Weak ferromagnetism in chiral diamond-like neutral networks: Mn(2-pymS)$_2$ and Co(2-pymS)$_2$ (2-pymSH = 2-mercaptopyrimidine)

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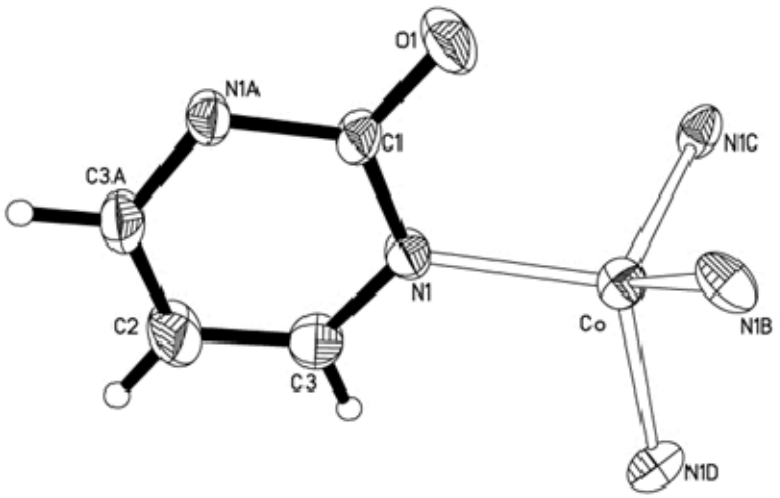

Fig. S1 ORTEP drawing of the repeated unit of Complex **3**. Significant bond distances (Å) and angles (˚): Co-N(1) 2.017(2); N(1A)-Co-N(1B) 111.47(13); N(1A)-Co-N(1) 108.48(6).

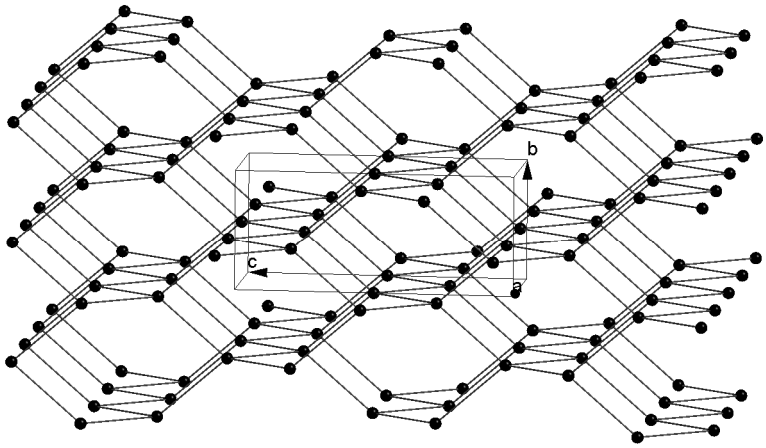

Fig. S2 Connection of Cobalt ions in complex **3** neglecting the shape of ligands.

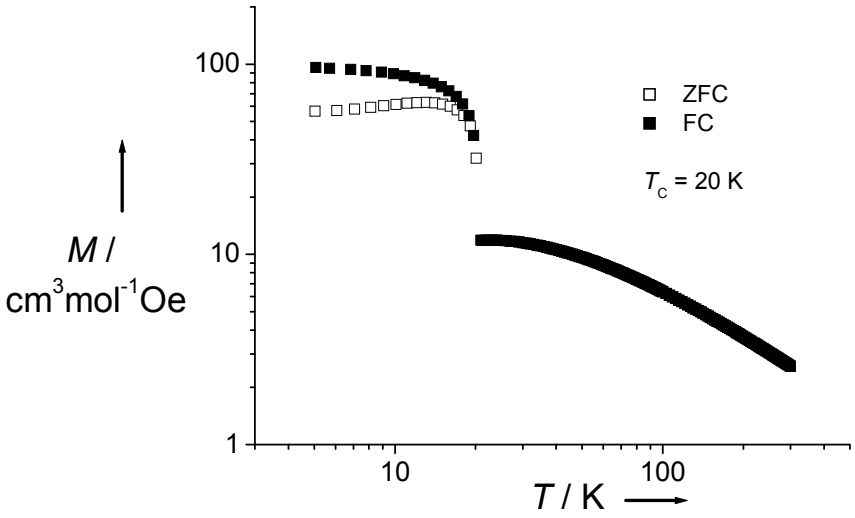

Fig. S3 Zero-field-cooling and field-cooling magnetization of complex **1** measured with applied field of 200 Oe.

