

Monday Jan. 18, 2016		
Room A		
7:00-8:00AM	Breakfast	
Session: Polymer and Thin Film Photovoltaic Cells I Chair: Chin-Ti Chen		
8:00-8:25AM	A01: Polymers for solution processed photovoltaics and supercapacitors	Christine K. Luscombe University of Washington, USA
8:25-8:50AM	A02: Methylammonium lead iodide perovskite solar cells - effect of perovskite morphology	Aleksandra B. Djurisić University of Hong Kong, Hong Kong
8:50-9:15AM	A03: Polymer-related Transparent Electrodes for Flexible Photovoltaics	Jong-Lam Lee POSTECH, Korea
9:15-9:40AM	A04: An improved transparent silver electrode for top-illuminated organic photovoltaics using a novel organo-molybdenum oxide bronze charge-extraction layer	Ross Hatton University of Warwick, UK
9:40-10:05AM	A05: Inter-diffused Bilayer Organic Photovoltaics Prepared by Sequential Solution Processes	Kyungkon Kim Ewha Womans University, Korea
10:05-10:20AM	Session Break	
Session: Nano-structured materials for energy conversion and storage I Chair: Katsuaki Tanabe		
10:20-10:45AM	A06: Nanotechnology for thin photovoltaic devices	Matthias Meier Forschungszentrum Jülich GmbH, Germany
10:45-11:10AM	A07: System Optimization and Stability for Solar to Hydrogen Energy Conversion	Katsushi Fujii RIKEN, Japan
11:10-11:35AM	A08: Luminescent Nanomaterials for Spectral Conversion in Solar Cells	Andries Meijerink Utrecht University, The Netherlands
11:35-12:00AM	A09: Plasma Reduction Technology for the Fabrication of Energy Conversion and Storage Devices	Ho-Suk Choi Chungnam National University, Korea
12:10-14:00PM	Lunch Break	

Monday Jan. 18, 2016

Room B

Session: Perovskite Solar Cells I Chair: Masato Maitani

14:00-14:25PM	B01: Design of oxide electron transport layers for perovskite solar cell application	Thierry Pauporte Ecole Nationale Supérieure de Chimie de Paris, France
14:25-14:50PM	B02: Sn-based perovskite solar cells	Shuzi Hayase Kyushu Institute of Technology, Japan
14:50-15:15PM	B03: The Challenges of Scale for Flexible Perovskite Solar Cells	Joel Troughton Swansea University, UK
15:15-15:30PM	Session Break	
Session: Perovskite Solar Cells II Chair: Shuzi Hayase		
15:30-15:55PM	B04: Development nano functional materials for perovskite solar cells	Tingli Ma Kyushu Institute of Technology, Japan
15:55-16:20PM	B05: Interfacial Effects on Perovskite Solar Cells	Masato Maitani Tokyo Institute of Technology, Japan
16:20-16:45PM	B06: Defect Migration in Hybrid Organic Inorganic Perovskites from First-Principles Calculations	David A. Egger Weizmann Institute of Science, Israel
16:45-17:10PM	B07: Mesoscopic Solar Modules: From Dye-sensitized to Perovskite	Yaoguang Rong Huazhong University of Science and Technology, China
17:30PM	Dinner Social	

