| **Wednesday, 26 October 2016: PVSEC-26 Conference Poster Sessions** | | |
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| **08:00 – 18:00**<br>Hibiscus, Level 3 (Foyer) | Registration | |
| **09:00 – 10:30**<br>Room 3711/3712/3713 | Poster Setup (For Areas 1 & 3) | |
| **11:00 – 12:30**<br>**Poster session 1**<br>Room 3711/3712/3713 | **Posters in Area 3: Thin-Film Materials and Solar Cells**<br>(For each poster, at least one presenter must be present) | |
| | 3_1-0003 | Mr Chang-Yeh LEE, UNSW, Australia<br>*Solid Phase Crystallization/ Annealing of Silicon Thin Films using Raman laser* |
| | 3_1-0005 | Mr Po-Wei CHEN, National Chiao Tung University, Taiwan<br>*Enhancement of Carrier Collection by Graded a-SiOx:H Buffer Layer in a-Si:H Solar Cell for a-Si:H/µc-Si1-xGex:H Tandem Solar Cell Applications* |
| | 3_1-0009 | Dr Yasushi SOBAJIMA, Osaka University, Japan<br>*Reduction of growth-end dangling bonds of high-grown temperature amorphous silicon* |
| | 3_1-0011 | Ms Yuanchih CHANG, UNSW, Australia <TBC><br>*Large-scale plasmonic nanostructures fabricated by nanosphere lithography for improved absorption in thin c-Si solar cells* |
| | 3_1-0014 | Dr Jinjoo PARK, Sungkyunkwan University, South Korea<br>*High efficiency 2 terminal Si-Ge thin film silicon/Si tandem junction solar cell* |
| | 3_1-0015 | Ms Xiaojie XU, Lawrence Berkeley National Laboratory, United States <TBC><br>*CuS)x:(ZnS)1–x Contacts for Si Heterojunction Solar Cells Deposited by Chemical Bath Deposition* |
| | 3_1-0016 | Ms Alaa HAMDOH, Tokai University, Japan<br>*Epitaxial growth of crystalline silicon-germanium thin films on silicon substrates by solid phase crystallization* |
| | 3_1-0021 | Ms Pei-Yu SUN, National Taiwan University, Taiwan<br>*Low-Temperature Kerf-less Silicon Spalling by Inducing Thermal-mismatch Stress* |
| | 3_1-0024 | Mr Jiyoon NAM, Kyungpook National University, South Korea<br>*Flexible and stretchable amorphous silicon thin film solar cells* |
| | 3_1-0026 | Dr SM IFTIQUAR, Sungkyunkwan University, South Korea <TBC><br>*High efficiency single junction amorphous silicon thin film solar cell* |
| | 3_1-0027 | Dr Trupti Ranjan LENKA, National Institute of Technology Silchar, India <TBC><br>*Structural and Optical Properties of Au Nanoparticles Assisted Vertically Aligned TiO2 Nanowires deposited by GLAD Technique* |
| | 3_2-0001 | Dr Wei-Lun XU, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Spectroscopic Ellipsometry Analysis of Chemical Bath Deposited Cadmium Sulphide Thin Films* |

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| **11:00 – 12:30**<br>**Poster session 1**<br>Room 3711/3712/3713 | 3_2-0002 | Dr Xia YAN, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Investigation of Pulsed DC Sputter Deposited Highly Resistive ZnO:Al Buffer Layers for Copper Indium Gallium Selenide Solar Cells* |
| | 3_2-0007 | Dr Hongbing ZHU, Hebei University, China<br>*Air-annealing effect on Cu(In, Ga)Se2/CdS and solar cells* |
| | 3_2-0008 | Prof Ming-Jer JENG, Chang Gung University, Taiwan<br>*A flat and homogeneous In layers deposited by pulse electrodeposition for preparing CIGS solar cells* |
| | 3_2-0016 | Mr Tomohiro OGIHARA, Tokyo Institute of Technology, Japan<br>*High efficient Cu(In,Ga)Se2 solar cells with a single-graded band profile by control of the valence band offset at low temperature deposition* |
| | 3_2-0022 | Dr Shogo ISHIZUKA, National Institute of Advanced Industrial Science and Technology (AIST), Japan<br>*Effects of post p-n junction formation process conditions on CuGaSe2 thin-film solar cells* |
| | 3_2-0023 | Prof Gerardo S. Contreras-Puente, Escuela Superior de Física y Matemáticas del Instituto Politécnico Nacional, Mexico<br>*Comparative Study Of CuInGaSe2 Solar Cells with CdS the Window Material as Processed by Differents Techniques* |
| | 3_2-0024 | Mr Chan Moon SONG, Korea National University of Transportation, South Korea<br>*Effect of Heat Treatment on ZnS Buffer Layer Deposited by Chemical Bath Deposition* |
| | 3_2-0025 | Mr Taewoo EOM, Korea National University of Transportation, South Korea<br>*Improvement of CIGS thin film by using cracked selenium and RTP process* |
| | 3_2-0028 | Prof JunHo KIM, Incheon National University, South Korea<br>*Surface treatment and Cd-free double buffer layer for CIGS solar cell* |
| | 3_2-0029 | Mr SeongYeon KIM, Incheon National University, South Korea<br>*Fabrication of CIGSe and CZTSe Solar Cells by Chemical Spray Pyrolysis* |
| | 3_2-0037 | Dr Yoji AKAKI, National Institute of Technology, Miyakonojo College, Japan<br>*Effects of H2S Annealing for Sn-S Thin Films Deposited at High Substrate Temperature* |
| | 3_2-0039 | Mr Seon Hong MUN, KAIST, South Korea<br>*Low-temperature growth of a large-grained CIGS film from a CuGa/In:Se stacked precursor and investigation of its morphology and phase evolution* |
| | 3_2-0044 | Prof Jin Young KIM, Seoul National University, South Korea<br>*Strategies for improving performances of CZTSSe thin film solar cells prepared via electrodeposition* |
| | 3_2-0052 | Prof Junho KIM, Incheon National University, South Korea<br>*Fabrication of Cd-free CZTSSe Solar Cells from Sputtered Stack Layers and Post-Annealing* |
| | 3_2-0054 | Mr Kensuke TSUJI, Ryukoku University, Japan<br>*Cu2Zn(Ge,Sn)(S,Se)4 solar cells prepared by slit coating and* |

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| **11:00 – 12:30**<br>**Poster session 1**<br>Room 3711/3712/3713 | | *sintering process* |
| | 3_2-0055 | Dr Jihye KIM, ISAC RESEARCH INC., South Korea<br>*Characterization of atomic layer deposited Sn(O,S)2 thin films as Cd-free buffer layers for CIGS solar cells* |
| | 3_2-0057 | Prof Clas PERSSON, University of Oslo, Norway <TBC><br>*High activation energy for Se diffusion limits anion gradient in Cu2ZnSn(S,Se)4* |
| | 3_2-0058 | Dr Hisashi MIYAZAKI, National Defense Academy, Japan <TBC><br>*Surface Treatment of CZTS Thin Films Using H2O2 and H2SO4 Solution* |
| | 3_2-0062 | Prof Kenji YOSHINO, University of Miyazaki, Japan<br>*Low Temperature Growth of CuInS2 Thin Films from Metal Xanthate Precursors* |
| | 3_2-0063 | Dr Ara CHO, Korea Institute of Energy Research (KIER), South Korea<br>*Cu-Sb-S Thin Film Synthesis using Hybrid Ink* |
| | 3_2-0064 | Ms Himeka TOMINAGA, University of Miyazaki, Japan<br>*Low Resistivity Sprayed Ga-doped ZnO Films for CuInGaSe2 Solar Cells* |
| | 3_2-0065 | Prof Hironori KATAGIRI, National Institute of Technology, Nagaoka College, Japan<br>*Fabrication of CZTS Thin Films by Tin Vapor Transport Method* |
| | 3_2-0066 | Mr Yuuki HONMA, National Institute of Technology, Nagaoka College, Japan<br>*Impact of Flash Lamp Annealing on CZTS Thin Film Solar Cells* |
| | 3_2-0068 | Ms Youngmin KO, KAIST, South Korea<br>*Synthesis of a uniform Cu2SnS3 thin film from a stacked Cu/SnS2 precursor by an intermediate annealing and control of carrier concentration by Na2S doping* |
| | 3_2-0069 | Mr K.S. RAHMAN, The National University of Malaysia, Malaysia<br>*Influence of Growth Temperature on the Properties of Close-Spaced Sublimation (CSS) Grown CdTe Thin Films for Photovoltaic Application* |
| | 3_2-0070 | Prof Nowshad AMIN, Universiti Kebangsaan Malaysia, Malaysia<br>*Modified Atmospheric Pressure (AP) CVD – A Cost Effective Deposition Method for ZnS, CdS and Cd1-xZnxS Thin Films as Buffer Layers in Thin Film Solar Cells* |
| | 3_2-0074 | Prof Nowshad AMIN, Universiti Kebangsaan Malaysia, Malaysia<br>*Impact of CdCl2 Treatment on Microstructural and Electronic Properties of CdTe Thin Films Deposited by Close-Spaced Sublimation (CSS) Technique* |
| | 3_2-0079 | Dr Leng ZHANG, Tsinghua University, China<br>*The Fabrication of CIGS Solar Cell by Sputtering From Quaternary Target Without Post-selenization* |
| | 3_2-0084 | Prof Sungwook HONG, Daegu University, South Korea<br>*Effects of Air-annealed Temperature on Cu2ZnSnS4 thin films formed by Spray Pyrolysis* |
| | 3_2-0085 | Sung-Min YOUN, Korea Institute of Industrial Technology, South Korea<br>*Monolithic serial interconnects with picosecond laser pulses for scale-up of CIGS solar cells on flexible substrates* |

