Supporting Information

A reversible rhodamine 6G-based fluorescence turn-on probe for Fe^{3+} in water and its application in living cells imaging

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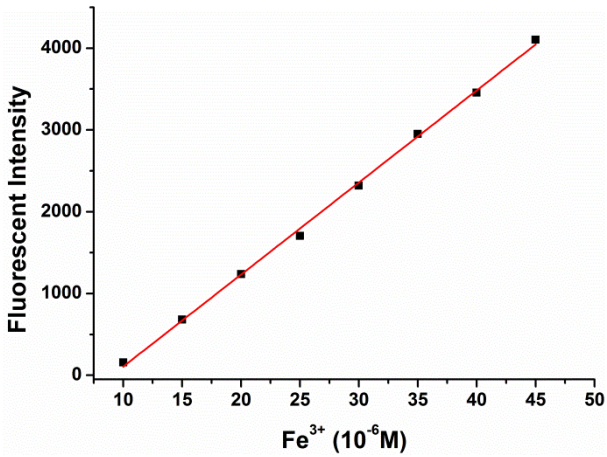

Fig. S1 Liner response of fluorescence intensity at 560 nm of L (10 μM) to the Fe^{3+} concentrations changes in distilled water.

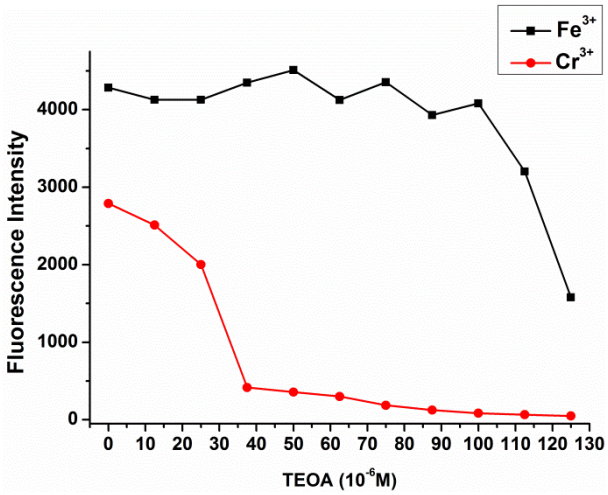

Fig. S2 Fluorescence intensity at 560 nm of Fe^{3+}, Cr^{3+} (50 μM) add in L (10 μM) with different TEOA concentrations.

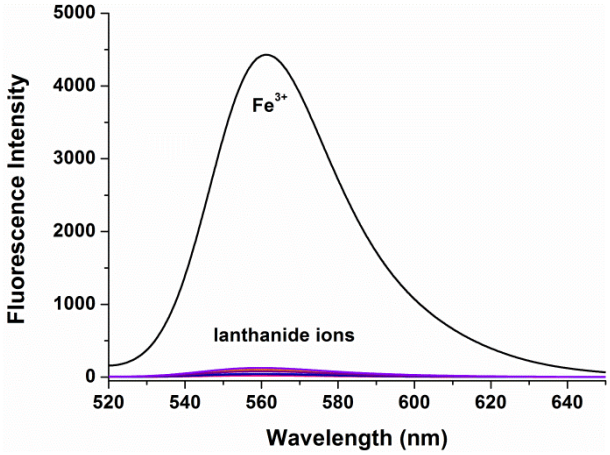

Fig. S3 Fluorescence spectra of L (10 μM) in the presence of all lanthanide ions (50 μM) except for Pm (radioactive elements) in distilled water.

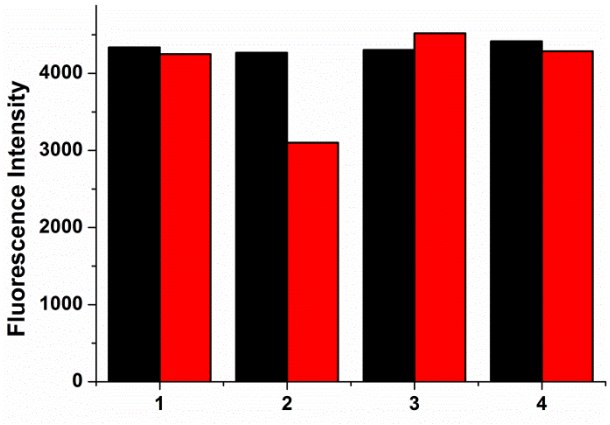

Fig. S4 Black bars: fluorescence intensity of L-Fe^{3+} (10 μM) at 560 nm; red bars: fluorescence intensity of L-Fe^{3+} (10 μM) at 560 nm in the presence of 100eq. ethanedioic acid (1), EDTA (2), tartaric acid (3) and propanedioic acid (4).

