Program

November 16 (Mon)

Room A

16:00-16:30 ***Opening Ceremony***
Chair: Kenji Matsuda
Opening Remarks/Addresses

16:30-16:45 ***IKCOC Prize Ceremony***
Prize Winner: Eric N. Jacobsen
Presenter: Masahiko Yoshida

16:45-17:45 **OL** ***Opening Lecture (IKCOC Prize Lecture)***
Eric N. Jacobsen
Selectivity, Generality, and Cooperativity in Enantioselective Catalysis
Chair: Fumitoshi Kakiuchi

17:45-20:00 ***Reception*** *(Rooms B and C)*

November 17 (Tue)

Room A

9:00-10:00 **PL-1** **Erick M. Carreira**
New Strategies and Tactics for Synthesis: Merging Total Synthesis and Methodology
Chair: Naoto Chatani

–Coffee Break–

10:30-11:10 **IL-01** **Jinbo Hu**
Harnessing Fluorine Magic: Toward Precise Synthesis and Diverse Applications of Organofluorine Molecules
Chair: Hideki Amii

11:10-11:50 **IL-02** **Ruben Martin**
Catalytic Site-Selective Modification of Macrocyclic Architectures
Chair: Yasushi Nishihara

11:50-12:30 **IL-03** **Abigail G. Doyle**
Data Science Tools for Chemical Synthesis
Chair: Tsuyoshi Mita

–Lunch–

14:00-14:40 **IL-04** **C. Oliver Kappe**
Greening the Synthesis of Peptides – Water as Reaction Medium and Mechanochemical Approaches in Batch and Flow Mode
Chair: Justin Du Bois

14:40-15:20 **IL-05** **Satoshi Obika**
Development of Novel Artificial Nucleic Acids for Oligonucleotide Therapeutics
Chair: Xiaoguang Lei

15:20-16:00 **IL-06** **Ryan Shenvi**
Attempts to Deliver on the Promise of Natural Products
Chair: Junichiro Yamaguchi

16:00-16:40 **IL-07** **Xiaoguang Lei**
Opportunities for Merging Chemical and Biological Synthesis
Chair: Hiroki Oguri

Room B

Chair: Akihiro Orita

10:30-10:45 **OP-01** **Tomoyuki Ikai, Hayato Inagaki, Kosuke Oki, Masaya Yoshida, Jenny Pirillo, Yuh Hijikata, Eiji Yashima**
Cooperative Helicity Induction in a Dynamic Poly[4]helicene Nanoribbon

10:45-11:00 **OP-02** **Fumitaka Ishiwari, Kazuharu Murotani, Akinori Saeki**
Homochiral Bifacial Ladder Polymers: Chirality-Assisted Synthesis, Self-Assembly, and Chirality-Induced Spin Selectivity

11:00-11:15 **OP-03** **Daiki Shimizu, Takeru Yamada, Tomohito Shinozuka, Kenji Matsuda**
Ground-State Baird Aromaticity in a Kekulé-Type Diradical with a Tailored High-Spin State

11:15-11:30 **OP-04** **Jakub Koudelka, Timothée Cadart, Martin Kotora**
[2.2]Paracyclophane-1,2-azaboroles as CPL Emitters

Chair: Kazuo Tanaka

11:30-11:45 **OP-05** **Yosuke Tani**
Controlling and Exploring Fast Radiative Decay Rates: From Phosphors to Fluorophores

11:45-12:00 **OP-06** **Chihiro Maeda, Sayaka Michishita, Issa Yasutomo, Ken Tanaka, Tadashi Ema**
Synthesis and Chiroptical Properties of Carbazole-Based Helical Nanographenes

12:00-12:15 **OP-07** **Kotohiro Nomura, Sirilak Mekcham, Kanticha Jaiyen, Moe Unoki, Jirapa Suthala**
(Arylimido)Vanadium–Alkylidene Catalysts for Stereospecific Synthesis of Bottlebrush Polymers through ROMP and Efficient Ring-Closing Metathesis

12:15-12:30 **OP-08** **Takanori Iwasaki, Yuto Yamada, Shinji Tanaka, Kyoko Nozaki**
Chemoselective Hydrogenolysis of Urethanes to Formamides and Alcohols and Its Application to Chemical Recycling of Polyurethanes

–Lunch–

Chair: Masato Ohashi

14:00-14:15 **OP-09** **Xiao Shen**
Silicon Effect-Directed Synthesis of Organofluorine Compounds

