Monday, 9 September 2019

<table>
<tr><td>8:30-8:40</td><td colspan="2">Welcome Organizer
Maria Larsson</td></tr>
<tr><td>8:40-8:50</td><td colspan="2">Welcome Örebro University
Deputy Vice Chancellor Anna-Karin Andershed</td></tr>
<tr><td>8:40-8:50</td><td colspan="2">Welcome Örebro
Mayor Kenneth Handberg</td></tr>
<tr><td rowspan="2">9:00-9:50</td><td colspan="2">Concert Hall</td></tr>
<tr><td colspan="2">Exploring the multidimensionality of luminescence spectroscopy to face current environmental challenges
Anders Campiglia
(University of Central Florida)</td></tr>
<tr><td>10:00-10:30</td><td colspan="2">Coffee break</td></tr>
<tr><td rowspan="4">10:30-12:30</td><td>Concert Hall</td><td>Lecture Hall B</td></tr>
<tr><td><u>Analytical Chemistry</u></td><td><u>Animal Models</u></td></tr>
<tr><td>The PAH internal standards toolbox: The EUROSTARS “13C CRM” project
Jon Eigill Johansen
(Chiron AS)

Multi-factorial optimization of APCI source parameters for PAH analysis
Alin Constatin Ionas
(Technical University of Denmark)

Complexity of polyaromatic hydrocarbons and polyaromatic heterocycles: exploring the boundaries of analytical techniques in petroleum and environmental analysis
Wolfgang Schrader
(Max-Planck Institute for Coal Research)

A tiered analytical approach for targeted, non-targeted and suspect screening analysis of polar degradation products of polycyclic aromatic compounds
Nikoline J. Nielsen
(University of Copenhagen)</td><td>Impairment of brain and olfactory dopaminergic pathways of rabbit pups following a gestational exposure to diesel exhaust particles
Henri Schroeder
(Calbinotox, University of Lorraine)

Beneficial effect of a probiotic prophylactic strategy to counteract neuro-inflammation and behavioral impairments induced by polycyclic aromatic hydrocarbon in mice
Nathalie Grova
(Luxembourg Institute of Health)

Mechanisms of developmental toxicity of polycyclic aromatic hydrocarbons in fish
Eeva-Riikka Vehniäinen
(University of Jyväskylä)

Road related pollutants such as PAHs induced DNA damage in dragonfly nymphs living in road stormwater sedimentation ponds
Sondre Meland
(Norwegian Institute for Water Research)</td></tr>
</table>

	Chromatographic data analysis of complex hydrocarbon mixtures: The pixel-based approach ***Jan Christensen*** ***(University of Copenhagen)*** Effect-based strategy for assessment and identification of hazardous polycyclic aromatic compounds (PACs) in contaminated areas ***Maria Larsson*** ***(Örebro University)***	Phenotypical alterations in rainbow trout (*Oncorhynchus mykiss*) exposed to three different binary mixtures of PAHs ***Andreas Eriksson*** ***(University of Jyväskylä)*** Time-related formation of bioactive polycyclic aromatic hydrocarbon (PAH) decomposition products upon interaction with photoactive TiO_2 nanoparticles ***Lindsey St. Mary*** ***(Heriott-Watt University) - video presentation***
12:30-13:30	Lunch and Poster Session	
13:30-14:20	Concert Hall	
	Metabolic activation and DNA damage by polycyclic aromatic hydrocarbons: new insights from recent studies with benzo[*a*]pyrene ***Volker Arlt*** ***(King's College London)***	
14:30-15:30	Concert Hall	Lecture Hall B
	Chromatography and Extraction Techniques	***In Vitro Models***
	A simple and effective dispersive micro-solid phase extraction procedure for the simultaneous determination of polycyclic aromatic compounds in water ***Jailson Bittencourt de Andrade*** ***(University Center SENAI-CIMATEC)*** Development and application of extraction method to analyze polycyclic aromatic compounds in soil using in-cell basic silica clean up ***Ivan Titaley*** ***(Örebro University)***	PAHs as modulators of *AhR* and nuclear receptors in rodent and human *in vitro* models ***Miroslav Machala*** ***(Veterinary Research Institute)*** Measurement of genotoxic metabolites from benzo[*a*]pyrene as adducts to serum albumin and DNA for use in cancer risk estimation ***Hitesh Motwani*** ***(Stockholm University)*** Analysis of toxic modes of action of polycyclic aromatic compounds using a bioreporter panel ***Maria Larsson*** ***(Örebro University)***
15:30-16:00	Coffee break	