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| **11:00 – 12:30**<br>**Poster session 1**<br>Room 3711/3712/3713 | 3_2-0086 | Dr Chan KIM, Kyungpook National University, South Korea<br>*Effect of NaF layer on Crystallization of Amorphous Cu(In,Ga)Se2 Films deposited by Co-evaporation* |
| | 3_2-0087 | Mr Sang Hyeop LEE, Korea National University of Transportation, South Korea<br>*Optimization of Ga Contents for Co-evaporated CIGS Thin Film* |
| | 3_2-0090 | Mr In Young KIM, Gwangju Institute of Science and Technology, South Korea <TBC><br>*Highly transparent and conductive Mg and Ga doped ZnO thin film for CZTS thin film solar cell* |
| | 3_2-0091 | Myeng Gil GANG, Chonnam National University, South Korea<br>*Influence of S, Se partial pressure on the properties of Cu2ZnSn(S,Se)4 thin film and their application to solar cell* |
| | 3_2-0096 | Dr Kang Min KIM, National Institute of Advanced Industrial Science and Technology, Japan <TBC><br>*Growth and characterization of Cu2FexSnS3+x thin films for photovoltaic applications* |
| | 3_2-0098 | Ms Himeka TOMINAGA, University of Miyazaki, Japan<br>*Room Temperature Growth of ZnO Films by Atmospheric Spray Pyrolysis using Diluted Diethylzinc Solution* |
| | 3_2-0099 | Mr Dongha LIM, Chonnam National University, South Korea<br>*The formation of phase-pure tin sulfide thin films by vapor phase deposition* |
| | 3_2-0101 | Dr Hamide KAVAK, Cukurova University, Turkey<br>*Deposition of Cu2ZnSnS4 Absorber Layer for Solar Cell Applications* |
| | 3_2-0102 | Mingyang ZHU, Yeungnam University, South Korea<br>*Influence of Experimental Parameters on Synthesis of CuIn1-xGaxSe2 solar cells with spray-CFR process* |
| | 3_2-0103 | Ho Young JUN, Yeungnam University, South Korea<br>*Key parameters in the deposition of CIGS solar cells with Zn(O,S) buffer layer using CFR-spin process* |
| | 3_2-0104 | Mr Koichi SUZUKI, Ritsumeikan university, Japan<br>*Enlargement of $Cu_2SnS_3$ grain size induced by Na for improvement of its photovoltaic performances* |
| | 3_2-0106 | Mr Soohyun HWANG, Sungkyunkwan University, South Korea<br>*Characteristics of Cu2ZnSnS4 thin films deposited by RF sputtering from a single quaternary target* |
| | 3_2-0107 | Prof Takashi ITOH, Gifu University, Japan <TBC><br>*Optical Absorption in Compound Thin Film Solar Cells by Fourier Transfer Photocurrent Spectroscopy* |
| | 3_2-0108 | Mr Hongxu ZHANG, Institute for Solar Energy Systems (ISES), Sun Yat-sen University, China <TBC><br>*CIGS thin films prepared by RF magnetron sputtering from a single quaternary target* |
| | 3_2-0109 | Mr Zhao WU, Sun Yat-Sen University, China<br>*Optimization of the back contact layers in CIGS solar cells by doping NaF* |

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| **14:00 – 15:30**<br>**Poster session 2**<br>Room 3711/3712/3713 | **Posters in Area 3: Thin-Film Materials and Solar Cells**<br>(For each poster, at least one presenter must be present) | |
| | 1_3-0009<br>(reclassified) | Mr Mohammad Shamimul HAQUE CHOUDHURY, Nagoya Institute of Technology, Japan<br>*Effect of Hot-compression on Structural, Optical, and Electrical Properties of Electrophoretically Deposited Dye-sensitized Solar Cell* |
| | 3_3-0004 | Mr Yan-Hao CHEN, National Cheng Kung University, Taiwan<br>*Improved Perovskite Solar Cells with Crystallization of Active Layer By Dripping of Mixed Nonsolvents* |
| | 3_3-0005 | Dr Kenji HARAFUJI, Ritsumeikan University, Japan<br>*Morphological Analysis of Solar Cells with Pentacene Anode Buffer* |
| | 3_3-0006 | Ms Wafa Syakira BINTI AZMI, Ritsumeikan University, Japan<br>*Interface Analysis of Ultraviolet-Ozone Treated Anode Surface of Organic Solar Cells* |
| | 3_3-0007 | Mr Yan-Hao CHEN, National Cheng Kung University, Taiwan<br>*Improved Perovskite Solar Cells With Solution-Processed Liathium-Doped Nickel Oxide As Hole Transport Layer* |
| | 3_3-0008 | Mr Yan-Hao CHEN, National Cheng Kung University, Taiwan<br>*Fa-Perovskite Solar Cells By Solvent Annealing Process* |
| | 3_3-0009 | Mr Yan-Hao CHEN, National Cheng Kung University, Taiwan<br>*Enhanced Performance Of Perovskite Solar Cells With Triple Solvents* |
| | 3_3-0010 | Dr Jiandong FAN, Jinan University, China <TBC><br>*Highly thermal stable Perovskite Solar Cells via Additional Solvent Mediation* |
| | 3_3-0011 | Dr Hideo UCHIDA, Chubu University, Japan<br>*Carbon based p-i-n solar cells* |
| | 3_3-0012 | Dr Gowri Manohari A, Southeast University, China<br>*Active layer of methyl ammonium lead tri-iodide in the fabrication of hybrid Perovskite solar cells* |
| | 3_3-0016 | Mr Jun-Ho BAE, Chonbuk National University, South Korea<br>*3D printing carbon-based transparent electrodes for perovskite solar cells* |
| | 3_3-0018 | Mr Jae Hun YU, Chonbuk National University, South Korea<br>*Highly stable perovskite solar cells using carbon based material as a hole transporting layer* |
| | 3_3-0019 | Prof Shruti Aggarwal, Guru Gobind Singh Indraprastha University India<br>*Performance studies of dye-sensitized solar cell (DSSC) by swift heavy ion (SHI) irradiation* |
| | 3_3-0025 | Dr Mohammad Istiaque HOSSAIN, Qatar Environment and Energy Research Institute, Qatar<br>*Fabrication of Electron Transport Material Free and Inverted Perovskite Solar Cell Structure Using Sputtered Cu(I)2O as Hole Transport Material* |
| | 3_3-0028 | Ms Bhumika CHAUDHARY, Energy Research Institute @ NTU (ERI@N), Singapore,<br>*Engineering the PbI2 Layer Morphology by O-donor Solvent Additive* |

