

## Supporting Information

### Simultaneous Binding of a Cyclophane and Classical Intercalators to DNA: Observation of FRET-mediated White Light Emission

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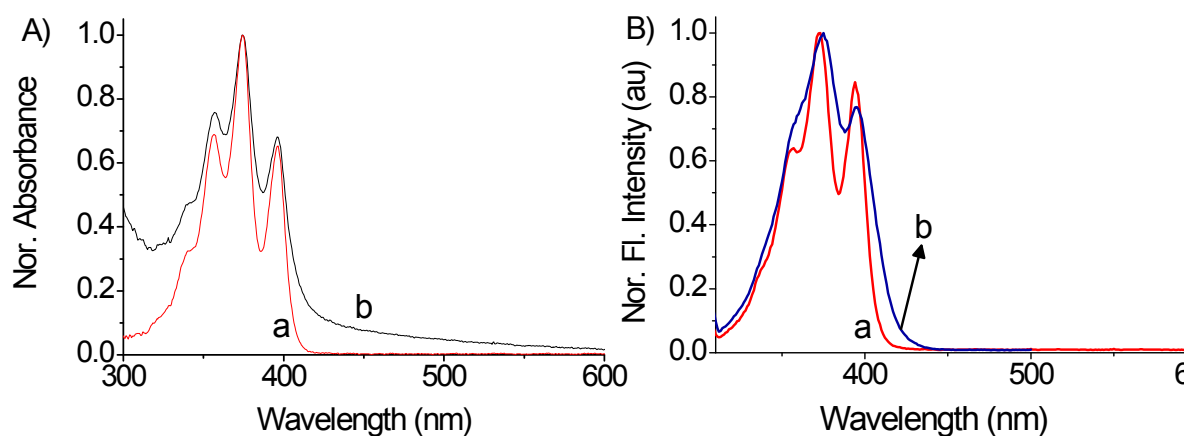
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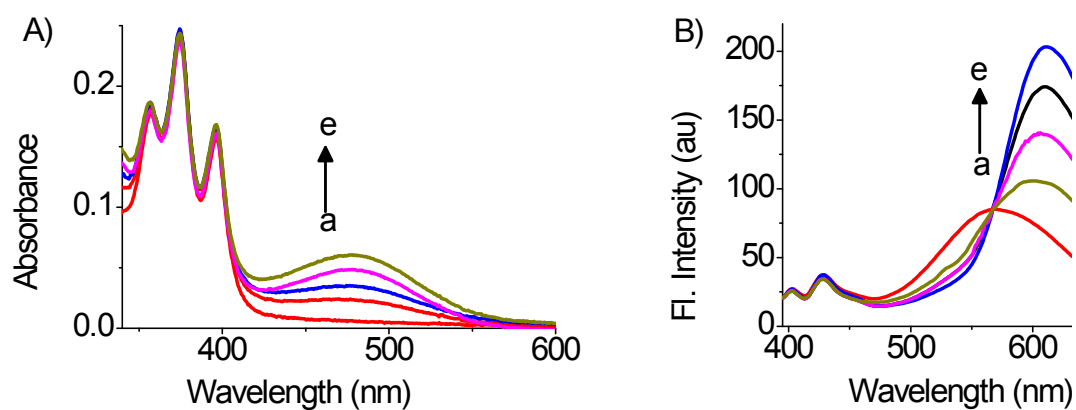
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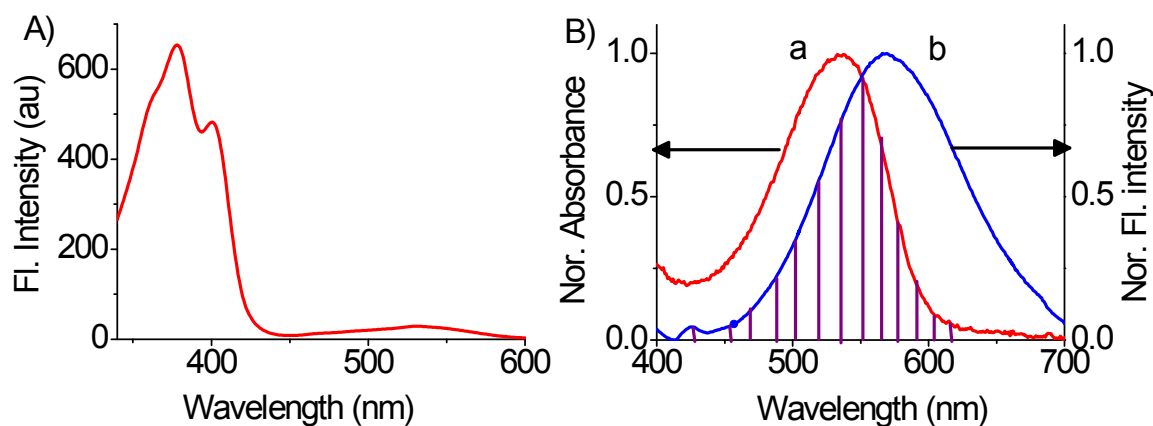
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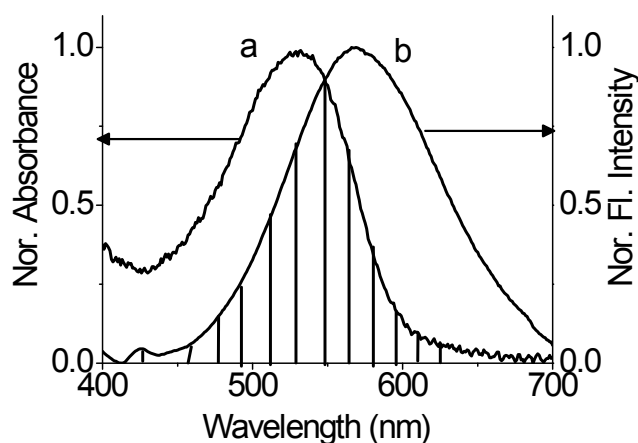
**Fig. S1** A) Normalized absorption spectra of **CP** (a) alone and (b) in presence of DNA in phosphate buffer (10 mM, pH 7.4) containing 2 mM NaCl. B) Normalized excitation spectra of **CP** (a) alone and (b) in presence of DNA in phosphate buffer (10 mM, pH 7.4) containing 2 mM NaCl when emission monitored at 550 nm. [**CP**], 16  $\mu$ M; [**DNA**], 38  $\mu$ M.



