Solar power generation paper cellulose

Overview

Solar energy fits well with the increasing demand for clean sustainable energy. This paper describes a freestanding hybrid film composed of a conductive metal–organic framework layered on cellulose nanofibres which enables efficient solar power generation. The working principle, which is different. The nanocellulose aerogels combine intriguing interconnected three-dimensional porous characteristics of aerogel-type materials such as high porosity, large surface area, and low density. However, the inherent instability under UV illumination limits their practical applications. In this work, we developed a new approach.

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Cellulose paper support with dual-layered nano-microstructures for

Here we show the AuNP-anchored porous paper support with tailored cellulose-fiber nano/microstructures for enhanced photothermal heating and solar vapor generation.

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Cellulose-Based Nanomaterials for Energy Applications

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Solar-driven ionic power generation

This paper describes a freestanding hybrid film composed of a conductive metal-organic framework layered on cellulose nanofibres which enables efficient solar power generation.

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Berlin Green-Coated Cellulose Paper for Hydrovoltaic Electricity and Solar Steam Cogeneration. Generating both freshwater and electricity from solar energy offers a promising ...

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Functional cellulose paper with high transparency, high haze

In this work, we developed a new approach to fabricate functional cellulose paper (FTH paper) with high transparency, high haze, and UV-blocking, which can be used to extend the lifespan ...

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