



**Annex.
2. Student Poster Contest
Guidelines & Information**

2. Student Poster Competition Guide & Information

Topic

- A. Biocatalysis
- B. Electrocatalysis
- C. Photocatalysis
- D. Photoelectrocatalysis
- E. Thermocatalysis
- F. Computational Catalysis
- G. Porous Materials
- H. Reaction Engineering and Industrial Applications

About the Poster

1. Poster format: A0 portrait format (1189 mm high × 841 mm wide).
2. Hang your poster: before 9:00 on June 29, 2023 (Thursday).
3. Poster sessions: from 12:20 to 14:20, June 30, 2023 (Friday). Check our program, Please.
4. Location: check the Schedule below.
5. Department of Chemical Engineering, National Cheng Kung University.
6. Remove your poster: Please remove your poster by yourself after the poster session on June 30, at the latest by 16:00, as the poster boards will be removed afterward.

Require Registration and Payment

1. Registration and payment: Each student should complete the registration and payment for the TICC-2023 Conference.
2. Show up: Each student must show up in front of your poster in the Poster Sessions and explain your work to the referees.

Best Poster Awards

1. Join the closing ceremony: Best Poster Awards will be rewarded in the closing ceremony.
2. Closing Ceremony: at 17:20, June 30, 2023 (Friday).
3. Certificate of merit: Please make sure all your personal information is correct on-site.

Schedule

No	Topic	Area	Location
1	A Biocatalysis G Porous Material	1	Floor 1, Lobby
2	B Electrocatalysis	2	B1 Floor
3	C Photocatalysis D Photoelectrocatalysis	3	Floor 1, Lobby
4	E Thermocatalysis	4	B1 Floor
5	F Computational Catalysis	5	B1 Floor
6	H Reaction Engineering and Industrial Applications	6	B1 Floor
<i>Poster Session</i>			<i>Floor 2 (check Page 74)</i>

Student Poster Competition

(A) Biocatalysis

No	Title	Name	Institution / Organization	Authors	
1	S1-P-002	Core-shell Pd@Au and Pd@Pt Nanocubes as Catalysts for Oxidizing Neutral Glucose Oxidation Reaction	Shih-Sin Wang	National Kaohsiung University of Science and Technology	Shih-Sin Wang, Chin-Wei Wu, Po-Yu Chen, Chien-Liang Lee
2	S1-P-003	Catalysis of the D-glucose Oxidation Reaction Using Platinum Nanoparticles on Nitrogen-Doped Graphene Nanosheets with Vacancy Defects	Tzu-Pei Wang	National Kaohsiung University of Science and Technology	Tzu-Pei Wang, Ping-Yuan Tsou, Chien-Liang Lee
3	S1-P-004	Substrates Promiscuities of Bacterial Glycosyltransferases Enable Site-Specific Enzymatic Fucosylation	Hsin-Kai Tseng	National Tsing Hua University	Hsin-Kai Tseng, Hung-Kai Wang, Chun-Yen Wu, Chun-Cheng Lin
4	S1-P-005	Controlling Decoration Functional Group to Synthesis Nature Asymmetric Human Milk Oligosaccharides	Hsien-Wei Tseng	National Tsing Hua University	Hsien-Wei Tseng, Kai-Eng Ooi, Hung-Kai Wang, Cheng-En You
5	S1-P-008	Conversion of glycidol to glycerol carbonate under atmospheric CO ₂ pressure using halogen free bio-based organic salts	Jitpisut Poolwong	Vidyasirimedhi Institute of Science and Technology (VISTEC)	Jitpisut Poolwong, Vatcharaporn Aomchad, Silvano Del Gobbo, Arjan W. Kleij, Valerio D'Elia
6	S1-P-010	Research on Biological Activity of Zwitterionic Protein Conjugates	Yu-Chan Wu	Department of Chemical Engineering, Southern Taiwan University of Science and Technology	Yu-Chan Wu, Ying-Nien Chou
7	S1-P-013	Cu-Zn-Al LDHs and Derivatives Used to Evaluate the Antibacterial Efficacy	Nian-You Wu	Chung Cheng Institute of Technology, National Defense University	Nian-You Wu, Po-Ya Liao, Chih-Wei Tang, Chih-Chia Wang, Chen-Bin Wang

