Youth poster session (May 15, 17:15-18:45)

- YP01 Synergy effect of mixed naphtha/methanol feed on catalytic cracking reaction (Korea Res. Inst. of Chem. Technol.) Na Young Kang, Yu Jin Lee, Yun Jo Lee, Won Choon Choi, Yong-Ki Park
- YP02 Effect of acidity of Ferrierite synthesized with different amount of seeding material for DME carbonylation to methyl acetate (Sungkyunkwan Univ.) <u>Ji-Hyeon Kim,</u> Jong-Wook Bae
- YP03 Effects of Mesoporosity and Crystallinity on Deactivation of ZSM-5 in Propanal Conversion (KAIST) Kyungho Lee, Songhyun Lee, Minkee Choi
- YP04 Effect of second metal additive on Co/ZSM-5 catalyst for methylation of benzene with methane (Tottori Univ.) <u>Hitoshi Matsubara</u>, Yasumi Moriwaki, Koshiro Nakamura, Etsushi Tsuji, Satoshi Suganuma, Naonobu Katada
- YP05 Synthesis of Jet-fuel through Oligomerization of Butene Mixture over Ni-doped Aluminosilicate Catalysts (Kongju National Univ.) <u>Donggun Lee</u>, Sohyang Oh, Jong-Ki Jeon
- YP06 The Effect of Oxidants on Methanol Production for Direct Oxidation of Methane over Cu-MOR (Seoul National Univ., KAIST) Younhwa Kim, Tae Yong Kim, Hongseok Park, Chyan Kyung Song, Hyunjoo Lee, Jongheop Yi
- YP07 Synthesis of Heterogeneous Chiral Co(III)-Salens into Mesoporous Silicas linked Sulfonic Acid Groups (Inha Univ.) <u>Jihye Yu</u>, Yehwon Lee, Kyujoon Park, Geonjoong Kim
- YP08 Acetalization of glycerol with acetone over highly ordered mesoporous WO₃/rod-type SBA-15 catalyst (Sungkyunkwan Univ.) <u>Jin Seo Park</u>, Zhenghua Li, Chengbin Li, Gyoung Hee Hong, Ji Man Kim

- YP09 Preparation of long life indium oxide for conversion of ethanol to propene (Chuo Univ.)

 <u>Kaori Shimano</u>, Maki Murakami, Masashi Tanaka, Masakazu Iwamoto
- YP11 Direct conversion of methane into methanol with O₂ over Cu-MOR (Ajou Univ.) <u>SaeHa</u>
 <u>Lee</u>, Eun Duck Park
- YP12 Regeneration of hydrothermally aged Cu-SSZ-13 catalyst treated with citric acid solution (Seoul National Univ.) <u>Hwangho Lee</u>, Seunghee Youn, Inhak Song, Do Heui Kim
- YP13 Hydrogenolysis of glycerol to C3 diols over Pt/WO₃/Al₂O₃ and Pd/L-Nb₂O₅ (Tokyo Metropol. Univ.) <u>Takeshi Aihara</u>, Hayato Kobayashi, Feng Shixaing, Hiroki Miura
- YP14 Rational Design of Hydrocracking Catalysts for BTX Production from Polyaromatic Hydrocarbons (Dong-A Univ.) Jaeuk Shin, Yeseul Choi, <u>Youngseok Oh</u>, Hyewon Ryu, Jung Kyoo Lee
- YP15 Catalytic pyrolysis of polypropylene with Ni/SiO₂ over Mn/SiO₂ (Chonbuk National Univ.) Soo Hyun Kim, Roosse Lee, Jong Ha Hwang, Eun Nam Son, See Hoon Lee
- YP16 Study on the effect of natural minerals on the product gas composition from gasification of lignite under co-feeding of steam and CO₂ (Chonbuk National Univ.), <u>Roosse</u>
 <u>Lee</u>, Jong Ha Hwang, Soo Hyun Kim, Eun Nam Son
- YP17 Ethylene oligomerization to α-olefins or long-chain olefins over Ni-supported AlSBA-15 catalyst (Hanyang Univ.) Mi Shin, Young-Woong Suh
- YP18 Hydrogenation of benzylpyridine over Ru/γ-Al₂O₃ catalysts: Use of Ru₃(CO)₁₂ as a Ru precursor (Hanyang Univ.) <u>Tae Wan Kim</u>, Young-Woong Suh
- YP19 Pd supported gamma-Al₂O₃ catalyst: Effect of preparation conditions on the Pd particle size and distribution (KIST, Pusan National Univ.) Mi Yeon Byun, Ji Sun Kim, Dae-Won Park, Man Sig Lee

