

SUPPORTING INFORMATION

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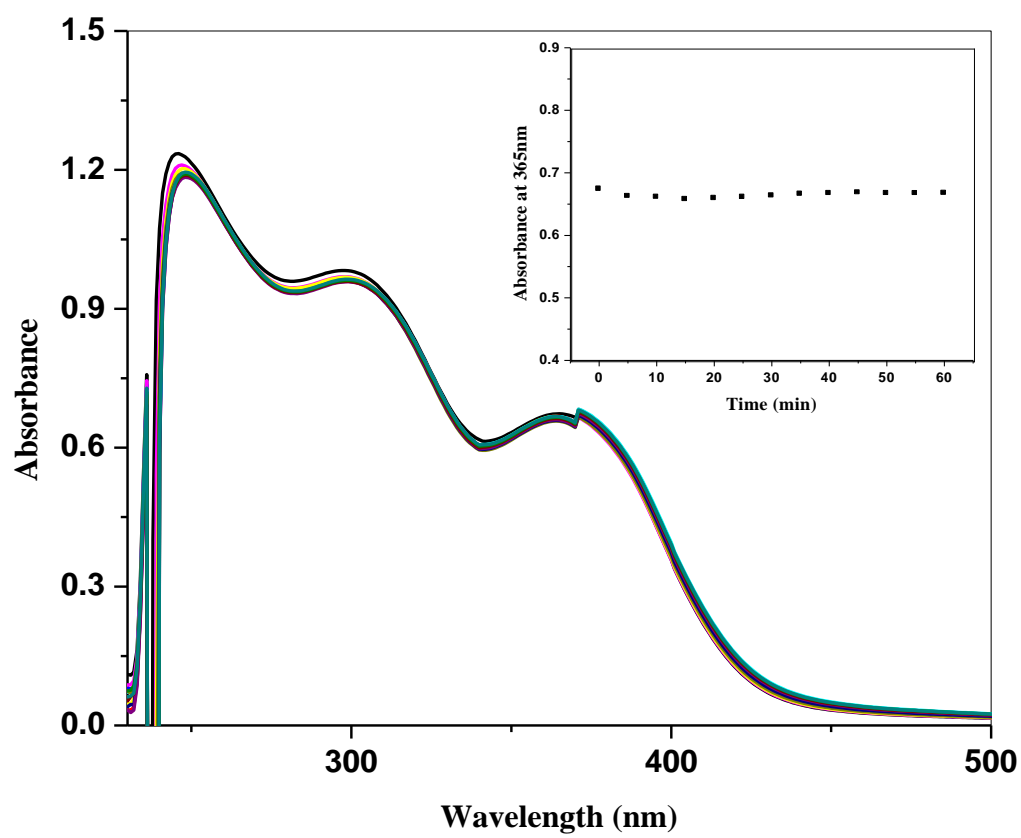


