International Conference on Hybrid and Organic Photovoltaics (HOPV23)

London, United Kingdom, 2023 June 12th - 14th
Conference organizers: Tracey Clarke, James Durrant and Trystan Watson

Conference Program

June 12th - Day 1 (Monday) 1	
08:00 - 09:00	**Registration**
09:00 - 09:15	**Opening**
	Session 1A Chair: James Durrant
09:15 - 10:00 1A-K1	Richard Friend *(Department of Physics, Cavendish Laboratory, University of Cambridge, Cambridge, UK)* Radical organic semiconductors for optoelectronic applications
10:00 - 10:30 1A-I1	Christoph Brabec *(Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Materials for Electronics and Energy Technology (i-MEET), Martensstraße 7, 91058 Erlangen, Germany)*, Larry Lueer An Adaptive Digital Twin for Organic Photovoltaic Materials
10:30 - 11:00 1A-I2	Natalie Banerji *(Department of Chemistry, Biochemistry and Pharmaceutical Sciences, University of Bern, Freiestrasse 3, 3012 Bern, Switzerland.)* Charge Generation Processes in Organic Solar Cells
11:00 - 11:30	**Coffee Break**
	Session 1B Chair: Juan Bisquert
11:30 - 12:00 1B-I1	Steve Albrecht *(Helmholtz-Zentrum Berlin, 12489 Berlin, Germany)* Highly Efficient Monolithic Tandem Solar Cells with Metal-Halide Perovskites
12:00 - 12:05 1B-S1	Taro Tanabe *(Tokyo Chemical Industry (TCI), 4-10-1 Nihonbashi-honcho,Chuo-ku, Tokyo, JP)* TCI Industry Talk
12:05 - 12:35 1B-I2	Eva Unger *(Department of Solution-Processing of Hybrid Materials and Devices, Helmholtz Center Berlin, Berlin, Germany)* Accelerating Perovskite PV deployment by adopting FAIR data principles
12:35 - 13:05 1B-I3	Aron Walsh *(Department of Materials, Royal School of Mines, Imperial College London)* Perovskite-Inspired Materials
13:05 - 15:00	**Lunch Break**
	Session 1C1 - Perovskite PV Characterisation and Optimisation Chair: Thomas Bein
15:00 - 15:30 Optimisation-IS1	Pablo Docampo *(School of Chemistry, University of Glasgow, University Pl, G12 8QQ, Glasgow, UK)* Extracting meaning from ion migration in hybrid perovskite solar cells
15:30 - 15:45 Optimisation-O1	Lioz Etgar *(The Institute of Chemistry & The Center for Nanoscience and Nanotechnology, The Hebrew University of Jerusalem, Edmond J. Safra Campus, Givat Ram, Jerusalem 9190401, Israel)* Chiral low dimensional perovskite and Bifacial Fully printable perovskite solar cells
15:45 - 16:00 Optimisation-O2	Jesús Jiménez-López *(Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, Milano, Italy)*, E Laine Wong, Giulia Folpini, Ada Lilí Alvarado-Leaños, Antonella Treglia, Andrea Olivati, Daniele Cortecchia, Annamaria Petrozza Understanding how bromine improves radiative recombination in formamidinium-based lead halide perovskites
16:00 - 16:15 Optimisation-O3	Florian Wolf *(Department of Chemistry and Center for NanoScience (CeNS), University of Munich (LMU), Butenandtstrasse 5-13, D-81377 Munich, Germany)*, Maximilian Sirtl, Sebastian Klenk, Maximilian Wurzenberger, Melina Armer, Patrick Dörflinger, Patrick Ganswindt, Roman Guntermann, Vladimir Dyakonov, Thomas Bein Behind the Scenes: Insights into the Structural Properties of Amide-Based Hole-Transporting Materials for Lead-Free Perovskite Solar Cells
16:15 - 16:30 Optimisation-O4	Satoshi Uchida *(Research Center for Advanced Science and Technology (RCAST), The University of Tokyo 4-6-1 Komaba, Meguro-ku, Tokyo 153-8904, Japan)*, Hiroshi Segawa Superlattice formation dynamics in organometallic halide perovskite solar cells
16:30 - 16:45 Optimisation-O5	Edward Butler-Caddle *(Department of Physics, University of Warwick, CV4 7AL, Coventry, United Kingdom)*, Imalka Jayawardena, James Lloyd-Hughes Comparing Interface Transfer and Recombination Processes in Perovskite-Transport Layer Heterostructures Using Time-Resolved Spectroscopy and Numerical Simulation
