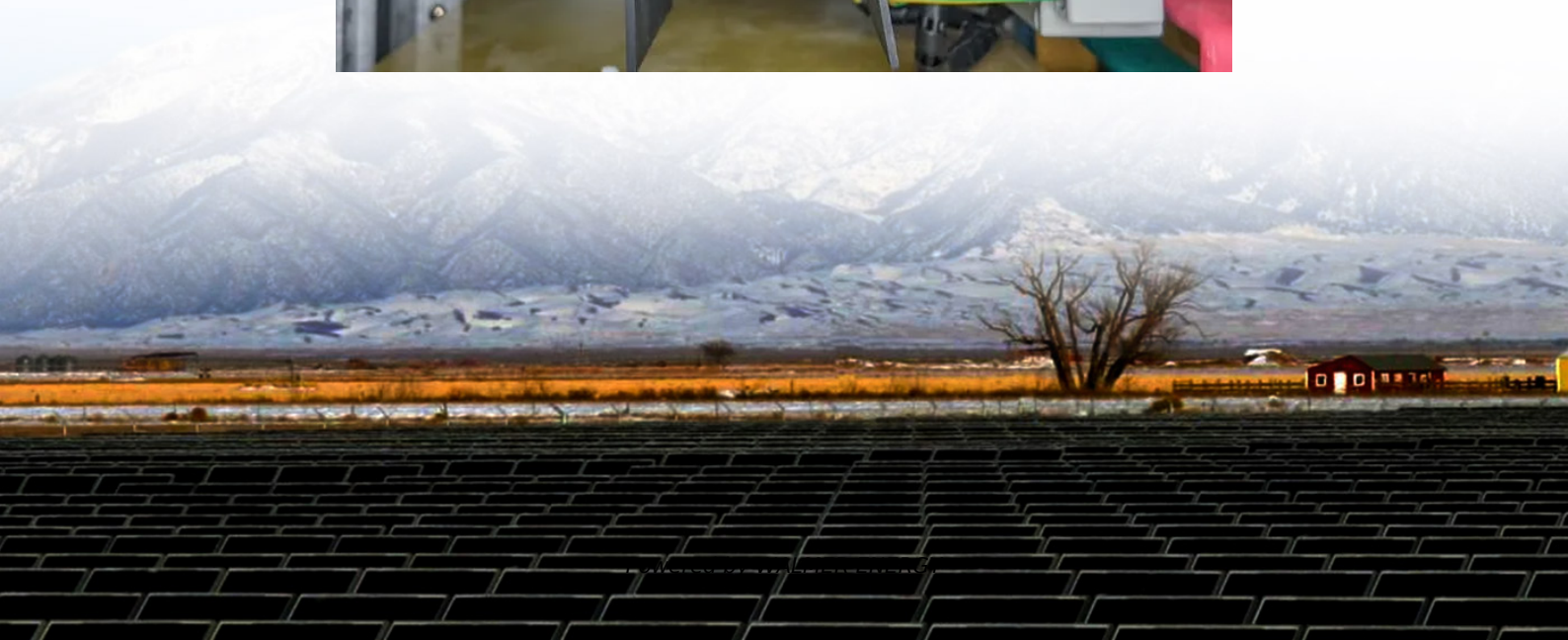


Solar automatic light harvesting system





Overview

Why do we need artificial light harvesting systems?

Photosynthetic organisms are crucial for life as they convert solar energy into chemical energy, enabling the production of biomass including food and feed on Earth. Scientists have been committed to fabricating artificial light-harvesting systems (ALHSs) in mimicking the process of photosynthesis in nature.

What is a light harvesting technology?

materials^{76,94,135,136}. The development of light-harvesting technologies is an elaborate process, which involves design choices based on theoretical models and hypotheses regarding the governing principles of light-harvesting, and the synthesis and characterization of light-harvesting materials and devices.

Can artificial light harvesting systems mimic photosynthesis in nature?

Scientists have been committed to fabricating artificial light-harvesting systems (ALHSs) in mimicking the process of photosynthesis in nature. Supramolecular chemistry offers a new strategy for the self-organization of photosensitive molecules through various forms of non-covalent interactions.

What makes a light-Fi harvesting system viable?

The key to viable artificial light-fi harvesting systems are operations at high power conversion efficiencies with long life times and fi low production costs. splitting⁷, to name a few. While artificial solar energy conversion is on the rise, current technologies need to be advanced to expedite the transition to a net-zero carbon economy.



Solar automatic light harvesting system

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