

Monday, November 28, 2011 - Room A

Time	Presentation Category	Program Number	No	Title	Family Name	Given Name	Middle Name	Affiliation	Country	Presentation Title
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Opening Session 1

Prof. Takashi FUYUKI, *Nara Institute of Science and Technology, Japan*

Prof. Takahiro WADA, *Ryukoku University, Japan*

10:30	Opening Address		-	Prof.	Fuyuki	Takashi		Nara Institute of Science and Technology	Japan	-
10:40	Welcome Address		-	Mr.	Yamazaki	Motoki		Vice Mayer of Fukuoka City	Japan	-
10:50	Keynote Lecture	1A-KL-01	-	Dr.	Kuwano	Yukinori		President, Photovoltaic Power Generation Technology Research Association	Japan	THE PHOTOVOLTAIC POWER GENERATION ERA IS COMING (GENESIS)
11:20	Keynote Lecture	1A-KL-02	-	Prof.	Ramesh	Ramamoorthy		US Department of Energy	USA	TBC

12:00

Opening Session 2

Prof. Takashi FUYUKI, *Nara Institute of Science and Technology, Japan*

Prof. Takahiro WADA, *Ryukoku University, Japan*

13:30	Keynote Lecture	1A-KL-03	-	Prof.	Kashiwagi	Takao		Tokyo Institute of Technology	Japan	NEW PERSPECTIVES ON ENERGY POLICY IN JAPAN
14:00	Keynote Lecture	1A-KL-04	-	Mr.	Murakami	Keisuke		Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry	Japan	Solar power and renewable energy policies in Japan
14:30	Keynote Lecture	1A-KL-05	-	Dr.	Reber	Stefan		Fraunhofer Institute for Solar Energy Systems	Germany	Technological strategy and achievements in silicon material development for low cost, highly efficient solar cells
15:00	PVSEC-Award Ceremony		-	Prof.	Kurokawa	Kousuke		Tokyo Institute of Technology	Japan	
15:05	PVSEC Special Award		-							
15:15	PVSEC Award		-							

Area 1-1: Technologies for Higher Efficiency Silicon Solar Cells I

Dr. Jose Luis HERNANDEZ, *Kaneka Belgium N.V., Belgium*

Prof. Yoshio OHSITA, *Toyota Technological Institute, Japan*

16:00	Oral	1A-10-01	2	Mr.	Chan	Boon Teik		imec	Belgium	IMPLEMENTING PLASMA TEXTURING PROCESS WITH LINEAR MICROWAVE PLASMA SOURCES FOR ULTRA-THIN MULTI-CRYSTALLINE SOLAR CELLS
16:15	Oral	1A-10-02	495	Mr.	Hirata	Kenji		Nara Institute of Science and Technology	Japan	OPTIMIZATION OF SELECTIVE EMITTER PROFILES BY LASER DOPING IN CRYSTALLINE SILICON SOLAR CELLS
16:30	Oral	1A-10-03	158	Mr.	Yoshiba	Shuhei		Tokyo University of Agriculture and Technolog	Japan	AL2O3/SI INTERFACE PASSIVATION QUALITY ON P-TYPE CRYSTALLINE SILICON WAFERS
16:45	Oral	1A-10-04	424	Ms.	Lu	Pei Hsuan Doris		The University of New South Wales	Australia	LASER DOPED ANODIC ALUMINUM OXIDE POINT-CONTACT SILICON SOLAR CELLS EFFICIENCY IMPROVEMENT WITH LESS SILVER CONSUMPTION BY DEEPER EMITTER WITH LOWER SHEET RESISTANCE FOR UNIFORM EMITTER
17:00	Oral	1A-10-05	320	Dr.	Komatsu	Yuji		ECN Solar Energy	Netherlands	FINE LINE SCREEN PRINTING COMBINES REDUCTION IN SILVER PASTE AMOUNT WITH ABSOLUTE GAIN IN EFFICIENCY
17:15	Oral	1A-10-06	400	Mr.	Ehling	Christian		Centrotherm Photovoltaics AG	Germany	

Area 1-2: Analysis and Characterization of Silicon Solar Cells

Dr. Yuji KOMATSU, *ECN Solar Energy, Netherlands*

Prof. Noritaka USAMI, *Tohoku University, Japan*

18:00	Oral	1A-10-07	709	Dr.	Sinton	Ronald	A.	Sinton Instruments	USA	COMPARING LIFETIME AND PL-IMAGING PATTERN RECOGNITION METHODOLOGIES FOR PREDICTING SOLAR CELL RESULTS BASED ON AS-CUT WAFER PROPERTIES
18:15	Oral	1A-10-08	230	Mr.	Kudo	Kohei		Hamamatsu Photonics K.K.	Japan	CORRELATION BETWEEN CONVERSION EFFICIENCY AND DEFECTS FOUND BY SPECTROSCOPIC ELECTROLUMINESCENCE
18:30	Oral	1A-10-09	473	Ms.	SUGIMURA	EMI		NAIST	Japan	SPATIALLY RESOLVED ELECTROLUMINESCENCE IMAGING OF SHUNT SOURCES IN CRYSTALLINE SILICON
18:45	Oral	1A-10-10	530	Dr.	Matsuki	Nobuyuki		Center of Innovative Photovoltaic Systems (CIPS), Gifu University	Japan	A NOVEL DIAGNOSTIC TECHNIQUE FOR TEXTURED SILICON HETEROJUNCTION SOLAR CELLS: MULTILAYER STRUCTURE AND PROPERTY ANALYSIS BY
19:00	Oral	1A-10-11	33	Mr.	Halm	Andreas		ISC Konstanz	Germany	LOW LIGHT INTENSITY PERFORMANCE OF N- AND P-TYPE SILICON SOLAR CELLS WITH DIFFERENT ARCHITECTURES
19:15	Oral	1A-10-12	348	Mr.	Thaidigsmann	Benjamin		Fraunhofer Institute for Solar Energy Systems ISE	Germany	MANIPULATION OF THE REVERSE BIAS BEHAVIOUR OF SILICON SOLAR CELLS

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Area3-1: Absorber and Thin Film ProcessProf. Akira YAMADA, *Tokyo Institute of Technology, Japan*Dr. Daniel Abou-Ras, *Helmholtz-Zentrum Berlin, Germany*

16:00	Invited	1B-3I-01	-	Prof.	Yun	Jae Ho		KIER	Korea	TBC
16:30	Oral	1B-3O-01	504	Dr.	Rissom	Thorsten		Helmholtz Zentrum Berlin	Germany	Fabrication of CIGSS-based Solar Cells
16:45	Oral	1B-3O-02	104	Dr.	Caballero	Raquel		Helmholtz-Zentrum Berlin fuer Materialien und Energie	Germany	Efficiency Enhancement of Thinner CIGS Solar Cells
17:00	Oral	1B-3O-03	191	Mr.	Hirai	Yoshiaki		Tokyo Institute of Technology	Japan	MECHANISM OF AIGS FILMS GROWN BY THREE-STAGE METHOD AND SOLAR CELL PERFORMANCE
17:15	Oral	1B-3O-04	TBA							

Area3-2: Absorber and Thin Film ProcessDr. Kyung-Hoon YOON, *KIER, Korea*Dr. Takashi Minemoto, *Ritsumeikan University, Japan*

18:00	Oral	1B-3O-05	91	Dr.	Komaki	Hironori		AIST	Japan	Fabrication of CIGSS-based Solar Cells
18:15	Oral	1B-3O-06	620	Dr.	Furue	Shigenori		AIST	Japan	Efficiency Enhancement of Thinner CIGS Solar Cells
18:30	Oral	1B-3O-07	479	Mr.	Zhang	Xianfeng		Tokyo Institute of Technology	Japan	MECHANISM OF AIGS FILMS GROWN BY THREE-STAGE METHOD AND SOLAR CELL PERFORMANCE
18:45	Oral	1B-3O-08	8	Dr.	Oda	Yusuke		Ritsumeikan University	Japan	FABRICATION AND CHARACTERISTICS OF CU(IN,AL)S ₂ THIN FILMS BY TWO STEP CO-EVAPORATION PROCESS
19:00	Oral	1B-3O-09	265	Mr.	Yamamoto	Teruaki		Panasonic Electric Works Co., Ltd.	Japan	FABRICATION OF WIED-GAP In ₂ S ₃ / ZnCuInS ₂ SOLAR CELLS
19:15	Oral	1B-3O-10	590	Mr.	Mise	Takahiro		Aoyama Gakuin University	Japan	METASTABLE DEFECTS IN CUIN ₃ TE ₅ THIN FILM SOLAR CELLS

Monday, November 28, 2011 - Room C

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Area 5-1: DSC (Tentative)

Chairpersons TBA

16:00	Invited	1C-5I-01	-	Prof	Segawa	Hiroshi		University of Tokyo	Japan	FUTURE PROSPECTS OF ELECTROCHEMICAL SOLAR CELLS FOR NEXT-GENERATION ORGANIC
16:30	Invited	1C-5I-02	-	Prof	Ho	Kuo-Chuan		National Taiwan University	Taiwan	Composite Films based on Conducting Polymers as the Counter Electrode for Dye-Sensitized Solar Cells
17:00	TBA		-							

Area 5-2: DSC (Tentative)

Chairpersons TBA

18:00	Oral	1C-5O-01	677	Dr.	Manzhos	Sergei		University of Tokyo	Japan	A STUDY OF INTERFACIAL CHARGE TRANSFER BANDS AND ELECTRON RECOMBINATION IN THE SURFACE COMPLEXES OF TCNE, TCNQ, AND TCNAQ WITH TiO ₂
18:15	Oral	1C-5O-02	430	Prof.	Wakamiya	Atsushi		Institute for Chemical Research, Kyoto University and PRESTO JST	Japan	Development of Organic Dyes for DSCs Using Intramolecular B-N Coordination Bond as a Key Scaffold
18:30	Oral	1C-5O-03	141	Ms.	Ogura	Reiko		Sony Corporation	Japan	A DYE-SENSITIZED SOLAR CELL (DSSC) USING THE NOVEL TERPYRIDYL Ru(II) SENSITIZER ACHIEVING HIGH EXTERNAL QUANTUM EFFICIENCY
18:45	Oral	1C-5O-04	83	Prof.	Feng	Qi		Kagawa University	Japan	RELATIONSHIPS BETWEEN DYE-ADSORPTION PARAMETERS AND THE CELL PARAMETERS FOR DYE-
19:00	Oral	1C-5O-05	298	Dr.	Naohiko	Kato		TOYOTA Central R&D Labs, Inc.	Japan	STABILITY OF THE DYE-SENSITIZED SOLAR CELLS USING VARIOUS ORGANIC
19:15	Oral	1C-5O-06	567	Mr.	KANEYASU	Tomoyai		Tokyo University of Science	Japan	Improvement of solar cell efficiency over 11.0% by optimized light-confining effect of TiO ₂ photoelectrode in a Black-dye-sensitized

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Plenary

Dr. Takashi ISHIHARA, *Mitsubishi Electric Corp., Japan*

8:30	Plenary	2A-PL-01	-	Dr.	Swanson	Richard		Sunpower Corp.	USA	The Silicon PV Roadmap
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Dr. Akira TERAOKAWA, *Sanyo Electric Co., Ltd., Japan*

9:00	Plenary	2A-PL-02	-	Prof.	Ballif	Christophe		EPFL	Switzerland	NEW APPROACHES FOR VERY HIGH EFFICIENCY a-Si/c-Si SOLAR CELLS
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Mr. Keiichi KOMOTO, *Mizuho Information & Research Institute, Inc., Japan*

9:30	Plenary	2A-PL-03	-	Dr.	Mints	Paula		Navigant	USA	Global Demand and Supply of Photovoltaic Products to 2015
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Area 1-3: Crystal Growth and Materials Characterization

Dr. Lin FEN, *Solar Energy Research Institute of Singapore (SERIS), Singapore*

Prof. Koji ARAFUNE, *University of Hyogo, Japan*

10:30	Invited	2A-11-01	-	Prof.	Nakajima	Kazuo		Crystal Science for Silicon Solar C	Japan	A GROWTH METHOD TO OBTAIN HIGH-QUALITY Si MULTICRYSTALS USING CRUCIBLES BY STRUCTURE CONTROL
11:00	Oral	2A-10-01	301	Dr.	Mukannan	Arivanandhan		Research Institute of Electronics, Shizuoka University	Japan	THE INFLUENCE OF GERMANIUM CODOPING ON THE REDUCTION OF INTERSTITIAL OXYGEN CONCENTRATION IN BORON-DOPED CZOCHRALSKI SILICON: A NOVEL APPROACH TO SUPPRESS LIGHT
11:15	Oral	2A-10-02	636	Dr.	Kutsukake	Kentaro		Tohoku University	Japan	STUDY OF DISLOCATION GENERATION DURING TWO-DIMENSIONAL GROWTH OF MULTICRYSTALLINE SILICON
11:30	Oral	2A-10-03	232	Prof.	Tajima	Michio		Institute of Space and Astronautical Science/JAXA, Meiji University	Japan	PHOTOLUMINESCENCE ANALYSIS OF OXYGEN PRECIPITATION AROUND SMALL-ANGLE GRAIN BOUNDARIES IN
11:45	Oral	2A-10-04	598	Dr.	Li	Jianyong		Meiji University	Japan	Characterization of Light Element Precipitates in Large Grain Multicrystalline Silicon

Symposium 1 - PV in Asia

Ms. Izumi KAIZUKA, *RTS Corporation, Japan*

TBD

13:30	Invited	2A-S1-1	-	Mr.	Li	Junfeng		Secretary General, China Renewable Energy Industries Association		TBC
13:45	Invited	2A-S1-2	-	Dr.	Lan	Chung-wen		Chairman, Taiwan Photovoltaic Technology Association		Opportunities and Challenges of Photovoltaics in Taiwan: Can We Survive and Get Stronger After the Crisis?
14:00	Invited	2A-S1-3	-	Mr.	Ogawa	Soichi		Japan Photovoltaic Energy Association		Observation of the PV world in Asia
14:15	Invited	2A-S1-4	-	Mr.	Jaehong	Seo		Manager, KOPIA (Korea Photovoltaic Industry		THE SITUATION OF KOREAN PV INDUSTRY & ITS WORKS TO INCREASE
14:30	Panel Discussion									

Area 2-1: Large Area Modules and Processing

Prof. Ballif Christophe, *EPFL, Switzerland*

Dr. Tomoko TAKAGI, *IHI Corp., Japan*

15:30	Oral	2A-20-01	264	Dr.	Yata	Shigeo		Sanyo Electric Co., Ltd.	Japan	PROGRESS IN THE DEVELOPMENT OF A HIGH-CONVERSION EFFICIENCY TANDEM TYPE THIN-FILM SILICON SOLAR CELLS
15:45	Oral	2A-20-02	274	Dr.	Nakao	Sachiko		Mitsubishi Heavy Industries, LTD.	Japan	PCVD TECHNOLOGIES FOR LOW COST AND LARGE AREA DEPOSITION OF THIN FILM SILICON SOLAR CELLS
16:00	Oral	2A-20-03	351	Ms.	Gonzalez Lazo	Marina		Ecole Polytechnique F?d?rale de Lausanne (EPFL)	Switzerland	Large area roll-to-roll texturation with hyperbranched polymer nanocomposites for light-trapping applications
16:15	Oral	2A-20-04	13	Mr.	Sago	Yuichiro		Gifu University	Japan	MAPPING CHARACTERIZATION OF SnO ₂ :F TRANSPARENT CONDUCTIVE OXIDE LAYERS BY ELLIPSOMETRY TECHNIQUE
16:30	Oral	2A-20-05	703	Mr.	Kadota	Naoki		Kaneka	Japan	Development of Accelerated Light-soaking Method for Thin Film Silicon HYBRID Solar Cell
16:45	Oral	2A-20-06	341	Mr.	Velut	Paul		Ecole Polytechnique F?d?rale de Lausanne (EPFL)	Switzerland	CONFORMAL THIN FILM PHOTOVOLTAIC MODULES

Area1-4: Manufacturing Issues and Processing

Dr. Richard SWANSON, *SunPower Corp., USA*

Dr. Tatsuo SAGA, *Sharp Corp., Japan*

17:30	Oral	2A-10-05	70	Mr.	Lin	Meng Lin		Motech Industries Inc., Tainan, Taiwan	Taiwan	OPTIMIZATION OF THE DOUBLE PRINTING TECHNIQUE FOR NEARLY IDEAL FINGER TOPOGRAPHY
17:45	Oral	2A-10-06	41	Dr.	Gao	Bing		Research Institute for Applied Mechanics, Kyushu University	Japan	REDUCTION OF OXYGEN IMPURITY IN MULTICRYSTALLINE SILICON PRODUCTION
18:00	Oral	2A-10-07	647	Dr.	Tokuhisa	Hideo		National Institute of Advanced Industrial Science and Technology	Japan	CU ALLOY PASTES CONTAINING LOW MELTING POINT (LMP) ALLOYS FOR SILICON SOLAR CELLS REQUIRING LOW TEMPERATURE SINTERING
18:15	Oral	2A-10-08	556	Dr.	Boreland	Matthew		Solar Energy Research Institute of Singapore (SERIS)	Singapore	SERIS' INDUSTRIAL R&D PILOT LINE FOR SILICON WAFER SOLAR CELLS BASED ON INDUSTRY-SCALE EQUIPMENT
18:30	Oral	2A-10-09	452	Mr.	Li	Genhu		State Key Lab of Silicon Materials	China	THE INFLUENCE OF FABRICATION PROCESS ON MECHANICAL STRENGTH OF THIN EMITTER WRAP-THROUGH SOLAR CELL
18:45	Oral	2A-10-10	670	Dr.	Yamaue	Tatsuya		Kobelco Research Institute, inc.	Japan	NUMERICAL SIMULATION AND DIRECT OBSERVATION OF GRAIN PARTICLE MOTION OF SLURRY ON A RUNNING WIRE SAW

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Area 4-1: Advanced Concepts

Prof. Masakazu SUGIYAMA, *The University of Tokyo, Japan*

Prof. Yoshitaka OKADA, *The University of Tokyo, Japan*

10:30	Invited	2B-4I-01	-	Prof	Antonio	Luque		Universidad Politécnica de Madrid	Spain	ADVANCES IN INTERMEDIATE BAND SOLAR CELLS
11:00	Oral	2B-4O-01	215	Ms.	Yoshida	Megumi		Imperial College London	UK	PHOTON RATCHET INTERMEDIATE BAND SOLAR CELLS
11:15	Oral	2B-4O-02	557	Dr.	Koenig	Dirk		Photovoltaics Centre of Excellence, University of New South Wales	Australia	LATTICE-MATCHED HOT CARRIER SOLAR CELL WITH ENERGY SELECTIVITY INTEGRATED INTO HOT CARRIER
11:30	Oral	2B-4O-03	195	Dr.	Farrell	Daniel	James	Imperial College London	UK	A NOVEL OPTICAL HOT-CARRIER SOLAR
11:45	Oral	2B-4O-04	69	Dr.	Takeda	Yasuhiko		Toyota Central Research and Development Laboratories, Inc.	Japan	Hot-carrier extraction from intermediate-band-absorbers through quantum-well energy-selective contacts

Area4-2: III-V New Materials and Cell

Dr. Mitsuru IMAIZUMI, *JAXA, Japan*

Prof. Nicholas EKINS-DAUKES, *Imperial, UK*

13:30	Oral	2B-4O-05	462	Dr.	Sugaya	Takeyoshi		National Institute of Advanced Industrial Science and Technology (AIST)	Japan	Increased current density by tunneling through a miniband in InGaAs quantum dot solar cell
13:45	Oral	2B-4O-06	656	Mr.	Fujii	Hiromasa		School of Engineering, The University of Tokyo	Japan	EFFECTS OF INCREASING WELL NUMBER ON CARRIER TRANSPORT IN $E_g = 1.2\text{eV}$ InGaAs / GaAsP MULTIPLE QUANTUM WELL SOLAR CELLS
14:00	Oral	2B-4O-07	616	Mr.	Wada	Suguru		Toyota Technological Institute	Japan	IDENTIFICATION OF PRECURSORS ORIGINATING N-H DEFECTS IN GAASN GROWN BY CHEMICAL BEAM EPITAXY
14:15	Oral	2B-4O-08	604	Dr.	Ahsan	Nazmul		RCAST, The University of Tokyo	Japan	Inhomogeneity in the photo-modulated reflectance of GaNAs grown by atomic H-
14:30	Oral	2B-4O-09	626	Ms.	Garcia Tabares	Elisa		Instituto de Energía Solar, Universidad Politécnica de Madrid	Spain	IMPACT OF MOVPE ENVIRONMENT ON SILICON SUBSTRATES FOR III-V-ON-SI MULTIJUNCTION SOLAR CELLS
14:45	Oral	2B-4O-10	107	Dr.	Makita	Kikuo		National Institute of Advanced Industrial Science and Technology	Japan	Development of High Performance GaAs/CIGSe Mechanical Multi-Junction Solar

15:30 Room Closed

Area 3-3: Module and Related Technology

Dr. Katsumi KUSHIYA, *Showa Shell Sekiyu K.K., Japan*

Dr. Christian KAUFMANN, *Helmholtz-Zentrum Berlin, Germany*

17:30	Invited	2B-I3-01	-	Dr.	Niki	Shigeru		National Institute of Advanced Industrial Science and	Japan	High-efficiency CIGS submodules by multi-stage evaporation
18:00	Oral	2B-3O-01	613	Mr.	Kijima	Shunsuke		Solar Frontier K.K.	Japan	EFFECTS OF GRAIN STRUCTURE ON $\text{Cu}(\text{InGa})(\text{SeS})_2$ THIN-FILM SUBMODULES
18:15	Oral	2B-3O-02	137	Dr.	Ueno	Shigehiro		Dai Nippon Printing Co.,Ltd.	Japan	GRID-ELECTRODE-TYPE CIGS SUBMODULES ON GLASS AND METAL
18:30	Oral	2B-3O-03	692	Mr.	Ohgoh	Tsuyoshi		FUJIFILM Corporation	Japan	MONOLITHICALLY INTEGRATED CIGS SUB-MODULES ON STAINLESS STEEL SUBSTRATES WITH INSULATING LAYERS
18:45	Oral	2B-3O-04	542	Mr.	Tsai	Ting Kai		Department of Mechatronic Engineering, Huaan University	Taiwan	CHARACTERIZATION OF CIGS PHOTOVOLTAIC PROCESSING WITH SUBPICOSECOND LASER ABLATION

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Area 6- 1: PV Modules and Systems I

Dr. Gerald SIEFER, *Fraunhofer ISE, Germany*

Prof. Yasuhiro HAYASHI, *Waseda University, Japan*

10:30	Invited	2C-6I-01	-	Prof.	Gottschalg	Ralph		Loughborough University	UK	UNCERTAINTY OF ENERGY YIELD PREDICTION OF PHOTOVOLTAIC
11:00	Invited	2C-6I-02	-	Dr.	Yibo	Wang		Chinese Academy of Sciences	China	Current status of research on the PV system in China
11:15	Oral	2C-6O-01	555	Dr.	Ueda	Yuzuru		Tokyo Institute of Technology	Japan	DEVELOPMENT OF THE SIMPLIFIED YIELD ESTIMATION MODEL FOR SELF DIAGNOSIS SUPPORT OF RESIDENTIAL PV SYSTEMS
11:30	Oral	2C-6O-02	525	Ms.	Suzuki	Kazumi		Waseda university	Japan	ESTIMATION OF SPECTRUM CENTER OF SOLAR IRRADIANCE BY THE JUST-IN-TIME MODELING
11:45	Oral	2C-6O-03	260	Mr.	Kumazawa	Shinsuke		Nagoya University	Japan	A STUDY ON MAXIMUM FLUCTUATION WIDTH WITHIN A FEW HOURS REGARDING ENSEMBLE AVERAGE INSOLATION OBSERVED AT MULTI-

