Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting Information

Magnetic relaxation in mononuclear Tb complex involving nitronyl nitroxide ligand

Peng Hu,[a] Zan Sun,[a] Xiufeng Wang,[a] Licun Li,*[a] Daizheng Liao,[a] Dominique Luneau*[b]

[a] *Department of Chemistry, Key Laboratory of Advanced Energy Materials Chemistry, Tianjin Key Laboratory of Metal and Molecule-based Material Chemistry, and Collaborative Innovation Center of Chemical Science and Engineering (Tianjin), Nankai University, Tianjin 300071, China*

[b] *Laboratoire des Multimatériaux et Interfaces (UMR 5615), Université Claude Bernard Lyon 1, Campus de la Doua, 69622 Villeurbanne cedex, France*

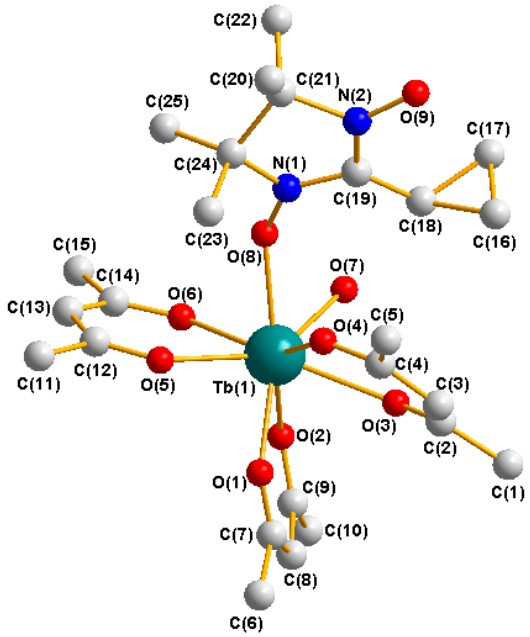

Fig. S1 Perspective view of complex $[Tb(hfac)_3(NIT\text{-}C_3H_5)(H_2O)]$(**2**). H and F atoms were omitted for clarity.

