Supplementary Materials

A New Two-dimensional Molybdenum(V) Nickel Phosphate Built up of $[\text{H}_{24}(\text{Mo}_{16}\text{O}_{32})\text{Ni}_{16}(\text{PO}_4)_{26}(\text{H}_2\text{O})_8]^{18-}$ Wheels.

Charlotte du Peloux ^a, Anne Dolbecq ^a, Pierre Mialane ^{a,*}, Jérôme Marrot ^a, Eric Rivière ^b, Francis Sécheresse ^a

Figure sp1: Magnetization versus magnetic field at 2, 3, 4 and 8 K for 1. The solid lines were generated from the best fit parameters ($g = 2.25$, $D = -10.2 \text{ cm}^{-1}$ and $E / D = 0.159$) considering twelve uncoupled nickel(II) centers.

Figure sp2 (a) Thermal dependence of $\chi_{\text{M}}T$ for 1; (b) Theoretical $\chi_{\text{M}}T = f(T)$ curve corresponding to twelve isolated nickel centers calculated from the parameters deduced from the magnetization versus magnetic field experiments; (c) calculated $\chi_{\text{M}}T = f(T)$ curve corresponding to the ten coupled nickel(II) centers.

Figure sp3 Calculated $\chi_{\text{M}}T = f(T)$ curve corresponding to the ten coupled nickel(II) centers between 50 and 300 K. The solid line was generated from the best fit parameters ($g = 2.25$ and $J = -24.1 \text{ cm}^{-1}$).

Figure sp1

Figure sp2.

Figure sp3