2nd China-Japan Symposium on Catalysis **Program**		
November 3rd 2024(Sunday) **Whole day, Registration (Holiday Inn Shanghai Huaxia)**		
November 4th 2024 Morning		
Venue：Lecture Hall, Holiday Inn Shanghai Huaxia		
8:10-8:30	Opening Ceremony	
Session 1		
Chair	**Hexing Li** (Shanghai University of Electric Power); **Hisao Yoshida** (Kyoto University)	
PL-1 08:30-08:50	**Tatsumi Ishihara** (Kyushu University)	Direct oxidation of H_2 for H_2O_2 synthesis on Pd nano collide
KN-1 08:50-09:05	**Junhua Li** (Tsinghua University)	Challenges in simultaneous removal of NO_x and VOCs over bifunctional catalysts for architectural material industry
IL-1 09:05-09:17	**Noritatsu Tsubaki** (University of Toyama)	Multifaceted promotion of CO_2 hydrogenation technology
IL-2 09:17-09:29	**Xufang Qian** (Shanghai Jiao Tong University)	From pollutants elimination to resource upcycling: Low-carbon and green energy strategies
IL-3 09:29-09.41	**Kai Dai** (Huaibei Normal University)	Controllable construction of metal chalcogenide-based S-scheme heterostructure for enhanced charge separation
IL-4 09:41-09:53	**Ken Motokura** (Yokohama National University)	Bifunctional heterogeneous catalyst systems for efficient organic reactions
IL-5 09:53-10:05	**Kangle Lv** (South-Central Minzu University)	Boosting the photocatalytic activity of high-energy TiO_2 nanocrystals towards NO oxidation by surface defluorination
10:05-10:30	Group photo and Coffee Break（10+15）	
Session 2		
Chair	**Keiichi Tomishige** (Tohoku University); **Haijun Chen** (Nankai University)	
PI-2 10:30-10:50	**Fengshou Xiao** (Zhejiang University)	Targeted synthesis of zeolites from theoretical calculation and design of efficient catalysts

KN-2 10:50-11:05	**Masato Machida** (Kumamoto University)	New insight into thermal deactivation of three-way catalysts: From nanostructure to catalyst life prediction
IL-6 11:05-11:17	**Mingce Long** (Shanghai Jiaotong University)	Efficient fenton-like catalysis mediated by the selective generation of CoIV=O species from Co single-atom catalysts
IL-7 11:17-11:29	**Graham Dawson** (Xi'an Jiaotong-Liverpool University)	Surface modification of titanate nanotubes towards applications in photocatalysis
IL-8 11:29-11:41	**Yun Hu** (South China University of Science and Technology)	Coupled systems construction on MOF-based photocatalysts for energy recovery and wastewater treatment
OL-1 11:41-11:51	**Takashi Toyao** (Hokkaido University)	Accelerated discovery of heterogeneous catalysts using machine learning approach
OL-2 11:51-12:01	**Ningqiang Zhang** (Hokkaido University)	Design of de-NO_x catalysts and systems for lean-burn engines without external reductant injection
Lunch		
November 4th 2024 Afternoon		
Session 3		
Chair	**Junhua Li** (Tsinghua University); **Masato Machida (Kumamot Univ.)**	
PL-3 13:30-13:50	**Keiichi Tomishige** (Tohoku University)	Development of heterogeneous catalysts for H_2-driven deoxydehydration
KN-3 13:50-14:05	**Ding Ma** (Peking University)	Low-temperature water activation and catalytic hydrogen production
IL-9 14:05-14:17	**Zhenfeng Bian** (Shanghai Normal University)	Photocatalytic principles for precious metal recycling
IL-10 14:17-14:29	**Sheng Dai** (East China University of Science and Technology)	Low damage HAADF-STEM imaging on heterogeneous catalysts
IL-11 14:29-14:41	**Haijun Chen** (Nankai University)	A new deNO_x process: Methanol-SCR over zeolite catalysts
IL-12 14:41-14:53	**Shuji Tanabe** (Nagasaki University)	Reaction mechanism analysis of cyclohexane steam reforming

