Symposium Program

Oct. 16 (Tuesday)	
Time	**Program**
13:00-20:00	Registration (Bayshore Hotel，星海假日酒店)
18:00-21:00	Reception Dinner (Bayshore Hotel，星海假日酒店)
Oct. 17 (Wednesday)	
Time	**Program**
08:00-08:15	**Opening Ceremony (Can Li & Licheng Sun)**
Session 1	**Chair: Can Li**
08:15-09:00	**PL1 –Daniel G. Nocera,** *Harvard University* Food and Fuel from Sunlight, Air and Water -- A Path Forward for Carbon Negative Solar Land Restoration in China
09:00-09:35	**KL1 –Shih Choon Fong,** *National University of Singapore* The Future of Energy: From Remnants of Ancient Sunshine to Plentiful Everyday Sunshine
09:35-10:05	**Group Photo & Coffee Break**
Session 2	**Chair: Osamu Ishitani, Jian Zhang**
10:05-10:40	**KL2 –Ryu Abe,** *Kyoto University* Design of stable oxyhalide photocatalysts for water splitting under visible light
10:40-11:05	**IL1 – Lizhu Wu,** *Technical Institute of Physics and Chemistry, CAS* Artificial Photosynthesis for Chemical Transformation
11:05-11:30	**IL2 –David Tilley,** *University of Zurich* Earth-Abundant Materials for Solar Water Splitting
11:30-11:50	**OL1-Hongliang Zhang,** *Xiamen University* Doping and Defects in Oxide Semiconductors for Electronics and Energy Applications
11:50-12:10	**OL2-Rengui Li,** *Dalian Institute of Chemical and Physics, CAS* Spatial charge separation between different facets of semiconductors for photocatalytic water splitting
12:10-12:30	**OL3-Ying Yu,** *Central China Normal University* Copper and copper oxides-based materials for solar energy conversion
12:30-14:00	**Lunch**
Session 3	**Chair: Mårten Ahlquist, Jingshan Luo**
14:00-14:45	**PL2–Jens K. Nørskov,** *Technical University of Denmark* Catalysis for Sustainable Production of Fuels and Chemicals
14:45-15:20	**KL3 –Ryuhei Nakamura,** *Tokyo Institute of Technology* Design of Active and Robust Mn-Based Water Oxidation Catalysts
15:20-15:45	**IL3- Lianzhou Wang,** *University of Queensland* Semiconducting Photoelectrodes for Integrated Solar-Driven Water Splitting
15:45-16:05	**OL4-Ke Fan,** *Wuhan University of Technology* Direct Observation of Structural Evolution of Metal Chalcogenides in Electrocatalytic Water Oxidation

16:05-16:25	**Coffee Break**
Session 4	**Chair: Yongsheng Chen, Jingbi You**
16:25-17:00	**KL4 –Jingbi You,** *Institute of Semiconductors, CAS* Efficient and Stable of Perovskite Solar Cells
17:00-17:25	**IL4- Hairen Tan,** *Nanjing University* Interface and Defect Engineering for Efficient and Stable Planar Perovskite Solar Cells
17:25-17:45	**OL5-Yanliang Liu,** *Pukyong National University* Bulk Heterojunction-assisted Perovskite Grain Growth for High-Performance Photovoltaic Devices
17:45-18:05	**OL6-Songwang Yang,** *Shanghai Institute of Ceramics* Morphology Control of Perovskite Films and Performance of The Corresponding Solar Cells
18:05-20:30	**SFSC Banquet**

Oct. 18 (Thursday)

