



SETAC 2024
Asia-Pacific

SETAC Asia-Pacific 14th Biennial Meeting

Promoting a Healthy Earth



Host Organization

Society of Environmental Toxicology and Chemistry Asia-Pacific

Undertaking Organization

College of Environmental Science and Engineering, Nankai University



Please scan the QR code for abstract book and more information on the website



21-25 September 2024

Tianjin • China

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Welcome Remarks

On behalf of the Steering and Organizing Committee of the SETAC Asia-Pacific 14th Biennial Meeting 2024, I would like to extend my warmest welcome to all delegates from all over the world. The conference provides a historical opportunity for international experts working in environmental analysis and regional monitoring, ecological environmental chemistry, toxicity, health, and emerging contaminants to meet and share the latest understanding of the ever-growing challenges between human and our changing environment. Delegates are allowed and encouraged to attend any sessions of the conference and to extend their academic networks.

This conference is held every two years and the last SETAC Asia-Pacific Biennial Meeting held in China dates back to 2010. In the past decade, environmental toxicology and environmental chemistry have experienced rapid development in China, with a large number of young scientists and students joining this research field. The issues of new pollutants have become a major national and global demand, and relevant benchmarks and toxicology research are urgently needed, making it a global environmental frontier hotspot. Therefore, now is the best window for the SETAC Asia-Pacific Biennial Meeting coming back to China.

The theme of the conference is promoting a healthy earth including the most challenging issues that human beings are currently facing. With the economic development and improvement of our quality of life, the applications and emissions of quantities of chemicals bring increasing pressure on the environment around us. The sessions cover a wide range of topics within the environment and health spheres.

To complement the academic program of the conference, we have also organized a couple of special sessions and training courses. Our faculties and volunteers from College of Environmental Science and Engineering, Nankai University, will give you a warm welcome. We hope Tianjin will provide you a good experience with its well-preserved Chinese tradition, hospitality, and attractions. Thank you and enjoy your stay in Tianjin!



Prof. Hongwen Sun



Prof. Lingyan Zhu



Introduction

The SETAC Asia-Pacific 14th Biennial Meeting 2024 will be held in Tianjin, China from September 21 to 25, 2024, which is a grand event focused on **promoting a healthy Earth**.

Through scientific meetings, workshops, and publications, the Society of Environmental Toxicology and Chemistry (SETAC) Asia Pacific branch encourages the exchange of innovative research findings, methods, and best practices to help address emerging environmental issues. The biennial annual conference of the organization aims to provide a platform for scientists, researchers, policy makers, industry professionals, young students, and environmental enthusiasts to exchange knowledge, ideas, and solutions, discuss environmental issues in the Asia-Pacific region and globally, promote cooperation, and inspire collective action.

The SETAC Asia-Pacific 14th Biennial Meeting will strive to become a symbol of environmental awareness and scientific excellence, bringing together professionals who strive to maintain and enhance Earth's health, creating a vibrant platform to cultivate academic ideas, explore solutions, establish partnerships, prosper environmental disciplines, and protect a healthy Earth. The conference will showcase the latest developments in environmental toxicology and chemistry, promote interdisciplinary cooperation, and facilitate dialogue between academia, government, industry, and non-governmental organizations. The conference topics include but are not limited to environmental analysis, environmental pollution processes, ecotoxicology, emerging contaminant behavior, risk assessment, and other related issues.

As the organizer of the conference, College of Environmental Science and Engineering, Nankai University, cordially invites experts and scholars from around the world, especially from the Asia-Pacific region, to gather in Tianjin and participate in the grand event together.

Academic Committee (Alphabetically)

No	Name	Country	Affiliation
1	An, Youn-Joo	Korea	Konkuk University
2	Arias-Barreiro, Carlos	Australia	SETAC Asia-Pacific
3	Arts, Gertie	Netherlands	Wageningen University and Research
4	Brooks, Bryan W.	USA	Baylor University
5	Cai, Zongwei	China	Hong Kong Baptist University
6	Campos, Bruno	UK	Unilever
7	Chen, Chunying	China	The National Center for Nanoscience and Technology
8	Choi, Jinhee	Korea	University of Seoul
9	Escher, Beate	Germany	Helmholtz Centre for Environmental Research, UFZ
10	Gan, Jay	USA	University of California, Riverside
11	Garrigues, Philippe	France	University of Bordeaux
12	Gin, Yew-Hoong	Singapore	National University of Singapore
13	He, Kebin	China	Tsinghua University
14	Hu, Jiangyong	Singapore	National University of Singapore
15	Hu, Jing	USA	DOW
16	Jiang, Guibin	China	Research Center for Eco-Environmental Sciences, CAS
17	Kallenborn, Roland	Norway	Norwegian University of Life Sciences
18	Kolok, Alan	USA	University of Idaho
19	Le, X. Chris	Canada	University of Alberta
20	Lee, Kuan-Chun	Singapore	Procter & Gamble
21	Leung, Kenneth	China	City University of Hong Kong
22	Li, Xiangdong	China	The Hong Kong Polytechnic University
23	Ma, Jing	China	Bayer Crop Science
24	Ma, Jun	China	Harbin Institute of Technology
25	Muir, Derek	Canada	University of Guelph
26	Naidu, Ravi	Australia	University of Newcastle



No	Name	Country	Affiliation
27	Nakayama, Shoji	Japan	National Institute for Environmental Studies
28	Praveena, Sarva Mangala	Malaysia	Universiti Putra Malaysia
29	Sanchez-Bayo, Francisco	Australia	Department of Climate Change, the Environment and Waste
30	Schlenk, Daniel	USA	University of California, Riverside
31	Shoeb, Mohammad	Bangladesh	University of Dhaka
32	Snyder, Shane A.	USA	Georgia Institute of Technology
33	Tao, Shu	China	Peking University
34	Tatarazako, Norihisa	Japan	Ehime University
35	Thomas, Kevin	Australia	The University of Queensland
36	Timme-Laragy, Alicia	USA	University of Massachusetts Amherst
37	Topp, Edward	France	University of Burgundy
38	Tremblay, Louis	New Zealand	Manaaki Whenua-Landcare Research
39	Wang, Wenxiong	China	City University of Hong Kong
40	Wang, Yanxin	China	China University of Geosciences (Wuhan)
41	Wu, Fengchang	China	Chinese Research Academy of Environmental Sciences
42	Wu, Minghong	China	Shanghai University
43	Yamamoto, Hiroshi	Japan	National Institute for Environmental Studies
44	Yamashita, Nobuyoshi	Japan	National Institute of Advanced Industrial Science and Technology
45	Yu, Gang	China	Beijing Normal University
46	Zeng, Eddy Y.	China	South China University of Technology
47	Zhang, Zulin	UK	The James Hutton Institute
48	Zhao, Jincai	China	Institute of Chemistry, CAS
49	Zhu, Lizhong	China	Zhejiang University
50	Zhu, Tong	China	Peking University
51	Zhu, Yongguan	China	Research Center for Eco-Environmental Sciences, CAS

Local Committee (Alphabetically)

No	Name	Country	Affiliation
1	An, Taicheng	China	Guangdong University of Technology
2	Cai, Wenjia	China	Tsinghua University
3	Chen, Baoliang	China	Zhejiang University
4	Chen, Jingwen	China	Dalian University of Technology
5	Chu, Chiheng	China	Zhejiang University
6	Dai, Jiayin	China	Shanghai Jiaotong University
7	Fan, Wenhong	China	Beihang University
8	Feng, Xinbin	China	Institute of Geochemistry, CAS
9	Feng, Yinchang	China	Nankai University
10	Ge, Maofa	China	Institute of Chemistry, CAS
11	Gu, Cheng	China	Nanjing University
12	He, Yan	China	Zhejiang University
13	Hu, Jianying	China	Peking University
14	Hu, Min	China	Hu, Min
15	Hu, Xiangang	China	Nankai University
16	Ji, Rong	China	Nanjing University
17	Kan, Haidong	China	Fudan University
18	Li, Fangbai	China	Institute of Eco-environmental and Soil Sciences, Guangdong Academy of Sciences
19	Li, Yifan	China	Harbin Institute of Technology
20	Liao, Chunyang	China	Research Center for Eco-Environmental Sciences, CAS
21	Lin, Yan	China	Nankai University
22	Liu, Chunsheng	China	China University of Geosciences (Wuhan)
23	Lu, Jinfeng	China	Nankai University
24	Ma, Limin	China	Tongji University
25	Ma, Qiyang	China	Zhejiang University



No	Name	Country	Affiliation
26	Mao, Hongjun	China	Nankai University
27	Peng, Jianfei	China	Nankai University
28	Qiu, Xinghua	China	Peking University
29	Ruan, Ting	China	Research Center for Eco-Environmental Sciences, CAS
30	Sang, Nan	China	Shanxi University
31	Shi, Huahong	China	East China Normal University
32	Shi, Jianbo	China	China University of Geosciences (Wuhan)
33	Song, Maoyong	China	Research Center for Eco-Environmental Sciences, CAS
34	Sun, Yangzhao	China	Foreign Cooperation Center of the Ministry of Ecology and Environment
35	Tang, Jingchun	China	Nankai University
36	Wang, Fang	China	Nanjing Institute of Soil Research, CAS
37	Wang, Hailin	China	Research Center for Eco-Environmental Sciences, CAS
38	Wang, Lei	China	Nankai University
39	Wang, Shuo	China	Nankai University
40	Wang, Shuxiao	China	Tsinghua University
41	Wang, Xinhong	China	Xiamen University
42	Wang, Yawei	China	Research Center for Eco-Environmental Sciences, CAS
43	Wang, yingying	China	Nankai University
44	Wei, Si	China	Nanjing University
45	Wu, Yongning	China	China National Center for Food Safety Risk Assessment
46	Xia, Xinghui	China	Beijing Normal University
47	Yao, Yiming	China	Nankai University
48	Yin, Daqiang	China	Tongji University
49	Ying, Guangguo	China	South China Normal University
50	You, Jing	China	Jinan University
51	Yu, Yunjiang	China	South China Institute of Environmental Sciences, Ministry of Ecology and Environment

No	Name	Country	Affiliation
52	Zhan, Sihui	China	Tianjin University
53	Zhang, Gan	China	Guangzhou Institute of Geochemistry, CAS
54	Zhang, Hangjun	China	Hangzhou Normal University
55	Zhang, Li	China	Institute of South China Sea Oceanography, CAS
56	Zhang, Quan	China	Zhejiang University of Technology
57	Zhang, Tao	China	Sun Yat-sen University
58	Zhang, Tong	China	The University of Hong Kong
59	Zhang, Xiangru	China	Hong Kong University of Science and Technology
60	Zhang, Xiaowei	China	Nanjing University
61	Zhao, Xiaoli	China	China Academy of Environmental Sciences
62	Zheng, Minghui	China	Research Center for Eco-Environmental Sciences, CAS
63	Zheng, Yuxin	China	Qingdao University
64	Zhong, Huan	China	Nanjing University
65	Zhou, Qixing	China	Nankai University
66	Zhu, Dongqiang	China	Peking University
67	Zhu, Hongkai	China	Nankai University



Host Organization

Society of Environmental Toxicology and Chemistry Asia-Pacific

Undertaking Organization

College of Environmental Science and Engineering, Nankai University

Conference Chairs

Sun, Hongwen, Nankai University

Zhu, Lingyan, Nankai University

Conference Secretary

Yao, Yiming, Nankai University

Organizing Committee (Alphabetically)

Chen, Hao	Qu, Nan
Cheng, Zhipeng	Rong, Lili
Gao, Shizhe	Wang, Yu
Kang, Huimin	Wang, Haiyong
Li, Ke	Xu, Jiaping
Li, Wenxiu	Yang, Liping
Li, Xianyu	Yi, Shujun
Liu, Hong	You, Jia
Liu, Xiaoling	Zang, Guangyuan
Lu, Yuan	Zhang, Peng
Peng, Chu	Zhang, Yanfeng
Qiang, Yanwen	Zhao, Hongzhi

Contact Center

Email: SetacAP2024@nankai.edu.cn

Notice for Oral and Poster Presentations

Oral Presentation:

1. The oral presenter must arrive at the presentation location at least 15 min before the start of the session. The speaker should introduce themselves to the session chairs at the speaking venue before the start of the session.

2. The keynote presentation will last for 20-25 min (including 3-5 min Q&A), the invited presentation will last for 15-20 min (including 3 min Q&A), the regular presentation will last for 12-15 min (including 2 min Q&A), and the student presentation will last for 8-15 min (including 2 min Q&A). There will be a time reminder 3 min before the end of the presentation, and the specific presentation time will be determined by each session. Please refer to the detailed schedule of each session.

3. All speakers have to go to the speaker review room (Room 29 on the third floor) at least 4 hours before the oral presentation to submit the presentations into the PC. The organizing committee shall check the font, audio and video content to avoid affecting normal playback.

4. Each session chair will strictly adhere to the presentation schedule to allow the audience to switch between sessions. Each presentation venue will have a sound system and a PC with Microsoft PowerPoint software, linked to a data projector.

5. The size of the oral presentation PPT should be uniformly 16:9, and it is recommended to use *.pptx format.

Poster presentation:

1. A standard exhibition board with a size of 2.5 meters (height) * 1 meter (width) will be provided for each poster at the conference site, with a white background color. The venue will be located in the lobby of the third-floor conference hall.

2. The printing size for posters should be 1.2 meters (height) * 0.9 meters (width), with concise content and clear handwriting. The layout can be artistically processed, and the handwriting should be clearly visible at least 1 meter away.

3. When posting posters, please make them yourself and bring them to the lobby on the third floor of the conference hall. You can use the poster's own adhesive or transparent adhesive to stick it to the corresponding display board according to the designated Poster ID of the conference. At that time, staff will provide the necessary tools for representatives to post and assist them in posting.

4. During the poster exhibition period, the presenting author should introduce and communicate with the representatives who come to watch in front of the poster they are posting.

5. The posters for this conference will be posted after 4 pm on September 22nd, and the posters exhibition will end after the closing ceremony of the conference on the afternoon of September 24th. After the poster exhibition, please take off the poster by yourself. If the poster is not taken away, the staff will consider it unclaimed and have it discarded.

Program at A Glance

SETAC Asia-Pacific 14th Biennial Meeting
Tianjin, China Sep. 21-25

Sep 21 (Saturday)	Sep 22 (Sunday)	Sep 23 (Monday)	Sep 24 (Tuesday)	Sep 25 (Wednesday)
Registration & Sign in: Society Hill International Convention Center Hotel, Tianjin Time: Sep 21, 13:00-22:00 Sep 22, 08:00-18:00 Sep 23, 08:00-18:00 Other time: Please contact the conference staff: (+86 18222565605)	08:30-09:00 Opening Ceremony 09:00-10:20 Plenary Talk I & II 10:20-10:40 Tea Break 10:40-12:00 Plenary Talk III & IV Venue: Grand Conference Room, 3rd Floor 12:00-13:30 Lunch Grand Ballroom, Moment Sharing Restaurant, 1st Floor 13:30-15:00 Oral Sessions 15:00-15:30 Tea Break 15:30-18:00 Oral Sessions 13:30-18:00 Poster Session 19:00-20:30 Banquet Grand Conference Room, 3rd Floor	08:30-10:00 Oral Sessions 10:00-10:30 Tea Break 10:30-12:00 Oral Sessions 08:30-12:00 Poster Session 12:00-13:30 Lunch Moment Sharing Restaurant, 1st Floor 13:30-15:00 Oral Sessions 15:00-15:30 Tea Break 15:30-18:00 Oral Sessions 13:30-18:00 Poster Session 19:30-21:00 Face-to-face Meeting with Editors 18:00-20:00 Dinner Moment Sharing Restaurant, 1st Floor	08:30-10:00 Oral Sessions 10:00-10:30 Tea Break 10:30-12:00 Oral Sessions 08:30-12:00 Poster Session 12:00-13:30 Lunch Moment Sharing Restaurant, 1st Floor 13:30-16:10 Plenary Talk V & VI & VII & VIII 16:10-16:40 Closing Ceremony	08:30-12:30 Training Courses



SETAC Asia-Pacific 2024

SETAC Asia-Pacific 14th Biennial Meeting
Promoting a Healthy Earth

Plenary Program

Sep. 22 Morning

Opening Ceremony & Plenary Talks

Time	Topic	Speaker & Institution
Moderator	Sun, Hongwen	
08:30-09:00	Opening Ceremony	
Moderator	Brooks, Bryan; Zhu, Lizhong	
09:00-09:40	Identification and toxicological understanding of new pollutants: A case study of tetrabromobisphenol A	Jiang, Guibin Research Center for Eco-Environmental Sciences, CAS, China
09:40-10:20	Asia-pacific perspectives on ecological risk assessment and management of chemicals and mixtures	Yamamoto, Hiroshi National Institute for Environmental Studies, Japan
10:20-10:40	Tea Break	
Moderator	Le, X.Chris; Ma, Jun	
10:40-11:20	Learning from environmental chemistry: A mechanism-based approach to toxicology and chemical risk assessment	Escher, Beate Helmholtz Centre for Environmental Research, UFZ, Germany
11:20-12:00	Addressing the triple planetary crisis: Incorporating climate change into environmental risk assessment	Stauber, Jennifer La Trobe University, Australia

Sep. 24 Afternoon

Plenary Talks & Closing Ceremony

Time	Topic	Speaker & Institution
Moderator	Richard, Susan; Tao, Shu	
13:30-14:10	Plastisphere in One Health	Zhu, Yongguan Research Center for Eco-Environmental Sciences, CAS, China
14:10-14:50	Turning tandem mass spectra into metabolite structure information: What is new in SIRIUS 6?	Böcker, Sebastian Friedrich Schiller University Jena, Germany
14:50-15:30	Fate and impacts of antibiotics in agricultural soils	Topp, Edward University of Burgundy, France
15:30-16:10	Occurrence and transformation of PFAS in the environment	Sun, Hongwen Nankai University, China
Moderator	Zhu, Lingyan	
16:10-16:40	Closing Ceremony	



Plenary Speakers



Jiang, Guibin

Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
China

Professor Jiang Guibin is an academician of the Chinese Academy of Sciences, fellow of the Academy of Sciences of the Developing Countries. He graduated from the Department of Chemistry, Shandong University in January 1982, and received his master's and doctoral degrees from the Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences from 1987 to 1991. From 1989 to 1991 and 1994 to 1996, he was a visiting scholar and postdoctoral researcher at the National Research Council of Canada and the University of Antwerp, Belgium, respectively.

Prof. Jiang's research is mainly focused on analytical development, environmental fate, toxicology and health effects of persistent organic pollutants (POPs), organometallic compounds and nano-materials. As the pioneer of the fields of new pollutants, his research conducted the academic direction of discovering new pollutants in real environment and acted as the irreplaceable role for the implementation of the Stockholm Convention on Persistent Organic Pollutants and the Minamata Convention on Mercury in China.

He has contributed more than 1300 papers in peer-reviewed international scientific journals and published 23 monographs. He was honored with the prestigious Chang Jiang Scholars Achievement Award in 2007, National Award of Natural Science of State Council of China in 2003, 2011 and 2018, Outstanding Achievements in Environmental Science & Technology Award (American Chemical Society) in 2020, Agilent Thought Leader Award in 2013, and Outstanding Science and Technology Achievement Prize of Chinese Academy of Sciences in 2013.



Yamamoto, Hiroshi

National Institute for Environmental Studies
Japan

Hiroshi Yamamoto received MS from Graduate School of Global Environmental Engineering of Kyoto University in 1997 and Ph.D. from Environmental and Water Resource Engineering, The University of Texas at Austin in 2002. He served as assistant professor and associate professor at Tokushima University between 2004 and 2016, and moved to National Institute for Environmental Studies (NIES) in April 2016 and became Head of Ecotoxicity Section in Center for Health and Environmental Risk Research. He was promoted to be Deputy Director in 2019 and became Director of Division of Health and Environmental Risk in April 2024. His expertise is in fate and ecological risk of micropollutants such as pharmaceuticals, pesticides, surfactants and other industrial chemicals, and more recently in plastics.

He is a visiting professor at Graduate School of Frontier Science, The University of Tokyo. He has been contributing to international standardization of ecotoxicity testing methods and hazard assessment under Organization for Economic Cooperation and Development (OECD). He has also been involved in environmental risk assessment of chemicals in Japan for more than 20 years mostly under Ministry of the Environment. He has been a board member of SETAC Asia-Pacific for more than three years and became Vice President in 2022. He has also been a Vice President of SETAC Japan since 2022.



Escher, Beate

Helmholtz Centre for Environmental Research, UFZ
Germany

Beate Escher is Head of Department of Cell Toxicology since October 2014. She holds a professorship in Environmental Toxicology at Eberhard Karls University Tübingen. She is lecturer (Privatdozent) at the Swiss Federal Institute of Technology in ETHZ, Switzerland. She holds a professorship at the University of Queensland and an adjunct professorship at Griffith University, Australia. She is member of the German Council of Science and Humanities and of the board of reviewing editors at SCIENCE. Beate Escher's research interests focus on mode-of-action based environmental risk assessment, including methods for initial hazard screening and risk assessment of pharmaceuticals, pesticides, disinfection by-products and persistent organic pollutants with an emphasis on mixtures. A special interest is the effect assessment of transformation products and disinfection by-products. One of Escher's goals is to close the gap between exposure and effect assessment through common approaches linking bioavailability to internal exposure and effects via understanding and modelling of toxicokinetic and toxicodynamic processes. More practically oriented aspects of her work include passive sampling and effect-based methods for water quality assessment. Further she has an interest in improving dosing methods for very hydrophobic and volatile compounds and to develop new in-vitro assays for bioaccumulation and toxicity assessment.



Stauber, Jennifer

GAICD, FTSE, FAA, SETAC Fellow
La Trobe University
Australia

Dr Jenny Stauber is an Adjunct Professor at La Trobe University, Australia. She has recently retired from CSIRO Environment, Sydney, Australia where she was a Chief Research Scientist and formerly Deputy Chief and Acting Chief of CSIRO Land and Water. Jenny is an aquatic ecotoxicologist with expertise in the bioavailability and toxicity of contaminants in marine and freshwater systems, environmental risk assessment, downstream impacts of mining, and the derivation of toxicant water and sediment quality guidelines.

Jenny has chaired and served as expert ecotoxicologist on many World Health Organisation chemical review boards and is currently a member of the Ecotoxicity Technical Advisory Panel for the International Metals Associations. She is a member of a large number of expert advisory panels to the Australian government and industry on areas as diverse as chemical contaminants, Great Barrier Reef water quality, petroleum and mineral resources, chemicals risk assessment and water quality guidelines. She is a graduate of the Australian Institute of Company Directors and a SETAC Fellow. She is a Fellow of both the Australian Academy of Science and the Australian Academy of Technology and Engineering. She was a recipient of Australia's Land and Water Eureka Prize in 2006 and has authored over 400 journal papers, book chapters and reports.



Zhu, Yongguan

Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
China

Professor Yongguan (Yong-Guan) Zhu, Academician of the Chinese Academy of Sciences (CAS), Fellow of TWAS (The World Academy of Sciences), Fellow of International Science Council (ISC), professor of environmental science, is the Director General of the Research Center for Eco-environmental Sciences, CAS. He has been working on environmental health and wellbeing related to pollution, soil biodiversity and microbial ecology. He obtained his PhD from Imperial College, London in 1998. He was a scientific committee member for ISC program on Human Health and Wellbeing in Changing Urban Environment, and is a member of Committee of Science Planning of ISC. He served for nine years as a member of Standing Advisory Group for Nuclear Application, International Atomic Energy Agency (2004-2012). He has received many merit awards, including TWAS Award for Agricultural Science 2013, National Natural Science Award 2009, International Union of Soil Science von Liebig Award 2022. He was selected as a Web of Science Highly Cited Researcher (2016-2023) with citations over 57,000 times and an H-index of 124.



Böcker, Sebastian

Friedrich Schiller University Jena
Germany

Sebastian Böcker holds the Chair for Bioinformatics at the Institute for Computer Science, Friedrich Schiller University Jena, Germany. He studied mathematics and did his PhD in biomathematics at Bielefeld University, focusing on theoretical phylogenetics. He then went to industry for three years, developing computational methods for the interpretation of DNA/RNA mass spectrometry data. He returned to Bielefeld University as an independent research leader, before he took up his current position in Jena. His research interests are mainly method-driven and were originally focused on combinatorics and algorithmics; later, stochastics and machine learning joined the methods of interest. On the application side, his research focuses on the annotation of small molecules from mass spectrometry data: SIRIUS, CSI: FingerID and CANOPUS from his group were named «methods to watch» by Nature Methods. Sebastian Böcker is an Emmy Noether fellow (Computer Science Action Program) of the Deutsche Forschungsgemeinschaft and also a fellow of the Alexander-von-Humboldt Society. In 2022, he and his group won the Thuringian Research prize.



Topp, Edward

University of Burgundy
France

Since July 2023, Ed Topp has held the ANR/INSERM Chair of Excellence, Priority Research Program of France on Antibiotic Resistance, and Director of Research at the UMR Agroecology at the INRAE research center in Dijon. Before his arrival in France, he was a Principal research scientist with Agriculture and Agri-Food Canada (AAFC). He was also the scientific coordinator (2016-23) of the Federal genomics research and development initiative on antimicrobial resistance [GRDI-AMR], a key element of the Canadian federal action plan against antimicrobial resistance. He holds adjunct faculty positions in the Department of Biology at the University of Western Ontario, and at the Ontario Veterinary College at the University of Guelph. He is an environmental microbiologist and chemist and conducts research on animal and crop production practices that are protective of environmental and human health. A particular focus is the mitigation of the development and transmission of antimicrobial resistance. He is a past president of the Canadian Society for Microbiologists (2011). He was elected a member of l'academie d'agriculture de France (2016) and was appointed a Fellow of the Soil Science of America (2022).



Sun, Hongwen

Nankai University
China

Dr. Hongwen Sun is a professor and former dean of College of Environmental Science and Engineering, Nankai University, China. She acquired her Ph D at Nankai University in 1994 and has been working there till now. She worked in Osaka University, Japan as a postdoctoral researcher during 1999-2001 and in Swiss Federal Institute of Water Technology (Eawag), Switzerland as a visiting scholar in 2008. She holds the chair of, 1) Center on Environmental Processes and Risk Assessment of Emerging Contaminants, which is a discipline innovation and international exchange center supported by Ministry of Education, China; 2) Innovative Team on Risk Assessment and Pollution Remediation supported by Ministry of Science and Engineering, China. She commits herself to two research fields: 1) Source, fate, and human exposure of emerging organic contaminants including perfluoroalkyl substances, plasticizers and fire retardants etc; 2) Novel materials and technologies for the remediation of polluted soil. She has published over 600 journal papers and several book chapters and edited one monograph of "Biochar and Environment". The papers have been cited more than 15,000 times and she was selected as highly cited scholar by Elsevier. She was named with several talent titles by Ministry of Education, Ministry of Science and Technology, and Natural Science Foundation of China. She is currently Advisory Board Member for the journal of Environmental Science & Technology, serves several other internal and international journals as editor board member. She is an executive member of Soil Science Society of China and vice chairmen of Committee of Pollution Control of Emerging Contaminants, and member of several other academic committees.



