

Electronic supplementary information

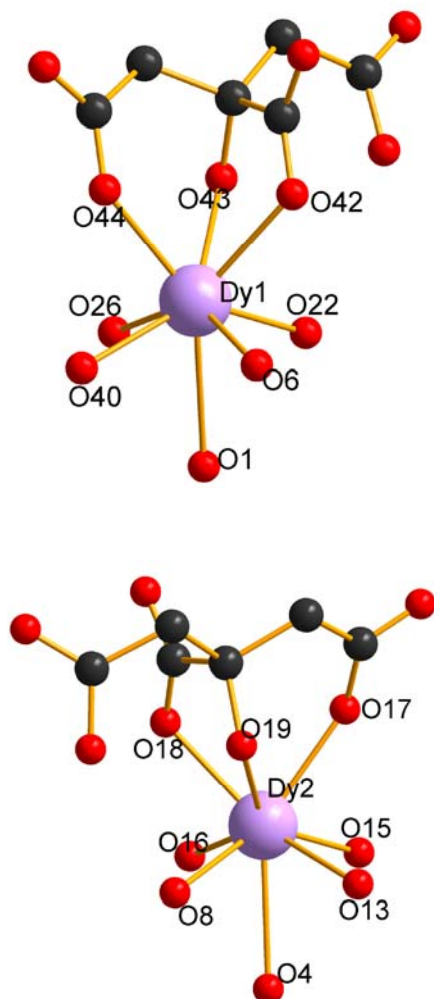


Fig. S1 The coordination environments of Dy1 and Dy2 atoms in compound **1**.

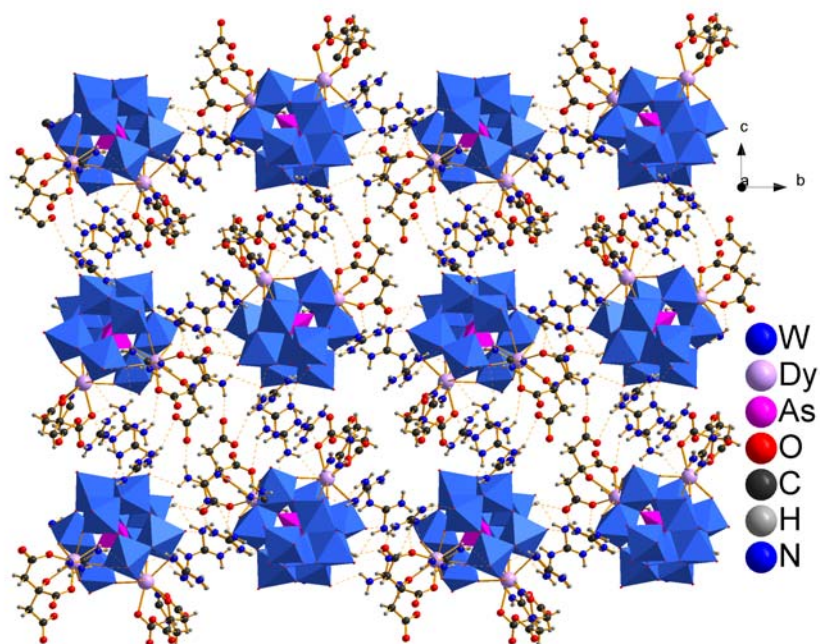


Fig. S2 3-D packing arrangement of **1**.

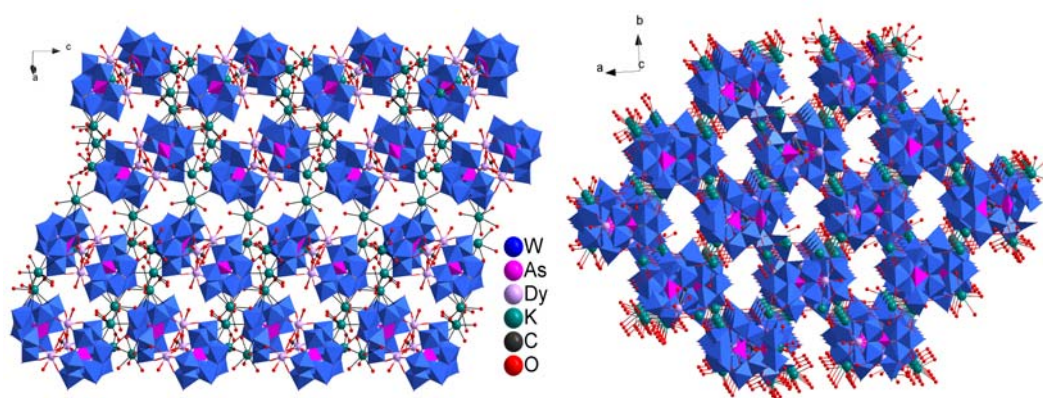


Fig. S3 Left: 2-D layer view of **2** linked by K ions. Right: 3-D packing arrangement of **2** with 1-D channels viewed along *c*-axis. The polyanions are represented polyhedrally; Dy and K ions are shown with ball. The water molecules are omitted for clarity.

