

**Emerging Materials for Thin Film Solar Cells**  
**NSF International Center for Materials Research**

**Sunday August 7**

5:00-8:00      **Registration and Dinner Reception (Loma Pelona Center)**

**Monday, August 8**

*Introduction to Thin Film Solar Cells* (ESB 1001)

9:00 Welcome – Michael Chabinyo

9:30 “Introduction to Solar Cells”  
Prof. Sigurd Wagner (Princeton University)

10:30 *BREAK*

11:00 “Silicon solar cells – wafers and thin films “  
Prof. Sigurd Wagner (Princeton University)

12:00 *LUNCH*

*High Performance Materials* (ESB 1001)

1:30 “Chalcogenide thin film solar cells: the lowest cost per Watt solar technology”  
Prof. Angus Rockett (U. Illinois Urbana Champaign)

2:30 “Paths to High Efficiency and Low Cost Photovoltaics”  
Prof. Harry Atwater (Caltech)

3:30-5:30      **Poster Session A**

**Tuesday, August 9**

*Flexible and Unconventional Cells* (ESB 1001)

9:00 “Thin film Silicon Flexible Solar Cells”  
Dr. Subhendu Guha (Unisolar)

10:00 *BREAK*

10:30 “Large Scale Arrays of Ultrathin, Microscale Solar Cells For High Performance, Unusual  
Format Photovoltaics”  
Prof. Jongseung Yoon (USC)

11:30 *LUNCH*

*Organic Materials* (ESB 1001)

1:00 “Title TBA”  
Dr. Martin Heeney (Imperial College, UK)

2:00 “Characterizing and enhancing exciton harvesting in organic photovoltaic cells”

Prof. Russell Holmes (U. Minnesota)

3:00 *BREAK*

3:30 "Polymer blend solar cells: Morphology Device Operation"  
Dr. Chris McNeil (Monash University)

4:30-6:00 **Poster Session B**

### **Wednesday, August 10**

*Nanoscale Methods* (ESB 1001)

9:00 "Probing Nanostructured Photovoltaics: Transport, Trapping, and Stability in Organic and Hybrid OPVs"  
Prof. David Ginger (University of Washington)

10:00 *BREAK*

10:30 "Contactless probing of nano-electronic materials and nanowire-based organic/inorganic hybrid solar cells"  
Prof. Liwei Chen (Suzhou Institute)

11:30 *LUNCH*

*Novel Inorganic Materials* (ESB 1001)

1:00 "Challenges in Transparent Contacts for Thin Film Photovoltaics"  
Dr. Joseph Berry (NREL)

2:00 "Inorganic materials for Terawatt Scale Photovoltaics"  
Dr. Aaron Barkhouse (IBM)

3:00 *BREAK*

3:30 "Silicon nanostructures for next generation photovoltaics"  
Prof. Reuben Collins (Colorado School of Mines)

5:00 **Beach BBQ (Goleta Beach- Area A)**

### **Thursday, August 11**

*Hybrid Systems* (ESB 1001)

9:00 "Organic-inorganic hybrids for optoelectronic devices"  
Prof. Maria Antonietta Loi (University of Groningen)

10:00 *BREAK*

10:30 "Photo-induced charge transfer and chemical bond formation at dye sensitize TiO<sub>2</sub> interfaces"  
Prof. Gerald Meyer (Johns Hopkins University)

11:30 *LUNCH*

*Nanomaterials* (ESB 1001)

1:00 "Quantum-confined nanocrystals as building blocks for next-generation photovoltaics"  
Prof. Tobias Hanrath (Cornell)

2:00 "Size Dependence of the Multiple Exciton Generation Rate in CdSe  
Quantum Dots"  
Prof. Mark Lusk (Colorado School of Mines)

3:00 *BREAK*

3:30 "Hot Electrons and Hot Plasmons for Photovoltaics"  
Prof. David Norris (ETH Zurich)

4:30-5:30 ICMR Workshop Evaluation (ESB 1003 – "The Cooper Lab")

6:30-8:30 ***Closing Dinner in downtown Santa Barbara***

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**Notes:** Opening Dinner Reception on Sun, Aug 7 will be at Loma Pelona 1108 Patio  
All lectures are in the Engineering Science Building, ESB 1001  
Breakfast is at the Carrillo Dining Commons (by Manzanita Village)  
Lunch is at the De La Guerra Dining Commons  
Dinner at the Carrillo Dining Commons  
Poster Sessions on Mon, Aug 8 & Tues, Aug 9 will be held at the ESB Courtyard  
Goleta Beach BBQ on Weds, Aug 10 – Area A  
ICMR Evaluation will be in ESB 1003 "The Cooper Lab"  
Closing Reception Dinner on Thurs, Aug 11 will be held at the El Paseo Restaurant.

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