

## Electronic Supplementary Information (ESI)

### Syntheses and Properties of Trimethylaminophenoxy-substituted Zn(II)-Phthalocyanines

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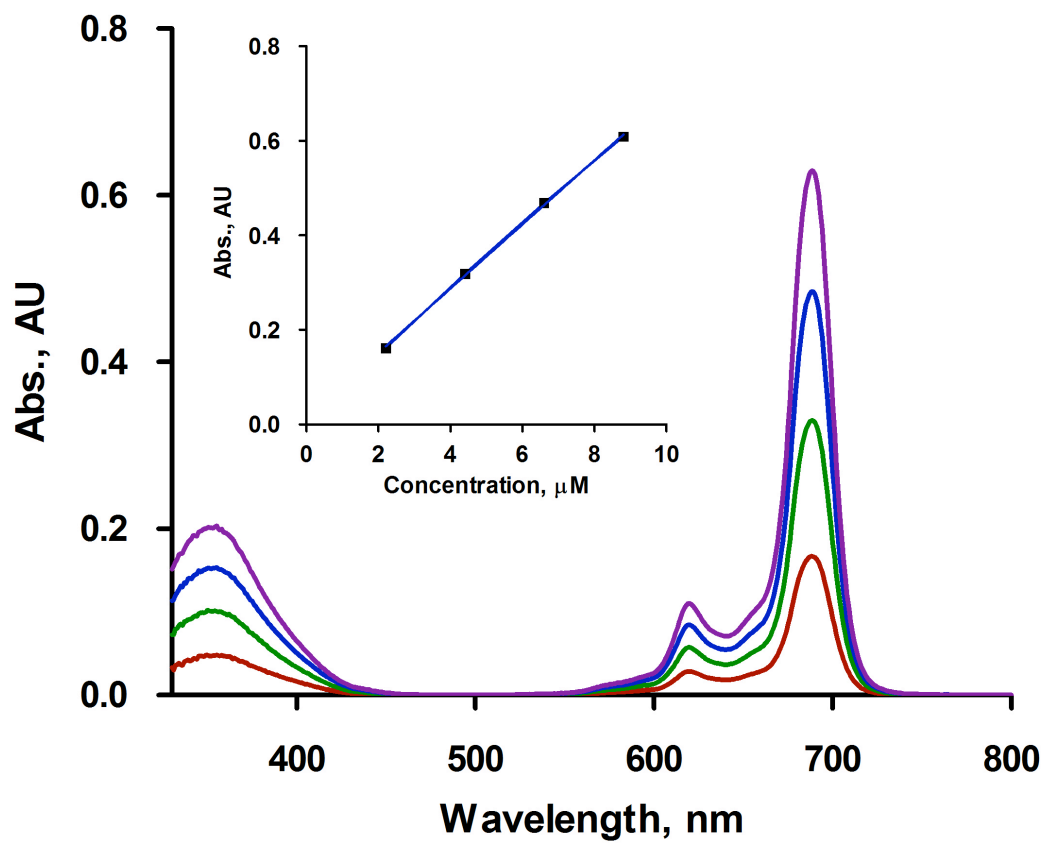
#### Table of Contents:

	Page
<b>Table S1:</b> Spectroscopic data for ZnPcs in PBS (pH = 7.4)	2
<b>Figures S1-S9:</b> UV-Vis spectra for ZnPcs in DMF	3
<b>Figures S10-S13:</b> UV-Vis spectra for ZnPcs in DMF and PBS	12
<b>Figure S14:</b> Emission spectra for ZnPcs in PBS	16
<b>Figure S15:</b> UV-Vis spectra for ZnPcs in DMF	17
<b>Figure S16:</b> Emission spectra for ZnPcs in DMF	18

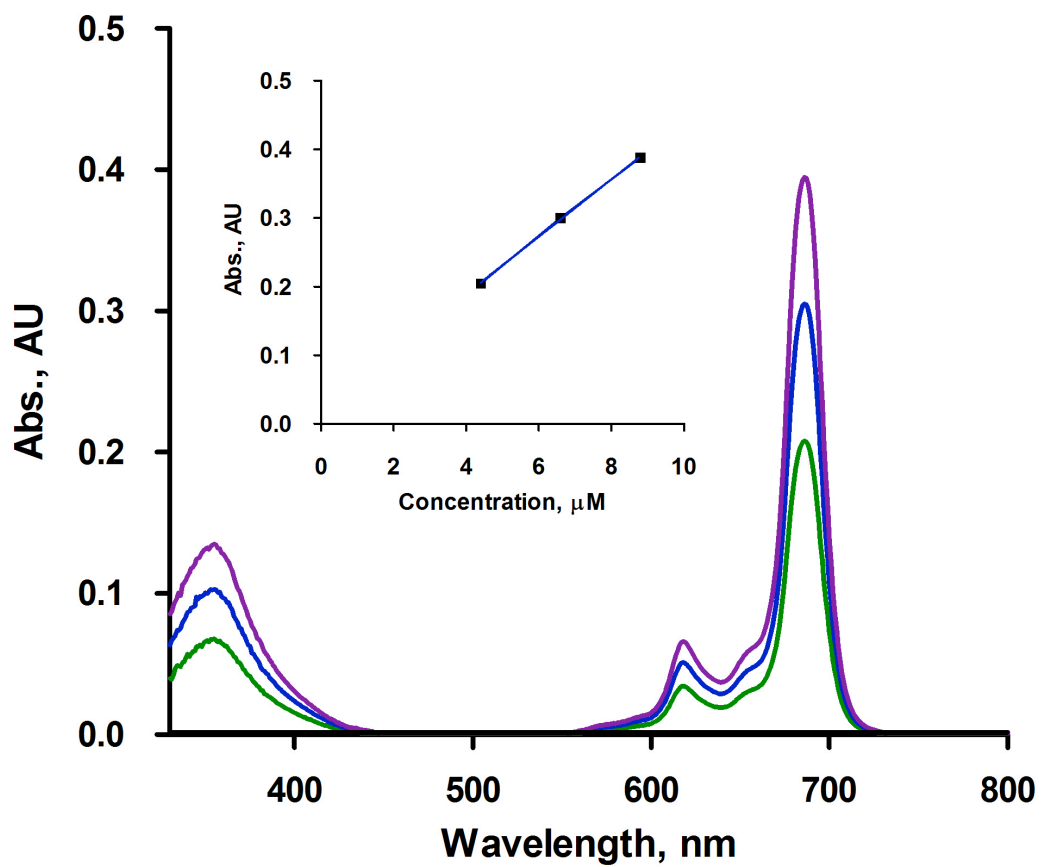
**Table S1.** Spectroscopic data for cationic Pcs in PBS (pH = 7.4)

<b>Pc</b>	<b>Absorption <math>\lambda_{\max}</math> (nm)</b>	<b>Emission<sup>a</sup> <math>\lambda_{\max}</math> (nm)</b>	<b>Stokes' shift (nm)</b>
4a	679	681	2
4b	677	680	3
6a	680	684	4
6b	678	681	3
8	679	682	3
12	678	681	3
13	682	685	3
14	680	684	4
17a	680	683	3
17b	677	679	2

