

This work provides a quantitative basis for evaluating and optimizing electron harvesting in BPV systems, serving as a formidable instrument for comprehending cellular electron transfer mechanisms.

Photosynthetic organisms evolved the capacity to transform solar energy to chemical bond energy stored in C backbones that fuel most biosynthetic processes. The photosynthetic "light ...

We summarize the current understanding of the molecular players involved in NDH-CEF, using the structural data currently available for these complexes and electron carrier proteins, and describe in ...

It has been shown that plants acclimated to high light intensity are characterized by faster processes of P700 oxidation and chlorophyll a fluorescence attenuation compared to plants grown at low light ...

Introduction Except for rare solar particle events, intense sporadic energetic electron precipitation (EEP) from the radiation belts controls the D-region ionization and other related effects in ...

In this article, we'll explore the light-dependent reactions as they take place during photosynthesis in plants. We'll trace how light energy is absorbed by pigment molecules, how reaction center pigments ...

Efficient management of electron transfer between living cells and solid abiotic surfaces is quite challenging. Here, the authors report the assembling of single cell electron collector ...

This process simultaneously serves as an electron sink and enhances the efficiency of water photolysis compared to conventional electrochemical water splitting. However, optimizing BPV systems has ...

Electrodeposition is a low-cost and mature industrial technique for large-scale perovskite solar cells (PSCs) manufacturing. The present work provides new insights into developing compact ...

During the solar fractional crystallization test, hypersaline wastewater with different proportions and mass concentrations was stored in a container, the solar-thermal gradient-driven ...

