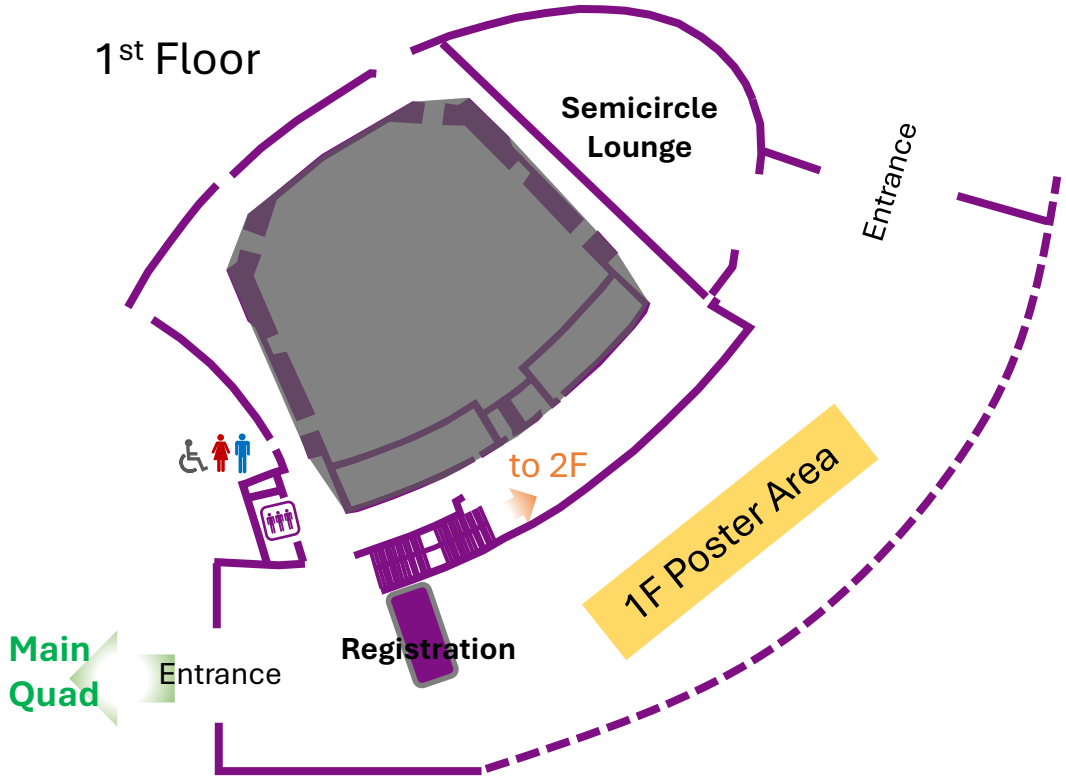
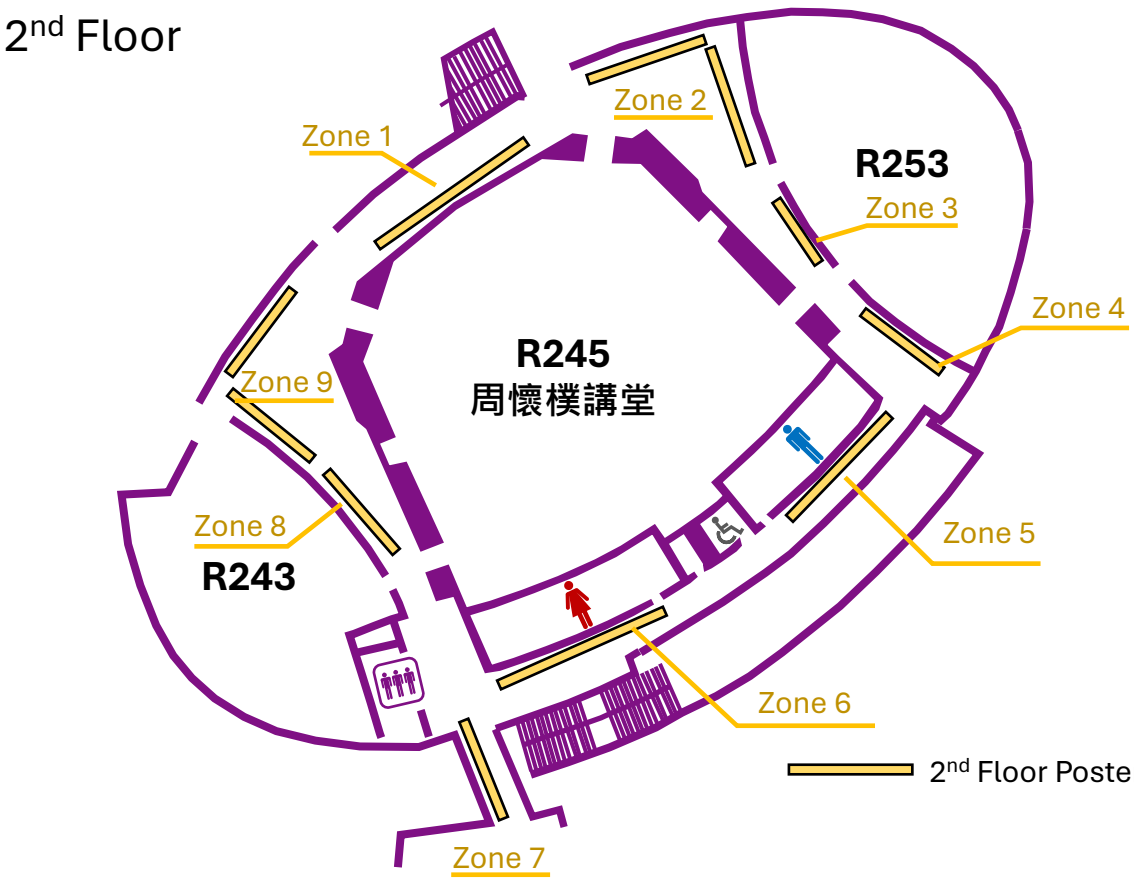
Poster Location Guide