16:45 - 17:00 Optimisation-O6	Jonas Hanisch *(Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW), 70563 Stuttgart, Germany)*, Tina Wahl, Erik Ahlswede, Jan-Philipp Becker Detailed analysis of electron transport layer and passivation strategies of perovskite solar cells with ToF-SIMS depth profiling
	Session 1C2 - Organic PV Spectroscopy and Characterisation Chair: Ji-Seon Kim
15:00 - 15:30 Characterisation-IS1	Hideo Ohkita *(Department of Polymer Chemistry, Kyoto University)* Interface Engineering for Organic and Hybrid Solar Cells
15:30 - 15:45 Characterisation-O1	Flurin Eisner *(Department of Physics and Centre for Processable Electronics, Imperial College London, London SW7 2AZ, UK)*, Mohammed Azzouzi, Shi Wei Yuan, Jenny Nelson Field Dependent Exciton Dissociation and Charge Generation in Non-Fullerene Acceptors
15:45 - 16:00 Characterisation-O2	Tack Ho Lee *(Department of Chemical Materials, Pusan National University)*, James Durrant Generation of long-lived charges in organic photoanodes with a polymer overalyer to improve photocatalytic performance

16:00 - 16:15 Characterisation-O3	Shahidul Alam *(King Abdullah University of Science and Technology (KAUST), KAUST Solar Center (KSC), Physical Sciences and Engineering Division (PSE), Material Science and Engineering Program (MSE), Thuwal 23955-6900, Kingdom of Saudi Arabia)*, Jafar I. Khan, Vojtech Nádaždy, Tomáš Váry, Aurelien D. Sokeng, Md Moidul Islam, Christian Friebe, Wejdan Althobaiti, Wenlan Liu, Martin Hager, Ulrich S. Schubert, Carsten Deibel, Denis Andrienko, Frédéric Laquai, Harald Hoppe Impact of fluorination on both donor and non-fullerene acceptors in bulk heterojunction organic photovoltaics
16:15 - 16:30 Characterisation-O4	Suraj Yadav *(Solid State and Structural Chemistry Unit, Indian Institute of Science, Bengaluru-560012, India)*, Ravichandran Shivanna, Aiswarya Abhisek Mohapatra, Nipun Sawhney, Chandrasekhar G, Sufal Swaraj, Akshay Rao, Richard Friend, Satish Patil Resonant energy transfer mediated efficient charge generation in the ternary blend organic solar cells
16:30 - 16:45 Characterisation-O5	Richard Adam Pacalaj *(Department of Chemistry, Imperial College London Molecular Sciences Research Hub, White City Campus 80 Wood Lane, London W12 0BZ, UK)*, Yifan Dong, Ivan Ramirez, Roderick Mackenzie, Eva Bittrich, Pascal Kaienburg, Martin Pfeiffer, James Robert Durrant From Generation to Collection - Assessing Limitations and Potential of State-of-the-Art Evaporated Organic Solar Cells
16:45 - 17:00 Characterisation-O6	Ying Woan Soon *(Universiti Brunei Darussalam)*, Syed Abbas Raza, Syeda Qurat-ul-Ain Naqvi, James Robert Jennings, Anwar Usman Enhancing performance of air-processed ternary blend solar cells with organic dye
	Session 1C3 - PV Scale-up Chair: Matt Carnie
15:00 - 15:30 Scale-up-IS1	Tom Aernouts *(IMEC-IMOMEC, Thin Film PV Technology, Thor Park 8320, 3600 Genk, Belgium)* Efficient Structures And Processes for Upscaling of Perovskite Modules and Tandems
15:30 - 15:45 Scale-up-O1	Iwan Zimmermann *(IPVF Institut Photovoltaïque d'Île-de-France (UMR), 18 Boulevard Thomas Gobert, 91120, Palaiseau, France)*, Marion Provost, Thomas Guillemot, Salim Mejaouri, Celia Aider, Van Son Nguyen, Alexandre Blaizot, Olivier Fournier, Jean Rousset Upscaling Perovskite Solar Cells using Industrially Compatible Fabrication Processes: Slot-Die Coating and Chemical Bath Deposition
15:45 - 16:00 Scale-up-O2	Luke Sutherland *(CSIRO Manufacturing, Clayton, Australia)*, Hasitha Weerasinghe, Doojin Vak, Juan Benitez Rodriguez, Mei Gao, George P. Simon, Shiqin Yan Scalable Fabrication of Highly Efficient Perovskite Solar Cells Using Vaccum-free, Solvent-free, and Roll-to-roll Compatible Printed Electrodes
