Event Programme

Nicosia, Cyprus
20-22 May 2025

Future-Proofing Perovskite PV:
Innovations in Upscaling, Reliability, and Circularity

Room 010, Social Facilities Centre Building 07, University of Cyprus

Co-organised by

www.testare.eu/futurepv

Tuesday 20th May

08:30 — 09:30 REGISTRATION

09:30 — 10:15 KEYNOTE SESSION

Workshop welcome
Matthew Norton, University of Cyprus

Measurement Standardization for Perovskite Solar Cells
Masahide Kawaraya, AIST

The Criticality of Measurement Reproducibility in the Industrialisation of PSC-Si Solar Modules
Mauro Pravettoni, Technology Innovation Institute

10:15 — 10:45 METASTABILITY SESSION 1

Chair: Matthew Norton, University of Cyprus

TÜV Rheinland Specification on the I-V Characterisation of Perovskite-Based Photovoltaic Modules
Giorgio Bardizza, TÜV Rheinland

Why We Need Better Practices to Work with Perovskite Devices Outdoors
Mark Khenkin, HZB

10:45 — 11:00 COFFEE

11:00 — 12:30 METASTABILITY SESSION 2

Chair: Matthew Norton, University of Cyprus

Study of Ion-Related Performance Losses in Perovskite-Based Solar Cells by Advanced Characterisation and Simulations
Jonathan Parion, IMEC

Revolutionising Device Characterisation With Optoelectronic and Frequency Modulation Techniques during Metastability Testing
Pilar Lopez-Varo, IPVF

High-Throughput and Accurate Performance Characterization of Commercial Perovskite Modules
Peter Pasmans, Eternal Sun

Accurate Characterization of Monolithic Perovskite-Silicon-Based Multijunction Solar Cells: Challenges and Solutions
Florian Schindler, Fraunhofer ISE

Metastable Temperature Effects in Perovskite PV Devices
Elias Peraticos, University of Cyprus

PANEL DISCUSSION

12:30 — 13:30 LUNCH

13:30 — 15:00 PROJECT SYNOPSES

Chair: Elias Peraticos, University of Cyprus

TESTARE
Twinning for Excellence in Testing New Generation PV: Long-Term Stability and Field Reliability
Maria Hadjipanayi, University of Cyprus

DIAMOND
Ultra-Stable, Highly Efficient, Low-Cost Perovskite Photovoltaics With Minimised Environmental Impact
Luigi Vesce, UNITOV CHOSE

PEARL
Flexible Perovskite Solar Cells With Carbon Electrodes
Thomas Kraft, VTT

LUMINOSITY
Advancing Sustainable Solar Power With Flexible Perovskite Technology for Commercial-Scale Efficiency
Stelios Choulis, Cyprus University of Technology

TRIUMPH
Triple Junction Solar Modules Based on Perovskites and Silicon for High Performance, Low-Cost and Small Environmental Footprint.
Pilar Lopez, IPVF

APOLLO
A Proactive Approach to the Recovery and Recycling of Photovoltaic Modules
Senol Öz, Solaveni

SUPERTANDEM
Sustainable Materials and Manufacturing Processes for the Development of High Efficiency, Flexible, All-Perovskite Tandem Photovoltaic Modules With Low CO2 Footprint
Martina Chopart, AMIRES

15:00 — 15:20 COFFEE

15:20 — 16:50 PROJECT SYNOPSES

Chair: Maria Hadjipanayi, University of Cyprus

SMARTLINE PV
Enhancing PV Technology Affordability, Supply Security, and Sustainability Is Key to Achieving a Clean Energy Transition and the Zero-Emissions Goal.
Thomas Rath, TU Graz

LAPERITIVO
Large-Area Perovskite Solar Module Manufacturing With High Efficiency, Long-Term Stability and Low Environmental Impact
Yinghuan Kuang, IMEC

CIRCULAR-PV
Towards Long-Lived and Recyclable Perovskite Photovoltaics
Vasiliki Paraskeva, University of Cyprus

PERSEUS
Printed Perovskite Solar Cells for Large Area User Applications
Thomas Kraft, VTT

NEXUS
Next Generation of Sustainable Perovskite-Silicon Tandem Cells
Cristina Polacchi, EURAC

SOLMATES
Scalable High-Power Output and Low Cost Made-To-Measure Tandem Solar Modules Enabling Specialized PV Applications
Nikolaus Weinberger, Universität Innsbruck

PHOENIX
Photo-Electro Integrated Next-Generation Energy Technologies
Cordula Wessendorf, ZSW

16:50 — 17:00 WORKSHOP GROUP PHOTO

17:00 — 18:00 NETWORKING COCKTAILS

Wednesday 21st May

09:00 — 10:45 INDUSTRY AND UPSCALING SESSION 1

Chair: Arantxa Aguirre, IMEC

Scaling Up of Printed Perovskite Solar Modules: Towards Ambient-Air Manufacturing
Luigi Vesce, UNITOV CHOSE

Perovskite Solar Module Upscaling Towards Manufacturing
Yinghuan Kuang, IMEC

On the Way Towards Scalable and Sustainable Fabrication of Perovskite Modules
Markus Kohlstädt, Fraunhofer ISE

Presentation number 4
Yousef Farraj, SOLRA-PV

Upscaling of Perovskite Photovoltaics
Cordula Wessendorf, ZSW

Dyenamo – Materials and Initiatives for Perovskite Solar Cells
Henrik Petterson, Dyenamo

