Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting information for

The photochromism, Light Harvesting and self-assembly activity of a multi-function Schiff-base compound based on AIE effect

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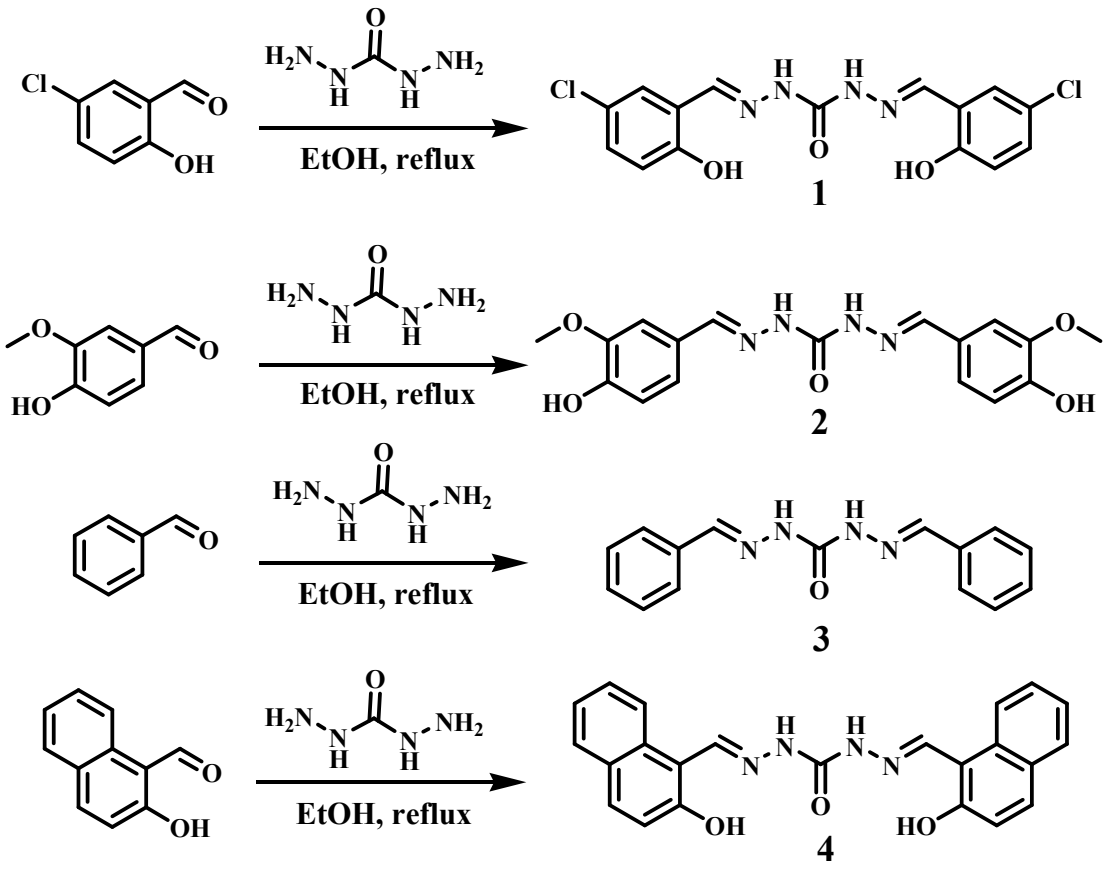

Scheme S1. Synthetic routes of compounds **1**–**4**.

