

Supporting Information

Unusual Gd-nitronyl nitroxide antiferromagnetic coupling and slow magnetic relaxation in the corresponding Tb analogue

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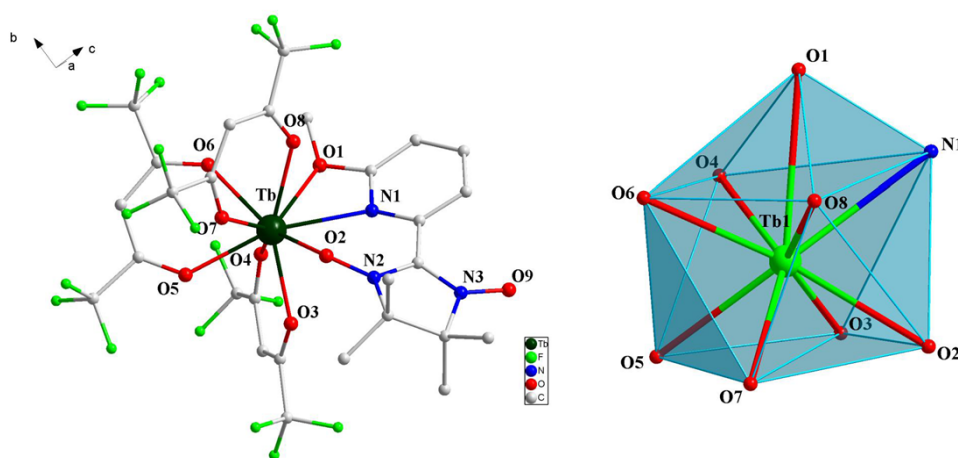


Figure S1. Crystal structure of complex **2** (left: All hydrogen atoms are omitted for clarity) and coordination polyhedron of Tb ion in complex **2** (right).

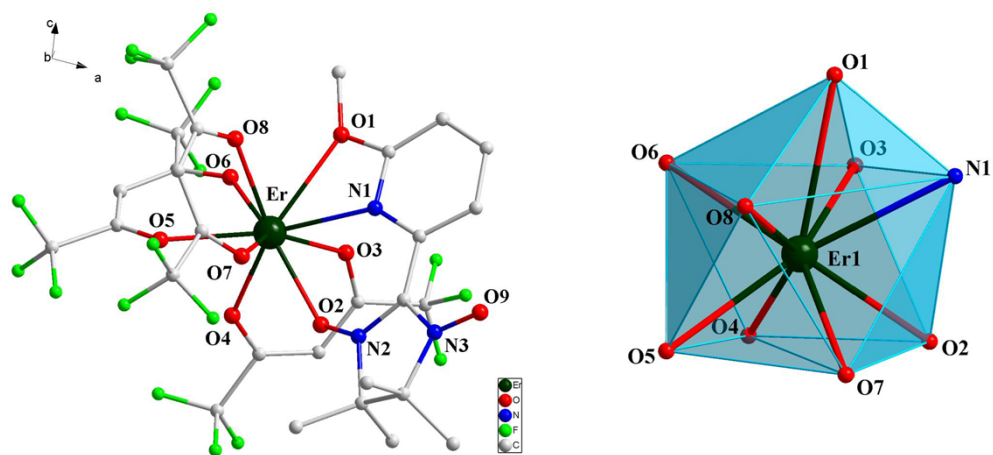


Figure S2. Crystal structure of complex **3** (left: All hydrogen atoms are omitted for clarity) and coordination polyhedron of Er ion in complex **3** (right).

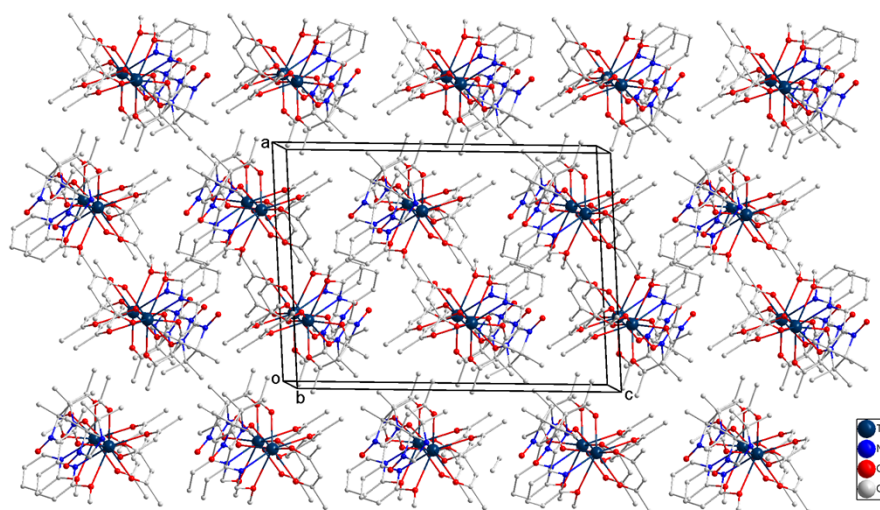


Figure S3. Packing diagram of complex **2**. All hydrogen and fluorine atoms are not shown for the sake of clarity.

