

# Sunday 18 June

## Satellite meetings and workshops:

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### Time:

- 13:00 - 18:00      **Registration open**
- 13:00 - 16:00      **New emerging PFAS: International regulation strategies**  
Convenors: Lena Vierke (Federal Environmental Agency, Berlin, Germany) & Zhanyun Wang (ETH Zurich, Switzerland)  
*Location: Helga Engshus, Auditorium 1*
- 13:00 - 16:00      **Algal toxins: Methods and implications**  
Convenors: George B. Cobb (Baylor University, TX, USA) & Dion Dionysiou (University of Cincinnati, IL, USA)  
*Location: Helga Engshus, Auditorium 2*
- 13:00 - 16:00      **New contaminants, new risks: Analysis and environmental implications**  
Convenor: Silvia Lacorte (Institute of Environmental Assessment and Water Research, Barcelona, Spain) & Rosa Marie Marcé (University Rovira i Virgili, Tarragona, Spain)  
*Location: Helga Engshus, Auditorium 3*
- 13:00 - 16:00      **Isotopic techniques and their applications in environmental research**  
Convenors: Nives Ogrinc & David Heath (Institute Jozef Stefan, Ljubljana, Slovenia)  
*Location: Helga Engshus, U35*
- 17:00                **Opening Ceremony - Cultural/musical contribution**  
*Location: Georg Sverdrupshus: Auditorium 1*
- 17:20                **Welcome Address from the Local Organisation Committee:**  
Roland Kallenborn (Norwegian University of Life Sciences, Norway)
- Welcome addresses:**  
President of the Norwegian Chemical Society (NKS): Øivind Mikkelsen (Norwegian University of Technology (NTNU), Norway)
- Dean of Faculty of Mathematics and Natural Sciences: Morten Dæhlen (University of Oslo (UiO), Norway)
- DCE Chairman: Santiago V. Luis Lafuente (University Jaume I, Castello de la Plana, Castellon, Spain)
- 18:00                **Plenary lecture:**  
Leiv K. Sydnes (University of Bergen, Norway)  
**Chemistry in the service of society**
- 18:30                **Ice Breaker Reception:**  
*Location: Georg Sverdrupshus: Foyer*

# Monday 19 June

## Plenary session:

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*Location: Georg Sverdrups hus, Auditorium 1*

**Time:**

- 09:00                    **Introduction and Administrative notes**
- 09:10                    Chairmen: Santiago Luis (Universitat Jaume I, Spain) & Walter Giger (Giger Research, Switzerland); Representing DCE - EuCheMS introduction:  
**DCE Life Time Achievement award presented to Prof. Dr. Søren Jensen (Stockholm University, Sweden) in the occasion of 50 year anniversary of polychlorinated biphenyls (PCBs) identified as environmental pollutants**
- 09:25                    Søren Jensen (Stockholm University, Sweden) - **personal impressions and notes**
- 09:45                    **Plenary lecture:**  
Åke Bergman (SWETOX - Academic Research Center for Chemicals, Health and Environment, Sweden)  
**Persistent Organic Pollutants (POPs): History, lessons learned and the way ahead**
- 11:00 - 15:15           **Thematic sessions - see detailed schedule**
- 13:45 - 15:15           **Thematic sessions - see detailed schedule**

# Monday 19 June

## Microplastics

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Location and time: Helga Engshaus, Auditorium 1, 11:00 - 13:00

Chair: Thorsten Hüffer (University of Vienna, Austria)

### Oral presentations:

Time:		Abstract ID:
11:00	<u>Thorsten Hüffer</u> , Antonia Praetorius, Stephan Wagner, Frank von der Kammer, Thilo Hofmann <b>Microplastic exposure assessment from the perspective of nanoparticle research</b>	83
11:15	<u>Saskia Rehse</u> , Andrea Zikova, Wibke Kleiner, Wener Kloas, Christiane Zarfl <b>Microplastics in interaction with pollutants – Insights from laboratory experiments on impacts on freshwater fauna</b>	341
11:30	<u>Caroline Goedecke</u> , Ulrike Mülow-Stollin, Selina Hering, Andrea Paul, Ulrike Braun <b>Investigation of sorption of environmental pollutants to virgin and aged microplastics</b>	91
11:45	Linn Merethe Brekke Olsen, Naiara Berrojalbiz, Dieter Issler, <u>Hans Peter Arp</u> <b>The Sinking Behavior of Fresh and Weathered Microplastics in Surface Water</b>	111
12:00	Jan H. Sundet, <u>Dorte Herzke</u> , Maria Jenssen <b>Microplastic in the marine environment of Svalbard, Norway</b>	114
12:15	<u>Andrea Paul</u> , Roland Becker, Lukas Wander, Steffen Breinfeld, Martin Koegler, Andreas Sauer, Ulrike Braun <b>An alternative spectroscopic approach for the monitoring of micro-plastic in environmental samples</b>	167
12:30	<u>Anna Elert</u> , Roland Becker, Erik Dümichen, Paul Eisentraut, Jana Falkenhagen, Heinz Sturm, Ulrike Braun <b>Challengers in microplastics identification: Is one detection method enough?</b>	278
12:45	Lunch, Exhibition and Posters	

# Microplastics

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
France Collard, Bernhard Gilbert, Gauthier Eppe, Sam Azimi, Vincent Rocher, Bruno Tassin, Johnny Gasper <b>Microplastics found in the stomach contents of the European chub (<i>Squalius cephalus</i>) from the Seine River</b>	228
Marina Albentosa, Victor M. León, Juan Bellas, Juan Santos-Echeandia, Juan A. Campillo <b>Comparative exposure of mussels to chlorpyrifos through microplastic and microalgal particles</b>	287
Ana V. Figueiras, Jesús Gago, Olga Carretero, Juan Santos-Echeandia, Victor M. León <b>Microplastic distribution along Spanish Mediterranean coast and Mar Menor lagoon</b>	289
Claudia Halsband, Dorte Herzke <b>Do microplastics impact the productivity of arctic marine food webs?</b>	330
Sven Seldensticker, Greta Fellenberg, Christiane Zarfl, Peter Grathwohl <b>Microplastic particles as a transport vector for organic wastewater contaminants to dissolved organic matter</b>	304

# Monday 19 June

## Atmospheric aerosols and pollutants

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Location and time: Helga Engshus, Auditorium 2, 11:00 - 12:45

Chair: Stephan Weinbruch (Technical University of Darmstadt, Germany) & Yngvar Thomassen (National Institute of Occupational Health, Norway)

### Oral presentations:

Time:		Abstract ID:
11:00	Chen Wang, Tiange Yuan, Stephen A. Wood, Kai-Uwe Goss, Jingyi Li, Qi Ying, <u>Frank Wania</u> <b>Uncertain Henry's law constants compromise equilibrium partitioning calculations of atmospheric oxidation products</b>	15
11:15	<u>A. Albinet</u> , S. Tomaz, D. Srivastava, G.M. Lanzafame, O. Favez, J.-L. Jaffrezo, J.-L. Besombes, N. Bonnaire, V. Gross, L. Y. Alleman, F. Lucarelli, E. Perraudin, E. Villenave <b>Study of the chemical processes involving nitro- and oxy-PAHs in ambient air and evaluation of SOA PAH contribution on PM via annual and intensive field campaigns</b>	34
11:30	<u>Monique Teich</u> , Dominik van Pinxteren, Michael Wang, Simonas Kecorius, Zhibin Wang, Thomas Müller, Griša Močnik, Hartmut Herrmann <b>Measurements of nitrated aromatic compounds in aerosol particles and their contribution to the light absorption of brown carbon</b>	67
11:45	<u>Pérola Castro Vasconcellos</u> , Guilherme Martins Pereira, Kimmo Teinilä, Danilo Custódio, Aldenor Gomes Santos, Huang Xian, Risto Hillamo, Célia Alves, Jailson Bittencourt De Andrade, Gisele Olímpio Da Rocha, Prashant Kumar, Rajasekhar Balasubramanian, Maria Fátima Andrade <b>Chemical composition and source apportionment for particulate matter in São Paulo, Brazil</b>	80
12:00	<u>Sofia Caumo</u> , Ana Vicente, Danilo Custódio, Célia Alves, Pérola Vasconcellos <b>Measurements of organic compounds in particulate matter and gaseous phase collected at the neighbourhood of an industrial complex in São Paulo (Brazil)</b>	133
12:15	<u>G. Spindler</u> , A. Grüner, K. Müller, B. Stieger, D. van Pinxteren, H. Herrmann <b>A 24 year long-term trend for PM at Melpitz site in Germany – Results for different Weather Type Classification Methods</b>	135
12:30	Lunch, Exhibition and Posters	

# Monday 19 June

## Atmospheric aerosols and pollutants

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Location and time: Helga Engshus, Auditorium 2, 13:45 - 15:00

Chair: Stephan Weinbruch (Technical University of Darmstadt, Germany) & Yngvar Thomassen (National Institute of Occupational Health, Norway)

### Oral presentations:

Time:		Abstract ID:
13:45	<u>Yiming Yao</u> , <u>Shuai Chang</u> , <u>Yangyang Zhao</u> , <u>Zhiwei Gan</u> , <u>Hongwen Sun</u> <b>Neutral and Ionic Per- and Polyfluoroalkyl Substances (PFASs) in the Atmosphere: Occurrence and Distribution Associated with Particulate Matter</b>	450
14:00	<u>Celine Degrendele</u> , Roman Prokes, Petr Kukucka, Pourya Shahpoury, Jana Klánová, Gerhard Lammel <b>Are atmospheric PBDE levels declining in Europe? Examination of seasonal variations, gas-particle partitioning and implications for long-range atmospheric transport</b>	265
14:15	<u>Nicholas A. Warner</u> , Vladimir Nikiforov, Ingjerd S. Krogseth, Pernilla Bohlin-Nizzetto <b>Is Octamethylcyclotetrasiloxane (D4) a persistent organic Pollutant? Weighing the evidence and risk to Arctic Environments</b>	274
14:30	<u>Stephan Weinbruch</u> , Nathalie Benker, Konrad Kandler, Katharina Schütze, Kirsten Kling, Balázs Berlinger, Yngvar Thomassen, Tatiana Drotikova, Roland Kallenborn <b>Source apportionment of individual soot agglomerates in ambient air on Svalbard: A transmission electron microscopy study</b>	295
14:45	<u>Pourya Shahpoury</u> , Zoran Kitanovski, Roman Prokes, Ondrej Sanka, Roland Kallenborn, Gerhard Lammel <b>Wet scavenging of nitrated and oxygenated aromatic hydrocarbons in urban and remote sites in Europe; levels and distribution in phase-segregated precipitation</b>	312

# Atmospheric aerosols and pollutants

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
Andrea Bellmann, Hanan Atia, Jörg Radnik, Ursula Bentrup, Angelika Brückner <b>Direct Cleaning of Flue Gas from Natural Gas Plants – How Co-ZSM-5 catalysts force Methane to reduce Nox</b>	70
Terry F. Bidleman, Mats Tysklind <b>Breakthrough During Air Sampling with Polyurethane Foam: What Do Trap2/Trap1 Ratios Mean?</b>	417
Celine Degrendele, Lyassine Allou, Juhani Laurikko, Mavi Prati, Martin Weilenmann, Tamás Merétei, Isabelle Caplin, Robert Joumard, Michael André, Aurélie Charron <b>Laboratory measurements of volatile organic compounds emissions from passenger cars</b>	266
Stine Eriksen Hammer, Hans-Christian Clemen, Johannes Schneider, Stephan Mertes, Sarah Grawe, Martin Ebert, Stephan Weinbruch <b>Comparison of the single particle measurement techniques “SCANNING ELECTRON MICROSCOPY” and “SINGLE PARTICLE MASS SPECTROMETRY</b>	39
Therese Haugdahl Nøst, Anne Karine Halse, Martin Schlabach, Are Bäcklund, Sabine Eckhardt, Knut Breivik <b>Low concentrations of persistent organic pollutants (POPs) in air at Cape Verde</b>	180
Zoran Kitanovski, Gerhard Lammel, Roman Prokes, Constantini Samara, Poryy Shahpoury, Aristeidis Voliotis <b>Nitro-monoaromatic compounds in urban aerosols of central and southeastern Europe: mass size distribution and solubility in simulated lung fluids</b>	298
Mark M. Scerri, Konrad Kandler, Stephan Weinbruch <b>Extricating the contribution of natural components to PM10 concentrations at a rural background station in the central Mediterranean</b>	25
Laura Trabalón, Laura Vallecillos, Alba Maceira, Rosa Maria Marcé, Francesc Borrull <b>Evaluation of sampling strategies to determine 1,3-butadiene in air</b>	59
Ivano Vassura, Elena Bernardi, Ezio Bolzacchini, Marco Casati, Luca Ferrero, Lara Nobili, Mariagrazia Perrone, Simona Raffo, Elisa Venturini <b>A new sampling system to study the effects of atmospheric particle matter in material decay</b>	194

# Monday 19 June

## Persistent inorganic pollutants

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Location and time: Helga Engshus, Auditorium 3, 11:00 - 13:00

Chair: Balazs Berlinger (National Institute of Occupational Health, Norway) & Sirpa Herve (Finnish Environment Institute, Finland)

### Oral presentations:

Time:		Abstract ID:
11:00	<u>Georg Radermacher</u> , Heinz Rüdell, Peter Lepom, Anja Duffek <b>Mercury burden of German freshwater fish depending on age, size and trophic level</b>	72
11:15	<u>Peter Lepom</u> , Jörg Wellmitz <b>Mercury Monitoring in Fish under the Water Framework Directive - A German Perspective</b>	230
11:30	Gemma Elias, Marta Turull, Sergi Díez, <u>Claudia Fontas</u> <b>Can polymer inclusion membranes be used as an integral tool to facilitate environmental analysis? The case of mercury</b>	303
11:45	Manel Domínguez, Lorenzo Massimi, Verónica Verdugo, <u>Cristina Palet</u> <b>Bio(Adsorption) Capacity of Cork for Antimony in Wastewaters</b>	318
12:00	<u>Inger Marie B. Tyssebotn</u> , Andreas Fittschen, Ursula E. A. Fittchen <b>Development of a novel CE-XRF system for the determination of elemental contaminants and their speciation in complex water systems</b>	328
12:15	<u>Ida Vaa Johnsen</u> , Espen Mariussen <b>The intake of copper and lead by sheep grazing on a contaminated shooting range</b>	396
12:30	Lunch, Exhibition and Posters	



