Electronic Supporting Information (ESI)

Magnetocaloric Effect and Slow Magnetic Relaxation in Two Only Azido Bridged Ferromagnetic Tetranuclear Metal Clusters

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Figure S1. EDX of complex 1.
Figure S2 The XRPD diagrams for 1 (a) and 2 (b).
Figure S3. a) $\chi_m$ vs. $T$ plots for complexes 1 and 2.

Figure S4. Temperature dependence of $\chi_m T$ and $1/\chi_m$ plots for 2. The solid line is the best fit to the Curie-Weiss law.
Figure S5. Magnetization versus field of 1 and 2 at 2 K. The solid lines are the Brillouin functions with different S and g: one magnetically isolated spin S = 6, g = 2 (—); one magnetically isolated spin S = 2, g = 4.3 (—); one magnetically isolated spin S = 10, g = 2.05 (—) and four magnetically isolated spin S = 5/2, g = 2.05 (—).
Figure S6. Temperature dependence of the in-phase and out-of-phase ac susceptibilities at the indicated frequencies in zero, 0.1 T and 0.5 T applied static fields for 2.

Figure S7.  a) and b): $\chi_m'$ and $\chi_m''$ vs. $\nu$ plots at 3 K under various applied fields for 2. The red solid line represents the least-squares fitting of the data for applied fields 500-2500 Oe.
Figure S8. Hysteresis loop for complex 2 at 2 K.