Poster Presentation [Day 1 : P-001 ~ P-091, Day 2-3 : P-070 ~ P-140]
***[ST-xx] : Numbers for Short Talk Presenters**

P-001 Machine Learning Prediction of Adsorption Energies on Metal Alloys for Effective Utilization of Methane
Takashi Toyao,[1,2] Satoru Takakusagi,[1] Ichigaku Takigawa,[3] Ken-ichi Shimizu[1,2] (*[1]Institute for Catalysis, Hokkaido University, [2]ESICB, Kyoto University, [3]Graduate School of Information Science and Technology, Hokkaido University*)

P-002 Regio and Chemoselective Conversions Controled by Specific Atomic Arrangement of Ordered Alloys
Shinya Furukawa,[1] Masayoshi Miyazaki,[2] Takayuki Komatsu[3] (*[1]Institute for Catalysis, Hokkaido University, [2]School of Science, Tokyo Institute of Technology,*)

P-003 Reverse Water Gas Shift Reaction Using SILP Type Catalyst
Tomohiro Yasuda[1], Ken-ichi Tominaga[2], Mayumi Nishida[1,2] (*[1]Research and Development Division, Department of Practical Application, Institute for Catalysis (ICAT), Hokkaido University, [2]Interdisciplinary Research Center for Catalytic Chemistry, National Institute of Advance Industrial Science and Technology (AIST)*)

P-004 Proof of multielectron transfer processes in heterogeneous photocatalysis
Mai Takashima,[1,2] Haruna Hori,[1] Shugo Takeuchi[1], Mai Takase[3] and Bunsho Ohtani[1,2] (*[1]Graduate School of Environmental Science and [2]Institute for Catalysis, Hokkaido University, and [3]Graduate School of Engineering, Muroran Institute of Technology*)

P-005 Multielectron oxygen reduction on copper(I) oxide-loaded titanium(IV)-oxide photocatalysts in decomposition of organic compounds
Peng Wang and Bunsho Ohtani (*Institute for Catalysis, Hokkaido University*)

P-006 Crystalline characteristics and photocatalytic activity of decahedral-shaped anatase titania particles
Kenta Kobayashi,[1] Mai Takashima,[1,2] Mai Takase[3] and Bunsho Ohtani[1,2] (*[1]Graduate School of Environmental Science and [2]Institute for Catalysis, Hokkaido University, [3]Graduate School of Engineering, Muroran Institute of Technology*)

P-007 X-ray diffraction analysis on thermal anatase-rutile transformation of titania particles
Bob John,[1] Mai Takashima[1,2] and Bunsho Ohtani[1,2] (*[1]Graduate School of Environmental Science and [2]Institute for catalysis, Hokkaido University*)

P-008 **Control of Surface Inhomogeneity and its Catalytic Properties**
Huang Hua and Kiyotaka Asakura (*Institute for Catalysis, Hokkaido University*)

P-009 **Adsorption and Catalytic Hydrolysis of Cellulosic Molecules by Microporous Materials**
Mizuho Yabushita, Hirokazu Kobayashi, Omar K. Farha, Alexander Katz, Atsushi Fukuoka (*Institute for Catalysis, Hokkaido University*)

P-010 **Excited-state Aggregate Formation of A Near-infrared Dye**
Yue Wang,[1] Rong Wang,[1,2] and Tamaki Nakano[1] ([1]*Institute for Catalysis (ICAT), Graduate School of Chemical Sciences and Engineering, Hokkaido University,* [2]*On leave from College of Chemistry and Molecular Engineering, Peking University*)

P-011 **Synthesis and Properties of Antioxidant Polymers**
Shunta Asada, Yue Wang, and Tamaki Nakano (*Institute for Catalysis (ICAT), Graduate School of Chemical Sciences and Engineering, Hokkaido University*)

P-012 **Synthesis and Structure of Chiral Polyelectrolytes for Gene Delivery**
Nino Zavradashvili,[1,2] Yue Wang,[1] Ramaz Katsarava,[2] Tamaki Nakano[1] ([1]*Institute for Catalysis (ICAT), Hokkaido University,* [2]*Institute of Chemistry and Molecular Engineering, Agricultural University of Georgia*)

P-013 **Catalytic Reactions at the Water/CeO_2 Interface**
Akira Nakayama[1,2], Masazumi Tamura[2,3], Ken-ichi Shimizu[1], and Jun-ya Hasegawa[1] ([1]*Institute for Catalysis, Hokkaido University,* [2]*JST PRESTO,* [3]*Department of Applied Chemistry, Graduate School of Engineering, Tohoku University*)

P-014 **Theoretical Study on Rh-Catalyzed Hydrosilylation of C=C and C=O Double Bonds**
Liming Zhao,[1] Naoki Nakatani,[2] Yusuke Sunada,[3] Hideo Nagashima ,[3] Jun-ya Hasegawa[2] ([1]*Graduate School of Chemical Science and Engineering, Hokkaido University,* [2]*Institute for Catalysis, Hokkaido University,* [3]*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-015 **Reaction Mechanism of DMC Formation from CO_2 and Methanol over CeO_2: A DFT Study**
Toshiyuki Sugiyama,[1] Akira Nakayama,[2,3] and Jun-ya Hasegawa[2] ([1]*Graduate School of Chemical Sciences and Engineering, Hokkaido University,* [2]*Institute for Catalysis, Hokkaido University,* [3]*JST PRESTO*)

P-016 Polyurethanes as Macromolecular Ligands for Catalytic Reactions

Akihiro Kimura,[1] Haruka Hayama,[1] Jun-ya Hasegawa,[1,2] Hassan Nageh,[1] Yue Wang,[1,2] Naofumi Naga,[3] Mayumi Nishida,[1,2] and Tamaki Nakano[1,2] (*[1]Institute for Catalysis (ICAT) and Graduate School of Chemical Sciences and Engineering, Hokkaido University, [2]IRCCS, [3]Graduate School of Science and Engineering, Shibaura Institute of Technology*)

P-017 Stereoselective isomerization of eugenol to trans-isoeugenol catalyzed by Ni(0) phosphines: experimental and theoretical studies