- YP21 Pd nano-octahedron with Pt doped from Galvanic replacement for direct synthesis of H₂O₂ (Korea Univ.) <u>Suyeon Quon</u>, Geun-Ho Han, Myung-Gi Seo, Kwan-Young Lee
- YP22 Metal-free and Transition Metal Chelated Porphyrin Framework for Methanol Oxidation (Myongji Univ.) <u>Alan Christian Lim,</u> Harsharaj Jadhav, Gaurav Thorat, Jeong Gil Seo
- YP23 Low temperature dry reforming of methane in an electric field over La-doped Ni/ZrO₂ catalysts (Waseda Univ.) <u>Tomohiro Yabe</u>, Kenta Mitarai, Shuhei Ogo, Yasushi Sekine
- YP24 Reaction characteristics of K-doped Co₃O₄ catalyst with addition of support for N₂O decomposition (Chungnam National Univ.) <u>Rahyun Hwang</u>, Jihye Park, Jeonghun Baek, Kwangbok Yi
- YP25 Rodox characteristic of Fe_{2-x}Ni_xMnO₄ spinel structure for Chem. looping combustion (Yeungnam Univ.) <u>Byeong Sub Kwak</u>, No-Kuk Park, Jeom-In Baek, Ho-Jung Ryu, Misook Kang
- YP26 Concerted Catalysis by Pd Complex on Mesoporous Silica for Allylation Reactions with Allylic Alcohol (Tokyo Inst. of Technol.) Ken Motokura, <u>Marika Ikeda,</u> Masayuki Nambo, Wang-Jae Chun, Kiyotaka Nakajima, Shinji Tanaka
- YP27 Concerted Catalysis by Immobilized Rh Complex and Tertiary Amine on SiO₂ Surface for Hydrosilylation of Olefins (Tokyo Inst. of Technol.) Ken Motokura, <u>Kyogo Maeda</u>, Wang-Jae Chun
- YP28 Installation of Organic Functional Groups into Titanium-Oxo Molecular Clusters for Efficient Catalyst (Chungbuk National Univ.) Suyeon Kim, <u>Youngik Kim</u>, Narae Han, Youngjo Kim, Min Kim

- YP29 Silver Carbonate Catalyst for Effcient Aryl Ester Synthesis (Chungbuk National Univ.) Kwangho Yoo, <u>Hyojin Park</u>, Suyeon Kim, Min Kim
- YP30 Evaluation of TiO₂-SiO₂ Microhoneycomb Photocatalysts Using Model Simulation (Hokkaido Univ.) <u>Kasama Urkasame</u>, Seiichiro Yoshida, Shinichiroh Iwamura, Isao Ogino, Shin R. Mukai
- YP31 Effect of Ce addition on catalytic activity of Cu-Mn catalysts for Water Gas Shift (WGS) reaction (Chungnam National Univ.) <u>Jihye Park</u>, Rahyun Hwang, Jeonghun Baek, Kwangbok Yi
- YP32 Kinetics of Ni-based oxygen carrier with MgO contents for Chem. looping combustion (CLC) (Chungnam National Univ.) <u>Jihye Park</u>, Rahyun Hwang, Jeonghun Baek, Kwangbok Yi
- YP33 Reverse Micelle Synthesis of Brownmillerite-type Oxide Ultrafine Particles on Titania (Tottori Univ.) <u>Kei Hirao</u>, Ryosuke Nanbu, Etsushi Tsuji, Satoshi Suganuma, Naonobu Katada
- YP34 Effect of mesoporous MCo₂O₄ (M =Cu, Zn and Ni) spinel catalysts on catalytic combustion of methane (Seoul National Univ.) <u>Tae Hwan Lim</u>, Su Bin Park, Ji Man Kim
- YP35 Decomposition of an Energetic Ionic Liquid over Mesoporous CuO Catalyst (Kongju National Univ.) <u>Sujeong Heo</u>, Bo Kyeong Jeon, Chengbin Li, Ji Man Kim, Young Min Jo and Jong-Ki Jeon
- YP36 Regeneration of mesoporous aluminosilicate catalysts for DCPD oligomerization (Kongju National Univ.) <u>Yongin You</u>, Won Jun Choi, Soo Hyun Chae, Jeongsik Han, Byung-Hun Jeong, and Jong-Ki Jeon
- YP37 Immobilized α-Iminocarboxamide Nickel (II) Complex as Catalyst for Ethylene Homo-/Co-Polymerization (Saitama Univ.) <u>Isshin Murayama</u>, Miru Hirahara, Hideki

Kurokawa

- YP38 Application of Mesoporous Silica Foam for Chiral Intermediates Fabrication (Inha Univ.) Kyujoon Park, Yehwon Lee, Jihye Yu, Geonjoong Kim
- YP39 Improvement of Amine-Based CO₂ Sorbent and Evaluation of its Behavior in Ad/desorption TSA process (Kongju National Univ.) <u>Seong Won Pyo</u>, Jae Wan Jeon, Pacia Rose Mardie, Youn Cheol Kim, Young Soo Ko
- YP40 Effect of Amine Structure in CO₂ Adsorbent on Ad/desorption Behaviors (Kongju National Univ.) <u>Ha Yeong Jeong</u>, Seong Won Pyo
- YP41 Synthesis of (Imido)niobium(V) Complexes and Some Reactions (Tokyo Metropol.Univ.) Natta Srisupap, Kritdikul Wised, Kotohiro Nomura
- YP42 Precise Synthesis of Star-shaped Polymers by Living Ring-Opening Metathesis Polymerization (Tokyo Metropol. Univ.) Zelin Sun and Kotohiro Nomuran
- YP43 Ordered Mesoporous CeO₂-based Binary Metal Oxide Catalysts for CO Preferential Oxidation (Sungkyunkwan Univ., Yanbian Univ.) <u>Chengbin Li</u>, Jin Seo Park, Mingshi Jin, Ji Man Kim
- YP44 CO preferential oxidation over ordered mesoporous Co₃O₄-based composite catalysts (Sungkyunkwan Univ., Yanbian Univ.) <u>Su Bin Park</u>, Chengbin Li, Jungho Lee, Yun Seok Choi, Gwi Ok Park, Mingshi Jin, Ji Man Kim
- YP45 Steam Reforming of Dimethyl Ether over Solid Acid Catalyst Coupled with Cu-based Catalyst (Tokyo Metropol. Univ.) <u>Erika Kawai</u>, Yuma Kubo, Hiroki Miura, Tetsuya Shishido
- YP46 Synthesis and Characterization of Highly Ordered Mesoporous Transition Metal Oxide with Spinel Framework Structures (Sungkyunkwan Univ.) Kyoung Ho Kim, Su Bin Park, Gwi Ok Park, Ji Man Kim