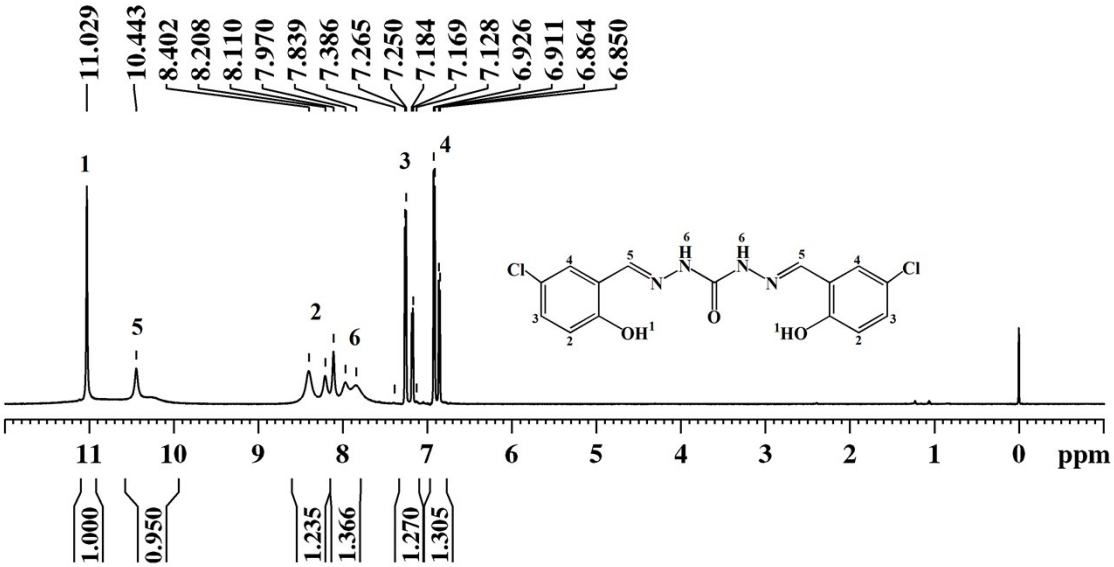

Fig. S1. ^{1}H NMR spectra of **1** in d^{6}-DMSO

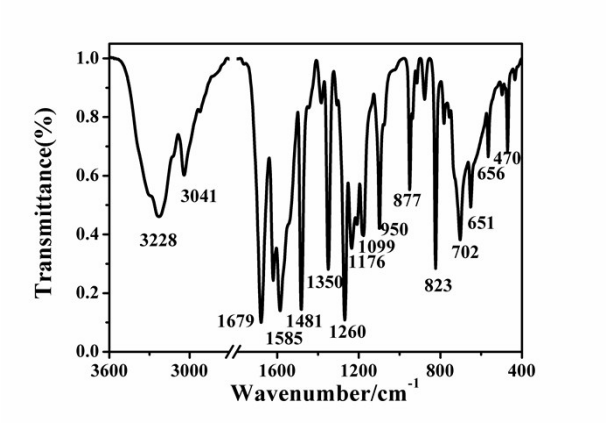

Fig. S2. IR spectrum of **1** in in KBr disk.

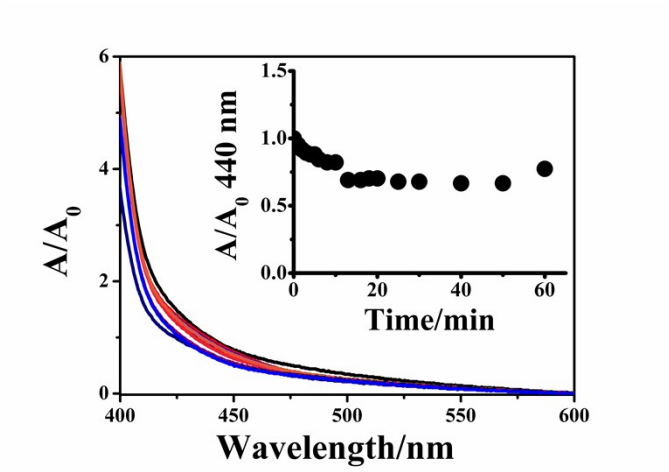

Fig. S3. Time-resolved spectroscopic monitoring of **1** in crystals without UV lamp irradiation.

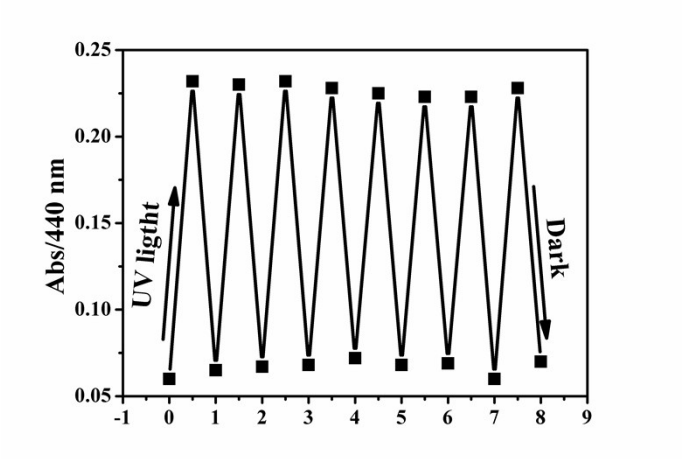

Fig. S4. Fatigue resistance of **1** with the irradiation of UV lamp and standing in the dark alternatively.