(B) Electrocatalysis

No	Title	Name	Institution / Organization	Authors	
1	S2-P-001	Mo and W Binary Single-Atoms Stabilized by NiFe-Based Metal-Organic Frameworks as Overall Water Splitting Electrocatalysts	Chih Chieh Cheng	National Tsing Hua University	Chih-Chieh Cheng, Ting-Yu Lin, Yu-Chieh Ting, Shin-Hong Lin, YongMan Choi, Shih-Yuan Lu
2	S2-P-002	Catalyst and Bipolar Membrane System Engineering for CO ₂ RR to Formic Acid	Hsuan-Yu Wu	National Tsing Hua University	Hsuan-Yu Wu, Ding-Huei Tsai, Chang-An Chen, Chi-Jui Lin
3	S2-P-003	Application of Ammonia Decomposition Catalyst for Medium and Low Temperature Proton Fuel Cell	Kuan-Chung Chen	Feng Chia University	Jason G. Chen, Denny H. Kuo, and Andrew C. Chien

No	Title	Name	Institution / Organization	Authors	
4	S2-P-004	Effect of Gold Modification on Platinum Catalyst Electrocatalysis of Dimethoxymethane	Guo Yuguang	National Taiwan University of Science and Technology	Guo Yuguang, Shawn D. Lin
5	S2-P-005	Synthesis and characterization of bismuth-modified palladium-based electrocatalysts	Yi-Hua Huang	Tatung University	Yong-Yun Chang, Yi-Hua Huang, Chia-Jung Kuo, Yuh-Jing Chiou, Karol Juchniewicz, Andrzej Borodzinski
6	S2-P-006	Size Control of High-Entropy-Alloy Nanoparticles Using Mesoporous Materials for Catalysis	Chun-Wei Chang	Department of Chemical Engineering, National Tsing Hua University	Chun Wei Chang, Yueh-Chun Hsiao, Tung-Han Yang
7	S2-P-007	Manipulating the 2e- and 4e-oxygen reduction pathways by controlling the coordination environments of Au-based nanocrystals	Shang-Cheng Lin	National Tsing Hua University	Shang-Cheng Lin, Chi-Chang Hu, Tung-Han Yang
8	S2-P-008	NixMoy/Graphitic Carbon Nitride(g-C3N4) Composites for Hydrogen Evolution Reaction in Alkaline Electrolyte and In-situ Electrochemistry TEM Analysis	Yu-Chin Shen	Department of Materials Science and Engineering, National Cheng Kung University	Yu-Chin Shen, Jow-Lay Huang, Sheng-Chang Wang, Yu-Min Shen
9	S2-P-009	Simultaneous H2 production and biorefinery using nickel-decorated carbon nanotubes (CNTs) derived from bioethanol as electrocatalysts	Watinee Nunthakitguson	Vidyasirimedhi Institute of Science and Technology (VISTEC)	Watinee. Nunthakitguson. Anousha Sohail, Sirapat Tiwtusthda, Peranat Chaipornchalen, Anawat Thivasasith,
10	S2-P-010	Platinum Based Catalyst Deposited on Titanium Oxynitride Nanoflake for Oxygen Reduction Reaction	Yi-Kang Ron	National Taiwan University of Science and Technology	Yi-Kang Ron, Afandi Yusuf, Yusuf pradesar, Hsueh-Yu Che, Kai-Chin Wang, Hsin-Chih Huang, Chen-Hao Wang
11	S2-P-011	Carbon Nanofiber supported Nickel Single Atom Catalyst Meets the Industrial Criteria of CO 2 to CO Conversion	Hsin-Jung Tsai	Department of applied chemistry, National Yang Ming Chiao Tung University	Hsin-Jung Tsai, Sung-Fu Hung
12	S2-P-012	Metal-organic-framework-derived Tubular Copper Electrocatalyst For Efficient Electroreduction of CO2 To C2 Product	Zih-Yi Lin	National Yang Ming Chiao Tung University	Zih-Yi, Lin, Sung-Fu, Hung
13	S2-P-013	Surface-modified Cu2O Nanowire Enables CO2RR to C2+ Products with Industrial-scale Current Density	Tsung-Ju Lee	National Yang Ming Chiao Tung University	Tsung-Ju Lee, Sung-Fu Hung