- YP47 Preparation of Double-Gyroid Transition Metal Dichalcogenides with Mesopores and Their Potential Application (Sungkyunkwan Univ.) <u>Yun Seok Choi</u>, Yoon Yun Lee, Hwa Yong Oh, Ji Man Kim
- YP48 Dehydrogenative Conversion of Methane to Higher Hydrocarbons by the Liquid-Metal Indium Catalyst (Tokyo Inst. of Technol.) Y. Nishikawa, H. Ogihara, I. Yamanaka
- YP49 Particle Size Dependence for Redox Property of Supported Ni Catalyst Prepared by Impregnation Method (Ritsumeikan Univ.) <u>Yusaku Yamamoto</u>, Naoto Kubochi, Masaki Katagiri, Shohei Yamashita, Misaki Katayama, Yasuhiro Inada
- YP50 Pore and Framework Structure Engineering of Mesoporous Carbon Materials (Sungkyunkwan Univ.) <u>Hwa Yong Oh</u>, Jong Gu Won, Yun Seok Choi, Min ji Kim, Ji Man Kim
- YP51 Synthesis and Characterization of Copper Oxide-based Mesoporous Binary Metal Oxides (Sungkyunkwan Univ.) <u>Bo Kyeong Jeon</u>, Su Bin Park, Kyoung Ho Kim, Gwi Ok Park, Ji Man Kim
- YP52 Synthesis and Evaluation of Diamino Organosilane-Functionalized Silica Adsorbent for CO₂ Capture (Kongju National Univ.) Rose Mardie Pacia, Seong Won Pyo
- YP53 Effective hydrogen production by low temperature ethanol steam reforming using $30Zn_xNi_y/70MgAl_2O_4$ catalyst (Yeungnam Univ.) <u>Jae Hyung Lee</u>, No-Kuk Park, Tae Jin Lee, Misook Kang
- YP54 Catalytic activity of metal electrodes for ammonia synthesis from N₂ and H₂ in atmospheric-pressure non-thermal plasma (Chuo Univ.) Mao Akiyama, Keigo Aihara, Masashi Tanaka, Takashi Deguchi, Masakazu Iwamoto
- YP55 Enhanced Redox Property in Ni-Nb-O/Ce_xZr_{1-x}O₂ for Selective Production of Ethylene from Ethane (Seoul National Univ.) <u>Yang Sik Yun</u>, Minzae Lee, Jongbaek Sung,

- Joongwon Lee, Young-Jong Seo, In Kyu Song, Jongheop Yi
- YP56 Activity comparison among Ru/α-Al₂O₃, Ru/γ-Al₂O₃, and Ru/Al@Al₂O₃ for selective CO oxidation in H₂ (Ajou Univ.) <u>Tae Wook Kim</u>, Jieun Kim, Doohwan Lee, Eun Duck Park
- YP57 Tuning the acidity and dehydration activity of Si-Zr mixed oxides (Chungbuk National Univ., Hanyang Univ.) <u>Seunghee Pyen</u>, Mi Shin, Young-Woong Suh, Chae-Ho Shin
- YP58 Synthesis of high surface area of hydrous zirconia and its catalytic activity for the dehydration of iso-propanol (Chungbuk National Univ., Heesung Catalysts Corp.) <u>Sung Woo Baek</u>, Eunpyo Hong, Young Ho Lee, Chae-Ho Shin
- YP59 Improved dehydrogenation activity and catalyst stability of Pd/carbon-coated Al₂O₃ (Hanyang Univ.) Jinho Oh, Young-Woong Suh
- YP60 Iron nitride loaded carbon nanotube–graphene composite (Fe₂N/nCNT-GR) for Oxygen reduction reaction (POSTECH) <u>GyuSik Chae</u>, Jae Sung Lee
- YP61 Anodic Aluminum Oxide Supported Cu-Zn Catalyst for Steam Reforming of Methanol (Kyungpook National Univ.) <u>Jung Hyeon Kim</u>, Young Shin Jang, Dong Hyun Kim
- YP62 Mechanism of glycerol hydrogenolysis to 1,2-propanediol over Cu(111) and CuCr₂O₄(100) (Seoul National Univ.) <u>Yang Sik Yun</u>, Danim Yun, Tae Yong Kim, Kyung Rok Lee, Jeong Woo Han, Jongheop Yi.
- YP63 Liquid-phase partial oxidation of methane with hydrogen peroxide over Cu-Fe/ZSM-5 (Ajou Univ.) Min Sik Kim
- YP64 Aerobic oxidation of benzyl alcohol using Ru nanoparticles supported on zeolites (Chonnam National Univ.) <u>Dasom Jung</u>, Kyungsu Na
- YP65 Meso-nickel manganese oxide for the hydrogen peroxide decomposition (Korea Univ.)