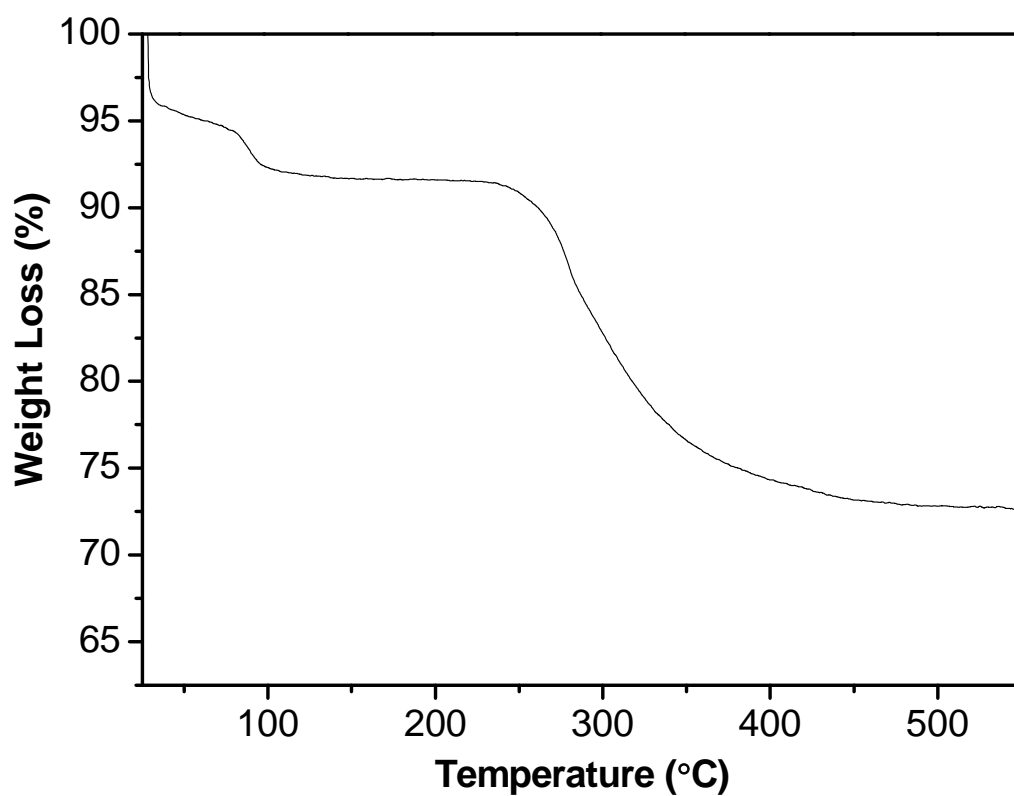


Fig. S4 TG curve of compound 1.

