Electronic Supplementary Material (ESI) for Soft Matter.

Supporting Information

Construction of a hydroxide responsive C_3-symmetric supramolecular gel for controlled release of small molecules

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1. Additional data

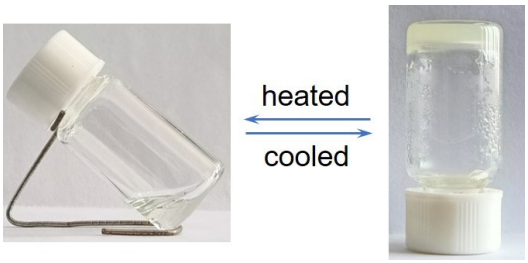


Figure S1. Thermal reversibility of the gel.

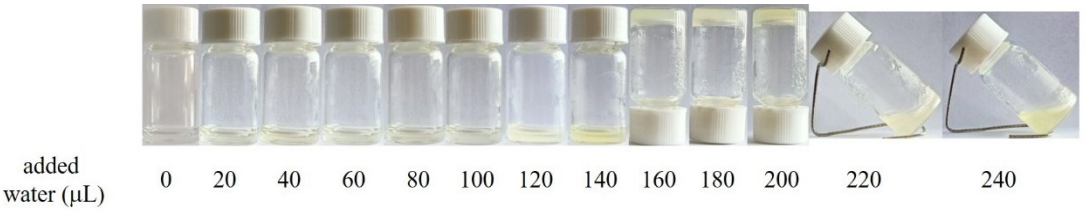


Figure S2. Phase transition diagram at different DMSO and water ratios (fixed volume of DMSO at 180 μL).

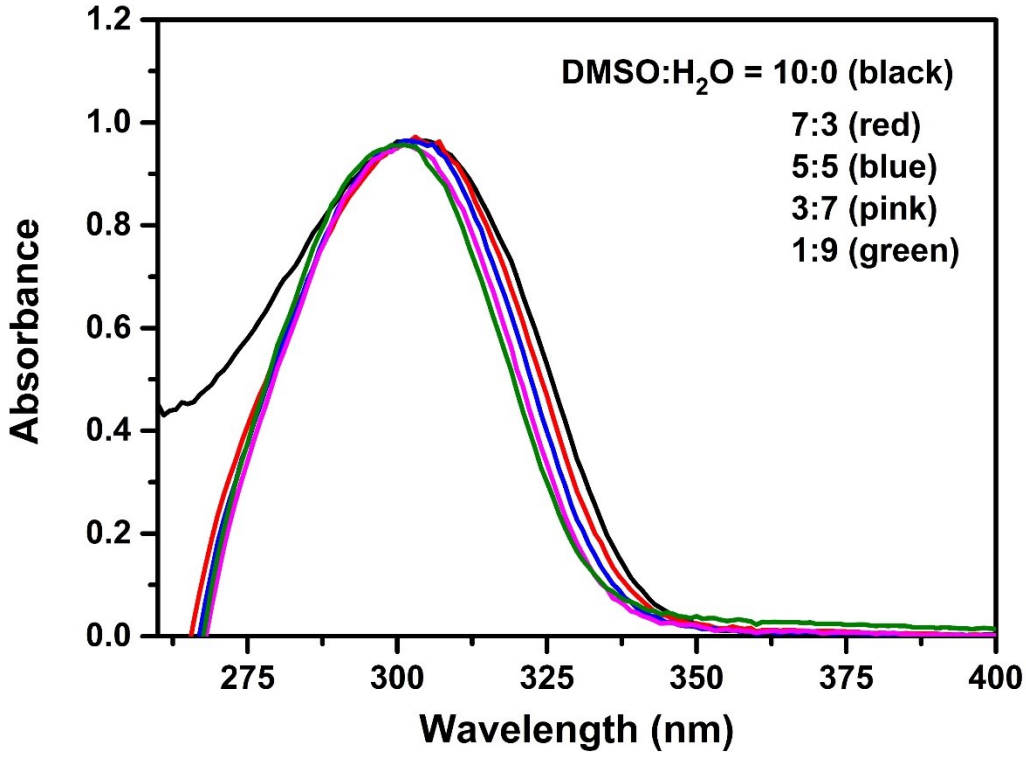


Figure S3. UV-Vis spectra of in DMSO solution (2×10^{-5} M) with addition of increasing amounts of H_2O at room temperature.

