

Poster Sessions

[Day 1] Poster Session (October 30, 11:15 – 13:00)

- P-02 Temperature-Variable Measurements of Crystalline Silicon Photovoltaic Cells after Potential-Induced Degradation
Jaffar Abdu¹, Sungwoo Choi², Kinichi Ogawa², Minoru Akitomi², Yasuo Chiba², Atsushi Masuda², Shigeomi Hara¹, and Makoto Kasu^{1,2} (¹Saga University, ²AIST)
- P-04 Dependence of UV Light Wavelength on the PID Delay Effect during PID Stress Tests for p-Type Crystalline Si Solar Cell
Nguyen Chung Dong¹, Yasuaki Ishikawa¹, Atsushi Masuda², and Yukiharu Uraoka¹ (¹NAIST, ²AIST)
- P-06 Comparison of Indoor and Outdoor Accelerated PID Tests on CIGS Modules
Keiichiro Sakurai¹, Hiroshi Tomita², Darshan Schmitz², Shuuji Tokuda², Kinichi Ogawa¹, Hajime Shibata¹, Atsushi Masuda¹ (¹AIST, ²Solar Frontier)
- P-07 Performance Degradation in Front-Emitter n-Type Crystalline Silicon Photovoltaic Modules under Long-Duration Potential-Induced Degradation Tests
Keisuke Ohdaira¹, Yutaka Komatsu¹, Seira Yamaguchi¹, and Atsushi Masuda² (¹JAIST, ²AIST)
- P-08 Effect of Light Illumination on Potential-Induced Degradation in Front-Emitter n-Type Crystalline Silicon Photovoltaic Modules
Seira Yamaguchi¹, Atsushi Masuda², and Keisuke Ohdaira¹ (¹JAIST, ²AIST)
- P-10 Sodium and Current Distribution at the Surface of p-Type Multi-Crystalline Silicon Solar Cell after Potential Induced Degradation Test
Fumitaka Ohashi¹, Hiroki Yoshida¹, Yasushi Sobajima¹, Nobukazu Kameyama¹, Yukiko Hara², Atsushi Masuda², and Shuichi Nonomura¹ (¹Gifu University, ²AIST)
- P-13 Current and Electric Field Analyses inside Photovoltaic Module during PID Acceleration Test
Yasushi Tachibana¹, Takeshi Toyoda¹, Yoshihiro Ueda¹, Seira Yamaguchi², Keisuke Ohdaira², Chizuko Yamamoto³, and Atsushi Masuda³ (¹IRIL, ²JAIST, ³AIST)
- P-15 Low-Voltage Electrical Recovery of Potential-Induced Degraded Multi-Crystalline Silicon Module
Hiroki Yoshida¹, Fumitaka Ohashi¹, Yasushi Sobajima¹, Nobukazu Kameyama¹, Yukiko Hara², Atsushi Masuda², and Shuichi Nonomura¹ (¹Gifu University, ²AIST)

[Day 2] Poster Session (October 31, 11:15 – 12:45)

- P-01 Detection of Defective Solar Cells Based on EL Analysis Using Convolutional Neural Network
Go Sasakawa, Yasuaki Ishikawa, Daisuke Kobayashi, Naoaki Ono, Yukiharu Uraoka, and Hideaki Adachi (NAIST)
- P-03 Overall Analysis of Power Drop with Outdoor Exposure of LG N-Type Module
Young gu Do, Mann Yi, Hyun shik Cho, Hyun Jung Park, Jae Sung Kim, and Chang Jik Hong (LG Electronics)
- P-05 Measurement of Solar Cells and Modules at JET
Hiromi Tobita (JET)
- P-09 The Influence of Module Structure on Degradation Modes of Silicon Photovoltaic Modules by Dynamic Mechanical Loading Test
Yuji Ino, Shuichi Asao, Katsuhiko Shirasawa, and Hidetaka Takato (AIST/FREA)
- P-11 Effect of UV Irradiation on the Degradation of PERC Modules (Re: Combined Stress Tests)
Tadanori Tanahashi and Keiichiro Sakurai (AIST)
- P-12 Localization and Characterization of Degraded Site in the Crystalline Silicon Photovoltaic Cells Exposed to Acetic Acid Vapor
Tadanori Tanahashi, Norihiko Sakamoto, Hajime Shibata, and Atsushi Masuda (AIST)
- P-14 Standardization of Non-Uniform Wind-Load Test Method on PV Module by PVQAT TG7 in 2018
Shu-Tsung Hsu, Hung-Sen Wu (ITRI)

3rd International Workshop on the Sustainable Actions for “Year by Year Aging” under Reliability Investigations in Photovoltaic Modules, 2018

SAYURI-PV 2018

Agenda

Date: October 30 – 31, 2018

Venue: Auditorium in AIST Tsukuba Central Campus
Central 1, 1-1-1 Higashi, Tsukuba, Ibaraki 305-8561, JAPAN

