

Supplementary Material: Reaction of Non-Symmetric Schiff Base Metallo-Ligand Complexes Possessing an Oxime Function with Ln Ions

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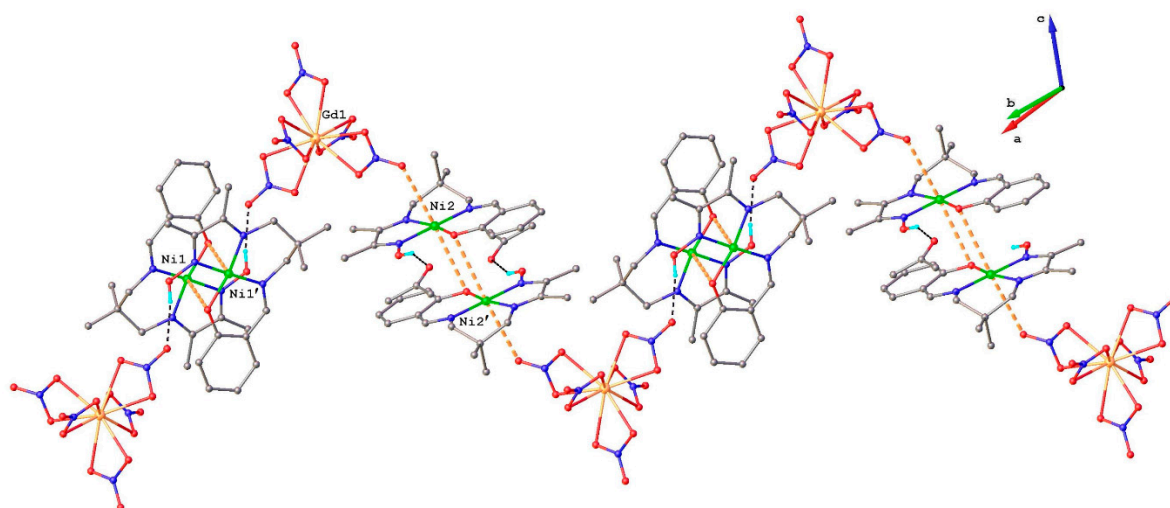


Figure S1. Supramolecular chain in the crystal structure **6**. Non-relevant H-atoms are omitted. H-bonds and apical Ni-O contacts are shown in black and orange dashed line, respectively.

