

# List of Corrections and Changes to DIOXIN2019 Program Book (August 29, 2019)

## Changes of session chairs

- p.41, Human Exposure 1  
Chisato Mori, Kai Hsien Chi
- p.92, Levels and Trends (Abiotic 2)  
Jerzy Falandysz
- p.96, PFAS: Removal and Degradation  
Anna Kärrman, Kiwao Kadokami
- p.97, Formation, Sources and Control 2  
Minghui Zheng, Tong Chen
- p.101, PFAS: Exposure and Toxicology  
Biljana Škrbić, Anna Kärrman

## Changes in Summary Speakers

- p.112, Risk Assessment and Exposure  
Govindan Malarvannan
- p.112, Emerging POPs  
Anna Kärrman

## Changes in Authors

- p.48, 1-PS-022  
Rudolf Addink, Waleed Hassan, Hamid Shirkhan, Phil Germansderfer
- p.63, 2A-PM1-02  
Sam Adu-Kumi, Jindrich Petrlík, Eric Akortia, Martin Skalský, Jana Pulkrabová, Jakub Tomáško, Lee Bell, Jonathan N. Hogarh, Dmitryi Kalmykov, Abel Arkenbout
- p.70, 2B2-PM2-03  
Garry Codling, Veronika Schacht, Jana

Klanova

- p.73, 2-PS-023  
Rudolf Addink, Hamid Shirkhan, Tom Hall, Phil Germansderfer
- p.90, 4A-AM-02  
Yitao Pan, Jingzhi Yao, Leo Yeung, Jiayin Dai

## Changes of Presenters

- p.39, 1B2-PM1-05 Peter A. Behnisch
- p.41, 1C2-PM1-01 Christina Pinkston
- p.48, 1-PS-022 Phil Germansderfer
- p.49, 1-PS-082 Wenting Wang
- p.52, 1-PS-175 Ipek Imamoglu
- p.52, 1-PS-196 Moo-Been Chang
- p.53, 1-PS-223 Jennifer Braeunig
- p.61, 2C1-AM-04 Pi Li
- p.63, 2A-PM1-02 Jonathan Hogarh
- p.67, 2C2-PM1-02 Wenbin Liu
- p.70, 2B2-PM2-04 Pu Wang
- p.71, 2C1-PM2-05 Ingrid Ericson Jogsten
- p.73, 2-PS-023 Phil Germansderfer
- p.77 2-PS-176 Daniele S Wikoff
- p.77, 2-PS-194 An-Yue Wang
- p.81, 2-PS-311 Ken Sajwan
- p.85, 3B1-AM-03 Ge Yin
- p.86, 3B2-AM-03 Jochen Mueller
- p.88, 3C2-AM-01 Lars Lind
- p.90, 4A-AM-02 Leo V.W. Yeung
- p.91, 4B1-AM-01 Bogdan Dlugogorski
- p.91, 4B1-AM-02 Guorui Liu
- p.102, 4B2-PM2-01 Nguyen Duy Dat
- p.104, 3-PS-033 Makoto Ohashi
- p.106, 3-PS-114 Haruna Nagayoshi

## Cancelled Presentations

1C1-PM1-01      1C1-PM1-03  
1C1-PM1-05      1C2-PM1-02  
1B2-PM2-02      1B2-PM2-03  
2A-AM-03        2B2-AM-04  
2C2-PM1-04      4B1-PM1-04  
4C1-AM-03        4C2-AM-01  
1-PS-013 1-PS-019 1-PS-109 1-PS-208  
1-PS-229 1-PS-265 1-PS-283 1-PS-292  
1-PS-319 1-PS-328 2-PS-014 2-PS-068  
2-PS-074 2-PS-140 2-PS-191 2-PS-221  
2-PS-254 2-PS-326 3-PS-060 3-PS-078  
3-PS-168 3-PS-201 3-PS-216 3-PS-246  
3-PS-312 3-PS-324

## Changes in Presentation Schedules/Types

From	To
4A-PM2-03	1C1-PM1-03
2C2-PM1-02	2C2-PM1-04
2A-AM-05	2A-AM-03
2C2-PM1-03	3-PS-201
4B1-PM2-04	1-PS-208
4C1-PM1-04	3-PS-321
1-PS-094	2B2-AM-04
1-PS-205	4B1-PM2-04
1-PS-250	4A-PM2-03
1-PS-268	2A-AM-05
1-PS-289	4C2-AM-01
2-PS-044	1C1-PM1-01
2-PS-146	1C2-PM1-02
2-PS-170	1C1-PM1-05
2-PS-206	2C2-PM1-02 + 2-PS-206
2-PS-251	4C1-PM1-04
2-PS-281	4C1-AM-03
3-PS-204	4B1-PM1-04
3-PS-321	2C2-PM1-03

## No-show

2B2-PM1-06      2C2-PM1-01

## Errata

p.16, (the) size of poster should be A0 size (841 mm X 1189 mm), the size of poster board is 900 mm (width) X 1900 mm (height).

p.20, Supporting Organization  
Kurita Water and Environment Foundation  
This program is supported by a subsidy from Kyoto City and the Kyoto Convention & Visitors Bureau.

p.53, p.78, p.109  
PFAS: Levels and **Transfer Transport**

p.84, 3A-AM-02  
PCB Waste Management **of in** Japan

p.99, 4C1-PM1-05 and 4C1-PM1-06  
4C1-PM1-05  
Determination of neonicotinoid insecticides in urine using semi-automated solid phase extraction coupled to UHPLC-MS/MS  
*Tomohiko Isobe, Miyuki Iwai-Shimada, Yayoi Kobayashi, Mai Takagi, Shoji F Nakayama*

4C1-PM1-06  
Endocrine disrupting chemicals: a costly public health threat with opportunities for policy prevention  
*Leonardo Trasande*

p.110, 3-PS-246R  
**PFAS: Levels and Transport**  
**Investigating the fate and emissions of wastewater treatment plant derived per- and polyfluoroalkyl substances (PFAS) in the marine environment**  
*Timothy Luke Coggan, Damien Moodie, Drew Szabo, Nicholas Crosbie, Bradley Clark, Jeff Shimeta*

p.111, 3-PS-285  
diastereomeric (delete tr)  
hexabromocyclododecanes (add s)

p.39 Monday, 14:00-16:00 at Room B-2

## Flame Retardants

Chairs: Souichi Ohta, Natsuko Kajiwara

1B2-PM1-01

CHEMSTRRES - A Sino-Swedish project with focus on environmental exposures and effects of pollutants in the Yangtze River Delta area

