

## Supplementary information

### Macrocyclization of N, N'-propylenebis(3-formyl-5-*tert*-butylsalicylaldimine): a ratiometric fluorescence chemodosimeter for Zn<sup>II</sup>†

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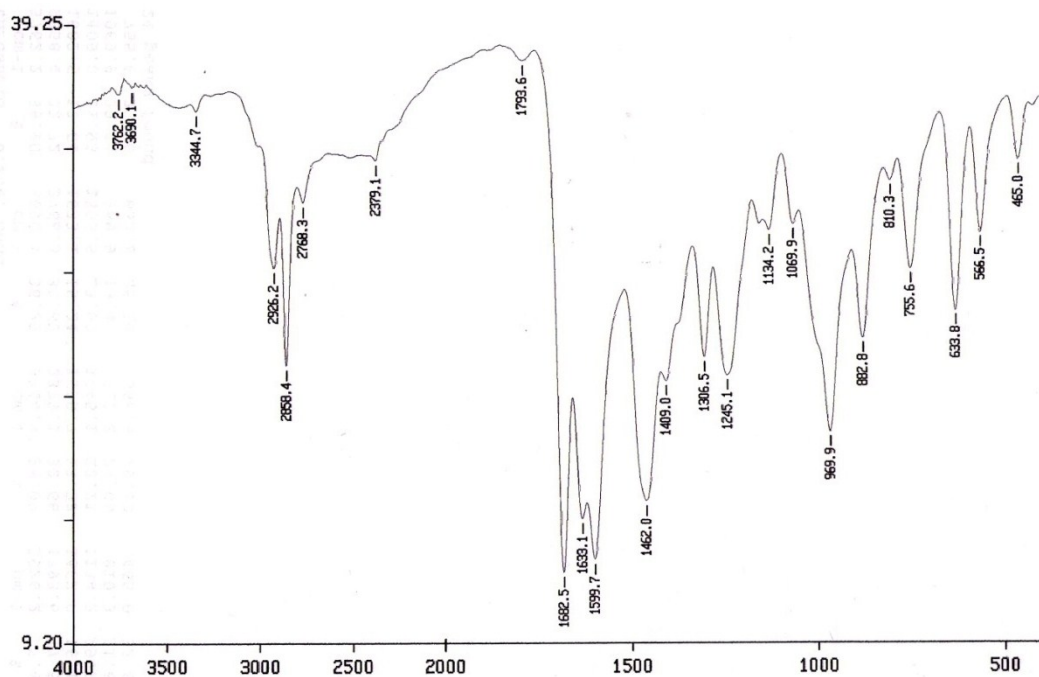


Fig. S1 FTIR spectra of ligand (H<sub>2</sub>L).