Min June Kim, Myung-gi Seo, Kwan-Young Lee

- YP66 Application of the highly siloxane-tolerant mesoporous silica absorbents to improve the lifetime of gas sensors (Osaka Prefecture Univ.) <u>Junpei Furuno</u>, Hiroki Kita, Kuniyuki Izawa, Ken-ichi Yoshioka, Tatsuya Tanihira, Masaya Matsuoka, Masato Takeuchi
- YP67 NIR spectroscopy for the NH₃ and NH₄⁺ species adsorbed on various zeolites (Osaka Prefecture Univ.) <u>Yingtong Bao</u>, Tatsuya Tsukamoto, Masaya Matsuoka, Masato Takeuchi
- YP68 Control of Si/Al in chabazite zeolite using Na/Si ratio during hydrothemal synthesis (Chonnam National Univ.) <u>Jin Hee Park</u>, Hoi-Gu Jang, Yongseon Kim, Dong Gun Oh, Ja Hun Kwak, Sung June Cho
- YP69 Synthesis and characterization of Ti-MWW with different Ti atom distributions (Tokyo Inst. of Technol.) Xinyi Ji, Junko N. Kondo, Toshiyuki Yokoi
- YP70 Catalytic Copyrolysis of Biomass and High-Density Polyethylene over Mesoporous Solid Acids (Univ. of Seoul) <u>Pouya Sirous Rezaei</u>, Su Bin Park, Se Young Park, Young-Kwon Park
- YP71 Bio-oil Stabilization with Methanol over Amberlyst Catalysts (Univ. of Seoul) <u>Ki</u>
 <u>Hoon Kim</u>, Yejin Lee, Daejun Oh, H. Shafaghat, Haewon Ryu, Donghoon Ro, P. S.
 Rezaei, Se Young Park, Young-Kwon Park
- YP72 Synthesis of Aviation-Fuel from Bio-oil over Pt/Mesoporous Aluminosilicate Catalysts (Kongju National Univ.) <u>Jongjin Kim</u>, Seong Hun Jeon, Choul-Ho Lee, Dong Sun Kim, Jungho Cho, Chul-Ung Kim, Jong-Ki Jeon
- YP73 Improved high temperature activity of NH₃-SCR over Cu/SUZ-4 (Waseda Univ.) <u>Astri</u> Andarini Budiawati, Masahiko Matsukata
- YP74 Metal Nanoparticles Embedded Metal-Organic Frameworks as Core@Shell

Structure (Chonnam National Univ.) Suyeon Yu, Kyungsu Na

- YP75 MgO-based CO₂ sorbent promoted by carbonate and nitrate salts for better sorption performances (Chonnam National Univ.) <u>Hyeonho Joo</u>, Sung Jun Cho, Kyungsu Na
- YP76 New Zinc-based Catalysts for the Coupling of Carbon Dioxide and Epoxides (Chungbuk National Univ.) Beom Jin Oh, Min Kim, Youngjo Kim
- YP77 Effect of CeO₂ coating on MTO reaction over ferrierite zeolite: Increased catalyst life (Chonnam National Univ.) <u>Sung Jun Park</u>, Shuai Chang, Hoi-Gu Jang, Sung June Cho
- YP78 Immobilization of Mo in BEA zeolite and its application to cyclohexene epoxidation (Waseda Univ.) Yosuke Kazama, Futa Kamata, Masahiko Matsukata
- YP79 A Bifunctional Cerium Phosphate Catalyst for Chemoselective Acetalization of
 5-Hydroxymethylfurfural (Tokyo Inst. of Technol.) Shunsuke Kanai, Ippei Nagahara,
 Yusuke Kita, Keigo Kamata, Michikazu Hara
- YP80 Physical property evaluation of a niobium oxide thin film (Tokyo Inst. of Technol.) <u>Yuki</u>
 <u>Hiyoshi</u>, Ryota Osuga, Toshiyuki Yokoi, Junko N. Kondo
- YP81 Preparation of Ce-MFI zeolites and their catalytic properties (Tohoku Univ.) <u>Fumiya</u>

 <u>Muto</u>, Moe Sakaguchi, Masafumi Nakaya, Kiyoshi Kanie, Atsushi Muramatsu
- YP82 Direct carbamates synthesis from CO₂, amines and alcohols using CeO₂ and 2-cyanopyridine (Tohoku Univ.) Yu Gu, Ayaka Miura, Masazumi Tamura, Yoshinao Nakagawa, Keiichi Tomishige
- YP83 Aluminum-based Catalysts for the Coupling of Carbon Dioxide and Epoxides (Chungbuk National Univ.) Won Hee Woo, Kyunglim Hyun, Min Kim, Youngjo Kim
- YP84 Three-step conversion of chitin to N-containing alcohol (Hokkaido Univ.) <u>Kota</u>

