

Supporting Information

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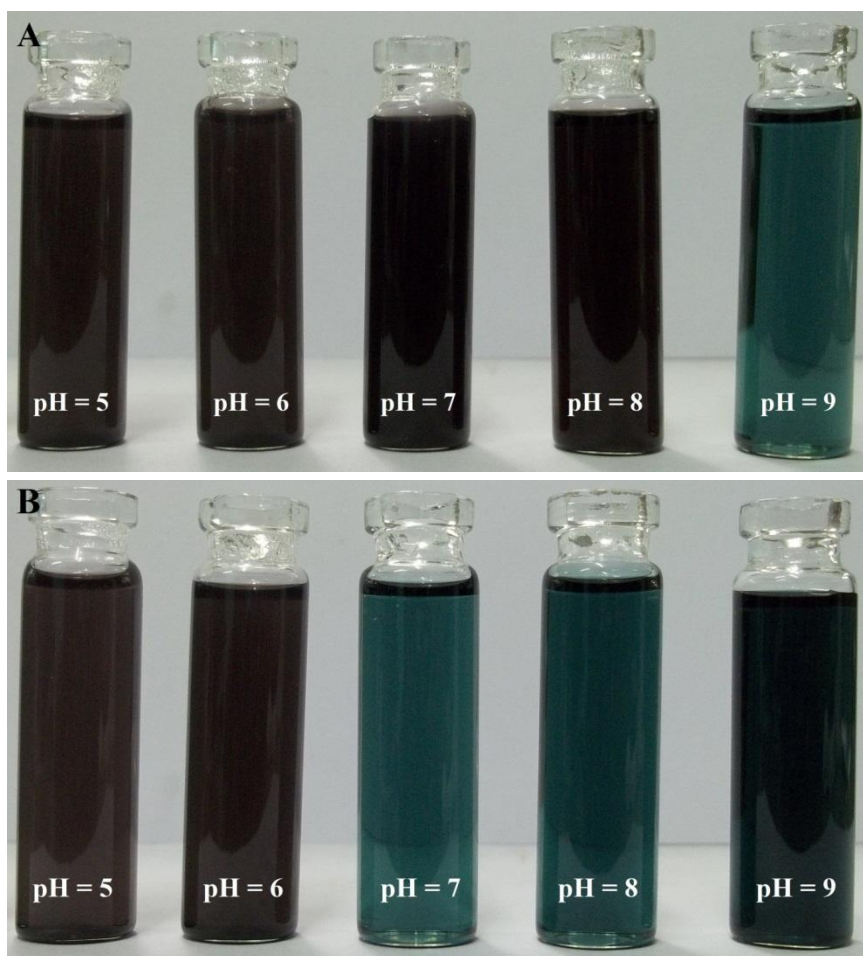


Fig. S1. Colour changes observed for **R** at different pH values: A) free **R** and B) after the addition of cyanide ion.