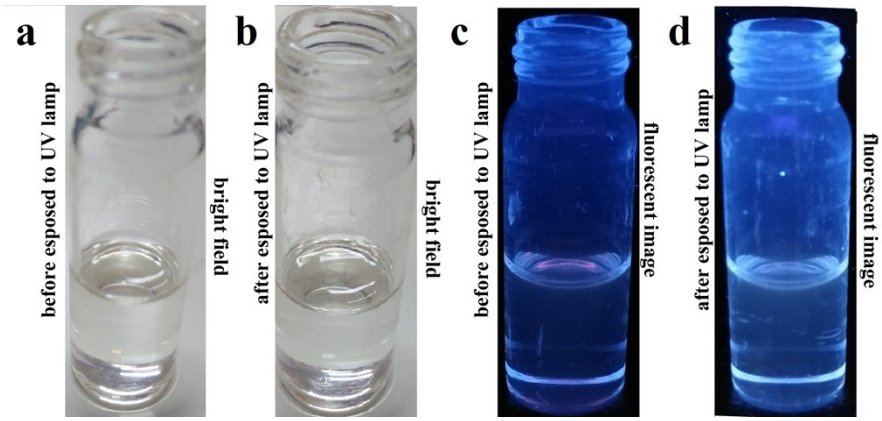

Fig. S5. Images of **1** before and after certain irradiation by a UV lamp (365 nm) (a and b) and corresponding fluorescent images under UV lamp (c and d).

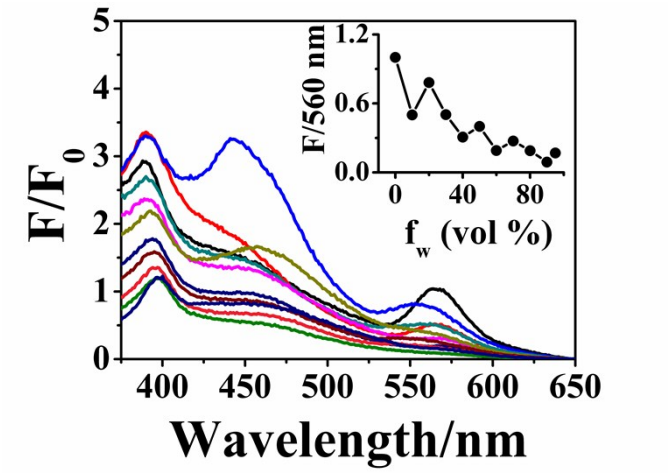

Fig. S6. Fluorescence spectra of **2** (50 μM) in EtOH/water mixtures with different water fractions. Inset: effect of water volume on the FI at 560 nm, λ_{ex} = 350 nm.

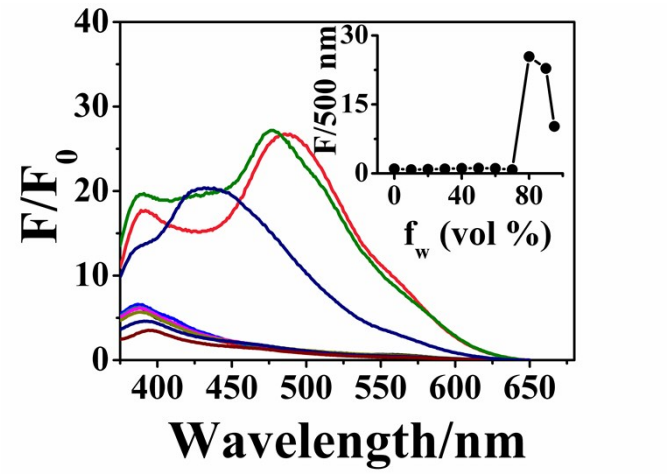

Fig. S7. Fluorescence spectra of **3** (50 μM) in EtOH/water mixtures with different water fractions. Inset: effect of water volume on the FI at 500 nm, λ_{ex} = 350 nm.