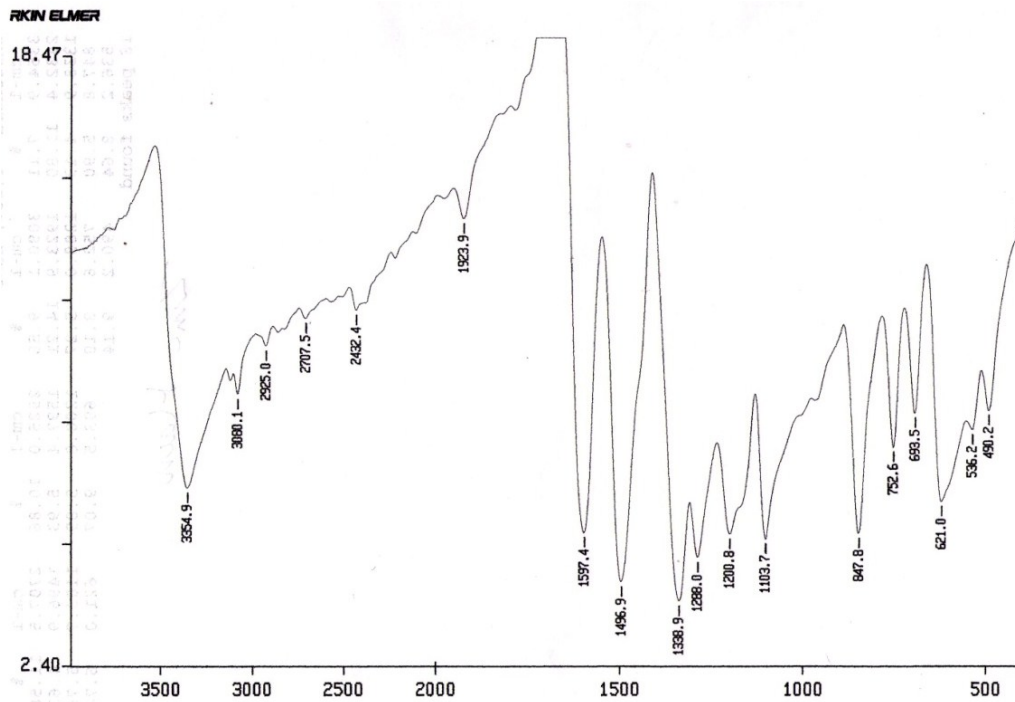


Fig. S2 IR spectra of complex 1

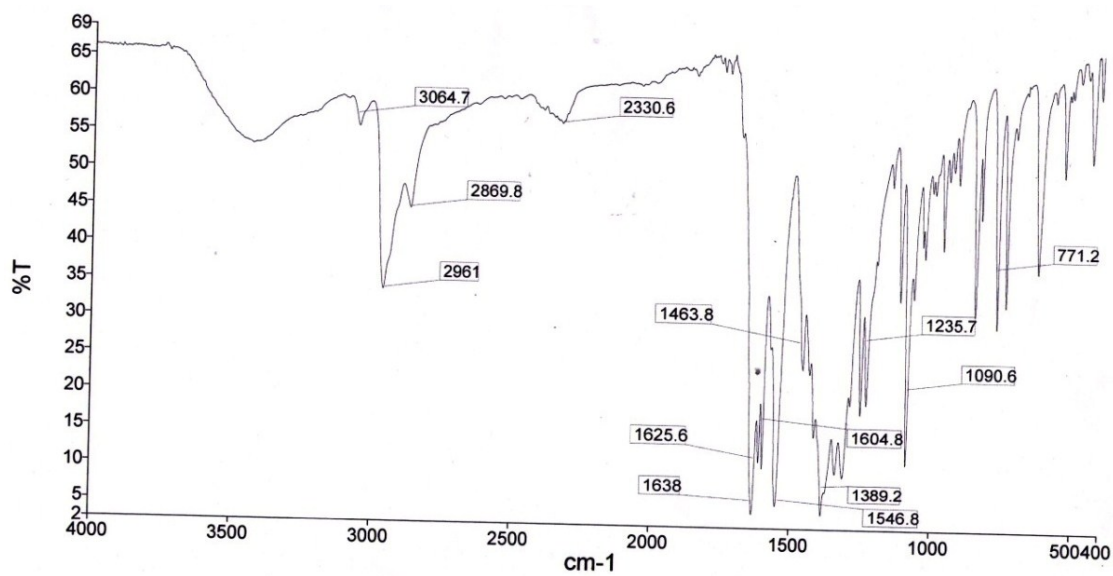
