

PVIC – University of Toledo

Agenda for Bi-Annual Meeting on November 2nd, 2009

8:30 am – 9:00 am	Arrival & Registration	Research & Technology Complex
9:00 am	University of Toledo President Dr. Lloyd Jacobs to be introduced by Rob Collins	Conference Room A/B
	Opening Remarks	University of Toledo – President Jacobs
9:20 am – 9:30 am	Financial Update	University of Toledo – Colleen LaChapelle
9:30 am – 11:00 am	Area: Science & Technology Foundation updates	Ohio State University – Bob Davis (30 min) Bowling Green State University – Phil Castellano (30 min) University of Toledo – Rob Collins (30 min)
11:00 am – 12:15 pm	Area: Device Development	EMTEC – Mike Martin (20 min) NewCyte – Dennis Flood (20 min) ITF – Norm Rapino (10 min) DuPont – Brian Auman (Materials) (15 min) SSOE – Jerry Carter (Full System) (5 min)
12:15 pm – 1:00 pm	Lunch and Networking	Conference Room A/B
1:00 pm – 2:00 pm	Area: System Components	Owens Corning – Nigel Ravenscroft (15 min) Pilkington – Dave Strickler (20 min) Xunlight – Xunming Deng (20 min)

2:00 pm – 2:45 pm	Area: Full System & Installation and Education & Public Awareness	Decker Homes – Bill Decker (30 min) ADG – John Witte (10 min)
2:45 pm – 3:00 pm	Opens discussion, comments, questions	
3:00 pm – 4:00 pm	Tour of Laboratory Facility	Research & Technology Complex
8:00 am – 3:00 pm	Member Business Collaborations (for your convenience, a meeting room has been reserved for you should you need to discuss/conduct business with another member)	Conference Room C
3:00 pm – 5:00 pm	PVIC Industrial Advisory Board Meeting	Conference Room C

Tours will be organized in small groups and will be personally hosted by faculty members and students in the various research laboratories. Laboratories will be incorporated in the tour depending on the interest of the delegation.

Laboratory	Director	Comments
Thin Silicon	Prof. Robert Collins	Class 1000 clean room, Plasma Enhanced Chemical Vapor Deposition of amorphous silicon and Physical Vapor Deposition of backreflectors in rigid substrate and roll-to-roll configurations. Analysis of cell fabrication processes using real time ellipsometry.
Cadmium Telluride	Profs. Robert Collins / Sylvain Marsillac	Characterizing of thin films through profilometry, electrical characteristics, quantum efficiency and resistivity measurements, Atomic Force Microscopy, spectrophotometry, scanning Auger spectroscopy Future location: VTD/CSS CdTe and post-deposition processing.
Copper Indium-GalliumDiselenide	Prof. Sylvain Marsillac	Class 1000 clean room, thin film deposition through Physical Vapor Deposition, thermal and electron beam evaporation, and planar magnetron sputtering

Nanomaterials / OPV	Prof. Michael Heben	Characterization and fabrication of nanomaterials and organic materials
Wet Chemistry	Profs. Randy Ellingson / Michael Heben	Wet Chemistry, nanomaterial processing
UT / NASA / PVIC Test Facility	PV Group	Small scale material characterization and study through Infrared Spectroscopy and Thermal Gravimetric Analysis. Large scale material characterization using environmental and solar simulation and 1m x 1.5m ellipsometric mapping system
High Energy Synthesis	Prof. Michael Heben	Carbon nanotube synthesis through laser ablation
Ultrafast Spectroscopy	Prof. Randy Ellingson	Ultrafast laser spectroscopy of nanomaterials and in the future, organic materials
Laser Scribing Facility	Prof. Randy Ellingson	Individual cells are laser scribed on thin films in a multiple step process to produce solar panels