

Supporting information

Contents.

1. HR-MS spectra of the probe, fig. S1, page S1.
2. ^1H -NMR spectra of the probe in DMSO- d_6 , fig. S2 and S3, page S1.
3. ^{13}C -NMR spectra of the probe in DMSO- d_6 , fig. S3, page S2.
4. Absorption spectra of the probe with different anions in DMSO- d_6 , fig. S4, page S2.
5. Interference study of the probe for cyanide sensing in presence of other anions, fig. S5, page S3.
6. Absorbance spectra of the probe with CN^- in 100% aqueous solution, fig. S6, page S3.
7. Absorbance spectra of the probe with CN^- in (8:2) H_2O :DMSO, fig. S7, page S3.
8. Detection limit and binding constant plot of the probe with CN^- in (8:2) H_2O :DMSO, fig. S8 (a and b respectively), page S4.
9. Absorbance spectra of the probe with NH_3 in (8:2) H_2O :DMSO, fig. S9, page S4.
10. ^1H -NMR spectral changes of the probe in presence of NH_3 in DMSO- d_6 , fig. S10, page S4.
11. HR-MS spectra of the probe after addition of CN^- , fig. S11, page S5.
12. HR-MS spectra of the probe after addition of NH_3 , fig. S12, page S5.
13. Solid state absorption spectra of the Probe@starch-PVA matrix with CN^- Solution, fig. S13, page S6.

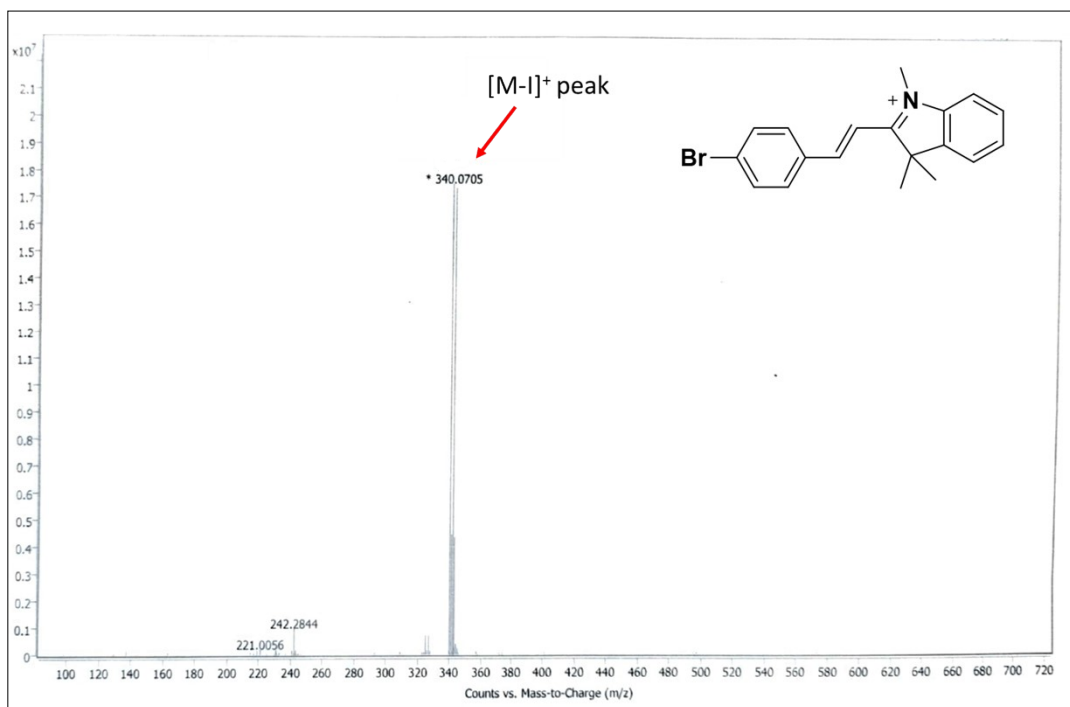


Figure S1: HR-MS spectra of probe 1.

