

May 15 (mon.)

	Room A	Room B	Room C	Room D
9:25-9:30	Opening Remarks			
Chair	K-YL01			
9:30-10:20	YL 01: Chemistry is a Central Science & Catalysis is a Central Chemistry (Tokyo Inst. of Technol., NITE) <u>Takashi Tatsumi</u>			
Chair	JA1, KA1	JB1, KB1	JC1, KC1	JD1, KD1
10:20-10:35	YO A01: Low Temperature Catalytic Methane Steam Reforming by Surface Protonics (Waseda Univ.) <u>Ryo Manabe</u> , Shigeki Okada, Reona Inagaki, Shuhei Ogo, Yasushi Sekine	YO B01: The size-engineered graphene nanosheets as support for Pd catalysts and its application to electrooxidation of alcohols (POSTECH) <u>Yuseong Noh</u> , Changmin Lee, Hyunsu Han, Yoongon Kim, Won Bae Kim	YO C01: Low temperature catalytic ammonia synthesis in an electric field (Waseda Univ.) <u>Kota Murakami</u> , Hideaki Nakatsubo, Ryo Manabe, Shuhei Ogo, Hideki Tsuneki, Masatoshi Ikeda, Yasushi Sekine	YO D01: Enhanced Hydrogenation of Cinnamaldehyde by Twin Au Nanoparticles (Nagoya Univ.) <u>Mizuki Hattori</u> , Taiki Koketsu, Junya Ohyama, Kyoichi Sawabe, Yuta Yamamoto, Shigeo Arai, Atsushi Satsuma
10:35-10:50	YO A02: Sulfur-stabilized PtFe nanocatalyst for oxygen reduction reaction in PEMFC (Sungkyunkwan Univ.) <u>Dae Jong You</u> , Chanhok Pak and Ji Man Kim	YO B02: Development of Size-Controlled Metal–Organic Frameworks as Heterogeneous Visible Light Photoredox Catalysts (Osaka Prefecture Univ.) <u>Yu Horiuchi</u> , Nana Ueno, Masaya Matsuoka	YO C02: One-component and Non-ionic Cr-, Mo-, W-based Catalysts for Conversion of CO ₂ and Epoxides into Cyclic Carbonates (Chungbuk National Univ.) <u>Yoseph Kim</u> , Woolee Cho, Min Kim, Youngjo Kim	YO D02: Amino Acid-aided Synthesis of High Surface Area Hexagonal SrMnO ₃ Catalyst for Aerobic Oxidation (Tokyo Inst. of Technol.) <u>Kosei Sugahara</u> , Keigo Kamata, Satoshi Muratsugu, Michikazu Hara
10:50-11:10	Coffee Break			
11:10-11:25	YO A03: The Catalytic Dehydrogenation and Process Optimization of Propane to Propylene on Various Catalyst (Inha Univ.) <u>Yehwon Lee</u> , Kyujoon Park, Jihye Yu, Geonjoong Kim	YO B03: Visible-light-induced vectorial electron transfer at Ru(bpy) ₃ intercalated alternately stacked titanate nanosheets and tungstate nanosheets (Tokyo Inst. of Technol.) <u>Fuminao Kishimoto</u> , Shuntaro Tsubaki, Eiichi Suzuki, Yuji Wada	YO C03: Design of Cerium Promoted Cu/SiO ₂ Catalysts for Selective Hydrogenation of Dimethyl Oxalate to Ethanol (Toyama Univ.) <u>Peipei Ai</u> , Minghui Tan, Noritatsu Tsubaki	YO D03: Effect of controlled silylation deposition of SSZ-13 catalyst for ethylene-to-propylene reaction (Korea Res. Inst. of Chem. Technol.) <u>Nanah Kim</u> , Joon-Wan Kim, Tae-Wan Kim, Jong-Won Jun, Chul-Ung Kim, Yongju Jung