Y. Permana,[1] L. Saputra,[1] N. Gustini,[1] Arifin,[2] S. Irle,[2] A. Patah,[1] M. A. Martoprawiro[1] (*[1]Chemistry Department, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Bandung, Indonesia, [2]Institute of Transformative Bio-Molecules, Nagoya University*)

P-018 Theoretical Investigation on Photo-activation Process of Diaryl Pyrido Cyanine

A. Sarinastiti,[1] Arifin,[1] R. Shimizu,[2] K. Suda,[2] K. Uno,[2] Y. Sato,[1] D. Yokogawa[1,2] (*[1]Institute of Transformative Bio-Molecule, Nagoya University, [2]Department of Chemistry, Graduate School of Science, Nagoya University*)

P-019 Preparation, characterization, and catalytic performances of ceria-based mixed metal oxide catalysts

Satoshi Muratsugu,[1] Xiubing Huang,[2] Shoko Nagase,[1] Gen-ichi Yokota,[1] Satoru Ikemoto,[1] Hirosuke Matsui,[1] Mizuki Tada[1,2,3] (*[1]Grad. Sch. Sci, [2]RCMS, and [3]IRCCS, Nagoya Univ.*)

P-020 Preparation, characterization, and electrocatalytic performance of Pt nanocluster - polymer - carbon nanotube composites

Kentaro Ichihashi,[1] Shota Miyamoto,[1] Kana Sakamoto,[1] Satoshi Muratsugu,[1] Mizuki Tada[1,2,3] (*[1]Grad. Sch. Sci, [2]RCMS, and [3]IRCCS, Nagoya Univ.*)

P-021 Non-Equilibrium Supramolecular Polymerization of Fluorescent Dye in Aqueous Media

Natsumi Fukaya,[1] Soichiro Ogi,[1,2] and Shigehiro Yamaguchi[1,2,3] (*[1]Graduate School of Science, [2]Research Center for Materials Science, [3]Institute of Transformative Bio-Molecules, Nagoya University,*)

P-022 Photo-caged phospha-fluorescein for single cell imaging

Riho Hosokawa,[1] Masayasu Taki,[2,3] Hiroaki Ogasawara,[1] Marek Grzybowski,[2] Yoshikatsu Sato,[2] Shigehiro Yamaguchi[1,2] ([1]*Graduate School of Science, Nagoya University*, [2]*Institute of Transformative Bio-Molecule, Nagoya University, [3]JST-PRESTO*)

P-023 **Rapid access to fused aromatics by palladium-catalyzed annulative dimerization of aryl (pseudo)halides**

Taito Hiraga, Yoshito Koga, Yutaro Saito, Kei Murakami, Kenichiro Itami (*Graduate School of Science, Nagoya University*)

P-024 **Rapid N-Alkylation of Amines by Alcohols Using a Copper–Gold Photocatalyst**

Lyuming Wang,[1] Yuna Morioka,[1] Kellie Binder,[2] Andrew E. H. Wheatley,[2] Susumu Saito,[1] and Hiroshi Naka[1] ([1]*Graduate School of Science and Research Center for Materials Science, Nagoya University* [2]*Department of Chemistry, University of Cambridge, UK*)

P-025 **Nickel Complex/TiO_2 Hybrid Catalysts for Photocatalytic Aminocarbonylation with Formamides**

Shogo Mori[1], Takahiro Aoki[1], Susumu Saito[1,2] ([1]*Graduate School of Science,* [2]*Research Center for Materials Science, Nagoya University*)

P-026 **Catalytic Oxidation of Small Gaseous Alkanes by P450BM3 with Decoy Molecules**

Shinya Ariyasu,[1,2] Zhiqi Cong,[1,2] Osami Shoji,[1,2] Yuichiro Aiba,[1,2] Chie Kasai,[1,2] Hiroki Onoda,[1] Kazuto Suzuki,[1] Hiroshi Sugimoto,[2,3] Yoshitsugu Shiro,[3] Takashi Kamachi,[2,4] Kazunari Yoshizawa,[2,4] Yoshihito Watanabe,[5] ([1]*Department of Chemistry, Graduate School of Science, Nagoya University,* [2]*JST-CREST,* [3]*RIKEN SPing-8 Center, Harima Institute,* [4]*Institute for Materials Chemistry and Engineering, Kyushu University,* [5]*Research Center for Materials Science, Nagoya University*)

P-027 **New Insight into dsDNA Invasion by NLS-PNAs**

Gerardo Urbina[1], Yuichiro Aiba[1], Osami Shoji[1], Yoshihito Watanabe[2] ([1]*Department of Chemistry, Graduate School of Science;* [2]*Research Center for Material Science Nagoya University*)

P-028 **Improvement of Catalytic Activity of Self-sufficient Cytochrome P450 by Enzymatic Ligation**

Omura Keita[1], Aiba Yuichiro[1], Shoji Osami[1,2], Sugimoto Hiroshi[2,3], Shiro Yoshitsugu[4], Watanabe Yoshihito[5] ([1]*Department of Chemistry, Graduate School of Science, Nagoya University,* [2]*Core Research for Evolutional Science and Technology, Japan Science and Technology Agency,* [3]*RIKEN SPring-8 Center,* [4]*Guraduate School of Life Science, University of Hyogo,* [5]*Research Center for Materials Science, Nagoya University*)

P-029 **Design of Whole-cell Biocatalyst for Aromatic Hydroxylation Utilizing P450BM3 and**

Decoy Molecules

Masayuki Karasawa[1], Sota Yanagisawa[1], Osami Shoji[1,2], Yoshihito Watanabe[3] (*[1]Department of Chemistry, Graduate School of Science, Nagoya University, [2]CREST, [3]Research Center for Materials Science, Nagoya University*)

P-030 Studies on the Heme Uptake Proteins (PhuUV-T) from *Pseudomonas aeruginosa*

Erika Sakakiara[1], Yuma Shisaka[1], Osami Shoji[1], Hiroshi Sugimoto[2], Yoshihito Watanabe[3] (*[1]Department of Chemistry, Graduate School of Science, Nagoya University, [2]RIKEN Spring-8 Center Harima Institute, [3]Research Center for Materials Science, Nagoya University*)