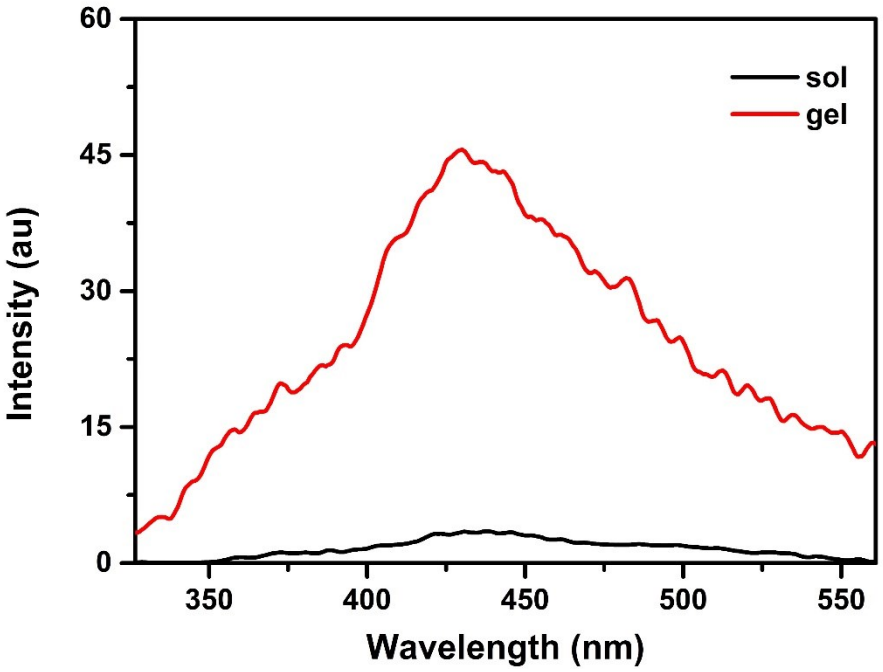


Figure S4. Fluorescence spectra of **BHTP** in dilute solution and the gel formed in DMSO-H_2O (v:v=1:1). The excitation wavelength was λ_{ex} = 302 nm and slit width was 10 nm/15 nm.

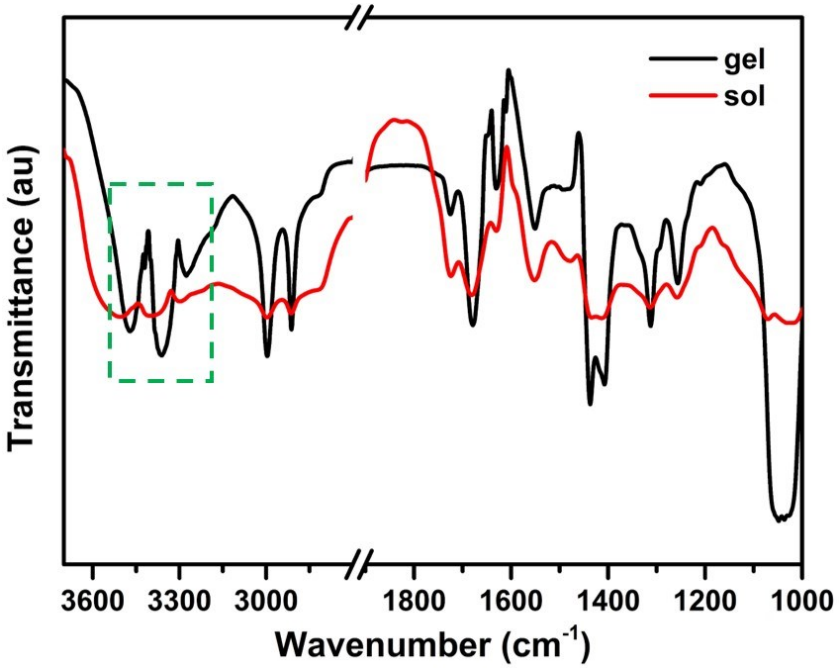


Figure S5. FT-IR spectra of **BHTP** in DMSO solution and in gel state.