		on Ni-Mn/SBA-15 by the transient technique
IL-13 14:53-15:05	**Weiwei Zhang** (East China University of Science and Technology)	Construction of crystalline organic photocatalysts
OL-3 15:05-15:15	**Wenchao Wang** (Nanjing University of Science and Technology)	Tuneable photodynamics of carbon nitride for highly effective photocatalysis
OL-4 15:15-15:25	**Yuan Jing** (Tokyo Institute of Technology)	Role of support in the supported-Rh catalysts for N_2O decomposition
15:25-15:45	**Coffee Break**	
Session 4		
Chair	**Tatsumi Ishihara** (Kyushu University); **Ying Zhang** (Fudan University)	
KN-4 15:45-16:00	**Tierui Zhang** (University of Chinese Academy of Sciences)	Defective layered double hydroxide based nanostructured photocatalysts
IL-14 16:00-16:12	**Gongxuan Lv** (Lanzhou Institute of Chemical Physics)	Visible light photocatalytic water splitting over Ga_2O_3 photocatalyst
IL-15 16:12-16:24	**Yanqin Wang** (East China University of Science and Technology)	Upcycling PET wastes into high value-added 1,4-cyclohexanedimethanol (CHDM) via tandem reactions
IL-16 16:24-16:36	**Ying Yu** (Central China Normal University)	Rapid self-reconstruction of pre-electrocatalysts for efficient and stable large-current-density water/seawater splitting
IL-17 16:36-16:48	**Yong Ding** (Lanzhou University)	Photocatalytic water splitting and CO_2 reduction over catalysts based on molecular catalyst of polyoxometalates
IL-18 16:48-17:00	**Tamao Ishida** (Tokyo Metropolitan University)	Decoration of gold catalyst surface with thin metal oxide layers derived from inorganic nanosheets
IL-19 17:00-17:12	**Jieyuan Li** (University of Electronic Science and Technology of China)	Radical assisted NO_x purification and value-added conversion
IL-20 17:12-17:24	**Hua Sheng** (Institute of Chemistry)	Photocatalytic CO_2 reduction with oxygen-tolerance
IL-21 17:24-17:36	**Shinya Higashimoto** (Osaka Institute of Technology)	Visible-light sensitive WO_3-based photocatalyst for selective hydroxylation of benzene to phenol

IL-22 17:36-17:48	**Yikai Xu** (East China University of Science and Technology)	Surface accessible plasmonic nanomaterials for SERS and catalysis
OL-5 17:48-17:58	**Lingcong Li** (Hokkaido University)	Rb-Ni/Al_2O_3 as dual functional materials for CO_2 capture and selective hydrogenation to CO
Banquet		
November 5th Morning		
Session 5		
Chair	**Jiaguo Yu** (China University of Geosciences); **Fumiaki Amano** (Tokyo Metropolitan University)	
PL-4 08:30-08:50	**Ye Wang** (Xiamen University)	Photocatalytic and electrocatalytic conversion of C1 to C2 molecules
KN-5 08:50-09:05	**Yongfa Zhu** (Tsinghua University)	Organic semiconductor photocatalysts for water split and CO_2 conversion under solar irradiation
IL-23 09:05-09:17	**Yuichi Ichihashi** (Kobe University)	Hydrogen production from water decomposition over picene derivatives photocatalyst under visible light irradiation
IL-24 09:17-09:29	**Lingzhi Wang** (East China University of Science and Technology)	Photocatalytic conversion of methane
IL-25 09:29-09.41	**Chenliang Su** (Shenzhen University)	Heterogeneous photocatalytic deuteration chemistry
IL-26 09:41-09:53	**Yang Lou** (Jiangnan University)	Edge-confined single and dual-atom catalysts for selective hydrogenation
IL-27 09:53-10:05	**Xianjun Lang** (Wuhan University)	Cooperative photocatalysis with TEMPO over COFs
10:05-10:25	**Coffee Break**	
Session 6		
Chair	**Yongfa Zhu** (Tsinghua University); **Shinya Higashimoto** (Osaka Institute of technology)	
KN-6 10:25-10:40	**Ying Zhang** (Fudan University)	Towards accurate description of both weak and strong correlation in density functional theory
IL-28 10:40-10:52	**Maochang Liu** (Xi'an Jiaotong University)	Solar reforming lignocellulose into H_2 over pH-triggered hydroxyl-functionalized chalcogenide nanotwins