P-031 Covalent Organic Frameworks for Electrochemical Energy Storage

Yang Wu, Zhongyue Zhang, Kunio Awaga (*Department of Chemistry and Integrated Research Consortium on Chemical Sciences (IRCCS), Nagoya University*)

P-032 Impurity doping to molecule-based honeycomb lattices of organic radicals

Ryo Ushiroguchi,[1] Yoshiaki Shuku,[1] Byeong-Kwan An,[2] Ji Eon Kwon,[3] Soo Young Park,[3] Kunio Awaga[1] (*[1]Department of Chemistry, Nagoya Univ. [2]Department of Chemistry, The Catholic University of Korea, [3]Department of Materials Science and Engineering, Seoul National University*)

P-033 Three-dimensional photoelectron momentum imaging of D_2 in circularly polarized intense laser fields

T. Nakamura, M. Yamamoto, M. Fushitani, A. Hishikawa (*Graduate School of Science, Nagoya University*)

P-034 Synthesis of Cyclopropane Nucleoside Analogues

Daichi Fushihara[1], Satoshi Shuto[2], Hiroshi Abe[1] (*[1]Department of Chemistry, Nagoya University, [2]Faculty of Pharmaceutical Sciences, Hokkaido University*)

P-035 Development of Phosphorofluoridate Groups for Medicinal Chemistry

Wataru Tanabe, Haruka Fujikawa, Yasuaki Kimura, Hiroshi Abe (*Department of Chemistry, Graduate School of Science, Nagoya University*)

P-036 Synthesis and Evaluation of Covalent GST Inhibitor with Improved Cell Permeability

Haruka Fujikawa,[1,2] Yuko Shishido,[1,3] Yasuaki Kimura,[1] Fumiaki Tomoike,[1] Yuko Murakami-Tonami,[4] Masahiro Aoki,[2,4] Hiroshi Abe[1] (*[1]Nagoya University, [2]Nagoya City University, [3]Hokkaido University, [4]Aichi Cancer Center*)

P-037 **One-dimensional structures of chalcogens and chalcogenides formed inside carbon nanotubes**

Yusuke Nakanishi (*Institute for Advanced Research, Nagoya University*)

P-038 **Synthesis of S,P-doped graphene oxide and battery application**

Tsukasa Inoue (*Department of Chemistry, School of Science, Nagoya University*)

P-039 **Semiconducting Carbon Nanotubes Extraction by Aqueous Two Phase System and Thin-Film-Transistor Application**

Kazuki Ueno (*Department of Chemistry, School of Science, Nagoya University*)

P-040 **Heavy Analogues of Phenyl Anion**

Yoshiyuki Mizuhata, Shiori Fujimori, Shingo Tsuji, Norihiro Tokitoh (*Institute for Chemical Research, Kyoto University*)

P-041 **Synthesis and Properties of Endohedral C_{70} Co-Encapsulating HF and H_2O Molecules**

Rui Zhang, Michihisa Murata, Atsushi Wakamiya, Yasujiro Murata (*Institute for Chemical Research, Kyoto University*)

P-042 **Fabrication of Sn-Based Perovskite Solar Cells using Solvent-Coordinated SnX_2 Complexes as Key Precursors**

Masashi Ozaki,[1] Jiewei Liu,[1] Yukie Katsuki,[1] Taketo Handa,[1] Ryosuke Nishikubo,[2] Shinya Yakumaru,[1] Yoshifumi Hashikawa,[1] Yasujiro Murata,[1] Takashi Saito,[1] Yuichi Shimakawa,[1] Yoshihiko Kanemitsu,[1] Akinori Saeki,[2] Atsushi Wakamiya[1] (*[1]Institute for Chemical Research, Kyoto University, [2]Department of Applied Chemistry, Graduate School of Engineering, Osaka University*)

P-043 **Naphthalene Diimide-Based Electron-Transporting Layer for Planar Perovskite Solar Cells**

Tomoya Nakamura, Nobutaka Shioya, Takafumi Shimoaka, Takeshi Hasegawa, Yasujiro Murata, Atsushi Wakamiya (*Institute for Chemical Research, Kyoto University*)

P-044 **Investigation of Organoiron Catalysis in Kumada–Tamao–Corriu-Type Cross-Coupling Reaction Assisted by Solution-Phase X-ray Absorption Spectroscopy**

Hikaru Takaya, Sho Nakajima, Naohisa Nakagawa, Katsuhiro Isozaki, Takahiro Iwamoto, Ryuji Imayoshi, Nicholas J. Gower, Laksmikanta Adak, Takuji Hatakeyama, Tetsuo Honma, Masafumi Takagi, Yusuke Sunada, Hideo Nagashima, Daisuke Hashizume, Osamu Takahashi, Masaharu Nakamura (*Institute for Chemical Research, Kyoto University*)

P-045 **Highly Selective Direct Arylation Polymerization of Bithiophene Derivatives**
Masayuki Wakioka, Hazuki Morita, Natsumi Yamashita, Nobuko Ichihara, Fumiyuki Ozawa (*International Research Center for Elements Science, Institute for Chemical Research, Kyoto University*)

P-046 **Square Planar Complexes of Platinum(0)**
Katsuhiko Takeuchi,[1] Hiro-omi Taguchi,[1] Ippei Tanigawa,[1] Tsukasa Matsuo,[2] Hiromasa Tanaka,[3] Kazunari Yoshizawa,[3] Fumiyuki Ozawa[1] (*[1]International Research Center for Elements Science, Institute for Chemical Research, Kyoto University, [2]Department of Applied Chemistry, Faculty of Science and Engineering, Kindai University [3]Institute for Materials Chemistry and Engineering, Kyushu University*)

P-047 **The role of chloride additives on tin halide perovskite solar cells and thin films**
Tomoko Aharen, Taketo Handa, Atsushi Wakamiya and Yoshihiko Kanemitsu (*Institute for Chemical Research, Kyoto University*)

P-048 **Synthesis and structural analysis of Ag-Bi-I for solar cells**
Anucha Koedtruad, Takashi Saito, Atsushi Wakamiya, and Yuichi Shimakawa (*Institute for Chemical Research, Kyoto University*)

