

8th Workshop on the Future Direction of Photovoltaics
8-9 March 2012, Tokyo Tech Front, Tokyo Institute of Technology
Tokyo, Japan

Tentative program

Organized by: The Japan Society for the Promotion of Science,
The 175th Committee on Innovative Photovoltaic Power Generating Systems

March 8, Thursday

Opening (Session Chairperson, T. Fuyuki, NAIST)

10:00-10:10 **Opening Remarks**
M. Konagai, Tokyo Tech, Chairman of the JSPS 175th Committee

Plenary Session (Session Chairperson, T. Fuyuki, NAIST)

10:10 -11:00 **Past, Present and Future of CIGS Module Production**
K. Kushiya, Solar Frontier

Session 1 *Si Solar Cells* (Session Chairperson, N. Usami, Tohoku Univ)

11:00-11:30 **Advanced characterization for high efficiency heterojunction solar cells**
Wilfried Favre, Commissariat à l'Énergie Atomique et aux Énergies Alternatives

11:30-12:00 **Germanium doped crystal silicon for photovoltaic application**
Deren Yang, Zhejiang University

12:00-12:30 **History and Future Prospect of HIT Solar Cells in Panasonic**
Makoto TANAKA, Panasonic Corporation

12:30-13:00 **High efficiency of crystalline Si solar cell fabricated by the application of film Si technology**
K. Yamamoto, Kaneka

13:00-14:30 **Lunch**

Session 2 *Si Thin-Film Solar Cells* (Session Chairperson, T. Matsui, AIST)

14:30-15:00 **Thin-film Silicon PV – Achievements and Challenges**
S.Guha, UNI-SOLAR

15:00-15:30 **Si thin film technology applications for commercialization in LGE**
Dong-Joo You, LGE

15:30-16:00 **Status of thin film solar cells in China**
Ying Zhao, Nankai University

16:00- 16:30 **Optical design of high-efficiency silicon thin-film solar cells**
Miro Zeman, Delft University of Technology

16:30-17:00 **Enhancing the Performance of the Si-Based Thin-Film Solar Cells by Employing SiGex and SiOx Alloys**
Chang- Chuang Tsai, National Chiao Tung University

Session 3 *Report From DIVISION “Reliability and Systems”* (Session Chairperson Takashi Oozeki, AIST)

17:00-17:30 **Lessons Learned from Field Survey - A Message from PVResQ !**
Kazuhiko Kato, AIST

17:30-17:40 **Activity of Reliability and Systems division**
Yuzuru Ueda, Tokyo Tech

18:30 **Reception**

March 9, Friday

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| Session 4 10:00-11:00 | <i>Tutorial</i> “Staebler-Wronski Effect” C.R. Wronski, Penn State University | (Session Chairperson, M. Kondo, AIST, under negotiation) |
| Session 5 11:00-11:30 | Si Nanowire solar cells The potential of Si nanowires for all-Si based tandem solar cells Rufi Kurtjens, IMEC | (Session Chairperson, A.Yamada, Tokyo Tech) |
| 11:30-12:00 | Application of Silicon Nanowires in Novel Solar Cells W.Z. Shen, Shanghai Jiao Tong University | |
| 12:00-12:30 | Future perspective of PV research using silicon nanostructures Jung-Ho Lee, Hanyang University | |
| 12:30-12:50 | Silicon nanowire solar cells prepared by metal assisted chemical etching with silica nanoparticles Y. Kurokawa, Tokyo Tech | |
| 12:50-14:00 | <i>Lunch</i> | |
| Session 6 14:00-14:30 | Organic semiconductors and dye-sensitized solar cells Molecular Photovoltaics and Mesoscopic Solar Cells Md. K. Nazeeruddin, Ecole Polytechnique Federale de Lausanne | (Session Chairperson, H. Segawa, Univ. Tokyo, under negotiation) |
| 14:30-15:00 | Design and Development of Dyes for DSSC:Present status and Future Scope Paidhi Yella Reddy, Aisin Cosmos R&D Co. Ltd. | |
| 15:00-15:30 | Small molecular based solar cells vs polymer based solar ones Yongsheng Chen, Nankai University | |
| 15:30-16:00 | Recent development of Dye-sensitized Solar Cell Kazuhiro Noda, Sony Corporation | |
| 16:00-16:30 | Development of Organic Photovoltaic and Evolution in the Future Hiroaki Yamaoka, Mitsubishi Chemical | |