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Nov. 3rd (THU), 17:30 ~ 18:30

# Hybrid format

# POSTER file will be released in website(www.isee.or.kr) on Nov. 2nd.

## Recorded presentation file will be played in each session room, and then Q/A will be progressed on site.

Poster Session	PA. WEEE and ELV Management Policy & Recycling
Chair	Yong-Kwon Park(University of Seoul <i>, Korea</i> ), Sung-Ho Joo(Korera Institute of Geoscience and Mineral Resources, <i>Korea</i> )
PA-01	Static and dynamic flows of brominated flame retardants (BFRs) in WEEE in South Korea Yong-Chul Jang, Chungnam National University, <i>Korea</i>
PA-02	How to recycle end-of-life fluorescent lamps and determine their mercury dynamic flow? Yong-Chul Jang, Chungnam National University, <i>Korea</i>
PA-03	Current Status and Policy Direction for Circular Economy of Electric Vehicle Used Battery Ji Hye Jo, Korea Environment Institute <i>, Korea</i>
PA-04	How much solar panel waste would be generated in South Korea?: application of population balance model (PBM) Suhee Lee, Chungnam National University, <i>Korea</i>
PA-05	Plastic recycling and material flow of packaging expanded polystyrene by EPR in South Korea Yong-Chul Jang, Chungnam National University, <i>Korea</i>
PA-06	Estimation on the Plastic Generation of E-Waste for Large Household Appliances in Korea (Republic of) Hyeong-Jin Choi, Kyonggi University, <i>Korea</i>
PA-07	A techno-environmental analysis of the resource recovery processes from the end-of-life PV panels from a life cycle perspective Jaeshik Chung, Korea Institute of Science and Technology, <i>Korea</i>
PA-08	Subcritical water leaching of valuable and hazardous metals (Ni, Co, and Cd) from waste Ni-Cd batteries using ferric chloride hexahydrate (FeCl3.6H2O) Md Ishtiaq H. Khan, Chonnam National University, <i>Korea</i>
PA-09	Study on Extraction of pt from Membrane Electrode Assembly Mooki Bae, Korea Institute of Geoscience and Mineral Resource, <i>Korea</i>
PA-10	A Study on the Change of Heavy Metal Removal Rate by K+ Modification of Na-Zeolite Jong-Ha Hwang, Pukyong National University, <i>Korea</i>
PA-11	Recovery of platinum, gold, and palladium using cyclone electrolyzer Hyunju Lee, Korea Institute of Geoscience and Mineral Resource <i>, Korea</i>
PA-12	Development of next-generation waste display pre-treatment system and materialization technology Dawoon Lee, Eanhitech Co., Ltd., <i>Korea</i>
PA-13	Removal of iron from an electrolytic solution rich in copper using selective hydrometallurgy Ana Belen Cueva, University of Science and Technology, <i>Korea</i>
PA-14	Production of high-quality chemical materials through the catalytic pyrolysis of e-waste Hyeonji Yim, University of Seoul <i>, Korea</i>
PA-15	Catalytic pyrolysis of waste printed circuit boards Hyunjin Kim, University of Seoul <i>, Korea</i>
PA-16	Temperature-responsive Crown Ether Polymer Brushes Grafted on Multi-Walled Carbon Nanotube as an Adsorbent for the Temperature Swing-Assisted Recovery of Palladium from Spent Automobile Catalyst Converter Khino Parohinog, Myongji University, <i>Korea</i>
PA-17	Recovery of lithium from lithium aluminum silicate (LAS) glass-ceramics through a hydrometallurgical process Sungho Joo, Korea Institute of Geoscicence and mineral Resource, <i>Korea</i>
PA-18	The effect of promoters (Zr, Fe, Si) on characteristics of Ni–CeO2 reforming catalyst; chemical structure based on Cerium Min-Ju Park, Changwon National University, <i>Korea</i>
PA-19	Comparison of microbial diversity in the gut of the plastic-eating mealworm by PCR of 16S rRNA gene region V3 versus V4 Behzad Matyakubov, Seoul National University Science and Technology, <i>Korea</i>
PA-20	Biodegradation of e-plastic waste by using indigenous bacteria Prasenjit Debbarma, Graphic Era Hill University, India