11:25-11:40	YO A04: Low-temperature Catalytic Oxidative Coupling of Methane over Supported Heteropolytungstate Catalysts in an Electric Field (Waseda Univ.) <u>Ayaka Sato</u> , Shuhei Ogo, Kousei Iwasaki, Kei Sugiura, Yasushi Sekine	YO B04: Photoelectrochemical hydrogen production using CdS nanoparticles potodeposited onto Li-ion-inserted titania nanotube arrays (Kyungpook National Univ.) <u>Unseock Kang</u> , Kyu Jun Park, Hyunwoong Park	YO C04: Catalytic Hydrodeoxygenation of Sawdust Pyrolysis Oil using the Fixed-Bed Continuous Reactor (Korea Inst. of Sci. and Technol.) <u>Gayoung Kim</u> , Jang Woo Seo, Kwan-Young Lee	YO D04: Preparation of Single-Site Co Catalyst from Co(salen) Complex and Carbon Materials (Osaka Univ.) <u>Kazuki Nakatsuka</u> , Takeharu Yoshii, Yasutaka Kuwahara, Kohsuke Mori, Hiromi Yamashita.
11:40-11:55	YO A05: Zeolite-stabilized Rhodium Sub-Nano Cluster Catalyst for Low Temperature Oxidation of Methane (Hokkaido Univ.) <u>Yuhui Hou</u> , Hirokazu Kobayashi, Atsushi Fukuoka	YO B05: Synthesis of a gold cluster-modified LDH nanosheet electrocatalyst for oxygen evolution reaction (Kyushu Univ.) <u>Sho Kitano</u> , Masaaki Sadakiyo, Miho Yamauchi	YO C05: Selective Hydrogenolysis of Tetrahydrofurfuryl Alcohol over Supported Pt Catalysts (Tokyo Metropolitan Univ.) <u>Shixiang Feng</u> , Aiko Nagao, Hiroki Miura, Tetsuya Shishido	YO D05: Evaluation of catalytic performance of methylated nitrogen-substituted mesoporous silica for synthesis of cyclic carbonate (The Univ. of Tokyo) <u>Kiyoyuki Yamazaki</u> , Masaru Ogura
11:55-12:10	YO A06: Catalytically Active Species for Methylation of Benzene with Methane on Co/ZSM-5 Zeolite (Tottori Univ.) <u>Koshiro Nakamura</u> , Hitoshi Matsubara, Etsushi Tsuji, Kazu Okumura, Satoshi Suganuma, Naonobu Katada	YO B06: Photocatalytic Methanol Dehydrogenation by Platinum-loaded Titania Particles Prepared from Evonik P25 (Hokkaido Univ.) <u>Kunlei Wang</u> , Bunsho Ohtani, Ewa Kowalska	YO C06: Production of Phenolic Hydrocarbons by Catalytic Depolymerization of Organosolv Lignin (Korea Inst. of Sci. and Technol.) <u>Deokwon Son</u> , Minsun Kim, Jae-Wook Choi, Jungkyu Choi	YO D06: Synthesis of Mn-substituted Barium Hexaaluminates by Homogeneous Precipitation Method (Chungnam National Univ.) <u>Ji Yun Park</u> , You Shick Jung, Kyung Woo Lee and Young Woo Rhee
12:10-13:30	Lunch			
Chair	JA2, KA2	JB2, KB2	JC2, KC2	JD2, KD2
13:30-13:45	YO A07: Development of Nickel Catalysts using Spinel Type Oxides for Dry Reforming of Methane (The Univ. of Tokyo) <u>Jihan Lee</u> , Fumito Otsuka, Ryuji Kikuchi, Atsushi Takagaki, S. Ted Oyama	YO B07: CO ₂ adsorption states affected by Ag co-catalyst over Ga ₂ O ₃ photocatalyst (Nagoya Univ.) <u>Muneaki Yamamoto</u> , Shinya Yagi, Tomoko Yoshida	YO C07: One-pot Green Synthesis of Flavones Using Gold Nanoparticles Supported on Layered Double Hydroxides (The Univ. of Tokyo) <u>Takafumi Yatabe</u> , Xiongjie Jin, Kazuya Yamaguchi, Noritaka Mizuno	YO D07: Size- and shape-controlled Rh nanoparticles synthesized via microwave assisted-alcohol reduction method and their activity in CO oxidation (Oita Univ.) <u>Yoshihide Nishida</u> , Katsutoshi Sato, Katsutoshi Nagaoka
13:45-14:00	YO A08: Modeling for combined steam and carbon dioxide reforming of methane (Chonnam National Univ.) <u>Heekyoung Ryoo</u> , Sharon Jo	YO B08: Reduced graphene oxide and metal-organic frameworks composites for photocatalytic water oxidation (Osaka Prefecture Univ.) <u>Zakary Lionet</u> , Yusuke Kamata, Shun Nishijima, Yu Horiuchi, Masaya Matsuoka	YO C08: Catalytic upgrading of bio-tar over Mg-Ni-Mo/activated charcoal catalyst in supercritical ethanol (Korea Inst. of Energy Res., Korea Univ.) <u>Jin-Hyuk Lee</u> , Wonjin Jeon	YO D08: A Study of Cobalt Titanate Perovskite as Oxygen Carrier for Chemical Looping Combustion (Chonbuk National Univ.) <u>Jong Ha Hwang</u> , Eun Nam Son, Roosse Lee, Soo Hyun Kim, Jeom In Baek, Ho Jung Ryu

14:00-14:15	YO A09: Auto-thermal reforming property of Ni-based structured catalyst for dry reforming of methane (Shizuoka Univ.) <u>Kazuaki Hirao</u> , Wataru Kawasaki, Kohno Yoshiumi, Ryo Watanabe, Choji Fukuhara	YO B09: Behavior of Photogenerated Charge Carriers in BiVO ₄ Based Heterojunctions (Toyota Technological Inst.) <u>Chandana Sampath Kumara Ranasinghe</u> , Akira Yamakata	YO C09: Synthesis and Application of Oxygenated Carbon Catalyst for Cellulose Hydrolysis in a Slurry Process (Hokkaido Univ.) <u>Abhijit Shrotri</u> , Hirokazu Kobayashi, Atsushi Fukuoka	YO D09: Efficient conversion of C4 unsaturated alcohols to 1,3-butadiene (Chiba Univ.) <u>Daolai Sun</u> , Yasuhiro Yamada, Satoshi Sato
14:15-14:30	YO A10: Study of pretreatment effect on propane dehydrogenation catalyst (Hanyong Univ.) <u>Jaewon Jung</u> , Hakbeum Lee, Hyoung Lim Koh	YO B10: Facet-dependent Deposition of Metal Particles and their Stability on Decahedral-shaped Titania Particles (Hokkaido Univ.) <u>Kenta Kobayashi</u> , Mai Takashima, Mai Takase, and Bunsho Ohtani	YO C10: Effect of Carbon Supports on RuRe Bimetallic Catalysts for Effective Hydrodeoxygenation of Lignin Pyrolysis Oils (Yonsei Univ.) <u>Kyung Bin Jung</u> , Chul-Ho Jun, Dong Jin Suh, Jungho Jae	YO D10: Facile Preparation of HNb ₃ O ₈ Nanosheet with More Acid Sites (Hanyang Univ.) <u>Jongha Park</u> , Young-Woong Suh
14:30-14:45	YO A11: Effect of sulfation treatment to transition metal oxide on propane dehydrogenation property (Shizuoka Univ.) <u>Nozomu Hirata</u> , Ryo Watanabe, Akinori Maezawa, Yoshiumi Kohno, Choji Fukuhara	YO B11: Surface modification of P25 using low temperature facile synthesis method via microwave irradiation (Inha Univ.) <u>Eunji Han</u> , Daejun Oh, Haewon Ryu, Young-Kwon Park, Ki-Joon Jeon	YO C11: Co-catalysis of ReO _x -Au/CeO ₂ and ReO _x /C in Hydrogenolysis of 1,4-Anhydroerythritol to 1,4-Butanediol (Tohoku Univ.) <u>Tianmiao Wang</u> , Sibao Liu, Masazumi Tamura, Yoshinao Nakagawa, and Keiichi Tomishige	YO D11: Conversion of Amides to Esters via Selective Cleavage of Amide C–N Bonds over a CeO ₂ Catalyst (Hokkaido Univ.) <u>Md. Nurnobi Rashed</u> , S.M.A.H. Siddiki, Takashi Toyao, Ken-ichi Shimizu
14:45-15:00	YO A12: Phosphorus-modified ordered mesoporous CoAlO _x mixed oxides for Fischer-Tropsch synthesis (Sungkyunkwan Univ.) <u>Yong Min Park</u> , Jong Wook Bae	YO B12: Insights into the role of Ba species on TiO ₂ for photocatalytic NO _x storage process. (Kyoto Univ.) <u>Kazuki Tamai</u> , Saburo Hosokawa, Hiroyuki Asakura, Kentaro Teramura, Tsunehiro Tanaka	YO C12: Conversion of propylene oxide to cyclic propylene carbonate in CO ₂ over heterogeneous catalysts (Chonnam National Univ.) <u>Daeho Kim</u> , Kyungsu Na	YO D12: FT-IR study of behavior of acidic hydroxyl groups on zeolites at high temperatures (Tokyo Inst. of Technol.) <u>Ryota Osuga</u> , Toshiyuki Yokoi, Junko N. Kondo
15:00-15:20	Coffee Break			
Chair	Prof. Kiyotaka Asakura (Hokkaido Univ.)			
15:20-16:10	YL 02: Durable & high performance PEM catalyst design (Yonsei Univ.) <u>Yong-Gun Shul</u>			
Chair	JA3, KA3	JB3, KB3	JC3, KC3	JD3, KD3

