

Title: Bionic materials solar power generation

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Here, inspired by tree transpiration and hierarchical porous structure, a 3D-printed bionic hydrogel evaporator (3DP-BHE) is designed for long-term solar desalination.

Here, inspired by the water lily, a highly efficient and antisalt accumulation interfacial solar-driven steam generation device was designed by using the tannic acid-Fe³⁺ ...

To address these challenges, we design and fabricate a novel WEG system inspired by tree transpiration, based on the principle of ...

An interdisciplinary team of Cornell researchers is developing HelioSkin, an aesthetically appealing solar-collection fabric that is inspired ...

The "bionic leaf" - a solar-to-chemical conversion system - uses solar power to split water into hydrogen and oxygen, which is then ...

Inspired by the natural release mechanism of *Ganoderma lucidum* spores, this study designs a scalable biomimetic Gemini-structure solar-powered evaporation system ...

In this study, a solar-driven bamboo-based interface evaporator with a bionic ripple wave surface structure is proposed and its evaporation performance has been experimentally ...

A Scalable, Bionic Gemini-Structured Solar Evaporator Enabling Ultrahigh-Efficiency and Selective Lithium Extraction Journal: Advanced Functional Materials ...

Solar-powered interfacial evaporation (SIE) has emerged as a promising tactic for tackling global water scarcity by utilizing solar-thermal conversion and evaporation at the...

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