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Poster Session	PB. Plastic Waste and Circular City
Chair	Seok-Wan Kim(Daegu Haany University, <i>Korea</i> )
PB-01	Recycling practice and targets of PET bottles by EPR towards a circular economy in South Korea Youngsun Kwon, Chungnam National University, <i>Korea</i>
PB-02	Estimation on Plastic Waste Stream from Cradle to Grave in the Republic of Korea Yong Choi, Kyonggi University, <i>Korea</i>
PB-03	A Study on the Policies for the Promotion of Circular Use of Distribution Packaging Materials Younghee Kim, Korea Environment Institute <i>, Korea</i>
PB-04	Consumer Practice Status and Its Implications for Waste 2R Behaviors in Korea focusing on Pro-environmental Citizens Survey Hye Sook Lim, Korea Environment Institute <i>, Korea</i>
PB-05	An Action Plan for Resource Circulation: The Case of Jeju, South Korea Sora Yi, Korea Environment Institute <i>, Korea</i>
PB-06	Estimation of Reused Household Waste in Seoul Keeyoung Yoo, The Seoul Institute, <i>Korea</i>
PB-07	An Empirical Study on the Relationship Between Raw Materials Price and Recyclable Materials Price Focusing on the Polyethylene in Korea Hye Sook Lim, Korea Environment Institute, <i>Korea</i>
PB-08	A Study on the Convergence in Separate Waste Collection Ratio of Municipal Solid Waste in South Korea Hye Sook Lim, Korea Environment Institute, <i>Korea</i>
PB-09	Policy Direction for Pyrolysis of Waste Plastic from the Perspective of Circular Economy Younghee Kim, Korea Environment Institute, <i>Korea</i>
PB-10	Material flow analysis and life cycle assessment of plastic waste with special focus on chemical recycling technology Eun-Ah Kim, National Assembly Futures Institute, <i>Korea</i>
PB-11	Microplastic Fiber Generation from Washing Textiles and the Flows in South Korea Munsol Ju, Korea Environment Institute <i>, Korea</i>

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Poster Session	PC. Biowaste and Biological Treatment
Chair	Dong-Jin Lee(National Institute of Environmental Research, <i>Korea</i> ), Jongkeun Lee(Changwon National University, <i>Korea</i> )
PC-01	Household food waste disposer considering recycling aspects in South Korea: a literature review and expert interviews Suryun Park, Korea Environment Institue, <i>Korea</i>
PC-02	Performance and energy efficiency verification of bench scale bio-electrochemical anaerobic digestion Hyeon Myeong Yang, Chungbuk National University, <i>Korea</i>
PC-03	Byproducts Formation during Hydrothermal Pretreatment of Waste Activated Sludge and Effects onto Anaerobic Digestion Efficiency Seong-Yun Park, Konkuk University, <i>Korea</i>
PC-04	Principal component analysis (PCA) of the chemical properties of different types of unutilized biomass in South Korea Yujin Ju, Daegu University, <i>Korea</i>
PC-05	Characterization of Impedance and Polarization of Carbon-Felt Bioanodes and Activated-Carbon Cathodes in a Continuous-Flow Microbial Fuel Cell Bonyoung Koo, Chonnam National University, <i>Korea</i>
PC-06	Recent Trends of Oxygen Reduction Catalysts in Microbial Fuel Cells Bonyoung Koo, Chonnam National University <i>, Korea</i>
PC-07	Trends of microbial electrochemical technologies for nitrogen removal in wastewater treatment Bonyoung Koo, Chonnam National University <i>, Korea</i>
PC-08	Recent trends and prospects of microbial fuel cell technology for energy positive wastewater treatment plants treating organic waste resources Bonyoung Koo, Chonnam National University, <i>Korea</i>
PC-09	Comparison of hydrogen production and system performance in a microbial electrolysis cell containing cathodes made of non-platinum catalysts and binders Sunghoon Son, Chonnam National University, Korea
PC-10	Effects of wire-type and mesh-type anode current collectors on performance and electrochemistry of microbial fuel cells Sunghoon Son, Chonnam National University, <i>Korea</i>
PC-11	Comparative evaluation of performance and electrochemistry of microbial fuel cells with different anode structures and materials Sunghoon Son, Chonnam National University, <i>Korea</i>
PC-12	Influence of flowrates to a reverse electro-dialysis (RED) stack on performance and electrochemistry of a microbial reverse electrodialysis cell (MRC) Sunghoon Son, Chonnam National University, Korea
PC-13	Effects of brush-anode configurations on performance and electrochemistry of microbial fuel cells Sunghoon Son, Chonnam National University, <i>Korea</i>

