

4th International Workshop on the
Sustainable Actions for “Year by Year Aging” under Reliability
Investigations in Photovoltaic Modules, 2019

SAYURI-PV 2019

Agenda

Date: November 18 – 19, 2019

Venue: Conference Room (11F), AIST Tokyo Waterfront Annex Bldg.
<https://www.aist.go.jp/waterfront/en/access/>

Organizing Committee

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

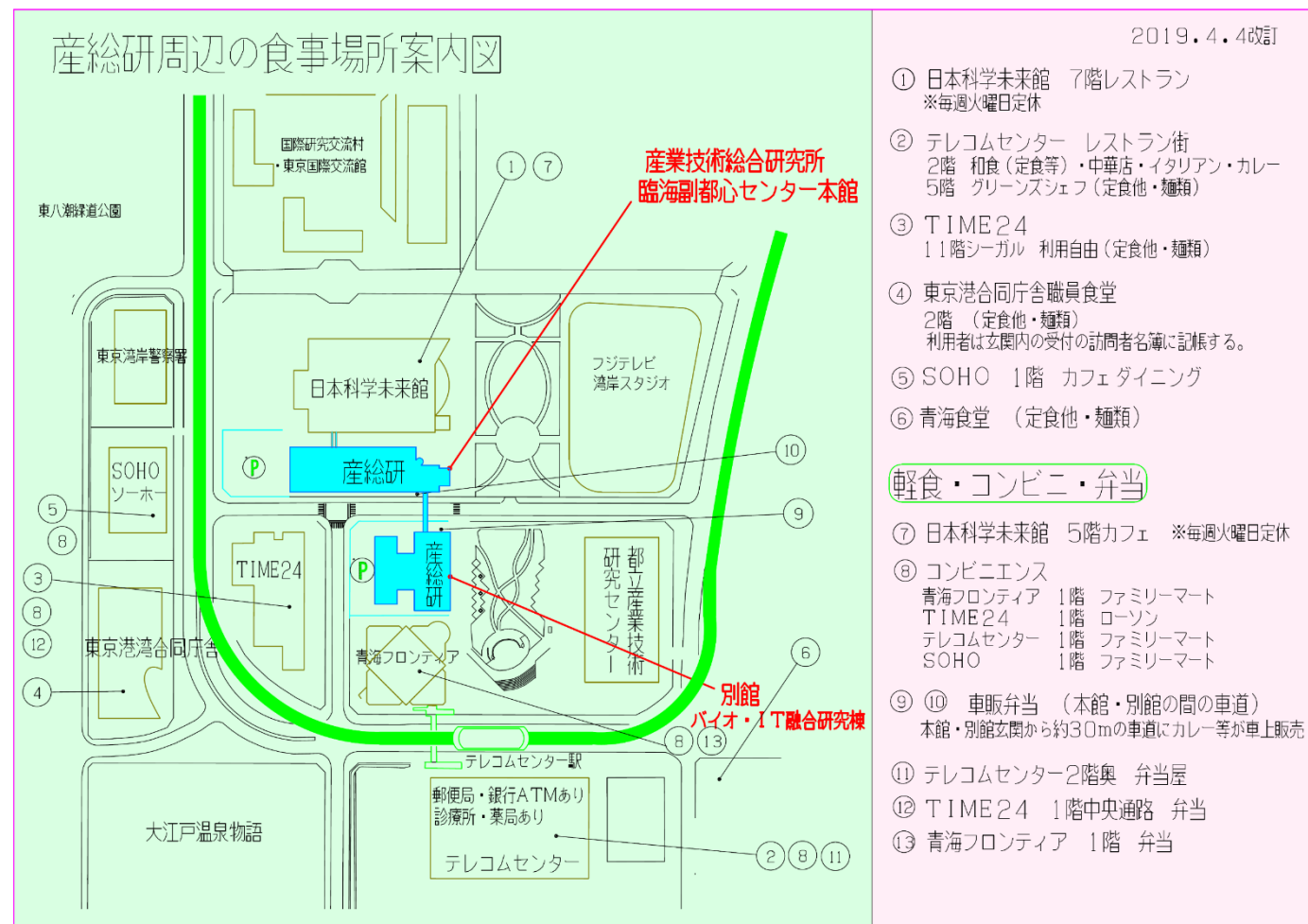
Program Committee

Yasuo Chiba, Takashi Ishihara, Tetsuyuki Ishii,
Yasuaki Ishikawa, Kentaro Iwami, Mitsuyoshi Maekawa,
Atsushi Masuda, Tadashi Obayashi, Fumitaka Ohashi,
Keisuke Ohdaira, Keiichiro Sakurai, Tsuyoshi Shioda,
Tadanori Tanahashi, Kazufumi Tanaka, Yuzuru Ueda,
Kenji Utsunomiya, Masaaki Yamamichi, Isao Yoshida

