

IWA SWSM 2023 Conference Program

Wednesday 13 th December 2023			
8:00 – 9:15	Registration		
9:15 – 9:30	Opening Ceremony		
9:30 – 10:30	Keynote 1 Peroxyacids in wastewater treatment: evaluation of microbial disinfection efficacy and disinfection by-product control Prof. Ching-Hua Huang, Georgia Institute of Technology, USA		
10:30 – 11:00	Coffee Break		
11:00 – 12:00	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Session A-1 Wetland [Chair] Prof. Chawalit Ratanathamsakul, Chulalongkorn University, Thailand Dr. Wenchao Xue, Asian Institute of Technology, Thailand </td> <td style="width: 50%; vertical-align: top;"> Session B-1 Contaminated water treatment [Chair] Prof. Sandhya Babel, Thammasat University, Thailand Dr. Khemrath Osathaphan, Chulalongkorn University, Thailand </td> </tr> </table>	Session A-1 Wetland [Chair] Prof. Chawalit Ratanathamsakul, Chulalongkorn University, Thailand Dr. Wenchao Xue, Asian Institute of Technology, Thailand	Session B-1 Contaminated water treatment [Chair] Prof. Sandhya Babel, Thammasat University, Thailand Dr. Khemrath Osathaphan, Chulalongkorn University, Thailand
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12:00 – 13:30	Lunch		
13:30 – 14:00	Special Talk 1 Degradation of contaminants of emerging concern using sunlight photocatalysts based on MOFs Prof. Carolina Belver, the Autonomous University of Madrid, Spain		
14:00 – 15:00	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Session A-2 Catalytic and oxidation processes [Chair] Dr. Jenyuk Lohwacharin, Chulalongkorn University, Thailand Dr. On-anong Larpparisudthi, Chulalongkorn University, Thailand </td> <td style="width: 50%; vertical-align: top;"> Session B-2 Smart water management [Chair] Dr. Sutha Khaodhiar, Chulalongkorn University, Thailand Dr. Win Trivitayanurak, Chulalongkorn University, Thailand </td> </tr> </table>	Session A-2 Catalytic and oxidation processes [Chair] Dr. Jenyuk Lohwacharin, Chulalongkorn University, Thailand Dr. On-anong Larpparisudthi, Chulalongkorn University, Thailand	Session B-2 Smart water management [Chair] Dr. Sutha Khaodhiar, Chulalongkorn University, Thailand Dr. Win Trivitayanurak, Chulalongkorn University, Thailand
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15:00 – 15:30	Coffee Break		
15:30 – 16:30	Closing Ceremony		
18:00	Gala Dinner		
Saturday 16 th December 2023			
TBA	Field Trip		

