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| HOPV15 (Rome, Italy) | | | | | | 5/11 | Euro-MRS (Strasbourg, France) |
| Opening | | | | | | 8:45 | Symposium C Advanced inorganic materials and structures for photovoltaics |
| G1.K1 Green, Martin  Mainstream Photovoltaics: Where Can Perovskites Make Impact? | | | | | | 9:00 |
| G1.I1 Inganäs, Olle  Mechanisms and modules for organic photovoltaics | | | | | | 9:45 |
| Coffee Break | | | | | | 10:15 |
| 10:30 | C1-1 Symposium introduction |
| G1.I2 Kanatzidis, Mercouri  Chemistry of halide perovskites and lead-free solar cells | | | | | | 10:45 | C2-1 Progress in perovskite solar cells  Mohammad Khaja Nazeeruddin |
| G1.I3 Even, Jacky  Hybrid perovskites from a solid state physics perspective | | | | | | 11:15 | C2-2 Hybrid Solar Cells for Next Generation Photovoltaics  Hiroshi Segawa |
| G1.I4 Salleo, Alberto  What do charge-transfer states look like at D-A junctions? | | | | | | 11:45 | C2-3 Investigation of methylammonium, formamidinium, guanidinium lead iodide powders L. Dimesso, W. Jaegermann |
| 12:00 | C2-4 Perovskite/Crystal Silicon Tandem Solar Cells  Hiroyuki Kanda, Seigo Ito |
| G1.I5 Cahen, David  Hybrid Organic-Inorganic Perovskites: Materials and Solar Cells | | | | | | 12:15 | C2-5 Hybrid perovskites from a solid state physics perspective  L. Pedesseau, M. Kepenekian, D. Sapori, C. Katan, G. Lanty, K. Abdelbaki ,J. Leymarie, J. S. Lauret, E. Deleporte, J. Even |
| G1.I6 Kamat, Prashant  Understanding Excited State Behavior as the Key to Evaluate the Photovoltaic Performance of Perovskite Materials | | | | | | 12:45 |  |
| Industry: SCM | | | | | | 13:15 |
| Lunch | | | | | | 13:25 |
| 14:00 | C3-1 PercIGS - Rear surface optimization of thin-film solar cells by use of a passivation layer with nano-sized point openings Bart Vermang |
| 14:30 | C3-2 Joule heating-assisted fabrication of Cu(In,Ga)Se2 solar cells Stefano Rampino, Filippo Annoni, Matteo Bronzoni, Marco Calicchio, Enos Gombia, Massimo Mazzer, Francesco Pattini , Edmondo Gilioli |
| 14:45 | C3-3 Efficiency of 18.8% for a CIGS-based solar cell grown at very low-temperature by pulsed electron deposition Stefano Rampino, Filippo Annoni, Matteo Bronzoni, Marco Calicchio, Enos Gombia, Massimo Mazzer, Francesco Pattini , Edmondo Gilioli |
| A1.O1 Mohite, Aditya  High Efficiency Solution Processed Perovskite Solar Cells with Millimeter-Scale Grains | B1.O1 Bolink, Henk  Perovskite solar cells prepared by vacuum deposition methods. | C1.O1 Bach, Udo  Novel Redox Mediators for Dye-Sensitized Solar Cells | | | D1.O1 Yan, He  Aggregation and Morphology Control Enables Multiple Cases of Polymer Solar Cells with Efficiencies near 11 percent | 15:00 | C3-4 Highly efficient Cu(In,Ga)Se2 solar cells fabricated by a fast atmospheric pressure in-line selenization of multilayer Cu-In-Ga precursor layers using elemental Se vapor Sebastian S. Schmidt, Humberto Rodriguez-Alvarez, Christian Wolf, Manuel Hartig, Jan-Peter Bäcker, Iris Dorbandt, Saoussen Merdes, Florian Ziem, Sonja Cinque, Christine Köble, Christian A. Kaufmann, Rutger Schlatmann |
| 15:15 | C3-5 Chemical and Electronic Structure of CdS/- and ZnS/Cu(In,Ga)Se2 Heterointerfaces in High-efficiency Thin-film Solar Cells R. Félix,1 W. Witte,2 D. Hariskos,2 S. Paetel,2 M. Powalla,2 L. Weinhardt,3,4,5,6 M. Blum,6 C. Heske,3,4,5,6 W. Yang,7 R.G. Wilks,1,8 and M. Bär1,8,9 |
| A1.O2 Bakr, Osman m.  Remarkably low trap-state density and long carrier diffusion in organolead trihalide perovskite single crystals | B1.O2 Amassian, Aram  A multi-probe investigation of perovskite thin film formation during spin-coating | C1.O2 Meyer, Gerald  Halide Electron Transfer Chemistry for Solar Energy Conversion. | | | D1.O2 Beaujuge, Pierre  Design Principles in Polymer-Fullerene BHJ Solar Cells: "What Can We Learn from PBDTTPD & Wide-Bandgap Analogs?" | 15:30 | C3-6 Interfaces engineering and nanoscale characterization of alternative buffer layers in chalcopyrite thin film solar cells Oana Cojocaru-Mirédin1, Yanpeng Fu2, Aleksander Kostka1, Rodrigo Sáez-Araoz2, Andreas Beyer3, Nikolai Knaub3, Kerstin Volz3, Christian-Herbert Fischer2 and Dierk Raabe1 |
| A1.O3 Savenije, Tom  Charge injection dynamics from organometal halide perovskite into organic electrodes | B1.O3 Baumann, Andreas  Identification of electronic traps in perovskite solar cells by thermally stimulated current analysis | C1.03 Pastore, Mariachiara  Modeling Materials and Processes in Dye-Sensitized Photolectrochemical Cells for Visible Light Water Oxidation | | | D1.O3 Dowland, Simon  Teaching an old dog new tricks: Polyfullerenes as a route to the enhanced morphological stability of bulk heterojunctions | 15:45 |  |
