

Photovoltaics Science, Applications and Technology Conference (PVSAT) 2024

Programme

Wednesday 10 April 2024

Time	Talk	Speaker	Title	Affiliation
10:30am	Registration and Welcome Refreshments			
11am	Welcome	Tasmia Rahman	Conference Chair	University of Southampton
		George Koutsourakis	Programme Chair	NPL
		Strathclyde host	Strathclyde Intro	University of Strathclyde
Session 1 Chair: Tasmia Rahman				
11:15am	Invited Speaker	Aruna Ivaturi	Stretching the Limits of Indoor Light Harvesting Perovskite Solar Cells	University of Strathclyde
11:45am	Contributed	David Keeble	Detection of vacancy-related point defects in antimony selenide	University Of Dundee
12:00pm	Contributed	Dan Lamb	CdTe-based PV on ultrathin glass for emerging large area space applications	Swansea University
12:15pm	Flash Poster Presentations A Chair: George Koutsourakis			
12:30pm	Lunch			
1:30pm	Poster Session			
2:45pm	Afternoon Break			
Session 2 Chair: Elizabeth Gibson				
3pm	Invited Speaker	Satoshi Uchida	Nanoscale observation of organometal halide perovskite solar cells with superlattice	University of Tokyo
3:30pm	Contributed	Oliver Hutter	Hysteresis and Transient Behaviour in Current Voltage Measurements of Antimony Selenide Solar Cells	Northumbria University
3:45pm	Contributed	Matthew Wright	Impact of Surface Electric Fields on Light Soaking Enhancements in SHJ Solar Cells	University Of Oxford
4pm	Contributed	Mr Yazan J.K. Musleh	Irradiance Estimation for Vertical Bifacial AgriPV Systems: Integrating Regression Analysis and Decomposition-Transposition Matrix in the UK Context	University of Southampton
4:15pm	Afternoon Break			

Session 3 Chair: Nigel Mason				
Time	Talk	Speaker	Title	Affiliation
4:30pm	Contributed	Daniel Parsons	A Novel System for Performance measurements of Indoor Photovoltaic Devices under Indoor Standard Testing Conditions (ISTC)	National Physical Laboratory
4:45pm	Contributed	James McQueen	Multiphysics Modelling for the Design of >35% Efficient Perovskite-on-Silicon Tandem Solar Cells	University Of Oxford
5pm	Contributed	Prabeesh Punathil	Zn(x)Mg(1-x)O buffer layer for CZTSSe solar cells using co-sputtering technique.	Northumbria University
5:15pm	Contributed	Lewis Osikibo Tamuno-Ibuomi	Indoor Characterisation and Performance Analysis of Static Hexagonal Concentrators for Building Integrated Low Concentrating Photovoltaic Applications	Glasgow Caledonian University
5:30pm-6:30pm	Welcome Reception			

Thursday 11 April 2024

Session 4 Chair: Stuart Boden				
Time	Talk	Speaker	Title	Affiliation
9:15am	Invited Speaker	Robert Hoyer	Photovoltaic Materials Development: Roadmap on Current Challenges and Future Opportunities	University of Oxford
9:45am	Contributed	John Murphy	Contact metallization processing considerations for silicon photovoltaics	University Of Warwick
10am	Contributed	Ershad Parvazian	Utilizing Low-Toxicity Solvents in Roll-to-Roll Fabrication of Carbon Electrode Perovskite Solar Cells	Swansea University
10:15am	Contributed	Jessica Barichello	Beneath the surface: Investigating Perovskite Solar Cells under Water	CNR - ISM Istituto di Struttura della Materia
10:30am	Exhibitor Flash presentations			
10:45am	Morning Break			
Session 5 Chair: George Koutsourakis				
11am	Invited Speaker	Michael Owen Bellini	PACT: Addressing Durability and Reliability issues for emerging PV technologies	NREL
11:30am	Contributed	Ram Datt	Organic Solar Cells at Stratospheric Condition for High Altitude Platform Station Application	Swansea University
11:45am	Contributed	Nicholas Grant	Nature of Al ₂ O ₃ surface passivation for high efficiency silicon photovoltaics	University Of Warwick
12pm	Contributed	Fátima Santos	Monolithic dye-sensitized solar cells with copper polymer gel electrolytes for indoor applications	University of Porto