16:00 - 16:15 Scale-up-O3	Ershad parvazian *(SPECIFIC, Swansea University, College of Engineering, Bay Campus, SA1 8EN)*, David Beynon, James Mcgettrick, Rahul Patidar, Tom Dunlop, Zhengfei Wei, Trystan Watson Entirely Roll to Roll Carbon Electrode Printed Perovskite Solar Cells: Fabrication Pathway, challenges and Achievements
16:15 - 16:30 Scale-up-O4	Donia Fredj *(Dracula Technologies, Valence, France)*, Marie Parmentier, Florence Archet, Hassan Alkhatib, Marie Chabrolle, Alexandre Forey, Eric Faupin, Jerome Vernet, Brice Cruchon, Sadok Ben Dkhil ITO-FREE ORGANIC PHOTOVOLTAIC MODULES WITH ALL PRINTED LAYERS ON FLEXIBLE SUBSTRATES
16:30 - 17:00 Scale-up-IS2	Andreas Hinsch *(Fraunhofer Institute for Solar Energy Systems Heidenhofstr. 2, 79110 Freiburg, Germany)*, Daniel Sänger, Christina Millidoni, Lasse Bienkowski, Varun Arya, Dmitry Bogachuk, Salma Zouhair, Lukas Wagner, Saskia Kühnhold-Pospischl Developments for the Industrialization of Graphite-based, In-situ Crystallized Perovskite Solar Cells
	Session 1C4 - Emerging Characterisation Techniques Chair: Neil Robertson
15:00 - 15:30 Techniques-IS1	Ana Flavia Nogueira *(Institute of Chemistry, University of Campinas – UNICAMP)* Formation, stability and crystallization of two-dimensional perovskites and their interfaces
15:30 - 15:45 Techniques-O3	Juan Bisquert *(Institute of Advanced Materials (INAM) Universitat Jaume I (UJI) 12006, Castelló de la Plana, Castellón, Spain)* Can we make neurons with halide perovskites?
15:45 - 16:00 Techniques-O4	Julie Euvrard *(Department of Physics and Centre for Processable Electronics, Imperial College London, United Kingdom)*, Oki Gunawan, Antoine Kahn, Barry Rand From Amorphous to Polycrystalline Rubrene: Ultra-sensitive Hall measurement technique to unravel charge transport in organic semiconductors
16:00 - 16:15 Techniques-O1	Joel Smith *(Clarendon Laboratory, Department of Physics, University of Oxford, Parks Road, Oxford OX1 3PU, United Kingdom)*, Pietro Caprioglio, Benjamin Gallant, Margherita Taddei, Saqlain Choudhary, David Ginger, Henry Snaith Characterising halide perovskite crystallisation pathways using in situ GIWAXS
16:15 - 16:30 Techniques-O2	Sofiia Kosar *(Femtosecond Spectroscopy Unit, Okinawa Institute of Science and Technology, 1919-1 Tancha, Onna-son, Okinawa, 904-0495, Japan)*, Keshav M. Dani Photoemission Electron Microscopy Studies of Hybrid Halide Perovskites
16:30 - 16:45 Techniques-O5	Ute Cappel *(Division of Applied Physical Chemistry, Department of Chemistry, KTH - Royal Institute of Technology.)* Photovoltage generation at different interfaces within a solar cell investigated with time-resolved photoelectron spectroscopy
16:45 - 17:00 Techniques-O6	Bart Roose *(Department of Chemical Engineering and Biotechnology, University of Cambridge, Philippa Fawcett Drive, Cambridge CB3 0AS, United Kingdom)* Developing Electrochemical Impedance Spectroscopy for Tandem Solar Cells
17:00 - 18:30	**Poster Session**

June 13th - Day 2 (Tuesday) 2	
09:00 - 09:15	**Opening**
	Session 2A Chair: Tracey Clarke
09:15 - 10:00 2A-K1	Thuc-Quyen Nguyen *(Center for Polymers and Organic Solids and Department of Chemistry and Biochemistry University of California, Santa Barbara)* Understanding Degradation Mechanism in Organic Solar Cells
10:00 - 10:30 2A-I1	Koen Vandewal *(Institute for Material Research (IMO), Hasselt University, Wetenschapspark 1, 3590 Diepenbeek, Belgium)* Non-Radiative Recombination in Organic Photovoltaics
10:30 - 11:00 2A-I2	Maria Antonietta Loi *(Photophysics and OptoElectronics Group, Zernike Institute for Advanced Materials, University of Groningen)* SnO2 for High-Performance and Stable Organic Solar Cells
11:00 - 11:30	**Coffee Break**
