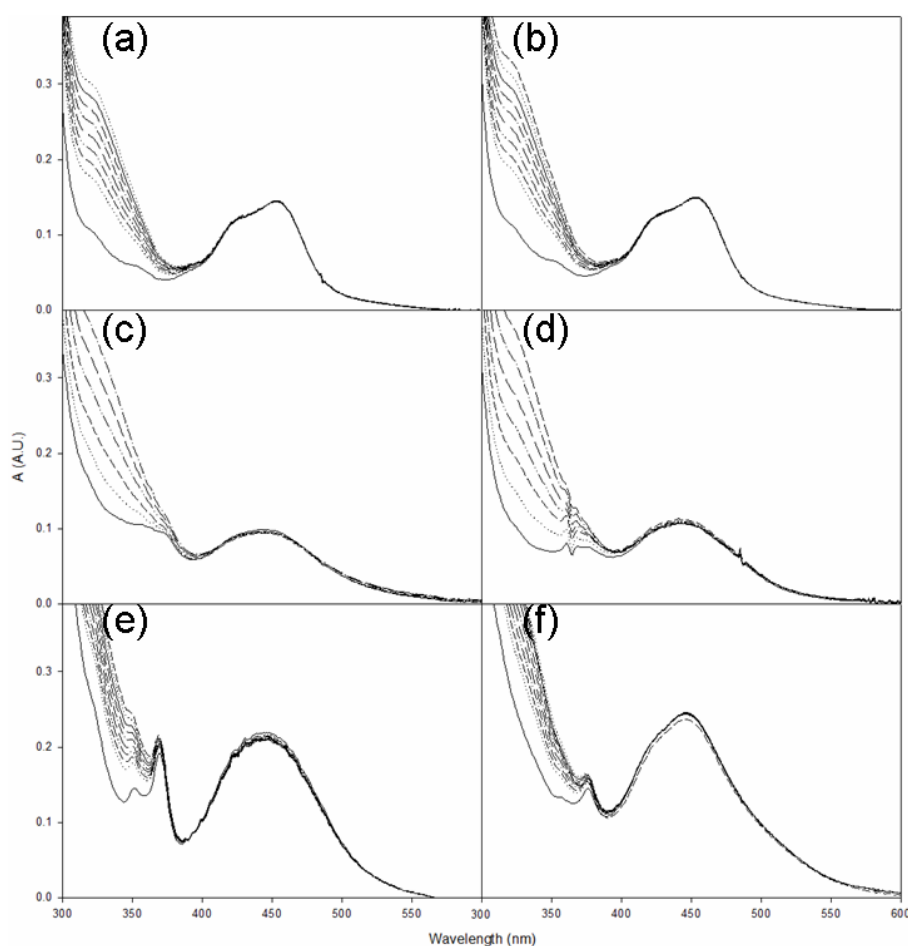


*Supporting Information*

**Lack of Quenching by  $[\text{Fe}(\text{CN})_6]^{4-}$  is Not Proof of DNA Intercalation**

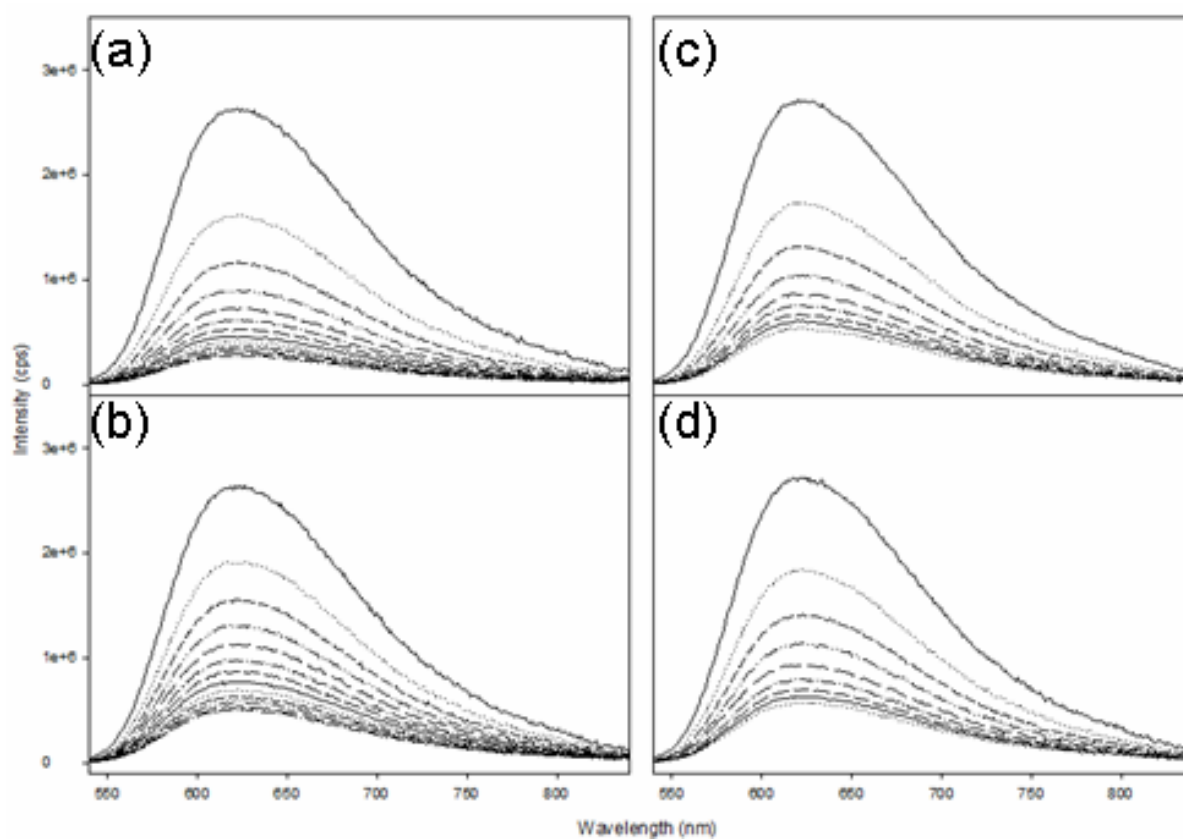
**Scott J. Burya, Daniel A. Lutterman, and Claudia Turro\***

The electronic absorption spectra of **1** – **3** were invariable with to  $[\text{Fe}(\text{CN})_6]^{4-}$  concentration, indicating that pre-association in solution is minimal (Fig. S1), and the luminescence was independent of ferrocynide