Fig. S1 Stability of **R** at pH 4 for every 5 min interval over a period of 1 h

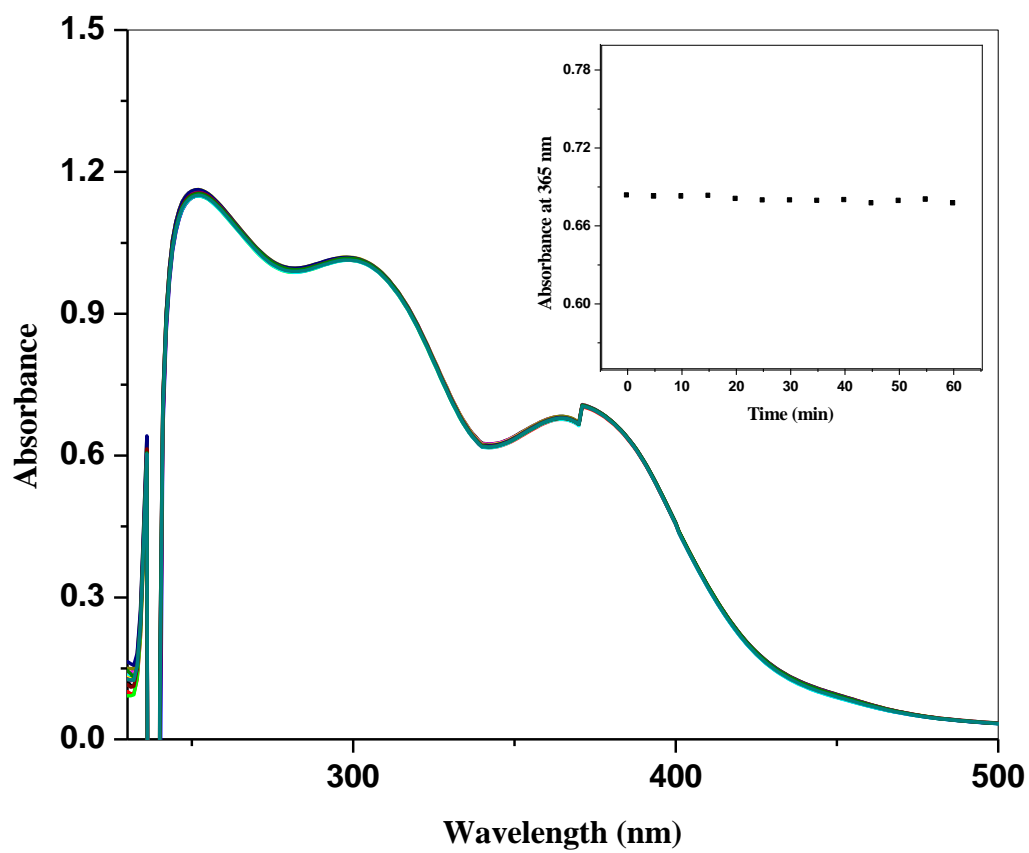


Fig. S2 Stability of **R** at pH 8 for every 5 min interval over a period of 1 h

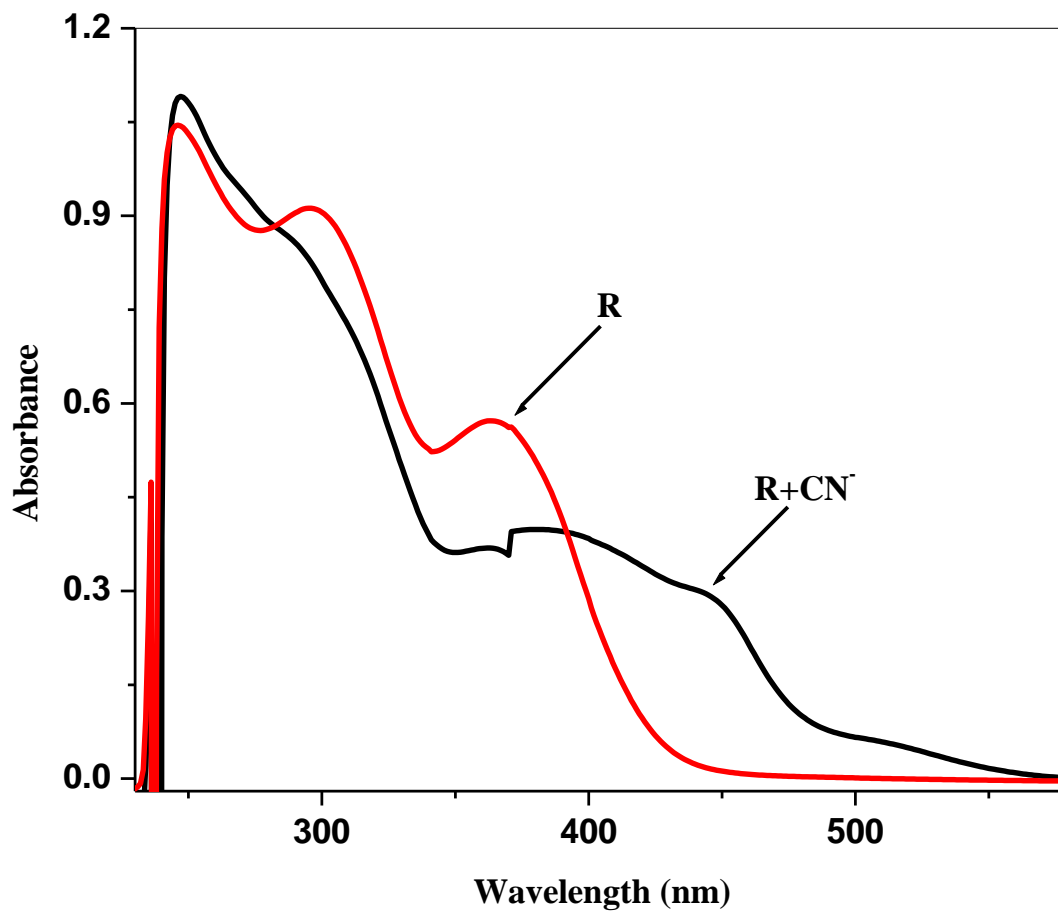


Fig. S3 Absorbance spectra of **R** (60 μM) with the addition of cyanide (600 μM) in H_2O : DMSO (8:2 v/v) medium

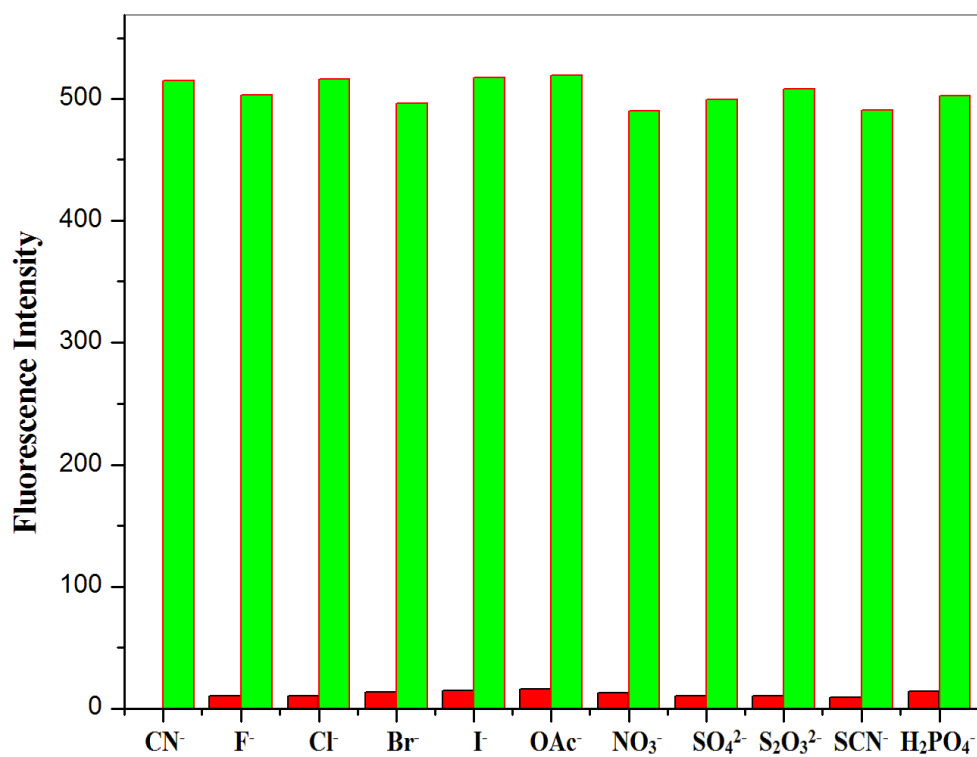


Fig. S4 Fluorescence intensity changes of **R** (60 μ M) upon addition of CN⁻ and various anions. Red bar indicates the fluorescence intensity changes of **R** with competitive anions; green bar indicates the fluorescence intensity changes of **R** and CN⁻ in the presence of competitive anions