| A1.O4 Quarti, Claudio  The effect of chlorine doping in MAPbI3 perovskite from Car-Parrinello Molecular Dynamics simulations: a small doping for a big effect | B1.O4 Mahmood, Khalid  Hyperbranched TiO2 Electron Transporting Materials for Highly Efficient Hybrid Photovoltaics | C1.04 Agrios, Alexander g.  Dye-anchored nanocatalysts for reduced voltage loss with inexpensive iodide/triiodide electrolytes | | | D1.O4 Baran, Derya  Understanding the energetic losses and photocurrent enhancement in indacenoedithiophene (IDT) based organic solar cells | 16:00 |  |
| A1.O5 Manser, Joseph  Solar Water Splitting Using a Perovskite PV-Photoanode Tandem Assembly | B1.O5 Di giacomo, Francesco  Flexible Perovskite Photovoltaic Modules and Solar Cells Based on Atomic Layer Deposited Compact Layers and UV-Irradiated TiO2 Scaffolds on Plastic Substrates | C1.05 Kamarudin, Muhammad akmal  Polymer dispersed liquid crystal as a next generation gel polymer electrolyte for dye-sensitized solar cells. | | | D1.O5 Heumueller, Thomas  Disorder induced Voc losses and dimerization related Jsc losses: The critical role of morphology during burn-in | 16:15 | C4-1 Upconversion for harvesting sub-bandgap photons - from materials to devices Jan Christoph Goldschmidt |
| Coffee Break | | | | | | 16:30 |
| 16:45 | C4-2 New luminescent natural thiol?coated gold clusters embedded in polymeric matrix as down-shifiting filters Angela Longo, Gianfranco Carotenutoters |
| A1.O6 Kollek, Tom  Porous and shape-anisotropic single crystals of the semiconductor perovskite CH3NH3PbI3 | B1.O6 Bertoluzzi, Luca  Depolarization in CH3NH3PbI3 perovskite solar cells | C1.O6 Barolo, Claudia  100% aqueous Dye-sensitized Solar Cells: a starting point for the choice of dyes and iodine salts. | | | D1.O6 Rivaton, A.  Monitoring photochemical processes and their consequences in conjugated polymers used in organic solar cells | 17:00 | C4-3 Quantum cutting in Tb3 -Yb3 co-doped SiNx layers for Si Solar Cell efficiency improvement Lucile Dumont, Julien Cardin, Christophe Labbé, Marzia Carrada, Andrea L. Richard, David C. Ingram, Wojciech M. Jadwisienczak, Fabrice Gourbilleau |
| A1.O7 Williams, Alice  Thermal and Evolved Gas Analysis as a Tool for Investigating Processing Conditions | B1.O7 Huettner, Sven  Origin of hysteresis in hybrid perovskite solar cells | C1.O7 Moia, Davide  Does hole transport between dyes contribute to the photoconversion efficiency of solid state DSSCs? | | | D1.O7 Seidler, Nico  High efficiency polymer semiconductors for organic photovoltaics with improved stability | 17:15 | C4-4 As solar spectrum up-conversion layer, studies of the MOCVD growth and luminescent properties of Er/Yb doped YF3 thin films J L Deschanvres 1, E L Payrer 1,3 ,S. Zhang 1 ,H.Roussel 1, C Jimenez 1 ,A L Joudrier 2 , P. Aschehoug 3 and R M Almeida 4 |
| A1.O8 Mastroianni, Simone  Confirming the role of optimal crystallinity in high efficient CH3NH3PbI3 perovskite solar cells by photo and electroluminescence imaging | B1.O8 Belisle, Rebecca  A deeper look at hole-transporting materials: How a HTMs ionization potential effects the photovoltaic performance of perovskite solar cells | C1.O8 Kim, Yoojin  Push-Pull Cyclopentadithiophene (CPDT)-Triarylamine Based Building Block Dyes for Solid-State Dye-Sensitized Solar Cells | | | D1.O8 Li, Zhe  Morphological Stability of Organic BHJ Solar Cells | 17:30 | C4-5 Structural, optical and electrical properties of Nd doped SnO2 thin films fabricated by reactive magnetron sputtering for solar cell devices K. Bouras1\*, G. Schmerber2, P. Bazylewski3, D. Aureau4, S. Colis2, T. Fix1, G. Ferblantier1. D. Muller1, G. S. Chang3, H. Rinnert5, A. Dinia2 and A. Slaoui1 |
| A1.O9 Míguez, Hernán  Colorful Perovskite Solar Cells Using Photonic Scaffolds | B1.O9 Murray, Paul  Scale-Up and Durability of Perovskite-Based Mesoscopic Solar Cells | C1.O9 Uchida, Satoshi  Electron-transfer mechanism of dye-sensitized solar cells with high perfor-mance nano clay electrolytes | | | D1.O9 Barbero, David  High Out-of-plane Mobility in an Organic Semiconductor | 17:45 | C4-6 Optical model for simulation and optimization of luminescent down-shifting layers in photovoltaics Benjamin Lipovsek1, Anastasiia Solodovnyk234, Karen Forberich3, Edda Stern2, Christoph J. Brabec234, Janez Krc1, Marko Topic1 |
