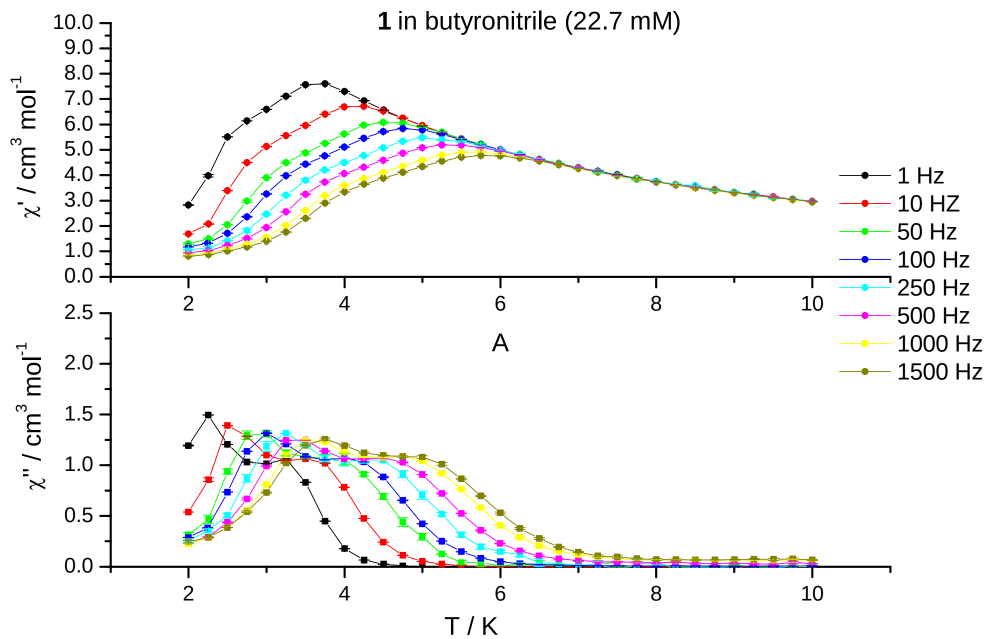

Figure ESI 1. Temperature dependence of the in-phase (χ’) and out-of-phase (χ’) a.c. molar magnetic susceptibility of a 22.7 mM solution of **1** in butyronitrile, in the temperature range 2 to 10 K and for a.c fields oscillating at frequencies in the range 1 to 1500 Hz.

