Supporting Information For:

Unprecedented formation of organo-ruthenium(II) complexes containing 2-hydroxy-1-naphthaldehyde S-benzyldithiocarbazate: Synthesis, X-ray crystal structure, DFT study and biological activities *in vitro*

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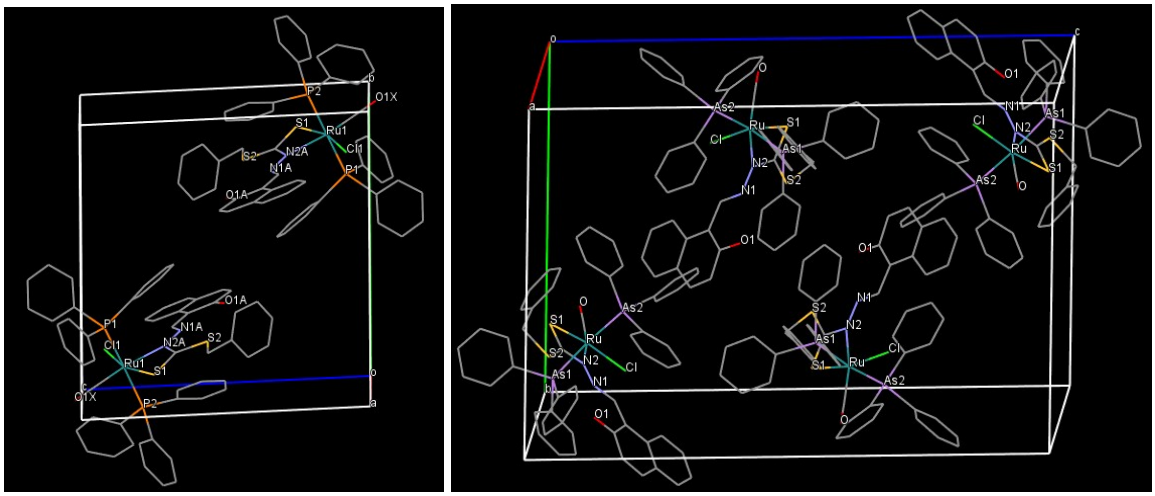