| A1.O10 Hsieh, Tsung yu  The versatility of Pb(NO3)2 as a new precursor for organo-lead perovskite solar cells | B1.O10 Shin, Hyunjung  Atomic Layer Deposition Grown p - NiO Films as Hole Transport Layer for Highly Efficient Perovskite Solar Cells | C1.O10 Tiihonen, Armi  Statistical methods in the analysis of dye solar cell experiments | | | D1.O10 Lucera, Luca  The bright future of R2R up-scaling of hybrid and organic solar cells: High precision slot die-coating and high resolution ultra-fast laser structuring | 18:00 | Symposium E Materials design and processing concepts for efficient and stable organic, hybrid, perovskite and dye solar cells  POSTER SESSION |
| 18.15 - 20.15 Posters/Exhibition and wine | | | | | | 18:15 |
| HOPV15 (Rome, Italy) | | | | | | 5/12 | Euro-MRS (Strasbourg, France) |
| G2.K1 Nocera, Daniel  The Artificial Leaf | | | | | | 9:00 | Symposium E Materials design and processing concepts for efficient and stable organic, hybrid, perovskite and dye solar cells |
| G2.I1 Hupp, Joseph  Something New: Metal-Organic Frameworks as Functional Light Harvesters and Solar-Fuels Catalyst Scaffolds | | | | | | 9:45 |
| Coffee Break | | | | | | 10:15 |
| G2.I2 Lanzani, Guglielmo  Interfacing leaving cells with organic semiconductors | | | | | | 10:45 |
| G2.I3 Nelson, Jenny  Relating material properties to charge recombination in organic heterojunction solar cells | | | | | | 11:15 |
| G2.I4 Kahn, Antoine  Electronic structure of Hybrid Organic Inorganic Perovskites Interfaces | | | | | | 11:45 |
| G2.I5 Rappe, Andrew  Shift Current and Ferroelectric Domain Walls in Organometal Halide Perovskites for Photovoltaic Applications | | | | | | 12:15 |
| G2.I6 Nguyen, Thuc-quyen  Understanding Loss Mechanisms in Solution-Processed Small Molecule Bulk Heterojunction Solar Cells | | | | | | 12:45 |
| Industry: Dyesol | | | | | | 13:15 |
| Lunch | | | | | | 13:25 |
| 14:00 | E1-1 Degradation processes in organic solar cells: The critical role of microstructure and interfaces Christoph J Brabec, Thomas Heumüller, Michael Salvador, Jens Adams, Hans Egelhaaf |
| 14:30 | E1-2 New Materials for High Performance OPV Applications Dr. Stephane Berny, Dr. A. Pron, Dr. M. Krompiec, Dr. L. Nanson, Dr. G. Morse, Dr. N. Seidler, Dr. P. Tiwana\*, Dr. O. Lozman |
| A2.O1 Hoke, Eric  Reversible Photo-induced Halide Segregation in Mixed-Halide Hybrid Perovskites for Photovoltaics | B2.O1 Petrozza, Annamaria  Photophysical versus Structural Properties in Hybrid Lead-Halide Perovskite Thin Films | C2.O1 Greenham, Neil  Singlet Fission Solar Cells | | | D2.O1 Würfel, Uli  How Molecules with Dipole Moments Enhance the Selectivity of Electrodes In Organic Solar Cells | 15:00 | E1-3 Intrinsic photochemical and thermal stability of conjugated polymers studied using ESR spectroscopy Lyubov A. Frolova, Liana N. Inasaridze, Nataliya P. Piven, Diana K. Susarova, Sergey D. Babenko and Pavel A. Troshin |
| 15:15 | E1-4 Photoelectron spectroscopy studies on efficient air-stable molecular n-dopants for organic semiconductors Martin Schwarze, Max L. Tietze, Paul Pahner, Ben Naab, Zhenan Bao, Daniel Kasemann, Karl Leo |
| A2.O2 Luo, Jingshan  The potential of perovskite solar cells for water splitting | B2.O2 Karunadasa, Hemamala  Hybrid Perovskite Solar-Cell Absorbers with Enhanced Moisture Stability | C2.O2 Di fonzo, Fabio  Photoelectrochemical hydrogen production through hybrid organic/inorganic interfaces | | | D2.O2 Mozer, Attila  A Comparison of Experimental Techniques to Measure Charge Carrier Lifetime in Polymer/Fullerene Solar Cells | 15:30 | E1-5 Solution-Processable Singlet Fission Photovoltaic Devices Le Yang?, Maxim Tabachnyk?, Sam L Bayliss?, Marcus L B?hm?, Katharina Broch?, Neil C Greenham?, Richard H Friend?, Bruno Ehrler? |
| A2.O3 Rashkeev, Sergey  Domain Walls Conductivity in Hybrid Organometallic Perovskites: The Key of Methylammonium Lead Iodide Solar Cell High Performance | B2.O3 Stranks, Samuel  Recombination Kinetics and Slow Transient Behaviour in Organic-Inorganic Perovskites | C2.O3 Stingelin, Natalie  Solution processable inorganic /organic photonic structures of low loss and tunable refractive index for use in photovoltaic devices | | | D2.O3 Kemerink, Martijn  (Un)avoidable energy loss during carrier extraction in polymer:fullerene solar cells | 15:45 | E1-6 Effects of ambient environment conditions on roll-to-roll fabricated organic solar modules Laia Vilar, Xavier Calzadilla, Marco Stella |