Conference Schedule: Wednesday 13th December 2023

Ballroom A

Wednesday 13 th December 2023		
8:00 – 9:15	Registration	
9:15 – 9:30	Opening Ceremony	
9:30 – 10:30	Keynote 1	Peroxyacids in wastewater treatment: evaluation of microbial disinfection efficacy and disinfection by-product control Prof. Ching-Hua Huang, Georgia Institute of Technology, USA
10:30 – 11:00	Coffee Break	
	Wetland [Chair] Prof. Chawalit Ratanathamsakul, Chulalongkorn University, Thailand Dr. Wenchao Xue, Asian Institute of Technology, Thailand	
11:00 – 11:20	A-1-1 SWSM-0133	A novel approach for the customized design of horizontal subsurface flow constructed wetlands for organics and nutrient removal using machine learning algorithms Mr. Saurabh Singh, Malaviya National Institute of Technology Jaipur, India
11:20 – 11:40	A-1-2 SWSM-0134	Deep aerated wetlands as an effective means of enhancing nitrogen removal and maximizing life span of CWs Dr. Niha Mohan, Malaviya National Institute of Technology Jaipur, India
11:40 – 12:00	A-1-3 SWSM-0139	Performance efficiency and microbial community comparison between the vertical flow wetland systems treating dairy and municipal wastewater Mr. Abhishek Soti, Malaviya National Institute of Technology Jaipur, India
12:00 – 13:30	Lunch	
13:30 – 14:00	Special Talk 1	Degradation of contaminants of emerging concern using sunlight photocatalysts based on MOFs Prof. Carolina Belver, the Autonomous University of Madrid, Spain
	Catalytic and oxidation process [Chair] Dr. Jenyuk Lohwacharin, Chulalongkorn University, Thailand Dr. On-anong Larpparisudthi, Chulalongkorn University, Thailand	
14:00 – 14:20	A-2-1 SWSM-0150	Novel isorecticular UiO-66-NH ₂ frameworks by N-cycloalkyl functionalization of the 2-aminoterephthalate linker with enhanced solar photocatalytic degradation of acetaminophen Prof. Jorge Bedia, Universidad Autónoma de Madrid, Spain
14:20 – 14:40	A-2-2 SWSM-0142	Novel ozonolysis for naphthalene oxidation using a continuous treatment of air-assisted cold-plasma Mr. Gerardo Oswaldo, Joenbuk National University, Republic of Korea
14:40 – 15:00	A-2-3 SWSM-0146	Degradation of aspirin and tetracycline using heterogeneous electro fenton aided by bentonite supported nano zero valent Iron (B-nZVI) catalyst Dr. Perugu Shyam, National Institute of Technology, Warangal, India
15:00 – 15:30	Coffee Break	
	Nutrient recovery [Chair] Dr. Patiparn Punyapalakul, Chulalongkorn University, Thailand Dr. Benjaporn Suwannasilp, Chulalongkorn University, Thailand	
15:30 – 15:50	A-3-1 SWSM-0126	Assessment of ammonia reduction of swine manure by introducing odor-reducing agents and its effects on anaerobic digestion Miss Yun-Ju Jeon, Chungbuk National University, Republic of Korea
15:50 – 16:10	A-3-2 SWSM-0132	First-principles studies on the development of new materials for reversible hydrogen storage Prof. Dong-Hee Lim, Chungbuk National University, Republic of Korea
16:10 – 16:30	A-3-3 SWSM-0136	Impact of magnetite addition on anaerobic digestion of swine manure with high ammonia concentration Mr. Jung-Sup Lee, Chungbuk National University, Republic of Korea
16:30 – 16:50	A-3-4 SWSM-0147	Ammonium recovery using copper hexacyanoferrate coated 3D printed scaffold Miss Narges Nia, Seoul National University of Science and Technology, Republic of Korea
18:30	Dinner	

Conference Schedule: Wednesday 13th December 2023

Ballroom B

Wednesday 13 th December 2023		
8:00 – 9:15	Registration	
9:15 – 9:30	Opening Ceremony	
9:30 – 10:30	Keynote 1	Peroxyacids in wastewater treatment: evaluation of microbial disinfection efficacy and disinfection by-product control Prof. Ching-Hua Huang, Georgia Institute of Technology, USA
10:30 – 11:00	Coffee Break	
	Contaminated water treatment [Chair] Prof. Sandhya Babel, Thammasat University, Thailand Dr. Khemrath Osathaphan, Chulalongkorn University, Thailand	
11:00 – 11:20	B-1-1 SWSM-0112	Electrochemical filtration system using hybrid materials between carbon-based nanomaterial and metal organic framework for haloacetic acid reduction in water Dr. Chotikoon Bunditboondee, Chulalongkorn University, Thailand
11:20 – 11:40	B-1-2 SWSM-0118	Heavy metal removal performance of materials to treat road runoff in roadside trenches Dr. Subhash S Rathnaweera, Aquateam COWI AS, Norway
11:40 – 12:00	B-1-3 SWSM-0123	Pretreatment mechanisms of tetramethyl-ammonium hydroxide (TMAH) using electro-coagulation/floatation Prof. Seongjun Park, Hanyang University, Republic of Korea
12:00 – 13:30	Lunch	
13:30 – 14:00		
	Smart water management [Chair] Dr. Sutha Khaodhiar, Chulalongkorn University, Thailand Dr. Win Trivitayanurak, Chulalongkorn University, Thailand	
14:00 – 14:20	B-2-1 SWSM-0111	Smart stormwater pollution management system for urban first flush pollutants Prof. Dongil Seo, Chungnam National University, Republic of Korea
14:20 – 14:40		
14:40 – 15:00		
15:00 – 15:30	Coffee Break	
	Microbial risk and disinfection-1 [Chair] Dr. Kwanrawee Sirikanchana, Chulabhorn Research Institute, Thailand Dr. Jatuwat Sangsanont, Chulalongkorn University, Thailand	
15:30 – 15:50	B-3-1 SWSM-0125	Reduce the burden of AMR caused by poultry farms Miss Saline Tigga, IIT DELHI, India
15:50 – 16:10	B-3-2 SWSM-0131	Removal of antibiotics and bacterial growth inhabitation from hospital wastewater using granular activated carbon Miss Panisa Pulgred, Chulalongkorn University, Thailand
16:10 – 16:30	B-3-3 SWSM-0135	Isolation and screening of dominant microalgae from treated domestic wastewater Mr. Chakrit Yuktanon, Suranaree University of Technology, Thailand
16:30 – 16:50		
18:30	Dinner	