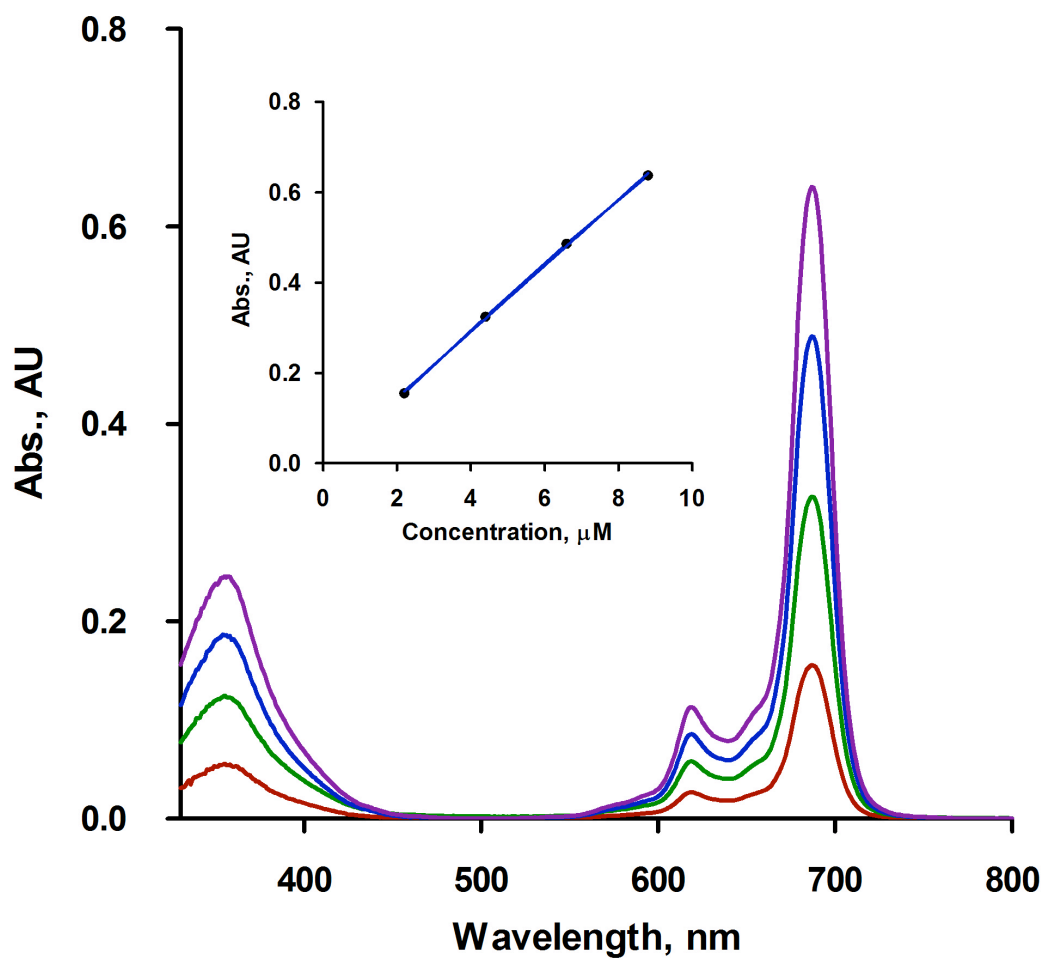
<sup>a</sup> Excitation at 630 nm.



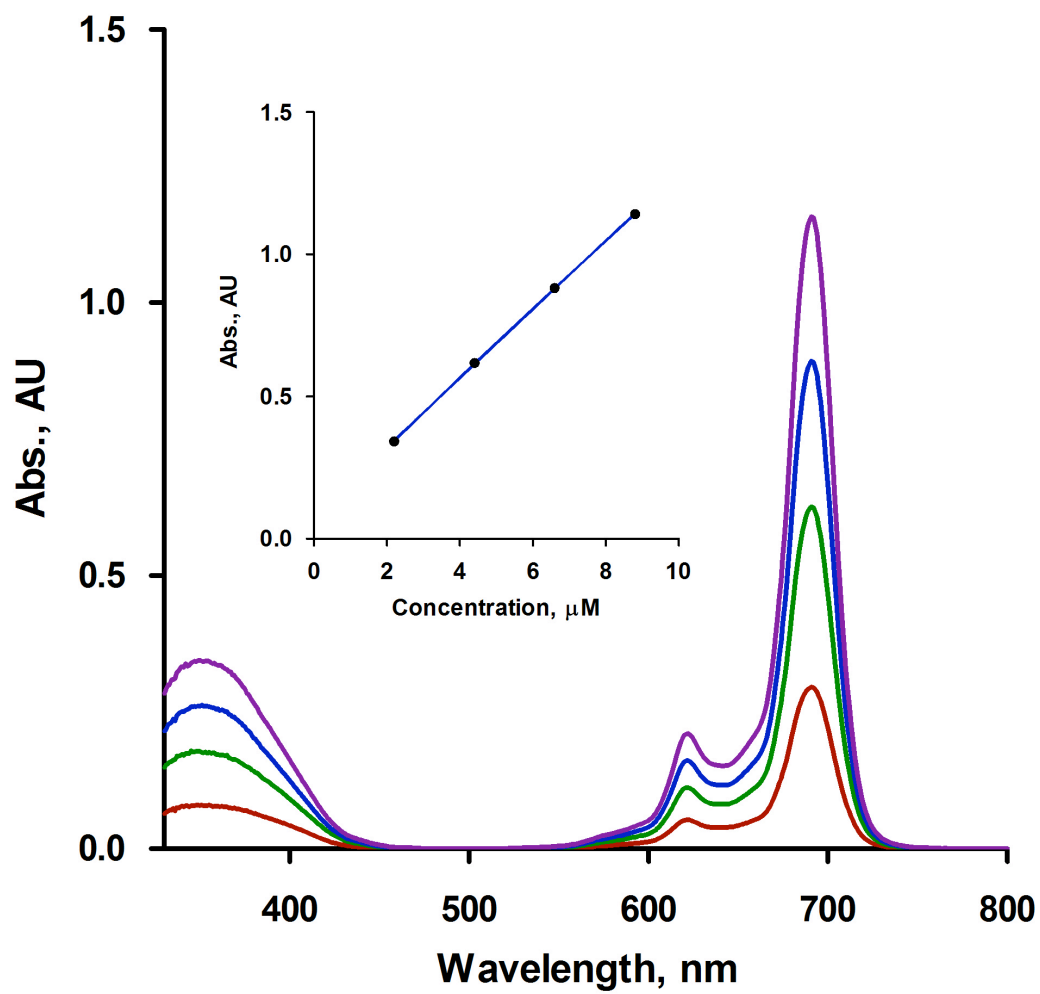
**Figure S1.** UV-Vis spectra for Pc **4a** in DMF: 2.2 μM (red), 4.4 μM (green), 6.6 μM (blue) and 8.8 μM (purple).



