Presentation list: Poster session

November 1, Tuesday

10:40am - 11:40am **12:30pm – 1:30pm**	**Poster session** **10:40am -** Core time 1: odd-numbered presentations **1:30pm -** Core time 2: even-numbered presentations

P-1 **Core time 1**

System development of resource logistics toward minimizing supply chain risks of mineral resources

Kazuyo Matsubae[1], Kenichi Nakajima[2], Kazuyo Hirose[3], Yoko Yamakata[4], Zhengyang Zhang[1], Eiji Yamasue[5], Ichiro Daigo[4], Shinsuke Murakami[4]
[1]Tohoku University, Japan; [2]National Institute for Environmental Studies; [3]Japan Space Systems; [4]The University of Tokyo; [5]Ritsumeikan University

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P-2 **Core time 2**

A framework for modelling transport modal shifts in relation to planetary boundaries and the impacts of battery mineral supply

Bernardo Mendonca, Damien Giurco, Stephen Northey
Institute for Sustainable Futures, Australia

P-3 **Core time 1**

Evaluation of atmospheric carbon dioxide balance associated with forest growth and utilization

Hirotaka Komata[1], Takanobu Aikawa[2], Chihiro Kayo[3]
[1]Hokkaido Research Organization Forest Products Research Institute, Japan; [2]Renewable Energy Institute, Japan; [3]Tokyo University of Agriculture and Technology, Japan

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P-4 **Core time 2**

Global supply-chain network analysis for environmentally-important shipping routes and ports

Tomomi Shoda, Keitaro Maeno, Shigemi Kagawa, Taiga Shimotsuura
Kyushu University, Japan

P-5 **Core time 1**

Biomass-based plastics strategies based on material characteristics, product application, and recycling methods

Hiroaki Kuroda, Eri Amasawa, Jun Nakatani, Masahiko Hirao
The University of Tokyo, Japan

P-6 **Core time 2**

Exploring low-cost pathways to achieve the 2050 decarbonisation goals of airlines

Minami Kito[1], Hirotaka Takayabu[2], Keisuke Nansai[1]
[1]National Institute for Environmental Studies, Japan; [2]Kindai University, Japan

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P-7 **Core time 1**

The role of urban strubtures on the CO2 emissions

Chisato Hososhima, Daisuke Yoshizawa, Shigemi Kagawa
Kyushu University

P-8 **Core time 2**

Natural resource use in west Asia: Status and trends of environmental impacts using enhanced MRIO

Viktoras Kulionis, Stephan Pfister
ETH Zurich, Switzerland

P-9 **Core time 1**

Consumption patterns of primary and secondary steel resources based on market share of steel in different economic conditions

Han Gao, Ichiro Daigo
Department of Advanced Interdisciplinary Studies, Graduate School of Engineering, The University of Tokyo

P-10 **Core time 2**

Quantifying the linkage between fatalities from tailings dam failures and automobile industry activities

Tomoya Sugiyama[1], Zhengyang ZHANG[1], Kenichi Nakajima[2], Kazuyo Matsubae[1]
[1]Tohoku University, Japan; [2]National Institute for Environmental Studies

P-11 **Core time 1**

Nationwide waste footprint using the Japanese input-output table and impact assessment method

Tomoya Kitami, Yuki Ichisugi, Norihiro Itsubo
Tokyo City University, Japan

P-12 **Core time 2**

Carbon footprint for outdoor sports events

Shino Ichihara, Norihiro Itsubo
Tokyo City University, Japan

P-13 **Core time 1**

Development of a business model for bioplastics recycling acorn by-products

Sang Hyun Oh[1], Yong Woo Hwang[2], Young Woon Kim[1]
[1]Program in Global Industrial & Environmental Engineering, Inha University, Republic of Korea; [2]Department of Enviromental Engineering, Inha University, Republic of Korea

P-14 **Core time 2**

Mercury legacy: Use, trade, and anthropogenic emission

Kenichi Nakajima[1], Tatsuya Hanaoka[1], Yingchao Cheng[1], Shoki Kosai[2], Masaaki Fuse[3], Eiji Yamasue[2], Kazuyo Matsubae[4], Keisuke Nansai[1]
[1]National Institute for Environmental Studies, Japan; [2]Ritsumeikan University; [3]Graduate School of Advanced Science and Engineering, University of Hiroshima; [4]Graduate School of Environmental Studies, Tohoku University