	Concert Hall	Lecture Hall B
	Hydroxylated PAHs	***Characterization of PACs in Soil and Sediment***
16:00-17:00	Quantification of metabolites of alkyl-PAHs ***Carey Donald*** ***(Institute of Marine Research)***	Chemical fingerprinting of polycyclic aromatic compound sources in sediments using two dimensional gas chromatography high resolution time of flight mass spectrometry ***Ifeoluwa Idowu*** ***(University of Manitoba)***
	Analysis of 3-hydroxy-BaP and BaP-tetraol in human urine as biomarkers of BaP exposure using GC-APLI-MS ***Albrecht Seidel*** ***(Biochemical Institute for Environmental Carcinogens - Prof Dr Gernot Grimmer Foundation)***	Analysis of halogenated polycyclic aromatic hydrocarbons in sediment from the Alberta oil sands region ***Zhe Xia*** ***(University of Manitoba)***
	New insights into hair analysis to assess human exposure to complex mixtures of polycyclic aromatic hydrocarbons ***Nathalia Grova*** ***(Luxembourg Institute of Health)***	Source delineation of PAHs in urban environment ***Pär Hallgren*** ***(Sweco Environment AB)***
17:10-18:00	***Poster Session***	

Tuesday, 10 September 2019

<table>
<tr><td rowspan="2">9:00-9:50</td><td colspan="2">Concert Hall</td></tr>
<tr><td colspan="2">Is remediation of PAH contaminated soils worth it?
Staci Simonich
(Oregon State University)</td></tr>
<tr><td>10:00-10:30</td><td colspan="2">Coffee break</td></tr>
<tr><td rowspan="3">10:30-12:30</td><td>Concert Hall</td><td>Lecture Hall B</td></tr>
<tr><td><u>Remediation of PACs Contaminated Sites</u></td><td><u>Characterization of Atmospheric PACs</u></td></tr>
<tr><td>Degradation of PACs by landfarming: A full-scale field study from North Eastern Greenland
Jan Christensen
(University of Copenhagen)

Formation of PAH derivatives, increased developmental toxicity and risk assessment after SEE remediation of creosote contaminated soil from a Superfund site
Lisandra Trine
(Oregon State University)
Comparative studies of several oxidants for Polycyclic Aromatic Compounds (PAH and Polar PACs) degradation from DNAPL contaminated sub-soils: Batch and column experiments
Clotilde Johansson, Pierre Faure
(CNRS, University of Lorraine)

Abundance, diversity and isomer-selective biodegradation of azaarenes in soils contaminated with polycyclic aromatic hydrocarbons
Joaquim Vila
(University of Barcelona)

Super-complex mixtures of aliphatic- and aromatic acids are the main degradation products after marine oil spills: A case study of oil degradation in a warm, pre-exposed marine environment
Jan Christensen
(University of Copenhagen)</td><td>Concentration and sources of $PM_{2.5}$ bound polycyclic aromatic hydrocarbons (PAHs) at urban and sub-urban sites in the most populated city of India
Jamson Masih
(Wilson College)

Halogenated polycyclic aromatic hydrocarbons in the polluted atmosphere
Rong Jin
(Max-Planck Institute for Chemistry)