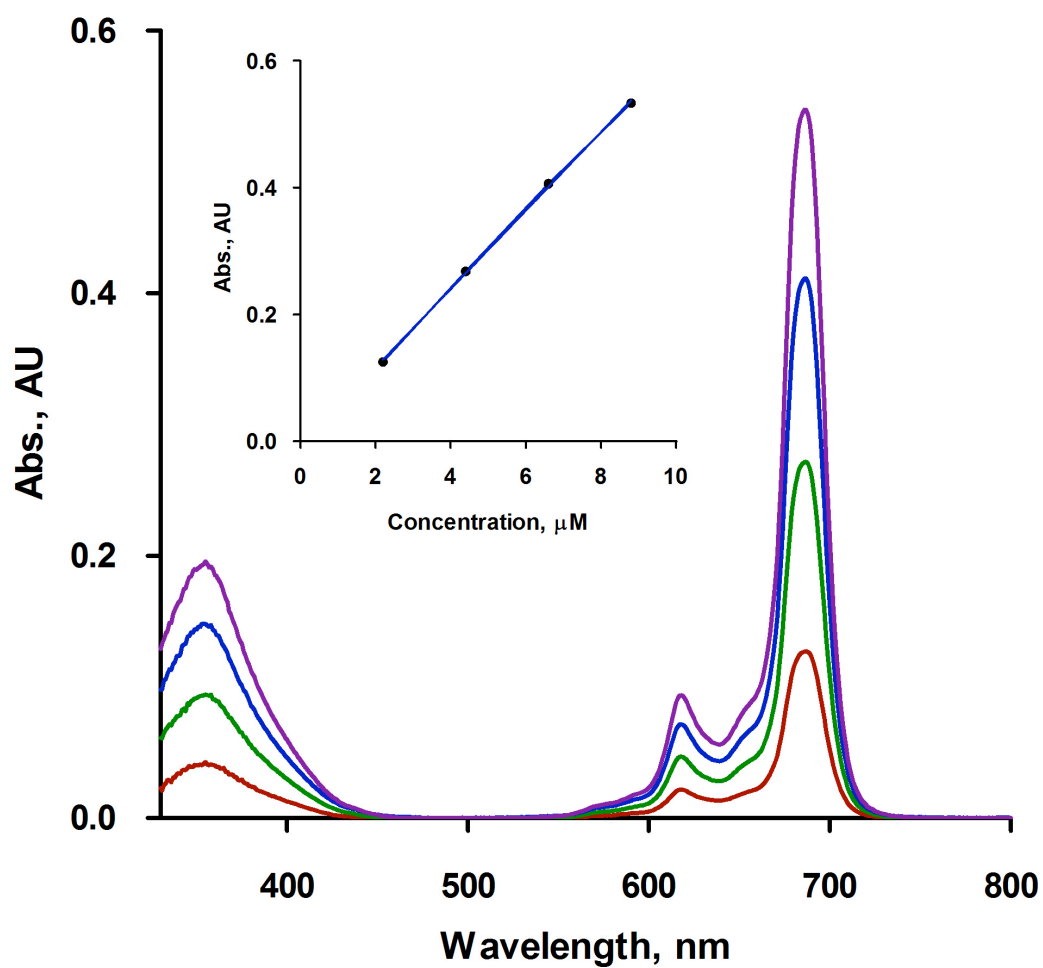
**Figure S2.** UV-Vis spectra for Pc **4b** in DMF: 4.4 μM (green), 6.6 μM (blue) and 8.8 μM (purple).



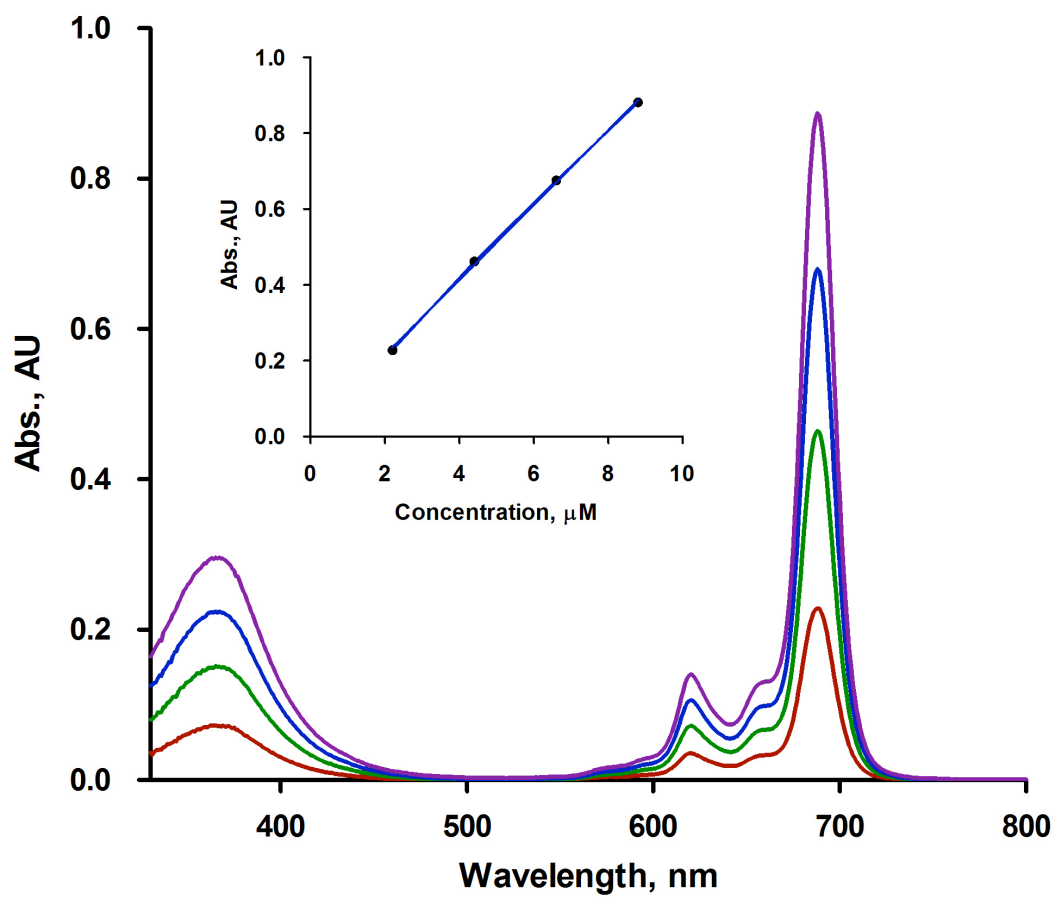
**Figure S3.** UV-Vis spectra for Pc **12** in DMF: 2.2  $\mu\text{M}$  (red), 4.4  $\mu\text{M}$  (green), 6.6  $\mu\text{M}$  (blue) and 8.8  $\mu\text{M}$  (purple).