Fig. S1 Packing diagram of ruthenium complexes **1** and **2**

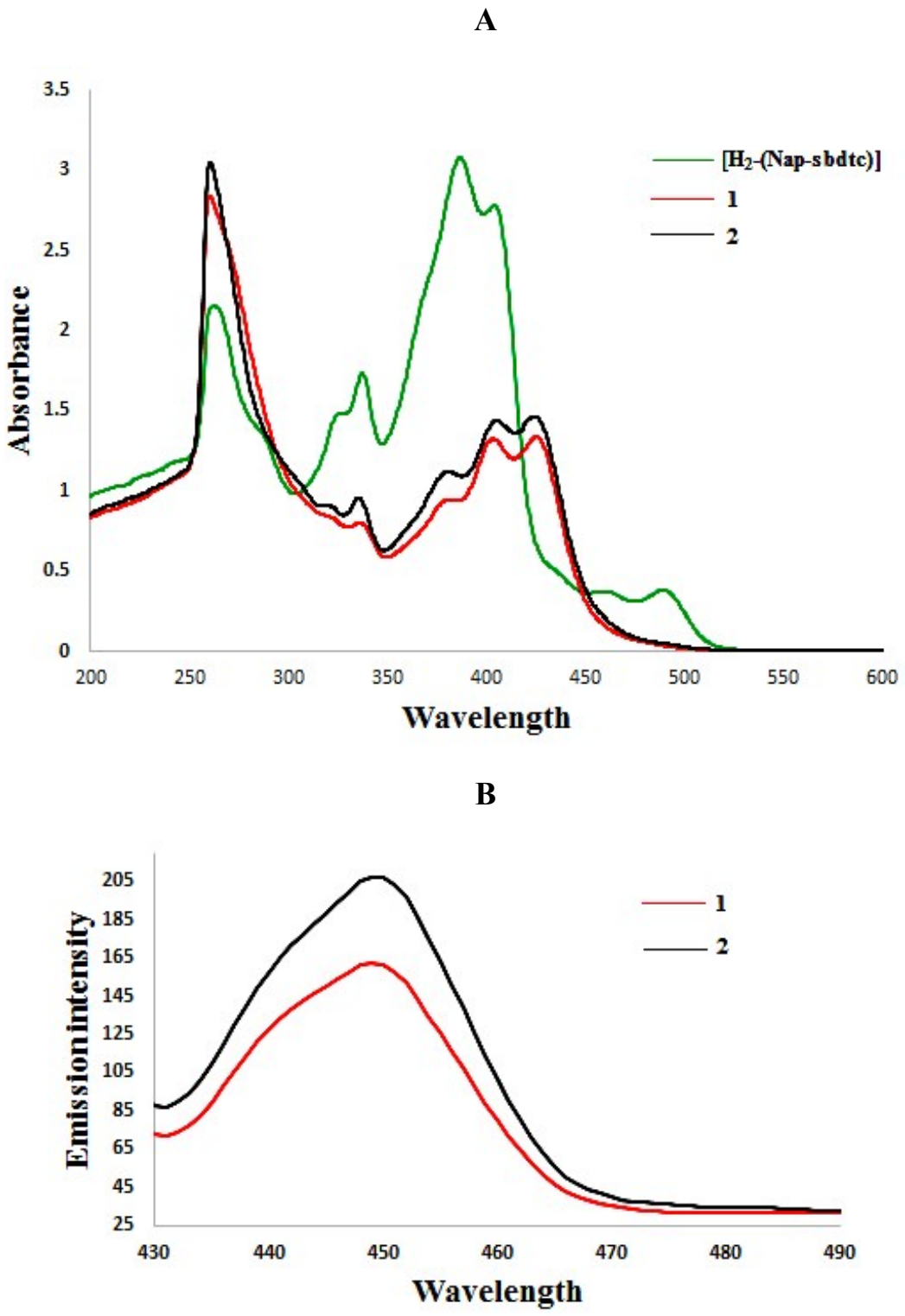

Fig. S2 Absorption (A) and emission spectra (B) of compounds in DMSO solvent.

