

Intermolecular solar container

<div class="df_qntext">Can conjugated polymers improve intermolecular packing in organic solar cells?

The low structural order of conjugated polymers limits their photovoltaic properties in organic solar cells. Here, the authors report a conjugated molecule as molecular bridge via electrostatic force for enhancing intermolecular packing, achieving certified efficiency close to 19% in binary devices.

<div class="df_qntext">What is a solarfold photovoltaic container?

The Solarfold photovoltaic container can be used anywhere and is characterized by its flexible and lightweight substructure. The semi-automatic electric drive brings the mobile photovoltaic system over a length of almost 130 meters quickly and without effort into operation in a very short time.

<div class="df_qntext">What is a solarcontainer?

The Solarcontainer is a photovoltaic power plant that was specially developed as a mobile power generator with collapsible PV modules as a mobile solar system, a grid-independent solution represents. Solar panels lay flat on the ground. This position ensures maximum energy harvest. Panels lay flat on the ground.

<div class="df_qntext">Does intermolecular interaction with solid additive optimize π -stacking and aggregation of organic semiconductors?

In this contribution, a universal strategy is established to simultaneously optimize the π -stacking and aggregation of organic semiconductors via intermolecular interaction with solid additive.

<div class="df_qntext">Does a polarizable dispersion effect improve intermolecular π -stacking?

Introduction of a chlorine substituent facilitates improvement in intermolecular interactions, but the intrinsic mechanism is unexplored. We demonstrated the significance of a polarizable dispersion effect of a chlorine substituent in optimizing the intermolecular π - π stacking of a small-molecule acceptor.

<div class="df_qntext">Why is a strong intermolecular interaction a critical factor in molecular stacking regulation?

It is demonstrated that the strong intermolecular interaction between solid additive and organic semiconductors is a critical factor in molecular stacking regulation. Benefitting from the more ordered molecular stacking of active layer aroused by the additive treatment, significantly improved photovoltaic performance can be realized in OSCs.

Here, the authors report a conjugated molecule as molecular bridge via electrostatic force for enhancing intermolecular packing, achieving certified efficiency close to 19% in binary devices.

WEEK 1: INTERMOLECULAR FORCES Solid - The molecules in a solid are closely packed together and contain the least amount of kinetic energy. Liquid - A nearly incompressible fluid that ...



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In this work, we report a conjugated molecule INMB-F that can act as a molecular bridge via electrostatic force to enhance the intermolecular stacking of BDT-based polymer donors toward efficient and ...

Herein, three small molecule acceptors (SMAs) with different side chains (methyl, 2-ethylhexyl, and 2-decyl tetradecyl on benzotriazole unit), namely R-M, R-EH, R-DTD, were designed ...

SolaraBox solar containers enable customers to achieve greater energy independence and reduce carbon emissions. By delivering clean, accessible electricity, we support sustainable communities ...

The solar container is lifted using the corner corners in the roof frame. With these in the base frame, the module can be fixed and secured during transport using the twist-lock system.

In today's dynamic energy landscape, harnessing sustainable power sources has become more critical than ever. Among the innovative solutions paving the way forward, solar energy ...

The sidechain engineering to induce intermolecular interactions of FREAs demonstrates as an effective strategy to regulate the molecular aggregation and phase morphology in active layers ...

Folding solar containers replace traditional diesel generators with sustainable green solar energy to reduce diesel use, lower emissions, and allow users to cut energy costs while ...

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