P-15 **Core time 1**

Comparison of the environmental performance of small to medium scale sewage treatment plants in south-central Chile

María Jesús Rivas[1], Michelle Díaz[1], Cristian Riquelme[1], Patricio Neumann[1,2]
[1]Universidad del Bío-Bío, Chile; [2]Centro de Recursos Hídricos para la Agricultura y Minería (CRHIAM), Chile

P-16 **Core time 2**

Vanadium redox flow battery to support the use of renewable energy in stationary applications

Lígia da Silva Lima[1], Mattijs Quartier[1], Astrid Buchmayr[1], David Sanjuan-Delmás[1,2], Hannes Laget[3], Dominique Corbisier[3], Jan Mertens[4,5], Jo Dewulf[1]
[1]Research Group Sustainable Systems Engineering (STEN), Ghent University, Coupure Links 653, 9000 Ghent, Belgium; [2]Eurecat, Centre Tecnològic de Catalunya, Waste, Energy and Environmental Impact Unit, 08243 Manresa, Spain; [3]Engie Laborelec, Rodestraat 125, 1630 Linkebeek, Belgium; [4]Engie Research, 1 pl. Samuel de Champlain, 92930 Paris-la Défense, Paris, France; [5]Department of Electromechanical, System and Metal Engineering, Ghent University, Technologiepark Zwijnaarde 131, Zwijnaarde, Belgium

P-17 **Core time 1**

Digital WEEE manifest as a potential tool for WEEE management: Case study of Thailand

Siriporn Borrirukwisitsak[1], Kannika Khwamsawat[2], Wanida Kanarkard[3], Surus Tangpaitoon[4], Nubol Khumpong[5]
[1]Faculty of Science and Technology, Songkhla Rajabhat University, Thailand; [2]Center of Excellence on Hazardous Substance Management, Chulalongkorn University, Thailand; [3]Faculty of Engineering, Khon Kaen University, Thailand; [4]Electrical and Electronics Institute, Thailand; [5]Electricity Generating Authority of Thailand, Thailand

P-18 **Core time 2**

Comparative analysis of environmental impacts for Fenton-based wastewater treatment processes

Deqian Liu[1], Chihchi Huang[1], Yu-Jen Huang[2], Mengshan Lee[1]
[1]National Kaohsiung University of Science and Technology, Taiwan; [2]Ever Clean Environmental Engineering Co.

P-19 **Core time 1**

A life cycle assessment of electric and conventional motorcycles in Taiwan

Hsin-Tien Lin, Falk Schneider, Daniel Castillo, Kuo-Che Weng
National Cheng Kung University, Taiwan

P-20 **Core time 2**

A shifting paradigm with life cycle thinking for material flows analysis to atmospheric aerosol loading

Mehri Sadat Alavinasab Ashgezari[1], Gholamreza Nabi bidhendi[1], Fatemeh Sadat Alavinasab Ashkezari[2]
[1]School of the Environment, College of Engineering, University of Tehran, Iran, Islamic Republic of; [2]Islamic Azad University of Tehran Southern Branch-Faculty of Arts and Architecture, Iran, Islamic Republic of

P-21 **Core time 1**

A human toxicity assessment in LCA applying a risk-based approach for chemicals

Peter Saling[1], Takeshi Irie[2], Kent Yano[2]
[1]BASF SE, Germany; [2]BASF Japan Ltd., Japan

P-22 **Core time 2**

Can introduction of PVC de-chlorination technology bring circularity benefits? - An analysis using a multi-objective, multi-regional technology choice model

Ryodai Makino, Yasuhiro Fukushima, Hajime Ohno
TOHOKU UNIVERSITY, Japan

P-23 **Core time 1**

Sectoral similarity analysis of production technologies and lifestyles of nations

Waka Nishifuji[1], Kayoko Shironitta[2], Haruka Mitoma[1], Shigemi Kagawa[1]
[1]Kyushu University, Japan; [2]Fukuoka Women's University, Japan

P-24 **Core time 2**

Effects of environmental labels for packaging on consumer behavior

Takahiro Hashimoto[1], Maki Shibata[2], Takumi Abe[3], Norihiro Itsubo[1]
[1]Tokyo City Univercity, Japan; [2]NPO Corporation City Colaboration, Japan; [3]Setagaya City Cleaning and Recycling Department, Japan