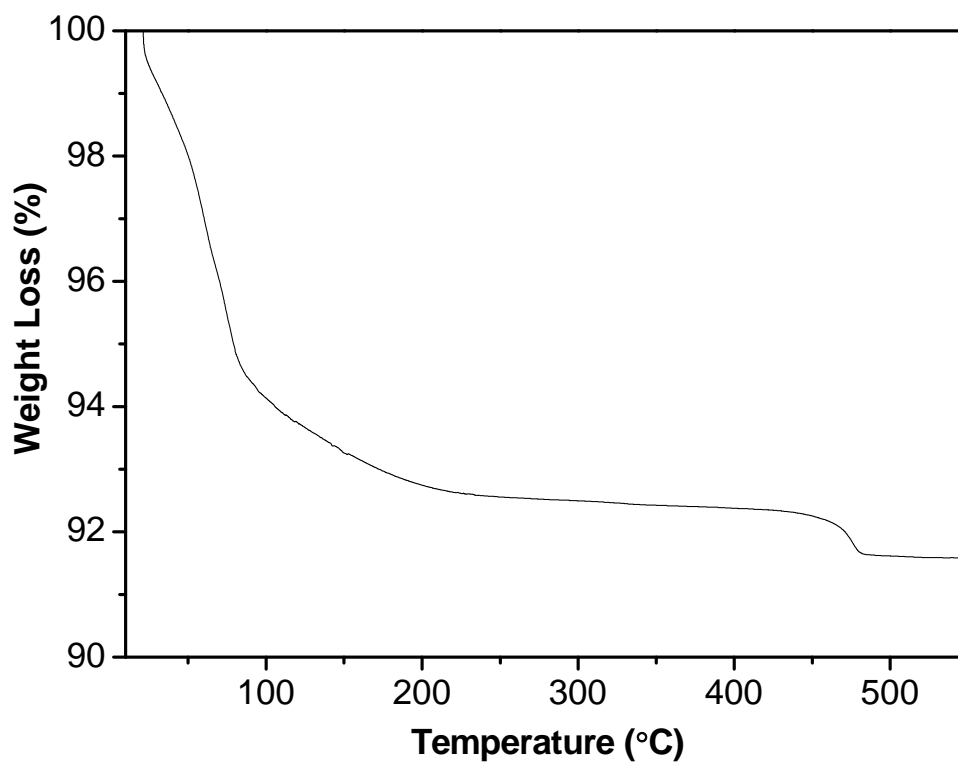


Fig. S5 TG curve of compound 2.

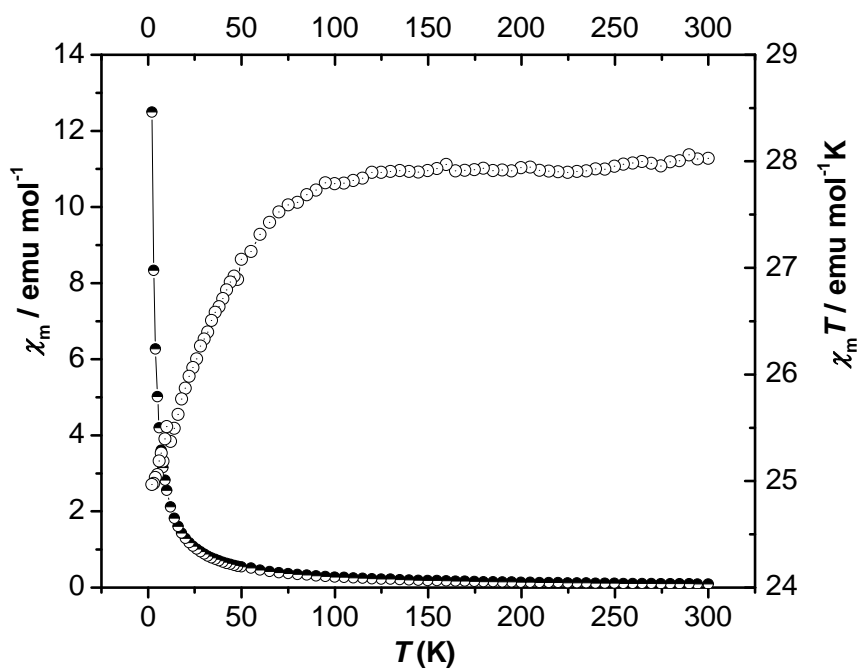


Fig. S6 Plots of $\chi_m T$ versus T and χ_m versus T from 2 to 300 K for **1** an applied field of 1000 Oe.