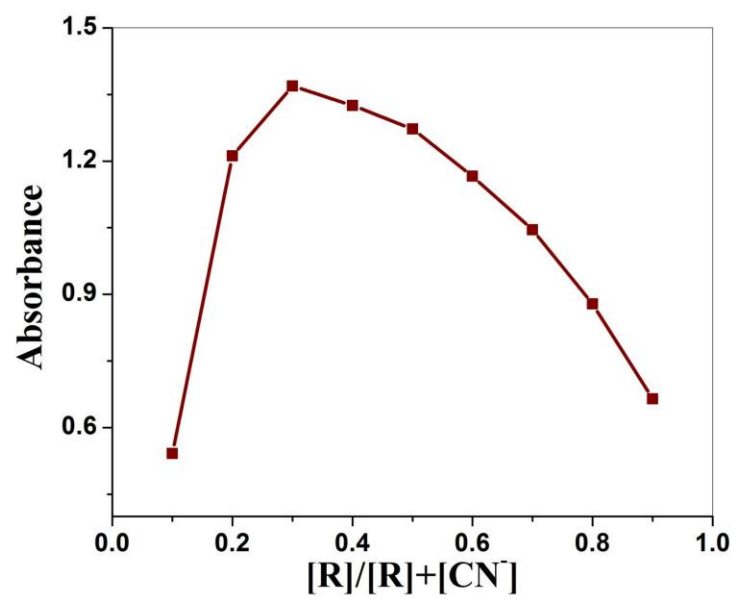


Fig. S2. Job's plot for the receptor-cyanide complex

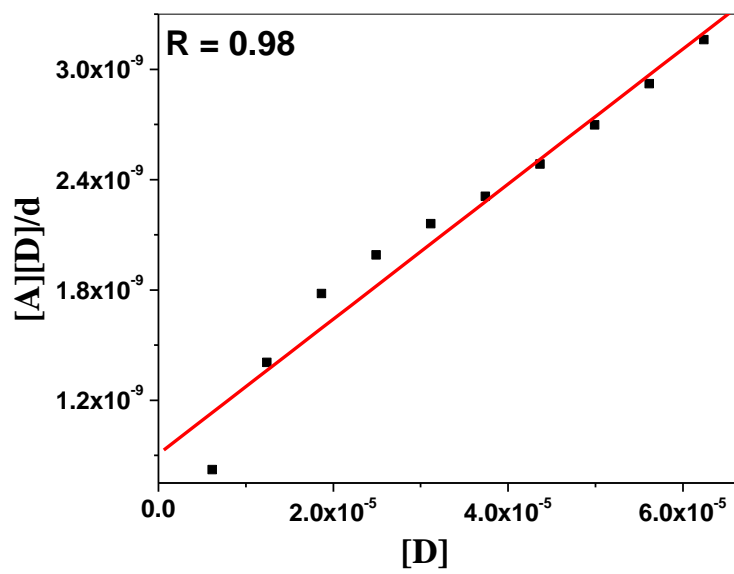


Fig. S3. Scott linear plot of R with CN^- ion

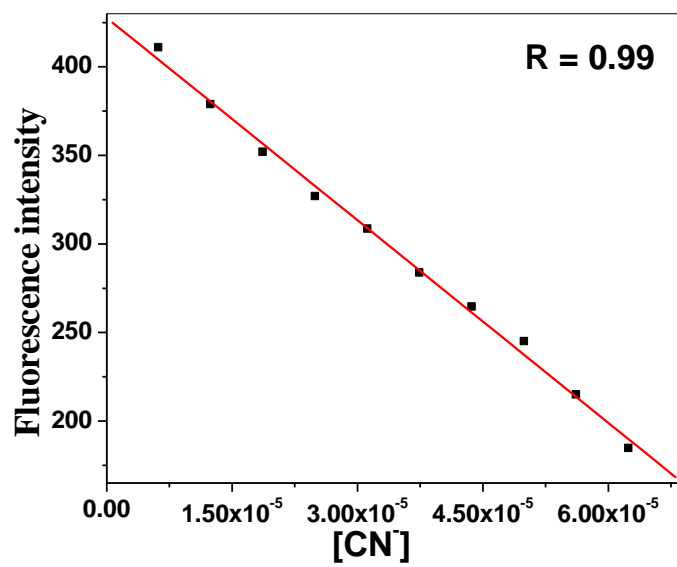


Fig. S4. Bensi-Hildebrand plot of **R** with CN^- ion

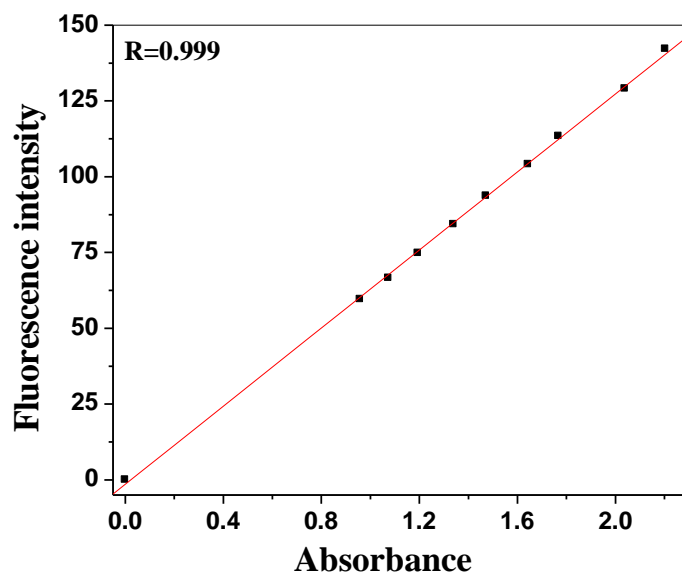


Fig. S5. Plot of fluorescence intensity versus absorbance for Quinine sulphite

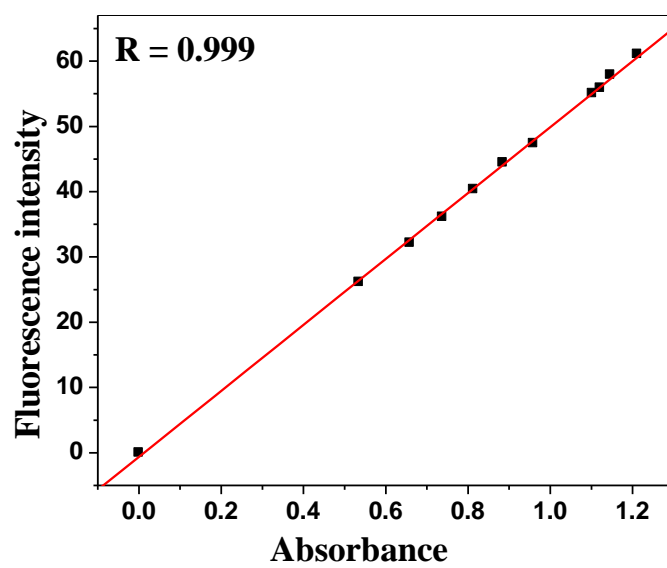


Fig. S6. Plot of fluorescence intensity versus absorbance for free receptor **R**

