

SUPPORTING INFORMATION

of

Exciton-Exciton Annihilation as a Probe of Exciton Diffusion in Large Porphyrin Nanorings

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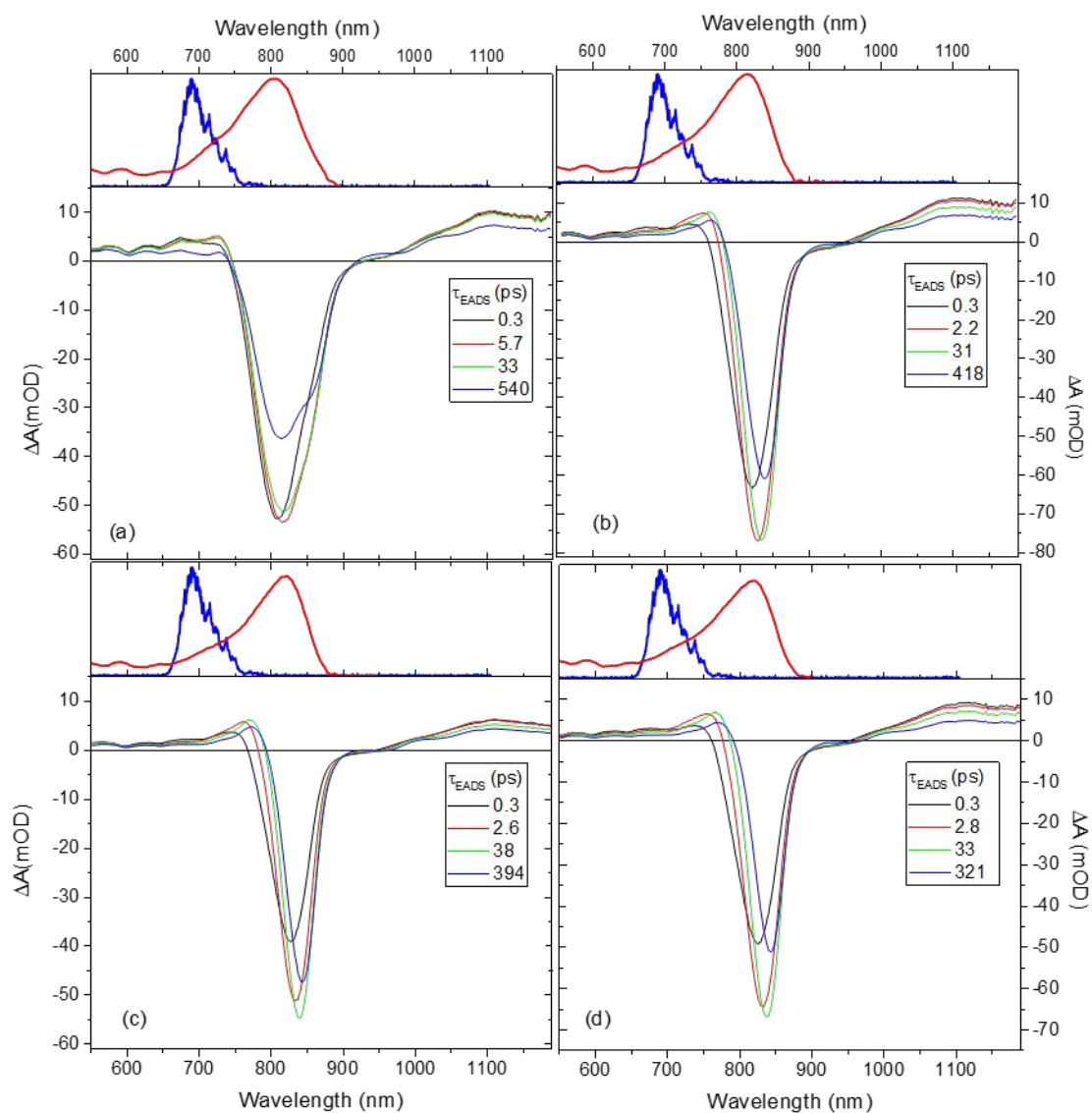


Figure S1 Evolution associated difference spectra obtained by global fitting of the fsTA data shown in Figure 3. (a) is cP10, (b) is cP20, (c) is cP30 and (d) is cP40.