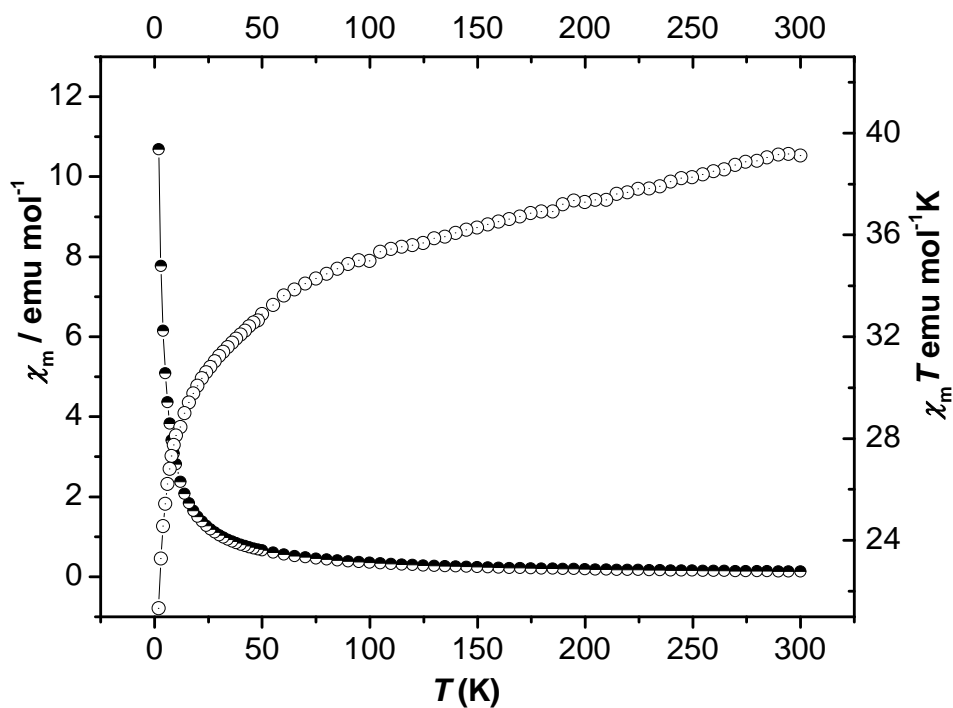


Fig. S7 Plots of $\chi_m T$ versus T and χ_m versus T from 2 to 300 K for **2** an applied field of 1000 Oe.

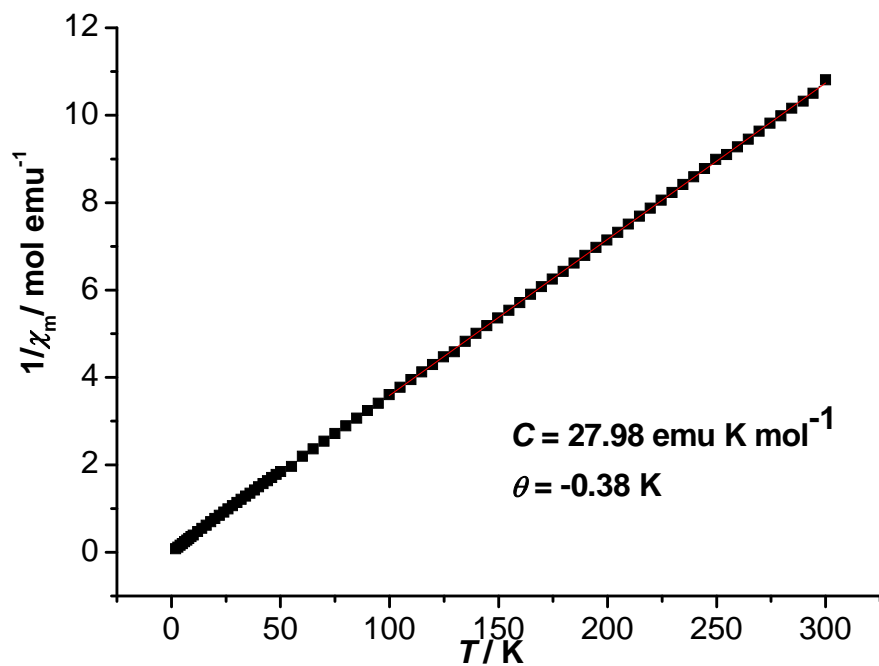


Fig. S8 Temperature dependence of χ_m^{-1} for **1**. The solid line is the fit of Curie-Weiss law.

