

Poster Competition

Date : **Nov. 8th**

Location : **1F Hall**

Posting time : **10:00~17:00**

Competition time : **12:30~14:10**

TOPIC : Batteries

Poster no.	Paper no.	Abstract	Presenter
PC-A01	0047	A 3D carbon current collector for lithium-metal batteries	Hong-Ruei Su
PC-A02	0048	A PAN/PMMA membrane for high-performance lithium-sulfur cells	Yi-Wei Chen
PC-A03	0050	An Effective Performance Graphite Felt Modified by Copper-Doped Cobalt Oxide (Cu-Co ₃ O ₄) Nanowires as Positive Electrode for Vanadium Redox Flow Batteries	Yu-Ling Wang
PC-A04	0061	Optimization of Gel Polymer Electrolyte for Chloride-ion Battery	Pandeeswari Jayaraman
PC-A05	0078	Oxide Solid-state-electrolyte Lithium-Sulfur Cells	Yuan-Chin Chu
PC-A06	0083	A Bridge Function of Cis-Isomerism Oligomer to Prevent the Carbonate Solvent Degradation on Ni-rich Layered Oxide Cathode	Laurien Merinda
PC-A07	0089	All-solid-state Lithium-Sulfur Batteries	Shih-Lun Yang
PC-A08	0093	Alkali Metal Ion Stabilized Vanadium Oxides as High-Areal-Capacity Cathodes for Zn-Ion Batteries	Liang-Jun Guo
PC-A09	0100	Ab-initio Study of Chemical and Electrochemical Stability between Solid-state Electrolytes and Cathodes in Solid-state Lithium Batteries	Chao-Hsiang Hsu
PC-A10	0111	Fabrication of Tungsten Carbide Electrodes Using Ultrasonic Spray Coating	Chih-Hsuan Liang

Technology and Their Properties Analysis			
PC-A11	0115	Electronic and Ionic Conductivity as a function of State-of-charge in NMC811	Sung-Chuan Kao
PC-A12	0123	Enhancing Lithium-Sulfur Batteries with Recycled Waste Materials for Sustainable Energy Storage	Ci-Rong Deng
PC-A13	0125	Evaluations of AgVO ₃ polymorphs in aqueous Zn-ion batteries	Yu-Chong Lin
PC-A14	0146	DFT Analysis of Mg-ion Diffusion in SEI Layers and SEI/Magnesium anode Interface for Magnesium Metal Batteries	Zhong-Lun Li
PC-A15	0156	Nitrided TiO ₂ covers graphite felt as the negative electrode for vanadium redox flow battery	Hung-Yu Lai
PC-A16	0157	Using first principle molecular dynamics to explore the differences in the solvation structures of carbonate and ether based localized high-concentration electrolytes in lithium metal batteries	CHANG, HSIEN SHUN

TOPIC : Conversions

Poster no.	Paper no.	Abstract	Presenter
PC-B01	0034	A Ni(OH) ₂ /COF Heterojunction Electrocatalyst for Urea Oxidation Reaction	Tzu-Ho Wu
PC-B02	0056	Molybdenum-Preintercalated Nickel Hydroxide as a Catalyst for Urea Electrolysis	Lee, Yi-Ying
PC-B03	0105	F-doped Graphene Quantum Dots Decorated Carbon Nanotube as an Efficient Electrocatalyst for High value-added 2e ⁻ ORR/Zn Flow Battery	Tzu-Ting Liu
PC-B04	0114	Evoking the Dynamic Fe-N _x Active Sites through the Immobilization of Molecular Fe Catalyst on NGQDs for the Efficient Electroreduction of Nitrate to Ammonia	Andrei Bernadette