Conference Schedule: Thursday 14th December 2023

Ballroom A

Thursday 14 th December 2023		
9:00 – 9:30	Special Talk 3	Ferrate in population health and sustainability under changing environment: enhanced disinfection and water purification Prof. Virender K. Sharma, Texas A&M University, USA
		PFAS [Chair] Prof. Virender K. Sharma, Texas A&M University, USA Dr. Dao Suwansang Janjaroen, Chulalongkorn University, Thailand
9:30 – 9:50	A-4-1 SWSM-0110	PFOA adsorption by Al-based MOF synthesized from red mud Prof. Sungjun Bae, Konkuk University, Republic of Korea
9:50 – 10:10	A-4-2 SWSM-0148	Monitoring and transformation of PFAS at municipal wastewater treatment plants Prof. Mengyan Li, New Jersey Institute of Technology, USA
10:10 – 10:30		
10:30 – 11:00		Coffee Break
		Microplastics-1 [Chair] Prof. Sandhya Babel, Thammasat University, Thailand Dr. Janyuk Lohwacharin, Chulalongkorn University, Thailand
11:00 – 11:20	A-5-1 SWSM-0104	Main input pathway for microplastics to coastal marine environment Prof. Seung-Kyu Kim, Incheon National University, Republic of Korea
11:20 – 11:40	A-5-2 SWSM-0108	Release of microplastics from ultrafiltration membrane system for water treatment under different operating conditions Mr. Thitiwut Maliwan, National University of Singapore, Singapore
11:40 – 12:00		
12:00 – 13:30		Lunch
13:30 – 15:15		Workshop Navigating microplastic pollution in water environments—bridging science and policy for sustainable solutions Room: Jamjuree 1
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15:30 – 16:00	Special talk 5	CO-N₃ single atoms embedded in membrane for efficient peroxymonosulfate activated degradation of antibiotics Prof. Yu Yang, Beijing Normal University, China
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16:00 – 16:20	A-6-1 SWSM-0119	Elucidation of the photochemical fate of methionine in the presence of surrogate and standard dissolved organic matter under sunlight irradiation Prof. Daisuke Minakata, Michigan Technological University, USA
16:20 – 16:40	A-6-2 SWSM-0116	Fluorescence spectral fingerprints: a new approach to characterizing the intermolecular interactions of extracellular polymeric substances (EPS) in wastewater systems Prof. Kang xiao, University of Chinese academy of Sciences, China
16:40 – 17:00	A-6-3 SWSM-0222	Fabrication of copper hexacyanoferrate (Cu-HCF) immobilized on porous alumina foam using an in-situ method for effective removal of radioactive cesium (137Cs) Miss Jihee Song, Chungbuk National University, Republic of Korea

