



China Photovoltaic Technology International Conference CPTIC2017 Program

| Plenary Session | | | |
|---|--------------------------------|--|--|
| March 30, 2017 Conference Room: Multi-function Hall (3-5) | | | |
| Time | Speaker | Institution | Title |
| 8:00 - 9:50 | Opening speeches / Photography | | |
| 10:00-10:40 | 李振国 Zhenguo Li | LONGi Green Energy Technolog | |
| 10:40-11:20 | 李永舫 Yongfang Li | Chinese Academy of Sciences | Side-Chain Engineering of Photovoltaic Materials for High Performance Nonfullerene Polymer Solar Cells |
| 11:20-12:00 | 宋登元 Dengyuan Song | State key laboratory of photovoltaic material and technology | 21.5%-efficient N-type Si bifacial solar cells with ion implanted back surface field |
| 12:00-13:30 | Lunch Buffet | | |

Symposium 1: Perovskite solar cells I
March 30, 2017 Conference Room: 2-5

Chairperson: Liyuan Han, Katz Eugene

Facilitator: Zhike Liu

| Time | Speaker | Institution | Title |
|---|----------------------|--|---|
| 13:30-13:50 | 韩礼元 Liyuan Han | National Institute for Materials Science, Tsukuba, | High Performance of Perovskite Solar Cells |
| 13:50-14:05 | Katz Eugene | Ben-Gurion University of the Negev | Accelerated testing of organic and perovskite photovoltaic materials and devices using concentrated sunlight |
| 14:05-14:20 | 金盛烨 Shengye Jin | Dalian Institute of Chemical Physics | Carrier Dynamics in Organolead Halide Perovskites |
| 14:20-14:35 | 王鸣魁 Mingkui Wang | Huazhong University of Science and Technology | High efficient photovoltaic based on perovskite solar cells |
| 14:35-14:50 | 张京 Jing Zhang | Ningbo University | Energy band tuning in perovskite by element doping |
| 14:50-15:05 | 荣耀光 Yaoguang Rong | Huazhong University of Science and Technology | Ambient-processed efficient and stable printable mesoscopic perovskite solar cells |
| 15:05-15:20 | 骆群 Qun Luo | Suzhou Institute of Nano-Tech and Nano-Bionics, CAS | High Performance ITO-Free Flexible Perovskite Solar Cells and Semi-transparent Perovskite Solar Cells |
| 15:20-15:35 | 于泽 Ze Yu | Dalian University of Technology | Low-Cost Hole-Transporting Materials for Efficient Perovskite Solar Cells |
| 15:35-15:50 | 臧志刚 Zhigang Zang | Chongqing University | Performance Improvement of Perovskite Solar Cell by Employing CdSe Quantum Dot/PCBM Composite as Electron Transport Layer |
| 15:50-16:05 | Panpan Zhang | The Key Laboratory for Special Functional Materials of MOE | The preparation of inorganic p-type vanadium oxide thin film and the application for perovskite solar cells |
| 16:05-16:15 | Coffee Break | | |
| Chairperson: Jianbin Xu, Tingli Ma, Yixin Zhao | | Facilitator: Wei Zhao | |
| 16:15-16:35 | 许建斌 Jianbin Xu | The Chinese University of Hong Kong | Engineering of Chemical Coordination and Opto-Electronic Properties of High-Performance Perovskite Solar Cells |

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| 16:35-16:50 | 马廷丽 Tingli Ma | Dalian University of Technology | Progress of Pb-free perovskites and their application for solar cells |
| 16:50-17:05 | 赵一新 Yixin Zhao | Shanghai Jiaotong University | Controllable Fabrication of High Quality Perovskites for Photovoltaic and Photoluminescence |
| 17:05-17:20 | 杨冠军 Guanjun Yang | Xi'an Jiaotong University | Facile and scalable production of PSCs with efficiency of >20% using gas pump method in air |
| 17:20-17:35 | 徐飞 Fei Xu | Shanghai University and Fudan University | Temperature-dependent photovoltaic characteristics and carrier transport mechanisms of planar organometal halide perovskite solar cells |
| 17:35-17:50 | 赵晋津 Jinjin Zhao | Shijiazhuang Tiedao University | Photo-induced Ferroelectric Switching in Perovskite CH ₃ NH ₃ PbI ₃ Films |
| 17:50-18:05 | 王树峰 Shufeng Wang | Peking University | The two photoproduct systems and the corresponding subgrain morphology in organolead trihalide perovskite |
| 18:05-18:20 | Lixia Ren | Northwestern Polytechnical University | Lateral photodetector based on LAO/MAPbI ₃ structure |
| 18:20-18:30 | 魏清渤 Qingbo Wei | Shaanxi Normal University | Effective solvent-additive enhanced crystallization and coverage of absorber layers for high efficiency formamidinium perovskite solar cells |
| 18:30-20:00 | Banquet | | |

Symposium 2: Perovskite solar cells II
March 30, 2017 Conference Room: 2-6

Chairperson: Hongwei Han, Yabing Qi, Suhuai Wei

Facilitator: Kui Zhao

| Time | Speaker | Institution | Title |
|-------------|--------------------|--|--|
| 13:30-13:50 | 韩宏伟 Hongwei Han | Huazhong University of Science and Technology | Fully Printable Mesoscopic Perovskite Solar Cells |
| 13:50-14:05 | 戚亚冰 Yabing Qi | Okinawa Institute of Science and Technology Graduate University OIST | A Surface Science Approach for Perovskite Material and Solar Cell Research |

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| 14:05-14:20 | 陈炜 Wei Chen | Huazhong University of Science and Technology | The Incorporation of Stable and Efficient Inorganic Charge Extraction Interfacial Materials into Perovskite Solar Cells |
| 14:20-14:35 | 马万里 Wanli Ma | Suzhou University | Ligand Mediated Transformation of Cesium Lead Bromide Perovskite to Lead Depleted Cs ₄ PbBr ₆ Nanocrystals |
| 14:35-14:50 | Shibin Li | University of Electronic Science and Technology of China | High-efficiency Planar Perovskite Solar Cells with Negligible Hysteretic J-V Behavior |
| 14:50-15:05 | Watson Trystan | SPECIFIC, Swansea University | Addressing the challenges of scale-up for perovskite solar cells; from spin-coating to slot-die. |
| 15:05-15:20 | 常晶晶 Jingjing Chang | Xidian university | Towards high performance perovskite solar cells by thin film morphology control strategies |
| 15:20-15:35 | Guangmei Zhai | Huazhong University of Science and Technology | Accelerated formation and improved performance of CH ₃ NH ₃ PbI ₃ based perovskite solar cells via solvent coordination and anti-solvent extraction |
| 15:35-15:50 | 魏苏淮 Suhuai Wei | Beijing Computational Science Research Center | First-principles Study of Defect Control in Thin-film Photovoltaic Materials |
| 15:50-16:05 | 潘旭 Xu Pan | Hefei Institute of Physical Science, Chinese Academy of Sciences | Preparation and Optimization of Materials for Efficient Perovskite Solar Cells |
| 16:05-16:15 | Coffee Break | | |
| Chairperson: Yibing Cheng, Tom Wu, Jianxi Yao | | Facilitator: Kui Zhao | |
| 16:15-16:35 | 程一兵 Yibing Cheng | Monash University | Microstructural characterisation of perovskite solar cells by transmission electron microscopy |
| 16:35-16:50 | Tom Wu | KAUST | Efficient Charge Transporters for Hybrid Perovskite Optoelectronics |
| 16:50-17:05 | 姚建曦 Jianxi Yao | North China Electric Power University, Beijing | Reduction of the Carriers Recombination in Planar-Structured Perovskite Solar Cells via Vapor-Assisted Solution Process |
| 17:05-17:20 | 陈永华 Yonghua Chen | Nanjing Tech University | Management of Perovskite Intermediates for Highly Efficient Inverted Planar Heterojunction Perovskite Solar Cells |
| 17:20-17:35 | 胡劲松 Jinsong Hu | Chinese Academy of Science | On-Chip Fabrication of Thickness-Adjustable Perovskite Single-Crystalline Thin Films |
| 17:35-17:50 | 黄福志 Fuzhi Huang | Wuhan University of Technology | Toward large-scale fabrication of flexible perovskite solar cells via a solution process |

