

Program (Oral Presentations/Poster presentations)

167 oral presentations (10 in English and 157 in Japanese) and
94 poster presentations (15 in English and 79 in Japanese)

Note) Presentation ID in a box means the presentation in English.

Note) Poster sessions are held on Day 1 (Poster1) and Day 2 (Poster2).

Poster session Venue: Multi-purpose Hall (1F)
Poster1: Sept 9 (Mon) 17:00 - 18:15 / Poster2: Sept 10 (Tue) 13:30 - 14:45

A1 Waste reduction (1) 【Sept 9 (Mon) 9:30–10:45 Venue#3 (Room303)】

Chair : Hajime Yamakawa (Kyoto Prefectural University) Co-chair : Yasuko Seta (Kyoto Prefectural University)

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|--------|---|-----|
| A1-1-O | <i>(in Japanese)</i> University student survey on unintentional litter generated by individuals <i>J. F. Oberlin University</i> ○Manami Fujikura, Rikako Miura | p.1 |
| A1-2-O | <i>(in Japanese)</i> Microplastic release and inventory via wastewater from Solid waste treatment, Recycling, and Disposal facilities in Japan <i>Nippon Steel Engineering</i> ○Miyabi Tsunematsu, <i>Kyoto University</i> Kazuyuki Oshita, Kenji Shiota, Masaki Takaoka | p.3 |
| A1-3-O | <i>(in Japanese)</i> The state of polystyrene foam littering in river surface cleaning operations and its solutions <i>Environmental Counselor</i> ○Kentoku Funaki | p.5 |
| A1-4-O | <i>(in Japanese)</i> Construction and evaluation of a recovered paper separating support system using YOLO that is a popular object detection and image segmentation model <i>Kyushu University</i> ○Yasuhiro Sugisaki, Naoya Kojo, <i>Kyushu Environmental Evaluation Association</i> Takayuki Shimaoka | p.7 |
| A1-5-O | <i>(in Japanese)</i> Changes in the status of home appliances discharged from household non-burnable garbage in Fukuoka City <i>Fukuoka City</i> ○Nobuhiro Yokohari, Tomohiko Konishi, Hideki Kobayashi, <i>Fukuoka University</i> Shinya Suzuki | p.9 |

A2 Waste reduction (2) 【Sept 9 (Mon) 11:00–12:15 Venue#3 (Room303)】

Chair : Kohei Watanabe (Teikyo University) Co-chair : Maki Nonomura (Tokyo University of Agriculture)

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| A2-1-O | <i>(in Japanese)</i> Study on the Awareness of Waste Separation Among Foreign Tourists Visiting Urban Areas in Japan <i>Waseda University</i> ○Yuan Yuan, Shi Jiafan, Makoto Nohtomi | p.11 |
| A2-2-O | Factors of motivation to use refill bottles among employees: A case study in office with cafe <i>Kyoto University</i> ○Fatimah Azhari, <i>Research Institute for Humanity and Nature</i> Misuzu Asari, <i>Kyoto University</i> Yuta Ando, <i>Ritsumeikan University</i> Takuro Uehara, <i>SATO Corporation</i> Yoshiyuki Ueda, Mitsutoshi Sakagami, Ayumi Kurihara, Toko Yasufuku, <i>Zojirushi Corporation</i> Yuhei Iwamoto, Keito Kotani | p.13 |
| A2-3-O | <i>(in Japanese)</i> Reduction of plastic bottle wastage on university campus through the introduction of a water dispenser <i>Taisho University</i> ○Tomoko Okayama, Miiku Yoneno | p.15 |
| A2-4-O | <i>(in Japanese)</i> Purchasing Deli Foods and Detergents in Bulk Using Personal Containers Across Japan: Current Practices and Acceptability <i>Kyoto Prefectural University</i> ○Hajime Yamakawa | p.17 |
| A2-5-O | <i>(in Japanese)</i> New Trend of the Scheme for Reduction of Single-use Cups and Food Containers <i>Sui-Do! Network</i> ○Ryoko Seguchi | p.19 |
| Poster1 A2-6-P | <i>(in Japanese)</i> Survey on students needs for the used clothing collection and reuse system on university campus <i>Tokyo City University</i> ○Ekyu You, Tomoko Mori | p.21 |
| Poster2 A2-7-P | <i>(in Japanese)</i> Consideration of missing plastics and proposal for installing automatic litter collectors in rivers <i>Environmental Counselor</i> ○Kentoku Funaki | p.23 |
| Poster1 A2-8-P | Towards Zero Waste to Landfill: Evaluating Municipal Solid Waste and Refuse-Derived Fuel Potential in Yogyakarta City, Indonesia <i>National Institute for Environmental Studies</i> ○Febrian Rizkianto, <i>Universitas Islam Indonesia</i> Iresha Fajri Mulya, <i>National Institute for Environmental Studies</i> Tomonori Ishigaki, Masato Yamada | p.25 |
| Poster2 A2-9-P | <i>(in Japanese)</i> Development and evaluation of elemental technologies for non-contact waste collection systems (proposal of use cases in specific Spaces) <i>Waseda University</i> Kosuke Kubota, ○Shiduo Zhang, Akihisa Ogawa, <i>Daiei Environmental Research Institute</i> Ryota Tsubouchi, <i>Waseda University</i> Hiroshi Onoda | p.27 |

A3 Material flow analysis/ Property analysis 【Sept 9 (Mon) 13:30–15:00 Venue#5 (Room403)】

Chair : Seiji Hashimoto (Ritsumeikan University) Co-chair : Junya Yano (Kyoto University)

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| A3-1-O | <i>(in Japanese)</i> A Study on Plastic Material Flow by Agricultural Products <i>Kyushu University</i> ○Ryotaro Kawanishi, Hirofumi Nakayama, <i>Kyushu Environmental Evaluation Association</i> Takayuki Shimaoka | p.29 |
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| A3-2-O | (in Japanese) Estimation of the flow of plastic processing in industrial waste in Hokkaido <i>Hokkaido Research Organization</i> ○Shinobu Niwa, Ken Asakura, Hirohide Aga, Yoishiro Fukuda, Katsuyuki Yamaguchi, Satoru Ono | p.31 |
| A3-3-O | (in Japanese) Estimation of the amount of waste plastics flowing into water using city garbage images <i>Chuo University</i> ○So Sasaki, <i>Sustainable System Design Institute</i> Hideki Wada, <i>Mizushima Foundation</i> Toshifumi Shiwaku | p.33 |
| A3-4-O | (in Japanese) Environmental impact assessment of the waste stage of plastics flow <i>Akita University</i> ○Hiroataka Kumamaru | p.35 |
| A3-5-O | (in Japanese) Composition and flow survey for planning plastic management measures on Okinoerabu Island <i>Ricoh</i> ○Hidetaka Noguchi, Tetsumaru Fujita, Ryuichi Fukuda, Tomohiko Kamatani, <i>Research Institute for Humanity and Nature</i> Misuzu Asari | p.37 |
| A3-6-O | (in Japanese) Mud and Sludge <i>AICO</i> ○Minoru Tokita, Jun-ichi Kojima, Takahiro Hirata, <i>Mud Recycling Association</i> Shin-ichi Noguchi, Miho Nishikawa | p.39 |
| Poster1 A3-7-P | (in Japanese) Research on the actual status and prediction of agricultural waste plastic discharge University of Miyazaki ○Yusuke Mori, Tomoo Sekito, Yutaka Dote | p.41 |
| Poster2 A3-8-P | (in Japanese) Comparison of transportation distances for direct landfill and intermediate treatment of industrial plastic waste: A case study in Hokkaido, Japan <i>Hokkaido Research Organization</i> ○Ken Asakura, Shinobu Niwa, Katsuyuki Yamaguchi, Yoichiro Fukuda, Hirohide Aga, Satoru Ono | p.43 |

A4 Overseas case study [Sept 9 (Mon) 15:15–16:30 Venue#5 (Room403)]

Chair : Misuzu Asari (Research Institute for Humanity and Nature) Co-chair : Teppei Nunoura (The University of Tokyo)

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| A4-1-O | International Comparison of Plastics Consumption Behavior (1) -Focusing on Plastic bottles and Shopping bags- <i>Research Institute for Humanity and Nature</i> ○Jie Sun, <i>Kyoto University</i> Yuta Ando, Fatimah Syakura Azhari, <i>Research Institute for Humanity and Nature</i> Misuzu Asari | p.45 |
| A4-2-O | (in Japanese) The Actual Situation and Role of the Waste Separation Instructor System: A Case Study of Wuxi City, Jiangsu Province, in China <i>Chuo University</i> ○Wenrui Wu, Mikiko Shinoki | p.47 |
| A4-3-O | (in Japanese) Analysis of household waste composition in floating villages on the Tonle Sap Lake <i>Okayama University</i> ○Habuer, Takeshi Fujiwara, <i>Royal University of Phnom Penh</i> Vin Spoann, Chandara Phat, <i>Okayama University</i> Makoto Tsukiji | p.49 |
| A4-4-O | (in Japanese) Landfarming Implementation Results in Samoa - Lessons Learned from Waste Oil Contaminated Soil Remediation Measures - <i>Japan International Cooperation Agency</i> ○Yoko Onuma | p.51 |
| A4-5-O | (in Japanese) Energy Poverty and Improper Disposal of Used Lead-Acid Batteries Among Nomads in Mongolia <i>Tohoku University</i> ○Xiaoyue Liu, Jeongsoo Yu, Kazuaki Okubo | p.53 |

A5 Public awareness/ Environmental education [Sept 10 (Tue) 9:00–10:30 Venue#3 (Room303)]

Chair : Atsuko Hanashima (Osaka Sangyo University) Co-chair : Yumi Matsuda (Takuma)

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| A5-1-O | (in Japanese) Research and product planning for upcycling <i>Advanced Institute of Industrial Technology</i> ○Shigeomi Koshimizu, Takeshi Matsuyama, Hiroyuki Matsushima, Makiko Mouri, Tian Yuan, Ziwei Wang | p.55 |
| A5-2-O | (in Japanese) Extraction of the elements related to plastic bag refusal rates based on the attitude survey of consumers <i>Pro-ship</i> Naoki Nogata, <i>Toyo University</i> ○Akito Murano | p.57 |
| A5-3-O | (in Japanese) Actual conditions and issues in the collection of mixed waste paper <i>Dynax Urban Environment Research Institute</i> ○Yoko Kitasaka, Kohei Yamamoto, Toshihiko Arima, <i>Paper Recycling Promotion Center</i> Masatomo Kawakami | p.59 |
| A5-4-O | (in Japanese) International comparison of plastics consumption behavior (2) - Focusing on pro-environmental behavior regarding plastic products - <i>Kyoto University</i> ○Yuta Ando, <i>Research Institute for Humanity and Nature</i> Jie Sun, <i>Kyoto University</i> Fatimah Syakura Azhari, <i>Research Institute for Humanity and Nature</i> Misuzu Asari | p.61 |
| A5-5-O | (in Japanese) Design effect of PET bottle recycling bins on PET bottle recycling behaviors through course practice activity for undergraduate students – Part I: Effect of design on cap removal and other wastes contamination <i>Tokyo Institute of Technology</i> ○Fumitake Takahashi | p.63 |
| A5-6-O | (in Japanese) Evaluation of resident satisfaction with urban waste disposal systems in China <i>Yamaguchi University</i> ○Zhangbo Wang | p.65 |
| Poster1 A5-7-P | (in Japanese) The effect verification of the educational program that addresses lifestyle awareness and behavior change to reduce marine debris generation. <i>Kao Corporation</i> ○Naofumi Tagawa, Akira Saitou, Keiji Seto | p.67 |
| Poster2 A5-8-P | (in Japanese) The effect verification of the event, Tomogashima exploration walk rally, that encourage tourists to collect marine debris <i>Kao Corporation</i> Naofumi Tagawa, ○Akira Saitou, Keiji Seto | p.69 |