IL-29 10:52-11:04	**Hiromi Yamashita** (Osaka University)	Design of nanostructured photocatalysts for energy and environmental uses
IL-30 11:04-11:16	**Ming Bao** (Dalian University of Technology)	Nanoporous metal skeleton catalysts in organic synthesis
IL-31 11:16-11:28	**Toru Murayama** (Hokkaido University)	Selective catalytic oxidation of ammonia over highly dispersed Ag species
IL-32 11:28-11:40	**Jiaqiang Wang** (Yunnan University)	Scalable biomimetic photocatalytic wastewater treatment
OL-6 11:40-11:50	**Yuxiao Zhang** (Yunnan University)	Active sites expansion of molybdenum sulphide and its application in photocatalysis
OL-7 11:50-12:00	**Yazi Liu** (Nanjing Normal University)	Precise regulation of active sites over carbon nitride-based catalysts for enhanced photocatalytic performance
Lunch		
November 5th 2024 Afternoon		
Session 7		
Chair	**Hiromi Yamashita** (Osaka University); **Jiaqiang Wang** (Yunnan University)	
PL-5 13:30-13:50	**Jiaguo Yu** (China University of Geosciences)	Charge transfer mechanism in S-scheme photocatalyst
KN-7 13:50-14:05	**Fengtao Fan** (Dalian Institute of Chemical Physics)	Unraveling charge transfer dynamics in photocatalysis: From microscopic insights to holistic mapping
IL-33 14:05-14:17	**Jun Hu** (East China University of Science and Technology)	Techno-economic evaluation of various integrated CO_2 capture and conversion processes for industrial decarbonization
IL-34 14:17-14:29	**Yuning Huo** (Shanghai Normal University)	Construction of synergistic photocatalytic systems for enhanced antimicrobial performance
IL-35 14:29-14:41	**Masazumi Tamura** (Osaka Metropolitan University)	Hydrogenation of carboxylic acids to alcohols over heterogeneous catalysts
IL-36 14:41-14:53	**Pengyu Dong** (Yancheng Institute of Technology)	Investigation on regulation strategies of MOF/COF-based photocatalysts

IL-37 14:53-15:05	**Wan-Hui Wang** (Dalian University of Technology)	Dehydrogenative coupling reaction with alcohols catalyzed by amidato complexes
OL-8 15:05-15:15	**Chunyang Dong** (The University of HongKong)	Sustainable valorization of low-carbon molecules via photocatalytic H_2O-induced reactions
OL-9 15:15-15:25	**Zekai Huang** (Southwest Petroleum University)	Concentrated-solar catalytic dry reforming of methane and carbon dioxide over Ni/CeO_2
15:25-15:45	**Coffee Break**	
Session 8		
Chair	**Toru Murayama** (Hokkaido University); **Gongxuan Lv** (Lanzhou Institute of Chemical Physics)	
KN-8 15:45-16:00	**Hisao Yoshida** (Kyoto University)	Heterogeneous photocatalytic organic syntheses
IL-38 16:00-16:12	**Qinqin Liu** (Jiangsu University)	Building asymmetric Zn–N_3 bridge between 2D photocatalyst and co-catalyst for directed charge transfer toward efficient H_2O_2 synthesis
IL-39 16:12-16:24	**Fumiaki Amano** (Tokyo Metropolitan University)	Electrocatalytic conversion of bicarbonate to formate
IL-40 16:24-16:36	**PengFei Liu** (East China University of Science and Technology)	Electrocatalytic materials and devices for carbon dioxide reduction
IL-41 16:36-16:48	**XiuLi Wang** (Dalian Institute of Chemical Physics)	Photo(electro)catalytic water oxidation reaction kinetics revealed with transient absorption spectroscopy
OL-10 16:48-16:58	**Binxia Yuan** (Shanghai University of Electric Power)	Superhydrophobic photochromic heterostructure composite materials with excellent photocatalytic CO_2 reduction
OL-11 16:58-17:08	**Ben Liu** (Fudan University)	Promoting role of Ru species on Ir-Fe/BN catalyst in 1,2-diols hydrogenolysis to secondary alcohols
17:08-17:18 **Closing Ceremony**		