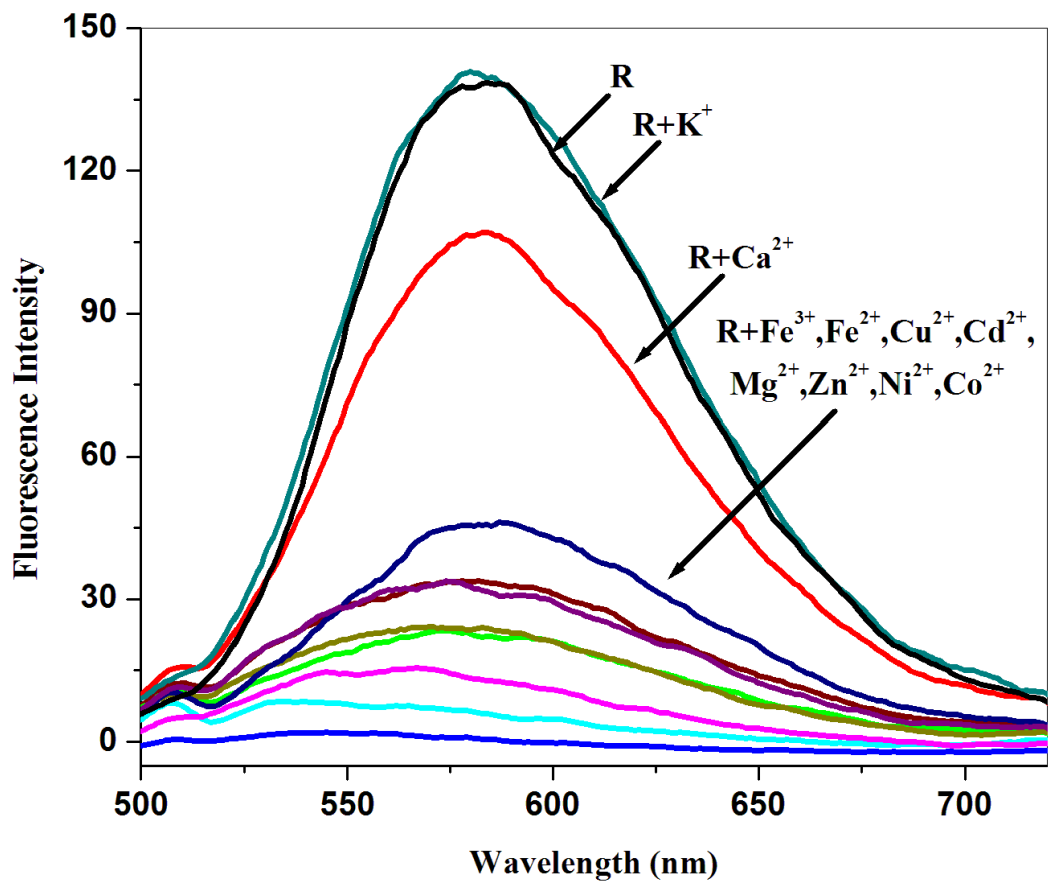


Fig. S5 Fluorescence spectral changes of **R** upon addition of one equivalent of various cations in DMSO-H₂O (20:80% v/v) medium