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| 17:50-18:05 | Xiaolu Zheng | Wuhan University | Enhanced performance and stability for planar perovskite solar cells with a facile molecularly engineered copper II phthalocyanine as hole transport |
| 18:05-18:20 | 贾春阳 Chunyang Jia | University of Electronic Science and Technology of China, Chengdu | Modifications of Perovskite and Hole-transporting Layers for High Efficiency Perovskite Solar Cells |
| 18:20-18:30 | Yong Li | Soochow University | High Performance Planar-Heterojunction Perovskite Solar Cells Using Amino-based Fulleropyrrolidine as the Electron Transporting Material |
| 18:30-20:00 | Banquet | | |

Symposium 3: Organic Solar Cells
March 30, 2017 Conference Room: 3-6

Chairperson: Licheng Sun, Qingdong Zheng, Martyn McLachlan

Facilitator: Dapeng Wang

| Time | Speaker | Institution | Title |
|-------------|-----------------------|---|--|
| 13:30-13:50 | 孙立成 Licheng Sun | Dalian University of Technology | New organic hole-transporting materials for efficient perovskite solar cells and solid state dye-sensitized solar cells |
| 13:50-14:10 | 郑庆东 Qingdong Zheng | Chinese Academy of Sciences, Fujian | Material design and interface engineering for high-performance polymer solar cells |
| 14:10-14:25 | Martyn McLachlan | Imperial College London | Controlling structure, composition and electronic properties of interlayers and electrode materials in organic electronics |
| 14:25-14:40 | 葛子义 Ziyi Ge | Chinese Academy of Sciences | Interfacial Engineering for Highly Efficient Organic Solar Cells |
| 14:40-14:55 | 唐建新 Jianxin Tang | Soochow University | Polymer Solar Cell with Synergistic Light Harvesting Enhancement |
| 14:55-15:10 | 万相见 Xiangjian Wan | Nankai University | Small molecules based high efficiency organic tandem cells |
| 15:10-15:25 | 郭旭岗 Xugang Guo | South University of Science and Technology of China | Design and Synthesis of Polymer Semiconductors for High-Performance Polymer Solar Cells |

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| 15:25-15:40 | 李美成 Meicheng Li | North China Electric Power University | Interfacial Modification of the Novel Hybrid Solar Cells |
| 15:40-15:55 | 胡林华 Linhua Hu | Chinese Academy of Sciences | Submicrospheres Based Photoelectrode and its Application in Solar Cells |
| 15:55-16:10 | 李昌治 Changzhi Li | Zhejiang University | Solution-Processible Conductive Organics for Efficient Polymer and Perovskite Solar Cells |
| 16:10-16:20 | Coffee Break | | |
| Chairperson: Hongzheng Chen, Jian Zhang | | Facilitator: Jiaxing Jiang | |
| 16:20-16:40 | 陈红征 Hongzheng | Zhejiang University | Small molecule electron acceptors for non-fullerene organic solar cell applications |
| 16:40-17:00 | 张坚 Jian Zhang | Guilin University of Electronic Technology | Solution-processed interface dipole layers for organic solar cells |
| 17:00-17:15 | 周惠琼 Huiqiong Zhou | National Center for nanoscience and technology | Interfacial Modification on organic solar cells |
| 17:15-17:30 | 解增旗 Zengqi Xie | South China University of Technology | Electron extraction enhancement by cathode interlayer engineering in polymer solar cells |
| 17:30-17:45 | 郭鑫 Xin Guo | Chinese Academy of Sciences | Respective doping into hole transporting layer and into perovskite film for improved device stability |
| 17:45-18:00 | 鲁广昊 Guanghao Lu | Xi'an Jiaotong University | Film-depth-related Exciton Generation in Polymer Donor: acceptor Solar Cells |
| 18:00-18:15 | 路新慧 Xinhui Lu | The Chinese University of Hong Kong | Morphology Compatibility of High-Performance Ternary Organic Bulk Heterojunction Solar Cells |
| 18:15-18:30 | 郝晓涛 Xiaotao Hao | Shandong University | Visualizing Photophysical Dynamics in Heterogeneous Polymer Films for Organic Solar Cells |
| 18:30-20:00 | Banquet | | |

Symposium 4: crystalline silicon solar cells
March 30, 2017 Conference Room: 3-3

Chairperson: Qi Wang, Baoquan Sun

Facilitator: Fei Gao

| Time | Speaker | Institution | Title |
|---|---------------------|--|---|
| 13:30-13:50 | 王琦 Qi Wang | Jinko Solar | PV technologies march toward the grid parity |
| 13:50-14:10 | 孙宝全 Baoquan Sun | Soochow University | Charge Transfer in Organic/Silicon Heterojunction |
| 14:10-14:30 | Sebastian Gatz | Meyer Burger Germany AG | Symposium I. Crystalline silicon: materials, processes, and technologies >23% efficient Silicon heterojunction solar cells applying |
| 14:30-14:50 | 杨喜平 Xiping Yang | California State University, Northridge | N-Type Bifacial Solar Cell and the Key Technologies |
| 14:50-15:05 | 杨智 Zhi Yang | 泰州中来光电科技有限公司 | 中来高效高可靠光伏产品发展与应用公司介绍 |
| 15:05-15:20 | 黄海宾 Haibin Huang | Nanchang University | An economical high efficiency bifacial HAC solar cell |
| 15:20-15:35 | 苏晓东 Xiaodong Su | Soochow University | Next-generation multi-crystalline silicon solar cells: Diamond-wire sawing, nano-texture and high efficiency |
| 15:35-15:50 | 张良 Liang Zhang | Ideal Deposition Equipment and Applications Shanghai Ltd. | Introduction of batch in-line ALD for Al ₂ O ₃ deposition from Ideal Deposition Equipment and Applications |
| 15:50-16:05 | Hong Wang 王鸿 | Ideal Energy Equipment (Shanghai) Co., Ltd. | 40MHz frequency, 0.3S plasma stabilization time. Mass product PECVD equipment for a-Si in HJ Solar Cell |
| 16:05-16:15 | Coffee Break | | |
| Chairperson: Zhengxin Liu, Rui Jia | | Facilitator: Fei Gao | |
| 16:15-16:35 | 刘正新 Zhengxin Liu | Shanghai Institute of Microsystem and Information Technology (SIMIT) | Impact of n-type silicon wafer quality on SHJ solar cells |