	Session 2B Chair: Tom Aernouts
11:30 - 12:00 2B-I1	Angus Hin-Lap Yip *(Hong Kong Institute for Clean Energy (HKICE), City University of Hong Kong, Kowloon 999077, Hong Kong)* Monolithic perovskite/organic tandem solar cells
12:00 - 12:05 2B-S1	Luca Sorbello *(Greatcell Solar)* Greatcell Energy, new perspectives and products for Perovskites
12:05 - 12:35 2B-I2	Joseph Berry *(Department of Physics, University of Colorado Boulder)* Transforming photovoltaic technologies: An update on state-of-the-art metal halide perovskites cells and modules
12:35 - 13:05 2B-I3	Annamaria Petrozza *(CNST@Polimi, Istituto Italiano di Tecnologia Milano)* Defects Activity in Metal Halide Perovskites
13:05 - 13:10	**HOPV24 Announcement**
13:10 - 15:00	**Lunch Break**
	Session 2C1 - Perovskite PV Characterisation and Spectroscopy Chair: Thomas Kirchartz
15:00 - 15:30 Spectroscopy-IS1	Ardalan Armin *(Sustainable Advanced Materials (Sêr-SAM), Department of Physics, Swansea University, Singleton Park, Swansea SA2 8PP, United Kingdom)* Mid-gap Traps Dominate the Dark Current in Organics and Lead Halide Perovskite Semiconductors
15:30 - 15:45 Spectroscopy-O1	Christopher Eugene Petoukhoff *(King Abdullah University of Science and Technology, KAUST Solar Center, Physical Science and Engineering Division, Thuwal 23955 – 6900, Kingdom of Saudi Arabia)*, Oleksandr Matiash, Luis Victor Torres Merino, Carolina Villamil Franco, Pia Dally, Vladyslav Hnapovskyi, Hamza Al Nasser, Mingcong Wang, Stefaan De Wolf, Frédéric Laquai Understanding the Photophysical Processes at Interfaces between Perovskites and Hole-Transporting Self-Assembled Monolayers
15:45 - 16:00 Spectroscopy-O2	Tomas Edvinsson *(Department of Engineering Science, Solid State Physics, Uppsala University, Sweden)* Photoexcited Charge Density Response and Mechanism of Photoinduced Ion Displacement in Hybrid Perovskites
16:00 - 16:15 Spectroscopy-O3	Yifan Dong *(Chemical and Nanoscience Center, National Renewable Energy Laboratory (NREL))*, Matt Beard Ultrafast Probe of Charge and Spin Transport Properties in Metal Halide Perovskites
16:15 - 16:30 Spectroscopy-O4	Eelco Tekelenburg *(Zernike Institute for Advanced Materials, University of Groningen, Nijenborgh 4, 9747 AG Groningen, The Netherlands.)*, Franco Camargo, Matteo Pitaro, Giulio Cerullo, Maria Antoniatta Loi Slow hot-carrier cooling in Sn-based perovskites: how the composition affects the phonon decay.
16:30 - 16:45 Spectroscopy-O5	Ben Carwithen *(Department of Chemistry and Centre for Processible Electronics, Imperial College London, London W12 0BZ, United Kingdom)*, Dmitry Maslennikov, Navendu Mondal, Vladimir Bruevich, Vitaly Podzorov, Artem Bakulin Investigating Carrier Dynamics in Lead Halide Perovskite Single-Crystals via Ultrafast Terahertz Spectroscopy
16:45 - 17:00 Spectroscopy-O6	Clara Aranda *(Institute of Advanced Materials (INAM) Universitat Jaume I (UJI) 12006, Castelló de la Plana, Castellón, Spain)*, Agustin Alvarez, Monika Rai, Chittaranjan Das, Michael Saliba Overcoming Ionic Migration in Perovskite Solar Cells: Recombination, Negative Capacitance and High Photovoltage
	Session 2C2 - Organic PV morphology Chair: David Lidzey
15:00 - 15:30 morphology-IS1	Ji-Seon Kim *(Department of Physics & Centre for Processable Electronics, Imperial College London, UK)* Key Impact of Molecular Structure and Orientation of Non-Fullerene Acceptors on Organic Photovoltaic Performance
15:30 - 15:45 morphology-O1	Martin Heeney *(KAUST Solar Center, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia.)*, Martina Rimmele, Zhuoran Qiao, Nicola Gasparini Low Synthetic Complexity Donor Polymers