| A2.O4 Mathews, Nripan  Lower dimensionality and lead-free perovskites: alternatives to CH3NH3PbI3 for photovoltaic and light emission applications | B2.O4 Maitani, Masato  Effects of Facet-controlled Oxide Scaffold for Crystallinity of CH3NH3PbI3 in Perovskite Solar Cells | C2.O4 Mattioli , Giuseppe  Amorphous Co-oxo and Mn-oxo catalysts for electrochemical water splitting: An ab initio point of view. | | | D2.O4 Bartesaghi, Davide  Competition between recombination and extraction of free charges determines the fill-factor of organic solar cells | 16:00 | Coffee Break |
| A2.O5 Matthews, Nripan  Lead-Free (CH3NH3)2CuClxBr4-x Perovskites | B2.O5 Tvingstedt, Kristofer  Radiative recombination in perovskite solar cells | C2.O5 Sherkar, Tejas  Electrostatics of Interfaces In Hybrid Organic-Inorganic and Nanostructured Solar Cells | | | D2.O5 Gehrig, Dominik  The impact of donor-acceptor phase separation on the charge carrier dynamics in pBTTT:PCBM photovoltaic blends | 16:15 |
| Coffee Break | | | | | | 16:30 | E2-1 Efficient and stable small molecule OPV for large scale production Toni Mueller, Martin Hermenau, Christian Uhrich, Martin Pfeiffer |
| A2.O6 Troughton, Joel  Highly efficient, flexible, indium-free perovskite solar cells employing metallic substrates | B2.O6 Di carlo, Aldo  High-Efficiency Perovskite Solar Modules | C2.O6 Hamann, Thomas  Investigation of Solar Water Splitting with Metal Oxides Prepared via ALD | | | D2.O6 Rozzi, Carlo andrea  Ultrafast coherent dynamics in photovoltaic bulk heterojunctions | 17:00 | E2-2 Bandgap Science for Organic Solar Cells Masahiro Hiramoto |
| A2.O7 Ruani, Giampiero  Photogenerated polarons in organo lead halide perovskites | B2.O7 Kontos, Athanassios  Raman and photoluminescence investigation of CsSnI3 perovksite phase transitions | C2.O7 Bisquert, Juan  Solar Hydrogen Generation By Organic Photoelectrochemical Cells | | | D2.O7 Felekidis, Nikolaos  Composition Dependent Open-Circuit Voltage and Efficiency in Ternary Blend Bulk Heterojunction Solar Cells | 17:15 | E2-3 Conductive Cooling: A Way Toward Durable Organic Optoelectronics Priyanka Tyagi, Ritu Srivastava, Changhee Lee |
| A2.O8 Mattoni, Alessandro  Dynamical properties of hybrid perovskites by large scale model potential molecular dynamics | B2.O8 Wojciechowski, Konrad  Organic semiconductors replacing metal oxide compact layer in highly efficient and stable perovskite solar cells | C2.O8 Wahnón, Perla  The intermediate band scheme: mimicking the Z scheme of photosynthesis with one single-phase material | | | D2.O8 Kniepert, Juliane  The Effect of Solvent Additive on Generation, Recombination and Extraction in PTB7:PCBM Solar Cells: A conclusive Experimental and Numerical Simulation Study | 17:30 | E2-4 Reducing Moisture-induced Degradation of Organic Solar Cells by Incorporating Block Copolymer Interfacial Layers Dargie Deribew [a], Joanna Kolomanska [b], Andreas Distler [a], Paul Topham [b], Hans-Joachim Egelhaaf [a][c] |
| A2.O9 Zhang, Wei  Ultra-smooth organic-inorganic perovskite thin-film formation and crystallization for Efficient Planar Heterojunction Solar Cells | B2.O9 Cadelano, Michele  Excitons and free carriers in organometal perovskites | C2.O9 Giamello, Elio  New materials for photocatalytic application. Cerium-doped Zirconium dioxide | | | D2.O9 Steiner, Florian  Distinguishing the influence of structural and energetic disorder on electron transport in fullerene multi-adducts | 17:45 | E2-5 Ion migration in organic inorganic lead halide perovskite solar cells; influence on both hysteresis and degradation Tomas Leijtens, Giles Eperon, Giulia Grancini, Annamaria Petrozza, Henry J Snaith |
| A2.O10 Meloni, Simone  Hysteresis in perovskite solar cells: experimental and theoretical evidence of its defect-related origin | B2.O10 Luo, Qiang  Graphene-based hole transport material for perovskite solar cells | C2.O10 Farinola, Gianluca  Hybrid photoconverters from molecular fluorophores and photosynthetic bacteria | | | D2.O10 Pfannmöller, Martin  3D nanoscale quantitative mapping in high-efficiency organic tandem solar cells using artefact-free spectral electron tomography | 18:00 | POSTER SESSION |
| 18.15 - 20.15 Posters/Exhibition and wine | | | | | | 18:15 |
| HOPV15 (Rome, Italy) | | | | | | 5/13 | Euro-MRS (Strasbourg, France) |
|  | | | | | | 8:30 | E3-1 Flexible Ultra Barrier Films Alf Smith |
| G3.K1 Gratzel, Michael  3D nanoscale quantitative mapping in high-efficiency organic tandem solar cells using artefact-free spectral electron tomography | | | | | | 9:00 | E3-2 Encapsulation of Flexible Organic and Hybrid Solar Cells: Roll-to-Roll Technologies, Trends and Challenges John Fahlteich, Cindy Steiner, Michiel Top, Matthias Fahland, David Wynands, Tomasz Wanski, Stefan Mogck, Nicolas Schiller |