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| 16:35-17:55 | Rui Jia | the Institute of Microelectronics of the Chinese Academy of Sciences | The Performances of Heterojunction Interdigitated Back-contact HBC Solar Cell With Intrinsic Amorphous Silicon As Front Surface Passivation Layer |
| 17:55-17:15 | 余学功 Xuegong Yu | Zhejiang University | Light-induced degradation of crystalline silicon solar cells |
| 17:15-17:35 | 袁星光 Xingguang Yuan | Gebr. Schmid GmbH | Multi-Busbar Connector MBC |
| 17:35-17:50 | 杨黎飞 Lifei Yang | GCL System Integration Technology Co., Ltd. | Silicon Heterojunction Solar Cells: Towards High Efficiency and Low Cost |
| 17:50-18:05 | 董刚强 Gangqiang Dong | Hanergy Thin Film Power Group, Chengdu R&D Center | Development of High Efficiency and Low Cost Silicon Heterojunction Solar Cells for Mass Production |
| 18:05-18:20 | 訾威 Wei Zi | Shaanxi Normal University | Decreasing parasitic absorption in silicon heterojunction solar cell |
| 18:30-20:00 | Banquet | | |

Symposium 5: PV materials and technology
March 30, 2017 Conference Room: 2-7

Chairperson: Tian Xie

Facilitator: Jia Liu

| Time | Speaker | Institution | Title |
|-------------|------------------------|-----------------------------|--|
| 13:30-13:55 | 강병창 ByungChang Kang | OCI Company Ltd. | OCI's Polysilicon Manufacturing Technologies |
| 13:55-14:10 | Kwang Ho Lee | Hanwha Chemical Corporation | 多晶硅市场展望 |
| 14:10-14:25 | Erich Dornberger | Wacker, Inc. | High Purity Silicon is a Key Factor for Solar Cell Efficiencies Beyond 20% |
| 14:25-14:40 | 姚公达 Gongda Yao | Daqo New Energy | Status Quo and Outlook for China Solar Polysilicon Industry |

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| 14:40-14:55 | 廖寄乔 Jiqiao Liao | Central South University | Carbon/Carbon composites applied in Photovoltaic fields |
| 14:55-15:10 | Dirk Muetzenich | SGL CARBON GmbH | Graphite materials used in the Photovoltaic value chain |
| 15:10-15:25 | 张灵玉 LingYu Zhang | xi'an chaoma technology co.,ltd. | 炭/炭复合材料在光伏领域的应用 |
| 15:25-15:40 | 薛向军 Xiangjun Xue | Haoshi carbon fiber | 碳素热场材料技术创新与光伏应用 |
| 15:40-15:55 | 曲东升 Dongsheng Qu | Yangling Metron New Material Co., Ltd. | 电镀金刚线技术及未来发展趋势 |
| 15:55-16:15 | Coffee Break | | |
| Chairperson: Tian Xie | | Facilitator: Hua Xu | |
| 16:15-16:40 | 王一淳 Yichun Wang | LONGi Green Energy Technolog | Multi-GW mono wafer supply with low-cost & high-efficiency |
| 16:40-17:00 | Youngjin YOOK | R&D Center, WoongjinEnergy Co. Ltd. | High Quality Silicon Ingot for Higher Efficiency Solar Cells |
| 17:00-17:20 | Yantao Gao | Appllied material | Precision wafer inspection improving the cell yield and lower the CoO |
| 17:20-17:40 | Ferenc Korsós | Semilab Co., Ltd. | Carrier lifetime metrology solutions for mono-Si solar cell production |
| 17:40-18:00 | Pierre-Jean Ribeyron | Institut National de l'Energie Solaire INES | Identification of ultimate defects in Czochralski Silicon wafers and strategies for their avoidance/suppression for high efficiency solar cells |
| 18:00-18:20 | 黎志欣 Zhixin Li | Linton Machine | 金刚线硅片切割技术发展趋势及单晶及多晶光伏硅片的比较优势 |
| 18:20-20:00 | Banquet | | |

Symposium 6: CIGS-CZTS solar cells
March 30, 2017 Conference Room: 3-7

Chairperson: Jian Ding, Haijun Jia

Facilitator: Wangeng Zhao

| Time | Speaker | Institution | Title |
|---------------------------------------|----------------------|---|---|
| 13:30-13:55 | 童翔 Xiang Tong | Hanergy Holding Group Ltd. Beijing, China | Recent Development and Industrialization Progress in High Efficiency Thin-film Solar Cells |
| 13:55-14:15 | 刘芳洋 Fangyang Liu | Central South University | Light bias-dependent External Quantum Efficiency of Kesterite Cu ₂ ZnSnS ₄ Solar Cells |
| 14:15-14:35 | 林显忠 Xianzhong Lin | Sun Yat-sen University, Guangzhou | Drop-on-demand Inkjet Printing Technology for Compound Semiconductor Photovoltaics |
| 14:35-14:55 | 韩安军 Anjun Han | Chinese Academy of Sciences | Improvement of Ga accumulation in CuIn, GaS, Se ₂ film by pre-sulfurized and selenized Mo back contacts in two-step selenization process |
| 14:55-15:15 | 刘晓茹 Xiaoru Liu | Nankai University | Efficiency improvement of ZnO _s /CZTSe Heterojunction Solar Cell by etching and annealing method |
| 15:15-15:35 | 付俊杰 Junjie Fu | Henan University | A Band-Gap-Graded Ag _x Cu _{1-x} ZnSnS ₄ Solar Cell with 7.9% Efficiency |
| 15:35-15:55 | 毕金莲 Jinlian Bi | Nankai University | Influence of Cu content on Ga diffusion of CIGSe prepared by post-selenization of electrode-positing Cu/In/Ga precursors |
| 15:55-16:05 | Coffee Break | | |
| Chairperson: Yun Sun, Sixin Wu | | Facilitator: Ruibin Jiang | |
| 16:05-16:30 | 孙云 Yun Sun | Nankai University | Alkalis doping for high efficiency CIGS thin film solar cells |
| 16:30-16:50 | 武四新 Sixin Wu | Henan University | Efficiency enhancement of CZTSSe solar cells by cation substitution |
| 16:50-17:10 | 杨春雷 Chunlei Yang | the Chinese University of Hong Kong | High Efficiency CuInGaSe ₂ thin film solar cells: device fabrication and its grain boundary physics |