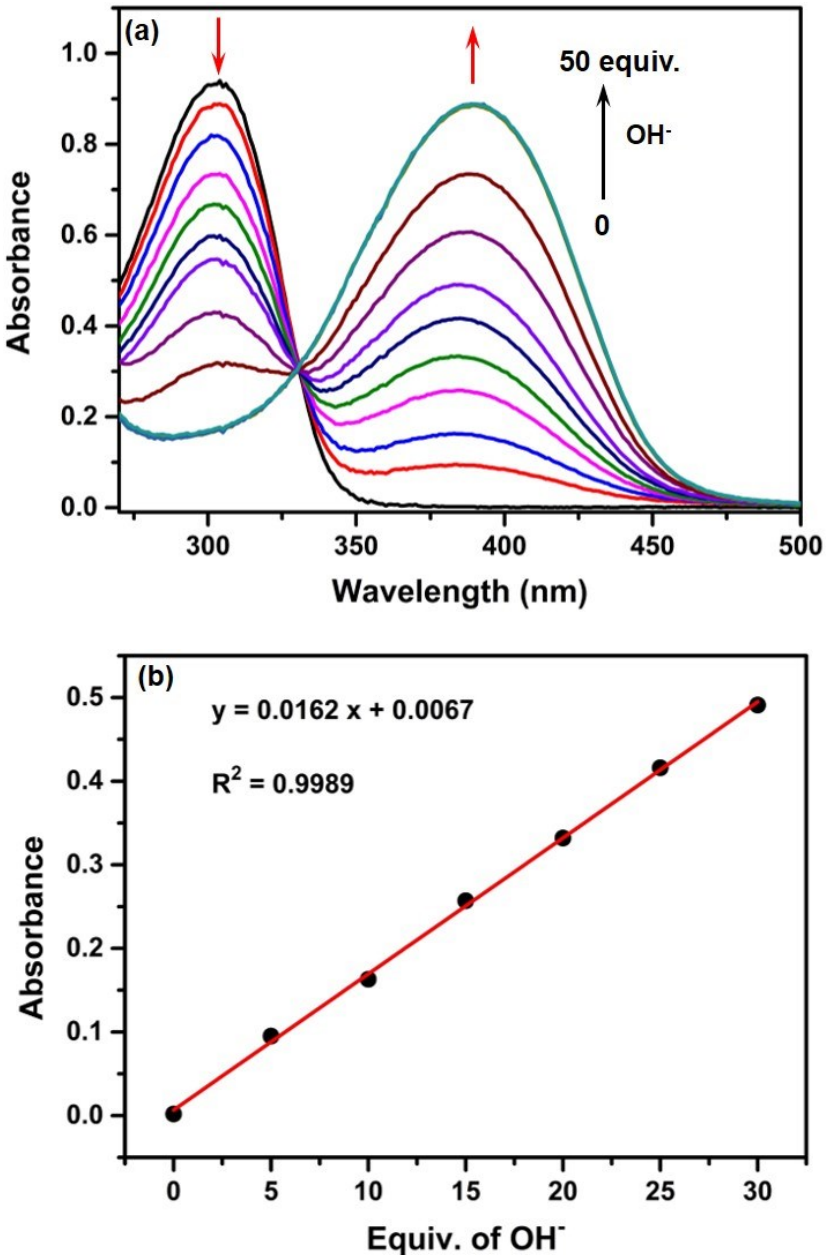


Figure S6. UV-Vis spectral changes of **BHTP** (2×10^{-5} M) added with different concentrations of OH^- in DMSO, (b) The absorbance of **BHTP** at 390 nm versus the equivalents of OH^-.