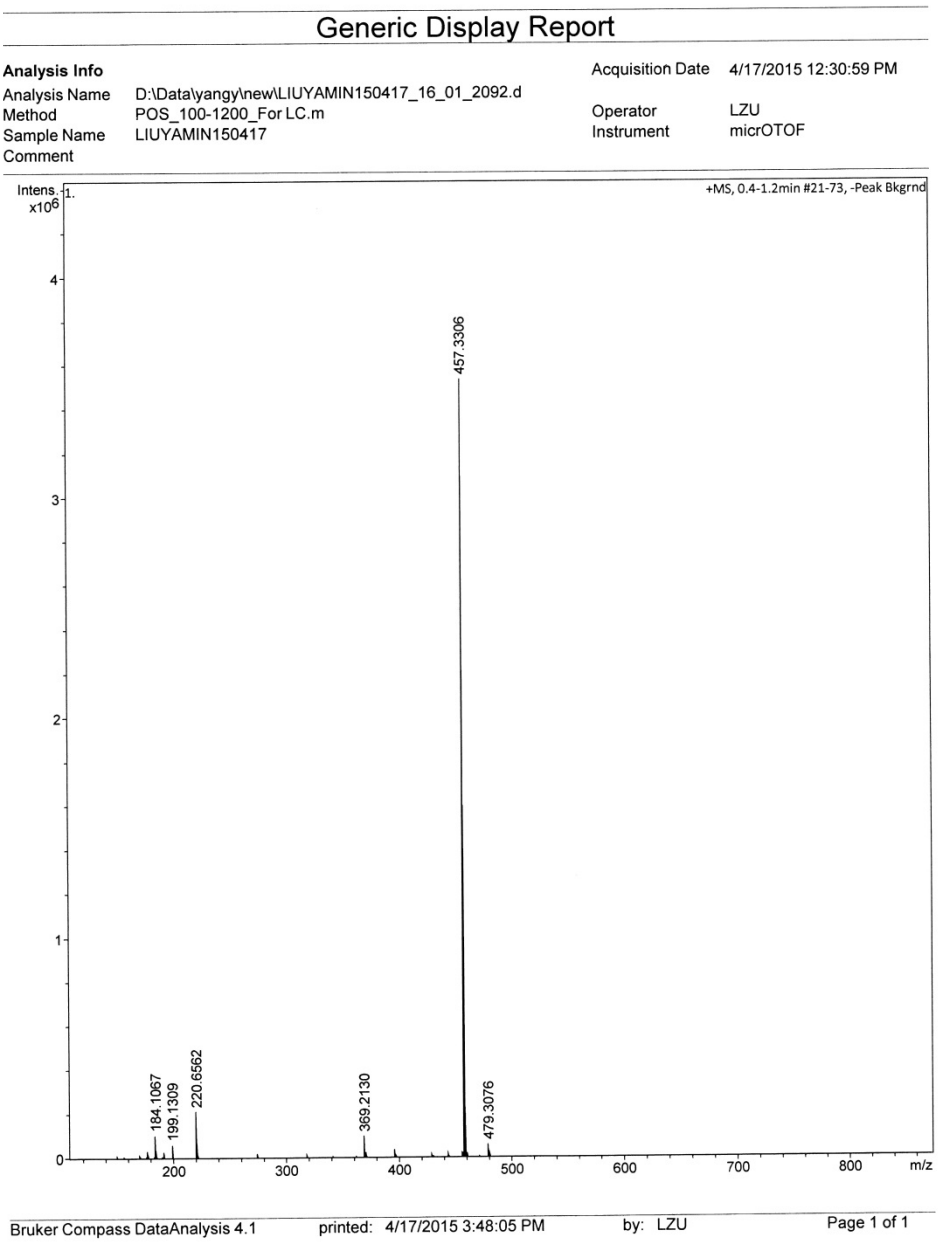

Figure S5. ESI-MS of Compound 1.