# Persistent inorganic pollutants

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
Susanne Birkeland, Marie Vollset, Sigrun Henjum, Elin Gjengedal <b>Arsenic, bromine, and lead in breast milk and urine from Norwegian mothers – interactions which influence the levels</b>	357
Iman Boukhohobza, Zahra Saadatmand <b>Vanadium speciation within seawater and soil samples in the UAE: Simple HPLC method</b>	4
Cathrine Skaar Hoel, Amanda Poste, Tom Andersen, Katrine Borgå <b>Seasonal patterns in mercury dynamics at the base of two contrasting boreal lake food webs</b>	103
Christine Hutterer, Michael Schuster <b>Selective trace enrichment of valuable metals from industrial wastewaters by polymer-assisted ultrafiltration</b>	355
Maria G. Lagerstrøm, Fredrik Lindgren, Albin Holmqvist, Mia Dahlström, Erik Ytreberg <b>Release rates of Cu and Zn from antifouling paints using a novel XRF method</b>	96
Elena Nebera, Svetlana Demidova, Nikita Bardyugov, Dmitry Makarov, Alexander Komarov <b>Accumulation of toxic elements in tissues of reindeer in the Russian far North</b>	182
Sachin Vilas Nehete, Brit Salbu, Alexie Konoplev, Hans Chrstian Teien <b>Asymmetric flow field-flow fractionation to determine trace metal-colloid associations in Inkyozaka and Suzuuchi pond</b>	404
Juan Santos-Echeandia, Víctor M. León, Victoria Besada, Fernando Schultze, María López-Rodríguez <b>Heavy metals in the sediments of two Spanish coastal systems and their transfer to the food chain</b>	286
Svetlana Pakhomova, Alice Newton, Evgeny Yakushev <b>Modelling of biogeochemical cycles of mercury and nickel in the sea water and upper sediment layer</b>	407
Verónica Verdugo, Cristina Palet, Manuel Valiente <b>TiO<sub>2</sub> Modified Biomass and its Application in Removal of Pb<sup>2+</sup>, Cd<sup>2+</sup>, Cu<sup>2+</sup> and Cr<sup>3+</sup>/Cr<sup>6+</sup> from Aqueous Solution</b>	320
Dayana Sosa, Isabel Hilber, Roberto Faure, Thomas D. Bucheli, Arturo Escobar, Diane Buerge-Weirich <b>Assessment of heavy metals in soils of Mayabeque, Cuba</b>	267
Verónica Verdugo, Cristina Palet, Manuel Valiente <b>Efficient Sb(III)/Sb(V) Adsorption by SPION Supported on Metalzorb® Sponge®</b>	319
Sebastian Böttger, Dominique Rosenberg, Maike Busker, Walter Jansen, Ursula Fittschen <b>Determination of gas phase mercury using silver-nanoparticle assisted TXRF</b>	327

# Monday 19 June

## Bioactive substances and biotoxins

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Location and time: Helga Engshus, U35, 11:00 - 12:45

Chair: George Cobb (Baylor University, TX, USA) & Dion Dionysiou (University of Cincinnati, IL, USA)

### Oral presentations:

Time:		Abstract ID:
11:00	Korina Manolidi, Christophoros Cristophoridis, Triantafyllos Kaloudis, Theodoros M. Triantis, <a href="#">Anastasia Hiskia</a> <b>Neurotoxin BMAA And Its Isomeric Amino Acids In Cyanobacteria And Spirulina Food Supplements</b>	49
11:15	<a href="#">Ulla E. Bollmann</a> , Greta Minelgaite, Michael Schlüsener, Thomas A. Ternes, Jes Vollertsen, Kai Bester <b>Biocide leaching from building material: Semi-field emissions influenced by driving-rain and photodegradation</b>	68
11:30	<a href="#">Elisabeth Faasen</a> , Miquel Lüring <b>Current understanding and challenges on the presence and analysis of the neurotoxin BMAA</b>	283
11:45	<a href="#">Dieter Vollert</a> , Matthias Gassman, Klaus Kümmerer, Oliver Olsson <b>Simulation of the environmental fate of the fungicide Penconazole and its transformation products in a vineyard-terraces catchment</b>	336
12:00	Jan Ludvig Lyche, Paul Mbuthia, Gunnar Eriksen, James Gathumbi, <a href="#">Evalyn Mwihia</a> <b>Prevalence, knowledge, attitudes and practices associated with aflatoxin contamination of fish feeds in Nyeri, Kenya</b>	369
12:15	<a href="#">Meriç Albay</a> , Latife Köker, Cenk Gürevin, Reyhan Akçaalan Albay, <i>Department of Inland Waters, İstanbul University, Turkey</i> <b>An integrated modelling approach to study the impacts of nutrients on coastal aquatic ecosystems in the context of climate change</b>	379
12:30	M. Pesce, A. Critto, S. Torresan, M. Santini, E. Giubilato, L. Pizzol, P. Mercogliano, A. Zirino, Wei Ouyang, <a href="#">A. Marcomini</a> <b>An integrated modelling approach to study the impacts of nutrients on coastal aquatic ecosystems in the context of climate change</b>	447
12:45	Lunch, Exhibition and Posters	

# Bioactive substances and biotoxins

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

### Abstract ID:

- Ulla E. Bollmann, David Fernández-Calvino, Kristian K. Brandt, Morten S. Storgaard, Hans Sanderson, Kai Bester 69  
**Biocide leaching from building facades: Pseudo-persistence in soil due to reoccurring emissions**
- Vladimir Nikiforov, Ekaterina Chernova, Iana Russkikh, Ekaterina Voyakina, Elena Ezhova, Evgeniia Lange, Zoya Zhakovskaya 349  
**Cyanotoxins in the Baltic Sea: a difference between the Gulf of Finland and Curonian and Vistula lagoons**
- Michal M. Urbanczyk, Ulla E. Bollmann, Nicole Borho, Ute Schoknecht, Kai Bester 299  
**Influences of pigments on photo degradation rates of biocides in paints**

# Monday 19 June

## Nanomaterials

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Location and time: Helga Engshus, Auditorium 1, 13:45 - 15:15

Chair: Antonio Marcomini (University of Venice, Italy)

### Oral presentations:

Time:		Abstract ID:
13:45	<u>Andrea Brunelli</u> , Elena Badetti, Gianpietro Basei, Antonio Marcomini <b>Colloidal stability assessment of pristine and functionalized TiO<sub>2</sub> nanoparticles. A combination of analytical techniques and principal component analysis</b>	153
14:00	<u>Maya Engel</u> , Benny Chefetz <b>Interactions of carbon nanotubes with dissolved organic matter and organic pollutants</b>	31
14:15	<u>Patrick S. Bäuerlein</u> , Erik Emkea, Peter Tromp, Jan A.M.H Hoffman, Andrea Carboni, Ferry Schooneman, Pim de Voogt, Annemarie P. van Wezel <b>Can nanoparticles be found in the environment?</b>	226
14:30	<u>Christian Gagnon</u> , Patrice Turcotte, Martin Pilote, Francois Gagné, Shirley Anne Smyth <b>Fate of silver nanoparticles in surface waters</b>	306
14:45	<u>Lúcia H.M.L.M. Santos</u> , Anna Freixa, Vicenc Acuna, Josep Sanchís, Sara Rodríguez-Mozaz, Marinella, Farré, Sergi Sabater, Damià Barceló <b>Bioaccumulation and biotransformation of organic contaminants in biofilm: how could these be affected by the presence of nanoparticles?</b>	192
15:00	<u>Claire Coutris</u> , Antoine Minet, Pawel Lycus, Filip Hrnčirik, Åsa Frostegård <b>Can wastewater-borne engineered nanomaterials pose a threat to the microorganisms involved in wastewater treatment?</b>	383

# Nanomaterials

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## Posters:

	<b>Abstract ID:</b>
Elena Semenzin, Elena Badetti, Alessandro bonetto, Andrea Brunelli, Elisa Giubilato, Marco Picone, Annamaria Volpi Ghirardini, Antonio Marcomini <b>Supporting the development of sustainable nano-based formulations for the restoration of modern and contemporary works of art</b>	165
Esin G. Canli, Mustafa Canli <b>Effects of copper oxide nanoparticles on some blood parameters in female Wistar rats</b>	17
Burkhard Knopf, Boris Meisterjahn, Nicola Schroeder, Heinz Ruedel, Jan Koschorreck <b>Development of a method for the analysis of nanoparticles in homogenized biota tissue from the German Environmental Specimen Bank</b>	391
Sungsoo Na, Chancho Park, Hyunjoon Park <b>Development of DAN based Sensor for Nanotoxic Materials</b>	66
D. Saravanan G. Satheesh Kumar, V. Kandavelu <b>Dye degradation by using photocatalytic nano particles</b>	2

# Monday 19 June

## Challenges in Environmental Chemistry

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Location and time: Helga Engshus, Auditorium 3, 13:45 - 15:15

Chair: Silvia Lacorte (Institute of Environmental Assessment and Water Research, Spain) & Rosa Maria Marcé (University Rovira i Virgili, Tarragona, Spain)

### Oral presentations:

Time:		Abstract ID:
13:45	Juliane Hollender, Jennifer Schollée, Aurea Chiaia-Hernandez, Emma Schymanski, Heinz Singer <b>Non-target screening with high resolution mass spectrometry: Ready for real-world applications? (Keynote)</b>	128
14:15	Emma L. Schymanski, Andrew McEachran, Reza Aalizadeh, Nikolaos S. Thomaidis, Jaroslav Slobodnik, Jon R. Sobus, Juliane Hollender, Antony J. Williams <b>International Suspect Screening: NORMAN Suspect Exchange meets the US EPA CompTox Chemistry Dashboard</b>	28
14:30	Mathias Katthoff, Heinz Rüdell, Mark Bücking, Anton Friesen, Jan Koschorrek <b>Anticoagulant Rodenticides in fish: Spatial and Temporal Distribution in German Freshwater Aquatic Systems</b>	119
14:45	Monica Fongen, Andreas Treu, Claire Coutris, Erik J. Joner <b>Differential scanning calorimetry coupled with FT-IR. A sensitive method for measuring microplastics in sewage sludge, biogas digestate, food waste compost, and road dust?</b>	376
15:00	Robert Loos, Valentina Ferrero, Maria Ludovica Saccà, Martina Di Lenola, Simona Tavazzi, Paola Grenni, Nicoletta Ademollo, Luisa Patrolecco, Anna Barra Caracciolo, Teresa Lettieri <b>Chemical mixtures occurrence and natural microbial community in the Tiver River (Italy)</b>	161

# Challenges in Environmental Chemistry

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
Marjeta Cesen, Maria Laimou-Geraniou, Tina Kosjek, Urska Blaznik, Dimitra Lambropolou, Ester Heath, David Heath <b>Migration of Bisphenol Compounds from Honey Packaging</b>	326
Henrik Kylin, Hindrik Bouwman <b>Pentachloroanisole is not a functional proxy for pentachlorophenol in the environment</b>	140
Abha Parajulee, Ying Duan Lei, Ajitha Kananthalingam, David S. McLagan, Carl P. J. Mitchell, Frank Wania <b>The transport of polycyclic aromatic hydrocarbons during rainfall and snowmelt in contrasting landscapes</b>	249
Detlef Schenke, Gabriela Bischoff, Alexandra Esther <b>Analysis of pesticides in road-killed amphibians</b>	57

# Monday 19 June

## Regulation of Chemicals

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Location and time: Helga Engshus, U35, 14:00 - 15:15

Chair: Ramon Guardans (Scientific Advisor to the National Reference Centre on Persistent Organic Pollutants, Spain) & Rolf Vogt (University of Oslo, Norway)

### Oral presentations:

Time:		Abstract ID:
14:00	<u>Ramon Guardans</u> <b>POPs in the past and in the future. A few notes on the Effectiveness Evaluation of the Stockholm Convention in 2017.</b>	36
14:15	<u>Hans Peter H. Arp</u> , Trevor N. Brown, Sarah E. Hale <b>Ranking REACH registered neutral, ionizable and ionic organic chemicals based on their aquatic persistency and mobility</b>	109
14:30	<u>Philippa Cureton</u> , Doug Spry, Sean Backus, Christine Garron, Robert Letcher, Pamela Martin, Daryl McGoldrick, Darcy Longpré <b>Development of Canadian Environmental Quality Guidelines for Perfluorooctane Sulfonate to Protect Environmental and Human Health</b>	271
14:45	<u>Michael Neumann</u> , Daniel Sättler, Lena Vierke, Ivo Schliebner <b>A proposal for criteria and an assessment procedure to identify Persistent, Mobile and Toxic (PM or PMT) substances registered under REACH</b>	311
15:00	<u>Heinz Ruedel</u> , Annette Fliedner, Nina Lohmann, Georgia Buchmeier, Jan Koschorreck <b>Biota monitoring under the Water Framework Directive: Influence of fish species and tissue choice on levels of priority substances</b>	63



# Regulation of Chemicals

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
A. D. Bannink, G. J. Stroomberg, H. J. A. Römgens <b>The European Water Framework Directive does not set standards for surface water used as source for drinking water</b>	146
Adele Bressy, Catherine Carré, José-Frédéric Deroubaix, Bernard de Gouvello, Mathilde Soyer, Régis Moilleron <b>Domestic micropollutants, a diffuse industrial pollution - Part 2: Source reduction by changing personal consumption practices</b>	191
Steven Droge, Joris Haftka, Joop Hermens <b>A tiered approach to assess bioaccumulation of surfactants</b>	397
Huan Liu, Hanyang Man, Fanyuan Deng, Yue Wang, Hongyang Cui, Xiaofan Yang, Qiang Zhang, Kebin He <b>An updated emission inventory of vehicular VOCs/IVOCs in China</b>	206
Boris Meisterjahn, Michael Hüben, Helena Tomm, Dieter Hennecke <b>Experimental and conceptual approaches for testing the transformation of volatile chemicals on the basis of standard test guidelines</b>	255
Lehtilä Reko <b>Collecting and using information on substances</b>	433
Ivo Schliebner, Daniel Sättler, Urs Berger, Norbert Ost, Ralph Kühne, Gerrit Schüürmann, Thorsten Reemtsma, Michael Neumann <b>Using REACH registration data for the identification of persistent, mobile and toxic (PMT) substances</b>	352
Christiane Zarfl, Jürgen Berlekamp, Klement Tockner <b>Another perspective on the water-energy nexus: Is hydropower development spatially related to mining activities?</b>	305

# Tuesday 20 June

## Plenary session:

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*Location: Georg Sverdrups hus, Auditorium 1*

**Time:**

- 09:00                    **Introduction and Administrative notes**
- 09:15                    **Plenary Lecture:**  
Lars-Otto Reiersen (Arctic Monitoring and Assessment Programme - AMAP, Secretary General, Oslo)  
**Arctic Pollution Issues**
- 10:30 - 12:30        **Thematic Sessions - see detailed schedule**
- 13:30 - 16:00        **Thematic Sessions - see detailed schedule**
- 16:45 - 18:45        **Thematic Sessions - see detailed schedule**
- 18:30                    **Associated events:**  
**Panel Discussion: Microplastics - what is the problem?**  
*Location: The Science Library in Vilhelm Bjerknes hus*

# Tuesday 20 June

## Soil and Sediment

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Location and time: Helga Engshus, Auditorium 1, 10:30 - 12:30

Chair: Thomas Bucheli (Agroscope, Switzerland) & Daniel Wächter (Swiss Soil Monitoring Network-NABO, Switzerland)