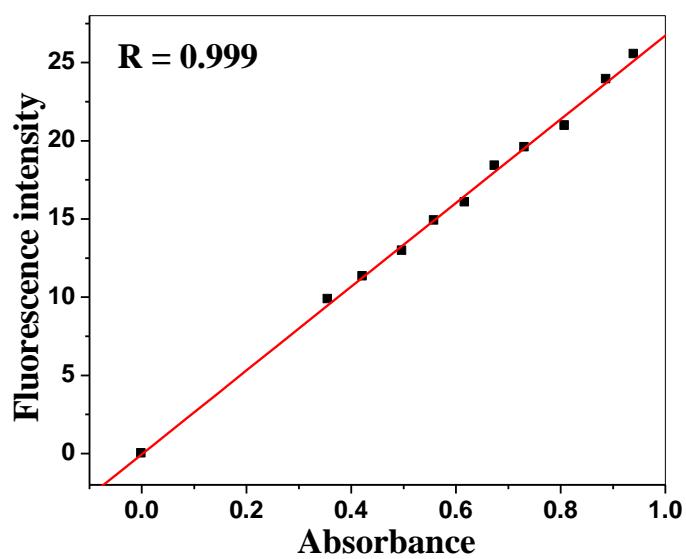


Fig. S7. Plot of fluorescence intensity versus absorbance for **R-CN⁻** complex

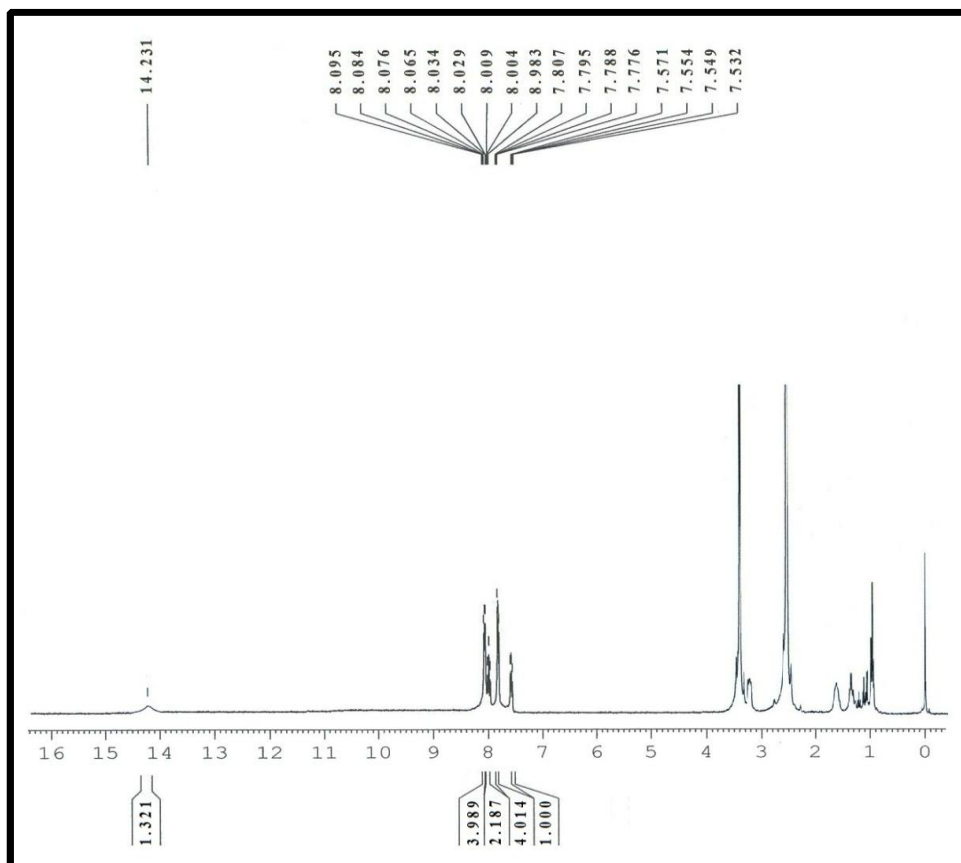


Fig. S8. ^1H NMR spectrum of **R** with addition of 0.5 eqv. of TBACN in DMSO-d_6 .

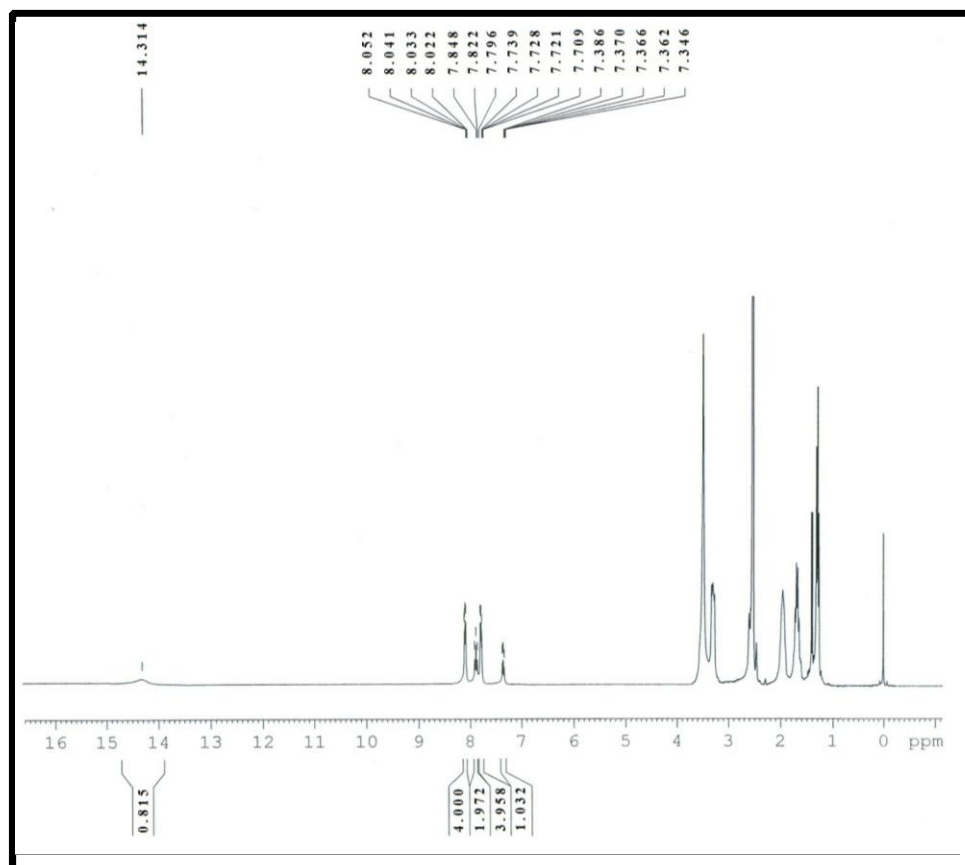


Fig. S9. ^1H NMR spectrum of **R** with addition of 1 eqv. of TBACN in DMSO-d_6 .

