AAIEM2018 PROGRAM

Friday, November 30, 2018		
Landmark Hotel		
9:00-22:00	Registration	
18:30-	Welcome Dinner (HUI CUI Hotel)	

P: Plenary Talks K: Keynote Lecture O: Oral presentation

Saturday, December 1, 2018		
Yulin Room, Junwu Hall		
9:20-10:10	Opening Ceremony	
	Chair: Pei Kang Shen	
9:20-9:30	Opening Speech by the President of Guangxi University	
9:30-9:40	Speech by the Vice Chairman of Guangxi Association for Science an Technology	d
9:40-10:10	Group Photo	
Plenary		
Talks		
	Chair: Chang Ming Li	
10:10-10:50	Prof. Yong Gan (<i>Chinese Academy of Engineering, China</i>) Development of China's 2025 Energy and New Materials Industry	P-1
10:50-11:10	Tea Break	
11:10-11:50	Prof. Shigang Sun (<i>Xiamen University, China</i>) Structure Design and Control-Synthesis of Electrocatalysts for Fuel Cell Applications	P-2
11:50-14:00	Lunch	

Yulin Room, Junwu Hall		
	Chairs: Hasuck Kim, Chang-Feng Yan	
14:00-14:30	Hasuck Kim (Daegu Gyeongbuk Institute of Science and Technology, Korea) Heteroatom-doped Carbons for Oxygen Reduction Reaction in Fuel Cells	K-1-1
14:30-15:00	Chang-Feng Yan (Guangzhou Institute of Energy Conversion, CAS, China) Catalytic Materials with Ordered Structure for Hydrogen Conversion and Utilization	K-1-2
15:00-15:20	Chang-wei Xu (<i>Guangzhou University, China</i>) Au Enhanced by NiCo ₂ O ₄ for Glycerol Electrooxidation	O-1-1

	Zhida Wang (Guangzhou Institute of Energy Conversion, CAS,	
15:20-15:40	China)	O-1-2
	Fabrication of Pt NPs for Fuel Cell Catalysts	
15:40-16:00	Tea Break	
	Chairs: Zongping Shao, Chuan-Jian Zhong	
16:00-16:30	Zongping Shao (<i>Nanjing University of Technology, China</i>) Rationally Designed and One-Pot Synthesized High-Performance Perovskite-Based Composite Cathode Materials for Low-Temperature Solid Oxide Fuel Cells	K-1-3
16:30-17:00	Chuan-Jian Zhong (State University of New York at Binghamton, USA) Reducing Cost and Enhancing Durability of Fuel Cell Catalysts: Structural Studies Ex Situ and In Situ	K-1-4
17:00-17:20	Dongsheng Xia (Graduate School at Shenzhen, Tsinghua University, China)Structural Modulations of Fe/N/C Electrocatalysts for Oxygen Reduction Reaction: Porosity, and Chemical Environment Surrounding the Active Centers	O-1-3
17:20-17:40	Lichao Jia (<i>Huazhong University of Science and Technology, China</i>) Theoretical and Experimental Study on the $La_{0.8}Sr_{0.2}MnO_{3-\delta}$ Coated $Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-\delta}$ Cathode for Intermediate-Temperature Solid Oxide Fuel Cells	O-1-4

7 th Floor Meeting Room, HUI CUI Hotel			
	Chairs: Yang Hui, Li Li		
14:00-14:30	Yang Hui (<i>Shanghai Advanced Research Institute, CAS, China</i>) New Strategies to Synthesize Fe, N co-doped Carbon Materials for Highly Efficient Electroreduction of CO ₂ to CO	K-2-1	
14:30-15:00	Li Li (Chongqing University, China) Modulating Oxygen Reduction Activity of Heteroatoms Doped Carbon Catalysts via Triple Effect: Charge, Spin Density and Ligand Effect	K-2-2	
15:00-15:20	Subramaniam Jayabal (University of Science and Technology Beijing, China) Interfacial Design of Metallic 1T-MoS ₂ /Nitrogen-Doped Carbon Nanotubes for High-Electrocatalytic Hydrogen Evolution Performance	O-2-1	
15:20-15:40	Hongyu Du (Sun Yat-sen University, China) Deeply Excavated Pt-Co Nanocubic Catalysts for Methanol Oxidation Reaction	O-2-2	
15:40-16:00	Tea Break		
Chairs: Huamin Zhang, Weixin Zhang			
16:00-16:30	Huamin Zhang (Division of Energy Storage, Dalian Institute of Chemical Physics, CAS, China) R&D of Flow Battery: Industrialization and Challenge	K-2-3	

16:30-17:00	Weixin Zhang (<i>Hefei University of Technology, China</i>) Rational Design and Performance Tuning of High-Capacity Electrode Materials for Li-Ion Batteries	K-2-4
17:00-17:20	Yudai Huang (Xinjiang University, China)3DDoubleCarbon-CoatedSiliconNanoparticlesforHighPerformanceLithium-IonBatteries	O-2-3
17:20-17:40	Huibing Lu (<i>Guilin University of Technology, China</i>) Controllable Synthesis of Potential Anode Materials for Lithium Ion Batteries: Two-Dimensional Molybdenum Based Hydroxides	O-2-4