15:45 - 16:00 morphology-O2	Robert Westbrook *(Department of Chemistry, University of Washington, Seattle, WA, 98195-1700, USA)*, Kui Jiang, Francis Lin, Cheng Zhong, Jianxun Lu, Sei-Hum Jang, Jie Zhang, Yuqing Li, Zhanhua Wei, David Ginger, Jen Alex Exciton Delocalization Induced by Aggregation in Polymer Donor for Efficient Non-fullerene Organic Photovoltaics
16:00 - 16:15 morphology-O3	Sang Pham *(School of Chemical and Process Engineering & School of Chemistry, University of Leeds; Leeds, UK)*, Sean Collins Microscopic Dislocation Analysis in Organic Semiconductors
16:15 - 16:30 morphology-O4	Hua Tang *(The Hong Kong Polytechnic University)* Self-Assembly enables Simple Structure Organic Photovoltaics via Green-Solvent and Open-Air-Printing: Closing the Lab-to-Fab Gap
16:30 - 16:45 morphology-O5	Jolanda Muller *(Department of Physics & Centre for Processable Electronics, Imperial College London, UK)* Charge transfer and structural control in block co-polymer OPVs
16:45 - 17:00 morphology-O6	Rui Zhang *(Department of Physics Chemistry and Biology Linkoping University 58183 Linkoping , Sweden)*, Shangyu Li, Zhiguo Zhang, Feng Gao Topology design of tethered dimeric small-molecular acceptor enables polymer solar cells with high efficiency and stability
	Session 2C3 - PV Stability and Scale-up Chair: Andreas Hinsch

15:00 - 15:30 Scale-up-IS1	Carsten Deibel *(Institut für Physik, Technische Universität Chemnitz, 09126 Chemnitz, Germany)* Lost in translation? Transport resistance in organic solar cells
15:30 - 15:45 Scale-up-O1	Stoichko Dimitrov *(Queen Mary University of London, London)*, Xuan Li Scaling up slot-die coated perovskite solar cells by implementing in-situ optical analysis of the printing process
15:45 - 16:00 Scale-up-O2	Eva Mazzolini *(Department of Chemistry, Centre for Processable Electronics, Imperial College London, London W12 0BZ, U.K.)*, Richard Pacalaj, Bhushan Patil, Trystan Watson, James Durrant, Zhe Li, Nicola Gasparini The role of organic solar cell photophysics in the transition from lab to fab
16:00 - 16:15 Scale-up-O3	Lukas Wagner *(Solar Energy Conversion Group, Department of Physics, University Marburg, Germany)*, Jiajia Suo, Bowen Yang, Dmitry Bogachuk, Estelle Gervais, Wilfried Lövenich, Andrea Gassmann, Jan Christoph Goldschmidt Are there enough materials for terawatt-scale perovskite PV?
16:15 - 16:30 Scale-up-O4	Javier E Sebastian Alonso *(Instituto de Ciencia Molecular (ICMol), Universitat de València, Paterna, Spain)*, Manel Piot, Kassio Zanoni, Federico Ventosinos, Michele Sessolo, Henk Bolink Speeding Up PSC Fabrication via Vacuum Co-evaporation.
16:30 - 16:45 Scale-up-O5	Ignasi Burgués-Ceballos *(EURECAT, Centre Tecnològic de Catalunya, Functional Printing and Embedded Devices Unit, Parc Científic TecnoCampus, Av. Ernest Lluch 36, 08302 Mataró, Spain)*, Paula Pinyol, Aina López-Porta, Nekane Lozano, Enric Pascual, Claudia D. Simao, Paul D. Lacharmoise, Enric Fontdecaba, Laura López-Mir InMold Organic Photovoltaics
16:45 - 17:00 Scale-up-O6	Yakun He *(Institute of Materials for Electronics and Energy Technology (i-MEET), Friedrich-Alexander-Universität Erlangen-Nürnberg, Martensstrasse 7, 91058 Erlangen, Germany)*, Ning Li, Thomas Heumüller, Jonas Wortmann, Benedict Hanisch, Anna Aubele, Sebastian Lucas, Guitao Feng, Xudong Jiang, Weiwei Li, Peter Bäuerle, Christoph Brabec Industrial viability of single-component organic solar cells
	Session 2C4 - DSSCs and Emerging Materials Chair: Satoshi Uchida
15:00 - 15:30 Materials-IS1	Attila Mozer *(Intelligent Polymer Research Institute, University of Wollongong)*, Pawel Wagner, Munavvar Fairoos Mele Kavungathodi, Shogo Mori Acceleration of Electron Recombination at Sensitised Semiconductor / Electrolyte Interfaces with High Oxidation Potential Cu1+/2+ Complexes
