Supporting Information

Two-dimensional Co-Ln networks bridged by phenyl pyrimidyl

substituted nitronyl nitroxide: structure and magnetic

properties

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Table S1 Lanthanide geometry analysis using the Shape software for complex 2







Figure S1. Crystal packing arrangement for complex 2.



Fig.S2 PXRD patterns for complexes 1 and 2.



Fig.S3 Plots of *M* versus *H* at 2, 3 and 5K for 1 and 2.



Fig. S4. Temperature dependence of the in-phase (χ_M') and out-of-phase (χ_M'') components of the ac magnetic susceptibility for 2 in zero and 1k Oe dc fields, with an ac field of 3 Oe (Frq = 1 kHz).



Fig. S5. Temperature dependence of the in-phase and out-of-phase components of the ac magnetic susceptibility for 2 in 3k Oe dc field with an oscillation of 3 Oe.