Supplementary Material (ESI) for Journal of Materials Chemistry

Supporting Information

Direct evidence of exchange interaction dependence of magnetization relaxation in a family of ferromagnetic-type single-chain magnets

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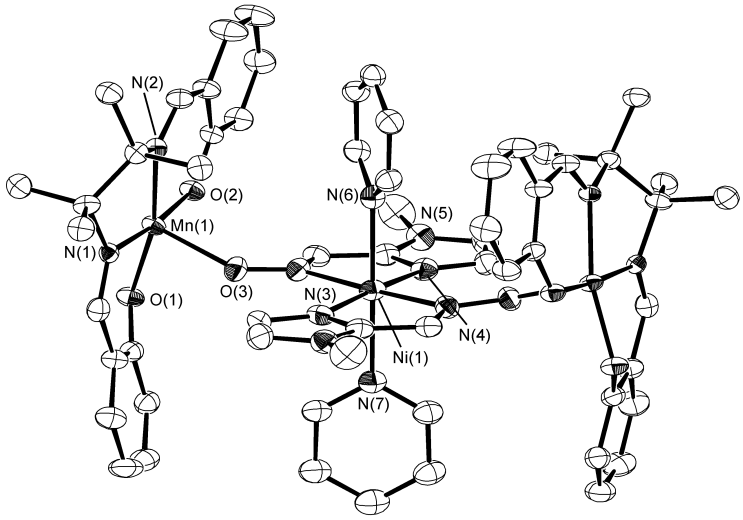

Figure S1. ORTEP drawings of the Mn_2Ni trinuclear repeating unit of **2** (thermal ellipsoids are drawn at 50 % probability). Hydrogen atoms were omitted for clarity.