14:15-14:30 **OP-10** **Gavin Chit Tsui**
A Perfluoroalkylation-Defluorination Strategy for Accessing Emerging Fluorinated Motifs

14:30-14:45 **OP-11** **Tatsuhiro Uchikura, Minami Tanaka, Takahiko Akiyama**
Visible-Light-Driven Photocatalytic Utilization of Sulfur Hexafluoride (SF_6) as a Pentafluorosulfanyl (SF_5) Radical Source

14:45-15:00 **OP-12** **Muhammet Uyanik, Takaharu Morino, Takehiro Kato, Kazuaki Ishihara**
Sequential Cu/Amine Catalysis for Aerobic Generation and Regio-, Site- and Enantioselective Dimerization of *ortho*-Quinone Methides

15:00-15:15 **OP-13** **Norbert Krause, Laura Sassenscheidt, Katharina Terhorst, Hülya Sak**
Synthesis and Application of Various Differently Substituted Cyclodextrin-Based NHC-Gold(I) Catalysts in Organic Solvents and in Water: A Comparative Study

Chair: Hirohisa Ohmiya

15:15-15:30 **OP-14** **Taiga Yurino, Zhen Wu, Takeshi Ohkuma**
Ru–Li Catalyzed Asymmetric Cyanosilylation of 2-Acylpyridine Derivatives

15:30-15:45 **OP-15** **Hiromichi Egami, Masashi Fujita, Kaichi Watanabe, Riku Osanai, Kenji Yamashita, Yoshitaka Hamashima**
Thiobenzoic Acid-Catalyzed Regioselective Functionalization of Allylamines via Hydrogen Atom Transfer under Visible Light Irradiation

15:45-16:00 **OP-16** **Yusuke Masuda, Yu Harabuchi, Aoma Yoshida, Itsuki Kondo, Satoshi Maeda, Masaya Sawamura**
Photocatalytic *P*-Dealkylation of Tertiary Phosphines through Formal β-Hydrogen Elimination at Phosphorus

16:00-16:15 **OP-17** **Shintaro Okumura, Shusuke Hattori, Aya Tazawa, Lisa Fang, Yasuhiro Uozumi**
A Diazabenzacenaphthenium Photoredox Catalyst for Multielectron Reduction of Esters and Amides

16:15-16:30 **OP-18** **Ayumi Osawa, Kento Uemura, Yoshiaki Nakao**
Denitrative Cyanation of Nitroalkanes by Nucleophilic Substitution through Anion–Radical Coupling

16:40-18:40 Poster Session A (Room C, Room D, Room E and Room F)
PA(C)-01-PA(C)-85 (Room C)
PA(D)-01-PA(D)-46 (Room D)
PA(E)-01-PA(E)-62 (Room E)
PA(F)-01-PA(F)-58 (Room F)

November 18 (Wed)

Room A

9:00-10:00 **PL-2** **Timothy M. Swager**
Exploring π-Conjugated Materials Seeking Large Magneto-Optical Responses
Chair: Shigehiro Yamaguchi

–Coffee Break–

10:30-11:10 **IL-08** **Oliver S. Wenger**
Molecular Design Principles for Unconventional Photophysics and Photochemistry
Chair: Kenji Matsuda

11:10-11:50 **IL-09** **Oliver Dumele**
Organic Spin-State Photoswitches
Chair: Aiko Fukazawa

11:50-12:30 **IL-10** **Wei Zhang**
Unlocking Innovative Crystalline Polymer Architectures with Dynamic Covalent Chemistry
Chair: Ichiro Hisaki

–Lunch–

14:00-14:40 **IL-11** **Chunyan Chi**
Shaping Molecular Carbons: Synthesis, Aromaticity, and Electronic Properties
Chair: Takashi Kubo

14:40-15:20 **IL-12** **Debabrata Maiti**
Unlocking New Chemical Space via Selective Catalysis
Chair: Hideki Yorimitsu

15:20-16:00 **IL-13** **Shunsuke Chiba**
Skeletal Remodeling of Azaheteroarenes
Chair: Masahiro Terada

16:00-16:40 **IL-14** **Daniel J. Weix**
New Electrophiles, Strategies, and Catalysts for Cross-Electrophile Coupling
Chair: Yoshiaki Nakao

