Supplementary Information:

Anion responsive and morphology tunable tripodal gelators

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1. The methodology used for binding constant calculations:

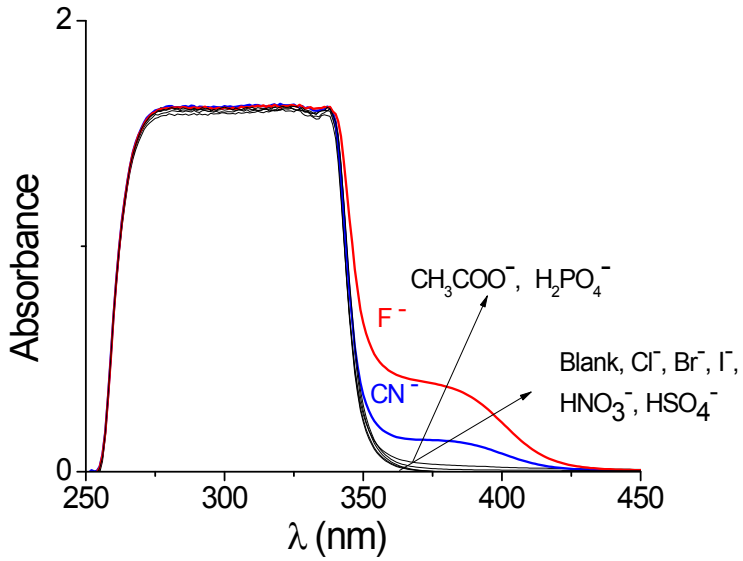
For a 1:1 host:guest complex formation, the plot of F/F_0 vs $[X^-]$ (where X^- is F^-, CN^-, CH_3COO^-, $H_2PO_4^-$) in the following equation (1) should yield a non-linear plot, while the $\{1 / (F/F_0 - 1)\}$ vs $[X^-]$ plot should yield a straight line; where F and F_0 represent integrated fluorescence intensity in presence and absence of added anionic analytes.

$$F/F_0 = 1 + \{(F_\infty/F_0) - 1\}\ \{[X^-]_0\, K / (1 + [X^-]_0\, K)\} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ (1)$$

Where, F_∞/F_0 is the fluorescence enhancement when the entire guest has been included and K is the equilibrium constant for 1:1 complexation.

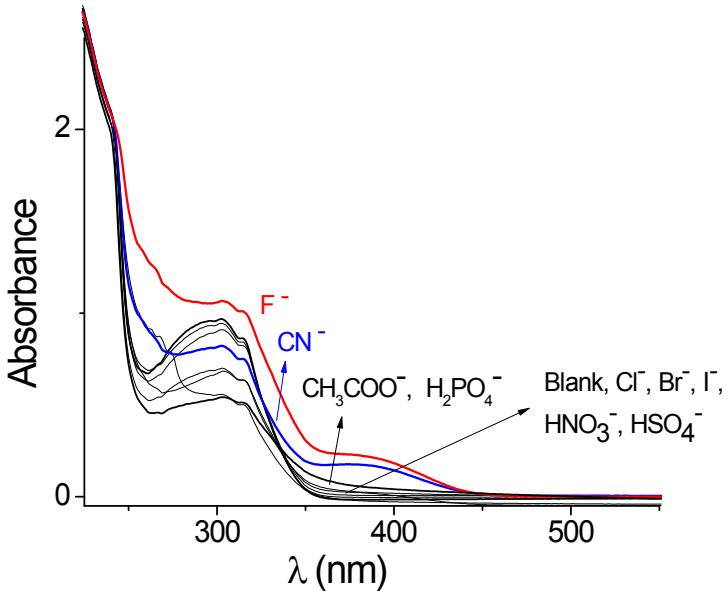
Data obtained from the fluorescence titration did not fit to either of the two models mentioned and thus nullifies the possibility of 1:1 binding stoichiometry.

2.



