




## 2017 Asia-Pacific Solar Research Conference

5th DECEMBER - 7th DECEMBER  
Bayview Eden Melbourne

2017 Asia-Pacific Solar Research Conference							
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8:00 – 9:00	<b>Registration</b>						
9:00 – 10:30	<b>DAY 1 Plenary Session Chair: A/Prof. Jacek Jasieniak Room Ballroom B</b>						
9:00 – 9:30	<b>Mr Simon Corbell</b> , Victorian Renewable Energy Advocate, Vic. State Government, AUSTRALIA <i>40% by 2025: Victoria's Renewable Energy Target</i>						
9:30 – 10:00	<b>Dr. Cliff Ho</b> , Acting Manager, R&D S&E, Sandia National Laboratories, USA <i>State of the Art in Concentrating Solar Tower Technology</i>						
10:00 – 10:30	<b>Mr Werner Weiss</b> , Director, AEE - Institute for Sustainable Technologies, AUSTRIA <i>Large-scale solar heating in a sustainable energy system</i>						
10:30 – 11:00	Morning tea						
11:00 – 12:50	<b>Solar Heating &amp; Cooling</b> Chair: Mr Ken Guthrie Room Parkside 1	<b>Concentrated Solar Thermal Power: Heliostats &amp; Optics</b> Chair: Dr John Pye Room Parkside 2	<b>PV Devices - Perovskite SCs</b> Chair: Prof. Jiang Tang Room Parkside 4	<b>UNSW CEEM Tariff Tool Workshop</b> Room Parkside 3 Starts at 10:45			
11:00 – 11:20	<b>Dr. Korbinian Kramer (Invited)</b> EN ISO 9806:2017 - A Focus on Solar Air Heating Collectors	<b>Dr. Hank Price (Invited)</b> The value of CSP to the Market	<b>Prof. Qingbo Meng (Invited)</b> Stability investigation on perovskite solar cells: from materials to the device	 <p style="text-align: center;">Centre for Energy and Environmental Markets</p> <p style="text-align: center;">Demonstration of the CEEM Tariff Tool ~ Open discussion of the characteristics and applications of the Tool ~ More information on the Tariff Tool can be found here - <a href="http://www.ceem.unsw.edu.au/cost-reflective-tariff-design">http://www.ceem.unsw.edu.au/cost-reflective-tariff-design</a> ~ Please email a.bruce@unsw.edu.au for free registration</p>			
11:20 – 11:40	<b>Dr. Wim Van Helden (Invited)</b> Compact Seasonal Solar Thermal Energy Storage Based On Solid Sorption	<b>Prof. Graham "Gus" Nathan (Invited)</b> Opportunities for concentrating solar thermal hybrids in the future energy mix	<b>Dr. Kylie Catchpole (Invited)</b> High efficiency perovskite/silicon tandem solar cells				
11:40 – 11:55	<b>Stuart Hands</b> A Case Study of Residential Forced Ventilation Systems Combined with Solar Air Collectors	<b>David Bisset</b> Images Formed by a Piecewise-Focusing Solar Collector	<b>Naveen Kumar Elumalai</b> Low Temperature Processed Electron Transport Layer for High Performance Perovskite Solar Cells				
11:55 – 12:10	<b>Jeremy Osborne</b> Opportunities for solar heat for industrial processes	<b>Matthew Emes</b> Experimental Investigation of the Wind Loads on Heliostats	<b>Jianghui Zheng</b> Solution-processed, silver-doped NiOx as hole transporting layer for high efficiency inverted perovskite solar cells				
12:10 – 12:25	<b>Stefan Abrecht</b> SOLERGY Label - Easy Understanding of Collector Performance	<b>Timothy Anderson</b> A numerical investigation of the influence of wind on multiple short natural draft dry cooling towers.	<b>Mathias Uller Rothmann</b> Electron microscope characterisation of photoactive perovskites				