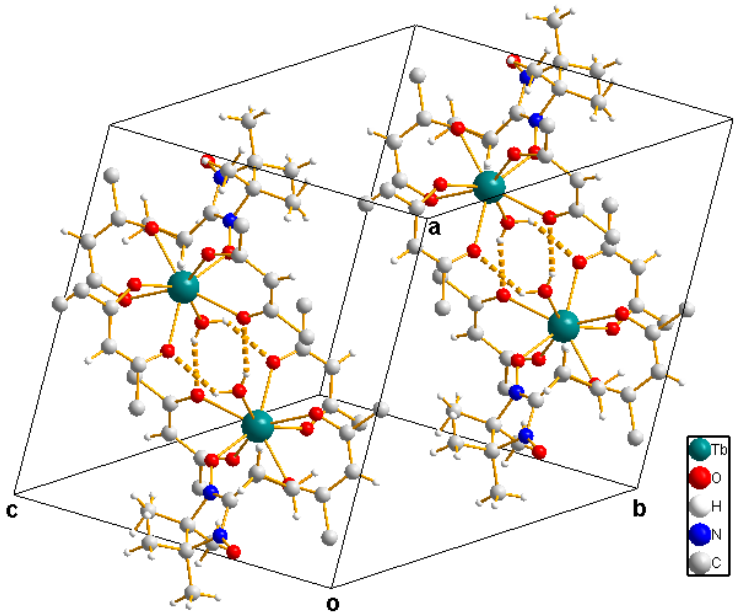

Fig. S2 The hydrogen bonds of complex **2.**

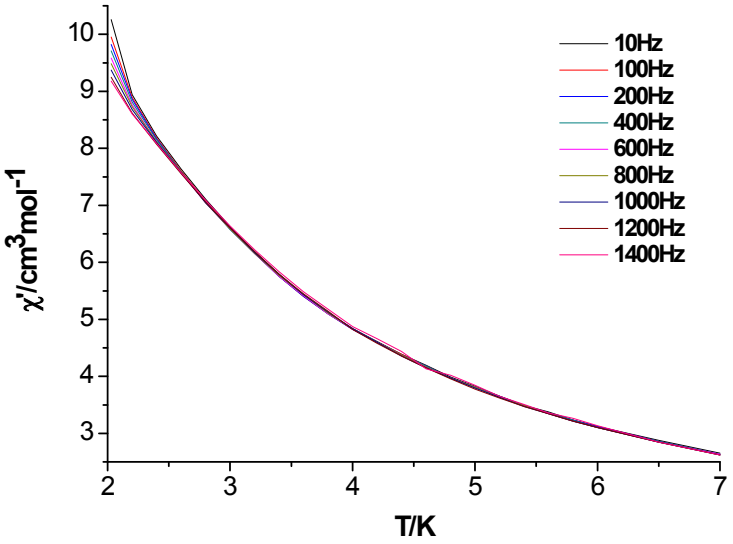

Fig. S3 Temperature dependence of in-phase components of the ac magnetic susceptibility in zero dc field with an oscillation 2.7 Oe for complex **2**.

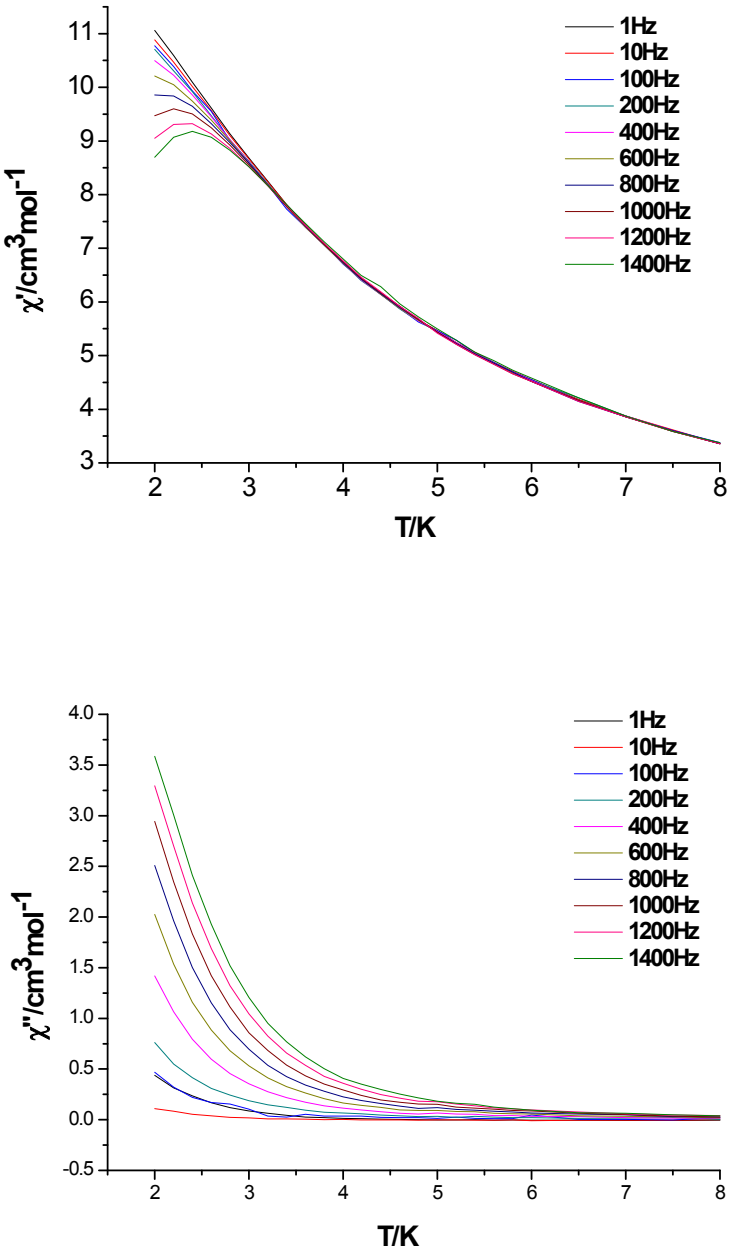

Fig. S4 Temperature dependence of in-phase (up) and out-of-phase (down) components of the ac magnetic susceptibility in 1000 Oe dc field with an oscillation 2.7 Oe for complex **2**.

