

Press Release - Berlin 04/08/14

New Test Procedures to Control Quality of Solar Modules

Photovoltaik-Institut Berlin presents research results at the European Photovoltaic Conference EU PVSEC

The PI Photovoltaik-Institut Berlin will be presenting new testing procedures as well as new research results for the quality control of solar modules at the European Photovoltaic Solar Energy Conference and Exhibition EU PVSEC in Amsterdam this September. As a part of the research project FutureFab, in which five project partners worked for three years, PI-Berlin was responsible, in particular, for investigating durability, safety and reliability of innovative materials and bonding techniques, using its accredited test laboratory.

Measuring PID Susceptibility, Losses in Yield and Abrasion

“Since the standard testing procedures are not always sufficient, particularly regarding new materials, we developed new test benches and procedures within the scope of project”, explains Simon Koch, project manager at the Photovoltaik-Institut Berlin. Thanks to these procedures, the researchers can identify how susceptible encapsulation materials react to potential-induced degradation (PID). The new test benches allow the researchers to assess losses in yield on account of soiled solar modules in the field, to select appropriate cleaning methods and to determine the necessary cleaning intervals based on location.

Sinking Manufacturing Costs Significantly

By developing new production technologies and optimised process steps, PI-Berlin – along with the other project partners – has been able to sink the manufacturing costs of the next generation solar factories per Watt-peak significantly. The project FutureFab was completed on 30 June and financially supported by the German Federal Ministry for Economic Affairs and Energy, the Federal Ministry of Education and Research and from the Innovationsallianz Photovoltaik.

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PI-Berlin at the EU PVSEC in Amsterdam

At the European Photovoltaic Solar Energy Conference and Exhibition EU PVSEC, which will take place from 23 to 26 September in Amsterdam, PI-Berlin will be presenting the following topics.

Presentation:

5DO.11.5 From the Impact of Harsh Climates and Environmental Conditions on PV Modules – Development of a Soiling and Abrasion Test, by Dipl.-Ing. (FH) Thomas Weber

Posters:

5DV.3.1 Prediction Model for Potential-Induced Degradation Effects on Crystalline Silicon Cells, by Dipl.-Ing. (FH) Simon Koch

5BV.4.4 Comparison of Hot Spot Investigations under Laboratory and Field Conditions at Photovoltaic Modules, by Stefan Wendlandt M.Sc.

5CV.2.4 Investigation of Preconditioning Procedures for Thin Film Modules, by Dr. Nicoletta Ferretti

About the Photovoltaik-Institut Berlin AG

Photovoltaik-Institut Berlin AG (PI-Berlin) offers comprehensive testing services and qualified certification in the areas of PV module technology and PV power plant construction. Besides module tests according to IEC, PI-Berlin's own test developments (PID+, Peel, EVA, EL) are now officially accredited. To ensure the quality along the entire value chain – from the raw material to the PV power plant – PI-Berlin has compiled efficient quality service packages. The continuous development of test methods is ensured by its in-house R&D division. In addition to the laboratory in Berlin, PI-Berlin operates another accredited testing laboratory in Suzhou (PI-China).

Further reading

www.pi-berlin.com

www.photovoltaic-conference.com

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