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| 17:10-17:30 | 田庆文 Qingwen Tian | Henan University | Fabrication of Cu ₂ ZnSnS ₄ thin film solar cells using low-toxic routes |
| 17:30-17:50 | 赵祥云 Xiangyun Zhao | Henan University | CZTSSe Thin Film Solar Cells Fabricated from Elemental Powders |
| 17:50-18:10 | 闵雪 Xue Min | Chinese Academy of Sciences | Highly Efficient Cu ₂ ZnSnS ₄ Solar Cells Fabricated by Low-Toxic Solution Methods |
| 18:10-18:30 | 赵雲 Yun Zhao | Chinese Academy of Sciences | Enhancing open circuit voltage of Cu ₂ ZnSnS ₄ solar cells with Ag substitution by solution method |
| 18:30-20:00 | Banquet | | |
| Symposium 7: High efficiency CdTe-like solar cells March 30, 2017 Conference Room: 3-2 | | | |
| Chairperson: Jiang Tang, Tao Chen, Jinghui Zeng | | Facilitator: Bin Liu | |
| Time | Speaker | Institution | Title |
| 13:30-13:55 | 唐江 Jiang Tang | Huazhong University of Science and Technology | Sb ₂ Se ₃ thin film photovoltaics: motivation, progress and perspective |
| 13:55-14:15 | 陈涛 Tao Chen | MSE, University of Science and Technology of China | Solution Processing of Sb ₂ S _{1-x} Se _x Films for Solar Cell Application |
| 14:15-14:35 | 李志强 Zhiqiang Li | Hebei University | Fabrication of Sb ₂ Se ₃ thin-film solar cells by the co-evaporation of Se and Sb ₂ Se ₃ |
| 14:35-14:55 | 李佳佳 Jiajia Li | Chinese Academy of Sciences | Cu ₃ BiS ₃ thin film as a Promising Earth-Abundant Photovoltaic Absorber Material |
| 14:55-15:15 | 薛丁江 Dingjiang Xue | Chinese Academy of Sciences | GeSe Thin-Film Solar Cells |
| 15:15-15:35 | 李康华 Kanghua Li | Huazhong University of Science and Technology HUST | Stable ZnO/Sb ₂ Se ₃ solar cells with 6% efficiency |
| 15:35-15:55 | 宋海胜 Haisheng Song | Huazhong University of Science and Technology | Efficient Planar Antimony Sulfide Thin-Film Photovoltaics |

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| 15:55-16:15 | Hongqiang Wang | Northwestern Polytechnical University | Unconventional Thermal Engineering of Photoconversion Nanomaterials |
| 16:15-16:25 | Coffee Break | | |
| Chairperson: Dechun Zou, Deliang Wang | | Facilitator: Xinbing Chen | |
| 16:25-16:50 | 邹德春 Dechun Zou | Peking University | Efficient Fiber-shaped Devices for Energy Conversion and Storage |
| 16:50-17:10 | 王德亮 Deliang Wang | University of Science and Technology of China | Fabrication of high efficient thin film CdTe solar cells and device performance under high- and low-intensity light irradiance |
| 17:10-17:30 | 李孝峰 Xiaofeng Li | Soochow University | Opto-electro-thermal simulation of solar cells |
| 17:30-17:50 | 揭建胜 Jiansheng Jie | Soochow University | Two-Dimensional Layered Materials/Semiconductor 2D-3D Heterojunctions for Energy and Optoelectronic Applications |
| 17:50-18:10 | 刘洪 Hong Liu | Shanghai Jiao Tong University | Controllable Fabrication and Manipulation of Functional Nanostructure Materials via Electrochemical Approach |
| 18:30-20:00 | Banquet | | |



China Photovoltaic Technology International Conference CPTIC2017 Program

Plenary Session
March 31, 2017 Conference Room: Multi-function Hall (3-5)

Chairperson: Hongwei Han, Qi Wang, Shengzhong Liu

| Time | Speaker | Institution | Title |
|-------------|-------------------|--|---|
| 8:00-8:40 | Michael Gratzel | Swiss Federal Institute of Technology switzerland | Molecular Photovoltaics and Perovskite Solar Cells |
| 8:40-9:15 | 杨立友 Liyou Yang | Jinergy CEO | Technological Progress in PV Mass Production-Toward Grid Parity |
| 9:15-9:50 | 杨德仁 Deren Yang | Zhejiang University | Progress in multicrystalline silicon ingot and wafer |

Symposium 1: Perovskite Solar Cells I
March 31, 2017 Conference Room: 2-5

Chairperson: Xiaodan Zhang, Wallace C.H. Choy

Facilitator: Junqing Yan

| Time | Speaker | Institution | Title |
|--|----------------------|--|---|
| 10:00-10:20 | 张晓丹 Xiaodan Zhang | Nankai University | Multi-junction Solar Cells |
| 10:20-10:35 | 蔡植豪 Wallace C.H. | The University of Hong Kong | New low-temperature approach for forming high performance CH ₃ NH ₃ PbI ₄ solar cells with good productivity and stability |
| 10:35-10:50 | 匡代彬 Daibin Kuang | Sun Yat-sen University | Halide Perovskite Single crystal for efficient optoelectronic applications |
| 10:50-11:05 | 钟杰 JieZhong | Wuhan University of Technology | Optimized sol-gel Zr/TiO ₂ for efficient planar perovskite solar cells |
| 11:05-11:20 | 金钟 Zhong Jin | Nanjing University | High-Stability Perovskite Solar Cells and Integrated Self-Powering Energy De |
| 11:20-11:35 | 彭勇 Yong Peng | Wuhan University of Technology | High efficiency flexible perovskite solar cell sub-module with improved stability |
| 11:35-11:50 | 梁晓光 Xiaoguang | City University of Hong Kong | Self-Assembly of Crystalline, Large-Area and Periodicity-Tunable TiO ₂ Nanotube Arrays for Perovskite Solar Cells |
| 11:50-12:05 | Jiajiu Ye | Hefei Institute of Physical Science, Chinese Academy of Sciences | Enhanced morphology and stability of high-performance Perovskite Solar Cells with ultra-smooth surface and high fill factor via crystal growth |
| 12:05-13:30 | Lunch Buffet | | |
| Chairperson: Qingbo Meng, Baomin Xu | | Facilitator: Dong Yang | |
| 13:30-13:50 | 孟庆波 Qingbo Meng | Chinese Academy of Sciences | Interface engineering and charge transport investigation of the perovskite solar cells |
| 13:50-14:10 | 徐保民 Baomin Xu | Southern University of Science and Technology | Fabrication of High-Efficiency and Stable Perovskite Solar Cells |

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| 14:10-14:30 | 吴春桂 Chungui Wu | National Central University | A process to high efficiency stable perovskite solar cell and module |
| 14:30-14:50 | 何祝兵 Zhubing He | South University of Science and Technology of China | Interface engineering and doping for planar perovskite heterojunction solar cells |
| 14:50-15:05 | Aram Amassian | KAUST Solar Center KSC | Hybrid perovskite Solar Cells: Controlling the crystallization behavior from lab to fab |
| 15:05-15:20 | Feng Wang | Linköping | Surface passivation to improve the efficiency and stability of perovskite solar cells |
| 15:20-15:35 | 丁毅 Yi Ding | Nankai University | Elucidating the Role of Chlorine in Perovskite Solar Cells |
| 15:35-15:50 | 武建昌 Jiangchang Wu | Southern University of Science and Technology | Novel Simple Thiophene and Benzene-Based Hole-Transporting Materials for Perovskite Solar Cells |
| 15:50-16:05 | 周贤勇 Xianyong Zhou | Southern University of Science and Technology | Inverted Planar Heterojunction Lead Acetate-based Perovskite Solar Cells with Efficiency Exceeding 19% Realized via Crystallization Engineering |
| 16:05-16:15 | Coffee Break | | |
| Chairperson: Jingbi You, Omar Mohammed, Haiming Zhu | | Facilitator: Dong Yang | |
| 16:15-16:35 | 游经碧 Jingbi You | Institute of Semiconductor | Efficient Planar Perovskite Solar Cells |
| 16:35-16:50 | Omar Mohammed | KAUST Solar Center, Division of Physical Sciences and Engineering, KAUST | Mapping Carrier Dynamics on Semiconductor Material Surfaces and at Interfaces using Laser Spectroscopy and 4D Electron Microscopy |
| 16:50-17:05 | 朱海明 Haiming Zhu | Zhejiang University | Exceptional Excited State Dynamics in Lead Halide Perovskites for Light Emission and Solar Energy Conversion Applications |
| 17:05-17:20 | 范建东 Jiandong Fan | Jinan University | Highly-Orientated Perovskite Thin Films toward Thermally Stable and Efficient Solar Cells |
| 17:20-17:35 | 熊良斌 Liangbin Xiong | Wuhan university | Performance enhancement of high temperature SnO ₂ -based planar perovskite solar cells: electrical characterization and understanding of the |
| 17:35-17:50 | 冉晨鑫 Chenxin Ran | Xi'an Jiaotong University | Tin and Bismuth-Based Lead-Free Perovskite Solar Cell by Advanced Film Fabrication Strategies |
| 17:50-18:05 | 张小曼 Xiaoman Zhang | Henan University | Gold Nanorods Electrically Modified Absorber/HTL Interface for Efficient Perovskite Solar cells |