Face-to-Face Meeting with Editors



Gan, Jay

University of California, Riverside
Science of the Total Environment
(Editor-in-chief)



Han, Jie

Xi'an Jiaotong University
Environmental Chemistry Letters
(Editor-in-chief)



Richardson, Susan

University of South Carolina
Environmental Science & Technology
(Executive Editor)



Tang, Xiaoyan

Nanjing Institute of Environmental Sciences, MEE
Eco-Environment & Health
(Director of Editorial Department)



Le, X. Chris

University of Alberta
Journal of Environmental Sciences
(Editor-in-chief)



Leung, Kenneth

City University of Hong Kong
Regional Studies in Marine Science
(Editor-in-chief)



Xu, Zhihong

Griffith University
Journal of Soils and Sediments
(Editor-in-chief)



Zhang, Gan

Guangzhou Institute of Geochemistry, CAS, China
Carbon Research
(Associate Editor)



Ma, Lena

Zhejiang University
Soil & Environmental Health
(Editor-in-chief)



Peijnenburg, Willie

Leiden University
Chemosphere
(Editor-in-chief)



Zhong, Huan

Nanjing University
**Reviews of Environmental Contamination
and Toxicology**
(Editor-in-chief)



Face-to-Face Meeting with Editors

Sep. 23 Venue: Meeting Room 16

Co-chairs: Sun, Hongwen; Yao, Yiming; Zhu, Lingyan
Secretary: Wang, Yu

Time	Topic	Speaker & Institution
19:30-19:35		Opening Remark
19:35-19:40	Journal Introduction	Invited: Gan, Jay (Editor-in-Chief of Science of the Total Environment) University of California, Riverside, USA
19:40-19:45		Invited: Han, Jie (Editor-in-Chief of Environmental Chemistry Letters) Xi'an Jiaotong University, China
19:45-19:50		Invited: Le, X. Chris (Editor-in-Chief of Journal of Environmental Sciences) University of Alberta, Canada
19:50-19:55		Invited: Leung, Kenneth (Editor-in-Chief of Regional Studies in Marine Science) City University of Hong Kong, China
19:55-20:00		Invited: Ma, Lena (Editor-in-Chief of Soil & Environmental Health) Zhejiang University, China
20:00-20:05		Invited: Peijnenburg, Willie (Editor-in-Chief of Chemosphere) Leiden University, Netherlands
20:05-20:10		Invited: Richardson, Susan (Executive Editor of Environmental Science & Technology) University of South Carolina, USA
20:10-20:15		Invited: Tang, Xiaoyan (Director of Editorial Department of Eco-Environment & Health) Nanjing Institute of Environmental Sciences, MEE, China
20:15-20:20		Invited: Xu, Zhihong (Editor-in-Chief of Journal of Soils and Sediments) Griffith University, Australia
20:20-20:25		Invited: Zhang, Gan (Associate Editor of Carbon Research) Guangzhou Institute of Geochemistry, CAS, China
20:25-20:30	Invited: Zhong, Huan (Editor-in-Chief of Reviews of Environmental Contamination and Toxicology) Nanjing University, China	
20:30-21:00		Q&A Session

Parallel Session Schedule

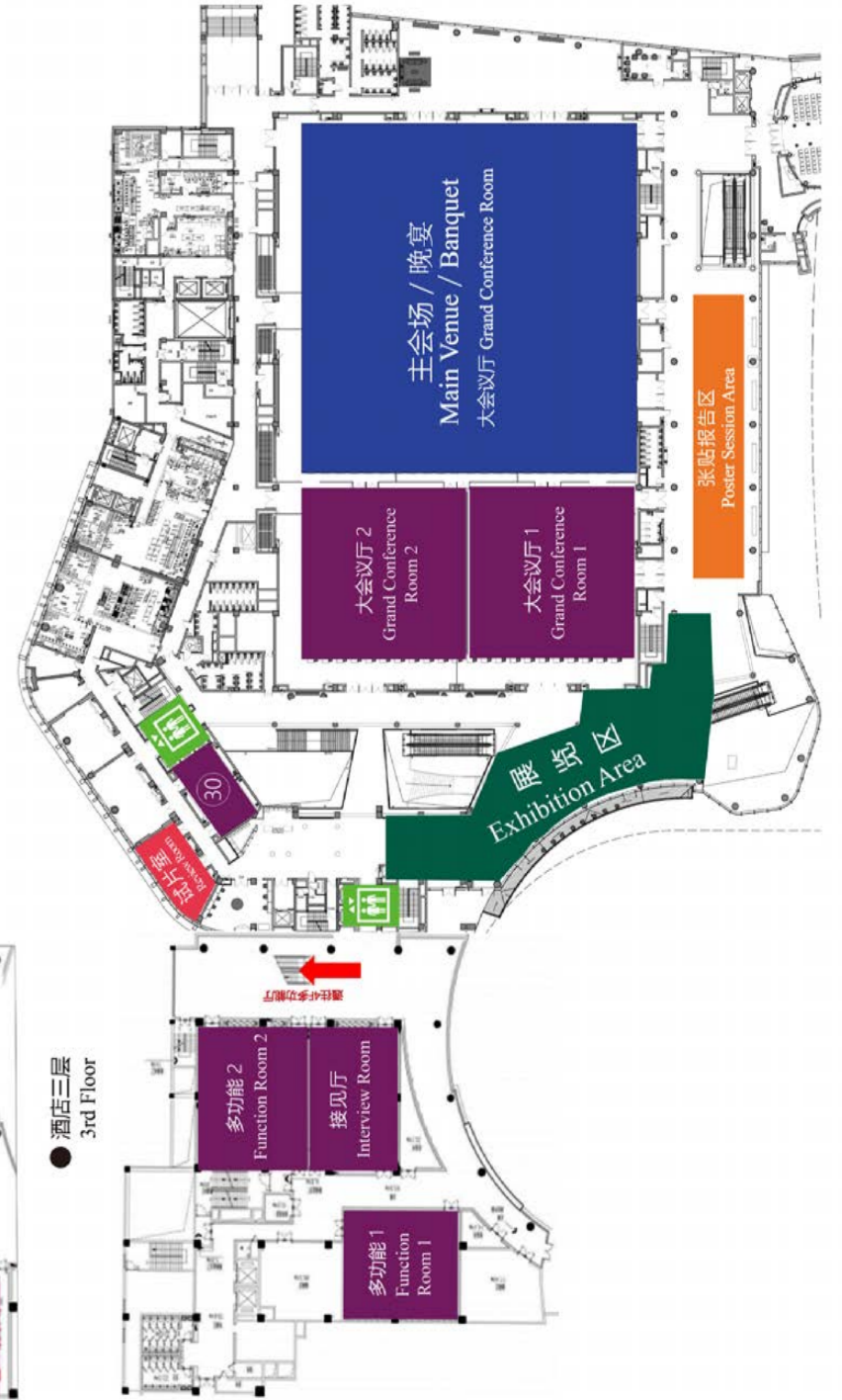
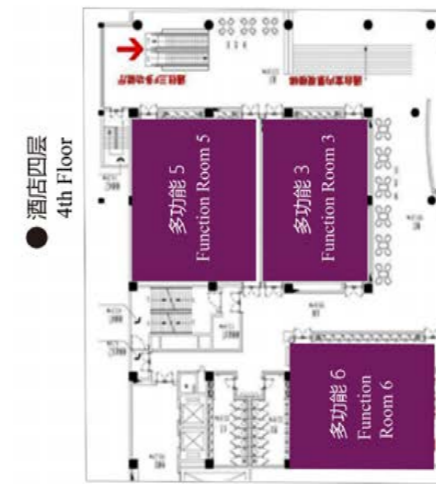
Parallel Session	Sep. 22 Afternoon	Sep. 23 Morning	Sep. 23 Afternoon	Sep. 24 Morning	Session Venue
1. Bridging Environmental Chemistry and Toxicology with Nontargeted Analysis	✓	✓			Function Room 2
2. Computational Toxicology, Machine Learning, and Environmental Big Data Analysis	✓	✓			Meeting Room 13
3. Applications of Stable Isotopes in Environmental Studies				✓	Grand Conference Room 1
4. POPs Analysis and Regional Alerts	✓				Meeting Room 15
5. Levels and Fate of Persistent Organic Pollutants and Chemicals of Emerging Concern in the Arctic	✓				Meeting Room 30
6. New Approach Methodology in Ecotoxicology and Risk Assessment-Theory and Application	✓	✓			Interview Room
7. New Challenges in Chemical Mixture Risk Assessment		✓	✓		Meeting Room 11
8. Atmospheric Environmental Chemistry			✓	✓	Function Room 2
9. Environmental Interfacial Chemistry	✓				Meeting Room 6
10. Environmental Behavior of Emerging Contaminants in Soil Environment	✓	✓			Function Room 1
11. Environmental Dehalogenation and Co-transformation of Heavy Metals	✓	✓			Function Room 6
12. Trace Metals in the Aquatic Environment	✓	✓			Function Room 3
13. Mercury Biogeochemistry, Biotransformation, and Planetary Health			✓	✓	Interview Room
14. Carbon Neutrality and Ecosystem Health	✓				Meeting Room 8
15. Environmental Chemistry and Toxicology of Priority Substances	✓	✓			Grand Conference Room 1
16. Atmospheric Toxicology	✓				Meeting Room 17
17. Aquatic Toxicology			✓		Function Room 1
18. Marine Pollution and Ecotoxicology	✓	✓			Function Room 5
19. Environmental Epigenetic and Omics				✓	Grand Conference Room 2
20. Role of Biotransformation in Ecotoxicology		✓	✓		Meeting Room 6



Parallel Session	Sep. 22 Afternoon	Sep. 23 Morning	Sep. 23 Afternoon	Sep. 24 Morning	Session Venue
21. Agricultural Environment, Food and Human Health		✓	✓		Meeting Room 18
22. Exposure and Health Risks of Toxic Pollutants		✓	✓		Meeting Room 8
23. Climate Change and Human Health	✓				Meeting Room 11
24. Metal Environmental Criteria and Health			✓		Grand Conference Room 1
25. Asia-Pacific Exposome Research Network Building			✓		Meeting Room 13
26. Environment & Health Forum		✓	✓		Grand Conference Room 2
27. Environmental Behavior and Risks of Antibiotic Resistance Genes	✓				Grand Conference Room 2
28. Environmental Contamination and Control Technology of Per- and Polyfluoroalkyl Substances (PFAS)		✓	✓		Meeting Room 15
29. Environmental Behavior and Effects of Emerging Flame Retardants and Plasticizers		✓	✓		Meeting Room 1
30. Innovative Disinfection and Novel Disinfection Byproducts	✓	✓	✓	✓	Meeting Room 16
31. Transport, Fate and Effects of Nanomaterials in the Environment	✓				Meeting Room 1
32. Microplastics: Current Knowledge and Challenges		✓	✓	✓	Meeting Room 17
33. Enhancing Science and Policy Link for New Pollutants Regulation	✓				Meeting Room 3
Special Sessions					
34. ACS All-Star Academy: Lighting Green Future, Empowering Academic Growth		✓			Meeting Room 19
35. RSC Forum: Environmental Solutions for Planetary Health			✓		Meeting Room 19
36. Establishment of A Science-Policy Panel to Contribute Further to the Sound Management of Chemicals, Waste, and Pollution Prevention				✓	Meeting Room 13
37. Persistence Science: Science and Regulatory Challenge for Chemical Management				✓	Meeting Room 6

Venue Floor Map





Oral Session Program

Session 1

Bridging Environmental Chemistry and Toxicology with Nontargeted Analysis

Sep. 22 Afternoon Function Room 2

Co-chairs: Wan, Yi; Peng, Hui

Secretary: Zhang, Kun

Time	Topic	Speaker & Institution
Moderator	Wan, Yi; Peng, Hui	
13:30-13:50	Bridging environmental chemistry and toxicology with nontargeted analysis	Keynote: Hu, Jianying Peking University, China
13:50-14:10	Non-target screening of persistent micropollutants and their ecotoxicological evaluation in wastewater treatment and river	Keynote: Kurisu, Futoshi The University of Tokyo, Japan
14:10-14:25	Exploring blood vessel organoids in toxicity testing	Invited: Wei, Yanhong Sun Yat-sen University, China
14:25-14:40	High resolution mass spectrometry based nontarget screening and risk assessment of emerging pollutants in surface water of the Hai River and the Yellow River in China	Regular: Hu, Meng Shanxi Medical University, China
14:40-14:55	A comprehensive screening of organophosphate esters and related substances in food contact materials	Regular: Wang, Lei Sun Yat-sen University, China
14:55-15:30	Tea Break	
Moderator	Wan, Yi; Peng, Hui	
15:30-15:50	High-through analysis and spatially resolved co-imaging of polyhalogenated compounds and their disrupted biological metabolites	Keynote: Wan, Yi Peking University, China
15:50-16:05	Discovery of antimicrobial drugs and their transformation products in a swine farm by target, suspect, and nontarget screening	Regular: Zhao, Jianliang South China Normal University, China
16:05-16:15	Profiling metabolites and exploring metabolism of parabens in human urine using non-target screening and molecular networking	Student: Yang, Tao Guangzhou Institute of Geochemistry, CAS, China
16:15-16:25	Chemical exposomics in human plasma by lipid removal and large volume injection gas chromatography high-resolution mass spectrometry	Student: Xie, Hongyu Stockholm University, Sweden

Sep. 23 Morning Function Room 2

Co-chairs: Zhao, Yanbin; Kurisu, Futoshi

Secretary: Zhang, Kun

Time	Topic	Speaker & Institution
Moderator	Zhao, Yanbin; Kurisu, Futoshi	
08:30-08:50	RepoRT: A comprehensive repository for small molecule retention times	Keynote: Böcker, Sebastian Friedrich-Schiller-Universität Jena, Germany
08:50-09:10	Unraveling fluorotelomer biotransformation: Insights from analytical chemistry and microbiology	Keynote: Liu, Jinxia McGill University, Canada
09:10-09:25	Association between personal abiotic airborne exposures and body composition changes among healthy older adults: A combined exposome-wide and lipidome mediation approach from the China BAPE study	Invited: Tang, Song Chinese Center for Disease Control and Prevention
09:25-09:40	AOP-anchored transcriptome analysis catalogue accelerates the discovery of environmental toxicants in zebrafish	Invited: Zhao, Yanbin Shanghai Jiao Tong University, China
09:40-09:55	Enhanced chemical coverage and toxicological insight to the airborne exposome using polydimethylsiloxane (PDMS) foam passive samplers	Regular: Sunyer Caldú, Adrià Stockholm University, Sweden
09:55-10:30	Tea Break	
Moderator	Zhao, Yanbin; Kurisu, Futoshi	
10:30-10:50	Protein-guided identification of toxicity driving chemicals at the exposome-wide level	Keynote: Peng, Hui University of Toronto, Canada
10:50-11:05	Effect-directed analysis reveals a broad range of anti-androgenic pollutants in the surface water and industrial effluent in the Yangtze River and Yellow River, China.	Invited: Xue, Jingchuan Guangzhou University of Technology, China
11:05-11:15	Plastic-related oligomers migrated from single and multilayer breast milk storage bags	Student: Tang, Cheng The University of Queensland, Australia

Session 2

Computational Toxicology, Machine Learning, and Environmental Big Data Analysis

Sep. 22 Afternoon Meeting Room 13

Co-chairs: Chen, Jingwen; Peijnenburg, Willie; Zhu, Hao; Hu, Xiangang
 Secretary: Mu, Li

Time	Topic	Speaker & Institution
Moderator	Li, Xuehua; Peijnenburg, Willie	
13:30-13:50	Computational toxicology in the era of artificial intelligence	Keynote: Tetko, Igor Helmholtz Munich (HMGU), Germany
13:50-14:10	Interpretable AI: Data driven and mechanistic modeling for chemical toxicity and drug safety evaluations	Keynote: Zhu, Hao Tulane University, USA
14:10-14:25	Anthropogenic terrestrial loads of sediment and nutrients entering the Great Barrier Reef lagoon, Australia: A case study in science supporting policy direction and change.	Regular: Turner, Ryan University of Queensland, Australia
14:25-14:40	Application of machine learning to balance the functionality and biocompatibility of materials	Regular: Yan, Xiliang South China Agricultural University, China
14:40-14:50	In vitro to in vivo toxicity extrapolation approach for next generation risk assessment	Student: Han, Peiling Dalian University of Technology, China
14:50-15:00	Enhancing environmental modeling through multimodal learning: Methodology, applications, and future directions	Student: Liu, Wenjia Dalian University of Technology, China
15:00-15:30	Tea Break	
Moderator	Zhu, Hao; Tetko, Igor	
15:30-15:50	Forwarding maturation of species sensitivity distributions using machine learning	Keynote: Peijnenburg, Willie RIVM, Netherlands
15:50-16:05	Development potential of nanoenabled agriculture projected using machine learning	Invited: Mu, Li Agro-environmental Protection Institute, Ministry of Agriculture and Rural Affairs, China
16:05-16:20	Are new phthalate ester substitutes safer than traditional DBP and DiBP? —comparative endocrine-disrupting analyses on zebrafish using in vivo, transcriptome, and in silico approaches	Regular: Tan, Haoyue Nanjing University, China
16:20-16:35	Degradation mechanism of layered black phosphorus in aqueous and influence of proteins	Regular: Zhang, Siyu Institute of Applied Ecology, CAS, China

Time	Topic	Speaker & Institution
16:35-16:45	Mitigation of soil acidification alleviates the public dietary risks of cadmium in China	Student: Deng, Peng Nankai University, China
16:45-16:55	Identification of hazardous chemicals and molecular design of green alternatives based on machine learning	Student: Wang, Haobo Dalian University of Technology, China

Sep. 23 Morning Meeting Room 13

Co-chairs: Chen, Jingwen; Peijnenburg, Willie; Zhu, Hao; Hu, Xiangang
 Secretary: Mu, Li

Time	Topic	Speaker & Institution
Moderator	Zhang, Huichun; Yan, Xiliang	
08:30-08:50	Synergizing domain knowledge, experimental data, and active learning for modeling environmental processes	Keynote: Zhang, Huichun Case Western Reserve University, USA
08:50-09:10	Algae recruits beneficial bacteria to cope with antibiotic stress	Keynote: Sun, Weiling Peking University, China
09:10-09:25	Prediction and modeling on bioaccumulation of chemicals in aquatic organisms	Regular: Zhu, Minghua Hohai University, China
09:25-09:40	Multimodal model to predict tissue-to-blood partition coefficients of chemicals in mammals and fish	Regular: Zhang, Shuying Hainan University, China
09:40-09:50	Priority screening list of 5-hydroxytryptamine reuptake inhibitors: Improved CNN-GRU deep learning model	Student: Sun, Peixuan Jilin University, China

Session 3

Applications of Stable Isotopes in Environmental Studies

Sep. 24 Morning Grand Conference Room 1

Co-chairs: Ma, Limin; Richnow, Hans H; Shin, Kyung-Hoon

Secretary: Chen, Chong

Time	Topic	Speaker & Institution
Moderator	Ma, Limin; Chen, Chong	
08:30-08:50	Multi-element isotope and enantiomer fractionation for analysis of transformation of persistent organic pesticides in food webs	Keynote: Richnow, Hans H. Helmholtz Centre for Environmental Research-UFZ, Germany
08:50-09:10	Recent applications of compound-specific isotope analysis (CSIA) in environmental forensic and pollutant bio-magnification studies	Keynote: Shin, Kyung-Hoon Hanyang University, South Korea
09:10-09:25	The application of compound-specific stable isotope analysis in the study of environmental transformation of halogenated organic pollutants	Invited: Zeng, Yanhong Guangzhou Institute of Geochemistry, China
09:25-09:40	Carbon and hydrogen isotopic evidence for atrazine degradation by electro-activated persulfate: Radical contributions and comparisons with heat-activated persulfate	Invited: Wang, Ting Peking University, China
09:40-09:55	Model-based interpretation of triclosan's photodegradation and isotopic effects	Invited: Jin, Biao Guangzhou Institute of Geochemistry, China
09:55-10:07	Combining CSIA and enantiomer fractionation for evaluation the transformation of α -HCH: From field to lab	Regular: Liu, Yaqing Guangxi University, China
10:07-10:30	Tea Break	
Moderator	Richnow, Hans H; Shin, Kyung-Hoon	
10:30-10:50	Advancements in compound-specific isotope analysis (CSIA): Enhancing understanding and management of halogenated contaminants in environmental systems	Keynote: Shouakar-Stash, Orfan University of Waterloo, Canada
10:50-11:10	The challenges of CSIA application in emerging contaminants research	Keynote: Ma, Limin Tongji University, China
11:10-11:22	Characterization of sulfamethoxazole direct phototransformation through multi-element compound-specific isotope analysis	Regular: Liu, Xiao University of Strasbourg, France
11:22-11:34	Seasonal variations in the sources of particulate organic matter in the estuarine systems of the Han River, Nakdong River, and Yeongsan River: An approach using GDGTs and n-alkanes	Regular: Jeon, Gwon-Ui Hanyang University, South Korea

Time	Topic	Speaker & Institution
11:34-11:46	Different response of microalgae <i>Phaeodactylum tricornutum</i> upon exposures to crude oil water-accommodated fraction (WAF) and chemically enhanced WAF: A case study coupled with stable isotopic signatures	Regular: Lou, Yadi National Marine Environmental Monitoring Center, China
11:46-11:58	Application of stable isotopes in characterization of microbial degradation of brominated flame retardants	Regular: Wang, Guoguang Dalian Maritime University, China
11:58-12:06	Insights into tissue-specific bioaccumulation of nanoplastics in marine medaka as revealed by a stable carbon isotopic approach	Student: Yeo, Incheol Incheon National University, South Korea
12:06-12:14	Stable carbon fractionation of volatile PFAS caused by soil-air partitioning	Student: Zhang, Wei-wei Tongji University, China
12:14-12:22	Sources identification of polycyclic aromatic hydrocarbons in pohang new harbor sediments based on compound-specific carbon and hydrogen isotope analysis	Student: Kim, Youngnam Chungnam National University, South Korea

Session 4

POPs Analysis and Regional Alerts

Sep. 22 Afternoon Meeting Room 15

Co-chairs: Jones, Kevin; Ruan, Ting; Zhang, Gan; Zheng, Minghui

Secretary: Zhai, Wangjing

Time	Topic	Speaker & Institution
Moderator	Zheng, Minghui; Zhang, Gan	
13:30-13:50	Monitoring and capacity building on POPs in plastic recycling in low- & middle-income countries – science contribution to the Stockholm Convention	Keynote: Weber, Roland POPs Environmental Consulting, Germany
13:50-14:10	Addressing highly-volatile persistent organic pollutants in the atmosphere	Keynote: Zhang, Gan Guangzhou Institute of Geochemistry, CAS, China
14:10-14:25	National inventory of soil contamination with obsolete organochlorine pesticides in Kazakhstan in 2023-2024	Regular: Sharov, Petr Environmental Health and Pollution Management Institute (EHPMI), Georgia
14:25-14:40	Atmospheric pesticides in Bangladesh: Source apportionment and health risk assessment	Regular: Habib, Ahsan University of Dhaka, Bangladesh
14:40-14:55	Aged organic contaminants as stratigraphic marker in the anthropocene: Evidence from Tibetan Lake sediments	Regular: Li, Jun China University of Geosciences, China



Time	Topic	Speaker & Institution
14:55-15:10	Source identification and marine groundwater discharge of perfluoroalkyl compounds in typical estuarine bay in Fujian province	Regular: Lin, Yan Xiamen University of Technology, China
15:10-15:30	Tea Break	
Moderator	Zheng, Minghui; Ruan, Ting	
15:30-15:50	Analysis of persistent toxic substances in fine particulate matter from industrial sources and their atmospheric emissions	Keynote: Liu, Guorui Research Center for Eco-Environmental Sciences, CAS, China
15:50-16:05	Enhanced secondary formation of organophosphate esters in winter in South China	Regular: Lv, Shaojun Guangzhou Institute of Geochemistry, CAS, China
16:05-16:20	Tire wear chemicals in the urban atmosphere: Significant contributions of tire wear particles to PM _{2.5}	Regular: Zhao, Shizhen Guangzhou Institute of Geochemistry, CAS, China
16:20-16:35	Characteristics and sources of PAHs in soils from the Fuling shale gas field, China	Regular: Chen, Wei China University of Geosciences, China
16:35-16:45	Monitoring concentration fluctuation scenarios of trace organic pollutants in water by passive sampling	Student: Jiang, Peiyu Research Center for Eco-Environmental Sciences, CAS, China
16:45-16:55	Size-Resolved pollution characteristics, absorption spectra and gas-particle partitioning of polycyclic aromatic hydrocarbons	Student: Wang, Deqi Harbin Institute of Technology, China
16:55-17:05	Antibiotic distribution, risk and source apportionment in mountainous rivers of Chongqing, China	Student: Yang, Minjie Chongqing University, China
17:05-17:15	High dichloromethane emissions from ethanol gasoline vehicles with chlorinated paraffins in lubricating oil	Student: Zhang, Ziyang Guangzhou Institute of Geochemistry, CAS, China

Session 5

Levels and Fate of Persistent Organic Pollutants and Chemicals of Emerging Concern in the Arctic

Sep. 22 Afternoon Meeting Room 30

Co-chairs: Li, Yifan; Muir, Derek; Kallenborn, Roland
Secretary: Zhang, Zifeng

Time	Topic	Speaker & Institution
Moderator	Muir, Derek; Li, Yifan	
13:30-13:50	Fractionations of POPs in global surface soils	Keynote: Li, YiFan Harbin Institute of Technology, China
13:50-14:10	Local sources of man-made organic pollutants in the Arctic: Sources – characteristics – consequences	Keynote: Kallenborn, Roland Norwegian University of Life Sciences (NMBU), Norway
14:10-14:30	POPs and PAHs in Russian Arctic coastal seas	Keynote: Mukhin, Vasilii M. K. Ammosov North-Eastern Federal University, Russia
14:30-14:45	Impact of global wildfire biomass burning on POPs in the Arctic	Invited: Huang, Tao Lanzhou University, China
14:45-15:00	Tracing the impact of emerging bisphenols in the Norwegian Arctic: From local pollution sources to abiotic and biotic environments	Invited: Zhang, Zifeng Harbin Institute of Technology, China
15:00-15:30	Tea Break	
Moderator	Kallenborn, Roland; Li, Yifan	
15:30-15:50	Long term temporal trends of chlorinated, brominated and fluorinated POPs in landlocked char in high Arctic lakes: Evidence for continuing global sources	Keynote: Muir, Derek University of Guelph, Canada
15:50-16:10	Global supply chain relocation and its environment and climate consequences in the Arctic	Invited: Ma, Jianmin Peking University, China
16:10-16:25	Temporal and spatial shifts in the ecological impact of legacy organochlorine pesticides and polychlorinated biphenyls in the global ocean over the past two decades	Invited: Zhang, Xue Harbin Institute of Technology, China
16:25-16:40	Quantify the sampling efficiency of a polyurethane foam air sampler: Effect of temperature, sampling rate and the level of breakthrough	Invited: Xiao, Hang Institute of Urban Environment, CAS, China
16:40-16:55	Summer alert: Tracing currently used organic pesticides in the Arctic Ocean	Invited: Zheng, Hongyuan Northwestern Polytechnical University, China
16:55-17:10	Polycyclic aromatic hydrocarbons (PAHs) in the benthic organisms from the west Spitsbergen Fjords (Hornsund, Kongsfjorden, Adventfjorden)	Invited: Pouch, Anna Institute of the Oceanology PAS, Poland



Session 6

New Approach Methodology in Ecotoxicology and Risk Assessment - Theory and Application