No. 2 Meeting Room, Junwu Hall		
Chairs: Xuejiao Hu, Haitao Huang		
14.00 14.20	Xuejiao Hu (Wuhan University, China)	K_3_1
14.00-14.50	Desalination in Nanopores and Nanochannels	K-J-1
	Haitao Huang (Hong Kong Polytechnic University, China)	
14:30-15:00	Anodic and Cathodic Deposition of 1D Nanostructured Materials	K-3-2
	for Energy Applications	
15.00 15.20	Yanmin Jia (Zhejiang Normal University, China)	0.2.1
13:00-13:20	Piezo-/Pyro-catalytic Effect of Ferroelectric Micro-/Nanomaterials	0-3-1
	Chunyong He (Institute of High Energy Physics, CAS, China)	
15:20-15:40	Synthesis of Two-Dimensional Transition Metal Carbides and Their	O-3-2
	Applications in Electrochemical Renewable Energy Conversion	
15:40-16:00	Tea Break	
	Chairs: Jun Li, Ho Seok Park	
	Jun Li (Kansas State University, USA)	
16:00-16:30	Breaking the Intrinsic Materials Limits for Electrical Energy	K-3-3
	Storage Using Hierarchical Core-Shell Hybrid Structures	
16.30-17.00	Ill Scok Fark (Sungkyunkwan Oniversity, Korea) Ultracanacitive Energy Storage Materials and Devices Operating at	K-3-4
10.50 17.00	Extreme Conditions	IX 5 T
17:00 17:20	Yongjin Zou (Guilin University of Electronic Technology, China)	0 2 2
1/:00-1/:20	Functionalized Porous Carbon for High Performance Supercapacitors	0-3-3
17:20-17:40	Xueyan Xue (Shihezi University, China)	
	One-Step Synthesis of Nickel-Iron Layered Double Hydroxides with	0.2.4
	Tungstate Acid Anion via Flash Nano-Precipitation for Oxygen	0-3-4
	Evolution Reaction	

Sunday, December 2, 2018;		
Yulin Room, Junwu Hall		
Plenary		
Talks		
Chair: S. G. Sun		
9:00-9:40	Prof. Héctor D. Abruña (<i>Cornell University, USA</i>) Operando Methods for the Study of Energy Materials	P-3

	Prof. Meilin Liu (Georgia Institute of Technology Atlanta, USA)	
9:40-10:20	Toward a New Generation of Intermediate-Temperature Energy	P-4
	Storage and Conversion Systems	

10:20-10:50 Tea Break

Yulin Room, Junwu Hall		
Chairs: Kenichiro Ota, Jin Zhang		
10:50-11:20	Kenichiro Ota (Yokohama National University, Japan) Polymer Electrolyte Fuel Cells for Our Future Sustainable Growth	K-1-5
11:20-11:50	Jin Zhang (<i>Beihang University, China</i>) Development of New High Temperature Polymer Electrolyte Membrane Fuel Cells for Integrated Methanol Reformer-Fuel Cell Power Systems	K-1-6
11:50-14:00	Lunch	
	Chairs: Zhongfang Li, Hui Meng	
14:00-14:30	Zhongfang Li (<i>Shandong University of Technology, China</i>) Preparation and Performance Enhancement Strategies of Polybenzimidazole Based High Temperature and Low Humidity Proton Exchange Membranes	K-1-7
14:30-15:00	Hui Meng (<i>Jinan University, China</i>) Non-Noble Metal Catalysts for Fuel Cell From Binary MOFs	K-1-8
15:00-15:20	Luwei Peng (Donghua University, China) Highly Stabilized Zinc-Air Batteries Based on Nanostructured Co ₃ O ₄ @CNT@MC and 3D Hollow Sphere Co ₃ O ₄ /MnO ₂ -CNTs as Efficient Bifunctional Electrocatalys	O-1-5
15:20-15:40	Kun Wang (Sun Yat-sen University, China) Nitrogen Doped Tungsten Carbide as High Efficient HER Electrocatalysts	O-1-6
15:40-16:00	Tea Break	
	Chairs: B.G. Pollet, Deli Wang	
16:00-16:30	B.G. Pollet (<i>Faculty of Engineering, Norwegian University of Science and Technology (NTNU), Norway</i>) The Use of Power Ultrasound in Hydrogen and Fuel Cell Research	K-1-9
16:30-17:00	Deli Wang (<i>Huazhong University of Science and Technology, China</i>) Exploring Pd-Based Nanomaterials for Fuel Cells Electrocatalysis	K-1-10
17:00-17:20	Zhuofeng Hu (<i>Sun Yat-sen University, China</i>) Covalent Fixation of Surface Oxygen Atoms on Hematite Photoanode for Enhanced Water Oxidation	O-1-7
	Huifang Yuan (Shihezi University, China)	
17:20-17:40	Enhanced Oxygen Reduction Performance via Cobalt-Nitrogen- Carbon from Metal-Organic Frameworks	O-1-8

7 th Floor Meeting Room, HUI CUI Hotel		
Chairs: Kuan-Zong Fung, Yan-Xia Jiang		
	Kuan-Zong Fung (National Cheng Kung University, TAIWAN)	
10:50-11:20	Electrochemical Behavior of Electrode/Solid Electrolyte Materials	K-2-5
	for Li Batteries Viewing from Defect Structure Consideration	