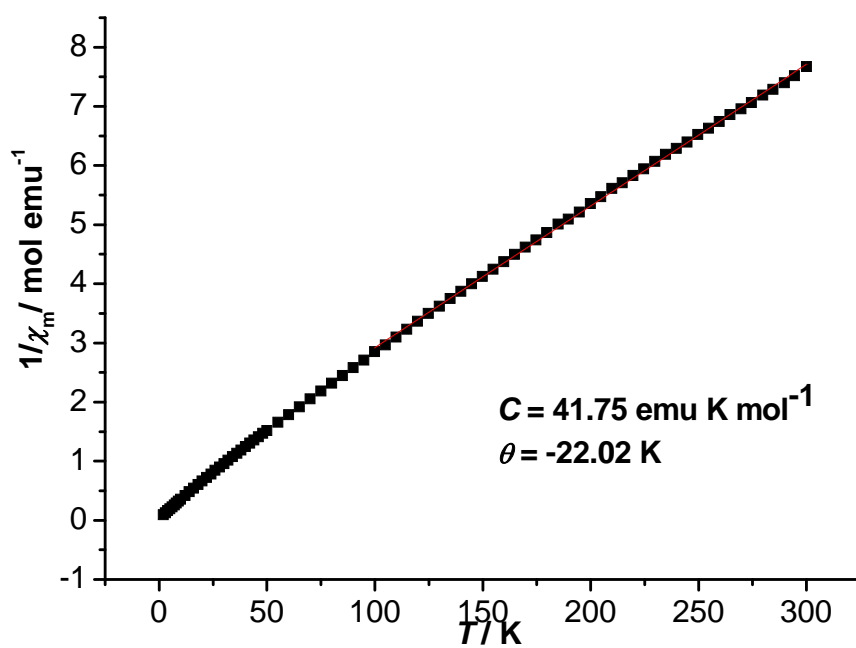


Fig. S9 Temperature dependence of χ_m^{-1} for **2**. The solid line is the fit of Curie-Weiss law.

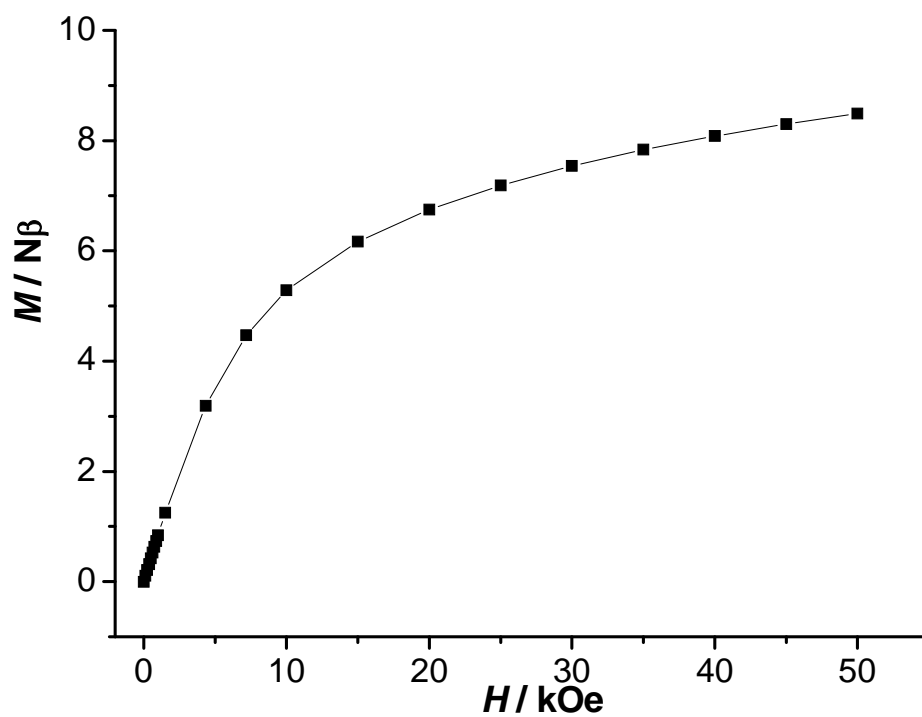


Fig. S10 Magnetisation versus applied field at 2 K for compound 1.