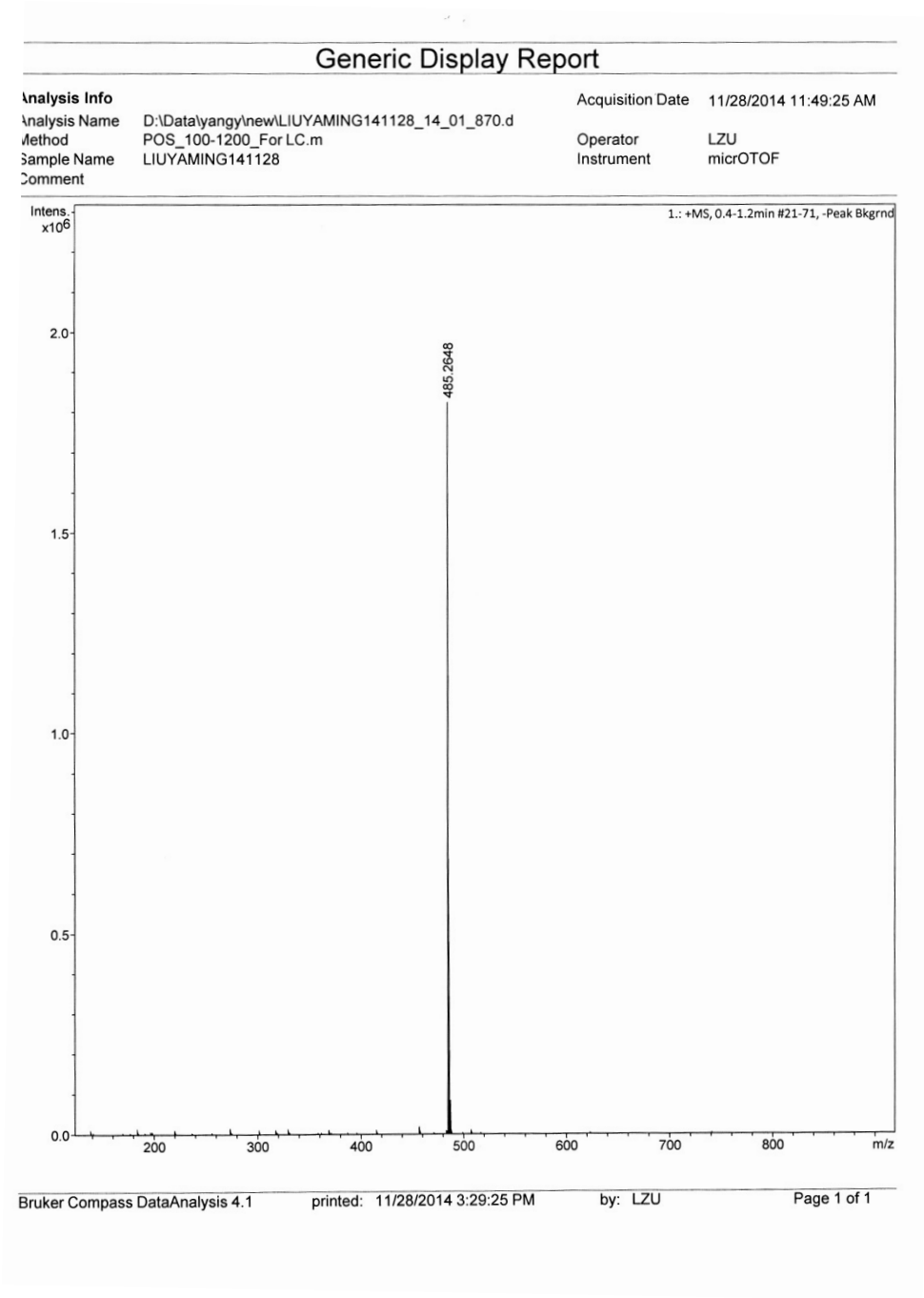

Figure S6. ESI-MS of Compound L.

