pathogens in wastewater pathways**

*T. Schwartz, H. Volkmann, Forschungszentrum Karlsruhe GmbH/D*

12:50 **Lunch / Poster Session**

Monday, 18 June 2007

Max-Buchner-Hörsaal

Chair: J. Oehlmann, University of Frankfurt am Main/D

- 13:50 **PLENARY LECTURE**  
**The ecotoxicology of hormonally-active micropollutants**  
 J. Sumpter, Brunel University, Uxbridge/UK

14:35 **Break for Changing the Lecture Hall**

## Environmental Chemistry

Max-Buchner-Hörsaal

Chair: W. Giger, EAWAG, Dübendorf/CH;  
C. Metcalfe, Trent University, Peterborough/CDN

- 14:40 **Fate of organic pollutants in the system soil – grass in sewage sludge amended soils**  
 K. Nowak, V.N. Kouloumbos, A. Schäffer, P.F.-X. Corvini, RWTH Aachen/D
- 15:05 **Biocides used in building materials and their leaching behavior to sewer systems**  
 M. Burkhardt, T. Kupper, EAWAG, Dübendorf/CH; S. Hean, R. Haag, P. Schmid, M. Kohler, Swiss Federal Institute for Materials Science and Technology (EMPA), Dübendorf/CH; M. Boller, EAWAG, Dübendorf/CH
- 15:30 **Substance flow analysis of parabens in Denmark**  
 E. Eriksson, H.R. Andersen, A. Ledin, Technical University of Denmark, Lyngby/DK
- 15:55 **Coffee Break**
- 16:25 **Approach for the identification of “unknown” organic micropollutants in drinking water sources and drinking water**  
 L.M. Puijker, A.C. Hogenboom, Kiwa Water Research, Nieuwegein/NL
- 16:50 **Application of LC-ToF/MS and LC-QTrap-MS for the determination of pharmaceuticals and metabolites in wastewaters**  
 M.J. Gómez Ramos, A. Agüera López, M.D. Hernando, M. Mezcua, A.R. Fernández-Alba, University of Almería/E
- 17:15 **Evaluation of the performance of a molecularly imprinted polymer for preconcentration of  $\beta$ -estradiol**  
 M.D. Celiz, D.S. Aga, L.A. Colón, University of Buffalo, New York, NY/USA
- 17:40 **Synthesis and characterisation of a propazine imprinted polymer for the extraction of triazine herbicides**  
 L. Guzzella, F. Pozzoni, Consiglio Nazionale delle Ricerche, Brugherio/I; C. Baggiani, University of Torino/I
- 18:05  
20:30 **Poster Discussion / Poster Party with Beer and Pretzel**

Monday, 18 June 2007

Max-Buchner-Hörsaal

Chair: J. Oehlmann, University of Frankfurt am Main/D

- 13:50 **PLENARY LECTURE**  
**The ecotoxicology of hormonally-active micropollutants**  
 J. Sumpter, Brunel University, Uxbridge/UK

14:35 **Break for Changing the Lecture Hall**

## Toxicity and Risk Assessment

Carl-Duisberg-Hörsaal

Chair: J. Oehlmann, University of Frankfurt am Main/D;  
J. Sumpter, Brunel University, Uxbridge/UK

- 14:40 **Plasma levels of non-steroidal anti-inflammatory drugs (NSAIDs) and gemfibrozil in fish exposed to sewage effluents: assessing the risk of discharges to aquatic environments**  
 J.N. Brown, Göteborg University/S; N. Paxeus, Gryaab AB, Göteborg/S; L. Förlin, D.G.J. Larsson, Göteborg University/S
- 15:05 **Distribution profiles of endocrine disrupting PAHs/ APEOs in river sediments: is there a potential ecotoxicological problem?**  
 U. Zoller, Haifa University - Oranim, Kiryat Tivon/IL
- 15:30 **Fate of 17 $\alpha$ -ethinylestradiol in the aquatic environment**  
 H. Maes, H.T. Ratte, RWTH Aachen/D
- 15:55 **Coffee Break**
- 16:25 **Assessment of the efficacy of an advanced tertiary treatment plant to remove endocrine active chemicals from sewage effluent using bioassays and chemical analysis**  
 L.A. Hamilton, University of Technology, Sydney/AUS; L. Tremblay, Landcare Research, Christchurch/NZ; G.L. Northcott, HortResearch Ruakura, Hamilton/NZ; M. Boake, Veolia Water, Sydney/AUS; R. Lim, University of Technology, Sydney/AUS
- 16:50 **A comparative ecotoxicity investigation on fungicides using marine and freshwater species**  
 S. Meric, University of Salerno/I; M. Guida, M. Inglese, G. Pagano, Federico II Naples University/I
- 17:15 **Development of normal human colon cell cultures to identify priority unregulated disinfection by-products (DBPs) and disinfection water concentrates with a carcinogenic potential**  
 A. DeAngelo, C. Jones, United States Environmental Protection Agency, Research Triangle Park, NC/USA; M. Moyer, InCell Corporation, San Antonio, TX/USA
- 17:40 **Screening health risk assessment of micropollutants in indirect potable reuse schemes using a three-tiered approach**  
 C. Rodriguez, P. Weinstein, A. Cook, B. Devine, University of Western Australia, Perth/AUS; P. Van Buynder, Government of Western Australia, Perth/AUS

18:05

20:30

**Poster Discussion / Poster Party with Beer and Pretzel**

Tuesday, 19 June 2007

Max-Buchner-Hörsaal

Chair: B.N. Jacobsen, Avedoere Wastewater Services, Hvidovre/DK

09:00 PLENARY LECTURE

**Water Framework Directive – can we reach the target?**

M. Fürhacker, University of Natural Resources and Applied Life Sciences Vienna/A

09:45 Break for Changing the Lecture Hall

## Wastewater Treatment

Max-Buchner-Hörsaal

Chair: B.N. Jacobsen, Avedoere Wastewater Services, Hvidovre/DK;  
S.-U. Geißen, Technical University Berlin/D09:50 **Weighing environmental advantages and disadvantages of advanced wastewater treatment of micro-pollutants using environmental life cycle assessment**H. Wenzel, H.F. Larsen, Technical University of Denmark, Lyngby/DK;  
J. Clausson-Kaas, L. Højbye, COWI A/S, Lyngby/DK; B.N. Jacobsen, Avedoere Wastewater Services, Hvidovre/DK10:15 **Elimination of micropollutants and hazardous substances at the source in the chemical and pharmaceutical industry – past experience, present status and future perspectives**

C. Blöcher, Bayer Technology Services GmbH, Leverkusen/D

10:40 Coffee Break

11:10 **Estrogenic personal care products in a greywater reuse system**

H. Andersen, M. Lundsbye, H.V. Wedel, E. Eriksson, A. Ledin, Technical University of Denmark, Lyngby/DK

11:35 **Removal efficiency of 66 pharmaceuticals during wastewater treatment process in Japan**

T. Okuda, Y. Kobayashi, R. Nagao, N. Yamashita, H. Tanaka, S. Tanaka, S. Fujii, Kyoto University, Otsu, Shiga/J; T. Konishi, I. Houwa, Murata Keisokuki Service Co., Ltd., Yokosuka, Kanagawa/J

12:00 **Removal efficiency of pharmaceuticals and personal care products with varying wastewater treatment processes and operating conditions – conception of a database and first results**

C. Miege, M. Coquery, M Eusebe, J.M. Choubert, CEMAGREF, Lyon/F

12:25 **Modelling the fate of nonylphenol and bisphenol A in sludge systems**

K. Press-Kristensen, E. Lindblom, M. Henze, Technical University of Denmark, Lyngby/DK

12:50 Lunch / Poster Session

Tuesday, 19 June 2007

Max-Buchner-Hörsaal

Chair: B.N. Jacobsen, Avedoere Wastewater Services, Hvidovre/DK

09:00 PLENARY LECTURE

**Water Framework Directive – can we reach the target?**

M. Fürhacker, University of Natural Resources and Applied Life Sciences Vienna/A

09:45 Break for Changing the Lecture Hall

## Regulations and Management

Carl-Duisberg-Hörsaal

Chair: G. Hanke, Research Centre of the European Commission, Ispra/I;  
M. Fürhacker, University of Natural Resources and Applied Life Sciences Vienna/A09:50 **Management of chemical substances in a water environment communicating among stakeholders**

H. Yamagata, National Institute for Land and Infrastructure Management, Tsukuba/J; H. Saino, Ministry of Land, Infrastructure and Transport, Kyoto/J; H. Suzuki, H. Kobayashi, M. Minaminaya, K. Fujita, National Institute for Land and Infrastructure Management, Tsukuba/J; K. Sakai, Public Works Research Institute, Tsukuba/J; M. Takahashi, Hokkaido University, Sapporo/J