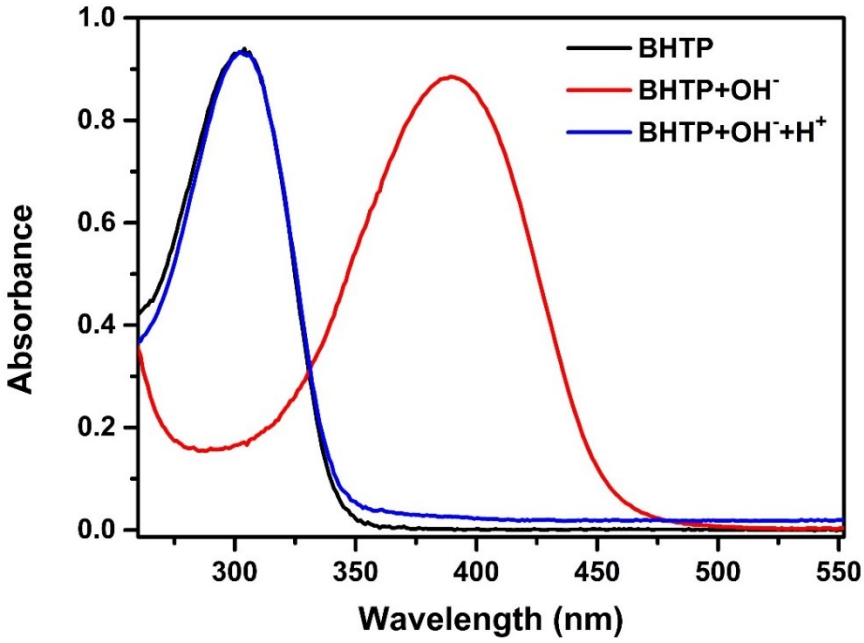


Figure S7. Reversible change in UV-Vis absorption spectrum of **BHTP** (2×10^{-5} M) towards OH^- by adding H^+ in DMSO.

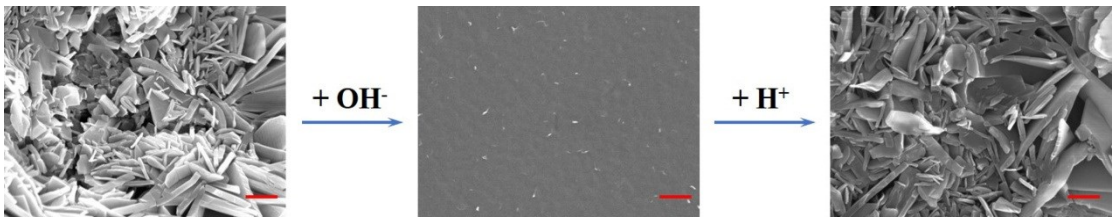


Figure S8. FE-SEM images of the gel or sol state after the addition of OH^- and H^+. The scale bar was 1 μm.

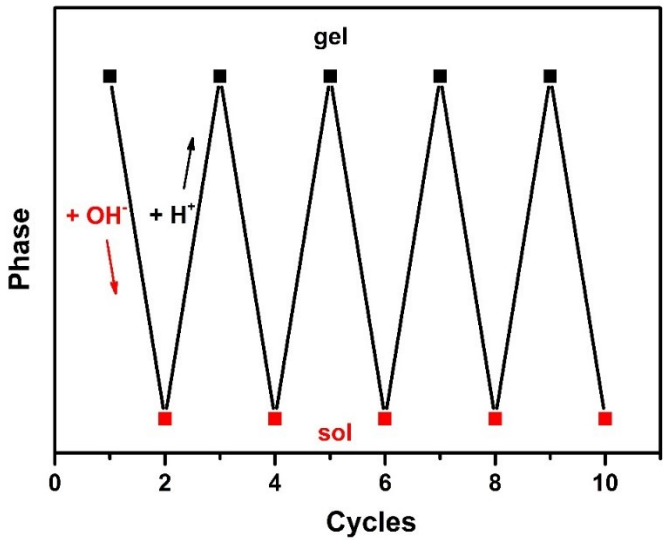


Figure S9. Reversible transition of phase state when OH^- and H^+ were added to the gel system.

