



# 16th International Symposium on Persistent Toxic Substances

25-29 October 2019  
Stevens Institute of Technology  
Hoboken, NJ USA

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*Organizers*



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October 2019

Dear colleagues,

On behalf of the organizing committee, I welcome you to the 16th International Symposium on Persistent Toxic Substances (ISPTS).

Since its inception in 2004, the ISPTS has been hosted in China, the USA, Canada, Japan, Germany and Switzerland. The conference actively promotes communication and collaboration among scientists, engineers and regulators all over the world. Persistent Toxic Substances (PTS), such as DDT, PCB, dioxin and organomercury, are bioaccumulative and able to travel long distances through different media. Over the past 15 years, many emerging contaminants have been detected in the environment, drinking water, food and consumer products. Meanwhile, the scope of the ISPTS has expanded and significant research progress on PTS has been made.

The ISPTS 2019 brings together renowned experts as well as young scientists from academia, industries and government agencies on the beautiful Stevens Institute of Technology campus to share the latest developments in this essential field.

I would like to acknowledge the tremendous efforts from the conference organizing committee and a number of my colleagues at Stevens Institute of Technology. Frances Salvo has played a leading role in the organization of conference logistics and local arrangements. Thanks are due to Shujuan Zhang, Amalia Terraciano, Lucas Mondadori, Dina Coleman, Ashley Riley, Christina Dzwonczyk and Andrew Gonzalez for their support - from email communication and program preparation to financial administration. Also, many thanks to our fellow colleagues at SKLECE in China: Jingjing Wu, Guixia Wang and Jingjing Du. They have played an important role as coordinators for the conference as part of the China team. The 16th ISPTS would not be possible without everyone's hard work and positive energy.

Lastly, we are sincerely grateful to our sponsors for their financial support: Agilent Technologies, Wellington Laboratories, Graver Technologies, Langan Engineering and Environmental Services, Cambridge Isotope Laboratories and TRC Companies.

Sincerely yours,

Xiaoguang Meng  
ISPTS 2019 Co-Chair

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## STEVENS INSTITUTE OF TECHNOLOGY

Stevens Institute of Technology is named for the distinguished family known as “America’s First Family of Inventors.”

When inventor Edwin A. Stevens died in 1868, his will provided for the establishment of the university that now bears his family’s name. Two years later, in 1870, Stevens Institute of Technology opened, offering a rigorous engineering curriculum leading to the degree of Mechanical Engineer following a course of study firmly grounded both in scientific principles and the humanities.

Stevens is composed of four academic schools: the Charles V. Schaefer, Jr. School of Engineering and Science (SES), the School of Systems and Enterprises, (SSE) the School of Business and the College of Arts and Letters (CAL). There are 29 undergraduate majors and a 7:1 student to faculty ratio. Graduate offerings include 22 Ph.D. programs, 43 master’s programs, 122 certificate programs and graduate-level offerings custom designed for corporations.

### THE CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

The Schafer School seeks to be globally recognized as an engineering and science school that educates students to have the breadth and depth required to lead in their chosen profession, and leads in the development of important new knowledge and new technologies.

Research in engineering and science at Stevens is propelled by internationally renowned faculty, laboratories, research centers and shared facilities. Strategic initiatives and partnerships nationwide give faculty and students a wealth of opportunities to contribute to critical advances in cybersecurity, information assurance, biomedicine, pharmaceutical manufacturing, wireless communications, naval architecture, environmental studies and much more.

Research centers at the Schaefer School include the Center for Environmental Systems (CES), the Center for Quantum Science and Engineering (CQSE), the Davidson Laboratory, the Maritime Secure Center (MSC), the Sensor Technology & Applied Research (STAR) Center and the Stevens Institute for Artificial Intelligence.

### THE CENTER FOR ENVIRONMENTAL SYSTEMS

The Center for Environmental Systems (CES) is dedicated to basic and application-motivated inter- and multi-disciplinary research aimed at creating basic scientific knowledge, advanced technology and innovative management practices that lead to novel solutions for a sustainable utilization of our environmental resources.

CES assists industry, government and environmental service organizations by providing research and testing services for the development and implementation of innovative environmental technology. CES maintains and operates several state-of-the-art facilities with a combined laboratory floor space area in excess of 18,000 square feet and equipment infrastructure valued well over \$10 million.