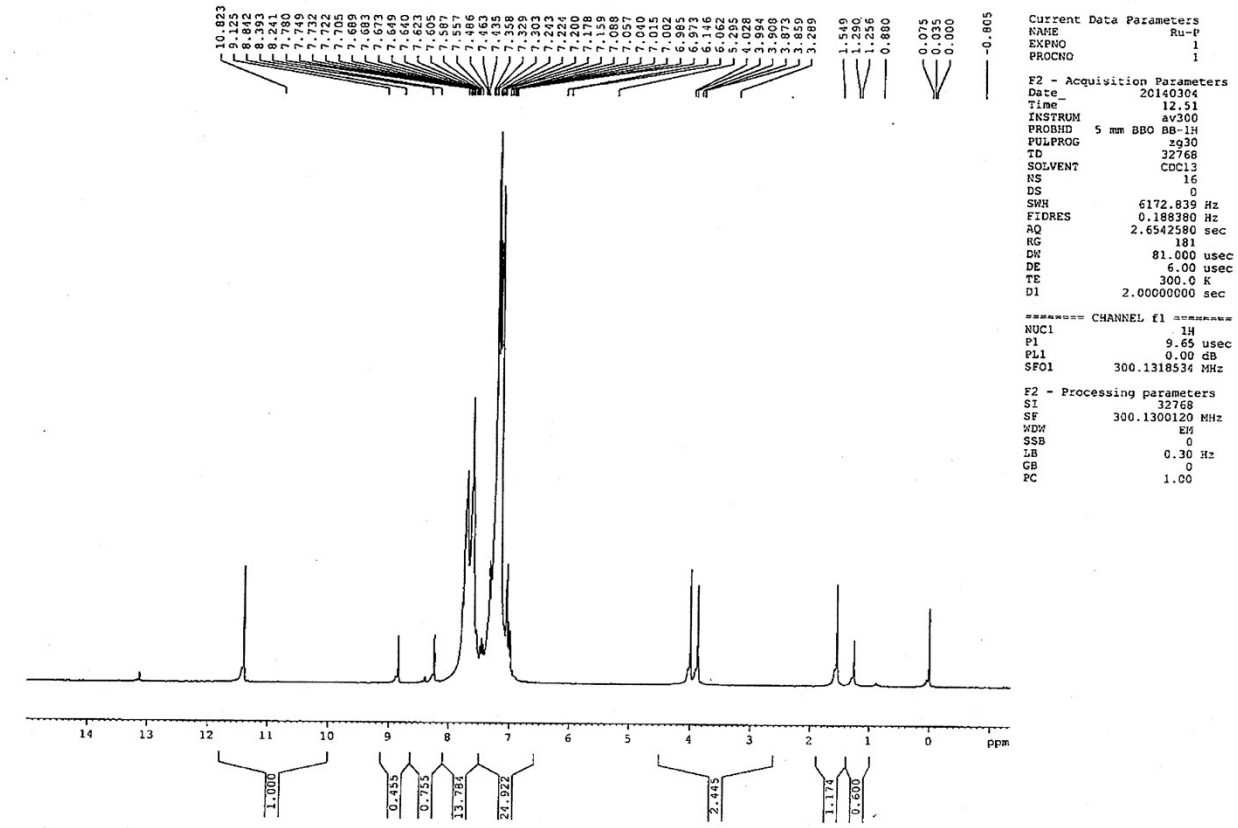

Fig. S3 ^{1}H NMR spectrum of complex **1**

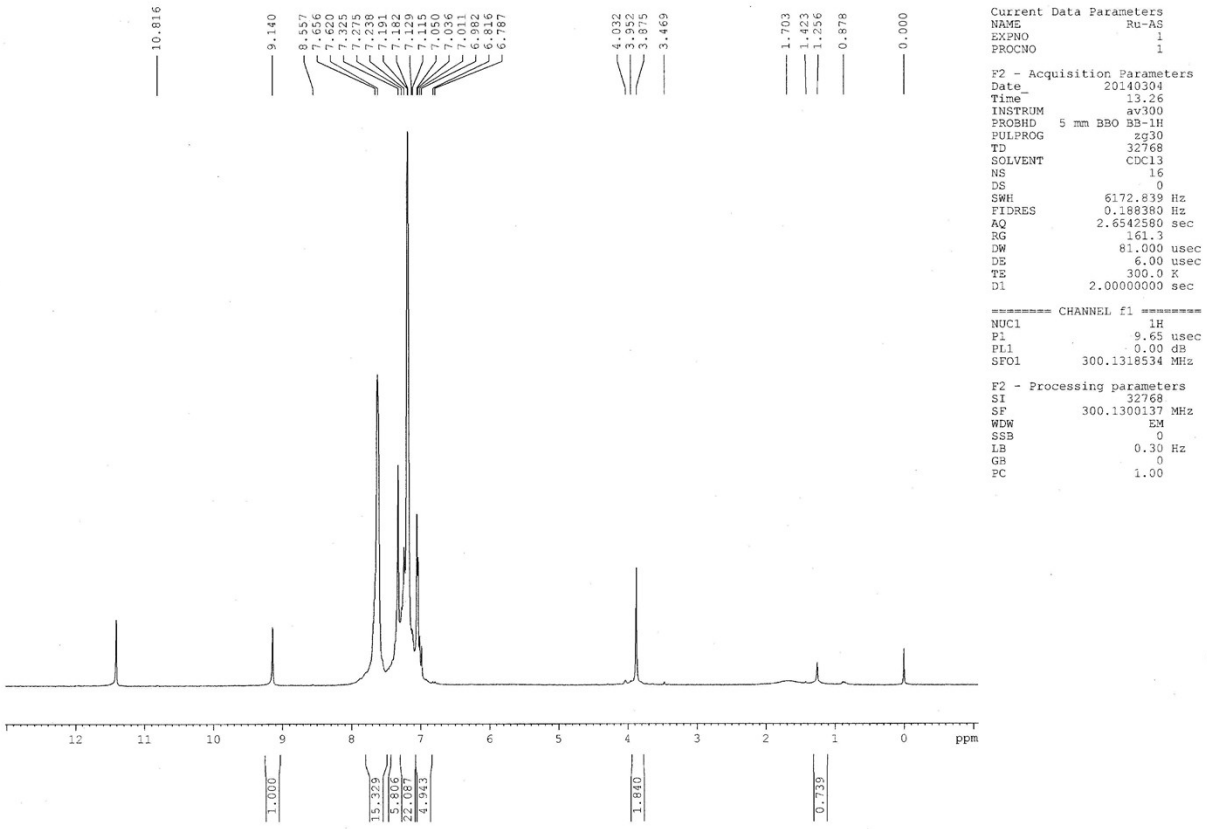

