

1. Student Oral Presentation Awards

Topic

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

No	Topic / Group
1	A - Biocatalysis G- Porous Material
2	B - Electrocatalysis
3	C - Photocatalysis D - Photoelectrocatalysis
4	E - Thermocatalysis H - Reaction Engineering and Industrial Applications
5	F - Computational Catalysis

Student Oral Presentation Awards

(A) Biocatalysis &

(G) Porous Material

Outstanding Oral Presentation Award					
	No	Title	Name	Institution / Organization	Authors
1	S7-O-002	Surface-Charged Metal–Organic Frameworks as a Highly Porous Alternative to Nafion for Selective Electrocatalysis	Cheng-Hui Shen	Department of Chemical Engineering, National Cheng Kung University	Cheng-Hui Shen, Yu-Na Chang, You-Liang Chen, Chung-Wei Kung
Honorable Oral Presentation Award					
	No	Title	Name	Institution / Organization	Authors
1	S7-O-004	Selective Formation of Cobalt Sulfide Nanoparticles Confined in the Nanopores of a Water-Stable Metal–Organic Framework for the Liquid-Phase Catalysis	You-Liang Chen	Department of Chemical Engineering, National Cheng Kung University	You-Liang Chen, Yi-Ching Wang, Yu-Hsiu Chen, Tzu-En Chang, Cheng-Hui Shen, Chi-Wei Huang, Chung-Wei Kung

Student Oral Presentation Awards

(B) Electrocatalysis

Outstanding Oral Presentation Award					
	No	Title	Name	Institution / Organization	Authors
1	S2-O-005	Electrochemical Hydrogenation of Furfural with Tunable Selectivity by Metal-Organic Framework Coating	Yu-Shuo Lee	National Taiwan University	Yu-Shuo Lee, Chi-Wei Huang, Chun-Ting Yueh, Wen-Yueh Yu
2	S2-O-012	Designing UV/Ozone activated CoFe Prussian Blue Analogue/Graphene Quantum Dots Nanocomposite for Hydrogen Evolution Reaction	Angelina Ersikapna Melanita Tarigan	National Taiwan University of Science and Technology	Angelina Melanita Tarigan, Mia Rinawati, Sofiannisa Aulia, Yao-Sheng Cheng, Yen-Shuo Chiu, Ching-Cheng Chang, Wei-Hsiang Huang, Jeng-Lu Chen, Wei-Hung Chiang, Min-Hsin Yeh
Honorable Oral Presentation Award					
	No	Title	Name	Institution / Organization	Authors
1	S2-O-001	Optimizing Performance of PEMWE through MEA Engineering	Yu-Wei Hsu	Department of Chemical Engineering, National Tsing Hua University	Yu-Wei Hsu, Lu-Yu Chueh, Yung-Tin Pan
2	S2-O-010	Operando Revealing the Crystal Phase Transformation and Electrocatalytic Activity Correlation of MnO ₂ toward Glycerol Electrooxidation	Giang-Son Tran	National Taiwan University of Science and Technology	Giang-Son Tran, Truong-Giang Vo, Chia-Ying Chiang
3	S2-O-011	Application of Carbon Spheres in Electrocatalytic Iodide Oxidation Reaction	Chun-Hsiang Lin	National Taiwan University of Science and Technology	Chun-Hsiang Lin, Meng-Che Tsai, Wei-Nien Su, Bing Joe Hwang

Student Oral Presentation Awards

(C) Photocatalysis &

(D) Photoelectrocatalysis

Outstanding Oral Presentation Award					
	No	Title	Name	Institution / Organization	Authors
1	S3-O-006	New viewpoint of magnetic field effect on photocatalytic oxidation of 2-propanol	Yen-Han Wang	National Taiwan University	Yen-Han Wang, Jeffrey C.S. Wu
2	S4-O-001	Development of NiFePx electrocatalysts for efficient overall (photo-) electrochemical seawater splitting	Shih-Ching Huang	National Cheng Kung University	Shih-Ching Huang, Yan-Gu Lin, and Chia-Yu Lin
Honorable Oral Presentation Award					
	No	Title	Name	Institution / Organization	Authors
1	S3-O-004	Indanone-based Conjugated Polymer for Visible Light-driven Hydrogen Evolution from Water	Tse-Fu Huang	National Tsing Hua University	Tse-Fu Huang, Chih-Li Chang, Wei-Cheng Lin, Ching-Li Huang