Sep. 22 Afternoon Interview Room

Co-chairs: Campos, Bruno; Choi, Jinhee; Khim, Jong Seong; Zhang, Xiaowei

Secretary: Gou, Xiao

Time	Topic	Speaker & Institution
Moderator	Zhang, Xiaowei; Khim, Jong Seong	
13:30-13:50	Strategy to deliver a mechanistic based, next generation environmental safety assessment paradigm shift	Keynote: Campos, Bruno Unilever, UK
13:50-14:10	Endocrine disrupting chemicals Identification based on high-throughput bioassay and chemical analysis	Keynote: Shi, Wei Nanjing University, China
14:10-14:22	Data driven decision making using advance high-throughput environmental risk assessment of fragrance materials.	Regular: Lapczynski, Aurelia RIFM, USA
14:22-14:34	Integrating in vivo, in vitro, and in silico approaches to assess chemical toxicokinetics: A cross-species comparative analysis	Regular: Han, Biyao ExxonMobil (China) Investment Co., Ltd., China
14:34-14:46	Generic field studies as a method for avian higher tier risk assessment	Regular: Hahne, Joerg Bayer AG, Germany
14:46-14:58	Dose-dependent functional genomics approach: Enhancing precision in chemical toxicity assessment	Regular: Guan, Miao Nanjing Normal University, China
14:58-15:06	Environmental RNA application in community toxicity testing and ecological risk assessment	Student: Gou, Xiao Nanjing University, China
15:06-15:30	Tea Break	
Moderator	Campos, Bruno; Shi, Wei	
15:30-15:50	Revisited a sediment quality triad approach in the Korean coastal waters: Past research, current status, and future directions	Keynote: Khim, Jong Seong University of Seoul, Korea
15:50-16:10	A new technique for vascular toxicity testing: AI-based phenomic analysis of vascular morphology using a zebrafish model	Keynote: Wei, Yanhong Sun Yat-Sen University, China
16:10-16:22	High-throughput omics approaches in Daphnia: Advancing precision toxicology for chemical safety	Regular: Xia, Pu University of Birmingham, UK
16:22-16:34	Prediction of cytotoxicity of polycyclic aromatic hydrocarbons from first principles	Regular: Kim, Taewoo Seoul National University, Korea
16:34-16:46	Integrated quantitative in vitro-in vivo extrapolation and in vitro multi-omics approach reveals the pathway-specific point-of-departure and adverse outcome pathway network of organophosphate esters	Regular: Xu, Yiping Research Center for Eco-Environmental Sciences, CAS, China

Time	Topic	Speaker & Institution
16:46-16:58	Environmental NAMs and NGRA frameworks for chemical safety assessments: Challenges & opportunities	Regular: Ott, Amelie International Collaboration on Cosmetics Safety (ICCS), USA
16:58-17:10	Transgenerational toxicity and risk assessment of neonicotinoid insecticides on natural enemy insects	Regular: Wu, Chi Chinese Academy of Agricultural Sciences, China
17:10-17:22	Genetic modulation of stereoselectivity of cytotoxicity of 6PPD and 6PPDQ	Regular: Tian, Mingming Dalian Maritime University, China
17:22-17:30	Drivers of ecological risk released by biodegradable plastic in surface water: Additive or microplastic?	Student: Luo, Wenrui Nanjing University, China
17:30-17:38	In silico-in vitro-in vivo combined approach for screening neurodevelopmental toxicity of plastic additives based on adverse outcome pathway network leading to ASD-Like behaviors	Student: Ahn, Siyeol University of Seoul, Korea

Sep. 23 Morning Interview Room

Co-chairs: Campos, Bruno; Choi, Jinhee; Khim, Jong Seong; Zhang, Xiaowei

Secretary: Gou, Xiao

Time	Topic	Speaker & Institution
Moderator	Xia, Pu; Xu, Baile	
08:30-08:50	Toxicity big data and AI in chemical risk assessment: Potential and challenge	Keynote: Choi, Jinhee University of Seoul, Korea
08:50-09:10	Deep learning based morphometric analysis enables high throughput toxicity screening in zebrafish	Keynote: Lin, Sijie Tongji University, China
09:10-09:22	Reproductive toxicity of 6-PPD quinone at environmentally relevant concentrations and underlying mechanisms in <i>C. elegans</i>	Regular: Wang, Dayong Southeast University, China
09:22-09:34	An artificial intelligence approach for multi-risk dynamics of water quality under anthropogenic pressures and climate change	Regular: Critto, Andrea University Ca' Foscari of Venice, Italy
09:34-09:46	Can new approach methodologies (NAM) and quantitative adverse outcome pathways (qAOP) replace future fish toxicity testing?	Regular: Song, You Norwegian Institute for Water Research (NIVA), Norway
09:46-09:54	Explainable artificial intelligence models for ecotoxicity prediction using adverse outcome pathway framework	Student: Kim, Donghyeon University of Seoul, Korea
09:54-10:02	Construction of ecological safety threshold prediction model for metal elements in typical Chinese soils	Student: Shi, Wanyang Capital Normal University, China
10:02-10:30	Tea Break	

Time	Topic	Speaker & Institution
Moderator	Choi, Jinhee; Wei, Yanhong	
10:30-10:50	Hypoxia-associated seasonal shifts of marine community in Jinhae Bay, South Korea: A case study through environmental DNA metabarcoding	Keynote: Jeong, Chang-Bum Incheon National University, Korea
10:50-11:10	AOP-anchored transcriptome analysis catalogue accelerates the discovery of environmental toxicants in zebrafish	Keynote: Zhao, Yanbin Shanghai Jiao Tong University, China
11:10-11:22	Coupled modeling for assessing the life cycle environmental risks of shale gas exploration China	Regular: Wu, Fan Jinan University, China
11:22-11:34	Wastewater surveillance provides spatiotemporal SARS-CoV-2 and influenza virus infection dynamics	Regular: Zheng, Xiawan The University of Hong Kong, China
11:34-11:46	Deriving aquatic PNECs of endocrine disruption chemicals by combining species sensitivity weighted distributions (SSWD) and adverse outcome pathway (AOP) networks	Regular: Zhang, Jiawei Ministry of Ecology and Environment, China
11:46-11:54	Random forest to predict ecotoxicity effects for pollinators	Student: Shi, Junxuan Technical University of Denmark, Denmark

Session 7

New Challenges in Chemical Mixture Risk Assessment

Sep. 23 Morning Meeting Room 11

Co-chairs: Escher, Beate; Muir, Derek; Xia, Xinghui; You, Jing
 Secretary: Li, Huizhen

Time	Topic	Speaker & Institution
Moderator	Escher, Beate; Muir, Derek	
08:30-08:50	Challenges in screening global chemical inventories for toxic substances with potential adverse environmental impacts	Keynote: Muir, Derek University of Guelph, Canada
08:50-09:05	Human exposure and risk prioritization of current-use pesticides in indoor environments from an agricultural region	Invited: Zheng, Guomao Southern University of Science and Technology, China
09:05-09:20	New environmental monitoring technique for 'new' pollutants in the new era	Regular: Chen, Changer South China Normal University, China
09:20-09:35	Application of nontarget high-resolution mass spectrometry fingerprints for chemical partitioning determination in aquatic environment: A case study in the three gorges reservoir	Regular: Shao, Ying Chongqing University, China

Time	Topic	Speaker & Institution
09:35-09:50	Effect driven prioritization of contaminants in wastewater treatment plants across China: A data mining-based toxicity screening approach	Regular: Li, Huizhen Jinan University, China
09:50-10:00	Next generation risk assessment of chemicals in consumer products incorporating mixture toxicity assessment: A case study on triclosan	Student: Jung, Yongmin University of Seoul, Korea
10:00-10:30	Tea Break	
Moderator	Escher, Beate; Muir, Derek	
10:30-10:50	Fate of organic pollutant mixture and associated human health risks in response to climate change	Keynote: Xia, Xinghui Beijing Normal University, China
10:50-11:05	Potential ecological risks of dissolved synthetic musks and organic UV absorbers in freshwaters of China	Invited: Bao, Lianjun Jinan University, China
11:05-11:20	Less is more: Challenges in identifying high-potency, low-concentration toxic components in airborne particulate matter pollution	Regular: Jin, Ling The Hong Kong Polytechnic University, China
11:20-11:35	Humic-like substances: Potential risk drivers of apoptosis in PM _{2.5} particulate matter	Regular: Ma, Huimin Guangzhou Institute of Geochemistry, CAS, China
11:35-11:50	Advancing the effect-directed identification of causative toxicants in waters with combined pollution: Mediation by pathway effects	Regular: Guo, Jing Nanjing University, China
11:50-12:00	Quantitative identification of the co-exposure effects of e-waste pollutants on human oxidative stress by explainable machine learning	Student: Yang, Luhan Sun Yat-Sen University, China

Sep. 23 Afternoon Meeting Room 11

Co-chairs: Escher, Beate; Muir, Derek; Xia, Xinghui; You, Jing
 Secretary: Li, Huizhen

Time	Topic	Speaker & Institution
Moderator	Xia, Xinghui; You, Jing	
13:30-13:50	Something from nothing? Chemical cocktails threaten the environment and human health	Keynote: Escher, Beate Helmholtz Centre for Environmental Research, Germany
13:50-14:05	Contamination of rubber-derived chemicals in road stormwater runoff from various functional areas in megalopolis cities, South China	Invited: Zhao, Jianliang South China Normal University, China
14:05-14:20	Comparative species sensitivity in effect-directed analysis of coastal pollutants using AhR recombinant yeast	Regular: Miao, Jingjing Ocean University of China, China



Time	Topic	Speaker & Institution
14:20-14:35	Prompting large language models for mixture risk identification: Predicting high-risk contaminants across temporal and spatial footprints	Regular: Cheng, Fei Guangzhou Institute of Geochemistry, CAS, China
14:35-14:50	Contamination characteristic of pharmaceutical and personal care products (PPCPs) in wastewater treatment plants in Wuhan, China	Regular: Chen, Wei China University of Geosciences, China
14:50-15:00	The tip of the iceberg: Contribution of anthropogenic contaminants and natural toxins to species-specific seawater toxicity	Student: Liu, Xintong The Hong Kong Polytechnic University, China
15:00-15:30	Tea Break	
Moderator	Xia, Xinghui; You, Jing	
15:30-15:50	Learning from ionizable pharmaceuticals: Bioaccumulation of mixtures of per- and polyfluoroalkyl substances in aquatic model organisms	Keynote: Brooks, Bryan Baylor University, USA
15:50-16:10	Monitoring and risk control of mycotoxins and pesticide residues in corn: A study in China	Keynote: Dong, Fengshou Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China
16:10-16:25	Application of toxicokinetic-toxicodynamic model in chemical mixture risk assessment	Invited: Feng, Jianfeng Nankai University, China
16:25-16:40	Pesticide occurrence and environmental risks in Chinese farmlands: Modeling and monitoring approaches	Regular: Geng, Yue Agro-Environmental Protection Institute, Ministry of Agriculture and Rural Affairs, China
16:40-16:55	Combined toxicity assessment of azoxystrobin and three kinds of exogenous selenium on zebrafish	Regular: Mao, Liangang Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China
16:55-17:10	Research progress of mathematical method and assessment model for pesticide dietary risk	Regular: Chen, Zenglong Institute of Zoology, CAS, China

Session 8

Atmospheric Environmental Chemistry

Sep. 23 Afternoon Function Room 2

Co-chairs: Mao, Hongjun; Ge, Maofa; Wang, Shuxiao
Secretary: Zhang, Qijun

Time	Topic	Speaker & Institution
Moderator	Mao, Hongjun	
13:30-13:50	A versatile aerosol concentration enrichment system and its application	Keynote: Chen, Jianmin Fudan University, China
13:50-14:10	Three pressing topics in current tropospheric aerosol chemistry: Woodsmoke, pathogens and nanoplastics	Keynote: Herrmann, Hartmut Leibniz Institute for Tropospheric Research, Germany
14:10-14:30	Global atmospheric organic nitrogen aerosol and organic nitrogen deposition	Keynote: Fu, Zongmei Southern University of Science and Technology, China
14:30-14:50	Investigation of reactive species in the atmosphere	Invited: Tong, Shengrui University of Chinese Academy of Sciences, China
14:50-15:05	Contributions of East Asian emissions to atmospheric mercury pollution in North America from 2010 to 2015	Regular: Jin, Jingmeng Nanjing University, China
15:05-15:30	Tea Break	
Moderator	Ge, Maofa	
15:30-15:50	Marine aerosol, a good model for multiphase chemistry in the troposphere	Keynote: Du, Lin Shandong University, China
15:50-16:10	Effectiveness of China's national emission controls on air quality and health burdens	Keynote: Zhao, Yu Nanjing University, China
16:10-16:30	Important contributions of natural gas combustion to nitrate aerosols in China	Keynote: Zhang, Yanlin Nanjing University of Information Science & Technology, China
16:30-16:50	Understanding the importance of atmospheric transformation in assessing the risks of emerging contaminants	Invited: Liu, Qifan University of Science and Technology of China, China
16:50-17:05	New particle formation modelling: From configurational sampling to cluster kinetics	Regular: Jiang, Shuai Nankai University, China
17:05-17:20	Contribution of the open field burning of rice straw to particulate matter air concentrations in the Red River Delta, Vietnam in 2022	Regular: Sharov, Petr Environmental Health and Pollution Management Institute (EHPMI), Georgia



Sep. 24 Morning Function Room 2

Co-chairs: Mao, Hongjun; Ge, Maofa; Wang, Shuxiao
Secretary: Zhang, Qijun

Time	Topic	Speaker & Institution
Moderator	Mao, Hongjun	
08:30-08:50	Secondary organic aerosol formation from the photooxidation of intermediate volatility organic compounds	Keynote: Wang, Weigang University of Chinese Academy of Sciences, China
08:50-09:10	Developmental toxicity induced by exposure to airborne PM _{2.5} water-soluble inorganic ions	Keynote: Hao, Ke Tongji University, China
09:10-09:30	Assessing the mechanisms and impacts of new particle formation and growth with numerical modeling on regional and global scales	Invited: Zhao, Bin Tsinghua University, China
09:30-09:45	Investigation of chemicals associated with odours in Singapore	Regular: Zhong, Chiang National Environment Agency, Singapore
09:45-10:00	Characteristics and environmental impacts of full-volatile organic compounds from Vehicles	Regular: Liu, Yan Nankai University, China
10:00-10:15	Characteristics and potential sources of air pollutants in Xi'an from 2014 to 2022	Regular: Pei, Boni Hebei University of Engineering, China

Session 9

Environmental Interfacial Chemistry

Sep. 23 Afternoon Meeting Room 6

Co-chairs: Chen, Baoliang; Chu, Chiheng; Nakajima, Fumiyuki; Hiki, Kyoshiro
Secretary: Ge, Xinfei

Time	Topic	Speaker & Institution
Moderator	Chen, Baoliang; Hiki, Kyoshiro	
13:30-13:50	Biological strategy for identification and elimination of organic pollutants in agro-environments	Keynote: Gao, Yanzheng Nanjing Agriculture University, China
13:50-14:10	Microfluidics as an emerging platform for investigating soil interfacial interactions	Invited: Chen, Baoliang Zhejiang University, China
14:10-14:30	Food-water chemical distribution and toxicity to benthic organisms	Invited: Nakajima, Fumiyuki The University of Tokyo, Japan

Time	Topic	Speaker & Institution
14:30-14:45	Atmospheric air-water interfacial chemistry	Regular: Zhang, Liwu Fudan University, China
14:45-15:00	Electrochemistry-inspired rapid remediation of pollution and recovery of lithium resources	Regular: Xiao, Xin Zhejiang University, China
15:00-15:30	Tea Break	
Moderator	Chu, Chiheng; Nakajima, Fumiyuki	
15:30-15:50	Construction of porous nanomaterials and their efficient separation of nuclides	Keynote: Wang, Xiangke North China Electric Power University, China
15:50-16:10	Mineral surface-induced oxidation of aqueous Mn(II) and crystallization of manganese (hydr)oxides	Keynote: Zhu, Runliang Guangzhou Insitute of Geochemistry, CAS, China
16:10-16:30	Probe the reactivity of pyrogenic carbonaceous matter (PCM) using PCM-like polymers	Keynote: Xu, Wenqing Villanova University, USA
16:30-16:50	Concentration profiles of organic chemicals across sediment-water interface: Experimental and modeling approaches in spiked-sediment toxicity tests	Invited: Hiki, Kyoshiro National Institute for Environmental Studies, Japan
16:50-17:10	Interfacial engineering of (photo)catalytic nanomaterials for efficient air purification	Invited: Weon, Seunghyun Korea University, Korea
17:10-17:20	Traditional and novel organophosphate esters in plastic greenhouse: Occurrence, multimedia migration, and exposure risk via vegetable consumption	Student: Zhang, Qiuyue Nankai University, China
17:20-17:30	Interfacial interaction mechanism between nanoplastics and typical minerals: Insights for the transport and deposition behavior of nanoplastics	Student: Lin, Xiaoping Institute of Geochemistry, CAS, China



Session 10

Environmental Behaviour of Emerging Contaminants in Soils

Sep. 22 Afternoon Function Room 1

Co-chairs: Gu, Cheng; Li, Hui; Topp, Edward; Wang, Fang; Zhu, Dongqiang
Secretary: Chen, Zhanghao

Time	Topic	Speaker & Institution
Moderator	Topp, Edward; Li, Hui	
13:30-13:50	Fate and impacts of antibiotics in agricultural soils	Keynote: Topp, Edward University of Burgundy, France
13:50-14:10	Emerging contaminants: A One Health perspective	Keynote: Wang, Fang Institute of Soil Science, CAS, China
14:10-14:25	Temporal and spatial variability of antibiotics in agricultural soils and the response of microorganisms	Regular: Zhao, Lixia Agro-Environmental Protection Institute, Ministry of Agriculture and Rural Affairs, China
14:25-14:40	From water to water: Insight into the translocation of pesticides from plant rhizosphere solution to leaf guttation and the associated ecological risks	Regular: Li, Yuanbo Institute of Plant Protection, CAAS, China
14:40-14:55	Effects of reduced graphene oxide nanomaterials on transformation of ¹⁴ C-triclosan in soils	Regular: Nie, Enguang Yangzhou university, China
14:55-15:05	Responses of soil bacterial communities and metabolic function to polyethylene and cadmium combined pollution	Student: Kang, Linhao Hebei University of Technology, China
15:05-15:30	Tea Break	
Moderator	Ji, Rong; Wang, Fang	
15:30-15:50	Fate and impacts of per- and polygonal substances in agricultural soils receiving biosolids	Keynote: Li, Hui Michigan State University, USA
15:50-16:10	Dissipation of emerging organic contaminants in soil: The role of non-extractable residue formation	Keynote: Ji, Rong Nanjing University, China
16:10-16:25	The occurrence of "yellowing" phenomenon and its main driving factors after the remediation of chromium (Cr)-contaminated soils	Regular: Li, Haokai Tongji University, China
16:25-16:40	Persulfate activation with biochar supported nanoscale zero-valent Iron: Engineering application for effective degradation of NCB in soil	Regular: Guo, Yang Nanjing Institute of Environmental Science, CAS, China
16:40-16:55	Aging and fraction distribution of halogenated persistent organic pollutants (POPs) in soil based on sequential extraction	Regular: Ding, Yang Sichuan Normal University, China

Time	Topic	Speaker & Institution
16:55-17:05	Design of all-solid-state nitrate ion-selective electrode for testing nitrate ions in the wetlands soil of the Yellow River Delta	Student: Jiang, Nan Yantai University, China
17:05-17:15	Contamination status of novel organophosphate esters derived from organophosphite antioxidants in soil and the effects on soil bacterial communities	Student: Gao, Meng Nankai University, China

Sep. 23 Morning Function Room 1

Co-chairs: Gu, Cheng; Li, Hui; Topp, Edward; Wang, Fang; Zhu, Dongqiang
Secretary: Chen, Zhanghao

Time	Topic	Speaker & Institution
Moderator	Zhu, Dongqiang; Li, Hongna	
08:30-08:50	Micro-plastics and pharmaceuticals in terrestrial environments, sludge and landfills: Perspectives and treatment solution	Keynote: Barceló, Damià University of Almeria, Spain
08:50-09:05	Foliar exposure of deuterium stable isotope labeled nanoplastics to lettuce: Quantitative determination of foliar uptake, transport, trophic transfer in a terrestrial food chain	Invited: Qiu, Hao Shanghai Jiao Tong University, China
09:05-09:20	Environmental fate and risk of pesticides in water and soil	Invited: Liu, Xingang Institute of Plant Protection, CAAS, China
09:20-09:35	Evidence for historical emission and long-range atmospheric transport of chlorinated paraffins to the Tibetan plateau	Regular: Li, Jun China University of Geosciences, China
09:35-09:50	Development of the SWAT-KM model to know the dynamic fate of organic contaminants in a watershed: A comparative modeling among three climatically distinct zones	Regular: Meng, Yaobin Beijing Normal University, China
09:50-10:00	Research on the crystal facet effects mechanism in the hydrolytic conversion of organophosphate pollutants mediated by nano α -MnO ₂	Student: Li, Yueyue Nankai University, China
10:00-10:30	Tea Break	
Moderator	Barceló, Damià; Qiu, Hao	
10:30-10:45	Genetically encoded fluorescent whole-cell biosensors for real-time detecting estrogens and psychoactive substances	Invited: Wu, Bing Nanjing University, China
10:45-11:00	Distribution of antibiotic resistant bacteria in different soil types following manure application	Regular: Li, Hongna Institute of Environment and Sustainable Development in Agriculture, CAAS, China



Time	Topic	Speaker & Institution
11:00-11:15	6-PPD quinone exposure at environmentally relevant concentrations causes neurotoxicity by affecting dopaminergic, serotonergic, glutamatergic, and GABAergic neuronal systems in <i>Caenorhabditis elegans</i>	Regular: Tan, Xiaochao Jiangnan University, China
11:15-11:30	Assessment of plant and earthworm uptake of aryl-type pollutants in soil using machine learning models	Student: Li, Siyuan Nankai University, China

Session 11

Environmental Dehalogenation and Co-transformation of Heavy Metals

Sep. 22 Afternoon Function Room 6

Co-chairs: He, Yan; Li, Fangbai; Loffler, Frank E.; Tang, Jingchun
Secretary: Lyu, Honghong

Time	Topic	Speaker & Institution
Moderator	Li, Fangbai; Richnow, Hans Hermann	
13:30-13:50	Sulfidized nanoscale zerovalent iron for in situ dehalogenation and metal reduction	Keynote: Lowry, Gregory Carnegie Mellon University, USA
13:50-14:10	Interplay of organohalide respiration, sulfate reduction, and methanogenesis in marine ecosystems	Keynote: Xu, Guofang National University of Singapore, Singapore
14:10-14:25	Study on the effectiveness of an in situ biogenic sulfidated zero-valent iron system for the selective removal of trichloroethylene in groundwater	Invited: Xin, Jia Ocean University of China, China
14:25-14:40	Removal of hexavalent chromium and 2,4,6-trichlorophenol from aqueous solution by iron and nitrogen co-doped biochar	Regular: Ahmad, Shakeel Kunming University of Science and Technology, China
14:40-14:55	Degradation of trichloroethylene by a newly isolated iron-reducing bacterium <i>Escherichia</i> sp. F1 coupled with micron iron powder	Regular: Wu, Zhineng Hebei University of Technology, China
14:55-15:05	Enrichment of tetrabromobisphenol A debrominating bacterial consortia: Degradation characteristics and bacterial community succession	Student: Zheng, Jinjin Zhejiang University, China
15:05-15:30	Tea Break	
Moderator	Tang, Jingchun; Lowry, Gregory	
15:30-15:50	Biogeochemical regulation for sustainable agricultural soil remediation	Keynote: Li, Fangbai Guangdong Institute of Eco-environmental & Soil Sciences, China

Time	Topic	Speaker & Institution
15:50-16:10	Multi-element isotope and enantiomer fractionation for analysis of transformation of persistent organic pesticides in food webs	Keynote: Richnow, Hans Hermann Helmholtz Centre for Environmental Research-UFZ, Germany
16:10-16:25	Lattice-engineered nanoscale FeO for selective dehalogenation and long-term metals encapsulation	Invited: Xu, Jiang Zhejiang University, China
16:25-16:40	Efficient simultaneous removal of Cr (VI) and carbon tetrachloride from groundwater by silicate-stabilized green rust	Regular: Yin, Wenzhao Jinan University, China
16:40-16:50	Chlorinated organic pollution status and potential risk in flooded environment: Evidence from meta-analysis and case study	Student: Meng, Liu Zhejiang University, China
16:50-17:00	Biochar and Fe-Cr mineral interactions: A novel approach to chromium contamination in groundwater	Student: Hu, Kai Hebei University of Technology, China

Sep. 23 Morning Function Room 6

Co-chairs: He, Yan; Li, Fangbai; Loffler, Frank E.; Tang, Jingchun
Secretary: Lyu, Honghong

Time	Topic	Speaker & Institution
Moderator	He, Yan; Yoshida, Naoko	
08:30-08:50	Prevalence of organohalide-respiring bacteria in sewage sludge and application	Keynote: He, Jianzhong National University of Singapore, Singapore
08:50-09:05	S-ZVI@biochar constructs a directed electron transfer channel between dechlorinating bacteria, <i>Shewanella oneidensis</i> MR-1 and trichloroethylene	Invited: Lyu, Honghong Hebei University of Technology, China
09:05-09:20	Experimental study on microbial remediation of HCH-contaminated soil and groundwater	Invited: Liu, Yaqing Guangxi University, China
09:20-09:35	Effects of microbial diversity loss on degradation of γ -HCH and methanogenesis in anaerobic soil environment	Regular: Yang, Xueliang Zhejiang University, China
09:35-09:50	Pyrolytic carbon enhances microbial anaerobic dechlorination and cadmium co-immobilization	Regular: Huang, Yao Institute of Eco-environmental and Soil Sciences, Guangdong Academy of Sciences, China
09:50-10:00	Enhanced reductive degradation of trichloroethylene by ball milled nitridation of bimetallic Ni-ZVI: Combination effect of electron transfer and catalytic hydrogenation	Student: Shi, Yinghao Nankai University, China



Time	Topic	Speaker & Institution
10:00-10:30	Tea Break	
Moderator	He, Jianzhong; Lyu, Honghong	
10:30-10:50	Coupling effect of multi-processes in soil and the regulation: Reductive dechlorination and methanogenesis	Keynote: He, Yan Zhejiang University, China
10:50-11:10	From isolation to practical application: Bioremediation with organohalide-respiring bacteria	Keynote: Yoshida, Naoko Nagoya University, Japan
11:10-11:25	Waterdepth-dependent environmental adaptive mechanisms of reductive dehalogenators across marginal sea sediments in the northwestern Pacific Ocean	Regular: Zhang, Dongdong Zhejiang University, China
11:25-11:40	Microbial reductive dehalogenation of polychlorinated biphenyls: Pathway and reactivity	Regular: Su, Yi Sun Yat-Sen University, China
11:40-11:50	Minor chromium passivation of S-ZVI enhanced the long-term dechlorination performance of trichlorethylene: Effects of corrosion and passivation on the reactivity and selectivity	Student: Guo, Jiaming Nankai University, China

Session 12

Trace Metals in Aquatic Environment

Sep. 22 Afternoon Function Room 3

Co-chairs: Wang, Wen-Xiong; Zhang, Li
Secretary: Zhang, Wei

Time	Topic	Speaker & Institution
Moderator	Zhang, Li; Wang, Wen-Xiong	
13:30-13:50	Aquatic ecotoxicology of metals in the environment: A perspective	Keynote: Wang, Wen-Xiong City University of Hong Kong, China
13:50-14:10	Identification of mercury-containing nanoparticles in cetaceans	Keynote: Shi, Jianbo China University of Geosciences, China
14:10-14:25	Assessment of metal concentrations in macroinvertebrates along the longitudinal gradient of the Apies River, South Africa	Invited: Sefako, Jeffrey Lebepe Makgatho Health Sciences University, South Africa
14:25-14:40	Incorporating passive sampling data into a toxicokinetic-toxicodynamic (TKTD) model for predicting sedimentary metal toxicity	Regular: Xie, Minwei Xiamen University, China
14:40-14:55	The differences on the bioavailability between light and heavy rare earth elements in <i>Daphnia magna</i>	Regular: Zhao, Yuan Sun Yat-Sen University, China