| A6 Food loss and waste | | 【Sept 10 (Tue) 10:45–12:00 Venue#3 (Room303)】 |
|---|---|---|
| | | Chair : Tomoko Okayama (Taisho University) Co-chair : Yasuhiro Matsui (Okayama University) |
| A6-1-O | (in Japanese) The Effectiveness of Intervention Measures Using Support Tools in Reducing Household Food Waste: Research of Food Waste Reduction Using Cloud-Based Automatic Weighing System | p.71 |
| <i>Kyoto Prefectural University</i> ○Yasuko Seta, Hajime Yamakawa, <i>Taisho University</i> Tomoko Okayama, <i>Teikyo University</i> Kohei Watanabe, <i>Tokyo University of Agriculture</i> Maki Nonomura | | |
| A6-2-O | (in Japanese) Trends in Gaming Simulation to Encourage Consumer Food Loss Reduction Behavior | p.73 |
| <i>Shibaura Institute of Technology</i> ○Shingo Ogino, Manabu Ichikawa | | |
| A6-3-O | (in Japanese) Development of the educational program for junior high school students aiming to practice civic action for food waste issues | p.75 |
| <i>Tokyo City University</i> ○Tomoko Mori, <i>National Institute for Environmental Studies</i> Masahiro Osako | | |
| A6-4-O | (in Japanese) The impact of municipal household waste charges and separate collection of food waste on food waste-related behaviors | p.77 |
| <i>Tokyo University of Agriculture</i> ○Maki Nonomura, <i>Kyoto Prefectural University</i> Hajime Yamakawa, <i>Taisho University</i> Tomoko Okayama, <i>Teikyo University</i> Kohei Watanabe, <i>Kyoto Prefectural University</i> Yasuko Seta | | |
| A6-5-O | (in Japanese) "How long past the best before date is it still OK?" Citizens' awareness survey | p.79 |
| <i>Teikyo University</i> ○Kohei Watanabe, <i>Kodaira City Waste Reduction Promotion Volunteer</i> Atsuko Sakiyama | | |
| Poster2 A6-6-P | (in Japanese) Enlightenment effect of campaig on food loss reduction by web-app for online broadcasting at food corner | p.81 |
| <i>Okayama University</i> ○Yasuhiro Matsui, <i>AEON MALL Corporation</i> Rikuo Fukumori, <i>Dairyu Consulting Engineer</i> Atsushi Furukawa | | |
| B1 Waste management and planning (1) | | 【Sept 9 (Mon) 13:30–15:00 Venue#2 (Room202)】 |
| | | Chair : Hiroki Harada (Kyoto University) Co-chair : Yasuo Horii (EX Research Institute) |
| B1-1-O | (in Japanese) Consideration of Promotion of Use of Recycled Materials through Certification, etc. | p.83 |
| <i>Japan Industrial Waste Management Foundation</i> ○Atsushi Yamawaki, <i>Konaka Research Institute</i> Tsuneo Konaka, <i>Center for Environmental Science in Saitama</i> Mikio Kawasaki | | |
| B1-2-O | (in Japanese) Negative Effect of Separate Collection and Recycling of Waste Paper and Plastics | p.85 |
| <i>Research Institute of Solid Waste Management Engineering</i> ○Masaru Tanaka | | |
| B1-3-O | (in Japanese) Study on evaluation of municipal solid waste management system on plastic sorted collection | p.87 |
| <i>fukken</i> ○Takashi Mikami, Takahito Inoue, <i>Central Tottori Hometown Wide Area Local Public Body</i> Tomoyuki Ueta, Daiki Miyamoto | | |
| B1-4-O | (in Japanese) Research on the nudge effect to raise awareness about waste paper recycling on university campuses | p.89 |
| <i>Kyushu University</i> ○Takuya Watabe, Yasuhiro Sugisaki, Hirofumi Nakayama, <i>Kyushu Environmental Evaluation Association</i> Takayuki Shimaoka | | |
| B1-5-O | (in Japanese) Enhancement of AI Remote Monitoring and Operation Support System for Optimal Operation of Waste Incineration Facilities | p.91 |
| <i>Mitsubishi Heavy Industries Environmental & Chemical Engineering</i> ○Mahiro Tanaka, Wataru Suzuki, Daisuke Chiba, Yoshinori Terasawa | | |
| B1-6-O | (in Japanese) Development of a low-cost location estimation method for the safety management of workers in Waste to Energy Plants | p.93 |
| <i>Hitachi Zosen Corporation</i> ○Yutaro Atarashi, <i>Nara Institute of Science and Technology</i> Ismail Arai, Takuya Matsunaga | | |
| Poster1 B1-7-P | (in Japanese) Survey of the actual conditions of the garbage collection process for the preparation of the infection risk assessment table for COVID-19 | p.95 |
| <i>National Institute for Environmental Studies</i> ○Masato Yamada, Tomonori Ishigaki, <i>Japan Environmental Sanitation Center</i> Koichi Tachio | | |
| Poster2 B1-8-P | (in Japanese) Building a logic model for resource circulation of textile products | p.97 |
| <i>National Institute for Environmental Studies</i> ○Aya Yoshida, <i>Mitsubishi UFJ Research and Consulting</i> Yamato Hosoi, Shingo Kanezawa, Masafumi Hagiwara, Toshiya Kayama | | |
| Poster1 B1-9-P | (in Japanese) Study on improving the efficiency of industrial waste treatment processes through the introduction of Work Chain Management (WCM) | p.99 |
| <i>Waseda University</i> ○Daichi Hayashi, Hiroshi Onoda | | |
| Poster2 B1-10-P | Status and Challenges on Food Waste Management Policy for Promoting Food Upcycling in South Korea | p.101 |
| <i>Korea Environment Institute</i> ○Munsol Ju, <i>Korea Rural Economic Institute</i> Byung-Joon Woo | | |

| B2 Waste management and planning (2) | | 【Sept 9 (Mon) 15:15–16:45 Venue#2 (Room202)】 |
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| | | Chair : Kazuei Ishii (Hokkaido University) Co-chair : Geun-Yong Ham (Hokkaido University) |
| B2-1-O | (in Japanese) Non-Contact Acoustic Inspection for refractory materials in waste incineration plants | p.103 |
| <i>Mitsubishi Heavy Industries Environmental & Chemical Engineering</i> ○Kazuo Yamamura, Tomohiro Harada, <i>Mitsubishi Heavy Industries Research and Innovation Center</i> Masahito Ishioka, <i>Toin University of Yokohama</i> Tsuneyoshi Sugimoto | | |

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| B2-2-O | (in Japanese) Study on changes in surroundings land prices depending on the location incineration plant | <i>Nihon University</i> ○Osamu Hashimoto, Katsuya Uozaki, Masaji Kanashima, Former <i>Nihon University</i> Hiromi Mitsuhashi | p.105 |
| B2-3-O | (in Japanese) Predictive maintenance of conveyor using frequency analysis method | <i>Hitachi Zosen Corporation</i> Yutaro Atarashi, Eitatsu Dai, Kento Hayashi, Fumiaki Ohnishi, ○Kota Matsui | p.107 |
| B2-4-O | (in Japanese) Optimization of Waste Incineration Facility Placement Considering the Introduction of Transfer Stations: A 2050 Case Study of Kyoto Prefecture | <i>Kyoto University</i> ○Yuki Yoshida, Yasuhiro Hirai, Junya Yano | p.109 |
| B2-5-O | Analysis of Urban-Rural Disparities in Waste Collection and waste disposal practices of Households: A focus in Sri Lanka | <i>Toyo University</i> ○Fernando Chamila Jeewanee, Toshiya Aramaki | p.111 |
| B2-6-O | GIS-Based Documentation of River Waste Facilities in Jakarta: Towards Optimization of the Transportation System | <i>National Institute for Environmental Studies</i> ○Afif Faiq Muhamad, Ryo Tajima | p.113 |

B3 Disaster waste management **【Sept 10 (Tue) 9:00–10:30 Venue#2 (Room202)】**
Chair : Shinya Suzuki (Fukuoka University) Co-chair : Yusuke Jimbo (Kureha)

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|--------|--|--|-------|
| B3-1-O | (in Japanese) Changes and Effects of Spectral Information due to Degradation of Materials Used for Estimating Waste Composition Estimation | <i>Taisei Corporation</i> ○Ryohei Miyata, Koji Hashimoto, Hideya Ohkubo, <i>Pasco Corporation</i> Toshiaki Satoh | p.115 |
| B3-2-O | (in Japanese) Verification of the Effect of Moisture on Near-infrared Spectral Information Used for Waste Composition Estimation | <i>Taisei Corporation</i> ○Koji Hashimoto, Ryohei Miyata, Hideya Ohkubo, <i>Pasco Corporation</i> Toshiaki Satoh | p.117 |
| B3-3-O | (in Japanese) Development of a Timeline for Disaster Waste Management Support | <i>Sustainable Society Promotion Consultant Association</i> ○Yusuke Ishiwata, Yuki Ohata, Kazuyoshi Kan, Ryo Hasegawa, Keisuke Miyazaki, Shoko Morita, Hisatoshi Ikemoto | p.119 |
| B3-4-O | (in Japanese) Information Sharing on Disaster Debris from the R6 Noto Peninsula Earthquake Using a Mapping Application | <i>Nagoya University</i> ○Nagahisa Hirayama, <i>NIED</i> Yuichiro Usuda | p.121 |
| B3-5-O | (in Japanese) Advocacy for disaster waste management, form experienced volunteer | <i>Fukkou Volunteer</i> ○Akihiko Takada | p.123 |
| B3-6-O | (in Japanese) Efforts to Database and Share Information on Potential Temporary Storage Sites for Disaster Waste | <i>Toyama Prefectural Environmental Science Reserch Center</i> ○Keiichi Mizuta, <i>Toyama Prefectural University</i> Takashi Saeki, Keita Nakamura, <i>National Institute for Environmental Studies</i> Ryo Tajima | p.125 |

B4 Culture/ History of waste **【Sept 9 (Mon) 11:00–11:45 Venue#5 (Room403)】**
Chair : Rokuta Inaba (National Institute for Environmental Studies)
Co-chair : Kazuyuki Suzuki (Center for Environmental Science in Saitama)

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| B4-1-O | (in Japanese) Research for Self organization activity effects Solid Waste management Improvement project | <i>Toyo University</i> ○Akio Ishii | p.127 |
| B4-2-O | (in Japanese) Profitability analysis of waste management companies in Japan | <i>Takushoku University</i> ○Yasushi Yokozawa | p.129 |
| B4-3-O | (in Japanese) The history of cleaning business of Hachioji City from postwar period to the 1960s | ○Kazuo Nakagawa | p.131 |

B5 LCA/ Low-carbon society **【Sept 10 (Tue) 10:45–12:00 Venue#2 (Room202)】**
Chair : Kazuyuki Oshita (Kyoto University) Co-chair : Eriko Kono (Waterfront Vitalization and Environment Research Foundation)

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|--------|---|--|-------|
| B5-1-O | Cancelled | | |
| B5-2-O | (in Japanese) Life Cycle Assessment of Hydrogen Recovery System from General Waste Incineration Bottom Ash | <i>Kyushu University</i> ○Etsuko Mizoe, Koji Sakakibara, Hirofumi Nakayama, <i>Kyushu Environmental Evaluation Association</i> Takayuki Shimaoka | p.135 |
| B5-3-O | (in Japanese) Life cycle assessment of textile waste recycling using gasification technologies | <i>The University of Tokyo</i> ○Daichi Tsuruta, Jun Nakatani, Toru Hayashi, Tsuyoshi Fujita, <i>JEPLAN</i> Akiko Yamaguchi, Yukari Ishizu, MasakiTakao | p.137 |
| B5-4-O | (in Japanese) Design of a sludge carbonization system utilizing the heat of a waste incineration plant and evaluation of carbon sequestration effect. | <i>Osaka University</i> ○Koki Tsuji, Toyohiko Nakakubo, Akihiro Tokai, <i>Akita Prefectural University</i> Yasuji Kurimoto, <i>National Agriculture and Food Research Organization</i> Ayaka Kishimoto, <i>National Institute for Environmental Studies</i> Yoshitaka Ebie | p.139 |