10:15 **Assessment of alkylphenols in wastewater treatment: do we comply with new directives?**

M.L. Janex-Habibi, A. Huyard, M. Esperanza, A. Bruchet, CIRSEE – SUEZ ENVIRONNEMENT, Le Pecq/F

10:40 Coffee Break

11:10 **Environmental impact assessment and control of pharmaceuticals: the role of environmental agencies**

N. Adler, J. Koschorreck, B. Rechenberg, Federal Environment Agency Germany, Dessau/D

11:35 **Pharmaceuticals in drinking water sources: occurrence, effectiveness of future “regulation and policy measures”**

J.F.M. Versteegh, N.G.F.M. van der Aa, E. Dijkman, National Institute for Public Health and the Environment, Bilthoven/NL

12:00 **Carbamazepine and caffeine – potential screening parameters for groundwater contamination because of municipal waste water?**

C. Schramm, O. Gans, M. Uhl, J. Grath, S. Scharf, I. Zieritz, M. Kraikl, A. Scheidleder, F. Humer, Umweltbundesamt GmbH, Vienna/A

12:25 **Separated collection of iodinated x-ray contrast media in hospitals**

B. Heinzmann, R.-J. Schwarz, Berliner Wasserbetriebe/D; P. Schuster, Kompetenzzentrum Wasser Berlin/D

12:50 Lunch / Poster Session



Tuesday, 19 June 2007

Max-Buchner-Hörsaal

Chair: S.D. Richardson, United States Environmental Protection Agency, Athens, GA/USA

- 14:15 **PLENARY LECTURE**  
**Health risks of micropollutants – the need for a new approach**  
 J. Fawell, Consultant, Bucks/UK
- 15:00 **Break for Changing the Lecture Hall**

## Wastewater Treatment

Max-Buchner-Hörsaal

Chair: G. Wolfaardt, Reyerson University, Toronto/CDN;  
 M. Gibert, Veolia Environment, Paris/F

- 15:05 **Removal and destruction of NDMA and NDMA precursors during wastewater treatment**  
 R.A. Deeb, Malcolm Pirnie, Inc., Emeryville, CA/USA; D.L. Sedlak, University of California at Berkeley, CA/USA; E.L. Hawley, M.C. Kavanaugh, Malcolm Pirnie, Inc., Emeryville, CA/USA
- 15:30 **Quaternary ammonia compounds in influent and effluent of wastewater treatment plants**  
 S. Weiss, M. Clara, O. Gans, S. Scharf, Umweltbundesamt GmbH, Vienna/A; C. Scheffknecht, Institut für Umwelt und Lebensmittelsicherheit des Landes Vorarlberg, Bregenz/A
- 15:55 **Coffee Break**
- 16:25 **Spreading of poorly degradable polar pollutants in the water cycle – the case of benzotriazoles**  
 T. Reemtsma, S. Weiss, A. Hein, Technical University of Berlin/D
- 16:50 **Are we about to upgrade wastewater treatment for removing organic micropollutants?**  
 A. Joss, H. Siegrist, EAWAG, Dübendorf/CH; T.A. Ternes, Federal Institute of Hydrology, Koblenz/D
- 17:15 **Investigating the connection between nitrification and the removal of ethinylestradiol, iopromide, and trimethoprim in engineered bioreactors**  
 D. Aga, University of Buffalo, New York, NY/USA; W.F. Harper Jr., Auburn University, AL/USA; N.G. Love, W.O. Khunjar, Virginia Tech, Blacksburg, VA/USA; M.D. Celiz, S. Baik, University of Buffalo, New York, NY/USA; T. Yi, Auburn University, AL/USA
- 17:40 **Removal of 17 $\alpha$ -ethinylestradiol in algae and duckweed based wastewater treatment systems**  
 W. Shi, Harbin Institute of Technology/PRC and UNESCO-IHE Institute for Water Education, Delft/NL; D. Rousseau, H. Lubberding, H. Gijzen, UNESCO-IHE Institute for Water Education, Delft/NL
- 18:05 **End of Scientific Programme**
- 19:30 **Conference Dinner**

Tuesday, 19 June 2007

Max-Buchner-Hörsaal

Chair: S.D. Richardson, United States Environmental Protection Agency, Athens, GA/USA

- 14:15 **PLENARY LECTURE**  
**Health risks of micropollutants – the need for a new approach**  
 J. Fawell, Consultant, Bucks/UK
- 15:00 **Break for Changing the Lecture Hall**

## Drinking Water Treatment

Carl-Duisberg-Hörsaal

Chair: H.-P. Rohns, Stadtwerke Düsseldorf/D;  
 S.D. Richardson, United States Environmental Protection Agency, Athens, GA/USA

- 15:05 **The hazard of N-nitrosodimethylamine formation during dimethylamine containing water treatment with strong oxygenates**  
 P. Andrzejewski, J. Nawrocki, Adam Mickiewicz University, Poznan/PL
- 15:30 **Detecting N-nitrosamines in Alberta drinking waters at nanogram per liter levels using GC/MS ammonia positive chemical ionization**  
 J.W.A. Charrois, Alberta Research Council, Vegreville/CDN; S.E. Hrudely, University of Alberta, Edmonton/CDN
- 15:55 **Coffee Break**
- 16:25 **Occurrence and toxicity of iodinated disinfection by-products in drinking water**  
 S.D. Richardson, J.J. Ellington, F.G. Crumley, K. Buettner, J.J. Evans, United States Environmental Protection Agency, Athens, GA/USA; B.C. Blount, L.K. Silva, F.L. Cardinali, CDC, Atlanta, GA/USA; M.J. Plewa, E.D. Wagner, University of Illinois, Urbana, IL/USA; G.W. Luther, T.J. Waite, University of Delaware, Lewes, DE/USA
- 16:50 **Water disinfection by a novel plasma treatment concept**  
 H. De Wever, H. Eslander, W. Boëne, L. Diels, Flemish Institute for Technological Research, Mol/B; D. Zänder, Eurofins-AUA GmbH, Jena/D and Flemish Institute for Technological Research, Mol/B; M. De Roeck, R. Rego, Flemish Institute for Technological Research, Mol/B
- 17:15 **The fate of gadolinium contrast media in drinking water treatment**  
 C. Zwiener, N. Perschik, F.H. Frimmel, Universität Karlsruhe/D
- 17:40 **Membranes to reduce trace organic substances from river bank filtrate - pilot study for the design of a 1100 m<sup>3</sup>/h plant**  
 A. Loj-Brügger, G. Hoffmann, S. Panglisch, R. Gimbel, IWW Water Centre, Mülheim/D
- 18:05 **End of Scientific Programme**
- 19:30 **Conference Dinner**

Wednesday, 20 June 2007

Max-Buchner-Hörsaal

Chair: T.A. Ternes, Federal Institute of Hydrology, Koblenz/D

- 08:45 **PLENARY LECTURE**  
**Removal of micropollutants during drinking water treatment: options and limitations**  
 U. von Gunten, EAWAG, Dübendorf/CH

- 09:30 **Nomination: Student Poster Award**  
 09:45 **Break for Changing the Lecture Hall**

## Wastewater Treatment

Max-Buchner-Hörsaal

Chair: H. Siegrist, EAWAG, Dübendorf/CH;  
 M. Jekel, Technical University Berlin/D

- 09:50 **Comparison between MBR and CASP for Priority Pollutants removal from textile wastewater**  
 R. Gori, L. Lubello, University of Florence/I; L. Cammilli, Politechnic of Milan/I; E. Coppini, GIDA SpA, Prato/I
- 10:15 **Fate studies of radiolabeled organic micropollutants in a lab-scale membrane bioreactor (MBR) treating wastewater**  
 M. Cirja, P. Ivashechkin, A. Schäfer, P.F.X. Corvini, RWTH Aachen/D
- 10:40 **Coffee Break**

Max-Buchner-Hörsaal

Chair: A.I. Schäfer, University of Edinburgh/UK

- 11:05 **PLENARY LECTURE**  
**Emerging contaminants and treatment options in water recycling for indirect potable use**  
 T. Wintgens, RWTH Aachen/D
- 11:50 **Break for Changing the Lecture Hall**

Wednesday, 20 June 2007

Max-Buchner-Hörsaal

Chair: T.A. Ternes, Federal Institute of Hydrology, Koblenz/D

- 08:45 **PLENARY LECTURE**  
**Removal of micropollutants during drinking water treatment: options and limitations**  
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## Drinking Water Treatment

Carl-Duisberg-Hörsaal

Chair: M.L. Janex-Habibi, CIRSEE – SUEZ ENVIRONNEMENT, Le Pecq/F;  
 A.I. Schäfer, University of Edinburgh/UK