*Ake Bergman, Lillemor Asplund, Anders Bignert, Magnus Breitholz, Mafalda Castro, Elena Gorokhova, Qinghui Huang, Yanling Qiu, Xiang-Zhou Meng, Daqiang Yin, Jianfu Zhao, Zhiliang Zhu*

1B2-PM1-02

Development and evaluation of GC-MS, GCICP-MS and HPLC-ICP-MS for determination of decabromodiphenyl ether in sediments

*Shanjun Song, Yan Gao, Mingwu Shao, Weihua Wang*

1B2-PM1-03

Partial mineralization of chlorine- and bromine based flame-retardant during combustion

*Shodai Taguchi, Seikou Tou, Nobuhisa Watanabe*

1B2-PM1-04

Emission status of flame retardants in indoor air and water effluent from e-waste recycling facility in Japan

*Hidenori Matsukami, Shunji Hashimoto, Go Suzuki*

1B2-PM1-05

Occurrence of polybrominated dibenzo-p-dioxins and dibenzofurans (PBDD/Fs) in consumer products from recycled plastics

*Jindrich Petrlik, Sam Adu-Kumi, Lee Bell, Peter A. Behnisch, Jitka Straková, Leslie Adogame, Olga Speranskaya, Jana Pulkrabová, Tomáš Gramblička*

1B2-PM1-06

Rapid identification method of plastic components flame-retarded by decabromodiphenyl ether

*Natsuko Kajiwara, Hidenori Matsukami*

p.40 Monday, 14:00-16:00 at Room C-1

## Risk Assessment

Chairs: Derek Muir, Thomas Webster

1C1-PM1-01 (2-PS-044)

An ultra-high performance liquid chromatographic tandem mass spectrometric method for the determination of per- and polyfluoroalkyl compounds in infant formula and dairy products

*Ovokeroye Akpojevwe Abafe, Linda Macheka-Tendenguwo*

1C1-PM1-02

Comparison of PPCPs occurrence and human health risk in drinking water between the urban and rural area or different seasons-a case study of China

*Xinshu Jiang, Jun Huang, Yingxi Qu*

1C1-PM1-03 (4A-PM2-03)

Per-and polyfluorinated substances (PFASs) in the follicular fluid of Australian women and different concentrations with infertility etiology (reproductive health) in Queensland Australia

*Young Ran Kim, Nicole White, Soumini Vijayasathy, Jennifer Braeunig, Christine Knox, Fiona Anne Harden, Rosana E. Pacella, Leisa Maree L. Toms*

1C1-PM1-04

Toxicity thresholds for PPCPs, PFCs and pesticides via species sensitivity distributions

*Wenxing Zhao, Gang Yu, Bin Wang*

1C1-PM1-05 (2-PS-170)

The effect of three types of water accommodated fraction on mortality, fecundity and lipid distribution in the copepod *Acartia tonsa*

*Tamer Amr Hafez, Maren Ortiz Zarragoitia, Robert Duran*

1C1-PM1-06

Screening for persistent and Bioaccumulative chemicals of global concern with a focus on Asian industrial chemical inventories

*Xianming Zhang, Derek Muir, Xiangfei Sun, Ruifen Jiang, Eddy Zeng*

p.41 Monday, 14:00-16:00 at Room C-2

## Human Exposure 1

Chairs: Chisato Mori, **Kai Hsien Chi**

1C2-PM1-01

Total dioxin toxic equivalency and sex are associated with biomarkers of hepatic lipid metabolism, inflammation, fibrosis, and function in a subset of ACHS-II participants

*Banrida Wahlang, **Christina Pinkston**, Shesh Rai, Marian Pavuk, Matthew Cave, Linda Birnbaum*

1C2-PM1-02 (2-PS-146)

Atmospheric PCDD/Fs, PM<sub>2.5</sub> and their health effect in Taiwan

*Tuan-Hung Ngo, Wei-Ting Hsu, Yi-Na Lee, Yu-Hsuan Yang, Pei-Chun Tsai, Yune-Fang Ueng, Siao Yi Jin, Kuang-Wei Liu, Kai-Hsien Chi*

1C2-PM1-03

Polychlorinated dioxins, furans (PCDD/Fs) and dioxin-like polychlorinated biphenyls (dl-PCBs) in maternal blood and breast milk from mothers living in Beijing, China

*Yan Bao, Lei Zhang, Xin Liu, Lei Shi, Jingguang Li, Yunfeng Zhao, Yongning Wu*

1C2-PM1-04

Congenital permanent teeth deficiency in children of the second and third generations of Kanemi Yusho patients

*Yasuichi Miyakawa, Yoshiyuki Hashizume, Tadashi Fujino*

1C2-PM1-05

A case report of second and third generations of a Yusho family

*Reiko Takeda*

1C2-PM1-06

In silico prediction of the metabolism of PCB congeners by cytochrome P450 isozymes in Yusho patients

*Shusaku Hirakawa, Takashi Miyawaki, Tsuguhide Hori, Jumboku Kajiwara, Susumu Katsuki, Masashi Hirano, Yuka Yoshinouchi, Hisato Iwata, Chikage Mitoma, Masutaka Furue*

p.45 Monday, 16:30-18:30 at Room B-2

## The Biotic Exposome of Emerging Flame Retardants in the Global Environment

Chairs: Stuart Harrad, Robert Letcher

1B2-PM2-01

Nationwide monitoring of brominated flame retardants in soil collected from South Korea

*Jin-Woo Jeon, Ho-Joong Kim, Chang-Ho Lee, Seung-Man Hwang, Sung-Deuk Choi*

1B2-PM2-02

Cancelled

1B2-PM2-03

Cancelled

1B2-PM2-04

Suspect screening and profile analysis of stormwater runoff following 2017 wildfires in Northern California

