

LAUNCH OF EPKI, the European Perovskite Initiative, for the development of Perovskites based solar technology

Perovskite based solar cells have made tremendous progress over the last decade achieving outstanding lab-scale efficiencies of 24.2% early 2019 in single-junction architecture and to an astonishing 28% in tandem (perovskite associated with crystalline silicon), turning it into the fastest-advancing solar technology to date.

Perovskite technology will help further reducing costs and resource demands of solar electricity production, hence providing new capacity to tackle climate change and will offer the opportunity for the creation of jobs in Europe in the fast growing PV industry.

In the context where decarbonizing the energy-mix is becoming a priority challenge for European countries among others, European universities, research institutes and industries involved in the development of perovskite technologies have agreed to the creation of a collaborative platform: the EPKI. This initiative is dedicated to gathering all significant parties working in this field and is pursuing the following objectives:

- Raise the awareness on perovskite based photovoltaics by conveying a common vision through the editing of a common European perovskite whitepaper,
- Support and initiate next generation PV industrial initiatives,
- Facilitate joint-research programs and synergies among universities, institutes and companies.

“During last months’ discussions with current EPKI participants, it became clear we all share the same vision and that joining forces would be beneficial to all”, explain Ronn Andriessen and Louis Huber. “This new perovskite based PV technology has a very high potential and a massive roll-out of it would fit very well within the Europe SET plan as well as in the global urgency to massively install sustainable and affordable energy generators everywhere needed”.



Saule Technologies' large scale, printed, flexible, perovskite module.



Oxford PV full size perovskite-silicon tandem solar cell.

This European initiative is being animated by Ronn Andriessen, director at Solliance and consultant Louis Huber from Greensquare. So far, the active participants to this joint initiative are:

- Solliance Solar Research (NL, BE, DE)
 - TNO (NL)
 - Imec (BE)
 - Forschungszentrum Jülich (DE)
 - Eindhoven University of Technology (NL)
 - University of Hasselt (BE)
 - Delft University of Technology (NL)
 - University of Twente (NL)
 - University of Groningen (NL)
- University of Oxford (UK)
- Centrum for Hybrid and Organic Solar Energy - CHOSE, University of Rome Tor Vergata (IT)
- Helmholtz Zentrum Berlin fuer Materialien und Energie (DE)
- École Polytechnique Fédérale de Lausanne - EPFL (CH)
- University of Valencia (ES)
- Friedrich-Alexander-University Erlangen-Nuremberg & Helmholtz Institute Erlangen-Nuremberg for Renewable Energies (DE)
- Centre Suisse d'Electronique et de Microtechnique - CSEM (CH)
- CEA - Institut National de l'Energie Solaire - INES (FR)
- Fraunhofer - ISE (DE)
- Institut Photovoltaïque d'Île-de-France - IPVF (FR)
 - EDF (FR)
 - Total (FR)
 - CNRS (FR)
 - Ecole Polytechnique (FR)
 - Air Liquide (FR)
 - Horiba (FR)
 - Riber (FR)
- Austrian Institute of Technology - AIT (AT)
- Uppsala Universitet (SE)
- KTH Royal Institute of Technology (SE)
- Istituto Italiano de Tecnologia - IIT (IT)
- Consiglio Nazionale delle Ricerche - CNR (IT)
- University of Perugia (IT)
- University of Potsdam (PL)
- Oxford-PV (UK, DE)
- Saule Technologies (PL)
- Smit Thermal Solutions (NL).

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