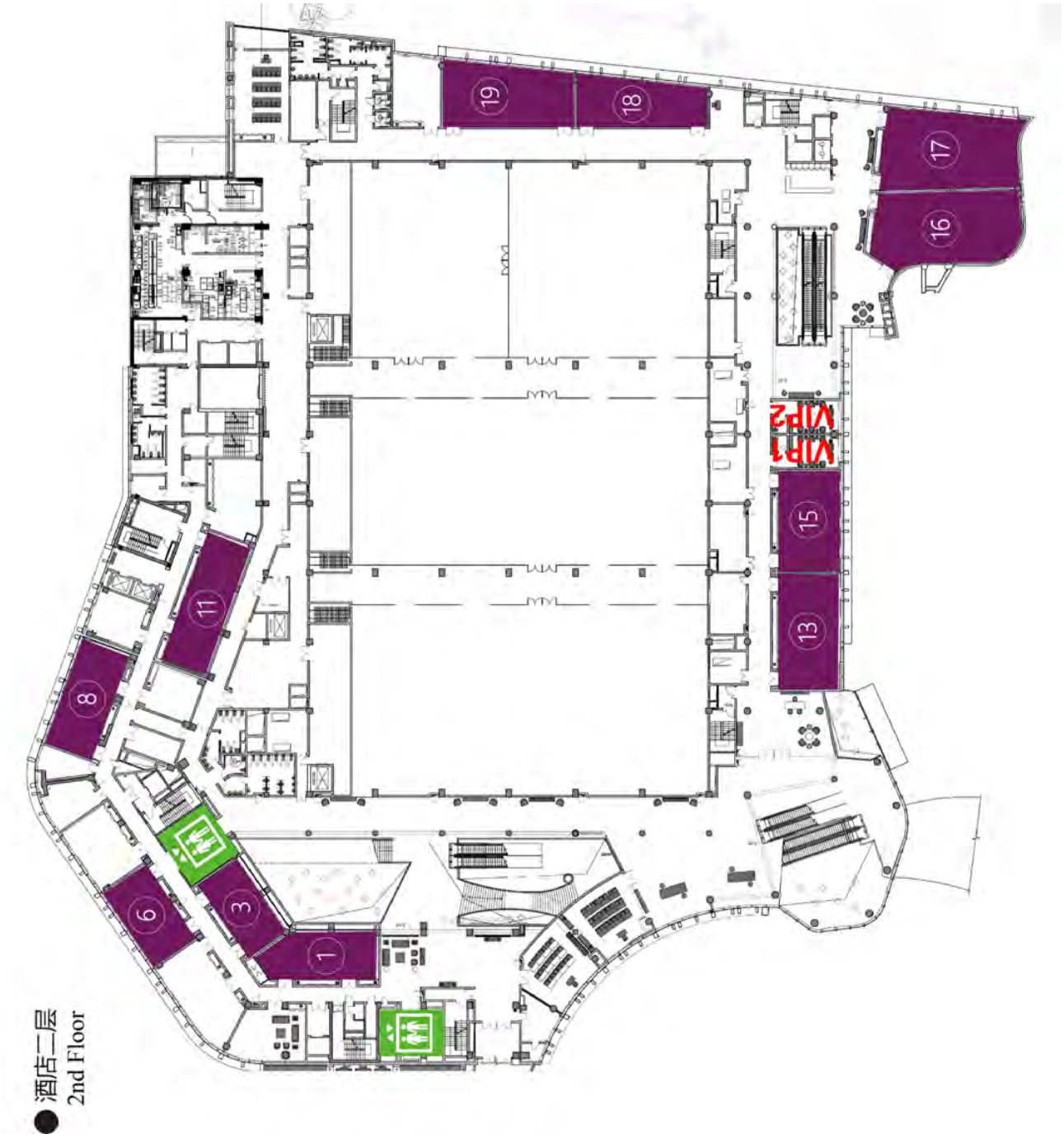
Parallel Session Schedule

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-tranformation 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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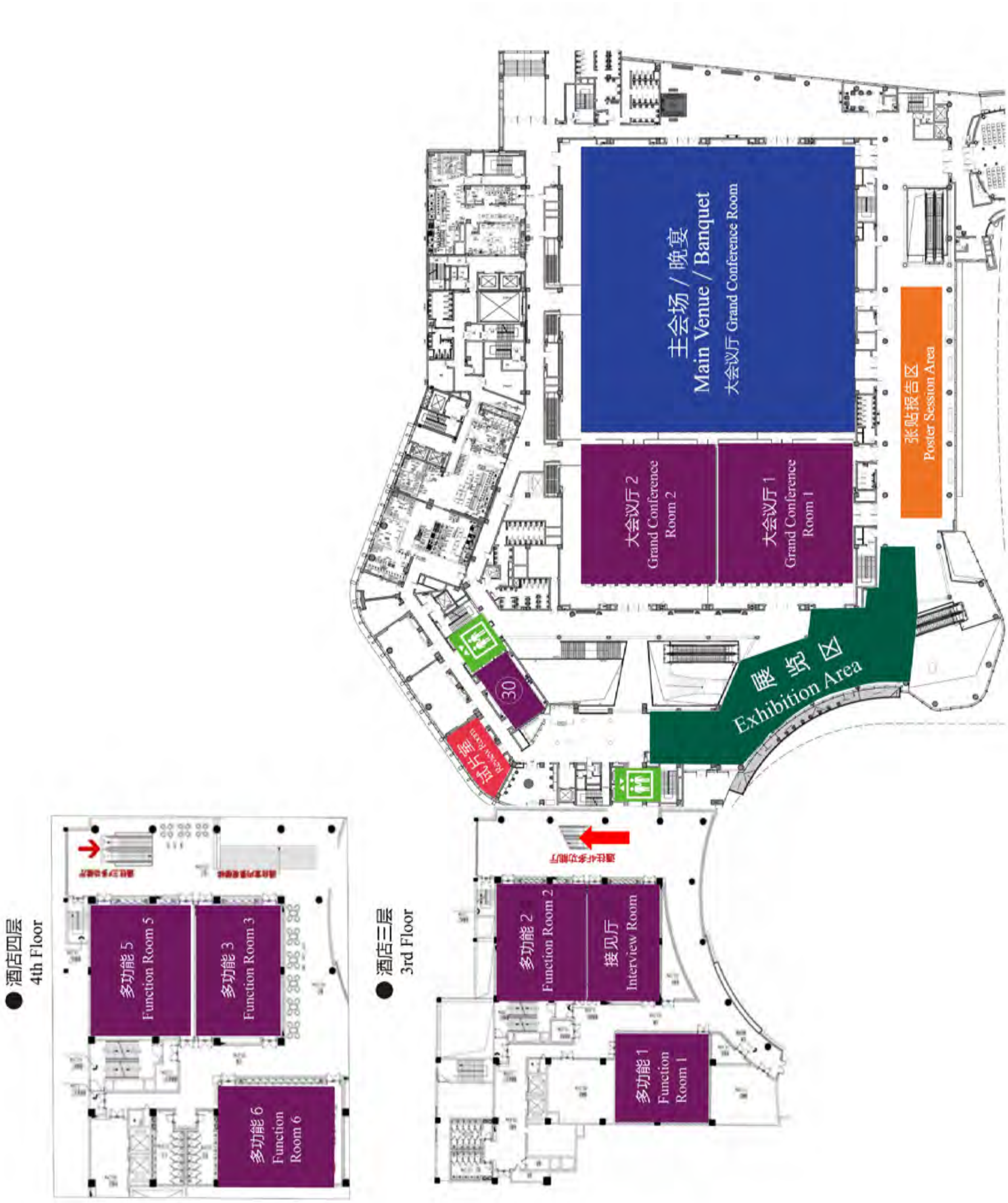
主会场 / 晚宴
Main Venue / Banquet
大会议厅 Grand Conference Room
大会议厅 2
Grand Conference
Room 2
大会议厅 1
Grand Conference
Room 1
张贴报告区
Poster Session Area
展览区
Exhibition Area
30
酒店四层
4th Floor
多功能 5
Function Room 5
多功能 3
Function Room 3
多功能 6
Function
Room 6
酒店三层
3rd Floor
多功能 2
Function Room 2
接见厅
Interview Room
多功能 1
Function
Room 1