Yan-Xia Jiang (<i>Xiamen University, China</i>) Studies of Reaction Mechanism of Ethanol Electrooxidation by	K-2-6
Clclic Voltammetry and in situ FTIR spectroscopy	R -2-0
Lunch	
Chairs: Ru-Shi Liu, Bin Zhu	
Bin Zhu (<i>China University of Geosciences, China</i>) Oxide Semiconductors for Next Generation Energy Devices	K-2-7
Ru-Shi Liu (<i>National Taiwan University, China</i>) Garnet Type Solid State Electrolyte of Li-ion Battery	K-2-8
Zeheng Yang (Hefei University of Technology, China)	
Comprehensive Recovery of Cathode Materials from Spent Lithium	O-2-5
Ion Batteries	
Jianyu Cao (Changzhou University, China)	O-2-6
Organic Anolytes for Alkaline Aqueous Redox Flow Batteries	•
Tea Break	
Chairs: Junliang Zhang, Shichun Mu	
Junliang Zhang (<i>Shanghai Jiao Tong University, China</i>) Investigation on the Ultra-Low-Platinum Oxygen Reduction Reaction (ORR) Electrocatalysts for PEMFCs	K-2-9
Shichun Mu (<i>Wuhan University of Technology, China</i>) ZIF-Derived Noble Metal Free Materials for Electrocatalysis	K-2-10
Bihua Hu (Sun Yat-sen University, China)	
Carbon Nanotubes Loaded with Cobalt Phthalocyanine to Improving the Performance of Electrochemical Reduction of Carbon Dioxide	O-2-7
Jing Zhou (Shanghai Institute of Applied Physics, CAS, China)	
Structure of Bimetallic Nanoparticles Electrocatalysts by In-situ X-ray	O-2-8
Absorption Spectroscopy	
	Yan-Xia Jiang (Xiamen University, China)Studies of Reaction Mechanism of Ethanol Electrooxidation byClclic Voltammetry and in situ FTIR spectroscopyLunchChairs: Ru-Shi Liu, Bin ZhuBin Zhu (China University of Geosciences, China)Oxide Semiconductors for Next Generation Energy DevicesRu-Shi Liu (National Taiwan University, China)Garnet Type Solid State Electrolyte of Li-ion BatteryZeheng Yang (Hefei University of Technology, China)Comprehensive Recovery of Cathode Materials from Spent LithiumIon BatteriesJianyu Cao (Changzhou University, China)Organic Anolytes for Alkaline Aqueous Redox Flow BatteriesTea BreakChairs: Junliang Zhang, Shichun MuJunliang Zhang (Shanghai Jiao Tong University, China)Investigation on the Ultra-Low-Platinum Oxygen ReductionReaction (ORR) Electrocatalysts for PEMFCsShichun Mu (Wuhan University of Technology, China)ZiF-Derived Noble Metal Free Materials for ElectrocatalysisBihua Hu (Sun Yat-sen University, China)Carbon Nanotubes Loaded with Cobalt Phthalocyanine to Improving the Performance of Electrochemical Reduction of Carbon DioxideJing Zhou (Shanghai Institute of Applied Physics, CAS, China)Structure of Bimetallic Nanoparticles Electrocatalysts by In-situ X-rayAbsorption Spectroscopy

No. 2 Meeting Room, Junwu Hall		
Chairs: Robert Slade, Liqiang Mai		
10 50 11 50	Robert Slade (University of Surrey, United Kingdom)	
	Revisiting Molybdenum Oxides for Supercapacitive Energy	17.0.5
10:50-11:20	Storage: Persistent High Capacitance with Nanostructured	K-3-3
	Materials	
11.20 11.50	Lin Xu (Wuhan University of Technology, China)	V 2 6
11:20-11:30	One Dimensional Nanomaterials for Emerging Energy Storage	K-3-0
11:50-14:00	Lunch	
Chairs: Zhe Chuan Feng, Ligang Feng		
	Zhe Chuan Feng (Guangxi University, China)	
14:00-14:30	X-ray Photoelectron Spectrocopy Studies on Wide Gap	K-3-7
	Semiconductors and Nan-Structures	
14:30-15:00	Ligang Feng (Yangzhou University, China)	
	Pt-Phosphide as Promising Alternative Catalyst System of PtRu in	K-3-8
	Direct Alcohols Fuel Cells	
15:00-15:20	Minghui Zhu (East China University of Science and Technology,	0 2 5
	China)	0-3-3

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	Supported Molecular Catalysts for Electrochemical Conversion of	
	CO ₂	
15:20-15:40	Qing Li (Huazhong University of Science and Technology, China)	O-3-6
	Engineering High-Performance Electrocatalysts for Oxygen Catalysis	
15:40-16:00	Tea Break	
Chairs: Junfeng Yan, Govindarajan Saranya		
	Junfeng Yan (Xinjiang University, China)	
16:00-16:30	A Self-Assembly Approach for Nanocrystals/Semiconductor Solar	K-3-9
	Cells	
	Govindarajan Saranya (Beijing Computational Science Research	
16:30-17:00	Center, China)	K-3-10
	Size Dependence of MgO Quantum Dots on 110 ₂ (001) Surface for Solar Cell Applications: A First Principles Study	
	Weitre Chen (7hausshen University China)	
17:00-17:20	weinua Chen (Zhengzhoù University, China)	O-3-7
	Key Materials and Devices for Sodium Ion Batteries	
17:20-17:40	Xiaoran Zhang (Guangxi University, China)	
	Critical Role of Iron Carbide Nanodots on 3D Graphene Based	0.2.8
	Nonprecious Metal Catalysts for Enhancing Oxygen Reduction	0-3-8
	Reaction	

18:30-

Conference Banquet (4th floor of Landmark Hotel)