Conference Schedule: Thursday 14th December 2023

Ballroom B

Thursday 14 th December 2023		
9:00 – 9:30	Special Talk 4	Science communication for conservation of water under sustainable development goal 6 Dr. Gagan Matta, Gurukula Kangri University, India
		Microbial risk and disinfection-1 [Chair] Prof. Kumiko Oguma, The University of Tokyo, Japan Dr. Tawan Limpiyakorn, Chulalongkorn University, Thailand
9:30 – 9:50	B-4-1 SWSM-0130	Evaluation of suitable water-related activities based on water quality index (WQI) and quantitative microbial risk assessment of noroviruses and SARS- CoV-2 in Maha Sawat canal, Thailand Miss Parichat Soisoongnern, Chulalongkorn University, Thailand
9:50 – 10:10	B-4-2 SWSM-0143	Balancing virus reduction and dichloroacetonitrile formation in chlorination of wastewater for reclamation Miss Rotsathon Plumsut, Chulalongkorn University, Thailand
10:10 – 10:30	B-4-3 SWSM-0144	Virus reduction and trihalomethanes risk after chlorine disinfection of secondary wastewater Miss Waraporn Khantong, Chulalongkorn University, Thailand
10:30 – 11:00		Coffee Break
		Microbial risk and disinfection-2 [Chair] Dr. Patiparn Punyapalaku, Chulalongkorn University, Thailand Dr. Jatuwat Sangsanont, Chulalongkorn University, Thailand
11:00 – 11:20	B-5-1 SWSM-0122	The turbidity level optimization for UV-LED disinfection in recirculating aquaculture system (RAS) Dr. Sitthakarn Sitthi, Chulalongkorn University, Thailand
11:20 – 11:40	B-5-2 SWSM-0127	Effect of C/N ratio on nitrifying biofloc acclimatization and microbial community dynamics Dr. Penpicha Satanwat, Chulalongkorn University, Thailand
11:40 – 12:00	B-5-3 SWSM-0219	Real-time monitoring and prediction of biofilm and corrosion layer formation on various pipe materials using non-invasive technique Mrs. Hongrae Im, Sungkyunkwan University, Republic of Korea
12:00 – 13:30		Lunch
13:30 – 15:15		Poster Presentation Location: Ballroom A+B foyer
15:15 – 15:30		Coffee Break
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16:00 – 16:20	B-6-1 SWSM-0107	A Study on the composition and treatment of wastewater produced during ship biofouling management Dr. Sangho Park, S&SYS, Republic of Korea
16:20 – 16:40	B-6-2 SWSM-0120	Optimization of the electrocoagulation process in urea treatment by using response surface methodology Miss Thi Kim Anh Nguyen, Sungkyunkwan, University, Republic of Korea
16:40 – 17:00	B-6-3 SWSM-0210	Synthesis of granular titanium-based lithium ion sieve for removal of lithium ion from wastewater Miss Heeji Yoo, Chungbuk National University