PANEL DISCUSSION

10:45 — 11:00 COFFEE

11:00 — 12:30 INDUSTRY AND UPSCALING SESSION 2

Chair: Luigi Vesce, UNITOV CHOSE

Engineering Scale: Practical Challenges in Roll To Roll Processing of Perovskite Solar Modules
Trystan Watson, Swansea University

Presentation number 8
Tanja Ivanovska, SAULE

Upscaling, Interconnection and Packaging Strategies
Veronique Gevaerts, TNO

Transition From R&D Control Systems to the Large Size and in Line Characterization Set Up for Perovskite and Tandem Solar Cells
Christophe Defranoux, Semilab

Presentation number 11
Toby Meyer, SOLARONIX

PANEL DISCUSSION

12:30 — 13:30 LUNCH

13:30 — 14:50 FIELD PERFORMANCE SESSION 1

Chair: Mark Khenkin, HZB

Long-Term Outdoor Performance of Perovskite Photovoltaics: Evaluating Measurement Protocols and Investigating Degradation Mechanisms
Emmanuel Kymakis, Hellenic Mediterranean University

Device Engineering Concepts for Enhancing the Performance of Printed Perovskite Photovoltaics
Stelios Choulis, Cyprus University of Technology

Outdoor Results of Tandem and Triple Junction Samples
Petra Manshanden, TNO

Reliability of Perovskite Solar Cells
Nicola Trivellin, University of Padova

PANEL DISCUSSION

14:50 — 15:10 COFFEE

15:10 — 16:30 FIELD PERFORMANCE SESSION 2

Chair: Mark Khenkin, HZB

2 Years of Outdoor Performance Data for 4-Terminal PVSK/Si Tandem Mini-Modules
Matthew Norton, University of Cyprus

Additive and Powder Engineering in Halide Perovskites Solar Cells
Shahzada Ahmad, BC Materials

The Encapsulation Challenge for Perovskite Photovoltaics
Stephane Cros, CEA

Reliability Assessment of Perovskite Solar Devices: Insights From Real-World and Accelerated Testing
Karim Medjoubi, IPVF

PANEL DISCUSSION

16:40 — 18:40 VILLAGE TOUR, LEFKARA

19:00 — 21:30 WORKSHOP DINNER
TOCHNI TAVERN, TOCHNI

Thursday 22nd May

09:30 — 10:45 TANDEM PHOTOVOLTAICS SESSION 1

Chair: Pilar Lopez, IPVF

Morphological Characterization of Defects in CIGS/ Perovskite Tandem Solar Cells
Daniel Schildhammer, Universität Innsbruck

Perovskite Tandem Photovoltaics for Space and Earth
Felix Lang, University of Potsdam

Current Development of CIGS-Perovskite Tandems at HZB
Guillermo Farias, HZB

Optimisation of all-Perovskite Tandem Solar Cells Through Reduction of Optical and Electronic Losses
Philipp Tockhorn, HZB

PANEL DISCUSSION

10:45 — 11:00 COFFEE

11:00 — 12:30 TANDEM PHOTOVOLTAICS SESSION 2

Chair: Markus Kohlstädt, Fraunhofer ISE

Upscaling Perovskite-Based Thin-Film Tandem Solar Cells and Mini-Modules
Fan Fu, EMPA

Synergic MXene And S-Benzyl-L-Cysteine Passivation Strategies For Wide Bandgap Perovskite Solar Cells For 4T Tandem Applications
Yassine Raoui, IPVF

PV Modules Installation in Dynamic Environment Criticisms & How To Address Them
Enrico Leonardi, HaloCell

Progress in Cost, Environment, and Material Criticality Assessment for PVSK/PVSK/Si Triple-Junction Modules
Lian Duan, IPVF

PANEL DISCUSSION

12:30 — 13:00 LUNCH

13:30 — 15:00 CIRCULARITY SESSION 1

Chair: Thomas Rath, TU Graz

Perpetual Utility - Imagining Material Utilisation in the Energy Transition.
Ian Marius Peters, Forschungszentrum Jülich

Circular Economy for Perovskite Solar Cells – Drivers, Progress and Challenges
Matthew Davies, Swansea University

Life Cycle Assessment Insights of PEARL Flexible Perovskite Solar Cells
Karina Roher, FHNW

Life Cycle Assessment of Preliminary Architectures for Perovskite-Based PV Modules in the LAPERITIVO Project
Mariska de Wild-Scholten, Smart Green Scans

Towards Closed Loop Ecosystems and Green Manufacturing for Perovskite PV
Senol Öz, Solaveni

PANEL DISCUSSION

15:00 — 15:20 COFFEE

15:20 — 16:50 CIRCULARITY SESSION 2

Chair: Ian Marius Peters, Forschungszentrum Jülich

Eco-Design-Guidelines for Tin-Based Perovskite PV Modules
Matthias Haemmer, BIFA

Perovskite/Silicon Tandem Technology: Environmental Impact and Sustainability
Elisabetta Brivio, RSE

Prospective Life Cycle Assessment for the Eco-Design of Perovskite/Silicon Tandem Solar Cells From the Lab Scale to Industrial Solar Devices
Mercy Jelagat Kipyator, University of Siena

Sustainability of Perovskite-Silicon Tandem PV Systems: Lessons Learnt From NEXUS Project
Cristina Polacchi, EURAC

PANEL DISCUSSION

16:50 — 17:00 CLOSING