Three years of atmospheric concentrations of nitrated and oxygenated polycyclic aromatic hydrocarbons at a central European background station
Barbora Nežiková
(RECETOX, Masaryk University)

Pattern and distribution profile of PAHs and transformation products from an Arctic point source: A case study in Longyearbyen, Svalbard
Tatiana Drotikova
(University Center in Svalbard)

NPAHs and OPAHs in the atmosphere of two central European cities: seasonality, urban-to-background gradients and gas-to-particle partitioning
Céline Degrendele
(RECETOX, Masaryk University)</td></tr>
</table>

	Combining strategies for remediation of different gas work DNAPL and LNAPL groundwater contaminants ***Helena Nord*** ***(RGS Nordic AB)***	The state of knowledge report on PACs in Canada: Overview and results for ambient air ***Elisabeth Galarneau*** ***(Environment and Climate Change Canada)***
12:30-13:30	Lunch and Poster Session	
13:30-14:20	Concert Hall	
	PAH in the environment: Neglected PAH and bioavailability can be essential ***Christine Achten*** ***(University of Münster)***	
14:30-15:30	Concert Hall	Lecture Hall B
	Soil Bioavailability Characterization	***Characterization of Atmospheric PACs***
	Improving our knowledge on Polar PAC mobilization and transfer in water from polluted soils by batch, laboratory and lysimeter column experiments ***Pierre Faure*** ***(CNRS, University of Lorraine)*** Measuring PAH availability in contaminated soils with thermodesorption coupled to molecular analyses ***Coralie Biache*** ***(CNRS, University of Lorraine)*** The former gas work at Rydal ***Helena Romelsjö*** ***(Golder Associates AB)***	Nitrated and oxygenated polyaromatic hydrocarbons in ambient aerosols and related inhalation exposure ***Gerhard Lammel*** ***(RECETOX, Masaryk University)*** Global health implications of differential benzo[*a*]pyrene reactivity: A modeling study ***Benjamin Bandowe*** ***(Max-Planck Institute for Chemistry)*** Atmospheric polycyclic aromatic hydrocarbons and the importance of gas-particle partitioning ***Jamie Michael Kelly*** ***(Massachusetts Institute of Technology)***
15:30-16:00	Coffee break	
16:00-17:00	Concert Hall	Lecture Hall B
	Characterization of PACs in Soil and Sediment	***Measurement of PACs in Biota and Plants***
	Total and bioavailable polycyclic aromatic compounds in soil at a historically contaminated site ***Ulrika Eriksson*** ***(Örebro University)***	Analysis of PAHs and other SVOCs in pine needles: 15 years of research at LEPABE ***Nuno Ratola*** ***(University of Porto)***

	Endocrine disruption and commensal bacteria alteration associated with gaseous and soil PAH contamination among daycare children ***Marja Roslund, Aki Sinkkonen*** ***(University of Helsinki)***	Identification of halogenated polycyclic aromatic hydrocarbons in biological samples from the Alberta oil sands region ***Zhe Xia*** ***(University of Manitoba)*** Are we overlooking local pollution impacts in the Arctic? Spatial distribution patterns of PAHs in Ilulissat and Qeqertarsuaq, Greenland ***Nikoline J. Nielsen*** ***(University of Copenhagen)***
17:10-18:00	***Poster Session***	
19:30-22:00	***Conference dinner - Örebro Castle***	

