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Supporting Information

Enhancing Exciton Diffusion in Porphyrin Thin Films Using Peripheral Carboalkoxy Groups to Influence Molecular Assembly

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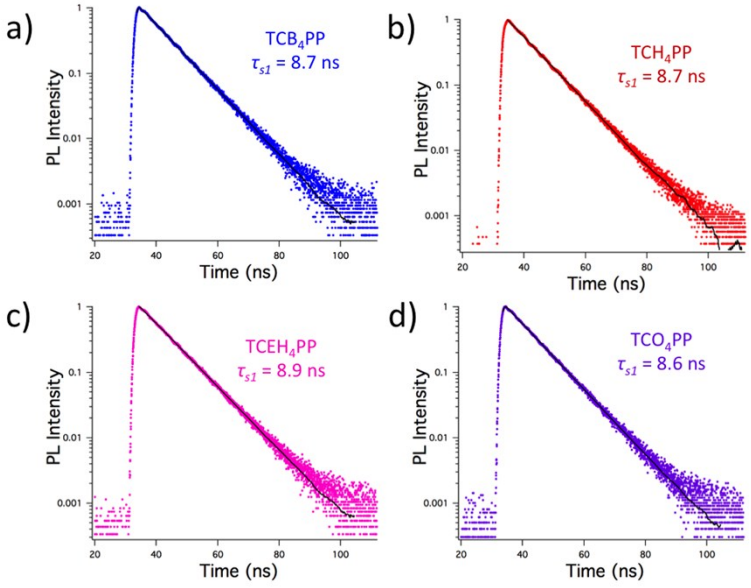
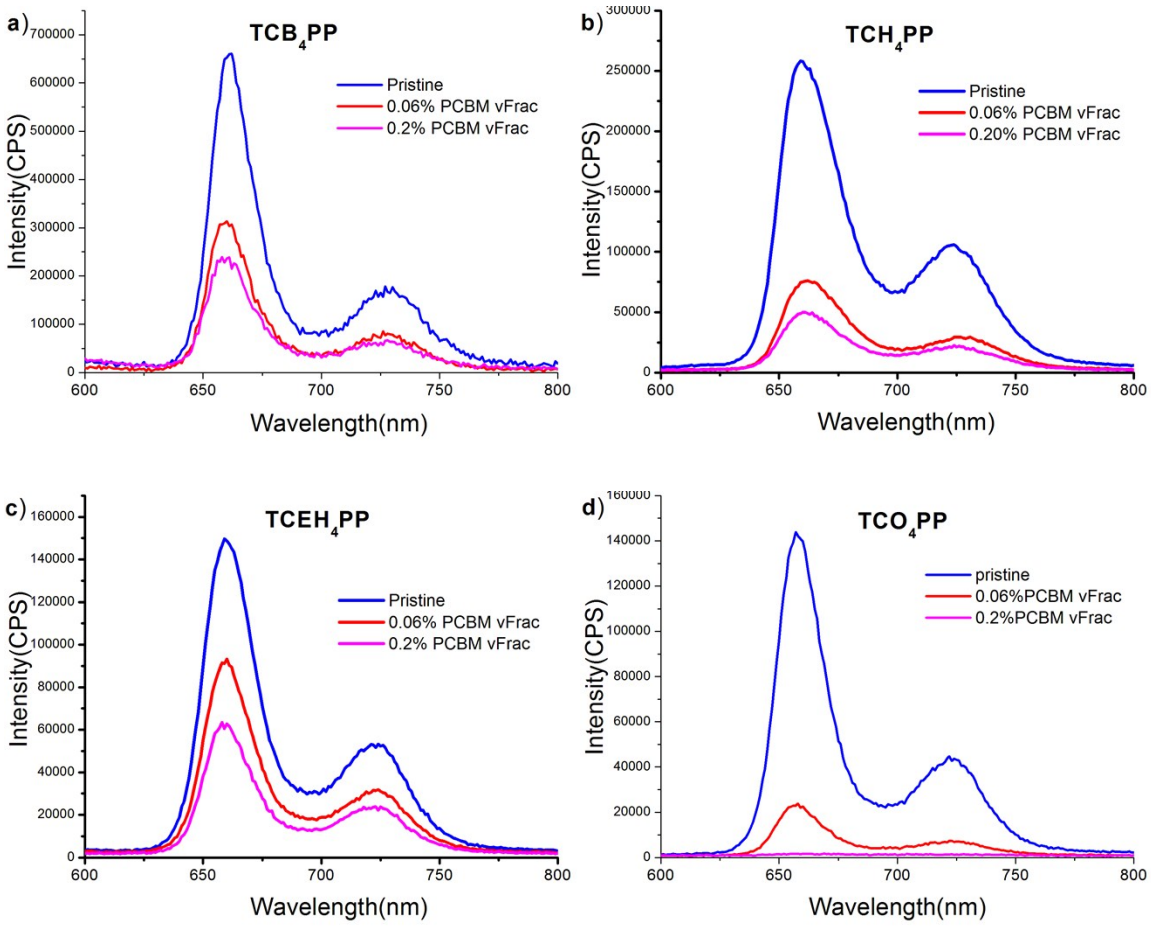
S1. Time-resolved fluorescence spectra (TCSPC) and first order curve fitting of a) TCB_4PP, b) TCH_4PP, c) $TCEH_4PP$, and d) TCO_4PP (20 μM dichloromethane solutions excited with a 389 nm diode laser).



Porphyrin	τ_{s1}, (ns)
TCB_4PP	8.7
TCH_4PP	8.7
$TCEH_4PP$	8.9
TCO_4PP	8.6

S2. Steady-state photolumesence spectra of pristine films and films with 0.06% and 0.2% PCBM volume fraction a) TCB_4PP, b) TCH_4PP, c) $TCEH_4PP$, and d) TCO_4PP.



S3. XRD Diffraction Data for TCB_4PP, TCH_4PP, $TCEH_4PP$, and TCO_4PP (Cu Kα radiation (λ = 1.541 Å)

TCB_4PP			
XRD peaks (2θ)	6.08	22.28	NA
d-spacing (Å)	14.54	3.99	NA
intensity	34	83	NA
rel. intensity %	41	100	NA
TCH_4PP			
XRD peaks (2θ)	5.98	22.38	34.23
d-spacing (Å)	14.78	3.97	2.62
intensity	41	206	77
rel. intensity %	20	100	37
$TCEH_4PP$			
XRD peaks (2θ)	5.78	22.13	34.38
d-spacing (Å)	15.30	4.02	2.61
intensity	31	56	24
rel. intensity %	55	100	43
TCO_4PP			
XRD peaks (2θ)	6.33	22.63	34.23
d-spacing (Å)	13.97	3.93	2.61
intensity	64	141	46
rel. intensity %	45	100	33