Time	Topic	Speaker & Institution
14:55-15:05	Co-accumulation of copper and zinc in the eye and disruption to visual pathways in copper-stressed zebrafish larvae	Student: Green, Sarah La Trobe University, Australia
15:05-15:30	Tea Break	
Moderator	Wang, Wen-Xiong; Zhang, Wei	
15:30-15:50	Understanding the biogeochemical controls of toxic methylmercury across aquatic and terrestrial ecosystems	Keynote: Martin, Tsz Ki Chinese University of Hong Kong, China
15:50-16:10	The influence of arsenic speciation on the trophic transfer of arsenic in marine food chains	Keynote: Zhang, Li South China Sea Institute of Oceanology, CAS, China
16:10-16:25	"Freshwater mussel watch": An innovative approach for metal biomonitoring and toxicological assessment on aquatic environments	Invited: Yang, Jian Freshwater Fisheries Research Center, CAFS, China
16:25-16:40	Unraveling metal allometry by toxicokinetics in Hong Kong oyster: Critical role of age	Regular: Cao, Xue Shantou University, China
16:40-16:55	Toxicity mechanisms of copper to freshwater mussel: Cellular and molecular vulnerable perspectives from a model species <i>Anodonta woodiana</i>	Regular: Chen, Xiubao Freshwater Fisheries Research Center, CAFS, China
16:55-17:10	Room-temperature synthesis of defect-rich hierarchical porous UiO-66-NH ₂ for enhanced arsenate removal	Regular: Wang, Yan Guangzhou University, China
17:10-17:20	Temperature and salinity modulate thallium accumulation in a coastal snail: Insights from toxicokinetic modeling	Student: Ma, Xiaodie Xiamen University, China

Sep. 23 Morning Function Room 3

Co-chairs: Wang, Wen-Xiong; Zhang, Li
Secretary: Zhang, Wei

Time	Topic	Speaker & Institution
Moderator	Wang, Wen-Xiong; Zhang, Li	
08:30-08:50	Research on detection/monitoring of different species of trace metals in coastal seawater	Keynote: Pan, Dawei Yantai Institute of Coastal Zone Research, CAS, China
08:50-09:10	Stimulating and toxic effect of chromium on growth and photosynthesis of a marine phytoplankton	Keynote: Zhang, Qiong The Hong Kong University of Science and Technology, China
09:10-09:25	Trace element bioaccumulation in marine biota from an active marine volcano, Whakaari White Island	Invited: Ling, Nicholas The University of Waikato, New Zealand



Time	Topic	Speaker & Institution
09:25-09:40	Environmental processes-exposure mechanism-ecological health of arsenic in nearshore waters	Invited: Zhang, Wei Guangzhou University, China
09:40-09:55	Neurotoxicity and behavioral effects of dietary selenium in zebrafish	Regular: Chen, Hongxing South China Normal University, China
09:55-10:05	Investigating environmental fate of lithium from the Yangtze River to the East China Sea: Distribution, source and bioaccumulation	Student: Zou, Chenxi Tongji University, China
10:05-10:30	Tea Break	
Moderator	Zhang, Li; Zhang, Wei	
10:30-10:50	Bioimaging techniques for quantitative monitoring of label-free metallic nanoparticle in a unicellular alga	Keynote: Yan, Neng China University of Geoscience, China
10:50-11:10	Metal risks in turbid coastal waters	Keynote: Tan, Qiao-Guo Xiamen University, China
11:10-11:20	Zinc availability can regulate dimethylsulfoniopropionate (DMS) production by a coastal diatom	Student: Huang, Le The Hong Kong University of Science and Technology, China
11:20-11:30	Cultural considerations of trace elemental seafood safety following volcanic eruption at Whakaari White Island	Student: Blackwell, Danielle The University of Waikato, New Zealand

Session 13

Mercury Biogeochemistry, Biotransformation, and Planetary Health

Sep. 23 Afternoon Interview Room

Co-chairs: Feng, Xinbin; Lin, Jerry; Shi, Jianbo; Zhong, Huan
Secretary: Meng, Bo

Time	Topic	Speaker & Institution
Moderator	Feng, Xinbin; Meng, Bo	
13:30-13:50	Illuminating microbial taxa responsible for methylmercury degradation by tracking carbon consumption	Keynote: Liu, Yurong Huazhong Agricultural University, China
13:50-14:10	Challenges of microbial Hg methylation and MeHg degradation studies with one east texas lake as a case	Keynote: Yu, Riqing The University of Texas at Tyler, USA
14:10-14:25	Mercury transformations in organisms: The occurrence, mechanisms and significance	Invited: Zhong, Huan Nanjing University, China

Time	Topic	Speaker & Institution
14:25-14:40	Algal biomass regulates mercury bioaccumulation and trophic transfer in anthropogenic-impacted subtropic lakes in the Yangtze River Delta, China	Regular: Wang, Rui Tongji University, China
14:40-14:55	New Insights into MeHg accumulation in rice (<i>Oryza sativa</i> L.): Evidence from cysteine	Regular: Man, Yi Institute of Geochemistry, CAS, China
14:55-15:30	Tea Break	
Moderator	Li, Ping; Tang, Wenli	
15:30-15:50	Mercury isotope fractionation for tracing the uptake and metabolism of Hg by earthworms	Keynote: Zheng, Wang Tianjin University, China
15:50-16:10	Mechanism of methylmercury photodegradation in the Yellow Sea and East China Sea: Dominant pathways, and role of sunlight spectrum and dissolved organic matter	Keynote: Li, Yanbin Ocean University of China, China
16:10-16:25	Health effects and economic benefit of ecological remediation in typical mercury contaminated area	Invited: Li, Ping Institute of Geochemistry, CAS, China
16:25-16:40	Biogeochemical controls on methylmercury production and degradation in the environment	Regular: Liang, Xujun Northwest A&F University, China
16:40-16:55	Recent advances in Hg biogeochemistry in the rice-paddy system	Regular: Tang, Wenli Nanjing University, China
16:55-17:10	Mercury reduction by black carbon under dark conditions	Regular: Zhang, Kaikai China University of Mining and Technology, China
17:10-17:25	Physiochemical controls on the multi-size distribution of total mercury in the Yangtze River Estuary	Regular: Zhu, Qinyun Tongji University, China
17:25-17:40	Development of a rapid analysis system for mercury speciation and its application in environmental studies	Sponsor: Zhu, Liuchao Shimadzu China Innovation Center, China



Sep. 24 Morning Interview Room

Co-chairs: Feng, Xinbin; Lin, Jerry; Shi, Jianbo; Zhong, Huan
Secretary: Meng, Bo

Time	Topic	Speaker & Institution
Moderator	Shi, Jianbo; Chen, Long	
08:30-08:50	Tracing the biogeochemical cycling of mercury in polar regions by stable mercury isotopes	Keynote: Shi, Jianbo Research Center for Eco-Environmental Sciences, CAS, China
08:50-09:10	A synthesis on air-surface exchange of atmospheric mercury over the global terrestrial ecosystem	Keynote: Lin, Jerry Lamar University, USA
09:10-09:25	Predictions of global distribution in vegetation and soil mercury and their implications on air-surface exchange processes	Invited: Chen, Long East China Normal University, China
09:25-09:35	The mechanism of foliar physiological parameters restricting foliar assimilation of atmospheric mercury in typical forest ecosystems	Student: Sun, Meiping Institute of Geochemistry, CAS, China
09:35-09:45	Molecular insights into the oxidation of HgO in the leaves of <i>Oryza sativa</i> L.	Student: Tian, Weijun Institute of Geochemistry, CAS, China
09:45-09:55	Technologies for safe utilization of mercury-contaminated farmland based on oxygen regulation	Student: Wu, Caixin Institute of Geochemistry, CAS, China
09:55-10:30	Tea Break	
Moderator	Lin, Jerry; Liang, Xujun	
10:30-10:50	Mapping China's mercury emissions (1978-2021) by integrating point sources	Keynote: Wu, Qingru Tsinghua University, China
10:50-11:10	Forest mercury network: From tropical rainfall forests to Tibetan forests	Keynote: Wang, Xun Institute of Geochemistry, CAS, China
11:10-11:25	Improved anthropogenic mercury emission inventories for China from 1980 to 2020: Towards effectiveness evaluation for the minamata convention	Regular: Zhang, Lei Nanjing University, China
11:25-11:40	Ferrous sulfide nanoparticles controls mercury speciation and bioavailability to methylating bacteria in contaminated groundwater	Regular: Gong, Yanyan Jinan University, China

Session 14

Carbon Neutrality and Ecosystem Health

Sep. 22 Afternoon Meeting Room 8

Co-chairs: Zhou, Qixing; Chang, Scott; Xu, Zhihong; Hu, Xiangang
Secretary: Hou, Xuan

Time	Topic	Speaker & Institution
Moderator	Zhou, Qixing; Xu, Zhihong	
13:30-13:50	Tree diversity affects soil carbon and nitrogen accumulation	Keynote: Chang, Scott University of Alberta, Canada
13:50-14:10	An increase in marine heatwaves without significant changes in surface ocean temperature variability	Keynote: Xu, Tongtong University of Colorado Boulder, USA
14:10-14:30	Microbial direct interspecies electron transfer and electroautotrophy	Invited: Liu, Xing Fujian Agriculture and Forestry University, China
14:30-14:45	Life-Cycle thinking based GREENNESS framework for advancing green chemistry: Case study with typical ionic liquids for cellulose dissolution and regeneration	Regular: Wang, Lei Westlake University, China
14:45-15:00	Ecological effects and microbial mechanisms of microplastic on carbon and nitrogen cycles in paddy fields	Regular: Liu, Linan Nankai University, China
15:00-15:30	Tea Break	
Moderator	Xu, Tongtong; Liu, Xing	
15:30-15:50	Widespread decline in recent tree growth under climate change	Keynote: Xu, Zhihong Griffith University, Australia
15:50-16:10	A global estimate of the biological carbon pump and its application in carbon sequestration	Keynote: Wang, Weilei Xiamen University, China
16:10-16:30	Unveiling microbial nitrogen metabolism in rivers using a machine learning approach	Invited: Hu, Xiangang Nankai University, China
16:30-16:45	Process and mass transfer intensification strategies of ammonia-based CO ₂ capture	Regular: Sibhat, Marta Tongji University, China
16:45-17:00	Tipping points of marine phytoplankton to multiple environmental stressors	Student: Ban, Zhan Nankai University, China
17:00-17:15	Microbiome stimulated degradation of organic carbon and the coupled nutrient cycling during macroalgae decay	Student: Liu, Huanping Sun yat-sen University, China



Session 15

Environmental Chemistry and Toxicology of Priority Substances

Sep. 22 Afternoon Grand Conference Room 1

Co-chairs: Jiang, Guibin; Le, X. Chris; Wang, Yawei

Secretary: Liu, Yanna

Time	Topic	Speaker & Institution
Moderator	Ruan, Ting; Fang, Mingliang; Jiang, Guibin	
13:30-13:55	Modernizing persistence-bioaccumulation-toxicity (PBT) assessment with high throughput animal-free methods	Keynote: Escher, Beate Helmholtz Centre for Environmental Research, Germany
13:55-14:20	Exploring the great unknown: New tools to assess complex environmental mixtures	Keynote: Snyder, Shane A. Georgia Institute of Technology, USA
14:20-14:40	The molecular recognition of phosphate in biological and environmental systems	Invited: Huang, Chengzhi Southwest University, China
14:40-15:00	Injury target and component action from local fine particulate matter exposure	Invited: Sang, Nan Shanxi University, China
15:00-15:30	Tea Break	
Moderator	Deng, Jiguang; Xie, Hongbin; Le, X. Chris	
15:30-15:55	Prioritization of organic micropollutants in global waters and their contributions to disinfection byproduct formation and toxicity in chlorine disinfection	Keynote: Zhang, Xiangru The Hong Kong University of Science and Technology, China
15:55-16:20	Non-target analysis of persistent chemicals in natural waters using feature-based molecular libraries	Keynote: Martin, Jonathan W. Stockholm University, Sweden
16:20-16:40	Efficient cleavage of C-F bond via bridging hydroxyl group for reducing Freon emission	Invited: Deng, Jiguang Beijing University of Technology, China
16:40-17:00	Machine learning-assisted identification of the main contributing pollutants for toxicological endpoints	Invited: Ruan, Ting Research Center for Eco-Environmental Sciences, CAS, China
17:00-17:20	Prioritizing known and unknown identification in complex env/bio samples	Invited: Fang, Mingliang Fudan University, China
17:20-17:40	Theoretical study on the iodine oxoacids-driven nucleation	Invited: Xie, Hongbin Dalian University of Technology, China
17:40-17:50	New pollutants high-throughput screening and exposure omics studies by innovative LCMS technique	Sponsor: Chen, Yukun SCIEX, China

Sep. 23 Morning Grand Conference Room 1

Co-chairs: Jiang, Guibin; Le, X. Chris; Wang, Yawei

Secretary: Liu, Yanna

Time	Topic	Speaker & Institution
Moderator	Chen, Liqun; Chen, Bolei; Le, X. Chris	
08:30-08:55	Advances in bioaccumulation and precision ecotoxicology for contaminants of emerging concern	Keynote: Brooks, Bryan Baylor University, USA
08:55-09:20	Applying single-cell RNA seq to elucidate tissue-specific responses in PFOS embryotoxicity and metabolic insights in zebrafish	Keynote: Timme-Laragy, Alicia R. University of Massachusetts Amherst, USA
09:20-09:40	The harmful outcomes and molecular mechanisms of exposure to fine particulate matter	Invited: Song, Yang Research Center for Eco-Environmental Sciences, CAS, China
09:40-10:00	Exposome big data and machine learning driven human health risk assessment	Invited: Wang, Bin Peking University, China
10:00-10:30	Tea Break	
Moderator	Wang, Bin; Liu, Qingqing; Wang, Yawei	
10:30-10:55	Compound- and regio-selective toxicity and metabolism of 6PPD-Quinone	Keynote: Peng, Hui University of Toronto, Canada
10:55-11:15	Synergistic mitochondrial genotoxicity of carbon dots and arsenate in earthworms <i>eisenia fetida</i> across generations	Invited: Liu, Qingqing Southwest University, China
11:15-11:35	Toxic effects and mechanisms of nanoparticles on embryonic brain development using brain organoids model	Invited: Chen, Liqun Tianjin University, China
11:35-11:55	Spontaneous redox reactions caused by water-solid contact electrification and their effect on pollutants transformation	Invited: Chen, Bolei Jiangnan University, China



Session 16

Atmospheric Toxicology

Sep. 22 Afternoon Meeting Room 17

Co-chairs: Kan, Haidong; Qiu, Xinghua; Sang, Nan
Secretary: Ren, Zhihua; Wang, Ting

Time	Topic	Speaker & Institution
Moderator	Li, Rui; Hu, Di	
13:30-13:50	Spatial regulation of NMN supplementation on brain lipid metabolism upon subacute and sub-chronic PM exposure in C57BL/6 mice	Keynote: Chen, Wen Sun Yat-sen University, China
13:50-14:10	Emission characteristics of sulfate from industrial sources and their impacts on aerosol toxic effect	Keynote: Li, Qing Fudan University, China
14:10-14:25	Role of microglia polarization induced by glucose metabolism disorder in the cognitive impairment of mice from PM _{2.5} exposure	Invited: Li, Rui Central China Normal University, China
14:25-14:40	Long-term ambient ozone exposure with incident atherosclerotic cardiovascular disease and the potential role of ferroptosis	Invited: Huang, Jing Peking University, China
14:40-14:55	The neurotoxicity effect and molecular mechanism in response to atmospheric PM _{2.5} inhalation	Invited: Ku, Tingting Shanxi University, China
14:55-15:05	The effect of anthropogenic activities on chlorinated paraffins in the atmosphere using polyurethane foam passive air sampling (PUF-PAS) in Ghana	Student: William, Arko China University of Geosciences, China
15:05-15:30	Tea Break	
Moderator	Li, Rui; Hu, Di	
15:30-15:50	Ambient levels, sources, and source-specific health risks of PM _{2.5} -bound organophosphate tri-esters and di-esters in Shenzhen atmosphere	Keynote: Hu, Di Hong Kong Baptist University, China
15:50-16:05	Could the association between ozone and arterial stiffness be modified by fish oil supplementation	Invited: Li, Guoxing Peking University, China
16:05-16:20	Neuronal and astrocytic lipid metabolic coupling mediate ozone-induced learning and memory impairment	Invited: Li, Ben Shanxi Medical University, China
16:20-16:35	Screening of pro-inflammatory components based on PM _{2.5} exposomics methods	Invited: Jiang, Xing Peking University, China
16:35-16:45	Co-exposure of ozone and polystyrene nanoplastics synergistically induced airway inflammation: Evidence and mechanisms at multiomics levels	Student: Jian, Xiaotong Zhengzhou University, China

Time	Topic	Speaker & Institution
16:45-16:55	Airborne nanoplastics exposure inducing irreversible glucose increase and complete hepatic insulin resistance	Student: Yang, Ziye Tianjin University, China
16:55-17:05	Assessing the quantitative contribution of microbial components and their sources to in vitro bioactivities of airborne fine particulate matter	Student: Yu, Jinyan The Hong Kong Polytechnic University, China

Session 17

Toxicology: Aquatic Toxicology

Sep. 23 Afternoon Function Room 1

Co-chairs: Yin, Daqiang; Xu, Elvis Genbo; Hoskins, Tyler Davis; Zhang, Hangjun
Secretary: Liu, Zhiquan

Time	Topic	Speaker & Institution
Moderator	Xu, Elvis Genbo	
13:30-13:55	Micro-plastics In the aquatic environment: Analysis, sorption materials and risks to biota	Keynote: Barceló, Damià University of Almeria, Almeria, Spain
13:55-14:10	Can changes in plasma proteins across ontogeny and species mediate patterns of per- and polyfluorinated alkyl substance (PFAS) bioaccumulation and toxicity? A case study with amphibian models	Invited: Hoskins, Tyler Davis Purdue University, USA
14:10-14:25	Water quality of phewa lake and assessment for irrigation and cage fish farming	Regular: Kafle, Babi Kumar Kathmandu University, Nepal
14:25-14:40	The endocrine disrupting effects of parabens on zebrafish (<i>Danio rerio</i>)	Regular: Liang, Jiefeng Shandong University, China
14:40-14:48	Sustained exposure to triclosan and triclocarban disrupts homeostasis of the enterohepatic axis in the black-spotted frog (<i>Pelophylax nigromaculata</i>)	Student: Wang, Bingyi Hangzhou Normal University, China
14:48-14:56	Development of the imidacloprid temporal response surface and ramifications for aquatic ecosystems in the Great Barrier Reef catchment area	Student: Neelamraju, Cath The University of Queensland, Australia
14:56-15:04	The differential effects of triphenyl phosphate (TPHP) and cresyl diphenyl phosphate (CDP) on the visual system of zebrafish larvae	Student: Song, Yiqun Tongji University, China
15:04-15:30	Tea Break	



Time	Topic	Speaker & Institution
Moderator	Hoskins, Tyler Davis	
15:30-15:55	Marine ecotoxicology and climate change: Understanding the influence of multiple stressors on chemical effect thresholds	Keynote: Leung, Kenneth M. Y. City University of Hong Kong, China
15:55-16:10	Assessing the ecotoxicity and risk of four pesticides commonly detected in waterways discharging to the Great Barrier Reef lagoon, Australia	Regular: Mitchell, Hannah The University of Queensland, Australia
16:10-16:25	Integrate transcriptomic and metabolomic analysis reveals the underlying mechanisms of behavioral disorders in zebrafish (<i>Danio rerio</i>) induced by imidacloprid	Regular: Zhang, Lan Chinese Academy of Agricultural Sciences, China
16:25-16:40	Peek-A-Boo test: A simple test for assessing the effect of chemical pollutants on medaka fish behavior	Regular: Takai, Yuki Kyushu University, Japan
16:40-16:55	Exposure to thimerosal induces behavioral abnormality in the early life stages of zebrafish via altering amino acid homeostasis	Regular: Qiu, Xuchun Jiangsu University, China
16:55-17:10	Changes in life-history traits, antioxidant defense, energy metabolism and molecular outcomes in the cladoceran <i>Daphnia pulex</i> after exposure to polystyrene microplastics	Regular: Jiang, Qichen Freshwater Fisheries Research Institute of Jiangsu Province, China
17:10-17:25	Local thermal adaption mediates the sensitivity of <i>Daphnia magna</i> to nanoplastics under global warming scenarios	Regular: Zhang, Chao Shandong University, China
17:25-17:33	Exploring the developmental proteome and life-stage specific sensitivities of larval zebrafish to a model toxicant	Student: Henke, Abigail Baylor University, USA
17:33-17:41	Mapping the risk of ciprofloxacin in European waterbodies: Incorporating bioavailability	Student: Zhang, Qiyun Ghent University, Belgium
17:41-17:49	Toxicity of antimony to <i>Daphnia magna</i> : Influence of environmental factors, development of biotic ligand approach and biochemical response at environmental relevant concentrations	Student: Li, Yue Inner Mongolia University, China

Session 18

Marine Pollution and Ecotoxicology

Sep. 22 Afternoon Function Room 5

Co-chairs: Leung, Kenneth M.Y.; Brooks, Bryan W.; Shi, Huahong; Wang, Xinhong
Secretary: Ruan, Yuefei

Time	Topic	Speaker & Institution
Moderator	Leung, Kenneth M.Y.; Wang, Xinhong	
13:30-13:50	Are harmful algal blooms becoming the greatest water quality threat to public health and ecosystems across the freshwater to marine continuum? A case study in One Health	Keynote: Brooks, Bryan W. Baylor University, USA
13:50-14:10	Chronic paternal/maternal exposure to environmental concentrations of imidacloprid and thiamethoxam cause intergenerational toxicity in zebrafish offspring	Keynote: Ying, Guangguo South China Normal University, China
14:10-14:25	How do microplastics and nanoplastics threaten marine protected areas?	Invited: Xu, Elvis G. University of Southern Denmark, Denmark
14:25-14:40	Poly- and perfluoroalkyl substances induce immunotoxicity in fish and interfere with biodiversity	Invited: Qiu, Wenhui Southern University of Science and Technology, China
14:40-14:55	Statistical approaches for estimating no-effect toxicity concentrations in ecotoxicology	Regular: Fisher, Rebecca Australian Institute of Marine Science, Australia
14:55-15:10	The progress and prospects of the Global Estuaries Monitoring Programme	Regular: Chen, Chong City University of Hong Kong, China
15:10-15:30 Tea Break		
Moderator	Brooks, Bryan W.; Shi, Huahong	
15:30-15:50	Toxic effects of microplastics on marine crustaceans <i>Artemia franciscana</i> and <i>Penaeus vannamei</i>	Keynote: An, Youn-Joo Konkuk University, South Korea
15:50-16:10	Assessment of the status of emerging contaminants in New Zealand	Keynote: Tremblay, Louis Manaaki Whenua – Landcare Research, New Zealand
16:10-16:25	Rapid number-mass concentration conversion and environmental transport behavior of marine microplastics	Invited: Chen, Qiqing East China Normal University, China
16:25-16:40	Understanding transport, fate, and risk of antibiotics in Singapore coastal waters through an integrated monitoring and modelling framework	Regular: Tong, Xuneng National University of Singapore, Singapore
16:40-16:55	The alteration of toxicity in marine organisms by micro and nanoplastics, co-existing with organic chemicals at environmentally relevant concentrations	Regular: Wang, Ying National Marine Environmental Monitoring Center, China

Time	Topic	Speaker & Institution
16:55-17:10	Temporal trends of C ₆₋₃₆ chlorinated paraffins in sediment cores from the Pearl River estuary, South China	Regular: Shao, Yetong City University of Hong Kong, China
17:10-17:25	The environmental behavior and ecological effects of typical contaminants in the coastal zone	Regular: Lv, Min Yantai Institute of Coastal Zone Research, CAS, China
17:25-17:40	Bacterial diversity in soil of Yuncheng Salt Lake Wetland and its response to heavy metals	Regular: Zhang, Quanxi Shanxi University, China
17:40-17:50	Tire additives in water: Leaching, transformation, and environmental risk assessment	Student: Xu, Shaopeng City University of Hong Kong, China
17:50-18:00	Integrated full-length transcriptome and RNA-seq analysis reveals the underlying molecular mechanisms of adaptive response to nutrient loading in <i>Duncanopsammia peltate</i>	Student: Huang, Yuxin Shanghai University, China

Time	Topic	Speaker & Institution
10:50-11:05	Contaminants of emerging concern in the coastal ecosystem of the northern South China Sea	Invited: Ruan, Yuefei City University of Hong Kong, China
11:05-11:20	Nitrate and herbicides can render corals more sensitive to heat stress	Regular: Zhao, Hongwei Hainan University, China
11:20-11:35	Emerging per- and polyfluoroalkyl substances (PFAS) cause intestinal barrier dysfunction in marine medaka (<i>Oryzias melastigma</i>)	Regular: Xie, Naiyu City University of Hong Kong, China
11:35-11:50	Gut microbiota-gut interaction interfere with intestinal health after microcystin-LR exposure in <i>Lithobates catesbeianus</i> tadpoles	Regular: He, Jun Wannan Medical College, China
11:50-12:00	Impacts of pentachlorophenol (PCP) on coral reefs: Disruption of coral-symbiodiniaceae symbiosis and induction of coral bleaching in <i>Porites lutea</i> and <i>Montipora digitata</i>	Student: Luo, Lan Guangxi University, China

Sep. 23 Morning Function Room 5

Co-chairs: Leung, Kenneth M.Y.; Brooks, Bryan W.; Shi, Huahong; Wang, Xinhong
Secretary: Ruan, Yuefei

Time	Topic	Speaker & Institution
Moderator	Leung, Kenneth M.Y.; Brooks, Bryan W.	
08:30-08:50	Automated analysis of histological lesions in whole slide images of fish liver	Keynote: Pampanin, Daniela Maria University of Stavanger, Norway
08:50-09:10	Interactions and effects of microplastics with heavy metals in the marine environment	Keynote: Wang, Xinhong Xiamen University, China
09:10-09:25	An overview of the occurrence and ecotoxicological risk of environmental liquid crystal monomers in the Pearl River estuary	Invited: He, Yuhe City University of Hong Kong, China
09:25-09:40	Entanglement of <i>Daphnia magna</i> by fibrous microplastics through “hook and loop” action	Regular: Ma, Cuizhu East China Normal University, China
09:40-09:55	Enantioselective toxicokinetics of metoprolol and venlafaxine in marine medaka	Regular: Jin, Linjie City University of Hong Kong, China
09:55-10:05	Species-dependent malformation and mechanical weakening in algal cell walls reveal microplastic disturbance at the nanoscale	Student: Chen, Fengyuan The Hong Kong University of Science and Technology, China
10:05-10:30	Tea Break	
Moderator	Shi, Huahong; Wang, Xinhong	
10:30-10:50	Evaluating eDNA and eRNA metabarcoding for aquatic biodiversity assessment: From bacteria to vertebrates	Keynote: Zhang, Xiaowei Nanjing University, China

Session 19

Environmental Epigenetics and Omics

Sep. 24 Morning Grand Conference Room 2

Co-chairs: Wang, Hailin; Zheng, Yuxin
Secretary: Zhang, Hongna

Time	Topic	Speaker & Institution
Moderator	Zheng, Yuxin; Wang, Hailin	
08:30-08:50	Nicotine and cotinine enhance SARS-CoV2- infection and cell entry by upregulating viral receptors and promoting spike protein cleavage	Keynote: Tang, Moon-Shong New York University, USA
08:50-09:10	Environmental pollutants induce alterations in DNA demethylation landscape	Keynote: Wang, Hailin Research Center for Eco-Environmental Sciences, CAS, China
09:10-09:25	Kinetics studies of clustered regularly interspaced short palindromic repeats (CRISPR) systems for sensitive RNA detection	Invited: Feng, Wei University of Alberta, Canada
09:25-09:40	N6-methyladenosine demethylase FTO regulates neuronal oxidative stress via YTHDC1-ATF3 axis in arsenic-induced cognitive dysfunction	Regular: Chen, Chengzhi Chongqing Medical university, China
09:40-09:55	Whole transcriptome sequencing reveals lncRNA/circRNA-miRNA-mRNA networks in bisphenol AF induced cardiac inflammatory response in zebrafish	Regular: Yang, Ming Shanghai University, China