| 9:30 | E3-3 Use of infrared and Raman microscopy to study the stability of flexible photovoltaic module E. Planes, B. Yrieix, L. Flandin |
| G3.I1 Ko, Jaejung  Property and Relationship between Organic Sensitizer of Dye-Sensitized Solar Cells, Small Molecules of Organic Solar Cells, and Hole Transporting Materials of Perovskite Based Solar Cells | | | | | | 9:45 | E3-4 Encapsulation of flexible organic photovoltaic devices and stability improvement through optimization of encapsulation materials and design M. Matheron, N. Nguyen, P. Boldrighini, M. Hidalgo, S. Cros, S. Berson |
| 10:00 | Coffee Break |
| Coffee Break | | | | | | 10:15 |
| 10:30 | E4-1 Environmental roll-to-roll fabrication for fully solution-processed polymer solar cells Nieves Espinosa, Frederik C. Krebs |
| G3.I2 Snaith, Henry  To be announced | | | | | | 10:45 |
| 11:00 | E4-2 Are degrading OPV materials still sustainable? Zimmermann Y.-S., Brun N., Hengevoss D., Corvini P.F-X., Fent K., Hugi C., Lenz M. |
| G3.I3 Durrant, James  Charge carrier dynamics in organic solar cells - the impact of morphology, energetics and charge transfer states | | | | | | 11:15 | E4-3 Digitally printed photovoltaic devices with increasing stack complexity Sjoerd Veenstra [1,4], Veronique Gevaerts [1,4], Anne Biezemans [1,4], Wiljan Verhees [1,4], Lenneke Slooff [1,4], Jan Gilot [2,4], Yulia Galagan [2,4], Tamara Eggenhuisen [2,4], Pim Groen [2], Afshin Hadipour [3,4], Tom Aernouts [3,4], Ronn Andriessen [2,4]. |
| 11:30 | E4-4 Non-halogenated Solvent Systems for Blade Coating of Diketopyrrolopyrrole-based Organic Photovoltaics Jeffrey G. Tait [a,b], Tamara Merkx [b], Wenqi Li [a,b], Cindy Wong [b,c], Robert Gehlhaar [b], David Cheyns [b], Mathieu Turbiez [d], Paul Heremans [a,b] |
| G3.I4 Park, Nam-gyu  Tailoring low-dimensional CH3NH3PbI3 nanostructures for high efficiency perovskite solar cell | | | | | | 11:45 | E4-5 Photonic flash sintering of inkjet printed back electrodes for OPV application Giuseppina Polino (1,2), Santhosh Shanmugam (3), Guy J.P. Bex (1), Robert Abbel (1), Ronn Andriessen (3), Yulia Galagan (3) |
| 12:00 | E4-6 Full-solution processed flexible organic solar cells using low-cost printed Cu on flat and nano-structure substrates Kan li, Hongyu Zhen, Zijian Zheng, Haifeng Li. |
| G3.I5 Bein, Thomas  Photoinduced Charge Transfer in Covalent Organic Frameworks | | | | | | 12:15 | E4-7 Aggregation and Morphology Control Enables Multiple Cases of Polymer Solar Cells with Efficiencies > 10% Yuhang Liu1, Jingbo Zhao1, Cheng Mu1, Wei Ma2, Huawei Hu1, Kui Jiang1, Haoran Lin1, Zhengke Li1, Harald Ade2, and He Yan1 |
| 12:30 | Lunch |
| G3.I6 Garcia-belmonte, Germà  Capacitive currents, hysteresis and phase transitions in lead halide perovskite solar cells. | | | | | | 12:45 |
| Industry | | | | | | 13:15 |
| Lunch | | | | | | 13:25 |
| 14:00 | E5-1 What it will take for Perovskite Solar Cells to become Green: Environmental decisions for their manufacture Serrano-Luj?n L.(1), Espinosa N.(2), Urbina A.(1), Krebs F. C.(2) |
| 14:30 | E5-2 Durability and Scale-Up of Perovskite-Based Mesoscopic Solar Cells Nancy Jiang1, Paul Murray1, Timothy Lee1, Taro Sumitomo1, Francis Au1, Dongchuan Fu1, Jakub Mazurkiewicz1, Celeste Choo1, Kristen Tandy1, Geoffrey Munyeme1, Andy Thein1, Michael Horsley1, Olivier Bellon1, Damion Milliken1, Hans Desilvestro2 |
| 3.O1 Frost, Jarvist  Dynamic disorder in hybrid halide perovskites | B3.O1 Zaban, Arie  Photo-Electro Induced Ferroelectricity in CH3NH3PbI3 Perovskite Solar Cells | C3.O1 Bignozzi, Carlo alberto  Electron Mediators Based on Transition Metal Complexes | | | D3.O1 Bredas, Jean-luc  Importance of donor polymer /fullerene packing in organic solar cells: A joint computational and experimental study | 15:00 | E5-3 Fabrication and Stability of large area perovskite cells and modules F. Matteoccia), S. Razza a), L. Cin? a), Simone Casaluci a), Narges Yaghoobiniya a), G. Divitini b), C. Ducati b), Y. Busby c), J-J. Pireaux c), A. Di Carlo a) |
| A3.O2 Colella, Silvia  The presence of chloride in mixed halide perovskites for high performing solar cell and its implications on the material growth | B3.O2 Miyasaka, Tsutomu  Metal oxide management in perovskite-based photovoltaic cells and photodiodes | C3.O2 Boschloo, Gerrit  Stark effects in dye-sensitized and perovskite solar cells: correlation between electric fields and ion movements | | | D3.O2 Ruseckas, Arvydas  The Influence of Morphology on Free Carrier Generation and Recombination in PTB7:PC71BM Bulk Heterojunctions | 15:15 | E5-4 Vacuum deposition methods for efficient organic-inorganic perovskite solar cells G. Longo, C. Momblona, L. Gil-Escrig, M. Sessolo, H. J. Bolink |