No	Title	Name	Institution / Organization	Authors	
14	S2-P-014	X-ray Photosynthesis of Pd Based Electrocatalysts for Formic Acid Oxidation	JunWei Li	Tatung University	Jun-Wei Li, Sheng-Jung Tsou, Yuh-Jing Chiou, Marta Mazurkiewicz-Pawlicka, Artur Malolepszy
15	S2-P-015	Efficient and selective electrosynthesis of 4-aminophenol at neutral pH based on NiFeP electrode	Shih-Ching Huang	National Cheng Kung University	Papontee Sae Ong, Shih-Ching Huang, Nuttapol Lerkkasemsan, Chia-Yu Lin
16	S2-P-017	A single-site Nickel catalyst with preoccupied active centers that achieves selective CO for electrochemical CO ₂ reduction reaction	Shin-Te Chang	National Taiwan University	Hsin-Te Chang, Chen-Hao Wang, Kuei-Hsien Chen, Li-Chyong Chen
17	S2-P-018	Chemical-Vapor-Deposited Cobalt Boride Boosts the Alkaline Seawater Electrolysis	Wen-Jing Zeng	National Yang Ming Chiao Tung University	Wen-Jing Zeng, Sung-Fu Hung
18	S2-P-019	Chemical Coupling of Transition Metals to Tungsten Carbide for Promoting Electrochemical Oxygen Reduction Reaction and Zinc-Air Battery Efficiency	Chih-Hao Chen	Department of Chemical Engineering, National Taiwan University	Chih-Hao Chen, Akash S. Rasa, Wen-Yueh Yu
19	S2-P-020	Developing Carbon Nitride Quantum Dots (CNQDs) Supported by Graphene for an Efficient 2-electron Oxygen Reduction Electrocatalyst in Alkaline Media	Angelina Ersikapna Melanita Tarigan	National Taiwan University of Science and Technology	Angelina Melanita Tarigan, Sofiannisa Aulia, Yu-Chi Lin, Wei-Hsiang Huang, Yao-Sheng Cheng, Ching-Cheng Chang, Ling-Yu Chang, Shu-Chih Haw, Min-Hsin Yeh
20	S2-P-021	Synthesis of Copper / Porous Carbon for CO ₂ Capture and Electroreduction	Chun-Chieh Huang	National Taiwan University of Science and Technology	Chun-Chieh Huang, Chechia Hu
21	S2-P-022	Surface Restructuring Prussian Blue Analog-derived Bimetallic CoFe Phosphides by N-doped Graphene Quantum Dots for Electroactive Hydrogen Evolving Catalyst	Mia Rinawati	National Taiwan University of Science and Technology	Mia Rinawati, Wei-Shiang Lin, Wei-Hsiang Huang, Chia-Yu Chang, Ling-Yu Chang, Yao-Sheng Cheng, Ching-Cheng Chang, Jeng-Lung Chen, Wei-Nien Su, Min-Hsin Yeh
22	S2-P-023	Mimicking metalloenzyme microenvironments in the transition metal-single atom catalysts for electrochemical hydrogen peroxide synthesis in an acidic medium.	Saravanakumar Muthusamy	Academia Sinica	Saravanakumar Muthusamy, Palani Sabhapathy, Putikam Raghunath, Amr Sabbah, Yu-Chung Chang, Vimal Krishnamoorthy, Thi-Thong Ho, Jau-Wern Chiou, Ming-Chang Lin, Li-Chyong Chen, Kuei-Hsien Chen,

No	Title	Name	Institution / Organization	Authors	
23	S2-P-024	Phase Transition in Vanadium-doped Nickel Hydroxide and Its Electrocatalytic Application towards HMF Oxidation Reaction	Stefani Catherine	National Taiwan University of Science and Technology	Stefani Catherine, Chia-Ying Chiang
24	S2-P-028	Understanding the Bi Chemistry for its electrochemical conversion from CO ₂ to Formate Using X-ray absorption Spectroscopy.	Asia Abou-Taleb	Institute of Chemistry, Academia Sinica	Thiyagarajan Natarajan, Arumugam Sankar, Asia Abou-taleb, Yi-Fang Tsai, Steve S.-F. Yu

