

## 7th ACAP Conference – 5 & 6 December 2019



**Day 1. Thursday 5 December 2019 – Venue: Rex Hotel Canberra**  
150 Northbourne Avenue Canberra City, ACT 2612

<b>8.00</b>	<b>Registration</b>
Keynotes Session - Chair: Richard Corkish (ACAP/UNSW)	
9.00 - 9.30	Alexander <b>Colsmann</b> , Head of Organic Photovoltaics Group, Spokesperson of the KIT Energy Center, Karlsruhe Institute of Technology , Germany "The perfect solar cell: How ferroelectricity improves power harvesting in perovskite solar cells"
9.30 - 10.00	Andreas <b>Zourellis</b> , Technical Lead, Aalborg CSP, DENMARK Title to be advised
10.00 - 10.30	Lachlan <b>Blackhall</b> , Entrepreneurial Fellow and Head, Battery Storage and Grid Integration Program, ANU, Australia "The Decarbonised, Decentralised and Democratised"
<b>10.30 - 11.00</b>	<b>Morning Tea</b>
11.00 - 12.30	ACAP Poster presentations (refer to table below)
<b>12.30 - 13.30</b>	<b>Lunch</b>
ACAP breakout session - Chair: Régine Chantler (CSIRO)	
13.30 - 13.45	<b>CSIRO:</b> Chuantian <b>Zuo</b> "Crystallization Control in Drop-Cast Quasi-2D Perovskites for Efficient Solar Cells"
13.45 - 14.00	<b>UQ:</b> Dr Xiao <b>Wang</b> "2D Hybrid perovskite solar cells"
14.00 - 14.15	<b>Monash:</b> Dr. Sebastian <b>Furer</b> "How Electrolyte Additives Define the Performance of Copper Bisphenanthroline Electrolytes"
14.15 - 14.30	<b>UoM:</b> Dr Jegadesan <b>Subiah</b> "High-performance ternary organic solar cells using liquid crystalline molecular materials"
14.30 - 14.45	<b>ANU:</b> Jun <b>Peng</b> "Localized contact passivation for highly efficient and stable perovskite solar cells"
14.45 - 15.00	<b>UNSW:</b> Nathan <b>Chang</b> "Techno-economic analysis - WHAT is it, WHY is it important, and HOW to do it?"
<b>15.00 - 15.30</b>	<b>Afternoon Tea</b>
ACAP Breakout session continued... Chair: Kylie Catchpole (ANU)	
15.30 - 16.45	<b>CSIRO:</b> Doojin <b>Vak</b> "Finding Printable Materials via High-Throughput Device Fabrication and Testing"
16.45 - 16.00	<b>ANU:</b> Kelvin <b>Sio</b> "Bulk Defects in Monocrystalline Silicon, Multicrystalline Silicon and Mono-Like Silicon Materials"
16.00 - 16.15	<b>Monash:</b> Wenchao <b>Huang</b> "Mechanically robust and high efficiency ultraflexible organic solar cells"
16.15 - 16.30	<b>UNSW:</b> Anita <b>Ho Baillie</b> "Perovskite Solar Cells : Challenges and Progress"
16.30 - 16.45	<b>UQ:</b> Paul <b>Shaw</b> "High dielectric constant materials for organic solar cells"
16.45 - 17.00	<b>UoM:</b> David <b>Jones</b> "Stabilised organic semiconductor nanoparticles for organic solar cell deposition from industrially relevant solvents."
17.00 - 17.30	APSRC Closing Ceremony / Awards Presentations
<b>17.30 - 19.00</b>	<b>Networking drinks</b>

## 7th ACAP Conference – 5 & 6 December 2019



### Day 2. Friday 6 December 2019 – Venue: ANU Canberra

8.00AM to 12.00PM Engineering Theatre, Engineering Building #32

12:00PM to 3:30PM Building #31 Ian Ross Conference room, R212, 12pm-3.30pm

<b>9:00</b>	<b>Conference opens</b>
9.00 - 9.15	ACAP Director's Welcome (Martin Green)
9.15 - 9.35	PP1 Summary-- Kean Chern (ANU) or delegate, supported by Catherine Chan
9.35 - 9.55	PP2 Perovskite Summary - Anita Ho-Baillie (UNSW)
<b>9.55 - 10.25</b>	<b>Morning Tea</b>
10.25 - 10.45	PP2 OPV Summary - David Jones (U Melb)
10.45 -11.05	PP3 Summary - Paul Shaw UQ
11.05- 11.25	PP4 Summary - Nathan Chang (UNSW)
11.25 -11.45	PP5 Summary - Fiona Scholes (CSIRO) (TBC)
11.45 -12.00	7 <sup>th</sup> ACAP Conference Closing (Martin Green, ACAP Director)
<b>12.00</b>	<b>LUNCH (own arrangements)</b>
12.15 - 2.00	ACAP Steering Committee Meeting (lunch provided)
2.00 - 3.30	ACAP Management Committee Meeting (afternoon tea provided)