12:25 – 12:40	<b>Ahmad Mojiri</b> Development of a stationary concentrating solar thermal collector for industrial process heat	<b>Azadeh Jafari</b> A Discussion about the Stow Wind Speed for Heliostats	<b>Yuan fang Zhang</b> Efficient Low-Temperature Solution-processed Planar Perovskite Solar Cells with High Fill Factor				
12:40 – 12:55	<b>Sheikh Khaleduzzaman Shah</b> Seasonal Solar Energy Storage for Space Heating in Cold Climate	<b>Farzin Ghanadi</b> An Experimental Investigation of Reynolds Number, Wind Direction and Pitch Angle Effects on Mixed Convective Heat Losses from a Flat Plate Receiver	<b>Timothy Jones</b> A metallurgical route for large-scale perovskite solar cell fabrication				
12:50 – 2:00	Lunch						
2:00 – 3:30	<b>IEA PVPS and Solar Heating &amp; Cooling</b> Chair: Ms. Emily Morton Room Parkside 1	<b>PV Devices - Perovskite Cells</b> Chair: Dr. Garry Rumbles Room Parkside 4	<b>PV Devices - Tandem SCs and other concepts</b> Chair: Dr. Xiaojing Hao Room Parkside 5				
2:00 – 2:15	<b>Renate Egan</b> The IEA PVPS Programme	<b>Dr. Gregory Wilson (Invited)</b> CSIRO PV Performance Laboratory: challenges in measurement, assessment and development of emerging perovskite semiconductors	<b>Niraj N Lal</b> Perovskite-Perovskite Tandem Efficiency Potential and Selective Light Trapping Mechanisms Based on Morpho Butterfly Nanostructures				
2:15 – 2:30	<b>Ken Guthrie</b> The IEA SHC Programme	<b>Xiaofan Deng</b> Dynamic study of light soaking effect on perovskite solar cells by photoluminescence microscopy	<b>Nicholas Rolston</b> Effect of Composition and Microstructure on the Mechanical Stability of Perovskite Solar Cells				
2:30 – 2:45	<b>Alison Reeve</b> Mission Innovation Challenge	<b>Jae S. Yun</b> Humidity Induced Degradation via Grain Boundaries of HC(NH <sub>2</sub> ) <sub>2</sub> PbI <sub>3</sub> Planar Perovskite Solar Cells	<b>Yajie Jiang</b> Design of Bragg Reflectors in III-V Solar Cells for Spectrum Splitting to Si				
2:45 – 3:00	<b>Dave Renne</b> The role of solar energy to achieve 100% Renewable Energy	<b>Ahmer A.B. Baloch</b> Multi-Property and Multi-Scale Computational Material Optimization of Perovskite Solar Cell	<b>Ziheng Liu</b> Epitaxial Growth of Ge on Si at Low Temperatures for III-V Tandem Solar Cells				
3:00 – 3:15	<b>Renate Egan and Ken Guthrie</b> PVPS and SHC - the next 5 years. Tasks and Opportunities	<b>Lei Shi</b> Encapsulation and Accelerated Lifetime Testing of Organic-Inorganic Perovskite Solar Cells	<b>Ingrid Haedrich</b> Method for measuring the angular distribution of reflected light from surfaces embedded in multilayer structures				
3:15 – 3:30	Q&A session	<b>Bin Li</b> Microstructural control of two-step deposited perovskites for planar heterojunction solar cells	<b>Ned Ekins-Daukes</b> Solar power conversion efficiency above 40% short and long term options				
3:30 – 4:00	Afternoon tea						
4:00 – 5:20	<b>IEA PVPS and Solar Heating &amp; Cooling</b> Chair: Ms. Alison Reeve Room Parkside 1	<b>PV Devices - Organic &amp; Perovskite SCs</b> Chair: Dr. Kylie Catchpole Room Parkside 4	<b>PV Devices - Si SCs</b> Chair: Dr. Udo Römer Room Parkside 5	<b>General Meeting</b> Chair: Dr. Wes Stein Rm Parkside 3			
