

BWR2018 Conference Programme

	17 December 2018 (Monday)				
Time	Activity	Speaker			
	Opening Ceremony (C-LP-11)				
08:30-09:00	Registration				
09:00-09:05	Welcoming Remarks	Ming Hung Wong Honorary Chair of BWR2018			
09:05-09:15	Welcoming Speech	Stephen Y.L. Cheung President The Education University of Hong Kong, Hong Kong			
09:15-09:30	Opening Speech	Kam Sing Wong Secretary for the Environment Environment Bureau, Hong Kong SAR Government			
09:30-09:35	Group Photo				
	Plenary Speech (C-LP-11) (Chairs: Ming Hung Wong and Yong Sik Ok)				
09:35-10:05	Enhancing Bioenergy Recovery through Innovative Nitrogen Conversions	Zhiguo Yuan The University of Queensland, Australia Editor, Water Research			
10:05-10:35	Energy and Water Footprints to Support Circular Economy and Smart Cities	Jiří Klemeš Brno University of Technology, Czech Republic Co-Editor-in-Chief, Journal of Cleaner Production			
10:35-10:55	Tea Break and Poster Session				
10:55-11:25	Microbial Diversity and Nutrient Removal Characteristics of Aerobic Granules Treating High-strength Municipal Wastewater	Joo Hwa Tay University of Calgary, Canada Editor, Journal of Hazardous Materials			
11:25-11:55	CO ₂ as Oxygen Source for Value-added Chemicals	Sang-Eon Park Inha University, South Korea Editor-in-Chief, Journal of CO ₂ Utilization			
11:55-12:25	Biochar Stability in Soil: Experiments and Meta-analysis to Decomposition and Priming Effects, and Consequences for Carbon Sequestration	Yakov Kuzyakov University of Göttingen, Germany Section Editor, Land Degradation and Development			



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12:25-12:55	Membrane Bioreactors in Sustainable Waste Management Soniya College			Tejraj Aminabhavi Soniya College of Pharmacy, Indi Editor, Chemical Engineering Jou	raj Aminabhavi	
12:55-14:15	Lunch					
	Keynote Session 1A (D1-LP-06) (Chairs: Jörg Rinklebe and Yiu Fai Tsang)	Speaker	Keynote Session (D1-LP-07) (Chairs: Filip Ta	1B ack and Yu Bon Man)	Speaker	
14:15-14:35	From Biowaste to Transportation Fuel - An Environment-enhancing Energy Paradigm	Yuanhui Zhang University of Illinois at Urbana-Champaign, USA	Energetic and Mechanistic Understanding of Biomass Decomposition		Marco Castaldi City University of New York, USA	
14:35-14:55	Recovery of Energy Using Anaerobic Digestion	Tong Zhang The University of Hong Kong, Hong Kong	Sulfide Nanopar	Hydrogen Production by Metal ticles Surfaced-Coated from Wastewater	Po Keung Wong The Chinese University of Hong Kong, Hong Kong	
14:55-15:15	Transforming Food and Textile Wastes into High Value-added Products	Carol Sze Ki Lin City University of Hong Kong, Hong Kong	Biowaste to Nanomaterials		Ki-Hyun Kim Hanyang University, South Korea	
15:15-15:35	Biochar as a Tool to Manage the Mobilization of Metals in Paddy Soils	Jörg Rinklebe University of Wuppertal, Germany	Biochar: A Product of the Biobased Economy with Wide Potential Use in the Management of Contaminated Areas		Filip Tack Ghent University, Belgium	
15:35-15:55	Tea Break and Poster Session					
	Technical Speech and Meet the Editors (C-LP-11) (Ch	airs: Eilhann E. Kwon and Yi	u Fai Tsang)			
15:55-16:15	Technical Speech: Sludge Management in Hong Kong			Ching-Nam Shum Senior Electrical & Mechanical E Representative of <i>Drainage Servi</i>		
16:15-16:35	Sustainable Treatment of Organic Fraction of Municipal	l Solid Waste		Jude Chow Chairperson Hong Kong Waste Management A	Association, Hong Kong	
16:35-16:55	CIWEM's Priorities for an Effective Resources and Waste Strategy Alfred C.K. Lee Immediate Past Chairman Chartered Institution of Water and Management - Hong Kong Branch			d Environmental		
16:55-17:35	Meet the Editors					
17:35-18:15	To Regal Riverside Hotel in Sha Tin by Coach					
18:15-21:00	Conference Banquet at Bauhinia Room, 3/F, Regal Riverside Hotel, 34-36 Tai Chung Kiu Road, Sha Tin (Ticket required)					