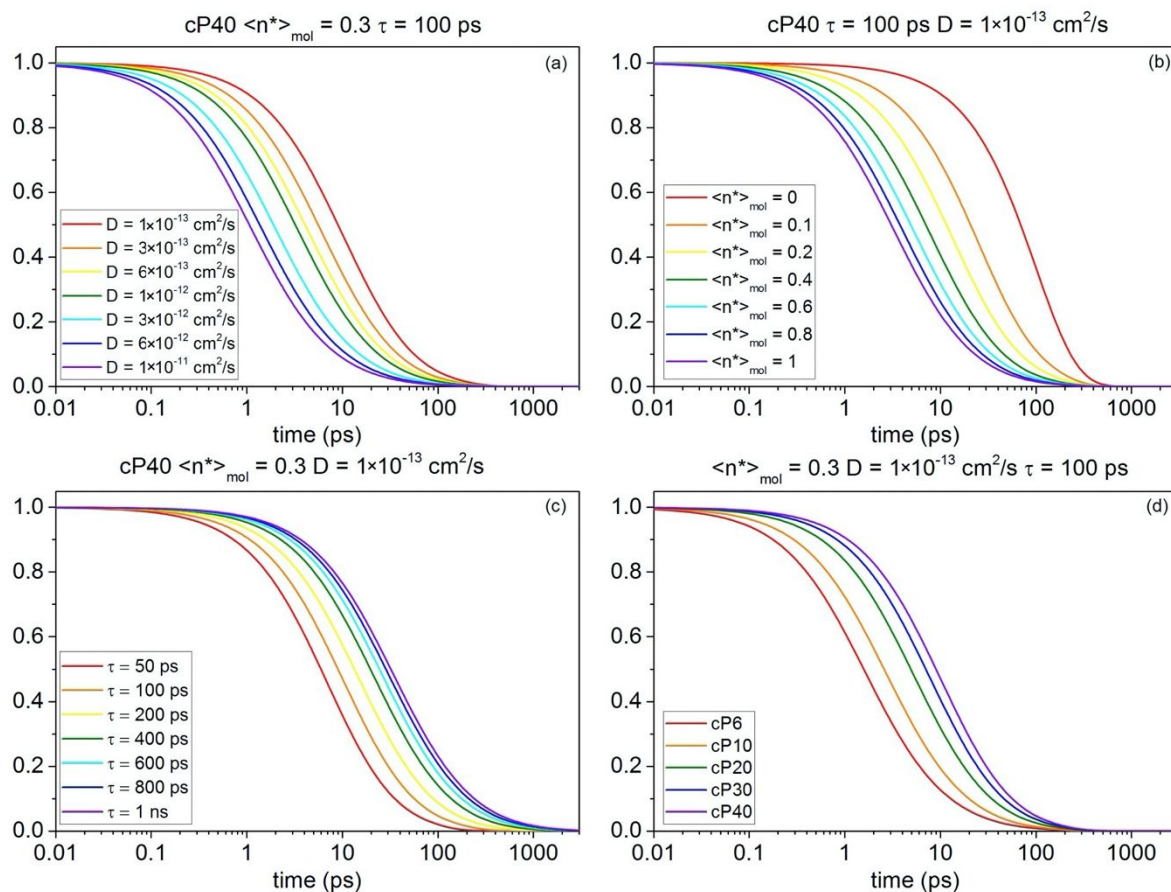


Figure S2 Modelled integrated intensity of the fsTA signal versus time for a one dimensional exciton-exciton annihilation case (see Equation 7 in main manuscript) for different values of the exciton diffusion coefficient D (a), average number of excitons per mole $\langle n^* \rangle_{\text{mol}}$ (b), intrinsic exciton lifetime τ (c) and ring size r (d). All other parameters have been kept fixed to the values reported above each panel. Time axis is shown on a log scale to emphasise the differences between the traces at early times.