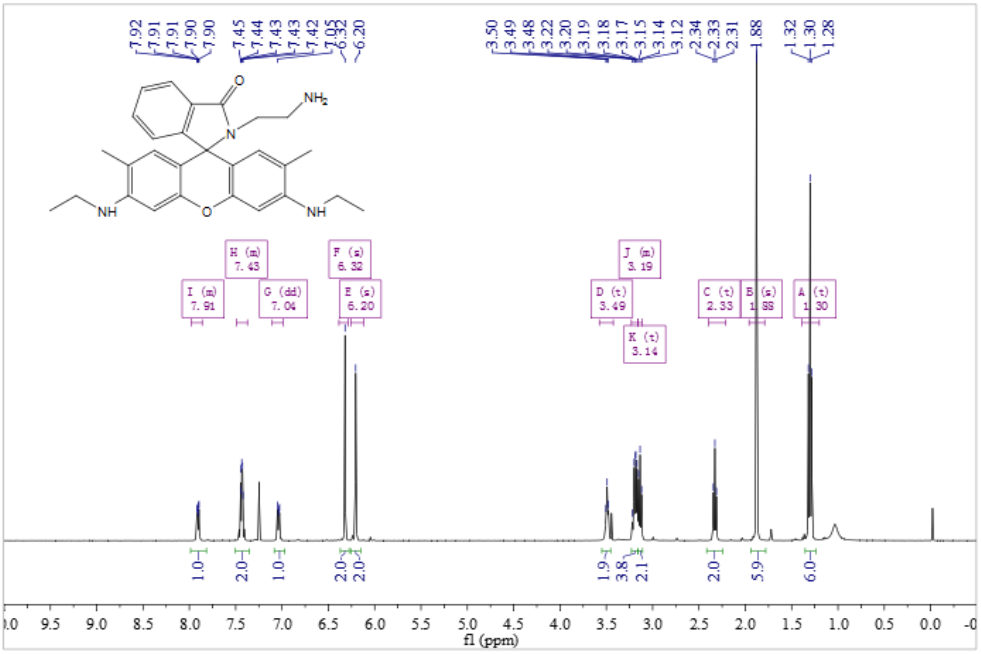

Fig. S7 ^{1}H NMR spectrum of 1 in $CDCl_3$.