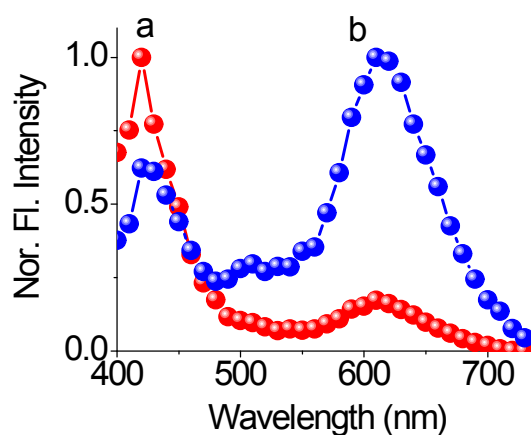
**Fig. S2** Changes in the A) absorption and B) emission spectrum of DNA-bound **CP** by the addition of **PI** in phosphate buffer (10 mM, pH 7.4) containing 2 mM NaCl. [**CP**], 16  $\mu$ M; [**DNA**], 38  $\mu$ M; [**PI**], (a) 0 and (e) 2  $\mu$ M. Excitation wavelength, 380 nm.



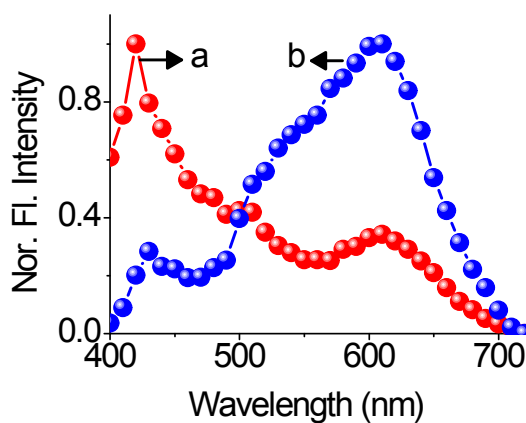
**Fig. S3** A) Excitation spectrum of a solution containing **CP** (16  $\mu\text{M}$ ) in presence of DNA (40  $\mu\text{M}$ ) and **PI** (2  $\mu\text{M}$ ) when emission monitored at 620 nm in phosphate buffer (10 mM, pH 7.4) containing 2 mM NaCl. B) Spectral overlap between normalized (a) absorption spectrum of **PI** and (b) emission spectrum of **CP** in presence of DNA in phosphate buffer (10 mM, pH 7.4) containing 2 mM NaCl. Excitation wavelength, 380 nm.