Monday, December 3, 2018		
Yulin Room, Junwu Hall		
Chairs: Jun Yang, Jian Li		
9:00-9:30	Jun Yang (<i>Institute of Process Engineering, CAS, China</i>) Selective Electrocatalysts for Direct Methanol Fuel Cells Running at High-Concentration Methanol	K-1-11
9:30-10:00	Jian Li (<i>Huazhong University of Science and Technology, China</i>) Catalytic Fuel Reforming for Solid Oxide Fuel Cells	K-1-12
10:00-10:20	Zhenghua Tang (South China University of Technology, China) CoPt-Based Nanomaterials for Fuel Cell Electrocatalysis and Air- Cathode of Zinc-Air Batteries	O-1-9
10:20-10:40	Tea Break	
	Chairs: Hong Zhu, Jiwei Ma	
10:40-11:10	Hong Zhu (<i>Beijing University of Chemical Technology, China</i>) N-Spirocyclic Polyelectrolyte for Long-Lifetime Anion Exchange Membrane fuel cell applications	K-1-13
11:10-11:40	Jiwei Ma (<i>Tongji University, China</i>) Tuning Cationic Vacancies for Rechargeable Magnesium Batteries	K-1-14
11:40-12:00	Wen Yang (<i>Beijing Institute of Technology, China</i>) Anchoring Defect Ce ³⁺ Sites at Metal Fluoride/Single-Atom Iron Interface for Boosting Acidic Oxygen Reduction Reaction	O-1-10

	Da Zhan (Xiamen University, China)	
12:00-12:20	Revealing the Hydrogenation Mechanism of g-C ₃ N ₄ for	O-1-11
	Understanding the Enhanced Photocatalytic Performance	
12:20-14:00	Lunch	
Chairs: A. Lavacchi, Lang Liu		
14:00-14:30	 A. Lavacchi (National Research Council, Institute of Chemistry of OrganoMetallic Compounds, Italy) A Comprehensive Analysis of Pd Anode Degradation in Alkaline Electrolytes 	K-1-15
14:30-15:00	Lang Liu (<i>Xinjiang University, China</i>) Preparation and Electrochemical Properties of Ti-Based Compounds/C Porous Hybrid Nanotubes	K-1-16
15:00-15:20	Junlu Zhu (Guangdong University of Technology, China) General Strategy to Synthesize High-Density Metal Oxide Quantum Dots-Anchored Nitrogen-Rich Graphene Monoliths for Fast and High- Stability Volumetric Lithium/Sodium Storage	O-1-12
15:20-15:40	Leilei Zhang (Liaoning Shihua University, China) A Novel Fe-Based Perovskite Electrode for Symmetrical Solid Oxide Fuel Cell	O-1-13
15:40-16:00	 Chengyang Xu (Nanjing University of Aeronautics and Astronautics, China) An Organic-Inorganic Composite of CNT/PCz:FCN as a Free Standing Electrode with the Bifunctional Catalysis in Li-O₂ Batteries 	O-1-14

No. 2 Meeting Room, Junwu Hall		
Chairs: Weilin Xu, Haiyan Zhang		
9:00-9:30	Weilin Xu (Changchun Institute of Applied Chemistry, CAS, China) High-Performance Single-Atom Electrocatalysts for ORR/CO ₂ RR	K-2-11
9:30-10:00	Haiyan Zhang (<i>Guangdong University of Technology, China</i>) Structural Design of Nano Carbon/Metal Oxide Compound Materials and their Application for Lithium-ion Batteries	K-2-12
10:00-10:20	Jing-Ping Zhong (<i>Guangxi Normal University, China</i>) Facile Synthesis of M-N-S (M= Cu, Zn, Fe, Co, Ni) Co-Doped Graphene and Their Performance as the Pt Catalyst Support for Methanol Oxidation	O-2-9
10:20-10:40	Tea Break	
Chairs: Qiang Zhang, Panagiotis Tsiakaras		
10:40-11:10	Qiang Zhang (<i>Tsinghua University, China</i>) Dendrite-Free Li Metal Anode in High-Energy-Density Rechargeable Batteries	K-2-13
11:10-11:40	Panagiotis Tsiakaras (<i>Ural Federal University, Russia</i>) Electrochemical Devices Based on Solid Oxide Proton-Conducting Electrolytes	K-2-14

	Shaoxiong Zhai (North China Electric Power University, China)	1
11 40 10 00	Facilitation of Proton Transport in Sulfonated Poly (Ether Ether	0 0 10
11:40-12:00	Ketone) Nanocomposite Membranes by Incorporating	0-2-10
	Phosphotungstic Acid-Doped Halloysite Nanotube	l
	Ligui Li (South China University of Technology, China)	
12:00-12:20	Probing the Active Sites for Oxygen Electroreduction on N-Doped	O-2-11
	Carbons	l
12:20-14:00	Lunch	
	Chairs: Chang Ming Li, Jinli Qiao	
	Chang Ming Li (Suzhou University of Science and Technology,	
14.00-14.30	China)	K_2_15
14.00-14.50	Delicately Tailor Porous Electrode for Efficient Energy	IX -2-13
	Conversions	
14.20.15.00	Jinii Qiao (Donghua University, China) Departing the Electrochemical Conversion of Carbon Diavide into	W 0 17
14:30-15:00	C1 Fuel	K-2-16
	Huanong Su (lignacy University Ching)	
15.00 15.20	High Derformance and Durchle Cas Diffusion Electrodes for HT	0 2 12
15:00-15:20	DEMEC	0-2-12
	PEMFC	
	Znuoxin Lu (Guangzhou Institute of Energy Conversion, CAS, China)	l
15:20-15:40	Controlled Electro-Deposition of IrO_2 Nano-Arrays with IrO_2	O-2-13
	Nanotube Arrays as Template for Anode of Membrane Electrode	l
	Assembly	
15 40 16 00	Yan Qi Jin (Jinan University, China)	~ ^ 1 4
15:40-16:00	Cobalt- and Iron-Based Materials on 3D Porous Carbon as	O-2-14
	Bifunctional Oxygen Electrode for Zn-Air Battery	
16:00-16:20	Tea Break	
16.20		
16:30	Closing Ceremony& Prize Presentation (Yulin Room, Junwu Hall	l)

The chairs are also as the judges of the Best Paper Prizes.

