

## Programme, Thursday 5 May 2011

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Arken lobby

08:30 Registration and Coffee

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Armfelt Chair: Leif Kronberg, Åbo Akademi University

10:00 **Opening** Laura Höijer, Ministry of the Environment

10:15 **Keynote** Jyri Seppälä, Finnish Environment Institute:  
Life cycle assessment as a tool for assessing environmental impacts -  
recent developments and challenges, page 1

11:00 **Keynote** Bill Glaze, University of North Carolina at Chapel Hill, USA:  
Chemicals and chemists: progress and stress in the USA, page 2

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Café Arken

11:45 Lunch

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Armfelt

12:50 **Platform session 1: Chemicals in the Society**, chair: Bjarne Holmbom, Åbo Akademi University

12:50 Åke Bergman, Stockholm University, Sweden:  
Trends and wishes in research of chemically introduced risk for human  
health and environment, page 8

13:35 Jaakko Mannio, Finnish Environment Institute:  
Joint Nordic screening of emerging pollutants - cost-effective and  
harmonized start for monitoring decisions, page 12

13:55 Tuula Tuhkanen, Tampere University of Technology:  
Fate of pharmaceuticals and personal care products in urban hydrological  
cycle - problem in developed and developing countries, page 14

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Arken lobby

14:15 **Posters, Exhibition and Coffee**

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Armfelt Chair: Åke Bergman, Stockholm University, Sweden

15:30 **Keynote** Grietje Zeeman, Wageningen University, Netherlands:  
Energy and resource recovery from source separated domestic  
waste(water) streams, page 4

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16:20	<b>Platform sessions 2A and 2B:</b>
Armfelt	<b>2A: Chemicals in the Society</b> , chair: Åke Bergman, Stockholm University, Sweden
16:20	Kimmo Mäenpää, University of Eastern Finland: Accumulation of PCBs in passive samplers and biota: field data analysis, page 19
16:40	Heli Ratia, University of Jyväskylä: Exotoxicological perspective to assess the recovery of pulp and paper mill contaminated waterbodies, page 20
17:00	Jussi Meriluoto, Åbo Akademi University: The complicated symbiosis-like relationship of man and cyanobacteria, page 25
Helikon & Parnassos	<b>2B: Miscellaneous topics</b> , chair: Jaakko Mannio, Finnish Environment Institute
16:20	Thomas Lilley, University of Turku: The effect of sediment organic tin compound pollution on the non-biting midge (Diptera: Chironomidae) species distribution in the Archipelago Sea, S-W Finland, page 26
16:40	Stefan Sandbacka, NanoGeo Finland Oy: A nanotreated mineral for selective ammonium absorption – from basic research to patentation and business strategies, page 27
17:00	Merjo Laine, University of Helsinki: Nitrogen dynamics in no-tilled and ploughed barley fields, page 28
Break	
Panimoravintola Koulu (Eerikinkatu 18)	
19:00	<b>Conference dinner</b>
~20:30	<b>Underkastelsen -movie (1 h 30 min)</b>

## Programme, Friday 6 May 2011

Armfelt	Chair: Tuula Tuhkanen, Tampere University of Technology
09:00	<b>Keynote</b> Dagmar Haase, Helmholtz Centre for Environmental Research, Germany: Ecosystem services in urban regions, page 6
Arken lobby	
09:45	<b>Coffee break</b>
10:00	<b>Platform sessions 3A and 3B:</b>
Armfelt	<b>3A: Environmental Technology</b> , Tuula Tuhkanen, Tampere University of Technology
10:00	Tom Hatfield, California State University Northridge, USA: The Global benefits of phasing out leaded fuel, page 13
10:20	Anna Goi, Tallinn University of Technology: Peroxidation for remediation of chlorinated hydrocarbons contaminated soil, page 29
10:40	Lara Valentín Carrera, University of Helsinki: Fungal ex situ technologies for bioremediation of contaminated soil, page 33
Helikon & Parnassos	<b>3B: Environmental Biology</b> , chair: Jussi Meriluoto, Åbo Akademi University
10:00	Eeva-Riikka Vehniäinen, University of Jyväskylä: Blue sac disease - mechanism and environmental significance, page 38
10:20	Raisa Turja, Finnish Environment Institute: Tissue levels of contaminants in blue mussels ( <i>Mytilus edulis</i> ) transplanted in cages to Northern Baltic Sea coastal areas affected by anthropogenic activities, page 39
10:40	Anita Tuikka, University of Eastern Finland: Predicting the bioavailability of native PAHs and PCBs to <i>Lumbriculus variegatus</i> on the basis of their pore-water concentrations in the sediments, page 43
Café Arken	
11:00	Lunch
Arken lobby	
– 12:30	<b>Posters and Exhibition</b>
Armfelt	Chair: Leif Kronberg, Åbo Akademi University
12:30	<b>Keynote</b> Eva-Mari Aro, University of Turku: Solar fuels - making use of photosynthesis in biofuel production, page 7
13:15	<b>Closing and awards (Best PhD Thesis 2009 – 2010, Best Poster)</b> Panel discussion “Chemicalization of the society – Are the Chemists on the right tracks?” Bjarne Holmbom, Åbo Akademi University Åke Bergman, Stockholm University, Sweden Bill Glaze, University of North Carolina at Chapel Hill, USA