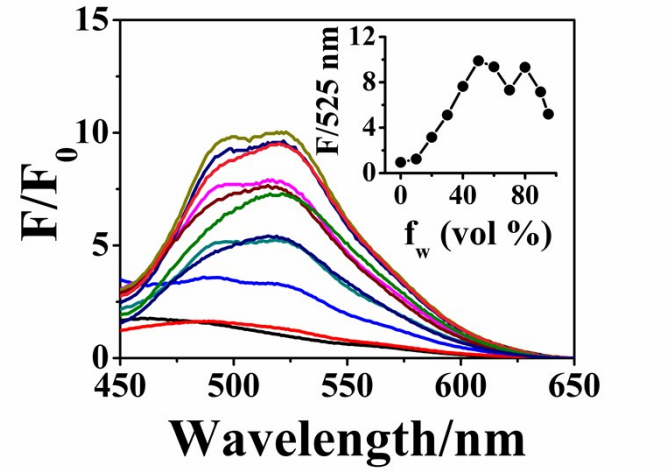

Fig. S8. Fluorescence spectra of **4** (50 μM) in EtOH/water mixtures with different water fractions. Inset: effect of water volume on the FI at 525 nm, λ_{ex} = 350 nm.

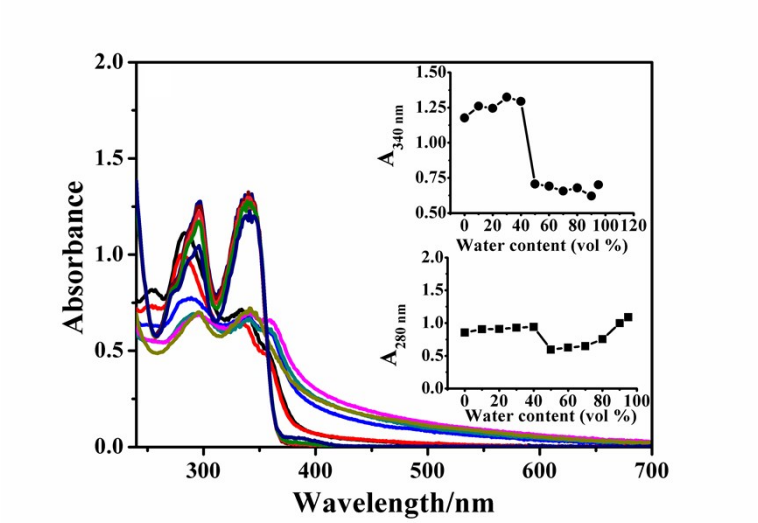

Fig. S9. UV-vis spectra of **1** in different content of water. Inset, absorbance changes at 340 and 280 nm.

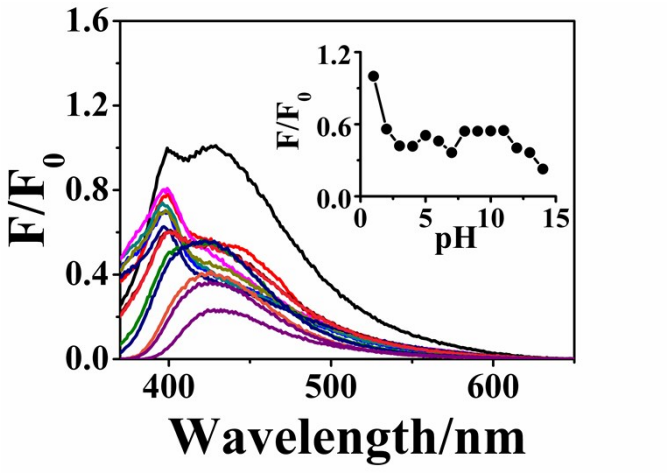

Fig. S10. Fluorescence spectra of **2** (50 μM) in aqueous solution at different pH. Inset: FI change with the pH values

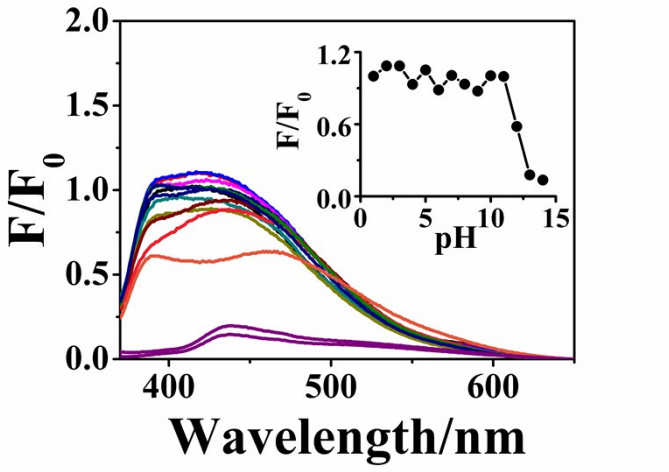

Fig. S11. Fluorescence spectra of **3** (50 μM) in aqueous solution at different pH. Inset: FI change with the pH values.