ACAP Poster Presentations 5 December		
UQ	Wei <b>Jiang</b>	"Materials for organic homojunction solar cells"
	Aaron <b>Raynor</b>	"Synthesis of organic semiconductors for solar cells"
	Hui <b>Jin</b>	"Low donor content solar cells"
UNSW	Ziv <b>Hameiri</b> , Shuai <b>Nie</b> , Sissel Tind Kristensen, Alexander Gu, Robert Lee-Chin, Thorsten Trupke,	"Photoluminescence-Based Temperature Coefficient Maps of Silicon Wafers and Solar Cells"
	Bram <b>Hoex</b> , Zubair <b>Abdullah-Vetter</b> , Ben <b>Sudbury</b> , Malcolm <b>Abbott</b> , and Keith <b>McIntosh</b>	"Adapting SunSolve for enhanced photovoltaic manufacturing education"
	Chang <b>Yan</b> , Jialiang <b>Huang</b> , Kaiwen <b>Sun</b> , Mingrui <b>He</b> , Xiaojing <b>Hao</b> and Martin A. <b>Green</b>	"High efficiency CZTS solar cell"
	Murad Tayebjee (author) Alexander <b>Baldacchino</b> , Dane McCamey	"Spectroscopy of Intramolecular Singlet Fission Photovoltaic Devices"
	Fiacre <b>Rougieux</b> , Mengqi <b>Zhang</b> , Gauthier <b>Mouette</b> , Xingru <b>Tan</b> and Mattias <b>Juhl</b>	"End-end multi-scale modelling of the evolution of oxygen impurities along the silicon solar cells value chain"
	Henner <b>Kempworth</b> , Michael <b>Pollard</b> , Masakazu <b>Sugiyama</b> , Xiaojing <b>Hao</b>	"Ultra-sensitive Defect Measurements of Thin-films"
	<b>Phua</b> , B. , <b>Hsiao</b> , P.-C. , C. <b>Römer</b> , <b>Augusto</b> , A. F. R. , <b>Bowden</b> , S. and Alison <b>Lennon</b> ,	"Performance Degradation Pathways in Silicon Photovoltaic Modules Arising from Copper-Plated Metallisation"
	Valerie <b>Mitchel</b>	"Block copolymers incorporating high performance polymers for single material organic photovoltaic active layers"
UoM	Sagar <b>Masoomigodarzi</b>	"Liquid crystallinity as a self-assembly motif for solid state singlet fission materials"
	Pengjun <b>Zhao</b>	"Tailored Dipole Electric Field for efficient and Stable Perovskite Solar Cells by amino-terminal Fullerene Molecules"
	Gagandeep <b>Ahluwalia</b>	"Amphiphilic Block Copolymers for Morphological Control in Thin Films"
	Kean Chern <b>Fong</b>	"Loss Analysis of 25% IBC and IBC Tandem Solar Cells"
ANU	Rabin <b>Basnet</b>	"Onset of ring defects in n-type Czochralski silicon"
	Wenhao <b>Chen</b>	"Influence of PECVD deposition temperature on phosphorus diffused polysilicon passivating contacts"
	Wensheng <b>Liang</b> and Jingnan <b>Tong</b>	"Design and optimization of IBC solar cells using metal oxide passivated contact"
	Daniel <b>Walter</b>	"Perovskite solar cells as ion-conducting semiconductor devices: explaining a wide range of hysteretic phenomena"



CSIRO	Na Gyeong <b>An</b>	“Morphological Characterization and Photovoltaic Applications for Indoloindole-based Small Molecule”
	Regine <b>Chantler</b>	“A case study of the degradation of flexible solar modules with high schools outreach”
	Mei <b>Gao</b>	“Reliability Improvement of Perovskite Solar Cells Through a Roll-to-Roll (R2R) Continuous Process”
	Fiona <b>Glenn</b>	“Replacing ITO with slot die coated silver nanowire/PDOT:PSS composite as the transparent electrodes for flexible solar films”
	Hengyue <b>Li</b>	“Improved Slot-die Coated Perovskite Solar Cells with 2D/3D Structure”
	Doojin <b>Vak</b>	“Polymer-based Transparent Electrodes for Low-Cost Light-Weight Flexible Solar Cells”
Monash	Siqi <b>Deng</b>	“Fabrication of back-contact perovskite solar cells via microsphere lithography”
	Boer <b>Tan</b>	“Substantial enhancement of cm-Sized perovskite solar cells thermal stability via doping engineering in spiro-OMeTAD with Cu(II) complexes”
	Qingdong <b>Lin</b>	“CsPbBr <sub>3</sub> Perovskite Nanowires in soft XRD Detection”
	Xiongfeng <b>Lin</b>	“Back-contact perovskite solar cells”
	Boya <b>Zhao</b>	“Additive Engineering for Efficient Back-Contact perovskite photovoltaics”