15:30 - 15:45 Materials-O1	Neil Robertson *(School of Chemistry, University of Edinburgh)* Simple, Stable, Efficient Solid-State Dye-Sensitized Solar Cells Based on Polyiodides
15:45 - 16:00 Materials-O2	Sonia Rani *(Indian Institute of Technology Bhilai)*, Arun Kumar, Dhriti Sundar Ghosh Colored Photovoltaics via incorporating single-colored 1-D Photonic Crystal
16:00 - 16:15 Materials-O3	Dominik Kubicki *(School of Chemistry, University of Birmingham, Birmingham, UK)*, Yuhan Liu, Robert Palgrave Emerging Tellurium-Based Optoelectronic Materials and Their Atomic-Level Characterization by Solid-State NMR
16:15 - 16:30 Materials-O4	Soranyel Gonzalez Carrero *(Department of Chemistry, Centre for Processable Electronics, Imperial College London, London W12 0BZ, U.K.)*, Jan Kosco, Teng Fei, Iain McCulloch, James R. Durrant Organic Semiconductor heterojunction nanoparticles: from photovoltaics to solar fuel generation
16:30 - 16:45 Materials-O5	Sutripto Khasnabis, Robert Godin *(The University of British Columbia)* Transient Absorption Microscopy with Spatiotemporal Resolution in the “μ’s” – Microsecond and Micrometer – Reveal Heterogeneity in Carbon Nitride (CNx) Photocatalyst Particles
16:45 - 17:00 Materials-O6	Lidia Contreras-Bernal *(Institute of Materials Science of Seville, (Spanish National Research Council (CSIC) – Univ. Seville), Seville, Spain)*, Javier Castillo-Seoane, Antonio Riquelme-Expósito, Jorge Gil-Rostra, Gabriel Lozano, Angel Barranco, Renaud Demadrille, Juan Ramón Sánchez-Valencie, Ana Borrás Effect of 1D nanostructured electrodes in dye sensitized solar cells for indoor light harvesting
17:00 - 18:30	**Poster Session**
20:00 - 23:45	**Social Dinner**

June 14th - Day 3 (Wednesday) 3	
09:00 - 09:15	**Opening**
	Session 3A Chair: Trystan Watson
09:15 - 10:00 3A-K1	SANG IL Seok *(Ulsan National Institute of Science and Technology (UNIST), KR)* From early challenges to record efficiencies in perovskite solar cells
10:00 - 10:30 3A-I1	Aldo Di Carlo *(CHOSE (Centre for Hybrid and Organic Solar Energy), Department of Electronic Engineering, University of Rome "Tor Vergata", 00133 Rome, Italy)* See-through perovskite and tandem perovskite/organic solar cells and modules
10:30 - 11:00 3A-I2	Henry Snaith *(Department of Physics, University of Oxford, Clarendon Laboratory, Parks Road, OX1 3PU, United Kingdom)* Understanding operation and improving the performance of metal halide perovskite solar cells
11:00 - 11:30	**Coffee Break**
	Session 3B Chair: Martin Heeney
11:30 - 12:00 3B-I1	Kwanghee Lee *(Gwangju Institute of Science and Technology (GIST))* Developing OPV and Perovskite Photovoltaic Modules via Printing Technology
12:00 - 12:05 3B-S1	David Scanlon *(PRX Energy, APS)* PRX Energy Industry Talk
12:05 - 12:35 3B-I2	Stephen Forrest *(University of Michigan)* Semi-Transparent Non-fullerene Acceptor Organic Photovoltaics and Modules
12:35 - 13:05 3B-I3	Derya Baran *(KAUST Solar Center, King Abdullah University of Science and Technology, Thuwal 23955, Saudi Arabia)* Resilient Organic Semiconductor Devices: from energetics to green processing
13:05 - 15:00	**Lunch Break**
	Session 3C1 - Perovskite PV Characterisation and Optimisation Chair: David Tanenbaum
15:00 - 15:30 Optimisation-IS1	Mahdi Mohammadi, Miguel Torre, Oliver Zbinden, Firouzeh Ebadi, Amit Sachan, Wolfgang Tress *(Institute of Computational Physics, Zurich University of Applied Sciences (ZHAW), 8401 Winterthur (Switzerland))* Multidimensional Characterization and Modelling of Perovskite Solar Cells
15:30 - 15:45 Optimisation-O1	Małgorzata Wierzbowska *(Institute of High-Pressure Physics, Polish Academy of Sciences, Sokołowska 29/37, 01-142 Warszawa, Poland)* Stable organic lead halide perovskites with the A cations bound to the PbX3 frame.