*Miaomiao Wang, Juliet Kinyua, Ting Jiang, Rebecca Sutton, Meg Sedlak, Richard Fadness, June-Soo Park*

1B2-PM2-05

Contamination levels of PCBs and PBDEs in fresh water fish from Chennai and Bangalore cities in India and their toxicological risk

*Vimalkumar Krishnamoorthi, Tue Minh Nguyen, Shinsuke Tanabe, Tatsuya Kunisue*

1B2-PM2-06

Polybrominated diphenylethers in birds foraging at a landfill site in Pretoria, South Africa

*Chino Emereole, Ray Jansen, Okechukwu Jonathan Okonkwo*

p.58 Tuesday, 10:00-12:00 at Room A  
Toxicity and Risks of Chlorinated Paraffins

Chairs: Ake Bergman, Per Ola Darnerud

2A-AM-01  
Chlorinated paraffin toxicity - early findings revisited  
*Per Ola Darnerud*

2A-AM-02  
In vitro biotransformation and identification of potential transformation products of chlorinated paraffins  
*Chang He, Louise van Mourik, Shaoyu Tang, Phong Thai, Xianyu Wang, Pim E.G. Leonards, Kevin Thomas, Jochen Mueller*

2A-AM-03 (2A-AM-05)  
The neurobehavioral effects of zebrafish induced by commercial chlorinated paraffin products  
*Ting Xu, Weihai Pang, Daqiang Yin*

2A-AM-04  
Life history traits and lipid profile changes in *Daphnia magna* exposed to chlorinated paraffins  
*Mafalda Castro, Elena Gorokhova, Sandra Luecke-Johansson, Anna Sobek, Magnus Breitholtz*

2A-AM-05 (1-PS-268)  
Transfer of ingested short-, medium-, and long-chain chlorinated paraffins to eggs in laying hens (*Gallus gallus domesticus*)  
*Marie Meziere, Ronan Cariou, Philippe Marchand, Elisabeth Baeza-campane, Céleste Le Bourhis, Gaud Dervilly-Pinel, Bruno Le Bizec*

2A-AM-06  
EFSA's risk assessment on chlorinated paraffins in food and feed  
*Luisa R. Bordajandi, Elsa Nielsen*

p.60 Tuesday, 10:00-12:00 at Room B-2  
Fate and Transport 1

Chairs: Noriyuki Suzuki, Wenbin Liu

2B2-AM-01  
Glycosylated tetrabromobisphenol A and its deglycosylation in a hydroponic exposure system for pumpkin plants  
*Xingwang Hou, Jiyuan Liu, Guibin Jiang*

2B2-AM-02  
Reduction of POP contamination in Cucurbitaceae family focusing on the transporting factors for POPs by the treatment of pesticides  
*Kentaro Fujita, Yasumitsu Kondoh, Kaori Honda, Hiroyuki Osada, Hideyuki Inui*

2B2-AM-03  
Emissions of 1325 chemicals from municipal wastewater treatment plants in Japan  
*Kiwao Kadokami, Takashi Miyawaki, Sokichi Takagi, Fumie Adachi, Haruka Iida, Kimiyo Watanabe, Yuki Kosugi, Toshinari Suzuki, Katsumi Iwabuchi, Shinichiro Nagahora, Ruriko Tahara, Tomoaki Orihara*

2B2-AM-04 (1-PS-094)  
Influence of ageing on the persistence of hexachlorocyclohexanes: Implications for environmental testing  
*Dirk Loeffler, Annika Martin, Lennart Loerke, Thomas A Ternes*

2B2-AM-05  
Fate of synthetic musk compounds in wastewater treatment plants  
*Hayley Hung, Wenlong Li, Fiona Wong, Chubashini Shunthirasingham, Mehran Alaei, Tommy Bisbicos, Grazina Pacepavicius, Shirley Anne Smyth, Steven Teslic, Korey Broad, Chris Marvin, Julia Jia, Mitra Brown, Artur Pajda, Nick Alexandrou, Edmund Luk, Liisa Jantunen*

2B2-AM-06  
An overlooked PFAS exposure pathway: transport of PFAS from water to riparian foodwebs via emerging insects  
*Alina Koch, Micael Jonsson, Anna Kärrman, Thanh Wang*

p.61 Tuesday, 10:00-12:00 at Room C-1  
Advancements in Analytical Methodologies  
and Applications (Vendor Session)

Chairs: Georg Becher, Lutz Ahrens

2C1-AM-01

Semi automated clean up for persistent organic  
pollutants analysis in environmental samples -  
Complete separation of PCDD/Fs and PCBs for  
sample extracts in toluene

*Rudolf Addink, Hamid Shirkhan, Tom Hall*

2C1-AM-02

Flexible automated sample clean-up of PCDD/Fs  
and PCBs

*Thomas Fiedler, Thomas Kerkemeier, Maximilian  
Baumann*

2C1-AM-03

Robustness assessment of PCDD/F quantitative  
GC-MS/MS analysis in food and feed

*Masato Takakura, Thomas Lehardy, Philippe  
Marchand, Emmanuelle Bichon, Bruno le Bizec*

2C1-AM-04

Performance assessment of a GC-MS/MS based  
dioxin method

*Pi Li, Xiaoyan Zhang, Richard Law, Fausto  
Pigozzo, Richard Fussell, Khalil Divan, Tao Bo,  
Bing Lyu, Jingguang Li*

2C1-AM-05

Direct injection analysis of legacy and emerging  
PFAS in soil and sediment

*Kari Organtini, Ken Rosnack*

2C1-AM-06

First attempts to establish REPs and BEQs for  
PFAS based on their thyroid hormone competitor  
activities using the PFAS-CALUX<sup>®</sup> bioassay

*Peter Behnisch, Faried Niamut, Harrie  
Besselink, Emiel Felzel, Berenice Collet, Matthijs  
Naderman, Sandy Falk, Thorsten Stahl, Joerg  
Winkler, Steven TJ Droge, Abraham Brouwer*

p.63 Tuesday, 14:00-16:00 at Room A

Chlorinated Paraffins in Food

Chairs: Rainer Malisch, Kerstin Kraetschmer

2A-PM1-01

Short-chain chlorinated paraffins in raw milk  
from selected industrial areas in China