PC-B05	0117	Efficient Fabrication of High-Loading Single-Metal Electrocatalysts Using Electrochemical Templates and Cationic Substitution	張家瑜
PC-B06	0130	Bimetallic Dual-Ligand Nickel-Based Metal-Organic Frameworks as Electrocatalysts for Hydrogen Production from Urea Electrolysis	Jia-He Peng
PC-B07	0148	Investigating Ammonia Decomposition Catalysts for Application in Medium and Low Temperature Proton Fuel Cell	Denny H. Kuo
PC-B08	0152	Hollow Multi-Shelled Cuprous Oxide with Multiple Confined Spaces Enables Highly Efficient Carbon Dioxide Reduction Reaction to Ethylene	Yung-Hsi Hsu
PC-B09	0153	Hydrophobic-Molecule-Modified Copper Oxide Nanotube Catalysts for Ampere-Level Carbon Dioxide Reduction Reactions to C ₂ Products	Yu-Chia Chang
PC-B10	0174	Novel High Entropy Oxide Materials for Energy Conversion System	Jue-Hua Pan
PC-B11	0178	Study of Polyaniline Electrodes Combined with Novel Ion-Gel Electrolyte in Magnesium Ion-Based Symmetric Supercapacitors	鄧名傑
PC-B12	0199	Tandem Catalysis System Utilizing Three-Dimensional Covalent Organic Frameworks Molecule on Copper Nanowire for Enhanced Electrocatalytic CO ₂ Reduction to C ₂ Products	Yu-Chun Liu
PC-B13	0200	Polypyrrole Coated Nickel-Metal Organic Framework As Anode Catalyst for Direct Urea Fuel Cell	陳姿均
PC-B14	0208	Cell Performance of B-site doped LST modified NiO/YSZ Cathodes for CO ₂ Reduction in a Solid Oxide Electrolyzer	錢彥銘

PC-B15	0209	ZIF-Derived Bismuth-Doped Carbon: Unlocking Efficient CO ₂ Reduction for Green Energy Solutions	Shao-Wei Lu
PC-B16	0219	Nitrogen-Containing Wastewater Fuel Cell	Andrew C. Chien
PC-B17	0282	Ce Decorating Carboxylic Acid-Based Nickel Iron Metal-Organic Framework Electrocatalysts for Alkaline Seawater Electrolysis in the Membrane Electrode Assembly	Yu-Ting, Chueh
PC-B18	0331	First-Principles Study on High-Entropy PtZnPb Alloy as an Effective Electrocatalyst for Hydrogen Evolution Reaction	Yonghak Park
PC-B19	0336	Electrodeposition of Iridium on Tungsten Substrates: A High-Efficiency PTE for Water Splitting	Chang-Ming, Wu

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Competition time : 14:50~16:10

TOPIC : Batteries

Poster no.	Paper no.	Abstract	Presenter
PC-A17	0167	Enhanced Aqueous Zn/MnO ₂ Batteries with Adenosine-containing Electrolyte and Its Mechanistic Studies on Zinc Plating/Stripping	Shih-Che Lin
PC-A18	0168	Optimizing NASICON Structure Na ₃ V ₂ (PO ₄) ₂ F ₃ as Sodium Ion Battery Cathode with Different Amount of Citric Acid via Spray Dry Method	Huang Chen En
PC-A19	0170	Application of Artificial Interphase on Ni-Rich Cathode Materials in All Solid State Li-Ion Batteries	Cheng-Hung Liao
PC-A20	0173	Innovative Nickel/Sulfur Tape-cased Cathodes for Long-life Lithium–Sulfur Cells	Yu-Pei Chiang
PC-A21	0180	Enhancing Ionic Conductivity and Moisture Stability in Br-rich Argyrodite Electrolytes for All-Solid-State Batteries through Structural Optimization and Doping	Chai-Lung Hsieh
PC-A22	0182	Improving Interface Stability and Cycle Life in Na ₃ SbS ₄ Electrolytes via Double-Sided Polymer Coating	CELASTIN BEBINA THAIRIYARAYA R
PC-A23	0183	Sulfide artificial layer constructs solid-state electrolyte-free silicon-based anode	HSU,JUI-HUNG
PC-A24	0186	Modeling Non-Uniform Lithium Plating and Capacity Degradation on Realistic Rough Anode Surfaces	Ming-Yuan, Hung

PC-A25	0188	Spatiotemporal Mapping of Grain Boundary and Defects to Reveal the Degradation of Sulfide and Polymer Solid-State Electrolyte Sheet at Various States of Charge	Tsung-I Yeh
PC-A26	0189	"Novel In-situ Encapsulation of Tin Phosphide Particles in MXene Conductive Networks as Anode Materials of the Durable Sodium-ion Battery"	Wei-Cheng Chen
PC-A27	0190	Localized High-Concentration Electrolytes for High-Voltage Anode-Free Lithium Metal Batteries	Hsin-Chi Liu
PC-A28	0191	Studying the SEI Formation Mechanism in Lithium Metal Batteries with Fluoroethylene Carbonate Additives Using X-ray Scattering	Hsieh, Han-Hsuan
PC-A29	0192	Using Lithium Perchlorate as a Lithium Salt in Flame-Retardant Electrolytes to Reach High-Safety Lithium Metal Batteries	Wen-Chen Tsai
PC-A30	0195	Study of Lithium Deposition in PEO-Based All-solid-state Lithium Metal Batteries Using In-Situ Confocal Optical Microscopy	Yi-Fen Hung
PC-A31	0196	The research of sulfide and gel-polymer composite electrolytes membrane by UV-cured procedure in all solid-state lithium battery	Chang-Lin Liu
PC-A32	0201	Modeling Microstructure and Interfacial Contact in Composite Cathodes of All-Solid-State Batteries Using Finite Element Analysis and Machine Learning	Hong-Zhang Huang