Poster	
1	**Zhe Dong** (Tohoku university) Effect of Cl derived from Fe precursors on catalytic performance of Ir-FeO_x/ZrO_2 for selective hydrogenation of benzalacetone
2	**Takehiro Yamada** (Osaka University) RWGS reaction via reversible redox of molybdenum suboxides
3	**Huang Hao** (University of Toyama) Nitrogen-doped two-dimensional carbon nanosheets facilitated FeS_2 nanoparticles for efficient hydrogenation of functionalized nitroarenes
4	**Mikihiro Sakurai** (Osaka University) Addtive-free aqueous phase synthesis of formic acid from CO_2 by hollow catalyst encapsulating PdAg NPs and aminopolymer
5	**Yan Fang** (Shanghai Jiao Tong University) Electrocatalytic CO_2 reduction coupled with poly(ethylene terephthalate) plastic valorization for simultaneous production of formate
6	**Zhihao Liu** (University of Toyama) Designing hydrotalcite-derived CoAlO catalysts for highly selective CO_2 methanation
7	**Shiori Mizutani** (Osaka University) Efficient photocatalytic hydrogen peroxide production on hydrophobic porphyrin-based Zr-MOFs
8	**Xinqian Fang** (Nankai University) Caged methylamine in small-pore zeolites with high stability for CO_2 capture
9	**Chao Zhang** (Fuzhou University) Enhancing CO_2 cycloaddition through ligand functionalization: A case study of UiO-66 metal-organic frameworks
10	**Satoshi Matsukawa** (Osaka University) Hydrogen spillover pathways generated on graphene oxide enabling the formation of non-equilibrium alloy nanoparticles
11	**Qingli Shu** (East China University of Science and Technology)

	Planar growth, facet-oriented La_2O_3 (003) in CuLa catalysts: Enhancement in charge transport and water adsorption for methanol steam reforming
12	**Shota Sakata** (Osaka Institute of Technology) Fabrication of copper bismuth oxide via co-electrodeposition and their photoelectrochemical property for water splitting
13	**Yui Hamada** (Osaka Institute of Technology) Photoelectrochemical properties of copper-zinc-tin-germanium sulfide photoelectrodes prepared by co-electrodeposition
14	**Ahmad Fahmi Prakoso** (Kumamoto University) Bulk vanadium oxide catalyst for oxidative coupling of 2-naphthol
15	**Jie Yuan** (Fuzhou University) Unraveling synergistic effect of defects and piezoelectric field in breakthrough piezo-photocatalytic N_2 reduction
16	**Danni Zeng** (Yancheng Institute of Technology) $ZnIn_2S_4$-based multi-interface coupled photocatalyst for efficient photothermal synergistic catalytic hydrogen evolution
17	**Shu Lin** (Dali University) S-scheme $LaCoO_3$/g-C_3N_4 heterojunction structure for efficient photocatalytic hydrogen evolution
18	**Biao Gao** (Huazhong University of Science and Technology) Promoting the synthesis of methanol over $CoIn_2$-In_2O_3: Understanding the pivotal role of $CoIn_2$ for CO_2 hydrogenation to methanol
19	**Yihao Jiang** (Tokyo Institute of Technology) Ba-Al oxyhydride electride activating cobalt catalysts for ammonia synthesis
20	**Mari Yuasa** (Tokyo University of Agriculture and Technology) Improving the heat resistance of electrically heating catalyst
21	**Hyo-Jin Kim** (Osaka University) Robust Ni-based self-catalytic reactor for CO_2 methanation fabricated by metal 3D printing and electrochemical selective leaching
22	**Tiangao Jiang** (Tokyo University of Agriculture and Technology)