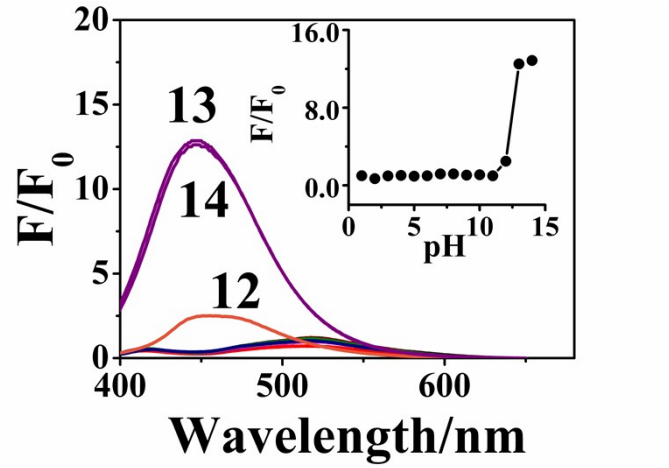

Fig. S12. Fluorescence spectra of **4** (50 μM) in aqueous solution at different pH. Inset: FI change with the pH values

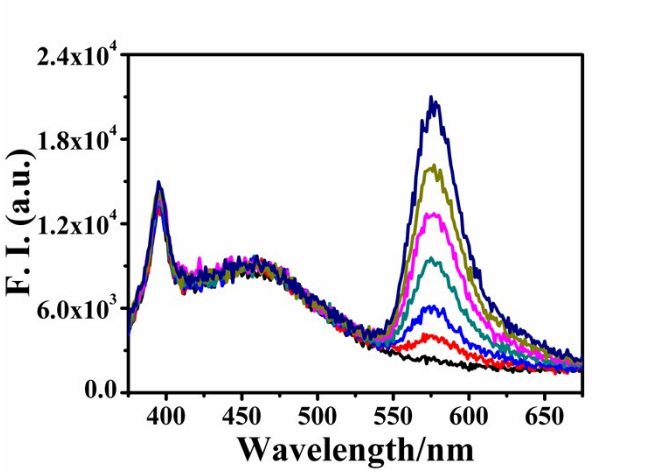

Fig. S13. Fluorescence spectra of **1** (0.1 μM) in water with different concentrations of RhB (0-0.1 μM).

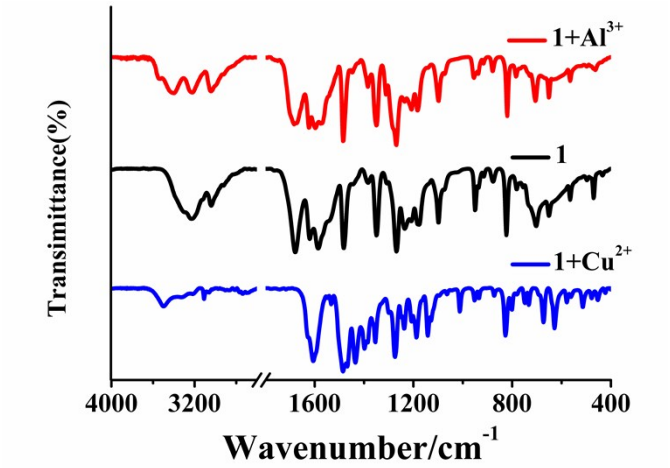

Fig. S14. IR spectra of **1** and in the presence of Al^{3+} or Cu^{2+} as KBr pelts.