TOPIC : Photoelectrochemistry/Electroplating

Poster no.	Paper no.	Abstract	Presenter
PC-E01	0091	"Enhancements on oxygen vacancy and light absorption of alkaline etched BiVO ₄ for photoelectrochemical water oxidation"	Chuang Kai Jie
PC-E02	0098	Hetero-Structured CuBi ₂ O ₄ Photocathodes for Efficient Photoelectrochemical Water and Furfural Reduction	Manoj Kumar Mohanta
PC-E03	0154	The effect of annealing temperature on the crystal structure and photoelectrochemical properties of titanium dioxide nanotubes	Cheng-Chung Chen(陳正忠)
PC-E04	0187	(111) Orientation Nanotwinned Copper with Well-Controlled Morphology by System-Optimized Electropolishing	H. Tsou
PC-E05	0239	Modulation of twin spacing of (111)-orientation nanotwinned copper by altering aeration flow in high-speed electroplating system with thiol organic additives	Kuan-Ling Liu
PC-E06	0284	Investigation of Thermal-Induced Warpage in an Octagonal-Shaped Electrodeposited Gold MEMS Proof Mass with a Ti/Au Multi-Layered Structure	T. Mori
PC-E07	0317	Corrosion study of electroplated copper with different microstructures and crystal orientations in alkaline medium	Yen Ju Chu
PC-E08	0333	Low-Temperature Processable Electrodeposited TiO ₂ as the Electron Transport Layer in an Efficient Plastic Perovskite Solar Cell	Ha-Phuong Thi Ngo

Poster Competition

Date : Nov. 9th

Location : 1F Hall

Posting time : 10:00~16:00

Competition time : 11:20~12:30

TOPIC : Batteries

Poster no.	Paper no.	Abstract	Presenter
PC-A33	0203	Investigating the Role of Benzimidazole-Based Salt Additives for Enhanced High-Voltage Stability in NCA-Based Lithium-Ion Batteries	Ervina Nur Azizah
PC-A34	0204	Investigation of Surface Oxides Layer Removal on Cu Current Collector and Its Influence on Electrochemical Performance of Anode Free Lithium-ion Battery System	Salva Salshabilla
PC-A35	0210	The First Principle Study of P2-Type Layered-Oxide Anionic Redox Cathodes for Sodium-Ion Batteries Incorporating K-Doping	Yo-Hsuan CHEN
PC-A36	0211	Ti-based MOF modified copper current collector for lithium dendrite suppression	Pei-Hsing Chia
PC-A37	0213	High-energy Ball Milling of Si/Sn/C Composites as Anode Material for Lithium-ion Batteries	Yu-Ching Wen
PC-A38	0216	Advanced Sulfur Hosts Using Transition Metal Sulfide-Carbon Composites for High-Performance Lithium-Sulfur Batteries	Yu-Wei Chuang
PC-A39	0217	Effects of vanadium bronze/rGO nanorods for better electrochemical behavior as positive electrodes for Magnesium ion Batteries.	Thirbika Sathiyamoorthy
PC-A40	0225	Three-dimension metal foam applied to anode free battery	Yu-Chieh Su

PC-A41	0228	NiMn-Layered Double Hydroxides@NiMnZn Anchored Nitrogen-Doped Carbon Framework as a Bifunctional Catalyst for Rechargeable Zinc-Air Batteries	Ko-Fan Tu
PC-A42	0230	Cu, Fe bimetal doped ZIF8 deposited on the reduced Graphene oxide as the cathode catalyst of proton exchange membrane fuel cell	Pinyi Xu