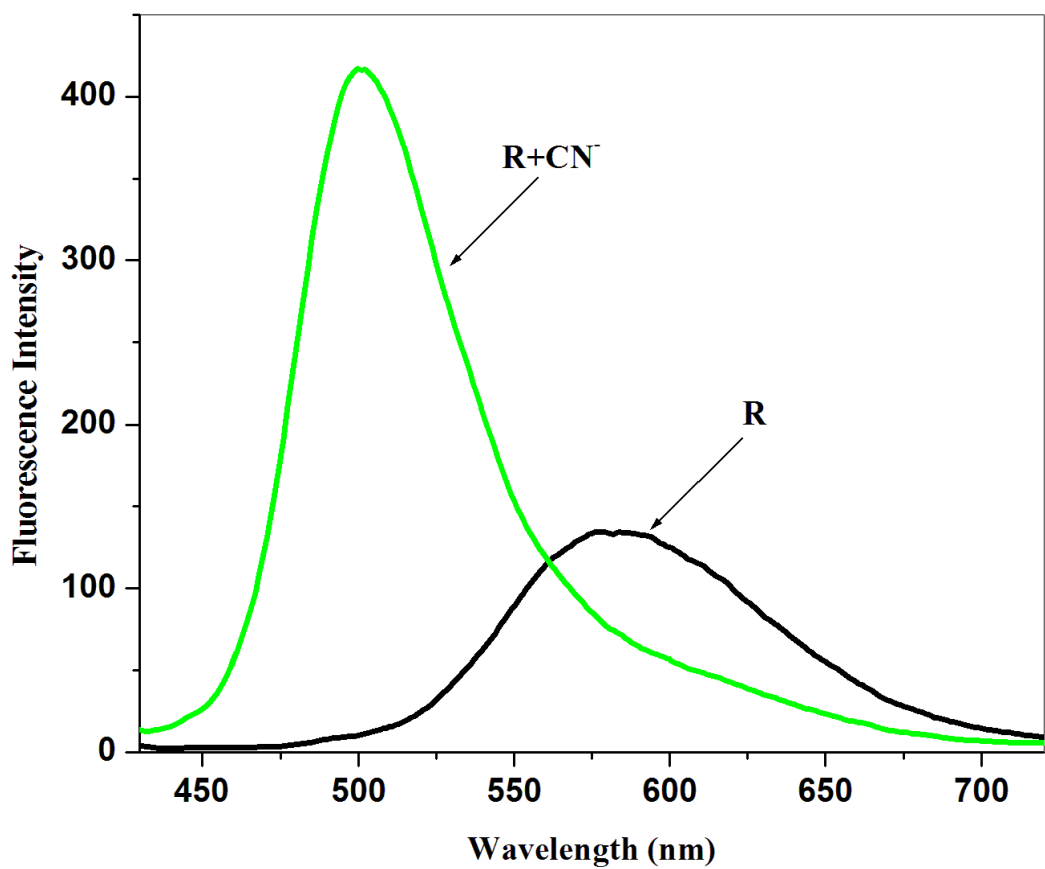


Fig. S6 Fluorescence spectral changes of **R** upon addition of cyanide ion in DMSO-tap water (20:80% v/v) medium

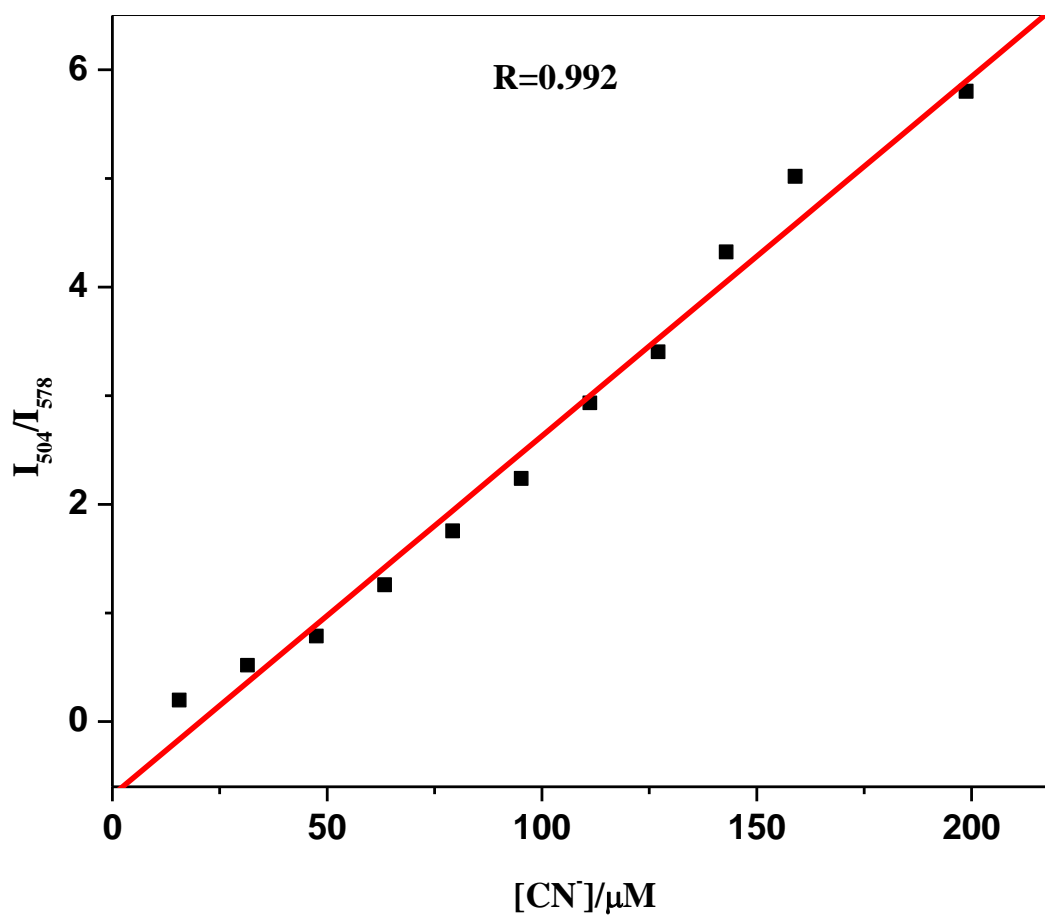


Fig. S7 Emission intensity ratio between 504 and 578 nm (I_{504}/I_{578}) vs. $[CN^-]$ ions of **R** at 60 μM .