Session 5	**Chair: Leif Hammarström, Fuxiang Zhang**
08:00-08:45	**PL3 –Kazunari Domen,** *The University of Tokyo* Solar Hydrogen Production by Particulate Photocatalysts
08:45-09:10	**IL5- Gang Liu,** *Institute of Metal Research, CAS* Homogeneous Modification and Facet-Controlling of TiO_2 to Boost Solar-Driven Photocatalysis
09:10-09:35	**IL6– Tierui Zhang,** *Institute of Physics and Chemistry, CAS* Layered Double Hydroxide Based Nanostructured Photocatalysts for Solar Fuels and High-value Chemicals
09:35-09:55	**OL7-Zaicheng Sun,** *Beijing University of Technology* Rational design of Z-scheme type photocatalyst with highly efficient charge separation efficiency
09:55-10:15	**Coffee Break**
Session 6	**Chair: Dunwei Wang, Renqiang Yang**
10:15-10:50	**KL5 –Chan Beum Park,** *Korea Advanced Institute of Science and Technology* Biocatalytic Photoelectrochemical Platforms for Solar Production of Fuels and Value-added Chemicals
10:50-11:15	**IL7-Chuan Zhao,** *University of New South Wales* Nickel-Iron Based Catalysts for Water Electrolysis
11:15-11:35	**OL8-Zhaoyue Liu,** *Beihang University* Ion Channels Inspired Materials and Devices for Photoelectric Conversion
11:35-11:55	**OL9-Haining Tian,** *Uppsala Univerisity* Dye-Sensitized Photocathodes with p-i-n Junction Structure for Solar Cell and Solar Fuel
11:55-12:15	**OL10-Xichuan Yang,** *Dalian University of Technology* Minimizing Energy Lose of Charge Transfers Dye-Sensitized Solar Cell to Promote Record Power Conversion Efficiency of 13.6%

12:15-12:35	**OL11-Xiaoliang Zhang,** *Beihang University* Quantum Dot and Semitransparent Solar Cells
12:35-14:00	**Lunch**
Session 7	**Chair: Shengzhong Liu, Hairen Tan**
14:00-14:45	**PL4-Dengyuan Song,** *Yingli Solar* Status and Progress of Industrial Production and Application of Bifacial n-Pert Solar Cells and Modules
14:45-15:20	**KL6- Jianhui Hou,** *Institute of Chemistry, CAS* Molecular Design Strategy of Highly Efficient Organic Photovoltaic Materials
15:20-15:40	**OL12-Jian Zhang,** *Guilin University of Electrical Technology* Ternary Organic Photovoltaic Cells
15:40-16:05	**IL8-Lars Berglund,** *KTH Royal Institute of Technology* Preparation of Transparent Wood Substrates for Solar Cells
16:05-16:30	**IL9-Yongsheng Chen,** *Nankai University* High Performance Polymer/Oligomer Based Solar Cells
16:30-17:00	**Coffee Break & Poster Session**
17:00-18:00	**Panel Discussion:** Innovation Challenge on Solar Energy Conversion
18:00-20:30	**Dinner**

Oct. 19 (Friday)

Session 8	**Chair: David Tilley, Xiuli Wang**
08:00-08:45	**PL5- James R. Durrant,** *Imperial College London* Kinetic Challenges for Water Oxidation on Metal Oxide Photoelectrodes
08:45-09:20	**KL7 –Tanja Cuk,** *University of Colorado, Boulder* Resolving the Dynamics of Chemical Bond Formation at an Electrode Surface
09:20-09:45	**IL10-Fengtao Fan,** *Dalian Institute of Chemical Physics, CAS* Surface imaging of charge transfer on photocatalysts
09:45-10:05	**OL13-Zhaoke Zheng,** *Shandong University* Single-particle Study of Plasmonic Nanorods for Hydrogen Generation
10:05-10:25	**Coffee Break**
Session 9	**Chair: Tanja Cuk, Xin Guo**
10:25-11:00	**KL8-Leif Hammarström,** *Uppsala University* Mechanisms of Artificial Photosynthesis
11:00-11:25	**IL11- Xinchen Wang,** *Fuzhou University* The Progress of Polymeric Carbon Nitride for Photocatalysis
11:25-11:45	**OL14-Fuxiang Zhang,** *Dalian Institute of Chemical and Physics, CAS* Redox-Based Z-Scheme Overall Water Splitting on Particulate Photocatalysts with wide visible light utilization
11:45-12:05	**OL15-Yanbo Li,** *University of Electronic Science & Technology of China* Defects Properties of Tantalum Nitride
12:05-12:25	**OL16- Wooseok Yang,** *Yonsei University* Solution processed 1D Sb_2Se_3 nanostructures as a photocathode for highly efficient photoelectrochemical water splitting
12:25-14:00	**Lunch**