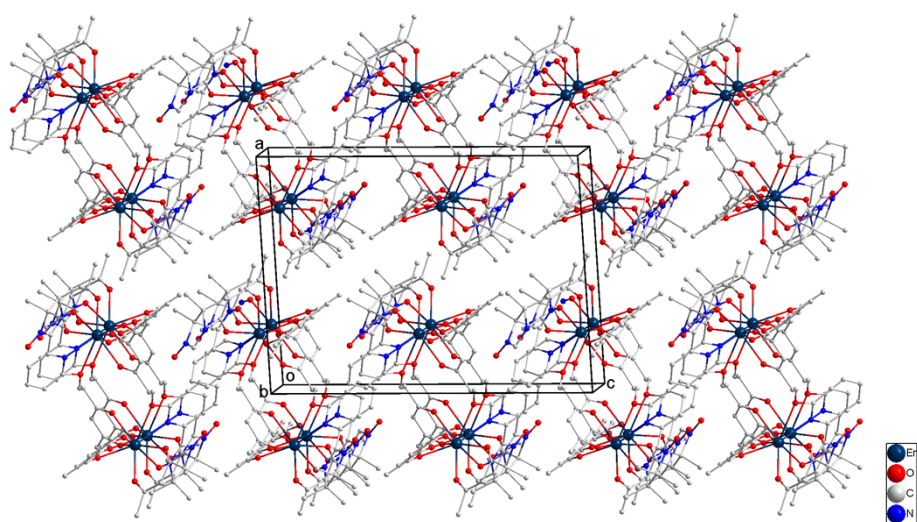


Figure S4. Packing diagram of complex 3. All hydrogen and fluorine atoms are not shown for the sake of clarity.

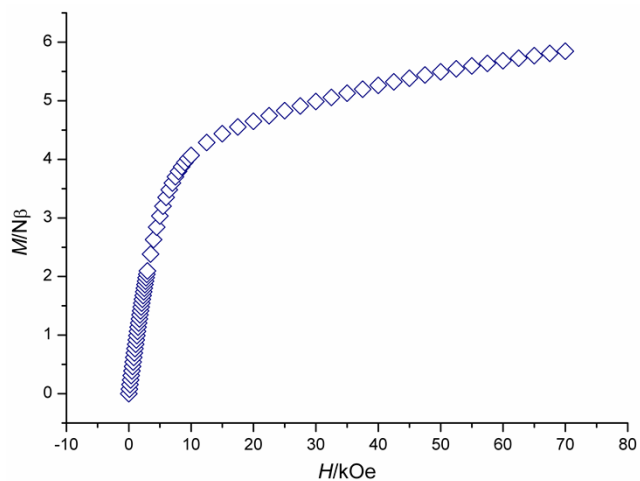


Figure S5. M vs H plot for complex 2.

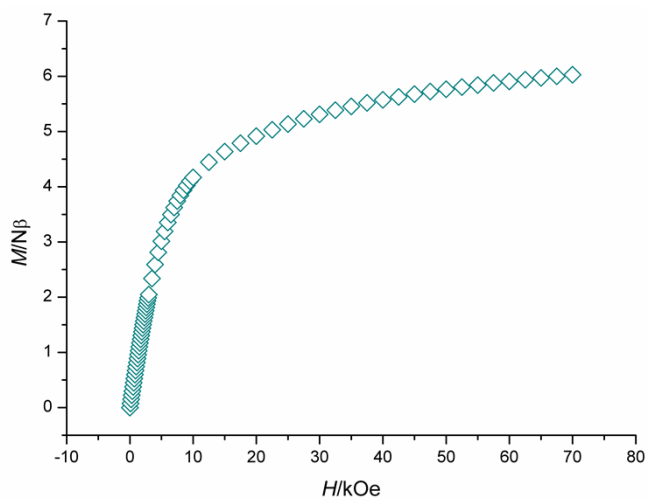


Figure S6. M vs H plot for complex 3.

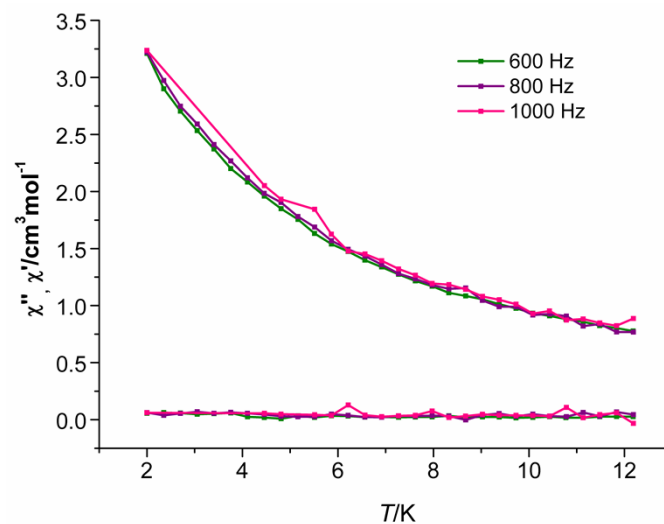


Figure S7. Temperature-dependent ac magnetic susceptibility of **3** with an oscillation of 2.5 Oe in 2000 Oe dc field.

Table S1 SHAPE analysis for similar complexes in literature.

complex	SAPR-8	TDD-8	JBTPR-8	BTPR-8
[Gd(hfac) ₃ (NIToPy)]	1.003	1.407	1.621	1.534
[Tb(hfac) ₃ (NIToPy)]	0.782	1.749	1.581	1.468