Area 6-2: PV Modules and Systems II,

Prof. Takeyoshi KATO, *Nagoya University, Japan*

Dr. Takashi OOZEKI, *AIST, Japan*

13:30	Oral	2C-6O-04	569	Dr.	Somsak	Teerasak		Rajamangala University of Technology Lanna	Thailand	UTILIZATION OF SOLAR BATTERY CHARGING STATION FOR SCHOOL LEARNING BASE IN RURAL HIGHLAND
13:45	Oral	2C-6O-05	418	Mr.	Roy	Jyotirmoy		Loughborough University	UK	ACCURACY OF ENERGY YIELD PREDICTION OF PHOTOVOLTAIC
14:00	Oral	2C-6O-06	488	Mr.	Takahashi	Shuhei		Waseda University	Japan	VOLTAGE ESTIMATION AND CONTROL OF DISTRIBUTION FEEDERS WITH DISTRIBUTED GENERATIONS USING IT
14:15	Oral	2C-6O-07	106	Mr.	Orui	Masahiro		The Kansai Electric Power Co.,Inc.,	Japan	VERIFICATION OF ISLANDING PREVENTIVE METHOD USING DISTRIBUTED INTER-HARMONICS CURRENT INJECTION UNDER PV CLUSTERED INSTALLATION
14:30	Oral	2C-6O-08	365	Dr.	Kobayashi	Hiromu		Central Research Institute of Electric Power Industry	Japan	EVALUATION AND IMPROVEMENT OF FAULT RIDE THROUGH PERFORMANCE OF PCS FOR DISPERSED RESIDENTIAL
14:45	Oral	2C-6O-09	665	Mr.	Chaiwat	Choochuan		Schaffner emc Co., Ltd	Thailand	On-Site Conducted Disturbance Measurements of Commercial Inverters for Grid-Connected PV Systems

15:30 Room Closed

Area 5-3: DSC (Tentative)

Chairpersons to be Arranged

17:30	Oral	2C-5O-01	459	Mr.	Doi	Shoichi		AISIN SEIKI Co., Ltd.	Japan	NEW METHOD OF ANALYSIS FOR MONOLITHIC DYE-SENSITIZED SOLAR
17:45	Oral	2C-5O-02	615	Dr.	Han	Liyuan		National Institute for Materials Science	Japan	IMPROVEMENT OF EFFICIENCY OF DYE SENSITIZED SOLAR CELLS
18:00	Oral	2C-5O-03	192	Mr.	Akitsu	Kenta		RCAST, The University of Tokyo	Japan	POLYMER SENSITIZED SOLAR CELLS USING POLYTHIOPHENE DERIVATIVES WITH HYDROPHILIC / HYDROPHOBIC
18:15	Oral	2C-5O-04	269	Prof.	Toyoda	Taro		The University of Electro-Communications	Japan	Quantum dot-sensitized solar cells based on different morphologies of TiO2 electrodes together with photoexcited carrier dynamics
18:30	Oral	2C-5O-05	295	Mr.	Liyanage	Devinda	S.K.	Graduate school of science and technology, Shizuoka university	Japan	RAPID DYE SENSITIZATION THROUGH IMPROVED SPRAY PYROLYSIS METHOD IN DYE SENSITIZED SOLAR CELLS
18:45	Oral	2C-5O-06	552	Mr.	Shanmugam	Mariyappan		Department of Electrical Engineering and Computer Science, South Dakota State University, Brookings, SD-57007,	USA	ALUMINA COATED TITANIUM DIOXIDE PHOTOELECTRODES FOR IMPROVED DYE SENSITIZED SOLAR CELL PERFORMANCE
19:00	Oral	2C-5O-07	472	Prof.	Hayase	Shuzi		Kyushu Institute of Technology	Japan	Photovoltaic performances of SnO2 based bottom electrode for tandem dye-sensitized
19:15	Oral	2C-5O-08	708	Mr.	Komiya	Ryoichi		New Technology Development Center, Solar Systems Development Group, Sharp	Japan	IMPROVEMENT OF THE CONVERSION EFFICIENCY OF A MONOLITHIC TYPE DYE-SENSITIZED SOLAR CELL MODULE

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Plenary

Dr. Shigeru NIKI, *National Institute of Advanced Industrial Science and Technology, Japan*

8:30	Plenary	3A-PL-01	-	Dr.	Kushiya	Katsumi		Showa Shell Sekiyu	Japan	TBC
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Dr. Tatsuya TAKAMOTO, *Sharp Corp., Japan*

9:00	Plenary	3A-PL-02	-	Dr.	Russ	Jones		Spectrolab	USA	EVOLUTION OF MULTI-JUNCTION SOLAR CELL TECHNOLOGY FOR CONCENTRATING PHOTOVOLTAICS
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Dr. Pius Hüsser, *Nova Energie, Switzerland*

9:30	Plenary	3A-PL-03	-	Dr.	Lothar	Wissing		Project Management Jülich	Germany	PHOTOVOLTAICS R&D PROGRAM IN GERMANY
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Area 1-5: Progress in Silicon Hetero Junction Solar Cells

Dr. Stefaan De WOLF, *Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland*

Dr. Eiji MARUYAMA, *Sanyo Electric Co., Ltd., Japan*

10:30	Oral	3A-10-01	268	Dr.	Ogane	Akiyoshi		SANYO Electric Co., Ltd.	Japan	RECENT PROGRESS OF HIT? SOLAR CELLS HEADING FOR THE WORLD'S TOP CONVERSION EFFICIENCIES
10:45	Oral	3A-10-02	53	Dr.	Descoeurdes	Antoine		Ecole Polytechnique Fédérale de Lausanne (EPFL)	Switzerland	21% efficiency silicon heterojunction solar cells produced with very high frequency
11:00	Oral	3A-10-03	40	Mr.	Ziegler	Johannes		Fraunhofer Institute for Solar Energy Systems, Laboratory and Servicecenter Gelsenkirchen	Germany	A COMPARATIVE STUDY OF THE INFLUENCE OF P AND N DOPED CZ BASE MATERIAL ON THE PERFORMANCE OF SILICON BASED HETEROJUNCTION
11:15	Oral	3A-10-04	481	Dr.	Koyama	Koichi		Jpn. Adv. Inst. Sci. & Tech	Japan	WHY CAN Cat-CVD SiNx/a-Si STACKED LAYERS REALIZE EXTREMELY LOW SURFACE RECOMBINATION VELOCITY ON CRYSTALLINE SILICON ?
11:30	Oral	3A-10-05	541	Dr.	Hernandez	Jose	Luis	KANEKA Belgium N.V	Belgium	HIGH EFFICIENCY SILVER-FREE HETEROJUNCTION SILICON SOLAR CELL
11:45	Oral	3A-10-06	217	Dr.	Ji	Kwangsun		Solar Energy group, Emerging Technology Lab., LG Electronics Advanced Research Institutes	Korea	THE EMITTER HAVING MICRO-CRYSTALLINE SURFACE IN SILICON HETEROJUNCTION IBC SOLAR CELLS

Area 2-2: Fundamental Science and Innovative Concepts

Dr. Toshihiko TOYAMA, *Osaka University, Japan*

Dr. Arno SMETS, *Delft University of Technology, Netherlands*

13:30	Invited	3A-2I-01	-	Dr.	Kondo	Michio		AIST	Japan	Approach for Competitive Thin Film Silicon Solar Cells (Tentative)
14:00	Oral	3A-2O-01	100	Dr.	Varlamov	Sergey		University of NSW	Australia	Alternative light-trapping approaches for ultra-thin crystalline silicon solar cells on
14:15	Oral	3A-2O-02	152	Dr.	Mizuno	Hidenori		National Institute of Advanced Industrial Science and Technology	Japan	CHEMICAL ASSEMBLY OF SILVER NANOPARTICLES FOR LIGHT TRAPPING IN THIN FILM SILICON SOLAR CELLS
14:30	Oral	3A-2O-03	484	Mr.	Fujioka	Hideaki		Tokyo Institute of Technology	Japan	PREPARATION OF P-TYPE MICROCRYSTALLINE SILICON OXIDE FILM AT LOW TEMPERATURE AND ITS APPLICATION TO SOLAR CELLS
14:45	Oral	3A-2O-04	376	Mr.	Yamasaki	Kazuhiko		Mitsubishi Materials Corporation Central Research Institute	Japan	APPLICATION OF NANOMATERIALS FOR THIN FILM SILICON SOLAR CELL

15:30 Room Closed

Time	Presentation Category	Program Number	No	Title	Family Name	Given Name	Middle Name	Affiliation	Country	Presentation Title
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Area 3-4: Characterization

Prof. Tokio NAKADA, *Aoyama Gakuin University, Japan*

Dr. Tamotsu OKAMOTO, *Kisarazu National College of Technology, Japan*

10:30	Invited	3B-3I-01	invited	Dr.	Terada	Norio		Kagoshima Univ.	Japan	CHARACTERIZATION OF BAND ALIGNMENT AT BUFFER/ABSORBER INTERFACES AND GRAIN BOUNDARIES IN CONFINED AND CHEMICALLY FLEXIBLE
11:00	Oral	3B-3O-01	442	Dr.	Abou Ras	Daniel		Helmholtz-Zentrum Berlin	Germany	GRAIN BOUNDARIES IN CU(IN,GA)SE2
11:15	Oral	3B-3O-02	377	Mr.	Knecht	Robin		University Oldenburg	Germany	INVESTIGATION OF SOLAR CELL PERFORMANCE DEVIATIONS IN NOMINALLY EQUAL ABSORBERS
11:30	Oral	3B-3O-03	10	Mr.	Kodera	Keita		Gifu University	Japan	Optical properties of polycrystalline CIGS thin films characterized by spectroscopic
11:45	Oral	3B-3O-04	279	Dr.	Sakurai	Takeaki		University of Tsukuba	Japan	DEFECT PHASE CHARACTERIZATION OF Cu(In,Ga)Se2 THIN FILMS BY RAMAN SCATTERING SPECTROSCOPY

Special Symposium: Natural Disasters and Photovoltaics

Prof. Takahiro WADA, *Ryukoku University, Japan*

Prof. Noritaka USAMI, *Tohoku University, Japan*

13:30	Invited	3B-S2-1	-		Komiyama	Hiroshi		Chairman of the Institute, Mitsubishi Research Institute, Inc. President Emeritus, the University of Tokyo	Japan	The Revitalization for Japan - the platinum society-
14:00	Invited	3B-S2-2	-		Kurokawa	Kosuke		Tokyo Institute of Technology	Japan	Quake, Tsunami and PV Systems (tentative)
14:20	Invited	3B-S2-3	-		Furukawa Tohji	Ryuzo Kazuyuki		Graduate School of Environmental Studies, Tohoku	Japan	Effective PV system just after East Japan Earthquake 3.11
14:40	Invited	3B-S2-4	-		Ogimoto	Kazuhiko		The University of Tokyo	Japan	Energy Integration (tentative)

Area 7: Enablers for PV Development and Benefits of PV Date & Time

Ms. Paula MINTS, *Navigant Consulting, USA*

Ms. Izumi KAIZUKA, *RTS Corporation, Japan*

15:30	Oral	3B-7O-01	335	Mr.	Hüsser	Pius		Nova Energie	Switzerland	TRENDS IN PHOTOVOLTAIC APPLICATIONS - THE LATEST SURVEY RESULTS ON PV MARKETS AND INDUSTRY FROM THE IEA PVPS PROGRAMME
15:45	Oral	3B-7O-02	3	Mr.	Haugwitz	Frank		Deutsche China Consult (Beijing) Co. Ltd.	China	China's Future Domestic PV Market Development in light of its 12th Five-Year-
16:00	Oral	3B-7O-03	7	Prof.	Saito	T		Tokyo University of Agriculture and Technology (TUAT)	Japan	Analysis of Crystalline Silicon Module Prices and Its Perspective
16:15	Oral	3B-7O-04	64	Dr.	Araki	Kenji		Daido Steel	Japan	BUSINESS MODEL BASED ON LOCAL ASSEMBLY OF CPV
16:30	Oral	3B-7O-05	461	Dr.	Masakazu	Ito		Tokyo Institute of Technology	Japan	Development of the Electric Vehicle's Infrastructure System for Renewable Energy Maximization and Life Cycle Assessment
16:45	Oral	3B-7O-06	-	Prof.	Werner	Juergen	H	Institute for Photovoltaics, University of Stuttgart	Germany	TOXIC SUBSTANCES IN PHOTOVOLTAIC MODULES

17:30 Room Closed

Time	Presentation Category	Program Number	No	Title	Family Name	Given Name	Middle Name	Affiliation	Country	Presentation Title
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Area 5-4: DSC (Tentative)Prof. Shuzi HAYASE , *Kyushu Institute of Technology, Japan*Prof. Satoshi UCHIDA, *The University of Tokyo, Japan*

10:30	Invited	3C-5I-01	-	Dr.	Ma	Tingli		Dalian University of Technology	China	State Key Laboratory of Fine Chemicals, Dalian University of Technology
11:00	Oral	3C-5O-01	394	Dr.	Kawata	Kentaro		Merck Ltd.	Japan	ELECTROLYTES DEVELOPMENT FOR DYE-SENSITISED SOLAR CELLS
11:15	Oral	3C-5O-02	527	Dr.	Moribe	Shinya		TOYOTA Central R&D Labs, Inc	Japan	HIGH-PERFORMANCE SOLID STATE DYE SENSITIZED SOLAR CELL USING CUI AS HOLE CONDUCTOR
11:30	Oral	3C-5O-03	180	Dr.	Varishetty	Madhu Mohan		Research Institute of Electronics, Shizuoka University	Japan	THE EFFECT ON CONDUCTIVITY AND DSSC PERFORMANCES WITH THE DOPANTS OF KI, ACTIVATED CARBON AND SiO ₂ WITH PAN GEL POLYMER
11:45	Oral	3C-5O-04	361	Dr.	Berginc	Marko		University of Ljubljana, Faculty of Electrical Engineering	Slovenia	THE INFLUENCE OF EXTERNAL PARAMETERS AND CELL COMPONENTS ON THE PHOTOVOLTAGE OF DSSC

Area 5-5: DSC (Tentative)

Chairpersons TBA

13:30	Oral	3C-5O-05	146	Mr.	Lin	Chih Cheng		Department of Materials Science and Engineering, National Taiwan University	Taiwan	Electric field-assisted self-organization of polymer:fullerene hybrids on the photovoltaic performance
13:45	Oral	3C-5O-06	50	Mr.	IRFAN SHAH	IRFAN SHAH		NCEPC, University of Peshawar	Pakistan	Synthesis, Characterization and sorption characteristics of impregnated carbon material
14:00	Oral	3C-5O-07	174	Dr.	le	Yutaka		Osaka University	Japan	SYNTHESIS, PROPERTIES, AND PHOTOVOLTAIC PERFORMANCES OF COPOLYMERS CONTAINING DIFLUORODIOXOCYCLOPENTENE-ANNELED THIOPHENE UNIT
14:15	Oral	3C-5O-08	21	Dr.	Ohkita	Hideo		Kyoto University; JST PRESTO	Japan	Dye-Sensitized Polymer/Fullerene Solar Cells USING THE NICKEL OXIDE AS HOLE TRANSPORT LAYER IN EFFICIENT AND LONG-LIFE P3HT:TiO ₂ HYBRID BULK HETEROJUNCTION SOLAR CELLS
14:30	Oral	3C-5O-09	642	Mr.	Liao	Hsueh Chung		National Taiwan University	Taiwan	Photovoltaic/Optical Device - Unconventional Architecture which Enhances the Light Capture and Conversion
14:45	Oral	3C-5O-10	43	Prof.	Sorloaica Hickman	Nicoleta		Florida Solar Energy Center-University of Central Florida	USA	Photovoltaic/Optical Device - Unconventional Architecture which Enhances the Light Capture and Conversion

15:30 Room Closed

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PlenaryProf. Shuzi HAYASE, *Kyushu Institute of Technology, Japan*

8:30	Plenary	4A-PL-01	-	Prof.	Cheng	Yi-Bing		FTSE, Monash University	Australia	Processing of flexible dye sensitized solar cells on plastic substrates
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Prof. Shinji WAKAO, *Waseda University, Japan*

9:00	Plenary	4A-PL-02	-	Dr.	Hayashi	Hideki		Toshiba Corporation	Japan	RENEWABLES INTEGRATIONS – LOCAL APPROACH & SYSTEM APPROACH
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Dr. Atsuishi MASUDA, *AIST, Japan*

9:30	Plenary	4A-PL-03	-	Dr.	Wambach	Karsten		Solar World(Sunicon), PV Cycle	USA	PV module take back and recycling systems in Europe
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Area 2-3: Solar Cells and Related Science & TechnologiesDr. Michio KONDO, *AIST, Japan*Dr. Yoshiaki TAKEUCHI, *MHI, Japan*

10:30	Invited	4A-2I-01	27	Dr.	Lee	Heon Min		LG Electronics Advanced Research Institute	Korea	DEVELOPMENT OF HIGH EFFICIENCY TRIPLE JUNCTION SI THIN FILM SOLAR CELLS AND LARGE AREA MODULES
11:00	Oral	4A-2O-01	489	Dr.	Suezaki	Takashi		Kaneka Corporation	Japan	ADVANCED SUPER LIGHT TRAPPING OF HIGH EFFICIENCY THIN FILM SI SOLAR
11:15	Oral	4A-2O-02	516	Mr.	Hongsingthong	Aswin		Department of Physical Electronics, Tokyo Institute of Technology	Japan	DEVELOPMENT OF BORON-DOPED ZnO FILMS WITH NOVEL THIN Zn-RICH FILM AND ITS APPLICATION TO SOLAR CELLS
11:30	Oral	4A-2O-03	105	Dr.	Matsui	Takuya		AIST	Japan	Amorphous silicon based thin film solar cells exhibiting low light-induced degradation
11:45	Oral	4A-2O-04	675	Dr.	Despeisse	Matthieu		Photovoltaics and thin film electronics laboratory, Institute of Micro-engineering (IMT), Ecole Polytechnique F?d?rale de Lausanne (EPFL)	Switzerland	ADVANCED SUPERSTRATES FOR HIGH EFFICIENCY THIN FILM SILICON SOLAR CELLS

Area 2-4: Materials Preparation and CharacterizationDr. Takuya MATSUI, *AIST, Japan*Dr. Matthieu DESPEISSE, *EPFL, Switzerland*

13:30	Invited	4A-2I-02	-	Dr.	Rohde	Martin		Applied Materials		Large Scale Plasma CVD technologies for Thin Film Silicon Solar Cells (tentative)
14:00	Oral	4A-2O-05	605	Dr.	Smets	Arno	Hendriks Marie	Delft University of Technology	Netherlands	recent progress in a-Si:H solar cells using approaches based on nanostructure engineering and integration of silicon oxide based reflective layers
14:15	Oral	4A-2O-06	165	Dr.	Sobajima	Yasushi		Osaka University, Japan	Japan	FUNDAMENTAL PROPERTIES OF TRANSPARENT-CONDUCTIVE OXIDE, TITANIUM DOPED INDIUM OXIDE AND ITS APPLICATION TO THIN FILM SILICON SOLAR CELLS
14:30	Oral	4A-2O-07	586	Dr.	Gabriel	Onno		PVcomB, Helmholtz-Zentrum Berlin	Germany	ENHANCEMENT OF A-SI/??C-SI SOLAR CELL PERFORMANCE MADE IN AN INDUSTRIAL PECVD REACTOR: THE ROLE OF CHAMBER HISTORY AND IN SITU
14:45	Oral	4A-2O-08	227	Mr.	TAKAHASHI	AKIRA		Asahi Glass Co., Ltd	Japan	REALIZATION OF LARGE-DOMAIN BARIUM DISILICIDE EPITAXIAL THIN FILM BY INTRODUCTION OF MISCUT TO SILICON (111) SUBSTRATE

15:30 Room Closed

Area 2: Innovative Light Trapping TechnologiesProf. Hiroyuki FUJIWARA, *Gifu University, Japan*Mr. Naoki TANEDA, *AGC (Asahi Glass Company), Japan*

17:30	Oral	4A-2O-09	440	Dr.	SAI	HITOSHI		National Institute of Advanced Industrial science and Technology	Japan	FLATTENED LIGHT SCATTERING SUBSTRATE AND ITS APPLICATION TO THIN-FILM SILICON SOLAR CELLS
17:45	Oral	4A-2O-10	660	Mr.	Chang	Chia Chiang		Industrial Technology Research Institute	Taiwan	VARIABLE TEXTURED ZINC OXIDE AS TRANSPARENT CONDUCTIVE OXIDE FILMS IN THIN-FILM SILICON SOLAR CELLS USING ATMOSPHERIC PRESSURE PLASMA SILICON OXIDE COATING PROCESS
18:00	Oral	4A-2O-11	26	Ms.	WANG	JUAN		SOLAR ENERGY RESEARCH INSTITUTE OF SINGAPORE	SINGAPORE	ANALYSIS OF OPTICAL AND STRUCTURAL PROPERTIES OF ALUMINUM INDUCED TEXTURE GLASS
18:15	Oral	4A-2O-12	188	Mr.	TAKAHASHI	AKIRA		Asahi Glass Co., Ltd	Japan	DOUBLE-TEXTURE SnO ₂ :F TCO OPTIMIZED FOR a-Si/??c-Si TANDEM
18:30	Oral	4A-2O-13	322	Mr.	Isabella	Olindo		Delft University of Technology	Netherlands	DESIGN, FABRICATION AND CHARACTERIZATION OF MODULATED SURFACE-TEXTURED SUBSTRATES FOR ENHANCED LIGHT SCATTERING IN THIN-FILM SILICON SOLAR CELLS
18:45	Oral	4A-2O-14	543	Mr.	Wada	Hidetoshi		Tokyo Institute of Technology	Japan	HIGH EFFICIENCY A-SI:H SOLAR CELL FABRICATED ON ULTRA-HIGH-HAZE ZNO COATED GLASS SUBSTRATE

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Area 4-3: CPV System and CellDr. Andreas BETT, *FhG-ISE, Germany*Prof. Kensuke NISHIOKA, *University of Miyazaki, Japan*

10:30	Oral	4B-4O-01	235	Mr.	Yoshida	Atsushi		Sharp corporation	Japan	DEVELOPMENT OF InGaP/GaAs/InGaAs INVERTED TRIPLE JUNCTION SOLAR CELLS FOR CONCENTRATOR
10:45	Oral	4B-4O-02	578	Mr.	Lee	Kan Hua		Department of Physics, Imperial College London	UK	MEASURING SHEET RESISTANCE VALUES OF SINGLE JUNCTION SOLAR CELLS BY ELECTROLUMINESCENCE IMAGING
11:00	Oral	4B-4O-03	151	Dr.	Ota	Yasuyuki		University of Miyazaki	Japan	ESTIMATION OF POWER LOSS DUE TO SERIES RESISTANCE USING SIMULATOR FOR CONCENTRATOR PHOTOVOLTAIC
11:15	Oral	4B-4O-04	414	Mr.	Cooper	Thomas		ETH Zurich, Department of Mechanical and Process Engineering	Switzerland	A 500 kW 500x quasi 2-axis tracking CPV system based on an inflated parabolic trough with tracking secondary optics
11:30	Oral	4B-4O-05	545	Ms.	Victoria	Marta		IES-UPM		HIGH EFFICIENCY PHOTOVOLTAIC CONCENTRATOR USING A SINGLE REFLECTIVE STAGE AND A FLUID
11:45	Oral	4B-4O-06	256	Dr.	Araki	Kenji		Daido Steel	Japan	BASIC DESIGN OF 35 % EFFICIENT AND 1000X CPV MODULE WITH SUFFICIENT OPTICAL ALIGNMENT TOLERANCE