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| | | *to Boost Open Circuit Voltage and Performance of Perovskite Solar Cells* |
| | 3_3-0034 | Mr GOVINDARAJ R, SSN College of Engineering, India <TBC><br>*Reduction of Charge Recombination in Dye-Sensitized Solar Cells Using TiO2 Nanorods-Nanoparticles* |
| | 3_3-0035 | Mr Takayuki OKANO, University of Tsukuba, Japan<br>*Bi-Based (CH3NH3)3Bi2I9 Perovskite Solar Cells Prepared by Gas-Assisted Spin-Coating* |
| | 3_3-0038 | Dr Ajay Kumar BARANWAL, University of Hyogo, Japan<br>*Hole transport layer free printable perovskite solar cell with surfactant systems* |
| | 3_3-0039 | Mr Toshiyuki TAKASAKI, Kyushu University, Japan<br>*Effect of photocatalyst TiO2 on the long-term stability of dye-sensitized solar cells* |
| | 3_3-0044 | Mr Dickson KINDOLE, Ashika Institute of Technology, Japan<br>*Experimental Study on Enhancement of Photovoltaic Performance of DSSCs by Crystallization of TiO2 Films using ASPPS* |
| | 3_3-0051 | Mr Daisuke SAKAMOTO, Kyushu University, Japan,<br>*Low cost dye-sensitized solar cells based on polymer composite catalyst* |
| | 3_3-0059 | Mr Issei TAKENAKA, Keio University, Japan<br>*Reducing recombination in 3D-structured SnO2 electron transport layer for perovskite solar cells* |
| | 3_3-0065 | Mr Ifeanacho ANYADIEGWU, Ashikaga Institute of Technology, Japan<br>*Rapid Deposition of Photo-Catalytic TiO2 film for DSSC by 1KW Class Atmospheric Plasma Spray Equipment Using Ar/N2 Working Gas* |
| | 3_3-0066 | Prof Kenji YOSHINO, University of Miyazaki, Japan<br>*Sprayed SnO2/FTO Buffer Layer for Perovskite based Solar Cell* |
| | 3_3-0069 | Mr Katsunori MAEDA, Tokai University, Japan<br>*Influence of hole transport layer on the hysteresis and degradation in CH3NH3PbI3 perovskite solar cells* |
| | 3_3-0075 | Prof Qing SHEN, The University of Electro-Communications, Japan<br>*PbS quantum dot heterojunction solar cells: ligand dependent exciton dissociation, recombination and photovoltaic property* |
| | 3_3-0077 | Su-Mi BANG, Chonbuk National University, South Korea<br>*Photovoltaic Properties of New Terpolymers Containing TPD Donor Unit for Polymer Solar Cell* |
| | 3_3-0078 | You-Sun LEE, Chonbuk National University, South Korea<br>*The effect of various conjugated polymers as carrier transporting materials in perovskite solar cells* |
| | 3_3-0079 | Ji-Ho JEONG, Chonbuk National University, South Korea<br>*A controlled polymer material as an anode interfacial layer for perovskite solar cells* |
| | 3_3-0082 | Prof Liudmila LARINA, Chungnam National University, South Korea<br>*PtFe bimetallic nanoparticles for the counter electrode of dye-sensitized solar cell: Effect of Ar+ ion plasma etching on electronic structure of the nanoparticles* |
| | 3_3-0083 | Mi Jung CHOI, Chonbuk National University, South Korea<br>*Highly efficient and stable planar perovskite solar cells with a* |

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| | | *solution-processed transition metal oxide layer* |
| | 3_3-0084 | Ms Se phin CHO, Chonbuk National University, South Korea<br>*Solution processed metal oxide hole transporting layer for efficient and stable perovskite solar cells* |
| | 3_3-0093 | Mr Mohammad Shamimul Haque Choudhury, Nagoya Institute of Technology, Japan<br>*Linear And Nonlinear Optical Properties of Trifluoroethoxy-coated Zinc Phthalocyanine Thin Films Prepared by Spin Coating* |
| | 3_3-0101 | Mr Firdaus SUHAIMI, Energy Research Institute @ NTU, Singapore<br>*Current Matching and Light Distribution in Organic Stacked Solar Cells* |
| **14:00 – 15:30 Poster session 2** Room 3711/3712/ 3713 | 3_4-0001 | Mr Chang-Yeh Lee, UNSW, Australia <TBC><br>*Solid Phase Annealing of Kesterite Cu2ZnSnS4 Thin Films using Raman laser* |
| | 3_4-0004 | Mr Kannan PK, Indian Institute of Technology Hyderabad, India <TBC><br>*Effects of S/Se Ratio on the Bandgap of CZTSSE Thin Films Deposited Using Electron Beam Evaporation* |
| | 3_4-0007 | Tomohiko NISHIDA, Kansai University, Japan<br>*Formation and evaluation of Cu2ZnSnS4 films prepared by electroplating and sulfurization with CS2* |
| | 3_4-0009 | Mr Wei-Chung KUO, National Central University, Taiwan<br>*Growth of high quality GaAs on thin Ge buffer layer on Si substrate and its applications* |
| | 3_4-0017 | Mr Stener LIE, NTU, Singapore<br>*Photovoltaic Effect in Earth Abundant Solution Processed Cu2MnSnS4 and Cu2MnSn(S,Se)4 Thin Films* |
| | 3_4-0019 | Mr Hiroki SUMI, Tokyo University of Science, Japan<br>*Band Alignment of n-type Semiconductor/p-type SnS Heterojunction for Earth-Abundant SnS solar cells* |
| | 3_4-0020 | Mr Tsubasa YOKOI, Tokyo University of Science, Japan<br>*Effect of Alkali-metal Post-deposition Treatment on SnS Thin Films and Solar Cells* |
| | 3_4-0026 | Mr Wenjie LI, ERI@N, NTU, Singapore <TBC><br>*CZTSSe solar cell with ALD ZTO buffer layer* |
| | 3_4-0027 | Mr Wenjie LI, ERI@N, NTU, Singapore<br>*Alkali Doping in Solution Processed CZTSSe Solar Cells* |
| | 3_4-0028 | Prof JunHo KIM, Incheon National University, South Korea<br>*Growth of SnS films and solar cell application* |
| | 3_4-0038 | Mr Shigeru NAKATSUKA, Kyoto University, Japan<br>*Photovoltaic peformance of ZnSnP2 bulk crystals with the efficiency over 1%* |
| | 3_4-0042 | Mr Ryota KATAYAMA, Toyota Technological Institute, Japan<br>*N incorporation at the surface step in CBE grown GaAsN film on GaAs(111) vicinal substrate* |
| | 3_4-0045 | Dr Yu-Cian WANG, Toyota Technological Institute, Japan<br>*Selective-area growth of GaAs on patterned Si substrates by using chemical beam epitaxy* |
| | 3_4-0052 | Hayato AKITA, Miyakonojo National Institute of Technology, Japan<br>*Fabrication of Ag2SnS3 thin films by sulfurization of vacuum* |