Technical Program – Student Poster Competition

Qualification

1. Only students (undergraduate, master, PhD) with valid student ID are eligible. Postdoctoral fellows are excluded.
2. Participants are advised to refer to the conference website for details, as individual notifications will not be sent. Participants are required to upload English abstracts online on the conference website.
3. Participants in this competition will be grouped according to the topic of their submitted papers.
4. Winners must agree to provide electronic copies of their posters to the conference organizers for archiving and website listing.

Instruction and Rules

1. Information such as group lists, competition sessions, presentation orders, and presentation locations will be announced on the conference website after the deadline.
2. Contestants must arrive at the reporting location 15 min before the start of the designated period.
3. The representative authors participating in the poster presentation competition should wait at their poster papers during the designated judging time for the judges. The authors should introduce their posters in **English** and respond to questions. The judging panel will evaluate the winning posters based on the overall content of the posters and the performance during the question and answer session.
4. Authors should post their posters on the designated poster boards before the presentation time and remove them afterward.
5. If the representative authors fail to post their posters within 5 minutes after the start of the designated judging time, or if they fail to be present at their poster papers before the judges arrive, they will be deemed to have forfeited their competition eligibility.
6. Poster size: A0 size, (119 cm (H) × 84 cm (W))

Time and location

- Location：**Breezeway (1F) and 2F aisle, Macronix Building , NTHU**
- Time：**June 20 afternoon (13:00-15:00), 2025**

Awards

- In each topic, a certain number of awards, including gold, silver, bronze, and honorable mentions, will be selected based on the proportion of entries.
- Each recipient of a gold, silver, bronze, or honorable mention award will receive a certificate, and scholarship prizes will also be awarded for gold, silver, and bronze awards.
- The poster presentation awards will be awarded publicly in the closing ceremony.
- All awardees are required to attend the closing ceremony to receive their awards.