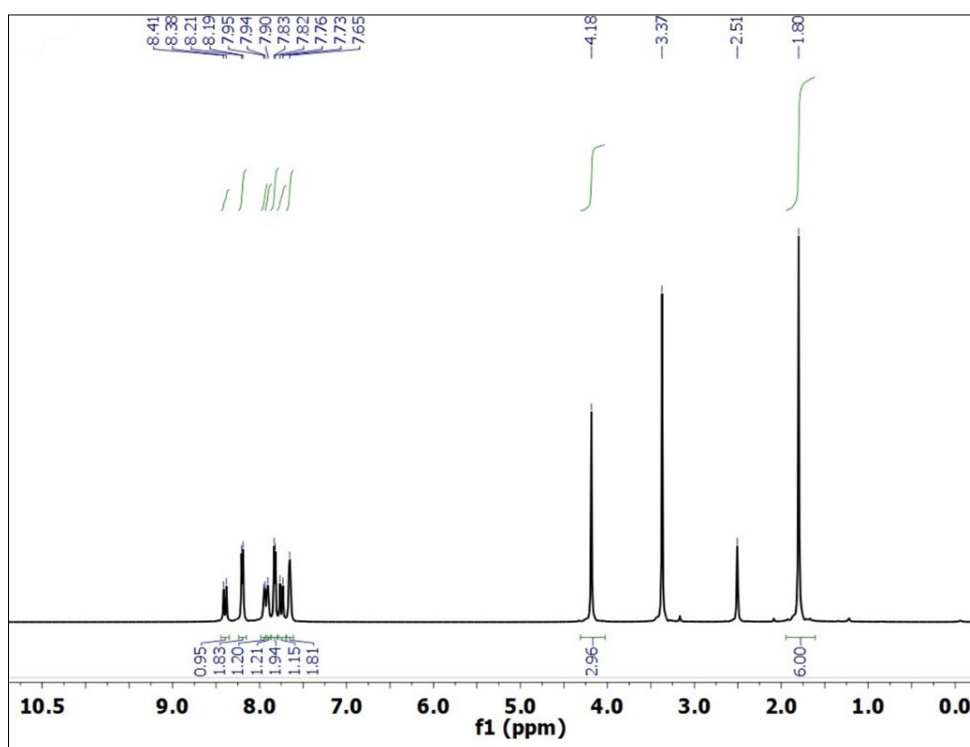


Figure S2: ¹H-NMR spectra of probe 1.

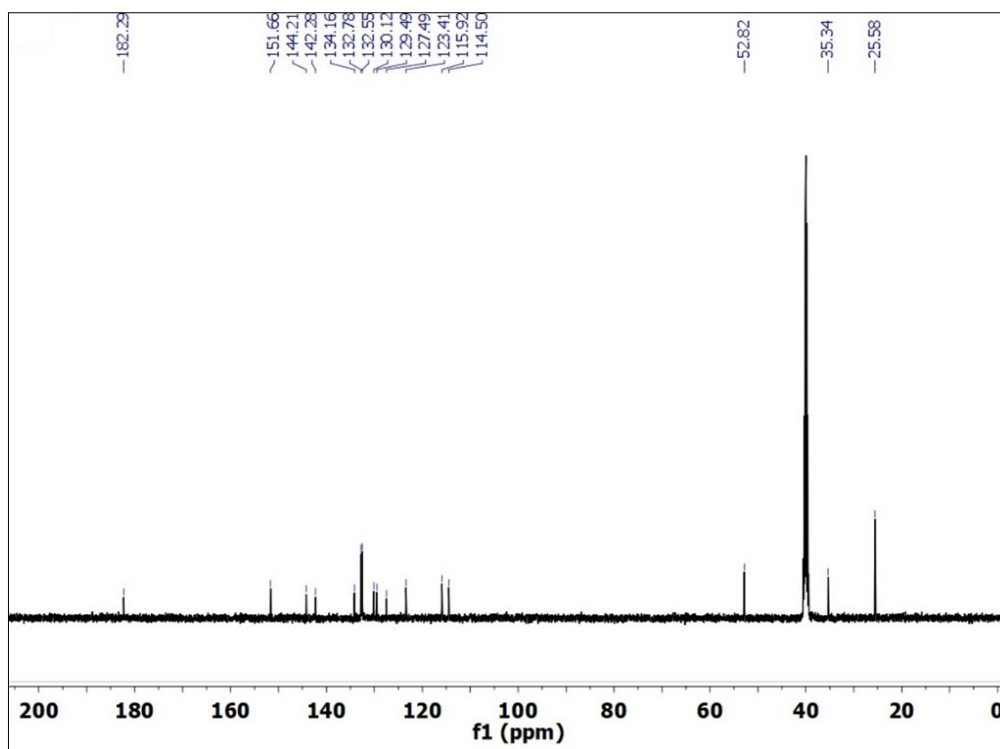


Figure S3: ^{13}C NMR spectra of probe 1.