18 December 2018					
	Keynote Session 2A (D1-LP-06) (Chairs: Daniel C.W. Tsang and Yiu Fai Tsang)	(Tuesday) Speaker	Keynote Session 2B (D1-LP-07) (Chairs: Longbin H	uang and Yu Bon Man)	Speaker
09:30-09:50	Food Waste Recycling into Bio-based Chemicals	Daniel C.W. Tsang The Hong Kong Polytechnic University, Hong Kong	Mineral Transformat	ion Driven by Microbial rganic Matter in Metal Mine	Longbin Huang The University of Queensland, Australia
09:50-10:10	Beneficial Use of CO ₂ in Pyrolysis of Chicken Manure for Fabricating a CO ₂ Sorptive Material	Hocheol Song Sejong University, South Korea	C1/3/5/6 Biorefinery Factory for Green Cl	by Designer Microbial Cell nemical Production	Sung Ok Han Korea University, South Korea
10:10-10:30	A Holistic Utilization of Biowaste for Renewable Materials Generation	Sangyong Kim Korea Institute of Industrial Technology, South Korea	Soil Erosion and Turbid Water Controls Using Coal Ash and Polymer		Sang Soo Lee Yonsei University, South Korea
10:30-10:50	Tea Break and Poster Session				
		Oral Presentation			
	Oral Session 1A - Environmental Remediation (D1-LP-06) (Chairs: Kitae Baek and Chang-Ping Yu)	Oral Session 1B - Waste M (D1-LP-07) (Chairs: Erik Meers and E	(D2-LP-09)		•
10:50-11:10	Invited Speech: Role of Dissolved Organic Carbon from Sludge, Rice Straw and Spent Coffee Ground Biochar on the Mobility of Arsenic Kitae Baek	Invited Speech: Role of Biowaste Processing (Re)Cycling and the Circula Erik Meers	Invited Speech: g in Nutrient Versatile Applications of Mi		
11:10-11:30	Invited Speech: Decentralized Wastewater Treatment Using Microbial Fuel Cells with Biocathode and Chemical Cathode Chang-Ping Yu	Invited Speech: Biomass Fraction and its Characteristics of Solid Waste in Korea Eui-Chan Jeon Invited Speech: The Suitability of Algal Spect Bioavailable Phosphorus in Vertical Eakalak Khan			
11:30-11:45	Azo Dye Decolorizing Bacteria Screening and the Performance of Bacteria Consortium in Direct Blue 2B Decolorization Wenhua Liu	A Study on the Characterist Emission from Agricultural Minwook Kim		Cultivating Chlorella Sorok Wastewater in Semi-continu Simultaneous Algal Biomas Wastewater Treatment En-Wei Kuo	ous Operation for