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| 18:05-18:20 | 刘治科 Zhike Liu | Shaanxi Normal University | Enhancing Efficiency and Stability of Perovskite Solar Cells through Nb-Doping of TiO ₂ at Low Temperature |
| 18:30-20:00 | Dinner Buffet | | |

| Symposium 2: Perovskite Solar Cells II March 31, 2017 Conference Room: 2-6 | | | |
|--|---------------------|--|---|
| Chairperson: Bingwei Mao, Guojia Fang | | Facilitator: Qian Wang | |
| Time | Speaker | Institution | Title |
| 10:00-10:20 | 毛秉伟 Bingwei Mao | Xiamen University | Spectroscopic Investigation of Hybrid Perovskite Single Crystals, Thin Films and Solar Cells |
| 10:20-10:40 | 方国家 Guojia Fang | Wuhan University | Performance Enhancement of Perovskite Solar Cells with SnO ₂ Electron Transport Layer |
| 10:40-11:00 | 沈青 Qing Shen | The University of Electro-Communications | Effects of Interface Engineering on Photoexcited Carrier Dynamics and Photovoltaic Performance in Perovskite Solar Cells |
| 11:00-11:20 | Lucio Cinà | Cicci research s.r.l. | Degradation mechanisms in Perovskite based device: correlation between steady-state and dynamic measurements |
| 11:20-11:35 | 魏展画 Zhanhua Wei | The Hong Kong University of Science & Technology | Interface Engineering in Carbon-based Perovskite Solar Cell |
| 11:35-11:50 | Long Zhou | Xidian University | Hybrid perovskites CH ₃ NH ₃ In:PbI ₃ for photovoltaics: Insights from first principles and experiment |
| 11:50-12:05 | Zhou Yang | Shaanxi Normal University | Single-Crystalline CH ₃ NH ₃ PbX ₃ : Growth, Properties and Application |
| 12:05-13:30 | Lunch Buffet | | |

| Chairperson: Guozhong Cao, Lixin Xiao | | | Facilitator: Kui Zhao |
|--|----------------------|--|---|
| 13:30-13:50 | Guozhong Cao | University of Washington | Control and Understand the Impacts of Nano and Microstructures on Perovskite Solar Cell Performance |
| 13:50-14:05 | 萧立新 Lixin Xiao | Peking University | A hydrophobic hole transporting system to improve moisture stability of perovskite solar cells |
| 14:05-14:20 | Huanping Zhou | Peking University | The Material Growth and Defect Understanding in Hybrid Perovskite Solar Cells |
| 14:20-14:35 | Steffen Duhm | Soochow University | Energy-Level Alignment of Lead Halide Perovskites with Organic Semiconductors |
| 14:35-14:50 | 田文晶 Wenjing Tian | Jilin Univeristy | High efficient perovskite solar cell based on the interfacial modification of cathode |
| 14:50-15:05 | 阳军亮 Junliang Yang | Central South University | Interface Modification and Roll-to-Roll Printing for Organic and Perovskite Thin Film Solar Cells |
| 15:05-15:20 | 赵奎 Kui Zhao | Shaanxi Normal University | High performance and stable layered perovskite solar cells |
| 15:20-15:35 | 李金华 Jinhua Li | Hubei Univerisity | High performance planner perovskite solar cells with ZnO electron transport layer |
| 15:35-15:50 | 王照奎 Zhaokui Wang | Soochow University | Crystallization Engineering for High-Performance Planar Perovskite Solar cells |
| 15:50-16:05 | 漆奇 Qi Qi | Beijing Elite Tech Co., Ltd | Perovskite Solar Cells and Their Anti-humidity Properties |
| 16:05-16:15 | Coffee Break | | |
| Chairperson: Jianpu Wang, Osman Bakr | | | Facilitator: Zhou Yang |
| 16:15-16:35 | Osman Bakr | KAUST Solar Center, Division of Physical Sciences and Engineering, KAUST | Lead Halide Perovskites of Different Dimensionalities: Growth, Properties, and Applications in Optoelectronics |
| 16:35-16:50 | 王建浦 Jianpu Wang | Nanjing Tech University | Perovskite Light-Emitting Diodes based on Solution-Processed, Self-Organized Multiple Quantum Wells |
| 16:50-17:05 | 严清峰 Qingfeng Yan | Tsinghua University | Growth and Anisotropic Moisture Erosion of CH ₃ NH ₃ PbI ₃ Bulk Single Crystal |

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| 17:05-17:20 | 林红 Hong Lin | Tsinghua University | Perovskite Solar Cells with Carbon Nanomaterials |
| 17:20-17:35 | 郝玉英 Yuying Hao | Hong Kong Baptist University | High efficiency planar Sn-Pb binary perovskite solar cells: Controlled growth of large grains via one-step solution fabrication process |
| 17:35-17:50 | 万丽 Li Wan | Hubei University | Effect of rutile-TiO ₂ nanorod arrays on Pb-free CH ₃ NH ₃ Bi ₂ I ₉ - based hybrid perovskite solar cells fabricated through two- step sequential solution |
| 17:50-18:05 | Yanxia Cui | Taiyuan University of Technology | Synthesis of Different Sized Perovskite Nanoplatelets with Narrowing in Photoluminescent Spectra under Micro-scale Excitation |
| 18:05-18:20 | Qingfeng Dong | Jilin University | Co-Planar Single-Crystal Hybrid Perovskite Solar Cells |
| 18:30-20:00 | Dinner Buffet | | |