4:00 – 4:20	<b>Warwick Johnston</b> PVPS Task 1: Strategic PV Analysis & Outreach	<b>Dr. Garry Rumbles (Invited)</b> Excitons, Charge-Transfer states, Charge-Separated states, the path to free carriers and the importance of charge delocalization	<b>Dr. Brett Hallam (Invited)</b> Hydrogenated Heterojunction p-type Silicon Solar Cells	 <p style="text-align: center;">● Panel Session ● General Discussion</p>			
4:20 – 4:35	<b>Korbinian Kramer</b> Proposed PVT Collaborative Task	<b>Fengling Zhang</b> Organic solar cells and applications	<b>Rabin Basnet</b> Relationship between local oxygen precipitation and minority carrier lifetime in Czochralski Si				
4:35 – 4:50	<b>Mikel Duke</b> SHC Task :Solar Energy in Industrial Water Management	<b>Ashraf Uddin</b> Novel Donor and Acceptor Systems for High Performance Organic Solar Cells	<b>Pei-Chieh Hsiao</b> Evaluation of Industrial Viability and Reliability of Plated Metallisation for Higher Efficiency p-type and n-type Silicon Solar Cells				
4:50 – 5:05	<b>Jean Erik Nielsen</b> SHC Task 57: Global Certification Network	<b>Jingsong Sun</b> Inverted perovskite solar cells with high fill-factors featuring mesoporous NiO HTLs	<b>Ning Song</b> Reduction of Rear Optical Losses for Interdigitated Back Contacts Silicon Solar Cells				
5:05 – 5:20	Q&A session	<b>Suguru Tanaka</b> Perovskite layers formed with Fluorocarbon polymer-scaffold and the high cell efficiency	<b>HuiTing Wu</b> Reconstructing Photoluminescence Spectra at 79K from Heavily Boron Doped Regions of Crystalline Silicon Solar Cells				
5:20 – 7:30	Conference Reception						
<b>CONFERENCE POSTER SESSION</b>							

TUES  
5th

8:00 – 9:00	Registration									
9:00 – 10:30	<b>DAY 2 Plenary Session Chair: A/Prof. Renate Egan, Chair APVI Room Room Parkside B</b> <b>Prof. Martin Green, Director, Australian Centre for Advanced Photovoltaics (ACAP), UNSW</b> <i>Advances in Photovoltaics</i> <b>Dr. Wes Stein, Director, Australian Solar Thermal Research Initiative (ASTRI) &amp; Chief Scientist, CSIRO</b> <i>What next for CSP in Australia?</i> <b>Dr. Tom Campey, General Manager Strategy, Australian Renewable Energy Agency (ARENA)</b> <i>ARENA's Role in Accelerating Solar PV Innovation</i>									
9:00 – 9:30										
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10:00 – 10:30										
10:30 – 11:00	Morning tea									
11:00 – 12:50	<b>PV D&amp;I - Performance &amp; Solar Resource</b> <b>Chair: Dr. Muriel Watt Room Parkside 5</b>	<b>Concentrating Solar Thermal - Receivers</b> <b>Chair: Dr. Joe Coventry Room Parkside 2</b>	<b>PV Devices - Metal Chalcogenide</b> <b>Chair: Prof. Qingbo Meng Room Parkside 4</b>	<b>PUSCH - Promoting the Use of Solar Cooling and Heating in Australian Buildings</b> <b>Workshop Part I</b> <b>Chair: Subbu Sethuvenkatraman Rm Parkside 3</b>						
11:00 – 11:20	<b>Ms. Ulrike Jahn (Invited)</b> Managing Technical Risks in PV Investments – New Methods How to Quantify Risks in PV Projects	<b>Prof. Jacob Karni (Invited)</b> A suggested method for choosing a CSP system configuration for power generation and fuel production	<b>Prof. Jiang Tang (Invited)</b> Sb2Se3 thin film photovoltaics: motivation, progress and perspective	<b>"Price Reduction of Solar Thermal Systems"</b> <b>Dr Korbinian Kramer, Fraunhofer Institute of Solar Energy</b> <i>Brought to you by</i>  						
11:20 – 11:40	<b>A/Prof. Maria Wall (Invited)</b> Solar Energy in Urban Planning – Results from the IEA SHC Task 51	<b>Will Logie</b> Fatigue Analysis of Sodium Receiver Tubes	<b>Dr. Xiaojing Hao (Invited)</b> Promise, progress and challenges of earth-abundant and environmentally friendly CZTS solar cells							