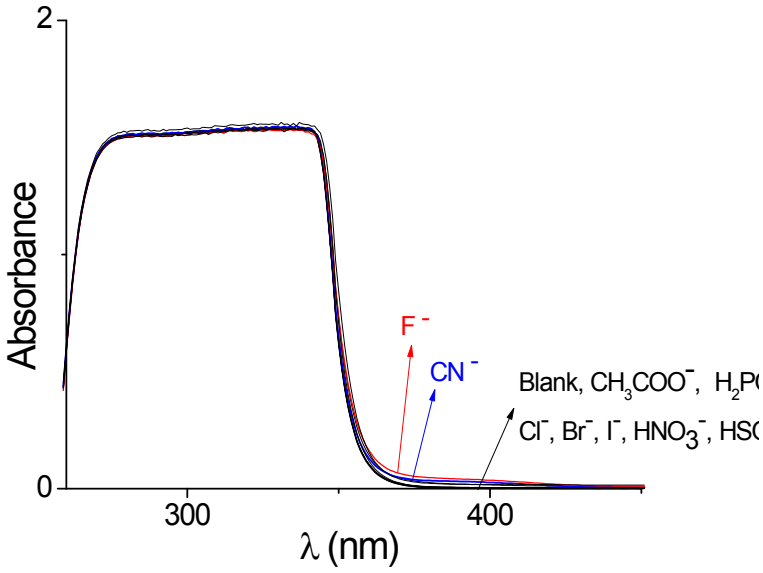
SI Figure 1: Absorption spectra of **1** with different anions

3.



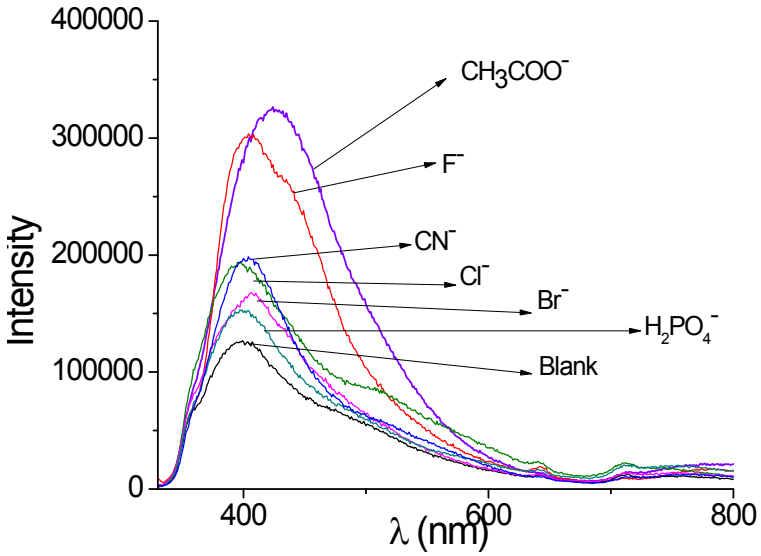
SI Figure 2: Absorption spectra of **2** with different anions

4.



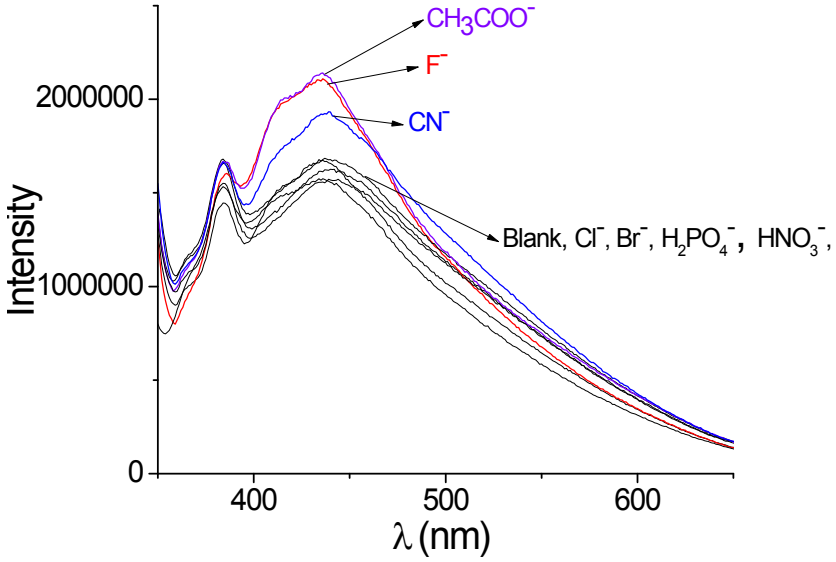
SI Figure 3: Absorption spectra of **3** with different anions

5.