### Oral presentations:

Time:		Abstract ID:
10:30	<u>Wolfgang Wilcke</u> <b>Polycyclic aromatic compounds (PAHs, OPAHs, azaarenes) in soil: Occurrence – Transformations – Availability (Keynote)</b>	439
11:00	<u>Martyna Saba</u> , Jerzy Falandysz <b>Mercury in a forest soil cores and tiny mushrooms from the regions in southwestern China</b>	41
11:15	<u>Ivan Dragicevic</u> , Susanne Eich-Greatorex, Trine A. Sogn, Roar Linjordet, Tore Krogstad <b>Mobility and release of heavy metals after biogas digestate application to three different soils</b>	331
11:30	<u>Juan C. Durán-Álvarez</u> , Blanca Prado <b>On the environmental fate of two endocrine disrupting chemicals in agricultural soils using wastewater for irrigation</b>	199
11:45	Pierre-Adrien Rivier, <u>Claire Coutris</u> , Ivo Havranek, Erik Joner <b>Degradation of Triclosan and Galaxolide in soil is unaffected by rhizosphere processes, but roots drastically reduce bioaccumulation in earthworms</b>	366
12:00	<u>Dieter Hennecke</u> , Angela Bauer, Erik Wischerhoff, Friedhelm Gores <b>How to investigate the fate of synthetic polymeric flocculants in a complex agricultural matrix – results of an experimental simulation study</b>	127
12:15	<u>Lin Xu</u> , Liqin Zhi, Yaqi Cai <b>Distribution, migration and elimination of methylsiloxanes in soil from an electronic waste (e-waste) dismantling area in China</b>	102
12:30	Lunch, Exhibition and Posters	

# Tuesday 20 June

## Soil and Sediment

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Location and time: Helga Engshus, Auditorium 1, 13:30 - 16:00

Chair: Thomas Bucheli (Agroscope, Switzerland) & Daniel Wächter (Swiss Soil Monitoring Network-NABO, Switzerland)

### Oral presentations: (I):

Time:		Abstract ID:
13:30	<u>Aurea C. Chiaia-Hernandez</u> , Armin Keller, Daniel Wächter, Martin Krauss, Greta Stieger, Martin Scheringer, Thomas D. Bucheli, Juliane Hollender <b>Top-down and bottom-up approaches to identify organic contaminants in soils</b>	242
13:45	<u>Gerhard Lammel</u> , Céline Degrendele, Sachin S. Gunthe, Qing Mu, Akila Muthalagu, Ondrej Audy, C. V. Biju, Petr Kukucka, Marielle D. Mulder, Mega Octaviani, Petra Pribylová, Porya Shahpoury, Irene Stemmler, Aswathy E. Valsan <b>Long-term trends of HCH and PCB in soils in India and air-soil exchange of POPs under the influence of the monsoon</b>	184
14:00	<u>Markus Wögerbauer</u> , Josef Zeinzinger, Richard Alexander Gottsberger, Kathrin Pascher, Peter Hufnagl, Alexander Indra, Reinhard Fuchs, Johannes Hofrichter, Ian Kopacka, Irina Karschineck, Corina Schleicher, Michael Schwarz, Johann Steinwider, Burkhard PSringer, Franz Allerberger, Kaare M. Nielsen, Klemes Fuchs <b>Antibiotic resistance genes as environmental pollutants in agricultural soil</b>	169
14:15	<u>Lea Piscitelli</u> , Pierre-Andrien Rivier, Donato Mondelli, Teodoro Miano, Daniel Rasse, <u>Erik Joner</u> <b>Use of Biochar in filtration substrates mixtures for soil and water conservation</b>	115
14:30	<u>Gabriel Sigmund</u> , Caroline Poyntner, Guadalupe Pinar, Melanie Kah, Thilo Hofmann <b>In-situ remediation of PAH and NSO-PAH contaminated soils – effect of compost and biochar on contaminant degradation</b>	84
14:45	<u>Cloe L. Davie-Martin</u> , Kelly G. Stratton, Justin G. Teegarden, Katrine M. Waters, Staci L. Massey Simonich <b>Is bioremediation of PAH-contaminated soils worth it? Implications for human health and cancer risk</b>	222
15:00	<u>Thomas Gardes</u> , Yan Laberdesque, Edouard Pateau, Maxime Debret, Yoann Copard, Julien Deloffre, Stéphane Marcotte, Anne-Lise Develle, Pierre Sabatier, Eric Chaumillon, Florence Portet-Koltalo <b>Long-term accumulation of metals and persistent pollutants (PAHs, PCBs, organochlorine pesticides) from Eure river watershed (France) in sediments: possible consequences of a dam removal.</b>	11
15:15	<u>Raquel A. Lopes dos Santos</u> , Christopher H. Vane <b>Pharmaceuticals in the Thames Estuary sediments</b>	92

# Tuesday 20 June

## Soil and Sediment

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Location and time: Helga Engshus, Auditorium1, 13:30 - 16:00

Chair: Thomas Bucheli (Agroscope, Switzerland) & Daniel Wächter (Swiss Soil Monitoring Network-NABO, Switzerland)

### Oral presentations: (II):

Time:		Abstract ID:
15:30	<u>Henning K. B. Jensen</u> , Stepan Boitsov <b>Metal concentrations and changes in concentrations during the past 150 years in Norwegian marine sediments – results from the MAREANO marine mapping program</b>	438
15:45	<u>Chris D. Collins</u> , Mark Craggs, Sonia Garcia-Alcega, Katerina Kademoglou, Stephen Lowe <b>Towards a unified approach for the determination of the bioaccessibility of organic pollutants</b>	38
16:00	Health Break, Exhibition and Posters	

# Soil and Sediment

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters (I):

	<b>Abstract ID:</b>
Christina Apel, Jianhui Tang, Ralf Ebinghaus <b>Occurrence and distribution of organic UV stabilizers in sediments of the Bohai and Yellow Seas</b>	12
Cleo L. Davie-Martin, Leah Chibwe, Kelly G. Stratton, Justin G. Teeguarden, Katrina M. Waters, Staci L. Massey Simonichi <b>Does bioremediation of PAH-contaminated soils reduce cancer risk?</b>	89
Laura Ferrando-Climent, Jan Beneda, Tor Bjørnstad, Jiri Mikes, Jiri Muller, Vojtech Pilny, Pavel Spacek, Liv Stavsetra <b>Application of petroleum green-technology for the characterization of chloroethylenes in soil samples from Czech Republic: Tracer pre-qualification</b>	137
Celine Guillemain, Amandine Daval, Cecile Miege, Christelle Margoum <b>Optimization of QuEChERS method for the determination of organic micropollutants in complex environmental matrices: applications for agricultural and urban contaminants in leaf litter or sediments</b>	268
Chamteut Oh, Sangwoo Ji, Giljae Yimi, Youngwook Cheong <b>Applicability of electrochemical reaction, for waste water treatment, powered by temperature difference energy</b>	223
Silvia Lacorte, Esmeralda Morillo, Fernando Madrid, Rubèn Ballesteros, Jaime Villaverde <b>Effects of cyclodextrins and rhamnolipids on the extraction of PAHs and metals from an aged creosote polluted soil</b>	373
Larisa O. Metelkova, Zoya A. Zhakovskaya, Galina I. Kuchareva, Alexander E. Rybalko, Vladimir A. Nikiroforov <b>Occurrence of PCDD/PCDFs and dioxin-like PCBs in sediments from the Neva river and the Eastern Gulf of Finland</b>	338
Divna Nikolic, Christian Bogdal, Konrad Hungerbühler <b>Evaluation of approaches for derivation of threshold values for PAHs in soils based toxicological threshold values in food</b>	372
S.Popoola, D. Purchase, H. Jones <b>Enhanced vermiremediation of hydrocarbon contaminated lands with biosurfactant: an ecotoxicological approach</b>	35
Jana Pulkrabova, Andrea Svarcova, Tomas Gramblicka, Darina Lankova, Jirina Szakova, Jindrich Cerny, Jana Hajslova <b>Assessment of the impact of the different fertilization on the soil contamination by organic pollutants</b>	406
Dayana Sosa, Isabel Hilber, Roberto Faure, Nora Bartolomé, Osvaldo Fonseca, Armin Keller, Peter Schwa, Arturo Escobar, Thomas D. Bucheli <b>Polycyclic aromatic hydrocarbons and polychlorinated biphenyls in soils of Mayabeque, Cuba</b>	46

# Soil and Sediment

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters (II):

**Abstract ID:**

Collins K. Tay, Charles A. Biney

7

**Levels and sources of polycyclic aromatic hydrocarbons (PAHs) in selected irrigated urban agricultural soils in Accra, Ghana**

Daniel Wächter, Andreas Gubler, Peter Schwab, Reto G. Meuli, Thomas Bucheli, Armin Keller

44

**Monitoring of plant protection products in agricultural soils: preliminary results of the Swiss Soil Monitoring Network NABO.**

# Tuesday 20 June

## Sustainable Environmental Chemistry

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Location and time: Helga Engshus, Auditorium 2, 10:30 - 12:15

Chair: Klaus Kümmerer (Leuphana University, Germany) & Santiago Luis (University Jaume I, Spain)

### Oral presentations:

Time:		Abstract ID:
10:30	Nicholas Gathergood <b>Atom Economy, Biodegradation, Catalysis and Green Toxicology: Tools for the Delivery of Green Chemistry based on Ionic Liquids (Keynote)</b>	171
11:00	<u>Klaus Kümmerer</u> <b>Benign by Design as an Important Building Block of Green and Sustainable Chemistry - Examples of its Application for Molecules, Materials, Products and the Management of Their Flows</b>	56
11:15	<u>Christopher Blum</u> , Dirk Bunke, Maximilian Hungsberg, Elsbeth Roelofs, Anke Joas, Reinhard Joas, Markus Blepp, Hans-Christian Stolzenberg <b>The concept of sustainable chemistry: key drivers for the transition towards sustainable development</b>	61
11:30	Esmeralda Neri, <u>Fabrizio Passarini</u> , Ivano Vassura, Loris Giorgini, Giorgio Zattini, Cristian Tosi <b>Life Cycle Assessment methodology (LCA) applied to the case study of a pyrolysis process applied to end-of-life tires</b>	131
11:45	<u>Trine Eggen</u> , Ove Bergersen, Roar Linjordet <b>Sustainable Recycling of Bioresources</b>	435
12:00	Belén Altava, Maria Isabel Burguete, Eduardo García-Verdugo, Edgar Peris, Raul Porcar, <u>Santiago V. Luis</u> <b>Multicatalytic processes based on Supported Ionic Liquid-Like Phases (SILLPs)</b>	211
12:15	Marolda Brouta-Agnésa, Jordi Mota, <u>Àngels Rovira</u> <b>Mitigation of environmental impact caused by DWOR textile finishing chemicals: studying their nontoxic alternatives</b>	99
12:30	Lunch, Exhibition and Posters	



# Sustainable Environmental Chemistry

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

### Abstract ID:

Kyungjin Bae, Dongan Cha, Ohkyung Kwon <b>Performance characteristics of ecofriendly adsorption chiller using FAM Z01 zeolite-water</b>	263
P. Calza, M. Sarro, E. Laurenti, M. C. Paganinin, P. Mallon <b>Assessment of photocatalytic transformation of pyridinium-based ionic liquids in water</b>	201
Paola Calza, Debora Fabbri, Giorgio Noè, Claudio Medana, Valentina Santoro <b>Assessment of photocatalytic transformation of pyridinium-based ionic liquids in water</b>	205
Xavier Méndez, Esteve Font, Almudena Hierro, Montse Resina, Cristina Palet, Jordi Gardia-Orellana <b>Extraction and revalorization of REE from waste sludge from dicalcium phosphate industry</b>	449
Nguyen Tien Giang, Bonwook Koo, Jeasung Park, In Park <b>MgSO<sub>4</sub> impregnated into a ferroaluminophosphate (FAPO<sub>4-5</sub>) with improved thermal energy storage capacity under 150 °C</b>	121
Mirco Volanti, Daniele Cespi, Esmeralda Neri, Fabrizio Cavani Luciano Morselli, Fabrizio Passarini <b>LCA methodology: a case study of the industrial production of terephthalic acid from renewable sources</b>	176
Miroslav M. Vrvic, Vladimir P. Beskoski, Mila Ilić, Jelena Milic, Srdjan Miletić, Jelena Avdalović, Gordana Gojgic-Cvijović <b>Microorganisms from bioremediation to electronic waste: some of our examples</b>	64

# Tuesday 20 June

## Challenges in Environmental Chemistry

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Location and time: Helga Engshus, Auditorium 3, 10:30 - 12:15

Chair: Silvia Lacorte (Institute of Environmental Assessment and Water Research, Spain) & Rosa Maria Marcé (University Rovira i Virgili, Tarragona, Spain)

### Oral presentations:

Time:		Abstract ID:
10:30	<u>Michael Hüben</u> , Marion Woermann, Dieter Hennecke, Bernd Sures <b>Experimental determination of a foliar wash-off coefficient – development of a laboratory procedure</b>	166
10:45	<u>Wiebke Dürig</u> , Karin Wiberg, Lutz Ahrens <b>Development of an extraction and clean-up method for suspect and non-target screening of emerging organic pollutants in biota using liquid chromatography coupled to high resolution mass spectrometry</b>	174
11:00	<u>Reza Aalizadeh</u> , Emma L. Schymanski, Juliane Hollender, Martin Krauss, Maria Ibáñez Martínez, Nikolaos S. Thomaidis <b>Development and Prediction of Liquid Chromatographic Retention Time Indices (RTI) to facilitate non-target identification</b>	272
11:15	Mira Celić, Merixell Gros, Marinella Farre, Damia Barceló, <u>Mira Petrovic</u> <b>Occurrence, distribution and fate of pharmaceuticals as chemical markers of contamination from urban sources in the vulnerable area of the Ebro Delta (Spain)</b>	97
11:30	<u>Jordan Stubleski</u> , Petr Kukucka, Samira Salihovic, Anna Kärrman <b>A new method for fast and efficient analysis of POPs in low volume samples of plasma and serum</b>	279
11:45	Eliezer Brown Mwakalapa, Aviti John Mmochi, Mette Helen Bjørge Müller, Robinson Hemmerthom Mdegela, <u>Jan Ludvig Lyche</u> , Anuschka Polder <b>Occurrence and levels of persistent organic pollutants (POPs) in marine farmed and wild fish from Tanzania. A pilot study</b>	280
12:00	<u>Pawel Rostkowski</u> , Martin Schlabach, Peter Haglund, Cathrin Veenaas, Malcolm Reid, Kevin Thomas, Bert van Bavel <b>Application of target, suspect and non-target screening approach for a comprehensive characterisation of micropollutants in environmental samples from the Nordic countries</b>	398
12:15	Lunch, Exhibition and Posters	

*Posters for the topic of Challenges in Environmental Chemistry are on page 34*

# Tuesday 20 June

## University Education in Environmental Chemistry

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Location and time: Helga Engshus, U35, 10:30 - 12:30