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11:45-12:00	Preparation of Hierarchically Porous Biochars by Using Microwave-assisted KOH Activation under CO ₂ Atmosphere for Efficient Capacitive Deionization Shou-Heng Liu	Characteristics of Volatile Organic Compounds and Odor Pollutants from the Collection, Transportation and Disposal Process of Municipal Solid Waste Guodi Zheng & Erqi Nie	Substrate-specific Bacterial Production of Polyhydroxybutyrates from Biogas Generated from Anaerobic Digestion of Rice Straw Kyoungphile Nam
12:00-12:15	The Dynamic Effect of Micro-sized and Nano-sized Magnetic Powders on Membrane Fouling and their Effect on Microbial Community and Metabolites in Membrane Bioreactors Hongcheng Guo	Anaerobic Baffled Reactor: A System Supporting Flexible Microbial Community for Sustainable Exploitation of Food/Kitchen Waste for Renewable Bioenergy Production Anshuman A. Khardenavis	Effects of Catalysis used in Direct-transesterification on FAME Extracted Microalgal Biomass Jae-Cheol Lee
12:15-12:30	Simultaneous Oxidation and Adsorption of Arsenic Using Fe-modified Graphitic Carbon Nitride (G-C ₃ N ₄) Composite Kitae Baek	Evaluation of Citrus peel and Medical Stone on Soybean Straw Degradation Meng Di An	Design of Continuous Hydrothermal Liquefaction Reactor System and its Performance for Biocrude Production from <i>Spirulina</i> and Livestock Wastewater grown <i>Chlorella</i> Hugang Li
12:30-14:00	Lunch		
	Oral Session 2A - Environmental Remediation (D1-LP-06) (Chairs: Hyun-Woo Kim and Ya-nan Wang)	Oral Session 2B - Waste Management (D1-LP-07) (Chairs: Seoktae Kang and Nastaein Qamaruz Zaman)	Oral Session 2C - Resource Recovery (D2-LP-09) (Chairs: Young-Kwon Park and Gang Luo)
14:00-14:20	Invited Speech: Microalgal Biodegradation and Detoxification of Sulfonamide Antibiotics in Livestock Wastewater Hyun-Woo Kim	Invited Speech: Porous CNT Media for the Enhanced Biogas Productivity by Direct Interspecies Electron Transfer During Anaerobic Digestion Seoktae Kang	Invited Speech: Synthesis of Green Aromatics from Biomass via Catalytic Thermochemical Processes Young-Kwon Park
14:20-14:35	Effective Removal of Lead from Aqueous Solution using Biogenic Hydroxyapatite (HAP) Fabricated from Biowaste Ya-nan Wang	Sludge from Recycled Paper Mill as a Potential Media in the Biological Treatment of Malodour Nastaein Qamaruz Zaman	Anaerobic Digestion for Efficient Biogas Production from Organic Wastes by Integration with Thermal Gasification Gang Luo
14:35-14:50	Micropollutant Removal using Moving Bed Biofilm Batch Reactor with Apple Tree-derived Biochar Do Gun Kim	Anaerobic Co-digestion of Spent Coffee Grounds in Food Waste Digester: Effects of Co-feeding and Stabilization Strategy Danbee Kim	Early Warning Indicators for Mesophilic Anaerobic Digestion of Corn Stalk under Different Overload Conditions Jialiang Zhou

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14:50-15:05	Selective Color Removal from Livestock Wastewater Effluent by Carbon Based Adsorbents Hyojeon Kim	Development of Converterless Battery Management System for Reusing Automotive Lithium-ion Battery Base on On-line Detection of Life Cycle Wen-Poo Yuan	Efficient Production of Succinic Acid in Engineered Escherichia Coli Strains Controlled by Anaerobically- induced NirB Promoter Using Sweet Potato Waste Hydrolysate Meihua Huang	
15:05-15:20	Numerical Study of Carbon Dioxide Injection on Replacement of Methane Hydrate in CO ₂ and CH ₄ Hydrate Formation State Pei-Yin Hsieh	Effects of Physical and Chemical Additives on the Suppression of Soil-borne Pathogens and its Potential Mechanism during Composting Ruixue Chang	Combinations of Microwave and Biological Pretreatments for Enhancing Methane Yield of Bamboo Shoot Shell by Anaerobic Digestion Yong Fang	
15:20-15:40	Tea Break and Poster Session			
	Oral Session 3A - Environmental Remediation (D1-LP-06) (Chairs: Shaoqi Zhou and Deok Hyun Moon)	Oral Session 3B - Waste Management (D1-LP-07) (Chairs: Min-Tian Gao and Chun-Fai Yu)	Oral Session 3C - Resource Recovery (D2-LP-09) (Chairs: Sung-Seen Choi and Jechan Lee)	
15:40-16:00	Invited Speech: Simultaneous Cr(VI) Reduction and Bioelectricity Generation by Microbial Electrochemical System Shaoqi Zhou	Invited Speech: Co-production of Monosaccharides and Phenolic Acids During Saccharification is an Integrated Process for Straw Utilization Min-Tian Gao	Invited Speech: Pyrolysis of Natural Polymeric Materials Sung-Seen Choi	
16:00-16:20	Invited Speech: Immobilization of Heavy Metals in Mine Tailings Using Natural Waste Deok Hyun Moon	Invited Speech: Production of Biofuels from Agricultural Wastes Chun-Fai Yu	Invited Speech: Production of Bioalcohols from Volatile Fatty Acids Jechan Lee	
16:20-16:35	Characterization and Dye Decolorization Ability of an Alkali-tolerant Laccase Mutant of <i>Cyathus Bulleri</i> Generated via Random Mutagenesis Saroj Mishra	Microwave digestion-assisted HFO/biochar adsorption to recover phosphorus from swine manure Tao Zhang	Pretreatment of Swine Manure Liquid Digestate for Microalgae Cultivation via Integrated Flocculation- Biological Contact Oxidation Technology Jialiang Zhou	
16:35-16:50	Validation of Energy Management System for Reusing Automotive Lithium-ion Battery Base on Active Modeling of Life cycle Zone-Yang Ho	Integrated Sustainable Solid Waste Management for Patna Anupama Singh	Modification of Acidic and Textural Properties of a Sulphated Zirconia Catalyst for Efficient Conversion of High Density Polyethylene into Liquid Fuel Muhammad Farooq	

