

## Scientific Program

August 15 2019, Thursday

Time	Lectures	Session Chair
8:20-8:40	<b>Opening Ceremony</b>	<b>Hailin Peng</b>
8:40-9:10	<b>Keynote:</b> Bio-Inspired Smart Nanochannels <b>Lei Jiang</b> ( <i>Technical Institute of Physics and Chemistry, CAS, China</i> )	<b>Yi Cui</b>
9:10-9:40	<b>Keynote:</b> Hybrid Anion and Cation-Redox (HAC) Batteries <b>Ju Li</b> ( <i>MIT, USA</i> )	
9:40-10:10	<b>Keynote:</b> Visualize and Control Electronic Structures of Topological Quantum Materials <b>Yulin Chen</b> ( <i>University of Oxford, England</i> )	
10:10-10:40	<b>Photo &amp; Coffee break</b>	
10:40-11:10	<b>Keynote:</b> Synthesis Challenges for Graphene Industry <b>Zhongfan Liu</b> ( <i>Peking University, China</i> )	<b>Lei Jiang</b> <b>Yujie Xiong</b>
11:10-11:40	<b>Keynote:</b> Application of Supraparticles in Catalysis <b>Zhiyong Tang</b> ( <i>National Center for Nanoscience and Technology, China</i> )	
11:40-12:00	<b>Invited:</b> Developing All-Solid-State Batteries with Organic Electrode Materials <b>Yan Yao</b> ( <i>University of Houston, USA</i> )	
12:00-12:20	<b>Invited:</b> Eutectic Accelerator Based High Performance Li-S Battery <b>Jia Xie</b> ( <i>Huazhong University of Science and Technology, China</i> )	
12:20-13:30	<b>Lunch &amp; Poster</b> <i>Lunch: First floor, Nong Yuan Restaurant, PKU (北京大学 农园餐厅 一层)</i> <i>Poster: Moonlight Hall, Yingjie Exchange Center, PKU (北京大学英杰交流中心 月光厅)</i>	
13:30-14:00	<b>Keynote:</b> Nanomaterials Design and Interphases for Batteries <b>Yi Cui</b> ( <i>Stanford University, USA</i> )	<b>Changjun (Alex) Zhang</b> <b>Feng Luo</b>
14:00-14:30	<b>Keynote:</b> Roadmap of Lithium Batteries <b>Hong Li</b> ( <i>Institute of Physics, CAS, China</i> )	
14:30-14:50	<b>Invited:</b> Mesopores-Abundant M-N/C Based Oxygen Reduction Reaction Electro-Catalysts <b>Yanglong Hou</b> ( <i>Peking University, China</i> )	
14:50-15:10	<b>Invited:</b> Coupling Solar Energy into Catalytic CO <sub>2</sub> Conversion <b>Yujie Xiong</b> ( <i>University of Science and Technology of China, China</i> )	

15:10-15:30	<b>Invited:</b> Strain Electrocatalysis <b>Shaojun Guo</b> ( <i>Peking University, China</i> )	
<b>15:30-15:50</b>	<b>Coffee break</b>	
15:50-16:20	<b>Keynote:</b> Chirality Controlled Growth of Carbon Nanotubes Array with Designed Catalysts <b>Jin Zhang</b> ( <i>Peking University, China</i> )	<b>Zhiyong Tang</b> <b>Wenjie Sun</b>
16:20-16:50	<b>Keynote:</b> Synthetic Chemistry of Multifunctional Structural Systems <b>Dan Wang</b> ( <i>Institute of Process Engineering, CAS, China</i> )	
16:50-17:10	<b>Invited:</b> Safety Perception of Electrochemical Battery System for Grid Energy Storage <b>Yang Jin</b> ( <i>Zhengzhou University, China</i> )	
17:10-17:30	<b>Invited:</b> Temperature Hotspots Induced Lithium Growth and Short Circuit in Lithium Batteries <b>Yangying Zhu</b> ( <i>University of California, Santa Barbara</i> )	
<b>18:00-20:00</b>	<b>Banquet</b> <i>Elite Banquet Hall, Zhongguanyuan Global Village ( 中关新园群英宴会厅)</i>	