Organizing Committee

Chair: Koji Matsubara
Yasuo Chiba Atsushi Masuda Keiichiro Sakurai
Tadanori Tanahashi

Program Committee

Yasuo Chiba Takashi Ishihara Tetsuyuki Ishii
Yasuaki Ishikawa Kentaro Iwami Makoto Kasu
Atsushi Masuda Fumitaka Ohashi Tadashi Ohbayashi
Keisuke Ohdarira Keiichiro Sakurai Tsuyoshi Shioda
Tadanori Tanahashi Yuzuru Ueda Kenji Utsunomiya
Masaaki Yamamichi

Host

Research Center for Photovoltaics (RCPV)
in National Institute of Advanced Industrial Science and
Technology (AIST)

3rd International Workshop on the Sustainable Actions for “Year by Year Aging” under Reliability Investigations in Photovoltaic Modules, 2018 (SAYURI-PV 2018)

[Day 1] October 30

9:30- Welcome Address <O-01> Koji Matsubara (AIST)

Session I: Keynote Chairs: Yasuo Chiba (AIST) and Keiichiro Sakurai (AIST)

9:45- State-of-the-Art International Collaborations in the Field of PV Reliability Research <O-02>

Tadanori Tanahashi (AIST)

10:30- The DuraMAT Consortium: Data-Driven Collaborations to Develop and De-Risk Materials, Module Designs, and Accelerated Tests <O-03>

Teresa Barnes (NREL)

11:15- Lunch [Self Pay] & Poster Session

Session II: Combined Stress Tests Chairs: Atsushi Masuda (AIST) and Takashi Fuyuki (ASI)

13:00- Combined-Accelerated Stress Testing for Increasing the Confidence in PV Module Reliability <O-04>

Peter Hacke (NREL)

13:40- LeTID Performance Research of Multi-PERC Module <O-05>

Jing Sun (Canadian Solar)

14:20- Combined LID Test: Temperature Effect on LID of PERC Modules with in-situ IV Measurements <O-06>

Elias Garcia Goma (EternalSun)

15:00- Break (30 min)

Session III: Materials / Mechanisms I Chairs: Tadanori Tanahashi (AIST) and Hiromi Tobita (JET)

15:30- Lessons Learned from the 10 Years Field Record of 10+ MW PV Systems in Korea <O-07>

Kim Donghwan (Korea University)

16:10- Recent Understanding and Perspective for Potential-Induced Degradation of p-Type Crystalline Si Photovoltaic Modules <O-08>

Atsushi Masuda (AIST)

Session IV: Field Experience I Chair: Tetsuyuki Ishii (CRIEPI)

16:50- Mitsui Chemicals' Activities and Collaboration with PI Berlin for Healthy PV Power Plant <O-09>

Tsuyoshi Shioda (Mitsui Chemicals)

17:30 End of 1st Day

18:00- Network Meeting (Ticket Required)

<MEMO>

3rd International Workshop on the Sustainable Actions for “Year by Year Aging” under Reliability Investigations in Photovoltaic Modules, 2018 (SAYURI-PV 2018)

[Day 2] October 31

Session VI: Materials / Mechanisms II Chairs: Kim Donghwan (Korea University) and Sungwoo Choi (AIST)

9:15- Non-uniform Wind-Load Test for PV Module <O-10>

Shu-Tsung Hsu, Hung-Sen Wu (ITRI)

9:55- Highly Accelerated Thermal Cycling Test for New Photovoltaic Modules <O-11>

Li Na, Jing Sun (Canadian Solar)

10:35- Measurement of Diode Ideality Factor by Quantitative Analysis of Electroluminescence Image <O-12>

Takashi Fuyuki¹, Tadashi Obayashi², Keizo Asaoka², Yasunori Uchida², (¹Active Solar Innovation, ²JET) Hiroshi Taniguchi², and Yoshiteru Nitta²

11:15- Lunch [Self Pay] & Poster Session

Session VII: Field Experience II Chairs: Hung-Sen Wu (ITRI) and Kazufumi Tanaka (Kyocera)

12:45- Corrosion-induced AC Impedance Elevation in Front Electrodes of Crystalline Silicon Photovoltaic Cells within Field-Aged Photovoltaic Modules <O-13>

Tadanori Tanahashi (AIST)

13:25- Current Status of Changes in Power Generation of Photovoltaic Modules installed at AIST Kyushu Center <O-14>

Yasuo Chiba (AIST)

14:05- Break (30 min)

GENERAL DISCUSSION: Practical Issues on Global Collaboration

14:35- Introduction for General Discussion <O-15> Tadanori Tanahashi (AIST)

14:50- General Discussion All Participants Chaired by Masaaki Yamamichi (RTS) Tadanori Tanahashi (AIST)

15:20 End of 2nd Day