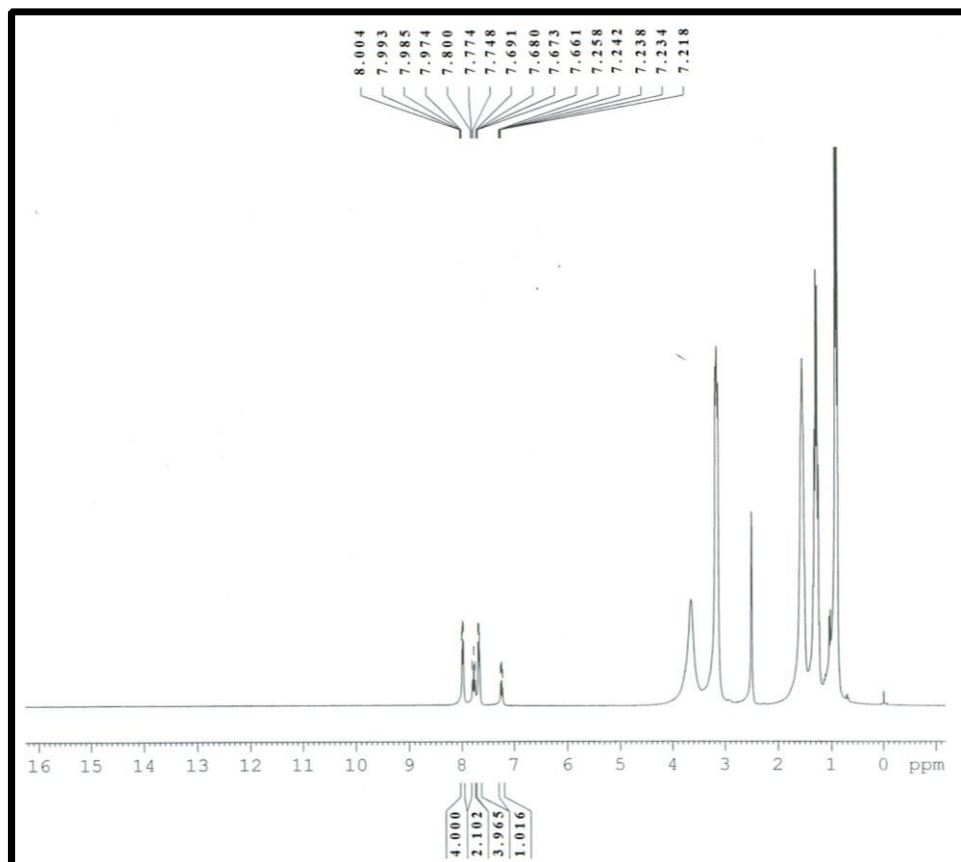


Fig. S10. ^1H NMR spectrum of **R** with addition of 2 eqv. of TBACN in DMSO-d_6 .