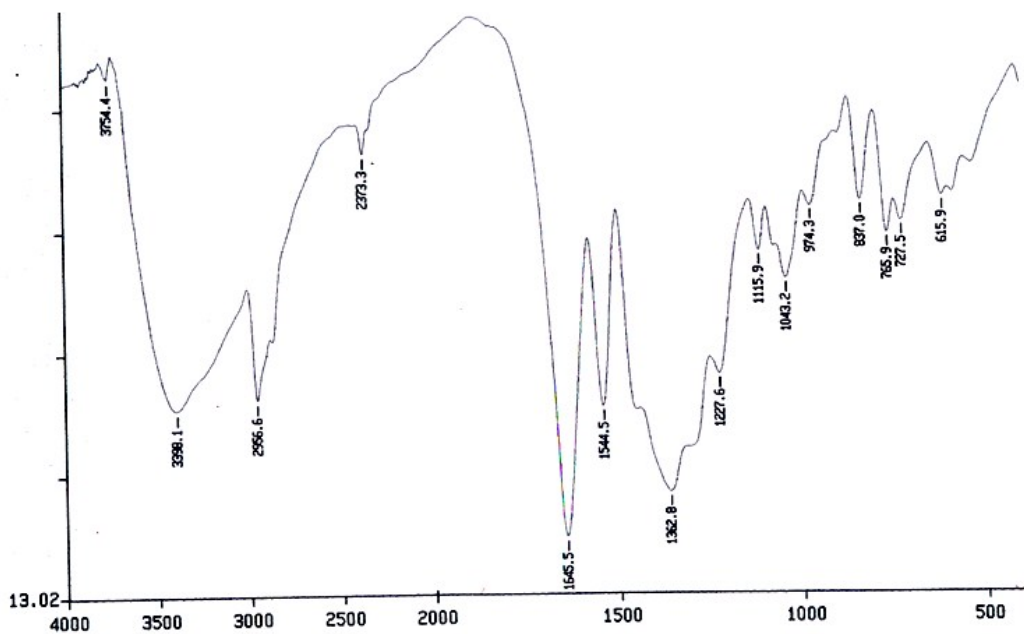
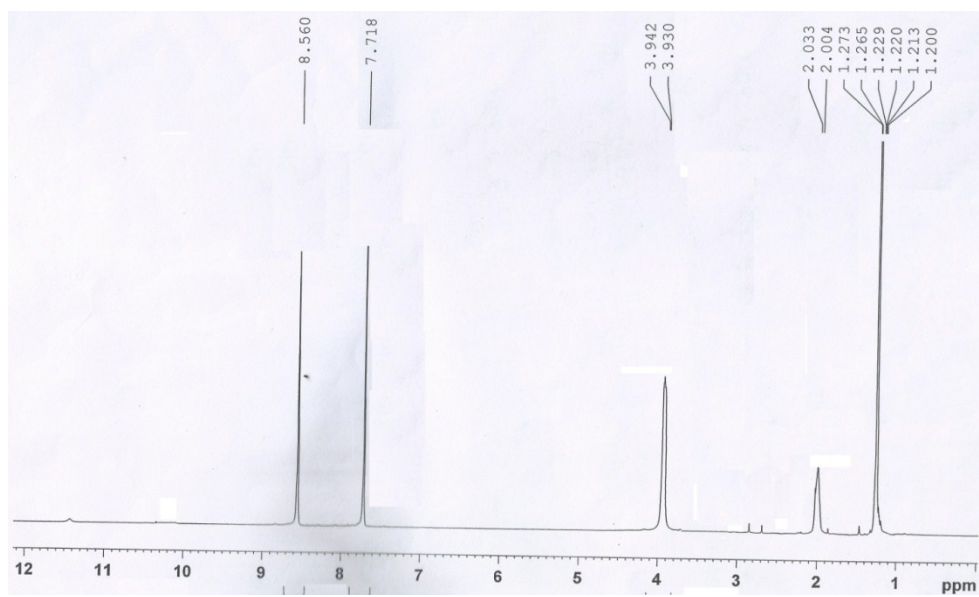