**Figure S4.** UV-Vis spectra for Pc **6a** in DMF: 2.2 μM (red), 4.4 μM (green), 6.6 μM (blue) and 8.8 μM (purple).

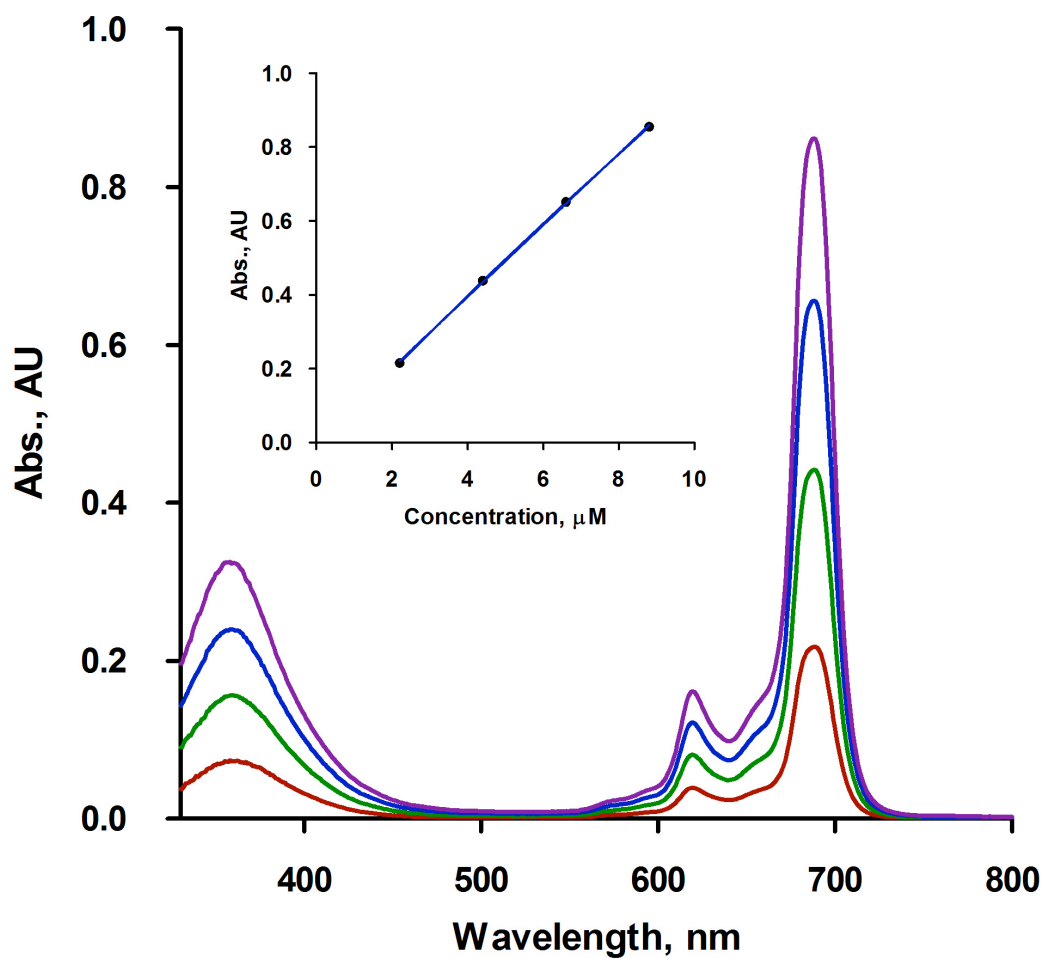


**Figure S5.** UV-Vis spectra for Pc **6b** in DMF: 2.2 μM (red), 4.4 μM (green), 6.6 μM (blue) and 8.8 μM (purple).

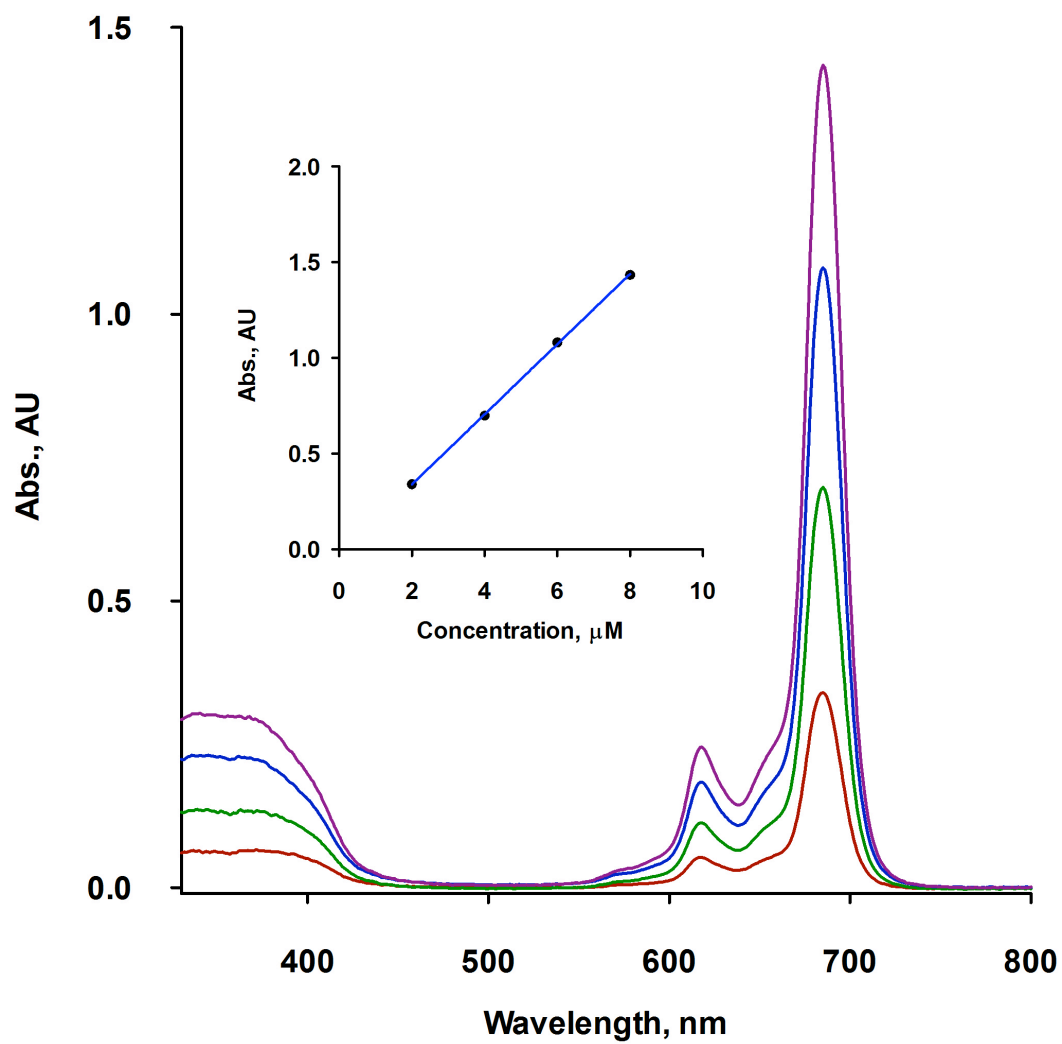


**Figure S6.** UV-Vis spectra for Pc 14 in DMF: 2.2  $\mu\text{M}$  (red), 4.4  $\mu\text{M}$  (green), 6.6  $\mu\text{M}$  (blue) and 8.8  $\mu\text{M}$  (purple).