16:10-16:25	YO A13: Dehydrogenation of 1-Butene over Pt/SnO ₂ -SiO ₂ Catalysts in the Presence of Steam (Saitama Univ.) <u>Daiki Sampei</u> , Mitsuhiko Sato, Miru Hirahara, Masa-aki Ohshima, Hideki Kurokawa, Hiroshi Miura	YO B13: Property of Ni-SDC Anodes for SOFC with H ₂ and NH ₃ Fuels (Ehime Univ.) <u>Jian Cui</u> , Naoto Ito, Yoshiteru Itagaki, Syuhei Yamaguchi, Hidenori Yahiro	YO C13: Imido Vanadium(V)-Alkylidene Complexes for Olefin Metathesis Polymerization (Tokyo Metropolitan Univ.) <u>Sapanna Chaimongkolkunasin</u> , Xiaohua Hou, Kotohiro Nomura	YO D13: Synthesis of Porous Titania Powders by Self-assembly for Water Purification (Korea Polytechnic Univ.) <u>Young-Sang Cho</u>
16:25-16:40	YO A14: Propane dehydrogenation over platinum and iron loading zeolite (Waseda Univ.) <u>Ryosuke Ushiki</u> , Hoshino Hiroyoshi, Masahiko Matsukata	YO B14: Electrochemical hydrogenation of toluene to methylcyclohexane by non-Pt cathode in the hydrogen storage system (Tokyo Inst. of Technol.) <u>Yuta Inami</u> , Hitoshi Ogihara, Ichiro Yamanaka	YO C14: Catalytic Activity of AlF ₃ Nano-Structure for Hydrolysis of NF ₃ (Yeungnam Univ.) <u>Yong Han Jeong</u> , No-Kuk Park, Tae Jin Lee, Won Chul Chang	YO D14: Effect of starting materials on Al distribution of the CHA-type aluminosilicate zeolites (Tokyo Inst. of Technol.) <u>Toshiki Nishitoba</u> , Junko N. Kondo, Toshiyuki Yokoi
16:40-16:55	YO A15: Effective hydrogen by propane steam reforming over M/NiO/YSZ catalyst (M = Ru, Rh, Pd, Ag) (Yeungnam Univ.) <u>Yonghwan Im</u> , Misook Kang	YO B15: Exploring New Metal Catalysts with High Catalytic Activity on SOEC Electrode for High Temperature Steam/CO ₂ Co-electrolysis (Univ. of Seoul) <u>Ara Cho</u> , Jeonghyun Ko, Byung-Kook Kim, Jongsup Hong, and Jeong Woo Han	YO C15: Synthesis of Ultrahigh Molecular Weight Poly(alfa-olefin)s by Half Titanocene Catalysts (Tokyo Metropol. Univ.) <u>Sarntamon Pengoubol</u> , Kotohiro Nomura	YO D15: The effect of acidity on Ni catalyst supported on P modified Al ₂ O ₃ for the dry reforming of methane (Chungbuk National Univ.) <u>Seonu Bang</u> , Sung Woo Baek, Chae-Ho Shin
16:55-17:10	YO A16: CuO _x and Ag Supported on Al ₂ O ₃ for Catalytic Ammonia Combustion (Kumamoto Univ.) <u>Satoshi Hinokuma</u> , Yusuke Kawabata, Shun Matsuki, Saaya Kiritoshi, Masato Machida	YO B16: Effect of Al ₂ O ₃ Crystalline Phase on Methane Combustion over Pd/Al ₂ O ₃ (Nagoya Univ.) <u>Kazumasa Murata</u> , Yuji Mahara, Junya Ohyama, Atsushi Satsuma	YO C16: Synthesis of 2,5-Furandicarboxylic Acid using Molecular Oxygen by a Manganese Dioxide Catalyst (Tokyo Inst. of Technol.) <u>Eri Hayashi</u> , Tasuku Komanoya, Keigo Kamata, Michikazu Hara	YO D16: Catalytic Property of Silica-Supported 12-Tungstophosphoric Acid Modified with Organosilanes (Hokkaido Univ.) <u>Wontae Kim</u> , Ryoichi Otomo, Yuichi Kamiya
17:15-18:45	Youth Poster Session			
19:30	Youth Party			

May 16 (Thu.)