Fig. S3 IR spectra of complex 2.



**Fig. S4** IR spectra of complex 3.



**Fig. S5**  $^1\text{H}$  NMR spectrum with pure Zn crystal.

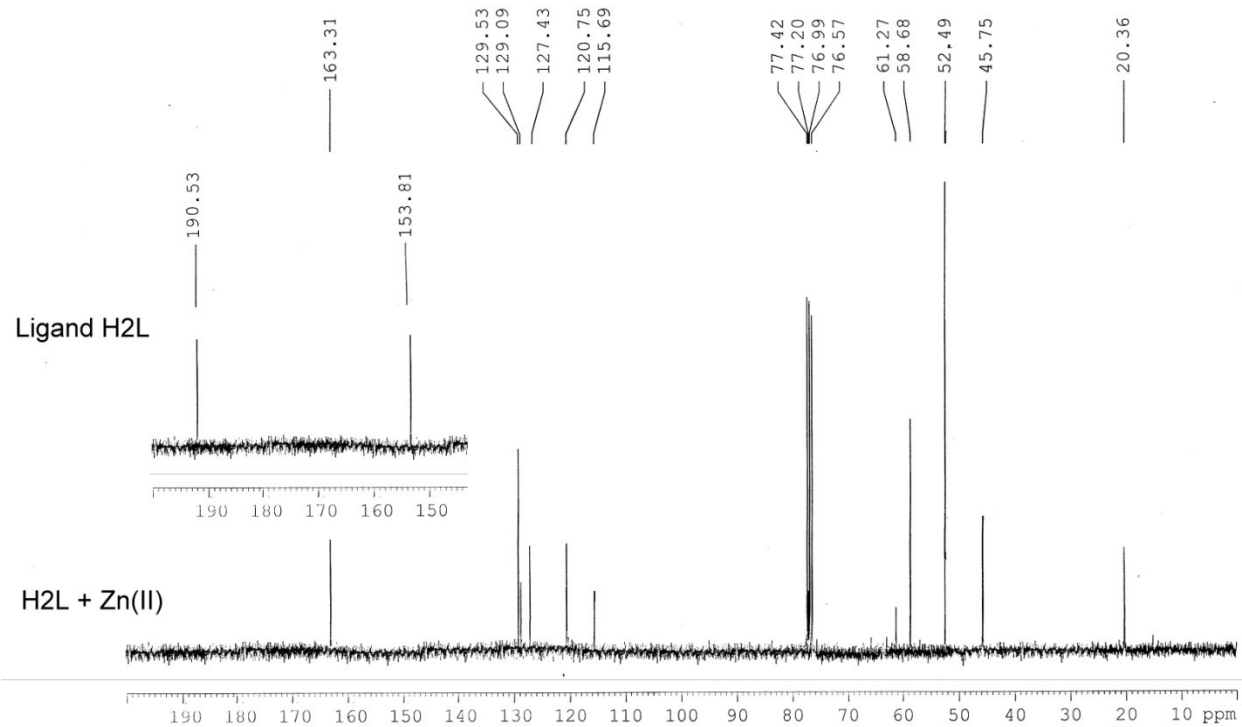
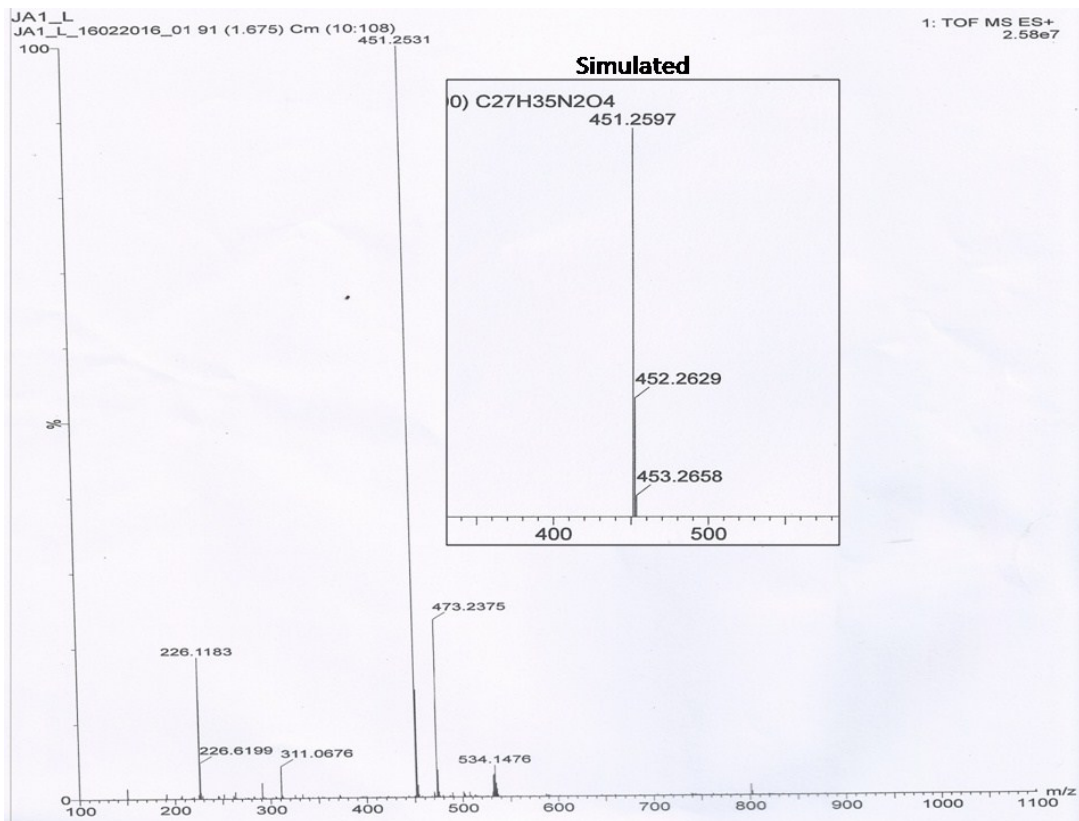
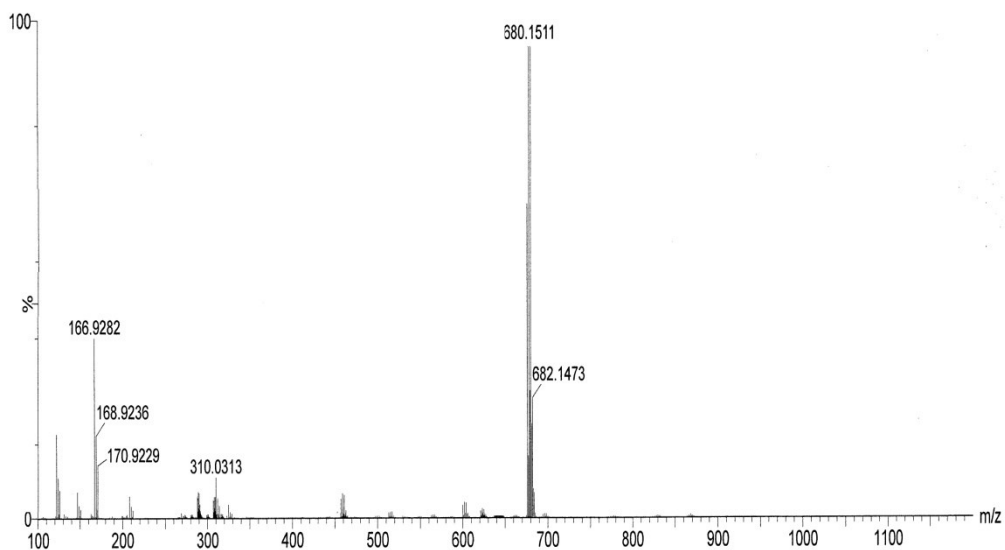