11:40 – 11:55	<b>Jan Remund</b> Solar resource for high penetration and large scale applications – a new joint Task of IEA PVPS and IEA SolarPACES	<b>Shen Long</b> Effect of Jet Azimuthal Angle on the Flow Field within a Hybrid Solar Receiver Combustor	<b>Zhilong Zhang</b> Cesium Lead Halide Perovskite Nanocrystals as the Passivating Source of Lead Chalcogenide Quantum Dots and Solar Cells							
11:55 – 12:10	<b>Timothy Anderson</b> Solar Potential Assessment of Facades in an Urban Context: An Algorithm for 2.5D Digital Surface Models	<b>Dominic Davis</b> Particle Residence Time Distributions in a Solar Vortex Receiver	<b>Yuanfang Zhang</b> High-quality CuSbS2 as potential abundant absorber for thin film solar cells							
12:10 – 12:25	<b>Nick Morley</b> Fleet Performance of Large-Scale PV in Australia	<b>Charles-Alexis Asselineau</b> Influence of the Radiative Flux Distribution on Thermo-Elastic Stresses of Solar Thermal Receiver Tubes.	<b>Shengli Zhang</b> ITO Films Prepared at Low Temperatures for the Application in CuZnSnS4 Thin Film Solar Cells							
12:25 – 12:40	<b>Jessie Copper</b> Interannual Variability of the Solar Resource across Australia	<b>Mehdi Jafarian</b> An innovative solar receiver for heating a pressurised gas	<b>Xin Cui</b> Improvement of CZTS solar cell performance by ALD WOx interfacial layer							
12:40 – 12:55	<b>Ian Grant</b> Satellite-based solar resource data from the Australian Bureau of Meteorology: Status and plans	<b>Ka Lok Lee</b> Experimental study on the effects of wind on the convective heat losses from a heated cavity	<b>Arastoo Teymouri</b> Low temperature solution-based process for silver nanowire as potential replacement for indium tin oxide							
12:50 – 2:00	Lunch									
2:00 – 3:30	<b>PV D&amp;I - Distributed &amp; Technical</b> <b>Chair: Steve Blume Room Parkside 5</b>	<b>ARENA WORKSHOP</b> <b>Bridging the Gap: ARENA's Role in Bringing Innovative PV Tech to Market</b> <b>Room Parkside 1</b>	<b>PV Devices - Perovskite SCs</b> <b>Chair: Dr Mei Gao Room Parkside 4</b>				<b>PUSCH - Promoting the Use of Solar Cooling and Heating in Australian Buildings</b> <b>Workshop Part II</b> <b>Chair: Subbu Sethuvenkatraman Rm Parkside 3</b>			
2:00 – 2:15	<b>Joe Hirschberg</b> Electricity Consumption Patterns of Households Subject to Feed-in Tariffs	<b>Hosted by</b> <b>Dr. Tom Campey, ARENA &amp; Rhett Evans, Solinno</b>  ARENA are looking to engage with researchers who have an interest in taking their research the next step along the road to commercialisation, or those who are currently on that pathway. We are seeking views on how ARENA can best support the research sector to improve the translation of early-stage R&D, particularly around the types of activities it could fund and how these could be prioritised.  <b>Participants are asked to bring along a device with which to access wifi</b>	<b>Eun Young Choi</b> Stability Enhancement of Organic-Inorganic Perovskite Solar Cells via Low Temperature Atomic Layer Deposition	<b>"Solar District Heating International Experience"</b> <b>Mr. Jan Erik Neilsen, Solarkey Int., Denmark</b> <i>Brought to you by</i>  						