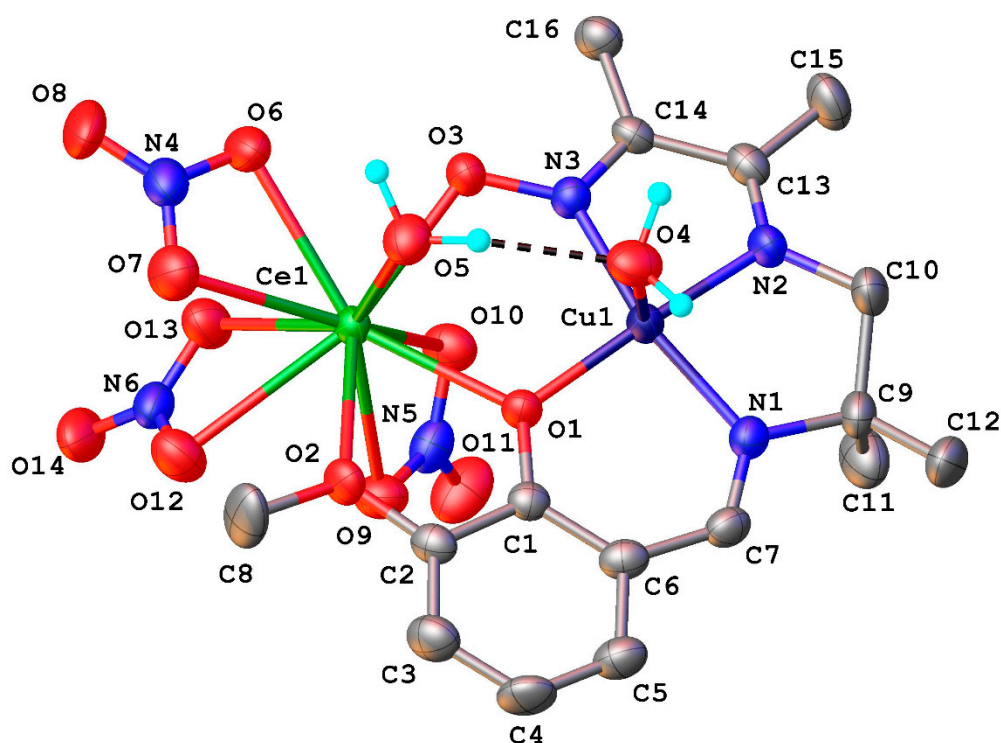


Figure S2. X-ray molecular structure of $[\text{CuL}^5\text{Ce}(\text{NO}_3)_3(\text{H}_2\text{O})_2]$ (**7**) with atom labelling scheme and thermal ellipsoids at 40% probability level. Non-relevant H-atoms are omitted. Selected bond lengths (\AA) and angles Cu1-N1 1.953(4), Cu1-N2 1.929(4), Cu1-N3 2.012(4), Cu1-O1 1.929(3), Cu1-O4 2.376(4), N3-O3 1.346(4), C14-N3 1.292(5), Ce1-O1 2.462(3), Ce1-O2 2.575(3), Ce1-O3 2.424(3), Ce1-O5 2.580(4), Ce1-O6 2.572(3), Ce1-O7 2.639(4), Ce1-O9 2.663(3), Ce1-O10 2.555(3), Ce1-O12 2.575(3), Ce1-O13 2.572(3); N2-Cu1-N1 83.4(2), O1-Cu1-N1 95.4(1), N2-Cu1-N3 80.4(2), O1-Cu1-N3 99.0(2), Cu1-O1-Ce1 113.11), O3-N3-Cu1 127.1(3), N3-O3-Ce1 114.4(2), O3-Ce1-O1 83.46(9). H-bond parameters: $\text{O5-H}\cdots\text{O4}$ [O5-H 0.95 \AA , $\text{H}\cdots\text{O4}$ 1.98 \AA , $\text{O5}\cdots\text{O4}$ 2.876(6) \AA , $\angle\text{O5-H-O4}$ 156.9°].

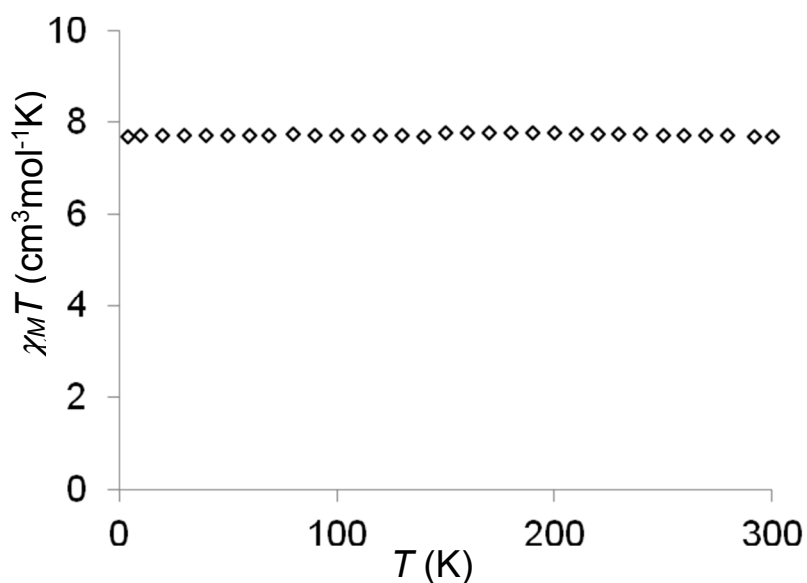


Figure S3. Temperature dependence of the $\chi_M T$ product for complex **6** at an applied magnetic field of 0.1 T.

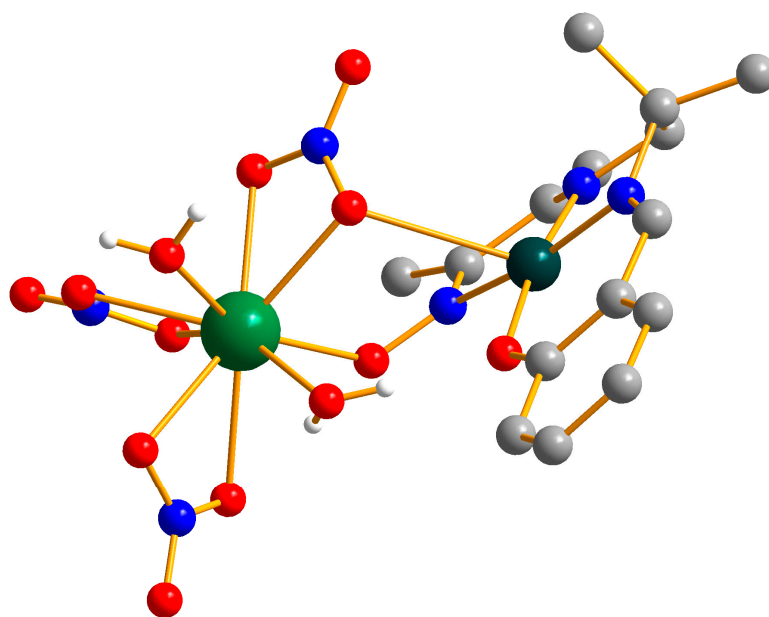


Figure S4. Molecular plot for complex $\text{CuL}^5\text{Er}(\text{NO}_3)_3(\text{H}_2\text{O})_2$ [21].