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| B5-5-O | (in Japanese) Study on optimal layout of waste incineration and transfer station facilities for new integration of municipalities in Hokkaido as of 2050 <i>Hokkaido University (currently, Japan Bank for International Cooperation) OHyo Nomiyama, Hokkaido University Kazuei Ishii, Satoru Ochiai, Geun-Yong Ham</i> | p.141 |
| B5-6-O | (in Japanese) Scenarios Analysis based on Greenhouse Gas Emissions of Future Municipal Waste Management Systems in the Tohoku region, Japan <i>Hitachi Zosen Corporation OTasuku Matsuoka, Kyoto University Kazuyuki Oshita, Masaki Takaoka</i> | p.143 |
| Poster1 B5-7-P | (in Japanese) Analysis of regional resource circulation structure in a small-scale local municipality using a regional resource circulation map <i>Hokkaido University OYoshiki Arai, Satoru Ochiai, Geun-Yong Ham, Kazuei Ishii</i> | p.145 |
| Poster2 B5-8-P | (in Japanese) Enhanced Life Cycle CO ₂ Assessment of Waste Disposal Facilities with Carbon Capture and Utilization (CCU) <i>Waseda University Yi Han, OZhen Zhang, Tianjiao Cheng, Hiroshi Onoda</i> | p.147 |
| B5-9-P | Cancelled | |

C1 Packaging/ Plastics (1) 【Sept 9 (Mon) 13:30–15:00 Venue#7 (Room406)】

Chair : Miwako Hata (EX Research Institute) Co-chair : Michitaka Furubayashi (Hitachi Zosen)

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|-----------------|---|-------|
| C1-1-O | (in Japanese) An empirical study on the price difference of designated bags for household waste <i>Yamanashi Eiwa College OKai Nomura, Kanagawa University Masashi Yamamoto</i> | p.151 |
| C1-2-O | (in Japanese) Composition and Disposal Unit of Cutlery and Straws in Combustible Waste <i>Tokyo Metropolitan Research Institute for Environmental Protection OHiroyasu Koizumi, Yushi Terajima, Sukehisa Tatsuichi, Akira Hasegawa</i> | p.153 |
| C1-3-O | (in Japanese) Field test of anaerobic digestion of disposed bio plastic <i>Osaka Gas OJun Tsubota, Shinya Akimoto, Junpei Miyazaki, Kyoto University Taira Hidaka, Taku Fujiwara, NJS Yukiko Kameda, Toru Kawasaki, Makoto Kojima, Kaito Mochizuki, Osaka City Yutaka Hashimoto, Narito Suda</i> | p.155 |
| C1-4-O | (in Japanese) Investigation of fuel property of polyvinyl chloride pyrolysis residue <i>Gunma Industrial Technology Center OKoki Onda, Yosuke Watanuki, Keiji Tokuda, Yoshikawa Kazuo Nakamura, Kohei Sunaga, Mitsumine Industrial Shin-ichi Murakami</i> | p.157 |
| C1-5-O | (in Japanese) How much do collection methods of plastic product waste affect its amount of collection? A focus on restrictions in targeted products <i>National Institute for Environmental Studies OHaruhisa Yamamoto, Masahiro Oguchi, Tomohiro Tasaki, Rokuta Inaba</i> | p.159 |
| C1-6-O | (in Japanese) Biodegradability evaluation of biodegradable plastics by alkaliphilic bacteria <i>komham OHajime Morimoto, Suno Nishiyama</i> | p.161 |
| Poster1 C1-7-P | (in Japanese) Comparison between utilization methods of biogas from polylactic acid through life cycle analysis <i>Kyoto University OJunya Yano, Osaka Gas Junpei Miyazaki, Shinya Akimoto, Jun Tsubota, Kyoto University Yasuhiro Hirai</i> | p.163 |
| Poster2 C1-8-P | (in Japanese) Application study of the analysis of total fluorine contained in paper products using XRF <i>Rigaku OSatoshi Ikeda, Natsumi Okazaki, Yokohama National University Yuichi Miyake, Junki Saito, National Institute for Environmental Studies Hidenori Matsukami</i> | p.165 |
| Poster1 C1-9-P | (in Japanese) Estimation of Waste Plastic Flows and LCA Evaluation of Current Status by Cities: A case study of municipalities in Fukuoka prefecture <i>The University of Kitakyushu OKoudai Kawagoe, Atsushi Fujiyama, Toru Matsumoto</i> | p.167 |
| Poster2 C1-10-P | Computational Fluid Dynamics Analysis Study for Optimal Positioning of the Chlorine By-Pass (CBP) System <i>Kongju National University OJimin Jeon, Jaehyung Kim, Yeonhwi Kim, Wootae Kim, Seacheon Oh, Ssangyong C&T Kyusung Choi</i> | p.169 |

C2 Packaging/ Plastics (2) 【Sept 9 (Mon) 15:15–16:30 Venue#7 (Room406)】

Chair : Taisuke Watanabe (EX Research Institute) Co-chair : Toyohiko Nakakubo (Osaka University)

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|--------|---|-------|
| C2-1-O | Cancelled | |
| C2-2-O | (in Japanese) Evaluation of Rubber as an Alternative to Expanded Polystyrene Lids in Shiitake Mycelium Cultivation <i>Tottori University of Environmental Studies OHiroyuki Doyama, Sangyul Kim</i> | p.173 |
| C2-3-O | (in Japanese) Analysis of Supply Potential for Future Recycled Plastics Demand <i>The University of Tokyo OTomohiro Tabata, Jun Nakatani, Toru Hayashi, Tsuyoshi Fujita</i> | p.175 |
| C2-4-O | (in Japanese) Preference evaluation of collection stations using choice-based conjoint analysis: a case study of Tachiarai town <i>The University of Kitakyushu ORiku Kamata, Atsushi Fujiyama, Toru Matsumoto</i> | p.177 |
| C2-5-O | (in Japanese) Research on the use of collection site and health <i>Fukuoka University OToshimasa Kawai, Yoko Murano, Ikuyo Kikusawa, Shinya Suzuki</i> | p.179 |

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| C2-6-O | (in Japanese) Study on the evaluation of waste plastic collection and recycling using a circular business model | p.181 |
| | <i>Fukuoka University</i> ○Ikuyo Kikusawa, Shinya Suzuki | |
| Poster1 C2-7-P | (in Japanese) The Effect of Repeated Recycling on the Properties of Polyolefin Resins | p.183 |
| | <i>Mie Prefecture Industrial Research Institute</i> ○Yuki Yabuya, Masaki Murayama, Takashi Nishikawa, Satoshi Morisawa | |
| Poster2 C2-8-P | (in Japanese) Estimating the component material and weight percentage in composite plastic analyses by near-infrared spectrophotometer | p.185 |
| | <i>Tokyo Metropolitan Research Institute for Environmental Protection</i> ○Yushi Terajima, Sukehisa Tatsuchi, Akira Hasegawa, Hiroyasu Koizumi | |
| Poster1 C2-9-P | (in Japanese) Component analysis of black plastics using pyrolysis (Pr)GC/MS | p.187 |
| | <i>Tokyo Metropolitan Research Institute for Environmental Protection</i> ○Sukehisa Tatsuchi, Akira Hasegawa, Yushi Terajima, Hiroyasu Koizumi | |
| Poster2 C2-10-P | (in Japanese) Plastic resin composition survey in the Chikugo area of Fukuoka (3rd report) | p.189 |
| | <i>Fukuoka University</i> ○Shinya Suzuki, Toshimasa Kawai, Ikuyo Kikusawa | |

C3 WEEEs/ Automobile/ Battery (1) 【Sept 9 (Mon) 9:30–10:30 Venue#4 (Room402)】

Chair : Naohisa Yamaguchi (EX Research Institute) Co-chair : Shinji Mizuhara (Ryukoku University)

| | | |
|--------|---|-------|
| C3-1-O | (in Japanese) Analysis of bromide volatilization behavior in the recycling of waste printed circuit boards | p.191 |
| | <i>Tohoku University</i> ○Haru Ishikawa, Yuko Saito, Shogo Kumagai, Dowa Metals & Mining Satoshi Nakagawara, Hiromitsu Watanabe, Yusuke Oshima, Tohoku University Toshiaki Yoshioka | |
| C3-2-O | (in Japanese) Recovery of High-purity Coating Resin and Copper Wire from Waste Wire Harness Thin Wire by Wet Swelling and Milling Method | p.193 |
| | Tohoku University ○Taiki Yashima, Harendra Kumar, Shogo Kumagai, Borjigin Siqingaowa, Yuko Saito, Toshiaki Yoshioka | |
| C3-3-O | (in Japanese) Research on the Detection of Lithium-Ion Batteries Using RFID Tags | p.195 |
| | <i>Kyushu University</i> ○Eriko Aibara, Koji Sakakibara, Kenji Ito, Haruichi Kanaya, Hirofumi Nakayama, Kyushu Environmental Evaluation Association Takayuki Shimaoka | |
| C3-4-O | (in Japanese) Extraction of Rare Metals from Black Mass of Spent Rechargeable Batteries using Physical Separation and Inorganic Acid Leaching | p.197 |
| | <i>Kyoto University</i> ○Hideaki Okabayashi, Ryosuke Homma, PEVE Yoshihito Mitsuhara, Kazunao Ishiyama, Yuji Niwa, Masato Kumon, Kyoto University Kazuyuki Oshita, Kenji Shiota, Masaki Takaoka | |

C4 WEEEs/ Automobile/ Battery (2) 【Sept 9 (Mon) 11:00–12:00 Venue#4 (Room402)】

Chair : Atsushi Terazono (National Institute for Environmental Studies) Co-chair : Kimiko Ohtsuka (EX Research Institute)

| | | |
|----------------|---|-------|
| C4-1-O | (in Japanese) Mechanical Properties Evaluation of Recycled Engineering Plastics Sorted from Mixed Plastics of Waste Household Appliance | p.199 |
| | <i>Mitsubishi Electric Corporation</i> ○Yuichi Matsuo | |
| C4-2-O | (in Japanese) Field Investigation on CO ₂ Emissions in the Disassembly and Shredding of End-of-Life Vehicles | p.201 |
| | <i>MRI Research Associates</i> ○Kazuki Kobayashi, Hideaki Kitauchi, Tomoaki Togashi, Yuta Kuroiwa, Yumi Aso, Akihiro Nagao | |
| C4-3-O | (in Japanese) Safety Evaluation of Lithium Ion Batteries and Measures towards Safe and Secure Waste Management | p.203 |
| | <i>National Institute for Environmental Studies</i> ○Atsushi Terazono, Masahiro Oguchi | |
| C4-4-O | (in Japanese) Estimation of end-of-life generation of portable lithium-ion batteries and analysis of flows after end-of-life | p.205 |
| | <i>National Institute for Environmental Studies</i> ○Masahiro Oguchi, Atsushi Terazono, Mizuho Research & Technologies Kazuo Hasunuma | |
| Poster1 C4-5-P | Development of a green leaching and selective separation process for lithium extraction from lithium iron phosphate batteries | p.207 |
| | <i>Kongju National University</i> ○Minhui Kim, Hyunjin Kim, Gamin Kim, Choonsoo Kim | |

C5 C&D waste/ Other inorganic waste (1) 【Sept 10 (Tue) 9:00–10:15 Venue#4 (Room402)】