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| **14:00 – 15:30 Poster session 2** Room 3711/3712/ 3713 | | *evaporated Ag/Sn and Ag/SnS precursors* |
| | 3_4-0053 | Dr Trupti Ranjan LENKA, National Institute of Technology Silchar, India <TBC> *Optimization of Phase Separation Effect on Performance of Single Core-Shell InGaN/GaN Nanowire* |
| | 3_4-0056 | Mr Yuki ISHII, Tokai University, Japan *Effects of ZnO thin film by inductively coupled plasma-assisted sputtering* |
| | 3_5-0001 | Mr Chia-Cheng CHOU, Industrial Technology Research Institute, Taiwan *I-V Characteristics of emerging PV measured under Dim-indoor light sources* |
| | 3_5-0010 | Mr Hansong XUE, Solar Energy Research Institute of Singapore (SERIS), Singapore, *A device model for perovskite solar cells* |
| | 3_5-0011 | Dr FaJun MA, University of New South Wales, Australia *Device Model Analysis of Se-free Cu2ZnSnS4 solar cell using Sentaurus TCAD* |
| | 3_5-0013 | Prof Ayodeji AWODUGBA, Ladoke Akintola University of Technology, Nigeria *Numerical simulation of CZTS/ZnO/FTO hetero-junction solar cell* |
| | 3_5-0014 | Dr Hao WANG, ERI@N, NTU, Singapore *Optical study of light absorption behaviour in Perovskite/CIGS tandem solar Cells* |
| | 3_5-0019 | Yutaka NIIZAWA, Ritsumeikan University, Japan *Optical design for tandem solar cell based on chalcopyrite and perovskite materials* |
| | 3_5-0020 | Dr Lay Theng TAN, Republic Polytechnic, Singapore *Light intensity dependence of I-V parameters of various solar cell structures* |
| | 3_5-0021 | Mr Akira NAKANISHI, Tokyo Institute of Technology, Japan *Numerical simulation of CH3NH3PbI3 perovskite/heterojunction crystalline silicon tandem solar cells using Silvaco-Atlas software* |
| | 3_5-0024 | Dr Anna NIKOLSKAIA, Russian Academy of Sciences, Russia Perovskite/ZnPc solar cells: action spectra of photocurrent and effect of bulk photoconductivity |
| | 3_5-0025 | Dr Kazuyoshi NAKADA, Tokyo Institute of Technology, Japan *Numerical Simulation on the Effect of Tunnel Recombination Layer Band Profile on the Performance of Perovskite / Cu(In, Ga)Se2 Tandem Solar Cells* |
| | 3_5-0026 | Prof Nowshad AMIN, The National University of Malaysia, Malaysia *Effects of Interfacial p-MoS2 Layer in Cu2ZnSnS4 (CZTS) Thin Film Solar Cells from Numerical Analysis* |
| | 3_5-0028 | Dr Rob PATTERSON, University of New South Wales, Australia *Temperature dependent current contributions from mobile vacancy-type defects in lead halide perovskites* |

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| **16:00 – 18:00 Poster session 3** Room 3711/3712/ 3713 | **Posters in Area 1: Novel PV Materials and Concepts** (For each poster, at least one presenter must be present) | |
| | 1_1-0002 | Dr Adel GOUGAM, Masdar Institute of Science and Technology, United Arab Emirates<br>*Passivation studies using Atomic Layer Deposition technique for SiO2/ Al2O3 and HfO2/Al2O3 stacks* |
| | 1_1-0003 | Dr Takeshi TAYAGAKI, National Institute of Advanced Industrial Science and Technology (AIST), Japan<br>*Wide-bandgap InGaP-based InP quantum dot solar cells for intermediate-band solar cells* |
| | 1_1-0009 | Prof Mikihiko NISHITANI, Graduate School of Engineering Osaka University Japan, Japan <TBC><br>*The investigation of transition metal oxide materials applied for solar cell material with intermediate band* |
| | 1_1-0011 | Dr Kosuke HARA, University of Yamanashi, Japan<br>*Fabrication of BaSi2 thin films passivated by amorphous Si using a single evaporation source* |
| | 1_1-0014 | Dr Yukimi ICHIKAWA, FUTURE-PV Innovation / JST, Japan<br>*Properties of Silicon Nano-walls for Wide Bandgap Solar Cells* |
| | 1_1-0016 | Dr Rob PATTERSON, UNSW Australia, Australia<br>*Hot carrier properties of PbS colloidal quantum dots revealed by power and temperature dependent photoluminescence spectroscopy* |
| | 1_1-0017 | Prof Koichi YAMAGUCHI, The University of Electro-Communications, Japan<br>*Photoluminescence and Photovoltaic Properties of Ultrahigh-Density InAs Quantum Dots on InAsSb/GaAs(001)* |
| | 1_1-0019 | Dr Marit KAUK-KUUSIK, Tallinn University of Technology, Estonia<br>*Growth and characterization of Cu2CdSnS4 single crystalline powder for solar cell applications* |
| | 1_1-0021 | Dr Olindo ISABELLA, Delft University of Technology, Netherlands<br>*Organometallic Halide Perovskite / Barium Di-Silicide Thin-Film Double-Junction Solar Cells* |
| | 1_1-0025 | Mr Chulmoon CHOI, Chonbuk National University, South Korea <TBC><br>*Conductive polymeric yarn-based fiber-shaped perovskite solar cells* |
| | 1_1-0035 | Mr Soohyun HWANG, Sungkyunkwan Universty Department of Electrical and Computer Engineering, South Korea<br>*Novel Low Temperature Sintering Method of Self-Cleaning Coating for Photovoltaic System Applications* |
| | 1_1-0050 | Dr Yasushi SHOJI, The University of Tokyo, Japan<br>*Multi-stacked GaSb/GaAs type-II quantum nanostructure for application to intermediate band solar cells* |
| | 1_1-0057 | Mr Anupam NANDI, Indian Institute of Engineering Science and Technology, Shibpur, India<br>*Opto-Electrical Property Study of RGO-ITO Composite Thin Film and Its Benefit over the Standard ITO Thin Film as Transparent Conducting Oxide* |
| | 1_1-0058 | Prof Horng-Show KOO, Minghsin University of Science and |

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| | | Technology, Taiwan <TBC><br>*Investigation on Degradation Mechanism of the Dye-sensitized Solar Cells with NiO-doped ZnO Film Electrodes* |
| | 1_1-0059 | Prof Horng-Show KOO, Minghsin University of Science and Technology, Taiwan <TBC><br>*Effect of Y2O3-doped ZnO Film Electrodes on the Optoelectronic Characterization of the Dye-sensitized Solar Cells* |
| | 1_1-0067 | Prof Nowshad AMIN, Universiti Kebangsaan, Malaysia<br>*Nearly 1.8 eV InGaN top cells design on Si for tropical region efficient solar cell* |
| | 1_2-0004 | Dr Kan-Hua LEE, Toyota Technological Institute, Japan<br>*Design Considerations and Efficiency Prospects of III-V on Silicon Solar Cells* |
| | 1_2-0005 | Dr Lewis FRAAS, JX Crystals Inc, United States<br>*ThermoPhotoVoltaics (TPV): Cogenerating Electricity from Hot Steel* |
| | 1_2-0006 | Dr Kenji ARAKI, Toyota Technological Institute, Japan<br>*Design optimization on static low concentrator PVs installed to various non-optimized locations including the car-roof.* |
| | 1_2-0007 | Dr Sergei MANZHOS, National University of Singapore, Singapore<br>*Density Functional Theory – Time-Dependent Density Functional Theory Study of Interfacial Charge Transfer Complexes of 2-Anthroic Acid and TiO2 Nanoparticles* |
| | 1_2-0009 | Dr Liangliang TANG, Hohai University, China<br>*The Performance of GaInAsSb and GaSb cells vs IR Emitter Temperature in Thermophotovoltaic Systems* |
| | 1_2-0010 | Mr Satoshi TAKIMOTO, Nagoya University, Japan<br>*Photovoltaic unit for optical output from solar-pumped lasers (II) perovskiteolar cells for 532nm monochromatic light* |
| **16:00 – 18:00**<br>**Poster session 3**<br>Room 3711/3712/ 3713 | 1_2-0011 | Mr Hidetaka TERAZAWA, Nagoya University, Japan<br>*Calculation of theoretical conversion efficiency via ray tracing and simulation of laser oscillation in Nd:YAG ceramic rod for micro-solar-pumped laser-PV cell combined system* |
| | 1_2-0014 | Mr Kangmin LEE, Ulsan National Institute of Science and Technology (UNIST), South Korea<br>*Nano/micro hybrid radial junction silicon solar cells* |
| | 1_2-0015 | Ms Suchismita MITRA, Indian Institute of Engineering Science and Technology Shibpur, India<br>*Numerical modeling of rear passivated carrier selective tunnel contact solar cell* |
| | 1_2-0016 | Mr Kemmei WATANABE, Nagoya University, Japan<br>*Photovoltaic unit for optical output from solar-pumped lasers (i) : outspread and mitigation of the optical output power from an optical fiber by a light guide plate* |
| | 1_2-0024 | Ms Wan Ru LEOW, Nanyang Technological University, Singapore<br>*Al2O3 Surface Complexation for Photocatalytic Organic Transformations* |
| | 1_2-0044 | Dr Alexander AXELEVITCH, Holon Institute of Technology (HIT), Israel <TBC><br>*Metal Nanostructures for Solar Cells Efficiency Improvement* |
| | 1_3-0004 | Prof Naoteru SHIGEKAWA, Osaka City University, Japan |