(E) Thermocatalysis &

(H) Reaction Engineering and Industrial Applications

Outstanding Oral Presentation Award					
	No	Title	Name	Institution / Organization	Authors
1	S8-O-001	Efficient Calcium Looping-integrated Methane Dry Reforming by Dual Functional Aerosol Ca-Ni-Ce Nanoparticle Cluster	Zhi-Xuan Law	National Tsing Hua University	Zhi Xuan Law, De-Hao Tsai
Honorable Oral Presentation Award					
	No	Title	Name	Institution / Organization	Authors
1	S5-O-001	Cascade Conversion of Furfural to γ -Valerolactone over Zirconium Phosphate Catalyst with Adjustable Lewis and Bronsted Acid Sites	Sudeep Mudhulu	National Taiwan University	Sudeep Mudhulu, Zi-Jie Gong, and Wen-Yueh Yu
2	S5-O-004	Co-activation Methane and Nitrogen to form Acetonitrile over Supported MoCx Catalysts	I-Ting Kao	Department of Chemical Engineering, National Cheng Kung University	I-Ting Kao, Korawich Trangwachirachai
3	S8-O-003	Catalytic dehydroisomerization of butane to isobutene over zeolite composites	Peeranat Chaipornchaler m	Vidyasirimedhi Institute of Science and Technology	Peeranat Chaipornchaler m, Watinee Nunthakitguson

Student Oral Presentation Awards**(F) Computational Catalysis**

Outstanding Oral Presentation Award					
	No	Title	Name	Institution / Organization	Authors
1	S6-O-001	Automated Dataset Generation and Machine Learning Models for Predicting Activation Energy in Alkene Combustion	Shih-Cheng Li	National Taiwan University	Shih-Cheng Li, Xiaorui Dong, Yi-Pei Li, William H. Green
Honorable Oral Presentation Award					
2	S6-O-004	Unveiling the Origin of Mobile Nitrogen in Methane Conversion to Acetonitrile on GaN Surfaces using Density Functional Theory	Hong-Kai Chen	National Cheng Kung University	Hong-Kai Chen, Hong-Kang Tian

2. Student Poster Awards

Topic

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

No	Topic / Group	Area
1	A Biocatalysis G Porous Material	1
2	B Electrocatalysis	2
3	C Photocatalysis D Photoelectrocatalysis	3
4	E Thermocatalysis	4
5	F Computational Catalysis	5
6	H Reaction Engineering and Industrial Applications	6

Student Poster Awards

**(A) Biocatalysis &
(G) Porous Material**

Outstanding Poster Award					
	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	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
3	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
Honorable Poster Award					
	No	Title	Name	Institution / Organization	Authors
1	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
2	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
3	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

Student Poster Awards

(B) Electrocatalysis

Outstanding Poster Award					
	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-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
4	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
Honorable Poster Award					
	No	Title	Name	Institution / Organization	Authors
1	S2-P-012	Metal-organic-framework-derived Tubular Copper Electrocatalyst For Efficient Electroreduction of CO ₂ To C ₂ Product	Zih-Yi Lin	National Yang Ming Chiao Tung University	Zih-Yi, Lin, Sung-Fu, Hung
2	S2-P-013	Surface-modified Cu ₂ O Nanowire Enables CO ₂ RR to C ₂ + Products with Industrial-scale Current Density	Tsung-Ju Lee	National Yang Ming Chiao Tung University	Tsung-Ju Lee, Sung-Fu Hung
3	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
4	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
5	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

Student Poster Awards

**(C) Photocatalysis &
(D) Photoelectrocatalysis**

Outstanding Poster Award					
	No	Title	Name	Institution / Organization	Authors
1	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
2	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
3	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
4	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

Student Poster Awards

**(C) Photocatalysis &
(D) Photoelectrocatalysis**

Honorable Poster Award					
	No	Title	Name	Institution / Organization	Authors
1	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
2	S3-P-011	BBTT-Base Donor-Acceptor Type Copolymer Photocatalyst For Visible Light-Driven Hydrogen Evolution	Yi-Hsiang 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
3	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
4	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

Student Poster Awards

(E) Thermocatalysis

Outstanding Poster Award					
	No	Title	Name	Institution / Organization	Authors
1	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
2	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
Honorable Poster Award					
	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-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
3	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
4	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

(F) Computational Catalysis

Outstanding Poster Award					
	No	Title	Name	Institution / Organization	Authors
1	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
Honorable Poster Award					
	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-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

(H) Reaction Engineering and Industrial Applications

Outstanding Poster Award					
	No	Title	Name	Institution / Organization	Authors
1	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
2	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
Honorable Poster Award					
	No	Title	Name	Institution / Organization	Authors
1	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