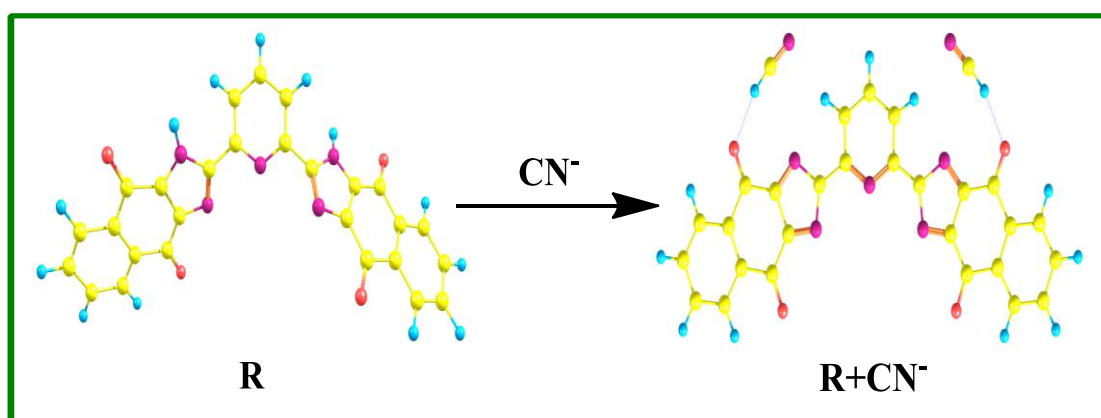


Fig. S11. Optimized geometry of **R-CN⁻** complex

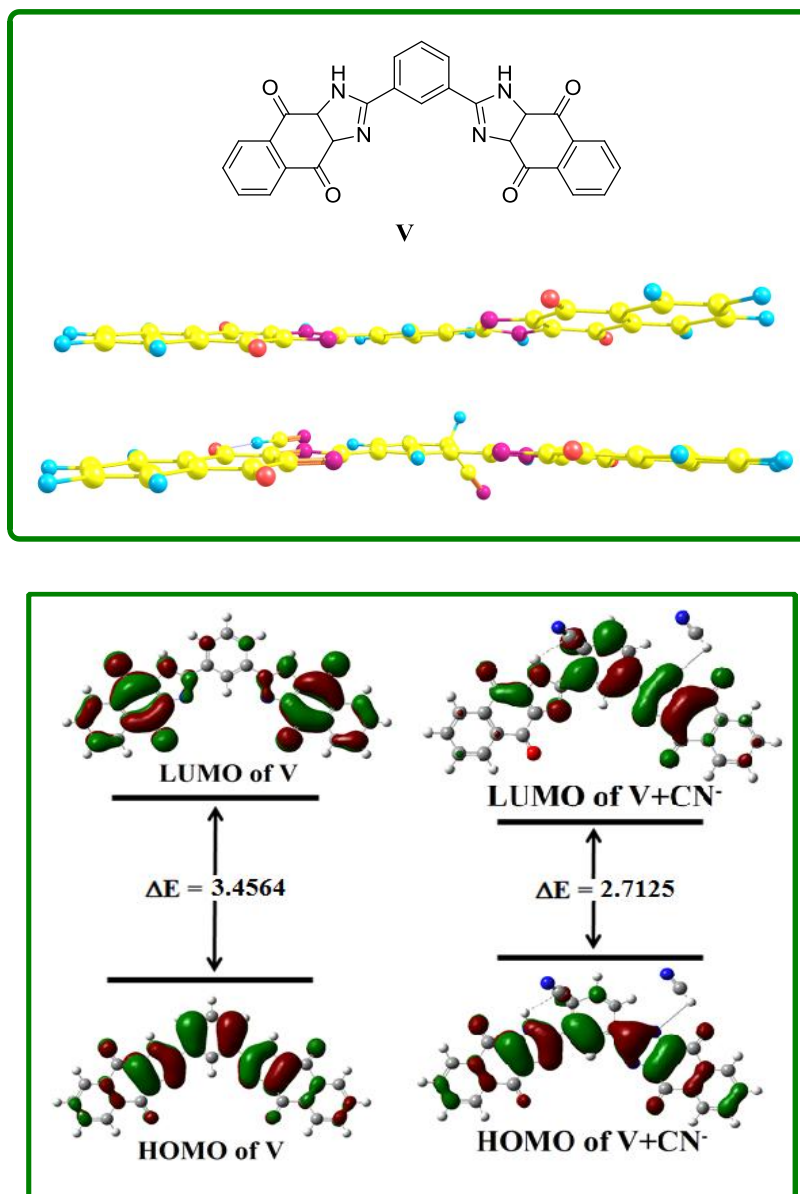


