

## Supplementary Material

### Antiferromagnetic Cu-Gd interactions through oxime bridge

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**Table S1. Relevant parameters for [(LCu)<sub>2</sub>Gd(NO<sub>3</sub>)<sub>3</sub>(H<sub>2</sub>O)] complex 8**

Space group (No.):	P 1 21/c 1 (14)
Lattice parameters:	
a/ Å:	17.84(1)
b/ Å:	18.55(1)
c/ Å:	11.983(8)
alpha/ °:	90
beta/ °:	96.30(1)
gamma/ °:	90
V/ 10 <sup>6</sup> pm <sup>3</sup>	3942.47500

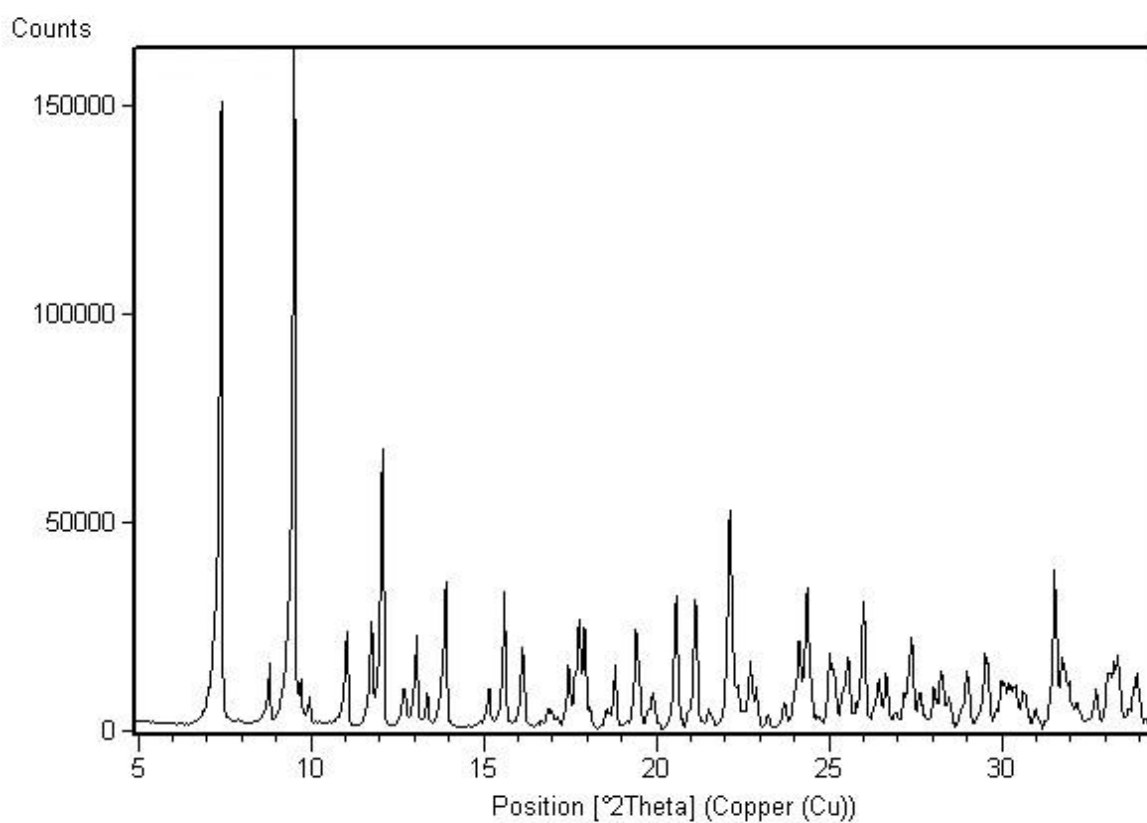


Figure S2. Powder diffractogram for complex 8.