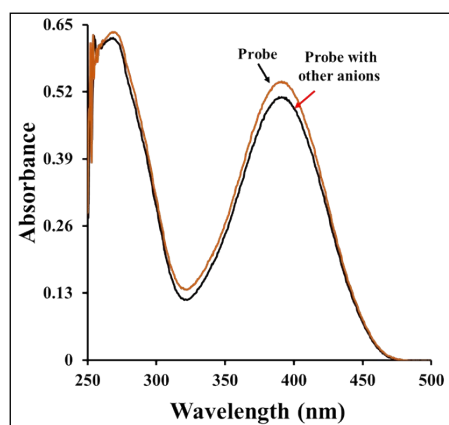


Figure S4: Absorbance spectra of the probe with other anions in DMSO.

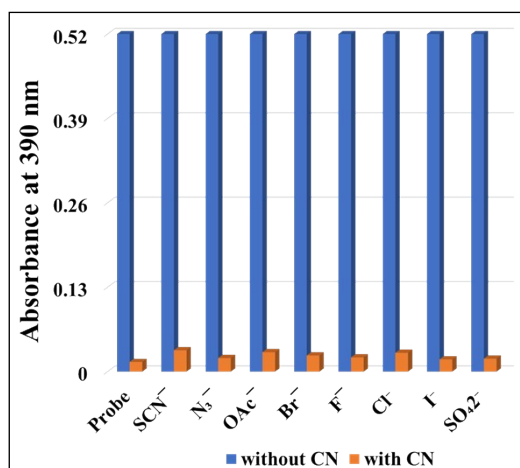


Figure S5: Interference study of probe **1** for CN^- ion in presence of other anions.

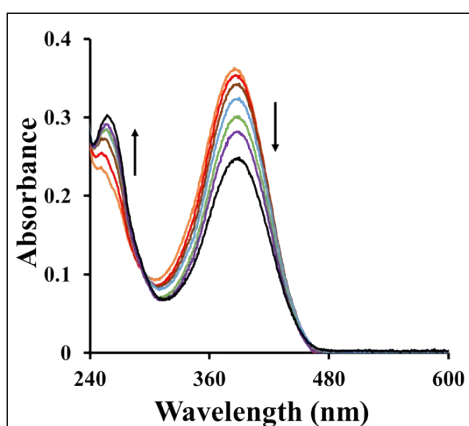


Figure S6: Absorbance spectra of probe **1** (10^{-5} M) with CN^- (10^{-4} M) in 100% aqueous solution.

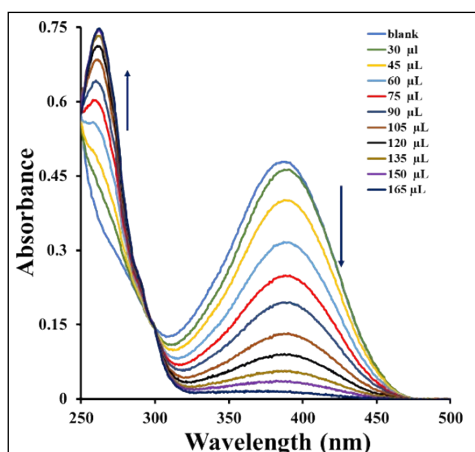


Figure S7: Overlaid absorption spectra of Probe **1** (10^{-5} M) with CN^- (10^{-4} M) in (8:2) H_2O :DMSO solvent.