Fig. S12. Optimized geometry and HOMO-LUMO of V and its CN⁻ complex

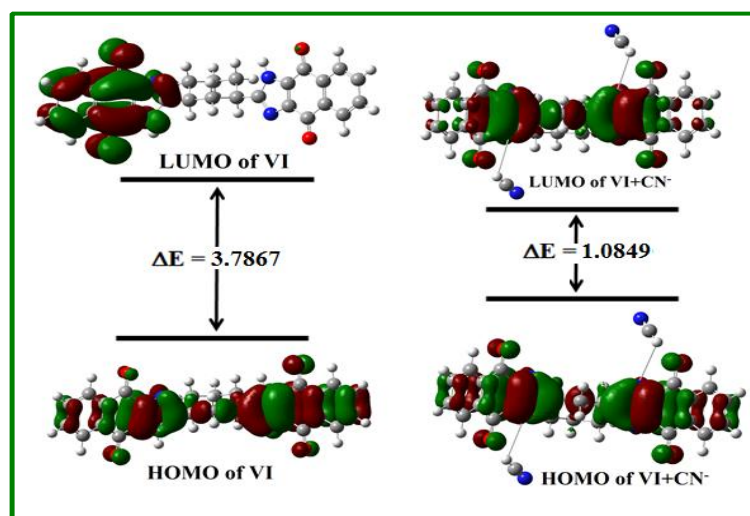
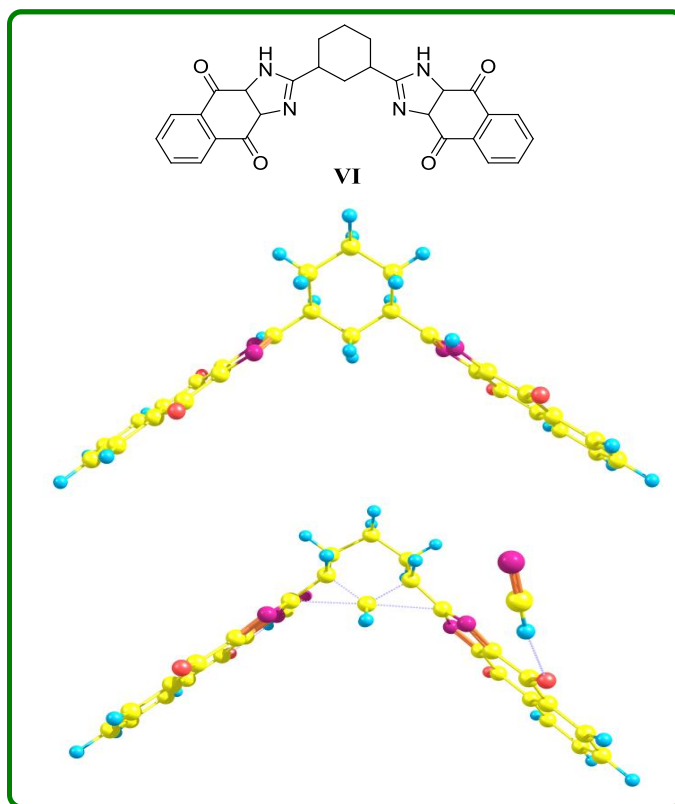


