

Supporting Information

Ligand substitut ion effect on single-molecule magnet behavior in dinuclear dysprosium complexes with radical functionalized phenol as bridging ligands

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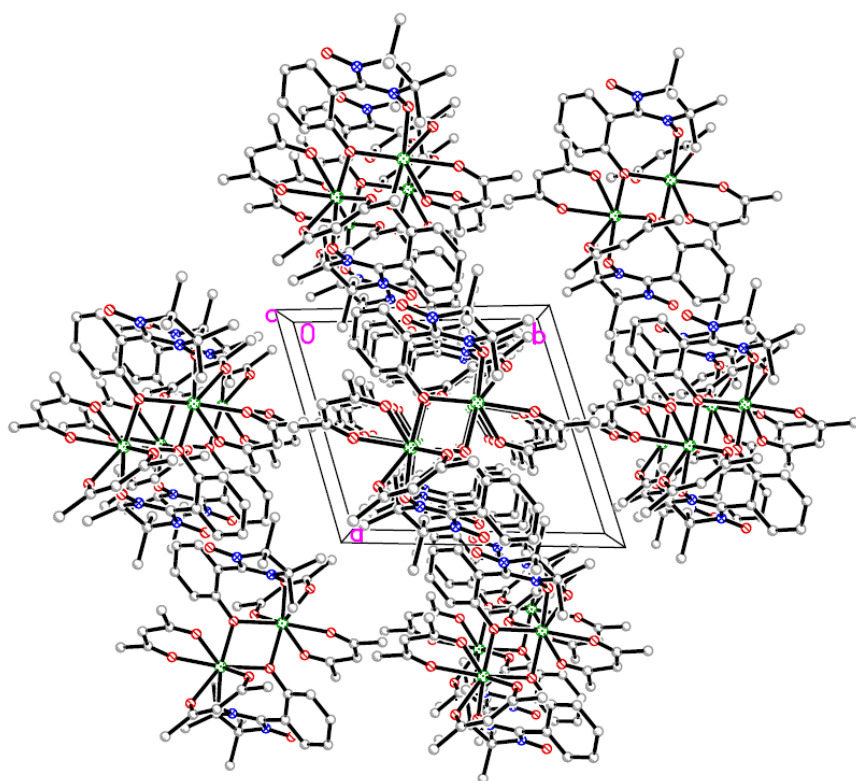


Figure S1. The molecular packing structure of compound 1 (Hydrogen and fluorine atoms are omitted for clarity).

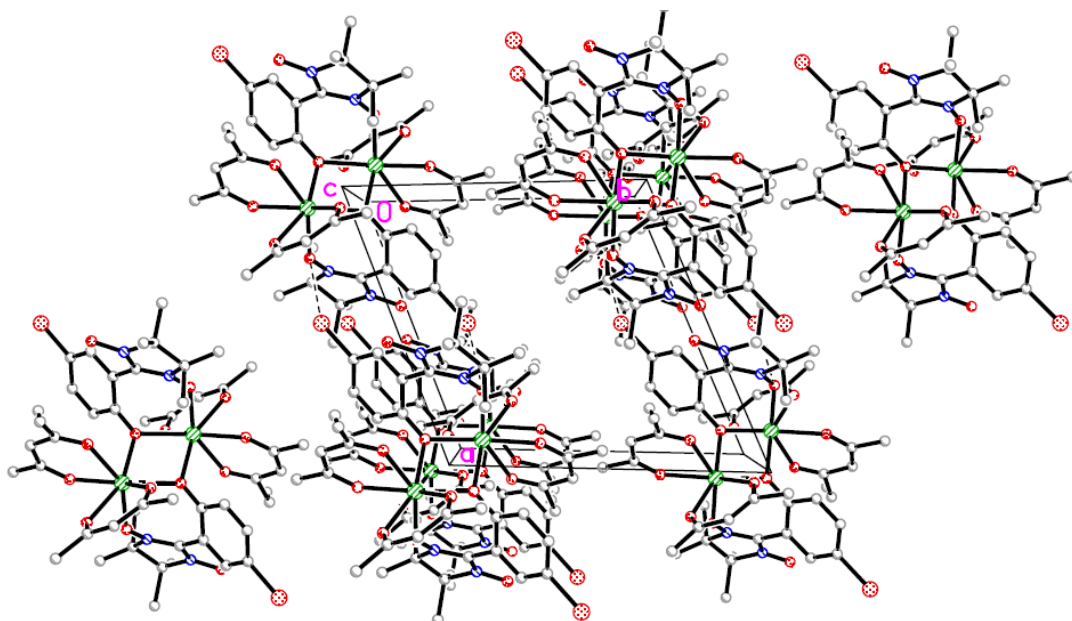
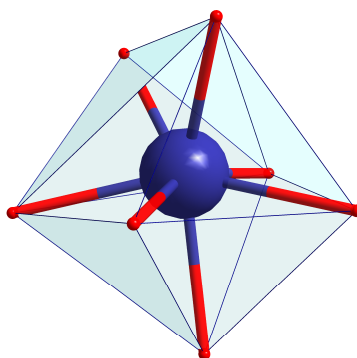