Technical Program – Student Poster Competition

June 20th, 2025, 13:00-15:00

Topic A: Advanced Catalyst Synthesis

Macronix Building, 2nd floor, Zone 2 & Zone 9

Paper #	Title	Presenting Author	Location
253	In-situ synthesis Au/Amino-functionalized Graphene/Sulfonated Electroactive Polyimide Nanocomposites and its application on catalytic reduction 4-Nitrophenol	YI-XI HONG	Zone 9
241	Nitrogen-Phosphorus Dual-Doped Graphene-Encapsulated Magnetic Fe-Ni Alloy Nanoparticles/Au Nanocatalysts for the Catalytic Reduction of 4-nitrophenol	CHENG YI XIE	Zone 9
240	Advanced catalytic Membrane Prepared from Au at Biomimetic/Graphene Oxide Electroactive Polyimide composite for the reduction of 4-nitrophenol	Guan Wu Guo	Zone 9
226	Simultaneously Tailoring Hydrogen and Hydroxide Intermediate Binding via Quaternary Alloying for Enhanced Alkaline Hydrogen Oxidation	Yun-Shan Tsai	Zone 9
222	Tailoring Surface Facets in High-Entropy-Alloy Atomic Layers for Improved Hydrogen Oxidation Reaction	Kuan-Fang, Lee	Zone 9
202	Controllable Synthesis of High-Entropy-Alloy Nanodendrites for Alkaline Hydrogen Evolution Reaction	Chien-Hao Tseng	Zone 9
195	Phosphorization-engineered pure and multicomponent nanocrystals with tailored facets and lattice strains as a versatile platform for catalytic studies	I-JU LIN	Zone 9
171	Engineering High-entropy PBA-derived Photocatalysts for CO_2 Conversion	Pin-Yu Shi	Zone 9
162	Preparation of Antiperovskite Nitride Ni3ZnN-MOF CuHHTP Composite for Electrocatalytic Hydrogen Evolution Reaction	Chih-Yu Hsu	Zone 9
154	Fabrication of Hierarchical Porous Silicon Carbide Using Scalable Allylhydridopolycarbosilane Precursor via LCD 3D Printing	Yi-Chieh Chen	Zone 9
136	Axially Coordinated Ni Single-Atom Catalyst Enables CO_2 Electroreduction at Low Overpotentials and Industrial-Scale Current Densities	Osama Nasr	Zone 2
057	Aerosol-assisted Synthesis of Titania-based Hybrid Nanoparticle Clusters for Antibacterial Applications	Thi Quynh Nhu Le	Zone 2
048	Highly Stable Metal–Organic Framework Coating as “Proton Reservoir” near the Electrode Surface to Facilitate Electrochemical Production of Ammonia	Yun-Shan Tsai	Zone 2
044	Optimal Conditions for the Adsorptive Removal of Rhodamine B from Wastewater Using Carbon Aerogel through Regression-based Models	Mathurin François	Zone 2
042	Hierarchically Porous Cerium-Based Metal–Organic Framework to Generate Pore-Confined Copper Electrocatalyst for Efficient Nitrate-to-Ammonia Conversion	Cheng-Hui Shen	Zone 2
035	Metal-organic framework-derived base catalyst for conversion of dimethyl carbonate to glycerol carbonate	Duc Thanh Le (黎成德)	Zone 2

Topic B: Advanced Characterization for Mechanistic Understanding

Macronix Building, 2nd floor, Zone 2

Paper #	Title	Presenting Author
271	Mechanism, Structural Evolution and Kinetic Study of Phase Transformation in Polymetallic MOF Pyrolysis	Cheng-Han Lin
211	Size-Controlled High-Entropy Alloy Nanoparticles Confined in Mesoporous Supports for Efficient Hydrogen Evolution Reaction	Chun-Wei Chang
161	Decoding Shape-Dependent Endocytosis of Iron MOFs for Precision Pancreatic Cancer Nanotherapy	Shirish Killedar
134	Mapping Local Electrochemical Responses of 2D TMDCs Using AFM-SECM	Sumangaladevi Koodathil

Topic C: Biocatalysis

Macronix Building, 2nd floor, Zone 5

Paper #	Title	Presenting Author
204	Photoautotrophic biosynthesis of 1,4-Butanediol directly from CO_2 using Synechococcus elongatus PCC 7942	Howard C. Lin
201	Engineered Escherichia coli for the Biosynthetic Production of Quercetin 3-O-Glucoside	Teresa P. Tsai

