
What are organic solar cells based on?
Organic solar cells (OSCs) based on polymer donorsand non-fullerene acceptors 1,2,3 have recently surpassed power conversion efficiencies (PCEs) of 20% (refs. 4,5,6).

What is an organic solar cell (OSC)?
An organic solar cell (OSC) is a variety of photovoltaic (PV) cell that employs organic semiconductors to transform sunlight into electrical energy . Organic photovoltaic cells (OPVCs) are a type of polymer solar cell that converts sunlight into electricity by employing flexible polymers .

What is a typical organic solar cell device made of?
A typical organic solar cell device is made of: Active Layer: The core layer,consisting of an organic semiconductor,which absorbs light. When light is absorbed,excitons (closely bound pairs of electrons and holes) can be generated. Interlayers: Additional layers to help electrons and holes separate easily and efficiently.

What are organic photovoltaic cells?
Organic photovoltaic cells (OPVCs) are a type of polymer solar cellthat converts sunlight into electricity by employing flexible polymers . These organic semiconductors are composed of carbon-based substances,possessing electrical conductivity,albeit at a lower level compared to inorganic semiconductors such as silicon.

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A concise overview of organic solar cells, also known as organic photovoltaics (OPVs), a 3rd-generation solar cell technology. OPVs are ...

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