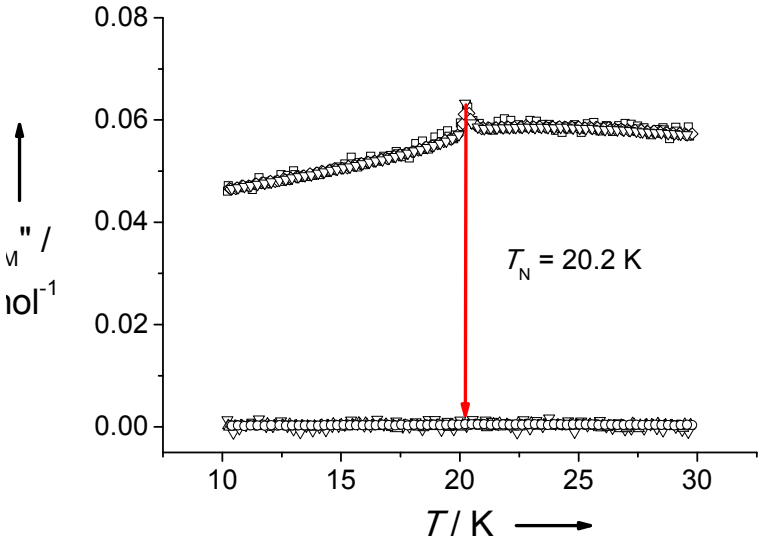

Fig. S4 Temperature dependence of the real (top) and imaginary (bottom) components of the ac susceptibility for **1** in zero applied static field with an oscillating field 2 Oe in frequency of 111-1111 Hz.

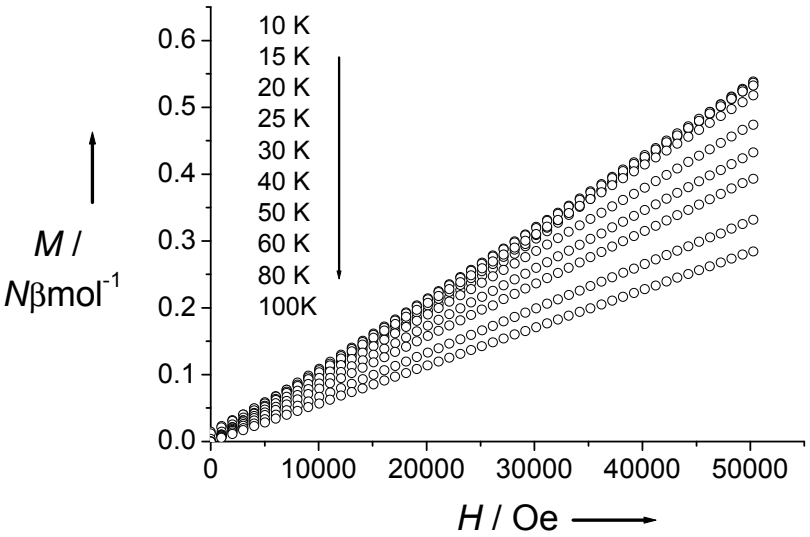

Fig. S5 Field dependence of magnetization of **1** measured in the range of 10-100 K.

