

## Topic A - Biocatalysis

No.	Name	Institution	Title
A-0149-P	SzuHung Chen	National Taipei University of Technology,	Investigation of the inhibition effects of various metal ions on the SARS-CoV-2 RNA dependent RNA polymerase
A-0205-P	Wen Chi Yu	National Central University	An amino acid synthesis pathway using PLA, CO <sub>2</sub> , NH <sub>4</sub> <sup>+</sup> and $\alpha$ -ketoglutarate as raw materials feeds cell-free protein synthesis system

## Topic B - Electrocatalysis

No.	Name	Institution	Title
B-0013-P	LIN CHIA CHEN	National Yang Ming Chiao Tung University	Microstructure-sensitive CO <sub>2</sub> electro-reduction to CO on ultrathin fluorine-based zinc sub-nanowires
B-0115-P	HUI-XIN LIU	National Taiwan University of Science and Technology	Iron-nitrogen Bonding on Hollow Prussian Blue Catalysts for Anion Exchange Membrane Fuel Cell
B-0147-P	HSIUNG CHIA CHANG	National United University	CuW-melamine sponge loading on Cu foam for enhanced carbon dioxide electroreduction reaction
B-0187-P	Ding-Quan Liu	National United University	A Metal Schiff base-covalent organic framework for alkaline water electrolysis
B-0218-P	Yi-ying Tsai	Industrial Technology Research Institute	Research on single-atom catalysts in alkaline electrolysis of oxygen evolution materials

## Topic C - Photocatalysis

No.	Name	Institution	Title
C-0009-P	Ho-Hsiu Chou	National Tsing Hua University	Semiconducting Polymer Photocatalysts for Solar-driven Hydrogen Evolution
C-0066-P	Yu-Chen Chuang	National Taichung University of Education	Visible-light-driven photocatalysis of carbon dioxide and crystal violet dye by ternary photocatalyst BiOF/BiOBr/BiOI/g-C <sub>3</sub> N <sub>4</sub>
C-0077-P	Ssu Chi Chen	National Tsing Hua University	Study effect of Pt/TiO <sub>2-x</sub> & Carbon-coated TiO <sub>2</sub> for CO <sub>2</sub> photoreduction
C-0087-P	Liu Yu-An	National Taichung University of Education	Application of Zinc Selenide and its Graphitic Carbon Nitride Composite Materials in Photocatalytic Degradation of Crystal Violet and Electrocatalytic Reduction of CO <sub>2</sub> .
C-0111-P	Po-Jung Huang	National Central University	Metal-Porphyrinic Metal Organic: Visible-light-Driven Heterojunction Photocatalyst for Photoreduction
C-0124-P	Kebena Gebeyehu Motora	National Taiwan University of Science and Technology	Preparation of novel multifunctional magnetic separable reduced tungsten oxides@Fe <sub>3</sub> O <sub>4</sub> nanocomposites based Janus membranes for photocatalytic removal of organic dyes, inorganic pollutants, emerging wastewater contaminants, and water evaporation
C-0209-P	Tzong-Horng Liou	Ming Chi University of Technology	Synthesis of Ordered Mesostructured Titania Nanocomposites with Excellent Adsorption and Photocatalysis Activity
C-0231-P	Yi-Chan Huang	National Tsing Hua University Department of Chemical Engineering	Exploring the Influence of Different Metal Incorporation Methods on the Properties of Conjugated Organic Frameworks(COFs) Materials
C-0254-P	Yong-Ming Dai	National Chin-Yi University of Technology	Synthesis of FeVO <sub>4</sub> /TCPP composite with enhanced interfacial charge separation for efficient photocatalytic CO <sub>2</sub> reduction
C-0269-P	Islam M. A. Mekhemer	National Tsing Hua University	Push-Pull-Pull Interactions of 2D Imide-Imine based Covalent Organic Framework to Promote Charge Separation in Photocatalytic Hydrogen Production

### Topic D - Photoelectrocatalysis

No.	Name	Institution	Title
D-0272-P	Zih-Ting Chen	National Taipei University of Technology	Combination of semi-transparent perovskite module and photoelectrochemical devices for nitrogen reduction reaction
D-0273-P	Bing-Heng Li	National Tsing Hua University	Hydrogel-based Matrix with Silver Nanowires Coating for Stabilizing Inorganic Photocatalyst to Enhance Photoelectrochemical Water Splitting