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| **16:00 – 18:00 Poster session 3** Room 3711/3712/ 3713 | | *Electrical Characterisation of Coupling Properties in InGaP/GaAs/Si Triple-Junction Cells* |
| | 1_3-0019 | Dr Shanmugan S., Vel Tech Multitech Dr.Rangarajan Dr.Sakunthala Engineering College, India <TBC><br>*Synthesis and Characterization of Doped Silver-Organic Nanocomposites (ONPs/Ag) with NaBH4 Organic-Inorganic Hybrid Nanoparticles used in Photovoltaic's from innovation through industry* |
| | 1_3-0032 | Prof Der-Ray HUANG, National Dong Hwa University, Taiwan<br>*Research on Solar Diffuse Fraction in Eastern Taiwan* |
| | 1_3-0033 | Mr Toshiyuki TAKASAKI, Kyushu University, Japan<br>*Room temperature fabrication of high-mobility amorphous In2O3:Sn films via nitrogen-mediated amorphization method* |
| | 1_3-0035 | Dr Changheon KIM, Green Energy Institute, South Korea<br>*Effects on Film Stress of Hydrogenated Silicon Nitride Passivation Layer* |
| | 1_4-0003 | Prof Noritaka USAMI, Nagoya University, Japan<br>*Geometry control of silicon-based photonic nanostructures by modulated stacking conditions of germanium dots* |
| | 1_4-0005 | Ms Puqun WANG, SERIS, Singapore<br>*Periodic upright nanopyramid texturing for ultra-thin crystalline silicon solar cells* |
| | 1_4-0007 | Ms Sudarshana BANERJEE, Indian Institute of Engineering Science and Technology, India<br>*ITO embedded Ag2S nano-particles as back reflector layer for increasing optical path length within thin film silicon solar cells* |
| | 1_4-0010 | Mr Hemanta GHOSH, Indian Institute of Engineering Science and Technology Shibpur, India<br>*Embedded Silicon nitride (SiN) nanoparticles as plasmonic back scatterers for crystalline silicon solar cell* |
| | 1_4-0014 | Dr Santhosh Kumar K., Southeast University, China<br>*Down-conversion for an enhancement in efficiency of solar cell using Tb3+/Ce3+/Bi3+ - Yb3+ co-doped Y3Al5O12 phosphors* |
| | 1_4-0019 | Mr Zhengshan YU, Arizona State University, United States<br>*Spectrum-splitting GaAs/Si tandem module with 28% outdoor efficiency* |
| | 1_4-0021 | Prof Srinivas Reddy K., Indian Institute of Technology Madras, India<br>*Luminescent solar concentrator using high contrast gratings* |
| **18:00 – 18:30 Poster session 3** Room 3711/3712/3713 | Poster removal (Area 1 & Area 3) | |

| **Thursday, 27 October 2016: PVSEC-26 Conference Poster Sessions** | | |
|---|---|---|
| **08:00 – 18:00**<br>Hibiscus, Level 3 (Foyer) | Registration | |
| **09:00 – 10:30**<br>Room 3711/3712/3713 | Poster Setup (For Areas 2, 4 & 5) | |
| **11:00 – 12:30**<br>**Poster session 4**<br>Room 3711/3712/ 3713 | **Posters in Area 5: PV Systems, Deployment and Grid integration**<br>(For each poster, at least one presenter must be present) | |
| | 5_1-0002 | Mr Ke Rong Kenny TAN, Newcastle University International Singapore - Singapore Institute of Technology, Singapore <TBC><br>*Demonstration of Innovative Smart Home Strategies on LabVolt System* |
| | 5_1-0004 | Mr Yuichi MASUTANI, Tokyo University of Science, Japan<br>*Evaluation of Angle-of-Incidence Effects on Low Magnification Condensing Spectrum-splitting PV System with One Axis Tracking* |
| | 5_2-0005 | Dr Angele REINDERS, ARISE, University of Twente, The Netherlands<br>*A simple phenomenological model for the determination of spectrally distributed irradiance in the Netherlands* |
| | 5_2-0007 | Prof Tomonao KOBAYASHI, Gifu University, Japan<br>*Characteristics of Solar Irradiance Fluctuation and Corresponding Weather Condition* |
| | 5_2-0009 | Prof Shigeomi HARA, Saga University, Japan<br>*Construction of Fast Measurement System in Yoshinogari Mega Solar Power Plant* |
| | 5_2-0010 | Prof Shigeomi HARA, Saga University, Japan<br>*Development of Computer Program for Large-scale Measurement data of Yoshinogari Mega Solar Power Plant* |
| | 5_2-0011 | Mr Hiroyuki MANO, Ritsumeikan University, Japan<br>*Correlation of short circuit current ratio of various photovoltaic modules and average photon energy of solar spectrum* |
| | 5_2-0012 | Dr Kohji MASUDA, Japan Electrical Safety & Environment Technology Laboratories (JET), Japan,<br>*Investigation into Spatial Distribution of Irradiance for Performance Measurement of Photovoltaic Modules at Photovoltaic Systems* |
| | 5_2-0020 | Mr Jukkravat SUNJAI, Rajamangala University of Technology Lanna, Thailand<br>*The monitoring energy and efficiency of very small solar roofs top grid connected power system under difference inverter models* |
| | 5_2-0024 | Prof Der-Ray HUANG, National Dong Hwa University, Taiwan<br>*Photovoltaic Effect of Solar Cell Modules under Sun Radiation with Different Directions* |
| | 5_3-0001 | Mr Naotaka OKA, Doshisha University, Japan<br>*Power generation performance evaluation of mega solar power plant with different module connection* |
| | 5_3-0003 | Dr Amornrat LIMMANEE, National Science and Technology Development Agency, Thailand |

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| | | *Degradation Behaviour of PV Modules under Thailand's Climate* |
| | 5_3-0008 | Dr Anil Kottantharayil, Indian Institute of Technology Bombay, Japan<br>*Evaluation of increase in the energy yield of PV modules by inverting the panels during the non – sunshine hours* |
| | 5_3-0010 | Dr Hailing LI, Institute of Electricial Engineering, Chinese Academy of Science, China<br>Evaluation of the performance of large scale PV plant in West China |
| | 5_4-0004 | Mr Cheng-Lien WANG, Winaico, Taiwan<br>*Comparison of outdoor performance between PERC and HJT solar systems* |
| | 5_4-0007 | Dr Yasuo CHIBA, National Institute of Advanced Industrial Science and Technology (AIST), Japan<br>*Relationship between performance ratio and indoor power output measurements for various photovoltaic modules at AIST Kyusyu Center* |
| | 5_4-0008 | Mr Mattias Gustafsson, University of Gävle, Sweden<br>*Effects of different time resolution when self-consumed and produced excess electricity is predicted in a single family house – case study in cold climate, Sweden* |
| | 5_4-0016 | Mr Daksh DAVE, United World College of South East Asia, Singapore<br>*An Alternative Way of Reporting PR That Is Fair to Both Investors and System Owners* |
| | 5_4-0018 | Mr Mike WANEBO, Sunpreme Inc., United States<br>*Enhancing Bifacial Module Yield with Active Albedo* |
| | 5_5-0010 | Ms Dhivya SAMPATH KUMAR, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*A novel microinverter technique for highly built environments and difficult to access building integrated PV systems* |
| | 5_6-0003 | Dr Keping YOU, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*High Penetration of Photovoltaic Energy Needs Modification of Grid Standards for Future PV Applications - A Study of Singapore's Low-Voltage Grid Codes of Practice in Comparison with IEC and IEEE Requirements* |
| | 5_6-0010 | Mr Aloysius Wishnu ARYAPUTERA, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Power Output Forecast of a Photovoltaic Network* |
| | 5_6-0017 | Eiki ARAI, Tokyo University of Science, Japan<br>*Heuristics Estimation Model of Aggregated Residential LoadHeuristics Estimation Model of Aggregated Residential Load* |
| | 5_7-0002 | Dr Maifi LYES, University Mentouri Constantine, Algeria, <TBC><br>*Influence of operational parameters on the production of a plane solar distiller coupled to a hybrid photovoltaic thermal sensor* |
| | 5_7-0007 | Dr Worrajak MUANGJAI, Rajamangala University of Technology Lanna, Thailand<br>*Energy management depend on 5kWp PV system control by IoT at Posor Rural school in Mae Hong Son Province Thailand* |
| | 5_7-0008 | Khawar MEHMOOD, Zhongli Talesun Solar Co. Ltd, China<br>*Solar Water Pumping System* |

