## **Electronic Supplementary Information**

The importance of spodium bonds, H-bonds and  $\pi$ -stacking interactions in the solid state structures of four zinc complexes with tetradentate secondary diamine ligand

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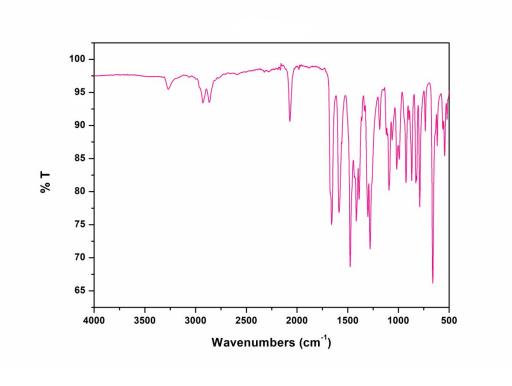


Figure S1. IR spectrum of complex 1.

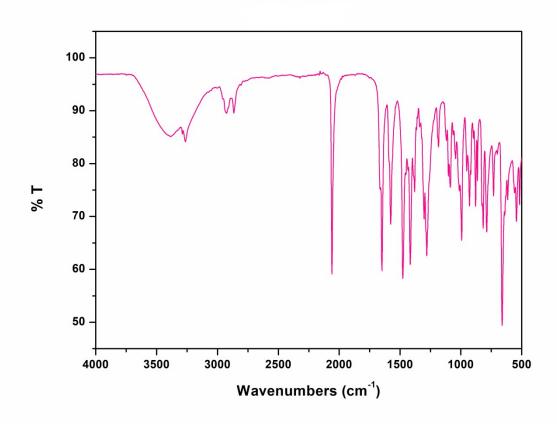


Figure S2. IR spectrum of complex 2.

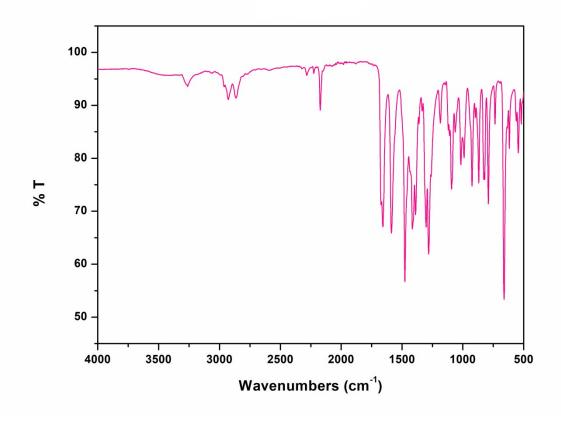


Figure S3. IR spectrum of complex 3.

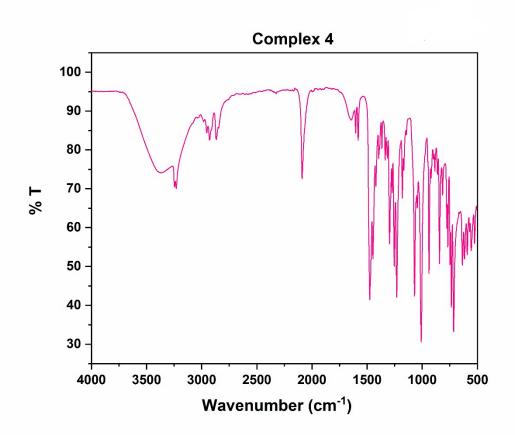


Figure S4. IR spectrum of complex 4.

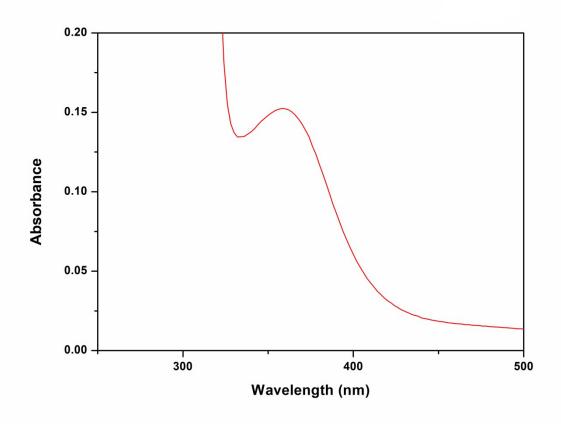


Figure S5. Electronic spectrum of complex 1.

