

6th International Workshop on the Sustainable Actions for “Year by Year Aging” under Reliability Investigations in Photovoltaic Modules, 2025 (SAYURI-PV 2025)

(As of 2025/10/17)

[Day 1] November 5

9:00- The venue opens / Hanging Your Poster

9:30- General Introduction Takeshi Tayagaki (AIST)

Session I: Reliability of cutting-edge PV Cells and Modules

Chair: Hitoshi Sai (AIST) and Takeshi Tayagaki (AIST)

9:40- Multi-Scale Characterization to Inform PV Reliability and Understand UV Induced Degradation

Dana Kern (NREL) (Online presentation)

10:15- TBA

Jean-Nicolas Jaubert (PVEL)

10:50- Challenge of Service Lifetime Prediction for PV modules with POE or EVA

Nozomi Kamiya (Mitsui Chemicals),
Tsuyoshi Shioda (es-Shift Research Institute, Inc)

11:20- Lunch [Self-pay]

Session II: Module reliability for integrated PV

Chair: Takuya Matsui (AIST) and Shogo Ishizuka (AIST)

13:00- Reliability analysis of vehicle-integrated PV

Daisuke Sato (Univ. of Miyazaki)

13:30- Absolute EL Measurements of VIPV

Hidenori Mizuno (AIST)

14:00- Direct detection of vibration and resonance of the solar cells and estimation of the stress accumulation

Kenji Araki (Univ. of Miyazaki)

14:30- Poster Session & Coffee Break

Session III: Field testing

Chair: Masahiro Yoshita (AIST) and Tadanori Tanahashi (AIST)

15:30- Development of an electroluminescence evaluation method as a next coming technology

Yasuaki Ishikawa (Aoyama Gakuin University)

16:00- Current Status of crystalline silicon based photovoltaic modules exposed outdoors in Tosu city, Japan

Yasuo Chiba (AIST)

16:30- Discussions

16:45 End of 1st Day

Poster Session:

November 5, 14:30 – 15:30

1. Durability test and degradation mechanism of metal halide perovskite solar cells
Masatoshi Yanagida (NIMS)
2. A Study on the Recycling and Regeneration of Silicon Heterojunction Solar Cells
Hitoshi Sai (AIST)
3. Evaluation of Front Eave Load Caused by Snow Accumulation on Photovoltaic Array
Tadanori Tanahashi (AIST)
4. Contact Metallization and Emitter Optimization in Advanced N-Type Silicon Solar Cells
Abdelghani Boucheham (CRTSE)
5. Laser-Based Repair of Perovskite Solar Cells: A Dual Strategy for Performance Recovery and Degradation Prevention
Tatsuro Kawamura (EneCoat Technologies)
6. Worldwide Roud Robin Test of Maximum Power Measurement for a Perovskite Solar Cell
Tomoyuki Tobe (KISTEC)
7. Thermal Modeling of PV Modules Based on Field Measurements at FREA
Kenji Kamide (AIST)
8. Improving the Thermal Durability of Flexible Film-Type Perovskite Solar Cell Modules
Hideki Goto (EneCoat Technologies)

[Day 2] November 6

Session IV: PV Recycle

Chair: Michio Kondo (Waseda Univ., AIST) and Keiichiro Sakurai (AIST)

9:00- Towards Efficient Recycling of PV Modules through Advanced Pre-treatment and Design-for-Disassembly

Chiharu Tokoro (Waseda Univ., Univ. of Tokyo)

9:25- Technological Development of PV Panel Recycling Using Low-Temperature decomposition

Takeharu Yamashita (Tokuyama)

9:50- Innovative Recycling of Solar Panel Cover Glass into Float Glass

Naoya Kobayashi (AGC)

10:15- Coffee Break

Session V: Fundamentals of Module Failure Modes

Chair: Hidenori Mizuno (AIST) and Takeshi Tayagaki (AIST)

10:30- Spontaneous Glass Breakage in Glass-Glass Modules

Elizabeth Palmiotti (NREL) (Online presentation)

11:05- Potential-induced degradation of Si photovoltaic modules with various n-type crystalline Si solar cells

Keisuke Ohdaira (JAIST)

11:35- Lunch [Self-pay]

Session VI: PV System Reliability

Chair: Takashi Oozeki (AIST) and Yasuo Chiba (AIST)

13:00- Influence of Glass Thickness on the non-uniform Snow Load Resistance of Photovoltaic Modules

Samuli Ranta (TUAS)

13:35- Standardization of Electrically Heated PV Modules (Snow-PV)

Akio Sato (VDE) (Online presentation)

14:05- An equivalent circuit model between PV module/string and the ground for discussion on risk of electrical shock

Kazuhiko Kato (AIST)

14:35- Coffee Break

Session VII: Perovskite PVs

Chair: Takurou Murakami (AIST) and Saemi Takahashi (AIST)

14:50- Long-Term Outdoor Performance and Stability of Flexible PSC modules

Yoshihiro Hishikawa (Ritsumeikan University)

15:20- Reliability issues in emergent PV technologies

Takeshi Tayagaki (AIST)

15:50- Discussions

16:05- Closing

Takeshi Tayagaki (AIST)

16:10 End of 2nd Day