2:15 – 2:30	<b>Naomi Stringer</b> Data driven exploration of voltage conditions in the Low Voltage network and the technical and commercial implications for distributed solar PV		<b>Benjamin C. Duck</b> The Impact of Technique on Measured Efficiency Values for Perovskite Solar Cells							
2:30 – 2:45	<b>Sharon Young</b> Scenario Modelling of the Impacts of Distributed Energy Resources on Australia's Electricity Networks		<b>James M Cave</b> Determining the Activation Energy for Hysteresis in Perovskite Solar Cells;							
2:45 – 3:00	<b>Rui Tang</b> Impacts of Temporal Resolution and System Efficiency on PV Battery System Optimisation		<b>Ahmer A.B. Baloch</b> The Practical Limits of Perovskite Solar Cell Efficiency by Device Simulation							
3:00 – 3:15	<b>Anna Nadolny</b> Impact of conversion to EV within South Australia		<b>Kenrick F. Anderson</b> Novel all-in-one Electroluminescence, photoluminescence and light-beam induced photocurrent spatial uniformity measurements within perovskite solar cells							
3:15 – 3:30	<b>Jason David</b> Impact of Scheduled Cleaning on Photovoltaic System Efficiency in an Australian Coastal Context		<b>Andre Cook</b> Towards rational design of Lewis base passivation agents for Perovskite Solar Cells							
3:30 – 4:00	Afternoon tea									
4:00 – 5:20	<b>Solar Energy Solutions for Emerging Economies</b> <b>Chair: Olivia Colredy Room Parkside 1</b>	<b>Solar Fuels</b> <b>Chair: Prof. Wojciech Lipinski Room Parkside 3</b>	<b>PV Devices - Si SCs</b> <b>Chair: Dr. Brett Hallam Room Parkside 4</b>	<b>Low Carbon Living</b> <b>Chair: Jessie Copper Room Parkside 2</b>						
4:00 – 4:20	<b>A/Prof. Atul Raturi (Invited)</b> Role of Solar Energy in Achieving Sustainable Development Goals in Pacific Island Countries	<b>Prof. Tatsuya Kodama (Invited)</b> High-Temperature Thermochemical Hydrogen Production using a Solar Concentrating System	<b>Dr. Udo Römer (Invited)</b> Reliable Copper Plating to TCO Layers for the Metallisation of High Efficiency Solar Cells	<b>Birgit Abrecht (Invited)</b> Living Solar						
4:20 – 4:35	<b>Mr. Geoff Stapleton (Invited)</b> Quality Renewable Energy Training Programs for Technicians	<b>Mohammad M. Sarafaz</b> Potential application of liquid antimony oxide for solar-aided hydrogen production	<b>Benjamin Phua</b> Cross Sectional Analysis of Encapsulated Solar Cells	<b>He Tao</b> Developments in the Chinese Solar Heating Industry						
4:35 – 4:50	<b>Rolando Madriz-Vargas</b> A cross-case analysis of needs, barriers and opportunities from Community Energy projects in Central America	<b>Vincent Wheeler</b> Multi-Scale Design for High Efficiency Thermochemical Fuel Production	<b>Chang-Yeh Lee</b> Manipulating the fixed charge density of ALD Al2O3 deposited using a non-pyrophoric precursor	<b>Alistair Sproul</b> An investigation of PV, HVAC, building envelope and thermal mass for low energy residential homes						
4:50 – 5:05	<b>Mengying Chen</b> Implementation of Solar Home Systems (SHS) in Vanuatu's Tanna Island	<b>Alireza Rahbar</b> Technoeconomic analysis of algae-to-liquid fuel production based on concentrated solar supercritical water gasification	<b>Tian Zhang</b> In-situ X-ray Photoelectron Emission Analysis of Thermal stability of atomic layer deposited Wox as hole-selective contacts for Si solar cells	<b>Sihong Gong</b> Does a 10-star rated house perform as designed?						
