Transparant Interconnection for Organic PhotoVoltaic Solar Modules

Publieke samenvatting / Public summary

Aanleiding

Traditional solar panels are starting to suffer from the so-called NIMBY (not-in-my-back-yard) effect, due to their rigid and non-customizable nature. OPV cells can be made flexible, semi-transparent, and are tuneable in colour and shape, making them the perfect candidate for use in any application without too much visual implications.

Doelstelling

The 2PV project aims to develop invisible electricity generation by using transparent or invisibly small interconnections in semi-transparent organic photovoltaic (OPV) foils. By combining the Solliance roll-to-roll OPV production line, backend processing technology and barrier foils of Roth & Rau, modules will be developed that open up a brand new application area in Solar Energy.

Korte omschrijving

The activities that will be done by the partners in this project are: roll-to-roll processing of the electrically active OPV layers by TNO-Holst on the roll-to-roll production line of Solliance, investigation of transparent connections and backend technology on OPV layer stacks by ECN, incorporation of foil processing on the generic substrate carrier system by CCM, optical micro patterning for invisibly small interconnects by 4PICO, inkjet printing for interconnections and application of barrier technology by Roth & Rau, and post processing of the printed interconnection using photonic sintering.

Projectinformatie / Project information

Projectnummer / Project number
TEZ0214006
Subsidiebedrag / Grant amount
€ 611.661,00

Algemene informatie / General information

Penvoerder / Secretariat
Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek TNO

Publicaties en materialen / Publications and attachments

- **14.08.2019**

  Eindrapport TEZ0214006

Volg Topsector Energie op X / Follow Topsector Energie on X

@TSEnergie

Resultaat

The goal of this project is twofold. Backend technology will be developed for the production of transparent organic photovoltaic modules on foil. Simultaneously a totally integrated foil application will be realized for the backend processing of roll-to-roll produced OPV foils, including foil unwinding and retractor mechanism, foil launcher, LASER setup, inkjet print equipment, and photonic sintering.

De data in deze applicatie is afkomstig van de Rijksdienst voor Ondernemend Nederland (RVO) en wordt in samenwerking met de Topsector Energie ontsloten.
Voor meer informatie over de Topsector Energie, ga naar **www.topsectorenergie.nl**.

Voor meer informatie over de TSE / Energie-Innovatie regelingen die RVO aanbiedt, ga naar **www.rvo.nl/tse**.