- 09:50 **Classification of the degradability of 30 pharmaceuticals in water with ozone, UV and H<sub>2</sub>O<sub>2</sub>**  
 I. Kim, H. Tanaka, Kyoto University, Otsu, Shiga/J; T. Iwasaki, T. Takubo, Iwasaki Electrics Co.Ltd., Saitama/J; T. Morioka, Y. Kato, Fuji Electrics Co.Ltd., Tokyo/J
- 10:15 **UV light-based treatment of pharmaceuticals and personal care products (PPCPs) and endocrine disrupting substances (EDS) in drinking water**  
 J. Carlson, Trent University, Peterborough/CDN; M. Stefan, Trojan Technologies Inc., London/CDN; C. Metcalfe, Trent University, Peterborough/CDN

- 10:40 **Coffee Break**

Max-Buchner-Hörsaal

Chair: A.I. Schäfer, University of Edinburgh/UK

- 11:05 **PLENARY LECTURE**  
**Emerging contaminants and treatment options in water recycling for indirect potable use**  
 T. Wintgens, RWTH Aachen/D
- 11:50 **Break for Changing the Lecture Hall**

Wednesday, 20 June 2007

## Wastewater Treatment

Max-Buchner-Hörsaal

Chair: *H. Siegrist, EAWAG, Dübendorf/CH;*  
*M. Jekel, Technical University Berlin/D*

- 11:55 **Reactions of antibacterial compounds with O<sub>3</sub> and OH: oxidative selectivity and consequent changes in antibacterial activity during aqueous ozonation processes**  
*M.C. Dodd, H.-P.E. Kohler, U. von Gunten, EAWAG, Dübendorf/CH*
- 12:20 **Ozonation of municipal waste water effluents: a tool for removal of pharmaceuticals, EDCs and pathogens**  
*A. Ried, J. Mielcke, M. Kampmann, ITT Wedeco, Herford/D*
- 12:45 **Ozonation and reductive deiodination of iopromide to reduce the environmental burden of iodinated x-ray contrast media**  
*A. Putschew, U. Miehe, A. Solis Tellez, M. Jekel, Technical University Berlin/D*
- 13:10 **Lunch / Poster Session**

Max-Buchner-Hörsaal

Chair: *H. Siegrist, EAWAG, Dübendorf/CH*

- 13:50 **PLENARY LECTURE**  
**Nanomaterials as possible contaminants: the fullerene example**  
*M.R. Wiesner, Duke University, Durham, NC/USA*

- 14:35 **Break for Changing the Lecture Hall**

Max-Buchner-Hörsaal

Chair: *H. Siegrist, EAWAG, Dübendorf/CH;*  
*M. Jekel, Technical University Berlin/D*

- 14:40 **Ozonation of RO-concentrate: kinetic studies of beta blocker oxidation**  
*J. Benner, G. Fink, Federal Institute of Hydrology, Koblenz/D; U. von Gunten, EAWAG, Dübendorf/CH; B. de Heyder, Aquafin NV, Aartselaar/B; T.A. Ternes, Federal Institute of Hydrology, Koblenz/D; M. Weemaes, Aquafin NV, Aartselaar/B*
- 15:05 **The elimination of PFOS, PFOA and related compounds during biological wastewater treatment combined with advanced oxidation processes – follow-up and whereabouts**  
*W. Gebhardt, H.F. Schroeder, RWTH Aachen/D*
- 15:30 **Removal of organic micropollutants by nanofiltration in combination with adsorption on powdered activated carbon for artificial groundwater recharge with reclaimed wastewater**  
*C. Kazner, RWTH Aachen/D; G. Fink, T.A. Ternes, Federal Institute of Hydrology, Koblenz/D; T. Wintgens, T. Melin, RWTH Aachen/D*
- 15:55 **Break for Changing the Lecture Hall**
- 16:00 **Closing Remarks**  
*A.I. Schäfer, University of Edinburgh/UK;*  
*T.A. Ternes, Federal Institute of Hydrology, Koblenz/D*

appr. 16:15 **End of the Conference**

Wednesday, 20 June 2007

## Drinking Water Treatment

Carl-Duisberg-Hörsaal

Chair: *M.L. Janex-Habibi, CIRSEE – SUEZ ENVIRONNEMENT, Le Pecq/F;*  
*A.I. Schäfer, University of Edinburgh/UK*

- 11:55 **Assessment of the real oxidation efficiency of O<sub>3</sub> and O<sub>3</sub>-H<sub>2</sub>O<sub>2</sub> to remove diuron and linuron (endocrine disruptor pesticides) from drinking water**  
*R. Ramirez-Zamora, National Autonomous University of Mexico, Mexico, D.F./MEX; R. Seux, Laboratoire d'Etude et de Recherche en Environnement et en Santé, Rennes/F; A. Duran-Moreno, National Autonomous University of Mexico, Mexico, D.F./MEX*
- 12:20 **Characterisation of carbonyl and epoxide byproducts of drinking water ozonation**  
*S.J. Khan, University of New South Wales, Sydney/AUS; H.S. Weinberg, University of North Carolina, Chapel Hill, NC/USA*
- 12:45 **Removal of fuel oxygenates by advanced oxidation processes**  
*C. Baus, M. Sona, H.J. Brauch, DVGW-Technologiezentrum Wasser, Karlsruhe/D*
- 13:10 **Lunch / Poster Session**

Max-Buchner-Hörsaal

Chair: *H. Siegrist, EAWAG, Dübendorf/CH*

- 13:50 **PLENARY LECTURE**  
**Nanomaterials as possible contaminants: the fullerene example**  
*M.R. Wiesner, Duke University, Durham, NC/USA*

- 14:35 **Break for Changing the Lecture Hall**

Carl-Duisberg-Hörsaal

Chair: *M.L. Janex-Habibi, CIRSEE – SUEZ ENVIRONNEMENT, Le Pecq/F;*  
*A.I. Schäfer, University of Edinburgh/UK*

- 14:40 **Organophosphorus pesticide degradation pathways during drinking water treatment**  
*S.E. Duirk, L.M. DeSetto, T.W. Collette, United States Environmental Protection Agency, Athens, GA/USA*
- 15:05 **Bromide removal by hydrotalcite-like compounds in a continuous system**  
*S. Echigo, S. Itoh, Kyoto University/J; M. Kuwahara, Osaka Gas Co., Ltd./J*
- 15:30 **Mechanistic studies on chlorine and potassium permanganate degradation of microcystin-LR in water using high-performance liquid chromatography tandem mass spectrometry**  
*T.L. Huang, J.-W. Zhao, Xi'an University of Architecture & Technology/PRC*
- 15:55 **Break for Changing the Lecture Hall**
- 16:00 **Closing Remarks**  
*A.I. Schäfer, University of Edinburgh/UK;*  
*T.A. Ternes, Federal Institute of Hydrology, Koblenz/D*

Max-Buchner-Hörsaal

appr. 16:15 **End of the Conference**

(Programme subject to change)

The posters will be displayed continuously throughout the conference. So the posters should be put up latest on Monday, 18 June 2007 at 09:00 and taken down at the end of the conference.

### Environmental Chemistry

- A 1 **Dechlorination of pentachlorophenol by zero-valent zinc affected by dissolved oxygen and reduced sulfur**  
L.-J. Tsai, K.-C. Yu, S.-T. Ho, Chia-Nan University of Pharmacy and Science, Tainan/RC
- A 2 **Heavy metal levels and physico chemical quality of potable water in Warri, Nigeria**  
J.K.C. Nduka, O.E. Orisake, Nnamdi Azikiwe University, Nnewi/WAN
- A 3 **Temporal variations and modelling of agricultural chemicals in the Oota river basin**  
H. Shimazu, Kinki University, Higashiosaka/J
- A 4 **PAH in floodplain soils of Mosel river: a source identification**  
C. Pies, G. Reifferscheid, Federal Institute of Hydrology, Koblenz/D; Y. Yang, University of Vienna/A; J. Petrowsky, B. Hoffmann, Federal Institute of Hydrology, Koblenz/D; C. Achten, University of Vienna/A; C. Moehlenkamp, T.A. Termes, Federal Institute of Hydrology, Koblenz/D; T. Hofmann, University of Vienna/A
- A 5 **Analysis of N-nitrosamines in wastewater using liquid chromatography-high resolution tandem mass spectrometry**  
M. Krauss, J. Hollender, EAWAG, Dübendorf/CH
- A 6 **Degradation of 17 $\beta$ -estradiol and 17 $\alpha$ -ethynylestradiol by ozone and O<sub>3</sub>/H<sub>2</sub>O<sub>2</sub> and evaluation of the estrogenic activity**  
M.G. Maniero, D.M. Bila, M. Dezotti, Federal University of Rio de Janeiro/BR
- A 7 **Stability of steroid estrogens in batch experiments with activated sludge in aerobic and denitrifying redox environments**  
H.R. Andersen, Technical University of Denmark, Lyngby/DK; M. Hansen, Danish University of Pharmaceutical Sciences, Copenhagen/DK; F. Ingerslev, Ministry of the Environment, Copenhagen/DK
- A 8 **Analysis of steroid hormones, steroid hormone conjugates and antibiotics in waste water**  
M.P. Schlüsener, K. Bester, University Duisburg-Essen, Essen/D
- A 9 **Input of organic micropollutants from human use into groundwater**  
C.S. McArdell, W. Giger, I. Hanke, E. Hoehn, A. Lueck, E. Molnar, C. Schaffner, H. Singer, EAWAG, Dübendorf/CH
- A 10 **Decomposition of drugs in water by sonolysis and sonocatalysis**  
E. Nietzschmann, J. Hartmann, University of Applied Sciences Magdeburg-Stendal (FH)/D; P. Bartels, Centre for Environmental Research Leipzig-Halle, Magdeburg/D; U. Mau, M. Witter, University of Applied Sciences Magdeburg-Stendal (FH)/D
- A 11 **Influence of pesticide and biocide use on contaminant load dynamics in surface waters**  
I. Wittmer, C. Stamm, H.-P. Bader, P. Reichert, S. Jaus, EAWAG, Dübendorf/CH