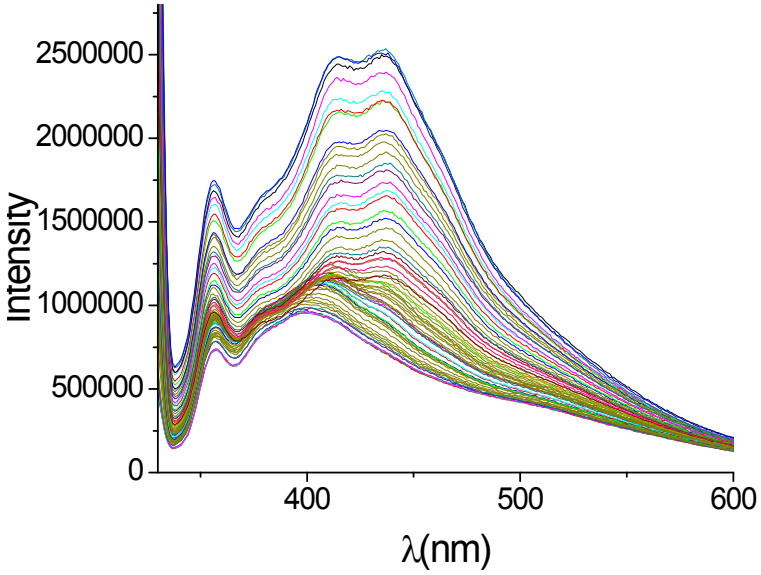
SI Figure 4: Emission spectra of **2** with different anions. Excitation wavelength: 274 nm.

6.



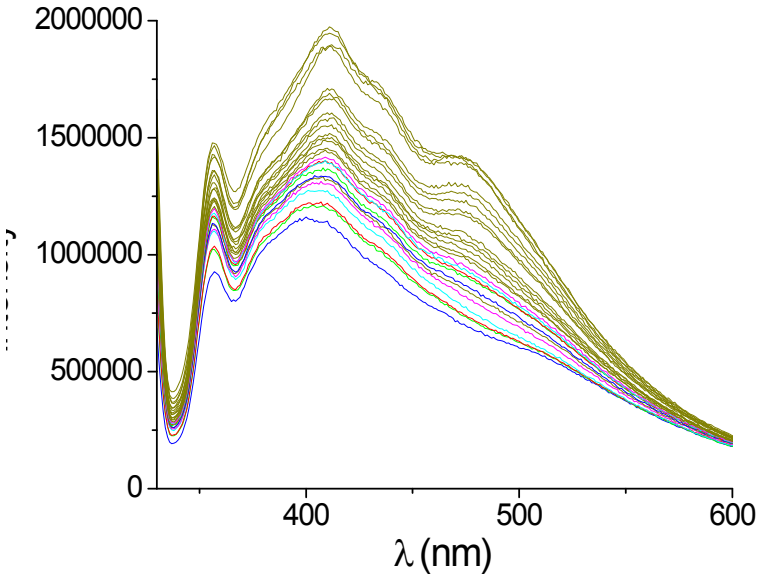
SI Figure 5: Emission spectra of **3** with different anions. Excitation wavelength: 274 nm.

7.