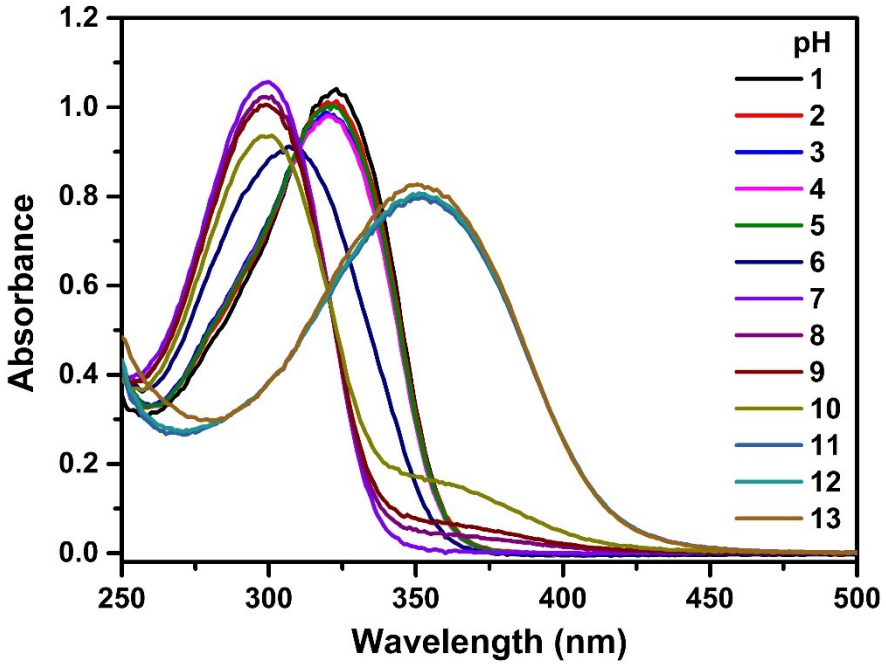


Figure S10. The UV-Vis absorption spectrum of **BHTP** (2×10^{-5} M) at different pH value in DMSO-H_2O (v:v=1:1).