	Effect of TiO_2 for formation of organic peroxides on WO_3 photocatalyst in EtOH solution
23	**Bobo Yan** (Hokkaido University) Rapid removal and catalytic decomposition of nitrate in anion-exchange resin containing gold nanoparticles toward purification of groundwater
24	**Yifan Zhao** (Osaka University) Photosynthesis of hydrogen peroxide in a two-phase system by hydrophobic Au nanoparticle-deposited plasmonic TiO_2 catalysts
25	**Longtai Li** (Kyushu University) Highly active CO_2-H_2O co-electrolysis catalyst of $CuFeO_4$-La(Sr)Fe(Mn)O_3 composite for La(Sr)Ga(Mg)O_3 electrolyte
26	**Tong Zhou** (Yunnan University) Dual-synergy-effect enables ultra-efficient photocatalytic hydrogen production from aqueous methanol
27	**Xinyu Wei** (Tokyo University of Agriculture and Technology) Isomerization of oleic acid using micro/mesoporous ZSM-22 in flow reactor
28	**Chengwei Qiu** (Fuzhou University) Correlation between built-in electric field intensity and photocatalytic activity for heterojunction materials
29	**Wanli Li** (South China University of Technology) Bias-free photoelectrocatalytic co-electrolysis of polyethylene terephthalate plastic and CO_2 to formic acid
30	**Hanghao Lin** (Osaka Metropolitan University) Development of alkaline earth metal oxide-modified CeO_2 catalysts for the synthesis of polycarbonate diols from CO_2 and 1,6-hexanediol
31	**Fang Wan** (Tsinghua University) Support property controls the selectivity of gold catalysts in gas-phase glycerol oxidation for pyruvic aldehyde production
32	**Toshiya Tsunakawa** (Tokyo University of Agriculture and Technology) Effect of acidity of zeolites on deoxygenation and isomerization over Pt-based bifunctional catalysts
33	**Kaining Li** (Osaka University)

	Coordination-controlled single-site cobalt on hollow carbon spheres for tunable syngas electrosynthesis from CO_2
34	**Bin Shao** (East China University of Science and Technology) Synergistic promotions between CO_2 capture and in-situ conversion
35	**Khalid Umer** (Lanzhou University) Electrostatically engineered Ni_4P_2 polyoxometalate/$Mn_{0.2}Cd_{0.8}S$ through 1,4-benzene dicarboxylic acid for efficient photocatalytic hydrogen production
36	**Feilong Xing** (Tokyo Institute of Technology) Room-temperature CO_2 hydrogenation to methanol over air-stable hcp-PdMo intermetallic catalyst
37	**Xuanwen Xu** (Yancheng Institute of Technology) Zinc ions as the effective cocatalysts for CO evolution in the photocatalytic conversion of CO_2 using H_2O as an electron donor
38	**Jinlong Wang** (East China University of Science and Technology) Boosting CO_2 photoreduction by synergistic optimization of multiple processes through metal vacancy engineering
39	**Yiming Zhu** (East China University of Science and Technology) Photo-enhanced selective conversion of ethane to ethene over single-site Mo modified-SAPO-34
40	**Wenhui Yue** (East China University of Science and Technology) Enhanced photocatalytic hydrogen evolution activity driven by the synergy between surface vacancies and cocatalysts: Surface reaction matters
41	**Chengxuan He** (East China University of Science and Technology) Regulating atomically-precise Pt sites for boosting light-driven dry reforming of methane