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PC-14	Energy-Efficiency Performance Analysis and Maximization Using Wireless Energy Harvesting in Wireless Sensor Networks Mohammad Mahasin Ali, Chonnam National University, <i>Korea</i>	
PC-15	Polymer Film-Based Screening and Isolation of Polylactic Acid (PLA)- Degrading Microorganisms Mohammad Mahasin Ali, Chonnam National University, <i>Korea</i>	
PC-16	Recent Advancements in the Cathodic Catalyst for the Hydrogen Evolution Reaction in Microbial Electrolytic Cells Mohammad Mahasin Ali, Chonnam National University, <i>Korea</i>	
PC-17	Microbial Electrolysis Cells for Electromethanogenesis: Materials, Configurations and Operations Mohammad Mahasin Ali, Chonnam National University, <i>Korea</i>	
PC-18	Enhanced Denitrification of Contaminated Groundwater by Novel Bimetallic Catalysts Supported on Kaolin-Derived Zeolite: Effects of Natural Dissolved Inorganic and Organic Matter Mohammad Mahasin Ali, Chonnam National University, Korea	
PC-19	Microbially Powered Electrochemical Systems Coupled with Membrane-Based Technology for Sustainable Desalination and Efficient Wastewater Treatment Mohammad Mahasin Ali, Chonnam National University, Korea	
PC-20	Anode Biofilm Maturation Time, Stable Cell Performance Time, and Time-course Electrochemistry in a Single-Chamber Microbial Fuel Cell with a Brush-anode Huong Viet Hoa Tran, Chonnam National University, Korea	
PC-21	Improvement of Air Cathode Performance in Microbial Fuel Cells by using Catalysts made by binding Metal-Organic Framework and Activated Carbon through Ultrasonication and Solution Precipitation Huong Viet Hoa Tran, Chonnam National University, <i>Korea</i>	
PC-22	Improved Structures of Stainless Steel Current Collector Increase Power Generation of Microbial Fuel Cells by Decreasing Cathodic Charge Transfer Impedance Huong Viet Hoa Tran, Chonnam National University, Korea	
PC-23	Addition of Reduced Graphene Oxide to an Activated-Carbon Cathode Increases Electrical Power Generation of a Microbial Fuel Cell by Enhancing Cathodic Performance Huong Viet Hoa Tran, Chonnam National University, <i>Korea</i>	
PC-24	Effects of Vertical and Horizontal Configurations of Different Numbers of Brush Anodes on Performance and Electrochemistry of Microbial Fuel Cells Huong Viet Hoa Tran, Chonnam National University, <i>Korea</i>	

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Poster Session	PD. Thermal Treatment and Disposal
Chair	Seok-Pyo Yoon(Semyung University <i>, Korea</i> ), Sangwon Park(Korea Institute of Geoscience and Mineral Resources, <i>Korea</i> )
PD-01	A 3-Year Survey on the Physical Composition of Household Waste into an Incineration Facility in a Small and Medium City Seok-Pyo Yoon, Semyung University, Korea
PD-02	Applicability Assessment of a Plasma Melting Process for a Sustainable Fly Ash Recycling System in South Korea Jang-Hyun Kang, National Institute of Environmnetal Research <i>, Korea</i>
PD-03	An Integrated Carbon Capture, Utilization and Storage Process for Combined Heat and Power Facilities: A Life Cycle Assessment Sora Yi, Korea Environment Institute <i>, Korea</i>
PD-04	Strong acid-mediated extraction–mineralization process for CO2 absorption and CaCO3 production from cement kiln dust: Simultaneous treatment of CO2 and alkaline wastewater Kyumin Jang, Yonsei University, <i>Korea</i>
PD-05	Novel carbon capture and utilization (CCUS) method using electrolysis of concentrated seawater and accelerated mineral carbonation Sangmin Lee, Kongju National University, <i>Korea</i>
PD-06	A study of novel Seawater driven CCUS technology for simultaneous capture of CO2 and SO2 mixture gas using single absorbent NaOH Won Yong Choi, Yonsei University, <i>Korea</i>
PD-07	A study on encapsulating probiotics through indirect carbonation using oyster shells Youjeong Lee, Korea Maritme & Ocean University, <i>Korea</i>
PD-08	Investigation of the synergy effect of urea and ammonium carbonate in thermal decomposition to produce ammonia Minjae Park, Seoul National University, <i>Korea</i>
PD-09	Management status and aspect of excavated materials containing waste from landfill mining in South Korea Suyoung Lee, National Institute of Environmental Research, <i>Korea</i>