Chair : Yuko Saito (Tohoku University) Co-chair : Tohru Kamo (Waseda University)

| | | |
|--------|--|-------|
| C5-1-O | (in Japanese) Environmental and Economic Evaluation of Waste Plastic Management Processes for Effective Utilization of Plastic Waste from the Construction Industry | p.209 |
| | <i>Kyushu University</i> ○Yuki Komori, Hirofumi Nakayama, Kubota Corporation Shigenori Inoue, Kyushu Environmental Evaluation Association Takayuki Shimaoka, National Institute for Environmental Studies Masahiro Osako | |
| C5-2-O | (in Japanese) Scenario Analysis of Greenhouse Gas Emissions from the Recycling of Waste Plastics in Construction Waste | p.211 |
| | <i>Kyoto University</i> ○Yuki Yamashita, Kazuyuki Oshita, Takenaka Corporation Satoshi Kawajiri, Kobelco Eco-Solutions Ryo Hayakawa, Tohoku University Toshiaki Yoshioka | |

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| C5-3-O | (in Japanese) Evaluation of nutrient release and CO ₂ absorption capacity of wood ashes with different raw material mixing ratios. | p.213 |
| | <i>Meiji University</i> ○Akari Taguchi, <i>Okumura Corporation</i> Yoshihiro Oya, Shoji Suzuki, <i>Meiji University</i> Masahiko Katoh | |
| C5-4-O | (in Japanese) Production of calcium sulphide from waste gypsum using a rotary carbonising furnace | p.215 |
| | <i>Mitsubishi UBE Cement Corporation</i> Tetsuhiro Sakai, Kenji Noda, ○Eiji Maruya, Takayasu Ito | |
| C5-5-O | (in Japanese) Investigation of various additives in the calcium recovery process from waste gypsum for use as a raw material for cement. | p.217 |
| | <i>Mitsubishi UBE Cement Corporation</i> ○Tetsuhiro Sakai, Kenji Noda, Akira Sasaki, Eiji Maruya | |
| Poster1 C5-6-P | (in Japanese) Manufacturing management system and safety of improved soil made from industrial waste such as construction sludge | p.219 |
| | <i>Mie Prefecture Health and Environment Research Institute</i> ○Emika Kondo, Masahiro Yamakawa, Mayumi Yano, Ryo Tsuge, Rika Mori | |
| Poster2 C5-7-P | (in Japanese) Strength characteristics of mortars and concretes mixed with molten slag derived from industrial waste | p.221 |
| | <i>Hirosaki University</i> ○Akihisa Kamiharako, <i>Taiheiyō Cement Corporation</i> Maki Mikami, <i>Seinan Corporation</i> Genta Ando | |
| Poster1 C5-8-P | (in Japanese) Estimation of geotechnical properties of waste gypsum board for use as Sr shielding geomaterial | p.223 |
| | <i>National Institute of Technology, Fukushima College</i> ○Jun Endo, <i>National Institute for Environmental Studies</i> Kazuto Endo, <i>National Institute of Technology, Fukushima College</i> Takuya Miura | |
| C5-9-P | Cancelled | |

C6 C&D waste/ Other inorganic waste (2) [Sept 10 (Tue) 10:45–12:00 Venue#4 (Room402)]
Chair : Tohru Kamo (Waseda University) Co-chair : Yumi Matsuda (Takuma)

| | | |
|----------------|--|-------|
| C6-1-O | (in Japanese) Initiatives for the Recycling of Construction Waste (Part1) -Consideration of Removal Methods in the Demonstration of Recycling Waste Glass- | p.227 |
| | <i>Taisei Corporation</i> ○Yuko Hasegawa, Kaori Mino, Hideya Ohkubo, Yuko Sakuma, <i>AGC Naoya Kobayashi, Yoshihiro Nagao</i> | |
| C6-2-O | (in Japanese) Construction waste recycling initiative (part 2) -Demonstration test for recycling safety cones discarded from construction sites- | p.229 |
| | <i>Taisei Corporation</i> ○Kaori Mino, Yuko Hasegawa, Hideya Ohkubo, <i>Yagikuma</i> Masashi Nishikawa, Junki Takezawa | |
| C6-3-O | (in Japanese) Leaching mechanism of waste-molten slag beneath the groundwater table | p.231 |
| | <i>National Institute for Environmental Studies</i> ○Hirofumi Sakanakura, <i>The Japan Society of Industrial Machinery Manufacturers</i> Masanori Tsukahara | |
| C6-4-O | (in Japanese) Investigation of compressive strength improvement of geopolymer using incineration bottom ash | p.233 |
| | <i>Obayashi Corporation</i> ○Koga Miyamoto, Toshihiko Miura, Yukinobu Kimura, Tetsunosuke Morotomi, Hiroshi Hasegawa | |
| C6-5-O | (in Japanese) Backfilling work of cavity inside abutment using soil mortar containing recycled soil generated from industrial waste | p.235 |
| | <i>Taisei Corporation</i> ○Hiroki Ikegami, So Ihara, Hidetake Matsui, Tadafumi Fujiwara | |
| Poster2 C6-6-P | (in Japanese) Chromium and fluorine insolubilizer and treatment method on biomass incinerated ash | p.237 |
| | <i>Yokkaichi University</i> ○Masaaki Takahashi, Yukimasa Takemoto, <i>Okamoto Doseki Kougyou</i> Tadaharu Kado, <i>Mie Prefectural Environmental Conservation Agency</i> Atsushi Suzuki, Ayaka Oshima, Tomoyuki Ueno, Kentarto Hosokawa | |
| Poster1 C6-7-P | (in Japanese) Fundamental Study on Compressive Strength of Porous Concrete using Waste Glass from Solar Panels | p.239 |
| | <i>Mie Prefecture Industrial Research Institute</i> ○Akihiro Maegawa, Masaki Murayama, <i>Mie Prefecture Health and Environment Research Institute</i> Mayumi Yano | |
| Poster2 C6-8-P | (in Japanese) Study on glass recycling of back-silvered mirror | p.241 |
| | <i>Tokyo Metropolitan Industrial Technology Research Institute</i> ○Yu Kamezaki, Kazuhiko Hirai, Daisuke Enomoto, <i>Nishio Glass Mirror</i> Tomoyuki Nishio, Chihiro Tanaka, Shogo Asai | |
| Poster1 C6-9-P | Study on application of seawater-derived carbonate as a cement filler using machine learning analysis | p.243 |
| | <i>Yonsei University</i> ○Seojin Oh, Dongwook Lee, Kyumin Jang, Jiwon Myung, Won Yong Choi, Jinwon Park | |

C7 Food waste/ Livestock waste/ Sludge [Sept 9 (Mon) 13:30–14:45 Venue#4 (Room402)]
Chair : Naohisa Yashiro (Fuji Clean) Co-chair : Kazunori Machikawa (Fuji Clean)

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|--------|--|-------|
| C7-1-O | (in Japanese) Used cooking oil recycling in Japan | p.245 |
| | <i>Japan Industrial Waste Information Center</i> ○Izumi Sasaki, Hiroyoshi Fujiwara, Motoki Sasaki | |
| C7-2-O | (in Japanese) Development of a microalgae cultivation reactor for native microalgae cultivation using nitrogen in cow manure digestate and carbon dioxide in power generation exhaust gas from biogas plants | p.247 |
| | <i>Hokkaido University</i> ○Shinji Sakaguchi, Kazuei Ishii, Jumana Al-Mallahi, Satoru Ochiai, Geun-Yong Ham | |

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| C7-3-O | (in Japanese) Development of a Food Environment Education Program to Understand the Connection between Food, Self, and Environment: Based on Children's Survey Results on Food Loss and Nitrogen Footprint | p.249 |
| | <i>Kyoto University</i> ○Moonju Lee, <i>Research Institute for Humanity and Nature</i> Misuzu Asari, <i>Kyoto University</i> Yuta Ando, Hitoshi Shinjo | |
| C7-4-O | (in Japanese) Phosphorus phases and availability in sewage sludge treated with composting, combustion, and melting | p.251 |
| | <i>Meiji University</i> ○Moe Soga, <i>Kubota Corporation</i> Motohiro Sakamoto, Fumiki Hoshio, <i>National Institute for Environmental Studies</i> Hirofumi Sakanakura, <i>Meiji University</i> Masahiko Katoh | |
| C7-5-O | (in Japanese) Resource Recycling of Liquid Dairy Biomass by Anaerobic Membrane Bioreactor and Microalgae Culture | p.253 |
| | <i>Kobe University</i> ○Kaho Sumino, Gen Yoshida, Masahiro Iwasaki, Mohamed Farghali, Ikko Ihara | |
| Poster1 C7-6-P | (in Japanese) Effect of cathode chamber-water exchange on power generation performance of steelmaking slag-sediment microbial fuel cell using food waste as fuel | p.255 |
| | <i>Tokyo University of Agriculture</i> ○Touch Narong, <i>Tokyo Metropolitan University</i> Xiao Xiao | |
| Poster2 C7-7-P | The current situation of liquid-bio fertilizer utilization and the ammonia volatilization during its application to farms | p.257 |
| | <i>Hokkaido University</i> ○Shun Otsuka, Kazuei Ishii, Satoru Ochiai, Geun-Yong Ham, Jumana Al-Mallahi | |
| Poster2 C7-8-P | (in Japanese) Estimation of phosphorus supply potential from sewage sludge | p.259 |
| | <i>Tohoku Institute of Technology</i> ○Mai Koshiishi, Kai Hou, Toshimasa Hojo | |

C8 Disaster waste/ Other organic waste 【Sept 9 (Mon) 11:00–12:15 Venue#7 (Room406)】

Chair : Ryo Tajima (National Institute for Environmental Studies) Co-chair : Satoru Ochiai (Hokkaido University)

| | | |
|----------------|--|-------|
| C8-1-O | (in Japanese) Life Cycle Assessment on Marine Utilization of Disaster Waste Considering the Tokyo Metropolitan Earthquake (Part2) | p.261 |
| | <i>Oyo Corporation</i> ○Hiroki Tejima, <i>National Institute for Environmental Studies</i> Masahiro Osako, Ryo Tajima, <i>Oyo Corporation</i> Takahiro Otagaki, <i>Kyushu University</i> Hirofumi Nakayama, <i>Kyushu Environmental Evaluation Association</i> Takayuki Shimaoka | |
| C8-2-O | (in Japanese) Production of fine ceramic (3C-SiC) from rice husk at low cost | p.263 |
| | <i>Toyama Prefectural University</i> ○Masafumi Tateda, <i>Kanazawa University</i> Ryoko Sekifuji | |
| C8-3-O | (in Japanese) Research on the promotion of resource reusing of clothing using IoT tag | p.265 |
| | <i>Kyushu University</i> ○Sho Miyazaki, Koji Sakakibara, Yasuhiro Sugisaki, <i>Kyushu Environmental Evaluation Association</i> Takayuki Shimaoka | |
| C8-4-O | Corn cob Biochar Utilization for the Adsorption of Acetaminophen and Caffeine in Water | p.267 |
| | <i>Tohoku University</i> ○Fajar Eko Priyanto, Shogo Kumagai, <i>Jahangirnagar University</i> Mir Tamzid Rahman, <i>Tohoku University</i> Yuko Saito, Toshiaki Yoshioka | |
| C8-5-O | Characterization of activated carbon produced from green tea waste after physical and chemical activation | p.269 |
| | <i>Saitama University</i> ○Dawei Lu, Qingyue Wang | |
| Poster1 C8-6-P | (in Japanese) Heat balance analysis of greenhouse bio-drying MBT under southeast Asian environment | p.271 |
| | <i>Hokkaido University</i> ○Sota Fujimoto, Geun-Yong Ham, Kazuei Ishii, Satoru Ochiai | |
| Poster2 C8-7-P | (in Japanese) Basic investigation on formation of nanocarbon materials from simulated decomposition gases of organic waste | p.273 |
| | <i>Nippon Institute of Technology</i> Yuichi Uchida, ○Sora Kawashima | |
| Poster1 C8-8-P | Biochar for Phosphate Adsorbent and Slow Release Fertilizer | p.275 |
| | <i>Hallym University (KSWM)</i> ○Dong-Jin Kim, Hyun-Ho Song | |
| Poster2 C8-9-P | (in Japanese) Life Cycle Assessment on Marine Utilization of Disaster Waste Considering the Tokyo Metropolitan Earthquake (Part1) | p.277 |
| | <i>Oyo Corporation</i> ○Hiroki Tejima, <i>Kyushu University (Currently: Fukuyama Consultants)</i> Shoki Okimoto, <i>Kyushu University</i> Hirofumi Nakayama, <i>Kyushu Environmental Evaluation Association</i> Takayuki Shimaoka, <i>National Institute for Environmental Studies</i> Masahiro Osako, <i>Oyo Corporation</i> Takahiro Otagaki | |

