Supplementary documents

A fluorescent colorimetric *azo* dye based chemosensor for detection of S²⁻ in perfect aqueous solution and its applications in real sample analysis and molecular logic gate

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Fig. S1 ESI-MS spectra of L.



Fig. S2 FTIR spectra of L.







Fig. S5 UV–Vis spectral studies of L after addition of OH⁻, K_2S and $(NH_4)_2S$.



Fig. S6 Absorbance spectra of L in different solvents.



Fig. S7 Absorbance spectra of $L+S^{2-}$ in different solvents.



Fig. S8 Fluorescence titration of L with S²⁻ in DMSO-H₂O (1:1, v/v).



Fig. S9 Detection limit of L in DMSO-H₂O mixture (1:1, v/v) by fluorescence titration



Fig. S10 UV-titration of L in DMSO-H₂O mixture (1:1, v/v).



Fig. S11 Detection limit of L in DMSO-H₂O mixture (1:1, v/v) by UV-Vis titration



Fig. S12 Job plot for the binding of L with S^{2-} .







Fig. S14 Time evolution of L and L-S²⁻ adduct.