

Program for
International Summit on Organic and Hybrid Photovoltaics Stability (ISOS-14)
and
Women Leaders in Solar Energy

8-10th November 2023

Pacifico Yokohama, Yokohama City, Kanagawa Prefecture, Japan

8th November

- 9:25-9:30 opening
- 9:30-9:55 [I_1] **Takuro N. Murakami** (National Institute of Advanced Industrial Science and Technology, AIST, Japan)
R&D for Perovskite Solar Cells in AIST
- 9:55-10:20 [I_2] **Chang-Qi Ma** (i-Lab & Printable Electronics Research Center, Suzhou Institute of Nano-Tech and Nano-Bionics (SINANO), Chinese Academy of Sciences (CAS), China)
Intrinsic Photon-Degradation of Polymer:NFA Solar Cells
- 10:20-10:45 [I_3] **Nikos Kopidakis** (National Renewable Energy Laboratory (NREL), USA)
Accurate Measurement of the Performance of Perovskite PV Cells and Modules: effect of measurement conditions
- 10:45-11:05 coffee break
- 11:05-11:30 [I_4] **Christopher Fell** (CSIRO Energy, Australia)
Better I-V measurements without spectral mismatch correction
- 11:30-11:55 [I_5] **Chun-Guey Wu** (National Central University, Taiwan, ROC)
Fabrication of high-efficiency perovskite solar cells/modules with more environmental friendly method
- 11:55-12:10 [O_1] **Takeshi Tayagaki** (National Institute of Advanced Industrial Science and Technology (AIST), Japan)
Light-dark cycle analysis of ultraviolet degradation in perovskite solar cells

- 12:10-12:15 [Sponsor time] Yamashita Denso Corporation
- 12:15-14:00 Lunch break
- 14:00-14:25 [I_6] **Mark Khenkin** (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany)
Perovskite solar cells outdoors: performance, stability and meta-stability
- 14:25-14:50 [I_7] **Annalisa Bruno** (Nanyang Technological University, Singapore)
Versatility And Intrinsic Stability Of Vacuum-Processed Hybrid Perovskites In Optoelectronics
- 14:50-15:05 [O_2] **Gaurav Kapil** (The University of Electrocommunications, Japan)
Evaluating the role of recombination layer in all perovskite tandem solar cells
- 15:05-15:25 Coffee break
- 15:25-16:55 poster session

9th November

- 9:30-9:55 [I_8] **Jean-François Guillemoles** (Institut Photovoltaïque d'Île-de-France (IPVF), France)
Identifying mechanisms causing degradation of perovskite solar cells
- 9:55-10:20 [I_9] **Tomas Edvinsson** (Uppsala University, Sweden)
Nature of the excited states in Lead halide perovskites and mechanism for photoinduced halide migration
- 10:20-10:45 [I_10] **Ajay Kumar Jena** (University of Tokyo, Japan)
Slow and Fast Performance Decay in Perovskite Solar Cells-
An Intriguing Interplay Between Ions and Photocarriers
- 10:45-11:05 coffee break
- 11:05-11:30 [I_11] **Alexander Colsmann** (Karlsruhe Institute of Technology, Germany)
Stability of Nanoparticulate Inks for the fabrication of Eco-Friendly Organic Solar Cells
- 11:30-11:55 [I_12] **Shinji Aramaki** (International Electrotechnical Commission (IEC) / TC113 and National Institute of Advanced Industrial Science and Technology (AIST), Japan)
Standardization of Photovoltaics in IEC/TC113
- 11:55-12:10 [O_3] **Rico Meitzner** (Helmholtz Center Berlin for Materials and Energy GmbH, Germany)
How to get more information from your JV measurements
- 12:10-12:15 Group Photo
- 12:15-14:00 Lunch break
- 14:00-14:25 [I_14] **Marina Freitag** (Newcastle University, UK)
Ambient Hybrid Photovoltaics for IoT and AI Integration
- 14:25-14:50 [I_15] **Tae Woong Kim** (Konkuk University, Republic of Korea)
Phase Control of Organometal Halide Perovskite Light Absorber for Highly Efficient Solar Cell Development

- 14:50-15:05 [O_4] **Shahidul Alam** (King Abdullah University of Science and Technology (KAUST), Kingdom of Saudi Arabia)
Thermally-Induced Degradation in PM6:Y6-based Bulk Heterojunction Organic Solar Cells
- 15:05-15:25 coffee break
- 15:25-15:40 [O_5] **Sylvain Chambon** (Univ. Bordeaux, France)
Towards more sustainable and stable organic photovoltaics
- 15:40-15:55 [O_6] **Robert Tirawat** (National Renewable Energy Laboratory, USA)
Towards linking lab and field lifetimes of perovskite solar cells
- 15:55-16:10 [O_7] **Michael Owen-Bellini** (National Renewable Energy Laboratory, USA)
Industrially-relevant packaging schemes for 4-terminal perovskite/silicon tandem modules and durability testing
- 16:10-16:25 [O_8] **Zhongjin Shen** (École Polytechnique Fédérale de Lausanne, Switzerland)
Molecular Engineering of Low-Cost, Efficient and Stable Photosensitizers for Dye-Sensitized Solar Cells
- 16:25-17:10 Panel Discussion
- 19:00-21:30 Banquet

