



JSPS Core-to-Core Program
Japan-Southeast Asia Joint Research Center
for Plastic Resource Recycling
Kick-off Symposium

December 1st-2nd, 2025
 UOsaka Nakanoshima Center

Program: Poster session @ 7th floor (13:00-15:20 December 1st)

○ indicates the presenting author

P-1	Poisoning effects of impurities on hydrogenolysis of polyethylene over supported Ru catalysts ○Ren Fukuda¹, Yusuke Kita², Akiyo Fukuda¹, Pengru Chen¹, Masazumi Tamura¹ ¹Kyoto University, ²Osaka Metropolitan University, Japan
P-2	Elucidation of the catalytic active sites for glucose isomerization/epimerization ○Aoi Nagamine, Ryota Osuga, Satoshi Suganuma, Kiyotaka Nakajima Hokkaido University, Japan
P-3	Evaluation of the effectiveness of SSZ-13 nanocatalyst in the decomposition of LDPE ○Yoshiki Murata, Koji Miyake, Yoshiaki Uchida, Norikazu Nishiyama The University of Osaka, Japan
P-4	Biaxial orientation as a strategy to enhance toughness and functional performances of biodegradable polyesters for sustainable packaging ○Piyawanee Jariyasakoolroj¹, Noppadon Kerddonfag², Suwabun Chirachanchai³ ¹Kasetsart University, ²National Science and Technology Development Agency, ³Chulalongkorn University, Thailand
P-5	Effect of alkaline surface treatment on the mechanical and thermal performance of polyamide 11/ramie fiber composites ○Mai Duc Huynh, Do Van Hung, Nguyen Vu Giang Vietnam Academy of Science and Technology, Vietnam
P-6	Effect of isocyanate structure on bio-based poly(diethylene furanoate)-<i>b</i>-poly(caprolactone) thermoplastic polyurethanes ○Judit Rebeka Molnár, Yu-I Hsu, Hiroshi Uyama The University of Osaka, Japan
P-7	Size effect of rhodium cluster catalysts for styrene hydroformylation ○Aoto Okada¹, Yuki Nakaya¹, Takeyori Tanaka¹, Ray Miyazaki², Jun-ya Hasegawa², Shinya Furukawa¹ ¹The University of Osaka, ²Hokkaido University, Japan
P-8	Amphiphilic substances as compatibilizers for TPS-based blown films ○Rangrong Yoksan Kasetsart University, Thailand

P-9	Efficient one-pot synthesis of oxa-3-azabicyclo[3.2.1]octan-2-one from methyl 5-(aminomethyl)-2-furancarboxylate using supported Rh catalysts ○Ryosui Sasa, Nirupama Sheet, Ryota Osuga, Satoshi Suganuma, Kiyotaka Nakajima Hokkaido University, Japan
P-10	Synthesis and characterization of poly(lactide) multiblock copolymers incorporating 3-hydroxybutyrate units ○Yuto Kiriha ¹ , Yu-I Hsu ¹ , Masayuki Sugimoto ² , Hiroshi Uyama ¹ ¹ The University of Osaka, ² Osaka Gas Co., Ltd., Japan
P-11	Integrating life cycle assessment in developing sustainable polypropylene–PLA blends toward circular solutions for microplastic pollution Ammar Syafiq Shariff, Amir Muhammad Noh Amin Abdul Rahman, Mariatti Jaafar, ○Mohamad Danial Shafiq Universiti Sains Malaysia, Malaysia
P-12	Oxidative α-amination and aziridination of β-ketoesters using aminobenziodoxolones ○Kotaro Muraoka, Kensuke Kiyokawa, Satoshi Minakata The University of Osaka, Japan
P-13	Toward sustainable robust polymers: Directing group-enabled depolymerization of poly(aryl ether)s and poly(phenylene sulfide)s ○Satoshi Ogawa, Hiroki Morita, Namiki Takenaka, Yu-I Hsu, Hiroshi Uyama, Mamoru Tobisu The University of Osaka, Japan
P-14	Functionalization of chitosan-carboxymethyl cellulose composite materials utilizing cross-links as key structures ○Madhurangika Panchabashini Horathal Pedige, Akihide Sugawara, Hiroshi Uyama The University of Osaka, Japan
P-15	3,4-Dihydro-1,3,2H-benzoxazine monomers fundamental units for advanced functional materials Thanapat Chomchatwarl ¹ , Nollapan Nootsuwan ¹ , Kankavee Sukthavorn ¹ , Chatchai Veranitisagul ² , ○Apirat Laobuthee ¹ ¹ Kasetsart University, ² Rajamangala University of Technology Thanyaburi, Thailand
P-16	One-pot epimerization of 1,4-anhydroerythritol over supported Ru-Ir catalyst via dehydrogenation + hydrogenation mechanism ○Kei Sato, Sota Komagata, Mizuho Yabushita, Yoshinao Nakagawa, Keiichi Tomishige Tohoku University, Japan
P-17	Eco-friendly bio-based smart conductive hydrogels for antibacterial, self-adhesive flexible strain sensors ○Noppanan Putdon, Somnuk Theerakulpistut, Rawit Jittham, Pornnapa Kasemsiri Khon Kaen University, Thailand