Poster Program

(Exhibition Time: December 2-3)

E1-01

Di Cail, Jun Fang *Quanzhou Normal University, China.* **Electrochemical Ammonia Compression Based on Fuel Cell**

E1-02

Wenzhou Lin, Jun Fang, Na He Quanzhou Normal University, China. Amphoteric Ion Exchange Membrane for Fuel Cell Applications

E1-03

Chunling Lu, Bingbing Niu, Baomin Xu Southern University of Science and Technology, China. Traditional Cathode La_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O₃ as a Redox-Reversible Symmetrical Electrode for Solid Oxide Fuel Cell

E1-04

Bingbing Niu, Chunling Lu, Baomin Xu Southern University of Science and Technology, China. Redox-Reversible Double Perovskite Symmetrical Electrode for Solid Oxide Fuel Cell

E1-05

Yan Shi, Zhuoxin Lu, Lili Guo, Hongyi Tan, Zhida Wang, Changqing Guo, Changfeng Yan Guangzhou Institute of Energy Conversion, CAS, China. IrO2 Decorated Self-doped TiO₂ Nanotube Arrays: A Binder-Free and More Stable Electrode for Oxygen Evolution Reaction in Acid Condition

E1-06

Rui Wu, Yujie Song, Siguo Chen, Zidong Wei University of Electronic Science and Technology, China. High-Density Active Sites Porous Fe/N/C Catalyst for Proton Exchange Membrane Fuel Cells

E1-07

Qiuling Wu, Zhiyou Zhou, Shigang Sun Xiamen University, China. Ru-MOx (M=Ta and Nb) Electrocatalysts with High CO Tolerance for Hydrogen Electrooxidation Reaction

E1-08

Xia Cheng, Jianchuan Wang, Yunchuan Liao, Cunpu Li, and Zidong Wei Chongqing University, China. Enhanced Conductivity of Anion Exchange Membrane by Incorporation of Quaternized Cellulose Nanocrystal

E1-9

Yinfeng Yang, Cunpu Li, and Zidong Wei Chongqing University, China. Design of Multi-Functional Ionomers in Zn-Air Batteries

E1-10

Wei Hong, Jing Li and Zidong Wei Chongqing University, China. Template-Free Synthesis of 3D Fe-N-C as an Efficient Electrocatalyst for Oxygen Reduction Reaction E1-11

Libo Zhang, Hong Zhu Beijing University of Chemical Technology, China. Noble Metal Decorated Palladium–Platinum Core–Shell Catalysts for Oxygen Reduction Reaction in Proton Exchange Membrane Fuel Cell

E1-12

Zhenfeng He, Chao Wang North University of China, China. Controllable Crosslinking Anion Exchange Membranes with Excellent Mechanical and Thermal Properties

E1-13

Rui Wang, Tianmin He Jilin University, China. Cobalt-Free Perovskite Cathode Material PrNi_{0.6}Fe_{0.4}O_{3-δ} for Intermediate-Temperature Solid Oxide Fuel Cell

E1-14

Xiao Han, Jiayu Chen, Zhiping Zheng, Yakun Xue, Qin Kuang, Zhaoxiong Xie Xiamen University, China. Carbon-Nanotubes-Grafted Graphene Sheets Embedded with Ultrafine Fe Nanoparticles for Efficient Oxygen Reduction Catalysts

E1-15

Yi Lai, Zhaoxiong Xie Xiamen University, China. Synthesis of Concave Octahedral Pt-Pd Alloys with High-Index {hhl} Facets and Their Enhanced Electrocatalytic Activities

E1-16

Huiqi Li, Yaqi Jiang, Zhaoxiong Xie Xiamen University, China. Excavated Rh Nanobranches Boost Ethanol Electro-oxidation

E1-17

Xuemin Li, Yaqi Jiang, Zhaoxiong Xie Xiamen University, China. Excavated Pt-Co Rhombic Dodecahedron with Enhanced Electrocatalytic Activity

E1-18

Zhiping Zheng, Qin Kuang, Zhaoxiong Xie Xiamen University, China. Pt-Sn Alloy Supported on Carbon Nanotubes for Liquid Fuel Electrooxidation

E1-19

Pan Li, Jianchuan Wang Chongqing University, China. **PVA-Based Anion Exchange Membrane**

E1-20

Chenjing Che, Haiyan Jing, Jun Zhao, Lei Wang, Quan Zhou, Suli Liu, Changyun Chen Nanjing Xiaozhuang University, China. Surface Reconstruction Engineering of Cobalt Phosphides by Ru Inducement to Form Hollow Ru-