Time	Topic	Speaker & Institution
09:55-10:10	DNA methylation mediated transgenerational teratogenic effect of azoxystrobin on zebrafish (<i>Danio rerio</i>)	Regular: Zhu, Lizhen Chinese Academy of Agricultural Sciences, China
10:10-10:30	Tea Break	
Moderator	Feng, Wei; Yang, Zhu	
10:30-10:50	Evaluating environmental harm using a freshwater turtle model exposed to elevated per- and poly-fluoroalkyl substances (PFAS) through omics-based ecosurveillance	Keynote: Beale, David Commonwealth Scientific & Industrial Research Organisation, Australia
10:50-11:05	Multi-omics analysis of harmful effects of PM _{2.5} on energy metabolism	Invited: Yang, Zhu Hong Kong Baptist University, China
11:05-11:20	Magnetic fraction of iron-doped diesel exhaust (MIDE)-induced pulmonary fibrosis: Results from RNA-seq	Regular: Jiang, Qixiao Qingdao University, China
11:20-11:35	SUMOylation modification of FTO facilitates oxidative damage response of arsenic by IGF2BP3 in an m6A-dependent manner	Regular: Zhang, Hongyang Chongqing Medical university, China
11:35-11:45	Fuoidan mitigates the abnormal changes of club cells in mouse lung cancer induced by benzo(a)pyrene	Student: Li, Xinling Zhengzhou University, China

Session 20

Role of Biotransformation in Ecotoxicology

Sep. 23 Morning Meeting Room 6

Co-chairs: Schlenk, Daniel; Zhu, Lingyan

Secretary: Yi, Shujun

Time	Topic	Speaker & Institution
Moderator	Zhu, Lingyan	
08:30-08:55	Microbiota-mediated biotransformation of triclosan induces colitis	Keynote: Cai, Zongwei Hong Kong Baptist University, China
08:55-09:20	Use of CRISPR-cas9 methods to evaluate the contribution of flavin monooxygenases in pesticide biotransformation in zebrafish	Keynote: Schlenk, Daniel University of California, Riverside, USA
09:20-09:40	Biotransformation changes toxicity and ecological risk of systemic insecticides to aquatic invertebrates	Invited: You, Jing Jinan University, China
09:40-09:55	Biotransformation and ecotoxicology of alternative perfluoroalkyl substances in plant	Regular: Zhao, Shuyan Dalian University of Technology, China
09:55-10:30	Tea Break	

Time	Topic	Speaker & Institution
Moderator	Cai, Zongwei	
10:30-10:55	Plant mediated transformations of emerging contaminants	Keynote: Gan, Jay University of California, Riverside, USA
10:55-11:15	Synthetic antioxidants and transformation products as new pollutants: From environmental occurrence to human exposure	Invited: Liu, Runzeng Shandong University, China
11:15-11:30	Sediment-seawater partitioning, bioaccumulation, and biomagnification of perfluorobutane sulfonamide in marine environment	Regular: Jin, Hangbiao Zhejiang University of Technology, China
11:30-11:45	Metabolites of pesticides: A blind spot of risk assessment on pesticides	Regular: Ji, Chenyang Zhejiang Shuren University, China

Sep. 23 Afternoon Meeting Room 6

Co-chairs: Schlenk, Daniel; Zhu, Lingyan

Secretary: Yi, Shujun

Time	Topic	Speaker & Institution
Moderator	Schlenk, Daniel	
13:30-13:55	Oligomer release from the biotransformation of PLA bioplastics by gut enzymes and its acute inflammatory effect	Keynote: Fang, Mingliang Fudan University, China
13:55-14:15	Nontarget discovery of novel metabolites for organophosphate esters in lettuce (<i>Lactuca sativa</i> L.): Distribution and toxicity effects	Invited: Yao, Yiming Nankai University, China
14:15-14:35	Revealing androgen receptor (AR) disruptors in sewage sludge	Invited: Liu, Yanna Research Center for Eco-Environmental Sciences, CAS, China
14:35-14:45	In-sewer stability of 20 pharmaceuticals under nano zero valent iron dosing	Student: Ren, Jianan The University of Queensland, Australia
14:45-14:55	New insights on free and conjugated forms neonicotinoid insecticides in human serum and their association with oxidative stress	Student: Yao, Yanan Sun Yat-Sen University, China
14:55-15:05	Construction of highly effective sulfamethoxazole degrading consortium for bioaugmentation of constructed wetlands	Student: Wang, Jiangcheng Nanjing University, China

Session 21

Agricultural Environment, Food and Human Health

Sep. 23 Morning Meeting Room 18

Co-chairs: Wu, Yongning; Wang, Shuo; Mueller, Jochen; Zhang, Zulin
Secretary: Hu, Yaozhong

Time	Topic	Speaker & Institution
Moderator	Kolok, Alan; Li, Guoliang	
08:30-08:50	Environmental inhibitors: Health implications of agri-environment	Keynote: Wu, Yongning China National Center for Food Safety Risk Assessment, China
08:50-09:10	Understanding consumption trends in populations using wastewater based surveillance and human biomonitoring techniques	Keynote: Mueller, Jochen The University of Queensland, Australia
09:10-09:30	Climate change and allergies: An emerging global health challenge	Keynote: Lee, Alice The University of New South Wales, Australia
09:30-09:45	The environmental behavior of typical artificial sweeteners in agricultural soil and wheat: Accumulation, translocation and biotransformation	Regular: Li, Dandan Beijing Technology and Business University, China
09:45-09:55	Mitigation of copper oxide nanoparticles (CuO NPs) toxicity in lettuce (<i>Lactuca sativa</i> L.) through fertilization	Student: Lv, Shangsi Tsinghua University, China
09:55-10:30	Tea Break	
Moderator	Wu, Yongning; Mueller, Jochen	
10:30-10:50	The environmental health burden of pesticides: A national perspective from the United States	Keynote: Kolok, Alan University of Idaho, USA
10:50-11:10	Food safety detection method based on nano-pore technology	Keynote: Li, Guoliang Shaanxi University of Science & Technology, China
11:10-11:20	Characterization of typical nonionic surfactants in agro-products and agricultural soils	Student: Li, Simeng Chinese Academy of Agricultural Sciences, China
11:20-11:30	Infantile internal and external exposure to neonicotinoid insecticides: A comparison of levels across various sources	Student: Zhang, Henglin Sun Yat-sen University, China
11:30-11:45	The new application of mass spectrometry imaging technology in new pollutants and environmental health	Sponsor: Sun wenjun Waters Corporation

Sep. 23 Afternoon Meeting Room 18

Co-chairs: Wu, Yongning; Wang, Shuo; Mueller, Jochen; Zhang, Zulin
Secretary: Hu, Yaozhong

Time	Topic	Speaker & Institution
Moderator	Lee, Alice; Zhang, Zulin	
13:30-13:50	Agricultural input, mass load and their associated risk of neonicotinoid insecticides to the Yangtze River, China: An exploration as ecological protection threshold	Keynote: Zhang, Zulin Wuhan University of Technology, China
13:50-14:10	Quantitative microbial risk assessment of antibiotic resistant infections in water reuse	Keynote: Jiang, C. Sunny University of California, Irvine, USA
14:10-14:30	Can urease inhibitor NBPT be transferred from pasture to milk?	Keynote: He, Jizheng The University of Melbourne, Australia
14:30-14:45	Effects of pyrethroid insecticides on gestational diabetes mellitus and glucose homeostasis	Regular: Liu, Jing Zhejiang University, China
14:45-14:55	New evidence of p-phenylenediamines (PPDs) and its derived quinones (PPDQs) in marine fish	Student: Xing, Yiqing Sun Yat-sen University, China

Session 22

Exposure and Health Risks of Toxic Pollutants

Sep. 23 Morning Meeting Room 8

Co-chairs: Juhasz, Albert; Khan, Eakalak; Ma, Lena Qiyong
Secretary: Li, Hongbo

Time	Topic	Speaker & Institution
Moderator	Ma, Lena Qiyong; Qiu, Hao	
08:30-08:50	Understanding the importance of legacy and emerging contaminant bioavailability for human health exposure assessment	Keynote: Juhasz, Albert University of South Australia, Australia
08:50-09:05	Reducing arsenic in rice by modulating the P uptake pathway	Invited: Cao, Yue Sun Yat-sen University, China
09:05-09:20	Increase of the indoor concentration of volatile organic compounds after the use of incense and scented candle in studio apartments determined using passive sampling	Regular: Kim, Pil-Gon Mokpo National University, Korea
09:20-09:35	Chemical analysis complements mosquito bioassays to assess risk and benefit of indoor residual spray pesticide application for mosquito control	Regular: Yap, Suwan National Environment Agency, Singapore



Time	Topic	Speaker & Institution
09:35-09:45	Effects of household fragrant plants on indoor VOCs in residential environments	Student: Shin, Wonsik Korea University, Korea
09:45-09:55	Chromium oral bioavailability in contaminated-soils from different sources: Cr speciation and mouse model	Student: Dong, Wenjie Zhejiang University, China
09:55-10:05	Dermal exposure to chromium in leather: Speciation, bioaccessibility, permeability, and health risk assessment	Student: Liu, Can Zhejiang University, China
10:05-10:30	Tea Break	
Moderator	Juhasz, Albert; Zhao, Di	
10:30-10:45	Foliar uptake, translocation, and trophic transfer risks of deuterium labeled nanoplastics	Invited: Qiu, Hao Shanghai Jiaotong University, China
10:45-11:00	Incident cardiovascular disease caused by high level of selenium exposure: A population-based study	Regular: Zhao, Di Nanjing Agricultural University, China
11:00-11:15	Polystyrene nanoplastics at predicted environmental concentrations enhance the toxicity of copper on <i>Caenorhabditis elegans</i>	Regular: Wang, Yun Huainan Normal University, China
11:15-11:30	Cellular absorption and cytotoxic mitigation of heavy metals in mining vegetables in southwest China: Mechanistic insights and health implications	Regular: Xiang, Ping Southwest Forestry University, China
11:30-11:40	Placental transfer and subsequent toxicity of aromatic amine antioxidants (AAs) and p-phenylenediamine quinone (PPD-Qs)	Student: Zhang, Shaohan Nankai University, China
11:40-11:50	Exposure to melamine and its derivatives in northeast Australia population: Diversity in gender and age	Student: Liu, Yarui Nankai University, China
11:50-12:00	Ubiquity of synthetic phenolic antioxidants in children's cerebrospinal fluid from South China: First evidence for their penetration across the blood-cerebrospinal fluid barrier	Student: Deng, Qing Jinan University, China

Sep. 23 Afternoon Meeting Room 8

Co-chairs: Juhasz, Albert; Khan, Eakalak; Ma, Lena Qiying

Secretary: Li, Hongbo

Time	Topic	Speaker & Institution
Moderator	Khan, Eakalak; Li, Hongbo	
13:30-13:50	Photofate of a next generation breast cancer drug	Keynote: Khan, Eakalak University of Nevada, USA
13:50-14:05	Climate change and health	Invited: Huang, Lei Nanjing University, China

Time	Topic	Speaker & Institution
14:05-14:20	Chemical exposome, ultrafine particles, and Glioblastoma: A new perspective	Regular: Gago-Ferrero, Pablo Institute of Environmental Assessment and Water Research (IDAEA-CSIC), Spain
14:20-14:35	Lead pollution and children lead exposure in China: Disparity, challenge, and policy	Regular: Li, Xiaoping Shanxi Normal University, China
14:35-14:45	Insights into health risks of face paint application to opera performers: The release of heavy metals and potential toxicity mechanism	Student: Wang, Bin Nanjing University, China
14:45-14:55	In vivo fate of aryl phosphorus flame retardants and a novel toxicological perspective via gut-liver axis in mice	Student: Cao, Jing Nanjing University, China
14:55-15:05	Exposure to organophosphorus flame retardants and plasticizers in children: Thyroid nodule and mediation role of oxidative stress	Student: Chen, Shijie Nankai University, China
15:05-15:30	Tea Break	
Moderator	Huang, Lei; Cao, Yue	
15:30-15:45	Dietary strategies to reduce bioavailability and toxicity of arsenic following oral exposure: Mechanisms and health implications	Invited: Li, Hongbo Nanjing University, China
15:45-16:00	Metabolism of the orally ingested arsenic by human gut microbiota and health risks	Regular: Yin, Naiyi University of Chinese Academy of Sciences, China
16:00-16:15	Application of manganese oxides on controlling the release and reduction of soil arsenic under microbial reducing conditions	Regular: Cai, Xiaolin University of Chinese Academy of Sciences, China
16:15-16:30	Overlooked contribution of dermal exposure of PFAS: From in vitro and in vivo tests to physiologically based toxicokinetic models	Regular: Yi, Shujun Nankai University, China
16:30-16:45	Characteristics and human health risk assessment of organochlorine pesticides pollution by using bioaccessibility analysis in soils of typical chemical plant site in China	Regular: Zhu, Chi Jiangsu Environmental Engineering Technology Co., Ltd, China
16:45-17:00	Exposure experiments and machine learning revealed that personal care products can increase the skin exposure of semivolatile organic compounds	Regular: Wang, Yan Dalian University of Technology, China
17:00-17:10	Ca minerals and oral bioavailability of Pb, Cd, and As from indoor dust in mice: Mechanisms and health implications	Student: Xue, Rongyue Nanjing University, China
17:10-17:20	Large geographical scale study on the concentrations, distribution, and source analysis of neonicotinoid insecticides in surface waters of South China	Student: Qin, Ronghua Sun Yat-sen University, China
17:20-17:30	Human paired biomatrix monitoring of primary aromatic amines: Novel insights into renal clearance estimation and potential oxidative damage	Student: Zhang, Jiye Sun Yat-sen University, China



Time	Topic	Speaker & Institution
17:30-17:40	6PPD-Q induces liver lesion in human through immune and metabolic dysregulation: New evidence from traffic policemen	Student: Qin, Zhihao Chongqing University, China
17:40-17:50	Closing remarks	

Session 23

Climate Change and Human Health

Sep. 22 Afternoon Meeting Room 11

Co-chairs: Cai, Wenjia; Lee, Charles; Zhu, Hongkai
Secretary: Cheng, Zhipeng

Time	Topic	Speaker & Institution
Moderator	Cai, Wenjia	
13:30-13:55	The impacts of climate change on human health in ASEAN	Keynote: Lee, Charles University of Newcastle, Australia
13:55-14:20	Emerging health risks from compound weather and climate extremes shaped by climate change	Keynote: Chen, Yang Chinese Academy of Meteorological Sciences, China
14:20-14:40	Effect of extreme heat on cardiovascular morbidity	Invited: Di, Qian Tsinghua University, China
14:40-15:00	The modification effect of ozone pollution on the associations between heat wave and cardiovascular mortality	Regular: Li, Guoxing Peking University, China
15:00-15:30	Tea Break	
Moderator	Zhu, Hongkai	
15:30-15:55	Projections of future heat-related physical activities losses under climate change and population scenarios in China	Keynote: Zhang, Chi Beijing Institute of Technology, China
15:55-16:15	Study on indoor thermal perception, behavioral adaptation in late pregnancy and their effects on adverse birth outcomes in South China	Invited: Ni, Jie Sun Yat-Sen University, China
16:15-16:35	Introduction to the application of high-temperature health meteorological public service products	Invited: Li, Yi China Meteorological Administration Public Meteorological Service Center, China
16:35-17:00	Climate change, ambient pollution and risk for stillbirth	Keynote: Xue, Tao Peking University, China

Session 24

Metal Environmental Criteria and Health

Sep. 23 Afternoon Grand Conference Room 1

Co-chairs: Cai, Zongwei; Schlekat, Christian E.; Wu, Fengchang; Zhao, Xiaoli
Secretary: Teng, Miaomiao

Time	Topic	Speaker & Institution
Moderator	Schlekat, Christian E.	
13:30-13:55	Bioavailability based environmental risk assessment approaches for nickel: Considerations for determining ecosystem	Keynote: Schlekat, Christian E. NiPERA Inc., USA
13:55-14:20	Environmental management of copper emissions from impressed current anti-fouling system in marine vessels	Keynote: Koppel, Darren Australian Institute of Marine Science, Australia
14:20-14:45	Endocrine disruption and persistency in the United Nations globally harmonized system: Implications for metals	Keynote: Baken, Stijn CuPPER Inc., USA
14:45-15:05	Influence of water quality variations in the Yangtze River basin on the bioavailability of nickel and water quality criteria	Invited: He, Jia Beijing Normal University, China
15:05-15:30	Tea Break	
Moderator	Cai, Zongwei	
15:30-15:55	Chemical speciation in environmental criteria and health	Keynote: Le, X. Chris University of Alberta, Canada
15:55-16:15	Evaluation of effects-based methods and cyanobacterial bloom indicators for enhanced water quality monitoring in Laguna Lake (philippines)	Invited: Quecke, Emily University of Alberta, Canada
16:15-16:35	Associations of exposure to fine particulate matter mass and constituents with systemic inflammation: A cross-sectional study of urban older adults in China	Invited: Han, Bin Chinese Research Academy of Environmental Sciences, China
16:35-16:55	Iron minerals: A frontline barrier against combined toxicity of microplastic and arsenic	Invited: Liu, Xuesong Chinese Research Academy of Environmental Sciences, China
16:55-17:10	The toxicity and organic carbon effect of nickel on zebrafish in aquatic environment	Student: Wang, Xin Beihang University, China
17:10-17:25	Water quality criteria studies for bioaccumulative chemicals	Student: Xie Li Chinese Research Academy of Environmental Sciences, China



Session 25

Asia-Pacific Exposome Research Network Building

Sep. 23 Afternoon Meeting Room 13

Co-chairs: An, Taicheng; Nakayama, Shoji
Secretary: He, Chang

Time	Topic	Speaker & Institution
Moderator	An, Taicheng & Nakayama, Shoji	
13:30-13:55	Exposome: A way to understand human health	Keynote: Nakayama, Shoji National Institute for Environmental Studies, Japan
13:55-14:20	Exposomics and health effects of toxic pollutants in occupationally exposed populations in three typical contaminated sites	Keynote: An, Taicheng Guangdong University of Technology, China
14:20-14:35	An enhanced protocol to expand female exposome and machine learning based prediction for methodology application	Invited: He, Ana Nankai University, China
14:35-14:50	Exposure characteristics and health risks of toxic organic pollutants in the urine of coking plant workers: Insights from non-target and target analyses	Invited: Li, Hailing Guangdong University of Technology, China
14:50-15:30	Tea Break	
Moderator	Li, Liang & He, Chang	
15:30-15:55	Advancing exposome research: High-throughput chemical isotope labeling LC-MS for comprehensive metabolome and exposome analysis	Keynote: Li, Liang University of Alberta, Canada
15:55-16:10	Long-term (2012-2021) trends in exposures to bisphenols, parabens, triclosan and triclocarban in general population of Queensland, Australia	Invited: Wang, Xianyu The University of Queensland, Australia
16:10-16:25	Long term temporal trends of selected persistent organic pollutants in ambient air in Australia, China and Vietnam	Invited: He, Chang Guangdong University of Technology, China
16:25-16:40	Chronic kidney disease of unknown etiology (CKDu) in Sri Lanka - the urgent need for multidisciplinary research	Invited: Rathnayake, Nadeeka Hydrobiology Pty Ltd, Australia
16:40-16:55	National reconnaissance of antimicrobial occurrence in Australian wastewater and their socioeconomic correlates	Invited: Li, Jinglong The University of Queensland, Australia

Session 26

Environment & Health Forum

Sep. 23 Morning Grand Conference Room 2

Co-chairs: Liao, Chunyang; Moon, Hyo-Bang; Wei, Si; Zhang, Tao
Secretary: Liu, Suqin; Song, Shiming

Time	Topic	Speaker & Institution
Moderator	Liao, Chunyang	
08:30-08:35	Opening Remarks	Jiang, Guibin Research Center for Eco-Environmental Science, CAS
08:35-08:40	Opening Remarks	Tegen, Sarah (Senior Vice President and Chief Publishing Officer) ACS Publications, USA
08:40-09:10	Arsenic metabolism and methylation efficiency	Keynote: Le, X. Chris University of Alberta, Canada
09:10-09:40	Combating air pollution significantly reduced atmospheric mercury concentrations in China	Keynote: Feng, Xinbin Institute of Geochemistry, CAS
09:40-10:10	Dietary exposure of cadmium and arsenic and impact on human health	Keynote: Zhao, Fangjie Nanjing Agricultural University, China
10:10-10:30	Tea Break	
Moderator	Zhang, Tao	
10:30-11:00	Unrecognized environmental processes affecting the expression and transfer of ARGs	Keynote: Zhu, Dongqiang Peking University, China
11:00-11:30	Emerging contaminants in the wastewater-soil-plant nexus	Keynote: Gan, Jay University of California, Riverside, USA
11:30-12:00	Chemical exposome, ultrafine particles, and Glioblastoma: A new perspective	Keynote: Gago-Ferrero, Pablo Institute of Environmental Assessment and Water Research, Spain

Sep. 23 Afternoon Grand Conference Room 2

Co-chairs: Liao, Chunyang; Moon, Hyo-Bang; Wei, Si; Zhang, Tao
Secretary: Liu, Suqin; Song, Shiming

Time	Topic	Speaker & Institution
Moderator	Wei, Si	
13:30-14:00	Environment, pollution, and One Health	Keynote: Brooks, Bryan W. Baylor University, USA



Time	Topic	Speaker & Institution
14:00-14:30	Machine learning assisted nontargeted analysis of reactive nitrogenous organic compounds in rivers	Keynote: Li, Xingfang University of Alberta, Canada
14:30-15:00	Recent development in aquatic environmental DNA science and technology	Keynote: Zhang, Xiaowei Nanjing University, China
15:00-15:30	Tea Break	
Moderator	Zhu, Hongkai	
15:30-16:00	A population approach within the environmental health realm	Keynote: Nakayama, Shoji National Environmental Research Institute, Japan
16:00-16:20	Intelligent nontarget analysis technology and application of new pollutants	Invited: Wei, Si Nanjing University, China
16:20-16:40	Prenatal and postnatal exposure to neonicotinoids: Levels, mechanisms and risks	Invited: Zhang, Tao Sun Yat-sen University, China
16:40-17:00	The health effects and mechanisms of combined exposure to micro- and nanoplastics and environmental pollutants	Invited: Huang, Zhenlie Southern Medical University, China
17:00-17:20	Volatile organic compounds: A new look at old problems	Invited: Zhu, Hongkai Nankai University, China
17:20-17:30	Closing Remarks	Zhu, Lingyan Nankai University, China

Session 27

Environmental Behaviors and Risks of Antibiotic Resistance Genes

Sep. 22 Afternoon Grand Conference Room 2

Co-chairs: Li, Xiangdong; Ying, Guangguo; Zhang, Tong; Zhu, Lizhong
Secretary: Lu, Huijie

Time	Topic	Speaker & Institution
Moderator	Zhu, Lizhong; Guo, Jianhua	
13:30-13:50	Emerging contaminants can speed up the emergence and spread of antibiotic resistance	Keynote: Guo, Jianhua The University of Queensland, Australia
13:50-14:10	Quantifying the risks of environmental AMR	Keynote: Gin, Karina Yew-Hoong National University of Singapore, Singapore
14:10-14:25	Using metagenomic approaches to investigate AMR in "One Health" framework	Regular: Li, Bing Tsinghua University, China

Time	Topic	Speaker & Institution
14:25-14:40	Disinfection enhances antibiotic resistance and human health risks in aerosols	Regular: Wang, Qing Hebei University of Engineering, China
14:40-14:55	Wastewater treatment plant enriches antibiotic-resistant zoonotic pathogen <i>Aeromonas veronii</i>	Regular: Chen, Zeyou Nankai University, China
14:55-15:10	Spatio-temporal distribution and dynamics of antibiotic resistance genes in a water-diversion lake, China	Regular: Chu, Kejian Hohai University, China
15:10-15:30	Tea Break	
Moderator	Li, Xiangdong; Wu, Yongning	
15:30-15:50	Airborne dissemination of antimicrobial resistance: A multi-national microbiological and genomic study	Keynote: Li, Xiangdong The Hong Kong Polytechnic University, China
15:50-16:10	A One Health challenge: Addressing the interconnected threat of antibiotic resistance across the food chain	Keynote: Wu, Yongning China National Center for Food Safety Risk Assessment, China
16:10-16:30	Origins and dissemination of antibiotic resistance genes in the environment	Invited: Lu, Huijie Zhejiang University, China
16:30-16:50	Distribution profile and health risk of antibiotic resistance genes in soil at national and global scales	Invited: Li, Liguan The Education University of Hong Kong, China
16:50-17:10	Environmental multi-media interfaces are hotspots of antibiotic resistance revealed by stimulated Raman scattering with D ₂ O labelling	Invited: Qiao, Min Research Center for Eco-Environmental Sciences, CAS, China
17:10-17:25	Decadal trends of inhalable antibiotic resistome in typical urban areas from China	Regular: Xie, Jiawen The Hong Kong Polytechnic University, China

Session 28

Environmental Contamination and Control Technology of Per- And Polyfluoroalkyl Substances (PFAS)

Sep. 23 Morning Meeting Room 15

Co-chairs: Dai, Jiayin; Sun, Hongwen; Eun, Heesoo
Secretary: Chen, Hao

Time	Topic	Speaker & Institution
Moderator	Eun, Heesoo; Zhang, Yanyan	
08:30-08:50	Comprehensive analysis of PFAS contamination: Novel findings and implications for future research	Keynote: Thomas, Kevin V University of Queensland, Australia



Time	Topic	Speaker & Institution
08:50-09:10	PFAS in the environment: A new method for analyzing PFAS in soil	Keynote: Eun, Heesoo National Agriculture and Food Research Organization (NARO), Japan
09:10-09:25	Machine learning assisted single-molecule sensing of per- and polyfluoroalkyl carboxylic acids isomers	Regular: Li, Hongshuang East China University of Science and Technology, China
09:25-09:35	Identification of novel iodinated polyfluoroalkyl ether acids and other emerging per- and polyfluoroalkyl substances in soils using non-targeted molecular network method	Student: Ji, Yuyan Shanghai Jiao Tong University, China
09:35-09:45	Nontarget screening and distribution characteristics of emerging per- and polyfluoroalkyl substances in domestic and semiconductor industrial wastewater at a large scale in China	Student: Qiao, Biting Nankai University, China
09:45-09:55	Occurrence and fate of per- and polyfluoroalkyl substances (PFAS) in atmosphere: Size-dependent gas-particle partitioning, precipitation scavenging, and amplification	Student: Li, Xiaotong Research Center for Eco-Environmental Sciences, CAS, China
09:55-10:30	Tea Break	
Moderator	Deng, Shubo; Liu, Min	
10:30-10:50	Occurrence, transport and adsorptive removal of PFAS in electroplating wastewaters	Keynote: Deng, Shubo Tsinghua University, China
10:50-11:10	Study on the efficient degradation of per- and polyfluoroalkyl substances	Keynote: Liu, Min Central South University, China
11:10-11:25	Unravel the defluorination mechanism and structural dependence of per- and polyfluoroalkyl substances (PFAS) by UV/sulfite	Invited: Zhang, Yanyan Westlake University, China
11:25-11:35	Effective defluorination of hexafluoropropylene oxide oligomer acids under mild conditions by UV/sulfite/iodide: Mechanisms and ecotoxicity	Student: Zhai, Zhenyu Tongji University, China
11:35-11:45	Pilot-scale removal of PFAS from chromium-plating wastewater by anion exchange resin and activated carbon: Adsorption difference between PFOS and 6:2 fluorotelomer sulfonate	Student: Jiang, Xiangzhe Tsinghua University, China
11:45-11:55	Rapid adsorptive removal of emerging and legacy PFASs from water using zinc chloride-modified litchi seed-derived biochar	Student: Liu, Zhenzhu Guangxi University, China
11:55-12:05	Optimized Al-based electrocoagulation for effective removal of residual fluoride ions during per- and polyfluoroalkyl substances (PFASs) wastewater treatment	Student: Zhang, Mingkun Tsinghua University, China

