

nanoGe Fall Meeting 2018 (FallMeeting18)

S9 Advanced PV Technologies and Concepts with New Functionalities

Torremolinos, Spain, 2018 October 22nd - 23rd

Conference Chairs: Joaquim Puigdollers and Alejandro Perez-Rodriguez

Conference Program

October 22nd - Day 1 (Monday)	
Plenary session 1 Chair: Mischa Bonn	
09:00 - 09:30 1-K1	<u>Victor Klimov</u> (<i>Los Alamos National Laboratory, Los Alamos, New Mexico 87545, USA</i>) Colloidal Quantum Dot Lasing: Historical Perspective and Recent Progress
Plenary Session 2 Chair: Kevin Sivula	
09:00 - 09:30 2-K1	<u>Yun Jeong Hwang</u> (<i>Korea Institute of Science and Technology (KIST)</i>), Byoun Koun Min, Hyeong-Suk Oh Electrochemical Conversion of CO ₂ toward Valuable Chemicals for Solar-to-Chemical Conversion Application
PVCon S9.1 Chair: Joaquim Puigdollers	
09:30 - 10:00 S9.1-I1	<u>Jordi Martorell</u> (<i>ICFO-Institut de Ciències Fòniques, The Barcelona Institute of Science and Technology</i>) Novel Photonic Approaches to Enhance the Current or Voltage in Organic and Perovskite Solar Cells
10:00 - 10:30 S9.1-O1	<u>NEHA CHATURVEDI</u> (<i>King Abdullah University of Science and Technology (KAUST), Division of Physical Sciences and Engineering, Thuwal 23955-6900, Kingdom of Saudi Arabia</i>), Hanlin Hu, Nicola gasparini, Derya Baran, Aram Amassian, Iain MuCulloch High Speed Coating Method for Fabricating Organic Solar Cells with PCE>10%
10:30 - 11:00	Coffee Break
PVCon S9.2 Chair: Jordi Martorell	
11:00 - 11:30 S9.2-I1	<u>Manfred Eich</u> (<i>Institute of Optical and Electronic Materials, Hamburg University of Technology, Eissendorfer Strasse 38, 21073 Hamburg, Germany</i>), P. Dyachenko, S. Lang, G. Shang, Q.Y. Nguyen, M. Chirumamilla, K. Knopp, G. Vaidhyanathan, S. Molesky, H. Renner, A. Yu Petrov, Z. Jacob, M. Störmer, T. Krekeler, M. Ritter, G. Schneider Nanomaterials for High Temperature Photonics
11:30 - 11:45 S9.2-O1	<u>EDUARD BAILO BOBI</u> (<i>Francisco Albero - FAE</i>), BEATRIZ MEDINA-RODRIGUEZ, MONICA COLINA, MIREIA BLANES, MARCEL PLACIDI, FRANCISCO RAMOS, EDGARDO SAUCEDO, ALBERT CIRERA, ALEJANDRO PEREZ Printing Based Processes for Low Cost CRM Free Sustainable Technologies on Ceramic Ecofriendly Substrates for BIPV Applications.
11:45 - 12:00 S9.2-O2	<u>Moisés Garín</u> (<i>Universitat Politècnica de Catalunya</i>), Chen Jin, Trifon Trifonov, Ramón Alcubilla Silicon Millefeuille: Multiplying Silicon Wafers for Ultrathin Photovoltaics.
12:00 - 12:30 S9.2-I2	Gregg Scranton, Zunaid Omaid, <u>Luis Pazos-Outón</u> (<i>Electrical Engineering and Computer Sciences, University of California, Berkeley</i>), T. Patrick Xiao, Vidya Ganapati, Myles Steiner, Per Peterson, John Holzrichter, Eli Yablonovitch Reaching 28% Efficiency in Thermo-Photovoltaics
12:30 - 14:30	Lunch
PVCon S9.3 Chair: Luis Pazos Outon	