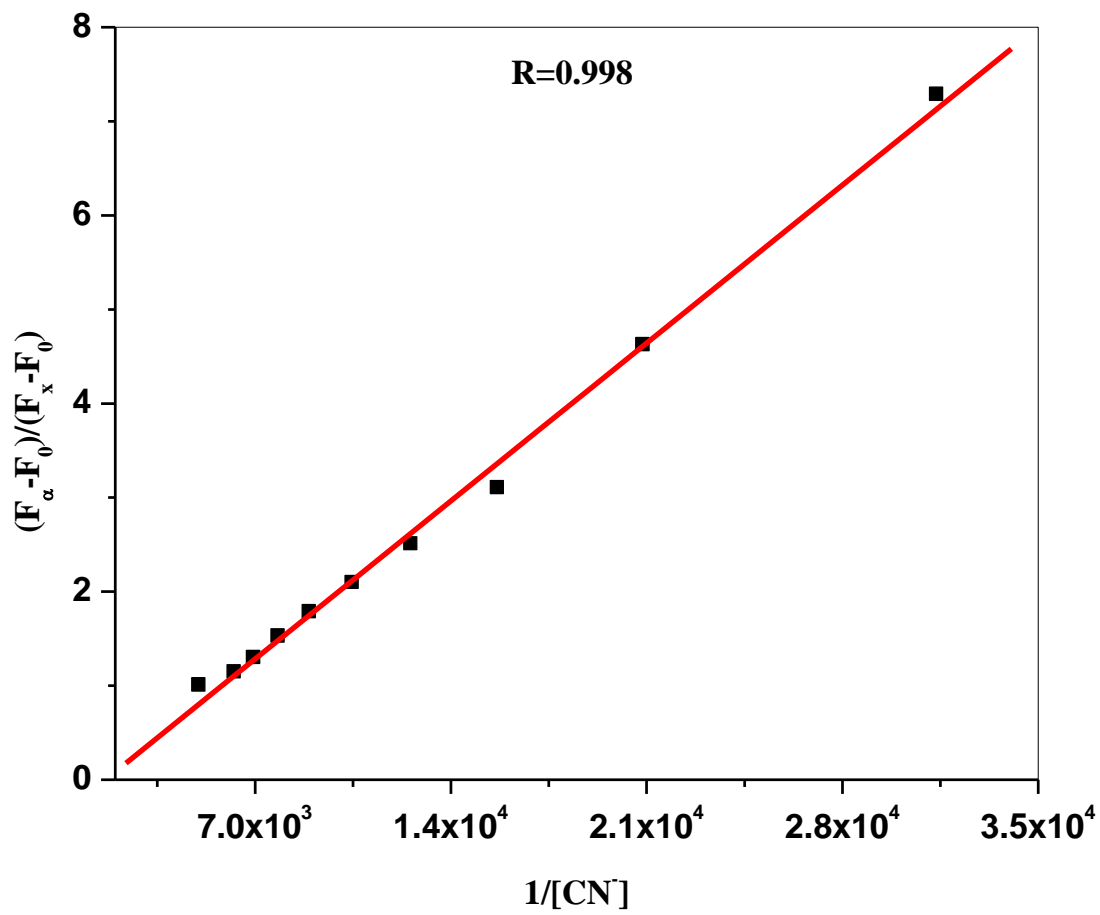


Fig. S8 Benesi-Hildebrand plot of **R** with CN^- ion

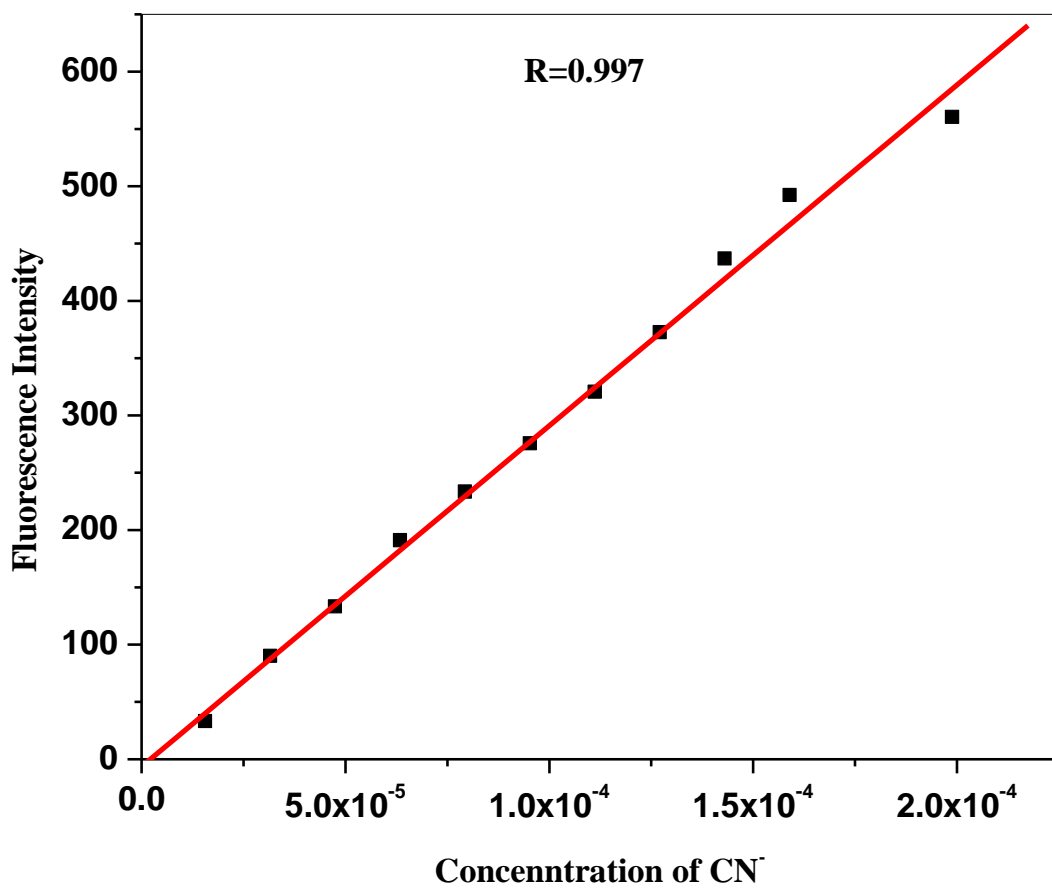