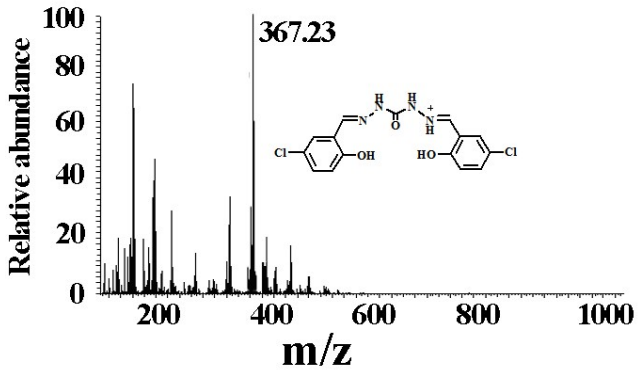

Fig. S15. ESI -MS of compound **1** in DMSO.

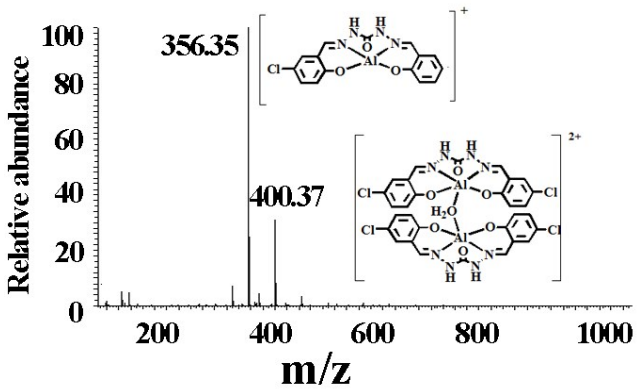

Fig. S16. ESI -MS of compound **1** with 0.5 equiv. Al^{3+} in DMSO.

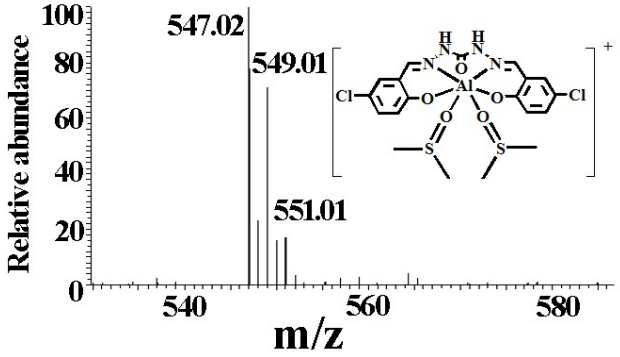

Fig. S17. ESI -MS of compound **1** with 1.0 equiv. Al^{3+} in DMSO.

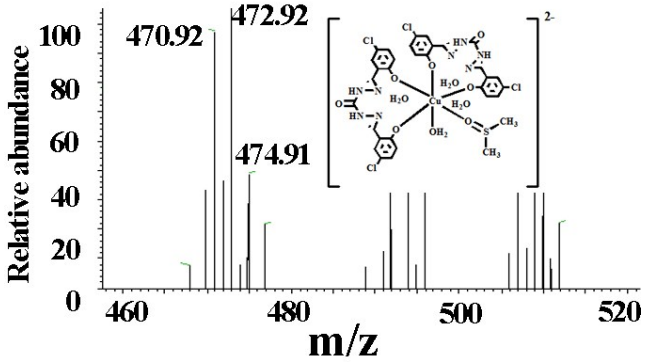

Fig. S18. ESI -MS of compound **1** with 0.5 equiv. Cu^{2+} in DMSO and H_2O mixture.

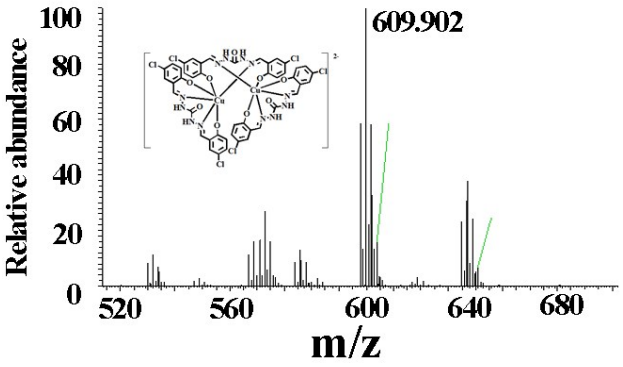

Fig. S19. ESI -MS of compound **1** with 1.0 equiv. Cu^{2+} in DMSO and H_2O mixture.