- A 12 **Analysis by LC-ESI-MS-MS and evolution of endocrine disrupters in a wastewater treatment plant**  
C. Stavrakakis, Ecole des Mines de Nantes/F; R. Colin, IDAC, Nantes/F; V. Hequet, Ecole des Mines de Nantes/F; C. Faur, Université de Montpellier 2/F; P. Le Cloirec, Ecole Nationale Supérieure de Chimie de Rennes/F
- A 13 **LC/MS and -MS/MS for the structural identification of degradation products of persistent polar pharmaceuticals after advanced oxidation**  
M. Favier, W. Gebhardt, H.F. Schröder, RWTH Aachen/D
- A 14 **Monitoring the whereabouts of polar persistent pollutants by LC/MS and -MS<sup>n</sup> during wastewater treatment applying membrane bioreactor and advanced oxidation**  
R.F. Sena, J.L. Tambosi, W. Gebhardt, RWTH Aachen/D; R.F.P.M. Moreira, H.J. José, Federal University of Santa Catarina, Florianópolis/BR; H.F. Schröder, RWTH Aachen/D
- A 15 **Oxidative treatment of steroid estrogens in water: formation of oxidation products and change of estrogenic activity**  
Y. Lee, U. von Gunten, EAWAG, Dübendorf/CH
- A 16 **Occurrence and behaviour of endocrine-disrupting alkylphenolic compounds in municipal wastewater treatment plants in Croatia**  
M. Ahel, S. Terzic, Rudjer Boskovic Institute, Zagreb/HR
- A 17 **Multidisciplinary research training on organic micropollutants – the AQUAbase project**  
R. Hochstrat, A. Gergs, T. Melin, RWTH Aachen/D
- A 18 **EDTA enhanced phytoremediation of metals contaminated soil by Indian mustard**  
K.-L. Yu, L.-J. Tsai, S.-T. Ho, Chia-Nan University of Pharmacy and Science, Tainan/RC
- A 19 **Analysis and behaviour of pharmaceutical compounds in water and wastewater**  
J.L. Zhou, Z. Zhang, University of Sussex, Brighton/UK
- A 20 **Analysis of haloacetic acids in chlorinated drinking water by LLE-GC/ $\mu$ -ECD after derivatization**  
A.M. Lopes, Universidade de Lisboa/P; V. Vale Cardoso, A.I. Penetra, E. Ferreira, M.J. Benoliel, EPAL, Lisboa/P
- A 21 **Exploring the environmental persistence of volatile methyl siloxanes**  
M.L. Whelan, R. van Egmond, D. Sanders, S. O'Connor, Unilever, Bedford/UK; D. Mackay, E. Webster, Trent University, Peterborough/CND
- A 22 **Effect of chlorination on the estrogenic activity of different isomers of nonylphenol**  
P. Cormio, RWTH Aachen/D; A. Rastall, H. Hollert, S. Grund, University of Heidelberg/D; I. Schuphan, B. Schmidt, RWTH Aachen/D
- A 23 **Determination of estrogenic compounds using the human estrogen receptor for concentration and liquid-chromatography for identification**  
U. Bieling, W. Gebhardt, M. Zimmermann, H.F. Schröder, RWTH Aachen/D
- A 24 **Seasonal variation and sources of PAHs in the sediments of drinking water reservoirs in Hong Kong**  
Y. Liang, P.K. Fung, M.F. Tse, M.H. Wong, Hong Kong Baptist University, Kowloon Tong/HK

- A 25 **Estrogen pollution in the Yodo river system, Japan**  
H. Tanaka, R. Nagao, N. Yamashita, Kyoto University, Otsu, Shiga/J;  
T. Miyazaki, IDEA Ltd., Otsu, Shiga/J; M. Sueoka, Teijin Eco Science Ltd.,  
Hamura/J; T. Ohiwa, Teijin Eco Science, Hamura/J
- A 26 **Behaviour of selected pharmaceuticals in soil columns**  
J. Kaub, J. Londong, Bauhaus-Universität Weimar/D
- A 27 **Screening of organic micropollutants in water samples using liquid chromatography-linear iontrap-orbitrap mass spectrometry**  
J. Hollender, H. Singer, S. Kern, EAWAG, Dübendorf/CH; K. Fenner,  
ETH Zürich/CH
- A 28 **Emerging technologies for comprehensive analyses of complex environmental samples: theoretical modelling combined with ESI and GC/FT-ICR mass spectrometry**  
T. Solouki, C. Heffner, I. Silwal, J.M. Peckenham, University of Maine,  
Orono, ME/USA
- A 29 **Distribution of alkylphenols and alkylphenol ethoxylates in the coastal environment of Thermaikos Gulf, Northern Greece**  
A. Arditoglou, D. Voutsas, Aristotle University of Thessaloniki/GR
- A 30 **Protein profile of a BTEX-grown microbial consortium and a pure bacterial culture**  
J.A. Morlett-Chavez, J.A.I. Ascacio-Martinez, K. Acuna-Askar,  
H.A. Barrera-Saldana, Universidad Autonoma de Nuevo Leon,  
Monterrey, N.L./MEX
- A 31 **Removal of psychoactive drugs in sewage treatment plants and their occurrence in German rivers**  
G. Fink, D. Löffler, D. Hummel, T.A. Ternes, Federal Institute of Hydrology,  
Koblenz/D
- A 32 **The influence of pH on the interaction between estrogenic trace organic compounds and bulk organic matter**  
P.A. Neale, University of Edinburgh/UK; W. Pronk, EAWAG, Dübendorf/CH;  
A.I. Schäfer, University of Edinburgh/UK
- A 33 **Investigation of the environmental fate and behaviour of emerging pollutants applying mass spectrometric techniques**  
M. Peschka, University of Applied Sciences Fresenius, Idstein/D;  
D. Barceló, Centre de Investigació i Desenvolupament, Barcelona/E;  
T.P. Knepper, University of Applied Sciences Fresenius, Idstein/D
- A 34 **Degradation of carbofuran in groundwater by UV and UV/H<sub>2</sub>O<sub>2</sub>: comparison of by-products formation and their toxicity**  
G. Mascolo, L. Balest, V. Locaputo, CNR-Water Research Institute, Bari/I;  
L. Guzzella, CNR-Water Research Institute, Brugherio/I; A. Lopez,  
CNR-Water Research Institute, Bari/I
- A 35 **Nonylphenol ethoxylates and their metabolites in urban harbor sediments: sources and processes regulating preservation**  
B.J. Brownawell, X. Li, H. Yin, Stony Brook University, NY/USA
- A 36 **Sample preparation for the determination of contaminants in sludges, sediments and soils using accelerated solvent extraction (ASE)**  
S. Ghirlanda, Dionex (Europe) Management AG, Olten/CH; B.E. Richter,  
Dionex Corporation, Salt Lake City, UT/USA