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16:50-17:05	Herbal Extraction Residues as a Natural Biomass for Biochemical and Biofuel Production Caixia Wang	Design and Catalytic Performance Studies of Ni- based Catalysts for Microwave-assisted Conversion of Lignin Yang Cao	Using Food Waste for Culturing 3 Marine Fish Species: A Laboratory Scale Feeding Trial Wing Yin Mo
17:05-17:20	Energy Saving and Monitoring in Sewage Treatment Plant by Applying ICT Technology Ya-Yun Chu	Perlite as the Partial Substitute for Organic Bulking Agent during Sludge Composting: A Full Scale Composting Case Xiankai Wang	Potential of Magnetite for Sulfide Control in Anaerobic Digestion Heejung Jung
17:20-17:35	Removal of Pharmaceuticals and Personal Care Products (PPCPs) and Endocrine Disrupting Chemicals (EDCs) from Water Yi Yang	Does the Institutional Environment Influences CSR Consideration of Green Investment of Enterprises? -Evidence from China Shurong Han	Potential of Biochar in Livestock Manure Composting: Effective Changes on Nutritive, Morphological, Thermal Properties and Greenhouse Gas Emissions Balasubramani Ravindran

	19 December 2018 (Wednesday)					
	Oral Presentation					
	Oral Session 4A - Environmental Remediation (D1-LP-06) (Chairs: Daniel Pleissner and Jaewon Kim)	Oral Session 4B - Waste Management (D1-LP-07) (Chairs: Abdul-Sattar Nizami and Tao Zhang)	Oral Session 4C - Resource Recovery (D2-LP-09) (Chairs: Yuanyuan Tang and Binoy Sarkar)			
09:30-09:50	Invited Speech: Organic Waste as Source of Secondary Raw Material Daniel Pleissner	Invited Speech: Waste-driven Factories: A Promising Nexus of Energy-waste-economy Abdul-Sattar Nizami	Invited Speech: Phosphorous Speciation and Recovery of the Sewage Sludge Pyrolyzed Biochar Yuanyuan Tang			
09:50-10:10	Improving Removal of Natural Organic Matter in Polymer Ultrafiltration with Iron Oxide Adsorption Layer Jaewon Kim	Optimization and Mechanism Studies on Cell Disruption and Phosphorus Recovery from Microalgae with Magnesium Modified Hydrochar in Assisted Hydrothermal System Tao Zhang	Invited Speech: Recycling of Mineral Wastes for Sustainable Carbon Dioxide Capture and Food Security Binoy Sarkar			
10:10-10:25	Comparison of Ceramic Microfiltration Membrane Fouling and Cleaning by Pretreatment Strategies for Vietnam Surface Water Won-il Park	Co-pyrolysis of Coffee Ground and Waste Polystyrene Foam in a Tilted-slide Reactor Sang Kyu Choi	Optimizing Growth Conditions of <i>Pavlova</i> sp. for Fucoxanthin Production Ping-Yung Liu			
10:25-10:40	Evaluation of Biochar Material for Moving Bed Biofilm Reactors-treating Antibiotic Ciprofloxacin Seungdae Oh	Application of System Dynamic Model to Healthcare Waste Management System (A Case from DHQ Hospital Timergara Dir Lower, Pakistan) Muhammad Tariq Khan	Ecological Restoration of a Subtropical Landfill Using Biochar Xun Wen Chen			
10:40-10:55	Synergistic Effects of Magnetite Addition and Voltage Application on Methanogenesis from Dairy Wastewater Gahyun Baek	Spatial Stratified Heterogeneity of Wastewater Discharge and Policy Concerning in China Yaobo Shi & Chun-Ping Chang	Biochar-clay Composite as A Construction Material: A Novel Waste as Resource Approach James Tsz Fung Wong			
10:55-11:15	Tea Break					