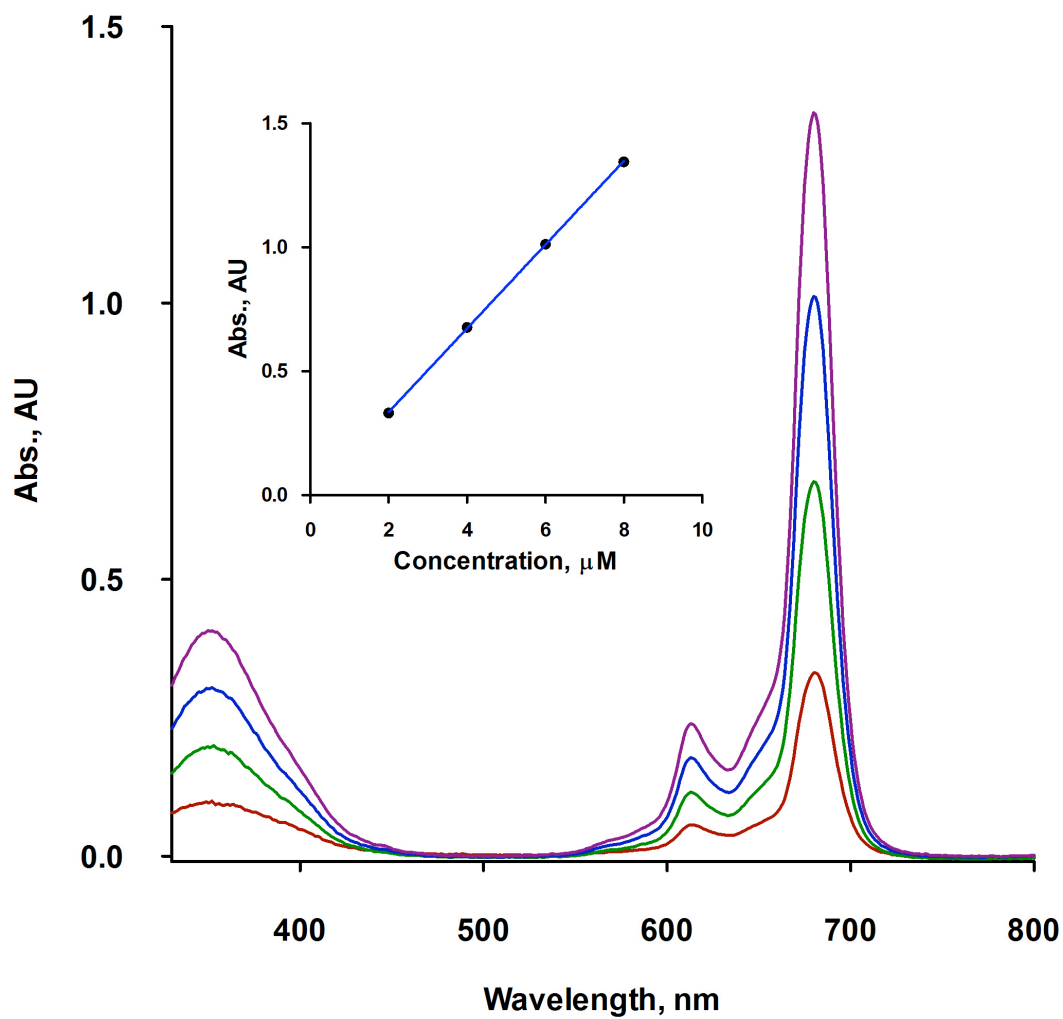




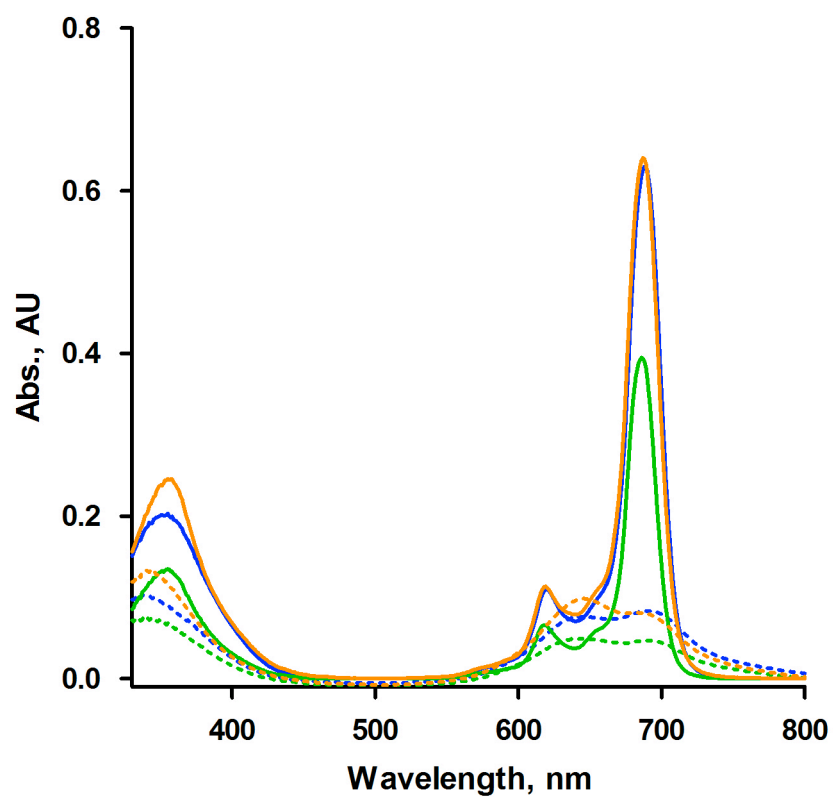
**Figure S7.** UV-Vis spectra for Pc **8** in DMF: 2.2  $\mu\text{M}$  (red), 4.4  $\mu\text{M}$  (green), 6.6  $\mu\text{M}$  (blue) and 8.8  $\mu\text{M}$  (purple).



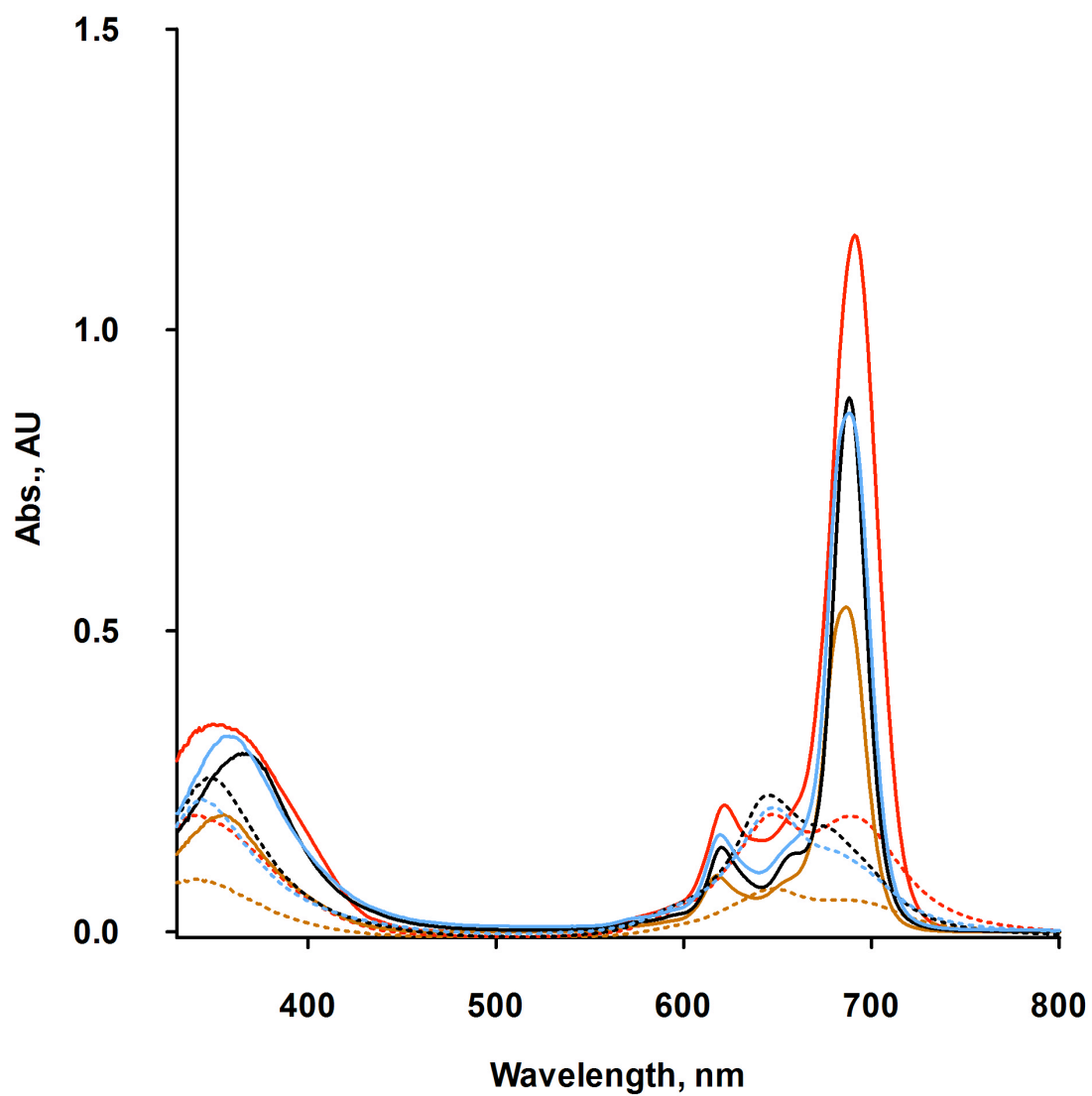
**Figure S8.** UV-Vis spectra for Pc 17a in DMF: 2.0 μM (red), 4.0 μM (green), 6.0 μM (blue) and 8.0 μM (purple).