Figure S2. The molecular packing structure of compound 2 (Hydrogen and fluorine atoms are omitted for clarity).

Table SI_1. Results of the SHAPE¹ analysis for the DyO₇ coordination sphere² in compounds **1** and **2**. The figure shows the capped octahedron for coordination sphere of Dy in compound **1**.

Structure [DyO ₇]	(PBPY-7) ^a	(COC-7) ^a	(CTPR-7) ^a	(JPBPY-7) ^a	(JETPY-7) ^a
1	8.246	0.366	2.055	11.376	18.781
2	8.245	0.297	1.740	11.353	17.886

^a PBPY-7: (D_{5h}) Pentagonal bipyramid; COC-7: (C_{3v}) Capped octahedron; CTPR-7: (C_{2v}) Capped trigonal prism; JPBPY-7: (D_{5h}) Johnson pentagonal bipyramid J13; JETPY-7: (C_{3v}) Johnson elongated triangular pyramid J7.



¹ Llunell, M.; Casanova, D.; Cirera, J.; Bofill, J. M.; Alemany, P.; Alvarez, S.; Pinsky, M.; Avnir, D. *SHAPE: Continuous shape measures of polygonal and polyhedral molecular fragments*, 1.1b; University of Barcelona and The Hebrew University of Jerusalem: Barcelona, 2005.

² Casanova, D.; Alemany, P.; Bofill, J.M.; Alvarez, S., *Chem. Eur. J.* **2003**, *9*, 1281.