 <u>Techikawara</u>, Hirokazu Kobayashi, Atsushi Fukuoka

- YP85 Selective Oxidation of Methacrolein over Strong Acid-Added Chromium Oxide Catalysts (Hokkaido Univ., Mitsubishi Rayon Co., Ltd) <u>Atsuki Iwakura</u>, Shuhei Yasuda, Jun Hirata, Mituru Kanno, Wataru Ninomiya, Ken Oyachi, Ryoichi Otomo, Yuichi Kamiya
- YP86 A Comprehensive Study to Enhance CO Oxidation Activity by Using Doped CeO₂ (Univ. of Seoul) Kyeounghak Kim, Kyung-Jong Noh, Hyungjun Kim, Jeong Woo Han
- YP87 Production of Gasoline Fuel from Alga-derived Botryococcene by Hydrogenolysis over Ru/CeO₂ (Tohoku Univ.) <u>Yosuke Nakaji</u>, Shin-ichi Oya, Masazumi Tamura, Yoshinao Nakagawa, Keiichi Tomishige
- YP88 Dimeric Aluminum Compounds with Furfuryl or Thiophenemethyl-modified Bidentate or Tridentate Ligands: Synthesis, Structures, and Use in Cycloaddition of CO₂ to Epoxides (Chungbuk National Univ.) Kyunglim Hyun, Duseong Ahn, Youngjo Kim
- YP89 Effect of mixing Pt-Sn cataylst with metal oxides on the propane dehydrogenation (HanKyong National Univ.) <u>Hyun Jun Byun</u>, Jae Won Jung, Jirawat Chaosakul
- YP90 Effect of Magnesium Addition to Ni-Mo₂C-ZSM-5-SiC catalyst on Directive CH₄
 Decomposition (National Inst. of Technol. Asahikawa College) Mai Hasegawa, Hiroya
 Ishimaru, Akihiko Miyakoshi
- YP91 The Effect of Pore Size over Cobalt-based Al₂O₃@SiC Catalysts for Fischer-Tropsh Synthesis (KIST, Korea Univ., Univ. of Sci. Technol.) Young Su Noh, <u>Gi Hoon Hoog</u>, Ji In Park, Seol A Shin, Kwan-Young Lee, Dong Ju Moon
- YP92 Chemisorption on bimetallic NP-TiO₂ for CO oxidation catalyst: first principle and machine learning modeling (KAIST) <u>Kihoon Bang</u>, Hyuck Mo Lee
- YP93 Pt-Sn catalyst for propane dehydrogenation with HCl treatment (Hankyong National Univ.) Yi Sun Choi, Hyoung Lim Koh

- YP94 Synthesis of TS-1 with preferably distributing Ti in depth direction of crystals and its catalytic performance (Waseda Univ.) <u>Tetsuo Yamamoto</u>, Kosuke Takaishi, Masahiko Matsukata
- YP95 IR observation in methylcyclohexane dehydrogenation over Pt/TiO₂ and Pt/Al₂O₃ catalysts (Shizuoka Univ.) <u>Kei Watanabe</u>, Yuya Bandai, Ryo Watanabe, Yosiumi Kohno, Choji Fukuhara
- YP96 Possibility of Multi Atom Resonance X-ray Raman Spectroscopy A new operando low Z-element XAFS method (Hokkaido Univ.) Natee Sirisit, Daiki Kido, Yuki Wakisaka, Hiroko Ariga, Satoru Takakusagi Oki Sekizawa, Tomoya Uruga, Yasuhiro Iwasawa, Kiyotaka Asakura
- YP97 Thorough search analysis on time resolved EXAFS of WO₃ structural change (Hokkaido Univ.) <u>Daiki Kido</u>, Yohei Uemura, Akihiro Koide, Toshihiko Yokoyama, Kiyotaka Asakura
- YP98 Preparation of Co₂C nanoparticles as Pt-substitution PEFC catalyst (Tohoku Univ.)

 <u>Kanae Endo</u>, Masafumi Nakaya, Kiyoshi Kanie, Atsushi Muramatsu
- YP99 Size Effect of AgCu Bimetallic Nanoparticle on Catalytic Activity in the PEMFC Cathode (KAIST) Kihyun Shin and Hyuck Mo Lee
- YP100 Effects of strain on oxygen reduction kinetics in AO- and BO₂-terminated perovskite surfaces (Univ. of Seoul) <u>Hyunguk Kwon</u>, Jeong Woo Han
- YP101 Efficient Hydrogen Production by PhotoelectroChem. Water Splitting Using a ZnSe:Cu(In,Ga)Se₂ Photocathode (Univ. of Tokyo) <u>Hiroyuki Kaneko</u>, Tsutomu Minegishi, Yongbo Kuang, Taro Yamada, Kazunari Domen
- YP102 Photocatalytic performance of Li₂LaTa₂O₆N layered oxynitride for H₂ evolution and CO₂ reduction (Tokyo Inst. of Technol.) <u>Takayoshi Oshima</u>, Kanemichi Muraoka,

- Osamu Ishitani, Kazuhiko Maeda
- YP103 Photocatalytic Activity of Oxygen Deficient SrTiO₃-δ Prepared by Reduced Atmosphere Calcination (Tokyo Inst. of Technol.) Shunta Nishioka, Junji Hyodo, Akira Yamakata, Yoshihiro Yamazaki and Kazuhiko Maeda
- YP104 Highly selective liquid product of CuFeO₂ treated by microwave in CO₂ hydrogenation (POSTECH, UNIST) Yo Han Choi, Jae Sung Lee
- YP105 Development of System for Hydrogen Prodiction with Microwave Heating (National Inst. of Technol. Asahikawa College) <u>Hiroya Ishimaru</u>, Akihiko Miyakoshi
- YP106 Study on metal oxide photocatalysts for CO₂ reduction with H₂O Graduate (Osaka City Univ.) Yuma Kato, Muneaki Yamamoto, Akiyo Ozawa and Tomoko Yoshida
- YP107 PhotoelectroChem. water splitting with SrNbO₂N photoanode prepared by a novel roll-press method (Univ. of Tokyo) <u>Masanori Kodera</u>, Masao Katayama, Takashi Hisatomi, Tsutomu Minegishi, Tomoaki Watanabe and Kazunari Domen
- YP108 Visible-light Activation of TiO₂ Photoanode by Loading CoO_x (Tokyo Inst. of Technol.)