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| | 5_7-0010 | Asst. Prof Nopporn PATCHARAPRAKITI, Rajamangala University of Technology Lanna, Thailand,<br>*A System Performance Comparison of Solar DC Water Pumping with and without Battery Energy Storage* |
| | 6_1-0001 | Prof Tonio BUONASSIS, Massachusetts Institute of Technology, United States <TBC><br>*The 10TW Goal – How to Scale PV Economically to Meet Climate Targets?* |
| | 6_1-0003 | Dr Saravanan VASUDEVAN, Arunai Engineering College, Indi<br>*Development of Solar Parks in India* |
| | 6_1-0006 | Mr Yousuke NOZAKI, NTT FACILITIES, Inc., Japan <TBC><br>*Our historical contribution activities for Asian PV deployment* |
| | 6_1-0008 | Dr Stephen TAY, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Initiatives Towards Solarising Singapore* |
| | 6_1-0009 | Prof AbuBakr BAHAJ, University of Southampton, United Kingdom<br>*Photovoltaic Driven Mini Grids as Energy Access Platforms for Rural Communities* |
| | 6_1-0010 | Mr Takafumi SATO, Mizuho Information & Research Institute, Inc., Japan<br>*The Potential of On-Board PV for Electrified Vehicles to Reduce Lifecycle CO2 Emissions* |
| | 6_1-0011 | Prof Kung-Jeng WANG, National Taiwan University of Science and Technology, Taiwan<br>*Intelligent manufacturing of a prism-based solar concentrator system – a modelling perspective* |
| **14:00 – 15:30**<br>**Poster session 5**<br>Room 3711/3712/3713 | **Posters in Area 4: PV Modules**<br>(For each poster, at least one presenter must be present) | |
| | 4_1-0001 | Dr Yu-Hsien LEE, Industrial technology research institute, Taiwan <TBC><br>*Mechanical and electrical characterization of HeatCap solar cell modules* |
| | 4_1-0004 | Mr Haruo WATANABE, Affinity Co., LTD., Japan<br>*New PV Modules with Silicone Oil by the whole process consisting of Room Temperature* |
| | 4_1-0006 | Dr Changsoon HAN, Laser Advanced System Industrialization Center, South Korea<br>*Characteristics of the surface modification of PV module glasses utilizing the ultrashort laser pulses* |
| | 4_2-0003 | Dr Song-Yeu TSAI, Industrial Technology Research Institute, Taiwan<br>*Characteristic Analysis of Printing Flexible CIGSS Sub-modules* |
| | 4_2-0005 | Phasapon MANOSUKRITKUL, King Mongkut's Institute of Technology, Ladkrabang, Thailand,<br>*Performance Degradation of a-Si Thin Film PV Arising from the Dust in Thailand* |
| | 4_3-0003 | Mr Goutam SAMANTA, Orange Renewable Power, India <TBC><br>Long term reliability of crystalline modules |
| | 4_3-0004 | Mr Guoqing CHEN, Zhongli Talesun Solar Co., Ltd., China <TBC><br>*The study on the impact of the WVTR of the backsheet to the anti-* |

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| | | *PID performance of the module* |
| | 4_3-0006 | Dr Volker NAUMANN, Fraunhofer Center for Silicon Photovoltaics CSP, Germany<br>*Outdoor PID testing of modules in PV systems* |
| | 4_3-0013 | Dr Volker NAUMANN, Fraunhofer Center for Silicon Photovoltaics CSP, Germany<br>*Advanced laboratory soiling test to simulate realistic dust deposition* |
| | 4_3-0019 | Mr Manit SEAPAN, King Mongkut's University of Technology Thonburi, Thailand<br>*PV module reliability as installed in hot and humid climate of Thailand* |
| | 4_3-0020 | Mr Vincent HANDARA, Singapore University Technology and Design, Singapore<br>*Solar Photovoltaics Module Reliability: Degradation Study under Extreme Tropical Environment* |
| | 4_3-0021 | Mr Seira YAMAGUCHI, Japan Advanced Institute of Science and Technology, Japan<br>*Time dependence and saturation behavior of the potential-induced degradation of n-type front-emitter photovoltaic modules* |
| | 4_3-0022 | Kazuki NOGUCHI, Nara Institute of Science and Technology, Japan<br>*Temperature dependence of EL imaging and VOC estimation* |
| | 4_3-0025 | Dr Fumitaka OHASHI, Gifu University, Japan<br>*Migration and distribution analysis of Na in photovoltaic modules by potential induced degradation test* |
| | 4_3-0026 | Mr Panom PARINYA, King Mongkut's University of Technology Thonburi (KMUTT), Thailand<br>*Comparison between Measured Power and Nameplate Power Rating of PV Modules in Thailand* |
| | 4_3-0033 | Mr Junhui LIU, Zhejiang Jinko Solar Co., Ltd., China<br>*Research for the vapor transmission performance of the encapsulation materials of PV module* |
| | 4_3-0034 | Dr Laure-Emmanuelle PERRET-AEBI, CSEM, Switzerland,<br>*"Solarstratos", pushing the solar technology to the edge of space* |
| | 4_3-0035 | Dr Wayne MA, Dow Chemical (China) Investment Co., ltd, China<br>*Maximizing Reliability Performance with Polyolefin Encapsulants* |
| | 4_4-0009 | Markus Schweiger, TÜV Rheinland Energy GmbH, Germany<br>*Electrical Characteristics of Bifacial PV Modules Measured in the Laboratory* |
| | 4_4-0010 | Ms Husyira AL HUSNA, Loughborough University, United Kingdom<br>*Uncertainty in Spectral Response Measurement of Photovoltaic Modules* |
| | 4_4-0014 | Mr Taisei KITAMOTO, Tokyo University of Science, Japan<br>*The development of PV module degradation analysis method* |
| | 4_4-0018 | Mr Hyeong-Seok KIM, Korea Aerospace University, South Korea, <TBC><br>*Equivalent circuit modeling of Dye-sensitized solar cell module induced from electrochemical impedance spectroscopy* |
| | 4_4-0019 | Mr Yoshihide HIDAKA, University of Miyazaki, Japan<br>*Influence of silicone on glass lens temperature on concentrator photovoltaic modules with and without secondary optics* |

