5th Annual CdTe PV Workshop Presentation Sessions – Oct. 28th

Attendee could access to these sessions remotely via
https://livestream.com/accounts/20617949/events/9910932/player
Important: For **speakers**, **a zoom link** is provided for presenting which is different from the above link

10:45 AM

Session 13: II-VI Solar Industry

10:45 AM – 12:15 PM, Oct 28

☞ Click here: Website Entry for Session

Chair: Gang Xiong

First Solar Inc., Tempe, AZ, US

9 Subsessions

- **Introduction**
  Gang Xiong, First Solar Inc., Tempe, AZ, US
  Michael Heben, University of Toledo, Toledo, OH, US
  10:45am - 10:55am
- **13.1: First Solar Update**
  Bill Huber, First Solar Inc., Tempe, AZ, US
  10:55am - 11:05am
- **13.2: Transitioning CdTe to Existing and Emerging PV Markets: Technical Challenges in Traditional Rooftop and Rooftile Markets and Opportunities in Emerging BIPV and AIPV Markets**
  Aaron Bates, Toledo Solar Inc., Perrysburg, OH, US
  11:05am - 11:15am
- **13.3: Sustainable Development of High Performance II-VI Semiconductors**
  Jean-Nicolas Beaudry, 5N Plus inc., Montreal, QC, Canada
  11:15am - 11:25am
- **13.4: Pilkington PV Activities**
  David Strickler, Nippon Sheet Glass Co, Ltd, US
  11:25am - 11:35am
- **13.5: Semitransparent CdTe for PV Windows: Ultrathin or Laser Ablated?**
  Mark Hartel, Toledo Solar Inc., Toledo, OH, US
  11:35am - 11:45am
- **13.6: Thin Film Encapsulation and Reliability Developments**
  Kurt Barth, Direct Solar LLC., US
  11:45am - 11:55am
- **13.7: Electro-optic Characterization Techniques for PV**
  Kyle Lu, Tau Science Corp., Hillsboro, OH, US
  11:55am - 12:05pm
- **13.8: Solution Processed TCO Films: A Path to Low-Cost High Performance, Materials for CdTe Modules**
  Cory Perkins, nexTC Corp, Corvallis, OR, US
  12:05am - 12:15pm

1:15 PM

Session 14: Solar I

1:15 PM – 2:55 PM, Oct 28

☞ Click here: Website Entry for Session

Chair: Michael Heben

University of Toledo, Toledo, OH, US

8 Subsessions

- **14.1: Update on the CdTe PV R&D Landscape**
  Brion Bob, Department of Energy, Solar Energy Technologies Office, US
  1:15pm – 1:28pm
- **14.2: Progress Towards Bifacial CdTe PV: Past, Present, and Future**
  Randy Ellingson, The University of Toledo, Toledo, OH, US
  1:28pm - 1:40pm
- **14.3: Back-Contact Evaluation: Key Measurements and Pitfalls**
  James R. Sites, Colorado State University, Fort Collins, CO, US
  1:40pm - 1:52pm
- **14.4: Low Dimensional Materials for Passivation in Successful PX Thin Film PV**
  Matthew O. Reese, National Renewable Energy Laboratory, US
  1:52pm - 2:04pm
- **14.5: N-type CdTe for Photovoltaics**
  Ken Durose, University of Liverpool, Liverpool, UK
  2:04pm – 2:16pm
- **14.6: Void, Gas Bubble and Blister Formation in Sputtered Thin Film CdTe and CdSe**
  Michael Walls, Loughborough University, Loughborough, UK
  2:16pm – 2:28pm
- **14.7: Doped Emitters and the Pathway to 25% Efficient Solar Cells**
  Stuart Irvine, Swansea University, Swansea, Wales, UK
  2:28pm - 2:40pm
- **14.8: Investigating the Role of Copper in Arsenic Doped CdSeTe Photovoltaics**
  Eric Colegrove, National Renewable Energy Laboratory, US
  2:40pm - 2:55pm

2:55 PM

WILLIAM E.SPICER and THOMAS N. CASSELMAN AWARDS

2:55 PM – 3:15 PM, Oct 28

☞ Click here: Website Entry for Session

3:15 PM

Session 15: Solar II

3:15 PM – 5:00 PM, Oct 28

☞ Click here: Website Entry for Session

Chair: James Sites

Colorado State University., Ft. Collins, CO, US

8 Subsessions

- **15.1: Group-V Acceptor Ionization Energies and Compensation Centers in CdTe Revisited**
  Anderson Janottii, University of Delaware, Newark, DE, US
  3:15pm – 3:28pm
- **15.2: Advances in Lifetimes and Arsenic Doping in Cd(Se)Te Solar Cell**
  Walajabad S. Sampath, Colorado State University, Fort Collins, CO, US
  3:28pm - 3:40pm
- **15.3: Multisource Deposition System for CdTe Photovoltaic Device Fabrication**
  Michael Heben, University of Toledo, Toledo, OH, US
  3:40pm - 3:52pm
- **15.4: Structural and Electrical Studies of Arsenic doped CdTe via X-ray Microscopy**
  Mariana Bertoni, Arizona State University, Tempe, AZ, US
  3:52pm - 4:04pm
- **15.5: Parsing Voltage Losses in CdSeTe Solar Cells: Drafting a Pathway to Reach Voc = 1 V**
  Arthur Onno, Arizona State University, Tempe, AZ, US
  4:04pm – 4:16pm
- **15.6: Characterizing Local Carrier Dynamics of CdTe Solar Cells Using Micro/Nanocontact**
  Heayoung Yoon , University of Utah, Salt Lake City, UT, US
  4:16pm – 4:28pm
- **15.7: Multi-Mode Simulation of Cd(Se,Te) Devices**
  Marco Nardone, Bowling Green State University, Bowling, OH, US
  4:28pm – 4:40pm
- **15.8: Analytical Scanning Transmission Electron Microscopy Studies of Back-Contacts in Group-V Doped CdSeTe Devices**
  Robert Klie, University of Illinois at Chicago, Chicago, IL, US
  4:40pm – 4:52pm