Fig. S13. Optimized geometry and HOMO-LUMO of VI and its CN^- complex

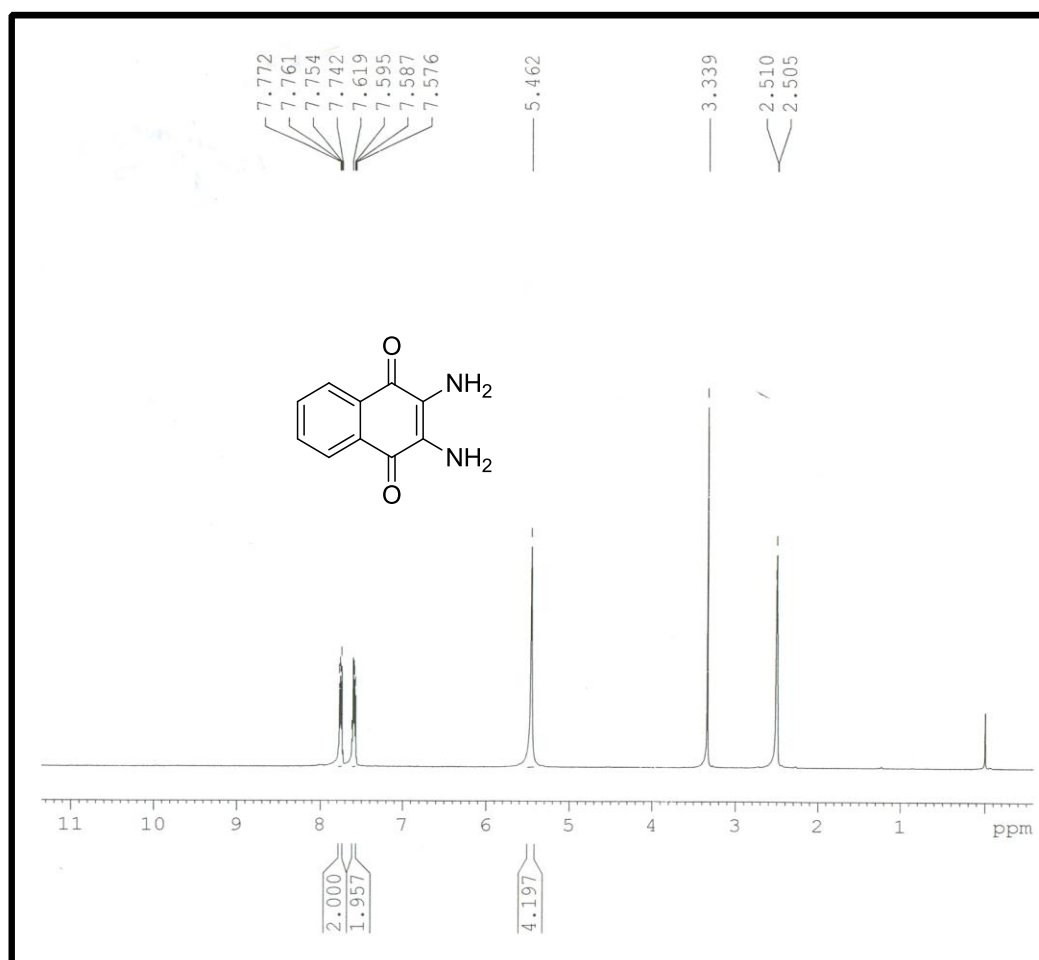


Fig. S14. ^1H NMR spectrum of **1**

