

Day 1 (29 November)

Time (Japan)	Session	Presentation title Authors Affiliation Country
11:40~11:50	Opening address	Opening address Akio Kamimura
11:50~12:30	Pyrolysis I Chairperson: Akio Kamimura	Invited lecture: Production of Diesel from Waste Plastic and Waste Vegetable Oil by Pyrolysis from Screw Pilot Reactor Tharapong Vitidsant Chulalongkorn University Thailand
12:30~12:50		Industrial Application of Catalytic Liquefaction of Waste Plastics with Solid Acid Catalyst Kaoru Fujimoto HiBD Laboratory Association Japan
12:50~13:10		Fast pyrolysis of COVID-19 PPE kit Nikhilkumar Panchal Indian Institute of Technology Madras India
13:10~13:30		Characterization of Beach Plastic Wastes by Analytical Py-GC/MS Subhan Kumar Pal Indian Institute of Technology Madras India
13:30~13:50		Break 20 min.
13:50~14:10	Mechanical recycling I Chairpersons: Yoshito Ando Hajime Yasuda	Basic concept of "Self Resilience Ability" of polymers and advanced mechanical recycle process Shigeru Yao Fukuoka University Japan
14:10~14:25		Regeneration of mechanical properties of linear-low density polyethylene by dynamic by shear treatment Akiyoshi Kuramochi Fukuoka University Japan
14:25~14:40		Effect of new advanced Molten Resin Reservoir on mechanical properties of virgin high-density polyethylene Tetsuya Kimura Fukuoka University Japan
14:40~14:55		Development of high-density polyethylene mechanical recycling technique by reprocessing with dynamic shear treatment Haruka Kaneyasu Fukuoka University Japan
14:55~15:10		Investigation on mechanical properties and internal structure of polypropylene block copolymer injection-molded board after grinding and remolding process. Yuki Kawakami Fukuoka University Japan
15:10~15:25		APPLICATION OF CARBON NANOTUBES PREPARED FROM WASTE PLASTICS AS FILLER TO EPOXY RESIN COMPOSITES Yuanyuan Wang Queen's University Belfast UK

15:25~15:45		Break 20 min.
15:45~16:25	Biomass I Chairpersons: Shogo Kumagai Takaaki Tomai	Invited lecture: Pyrolysis of Lignocellulosic Biomass: Design of catalysts for fuels and chemicals Thallada Bhaskar CSIR-Indian Institute of Petroleum India
16:25~16:45		Thermal and thermo-oxidative degradation of palm kernel shells using a two-stage pyrolysis process for the production of a phenol-rich oil Dayeong Chae University of Seoul South Korea
16:45~17:00		Prediction of product distribution from xylan and polyethylene co-pyrolysis using response surface methodology Shengyu Xie Tohoku University Japan
17:00~17:20		Break 20 min.
17:20~18:00	Gasification Chairpersons: Shogo Kumagai Hajime Yasuda	Invited lecture: Hydrogen production from waste plastics by pyrolysis and in line reforming process Gartzen Lopez University of the Basque Country Spain
18:00~18:20		Co-production of H₂ and CO from the air gasification of polyethylene terephthalate using the UOS two-stage gasification process Minjun Choi University of Seoul South Korea
18:20~18:35		Low-temperature gasification of waste plastics using chemical looping process with oxygen nanocarriers Takaaki Tomai Tohoku University Japan
18:35~18:55		Catalyst selectivity patterns evaluation for waste plastics pyrolysis-reforming Alexander Guzman Tohoku University Japan
18:55~19:15		Break 20 min.
19:15~19:55	Waste management Chairpersons: Shigeru Yao Toshiaki Yoshioka	Invited lecture: Prospective life cycle thinking for feedstocks recycling Yasunori Kikuchi The University of Tokyo Japan
19:55~20:15		The circumstance-adapted scenarios for feedstock recycling of post-consumer plastic waste in the surrounding region of an oil refinery Jun Nakatani The University of Tokyo Japan
20:15~20:35		Intelligent development of carbon-neutrality recycling technologies based on life cycle assessment – a case study of PVC wastes Jiaqi Lu Shanghai University of Engineering Science China
20:35~20:55		How to Get Rid of Vicious Recycle in Plastic Recycling Akira Oku Kyoto Institute of Technology Japan

Day 2 (30 November)