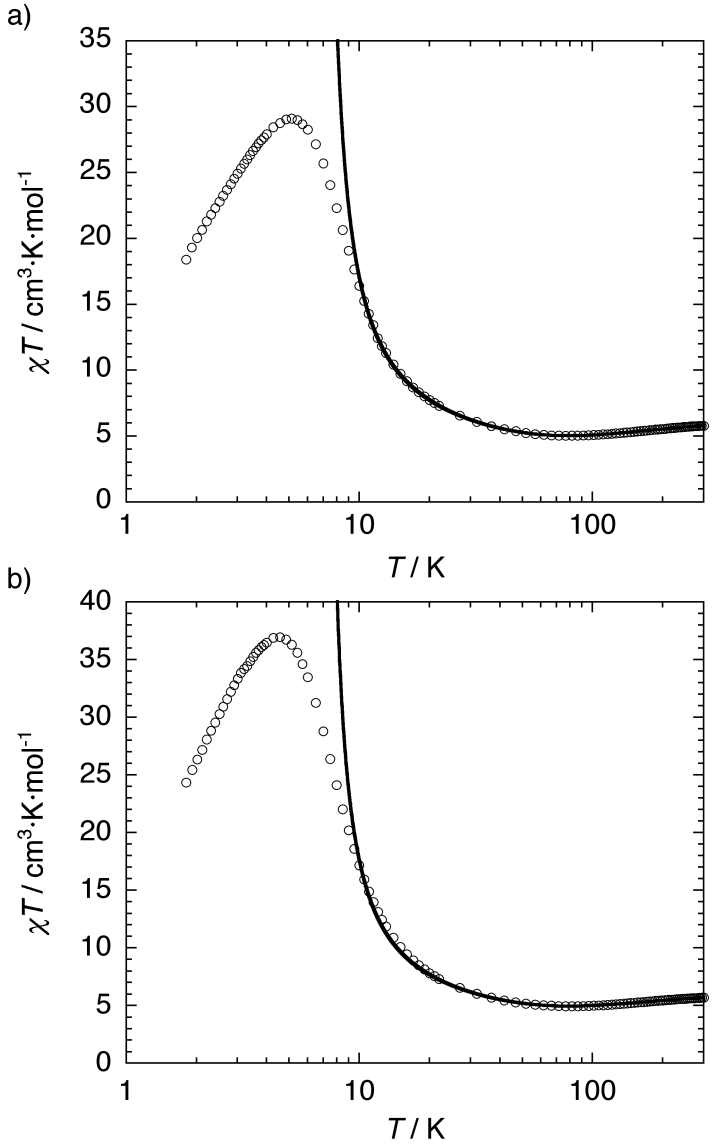

Figure S2. Temperature dependence of χT measured on a polycrystalline sample of **2** (a) and **3** (b) at 1 kOe. The solid line represents a best fit curve in the temperature range 30 – 300 using a Heisenberg (S_{Mn1}, S_{Ni}, S_{Mn2}) = (2, 1, 2) trinuclear model taking into account a mean field approximation (see text).

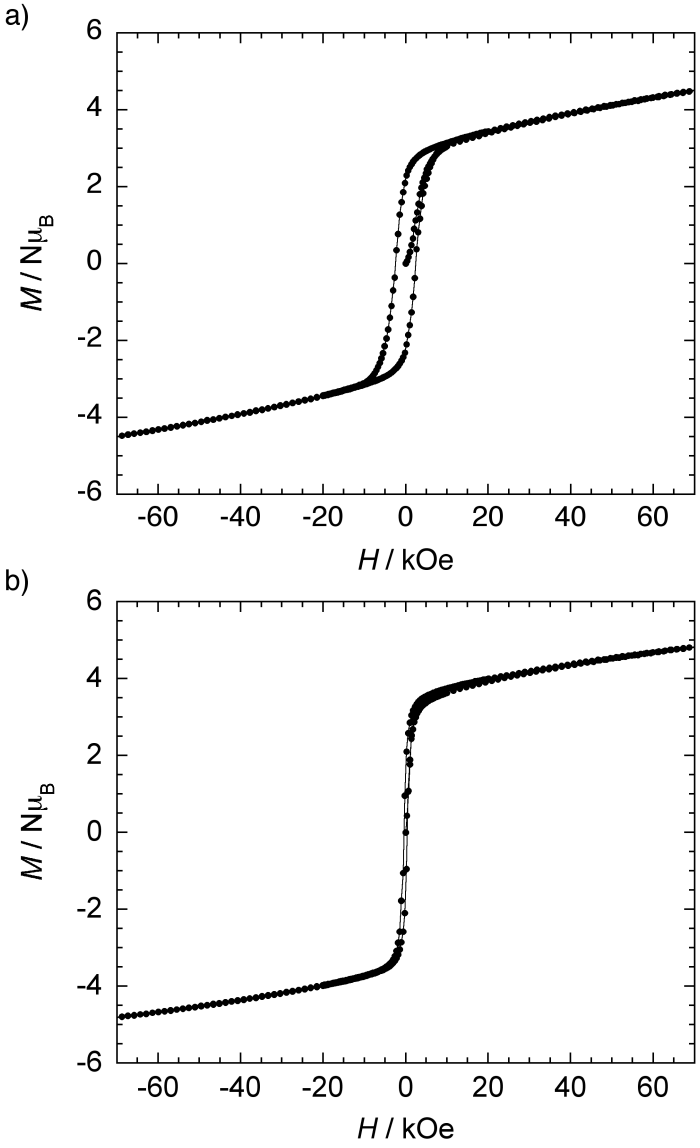

Figure S3. Field dependence of the magnetization measured on a polycrystalline sample of **2** (a) and **3** (b) at 1.82 K.