12:15pm	Contributed	Bethany Willis	Life-cycle assessment for more sustainable photovoltaics research and manufacturing	Northumbria University
12:30pm	Lunch			
Session 6 Chair: Nigel Mason				
Time	Talk	Speaker	Title	Affiliation
1:30pm	Invited Speaker	Marina Freitag	Advanced Indoor Photovoltaics for IoT	Newcastle University
2pm	Contributed	Zaid Haymoor	The use of Artificial neural network to enhance MPPT finding methodology on Energy Harvesting chips	Swansea University
2:15pm	Contributed	Sophie Pain	Hafnium oxide: A thin film passivating dielectric with controllable etch resistance	University Of Warwick
2:30pm	Contributed	Stefan Nicholson	Unveiling the effects of electron transport layers on all inorganic perovskite film formation	University of Strathclyde
2:45pm	Afternoon Break			
Session 7 Chair: Nakita Noel				
3pm	Invited Speaker	Ruy Sebastian Bonilla	Charged-Up Solar Cells: The Role of Interface Electric Fields in Photovoltaic Devices	University of Oxford
3:30pm	Contributed	Jay Patel	Terrestrial And Non-Terrestrial Environmental Effects on Perovskite Solar Cell Performance	King's College London
3:45pm	Contributed	Austin Kay	Realistic Performance Limits of Indoor Photovoltaics	Swansea University
4pm	Contributed	Udari Wijesinghe	Intense Pulsed Light Sintering of Antimony Selenide Thin Films	Northumbria University
4:15pm	Afternoon Break			
Session 8 Chair: Tasmiat Rahman				
4:30pm	Contributed	Lethy Krishnan Jagadamma	Halide Perovskites Based Indoor Photovoltaics: Role of Interfacial Layers	University of St Andrews
4:45pm	Contributed	Yixin Wang	Unravelling the effects of oxygen doping on charge-carrier dynamics of AgBiS ₂ solar harvester	University Of Oxford
5pm	Contributed	Amy Neild	Unlocking the Potential of Alternative Hole Transporting Materials for Solid-State Dye-Sensitised Solar Cells through Prolonged Oxidation and Light Soaking Treatment	Newcastle University
5:15pm-5:30pm	Contributed	Pierre Couture	Total ion beam analysis of semiconductor materials	Surrey Ion Beam Centre, University Of Surrey
7:15pm-10pm	Drinks Reception and Conference Dinner (Trades Hall, 85 Glassford Street, Glasgow, G1 1UH)			

Friday 12 April 2024 Professor Elizabeth Gibson

Session 9 Chair: Aruna Ivaturi				
Time	Talk	Speaker	Title	Affiliation
9:15am	Invited Speaker	Elizabeth Gibson	The ViTAL project and solution processed solar cells	Newcastle University
9:45am	Contributed	Mahmoud Dhimish	Do Minor Cracks in Solar Cells, Barely Visible in Electroluminescence, Really Matter?	University Of York
10am	Contributed	Yuelin Xiong	Self-Aligned Laser Opening and Stencil Metallisation for Silver-Free Contacts in Silicon Solar Cells	University Of Oxford
10:15am	Contributed	Yue Hu	Control crystallisation of perovskites in printable mesoscopic solar cells	University of Edinburgh
10:30am	Contributed	Gregory Burwell	Application-Targeted Metal Grid - Enhanced Transparent Electrodes for Organic Photovoltaics	Swansea University
10:45am	Morning Break			
Session 10 Chair: Alex Cole				
11am	Invited Speaker	Kurt Barth	Advances In CdTe Based Devices and the Establishment of the Sustainable Solar Energy Systems (SES) Network Plus	Loughborough University
11:30am	Contributed	George Koutsourakis	Hybrid satellite albedo data for bifacial PV systems in complex landscapes and comparison with hybrid ground based data	National Physical Laboratory
11:45am	Contributed	Lucy Hart	Understanding the Ionic Modulation of Open-Circuit Voltage in Perovskite Solar Cells	Imperial College London
12pm	Contributed	Matthew Wright	Characterisation of Solar Cell Interfaces using Elastic Recoil Detection Analysis	University Of Oxford
12:15pm	Closing Remarks / Awards			
12:30pm	Lunch (pre-packed grab and go)			
1:30pm	Conference concludes and depart			