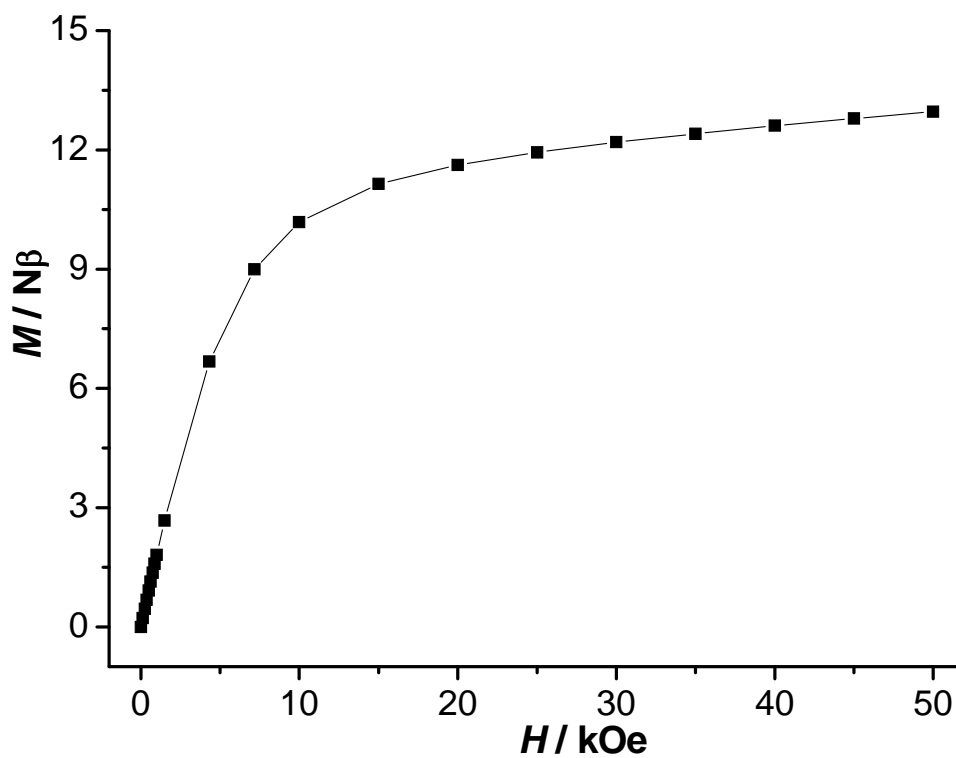


Fig. S11 Magnetisation versus applied field at 2 K for compound 2.

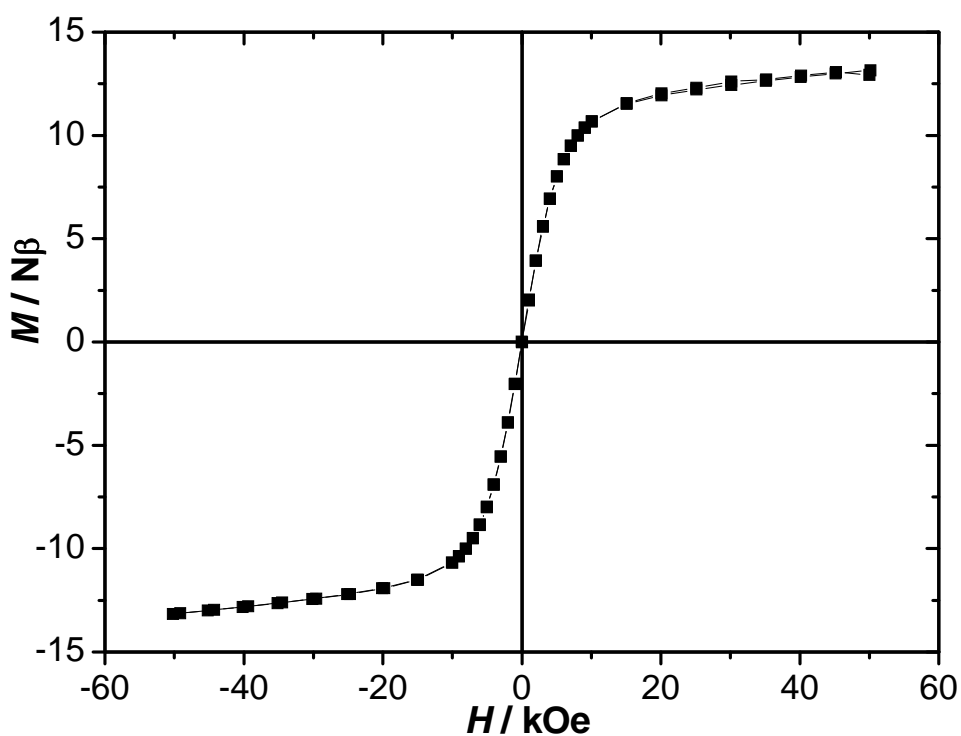


Fig. S12 Hysteresis loop at 2 K for compound 2.