Chair: Gerhard Lammel (Max Planck Institute for Chemistry, Germany) & Ivana Ivancev-Tumbas (University of Novi Sad, Serbia)

### Oral presentations:

Time:		Abstract ID:
10:30	Milan D. Antonijević, Branimir Jovancevic, Tatjana Andelković, Zoran Matović, Ivan Grzetic, <a href="#">Ivana Ivancev-Tumbas</a> , Darko Andelkovic, Steve Leharne <b>University education in Environmental Chemistry in Serbia - lessons learned from Tempus MChem and Erasmus+ NECTHEM project</b>	105
10:45	<a href="#">Gerhard Lammel</a> , Ivana Ivancev-Tumbas <b>Chemistry in Environmental Sciences Related Higher Education (BSc and MSc) Programmes in Europe</b>	120
11:00	<a href="#">Belen Altava</a> , Maria Isabel Burguete, Eduardo Garía-Verdugo, Santiago V. Luis <b>Education in Sustainable Chemistry in Spain: The activities of the Spanish Network in Sustainable Chemistry</b>	210
11:15	<a href="#">Antonio Marcomini</a> , F. Passarini <b>The contribution of Italy to the higher education in environmental chemistry</b>	443
11:30	<a href="#">Rolf-Alexander Duering</a> <b>From urgent need to a success story: the postgraduate study of ecotoxicology in Germany</b>	374
11:45	<a href="#">Eldbjørg Sofie Heimstad</a> , Gaute Grønstøl, Karl Torstein Hetland, Javier Martinez Alarcon, Charlotta Rylander, Espen Mariussen <b>Schools taking part in a research project investigating dioxins in fish</b>	403
12:00	<a href="#">Åse Krøkje</a> <b>Master's degree programme in Environmental Toxicology and Chemistry, NTNU</b>	424
12:15	<a href="#">Lindis Skipperud</a> <b>Development of Education and Training within Radioecology in Europe</b>	448
12:30	Lunch, Exhibition and Posters	

# University Education in Environmental Chemistry

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

### Abstract ID:

Lindis Skipperud

297

**European MSc Programme in radioecology**

Roland Kallenborn, Arne Aalberg, Harald Ellingsen

307

**Research associated teaching concepts for interdisciplinary education in Arctic environmental sciences facing future challenges in circum-Arctic environmental regulation**

# Tuesday 20 June

## Mass spectrometry in food and environmental research

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Location and time: Helga Engshuis, Auditorium 2, 13:30 - 15:45

Chair: Adrian Covaci (University of Antwerp, Belgium) & Ester Heath (Institute Jozef Stefan, Slovenia)

### Oral presentations:

Time:		Abstract ID:
13:30	<u>Dimitra Lambropoulou</u> <b>Suspect screening approach for determination of transformation products of pharmaceuticals in environmental samples using liquid chromatography high resolution mass spectrometry</b>	436
14:00	<u>Petr Kukucka</u> , Ondrej Audy, Dawai Geng, Jordan Stableski, Ingrid Ericson Jogsten, Jana Klánová <b>Application of gas chromatography atmospheric pressure chemical ionization mass spectrometry for analysis of contaminants in environmental samples</b>	208
14:15	Yin Li, Christopher Alaimo, Philip L. Wylie, Michael J. Kleeman, <u>Thomas M. Young</u> <b>Chemical Characterization of Biogas from Varied Organic Feedstocks: Air Quality Implications</b>	247
14:30	Saer Samanipour, <u>Malcolm J. Reid</u> , Kevin V. Thomas <b>A deconvolution and library search algorithm for comprehensive non-target analysis using LC-HR-MS data-independent acquisition</b>	277
14:45	<u>Celine Gys</u> , Ana Kavocic, Tina Kosjek, Adrian Covaci, Ester Heath <b>Photochemical degradation of bisphenols -F, -S and -Z in aqueous solution: degradation kinetics and identification of transformation products</b>	339
15:00	Baptiste A. J. Poursat, Martin Braster, Rick Helmus, Wilfred, F. M. Röling, Rob J. M. van Spanning, Pim de Voogt, <u>John R. Parsons</u> <b>Application of chemostat systems for adaptation of microbial communities in persistency testing</b>	18
15:15	<u>Elin-Melinda Visur</u> , Daniel Kutscher, Shona McSheehy Ducos <b>Improving data quality for arsenic and selenium detection using TQ-ICP-MS in environmental laboratories</b>	441
15:30	<u>Silvia Lacorte</u> , Cristian Gómez-Canela, Helena Franquet-Griell, Josep Caixach, Francesc Ventura <b>Comparison of mass spectrometric platforms for the analysis of cytostatic drugs in water</b>	360
15:45	<u>Marjeta Cesen</u> , Ester Heath <b>Disk-based solid phase extraction of large volume samples for the determination of estrogens and diclofenac listed in the WFD Watch list</b>	129
16:00	Health Break, Exhibition and Posters	

# Tuesday 20 June

## Mass spectrometry in food and environmental research

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Location and time: Helga Engshuis, Auditorium 2, 16:45 - 18:30

Chair: Adrian Covaci (University of Antwerp, Belgium) & Ester Heath (Institute Jozef Stefan, Slovenia)

### Oral presentations:

Time:		Abstract ID:
16:45	Benjamin Wuyts, Euan Ross, Angela Boag, <u>Guy Wilson</u> <b>The analysis of natural and synthetic estrogens at low ppq levels in surface water and final effluent water by LC-ESI-MS/MS</b>	178
17:00	<u>H. Ziarrusta</u> , N. Val, H. Dominguez, L. Mijangos, A. Prieto, A. Usobiaga, N. Etxebarria, O. Zuloaga, M. Olivares <b>Determination of fluoroquinolones in fish tissues, biological fluids and environmental waters by liquid chromatography tandem mass spectrometry</b>	22
17:15	<u>Tomasz Kilijanek</u> , Alicja Niewiadowska, Marta Gawel, Stanislaw Semeniuk, Milena Borzecka, Andrzej Posyniak <b>Multiple residues of pesticides and pesticide metabolites in honeybees: mass-spectrometry based method, exposure assessment of honeybee colonies and evaluation of risks</b>	151
17:30	<u>Vladimir Nikiforov</u> <b>Molecular design of new derivatizing agents for ultra-sensitive ESI(-) LC-MS-MS determination of non-ionic environmental pollutants of emerging concern</b>	378
17:45	<u>Haizea Ziarrusta</u> , Anton Ribbenstedt, Leire Mijangos, Ailette Prieto, Urtzi Izafirre, Maitane Olivares, Olatz Zuloaga, Jonathan P. Benskin, Nestor Etxebarria <b>Targeted approach to identify metabolomic pathways significantly altered in gilt-head bream liver and brain exposed to amitryptiline</b>	142
18:00	<u>Aurea C. Chiaia-Hernández</u> , Barbara F. Günthardt, Martin P. Frey, Juliane Hollender <b>Prioritizing relevant non-target contaminants using statistical analysis of LC-HRMS data of lake sediments</b>	243

# Mass spectrometry in food and environmental research

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
R. Borik, A. Randak, T. Grabicova, K. Turek, J. Federova, G. Cerveny, D. Golovko, O. Kolarova, J. Grabic <b>Application of LDTD/TQMS-HRMS methods for quantification of psychoactive compounds in tissue microsamples.</b>	224
Carl Fisher, Claudia P. B. Martins, Dwain Cardona, Ed George, Frans Schoutsen <b>Expanded Analysis of Human Hormones in Drinking Water Using Solid Phase Extraction and Liquid Chromatography Tandem Mass Spectrometry</b>	400
Lauren Mullin, Malorie Mella, Claude Mallet, Ingrid Ericson Jogsten, Simon Hird <b>Method development of a 2D LC-QToF HRMS method for determination of organophosphorus flame retardants in environmental water samples</b>	253
Xavier Ortiz, Eva Korekova, Karen Macpherson, Eric Reiner, Julie Degryse, Adam Ladak, Lauren Mullin, Claude Mallet, John Vukovic, Marijan Van Hulle, Simon Hird <b>Targeted and no-targeted approaches to the determination of microcystins and other cyanotoxins in water using combinations of one and two dimensional liquid chromatography (1D &amp; 2D LC) and tandem quadrupole (TQ), quadrupole time of flight (QToF) and ion mobility quadrupole time of flight (IMS QToF) mass spectrometry</b>	254
Jukka Pellinen, Riikka-Juulia Koivula, Santeri Savolainen <b>Development of a method for the analysis of emerging contaminants in wastewater using UPLC-TOF-MS</b>	160
Emma Schymanski, Martin Krauss, Casmi Cat. 2/3 Participants, Steffen Neumann <b>(Semi)-Automated Small Molecule Identification in Non-target Environmental Analysis: State-of-the-art from the CASMI 2016 Contest</b>	29
Annemieke Togola, Margoum Christelle, Lardy Fontan Sophie, Lestremau Francois <b>A French collaborative study to evaluate the impact of acquisition workflow with LC-HRMS on environmental data</b>	415
Alexander L. N. van Nuijs, Juliet Kinyua, Noelia Negreira, Lies Gremeaux, Peter Blanckaert, Adrian Covaci <b>Suspect and non-target screening by high resolution mass spectrometry for the detection of new psychoactive substances in wastewater and pooled urine</b>	314
Souna Zhang, Leonardo Gutierrez, Fei Qi, Jean-Philippe Croue <b>Aquatic dissolved organic matter interfacial interactions with MnO<sub>2</sub>: Influence of DOM characteristics and solution chemistry</b>	315
Christine Gallampois, Peter Haglund <b>How does Ion Mobility – Mass Spectrometry benefit non-target environmental studies?</b>	162

# Tuesday 20 June

## Radioecology

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Location and time: Helga Engshus, Auditorium 3, 13:30 - 15:45

Chair: Brit Salbu (Norwegian University of Life Sciences, Norway) & Valery Kashparov (Ukrainian Institute of Agricultural Radiology, Ukraine)

### Oral presentations:

Time:		Abstract ID:
13:30	<u>Valery Kashparov</u> <b>Lessons learned from the Chernobyl accident (Keynote)</b>	240
14:00	<u>Georg Steinhauser</u> <b>Fukushima's (radio)chemical challenges</b>	43
14:15	<u>J. H. Kamstra</u> , L. Martin Martin, L.C. Lindeman, S. Hurem, J. Legler, J.L. Lyche, P. Aleström <b>Generational effects of low dose ionizing radiation on DNA methylation in zebrafish</b>	134
14:30	<u>Selma Hurem</u> , Tania Gomes, Dag Brede, Elisabeth Lindbo-Hansen, Ann-Karin Olsen, Yetneberk Kassaye, Stephen Mutoloki, Brit Salbu, Deborah Oughton, Peter Aleström, Jan L. Lyche <b>Parental exposure to gamma radiation induces oxidative stress in zebrafish progeny</b>	179
14:45	<u>Li Xie</u> , You Song, Ole-Christian Lind, Knut Asbjørn Solhaug, Brit Salbu, Knut Erik Tollefsen <b>Multiple stressor effects of ionising (gamma) and non-ionising (UV) in duckweed (Lemna minor)</b>	251
15:00	<u>Brit Salbu</u> <b>Radioactive particles in the Environment - Sources and potential impact</b>	290
15:15	<u>Deborah Oughton</u> , Emmanuel Lapeid, Ilya Velegzhaninov, Cristian Fernandez, Carmel Mothersill, Hallvard Haanes <b>Ecological effects of ionizing radiation on earthworms</b>	428
15:30	Anne Graupner, Dag M. Eide, Christophe Badie, Simon Bouffler, Dag Brede, Brit Salbu, Deborah Oughton, <u>Ann-Karin Olsen</u> <b>Genotoxicity of different low dose rates of gamma radiation in three strains of mice</b>	410
15:45	Health Break, Exhibition and Posters	



# Tuesday 20 June

## Radioecology

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Location and time: Helga Engshus, U35, 16:45 - 18:45

Chair: Brit Salbu (Norwegian University of Life Sciences, Norway) & Valery Kashparov (Ukrainian Institute of Agricultural Radiology, Ukraine)

### Oral presentations:

Time:		Abstract ID:
16:45	<u>Hildegard Vandenhove</u> , Maarit Muikku, Åste Søvik, Catherine Lecomte-Pradines, Nick Beresford, Almudena Real <b>The European Radioecology Alliance: Encouraging the Coordination and Integration of Research Activities in Radioecology (Keynote)</b>	313
17:15	<u>Per Strand</u> , Justin Brown <b>Assessment of Environmental Impacts from Ionising Radiation following the Fukushima Accident – A review of published works</b>	337
17:30	<u>You Song</u> , Jana Asselman, Karel A. C. de Schamphelaere, Brit Salbu, Knut Erik Tollefsen <b>Deciphering multiple stressor effects of gamma radiation and uranium on Atlantic salmon (<i>Salmo salar</i>): Transcriptomics-based mixture modeling</b>	340
17:45	<u>Hans-Christian Teien</u> <b>Uranium -speciation, uptake and toxicity towards Atlantic Salmon (<i>Salmo salar</i>)</b>	346
18:00	Justin Brown, Ali Hosseini, Jerzy Bartnicki, <u>Heiko Klein</u> <b>Environmental Impacts from hypothetical accident scenarios involving the recovery of the dumped Russian submarine K-27</b>	351
18:15	<u>Knut Erik Tollefsen</u> , Tania Gomes, Li Xie, Karina Petersen, Knut Asbjørn Solhaug, Bjørn Johnsen, Kristine Bjerke Gutzkow, Justin Brown, Dag Brede, Ole Christian Lind, Brit Salbu, You Song <b>Adverse Outcome pathways (AOP)-assisted hazard and risk assessment of ionising and ultraviolet radiation in aquatic organisms</b>	380

# Radioecology

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
<u>Li Xie</u> , Knut Asbjørn Solhaug, Ole-Christian Lind, Knut Erik Tollefsen <b>Monitoring of physiological responses to gamma radiation in Lemna minor</b>	250
<u>Leif Christopher Lindeman</u> , Leonardo Martina, Jorke Kamstraa, Selma Hurema, Deborah Oughtona, Brit Salbua, Jan Ludvig Lyche, Peter Aleström <b>Effects of low dose gamma radiation on histone modifications during zebrafish embryogenesis</b>	365
<u>H. Dahl</u> , A.-K. Olsen, O. Myhre, T. Hofer D.M. Eide, A. Graupner, J. Andersen, G. Brunborg, D. Oughton, B. Salbu, C. Instanes <b>Genomic instability and cognitive function in F2 mice originating from grandfathers exposed to chronic low dose rate gamma radiation</b>	425
<u>Martyna Saba</u> , Jerzy Falandysz, Ji Zhang, Michal Saniewski, Anna Wiejak, Tamara Zalewska <b>Contamination with <sup>137</sup>Cs of mushrooms and forest soils from a high mountain region of Sichuan and highlands of Yunnan in China</b>	42