P-049 **Slow Spin Relaxation in a Mononuclear Ru(III) Complex**
Osamu Sato, Shu-Qi Wu (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-050 **Formation of Pseudo-symmetric Functional Molecules and Crystals Using Chirality**
Shinji Kanegawa and Osamu Sato (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-051 **Thermal-Induced Magnetic Bistability without Spin Transition**
Sheng-Qun Su, Shu-Qi Wu, Shinji Kanegawa, Osamu Sato (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-052 **Superoleophobic nanohybrid coatings from halloysite nanotubes and fluorinated polyacrylates**
Wei Ma,[1,2] Yuji Higaki,[1,2] Atsushi Takahara[1,2] (*[1]Institute for Materials Chemistry and Engineering, Kyushu University, [2]International Institute for Carbon-Neutral Energy Research (WPI-I2CNER), Kyushu University,*)

P-053 Phosphorylated Cellulose Nanocrystal / Imogolite Nanotubes Bio-hybrid Film Prepared by Layer by Layer Assembly

Linlin Li,[1] Wei Ma,[2] Yuji Higaki,[1,2] Atsushi Takahara[1,2] (*[1]Graduate School of Engineering, Kyushu University, [2]Institute for Materials Chemistry and Engineering, Kyushu University*)

P-054 Asymmetric Synthesis of Highly Functionalized Silacyclopentanes

Kazunobu Igawa,[1,2] Daisuke Yoshihiro,[2] Akihiro Kuroo,[2] Yusuke Abe,[2] Katsuhiko Tomooka [1,2] (*[1]Institute for Materials Chemistry and Engineering, and [2]Department of Molecular and Material Sciences, Kyushu University*)

P-055 Efficient Synthesis of Multi-Functionalized DACN and Its Application

Yuuya Kawasaki, [1] Shin Aoyama, [2] Takeru Kashiwagi, [1] Kazunobu Igawa, [1,2] Katsuhiko Tomooka[1,2] (*[1]Institute for Materials Chemistry and Engineering, and [2]Department of Molecular and Material Sciences, Kyushu University*)

P-056 Frontier Orbital Perspective for Quantum Interference in Alternant and Nonalternant Hydrocarbons

Yuta Tsuji, Kazunari Yoshizawa (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-057 Theoretical Study on Fe-Catalyzed Transformation of Dinitrogen into Ammonia and Hydrazine

Hiromasa Tanaka, Yuki Matsuo, and Kazunari Yoshizawa (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-058 Catalytic performance of a dicopper-oxo complex for methane hydroxylation

Yuta Hori,[1] Yoshihito Shiota,[1] Masahito Kodera,[2] and Kazunari Yoshizawa[1] (*[1]Institute for Materials Chemistry and Engineering, Kyushu University, [2]Department of Molecular Chemistry and Biochemistry, Doshisha University*)

P-059 Methane Partial Oxidation over $[Cu_2(\mu\text{-}O)]^{2+}$ Active Species in Small-, Medium-, and Large-Pore Zeolites

Muhammad Haris Mahyuddin, Takahiro Tanaka, Yoshihito Shiota, Aleksandar Staykov, Kazunari Yoshizawa (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-060 A QM/MM Study of the Mechanism of Methane-Methanol Conversion of Particulate

Methane Monooxygenase (pMMO)

Shuhei Itoyama, Yoshihito Shiota and Kazunari Yoshizawa (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-061 Theoretical study of the influence of water on the adhesion phenomena

Hiroyuki Murata, Hiromasa Tanaka and Kazunari Yoshizawa (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-062 Theoretical study on redox potentials and Co-C bond dissociation energies of cobalt corrinoids with axial ligands

Akiyoshi Sawada,[1] Yoshitsugu Morita,[2] Takashi Kamachi,[3] Koji Oohora,[4] Takashi Hayashi,[4] Kazunari Yoshizawa[1] ([1]*IMCE, Kyushu Univ.;* [2]*Faculty of Sci. & Eng., Chuo Univ.;* [3]*Fukuoka Inst. of Tech.;* [4]*Graduate school of Engineering., Osaka Univ.*)

P-063 Molecular Understanding of Adhesion at Silica Surface/Epoxy Resin Interface: Effects of Interfacial Water Molecules

Chisa Higuchi, Hiromasa Tanaka, Kazunari Yoshizawa (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-064 Theoretical study on absorption wavelength control of *β*-carotene over solid acid

Nobuyuki Hirosawa,[1] Yoshihito Shiota,[1] Yoshiumi Kohno,[2] Ryuma Asaba,[2] Kazunari Yoshizawa[2] ([1]*IMCE, Kyushu Univ.* [2]*Grad. Sch. Eng., Shizuoka Univ.*)

P-065 Synthesis of Syn-Substituted Triptycenes Using Triple-Cycloadditions of Arynes to Ynolates and their Transformations

Takayuki Iwata,[1] Tatsuro Yoshinaga,[2] Takumi Fujiwara,[2] Takuto Fukami,[2] Mitsuru Shindo[1] ([1]*Institute for Materials Chemistry and Engineering, Kyushu University,* [2]*Interdisciplinary Graduate School of Engineering Sciences, Kyushu University*)

P-066 Moleculary Fingerprinted Oxide Nanowires

K. Nagashima[1], Y. He[1], A. Inoue[1], H. Yoshida[3], G. Zhang[1], T. Takahashi[1], S. Takeda[3] and T. Yanagida[1] ([1]*Institute for Material Chemistry and Engineering, Kyushu University,* [2]*The Institute of Scientific and Industrial Research, Osaka University*)

P-067 Effect of Tungsten Doping on Hydrothermal ZnO Nanowire growth

Hiroki Yamashita[*1], Kazuki Nagashima[2], Daiki Sakai[1], Tsunaki Takahashi[2], Zhang Guozhu[2] and Takeshi Yanagida[1,2] ([1]*Department of Molecular and Material Science, Interdisciplinary Graduate School of Engineering Science, Kyushu University,* [2]*Institute for Materials*

Chemistry and Engineering, Kyushu University)