Symposium 3: Organic Solar Cells
March 31, 2017 Conference Room: 3-6

Chairpersons: Yanchun Han, Xiaowei Zhan

Facilitator: Ziwei Deng

| Time | Speaker | Institution | Title |
|-------------|---------------------|--|---|
| 10:00-10:20 | 韩艳春 YanChun Han | Changchun Institute of Applied Chemistry | All Conjugated Polymer Solar Cells: Blends Morphology and the Molecular Orientations at the Interface |
| 10:20-10:40 | 占肖卫 Xiaowei Zhan | Peking University | Design of Fused-Ring Electron Acceptors for Highly Efficient Organic Solar Cells |
| 10:40-10:55 | 周印华 Yinhua Zhou | Huazhong University of Science and Technology | Organic and perovskite solar cells with conducting polymer electrodes |
| 10:55-11:10 | 叶轩立 Hin-Lap Yip | South China University of Technology | Interface and Tandem Design for High Performance Polymer Solar Cells |
| 11:10-11:25 | 周二军 Erjun Zhou | National Center for Nanoscience and Technology | Design and synthesis of n-type photovoltaic materials |

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| 11:25-11:40 | 马伟 Wei Ma | Xi'an Jiaotong University | The Influence of Mixed Phases in High Performance Non-Fullerene Solar Cells |
| 11:40-11:55 | 马昌期 Changqi Ma | Suzhou Institute of Nano-Tech and Nano-Bionics, CAS | Intrinsic Degradation Behavior of Polymer Solar Cells: Influence of External Load and Thermal Stress |
| 11:55-13:30 | Lunch Buffet | | |
| Chairperson: Jianhui Hou, Gang Li | | Facilitator: Xuexia He | |
| 13:30-13:50 | 侯剑辉 Jianhui Hou | Institute of Chemistry, Chinese Academy of Sciences | Energy Level Modulation of Small Molecule Electron Acceptors to Achieve Over 12% Efficiency in Polymer Solar Cells |
| 13:50-14:10 | Gang Li | Hong Kong Polytechnic University | Tandem solar cells enabled by solution processible semiconductors |
| 14:10-14:30 | 杨上峰 Shangfeng Yang | University of Science and Technology of China | Application of Novel Fullerene Derivatives as Cathode Interfacial Layers of Polymer Solar Cells |
| 14:30-14:45 | Chen Dazheng | Xidian University | Interface engineering for highly efficient organic solar cells |
| 14:45-15:00 | 谭占鳌 Zhan'ao Tan | North China Electric Power University | Interface engineering and vertical concentration controlling for high performance polymer solar cells |
| 15:00-15:15 | 魏志祥 Zhixiang Wei | National Center for Nanoscience and Technology | Ternary blends for large area flexible organic solar cells |
| 15:15-15:30 | 朱俊 Jun Zhu | Hefei Institutes of Physical Science, Chinese Academy of Sciences | Optimization of Materials and Interfaces for Nano Hybrid Solar Cells |
| 15:30-15:45 | 陈令成 Lingcheng Chen | Dalian University of Technology | The Perylene Diimides Polyploids: The Efficient Synthesis and their non-Fullerene Organic Solar Cells |
| 15:45-16:00 | 杨春燕 Chunyan Yang | Lanzhou Jiaotong University | Inverted polymer solar cells using CdS fabricated by thermal decomposition of cadmium xanthate precursor as electron transporting layer |
| 16:00-16:15 | 傅平 Ping Fu | Dalian Institute of Chemical Physics | Achieving 10.5% Efficiency for Inverted Polymer Solar Cells by modifying ZnO Cathode / Interlayer with Phenols |
| 16:15-16:25 | Coffee Break | | |

| Chairperson: Weiqiao Deng, Jun Liu | | | Facilitator: Xuediao Cai |
|---|----------------------|--|--|
| 16:25-16:45 | 邓伟侨 Weiqiao Deng | Dalian Institute of Chemical Physics | First Principles Design of Solar Cell Materials |
| 16:45-17:05 | 刘俊 Jun Liu | Changchun Institute of Applied Chemistry Changchun | Polymer Electron Acceptors Containing B←N Unit For All Polymer Solar Cells |
| 17:05-17:20 | 孙艳明 Yanming Sun | Beihang University | High-Performance Ternary Organic Solar Cells |
| 17:20-17:35 | 张渊 Yuan Zhang | Beihang University | Electron Transport and Photocurrent in Solution-Processed Trap-Free Semiconductors N-Doped with an Air-Stable Organometallic Dimer |
| 17:35-17:50 | 阳仁强 Renqiang Yang | Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy | Improved Photovoltaic Performance of Polymer Solar Cells by Employing Symmetry-Breaking Strategy |
| 17:50-18:05 | 朱卫国 Weiguo Zhu | Changzhou University | Asymmetric indenothiophene and thienoisochromene donor units for high-performance donor-acceptor photovoltaic polymers |
| 18:05-18:20 | 向万春 Wanchun Xiang | Wuhan University of Technology | Improved air stability of perovskite hybrid solar cells via blending / polydimethylsiloxane-Urea copolymer |
| 18:20-18:35 | 何凤 Feng He | South University of Science and Technology of China | Chlorination of the Conjugated Polymer: Towards Efficient Solar Energy Conversion |
| 18:35-20:00 | Dinner Buffet | | |

| Symposium 4: Crystalline Silicon Solar Cells March 31, 2017 Conference Room: 3-3 | | | |
|--|---------------------|---|---|
| Chairperson: Wenjing Wang, Yaohua Mai | | | Facilitator: Wei Zi |
| Time | Speaker | Institution | Title |
| 10:00-10:20 | 王文静 Wenjing Wang | University of Chinese Academy of Sciences | The research progress of TOC in HIT sola cell |

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| 10:20-10:40 | 麦耀华 Yaohua Mai | Jinan University | High quality silicon surface passivation by polystyrenesulfonate thin films |
| 10:40-11:00 | Hajime Shirai | Saitama University | 1.Solution processed PEDOT:PSS/crystalline Si heterojunction solar cells 2.Chemistry of mist deposition of organic polymer PEDOT:PSS on |
| 11:00-11:20 | 钟思华 Sihua Zhong | Shanghai Jiao Tong University | Design and fabrication of highly efficient Si nanostructures textured solar cells |
| 11:20-11:40 | Yue Zhang | Beijing University of Technology | Influence of the thickness of doped amorphous silicon layers on the performance of n-type hetero-junction solar cells: a simulation study |
| 11:40-12:00 | 张振昊 Zhenhao Zhang | SINGULUS TECHNOLOGIES AG, Kahl am Main, Germany | Starting a New Era in PV Manufacture in China: Introduction and Optimization of Key Equipments for Mass Production of Highly Efficient |
| 12:00-13:30 | Lunch Buffet | | |
| Chairperson: Wenzhong Shen, Fengzhen Liu | | Facilitator: Xisheng Zhang | |
| 13:30-13:50 | 沈文忠 Wenzhong Shen | Shanghai Jiaotong University | Bridging scientific research and industry: Research progress on industrial crystalline silicon solar cells at SJTU |
| 13:50-14:10 | 刘丰珍 Fengzhen Liu | University of Chinese Academy of Sciences | New type Si based heterojunction solar cells —nanostructure light trapping, interface optimization and carriers collection |
| 14:10-14:30 | Pierre-Jean Ribeyron | Institut National de l'Energie Solaire INES | On the development of silicon heterojunction bifacial technology up to the industrial level at CEA-INES: Our vision towards 24% efficient solar cells |
| 14:30-14:50 | 高平奇 Pingqi Gao | Ningbo Institute of Material Technology and Engineering Chinese Academy of Sciences | Efficient Silicon Solar Cells with Carrier-selective Passivating-contacts |
| 14:50-15:05 | 刘奇明 Qiming Liu | Lanzhou University | Solution-processed Back-contact PEDOT:PSS/c-Si Heterojunction Solar Cells |
| 15:05-15:20 | 何永才 Yongcai He | Beijing University of Technology | High-Performance ITO Film for Advanced Silicon Heterojunction Solar Cells |
| 15:20-15:35 | 魏一 Yi Wei | Dalian University of Technology | All screen-printed IBC silicon solar cells with aluminum-alloyed emitter |
| 15:35-15:50 | 陈洪野 Chen Hongye | 苏州赛伍应用技术有限公司 CTO | The study of optical to improve the module output power |
| 15:50-16:05 | 朱锋 Feng Zhu | FE ThinFilms LLC, 7318 S Revere Pkwy, Centennial, CO 80112, USA | The control of grains size and orientation in silicon thin film |