Fig. S4 ^{1}H NMR spectrum of complex **2**

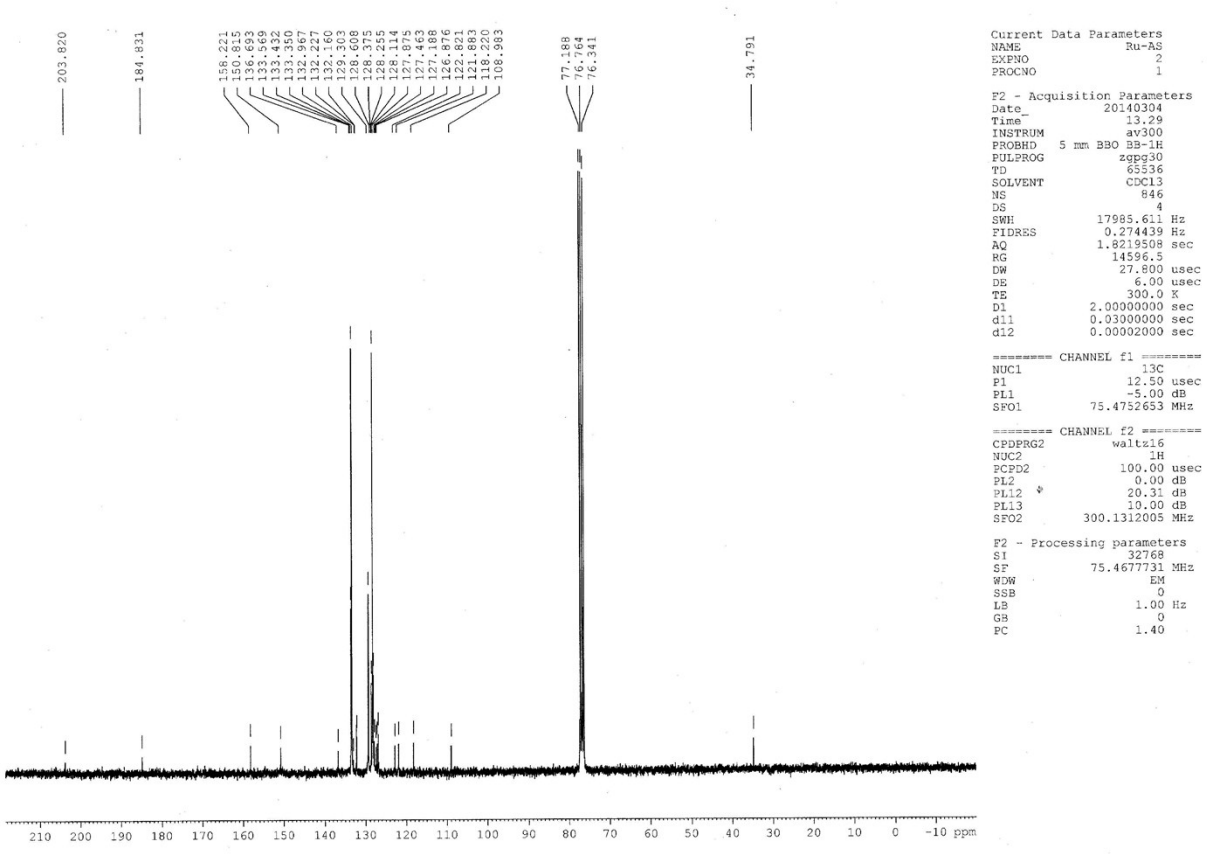

Fig. S5 ^{13}C NMR spectrum of complex **2**