- A 37 **Degradation pathway of E2 by *Nitrosomonas europaea* and the fate of its estrogenic activity**  
A. Yamamura, Nishikawa Keisoku Co., Ltd., Yokohama/J; S. Nakai,  
Hiroshima University, Higashi Hiroshima/J; M. Nishikawa, M. Takada,  
M. Hosomi, Tokyo University of Agriculture & Technology, Koganei/J
- A 38 **Fate of pharmaceuticals in water-sediment systems**  
M. Ramil, T. El Aref, K. Stein, G. Fink, T.A. Ternes, Federal Institute of  
Hydrology, Koblenz/D
- A 39 **Photolytic degradation and environmental risk assessment of dypirone metabolites in various aquatic systems**  
A. Agüera López, C. Sirtori, M.J. Gómez, M.D. Hernando,  
A.R. Fernández-Alba, University of Almería/E
- A 40 **Hydroxylated products of quinoline as indicator for natural attenuation?**  
A.-K. Reineke, W. Dott, RWTH Aachen/D; J. Hollaender, EAWAG,  
Dübendorf/CH
- A 41 **Hydrolytic stability of persistent organic pollutants studied on example of PCP and Bromox**  
S.M. Kulikov, B.J.R. Holder, K.C. Mascal, University of the West Indies,  
Bridgetown/BDS

### Wastewater Treatment

- B 1 **Dechlorination kinetics of pentachlorophenol by zero-valent metals**  
L.-J. Tsai, K.-C. Yu, S.-T. Ho, Chia-Nan University of Pharmacy and  
Science, Tainan/RC
- B 2 **Zinc (II) removal from aqueous solutions by chemical modified barley waste**  
L.-J. Tsai, K.-C. Yu, S.-T. Ho, Chia-Nan University of Pharmacy and  
Science, Tainan/RC
- B 3 **Mass transfer of endocrine disrupting compounds in nanofiltration membranes – effects of concentration polarisation**  
F. Salehi, T. Melin, RWTH Aachen/D
- B 4 **Removal of organic micro-pollutant compounds from industrial wastewaters in Iran**  
M. Ghaheeri, S. Ghaheeri, Iranian Research Organization for Science &  
Technology (IROST), Tehran/IR
- B 5 **Oxidation of nonionic surfactants in water solutions**  
J. Perkowski, Technical University of Lodz/PL; L. Kos, Institute of Knitting  
Technology and Techniques, Lodz/PL
- B 6 **Biodegradability improvement of diclofenac by ozonation**  
A. Coelho, C. Sans, University of Barcelona/E; M. Dezotti, Universidade  
Federal do Rio de Janeiro/BR; S. Esplugas, University of Barcelona/E
- B 7 **An innovative approach to the detoxification of organophosphate esters by bifunctional organoclayes**  
L. Groisman, C. Rav-Acha, Ministry of Health, Tel-Aviv/IL; U. Mingelgrin,  
Z. Gerstl, The Volcani Center, Bet-Dagan/IL
- B 8 **Degradation of ibuprofen by photocatalysis: TiO<sub>2</sub> and H<sub>2</sub>O<sub>2</sub>/Fe<sup>2+</sup>**  
F. Méndez-Arriaga, S. Esplugas, J. Giménez, Universidad de Barcelona/E

- B 9 **Comparison study between HRP and laccase for the oxidation of steroid estrogens in a municipal wastewater**  
M. Auriol, INRS, Quebec/CDN; Y. Filali-Meknassi, UNESCO, Rabat/MA; C.D. Adams, University of Missouri - Rolla, MO/USA; R.D. Tyagi, INRS, Quebec/CDN
- B 10 **Kinetic study on the photocatalytic treatment of sulfamethoxazole**  
M. Navarro Abellán, B. Bayarri, J. Giménez, J. Costa, University of Barcelona/E
- B 11 **Laccase-catalyzed removal of steroid estrogens from municipal wastewater**  
M. Auriol, INRS, Quebec/CDN; Y. Filali-Meknassi, UNESCO, Rabat/MA; C.D. Adams, University of Missouri – Rolla, MO/USA; R.D. Tyagi, INRS, Quebec/CDN
- B 12 **Elimination rates of diverse xenobiotics under changing water flows in different waste water treatment plants**  
K. Bester, J.A. Andresen, M.P. Schlüsener, University Duisburg-Essen, Essen/D
- B 13 **Removal of estrogens and pathogens by photo AOPs**  
T.D. Blicher, Orbicon A/S, Viborg/DK; N.H. Johansen, Hørsholm Municipality/DK; P. Kaas, Scan Research A/S, Herning/DK; H.R. Andersen, Technical University of Denmark, Lyngby/DK
- B 14 **Photocatalytic degradation of drug residues in water**  
J. Hartmann, Hochschule Anhalt (FH), Köthen/D; J. Engeldinger, E. Lange, Hochschule Magdeburg (FH)/D; E. Nietzsche, Hochschule Anhalt (FH), Köthen/D
- B 15 **Occurrence and fate of pharmaceutical active compounds, musks and steroids in wastewater treatment plants in Lisbon, Portugal**  
R.M. Salgado, J.P. Noronha, A. Oehmen, G. Carvalho, R. Oliveira, M.A. Reis, Universidade Nova de Lisboa, Caparica/P
- B 16 **Impacts of nonylphenol on biological processes in the SBR**  
J. Vrtovec, J. Jelnicar, M. Ros, National Institute of Chemistry, Ljubljana/SLO; J. Zagorc-Končan, University of Ljubljana/SLO
- B 17 **Removal of human pharmaceuticals from municipal wastewaters, a comparison of conventional wastewater treatment (N/P removal) with aerobic membrane bioreactor**  
B. Björlenius, Stockholm Vatten AB/S; N. Paxéus, Gryaab AB, Gothenburg/S; C. Wahlberg, Stockholm Vatten AB/S; P. Karlsson, AnalyCen Nordic AB, Lidköping/S
- B 18 **Anionic and non-ionic surfactants in untreated sewage, distribution between solid and liquid phase**  
S. Weiss, M. Clara, O. Gans, S. Scharf, Umweltbundesamt GmbH, Vienna/A; C. Scheffknecht, Institut für Umwelt und Lebensmittelsicherheit des Landes Vorarlberg, Bregenz/A
- B 19 **Water treatment by low-temperature glow discharge electrolysis**  
V. Kublanovsky, National Academy of Sciences of Ukraine, Kiev/UA; A.V. Kravchenko, Ukrainian State Chemical Technology University, Dnepropetrovsk/UA

- B 20 **Process of the radioactive elements extraction from wastewater by glow discharge electrolysis**  
O.L. Bersirova, National Academy of Sciences of Ukraine, Kiev/UA; A.V. Kravchenko, Ukrainian State Chemical Technology University, Dnepropetrovsk/UA
- B 21 **Pre-treatment of source-separated urine by ozonation: feasibility and quantitative modeling of mass-transfer limited micropollutant depletion by O<sub>3</sub> and OH on the basis of fundamental bimolecular reaction kinetics**  
M.C. Dodd, S. Zuleeg, W. Pronk, U. von Gunten, EAWAG, Dübendorf/CH
- B 22 **Oxidation of pharmaceuticals during treatment of municipal wastewater effluents by ferrate (Fe(VI))**  
Y. Lee, U. von Gunten, EAWAG, Dübendorf/CH
- B 23 **Enhanced reduction of nitrate by bimetallic Fe/Ni nanoparticles**  
K.-L. Yu, L.-J. Tsai, S.-T. Ho, Chia-Nan University of Pharmacy and Science, Tainan/RC
- B 24 **Occurrence of pharmaceutical chemicals in a landfill leachate and their removal by membrane biological reactor, nanofiltration and advanced oxidation**  
S. Terzic, Rudjer Boskovic Institute, Zagreb/HR; H. Korajlija Jakopovic, M. Matosic, I. Mijatovic, University of Zagreb, Zagreb/HR; M. Ahel, Rudjer Boskovic Institute, Zagreb/HR
- B 25 **NP in textile effluents: occurrence and removal – preliminary results**  
S. Rossi, R. Canziani, F. Malpei, Politecnico di Milano/I; S. Polesello, S. Valsecchi, IRSA-CNR, Milano/I
- B 26 **A new approach for the reduction of pathogen contaminations at hot spots of their dissemination using pulsed electric fields technology**  
H. Volkmann, C. Gusbeth, T. Schwartz, W. Frey, U. Obst, H. Bluhm, Forschungszentrum Karlsruhe/D
- B 27 **Removal of endocrine disrupting compounds in a sewage treatment plant: chemical and ecotoxicological assessment**  
M. Muller, INRA, Narbonne/F; F. Rabenoelina, INSERM, Montpellier/F; N. Delgenes, INRA, Narbonne/F; P. Balaguer, INSERM, Montpellier/F; D. Patureau, J.P. Delgenes, G. Hernandez-Raquet, INRA, Narbonne/F
- B 28 **A bioscreen approach to remove oestrogens from wastewater**  
A. Johnson, Centre for Ecology and Hydrology, Wallingford/UK; R. Darton, Oxford University/UK and Centre for Ecology and Hydrology, Wallingford/UK
- B 29 **Kinetic analysis of cometabolic trichloroethylene (TCE) degradation by nitrifiers**  
B. Alpaslan Kocameci, Marmara University, Istanbul/TR; F. Cecen, Bogazici University, Istanbul/TR
- B 30 **Aerobic biodegradation of orange acid 7 in a sequencing batch reactor**  
D Gonzalez, G. Buitron, Universidad Nacional Autónoma de México, Mexico, D.F./MEX
- B 31 **Biodegradation of p-toluidine in a sequencing batch reactor**  
M. Flores, I. Moreno-Andrade, G. Buitron, Universidad Nacional Autónoma de México, Mexico, D.F./MEX