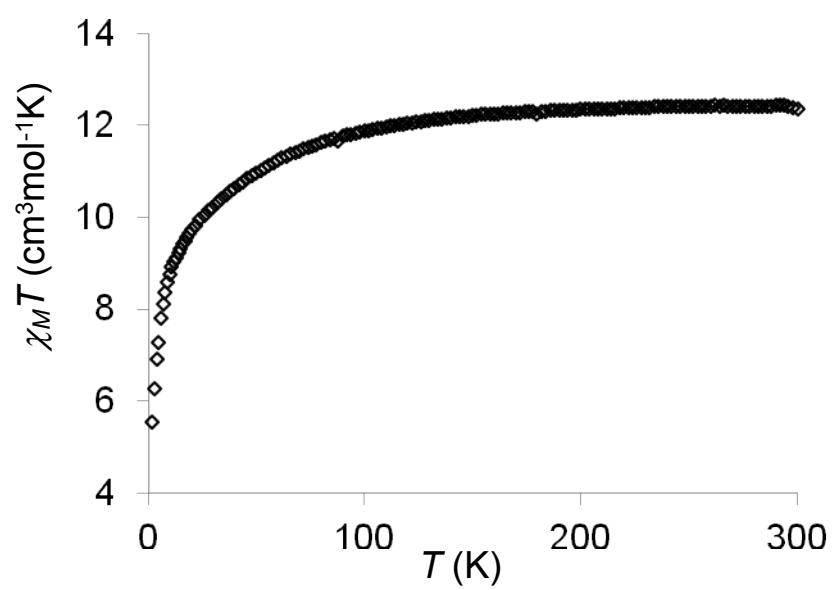


Figure S3. Temperature dependence of the  $\chi_M T$  product for complex **9** at 0.1 T applied field.

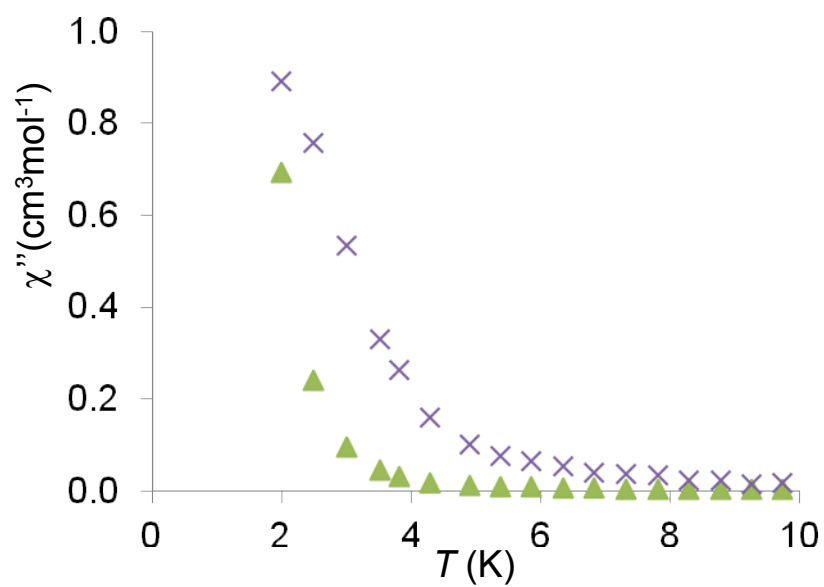
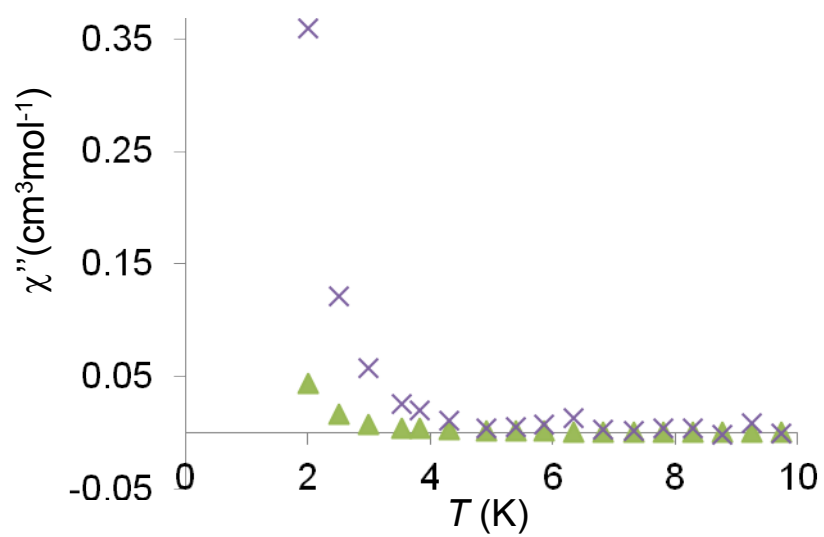


Figure S4. Out of phase susceptibility against temperature for complex **9** at ac field of 3 Oe without dc field (top) and with a dc field of 1000 Oe (bottom).