

Solar cell monomers and modules





Overview

Are organic solar cells self-assembled monolayers?

A Brief Review on Self-Assembled Monolayers in Organic Solar Cells: Progress, Challenges, and Future Prospects Over the past decade, organic solar cells (OSCs) have made noticeable progress in photovoltaic performance thanks to the emergence of electron acceptors capable of intramolecular charge transfer, namely, nonfullerene small molecules.

Can self-assembled monolayer materials be used in perovskite solar cells?

Nature Communications 16, Article number: 6968 (2025) Cite this article Self-assembled monolayer (SAM) materials have emerged as promising materials for interface engineering in perovskite solar cells. However, achieving an optimal balance between molecular packing density, charge transport efficiency, and defect passivation remains a challenge.

What are the different types of solar cells?

NBG, narrow-band gap; PSCs, perovskite solar cells; SAMs, self-assembled monolayers. Furthermore, the general deposition method for SAMs is spin coating followed by annealing.

What is a self-assembled monolayer (SAM)?

Anyone you share the following link with will be able to read this content: Provided by the Springer Nature SharedIt content-sharing initiative Self-assembled monolayers (SAMs) have become pivotal in achieving high-performance perovskite solar cells (PSCs) and organic solar cells (OSCs) by significantly minimizing interfacial energy losses.



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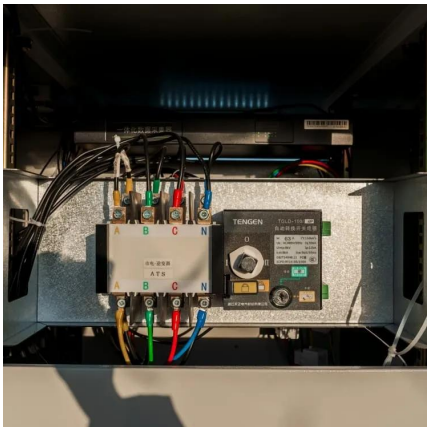
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