SOLARTECH

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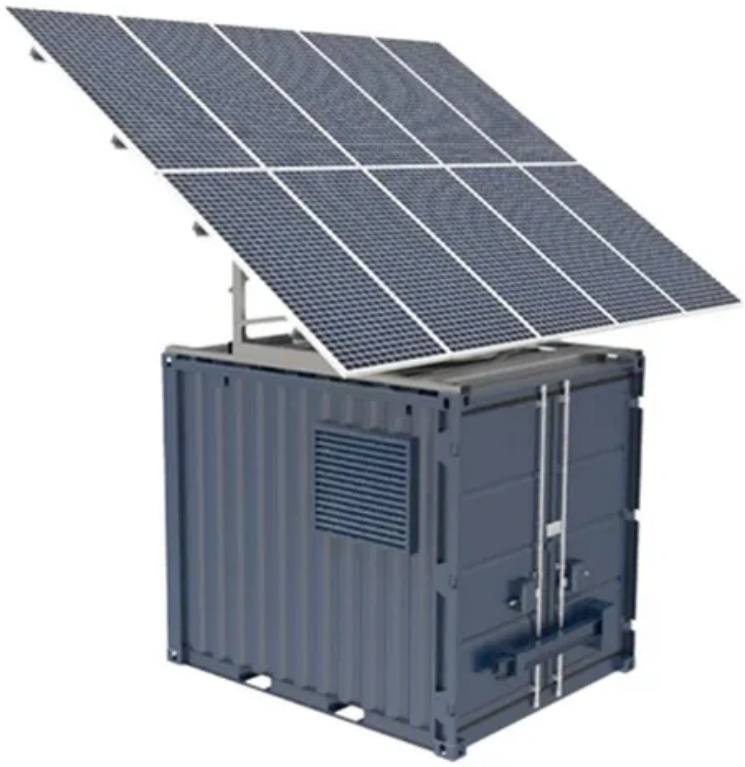
European Solar Energy Storage

Photoinduced energy storage fluorescent materials



Overview

Can polarization luminescence and tunable photoluminescence be used for information storage and encoding?

Finally, the dual-mode emission pattern with polarization luminescence and tunable photoluminescence was presented in the PCHTP film for information storage and encoding applications. This strategy provides a versatile platform for information storage and encoding using the photoresponsive fluorescent LCPs.

How is fluorescent LCP obtained?

The fluorescent LCP was obtained by the copolymerization of one LC monomer (CH) and another fluorescent monomer containing α -cyanostilbene units (TP), designated as PCHTP, and it can be used to fabricate a photoinduced dual-mode luminescence pattern for information storage and encryption.

Can ultrafast photoinduced electron transfer (PET) be practised using MNCs?

In addition, ultrafast photoinduced electron transfer (PET) can be practised using MNCs under various circumstances. Herein, we have focused on the energy harvesting phenomena of Au-, Ag-, and Cu-based MNCs and elaborated on different ways to apply them.

What are fluorescence photochromic molecules used for?

Such fluorescence photochromic molecules have been used to construct the photo-switchable system, thereby realizing a wide range of applications in information storage , energy conversion , and photonic devices .

Can a host-guest approach induce fluorescence quenching?

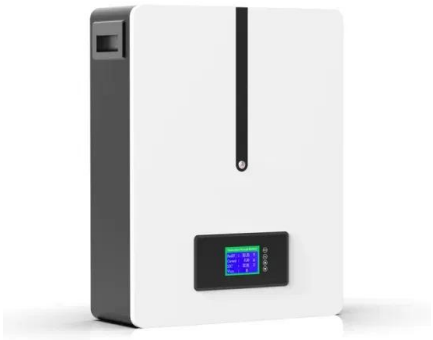
On the other hand, ultrafast photoinduced electron transfer from dyes (e.g., ICG, AG, and AV) to the fluorescent cage can induce fluorescence quenching. This study provides an insight into the construction of artificial photofunctional systems with energy and electron transfer functions via a host–guest

approach in solution.

Which spectroscopic techniques induce fluorescence quenching?

Spectroscopic techniques that confirm energy transfer from the fluorescent cage to dyes (e.g., NiR, R700, and R800) are efficient, which induce the red shift of fluorescence. On the other hand, ultrafast photoinduced electron transfer from dyes (e.g., ICG, AG, and AV) to the fluorescent cage can induce fluorescence quenching.