and ionic strength (Figs. S2 – S4). Figure S5 shows the Stern-Volmer plots for **1** – **3** in the presence of 100  $\mu\text{M}$  DNA upon addition of  $[\text{Fe}(\text{CN})_6]^{4-}$  in 5 mM Tris (pH = 7.5) with 5 mM NaCl.

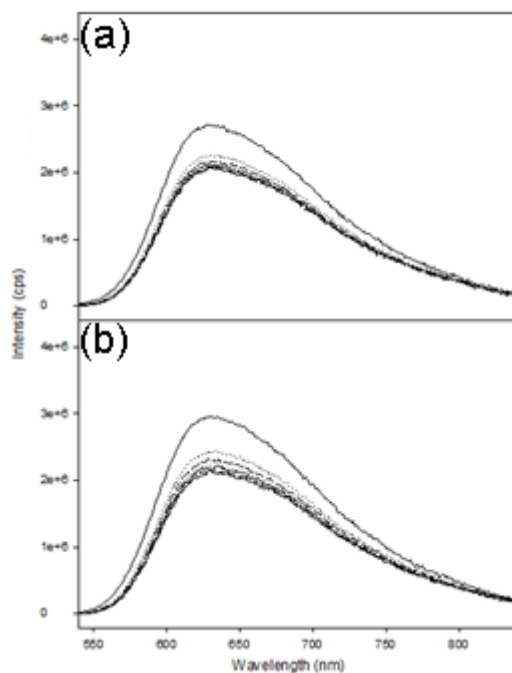


**Figure S1.** Electronic absorption spectra of 10  $\mu\text{M}$  compound **1** (a) in absence and (b) presence of 100  $\mu\text{M}$  DNA, 10  $\mu\text{M}$  compound **2** (c) in absence and (d) presence of 100  $\mu\text{M}$