*Shujun Dong, Su Zhang, Shulin Wei, Yun Zou,  
Peilong Wang, Xiaou Su*

2A-PM1-02

Short-chain chlorinated paraffins (SCCPs) in  
eggs from six countries

*Sam Adu-Kumi, Jindrich Petrlik, Eric Akortia,  
Martin Skalský, Jana Pulkrabová, Jakub  
Tomáško, Lee Bell, Jonathan N. Hogarh, Dmitry  
Kalmykov, Abel Arkenbout*

2A-PM1-03

Chlorinated paraffins in edible oil,  
concentrations, formula group profiles and the  
human exposure risks

*Wei Gao, Lu Bai, Yawei Wang*

2A-PM1-04

Characterization of C<sub>10</sub>-C<sub>17</sub> chlorinated paraffins  
in oven-baked pastry products and unprocessed  
pastry dough by HPLC-ESI-Q-TOF-MS

*Dzintars Zacs, Ingus Perkons, Vadims Bartkevics*

2A-PM1-05

Chlorinated paraffin exposure through food: a  
raw food and meal study in Southern Germany

*Kerstin Kraetschmer, Alexander Schaechtele,  
Rainer Malisch, Walter Vetter*

2A-PM1-06

Dietary exposure to short- and medium-chain  
chlorinated paraffins in Chinese people through  
the 5th and the 6th total diet study

*Lirong Gao, Minghui Zheng, Lili Cui, Huiting  
huang, Runhua Wang, Jingguang Li, Lei Zhang,  
Yongning Wu*



p.65 Tuesday, 14:00-16:00 at Room B-2  
Legacy and Emerging Flame Retardants:  
Biotransformation and Bioavailability

Chairs: Mohamed Abdallah, Govindan Malarvannan

2B2-PM1-01

Adult or developmental exposure to PBDEs alters hepatic enzymes related to carbohydrate metabolism and oxidative stress in mice that show a diabetic phenotype

Margarita C Curras-Collazo, Elena Kozlova, Julia M Krum, Karthik Basappa, Gwendolyn Gonzalez, Heather Stapleton, Bhuvana D Chinthirla

2B2-PM1-02

Multiple biomarkers of the cytotoxicity induced by BDE-47 in human embryonic kidney cells

Fei Li, Huifeng Wu, Chenglong Ji

2B2-PM1-03

Dermal exposure to polybrominated diphenyl ethers (PBDEs) via contact with microplastics indoors

Mohamed Abdallah, Gopal Pawar, Stuart Harrad

2B2-PM1-04

Inhalation and ingestion bioaccessibility of flame retardants in plastic from e-waste processing workshops in Northern Vietnam

Tatiya Wannomai, Hidenori Matsukami, Natsuyo Uchida, Fumitake Takahashi, Tuyen Huu Le, Viet Hung Pham, Shin Takahashi, Tatsuya Kunisue, Go Suzuki

2B2-PM1-05

Developmental effects of organophosphorus flame retardants and their metabolites in zebrafish

Akira Kubota, Jae Seung Lee, Yuri Morita, Yusuke K Kawai, Adrian Covaci

2B2-PM1-06

No-show

p.67 Tuesday, 14:00-16:00 at Room C-2

POPs in the Developing World 1

Chairs: Karla Pozo, Takeshi Nakano

2C2-PM1-01

No-show

2C2-PM1-02 (2-PS-206)

Synthesis of novel copper-based fenton-like catalyst and its application in removal of typical antibiotics in water

Ting Chen, Zhiliang Zhu, Yanling Qiu, Daqiang Yin

2C2-PM1-03 (3-PS-321)

Influences of fuel types on polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) emission profiles from industrial boilers

Siwatt Pongpiachan, Teeraporn Wiriwutikorn, Phonethip Phetsomphou, Kwanchai Jieam, Khammanithip Vongxay, Ken Choviran, Andrea Sbrilli, Massimo Gobbi, Carmela Centeno

2C2-PM1-04 (2C2-PM1-02)

Management and supervision of HBCD in EPS/XPS polymer foam products in China

Chen Jiang, Haoyang Wang, Yangzhao Sun, Wenbin Liu

2C2-PM1-05

Challenges and insights during the National Implementation Plan of the Stockholm Convention in Brazil

Yago Guida, Raquel Capella, Gabriel Oliveira Carvalho, Claudio Eduardo Azevedo-Silva, Fabio Barbosa Machado Torres, Adan Santos Lino, Claudio Ernesto Taveira Parente, Rodrigo Ornellas Meire, João Paulo Machado Torres, Roland Weber

2C2-PM1-06

Update of the Pakistan Stockholm Convention Implementation Plan

Zaigham Abbas, Naeem Akhtar Abbasi, Jabir Syed, Imran Hussain, Mehreen Iqbal, Roland Weber

p.70 Tuesday, 16:30-18:30 at Room B-2  
Flame Retardants in Human Tissues;  
Implications for Human Exposure

Chairs: Adrian Covaci, Mohamed Abdallah

2B2-PM2-01

Polybrominated diphenyl ethers in breast milk from different cities in China: body burden and risk assessment

*Shanshan Yin, Fangjie Guo, Yingxue Liu, Mengling Tang, Muhammad Aamir, Yongchao Liang, Weiping Liu*

2B2-PM2-02

Intrinsic serum elimination half-lives of tri- to hexa-brominated diphenyl ethers: determined in persons moving from North America to Australia  
*Andreas Sjodin, Jochen F. Mueller, Richard Jones, Andre Schütze, Samuel P. Caudill, Fiona A. Harden, Thomas F. Webster, Leisa-Maree Toms*

2B2-PM2-03

Full scan analysis of maternal and cord blood for target and non-target detection of synthetic compounds

*Garry Codling, Veronika Schacht, Jana Klanova*

2B2-PM2-04

Spatial and temporal distributions of legacy and emerging flame retardants in indoor air and dust and human exposure in Beijing, China

*Qinghua Zhang, Dou Wang, Pu Wang, Yiwen Wang, Weiwei Zhang*

2B2-PM2-05

Legacy and emerging contaminants in Taiwanese indoor dust and their contribution to endocrine disrupting activity