Wednesday, 11 September 2019

8:40-9:10	Concert Hall Presentation of 2019 PAC Research Award, followed by video lecture from ***Dr. L. J. Allamandola (NASA Ames Research Center)***
9:10-10:00	Recent advances and perspectives in the field of astrophysical PAH research ***Olivier Berné*** ***(Research Institute in Astrophysics and Planetology)***
10:00-10:30	Coffee break
10:30-11:10	Concert Hall ***PAHs in Tire and Road Particles*** Sedimentation ponds for road runoff contain high percentages of alkylated PAHs ***Merete Grung*** ***(Norwegian Institute of Water Research)*** Determining the influence of street vegetation on dissolved and particulate PAH loads in surface run-off from urban streets ***Hanna Fuchte*** ***(Institute for Environmental Research - RWTH Aachen)***
11:10-11:30 11:30-12:30	***U.S. EPA PAH 16 and their relevance in future research*** Are the 16 EPA PAHs in need of overhaul after 40 years of faithful service? ***Jan T. Andersson*** ***(University of Münster)*** Discussion on PAH
12:30-13:30	Lunch and Poster Session
13:30-19:00	***Excursion to Nora***

Thursday, 12 September 2019

9:00-9:50	Concert Hall
	PAH in Food ***Lene Duedahl-Olesen*** ***(Technical University of Denmark)***
10:00-10:30	Coffee break
10:30-11:10	Concert Hall
	PAHs and Microplastic
	Microplastics, polycyclic aromatic hydrocarbons (PAH) and biofilms in freshwater ***Luísa Jordão*** ***(National Institute of Health Dr. Ricardo Jorge)***
	Ecotoxicological effects of microplastic contaminated with benzo[*a*]pyrene - Results from the Ephemare project ***Steffen Keiter*** ***(Örebro University)***
11:20-12:40	***Risk Assessment of PAHs***
	A review of hazard classifications of PAH-containing substances illustrates the need for quantitative assessment Methods ***Anne LeHuray*** ***(Chemical Management Associates)***
	Inhalation risk assessment of particulate phase polycyclic aromatic hydrocarbons (PAHs) at a naturally ventilated kerbside office building ***Darpa Jyethi*** ***(Indian Statistical Institute)***
	The Use of Polyurethane Foam (PUF) Passive Air Samplers in Exposure Studies to PAHs in Swedish Seafarers and Port Workers ***Bo Strandberg*** ***(Lund University)***
	Variations in the presence of volatile organic compounds in urban particulate matter: Is it related to biological endpoints? ***Ernesto Alfaro-Moreno*** ***(Örebro University)***
12:40-13:00	***Award Presentations*** ***End of Meeting*** ***To-Go Lunch***

List of Poster Presentations

Analytical Chemistry

1 Application of gas chromatography atmospheric pressure chemical ionization mass spectrometry for analysis of contaminants in environmental samples
Petr Kukučka (RECETOX, Masaryk University)

2 Identification of 7-9 ring PAH in coals and petrol coke using LC-DAD-APLI-MS
Christine Achten (University of Münster)

3 GC-APLI-MS and LC-APLI-MS for sensitive PAH analysis
Christine Achten (University of Münster)

4 Forensic investigations of diesel oil spills in the environment using comprehensive two-dimensional gas chromatography – high resolution mass spectrometry and chemometrics
Jan Christensen (University of Copenhagen)

5 Influence of the solvent/solute nature on the behavior of polycyclic aromatic hydrocarbons in contact with polymeric surfaces
Denise Bohrer (Federal University of Santa Maria)

6 Optimization and validation of a derivatization method with borontrifluoride in ethanol for analysis of aromatic carboxylic acids in water
Jan Christensen (University of Copenhagen)

7 Suspect screening of hydroxylated polycyclic aromatic hydrocarbons (OHPAHs) in soil
Ulrika Eriksson (Örebro University)

8 New MS methods for identification of PAH-DNA adducts
Carey Donald (Institute of Marine Research)

Toxicology

9 Evaluation of oxidative potential of pyrenequinone isomers by the DTT assay
Rikito Okubo (Kyoto University)

Atmospheric

10 Seasonally size distributions and sources of chlorinated polycyclic aromatic hydrocarbons in urban air, Japan
Takeshi Ohura (Meijo University)

11 Suspect screening of polycyclic aromatic compounds and nontarget analysis of air samples from South Asia using gas chromatography high resolution mass spectrometry
Ioannis Sadiktsis (Stockholm University)