Time (Japan)	Session	Presentation title Authors Affiliation Country
11:40~11:45	Information	
11:45~12:05	Recovery of valuable products Chairpersons: Motonobu Goto Hideki Kanda	Preparation of MgO heterogeneous catalyst for PET depolymerization Jose R. Mora Universidad San Francisco de Quito Ecuador
12:05~12:20		Development of Non-Woven Biotextiles Based on Starch From Yucca (Manihot Esculenta) and Palmetto Fiber Jose Alvarez-Barreto Universidad San Francisco de Quito Ecuador
12:20~12:35		Basic chemicals prepared by bio and catalytic technology Takashi Arai Daicel Corporation Innovation and Business Development Headquarters Japan
12:35~12:50		Hydrolysis of polyurethane in a CO₂-water system for environment-friendly chemical recycling Ryota Oshima Nagasaki University Japan
12:50~13:05		Microwave treatment of environmentally friendly and safe medical waste Shin Nakatani Chubu University Japan
13:05~13:25		Co-pyrolysis of spent tea leaves with plastic waste Sylwia Oleszek Kyoto University Japan
13:25~13:45		Break 20 min.
13:45~14:05		Transformation of polyolefinic plastics to valuable chemicals by hydrogenolysis over CeO₂-supported Ru catalyst Masazumi Tamura Osaka City University Japan
14:05~14:25		Development of a new technology to measure the amount of residual carbon on the surface of recovered carbon fiber Tohru Kamo Waseda University Japan
14:25~14:45	Mechanical recycling II Chairpersons: Osamu Terakado Masao Yukumoto	Simulated mechanical recycling process of post-consumer recycle polyethylene obtained from drinking water bottles in Thailand Patchiya Phanthong Fukuoka University Japan
14:45~15:00		Computer simulation research on mechanical properties and internal structure of plastics Mohammed Althaf Hussain Fukuoka University Japan
15:00~15:15		Development and characterization of recycled polymer composites filled with waste-derived organic-inorganic hybrid filler Tessei Kawano Kyushu Institute of Technology Japan

15:15~15:35		Break 20 min.
15:35~15:55	Pyrolysis II Chairpersons: Idzumi Okajima Tohru Kamo	Synergistic interactions during co-pyrolysis of vacuum residue and plastics Shogo Kumagai Tohoku University Japan
15:55~16:15		Recent study on reaction mechanism of co-pyrolysis reaction between vacuum residue and plastics Ryuichi Takasawa Japan Petroleum Energy Center (JPEC) Japan
16:15~16:30		Investigation on pretreatment conditions for chemical recycling of wasted plastics by co-pyrolysis with vacuum residue Akihiro Yoshida Hirosaki University Japan
16:30~16:45		WEEE AND WASTE COMPOSITE RECYCLING: SECONDARY RAW MATERIALS RECOVERY FROM COMPLEX PYROLYSIS LIQUIDS MIXTURES Adriana Serras-Malillos University of the Basque Country Spain
16:45~17:00		Influence of temperature on catalytic-pyrolysis of waste polypropylene Ning Cai Queen's university Belfast UK
17:00~17:15		Enhancing high-valued carbon nanotubes and hydrogen production from waste plastics with metallic substrate Qingyu Liu Queen's university Belfast UK
17:15~17:35		Break 20 min.
17:35~17:50	Treatment of halogen containing compounds Chairpersons: Tohru Kamo Osamu Terakado	CHEMICAL RECYCLING OF PLASTIC WASTE CONTAINING FLAME RETARDANTS Muhammad Hassam Khan VTT Technical Research Center of Finland Finland
17:50~18:10		Co-pyrolysis of the non-metallic fraction of printed circuit boards and waste tires Chuan Ma Tohoku University Japan
18:10~18:25		VALORIZATION OF REAL PLASTIC WASTES FROM DIFFERENT SOURCES VIA CATALYTIC PYROLYSIS: EFFICIENT OIL DEHALOGENATION OVER Fe AND Ca OXIDES Julio López Fundación Imdea Energía Spain
18:25~18:40		Dehalogenation of WEEE plastics waste pyrolysis oils over Fe₂O₃ and CaO supported zeolitic and clay based catalysts Lidia Amodio Fundación Imdea Energía Spain
18:40~18:55		Chlorine removal from plastic pyrolysis oils by zeolite trapping Aitor Romero IMDEA Energy Institute and Repsol S.A. Spain
18:55~19:15		Break 20 min.
19:15~19:55	Biomass II Chairpersons: Thallada Bhaskar Toshiaki Yoshioka	Invited lecture: Effect of carbonization conditions on the yield and properties of biocarbon and biooil products Zsuzsanna Czégény Hungarian Academy of Sciences (MTA TTK) Hungary

19:55~20:10		Effects of temperature on products distribution during fast pyrolysis of poly(lactic acid) and poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) Zhuze Shao Tohoku University Japan
20:10~20:30		High-performance Blends of Bio-based Elastomer from Eucommia ulmoides and Bioplastics Hiroshi Uyama Osaka University Japan
20:30~20:45		Thermal characterization of leathers tanned by metal salts and vegetable tannins Zoltán Sebestyén Research Centre for Natural Sciences Hungary
20:45~21:00	Concluding remark	Concluding remark and Announcement of ISFR2022 in Thailand Prof. Toshiaki Yoshioka, Prof. Prasert Reubroycharoen, Prof. Hathaikarn Manuspiya, Prof. Boonyarach Kitiyanan