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| | 4_4-0022 | Prof Terubumi SAITO, Tohoku Institute of Technology, Japan<br>*Solar Cell Conversion Efficiency Measurements Based on Electrical Substitution Method* |
| | 4_4-0023 | Dr Mauro PRAVETTONI, University of Applied Sciences and Arts of Southern Switzerland, Switzerland<br>*Reliability of Spectral Measurement in the UV and NIR: Evidence from Previous International Spectral Measurement Intercomparisons* |
| | 4_4-0027 | Prof Frank HAMELMANN, University of Applied Sciences, Germany<br>*Performance analysis of different silicon-based solar cells mounted in Thailand and Germany* |
| | 4_4-0028 | Mr Ihor RADCHENKO, Singapore University of Technology and Design, Singapore<br>*Residual Stress Evaluation in Thin Silicon Photovoltaic Modules using Synchrotron X-ray Micro-diffraction and Finite Element Analysis* |
| | 4_4-0030 | Mr Ninad GAIKWAD, Gujarat Energy & Research Management Institute (GERMI), India<br>*Photovoltaic Module PV-IV Curve Generator with Shading Analysis in MATLAB* |
| | 4_4-0033 | Dr Soo Min KIM, Gumi Electronics & Information Technology Research Institute, South Korea <TBC><br>*Characteristics of bifacial solar cell module with optical spectrum as site conditions* |
| **16:00 – 18:00**<br>**Poster session 6**<br>Room 3711/3712/3713 | **Posters in Area 2: Crystalline Silicon Materials and Solar Cells**<br>(For each poster, at least one presenter must be present) | |
| | 2_1-0008 | Mr Sunho CHOI, Korea Institute of Energy Research, South Korea<br>*Ultrathin single crystalline Si wafers by using a slurry based multi-wire sawing process for photovoltaics* |
| | 2_2-0001 | Mr Tao LI, Institute of Electrical Engineering, China <TBC><br>*The effect of silver crystallites on electrical performances of silicon solar cells* |
| | 2_2-0004 | Dr Chunlai HUANG, State Key Lab of Silicon Materials and School of Materials Science & Eng., Zhejiang University, China<br>*Ga-doped Quasi-single Crystalline Silicon* |
| | 2_2-0005 | Mr Shuai YUAN, Zhejiang University, China<br>*Growth and performance of cast high performance multicrystalline silicon in nitrogen atmosphere* |
| | 2_2-0012 | Mr Sumukh RAMPRASAD, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Crack Detection in Multi-Crystalline Silicon Wafer Solar Cells* |
| | 2_2-0015 | Miss Romika SHARMA, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Investigating the role of hydrogen and surface passivation in light induced degradation of multicrystalline silicon solar cells* |
| | 2_2-0021 | Mr Pi-Chen TSAI, National Taiwan University, Taiwan<br>*HF–HNO3–H2SO4 system for texturing diamond wire sawn multi-crystalline silicon wafer* |
| | 2_2-0022 | Jong HEO, KITECH, South Korea<br>*Multi-crystalline silicon solar cells with production line fitted nanoscale pyramid texture* |

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| **16:00 – 18:00 Poster session 6** Room 3711/3712/ 3713 | 2_2-0023 | Miss Mrinalini PADMANABHAN, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Light and elevated temperature induced degradation of multicrystalline silicon Al-BSF and PERC solar cells* |
| | 2_2-0024 | Mr Sagnik CHAKRABORTY, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*A comparison of phosphorous and boron diffusion gettering responses in traditional and high-performance multicrystalline silicon* |
| | 2_3-0004 | Dr Dong-Youn SHIN, Pukyong National University, South Korea<br>*Novel approach to construct finger electrodes finer than the nozzle opening in dispensing printing for crystalline silicon solar cells* |
| | 2_3-0005 | Dr Kyotaro NAKAMURA, Meiji University, Japan<br>*P-type Bi-facial PERT Solar Cell using Less Than 100 µm thick Cz Wafer and Cu Paste* |
| | 2_3-0011 | Dr Benjamin STRAHM, Meyer Burger Research AG, Switzerland<br><TBC><br>*Si-HJT 2.0: using exceptional surface passivation properties of amorphous silicon to increase power output by structure and material changes in Si-HJT solar cells* |
| | 2_3-0020 | Ms Taeko SEMBA, Namics corporation, Japan<br>*Ag paste for high Voc and high FF on textured and flat solar cells* |
| | 2_3-0021 | Dr Porponth SICHANUGRIST, Japan Science and Technology Agency, Japan<br>*Development of high quality p-type microcrystalline silicon oxycarbide using additional Trimethylboron as carbon source gas* |
| | 2_3-0027 | Mr Jaffar Moideen YACOB ALI, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Nanosecond laser ablation properties of widely used dielectric layers for solar cell applications* |
| | 2_3-0028 | Mrs Shu Yunn CHONG, REC Solar Pte. Ltd, Singapore<br>*The effect of alkaline textured pyramid size on the cell efficiency of homogeneous doped emitter screen printed silicon solar cells* |
| | 2_3-0030 | Ms Jeong Eun PARK, Korea National University of Transportation, South Korea<br>*Electrical Characterization of c-Si Solar Cell with Various Emitter Layer using Adjustable Gas Flow* |
| | 2_3-0031 | Mr Jun Seok PARK, Korea National University of Transportation, South Korea<br>*Effect of Surface Damage Removal for Optimizing Reactive Ion Etching of c-Si Solar Cell* |
| | 2_3-0032 | Gulsen BAYTEMIR, Middle East Technical University, Turkey<br>*Radial Junction Crystalline Silicon Solar Cells By Metal Assisted Electroless Etching* |
| | 2_3-0034 | Ms Xinhang LI, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Investigation of IPA free alkaline texturing for p-type Al-BSF mono-Si wafer solar cells – impact of pyramid size* |
| | 2_3-0037 | Mr Muzhi TANG, REC Solar Pte. Ltd., Singapore<br>*Optimization of the back surface morphology for 21% n-type bi-* |

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| | | *facial mono crystalline silicon solar cells* |
| | 2_3-0044 | Dr Chunlan ZHOU, Institute of Electrical Engineering, Chinese Academy of Sciences, China <TBC><br>*Improvement of passivation on MCCE fabricated Blank silicon* |
| | 2_3-0049 | Dr Young Joon CHO, Chungnam National University, South Korea <TBC><br>*Characteristics of ALD-Al2O3 passivation in thin crystalline silicon wafer* |
| | 2_3-0053 | Dr Woojun YOON, U.S. Naval Research Laboratory, United States<br>*Advanced Surface Passivation of Epitaxially Grown Emitters for High-efficiency Ultrathin Crystalline Si Solar Cells* |
| | 2_3-0057 | Mr Yutaro TAKEI, Tokyo Institute of Technology, Japan<br>*Sputtered Cu2O:N Emitter for Silicon Heterojunction Solar Cells* |
| | 2_3-0058 | Dr Jeong In LEE, Korea Institute of Energy Research, South Korea<br>*Characterization of Al2O3 Passivation Layer Deposited by Plasma-Assisted Atomic Layer Deposition in c-Si Solar Cells* |
| | 2_3-0059 | Dr Min Gu KANG, Korea institute of Energy Research, South Korea<br>*Analysis of blister formation during annealing process for the tunneling oxide passivation layer* |
| **16:00 – 18:00**<br>**Poster session 6**<br>Room 3711/3712/ 3713 | 2_3-0062 | Mr Myeong Sang JEONG, Korea University, South Korea<br>*Electrode formation using electroless Ni-Cu plating in the crystalline silicon solar cells with double anti-reflection layers* |
| | 2_3-0063 | Mr Kwan Hong MIN, Korea University, South Korea<br>*Interface properties of Al2O3/SiOx/Si(100) using wet chemical oxidation for crystalline Si solar cell applications* |
| | 2_3-0072 | Mr Tae-hyeon BAEK, Chungbuk National University, South Korea<br>*Bow Removal In Thin Crystalline Silicon Solar Cell* |
| | 2_3-0074 | Dr Renfang CHEN, Research Center for New Energy Technology, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, China<br>*Improved silicon heterojunction solar cells via n-type amorphous silicon window layer deposited by CAT-CVD* |
| | 2_3-0075 | Mr Tsuyoshi KAWAKAMI, University of Hyogo, Japan<br>Laser Formation of Point Contact in Aluminum Passivation layer for High-efficiency Crystalline Silicon Solar cells |
| | 2_3-0077 | HyunJung PARK, Korea University, South Korea <TBC><br>*Doping concentration analysis of POCl3 diffused emitter using quasi-steady-state photoconductance* |
| | 2_3-0078 | Dr Dominik LAUSCH, Fraunhofer Center for Silicon-Photovoltaics CSP, Germany <TBC><br>*Light-Induced Degradation and Regeneration of Back Surface Field (BSF) and PERC Monocrystalline Silicon Solar Cells* |
| | 2_3-0080 | Mr Inseol SONG, Korea University, South Korea <TBC><br>*Ultraviolet stability of thermally deposited Al203 on crystalline silicon solar cells* |
| | 2_3-0081 | Je-Min YEON, Shinsung Solar Energy, South Korea<br>*Screen printed p-type Al-BSF solar cell with efficiency of 20% fabricated in an industrial producion line* |
| | 2_3-0082 | Ms Min Ji LEE, Korea National University of Transportation, South Korea |