P-25 **Core time 1**

Comparative LCA of wood waste treatments - A case in Taiwan

Hao-Hsiang Hsu, Hsin-Tien Lin, Po-Lin Wu, Falk Schneider
National Cheng Kung University, Taiwan

P-26 **Core time 2**

Environmental performance of Komatsuna in use of natural impurities adsorbent

Haruna Hirose, Kiyoshi Dowaki
Tokyo University of Science, Japan

P-27 **Core time 1**

Environmental impact assessment of direct air capture with biogas power plant

Suzuki Hayato, Itsubo Norihiro
Tokyo City University, Graduate school of Environmental Information studies, Japan

P-28 **Core time 2**

Dynamic substance flow analysis of indium in Japan

Yuma Nishioka[1], Akihiro Yoshimura[2], Yasunari Matsuno[2]

[1]Faculty of Science and Engineering, Chiba University; [2]Graduate School of Science and Engineering, Chiba University

P-29 **Core time 1**

Evaluating carbon inequality by household type across prefectures in Japan

Yuzhuo Huang[1], Ken'ichi Matsumoto[2], Yosuke Shigetomi[1]
[1]Nagasaki University; [2]Toyo University

P-30 **Core time 2**

Consideration of nitrogen balance between Input and output flow in IDEA

Yuki Ichisugi, Kenichiro Tsukahara, Kiyotaka Tahara
National Institute of Advanced Industrial Science and Technology, Japan

P-31 **Core time 1**

Life cycle assessment for solar panel recycling considering the resources of glass

Akihiro Murayama, Toru Matsumoto
University of Kitakyushu, Japan

P-32 **Core time 2**

Copper-smelting-related mercury emissions reduced by promoting recycling and introducing countermeasure technology in major copper-smelting countries

Ryota Yamamoto, Seiji Hashimoto
Ritsumeikan University, Japan

P-33 **Core time 1**

Feasibility of applying leachate treatment equipment from final disposal sites to methane fermentation facilities after completion of landfill disposal

Takao Yamada[1], Akifumi Nakao[2], Noboru Yoshida[2]
[1]Graduate School of Wakayama University, Japan; [2]Wakayama University, Japan

P-34 **Core time 2**

Cooperation across the value chain – An important condition for resource efficiency

Marlene Preiss, Christian Haubach, Mario Schmidt
Pforzheim University, Germany

P-35 **Core time 1**

Analysis of the effect of load leveling on the energy supply function by waste incineration facility

Akari Sudo[1], Toyohiko Nakakubo[2]
[1]Pacific Consultants, Japan; [2]Ochanomizu University, Japan

P-36 **Core time 2**

Effects of showing volunteer-Related movies on children's voluntary attitudes and behavior

Zhaofei Lin, Takaaki Kato
The university of Kitakyushu, Japan

P-37 **Core time 1**

Uncertainty of electricity generation efficiency of variable renewable energy power plants: The case of Japanese photovoltaic power plants

Yuya Nakamoto[1], Shogo Eguchi[2], Hirotaka Takayabu[3]
[1]Oita university; [2]Fukuoka University; [3]Kindai University

P-38 **Core time 2**

A methodology for assessing mobility revolution with low carbonization

Suil Park, Hirokazu Kato, Hiroyoshi Morita, Marjan Khaleghi
Nagoya University, Japan

P-39 **Core time 1**

Policy driven compact cities: A literature review on the effect of compact city on carbon emissions

Tianhui Fan[1], Andrew Chapman[1,2]
[1]Graduate School of Economics, Kyushu University, Japan; [2]International Institute for Carbon-Neutral Energy Research,Kyushu University, Japan

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P-40 **Core time 2**

Integrated analysis of overseas global environmental impacts induced by Japanese food production activities -Proposal for production and distribution system transformation-

Toshinori Isogawa[1], Akiyuki Kawasaki[1,2]
[1]Department of Civil Engineering, The University of Tokyo, Japan; [2]Institute for Future Initiatives, The University of Tokyo, Japan

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P-41 **Core time 1**

LCA evaluation of freon reclamation and destruction

Yoshihito Yasaka[1], Koichi Shobatake[1], Fumiaki Yakushiji[2], Yoshiki Shimizu[2], Masahiro Tomita[2], Norihiro Itsubo[3]
[1]TCO2 Co., Ltd., Japan; [2]DAIKIN INDUSTRIES, LTD., Japan; [3]Tokyo City University, Japan

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P-42 **Core time 2**

Design for fostering life cycle thinking through a speculative scenario picture book about mending with mycelium in a local circular network

