

ELECTRONIC SUPPLEMENTARY INFORMATION (ESI)

Internal hydrogen bonding and amide co-ordination in zinc(II) complexes of a tripodal N4 ligand: Structural, spectroscopic and reactivity studies.

Juan C. Mareque Rivas*, Rafael Torres Martín de Rosales and Simon Parsons

School of Chemistry, The University of Edinburgh, Joseph Black Building, King's Buildings, West Mains Road, Edinburgh, EH9 3JJ, UK.

Figure captions

Fig. S1 An ORTEP plot drawn with 30 % probability thermal ellipsoids showing intermolecular N(7)-H(7N)…N(12) hydrogen bonding in the crystal structure of bppapa.

Fig. S2 An ORTEP plot drawn with 50 % probability thermal ellipsoids showing hydrogen bonding between the $[(\text{bppapa})\text{Zn}]^{2+}$ cation and one of the PF_6^- anions in the crystal structure of **1**·0.5MeOH.

Fig. S3 Aromatic and NH region of the ^1H NMR spectra (360.1 MHz, CD_3CN) of **1** at 323 K (*top*) and 293 K (*bottom*).

Fig. S4 Aromatic and NH region of the ^1H NMR spectra (360.1 MHz, $\text{CD}_3\text{CN}/\text{CD}_3\text{OH}$ 6:1, 323 K) of (i) **1** (0.046 mM), (ii) **1** (0.046 mM) mixed with $\text{MeNOH}\cdot 5\text{H}_2\text{O}$ (0.046) after 60 s; (iii) **1** (0.046 mM) mixed with $\text{MeNOH}\cdot 5\text{H}_2\text{O}$ (0.046) after 7.5 h; (iv) $[(\text{bpapa})\text{Zn}(\text{NCCH}_3)](\text{PF}_6)_2$ (0.046 mM) mixed with

MeNOH·5H₂O (0.046) and (CH₃)₃CCOOH (0.046 mM) after 60 s and (v) [(bpapa)Zn(NCCH₃)](PF₆)₂ (0.046 mM).

Fig. S5 Aromatic and NH region of the ¹H NMR (360.1 MHz, CD₃CN/CD₃OH 6:1, 323 K) of (i) bppapa (0.046 mM), (ii) bppapa (0.046 mM) mixed with MeNOH·5H₂O (0.046) after 7.5 h s; (iii) bppapa (0.046 mM) mixed with MeNOH·5H₂O (0.046) after 10 days; (iv) bpapa (0.046 mM).

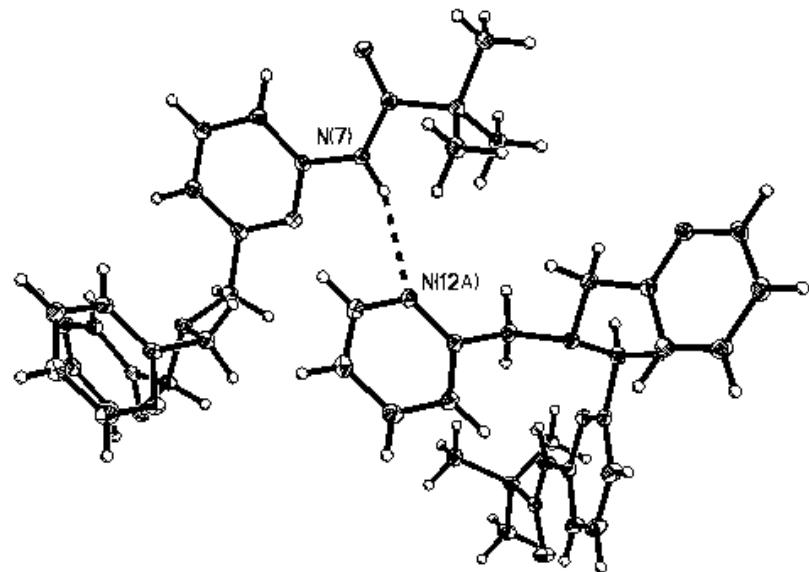


Fig. S1 Mareque Rivas, Torres and Parsons.