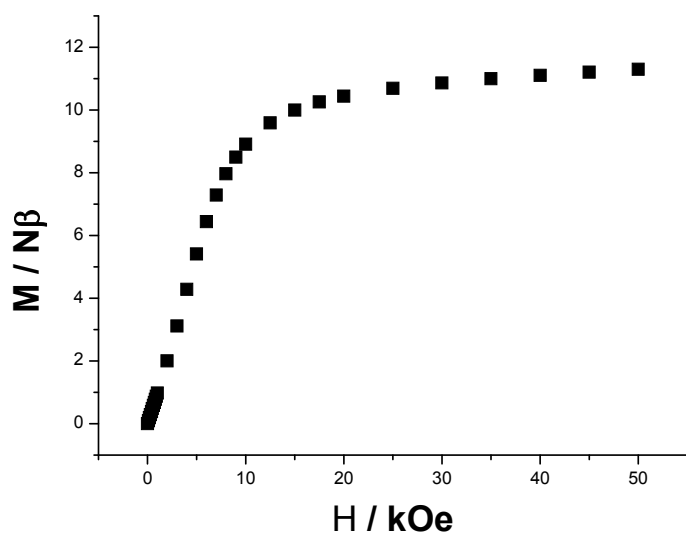


Figure S3. The M versus H plot for **1** at 2.0K

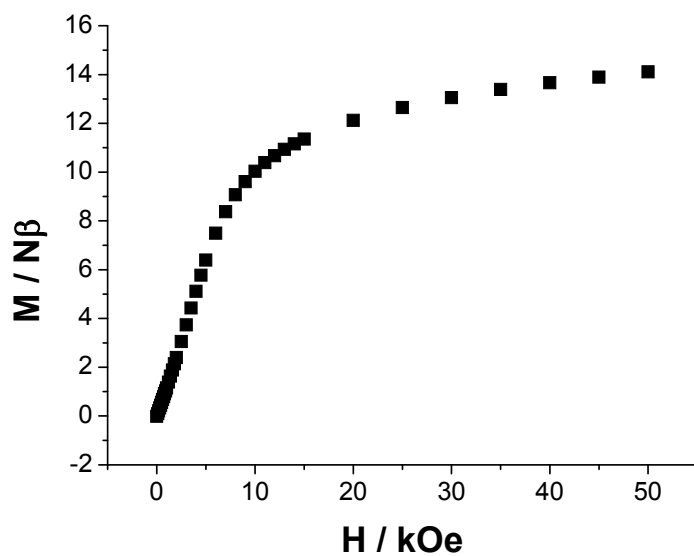


Figure S4. The M versus H plot for **2** at 2.0K

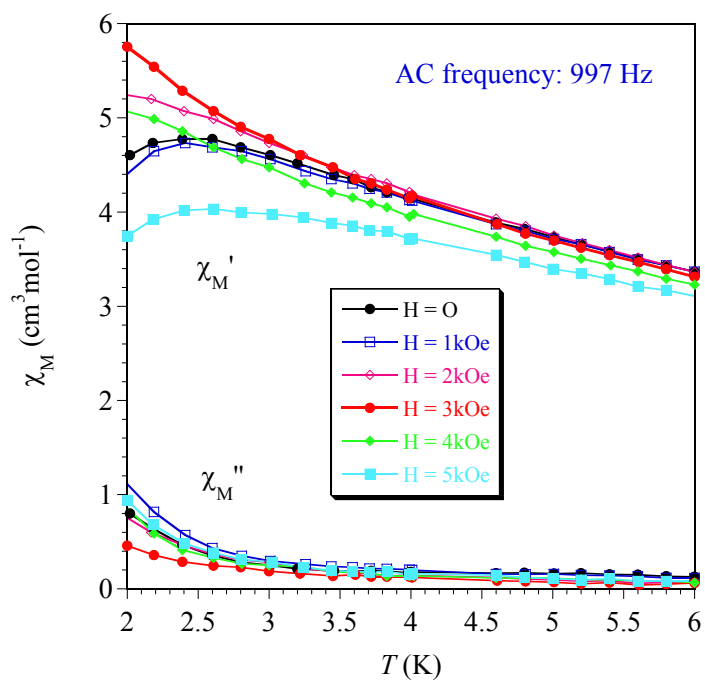


Figure S5. Temperature dependence of the in-phase (χ') and the out-of-phase (χ'') ac susceptibility components for **1** with different applied dc fields and an oscillation of 3.0 Oe (freq = 997 Hz).

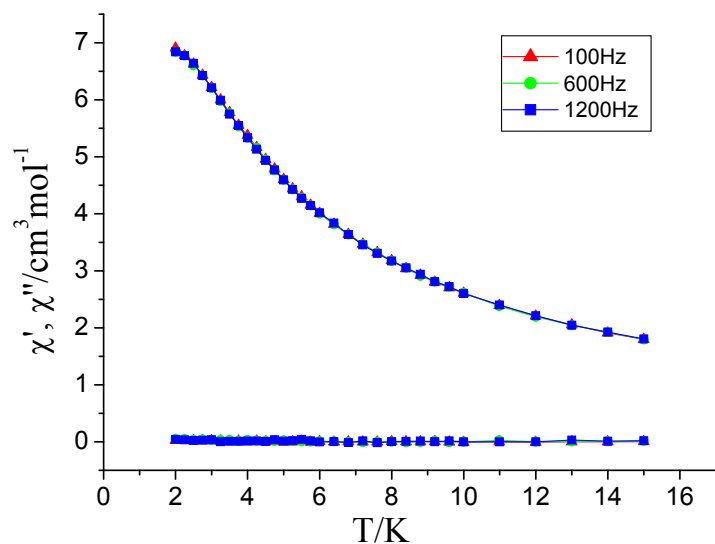


Figure S6. Temperature dependence of the in-phase (χ') ac susceptibility components at different frequencies for **2** with zero dc field and an oscillation of 3.0 G.