Emma Huffman, Kazutoshi Tsuda, Daijiro Mizuno
Kyoto Institute of Technology, Japan

P-43 **Core time 1**

International trade in mercury and its uncontrolled risk

Hiromu Oda[1], Hiroki Noguchi[1], Kenichi Nakajima[2], Masaaki Fuse[1]
[1]University of Hiroshima, Japan; [2]National Institute for Environmental studies, Japan

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P-44 **Core time 2**

Association of air pollution and meteorological variables with COVID-19 pandemic event in DKI Jakarta

Merita Gidarjati, Toru Matsumoto
The University of Kitakyushu, Japan

P-45 **Core time 1**

A proposal of multiple indexes in vegetable consumption flow in terms of environmental impacts and nutrition

Misaki Takemoto, Shan Miao, Kiyoshi Dowaki
Tokyo University of Science, Japan

P-46 **Core time 2**

Evaluation of secondary aluminum cycles under automotive changes in China

Wang Binze, Zhang Zhengyang, Matsubae Kazuyo
Tohoku University, Japan

P-47 **Core time 1**

Analysis of the (H)EV permanent magnets recycling trend for rare earth sustainability improvement

So Jeong Jang[1], Yong Woo Hwang[2], Hong Yoon Kang[1], Jun Ho Choi[3]
[1]Program in Global Industrial & Environmental Engineering, Inha University, Republic of Korea; [2]Department of Environmental Engineering, Inha University, Republic of Korea; [3]Program in Environmental and Polymer Engineering, Inha University, Republic of Korea

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P-48 **Core time 2**

Environmental and social impact assessment of cultural contents considering the economic ripple effect of visits to drama location

Akihiko Tsutsumi, Norihiro Itsubo
Tokyo City University, Japan

P-49 **Core time 1**

The carbon footprint of Kishiwada Danjiri Festival

Ryusei Murata[1], Issei Kawamoto[2], Norihiro Itsubo[1]
[1]Tokyo City University, Japan; [2]Rematec R&D Corp, Japan

P-50 **Core time 2**

Evaluating the environmental performance of silver nanoparticles syntheses

Ziyi Han[1], Heng Yi Teah[2], Izumi Hirasawa[1]
[1]Department of Applied Chemistry, Waseda University, Japan; [2]Waseda Research Institute for Science and Engineering, Waseda University

P-51 **Core time 1**

Ex ante life cycle assessment of synthetic talc production based on supercritical hydrothermal flow process

Guido Sonnemann[1], Edis Glogic[1], Marie Claverie[3], Muhammad Jubayed[4], Valentina Musumeci[2], Christel Careme[3], Francois Martin[5], Cyril Aymonier[2]
[1]Univ. Bordeaux, Bordeaux INP, CNRS, ISM - UMR 5255; [2]CNRS, Univ. Bordeaux, Bordeaux INP, ICMCB - UMR 5026; [3]Imerys; [4]University of Coimbra; [5]UPS, CNRS, IRD,CNES, GET - UMR 5563

P-52 **Core time 2**

A concurrent technology development and life cycle assessment of lithium-sulfur battery

Qi Zhang[1], Kotaro Yasui[1], Suguru Noda[1,2], Heng Yi Teah[2]
[1]Department of Applied Chemistry, Waseda University; [2]Waseda Research Institute for Science and Engineering, Waseda University

P-53 **Core time 1**

Mineral resource demands for building power transmission grids associated with wind and solar PV plants by 2050 under the energy transition

Zhenyang Chen[1], Rene Kleijn[1], Hai Xiang Lin[1,2]
[1]Institute of Environmental Sciences (CML), Leiden University, 2333 CC Leiden, The Netherlands.; [2]Delft Institute of Applied Mathematics, Delft University of Technology, 2628 CD Delft, The Netherlands.