	Room A	Room B	Room C	Room D
Chair	JA4, KA4	JB4, KB4	JC4, KC4	JD4, KD4
9:15-9:30		YO B17: Light-induced Preparation of Multi-component Cocatalyst for Photocatalytic Water Splitting (Tokyo Inst. of Technol.) <u>Tomoki Kanazawa</u> , Kazuhiko Maeda	YO C17: Aerobic Oxidative Trifluoromethylation of Arenes Catalyzed by Phosphovanadomolybdic Acids (The Univ. of Tokyo) <u>Chifeng Li</u> , Kosuke Suzuki, Kazuya Yamaguchi, Noritaka Mizuno	YO D17: Suppressing Pt sintering by physical and chemical stabilization: highly regenerable PtGa/Al ₂ O ₃ catalyst (KAIST) <u>Juhwan Im</u> , Minkee Choi

9:30-9:45	YO A17: High Utilization of Methanol in Toluene Methylation Using an MFI Nanosheet Catalyst (KAIST) <u>Changq Lee</u> , Wookdong Kim, Woojin Park, Ryong Ryoo	YO B18: Omi-directional Engineered ZnFe ₂ O ₄ Photoanode for Solar Water Splitting (UNIST) <u>Ju Hun Kim</u> , Jae Sung Lee	YO C18: Demethoxylation of 2-methoxycyclohexanone over noble metal catalyst without external hydrogen (Tohoku Univ.) <u>Akari Miyagawa</u> , Yoshinao Nakagawa, Masazumi Tamura, Keiichi Tomishige	YO D18: Effect of pore structure of TiO ₂ on the SO ₂ poisoning over V ₂ O ₅ /TiO ₂ catalysts for selective catalytic reduction of NO _x (Seoul National Univ.) <u>Seunghee Youn</u> , Inhak Song, Hwangho Lee
9:45-10:00	YO A18: Dynamic Chemical State Conversion of Nickel Species Supported on Silica under CO-NO Reaction Conditions (Ritsumeikan Univ.) <u>Shohei Yamashita</u> , Misaki Katayama and Yasuhiro Inada	YO B19: Visible-Light CO ₂ Reduction Using Carbon Nitride and Metal Complex Hybrid Photocatalysts (Tokyo Inst. of Technol.) <u>Ryo Kuriki</u> , Osamu Ishitani, Kazuhiko Maeda	YO C19: Effect of Methane Co-Feeding on Product Selectivity of Lignin Pyrolysis (Univ. of Seoul) <u>Hoda Shafaghat</u> , Young-Kwon Park	YO D19: Preparation of boroaluminosilicate zeolite with the AEI structure and its catalytic activity (Tokyo Inst. of Technol.) <u>Yusuke Kunitake</u> , Masato Yoshioka, Junko N. Kondo, Toshiyuki Yokoi
10:00-10:15	YO A19: Effects of hierarchical zeolites on aromatization of acetylene (Sogang Univ.) <u>Wonsuk Lee</u> , Taehee Lee, Jungkyu Choi, Kyoung-Su Ha	YO B20: Synthesis of Cu ₂ O@Ag Bumpy Nanoparticles with Enhanced Photocatalytic Performance (KAIST) <u>Changsoo Lee</u> , Yung Jong Lee, Chanwon Jung, Hyuck Mo Lee	YO C20: Development of a novel electron mediator based on phenylviologen for biocatalyst with CO ₂ utilization (Osaka City Univ.) <u>Takayuki Katagiri</u> , Shusaku Ikeyama, Kohei Fujita, Yutaka Amao	YO D20: Effects of Na on CO and CO ₂ methanation over Na-Ni/SiO ₂ and Na-Ni/CeO ₂ (Ajou Univ.) <u>An Le Thien</u> , Tae Wook Kim, Sae Ha Lee, Eun Duck Park
10:15-10:30	YO A20: Efficient Ketones Synthesis via Catalytic Hydration over Hydrophobic Zeolites (Hokkaido Univ.) <u>Sharmin Sultana Poly</u> , S.M.A.H. Siddiki, Takashi Toyao, Ken-ichi Shimizu	YO B21: Direct Photoconversion of Toluene to Methylcyclohexane Using ZnSe:Cu(In,Ga)Se ₂ Photocathode (The Univ. of Tokyo) <u>Yosuke Kageshima</u> , Yosuke Goto, Sho Sugisaki, Hiroyuki Kaneko, Tsutomu Minegishi, Kazunari Domen	YO C21: Improvement of CO ₂ reduction catalytic activity of biocatalyst by artificial co-enzyme (Osaka City Univ.) <u>Shusaku Ikeyama</u> , Yutaka Amao	YO D21: Calcination temperature effect on silica supported Pt catalyst for low temperature ethylene oxidation (Hokkaido Univ.) <u>Shazia Sharmin Satter</u> , Kiyotaka Nakajima, Atsushi Fukuoka
10:30-10:45	YO A21: Zero Valent Copper Catalyst for Oxidative Conversion of Methane into Methanol (Myongji Univ.) <u>Raghavendra Shavi</u> , Jeong Gil Seo	YO B22: Surface-modified metal sulfides as stable H ₂ evolving photocatalyst in Z-scheme water splitting system with [Fe(CN) ₆] ^{3-/4-} redox mediator under visible light irradiation (Kyoto Univ.) <u>Masanobu Higashi</u> , Takashi Shirakawa, Osamu Tomita, Ryu Abe	YO C22: Organocatalysts containing hydroxyl and amine groups for the cycloaddition of CO ₂ and Alkyl oxide (Univ. of Ulsan and KRICT) <u>Hyeon-Gook Kim</u> , Deug-Hee Cho, Dong-Koo Lee, Dong-Woo Kim, Jin Suk Chung	YO D22: The Effect of Catalytic Reactor Bed Dilution on Product Distribution for Fischer-Tropsch Synthesis over Ru/Co/Al ₂ O ₃ Catalyst (KIST, Univ. of Sci. and Technol., Korea Univ.) <u>Gi Hoon Hong</u> , Eun-Hyeok Yang, Young-su Noh, Ji In Park, Seol A Shin, and Dong Ju Moon
10:45-11:05	Coffee Break			
11:05-11:10	Opening Remarks			
Chair	K-PL01			