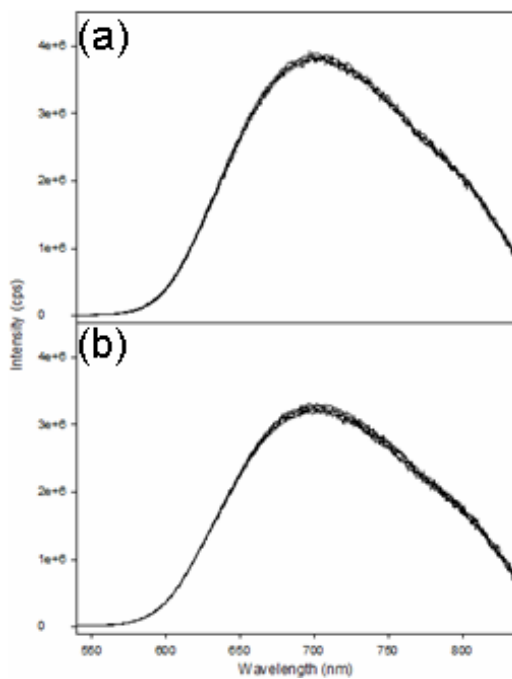
DNA and 10  $\mu\text{M}$  compound **3** (e) in absence and (f) presence of 100  $\mu\text{M}$  DNA at different  $[\text{Fe}(\text{CN})_6]^{4-}$  (0-6 mM) in 50 mM NaCl buffer.



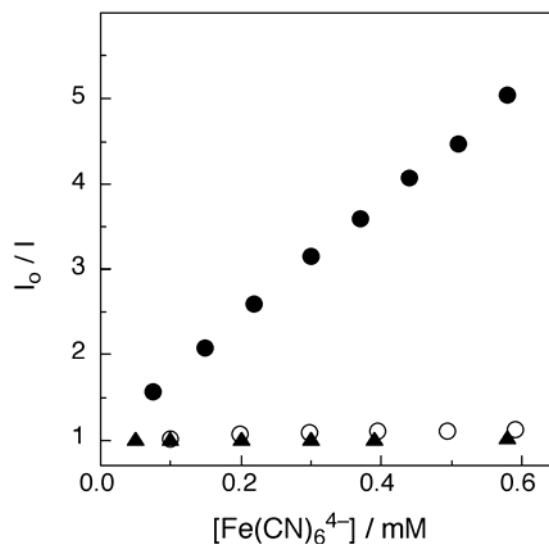
**Fig. S2.** Emission quenching of 10  $\mu\text{M}$  **1** by 0 – 6 mM ferrocyanide in 5 mM Tris buffer (pH = 7.5) in the absence of DNA and (a) 5 mM NaCl and (b) 50 mM NaCl and in the presence of 100  $\mu\text{M}$  DNA in (c) 5 mM NaCl and (d) 50 mM.



**Figure S3.** Emission quenching of 10  $\mu\text{M}$  **2** by 0 – 6 mM ferrocyanide in the presence of 100  $\mu\text{M}$  DNA in 5 mM Tris buffer (pH = 7.5) and (a) 5 mM NaCl and (b) 50 mM NaCl.



**Fig. S4.** Emission quenching of 10  $\mu\text{M}$  **3** by 0 – 6 mM ferrocyanide in the presence of 100  $\mu\text{M}$  DNA in 5 mM Tris buffer (pH = 7.5) and (a) 5 mM NaCl and (b) 50 mM NaCl.



**Fig. S5.** Stern-Volmer plots of 10  $\mu\text{M}$  **1** (closed circles), **2** (open circles), and **3** (closed triangles) in the presence of 100  $\mu\text{M}$  DNA with 5 mM NaCl (5 mM Tris buffer, pH = 7.5).

### Experimental Details

Sodium chloride and Tris (tris(hydroxymethyl) aminomethane) were purchased from Sigma-Aldrich and used as received. Potassium ferrocyanide was purchased from Baker and Adamson and HCl was purchased from Curtin Matheson. Calf-thymus DNA was purchased from Sigma and equilibrium dialysis, with a Sigma cellulose membrane, was performed to remove low molecular weight proteins. Electronic absorption measurements were performed on an HP diode array spectrophotometer with HP 8453 *WinSystem* software. Steady-state emission measurements were performed on a SPEX Fluormax-2 spectrometer with DataMax for Windows software. Lifetime measurements were performed with a home-built instrument excited using the 532 nm output from a pulsed Nd:YAG laser (fwhm  $\sim$  8 ns). Each solution was bubbled for 10 min with  $\text{N}_2$  prior to steady-state or lifetime measurement.