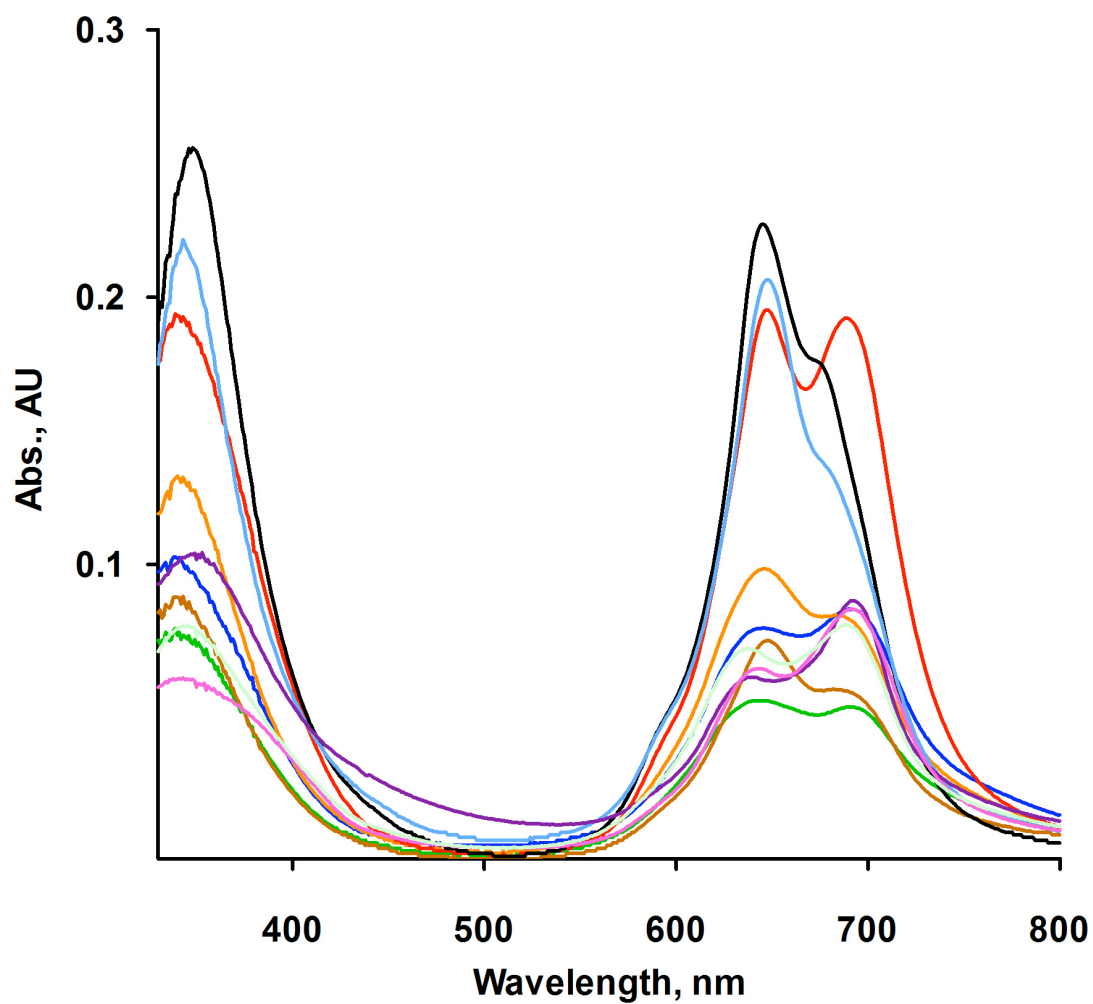
**Figure S9.** UV-Vis spectra for Pc 17b in DMF: 2.0 μM (red), 4.0 μM (green), 6.0 μM (blue) and 8.0 μM (purple).



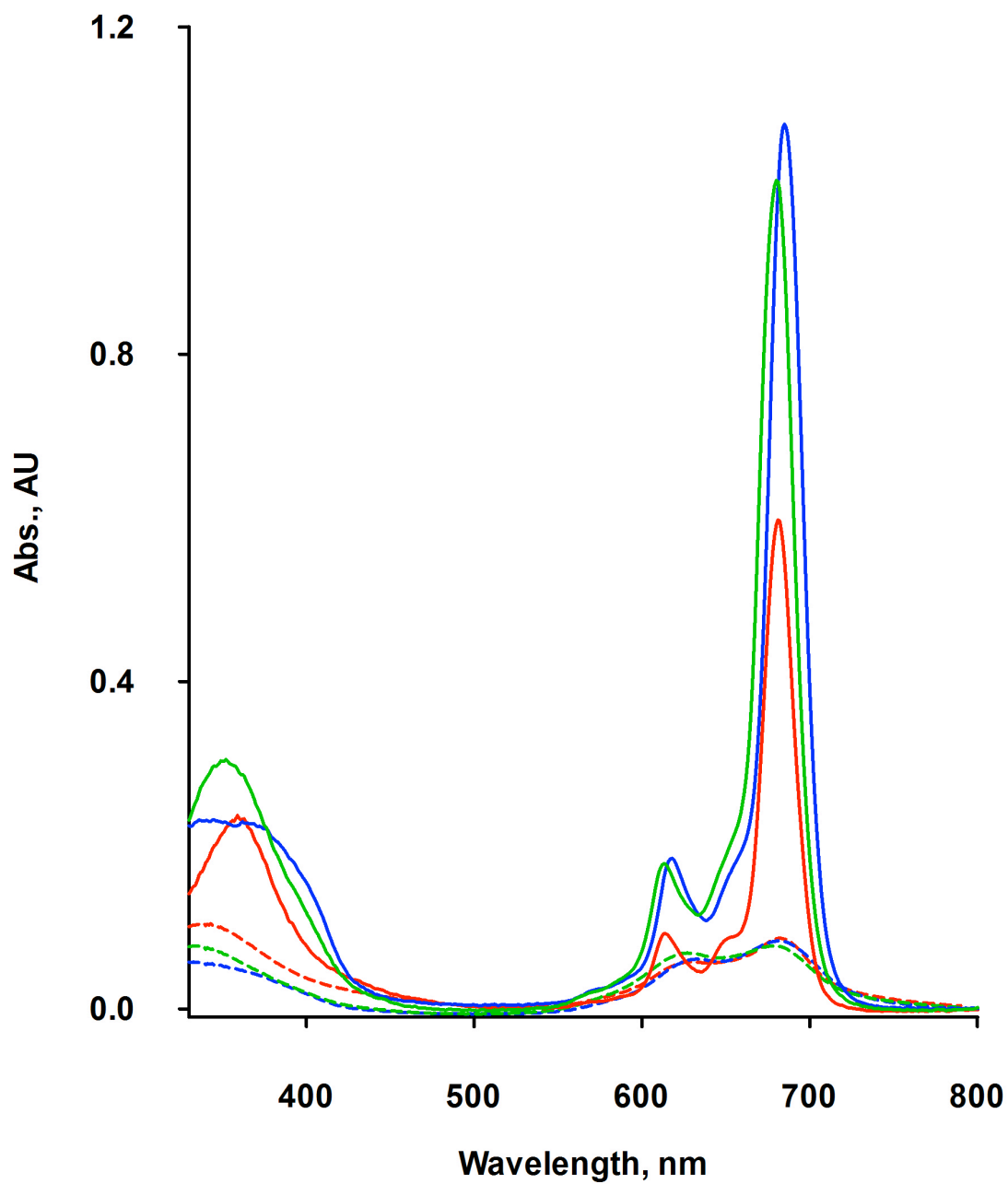
**Figure S10.** UV-Vis spectra for Pc **4a** (blue), **4b** (green), and **12** (orange) at 8.8  $\mu\text{M}$  in DMF; **4a** (dotted blue), **4b** (dotted green), and **12** (dotted orange) at 8.8  $\mu\text{M}$  in PBS, pH 7.4.