## Poster presentations:

### Chemicals in the Society:

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1. Bausheva, O. Monitoring toxicity of sediments from boreal Lake Vesijärvi and stormwater traps in Lahti urban area, page 47
2. Brozinski, J.-M. Metabolites of three anti-inflammatory drugs in fish bile as indicators of the fish's exposure to pharmaceuticals, page 49
3. Kerminen, K. The impact of additives on atrazine in vadose zone soil slurries, page 51
4. Lahti, M. Pharmaceuticals in settleable particulate material in urban and non-urban waters, page 52
5. Meierjohann, A. Seasonal variation of pharmaceuticals in a river/lake system in Eastern Finland, page 57
6. Mäenpää, K. PCBs in osprey and fish: study of trophic transfer, page 61
7. Räsänen, K.M. Effects of solar light on toxicity of retene in eleutheroembryos of whitefish (*Coregonus laveretus*), page 62
8. Sahoo, T.P. Gene expression analyses of aromatase (Cyp19b) and vitellogenin 1 (Vtg1) in early juvenile zebrafish (*Danio rerio*) exposed to individual and mixtures of xenoestrogens, page 67

### Climate Change:

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9. Daming, W.S. Sea level rise and their impacts of coastal environmental in Indonesia, page 72
10. Hänninen, K. Effect of buoyance on the distribution of methane molecules in the Earth's atmosphere, page 75

### Ecotoxicology:

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11. Agbo, S.O. Photostability of pentachlorophenol and phenanthrene: consequences on *Daphnia magna* neonate mobility, page 77
12. Carrasco Navarro, V. Trophic transfer of PAH metabolites between aquatic invertebrates, page 80
13. Nybom, I. Carbon amendments as a potential method for sediment remediation: ecotoxicological effects in *Lumbiculus variegatus*, page 85

### Environmental Biology:

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14. Häggqvist, K. Collecting and culturing cyanobacteria and microalgae in MAREX, page 88
15. Kopcsanyi, T. Usage of the olfactory perception of three-spined stickleback in foraging, page 93
16. Nybom, S. Removal of cyanobacterial toxins by strains of probiotic bacteria, page 94
17. Räsänen, J.V. Differences in fine particle pollution capture efficiency of various tree species, page 95
18. Sohel, S. A test of ideal distribution in clear and turbid aquatic environments, page 98

## Environmental Measurements and Analytics:

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19. Anttila, S. Assessing the temporal representativeness of different water quality monitoring methods, page 99
20. Grigoriev, Yu.S. Bioavailability of heavy metals in natural waters, page 100
21. Hartikainen, E.S. Impacts of heavy metals (Cu, Zn) to the litter-decomposing saprotrophic fungi, page 105
22. Karonen, M. First evidence of hexa- and heptameric ellagitannins in plants, page 109
23. Li, L. Optimization and comparison of ESI and APCI for fullerenes analysis in aquatic environment by LC-MSD, page 110
24. Pakharkova, N.V. Fluorescence methods for estimating influence of air pollution on winter dormancy woody plants, page 111
25. Phenomenex Detection of environmental contaminants caused by the oil spill in the gulf of Mexico by GC/MS and HPLC, no abstract
26. Phenomenex Improved recoveries of polycyclic aromatic hydrocarbons (PAHs) as defined in EPA 550.1 and simultaneous removal of humic acids from water using Strata® PAH, no abstract
27. Schoutsen, F.W.P. Benefits of merging established and new techniques of water analysis, page 115
28. Tuominen, A. Tannins in *Geranium sylvaticum*: distribution among plant organs and biological activity, page 116
29. Vihakas, M. Insects as chemists: new flavonoid metabolites accumulate in the hemolymph of sawfly larvae, page 120
30. Waters

## Environmental Technology

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31. Cajal-Marinosa, P. *In situ* full-scale remediation of diesel-contaminated soil, page 124
32. Kabiersch, G. Determination of enzyme activities in solid media, page 128
33. Kaparaju, P. The effects of hydrothermal pretreatment on enzymatic hydrolysis and biogas production from maize silage, page 132
34. Kauppi, S. Advancing the remediation of soil contaminated with chlorinated compounds, page 137
35. Kärkkö, M.R.J. Parameters affecting residual ink content determination, page 140
36. Repo, E. Comparison of Co(II) adsorption by EDTA-functionalized silica gel, chitosan, and chitosan-silica hybrid materials, page 145
37. Salminen, J. Potassium formate as an alternative de-icer - field studies at Kauriansalmi aquifer in 2002-2009, page 150
38. Szabo, H.M. Fast assessment of well water quality by UV/VIS spectroscopy, page 154
39. Tang, W.Z. Photocatalytic oxidation of halogen substituted meta-phenols by UV/TiO<sub>2</sub> in acidic and basic aqueous solutions, page 155

## Other Topics:

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- 40. Brozinski, A. Time Trek: A journey through the history of Earth and Universe, page 160
- 41. Hui, N. League of Finland-China environmental experts, page 161
- 42. Rosberg, E. International education on urban environmental issues in Lahti, page 162
- 43. Räisänen, J. Impacts of geological factors on biodiversity of the Syöte area, page 163
- 44. Särkilahti, M. Virtual mobility in higher environmental education conference based online course: Safe and sustainable sanitation, page 166

## Resource Efficiency in the Society:

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- 45. Hölsa, J. Energy saving persistent luminescence phosphors, page 171