Monday Jan. 18, 2016

Room C

Session: Dye-sensitized solar cell I Chair: Jongin Hong

14:00-14:25PM	C01: Laser Microscopy Approach to Reveal Heterogeneous Photovoltaic Characteristics and Photoconversion Kinetics in Dye-sensitized Solar Cells	Masaaki Mitsui Rikkyo University, Japan
14:25-14:50PM	C02: Organic Sensitizers Exceeding the World Champion Dyes for High Efficiency Dye-Sensitized and Tandem Solar Cells	Hwan Kyu Kim Korea University, Korea
14:50-15:15PM	C03: Dye-sensitized solar cells based on aqueous electrolytes	Wanchun Xiang Wuhan University of Technology, China
15:15-15:30PM	Session Break	
Session: Dye-sensitized solar cell II Chair: Hwan Kyu Kim		
15:30-15:55PM	C04: Near-infrared absorbing dibenzo-BODIPY dyes for application in photovoltaic devices	Yuji Kubo Tokyo Metropolitan University, Japan
15:55-16:20PM	C05: Why highly crystallized one-dimensional TiO ₂ nanoscale materials are needed for fabricating highly efficient dye-sensitized solar cells?	Motonari Adachi Fuji Chemical Co., Ltd., Japan
16:20-16:45PM	C06: Facile synthesis of metal-free organic dyes and their application to dye-sensitized solar cells	Jongin Hong Chung-Ang University, Korea
16:45-17:10PM	C07: Carbon sphere materials in dye-sensitized solar cells	Mingxing Wu Hebei Normal University, China
17:30PM	Dinner Social	

Monday Jan. 18, 2016

Room D

Session: General I

Chair: Fabrice Gourbilleau

14:00-14:25PM	D01: Electroabsorption and Electrophotoluminescence Spectroscopies of Photovoltaic Materials	Nobuhiro Ohta National Chiao Tung University, Japan
14:25-14:50PM	D02: Two-Stage Annealing Strategy for High Efficiency Cu ₂ ZnSnS ₄ Solar Cell Fabrication through Sputtering and Sulfurization	Xudong Xiao The Chinese University of Hong Kong, Hong Kong
14:50-15:15PM	D03: A photovoltaic solar cell built on ipsilateral selective electron tunneling	Xuefeng Guo Peking University, China
15:15-15:30PM	Session Break	
Session: Nano-structured materials for energy conversion and storage II Chair: Matthias Meier		
15:30-15:55PM	D04: Electrospun TiO ₂ Nanomaterials for Dye-Sensitized Solar Cells	Zhengtao Zhu South Dakota School of Mines and Technology, USA
15:55-16:20PM	D05: Surface designs for the enhancement of light trapping efficiencies of thin film silicon solar cells by metallic nanoparticle arrays	Cheng Sun Dalian Univeristy, China
16:20-16:35PM	D06: Dual-Type Compound Semiconductor Nanowire Solar Cell Application	Joona-Pekko Kakko Aalto University, Finland
16:35-16:50PM	D07: Colloidal Synthesis And Characterization Of Cu ₂ ZnSnS ₄ (CZTS) Nanoplates	Anantha Kumar Anna University, India
17:30PM	Dinner Social	

Tuesday Jan. 19, 2016		
Room B		
8:00-9:00AM	Breakfast	
Session: Polymer and Thin Film Photovoltaic Cells II Chair: Qingdong Zheng		
9:00-9:25AM	B08: Electric field stress effect and role of electrode material on the improvement of hydrogenated amorphous silicon solar cells	Andrea Scuto National Research Council of Italy (CNR) - Microelectronics and Microsystems Institute (IMM), Italy
9:25-9:50AM	B09: Growth of Polycrystalline Silicon on Glass from Tin and Indium Solutions	Roman Bansen Leibniz Institute for Crystal Growth, Germany
9:50-10:15AM	B10: Field emission analysis of band bending in organic heterojunction	Yingjie Xing Peking University, China
10:15-10:30AM	Session Break	
Session: Polymer and Thin Film Photovoltaic Cells III Chair: Roman Bansen		
10:30-10:55AM	B11: Thermochromism Study and Its Implication for the Fabrication of High Performance Polymer Photovoltaic	Chin-Ti Chen Academia Sinica, Taiwan
10:55-11:20AM	B12: Iridium Complexes based Customized Energy Donor Materials for Polymer Solar Cells	Tae-Hyuk Kwon Ulsan National Institute of Science and Technology, Korea
11:20-11:45AM	B13: Material design and interface engineering for high-performance polymer solar cells	Qingdong Zheng Fujian Institute of Research on the Structure of Matter, CAS, China
11:45-12:10PM	B14: Characterization of charge carrier trapping in semiconductor films for photovoltaic application	Shota Nunomura National institute of advanced industrial science and technology, Japan
12:10-13:35PM	Lunch Break	
Session: General II Chair: Nobuhiro Ohta		
13:35-14:00PM	B15: III-V-on-Si hybrid tandem cells by room-temperature surface-activated bonding	Naoteru Shigekawa Osaka City University, Japan