11:10-12:00	PL 01: Catalytic Processes for Utilization of Hydrogen Carriers (Kyoto Univ.) <u>Koichi Eguchi</u>		
12:00-13:10	Lunch		
Chair	JA5, KA5	JB5, KB5	JC5, KC5
13:10-13:30	GO A01: Role of Al ₂ O ₃ versus ZrO ₂ in Cu/ZnO-based Catalysts in CO ₂ Hydrogenation to Methanol (Hanyang Univ.) Jinsung Kim, Cheonwoo Jeong, <u>Young-Woong Suh</u>	GO B01: Oxide catalysts for electronic reduction of oxalic acid toward efficient power storage (Kyushu Univ.) <u>Miho Yamauchi</u> , Ryota Watanabe, Shinichi Hata, Sho Kitano, Masaaki Sadakiyo	GO C01: Transfer hydrogenation of nitrobenzene to aniline in neat water using Pd nanoparticles immobilized on amine-functionalized UiO-66 (Inha Univ., Kunsan National Univ.) <u>Chinna Krishna Prasad Neeli</u> , Yu-Ri Lee, Siqian Zhang, Young-Min Chung, Wha-Seung Ahn, Sung-Hyeon Beack
13:30-13:50	GO A02: CuO-ZrO ₂ catalysts in mesoporous silica: CO ₂ hydrogenation to methanol (Seikei Univ.) <u>Shohei Tada</u> , Ayaka Katagiri, Keiko Kiyota, Naohiro Shimoda, Shigeo Satokawa	GO B02: Development of cathode catalysts for photoelectrochemical and electrochemical CO ₂ reduction (KAIST) <u>Seong Ihl Woo</u> , Da Hye Won, Chang Hyuck Choi, Ji Hoon Jeon	GO C02: Development of High Activity Catalysts for Selective Ethylene Trimerization to 1-Hexene (Mitsui Chemicals, Inc.) Shinichiro Ichikawa, Takashi Nakano, Seiichi Ishii, <u>Terunori Fujita</u>
13:50-14:10	GO A03: Hot electron flux at the solid-liquid interfaces; effects of pH and concentration during decomposition (Inst. for Basic Sci., KAIST) Seung Hee Lee, Ievgen I. Nedrygailov, Song Yi Moon, Sunyoung Oh, <u>Jeong Young Park</u>	GO B03: Rational Design of High-Performance M-N/C Electrocatalysts for Oxygen Reduction Reaction (UNIST) <u>Sang Hoon Joo</u> , Young Jin Sa, Jae Hyung Kim, Jinwoo Woo	GO C03: Effect of Titania Supports on Ir-Catalyzed Synthesis of Benzimidazoles via Dehydrogenation or Hydrogen Transfer (Kagawa Univ.) <u>Kenji Wada</u> , Tatsuhiro Fukutake, Qi Feng
14:10-14:30	GO A04: Promotional effect of water on direct dimethyl ether synthesis from carbon monoxide and hydrogen over Cu-Zn/Al ₂ O ₃ catalysts prepared by using the sol-gel method (Shizuoka Univ.) <u>Kaoru Takeishi</u>	GO B04: Highly Concentrated CO Evolution for Photocatalytic Conversion of CO ₂ by H ₂ O as an Electron Donor (Kyoto Univ.) <u>Kentaro Teramura</u> , Kazutaka Hori, Yosuke Terao, Hiroyuki Tatsumi, Zeai Huangh, Shoji Iguchi, Zheng Wang, Hiroyuki Asakura, Saburo Hosokawa, Tsunehiro Tanaka	GO C04: Metal-chelated porous organic frameworks as a catalyst for cyclic carbonate synthesis from CO ₂ and epoxides under mild conditions (Inha Univ.) <u>Seenu Ravi</u> , Pillaiyar Puthiaraj, Yuri-Lee, Wha-Seung Ahn
14:30-14:50	Coffee Break		
Chair	JA6, KA6	JB6, KB6	JC6, KC6