Area 4-4: Space CellDr. Robert WALTERS, *NRL, USA*Dr. Tatsuya TAKAMOTO, *Sharp Corp., Japan*

13:30	Invited	4B-4I-01	-	Dr.	Imaizumi	Mitsuru		JAXA	Japan	TECHNOLOGICAL TRENDS AND JAXA'S R&D ACTIVITIES ON SPACE SOLAR CELLS
14:00	Oral	4B-4O-07	705	Dr.	Adams	Jessica	G. J.	MicroLink Devices	USA	High Efficiency Radiation Hard Multijunction Solar Cell in an All Lattice Matched System
14:15	Oral	4B-4O-08	177	Mr.	Ijichi	Ryo		Solar Systems Development Group, SHARP Corporation	Japan	RELIABILITY TESTS OF THE NEW TYPE SOLAR SHEET FOR SPACE
14:30	Oral	4B-4O-09	6	Dr.	Gonzalez	Maria		Sotera Defense Solutions	USA	Radiation Response of InP and InGaAs Epitaxial Lift-Off Solar Cells
14:45	Oral	4B-4O-10	285		Ohshima	Takeshi		Japan Atomic Energy Agency	Japan	RADIATION DEGRADATION OF THE ELECTRICAL PERFORMANCE OF InGaAs QUANTUM DOT SOLAR CELLS AND ITS RECOVERY AT ROOM TEMPERATURE

15:30 Room Closed

Area 3 Special Session: Potential of CIGS and New Materials for GW production(tentative)Dr. Shigeru NIKI, *AIST, Japan*Dr. Takayuki NEGAMI, *Panasonic Corp., Japan*

17:30	Invited	4B-I3-01	-	Dr.	Gunawan	Oki		IBM	USA	CZTSSe: An emerging route towards terawatt-scale PV technology
18:00	Invited	4B-I3-02	-	Dr.	Tiwari	Ayodhya		EMPA	Switzerland	High efficiency flexible CIGS solar cells on different foils
18:30	Invited	4B-I3-03	-	Dr.	Katagiri	Hironori		Nagaoka National College of Tech	Japan	DEVELOPMENT OF CZTS THIN FILM SOLAR CELLS FOR SUSTAINABLE PV EXPANSION

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Area 5-6: DCS (Tentative)

Chairpersons TBA

10:30	Oral	4C-50-01	470	Prof.	Rusli	Rusli		Nanyang Technological University; CINTRA CNRS/NTU/THALES	Singapore	High performance silicon nanowires/poly (3,4-ethylene-dioxythiophene): poly(styrenesulfonate) hybrid solar cells
10:45	Oral	4C-50-02	309	Dr.	Yamanari	Toshihiro		National Institute of Advanced Industrial Science and Technology (AIST)	Japan	Deterioration of Highly Efficient Polymer-based Organic Solar Cells
11:00	Oral	4C-50-03	313	Mr.	Chen	Bo Cheng		National Cheng Kung University	Taiwan	ENHANCED PERFORMANCE OF CONJUGATE POLYMER SOLAR CELL WITH IMPRINTED TEXTURED ACTIVE LAYER
11:15	Oral	4C-50-04	54	Mr.	Yang	Jeong Do		Future Convergence Research Division, Korea Institute of Science and Technology	Korea	Ag Interlayered AZO Sandwich Transparent Conducting Electrode for Photovoltaic Cells
11:30	Oral	4C-50-05	60	Dr.	Yoshida	Hiroyuki		Kyoto University, JST PRESTO	Japan	DEPTH PROFILING THE ENERGY LEVELS NEAR THE SURFACE OF ORGANIC SEMICONDUCTOR FILMS STUDIED BY DEPTH-RESOLVED X-RAY PHOTOEMISSION SPECTROSCOPY
11:45	Oral	4C-50-06	62	Prof.	Marumoto	Kazuhiro		University of Tsukuba	Japan	EVALUATION OF MICROSCOPIC PROPERTIES OF ORGANIC SOLAR CELLS BY LIGHT-INDUCED ELECTRON SPIN

Symposium 3: Long-life PV Modules

Dr. Atsushi MASUDA, AIST, Japan

Dr. Michael KEMPE, National Renewable Energy Laboratory, Japan

13:30	Invited	4C-S3-01	-		Michael	Kempe		National Renewable Energy Laboratory	USA	MODELING OF DAMP HEAT TESTING RELATIVE TO OUTDOOR EXPOSURE
14:00	Oral	4C-S3-02	73	Mr.	4C-S3-2	Ethan		Underwriters Laboratories Taiwan Co., Ltd	Taiwan	Reliability and Safety Study of Polymeric Materials Used in Photovoltaic Modules
14:15	Oral	4C-S3-03	691	Mr.	4C-S3-3	Nitin		University of New South Wales	Australia	Optical Characterisation Of Module Encapsulants And Frontsheets For Selective
14:30	Oral	4C-S3-04	201	Mr.	4C-S3-4	Martin		ECN	Netherlands	Module Technology For Hetero- Junction Solar Cells
14:45	Oral	4C-S3-05	380	Mr.	4C-S3-5	TingLi		National Taiwan University	Taiwan	Intermetallics Growth and Reliability Concerns in Cu/Solder/Ag Solder Joints in Assembled Silicon Solar Cells
15:00	Oral	4C-S3-06	693	Dr.	4C-S3-6	Sadao		Gifu University	Japan	EPIDEMIOLOGICAL DEGRADATION ANALYSES OF CRISTALLINE SILICON PHOTOVOLTAIC MODULES
15:15	Oral	4C-S3-07	707	Dr.	4C-S3-7	Takuya		National Institute of Advanced Industrial Science and	Japan	FAILURE-ASSESSMENT OF OUTSIDE- EXPOSED PV MODULES

Area 6-3: PV Modules and Systems III

Prof. Ralph GOTTSCHALG, Loughborough University, UK

Dr. Yuzuru UEDA, Tokyo Institute of Technology, Japan

15:30	Invited	4C-6I-01	-	Dr.	Siefer	Gerald		Fraunhofer ISE	Germany	Performance measurements of III-V multi-junction PV devices
16:00	Oral	4C-6O-01	497	Dr.	Tsuno	Yuki		National Institute of Advanced Industrial Science and Technology	Japan	COMPARISON OF CURVE CORRECTION PROCEDURES FOR CURRENT-VOLTAGE CHARACTERISTICS OF PHOTOVOLTAIC DEVICES
16:15	Oral	4C-6O-02		TBC				NEDO	Japan	IEA PVPS TASK 14: High Penetration of PV Systems in Electricity Grids
16:30	Oral	4C-6O-03	568	Mr.	IWAYA	AKIYUKI		TUV Rheinland Japan	Japan	PERFORMANCE ANALYSIS OF COMMERCIAL CRISTALLINE SILICON PHOTOVOLTAIC MODULES ASSOCIATED WITH ENVIRONMENTAL TESTS
16:45	Oral	4C-6O-04	694	Dr.	Hishikawa	Yoshihiro		AIST	Japan	PV Measurement Cooperative Research Consortium of PV Industries and AIST

Area 5 Special Session: Innovation of Organic Thin Film Solar Cells in Japan

Chairpersons TBA

17:30	Introduction			Dr.	Yoshida	Yuji				
17:35	Invited	4C-5O-07	-	Dr.	Kitazawa	Daisuke		Advanced Materials Research Lab	Japan	TBC
17:50	Invited	4C-5O-08	-	Dr.	Miyake	Kunihito		Sumitomo Chemical	Japan	HIGHLY EFFICIENT SOLAR CELLS BASED ON CONJUGATED POLYMERS
18:20	Invited	4C-5O-09	-	Dr.	Yamaoka	Hiroaki		Mitshubishi Chemical	Japan	TBC
18:35	Invited	4C-5O-10	-	Dr.	Nakamura	Tsutomu		JX Nippon Oil & Energy Corporati	Japan	Development of organic solar cells with enhanced stability and efficiency
18:50	Invited	4C-5O-11	-	Dr.	Erjun	Zhou		The University of Tokyo	Japan	Synthesis of low band gap copolymers with near Infrared absorption and their application to polymer solar cells
18:55	Closing			Dr.	Shuzi	Hayase		Kyushu Institute of Technology	Japan	

Time	Presentation Category	Program Number	No	Title	Family Name	Given Name	Middle Name	Affiliation	Country	Presentation Title
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Area 1-6: Modeling and Simulation of Silicon Solar CellsDr. Ronald A. SINTON, *Sinton Instruments, USA*Dr. Takashi ISHIHARA, *Mitsubishi Electric Corp., Japan*

8:30	Oral	5A-10-01	549	Dr.	Peters	Ian Marius		Solar Energy Research Institute of Singapore	Singapore	ADVANCED MODELLING OF SILICON WAFER SOLAR CELLS
8:45	Oral	5A-10-02	597	Dr.	Kawanami	Hitoshi		National Institute of Advanced Industrial Science and	Japan	CALCULATION OF CRYSTALLINE SiGe SOLAR CELL PERFORMANCES BY PC1D
9:00	Oral	5A-10-03	186	Mr.	Rudiger	Marc		Fraunhofer ISE	Germany	Numerical analysis of locally contacted rear surface passivated solar cells
9:15	Oral	5A-10-04	496	Dr.	De Wolf	Stefaan		EPFL	Switzerland	LIGHT-INDUCED DEGRADATION OF a-Si:H STUDIED BY a-Si:H/c-Si PROBES
9:30	Oral	5A-10-05	507	Dr.	Maeckel	Helmut		Centrotherm PV Ag	Germany	MAKING THE CASE FOR THE PASSIVATED REAR SIDE: CENTROTHERM'S CENTAURUS CELL CONCEPT INCLUDING SELECTIVE EMITTER
9:45	Oral	5A-10-06	87	Mr.	Nakada	Kazuyoshi		Tokyo Institute of Technology	Japan	EFFECT OF DEPOSITION TEMPERATURE OF MICROCRYSTALLINE SILICON OXIDE EMITTERS FOR HETEROJUNCTION SOLAR CELLS

Area 1-7: Technologies for Higher Efficiency Silicon Solar Cells IIDr. Florian CLEMENT, *Fraunhofer Institute for Solar Energy Systems (ISE), Germany*Dr. Katsuhiko SHIRASAWA, *Kyocera Corp., Japan*

10:30	Oral	5A-10-07	306	Dr.	Yoshikawa	Kunta		Kaneka corporation	Japan	OVER 22% EFFICIENCY INTERDIGITATED BACK CONTACT CELL USING PECVD THIN FILM LAYER AS DOPING PRECURSORS
10:45	Oral	5A-10-08	438	Dr.	Mihailetchi	Valentin	Dan	ISC-Konstanz	Germany	HIGH EFFICIENCY IBC SOLAR CELLS FABRICATED ON LARGE AREA N-TYPE SILICON USING INDUSTRIAL AVAILABLE TECHNIQUES
11:00	Oral	5A-10-09	364	Mr.	Li	Zhongtian		The University of New South Wales	Australia	LIFT-OFF CONTACT SEPARATION METHOD FOR INTERDIGITATED REAR-CONTACT SOLAR CELLS
11:15	Oral	5A-10-10	425	Mr.	Hallam	Brett		UNSW	Australia	Record Industrial Cell Efficiency Fabricated on Commercial Grade P-Type CZ Substrates
11:30	Oral	5A-10-11	231	Dr.	Niinobe	Daisuke		Mitsubishi Electric Corp.	Japan	DEVELOPMENT OF CRYSTALLINE SILICON SOLAR CELLS WITH HIGHER EFFICIENCY
11:45	Oral	5A-10-12	381	Dr.	Clement	Florian		Fraunhofer Institute for Solar Energy Systems (ISE)	Germany	PATHS TO ACHIEVE EFFICIENCIES OVER 20% WITH MWT SILICON SOLAR CELLS

12:00	Closing ceremony									
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Time	Presentation Category	Program Number	No	Title	Family Name	Given Name	Middle Name	Affiliation	Country	Presentation Title
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Area 3-5: Buffer and Window LayersProf. Ayodhya TIWARI, *EMPA, Switzerland*Prof. Norio TERADA, *Kagoshima University, Japan*

8:30	Invited	5B-3I-01	-	Dr.	Nakada	Tokio		Aoyama Gakuin University	Japan	Buffer layers and transparent conducting oxides for CIGS-based thin film solar cells
9:00	Oral	5B-3O-01	300	Mr.	Sugiyama	Shinya		Toyohashi University of Technology	Japan	Characterization of zinc oxide-sulfide thin film for the CIGS solar cell by chemical bath
9:15	Oral	5B-3O-02	126	Mr.	Hirata	Norimune		Sakai Chemical Industry Co.,Ltd	Japan	HIGH PURITY THIOUREA AQUEOUS SOLUTION FOR EFFECTIVE DEPOSITION OF THE BUFFER LAYER IN CuInGaSe
9:30	Oral	5B-3O-03	674	Dr.	Kobayashi	Taizo		Aoyama Gakuin University	Japan	GROWTH OF ZNO:B THIN FILMS BY PHOTO-ASSISTED MOCVD METHOD AND ITS APPLICATION TO CIGS SOLAR CELLS
9:45	Oral	5B-3O-04	95	Mr.	Hamazaki	Ryosuke		Ritsumeikan University	Japan	OPTIMIZATION OF COMPOSITIONAL RATIO OF Zn(O,S) WINDOW LAYER IN CuInS ₂ SOLAR CELLS

Area 3-6: CZTS, CdTe, and Related MaterialsDr. Oki GUNAWAN, *IBM, USA*Prof. Hironori KATAGIRI, *Nagaoka National College of Technology, Japan*

10:30	Oral	5B-3O-05	593	Dr.	Kato	Takuya		Atsugi Research Center, Solar Frontier K.K.	Japan	Cross Sectional Study on Cu ₂ ZnSnS ₄ Thin-Film Solar Cells
10:45	Oral	5B-3O-06	630	Mr.	Yamaguchi	Koji		Nagaoka National College of Technology	Japan	COMPOSITION DEPENDENCE OF PHOTOVOLTAIC PROPERTIES IN
11:00	Oral	5B-3O-07	108	Dr.	Makita	Kikuo		National Institute of Advanced Industrial Science and	Japan	Cu ₂ ZnSnSe ₄ Solar Cells Fabricated with Molecular Beam Epitaxy
11:15	Oral	5B-3O-08	560	Dr.	Tajima	Shin		Toyota Central Research and Development Laboratories Inc.	Japan	TEMPERATURE DEPENDENCE OF Cu ₂ ZnSnS ₄ (CZTS) PHOTOVOLTAIC
11:30	Oral	5B-3O-09	219	Dr.	Maeda	Tsuyoshi		Ryukoku University	Japan	First-principles studies on Cd and Zn doping in Cu ₂ ZnSnS ₄ and Cu ₂ ZnSnSe ₄
11:45	Oral	5B-3O-10	20	Dr.	Okamoto	Tamotsu		Kisarazu National College of Technology	Japan	Effects of antimony doping in polycrystalline CdTe Thin-Film Solar Cells

Time	Presentation Category	Program Number	No	Title	Family Name	Given Name	Middle Name	Affiliation	Country	Presentation Title
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Area 5-7: TBD

Chairpersons TBA

8:30										
8:45	Oral	5C-5O-01	65	Prof.	Yanagida	Shozo		Research Center for Advanced Science and Technology, University of Tokyo	Japan	Hydrogenated Silicone Clusters derived from Density Functional Theory
9:00	Oral	5C-5O-02	478	Mr.	Kato	Shinya		Tokyo Institute of Technology	Japan	PREPARATION OF Al ₂ O ₃ -EMBBEDDED SILICON NANOWIRE ARRAYS USING ATOMIC LAYER DEPOSITION
9:15	Oral	5C-5O-03	554	Mr.	Nagase	Tomohiko		Gifu University	Japan	ELECTRIC CHARACTERIZATION OF TYPE II SI CLATHRATE WITH A VARIATION OF SODIUM CONTENTS
9:30	Oral	5C-5O-04	55	Dr.	Kurokawa	Yasuyoshi		Tokyo Institute of Technology	Japan	NUMERICAL APPROACH TO THE PERFORMANCE OF SILICON QUANTUM DOTS SUPERLATTICE SOLAR CELLS TAKING INTO ACCOUNT THE QUANTUM ENERGY BAND ENGINEERING OF Si
9:45	Oral	5C-5O-05	293	Dr.	HU	WEIGUO		Tohoku University		NANODISK AND POTENTIAL APPLICATION FOR INTERMEDIATE BAND SOLAR CELL

Area 5-8: TBA

Chairpersons TBA

10:30	Oral	5C-5O-06	565	Ms.	Jiptner	Karolin		National Institute for Materials Science	Japan	Characterization of Epitaxial b-FeSi ₂ thin films on Si Substrate by SEM, EBSD and
10:45	Oral	5C-5O-07	36	Mr.	Watanabe	Keiji		Central Research Laboratory, Hitachi, Ltd.	Japan	Hybrid Nanopillar Array Structure for Broadband Antireflection
11:00	Oral	5C-5O-08	17	Dr.	Outkina	Elena		Belarussian State University of Informatics and Radioelectronics	Belarus	THIN FILM SOLAR CELLS BASED ON NANOSTRUCTURED SnS
11:15	Oral	5C-5O-09	51	Mr.	Ishiguro	Tasuku		SANYO Electric Co., Ltd.	Japan	Improved Voc over 1.1 V by employing novel electron-donors for organic thin-film
11:30	Oral	5C-5O-10	299	Dr.	Huang	Shujuan		University of New South Wales	Australia	DOPING OF SILICON QUANTUM DOTS EMBEDDED IN NITRIDE MATRIX FOR ALL-SILICON TANDEM SOLAR CELL
11:45	Oral	5C-5O-11	147	Mr.	Saitoh	Takamasa		Toyohashi University of Technology	Japan	CONSTRUCTION OF THE COPPER (I) OXIDE/C60 HYBRID DIODES

Program Number	No	Title	Family Name	Given Name	Middle Name	Affiliation	Country	Presentation Title
Poster Session Tuesday, November 29, 2011								
15:30 - 17:00								
Area 1								
2D-1P-01	25	Mr.	Arifuku	Naoki		Tokuyama Corporation	Japan	EFFECT OF PURITY OF SI FEEDSTOCK ON SOLAR CELL
2D-1P-02	82	Prof.	Kim	Ki Young		Korea University of Technology and Education	Korea	EFFECT OF PURITY OF RAW MATERIALS AND CENTRIFUGATION ON PURITY OF SILICON EXTRACTED FROM SI-AL ALLOY MELT
2D-1P-03	127	Mr.	Forster	Maxime		The Australian National University	Australia	GA CO-DOPING TO OBTAIN UNIFORM RESISTIVITY PROFILE ALONG N-TYPE CZ CRYSTAL GROWN FROM COMPENSATED
2D-1P-04	129	Dr.	Pan	Wugen		Insitute for Materials Research (IMR), Tohoku University, Japan	Japan	SIGHT THROUGH THE SI-BASED CRYSTALS USING A HIGH CONVERSION EFFICIENCY SOLAR CELL TECHNOLOGY WITH d
2D-1P-05	150	Dr.	Vandana	Vandana		National Physical Laboratory, New Delhi, 110012	India	A STUDY OF SURFACE EFFECTS ON MINORITY CARRIER LIFETIME IN SILICON WAFERS
2D-1P-06	157	Dr.	Dhamrin	Marwan		Tokyo University of Agriculture and Technology	Japan	LOW COST RECYCLING PROCESS FOR SILICON POWDER RETRIEVED FROM DIAMOND-WIRE SLICING KERF
2D-1P-07	203	Dr.	Yamada	Takahiro		Osaka Univ. and JST CREST	Japan	Effect of Surface Temperature on High-rate Etching of Silicon by Narrow-gap Microwave Hydrogen Plasma
2D-1P-08	218	Mr.	Sameshima	Takashi		Meiji University	Japan	GETTERING EFFECT ON RECOMBINATION PROPERTIES AT INTRA-GRAIN DEFECTS IN MULTICRYSTALLINE SILICON
2D-1P-09	226	Mr.	Lee	Unnoh		Yeungnam University	Korea	ANALYSIS OF OXYGEN IMPURITY TRANSPORT DURING CZOCHRALSKI SILICON GROWTH
2D-1P-10	249	Mr.	So	Wonshoup		Yeungnam University	Korea	Simulation study for distribution coefficient by concentration of contaminations in Poly-silicon ingot production process
2D-1P-11	278	Mr.	Lee	Changbum		Korea University	Korea	REFINING BEHAVIOR IN ALUMINUM ADDED METALLURGICAL GRADE SILICON DURING THE FRACTIONAL MELTING PROCESS
2D-1P-12	292	Mr.	Kang	SeungOh		SEMI-MATERIALS Co., Ltd.	Korea	POLYSILICON DEPOSITION BY SIEMENS MONOSILANE CHEMICAL VAPOR DEPOSITION(CVD) REACTOR
2D-1P-13	307	Mr.	Jung	Hosub		School of Chemical Engineering, Yeungnam University	Korea	COMPUTATIONAL FLUID DYNAMICS (CFD) MODELING OF MONOSILANE SIEMENS REACTOR
2D-1P-14	321	Mr.	Lee	Jaewoo		Materials Science and Engineering, Korea University	Korea	IMPROVEMENT OF THE METALLURGICAL GRADE SILICON REFINING BY CALCIUM ADDITION IN FRACTIONAL MELTING
2D-1P-15	340	Mr.	Tachibana	Tomihisa		Meiji Univ.	Japan	Study of crystalline defect generation caused by light element impurities in silicon substrate
2D-1P-16	434	Mr.	Kojima	Takuto		Toyota Technological Institute	Japan	ANEALING EFFECTS ON RECOMBINATION ACTIVITY OF NICKEL AND COPPER AT (110)/(100) DIRECT SILICON BONDED INTERFACE
2D-1P-17	451	Mr.	Gu	Xin		State Key Lab of Silicon Materials	China	EFFECT OF ALUMINUM ON THE PERFORMANCE OF SILICON SOLAR CELLS
2D-1P-18	518	Mr.	Miki	Shohei		University of Hyogo	Japan	SEPARATION OF SILICON POWDER FROM MULTI-WIRE-SAW-SLUDGE FOR RECYCLED FEEDSTOCK
2D-1P-19	538	Mr.	Jeong	Kwang Pil		University of Incheon	Republic of Korea	Electrical properties of the multi-crystalline silicon ingots grown with UMG (Upgraded Metallurgical Grade) silicon materials
2D-1P-20	634	Ms.	Park	Hyomin		Korea University	Korea	Phosphorus gettering for high quality multi-crystalline and upgraded metallurgical grade silicon wafers
2D-1P-21	644	Mr.	Miyamua	Yoshiji		National Institute for Materials Science		GROWTH AND CHARACTERIZATION OF LARGE GRAIN MULTICRYSTALLINE SILICON
2D-1P-22	48	Dr.	Chen	Shih Wei		Industrial Technology Research Institute	Taiwan	The Characteristics of Crystalline Silicon Solar cell with different Pre-Clean Process
2D-1P-23	84	Mr.	Li	Zhongtian		The University of New South Wales	Australia	SIMULATION OF ACIDIC TEXTURING FOR THE VIRTUAL PRODUCTION LINE SOFTWARE
2D-1P-24	130	Dr.	Matsumura	Mieko		Hitachi Central Research Laboratory	Japan	Ablation of SiO ₂ passivation layer on crystalline silicon using the laser with nano-second pulse
2D-1P-25	308	Mr.	Nagao	Tomokazu		Tokyo University of Agriculture and Technology	Japan	Surface Passivation of Crystalline Silicon by microcrystalline Silicon Deposition Followed by High-Pressure H ₂ O Vapor Heat Treatment
2D-1P-26	329	Mr.	Yoshidomi	Shinya		Tokyo University of Agriculture and Technology	Japan	FABRICATION OF ALUMINUM OXIDE FILM BY ALUMINUM METAL EVAPORATION IN OXYGEN GAS ATMOSPHERE FOR SURFACE PASSIVATION
2D-1P-27	372	Mr.	Lee	Beom Yong		Korea University	Korea	WETTABILITY AND REACTION BETWEEN SOLDER AND SILVER BUSBAR DURING TABBING PROCESS FOR SILICON SOLAR
2D-1P-28	413	Mr.	Zhou	Su		Institute of Electrical Engineering, Chinese Academy of Sciences	China	NOVEL ADDITIVE FOR ALKALINE TEXTURING OF MONO-CRYSTALLINE SILICON SOLAR CELLS
2D-1P-29	532	Prof.	Dong Sing	Wuu		National Chung Hsing University	Taiwan	EFFECTS OF WAFER LIFETIME, RESISTIVITY, AND THICKNESS ON PHOTOVOLTAIC PROPERTIES OF SILICON HETEROJUNCTION SOLAR CELLS
2D-1P-30	618	Mr.	Kang	Min Gu		Korea University	Korea	CHARACTERIZATION OF P TYPE EMITTER AND BORON RICH LAYER ON BORON SILICATE GLASS DEPOSITION CONDITION USING BBR ₃ DIFFUSION PROCESS
2D-1P-31	629	Dr.	Lee	Jong Han		Korea University	Korea	THE EFFECT OF OXIDATION ANNEALING ON ION-IMPLANTED SI SOLAR CELL FOR HIGH EFFICIENCY
2D-1P-32	1009	Dr.	Otsuki	Etsuo		Toho Zinc Co., Ltd	Japan	LOW COST PROCESS OF POLYCRYSTALLINE SILICON WAFER
2D-1P-33	1019	Dr.	YOSHIDA	TORU		Daido Chemical Corporation	Japan	Developments of Hybrid-Organic Anti-Reflection Materials Improving Power Generation Efficiency and Coating Process

