

Supplementary Material

Using Site-Directed Mutagenesis to Probe the Role of the D2 Carotenoid in the Secondary Electron-Transfer Pathway of Photosystem II

*Katherine E. Shinopoulos,¹ Jianfeng Yu,² Peter J. Nixon² and Gary W. Brudvig*¹*

¹*Department of Chemistry, Yale University, New Haven, CT 06520-8107, USA and*

²*Division of Molecular Biosciences, Sir Ernst Chain Building – Wolfson Laboratories, Imperial College London, S. Kensington Campus, London, SW7 2AZ, UK.*

*To whom correspondence should be addressed.

E-mail, gary.brudvig@yale.edu, phone (203) 432-5202, fax (203) 432-6144

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Gaussian deconvolutions of the T50F and G47F PSII near-IR spectra at 0 and 3 hours of dark incubation

The Gaussian deconvolutions of the T50F and G47F PSII near-IR spectra at 0 and 3 hours of dark incubation are shown in Figure S1. They are analogous to the deconvolutions of the WT and G47W PSII near-IR spectra shown in Figure 5 of the main paper. The deconvolutions of the G47F near-IR spectra fit slightly less well than the others due to a lower concentration of Chl in the sample and a small signal in the raw data. The T50F displays a similar ratio of longer- and shorter-wavelength components as WT PSII.

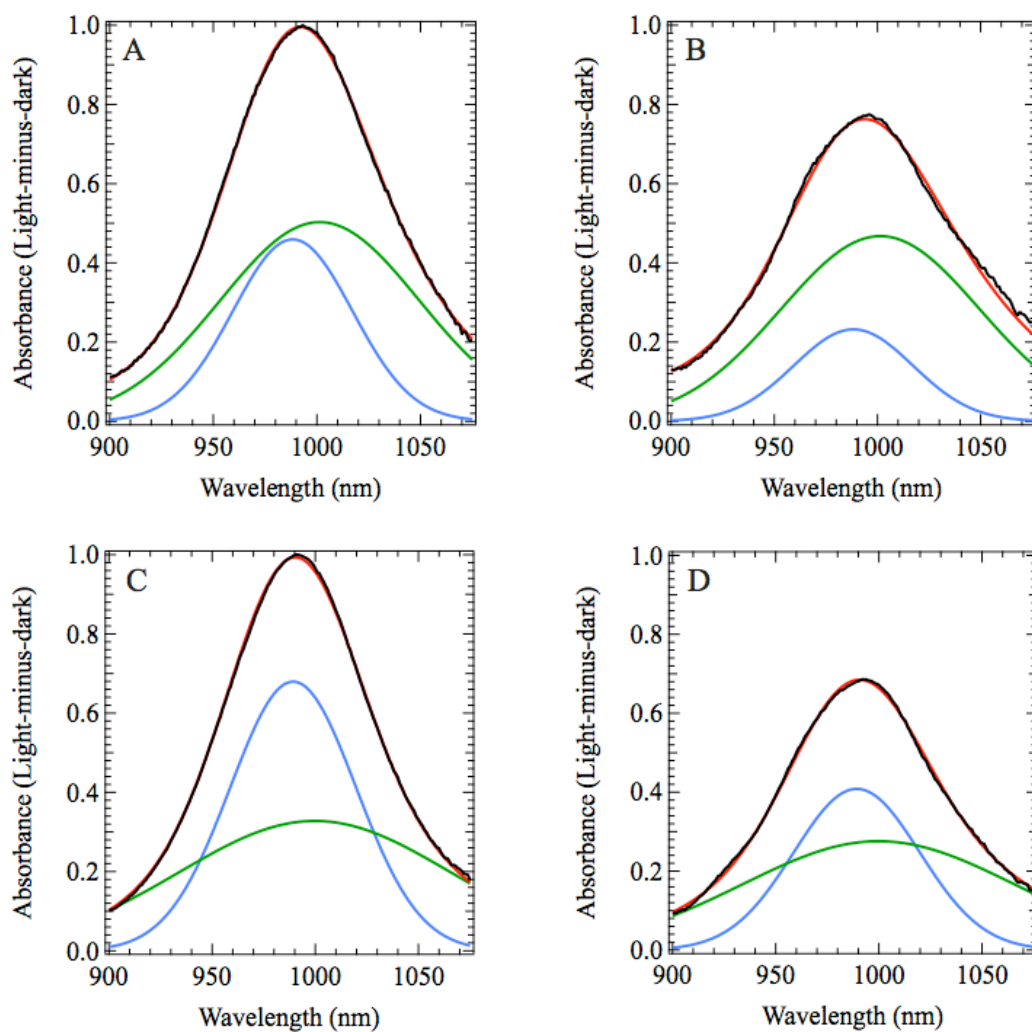


Fig. S1 Gaussian deconvolutions of A: the G47F PSII difference spectrum after 0 minutes of dark incubation, B: the G47F PSII difference spectrum after 3 hours of dark incubation, C: the T50F PSII difference spectrum after 0 minutes of dark incubation, and D: the T50F PSII difference spectrum after 3 hours of dark incubation. The two Gaussian components are shown in blue (shorter-wavelength component) and green (longer-wavelength component), their sum is shown in red, and the raw data are shown in black.