 <u>Hideyuki Tanaka</u>, Kazuhiko Maeda
- YP109 Dynamics of Photocarriers in Ga₂O₃-based Photocatalyst Studied by Transient Absorption Spectroscopy (Toyota Technological Inst.) <u>Junie Jhon M. Vequizo</u>, Shouta Ishiyama, Yoshihisa Sakata, Akira Yamakata
- YP110 Mechanism of Formation of Hierarchical-structured Bismuth-tungstate Hollow Particles through Hydrothermal Reaction (Hokkaido Univ.) <u>Haruna Hori</u>, Mai Takashima, Mai Takase, Bunsho Ohtani
- YP111 ZnO/ZnCrLDH heterostructure with Enhanced PhotoelectroChem. Water Oxidation Activity (POSTECH) Yoon Bin Park, Jae Sung Lee

- YP112 Hybrid Photocatalyst Constructed with an Yttrium-Tantalum Oxynitride and a Binuclear Ru(II) Complex for Visible Light CO₂ Reduction (Tokyo Inst. of Technol.) <u>Kanemichi</u> <u>Muraoka</u>, Hiromu Kumagai1, Miharu Eguchi, Osamu Ishitani, and Kazuhiko Maeda
- YP113 Study on preparation methods for La_{0.5}Sr_{0.5}Ta_{0.5}Ta_{0.5}O₂N photocatalyst (Tohoku Univ.) <u>Shun Nagai</u>, Hideki Kato, Makoto Kobayashi, Masato Kakihana
- YP 114 A DFT Study of H₂S Dissociation Reaction on Ni(111) and Ni(211) (Univ. of Seoul)

 Bohyun Hwang, Hyunguk Kwon, Jeong Woo Han
- YP115 Theoretical Study of Rhodium-Catalyzed Hydrosilylation of Ketones: Chalk-Harrod vs. Modified Chalk-Harrod Mechanism (Hokkaido Univ.) <u>Liming Zhao</u>, Naoki Nakatani, Jun-ya Hasegawa
- YP116 Reaction Mechanism of DMC Formation from CO₂ and Methanol over CeO₂(111): A DFT Study (Hokkaido Univ.) <u>Toshiyuki Sugiyama</u>, Akira Nakayama, Jun-ya Hasegawa
- YP117 Polymer Helix Formation on Irradiation with Circularly Polarized Light (Hokkaido Univ.) Yue Wang, Tamaki Nakano
- YP118 Photo-induced Racemization and Polymerization of (R)-1,10-Bi(2-naphthol) (Hokkaido Univ.) Zhaoming Zhang, Yue Wang, Tamaki Nakano
- YP119 Electronic state calculation of NO-CO reaction on rhodium surface (Tohoku Univ.)

 <u>Taisei Ito</u>, Yukihiro Shimizu

General poster session (May 16, 17:00-18:30)

- GP01 Enhancement of isobutene yield in the oxidative dehydrogenation of isobutane on SBA-15 doped with a trace amount of chromium (Tokushima Univ.) Shigeru Sugiyama, Hisanobu Misu, Shinya Nitta, Sho Shimazu, Yuzo Baba, Masahiro Katoh, Yuuki Katou, Wataru Ninomiya
- GP02 Ammoxidation of propane to acrylonitrile over Mo-V-Te-Nb-Oy catalyst supported on silica materials (Seoul National Univ., S-OIL Co.) Minsung Baek, Min Yeong Gim, Tae Hyeop Kim, Ji Hwan Song, Heung Jung Kang, Bum Jin Kwon, Ji Hye Lee, In Kyu Song
- GP03 Long-Term Activity Tests of Rh/Al-Ce-Zr Catalyst Coated on Metal Foam Plate for Auto-Thermal Reforming of Liquid Hydrocarbons (Yeungnam Univ.) No-Kuk Park, Yong Han Jeong, Tae Jin Lee
- GP04 Preparation of Mesoporous Base Catalysts from Uniform Layered Double Hydroxide Nanoparticles (Waseda Univ.) <u>Yoshiyuki Kuroda</u>, Yuya Oka, Keigo Kamata, Atsushi Shimojima, Hiroaki Wada, Kazuyuki Kuroda
- GP05 Preparation of acetyl triethyl citrate by acetylation of triethyl citrate with acetic anhydride over a HZSM-5 zeolite catalyst (Sunchon National Univ.) <u>Sang-Chul Jung</u>, Kyong-Hwan Chung, Won-June Lee, Sung-Jin Lee
- GP06 Etherification from two different alcohols using molybdenum oxide supported on titania (AIST) <u>Yoshihiro Kon</u>, Akira Yada, Takuya Nakashima, Shinji Tanaka, Tadahiro Fujitani
- GP07 The Synthesis of Cyclic Carbonate from Epoide and CO₂ using Mg-MOF-74 as Catalyst (KIST) <u>Yunjang Gu</u>, Haeyoung Jeong, Eunmi Im, Taeyoung Kim, Dae-Won Park, Dong-Ha Lim
- GP08 Synthesis and characterization of e-Keggin-type Cobaltomolybdate-based 3D