Area 3

2D-3P-01	280	Mr.	Gupta	Amit		University of Tsukuba	Japan	CHARACTERIZATION OF Cu(In,Ga)Se ₂ THIN FILM SOLAR CELLS BY TWO WAVELENGTH EXCITED PHOTO-CAPACITANCE
2D-3P-02	339	Prof.	Shirakata	Sho		Faculty of Engineering, Ehime University	Japan	CHARACTERIZATION OF Cu(In,Ga)Se ₂ SOLAR CELL FABRICATION PROCESS BY PHOTOLUMINESCENCE METHOD
2D-3P-03	323	Dr.	Hsieh	Tungpo		Industrial Technology Research	Taiwan	Effects of gallium distribution on CIGS solar cells
2D-3P-04	432	Ms.	Kim	Woo Nam		School of Display and Chemical Engineering	Korea	INFLUENCE OF THE NA INCORPORATED IN THE CIGS ABSORBER DURING THE POST ANNEALING TREATMENT
2D-3P-05	118	Mr.	Sastre Hernandez	Jorge		Escuela Superior de Física y Matemáticas, Instituto Politécnico Nacional	Mexico	STRUCTURAL AND MORPHOLOGICAL PROPERTIES OF Cu(In,Ga)Se ₂ THIN FILMS PROCESSED BY CO-EVAPORATION AND THEIR SOLAR CELLS APPLICATIONS
2D-3P-06	124	Prof.	Yamaguchi	Toshiyuki		Wakayama National College of Technology	Japan	PREPARATION OF CU(IN,GA)SE ₂ THIN FILMS (0 GA/III 1) AND IN ₂ S ₃ SUPPLY TO HIGH GA CU(IN,GA)SE ₂ THIN FILMS PREPARED BY SEQUENTIAL EVAPORATION
2D-3P-07	359	Ms.	Chen	Fu Shan		Department of Chemical Engineering, National Taiwan University	Taiwan	SYNTHESIS OF SILVER INDIUM DISELENIDE VIA THE SOL-GEL ASISTED ROUTE
2D-3P-08	410	Ms.	LEE	Seung Hyoun		Chonnam National University	Korea	Studies on growth and characterization of single step electrodeposited Cu(In,Ga)(Se,S) ₂ (CIGSS) thin film and its application of thin film solar
2D-3P-09	445	Dr.	Sastre Hernandez	Jorge		Escuela Superior de Física y Matemáticas, Instituto Politécnico Nacional	Mexico	STRUCTURAL AND MORPHOLOGICAL PROPERTIES OF Cu(In,Ga)Se ₂ THIN FILMS PROCESSED BY CO-EVAPORATION AND THEIR APPLICATION INTO SOLAR CELLS
2D-3P-10	423	Dr.	Sanchez Gonzalez	Yudenia		Instituto de Ciencia y Tecnologia de Materiales	Cuba	CHARACTERIZATION OF In ₂ S ₃ THIN FILMS OBTAINED ON DIFFERENT SUBSTRATES BY THE CHEMICAL BATH DEPOSITION
2D-3P-11	221	Ms.	Cherian	Angel	Susan	Cochin University of science & technology	India	EFFECT OF VARIATION IN INDIUM CONCENTRATION ON CHLORINE DOPED In ₂ S ₃ THINFILMS FOR PHOTOVOLTAIC APPLICATIONS
2D-3P-12	509	Mr.	Hsieh	Ming Yang		Department of Electronic Engineering, Chang Gung University	Taiwan	MODELING AND OPTIMIZATION CADMIUM SULFIDE BUFFER LAYER OF COPPER INDIUM GALLIUM SELENIDE SOLAR CELL MODULES
2D-3P-13	681	Mr.	Kumazawa	Toyokazu		Aoyama Gakuin University	Japan	WIDE GAP CIGS SOLAR CELLS WITH SPUTTERED-ZN(O,S) BUFFER LAYERS
2D-3P-14	684	Mr.	Nakashima	Kazuya		Aoyama Gakuin University	Japan	WIDE-GAP CIGS SOLAR CELLS WITH ALD-ZN(O,S) BUFFER

2D-3P-15	316	Mr.	Agawane	Ganeh	Labhas	Department of Materials Science and Engineering, Chonnam National University, Gwangju 500-757, South	Korea	Synthesis and characterization of chemically bath deposited ZnSe thin films without toxic complexing agents and its applications in thin film solar cells
2D-3P-16	466	Dr.	Yang	Hyeon Hun		QNIX Corporation	Korea	PROPERTIES OF N-TYPE ZNS DEPOSITED AT RF SPUTTERING METHOD FOR THIN FILM SOLAR CELL APPLICATION
2D-3P-17	116	Mr.	Hossain	Mohammad	Istiaque	Universiti Kebangsaan Malaysia	Malaysia	ANNEALING EFFECTS ON PHYSICAL AND OPTICAL PROPERTIES OF EVAPORATED INDIUM SULPHIDE BUFFER LAYERS FOR CIGS BASED THIN FILM SOLAR CELLS
2D-3P-18	287	Prof.	Kotte Tulsai	Ramakrishan Reddy		Sri Venkateswara University	India	CBD ZnIn2Se4 AS BUFFER LAEYR FOR CuInGaSe2 THIN FILM SOLAR CELLS
2D-3P-19	363	Mr.	Asaba	Ryo		Chiba Institute of Technology	Japan	Nanostructure and photoluminescence of CdS:O thin films by cathode
2D-3P-20	544	Mr.	Nakajima	Yuta		Tokyo Institute of Technology	Japan	DIRECT BONDING OF ZNO THIN FILMS FOR THE FABRICATION OF CHALCOPRYTE TANDEM SOLAR CELLS
2D-3P-21	671	Dr.	Huang	Chia Hua		Department of Electrical Engineering, National Dong Hwa University	Taiwan	Effects Chalcogenide Buffer Layers on Device Performance of CIGS Solar Cells
2D-3P-22	689	Mr.	Yamauchi	Kotaro		Aoyama Gakuin University	Japan	ZNO-BASED WINDOW LAYERS BY MOCVD PROCESS FOR CIGS SOLAR CELLS
2D-3P-23	375	Prof.	Periyasamy	THILAKAN		Centre for Green Energy Technology, Pondicherry University, Puducherry - 605 014	India	Development of ITO bi-layer window electrode for CIS solar cell Applications
2D-3P-24	117	Ms.	Julayhi	Jasmeen		Ritsumeikan University	Japan	FABRICATION OF ZnO1-xSx:Al TRANSPARENT CONDUCTING ELECTRODE FOR Cu(In,Ga)Se2 THIN FILM SOLAR CELL
2D-3P-25	272	Mr.	Akiike	Ryo		TOSOH corporation	Japan	DEVELOPMENT OF NOVEL TIN DOPED INDIUM OXIDE FILM AND ITS APPLICATION TO SOLAR CELLS
2D-3P-26	467	Dr.	Yang	Hyeon Hun		QNIX corporation	Korea	A STUDY ON PROPERTIES OF Al:ZnO THIN FILMS BY USED RTP
2D-3P-27	476	Mr.	Aliyu	Mannir	M.	Universiti Kebangsaan Malaysia	Malaysia	THE IMPACT OF RF POWER IN HIGH QUALITY ITO FILM DEPOSITION BY MAGNETRON SPUTTERING
2D-3P-28	547	Dr.	Maejima	Keigou		National Institute of Advanced Industrial Science and Technology	Japan	CORRELATION BETWEEN ELECTRICAL PROPERTIES AND CRYSTAL C-AXIS ORIENTATION OF ZINC OXIDE TRANSPARENT
2D-3P-29	258	Mr.	Fukuda	Kentaro		NSG Group Building Products R&D	Japan	ADVANCED GLASSES AND THEIR INFLUENCE ON THE MANUFACTURE OF CIGS PV MODULES
2D-3P-30	248	Prof.	Topic	Marko		Universty of Ljubljana	Slovenia	ELECTROLUMINESCENCE OF MONOLITICALLY INTERCONNECTED THIN FILM SOLAR CELLS
2D-3P-31	66	Mr.	Liu	Guogen		Apollo CdTe solar energy research center, Physics Department, NJIT	USA	THE GROWTH MODEL OF CDTE THIN FILM BY VAPOR TRANSPORT DEPOSITION
2D-3P-32	688	Prof.	Ueng	Herng Yih		Department of Electronic Engineering, Chang Gung University	Taiwan	ELECTRODEPOSITION OF CDTE THIN FILM FOR PHOTOVOLTAIC APPLICATIONS
2D-3P-33	123	Prof.	Mendoza Perez	Rogelio		Unversidad Autonoma de la Ciudad de M?xico	Mexico	"FABRICATION OF PROTOTYPE PHOTOVOLTAIC MODULES IN AREAS OF 100 CM2 BASED ON THE SEMICONDUCTORS CDS/CDTE IN THE THIN FILM TECHNOLOGY"
2D-3P-34	139	Mr.	Cho	ShinHaeng		Korea University	Korea	Cu2Te as back contact layer in CdS/CdTe solar cell

Area 4

2D-4P-01	161	Ms.	Katayama	Yumiko		Kyoto university	Japan	Blue to infrared downconversion in Pr3+-Yb3+ codoped glass and glass ceramics for photovoltaic application
2D-4P-02	193	Mr.	Luo	Xianjia		Institute of Applied Physics, University of Tsukuba	Japan	A SIMPLE AND LESS TOXICITY SYNTHESIS METHOD FOR HEXAGONAL-PHASE NaYF4:ER UPCONVERSION NANOCRYSTALS
2D-4P-03	194	Dr.	Farrell	Daniel	James	Imperial College London	UK	TOWARDS THE DESIGN OF A III-V HOT CARRIER SOLAR CELL
2D-4P-04	439	Dr.	Yagi	Shuhei		Saitama University	Japan	EFFECT OF THERMAL CURRENT AT SELECTIVE CONTACTS USING RESONANT TUNNELING STRUCTURES ON PERFORMANCE OF HOT CARRIER SOLAR CELLS
2D-4P-05	242	Mr.	Hasegawa	Ryuichi		Kobe University	Japan	SUPPRESSION OF NONRADIATIVE RECOMBINATION PROCESS IN DIRECTLY SI-DOPED INAS QUANTUM DOTS
2D-4P-06	291	Dr.	Noda	Takeshi		National Institute for Materials Science	Japan	CAPACITANCE-VOLTAGE CHARACTERISTICS OF GaAs/AlGaAs MULTIPLE QUNATUM WELL SOLAR CELLS
2D-4P-07	331	Dr.	Yi	Ding		National Institute for Materials Science	Japan	I-V CHARACTERISTICS OF GaAs/AlGaAs COUPLED MULTIPLE QUANTUM WELL SLOLAR CELLS
2D-4P-08	458	Mr.	Matsuzaki	Shinpei		The University of Electro-Communications	Japan	IN-PLANE HIGH DENSITY InAs QUANTUM DOTS ON GaAs/Ge(001) FOR SOLAR CELL APPLICATIONS
2D-4P-09	455	Mr.	Shoji	Yasushi		University of Tsukuba	Japan	EFFECT OF SPACER LAYER THICKNESS ON OPTICAL PROPERTIES OF MULTI-STACKED InGaAs QUANTUM DOT GROWN ON GaAs (311)B SUBSTRATE
2D-4P-10	537	Mr.	Ma	ShaoJun		The University of Tokyo	Japan	GAS SEQUENCE EFFECT ON IN SITU WAFER CURVATURE BEHAVIOR IN InGaAs/GaAsP STRAIN-BALANCED MQWS
2D-4P-11	606	Mr.	Zhao	Yuebin		UNSW	Australia	Photoluminescence Studies of Indium Arsenide Quantum Dots for Nanostructured Solar Cells
2D-4P-12	608	Prof.	Kawaharazuka	Atsushi		Waseda Institute for Advanced Study (WIAS), Waseda University	Japan	EXCITONIC EFFECT ON THE SEMICONDUCTOR SOLAR-CELLS WITH ALGAAS/GAAS SUPERLATTICES
2D-4P-13	648	Mr.	Fujii	Hiromasa		School of Engineering, The University of Tokyo	Japan	A LARGE NUMBER STACK OF Eg=1.2eV InGaAs / GaAsP MULTIPLE QUANTUM WELLS WITH GRADED BUFFER LAYERS FOR ENHANCED INFRARED RESPONSE
2D-4P-14	58	Dr.	Watanabe	Noriyuki		Nippon Telegraph and Telephone Corporation	Japan	BARRIER THICKNESS DEPENDENCE ON PHOTOVOLATIC CHARACTERISTICS OF INGAN/GAN MULTIPLE QUANTUM WELL SOLAR CELLS
2D-4P-15	239	Mr.	Ito	Kazuki		Akita University	Japan	INVESTIGATION OF In2O3 UNDER-LAYER FOR NITRIDE SEMICONDUCTOR THIN FILM GROWTH ON SAPPHERE SUBSTRATE
2D-4P-16	379	Dr.	Kusakabe	Kazuhide		Graduate School of Electrical and Electronic Engineering, Chiba University	Japan	NITRIDE SEMICONDUCTOR "SMART" (InN)m/(GaN)n SHORT-PERIOD SUPERLATTICES FOR BROAD-BAND TANDEM SOLAR
2D-4P-17	406	Ms.	Chang	Ching Wen		Department of Physics and Center for Nanoscience and Nanotechnology, National Sun Yat-Sen University, Kaohsiung 80424, Taiwan, R.O.C.	Taiwan	THE CHARACTERISTICS OF III-NITRIDE/SI HETEROSTRUCTURAL SOLAR CELLS
2D-4P-18	436	Dr.	Zhang	Yuantao		Institute for Materials Research, Tohoku University	Japan	OPTICAL PROPERTIES OF InN FOR InGaN HIGH EFFICINT SOLAR
2D-4P-19	574	Mr.	Wu	Ming Hsien		National Cheng Kung University	Taiwan	Improvement conversion efficiency of Nitride-based solar cells with inverted package structure
2D-4P-20	591	Dr.	Bhuiyan	Ashrafal	Ghani	University of Fukui	Japan	FABRICATION OF InGaN/Si(111) HETERO-STRUCTURE WITH INTERMEDIATE In CONTENTS FOR 2-JUNCTION TANDEM SOLAR
2D-4P-21	627	Dr.	Itoh	Takashi		Gifu University	Japan	IMPROVEMENT OF PHOTSENSITIVITY FOR INDIUME GARIUME NITRIDE FILMS DEPOSITED BY RF-SPUTTERING
2D-4P-22	18	Prof.	Wu	Jiunn Chi		National Central University	Taiwan	DEVELOPMENT OF HYBRID SUN TRACKING CONTROL AND MEASUREMENT DIRECT NORMAL IRRADIATION WITH PSD
2D-4P-23	136	Prof.	Huang	Der Ray		Graduate Institute of Opto-Electronics, National Dong Hwa University, Taiwan	Taiwan	OPTIMAL DESIGN OF FRESNEL LENS FOR HIGH CONCENTRATION PHOTOVOLTAIC
2D-4P-24	162	Mr.	Nabemoto	Kenji		University of Miyazaki	Japan	EFFECT OF ANTI-SOILING LAYER COATED ON PMMA SUBSTRATE FOR CONCENTRATOR PHOTOVOLTAIC MODULES
2D-4P-25	163	Mr.	Yano	Hiroto		University of Miyazaki	Japan	TEMPERATURE CHARACTERISTICS OF LOCALIZED PROPERTY IN CONCENTRATOR PHOTOVOLTAIC MODULE
2D-4P-26	357	Mr.	Tamura	Kazuyuki		Daido Steel Co., Ltd.	Japan	Vibration Test for Concentrator Photovoltaic Module
2D-4P-27	511	Dr.	Anton	Ignacio		Instituto de Ener?a Solar- Universidad Polit?cnica de Madrid	Spain	ADVANCES IN INDOOR CHARACTERIZATION OF CPV MODULES AND COMPONENTS
2D-4P-28	646	Ms.	MARIA JOSE	PEREZ	REGALADO	UNIVERSIDAD CARLOS III DE MADRID	SPAIN	An approach to the temperature measurement in concentration photovoltaic panels
2D-4P-29	701	Prof.	Akisawa	Atsushi		Tokyo University of Agriculture and Technology	Japan	Design of Dome-Shaped Non-imaging Fresnel Lenses Taking Chromatic Aberration into Account
2D-4P-30	702	Mr.	Kobori	Taiga		Tokyo University of Agriculture and Technology	Japan	The Influence on Performance of Non-imaging Fresnel Lens by Dirt of Surface and Water Absorption
2D-4P-31	183	Dr.	Kawakita	Shirou		JAXA	Japan	ELECTRICAL PROPERTIES OF RADIATION DEFECTS IN CIGS THIN-FILM SOLAR CELLS WITH LOW-ENERGY ELECTRON IRRADIATION

2D-4P-32	1011	Mr.	Hong	Lei		Nanyang Technological University	Singapore	SURFACE NANOSTRUCTURE OPTIMIZATION FOR GAAS SOLAR CELL APPLICATION
2D-4P-33	1018	c	Lay	Tsong Sheng		National Sun Yat-Sen University	Taiwan	Efficiency enhancement for broadband quantum dots-in-a-well solar cells