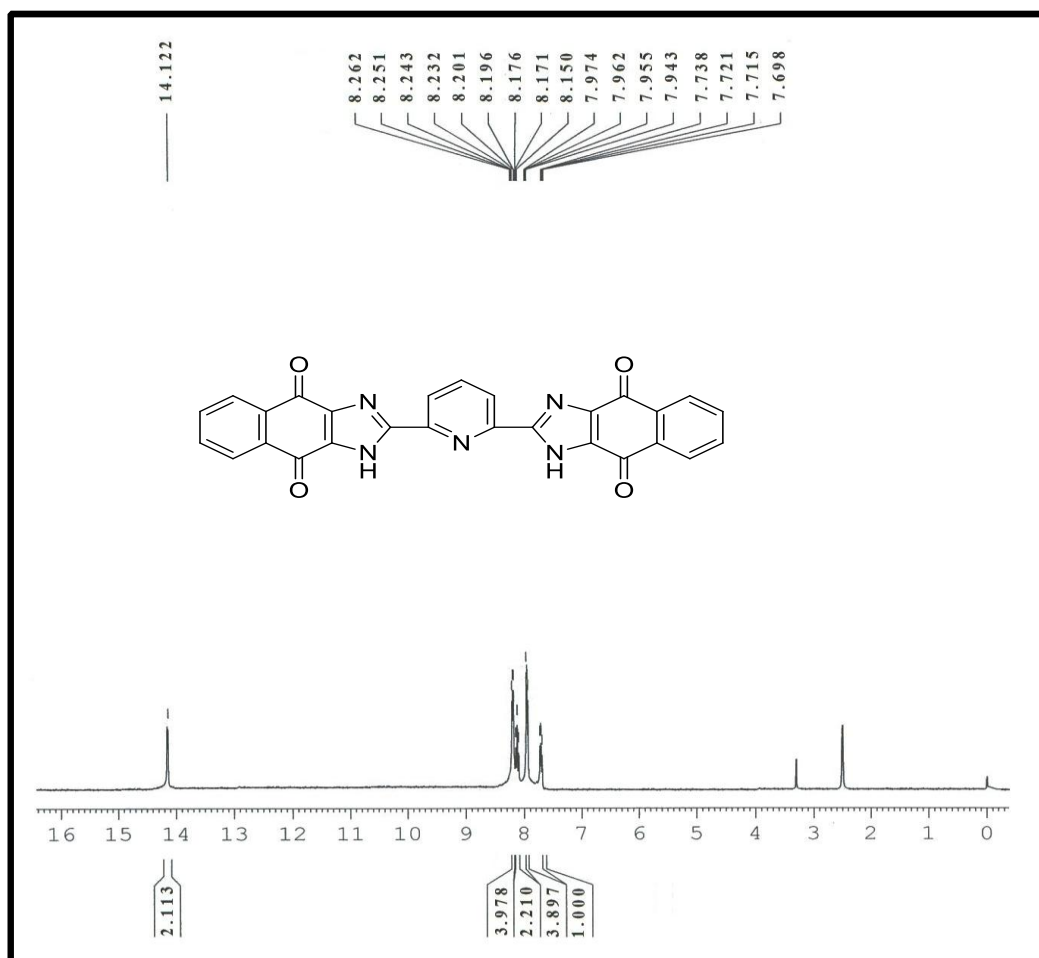


Fig. S15. ¹H NMR spectrum of receptor **R**

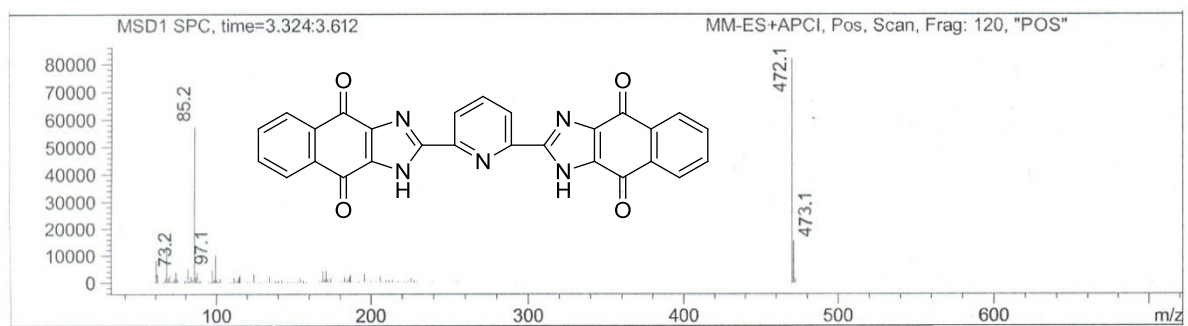


Fig. S16. LCMS spectrum of receptor **R**