Photoinduced energy storage fluorescent materials



Photoresponsive a-cyanostilbene-containing fluorescent liquid ...

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photoinduced energy storage fluorescent materials

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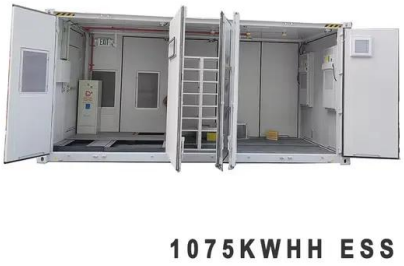
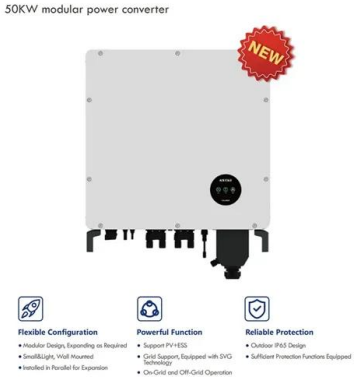


1075KWHH ESS



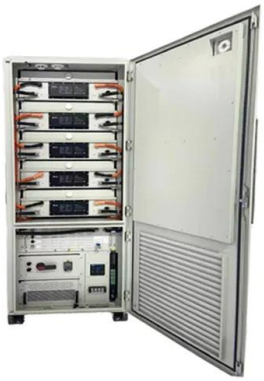
Photoinduced energy storage fluorescent agent

It demonstrates that energy storage and conversion to electrical energy is realized in the [CoGa] crystals, which is different from typical polar pyroelectric compounds that exhibit the conversion

Photoinduced Energy and

Electron Transfer Between a ...

Photoinduced electron transfer (PeT) between the photoactive cage and the encapsulated Fluorescein and photoinduced energy transfer (PET) from the cage to encapsulated Rose Bengal have been observed by steady-state and time-resolved emission spectroscopy.????: ??????????????????????????



Photoinduced Solid-Liquid Phase Transition and Energy Storage ...

These results offer an effective strategy for controlling the phase of MOST compounds and maximizing their energy storage densities, which may be broadly applicable to other E-Z photoswitches for energy applications.

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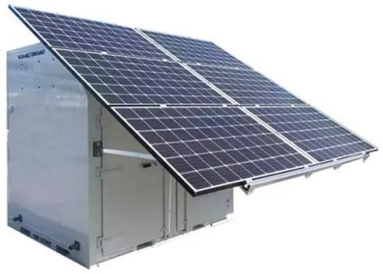
Fluorescence modulation via photoinduced spin crossover ...

The photoinduced spin crossover switched the energy transfer from the fluorophore to the Fe II ion, resulting in fluorescence modulation. The presented results provide a novel approach for developing optical memory and sensors via electron rearrangement of ...



Efficient Photoinduced Energy and Electron Transfers ...

Herein, we report a host-guest approach by using a tetraphenylethene-based octacationic cage and fluorescent dyes to construct artificial photofunctional systems with energy and electron transfer functions.

Visible light-responsive azo-based smart materials: Design, ...

This review presents an overview of the development of visible-light responsive azo-based materials, covering molecular design strategies and their applications in energy storage. Recent efforts aimed at enhancing the performance of azo-based energy storage materials are highlighted.

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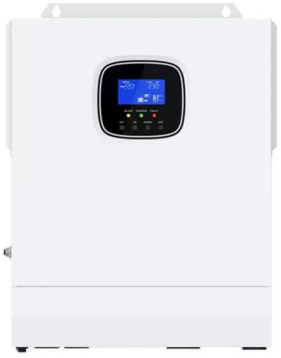

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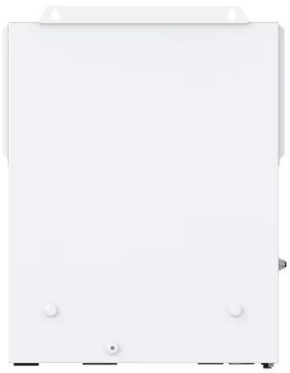
Photoinduced electron transfer and its applications--Study on

The applications of photoinduced electron transfer, one in solar energy storage and the other in polymeric photorefractive materials are reported. In the former case, two new kinds of polymers containing norbornadiene and carbazole pendants were synthesized.



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