| A3.O3 Saba, Michele  Quasi cw lasing and runaway heating in trihalide perovskites | B3.O3 Mosconi, Edoardo  First Principles Investigation of Perovskite/Semiconductor Interfaces in Perovskite Solar Cells | C3.O3 Voznyy, Oleksandr  Improving carrier diffusion length in solution-processed photovoltaic materials | | | D3.O3 Albes, Tim  Establishing an Interface between Kinetic Monte Carlo and Drift Diffusion Simulations of Organic Bulk-Heterojunction Solar Cells to Investigate the Effect of the Effective Medium Approach | 15:30 | E5-5 Inorganic-Based Perovskite Solar Cells Seigo Ito |
| A3.O4 Domanski, Konrad  High-gain, low-voltage organo-lead halide perovskite photodetector operating across broad visible spectrum. | B3.O4 Etgar, Lioz  Highly efficient Hole conductor free perovskite based solar cells | C3.O4 Sanchez-molina, Irene  Transient absorption spectroscopy study of PbS/Polymer blends | | | D3.O4 Philippa, Bronson  What causes dispersive transport? | 15:45 |
| A3.O5 Tassone, Christopher  Quantitative determination of Absolute Crystallinity and Texture of Perovskite Absorber Layer | B3.O5 Tateyama, Yoshitaka  DFT study on surface and interface states of tetragonal CH3NH3PbI3 for understanding interfacial charge transfer | C3.O5 Yassitepe, Emre  Surface Passivated Colloidal CuInSe2 Quantum Dots for Quantum Dot Heterojunction Solar Cells | | | D3.05 Coropceanu, Veaceslav  Impact of the active layer morphology on non-geminate recombination dynamics in organic solar cells | 16:00 | Coffee Break |
| A3.O6 Bryant, Daniel  A transient photovoltage study into the voltage dependence of high LUMO organic layers and band gap tuning in high efficiency low hysteresis hybrid-OPV-perovskite solar cells | B3.O6 Hayase, Shuzi  Sn/Pb binary perovskite solar cells and organic amine-free perovskite solar cells | C3.O6 Shen, Qing  High Reduction of Interfacial Charge Recombination in PbS Heterojunction Colloidal Quantum Dot Solar Cells by Metal Oxide Surface Passivation | | | D3.06 Liu, Xianjie  The optimization of open circuit voltage upon interface energetics in organic photovoltaic devices | 16:15 |
| Coffee Break | | | | | | 16:30 |  |
| A3.O7 Ponseca, Carlito jr  Charge carrier dynamics in organometal halide perovskite materials probed using time-resolved THz spectroscopy | B3.O7 Ko, Hyun-seok  15.6% Efficiency Perovskite Solar Cell Prepared in 50% Relative Humidity Condition | C3.O7 Park, Jinhyung  P-type solar cells sensitized by ternary quantum dots | | | D3.07 Sandberg, Oskar j.  Understanding the open-circuit voltage in organic solar cells: The influence of contacts, recombination and doping | 17:00 |
| A3.O8 Hutter, Eline m.  Charge carrier dynamics in organic-inorganic triiodide and mixed halide perovskites: planar versus mesostructured films | B3.O8 O'kane, Simon  Time-Dependent Drift-Diffusion Modelling of Perovskite Solar Cells with Moving Ions | C3.O8 Mori, Shogo  How to control the reduction kinetics of dye cation in dye-sensitized solar cells | | | D3.08 Vezie, Michelle  Understanding enhanced light harvesting of a conjugated polymer | 17:15 |
| A3.O9 Binek, Andreas  Stabilization of the Trigonal High Temperature Formamidinium Lead Iodide Phase | B3.O9 Pellet, Norman  Ionic transport and stoichiometry control in bulk and mesoscopic CH3NH3PbI3 | C3.O9 Giansante, Carlo  "Darker-than-Black" PbS Quantum Dots: Enhancing Optical Absorption of Colloidal Semiconductor Nanocrystals via Short Conjugated Ligands | | | D3.09 Kakavelakis, George  Plasmonic Organic Photovoltaic devices overcoming the critical barrier of 10% Power Conversion Efficiency: | 17:30 |
| A3.O10 Abate, Antonio  Novel Organic Materials for stable Perovskite Solar Cells | B3.O10 Kim, Hui-seon  Effect of CH3NH3PbI3 Perovskite Cuboids Size on Ferroelectric Characteristics | C3.010 Holliman, Peter  Surface engineering in dye-sensitized solar cells | | | D3.010 Wheeler, Scot  The effect of composition on energetics and kinetics at open-circuit in OPV | 17:45 |
| A3.O11 Bailie, Colin  Mechanically stacked and monolithically integrated perovskite/silicon tandems and the challenges for high efficiency | B3.O11 Eperon, Giles  Efficient, Semi-Transparent Neutral-Coloured Solar Cells Based on Microstructured Formamidinium Lead Trihalide Perovskite | C3.011 Jouini, Mohamed  Environmentally friendly and low cost method for the elaboration of conducting polymers as hole transporting material for solid state dye sensitized solar. | | | D3.011 Niedzialek, Dorota  From Molecular Packing to Charge Collection - Modelling Fundamental Processes in SiIDT-BT:PCBM Derivative Blends. | 18:00 |