# Tuesday 20 June

## Arctic Pollution

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Location and time: Helga Engshus, U35, 13:30 - 16:00

Chair: Lars-Otto Reiersen (Arctic Monitoring and Assessment Programme, Oslo, Norway) & Katrine Borgå (University of Oslo, Norway)

### Oral presentations:

Time:		Abstract ID:
13:30	Cynthia A. de Wit, Jennifer Balmer, Derek Muir, <u>Katrin Vorkamp</u> , and Simon Wilson <b>Highlights from the new AMAP assessment report on chemicals of emerging Arctic concern (Keynote)</b>	292
14:00	<u>Ingjerd S. Krogseth</u> , Emma Undeman, Anita Evenset, Guttorm N. Christensen, Mick J. Whelan, Knut Breivik, Nicholas A. Warner <b>Factors affecting bioaccumulation of cyclic volatile methyl siloxanes in a sub-arctic benthic-pelagic food web</b>	122
14:15	<u>Zhiyong Xie</u> , Jing Li, Jianhui Tang, Wenying Mi, Weihai Xu, Senchao Lai, Ralf Ebinghaus <b>Environmental fate of organophosphate flame retardants and plasticizers in the marine and polar environment</b>	207
14:30	<u>Roland Kallenborn</u> , Julie Sophie Strømberg, Lars-Otto Reiersen, Terje Vasskog <b>Pharmaceuticals as new emerging contaminants in the Arctic environment: Implications and Perspectives</b>	214
14:45	<u>Terry Bidleman</u> , Eva Brorström-Lundén, Katarina Hansson, Olle Nygren, Hjalmar Laudon, Mats Tysklind <b>Atmospheric Transport and Deposition of Bromoanisoles in Temperate and Arctic Fennoscandia</b>	220
15:00	<u>Jack Garnett</u> , Crispin Halsall, James France, Max Thomas <b>The role of sea ice in the entrapment, processing and release of persistent organic pollutants: experiments in a sea ice facility</b>	231
15:15	<u>Yuxin Ma</u> , Crispin Halsall, Zhiyong Xie, Danijela Koetke, Wenying Mi, Ralf Ebinghaus, Guoping Gao <b>Polycyclic Aromatic Hydrocarbons in ocean sediments from the North Pacific to the Arctic Ocean</b>	232
15:30	<u>M. Harju</u> , H. Routti, L. Røhler, P. Rostkowski, J. Aars, C. Lydersen, K.M. Kovacs, G.W. Gabrielsen <b>Non-target screening of new compounds in Arctic apex predators</b>	413
15:45	<u>Y-F Li</u> , L-N Qiao, N-Q Ren, E. Sverko, D. Mackay, R. W. Macdonald <b>The pathway for BDE-209 enters the Arctic air</b>	432
16:00	Health Break, Exhibition and Posters	

# Arctic Pollution

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
Terry F. Bidleman, Eva Brorström-Lundén, Katarina Hansson, Olle Nygren, Hjalmar Laudon, Mats Tysklind <b>Deposition of Bromoanisoles in coastal and Arctic Fennoscandia</b>	418
Pernilla Carlsson, Øystein Varpe, Katrine Borgå, Jaromír Sobotka, Branislav Vrana <b>New brominated flame retardants in Svalbard; local or long range origin?</b>	152
Boris N. Demin, Sergey V. Vlasov, Leonid A. Lisitsyn, Elena G. Zhuvikina, Evgeny A. Yaeski <b>Environmental Contaminants in Arctic: Monitoring of Barentsburg and adjacent territories</b>	139
Daniel Hitchcock, Maarten Loonen, Dorte Herzke, Tom Andersen, Øystein Varpe, Katrine Borgå <b>Migration effects on levels of perfluoroalkyl substances in eggs of Arctic breeding Barnacle geese (<i>Branta leucopsis</i>)</b>	233
Henning K. B Jensen, Michael Komárek, Vladislav Chrastný, Hana Sillerová, Lars-Ola Nilsson, Paul Eric Aspholm, Tore F. Berglen <b>Metal (Ni and Cu) concentrations and changes in concentrations during the past 20 years in Eastern Finnmark top soils affected by Ni-Cu smelter emissions and at background areas in central Finnmark, Northern Norway.</b>	437
Jøran Solnes Skaar, Erik Magnus Ræder, Lutz Ahrens, Roland Kallenborn, Jan Ludvig Lyche <b>Source elucidation for perfluoroalkyl substances (PFASs) around Svalbard settlements</b>	213
Darya Kupryianchyk, Per Liljelind, Terry Bidleman, Danny Chun Pong Lau, Ryan Sponseller, Reiner Giesler, Patrik Andersson <b>Spatial and seasonal variation of POPs in arctic streams using filter-feeding larvae of black flies and passive water sampling</b>	225
A. I. Kozhushkevich, A. M. Kalantaenko, K. A. Turbabina, A. A. Shelepchikov, V. V. Ovcharenko, A. A. Komarov, L. O. Doronina, N. A. Bocharova, M. E. Goltsman <b>High levels of PCDD/PCDFs in Arctic fox of the Mednyi Island in the North Pacific</b>	234
Nikita Sobolev, Andrey Aksenov, Elena Gusakova, Yngvar Thomasen, Valerii Chashchini, Tatiana Sorokina, Dmitry Lakhmanov, Igor Sinelnikov <b>Evaluation and forecasting of highly toxic pollutants (pesticides and trace elements) distribution by biological pathways on the territory of European Russia Arctic</b>	197
Julie Sofie Strømberg, Roland Kallenborn, Helen Thorsen Rønning, Terje Vasskog <b>Levels of selected pharmaceuticals (PPCPs) in seawater and biota near the sewage outlet of a North Norwegian Hospital (Tromsø, Norway).</b>	246
Shamil Yakubov, Elizaveta Protsenkoi, Andre Staalstrøm, Evgeniy Takushev <b>Simultaneous simulations of sea ice, water column and sediments biogeochemistry in the Kara sea area with a 1D model</b>	392

# Tuesday 20 June

## Passive Sampling

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Location and time: Helga Engshus, Auditorium 1, 16:45 - 18:45

Chair: Ian Allan (Norwegian Institute for Water Research, Norway) & Pawel Rostkowski (Norwegian Institute for Air Research, Norway)

### Oral presentations:

Time:		Abstract ID:
16:45	David McLagan, Carl Mitchell, Fabrizio Monaci, Bridget Berquist, Haiying Huang, Ying Duan Lei, Hayley Hung, Alexandra Steffen, <a href="#">Frank Wania</a> <b>Monitoring gaseous mercury with a precise, accurate and inexpensive passive sampler</b>	16
17:00	<a href="#">Hanna Fuchte</a> , Killian Smith, Andreas Schäffer <b>Monitoring water quality using passive sampling in kinetic mode: A new calibration approach using the concentration ratio of passive samplers with different thicknesses</b>	98
17:15	<a href="#">Jonas Mechelke</a> , Étienne L. M. Vermeirssen, Juliane Hollender <b>Tracing hyporheic zone-driven attenuation of polar organic pollutants using passive sampling</b>	239
17:30	<a href="#">Marina G. Pintado-Herrera</a> , Ian J. Allan, Pablo A. Lara-Martín <b>One-year monitoring of legacy and emerging contaminants in a coastal setting (Cadiz Bay, Spain) using a combined approach: passive samplers and sentinel organisms</b>	342
17:45	<a href="#">Nuno Ratola</a> , Javier Castro-Jiménez, Sara Ramos, José Avelino Silva, Arminda Alves, Pedro Jiménez-Geurrero <b>Semivolatile organic contaminants (SVOCs) in the SE of Spain: passive air sampling and a modelling approach including climate change projections</b>	343
18:00	<a href="#">Naiara Berrojalbiz</a> , Dorothea Gilbert, Hans Peter H. Arp <b>The advantages of a co-deployment of equilibrium passive samplers in both air, water and sediment for simple multicompartment chemical activity measurements in real-world environments</b>	358
18:15	<a href="#">Salome Ansanay-Alex</a> , Charles Pollono, Nadege Bely, Dominique Jullien, Yannick Chancerelle, Sakina Mezzache, Aiaa Benseitra, Brice Bonnet, Marc Leonard, Thierry Burgeoti, Celine Tixier <b>Monitoring of organic UV filters in coastal waters from French Polynesia using passive sampling</b>	361
18:30	<a href="#">Lisa A. Jones</a> , Jenny Ronan, Brendan McHugh, Evin McGovern, Ray Thomas, Fiona Regan <b>Application of passive sampling to the determination of cypermethrin in an Irish catchment</b>	409

# Passive Sampling

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
Michaela Belhacova, Branislav Vrana, Tatsiana Rusina, Foppe Smedes <b>Pore water and accessible concentrations of hydrophobic contaminants in Danube river sediments estimated by multi-ratio equilibrium passive sampling</b>	149
Adele Bressy, Bertille Bonnaud, Emilie Caupos, Remi Mazerolles, Sifax Zedek, Regis Moilleron <b>Development and calibration of polymeric membranes as passive sampler to evaluate the triclosan and triclocarban contamination of the Seine River</b>	117
Dorthea Gilbert, Naiara Berrojalbiz, Espen Eek, Amy M. P. Oen, Hans Peter H. Arp <b>Linking in situ passive sampler measurements to chemical activity across the sediment-water interface</b>	359
Celine Guillemain, Azziz Assoumani, Marina Coquery, Christelle Margoum <b>Comparison of two experimental systems for the calibration of passive samplers for pesticides</b>	81
Jana Meierdierks, Christiane Zarfl, Peter Grathwohl <b>Determination of Cross Compartment Concentration Gradients of Polycyclic Aromatic Hydrocarbons using PE Passive Samplers</b>	293
Alena Otoupalikova, Zdenek Simek, Branislav Vrana <b>In situ calibration of passive samplers for the monitoring of steroid hormones in wastewater</b>	150
Jose Avelino Ratola, Marzieh Moenfaard, Sara Ramos, Eduardo Silva, Vera Homem, Lúcia Santos, Arminda Alves, Nuno Ratola <b>Seasonal and spatial trends of polycyclic aromatic hydrocarbons (PAHs) and synthetic musks in Portugal using pine needles</b>	345
Sigurd Øxnevad, Morten T. Schaanning, Anders Ruus <b>In situ sediment flux measurements of metals by using DGT-probes</b>	132

# Tuesday 20 June

## Humic Substances in the Environment

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Location and time: Helga Engshus, Auditorium 3, 16:45 - 18:45

Chair: Gudrun Abbt-Braun (Karlsruhe Institute of Technology, Germany); Rolf Vogt (University of Oslo, Norway), & Yannis Deligiannakis (University of Ioannina, Greece)

### Oral presentations:

Time:		Abstract ID:
16:45	<u>Deligiannakis Yannis</u> , Eleni Bletsas <b>Antioxidant Humic Acid- Based Nanohybrids (Keynote)</b>	198
17:15	<u>Xi-Zhiu Niu</u> , Mourad Harir, Philippe Schmitt-Kopplin, Jean-Philippe Croué <b>Characterisation of Natural Organic Matter and Sunlight-induced Chemical Changes by Fourier transform ion cyclotron resonance mass spectrometry (FT-ICR MS)</b>	53
17:30	<u>Nadja Triesch</u> , Manuela van Pinxteren, Hartmut Herrmann <b>Chemical characterization of organic matter in marine environment – Analysis of nitrogen containing organic compounds</b>	172
17:45	Edisson Subdiaga, <u>Silvia Orsetti</u> , Mourad Harir, Philippe Schmitt-Kopplin, Stephan B. Haderlein <b>Use of mediated electrochemical analysis and high-field FTICR mass spectrometry to explain humic acid fractionation upon sorption to redox inert sorbents</b>	79
18:00	Elena Bodarenko, Heinz-Jürgen Steinhoff, Kalman Hideg, <u>Michael Matthies</u> <b>Kinetics of Covalent Bond Formation of Sulfonamide with Soil Humic Acid: ESR Investigations with Nitroxide Spin Label</b>	219
18:15	<u>Angelique Goffin</u> , Sabrina Guerin, Vincent Rocher, Gilles Varrault <b>Excitation-emission matrix Fluorescence spectroscopy to assess quality and quantity of dissolved organic matter in the Seine River from the upstream to the downstream of the Paris agglomeration during a hydrological year</b>	333
18:30	<u>G. Varrault</u> , C. Soares-Pereira, A. Bressy <b>Effect of effluent dissolved organic matter on trace metals sorption by mineral particles in aquatic systems under strong urban pressure</b>	316

# Humic Substances in the Environment

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
Angelique Goffin, Sabrina Guerin, Vincent Rocher, Gilles Varrault <b>Applicability of Excitation-emission matrix Fluorescence spectroscopy to monitor variations of dissolved organic matter quality and quantity in wastewater treatment process to prevent upset in the receiving water</b>	334
Thorsten Hahn, Carolin Floeter, Susanne Schwonbeck, Gustav Könnecker <b>When is a substance a 'natural substance'? A case study in the context of the EU veterinary medicines market authorisation procedure</b>	310
Sabrina Schultze, Amanda Poste, Anders Ruus, Dag Olav Hessen, Tom Andersen, Katrine Borgå <b>Do high levels of terrestrial DOM uptake lead to higher contaminant concentration and changes in energy allocation and growth? A study on three marine lower food web taxa</b>	143
Tobias Spranger, Dominik van Pinxteren, Oliver Lechtenfeld, Thorsten Reemtsma, Hartmut Herrmann <b>Elucidating the composition of humic-like substances in atmospheric aerosol particles via 2D liquid chromatographic fractionation and ultra-high resolution mass spectrometry</b>	273
Caitlin M. Taylor, Matthew J. Berry, William King, Davide Mattia, Y. M. John Chew, Jannis Wenk <b>Basic batch reactor ozonation experiments and modelling of non-porous ozone resistant membranes for water treatment</b>	260
Gilles Varrault, Caroline Soares-Pereira, Adele Bressy <b>Effect of effluent dissolved organic matter on polycyclic aromatic hydrocarbons sorption by mineral particles in aquatic systems under strong urban pressure</b>	317
Jannis Wenk, Silvio Canonica <b>Effect of solution pH on the inhibition of triplet induced contaminant oxidation in presence of dissolved organic matter (DOM)</b>	259



# Wednesday 21 June

## Plenary session:

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*Location: Georg Sverdrups hus, Auditorium 1*

**Time:**

09:00	<b>Introduction and Administrative notes</b>
09:15	<b>Plenary Lecture:</b> Rupert Simon (European Chemicals Agency, Helsinki, Finland): <b>Reach(ing) Sustainable development</b>
10:30 - 12:45	<b>Thematic Sessions - see detailed schedule</b>
13:30 - 16:00	<b>Thematic Sessions - see detailed schedule</b>
16:30 - 17:30	<b>Thematic Sessions - see detailed schedule</b>
17:40	<b>Closure of the Conference</b> <b>Presentation ICCE 2019 (Thessaloniki, Greece)</b> <b>Young Scientist Awards (Poster and Oral)</b>
18:30	<b>Conference Adjourned</b> <b>Posters Removed</b>