14:30 - 15:00 S9.3-I1	<u>Seigo Ito</u> (<i>Department of Materials and Synchrotron Radiation Engineering, Graduate School of Engineering, University of Hyogo</i>) Studies of Tandem Solar Cells and Stability Issue of Perovskite Solar Cells
15:00 - 15:30 S9.3-O1	<u>Christian Jooss</u> (<i>Institute for Material Physics, University of Goettingen, Friedrich-Hund-Platz 1, D-37077 Goettingen, Germany</i>), Dirk Raiser, Benedikt Iffland, Mohsen Sotoudeh, Peter Blöchl, Michael Seibt, Tobias Meyer, Simone Techert, Birte Kressdorf, Patrick Peretzki Hot Polaron States with Nanosecond Lifetime in Manganite Perovskite Photovoltaic Junctions
15:30 - 16:00 S9.3-O2	<u>Nasim Tavakoli</u> (<i>Center for Nanophotonics, AMOLF, Science Park 104, 1098 XG Amsterdam, The Netherlands</i>), Esther Alarcon Llado Combining 1D and 2D waveguiding properties for ultrathin tandem solar cells
16:00 - 16:30 S9.3-O3	<u>Isaac Suárez</u> (<i>University of Valencia</i>) Wearable Amplifier-Photodetector System Based on PMMA/Perovskite Waveguides Integrated on a Wearable Nanocellulose Substrate
16:30 - 17:00 S9.3-O4	<u>Sebastián Murcia-López</u> (<i>Catalonia Institute for Energy Research, IREC. Jardins de les Dones de Negre 1, 08930 Sant Adrià de Besòs (Barcelona), Spain.</i>), Nina Carretero, Cristina Flox, Félix Urbain, Joan R. Morante, Teresa Andreu Integration of Adapted Thin-film Photovoltaics into Solar Vanadium Redox Flow Batteries for Energy Storage

October 23rd - Day 2 (Tuesday)

PVCon S9.4 Chair: Alejandro Perez-Rodriguez	
09:00 - 09:30 S9.4-I1	<u>Guy Brammertz</u> (<i>Imec division IMOMEC (partner in Solliance & EnergyVille), Wetenschapspark 1, 3590 Diepenbeek, Belgium.</i>), Leo Choubrac, Thierry Kohl, Jessica deWild, Marc Meuris, Jef Poortmans, Bart Vermang Wide Band Gap Kesterite Absorbers for Tandem or Semi-transparent Solar Cells
09:30 - 10:00 S9.4-O1	Ignacio Becerril-Romero, Simón Lopez-Marino, Marcel Placidi, Moisés Espíndola-Rodríguez, Florian Oliva, Victor Izquierdo-Roca, Yudania Sánchez, <u>Xavier Alcobé</u> (<i>Centres Científics i Tecnològics (CCiTUB) de la Universitat de Barcelona, C/ Lluís Solé i Sabarís 1-3, 08028 Barcelona, Spain</i>), Edgardo Saucedo, Paul Pistor CZTSe Solar Cells Developed On Alternative Substrates for Advanced Applications
10:00 - 10:30 S9.4-I2	<u>Uli Würfel</u> (<i>Fraunhofer Institute for Solar Energy Systems (ISE), Heidenhofstraße 2, 79110 Freiburg, Germany</i>) Factors Determining the Electrode Selectivity in Solar Cells and their Impact on Device Performance
10:30 - 11:00	Coffee Break
PVCon S9.5 Chair: Guy Brammertz	
11:00 - 11:30 S9.5-I1	<u>Marcel Placidi</u> (<i>Catalonia Institute for Energy Research (IREC), Jardins de les Dones de Negre 1, Sant Adrià del Besòs, 08930 Barcelona</i>) TCMs for Next Generation Thin Film Photovoltaics
11:30 - 12:00 12:00 - 12:15 S9.5-O1	Pedro Vidal, Victor Izquierdo-Roca, Markus Neuschitzer, Edgardo Saucedo, Lorenzo Calvo-Barrio, <u>Tariq Jawhari</u> (<i>Centres Científics i Tecnològics (CCiTUB) de la Universitat de Barcelona, C/ Lluís Solé i Sabarís 1-3, 08028 Barcelona, Spain</i>), Alejandro Perez-Rodriguez Thin Film Sb ₂ (S,Se) ₃ Based Solar Cell: Emergent Technology Compatible with Ubiquitous Applications
12:30 - 14:30	Lunch