

How can organic photovoltaic materials improve power conversion efficiencies?

Optimizing the molecular structures of organic photovoltaic (OPV) materials is one of the most effective methods to boost power conversion efficiencies (PCEs). For an excellent molecular system with a certain conjugated skeleton, fine tuning the alkyl chains is of considerable significance to fully explore its photovoltaic potential.

Does electron-transporting layer matter in high-efficiency non-fullerene organic photovoltaic (OPV) cells?

In this work, we report high-efficiency non-fullerene organic photovoltaic (OPV) cells with over 30% power conversion efficiency (PCE) in indoor conditions. Our results show that the choice of electron-transporting layer (ETL) is important to enable such performance.

How efficient are non-fullerene organic photovoltaic (OPV) cells under indoor conditions?

In this paper, we report high-efficiency non-fullerene organic photovoltaic (OPV) cells with over 30% power conversion efficiency (PCE) under indoor conditions. Our results show that the choice of electron-transporting layer (ETL) is critically important to enable such performance.

Can indoor OPV devices power IoT electronics?

Our study paves the way toward high-performance indoor OPV devices for powering IoT electronics. The emergence of indoor electronic devices for internet of things (IoT) has motivated the scientific community to develop photovoltaic devices that can efficiently convert indoor light into electricity.

It is very important to fine-tune the nanoscale morphology of donor:acceptor blend active layers for improving the photovoltaic performance of all-small-molecule organic solar cells (SM-OSCs).

Minjie Yao A large amount of sequencing data is produced in microbial community ecology studies using the high-throughput sequencing technique, especially amplicon-sequencing ...

1. Xiaoqi Li, Fafa Wu, Yunpeng Yao, Wentao Wu, Chengmin Ji, Lina Li, Zhihua Sun, Junhua Luo*, and Xitao Liu*, Robust Spin-Dependent Anisotropy of Circularly Polarized Light Detection from ...

Photovoltaic Bracket -Nanjing Chinylion Metal Products Co., Ltd.-Photovoltaic bracket is mainly applicable to distributed power stations, rooftop power stations, household, commercial and ...

The innovation of photoactive layer materials is crucial for improving the power conversion efficiency (PCE) of polymer solar cells (PSCs). Herein, we report two polymer donors (PBTN-o ...

The functionality of photovoltaic devices (such as, solar cells) is converting photons to electricity. Characterization of photovoltaic devices is essential at production level ...

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