5:05 – 5:20	<b>Vinal Vishal Prakash</b> Energy Needs Assessment and Strategies for 100% RE Future For A Small Island Community		<b>Xinbo Yang</b> Tantalum Nitride Electron-Selective Passivating Contact for Silicon Solar Cells	<b>Timothy Anderson</b> Improving the robustness of thermal models of naturally ventilated buildings						
5:30 – 6:30	Pre Dinner Drinks									
6:30 – 9:30	<b>Official Conference Dinner - Parkside B</b> 									
	<b>APVI AGM</b> <b>Room Parkside 2</b>									

WED 6th

8:30 – 9:00	Registration					
9:00 – 10:30	<p align="center"><b>DAY 3 Plenary Session Chair:</b> Dr. Richard Corkish <b>Room</b> Parkside B</p> <p align="center"><b>Dr. Greg Wilson</b>, Center Director, National Renewable Energy Laboratory, USA <i>Photovoltaics - Low Cost Electricity Leading to a Multi-TW Future</i></p> <p align="center"><b>Dr. Pierre Verlinden</b>, Vice-President &amp; Chief Scientist, Trina Solar <i>The future of p-type multi- and mono-crystalline Si PERC cells</i></p> <p align="center"><b>Dr. Jenny Riesz</b>, Principal, Australian Energy Market Operator <i>System considerations for integration of photovoltaics into the NEM</i></p>					
10:30 – 11:00	Morning tea					
11:00 – 12:50	<b>PV D&amp;I - High Penetration</b> <b>Chair:</b> Dr. Anna Bruce <b>Room</b> Parkside 5		<b>Concentrating Solar Thermal - Minerals Processing</b> <b>Chair:</b> Dr. Woei Saw <b>Room</b> Parkside 2		<b>ACAP</b> <b>Chair:</b> Régine Chantler <b>Room</b> Parkside 3	
11:00 – 11:20	Dr. Keith Lovegrove (Invited)	Dispatchability options for a high renewables world	Prof. Geoff Brooks (Invited)	The Development of Hybrid Solar Thermal Furnaces	Dr. Brett Hallam, UNSW (Invited)	The Importance of Hydrogenation and Gettering for Silicon Solar Cell
11:20 – 11:40	Prof. Andrew Blakers (Invited)	100% renewable electricity by 2030	Mr Robbie McNaughton (Invited)	Solar Steam Reforming for the Bayer Process, Embedding Solar Energy in Alumina	Dr. Mei Gao, CSIRO (Invited)	Development of Highly Efficient Perovskite Solar Cells with Roll-to-Roll compatible Process
11:40 – 11:55	Dr. Roger Dargaville (Invited)	The role of solar PV and concentrating solar thermal in large scale integration optimisation studies	Ahmed Naufal	Integration of concentrated solar thermal energy into gibbsite calcination process	Mr Rhett Evans, UNSW (Invited)	Re-defining our understanding of quality in PV cell and module manufacturing
11:55 – 12:10	Iain MacGill	Renewable energy auctions versus the RET—better renewables prices, but greater integration costs?	Andrew Beath	Opportunities for Concentrated Solar Thermal Heat Input into the Australian Minerals Industry	Dr. Jian-Feng Lu, Monash (Invited)	Diammonium and Monoammonium Mixed Organic-Cation Perovskites for High Performance Solar Cells with Improved Stability
12:10 – 12:25	Bin Lu	Modelling 60–120% Renewable Electricity in South Australia	Alicia Bayon Sandoval	Steam production via concentrated solar thermal for the Bayer process	Dr. Pheng Phang, ANU (Invited)	24% efficient polysilicon passivated contact silicon solar cells
12:25 – 12:40	Isha Deodhar	Finding High Resilience And Near Optimal Energy Generation Mixes for 21st Century	Mahesh Venkaraman	Production Pathways and Energy Analysis for Direct Solar Metallothermic and Electrolytic reduction of rare earth oxides	Dr. Jegadesan Subbiah, Umelb (Invited)	High performance ternary blend organic solar cells using conjugated polymer and molecular materials
12:40 – 12:55	K Keeratimahat	Short-term Operational Characteristic Analysis of Existing Utility-scale PV Plants in Australia	Saleh Almsater	Cost Analysis of Two High Temperature Thermal Energy Storage Techniques for Large Scale Concentrating Solar Power (CSP) Applications	Dr. Hui Jin, UQ (Invited)	Graphene anodes for thin film solar cells