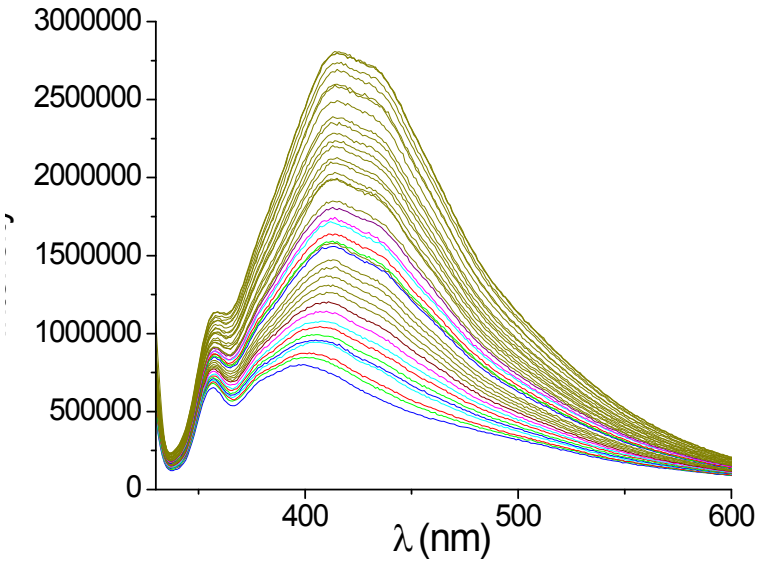
SI Figure 6: Emission titration of receptor **2** (2.5×10^{-5} M) in DMSO solution with F^- (0 – 11×10^{-4} M) excitation wavelength: 274 nm.

8.



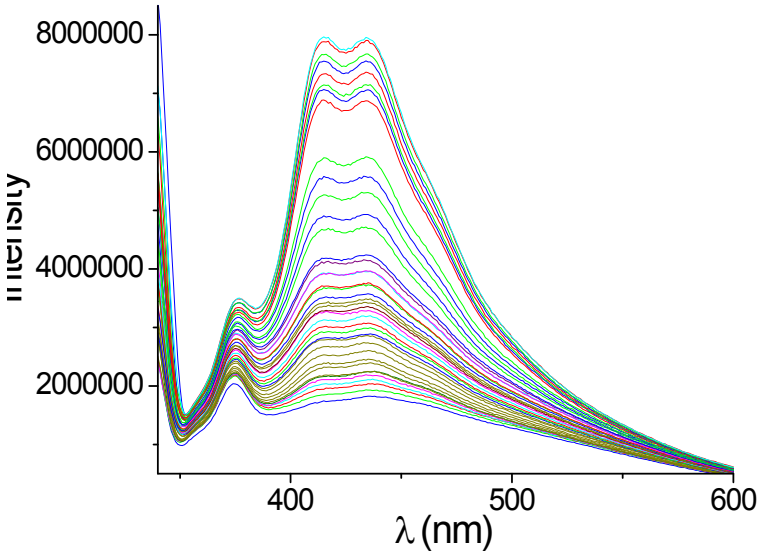
SI Figure 7: Emission titration of receptor **2** (2.5 x 10^{-5} M) in DMSO solution CN^- (0 – 12.5 x 10^{-5} M); excitation wavelength: 274 nm.

9.



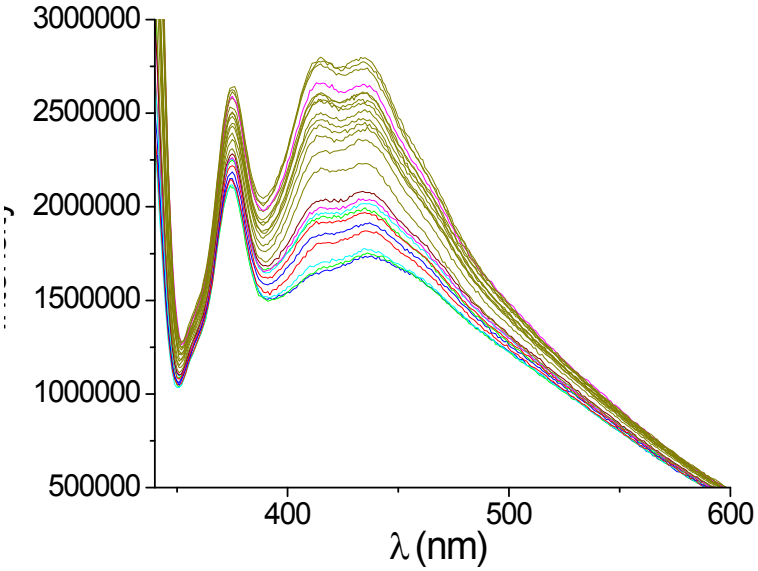
SI Figure 8: Emission titration of receptor **2** (2.5 x 10^{-5} M) in DMSO solution with CH_3COO^- (0 – 10.5 x 10^{-5} M); excitation wavelength: 274 nm.

