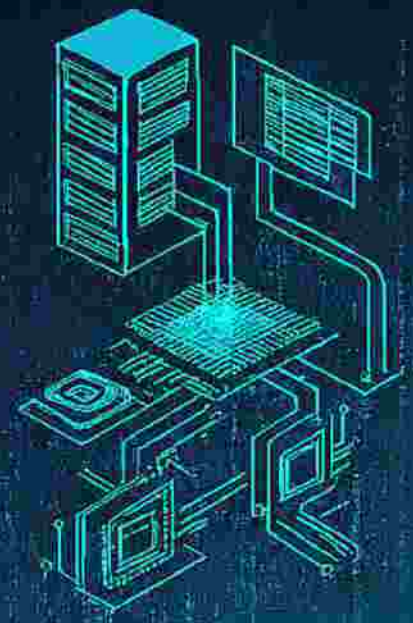
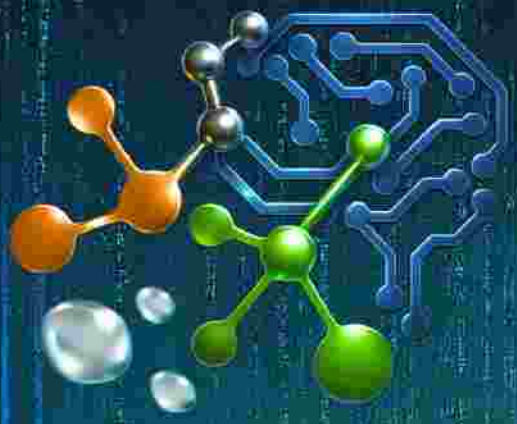
7th Conference on Advanced Organic Synthesis (CAOS-7)

&

Digitalization-driven Transformative Organic Synthesis 5th in Taiwan (Digi-TOS-5 in Taiwan)

JOINT INTERNATIONAL SYMPOSIUM





January 9 – 11, 2026

National Yang Ming Chiao Tung University

Hsinchu, Taiwan

Time Table

January 9 (Fri) (Day 1)

14:30 - ***Reception***

Chairman: Yen-Ju Cheng (NYCU)

15:00-15:25 (S1) **Takashi Ohshima** (Kyushu University)
"Digitalization-driven Transformative Organic Synthesis (Digi-TOS)"

15:25-15:50 (S2) **Yi-Lin Wu** (NYCU)
"Mechanism-Guided Design of a Bioorthogonal Reaction Platform: Controlling Reactivity and Selectivity in TAMM–Aminothiol Chemistry"

15:50-16:15 (S3) **Seiji Suga** (Okayama University)
"Electro-organic Transformations on the Flow Systems"

--- Break---

Chairman: Takashi Ohshima

16:30-16:55 (S4) **Cheng-Chung Wang** (Academia Sinica)
"Statistical Analysis: A New Perspective on Stereoselective Glycosylation"

16:55-17:20 (S5) **Makoto Yasuda** (The University of Osaka)
"Machine Learning-Guided Design of Reactive Species and Catalysts for Selective Organic Transformations"

17:20-17:45 (S6) **Wei-Yu Lin** (Kaohsiung Medical University)
"Sustainable Approaches to Selective Amide Bond Cleavage"

Dinner --- 18:30 Ho Hotel

January 10 (Sat) (Day 2)

Chairman: Makoto Yasuda

8:30-8:45 (S7) **Takashi Koike** (Nippon Institute of Technology)
"Generation and Reaction of Fluoroalkyl Radicals from Fluorinated Alkyl Benzoates by Photoredox Catalysis"

8:45-9:00 (S8) **Tomoyuki Miyao** (Nara Institute of Science and Technology)
"In-silico Models for Reactivity Parameter Prediction"

9:00-9:15 (S9) **Masaru Kondo** (University of Shizuoka)
"Bayesian Optimization-Assisted Multiparameter Screening of Flow Reaction Conditions"

9:15-9:30 (S10) **Mikito Fujinami** (Waseda University)
"Integration of Computer Vision and Digital Technologies for Automated Recording of Chemical Experiments"

9:30-9:45 (S11) **Yusuke Masuda** (Hokkaido University)
"Mechanistic Insights into Organophosphorus Radical Reactions Enabled by Combined Computational and Experimental Approaches"

9:45-10:10 (S12) **Hsiao-Ching Yang** (National Tsing Hua University)
"*Decoding MOF Proton-Driven Coordination and Nucleation Pathway via In Situ SWAXS and Molecular Dynamics Simulations"*

--- Break---

Chairman: K. K. Tony Mong

10:20-10:35 (S13) **Kensuke Kiyokawa** (The University of Osaka)
"Synthesis of Aminobenziodoxolones and Their Application to Oxidative Amination of Arylboronic Acids"