**August 16 2019, Friday**

Time	Lectures	Session Chair
8:30-9:00	<b>Keynote:</b> Engineering of Colloidal Semiconducting Heteronanostructures for Solar Energy Conversion and Electroreduction of Carbon Dioxide <b>Shuhong Yu</b> ( <i>University of Science and Technology of China, China</i> )	<b>Shizhang Qiao</b> <b>Peng Chen</b>
9:00-9:20	<b>Invited:</b> Garnet Based Solid State Batteries <b>Liangbing Hu</b> ( <i>University of Maryland, USA</i> )	
9:20-9:40	<b>Invited:</b> Recent Progress in Interfacial Solar Vapor Generation <b>Jia Zhu</b> ( <i>Nanjing University, China</i> )	
9:40-10:00	<b>Invited:</b> Control the Nuclei Formation in Solution Synthesis <b>Hui Wu</b> ( <i>Tsinghua University, China</i> )	
10:00-10:20	<b>Invited:</b> High-Areal-Capacity Red Phosphorus Electrode with Safe Lithiation Potential for Fast-Charging Lithium-Ion Batteries <b>Yongming Sun</b> ( <i>Huazhong University of Science and Technology, China</i> )	
<b>10:20-10:40</b>	<b>Coffee break</b>	
10:40-11:10	<b>Keynote:</b> Nanostructured Materials for Energy-Relevant Electrocatalytic Processes <b>Shizhang Qiao</b> ( <i>The University of Adelaide, Australia</i> )	<b>Shuhong Yu</b> <b>Jia Zhu</b>
11:10-11:40	<b>Keynote:</b> Single-Particle Microscopy of Photoelectrodes <b>Peng Chen</b> ( <i>Cornell University, USA</i> )	
11:40-12:00	<b>Invited:</b> Suppressing the Intrinsic Defects in Perovskites for Stable and Efficient Solar Cells <b>Huanping Zhou</b> ( <i>Peking University, China</i> )	
12:00-12:20	<b>Invited:</b> Theoretical and Modeling Design on Both Cathode and Anode Material System of Lithium-Sulfur Battery <b>Qianfan Zhang</b> ( <i>Beihang University, China</i> )	
<b>12:20-13:20</b>	<b>Lunch</b> <i>First floor, Nong Yuan Restaurant, PKU (北京大学 农园餐厅 一层)</i>	
<b>13:20-13:50</b>	<b>Poster Session</b> <i>Moonlight Hall, Yingjie Exchange Center, PKU (北京大学英杰交流中心 月光厅)</i>	

13:50-14:20	<b>Keynote:</b> Ferroelectric Polarons – Designing the “Perfect” Semiconductor for Solar Cells <b>Xiaoyang Zhu</b> ( <i>Columbia University, USA</i> )	<b>Nanfeng Zheng</b> <b>Yang Peng</b>	
14:20-14:50	<b>Keynote:</b> High-Mobility 2D Crystals: Controlled Synthesis and Functional Devices <b>Hailin Peng</b> ( <i>Peking University, China</i> )		
14:50-15:10	<b>Invited:</b> Challenge of Printable Mesoscopic Perovskite Solar Cells <b>Hongwei Han</b> ( <i>Huazhong University of Science and Technology, China</i> )		
15:10-15:30	<b>Invited:</b> Precise Synthesis of 2D Atomic Crystals @ Liquid Metal <b>Lei Fu</b> ( <i>Wuhan University, China</i> )		
<b>15:30-15:50</b>	<b>Coffee break</b>		
15:50-16:20	<b>Keynote:</b> National Key R&D Program: Nanostructured Li/Na Composite Air Batteries <b>Jun Chen</b> ( <i>Nankai University, China</i> )	<b>Xiaoyang Zhu</b>	
16:20-16:50	<b>Keynote:</b> Interface Chemistry of Catalytic Materials and Energy Devices <b>Nanfeng Zheng</b> ( <i>Xiamen University, China</i> )		
16:50-17:50	<b>Round Table Discussion</b>		<b>Yi Cui</b>
<b>17:50-18:10</b>	<b>Closing Remarks</b>		
<b>18:30-20:00</b>	<b>Dinner</b> <i>First floor, Nong Yuan Restaurant, PKU (北京大学 农园餐厅 一层)</i>		