14:00-14:25PM	B16: Solar spectrum management for Si Solar Cell efficiency improvement	Fabrice Gourbilleau CIMAP, France
14:25-14:50PM	B17: PbS Quantum Dots Capped with Amorphous ZnS for Bulk Heterojunction Solar Cells	Lidong Sun Chongqing University, China
14:50-15:15PM	B18: Advanced Dynamic PV Array Techniques for AC generation	Jon Storey University of Bath, UK
15:15-16:00PM	Poster Session	
Session: Quantum-Dot Solar Cells Chair: Christine K. Luscombe		
16:00-16:25PM	B19: Solar photo-thermionic conversion with ternary III-V materials and with engineered diamond films	Abraham Kribus Tel Aviv University, Israel
16:25-16:50PM	B20: Interface engineering for efficient quantum dot-sensitized solar cells	Ru Zhou Hefei University of Technology, China
16:50-17:15PM	B21: Cooperation between quantum dot and Plasmon-Enhanced Dye-Sensitized Solar Cells in order to make high efficient solar cell	Omid Amiri University of Michigan, USA
17:30PM	Dinner Social	

Tuesday Jan. 19, 2016

Room C

8:00-9:00AM

Breakfast

Session: OPV Materials and Systems I Chair: Qinye Bao

9:00-9:25AM

C08: Semi-crystalline low bandgap polymers for binary and ternary components organic photovoltaic devices

Han Young Woo
Korea University, South Korea

9:25-9:50AM

C09: Towards high performance inverted bulk heterojunction solar cells by interface engineering

Shinuk Cho
University of Ulsan, South Korea

9:50-10:15AM

C10: Design of Donor-Acceptor Oligomers with Alkyldicyanovinyl Groups for Efficient Solution-Processed Organic Solar Cells

Yuriy Luponosov
Institute of Synthetic Polymeric Materials of RAS, Russia

10:15-10:30AM

Session Break

Session: OPV Materials and Systems II Chair: Shinuk Cho

10:30 -10:55AM

C11: Highly transparent and flexible ITO/Ag/ITO cathode fabricated by plot scale Roll-to-Roll sputtering for Flexible Organic Solar Cells module

Han-Ki Kim
Kyung Hee University, Korea

10:55-11:20AM

C12: Electronic Structures of High-Performance Organic Solar Cell Interfaces

Qinye Bao
Linköping University, Sweden

11:20-11:45AM

C13: Fabrication of High Efficiency Organic Photovoltaics using Ultrasonic Spray Coating

Tao Wang
Wuhan University of Technology, China

11:45-12:10PM

C14: Design of Non-Fullerene Small Molecule Acceptors for Organic Photovoltaic Cells

Eunhee Lim
Kyonggi University, Korea

12:10-14:00PM

Lunch Break

Session: Polymer and Thin Film Photovoltaic Cells IV Chair: Andrea Scuto

14:00-14:25PM

C15: Thin Film Growth Simulation for Silicon-Based Solar Cell by Quantum Chemical Molecular Dynamics Method

