Solar Photovoltaic Interlayer

The snow falling on the surface of photovoltaic modules tends to reduce the output power. In order to understand the process of snow accumulating on solar photovoltaic ...

A photovoltaic solar cell is constructed in a multilayered configuration where the interfaces "interconnect" the device both physically and functionally. These interfaces have ...

A photovoltaic solar cell is constructed in a multilayered configuration where the interfaces "interconnect" the device both physically and functionally. These interfaces have various features and need specific ...

Organic solar cells (OSCs) based on non-fullerene acceptors have recently achieved high power conversion efficiencies over 19%, thus rapidly advancing third-generation photovoltaic ...

Nowadays, developing renewable energy to replace fossil fuels is becoming an emerging focus worldwide. Photovoltaic technology, converting inexhaustible solar energy into ...

In-situ self-organized anode interlayer enables organic solar cells with simultaneously simplified processing and greatly improved efficiency to 17.8%

During the past two decades, intensive research efforts have been devoted to improve the power conversion efficiency (PCE) of organic photovoltaic (OPV) cells under AM 1.5G (1,000 W/m 2) solar radiation ...

We report the influence of the AlN interlayer thickness (0-15 nm) on the photovoltaic properties of Al0.37In0.63N on Si heterojunction solar cells deposited by radio ...

Highly efficient organic solar cells (OSCs) are often obtained with a multilayer structure, in which active layer is sandwiched between anode and cathode interlayer. Here we ...

As a result, the carbon-based CsPbBr3 perovskite solar cell with P3HT interlayer achieves a high conversion efficiency of 6.49%, exhibiting an increase by 27% ...

5 ???· Upscaling perovskite solar cells to the module level while ensuring long-term stability is crucial for their commercialization. In this work, we report a bottom-up crosslinking strategy ...

Abstract Cathode interlayers (CILs) play a crucial role in improving the photovoltaic efficiency and stability of OSCs. CILs generally consists of two kinds of materials, interfacial dipole-based C...

4 ???· An interlayer with a suitable dipole moment can effectively tune the energy structure of the

high-performance perovskite solar cells (PVSCs). Beyond the electrode-interlayer ...

Graphene quantum dots (GQDs) are zero-dimensional carbonous materials with exceptional physical and chemical properties such as a tuneable band gap, good ...

The devices based on PDI-NO interlayer can achieve a PCE of 26.9% with a high V oc, 1.03V, a FF of 0.67, and a J sc of 0.196 mAcm -2 under 1,650 lux and still can ...

4 ???· An interlayer with a suitable dipole moment can effectively tune the energy structure ...

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