(C) Photocatalysis

No	Title	Name	Institution / Organization	Authors	
1	S3-P-001	Photocatalytic Reduction of Bicarbonate into Acetaldehyde with higher Selectivity over Graphitic Carbon Nitride Nanosheets	Subash Rajendran	National Cheng Kung University	Subash Rajendran, Hsisheng Teng
2	S3-P-002	Characterization of Hybridized CeO ₂ and SiO ₂ Nanoparticles and Their Application in CO ₂ Photoreduction	Yi-Ru Zhao	Feng Chia University	Yi-Ru Zhao, Yu-Cheng Tsai, I-Hsiang Tseng
3	S3-P-003	Photocatalytic Hydrogen Production by Cuprous Oxide/Titanium Dioxide	You-Yu Syue	Feng Chia University	You-Yu Syue, Pin-Yi Wu, Shang Yan Xie, I-Hsiang Tseng
4	S3-P-005	Promoted charge separation in heterojunctions of AgVO ₃ /Ag/g-C ₃ N ₄ for improved photocatalytic CO ₂ reduction	Jui-Hung Yang	National Chung Hsing University	Jui-Hung Yang, Yong-Ming Dai, Jih-Mirn Jehng
5	S3-P-006	Carbon Quantum Dots Loaded Cadmium Sulphide Nanospheres for Photocatalytic Hydrogen generation from seawater	Bishal Kumar Nahak	National Tsing Hua University	Bishal Kumar Nahak, Fan-Gang Tseng
6	S3-P-007	A novel inorganic/organic heterostructure of FeVO ₄ /TCPP for effective photodegradation of organic pollutants	Pei-An Chen	Department of Chemical and Materials Engineering, National Chin-Yi University of Technology	Pei-An Chen, Ya-Ching Wu, Yong-Ming Dai
7	S3-P-008	NaTaO ₃ /g-C ₃ N ₄ : Synthesis, Characterization, and Photocatalytic Activity of CO ₂ Reduction and CV Degradation	Ya-Jun Lee	National Taichung University of Science and Technology	Ya-Jun Lee, Fu-Yu Liu, Yu-Yun Lin, Wu-Tsan Wu, Chiing-Chang Chen
8	S3-P-009	Photocatalytic H ₂ production over biomass-derived carbon dots modified g-C ₃ N ₄	Wei-Che Wu	Department of Materials Science and Engineering, National Cheng Kung University	Wei-Che Wu, Yi-Hsuan Lai
9	S3-P-010	Synthesis of Iron Single Atom/Iron Oxide Nanoparticles/Reduced Graphene Oxide Nanocomposite for Catalytic Degradation of Rhodamine B via Solar Photothermal-enhanced Persulfate Activation	I-No Yang	National Cheng Kung University	I-No Yang, Yu-An Chen, and Dong-Hwang Chen