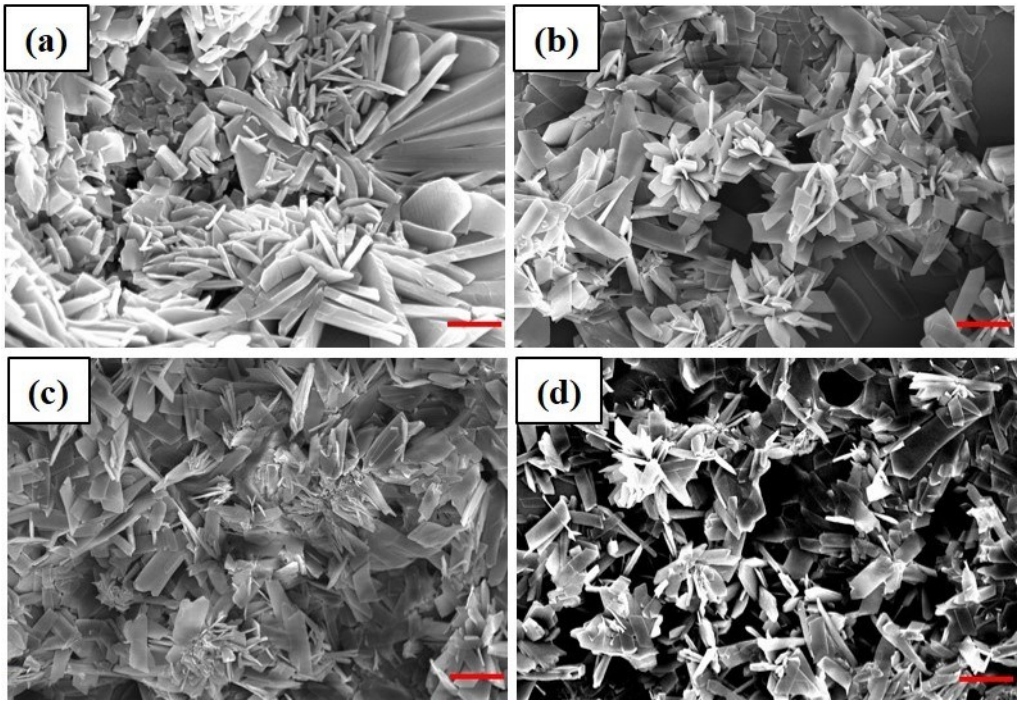


Figure S11. The FE-SEM images of the native gel (a) and binary gel containing crystal violet (b), rhodamine B (c) and methyl orange (d), respectively. The scale bar was 1 μm.