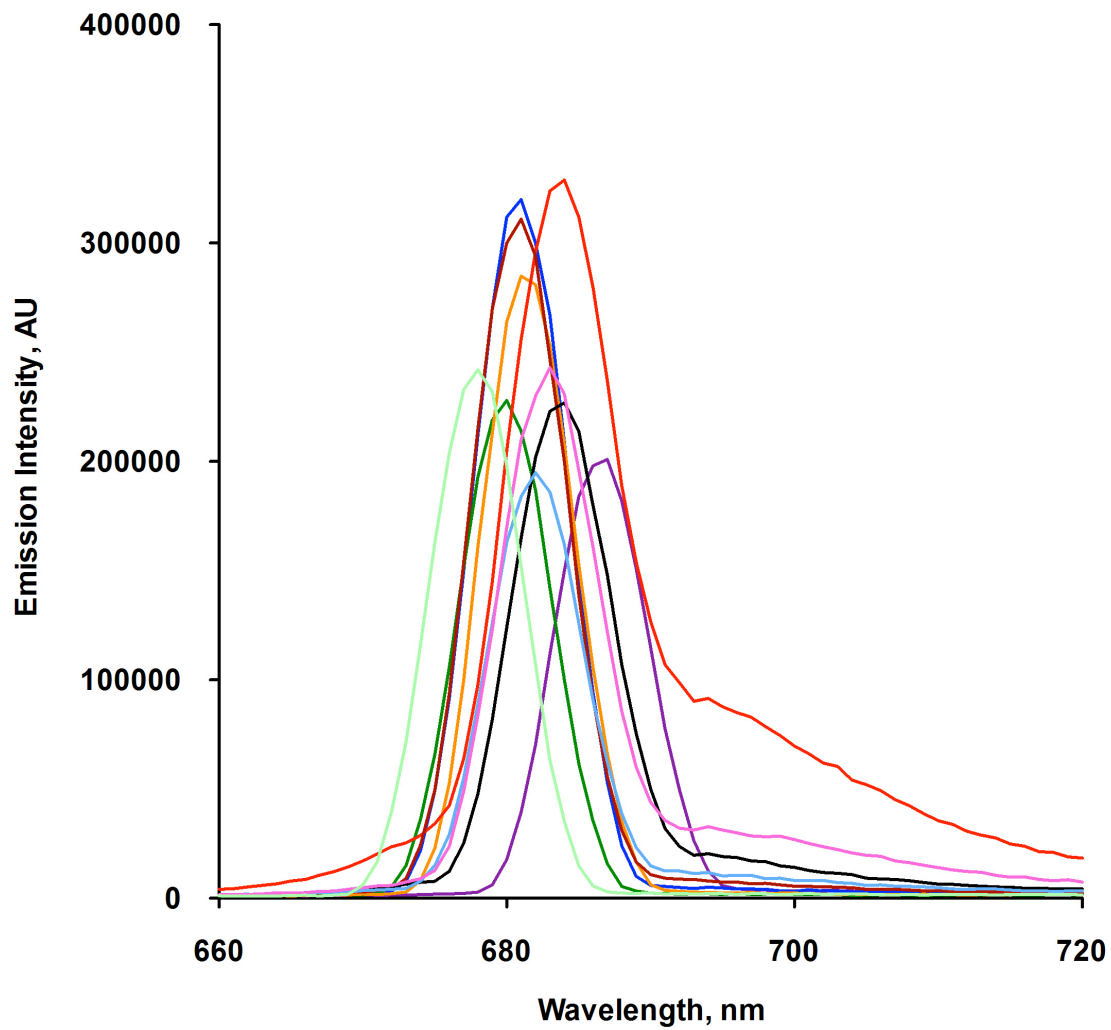
**Figure S11.** UV-Vis spectra for Pc **6a** (red), **6b** (brown), **8** (violet) and **14** (black) at 8.8  $\mu\text{M}$  in DMF; **6a** (dotted red), **6b** (dotted brown), **8** (dotted violet) and **14** (dotted black) at 8.8  $\mu\text{M}$  in PBS, pH 7.4.



**Figure S12.** UV-Vis spectra for Pc **4a** (blue), **4b** (green), **6a** (red), **6b** (brown), **8** (light blue), **12** (orange), **13** (purple), **14** (black), **17a** (pink) and **17b** (light green) at 8.8  $\mu\text{M}$  in PBS, pH 7.4.