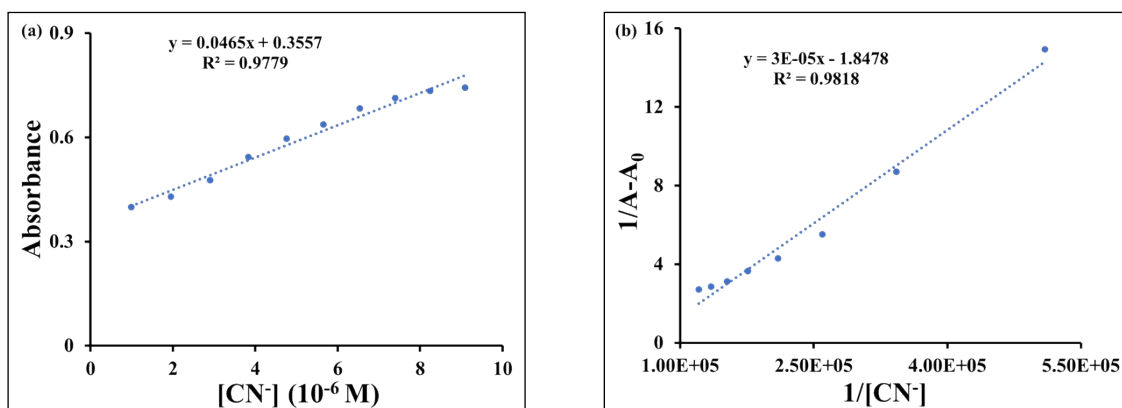


Figure S8: (a) Detection limit and (b) binding constant plot of the probe with CN^- in (8:2) $H_2O:DMSO$ solvent.

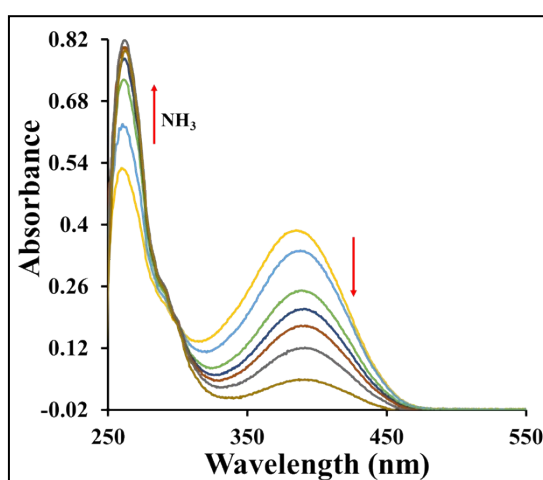


Figure S9: Overlaid absorption spectra of Probe 1 (10^{-5} M) with NH_3 (10^{-4} M) in (8:2) $H_2O:DMSO$ solvent.

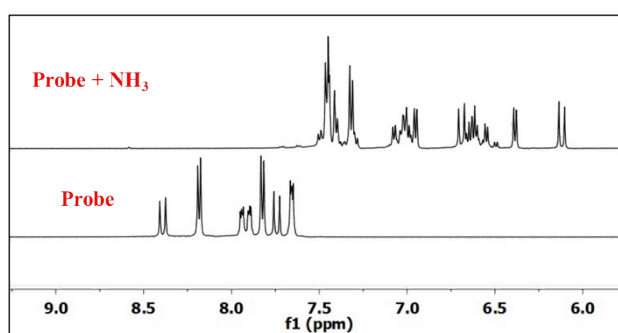


Figure S10: 1H -NMR spectral changes of the probe in presence of ammonia in $DMSO-d_6$.