## SCIENTIFIC POSTER PROGRAMME

- B 32 **Influence of attached and suspended biomass during 4-chlorophenol degradation in a SBR**  
I. Moreno-Andrade, G. Buitron, Universidad Nacional Autónoma de México, Mexico, D.F./MEX
- B 33 **Removal of fulvic acid using coagulation/filtration system for wastewater reclamation and reuse**  
K.-P. Kim, K.-G. Song, K.-H. Ahn, Korea Institute of Science and Technology, Seoul/ROK; K.-J. Paeng, Yonsei University, Wonju/ROK
- B 34 **Are there alternatives to end-of-pipe technologies for the elimination of micropollutants in terms of efficiency and costs?**  
J. Tuerk, T.K. Kiffmeyer, Institute of Energy and Environmental Technology, Duisburg/D; B. Becker, S. Kabasci, Fraunhofer Institute for Environmental, Safety and Energy Technology, Oberhausen/D; H.-M. Kuss, University Duisburg-Essen, Duisburg/D
- B 35 **Development of an AOP pilot plant for the degradation of pharmaceuticals in hospital waste waters**  
J. Tuerk, A. Boergers, T.K. Kiffmeyer, K.G. Schmidt, Institute of Energy and Environmental Technology, Duisburg/D; B. Becker, S. Kabasci, Fraunhofer Institute for Environmental, Safety and Energy Technology, Oberhausen/D; H.-M. Kuss, University Duisburg-Essen, Duisburg/D
- B 36 **Fate and mobility of human pharmaceuticals during artificial groundwater recharge with reclaimed wastewater**  
L. Yu, T. Melin, RWTH Aachen/D; T.A. Ternes, Federal Institute of Hydrology, Koblenz/D
- B 37 **Toxicity and fate of triclosan in activated sludge process**  
A.S. Stasinakis, University of the Aegean, Mytilene/GR; A.V. Petalas, D. Mamais, National Technical University of Athens/GR; S. Kotsifa, N. Papadopoulou, University of the Aegean, Mytilene/GR; N.S. Thomaidis, National University of Athens/GR
- B 38 **Adsorption characteristics of persistent pharmaceuticals in PAC-MF process in wastewater reuse**  
H. Oh, T. Uruse, Tokyo Institute of Technology/J; D. Simazaki, S. Kunikane, National Institute of Public Health, Tokyo/J
- B 39 **Behavior of free estrogens during activated sludge process**  
Y. Okayasu, K. Komori, Y. Suzuki, Public Works Research Institute, Tsukuba/J
- B 40 **Changes in toxicity of wastewater effluents through constructed wetlands, with respect to anions, heavy metals, and effluent organic matters**  
K. Chon, J. Lee, I. Kim, J. Cho, Gwangju Institute of Science and Technology/ROK
- B 41 **Effect of sludge retention time on the fate of endocrine disrupting chemicals in activated sludge process**  
C.I. Kordoutis, V.C. Tsiouma, G. Gatidou, A.S. Stasinakis, University of the Aegean, Mytilene/GR
- B 42 **Adsorption of selected organic micropollutants on powdered activated carbon and retention by nanofiltration**  
L. Kovalova, K. Lehnberg, C. Kazner, D. Jabbour, T. Wintgens, T. Melin, RWTH Aachen/D; J. Hollender, EAWAG, Dübendorf/CH; W. Dott, RWTH Aachen/D

## SCIENTIFIC POSTER PROGRAMME

- B 43 **Efficient oil field water treatment – investigations on the use of ceramic ultra- and nanofiltration membranes**  
P. Czermak, M. Ebrahimi, University of Applied Sciences Giessen-Friedberg, Giessen/D; P. Mund, P. Bolduan, Atech Innovations GmbH, Gladbeck/D; R.S. Wickramasinghe, Colorado State University, Fort Collins, CO/USA
- B 44 **Occurrence and removal efficiency of pharmaceuticals during conventional activated sludge treatment in Japan**  
Y. Kobayashi, T. Okuda, N. Yamashita, H. Tanaka, Kyoto University, Otsu, Shiga/J
- B 45 **Fate of selected antibiotics during soil passage as a component of indirect potable reuse systems**  
A. Hein, T. Reemtsma, M. Ernst, M. Jekel, Technical University of Berlin/D
- B 46 **Determination of selected pharmaceuticals in wastewater effluents in Cyprus and application of advanced oxidation processes for their degradation**  
A. Achilleos, C. Mavronikola, University of Cyprus, Nicosia/CY; D. Partassides, C. Michael, State General Laboratory, Nicosia/CY; M. Averkiou, D. Fatta, University of Cyprus, Nicosia/CY
- B 47 **Biodegradation of 17 $\alpha$ -ethinylestradiol in wastewater**  
D. O'Grady, V. Yargeau, McGill University, Montreal/CDN
- B 48 **Biodegradation kinetics of gasoline under nitrate reducing conditions in a continuous-upflow biofilm reactor**  
K. Acuna-Askar, S.I. Suarez-Vazquez, C.D. Gomez-Ibarra, R. Tijerina-Menchaca, M.T. Garza-Gonzalez, Universidad Autonoma de Nuevo Leon, Monterrey, N.L./MEX; B. Chavez-Gomez, Instituto Mexicano del Petroleo, Mexico, D.F./MEX; H.A. Barrera-Saldana, Universidad Autonoma de Nuevo Leon, Monterrey, N.L./MEX
- B 49 **Hydroponic wastewater management, Dead-Sea case study**  
A. Rababah, German-Jordanian University, Amman Jordan/JOR
- B 50 **Partitioning of steroid estrogens in raw sewage and implications for enhanced primary treatment**  
A.J. Feitz, O. Braga, University of New South Wales, Sydney/AUS

### Drinking Water Treatment

- C 1 **Modelling of volatile organic compound removal from water by pervaporation process**  
A.A. Ghoreyshy, K. Pewandi, University of Mazandaran, Babol/IR
- C 2 **Removal of micropollutants during drinking water production from surface water with coagulation-flocculation**  
T.T. Pham, K. Moons, B. Van der Bruggen, Katholieke Universiteit Leuven/B
- C 3 **Homogeneous catalytic oxidation for the degradation of chlorophenoxy herbicides in aqueous media**  
M. Constantinou, University of Cyprus, Nicosia/CY; A. Papadopoulou, National Technical University of Athens/GR; D. Fatta, University of Cyprus, Nicosia/CY

- C 4 **Combined preoxidation by permanganate and chlorine in enhancing the treatment of surface water**  
H. Liang, Harbin Institute of Technology/PRC; W.J. He, Tianjin Water Supply Group Co. Ltd./PRC; G.B. Li, Harbin Institute of Technology/PRC
- C 5 **Adsorption behavior of carbamazepine and iopromide in bottle isotherm test**  
I. Ivancev-Tumbas, Faculty of Sciences, Novi Sad/YU; R. Hobby, B. Kreckel, R. Gimbel, University Duisburg-Essen, Duisburg/D
- C 6 **Formation of nitrogenous disinfection by-products – effect of chloramination dose and pH and source of nitrogen**  
X. Yang, C. Shang, The Hong Kong University of Science and Technology, Kowloon/HK
- C 7 **Chemically-enhanced adsorption of natural organic matter (NOM) on iron oxide-coated sand (IOCS)**  
C. Ding, C. Shang, The Hong Kong University of Science and Technology, Kowloon/HK; Y. Chang, HRD Engineering, Inc., Bellevue, WA/USA
- C 8 **Arsenic removal with granular ferric hydroxide**  
J. Nagy, A. Siegel, Engelhard Process Chemicals GmbH, Nienburg/D; L. Muroski, BASF Catalysts LLC, Iselin, NJ/USA
- C 9 **Steroid estrogens removal from surface water in conventional drinking water works processes**  
Y. Filali-Meknassi, UNESCO, Rabat/MA; M. Auriol, INRS, Quebec/CDN; C.D. Adams, University of Missouri - Rolla, MO/USA
- C 10 **Mass flow of di-(2-ethylhexyl) phthalate in water treatment**  
K. Kosaka, National Institute of Public Health, Saitama/J; F. Nakajima, University of Tokyo/J; S. Sunikane, National Institute of Public Health, Saitama/J
- C 11 **Photocatalytic degradation of atrazine and chlorpyrifos from aqueous media by dark and photo-fenton reaction**  
N. Varnava, University of Cyprus, Nicosia/CY; M. Tiggiridou, M. Christodoulidou, S. Canna Michaelidou, C. Michael, State General Laboratory, Nicosia/CY; D. Fatta, University of Cyprus, Nicosia/CY
- C 12 **Atrazine removal with a pilot scale MBR**  
G. Buttiglieri, F. Malpei, L. Migliorisi, Politecnico di Milano/I; J. Ligthart, H. Nieman, JRC, Ispra/I
- C 13 **Reaction of chlorine with organophosphorus pesticides adsorbed on activated carbon surface**  
K. Ohno, T. Minami, Y. Matsui, Hokkaido University, Sapporo/J
- C 14 **Adsorption and desorption of natural organic matter onto several granular activated carbon types**  
K. Yapsakli, Marmara University, Istanbul/TR; F.C. Cecen, Bogazici University, Istanbul/TR
- C 15 **Analysis and degradation of contaminants of concern in water using advanced oxidation technologies**  
H.M. Coleman, G.L. Leslie, R. Amal, University of New South Wales, Sydney/AUS