P-54 **Core time 2**

Modelling product loss within the packaging sector

Jeremy Francis Macdonald Grant[1,2]
[1]RMIT University, Australia; [2]Lifecycles

P-55 **Core time 1**

Mitigating fossil energy consumption in protected horticulture: Life cycle assessment of a water heat pump system for strawberry production

Longlong Tang, Kiyotada Hayashi
National Agriculture and Food Research Organization (NARO), Japan

P-56 **Core time 2**

A cradle-to-gate greenhouse gases emission perspective for assessment of CCU technologies - Comparison of process options in non-reductive CO2 utilization for poly-carbonate diol production

Seokjin Hong, Hajime Ohno, Jialing Ni, Yasuhiro Fukushima
Tohoku University, Japan

P-57 **Core time 1**

Determinants of changes in footprints of crucial environmental indicators for global commons stewardship in China

HANZhao[1], Akiyuki Kawasaki[1,2]
[1]Department of Civil Engineering, The University of Tokyo, Tokyo, Japan; [2]Center for Global Commons, Institute for Future Initiatives, The University of Tokyo, Tokyo, Japan

P-58 **Core time 2**

Web scraping approach for secondary data collection in life cycle assessment and life cycle cost analysis

Dong-hyeon Kim, Yu-jeong Choi, Seong-gwon Lee, Ye-won Hwang, Tak Hur
School of Chemical Engineering, Konkuk University

P-59 **Core time 1**

Biodiversity damage assessment integrating carbon and land footprint

Kiichiro Takahashi, Norihiro Itsubo
Tokyo City University, Japan

P-60 **Core time 2**

Developing product lifetimes information system

Levon Amatuni[1], José Mogollón[1], Kees Baldé[2], Tales Yamamoto[1]
[1]CML, Leiden University, Netherlands, The; [2]United Nations Institute for Training and Research (UNITAR)

P-61 **Core time 1**

Investigating power generation efficiency of PV power plants in Japan focusing on new market entrants

Shogo Eguchi[1], Yuya Nakamoto[2], Hirotaka Takayabu[3]
[1]Fukuoka University, Japan; [2]Oita University, Japan; [3]Kindai University, Japan

P-62 **Core time 2**

Economic and environmental efficiency analysis of medical sector in Japan

Daigo Ushijima, Tomoaki Nakaishi, Haruka Mitoma, Shigemi Kagawa
Kyushu University, Japan

P-63 **Core time 1**

Safe by design in product development through combining risk assessment and life cycle assessment

Jeroen Guinée, Vrishali Subramanian
Leiden University, Netherlands, The

P-64 **Core time 2**

A framework of environmental risk analysis of chemical accident-induced atmospheric pollution

Jo Nakayama[1], Michiya Fujita[2], Shunichi Hienuki[1]
[1]Yokohama National University, Japan; [2]The University of Tokyo, Japan

P-65 **Core time 1**

Comparison of the externality cost of biodiesel from palm oil, soybean, and rapeseed as renewable fuel by using endpoint analysis

Siripol Tongorn[1], Chantima Rewlay-ngoen[1], Seksan Papong[2]
[1]Mechanical Engineering, Faculty of Engineering, Rajamangala University of Technology Phra Nakhon, Thailand; [2]National Science and Technology Development Agency (NSTDA), Thailand

P-66 **Core time 2**

How can LCA contribute to the evaluation of sustainable tourism?

Naoki Shibahara
Chubu University, Japan

P-67 **Core time 1**

A mixed recipe choice benefits nutrient cycle closing in a sustainable manner

Yin Long[1], Liqiao Huang[1], Yoshikuni Yoshida[1], Fujie Rinakina[1], Alexandros Gasparatos[2]
[1]Graduate School of Engineering, University of Tokyo, Tokyo, Japan.; [2]Institute for Future Initiatives (IFI), University of Tokyo, 7-3-1 Hongo, 113-8654, Tokyo, Japan

P-68 **Core time 2**

Carbon footprint analysis of food packaging in Brasilia, Brazil

Flora Lyn de Albuquerque Fujiwara[1], Francisco Contreras[1], Victor Silva[2]
[1]University of Brasilia, Brazil; [2]University of Campinas, Brazil

P-69 **Core time 1**

The development of LCIA methodology and damage factors for biodiversity loss with extended impact categories.

Runya Liu[1], Haruka Ohashi[2], Akiko Hirata[2], Tetsuya Matsui[2], Norihiro Itsubo[1]
[1]Tokyo city university, Japan; [2]Forestry and Forest Products Research Institute

P-70 **Core time 2**

Greenhouse gas emission and reduction due to rice husks biochar application: The impact of capital goods production

Masaya Kanai, Minako Doi, Akira Shibata, Katsuyuki Nakano
Ritsumeikan University, Japan

P-71 **Core time 1**

Air conditioning energy analysis using big data

Genta Sugiyama[1], Tomonori Honda[2], Norihiro Itsubo[1]
[1]Tokyo City University, Japan; [2]National Institute of Advanced Industrial Science and Technology