12 Polycyclic aromatic hydrocarbons and hopanes in PM_{10} aerosols in winter in rural areas of the Czech Republic
Irina Nikolova (Czech Hydrometeorological Institute)

13 A new publicly-available database of PAC emission factors to air
Elisabeth Galarneau (Environment and Climate Change Canada)

14 Quantifying polycyclic aromatic hydrocarbon (PAH) losses during sample preparation steps of fine particulate matter ($PM_{2.5}$) filters
Lisandra Trine (Oregon State University)

Soil and Sediment, and Remediation Techniques

15 Characterization of the macromolecular fractions of PAH contaminated soils using high-resolution mass spectrometry
Coralie Biache (CNRS, University of Lorraine)

16 Impact of bituminous coal particles in urban soils on the freely dissolved PAH concentrations
Viviane J. Bayer (University of Münster)

17 Impact of the mineralogy on the contamination and the microbial communities during batch microbial incubation of petroleum-contaminated soil
Pierre Faure (CNRS, University of Lorraine)

18 Interaction mechanisms between polycyclic aromatic hydrocarbons (PAHs) and organic soil washing agents
Jan Christensen (University of Copenhagen)

19 Bacterial key players in the biodegradation of 4-ring polycyclic aromatic compounds in contaminated soils
Sara N. Jiménez-Volkerink, ***Joaquim Vila (University of Barcelona)***

20 A more cost-efficient extraction method for polycyclic aromatic hydrocarbons (PAH) in sediments and soils using accelerated solvent extraction (ASE)
Zhe Xia (University of Manitoba)

21 What is the potential for microbial degradation of crude oil pollution in water and sediment from the Greenland Sea?
Jan Christensen (University of Copenhagen)

Epidemiology and Food

22 1-Acetylaminopyrene as biomarker for nitropyrene exposure
Annette Krais (Lund University)

23 PAH metabolites as biomarkers for occupationally exposed workers
Yona Julie Essig (Lund University)

24 Occupational exposure to PAH during work with creosote impregnated sleepers
Jessika Hagberg (Örebro University)

25 Benzo[*a*]pyrene adducts in human DNA after oral micro-dosing as determined by graphite accelerator mass spectrometry
Monica Maier (Oregon State University)

26 Occurrence of PAHs in food from the first regional total diet study in Sub-Saharan Africa
Bruno Veyrand (LABERCA, Oniris)

Organic and Inorganic

27 Novel synthetic pathway to dibenzo[*def,p*]chrysene (DBC) metabolites - targeted synthesis of 7-hydroxy-DBC
Albrecht Seidel (Biochemical Institute for Environmental Carcinogens - Prof Dr Gernot Grimmer Foundation)

28 Metal-free photochemical silylations and transfer hydrogenations of benzene and PAHs enabled by excited state antiaromaticity relief
Raffaello Papadakis (Uppsala University)

Microplastics and Asphalt Products

29 Adsorption characteristics of polycyclic aromatic hydrocarbons on microplastics by focusing on their diameters in water environment
Satoru Yukioka (Kyoto University)

30 Release and collection of polycyclic aromatic hydrocarbons from aqueous solutions and asphalt samples at sub-boiling temperatures
Paulo Cícero do Nascimento (Federal University of Santa Maria)

31 Determination of polycyclic aromatic hydrocarbons (PAHs, N-PAHs, O-PAHs and S-PAHs) in petroleum asphalt fractions and its relationship to the aging process of asphalts
Leandro Machado de Carvalho (Federal University of Santa Maria)

32 PAHs in rubber crumb from synthetic football fields: A mini-review
Nuno Ratola (University of Porto)

33 Comparison of different extraction techniques to analyze polyclic aromatic hydrocarbons in tire particle with different sizes combined with bioassay characterization
Ivan Titaley (Örebro University)