Area 5

2D-5P-01	145	Dr	Kim	Jeumjong		Electronics and Telecommunications Research Institute	Korea	MOLECULAR ENGINEERING OF RUTHENIUM SENSITIZER FOR EFFECTIVE NANOCRYSTALLINE DYE-SENSITIZED SOLAR CELLS
2D-5P-02	148	Dr	Kim	Jeumjong		Electronics and Telecommunications Research Institute	Korea	A NEW RUTHENIUM SENSITIZER CONTAINING DIPYRIDYLAMINE LIGAND FOR EFFECTIVE NANOCRYSTALLINE DYE-SENSITIZED
2D-5P-03	245	Dr	Ozawa	Hironobu		Department of Industrial Chemistry, Faculty of Engineering, Tokyo University of Science	Japan	SYNTHESES OF NOVEL RUTHENIUM COMPLEXES BEARING AN ORTHO-DICARBOXY-FUNCTIONALIZED TERPYRIDINE DERIVATIVE LIGANDS AND THEIR APPLICATIONS TO THE DYE-SENSITIZED
2D-5P-04	289	Dr	Onozawa	Nobuko	Komatsuzak	National Institute of Advanced Industrial Science and Technology (AIST)	Japan	SYNTHESIS AND ELECTROCHEMICAL PROPERTIES OF 2,6-BIS(QUINOLIN-2-YL)PYRIDYL RUTHENIUM COMPLEXES AS A NEAR-
2D-5P-05	581	Mr	Kawaguchi	Hiroki		Tokyo University of Science	Japan	Synthesis of a novel ruthenium complex bearing a curcumin derivative ligand and its application to dye-sensitized solar cells
2D-5P-06	90	Prof	Pandey	Shyam	S	Kyushu Institute of Technology	Japan	Novel Far-red Sensitizing Unsymmetrical Squaraine Dye containing Pyrroloquinoline moiety for Dye Sensitized Solar Cells
2D-5P-07	337	Dr	Numata	Youhei		National Institute of Materials Science	Japan	NEW CONVINIENT PREPARATION OF NEW D- π -A TYPE ORGANIC SENSITIZER FOR DYE-SENSITIZED SOLAR CELL APPLICATION
2D-5P-08	358	Mr	Uemura	Yu		University of Tsukuba	Japan	Carbazole Dyes with Alkoxy Groups for Dye-Sensitized Solar Cells: Influence of Oxygen atom for the Photovoltaic Performances
2D-5P-09	398	Mr	Rahman	Mohammad	Deok	Department of Applied Chemistry, Konkuk University, Chungju 380-701,	Korea	ENHANCED PHOTORESPONSE IN DYE SENSITIZED SOLAR CELLS VIA FRETTER RESONANCE ENERGY TRANSFER (FRET)
2D-5P-10	305	Dr	Zhang	Shufang		National Institute for Materials Science (NIMS)	Japan	EFFECT OF 4-TERT-BUTYLPYRIDINE ON QUASI FERMI LEVEL OF TiO ₂ FILMS IN DYE-SENSITIZED SOLAR CELLS
2D-5P-11	510	Dr	Yanagida	Masatoshi		Photovoltaic Materials Unit and Global Research Center for Environment and Energy based on Nanomaterials Science (GREEN), National Institute for Materials Science (NIMS)	Japan	Charge Transport in Electrolyte of Dye-Sensitized Solar Cells
2D-5P-12	477	Mr	Sarker	Subrata		Konkuk University	Korea	A SERIES OF ALKYLIMIDAZOLIUM IODIDES FOR DYE-SENSITIZED SOLAR CELLS
2D-5P-13	102	Mr	Khatri	Ishwor		Nagoya Institute of Technology	Japan	SOLID STATE DYE SENSITIZED SOLAR CELL FABRICATED WITH HOT PLATE LAMINATION
2D-5P-14	56	Prof	Lee	Jong Keun		Student	Korea	POLYETHYLENE OXIDE/POLYHEDRAL OLIGOMERIC SILSESQUOXANE NANOCOMPOSITES AS ELECTROLYTE FOR DYE-SENSITIZED SOLAR CELLS
2D-5P-15	131	Mr	Kim	Young	Wook	Pusan National University	Korea	DYE-SENSITIZED SOLAR CELLS BASED ON MODIFIED POLYBUTADIENE POLYMER ELECTROLYTES BY SOL-GEL
2D-5P-16	469	Prof	Lee	Jae Joon		Konkuk University	Korea	ELECTROCHEMICAL STUDY OF GEL POLYMER ELECTROLYTES BASED ON POLY (1-VINYL-3-METHYL IMIDAZOLIUM IODIDE) FOR DYE-SENSITIZED SOLAR CELLS
2D-5P-17	563	Mr	Lim	Jeongmin		Ulsan National Institute of Science and Technology (UNIST)	Korea	Free standing metal-oxide semiconductor as dye-sensitized solar cells electrolyte spacer and its electrochemical analysis
2D-5P-18	680	Dr	Kato	Fumiaki		Waseda University	Japan	Redox-Active Radical Molecules for Dye Sensitized Solar Cells
2D-5P-19	686	Mr	Okuyama	Takumi		Waseda University	Japan	Dye Sensitized Solar Cell with Organic Redox Electrolyte
2D-5P-20	687	Ms	Suzuki	Miu		Waseda University	Japan	INDOLINE DYE-COUPLED POLYVIOLGENES AND THEIR PHOTOELECTROCHEMICAL PROPERTY
2D-5P-21	37	Dr	Kim	Kyung Ho		Kitami Institute of Technology	Japan	DYE-SENSITIZED SOLAR CELLS USING POLY(3,4-ETHYLENEDIETHYTHIOPHENE)-TETRAMETHACRYLATE AS FLEXIBLE COUNTER ELECTRODE
2D-5P-22	347	Prof	Fujino	Masaie		Gunma National College of Technology	Japan	Dye-sensitized Solar Cells with Metal and Semitransparent Carbon
2D-5P-23	374	Dr	Lee	Do Kyung		Gumi Electronics and Information Technology Research Institute	Korea	ENHANCED PERFORMANCE OF A DYE-SENSITIZED SOLAR CELL WITH SPRAY PYROLYSIS-DEPOSITED PLATINUM COUNTER
2D-5P-24	86	Mr	Chen	Changdong		Kagawa University	Japan	IMPEDANCE ANALYSIS OF TiO ₂ ELECTRODE FOR DYE-SENSITIZED SOLAR CELL
2D-5P-25	45	Mr	Utsunomiya	Hirokazu		Keio University	Japan	LOW-TEMPERATURE FABRICATION OF ZINC OXIDE ELECTRODES AND THEIR APPLICATION TO PLASTIC DYE-SENSITIZED SOLAR
2D-5P-26	112	Mr	Ueno	Shintaro		Keio University	Japan	FORMATION OF VARIOUS METAL OXIDE COATING LAYERS ON ZINC OXIDE ELECTRODES FOR DYE-SENSITIZED SOLAR CELLS
2D-5P-27	284	Mr	Hosokawa	Morio		Keio University	Japan	FABRICATION OF ZINC OXIDE-BASED DYE-SENSITIZED SOLAR CELLS USING GEL POLYMER ELECTROLYTES BY SOLUTION
2D-5P-28	283	Mr	Mani	Navaneethan		Research Institute of Electronics, Shizuoka University, Hamamatsu-432-	Japan	CONTROLLABLE GROWTH OF HIGHLY MONODISPERSED ZINC OXIDE NANODISKS AND DYE SENSITIZED SOLAR
2D-5P-29	402	Mr	Rahman	Mohammad		Department of Advanced Technology Fusion, Konkuk University, Seoul 143-701, Korea	Korea	A FACILE SYNTHESIS OF GRAIN SHAPE ZNO NANOSTRUCTURES FOR DYE SENSITIZED SOLAR CELLS (DSSCs)
2D-5P-30	491	Mr	Yao	Yih Chun		National Taipei University of Technology	Taiwan	LOW TEMPERATURE FABRICATION OF ZINC OXIDE THIN FILM-BASED DYE-SENSITIZED SOLAR CELLS OF HIGH CONVERSION
2D-5P-31	492	Mr	Chang	Wei Chen		National Taipei University of Technology	Taiwan	PREPARATION OF ZINC OXIDE NANOPOROUS FILMS VIA LOW TEMPERATURE CALCINATION OF ELECTRODEPOSITED PRECURSOR NANOPLATES AND THEIR APPLICATION TO DYE-SENSITIZED SOLAR CELLS
2D-5P-32	650	Ms	Lin	Hsin I		Chang Gung University	Taiwan	Dye sensitized solar cell using well-aligned zinc oxide nanowire array
2D-5P-33	94	Dr	Fan	Yong		Kagawa University	Japan	HYDROTHERMAL SOFT CHEMICAL SYNTHESIS OF TiO ₂ NANOCRYSTALS EXPOSING A SPECIFIC LATTICE PLANE ON THE SURFACE AND THEIR APPLICATION TO DYE-SENSITIZED SOLAR
2D-5P-34	319	Mr	Ahmd	Mohd		Shizuoka University	Japan	IMPROVEMENT IN PHOTOVOLTAIC PERFORMANCE OF RUTILE PHASED TiO ₂ NANORODS-BASED DSC
2D-5P-35	344	Ms	Lee	Chia Hua		Researcher	Taiwan	COMPARISON OF DYE-SENSITIZED SOLAR CELLS WITH RUTILE AND ANATASE UNDERLAYERS ON Ti SUBSTRATES
2D-5P-36	540	Prof	Huh	Seong		Department of Chemistry, Hankuk University of Foreign Studies	Korea	PREPARATION OF MIXED-PHASE TITANIA PHOTOELECTRODES FOR DYE-SENSITIZED SOLAR CELLS
2D-5P-37	570	Ms	Jung	Cholong		UNIST	Korea	Titanate coupling agent for dye sensitized solar cell
2D-5P-38	85	Mr	Tao	Zhouqi		Kagawa University	Japan	IMPROVEMENT OF DSC PERFORMANCE BY MODIFICATION OF TiO ₂ ELECTRODE WITH SILANE MONOMOLECULAR LAYER
2D-5P-39	576	Mr	Okuyama	Yu		Tokyo University of Science	Japan	Effects of surface modification of TiO ₂ photoelectrode on the performance of dye-sensitized solar cells with black dye
2D-5P-40	353	Ms	Wang	Jiao		Chonnam National University	Korea	Electrochemical Properties of TiO ₂ -ZrO ₂ Composite Electrode for Dye-sensitized Solar Cells
2D-5P-41	355	Mr	Zhao	Xing Guan		Chonnam National University	Korea	PHOTOVOLTAIC PERFORMANCE IMPROVEMENT OF DYE-SENSITIZED SOLAR CELL BASED ON UV-O ₃ TREATED TiO ₂ THIN
2D-5P-42	420	Prof	Koo	HongShow		Minghsin University of Science and Technology	Taiwan	INFLUENCE OF Cu ₂ O DOPING IN TiO ₂ FILMS ON DEVICE PERFORMANCE OF THE DYE-SENSITIZED SOLAR CELLS
2D-5P-43	667	Mr	Luo	JyunHa		Ming-Hsin University of Science and Technology	Taiwan	INFLUENCE OF ZNO-WO ₃ WORKING ELECTRODE FILMS OF ON PHOTOVOLTAIC CHARACTERISTICS OF DYE-SENSITIZED SOLAR
2D-5P-44	270	Mr	Lee	Su Young		KOREA UNIVERSITY OF TECHNOLOGY AND EDUCATION	Korea	Deposition of TiO ₂ passivation layer by chemical vapor deposition between the Transparent Conducting Oxide and mesoporous TiO ₂ electrode in dye-sensitized solar cell
2D-5P-45	419	Dr	Sato	Tetsuya		University of Yamanashi	Japan	LOW-TEMPERATURE FABRICATION OF TiO ₂ FILMS COMBINED WITH LIQUID PHASE DEPOSITION AND MICROWAVE PLASMA
2D-5P-46	579	Mr	Watanabe	Naoya		Tokyo University of Science	Japan	Development of a plastic substrate dye-sensitized solar cells using roll-press method
2D-5P-47	697	Prof	Lin	Yuli		Chung Hua University	Taiwan	Inkjet printing technology for dye-sensitized solar cells
2D-5P-48	243	Dr	Ogomi	Yuhei		Kyushu Institute of Technology	Japan	DYE SENSITIZED SOLAR CELLS CONSISTING OF FLEXIBLE POROUS TITANIA SHEETS
2D-5P-49	237	Dr	Yasuda	Takashi		Kyushu Institute of Technology	Japan	Effects of passivated reflecting layers in dye-sensitized solar cells

2D-5P-50	350	Ms	Kim	Jin Kyoung		Pusan National University	Korea	INFLUENCE OF REFLECTING COATING LAYER IN THE COUNTER ELECTRODE OF DYE SENSITIZED SOLAR CELL
2D-5P-51	633	Prof	Okuya	Masayuki		Shizuoka University	Japan	TCO LAYER WITH HIGH HAZE AND TRANSMITTANCE FOR DYE-SENSITIZED SOLAR CELLS PREPARED BY SPRAY PYROLYSIS DEPOSITION TECHNIQUE
2D-5P-52	710	Dr	Oshima	Minoru		University of Miyazaki	Japan	Fabrication of high quality TCO film by spray pyrolysis for DSC solar cells
2D-5P-53	1024	Ms.	Hong	Na Yeong		Pusan National University	Korea	Alignment of TiO ₂ (anatase) crystal of Dye-Sensitized Solar Cells by external magnetic field
2D-5P-54	1026	Mr.	Iuapa	Seksan		KHON KAEN UNIVERSITY	Thailand	BUTEA SUPERBA AS SENSITIZER FOR DYE- SENSITIZED SOLAR
2D-5P-55	1027	Mr.	MAI AUGREE	WASAN		KHONKAEN UNIVERSITY	Thailand	CO-ELECTRODEPOSITION MWCNTs/Pt COUNTER ELECTRODE FOR DYE-SENSITIZED SOLAR CELL

Area 6

2D-6P-01	490	Mr.	Hayashi	Takayoshi		Waseda University	Japan	BATTERY DESIGN OPTIMIZATION ACCORDING TO REVERSAL PV POWER FLOW QUANTITY FROM A DISTRIBUTING SUBSTATION
2D-6P-02	502	Mr.	Miyamoto	Yusuke		Kandenko Co., Ltd.	Japan	OPTIMIZATION OF REACTIVE POWER CONTROL OF CLUSTERED RESIDENTIAL GRID-INTERCONNECTED PV SYSTEMS
2D-6P-03	592	Mr.	Terazono	Takahiro		Waseda University	Japan	TOTAL PV POWER PREDICTION OVER WIDE AREA BY USING JUST-IN-TIME MODELING
2D-6P-04	643	Dr.	Salas	Vicente		Universidad Carlos III de Madrid	Spain	NEW METHOD OF KNOWING IF A PV LOW-VOLTAGE GRID-CONNECTED INVERTER HAS A GOOD MPPT OR NOT UNDER REAL METEOROLOGICAL CONDITIONS
2D-6P-05	113	Mr.	Suzuki	Kouki		Nagoya University	Japan	A STUDY ON FORECAST OF ENSEMBLE AVERAGE INSOLATION IN UTILITY SERVICE AREA
2D-6P-06	487	Mr.	Takahashi	Naoyuki		Waseda university	Japan	VOLTAGE CONTROL METHOD USING STATCOM WITH VARIABLE DEAD BAND INSTALLED WEIGHT COEFFICIENT IN DISTRIBUTION SYSTEMS WITH PV SYSTEM
2D-6P-07	395	Mr.	Takano	Takashi		Nihon University	Japan	Optimum Installation Requirements of PV Array at Syowa Base in
2D-6P-08	211	Mr.	Pimkumwong	Narongrit		Electrical Engineering Department, Rajamangala University of Technology Lanna Tak	Thailand	VARIABLE STEP-SIZE MPPT BASED ON SINGLE SENSOR FOR SOLAR ENERGY WATER PUMPING SYSTEM
2D-6P-09	417	Mr.	Takashima	Takumi		National Institute of Advanced Industrial Science and Technology (AIST)	Japan	COMPARISONS OF PV EXPOSURE TESTS UNDER MPPT CONTROL AT DIFFERENT CLIMATES
2D-6P-10	28	Dr.	Ishii	Tetsuyuki		National Institute of Advanced Industrial Science and Technology (AIST)	Japan	Identification of solar spectrum by using Integrated Spectral Irradiance (ISI) and Average Photon Energy (APE)
2D-6P-11	156	Mr.	Morita	Kengo		TUV Rheinland Japan	Japan	MEASUREMENT ERROR AND SOLUTION DUE TO REFERENCE CELL'S STRUCTURE
2D-6P-12	46	Dr.	Usami	Akira		Central Research Institute of Electric Power Industry	Japan	MODELING OF SOLAR SPECTRAL IRRADIANCE DATA FROM CLOUDLESS TO OVERCAST SKIES
2D-6P-13	399	Mr.	Krawczynski	Michal		Loughborough University	UK	SPECTRAL IRRADIANCE MEASUREMENTS FOR PHOTOVOLTAIC SYSTEMS IN MARITIME CLIMATE
2D-6P-14	388	Ms.	WU	DAN		Centre for Renewable Energy Systems Technology (CREST), Department of Electronic and Electrical Engineering, Loughborough University	UK	LONG TERM DEGRADATION OF PHOTOVOLTAIC DEVICES UNDER REAL OUTDOOR OPERATING CONDITIONS
2D-6P-15	437	Dr.	Virtuani	Alessandro		University of Applied Sciences and Arts of Southern Switzerland (SUPSI)	Switzerland	NOVEL APPROACHES FOR THE TESTING OF HIGHLY- CAPACITIVE PV MODULES BY USING CONVENTIONAL FLASHERS AND A NOVEL ELECTRONIC LOAD
2D-6P-16	520	Prof.	Wang	ChangChun		National Taipei University of Technology	Taiwan	STUDY ON CONVERSION EFFICIENCY OF PHOTOVOLTAIC SYSTEM WITH SUN-TRACKING AND FIXED SOLAR MODULES UNDER VARIOUS ILLUMINATION
2D-6P-17	1	Mr.	Yen	Kai Hsiang		Underwriters Laboratories Inc.	Taiwan	INTERFACIAL ADHESION STRENGTH OF COMMERCIAL PHOTOVOLTAIC MODULES
2D-6P-18	259	Mr.	Kim	Sung Jin		Shinsung CS	Korea	Reliability of Solder/Copper Interconnect with Crystalline Si Solar
2D-6P-19	79	Dr.	Hsieh	HsinHsin		Industrial Technology Research Institute	Taiwan	AGING TESTS ON PHOTOVOLTAIC MODULES IN CONDUCTIVE ADHESIVE AND SOLDERING STRING
2D-6P-20	224	Dr.	Matsuda	Keiko		Toray Research Center, Inc.	Japan	STUDY OF THE DEGRADATION PROCESS FOR SILICON PHOTOVOLTAIC MODULE
2D-6P-21	404	Mr.	Arai	Takashi		Toray Industries, Inc.	Japan	OBSERVING MINI PV MODULE DETERIORATION THROUGH SUCCESSIVE DAMP HEAT TESTING AND THERMAL CYCLE
2D-6P-22	122	Mr.	Zhu	Jiang		Centre for Renewable Energy Systems Technology (CREST), Department of Electronic and Electrical Engineering, Loughborough University	UK	Ageing of amorphous silicon devices in dependence of irradiance dose
2D-6P-23	480	Dr.	Yamashita	Masamichi		Toray Engineering Co., Ltd	Japan	INTRODUCTION OF PASSIVATION FILM FOR TCO PROTECTION AND OPTICAL TRANSMISSION IMPROVEMENT ON THIN-FILM PV

Area 7

2D-7P-01	68	Mr.	Sauer	Thomas	Claude	EXXERGY GmbH	Germany	The Worldwide PV Market - Review, Current Status, and Challenges
2D-7P-02	133	Dr.	ENDO	Eiichi		National Institute of Advanced Industrial Science and Technology	Japan	Evaluation of the Dissemination Acceleration Policies for Residential PV Systems in Japan
2D-7P-03	297	Mr.	Imamura	Toshifumi		Nagoya University	Japan	A STUDY ON PRACTICAL ENERGY CONSERVATION OF RESIDENTIAL PHOTOVOLTAIC POWER GENERATION SYSTEM DEPENDING ON INHABITATION AREAS

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Area 1

3D-1P-01	29	Mr.	Ren	Yichao		Key Laboratory for Ultrafine Materials of Ministry of Education, School of Materials Science and Engineering, East China University of Science and	China	THE EFFECT OF FORMING GAS ANNEALING ON THE PROPERTIES OF CRYSTALLINE SI SOLAR CELL
3D-1P-02	77	Dr.	Toivola	Minna		Picosun Oy	Finland	ATOMIC LAYER DEPOSITION ? IMPROVEMENT FOR ALL PHOTOVOLTAIC TECHNOLOGIES
3D-1P-03	93	Mr.	Kobayashi	Eiji		Choshu Industry CO., LTD.	Japan	XRD PATTERNS OF TRANSPARENT CONDUCTIVE OXIDE LAYERS IN HIGH EFFICIENCY HETEROJUNCTION SILICON SOLAR CELLS
3D-1P-04	101	Dr.	Chen	Shih Wei		Industrial Technology Research Institute	Taiwan	LOW REFLECTANCE OF PYRAMID STRUCTURE IN CRYSTALLINE SILICON SOLAR CELL
3D-1P-05	149	Dr.	Sakata	Isao		National Institute of Advanced Industrial Science and Technology (AIST)	Japan	LOW-TEMPERATURE BACK-SURFACE-FIELD STRUCTURES APPLIED TO CRYSTALLINE SILICON SOLAR CELLS: TWO-STEP GROWTH WITH HYDROGEN PLASMA TREATMENT FOR IMPROVING THE REPRODUCIBILITY
3D-1P-06	154	Dr.	Kutsukake	Kentaro		Tohoku University	Japan	STUDY OF INCORPORATION OF OXYGEN AND CARBON INTO MULTICRYSTALLINE SILICON DURING INGOT GROWTH
3D-1P-07	170	Dr.	Gawlik	Grzegorz		Institute of Electronic Materials	Poland	LIGHT SPECTRUM CONVERTER FOR SILICON SOLAR CELLS
3D-1P-08	171	Ms.	Weng	YouChen		Graduate Institute of Opto-Electronics, National Dong Hwa University, Taiwan	Taiwan	Anti-Reflection Structure for Silicon Solar Cell using Innovative Lithography Process
3D-1P-09	173	Mr.	Hamdi	Ali		Tokyo University of Agriculture and Technology	Japan	PHOSPHORUS DIFFUSION IMPACT ON CARRIES LIFETIME OF P-TYPE MULTI- AND MONO-CRYSTALLINE SILICON WAFERS USING NOVEL SCREEN-PRINTING DIFFUSION SOURCE
3D-1P-10	179	Mr.	Irikawa	Junpei		Tokyo Institute of Technology	Japan	HETEROJUNCTION CRYSTALLINE SILICON SOLAR CELL USING NANOCRYSTALLINE CUBIC SILICON CARBIDE
3D-1P-11	187	Mr.	Uzum	Abdullah		Tokyo University of Agriculture and Technology	Japan	IMPACT OF BORON DIFFUSION USING SCREEN-PRINTING SOURCE ON CARRIER LIFETIME OF TEXTURED N-TYPE MULTI- AND MONO-CRYSTALLINE SILICON WAFERS
3D-1P-12	189	Mr.	Uzum	Abdullah		Tokyo University of Agriculture and Technology	Japan	SELECTIVE EMITTER PROCESS USING SINGLE SCREEN-PRINTED PHOSPHORUS DIFFUSION
3D-1P-13	214	Mr.	Nakayama	Keisuke		JX Nippon Oil & Energy Corporation	Japan	LIGHT MANAGEMENT OF CRYSTALLINE SILICON SOLAR CELLS USING METAL NANOSTRUCTURES
3D-1P-14	222	Mr.	Lee	Jongchul		Electro-Mechanical Research Institute, Hyundai heavy Industries Co. Ltd	Korea	Improvements on Transparent conducting oxide (TCO) for high efficiency silicon heterojunction solar cells
3D-1P-15	229	Mr.	Jang	Young Hoon		Solar R&D Center, Semimaterials co.,Ltd	Korea	Surface plasma texturization for crystalline silicon solar cells
3D-1P-16	236	Mr.	Nam	Yoon Ho		Hanyang University	Korea	MULTI-LAYER COATING OF SiO2 NANOPARTICLES FOR ENHANCING THE LIGHT ABSORPTION IN SI SOLAR CELL
3D-1P-17	273	Dr.	Lee	Hyunju		Meiji University / Japan Science and Technology Agency, CREST	Japan	O3-BASED ALD PROCESSED ALUMINUM OXIDE PASSIVATION FILM FOR C-SILICON
3D-1P-18	275	Ms.	Shim	Ji Myung		Shinsung Solar Energy	Korea	Industrial 6 inch multi-crystalline silicon solar cells using reactive ion etching with efficiency exceeding 18%
3D-1P-19	276	Mr.	Kim	Jisoo		Shinsung Solar Energy	Korea	EFFECT OF THE INKJET PRINTING ELECTRODE FOR RESISTANCES OF THE SOLAR CELL
3D-1P-20	281	Mr.	Cho	KyeongYeon		Shinsung Solar Energy	Korea	THE 18% EFFICIENT MULTI CRYSTALLINE SELECTIVE EMITTER SOLAR CELLS BY PLATED METAL CONTACTS
3D-1P-21	286	Mr.	Choi	Junyoung		R&D center, Solar cell division, Shinsung solar energy, Co.,Ltd	Korea	HIGH EFFICIENCY BIFACIAL SOLAR CELLS WITH IMPLANTATION PROCESS ON N-TYPE SINGLE CRYSTALLINE SILICON WAFERS
3D-1P-22	310	Mr.	Choi	Jeong Ho		Korea University of Technology and Education	Korea	CHEMICAL PASSIVATION BY HF TREATMENT FOR REAR SURFACE OF CRYSTALLINE SILICON SOLAR CELLS
3D-1P-23	315	Mr.	Ohmagari	Shinya		Kyushu University	Japan	PHOTOVOLTAIC CHARACTERISTICS OF ULTRANANOCRYSTALLINE DIAMOND/HYDROGENATED AMORPHOUS CARBON COMPOSITE FILMS EVALUATED UNDER UV LIGHT
3D-1P-24	317	Mr.	Imai	Ryusuke		Sharp Corporation	Japan	OPTIMIZATION OF BACK-ETCHING PROCESS FOR REAR SURFACE PASSIVATION STRUCTURES OF CRYSTALLINE SILICON SOLAR
3D-1P-25	326	Mr.	Jae Keun	Seo		Shinsung Solar Energy	Korea	SIMPLIFIED PROCESS OF SELECTIVE EMITTER BY THE ETCHED-BACK FOR HIGH EFFICIENT CRYSTALLINE SILICON SOLAR CELLS
3D-1P-26	354	Mr.	Chun	Jung Woo		Korea University	Korea	EFFECTS OF (100) AND (111) ORIENTATIONS OF SILICON WAFER ON FIRING REACTION BETWEEN SILVER PASTE AND SILICON
3D-1P-27	356	Mr.	A	Guru Prasad		Engineer	India	EVALUATION OF CARRIER LIFE TIME AND THE ELECTRICAL PARAMETERS OF THE MULTICRYSTALLINE SILICON SOLAR CELLS FABRICATED BY USING DIFFERENT POCL3 FLOW RATES
3D-1P-28	370	Mr.	Chu	Hao		Chungju National University	Korea	Two-step texturing of silicon surface for solar cell with less reflectivity
3D-1P-29	389	Mr.	Kobayashi	Keiji		Tokyo University of Agriculture and Technology	Japan	IMPACT OF IRON IMPURITY CONTAMINATION ON MULTICRYSTALLINE SILICON INGOT QUALITY AND SOLAR CELL
3D-1P-30	390	Mr.	Suzuki	Shota		Tokyo University of Agriculture and Technology	Japan	IMPACT OF ULTRA-FAST CO-FIRING PROCESS ON SILICON SOLAR CELL OUTPUT CHARACTERISTICS
3D-1P-31	391	Mr.	Suzuki	Hidenori		Tokyo University of Agriculture and Technology	Japan	SILICON SOLAR CELLS TEXTURING USING HIGH-POWER RF HYDROGEN AND ARGON REMOTE PLASMA TECHNIQUE
3D-1P-32	393	Ms.	Nagashima	Saori		Tokyo University of Agriculture and Technology	Japan	EFFECTS OF SCREEN-PRINTING CONDITIONS ON METALIZATION QUALITY OF CRYSTALLINE SILICON SOLAR CELLS
3D-1P-33	403	Mr.	Promros	Nathaporn		Kyushu University	Japan	Photovoltaic Properties of n-Type Nanocrystalline FeSi2/i-Si/p-Type Si Heterojunctions Prepared by Facing-Targets Direct-Current Sputtering
3D-1P-34	679	Dr.	Zhou	Chunlan		The Key Laboratory of Solar Thermal Energy and Photovoltaic System, Institute of Electrical	China	SiOx(C)/SiNx dual-layer anti-reflectance film coating for improved cell efficiency