10th November

- 9:30-9:55 [I_16] **Silvia Mariotti** (Okinawa Institute for Science and Technology (OIST), Japan)
Piperazinium iodide as perovskite treatment for high-performance perovskite/silicon tandem solar cells
- 9:55-10:20 [I_17] **Ludmila Cojocaru** (Toin University of Yokohama, Japan)
Processing perovskite solar cells for tandem and integrated eco-friendly photo-storage systems
- 10:20-10:45 [I_18] **Francesca Brunetti** (the University of Rome Tor Vergata, Italy)
Strategies toward stable flexible perovskite solar cells
- 10:45-11:05 break
- 11:05-11:30 [I_19] **Qing Shen** (The University of Electro-Communications, Japan)
Less defect and stable perovskite nanocrystals
- 11:30-11:55 [I_20] **Derya Baran** (King Abdullah University of Science and Technology (KAUST), Kingdom of Saudi Arabia)
Resilient Organic Photovoltaics
- 11:55-12:10 [O_9] **Dounya Barrit** (Institut Photovoltaïque d'Ile-de-France (IPVF), France)
Encapsulation for Long-Term Stability Enhancement of Perovskite Solar Cells: Optimization and Scalability
- 12:10-12:15 Announcement
- 12:25-14:00 Lunch break
- 14:00-14:15 [O_10] **Roja Singh** (Karlsruhe Institute of Technology, Germany)
The determining factor contributing to degradation of PSC: material stoichiometry, quenching technique or stress factor?
- 14:15-14:30 [O_11] **Aleksandra B. Djurišić** (University of Hong Kong, P.R. China)
Effect of NiOx/perovskite interface modifications on the performance of inverted perovskite solar cells TBD

- 14:30-14:35 [O_12] **Fangzhou Liu** (Hebei University of Technology, P. R. China)
Halide perovskite films by low pressure assisted synthesis approach with enhanced
homogeneity and stability
- 14:45-15:10 [I-21] **EUGENE A. KATZ** (Ben-Gurion University of the Negev, Israel)
Accelerated studies of operational stability of emerging photovoltaics closing
- 15:10-15:15 closing

Poster Presentation

- [P_01] **U. Erdil**, M. Khenkin, Q. Emery, H. Köbler, A. Abate, E. A. Katz, R. Schlatmann, C. Ulbrich (Helmholtz-Zentrum Berlin für Materialien und Energie, Germany)
Holistic Assessment of Perovskite Solar Cell Stability: Application of ISOS protocols
- [P_02] **N. Eguchi**, T. Fukazawa, H. Kanda, T. Miyake, and T. N. Murakami (National Institute of Advanced Industrial Science and Technology, Japan)
Improving the efficiency of perovskite solar cells using an automated deposition system and machine learning
- [P_03] **P. V. V. Jayaweera**¹, M. Saito, S. Uchida, S. Kaneko, and H. Segawa (SPD Laboratory, Japan)
Integrated Multi-channel Maximum Power Point Tracking Device for Better Performance Evaluation of Perovskite Solar Cells
- [P_04] **T. Kojima**, T. Tayagaki, K. Yamamoto, T. N. Murakami, and M. Yoshita (National Institute of Advanced Industrial Science and Technology (AIST), Japan)
Trajectory of impedance under light cycling test on perovskite solar cells
- [P_05] **M. Saito**, S. Uchida, P. V. V. Jayaweera, S. Kaneko, H. Segawa (The University of Tokyo, Japan)
Capacitance Measurement for Organic Lead Halide Perovskite Solar Cell-Type Devices
- [P_06] **K. Yamamoto**, T. N. Murakami (National Institute of Advanced Industrial Science and Technology (AIST), Japan)
Improving thermal stability of perovskite solar cells with spiro-OMeTAD doped by ionic liquid
- [P_07] **W. ZHANG**, S. Hiroshi (The University of Tokyo, Japan)
Application of Nanoparticles for Highly Efficient and Stable Perovskite Solar cells
- [P_08] **N. Onozawa-Komatsuzaki**, D. Tsuchiya, S. Inoue, A. Kogo and T. N. Murakami (National Institute of Advanced Industrial Science and Technology (AIST), Japan)
Green-solvent-soluble, highly efficient dopant-free hole-transporting material for perovskite solar cells
- [P_09] **K. Ito**, K. Nonomura, R. Kan, K. Tada, C. C. Lin, T. Kinoshita, T. Bessho, S. Uchida and H. Segawa (The University of Tokyo, Japan)
Higher efficiency of Four Terminal Perovskite/Perovskite Spectral Splitting Solar Cells
- [P_10] **S. R. Sahamir**, G. Kapil, T. Bessho, H. Segawa, Q. Shen, S. Hayase (The Univ. of Electro-Communications, Japan)
Tin-Lead Perovskite Solar Cells with Improved Light and Thermal Stabilities via Doping and Structuring Strategies
- [P_11] **S. Kazaoui** (National Institute of Advanced Industrial Science and Technology (AIST), Japan)
Addressing the degradation kinetics of Perovskite solar cells exposed to H₂O or O₂
- [P_12] **S. Takahashi**, S. Uchida and H. Segawa (The University of Tokyo, Japan)
Effect of Chloride Incorporation in Intermediate Phase and Film Morphology of Methylammonium Lead Halide Perovskites

- [P_13] Y. Li, Z. Yuan, Abdul-Khaleed, H. Mo, A. B. Djurišić (University of Hong Kong, P.R. China)
Low-Br content perovskite solar cells – effect of temperature on performance and stability
- [P_14] A. K. Baranwal, G. Kapil, Q. Shen, and S. Hayase (The University of Electro-Communications, Japan)
Tin Halide Perovskite Solar Cells Realized Using Heterojunction Engineering
- [P_15] M. Kashiwazaki, T. Funaki, K. Yamamoto, H. Yaguchi, and T. N. Murakami (Saitama University, Japan)
Development of naphthalimide electron transport materials as the self-assembled monolayer for performance enhancements of perovskite solar cells