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Reliability of Photovoltaic Cells, Modules, Components, and Systems X

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2 Field to Chamber Comparison
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3 Thin Film Durability
Michael D. Kempe, National Renewable Energy Laboratory (United States)

4 General PV Module Construction and Deployment
Neelkanth G. Dhere, University of Central Florida (United States)

5 General PV Module Construction of Field Arrays
Keiichiro Sakurai, National Institute of Advanced Industrial Science and Technology (Japan)

Introduction

The SPIE *Reliability of Photovoltaic Cells, Modules, Components, and Systems X* Conference as part of the Optics and Photonics for Sustainable Energy symposium took place at San Diego, CA on Sunday through Monday, 6–7 August 2017.

Sunday, August 6

The afternoon Session 1 on Backsheets, was chaired by Dr. Helio Moutinho, National Renewable Energy Laboratory (NREL) and myself, Neelkanth G. Dhere. It had presentations of two invited papers entitled i) “Comparison of higher irradiance and black panel temperature UV baksheet exposure to field performance” by Felder et al and ii) “Characterizing the weather induced in the changes in the optical performance poly(ethylene-terephthalate) via MaPd:RTS spectroscopy by Gordon et al and two contributed papers.

The next two afternoon sessions, 2 and 3, on Field to Chamber Comparison and Thin Film Durability were chaired by Dr. Michael D. Kempe, National Renewable Energy Lab (NREL) had three contributed presentations including a very good paper on Artefact-free coring of solar modules by Dr. Helio Moutinho et al, National Renewable Energy Laboratory (NREL).

The last afternoon Session 3 had presentation of an invited paper entitled, “Exposure of CIGS cells to negative, zero and positive electrical biases in damp-heat illuminated environment” by Nicolas Barreau et al. There was also one contributed paper.

Monday, August 7

The morning Session 4 General PV Module PV Module Construction of PV Arrays Reliability Accelerated and Outdoor Testing I was chaired by myself. It had one invited paper entitled, “Impact of PID on industrial roof-top PV installations” by Claudia Buerhop Lutz et al and two contributed papers.

After the morning Coffee break, Session 5 on General PV Module Reliability Accelerated and Outdoor Testing II was chaired by Dr. Keiichiro Sakurai of National Institute of Advanced Industrial Science and Technology (Japan). It had two contributed papers prior to the morning coffee break and four contributed papers after.

The Posters Session took place on Monday, August 29 during 5:30 PM - 7:30 PM. It had two posters related to PV Module Reliability.

Overall the SPIE Reliability of Photovoltaic Cells, Modules, Components, and Systems X Conference has a good following and was very well-attended with participants from USA, Europe, India, Japan and Republic of Korea. It had 20 papers presented. The discussion and question-answer sessions were very lively and interesting.

Next year the Conference Chairmanship will be passed on to Dr. Michael Kempe who has kindly agreed to accept this appointment.

We would like to thank the authors and other participants for their continuing interest and valuable support. We would also like all of you to continue to provide your support to the incoming Conference Chair, Dr. Michael D. Kempe.

Neelkanth G. Dhere
Keiichiro Sakurai
Michael D. Kempe