No	Title	Name	Institution / Organization	Authors	
10	S3-P-011	BBTT-Base Donor-Acceptor Type Copolymer Photocatalyst For Visible Light-Driven Hydrogen Evolution	Yi-Hsaing Wu	Department of Chemical Engineering, National Tsing-Hua University	Yi-Hsiang Wu, Wei-Cheng Lin, Chih-Li Chang, Li-Yu Ting, Yu-Tung Lin, Jia-Jen Liu, Tse-Fu Huang, Yuan-Ting Tseng, Yu-En Sun, Ying-Rang Zhuang, Ho-Hsiu Chou
11	S3-P-012	Incorporating the Noncovalent Conformational Locks in Conjugated Polymers for Visible-Light Driven Hydrogen Evolution	Yuan-Ting Tseng	National Tsinghua University	Yuan-Ting Tseng, Wei-Cheng Lin, Li-Yu Ting, Chih-Li Chang, Tse-Fu Huang, Yu-Tung Lin, Jia-Jen Liu, Yi-Hsiang Wu, Hao-Chi Liang, Yu-En Sun, Bing-Heng Li, Ying-Rang Zhuang, Ho-Hsiu Chou
12	S3-P-013	Conjugated Polymers Immobilized by Matrix for Photocatalytic Hydrogen Production	Yu-En Sun	National Tsing Hua University	Yu-En Sun, Wei-Cheng Lin, Tse-Fu Huang, Li-Yu Ting, Yuan-Ting Tseng, Yi-Hsiang Wu, Hao-Chi Liang, Ying-Rang Zhuang, Bing-Heng Li
13	S3-P-015	Bifunctional Ternary Conjugated Polymer Dots for simultaneous in situ Hydrogen Therapy and Fluorescence Imaging in NIR-II window	Ying-Rang Zhuang	National Tsing Hua University	Ying-Rang Zhuang, Wei-Cheng Lin, Tse-Fu Huang, Li-Yu Ting, Yuan-Ting Tseng, Yi-Hsiang Wu, Hao-Chi Liang, Yu-En Sun, Bing-Heng Li
14	S3-P-016	Investigation of the photocatalytic degradation of Rhodamine B by Mxene/N-GQDs-CsPbBr ₂ /TiO ₂ aerogel.	Tai-Yuan Chen	National Taitung University	Chia-Ching Wu, Tai-Yuan Chen, Bo-Chun Chen
15	S3-P-017	Investigation of the composition ratio in CdS/CeO ₂ binary photocatalyst for photodegradation of methyl orange	Kai-Ni Sun	Feng Chia University	Kai Ni Sun, Yu Wei Su
16	S3-P-018	Ternary composite material of Fe ₂ O ₃ /C ₃ N ₄ loaded on NH ₂ -MIL-125 for photocatalytic degradation of organic pollutants under visible light irradiation	Chia-Hao Tseng	Department of Engineering Science, National Cheng Kung University	Chia-Hao Tseng, Jun-Jie Liu, Ji-Jie Jiang
17	S3-P-019	Numerous Defects Induced by Exfoliation of Boron-Doped g-C ₃ N ₄ Towards Active Sites Modulation for Highly Efficient Solar-to-Fuel Conversion	Mahmoud Kamal Hussien	Institute of Atomic and Molecular Sciences, Academia Sinica	Mahmoud Kamal Hussien, Amr Sabbah, Mohammad Qorbani, Mohamed Hammad Elsayed, Putikam Raghunat, Ming-Chang Lin, Ho-Hsiu Chou, Li-Chyong Chen, Kuei-Hsien Chen

(D) Photoelectrocatalysis

	No	Title	Name	Institution / Organization	Authors
1	S4-P-001	Photoelectrochemical water splitting over an Earth-abundant heterojunction photoanode	Cheng-Chih Hsiao	Department of Materials Science and Engineering, National Cheng Kung University	Cheng-Chih Hsiao, Yi-Hsuan Lai
2	S4-P-002	Hydrogel-based Matrix with Silver Nanowires Coating for Stabilizing Inorganic Photocatalyst to Enhance Photoelectrochemical Water Splitting	Bing-Heng Li	National Tsing Hua University	Bing-Heng Li, Li-Yu Ting, Chao-Yan Chung, Ho-Hsiu Chou
3	S4-P-003	Development of non-toxic perovskite material for photoelectrochemical reactions	Yu-An Lee	Department of Material Science and Engineering National Cheng Kung University	Yu-An Lee, Yi-Hsuan Lai