P-068 **Impacts of Thermal Annealing on Electrical Properties of Hydrothermally Grown ZnO Nanowires: Nanowire Resistivity, Contact Resistance and Their Long-term Stability**
Kentaro Nakamura[1], Tsunaki Takahashi[2], Hiroshi Anzai[1], Daiki Sakai[1], Masaki Kanai[2], Kazuki Nagashima[2], Takeshi Yanagida[1,2] (*[1]Engineering Science, Kyushu University, [2]IMCE, Kyushu University*)

P-069 **Switching Photomechanical Property by Structural Transformation**
Kenta Goto (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-070 **Hydrosilylation of Alkene with Hydrosiloxanes Catalyzed by Co(0) or Fe(0) Isocyanide Complexes**
Atsushi Sanagawa,[1] Hideo Nagashima[2] (*[1]Institute for Materials Chemistry and Engineering and [2]Graduate School of Engineering Sciences, Kyushu University*)

P-071 **Atom Transfer Radical Polymerization by solvent-stabilized ($Me_3TACN)FeX_2$**
So-ichiro Nakanishi, Mitsunobu Kawamura, Yusuke Sunada, Atsushi Tahara, Hideo Nagashima (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-072 **Theoretical Studies of the Catalytic Hydrogenation of Alkenes by Disilametallacyclic Complexes bearing *cis*- and *trans*-Dicarbonyl Ligands (M = Fe, Ru, Os)**
Atsushi Tahara, Konoka Hoshi, Yusuke Sunada, Hiromasa Tanaka, Yoshihito Shiota, Kazunari Yoshizawa, Hideo Nagashima (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-073 **Syntheses of π-Conjugated Enamines from Hydrosilane Reduction of Amides Catalyzed by Iridium Complexes and Their Application**
Atsushi Tahara, Yuta Une, Ikumi Kitahara, Hideo Nagashima (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-074 **Highly Efficient and Selective Hydrogenation of Nitroarenes using Platinum Nanoparticle Catalysts Supported by Ammonium Salts of Hyperbranched Polystyrene**
Hideo Nagashima, Yuma Yamamoto, Yuki Maeda, Lei Gao, Arada Chaiyanurakkul (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-075 **Observation of Hyperbranched Polymer / Metal Nanoparticle Composite Materials**
Katsumi Chikama,[1] Keisuke Kojima,[1] Yudai Morimoto,[1] Hideo Nagashima[2] (*[1]Nissan*

Chemical Industries, LTD., [2]Kyushu University)

P-076 **Pt-Catalyzed Reduction of Amide with Bifunctional Hydrosilane: A Theoretical Study**
Naoki Nakatani,[1] Yusuke Sunada,[2] Jun-ya Hasegawa,[3] and Hideo Nagashima[4] ([1]*Department of Chemistry, Graduate School of Science and Engineering, Tokyo Metropolitan University,* [2]*Institute of Industrial Science, The University of Tokyo,* [3]*Institute for Catalysis, Hokkaido Univeristy,* [4]*Institure for Materials Chemistry and Engineering, Kyushu University*)

P-077 **Synthesis of Iron(II) and Manganese(II) Complexes Bearing Supersilyl Ligands**
Shogo Arata and Yusuke Sunada (*Institute of Industrial Science, The University of Tokyo*)

P-078 **Theoretical Study of Methane Activation at the Dicopper Site of pMMO**
[ST-09] Yoshihito Shiota (*Institure for Materials Chemistry and Engineering, Kyushu University*)

P-079 **DFT and AFIR Study on the Mechanism and the Origin of Enantio- selectivity in Iron-Catalyzed Cross-Coupling Reactions**
Akhilesh K. Sharma[1], W. M. C. Sameera[2], Masayoshi Jin[3], Laksmikanta Adak[4], Chiemi Okuzono[4], Takahiro Iwamoto[4], Masako Kato[2], Keiji Morokuma[1], and Masaharu Nakamura[4] ([1]*FIFC, Kyoto University,* [2]*Hokkaido University,* [3]*Daiichi Sankyo Co., Ltd.,* [4]*IRCELS, ICR, Kyoto University*)

P-080 **Solution-Phase Structure of Homogeneous Organoiron Catalysts Illuminated by**
[ST-07] **Synchrotron X-ray Absorption Spectroscopy**
Hikaru Takaya,[1] Sho Nakajima,[1] Katsuhiro Isozaki,[1,2] Takahiro Iwamoto,[1,2] Nicholas J. Gower,[1] Takuji Hatakeyama,[1] Tetsuo Honma,[3] Masafumi Takagaki,[3] Yusuke Sunada,[4] Hideo Nagashima,[2,4] and Masaharu Nakamura[1] ([1]*Institute for Chemical Research, Kyoto University,* [2]*JST CREST,* [3]*JASRI, SPring-8,* [4]*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-081 **Iron-Catalyzed *anti*-Selective Carbosilylation of Internal Alkynes**
Takahiro Iwamoto,[1,2,3] Tatsushi Nishikori,[1,2] Naohisa Nakagawa,[1,2] Hikaru Takaya,[1,2] and Masaharu Nakamura[1,2], ([1]*International Research Center for Elements Science, Institute for Chemical Research, Kyoto University, Kyoto 611-0011,* [2]*Department of Energy and Hydrocarbon Chemistry, Graduate School of Engineering, Kyoto University,*)

P-082 **Iron-Catalyzed Amination Reactions for Organic Electronic Material Synthesis**
Yuma Aoki, Ryuji Imayoshi, Takuji Hatakeyama, Hikaru Takaya, and Masaharu Nakamura, (*IRCELS, ICR, Kyoto University*)

P-083 **C–H/Olefin Coupling of Aromatic Ketones Catalyzed by a Low-Valent Iron Complex**
Naoki Kimura, Takuya Kochi, Fumitoshi Kakiuchi (*Department of Chemistry, Faculty of Science and Technology, Keio University*)

P-084 **Photo-induced Coloring of ortho-Borylated 2-Phenylpyridines**
Yusuke Yoshigoe, Yoichiro Kuninobu (*Institute for Materials Chemistry and Engineering, Kyushu University*)

P-085 **Cobalt-Catalyzed Intramolecular Hydroacylation**
[ST-14] Naohiko Yoshikai (*Division of Chemistry and Biological Chemistry, School of Physical and Mathematical Sciences, Nanyang Technological University*)