## CO-CHAIRS

<b>Xiaoguang Meng</b>	Stevens Institute of Technology, USA
<b>Guibin Jiang</b>	Research Center for Eco-Environmental Sciences, CAS, China
<b>Christos Christodoulatos</b>	Stevens Institute of Technology, USA

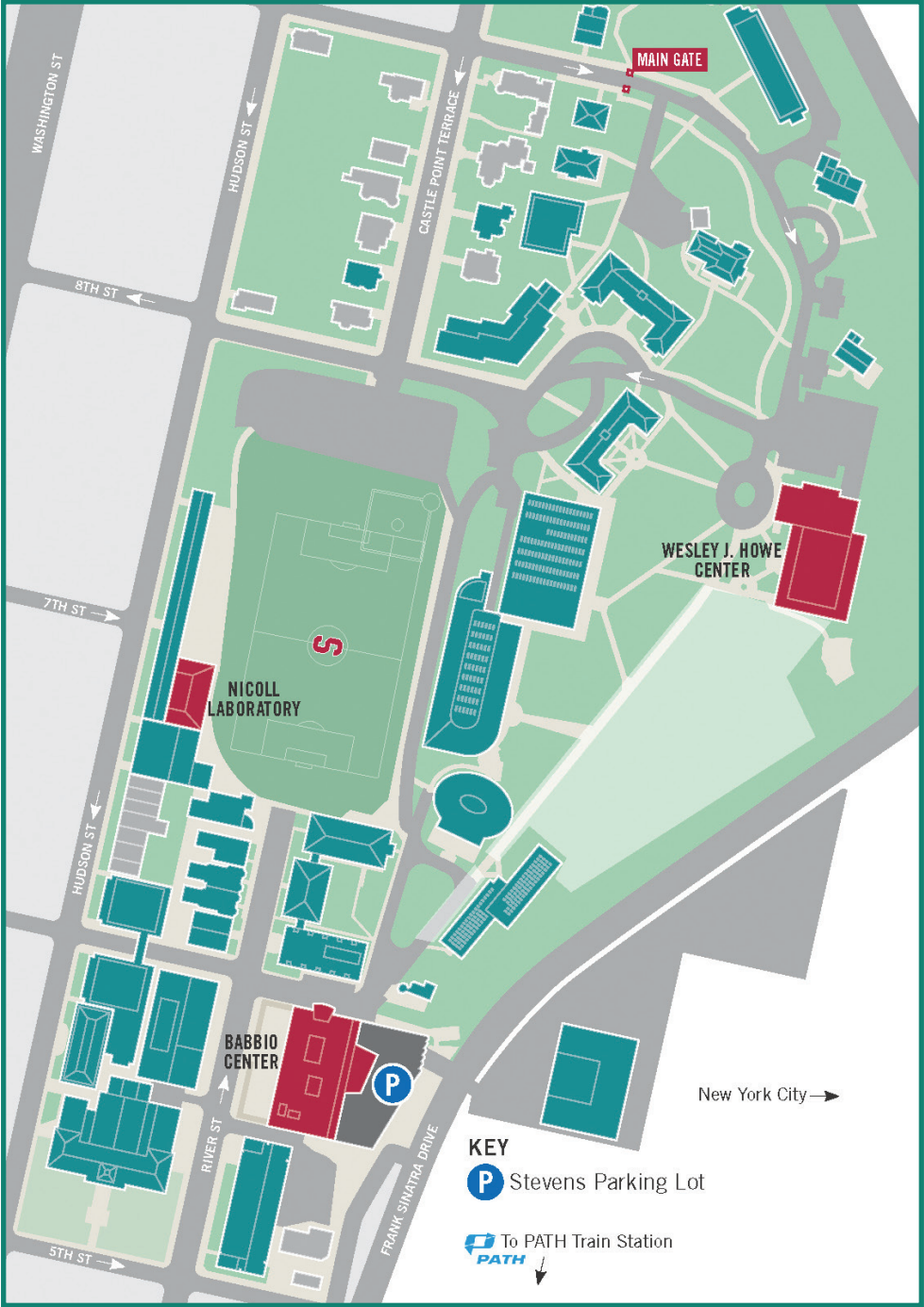
## SCIENTIFIC COMMITTEE

<b>Yong Cai</b>	Florida International University, USA
<b>Philippe Corvini</b>	Fachhochschule Nordwestschweiz, Switzerland
<b>Jay Gan</b>	University of California, Riverside, USA
<b>Panos G. Georgopoulos</b>	Rutgers University, USA
<b>Peter R. Jaffé</b>	Princeton University, USA
<b>Guibin Jiang</b>	Research Center for Eco-Environmental Sciences, CAS, China
<b>Chuangyong Jing</b>	Research Center for Eco-Environmental Sciences, CAS, China
<b>Matthias Kästner</b>	UFZ Leipzig, Germany
<b>Arata Katayama</b>	Nagoya University, Japan
<b>George Korfiatis</b>	Stevens Institute of Technology, USA
<b>Paul Lam</b>	City University of Hong Kong, China
<b>Chris Le</b>	University of Alberta, Canada
<b>Tsan-Liang Su</b>	Stevens Institute of Technology, USA
<b>Minghui Zheng</b>	Research Center for Eco-Environmental Sciences, CAS, China

## LOCAL ORGANIZING COMMITTEE

<b>Christos Christodoulatos</b>	Stevens Institute of Technology, USA
<b>Nina DeMarco</b>	Stevens Institute of Technology, USA
<b>Andrew Gonzalez</b>	Stevens Institute of Technology, USA
<b>Xiaoguang Meng</b>	Stevens Institute of Technology, USA
<b>Ashley Riley</b>	Stevens Institute of Technology, USA
<b>Frances Salvo</b>	Stevens Institute of Technology, USA
<b>Wen Zhang</b>	New Jersey Institute of Technology, USA

CAMPUS MAP



## CONFERENCE LOCATION

The conference will be held at the following venues on the Stevens Institute of Technology campus:

**the Wesley J. Howe Center** (Howe Center)

1 Castle Point Terrace

**the Lawrence T. Babbio, Jr. Center for Business and Technology Management** (Babbio Center)

525 River Street

Registration, opening and closing remarks, meals, poster sessions and conference receptions will take place in the Howe Center, in the Pierce Dining Hall, 2nd Floor or Bissinger Room, 4th Floor.

