

# **1st Late Summer Workshop „Interfaces in Aquatic Systems - Colloids, Biofilms, Sediment/Water/Air**

1 - 3 October 2001

## **Workshop Programme**

**Sunday, Sept. 30, 2001**

**20.00**

**Get-together within the Castle Maurach**

**Monday, Oct. 1, 2001**

***Time:***

***Lecture title:***

***Presented by:***

8.00 - 8.15

Introduction

F. Frimmel/Karlsruhe & R. Niessner/Munich

8.15 - 9.15

Aquatic Colloids and Metal Bioavailability

J. Buffle/Geneve

9.15 - 9.35

Do We Have to Take Colloids into Consideration  
Looking at Natural Attenuation?

T. Hofmann/Mainz

9.35 - 9.55

Influence of Natural Organic Matter (NOM) on the  
Transport and the Speciation of Mercury in Aquatic Systems

V. Wernert/Strasbourg

9.55 - 10.30

*Coffee Break*

10.30 - 11.30

Ion Dynamics in Colloids

H. van Leeuwen/Wageningen

11.30 - 11.50

Influence of Humic Colloids on the Contaminant Transport:  
Applicability of Laboratory Results to Natural Systems

W. Schuessler/Karlsruhe

11.50 - 12.10

DDT-Still a Potential Danger for Our Groundwater?  
Mobilization of DDT and Its Metabolites in Soils

S. Grimmer/Freiberg

12.10 - 14.00	<i>Lunch-time</i>	
14.00 - 15.00	<b>Withdrawn !!!</b>	M. Elimelech/New Haven
15.00 - 15.20	<b>Withdrawn !!!</b>	S. Walker/New Haven
15.20 - 16.20	<i>Coffee Break &amp; Posters</i>	
16.20 - 16.40	Distribution of Metal Ions Between NOM and an Artificial Clay Mineral – Investigations with AF <sup>4</sup> -ICP/MS Coupling	E.-M. Kaulisch/Karlsruhe
16.40 - 17.00	The Use of Hyphenated FlowFFF and SedimentationFFF Techniques in Environmental Studies	F. v.d. Kammer/Hamburg
17.00 - 17.20	Investigations of Colloidal Particles in Environmental Materials by Means of Magnetic Resonance Imaging and Dynamic NMR Methods	N. Nestle/Munich
17.20 - 17.40	Laser-induced Breakdown Detection/Spectroscopy (LIBD/S): Methods for the Direct Analysis of Aquatic Colloids	T. Bundschuh/Karlsruhe
18.30 - 19.30	<i>Supper</i>	
20.00	<i>Wine Tasting</i>	

**Tuesday, Oct. 2, 2001**

<b><i>Time:</i></b>	<b><i>Lecture title:</i></b>	<b><i>Presented by:</i></b>
8.00 - 9.15	<b>Withdrawn !!!</b>	D. Grasso/Northampton
9.15 - 9.35	Ecological Functions of Extracellular Polymeric Substances (EPS)	H.-C. Flemming/Duisburg
9.35 - 10.35	Bacterial Aggregates – Analysis & Composition	P. Nielsen/Aalborg
<i>10.35 - 11.00</i>	<i>Coffee Break</i>	
11.00 - 11.20	Isolation and Biochemical Characterization of EPS from <i>Pseudomonas aeruginosa</i> SG 81	A. Rode/Duisburg
11.20 - 11.40	Visualization of Bacterial Hydrogel Ultrastructure <i>ex situ</i>	A. Leis/Duisburg
11.40 - 12.00	Investigation of Biofilm Growth and Detachment by Photoacoustic Spectroscopy	T. Schmid/Munich
<i>12.00 - 14.00</i>	<i>Lunch-time</i>	
14.00 - 15.00	Spatial Organization of Biofilms	G. Wolfaardt/Stellenbosch
15.00 - 15.20	Mechanical Properties of <i>Pseudomonas aeruginosa</i> Biofilms	V. Körstgens/Duisburg
<i>15.20 - 16.20</i>	<i>Coffee Break &amp; Posters</i>	

16.20 - 16.40	1. Characterization of Biofilms of <i>Pseudomonas aeruginosa</i> with NMR-Methods	N. Schürks/Duisburg
16.40 - 17.00	Gelling Mechanisms of Biofilm EPS	T. Windhues/Duisburg
17.00 - 17.20	Examination of EPS in <i>Pseudomonas aeruginosa</i> Biofilms Using Lectin Assays	M. Strathmann/Duisburg
17.20 - 17.40	Bioreactors for BDOC Removal in Drinking Water Treatment – The Importance of Bacterial Attachment and Detachment to Carrier Surfaces	W. Uhl/Duisburg
18.00 - 18.50	<i>Visit to Monastery of Birnau</i>	
19.00 - 20.00	<i>Supper</i>	
20.00	<i>Free</i>	

## Wednesday, Oct. 3, 2001

<i>Time:</i>	<i>Lecture title:</i>	<i>Presented by:</i>
8.15 - 9.15	The Influence of Surface Heterogeneity on Bacterial Deposition and Re-deposition under Flow	H. Busscher/Groningen
9.15 - 9.35	Understanding the Availability of Sediment-bound Contaminants	R. Lohmann/Cambridge, USA
9.35 - 9.55	Subaqueous In-situ Capping of Contaminated Sediments with Zeolite-based Active Barrier Systems	P. Jacobs/Hamburg
9.55 - 10.30	<i>Coffee Break</i>	
10.30 - 11.30	Diagenetic Reactions of Trace Elements in Sediments	A. Tessier/Ste-Foy
11.30 - 11.50	Heavy Metal Speciation in Solid Samples by XAFS	S. Mangold/Hamburg
11.50 - 12.10	Speciation of As by XAFS Spectroscopy in Si-bearing Fe Hydroxide Precipitates	C. Tommaseo/Mainz
12.10 - 14.00	<i>Lunch-time</i>	
14.00 - 15.00	Importance and Physico-chemical Characterization of Aquatic Natural Microlayer	Z. Kozarac/Zagreb

15.00 - 15.20	Characterization of Hydrocolloids by Asymmetric Flow Field-Flow Fractionation (AF <sup>4</sup> )	U. Panne/München
15.20 - 15.40	Emission of Aerosol Particles from Waste Water Treatment: Chemical and Physical Measurements at an Activated Sewage Treatment Tank	M. Radke/Bayreuth
15.40	<i>E N D</i>	