Sep. 23 Afternoon Meeting Room 15

Co-chairs: Dai, Jiayin; Sun, Hongwen; Eun, Heesoo
Secretary: Chen, Hao

Time	Topic	Speaker & Institution
Moderator	Dai, Jiayin; Pan, Yitao	
13:30-13:50	Fatty acid bind proteins are targets for a broad spectrum of organic pollutants	Keynote: Peng, Hui University of Toronto, Canada
13:50-14:10	Progress in novel perfluoroalkyl substances (PFASs): Occurrence in human matrix and adverse effects	Keynote: Dai, Jiayin Shanghai Jiao Tong University, China
14:10-14:25	Placental transfer and health risks of legacy and novel per- and polyfluoroalkyl substances near fluorochemical facilities	Invited: Bao, Jia Shenyang University of Technology, China
14:25-14:40	Emerging per- and polyfluoroalkyl ether carboxylic acids: Identification, exposure pathway, and health effects	Invited: Pan, Yitao Shanghai Jiao Tong University, China
14:40-14:50	Systemic toxicity screening of real-life mixtures in poly- and perfluoroalkyl substances detected consumer products: An effect directed analysis	Student: Kim, Hyunwoo University of Seoul, Korea
14:50-15:00	6:2 Chlorinated polyfluorinated ether sulfonate proved more potent than perfluorooctane sulfonic acid in inducing diabetic kidney disease by regulating PI3K/PDK1/SGK1 signaling pathway	Student: Fang, Ting Tianjin Medical University Chu Hisen-I Memorial Hospital, China
15:00-15:30	Tea Break	
Moderator	Liu, Jinxia; Ruan, Yuefei	
15:30-15:50	Developing new insights into the interactions between concrete and per- and polyfluoroalkyl substances	Keynote: Liu, Jinxia McGill University, Canada
15:50-16:10	Dynamic characteristics of per- and polyfluoroalkyl substances under tidal influencing in the estuary	Keynote: Wang, Xinhong Xiamen University, China
16:10-16:25	Spatiotemporal variations of emerging and legacy per- and poly-fluoroalkyl substances in surface water of the Bohai Sea	Invited: Tang, Jianhui Yantai Institute of Coastal Zone Research, CAS, China
16:25-16:40	Identification of bioaccumulative emerging per- and polyfluoroalkyl substances in marine organisms	Invited: Ruan, Yuefei City University of Hong Kong, China
16:40-16:55	Sediment-seawater partitioning, bioaccumulation, and biomagnification of perfluorobutane sulfonamide in marine environment	Invited: Jin, Hangbiao Zhejiang University of Technology, China
16:55-17:10	Exterior building materials are sources of per- and polyfluoroalkyl substances (PFAS) to the environment	Invited: Liu, Min University of Toronto, Canada



Time	Topic	Speaker & Institution
17:10-17:25	Legacy and emerging poly- and perfluoroalkyl substances in typical marine mammals from East China Sea: Temporal trends and tissue-specific accumulation	Regular: Zhang, Bo Sun Yat-Sen University, China
17:25-17:40	Spatial and temporal variations of legacy and novel per- and polyfluoroalkyl substances (PFASs) in surface soils across China during 2002–2021	Regular: Wang, Danfan Westlake University, China
17:40-17:50	Emerging polyfluoroalkyl substances in contemporary aqueous film-forming foams: Nontarget identification and aerobic soil transformation	Student: Fang, Bo Nankai University, China

Session 29

Environmental Behaviour and Effects of Emerging Flame Retardants and Plasticizers

Sep. 23 Morning Meeting Room 1

Co-chairs: Gan, Jay; Liu, Chunsheng; Wang, Yingying; Yao, Yiming
Secretary: Wang, Yu; Gao, Huixian

Time	Topic	Speaker & Institution
Moderator	Gan, Jay; Sun, Jianqiang	
08:30-08:50	In-vehicle exposure of southern California commuters to tris(1,3-dichloro-2-propyl) phosphate	Keynote: Volz, David University of California, Riverside, USA
08:50-09:05	Fate and risk control of plastic additives in soil-plant systems	Invited: Sun, Jianqiang Zhejiang University of Technology, China
09:05-09:20	Comprehensive characterization of chlorinated paraffins in Chinese tires	Regular: Du, Xinyu Shanghai Ocean University, China
09:20-09:35	Pollution profiles, source apportionment, and risk assessment of organophosphate esters in coastal aquaculture waters: Typical case studies in China	Regular: Hou, Minmin Hangzhou Institute for Advanced Study, UCAS, China
09:35-09:45	Phthalate acid esters (PAEs) in decoration materials: Occurrence, sources and implications of health risk	Student: Shen, Haoyang Zhejiang Wanli University, China
09:45-09:55	Migration of phthalate acid esters from plastic mulch films and their degradation in response to ultraviolet irradiation and contrasting soil conditions	Student: Viljoen, Samantha Murdoch University, Australia
09:55-10:30	Tea Break	
Moderator	Liu, Chunsheng; Liao, Chunyang	
10:30-10:50	Human exposure to OPEs and their migration and transformation in body	Keynote: Liao, Chunyang Research Center for Eco-Environmental Sciences, CAS, China

Time	Topic	Speaker & Institution
10:50-11:05	Atmospheric transformation chemistry and risks of organophosphate esters	Invited: Liu, Qifan University of Science and Technology of China, China
11:05-11:20	Metabolomic alterations associated with novel brominated triazine based flame retardant (2,4,6-tris(2,4,6-tribromophenoxy)-1,3,5-triazine (TTBP-TAZ) exposure	Regular: Xie, Yichun Sustech, China
11:20-11:30	Tris(1,3-dichloro-2-propyl) phosphate inhibits early embryonic development by binding to Gsk-3 β Protein in Zebrafish	Student: Yu, Zichen China University of Geosciences (Wuhan), China
11:30-11:40	Ubiquitous rubber vulcanization accelerators in dust and sediment: Sources, occurrence, human exposure and ecological risk	Student: Ge, Jiali Jinan University, China
11:40-11:50	Diastereomer-specific transformation of hexabromocyclododecane by soil bacterial communities	Student: Yang, Zhao Nankai University, China
11:50-12:00	Foliar exposure of organophosphate esters: Mechanisms of penetration, transfer, and multiple impacts	Student: Gao, Huixian Nankai University, China

Sep. 23 Afternoon Meeting Room 1

Co-chairs: Gan, Jay; Liu, Chunsheng; Wang, Yingying; Yao, Yiming
Secretary: Wang, Yu; Gao, Huixian

Time	Topic	Speaker & Institution
Moderator	Volz, David; Bartlam, Mark	
13:30-13:50	Microbial transformation of new flame retardants	Keynote: Bartlam, Mark Nankai University, China
13:50-14:05	Regulatory role of mitochondrial damage on neurotoxicity and metabolic disorder induced by decabromodiphenyl ether in zebrafish (<i>Danio rerio</i>)	Invited: Yang, Lihua Institute of Hydrobiology, CAS, China
14:05-14:20	Organophosphate esters in Tianshan glacier runoff: Occurrence, degradation, and flux	Regular: Zeng, Jiamin Institute of Tibetan Plateau Research, CAS, China
14:20-14:30	Identification of novel organophosphate flame retardants and plasticizers released from a plastic recycling industrial park using target and nontarget analysis	Student: Li, Xiaoxiao Nankai University, China
14:30-14:40	Association of organophosphate flame retardants (OPFRs) exposure with liver function in women of reproductive age	Student: Gu, Zhiguang ZhengZhou University, China
14:40-14:50	Aquatic ecological risk and sensitive toxicity mechanism of tris (2-chloroethyl) phosphate	Student: Qiao, Yu Beihang University, China



Time	Topic	Speaker & Institution
14:50-15:00	Structure-dependent distribution, metabolism and toxicity effects of alkyl organophosphate esters in lettuce (<i>Lactuca sativa</i> L.)	Student: Wang, Yulong Nankai University, China
15:00-15:30	Tea Break	
Moderator	Tu, Binh Minh; Yao, Yiming	
15:30-15:45	Legacy, current-use brominated flame retardants and phthalate esters in indoor dust and air from Vietnam: An update on the contamination, sources and implications for human exposures	Invited: Tu, Binh Minh Vietnam National University, Vietnam
15:45-16:00	Efficient removal of phthalic acid esters in soil and water by isolated bacterial strain and engineered biochar from different biowastes	Invited: Xue, Jianming New Zealand Forest Research Institute (Scion), New Zealand
16:00-16:15	Environmental exposure risks and behaviors of traditional and novel organophosphate esters	Regular: Wang, Yu Nankai University, China
16:15-16:25	Environmental transformation and metabolic mechanisms of preservative parabens and their consequences for health effects	Student: Chen, Guanhui Guangdong University of Technology, China
16:25-16:35	Association of organophosphate flame retardants (OPFRs) exposure with ovarian reserve and in vitro fertilization-embryo transfer (IVF-ET) outcomes in women of reproductive age	Student: Zhao, Xiangkai ZhengZhou University, China
16:35-16:45	Non-targeted screening of organophosphate flame retardants and plasticizers in a river impacted by industrial activity in Eastern China	Student: Wu, Yilin Nankai University, China

Session 30

Innovative Disinfection and Novel Disinfection Byproducts

Sep. 22 Afternoon Meeting Room 16

Co-chairs: Li, Xingfang; Ma, Jun; Zhang, Xiangru; Lu, Jinfeng
Secretary: Han, Jiarui

Time	Topic	Speaker & Institution
Moderator	Li, Xingfang; Wang, Wei	
13:30-13:55	Challenges of drinking water safety and prospects for green and low carbon water supply system in the future	Keynote: Ma, Jun Harbin Institute of Technology, China
13:55-14:20	Improving drinking water safety: Addressing new impacts, identifying important toxicity drivers, and looking to potable reuse	Keynote: Richardson, Susan University of South Carolina, USA

Time	Topic	Speaker & Institution
14:20-14:35	Potential hygienic risks in household water purifiers: Buildup of antibiotics and antibiotic resistance genes	Invited: Zhai, Hongyan Tianjin University, China
14:35-14:50	Understanding molecular-level reactions between permanganate/ferrate and dissolved effluent organic matter	Invited: Zhang, Jing Harbin Institute of Technology, China
14:50-15:05	O3-BAC based advanced treatment process of drinking water in downstream of China's Yangtze River basin effectively reduces the formation and toxicity of disinfection by-products	Invited: Dong, Huiyu Research Center for Eco-Environmental Sciences, CAS, China
15:05-15:30	Tea Break	
Moderator	Zhang, Jing; Li, Yao	
15:30-15:55	Germination of chlorine-resistant fungal spores in drinking water: Stimulation effect by chlor(am)ination and associated taste & odor issues	Keynote: Xu, Bin Tongji University, China
15:55-16:10	Non-targeted analysis of coumarins in source water and their formation of chlorinated coumarins as DBPs in drinking water	Invited: Huang, Guang Nanjing Medical University, China
16:10-16:25	Revealing the important toxicity driver of drinking water	Invited: Li, Jiafu Soochow University, China
16:25-16:40	Molecular-level insights into natural organic matter and its derived chlorinated disinfection byproducts	Invited: Zhang, Xiaoxiao The Hong Kong Polytechnic University, China
16:40-16:50	Inactivation characteristics of antibiotic resistant bacteria by chlorine disinfection	Student: Luo, Jiacheng Tianjin University, China
16:50-17:00	Occurrence and fate of N-nitrosamines in domestic wastewater treatment plants and their impact on receiving waters	Student: Chen, Yingjie South China Normal University, China

Sep. 23 Morning Meeting Room 16

Co-chairs: Li, Xingfang; Ma, Jun; Zhang, Xiangru; Lu, Jinfeng
Secretary: Han, Jiarui

Time	Topic	Speaker & Institution
Moderator	Zhang, Xiangru; Dong, Huiyu	
08:30-08:55	Revealing precursors and new disinfection byproducts in water: Machine learning assisted nontargeted analysis	Keynote: Li, Xingfang University of Alberta, Canada
08:55-09:20	Exploring higher molecular weight byproducts of chlorine disinfection	Keynote: Mitch, William Stanford University, USA
09:20-09:35	Uncovering halogenated nucleotides and nucleobases as emerging disinfection byproducts in drinking water	Invited: Wang, Wei Zhejiang University, China

Time	Topic	Speaker & Institution
09:35-09:50	Effects of graphene quantum dot on formation of disinfection byproducts during chlorination	Invited: Li, Yao Nankai University, China
09:50-10:05	Experimental and computational studies of transformation products of sulfachloropyridazine during water chloramination	Invited: Yu, Haiying Zhejiang Normal University, China
10:05-10:30	Tea Break	
Moderator	Liu, Chao; Ding, Guoyu	
10:30-10:45	Neurodevelopmental toxicity induced by 2,6-dichloro-1,4-benzoquinone disinfection byproduct	Invited: Li, Jinhua Jilin University, China
10:45-11:00	Potential fate of halogenated DBPs in drinking water distribution and storage systems with unlined cast iron/copper pipes: Mechanistic insights and toxicity predictions	Invited: Yang, Mengting Shenzhen University, China
11:00-11:15	Rapid extraction of target analytes from water by monolithic adsorbents	Invited: Liu, Zhongshan Shaanxi Normal University, China
11:15-11:30	Formation mechanisms of disinfection byproducts from reactions of Cl ₂ ⁻ with dissolved organic matter	Invited: Qiu, Junlang Sun Yat-sen University, China
11:30-11:45	Spatial patterns and environmental functions of dissolved organic matter in grassland soils of China	Invited: Yu, Wenzheng Research Center for Eco-Environmental Sciences, CAS, China
11:45-11:55	Control of antibiotic resistant bacteria by chlorine or UV disinfection	Student: Zhang, Xuanwei Hong Kong University of Science and Technology, China

Sep. 23 Afternoon Meeting Room 16

Co-chairs: Li, Xingfang; Ma, Jun; Zhang, Xiangru; Lu, Jinfeng
Secretary: Han, Jiarui

Time	Topic	Speaker & Institution
Moderator	Li, Cong; Li, Wanxin	
13:30-13:55	Haloacetamides disinfection byproducts: Emerging risk factor for nonalcoholic fatty liver disease - Evidence from in vitro and in vivo studies	Keynote: Qu, Weidong Fudan University, China
13:55-14:10	Enhanced photocatalytic molecularoxygen activation by efficient interface charge transfer for antibiotics degradation and its disinfection by-products formation potential	Invited: Lu, Jinfeng Nankai University, China
14:10-14:25	Unveiling the toxicological effects induced by tire-derived chemicals in water disinfection	Invited: Liu, Chao Research Center for Eco-Environmental Sciences, CAS, China

Time	Topic	Speaker & Institution
14:25-14:40	The environmental behavior and underlying mechanism of polar halogenated disinfection by-products in soil system	Invited: Ding, Guoyu Beijing Jiaotong University, China
14:40-14:55	Impact of microplastics in source water on the formation of halogenated disinfection byproducts during drinking water chlorination and its mechanism	Invited: Li, Yu South China Normal University, China
14:55-15:30	Tea Break	
Moderator	Liu, Shaogang; Li, Jinhua	
15:30-15:45	Toxicity control of swimming pool with high swimming loads	Invited: Dong, Shengkun Sun Yat-sen University, China
15:45-16:00	Formation of larger molecular weight disinfection byproducts from acetaminophen in chlorine disinfection	Invited: Li, Wanxin Xi'an Jiaotong-Liverpool University, China
16:00-16:15	Synergistic effect of combined UV-LEDs and peracetic acid treatment on inactivation of fungal spores	Invited: Wan, Qiqi Xi'an University of Architecture and Technology, China
16:15-16:30	Tailoring polyamide nanofiltration membrane with NaHCO ₃ addition for enhanced rejection and selectivity of haloacetic acids toward drinking water treatment	Invited: Long, Li The University of Hong Kong, China
16:30-16:40	Transformation-derived toxicity of metformin during water chlorination: A potential health concern	Student: He, Yuanzhen Westlake University, China
16:40-16:50	New perspective on disinfectant and by-product analysis with LC-Orbitrap HRMS	Sponsor: Shi, Biyun Thermo Fisher Scientific

Sep. 24 Morning Meeting Room 16

Co-chairs: Li, Xingfang; Ma, Jun; Zhang, Xiangru; Lu, Jinfeng
Secretary: Han, Jiarui

Time	Topic	Speaker & Institution
Moderator	Zhai, Hongyan; Dong, Shengkun	
08:30-08:55	Photochemical degradation of dissolved organic matter under solar photolysis of ahlorine: Formation of DBPs, Change of cytotoxicity and reactive species	Keynote: Xian, Qiming Nanjing University, China
08:55-09:20	DBP control in DWTPs in Yangtze River Delta region	Keynote: Chu, Wenhai Tongji University, China
09:20-09:35	Identification of emerging disinfection byproducts and screening of key molecules by fourier-transform ion cyclotron resonance mass spectrometry (FT-ICR MS)	Invited: Wang, Tiecheng Northwest A&F University, China
09:35-09:50	Biomarkers of DBP exposures and semen quality: Population-based evidence and possible mechanism of action	Invited: Zeng, Qiang Huazhong University of Science and Technology, China



Time	Topic	Speaker & Institution
09:50-10:05	Experimental and computational studies of transformation products of sulfachloropyridazine during water chloramination	Invited: Liu, Shaogang Guangxi Minzu University, China
10:05-10:30	Tea Break	
Moderator	Lu, Jinfeng; Wang, Tiecheng	
10:30-10:45	Solar-driven transformation behaviors and fate of novel halogenated bisphenols and parabens in environmental and engineered water systems	Invited: Feng, Mingbao Xiamen University, China
10:45-11:00	A flow-through Ti ₄ O ₇ membrane electrode for ballast water disinfection: Performance, mechanism, and comparison with Ti/RuO ₂ -IrO ₂ electrode	Invited: Zhang, Yunshu University of Shanghai for Science and Technology, China
11:00-11:15	Temporal cytotoxicity of disinfection byproducts on human uroepithelium and Chinese hamster ovary cells	Invited: Xie, Jiaojiao North China Electric Power University, China
11:15-11:30	Comparison of the inactivation of harmful protozoa in mariculture by UV/chlorine, UV/monochloramine, and UV/chlorine dioxide: Efficiency, mechanism and feasibility	Invited: Gan, Pin Guangxi University, China
11:30-11:45	Closing remarks	Li, Xingfang; Zhang, Xiangru

Session 31

Transport, Fate and Effects of Nanoparticles in Environment

Sep. 22 Afternoon Meeting Room 1

Co-chairs: Fan, Wenhong; Peijnenburg, Willie; Lynch, Iseult
Secretary: Wang, Ying; Wang, Xiangrui

Time	Topic	Speaker & Institution
Moderator	Fan, Wenhong; Lynch, Iseult	
13:30-13:50	Exploring the potential of in silico machine learning tools for the prediction of acute <i>Daphnia magna</i> nanotoxicity	Keynote: Peijnenburg, Willie University of Leiden, Netherlands
13:50-14:10	From joint nanotoxicology assessment to nano-bioremediation technology development	Keynote: Lin, Daohui Zhejiang University, China
14:10-14:25	Temporal dynamics of copper-based nanopesticide transfer and subsequent modulation of the interplay between host and microbiota across trophic levels	Invited: Qiu, Hao Shanghai Jiao Tong University, China
14:25-14:40	Quantitatively tracking the distribution of micro- and nanoplastics in ecosystem	Invited: Zhou, Xiaoxia Guangdong Academy of Sciences, China

Time	Topic	Speaker & Institution
14:40-14:55	Biodistribution and toxicity of chelating agent-modified nano zero-valent iron	Regular: Zhang, Ying Nankai University, China
14:55-15:10	Changes in gut microbiota structure: A potential pathway for silver nanoparticles to affect the host metabolism	Regular: Wang, Xinlei Nanjing University, China
15:10-15:30	Tea Break	
Moderator	Peijnenburg, Willie; Lin, Daohui	
15:30-15:50	Translating mechanistic understanding of nanomaterials impacts on living organisms into adverse outcome pathways	Keynote: Lynch, Iseult University of Birmingham, UK
15:50-16:10	The toxicity effect of engineered nanoparticles to aquatic environment	Keynote: Fan, Wenhong Beihang University, China
16:10-16:25	Bioavailability of Ag ₂ S nanoparticles to terrestrial plants: Relative importance of different pools	Invited: Dang, Fei Institute of Soil Science, CAS, China
16:25-16:40	Application of kinetic model to unveil the cellular fate of nanomaterials	Invited: Wang, Xiangrui Beihang University, China
16:40-16:55	Mitigation of cadmium and arsenic stress with copper oxide nanoparticles on rice plant growth and development	Regular: Liu, Jing Shandong University, China
16:55-17:10	Exploring the protective role of Beclin 1 against lung injury induced by nanometer zinc oxide based on the mitophagy pathway	Regular: Wang, Ruonan Chongqing Medical University, China
17:10-17:18	Application of machine learning in nanotoxicology: A critical review and perspective	Student: Zhou, Yunchi Beihang University, China
17:18-17:26	Insights into quantitative active species responsible for pollutant degradation	Student: Niu, Lin Chinese Research Academy of Environmental Sciences, China
17:26-17:34	Characterization of bioaerosol escape during solid waste disposal in rural areas of Northwest China	Student: Yu, Xuezheng Beihang University, China
17:34-17:42	Differential leaf-to-root movement, trophic transfer, and tissue-specific biodistribution of metal-based (ceria) and polymer-based (polystyrene) nanoparticles when present singly and in mixtures	Student: Chen, Yingxin Shanghai Jiao Tong University, China
17:42-17:50	The models of fate of nanoparticles in the environment	Student: Zhang, Ruiyu Beihang University, China
17:50-17:58	Foliar uptake pathway of nanoplastics and related mechanisms	Student: Li, Yuting Nankai University, China
17:58-18:06	The effects of MPs on the growth of Chinese cabbage in saline-alkali area	Student: Deng, Yuxin Beihang University, China

Session 32

Microplastics: Current Knowledge and Challenges

Sep. 23 Morning Meeting Room 17

Co-chairs: Wang, Lei; Ji, Rong; Wong, Charles; Kwon, Jung-Hwan; Zeng, Eddy Y.

Secretary: Su, Yu

Time	Topic	Speaker & Institution
Moderator	Zeng, Eddy Y.	
08:30-08:50	Standardizing environmental microplastics collection and measurement for regulatory and compliance monitoring	Keynote: Wong, Charles University of Winnipeg, Canada
08:50-09:05	Transport of plastic debris from land to deep seas	Invited: Mai, Lei Jinan University, China
09:05-09:17	Microplastic pollution assessment in surface water, sediments, and fish of River Ravi, Punjab, Pakistan	Regular: Aslam, Mehmood Nankai University, China
09:17-09:29	Seasonal microplastics and meiofauna distributions in estuarine sedimentary of Van Uc river, Vietnam	Regular: Mai, Huong University of Science and Technology of Ha Noi, Vietnam
09:29-09:41	Year-round spatial and temporal distribution of microplastics in water and sediments of an urban freshwater system (Jungnang Stream, Korea)	Regular: Pham, Dat Thanh Korea University, South Korea
09:41-09:49	Evaluation of influential meteorological and crop factors on historical mulch-related microplastic pollution in China using machine learning techniques	Student: Chen, Zheng Tongji University, China
09:49-09:57	Pollution characterization of microplastics in urban rivers using laser direct infrared imaging and multidimensional ecological risk assessment	Student: Hao Yang Tongji University, China
09:57-10:05	Estimation of microplastics load to the Han River via highway and bridge runoff	Student: Jeon, In ae Korea University, South Korea
10:05-10:30	Tea Break	
Moderator	Wong, Charles	
10:30-10:50	Insights into the environmental behavior of para-phenylenediamines and 6PPD-quinone in high-cold climate	Keynote: Wang, Xiaoping Institute of Tibetan Plateau Research, CAS, China
10:50-11:05	Decoding bioplastics breakdown in natural soils	Invited: Li, Juying Shenzhen University, China
11:05-11:17	Photoaging behavior and eco-environmental effects of typical micro-/nanoplastics	Regular: Wang, Chao Nanjing University, China
11:17-11:29	Effects of erythromycin on biofilm formation and resistance mutation of Escherichia coli on pristine and UV-aged polystyrene microplastics	Regular: Wang, Dali Jinan University, China

Time	Topic	Speaker & Institution
11:29-11:37	Effects of biofilm on triclosan adsorption behavior and microbial community of microplastics	Student: Huo, Jinfen Nankai University, China

Sep. 23 Afternoon Meeting Room 17

Co-chairs: Wang, Lei; Ji, Rong; Wong, Charles; Kwon, Jung-Hwan; Zeng, Eddy Y.