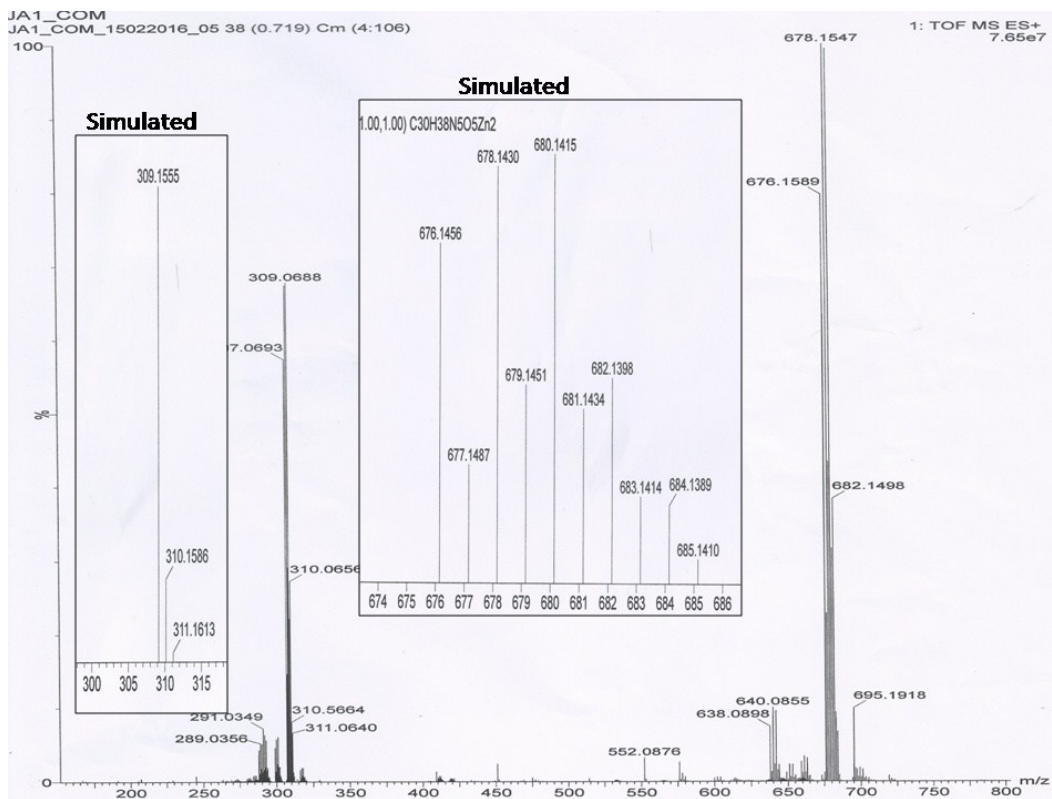
Fig. S6  $^{13}\text{C}$  NMR of H<sub>2</sub>L and mixture.



