Welcome to

International Workshop on the Sustainable Actions for “Year by Year Aging” under Reliability Investigations in Photovoltaic Modules

SAYURI-PV 2016

Research Center for Photovoltaics (RCPV), AIST
Koji Matsubara
Est. Total Capacity in 2020:

490 – 716 GW

International Initiatives for PV Module/System Reliability

**PVQAT**

Sharing of Scientific Findings

IEA PVPS Task 13

Int’l Standardization

IEC TC82 & Int’l SDOs

Certification

IECEE-PV/IECRE-PV

Solar PV Industrial Community

NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (AIST)
International Workshops on PV Module Reliability

-organized by NREL/SNL

-Participants:
  ca. 200 PV Experts

-held Every Winter
  (2 or 3 days)

-Presentations (2016)
  Oral : 67
  Poster : 84

Search with “NREL PVMRW”

http://www.pv-reliability.com/

NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (AIST)
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Scope of SAYURI-PV Workshop

- to Share the Information
  on the Most Recent Scientific Findings for PV Module Reliability
  toward Global PV Community
  in cooperation with NREL PVMRW & SOPHIA WS

- to Contribute to the development of useful International Standards
  by the Scientific Findings for PV Module Reliability
  to IEC TC82 & IECEE / IECRE
  in cooperation with PVQAT & IEA PVPS Tasks

- to be a Hub Workshop in Open Innovation Structure
  to lead Epoch-Making Investigation
  on the Scientific Research for PV Module Reliability
Three Typical Failure Scenarios for Wafer-Based PV Modules

- LID 0.5-5%
- Glass AR deg.
- Delamination, cracked cell isolation
- PID
- Diode failure
- Cell interconnect breakage
- Contact failure j-box/string interconnect
- Glass breakage
- Loose frame
- EVA discoloring

- Infant-failure
- Midlife-failure
- Wear-out-failure

IEA-PVPS T13-01 2014 Review of Failures of Photovoltaic Modules Final

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In the first workshop in 2016, we focus on the novel test procedures and characterization methods to assure the long-term reliability of PV modules, including the efforts toward their standardization.

We wish all of you participate and contribute to deep & fruitful discussion on

“How do we predict the Wear-Out-Failure?”
Thank you for your attention.