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| 16:05-16:15 | Coffee Break | | |
| Chairperson: Jun Lv, Lang Zhou | | Facilitator: Xisheng Zhang | |
| 16:15-16:35 | 吕俊 Jun Lv | LONGi Solar | Advanced PV technology of Bifacial PERC |
| 16:35-16:55 | 周浪 Lang Zhou | Nanchang University | On the origin of and the solutions to texturization problem of diamond wire sawn silicon surfaces |
| 16:55-17:15 | Teresa S. Ripolles | Hibikino wakamatsuku, Kitakyushu 808-0196 | Enhancement of efficiency for perovskite solar cells consisting of Sn from view point of interfacial and crystal architecture |
| 17:15-17:35 | Ziheng Liu | University of New South Wales | Defect density reduction in Ge hetero-epitaxy by diode laser treatment, towards a cost-effective substrate for high efficiency III-V solar cells |
| 17:35-17:50 | 张林睿 LinRui Zhang | Beijing University of Technology | The Effect of Inverted Pyramidal Trapped Structure on the Optical Properties of Crystalline silicon solar cell |
| 17:50-18:05 | Shaoqing Xiao | Department of Electronic Engineering, Jiangnan University | Low-temperature plasma processing for Si photovoltaics |
| 18:05-18:20 | 张喜生 Xisheng Zhang | Shaanxi Normal University | Improved PEDOT:PSS/c-Si hybrid solar cell using inverted structure and effective passivation |
| 18:30-20:00 | Dinner Buffet | | |

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| Symposium 5: PV Materials and Technology March 31, 2017 Conference Room: 2-7 | | | |
| Chairperson: Lijun Liu, Zhongquan Ma | | Facilitator: Guohua Huang | |
| Time | Speaker | Institution | Title |
| 10:00-10:25 | 刘立军 Lijun Liu | Xi'an Jiaotong University | Control of oxygen in a continuous-feeding Czochralski-silicon crystal growth with double crucibles |

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| 10:25-10:45 | 马忠权 Zhongquan Ma | Shanghai University | Quantum selective tunneling in Si-based high efficient heterojunction solar cells |
| 10:45-11:05 | 张俊刚 Jungang Zhang | Shanghai Transcom Scientific Co., Ltd. | The Challenges of Domestic Front Silver Paste |
| 11:05-11:25 | 张传吉 Chuanji Zhang | Zhejiang Dilong Optoelectronic Material Co., Ltd | Domestic EVA film for Photovoltaic grid parity |
| 11:25-11:45 | 李早阳 Zaoyang Li | Xi'an Jiaotong University | oral-Directional solidification of multi-crystalline silicon ingots with different crucible physical properties for solar cells |
| 11:45-12:05 | Guoan Tai | Nanjing University of Aeronautics and Astronautics | Large-Area Synthesis and Device Application of Two-Dimensional Atomic Crystals on Metal Substrates |
| 12:05-13:30 | Lunch Buffet | | |
| Chairperson: Hong Yang, Zhiyuan An | | Facilitator: Fengwei Xiao | |
| 13:30-13:55 | Hong Yang | Xi'an Jiaotong University | Performance degradation of crystalline silicon solar modules affected by potential induced degradation in photovoltaic power plant |
| 13:55-14:15 | 安志远 Zhiyuan An | Xidian University | Zinc Oxide Thin-Film Transistor by Al Doping and Its Transistor Performance |
| 14:15-14:35 | Ruizhi Peng | Xidian University | Al-doped Zinc Oxide Thin Film Transistor Utilized Solution-Processed Method at Different Annealing Temperature |
| 14:35-14:55 | Jingjing Ren | Xi'an Technological University | Segmented Hydrothermal Synthesis and Desulfurization Performance of La III Modified TiO ₂ Hollow Spheres |
| 14:55-15:15 | 高斐 Fei Gao | Shaanxi Normal University | Important factors and their sequence for affecting the performance of Si HIT solar cell |
| 15:15-15:35 | 王晓峰 Xiaofeng Wang | Jilin University | Chlorophyll derivatives as functional material for next generation photovoltaic cells |
| 15:35-15:55 | 贾晓洁 Xiaojie Jia | University of Chinese Academy of Sciences | Potential-Induced Degradation Leads to the Destruction of SiN _x /Si Interface |
| 15:55-16:15 | Coffee Break | | |

| Chairperson: Baojie Yan, Xiaodong Zhang | | | Facilitator: Fengwei Xiao |
|--|----------------------|--|--|
| 16:15-16:40 | 闫宝杰 Baojie Yan | Nankai University | Amorphous and Microcrystalline Thin Film Silicon Materials and Application in Photovoltaic Solar Energy |
| 16:40-17:00 | Xinke Wang | Ablestik Shanghai LTD., Henkel | High conductivity and high adhesion screen-printable Ag inks for low temperature metallization of crystalline silicon heterojunction solar cells |
| 17:00-17:20 | 孙韵林 Yunlin Sun | Shun De SYSU Institute for Solar Energy | Total-Life-Cycle TLC Profit Guarantee of PV Plant |
| 17:20-17:40 | Xiaofang Qi | Xi'an Jiaotong University | Analysis of W-shaped melt-crystal interface formation for large-size multi-crystalline silicon ingots |
| 17:40-18:00 | Xiaodong Zhang | Shaanxi Coal Chemical Industry Technology Research Institute Co.,Ltd | Study on the Properties of Novel ITO and AgNW Composite Transparent Conductive Films |
| 18:30-20:00 | Dinner Buffet | | |

| Symposium 6: CIGS-CZTS Solar Cells March 31, 2017 Conference Room: 3-7 | | | |
|--|----------------------|--|--|
| Chairperson: Xudong Xiao, Shiyu Chen | | | Facilitator: Yu Chen |
| Time | Speaker | Institution | Title |
| 10:00-10:25 | 肖旭东 Xudong Xiao | Chinese University of Hong Kong | Optimization of the fabrication of functional layers in CIGS and CZTS solar cells |
| 10:25-10:45 | 刘玮 Wei Liu | Nankai University | Back Interface of CIGS Solar Cells based on the Submicron Absorber Layer |
| 10:45-11:05 | 程树英 Shuying Cheng | Fuzhou University | Sol-gel processed CZTS thin film solar cell on flexible molybdenum foil |
| 11:05-11:25 | 樊青苗 Qingmiao Fan | The Key Laboratory for Special Functional Materials of MOE, Henan University | Band-gap grading design for solution-processed high-quality CuIn,GaS,Se ₂ thin film solar cells |