Host

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

Lunch Map



4th International Workshop on the Sustainable Actions for “Year by Year Aging” under Reliability Investigations in Photovoltaic Modules, 2019 (SAYURI-PV 2019)

[Day 1] November 18

9:30- Registration (AIST Tokyo Waterfront Annex Building: 1F)

- 10:00- General Introduction Tadanori Tanahashi (AIST)
- 10:10- Welcome Address Koji Matsubara (AIST)

Session I: Keynote Chair: Keiichiro Sakurai (AIST)

- 10:30- Recent Understanding and Remaining Reliability Issues on Photovoltaic Cells and Modules <O-01>
Atsushi Masuda (AIST)
- 11:00- Annual Degradation Rates of High-Efficiency Crystalline Silicon Photovoltaic Technologies Estimated from Indoor and Outdoor Measurements <O-02>
Tetsuyuki Ishii^{1,2}, Sungwoo Choi², Ritsuko Sato², Yasuo Chiba², and Atsushi Masuda² (1CRIEPI, 2AIST)
- 11:30- Field Inspection Methods to Quantify PV Module Degradation <O-03>
Werner Herrmann (TÜV Rheinland Energy GmbH)

12:00- Lunch [Self Pay]

Session II: Materials Chair: Tadanori Tanahashi (AIST)

- 13:30- A Unique Behavior of Ethylene Ionomers on Moisture Diffusion <O-04>
Kei Nagayama¹, Jane Kapur¹, Barry Morris¹, and Motoaki Isokawa² (1The Dow Chemical Company, 2Dow-Mitsui Polychemicals Company, Ltd.)
- 14:00- Accelerated Stress Testing of Flexible Polymeric Frontsheet Films <O-05>
Michael Kempe (NREL)
- 14:30- Characterization of Low Temperature Solder Reliability for PV Applications <O-06>
Laura Spinella (NREL)

15:00- Break (30 min)

Session III: Mechanical Stress Chair: Yasuo Chiba (AIST)

- 15:30- Standardization Research on Non-Uniform Wind Load Testing <O-07>
Hung-Sen Wu, Shu-Tsung Hsu, and Wei-You Lin (ITRI)
- 16:00- Evaluation of Performance Degradation due to Non-Uniform Wind Loading <O-08>
Tadanori Tanahashi¹ and Shu-Tsung Hsu² (1AIST, 2ITRI)

16:30 End of 1st Day

18:00- Network Meeting (Ticket Required)

Free Wi-Fi Service at Venue
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Password: You can find it at venue.

Smoking is prohibited in all AIST Buildings / Campuses.
 Smoking in outdoor is also prohibited, except in the designated smoking areas (ref: Map).

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[Day 2] November 19

9:00- Registration

Session IV: Degradation I Chair: Atsushi Masuda (AIST)

- 9:30- Exploring the Effect of Light on PID Testing of CIGS Modules <O-10>
Keiichiro Sakurai¹, Hiroshi Tomita², Shuuji Tokuda², Darshan Schmitz², Jiro Nishinaga¹, Hajime Shibata¹, and Atsushi Masuda¹ (1AIST, 2Solar Frontier K.K.)
- 10:00- Diode Ideality Factor “n” as an Indicator of the Output Performance of PV Cells and Modules <O-11>
Takashi Fuyuki¹, Tadashi Obayashi², Keizo Asaoka², Yasunori Uchida², Hiroshi Taniguchi², and Yoshiteru Nitta² (1Active Solar Innovation, 2JET)

10:30- Break (15 min)

Session V: Degradation II Chair: Takashi Ishihara (Mitsubishi Electric Corp.)