Momoji Kubo
Tohoku University, Japan

14:25-14:50PM	C16: Cu ₂ O-based heterojunction solar cells fabricated using epitaxially grown Cu ₂ O thin films by an electrochemical method	Yuki Nishi Kanazawa Institute of Technology, Japan
14:50-15:15PM	C17: Enhanced Power Conversion Efficiency in Polymer Solar Cells by Conjugating Triplet Metal Complexes to PTB7 and PTB7-Th	Youtian Tao Nanjing Tech University, China
15:15-16:00PM	Poster Session	
Session: Dye sensitized solar cell III Chair: Hwan Kyu Kim		
16:00-16:25PM	C18: Stable and low cost polymeric catalyst for dye-sensitized solar cells	Hyunwoong Seo Kyushu University, Japan
16:25-16:50PM	C19: Density Functional Theory Study on the Atomic Scale Electrode Interface Structure of the Dye-Sensitized Solar Cells: Ru Dye and Ru/Organic Dye System	Yusuke Ootani National Institute for Materials Science, Japan
17:30PM	Dinner Social	

Tuesday Jan. 19, 2016		
Room D		
8:00-9:00AM	Breakfast	
Session: Perovskite Solar Cells III Chair: Fuzhi Huang		
9:00-9:25AM	D08: Printed Inorganic Solar Cells: Silicon and Perovskite	Seigo Ito University of Hyogo, Japan
9:25-9:50AM	D09: Simultaneous Infrared Observation of Distinct Charge Carriers Generated in Lead Halide Perovskite Solar Cells	Shinsuke Shigeto Kwansei Gakuin University, Japan
9:50-10:15AM	D10: Highly efficient p-i-n type planar perovskite solar cells with NiO-based hole-extraction layers	Jin Young Kim Seoul National University, Korea
10:15-10:30AM	Session Break	
Session: Perovskite Solar Cells IV Chair: Seigo Ito		
10:30 -10:55AM	D11: Realizing full coverage of perovskite film on substrate surface during solution processing: characterization and elimination of uncovered surface	Guan-Jun Yang Xi'an Jiaotong University, China
10:55-11:20AM	D12: Morphology control of methylammonium lead iodide thin films for high efficiency perovskite solar cells	Fuzhi Huang Wuhan University of Technology, China
11:20-11:45AM	D13: The influence of doping on the crystallinity in polymer and perovskite solar cells	Yu-Chiang Chao Chung Yuan Christian University, Taiwan
12:10-14:00PM	Lunch Break	
Session: Silicon Solar Cells Improvement I Chair: Lili Zhao		
14:20-14:50PM	D14: Impurity segregation at small angle tilt boundaries in Si: nanoscopic mechanisms and applications	Yutaka Ohno Tohoku University, Japan

14:50-15:15PM	D15: Side-chain engineering in high performance p-type organic semiconductors	Takefumi Kamioka Toyota Technological Institute, Japan
15:15-16:00PM	Poster Session	
Session: Silicon Solar Cells Improvement II		Chair: Takefumi Kamioka
16:00-16:25PM	D16: Toward High Efficiency Thin Film Crystalline Silicon Solar Cells by using Silicon Nanowires	Omar Alzoubi University of Arkansas, Al al-Bayt University, USA
16:25-16:50PM	D17: Modeling of Dislocation Density in industrial scale High-performance Multicrystalline Silicon Growth Process	Lili Zhao Harbin Institute of Technology, China
17:30PM	Dinner Social	