*Chen-Hua Lee, Fung-Chi Ko, Mei-Chun Tseng, Pei-Hsin Chou*

2B2-PM2-06

E-waste driven pollution in Pakistan: first evidence of environmental and human exposure to flame retardants in Karachi city

*Mehreen Iqbal, Jabir Syed, Knut Breivik, Jun Li, Gan Zhang, Riffat Malik*

p.71 Tuesday, 16:30-18:30 at Room C-1  
Levels and Trends (Biota 1)

Chairs: Cynthia de Wit, Peter Haglund

2C1-PM2-01

Halogenated natural products were higher concentrated than anthropogenic POPs (PCBs, PBDEs) in sperm whales from the Mediterranean Sea (Italy)

*Walter Vetter, Kristin Aechtler, Annika Schlienz, A. Bartalini, J. Muñoz-Arnanz, L. Marsili, S. Mazzariol, M. C. Fossi, Begona Jiménez*

2C1-PM2-02

High levels of unknown perfluorocarboxylic acid precursors in shellfish from French coasts

*Yann Aminot, Nadège Bely, Charles Pollono, Catherine Munsch*

2C1-PM2-03

Determination of persistent organic pollutants in the European eel (*Anguilla anguilla*) and perch (*Perca fluviatilis*) in Flanders, Belgium

*Lies Teunen, Govindan Malarvannan, Claude Belpaire, Maarten De Jonge, Lieven Bervoets, Ronny Blust, Adrian Covaci*

2C1-PM2-04

Tissue specific distribution and total body burden of PCBs, OCPs, PBDEs, and PFASs (including F-53B) in finless porpoises (*Neophocaena asiaeorientalis*) from Korea

*Yunsun Jeong, Bit-Na Gu, Sori Mok, Kyum Joon Park, Yong-Rock An, Hyo-Bang Moon*

2C1-PM2-05

Concentrations of organochlorines and metals in juvenile ringed seals (*Pusa hispida botnica*) from the Baltic Sea 1978-2015

*Anna Maria Roos, Britt-Marie Bäcklin, Thanh Wang, Ingrid Ericson Jogsten, Peter Haglund*

2C1-PM2-06

Slow decline of PCBs in edible marine fish species from the Mediterranean Sea

*Alice Bartalini, Juan Munoz-Arnanz, Matteo Baini, Cristina Panti, Matteo Galli, Dario Giani, Maria Cristina Fossi, Begoña Jimenez*



p.85 Wednesday, 10:00-12:00 at Room B-1  
Analysis and Environmental Occurrence  
of Chlorinated Paraffins

Chairs: Yasuhuki Shibata, Bo Yuan

3B1-AM-01

Current status of analytical methods for  
chlorinated paraffins

*Louise van Mourik, Martin Brits, Sicco  
Brandsma, Jacob de Boer*

3B1-AM-02

Insights to bioaccumulation of chlorinated  
paraffins in wildlife

*Bo Yuan, Yihui Zhou, Cynthia A. de Wit,  
Christian Sonne, Xinyu Du, Katrin Vorkamp,  
Anna Maria Roos, Yin Ge, Igor Eulaers, Sara  
Persson, Svend Erik Garbus, Yanling Qiu, Jianfu  
Zhao, Åke Bergman*

3B1-AM-03

Monitoring chlorinated paraffins in amphibians  
from Yangtze River Delta: tissue distribution,  
sexual difference, and maternal transfer

*Xinyu Du, Bo Yuan, Yihui Zhou, Ziye Zheng,  
Yanling Qiu, Jianfu Zhao, Ge Yin*

3B1-AM-04

Exploring the capability of liquid  
chromatography-electrospray ionization-tandem  
mass spectrometry for the identification of  
wastes containing short-chain chlorinated  
paraffins

*Hidenori Matsukami, Natsuko Kajiwara,  
Hidetoshi Kuramochi*

3B1-AM-05

Sources and occurrences of chlorinated nonane  
paraffins in the environment

*Dan Xia, Yifei Sun, Lirong Gao, Minghui Zheng*

3B1-AM-06

Bromo-/chloro paraffins and other  
polyhalogenated alkanes (>C10): potential  
environmental contaminants?

*Leah Chibwe, Bo Yuan, Amila De Silva, Anne  
Myers, Eric Reiner, Karl Jobst, Derek Muir*

p.86 Wednesday, 10:00-12:00 at Room B-2

PFAS: Levels and Transport

Chairs: Begona Jimenez, Sachi Taniyasu

3B2-AM-01

Wide-spread contamination of perfluoro-4-  
ethylcyclohexanesulfonate (PFECHS) in the  
Nordic countries

*Anna Kärroman, Rudolf Aro, Ulrika Eriksson,  
Thanh Wang, Leo W.Y. Yeung*

3B2-AM-02

Perfluorinated compounds in the middle part of  
the Danube river, distribution, levels and  
comparison

*Biljana Škrbić, Kiwao Kadokami, Igor Antic,  
Maja Buljovic*

3B2-AM-03

National background release and potential point  
sources of per- and polyfluoroalkyl substances in  
wastewater treatment plants across Australia

*Hue Thi Thanh Nguyen, Michael McLachlan,  
Ben Tschärke, Phong Thai, Jochen Mueller*

3B2-AM-04

Side-chain fluorinated polymer surfactants are  
major contributors to per- and poly-fluoroalkyl  
substances in biosolids from Canadian  
wastewater treatment plants

*Shaogang Chu, Shirley-Anne Symth, Robert  
James Letcher*

3B2-AM-05

Screening for per- and polyfluoroalkyl  
substances in various plant tissues

*Winnie Nassazzi, Laura Gobelius, Foon Yin Lai,  
Lutz Ahrens*

3B2-AM-06

Transfer of Perfluoroalkyl and Polyfluoroalkyl  
Substances from contaminated feed into eggs of  
laying hens

*Bernd Goeckener, Maria Eichhorn, Matthias  
Kotthoff, Janine Kowalczyk, Jorge Numata, Mark  
Buecking*

p.88 Wednesday, 10:00-12:00 at Room C-2

## Epidemiology

Chairs: Paolo Brambilla, Monica Lind

3C2-AM-01

Circulating levels of polychlorinated biphenyls (PCBs) are related to longitudinal change in Intima-media thickness (IMT) over 5 years