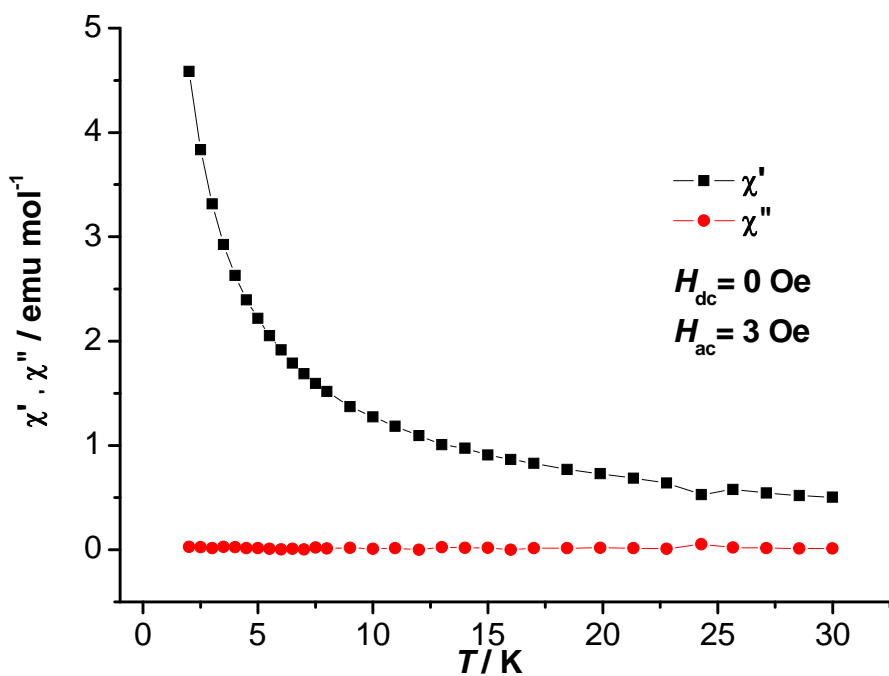


Fig. S13 Temperature dependence of the real (top) and imaginary (bottom) components of the ac susceptibility in zero applied static field with an oscillating field of 3 Oe at a frequency of 1000 Hz for compound 1.

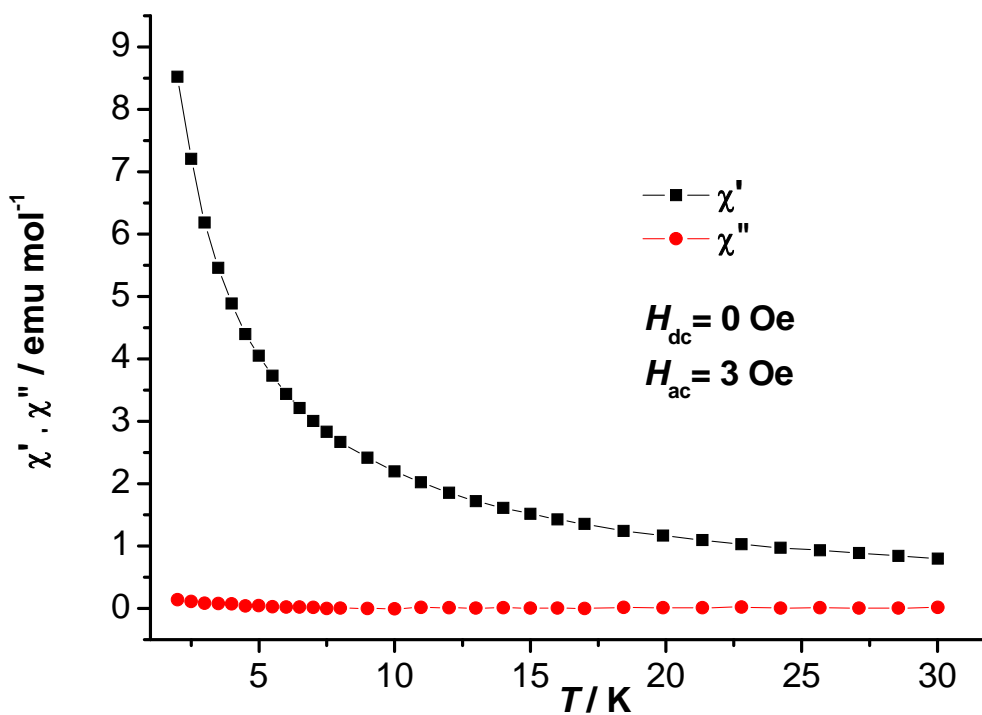


Fig. S14 Temperature dependence of the real (top) and imaginary (bottom) components of the ac susceptibility in zero applied static field with an oscillating field of 3 Oe at a frequency of 1000 Hz for compound **2**.

