

General sessions

***Each presentation consists of 10-minute oral presentation & 4-minute discussion.**

15, March 2022, Tue.

Session A1: 3R, Waste management under the Pandemic of COVID-19 (13:00-14:30, March 15th, Tue.)

Chair: Premakumara Jagath DICKELLA GAMARALALAGE, Director of Center Collaborating with UNEP on Environmental Technologies (CCET), Japan

- A1-1 Evaluation of attitudes and knowledge toward waste separation at source behavior
Le Thi Thanh Loan, Vietnam National University of Agriculture, Vietnam
- A1-2 Plastic consumption behavior and brand auditing: A case study in Thailand during the COVID-19
Pawan Kumar Srikanth, Asian Institute of Technology, Thailand
- A1-3 COVID-19 waste management in Vietnam
Trang DT Nguyen, Ochanomizu University, Japan
- A1-4 Impacts of COVID-19 on municipal solid waste management in Palestine
Rawan Tayeh, MoLG-JICA, Palestine

Session B1: Thermochemical treatments for polymeric materials (13:00-14:30, March 15th, Tue.)

Chair: Masaki Takaoka, Kyoto University, Japan

- B1-1 Response surface methodology applied in xylan and polyethylene co-pyrolysis to predict product yields
Shengyu Xie, Tohoku University, Japan
 - B1-2 Effects of temperature on products distribution during pyrolysis of poly (lactic acid) and poly (3-hydroxybutylate-co-3-hydroxyhexanoate)
Zhuze Shao, Tohoku University, Japan
 - B1-3 Catalytic pyrolysis of real WEEE plastics in a continuous reaction system
Julio López, IMDEA Energy Institute, Spain
 - B1-4 Pyrolysis and vapor phase hydrodehalogenation of a WEEE plastic over Ni-based catalysts
Lidia Amodio, IMDEA Energy, Rey Juan Carlos University, Spain
 - B1-5 Thermo-chemical rubber devulcanization
Lucia Asaro, University of Mar del Plata and National Research Council (CONICET), Argentina
- Movie of Hitachi Zosen Corporation

Session A2: MSW characterization and management (14:45-16:15, March 15th, Tue.)

Chair: Rajeev Kumar Singh, Policy Researcher, CCET, IGES, Japan

- A2-1 Identifying determinant of waste separation behavior of Hanoi citizen with partial least square-structural equation modeling
Nguyen My Linh, Toyo University, Japan
- A2-2 Challenges and opportunities in municipal solid waste management in Cambodia: Collection, treatment, and disposal
Dek Vimean Pheakdey, Hiroshima University, Japan
- A2-3 Solid waste management strategies in Dili Timor-Leste using analytic hierarchy process
Rui Amandio Gomes Ferreira, Nagoya University, Japan
- A2-4 The application of MSW viscoelastic properties to the trommel simulation
Nopparit Sutthasil, National Institute for Environmental Studies, Japan
- A2-5 Integrated residential solid waste recycling management in urban city

Kian-Ghee Tiew, INTI International University, Malaysia
Movie of ecommit Co.,Ltd

Session B2: Waste to energy (14:45-16:15, March 15th, Tue.)

Chair: Teppei Nunoura, The University of Tokyo, Japan

- B2-1 Effects of inoculum to substrate ratio on methane production during batch anaerobic process of tofu whey
Arini Wresta, Institut Teknologi Bandung (ITB), Indonesia
- B2-2 Kinetic modeling and simulation for the production of biogas from malt wastes
Maryne Patricia da Silva, Universidade Federal de Pernambuco, Brazil
- B2-3 Developing an empirical model for heating value of MSW: Study in Dhaka City
Md. Shoriful Alam Mondal, Toyo University, Japan
- B2-4 Biodrying of the wet- refuse-derived fuel for reducing moisture content and improving heating value
Abhisit Bhatsada, King Mongkut's University of Technology Thonburi, Thailand
- B2-5 Compilation of environmental thermodynamics from material cycles through a field of methanation
Nobuhisa Watanabe, Osaka Institute of Technology, Japan
- Presentation from Mitsubishi Heavy Industries Environmental & Chemical Engineering Co.,Ltd.

16, March 2022, Wed.

Session A3: Plastic waste 1 (13:00-14:30, March 16th, Wed.)