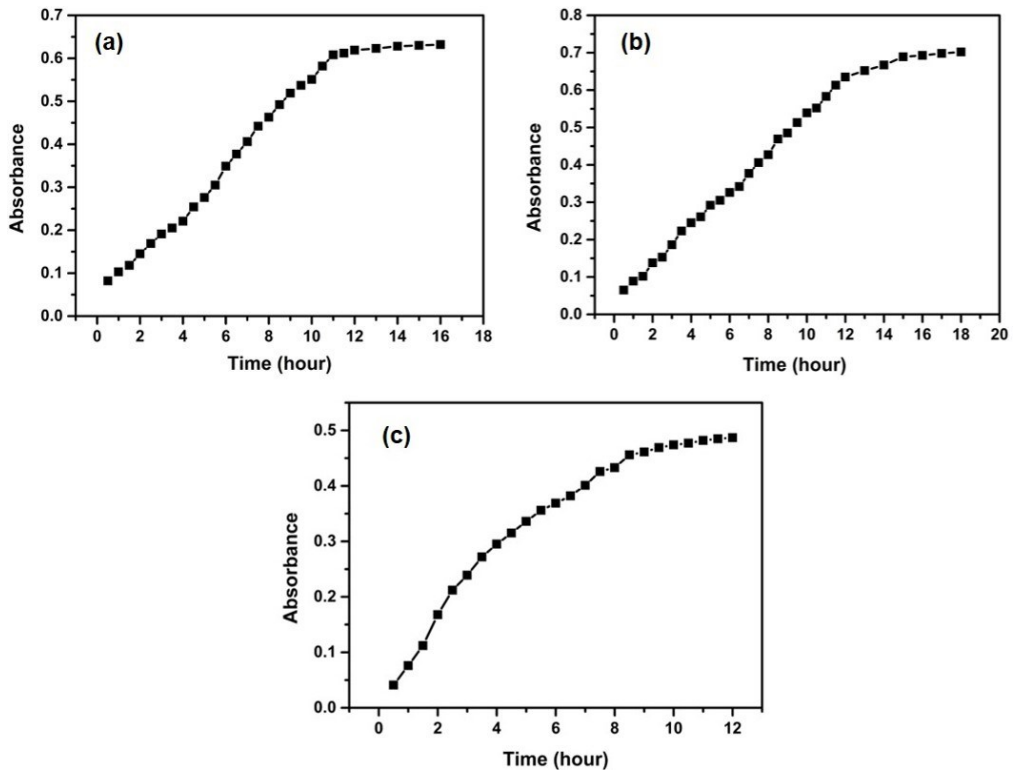
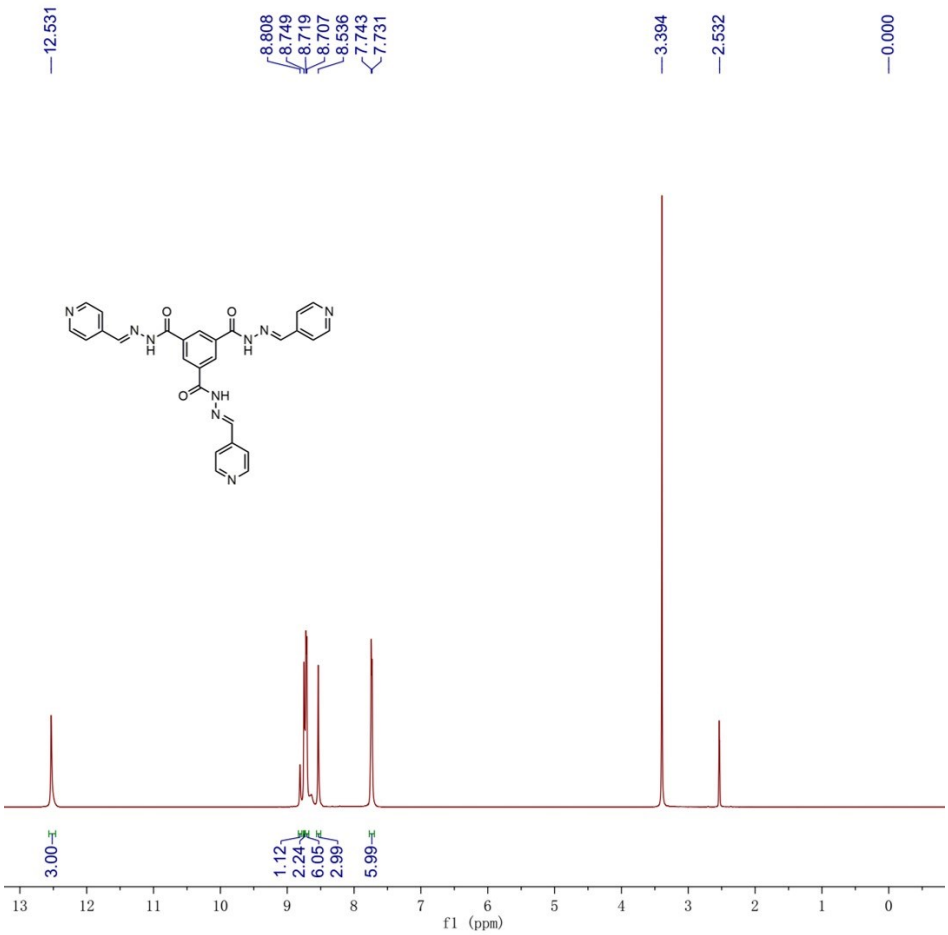
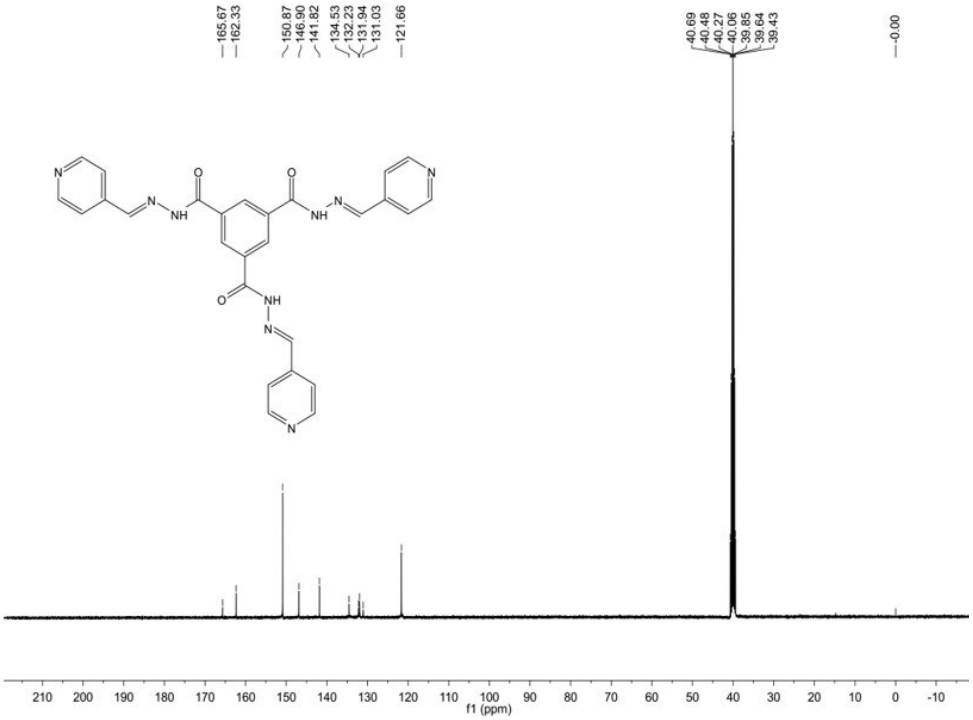