Conference Schedule: Friday 15th December 2023

Ballroom A

Friday 15 th December 2023		
9:00 – 10:00	Keynote 2	Molecular level identification of foulants in membrane-based water treatment processes Prof. Seok-Tae Kang, Korea Advanced Institute of Science and Technology, Republic of Korea
10:00 – 10:30	Coffee Break	
10:30 – 11:00	Special Talk 7	Quantitatively tracking micro- and nano plastics in ecosystem and living organisms Prof. Bing Yan, Guangzhao University, China
	Microplastic-2 [Chair] Prof. Satoshi Takizawa, The University of Tokyo, Japan Dr. Saret Bun, Institute of Technology of Cambodia, Cambodia	
11:00 – 11:20	A-7-1 SWSM-0113	Assessing public knowledge and perception on microplastic pollution of urban and rural residents in the Philippines Miss Alexandra Marie Sumaway, United Nation University, Japan
11:20 – 11:40	A-7-2 SWSM-0114	Spectroscopic and molecular-level features of photo-induced dissolved organic matter from polymer and commercial microplastics Dr. Yunkyung Lee, Sejong University, Republic of Korea
11:40 – 12:00	A-7-3 SWSM-0115	Influence of aquatic humic substances on the interactions between hydrophobic organic contaminants and microplastics Miss Rabia Zafar, Sejong University, Republic of Korea
12:00 – 13:30	Lunch	
13:30 – 14:00	Special Talk 9	Application of high-speed biofiltration process for prevention of water pollution in urban watershed Prof. Hyunook Kim, University of Seoul, Republic of Korea
	Microplastic-3 [Chair] Prof. Ching-Hua Huang, Georgia Institute of Technology, USA Dr. Virin Kittithammavong, Naresuan University, Thailand	
14:00 – 14:20	A-8-1 SWSM-0129	Microplastics in the Mekong River of Cambodia Dr. Saret Bun, Institute of Technology of Cambodia, Cambodia
14:20 – 14:40	A-8-2 SWSM-0138	Impact of aging on the sorption behavior of phenolic endocrine disrupting compounds on microplastic particles Miss Chutiporn Inchna, Chulalongkorn University, Thailand
14:40 – 15:00	A-8-3 SWSM-0145	Elimination of microplastics in urban decentralized wastewater treatment: a case study in the Bangkok Metropolitan Region, Thailand Dr. Wenchao Xue, Asian Institute of Technology, Thailand
15.00-15.30	Coffee Break	
15.30-16.30	Closing Ceremony	
18.00	Gala Dinner	

Conference Schedule: Friday 15th December 2023

Ballroom B

Friday 15 th December 2023		
9:00 – 10:00	Keynote 3	Keynote 3: Fluoride adsorption on natural organic materials – influence of molecular structure and hydrogen bonding Prof. Satoshi Takizawa, The University of Tokyo, Japan
10:00 – 10:30	Coffee Break	
10:30 – 11:00	Special Talk 8	Tunable porous framework membranes for water remediation Prof. Denish Shetty, Khalifa University, UAE
	Membrane [Chair] Prof. Seok-Tae Kang, Korea Advanced Institute of Science and Technology, Republic of Korea Dr. Athit Phetrak, Mahidol University, Thailand	
11:00 – 11:20	B-7-1 SWSM-0121	Fabricated magnetic adsorption – forward osmosis membrane hybrid system for hydroponic Irrigation from rich arsenic-containing heavy metal water Mr. Anh Nguyen Duc, Sungkyunkwan University, Republic of Korea
11:20 – 11:40	B-7-2 SWSM-0141	Energy efficiency enhancement through design optimization of multi-stage RO processes Mr. Yunhwan kim, Chonnam National University, Republic of Korea
11:40 – 12:00		
12:00 – 13:30	Lunch	
13:30 – 14:00	Special Talk 10	Visible-light-driven photocatalytic systems for wastewater remediation applications Prof. Raju Kumar Gupta, Indian Institute of Technology Kanpur, India
	Micropollutant [Chair] Dr. Gagan Matta, Gurukula Kangri University, India Dr. Patiparn Punyapalakul, Chulalongkorn University, Thailand	
14:00 – 14:20	B-8-1 SWSM-0117	Organic micro-pollutants removal in wastewater by biofilm in gravity driven membrane bioreactor (GD-MBR) Miss Yeong Na, King Abdullah University of Science and Technology, Saudi Arabia
14:20 – 14:40	B-8-2 SWSM-0149	Upcycling of plastics waste to CU-MOF/Bi ₂ S ₃ for the photocatalytic reclamation of antibiotics from wastewater Prof. Arvind Kumar, National Institute of Technology Rourkela, India
14:40 – 15:00	B-8-3 SWSM-0105	Engineered nanohybrids as robust environmental catalysts for advanced water purification Dr. Xiaohuang Duan, The University of Adelaide, Australia
15.00-15.30	Coffee Break	
15.30-16.30	Closing Ceremony	
18.00	Gala Dinner	