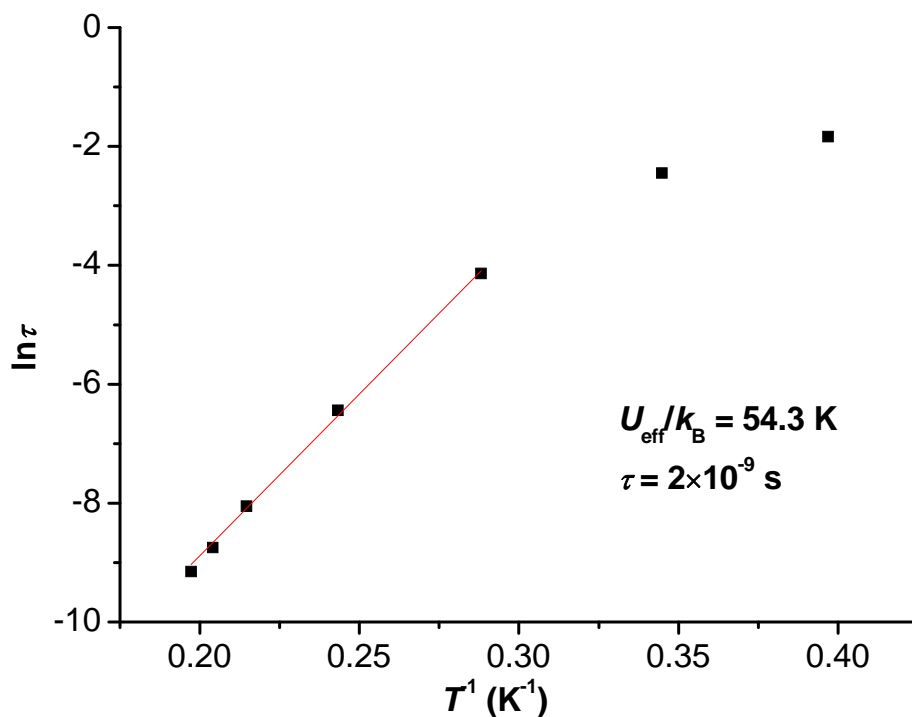


Fig. S15 Plot of the natural logarithm of the relaxation time τ against the inverse of the temperature T for **2**. The solid line is a fit of the Arrhenius law to indicated parameters of **2**.

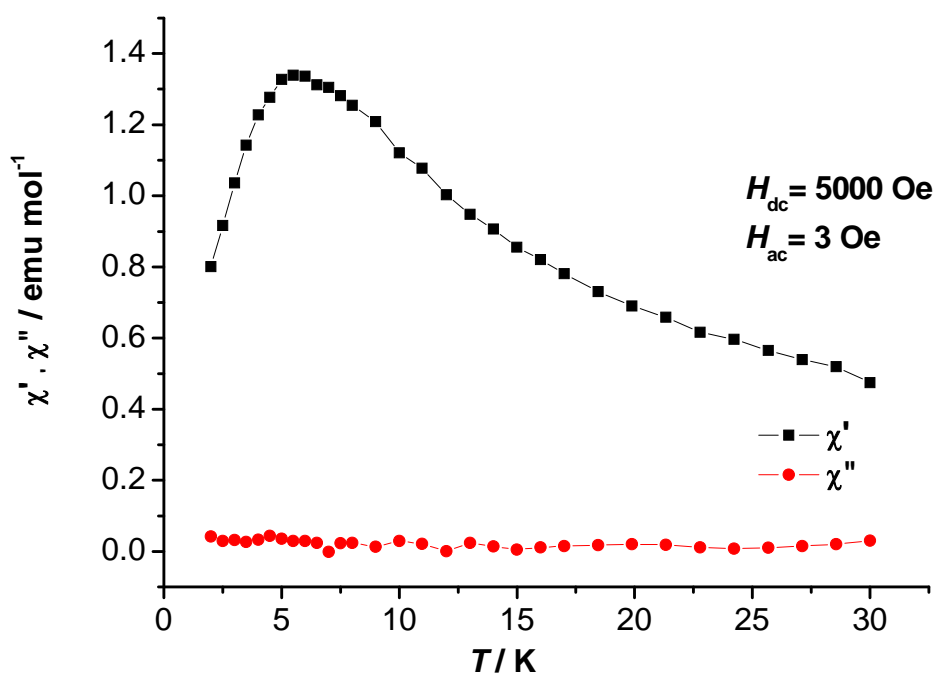


Fig. S16 Frequency dependence of AC susceptibility at 5 kOe applied static field with an oscillating field of 3 Oe at a frequency of 1000 Hz for compound **1**. The lines are guides.