RuPx-CoxP Pre-electrocatalysts with Accelerated Oxygen Evolution Reaction

E1-21

Zhangweihao Pan, Junhang Lai, Weiwei Xie, Xuekai Rao, Yi Wang, Shuqin Song Sun Yat-sen University, China. In-Situ Electrosynthesis of Hydrogen Peroxide and Wastewater Treatment Application: A Novel Strategy for Graphite Felt Activation

E1-22

Kuan-Zong Fung, Shu-Yi Tsai, Jhih-Yu Tang, Jarosław Milewski, Tomasz Wejrzanowski National Cheng Kung University, TAIWAN Performance Improvement due to Mixed-Conducting Mechanism in High-Temperature Fuel Cells

E2-01

Huagen Liang, Yongliang Zhang*China University of Mining and Technology, China.***3D Binder-Free Cathode Derived from Biomass for Lithium-Oxygen Batteries**

E2-02

Xi Ke, Zhicong Shi Guangdong University of Technology, China. Lithium Metal Anodes Based on 3D Hierarchically Porous Lithiophilic Current Collectors

E2-03

Junjie Cai Guangdong University of Technology, China. Self-Conversion Templated Fabrication of Sulfur Encapsulated Inside the N-doped Hollow Carbon Sphere and 3D Graphene Frameworks for High-performance Lithium–Sulfur Batteries

E2-04

Zengyao Zhang, Junjie Cai Guangdong University of Technology, China. Crumpled Nitrogen-Doped MXene Nanosheets/ Iron-oxide as Anode for High-Performance Li-ion Batteries

E2-05

Shuai Kang, Xi Chen, Junjie Niu Chongqing Institute of Green and Intelligent Technology, CAS, China. Sn as Anode for Long Cycling Lithium-Ion Batteries

E2-06

Yezheng Cai, Youguo Huang, Qingyu Li, Hongqiang Wang Guangxi Normal University, China. Transition Metal Tuning of Amorphous Silicate for Increasing Oxygen Reduction Reaction Catalysis

E2-07

Yi Wang, Zhenyan Lu, Yanna Sun, Qingyu Li Guangxi Normal University, China. Preparation and Electrochemical Performance of MoS₂@MCMB Composite Material as Anode Materials for Lithium Ion Batteries

E2-08

Yan Na Sun, Yi Wang, Hong Qiang Wang, Qiang Wu, Qingyu Li Guangxi Normal University, China. Scalable Synthesis of MCMB/MoS₂ Composite as High Performance Anode Material for Lithium Ion Battery

E2-09

K. Xue, Y. H. Chen, H. Q. Wang, Q. Y. Li, X. H Zhang Guangxi Normal University, China. Effect of La_{0.7}Sr_{0.3}MnO₃ Coating on Electrochemical Properties of Lithium-Rich Layered Materials

E2-10

D.J.Lv, Y. J. Ding, H. Q. Wang, Q. Y. Li, F. Y. Lai *Guangxi Normal University, China*.

Preparation and Electrochemical Properties of Sn/SnO_x Nanoparticles Embedded in Carbon Nanosheet Composites

E2-11

Feiyan Lai, Xiaohui Zhang, Youguo Huang, Hongqiang Wang, Qingyu Li Hezhou University, China. Effect of Surface Modification with Spinel NiFe2O4 on Enhanced Cyclic Stability of LiMn2O4 Cathode Material in Lithium Ion Batteries

E2-12

Xiaohui Zhang, Feiyan Lai, Zhenming Chen, Xingcun He Hezhou University, China. Metallic Sb Nanoparticles Embedded in Carbon Nanosheets as Anode Material for Lithium Ion Batteries with Superior Rate Capability and Long Cycling Stability

E2-13

Jingping Yu South China University of Technology, China. Sulfur-Rich, Covalent Framework for High-Performace Lithium-Sulfur Batteries

E2-14

Denglei Wang, Aimiao Qin, Lixue Wei, Zhisen Liu Guilin University of Technology, China. Synthesis of Nitrogen and Sulfur Co-Doped Sisal Fiber Carbon and Its Electrochemical Performance in Lithium-Ion Battery

E2-15

Rong Chen, Haiyan Zhang, Jian Xie, Yingxi Lin, Jiale Yu Guangdong University of Technology, China. Preparation, Lithium Storage Performance and Thermal Stability of Nickel-Rich Layered LiNi_{0.815}Co_{0.15}Al_{0.035}O₂/RGO Composites

E2-16

Kai Wang, Zhenghua Tang South China University of Technology, China. Hierarchically Structured Co(OH)₂/CoPt/N-CN Air Cathodes for Rechargeable Zinc-Air Batteries

E2-17

Bin Huang, Shijun liao South China University of Technology, China. Cobalt and Nickel Based Prussian Blue Analogue K2Ni0.36Co0.64Fe(CN)6 as Superior Cathode for Non-Aqueous Potassium-Ion Batteries

E3-01

Zong Liu, Xu Yu and Ligang Feng Yangzhou University, China. Electrochemical Oxygen Evolution Reaction Efficiently Boosted by Thermal-Driving Core–Shell Structure Formation in Nanostructured FeNi/S, N-doped Carbon Hybrid Catalyst

E3-02

Cuiping Yu, Yan Wang, Jiewu Cui, Yucheng Wu Hefei University of Technology, China. Branch-Like Carbon Wrapped Nickel Cobalt Sulfides for High Performance Electrochemical Energy Storage Application