Specific sessions will take place on the first and second floors of the Babbio Center in rooms 104, 122, 219, 220 and 221.



**Wesley J. Howe Center**  
(Howe Center)



**Lawrence T. Babbio, Jr. Center for  
Business and Technology Management**  
(Babbio Center)



**Stevens Institute of Technology Seal**

## PROGRAM OVERVIEW

FRIDAY, OCTOBER 25, 2019		
TIME	TITLE	LOCATION
HOWE CENTER		
11 a.m.-1:40 p.m.	Registration	Lobby, 4th Floor
11:30 a.m.-1:30 p.m.	Lunch	Pierce Dining Hall, 2nd Floor
12:30-1:30 p.m.	Sponsors Session: Agilent and Graver	Bissinger Room, 4th Floor
2-2:40 p.m.	<p>Opening Remarks</p> <p><b>Xiaoguang Meng</b> Professor, <i>Stevens Institute of Technology, USA</i></p> <p><b>Christos Christodoulatos</b> Director, Center for Environmental Systems <i>Stevens Institute of Technology, USA</i></p> <p><b>Nariman Farvardin</b> President, <i>Stevens Institute of Technology, USA</i></p> <p><b>Jean Zu</b> Dean, School of Engineering and Science <i>Stevens Institute of Technology, USA</i></p> <p><b>Minghui Zheng</b> Deputy Director, State Key Laboratory of Environmental Chemistry and Ecotoxicology <i>Chinese Academy of Sciences (CAS), China</i></p>	
2:40-3:15 p.m.	<p>A Jigsaw Puzzle of U.S. Environmental Regulations</p> <p><b>Patricia Reyes</b>, Plenary Speaker <i>Interstate Technology &amp; Regulatory Council, USA</i></p>	
3:15-3:40 p.m.	Coffee Break and Group Photo	
3:40-4:15 p.m.	<p>Reductive Defluorination of PFAS by Acidimicrobiaceae sp. A6 while Oxidizing Ammonium or Hydrogen Under Iron Reducing Condition</p> <p><b>Peter R. Jaffe</b>, Plenary Speaker <i>Princeton University, USA</i></p>	
4:15-4:50 p.m.	<p>A Systematic Exploration of Structure-Bioactivity Relationship of Nanoparticles</p> <p><b>Bing Yan</b>, Plenary Speaker <i>Shandong University, China</i></p>	
6-10 p.m.	Hudson River Dinner Cruise	Hoboken, 14th Street Pier

## SATURDAY, OCTOBER 26, 2019

TIME	TITLE	LOCATION
<b>BABBIO CENTER</b>		
8-9 a.m.	Breakfast	Student Library Lounge, 2nd Floor
9-10:25 a.m.	Parallel Sessions	Rooms 122, 219, 220 and 221
10:25-10:45 a.m.	Coffee Break	Student Library Lounge, 2nd Floor
10:45 a.m.-12:15 p.m.	Parallel Sessions	Rooms 122, 219, 220 and 221
<b>HOWE CENTER</b>		
12:15-1:30 p.m.	Lunch	Pierce Dining Hall, 2nd Floor
<b>BABBIO CENTER</b>		
1:30-2:45 p.m.	Parallel Sessions	Rooms 104, 219, 220 and 221
2:45-3:05 p.m.	Coffee Break	Student Library Lounge, 2nd Floor
3:05-4:25 p.m.	Parallel Sessions	Rooms 104, 219, 220 and 221
<b>HOWE CENTER</b>		
5:30-6:30 p.m.	Poster Session and Cocktail Hour	Bissinger Room, 4th Floor
6:30-8 p.m.	Dinner Sponsor Speech: Agilent Host Speech <b>David Vaccari</b> Professor, <i>Stevens Institute of Technology, USA</i>	