Poster Presentation

Thursday 14th December 2023

Location: Ballroom A+B foyer

Poster ID	Abstract Number	Title
P-1-1	SWSM-0205	Evaluating antibiotic resistance genes and human-specific fecal indicator in Bangkok's wastewater treatment facilities: A qPCR-based study Miss Kwanraewee Sirikanchana, Chulabhorn Research Institute, Thailand
P-1-2	SWSM-0128	Co-selection of antimicrobial resistance by non-antibiotic factors in aquaculture water Miss Zhan Dong, NERI, National University of Singapore, Singapore
P-1-3	SWSM-0202	A novel measurement of PS nanoplastics concentration by colorimetric sensing Mr. Jaehwan Hong, Kwangwoon University, Republic of Korea
P-1-4	SWSM-0203	Material flow analysis-based assessment of polypropylene-fiber-containing microplastics released from disposable masks Mr. Hyeokjin Shin, Kwangwoon University, Republic of Korea
P-1-5	SWSM-0215	Disturbance of microplastics (MPs) to early diagenesis of pore water dissolved organic matter in sediment contaminated with MPs Miss Na Eun Choi, Sejong University, Republic of Korea
P-1-6	SWSM-0230	Microplastics in a PET recycling plant: the formation of biomass and the potential for organic carbon migration Prof. Sungkyu Maeng, Sejong University, Republic of Korea
P-1-7	SWSM-0232	Microplastic contamination in Naresuan University's water treatment system Miss Virin Kittithammavong, Naresuan University, Thailand
P-1-8	SWSM-0239	Effect of microplastic and coagulant types for microplastic removal in leachate landfill by using coagulation and dissolved air flotation process (DAF) Miss Vannary Heang, Chulalongkorn University, Thailand
P-1-9	SWSM-0241	New approach on understanding the variation in the effect of dark and photo-fenton ageing on polystyrene microplastics Miss Thaiyal Narhayan, Chulalongkorn University, Thailand
P-1-10	SWSM-0208	Establishment of climate change adaptation measures for water supply in Jeju province South Korea Prof. Jinkeun Kim, Jeju National University, Republic of Korea
P-1-11	SWSM-0221	Evaluation of prediction and model performance for total organic carbon concentration in the Han River watershed using machine learning techniques combined with optical indices Mr. Ho-Yeon Park, Sejong University, Republic of Korea
P-1-12	SWSM-0233	Effect of design and operational factors on energy consumption in large-scale SWRO desalination plants Miss Jaeun Byeon, Chonnam National University, Republic of Korea
P-1-13	SWSM-0236	Managing publicly owned treatment work based on total nitrogen prediction using long short-term memory model Miss YeonA Lee, Jeonbuk National University, Republic of Korea
P-1-14	SWSM-0238	Monitoring the seasonal effectiveness of on-site constructed wetlands for treatment of rural wastewater Miss Yeji Seo, Changwon National University, Republic of Korea
P-1-15	SWSM-0234	Effects of naphthalene on anaerobic co-digestion system Miss Yu-jin Lim, Jeonbuk National University, Republic of Korea
P-1-16	SWSM-0235	Evaluation of perfluorooctane sulfonate (PFOS) effect on CH ₄ conversion rate of anaerobic digestion Miss Hye-in Lee, Jeonbuk National University, Republic of Korea
P-1-17	SWSM-0224	Assessment of efficiency of anaerobic digestion using pre-treatment and post-treatment approaches Mr. Byung-kyu Ahn, Chungbuk National University, Republic of Korea
P-1-18	SWSM-0245	Strategies for wastewater management in paper-based packaging reprocessing facilities: challenges and opportunity in developing countries Mr. Gulshan Kumar Gaur, Indian Institute of Technology Delhi, India
P-1-19	SWSM-0246	Water governance for sustainability in India Mr. Sanjeev K. Chadha, Babasaheb Bhimrao Ambedkar University, India