Wednesday Jan. 20, 2016		
Room B		
8:00-9:00AM	Breakfast	
Session: Nano-structured materials for energy conversion and storage III		
Chair: Kentaroh Watanabe		
9:00-9:25AM	B22: Real time study of strain relaxation in lattice mismatched InGaAs/GaAs for future tandem III-V solar cells	Yoshio Ohshita Toyota Technological Institute, Japan
9:25-9:50AM	B23: GaInN-based tunnel junctions for novel optoelectronic devices	Tetsuya Takeuchi Meijo University, Japan
9:50-10:15AM	B24: Modelling of Nanoparticle-Enhanced Photovoltaic and Energy-Storage Devices	Katsuaki Tanabe Kyoto University, Japan
10:15-10:30AM	Session Break	
Session: Nano-structured materials for energy conversion and storage IV		
Chair: Yoshio Ohshita		
10:30 -10:55AM	B25: Novel design of multiple-quantum-wells structure for improved tandem III-V solar cells	Kentaroh Watanabe The University of Tokyo, Japan
10:55-11:20AM	B26: Phase-separating nanocomposite thin film containing semiconductor nanocrystals	Seishi Abe Research Institute for Electromagnetic Materials, Japan
11:20-11:45AM	B27: Photothermoelectric effect in nanostructured silicon	Vincent Hsiao National Chi Nan University, Taiwan
12:10-13:55PM	Lunch Break	
Session: Nano-structured materials for energy conversion and storage V		
Chair: Katsuaki Tanabe		
13:55-14:20PM	B28: Surface Plasmon Assisted Organic Photovoltaic Cells	Yanxia Cui Taiyuan University of Technology, China
14:20-14:45PM	B29: Porous Polypyrrole Electrodes Modified with Enzymes Used for Flexible Glucose Biofuel Cells	Ryohei Sano Nihon University, Japan
14:45-15:00PM	B30: Application of agarose hydrogel containing glucose to a portable biofuel cell	Hideaki Goto Nihon University, Japan

15:00-15:15PM	B31: L-Ascorbic Acid Fuel Cell Fabricated using Microelectromechanical Techniques	Hiroshi Mogi Nihon University, Japan
15:15-15:30PM	Session break	
Session: Dye-sensitized Solar Cell IV Chair: Hwan Kyu Kim		
15:30-15:55PM	B32: Squaraine-based Dyes for Dye-sensitized Solar Cells	Takeshi Maeda Osaka Prefecture University, Japan
15:55-16:20PM	B33: Dye-Sensitized Solar Cells Based on ZnO	Gerko Oskam CINVESTAV-IPN, Mexico
16:20-16:45PM	B34: Light Scattering Enhancement from Textured Glass for Dye-sensitized Solar Cells	Jin-Hyo Boo Sungkyunkwan University, Korea
16:45-17:10PM	B35: Multi-dye coated electrodes for solid-state dye sensitized solar cells	P. M. Sirimanne Uva Wellassa University, Sri Lanka
17:30PM	Dinner Social	

Wednesday Jan. 20, 2016		
Room C		
8:00-9:00AM	Breakfast	
Session: General III Chair: Xudong Xiao		
9:00-9:25AM	C20: Sputter epitaxy of Si/Ge film on Si (100) and its application to solar cells	Wenchang Yeh Shimane University, Japan
9:25-9:50AM	C21: To be announced	Kenji Ishizaki Kyoto University, Japan
9:50-10:15AM	C22: Methods for Controlling the Properties and Function of Organic Semiconductors	Jin Kuen Park Hankuk University of Foreign Studies, Korea
10:15-10:30AM	Session Break	
Session: OPV Materials and Systems III Chair: Han Young Woo		
10:30 -10:55AM	C23: Barrier Encapsulation for Printed Organic Photovoltaic Modules	Hasitha Weerasinghe Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia
10:55-11:20AM	C24: Morphological Stability of Bulk-Heterojunction Organic Solar Cells	Zhe Li Imperial College London, UK
11:20-11:45AM	C25: Regular Energetics at Doped Polymer for Organic Photovoltaics	Xianjie Liu Linköping University, Sweden
11:45-12:00PM	C26: A Bulk-heterojunction Solar Cell Fabricated by Push Coating Technique	Daichi Kaneto Nihon University, Japan
12:10-13:55PM	Lunch Break	
Session: General IV Chair: Kenji Ishizaki		
14:00-14:25PM	C27: Lattice Matched GeSn/SiGeSn N-Channel Tunneling FET with Type-II Staggered Heterojunction	Hongjuan Wang Chongqing university, China
14:25-14:50PM	C28: Strained GeSn Wrapped in Si ₃ N ₄ Liner Stressor for Mid-infrared Optoelectronic Application	Qingfang Zhang Chongqing University, China