## PROGRAM OVERVIEW

SUNDAY, OCTOBER 27, 2019		
TIME	TITLE	LOCATION
<b>BABBIO CENTER</b>		
8-9 a.m.	Breakfast	Student Library Lounge, 2nd Floor
9-10:25 a.m.	Parallel Sessions	Rooms 104, 122, 220 and 221
10:25-10:45 a.m.	Coffee Break	Student Library Lounge, 2nd Floor
10:45-11:45 a.m.	Parallel Sessions	Rooms 104, 122, 220 and 221
<b>HOWE CENTER</b>		
11:45 a.m.-1 p.m.	Lunch	Pierce Dining Hall, 2nd Floor
<b>BABBIO CENTER</b>		
1-2 p.m.	Parallel Sessions	Rooms 104, 122 and 220
<b>HOWE CENTER</b>		
2:10-2:30 p.m.	Coffee Break	Bissinger Room, 4th Floor
2:30-3:05 p.m.	How earth science and economics can guide mitigation of the well-water arsenic problem across South Asia <b>Lex Van Geen</b> , Plenary Speaker <i>Columbia University, USA</i>	
3:05-3:40 p.m.	Exploring the Evolving Landscape of Persistent and Bioactive Chemicals: A Tiered Exposure and Risk Ranking and Assessment Framework <b>Panos Georgopoulos</b> , Plenary Speaker <i>Rutgers University, USA</i>	
3:40-4:30 p.m.	Young Scientists Award Presentations	
4:30-5 p.m.	Sponsor Awards and Announcements Agilent Awards Best Oral Presentation, Best Poster Wellington Awards Best Oral Presentation, Best Poster Announcement of ISPTS 2020 <b>Nicolas Kalogerakis</b> <i>Technical University of Crete, Greece</i> Closing Remarks	
5-6 p.m.	Cocktail Hour	
6-8 p.m.	Dinner	

MONDAY, OCTOBER 28, 2019		
TIME	TITLE	LOCATION
10 a.m.	Lab Tours	Center for Environmental Systems, Davidson Laboratory
8 a.m.	Field Trip (buses provided)	Bear Mountain State Park Bear Mountain, NY  Woodbury Commons Central Valley, NY
TUESDAY, OCTOBER 29, 2019		
TIME	TITLE	LOCATION
10 a.m.	Lab Tours	Center for Environmental Systems, Davidson Laboratory
	Field Trip (self-guided)	New York City, NY

## SESSION KEY

	SOURCES, TRANSPORT AND FATE OF PTS
	EMERGING CONTAMINANTS OF CONCERN
	ANALYTICAL AND BIO-ANALYTICAL METHODS
	RISK AND ASSESSMENT OF PTS
	TOXICOLOGY AND ECOTOXICOLOGY OF PTS
	MITIGATION AND REMEDIATION OF PTS, EMERGING AND OTHER CONTAMINANTS
	SPECIAL SESSION ON PFAS

Attendees are encouraged to attend any session of their choice. Space is limited per session. Please note slight time variations per session.

## SESSION INFORMATION

SATURDAY, OCTOBER 26, 2019			
SOURCES, TRANSPORT AND FATE OF PTS	EMERGING CONTAMINANTS OF CONCERN	ANALYTICAL AND BIO-ANALYTICAL METHODS	RISK AND ASSESSMENT OF PTS
CHAIR: Yong Chen	CHAIR: Qinghua Zhang	CHAIR: Qiuquan Wang	CHAIR: Liang Mao
ROOM: Babbio, 122	ROOM: Babbio, 220	ROOM: Babbio, 219	ROOM: Babbio, 221
<b>9-9:25 a.m.</b>			
Formation and dissolution of mercury sulfide: challenges in understanding mercury speciation and transformation	Assessment of the Environmental Fate and Effects of Emerging Chemicals of Concern in the Coastal Regions of South China	MALDI-MS imaging method development and application in research of environmental toxicology	Mitigating Arsenic in Private Well Waters of New Jersey
PRESENTED BY: Yong Cai, Keynote	PRESENTED BY: Paul K.S. Lam, Keynote	PRESENTED BY: Zongwei Cai, Keynote	PRESENTED BY: Yan Zheng, Keynote
<b>9:25-9:45 a.m.</b>			
Influence of natural organic matter and reduced iron on the occurrence and microbial methylation of nanoparticulate mercury	Characteristics of antibiotic resistance genes in greenhouse soil with long term manure application	Precise determination of iron isotope ratios of ultrafine particles in human pleural effusion by MC-ICP-MS	Linear dose-response relationship between polycyclic aromatic hydrocarbons exposure and the risk of having hypertension in China
PRESENTED BY: Tong Zhang	PRESENTED BY: Jinhua Wang	PRESENTED BY: Dawei Lu	PRESENTED BY: Shunli Jiang
<b>9:45-10:05 a.m.</b>			
Redox transformation of arsenic by enriched microbiota from mining-contaminated paddy soil	Antibiotic Resistance Gene and Associated Bacterial Communities Conditions during Household Garbage Bio-decomposition Processes	Highly sensitive fluorescent chemoprobe developed with carbon dots and silver nanoparticles based on inner filter effect for the determination of mercury	Novel approaches for the reduction of POP contamination in Cucurbitaceae family
PRESENTED BY: Jinli Cui	PRESENTED BY: Zhishu Liang	PRESENTED BY: Qingxiang Zhou	PRESENTED BY: Kentaro Fujita
<b>10:05-10:25 a.m.</b>			
Anaerobic Microbe Mediated Arsenic Reduction and Redistribution in Coastal Wetland Soil	Unexpectedly High Concentrations of Novel Organophosphate Esters in Indoor Dust from Indirect Source: Oxidation of Organophosphite Antioxidants	$\beta$ -ketoenamine-linked covalent organic framework coating for ultra-high performance solid-phase microextraction of polybrominated diphenyl ethers from environmental samples	Evaluation of human health risk exposing to polychlorinated biphenyls residues in the soil
PRESENTED BY: Ting Luo	PRESENTED BY: Runzeng Liu	PRESENTED BY: Rusong Zhao	PRESENTED BY: Jianying Zhang
<b>10:25-10:45 a.m. BREAK</b>			