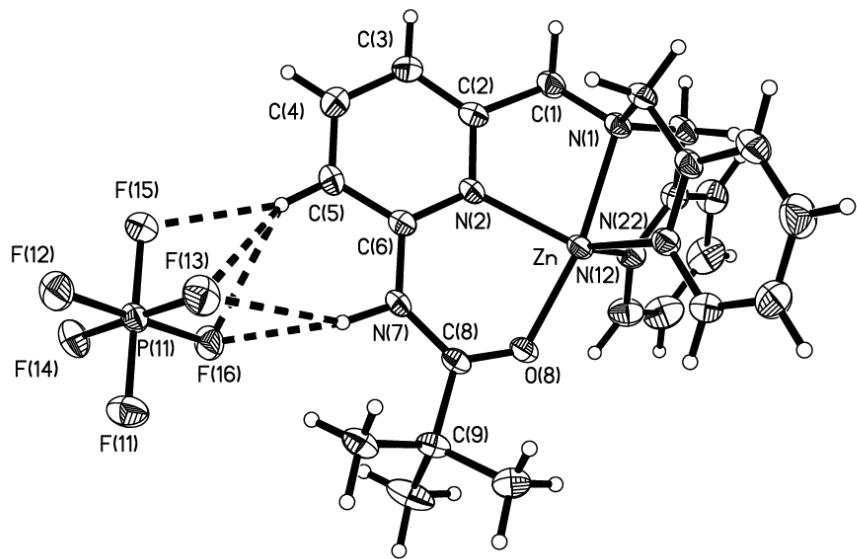


Fig. S2 Mareque Rivas, Torres and Parsons.

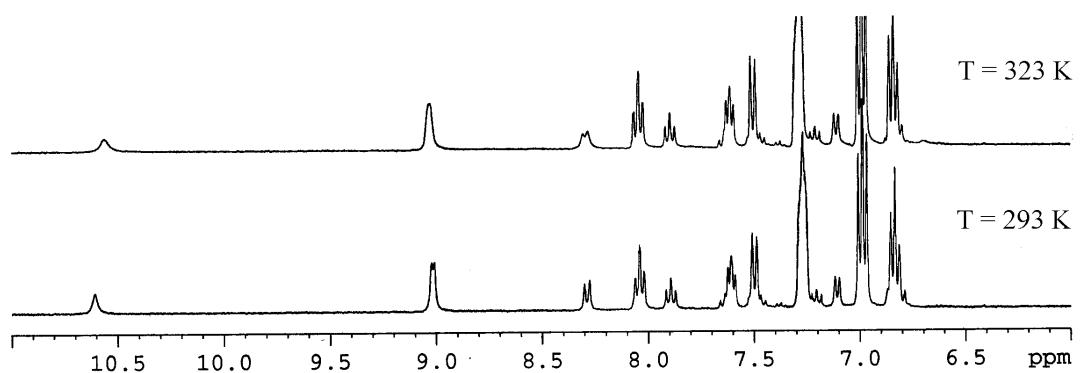


Fig. S3 Mareque Rivas, Torres and Parsons.