Topic D: Computational Catalysis

Macronix Building, 1st floor, Breezeway

Paper #	Title	Presenting Author
266	Deciphering the Effect of Glycosidic Linkages and Aglycones on the Divergent Site-selective Fucosylation of LNT and LNnT by α1,3/4-Fucosyltransferases	Feng-Wei Yeh
265	A Computational Study on Photocatalytic Decarboxylative [2+4]/[2+2] Cycloaddition of Coumarin and Olefin	Ting Yi Chuang
264	Predict half-wave potential of organometallic compounds by hierarchical graph convolutional neural networks	Yi-Hsuan Liu
251	Support Effect on N_2 Activation Mechanism in NH_3 Production using Fe-based catalysts: A DFT Study	Ching-Teng Chou
245	Understanding of the Stability of Ru Nanocatalysts & B5 Active Sites in NH3 Production: A combined DPMD and DFT Study	Yi-Chun Kuan
116	Mechanisms understanding of hydrogen spillover on various supported transition metals: A DFT study	Cheng-Hsi Yeh
107	Comparative Performance of Graph Neural Network Methods for Activation Energy Prediction Under Limited Training Data	Ming-Hsuan Tsai
096	A DFT Study on the Influence of Mesopores on Active Sites and Cracking Behavior in Y Zeolite	Chin-Hsuan Chang
091	Regioselective Palladium-Catalyzed Hydroformylation of Olefins Using Formic Acid: Mechanistic Insights from DFT and MOF-Based Heterogeneous Applications	Jing-Chun Chen

Topic E: Electrocatlaysis

Macronix Building, 1st floor, Breezeway

Paper #	Title	Presenting Author
275	Urea-assisted hydrogen production through nickel-organic complex	Suryaraju
269	Preparation of high entropy catalysts by pulsed laser irradiation of mixed salt (PLMS) solutions for electrochemical CO_2RR	Yu-You, Huang
258	Direct Hydrogen Peroxide Formation Induced by Contact Electrification at the Water–Solid Interface and Its Role in Silver Nanoparticle Synthesis	Po-Rong Lin
257	Tailoring High-Entropy Prussian Blue Analogue-Derived Multimetallic Phosphides on CNTs for Efficient Alkaline Hydrogen Evolution	Rais Fakhrirazin
255	Application of High-Efficiency Environment Friendly Process for Recycling Lithium-Ion Battery Cathode Materials	Chia-Ying Tsai
252	Design of Prussian Blue Analogues for Highly Sensitive Nitrate Sensors	Jing-Ju Ho
239	Coupling Graphene Quantum Dots with Copper Phthalocyanine for Efficient and Stable Electrochemical Nitrate Reduction	Andrei Bernadette
234	Molecularly Dispersed Zinc on Graphene Quantum Dots as an Efficient Electrocatalyst for the Two-Electron Oxygen Reduction to Hydrogen Peroxide	Kuan-Ling Liu
225	Tuning the selectivity of Electrocatalytic CO_2 Reduction by Engineering the Coordination Environment of Bi SACs	Varad A. Modak
221	Enhanced Selectivity and Stability in CO_2 Reduction to Ethanol-Rich C2+ Products via Dual Ag and PVP Modification of Cu_2O-Based Catalysts.	Yu-Chiao, Tseng
220	Stable CO_2-to-Formate Conversion in a Dual-Electrode System Enabled by $Cu_{31}S_{16}$-Cu_2O Interface Engineering	Kuang-Yi Liu
218	Surface Modification of Cu Electrode with Metallo-Supramolecular Polymer for Electrocatalytic Reduction of Furfural	En-Chi Ho
217	Ru-Doped Entropy-Stabilized Catalyst for Enhanced Hydrogen Production via Alkaline Seawater Electrolysis	Zhen-Xian Li
215	Cost-Effective Hydrogen Production via Alkaline Seawater Electrolysis Using FeCoNiMnMo HEA	Yung-Chi Teng
213	Bi-Incorporated g-C_3N_4 for Selective Electrocatalytic CO_2 Reduction	Shao-Wei Lu
209	High-Entropy Electro-Catalysts for Sustainable Water Treatment: Efficient Ammonia Decomposition and Green Hydrogen Generation	Si-Han Ding
205	Volcano-Theory-Guided Optimization of Multimetallic Electrocatalysts for Efficient Hydrogen Generation	Shin-Chiao Lee
196	High-Entropy-Alloy Surfaces with Controlled High-Index Facets for Electrocatalysis	HAN-WEI FANG
184	MOF-74-II-Based Strategies for CO_2 Capture and electrochemical behavior for the CO_2 electrochemical reduction reaction	Yu-Min Yang
182	Inner-Wall Silver-Decorated Copper Oxide Nanotubes Catalysts for Ampere-Level Carbon Dioxide Reduction Reactions to Multi-Carbon Products	Yu-Chia Chang
172	Electrocatalytic Nitrogen Reduction to Ammonium Using Carbon Nitride Co-doped with Iron and Boron	Hsin-Hui Lin
147	Enhancing CO_2-to-CO Performance of Bipolar Membrane Electrolyzers through Local Environment Engineering	Ting Wei Huang
141	Zn and Sn Synergy Enhances Ru-Based Catalysts for Acidic OER	CHIEN YU-CHEN
102	Acid-Stable Cobalt Electrocatalysts on Tungsten Substrate for Enhanced Oxygen Evolution in PEM Water Electrolysis	Chang-Ming, Wu
092	Electronic Structure Engineering of Nickel Single-Atom Catalyst by Phosphorus for Efficient Electrocatalytic CO_2 Reduction Reaction in a Proton-Rich Microenvironment	Mengstu Etay
071	Bimetallic η-phase carbides as high performance electrocatalysts for highly efficient anion exchange membrane water electrolysis	Tzu-Hsiang Lin
061	High Performance Anion Exchange Membrane Water Electrolysis Driven by Atomic Scale Synergy of Non-precious High Entropy Catalysts	Chiung-Wen Chang