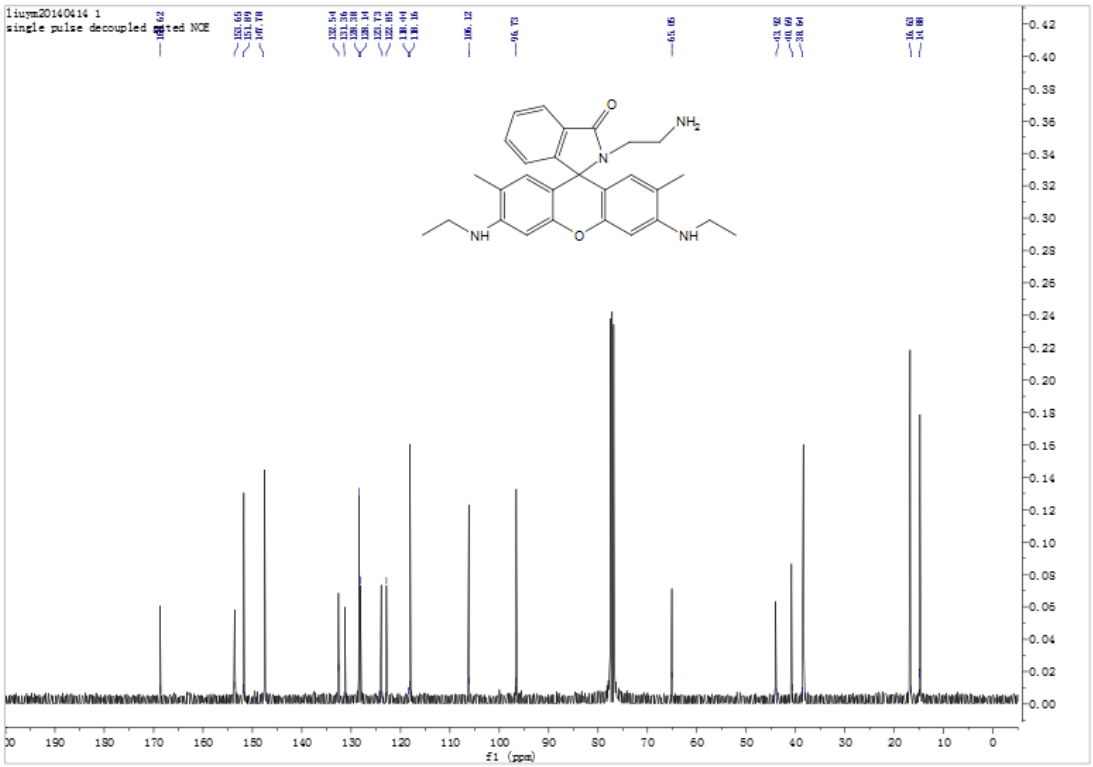

Fig. S8 ^{13}C NMR spectrum of 1 in $CDCl_3$.

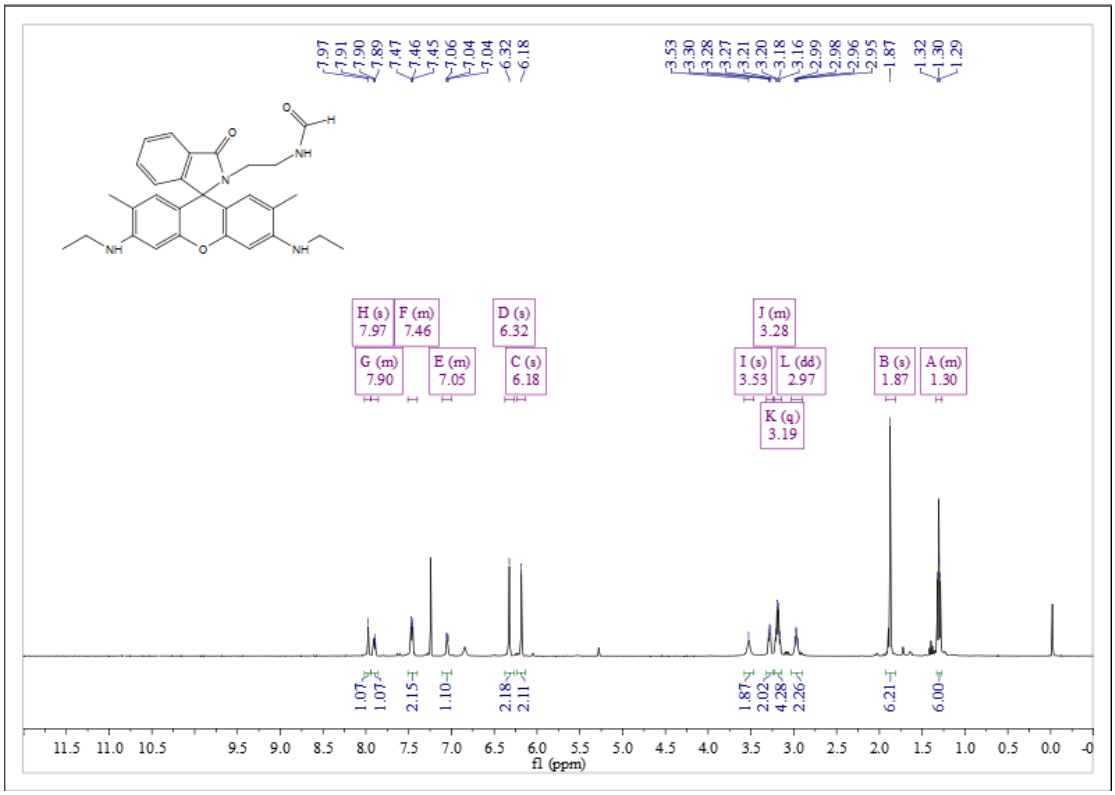

Fig. S9 ^{1}H NMR spectrum of L in $CDCl_3$.