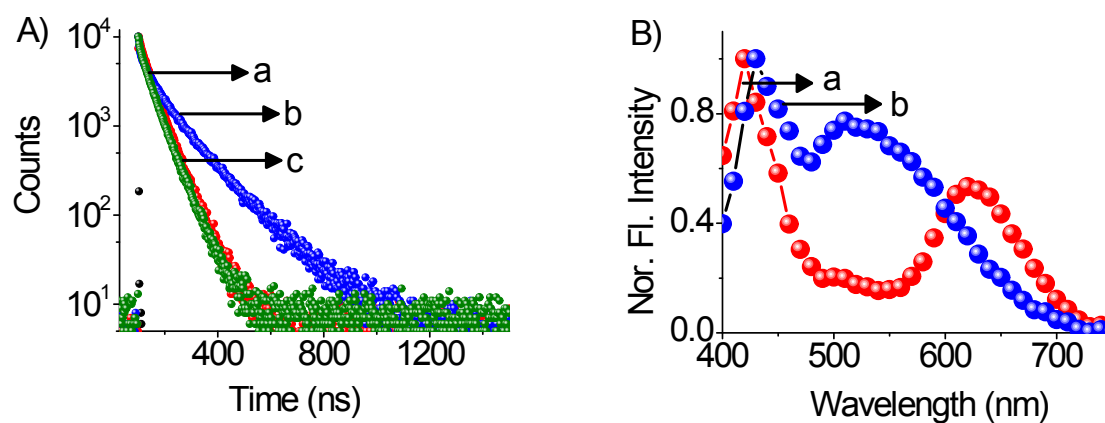
**Fig. S4** Spectral overlap between normalized (a) absorption spectrum of **EHD** and (b) emission spectrum of **CP** in presence of DNA in phosphate buffer (10 mM, pH 7.4) containing 2 mM NaCl. Excitation wavelength, 380 nm.



**Fig. S5** TRES of **CP** in the presence of DNA and **PI** in phosphate buffer (10 mM, 7.4) containing 2 mM NaCl monitored at (a) 2 ns and (b) 60 ns after excitation. [**CP**], 16  $\mu\text{M}$ ; [DNA], 27  $\mu\text{M}$ ; [**PI**], 3.8  $\mu\text{M}$ . Excitation wavelength, 375 nm.



**Fig. S6** TRES of **CP** (16  $\mu\text{M}$ ) in the presence of DNA (27  $\mu\text{M}$ ) and **EHD** (3  $\mu\text{M}$ ) in phosphate buffer (10 mM, 7.4) containing 2 mM NaCl monitored at (a) 2 ns and (b) 50 ns after excitation. Excitation wavelength, 375 nm.



**Fig. S7** A) Fluorescence decay profiles of **CP** (a) alone, (b) in the presence of DNA and (c) in the presence of DNA and **EHD** when monitored at (a) 430 nm, (b) 570 nm and (c) 550 nm in phosphate buffer [**CP**], 16  $\mu\text{M}$ ; [**DNA**], 27  $\mu\text{M}$ ; [**EHD**], 15  $\mu\text{M}$ . Excitation wavelength, 375 nm. B) TRES of **CP** (16  $\mu\text{M}$ ) in the presence of DNA (27  $\mu\text{M}$ ) and **EHD** (15  $\mu\text{M}$ ) in phosphate buffer (10 mM, 7.4) containing 2 mM NaCl monitored at (a) 2 ns and (b) 50 ns after excitation. Excitation wavelength, 375 nm.