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	Plenary Speech and Closing Ceremony (D1-LP-06) (Chairs: Yu Bon Man and Yiu Fai Tsang)					
11:15-11:45	Biowastes for Improving Soil Productivity to Achieve Food Security	Nanthi Bolan University of Newcastle, Australia				
11:45-12:15	Sustainable Food Production in Hong Kong, Using Biological Waste for Restoring Soil Fertility and Remediating Contaminated Farm Soils	Ming Hung Wong The Education University of Hong Kong, Hong Kong Editor-in-chief, Environmental Geochemistry and Health				
12:15-12:25	Announcement of Special Issues	Yiu Fai Tsang The Education University of Hong Kong, Hong Kong Editor-in-Chief, Energy & Environment				
12:25-12:40	Award Presentation					
12:40-13:00	Closing Remarks					



Poster Presentation

No.	Poster Session	Title	Presenter	Institution
1	1	Quantitative Assessment and Evaluation of Integrated Bioprocess for Bioenergy and Biomaterials' Production using Biohydrogen from Biowaste	ChangKyoo Yoo	Kyung Hee University
2	1	Volatile Organic Compound (VOC) Levels in Recycled Rubber and Natural Infills of Artificial Turfs	Sidney Man Ngai Chan	The Open University of Hong Kong
3	1	Development of a Novel Anaerobic Digester for LCFA (Long Lhain Fatty Acid) Rich Wastewater Using Low Strength Ultrasonication and Pumice Stone: Performance, Enzyme Activity and Microbial Community Shift	Si-Kyung Cho	Dongguk University
4	1	Biochar-Based Adsorbents for Capturing Carbon Dioxide: A Critical Review	Pavani Dulanja Dissanayake	Korea University
5	1	Fractional Catalytic Pyrolysis of Spent Coffee for Upgrading Bio-oil in a Bubbling Fluidized Bed Reactor	Seung-Soo Kim	Kangwon National University
6	1	The Effective Use of Waste Plastics as a Co-feeding Material on the Catalytic Pyrolysis of Biomass	Young-Min Kim	Hallym University
7	1	Occurrence and Fate of Microfiber in Organic Waste	Yan Laam Cheng	The Education University of Hong Kong
8	1	Tailoring Bio-Heavy Oil via Noncatalytic Esterification with Glycerol	Youkwan Kim	Sejong University
9	1	Catalytic Degradation of Acetaminophen by Non-metallic, Modified Biochar	Seok Oh Ko	Kyung Hee University
10	2	A Case of Monitoring on Soil Remediation Project based on Risk Assessment	Tae Kee Ko	Korea Environment Corporation
11	2	Thermochemical Conversion of Eggshell as a Biological Waste and its Application to Energy Storage Devices	Chang Woo Lee	Kyung Hee University