Fig. S9 Detection limit plot of **R** with CN⁻ ion

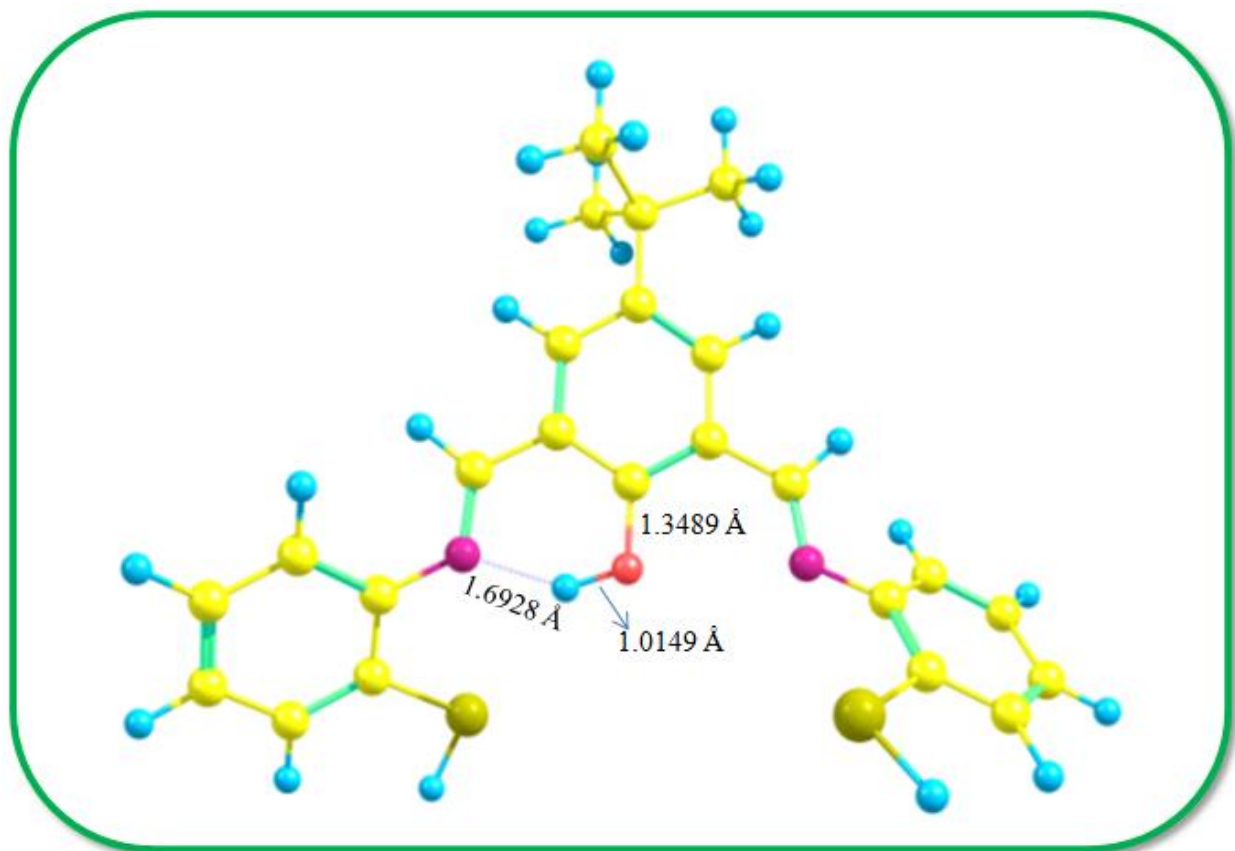


Fig. S10 Optimized structure of receptor **R**

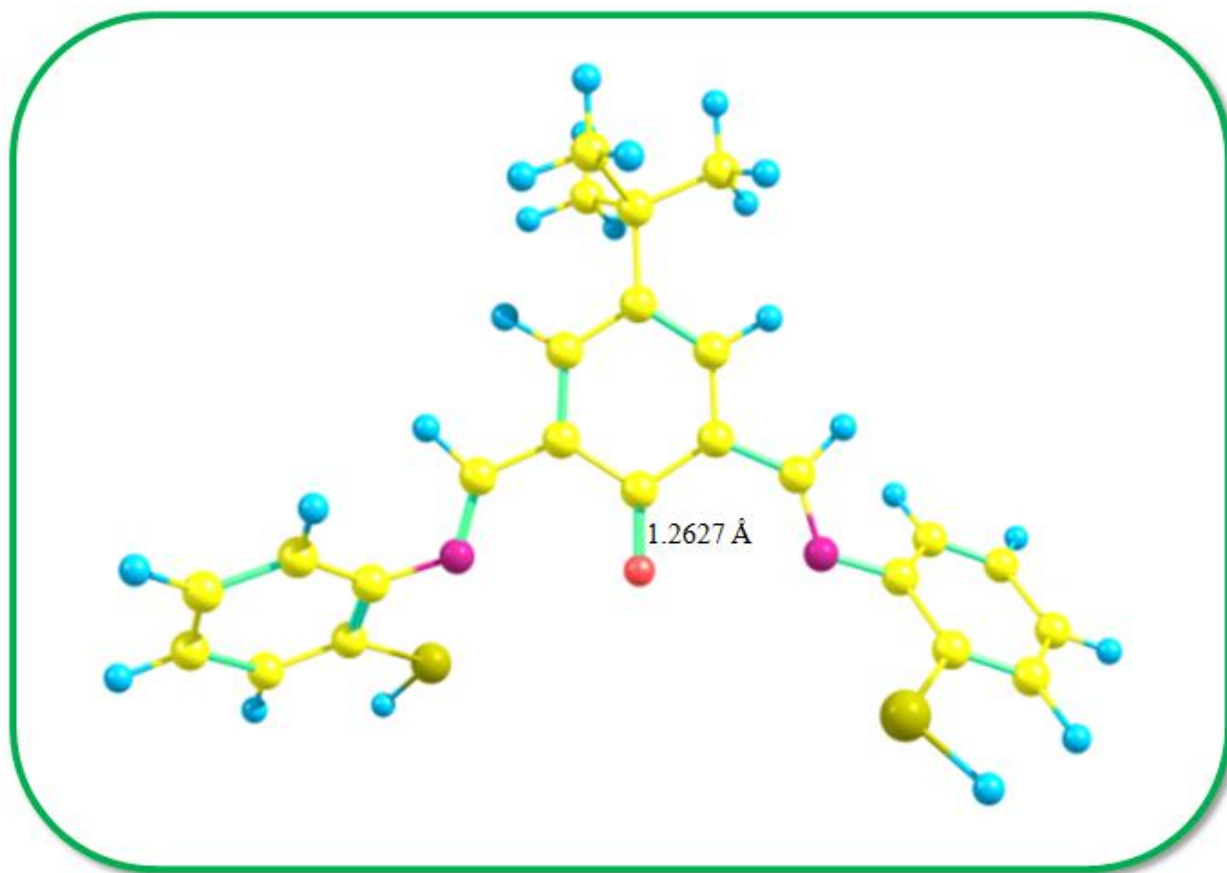