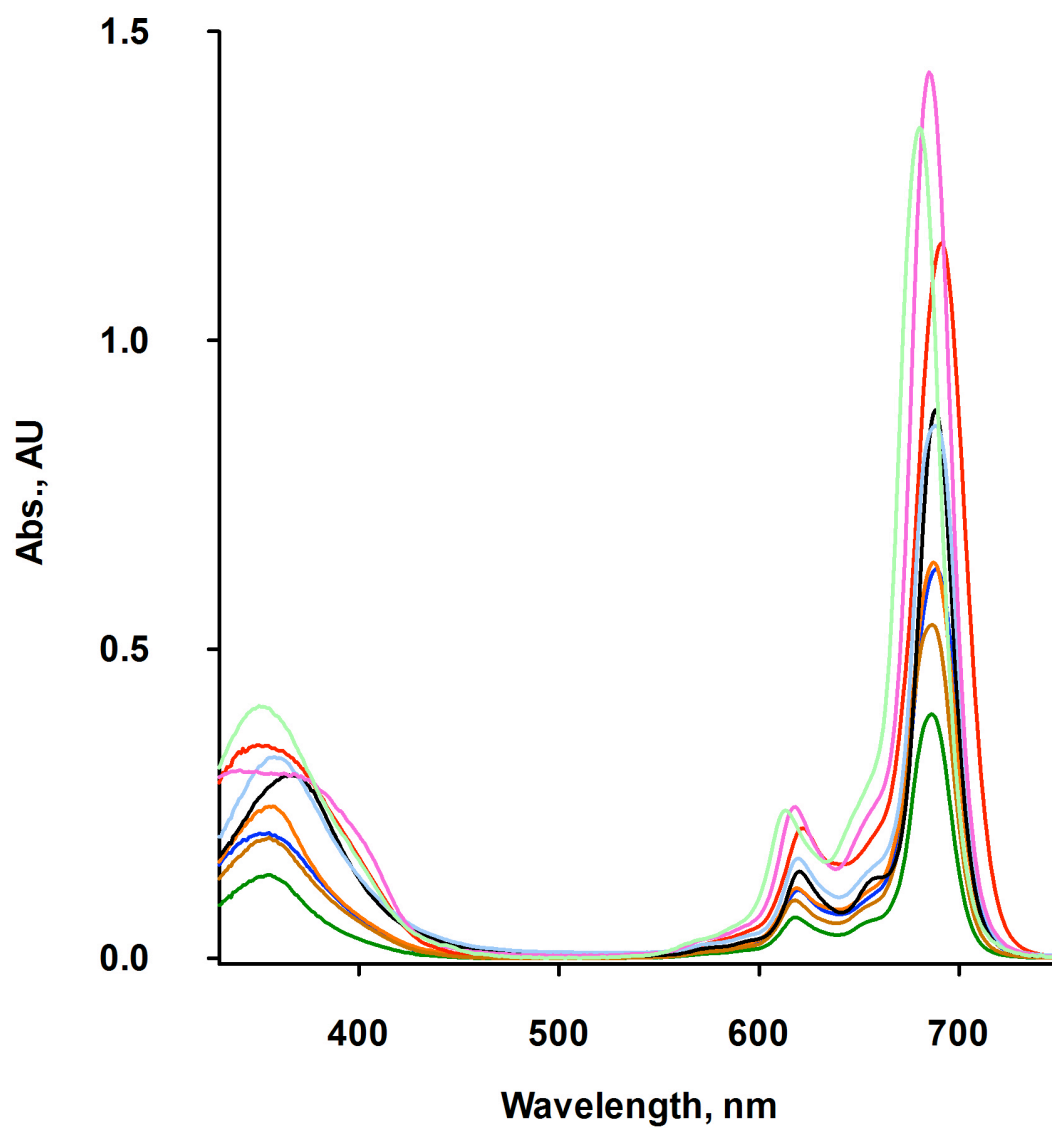


**Figure S13.** UV-Vis spectra for Pc **13** (red), **17a** (blue) and **17b** (green) at 6.0  $\mu\text{M}$  in DMF; **13** (dotted red), **17a** (dotted blue), **17b** (dotted green) at 6.0  $\mu\text{M}$  in PBS, pH 7.4.

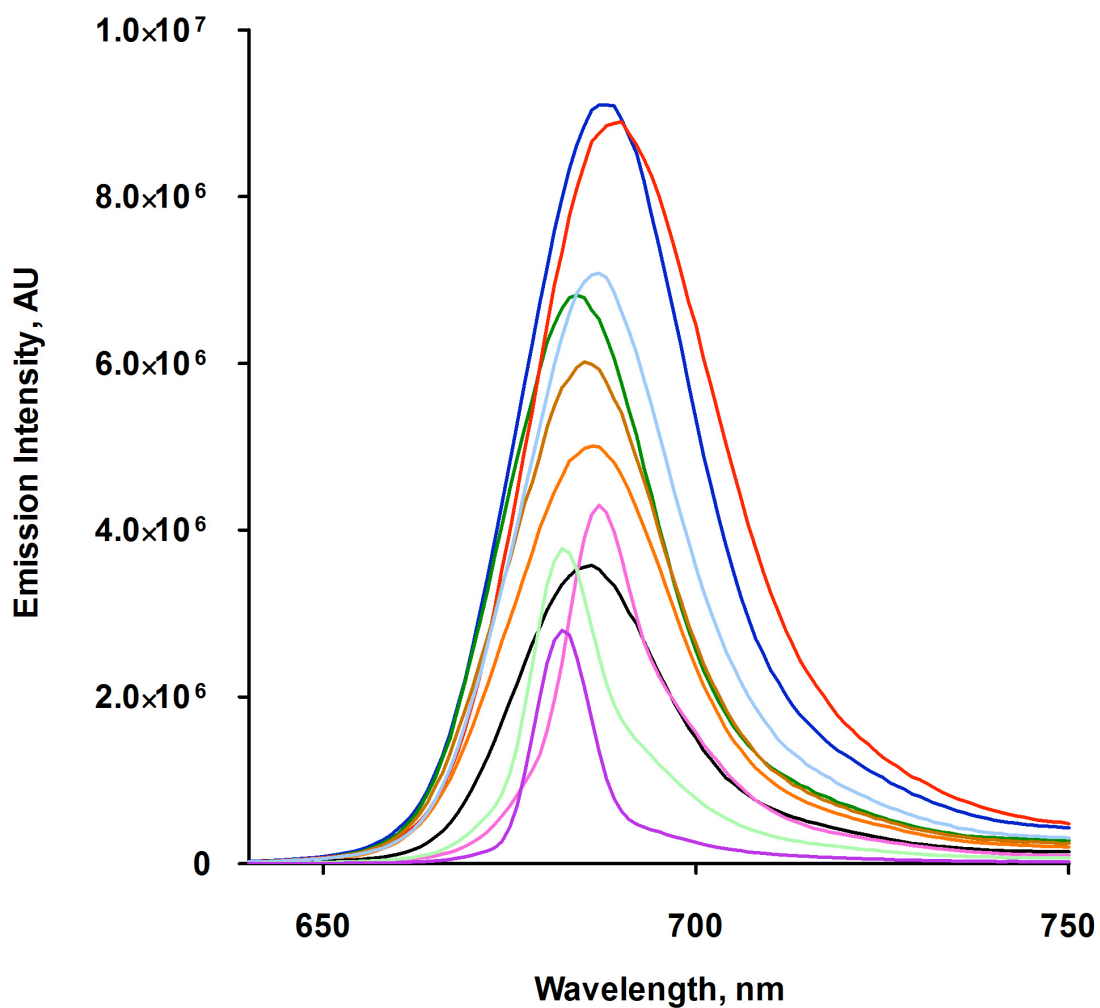


**Figure S14.** Emission spectra for Pc **4a** (blue), **4b** (green), **6a** (red), **6b** (brown), **8** (light blue), **12** (orange), **13** (violet), **14** (black), **17a** (pink) and **17b** (light green) at 6.0  $\mu\text{M}$  in PBS, pH 7.4.





**Figure S15.** UV-Vis spectra for Pc **4a** (blue), **4b** (green), **6a** (red), **6b** (brown), **8** (light blue), **12** (orange), **14** (black), **17a** (pink) and **17b** (light green) at 8.0 μM in DMF.



**Figure S16.** Emission spectra for Pc **4a** (blue), **4b** (green), **6a** (red), **6b** (brown), **8** (light blue), **12** (orange), **13** (violet), **14** (black), **17a** (pink) and **17b** (light green) in DMF.