Chair: Richao Cong, The University of Kitakyushu, Japan

- A3-1 Agricultural plastic waste management: adapting global practices to Canadian context
Francisco Araujo, University of Guelph, Canada
- A3-2 Potentials for household plastic reduction based on photographic recording approach
Akira Sakano, Kyoto University, Japan
- A3-3 How to predict the collection demands of industrial plastic waste-challenged from multiple facilities
Richao Cong, The University of Kitakyushu, Japan
- A3-4 Modification of standard methods for biodegradability test of bioplastics under the composting condition
Geun-Yong Ham, National Institute for Environmental Studies, Japan
- A3-5 Plastic weight conversion factor development of products consumed in Japanese households
Maheshwari Kalyanasundaram, Kyoto University, Japan

Session B3: Waste management technologies 1 (13:00-14:30, March 16th, Wed.)

Chair: Jinwon Park, Yonsei University, South Korea

- B3-1 Adsorption of dispersed oil in water onto autoclaved aerated concrete grains in Vietnam
Akihiro Matsuno, Saitama University, Japan
- B3-2 Simultaneous capture of CO₂/SO₂ gas using electrolysis of industrial wastewater
Won Yong Choi, Yonsei University, South Korea
- B3-3 Biosurfactant production using palm oil as hydrophobic inducer and its potential application in wastewater treatment
Resa Setia Adiandri, Institut Teknologi Bandung, Indonesia
- B3-4 Hierarchical nanoporous carbon derived from high-viscosity heavy fuel oil and its superior characteristics for novel energy applications

Chonlawat Akaramongkolert, King Mongkut's Institute of Technology, Thailand
B3-5 Extraction of soluble manganese and potassium from selected biomass waste
Sylvia Oleszek, Kyoto University, Japan
Movie of JFE Engineering Corporation

Session A4: Plastic waste 2 (14:45-16:15, March 16th, Wed.)

Chair: Yuko Saito, Tohoku University, Japan

- A4-1 Regional circulation scenarios of post-consumer plastic waste through feedstock recycling in an oil refinery
Jun Nakatani, The University of Tokyo, Japan
- A4-2 Global plastic waste - transboundary movement and implications in ASEAN
Souphaphone Soudachanh, University of Natural Resources and Life Sciences, Austria
- A4-3 Towards an inclusive circular economy (CE) in Asia: Proposal for a global agreement on plastics using an intervention framework
Vivek Anand ASOKAN, Institute for Global Environmental Strategies (IGES), Japan
- A4-4 Review of plastic policies in Africa: Qualitative impact of policy structure on waste reduction
Isaac Omondi, Kyoto University, Japan

Session B4: Waste management technologies 2 (14:45-16:15, March 16th, Wed.)

Chair: Kazuyuki Oshita, Kyoto University, Japan

- B4-1 Co-incineration effect of sewage sludge and municipal solid waste on the behavior of heavy metals
Minhsuan Chen, Kyoto University, Japan
- B4-2 Mechanical and thermal properties of bottom ash-based porous geopolymer as thermal insulation material for construction
Paing Set Soe, Kasetsart University, Thailand
- B4-3 Rheological characterization of drinking water treatment sludge at different water contents for reuse as a geomaterial
Juliana Keiko Tsugawa, University of Sao Paulo, Brazil
- B4-4 Residues in cement-based composites: mapping of occurrence in Brazil
Julia Castro Mendes, Federal University of Ouro Preto, Brazil
- Movie of NIPPON STEEL ENGINEERING Co.,Ltd
Movie of Mitsubishi Heavy Industries Environmental & Chemical Engineering Co.,Ltd.

17, March 2022, Thu.

Session A5: Systems, life cycle and substance flow analysis (13:00-14:30, March 17th, Thu.)

Chair: Toyohiko Nakakubo, Ochanomizu University, Japan

- A5-1 Point system in participation of community waste separation: A panel data analysis in China
Sun Jie, Kyoto University, Japan
- A5-2 Life cycle analysis for pulp molded products from perspective of alternatives to plastic packaging and containers
Yuka Mukai, Kyoto University, Japan
- A5-3 Comprehensive analysis of co-incineration and thermal treatment function of dewatered sludge by waste incineration plant
Toyohiko Nakakubo, Ochanomizu University, Japan
- A5-4 A panel data analysis of factors influencing atmospheric short-chain chlorinated paraffins concentrations in Japan
Junichiro Koshiba, Kyoto University, Japan
- A5-5 Estimation of fossil carbon in wood adhesives and evaluation of the effects of reduction measures

Yasuhiro Hirai, Kyoto University, Japan
Movie of DOWA Holdings Co.,Ltd

Session B5: Disaster, construction, and demolition waste management (13:00-14:30, March 17th, Thu.)