C9 Methane fermentation/ Composting/ Processing to feed 【Sept 10 (Tue) 9:00–10:30 Venue#7 (Room406)】

Chair : Nobusuke Kobayashi (Gifu University) Co-chair : Ikumi Shioji (Konoike Construction)

| | | |
|--------|---|-------|
| C9-1-O | (in Japanese) Characterization of biochar derived from digestate and its performance as an additive in anaerobic digestion | p.279 |
| | <i>National Institute for Environmental Studies</i> ○Takuro Kobayashi, Hidetoshi Kuramochi | |
| C9-2-O | (in Japanese) Concentration technology for methane fermentation digestate and the effect of concentration on promoting the use of liquid fertilizer | p.281 |
| | <i>SymEnergy</i> ○Sayuri Yamazaki, Tamotsu Ishibashi | |
| C9-3-O | (in Japanese) Effect of Changes in Microbial Community Structure Associated with the Addition of Volatile Fatty Acids on the Alleviation of Ammonia Inhibition in Anaerobic Digestion | p.283 |
| | <i>Kobe University</i> ○Kaede Tsukamoto, Gen Yoshida, Masahiro Iwasaki, Farghali Mohamed, Ikko Ihara | |
| C9-4-O | (in Japanese) Biochar-added anaerobic membrane bioreactor towards high-efficiency energy recovery from dairy wastewater | p.285 |
| | <i>Kobe University</i> ○Moeri Miyahara, Gen Yoshida, Masahiro Iwasaki, Farghali Mohamed, Ikko Ihara | |

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| C9-5-O | (in Japanese) Synergistic Effects of Granular Activated Carbon and Microbial Electrochemical Technologies on Methane Fermentation | p.287 |
| | <i>Toyohashi University of Technology</i> ○Hikaru Kaneko, Hiroyuki Daimon | |
| C9-6-O | (in Japanese) Prospect of Developed High-Efficiency Technology for Methane Fermentation System of Daily Cow Manure in India | p.289 |
| | <i>Toyohashi University of Technology</i> ○Koki Narui, Hikaru Kaneko, Hiroyuki Daimon | |
| Poster1 C9-7-P | (in Japanese) Fundamental Study for Solid-State Recovery of Ammonia Nitrogen Contained in Mesophilic Methane Fermentation Digestive Fluid | p.291 |
| | <i>Mie Prefecture Industrial Research Institute</i> ○Shinya Matsuura, Masaki Murayama, Akihiro Maegawa, <i>Daiei Kogyo Corporation</i> Takayoshi Kawaoka, Yasuyuki Kanzaki | |
| Poster2 C9-8-P | (in Japanese) Comparison between mixotrophic and heterotrophic conditions for native microalgae cultivation using digestate of cow manure methane fermentation | p.293 |
| | <i>Hokkaido University</i> ○Kenshin Akiyoshi, Kazuei Ishii, Jumana Al-Mallahi, Satoru Ochiai, Geun-Yong Ham | |
| Poster1 C9-9-P | (in Japanese) Data Analysis and Considerations for High Load and Stable Operation of Biogas Plants for Food Waste | p.295 |
| | <i>Hokkaido University</i> ○Yoshino Otsuka, Kazuei Ishii, Satoru Ochiai, Geun-Yong Ham | |
| Poster2 C9-10-P | (in Japanese) Investigation of Coating Materials for Slow-release Fertilizers that do not use Plastic | p.297 |
| | <i>National Institute of Technology, Fukushima College</i> ○Mai Takahashi, <i>Nakoso Community Development Support Center</i> Takashi Hasegawa, Takashi Tachi, <i>National Institute of Technology, Fukushima College</i> Takuya Miura | |
| Poster1 C9-11-P | (in Japanese) A Study on the Supply-Demand Balance of Livestock Manure in Miyazaki Prefecture | p.299 |
| | <i>University of Miyazaki</i> ○Kosuke Toshiki, Kazumori Nishi | |

C10 Conversion to bio-gas and fuels **【Sept 10 (Tue) 10:45–12:15 Venue#7 (Room406)】**

Chair : Hiroyuki Daimon (Toyohashi University of Technology) Co-chair : Nobusuke Kobayashi (Gifu University)

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|-----------------|--|-------|
| C10-1-O | (in Japanese) Inventory assessment of biomethanation of waste biomass and application of the residue to farmland | p.301 |
| | <i>National Institute for Environmental Studies</i> ○Kosuke Kawai, <i>Mizuho Research & Technologies</i> Hiroaki Hirai, Kazuki Ishiketa, <i>National Institute for Environmental Studies</i> Takuro Kobayashi, Hidetoshi Kuramochi, Masahiro Osako | |
| C10-2-O | (in Japanese) Study on increasing methane production by anaerobic co-digestion using chicken manure and food waste | p.303 |
| | <i>Toyota Motor Corporation</i> ○Takema Furukawa | |
| C10-3-O | (in Japanese) Improvement of physical properties and engine combustion behaviors of biodiesel derived from waste rapeseed oil | p.305 |
| | <i>Fukuoka University</i> ○Masatoshi Todaka, Konomi Koga, Kento Namikawa, Kento Ariura, Wasana Kowhakul, Hiroshi Masamoto, Mikiji Shigematsu | |
| C10-4-O | (in Japanese) Demonstration experment on fuel production by fermentation and drying of municipal waste | p.307 |
| | <i>JET</i> ○Tomoyuki Katayama, Shinichi Shimose, Tomomi Shingai, Shinichi Ohta, <i>Kyoto University</i> Mikio Kasahara, <i>Minamiizu Town Mayor</i> Katsuhito Okabe | |
| C10-5-O | (in Japanese) Validation for Installing Batch Operating Dry Methane Fermentation Plant | p.309 |
| | <i>Konoike Construction</i> ○Ikumi Shioji, Takuo Nakashima | |
| C10-6-O | (in Japanese) Improvement of cellulase activity by the combinations of wood combustion ash with oil-containing biomass | p.311 |
| | <i>Fukuoka University</i> ○Koyo Yamamoto, Masatoshi Todaka, Mikiji Shigematsu | |
| Poster2 C10-7-P | (in Japanese) Production of high-concentration ethanol by fermentation with the promotion effect of baseball bat materials | p.313 |
| | <i>Fukuoka University</i> ○Tadahide Matsuwaki, Masatoshi Todaka, Mikiji Shigematsu | |
| Poster1 C10-8-P | (in Japanese) Promotion effect of Kampo residues on ethanol fermentation and the contribution of their constituent herbal medicines | p.315 |
| | <i>Fukuoka University</i> ○Ryo Kaneko, Masatoshi Todaka, Mikiji Shigematsu | |
| Poster2 C10-9-P | (in Japanese) The conversion of Kakkonto residues to sugar raw material by an enzymatic or a sulfuric acid hydrolysis | p.317 |
| | <i>Fukuoka University</i> ○Ryo Iwashita, Masatoshi Todaka, Mikiji Shigematsu | |

C11 Recovery of valuables **【Sept 9 (Mon) 15:15–16:45 Venue#4 (Room402)】**

Chair : Shogo Kumagai (Tohoku University) Co-chair : Mitsuhiro Koyama (Nagasaki University)

| | | |
|----------------|---|-------|
| C11-1-O | (in Japanese) Increasing phosphate removal rate by steelmaking slag-sediment microbial fuel cells | p.319 |
| | <i>Tokyo University of Agriculture</i> ○Touch Narong | |
| C11-2-O | (in Japanese) Recovering valuable metal from waste using a rotating surface melting furnace | p.321 |
| | <i>Kubota Corporation</i> ○Motohiro Sakamoto, Yuto Onuma, Shigenori Inoue | |
| C11-3-O | Challenges and Opportunities in Community-Based Waste Management: A Case Study from Dadaprejo Village, Indonesia | p.323 |
| | <i>University of Miyazaki</i> ○Satwika Desantina Muktiningsih, Tomoo Sekito, Yutaka Dote | |
| C11-4-O | Cow manure digestate treatment by microalgae cultivation in membrane raceway reactor system | p.325 |
| | <i>Hokkaido University</i> ○Jumana Al-Mallahi, Hiroki Iwatsuki, Kazuei Ishii, Satoru Ochiai, Geun-Yong Ham | |

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| C11-5-O | (in Japanese) Poly(vinyl chloride) as a Chlorinating Agent for Metal Recovery | p.327 |
| | <i>Tohoku University</i> ○Kazuki Fujiwara, Shogo Kumagai, Yuko Saito, <i>National Institute of Technology, Sendai College</i> Shunsuke Kuzuhara, <i>Tohoku University</i> Toshiaki Yoshioka | |
| C11-6-O | (in Japanese) Dechlorinate from incinerated ash of municipal waste | p.329 |
| | <i>The University of Kitakyushu</i> ○Kiichi Yasunaga, Hitoshi Ohya, <i>Maruya Corporation</i> Kenichi Yamazaki, Masanori Tanaka | |
| Poster2 | C11-7-P Absorption Characteristics and Rheological Properties of Quaternized Polyamine-based Deep Eutectic Solvents for High Performance CO ₂ Capture | p.331 |
| | <i>Chungbuk National University</i> ○Dongyun Choi, Jihun Ju, <i>Princeton University</i> Yunsung Yoo, Robert Eduard Franzoi, <i>Chungbuk National University</i> Dongwoo Kang | |
| Poster1 | C11-8-P (in Japanese) Sonogashira coupling reaction catalyzed under green conditions assuming the use of recycled palladium from waste automobile catalysts | p.333 |
| | <i>Kanagawa University</i> ○Katsuya Kaikake, Asuma Shingo, Ren-Hua Jin | |
| Poster2 | C11-9-P (in Japanese) Estimation of Metal Recovery Potential from Waste Thermal Treatment Residues | p.335 |
| | <i>University of Miyazaki</i> ○Michito Fukuda, Tomoo Sekito, <i>Kubota Corporation</i> Shigenori Inoue, <i>National Institute for Environmental Studies</i> Hirofumi Sakanakura | |
| Poster1 | C11-10-P Recovery of acid and base from waste sodium sulfate in spent lithium ion battery recycling via redox-mediated electro dialysis assisted by bipolar membrane | p.337 |
| | <i>Kongju National University</i> ○Hyunjin Kim, Minhui Kim, Gamin Kim, Choonsoo Kim | |
| Poster2 | C11-11-P Strategy for Scaling-Up and Optimizing Redox-Mediated Electro dialysis in Water Desalination | p.339 |
| | <i>Kongju National University</i> ○Gamin Kim, Hyunjin Kim, Minhui Kim, Choonsoo Kim | |
| Poster1 | C11-12-P (in Japanese) Study on quantification of physical work loads to reduce fatigue in waste hand-sorting processes | p.341 |
| | <i>Hokkaido University</i> ○Satoru Ochiai, Hiraku Mori, Geun-Yong Ham, Kazuei Ishii, <i>National Institute for Environmental Studies</i> Masato Yamada | |