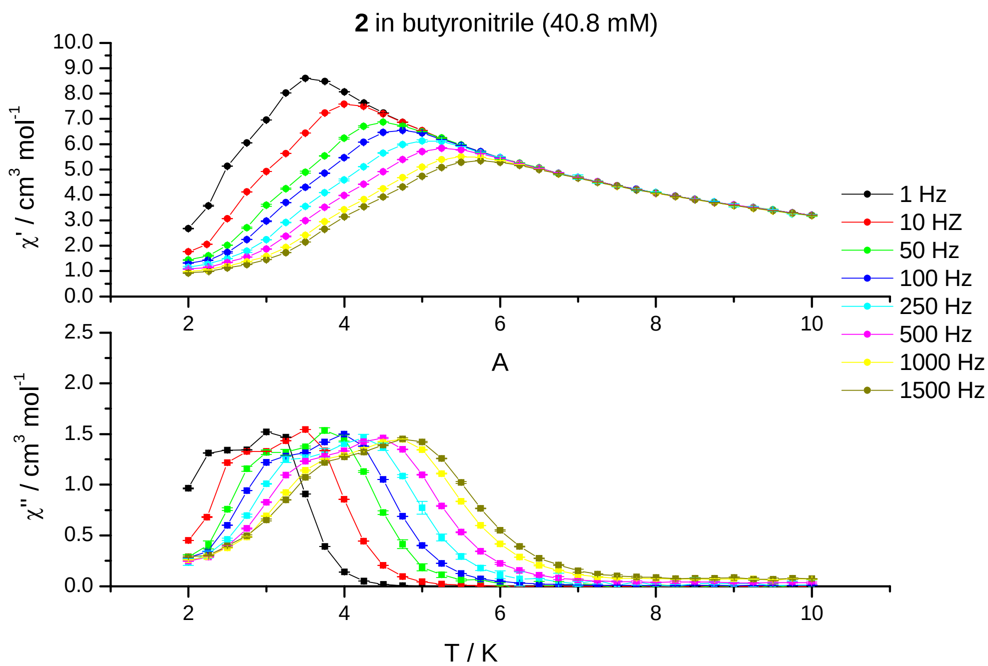

Figure ESI 2. Temperature dependence of the in-phase (χ’) and out-of-phase (χ’) a.c. molar magnetic susceptibility of a 40.8 mM solution of **2** in butyronitrile, in the temperature range 2 to 10 K and for a.c fields oscillating at frequencies in the range 1 to 1500 Hz.

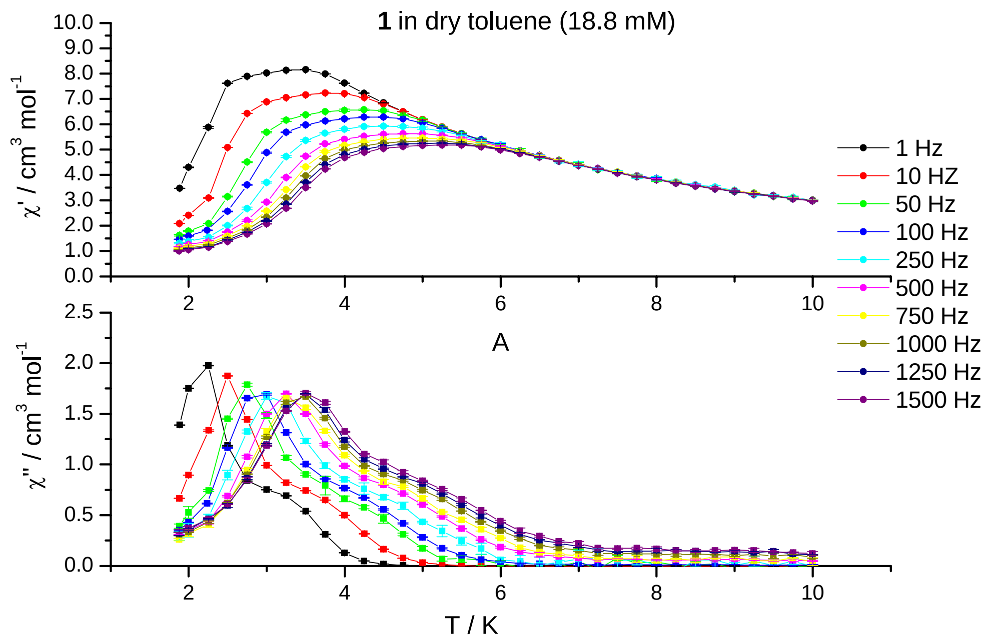

Figure ESI 3. Temperature dependence of the in-phase (χ’) and out-of-phase (χ’) a.c. molar magnetic susceptibility of an 18.8 mM solution of **1** in dry toluene, in the temperature range 2 to 10 K and for a.c fields oscillating at frequencies in the range 1 to 1500 Hz.