Room B

Chair: Jun Takaya

10:30-10:45 **OP-19** **Kazunori Nagao, Ryoto Oya, Hinata Sato, Hirohisa Ohmiya**
Para-Selective C–H Alkylation of Aroyl Chlorides through Organic Photoredox-Catalyzed Radical *tele*-Substitution

10:45-11:00 **OP-20** **Yuki Nagashima**
Long-Wavelength Light-Induced Hydrofunctionalizations of Alkenes/Alkynes through Vibrational States

11:00-11:15 **OP-21** **Akari Yamada, Sayaka Yamamoto, Midori Kobayashi, Bubwoong Kang**
Thiol-Enabled Scalable Ambient-Pressure Kolbe–Schmitt Reaction

11:15-11:30 **OP-22** **Ana Mikleušević, Ines Bašić, Mateja Matišić, Josip Rešetar, Matija Gredičak**
Phase-Transfer-Catalyzed Interrupted Barton–Zard Reaction between Electron-Deficient Indoles and Benzophenone-Derived Isocyanides

Chair: Fumitoshi Shibahara

11:30-11:45 **OP-23** **Paulo. H. S. Paioti**
Catalytic Substitutions Promoted by Anions and Base-Embedding Electrophiles: Synthesis of Hindered Bonds from Weakly Acidic Pronucleophiles

11:45-12:00 **OP-24** **Keigo Sonokawa, Kiyosei Takasu, Yusuke Kuroda**
Polymer-Based Adaptive Catalyst for Monoacylation of Diols

12:00-12:15 **OP-25** **Tatsuhiko Yoshino, Rina Katsuta, Takayuki Watanabe, Keitaro Matsuoka, Keito Watanabe, Kosuke Higashida, Shigeki Matsunaga**
Activation of Tertiary Sulfonamides with Alkyl-λ^3-Iodanes

12:15-12:30 **OP-26** **Shigeru Yamaguchi**
Data Integration in Chiral Catalyst Design with the Data-Driven Molecular Catalyst Design System

–Lunch–

Chair: Yoshiyuki Manabe

14:00-14:15 **OP-27** **Tuan-Khoa Kha, Song Chen, Thi Thao Nhung Nguyen, Tingyao Zhang, Ru-Yi Zhu**
Site-Selective RNA Acylation via Proximity-Driven Catalysis

14:15-14:30 **OP-28** **Mina Yamane, Haruki Kobori, Moe Toyobe, Motomu Kanai**
Catalytic Depyrimidination towards Deconstructive Functionalization of RNA

14:30-14:45 **OP-29** **Chien-Wei Chiang**
Bio-Inspired Photoelectrocatalysis for Selective C–N Bond Formation and Bioconjugation

14:45-15:00 **OP-30** **Simon J. Cooper, Pingyu Jiang, Said Byadi, Mingoo Jin, Pavel Sidorov, Tsuyoshi Mita, Hiroki Hayashi**
Intramolecular Hydride Transfer Racemization Coupled with Enzymatic Kinetic Resolution Enables Asymmetric Syntheses of Caged Compounds

15:00-15:15 **OP-31** **Chittreeya Tansakul, Nattawut Decha, Sasikan Boonsanong, Jinut Meesane, Jitnapa Sirirak, Soraya Pornsuwan, Apichai Pornchai, Dhassida Sooksawat, Jutakan Thonglam, Supattra Kaewtaro**
Profluorescent Nitroxides: A Multifunctional Platform for Sensing Redox Biomolecules and Reactive Oxygen Species

Chair: Tsuyoshi Saitoh

15:15-15:30 **OP-32** **Krishnagopal Maiti, Jasper S. Dumalaog, Chiao-Chu Ku, Cheng-Hsiu Chang, Shang-Cheng Hung**
Synthesis of Heparan Sulfate Hexadecasaccharides and Their Molecular Interaction with Mycobacterial Heparin-Binding Hemagglutinin for Detection of *Mycobacterium Tuberculosis*

15:30-15:45 **OP-33** **Yuta Maki, Shintaro Yamaguchi, David Sarabia-Castillo, Ryo Okamoto, Kohtaro Hirao, Yasuhiro Kajihara, Bradely L. Pentelute**
Direct Flow-Based Chemical Synthesis of Homogeneous Glycoproteins

15:45-16:00 **OP-34** **Shota Nagasawa, Daigo Ninomiya, Yuse Kuriyama, Eunsang Kwon, Yoshiharu Iwabuchi**
Skeletal Remodeling of a Clovane-Type Skeleton Enables Enantiocontrolled Unified Total Syntheses of Silphiperfolane-Type Angular Triquinane Terpenoids