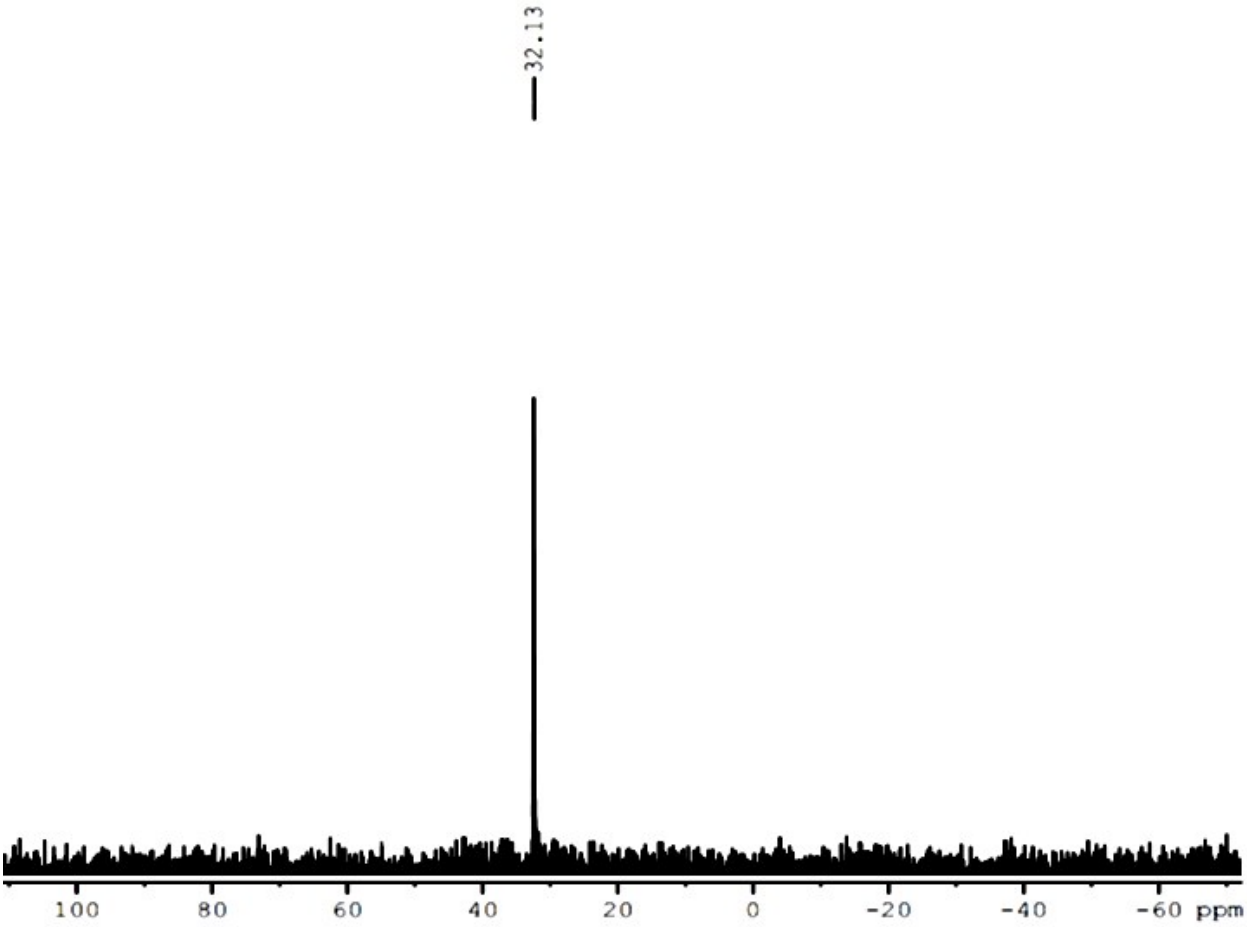

Fig. S6 ^{31}P NMR spectrum of complex **1**

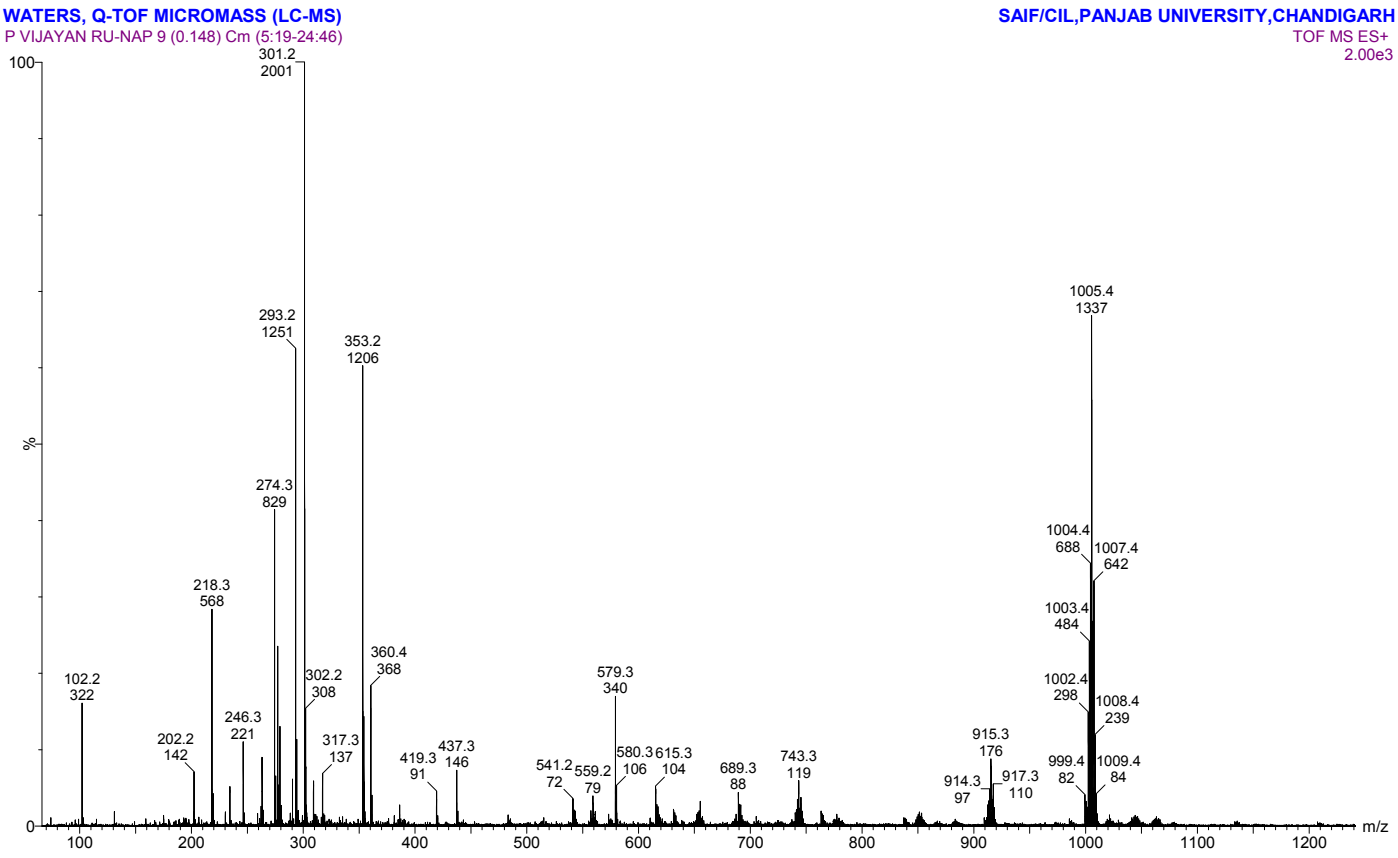

Fig. S7 ESI-MS spectrum of complex **1**

