Polyimide solar container materials

The efficiency of cooling depends on the solar absorptivity and infrared emissivity of the thermal control coating. Ideally, thermal control coating is designed to yield low solar absorptivity (? s) ...

Still, research is needed for fouling resistance, scalable and low-cost materials, and devices for solar interfacial evaporation. Recent research focuses on the materials for evaporation ...

Polyimide-based materials offer high thermal stability, mechanical strength, and resistance to UV and solar radiation, making them ideal candidates for use in demanding space ...

Advanced aerogel materials with low thermal conductivity and high transparency have shown great application prospects in the solar thermal energy conversion field. However, most aerogels do not ...

Solar still systems often include organic phase change materials (PCMs) because of their remarkable thermophysical characteristics. Numerous innovative PCMs have been developed ...

Polyimide (PI) is a polymer of imide monomers, recognized worldwide for its high-performance and versatile applications. Featuring an exceptional blend of thermal stability, chemical resistance, and ...

??????????????????????????Advanced Materials???"Transparent and Conductive Polyimide-Ionene HybridInterlayers for High Performance and Cost ...

Polyimide-based materials offer high thermal stability, mechanical strength, and resistance to UV and solar radiation, making them ideal candidates for use in demanding space missions. In particular, ...

Colorless polyimide (CPI) is one of the most heat-resistant polymers. It has been widely used in many fields such as microelectronics and photoelectric fabrications, because it integrates the ...

Solar sail membranes must have a high area-to-mass ratio and high solid volume fraction when stowed. In order to meet mission requirements, current solar sail projects, such as NASA"s Near Earth ...

Improving the surface insulation strength of substrate material polyimide (PI) is an effective strategy to suppress charging and discharging effects of spacecraft solar arrays.

???????Advanced Materials, 2020, DOI: 10.1002/adma.202002315?? ?????????????? ????,????? ???? (????? ...

To this end, a fully solar powered photoelectrochemical system is developed to selectively upgrade polyimide

waste (often appears in electronic waste) into valuable commodity ...

In this study, we introduce a method for replacing the glass used in existing display electronic materials, lighting, and solar cells by synthesizing a colorless and transparent polyimide...

High-performance porous polyimide (PI) monoliths, including PI aerogels, sponges, and foams, have become one of the hotspots in both researching and applications due to their superior ...

Polyimide-based materials have emerged as promising contenders for the next generation of energy storage and conversion devices owing to their outstanding thermal stability, ...

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