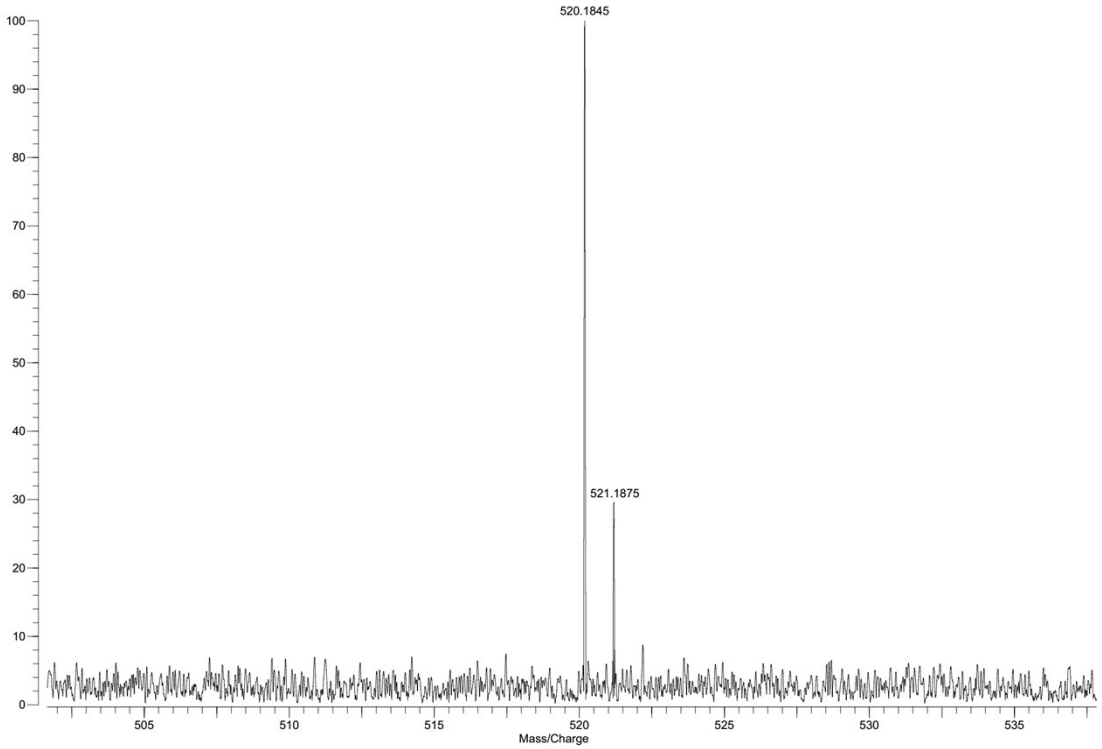
Figure S12. Plots of absorbance of (a) crystal violet at 589 nm, (b) rhodamine B at 552 nm and (c) methyl orange at 464 nm in buffer solution versus time.

Figure S13. Photograph depicting the entrapment of rhodamine B, crystal violet, methyl orange and aspirin, respectively, in the **BHTP** gel (10 mg/mL).

2. Structural characterization



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