P-086 **Cobalt-Catalyzed Ring-Opening Addition of Cyclopropanols to Internal Alkynes**
Junfeng Yang, Yixiao Shen, Yang Jie Lim, Naohiko Yoshikai (*Division of Chemistry and Biological Chemistry, School of Physical and Mathematical Sciences, Nanyang Technological University*)

P-087 ***para*-Selective Alkylation of Benzamides by Cooperative Nickel/Aluminum Catalysis**
[ST-13] Yoshiaki Nakao (*Department of Material Chemistry, Graduate School of Engineering, Kyoto University*)

P-088 **Self-Assembled Polymeric Copper Catalyst–Promoted Huisgen Cycloaddition**
[ST-03] Yoichi M. A. Yamada,[1] Hiroshi Yoshida,[1] Aya Ohno,[1] Takuma Sato,[1] Shaheen M. Sarkar,[1] Toshiaki Mase,[2] Yasuhiro Uozumi[1,2] (*[1]RIKEN Center for Sustainable Resource Science, [2]Institute for Molecular Science*)

P-089 **Ni-catalyzed Murahashi Coupling in Polystyrene Gel**
[ST-05] Nozomi Arima, Tomohiro Iwai, and Masaya Sawamura (*Department of Chemistry, Faculty of Science, Hokkaido University*)

P-090 **Vanadium Complex-catalyzed Enantioselective Synthesis of Oxa[9]helicenes**
Makoto Sako, Shinobu Takizawa, Hiroaki Sasai (*The Institute of Scientific and Industrial Research (ISIR), Osaka University*)

P-091 **Enantioselective C–C Bond Forming Reactions Catalyzed by a Vanadium Complex**
Makoto Sako, Takanori Aoki, Akimasa Sugizaki, Yuki Tamori, Shinobu Takizawa, Hiroaki Sasai (*The Institute of Scientific and Industrial Research (ISIR), Osaka University*)

P-092 **Slow surface plasmon polariton in plasmonic crystal waveguide**
Hikaru Saito[1], Naoki Yamamoto[2], Takumi Sannomiya[2] ([1]*Kyushu University*, [2]*Tokyo Institute of Technology*)

P-093 **Observation of non-radiative band-edge modes in plasmonic triangular lattices by electron energy-loss spectroscopy**
Daichi Yoshimoto, Hikaru Saito, Satoshi Hata (*Kyushu University*)

P-094 **Ferromagnetism Developed by Structural Defect in Fe-Al Alloy**
Youngji Cho[1], Yasukazu Murakami[1,2] ([1]*Department of Applied Quantum Physics and Nuclear Engineering, Kyushu University,* [2]*The Ultramicroscopy Research Center, Kyushu University*)

P-095 **Magnetic Flux Density Measurement from Grain Boundary in Nd-Fe-B Magnet**
Ryunosuke Sawada[1], Atsuko Sato[1], Yasukazu Murakami[1,2] ([1]*Department of Applied Quantum Physics and Nuclear Engineering, Kyushu University,* [2]*The Ultramicroscopy Research Center, Kyushu University*)

P-096 **Local crystal lattice strain of gold nanorods**
Kohei Aso[1], Jens Maebe[1,2], Tomokazu Yamamoto[1], Koji Shigematsu[1] and Syo Matsumura[1,3] ([1]*Department of Applied Quantum Physics and Nuclear Engineering, Kyushu University,* [2]*Department of Solid State Sciences, Ghent University, Belgium,* [3]*The Ultramicroscopy Research Center, Kyushu University*)

P-097 **Structural analysis of Au-Ru alloy nanoparticles by electron microscopy**
Tomokazu Yamamoto[1], Koji Shigemats[1], Quan Zhang[2], Kohei Kusada[2], Hiroshi Kitagawa[2], Syo Matsumura[1] ([1]*Department of Applied Quantum Physics and Nuclear Engineering, Kyushu University,* [2]*Division of Chemistry, Graduate school of Science, Kyoto University*)

P-098 **Electrochemical Performance of Condensed 9-Fluorenones For Na-ion Battery**
Akimasa Fujii[1], Masaki Furusawa[1], Seiko Fujiwara[1], Masato Ito[1], Shigeto Okada[1], Masahiro Abe[2] ([1]*IMCE, Kyushu University and* [2]*Nippon Kayaku Co. Ltd.*)

P-099 **Cr-Cu embedded CeO_2 as an efficient catalyst for CO-NO reaction**
[ST-02]
Hiroshi Yoshida, Taiki Hirakawa, Masato Machida (*Graduate School of Science and Technology, Kumamoto University*)

P-100 **High turnover TWC reactions over Novel Metal Honeycomb Catalyst consisting Rh**

overlayer structure

Satoshi Misumi,[1] Hiroshi Yoshida,[1,2] Satoshi Hinokuma,[1,2] Tesuya Sato,[1] Masato Machida[1,2] (*[1]Department of Applied Chemistry and Biochemistry, Kumamoto University, [2]Unit of Elements Strategy Initiative for Catalysts & Batteries, Kyoto University*)

P-101 **Metal-support Interaction as the Origin of Enhanced Catalytic Property in Pt/TiO_2**

[ST-01] Satoru Yoshizaki, Tomoo Takayama, Hajime Hojo, Hisahiro Einaga (*Department of Advanced Materials Science and Eignineering, Faculty of Enginerring Sciences, Kyushu University*)

P-102 **Friedel– Crafts Reaction of Indoles with Aldehydes Catalyzed by a Scandium Arylsulfonate Coordination Polymer**

Pennapa Tungjiratthitikan,[1] Hiroshi Furuno[2] (*[1]Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, [2]Green Asia Education Center, Kyushu University*)

P-103 **Cross-Coupling of Alkyl Halides with Aryl Grignard Reagents using Ferrate Salts**

Toru Hashimoto, Tsubasa Maruyama, Yoshitaka Yamaguchi (*Department of Advanced Materials Chemistry, Graduate School of Engineering, Yokohama National University*)