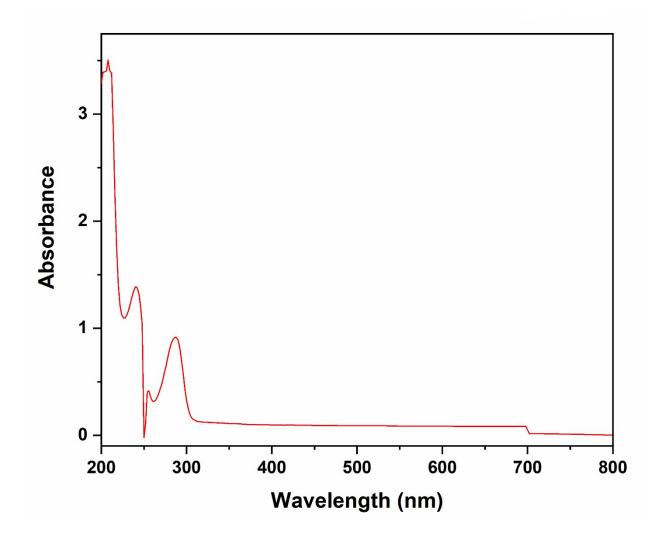


Figure S6. Electronic spectrum of complex 4.

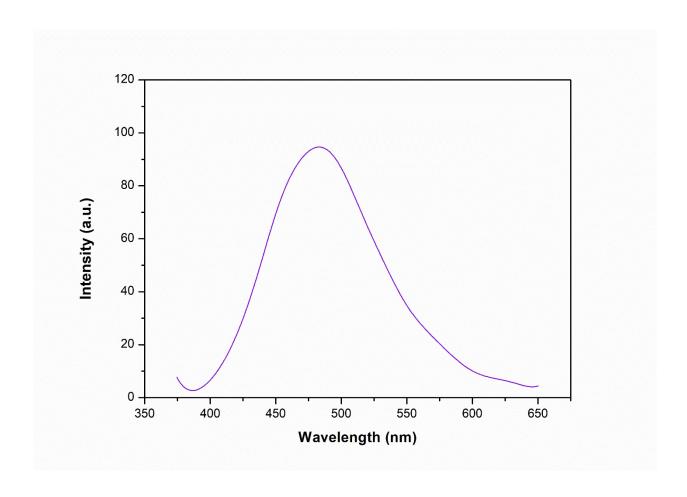


Figure S7. Fluorescence spectrum of complex 1. Excitation wavelength 365 nm.

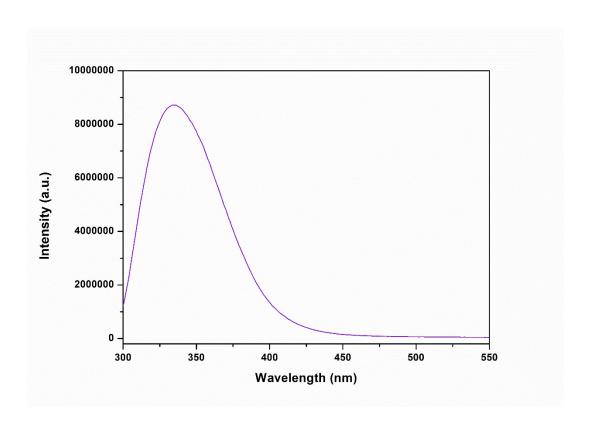
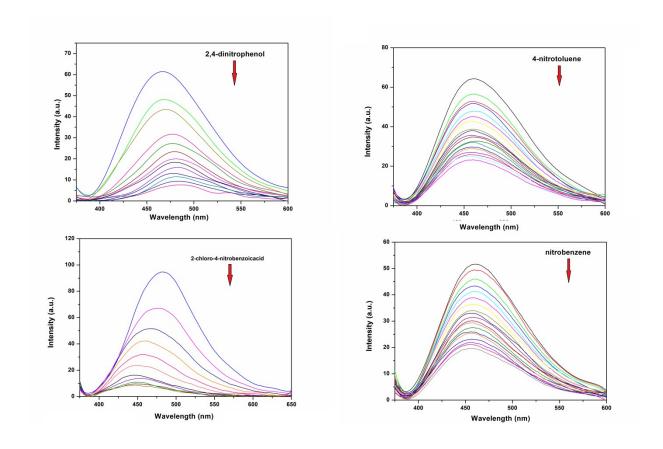


Figure S8. Fluorescence spectrum of complex 4. Excitation wavelength 287 nm.



**Figure S9.** Gradual decrease of fluorescence intensity of complex 1 on adding different quenchers.

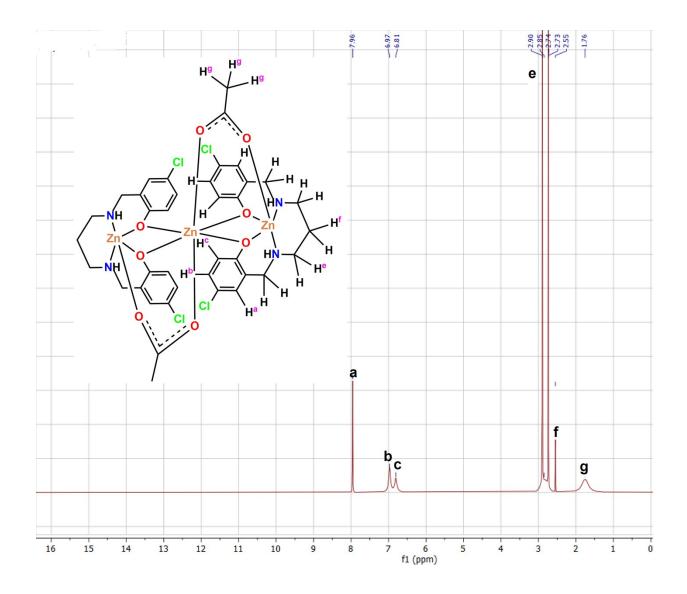


Figure S10. <sup>1</sup>H NMR spectrum of complex 1.