15:45 - 16:00 Optimisation-O2	Tim Faber *(Photophysics and OptoElectronics Group, Zernike Institute for Advanced Materials, University of Groningen)*, Lado Filipovic, Jan Anton Koster Hot carriers in metal halide perovskites: the cold background effect
16:00 - 16:15 Optimisation-O3	Aruna Ivaturi *(Smart Materials Research and Device Technology Group, Department of Pure and Applied Chemistry, University of Strathclyde, Glasgow G1 1XL, UK)* Emergence of new era of Indoor Near-UV blacklight harvesting Perovskite Solar Cells
16:15 - 16:30 Optimisation-O4	Lucy Hart *(Department of Chemistry and Centre for Processable Electronics, Molecular Sciences Research Hub, Imperial College London, London W12 0BZ, UK)*, Weidong Xu, James Durrant, Piers Barnes Impact of Interface Energetic Alignment and Mobile Ions on Charge Carrier Accumulation and Extraction in p-i-n Perovskite Solar Cells
16:30 - 16:45 Optimisation-O5	Heejoo Kim *(Graduate School of Energy Convergence, Institute of Integrated Technology, Gwangju Institute of Science and Technology, Gwangju 61005, Republic of Korea)*, Ju-Hyun Kim, Yong-Ryun Kim, Hongsuk Suh, Kwanghee Lee Efficient and stable perovskite solar cells by introducing organic electrolytes as dual-side passivation layer
16:45 - 17:00 Optimisation-O6	Udo Bach *(ARC Centre of Excellence in Exciton Science, Department of Chemical and Biological Engineering, Monash University, Clayton, VIC, Australia)*, Jie Zhao Mixed-A-Cation Perovskite Solar Cells and Modules from Lead Acetate-Based Precursors
	Session 3C2 - Organic PV Characterisation and Optimisation Chair: Hideo Ohkita
15:00 - 15:30 Optimisation-IS1	Safa Shoaee *(Institute of Physics and Astronomy, University of Potsdam, 14476 Potsdam, Germany)* Does size matter? Explaining FF of OSCs with respect to the small energetic offset
15:30 - 15:45 Optimisation-O1	Manasi Pranav, Atul Shukla *(Institute of Physics and Astronomy, University of Potsdam, 14476 Potsdam, Germany)*, Rong Wang, Larry Lüer, Safa Shoaee, Christoph Brabec, Dieter Neher Understanding exciton and free charge generation dynamics in a non-fullerene-based organic blend with a low energy offset
15:45 - 16:00 Optimisation-O2	Huotian Zhang *(Department of Physics, Chemistry and Biology (IFM), Linköping University, Linköping 58183, Sweden)*, Jun Yuan, Rokas Jasiūnas, Vidmantas Gulbinas, Feng Gao The fill-factor limit of organic solar cells
16:00 - 16:15 Optimisation-O3	Clemens Göhler *(Institute for Molecular Systems Engineering and Advanced Materials, Heidelberg University, Germany)*, Alexander Flamm, Martijn Kemerink Field-dependent spectral photogeneration efficiencies in non-fullerene organic solar cells
16:15 - 16:30 Optimisation-O4	Drew B. Riley *(Sustainable Advanced Materials (Sêr-SAM), Department of Physics, Swansea University UK)*, Oskar J. Sandberg, Nasim Zarrabi, Yong Ryun Kim, Paul Meredith, Ardalan Armin Suppression of bimolecular recombination enabled by efficient exciton dynamics
16:30 - 16:45 Optimisation-O5	Markus Hussner *(Durham University)*, Carsten Deibel, Roderick Mackenzie The Physical Meaning of Time-Delayed Collection Field Transients and Recombination Orders from Organic Solar Cells
16:45 - 17:00 Optimisation-O6	Peter Fürk, Thomas Rath *(Institute for Chemistry and Technology of Materials (ICTM), NAWI Graz, Graz University of Technology, Stremayrgasse 9, 8010 Graz, Austria)*, Matiss Reinfelds, Suman Mallick, Ilie Hanzu, Heinz Amenitsch, Gregor Trimmel High Permittivity Non-fullerene Acceptors Bearing Polar Side Chains and their Performance in Organic Solar Cells
	Session 3C3 - Theoretical Modelling and Simulations Chair: Aron Walsh

15:00 - 15:30 Simulations-IS1	Thomas Kirchartz *(Forschungszentrum Jülich GmbH, Institut für Energie- und Klimaforschung (IEK-5-Photovoltaik))* Using Transient Methods to Characterize Recombination and Extraction in Halide Perovskite Solar Cells