P-104 **Direct Catalytic Chemoselective Oxidative Cross-Enolate Coupling Reaction Via a Transient Homo-Coupling Dimer**

Takafumi Tanaka, Tsukushi Tanaka, Ryo Yazaki, Takashi Ohshima (*Graduate School of Pharmaceutical Sciences, Kyushu University*)

P-105 **Catalytic Oxidative α–Benzylation of Carboxylic Acid Equivalent**

Tsukushi Tanaka, Kayoko Hashiguchi, Takafumi Tanaka, Ryo Yazaki, Takashi Ohshima (*Graduate School of Pharmaceutical Sciences, Kyushu University*)

P-106 **Efficient Synthesis of Imines through Hydrogen Transfer Reaction by Combinational Use of Palladium and Iron Complexes**

Takamichi Mori[1], Kohei Ishikawa[1], Masanari Kimura[2], Makoto Hojo[1] (*[1]Faculty of Engineering, Tokyo University of Science, Yamaguchi, [2]Graduate School of Engineering, Nagasaki University*)

P-107 **Pincer-Type Mesoionic Carbene Complexes of Iron and Nickel for Catalysis**

[ST-10] Kouki Matsubara (*Department of Chemistry, Fukuoka University*)

P-108 **Isolation of Monomeric Nickel(I) Amide Intermediates in Catalytic Amination**

Takahiro Inatomi, Yuji Koga, Kouki Matsubara (*Department of Chemistry, Fukuoka*

University)

P-109 **Ni(II)-Catalyzed Direct Alcoholysis of Unactivated 8-Aminoquinoline Amides**
Toru Deguchi, Hai-Long Xin, Hiroyuki Morimoto, Takashi Ohshima (*Graduate School of Pharmaceutical Sciences, Kyushu University*)

P-110 **Catalytic Aerobic Chemoselective α-Oxidation of Acylpyrazoles**
Seiya Taninokuchi, Ryo Yazaki, Takashi Ohshima (*Graduate School of Pharmaceutical Sciences, Kyushu University*)

P-111 **Copper-Catalyzed Site-Selective Fluorinations of α-Bromoamides with CsF**
Sho Ishida, Takashi nishikata (*Graduate School of Sciences and Technology for Innovation, Yamaguchi University*)

P-112 **Copper-catalyzed tertiary-alkyl-nitrogen bond formations for the synthesis of unnatural aminoacid derivatives**
Kentaro Takeuchi[1], Syo Ishida[1], Nobuhiro Taniyama[2], Yusuke Sunada[2], Takashi Nishikata[1] ([1]*Graduate School of Sciences and Technology for Innovation, Yamaguchi University,* [2]*Institute of Industrial Science, Tokyo University*)

P-113 **Copper-catalyzed reductive borylations on water**
Chihiro Tanaka, Kimiaki Nakamura, Takashi Nishikata (*Graduate School of Sciences and Technology for Innovation, Yamaguchi University*)

P-114 **Copper-catalyzed Enantioselective Conjugate Adittion Using a Phosphinophenol Ligand**
Yuta Takata[1,2], Katsuji Ito[2], Hideo Nagashima[1] ([1]*Institure for Materials Chemistry and Engineering, Kyushu University,* [2]*Department of Chemistry, Fukuoka University of Education*)

P-115 **Stereoselective Formation of Trisubstituted Alkene via Alkynylborate**
[ST-06] Yuki Fujita, Tsutomu Fukuda, Gen Onodera, Masanari Kimura (*Graduate School of Engineering, Nagasaki University*)

P-116 **Enantioselective Hydrogenation of Quinoline and Isoquinoline Carbocycles**
[ST-04] Ryoichi Kuwano, Yushu Jin, Ryuhei Ikeda, Kazuki Hirasada, Yusuke Makida (*Department of Chemistry, Faculty of Science, Kyushu University*)

P-117 **Ruthenium-Catalyzed Asymmetric Oxidative Cross-Coupling of Naphthols and Phenols**
Hiroki Hayashi,[1] Takamasa Ueno,[2] Tatsuya Uchida[1,3] (*[1]Faculty of Arts and Science, Kyushu University, [2]Graduate School of Science, Kyushu University, [3]Institute for Carbon-Neutral Energy Research (WPI-I2CNER)*)

P-118 **Synthesis of benzodioxane derivatives from diazonaphthoquinones**
Tomoaki Nishimura, Kouta Otsuka, Hirokazu Shimooka, Tatsuo Okauchi, Mitsuru Kitamura (*Department of Applied Chemistry, Kyushu Institute of Technology*)

P-119 **Decarboxylation of Benzyl Fluorobenzoates with Palladium Catalysis**
Yusuke Makida, Yasuhiro Matsumoto, Ryoichi Kuwano (*Department of Chemistry, Faculty of Science, Kyushu University*)

P-120 **Synthesis of naphthofurans by Palladium-catalyze reaction of diazonaphthoquinones and alkynes**
Shuhei Takahashi, Tatsuo Okauchi, Mitsuru Kitamura (*Department of Applied Chemistry, Graduate School of Engineering, Kyushu Institute of Technology*)

P-121 **Silver-Catalyzed Efficient Synthesis of Oxindoles and Pyrroloindolines by α-Aminoalkylation of N-Arylacrylamides with Amino Acid Derivatives**
Kyalo Stephen Kanyiva,[1] Sohei Makino,[2] Takanori Shibata[2] (*[1]Global Center for Science and Engineering, School of Advanced Science and Engineering, Waseda University, [2]Department of Chemistry and Biochemistry, School of Advanced Science and Engineering, Waseda University*)

P-122 **Olefin Metathesis Polymerization Catalyzed by Homogeneous Tungsten Complexes having an *O*,*O*'-Chelate Ligand**
Shingo Shochiku,[1] Kosuke Katagiri,[2] Toshiyuki Oshiki[1] (*[1]Graduate School of Natural Science and Technology, Okayama University, [2]Graduate School of Natural Science, Konan University*)

P-123 **High Regio-, Diastereo- and Enantio-selective C–H Insertion**
Yuki Yamakawa,[1] Takashi Ikuta,[1] Hiroki Hayashi,[2] Tatsuya Uchida[2,3] and Tsutomu Katsuki[3] (*[1]Graduate School of Science, Kyushu University, [2]Faculty of Arts and Science, Kyushu University, [3]Institute for Carbon-Neutral Energy Research (WPI-I2CNER)*)