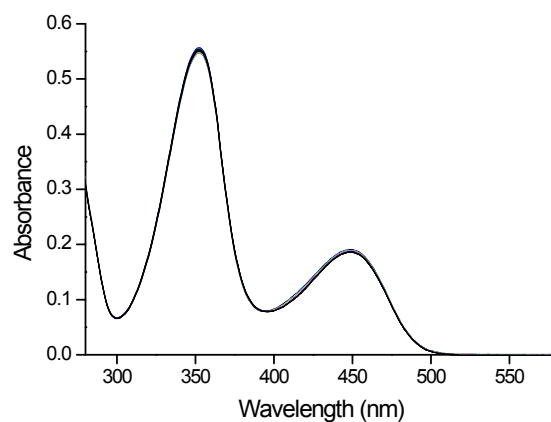
**Fig. S7** High Resolution Mass Spectra of ligand (H<sub>2</sub>L) in 50:50 water-acetonitrile.



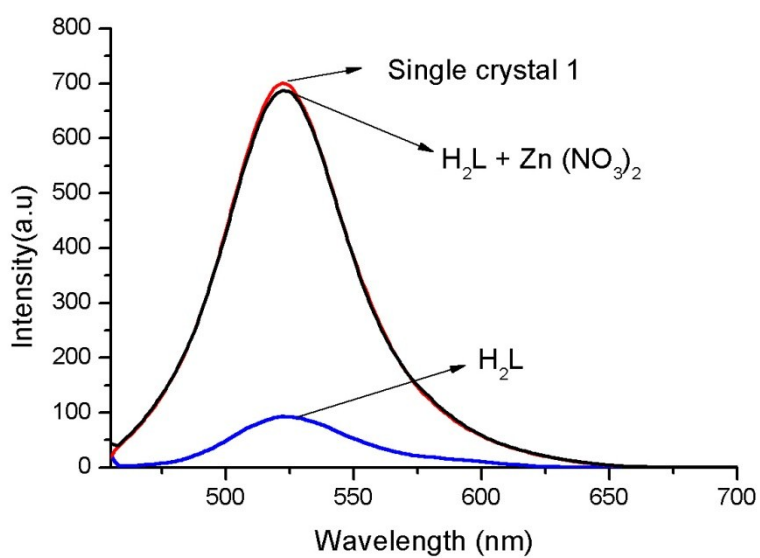
**Fig S8.** ESI- MS spectra of ligand and zinc nitrate mixture in 50:50 water-acetonitrile after 20 minutes of mixing.



**Fig. S9** ESI-MS Spectrum of zinc complex (**1**) in 50:50 water-acetonitrile.



**Fig. S10** Change in UV-Vis spectrum of ligand  $H_2L$  without the addition of zinc salt.



**Fig. S11** Photoluminescence spectra of  $H_2L$ ;  $H_2L + Zn(NO_3)_2$  and complex **1** (using single crystals).