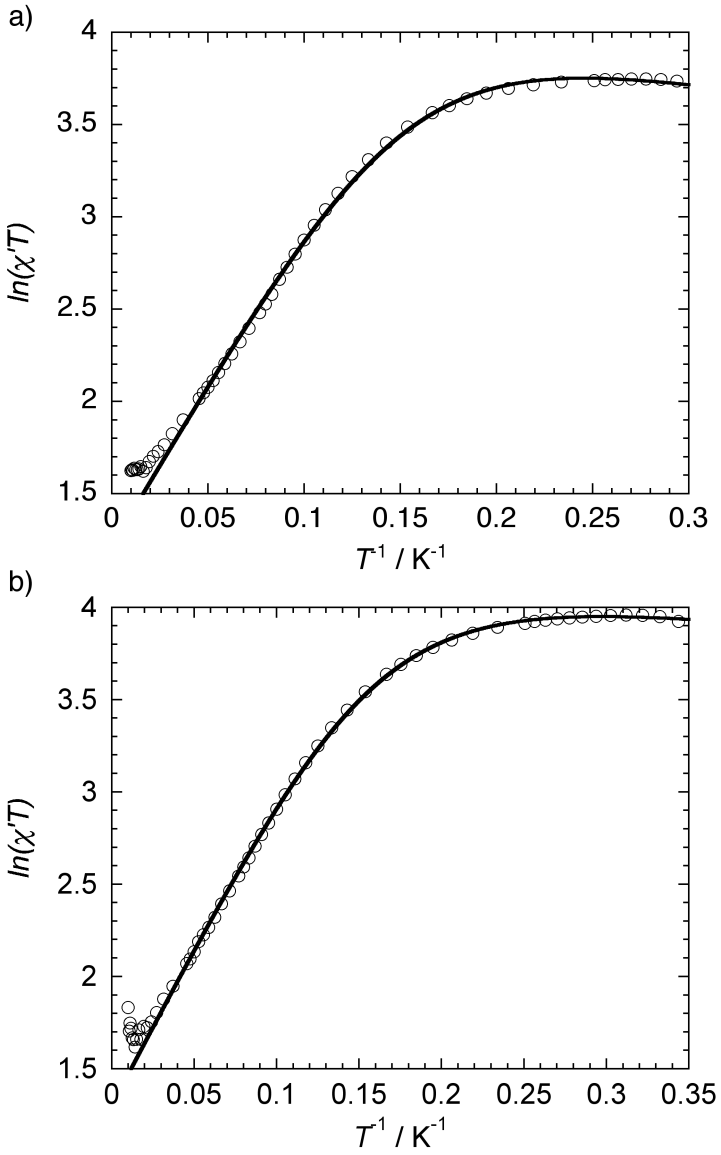

Figure S4. ln(χ'T) versus 1/T plot of **2** (a) and **3** (b), where χ' is the in-phase ac susceptibility measured at 1 Hz ac frequency, 3 Oe ac field, and zero dc field.