TOPIC : Fast Energy Storage Materials and Devices

Poster no.	Paper no.	Abstract	Presenter
PC-C01	0032	Atmospheric-Pressure Plasma Jet Process for Flexible Asymmetric Supercapacitors with rGO and Lithium Manganese Oxide Electrodes	Ci-Song Chen
PC-C02	0033	Fabrication of Flexible Asymmetric Supercapacitors with Electrodes of rGO and LiMn ₂ O ₄ Using Furnace and Atmospheric Pressure Plasma Jet	Bo-Yan Hong
PC-C03	0065	Synergistic Impact of Electrolyte Additives on Self-discharge Phenomena in Activated Carbon-Based Supercapacitors.	Yun Ku
PC-C04	0087	Metal Species Dependent Sulfurization of Cobalt, Iron and Copper Based Active Materials Using Thioacetamide for Energy Storage	Yan-You Liu
PC-C05	0118	Enhanced electrochemical properties of zinc manganese oxide/carbon nanocomposite electrode for supercapacitors	Jia-Jun Ye
PC-C06	0138	Low-Temperature, High-Efficiency Growth of Nano-Porous Cypress-Like 3D Graphene as A Conductive Additive	Pin-Jun Yeh

		for Improving Applications in Supercapacitors	
PC-C07	0165	In-situ Growth of Novel Iron Oxide/Iron Organic Framework Composites as Efficient Electroactive Materials of Battery	Shun-Feng Kuan
PC-C08	0184	Metal ratio and bimetal nanoarchitectonics of ammonia-based fluoride complex induced nickel hydroxide and manganese oxide composites as active materials of an energy storage device	You Zher Yu
PC-C09	0206	Low Cost Activated Carbon Derived from Bamboo-leaf Composited with SrFe ₁₂ O ₁₉ Perovskite as Novel Electrode Material for Supercapacitor Applications	Somya Samantaray
PC-C10	0207	Development of 2.1V Wearable Energy Storage Devices Using a Novel Zinc Ionic Liquid-Based Neutral Gel Electrolyte and NiCo Hydroxide//Mn Oxide Asymmetric Electrodes	Min-Jay Deng(鄧名傑)*

TOPIC : Basic Electrochemistry

Poster no.	Paper no.	Abstract	Presenter
PC-D01	0035	Atmospheric-Pressure Plasma Jet Processed NiMoO ₄ /Carbon Paper Electrocatalysts in Anion Exchange Membrane Water Electrolysis	Chen-Chen Chueh
PC-D02	0037	Enhancing the Performance and Durability of Anion Exchange Membrane Water Electrolysis via Atmospheric Pressure Plasma Jet Treatment on Ni-Co-MOF/CP	Zhi-Hui Pu
PC-D03	0038	Bimetallic Nanoparticles for biosensor applications	Karuna Gaur

PC-D04	0042	DC-pulse atmospheric-pressure plasma jet (APPJ) processed electrochemically deposited NiFe/carbon paper (CP) for anion exchange membrane water electrolysis (AEMWE)	Shuo-En Yu
PC-D05	0043	Application of Ar and O ₂ Microwave Plasma-Treated Electrodeposited Iron-Cobalt Electrocatalysts/Titanium Fiber Paper for Oxygen Evolution Reaction in Alkaline Water Electrolysis	Hsing-Chen Wu
PC-D06	0044	Novel Hybrid Platform Utilizing Indium Phosphate (NTOU-7) Polycrystal for Efficient Histamine Detection	Pi-Chen Wei
PC-D07	0062	Mechanism of Formic Acid Oxidation Catalyzed by Pd ₂ Co ₆ Au ₂ Catalyst	ChiYen Peng
PC-D08	0066	Exploring Host-Dopant Interactions in Conducting Polymers to Improve Cation Removal Efficiency in Full-Polymer Electrochemical Deionization Systems	Hung-Yi Huang
PC-D09	0108	Development of Cu Nanowire modified Gas Exchange Membrane for Anti-biofouling Dissolved Oxygen sensor	Chieh Li
PC-D10	0113	Co-modulating the electronic structure and defect density of CoSe ₂ /CeO ₂ nanocomposite for dual-function hydrogen oxidation and evolution reactions	Chun-Hsuan Hsu
PC-D11	0116	A Novel Zincophosphite-Based Biosensor for an Efficient Electrochemical Detection of Polyphenolic Compounds in Coffee	Yi-Rong Li
PC-D12	0133	Theoretical Insights into Iron-Doped g-C ₃ N ₄ for Enhanced Electrocatalytic CO ₂ Reduction	Shih-Ying Yen