P-124 **Cobalt–Carbon Bond Formation Reaction via Ligand Reduction of Porphycene Cobalt(II) Complex**

Taro Koide,[1] Isao Aritome,[1] Tatsuya Saeki,[1] Yoshitsugu Morita,[2,3] Yoshihito Shiota,[2] Kazunari Yoshizawa,[2] Hisashi Shimakoshi,[1] Yoshio Hisaeda[1] (*[1]Graduate School of Engineering, Kyushu University, [2]Institute for Materials Chemistry and Engineering, Kyushu University, [3]Department of Applied Chemistry, Chuo University*)

P-125 **Green Catalysis of Hybrid Catalyst Composed of B12 Derivative and Semiconductor**

[ST-11] Hisashi Shimakoshi, Yoshio Hisaeda (*Department of Chemistry and Biochemistry, Graduate School of Engineering Kyushu University*)

P-126 **Hydroxylation of Benzene to Form Phenol via μ_3-Benzyne Complex**

Hiroki Chikamori, Atsushi Tahara, Toshiro Takao (*School of Material and Chemical Technology, Tokyo Institute of Technology*)

P-127 **Two Discrete Binding Modes of RuCp* Cation to N-Confused Porphyrins**

Masatoshi Ishida, Takaaki Yamamoto, Koki Mitsuno, Hiroyuki Furuta (*Department of Chemistry and Biochemistry, Graduate School of Engineering, Center for Molecular Systems, Kyushu University*)

P-128 **Nitrite Reduction to Ammonia on a Dinuclear Ruthenium Complex**

[ST-08] Yasuhiro Arikawa, Yuji Otsubo, Hiroki Fujino, Shinnosuke Horiuchi, Eri Sakuda, Keisuke Umakoshi (*Division of Chemistry and Materials Science, Graduate School of Engineering, Nagasaki University*)

P-129 **Molecular Gear Engineering: Concerted Rotation of Molecular Spur and Bevel Gears**

Yoshitaka Tsuchido, and Kohtaro Osakada (*Laboratory for Chemistry and Life Science, Institute of Innovative, Tokyo Institute of Technology*)

P-130 **Mechanism of highly selective olefin polymerization by metallocene catalyst: computational approach**

Yuuichi Orimoto[1], Satoru Shirane[2], Yuriko Aoki[1,3] (*[1]Department of Material Sciences, Faculty of Engineering Sciences, Kyushu University, [2]Department of Molecular and Material Sciences, Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, [3]Japan Science and Technology Agency, CREST, Japan*)

P-131 **Bifunctional Thiourea-Quaternary Phosphonium Salts Catalyzed Enantioselective Protonation of Alkenyl Esters**

Gaku Teshima, Yusuke Mori, Yuki Hidani, Eiji Yamamoto, Makoto Tokunaga (*Department of Chemistry, Kyushu University*)

P-132 **Hydrogen-Bonding Catalysis of Alkyl-onium Salts**

Seiji Shirakawa (*Graduate School of Fisheries and Environmental Sciences, Nagasaki University*)

P-133 **Stereochemical Study of Pyrrole-containing Aza-heterohelicenes**

[ST-12]

Sachie Arae[1], Takaaki Mori[2], Taishi Imazato[2], Shotaro Nakano[2], Nobutsugu Hamamoto[2], Hitoshi Fujimoto[1], Kazunobu Igawa[3], Katsuhiko Toooka[3], Ryo Irie[1] (*[1]Faculty of Advanced Science and Technology, Kumamoto University, [2]Graduate School of Science and Technology, Kumamoto University, [3]Institute for Materials Chemistry and Engineering, and IRCCS, Kyushu University*)

P-134 **Dynamic Stereochemical and Coordinational Properties of BINIQ**

Takahiro Kawatsu[1], Sachie Arae[2], Kazunobu Igawa[3], Katsuhiko Tomooka[3], Ryo Irie[*2] (*[1]Graduate School of Science and Technology, Kumamoto University, [2]Faculty of Advanced Science and Technology, Kumamoto University, [3]Institure for Materials Chemistry and [3]Engineering, and IRCCS, Kyushu University*)

P-135 **Synthetic studies of C-linked disaccharide analogues based on radical coupling**

Yu Hidaka, Noriaki Kiya, Kazuteru Usui, Go Hirai (*Graduate School of Pharmaceutical Sciences, Kyushu University*)

P-136 **Synthesis of Unique Right-Side Structure of Physalins**

Yuki Morita[1], Manuel Gemander[2], Masaki Morita[1], Mikiko Sodeoka[2,3,4], and Go Hirai[1,2] (*[1]Graduate School of Pharmaceutical Sciences, Kyushu University, [2]Synthetic Organic Chemistry Laboratory, RIKEN, [3]RIKEN CSRS, [4]AMED-CREST*)

P-137 **Synthetic Studies Towards the Total Synthesis of Amphidinol 3**

Yuma Wakamiya, Makoto ebine, Tohru Oishi (*Department of Chemistry, Faculty and Graduate School of Science, Kyushu University*)

P-138 **Synthetic Study of Hawaiimycin Analogs**

Yemba Baruti, Kohei Torikai, Makoto Ebine, Tohru Oishi (*Department of Chemistry, Faculty and Graduate School of Science, Kyushu University*)

P-139 **Specific Sensor Molecules for 8-oxo-dGTP in Aqueous Media using Cyclen-Metal Complexes**

Yasufumi Fuchi, Takashi Fukuda, Shigeki Sasaki (*Graduate School of Pharmaceutical*

Sciences, Kyushu University)

P-140 Development of Peptide-tag/Probe Pair for Selective Protein Conjugation and Its Application to Fluorescence Bioimaging

Nobutaka Kurashige[1], Hirokazu Fuchida[1], Shigekazu Tabata[2], Shohei Uchinomiya[1], Akio Ojida[2] ([1]*Graduate School of Pharmaceutical Sciences, Kyushu University,* [2]*IST Austria*)