Chair: Maria Antonia N. Tanchuling, University of the Philippines Diliman, Philippines

B5-1 Managing post-war demolition waste in Gaza strip: A case study on Gaza-Israel conflict in May 2021

Hatem AbuHamed,
MoLG-JICA Project for Capacity Development of Solid Waste Management in Palestine,
Palestine

B5-2 Content analysis of Philippine policies related to disaster waste management

Glenn Fernandez, Sichuan University, China

B5-3 Proposals for the 3Rs of disaster debris

Nagahisa Hirayama, Nagoya University, Japan

B5-4 A virtual assessment of solid waste management facilities in disaster affected municipalities of Nepal

Nirmal Babu Aryal, Aarambha Engineering and Development Initiatives Pvt. Ltd., Nepal

Session A6: E-waste and ELV (14:45-16:45, March 17th, Thu.)

Chair: Kannika Khwamsawat, Chulalongkorn University, Thailand; Vivek Anand ASOKAN, Institute for Global Environmental Strategies (IGES), Japan

A6-1 Alkaline hydrolysis of photovoltaic backsheets for fluorine recovery

Yoshinori Morita, Tohoku University, Japan

A6-2 Mineralogy analysis of waste LEDs and the recovery of valuable components

Zhenxing Zhang, China University of Mining and Technology, China

A6-3 Development of recycling systems and improvement of material and structure for electric bidet appliances in Korea

Jihwan Park, Korea Electronics Recycling Cooperative, South Korea

A6-4 Material flow analysis of WEEE dismantling in Thailand

Kannika Khwamsawat, Chulalongkorn University, Thailand

A6-5 LCA of WEEE dismantling into recycled materials in Thailand

Siriporn Borrirukwisitsak, Songkhla Rajabhat University, Thailand

A6-6 Distribution changes of motorcycles in the COVID-19 pandemic

Takumi Yamane, Tokyo City University, Japan

A6-7 Costs of EV transition: Projected waste generation and socio-environmental impacts of an ambitious EV policy in India

Vivek Anand ASOKAN, Institute for Global Environmental Strategies (IGES), Japan

A6-8 Materializing E-waste Challenges and Opportunities Hidden into It

Jyoti Giri, Tri-Chandra Multiple Campus, Tribhuvan University, Nepal

Session B6: Hazardous waste management (14:45-16:15, March 17th, Thu.)

Chair: Fumitake Takahashi, Tokyo Institute of Technology, Japan

B6-1 Image analysis of asbestos on the surface of wasted building materials by staining

Masaaki Tabata, Saga University, Japan

B6-2 Magnetic BEA-type zeolite synthesized via dry-gel conversion method: Studies on its synthesis conditions and antibiotics adsorption performance

Vanpaseuth Phouthavong, Nagoya University, Japan

B6-3 Estimation of the minimum mercury released into the environment from the uncontrolled dumping of broken medical thermometers in hospitals in Cameroon, Africa

- Samuel Tetsopgang, Association Institute of Total Environment, Cameroon*
- B6-4 An expected anthropogenic mercury release from extraction and combustion of natural resources in China
Habuer, Okayama University, Japan
- B6-5 Improper disposal of medical wastes in clinics: Repeatability of improper discharge
Daisuke Sugimoto, Tokyo Institute of Technology, Japan

18, March 2022, Fri.

Session A7: Food loss and food waste management (13:00-14:30, March 18th, Fri.)

Chair: Chen Liu, Research Manager, SCP, IGES, Japan

- A7-1 Biogas digester use by combining livestock waste with food waste to minimize GHGs emissions in central Vietnam: An Alternative to informal food waste recycling
Thang Huong Hoang, The University of Kitakyushu, Japan
- A7-2 Tracking food loss across international supply chain
Sebastien M.R. Dente, Ritsumeikan University, Japan
- A7-3 Effect of different aeration intensities on organic matter decomposition during composting of model food waste
Thien-Phuc Nguyen, Tokyo Institute of Technology, Japan
- A7-4 Life cycle analysis on municipal solid waste management using biodegradable PHBH garbage collection bags
Junya Yano, Kyoto University, Japan
- Presentation from TAKUMA Co.,Ltd

Session B7: Waste landfill and disposal (13:00-14:30, March 18th, Fri.)

Chair: Hideki Yoshida, Muroran Institute of Technology, Japan

- B7-1 Immobilization of chromium through microbially induced carbonate precipitation by ureolytic bacteria obtained from a waste landfill
Hiroki Kitamura, National Institute for Environmental Studies, Japan
- B7-2 Attitude shift from reject to acceptance toward mercury emission risk with increase of duration time of mercury emission below environmental standard
Fumitake Takahashi, Tokyo Institute of Technology, Japan
- B7-3 Plastic waste leakage from municipal landfill to terrestrial and aquatic environment: A case study in Thailand
Chart Chiemchaisri, Kasetsart University, Thailand
- Movie of JFE Engineering Corporation