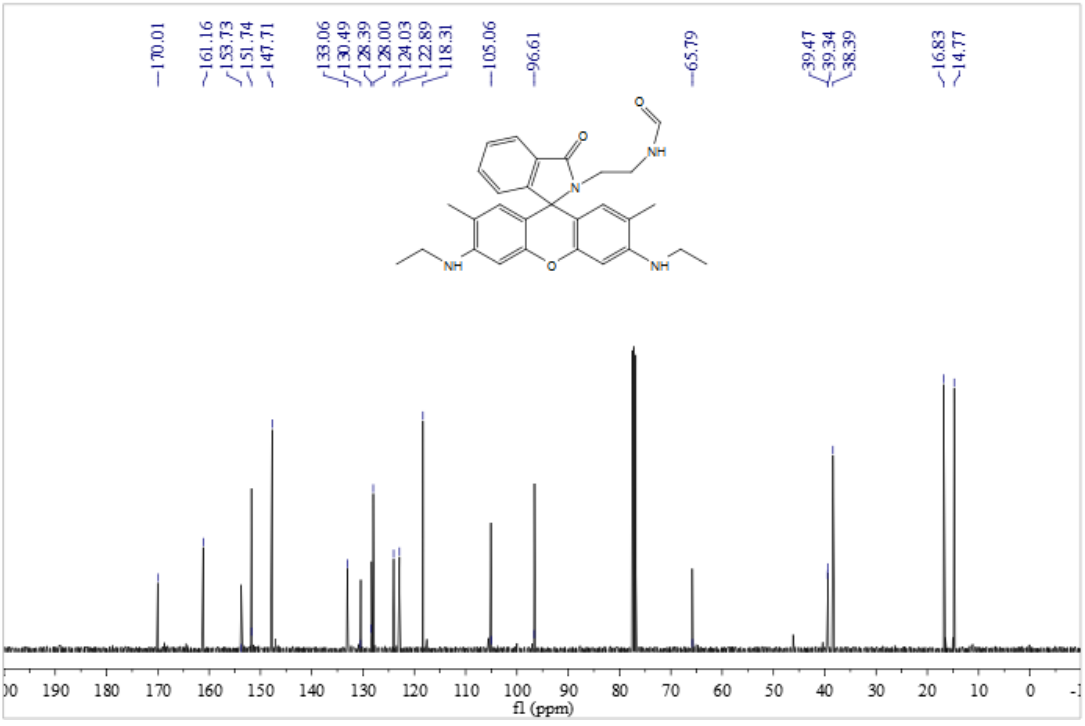

Fig. S10 ^{13}C NMR spectrum of L in $CDCl_3$.