(E) Thermocatalysis

	No	Title	Name	Institution / Organization	Authors
1	S5-P-001	Hydrophobic h-BN Supported Cu/ZnO for CO ₂ Hydrogenation to Methanol	Richard Hu	National Taiwan University	Hu Jui-Chi, Wu Chi-Sheng
2	S5-P-004	Synergistic catalysis of the nano-Ni/nanosheets-CeO ₂ catalyst for low temperature CO ₂ methanation	Wei-Chi Chen	National Chung Hsing University	Wei-Chi Chen, Yong-Ming Dai, Jih-Mirn Jehng
3	S5-P-005	Direct Methane Oxidation to Formaldehyde by Metal Phosphate Nanoparticle Catalyst	Aoi Matsuda	Tokyo Institute of Technology	Aoi Matsuda, Kazuhiko Obara, Atsushi Ishikawa, Meng-Hsuan Tsai, Chia-Hsin Wang, Yu-Chuan Lin, Michikazu Hara, Keigo Kamata
4	S5-P-006	A Facile Synthesis Approach: Atomically Dispersed Hydrotalcite Oxide Supported Copper Catalyst for Selective Hydrogenation of 5-Hydroxymethylfurfural to form 2,5-Bis(hydroxymethyl)furan	Raju Kumar	Academia Sinica	Raju Kumar, Hsin-Hui Lee, En Chen, Yuan-Peng Du, Chan-Yi Lin, Warot Prasanseang, Thanasak Solos, Kittisak Choojun, Tawan Sooknoi, Rui-Kun Xie, Jyh-Fu Lee, Po-Wen Chung
5	S5-P-007	Palladium-Catalyzed Oxidative Carbonylation of Phenol to Diphenyl Carbonate	Dun-Zheng Liao	National Tsing Hua University	Dun-Zheng Liao, Pin-Lien She, Yi-Ta Tsai, Chien-Fu Huang, De-Hao Tsai, and Yung-Tin Pan
6	S5-P-008	Surfactant Assisted Nickel Catalysts for Hydrogen production by steam reforming	En-Rong Cao	Department of Chemical Engineering, National Taiwan University of Science and Technology	En Rong Cao, Shawn D. Lin

No	Title	Name	Institution / Organization	Authors	
7	S5-P-009	Characteristic analysis of indium doped CeO ₂ for oxygen stripping of CO ₂	Nan-Chian Chiang	Department of Chemical Engineering, National Taiwan University of Science and Technology	Nan-Chian Chiang, Shawn D. Lin
8	S5-P-010	Methanation Activity of Bi-metal (Ni and La) / Samarium Doped Ceria Catalysts and Effect of Metal Addition Order	ChihYing Chi	Feng Chia University	Corinna C. Chi , Iris J. Lee , Andrew C. Chien
9	S5-P-011	Elucidation of Characteristics of Supported Metal Catalysts for Selectivity on Nitrile Hydrogenation	Kahoko Kato	Tokyo Institute of Technology	Kahoko Kato, Yusuke Kita, Keigo Kamata, Michikazu Hara
10	S5-P-012	Influence of Catalyst on Oxygen Ion Conducting Membrane Reaction	Cheng-Si Wu	National Taiwan University of Science and Technology	Cheng-Si Wu and Shawn D. Lin
11	S5-P-013	High-Efficient Catalytic Plasma Reactor to Decompose Chlorine-Containing Organic Waste Gas	Yi Yen	National Taiwan University	Yi Yen, Jeffrey Chi-Sheng Wu
12	S5-P-014	Amino Group Functionalized Pitch-based Carbocatalyst for the Henry Reaction of Furfural	Gemechu Dadi Bedasso	Institute of Chemistry, Academia Sinica	Gemechu Dadi Bedasso, Der-Lii M. Tzou, Po-Wen Chung
13	S5-P-015	Reversal of methanation-oriented to RWGS-oriented nature of Ni/SiO ₂ catalyst by exsolution of Ni ²⁺ confined in silicalite-1	Chia-Hung Chen	Department of Chemical Engineering, National Cheng Kung University	Chia-Hung Chen and Yu-Chuan Lin
14	S5-P-016	Cu/ZnO-based catalysts for CO ₂ conversion to methanol via alcohol-assisted synthesis	Kantika Sitdikovit	National Taiwan University	Kantika Sitdikovit, Monica Mengdie Lin, Wen-Yueh Yu
15	S5-P-017	Hydrogen Production from Formic Acid at Ambient Conditions over Well-Dispersed Palladium Catalysts	Po-Ya Liao	Chung Cheng Institute of Technology, National Defense University	Yu-Ling Wu, Po-Ya Liao, Chiu-Hung Liu, Chih-Wei Tang, Chih-Chia Wang, Chen-Bin Wang
16	S5-P-018	Preparation and Characterization of Selective Catalytic Reduction NO _x Honeycomb Catalyst	Limin Pai	National Taiwan University	Limin Pai, Jeffrey Chi-Sheng Wu
17	S5-P-019	Ammonia Synthesis from Hydrogenation of Nitric Oxide	Guan-Bo Syu	Department of Chemical Engineering, National Taiwan University	Guan-Bo Syu, Chia-Shin Lee, Wen-Yueh Yu