| A3.O12 Misra, Ravi k.  Accelerated stability assessment of perovskite photovoltaic materials with concentrated sunlight | B3.O12 Berdiyorov, Golibjon  Effect of crystal structure on the electronic transport properties of the lead-halide-based organic-inorganic perovskite CH3NH3PbI3 | C3.O12 Calogero, Giuseppe  Dye-Sensitized Solar Cells: Biophotovoltaic from Plants. | | | D3.012 Deibel, Carsten  Regimes of Nongeminate Recombination in Organic Solar Cells | 18:15 |
| 18.30 - 18.45 Closing | | | | | | 18:30 |
| 20.00 - Gala dinner | | | | | | 20:00 |
| MSC Workshop (Rome, Italy) | | | 5/14 | Euro-MRS (Strasbourg, France) | | | |
|  | | | 8:30 | E6-1 The Versatility of Mesoscopic Solar Cells Anders Hagfeldt | | | |
| 9:00 | E6-2 Molecular design of organic sensitizers for the fabrication of robust and efficient Dye Sensitized Solar Cells, application in solar panels D. Joly, L. Pellejà, M. Godfroy, C. Aumaitre, S. Narbey, F. Oswald, T. Meyer, J. N. Clifford, E. Palomares, R. Demadrille | | | |
| 9:15 | E6-3 Counterelectrodes in Dye-Sensitized Solar Cells: Beyond Platinized FTO Ladislav Kavan, Paul Liska, Shaik M. Zakeeruddin, Michael Graetzel | | | |
| Aldo di Carlo Presentation | | | 9:20 |
| Nam-Gyu Park Perovskite solar cells: fabrication and open issues | | | 9:30 | E6-4 A Novel Polymeric Ionic Liquid as Functional Gel Electrolyte for Dye-Sensitized Solar Cells with High VOC Yi-Feng Lin, Chun-Ting Li, Chuan-Pei Lee, Ling-Yu Chang, Yow-An Leu, Miao-Syuan Fan, Jiang-Jen Lin, Ming-Chou Chen, Kuo-Chuan Ho | | | |
| 9:45 | E6-5 Smart modulation of the optical transmittance in color tunable dye-sensitized photovoltachromic cells Mara Serrapede, Simone Valente, Luisa De Marco, Claudia Barolo, Gian Paolo Suranna, Giuseppe Gigli and Michele Manca | | | |
| Aldo di Carlo Scaling up of perovskite solar cells: from lab cells to modules | | | 10:00 | Coffee Break | | | |
| Break | | | 10:30 | E7-1 Characterization, Modeling and Stability of Lead Iodide Perovskite Solar Cells Emilio Palomares, Piers R.F. Barnes, Matt Carney, Xiaoe Li, James R. Durrant, Brian C. O'Regan | | | |
| Andreas Hinsch Up-scaling of glass frit sealed dye and perovskite solar cells using the in-situ approach | | | 11:00 | E7-2 Novel Organic Materials for Stable Perovskite Solar Cells Antonio Abate, Mohammad Khaja Nazeeruddin, Shaik Mohammed Zakeeruddin, Michael Grätzel | | | |
| 11:15 | E7-3 Growth of Cuprous Oxide (Cu2O) Films and Numerical Assessment of Their use as Hole Transport Materials in Perovskites Based Hybrid Solar Cells M. I. Hossain1, F.H. Alharbi1, M. Faiz2 and N. Tabet1 | | | |
| Francisco Fabregat-Santiago Characterization methods of solution processed solar cells | | | 11:30 | E7-4 Structural transition, phase change and degradation of CH3NH3PbI3 layers under air or vacuum A. Alberti, I. Deretzis, G.Pellegrino, E. Smecca, G. Mannino, N. Sakai, T. Miyasaka, A. La Magna | | | |
| 11:45 | E7-5 Comparing the stability of MAPbI3 and MAPbBr3 Perovskite Photovoltaic Materials Using Concentrated Sunlight Ravi K. Misra,1 Sigalit Aharon,2 Baili Li,1 Dmitri Mogilyansky,3 Iris Visoly-Fisher,1,3 Lioz Etgar,2 and Eugene A. Katz1,3 | | | |
| Chris Moore Challenges with scaling up perovskite solar cells | | | 12:00 | E7-6 Charge transfer in polycrystalline CH3NH3PbI3 perovskites probed by optical absorption and conductivity J. Holovský, A. Purkrt, Z. Remeš, N. Neykova, M. Müller, M. Ledinský, J. Kočka, T.-H. Stuchlíková, B. Niesen, P. Löper, S. De Wolf and C. Ballif | | | |
| 12:15 | E7-7 The origins of Stark effect in MAPbI3-based solar cells and its correlation to hysteresis effects Meysam Pazoki, Gerrit Boschloo | | | |
| Stewart Hooper Perovskite solar cells: industrial perspective | | | 12:30 | Lunch | | | |
| Lunch | | | 13:00 |
| 14:00 | E8-1 Role of interface layers in organic device stability Eszter Voroshazi, Joao Bastos, Tom Aernouts, David Cheyns | | | |
| Lab Tour | | | 14:30 | E8-2 How Molecules with Dipole Moments Enhance the Selectivity of Electrodes In Organic Solar Cells Uli WÜRFEL 1&2, MARTIN SESSLER 2, MARKUS KOHLSTÄDT 1&2, MORITZ UNMÜSSIG 2 | | | |
| 14:45 | E8-3 Synergistic Effects of PEDOT:PSS Processing Additives on the Efficiency and Lifetime Performance of Inverted Organic Solar Cells. Achilleas Savva and Stelios A. Choulis | | | |