## SATURDAY, OCTOBER 26, 2019

SOURCES, TRANSPORT AND FATE OF PTS	EMERGING CONTAMINANTS OF CONCERN	ANALYTICAL AND BIO-ANALYTICAL METHODS	RISK AND ASSESSMENT OF PTS
CHAIR: Yanbin Li	CHAIR: Guorui Liu	CHAIR: Qingxiang Zhou	CHAIR: Yan Zheng
ROOM: Babbio, 122	ROOM: Babbio, 220	ROOM: Babbio, 219	ROOM: Babbio, 221
<b>10:45-11:05 a.m.</b>			
Suspected Screening for Metabolites of Short-chain Chlorinated Paraffins (SCCPs) in Suspension Rice Cells	Microplastic contamination in the commercial fish from the Pearl River Estuary, China	SERS detection and photo-reduction of uranium(VI) using satellite Fe <sub>3</sub> O <sub>4</sub> -Au@TiO <sub>2</sub> nano-structure	Uptake and translocation of <sup>14</sup> C-labeled FLG in wheat
PRESENTED BY: Jiyan Liu	PRESENTED BY: Xiangrong Xu	PRESENTED BY: Zhenli Sun	PRESENTED BY: Liang Mao
<b>11:05-11:25 a.m.</b>			
The bacterial community and pollutants removal within a novel coupled system for coal gasification wastewater treatment	Partitioning, Biaccumulation and Biomagnification of Organophosphate Esters in Taihu Lake, China	Establishment of a human embryonic stem cells-based method to assess the potential developmental toxicity of AgNPs	Occurrence and risk assessment of alternative flame retardants in groundwater of rural areas in Middle China
PRESENTED BY: Yuxiu Zhang	PRESENTED BY: Lingyan Zhu	PRESENTED BY: Bowen Hu	PRESENTED BY: Weiwei Zheng
<b>11:25-11:45 a.m.</b>			
Cultivar-dependent uptake, accumulation and transformation of <sup>14</sup> C-decabromodiphenyl ether in rice	Spatial distribution of parabens, triclocarban, triclosan, bisphenols, and tetrabromobisphenol A and its alternatives in municipal sewage sludges in China	Metal-organic frameworks-based high performance liquid chromatographic columns for separation of organic homologues	Level changes and human dietary exposure assessment of halogenated flame retardant levels in free-range chicken eggs: a case study of a former e-waste recycling site, South Korea
PRESENTED BY: Wei Wang	PRESENTED BY: Qingqing Zhu	PRESENTED BY: Sha Chen	PRESENTED BY: Yanhong Zeng
<b>11:45 a.m.-12:05 p.m.</b>			
Speciation Analysis of Chromium in Chromite Ore Processing Residue Using Sequential Extraction Procedures	Formation mechanism of persistent organic pollutants during secondary metal smelting processes by gas chromatography/Orbitrap mass spectrometry screening	Selection of biomarker genes from the brown alga <i>Ecocarpus siliculosus</i> treated with antifouling agents	
PRESENTED BY: Siwu Yu	PRESENTED BY: Lili Yang	PRESENTED BY: Hideyuki Inui	
<b>12:15-1:30 p.m. LUNCH</b>			