E3-03

Tianyu Zhu, Jianfang Zhang, Yan Wang, Yucheng Wu Hefei University of Technology, China. Electrodeposition of NiCo₂O₄@MnO₂ Nanosheets Directly on Carbon Cloth for Flexible Supercapacitor

E3-04

Guoqiang Li, Na Liang, Hongwei Zhang
Wuhan Textile University, China.
2D Organic-Inorganic Hybrid Materials as Cathode for Aqueous Zinc-Ion Supercapacitor

E3-05

Xiantao Zhang, Chen Gang, Wen Xinyi, Changzheng Li, Xuejiao Hu Wuhan Second Ship Design and Research Institute, China. Localized Micro-Nano Heating for High-efficiency Desalination

E3-06

Ruchun Li, Weiwei, Xie, Junhang Lai, Zhuohua Mo, Yi Wang, Shuqin Song Sun Yat-sen University, China. Anion-Cation Double Doped Co₃O₄ to Promote High-Valence Co Species Generation for Enhanced Oxygen Evolution Reaction

E3-07

Xueyuan Long, Chengyang Xu, Hui Dou, Xiaogang Zhang Nanjing University of Aeronautics and Astronautics, China. Electrochromic Devices Prepared by a Simple Method of Hydrothermal Treatment and Spraying Coating

E3-08

Chenglong Cai, Yongjin Zou, Cuili Xiang, Fen Xu, Lixian Sun Guilin University of Electronic Technology, China. Cobalt Oxide Doped Porous Carbon for High Performance Supercapacitor

E3-09

Jin Liang, Yongjin Zou, Cuili Xiang, Fen Xu, Lixian Sun Guilin University of Electronic Technology, China. Ni(OH)₂/Co(OH)₂ Doped Graphene for High Performance Supercapacitors

E3-010

Yin Liu, Yongjin Zou, Cuili Xiang, Fen Xu, Lixian Sun Guilin University of Electronic Technology, China. Chitosan Derived Carbon as a Support for Transition Metal Oxides and Used as Supercapacitor Electrode

E3-011

Xi Zhang, Yongjin Zou, Cuili Xiang, Fen Xu, Lixian Sun Guilin University of Electronic Technology, China. Porous Carbon Capsulated Cobalt Oxide for High Performance Supercapacitor

E3-012

Zhiwei Wang, Guangqing Xu Hefei University of Technology, China. Enhanced Hydrogen Evolution Performance of g-C₃N₄ Nanosheets Obtained by Gaseous Stripping in Acid Atmosphere

E3-013

Chen Wang, Fan Wu, Guiping Dai Nanchang University, China. Metal Oxide Nanosheet and Carbon Nanotube Composites by Chemical Vapor Deposition for Nanotechnology

E3-014

Yang Liu, Zheng Jiang, Xinyi Zhang, Pei Kang Shen Guangxi University, China. Ultrathin Porous Bi₅O_{7X} (X=Cl, Br, I) Nanotubes for Effective Solar Desalination

E3-015

Zhisen Liu, Aimiao Qin, Lixue Wei, Denglei Wang Guilin University of Technology, China. Flower-like MoS₂ Nanosheets Anchoring on Nitrogen-doped Graphene for High Rate Supercapacitor

E3-016

Fan Wu, Chen Wang, Haiyan Hu, Ming Pan, Huafei Li, Ning Xie, Guiping Dai Nanchang University, China.

The Controlled Synthesis of N-doped Carbon Microspheres from Melamine-Based Carbon by Chemical Vapor Deposition

E3-017

Liting Wu, Kaiyou Zhang, Han Chen, Yonggang Xue, Aimao Qin Guilin University of Technology, China. Synthesis of Ni₃Se₂ on Nickel Foam with Different Morphologies for High Performance Supercapacitor Electrode

E3-018

Guanghui Zhang, Tao Tang, Ge Sang, Huaqin Kou, Renjin Xiong China Academy of Engineering Physics, China. Alloying Effects on the Hydrogen Storage and Disproportionation of ZrCo Alloys-Experimental and Theoretical Investigation

E3-019

Ming Pan, Chen Wang, Guiping Dai Nanchang University, China. Directed Synthesis of Heart Graphene Domains via Chemical Vapor Deposition

E3-020

Yuxiang Xie, Shenzhou Chen, Zhuoyin Lin Guangzhou University, China. Excellent Electrochemical performance of Li-rich Layered Oxide Materials (Li1.2Mn0.54C00.13Ni0.13O2) by Surface modification Derived from a MOF-Assisted Treatment

E4-01

Kai Lv, Chengwu Shi Hefei University of Technology, China. Development of All Solid-State Compact PbS Quantum-Dot Thin Film Sensitized TiO₂ Nanorod Array Solar Cells

E4-02

Jiale Dai South China University of Technology, China. Carbon Supported Cu-Doped Co₃Se₄ Nanorods as a Multifunctional Electrocatalyst for Water Splitting

E4-03

Jiajia Lu, Zheng Tang, Lin Luo, Pei Kang Shen, Shibin Yin Guangxi University, China. Worm-Like S-Doped RhNi Alloy as Highly Efficient Catalysts for Hydrogen Evolution

E4-04

Shengyu Jing, Dourong Wang, Shibin Yin, Jiajia Lu, Pei Kang Shen, Panagiotis Tsiakaras Guangxi University, China. Efficient Catalysts for Hydrogen Evolution Reaction: P-Doped CNTs Encapsulated Nickel Hybrids with Flower-Like Structure