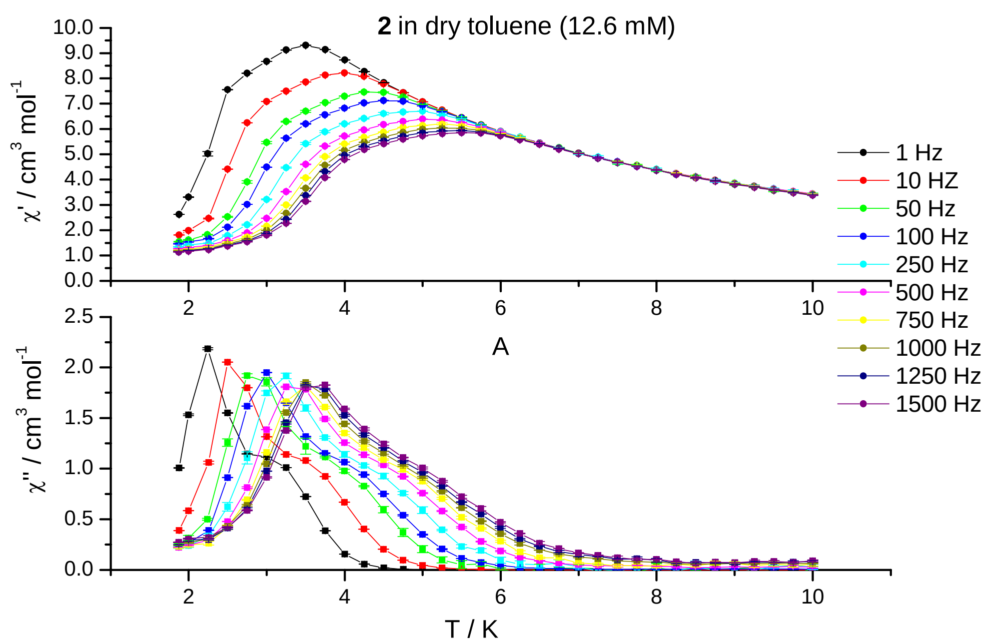

Figure ESI 4. Temperature dependence of the in-phase (χ’) and out-of-phase (χ’) a.c. molar magnetic susceptibility of a 12.6 mM solution of **2** in dry toluene, in the temperature range 2 to 10 K and for a.c fields oscillating at frequencies in the range 1 to 1500 Hz.

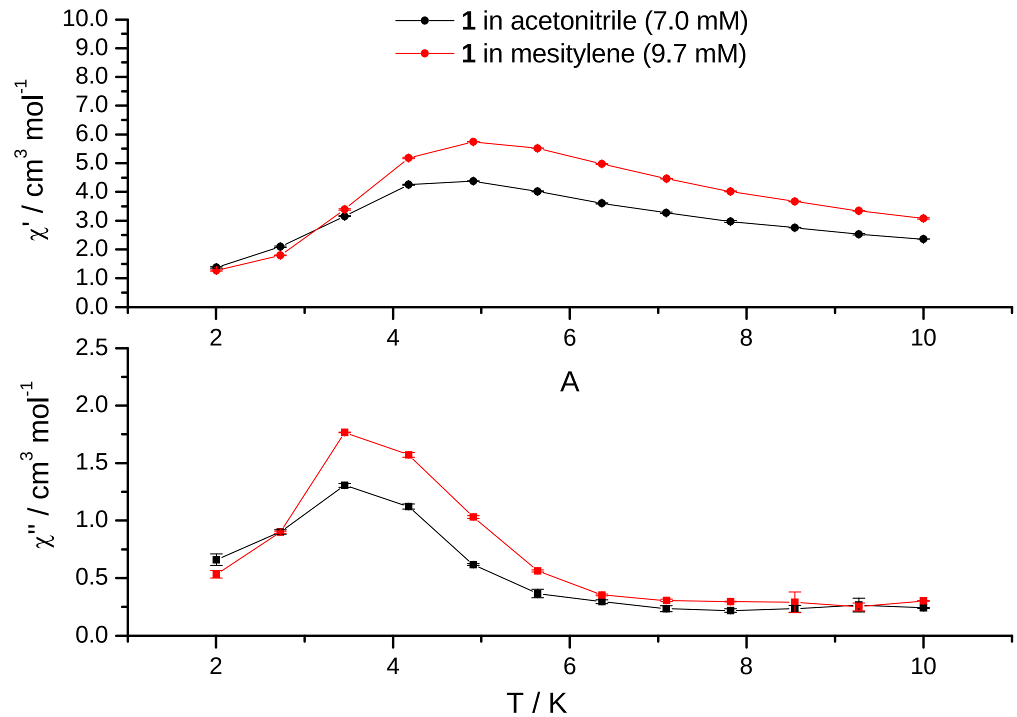

Figure ESI 5. Temperature dependence of the in-phase (χ’) and out-of-phase (χ’) a.c. molar magnetic susceptibility of a 7.0 mM and a 9.7 mM solutions of **1** in acetonitrile and mesitylene, respectively, in the temperature range 2 to 10 K and for an a.c field oscillating at a frequency of 1500 Hz.

