Abstract

We have found several bands in the visible and near infrared that are related to the primary process of photosynthesis. Starting from the value of 1830 mV (677.5 nm) which was found by some authors and corresponds to activated PSII, there is a first loss of 580 mV leading to a carotenoid cation (Phe/Car+) formation which is in close contact with pheophytin (Phe) in accordance with previous works leaving P680/P680+ with an energy of 1250 mV. We propose that in this process the carotenes may change their stereochemistry from trans to cis thus avoiding the electron return path.

Keywords

Photosynthesis, Tyrosine Z, Carotenoids, P680, Pheophytin.