E4-05

Xiaojing Zhu South China University of Technology, China. Cobalt Ion-Driving Self-Assembly Synthesis of Nitrogen, Sulfur Co-Doped and Cobalt Species-Contaning Mesoporous Carbons for Efficient Oxygen Reduction Reaction

E4-06

Ying Li, Shuni Li Shaanxi Normal University, China. Direct Chemical Synthesis of Ultrathin Holey Iron Doped Cobalt Oxide Nanosheets on Nickel Foam for Oxygen Evolution Reaction

E4-07

Shuo Yang, Hidenori Noguchi, Kohei Uosaki Wenzhou University, China. Sum Frequency Generation Analyses of the Molecular and Electronic Structures at Electrochemical Interfaces

E4-08

Qi xue, Yu Chen Shaanxi Normal University, China. Amino-functionalized Platinum Nanoparticles: Morphological and Interfacial Regulation Improves Hydrogen Evolution Reaction

E4-09

Bo Wang, Jun Lv Hefei University of Technology, China. Enhanced Photoelectrochemical Hydrogen Evolution of MoS₂ Loaded Silicon Nanoarrays

E4-10

Rongmin Dun, Menggeng hao, Wenmu Li Fujian Institute of Research on The Structure Chinese Academy of Science, China. Fe-N-Doped Hierarchical Mesoporous Carbon Nanospheres as Efficient Catalysts for Oxygen Reduction in both Acidic and Alkaline Media

E4-11

Ting Chen, Cuili Xiang, Yongjin Zou, Fen Xu, Lixian Sun Guilin University of Electronic Technology, China. Preparation and Application of Ni₂O₃ Doped Carbon Composite

E4-12

Qiuxia Ma, Peng Jin, Sangni Wang, Youling Xin, Qi Pang Guangxi University, China. Engineering the Electrical Conductivity of Metal-Doped NiCo Layered Double Hydroxide Nanosheets for Enhanced Oxygen Evolution

E4-13

Menggeng Hao, Rongmin Dun, Wenmu L Fujian Institute of Research on the Structure of Matter, CAS, China. Fe, N Co-Doped Carbon Spheres as High-efficiency Electrocatalyst for Oxygen Reduction Reaction

E4-14

Zhongxing Zhao Guangxi University, China. Highly Advanced Degradation of Thiamethoxam by the Synergistic Chemisorption-Catalysis Strategy Using MIL-100(Fe)/Fe-SPC Composite with Ultrasonic Irradiation

E4-15

Shangli Huang, Peikang Shen Guangxi University, China. Theoretical Study Composition-Dependent of Mo-doped Pt₃Ni Nanowires for Oxygen Reduction Reactions

E4-16

Hanna S. Abbo, Lin Luo, Salam J. J. Titinchi, Ivan R. Green, Kenneth . Ozoemena, Shibin Yin University of the Western Cape, South Africa **Tuning the Particle Sizes of Platinum Nanocatalysts for Enhanced Oxygen Reduction Reaction**

E4-17

A. Brouzgou1, C. Lo Vecchio, V. Baglio, and P. Tsiakaras University of the Western Cape, South Africa Electrochemical Sensors for Non-Enzymatic Glucose Detection: Ketjenblack Supported Pd10Co1 Electrocatalyst

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Lixue Wei, Aimiao Qin Guilin University of Technology, China. Enhancing Electrochemical Performance by CTAB-assisted Synthesis of MoSe₂/Sisal Fiber Activated Carbon

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Xiaoyan Gao, Siguo Chen, Zidong Wei Chongqing University, China. Embedding Structural Ordered PtFe Nanocrystals in N-Doped Carbon toward Highly Active and Durable Electrocatalysts for Oxygen Reduction Reaction

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Hao Tang, Siguo Chen, Zidong Wei Chongqing University, China. Thermally Driven Interfacial Diffusion Synthesis Structurally Ordered Intermetallic PtFeCo Alloy for Oxygen Reduction Reaction

E4-21

Dandan Lyu, Zhi Qun Tian and Pei Kang Shen Guangxi University, China. Ultra-high Surface Area Graphitic Fe-N-C Nanospheres with Single-atom Iron Sites as Highly Efficient Non-Precious Metal Bifunctional Catalysts towards Oxygen Redox Reactions

E4-22

Maosen Wang, Wei Lu, Jianwei Li, Sa Liu, Yongsheng Wei, Xinsheng Zhao Jiangsu Normal University, China. Efficient Co-W-P/CC Catalyst for Hydrogen Evolution from NaBH4 Alkaline Solution

E4-23

Xiangnan Li, Jie Zhang, Baomin Xu Southern University of Science and Technology, China.

Redox Inactive Ions Meliorated BaCo0.4Fe0.4Zr0.1Y0.1O3-8 Perovskite Oxides as Efficient

Electrocatalysts for Oxygen Evolution Reaction

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Min Wang, Yanan Wei, Jinli Qiao Donghua University, China

Hydroxide-Conductive Membrane with Poly(vinylalcohol)/Guar Hydroxypropyltrimonium Chloride for Advanced CO₂ Electroreduction to Formate

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Yue Zhou, Junyu Liu, Luwei Peng, Jinli Qiao Donghua University, China

BC Membrane Supported Cu Nanoparticles as Catalysts for Selective Electrochemical Reduction

of CO₂ to Ethylene

E4-26 Lina Chen, Na Tian, Zhiyou Zhou, Shigang Sun Xiamen University, China The Role of Hydroxyl Radical in the Fe-N-C ORR Catalyst