- C 16 **pH-dependent iron loading on activated carbon and its influence on arsenic removal from water**  
A.C. Amparán-Ochoa, Centro de Investigación de Materiales Avanzados, Chihuahua/MEX; M.L. Ballinas-Casarrubias, D. Acosta-Lane, Universidad Autónoma de Chihuahua, Chihuahua/MEX; M.T. Alarcón-Herrera, A.J. Robau-Sánchez, G. González-Sánchez, Centro de Investigación de Materiales Avanzados, Chihuahua/MEX
- C 17 **Fate of benzotriazoles in water treatment plants**  
D. Voutsas, Aristotle University of Thessaloniki/GR; C. Schaffner, W. Giger, EAWAG, Dübendorf/CH
- C 18 **Arsenic removal from waters by zero valent iron: influence of selected physicochemical parameters**  
M. Biterna, A. Arditsooglou, D. Voutsas, Aristotle University of Thessaloniki/GR
- C 19 **Various treatment options for optimization of trihalomethane formation potentials (THMFPs) in high alkalinity surface water**  
S. Meric, L. Rizzo, University of Salerno/I; C.S. Uyguner, Bogazici University, Istanbul/TR
- C 20 **Modelling of the adsorption onto activated carbon of Linuron and two ozonation by-products present in water**  
B. Ramirez-Zamora, National Autonomous University of Mexico, Mexico, D.F./MEX; R. Seux, Laboratoire d'Etude et de Recherche en Environnement et en Santé, Rennes/F; A. Duran-Moreno, National Autonomous University of Mexico, Mexico, D.F./MEX

### Toxicity & Risk Assessment

- D 1 **Fluoride leaching in groundwater cripples life in parts of India**  
S.K. Sharma, Geological Research Institute, Dehradun/IND
- D 2 **Detection of chlorotetracycline resistant microorganisms in environmental samples using PCR and culture methods**  
M. Mista, B. Kuhlmann, G. Preuß, Institut für Wasserforschung GmbH Dortmund, Schwerte/D
- D 3 **Spatio-temporal probabilistic exposure modelling of micropollutants in surface water**  
F.A.M. Verdonck, L. Benedetti, V. Gevaert, B. De Baets, Ghent University/B
- D 4 **Effect of cooking water on the arsenic intake in Bangladesh**  
K. Ohno, T. Yanase, Y. Matsuo, Y. Magara, Y. Matsui, Hokkaido University, Sapporo/J
- D 5 **Effect of estrogenic activity in treated wastewater on killifish feminization**  
K. Kitamura, Y. Suzuki, K. Komori, K. Miyajima, T. Higashitani, N. Nakada, M. Yasojima, A. Sawai, Public Works Research Institute, Tsukuba/J
- D 6 **Pooled analysis of case-control studies on bladder cancer and chlorination by-products**  
C.M. Villanueva, Centre of Research in Environmental Epidemiology, Barcelona/E; K.P. Cantor, NCI, Bethesda, MD/USA; S. Cordier, INSERM, Rennes/F; J.J.K. Jaakkola, University of Helsinki/FIN; W.D. King, Queen's University, Ontario/CDN; C. Lynch, University of Iowa, IA/USA; S. Porru, University of Brescia/I; M. Kogevinas, Centre of Research in Environmental Epidemiology, Barcelona/E



- D 7 **Toxicological evaluation of a methylene blue-based photodynamic water disinfection technique**  
Z.I. Zholdakova, O.O. Sinityna, E.E. Polyakova, E.N. Golovach, A.N. Sysin  
Research Institute of Human Ecology & Environmental Health, Moscow/RUS
- D 8 **Combined chemical analyses and biomonitoring at Avedoere wastewater treatment plant in 2005**  
M. Winther-Nielsen, K. Gustavson, DHI Water & Environment, Hoersholm/DK; D. Kjersgaard, B.N. Jacobsen, Avedoere Wastewater Services, Hvidovre/DK
- D 9 **The effect of chlorination on endotoxic activity and immunotoxicity to human keratinocyte**  
Y. Ohkouchi, K. Takahashi, S. Itoh, Kyoto University/J
- D 10 **A risk assessment approach using reliability analysis for pharmaceuticals in discharge from sewage treatment plants**  
A. Fukunaga, R. Nagao, N. Yamashita, H. Tanaka, Kyoto University, Otu-shi/J
- D 11 **Endocrine disrupting compounds accumulation in the marine mussel *Mytilus galloprovincialis***  
G. Gatidou, National University of Athens/GR and University of the Aegean, Mytilene/GR; E. Vassalou, A.S. Stasinakis, University of the Aegean, Mytilene/GR; N.S. Thomaidis, National University of Athens/GR
- D 12 **Risk analysis – risk assessment: detection of bio-effect environmental compounds by bioactivity based analysis**  
C. Weins, M. Oehme, University of Basel/CH
- D 13 **Assessing the impact of an endocrine disrupting compound on the life-cycle of the non-biting midge *Chironomus riparius***  
C. Shinn, H. Maes, H.T. Ratte, RWTH Aachen/D
- D 14 **Toxicity and COD conjugates of oil and grease**  
I. Talinli, A. Acar, E. Aydin, Istanbul Technical University/TR
- D 15 **Lead contamination in soil from Avalos region in Chihuahua, Mexico**  
D. Acosta-Slane, V. Nevárez, C. González, Q. Rascón, C. Meléndez, Universidad Autónoma de Chihuahua/MEX; M.T. Alarcón, Centro de Investigación de Materiales Avanzados, Chihuahua/MEX; M.L. Ballinas, Universidad Autónoma de Chihuahua/MEX
- D 16 **Water quality diagnosis in Chihuahua southern region, Mexico**  
L. Ballinas, D. Acosta, Universidad Autónoma de Chihuahua/MEX; G. Pineda, Centro de Investigación de Materiales Avanzados, Chihuahua/MEX; C. Romero, R. Bencomo, Universidad Autónoma de Chihuahua/MEX; J. de Gyves, E. Rodríguez de San Miguel, Universidad Nacional Autónoma de México, Mexico, D.C./MEX; G. González-Sánchez, Centro de Investigación de Materiales Avanzados, Chihuahua/MEX
- D 17 **Impact of nanoparticles on human health and environment**  
D. Kühnel, W. Busch, S. Scholz, I. Lehmann, K. Schirmer, Helmholtz Centre for Environmental Research, Leipzig/D
- D 18 **Ecotoxicology of oily wastes from shipping operations in Hong Kong**  
H.Y. Lai, K.Y. Chan, C.K. Wong, P.K. Wong, The Chinese University of Hong Kong, Shatin/HK

- D 19 ***Daphnia magna* acute toxicity test for evaluating wastewater composition and treatment type**  
S. Meric, University of Salerno/I
- D 20 **Comparison of NDMA intake from water and other sources**  
A. Munoz, University of Wollongong/AUS; A.I. Schäfer, The University of Edinburgh/UK

### Regulations and Management

- E 1 **Application of HACCP as a risk management tool in water treatment processes**  
H. Liang, Harbin Institute of Technology/PRC; W.J. He, Tianjin Water Supply Group Co. Ltd./PRC; G.B. Li, Harbin Institute of Technology/PRC
- E 2 **Pharmaceuticals – presence and effects in the aquatic environment, preventive measures and possible treatment methods – an extensive case study in Stockholm, Sweden**  
C. Wahlberg, B. Björleinius, B. Wistrand, Stockholm Water Co/S; N. Paxéus, Gryaab AB, Gothenburg/S
- E 3 **Cadmium sources in the area connected to the bromma sewage plant in Stockholm**  
A. Bergström, Stockholm Water Company/S
- E 4 **New methodology in life cycle impact assessment (LCIA) of waste water treatment**  
H.F. Larsen, H. Wenzel, Technical University of Denmark, Lyngby/DK
- E 5 **Reduction of the impact of pesticides in surface water compartments: evaluation using dynamic models**  
V. Gevaert, K. Holvoet, A. van Griensven, L. Benedetti, P.A. Vanrolleghem, Ghent University/B
- E 6 **Effect of filling stations and toxic waste dumps on groundwater quality in Lusaka**  
D.C.W. Nkhuwa, University of Zambia, Lusaka/Z; T. Kafula, University Teaching Hospital, Lusaka/Z; O. Silembo, Department of Water Affairs, Lusaka/Z

(Programme subject to change)

### ► Poster Discussion / Poster Party

Monday, 18 June 2007

18:05h – 20:30h

Visit the posters and talk to the exhibitors and to your colleagues with a glass of beer in your hand. All participants are invited to the party which will take place in the foyer of the lecture halls (from 18:05h to 20:30h) between the poster walls and exhibition stands allowing active discussion.