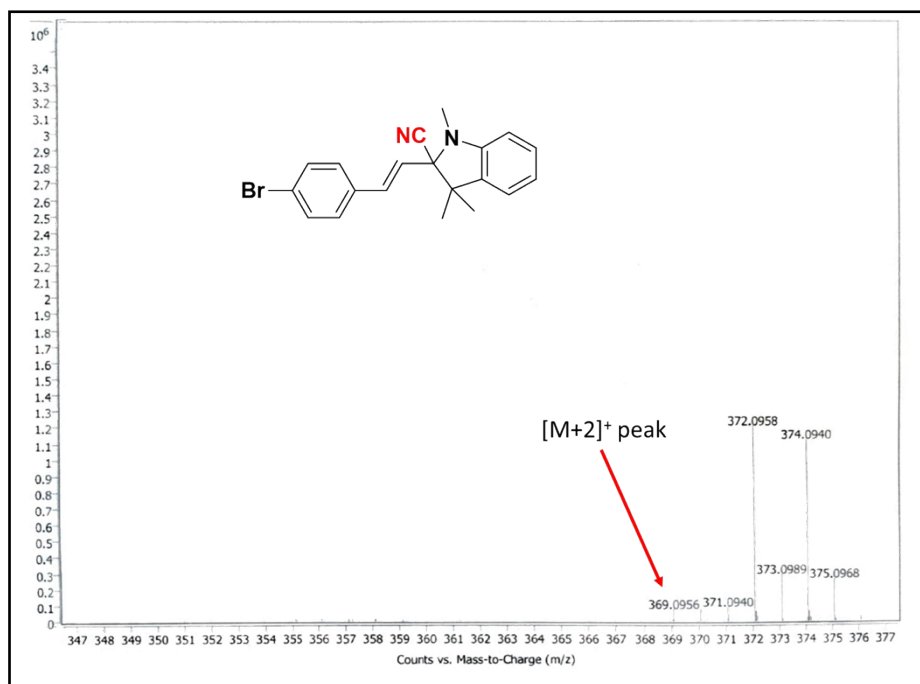


Figure S11: HR-MS spectra of the probe after addition of CN^- .

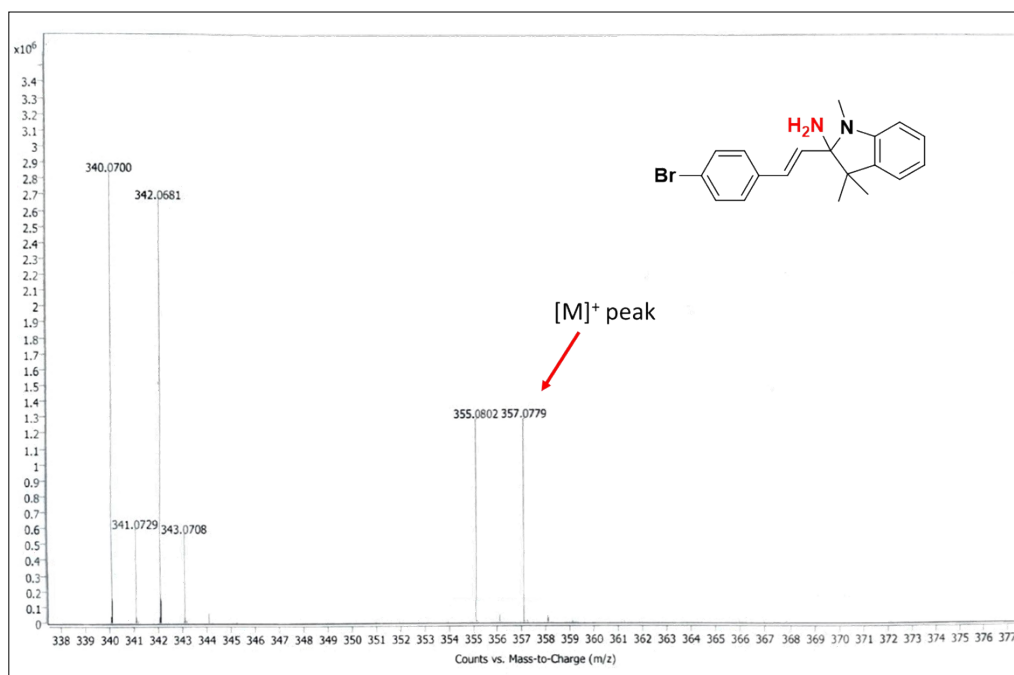


Figure S12: HR-MS spectra of the probe after addition of NH_3 .

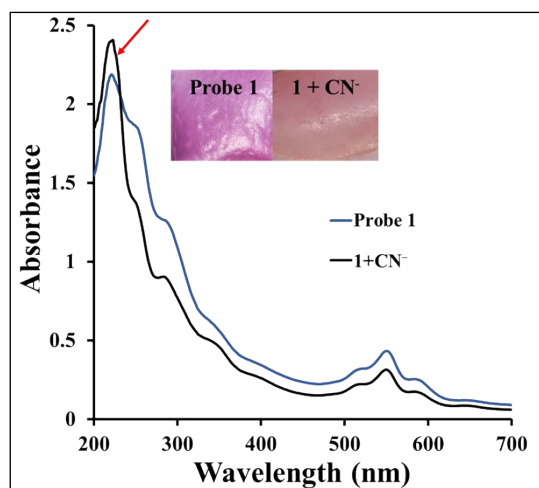


Figure S13: Solid state absorption spectra of the Probe@starch-PVA matrix before and after treatment with CN⁻ Solution.