Secretary: Su, Yu

Time	Topic	Speaker & Institution
Moderator	Ji, Rong	
13:30-13:50	Sequential analysis of microplastics using Fourier-transform infrared spectroscopy and pyrolysis gas chromatography-mass spectrometry	Keynote: Kwon, Jung-Hwan Korea University, South Korea
13:50-14:05	Ascertaining appropriate measuring methods to determine tire wear particle pollution on driving school grounds in China	Invited: Luo, Zhuaxi Huaqiao University, China
14:05-14:20	On-chip imaging enables fast quantification of microplastic fibers released to water	Invited: Su, Yu Southeast University, China
14:20-14:32	Definitions, instrumentation and robust analysis methods: Current and future requirements for nano- and microplastics research	Regular: Jämting, Åsa National Measurement Institute Australia, Australia
14:32-14:44	Accurate identification of irregularly shaped micro and nanoplastic (MNP) fragments with sub-micron infrared spectroscopic technique	Regular: Lo, Michael K. F. Photothermal Spectroscopy Corp, USA
14:44-14:56	A robust method for tire wear microplastics quantification based on pyrolysis gas chromatography mass spectrometry: From batch treads rubber composition survey to multi-scenario samples analysis	Regular: Ma, Yunfei Nankai University, China
14:56-15:04	Single-particle sensing of micro- and nano-plastics using conical nanopore	Student: Li, Hongshuang East China University of Science and Technology, China
15:04-15:30	Tea Break	
Moderator	Kwon, Jung-Hwan	
15:30-15:50	Research on the toxic effects and mitigation mechanisms of nanoplastics	Keynote: Zhao, Xiaoli Chinese Research Academy of Environmental Sciences, China
15:50-16:10	Biaccumulation of microplastics: From microorganism to mammals	Keynote: Miao, Aijun Nanjing University, China
16:10-16:25	Mask on beauty: Mask wearers at risks of inhaling abundant respirable hazards from leave-on facial cosmetics	Invited: Han, Jie Xi'an Jiaotong University, China



Time	Topic	Speaker & Institution
16:25-16:37	MNPs/6PPD combined exposure induced visual developmental toxicity and underlying mechanisms in zebrafish	Regular: Chen, Jiangfei Wenzhou Medical University, China
16:37-16:49	Discussion on toxic effects and mechanisms of acetochlor on parental and offspring zebrafish in the presence of microplastics	Regular: Liang, Hongwu Inner Mongolia University, China
16:49-17:01	Nanoplastics induce more severe pulmonary fibrosis than microplastics in mice	Regular: Xiao, Fang Central South University, China
17:01-17:09	Next generation human risk assessment of micro/nanoplastics: Applications of the aggregate exposure pathway and adverse outcome pathway	Student: Chong, Chaein University of Seoul, South Korea
17:09-17:17	A comprehensive analysis of tyre additive chemicals in the Moreton Bay catchment	Student: Kaur, Simran The University of Queensland, Australia
17:17-17:25	Assessing the impact of virgin and weathered solid microplastics on zebrafish larvae: Oxidative stress, DNA damage, accumulation and developmental toxicity	Student: Mansuri, Abdulkhalik Ahmedbad University, India

Sep. 24 Morning Meeting Room 17

Co-chairs: Wang, Lei; Ji, Rong; Wong, Charles; Kwon, Jung-Hwan; Zeng, Eddy Y.
Secretary: Su, Yu

Time	Topic	Speaker & Institution
Moderator	Wang, Lei	
08:30-08:50	Reliability of methods and environmental implications of test materials in microplastic and nanoplastic study	Keynote: Shi, Huahong East China Normal University, China
08:50-09:05	Microplastics result in less mineral protection of soil carbon and higher CO ₂ emissions	Invited: Wang, Jie China Agricultural University, China
09:05-09:17	Sample preparation for microplastics by the Agilent 8700 laser direct infrared (LDIR) chemical imaging system: Best practice	Sponsor: Alwan, Wesam Agilent Technologies, USA
09:17-09:29	Estimating microplastics' storage in the 'skin' of global freshwater lakes	Regular: Dong, Huike Institute of Tibetan Plateau Research, CAS, China
09:29-09:37	Developing a method to extract, detect and quantify small antifouling paint particles in sediments using accelerated solvent extraction and pyrolysis-gas chromatography-mass spectrometry	Student: De la Torre, Gabriel The University of Queensland, Australia

Time	Topic	Speaker & Institution
09:37-09:45	Effect of microplastics on nitrogen transformation in agricultural soils	Student: Ma, Xiaofang Institute of Soil Science, CAS, China
09:45-09:53	Machine learning analysis and prediction of microplastics on soil properties based on XGBoost	Student: Xu, Xudong Nankai University, China
09:53-10:01	Ferrihydrite regulated tire-wear microplastics biofilm for enhanced nitrogen transformation in surface water	Student: Zheng, Zhijie Nankai University, China
10:01-10:30	Tea Break	
Moderator	Miao, Aijun	
10:30-10:50	Environmental exposure pathways of microplastics: Primary and risky	Keynote: Wang, Lei Nankai University, China
10:50-11:05	Machine learning-based evaluation for feature importance of microplastic exposure on freshwater algae	Invited: Liu, Chunguang Nankai University, China
11:05-11:17	Do microplastic analysis methods affect our understanding of microplastics in the environment?	Regular: Liu, Yuanli Aalborg University, Denmark
11:17-11:29	Emissions, distribution, and transport of tire wear particles (TWPs) in Tibet, China: Invisible but critical	Regular: Niu, Xuerui Institute of Tibetan Plateau Research, CAS, China
11:29-11:37	Transfer behavior, health risks, and research challenges of microplastics in asexually propagated crops	Student: Zhang, Chen Chinese Academy of Agricultural Sciences, China
11:37-11:45	Effects of microplastics on terrestrial plants: A study based on meta-analysis and machine learning	Student: Zhao, Xu Nankai University, China
11:45-11:53	Retention characteristics and influential factors of microplastics on the leaves of typical urban greening trees	Student: Zhao, Ziqing Nankai University, China

Session 33

Enhancing Science and Policy Link for New Pollutants Regulation

Sep. 22 Afternoon Meeting Room 3

Co-chairs: Lin, Yan; Sun, Yangzhao; Thomas, Kevin
Secretary: Shi, Xuan

Time	Topic	Speaker & Institution
Moderator	Thomas, Kevin	
13:30-13:55	From science-policy interface to science-policy panel: The United Nations' strengthening of the sustainable life cycle management of chemicals	Keynote: Li, Jinhui Tsinghua University, China

Time	Topic	Speaker & Institution
13:55-14:15	Thoughts and suggestions on the experience in fulfilling the Sotckholm Convention	Invited: Peng, Zheng Foreign Environmental Cooperation Center of Ministry of Ecology and Environment, China
14:15-14:35	Reflections on governance planning and management of emerging pollutants	Invited: Cao, Guozhi Chinese academy of environmental planning, China
14:35-14:55	Policies and legislation for emerging contaminants	Invited: Tortajada, Cecilia University of Glasgow, UK
14:55-15:30	Tea Break	
Moderator	Sun, Yangzhao	
15:30-15:55	Risk assessment for biopesticides	Keynote: Arts, Gertie Wageningen University and Research, The Netherlands
15:55-16:15	River health-reflections on a river, its catchment history and dealing with shifting baseline syndrome	Invited: Reichelt-Brushett, Amanda Southern Cross University, Australia
16:15-16:30	A comprehensive risk assessment of neonicotinoid exposure in the Yangtze River Basin using an integrated approach: Implications for human and ecological health	Student: Tsegay Hailu, Gedion Tongji University, China
16:30-16:40	Break	
Moderator	Lin, Yan	
16:40-17:05	Towards a sustainable use of plastics in agriculture: State of knowledge and policy perspectives	Keynote: Nizzetto, Luca Norwegian Institute for Water Research, Norway
17:05-17:20	Municipal plastic waste disposal and reduction potential of management transformation: Effects of economic development, landfill and recycling in China cities	Student: Chen, Xingmin Nankai University, China
17:20-17:35	Long-term accumulation and potential environmental and health impact of chemicals of concern in plastics and their wastes from the plastics recycling perspective	Student: Chen, Jiazhe Peking University, China

Session 34

ACS All-Star Academy: Lighting Green Future, Empowering Academic Growth

Sep. 23 Morning Meeting Room 19

Co-chair: Tegen, Sarah

Secretary: Qiao, Yinghong

Time	Topic	Speaker & Institution
Moderator	Jiang, Xiaogang (Managing Editor)	
09:00-09:10	Weclome Speech	Invited: Tegen, Sarah (Senior Vice President and Chief Publishing Officer) ACS Publications, USA
09:10-09:40	Carbon Neutrality & New Pollutants Control	Invited: Jiang, Guibin (Editor-in-Chief of Environment & Health Associate Editor of ES&T) Research Center for Eco-Environmental Sciences, CAS, China
09:40-10:10	Path to Academic Career Success	Invited: Li, Xiang-Dong (Deputy Editor of ACS Environmental Au Associate Editor of ES&T) The Hong Kong Polytechnic University, China
10:10-10:30	Tea Break	
Moderator	Jiang, Xiaogang (Managing Editor)	
10:30-11:00	Research to improve drinking water safety, a crooked career path, and advice for publishing in ES&T	Invited: Richardson, Susan D. (Executive Editor of ES&T) University of South Carolina, USA
Moderator	Tegen, Sarah	
11:00-12:00	Panel Discussion (Panel Host: Tegen, Sarah)	Brooks, Bryan W. (Editor-in-Chief of ES&T Letters) Baylor University, USA
		Jiang, Guibin (Editor-in-Chief of Environment & Health Associate Editor of ES&T) Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, China
		Invited: Li, Xiang-Dong (Deputy Editor of ACS Environmental Au Associate Editor of ES&T) The Hong Kong Polytechnic University, China
		Invited: Richardson, Susan D. (Executive Editor of ES&T) University of South Carolina, US



Time	Topic	Speaker & Institution
11:00-12:00	Panel Discussion (Panel Host: Tegen, Sarah)	Snyder, Shane A. (Editor-in-Chief of ACS ES&T Water) Georgia Institute of Technology, US
		Tegen, Sarah (Senior Vice President and Chief Publishing Officer) ACS Publications, USA

Session 35

RSC Forum: Environmental Solutions for Planetary Health

Sep. 23 Afternoon Meeting Room 19

Co-chairs: Cai, Zongwei; Thoburn, Grace; Song, Guanqun
Secretary: Yu, Molly; Liu Hongwan

Time	Topic	Speaker & Institution
Moderator	Thoburn, Grace	
13:30-14:00	Mass spectrometry-based investigation of environmental new pollutants and their health effects	Invited: Cai, Zongwei Hong Kong Baptist University, China
14:00-14:30	Screening global industrial chemical inventories for novel substances of environmental concern	Invited: Muir, Derek University of Guelph, Canada
14:30-15:00	Leveraging nanomaterials safely and sustainably for food and water security	Invited: Lynch, Iseult University of Birmingham, UK
15:00-15:30	Tea Break	
Moderator	Thoburn, Grace	
15:30-16:00	Toxicological study of human exposure to mixtures of chemicals: Challenges and approaches	Invited: Fang, Mingliang Fudan University, China
16:00-16:30	Proxies of the ecoexposome	Invited: Escher, Beate Helmholtz Centre for Environmental Research, Germany
16:30-17:00	Emission and long-time aging of full-volatility organics from wildfires	Invited: Wang, Shuxiao Tsinghua University, China

Session 36

Establishment of A Science-Policy Panel to Contribute Further to the Sound Management of Chemicals, Waste, and Pollution Prevention

Sep. 24 Morning Meeting Room 13

Time	Topic	Speaker & Institution
Moderator	Bloor, Michelle, Koppel, Darren, Reichelt-Brushett, Amanda	
08:30-08:45	UNEP Science-policy panel for chemicals, waste, and pollution prevention and the SETAC CheM Panel	Bloor, Michelle University of Glasgow, UK
08:45-09:00	Overview of the SETAC Asia Pacific's chemicals management horizon scanning	Leung, Mei Yee Kenneth City University of Hong Kong, China
09:00-10:00	Exploring Asia Pacific's chemicals management priorities	Koppel, Darren Australian Institute of Marine Science, Australia
10:00-10:30	Tea Break	
10:30-11:15	Achieving the current and future chemicals management needs in Asia Pacific	Reichelt-Brushett, Amanda Southern Cross University, Australia
11:15-11:25	Plenary and the new steps	Bloor, Michelle University of Glasgow, UK

Session 37

Persistence Science: Science and Regulatory Challenge for Chemical Management

Sep. 24 Morning Meeting Room 6

Co-chairs: Ott, Amelie; Chen, Huiting; Rong, Zhiyi

Secretary: Han, Biyao

Time	Topic	Speaker & Institution
Moderator	Ott, Amelie; Rong, Zhiyi	
09:30-09:35	Weclome remark	Ott, Amelie (steer member of PSIG) Rong, Zhiyi (steerm member of PSIG) Chen, Huiting (member of PSIG) Han, Biyao (member of PSIG) SETAC PSIG
09:35-09:50	Introduction of Persistence Science Interesting Group	Invited: Ott, Amelie (environmental science director of ICCS) International Collaboration of Cosmetic Safety
09:50-10:05	Key global persistence research needs 1. polymer and microplastics 2. method standardization 3. transformation products 4. analysis and identification 5. microbial community	Invited: Ott, Amelie (environmental science director of ICCS) Rong, Zhiyi (technical fellow, Lubrizol Corp.) International Collaboration of Cosmetic Safety Lubrizol Corporation
10:05-10:30	Tea Break	
10:30-10:55	Highlighted development in persistence science 1. integrated persistence assessment tool 2. enhanced biodegradation test method 3. marine biodegradation study 4. regulatory challenge on persistence assessment 5. PFAS environmental behavior ...	Invited: Ott, Amelie (environmental science director of ICCS) Chen, Huiting (environmental scientist, Exxonmobil Corp.) Rong, Zhiyi (technical fellow, Lubrizol Corp.) International Collaboration of Cosmetic Safety Exxonmobil Corporation Lubrizol Corporation
10:55-11:10	Open discussion and interaction on persistence science topics	Invited: Ott, Amelie (environmental science director of ICCS) Chen, Huiting (environmental scientist, Exxonmobil Corp.) Rong, Zhiyi (technical fellow, Lubrizol Corp.) Han, Biyao (ecotoxicologist, Exxonmobil Corp.) International Collaboration of Cosmetic Safety Exxonmobil Corporation Lubrizol Corporation

Poster Program

No	Poster ID	Title	Presenter & Institute
1	10051	Bayesnac: An R package for Cr modelling and estimation of toxicity metrics	Fisher, Rebecca Australian Institute of Marine Science, Crawley, Australia
2	10074	The occurrence of "yellowing" phenomenon and its main driving factors after the remediation of chromium (Cr)-contaminated soils	Li, Haokai Tongji University, China
3	10075	Quantifying influence factors for multi-metal stabilization: A machine learning approach	Zhao, Wenchu Tongji University, China
4	10076	Transpharm: A comparative study of the environmental risk of ciprofloxacin and its environmentally degradable alternative ciprofloxacin-hemi: From human to river	Zhang, Qiyun Ghent University, Belgium
5	10088	Evaluation of mass spectral acquisition strategies for ecotoxicity-based feature prioritization by MS2Tox in non-target water analysis	Rian, May Britt ACES, Stockholm University, Sweden
6	10116	Digital tools to automate environmental risk assessment for plant protect products	Ma, Jing Tobias Gutgesell, Germany
7	10126	Toxicity of conventional and biodegradable plastic additives on soil fauna: A case study with the root lesion nematode pratylenchus neglectus	Viljoen, Samantha Murdoch University, Australia
8	10127	Evaluation of the health risk using multi-pollutant air quality health index: Case study in Tianjin, China	Wang, Yu Beijing University of Technology, China
9	10130	Single-cell metabolomics uncovers the toxic mechanism of HFPO-DA exposure in embryonic stem cells	Liu, Yuanxing Beijing University of Technology, China
10	10146	The degradation mechanism of imidacloprid in bio-electrochemical system enhanced by iron-carbon composite material	Zhang, Ru Tongji University, China
11	10158	Ecological status assessment in large watersheds through multispecies edna sequencing and environmental monitoring	Wang, Xusheng Tongji University, China
12	10163	The stable soil organic carbon pool controls the burden of persistent organic pollutants in background soils	Wang, Yawei Research Center for Eco-Environmental Sciences, CAS, China
13	10168	Toxic effects and mechanisms of tri-n-butyl phosphate on the development of zebrafish embryos	Liu, Chunsheng China University of Geosciences, China
14	10176	Analysis of environmental RNA in fish toxicity test with pyrene: A non-invasive approach	Hiki, Kyoshiro National Institute for Environmental Studies, Japan
15	10201	A review on the occurrence and ecotoxicity of biodegradable microplastics in aquatic environments: New cause for concern	Liu, Zhiquan Hangzhou Normal University, China



No	Poster ID	Title	Presenter & Institute
16	10210	Developing acute to chronic ratios (ACRs) for understanding the ecotoxic effects of surfactants	Xu, Baile Unilever, UK
17	10217	Investigations of the relationship among growth, shells formation and carbon sequestration of marine mussels	Chai, Haozhe Zhejiang University, China
18	10226	Characteristics of nitrogen-containing organics in PM _{2.5} in ÜRÜMQI, northwestern China–differential impacts of combustion of fresh and aged biomass materials	Ma, Yijia Shanghai Jiao Tong University, China
19	10232	Investigation of the effect of perfluorooctanoic acid (PFOA) on nitrosative stress in MCF-7 cell based on scanning electrochemical microscopy (SECM) technique	Wu, Jiening Beijing University of Tecnology, China
20	10235	Analysis for vertical profiles of polycyclic aromatic hydrocarbons in the Sea of Japan and Arctic Ocean during 2020-2023	Ozawa, Mone Kanazawa University, Japan
21	10238	Environmental concentrations S-6PPD-quinone caused more serious hepatotoxicity than R-enantiomer and racemate in Oncorhynchus mykiss	Di, Shanshan Zhejiang Academy of Agricultural Sciences, China
22	10255	Novel field evidence for constraints of nearly dry and weakly acidic aerosol conditions on the formation of organosulfates	Yang, Ting Shanghai Jiaotong University, China
23	10257	Diurnal variations of aminiums in PM _{2.5} during winter in Shanghai: Implication for significant anthropogenic origin and differential formation mechanisms	Gui, Lin Shanghai Jiao Tong University, China
24	10259	Applying the principles of grouping and read-across to different lines of evidence to support the development of an ecotoxicity testing strategy for hydrocarbon UVCBs	Chen, Huiting ExxonMobil (China) Investment Co., Ltd, China
25	10285	Effects of different forms of lithium on reproductive toxicity in mice	Peng, Qingyu Shanghai University, China
26	10286	Responses and molecular mechanisms of nuclear receptor HR96 to DSP toxins in the mussel Perna viridis	Yuan, Kuan-Kuan Jinan University, China
27	10317	Variation factor of polycyclic aromatic hydrocarbons in surface seawater in the Arctic Ocean during 2019–2022	Matsunaka, Tetsuya Kanazawa University, Japan
28	10326	New approach methodology in ecotoxicology: Advances and case study in microalgal bioassays for environmental risk assessments	Lee, Junghyun Kongju National University, Korea
29	10333	Tissue distribution of emerging per- and polyfluoroalkyl substances in multi-species wild fishes from Qiantang River, East China: Comparison of 6:2 Cl-PFESA With PFOS	Hu, Kejun Hangzhou Center for Disease Control and Prevention, China
30	10342	Risk assessment of the lipid metabolism-disrupting effects of nitro-PAHs	Ning, Xia Shanxi University, China
31	10344	Microalgae enhances the adaptability of epiphytic bacteria to sulfamethoxazole stress and proliferation of antibiotic resistance genes mediated by integron	Sun, Shaojing Hebei University of Engineering, China
32	10366	Laboratory feeding studies to derive appropriate correction factors for avian higher tier risk assessment	Dittrich, Ralf Eurofins MITOX B.V., Netherlands

No	Poster ID	Title	Presenter & Institute
33	10368	Identification of unmonitored toxic substances in the environmental samples using effect-directed analysis combined with nontarget screening: A review	Hong, Seongjin Chungnam National University, Korea
34	10388	Event driven taxonomy (EDT): Deep learning(DL) links effect-directed analysis (EDA) and non-target analysis (NTA)	You, Jing Jinan University, China
35	10390	Neurotoxicity of β -citronellol induced by KYN to 3-HK metabolic activation	Kim, Suhyun Korea University, Korea
36	10405	Detection of estrogenic activities in Laguna Lake and its tributaries	Baluyot, Jobriell University of the Philippines , Philippines
37	10418	Mitigation effects and microbial mechanism of two ecological earthworms on the uptake of chlortetracycline and antibiotic resistance genes in lettuce	Zhao, Lixia Agro-Environmental Protection Institute, Ministry of Agriculture and Rural Affairs, China
38	10425	Persulfate activation with biochar supported nanoscale zero-valent iron: Engineering application for effective degradation of NCB in soil	Guo, Yang Nanjing institute of environmental science, China
39	10428	Metabolic activities in rainbow trout (Oncorhynchus mykiss) s9 fractions from liver and extrahepatic organs as an alternative in vitro ecotoxicity assessment approach	Runge, Dieter Primacyt GmbH, Germany
40	10445	Molecular toxicity identification and evaluation (mTIE) applied in diagnosing the developmental toxicity of organic micropollutants in the Qiantang River	Wan, Qilin China Jiliang University, China
41	10450	Joint regional activities for an improved assessment of chemical pollution in the marine environment using biological effects approach - Baltic Sea case study	Pouch, Anna Institute of Oceanology Polish Academy of Sciences, Poland
42	10456	Towards one health: Case studies to develop & test an integrated animal-free next generation human and environmental safety framework for cosmetics	Ott, Amelie International Collaboration on Cosmetics Safety (ICCS), USA
43	10466	An acid/alkaline digestion method for efficient microplastic extraction from wastewaters and other environmental matrices	Wong, Charles Southern California Coastal Water Research Project Authority, USA
44	10469	Differential acute lethality of the tire-derived chemical 6PPD-quinone to native Japanese salmonids	Hiki, Kyoshiro National Institute for Environmental Studies, Japan
45	10495	Trophic level bioaccumulation of cadmium in macrobiota of the geothermal Te Arawa Lakes, New Zealand	Hartland, Adam Waikato University, New Zealand
46	10496	Occurrence characteristics and endocrine disrupting effects of per- and polyfluoroalkyl pollutants in amphibians in Chaohu Lake	Shu, Yilin Anhui Normal University, China
47	10506	A high-throughput analysis workflow to characterize pharmaceuticals and personal care products in aquatic environment	Jia, Shenglan Nanyang Technological University, Singapore



No	Poster ID	Title	Presenter & Institute
48	10527	Speciation, distribution and relationship of zinc and cadmium in summer coastal seawater of northern China	Liang, Yan Yantai Institute of Coastal Zone Research, CAS, China
49	10591	Mechanism of resistance to the chiral antibiotic ofloxacin by <i>P. aeruginosa</i>	Wang, Jingjing Nankai University, China
50	10599	Particle morphology and soil properties affect the retention of copper oxide nanoparticles in agricultural soils	Li, Shiwei University of Jinan, China
51	10603	Suppressing effects of perfluoro/polyfluoroalkyl substances on forskolin-induced syncytialization in BeWo Cells	Liu, Jiaying China Agricultural University, China
52	10644	Effects of polystyrene nanoplastics on apoptosis, digestive enzymes, and intestinal histological structure and flora of swamp eel (<i>Monopterus albus</i>)	Zhou, Zihan Centre for Marine and Coastal Studies, University Sains Malaysia, Malaysia
53	10652	The influence of humid heat on morbidity of megacity Shanghai in China	Liang, Chen Fudan University, China
54	10687	Metabolomics approach reveals the health risks associated with chlorinated antibacterial agent exposure	Zhang, Hongna Qingdao University, China
55	10707	Gaseous elemental mercury exchange fluxes over air-soil interfaces in the wetland of Eastern China	Zhou, Huang Nanjing University, China
56	10738	Effects of microplastics and organic fertilizer regulation on soil dissolved organic matter evolution	Liu, Le Nankai University, China
57	10746	Determination of the optimal sample size for medaka fish behavioral assessment by the bootstrap method	Takai, Yuki Kyushu University, Japan
58	10748	Small-size polyethylene and polylactic microplastic alterations on soil aggregate formation with soil sterilization	Liu, Le Nankai University, China
59	10759	Emerging disinfection byproducts 3-bromine carbazole induces cardiac developmental toxicity via aryl hydrocarbon receptor activation in zebrafish	Sun, Hongjie Zhejiang Normal University, China
60	10766	Analysis of the correlation between air pollution and birth defects: Based on a distribution-lag nonlinear model	Zhang, Yingying Shanxi Medical University, China
61	10771	Fine particulate matter (PM _{2.5}) exposure affects the health of mice with a sex-dependent property	Sang, Nan Shanxi University, China
62	10789	Ambient temperature and humidity exposure associated with the risk of spontaneous abortion in early pregnancy	Qing, Xu Nanjing Medical University, Nanjing Women and Children's Healthcare Hospital, China
63	10794	Hexafluoropropylene oxide trimer acid (HFPO-TA) disrupts sex differentiation of zebrafish (<i>Danio rerio</i>) via an epigenetic mechanism of DNA methylation	Ding, Guanghui Dalian Maritime University, China
64	10809	Quantitative screening of environmental liquid crystal monomers (LCMs) in human plasma and their neurotoxic effects in cultured neurons	Chang, Eunice Eun-Seo The Hong Kong Polytechnic University, China

No	Poster ID	Title	Presenter & Institute
65	10811	Placental transfer of poly- and perfluoroalkyl substances bisphenol diglycidyl ethers (Bdges) and its association with maternal health in a population in south of China	Zhang, Bo Sun Yat-Sen University, China
66	10812	Advanced CO ₂ capture using mesoporous alumina enhanced with alkaline earth metals	Meng, Fanwei Beijing University of Technology, China
67	10813	The silent threat: PPDs and PPDQs in healthy and S-NAFLD Cohorts	Song, Shiming Sun Yat-Sen University, China
68	10816	Emerging contaminants in tap water: Treatment challenges and health risks	Song, Shiming Sun Yat-Sen University, China
69	10818	Study on hydrophobicity quantification method and sorption prediction model of dissolved organic matter based on aqueous Two-Phase system	Liu, Kun Jiangsu Environmental Engineering Technology Co., Ltd, China
70	10827	Assessment of contaminants in an Anthropogenic-impacted watershed using Non-targeted screening and in vitro bioassays	Li, Caixia Nanyang Environment and Water Research Institute, Singapore
71	10830	Fate of 'Forever Chemicals' in the global cryosphere	Zhou, Yunqiao China Agricultural University, China
72	10840	Key consideration and practice on polymer biodegradation study	Rong, Zhi-Yi Lubrizol Corporation (Shanghai), China
73	10841	Environmental risk assessment of tailings ponds in China	Ling, Junhong Chinese Research Academy of Environmental Sciences, China
74	10843	Comparative analysis of dissolved oxygen predictions in the Yellow River basin using different environmental predictors based on machine Learning	Liu, Lingling Chinese Research Academy of Environmental Sciences, China
75	10904	The adsorption of 15 kinds of PAHs on microplastics and the simulated desorption in the simulated digestive system	Hou, Guoqing Beijing Normal University, China
76	10925	Association of air pollutant and non-optimal temperature exposure with placental abruption: A nested case-control study based on 0.95 million of birth registrations in Chongqing	Chen, Qing Army Medical University, China
77	10927	Evidence of strobilurin fungicides and their metabolites in Dongjiang River ecosystem, Southern China: Bioaccumulation and ecological risks	Zhao, Yanan Muyuan Laboratory, China
78	10930	Response of rice seed endophytic fungi to Hg-contamination	Zhao, Liangzhou Kunming University of Science and Technology, China
79	10931	The diversity and functional characteristics of seed endophytic bacteria of <i>imperata cylindrica</i> , a pioneer plant of abandoned mine lands	Mao, Wenqin Kunming University of Science and Technology, China



No	Poster ID	Title	Presenter & Institute
80	10936	The response of rice rhizosphere bacterial community to Cadmium-Contamination	Li, Haiyan Kunming University of Science and Technology, China
81	10954	Exposure levels of BPA in overweight and obese individuals and their relationship with metabolic disorders	Zhao, Qing Sun Yat-Sen University, China
82	10956	Exposure to per- and polyfluoroalkyl substances, neonicotinoid insecticides, benzotriazoles and benzothiazoles: Associations with human non-alcoholic fatty liver disease	Qin, Ronghua Sun Yat-Sen University, China
83	10960	Effects of eutrophication on the production and bioavailability of methylmercury in the surface water of reservoirs on a subtropical plateau	Li, Qihua Guizhou Normal University, China
84	10976	Monomethylmercury bioaccumulation in macrobiota of a complex group of geothermal lakes in New Zealand	Ling, Nicholas Waikato University, New Zealand
85	10994	An efficient and rapid method for detecting 41 primary aromatic amine compounds in serum and application	He, Le Sun Yat-Sen University, China
86	11000	Maternal and infant exposure to Polycyclic Aromatic Hydrocarbons (PAHs) and associations with congenital heart disease	Gao, Chongjing Zhejiang Wanli University, China
87	11016	Occurrence and removal of microplastics in different processes of the landfill leachate system	Wang, Junyu Chinese Research Academy of Environmental Sciences, China
88	11026	Rhizosphere fungal community of rice from various cadmium-contaminated paddies	Li, Haiyan Kunming University of Science and Technology, China
89	11027	Sex- and age-specific association between ethylene oxide exposure and serum sex steroid hormones: Evidence from NHANES 2013–2016	Yan, Wei Xuzhou Medical University, China
90	11094	Transgenerational toxicity and risk assessment of neonicotinoid insecticides on natural enemy insects	Wu, Chi Chinese Academy of Agricultural Sciences, China
91	90016	Metallic contaminants influence the outcomes of male-male competition during precopulatory intrasexual selection	Patrick, Rosemary The University of Newcastle, Australia
92	90043	Effects of emerging pollutant mixtures: Assessing the impact of caffeine and ionic liquid combinations on cyanobacteria and diatom species	Sharma, Lilianna Institute of Oceanology, Polish Academy of Sciences, Poland
93	90054	Identification of toxicants in treated flowback and produced water from shale gas exploitation using effect-directed analysis combined with nontarget screening	He, Liwei Jinan University, China
94	90078	Suspect and nontarget screening of organic pollutants in purified-, bottled-, and tap Water, using liquid chromatography-high resolution mass spectrometry: Involving flame retardants, plasticizers, etc	Shen, Kailin Changwon National University, Korea
95	90080	Exploring the use of blood microsampling devices for chemical exposomics	Thiele, Solveig Stockholm University, Sweden