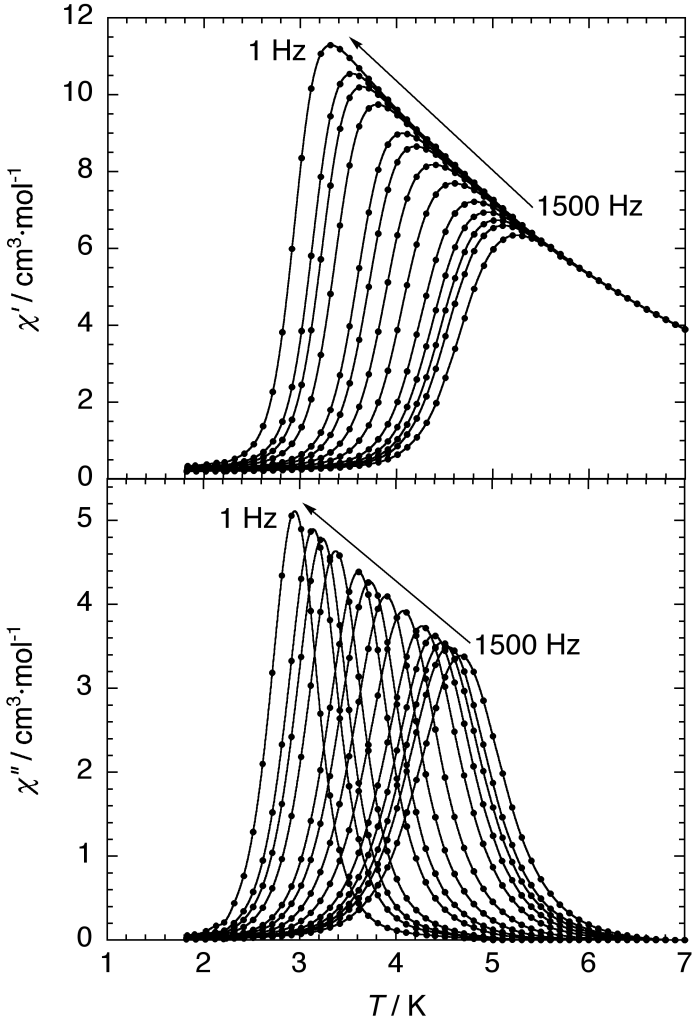

Figure S5. Temperature dependence of the ac susceptibilities of **2** measured at several ac frequencies, where χ' and χ'' are in-phase and out-of-phase susceptibilities, respectively. The solid lines are guide for the eyes.

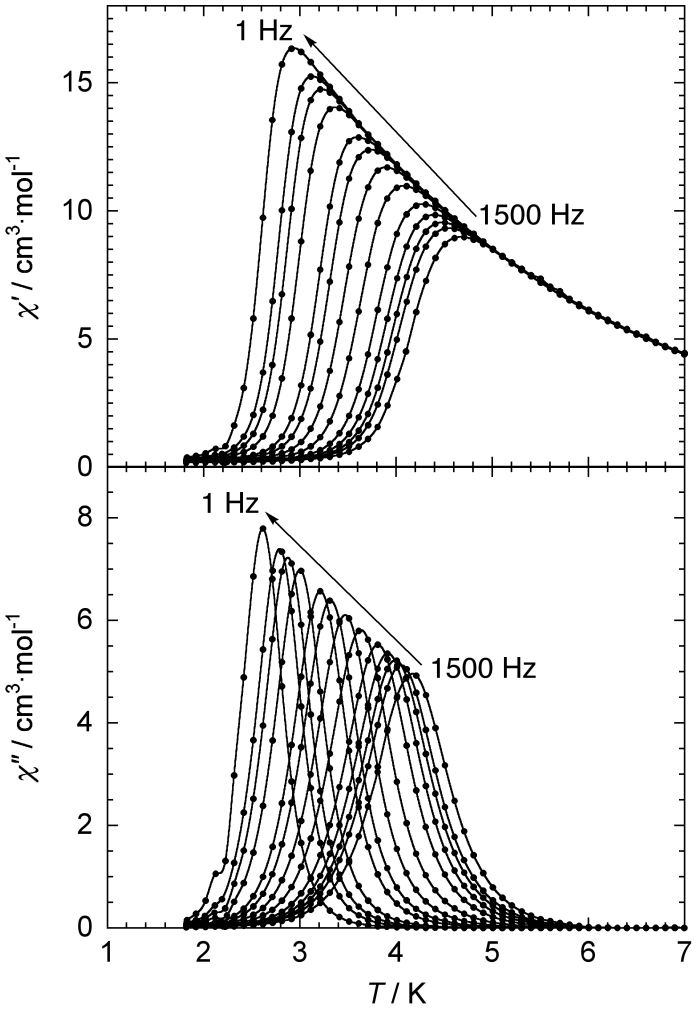

Figure S6. Temperature dependence of the ac susceptibilities of **3** measured at several ac frequencies, where χ' and χ'' are in-phase and out-of-phase susceptibilities, respectively. The solid lines are guide for the eyes.