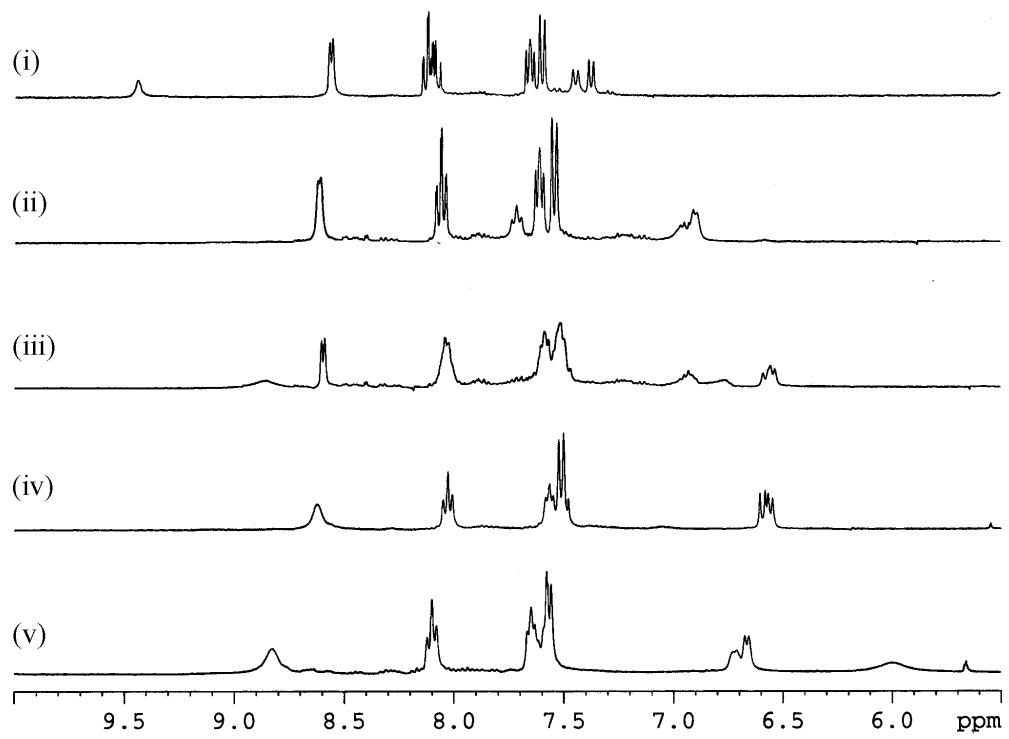


Fig. S4 Mareque Rivas, Torres and Parsons.

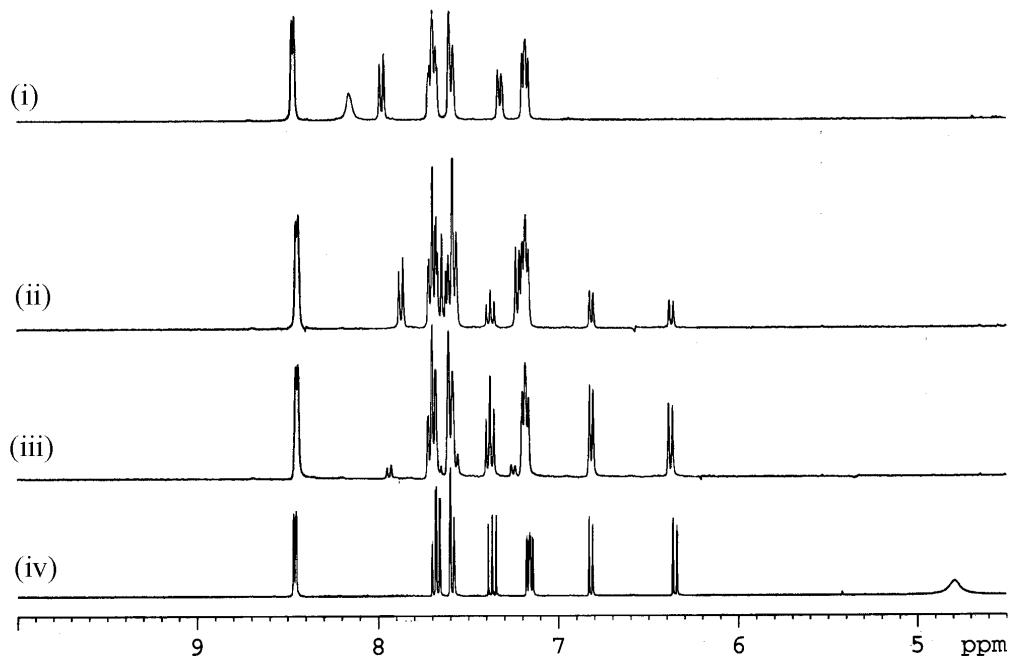


Fig. S5 Mareque Rivas, Torres and Parsons.