Session 10	**Chair: Lars Berglund, Xinchen Wang**
14:00-14:45	**PL6 –Harry Atwater,** *California Institute of Technology* New Directions for Electricity and Fuels from Sunlight
14:45-15:20	**KL9-Osamu Ishitani,** *Tokyo Institute of Technology* Photocatalytic and Electrocatalytic Reduction of Low Concentration of CO_2
15:20-15:40	**OL17- Yan Gao,** *Dalian University of Technology* Assembly of a Highly Efficient Cathode with Ultrathin Two-Dimensional Metal−Organic Framework Nanosheets for Robust Electrochemical CO_2 Reduction
15:40-16:05	**IL12- Uosaki Kohei,** *National Institute for Materials Science* Issues for Solar-Based Conversion of CO_2 to Fuels and Chemicals
16:05-16:30	**IL13– Aimin Zhu,** *Dalian University of Technology* Plasma Catalytic Approach to Solar Fuel Synthesis
16:30-18:00	**Coffee Break & Poster Session**
18:00-20:00	**Sponsor Banquet**
Oct. 20 (Saturday)	
Session 11	**Chair: Chan Beum Park, Rui Cao**
08:00-08:45	**PL7-Licheng Sun,** *KTH Royal Institute of Technology /Dalian University of Technology* A New Proposal for Water Splitting Catalysis: From Natural to Artificial Photosynthesis
08:45-09:20	**KL10- Dunwei Wang,** *Boston College* Heterogeneous Catalysts with Atomically Defined Structures for Solar Fuel Synthesis
09:20-09:45	**IL14-Mårten Ahlquist,** *KTH Royal Institute of Technology* Molecular water oxidation catalyst simulations in realistic environments
09:45-10:05	**OL18-Lele Duan,** *Southern University of Science and Technology* Ruthenium-Based Water oxidation Catalysts Incorporating carbothioate and Sulfonate ligands
10:05-10:25	**Coffee Break**
Session 12	**Chair: Thomas W. Hamann, Fengtao Fan**
10:25-11:00	**KL11- Michel Dupuis,** *University at Buffalo* Multiscale Modeling of Carrier Transport in Photocatalytic Materials: Application to Bismuth Vanadate $BiVO_4$
11:00-11:25	**IL15- Jingshan Luo,** *Nankai University* Photoelectrochemcial and Photovoltaic Systems for the Generation of Fuels from Sunlight
11:25-11:45	**OL19-Renqiang Yang,** *Qingdao Institute of Bioenergy and Bioprocess Technology, CAS* Cyclic Alkyl Chains Promote the Polymer Self-assembly and Packing Orders for Efficient Solar Cells

11:45-12:05	**OL20-Xiaojia Zheng,** *China Academy of Engineering Physics* Green Anti-Solvent Processed Planar Perovskite Solar Cells and Its Hysteresis Modulate by Work Function Engineering
12:05-12:25	**OL21-Bowei Xu,** *Institute of Chemistry , CAS* Printable MoO_x Anode Interlayer for Organic Solar Cells
12:25-14:00	**Lunch**
Session 13	**Chair: Michel Dupuis, Rengui Li**
14:00-14:45	**PL8-Jae Sung Lee,** *Ulsan National Institute of Science & Technology* Photoelectrochemical Water Splitting for Solar Hydrogen Production over Oxide Semiconductors: A Perspective
14:45-15:20	**KL12-Thomas W. Hamann,** *Michigan State University* Electrolysis of Liquid Ammonia: Enabling the Solar Fuel of the Future
15:20-15:40	**OL22-Yong Ding,** *Lanzhou University* Photocatalytic Water Oxidation Catalyzed by Polyoxometalates under Homogeneous and Heterogeneous Systems
15:40-16:00	**OL23-Rui Cao,** *Shanxi Normal University* Hydrogen and Oxygen Evolution Reactions Catalyzed by Single Site Metal Porphyrins and Corrals
16:00-16:25	**IL16-Philippe Schild,** *European Commission* Mission Innovation Challenge Converting Sunlight: The European Union Perspective
16:25-16:50	**Coffee Break**
Session 14	**Chair: Hongxian Han**
16:50-17:00	**Poster Awards (RSC, ACS and Nature Commun. delegates)**
17:00-17:05	**P1 presentation**
17:05-17:10	**P2 presentation**
17:10-17:15	**P3 presentation**
17:15-17:20	**P4 presentation**
17:20-17:25	**P5 presentation**
17:25-17:30	**P6 presentation**
17:30-17:35	**P7 presentation**
17:35-17:40	**P8 presentation**
17:40-18:00	**Closing Remarks (Licheng Sun)**
18:00-20:00	**Dinner**