

Excitonic Photovoltaics - XPV 2014

Telluride Science Research Center

Examining Leading Research in Excitonic Solar Cells and Exploring the Future of Organic Photovoltaics

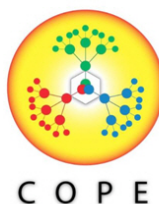
August 12-15, 2014

Palm Theatre - Telluride Intermediate School
725 West Colorado Avenue - Telluride, Colorado

Chairs:

Garry Rumbles, Sean Shaheen, Jao van de Lagemaat,
Nikos Kopidakis, and Dana Olson

Contributors:



MONDAY	AUGUST 11th
6:00pm - 8:00pm	Meet and Greet Cash Bar - Arroyo Wine Bar - 220 East Colorado Avenue
TUESDAY	AUGUST 12th
7:00am - 8:00am	Registration & Breakfast - Palm Theatre
Session 1	Garry Rumbles, Chair
8:00am - 8:10am	Garry Rumbles - Welcome & Introductory Comments
8:10am - 8:40am	Harald Ade - North Carolina State University, USA "Molecular Orientation, Packing, and Domain Purity: Impact on Organic Photovoltaic Devices"
8:40am - 9:10am	Koen Vandewal - IAPP, Germany "Charge-Transfer Absorption and Emission in Organic Solar Cells"
9:10am - 9:40am	John Anthony - University of Kentucky, USA "Small Molecules for Organic Photovoltaics; Structure/Property Studies"

9:40am - 10:10am	Paul Burn - University of Queensland, Australia "Proving Film Structure in Organic Photovoltaic Devices with Neutrons"
10:10am - 10:30am	Break
Session 2	Sean Shaheen, Chair
10:30am - 11:00am	Carlos Silva - University of Montreal, Canada "Ultrafast Charge Generation Dynamics in Polymer:PCBM Blends"
11:00am - 11:30am	Martin Heaney - Imperial College, UK "The Influence of Fluorine on Conjugated Polymer Properties"
11:30am - 12:00pm	John Miller - Brookhaven National Laboratory, USA "Are Conjugated Chains Contiguous or Segmented into Chromophores"
12:00pm - 1:00pm	Lunch - Under Tent on Soccer Field
Session 3	Jao van de Lagemaat, Chair
1:00pm - 1:30pm	Chris McNeill - Monash University, Australia "Progress on All-Polymer Solar Cells"
1:30pm - 2:00pm	Oleg Poluektov - Argonne National Laboratory, USA "Advanced EPR Studies of Photoinduced Charge Separation Processes in OPVs"
2:00pm - 2:30pm	Alejandro Briseno - University of Massachusetts, Amherst, USA "Chemically Stable, Unconventional Soluble Linear Polycyclic Aromatic Hydrocarbons from Molecular Design to Device Applications"
2:30pm - 3:00pm	John Asbury - Pennsylvania State University, USA "Ultrafast Infrared Spectroscopy of Charge Generation in Organic Photovoltaic Materials"
3:00pm - 6:00pm	Free Time
5:15pm - 6:00pm	Pre-Town Talk Event - Cash Bar - Conference Center in Mountain Village
6:00pm - 7:15pm	Town Talk Event: Ron Estler , Professor of Chemistry and CASE/Carnegie Professor of the Year, Fort Lewis College, TSRC Science Advisory Board Chair, "Modern Mimics of Natural Nano-Structures: Taking a page from Wood, Beetles, Butterflies, and Birds"
WEDNESDAY	AUGUST 13th
7:30am - 8:00am	Breakfast - Under Tent on Soccer Field
Session 4	Nikos Kopidakis, Chair
8:00am - 8:30am	Dean Delongchamp - National Institute of Standards and Technology, USA

	"OPV Morphology and Its Development"
8:30am - 9:00am	Stephen Bradforth - University of Southern California, USA "Quantifying Ultrafast Electron Transfer in Broadband Polymer-Fullerene and Polymer-Nanocrystal Hybrid Blends"
9:00am - 9:30am	Michael McGehee - Stanford University, USA "How the Molecular Conformation at the Donor-Acceptor Interface in Organic Photovoltaics Influences Charge Separation"
9:30am - 10:00am	Steven Strauss - Colorado State University, USA "Design, Synthesis and Application of Tunable Fluoroorganic Acceptors for OPVs and Beyond"
10:00am - 10:30am	Break
Session 5	Dana Olson, Chair
10:30am - 11:00am	Thomas Russell - University of Massachusetts, USA "Processing Strategies to High Efficiency Devices"
11:00am - 11:30am	Arthi Jayaraman - University of Delaware, USA "Molecular Simulations Linking Molecular Features of Donor Polymers and Acceptors to the Composite Morphology"
11:30am - 12:00pm	Ifor Samuel - University of St Andrews, UK "Exciton Diffusion and Charge Separation in Polymer Solar Cells"
12:00pm - 1:00pm	Lunch - Under Tent on Soccer Field
Session 6	Sean Shaheen, Chair
1:00pm - 1:30pm	Michael Chabinyc - University of California, Santa Barbara, USA "Keeping Solar Cells Unleaded - Interfaces with Molecular Donor and Acceptors in OPVs"
1:30pm - 2:00pm	Barry Thompson - University of Southern California, USA "Improving Spectral Response in Polymer-Fullerene Bulk Heterojunction Solar Cells"
2:00pm - 2:30pm	Charles Musgrave - University of Colorado, Boulder, USA "Effects of Metalation and Halogenation on Excitation Energy Transfer in Porphyrin Covalent Organic Frameworks"
2:30pm - 5:30pm	Free Time
5:30pm - 6:00pm	Tea - Palm Theatre
6:00pm - 8:00pm	Poster Session - Lobbies of the Palm Theatre
THURSDAY	AUGUST 14th
7:30am - 8:00am	Breakfast - Under Tent on Soccer Field