*Monica Lind, Samira Salihovic, Jordan Stubleski, Anna Kärrman, Lars Lind*

3C2-AM-02

Polychlorinated biphenyls, dioxins, and diabetes in the Anniston cohort

*Marian Pavuk, Tara Serio, Matthew Cave, Paula Rosenbaum, Linda Birnbaum*

3C2-AM-03

Serum PFASs in 10 year old girls, estradiol and menarche - Results from a Norwegian childhood cohort

*Helen Engelstad Kvaalem, Unni Cecilie Nygaard, Karin C Lødrup Carlsen, Kai-Håkon Carlsen, Line Småstuen Haug, Berit Granum*

3C2-AM-04

Effect of prenatal exposure to perfluoroalkyl substances (PFAS) on childhood allergies: the Hokkaido Study

*Yu Ait Bamai, Goudarzi Houman, Emiko Okada, Atsuko Araki, Chihiro Miyashita, Hideyuki Matsuura, Reiko Kishi*

3C2-AM-05

Relation of maternal serum concentrations of halogenated persistent organic pollutants to vitamin D in California, USA

*Michelle Pearl, Victor Poon, Darryl Eyles, Kristen Lyall, Marty Kharrazi, Lisa A Croen, Gayle C Windham*

3C2-AM-06

Explaining correlations between persistent and non-persistent organic pollutants

*Thomas F Webster, Kate Hoffman, Allison Phillips, Stephanie Hammel, Heather M Stapleton*

p.90 Thursday, 10:00-12:00 at Room A

## PFAS: Analysis

Chairs: Vladimir Nikiforov, Leo W.Y. Yeung

4A-AM-01

A very non-polar, very volatile perfluorinated substance - perfluorotributylamine (PFTBA) detected in Arctic air

*Vladimir Nikiforov, Martin Schlabach, Pernilla Bohlin Nizzetto*

4A-AM-02

Quantitative measurements of emerging perfluoroether carboxylic acids in surface water using UHPLC-MS/MS

*Yitao Pan, Jingzhi Yao, Leo W.Y. Yeung, Jiayin Dai*

4A-AM-03

Determination of isomer/enantiomers of perfluorooctanoic acid in river water sample by gas chromatography-mass spectrometry with chiral derivatization

*Jing Zhu, Kouji H. Harada, Xiaoli Zou, Chengjun Sun*

4A-AM-04

Analysis of perfluorooctane sulfonate isomers in serum by in-port arylation-gas chromatography negative chemical ionization-mass spectrometry

*Kouji Harada, Jing Zhu, Yukiko Fujii, Yang Cao, Toshiaki Hitomi*

4A-AM-05

Development of fast and efficient pretreatment method for improving detection efficiency of perfluoroalkyl acid precursors

*Mehvish Mumtaz, YiXinag Bao, WenChao Li, Jun Huang*

4A-AM-06

Direct injection analysis by supercritical fluid chromatography coupled to tandem mass spectrometry of trifluoroacetic acid in water connected to suspected point sources

*Maria K. Bjornsdotter, Leo W. Y. Yeung, Anna Karrman, Ingrid Ericson Jogsten*

p.91 Thursday, 10:00-12:00 at Room B-1

## Formation, Sources and Control 1

Chairs: Hedelore Fiedler, Go Suzuki

4B1-AM-01

Formation of PCDD/F on the surface of iron oxide particles via a precursor pathway

*Sara Mosallanejad, Bogdan Dlugogorski, Eric Kennedy, Michael Stockenhuber, Takeshi Nakano, Mohammednoor Altarawneh*

4B1-AM-02

Formation mechanism of persistent organic pollutants during secondary metal smelting processes by gas chromatography/Orbitrap mass spectrometry screening

*Lili Yang, GR Liu, MH Zheng, YP Yang C Li*

4B1-AM-03

Co-processing AGED refuse in a bench-scale simulated Cement kiln device

*Mingxiu Zhan, Tong Chen, Hailing Gu, Jinqing Wang, Xiaodong Li*

4B1-AM-04

Environmental performance evaluation for sintering of MSWI fly ash for production of basic building materials

*Zheng Peng, Lifang Wang, Yong Ren, Yangzhao Sun*

4B1-AM-05

Emission of organic micro-pollutants from informal end-of-life vehicle processing activities in northern Vietnam: environmental impacts and human exposure

*Anh Quoc Hoang, Isao Watanabe, Minh Binh Tu, Tuyen Huu Le, Shin Takahashi*

4B1-AM-06

Brominated Dioxins emission from the E-waste recycling facility in Japan

*Go Suzuki, Chieko Michinaka, Shunji Hashimoto, Hidenori Matsukami*

p.92 Thursday, 10:00-12:00 at Room B-2

## Levels and Trends (Abiotic 2)

Chair: Jerzy Falandysz

4B2-AM-01

Pesticides in Australia: from environment to humans and from the past to the present

*Xianyu (Fisher) Wang, Phong Thai, Karen Kannedy, Sara Broomhall, Frank Wania, Marc Mallet, Darryl Hawker, Melita Keywood, Carl P Meyer, Andrew Banks, Chang He, Yan Li, Daniel Drage, Leisa Toms, Peter Hobson, Jochen Mueller*

4B2-AM-02

Long term air monitoring of polycyclic aromatic hydrocarbons (PAHs) in the Canadian Arctic and Great Lakes

*Hayley Hung, Yong Yu, Wenlong Li, Richard Park, Nick Alexandrou, Ed Sverko, Enso Barresi, Helena Dryfhout-Clark, Phil Fellin, Jianmin Ma, Yuan Zhao*

4B2-AM-03

Hexachlorobutadiene (HCBd) and POPs in ambient air: trends at frequent monitoring site of Japan

*Takumi Takasuga, Takeshi Nakano, Yasuyuki Shibata*

4B2-AM-04

Factors influencing atmospheric concentrations of short-chain chlorinated paraffins in Japan

