

## 學生口頭 (Oral) 競賽得獎名單

### 特優 (First place)

	作者	單位	題目
	Kuan-Hung Chen 陳冠宏	國立清華大學	An Effervescence-Enabled Oral Drug Delivery System That Concurrently Delivers Lipophilic and Hydrophilic Chemotherapeutics to Treat Pancreatic Cancer
	Cheng-feng Xue 薛成鳳	國立成功大學	Harness Pyridoxal 5'-phosphate-dependent PdxY Integrated Escherichia coli Enhancer (PIECE) for High-level 5-Aminolevulinic Acid Production
	Chien-Jung Wu 吳建融	中原大學	Composite Superhydrophobic SiO <sub>2</sub> /poly(vinylidene fluoride) Membranes for Efficient Gravity-driven Separation of Drug Enantiomers
	Eduardo C. Atayde Jr	國立清華大學	Facile Synthesis of Biomass-Derived Furan Oligomers with Potential Electrochromic Applications
	Yi-Da Song 宋易達	國立成功大學	Selective Formation of Polyaniline Confined in the Nanopores of a Zirconium-Based Metal–Organic Framework for Supercapacitors
	Yu-Hsing Lin 林宇杏	國立成功大學	A Dual-Salt System in Auto-Gelation Polymer Electrolyte for Stable Lithium Ion Batteries
	Amalia Rizki Fauziah	國立臺灣科技大學	Continuous Subnanochannel Metal-Organic Framework Membranes for Unprecedented Osmotic Energy Harvesting from Organic Solutions
	Ping-Ting Chiang 江秉廷	國立臺灣大學	In Situ Visualization of Traveling Solvent Growth of Thin SiGe crystals
	Po-Chun Han 韓柏群	國立臺灣大學	Water-based Synthesis of Gold Single Atoms-Embedded, MetalOrganic Frameworks (MOF)-Derived Nanoporous Carbon Nanoparticles with Enhanced Reduction Ability
	Da-Shiuan Chiou 邱大軒	國立臺灣大學	Highly CO <sub>2</sub> Selective CAU-10-H MOF Membrane: a Combination of Experimental and Computational Efforts
	Hou-Jen Lai 賴厚任	國立臺灣科技大學	Highly Dispersed Iridium on TiO <sub>2</sub> (101) Catalyst for Water-Gas Shift Reaction–Combined DRIFTS and Theoretical Study
	Minh-Nhat Pham	國立成功大學	Networked Polymer Electrolytes with Salt-Dissociating Urethane Linkage for All-Solid-State Lithium Batteries
	Chen-Wei Chang 張宸瑋	國立臺灣科技大學	Bioinspired Ion-nanochannel Membranes for High-performance Osmotic Power Generation

## 優等 (Excellence award)

	作者	單位	題目
	Shih-Chou Huang 黃世州	國立臺灣科技大學	Photo-Curing 3D Printing of Silk Fibroin
	Nam Ngoc Pham	國立清華大學	CRISPR-Mediated Engineered Pseudomonas Putida S12 for 2,5-Furandicarboxylic Acid (FDCA) Production
	Darwin Kurniawan	國立臺灣科技大學	Microplasma-Enabled Colloidal Nitrogen-Doped Graphene Quantum Dots for Broad-Range Fluorescent pH Sensors
	Chung-Kai Chang 張宗鎧	國立臺灣大學	CAU-10-Pyridine Membrane for CO <sub>2</sub> /CH <sub>4</sub> Separation
	Mohamed Hammad Elsayed	國立清華大學	A novel design of metal-free photocatalysts for hydrogen evolution and a study of the photocatalytic reaction mechanism
	Dalip Kumar	國立臺灣大學	Inhibition of Ice growth and quick CH <sub>4</sub> Hydrate Nucleation: A Molecular Dynamics Study
	Ting-Ya Wang 王亭雅	國立臺灣大學	Perforated Vesicles of ABA Triblock Copolymers with On/OffSwitchable Nanopores

