Octacyanometallate-Based Single-Molecule Magnets: $\text{Co}^{\text{II}}\text{M}^{\text{V}}_6$ (M = W, Mo)

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Supporting materials

Magnetic Measurements

Magnetic susceptibility measurements for sample **1** and **2** were obtained with the use of a Quantum Design MPMS-XL7 SQUID magnetometer at temperature ranging from 1.8-300 K. The dc measurements were collected from -70 to 70 kOe. Data were corrected for the diamagnetic contribution calculated from Pascal constants. The ac measurements were performed at various frequencies from 0.1 to 1500 Hz with the ac field amplitude of 3 Oe and no dc field applied.

Figure S1. The solid line represents the least-squares fit of the experimental data to the Arrhenius equation for **1**.

Figure S2. Plot of reduced magnetization ($M/N\beta \text{ mol}^{-1}$) vs H/T in the range of 2 to 5 K for **1**.

Figure S3. Plot of reduced magnetization ($M/N\beta \text{ mol}^{-1}$) vs H/T in the range of 1.8 to 10 K for **2**.

Figure S4. $\chi_M T$ - T plot at applied low fields for **1**. a and b represent the samples picked up from the different pots, respectively. At 10 G, the $\chi_M T$ products are higher than others, suggesting that the factual field on SQUID is a little bit higher than 10 G. At other fields, the field error is negligible.

Figure S5. $\chi_M T$ - T plot at applied low fields for **2**. a and b represent the samples picked up from the different pots, respectively.