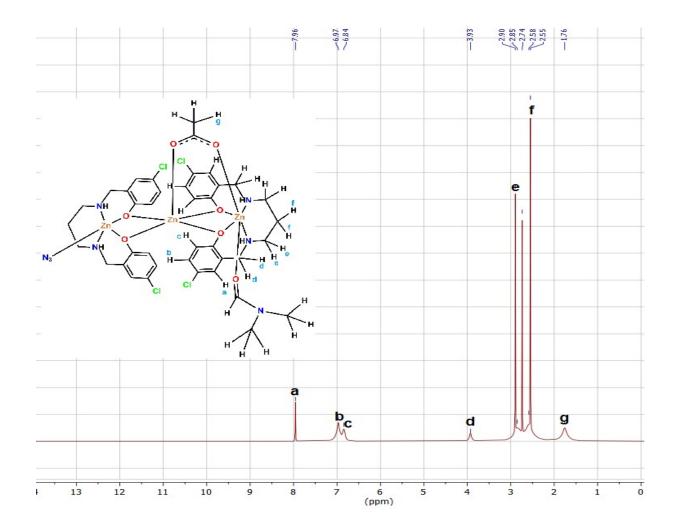


Figure S11. <sup>1</sup>H NMR spectrum of complex 2.

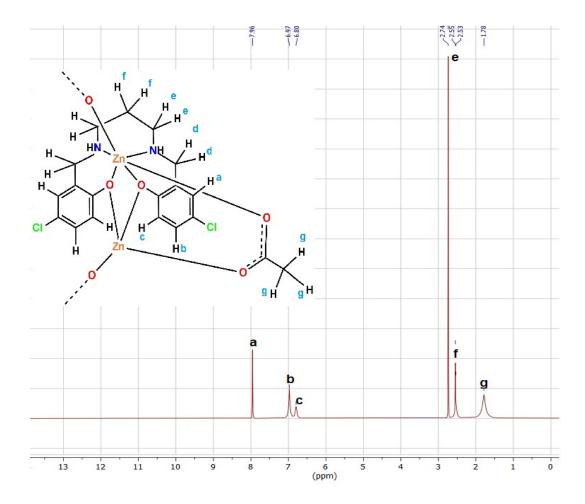


Figure S12. <sup>1</sup>H NMR spectrum of complex 3.

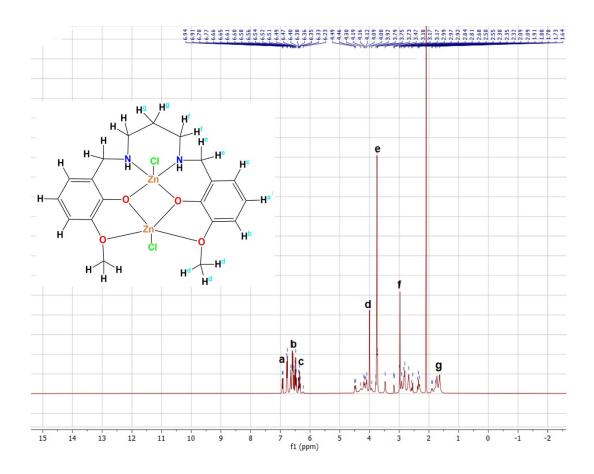
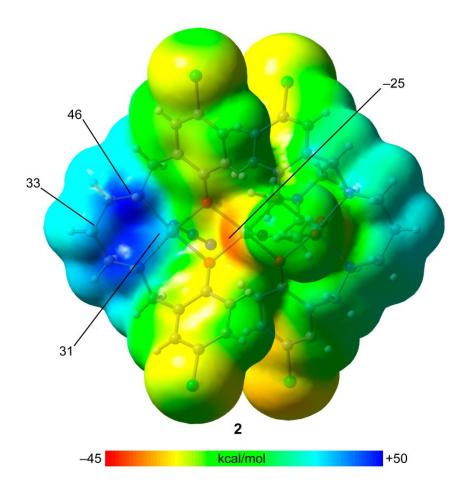


Figure S13. <sup>1</sup>HNMR spectrum of complex 4.



**Figure S14.** MEP surfaces of complex **2** at the RI-BP86-D3/def2-TZVp level of theory. The energies at selected points of the surfaces are given in kcal/mol. Isosurface 0.001 a.u.