Poster ID	Abstract Number	Title
P-2-1	SWSM-0201	Modification of low-cost biosand filter for groundwater decontamination Mr. Jamiu Eniola, Khalifa University, United Arab Emirates
P-2-2	SWSM-0109	Selectively rejecting organic micro-pollutants for drinking water treatment by negatively-charged NF membranes Prof. Xiao Kang, College of Resources and Environment, University of Chinese Academy of Sciences
P-2-3	SWSM-0206	Assessment of Mg-LaO ₂ -sericite complex for removal of phosphorus from water Prof. Hee-Jeong Choi, Catholic Kwandong University, Republic of Korea
P-2-4	SWSM-0209	Degradation of urea from reclaimed water by powdered activated carbon-assisted SR-AOP: urea degradation mechanism Miss Chaelin Kim, Chungbuk National University, Republic of Korea
P-2-5	SWSM-0220	Identifying key environmental factors determining changes in dissolved organic matter characteristics in an estuary: an investigation using a lab-scale simulation system Miss Suhyeon Jang, Sejong University, Republic of Korea
P-2-6	SWSM-0223	Development of highly efficient layered double hydroxide (LDH) adsorbent for removal of ciprofloxacin in water Miss Chae rin Park, Chungbuk National University, Republic of Korea
P-2-7	SWSM-0240	Degradation of Trichloroacetaldehyde (TCAL) and Dichloroacetonitrile (DCAN) in water by ultra irradiation Mr. Kiattisak Nakboon, Chulalongkorn University, Thailand
P-2-8	SWSM-0207	In-situ biogas upgradation using autogenerative high pressure in a continuous operating reactor Mr. Om Orakash, Inha University, Republic of Korea
P-2-9	SWSM-0218	Development of fouling resistant Janus membrane for nitrogen resource recovery from high-strength ammonia wastewater Miss Hyewon Jeon, Sungkyunkwan University, Republic of Korea
P-2-10	SWSM-0213	Computational study of doping modifications in lithium titanium oxide (LTO) for enhanced lithium recovery Miss Eun-Min Bae, Chungbuk National University, Republic of Korea
P-2-11	SWSM-0217	Enhancing source tracking of dissolved organic matter (DOM) in watersheds: an optimal tracer identification approach using point source effluent load data Miss Haeseong Oh, Sejong University, Republic of Korea
P-2-12	SWSM-0212	A pilot plant study of a multi-media filter for the removal of heavy metals in expressway stormwater runoff Prof. Seok-Oh Ko, Kyung Hee University, Republic of Korea
P-2-13	SWSM-0211	Degradation of a pharmaceutical by C and O co-doped graphitic carbon nitride in the presence of peroxymonosulfate and peroxydisulfate Prof. Seok-Oh Ko, Kyung Hee University, Republic of Korea
P-2-14	SWSM-0216	Assessment of efficiency and adsorption mechanism of food waste-derived biochar for triclosan removal Prof. Seong-Jik Park, Hankyong National University, Republic of Korea
P-2-15	SWSM-0225	Reactions of As(V) and DMAs(V) under methane producing wetland conditions Prof. Young-Soo Han, Chungnam National University, Republic of Korea
P-2-16	SWSM-0237	Hydrogen production and dye decomposition using polymer electrolyte membrane water electrolysis Miss Liza Hamzah, Changwon National University, Republic of Korea
P-2-17	SWSM-0242	Carbon-neutralized new cleaning methodology in reverse osmosis membrane using supercritical CO ₂ applications Mr. Woohyeong Jang, Sungkyunkwan University, Republic of Korea
P-2-18	SWSM-0244	The classification of micrometer-sized plastic particles using hyperspectral microscope and machine learning Miss Sion Kim, Korea Advanced Institute of Science and Technology, Republic of Korea
P-2-19	SWSM-0243	Rational construction of chemically functionalized g-C ₃ N ₄ /Bi ₂ S ₃ /CeO ₂ ternary heterojunction beads for tereacycline degradation via PMS activation Mr. Mahendra Chinthala, National Institute of Technology Rourkela, India