P-72 **Core time 2**

A new H2 storage scheme for a fuel cell assisted bicycle in uses of exhaust gas and insulator coating

Shan Miao[1], Nagado Ryuta[1], Sakai Satoshi[1], Shimogawa Junnosuke[2], Noboru Katayama[2], Kiyoshi Dowaki[1]
[1]Department of Industrial Administration, Graduate school of Science and Technology, Tokyo University of Science, Chiba, Japan; [2]Department of Electrical Engineering, Graduate school of Science and Technology, Tokyo University of Science, Chiba, Japan

P-73 **Core time 1**

Life cycle assessment to assess circular economy business models: case of lithium-ion battery remanufacturing

Benedikte Wrålsen, Reyn O'Born
University of Agder, Norway

P-74 **Core time 2**

Carbon footprint of stationary type water server

Tomoya Kitami[1], Saori Aoyama[2], Yuuya Yamashita[2], Yukio Kobayashi[2], Yasuo Koseki[3], Norihiro Itsubo[1]
[1]Tokyo City University, Japan; [2]Mitsubishi Chemical Cleansui Corporation; [3]Koseki Environment Office

P-75 **Core time 1**

Life cycle externality cost of battery electric vehicles, hybrid vehicles, and conventional gasoline vehicles in Thailand based on end-point impacts

Chantima Rewlay-ngoen[1], Siripol Tongorn[1], Adchara Chinsorn[2], Seksan Papong[2]
[1]Faculty of Engineering, Rajamangala University of Technology Phra Nakhon, Thailand; [2]National Science and Technology Development Agency (NSTDA), Thailand

P-76 **Core time 2**

Modeling the relationship between life cycle environmental impacts of ripened peach and food loss reduction induced by transportation packaging

Yuma Sasaki[1,2], Rina Shinozaki[3], Takahiro Orikasa[2,3], Nobutaka Nakamura[4], Kiyotada Hayashi[1], Yoshihito Yasaka[5], Naoki Makino[5], Koichi Shobatake[5], Shoji Koide[2,3], Takeo Shiina[6]

P-77 **Core time 1**

Environmental and social impacts assessment caused by the growing demand for electric vehicles

Sayaka Kakiuchi, Norihiro Itsubo
Tokyo City university, Japan

P-78 **Core time 2**

Analyzing variable factors of water supply-demand balances derived from food production and consumption

Yohei Yamaguchi, Naoki Yoshikawa, Seiji Hashimoto, Koji Amano
Ritsumeikan University, Japan

P-79 **Core time 1**

Economic and environmental consequences of the COVID-19 pandemic through foreign tourists demand in Japan.

Yusuke Oga[1], Tomoaki Nakaishi[2], Shigemi Kagawa[3]
[1]Kyushu university, Japan; [2]International Institute for Carbon-Neutral Energy Research, Kyushu University, Japan; [3]Faculty of Economics, Kyushu University, Japan

P-80 **Core time 2**

Life cycle assessment of photocatalytic reduction of CO2 to methanol

David Petrovic, Yukio Furukawa, Heng Yi Teah
Waseda University, Japan

P-81 **Core time 1**

Analyzing the carbon foot print of IT display products

Byunghee Choi, Byungkwun Kang, Jiwon Yang, Yongchae Jung, Changgone Kim
LG Display, Korea, Republic of (South Korea)

P-82 **Core time 2**

Case study of applying smart & safety solution using DT/AI

Jae wook Ahn[1], Yong woo Hwang[2], Hong yoon Kang[3], In tae Kim[4]
[1]INHA Univercity, Korea, Republic of (South Korea); [2]INHA Univercity, Korea, Republic of (South Korea); [3]INHA Univercity, Korea, Republic of (South Korea); [4]INHA Univercity, Korea, Republic of (South Korea)

P-83 **Core time 1**

Life cycle assessment of alcoholic beverage produced by highly refined Japanese rice

Marika Muramoto, Norihiro Itsubo
Tokyo city university, Japan

P-84 **Core time 2**

Evaluation of greenhouse gas emissions from bagasse-derived clothing

TOSHIRO Semba[1], NAOTO Yamamoto[2], SHINJI Odo[2], MASASHI Shimizu[2], GAKU Tomii[2], NORIHIRO Itsubo[1]
[1]Tokyo City University; [2]Curelabo Company, Limited