# Wednesday 21 June

## Poly- and Perfluoroalkyl Substances (PFASs)

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Location and time: Helga Engshus, Auditorium 1, 10:30 - 12:45

Chair: Jon Benskin (University of Stockholm, Sweden) & Christopher P. Higgins (Colorado School of Mines, CO, USA)

### Oral presentations:

Time:		Abstract ID:
10:30	<u>Anna Kärrman</u> , Thanh Wang, Leo W.Y. Yeung <b>The need and application of non-target strategies for analysis of per- and polyfluoroalkyl substances (PFASs) (Keynote)</b>	426
11:00	Roger A. Klein, <u>Nigel Holmes</u> <b>Fluorochemicals - What is the Fuss All About?</b>	164
11:15	<u>Alix Robel</u> , Kristin Marshall, Margaret Dickinson, David Lunderberg, Craig Butt, Graham Peaslee, Heather M. Stapleton, Jennifer A Fielda <b>Scratching the Surface of PFASs: An attempt at closing the mass balance using four techniques in select Papers &amp; Textiles</b>	5
11:30		
11:45	<u>Ulrika Eriksson</u> , Anna Kärrman, Leo W.Y. Yeung <b>Per- and polyfluorinated alkyl substances (PFASs) and total organofluorine (TOF) in sludge and water from Swedish waste water treatment plants (WWTP)</b>	402
12:00	<u>Åse Høisæter</u> , Sarah Hale, Gøril Aasen Slinde, Paul Sverdrup Cappelen, Hans Peter Arp, Gijs D. Breedveld <b>Stabilization or mobilisation of PFAS at firefighting sites in Norway - feasibility for remediation</b>	427
12:15	<u>Nor Laili Azua Jamari</u> , Jan Frederik Dohmann, Andrea Raab, Eva M. Krupp, Jörg Feldmann <b>Perfluorinated compounds detection using non-target analysis of RP-HPLC-ICPMS/MS</b>	209
12:30	Yuan Wang, <u>Yali Shi</u> , Robin Vestergren, Zhen Zhou, Yong Liang, Yaqi Cai <b>Non-invasive human biomonitoring techniques for long- and short-chain per- and polyfluoroalkyl substances</b>	73
12:45	Lunch, Exhibition and Posters	

# Wednesday 21 June

## Poly- and Perfluoroalkyl Substances (PFASs)

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Location and time: Helga Engshus, Auditorium 1, 13:30 - 16:00

Chair: Jon Benskin (University of Stockholm, Sweden) & Christopher P. Higgins (Colorado School of Mines, CO, USA)

### Oral presentations:

Time:		Abstract ID:
13:30	<u>Robin Vestergren</u> , Yali shi, Xiaowei Song, Yaqi Cai <b>Knowns and unknowns of fluoropolymer production as a source of per- and polyfluoroalkyl substances to the environment (Keynote)</b>	325
14:00	<u>Dorte Herzke</u> , Torgeir Nygårs, Elcbjørg Heimstad <b>PFAS in urban terrestrial environments; the case study Oslo city</b>	113
14:15	Mari E. Løseth, <u>Marie J. D. Persson</u> , Oddmund Kleven, Petter Walbakken, Igor Eulaers, Read Awad, Jonathan Benskin, Veerle L. B. Jaspers, Torgeir Nygård <b>Concentrations of per- and polyfluoroalkyl substances in moulted feathers of Eurasian Eagle-owls (Bubo bubo) in Norway</b>	48
14:30	Hao Chen, Zhen Zhao, Yiming Yao, <u>Hongwen Sun</u> <b>Concentrations and distribution of perfluoroalkyl and polyfluoroalkyl substances (PFASs) in multi-environmental matrices around two fluorochemical manufacturing parks in Fuxin, China</b>	451
14:45	Vera Franke, Nadine Belkouteb, Philip McCleaf, Stephan J. Köhler, <u>Lutz Ahrens</u> <b>Evaluation of the removal efficiency of per- and polyfluoroalkyl substances in a full scale drinking water treatment plant</b>	77
15:00	Xin Xiao, Bridget A. Ulrich, Baoliang Chen, <u>Christopher P. Higgins</u> <b>Sorption of Poly- and Perfluoroalkyl substances (PFASs) relevant to Aqueous Film Forming Foam (AFFF)-impacted Groundwater by Biochars and Activated Carbon</b>	58
15:15	Krista A. Barzen-Hanson, Christopher P. Higgins, <u>Jennifer A. Field</u> <b>Why It Matters: Frequency, Occurrence, Transport, and Implications of the 40 Classes of Recently-Discovered Per- and Polyfluoroalkyl Substances in Aqueous Film-Forming Foam Impacted Groundwater</b>	8
15:30	<u>Ekhine Bizkarguenaga</u> , Itsaso Zabaleta, Deborah B.O. Nunoo, Lara Schultes, Juliana Leonel, Ailette Prieto, Olatz Zuloaga, Jonathan P. Benskin <b>Biodegradation and uptake of the pesticide sufuramid in a soil/ carrot mesocosm</b>	309
15:45	<u>Jana H. Johansson</u> , Ian T. Cousins <b>Are perfluoroalkyl acid isomer patterns useful markers of manufacturing origin in atmospheric samples?</b>	245
16:00	Health Break, Exhibition and Posters	

# Wednesday 21 June

## Poly- and Perfluoroalkyl Substances (PFASs)

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Location and time: Helga Engshus, Auditorium 1, 16:30 - 17:30

Chair: Jon Benskin (University of Stockholm, Sweden) & Christopher P. Higgins (Colorado School of Mines, CO, USA)

### Oral presentations:

Time:		Abstract ID:
16:30	Eleni Papadopoulou, Somrutai Poothong, Jacco Koekkoek, Luisa Lucattini, Juan Antonio Padilla-Sánchez, Margaretha Haugen, Dorte Herzke, Stig Valdersnes, Amund Maage, Ian T. Cousins, Pim EG Leonards, <u>Line Småstuen Haug</u> <b>Estimating human exposure to perfluoroalkyl acids via solid food and drinks: implementation and comparison of different dietary assessment methods</b>	350
16:45	<u>Vladimir Nikiforov</u> <b>Environmental stability of new PFAS through MS-fragmentation and quantum chemistry methods – on the way to degradable PFAS</b>	423
17:00	<u>Linda Hanssen</u> , Dorte Herzke, Vladimir Nikiforov <b>Sulfobenzoic anhydride – new derivatizing reagent for high sensitivity LC-MS-MS analysis of Fluorotelomer alcohols</b>	371
17:15	<u>Lena Vierke</u> , Claudia Staude, Éva Fetter, Stephan Brendel, Annegret Biegel-Enler <b>Regulation needs support from research: Short-chain PFASs under REACH</b>	112

# Poly- and Perfluoroalkyl Substances (PFASs)

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters (I):

	<b>Abstract ID:</b>
Peter Abrahamsson, Marcus Chadha, Lutz Ahrens <b>Quantification of sub ppt levels of per- and polyfluoroalkyl substances in various waters utilizing advanced ultra-high performance liquid chromatography and triple quadrupole mass spectrometry</b>	270
Cristina Bach, Virginie Boiteux, Christophe Rosin, Jean-François Munoz, Xavier Dauchy <b>What information can we learn from indirect measurements of PFASs</b>	90
Gijs D. Breedveld, Carl-Einar Amundsen, Tore Joranger, Are Vestli, Marianne Kvennås <b>Risk assessment of PFAS run-off from military airfields.</b>	387
Malin Bergman, Måns Lindell, Carin Lundqvist, Ingrid Ericson Jogsten <b>Glacial relicts as possible vectors of transport of Per- and polyfluoroalkyl substances (PFASs) at various trophic levels in the Arctic char food web in Lake Vättern</b>	241
Ivan Dragicevic, Oskar Sandblom, Susanne Eich-Greatorex, Trine A. Sogn, Roland Kallenborn, Jonathan P. Benskin <b>Per- and polyfluoroalkyl substances in soil, grain and leachate following field application of biogas digestates</b>	332
Florian Dubocq, Thanh Wang, Anna Kärrman <b>Analysis of firefighting foams on the Swedish market using a non-target analysis approach</b>	158
Thomas Gramblicka, Miroslava Jerabkova, Darina Lankova, Andrea Svarcova, Jana Hajslova, Jana Pulkrabova <b>Development of a multi-analytical method for the simultaneous determination of selected organophosphorus flame retardants (OPFRs) and perfluoroalkyl substances (PFASs) in indoor dust</b>	322
Linda Hanssen, Dorte Herzke, Vladimir Nikiforov <b>Per-and polyfluorinated substances in textiles and outdoor gear</b>	419
Aline Koch, Anna Kärrman, Lutz Ahrens, Micael Jonsson, Leo W.Y. Yeung, Thanh Wang <b>Homologue and precursor distribution of per- and polyfluorinated substances (PFASs) in contaminated streams in Sweden</b>	47
Jani Koponen, Hannu Kiviranta <b>Simple and high throughput method for simultaneous determination of perfluoroalkyl acids, parabens and cotinine from a low volume human serum sample</b>	159
Alix Robel, Jennifer Fielda, Dorin Bogdanb, Bill Diguiseppic, Graham Peasleed <b>Using Individual LC-MS/MS Analysis of Newly Discovered PFASs to Inform Sampling Storage and Stability</b>	6
Robin Vestergren, Yali Shi, Zhen Zhou, Yong Liang, Jun Huang, Yaqi Cai <b>Are perfluoroalkyl acid isomer profiles in human serum reliable exposure biomarkers?</b>	74

# Poly- and Perfluoroalkyl Substances (PFASs)

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters (II):

### Abstract ID:

Itsaso Zabaleta, Ekhine Bizkarguenaga, Urtzi Izagirre, Noelia Negreira, Adrian Covaci, Jonathan P. Benskin, Ailette Prieto, Olatz Zuloaga 308

**Accumulation and biotransformation of 8:2 polyfluoroalkyl phosphate diester in gilthead bream (*Sparus aurata*)**

Zhen Zhao, Zhiyong Xie, Chongguo Tian, Guangcai Zhong, Gan Zhang, Shaorui Wang, Qilu Li, Ralf Ebinghaus, Lijie Mi, Hongwen Sun, Jianhui Tang 196

**Distribution and transport of perfluoroalkyl and polyfluoroalkyl substances in the lower atmosphere and surface waters of the Chinese Bohai Sea, Yellow Sea, and Yangtze River Estuary**

# Wednesday 21 June

## Water Treatment

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Location and time: Helga Engshus, Auditorium 2, 10:30 - 12:45

Chair: Ioannis Katsogiannis (University of Thessaloniki, Greece) & Mathias Ernst (Technical University Hamburg-Harburg, Germany)

### Oral presentations:

Time:		Abstract ID:
10:30	Irene Slavik, <a href="#">Wolfgang Uhl</a> <b>Prediction of SOC breakthrough in Granular Activated Carbon Adsorption (Keynote)</b>	445
11:00	<a href="#">Margarethe Langer</a> , Anne Gröhlich, Sruthi Kalyanasundaram, Manasis Mitrakas, Anastasios Zouboulis, Yioannis Katsoyianni, Mathias Ernst <b>Removal of Cr(VI) by Fe(II) reductive precipitation from ground waters containing natural organic matter</b>	442
11:15	Stefanie Schulze, Urs Berger, Daniel Zahn, Thomas Knepper, Rosa Montes, José Benito Quintana, <a href="#">Thorsten Reemtsma</a> <b>Persistent, mobile and largely unknown. The potential threat to our drinking water resources by persistent, mobile organic compounds</b>	156
11:30	<a href="#">Annemieke Kolkman</a> , Dennis Vughs, Kirsten Baken, Bram Martijn, Pim De Voogt <b>Application of direct analysis to identify mutagenic nitrogenous disinfection byproduct of advanced oxidation drinking water treatment</b>	301
11:45	Thomas Wagner, <a href="#">John R. Parsons</a> , Alette Langenhoff, Huub Rijnaarts, Pim De Voogt <b>Simultaneous biodegradation of water treatment additives: Transformation and byproduct formation, impact of biocide shockdosing and salinity</b>	19
12:00	<a href="#">Stefano Alberti</a> , Valentina Caratto, Federico Locardi, Giorgio A. Costa, Michaela Sturini, Andrea Speltini, Federica Maraschi, Maurizio Ferretti <b>Removal of pollutants of emerging concern: optimization of the synthesis of NP-TiO<sub>2</sub> supported on a persistent luminescence material for treatment of turbid wastewaters</b>	229
12:15	Jan Benecke, Fabian Baur, Mortiz Haas, <a href="#">Mathias Ernst</a> <b>Gypsum Scaling Behaviour and Characterization during Reverse Osmosis in the Presence of Natural Organic Matter</b>	434
12:30	<a href="#">Alexis Grandcoin</a> <b>Degradation products of pesticides in natural waters, favorable export conditions and seasonal variability</b>	227
12:45	Lunch, Exhibition and Posters	

# Water Treatment

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters (I):

	<b>Abstract ID:</b>
Ahmed Abdelrady, Saroj Sharma, Amr Abogabal, Maria Kennedy <b>Role of redox conditions and organic matter in the removal of organic micro-pollutants during bank filtration</b>	87
V. Albergamo, J.E. Schollée, E.L. Schymanski, R. Helmus, J. Hollender, P. de Voogt <b>Detecting polar micropollutants in a drinking water source at a river-riverbank filtration site using non-target screening</b>	252
Hans Peter H. Arp, Nicolas A. O. Morin, Sarah E. Hale, Åsgeir R. Almås, P. Andersson, G. Okkenhaug <b>Flame retardant presence and environmental mobility in Norwegian Waste and Waste-handling facilities</b>	108
S.M. Avramescu, R.C. Fierascu, I. Fierascu, A. Olaru, C. Bradu, A. Nica <b>Application of <math>\beta</math>-cyclodextrin nanocomposites for the removal of organic pollutants from aqueous solution</b>	444
Imane Berni, Ibrahim El Ghazi, Mohamed Ben-Daoud, Samir El Jaafari, Patrick Dugue <b>Distribution of groundwater nitrate contamination in GIS environment: a case study, Sais plain. Morocco</b>	51
Kai Bester, Monica Escola Casas, Anders Johansen, Lars H. Hansen, Gordon Ooi, Henrik R. Andersen <b>Reactions and mass balances of micropollutants in biofilm reactors for wastewater treatment</b>	264
Adele Bressy, Sifax Zedek, Remi Mazerolles, Emilie Caupos, Romain Mailler, Pascale Neveu, Vincent Rocher, Regis Moilleron <b>An overview of the parabens, triclosan and triclocarban contamination in the continuum greywater – surface water</b>	118
P. Calza, M. Sarro, E. Laurenti, M.C. Paganini, P. Mallon <b>Semiconductor oxide and enzymes hybrid systems as high efficient catalysts for recalcitrant pollutants abatement</b>	154
Nathalie Cottin, Philippe Fanget, Peter Gallinelli, Frédéric Gillet, Emmanuel Naffrechoux <b>Actual PCBs concentration in north Atlantic and Arctic air (NANUQ 2015-2016)</b>	82
Christine Egli, Kristopher McNeill, Elisabeth M.-L.-Janssen <b>Stability of extracellular enzyme in surface waters: Comprehensive structural and functional analysis by proteomics techniques and enzymology.</b>	237
Erik Emke, Dennis Vughs, Annemieke Kolkman, Pim De Voogt <b>The forensic side of sewage based epidemiology: amphetamine synthesis waste and the impact on a small sewage treatment plant</b>	300
Adrian Frank Herbort, Katrin Schuhen <b>Removal of Inert Organic Chemical Stressors (IOCS) from Wastewater by Adding Innovative Hybrid materials called Wasser 3.0 – StressFix<sup>2</sup></b>	32