16:00-16:15 **OP-35** **Tetsuro Shinada, Eigo Fukuda, Seiya Endo, Atsushi Nakayama, Yoko Yasuno**
Integrated Chemoenzymatic Synthesis of Functional Group-Enriched Compounds Using Bacterial Terpene Cyclase

16:15-16:30 **OP-36** **Masayuki Takamatsu, Jumpei Ueno, Koki Mayusumi, Atsushi Shimoyama, Kazuya Kabayama, Tadashi Watabe, Kazuko Kaneda-Nakashima, Yoshifumi Shirakami, Yuichiro Kadonaga, Taku Yoshiya, Masashi Murakami, Kazuhiro Ooe, Atsushi Toyoshima, Hiromitsu Haba, Jens Cardinale, Frederik Lars Giesel, Koichi Fukase**
Molecular Design, Synthesis, and Evaluation of Astatine-211–Labeled Peptide Ligands for Fibroblast Activation Protein-Targeted Alpha Therapy

16:40-18:40 Poster Session B (Room C, Room D, Room E and Room F)

PB(C)-01–PB(C)-90 (Room C)
PB(D)-01–PB(D)-46 (Room D)
PB(E)-01–PB(E)-62 (Room E)
PB(F)-01–PB(F)-58 (Room F)

November 19 (Thu)

Room A

9:00-9:40 **IL-15** **Robert J. Gilliard, Jr.**
Borenium Ions and More: Molecular Design of Functional Organic Materials
Chair: Thomas Baumgartner

9:40-10:20 **IL-16** **Daniel T. Gryko**
1,4-Dihydropyrrolo[3,2-*b*]pyrrole and Dipyrrolonaphthyridinedione – Novel Building Blocks for Optoelectronics
Chair: Hiroshi Shinokubo

Chair: Daniel T. Gryko

10:20-10:35 **OP-37** **Yugo Takara, Ma-aya Takano, Hai Dang Nguyen, Manabu Abe**
Quantum Spin Manipulation Effect on Photouncaging: Controlling Cage Recombination and Bond Cleavage

10:35-10:50 **OP-38** **Farnaz Rezaei, Thomas Baumgartner**
Incorporating Dithienophosphole into Quinoidal Frameworks: Toward Redox-Driven Aromaticity Recovery and NIR Absorption

Chair: Atsushi Shimoyama

10:50-11:05 **OP-39** **Victor Flon, Coralie Pavesi, Soizic Prado, Xavier Franck**
Reactivity-Based Screening for the Discovery of New Natural Products

11:05-11:20 **OP-40** **Tsuyoshi Saitoh, Keita Kajino, Tomoya Sugai, Tomoya Kakumoto, Ryoji Kise, Riko Suzuki, Akihisa Tokuda, Yuki Sekiya, Risako Katamoto, Noriki Kutsumura, Yasuyuki Nagumo, Takatsugu Hirokawa, Asuka Inoue**
Structure–Signaling Relationships of the δ-Opioid Receptor Agonist KNT-127

11:20-11:35 **OP-41** **Yuto Sumida, Rikako Nakamura, Takeru Yamazaki, Satoshi Arai, Hirohisa Ohmiya**
Water-Soluble, Visible-Light-Responsive Caged Compounds Based on Borate Complexes

11:35-11:50 **OP-42** **Yoshiyuki Manabe, Ayane Miura, Asuka Shirakawa, Hiroki Shomura, Soichiro Okamura, Kazuya Kabayama, Kenichi Suzuki, Koichi Fukase**
HaloTag-Based De Novo Display of Synthetic Glycans on the Cell Surface for Functional Analysis of Cell-Surface Glycans

–Lunch–

13:10-13:50 **IL-17** **Justin Du Bois**
Chemical Technologies for Studies of Ion Channel Physiology
Chair: Itaru Hamachi

13:50-14:30 **IL-18** **M. Carmen Galan**
From Synthesis to Applications: Synthetic Glyco-Tools for Exploring and Exploiting the Glycome
Chair: Hiromune Ando

–Coffee Break–

15:00-16:00 **PL-3** **Hiroaki Suga**
Genetic Code Reprogramming by Flexizymes that Revolutionizes Peptide Therapeutics
Chair: Koichi Fukase