P-85 **Core time 1**

Life cycle assessment of imported jackets

Shino Ichihara, Norihiro Itsubo
Tokyo City University, Japan

P-86 **Core time 2**

Estimation of greenhouse gas emissions from mercury-contaminated municipal solid waste treatment in Japan

Katsuyuki Nakano[1], Shoki Kosai[1], Eiji Yamasue[1], Masaki Takaoka[2]
[1]Ritsumeikan University, Japan; [2]Kyoto University, Japan

P-87 **Core time 1**

Factor decomposition analysis of changes in CO2 emissions from container operating companies

Taiga Shimotsuura[1], Tomoaki Nakaishi[2], Shigemi Kagawa[3]
[1]Graduate School of Economics, Kyushu University, 744 Motooka, Nishi-ku, Fukuoka 819-0395, Japan; [2]International Institute for Carbon-Neutral Energy Research, Kyushu University, 744 Motooka, Nishi-ku, Fukuoka 819-0395, Japan; [3]Faculty of Economics, Kyushu University, 744 Motooka, Nishi-ku, Fukuoka 819-0395, Japan

P-88 **Core time 2**

Latest practices and issues with avoided greenhouse gas emissions by ICT contributing to Green Transformation

Tomoko Konishi-Nagano, Takuya Nagamiya, Satomi Hirooka, Yuta Musha, Masayuki Hamakawa
FUJITSU LIMITED, Japan

P-89 **Core time 1**

Greenhouse gas emission reduction potential of vehicle-to-grid technology: A case study in Kyushu, Japan

Kazuho Toyoda, Katsuyuki Nakano
Ritsumeikan University, Japan

P-90 **Core time 2**

An environmental impact and economic analysis of palladium recovery in low concentration spent catalyst solution

Taek-Kwan Kwon·
Graduate School of Engineering, Inha University, Republic of Korea, Korea, Republic of (South Korea)

P-91 **Core time 1**

Efficient utilization of palm oil residue as material / energy products

Tomoko Fuchigami[1], Koichi Goda[2], Ken-ichiro Tanoue[2], Hirokazu Ito[3]
[1]EFPRO LLC., Japan; [2]Department of Mechanical Engineering, Yamaguchi University, Japan; [3]Paper Industry Center, Ehime University, Japan

P-92 **Core time 2**

Comparison of disassembly and assembly works using optical motion capture for circular economy

Ryuto Kawane, Hiromasa Ijuin, Ryosuke Nakajima, Masao Sugi, Tetsuo Yamada
The University of Electro-Communications, Japan

P-93 **Core time 1**

Quantification of the environmental impacts associated with human labour

Lucia Rigamonti, Federica Carla Carollo
Politecnico di Milano, Italy

P-94 **Core time 2**

Analysis of material flow in mercury recovery process for determining the characteristics of mercury behavior

In Tai Kim[1], Hee Won Park[2], Yong Woo Hwang[3]
[1]The Knowledge-based Environmental Service Specialized Graduate School Program, Inha University; [2]Program in Global Industrial & Environmental Technology Convergence, Graduate School, Inha University; [3]Department of Environmental Engineering, Inha University

P-95 **Core time 1**

Carbon-circularity-based evaluation of recycling process with dynamic MFA approach

Yosuke Nagase, Hajime Ohno, Yasuhiro Fukushima
Tohoku University, Japan

P-96 **Core time 2**

LCA experts training graduate program supported by the Korean government

Dong-hyeon Kim[1], Myung-Seok Choi[1], Jae-hyun Kim[2], Sung-Ki Lim[1], Young Sunwoo[3], Tak Hur[1]
[1]School of Chemical Engineering, Konkuk University; [2]School of Forestry and Landscape Architecture, Konkuk University; [3]School of Civil and Environmental Engineering, Konkuk University

P-97 **Core time 1**

Environmental impact assessment for polyester T-shirts -Prospective LCA for chemical recycling

Hiroyuki Nakamura, Norihiro Itsubo
TOKYO CITY UNIVERSITY, Japan

P-98 **Core time 2**

Analysis of treatment and resources circulation for marine litter

Yeong Hun Choe[1], Yong Woo Hwang[2], Ji Woo Choi[3]

[1]Knowledge-based Environmental Service Engineering, Inha University, Republic of Korea; [2]Department of Environmental Engineering, Inha University, Republic of Korea; [3]Progam in Global Industrial & Environmental Engineering, Inha University, Republic of Korea