14:50-15:10	KL 01: Catalytic Upgrading of Thermochemical Biocrude Oils to Hydrocarbon Fuels - from Lab to Pilot Scale (KIST) <u>Dong Jin Suh</u>	GO B05: Solar-energy driven deposition of tiny rod shaped Sn catalyst for electrochemical CO ₂ reduction (POSTECH) <u>V.S.K Yadav</u> , Hyunsu Han, Won Bae Kim	GO C05: Homogeneous Sn-Catalyzed Transformation of Algal Residue into Important Chemicals (Tokyo Inst. of Technol.) <u>Sho Yamaguchi</u> , Yuuki Kawada, Hidetaka Yuge, Kan Tanaka, Sousuke Imamura
15:10-15:30		GO B06: In situ Time-resolved XAFS Study for ADT Processes of Pt/C and Pt ₃ Co/C PEFC Cathode Electrocatalysts (RIKEN SPring-8 Center, Nagoya Univ., Kasetart Univ., The Univ. of Electro-Communications) <u>Nozomu Ishiguro</u> , Sutasinee Kityakarn, Oki Sekizawa, Tomoya Uruga, Hirosuke Matsui, Kensaku Nagasawa, Mizuki Tada	GO C06: Mechanistic Studies on Palladium-Catalyzed Regioselective and Stereospecific Aziridine Ring-Opening Cross-Coupling Reactions (Hokkaido Univ., Osaka Univ. Kyoto Univ.) <u>W. M. C. Sameera</u> , Youhei Takeda, Satoshi Minakata, Keiji Morokuma
15:30-15:50	KL 02: Catalysts for Synthesis/Decomposition of Ammonia as Hydrogen Carrier (Oita Univ.) <u>Katsutoshi Nagaoka</u>	GO B07: Effect of Graphitic Carbon Support with Non-Pt composition on the Anode Durability for PEMFC (Gwangju Inst. of Sci. and Technol.) <u>Chanho Pak</u> , Eunyoung You, Seon-Ah Jin, Myoungki Min, Tae-Yoon Kim	GO C07: Synthesis of SnPt Bimetallic Nanoparticle Catalysts for Chemoselective Hydrogenation of Unsaturated Aldehyde (Kobe Univ.) <u>Keita Taniya</u> , Chih Hao Yu, Hiromu Takado, Atsushi Okemoto, Yuichi Ichihashi, Satoru Nishiyama
16:50-16:10		GO B08: Study of Carbon-Nafion-Membrane Catalyst for Synthesis of Pure H ₂ O ₂ Aqueous Solutions (Tokyo Inst. of Technol.) <u>Ichiro Yamanaka</u> , Yu Tamada, Daisuke Hiraki, Hitoshi Ogihara	GO C08: Solid base catalysis of ball-milled hexagonal-boron nitride (The Univ. of Tokyo) <u>Atsushi Takagaki</u> , Shusaku Torii, Shoichiro Namba, Shigenobu Hayashi, Ryuji Kikuchi, S. Ted Oyama
16:10-16:30	GO A05: Multiple steady states in Oxidative Steam Reforming of Methanol (OSRM) (Kyungpook National Univ.) Young Shin Jang, Jung Hyeon Kim, <u>Dong Hyun Kim</u>	GO B09: Durability Enhancement of Pd Core-Pt Shell Structured Catalyst with SiO ₂ and Carbon Coatings (Doshisha Univ., Ishifuku Metal Industry) <u>Hideo Daimon</u> , Shunya Higuchi, Yuki Matsui, Yui Noguchi, Hisashi Kawasaki, Naoya Aoki, Hideo Inoue, Takayuki Doi, Minoru Inaba	GO C09: Selective and stable production of ethylene from propylene over surface modified ZSM-5 zeolites (Korea Research Inst. of Chem. Technol., Kyungpook National Univ.) <u>Jong-Won Jun</u> , Tae-Wan Kim, Joo-Wan Kim, Seok il Hong, Chul-Ung Kim, Sung Hwa Jung
16:30-16:50	GO A06: Alcohol and Seed-assisted Synthesis of OSDA-free High-silica ZSM-5 (Tokyo Inst. of Technol.) <u>Sungsik Park</u> , Junko N. Kondo, Toshiyuki Yokoi	GO B10: First-Principles Study on Poisoning Tolerance of Pt Alloy Nano-Particle Catalyst in Polymer Electrolyte Fuel Cell Anode (Tohoku Univ.) <u>Nobuki Ozawa</u> , Momoji Kubo	GO C10: Concerted Catalysis in Mesoporous Silica: Palladium-Catalyzed Allylation Accelerated by co-Immobilized Tertiary Amine (Tokyo Inst. of Technol.) <u>Ken Motokura</u> , Marika Ikeda, Masayuki Nambo, Wang-Jae Chun, Kiyotaka Nakajima, Shinji Tanaka

17:00-18:30	General Poster Session
19:00	Banquet

May 17 (Wed.)

	Room A	Room B	Room C
Chair	JA7, KA7	JB7, KB7	JC7, KC7
9:10-9:30		GO B11: Active sites of nitrogen-doped carbon materials for oxygen reduction reaction (Univ. of Tsukuba) Donghui Guo, Riku Shibuya, Yuto Shimoyama, Takahiro Kondo, <u>Junji Nakamura</u>	GO C11: Oxidation of Benzene with Hydrogen Peroxide over Iron-Bipyridine Complexes Encapsulated in Metal Cation-Exchanged Zeolite (Ehime Univ.) <u>Syuhei Yamaguchi</u> , Yuki Miyake, Hidenori Yahiro
9:30-9:50	KL 03: Designed Pd nanoparticles for direct synthesis of hydrogen peroxide (Korea Univ.) <u>Kwan Young Lee</u>	GO B12: Efficient Solar Water Splitting on Particulate Perovskite-type Oxynitride Photoanodes (The Univ. of Tokyo) <u>Jeongsuk Seo</u> , Kazunari Domen	GO C12: Hydrodeoxygenation of Anisole over Mesoporous TiO ₂ -supported Ru and Ru-Fe Catalysts (Chonnam National Univ.) Tuan Ngoc Phan, <u>Chang Hyun Ko</u>
9:50-10:10		GO B13: Water Splitting and CO ₂ Fixation on Visible-Light-Responsive Rutile TiO ₂ -based Photocatalysts (Tokyo Inst. of Technol.) <u>Kazuhiko Maeda</u> , Akinobu Nakada, Koki Ishimaki, Junie Jhon M. Vequizo, Akira Yamakata, Osamu Ishitani	GO C13: Catalytic Cracking of Fat by Hierarchical Zeolite-Containing SiO ₂ -Al ₂ O ₃ Using Curie Point Pyrolyzer (Mie Univ.) <u>Atsushi Ishihara</u> , Takashi Tsukamoto, Tadanori Hashimoto, Hiroyuki Nasu
10:10-10:30	GO A07: Cooperative Effects of Zeolite Mesoporosity and Defect Sites on the Coke Formation and Deactivation (KAIST) Kyungho Lee, <u>Minkee Choi</u>	GO B14: Potocatalytic Improvement with Polystyrene Sphere Patterned TiO ₂ Films for Environmental Application (Sungkyunkwan Univ.) Hyeon Jin Seo, Ki-Hwan Hwang, Young Hoon Na, Sang Hun Nam, <u>Jin-Hyo Boo</u>	GO C14: Selective Hydroconversion of Diesel Boiling Range Heavy-Aromatics for Xylene-rich BTX Production (Dong-A Univ.) Yeseul Choi, Jaek Shin, Jihye Lee, <u>Jung Kyoo Lee</u>
10:30-10:50	GO A08: Effect of alkali metal addition to iron oxide structured catalyst for water gas shift property (Shizuoka Univ.) <u>Ryo Watanabe</u> , Kengo Tajima, Nozomu Hirata, Kohno Yoshiumi and Choji Fukuhara	GO B15: Development of Visible-light-driven Oxide Photocatalysts by Band Engineering with Cu(I) (Tohoku Univ.) <u>Hideki Kato</u> , Naohiro Kamemura, Arisa Takeda, Makoto Kobayashi, Masato Kakihana	GO C15: Hydrogenolysis of benzofuran over Pt/Al ₂ O ₃ in methanol used as solvent and hydrogen source (Tokyo Inst. of Technol.) <u>Hiroyasu Fujitsuka</u> , Masaki Tamura, Teruoki Tago