16:00-16:15 ***Closing Remarks***

Room B

Chair: Masanari Kimura

9:00-9:15 **OP-43** **Jen-Chieh Hsieh**
Denitrogenative Transannulation Reactions of 1,2,3,4-Benzothiatriazin-1,1(2*H*)-Dioxides and 1,2,3-Benzotriazin-4(3*H*)-ones with Multiple-Bond Containing Species

9:15-9:30 **OP-44** **Azusa Kondoh, Hirochika Suzuki, Masahiro Terada**
Copper-Catalyzed Cross-Coupling Reaction of Allenylphosphates with Alkylboranes

9:30-9:45 **OP-45** **Simon B. Blakey**
The Remarkable Impact of "Nitrene"-Precursor Structure on Reaction Outcome in Rh-Catalyzed Olefin Amination Reactions

Chair: Masamichi Ogasawara

9:45-10:00 **OP-46** **Franz-Lucas Haut**
Sulfur-Directed Cyclopropanation of 1,3-Dienes

10:00-10:15 **OP-47** **Kosuke Yasui, Yuichiro Tomishima, Tomoya Miura, Ken Yamazaki, Koji Hirano**
Cross-Coupling of Alkenyl Sulfoximines for Stereodivergent Synthesis of Trisubstituted Alkenes

10:15-10:30 **OP-48** **Sung You Hong**
Mechanistically-Guided Nickel Catalysis via Reactive Intermediate Studies

10:30-10:45 **OP-49** **Kazuma Abe, Koki Nishi, Hirokazu Ito, Shoma Kobayashi, Shumpei Saito, Takeshi Hata**
Iron/Chiral NHC-Catalyzed Asymmetric 1,6-Addition of Aliphatic Grignard Reagents to α,β,γ,δ-Unsaturated Carbonyl Compounds

Chair: Norbert Krause

10:45-11:00 **OP-50** **Takeru Torigoe, Akika Kon, Yuri Ishizaki, Toshimichi Ohmura**
Ir/PNSi Catalyst for C(sp^3)–H-Selective Borylation of *para*-Substituted Alkylarenes

11:00-11:15 **OP-51** **Philip W. H. Chan**
Exploiting *N*-Centred Radical Species for C(sp^3)–H Bond Functionalisation

11:15-11:30 **OP-52** **Masakazu Nambo, Alannah M. Constable, Roberto Nolla-Saltiel, Ryusei Ohkura, Zachary T. Ariki, Yasuyo Tahara-Tezuka, Daisuke Yokogawa, Cathleen M. Crudden**
Olefins as Traceless Directing Groups in Ni-Catalyzed Remote Suzuki-Miyaura Cross-Coupling of Tertiary Benzylic Sulfones

11:30-11:45 **OP-53** **Jun Shimokawa**
Taming Silicon Electrophilicity: Toward Programmable Organosilicon Synthesis

–Lunch–

Chair: Eiji Shirakawa

13:15-13:30 **OP-54** **Naoki Shida, Su-Gi Chong, Hayata Yamamoto, Takuma Maekawa, Shinsuke Inagi, Mahito Atobe**
Single-Carbon Insertion into Aryl–Thiophene Bonds via a Two-Electron Redox Process

13:30-13:45 **OP-55** **Koichi Mitsudo, Sakura Kinjo, Yasuyuki Okumura, Seiji Suga**
Electrochemical Synthesis of Benzo[*b*]phosphole Oxides via Dehydrogenative Annulation Using DABCO as a HAT Mediator

13:45-14:00 **OP-56** **Toshiki Nokami, Kazuki Kodani, Aoi Hayashi, Mayuko Imamura, Hirofumi Endo, Norihiko Sasaki, Aiichiro Nagaki**
Nickel-Catalyzed Coupling Reactions in the Presence of Metal-Carbon Laminates as Novel Reducing Agents

Chair: Tomoki Ogoshi

14:00-14:15 **OP-57** **Chan-Yu Chen, Hongxia Zhao, Andrew C.-H. Sue, Kai-Chi Chang**
Selective Detection of Hg^{2+} in Aqueous Media Using Functionalized Pillar[5]arene-Based Chromogenic Sensors

14:15-14:30 **OP-58** **Hiroshi Naka, Sei Murayama**
Synthesis, Structure, and Properties of Trapacycles

–Coffee Break–

18:30-20:30 ***Banquet (Room A)***