Please register on the registration form (free of charge).

The poster authors are also requested to be present at their poster(s) for discussions during the lunch breaks.

### ► Poster Award Information

The poster presentation of latest results is an important facet of the scientific programme. This role will be emphasised in Frankfurt by the Best Student Poster Award which will be awarded to three student poster presentations.

### ► Last-Minute Poster Submission

Further poster contributions can be accepted as **last-minute posters**, subjected approval by the Scientific Committee and as long as free capacity is available. These last-minute posters will be announced in the last-minute information being available for participants at the beginning of the conference.

Submission of last minute posters is possible **until 15 May 2007 at the latest**. Full information and submission: [www.dechema.de/micropol](http://www.dechema.de/micropol)

Please notice: Registration fee can not be waived for authors.

### ► Registration and Welcome Reception

The conference will start with a welcome reception for all participants on Sunday, 17 June 2007 from 16:30 to 19:00 in the DECHEMA house. Drinks and snacks will be served by invitation of the organisers.

You will have the opportunity to register at the conference office and pick up your conference documents.

### ► Publication

Selected peer reviewed papers of the oral presentations will be published as special issue of Water Science and Technology. For more information please contact the conference office.

### ► Exhibition

The conference will be accompanied by an exhibition to demonstrate recent developments of environmental chemistry, wastewater treatment, drinking water treatment, potable reuse technologies, ecotoxicity and environmental risk assessment, human toxicology.

Companies, research institutes and universities will have the possibility of presenting their latest results, products and manufacturing equipment.

The registration fee for a netto exhibition space of 6m<sup>2</sup> is € 760 plus 7% VAT including one free ticket for the scientific programme.

For further details concerning the organisation please contact the conference office ([koehl@dechema.de](mailto:koehl@dechema.de)).

### ► Exhibitors

**The following exhibitors have already registered** (as of 15 March 2007)

Dionex (Europe) Management AG, Olten/CH

LGC Promochem GmbH, Wesel/D



## GENERAL INFORMATION

### ► Conference Dinner

Tuesday, 19 June 2007

19:30h – 23:30h

The conference dinner will take place at the "Sachsenhäuser Warte", in case of good weather as an outdoor event.

The Sachsenhäuser Warte is one of four towers which were built around Frankfurt in the 14th Century. The Sachsenhäuser Warte was destroyed during a civil war of 1552. The tower was rebuilt. Today the historical building is used as a restaurant.



Cost per person: € 45.00 (incl. 19% VAT) for the buffet inclusive food and beverages.

Registration is necessary, places are limited.

### ► Conference Office / Conference Location

DECHEMA e.V.

Andrea Köhl

Theodor-Heuss-Allee 25

60486 Frankfurt am Main/Germany

Phone: +49 / (0)69 / 7564-235

Fax: +49 / (0)69 / 7564-441

E-Mail: koehl@dechema.de

Internet: www.dechema.de/micropol



## GENERAL INFORMATION

### ► Registration Fee

Please complete the enclosed registration form and return it to DECHEMA e.V., Andrea Köhl. Please use a separate copy for each participant.

In general there is no registration deadline as long as free capacity is available. Please note: registrations which will be done after **25 May 2007** are not guaranteed to appear in the list of participants.

The registration fee includes admission to all sessions, the exhibition, poster programme, list of participants, a book of extended abstracts, the welcome reception on Sunday, 17 June 2007, the poster party on Monday, 18 June 2007 as well as the catering during the breaks.

Participant	Registration fee*
Delegate	€ 465.00
Personal Member of DECHEMA and other co-organisers <sup>1)</sup>	€ 450.00
Member of DWA, EWA and IWA <sup>1)</sup>	€ 390.00
Student/Pensioner (proof of status required) <sup>1)</sup>	€ 200.00
Exhibitors <sup>2)</sup>	€ 760.00

\* No VAT requested according to § 4.22 UStG.

1) Proof of status must be attached

2) Plus 7% VAT

Please note that only payment in € will be accepted.

Fees should be remitted after receipt of the invoice in favour of DECHEMA e.V., using the keyword "Micropol" and stating the invoice number and the name of the participant to one of the accounts of DECHEMA which will be announced at the invoices.

Payment by credit card is also possible.

### ► Cancellation and Refunds

€ 30 administrative costs will be charged for each cancellation made before **25 May 2007**. Thereafter 80% of the registration fee will be invoiced, however the book of extended abstracts will be sent. Cancellation needs to be made in writing (letter, fax or e-mail).

### ► Visa Formalities

Participants from a number of countries may need an entry visa for the Federal Republic of Germany. It is recommended that this be applied for well in advance of the conference. If a formal invitation letter is needed please contact the conference office at DECHEMA e.V. in good time.

## GENERAL INFORMATION

### ► Insurance

The organisers are not responsible for loss or damage to the private property of participants and accompanying persons which may occur either during or arising from the conference. Participants should therefore take whatever steps they consider necessary for their insurance.

### ► Accommodation

Accommodation has been reserved for participants at a special discounted rate in the following hotels. Booking should be made directly at the hotel by the participant with the keyword "Micropol" by **21 May 2007** at the latest.

#### **Hotel Mercure & Residenz**

Voltastr. 29

60486 Frankfurt am Main/Germany

Phone: +49 / (0)69 / 7926-0

Fax: +49 / (0)69 / 7926-1606

E-Mail: H1204@accor.com

Room rate: Single room € 89.00, double room € 114.00 per night inclusive breakfast.

(walking distance)

#### **Dorint Novotel**

Frankfurt City

Lise-Meitner-Str. 2

60486 Frankfurt am Main

Phone: +49 / (0)69 / 79 30 30

Fax: +49 / (0)69 / 79 30 39 30

E-Mail: H1049@accor.com

Room rate: Single room € 91.00 per night inclusive breakfast.

(walking distance)

#### **ibis Hotel Frankfurt City Messe**

Zum Rebstockbad 20

60486 Frankfurt am Main

Phone: +49 / (0)69 / 28 60 70

Fax: +49 / (0)69 / 28 60 77 77

E-Mail: H3682@accor.com

Room rate: Single room € 74.50 per night inclusive breakfast.

(10 minutes by bus from DECHEMA to ibis Hotel: take station Festhalle Messe with bus Nr. 50 in direction Zeilsheim to station Rebstockbad)

## GENERAL INFORMATION

### ► How to reach DECHEMA

#### **By public transport**

From Frankfurt Airport (Frankfurt am Main)

- approx. 20 min. by taxi
- S-Bahn: S 8, S 9 (line 8 or 9) to the main station (Hauptbahnhof), change to S 3, S 4, S 5 or S 6 (platform 104, underground) to the station Messe, exit „Emser Straße“.

From Frankfurt – Hahn

- approx. 90 min. by bus shuttle to Frankfurt main railway station (Hauptbahnhof)

From the main railway station (Hauptbahnhof)

- approx. 20 min. walk
- approx. 10 min. by taxi
- S-Bahn: S 3, S 4, S 5 or S 6 (platform 104, underground) to the station „Messe“, Exit „Emser Straße“
- Underground: line U 4 (line 4) direction „Bockenheimer Warte“ to the station „Messe“, Exit „Festhalle“ and 10 min. walk
- tram/streetcar line 16 to the station „Festhalle/Messe“ and 10 min. walk

#### **By car**

Via Autobahn/Westkreuz to Frankfurt Stadtmitte, turn right at first traffic light after the railway bridge

From the city centre in direction Messe (exhibition grounds), on the Theodor-Heuss-Allee first left-hand turn-off lane before the railway bridge, Entrance Varrentrappstraße.

Parking spaces on DECHEMA site are restricted. Please use one of the parking garages near DECHEMA (see map).



# MAP