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TOPIC : Batteries

Poster no.	Paper no.	Abstract	Presenter
PC-A43	0244	Simulation of mass transfer phenomenon for vanadium ions in flow channel	Zong-Min Yang
PC-A44	0247	Anisotropic Ionic Transport in PEO-Based Solid Polymer Electrolytes	Shun-Jhih Yang
PC-A45	0254	New Prelithiation Strategies of SiO _x Anode by Surface Prelithiation for Improving Energy Density and High-rate	Afif Thufail
PC-A46	0266	Thermally Resilient FPI/PVDF-HFP 3D Networked Nanofiber for Advanced Lithium-Based Batteries	Zabish Bilew
PC-A47	0288	Tailoring of gold nanoparticles and prelithiated sulfonic acid group on functionalized boron-doped silicon as anode for high-energy-density lithium-ion batteries	Sanjana K.
PC-A48	0298	Effective Li ₂ TiSiO ₅ /C composite anodes for Li-Ion batteries using polyvinylpyrrolidone-assisted sol-gel synthesis	Yosephine Intan Ayuningtyas
PC-A49	0303	Porosity and Tortuosity Analysis on Composite Cathode for All-Solid-State Battery By Impedance Spectroscopy and CT Scan	Han-Pin, Hsieh
PC-A50	0306	A Freestanding CNT/Si Composite Anode with Chemically Modified Graphene Oxide Integration for Lithium-ion Batteries	Thao Nguyen

PC-A51	0322	High-Performance Near-Neutral Zinc-Air Batteries Enabled By One-Step Electrochemical Pre-Treatment	曾楷祐
PC-A52	0335	Electrospun PVDF Separator Electrochemical Characteristics Analysis	Bai Tai Liu

TOPIC : Fast Energy Storage Materials and Devices

Poster no.	Paper no.	Abstract	Presenter
PC-C11	0223	A Novel Efficient Three-stage Electrochemical Pre-lithiation method for the Amorphous Carbon Negative Electrodes of Lithium-ion Capacitors	Yun Lin
PC-C12	0237	Hierarchical Carbon Composite Electrodes for High-Reliability Supercapacitors	NINDITA KIRANA
PC-C13	0296	Electrodeposited Co _{0.85} Se/Ni ₃ Se ₂ heterostructure as an efficient binder-free cathode for fast electrochemical energy storage devices	林敬捷
PC-C14	0299	Improved Cycling Stability of K-MnHCFe//Zn Dual-Ion Battery Using Acetamide-based Deep Eutectic Electrolyte	Zhi-Ting Huang
PC-C15	0308	Water-in-mixed salt solutions as low-cost high-voltage electrolytes for aqueous potassium-ion supercapacitors	彭啓恩
PC-C16	0321	Phase-controlled synthesis of nickel selenide nanostructures on carbon nanotubes as binder-free cathodes for high-performance hybrid supercapacitors	Bo-Chih Huang

TOPIC : Basic Electrochemistry

Poster no.	Paper no.	Abstract	Presenter
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PC-D13	0136	Porous Structure Manipulation of Activated Carbon in Phase and Morphological Control-MnO _x Composites for Enhanced Electrochemical Capacitive Deionization	Meng-Fei Wu
PC-D14	0142	DFT study of CuO as an Electrocatalyst for CO ₂ Conversion into Value-Added Product	Fu-Chi Teng
PC-D15	0150	Constructing carbonized ZIF-8@Au electrode materials for non-enzymatic electrochemical H ₂ O ₂ sensing	Shih-Hao Yang
PC-D16	0151	Preparation of bismuth-tin bimetal/copper-reduced graphene oxide catalyst for electrochemical reduction of carbon dioxide to formate	Chun-Wei Huang
PC-D17	0158	In-Situ Growth of Polypyrrole Nanoarrays on Carbon Paper with Subsequent Immobilization of Glucose Oxidase for Salivary Glucose Sensing	Ching-Hao Liu
PC-D18	0166	Water-Based Conductive Ink for Handmade Carbon-Printed Electrodes to Electrochemical Biosensing of CA-125	Ching-Tzu Liu
PC-D19	0194	Exploration of Charge Transport in Electrochemical Transistors and Thin Film Batteries	羅友捷
PC-D20	0198	Construct a high-performance electrochemical deionization system for the recovery of heavy metal ions	Hsing-Mei Chou
PC-D21	0275	Synergizing Electrode Modifications and Electrochemical studies on Co-ZnO to Enhance Aqueous Organic Redox Flow Battery Efficiency	Divyavalli
PC-D22	0301	Investigation of Transition Metal Dichalcogenide Nanocomposites for the Electrochemical Detection of Dimethylamine	Yun-Cih Cai

PC-D23	0320	Hydrothermal synthesis of high-entropy alloys as electrocatalysts for high efficiency oxygen production	Chao Fang Huang
PC-D24	0327	The optimal ratio of Sn and Ir doping in Pd catalysts to enhance the catalytic effect for formic acid oxidation	Chieh-Lin Chiang
PC-D25	0018	Metal-Organic Framework-Derived Trimetallic Sulfides Applied to Electrochemical Water Splitting	Zhen-Chi Liao