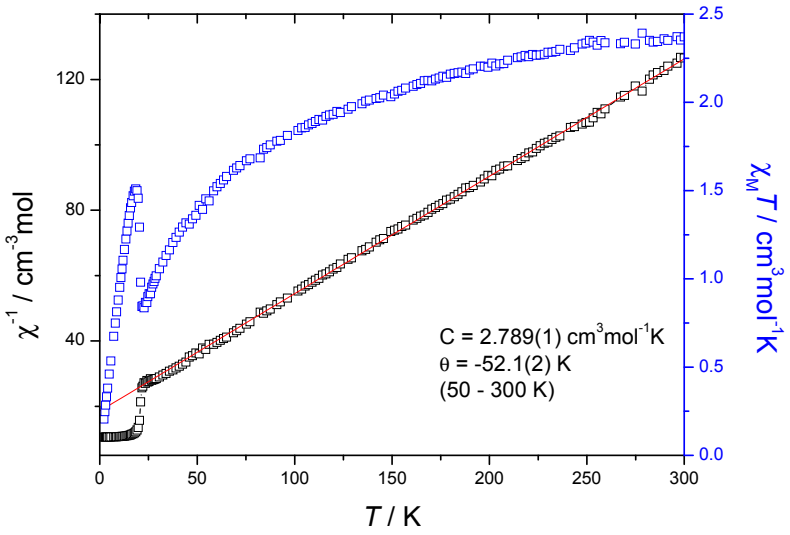

Fig. S6 Plots of χ_M^{-1} and $\chi_M T$ versus T for complex **3** measured with applied field of 5kOe.

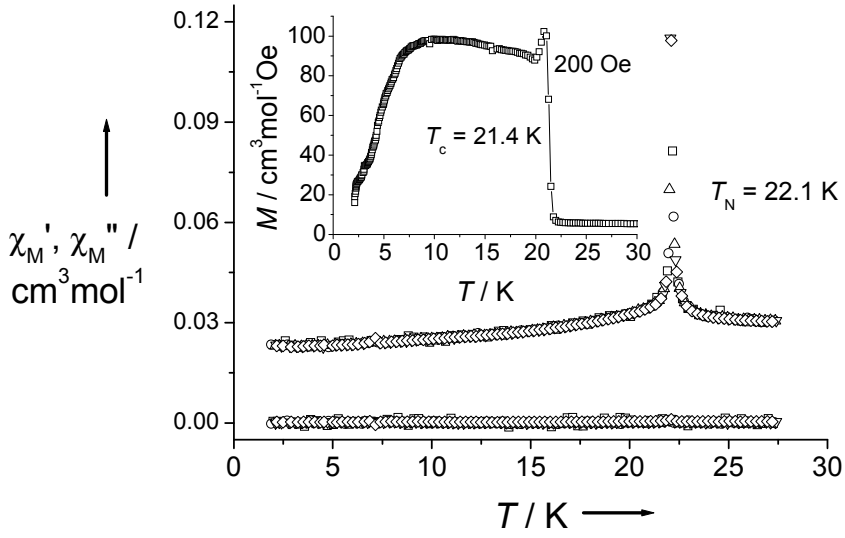

Fig. S7 Temperature dependence of the real and imaginary components of the ac susceptibility for **3** in zero applied static field with an oscillating field 5 Oe in frequency of 111-1111 Hz. Inset: Temperature dependence of magnetization of **3** measured at 200 Oe.

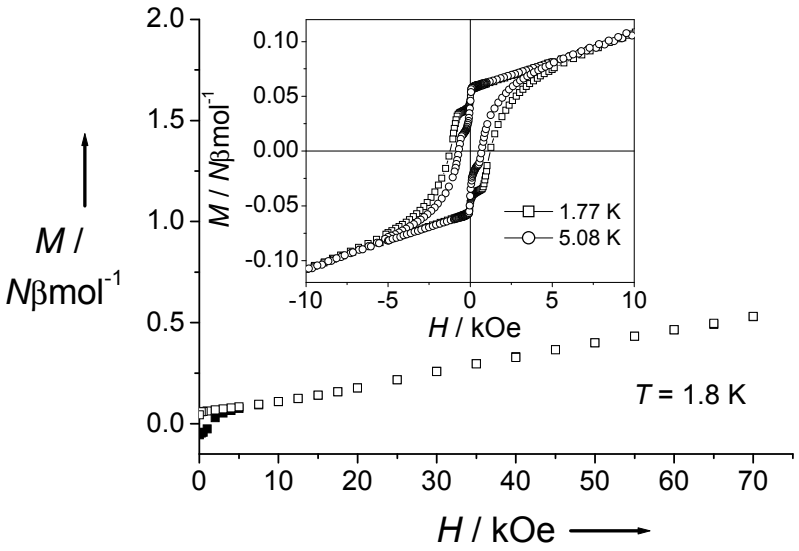

Fig. S8 Field dependence of magnetization of **3** measured at 1.8 K and 5.08 K.