Fig. S11 Optimized structure of $\mathbf{R}+\mathbf{CN}^-$ complex

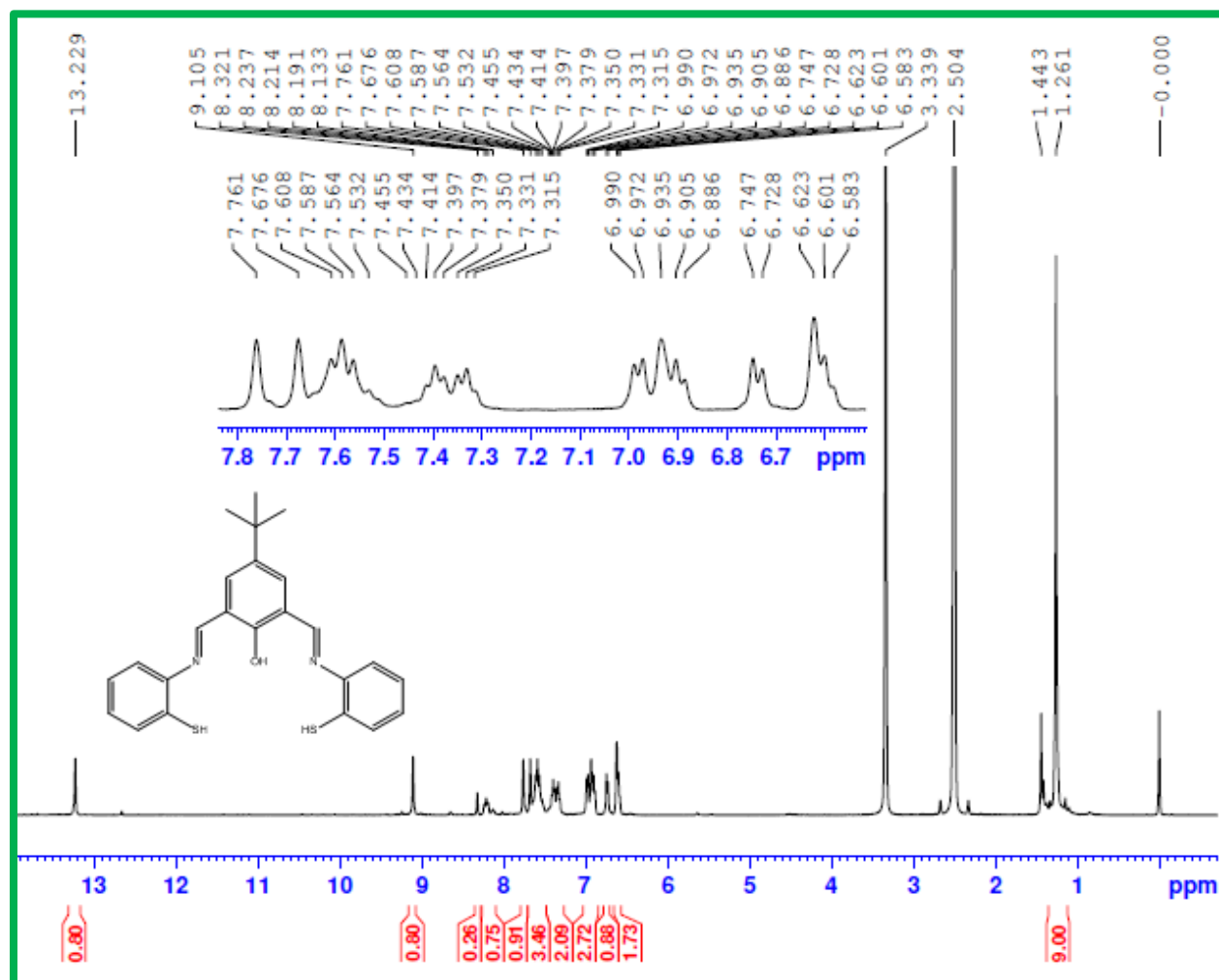


Fig. S12 ¹H NMR spectrum of **R**