# Water Treatment

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters (II):

	<b>Abstract ID:</b>
Shiori Ikegawa, Satoki Shinozuka, Masami Shibata <b>Removal of nitrate ions in waste water at Pd-Fe alloy cathodes</b>	275
Ivana Ivancev-Tumbas, Prodanovic Jelena, Vesna Vasic, Marina Sciban, Aleksandra Tubic, Minja Bogunovic, Anita Leovac Macerak <b>Combination of coagulation and adsorption for organic matter removal from wastewater</b>	106
Ladislav Mandaric, Jordi-René Mor, Sergi Sabater, Mira Petrovic <b>Combined impact of flow intermittency and urban chemical pollution on water quality in Mediterranean streams</b>	52
Leire Mijangos, Oihana Ros, Leire Kortazar, Haizea Ziarrusta, Alejandro Valencia, Asier Delagado, Luis Angel Fernández, Ailette Prieto, Nestor Etxebarria <b>Spatial and seasonal distribution of 41 emerging contaminants in three estuaries of the Basque Country</b>	440
Regis Moilleron, Alexandre Berge, Steven Deshayes, Sifax Zedek, Veronique Eudes, Adele Bressy <b>Domestic micropollutants, a diffuse industrial pollution – Part 1: from greywater to receiving water</b>	190
Karsten Nödler, Marco Scheurer, Oliver Happel, Finnian Freeling, Frank Thomas Lange, Heinz-Jürgen Brauch <b>Trifluoroacetate in the water cycle – overlooked sources, pathways, and consequences for drinking water supply</b>	60
Chamteut Oh, Sangwoo Ji, Giljae Yim, Youngwook Cheong <b>Applicability of electrochemical reaction, for waste water treatment, powered by temperature difference energy</b>	223
Olayeni Victor Olutayo, Suma George Mulamattathil, Carlos Bezuidenhout, Moses Mbewe, Collins Njie Ateba <b>Current Evaluation on Isolation of Environmental Bacteria from Surface and Drinking Water in Ibadan, Nigeria, and Characterization Using Their Antibiotic Resistance Profiles</b>	431
Shridharan Parthasarathy, Catherine A. Ortori, David A. Barrett, Rachel L. Gomes <b>Bioanalysis to Engineer Understanding in Wastewater Treatment: Targeted and Non-Targeted Approaches for Monitoring Emerging Pollutants from the United Kingdom</b>	375
Malte Posselt, René Gergs, Anna Jäger, Jonas Schaper, Cyrus Rutere, Jason Galloway, Bonny Alscher, Jonathan P. Benskin <b>Metformin Transformation in an Artificial River System</b>	235
Adrià Rubirola, Maria Teresa Galceran, Maria Rosa Boleda <b>New multiresidue methods to evaluate the presence of 67 priority substances from water framework directive in wastewaters</b>	145
Marco Sarro Paola Calza, Vasilis Sakkas, María-José López-Munoz, Claudio Medana <b>Assessment of the photocatalytic transformation of sweeteners in different water matrices</b>	157

# Water Treatment

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters (III):

	<b>Abstract ID:</b>
Monika Strózyńska, Katrin Schuhen <b>Comparative analysis of organic pollutants from water samples of municipal wastewater treatment plants - What can mean the different techniques and procedures (LLE, SPE, SPME) for our interpretation about the loading rate?</b>	30
Stylianos Stylianou, Ioannis Katsoyiannis, Manasis Mitrakas, Anastasios Zouboulis <b>Application of a ceramic membrane contacting system for the ozone-based treatment of organic micropollutants</b>	282
Jennifer Teerlink, Christopher Alaimo, Thomas M. Young <b>Broad-scope screening for organic micropollutants in wastewater to identify pesticide sources</b>	216
Maria Eugenia Valdés, Carolina Rodríguez-Castro, Adonis Giorgi, Damià Barceló, María Valeria Amé, Sara Rodríguez-Mozaz <b>Organic micropollutants as markers of urban sources of pollution in the Suquia river (Argentina, South America)</b>	238
F.J. Yuste-Cordaba, A.I. Parralejo-Alcobendas, M. L. Royano-Barroso, J. González Cortés <b>New bio-digestion process to obtain biogas and fertilizers from cork wastewater</b>	244
Lin Xu, Liqin Zhi, Yaqi Cai <b>Occurrence and fate of fluorinated siloxanes in wastewater treatment processes</b>	138

# Wednesday 21 June

## Chemicals of Emerging Concern

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Location and time: Helga Engshus, Auditorium 3, 10:30 - 12:30

Chair: Walter Giger (Giger Research, Switzerland) & Philippe Garrigues (University of Bordeaux, France)

### Oral presentations:

Time:		Abstract ID:
10:30	<u>Evyatar Ben Mordechai</u> , Jorge Tarchitzky, Benny Chefetz <b>Effects of composted biosolids application and irrigation with treated wastewater on uptake and translocation of pharmaceuticals: Lettuce as case study</b>	45
10:45	<u>Bénilde Bonnefille</u> , Mellis Alali, Hélène Fenet, Elena Gomez, Frédérique Courant <b>Identification of biomarkers of exposure and effect in Mediterranean mussels (<i>Mytilus galloprovincialis</i>) following exposure to diclofenac</b>	85
11:00	Aasim M. Ali, <u>Roland Kallenborn</u> , Helene Thorsen Rønning, Wallied M. Alalarif, Sultan S. Al Lihaibi <b>Pharmaceuticals and personal care products in (PPCPs) in contaminated Red Sea seawater samples</b>	212
11:15	<u>Abha Parajulee</u> , Ying Duan Lei, Ajitha Kananathalingam, Carl P. J. Mitchell, Frank Wania <b>Investigating the varying sources and transport of benzotriazole UV stabilizers in contrasting landscapes</b>	248
11:30	<u>Heinrich Hühnerfuss</u> , Markus Scheurell, Raza M. Shah <b>Pollutants of emerging concern in Asian Megacities such as Karachi</b>	321
11:45	<u>Fatima El-Athman</u> , Anke Putschew, Lorenz Adrian, Martin Jekel <b>Abiotic reductive deiodination of contrast media and the influence of corridors</b>	348
12:00	<u>Peter Haglund</u> , Sofia Nieto, Vadim Kalmeyer, Nathan Eno <b>Raising the Identification Confidence in Non-Target Analysis of House Dust by Combining Classic and Soft Electron Ionization GC-HRMS</b>	429
12:15	<u>Willem De Lange</u> <b>Effects of new medicines on biodiversity: a review from a chemical perspective</b>	393
12:30	Lunch, Exhibition and Posters	

# Chemicals of Emerging Concern

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
Stine Therese Aanrud, Helene Thorsen Rønning, John Aasen Bunæs <b>Development of a multimethod for detection of more than 30 veterinary drugs using UPLC-MS/MS</b>	381
Aasim M. Ali, Roland Kallenborn, Leiv K. Sydnes, Helene Thorsen Rønning, Wallied M. Alalarif, Sultan S. Al Lihabi <b>Photochemical transformation of pharmaceuticals and personal care products (PPCPs) in the marine environment: Simulation experiments and identification</b>	215
Adele Bressy, Prunelle Waldman, Clement Leroyer, Christophe Morin, Laure Garrige-Antar, Anthony Marconi, Laurent Paulic, Regis Moilleron <b>Substitution of parabens in cosmetic products: what impacts for the aquatic environment?</b>	116
Juan C. Durán-Álvarez, Ana L. Santiago, Rodolfo Zanella <b>Improved photocatalytic degradation of an antibiotic in water under sunlight irradiation using modified TiO<sub>2</sub> by doping with boron and deposition of Au nanoparticles</b>	200
Youla Jenidi, Rachel L. Gomes <b>Understanding the wastewater matrix for remediation of steroid estrone using enzyme laccase</b>	385
Arntraut Götsch, Nicholas Warner, Dorte Herzke, Torgeir Nygård <b>Cyclic methylsiloxanes in an urban terrestrial environment</b>	390
Maritxell Gros, Mercè Boy-Roura, Elisabet Marti, Joan Colón, Itziar Lekunberri, José Luis Balcázar, Sergio Ponsá, Mira Petrovići <b>Occurrence and fate of veterinary pharmaceuticals, antibiotics and antibiotic resistance genes in full-scale manure treatments</b>	221
Eva Kumar, Panu Rantakokko, Joris Braber, Hannu Kiviranta <b>Brominated and organophosphate flame retardants in Finnish household dust – Occurrence and human exposure</b>	291
Xi-Zhi Niu, Julie Glady-Croué, Jean-Philippe Croué <b>Photochemical fate of sulfathiazole: kinetics, photo-induced structural rearrangement, and photoproducts antimicrobial activities</b>	54
Julie Sørli Paus-Knudsen, Katrine Borgå, Merete Grung, Anders Nielsen <b>Sublethal effects of imidacloprid on bumblebees (a non-<i>Apis</i> species, <i>Bombus terrestris</i>)</b>	258
Elif Caliskan Salihi, Gozde Kabacaoglu, Jiabin Wang, Lidija Siller <b>Graphene oxide for the adsorptive removal of trimethoprim: Equilibrium and kinetic study</b>	323
John Adey, Gemma Ellison, Greg Johnson, Joachim Gummersbach, Frans Schoutsen <b>Meeting the requirements for the EU Water framework for the GC-MS amenable pesticides in water with LV-PTV-GC-MS/MS technology</b>	399

# Wednesday 21 June

## Humic Substances in the Environment

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Location and time: Helga Engshus, U35, 10:30 - 12:45

Chair: Gudrun Abbt-Braun (Karlsruhe Institute of Technology, Germany); Rolf Vogt (University of Oslo), Norway & Yannis Deligiannakis (University of Ioannina, Greece)

### Oral presentations:

Time:		Abstract ID:
10:30	Micahel Gonsior, Nancy Hinman, <u>Norbert Hertkorn</u> , William J. Cooper, Sabine Dvorski, Philippe Schmitt-Kopplin <b>Exceptional Organic Molecular Diversity in Terrestrial Extreme Environments (Keynote)</b>	107
11:00	<u>Linda Önnby</u> , Nicholas Walpen, Elisabeth Salhi, Garret McKay, Fernando Rosario-Ortiz, Michael Sander, Urs Von Gunten <b>Assessing oxidant-reactive moieties of dissolved organic material from interactions with ozone or chlorine</b>	363
11:15	<u>Babak Rajaeian</u> , Anna Heitz, Cynthia A. Joll, Sébastien Allard <b>The Effect of Natural Organic Matter on Bromide Removal from Drinking Water Using Silver-impregnated Activated Carbon</b>	10
11:30	<u>Margarethe Langer</u> , Anna Gröhlich, Sruthi Kalyanasundaram, Manasis Mitrakas, Anastasios Zoubouli, Ioannis Katsoyiannis, Mathias Ernst <b>Evaluating the Boundaries of Chromium Removal by Fe(II) reductive precipitation from Ground Waters in the presence of Natural Organic Matter</b>	175
11:45	<u>Ivan Kazyatnyk</u> , Lars Lövgren, Mats Tysklind, Peter Haglund <b>Choosing of barrier materials for humic reach groundwater treatment</b>	23
12:00	Angelica Bianco, Mickaël Vaïtilingomi, Laurent Deguillaume, Nadine Chaurmeliac, <u>Maxime Bridoux</u> <b>Characterization of cloud water dissolved organic matter using FT-ICR-MS</b>	144
12:15	<u>Beate Stahl</u> , Sydney Jannetta, Nicollette Laroco, Dondra Biler, Amanda Scott, Katrin Schuhen <b>Detection and Characterization of Organic Stressors in Wastewater by HPLC SEC with DOC Detection</b>	421
12:30	<b>Lunch, Exhibition and Posters</b>	

*Posters for the topic of Humic Substances in the Environment are on page 59*

# Wednesday 21 June

## Environmental Modelling

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Location and time: Helga Engshus, Auditorium 2, 13:30 - 16:00

Chair: Patrik Andersson (University of Umeå, Sweden) & Knut Breivik (Norwegian Institute for Air Research (NILU), Norway)

### Oral presentations:

Time:		Abstract ID:
13:30	<u>Frank Wania</u> <b>50 Years of Modelling the Environmental Fate of PCBs (Keynote)</b>	20
14:00	<u>Thorsten Hüffer, Anne-Kathrin Weniger, Thilo Hofmann</u> <b>Characterization of sorption properties of aged polystyrene microplastics particles using poly parameter linear free energy relationships</b>	33
14:15	<u>Paola Gramatica, Alessandro Sangion, Ester Papa</u> <b>Benign by design approach for more sustainable chemicals: prioritization of chemicals of environmental concern by QSAR modeling</b>	95
14:30	<u>Li Li, Jianxin Hu, Frank Wania</u> <b>Investigating Variability in HBCDD Diastereomer Profile in the Environment</b>	183
14:45	M. Pesce, A. Critto, S. Torresan, M. Santini, E. Giubilato, L. Pizzol, P. Mercogliano, A. Zirino, Wei Ouyang, <u>A. Marcomini</u> <b>An integrated modelling approach to study the impacts of nutrients on coastal aquatic ecosystems in the context of climate change</b>	447
15:00	<u>Caroline Ek, Sara Danielsson, Elisabeth Nyberg, Anders Bignert</u> <b>Consistency in TL normalised concentrations among monitoring species</b>	362
15:15	<u>Elizaveta Protsenko, Evgeniy Yakushev, Shamil Yakubov</u> <b>Modeling a seasonal variability of biogeochemical components at the sediment-water boundary in Baltic Sea</b>	377
15:30	<u>Evgeniy Yakushev, Elizaveta Protsenko, Philip Wallhead</u> <b>Modeling influence of a fishfarm at the water column and sediment biogeochemistry with a 2-Dimensional Benthic-Pelagic model</b>	382
15:45	Mehdi Gharasoo, Martin Thullner, Martin Elsner <b>ReKnSim: A numerical platform for parameter estimation of kinetically complex environmental system</b>	347
16:00	Health Break, Exhibition and Posters	