| 15:00 | E8-4 Architecture related stability and production properties of fully slot-die coated polymer:fullerene solar cells in a roll-to-roll process L. Mattias Andersson | | | |
| 15:15 | E8-5 Ethanedithiol Treatment of Solution-Processed ZnO Thin Films: Controlling the Intragap States of Electron Transporting Interlayers for Efficient and Stable Inverted Organic Photovoltaics Sai Bai1,3, Yizheng Jin1, Baoquan Sun2, Feng Gao3, Fengling Zhang3 | | | |
| 15:30 | E8-6 Polyoxometalates as interfacial layer in organic solar cell M. Alaaeddine,a,b Q. Zhu, a,b D. Fichou,a,c G. Izzet,a,c J. E. Rault, d N. Barrett,e A. Proust\*a and L. Tortech\*a,b | | | |
| 15:45 | E8-7 Promoting high conductivities in TiO2 and ZnO films via hydrogen annealing for boosting efficiencies in inverted organic photovoltaics Dimitra G. Georgiadou1, Anastasia Soultati1, Ermioni Polydorou1, Florian Auras2, Dina Fattakhova-Rohlfing2, Thomas Bein2, Joe Brisco3, Stella Kennou4, Leonidas C. Palilis5, Panagiotis Argitis1, Dimitrios Davazoglou1, Maria Vasilopoulou1 | | | |
| 16:00 | Coffee Break | | | |
| 16:30 | E9-1 Materials Design and Processing for Thermomechanical Reliability in Organic and Perovskite Solar Cells Reinhold H. Dauskardt | | | |
| 17:00 | E9-2 Testing Delamination in OPV Devices: A Study of Materials influence on Mechanical Properties A. Gregori, S. Schumann, A. Tournebize, A. Elschner, H. Peisert, T. Chasse, C. Dagron-Lartigau, R.C. Hiorns, A. Allal | | | |
| 17:15 | E9-3 Statistical assessment of normal force testing to measure adhesion at organic – inorganic interfaces in organic optoelectronic devices Hrishi Das Gupta1, Juan Yang2, M. Kamperman2, and A. Turak1 | | | |
| 17:30 | E9-4 New polymeric layers for stabilization of organic solar cells Anna Isakova (a,c), Simon Dowland (b), Safakath Karuthedath (c), Andreas Distler (b), Larry Luer (c), Paul D. Topham (a) | | | |
| 17:45 | E9-5 Dissipation model for organic solar cells and modules: a 3D approach Claudio Cristoferi, Michel Aubourg, Bernard Ratier | | | |
| 18:00 | POSTER SESSION | | | |
|  | | | 5/15 | Euro-MRS (Strasbourg, France) | | | |
| 8:30 | E10-1 Design and performance of inorganic-organic hybrid perovskite solar cells Sang Il Seok | | | |
| 9:00 | E10-2 Tandem Solar Cells with Hybrid Perovskites: Combinatorial Exploration of High Bandgap Materials and Enhanced Minority Carrier Lifetimes Hugh W. Hillhouse, Ian Braly, B. Selin Tosun | | | |
| 9:15 | E10-3 Electrical tunability of perovskite absorbers by partial substitution Michael Wußler, Nils Wagner, Andreas Binek, Prof. Dr. Wolfram Jaegermann, Prof. Dr. Thomas Bein | | | |
| 9:30 | E10-4 Residual chlorine in perovskite-absorber materials derived from chloride-containing precursors Eva L. Unger1, Andrea R. Bowring2, Christopher J. Tassone3, Vanessa L. Pool3, Aryeh Gold-Parker3, Rongrong Cheacharoen2, Kevin H. Stone3, Eric T. Hoke2, Michael F. Toney3, and Michael D. McGehee2 | | | |
| 9:45 | E10-5 Real-time XRD monitoring of phases formed during growth of co-evaporated perovskite thin films Juliane Borchert 1, Paul Pistor 1, Wolfgang Fränzel 1, René Csuk 2, and Roland Scheer 1 | | | |
| 10:00 | Coffee Break | | | |
| 10:30 | E11-1 Progress Towards Making Stable Organic Solar Cells Timothy Burke, George Burkhard, Rongrong Cheacharoen, Thomas Heumeuller, William Mateker, I.T. Sachs-Quintana, Michael D. McGehee | | | |
| 11:00 | E11-2 In-situ measurement of the environmental degradation of organic photovoltaic devices in highly controlled atmospheres George F. A. Dibb, James C. Blakesley, Fernando A. Castro | | | |
| 11:15 | E11-3 Spectroscopic and electrical studies of degradation in solution-processed organic photovoltaics Elsa Couderc, Andrew J. Pearson, Paul E. Hopkinson, Konrad Domanski and Neil C. Greenham | | | |
| 11:30 | E11-4 Photodegradation in encapsulated silole-based polymer:PCBM solar cells investigated using transient absorption spectroscopy and charge extraction measurements Attila J. Mozer, Tracey M. Clarke | | | |
| 11:45 | E11-5 In-situ Raman probing of polymer order in organic bulk heterojunctions A.A.Mannanov, V.V.Bruevich, E.V.Feldman, V.A.Trukhanov, D.Yu.Paraschuk | | | |
| 12:00 | E11-6 Towards long-lived OPV cells by stabilising bulk heterojunctions with crosslinkers T. Gorisse (a), L. Derue (a), G. Mattana (a), W. Greenbank (a), C. Villegas (b), O. Dautel (c), P. Hudhomme (b), L. Hirsch (a), A. Rivaton (d), S. Chambon (a), G. Wantz (a) | | | |
| 12:15 | E11-7 Semiconducting dimeric and polymeric additives for morphological stability enhancement in bulk heterojunction organic solar cells Kevin Sivula | | | |
| 12:30 | Lunch | | | |