14:50-15:15PM	C29: Type-II hybrid InAs-QD/GaAsSb-QW solar cells with GaAs interlayer: Conversion enhancement due to long photoelectron lifetime	Kimberly A. Sablon U.S. Army Research Laboratory, USA
15:15-15:30PM	Session break	
Session: Ternary and Multinary Compounds and related solar cells		Chair: Thierry Pauporte
15:30-15:55PM	C30: Characterization of transition metal-doped chalcopyrite thin films for photovoltaic application	Nazmul Ahsan The University of Tokyo, Japan
15:55-16:20PM	C31: Ternary metal chalcogenides for applications in quantum dot-sensitized solar cells	Ming-Way Lee National Chung Hsing University, Taiwan
16:20-16:45PM	C32: Bulk heterojunction solar cells Based on Ternary Blend Active Layer of Two Donors PCDTBT,PTB7 and Acceptor PC71BM	Yuta Kaneko Nihon University, Japan
16:45-17:10PM	C33: High-efficiency nanostructured Cu(In,Ga)Se ₂ thin film solar cells	Yang Tang National Institute of Clean-and-Low-Carbon Energy, China
17:30PM	Dinner Social	

Tuesday Jan. 19, 2016

15:15-16:00PM

Poster Session

P01	Combined theoretical/experimental study of semiconductor interfaces in quantum dot sensitized solar cells	Thierry Pauporte Ecole Nationale Supérieure de Chimie de Paris, France
P02	Significant improvement on performance of dye-sensitized solar cells by incorporating active titania colloids	Bo-Tau Liu National Yunlin University of Science and Technology, Taiwan
P03	Applications of morpholinium-based ionic liquids in Dye-sensitized solar cells	Tzi-yi Wu National Yunlin University of Science & Technology, Taiwan
P04	Cost-Effective Anthryl Dyes for Dye-Sensitized Cells under One Sun and Dim Light	Chin-Li Wang National Chi Nan University Taiwan
P05	In-situ Formation of Polythiophene Films via Vapor-Phase Polymerization and Their Application to an Inverted Planar Perovskite Solar Cell	Toshihiro Konishi Waseda University, Japan
P06	Organic Dyes Incorporating a Dithieno[3',2':3,4;2'',3'':5,6]benzo[1,2-d][1,2,3]triazole Moiety for Dye-Sensitized Solar Cells	Yi-Chi Yen National Central University, Taiwan
P07	Ultrafast Fabrication of Flexible Dye-Sensitized Solar Cells by Ultrasonic Spray-Coating Technology	Kwang Min Kim Ulsan National Institute of Science and Technology (UNIST), Korea
P08	Poly(vinyl triphenylamine)s as Hole Transporting Materials for a Perovskite Solar Cell	Shinichiro Watanabe Waseda University, Japan
P09	Oxoammonium Cation of TEMPO as a Dopant for Hole-transporting Aryl Amines and its Application to a Perovskite Solar Cell	Masaki Takamura Waseda University, Japan
P10	Hole Transporting Oligothiophene/Diketopyrrolopyrrole Copolymers for a Perovskite-Sensitized Solar Cell	Kohei Harada Waseda University, Japan

P11	Molecular Design Strategy for Thin Film Photoelectrode	Deok-Ho Roh Ulsan National Institute of Science and Technology (UNIST), Korea
P12	Crystalline ITO anode covered with AZO graded layer for acidic buffer-free organic solar cells	Eun-Hye Ko Kyung Hee University, Korea
P13	Simple spray coating of TCO nanoparticles on self-assembled Ag network electrode for printable organic solar cells	Hae-In Shin Kyung Hee University, Korea
P14	Comparison of ZnO buffer layer prepared by a spin coating and RF magnetron sputtering for inverted organic solar cells	Sung-Hyun Park Kyung Hee University, Korea
P15	P-type Li:Cu ₂ O and n-type ZnO heterojunction for semi-transparent and Flexible Piezoelectric Nanogenerators	Doo-Hee Kim Kyung-Hee University, Korea