# Environmental Modelling

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
Knut Breivik, Matt Macleod, Frank Wania, Sabine Eckhardt <b>Towards a nested multimedia fate, transport and bioaccumulation model for the Nordic region</b>	284
Paola Gramatica, Alessandro Sangioni, Ester Papa <b>Potential environmental hazard of emerging pollutants: QSAR models in the new version of the QSARINS software.</b>	94
Alisa Ilinskaya, Evgeniy Yakushev, Ole-Anders Nøst, Elizaveta Protsenko <b>Model simulations of oxygen depletion forced by acetate discharge in the coastal waters of the North Sea</b>	395
Karolina Jagiello, Jyotsna Bhat-Ambure, Anita Sosnowska, Tomasz Puzyn <b>The quality of QSAR/QSPR models developed for ionic liquids vs. methods applied to calculate molecular descriptors</b>	168
Ester Papa, Alessandro Sangion, Jon Arnot, Trevor N. Brown, Leon Van Der Wal, Paola Gramatica <b>Prediction of in vivo biotransformation in fish and human for the refinement of bioaccumulation</b>	93
Maren Wehrhahn, Thorsten Hüffer, Thilo Hofmann <b>Evaluating sorption properties of tire materials using poly-parameter linear free-energy relationships (ppLFFER)</b>	86
Ewelina Wyrzykowska, Anna Rybinska, Anita Sosnowska, Tomasz Puzyn <b>The decision tree as a tool for the ionic liquid's mutagenic potential predictions</b>	130
Ziye Zheng, Gregory Peters, Hans Peter H. Arp, Patrik L. Andersson <b>Alternative assessment of decaBDE and its alternatives using in-silico tools</b>	296
Winfried Schröder, Stefan Nickel, Martin Jenssen <b>Mapping forest pattern changes due to climate change across Germany</b>	71
Hidetoshi Kuramochi, Takurou Kobayashi, Frank Wania <b>Estimation of phase distribution and fate of POP-like compounds in a biogas plant using level I and III fugacity models</b>	394

# Wednesday 21 June

## Persistent Organic Pollutants and Waste Cycling

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Location and time: Helga Engshus, Auditorium 3, 13:30 - 15:45

Chair: Diane Purchase (Middlesex University, London, United Kingdom) & Heinz Rüdeler (Fraunhofer Institute for Molecular Biology and Applied Ecology, Germany)

### Oral presentations:

Time:		Abstract ID:
13:30	<u>Diane Purchase</u> <b>Contaminant Issues in the Waste Stream - Keynote presentation abstract (Keynote)</b>	104
14:00	<u>Therese Haugdahl Nøst</u> , Torkjel Manning Sandanger, Evert Nieboer, Jon Øyvind Odland, Knut Breivik <b>Delayed emissions of POPs from transboundary waste streams may cause spatially and temporally divergent monitoring trends</b>	181
14:15	<u>Annekatriin Dreyer</u> , Frank Neugebauer, Nina Lohmann, Jan Konschorreck <b>Dechlorane Plus (DP) and brominated flame retardants (BFR) in leave samples of coniferous and deciduous trees of the German Environment Specimen bank</b>	125
14:30	<u>Pawel Rostkowski</u> , Martin Schlabach, Hans Gundersen, Dorte Herzke, Anders ruus, Torgeir Nygård <b>Monitoring of bisphenol A and its analogues in environmental samples from Norway</b>	388
14:45	<u>Henri Kylin</u> , Hindrik Bouwman <b>Biological processes influence the uptake of airborne POPs into "plants" and their deposition to terrestrial ecosystems</b>	141
15:00	<u>Elisabeth Nyberg</u> , Anders Bignert, Sara Danielsson, Anna-Lena Egebäck, Caroline Ek, Ulla Eriksson <b>Monitoring of PCBs in Swedish aquatic biota and human milk, 1969-2014</b>	101
15:15	<u>M. Glória Pereira</u> , John Crosse, Lee Walker, Elaine Potter, Richard Shore <b>Comparison of long term temporal trends of PCBs and PBDE in UK gannet (Morus bassanus) eggs</b>	155
15:30	Golnoush Abbasi, <u>Li Li</u> , Knut Breivik <b>Global and historical emission inventory of BDE-209</b>	262
15:45	Health Break, Exhibition and Posters	



# Persistent Organic Pollutants and Waste Cycling

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters (I):

	<b>Abstract ID:</b>
Carola Graf, Knut Breivik, Kevin C. Jones, Andrew J. Sweetman <b>Investigating Long-term Trends in PCB Concentrations in Ambient Air: The TOMPs Network and the UK-Norway Transect</b>	422
Ester Heath, Tina Kosjeki, David Heath <b>PCBs, dDioxin-like PCBs, Dioxins, and Furans in Fish commonly available on the Slovene market</b>	368
Aina Jansen, Anuschka Polder, Jan Aaseth, Eystein Skjerve, Jan L. Lyche <b>Increased concentrations of persistent organic pollutants after bariatric/metabolic surgery; are the concentrations exceeding guideline levels?</b>	367
Ellen Kristine Keilen, Katrine Borgå, Anders Ruus, Morten Helberg, Tone Kristin Reiertsen, Nicholas Warner, Ketil Hylland <b>Levels and effects of environmental contaminants in herring gulls (<i>Larus argentatus</i>) from an urban and a rural colony in Norway</b>	356
Thibault Masset, Christine Piot, Nathalie Cottin, Philippe Fanget, Emmanuel Nafrechoux <b>Natural PCB decontamination of lakes: first estimates and direct measurements of volatilization flux in Lake Bourget (France)</b>	276
Marzieh Moenfaard, Sara Ramos, José Avelino Silva, Marius Matache, Nuno Ratola <b>Preliminary study to compare and relate pine needles uptake of semi-volatile organic compounds (SVOCs)</b>	344
Maja Nipen, Pernilla Bohlin Nizzetto, Anders Røsrud Borgen, Anne Karine Halse, Martin Schlabach, Roland Kallenborn <b>Short and medium chain chlorinated paraffins – Investigating occurrence and sources of blank contamination in field and laboratory, and assessing instrumental performance on a quadrupole time-of-flight mass spectrometry instrument</b>	335
Erik Magnus Ræder, Angela Banaduc, Doru Banaduc, Alexandru Burcea, Jan Lydvig Lyche, Vidar Berg <b>Persistent Organic Pollutants in Fish Tissue – Case Study Mureş Watershed</b>	446
Heinz Ruedel, Golnoush Abbasi, Oluseun E. Popoola, Diane Purchase <b>Can metals be used as tracers for organic contaminants in potentially e-waste-polluted environmental media?</b>	75
Andrea Svarcova, Thomas Gramblicka, Radim J. Sram, Jana Hajslova, Jana Pulkrabova <b>Complex assessment of dietary exposure to organic contaminants of daily human diet</b>	405
Katrin Vorkamp, Knud Falk, Søren Møller, Frank F. Rigét, Peter B. Sørensen <b>Polychlorinated naphthalenes add to the burden of organochlorines in peregrine falcons</b>	294

# Persistent Organic Pollutants and Waste Cycling

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters (II):

**Abstract ID:**

Tomas Weidlich, Jaroslav Jurenka

285

**Facile destruction of polychlorinated biphenyls, dioxins and dibenzofurans extracted from waste-to-energy fly ash**

# Wednesday 21 June

## Advancements in Modern Analytical Chemistry

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Location and time: Helga Engshus, U35, 13:30 - 16:00

Chair: Fritz Frimmel (Karlsruhe Institute of Technology, Germany) & Georg Becher (University of Oslo, Norway)

### Oral presentations:

Time:		Abstract ID:
13:30	<u>Ingrid Berger-Brito</u> , Nadine Machour, Christophe Morin, Florence Portet-Koltalo <b>Experimental design for the optimisation of multi-residual analysis of oxygenated metabolites of PAHs (hydroxylated, quinones) in sediments.</b>	9
13:45	<u>Alexey N. Ignatev</u> , Tuula Tuhkanen <b>Application of size-exclusion chromatography for monitoring of wastewater effluent post-treatment</b>	420
14:00	<u>Jérémy Bell</u> , Sabine Wagner, Mustafa Biyikal, Kornelia Gawlitza, Knut Rurack <b>Microfluidic platform and fluorescent sensor particles for the detection of the herbicide 2,4-D in worldwide samples</b>	55
14:15	<u>Cleo L. Davie-Martin</u> , Kimberly Halsey, Stephen J. Giovannoni <b>Volatile organic compound emissions by marine plankton using proton-transfer-reaction time-of-flight mass spectrometry</b>	65
14:30	Sameer S. Lakade, Francesc Borrull, Kenneth G. Furton, Anuzar Kabir, <u>Núria Fontanals</u> , Rosa M. Marché <b>Novel microextraction capsule technique to extract personal care products in environmental water samples</b>	110
14:45	<u>Christine Schönlau</u> , Jeroen Kool, Maria Larsson, Magnus Engwall, Anna Kärrman <b>Using a GC based effect-directed approach for the analysis of AhR active contaminants on plastic litter</b>	329
15:00	<u>Ivan Senta</u> , Ivona Krizman, Marijan Ahel, Nikolina Udiković-Kolić, Senka Terzic <b>Determination of macrolide antibiotics, their intermediates and transformation products in solid environmental matrices</b>	195
15:15	<u>Maria G. Antoniou</u> , Iosef Boraie, Danae Pantelide, Mahalakshmi Abhishek, Christine Edwards, Linda A. Lawton <b>Coupling UVA/TiO<sub>2</sub> photocatalysis with sulfate-radical generating oxidants for the degradation of the cyanotoxins microcystin-LR and nodularin</b>	186
15:30	<u>Adrián Jaén-Gil</u> , Andrea Hom-Diaz, Sara Rodríguez-Mazaz, Teresa Vicent, Paqui Blánquez, Damià Barceló <b>Automated suspect screening methodology for the identification of antibiotic transformation products generated during water treatment with microalgae</b>	204
15:45	<u>Imma Tolosa</u> , Roberto Cassi, David Huertas <b>A new marine sediment certified reference material (CRM) for the determination of persistent organic contaminants: IAEA-459</b>	126
16:00	Health Break, Exhibition and Posters	

# Advancements in Modern Analytical Chemistry

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

	<b>Abstract ID:</b>
Imane Berni, Ibrahim El Ghazi, Mohamed Ben-Daoud, Samir El Jaafari, Patrick Dugue <b>Distribution of groundwater nitrate contamination in GIS environment: a case study, Sais plain. Morocco</b>	269
Virginia C. Fernandes, Viswanathan Subramanian, Valentina F. Domingues, Cristina Delerue-Matos <b>Molecular imprinting solid phase extraction for selective detection of pendimethalin in red fruits</b>	257
Clàudia Fontàs, Enriqueta Anticó, Juana Benavente <b>Plasticized membranes to facilitate antibiotic monitoring in natural waters</b>	302
Laur Manea, Turid Rustad, Juliana Manea, Lavinia Buruleanu, Valentina Coatu, Ioana Dulama <b>Characterization of chemical contaminants in some Romanian meat products obtained by traditional method</b>	202
Imma Tolosa, Yann Mueller, David Huertas <b>A study on the separation of PBDEs from PCBs by using silica SPE columns, a 2-(1-pyrenyl)ethyldimethylsilylated silica, and a amino-cyano silica HPLC columns</b>	124

# Wednesday 21 June

## Marine Toxicology and Chemistry

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Location and time: Helga Engshus, Auditorium 2, 16:30 - 17:30

Chair: Katrine Borgå (University of Oslo, Norway) & Anders Ruus (Norwegian Institute for Water Research, Norway)

### Oral presentations:

Time:		Abstract ID:
16:30	<u>Albert Serra-Compte</u> , Ana Luisa Maulvalt, Carolina Camacho, Diana Álvarez-Munoz, Damià Barceló, Sara Radríguezmozaz, António Marques <b>Effects of climate change on bioconcentration, metabolization and elimination of pharmaceuticals and endocrine disrupting compounds in mussels (<i>Mytilus galloprovincialis</i>)</b>	136
16:45	<u>Torben Kirchgeorg</u> , Ingo Weinberg, Berit Brockmeyer <b>Chemical emissions from offshore wind farms: a new source for chemical pollution in the marine environment</b>	173
17:00	<u>Victoria Tornero</u> , Georg Hanke <b>Emerging Contaminants in the marine environment - challenges and new options</b>	281
17:15	<u>Jonny Beyer</u> , Merete Schøyen, Steven Brooks, Ian J. Allan, Anders Ruus, Tânia Gomes, Inger Lise N. Bråte, Jarle Håvardstun, Dag Ø. Hjermann, Norman W. Green <b>Blue mussels (<i>Mytilus edulis</i> spp.) as environmental bioindicator</b>	408

# Marine Toxicology and Chemistry

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Posters are located at Georg Sverdrups Hus basement. Authors should be available for discussion and questions 15 minutes after discussion is announced.

## Posters:

### Abstract ID:

- Juan-Santos Echeandia**, *Instituto Español de Oceanografía, Centro Oceanográfico de Murcia, Spain* 288  
Current-use pesticides and personal care products in surface sediments from the Spanish Mediterranean continental shelf
- Valentina Domingues**, *REQUIMTE/LAQV, Instituto Superior de Engenharia do Porto, Instituto Politécnico do Porto* 256  
Evaluation of aliphatic hydrocarbons in macroalgae from the Portuguese north coast
- Silje Marie Kristiansen**, *Department of Biosciences, University of Oslo (UiO), Norway* 188  
Transport of marine pollution via seabirds to tundra communities and their effect on inhabiting Collembola in Svalbard
- Siew Hong Lam**, *NUS Environmental Research Institute, National University of Singapore, Singapore* 26  
Complementary roles of in vivo zebrafish assays with in vitro glucocorticoid receptor bioassay and analytical chemistry for aquatic environmental monitoring of glucocorticoid pollutants

# Thursday 22 June

## Satellite Events and Excursions:

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*Location: Helga Engshus*

**Time:**

- 08:30 - 17:00      **NORMAN: Suspect and non-target screening with high resolution mass spectrometry - current status and new developments**  
Convenors: Pawel Rostkowski (Norwegian Institute for Air Research (NILU), Norway) & Juliane Hollender (EAWAG, Switzerland)  
*Location: Helga Engshus, Auditorium 1*
- 09:00 - 16:00      **Strategies and challenges for sanitation technology and sewage treatment in the high north**  
Convenors: Petter D. Jenssen & Roland Kallenborn (Norwegian University of Life Sciences (NMBU), Norway)  
*Location: Helga Engshus, Auditorium 2*
- 09:00 - 16:00      **Scientific writing and publishing**  
Convenors: Philippe Garrigues (University of Bordeaux, France) & Michaela Dina Stanescu (Polytechnical University of Bucharest, Serbia)  
*Location: Helga Engshus, Auditorium 3*
- 12:15 - 16:00      **Excursion: Kjeller Research Park and Norwegian Institute for Air Research (NILU)**  
Convenors: Pawel Rostkowski & Martin Schlabach (Norwegian Institute for Air Research (NILU), Norway)