## SESSION INFORMATION

SATURDAY, OCTOBER 26, 2019			
EMERGING CONTAMINANTS OF CONCERN	TOXICOLOGY AND ECOTOXICOLOGY OF PTS	ANALYTICAL AND BIO-ANALYTICAL METHODS	MITIGATION AND REMEDIATION OF PTS, EMERGING AND OTHER CONTAMINANTS
CHAIR: Xiangrong Xu	CHAIR: Bingsheng Zhou	CHAIR: Jingfu Liu	CHAIR: Zhonghua Tong
ROOM: Babbio, 220	ROOM: Babbio, 104	ROOM: Babbio, 219	ROOM: Babbio, 221
<b>1:30-1:50 p.m.</b>	<b>1:30-1:55 p.m.</b>	<b>1:30-1:50 p.m.</b>	<b>1:30-1:55 p.m.</b>
Congener-specific C <sub>10</sub> -C <sub>13</sub> and C <sub>14</sub> -C <sub>17</sub> chlorinated paraffins in Chinese agricultural soils: Spatio-vertical distribution, homologue pattern and environmental behavior	Environmental Chemistry and Toxicology for the Anthropocene Sustainability Challenges	New analytical strategy for the analysis of diseased cells and pathogenic bacteria	Biodegradation of plastics and secondary microplastics in the marine environment
PRESENTED BY: Muhammad Aamir	PRESENTED BY: Xiangdong Li, Keynote	PRESENTED BY: Qiuquan Wang	PRESENTED BY: Nicolas Kalogerakis, Keynote
<b>1:50-2:10 p.m.</b>	<b>1:55-2:15 p.m.</b>	<b>1:50-2:10 p.m.</b>	<b>1:55-2:15 p.m.</b>
A Preliminary Screening of HBCD Enantiomers Transported by Microplastics in Wastewater Treatment Plants	Evaluation of the toxicity of 1-butyl-3-methyl imidazolium tetrafluoroborate using earthworms ( <i>Eisenia fetida</i> ) in two soils	A preliminary Screening On-line Concentration of Phenoxy Acid Herbicides By Capillary Electrophoresis	Ni Metal-Organic Frameworks Monolayers for Photoreduction of Diluted CO <sub>2</sub>
PRESENTED BY: Kai Zhang	PRESENTED BY: Lusheng Zhu	PRESENTED BY: Haofeng Chen	PRESENTED BY: Zhang Lin
<b>2:10-2:30 p.m.</b>	<b>2:15-2:35 p.m.</b>	<b>2:10-2:30 p.m.</b>	<b>2:15-2:35 p.m.</b>
Tissue distribution, growth dilution and species-specific bioaccumulation of organic ultraviolet absorbers in wildlife freshwater fish in the Pearl River catchment, China	How cells respond to polychlorinated biphenyl quinone-induced oxidative insult	Simple Aptamer Fluorescence Anisotropy Assays for small molecules	Mitigation of Methylmercury Production in Eutrophic Waters by Surface Oxygen Nanobubbles
PRESENTED BY: Xianzhi Peng	PRESENTED BY: Yang Song	PRESENTED BY: Qiang Zhao	PRESENTED BY: Xiaonan Ji
<b>2:30-2:50 p.m.</b>	<b>2:35-2:55 p.m.</b>	<b>2:30-2:50 p.m.</b>	<b>2:35-2:55 p.m.</b>
Fine airborne particule exposure induced direct and indirect health risks and underlying mechanism	Response of triphenyl phosphate (TPHP) in metabolism and cell cycle pathways characterized by an integrated omics approach	Hepatotoxic effects of inhalation exposure to polycyclic aromatic hydrocarbons on lipid metabolism of C57BL/6 mice	Shift of the Phenanthrene Degrading Microbial Community driven by Carbohydrate Metabolism Selection in ryegrass rhizosphere
PRESENTED BY: Juan Ma	PRESENTED BY: Fei Li	PRESENTED BY: Qian Luo	PRESENTED BY: Longfei Jiang
<b>2:45-3:05 p.m. BREAK</b>			

## SATURDAY, OCTOBER 26, 2019

EMERGING CONTAMINANTS OF CONCERN	TOXICOLOGY AND ECOTOXICOLOGY OF PTS	ANALYTICAL AND BIO-ANALYTICAL METHODS	MITIGATION AND REMEDIATION OF PTS, EMERGING AND OTHER CONTAMINANTS
CHAIR: Lingyan Zhu	CHAIR: Guangbo Qu	CHAIR: Qiang Zhao	CHAIR: Shaohua Chen
ROOM: Babbio, 220	ROOM: Babbio, 104	ROOM: Babbio, 219	ROOM: Babbio, 221
<b>3:05-3:25 p.m.</b>			
Magnetic covalent organic frameworks for efficient removal or pharmaceutical contaminants from water	Silver Nanoparticles Compromise Female Embryonic Stem Cell Differentiation through Disturbing X Chromosome Inactivation	Use of SERS to Study the Catalytic Degradation Mechanisms of Environmental Pollutants	Chlorate reduction by <i>Ochrobactrum anthropus</i> Strain XM-1
PRESENTED BY: Shuai Qin	PRESENTED BY: Sijin Liu	PRESENTED BY: Jingfu Liu	PRESENTED BY: Zhonghua Tong
<b>3:25-3:45 p.m.</b>			
The Impact of Ambient Air Pollution and PM2.5 Components on Cardiovascular Mortality	Multihierarchically Profiling the Biological Effects of Various Metal Based Nanoparticles in Macrophages under Low Exposure Doses	Silver Nanoclusters: Bioactive Nanocrystals with Compelling Antibacterial Activity against Multidrug Resistant Bacteria	Study on Pyrolysis Character and mechanisms of liquid crystal material from waste liquid crystal display panels
PRESENTED BY: Ping Yin	PRESENTED BY: Shunhao Wang	PRESENTED BY: Yongjiu Chen	PRESENTED BY: Ruixue Wang
<b>3:45-4:05 p.m.</b>			
Spatial and temporal distributions of legacy and emerging flame retardants in indoor air and dust and human exposure in Beijing, China	Developmental exposure to lead at environmentally relevant concentrations impaired neurobehavior and NMDAR-dependent BDNF signaling in zebrafish larvae	Unprecedented Enantiospecific Live-cell Nuclear DNA Targeting and Photosensitizing of the Chiral DNA Light-Switch Ru(II) Cationic Complex via Simple Ion-Pairing with Chlorophenolic Counter-anions	Calcium-crosslinked alginate-encapsulated bacteria for remediating of cadmium-polluted water
PRESENTED BY: Qinghua Zhang	PRESENTED BY: Jing Zhao	PRESENTED BY: Benzhan Zhu	PRESENTED BY: Wenli Chen
<b>4:05-4:25 p.m.</b>			
Atmospheric Influencing Factors of Environmentally Persistent Free Radicals in Airborne Particle Matter	A new concern of nanosilver: A case study of bacterial pathogenic evolution		Enhanced Bioremediation of decabromodiphenyl ether (BDE-209) in water-sediments systems with newly-isolated Microbacterium GY2 and the corresponding microbial community
PRESENTED BY: Guorui Liu	PRESENTED BY: Chengdong Zhang		PRESENTED BY: Hua Yin
<b>5:30-6:30 p.m. POSTER SESSION AND COCKTAIL HOUR</b>			