12:50 – 2:00	Lunch					
2:00 – 3:30	<b>PV D&amp;I - Financial Aspects</b> <b>Chair:</b> Dr. Roger Dargaville <b>Room</b> Parkside 5		<b>Concentrating Solar Thermal</b> <b>Chair:</b> Dr Alicia Bayon Sandoval <b>Room</b> Parkside 2		<b>ACAP</b> <b>Chair:</b> Dr. Richard Corkish <b>Room</b> Parkside 3	
2:00 – 2:15	Jeremy Lloyd	FCAS Market Design for High Renewable Penetrations in the National Electricity Market	Yanping Sun	New Na2SO4-NaCl-ceramic composites as high temperature phase change materials for solar power plants	Dr. Wei Li, Monash (Invited)	Microstructure characterizations for photoactive perovskite materials
2:15 – 2:30	James Banks	Fast Frequency Response Markets in the Future Australian NEM with High Renewable Energy Penetration	Alberto de la Calle	Optimal annual operation of the dry cooling system of a supercritical CO2 recompression Brayton cycle integrated with a concentrated solar energy plant	Sarah McGregor, UQ (Invited)	Organic semiconductors for thin film photovoltaic devices
2:30 – 2:45	Phillip Wild	Determining commercially viable two-way and one-way 'Contract-For-Difference' strike prices and revenue receipts	Kimberley Kueh	Planar Temperature Measurement of Radiatively-heated Particles	Dr. David Jones, Umelb (Invited)	Development of high performance OPV materials, morphology development and translation
2:45 – 3:00	Shira Samocha	Generator Revenue in the Australian National Electricity Market with High Renewables Penetration	Mahyar Silakhori	The potential of lead oxide for energy storage in a high temperature solar thermal system	Marina Monteiro Lunardi, UNSW (Invited)	Life Cycle Assessment of Advanced Silicon Solar Cells
3:00 – 3:15	Luke Marshall	Coincident Timing Barriers to Microgrid Energy Trading	Juan F. Torres	Numerical Investigation of Mixed Convection from a Tilted Flat Solar Thermal Receiver	Dr. Doojin Vak, CSIRO (Invited)	Hot Slot Die Coating for Organic and Perovskite Solar Cell
3:15 – 3:30	Ben Madafiglio	Facilitating Demand Response in the Australian National Electricity Market			A/Prof. Klaus Weber, ANU (Invited)	High efficiency, monolithic perovskite - silicon tandem cells
3:30 – 4:00	Afternoon tea					
4:00 – 5:00	<b>PV D&amp;I - Solar in the Retail Market</b> <b>Chair:</b> Dr. Rob Passey <b>Room</b> Parkside 5		<b>Remote &amp; Emerging Economies</b> <b>Chair:</b> A/Prof. Atul Raturi <b>Room</b> Parkside 1		<b>ACAP Poster Session</b> <b>Pre-function Foyer</b>	
4:00 – 4:15	Naomi Stringer & Luke Marshall	Open Source Model for Operational and Commercial Assessment of Embedded Network Proposals in the Australian National Electricity Market	Bert Herteleer	Understanding Integration Aspects: Renewable Power and Energy Fractions		
4:15 – 4:30	Baran Yildiz	A method for classifying households to help forecasting their Photovoltaic electricity self-consumption patterns	Kitessa Roro	Field Performance of a 558 kWp Ground Mounted Single-Axis PV System in Pretoria, South Africa		
4:30 – 4:45	Emma Presutti	Retail Electricity Tariff Design to Incentivise Efficient Consumer Behaviour	Arionmaro Asi Simaremare	Modelling of Future Least Cost High Renewable Energy Penetration Scenarios in the Java Bali Grid System		
4:45 – 5:00	Mike Roberts	Apartment PV - Which Side of the Meter?	Yusak Tanoto	Photovoltaic Deployment Experience and Technical and Commercial Potential in Indonesia's Java-Madura-Bali Grid		
5:00 – 5:15	Closing Ceremony/Award Presentations <b>Room</b> Parkside 5					
5:15 – 6:00	Drinks and Nibbles					

THURS  
7th