### Topic E - Thermocatalysis

No.	Name	Institution	Title
E-0048-P	Ethan Andrew Yang	National Tsing Hua University	Ruthenium Nanocatalysts Supported on Nanosheet-Based Hierarchical Silicalite-1 for CO <sub>2</sub> Methanation
E-0049-P	Saeed - Shahbazi	National Tsing Hua University	Enhancing CO <sub>2</sub> methanation: insights into preparation, characterization, and mechanism of MgO-supported nickel nitride catalyst with high selectivity and stability
E-0051-P	Kai-Chun Chen	National Tsing Hua University	Ammonia synthesis over mesoporous carbon-supported RuFe alloy catalysts
E-0058-P	Yi-Wei Liao	National Tsing Hua University	Enhanced Thermocatalytic CO <sub>2</sub> Hydrogenation via Co-precipitated Ni/CeO <sub>2</sub> /SiO <sub>2</sub> Nanocomposite Catalyst
E-0067-P	ZONG XUN YANG	Yuan Ze University	Highly active Fe/Co/Ni-MgAl LDH catalysts to boost Propylene Carbonate Conversion to Dimethyl Carbonate
E-0071-P	WENJIE XIANG	University of Toyama	Potassium Promoted Fe-Based Catalysts for CO <sub>2</sub> -to-Liquid Fuels Synthesis: Effects and Optimization
E-0084-P	WEI-HONG HONG	National Cheng Kung University	Catalytic Conversion of Glycerol with Carbon Dioxide to Organic Carbonates via Direct Carbonylation Using Cerium Oxide/Zinc Oxide

E-0091-P	YU HSUAN CHENG	National Cheng Kung University	Study on One-step Hydrogenation of Soybean Oil with Modified ZSM-5 Supported Nickel-Molybdenum Bimetallic Catalysts for Green Fuels
E-0137-P	HUANG HAO	University of Toyama	Efficient self-catalytic reactors for catalytic C1 molecular conversion
E-0215-P	Wen-Yueh Yu		Catalytic (Non-)Reductive Conversion of Carbon Dioxide
<b>Topic F - Computational Catalysis</b>			
<b>No.</b>	<b>Name</b>	<b>Institution</b>	<b>Title</b>
F-0306-P	Yu-han Tsou	National Sun Yat-sen university	Modeling the Time-Evolution of the Electronic Structure of Defective MoS <sub>2</sub>
<b>Topic G - Characterization and Porous Materials</b>			
<b>No.</b>	<b>Name</b>	<b>Institution</b>	<b>Title</b>
G-0095-P	Han-Yu Wang	National Taichung University of Education	Synthesis of Glycerol Carbonate from Glycerol and Dimethyl Carbonate using M <sub>x</sub> N <sub>y</sub> O <sub>z</sub> (M=Li, Na, K) as Catalyst
<b>Topic H - Reaction Engineering and Industrial Applications</b>			
<b>No.</b>	<b>Name</b>	<b>Institution</b>	<b>Title</b>
H-0005-P	Yu-Chun Zeng	National Tsing Hua University	Combined Hydrogen Production with CO <sub>2</sub> Reduction using Dual Functional Nanocatalyst
H-0012-P	Wen-Long Hwang	CPC Corporation, Taiwan	The evaluation of RFCC adsorbents and the solution of their performance issues failure
H-0022-P	Yun-Ting Lin	, CPC Corporation, Taiwan	The influence of water washing regeneration on the recovery rate of used honeycomb denitrification catalyst
H-0056-P	CHENG-MIN LEE	CPC Corporation, Taiwan	Carbon Capture and Utilization at Refinery Plant
H-0073-P	Li Yi Chen	China Steel Corp. (Taiwan)	Pilot-Scale evaluation of CSC Patented SCR Catalyst for DeNO <sub>x</sub> at Low-Medium Temperature of Coke Oven Flue Gas

H-0079-P	Yen-Ling Kuan	National Sun Yat-sen University	Intra- and Intermolecular Hydrogen Bonding of Poly(cyclohexene carbonate)-based Copolymer and Poly(Vinyl Phenol) Miscible Blends
H-0086-P	Ching-Fa Chi	China Petroleum	Preparation of Tetramethylpiperidinol by Catalytic Hydrogenation method
H-0158-P	Hung-Chin Lin	National Tsing Hua University	Enhancing Performance and Cycle Stability of Iron Oxygen Carriers for Chemically Looped CO <sub>2</sub> Splitting via Reaction Engineering and Materials Design
H-0160-P	Cheng Hsun Li	Industrial Technology Research Institute	Catalyst for Direct Converting Carbon Dioxide to Alkanes/ Olefins
H-0165-P	Pao-Tsern Lin	Industrial Technology Research Institute	Catalyst for CO <sub>2</sub> Conversion to CO at Low Temperatures
H-0167-P	Huan-Ting Kuo	Refining & Manufacturing Research Institute, CPC Corporation, Taiwan	Feasibility assessment of extending the use time of the SCR catalysts in the refinery of CPC
H-0171-P	JyunWei Hong	Industrial Technology Research Institute	Method for preparing triacetoneamine and recycling its by-product
H-0229-P	Yen-Hao Lin	CPC Corporation, Taiwan	Process Development of Upgraded Pyrolysis Oil