(F) Computational Catalysis

No	Title	Name	Institution / Organization	Authors	
1	S6-P-001	Insights into Methane conversion over RuO ₂ (1 1 0) catalyst-A combined DFT and Microkinetics study	Guan-Cheng Xie	National Taiwan University of Science and Technology	Guan-Cheng Xie, Santhanamoorthi Nachimuthu, and Jyh-Chiang Jiang
2	S6-P-002	Methane Oxidation to Methanol catalyzed by Copper Oxide clusters supported in MIL-53(Al) - A DFT study	Chun-Wei Yeh	National Taiwan University of Science and Technology	Chun-Wei Yeh, Santhanamoorthi Nachimuthu, Jyh-Chiang Jiang
3	S6-P-003	Characterization of CeO ₂ Surface Properties using Deep Learning with Infrared Spectroscopy of CO	Hsin-yu Yu	Department of Chemical Engineering National Taiwan University	Hsin-Yu Yu, Muthiah Balaganesh, Shih-Cheng Li, Wen-Yueh Yu, Yi-Pei Li
4	S6-P-004	A DFT study on Methane Oxidation to Formaldehyde over RuO ₂ (110) surface	Maosheng Su	National Taiwan University of Science and Technology	Mao-Sheng Su, Santhanamoorthi Nachimuthu, Jyh-Chiang Jiang
5	S6-P-005	Multi-scale simulations elucidate the effect of sulfur defects on the piezoelectric property of ZnIn ₂ S ₄ photocatalyst	Ming-Yuan Hong	National Cheng Kung University	Ming-Yuan Hong, Yen-Ting Kuo, Hong-Kong Tian

(G) Porous Material

No	Title	Name	Institution / Organization	Authors	
1	S7-P-001	Copper Decorated Metal–Organic Framework-Derived Electrocatalysts for Nitrate Reduction to Ammonia	Shang-Cheng Yang	Department of Chemical Engineering, National Cheng Kung University	Shang-Cheng Yang, Jhe-Wei Chang, Chi-Wei Huang, Chung-Wei Kung
2	S7-P-002	Tuning the Thin-Film Thickness of Redox-Active Metal–Organic Frameworks for Electrocatalysis and Energy Storage	Chi-Wei Huang	Department of Chemical Engineering, National Cheng Kung University	Chi-Wei Huang, Meng-Dian Tsai, Yu-Na Chang
3	S7-P-003	Accelerated synthesis of hierarchical FER nanoneedles with the ETL seed-assisted approach	Narasiri Maingawklang	Vidyasirimedhi Institute of Science and Technology (VISTEC)	Narasiri Maingawklang, Krissanapat Yomthong
4	S7-P-004	Preparation and Characterization of MIL-101(Cr) from Waste PET for CO ₂ Conversion into Propylene Carbonate	Yun Ko	Yuan Ze University	Yun Ko, Yun-Cheng Hsieh, Jamshid Hussain, Abrar Hussain
5	S7-P-005	The Study of NNO-2Ni@NU-1000(Zr)Applied in CO ₂ Cycloaddition and copolymerization of phthalic anhydride with cyclohexene oxide.	Jhao-Yu Ciou	Department of Chemistry, National Taiwan Normal University	Jhao-Yu, Ciou, Chen-Yen, Tsai, Chia-Her, Lin
6	S7-P-006	Production of Performic Acid from Formic Acid and Oxygen Using Au/SBA-15 Catalysts	Chen-Yi Hong	National Changhua University of Education	Chen-Yi Hong, Kun-Che Kao
7	S7-P-007	Novel triazine-based covalent organic framework/carbon nanotube nanocomposites for high-performance supercapacitor electrodes	Zi-Ting Chen	National Chung Hsing University	Zi-Ting Chen, Huan-Cheng Yang, Yi-Yun Chen, Rong-Ho Lee