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3D-2P-01	61	Mr.	Lee	Chia Ling		hardaway_lee@nexpw.com	Taiwan	ENHANCEMENT OF CURRENT ON TRIPLE JUNCTION THIN FILM SOLAR CELL BY INSERTING A BUFFER LAYER MANUFACTURED IN HIGH PRESSURE PROCESS
3D-2P-02	14	Mr.	Yuguchi	Tetsuya		Gifu University	Japan	CHARACTERIZATION OF MICROSCOPIC STRUCTURES IN MICROCRYSTALLINE SILICON LAYERS BY SPECTROSCOPIC ELLIPSOMETRY
3D-2P-03	34	Mr.	Yamaguchi	Shinji		Gifu University, Dainippon Screen Mfg. Co., Ltd.	Japan	CHARACTERIZATION OF TEXTURED SnO2:F LAYERS BY ELLIPSOMETRY USING GLASS-SIDE ILLUMINATION
3D-2P-04	558	Dr.	Natsuhara	Hironori		Gifu university	Japan	DEVELOPMENT OF PHOTOVOLTAIC MICROSCOPE FOR THIN FILM SOLAR CELL
3D-2P-05	255	Mr.	Hongsingthong	Aswin		Department of Physical Electronics, Tokyo Institute of Technology	Thailand	DEVELOPMENT OF NOVEL AI DOPED ZINC OXIDE FILM FABRICATED ON ETCHED GLASS AND ITS APPLICATION TO
3D-2P-06	296	Mr.	Piromjit	Channarong		National Science and Technology Development Agency	Thailand	EFFECT OF BUFFER LAYER AT P/I INTERFACE IN TOP CELL OF a-SiO:H/mc-Si:H MICROMORPH SOLAR CELLS
3D-2P-07	89	Mr.	Kang	Dong Won		Seoul National University	Korea	Effect of Conductivity and Thickness of TiO2 Antireflection Layer on Performances of a-Si:H/a-SiGe:H Tandem Solar Cells
3D-2P-08	464	Dr.	Kim	Soohyun		LG Electronics Advanced Research Institute	Korea	EFFECT OF P-TYPE MICROCRYSTALLINE SILICON CARBIDE LAYER ON PERFORMANCE OF TRIPLE JUNCTION SILICON THIN FILM
3D-2P-09	247	Mr.	Kim	yeon won		Kyushu Univ.	Japan	OPTICAL EMISSION SPECTROSCOPY OF MULTI-HOLLOW DISCHARGE PLASMA CVD FOR MICROCRYSTALLINE SILICON
3D-2P-10	334	Mr.	Sakaie	Kohei		Hiroshima University	Japan	CRYSTALLIZATION OF AMORPHOUS SI FILMS AND SIMULTANEOUS TRANSFER TECHNIQUE INDUCED BY NEAR-INFRARED SEMICONDUCTOR DIODE LASER IRRADIATION

3D-2P-11	449	Dr.	Du	Weijie		University of Tsukuba	Japan	IMPROVED PHOTORESPONSIVITY OF UNDOPED BASI2 LAYERS GROWN ON TUNNEL JUNCTION WITH REDUCED SB DIFFUSION
3D-2P-12	625	Dr.	Itoh	Takashi		Gifu University	Japan	LOCAL SURFACE POTENTIAL FOR MICROCRYSTALLINE SILICON BY KELVIN FORCE MICROSCOPE
3D-2P-13	182	Dr.	Yoshida	Norimitsu		Environmental and Renewable Energy Systems Division, Graduate School of Engineering, National University Corporation, Gifu University	Japan	A STUDY ON PREPARATIONS OF POLYTYPES OF MICROCRYSTALLINE SILICON CARBIDE THIN FILMS FOR DOPING LAYERS OF SILICON THIN FILM SOLAR CELLS BY HOT-WIRE CVD METHOD
3D-2P-14	599	Ms.	Lee	Da Jung		University of Science and Technology in Electronics and Telecommunications Research Institute	Korea	effect of light conversion in amorphous silicon solar cell by inserting the TiO2 and AlTiO layers.
3D-2P-15	405	Mr.	Kim	Sun Ho		LG Electronics	Korea	SURFACE MODIFICATION OF HIGH HAZE FRONT TCO FOR SILICON THIN FILM SOLAR CELL
3D-2P-16	24	Dr.	Limmanee	Amornrat		NECTEC, National Science and Technology Development Agency	Thailand	Effect of n layer thickness on solar cell parameters of flexible silicon solar cells using MOCVD ZnO/Ag back reflector
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3D-2P-18	453	Mr.	Hatozaki	Kosuke		Kyushu University	Japan	STABLE SCHOTTKY SOLAR CELLS USING CLUSTER-FREE A-SI:H PREPARED BY MULTI-HOLLOW DISCHARGE PLASMA CVD
3D-2P-19	49	Dr.	Lim	Cheolhyun		Sowthwestern reaserch instittue of green energy technology	Korea	LOW TEMPERATURE EPITAXIAL GROWTH OF GE THIN FILMS WITH FLUORINATED SOURCE MATERIALS
3D-2P-20	431	Mr.	Nakahara	Kenta		Kyushu University	Japan	DEFECT DENSITY OF CLUSTER-FREE A-SI:H FILMS DEPOSITED BY MULTI-HOLLOW DISCHARGE PLASMA CVD
3D-2P-21	78	Mr.	Woo	JongSeok		Seoul National University	Korea	AMORPHOUS SILICON THIN FILM SOLAR CELLS PREPARED ENTIRELY BY HOT WIRE CVD USING SINGLE CHAMBER SYSTEM
3D-2P-22	649	Prof.	Chen	Huai Yi		Huafan University	Taiwan	OPTIMUM DESIGN OF AN AMORPHOUS SILICON THIN-FILM SOLAR CELL USING TCAD SIMULATION TOOL
3D-2P-23	614	Mr.	Wu	Ping Jung		Institute of Materials Science and Engineering, National Central University	Taiwan	RAPID PHASE TRANSITION OF HYDROGENATED AMORPHOUS SILICON WITH HYDROGEN DILUTION IN ELECTRON CYCLOTRON RESONANCE PLASMA
3D-2P-24	663	Mr.	Liao	WeiGen		Ming--Hsin University of Science and Technology & Macronix International Co., Ltd.	Taiwan	INFLUENCE OF HYDROGEN PLASMA TREATMENT ON CHARACTERISTICS OF AL-DOPED ZINC OXIDE TRANSPARENT CONDUCTIVE FILMS
3D-2P-25	524	Dr.	Dahiwale	Shailendra	Satish	Department of Material Science and Engineering	Korea	EFFECT OF N2O ON ANNEALED AND UN-ANNEALED Al2O3 FILMS PREPARED BY PLASMA ASSISTED ATOMIC LAYER DEPOSITION
3D-2P-26	257	Mr.	Otani	Tsuyoshi		NSG Group Building Products	Japan	ENHANCED MORPHOLOGY TCO FOR USE WITH THIN FILM

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3D-3P-02	52	Ms.	Al Yafeai	Abeer Ali		National Energy and Water Research Center,P.O.Box:54111	United Arab Emirates	EFFECT OF DEPOSITION CONDITIONS ON 1-STEP ELECTRODEPOSITED CIGS LAYER FOR SOLAR DEVICES
3D-3P-03	88	Mr.	Nagaoka	Akira		Univrsty of Miyazaki	Japan	TEMPERATURE DEPENDENCE OF LINEAR THERMAL EXPANSION OF COPPER INDIUM DISELENIDE SINGLE CRYSTAL
3D-3P-04	144	Mr.	Souza	Diogo	Muniz	Department of Electronics and Informatics, Ryukoku University	Brazil	PROPERTY OF CU(IN,GA)S2 / MO FILM PREPARED BY 2-STAGE EVAPORATION METHOD DEPEND ON PRESSURE DURING
3D-3P-05	208	Mr.	Lee	Shi Wei		National Sun Yat Sen University	Taiwan	STRUCTURE AND COMPOSITION ANALYSIS OF Cu(In,Al)Se2 THIN FILMS PREPARED BY RAPID THERMAL SELENIZATION
3D-3P-06	233	Dr.	Akaki	Yoji		Miyakonojo National College of Technology	Japan	EFFECT OF ANNEALING FOR SB-DOPED CUINS2 THIN FILMS GROWN BY A VACUUM EVAPORATION METHOD
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3D-3P-08	240	Mr.	Chen	Jian Wun		Chang Gung University	Taiwan	CIGS THIN FILMS PREPARED BY SOL-GEL METHOD
3D-3P-09	288	Prof.	Tsuboi	Nozomu		Niigata University	Japan	LATTICE STRAIN AND CRYSTAL STRUCTURES IN CuInS2 EPITAXIAL FILMS ON GaAs SUBSTRATES
3D-3P-10	304	Mr.	Chung	Jaehoon		Ajou university	Korea	FABRICATION OF CuIn1-xGaxSe2 THIN FILMS FROM AMORPHOUS COLLOIDAL PRECURSOR
3D-3P-11	324	Mr.	Wu	Jiann Der		National Cheng Kung University	Taiwan	SYNTHESIS OF CIGS NANOPARTICLES BY A SIMPLE SOLUTION
3D-3P-12	360	Mr.	Ma	Jeng Shin		National Taiwan University	Taiwan	HYDROTHERMAL SYNTHESIS OF CUINSE2 PARTICLES AND ITS APPLICATION FOR THIN-FILM SOLAR CELLS
3D-3P-13	366	Mr.	Yu	Seong Man		Sungkyunkwan University	Korea	A STUDY OF PROPERTIES OF CIS THIN FILMS USING MULTI-STEP PROCESS BY METAL ORGANIC CHEMICAL VAPOR DEPOSITION
3D-3P-14	369	Ms.	FIANTI	FIANTI		YEUNGNAM UNIVERSITY	Korea	CuInAlSe2 GROWTH BY PULSED LASER DEPOSITION AND
3D-3P-15	382	Mr.	Lim	Jong Youb		Chungju National University	Korea	Optical and Electrical properties of co-evaporated Cu(In1-x,Gax)Se2 thin film solar cell with thinner absorber layer
3D-3P-16	385	Mr.	Lim	Jong Youb		Chungju National University	Korea	The effect of various Se flux in Cu(In1-x,Gax)Se2 thin film solar cell by co-evaporated absorber layer
3D-3P-17	407	Mr.	Uchikoshi	Masaki		Faculty of Enginnering, Ehime University	Japan	CONTROL OF GRAIN IN THE Cu(In,Ga)Se2 THIN FILMS PREPARED BY THE SELENIZATION METHOD USING DIETHYLSELENIDE
3D-3P-18	498	Prof.	Jeng	Ming Jer		Department of Electronic Engineering, Chang Gung University	Taiwan	SELENIZATION TEMPERATURE INFLUENCE ON THE CHARACTERISTICS OF CIGS THIN FILMS PREPARED BY
3D-3P-19	631	Mr.	Koo	Jaseok		School of Chemical Engineering, Yeungnam University	Korea	Effects of Se Layer Addition to CuGaln Metal Precursors on Selenization Kinetics
3D-3P-20	657	Mr.	Park	Junseong		Yeungnam University	Korea	THE CHARACTERIZATION OF A NOVEL CU(IN,GA)/SE/CU(IN,GA) PRECURSOR AND ITS SELENIZATION BEHAVIOR WITH VARIOUS ANNEALING CONDITIONS
3D-3P-21	164	Mr.	Tani	Yoshimasa		Graduate School of Engineering Science, Osaka University	Japan	FIRST-PRINCIPLES MATERIALS DESIGN OF CHALCOPYRITE-TYPE PHTOVOLTAIC MATERIALS WITH SELF-ORGANIZED NANO-
3D-3P-22	206	Dr.	Shigemi	Akio		Ryukoku University	Japan	Surface stabilities of various crystal faces of CuInSe2 and related compounds by first-principles calculation
3D-3P-23	111	Mr.	Muralidharan Vijayamma	M V Santhosh		Cochin University	India	Preparation of CuInS2/In2S3 Thin film Solar Cell Using Spray Pyrolysis: Importance of optimum spray rate for CuInS2 Layer
3D-3P-24	652	Ms.	Kim	Ji Hye		Korea Advanced Institute of Science and Engineering	Korea	Effects of Na on the β-Cu(In,Ga)Se thin films and solar cells
3D-3P-25	678	Dr.	Nguyen	Duy Cuong		University of Hyogo	Japan	SPRAY-PYROLYZED CIS SOLAR CELLS ON SPRAY-PYROLYZED CIS SOLAR CELLS ON NANOCRYSTALLINE-TITANIA NANOCRYSTALLINE-TITANIA ELECTRODES
3D-3P-26	683	Mr.	Nakakoba	Hiroya		Aoyama Gakuin University	Japan	EFFECTS OF BI INCORPORATION ON CIGS THIN FILMS AND SOLAR
3D-3P-27	207	Prof.	Tseng	Bae Heng		National Sun Yat Sen University	Taiwan	EFFECTS OF Sb ON THE FILM FORMATION OF CuInSe2
3D-3P-28	690	Mr.	Yatsushiro	Yuta		Aoyama Gakuin University	Japan	EFFECTS OF SB INCORPORATION ON CIGS THIN FILMS AND SOLAR CELLS
3D-3P-29	362	Mr.	Horikawa	Yusuke		Chiba Institute of Technology	Japan	Exciton emission of CuInS2 crystals by using confocal microscopy
3D-3P-30	396	Prof.	Wakita	Kazuki		Chiba Institute of Technology	Japan	Mapping of photoluminescence intensity on AgInS2 with crystal structures
3D-3P-31	397	Mr.	Miyamoto	Umihito		Chiba Institute of Technology	Japan	Photoluminescence of AgInS2 crystal doped Mn
3D-3P-32	1013	Dr.	Suh	Jeong Dae		Electronics and Telecommunications Research Institute	Korea	CuGaSe2 and CuInSe2 Thin Films Prepared by Selenization of CuGa and CuIn Sputtered Precursors

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3D-5P-01	704	Dr.	Sakai	Munetoshi		Kanagawa Academy of Science and Technology	Japan	Evaluation approach of Several Organic Photovoltaic Cells by using Micro Wave Photoconductive Decay
3D-5P-02	482	Dr.	Han	Kyung Hunn		McScience Inc.	Korea	CALCULATION OF OUTPUT POWER GENERATION FROM NONLINEAR CHARACTERISTICS OF DYE-SENSITIZED SOLAR
3D-5P-03	134	Prof.	Seo	Hyunwoong		Kyushu University	Japan	The improvement on the long-term stability of dye-sensitized solar module by structural alternation
3D-5P-04	160	Ms	Jensen	Katrine	Flarup	Fraunhofer Institut f?r Solare Energiesysteme ISE	Germany	GLASS FRIT AND I-/I3- REDOX ELECTROLYTE INTERACTION IN DYE-SENSITIZED SOLAR CELLS

3D-5P-05	178	Mr	Son	Min Kyu		Pusan National University	Korea	FABRICATION OF THE SILVER GRID-LESS PARALLEL TYPE DYE-SENSITIZED SOLAR CELL MODULE
3D-5P-06	602	Ms	Tokunaga	Sachiko		Tokai Univ.	Japan	Fabrication of double layered dye-sensitized solar cells based on electrostatically-injected droplet method
3D-5P-07	460	Mr	Noji	Yasunori		AISIN SEIKI Co., Ltd.	Japan	THE STUDY OF MANUFACTURING PROCESS FOR MONOLITHIC DYE-SENSITIZED SOLAR CELLS MODULES
3D-5P-08	39	Mr	Park	Dong Hee		Korea Institute of Science and Graduate School of Information Science and Electrical Engineering, Kyushu University	Korea	Dye-sensitized solar cells based on conjugated quasi-ZnO-graphene QDs
3D-5P-09	202	Ms	Wang	Yuting		Kyushu University	Japan	PROPERTIES AND PERFORMANCE OF SI QUANTUM DOT-SENSITIZED SOLAR CELLS WITH LOW TEMPERATURE TITANIA PASTE
3D-5P-10	267	Ms	Jang	Jiyeon		Ajou university	Korea	Antimony compounds for application to the Dye-sensitized solar cells
3D-5P-11	271	Mr	Chun	JaeHwan		Kyungwon university	Korea	ALLOYED QUANTUM-DOTS SOLAR CELL WITH NIOBIUM OXIDE BLOCKING LAYER
3D-5P-12	314	Mr	Sato	Muneharu		Graduate School of information Science and Electrical Engineering, Kyushu University	Japan	QUANTUM DOT-SENSITIZED SOLAR CELLS USING NITRIDATED SI NANOPARTICLES PRODUCED BY DOUBLE MULTI-HOLLOW DISCHARGES
3D-5P-13	526	Dr	Wang	Rong		State Key Laboratory of Silicon	China	Silicon quantum dot-sensitized solar cells
3D-5P-14	575	Dr	Hachiya	Sojiro		Department of Engineering Science, Faculty of Informatics and Engineering, The University of Electro-	Japan	THE EFFECTS OF ZnS COATING ON PHOTOVOLTAIC PROPERTIES AND RECOMBINATION RESISTANCE OF PbS QUANTUM DOT-SENSITIZED SOLAR CELL
3D-5P-15	587	Mr	Onishi	Yohei		Department of Engineering Science, The University of Electro-	Japan	PHOTOVOLTAIC PROPERTIES AND ULTRAFAST CARRIER DYNAMICS OF INVERSE OPAL TiO2 ELECTRODE WITH COMBINED
3D-5P-16	588	Mr	Yamada	Shuzo		Department of Engineering Science, The University of Electro-	Japan	PHOTOVOLTAIC CHARACTERIZATION OF CdSe QDs-SENSITIZED FLOWER-LIKE ZnO ELECTRODES
3D-5P-17	9	Dr	Verma	S. S.	Singh	Dept. of Physics, S.L.I.E.T., Longowal (Punjab)	India	LOCALIZED SURFACE PLASMON BASED SCATTERING RESPONSE CHARACTERIZATION OF CU, CUO, AND CU2O NANOSPHERES
3D-5P-18	30	Dr	Pathak	Dinesh	Dinesh	Material Science Laboratory, Department of Physics, Guru Nanak Dev University, Amritsar ? 143005,	India	PAgInSe2 n-Si solar cell by hot wall method
3D-5P-19	38	Dr	Son	Dong Ick		Korea Institute of Science and Technology	Korea	UV photovoltaic cells based on conjugated metal oxide-carbon nanomaterials QDs
3D-5P-20	63	Dr	Tayagaki	Takeshi		Kyoto University & PRESTO-JST	Japan	CARRIER EXTRACTION AND MULTI-CARRIER INTERACTIONS IN GE/SI QUANTUM DOT SOLAR CELLS
3D-5P-21	140	Dr	Svrcek	Vladimir		Next Generation Device Team Research Center for Photovoltaic Technologies, National Institute of Advanced Industrial Science and	Japan	INTEGRATION OF SURFACTANT-FREE SILICON NONOCRYSTAL IN HYBRID SOLAR CELLS
3D-5P-22	167	Ms	Iwasaki	Chihiro		National Defense Academy	Japan	FABRICATION OF GRADED BAND-GAP AMORPHOUS CARBON NITRIDE THIN FILMS FOR NEW GENERATION PHOTOVOLTAIC
3D-5P-23	200	Mr	Zhan	Zhaoyao		School of Mechanical and Aerospace Engineering, Nanyang Technological University	Singapore	Photoresponse behaviour and mechanism of multi-walled carbon nanotubes-copper sulphide (MWNT-CuS) hybrid nanostructures
3D-5P-24	212	Dr	Shen	Qing		The University of Electro-Communications	Japan	ULTRAFAST DYNAMICS OF HOT CARRIER AND MULTIPLE EXCITTON GENERATION IN PbS QUANTUM DOTS
3D-5P-25	213	Ms	Kim	Jeongmi		School of Chemical Engineering, Yeungnam University	Korea	SYNTHESIS OF SIZE-CONTROLLED CdTe NANOCRYSTALS FOR HYBRID SOLAR CELL APPLICATIONS
3D-5P-26	223	Mr	Baek	Jong Wook		Hanyang University	Korea	A layer-transferred macroporous Si thin film for photovoltaic absorber application.
3D-5P-27	290	Mr	Budiman	Mohd bin		Tohoku University	Japan	OPTICAL CHARACTERISTICS OF 6-nm Si QUANTUM NANODISK ARRAY STRUCTURE BY BIO-TEMPLATE AND NEUTRAL BEAM
3D-5P-28	311	Prof	Gau	Chie		National Cheng Kung University	Taiwan	A WAFER BASED SILICON QUANTUM DOTS SOLAR CELLS
3D-5P-29	325	Mr	Kim	Hyunhui		Materials Science and Engineering, Korea University	Korea	Formation of vertically aligned PN junctions in silicon sheets
3D-5P-30	342	Mr	Lee	Seong Hwan		Korea University	Korea	Fabrication of Anti-Reflective Super-Hydrophobic Protection Film for Photovoltaic Systems
3D-5P-31	367	Prof	Hayashi	Yasuhiko		Nagoya Institute of Technology	Japan	PHOTOVOLTAIC ACTION IN ALL CARBON SOLAR CELLS
3D-5P-32	371	Mr	Lin	JhihFong		Department of Materials Science and Engineering, National Taiwan University	Taiwan	Enhancing the Performance of Bulk-Heterojunction Polymer Solar Cell by Incorporating Graphene-Carbon Nanotubes Mixture into Hole
3D-5P-33	408	Prof	Park	Chinho		School of Chemical Engineering, Yeungnam University	Korea	ENHANCEMENT OF CdSe/P3HT HYBRID SOLAR CELL EFFICIENCY BY LIGAND EXCHANGE AND THERMAL TREATMENT
3D-5P-34	422	Mr	Lai	Donny		School of Electrical and Electronic Engineering, Nanyang Technological University (NTU) and CNRS-NTU-Thales Research Alliance (CINTRA)	Singapore	Enhancement of Epitaxial Emitter Silicon Solar Cell Efficiency with Ordered Nanowire Array using Focused Ion Beam
3D-5P-35	474	Dr	Tanaka	Tooru		Saga University	Japan	MOLECULAR BEAM EPITAXIAL GROWTH OF ZNTE1-XOX LAYERS FOR INTERMEDIATE BAND SOLAR CELL APPLICATIONS
3D-5P-36	523	Mr	Huang	Min		National Tsing Hua University	Taiwan	SULFURIZATION OF CU2ZNSNS4 THIN FILMS BY RAPID THERMAL PROCESSING USING GRAPHITE CLOSED-CHAMBER FOR PHOTOVOLTAIC APPLICATIONS
3D-5P-37	561	Mr	Kim	Junhee		Korea University	Korea	HETEROJUNCTION SOLAR CELLS BASED ON LEAD SULFIDE QUANTUM DOTS
3D-5P-38	595	Mr	Nakajima	Shingo		Tokyo University of Science, Suwa	Japan	SEASONAL VARIATION OF PHOTOVOLTAIC MODULES APPLIED WAVELENGTH SHIFTING MATERIALS ABSORB UV OR GREEN
3D-5P-39	607	Mr	Kim	Hyung Soo		Korea Polytechnic University	Korea	Fabrication and characterization of Cu2O/Si heterojunction thin film solar cells using nanotextured TCOs and glasses
3D-5P-40	619	Mr	Wu	Ping Jung		Institute of Materials Science and Engineering, National Central University	Taiwan	INFLUENCE OF DOPANTS TYPE ON CRYSTALLIZATION BEHAVIOR OF SILICON QUANTUM DOTS IN SILICON NITRIDE MATRIX
3D-5P-41	664	Dr	Adhikari	Sudip		Department of Electronics and Information Engineering, Chubu	Japan	PHOTOVOLTAIC CHARACTERISTICS OF GRAPHENE LIKE CARBON THIN FILMS DEPOSITED BY MICROWAVE SURFACE WAVE PLASMA
3D-5P-42	676	Mr	Lin	Yang Yi		National central University	Taiwan	Study of Antimony Doped SnO2 Thin Film Microstructure by Synchrotron Grazing Incidence X-Ray Diffraction
3D-5P-43	696	Mr	Wan	Zhenyu		School of photovoltaic and Renewable energy, University of New South Wales	Australia	A ultra-thin silicon nitride barrier layer implementation for Si quantum dots in amorphous silicon carbide matrix in photovoltaic application
3D-5P-44	700	Prof.	SHIRAI	HAJIME		Saitama University	Japan	Graphene oxide/crystalline Si solar cells
3D-5P-45	1006	Dr.	Onozawa	Nobuko	Komatsu zaki	National Institute of Advanced Industrial Science and Technology (AIST)	Japan	SYNTHESIS AND ELECTROCHEMICAL PROPERTIES OF 2,6-BIS(QUINOLINE-2-YL)PYRIDYL RUTHENIUM COMPLEXES AS A NEAR-IR SENSITIZER