Session 7	Jao van de Lagemaat, Chair
8:00am - 8:30am	Natalie Stingelin - Imperial College, UK "On the Role of Intermixed Phases in Organic Photovoltaic Blends"
8:30am - 9:00am	Justin Hodgkiss - Victoria University of Wellington, New Zealand "Distance Distributions of Initial Charge Pairs in Organic Photovoltaics"
9:00am - 9:30am	Alessandro Troisi - University of Warwick, UK "Energy Gap Law in Organic Photovoltaics"
9:30am - 10:00am	Peter Skabara - University of Strathclyde, UK "The Use of Heteroatom Interactions Towards Band Gap Tuning, Planar Structures, and Increased Dimensionality"
10:00am - 10:30am	Break
Session 8	Nikos Kopidakis, Chair
10:30am - 11:00am	David Vanden Bout - University of Texas, Austin, USA "Spectroscopy of Single Conjugated Polymer Chains and Aggregates"
11:00am - 11:30am	Lin Chen - Northwestern University / Argonne National Laboratory, USA "Exciton Dynamics in Charge Transfer Polymers: the Effect of Local Structures"
11:30am - 12:00pm	Erin Ratcliff - University of Arizona, USA "Contact-Induced Mechanisms in Organic Photovoltaics: A Steady-State and Transient Study"
12:00pm - 1:00pm	Lunch - Under Tent on Soccer Field
Session 9	Dana Olson, Chair
1:00pm - 1:30pm	Seth Marder - Georgia Institute of Technology, USA "Interfacial Chemistry for Photovoltaics"
1:30pm - 2:00pm	Kees Hummelen - University of Groningen, Netherlands "New OPV Materials with Enhanced Charge Separating Properties"
2:00pm - 2:30pm	Moritz Riede - University of Oxford, UK "Homoeopathic Organic Solar Cells"
2:30pm - 5:30pm	Free Time
5:30pm - 6:00pm	Tea - Palm Theatre
Session 10	Sean Shaheen, Chair
6:00pm - 6:30pm	Naomi Ginsberg - University of California, Berkeley, USA "New Approaches to Correlating Structure and Dynamics in Organic Semiconducting Thin Films"

6:30pm - 7:00pm	Christine Luscombe - University of Washington, USA "Precise Engineering of Semiconducting Polymers"
7:00pm - 7:30pm	Paul Meredith - University of Queensland, Australia "Electro-Optics of Organic Solar Cells and Implications for the Scaling Physics"
FRIDAY	AUGUST 15th
7:30am - 8:00am	Breakfast - Under Tent on Soccer Field
Session 11	Jao van de Lagemaat, Chair
8:00am - 8:30am	Natalie Banerji - EPFL, Lausanne, Switzerland "Ultrafast Stark Spectroscopy in OPV Devices with Microstructure Control"
8:30am - 9:00am	Geneviève Sauvé - Case Western Reserve University, USA "Azadipyrrromethene-based Zn(II) Complexes as Non-Planar Conjugated Electron Acceptors for Organic Photovoltaics"
9:00am - 9:30am	Aram Amassian - KAUST, Saudi Arabia "Solution Processing of Organic Semiconductors for Photovoltaics"
9:30am - 10:00am	Mark Lusk - Colorado School of Mines, USA "Computational Design of Organic Assemblies for Energy Pooling"
10:00am - 10:30am	Break
Session 12	Garry Rumbles, Chair
10:30am - 11:00am	Alan Sellinger - Colorado School of Mines, USA "Electronic Modification of Silicon Quantum Dots and Zinc Oxide Electrodes using Conjugated Organic Ligands"
11:00am - 11:30am	Fiona Scholes - CSIRO, Australia "Recent Developments in Thin Film PV at CSIRO"
11:30am - 12:00pm	Brian O'Regan - Imperial College, UK "Polymer Cells at High Light (30-100 suns); Stability, Voc Saturation, and Inverting Photovoltage Transients"
12:00pm - 1:00pm	Lunch - Under Tent on Soccer Field
Special Session	Garry Rumbles, Chair
1:00pm - 2:30pm	Discussion Session on the Fundamental Processes in OPV Devices
2:30pm - 6:00pm	Free Time
6:00pm - 9:00pm	Closing Party - Under Tent on Soccer Field