D1 Incineration **【Sept 9 (Mon) 15:15–16:30 Venue#1 (Room201)】**
 Chair : Masaki Takaoka (Kyoto University) Co-chair : In-Hee Hwang (Hokkaido University)

| | | |
|---------------|---|-------|
| D1-1-O | (in Japanese) By-product behavior of perfluorooctanoic acid (PFOA) and perfluorooctadecanoic acid (PFOcDA) by incineration | p.343 |
| | <i>Ryukoku University</i> ○Taichi Murakami, Takashi Fujimori, <i>National Institute for Environmental Studies</i> Hidenori Matsukami | |
| D1-2-O | CFD simulation of NO _x emission in vertical type waste incinerator under the condition of CO ₂ /O ₂ combustion and N ₂ /O ₂ combustion | p.345 |
| | <i>Hokkaido University</i> ○Ahmed Esaa, In-Hee Hwang, Yasumasa Tojo, Takayuki Matsuo, <i>Plantec</i> Kengo Matsuda | |
| D1-3-O | (in Japanese) The development of the advanced automatnonomous operation system for the optimal management of waste to energy plants | p.347 |
| | <i>Mitsubishi Heavy Industries Environmental & Chemical Engineering</i> ○Arata Yanagisawa, Wataru Suzuki, Daisuke Chiba, Yoshinori Terasawa | |
| D1-4-O | (in Japanese) Reduction of steam volume fluctuation by control based on prediction using machine learning | p.349 |
| | <i>Kobelco Eco-Solutions</i> ○Ayato Shibazaki, Hiroki Fukukawa, Kei Watanabe, Katsuyoshi Tanida, Nobuhiro Okuzumi | |
| D1-5-O | (in Japanese) Development of technology to convert CO ₂ into solid carbon | p.351 |
| | <i>Takuma</i> ○Yo Agata, Kazuhiro Sato, Takahiro Masuda | |
| Poster1 | D1-6-P (in Japanese) Comparison of NO _x emission behavior for air- and oxyfuel- combustion of solid waste in a vertical combustor | p.353 |
| | <i>Hokkaido University</i> ○In-Hee Hwang, Yuki Ogaya, Ahmed Esaa, Yasumasa Tojo, Takayuki Matsuo, <i>Plantec</i> Kengo Masuda | |
| Poster2 | D1-7-P (in Japanese) Effect of high concentration of CO ₂ in waste Incineration flue gas on HCl and SO _x removal rate | p.355 |
| | <i>Hokkaido University</i> ○Tsubasa Shuto, In-Hee Hwang, Yasumasa Tojo, Takayuki Matsuo | |

D2 Pyrolysis/ Carbonization/ Gasification/ Melting **【Sept 9 (Mon) 13:30–15:00 Venue#1 (Room201)】**
 Chair : Takahiro Masuda (Takuma) Co-chair : Masahiro Tozaki (Takuma)

| | | |
|--------|--|-------|
| D2-1-O | (in Japanese) Study on the suppression of tar formation in pyrolysis gasification of biomass in municipal solid waste | p.357 |
| | <i>Kyoto University</i> ○Koki Minakuchi, Hiroki Harada, Masaki Takaoka | |
| D2-2-O | (in Japanese) Basic research on the possibility of melting waste using non-generating solar energy | p.359 |
| | <i>Kyushu University</i> Yosuke Tsuru, ○Teppei Komiya, <i>Kyushu Environmental Evaluation Association</i> Takayuki Shimaoka | |
| D2-3-O | (in Japanese) Development of high-performance carbonization equipment and utilization of carbonized materials using various biomass | p.361 |
| | <i>Nagasaki University</i> ○Kiyoshi Omine | |
| D2-4-O | (in Japanese) Oxidation Behavior of a SiC Refractory by CO ₂ and CO in a Waste Treating Furnace | p.363 |
| | <i>Nippon Steel Engineering</i> ○Tatsuki Ichikawa, Hideyuki Tsuda, Shiro Komiya, Yusuke Tomozoe, Shunsuke Kihara, Kazuteru Kawata | |

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|------------------------|---|-------|
| D2-5-O | (in Japanese) Development of the Surface Melting Furnace Technology by Using Fuel Made from Waste Plastics Difficult to Recycle as Materials <i>Kubota Corporation</i> ○Keisuke Fujiwara, Yasumasa Hirato, Keisuke Akasaka, Shoichi Otaki, Shinji Okaichi, Fumiki Hoshō, Shigenori Inoue | p.365 |
| D2-6-O | (in Japanese) Application of Biomass Coke to Direct Melting System (Waste Gasification System) <i>Nippon Steel Engineering</i> ○Takaaki Nagano, Kazuki Matsui, Naomichi Fukuda, Tomo Kashiwabara, Junichi Takada, Toru Izumiya | p.367 |
| Poster1 D2-7-P | (in Japanese) Study of Variation in Fixed Carbon Measurements in Biochar <i>Fujita</i> ○Shota Masaki, Hiroshi Kubota, Yoichiro Murakami, Koga Shigeizumi | p.369 |
| Poster2 D2-8-P | (in Japanese) Characterization of char derived from solid wastes with CO ₂ as career gas <i>Hokkaido University</i> ○Kotaro Iwasaki, In-Hee Hwang, Yasumasa Tojo, Takayuki Matsuo | p.371 |
| Poster1 D2-9-P | Gasification Characteristics of Biochar and Hydrochar Derived from Waste Mushroom Media in Three Types of Carbonization Reactors <i>Mokpo National University</i> ○Daegi Kim, Jaejin Choi, SunYoung Woo | p.373 |
| Poster2 D2-10-P | Pyrolysis Characteristics of Mixed Waste Plastics in Fluidized Bed Reactor <i>Kongju National University</i> ○Hyeong tak Ko, Myeong Jong Lee, Sea cheon Oh | p.375 |

D3 Gas treatment and monitoring **[Sept 9 (Mon) 9:30–10:45 Venue#1 (Room201)]**

Chair : Takayuki Ihara (Ebara Environmental Plant) Co-chair : Yoshihiro Ono (Nippon Steel Engineering)

| | | |
|--------|---|-------|
| D3-1-O | (in Japanese) New Dry-type Exhaust Gas Treatment Using Layered Double Hydroxide (Report 2) <i>Kurita Water Industries</i> ○Koichi Mori, Satoshi Fujita, <i>JFE Engineering Corporation</i> Hiroshi Yamamoto, Hajime Fukai, <i>Tohoku University</i> Tomohito Kameda, Toshiaki Yoshioka | p.377 |
| D3-2-O | (in Japanese) The Agriculture Utilization of CO ₂ from Waste Treatment Facility <i>Takuma</i> ○Junki Okabe, Shigetoshi Takahashi, Muneharu Fujikawa, Kazuhiro Sato, Takahiro Masuda | p.379 |
| D3-3-O | (in Japanese) Small-scale CO ₂ capture test from waste incineration facility exhaust gas DOWA Eco-System ○Kinari Yokote, Yoshinori Morita, Ryoei Watanabe | p.381 |
| D3-4-O | (in Japanese) Conversion of CO ₂ to ethylene urea using cerium hydroxide and zirconium hydroxide <i>Tohoku University</i> ○Yota Kunii, Rahman Farzana, Tomohito Kameda, Yuko Saito, Shogo Kumagai, Toshiaki Yoshioka | p.383 |
| D3-5-O | (in Japanese) Effect of concentration and particle size of Mg-Al layered double hydroxides intercalated CO ₃ ²⁻ on HCl removal <i>Tohoku University</i> ○Sayaka Nishitani, Tomohito Kameda, Shogo Kumagai, Yuko Saito, <i>Kurita Water Industries</i> Koichi Mori, Satoshi Fujita, <i>JFE Engineering Corporation</i> Hiroshi Yamamoto, Hajime Fukai, <i>Tohoku University</i> Toshiaki Yoshioka | p.385 |

D4 Ash/ Power generation/ Heat utilization **[Sept 9 (Mon) 11:00–12:15 Venue#1 (Room201)]**

Chair : Takashi Nagayama (Kubota) Co-chair : Jun Fujita (Kobelco Eco-Solutions)

| | | |
|----------------|--|-------|
| D4-1-O | (in Japanese) Prediction Method for Boiler Heat Transfer Tube Thinning Using Combined Physical and Statistical Modeling <i>Ebara Environmental Plant</i> ○Naoki Kamiyama, Kei Matsuoka, Masahisa Tamura, So Murasue, <i>Ebara Corporation</i> Manabu Noguchi, <i>Tokyo Institute of Technology</i> Kenji Amaya | p.387 |
| D4-2-O | (in Japanese) Impacts of COVID-19 on WtE power production performances in Tokyo Special Ward District ○Yasuo Shino | p.389 |
| D4-3-O | (in Japanese) Study on the suppression of hydrogen generation by actual incineration ash containing aluminum and water <i>Japan Aerospace Exploration Agency</i> ○Hideyuki Onodera, <i>Muroran Institute of Technology</i> Ryoji Imai, <i>Hitachi Zosen Corporation</i> Hirotaka Narimo, Yuma Suzuki | p.391 |
| D4-4-O | (in Japanese) Scenario analysis on the utilization of heat from a large-scale municipal solid waste incinerator for an industrial facility <i>Ritsumeikan University</i> ○Gaku Nakagawa, <i>National Institute for Environmental Studies</i> Satoshi Onishi, Minoru Fujii, <i>Ritsumeikan University</i> Seiji Hashimoto | p.393 |
| D4-5-O | (in Japanese) Mechanism of ash deposition in industrial waste treatment furnaces and its control <i>Nagoya University</i> ○Daiki Nii, Toyoko Demachi, Yasuaki Ueki, Ichiro Naruse, <i>Gifu University</i> Ryo Yoshiie | p.395 |
| Poster2 D4-6-P | (in Japanese) Analysis of the migration kinetics of unintentionally generated 1,4-dioxane in the environment at waste incineration plants and investigation of Activated Slaked Lime <i>Kyoto Institute of Technology</i> ○Kako Shinohara, Haruhisa Shiomi, Setsu Sho, Yasuro Fuse | p.397 |
| Poster1 D4-7-P | (in Japanese) Evaluation of long-term stability of carbonates in woody biomass ash treated with carbonation <i>Fujita</i> ○Koga Shigeizumi, Hiroshi Kubota, Haruna Kochi, Shota Masaki, <i>Nihon University</i> Kazunori Nakano | p.399 |
| Poster2 D4-8-P | (in Japanese) Acid Digestion Methods for Extracting 44 Elements from Thermal Residues Including Incineration Ash, Slag, and Metals <i>National Institute for Environmental Studies</i> ○Yueyuan Zhao, <i>Kubota Corporation</i> Ryosuke Mandokoro, Yoichi Iimuro, <i>National Institute for Environmental Studies</i> Hirofumi Sakanakura | p.401 |