## SUNDAY, OCTOBER 27, 2019

SOURCES, TRANSPORT AND FATE OF PTS	TOXICOLOGY AND ECOTOXICOLOGY OF PTS	MITIGATION AND REMEDIATION OF PTS, EMERGING AND OTHER CONTAMINANTS	SPECIAL SESSION ON PFAS
CHAIR: Jiyan Liu	CHAIR: Xiangdong Li	CHAIR: Qing Huang	CHAIR: Lucia Rodriguez-Freire
ROOM: Babbio, 122	ROOM: Babbio, 104	ROOM: Babbio, 221	ROOM: Babbio, 220
<b>10:45-11:05 a.m.</b>			
Methylation and demethylation of mercury by marine microalgae	Atmospheric fine particulate exposure and lung tumorigenesis	Time-dependent Desorption of Anilines, Phenols and Nitrobenzenes from Biochar Produced at 700°C: Insight into Desorption Hysteresis	PFAS, 1,4-Dioxane, and VOCs Treatment for A Drinking Water System Optimization: Complexities and Challenges
PRESENTED BY: Yanbin Li	PRESENTED BY: Nan Sang	PRESENTED BY: Hongxia Zhu	PRESENTED BY: Stew Abrams
<b>11:05-11:25 a.m.</b>			
Comparative transcriptome analysis reveals the biofilm-based Pb(II) resistance mechanism in <i>Shinella</i> sp. PQ7	The Neurotoxicity Effect and Molecular Mechanism in Response to Atmospheric PM2.5 Inhalation	A Superhydrophobic Porous Polymer with Unusually Large Surface Area	An Innovative Approach to Addressing PFAS in Water: Repeated Adsorption and On-Site Chemical Regeneration with Advanced Reduction Processes (ARPs) or Advanced Oxidation Processes (AOPs)
PRESENTED BY: Yili Huang	PRESENTED BY: Tingting Ku	PRESENTED BY: Li Gong	PRESENTED BY: Yang Deng
<b>11:25-11:45 a.m.</b>			
Effect of selenium nutrition in soil on the uptake and translocation of arsenic in rice plants	Developmental exposure to tris(1,3-dichloro-2-propyl) phosphate (TDCPP) induces vascular toxicity and neuroinflammation	System Biology Analysis of Pyrethroid Degradation in Bacteria and Its Impact on Other Cellular Environment	Differential accumulation and elimination of PFASs in whole blood, plasma and serum in occupational population
PRESENTED BY: Guidi Yang	PRESENTED BY: Yanhong Wei	PRESENTED BY: Shaohua Chen	PRESENTED BY: Ke Gao
<b>11:45 a.m.-1 p.m. LUNCH</b>			

