

Is Al honeycomb a good solar module?

The Al honeycomb core has good thermal conductivity(3.9 W/m<sup>2</sup>·C),chip price,and availability on the market for the lightweight PV module. The PV module incorporated a p-type c-Si solar cell,and a shingled-type array structure was applied to maximize the solar-to-power conversion within a limited area [15,16].

What is a honeycomb sandwich solar module?

The PV module incorporated a p-type c-Si solar cell, and a shingled-type array structure was applied to maximize the solar-to-power conversion within a limited area [15, 16]. Generally, a lightweight PV module with a honeycomb sandwich structure is suitable for applications such as buildings, architectural structures, and vehicles.

Can a honeycomb sandwich structure be used as a PV module?

The PV module design we propose in this study is a honeycomb sandwich structure that can be directly applied to the building facade. It can be used like solar blocks or tile rather than the existing curtain wall method. Moreover,these applications have a limited installation area for PV modules.

Can honeycomb sandwich structures replace PV backsheets?

Hence,we integrated honeycomb sandwich structures into lightweight PV modules,substituting them for traditional PV backsheets. It increased the mechanical rigidity of lightweight PV modules and effectively replacedthe PV backsheet through a simple one-step lamination process.

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