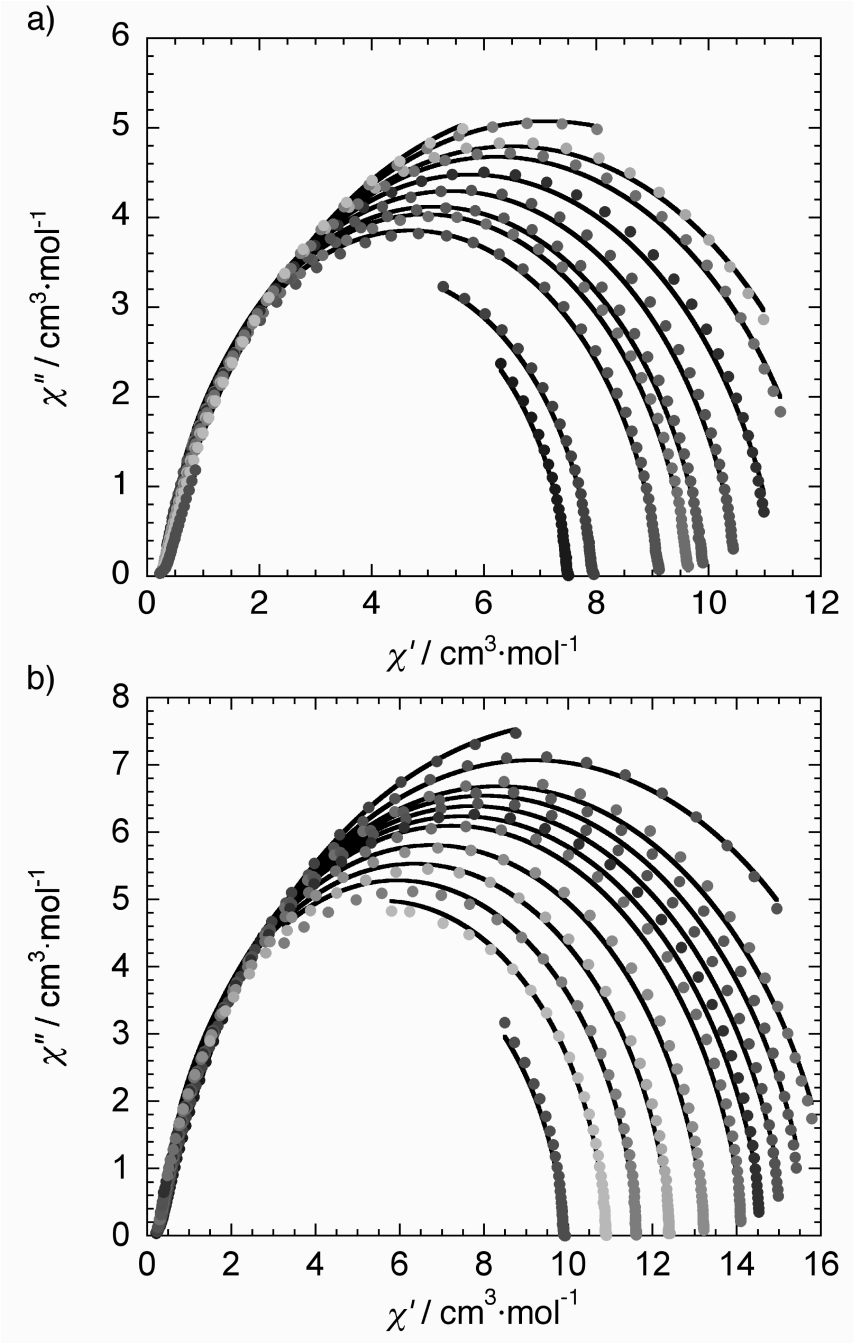

Figure S7. Cole-Cole plots of **2** (a) and **3** (b), where ac susceptibilities (χ' and χ") were measured in the temperature range of 2.5 – 5.0 K at 3 Oe ac field and zero dc field. The solid curves represent the least-squares fit using a generalized Debye model (see text).