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3D-6P-01	651	Dr.	OOZEKI	Takashi		AIST	Japan	STUDY ON THE REGIONAL FORECASTING METHOD IN JAPAN
3D-6P-02	138	Mr.	Chen	Hsuan Jui		Industrial Technology Research Institute	Taiwan	NEW TYPE OF PHOTOVOLTAIC MODULE INTEGRATED CERAMIC MATERIAL (HIGHLY THERMAL-RESISTANCE PV TILE)
3D-6P-03	254	Mr.	Kato	Takahiro		University of Miyazaki	Japan	SIMULATION OF MAXIMUM OUTPUT POWER CONTROL USING SHORT-CIRCUIT CURRENT AND OPEN-CIRCUIT VOLTAGE OF A
3D-6P-04	22	Dr.	KONISHI	HIROO		FACILITIES INC.	Japan	NOVEL PCS CONTROL FOR LARGE-SCALE PHOTOVOLTAIC
3D-6P-05	571	Dr.	Kawasaki	Norihiro		Central Research Institute of Electric Industry	Japan	A SPATIAL INTERPOLATION METHOD OF THE SOLAR IRRADIANCE FOR PREDICTION OF AREAL DISTRIBUTION OF THE IRRADIANCE
3D-6P-06	443	Ms.	Trautz	Kelly	Marie	U.S. Naval Research Laboratory	USA	UNMANNED AIR VEHICLE THERMOPHOTVOLTAIC POWER
3D-6P-07	639	Dr.	Somsak	Teerasak		Rajamangala University of Technology Lanna	Thailand	AN 11YR OF SOLAR HOME BATTERY SYSTEM IN THAILAND
3D-6P-08	577	Mr.	Muangjai	Worrajak		Rajamangala University of Technology Lanna	Thailand	DESIGN AND APPLICATIONS OF USER FRIENDLY BUCK-CONVERTOR FOR STAND-ALONE PHOTOVOLTAIC SYSTEM IN HIGHLAND AREA AT THAILAND
3D-6P-09	551	Mr.	Salmanoglu	Firat		Nothing	Turkey	A DESIGN AND MONITORING SOFTWARE PACKAGE FOR WIND-PHOTOVOLTAIC HYBRID ENERGY SYSTEMS
3D-6P-10	47	Dr.	Kawai	Shinji		National Institute of Advanced Industrial Science and Technology (AIST)	Japan	Precise Indoor Measuring Method of Temperature Dependence of PV Modules

3D-6P-11	695	Dr.	Hishikawa	Yoshihiro		National Institute of Advanced Industrial Science and Technology (AIST)	Japan	Precision Measurement of PV Devices and Adjustment of Solar Simulator Spectral Irradiance
3D-6P-12	505	Mr.	Nualboonrueng	Thipjak		Tokyo University of Agriculture and Technology	Japan	THE PERFORMANCE OF PV-THERMAL SYSTEMS FOR RESIDENTIAL APPLICATION UNDER CLIMATE OF THAILAND
3D-6P-13	99	Mr.	Yoshida	Shota		Ritsumeikan University	Japan	Estimation of output energy and analysis of time-related degradation using contour map of photovoltaic module performance
3D-6P-14	97	Mr.	Takei	Ryosuke		Ritsumeikan University	Japan	OUTPUT ENERGY ESTIMATION OF SI-BASED PHOTOVOLTAIC MODULES USING CLEARNESS INDEX AND AIR MASS
3D-6P-15	121	Mr.	Zhu	Jiang		Centre for Renewable Energy Systems Technology (CREST), Department of Electronic and Electrical Engineering, Loughborough University	UK	Determination of carrier lifetime and mobility product for amorphous silicon devices
3D-6P-16	190	Ms.	Plyta	Foteini		Centre for Renewable Energy Systems Technology (CREST), Loughborough University	UK	Optical Design of a LED Solar Simulator and Survey on its Performance Characterisation Capability
3D-6P-17	238	Mr.	Ouyang	Jieer		Solar Energy Research Institute of Singapore	Singapore	Investigation of the Performance of Commercial PV Modules under Tropical Conditions
3D-6P-18	225	Dr.	Chen	Chen Wei		Industrial Technology Research Institute	Taiwan	INDOOR AND OUTDOOR MAXIMUM POWER MEASUREMENT AT STC CONDITION OF A-SI/UC-SI TANDEM PV MODULE
3D-6P-19	384	Mr.	Yonezawa	Makoto		Lasertec Corporation	Japan	EVALUATION TECHNIQUE OF PV MODULES USING CT ALGORITHM
3D-6P-20	508	Mr.	Miyashita	Masanori		Photovoltaic Power Generation Technology Research Association(Toray Industries, Inc.)	Japan	MEASURING METHOD OF MOISTURE PENETRATION INTO PHOTOVOLTAIC MODULES
3D-6P-21	444	Mr.	Dechthummarong	Chanchai		Electrical Engineering Department, Rajamangala University of Technology Lanna ChiangMai, 128 Huaykaew Rd., T. Changpuak, A. Maung, ChiangMai	Thailand	USING MATLAB-SIMULINK FOR MODELING AND SIMULATING PARTIAL DISCHARGE UNDER IMPULSE VOLTAGE TEST OF PV MODULES
3D-6P-22	253	Mr.	NORO	Shouta		Tokyo University of Science, Suwa	Japan	DEVELOPMENT THE DIAGNOSIS METHOD OF PHOTOVOLTAIC MODULE FAILURE CAPABLE TO SMART GRID
3D-6P-23	252	Mr.	Aoki	Yuichi		ESPEC CORP.	Japan	Early Failure Detection of Interconnection with Rapid Thermal-Cycling in Photovoltaic Modules
3D-6P-24	612	Dr.	Jin	Yongmo		National Institute of Advanced Industrial Science and Technology	China	A PROPOSAL OF NEW ACCELERATION TEST WHICH UTILIZES HIGH ATMOSPHERIC PRESSURE: HIGH PRESSURE DUMP HEAT OR CYCLIC PRESSURE DUMP HEAT
3D-6P-25	421	Mr.	Suzuki	Soh		Espec Corp.	Japan	A PROPOSAL: MECHANICAL PRESSURE DUTY CYCLE TEST WHICH CAN ACCELERATE DEGRADATIONS AROUND INTERFACES OF PV MODULE LAMINATE MATERIALS.
3D-6P-26	71	Mr.	Nakata	Josuke		Kyosemi Corporation	Japan	A NEW PROCEDURE FOR CALCULATION OF THE EXPECTED ENERGY YIELD OF PV MODULES
3D-6P-27	72	Mr.	Ohtani	Soichiro		Kyosemi Corporation	Japan	COMPARISON OF ANNUAL ENERGY PERFORMANCE OF SPHELAR MODULES WITH CONVENTIONAL FLAT MODULES
3D-6P-28	1003	Dr.	TUNLASAKUN	KHANCHAI		King Mongkut's University of Technology Thonburi (KMUTT)	Thailand	EMBEDDED ISLANDING DETECTION FOR GRID CONNECTED INVERTER USING ARDUINO PLATFORM
3D-6P-29	1007	Ms.	Sutdipong	Sirimonpak		KMUTT	Thailand	PHOTOVOLTAIC POWERED CARBON MONOXIDE VENTILATION FOR PARKING GARAGES

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4D-1P-01	411	Mr.	Cho	Sung Bin		Korea University	Korea	ENHANCED CONTACT PROPERTIES OF FIRE-THROUGH SILVER CONTACTS OF CRYSTALLINE SILICON SOLAR CELLS BY FIRING UNDER OXYGEN-ENRICHED AMBIENT
4D-1P-02	426	Ms.	Tang	Yehua		Institute of Electrical Engineering, Key Laboratory of Solar Thermal Energy and Photovoltaic System, Chinese Academy of Sciences	China	FABRICATION OF LARGE AREA BLACK SILICON SOLAR CELLS EXCEEDING 16% EFFICIENCY USING MODIFIED ETCHING SOLUTION
4D-1P-03	447	Mr.	Lu	Zhong		University of New South Wales	Australia	ANODIC ALUMINUM OXIDE POINT-CONTACT SILICON SOLAR
4D-1P-04	468	Mr.	Nemoto	Yuki		Tokyo University of Agriculture and Technology	Japan	ALKALINE TEXTURING USING IPA FREE KOH SOLUTION FOR CRYSTALLINE SILICON SOLAR CELL
4D-1P-05	471	Mr.	Kyeong	Dohyeon		Hyundai Electro-Mechanical Research Institute (HEMRI), Hyundai Heavy Industries Co. Ltd.	Korea	SELECTIVE-EMITTER SOLAR CELL BY LASER CHEMICAL PROCESSING (LCP) AND LIGHT-INDUCED NICKEL/COPPER PLATING (LIP)
4D-1P-06	494	Mr.	Yang	Chuanxi		University of New South Wales	Australia	Laser-doping on multi-crystalline silicon solar cells
4D-1P-07	499	Mr.	Nishimura	Hideki		Nara Institute of Science and Technology (NAIST)	Japan	IMPROVED ELECTRONIC PROPERTIES OF LASER DOPED EMITTERS BY REDUCING SURFACE ROUGHNESS
4D-1P-08	501	Mr.	Katagiri	Takuya		Nara Institute of Science and Technology(NAIST)		
4D-1P-09	519	Mr.	Monden	Masao		University of Hyogo	Japan	EVALUATION OF ANTIREFLECTION COATING CONSISTS OF DOUBLE LAYER A-SiNx:H COATING WITH DIFFERENT REFRACTIVE
4D-1P-10	539	Ms.	Al Riyami	Sausan		Kyushu University, Interdisciplinary Graduate School of Engineering Science, Department of Applied Science for Electronics and Materials	Japan	Electrical Properties of n-Type Ultrananocrystalline Diamond/Hydrogenated Amorphous Carbon Composite Films Applicable to Photovoltaics
4D-1P-11	546	Mr.	Lee	Kyung Dong		Department of Materials Science and Engineering, Korea University	Korea	Fixed charge effect of SiNx film on efficiency of crystalline silicon solar cells
4D-1P-12	550	Dr.	Boreland	Mathew	Benjamin	Solar Energy Research Institute of Singapore, National University of Singapore, Singapore	Singapore	18.3% EFFICIENT INLINE DIFFUSED EMITTER SILICON WAFER SOLAR CELLS
4D-1P-13	553	Mr.	Lee	Seunghun		Korea University	Korea	Effect of Post-Annealing on Zn doped ITO Films for Silicon Heterojunction Solar Cells
4D-1P-14	564	Mr.	Ikeno	Norihiro		Meiji Univ., NIMS, JST-CREST	Japan	INVESTIGATION OF ZIRCONIUM OXIDE BASED PASSIVATION LAYER FOR CRYSTALLINE SILICON SOLAR CELLS
4D-1P-15	583	Dr.	Hoex	Bram		Solar Energy Research Institute of Singapore	Singapore	STATE-OF-THE-ART SURFACE PASSIVATION OF P-TYPE C-SI BY PECVD ALOX FOR HIGH-EFFICIENCY SILICON WAFER SOLAR
4D-1P-16	640	Dr.	LIN	FEN		Solar Energy Research Institute of Singapore, National University of	Singapore	EXCELLENT PASSIVATION OF P+ SILICON SURFACES BY INLINE PECVD SiOx/AIOx STACKS
4D-1P-17	641	Mr.	Boo	Hyunpil		Department of Materials Science and Engineering, Korea University	Korea	EFFECT OF PILE-UP ON SOLAR CELLS WITH P-ION IMPLANTED EMITTERS
4D-1P-18	658	Mr.	Kim	Hyunho		Korea university	Korea	EFFECT OF TEXTURING PROCESS WITHOUT SAW DAMAGE ETHCING ON CRYSTALLINE SILICON SOLAR CELLS
4D-1P-19	672	Mr.	Lim	Jongbin		Hyundai Heavy Industries	Korea	Characterization of Double SiNx Layers for High Efficiency Mono Crystal Silicon Black Solar Cells
4D-1P-20	673	Mr.	Ling	Zhi Peng		Solar Energy Research Institute of Singapore	Singapore	HYDROGENATED MICROCRYSTALLINE SILICON LAYERS USED AS EMITTER AND BSF FOR CRYSTALLINE/AMORPHOUS SILICON HETEROJUNCTION SOLAR CELLS
4D-1P-21	42	Mr.	Lee	Dae Yong		Solar R&D Lab, LG Electronics	Korea	A STUDY ON SiOx/SiNx REAR PASSIVATION SCHEME FOR PERC SOLAR CELLS WITH SCREEN-PRINTING TECHNOLOGY
4D-1P-22	198	Mr.	Wang	Kai		University of New South Wales	Australia	Stored charge in anodic aluminum oxide and its passivation quality
4D-1P-23	266	Mr.	Guerrero	Reynaldo Jr		Ateneo de Manila University	Philippines	Parameter Extraction from the I-V Curve of a PV Device using the One Diode Ideal High-Low Injection Narrow-base Solar Cell Model
4D-1P-24	368	Ms.	Casalenuovo	Kristen		University of New South Wales	Australia	Defect Monitoring in Crystalline Silicon Using Spectral
4D-1P-25	392	Mr.	Fukano	Kento		Tokyo Univ. of Agri. & Tech	Japan	TEMPERATURE CHARACTERISTICS OF DARK I-V CURVE IN CRYSTALLINE SILICON SOLAR CELLS
4D-1P-26	429	Mr.	Wang	Kee Soon		University of New South Wales	Australia	OPTICAL PROPERTIES OF LASER-DOPED LINES FOR THE SEMICONDUCTOR FINGERS SILICON SOLAR CELLS
4D-1P-27	500	Mr.	Takamoto	Sohichiroh		Nara Institute of Science and Technology (NAIST)	Japan	EVALUATION OF SUBSTRATE DEFECTS BY TEMPERATURE DEPENDENCE OF SPECTROSCOPIC ELECTROLUMINESCENCE
4D-1P-28	566	Ms.	Li	Hailing		Institute of Electrical Engineering, Chinese Academy of Sciences	China	THE EFFECT OF FIRING TEMPERATURES ON THE PERFORMANCE OF N-TYPE SILICON SOLAR CELLS WITH ALUMINUM-ALLOYED
4D-1P-29	573	Mr.	Heinrich	Martin		Solar Energy Research Institute Singapore, National University of Singapore; NUS Graduate School for Integrative Science and Engineering, National University of Singapore	Singapore	ACCURATE MEASUREMENT OF LASER-DOPED LINE SHEET RESISTANCE FOR SILICON WAFER SOLAR CELL APPLICATIONS
4D-1P-30	623	Mr.	Kim	Chan Seok		Korea University	Korea	CHARACTERISTICS OF INTRINSIC AMORPHOUS LAYER ON SILICON WAFERS AND REATED HETEROJUNCTION SOLAR CELL PERFORMANCES DEPOSITED BY HOT WIRE CVD
4D-1P-31	645	Mr.	Tanaka	Yoshikazu		Center of Innovative Photovoltaic Systems (CIPS), Gifu University	Japan	DETERMINATION OF THE HYDROGEN CONTENT IN AMORPHOUS SILICON LAYERS FORMED ON TEXTURED CRYSTALLINE SILICON SUBSTRATES BY SPECTROSCOPIC ELLIPSOMETRY
4D-1P-32	666	Mr.	Bae	Soohyun		Korea University	Korea	INVESTIGATION OF LOCAL BSF CHARACTERISTICS USING N TYPE WAFERS

Area 2

4D-2P-01	277	Mr.	Kuramochi	Hideto		TOSOH corporation	Japan	DEVELOPMENT OF NOVEL ALUMINUM DOPED ZINC OXIDE FILM AND ITS APPLICATION TO SOLAR CELLS
4D-2P-02	536	Mr.	Janthong	Bancha		Department of Physical Electronics, Tokyo Institute of Technology	Japan	OPTICAL IMPROVEMENT OF ZNO-COATED GLASS WITH NEW REFRACTIVE-INDEX MATCHING LAYER INSERTED AT GLASS/ZNO INTERFACE
4D-2P-03	185	Mr.	Muto	Hirota		Osaka University	Japan	DIFFERENCE OF PHOTOVOLTAIC PERFORMANCE IN SUBSTRATE-TYPE MICROCRYSTALLINE SILICON SOLAR CELLS FABRICATED USING A VARIETY OF N/I-INTERFACE-FORMATION PROCESSES
4D-2P-04	698	Prof.	SHIRAI	HAJIME		Saitama University	Japan	Rapid thermal annealing of ZnO:Al films for microcrystalline Si thin-film solar cells
4D-2P-05	302	Dr.	Sritharathikhun	Jaran		National Science and Technology Development Agency	Thailand	DEVELOPMENT OF i-a-SiO:H TOP LAYER FOR THIN FILM SILICON DOUBLE-JUNCTION SOLAR CELLS
4D-2P-06	168	Mr.	Sago	Keisuke		Gifu University	Japan	ELLIPSOMETRY CHARACTERIZATION OF THE SURFACE TEXTURE IN ZnO:Al TRANSPARENT CONDUCTIVE OXIDE LAYERS
4D-2P-07	493	Dr.	Ohdaira	Keisuke		Japan Advanced Institute of Science and Technology	Japan	LARGE-GRAIN POLYCRYSTALLINE SILICON FILMS FORMED THROUGH FLASH-LAMP-INDUCED EXPLOSIVE CRYSTALLIZATION
4D-2P-08	352	Dr.	Sriprapha	Kobsak		National Science and Technology Development Agency	Thailand	TEMPERATURE DEPENDENCE OF THIN FILM SILICON a-SiO:H/a-Si:H DOUBLE-JUNCTION SOLAR CELLS
4D-2P-09	119	Mr.	Hamashita	Daisuke		Tokyo Institute of Technology	Japan	High Transparent and Conductive Nb-doped TiO2 Films by RF Sputtering for the Application to Si-based Thin Film Solar Cells
4D-2P-10	506	Dr.	Itagaki	Naho		Kyushu University	Japan	ZINC OXIDE-BASED TRANSPARENT CONDUCTING FILMS WITH BUFFER LAYERS FABRICATED VIA NITROGEN-MEDIATED
4D-2P-11	333	Mr.	Kazunari	Kuwahara		Kyushu University	Japan	ZnO films with buffer layers crystallized via nitrogen mediation: effects of deposition temperature of buffer layers