10:30-10:45 (S14) **Tomoya Miura** (Okayama University)
"Synthetic Transformations of 1,1-Di(boryl)propene Starting from Propyn"

10:45-11:00 (S15) **Hidetoshi Noda** (Institute of Microbial Chemistry)

"A Catalyst Design for Selective Nitrene Transfers"

11:00-11:15 (S16) **Yuichiro Mutoh** (RIKEN)
"Transient η6-Coordination Enables Borylation of Arenes"

11:15-11:30 (S17) **Makoto Sako** (The University of Osaka)
"Development of Chiral Borinic Acid Catalysts and Their Applications to Enantioselective Reactions"

11:30-11:50 (S18) **Gary Jing Chuang** (Chung Yuan Christian University)
"Exploring the Reactivities of Bicyclo[2.2.2]octenones: From Solution to Solid"

--- Group Photo, Lunch & Poster Session ---

Chairman: Mahito Atobe

13:15-13:30 (S19) **Takafumi Yatabe** (The University of Tokyo)
"Product-Selective Dehydrogenative Aromatization Enabled by Supported Metal Nanoparticle Catalysts"

13:30-13:45 (S20) **Miho Hatanaka** (Keio University)
"Theoretical and Data-Driven Approaches to Lanthanide Photofunctional Materials"

13:45-14:00 (S21) **Hiroshi Ikeda** (Osaka Metropolitan University)
"Machine Learning-assisted Design and Characterization of Dithienobenzothiazole-Based Organic Semiconductors"

14:00-14:15 (S22) **Junichiro Yamaguchi** (Waseda University)
"Heteroaromatic Swapping and Stereoediting of Benzylic Alcohols"

14:15-14:30 (S23) **Shinya Shiomi** (Tokushima Bunri University)
"Formal Umpolung Synthesis of α-Branched Amides and Its Application to the Synthesis of MR16728"

14:30-14:45 (S24) **Yuki Nagashima** (The University of Tokyo)
"Computationally guided development of photoreactions using electropositive elements"

--- Break & Campus Walk ---

Chairman: Sung Hui-Ling

15:45-16:00 (S25) **Yuto Sumida** (Institute of Science Tokyo)

"Photoinduced PCET-mediated C–C bond cleavage enaibling bond-reorganization"

16:00-16:15 (S26) **Tsuyoshi Mita** (Hokkaido University)
"Harnessing the CO2 Radical Anion for Molecular Scaffold Construction"

16:15-16:30 (S27) **Takanori Iwasaki** (Kyushu University)
"Stable Yet Lewis-acidic Anions enabling Cooperative Catalysis with Cationic Transition Metal Complexes"

16:30-16:45 (S28) **Yuki Saito** (The University of Tokyo)
"SiO2 Supported BArF as a Versatile Platform for Chiral Ir(I) Catalyzed Asymmetric Hydrogenations"

16:45-17:00 (S29) **Naoki Noto** (Nagoya University)
"Transfer learning across different photoreactions"

17:00-17:15 (S30) **Naoto Yamasaki** (Nagoya University)
"Efficient Synthesis of Cyclic (RGDfK) Using Microflow Reactor"

17:15-17:30 (S31) **Yoichi Hoshimoto** (The University of Osaka)
"Triarylborane Catalysis with Crude H2"

17:30-17:45 (S32) **Toshiyuki Itoh** (Kanazawa University)
"Design of Extremely Hygroscopic Ionic Liquids for The Liquid Desiccant-Type Air Conditioner"

--- Dinner --- 19:00 菜園

January 11 (Sun) (Day 3)

Chairman: Kiyosei Takasu

08:30-08:45 (S33) **Jun Takaya** (Osaka University)
"Exploring Photochemistry of Boron-Based Frustrated Lewis Pairs"

08:45-09:00 (S34) **Hiroyuki Miyamura** (National Institute of Advanced Industrial Science and Technology)
"Development of Highly Active Heterogeneous Bimetallic Nanoparticle Catalysts for Selective Hydrogenation and Its Application to Integrated Continuous-flow Organic

	Synthesis"
09:00-09:15	(S35) **Nobuyuki Mase** (Shizuoka University) *"Synthesis of novel plant hormones: Fine bubble and flow technology for fairy chemicals"*
09:15-09:30	(S36) **Yoichi M. A. Yamada** (RIKEN) *"Nano-Structured Heterogeneous Catalysts in Batch and Flow"*
09:30-09:45	(S37) **Takayuki Doi** (Tohoku University) *"Synthtetic Study for Neothioviridamide via the Formation of (Aminovinyl)- methylcysteine through Photocatalytic Oxidative Decarboxylation"*
09:45-10:00	(S38) **Keisuke Fukaya** (Toyama Prefectural University) *"Computationally Guided Total Syntheses of Dimeric Pyrrole–Imidazole Alkaloids"*
10:00-10:15	(S39) **Yuya Kakiuchi** (The University of Osaka) *"Discerning Reactivity of Metal-Nitrogen Multiple Bonds from15N Solid-state NMR Spectroscopy"*

