2023 ICGET Oral Competition for Students – Finalist

Entry	Topic	Name	Institute	Title	Abstract #
1	Batteries	Ching-Hsun Wu	ChemE, NCKU	Combining the Effect of Polymer Networks and Inorganic Filler as a Novel Solid-State Electrolyte for Lithium Batteries	0279
2		Pavitra Srivastava	Chemistry, NTU	Robust and Intimate Interface Enabled by Silicon Carbide as an Additive to Anodes for Lithium Metal Solid-State Batteries	0209
3		Wen-Yang Jao	ChemE, NTHU	Non-aqueous Calcium-based Dual-ion Batteries with an Organic Electrode of High-rate Performance	0191
4		Le-Yen Lin	ChemE, NTU	Mixed Ion-Electron Transport in Composite Electrodes	0139
5		Daniel Chang	MSE, NTHU	Structured Garnet LLZO Composite Solid Electrolyte Prepared by Freeze Drying with Graphene Oxide as a Template	0093
6		Yi-Xiu Chen	MSE, NCKU	Improvement of Stability and High-Rate Capability for Silicon-based Lithium Thin-film Battery Through Multiple Patterned Strategies	0085
7		Zih-Jhong Huang	MSE, NTUST	Improving the Performance of Electrode by CoSnO3/rGO for Vanadium Redox Flow Battery	0080
8		Tripti Agnihotri	ChemE, NTUST	3D crosslinked Composite Gel Polymer Electrolyte for Enhancing the safety and Performance of Anode-free Li metal batteries	0075
9		Rio Akbar Yuwono	NTUST	Novel Oligomer as an Artificial Cathode Electrolyte Interphase (ACEI) on Ni-rich Cathode Material	0066
10	Capacitor and High-Power Energy Storage	Hao-Yu Ku	ChemE, NTHU	Design of Polyimide-based Separators for Effective Suppression of Self-discharge in Non-aqueous Electrical Double Layer Capacitors	0228
11		Xiang-Yu You	ChemE, NTUT	Ligand and Solvent-dependent Energy Storage Ability of Cobalt Compounds Derived from Cobalt Tetrafluoroborate Hexahydrate as Efficient Active Materials of Supercapacitor	0063
12		Meng Dian Tsai	ChemE, NCKU	Fabrication of Conducting Polymer on Sulfonate-Grafted Two-Dimensional Zirconium-Based Metal–Organic Frameworks for Pseudocapacitor	0038
13		Ting-Jun Lai	Appl. Chem., Providence University	Development of Stretchable, Self-Healing, and Antifreeze Ion Gel Electrolyte for Electrochemical Capacitors Research	0235
14	Electrochemical Conversion	Mia Rinawati	ChemE, NTUST	Evoking the Dynamic Fe-Nx Active Sites of Molecular Fe Catalyst on NGQDs for the Efficient Electroreduction of Nitrate to Ammonia	0255
15		Chih Chieh Cheng	ChemE, NTHU	Mo and W Binary Single-Atoms Anchored NiFe-Based Metal-Organic Frameworks as Overall Water Splitting Electrocatalysts	0183
16		Lu-Yu Chueh	ChemE, NTHU	Exploring Catalyst Support Interaction: Tungsten Oxide-Based Materials for Enhanced Oxygen Evolution Reaction Catalysts	0218
17		Yuta Inoue	Kyoto University	Analysis of Perovskite Oxide/Electrolyte Interface during Oxygen Evolution Reaction via 3D Electrochemical Impedance Spectroscopy	0202

Entry	Topic	Name	Institute	Title	Abstract #
18	Photoelectrochemistry and Electroplating	Zhi Qing Lim	ChemE, NCKU	Preparation of quasi-solid-state electrolytes with copper redox couple for dye-sensitized solar cells	0273
19		An Hsueh	ChemE, NTUST	A Solar-driven Photoelectrochromic device with the bifunctional PANI/Prussian Blue Hybrid Film	0252
20		Nideesh Perumbalathodi	ChemE, NTHU	Bi-directional Passivation for CuSCN-based Perovskite Solar Cell using a Thio-silane Compound	0232
21		Cheng Tai Lee	Appl. Phys., NTUST	Hierarchical CoxSy Nanoneedles for the Photocatalysis of CO2 Reduction	0180
22		Chih-Chen Kuo	National Taiwan Ocean University	Enhanced photoelectrochemical performance of hetero-phase TiO2 hybrid	0009
23	Basic Electrochemistry	Chia-An Lung	ChemE, NTUST	Two-Dimensional Membranes Based on Covalent-Organic Framework for Controllable Ion Transport and Efficient	0154
24		Hung-Yi Huang	ChemE, NTHU	Dopant-designed conducting polymers for constructing a high-performance, electrochemical deionization system achieving low energy consumption and long cycle life	0035

Agenda

Date: Friday, October 27, 2023
Location: IB 302

09:50 ~ 10:50

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Wen-Yang Jao	ChemE, NTHU	Non-aqueous Calcium-based Dual-ion Batteries with an Organic Electrode of High-rate Performance	0191
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Cheng Tai Lee	Appl. Phys., NTUST	Hierarchical CoxSy Nanoneedles for the Photocatalysis of CO2 Reduction	0180

11:10 ~ 12:10

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Le-Yen Lin	ChemE, NTU	Mixed Ion-Electron Transport in Composite Electrodes	0139
Yi-Xiu Chen	MSE, NCKU	Improvement of Stability and High-Rate Capability for Silicon-based Lithium Thin-film Battery Through Multiple Patterned Strategies	0085
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16:30 ~ 17:30

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