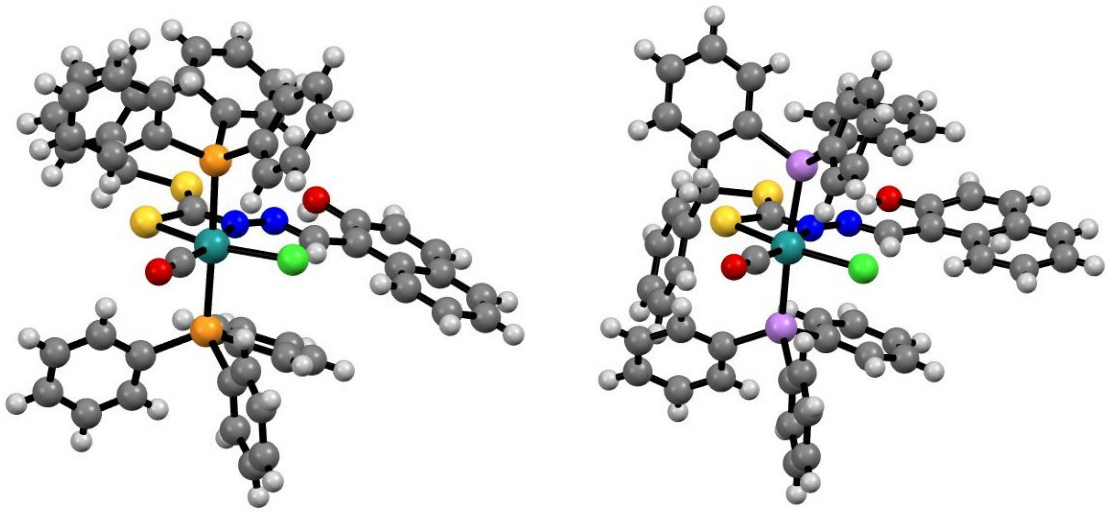

Fig. S8 LANL2DZ and 6-31G* (d, p) ground state optimized geometry of complexes **1, 2**