| E1 Structure of landfill site/ Sea area disposal | | 【Sept 9 (Mon) 9:30–10:30 Venue#2 (Room202)】 |
|---|---|---|
| | | Chair : Kentaro Miyawaki (Meisei University) |
| | | Co-chair : Hirokazu Tanaka (Fukui Prefectural Institute of Public Health and Environmental Science) |
| E1-1-O | (in Japanese) Impact of flue gas demineralizers and fly ash stabilizing agents on sea surface landfill sites | p.403 |
| <i>Fukuoka University</i> ○LingJie Yu, Kazuo Tameda, JiaXing Liu, Mikiji Shigematsu, NPO Environmental Technical Support Network Sotaro Higuchi | | |
| E1-2-O | (in Japanese) Changes in Nitrification Inhibitory Properties Due to pH Neutralization of Organic Chelate Agent DEA | p.405 |
| <i>Osaka Metropolitan University</i> ○Akane Kodama, Hirokazu Toshimi, Satoshi Mizutani, Yoshinori Kanjo | | |
| E1-3-O | (in Japanese) Deformation of gas vent pipes at land-fill sites using high density polyethylene pipes 2 | p.407 |
| <i>Obayashi Corporation</i> ○Kenji Shibata, Miki Mitsuhashi, So Takezaki, Tetsumi Higasayama | | |
| E1-4-O | (in Japanese) Development of a Waterproof Sheet Joint Inspection Method for Penetrations of Waterproof Sheets in Drainage Pipes for Leachate Collection at Final Disposal Sites | p.409 |
| <i>Obayashi Corporation</i> ○Shigeo Kotake, C.I. TAKIRONCIVIL Corporation Yuki Hyuga, Haruka Takagi | | |
| Poster2 E1-5-P | (in Japanese) Investigation of the causative substances of persistent COD in leachate from marine final disposal sites | p.411 |
| <i>Aichi Seaside Environment Center</i> ○Ken Watanabe, Makoto Iwakawa, Hidemasa Ishihara | | |
| Poster1 E1-6-P | (in Japanese) Construction of clay liners by block placement made the bentonite-sand mixtures Part 1 (Block permeability test) | p.413 |
| <i>Shimizu Coprpotration</i> ○Isamu Norimatsu, Kaoru Kudo, Mitsunobu Okihara, Takanobu Sakamoto | | |
| Poster2 E1-7-P | (in Japanese) Construction of clay liners by block placement made the bentonite-sand mixtures Part 2 (Block placement test) | p.415 |
| <i>Shimizu Coprpotration</i> ○Kaoru Kudo, Isamu Norimatsu, Mitsunobu Okihara, Takanobu Sakamoto | | |
| E2 Management/ Monitoring of landfill site | | 【Sept 9 (Mon) 11:00–12:00 Venue#2 (Room202)】 |
| | | Chair : Hideki Yoshida (Muroran Institute of Technology) |
| | | Co-chair : Hiroyuki Ishimori (National Institute for Environmental Studies) |
| E2-1-O | (in Japanese) An application example of the stability judge by ionic ratios of stagnant water in venting tubes | p.417 |
| <i>Fukui Prefectural Institute of Public Health and Environmental Science</i> ○Hirokazu Tanaka, <i>Fukuoka Institute of Health and Environmental Sciences</i> Takaoki Koga, <i>Research Institute of Environment, Agriculture and Fisheries, Osaka Prefecture</i> Yoshinori Yabuki, <i>Okinawa Prefectural Institute of Health and Environment</i> Gou Inoue, <i>Hyogo Prefectural Institute of Environmental Sciences</i> Akihiro Nakagoshi, <i>Fukui Prefectural Institute of Public Health and Environmental Science</i> Shoichi Ishikawa, <i>Center for Environmental Science in Saitama</i> Masanao Nagamori, <i>Department of Environment and Consumers Affairs, Tottori Prefecture</i> Tomohiro Naruoka, <i>National Institute for Environmental Studies</i> Tomonori Ishigaki, Kazuto Endo, Masato Yamada | | |
| E2-2-O | (in Japanese) Final Disposal Sites for Radioactive Waste in Germany and Switzerland | p.419 |
| <i>Senshu University</i> ○Lila Okamura | | |
| E2-3-O | (in Japanese) Investigation of gas emission and gas composition at difference depths in the gas ventilation pipes at a waste landfill site | p.421 |
| <i>Center for Environmental Science in Saitama</i> ○Masanao Nagamori, <i>Chiba Prefectural Environmental Research Center</i> Masaaki Morisaki, <i>Department of Environment and Consumers Affairs, Tottori Prefecture</i> Tomohiro Naruoka, <i>Environmental Sanitation Research Center of Tottori Prefecture</i> Akihiro Mori, Sasami Masai, <i>Muroran Institute of Technology</i> Hideki Yoshida, <i>National Institute for Environmental Studies</i> Tomonori Ishigaki, Masato Yamada | | |
| E2-4-O | (in Japanese) Determination of Cl ⁻ at the mg/L level by silver nitrate titration method | p.423 |
| <i>Osaka Institute of Technology</i> ○Nobuhisa Watanabe, Miyabi Shimazaki | | |
| Poster1 E2-5-P | (in Japanese) Study on the explore for water channels by water injection test to the landfill of municipal solid waste | p.425 |
| <i>Center for Environmental Science in Saitama</i> ○Yugo Isobe, <i>National Institute for Environmental Studies</i> Hiroyuki Ishimori | | |
| Poster2 E2-6-P | (in Japanese) Environmental release of microplastics by polymer types from municipal solid waste management processes using a plastic release assessment model | p.427 |
| <i>National Institute for Environmental Studies</i> ○Tomonori Ishigaki, Panida Payomthip, <i>Hokkaido University</i> Geun-Yong Ham, <i>National Institute for Environmental Studies</i> Rokuta Inaba, Masato Yamada, Masahiro Osaka | | |
| Poster1 E2-7-P | (in Japanese) Experiments to Confirm the Effectiveness of Landfill pretreatment Washing on Incombustible Shredded Waste (Ver2) | p.429 |
| <i>Fukuoka University</i> ○Kazuo Tameda, Shoji Takakura, LingJie Yu, Kouji Tanida, NPO Environmental Technical Support Network Sotaro Higuchi | | |

| E3 Leachate/ Landfill gas | | 【Sept 10 (Tue) 9:00–10:30 Venue#1 (Room201)】 |
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| Chair : Osamu Hirata (Fukuoka University) | | Co-chair : Yugo Isobe (Center for Environmental Science in Saitama) |
| E3-1-O | Utilization of the mass curve technique to determine leachate pond capacity - Case study of the Baruni Landfill in Port Moresby, Papua New Guinea <i>Toyo University</i> ○Aukleya Walter, Hidetoshi Kitawaki | p.431 |
| E3-2-O | (in Japanese) Experimental Confirmation of the Rainwater Infiltration Suppression Effect of Alternative Cover Materials (Part 2) <i>Yoshiura</i> ○Houliang Yan, Sei Inoue, Hiroki Hidaka, Hiroki Kubo, <i>Fuji Clean</i> Kenji Nagao, Shigetoshi Ikeda, <i>Fukuoka University</i> Kazuo Tameda | p.433 |
| E3-3-O | (in Japanese) Treatment of pond water at a sea surface landfill site by electrolysis <i>Fukuoka University</i> ○JiaXing Liu, Lingjie Yu, Kazuo Tameda, <i>NPO Environmental Technical Support Network</i> Sotaro Higuchi | p.435 |
| E3-4-O | (in Japanese) Estimation of adsorption parameters for design of horizontal permeable reactive barrier (HPRB) in landfill <i>Center for Environmental Science in Saitama</i> ○Kazuyuki Suzuki, <i>Tohoku University</i> Hiroshi Suito | p.437 |
| E3-5-O | (in Japanese) Future leachate treatment systems <i>NPO Environmental Technical Support Network</i> ○Sotaro Higuchi | p.439 |
| E3-6-O | (in Japanese) Degradation Treatment of PFOA in Landfill Leachate by Electrochemical Oxidation using Insoluble Electrodes <i>Kobe University</i> ○Gen Yoshida, <i>Research Institute of Environment, Agriculture and Fisheries, Osaka Prefecture</i> Yoshinori Yabuki, Junko Ono, Yuto Ido, Arisa Banno, Akihiro Hara, <i>Kobe University</i> Ikko Ihara | p.441 |
| Poster1 E3-7-P | (in Japanese) Evaluation of pore structure and infiltration behavior in waste layers consisting of incombustible residue or incineration ash using X-ray CT analysis <i>National Institute for Environmental Studies</i> ○Hiroyuki Ishimori, <i>Center for Environmental Science in Saitama</i> Yugo Isobe, <i>National Institute for Environmental Studies</i> Tomonori Ishigaki, Masato Yamada | p.443 |
| Poster2 E3-8-P | (in Japanese) Prediction of change in calcium concentration in leachate using calcium leaching scenarios <i>University of Miyazaki</i> ○Yutaka Dote, Tomoo Sekito | p.445 |
| Poster1 E3-9-P | (in Japanese) Example of measurement of landfill gas concentration distribution and generation at a final waste disposal site <i>Muroran Institute of Technology</i> ○Sota Kudo, Hideki Yoshida | p.447 |
| Poster2 E3-10-P | (in Japanese) Study on neutralization of incineration ash layer using highly dissolved carbon dioxide solution (Part 3) <i>Meisei University</i> ○Kentarō Miyawaki, Haruyuki Fukai, Ayana Matsumoto | p.449 |
| Poster1 E3-11-P | Literature review on methods of evaluating biodegradation of bioplastics in a landfill <i>Hokkaido University</i> ○Geun-Yong Ham, <i>National Institute for Environmental Studies</i> Tomonori Ishigaki, <i>Hokkaido University</i> Satoru Ochiai, Kazuei Ishii, <i>National Institute for Environmental Studies</i> Masato Yamada | p.451 |
| Poster2 E3-12-P | Preliminary Insights into Emissions of Nitrous Oxide Correlated with Methane from Waste Landfills <i>National Institute for Environmental Studies</i> ○Panida Payomthip, Tomonori Ishigaki, Kanami Nagamoto, Masato Yamada | p.453 |
| E4 Elution of harmful substances | | 【Sept 10 (Tue) 10:45–12:00 Venue#1 (Room201)】 |
| Chair : Tomonori Ishigaki (National Institute for Environmental Studies) | | Co-chair : Tomoo Sekito (University of Miyazaki) |
| E4-1-O | (in Japanese) Evaluation of Adsorption for PFCAs and PFSA on Incinerated Fly Ash by Batch Test <i>Osaka Metropolitan University</i> ○Yusuke Yamauchi, Satoshi Mizutani, <i>Research Institute of Environment, Agriculture and Fisheries, Osaka Prefecture</i> Junko Ono, Koji Ito, Rina Adachi, Yoshinori Yabuki | p.455 |
| E4-2-O | (in Japanese) Contents Analysis of PFCAs and PFSA in Incineration Fly Ash <i>Osaka City University (Currently: Kyoto University)</i> ○Akane Shimatani, <i>Osaka Metropolitan University</i> Satoshi Mizutani, <i>Research Institute of Environment, Agriculture and Fisheries, Osaka Prefecture</i> Rina Adachi, Junko Ono, <i>Osaka Metropolitan University</i> Koji Ito, <i>Research Institute of Environment, Agriculture and Fisheries, Osaka Prefecture</i> Yoshinori Yabuki | p.457 |
| E4-3-O | (in Japanese) Study on Oxidation-Reduction Condition of the Leachate of Fly Ash from Thermal Treatment <i>Osaka Metropolitan University</i> ○Hayate Kato, Satoshi Mizutani | p.459 |
| E4-4-O | (in Japanese) Mercury Leaching Behavior from Sulfurized and Solidified Waste Mercury under Alkaline Condition <i>Osaka Institute of Technology</i> ○Yuji Nishimura, Taketoshi Kusakabe, <i>Kyoto University</i> Masaki Takaoka | p.461 |
| E4-5-O | (in Japanese) Scale formation and stabilization of heavy metal in landfill waste layer <i>Fukuoka University</i> ○Ayako Tanaka, <i>Yachiyo Engineering</i> Naoyuki Kajiwara, <i>Fukuoka University</i> Osamu Hirata | p.463 |
| Poster1 E4-6-P | (in Japanese) Verification of the effect of reducing chelating agents by treating incineration fly ash with carbonation <i>Fujita</i> ○Haruna Kochi, Hiroshi Kubota, Koga Shigeizumi, Shota Masaki, <i>Fuji Clean</i> Shigetoshi Ikeda, Yasuyuki Kawai, Yoshikazu Nagao, Mitsuhiro Inoue, <i>National Institute for Environmental Studies</i> Hirofumi Sakanakura | p.465 |

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| Poster2 E4-7-P | (in Japanese) Scale Formation and Heavy Metal Stabilization in waste layer of landfill, part 2 <i>Fukuoka University</i> ○Osamu Hirata, <i>Yachiyo Engineering</i> Naoyuki Kajiwara, <i>Fukuoka University</i> Ayako Tanaka | p.467 |
| Poster1 E4-8-P | (in Japanese) Consideration on As(III) adsorption behavior in combined addition of Mg-based and Ca-based adsorbents based on adsorption isotherms and XRD analysis <i>National Institute of Advanced Industrial Science and Technology</i> ○Hajime Sugita, Kazuya Morimoto, Takeshi Saito, Junko Hara | p.469 |
| Poster2 E4-9-P | (in Japanese) Application of Bacterial Flora Analysis as a Method for Assessing Water Quality Impact of Leachate Leakage from Waste Disposal Sites on Groundwater and Surface Water <i>CTI Engineering</i> ○Takuya Wada, Tadashi Yuasa, <i>Environmental Research & Solutions</i> Takafumi Mizuno, Yuka Munakata | p.471 |