- Framework Material (Hiroshima Univ.) M. Sadakane, T. Igarashi, Z. Zhang, N. Iseki, N. Hiyoshi, W. Ueda, T. Sano
- GP09 Effect of hierarchically porous alumina as support with Ca-Ni catalyst for methane steam reforming (KIST) <u>Eunmi Im</u>, Haeyoung Jeong, Yunjang Gu, Taeyong Kim, Geondae Moon, Dong-Ha Lim
- GP10 Direct hydroxylation of benzene to phenol using H₂O₂ as an oxidant over Fe- or Cu-containing zeolite catalysts (Tokyo Inst. of Technol.) <u>Peipei Xiao</u>, Junko N. Kondo, Toshiyuki Yokoi
- GP11 A Study of New Concept Marine SCR Catalyst with 3D Metal Structure corresponding to IMO Tier III (KIST) <u>Haeyoung Jeong</u>, Yunjang Gu, Eunmi Im, Taeyong Kim, Yongki Choi, Moonhyeok Seo, Dong-Ha Lim
- GP12 Kinetics for 2-methylnaphthalene methylation over MTW-type zeolite with different crystal size and acidity (Hokkaido Univ.) <u>Yuta Nakasaka</u>, Gaku Watanabe, Takao Masuda
- GP13 Synthesis and characterization of alumina-carbon composite material for Transfer hydrogenation of Furfural to Furfuryl alcohol (KIST) Min Soo Kima, Fidelis S. H. Simanjutaka, Seoyeon Lim, Jungho Jae, Jeong-Myeong Ha, Hyunjoo Lee
- GP14 Efficient Xylose Dehydration to Furfural over Lewis Acid Catalysts in Biphasic Water and Toluene (Hokkaido Univ.) Navneet Kumar Gupta, Atsushi Fukuoka, Kiyotaka Nakajima
- GP15 Reverse Water Gas Shift Reaction Using Supported Ionic Liquid Phase Type Catalyst Systems (Hokkaido Univ.) <u>Tomohiro Yasuda</u>. Ken-ichi Tominaga, Mayumi Nishida
- GP16 Acidic Site Property and Performance Evaluation of Various Catalysts Based Transition Metal Oxide for Produced a Dry Oxidizing Agent by H₂O₂ decomposition (Inst. for Advanced Engineering) Hee Young Choi, Jung Hee Jang, Woo Jin Shin, Gi Bo Han

- GP17 NO Oxidation with Dry Oxidizing Agent Produced from Catalytic Process for DeNO_x in the Ship (Inst. for Advanced Engineering) <u>Jung Hee Jang</u>, Hee Young Choi, Woo Jin Shin, Gi Bo Han
- GP18 Direct Synthesis of Hydrogen Peroxide over Pd/C Catalysts: Effect of PhysicoChem.
 Properties of Support on the Reaction Performance (Kunsan National Univ.) Seok-Jin Kwon, Young-Min Chung
- GP20 A Polymer Electrolyte Alcohol Electrosynthesis Cell (PEAEC) Continuously Producing Alcohols from Carboxylic Acids (Kyushu Univ.) <u>Masaaki Sadakiyo</u>, Xuedong Cui, Shinichi Hata, Miho Yamauchi
- GP22 Dehydrogenation of butenes over copper oxide supported on alumina under anaerobic conditions: Bifunctionality of the catalyst (Korea Res. Inst. of Chem. Technol.) <u>Sujin Gong</u>, Sunyoung Park, Seohyun Sim, Yong-Ki Park, Hwimin Seo, Na Young Kang, Myung Wan Han, Won Choon Choi
- GP23 Catalytic Roles of Fe–Nx and Fe–Fe₃C@C Species in Fe–N/C Electrocatalysts for Oxygen Reduction Reaction (UNIST) <u>Jae Hyung Kim</u>, Young Jin Sa, Sang Hoon Joo
- GP24 High performance and durability of methanol fulled in-situ Ni-Cu alloying low-temperature solid oxide fuel cells (Yonsei Univ.) Ok Sung Jeon, Jin Goo Lee, Yunseong Ji, Oh Chan Kwon, Jeong Pil Kim
- GP25 Mesostructured Pt-Based Bimetallic Nanospheres Containing an Intermetallic Phase as

 Ultrastable Support-Free Electrocatalysts for Oxygen Reduction (UNIST) <u>Ho Young</u>

 <u>Kim</u>, Young Jin Sa, and Sang Hoon Joo
- GP26 PEM fuel cell electro catalyst using synergistic interaction among Pt, TiO₂ and carbon nanotube (Yonsei Univ.) <u>Yunseong Ji</u>, Yongil Cho, Yukwon Jeon, Ho Jung Hwang, Ok Sung Jeon, Oh Chan Kwon, Jeong Pil Kim, and Yong-Gun Shul