10.



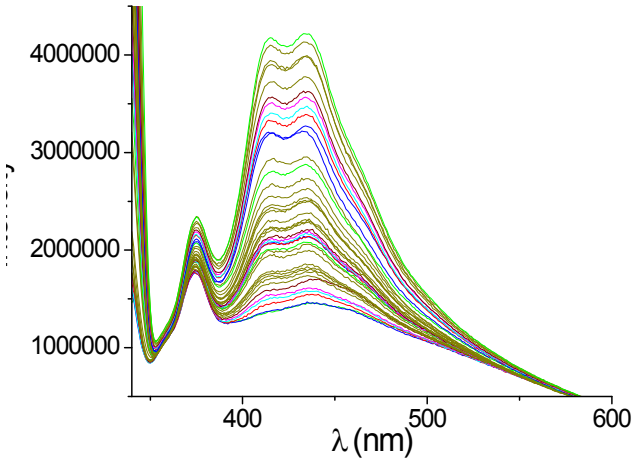
SI Figure 9: Emission titration of receptor **3** (2.5 x 10^{-5} M) in DMSO solution with CH_3COO^- (0 – 11.0 x 10^{-5} M); excitation wavelength: 274 nm.

11.



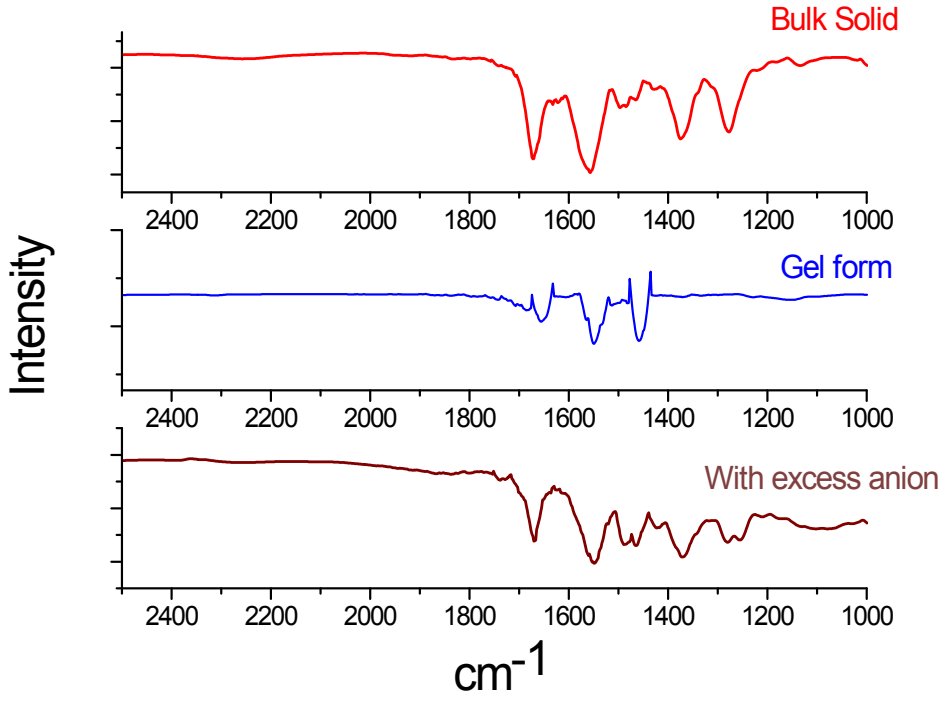
SI Figure 10: Emission titration of receptor **3** (2.5 x 10^{-5} M) in DMSO solution CN^- (0 – 12.8 x 10^{-5} M); excitation wavelength: 274 nm.

12.



SI Figure 11: Emission titration of receptor **3** (2.5 x 10^{-5} M) in DMSO solution with F^- (0 – 10.8 x 10^{-4} M) excitation wavelength: 274 nm.

13.



SI Figure 12: Comparison of FT-IR spectra in bulk solid form, self assembled gel form (in DMSO/water (8:2, v/v)) and with excess fluoride anion.