



Second Announcement

6th SOPHIA Workshop PV-Module Reliability

April 28th – 29th, 2016

**AIT Austrian Institute of Technology in Vienna,
Austria**

OBJECTIVES

Innovative Materials and Building Integration Aspects

The Fraunhofer Institute for Solar Energy Systems ISE and the Austrian Institute of Technology (AIT) are proud to present the 2016 SOPHIA-workshop 'PV-Module Reliability' in Vienna, Austria from April 28th to April 29th.

The 2016 workshop will feature reliability aspects in connection to building integration with focus on innovative functional materials and components as well as detailed discussions on PV system reliability.

In the center of attention are

- Back-sheets, encapsulants and PID-barriers
- Novel non-destructive analytical methods
- Stresses on building integrated modules and systems along with presentations on innovative modules
- System aspects of reliability

Regular Registration fees : 400 EUR – Early Bird Discount until March 31st: 320 EUR -

Registration fees for students: 300 EUR – Early Bird Discount for students until March 31st: 240 EUR

For more information and for registration please visit the workshop's website:

www.pv-reliability.com

Structure

The program topics will be presented by experts and further developed in discussion groups.

Block 1: Novel materials and challenges for reliability testing

- a) Backsheets and the challenge of continuous adaption due to regular market and standard changes: Andreas Skringer, ISOVOLTAIC, AT
- b) PID: From material properties to outdoor performance & quality control: Juliane Berghold, PI Berlin, GER
- c) Time dependent luminescence spectroscopy: Evaluating EVA cross-linking in PV-modules: Beater Röder, HU Berlin, GER
- d) Stabilization and ageing behavior of polymerics for PV-modules: Gernot Wallner, IPMT, AT
- e) Degradation in PV encapsulant adhesion: An interlaboratory study towards a climat-specific test: David C. Miller, NREL, USA

Block 2: Reliability issues on system level

- a) Degradation and reliability in PV performance modelling for accurate PV system analysis and forecasting: Blaž Kirn, University of Ljubljana, SI
- b) PV-reliability as addressed in IEA PVPS Task13: Ulrike Jahn, TUV Rheinland, GER
- c) Statistical assessment of PV reliability within the H2020 Solar Bankability project: Giorgio Belluardo, EURAC, IT
- d) PV-system analysis based on inverter data: Johannes Stöckl, AIT, AT

Group Discussion: What is most important when introducing novel materials: performance, reliability, costs?

Block 3: Building integration

- a) BiPV-modules ' way to a certified building product: Dieter Moor, Ertex-Solar, AT
- b) Dye-sensitized solar cell modules for building integration: Thomas Friesen, Glass2Energy, CH
- c) IEA PVPS Task 15 Acceleration of BIPV: Potential and barriers: Astrid Schneider, AIT, AT
- d) IEA PVPS Task 15 – Acceleration of BIPV / BIPV- testing - experiences regarding energy yields and failure modes from demo sites in the Netherlands: Alex Masolin, Zuyd Universitze Heerlen, NL
- e) RiPV - Roof integrated PV: Temperature measured and calculated: Michael Köhl, ISE, GER
- f) IEC TC82 approach to BIPV-standards: John Wohlgemuth, NREL, USA

Group Discussion: How to meet the demands of future markets in China (Mass production/Power plants) and Europe (Customised modules/Building intregation)

Block 4: Novel developments in characterization

- a) Revealing inhomogeneous aging of the EVA-encapsulation in PV-modules by non-destructive 2D-luminescence spectroscopy and destructive measurements: Jan Schlothauer, HU Berlin, GER
- b) Evaluation of the acidic acid permeability of PV-backsheets: Gabriele C. Eder, OFI, AT
- c) UV-luminescence imaging of fielded PV-modules: Bernhard Kubiceck, AIT, AT
- d) Thermographers view on PV-plant inspection: Bernhard Weinreich, HaWe Engineering, GER
- e) In-situ degradation monitoring with focus on capacitance measurement: Daniel Philipp, ISE, GER

Plenary discussion with presentation of discussion group results

Optional: Visit of the facilities of AIT



Organizer

Fraunhofer ISE, Dr.-Ing. Michael Köhl
AIT, Karl Berger



For questions please contact

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