## 佳作 (Honorable mention award)

	作者	單位	題目
	Chia-Chun Wang 王嘉淳	國立清華大學	The Study of Photoinitiators for Photopolymerization of Biodegradable Polymers and Their Applications of Digital Light Processing Additive Manufacturing
	Pin-Chun Chen 陳品君	國立中央大學	Metal-Amphoteric Polymer Coordination as Triggered-Release Drug Carrier and Treatment of Heavy Metal Poison
	Nathania Puspitasari	國立臺灣科技大學	Expression and purification of recombinant hydrophobins and PETase for enzymatic monomers recycling of waste PET fibers
	Jui-Yu Tung 董芮妤	國立臺灣科技大學	Portable Electrochemical pH Measurements on Concretes for Corrosion Resistance
	Amal Farghal Noreldein Elsyed	元智大學	Preparation of thermo-responsive tetraphenylethene-based poly(Nisopropylacrylamide)s for controlled drug delivery in liver cancer therapy
	Hsin-Chiao Tien 田欣巧	國立臺北科技大學	Stretchable Cross-linked Polymer Semiconductor for Field-Effect Transistors
	Januar Widakdo	國立臺灣科技大學	Mechanism of a self-assembling smart and electrically responsive PVDF-Graphene membrane for controlled gas separation
	Yves Ira A. Reyes	國立清華大學	Density functional theory study of hydrogen evolution reaction mechanism on novel polymer photocatalyst structures
	Chi-Yang Tsai 蔡啟揚	國立清華大學	Cross-linkable Meldrum's acid functionalized polyurethane as a binder for silicon anode in lithium-ion
	Livy Laysandra	國立臺灣科技大學	Design of Self-crosslinkable Poly(n-butyl acrylate)-co-poly[N-(hydroxymethyl)acrylamide] Amphiphilic Copolymers toward Elastic and Self-Healing Properties
	Chin-Wei Chang 張晉維	國立清華大學	Development of A New Cre/loxP-based Long-Term Gene Expression System In Single Recombinant Baculovirus
	Ya-Hui Lin 林雅慧	國立清華大學	CRISPRi-based DNA methylation for gene knockdown and inhibition of ASC adipogenesis
	Zi-Xiang Lin 林子翔	國立成功大學	Cadaverine production using immobilized cells of recombinant Escherichia coli expressing lysine decarboxylase
	Yi-Ting Lai 賴宜廷	元智大學	Generation of Monocyte from Hematopoietic Stem Cells in Serum-free Medium for Immunotherapy
	Lee Yi Shan 李宜珊	中原大學	Enhancing Monitoring Performance of Data Sparse Nonlinear Dynamic Processes Using Dynamic Gaussian Mixture Prior Variational Autoencoders
	Yu-Wen Chiao 焦鈺雯	國立臺灣大學	A Highly Active Zeolitic Metal Azolate Framework (MAF) Catalyst for Polyethylene terephthalate (PET) Conversion
	Yu-Xuan Wang 王榆諤	臺灣科技大學	B-doped Graphene Quantum Dots Anchored on N-doped Carbon Nanotubes for Oxygen Reduction Reaction
	Tzu-Yang Chen	國立臺北科技大學	Design of N-doped carbon/Co <sub>3</sub> O <sub>4</sub> electrode via stepwise ZIF67 carbonization and oxidation for Supercapacitors

	Hsuan-Wei Lee 李旋維	國立清華大學	Preparation of self-crosslinkable cyclotetrasiloxanes and their thermosetting resins for low-k applications
	Yohanes Hutabalian	國立清華大學	Phase diagram of Co-Fe-Ge ternary system
	Chia-Yeh Lu 呂佳燁	國立清華大學	The $\pi$ -Linker and Molecular Substitution Position Tuning in Conjugated Donor- $\pi$ -Acceptor Polymer Photocatalysts for Enhanced Photocatalytic Hydrogen Evolution
	Yi-Heng Tu 涂易恆	國立清華大學	Construct a highly efficient capacitive deionization system with MnO <sub>2</sub> /Polypyrrole as faradaic electrodes
	Yen-Shao Su 蘇彥韶	國立臺灣科技大學	Single Micrometer-scale Ionic Transistors as Ultrahigh Performance Osmotic Power Generators
	Degu Lere Keshebo	國立臺灣科技大學	2D Layered WS <sub>2</sub> Nanosheet Solvent Exfoliation and Its Incorporation for Improved Performance of Polyethersulfone for Water Treatment.
	Tsung-Ruei Chen 陳琮叡	國立臺灣科技大學	Theoretical Study on Surface Carbonization of Si (100) Surface Using Acetylene
	Yuhsuan Lin 林子暄	中原大學	Photocatalytic wastewater treatment using P-doped graphite carbon nitride
	Li-Yu Ting	國立清華大學	Effect of Controlling the Number of Fused Rings on Polymer Photocatalysts for Visible-light-driven Hydrogen Evolution
	Pin-Yan Li 李品諺	國立臺北科技大學	Comparative Study of NH <sub>4</sub> F-induced Bimetallic ZIF67 and Posttreated Bimetallic ZIF67 on Energy Storage Ability for Symmetric Supercapacitors
	Po-Yuan Wang 王柏元	國立成功大學	Decoupling between the dynamics of fluorescence probe and alkyl chains during the phase transition of asymmetric ion pair amphiphile bilayers
	Thu Thi-Yen Le	國立臺灣科技大學	A study on the dynamic surface tension of AOT in 10 mM NaCl solution at dilute concentrations