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 Phaeodactylum tricornutumupon 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	**Rugular: 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 organoclorine 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 Technoloy, 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 polychorinated 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 morohology 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 Univerisity, China
09:10-09:22	Reproductive toxicity of 6-PPD quinone at environmentally relevant concentrations and underlying mechanisms in C. elegans	**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 Cnina	**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	Toxicokinetics and freshwater risks of nano-encapsulated imidacloprid: A life cycle perspective	**Invited: Wu, Fan** Jinan 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 azoxystroin 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. 22 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
14:45-15:30	**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(ll) and crystallization of manganese (hydr)oxides	**Keynote: Zhu, Runliang** Guangzhou Insisitute 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 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 pharamceuticals 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 *Caenorhabditis elegans*	**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-tranformation 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 dehalogentation 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 *Escherichia* 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, *Shewanella oneidensis* 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 diversityloss 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 *Daphnia magna*	**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 *Anodonta woodiana*	**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 (DMSP) 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 (*Oryza sativa* 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	**Student: 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 *Oryza sativa* 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 intergrating point sources	**Keynote: Wu, Qingru** Tsinghua University, China
10:50-11:10	Forest mercury network: From tropical rainfall forests to Tebitan 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 innatural 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 Techonlogy, 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 garbon dots and arsenate in earthworms eisenia fetida 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** Jianghan 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 (*Danio rerio*)	**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 (*Pelophylax nigromaculata*)	**Studuent: 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 (*Danio rerio*) 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 *Daphnia pulex* 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 *Daphnia magna* 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 *Daphnia magna*: 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 *Artemia franciscana* and *Penaeus vannamei*	**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 *Duncanopsammia peltate*	**Student: Huang, Yuxin** Shanghai 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 *Daphnia magna* 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

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 (*Oryzias melastigma*)	**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 *Lithobates catesbeianus* 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 *Porites lutea and Montipora digitata*	**Student: Luo, Lan** Guangxi 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 (*Danio rerio*)	**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	Fucoidan 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 Univeisity, China
13:55-14:15	Nontarget discovery of novel metabolites for organophosphate esters in lettuce (*Lactuca sativa* 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 (*Lactuca sativa* 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 Qiying
Secretary: Li, Hongbo

Time	Topic	Speaker & Institution
Moderator	**Ma, Lena Qiying; 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 *Caenorhabditis elegans*	**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 Nornal 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 orallyiIngested 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: Wang, Qiong** 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 critiria 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 metabolismm 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 *Aeromonas veronii*	**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_2O 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 Univeristy, 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: Identifacation, 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 sulfonateproved 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 materialsare 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; Liu, Qifan**	
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-3β 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 (*Danio rerio*)	**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 (*Lactuca sativa* 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 $Cl_2^{\cdot-}$ 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_4O_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 sisinfection 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 *Daphnia magna* 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_2S 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	Session introduction	
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 Techonology 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	**Zeng, Eddy Y.**	
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, Zhuanxi** 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 underling 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
17:25-17:33	Enhanced leaching of plastic additives in a synthetic enzyme solution: Implication for the roles of biofilm on microplastics	**Student: An, Jiyul** Korea University, South Korea

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 Reseach, 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 fullfilling 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