Topic F: Photocatalysis

Macronix Building, 1st floor, Breezeway

Paper #	Title	Presenting Author
272	Encapsulation of Phosphotungstic Acid into UiO-66 and its derivative for CO_2 Photocatalytic Reduction	Hsin-Cheng Peng
260	Sustainable TiO_2/Aluminosilicate nanocomposites for water purification: photocatalytic and antimicrobial applications	NGUYEN CHI TOAN
259	Development of a photoactivated nitric oxide donor with *in-situ* release and real-time monitoring through NIR-II fluorescence imaging	Hsu Ling-Yu
256	2D/2D Heterojunction of Carbon doped SnS_2/g-C_3N_4 photocatalysts for Organic Pollutant and Heavy metal degradation	Gabriella Janed Johana Sijabat
235	Electroplated PANI / Carbon cloth serves as the cathode material for constructing a sensitized photo-rechargeable ion capacitor	Jiang, Zhi-Yu
233	Oxygen Vacancy-Rich $W_{18}O_{49}$/WO_3 Hybrid Layer for Rapid Response and High Photocoloration Efficiency in Photoelectrochromic Devices	Hsueh An
212	Upcycling of Microplastic via Pohto-Fenton Catalysis with multicomponent hybrid catalyst	Chao yen Lee
200	Galvanic Replacement Synthesis of Multicomponent Hollow Nanocrystals with Controlled Atomic Mixing and Arrangements for Catalysis	林欣璇
198	Fast Reduction of 4-Nitrophenol on Molten-Salt Shielded Synthesis of Fluorinated Cu-Mxene	Yu-Jie Lin
180	Side-Chain Engineering of Conjugated Polymers for Tunable Photoreforming of Plastics into Hydrogen and Value-Added Organic Products	Hsin-Ni Huang
175	Tunable Dibenzothiophene Dioxide-Based Side-Chain-Bridged Polymers for Enhanced Photocatalytic Hydrogen Evolution	Ping-Heng Li
173	Development of Dibenzo[b,d]thiophene Sulfone-based Non-Conjugated Pendant Polymers for Enhanced Photocatalytic Hydrogen Production	Chao-Yen Chung
129	Visible-light-driven CO_2 reduction and dye degradation over SbSeI/GO photocatalysts	Hung-I Lien
106	SnO_2 nanostructure decorated with Ag_2Te quantum dots as photocatalysts for CO_2 conversion	Yu-Chun Yang
101	Heterostructured Niobate Nanosheet/g-C_3N_4 Photocatalysts to Enhance Charge Separation and Hydrogen Production from Water Splitting	Zhe-Jie Li
088	Deep Eutectic Solvent-assisted Synthesis of Self-assembled $BiVO_4$-based Photocatalysts: Morphology/Phase Evolution and H_2 Generation Activity	Jun-Ru Xie
087	Improved H_2 Generation Activity of Core-Shell MOF-based Photocatalysts with Tuned Morphology	Pei-Shan Huang
084	Enhanced Photocatalytic Degradation of Volatile Organic Compounds using a MOF-Derived TiO_2/SiO_2 Catalyst in a Fluidized Bed Reactor	Ming-Wei Chen
059	Ni-MOF@ZIS and MIL-68-NH_2@ZIS Heterostructures for Photocatalytic Hydrogen Production: Performance and Mechanistic Investigation	Chuang Chih-En
058	Dual-Sided CO_2-to-CH_4 Conversion Using Z-Scheme in Vertically Aligned SnS/SnO_2 Nanostructures	Minh-Guyn Nguyen
055	Photocatalytic CO_2 Conversion Using Hydrothermally Synthesized CeO_2-ZnO Nanocomposites	Po-Chih Tsao
054	Dual-Metal Oxide Modified Biomimetic Polyimide Films for Efficient Photocatalytic CO_2 Conversion	Yi-Teng Hsu
053	Morphology Control and Oxygen Vacancy Engineering of Bi_2WO_6 Nanosheets for Photocatalytic CO_2 Reduction	Chi-Hsuan Huang