4D-2P-12	483	Mr.	Okada	Atsushi		University of Tsukuba	Japan	IMPACT OF DIFFUSION BARRIER LAYER THICKNESS ON PREFERENTIAL ORIENTATION OF AL-INDUCED CRYSTALLIZED SI LAYERS FOR BASI2 SOLAR CELL
4D-2P-13	654	Mr.	Chung	Jin Won		Emerging Technology Lab., LG Electronics Advanced Research	Korea	GRADED LAYER MODIFICATION FOR THE HIGH EFFICIENCY OF HYDROGENATED AMORPHOUS SILICON-GERMANIUM SOLAR
4D-2P-14	611	Dr.	Katayama	Hirohisa		Sanyo Electric Co. Ltd.	Japan	SIMULATION OF VERY HIGH FREQUENCY PLASMA FOR SILANE/HYDROGEN GAS
4D-2P-15	603	Mr.	Khan	Muhammad Ajmal		Institute of Applied Physics, University of Tsukuba	Japan	ELECTRICAL CHARACTERIZATION OF Cu, Ag DOPED BASI2 LAYERS ON Si(111) GROWN BY MOLECULAR BEAM EPITAXY FOR THIN FILM SOLAR CELL
4D-2P-16	450	Mr.	Matsunaga	Takeaki		Kyushu University	Japan	EFFECTS OF NANO-PARTICLES ON (220) CRYSTAL ORIENTATION OF MICROCRYSTALLITE SILICON THIN FILMS
4D-2P-17	343	Mr.	Silsirivanich	Nitikorn		silsirivanich@hotmail.com	Thailand	DYNAMIC IMPEDANCE OF THIN FILM SOLAR CELL (a-Si:H) MODULES AFTER LIGHT SOAKING
4D-2P-18	534	Mr.	Seong Hyun	Lee		ETRI and UST	Korea	PHOTOLUMINESCENCE PROPERTIES OF Cu ₂ O THIN FILMS FOR THE USE OF LIGHT-CONVERSION LAYER IN TRANSPARENT SOLAR
4D-2P-19	250	Ms.	Hsu	Wen Tzu		National Dong Hwa University	Taiwan	NUMERICAL MODELING OF MICROCRYSTALLINE SILICON SOLAR
4D-2P-20	15	Dr.	Chen	YuHung		Photovoltaic Technology Division, Green Energy & Environment Research Laboratories, Industrial Technology Research Institute	Taiwan	IMPROVING THE S-CURVE CHARACTERISTIC OF A-SIGE SINGLE JUNCTION SOLAR CELLS BY LOW TEMPERATURE THERMAL ANNEALING METHOD
4D-2P-21	244	Mr.	Chang	Teng Shiang		Department of Optics and Photonics, National Central University, Taiwan, R.O.C.	Taiwan	DEPOSITION AND PROPERTIES OF HYDROGENATED SILICON THIN FILMS BY ELECTRON CYCLOTRON RESONANCE CHEMICAL VAPOR DEPOSITION METHOD
4D-2P-22	517	Ms.	Li	Pei Ling		Institute of Aeronautics and Astronautics, National Cheng Kung	Taiwan	A NOVEL STRUCTURE OF MICROCRYSTALLINE SILICON SOLAR CELL
4D-2P-23	330	Mr.	Chu	Yen Ho		Department of Optics and Photonics, National Central University, Taiwan, R.O.C.	Taiwan	THE IMPROVEMENT OF OPTICAL AND ELECTRICAL PROPERTIES OF WINDOW LAYER FOR SILICON-BASED THIN FILM SOLAR CELL USING LAYER BY LAYER METHOD IN ECR-CVD
4D-2P-24	31	Mr.	Jony	Jony Chandra sarker	Chandra sarker	Bangladesh University of Engineering and Technology	Bangladesh	DESIGN AND ANALYSIS OF OPTIMIZED MICROSTRUCTURE THIN FILM PHOTOVOLTAIC CELL
4D-2P-25	1012	Ms.	Nasim	Sahraei Khanghah		Solar Energy Research Institute of Singapore (SERIS)		EFFECT OF GLASS TEXTURING ON THE ABSORPTANCE OF a-Si:H p-i-n STRUCTURES
4D-2P-26	1014	Mr.	Kasashima	Shunsuke		Tokyo Institute of Technology	Japan	FOUR-TERMINAL THIN-FILM SOLAR CELLS FOR LOW CONCENTRATION PHOTOVOLTAICS
4D-2P-27	1020	Mr.	Wang	Hsuan Wen		National Central University	Taiwan	

Area 3

4D-3P-01	74	Dr.	Tanaka	Kunihiko		Nagaoka University of Technology	Japan	PRECURSOR COVER EFFECT OF Cu ₂ ZnSnS ₄ THIN FILMS DEPOSITED BY SPRAY PYROLYSIS METHOD
4D-3P-02	76	Dr.	Yang	Kai		Nagaya Institute of Technology	Japan	Fabrication of Cu-Zn-Sn-S-O thin films by the electrochemical deposition method and application to heterojunction cells
4D-3P-03	114	Dr.	Pawar	S	M	LG Components R&D Ceter	Korea	FABRICATION OF Cu ₂ ZnSnS ₄ (CZTS) THIN FILM SOLAR CELL USING SINGLE STEP ELECTRODEPOSITION METHOD
4D-3P-04	125	Prof.	Yamaguchi	Toshiyuki		Wakayama National College of Technology	Japan	CU ₂ ZNSNSE ₄ THIN FILMS PREPARED BY SELENIZATION OF QUATERNARY COMPOUND PRECURSOR
4D-3P-05	175	Dr.	Yamazoe	Seiji		Ryukoku University	Japan	STRUCTURAL ANALYSIS OF Cu ₂ (1-X)ZnSnSe ₄ BY X-RAY DIFFRACTION AND XAFS
4D-3P-06	184	Mr.	Yoshitake	Koichiro		National Defense Academy	Japan	THE EFFECT OF COPPER COMPOUNDS IN SPRAY SOURCE FOR CZTS THIN FILMS
4D-3P-07	204	Mr.	Amal	Muhamad	Ikhlasul	Yeungnam University	Korea	PREPARATION AND CHARACTERIZATION OF CU ₂ ZNSNS ₄ THIN FILMS BY SULFURIZATION OF CU-ZN-SN ALLOY PRECURSOR
4D-3P-08	205	Prof.	Kim	Ho	Kyoo	Yeungnam University	Korea	PROPERTIES OF CU ₂ ZNSNSE ₄ THIN FILMS PREPARED BY SELENIZATION OF MONO LAYER METALLIC PRECURSORS
4D-3P-09	387	Mr.	Shin	Seung Wook		KAIST	Korea	Microwave assisted synthesis of quaternary Cu ₂ ZnSnS ₄ nanocrystals : A simple, fast and cost-effective solution-based process
4D-3P-10	416	Mr.	Lee	Seong Heon		Yeungnam University	Korea	EFFECT OF CHEMICAL ETCHING ON Cu ₂ ZnSnS ₄ ABSORBER
4D-3P-11	448	Ms.	Sheng	Xia		State Key Laboratory of Silicon Materials and Department of Materials Science and Engineering, Zhejiang	China	A New Low-cost Route to Fabricate Cu ₂ ZnSnS ₄ Thin Films for Solar Cell Absorber Layer
4D-3P-12	457	Mr.	Gao	Feng		Ryukoku University	Japan	Fabrication and properties of In-free photovoltaic Cu ₂ ZnSn(S,Se) ₄ films by printing and high-pressure sintering processes
4D-3P-13	465	Mr.	Yoshihara	Tomohiro		Tokyo Institute of Technology	Japan	Cu ₂ ZnSn(S,Se) ₄ ABSORBER LAYERS FABRICATED BY A NON-VACUUM, NANOPARTICLE-BASED APPROACH
4D-3P-14	475	Mr.	Sueishi	Tatsuya		Saga University	Japan	COMPOSITION DEPENDENCE OF ELECTRICAL PROPERTIES OF CU ₂ ZNSNSE ₄ THIN FILMS FABRICATED BY CO-EVAPORATION
4D-3P-15	635	Mr.	Jao	Meng Huan		National Taiwan University	Taiwan	SYNTHESIS AND CHARACTERIZATION OF CZTS NANOCRYSTALS
4D-3P-16	661	Dr.	YOON	SEOKHYUN		LG Chem, Ltd./Research Park	Korea	PHOTOLUMINESCENCE STUDY OF CU ₂ (ZN,SN)(SE,S) ₄ MATERIAL PREPARED FROM WET PROCESS
4D-3P-17	35	Mr.	Nagoya	Akihiro		Toyota Central R&D Labs., Inc.	Japan	FIRST-PRINCIPLES STUDY OF CU ₂ ZNSNS ₄ AND THE RELATED BAND OFFSETS FOR PHOTOVOLTAIC APPLICATIONS
4D-3P-18	57	Ms.	Bao	Wujisiguleng		Nagoya Institute of Technology	Japan	PREDICTION OF THE BAND OFFSETS AT THE CdS/ Cu ₂ ZnSnS ₄ INTERFACE BASED ON THE FIRST-PRINCIPLES CALCULATION
4D-3P-19	166	Mr.	Tani	Yoshimasa		Graduate School of Engineering Science, Osaka University	日本	COMPUTATIONAL DESIGN OF CO-DOPING METHOD FOR INDIUM-REDUCED CHALCOPYRITE-TYPE PHOTOVOLTAIC MATERIALS
4D-3P-20	209	Mr.	Nakamura	Satoshi		Ryukoku University	Japan	FIRST-PRINCIPLES STUDIES ON IN-FREE PHOTOVOLTAIC I ₂ -II-VI-VI ₄ COMPOUNDS, Ag ₂ ZnSnSe ₄ AND RELATED COMPOUNDS
4D-3P-21	383	Mr.	Chelvanathan	Puvanewaran		Universiti Kebangsaan Malaysia, Malaysia	Malaysia	EFFECTS OF TRANSITION METAL DICHALCOGENIDE MoS ₂ LAYER FORMATION IN Cu ₂ ZnSnS ₄ (CZTS) SOLAR CELLS FROM NUMERICAL ANALYSIS
4D-3P-22	624	Prof.	Katagiri	Hironori		Nagaoka National College of Technology	Japan	ZINC OXIDE BUFFER LAYERS FOR CZTS THIN FILM SOLAR CELLS PREPARED BY OPEN ATMOSPHERE TYPE CVD APPARATUS
4D-3P-23	75	Mr.	Kurokawa	Masato		Nagaoka University of Technology	Japan	FABRICATION OF 3D STRUCTURE SOLAR CELL WITH Cu ₂ ZnSnS ₄
4D-3P-24	197	Mr.	Eguchi	Tatsuya		Toyota Industries Co.	Japan	Cu ₂ ZnSnS ₄ Solar Cells with 7.6% Efficiency
4D-3P-25	659	Dr.	Araki	Hideaki		Nagaoka National College of	Japan	Fabrication of Cu ₂ Zn(GeSn _{1-x})S ₄ Thin Film Solar Cells
4D-3P-26	621	Mr.	Koike	Junpei		Nagaoka National College of	Japan	Cu ₂ SnS ₃ thin film solar cells from electroplated precursors
4D-3P-27	622	Mr.	Chino	Kotaro		Nagaoka National College of	Japan	Preparation of Cu ₂ SnS ₃ thin films by sulfurization of Cu/Sn stacked
4D-3P-28	81	Mr.	THELAKKAD	SAJEESH	HARIDASAN	DEPT. OF PHYSICS, COCHIN UNIVERSITY OF SCIENCE & TECHNOLOGY	India	RAMAN AND XPS ANALYSIS OF SPRAY DEPOSITED TIN-CHALCOGENIDE THIN FILMS FOR PHOTOVOLTAIC APPLICATIONS.
4D-3P-29	261	Dr.	Nose	Yoshitaro		Kyoto University	Japan	Bulk crystal growth and characterization of chalcopyrite-type semiconductor ZnSnP ₂ for solar cells
4D-3P-30	303	Mr.	Patrick	Nwofe		Northumbria University	UK	STRUCTURAL, OPTICAL AND ELECTRO-OPTICAL PROPERTIES OF THERMALLY EVAPORATED SnS LAYERS
4D-3P-31	628	Mr.	Shinji	Tomokazu		Nagaoka National College of Technology	Japan	NON-VACUUM PROCESSING OF Cu ₂ O THIN FILMS USING OPEN ATMOSPHERE TYPE CVD TECHNIQUE
4D-3P-32	11	Mr.	Deguchi	Hirsoshi		Ricoh Co., Ltd.	Japan	ZnInS THIN FILM SOLAR CELL FABRICATED BY SPUTTERING
4D-3P-33	44	Mr.	Vequizo	Junie Jhon	Magdadaro	Nagoya Institute of Technology	Japan	Fabrication of Electrodeposited SnS/SnO ₂ Heterojunction Solar Cells
4D-3P-34	59	Ms.	Song	Ying		Nagoya Institute of Technology	Japan	IMPROVEMENT OF ELECTROCHEMICALLY DEPOSITED Cu ₂ O/ZnO HETEROJUNCTION SOLAR CELLS BY MODULATION OF DEPOSITION CURRENT
4D-3P-35	328	Mr.	Ohta	Takayuki		Toyohashi University of Technology	Japan	EFFECT OF CdS BUFFER LAYER ON THE ELECTRICAL CHARACTERISTICS OF p-COPPER OXIDE/n-ZINC OXIDE DIODES
4D-3P-36	159	Mr.	Yoshikawa	Munehiro		Ryukoku University	Japan	P-TYPE WIDE BANDGAP BaCuSeF THIN FILMS FABRICATED BY PULSED LASER DEPOSITION
4D-3P-37	513	Prof.	Tsuboi	Nozomu		Niigata University	Japan	PREPARATION AND CHARACTERIZATION OF P-TYPE CuAlO ₂ FILMS BY SPIN-COATING METHOD

4D-3P-38	1021	Prof.	KIM	Yong Soo		University of Ulsan	Korea	Cu ₂ ZnSeS ₄ SOLAR CELL CHARACTERIZATION WITH INTENSITY MODULATED PHOTOCURRENT SPECTROSCOPY
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4D-4P-01	120	Ms.	Hasegawa	Aiko		Department of Electrical and Electronic Engineering, Kobe University	Japan	EFFECTS OF ABSORPTION BALANCE IN INTERMEDIATE BAND QUANTUM DOTS SOLAR CELLS
4D-4P-02	153	Mr.	Sato	Daisuke		Toyota Motor Corporation	Japan	EXTREMELY LONG CARRIER LIFETIME AT INTERMEDIATE STATES IN TAILORED NANOSTRUCTURES BASED ON INAS QUANTUM
4D-4P-03	637	Mr.	Morales Farah	Jordi	Elias	Imperial College London	UK	Rate Model for Intermediate Band Solar Cells
4D-4P-04	327	Mr.	Elborg	Martin		National Institute for Materials Science, Tsukuba University	Japan	Fabrication of GaAs/AlGaAs Quantum Dots with Artificial Wetting Layer for Solar Cell Application
4D-4P-05	427	Dr.	SODABANLU	HASSANET		Research Center for Advanced Science and Technology	Japan	EFFECTS OF BACKGROUND Zn DOPING ON THE PERFORMANCE OF MOVPE-GROWN InGaAs/GaAsP MULTIPLE QUANTUM WELLS SOLAR CELLS
4D-4P-06	428	Dr.	SODABANLU	HASSANET		Research Center for Advanced Science and Technology	Japan	IMPACT OF STRAIN ACCUMULATION ON InGaAs/GaAsP MULTIPLE QUANTUM WELLS SOLAR CELLS: DIRECT CORRELATION BETWEEN IN SITU STRAIN MEASUREMENT AND CELL
4D-4P-07	515	Dr.	wang	yunpeng		The University of Tokyo	Japan	CARRIER TRANSPORT THROUGH SUPER-LATTICE REGION IN A MULTIPLE QUANTUM WELL SOLAR CELL
4D-4P-08	535	Mr.	Tangmettajakul	Ongarj		Chulalongkorn University	Thailand	INTEGRATION OF InGaAs/AlGaAs QUANTUM RING TO SOLAR CELL STRUCTURE
4D-4P-09	610	Ms.	WEN	YU		University of Tokyo	Japan	DEEP MULTIPLE STEPPED QUANTUM WELL (MSQW) SOLAR CELL
4D-4P-10	103	Dr.	Kawano	Jun		Research Institute for Applied Mechanics, Kyushu University	Japan	N substitution in GaAs(001) surface under an atmosphere of hydrogen
4D-4P-11	533	Dr.	Bouzazi	Boussairi		Toyota Technological Institute	Japan	REDUCTION OF RECOMBINATION CENTERS AND IMPROVEMENT OF MINORITY CARRIER LIFETIME IN GaAsN GROWN BY CHEMICAL BEAM EPITAXY
4D-4P-12	572	Dr.	Han	Xiuxun		Toyota Technological Institute	Japan	Effects of a key deep level and interface states on GaAsN based solar cells: a simulation analysis
4D-4P-13	585	Mr.	Inagaki	Makoto		Toyota Technological Institute	Japan	IMPROVED PHOTOLUMINESCENCE CHARACTERISTICS OF GAASN BY OPTIMISING GROWTH RATE AND TEMPERATURE IN CHEMICAL BEAM EPITAXY
4D-4P-14	589	Mr.	Hwang	Jong Ha		Toyota Technological Institute	Japan	Improved Properties of GaAsN based solar cell by Chemical Beam
4D-4P-15	600	Dr.	Islam	Muhammad	Monirul	Research Center for Advanced Science and Technology (RCAST), The University of Tokyo	Japan	ELECTRICAL CHARACTERIZATION OF GaInNAsSb THIN FILM
4D-4P-16	601	Dr.	Ikeda	Kazuma		Toyota Technological Institute	Japan	N-H LOCAL VIBRATION MODE COUPLING WITH SINGLE PHONON IN
4D-4P-17	632	Mr.	Yamamoto	Susumu		University of Miyazaki	Japan	The effects of growth method on localized state of N atoms in GaAsN thin
4D-4P-18	562	Mr.	Sugai	Mitsunobu		Advanced Engineering Services Co., Ltd. (AES)	Japan	Anomalous External Quantum Efficiency of Germanium subcell in Multi-Junction Cells
4D-4P-19	617	Mr.	Wu	Fan Lei		Institute of Precision Engineering, National Chung Hsing University	Taiwan	Evaluation of Crystalline Quality of InGaAs Solar Cell with Metamorphic Structure By X-ray Reciprocal Space Mapping
4D-4P-20	662	Mr.	Katayama	Masahiro		University of Miyazaki	Japan	Observation of Misfit Dislocations in InGaAs/GaAs (001) heteroepitaxial films by X-Ray Topography
4D-4P-21	521	Dr.	Watanabe	Kentaroh		Research Center for Advanced Science and Technology, the University of Tokyo	Japan	FABRICATION OF MONOLITHIC INTEGRATED SERIES-CONNECTED GaAs PV CELLS FOR CONCENTRATOR APPLICATION
4D-4P-23	669	Dr.	Kobayashi	Yuki		Japan Aerospace Exploration Agency (JAXA)	Japan	PL/EL IMAGE ANALYSIS OF RADIATION DETERIORATION IN TRIPLE-JUNCTION SOLAR CELLS
4D-4P-24	19	Mr.	Wilt	David		AFRL	United States	ESD AND UV PROPERTIES OF PSEUDOMORPHIC GLASS
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4D-4P-26	172	Dr.	Fujita	Kazuhiisa		The Graduate School for the Creation of New Photonics Industries	Japan	PHOTOVOLTAIC FOR 1.06-MICROMETER LASER LIGHT FOR LASER SPACE SOLAR POWER SYSTEM

Area 5

4D-5P-01	12	Dr.	Umeyama	Tomokazu		Kyoto University, JST-PRESTO	Dr.	COMPOSITE MATERIALS OF POLY(3-HEXYLTHIOPHENE) WITH SINGLE-WALLED CARBON NANOTUBES AND FULLERENE PEAPOD
4D-5P-02	16	Dr.	Higashihara	Tomoya		Tokyo Institute of Technology	Dr.	ENHANCEMENT OF PCE AND LONG-TERM STABILITY OF P3HT:PCBM OPV CELLS USING BLOCK COPOLYTHIOPHENES
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4D-5P-05	246	Mr.	Hishimuma	Takaaki		Department of Information and Electronics, Tottori University	Mr.	IMPROVEMENT OF PHOTOVOLTAIC PROPERTIES IN P3HT/PCBM P-I-N BULK HETEROJUNCTION SOLAR CELLS
4D-5P-06	251	Mr.	Sanda	Atushi		Department of Information and Electronics, Tottori University	Mr.	STUDY ON LiF/Ag/MoO ₃ INTERLAYERS FOR TANDEM P3HT/PCBM BULK HETEROJUNCTION
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4D-5P-10	346	Ms.	Yang	YaTing		Department of Materials Science and Engineering, National Taiwan University	Ms.	TOP LAMINATED GRAPHENE ELECTRODE IN AN AIR-STABLE SEMITRANSPARENT POLYMER SOLAR CELL BY SIMULTANEOUS THERMAL ANNEALING/RELEASING METHOD
4D-5P-11	373	Mr.	Ishikawa	Teruyoshi		Tottori University, Tottori Institute of Industrial Technology	Dr.	POLY(3-HEXYLTHIOPHENE)/[6,6]-PHENYL-C61-BUTYRIC ACID METHYL ESTER LANGMUIR-BLODGETT FILMS FOR BULK HETEROJUNCTION ON ITO
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4D-5P-14	441	Mr.	Mayberry	Clay	E	SAIC, Kirtland AFB, New Mexico 87117	Dr.	MODELLING OF CARRIER RECOMBINATION IN INTERFACE MODIFIED P3HT:PCBM BASED PHOTOCELLS
4D-5P-15	485	Mr.	Aoyama	Yoshinori		Tokyo Institute of Technology	Mr.	PHOTO-INDUCED DEGRADATION OF POLYTHIOPHENE DERIVATIVES AND ITS DEPENDENCE ON THE STRUCTURES OF
4D-5P-16	522	Mr.	Shinke	Wataru		Osaka Prefecture University	Mr.	ELECTROABSORPTION STUDY OF P3HT:PCBM BULK HETEROJUNCTION SOLAR CELLS
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4D-5P-22	220	Mr.	Mizuno	Toya		National Institute of Advanced Industrial Science and Technology (AIST)	Mr.	POLY(METHYLPHENYLSILANE) (PMPS) SOLAR CELL
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4D-5P-27	132	Dr	Wang	Shenghao		Institute of Applied Physics, University of Tsukuba	Dr.	ENERGY LEVEL ALIGNMENT OF Ca/BCP/C60 INTERFACES
4D-5P-28	176	Dr	Zhou	Ying		National Institute of Advanced Industrial Science and Technology (AIST)	Dr.	IMPROVING EFFICIENCIES OF NANOSTRUCTURED ORGANIC PHOTOVOLTAICS BY GLANCING ANGLE DEPOSITION
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4D-5P-32	514	Dr	Tachikawa	Hiroto		Hokkaido University	Dr.	DFT and Molecular Dynamics (MD) Study on the Interaction of Metal with C60 Surfaces
4D-5P-33	528	Mr	Iyama	Tetsuji		Hokkaido University	Mr.	DFT STUDY on the DEFECTS on GRAPHENE and FULLERENE
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4D-5P-35	548	Dr	Abe	Shigeaki		Hokkaido University	Dr.	A DFT and MD Study on Interaction of Water Clusters with Nano Carbon Materials
4D-5P-36	559	Prof	Kawabata	Hiroshi		Hiroshima university	Prof.	DFT Study on Hydrogen Adsorption/Desorption Reversible Processes on Graphene Surface
4D-5P-37	582	Dr	Yasuda	Takeshi		National Institute for Materials Science	Dr.	BENZOTHIADIAZOLE-TRIPHENYLAMINE BASED OLIGOMER AND POLYMER FOR APPLICATIONS TO THIN-FILM TRANSISTORS AND BULK HETEROJUNCTION SOLAR CELLS
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4D-5P-40	135	Mr	Song	Ho Jun		Konkuk University	Mr.	PYRENE BASED CONJUGATED SURFACTANT AS ELECTRON TRANSPORT LAYER FOR PLED AND OPV
4D-5P-41	98	Dr	Zeng	Tsung Wei		National Taiwan University	Dr.	FACTORS INFLUENCE RECOMBINATION IN P3HT:TIO2 NANOROD SOLAR CELLS
4D-5P-42	216	Mr	He	Lining		Nanyang Technological University; Institute of Material and Resarch Engineering; CINTRA	Mr.	Simple approach silicon-nanowires/organic-semiconductor hybrid solar cells beyond 10% efficiency
4D-5P-43	594	Dr	Ohashi	Noboru		National Institute of Advanced Industrial Science and Technology (AIST)	Dr.	HYBRID SOLAR CELLS WITH ORDERED C 60 FILMS ON SI (100) SUBSTRATE
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