10:50-11:10	Coffee Break		
11:10-12:00	PL 02: Development of Heterogeneous Catalysts for the Synthesis of Cyclic Carbonates from CO ₂ and Epoxides (Pusan National Univ.) <u>Dae Won Park</u>		
12:00-13:10	Lunch		
Chair	JA8, KA8	JB8, KB8	JC8, KC8
13:10-13:30	GO A09: Syngas conversion to ethanol or acetic acid via DME carbonylation to methyl acetate: Catalysts and fluidized-bed reactor application (Sungkyunkwan Univ.) <u>Jong Wook Bae</u> , Dong Hyun Lee, Ji-Hyeon Kim, Hyungwon Ham, Jong Hun Lim	GO B16: Highly Efficient Photocatalytic Hydrogen Production by Liquid Phase Plasma Irradiation over TiO ₂ /Carbon Nanotube Photocatalysts (Sunchon National Univ.) <u>Kyong-Hwan Chung</u> , Won-June Lee, Sung-Jin Lee, Sang-Chul Jung	GO C16: Consecutive Bio-oil Upgrading Process via Two Stage Reaction (Univ. of Seoul) <u>Young-Min Kim</u> , Heejin Lee, P. S. Rezaei, Daejun Oh, Ki Hoon Kim, S. Shafaghat, Su Bin Kim, Young-Kwon Park
13:30-13:50	GO A10: Effect of Core Composition of Pd alloy on the Single Cell Performance in high temperature PEMFC (Sungkyunkwan Univ., Gwangju Inst. of Sci. and Technol.) Dae Jong You, Jin Man Kim, <u>Chanho Pak</u>	GO B17: Reduction of CO ₂ with water over Ag/Ga ₂ O ₃ photocatalysts prepared by solution plasma method (Osaka City Univ., Nagoya Univ., Aichi Center for Ind. and Sci. Technol., Kyoto Univ.) <u>Tomoko Yoshida</u> , Naoto Yamamoto, Tsuyoshi Mizutani, Muneaki Yamamoto Satoshi Ogawa, Shinya Yagi, Hirofumi Nameki, Hisao Yoshida	GO C17: Efficient formation of 5-(hydroxymethyl)furfural from glucose with photoassist-phosphorylated TiO ₂ catalyst (Tokyo Inst. of Technol.) <u>Masashi Hattori</u> , Keigo Kamata, Michikazu Hara
13:50-14:10	KL 04: Nanosheet Photocatalysts for Water Splitting and Epoxides (Kyushu Univ.) <u>Shintaro Ida</u>	GO B18: Preparation and photocatalytic performance evaluation of carbon nanostructured doped TiO ₂ nanoparticles using liquid phase plasma treatment (Sunchon National Univ.) Seung Jai Lee, Sangmin Jeong, Heon Lee, <u>Wang Geun Shim</u>	GO C18: Mechanochemical Synthesis of Poly(lactic acid) (Chonbuk National Univ.) <u>Jeung Gon Kim</u> , Nuri Ohn
14:10-14:30		GO B19: Difference in the Behavior of Photogenerated Electrons and Holes on Anatase and Rutile TiO ₂ Powders (Toyota Technological Inst.) <u>Akira Yamakata</u> , Junie Jhon M. Vequizo, Hironori Matsunaga	GO C19: Deoxydehydration of glycerol with H ₂ to allyl alcohol catalyzed by heterogeneous ReOx-Au/CeO ₂ (Tohoku Univ.) <u>Keiichi Tomishige</u> , Yoshinao Nakagawa, Masazumi Tamura

