

Organic silicon can be used to make solar glass





Overview

What makes organic solar cells different from crystalline silicon solar cells?

The layers of organic solar cells are around 1000 times thinner than crystalline silicon solar cells, ranging from a few nanometers for certain contact layers to several hundred nanometers for the light-absorbing layers. This makes them extremely light, flexible and unbreakable, determined solely by the packaging.

What are organic solar cells?

Organic solar cells, also known as organic photovoltaics (OPVs), have become widely recognized for their many promising qualities, such as: Cheap and light materials. Whilst several other photovoltaic technologies have higher efficiencies, OPVs remain advantageous due to their low material toxicity, cost, and environmental impact.

How do organic solar cells work?

Working mechanism of organic solar cells represented in energy levels. OSCs operate through a different working mechanism than inorganic solar cells, consisting of layers which can be optimized according to desired optical and mechanical properties.

Why should you choose organic solar cells?

Due to their unique properties, organic solar cells can be adapted to a wide range of applications and have an excellent ecological balance. Organic solar cell with 15.8% efficiency on a cell surface of 1cm²: current world record. Organic photovoltaics offers unique potential for the generation of environmentally friendly electrical energy.



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