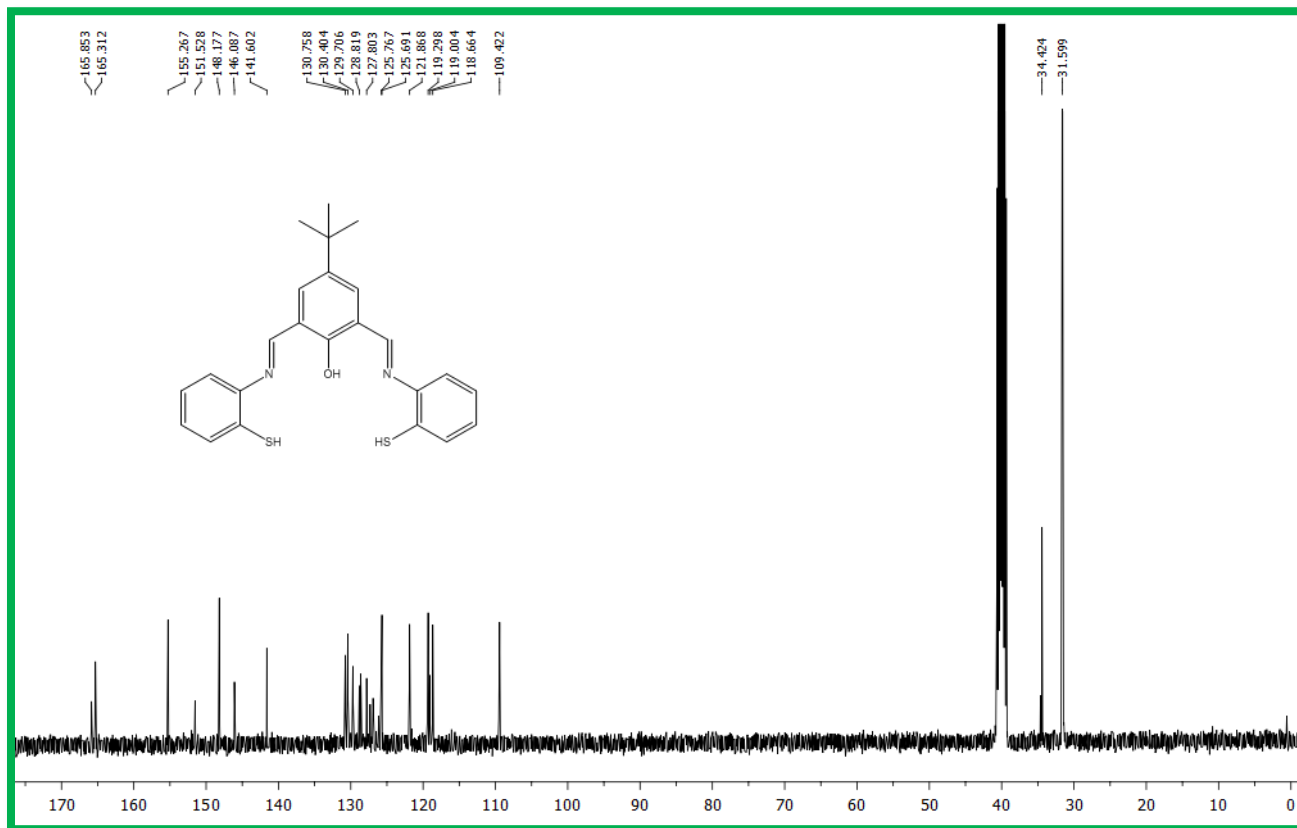


Fig. S13 ^{13}C NMR spectrum of **R**

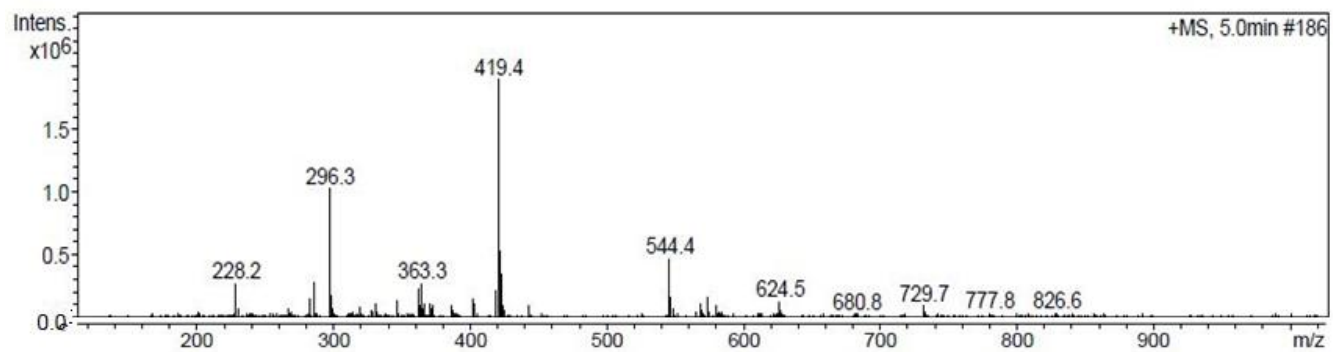


Fig. S14 LCMS Spectra of **R**