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12	2	Preparation and Characterization of Pitch-based Carbon Materials from Isotropic/Anisotropic Pitch Mixtures for Various Applications	Dong Hun Lee	КСТЕСН
13	2	Furfural Production via Acid Catalyzed Dehydration from Livestock Excreta	Taewoo Lee	Sejong University
14	2	Synthesis of PHAs Using Carbon Source from Ferrous Activated Persulfate Oxidation Combined with Alkaline Fermentation of Excessive Activated Sludge	Yaohui Liu	Technological and Higher Education Institute of Hong Kong
15	2	Jointly Reducing Antibiotic Resistance Genes and Improving Methane Yield in Anaerobic Digestion of Chicken Manure by Microwave Pretreatment of Substrate and Activated Carbon Supplementation	Kai-Chee Loh	National University of Singapore
16	2	Effect of Eggshell and Bone-meal on Immobilization and Phytoavailability of Cd, Cu and Zn in Contaminated Soils	Guining Lu	South China University of Technology
17	2	Plasma-based Nitrogen Removal from Slaughterhouse Wastewater Catalyzed by Ferrous Contained in Hemoglobin	Hyun-Woo Kim	Chonbuk National University
18	2	Biogasification of Glycerol Residue from Direct-transesterification Using Wastewater-treated Microalgal Biomass	Jae-Cheol Lee	Chonbuk National University
19	2	Encapsulation of Pseudomonas sp. in Alginate/Gellan Gum Microbeads for the Biodegradation of TPH	Hyejoo Park	KAIST
20	3	Producation of Eco-friendly Pavement Blocks Using Waterworks and Sewage Sludge	Jieqiong Yang	The Education University of Hong Kong
21	3	Endocrine Disrupting Chemicals (EDCs) in Organic Waste	Ziying Li	The Education University of Hong Kong
22	3	Janghang Remediation Project (Soil Remediation at Surrounding Area of Janghang Smelter)	Bonghan Son	Korea Environment Corporation
23	3	Optimized Production Process of Levulinic Acid from Food Waste and Characteristic Analysis of By-products	Byung Hwan Um	Hankyong National University
24	3	Application of <i>Spirulina</i> in Aquaculture: A Review on Wastewater Treatment and Fish Growth	Feng Zhang	The Education University of Hong Kong
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25	3	Development MoS ₂ /Carbon Cloth Electrode for Hydrogen Production in Waste Water	Hari Kang	Inha University
26	3	Electrochemical Treated Atomic-thick MoS ₂ for Highly Effective Hydrogen Evolution Reaction	Hari Kang	Inha University
27	3	Effective Remediation of Arsenic in Contaminated Soils with Environmentally-friendly Biogenic Manganese Oxide (BMO) Materials	Huawei Wang	Qingdao University of Technology
28	3	Conversion of Organic Carbon from Decayed Native and Invasive Plant Litter in Jiuduansha Wetland and its Implications for SOC Formation and Sequestration	Jianfang Yan	Tongji University
29	4	Variability of Soil Carbon Budget and Microbial Activities of the Reclaimed Lands with Different Straw Returning Modes in Chongming Dongtan, China	Qiuxiao Yin	Tongji University
30	4	Analysis of Microbial Composition in Anaerobic Digestion Reactors for Co-digestion of Pig Manure Slurry, Cattle Manure and Apple Pomace	Sang-Ryong Lee	Jeonju University
31	4	Activated Carbon Recycled from Palm Shell for Removal of Arsenic from Black-foot Disease Underground Water by Flow Capacitive Deionization	An-Chi Hsiao	National Cheng Kung University
32	4	Desalination of Salt Water Using Biomass Recycled Graphene Coated Capacitive Deionization Electrodes	An-Chi Hsiao	National Cheng Kung University
33	4	Biodegradation Behaviour of Alginic Acid Treated Flax Fibres Poly (Hydroxybutyrate-co-valerate) PHBV Green Composites in Compost Medium	Ravindran Balasubramani	Kyonggi University
34	4	Synthesis of Biodiesel Using Biochar Derived from Lipid Waste and Red Mud	Kwangsuk Yoon	Sejong University
35	4	Upgrading Food Wastes as Feeds for Inland Fish Culture in South China	Yu Bon Man	The Education University of Hong Kong
36	4	Catalytic Copyrolysis of Biomass and Wastes for the Synthesis of Aromatic Hydrocarbons	Jaehun Jeong	University of Seoul
37	4	Thermal and Catalytic Pyrolysis of Wood Polymer Composite over Zeolitic Materials	Jaehun Jeong	University of Seoul