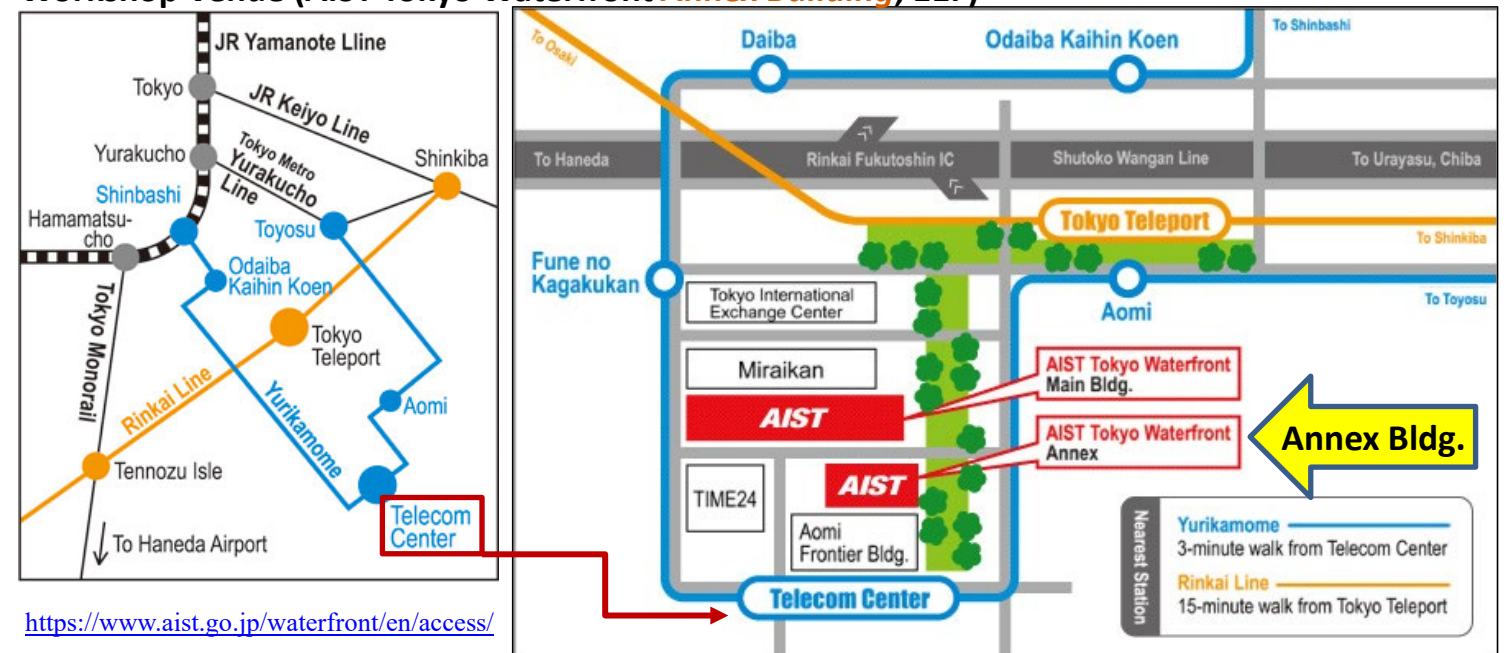
- 10:45- Corrosion-induced AC Impedance Elevation in Crystalline Silicon Photovoltaic Cells/Modules <O-12>
Tadanori Tanahashi (AIST)
- 11:15- Lifetime Prediction under UV-Hygrothermal Stress for Developing Long-Term Reliable Crystalline Si PV Modules <O-13>
Yuji Ino¹, Tomonari Sakamoto², Kouichirou Niira², Takuya Kurose², Shinsuke Uchida², Shinji Yada², Kyosuke Fujiwara², Shunsuke Heito², Yuusuke Wakisaka², Tomohiko Murao², Shirou Inoue², Shuichi Asao¹, Katsuhiko Shirasawa¹, and Hidetaka Takato¹ (1AIST, 2Kyocera Corp.)
- 11:45- Corrosion Mechanisms of the Front-Side Metallization on Crystalline Si PV Module in a High-Temperature High-Humidity Test <O-14>
Taeko Semba (NAMICS Corp.)

GENERAL DISCUSSION

- 12:15- General Discussion All Participants Chaired by Tadanori Tanahashi (AIST)

12:45 Adjourn

Workshop Venue (AIST Tokyo Waterfront Annex Building, 11F)



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