No	Poster ID	Title	Presenter & Institute
96	90093	Development of the imidacloprid temporal response surface and ramifications for aquatic ecosystems in the Great Barrier Reef catchment area	Neelamraju, Cath University of Queensland, Australia
97	90097	Spatial distribution of antibiotics and antibiotic resistance genes and microbial communities in the Yangtze River	Bu, Chengcheng Tongji University, China
98	90098	Synthesis and properties of simultaneously visualizing and quantifying silver nanoparticles	Zhao, Minyi Beihang University, China
99	90100	Elucidating the photodegradation mechanism of ametryn using Compound-Specific Stable Isotope Analysis (CSIA)	Yu, Jinpeng Tongji University, China
100	90148	Size matters less? Exploring the intricacies of polystyrene nanoplastic toxicity in zebrafish	Duan, Xiaoyu University of Southern Denmark, Denmark
101	90173	“Occurrence and time trends in color developers including bisphenols in thermal receipt papers collected in 2015 and 2023 in Korea”	Shin, Mangong Hanyang University, Korea
102	90179	Membrane receptor-mediated thyroid hormone disrupting effects and their mechanism of action by organophosphate esters	Yang, Jiangtao Beijing Normal University, China
103	90206	Ornamental houseplants as potential biosamplers for indoor pollution of organophosphorus flame retardants	Zhang, Zihao Dalian University of Technology, China
104	90207	Non-Target screening of persistent chemicals in Swedish waters based on wastewater persistency	Rian, May Britt Stockholm University, Sweden
105	90214	Health benefits and scenario projections of PM _{2.5} and O ₃ pollution in Beijing-Tianjin-Hebei, China	Wang, Yucong Hebei University of Engineering, China
106	90216	Seawater quality criteria and ecotoxicity risk assessment of zinc oxide nanoparticles based on data of resident marine organisms in China	Xu, Jia-yin Xiamen University, China
107	90231	Quantitative insights into Phosphate-Enhanced lead immobilization on goethite	Lian, Wanli Agro-Environmental Protection Institute, China
108	90233	Biotransformation and toxicity of SMX in phycosphere: Importance of SMX exposure ways in aquatic ecosystems	Geng, Linlin Hebei University of Engineering, China
109	90234	Synthesis of Dual-Labeled Core-Shell micro/nanoplastics and their behavior and applications in complex environmental systems	Ren, Bo BeiHang University, China
110	90242	Identifying candidate persistent, mobile and toxic (PMT) and very persistent and very mobile (vPvM) substances based on machine learning approaches	Han, Min Guangzhou Institute of Geochemistry, CAS, China
111	90258	The effect of water hardness on the toxicity of zebrafish embryo during exposure to pesticides transformation products: A case study with 3-phenoxybenzoic acid	Gong, Honghong Zhejiang University of Technology, China



No	Poster ID	Title	Presenter & Institute
112	90278	3,3',5,5'-tetrabromobiphenyl (BB-80) and its hydroxylation product (OH-BB-80) mediate immunotoxicity and inhibit embryonic development in zebrafish (<i>Danio rerio</i>) via the TLR4/NF-κB signaling pathway	Shao, Yongjian Hangzhou Normal University, China
113	90305	Effects of carbamazepine on the central nervous system of zebrafish at human therapeutic plasma levels	Yang, Weiwei Tongji University, China
114	90308	An integrated multi-omics approach demonstrates environmentally relevant concentration of octocrylene inhibits the growth of <i>tetrademus obliquus</i> via affecting photosynthesis and metabolism	Hu, Junjie Guangxi University, China
115	90328	Spatiotemporal distribution of polycyclic aromatic hydrocarbons around the Kuroshio current area	Zhang, Dian Kanazawa University, Japan
116	90329	Seawater quality criteria and ecotoxicity risk assessment of zinc oxide nanoparticles based on data of resident marine organisms in China	Xu, Jia-yin Xiamen University, China
117	90335	Mouse embryonic stem cells: A novel model to evaluate the neurodevelopmental toxicity of perfluorinated iodine alkanes	Ren, Zhihua Shanxi University, China
118	90347	Identification of exhaled VOCs biomarkers for human sub-health status using a de-confounding factors coupled with machine learning method	Tan, Zhibin Guangdong University of Technology, China
119	90370	Assessing fatty acid and sterol biomarkers as tracers for identifying organic matter pollution sources in the sediments of southeast ports of Korean peninsula, South Korea	Evrumova, Anastasia Hanyang University, Korea
120	90374	The distribution of nanosilver in water-sediment and its toxicity to chironomid larvae	Duan, Yujia Beihang University, China
121	90401	Predicting sedimentary toxicity using DGT-Induced bioavailable metals within a Toxicokinetic-Toxicodynamic (TKTD) model framework	Xiao, WenZe Xiamen University, China
122	90404	Developing a Py-GC/MS Analysis Method for comprehensive analysis of PFAS	Park, Hee-Jin Korea University, Korea
123	90424	An integrated approach for in vitro to in vivo extrapolation of multiple toxicities for plastic additives	Yang, Jingyuan Dalian University of Technology, China
124	90429	Screening of tetrabromobisphenol A degrading bacteria and degradation effect study	Zeng, Haoyu Tongji University, China
125	90435	A novel heterogeneous reactivity-directed analysis approach for the identification of toxic disinfection byproducts in drinking water	Chen, Yuemei Sun Yat-Sen University, China
126	90443	Characteristics of antibiotic resistance genes in river section and sewage discharge outlets in downstream of the Yangtze River	Jia, Feiyue Tongji University, China
127	90444	Application of Few-shot learning based on SMOTE Approach: Predicting toxicity of nanoparticles in natural aquatic environment	Dong, Jinchu Beihang University, China

No	Poster ID	Title	Presenter & Institute
128	90452	Zinc-enriched yeast can improve acrylamide-induced cognitive impairment through ZnT3/BDNF/TrkB pathway	Jiao, Yang Huazhong University of Science and Technology, China
129	90455	Design of all-solid-state nitrate ion-selective electrode for testing nitrate ions in the wetlands soil of the Yellow River Delta	Li, Yanhong Yantai University, China
130	90457	Triclocarban (TCC) and triclosan (TCS) induced lipid metabolism in <i>rana nigromaculata</i>	Sun, Wenhui Hangzhou Normal University, China
131	90467	A microcosm study: Mineral sunscreens have hidden dangers to corals	Feng, Yuqi Tsinghua Shenzhen International Graduate School, Tsinghua University, China
132	90485	Crystalline silica particles lead to pulmonary fibrosis through interleukin-11-mediated fibroblast metabolic reprogramming	Xie, Yujia Huazhong University of Science and Technology, China
133	90497	Incorporating new approach methodologies (NAMs) data into risk assessment of poly- and perfluoroalkyl substances (PFAS) in consumer products	Yang, Gaeul University of Seoul, Korea
134	90509	Molecular docking-based prioritization of chemicals in plastic additives	NA, Kimoon University of Seoul, Korea
135	90514	Genotoxicity screening of organophosphate ester flame retardants using machine learning-based quantitative structure-activity relationship (QSAR) models	Jeong, Jiyong University of Seoul, Korea
136	90523	A multifaceted approach for assessing developmental and neurotoxicity of bisphenol A and its alternatives using adverse outcome pathway (AOP)	Kang, Keon University of Seoul, Korea
137	90524	Leaching and effects of plastic additives in aquatic ecosystem: Overview and meta-analysis	Hua, Yingdi Research Center for Eco-Environmental Sciences, CAS, China
138	90536	Effects mechanism of biochar application on soil carbon sequestration and alfalfa growth in typical mining areas	Tao, Yingru Beihang University, China
139	90547	Aging effects of titanium dioxide on Cu toxicity to <i>daphnia magna</i> : Exploring molecular docking and significance of surface properties	Yao, Li Beihang University, China
140	90556	Triclosan exposure induces immunotoxic impacts by disrupting the immunometabolism, detoxification, and cellular homeostasis in blood clam (<i>Tegillarca granosa</i>)	Han, Yu Hangzhou Normal University, China
141	90607	Quantification of 2-chlorohydroquinone based on interaction between N-doped carbon quantum dots probe and photolysis products in fluorescence system	Ding, Shihu Nankai University, China
142	90612	Protein and fat influence on arsenic and lead relative bioavailability in contaminated soils: Mechanisms and health implications	Li, Jie Shandong Normal University, China
143	90619	Utilizing modified nanoscale zero-valent iron (nZVI) for Cr(VI) removal with high efficiency	Zhang, Xiguo Nankai University, China



No	Poster ID	Title	Presenter & Institute
144	90675	Atmospheric inorganic reactive nitrogen deposition pattern in the South China Sea changed by the Chinese government controlling NOx emissions: Evidence from field cruise observation	Zhang, Zhengeng Guangzhou Institute of Geochemistry, CAS, China
145	90686	Organophosphate flame retardants and their metabolites in dog food and urine: An exposure assessment through food consumption	Park, So-hwi Kangwon National University, Korea
146	90696	Effects of prenatal PM2.5 exposure on synaptic development of male offspring and its molecular mechanism	Yan, Wei Xuzhou Medical University, China
147	90705	Occurrence and prioritization of organic micropollutants in river water of Korea	Park, Hanbyul Kangwon National University, Korea
148	90711	Microcystin-LR induces estrogenic effects at environmentally relevant concentration in black-spotted pond frogs (<i>Pelophylax nigromaculatus</i>): In situ, in vivo, in vitro, and in silico investigations	Zhang, Yinan Hangzhou Normal University, China
149	90723	Neonicotinoid insecticides and their metabolites can pass through the human placenta unimpeded	Zhang, Henglin Sun Yat-sen University, China
150	90736	New insights on free and conjugated forms neonicotinoid insecticides in human serum and their association with oxidative stress	Yao, Yanan Sun Yat-Sen University, China
151	90741	Accumulation and transformation of hexabromocyclododecane isomers in arabidopsis	Zhang, Bidan Nankai University, China
152	90750	6PPD and its quinone metabolite 6PPD-Q at environmental concentrations induce lipid metabolism disorder in the liver of frog	Liu, Zhiquan Hangzhou Normal University, China
153	90757	Dihalogenated nitrophenols in drinking water: Prevalence, Resistance to household treatment, and cardiotoxic impact on zebrafish embryo	Sun, Hongjie Zhejiang Normal University, China
154	90758	Screening, Assessment and control technology system for managing emerging contaminants based on computational toxicology	Wang, Haobo Dalian University of Technology, China
155	90770	An attempt on microbial transformation of Per- and Polyfluoroalkyl Substances under anaerobic conditions	Zhang, Yaozhi Nankai university, China
156	90797	Cadmium redistribution in edible tissues of steamed swimming crab (<i>Portunus Trituberculatus</i>) and its human health risk assessment	Mo, Xiao East China Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences, China
157	90805	Assessment of hepatopancreas toxicities in the white shrimp, <i>Litopenaeus vannamei</i> , after exposure to sulfamethoxazole (SMX) and tire microplastics (TMPs), alone or in combination	Yu, Xingzhou Hangzhou Normal University, China
158	90820	Widening the lens on human exposure to the "Chemical Cocktail" in Tianjin	Zheng, Jie Nankai University, China
159	90851	Comparative analysis of the life cycle environmental and economic potentials of various energy storage systems	Zhang, Keshuo Jinan University, China

No	Poster ID	Title	Presenter & Institute
160	90863	A study of the association between Neonicotinoid exposure and human obesity	Feng, Shuai Sun Yat-Sen University, China
161	90866	Environmental risk analysis for chemicals with exposure model of SWAT-KM: A demonstrative study with bis(2-ethylhexyl) phthalate in the Weihe River Basin	Li, Jiawei Beijing Normal University, China
162	90870	Toxicity prediction and risk assessment of per- and polyfluoroalkyl substances (PFASs) for threatened and endangered (T&E) fishes	Ji, Yuanpu Chinese Research Academy of Environmental Sciences, China
163	90881	The study on PFAS contamination risk in Chinese drinking water	Chen, Yiyu Sun Yat-sen University, China
164	90895	The effects of exogenous nucleobases on the growth and microcystins production of <i>microcystis aeruginosa</i>	Guo, Yaxin Nanjing University, China
165	90910	Transformation products of neonicotinoids: A review of metabolic pathway, predicted toxicity and human exposure assessment	Zhang, Jiye Sun Yat-sen University, China
166	90911	Traditional and emerging organophosphate Esters in the Yangtze river basin: Multimedia distribution, driving Factors, potential sources, and risk assessment	Zhou, Longfei Beijing Normal University, China
167	90915	Importance of algal biomass on regulating Hg accumulation and trophic transfer in planktonic food chain in subtropical freshwater lakes	Li, Zixuan Tongji University, China
168	90928	Knowledge on melamine and its derivatives: From environmental occurrence to human exposure assessment	Xu, Ke Nankai University, China
169	90932	Elucidating the impact of microbially mediated organic matter transformation in sediments on the multiphase distribution of heavy metals in the Yangtze River Estuary	Gao, Yanling Tongji University, China
170	90938	Soil ecological risk Assessment of various mines on the southern Tibetan Plateau: A TRIAD approach	Chai, Lei Lanzhou University, China
171	90957	Core microorganisms drive marine carbon sinks through anabolism in seaweed cultivation areas	Liu, Huanping Sun Yat-sen university, China
172	90959	Chronic neurotoxic effects of environmental concentration of Fluoxetine exposure on zebrafish: From adult to offspring	Lu, Lingcan Shanghai University, China
173	90963	Risk of invasive breast cancer under co-exposure of genetic burden and exposure to di-2-ethylhexyl phthalate: Cohort analysis of women in the UK biobank	Chen, Qing Army Medical University, China
174	90966	Key components inducing hormetic effects in eight-components of skin care product mixtures to <i>Vibrio qinghaiensis</i> sp.-Q67	Gu, Zhongwei Tongji University, China
175	90967	Simultaneous occupational exposure profiles of PAHs and chlorinated paraffins in human serum from non-ferrous metal smelting	Tang, Yao Guangdong University of Technology, China
176	90969	Establish the safety threshold for fluridone on rotation maize and develop rice husk biochar regulation strategy	Wang, Yuzhu Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China



No	Poster ID	Title	Presenter & Institute
177	90970	Occupational exposure profiles of PAHs and their derivatives in human serum from the petrochemical industry	Zhu, Yujiao Guangdong University of Technology, China
178	90972	The impact of various aromatic compounds on human liver and kidney functions in occupationally exposed population from coking industries	Chen, Dongming Guangdong University of Technology, China
179	90977	Preliminary exploration of the correlation and mechanism between per- and polyfluoroalkyl substances and type 2 diabetes	Su, Xuan Xi'an Medical College, China
180	90979	Deciphering carcinogenesis of PFOA in gastric cancer through network toxicology, molecular docking, and cellular experiments	Qi, Zhen Tsinghua University, China
181	90993	Implications of takeaway food packaging on phthalate acid esters (PAES) exposure in Chinese youth: Occurrence, Sources, and Health Risks	Shen, Haoyang Zhejiang Wanli University, China
182	91022	Unravel the in-source fragmentation pattern of per- and polyfluoroalkyl substances during analysis by liquid chromatography-high resolution mass spectrometry	Wang, Ke Zhejiang University, China
183	91032	Carrier effect and risk assessment of biodegradable microplastics on heavy metals	Fei, Jiao Nankai University, China
184	91056	Insights into the interaction mechanism of ciprofloxacin and microplastics	Liu, Yuxuan Chinese Research Academy of Environmental Sciences, China
185	91067	Ensemble learning model identifies adaptation classification and turning points of river microbial communities in response to heatwaves	Qu, Qian Nankai University, China
186	91079	Microplastic co-exposure elevates cadmium accumulation in mouse tissue after rice consumption: Mechanisms and health implications	Wang, Boxuan International Department of Nanjing No.13 Middle School, China
187	91107	Occurrence of multiple classes of emerging synthetic antioxidants, including aromatic amine, macromolecular hindered phenols, and organophosphites, in human milk: Implications for infant exposure	Liang, Bowen Jinan University, China
188	91116	PBScreen: A server for the high-throughput screening of placental barrier-permeable contaminants based on multifusion deep learning	Gao, Yuchen Zhejiang University, China
189	91117	Environmental tipping points for global soil carbon fixation microorganisms	Hao, Yueqi Nankai University, China
190	91130	A review of geographical and food web features and contaminant exposure in a subarctic estuarine fjord experiencing major changes	Xiong, Dingyi University of Toronto, Canada
191	91135	Global gridded emission inventory of organophosphate flame retardants from 2010 to 2020	Ma, Haibo Lanzhou University, China

No	Poster ID	Title	Presenter & Institute
192	91136	Advancements in CRISPR nanotechnology for imaging key molecules in living cells	Peng, Hanyong Research Center for Eco-Environmental Sciences, CAS, China
193	91143	Regional neonicotinoid pollution in wastewater treatment plants and point source emissions	Qu, Jijia Zhejiang University of Technology, China
194	91144	Random forest to predict ecotoxicity effects for pollinators	Shi, Junxuan Technical University of Denmark, Denmark



Training Courses

The use of sentinel organisms in the environmental monitoring of aquatic environments



Alan Kolok, Ph.D.

Professor of Ecotoxicology; Director Emeritus, Idaho Water Resources Research Institute

University of Idaho, USA

Course Objective: The objective of this course is to develop a metric that can be used to match the chemical structure of an environmental contaminant to the appropriate animal taxa most suitable for environmental monitoring.

Course Overview: Environmental forensics can be complicated due to the transient nature of chemicals contaminants. Sentinel organisms can be used to help identify the chemicals released into the environment, even when the chemical concentration is very low, or when the chemical has been biotransformed into metabolites. Not all sentinel organisms, however, are equally suitable for all class of chemicals. This workshop will provide attendees with metrics that can be used to help identify suitable taxa that are most valuable for environmental monitoring, depending upon attributes of the chemicals of interest.

Draft Agenda:

Hour 1

- 1.Introduction: Animals as sentinel organisms – Biomarkers of exposure
- 2.Contaminants 1. Metals
- 3.Contaminants 2. Lipid soluble, nonbiotransformable compounds (Persistent Organic Pollutants)
- 4.Contaminants 3. Water soluble, nonbiotransformable compounds (Persistent and Mobile Organic Compounds (PMOCs))

Hour 2

- 5.Animals as sentinel organisms – Biomarkers of effect / Adverse outcome pathways
- 6.Organism suitability for monitoring biotransformable compounds
- 7.Biomarkers of exposure and their use in environmental monitoring
- 8.Animals as sentinel organisms – A matter of trade offs

Laptops are not required for this course.

Course Length: 2 Hours (Sep. 25 08:30-10:30)

Venue: Meeting Room 13

Sign up here:



CSIA: A tool to assess contaminated sites and evaluate remediation actions



Orfan Shouakar-Stash, Ph. D

Adjunct Professor, Earth and Environmental Sciences, University of Waterloo, Canada

Adjunct Professor, School of Engineering, University of Guelph, Canada

Course Objective: Provide a fundamental understanding of CSIA principles and methodologies.

Demonstrate the use of CSIA in identifying contamination sources within diverse environmental contexts. Showcase how CSIA aids in characterizing contaminant pathways and behaviors as well as characterizing and assessing the fate of different contaminants released in the environment. Explore the role of CSIA in devising targeted and efficient remediation strategies. This course is designed for environmental scientists, engineers, regulators, and stakeholders involved in investigating and remediating contaminated sites. It caters to individuals seeking advanced tools to enhance their understanding and approach to site investigation and remediation.

Course Overview: Isotopes, among them compound-specific isotope analysis (CSIA), stand as a potent tool for delineating intermingled contaminant plumes, facilitating enhanced comprehension, and quantifying the transformation processes, both biological and abiotic, of various contaminants such as chlorinated solvents and hydrocarbons. This course will delve into the foundational theory of isotopes, followed by an extensive exploration of field case studies. A particular emphasis will be placed on the latest advancements in integrating CSIA with traditional isotope analyses and established site characterization methods.

This concise course is tailored to showcase the most recent strides in CSIA and the broad applications of stable isotopes, specifically in investigating natural attenuation and actively remediating various contaminants. CSIA has proven its efficacy in pinpointing contamination sources, tracking contaminant pathways in groundwater, and evaluating the efficacy of diverse remediation methods encompassing biological, chemical (e.g., in situ chemical oxidation [ISCO], permeable reactive barriers [PRB]), and physical techniques (e.g., thermal treatment, pump and treat).

In the recent decade, CSIA has been extensively employed in numerous contaminated sites, yielding highly successful outcomes by uncovering information not revealed through conventional concentration analysis. While prior studies heavily relied on 13C-CSIA, recent investigations have increasingly incorporated additional isotopes such as 37Cl-CSIA and 2H-CSIA. This surge in interest toward two-dimensional (13C and 37Cl) or, in some instances, three-dimensional (13C, 37Cl, and 2H) isotope approaches is driven by advancements in analytical methods, laboratory evidence, and field applications. These have demonstrated the added value of employing multiple CSIA to differentiate between various sources of contamination and better understand contaminant fate within the subsurface.

Moreover, the course will shed light on the utilization of CSIA in addressing vapor intrusion



concerns.

Draft Agenda:

Draft Agenda (4 Hours):

1. Fundamentals of Compound-Specific Isotope Analysis (30 minutes)
2. Collection, Preservation and Storage of Samples – laboratory issues and quality control (30 minutes)
3. Interpretation of isotope data from field studies; enrichment factors and other important data from the literature (30 minutes)
4. CSIA Applications in Identifying Contaminant Sources: Case Studies (45 minutes)
5. Characterization of Contaminants and Pathways using Isotopic Analysis (30 minutes)
6. CSIA for natural attenuation evaluation: case studies (45 minutes)
7. The use of CSIA to assess the performance of on-going remediation technologies: case studies (30 minutes)

Laptops are not required for this course.

Course Length: 4 Hours (Sep. 25 08:30-12:30)

Venue: Meeting Room 3

Sign up here:



How to be successful in scientific publishing



Philippe Garrigues, Ph.D

Emeritus Research Director at the CNRS, University of Bordeaux, France

Course Objective: This short course is designed to assist scientists, junior and senior in writing successful scientific papers for dedicated journals to build their professional career. The courses will show to the participants how to prepare good papers and how they can be written. It will present advices and comments for overcoming usual and common obstacles such as targeting journals, finding an attractive entry for the manuscript, presenting tables and data, writing a fruitful discussion.

Course Overview: This course was designed with the help of scientists and researchers involved in scientific publishing in environmental and analytical chemistry. The target audience includes scientific writers from undergraduate/doctorate level up to senior experienced scientists who strive to improve their written communication skills.

Laptops are not required for this course.

Course Length: 2 Hours (Sep. 25 10:30-12:30)

Venue: Meeting Room 13

Sign up here:



Exposure Omics MS Imaging DESI XS / MALDI and SELECT SERIES MRT

BE EXTRAORDINARY

Driven by the power of the Zeno trap coupled with electron activated dissociation (EAD) fragmentation technology



ZenoTOF 7600 system

GO BEYOND

GO BEYOND the current limits of sensitivity, productivity targets, ruggedness and robustness challenges.
GO BEYOND with the SCIEX 7500 system



SCIEX 7500 system

- MS Imaging with high resolution (>300,000 FWHM) and excellent mass accuracy (<200 ppb)
- Data acquisition speed up to 30 Hz, higher detection throughput
- Better spatial imaging resolution <5~10 μM

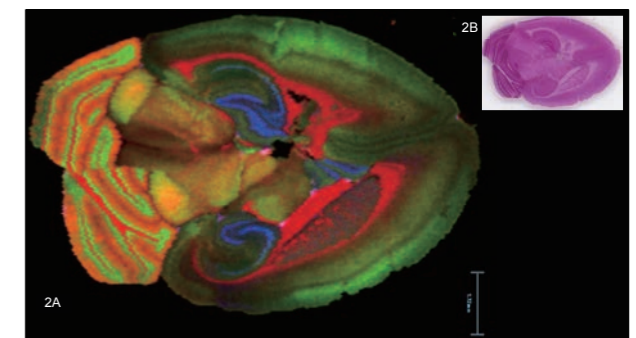


Figure 2A: DESI MS imaging image of mouse brain (blue m/z 808.59 – PC (38:5); red m/z 788.62 – PC (36:2); green m/z 806.57 – PC (38:6); orange m/z 834.60 – PC (40:6); pink m/z 616.18 – heme).
Figure 2B: H&E stained mouse brain section.



MRT / ESI



MRT / MALDI

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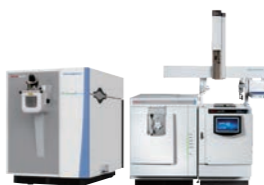
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- DBPs
- CIC: Determination of AOF



LSMS

- Targeted quantification



GCMS

- Targeted quantification
- MPs analysis (GC SQ, GCMSMS, GC orbitrap, ICPMS)



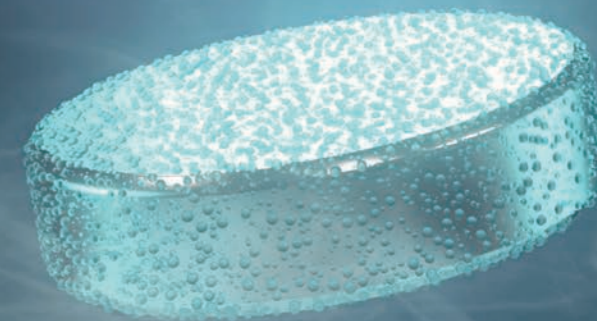
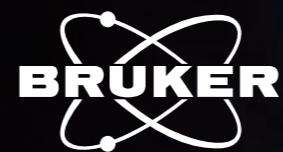
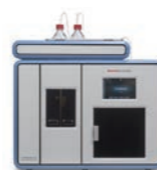
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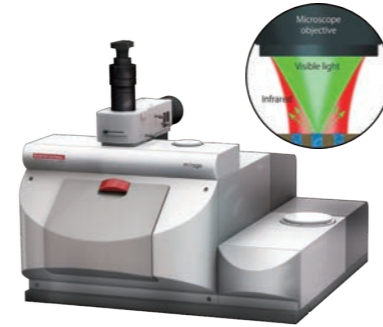
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mIRage Submicron simultaneous IR+Raman microscope combines Optical Photothermal Infrared (O-PTIR) spectroscopy with Raman

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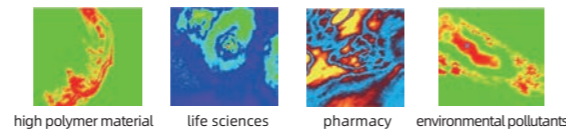
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An epoch-making new infrared system

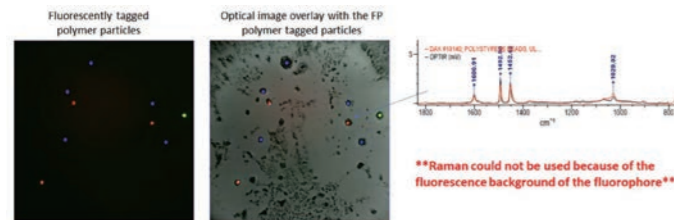
- Breaking through the traditional optical diffraction limit
- The mapping effect is comparable to the transmission model
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- IR+Raman

A wide range of applications



Others
geological science, culture heritage, semiconductor apparatus, forensic medicine...

Fluorescence tagging of polymeric beads to help to isolate the polymer particles



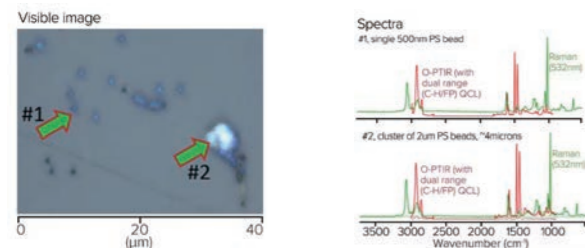
OPTIR provides accurate measurement of a wide range of microplastics that are poorly resolved by other IR techniques

OPTIR overcomes many of the limitations of Raman for microplastics measurement but provide complementary and confirmatory results

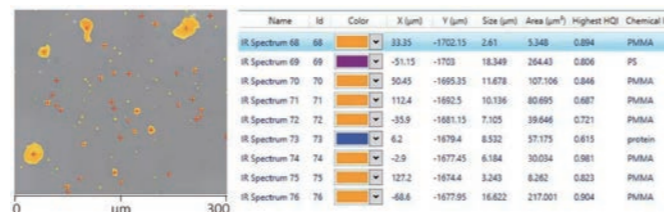
Co-located O-PTIR and fluorescence provides a unique combination to quickly identify specific microplastics types and provide sub-micron IR spectra

Simultaneous OPTIR and Raman spectra of MP particles with the O-PTIR instrument is a superior approach for material identification in terms of throughput than two standalone instruments

The OPTIR spectra from single 500nm bead and a cluster of 2µm beads



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