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| | | *Influence of saw mark defect density for silicon wafer texturing* |
| | 2_3-0083 | Prof Fanying MENG, Chinese Academy of Sciences, China <TBC><br>*Performance evaluation of n-type mono-Si wafer application in amorphous/crystalline Si heterojunction solar cells* |
| | 2_3-0085 | Dr Lujia XU, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*The influence of laser opening patterns and metallization conditions on localized back surface field solar cells* |
| | 2_3-0090 | Dr Xinyu Zhang, Zhejiang JinkoSolar Co., Ltd., China <TBC><br>*Optimization for Industrial Thermal ALD AlOx Surface Passivation Film for Mass-production* |
| | 2_3-0092 | Mr Dong WANG, Zhejiang Jinko Solar Co., Ltd., China <TBC><br>*Comparison of industrial feasible chemical cleaning techniques and their applications on monocrystalline silicon solar cells* |
| | 2_3-0093 | Mr Young Min LEE, Korea National University of Transportation, South Korea<br>*Optimization of Front Laser Patterning to Form Ni/Cu Electrode of c-Si Solar Cell* |
| **16:00 – 18:00 Poster session 6** Room 3711/3712/ 3713 | 2_3-0101 | Seiya YOSHINAGA, Nara Institute of Science and Technology, Japan<br>*Nanoimprinted-Textured Crystalline Silicon Solar Cells with Si-rich-SiN layer for Low Surface Reflectance* |
| | 2_4-0008 | Prof Moustafa GHANNAM, Kuwait University, Kuwait<br>*Restoration of the Fill Factor and I-V characteristics of HIT cells with deficient a-Si:H p+ doping* |
| | 2_4-0009 | Prof Terubumi SAITO, Tohoku Institute of Technology, Japan<br>*Spectral Dependence of Photovoltaic Cell Conversion Efficiency For Monochromatic Radiation* |
| | 2_4-0010 | Carlos Andres VARGAS CASTRILLON, University of New South Wales, Australia<br>*Revision of the temperature dependence of iron-acceptors association rate* |
| | 2_4-0016 | Prof Abasifreke EBONG, UNC Charlotte, United States<br>*Computer simulation of the impact of interface trap density on n-ZnO/p-Si single heterojunction solar cells* |
| | 2_4-0018 | Prof Shih-Hung LIN, TungHai University, Taiwan<br>*Metrology of in-line PL image inspection and analysis platform* |
| | 2_4-0027 | Mr Kyung KIM, The University of New South Wales, Australia<br>*Impact of Deposition Condition and Thermal Process on Industrial PECVD AlOx Layer for Surface Passivation* |
| | 2_4-0029 | Mr Amit Singh RAJPUT, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*'Smart PL' (Photoluminescence) Imaging Technique for Solar Cell Characterisation* |
| | 2_4-0030 | Dr Jian Wei HO, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Temperature-dependent Photoconductance-based Characterisation of Minority Carrier Trapping Effects in Multicrystalline Silicon* |
| | 2_4-0031 | Dr Jimmy MELSKENS, Delft Spectral Technologies B.V., Netherlands<br>*Fourier Optical Measurement System: enabling ultrafast external* |

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| **16:00 – 18:00 Poster session 6** Room 3711/3712/ 3713 | | *quantum efficiency measurements on crystalline silicon solar cells* |
| | 2_4-0032 | Dr Laytheng TAN, Republic Polytechnic, Singapore<br>*Effects of temperature and spectral variation on light-induced degradation of silicon solar cells* |
| | 2_4-0033 | Victor CUNHA, Pontifical Catholic University, Brazil<br>*Optimization Of Solar Cell Power Using Genetic Algorithm (TBC)* |
| | 2_4-0036 | Mr Samuel RAJ, Solar Energy Research Institute of Singapore (SERIS), Singapore<br>*Impact of Non-Uniform Illumination and Probe Bar Shading on Solar Cell I-V Measurement* |
| | 2_4-0037 | Dr Shude ZHANG, Zhongli Talesun Solar Co., Ltd., China<br>*Study on the Suitability of Pulsed Solar Simulators for the Measurement of High Efficiency Silicon Solar Cells* |
| | 2_4-0040 | Mr Takashi HARADA, University of Hyogo, Japan<br>*Mist chemical vapor deposited yttrium oxide films deposited by for crystalline silicon surface passivation* |
| | 2_4-0041 | Mr Yuki MIKI, University of Hyogo, Japan<br>*Study of aluminum oxide passivation films deposited by reactive sputtering with assistance of low inductance antenna* |
| | 2_4-0042 | Mr Shor KITANO, University of Hyogo, Japan<br>X-*ray reflectivity study of structural change in atomic layer deposited AlOx films by post deposition thermal treatment* |
| | 2_4-0045 | Ms Erin LOONEY, Massachusetts Institute of Technology, United States<br>*The Thin Silicon Advantage: Low Cost, low capex, high performance* |
| | 2_4-0046 | Mr Takahisa MASUDA, Tokyo Institute of Technology, Japan<br>*Characterization of the Passivation Effect of Al2O3 for Crystalline Silicon by Using Temperature Dependence of Effective Carrier Lifetime* |
| | 2_4-0049 | Mr Jun-Kyu LEE, Korea Institute of Energy Research, South Korea<br>*Effect of current density on the morphology of silver electrochemically recovered from c-Si solar cell* |
| | 2_4-0050 | Mr Eun-Hyuk YANG, Korea Institute of Energy Research, South Korea<br>*Extraction Behaviors of silver from c-Si Solar Cell in Various Mixing Ratios of Organic Acid and Oxidizing Agent* |
| | 2_4-0051 | Mr Maksym PLAKHOTNYUK, Technical University of Denmark, Denmark<br>*Phosphorous Doping of Nanostructured Crystalline Silicon* |
| | 2_4-0053 | Dr Seungkyu AHN, Korea Institute of Energy Research, South Korea<br>*Development of solar cell test JIG for the performance evaluation of bifacial solar cells* |
| | 2_4-0054 | Mr Robert DUMBRELL, The University of New South Wales, Australia<br>*Effective lifetime of full rear metallized cells by quasi-steady-state photoluminescence* |
| | 2_4-0056 | Dr Toshimitsu MOCHIZUKI, National Institute of Advanced Industrial Science and Technology (AIST), Japan<br>*Evaluation of Rear Surfaces of PERC Solar Cells Using Internal Quantum Efficiency Mapping* |

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| **16:00 – 18:00**<br>**Poster session 6**<br>Room 3711/3712/ 3713 | 2_4-0057 | Dr Fumihiko YAMADA, Toyota Technological Institute, Japan<br>*Development of an AFM/KFM System Capable of Local workfunction Mapping of Solar Cells under Light Illumination* |
| | 2_4-0060 | Dr Fa-Jun MA, University of New South Wales, Australia<br>*Advanced evaluation of surface passivation nonuniformity from photoluminescence imaging of undiffused lifetime samples* |
| | 2_4-0062 | Dr Anon NAMIN, Rajamangala University of Technology Lanna, Thailand<br>*Study of Capacitance –frequency Characteristics of Multi – crystalline Photovoltaic Cell using Intensity Modulation Current Transfer Function Spectroscopy* |
| | 2_4-0064 | Prof Der-Ray HUANG, National Dong Hwa University, Taiwan<br>*The Characteristics of Solar Cell Modules Affected by Different Vibrating Testing Conditions* |
| | 2_4-0071 | Mr Yu-Yan HU, National Sun Yat-Sen University, Taiwan<br>*PERC Solar Cell with Local Cover Thin-Film Heterojunction* |
| | 2_4-0072 | Mr Srinivasan MANICKAM, SSN college of Engineering, India<br>*Numerical modeling on influence of dimensionless numbers on second phase impurities SiC, Si2N2O and Si3N4 in grown mc-silicon by modified DS furnace for PV applications* |
| **18:00 – 18:30**<br>Room 3711/3712/3713 | Poster removal (Area 2, 4 & 5) | |