AGENDA

22nd Space Photovoltaic Research and Technology Conference

Tuesday, September 20, 2011

7:30 Breakfast

8:00 – 9:00 Registration

9:00 – 9:30 Introductory Remarks

Session I
High Efficiency Solar Cell Development (Invited)
Session Chair: Eric Clark

9:30 **High Efficiency Lightweight and Flexible Solar Sheets based on Inverted Metamorphic Solar Cells** (Noren Pan/MicroLink Devices)

10:00 **Solar Cell Research and Development at Emcore** (Mark Stan/Emcore)

10:30 – 10:45 Break

10:45 **Recent Progress of Advanced Inverted Metamorphic Multijunction Space Solar Cells at Spectrolab** (Ken Edmondson/Spectrolab)

Session II
Solar Cell Measurements and Calibration
Session Chair: David Snyder

11:15 **Effects on Solar Cell Short Circuit Current Calibrations at High Altitude** (David Snyder/NASA GRC)

11:35 **Characterization of a TS Space Quad Source Simulator** (Kyle Montgomery/Purdue University)

11:55 – 12:55 Lunch

12:55 – 1:10 Group Photo

Session III
Thin Film Solar Cell Materials
Session Chair: Sheila Bailey

1:10 **Nanostructured Materials in Photovoltaics** (Xingzhong Yan/South Dakota State Univ.)

1:30 **Materials and Devices Design for Efficient Single and Multijunction Organic Solar Cells** (Qiquan Qiao/South Dakota State Univ.)

1:50 **Transparent Nanostructured Conductor Systems (TNCS) for Photovoltaics** (Alex Kawczak/StrateNexus Technologies)

2:10 **Fabrication of Cu_2O Thin Films and Synthesis of $CuInS_2$ Nanocrystals for Solar Cells** (Liangmin Zhang/Arkansas State University)

2:30 – 2:40 Break

Session IV
Space Environmental Interactions and Testing
Session Chair: Boris Vayner

2:40 **Analysis of Velocity of Flash Over Plasma on Solar Arrays** (Teppei Okumura/JAXA)

3:00 **The New AFRL Spacecraft Charging and Instrument Calibration Laboratory (SCICL) at Kirtland Air Force Base** (Dale Ferguson/AFRL)

3:20 **Thermal Balance Testing in the NASA GRC Plasma Interactions Facility** (Barry Hillard/NASA GRC)

Session V

Solar Powered Missions and Technology Development

Session Chair: Joel Galofaro

3:40 **Modular Solar Panels Incorporating Advanced Solar Cell and Coverglass Approaches** (Ted Stern/Vanguard Space Technologies)

4:00 **Solar Electric Propulsion Technology Demonstrations Missions** (Tom Kerslake/NASA GRC)

4:20 **Solar Array Design for the MAVEN Mission** (Scott Billets/Lockheed Martin Space Systems)

4:40 **Solar Cell Performance on Venus** (Geoffrey Landis/NASA GRC)

5:30 Picnic