14:30-14:50	Coffee Break		
Chair	JA9, KA9	JB9, KB9	JC9, KC9
14:50-15:10	GO A11: Enhanced Three Way Catalytic Activity of NiFe ₂ O ₄ by Physically Mixed Metal Oxides (Nagoya Univ.) Shiori Nagai, Kakuya Ueda, Junya Ohyama, <u>Atsushi Satsuma</u>	GO B20: Multielectron Reduction of Molecular Oxygen in Photocatalysis by Bismuth Tungstate and the Other Metal-oxide Particles (Hokkaido Univ.) <u>Bunsho Ohtani</u> , Haruna Hori, Mai Takashima, Mai Takase	GO C20: One-pot Conversion of Furfural to γ -Valerolactone over Heteropolyacid Supported on Zr-Beta Zeolites (KIST) Haryo Pandu Winoto, Hyunjoo Lee, Dong Jin Suh, Byoung Sung Ahn, <u>Jungho Jae</u>
15:10-15:30	GO A12: Effect of hydrothermal aging on Pd/SSZ-13 in low temperature NO adsorption for cold start application (Seoul National Univ.) Young Seok Ryou, Jaeha Lee, Hyokyong Lee, Chang Hwan Kim, <u>Do Heui Kim</u>	GO B21: Hetero-type dual metal oxide photoanodes for unbiased solar water splitting with extended light harvesting (UNIST) <u>Ji-Wook Jang</u>	GO C21: Hydroconversion of fatty acid derivatives over Ni-Mo catalysts under low hydrogen pressure (The Univ. of Kitakyushu) <u>Hiroyuki Imai</u> , Miku Abe, Kazusa Terasaka, Xiahong Li
15:30-15:50	GO A13: Influence of Al ₂ O ₃ support on the activity of Ir/Al ₂ O ₃ catalysts for NO reduction with C ₃ H ₆ and CO in slight lean conditions (Nagoya Inst. of Technol.) Yasuyuki Doi, <u>Masaaki Haneda</u>	GO B22: Preparation of (Cu,Ag) ₂ ZnSnS ₄ Solid Solution Nanocrystals for Efficient Solar Energy Conversion (Nagoya Univ.) <u>Tatsuya Kameyama</u> , Ryosuke Kakudo, Susumu Kuwabata, Tsukasa Torimoto	GO C22: A Theoretical Insight into the Enhanced Catalytic Activity of Au by Multiple Twin Nanoparticles (Nagoya Univ.) <u>Kyoichi Sawabe</u> , Mizuki Hattori, Taiki Koketsu, Junya Ohyama, Atsushi Satsuma
15:50-16:10	GO A14: Effect of Cation in High Silica CHA on Hydrothermal Stability and Selective Catalytic Reduction of NO _x (Korea Univ.) Soon Hee Park, Seung Gwan Lee, Jin Hee Park, Ha Na Jeong, Kwan Young Lee, <u>Sung June Cho</u>	GO B23: Sodium hexatitanate photocatalysts prepared by a flux method for CO ₂ reduction with water (Kyoto Univ., Nagoya Univ., Osaka City Univ., Toyota Central R&D Labs., Inc., Toyota Motor Co.) <u>Hisao Yoshida</u> , Masumi Sato, Naoto Fukuo, Like Zhang, Yuta Yamamoto, Tomoko Yoshida, Takeshi Morikawa, Tsutomu Kajino, Mitsuru Sakano, Takeshi Sekito, Shinichi Matsumoto, Hirohito Hirata	GO C23: Synthesis of Lower Olefins from Synthesis Gas over Active Carbon-Supported Iron Catalyst (The Univ. of Kitakyushu) <u>Kenji Asami</u> , Kazuki Komiyama, Kohei Yoshida, Hiroki Miyahara
Chair	JA10, KA10	JB10, KB10	JC10, KC10
16:10-16:30	GO A15: HCl gas removal from a vapor phase using Magnesium oxide having high activity (RIKEN, Hokkaido Univ. of Education, Hakodate) <u>Michiko Kitagawa</u> , Nana Ishida, Erika Yoshino, Hiromi Matsuhashi	GO B24: Direct synthesis of liquefied petroleum gas from syngas over H-ZSM-5 enwrapped Pd-based zeolite (Toyama Univ.) <u>Peipei Zhang</u> , Guohui Yang, Yoshiharu Yoneyama, Ruiqin Yang, Noritatsu Tsubaki	GO C24: Oxidative Coupling of Methane using Modified Na/W/Mn Catalysts (KIST) Rika Tri Yunarti, Sangseo Gu, Suji Yoon, Seoyeon Lim, <u>Jeong-Myeong Ha</u> , Myung-June Park, Oh-Shim Joo

16:30-16:50	GO A16: Synthesis of Pt/mesoporous SiC-15 and its catalytic performance for sulfuric acid decomposition (KIST) Hasnain Abbas Khan, <u>Kwang-Deog Jung</u>	GO B25: Microwave-enhanced fixed-bed flow reactions: Fundamental mechanism to applications (Tokyo Inst. of Technol., The Univ. of Tokyo, Okinawa National College of Technol.) <u>Shuntaro Tsubaki</u> , Naoto Haneishi, Eriko Abe, Masato M. Maitani, Satoshi Fujii, Ei-ichi Suzuki, Yuji Wada	GO C25: Acid-base catalysis of YNbO ₄ for sugar conversion in water (Hokkaido Univ.) <u>Minjune Kim</u> , Hideki Kato, Atsushi Fukuoka, Kiyotaka Nakajima
16:50-17:10	GO A17: On the delamination of layer-structured MCM-22 precursors (Korea Univ.) Taehee Lee, <u>Jungkyu Choi</u>	GO B26: Spectroscopic Study on Multicyclic Stability of CO ₂ Adsorbent in Flue Gas Conditions (Kongju National Univ.) Jae Wan Jeon, Rose Mardie Pacia, Seong Won Pyo, Hwimin Seo, Yong Ki Park, <u>Young Soo Ko</u>	GO C26: Acid-base properties of Al ₂ O ₃ : effects of morphology, crystalline phase, and additives (UNIST) Jaekyoung Lee, Eun Jeong Jang, <u>Ja Hun Kwak</u>
17:10-17:30	GO A18: Synthesis of High-Energy-Density Fuel over Mesoporous Aluminosilicate Catalysts (Kongju National Univ.) Jongjin Kim, Beomseok Shim, Gayoung Lee, Jeongsik Han, <u>Jong-Ki Jeon</u>	GO B27: Visible-Light-Responsive MOF Catalysts for Hydrogen Production from Hydrogen Carrier Molecules (Osaka Univ.) Meicheng Wen, Yasutaka Kuwahara, Kohsuke Mori, <u>Hiromi Yamashita</u>	GO C27: Extraction of lignin from raw biomass via organosolv treatment and its conversion to phenols over iron-oxide based catalyst (Hokkaido Univ.) <u>Takuya Yoshikawa</u> , Yuki Kawamata, Kanta Yamaguchi, Yuta Nakasaka, Teruoki Tago, Shinya Sato, Yoshihito Koyama, Kevin C.-W. Wu, Takao Masuda
17:30-17:40	Closing Remarks		