F1 Harmful substances (asbestos, RI, PCB) and analysis **【Sept 9 (Mon) 13:30–15:00 Venue#3 (Room303)】**

Chair : Takashi Yamamoto (National Institute for Environmental Studies)

Co-chair : Hideyuki Mongi (Tottori University of Environmental Studies)

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| F1-1-O | (in Japanese) Detection of Amosite of the Building Materials Wasted during Disaster and Demolition by Staining Dyes <i>Saga University</i> ○Masaaki Tabata, Ryota Haraguchi, Mitsunori Yada, Mizuki Nishiguchi | p.473 |
| F1-2-O | (in Japanese) Mechanism of cement hydration inhibition by zinc and accelerating hardening by sodium aluminate analyzed by XRD <i>National Institute for Environmental Studies</i> ○Kazuo Yamada, <i>Hokkaido University</i> Tsuneki Ichikawa, <i>National Institute for Environmental Studies</i> Hiroyuki Arai, <i>Hokkaido University</i> Takahito Yasukochi, <i>National Institute for Environmental Studies</i> Kazuto Endo | p.475 |
| F1-3-O | (in Japanese) Example of Cement Solidification and Compounding of Incinerated Fly Ash Containing Radioactive Cesium <i>Oyo Corporation</i> ○Shougo Shimamura, Yotsuo Kamidozono, Akira Miyata, Susumu Kondo, <i>Okumura Corporation</i> Takahiro Saitoh, Youhei Hamaya, <i>Ministry of the Environment</i> Satoshi Ogawa, <i>National Institute for Environmental Studies</i> Kazuto Endo | p.477 |
| F1-4-O | (in Japanese) Study on Advanced Volume Reduction Focusing on Fly Ash Washing solution of Decontamination Wastes, etc. ~Comparison of Column and Batch Tests on Copper Ferrocyanide~ <i>National Institute for Environmental Studies, Fukushima Regional Collaborative Research Center</i> ○Yuhei Tanaka, Hiroyuki Arai, Kazuo Yamada, Kazuto Endo | p.479 |
| F1-5-O | (in Japanese) Monitoring of airborne PCB concentrations during the on-site dismantling of PCB-containing waste <i>Kyoto University</i> ○Yasuhiro Hirai, Junichiro Koshiba, <i>Shimadzu Techno-Research</i> Nami Kimura, Naoki Iwata, <i>JESCO</i> Takashi Hirano, Hiroki Oki | p.481 |
| F1-6-O | (in Japanese) Cs leaching from the cement or geopolymer solidified Cs adsorbed zeolite (natural mordenite) <i>Hokkaido University</i> ○Takahito Yasukochi, Yasumasa Tojo, In-Hee Hwang, Takayuki Matsuo, <i>The University of Tokyo</i> Kanako Toda, <i>National Institute for Environmental Studies</i> Kazuo Yamada, Kazuto Endo | p.483 |
| Poster1 F1-7-P | (in Japanese) Development of HCl-Cl ₂ fractional quantification using improved faying method <i>Osaka Institute of Technology</i> ○Miyabi Shimazaki, Nobuhisa Watanabe | p.485 |
| Poster2 F1-8-P | (in Japanese) Consideration of selenium concentration analysis in wash smoke drainage at industrial waste incineration facilities <i>Kureha Ecology Management</i> Yukihiko Oooka, Youhei Kusano, Takuya Kitazawa, ○Hikaru Ishii | p.487 |
| Poster1 F1-9-P | (in Japanese) The effects of the leaching conditions of the leaching test (Environment Agency Notification No. 13) on the test results <i>Tottori University of Environmental Studies</i> ○Momoha Tochtani, Hideyuki Mongi | p.489 |
| Poster2 F1-10-P | (in Japanese) The investigation of PFAS extraction conditions from waste activated carbon adsorbed PFAS (Part 2) <i>Konoike Construction</i> ○Toshihiro Hirao, Sho Oyama, <i>Sogomizu Institute</i> Tomoko Nakai, Takeshi Yonezawa, Tomohiro Takechi | p.491 |
| Poster1 F1-11-P | (in Japanese) Leaching behavior of crystalline phase from municipal solid waste incineration fly ash for various leaching test times <i>Meiji University</i> ○Hibiki Shirata, Rina Sekino, Yuya Koike | p.493 |
| Poster2 F1-12-P | (in Japanese) Evaluation of relationship between leaching behavior of heavy metals and chemical state of crystalline phases in municipal solid waste incineration fly ash by pH dependency test <i>Meiji University</i> ○Rina Sekino, Hibiki Shirata, <i>Rigaku Corporation</i> Atsushi Ohbuchi, <i>Meiji University</i> Yuya Koike | p.495 |
| Poster1 F1-13-P | (in Japanese) Determination of lead in leachate from incinerator ash using microwave plasma atomic emission spectroscopy <i>Tottori University of Environmental Studies</i> ○Taichi Kondo, Hideyuki Mongi, <i>Tottori Prefecture Office</i> Tomohiro Naruoka | p.497 |
| Poster2 F1-14-P | (in Japanese) Regarding measures for disaster waste, etc. in large-scale apartment buildings <i>National Graduate Institute for Policy Studies</i> ○Keisuke Takemoto, Koji Katayama, Tetsuo Murota, Shinji Yamaguchi | p.499 |

| F2 Hazardous substances (PFAS, heavy metals) and treatment | | 【Sept 9 (Mon) 15:15–16:45 Venue#3 (Room303)】 |
|---|--|---|
| | | Chair : Hidenori Matsukami (National Institute for Environmental Studies) |
| | | Co-chair : Satoshi Mizutani (Osaka Metropolitan University) |
| F2-1-O | (in Japanese) Contribution of filter media and biological processes (plants・microorganisms) in the removal of PFAS by the planting units <i>National Institute for Environmental Studies</i> ○Yuka Ogata, Hidenori Matsukami, Hiroyuki Ishimori | p.501 |
| F2-2-O | (in Japanese) The Interaction Between Heavy Metals and Microplastics in Aqueous Solutions <i>Kyoto University</i> ○Junyeong Yoo, Masaaki Nomura, Kazuyuki Oshita, Masaki Takaoka, Sylwia Oleszek | p.503 |
| F2-3-O | (in Japanese) Estimation of the environmental emissions of neutral PFAS and analysis of their mass flows at a solid recovered fuel facility <i>National Institute for Environmental Studies</i> ○Hidetoshi Kuramochi, <i>The University of Tokyo</i> Isamu Kuribara, <i>National Institute for Environmental Studies</i> Toshiyuki Motoki, Hidenori Matsukami | p.505 |
| F2-4-O | (in Japanese) Application of iminodiacetic acid chelating resin as a pretreatment for diphenylcarbazide absorptionmetry <i>Osaka Metropolitan University</i> ○Satoshi Mizutani, Fumika Takaoka, <i>Kanazawa University</i> Hiroshi Hasegawa | p.507 |
| F2-5-O | (in Japanese) Identifying waste sources of per- and polyfluoroalkyl substances released during the refuse-derived fuel production <i>National Institute for Environmental Studies</i> ○Hidenori Matsukami, <i>Yokohama National University</i> Junki Saito, Mahito Ozawa, <i>National Institute for Environmental Studies</i> Toshiyuki Motoki, <i>The University of Tokyo</i> Isamu Kuribara, <i>Yokohama National University</i> Yuichi Miyake, <i>National Institute for Environmental Studies</i> Hidetoshi Kuramochi | p.509 |
| F2-6-O | (in Japanese) Evaluation of neutral PFAS concentrations in air at a waste recycling facility using a passive air sampler <i>The University of Tokyo</i> ○Isamu Kuribara, <i>National Institute for Environmental Studies</i> Toshiyuki Motoki, Hidenori Matsukami, Hidetoshi Kuramochi | p.511 |
| Poster1 F2-7-P | (in Japanese) The mechanism of volatilization of gaseous mercury at wet scrubber <i>Osaka City Research Center of Environmental Science</i> ○Akito Takakura, <i>Osaka Institute of Technology</i> Yudai Ikemoto, Shota Ide, Nobuhisa Watanabe | p.513 |
| Poster2 F2-8-P | (in Japanese) Relationship between PFAS removal rate by activated carbon treatment and water quality and operational factors in leachate treatment plants <i>Research Institute of Environment, Agriculture and Fisheries, Osaka Prefecture</i> ○Yoshinori Yabuki, Junko Ono, Rina Adachi, Arisa Banno, Akihiro Hara, Koji Ito, <i>Kobe University</i> Gen Yoshida, <i>National Institute for Environmental Studies</i> Kazuto Endo, Hidenori Matsukami | p.515 |
| Poster1 F2-9-P | (in Japanese) Estimation of disposal flow analysis of per- and polyfluoroalkyl substances (PFAS) in oil resistant paper <i>Kyoto University</i> ○Junichiro Koshiba, Akane Shimatani, Yasuhiro Hirai | p.517 |
| Poster2 F2-10-P | (in Japanese) Extraction Conditions of PFCAs and PFASs in Incineration Fly Ash <i>Osaka City University (Currently: Kyoto University)</i> ○Akane Shimatani, <i>Osaka Metropolitan University</i> Satoshi Mizutani, <i>Research Institute of Environment, Agriculture and Fisheries, Osaka Prefecture</i> Rina Adachi, Junko Ono, <i>Osaka Metropolitan University</i> Koji Ito, <i>Research Institute of Environment, Agriculture and Fisheries, Osaka Prefecture</i> Yoshinori Yabuki | p.519 |
| Poster1 F2-11-P | (in Japanese) Estimating the emission behavior of neutral PFAS during thermal treatment of fluorinated water repellents using Pyro-GS/MS <i>National Institute for Environmental Studies</i> ○Hidetoshi Kuramochi, Toshiyuki Motoki, <i>The University of Tokyo</i> Isamu Kuribara, <i>National Institute for Environmental Studies</i> Takuro Kobayashi, Hidenori Matsukami | p.521 |
| Poster2 F2-12-P | (in Japanese) Development of decomposition treatment technology for PFASs adsorbed on powdered activated carbon using high-temperature superheated steam generated by hydrogen combustion, part2 <i>Konoike Construction</i> ○Sho Oyama, Takashi Matsuike, Takuo Nakashima, Toshihiro Hirao, <i>Chugail Ro</i> Noriyuki Myouga, Tomorou Kawano, Kensuke Adachi, Masahiro Yoshioka, Tomoya Ookubo | p.523 |
| Poster1 F2-13-P | (in Japanese) Surface state analysis of Municipal Solid Waste Incineration fly ash coated with oleic acid water repellent <i>Meiji University</i> ○Shunsuke Hashizume, Rina Sekino, Hibiki Shirata, Taiga Kaseda, Takayuki Honda, Yuya Koike | p.525 |
| Poster2 F2-14-P | (in Japanese) High concentration nitrification system for the recovery and detoxification of ammonia gas and the accumulation of nitrate: a preliminary study <i>Nagasaki University</i> ○Mitsuhiko Koyama, Arisa Horiuchi, Serika Uragami | p.527 |
| Poster1 F2-15-P | A Study on the Stabilization Effects of As-Contaminated Soil Treated with heavy metal stabilizer to reduce bioavailability; Using Bioconcentration Factors (BCFs) <i>University of Seoul</i> ○Jeong-Hyeon Lee, Min-Ye Seo, Woo-Ri Cho, Hyewon Park, Young-Kwon Park, Jai-Young Lee | p.529 |