*Nguyen Thanh Dien, Yasuhiro Hirai, Shin-ichi Sakai*

4B2-AM-05

Distribution of perfluorocarboxylic acids associated with atmospheric particulate matter from Asian countries

*Dipa Lalwani, Eriko Yamazaki, Huiju Lin, Yuefei Ruan, Sachi Taniyasu, Nirmal Kumar J.I., Nan Gai, Yong Yang, Paul Lam, Nobuyoshi Yamashita*

4B2-AM-06

Phthalate esters and PAHs in indoor window films in a northeastern Chinese urban center: film growth and implications for human exposure

*Liyan Liu, Chunyan Huo, Yifan Li, Ed Sverko*

p.93 Thursday, 10:00-12:00 at Room C-1  
From Good Science to Good Risk  
Management  
Chairs: Lorraine Seed, Martin Rose

4C1-AM-01  
Perfluorinated alkyl substances (PFAS) in food:  
the long and winding road to risk mitigation  
David Nicholas Mortimer

4C1-AM-02  
Impact of EFSA and/or national risk assessments  
on persistent organic pollutants at member state  
level: examples from Ireland  
Christina Tlustos

4C1-AM-03 (2-PS-281)  
Emissions inventory of brominated flame  
retardants from vehicles management in Japan  
Heping Liu, Junya Yano, Natsuko Kajiwara,  
Shin-ichi Sakai

4C1-AM-04  
From regulating toxic substances to producing  
sustainable chemicals and products  
Roland Weber, Peter Fantke

4C1-AM-05  
On the effectiveness of multilateral  
environmental agreements on chemicals  
management: an inconvenient truth hidden in the  
FAOSTAT  
Takuto Minekawa, Itsuki C. Handoh

4C1-AM-06  
Economic evaluation of a historic Dioxins food  
incident  
Antonio Bubbico, Susan MacDonald, Yongning  
Wu, Martin Rose

p.94 Thursday, 10:00-12:00 at Room C-2  
Ecotoxicology  
Chairs: Michael Denison, Hisato Iwata

4C2-AM-01 (1-PS-289)  
Neurotoxic effects of developmental exposure to  
DE-71 on forebrain social peptides, social  
behavior and olfaction in C57BL/6 mice  
Elena V. Kozlova, Valeria Carillo, Brigitte  
Vazquez, Heather Stapleton, Margarita C  
Curras-Collazo

4C2-AM-02  
Health effects of naturally produced  
hydroxylated polybrominated diphenyl ethers on  
perch from the Baltic sea  
Johan Gustafsson, Jessica Legradi, Marja  
Lamoree, Pim Leonards, Lars Förlin, Henrik  
Dahlgren, Lillemor Asplund

4C2-AM-03  
Are contaminants influencing the ability of  
Arctic seabirds to respond to climate change?  
Kim J Fernie, Robert J Letcher, Birgit M Braune,  
Jessica A Head, Kyle H Elliott

4C2-AM-04  
2,7-Dibromocarbazole disturb vascular formation  
in HUVECs by altering Ang2 promoter DNA  
methylation status  
Chenyang Ji, Meirong Zhao

4C2-AM-05  
Assessment of the effects of 1,3,7-TriBDD  
exposure on developing chicken embryos by  
hepatic transcriptome analysis  
Jae Gon Park, Hisato Iwata, Hoa Thanh Nguyen,  
Tatsuya Kunisue, Eun-Young Kim

4C2-AM-06  
Isoform- and ligand-specific activities of AHR  
and ARNT pairs in the chicken  
Dong-Hee Koh, Ji-Hee Hwang, Jae-Gon Park,  
Woo-Seon Song, Hisato Iwata, Eun-Young Kim

p.96 Thursday, 14:00-16:00 at Room A

## PFAS: Removal and Degradation

Chairs: Anna Kärman, **Kiwao Kadokami**

4A-PM1-01

Per- and polyfluoroalkyl substances in drinking water: occurrence, removal, and human health risks

Lutz Ahrens, Anna-Lena Rehr, Erik Gunnars, Karin Wiberg, Anders Glynn

4A-PM1-02

Towards more efficient removal of per- and polyfluoroalkyl substances (PFASs) in drinking water treatment: can nanofiltration combined with active carbon or anion exchange do the trick?

Vera Franke, Philip McCleaf, Klara Lindegren, Lutz Ahrens

4A-PM1-03

Potential of low-cost alternatives for remediation of PFAS contaminated waters

Jean-Noel Uwayezu, Ingrid Ericson Jogsten

4A-PM1-04

Adsorption of per- and polyfluoroalkyl substances by ferrihydrite is non-specific and governed by surface charge

Hugo Campos-Pereira, Dan Berggren Kleja, Carin Sjöstedt, Lutz Ahrens, Jon Petter Gustafsson

4A-PM1-05

Insight into the degradation mechanism of F-53B, the alternative to PFOS as chrome mist suppressant in China, by UV/sulfite process

Yixiang Bao, Jun Huang

4A-PM1-06

Characterisation of technical mixtures containing side-chain fluorinated polymers

Felicia Fredriksson, Anna Kärman, Ulrika Eriksson, Leo W.Y. Yeung

p.97 Thursday, 14:00-16:00 at Room B-1

## Formation, Sources and Control 2

Chairs: Minghui Zheng, **Tong Chen**

4B1-PM1-01

Integrated adsorption and visible-light photocatalysis of diclofenac by defective MOFs

Yanxin Gao, Gang Yu

4B1-PM1-02

Effective adsorption of metronidazole antibiotic from water with Zr (IV) -MOFs

Sha Chen, Alamgir, Khalid Talhab, Feng Fan, Jian-Rong Li

4B1-PM1-03

Self-sensitization of tetracycline degradation with visible light catalyzed by Zr-based Metal-Organic Frameworks

Jing Xia, Gang Yu

**4B1-PM1-04 (3-PS-204)**

**Effect of water washing on POPs concentration during pyrolysis of MSWI fly ash**

Man Minh Trinh, Been Moo Chang

4B1-PM1-05

The distribution and source apportionment of stationary source flue gas and atmospheric PCDD/Fs in Taiwan