(H) Reaction Engineering and Industrial Applications

No	Title	Name	Institution / Organization	Authors	
1	S8-P-001	Effective Photocatalytic Conversion of CO ₂ and Methanol into Acetate using Functionalized Poly(heptazine imide)	Van-Can Nguyen	National Cheng Kung University	Van-Can Nguyen, Hsisheng Teng
2	S8-P-003	Combined Hydrogenation of CO ₂ and CO to Methanol using Aerosol-Assisted Metal-Organic Framework-Derived Hybrid Catalysts	Ren-You Huang	National Tsing Hua University	Ren-You Huang, Thanh Truc Nguyen Hoang, Yu-An Hsueh, De-Hao Tsai
3	S8-P-004	Oxidative Carbonylation of Propylene Glycol to Propylene Carbonate by Copper-Based Catalysts	Pao-Chi Yang	National Tsing Hua University	Pao-Chi Yang, Yen-Te Lee, Yi-Ta Tsai, Chien-Fu Huang, Yung-Tin Pan, De-Hao Tsai
4	S8-P-005	Metal-Organic Framework-derived Nanocatalyst for Methane Bi-reforming	Jia-Yun Tu	Department of Chemical Engineering, National Tsing Hua University	Jia-Yun Tu, Chuan-Bin Du, Chung-Wei Kung, De-Hao Tsai
5	S8-P-006	Vitrimer Synthesis from the Waste Polyurethane	I-Han Chen	Feng Chia university	Yu-Hsuan Lin, I-Han Chen, Sheng-Wen Lu, Tai-Chia Chiu, Wei-Xaun Hong
6	S8-P-008	The Copper based Catalysts for Evaluation of Propylene Carbonate Synthesis in Oxidative Carbonylation Reactions	Pin-Lien She	National Tsing Hua University	Pin-Lien She, Pao-Chi Yang, Dun Zheng Liao, Yi-Ta Tsai, Chien-Fu Huang, De-Hao Tsai, Yung-Tin Pan
7	S8-P-009	Kinetic Study of Chemically-Looped Reverse Water-Gas Shift Reaction using Iron/Iron Oxide Oxygen Carriers	Hung-Chin Lin	National Tsing Hua University	Hung-Chin Lin, Wei-Ze Hong, Yung-Tin Pan
8	S8-P-010	Controllable aniline-oligomer-based electroactive polyimide nanocomposite catalysts: Synthesis and application on reduction of 4-nitrophenol	Yi-Sheng Chen	Department of Chemical and Materials Engineering, National Chin-Yi University of Technology	Yi-Sheng Chen, Jui-Ming Yeh, Mei-Hui Tsai
9	S8-P-011	Reduction of Nitroarenes Catalyzed by ppm Level of PdCl ₂ (NH ₃) ₂ /Cationic 2,2'-bipyridyl System in Water and Its One-Pot Synthesis of Aminobiaryls	Tzu-Ching Chen	National Taipei University of Technology	Tzu-Ching Chen, Jing-Wen Tang
10	S8-P-012	Efficient hydrogenation of 5-hydroxymethylfurfural (5-HMF) to bis(hydroxymethyl)tetrahydrofuran (BHMTHF) under mild conditions over metals supported on hierarchical zeolites	Anittha Prasertsab	Vidyasirimedhi Institute of Science and Technology (VISTEC)	Anittha Prasertsab, Chularat Wattanakit
11	S8-P-013	One-Pot Methanolysis of Poly (Ethylene Terephthalate) Enabled by Isopropanol-Assisted CO ₂ Hydrogenation	Monica Mengdie Lin	Department of Chemical Engineering, National Taiwan University	Monica Mengdie Lin, Justin Tay Zheng, Wen-Yueh Yu
12	S8-P-014	Study on Active Species of Cu-Bi Binary Catalyst in Ethynylation of Aldehyde	Hsin-Yu Su	National University of Kaohsiung	Hsin-Yu Su, Yu-Ching Hsu, Chia-Hao Chang, Tseng-Chang Tsai and Yao-Yuan Chuang