--- Break---

Chairman: Takayuki Doi

10:30-10:45	(S40) **Koji Oohora** (The University of Osaka) *"Artificial Enzymes Containing Non-natural Active sites"*
10:45-11:00	(S41) **Tomoko Yajima** (Ochanomizu University) *"Visible light induced perfluoroalkylation of phenols"*
11:00-11:15	(S42) **Ken-Ichiro Sotowa** (Kyoto University) *"Development and Application of Modular Automated Experimental System"*
11:15-11:30	(S43) **Mahito Atobe** (Yokohama National University) *"Amido Bond Formation by Electrocatalytic Oxidation of Hemiaminals at Gold Electrodes"*
11:30-11:45	(S44) **Ryosuke Kojima** (Kyoto University) *"Towards chemical reaction foundation model and synthetic route prediction tool"*
11:45-12:00	(S45) **Kiyosei Takasu** (Kyoto University) *"Fused Cyclobutenes to trans-Cycloalkenes"*

12:00-12:15 (S46) **Yusuke Sasano** (Tohoku University)
"Air-Stable Tetrazene Radical Cation Salts: Synthesis, Characterization, and Oxidation Catalysts"

--- Lunch ---

13:00- **Panel Discussion on**
Perspective in the Digitalization of Organic Synthesis
—Toward Data-Driven, Automated, and Predictive Molecular Construction—

Moderators: Tamio Hayashi (National Taiwan Normal University), Yoshito Tobe (National Yang Ming Chiao Tung University), Takashi Oshima (Kyushu University), Tomoko Yajima (Ochanomizu University), Naoto Chatani (Hiroshima University), Kazuyoshi Yamakawa (the University of Tokyo), Ilhyong Ryu (National Yang Ming Chiao Tung University)

--- Poster Presentation (Afternoon of 2nd Day) ---

P-1 **Airi Yamaguchi** (Ochanomizu University)
"Metal-Free Conversion of Amines to Perfluoroalkylated Amides via Visible-Light Photocatalyst"

P-2 **Ryotaro Shirai** (Nagoya University)
"Pd-catalyzed carbon–carbon double bond cleaving difunctionalization of Vince lactam"

P-3 **Keisuke Kondo** (Hokkaido University)
"Arylation of Trialkyl Amines via C(sp3)–N Bond Cleavage Enabled by Organosodium Compounds"

P-4 **Miyuu Hattori** (Shizuoka University)
"Extrapolated Prediction of High Confidence Using Virtual Variables in Iodination of Polyfluoroperylene"

P-5 **Kanata Wada** (Osaka Metropolitan University)
"A SOMO–HOMO Inverted Radical Cation Derived from a Phenyl-substituted Highly Strained Cage Diketone"

P-6 **Dong-eun Yoo** (Hokkaido University)
"Selective Ring-Opening Monoaddition of Organopotassium Species to

Lactones via Flash Microflow Technique"

P-7 **Shu-Fan Wu** (NYCU)
"ET-Induced Three-Component Coupling of Ketones, Alkenes, and BPSE. Reactivity Dependence on One-Electron Oxidizing Reagents

P-8 **Guganchandar Vedarethinam** (NYCU)
"Pd(II)-Catalyzed C(sp^2)-H Alkenylation of 2-Amino Biaryls with Bulky Internal Alkynes: From Alkenylation to Orthogonal Policyclic Hydrocarbons"

P-9 **Hung-Sheng Hsieh** (NYCU)
"Rh(III)-Catalyzed Regioselective [4+2] Annulation of 2-Benzyl-2H-indazole-6-carboxylic Acids with Ynamides to Access Indazole-Fused Pyrans"

P-10 **Cheng-Hsun Huang** (NYCU)
"Asymmetric Oxidative Dearomatization Using Chiral Hypervalent Iodine Catalysts: Enantioselective C-C Bond Formation Toward the Synthesis of Crinine-Type Alkaloids"

P-11 **Ke-Liang Chen** (NYCU)
"Catalytic Asymmetric Spirocyclizing Diels–Alder Reaction of α-Alkylidene Cyclic Vinylogous Esters Using a Chiral Oxazaborolidine Lewis Acid"

P-12 **Tzu-Hsuan Nancy Huang** (NYCU)
"Synthetic Strategy to Accomplish the Total Synthesis of Lipooligosaccharides of Mycobacterium gastri"

P-13 **Jing-Hui Zeng** (NYCU)
"Total Synthesis of Glycosyl Actinopyrone derivative and its Biosynthetic Precursor for Stereochemical Revision"

P-14 **Chia-Sheng Tsai** (NYCU)
"Synthesis of Multisubstituted Tellurophenes by S,O-Ligand Promoted Pd-Catalyzed C–H Olefination"