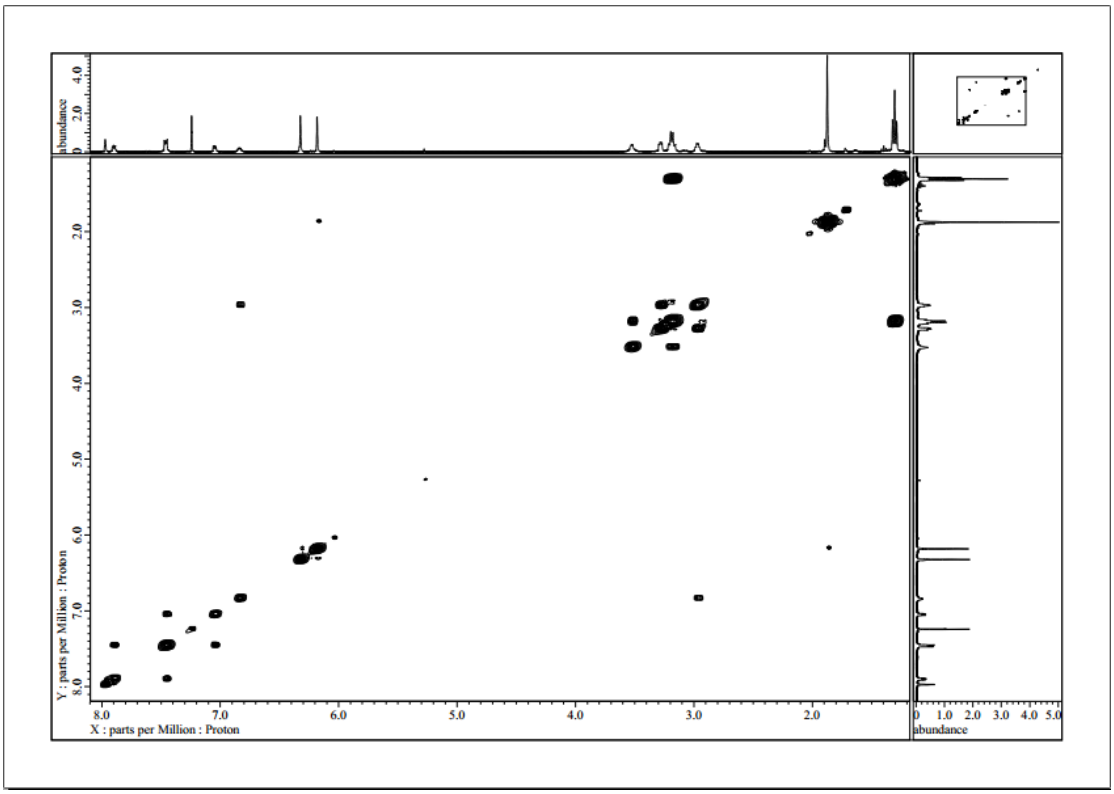

Fig. S11 ^{1}H-^{1}H cosy NMR spectrum of L in $CDCl_3$.

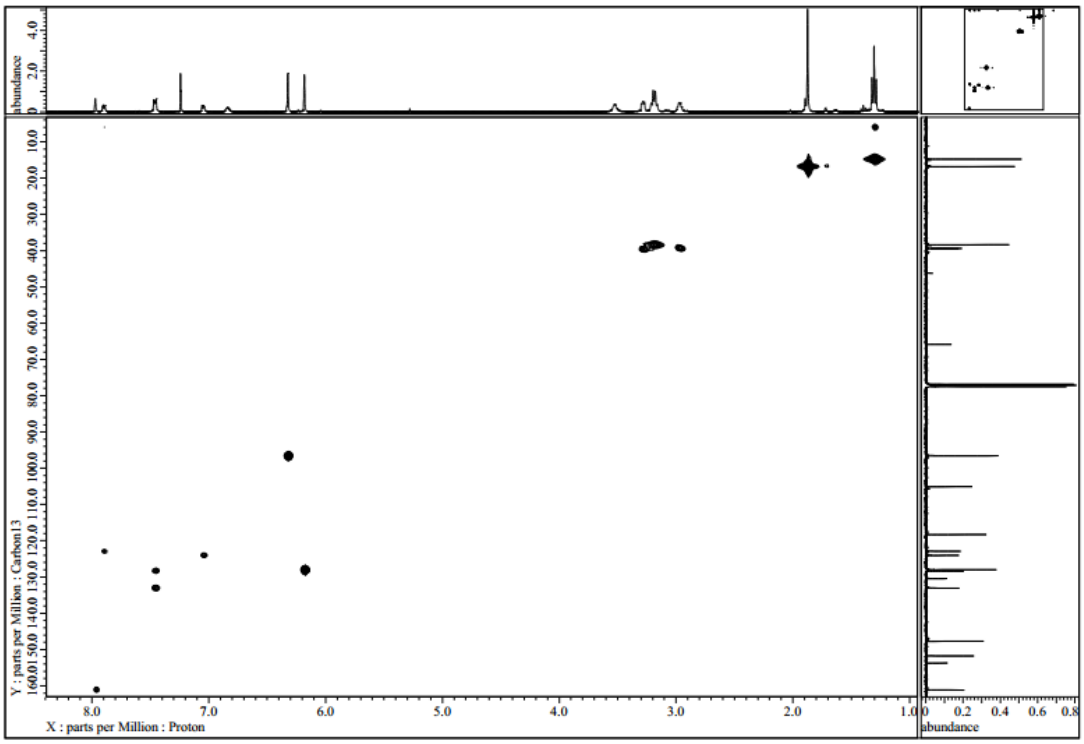

Fig. S12 ^{13}C-^{1}H cosy NMR spectrum of L in $CDCl_3$.