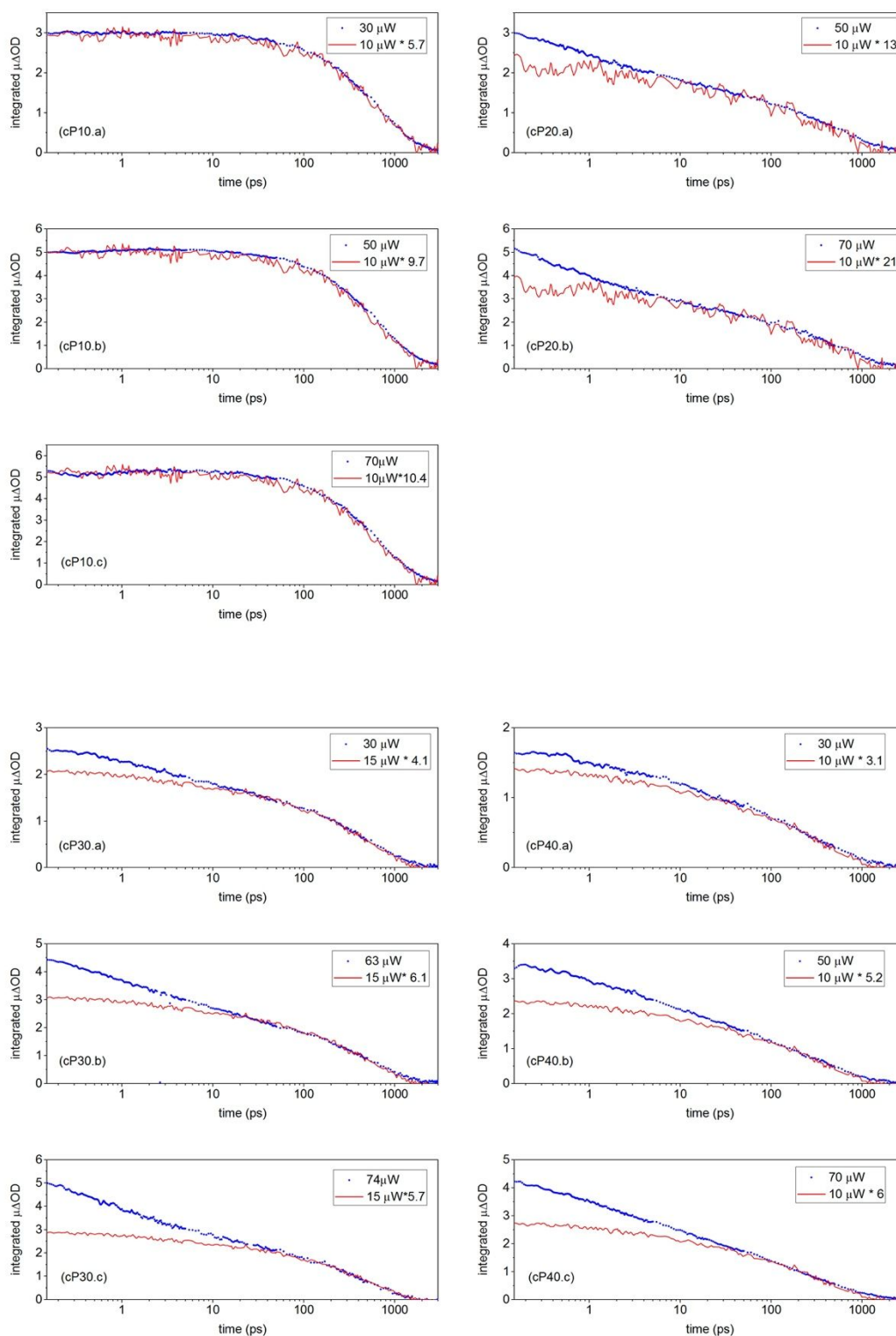


Figure S3 Comparison between rescaled 10 nJ (red solid line, 15 nJ for cP30) and higher (blue dots) pump fluences integrated fsTA traces (1100 - 1200 nm) for cP10-40. The rescaling factors have been chosen in order to tail match the 10 (15 for cP30) nJ trace with the traces measured at higher pump fluence. Time axis is shown on a log scale to emphasise the differences between the traces at early times.