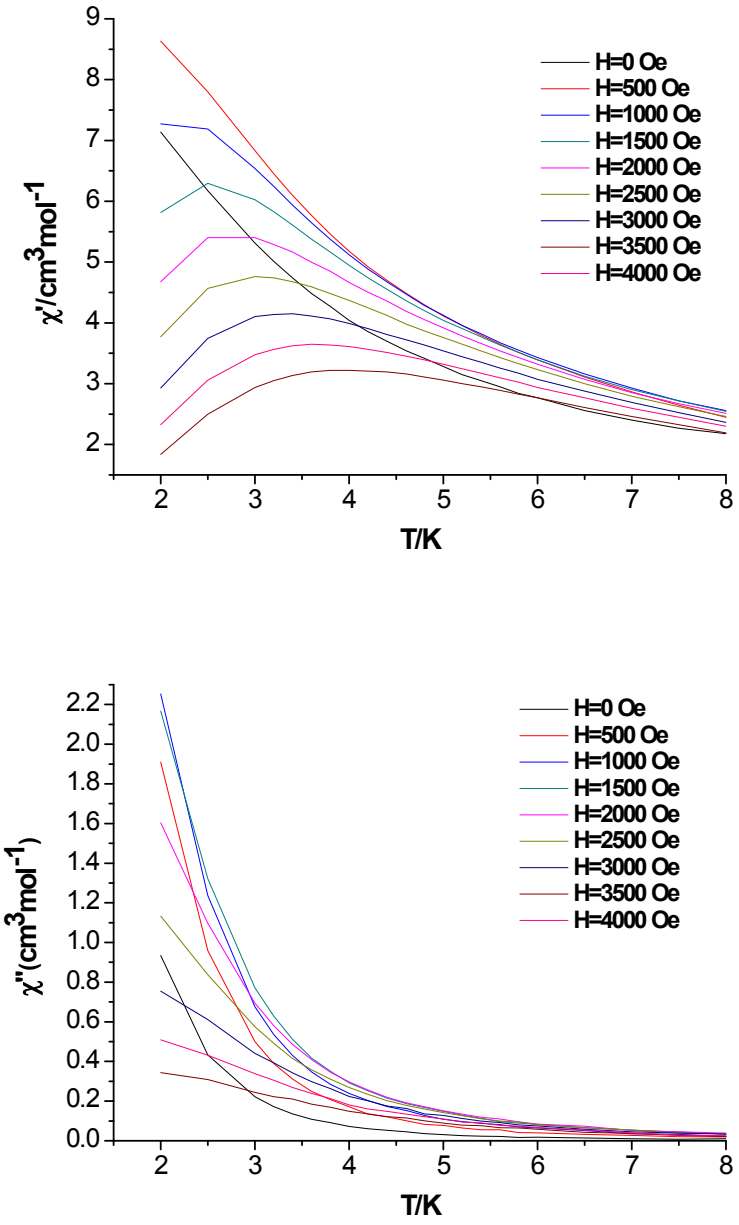

Fig. S5 Temperature dependence of in-phase (up) and out-of-phase (down) components of the ac magnetic susceptibility in different dc field with an oscillation 2.7 Oe for complex **2**.

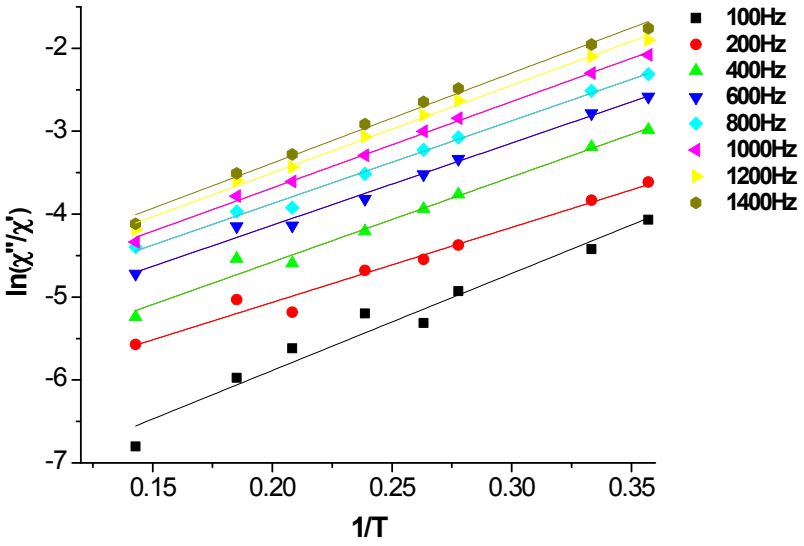

Fig. S6 Plots of natural logarithm of ln(χ''/χ') vs 1/T for 2(1.0kOe dc field). The solid lines represent the fitting results.