P-18	Advancing circular practices in Malaysia schools: Reducing single-use plastics through recycling, upcycling, and behavioral change Mohd Sukri Shafie, ◯Muhammad Safiuddin Rosli ¹ , Theam Foo Ng, Mohd Wira Mohd Shafiei Universiti Sains Malaysia, Malaysia
P-19	The role of external Brønsted acid sites of zeolite on polyolefin cracking ◯Ryuga Nakai, Koji Miyake, Yoshiaki Uchida, Norikazu Nishiyama The University of Osaka, Japan
P-20	Highly selective gasoline production by polyethylene hydrogenolysis using ternary RuNiPt nanoalloy catalyst ◯Ryosuke Tsuzuki, Duanxing Li, Shinya Furukawa The University of Osaka, Japan
P-21	Plastic pollution on Vietnamese coasts: Abundance, seasonal dynamics, and outdated aquaculture waste ◯Nguyen Trung Kien, Nguyen Quang Bac, Dao Ngoc Nhiem, Duong Thi Lim Vietnam Academy of Science and Technology, Vietnam
P-22	Hydrogenolysis of LDPE over supported Rh catalyst ◯Yosuke Sato, Yoshinao Nakagawa, Mizuho Yabushita, Keiichi Tomishige Tohoku University, Japan
P-23	Heterogeneous upcycling of polyoxymethylene using a recyclable montmorillonite solid acid catalyst ◯José F. Noboa, Takato Mitsudome, Tomoo Mizugaki The University of Osaka, Japan
P-24	Solvent-driven morphological changes on cellulose acetate membranes with controllable structure via non-solvent induced phase separation ◯Daniela Costa, Yu-I Hsu, Hiroshi Uyama The University of Osaka, Japan
P-25	Conversion of polyethylene to valuable chemicals by catalytic hydrogenolysis over Ru/La₂O₃-CeO₂ ◯Zichen Peng, Yusuke Kita, Pengru Chen, Masazumi Tamura Kyoto University, Japan
P-26	LDPE cracking over Zn/Cr-modified MFI and *BEA zeolites ◯Gulderaiym Turarova, Koji Miyake, Yoshiaki Uchida, Norikazu Nishiyama The University of Osaka, Japan
P-27	Biodegradation of commodity plastics by bacteria isolated from natural rubber latex environment ◯Mimi Syahira, Raa Khimi, Asma Izati Universiti Sains Malaysia, Malaysia
P-28	Innovative functional textile materials for a sustainable and eco-conscious future Kankavee Sukthavorn ¹ , Thanapat Chomchatwarl ¹ , Nollapan Nootsuwan ¹ , Apirat Laobuthee ¹ , ◯Chatchai Veranitisagul ² ¹ Kasetsart University, ² Rajamangala University of Technology Thanyaburi, Thailand

P-29	Catalytic upcycling of poly(ϵ-caprolactone) into azepane via Pt/TiO₂-mediated reductive ammonolysis ○Daratu E. K. Putri ^{1, 2} , Takato Mitsudome ¹ , Tomoo Mizugaki ¹ ¹ The University of Osaka, Japan, ² Universitas Negeri Malang, Indonesia
P-30	Transition-metal-free oxidative amination of arylboronic acid esters with simple primary amines ○Daiki Wada, Kensuke Kiyokawa, Satoshi Minakata The University of Osaka, Japan
P-31	Development of fenton reaction-based poly(γ-glutamic acid) hydrogels for photothermal therapy ○Muppuri Supritha, Yu-I Hsu, Hiroshi Uyama The University of Osaka, Japan
P-32	Microplastic transport dynamics, textile wastewater inputs, and community perceptions in Pinang river, Penang, Malaysia ○Mohd Saiful Samsudin, Mohamad Danial Shafiq, Mohd Sukri Shafie Universiti Sains Malaysia, Malaysia
P-33	Star-shaped polylactic acid (PLA) for a degradable single-material system ○Thanit Kertsomboon ¹ , Tsuyoshi Ando ² , Suwabun Chirachanchai ¹ ¹ Chulalongkorn University, Thailand, ² Nara Institute of Science and Technology, Japan
P-34	Thermoresponsive supramolecular hydrogels with mechano-responsive properties ○Shafinee Yarnina Shafri, Akihide Sugawara, Yoshinori Takashima, Hiroshi Uyama The University of Osaka, Japan
P-35	Catalytic oxidative esterification of acetal-protected 5-HMF with ethylene glycol over supported metal catalysts ○Nao Arai, Ryota Osuga, Satoshi Suganuma, Kiyotaka Nakajima Hokkaido University, Japan
P-36	Hydrogenolysis of LDPE under low H₂ pressure over CeO₂-supported Ru-based bimetallic catalysts ○Xinyue Li, Yusuke Kita, Pengru Chen, Masazumi Tamura Kyoto University, Japan

P-37	Synthesis of aromatic polyethers aimed at biodegradability ○Daiki Morimoto, Akihide Sugawara, Hiroshi Uyama The University of Osaka, Japan
P-38	Zinc-based metal-organic framework/recycled polyethylene terephthalate (Zn-MOF/rPET) nanofibrous membranes with underwater oleophobicity for efficient oil–water separation and ion removal ○Autchara Pangon ¹ , Phavinee Tiensri ² , Tipparat Poljaidee ² , Thitirat Inprasit ² ¹ National Science and Technology Development Agency, ² Thammasat University, Thailand
P-39	Synthesis of polyamides having directing groups and their Lewis acid-catalyzed depolymerization ○Ryota Shiraki, Yu-I Hsu, Hiroshi Uyama, Mamoru Tobisu The University of Osaka, Japan
P-40	Understanding the application of lignin-TiO₂ composites for preserving lipid-rich food products ○Sirirat Thammasang ¹ , Supranee Phanthanawiboon ¹ , Hiroshi Uyama ² , Somnuk Theerakulpisut ¹ , Khanita Kamwilaisak ¹ ¹ Khon Kaen University, Thailand, ² The University of Osaka, Japan