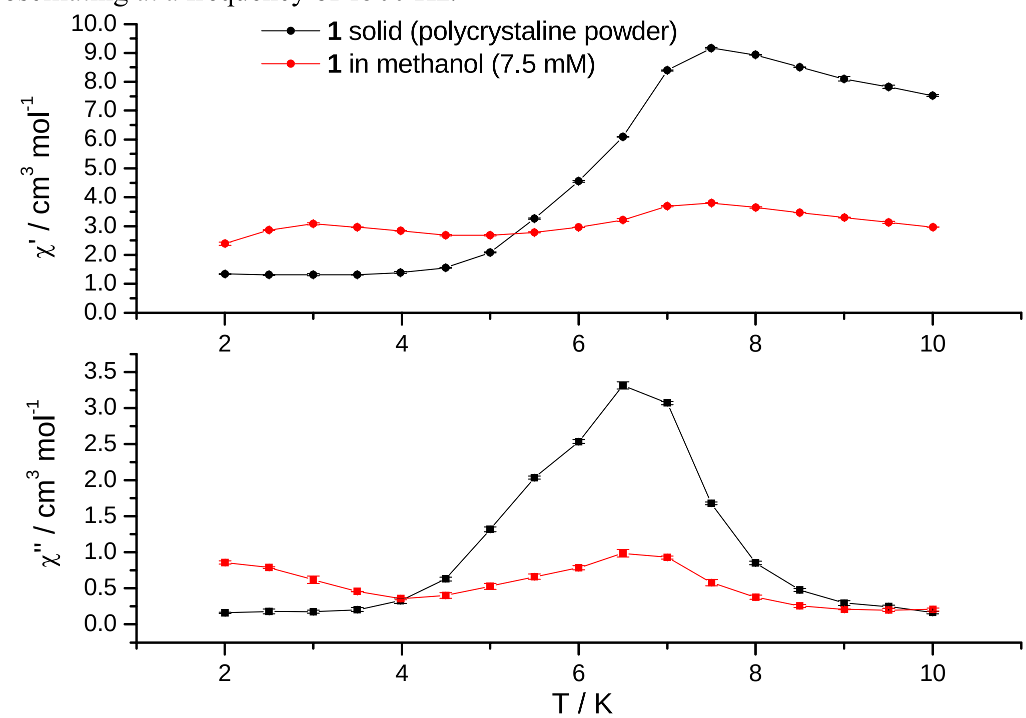

Figure ESI 6. Temperature dependence of the in-phase (χ’) and out-of-phase (χ’) a.c. molar magnetic susceptibility of a 7.6 mM solution of **1** in methanol and of **1** as polycrystalline powder in the temperature range 2 to 10 K and for an a.c field oscillating at a frequency of 1500 Hz.

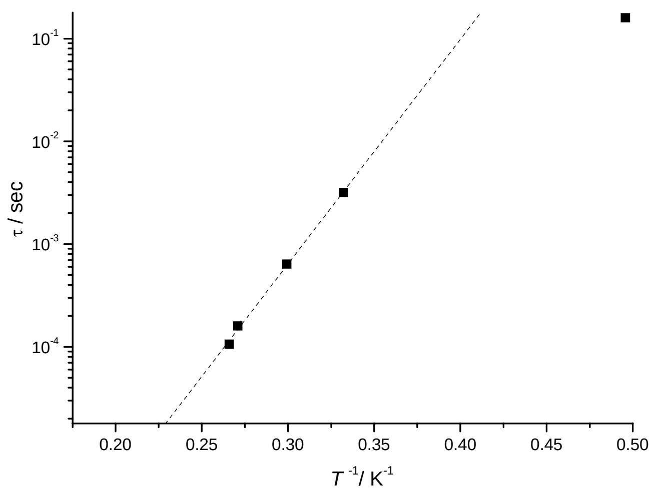

Figure ESI 7. Relaxation times τ for a 33.1 mM solution of $[Mn_3O(Et\text{-}sao)_3(MeOH)_3](ClO_4)$ in methanol. The dot line represents the fit of the experimental data to the Arrhenius model of equation (1). This yielded: $\tau_0 = 1.7\ 10^{-10}$ sec and $U_{\mathrm{eff}} = 50.4$ K.