Shih-Yu Pan, Yi-Ting Liou, Hung-Wei Chen, Shih-Chieh Hsu, Chung-Kuang Chou, Siao-Yi Jin, Kuang-Wei Liu, Kai-Hsien Chi

4B1-PM1-06

Atmospheric polycyclic aromatic hydrocarbons in fine particulate matters: source apportionment and exposure risk assessment at different areas in Taiwan

Ya Syuan Wu, Hsin Yu Yang, Shih Yu Pan, Tuan Hung Ngo, Yi Siao Jin, Kuang Wei Liu, Moo Been Chang, Kai Hsien Chi



p.99 Thursday, 14:00-16:00 at Room C-1  
Large Scale Biomonitoring and Cohort Study  
Chairs: Shoji Nakayama, Linda Birnbaum  
Co-organizer: Tomohiko Isobe

4C1-PM1-01

Achievements and conclusions on children's development in relation to real life exposure to chemical mixtures - A report from the EDC-MixRisk EU project

Ake Bergman, Joëlle Rüegg, Carl-Gustav Bornehag, Barbara Demeneix, Jean-Baptiste Fini, Chris Gennings, Maria Jönsson, Wieland Kiess, Efthymia Kitraki, Hannu Kiviranta, Christian Lindh, Eewa Nånberg, Christina Rudén, Joachim Sturve, Olle Söder, Giuseppe Testa, Mattias Öberg

4C1-PM1-02

Effect of prenatal exposure to persistent organic pollutants on children's health in the Hokkaido study on environment and children's health

Chihiro Miyashita, Reiko Kishi

4C1-PM1-03

The Danish National Birth Cohort: potentials for studying impact of environmental exposures during pregnancy on child health

Sjurdur F Olsen

4C1-PM1-04 (1-PS-251)

Serum concentrations of legacy and emerging per- and polyfluoroalkyl substances in the Anniston Community Health Surveys (ACHS I and ACHS II)

Mike Petriello, Linda Birnbaum, Marian Pavuk, Abdul Mottaleb, Andrew J Morris

4C1-PM1-05

Determination of neonicotinoid insecticides in urine using semi-automated solid phase extraction coupled to UHPLC-MS/MS

Tomohiko Isobe, Miyuki Iwai-Shimada, Yayoi Kobayashi, Mai Takagi, Shoji F Nakayama

4C1-PM1-06

Endocrine disrupting chemicals: a costly public health threat with opportunities for policy prevention

Leonardo Trasande

p.101 Thursday, 16:30-17:50 at Room A

PFAS: Exposure and Toxicology

Chairs: Biljana Škrbić, Anna Kärroman

4A-PM2-01

The Norwegian POPs in food study: now including PFAS

Helen Engelstad Kvale, Nanna Margrete Bruun Bremnes, Cathrine Thomsen, Line Småstuen Haug

4A-PM2-02

The first nationwide survey of exposure to legacy and emerging per- and polyfluoroalkyl substances via hair in India

Yuefei Ruan, Dipa Lalwani, Karen Ying Kwok, Eriko Yamazaki, Sachi Taniyasu, Nirmal JI Kumar, Paul Kwan Sing Lam, Nobuyoshi Yamashita

4A-PM2-03 (1-PS-250)

PFAS and fluorine mass balance analysis of whole blood samples from Sweden

Rudolf Aro, Jean Noël Uwayezu, Anna Kärroman, Leo W.Y. Yeung

4A-PM2-04

PFOA induces liver and serum dyslipidemia in humanized PPAR $\alpha$  mice fed an American diet  
Jennifer Schlezinger, Wendy Heiger-Bernays, Tuulia Hyötyläinen, Catherine Boston

Thomas F Webster



p.101 Thursday, 16:30-17:50 at Room B-1  
Formation, Sources and Control 3  
Chairs: Yifei Sun, Takashi Fujimori

4B1-PM2-01  
Review of progress in PCB elimination under the  
Stockholm Convention on POPs - Status report  
2019  
*Heidelore Fiedler, Kei Ohno, Edwin Camelo*

4B1-PM2-02  
The effect of desulfurization on the emissions of  
PCDD/Fs from coal-fired power plants  
*Xiaolin Wu, Wenbin Liu*

4B1-PM2-03  
Reducing polychlorinated naphthalenes (PCNs)  
emissions from municipal waste incinerator and  
secondary copper smelting plant  
*Duy Dat Nguyen, Yong-Ji Huang, Weichun Wang,  
Moo Been Chang*

4B1-PM2-04 (1-PS-205)  
Dioxins biodegradation in Sydney harbor  
sediment  
*Gan Liang, Matthew Lee, Michael Manefield*

p.102 Thursday, 16:30-17:50 at Room B-2  
Dioxin Health Hazard in Vietnam 2  
Chairs: Muneko Nishijo, Tai Pham The

16:30-16:50 4B2-PM2-01  
Distribution of PCDD/Fs in soil and sediment at  
former Aso airbase located in central Vietnam  
*Le Thi Hai Le, Nguyen Duy Dat, Nguyen Kim  
Anh, Nguyen Hung Minh*

16:50-17:10 4B2-PM2-02  
Assessment of AhR activities for determining  
dioxin contamination activities in hotspot and  
control areas of Central Vietnam  
*My Thi Ai Tran, Kersten Van Langenhove,  
Michael S. Denison, Long Thai Hoang, Hop Van  
Nguyen, Marc Elskens*

17:10-17:30 4B2-PM2-03  
Overview of dioxin remediation projects from  
post-war to present in Vietnam  
*Quyêt Do Ba, Tai Pham The, Muneko Nishijo*

17:30-17:50 4B2-PM2-04  
Large scale thermal treatment of dioxins from  
Agent Orange  
*John Bierschenk, Hatsue Minato Braatz, Jim  
Galligan, Timothy Burdett*

p.114 Friday, 10:45-12:15 at Room A

## Summary Session

Chair: Takashi Fujimori

Environmental Levels

*Leo W.Y. Yeung*

Toxicology and Health

*Hazuki Mizukawa*

Analytical Chemistry

*Lutz Ahrens*

Risk Assessment and Exposure

*Govindan Malarvannan*

Formation, Sources and Control

*Takashi Fujimori*

Emerging POPs

*Anna Kärroman*