Topic G: Thermal Catalysis

Macronix Building, 2nd floor, Zone 4 – Zone 6

Paper #	Title	Presenting Author	Location
223	The Ni-Cu Catalyst Enhances the Carbon Monoxide Yield from Coke Oven Gas (COG) and Blast Furnace Gas (BFG) through 3-Way Reforming Reactions	Ying-Tzu Huang	Zone 6
206	Cobalt-modified Nickel/Cerium Oxide Catalysts for Low Temperature CO_2 Methanation Applications	Cheng Yu, Yang Tsai	Zone 6
199	Investigation of CrO_x/SiO_2 Catalyst for Oxidative Dehydrogenation of Propane	Jason Z. Xiao	Zone 6
190	Ni Catalysts for Methane Decomposition to Produce Green Hydrogen and High-Value Carbon Nanomaterials	Tung-Yu Hsieh	Zone 6
189	Investigation of Li-Doped-Metal Oxide/YSZ Catalysts for Oxidative Coupling of Methane	Leo H. Yi	Zone 6
188	Fabrication of Dilute-limit Palladium-Modified Ni/LZC Catalyst and Its Applications in the Hydrogenation of Carbon Dioxide and Furfural	Yu Chen Lin	Zone 6
183	Analysis of CO_2 Deoxygenation over Cerium-Indium-Iron Mixed Oxide Catalysts Coupling with an Oxygen-Conducting Membrane	Tzu-Peng Lin	Zone 6
157	Effect of Hydrophobic Modification on Ni/La-Ce-ZrO_2 Catalyst Performance for Dry Reforming of Methane	Kai Chun Chuang	Zone 6
119	Liquid-Phase Oxidation of Isobutane to tert-Butyl Alcohol by High Valence Iron-based $La_{1-x}Sr_xFeO_{3-\delta}$ Catalyst	Masanao Yamamoto	Zone 6
113	Combination with Dual Zeolite System to Enhance the Catalytic Performance of Cu/ZnO Catalysts for CO_2 Hydrogenation to Methanol	Yu-Chen Lin	Zone 5
083	Study on Direct Carbonylation of Glycerol to Organic Carbonates Catalyzed by Zinc Oxide/Zirconium Oxide	Wan-I Chen	Zone 5
082	Study on One-Step Hydrotreatment of Soybean Oil over Bimetallic Ni-Mo Catalysts for Biofuel Production	Chao-Wen Yen	Zone 5
079	Study on Green Technology Advancement: Dry Reforming of Methane Using Co/CeO_2 Catalysts for Syngas Production	Hsin-Chang Li	Zone 5
075	CO_2 Absorption-Mineralization for Calcium-Looping Integrated with Methane Dry Reforming	Tien-Yu Yang	Zone 5
074	Development of Nanostructured Particles for Low-temperature Catalysis of Formaldehyde Oxidation	Yu-Hsuan Chen	Zone 5
073	Aerosol Metal Organic Framework-derived Ni-Zn-Al Hybrid Catalyst using Methane Bi-reforming	Xiao-Xuan Shih	Zone 5
070	CO_2-negative Chemical-looping Hydrogen Production Using High-performance Dual Functional Ni-FeOx Nanocatalyst	Chien-Wei Wu	Zone 4
069	Methane-steam Reforming for Low-carbon Hydrogen Production Using Ni-Pd Bimetallic Nanoparticle Cluster	KAI-PO CHANG	Zone 4
064	The study of cyclic carbonate synthesis from carbon dioxide and epoxides under solvent-free and co-catalyst-free conditions: Modification and catalysis of iron-based metal-organic frameworks.	Shin-Huei Pan	Zone 4