## SESSION INFORMATION

SUNDAY, OCTOBER 27, 2019		
SOURCES, TRANSPORT AND FATE OF PTS	TOXICOLOGY AND ECOTOXICOLOGY OF PTS	SPECIAL SESSION ON PFAS
CHAIR: Tong Zhang	CHAIR: Meirong Zhao	CHAIR: Yang Deng
ROOM: Babbio, 122	ROOM: Babbio, 104	ROOM: Babbio, 220
<b>1-1:20 p.m.</b>		
Metabolic and Cometabolic Bioremediation of 1,4-Dioxane	Disruption of thyroid hormone homeostatis and lipid metabolism by exposure to novel brominated flame retardants (NBFRs) in zebrafish	Statewide Study of Perfluorinated Compounds in New Jersey Fish, Surface Water, and Sediment
PRESENTED BY: Mengyan Li	PRESENTED BY: Bingsheng Zhou	PRESENTED BY: Sandra Goodrow
<b>1:20-1:40 p.m.</b>		
Effect of laying sequence and selection of maternal tissues in assessment of maternal transfer of organohalogenated contaminants during chicken egg formation	Assessment of the developmental cardiac toxicity of F-53B and PFOS	PFAS fate in complex mixtures in legacy contaminated sites
PRESENTED BY: Xiaojun Luo	PRESENTED BY: Renjun Yang	PRESENTED BY: Lucia Rodriguez-Freire
<b>1:40-2 p.m.</b>		
Passive sampling of traffic-derived dissolved pollutants in street run-off from urban areas with different amounts of vegetation	Toxicity of black phosphorus nanosheets on algae	Identification and Environmental Behavior of Emerging Per- and Polyfluoroalkyl Substances from a Fluoropolymer Facility in China
PRESENTED BY: Hanna Fuchte	PRESENTED BY: Guangbo Qu	PRESENTED BY: Yali Shi
<b>2:10-2:30 p.m. BREAK</b>		
<b>2:30-5 p.m. PLENARY SPEECHES AND AWARDS</b>		

## LIST OF POSTERS

POSTER NUMBER	POSTER TITLE	AUTHOR
1	Wheat TaCNR5 enhances cadmium and zinc tolerance and accumulation in rice grains	Tuanyao Chai
2	Substitution-Mediated Enhanced Adsorption of Low Concentration As (V) from Water by Mesoporous Mn <sub>x</sub> Fe <sub>3-x</sub> O <sub>4</sub> Microspheres	Hong Deng
3	Pathway for the Production of Hydroxyl Radical during the Microbially Mediated Redox Transformation of Iron (Oxyhydr)oxides	Shuzhen Zhang
4	Heavy metal treatment technology in groundwater: Environmental processes, mechanisms, and health impacts	Chuanyong Jing
5	Polyfluorinated Iodine Alkanes Mediate the Expression of Estrogen Receptors in Primary Cultures of Rat Cerebral Cortical Neurons	Qian S. Liu
6	Association of maternal plasma metals with incident gestational diabetes mellitus during pregnancy: a nested case-control study	Xinping Li
7	Degradation of nitro-PAHs on channel-like TiO <sub>2</sub>	Jingjing Du
8	The effect of Graphene oxide quantum dots on indigenous bacteria to remove oil contamination	Li Mu
9	Spatial distribution and hazard of halogenated flame retardants and polychlorinated biphenyls to common kingfisher ( <i>Alcedo atthis</i> ) from a region of South China affected by electronic waste recycling	Bixian Mai
10	Exposure to cadmium causes inhibition of otolith development and behavioral impairment in zebrafish larvae	Jian Han
11	Arsenic mobilization from soils in the presence of herbicides	Li Yan
12	Simultaneous and visual detection of inorganic and organic mercury in environment based on DNA-induced Au-Ag nanorods	Fengfu Fu

## LIST OF POSTERS

POSTER NUMBER	POSTER TITLE	AUTHOR
13	Perfluoroalkyl Substances in plasma of pregnant women from a Chinese preterm birth cohort	Da Chen
14	Adsorption of Perfluorooctane Sulfonate on Carbonized PMF Sponge	Ruiming Zhang
15	Biotransformation and Biodefluorination of FTCAs by Actinomycetes	Chen Wu
16	Towards a more comprehensive understanding of autochthonous bioaugmentation (ABA): Studies of ABA of phenanthrene and biphenyl by strain <i>Ralstonia</i> sp. M1 in industrial wastewater	Jibing Li
17	PCB 180 regulates adipogenesis by promoting mitotic clonal expansion via C/EBP $\beta$ SUMOylation dependent mechanism	Yuguo Du
18	Transportation and Toxic Mechanism of mercury	Bin He
19	Applications of Non-Thermal Plasma Technologies in PFAS Contaminated Investigation Derived Wastes	Asa J. Lewis
20	Lead concentrations in urine of mothers and gut bacteria composition in their infants at 24 months	Yuling Xing
21	Associations between polychlorinated dibenzo-dioxins and polychlorinated dibenzo-furans exposure and lung function levels	Zhuang Zhang
22	Prenatal exposure to ambient air pollution and mitochondrial DNA content in cord blood: windows of susceptibility	Chen Hu
23	Introduction to Process and Geosystems Engineering Group	Valentina Prigibbe
24	Diastereoisomer-specific neurotoxicity of hexabromocyclododecane in human SH-SY5Y neuroblastoma cells	Bei Wen





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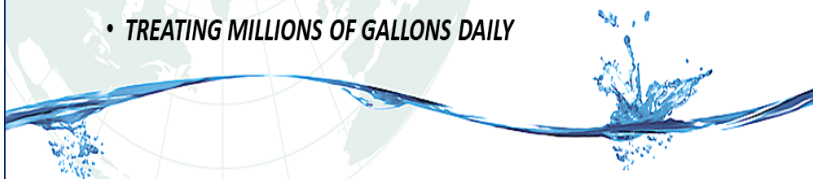
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