- GP27 Hydrodesulfurization of 4,6-dimethyldibenzotiophene over rhodium phosphide catalyst (Muroran Inst. of Technol.) <u>Yasuharu Kanda</u>, Kota Kawanishi, Yoshio Uemichi
- GP28 Near-IR spectroscopy to monitor the epoxidation reaction between cyclic olefin and peroxide species (Osaka Prefecture Univ.) <u>Masato Takeuchi</u>, Hiroto Nishida, Yutaku Yamao, Masaya Matsuoka
- GP29 Performance of Cu-Zn mixed oxide catalysts for medium temperature water-gas shift reaction (Research Inst. of Ind. Sci. and Technol.) Hanseul Choi, <u>Joonwoo Kim</u>, Young-Woong Suh, Dongjun Koh
- GP30 A Research on the Effect of Pretreatment on Non-catalytic Thermal Decomposition of Macroalgae Biomass (Inst. for Advanced Engineering) Woo Jin Shin, Jung Hee Jang, Hee Young Choi, Gi Bo Han
- GP31 Synthesis of Catalyst Precursor for Hydrocracking of Vacuum Residue (Sunchon National Univ., Korea Res. Inst. of Chem. Technol.) <u>Seok-Hwan Son</u>, Byeong-Min Choi, Seung-Min Lee, Ji-Hyun Shim, Chul-Wee Lee, Sun-Yeong Park, Min-Chul Chung
- GP32 Deoxygenation of Pyrolysis Oil through Pretreatment and Supercritical Ethanol Reaction (Korea Inst. of Energy Research) <u>Ji-Yeon Park</u>, Bora Nam, Sun-A Choi, Won-Jin Jeon, Jin-Hyuk Lee
- GP33 Upgrading of Bio-oil through TAN Reduction by Esterification using a Solid Acid Catalyst (Korea Inst. of Energy Research) <u>Bora Nam.</u>, Ji-Yeon Park, Sun-A Choi, Won-Jin Jeon, Jin-Hyuk Lee, In-Gu Lee
- GP34 Removal of Ammonia and Hydrogen Sulfide in a Simulated Coke Oven Gas with Limonite (Hokkaido Univ.) Yuuki Mochizuki, Ayumu Ogawa, Naoto Tsubouchi
- GP35 Catalytic Performance of Metal-containing Ionic Liquids for Synthesis of cyclic carbonate by Ring-coupling reaction of CO₂ (Korea Res. Inst. of Chem. Technol.)

 Dongwoo Kim, Hyeongook Kim and Deughee Cho

- GP36 Effects of Colloidal Silica Characteristics on Hexagonal Ceramic Substrate for Marine SCR Catalysts (Material Technol. Center, NANO Co., Ltd.) <u>Jin Sun Cha</u>, Min-Chul Shin, Jin-Woo Park, Yu-jin Song, Sam-Sik Park
- GP37 Scalable and Efficient Pure-Water Splitting on Particulate Photocatalyst Sheets (The Univ. of Tokyo) Qian Wang, Takashi Hisatomi, Masao Katayama, Tsutomu Minegishi, Akihiko Kudo, Taro Yamada, Kazunari Domen
- GP38 Single crystal structure of HMEDA-(DCA)₂, energetic hypergolic ionic liquid salts (Chonnam National Univ., Agency for Defense Development) <u>Sung June Cho</u>, Hoi-Gu Jang, Jin Hee Park, Gyeong Cheol Jo, Eun Mee Goh
- GP39 Enhanced photocatalytic performance of Cu-modified TiO₂: the effect of titania matrix (Hokkaido Univ.) Marcin Janczarek, Zhishun Wei, Bunsho Ohtani, Ewa Kowalska
- GP40 Catalytic Ozone Oxidation of Food Waste Odor Using Batch Reactor Comprised of Wet Plasma and Catalysts (Univ. of Seoul) Haeyon Ryu, Hoda Shafaghat, Su Bin Kim, Se Young Park, Young-Kwon Park
- GP41 Effect of CeZrO₂-modification of (Pd-Rh)/Al₂O₃ catalyst upon CH₄ bi-reforming performance (Yeungnam Univ., Univ. of California Riverside, Sungkyunkwan Univ., Heesung Catalysts Corp.) <u>Kiseok Kim</u>, Partho Sarothi Roy, Jinwoo Song, Ji Man Kim
- GP42 Catalytic production of 1-butanol from ethanol over alkaline earth metal-doped catalysts under supercritical conditions (Korea Inst. of Energy Res., Korea Univ.) Jin-Hyuk Lee, Wonjin Jeon, Jong-Hyeon Ha, In-Gu Lee, Kwan-Young Lee
- GP43 Diagnosis of Phosphoric Aicd Poisoning of Pt/C Catalysts in High Temperature Polymer Electrolyte Membrane Fuel Cell (Seoul National Univ. of Sci. and Technol.) Seungwon Yang, Yongjin Chung, Yongchai Kwon
- GP44 Palladium-Bismuth Bimatallic Catalysts Evaluted for Performance Improvement of

- Direct Formic Fuel Cell (Seoul National Univ. of Sci. and Technol.) Seungwon Yang, Yongjin Chung, Yongchai Kwon
- GP45 Catalytic Oxidative Desulfurization of Marine Diesel Using Tungsten Oxide Supported on SBA-15 Catalyst and Hydrogen Peroxide (Pukyong National Univ., Sungkyunkwan Univ.) Hyeonwoo Oh, Ji Man Kim, <u>Hee-Chul Woo</u>
- GP46 Catalytic Steam Reforming of Macro Algae Derived Oil over Supported Ni Catalysts (Pukyong National Univ., Catholic Univ. of Daegu) Yong Beom Park, Hankwon Lim, Hee-Chul Woo