Title: Photosynthetic solar power generation
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Solar-driven carbon dioxide reduction (CO2RR) mimics natural photosynthesis by harnessing sunlight to convert water and CO2 into chemicals, thereby enabling the storage of solar ...

The integration of plant photosynthesis into microbial fuel cells and the generation of solar photovoltaic energy under an agro-photovoltaic scheme has shown promising results, capable ...

As an artificial photosynthesis design, here we demonstrate the conversion of swimming green algae into photovoltaic power stations.

Modern solar panels convert sunlight directly into electricity through semiconductor materials. In contrast, biophotovoltaic systems employ living organisms that perform photosynthesis, ...

The researchers designed a biofuel cell that exploits these photosynthetic products (glucose and O2) by employing enzyme-modified electrodes. The device was implanted into a living ...

Conventional bio-photovoltaic cells have utilized unicellular photosynthetic microorganisms such as cyanobacteria and unicellular green algae. This study describes electricity generation ...

The conversion of solar energy into electrical current by photosynthetic organisms has the potential to produce clean energy. Life on earth depends on photosynthesis, the major mechanism ...

Unlike traditional solar panels that convert sunlight directly into electricity, photosynthetic solar power stations target the natural efficiencies of biological systems combined with technological ...

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