15:30 - 15:45 Simulations-O1	Ivan Kassal *(School of Chemistry, The University of Sydney, NSW 2006, Astralia)* Jumping kinetic Monte Carlo: Easy-to-use description of delocalisation in organic semiconductors
15:45 - 16:00 Simulations-O2	Jochen Blumberger *(Department of Physics and Astronomy and Thomas Young Centre, University College London, Gower Street, London, WC1E 6BT, UK)*, Samuele Giannini, Wei-Tao Peng Quantum Dynamics of Exciton Transport and Dissociation in Organic Opto-electronic Materials
16:00 - 16:15 Simulations-O3	Paul Procel Moya *(Delft University of Technology)*, Rik van Heerden, Luana Mazzarella, Rudi Santbergen, Olindo Isabella Slow Shallow Energy States as the Origin of Hysteresis in Perovskite Solar Cells
16:15 - 16:30 Simulations-O4	Waldemar Kaiser *(Computational Laboratory for Hybrid/Organic Photovoltaics (CLHYO), Istituto CNR di Scienze e Tecnologie Chimiche "Giulio Natta" (CNR-SCITEC), Via Elce di Sotto 8, Perugia 06123, Italy)*, Daniele Meggiolaro, Edoardo Mosconi, Filippo De Angelis Halide defect formation and healing at perovskite grain boundaries: Insights from Ab Initio Molecular Dynamics Simulations
16:30 - 16:45 Simulations-O5	Olivier Ronsin *(Helmholtz Institute Erlangen-Nürnberg for Renewable Energy (HI ERN), Forschungszentrum Jülich GmbH (FZJ))*, Jens Harting Understanding the morphology formation of photoactive layers in perovskite and organic solar cells with the help of advanced simulations
16:45 - 17:00 Simulations-O6	Moyses Araujo *(Department of Engineering and Physics, Karlstad University, Sweden)*, Leandro Franco, Cleber Marchiori, Ellen Moons Multiscale Modelling Approach to Access Electronic Structure and Optical Properties of Polymeric Photovoltaic Materials
	Session 3C4 - Interfaces and Architectures Chair: Ana Flavia Nogueira
15:00 - 15:30 Architectures-IS1	Satish Patil *(Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science, IN)* Role of resonant energy transfer and morphology for efficient charge generation in the ternary blend organic solar cells
15:30 - 15:45 Architectures-O1	Gilles Roche *(Univ. of Bordeaux, CNRS, Bordeaux INP, IMS, UMR 5218, F-33400 Talence)*, Lucas Viollet, Tanguy Jousselin-Oba, Sylvain Chambon, Laurence Vignau, Lionel Hirsch, Pierre-Antoine Bonnardel, Sébastien Taillemite, Guillaume Wantz Insight in Impurities Impact on Organic Solar Cells With or Without Interfacial Buffer Layer
15:45 - 16:00 Architectures-O2	Yuming Wang *(Department of Physics, Chemistry and Biology (IFM), Linköping University, Linköping 58183, Sweden)*, Xian-Kai Chen, Feng Gao The Open-circuit Voltage in Ternary Organic Solar Cells: Understanding and Design Rules
16:00 - 16:15 Architectures-O3	Artiom Magomedov, Mantas Marcinskas, Yuanbao Lin, Amran Al-Ashouri, Eike Köhnen, Tadas Malinauskas *(Kaunas University of Technology, Kaunas, 50254, Lithuania)*, Thomas Anthopoulos, Steve Albrecht, Vytautas Getautis Materials Forming Self-Assembling Monolayers: Pathway to Efficient Solar Cells
16:15 - 16:30 Architectures-O4	Pietro Caprioglio *(University of Oxford)* Interface Design via Fullerene Blends for All-Perovskite Tandem Solar Cells
16:30 - 16:45 Architectures-O5	Georgios Loukeris *(Freiburg Material Research Center FMF)* Enhanced Photostability in Wide Band Gap Perovskites for All-Perovskite Tandem Applications
16:45 - 17:00 Architectures-O6	Alberto García-Fernández *(Division of Applied Physical Chemistry, Department of Chemistry, KTH - Royal Institute of Technology.)*, Birgit Kammlander, Stefania Riva, Håkan Rensmo, Ute B. Cappel Interfacial understanding of perovskite single crystals and transport materials
17:00 - 17:15	**Closing**