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| 11:25-11:45 | 陈时友 Shiyu Chen | East China Normal University | Na-Diffusion Enhanced p-type Conductivity in CuIn,GaSe ₂ : a New Mechanism for Efficient Doping in Semiconductors |
| 11:45-12:05 | 寇东星 Dongxing Kou | Henan University | Quaternary Cu ₂ ZnSnS ₄ Quantum Dot-Sensitized Solar Cells: Synthesis, Passivation and Lig-and Exchange |
| 12:05-13:30 | Lunch Buffet | | |

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| Chairperson: Yi Zhang, Xiaojing Hao | | Facilitator: Wangen Zhao | |
| 13:30-13:55 | 张毅 Yi Zhang | Nankai University | CZTSSe solar cells: from film growth to devices |
| 13:55-14:15 | 郝晓静 Xiaojing Hao | Australian Centre for Advanced Photovoltaics. University of New South | Earth-abundant kesterite CZTS solar cells: progress and challenges |
| 14:15-14:35 | Wangen Zhao 赵婉亘 | Shaanxi Normal University | Fabrication of Copper-based Thin Film Solar Cell Using Solution Processing |

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| Symposium 8: Quantum Dot Solar Cells March 31, 2017 Conference Room: 3-7 | | | |
| Chairperson: Wenhua Zhang, Xinhua Zhong | | Facilitator: Zhiwen Jin | |
| Time | Speaker | Institution | Title |
| 14:40-15:05 | 张文华 Wenhua Zhang | China Academy of Engineering Physics | Semiconductor film sensitized solar cell |
| 15:05-15:30 | 钟新华 Xinhua Zhong | South China Agricultural University | High Efficiency Quantum Dot Sensitized Solar Cells |
| 15:30-15:50 | Yongqi Liang | Dalian University of Technology | Hybrid perovskite (MAPbBr ₃) solar cells with a high Voc of 1.57V |

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| 15:50-16:10 | 潘振晓 Zhenxiao Pan | South China Agricultural University | Charge recombination inhibition in quantum dot sensitized solar cells |
| 16:10-16:30 | 曾京辉 Jinghui Zeng | Shaanxi Normal University | Engineered photo-anode for high performance solar cells |
| 16:30-16:50 | 田建军 Jianjun Tian | Institute for Advanced Materials Technology University of Science and Technology | Surface modification for quantum dots solar cells |
| 16:50-17:00 | Coffee Break | | |
| Chairperson: Haizheng Zhong | | Facilitator: Zhiwen Jin | |
| 17:00-17:25 | 钟海政 Haizheng Zhong | Beijing Institute of Technology | Colloidal Synthesis of Copper based Binary and Ternary Nanocrystals and Their Photovoltaic Applications |
| 17:25-17:45 | 宁志军 Zhijun Ning | ShanghaiTech Unversity | Colloidal quantum dot surface engineering for optoelectronic device |
| 17:45-18:05 | Peng Zhai | Northwestern Polytechnical University | Study on the Blocking Effect of a Quantum-Dot TiO ₂ Compact Layer in Dye-Sensitized Solar Cells and Perovskite Solar Cells |
| 18:05-18:25 | 靳志文 Zhiwen Jin | Shaanxi Normal University | Graphdiyne Quantum Dots and its Application in Optoelectronic Devices |
| 18:30-20:00 | Dinner Buffet | | |

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| Symposium 9: Dye Sensitized Solar Cells March 31, 2017 Conference Room: 3-2 | | | |
| Chairperson: Feng Yan, Zhongwei An | | Facilitator: Pei Chen | |
| Time | Speaker | Institution | Title |
| 10:00-10:25 | 严锋 Feng Yan | Hong Kong Polytechnic Univesity | The Application of 2D materials in Photovoltaic Devices |

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| 10:25-10:50 | 安忠维 Zhongwei An | Shaanxi Normal University | Synthesis of new organic dye sensitizers and their application for DSSCs |
| 10:50-11:10 | 云斯宁 Sining Yun | Xi'an University of Architecture and Technology | Fabrication of Nano-structured Biomass Carbon Materials and Their Applications in DSSC/AD Systems |
| 11:10-11:30 | 邹应萍 Yingping Zou | Central South University | High Performance Fluoroquinoxaline Polymers for Photovoltaics |
| 11:30-11:50 | 武文俊 Wenjun Wu | East China University of Science and Technology | High Efficient Quasi-Solid-State Dye-Sensitized Solar Cells Based on D A- π A Quinoxaline Motif Sensitizers |
| 11:50-13:30 | Lunch Buffet | | |

| Chairperson: Derong Cao, Jiahong Pan | | Facilitator: Dapeng Wang | |
|---|---------------------|---------------------------------------|--|
| 13:30-13:55 | 曹德榕 Derong Cao | South China University of Technology | Double D- π -A branched dyes: A new class of metal-free organic dyes for efficient DSSCs |
| 13:55-14:15 | 潘家鸿 Jiahong Pan | North China Electric Power University | Self-template synthesis of nanoporous TiO ₂ spheres for efficient dye/semiconductor-sensitized solar cells |
| 14:15-14:35 | 吴宏景 Hongjing Wu | Northwestern Polytechnical University | Multi-shelled metal oxide hollow spheres: Easy synthesis and formation mechanism |
| 14:35-14:55 | 武明星 Mingxing Wu | Hebei Normal University | Carbon counter electrode materials in Dye-sensitized solar cells |
| 14:55-15:15 | 王大鹏 Dapeng Wang | Shaanxi Normal University | Atmospheric-Pressure Chemical Vapor Deposition for Thin-Film Transistor and Solar Cell Applications |
| 15:15-15:35 | Zhenzhen Xi | Northwestern Polytechnical University | Electrolyte of graphene oxide embedded copolymers prepared by photopolymerization for quasi-solid state dye sensitized solar cells |
| 15:35-15:55 | 徐婷婷 Tingting Xu | Northwestern Polytechnical University | Electrolyte of graphene oxide embedded copolymers for quasi-solid state dye sensitized solar cells application |
| 15:55-16:05 | Coffee Break | | |

| Chairperson: Zhongsheng Wang, Bin Yang | | | Facilitator: Junqing Yan |
|---|----------------------|--|--|
| 16:05-16:30 | 王忠胜 Zhongsheng | Fudan University | Metal Selenides as Efficient Cathodes for Dye-Sensitized Solar Cells |
| 16:30-16:50 | Ningyi Yuan | Changzhou University | Study on the Stability of Organic - inorganic Hybrid Perovskite Solar Cells |
| 16:50-17:10 | Yanan Zhao | Northwestern Polytechnical University | Polarization Switching and Photo-induced Dielectric, Ferroelectric Properties in YMnO ₃ /La _{0.67} Sr _{0.33} MnO ₃ Heterostructure |
| 17:10-17:30 | Xiaojia Zheng | Virginia Tech/China Academy of Engineering Physics | Improved Phase Stability of Formamidinium Lead Triiodide Perovskite by Strain Relaxation in 111 Plane |
| 17:30-17:50 | 闫俊青 Junqing Yan | Shaanxi Normal University | Some treatments of TiO ₂ surface for efficient and stable planar heterojunction perovskite solar cells |
| 18:30-20:00 | Dinner Buffet | | |

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