ELECTRONIC SUPPLEMENTARY INFORMATION

Magnetic percolation in CN-bridged ferrimagnetic coordination polymers

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Details of the transition temperature determination in the $Nb_xMo_{1-x}Mn_2$ series

The transition temperatures were determined as the position of the first local minimum (occurring at the higher temperature) of the first derivative of the real component χ' of the *ac* susceptibility signal (please note that for x = 1 and 0.83 a second minimum is present, which is the blocking temperature (T_B) of the domain-wall mobility in ferri- and ferromagnets due to the Hopkinson effect). Due to the discretized nature of experimental points the position and height of the minimum depends on how one calculates the derivative value: it can be estimated as a left, right or central differential, incurring some level of uncertainty to a determined quantity. It was checked that for any value of x the scatter of the minimum amplitude did not exceed 6%. Therefore, the uncertainty of T_c was estimated as half width at the level of 94% of the peak height.

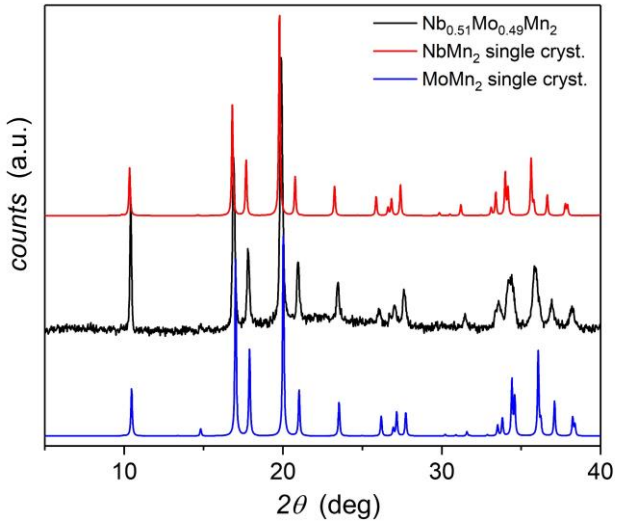

Figure S1. Experimental powder X-ray diffraction pattern for **$Nb_{0.51}Mo_{0.49}Mn_2$** and the simulated ones for **$NbMn_2$** and **$MoMn_2$** based on the literature single crystal XRD data.

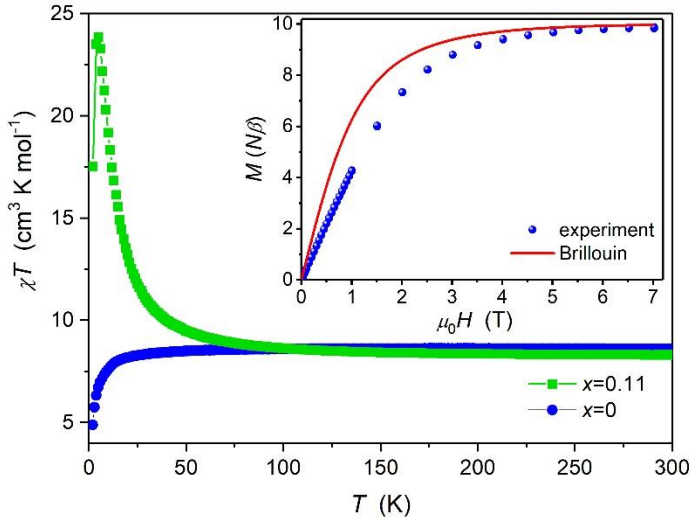

Figure S2. Temperature dependence of χT for $\mathbf{Nb_xMo_{1-x}Mn_2}$ (x = 0 and 0.11). Inset: Field dependence of isothermal magnetization of $\mathbf{MoMn_2}$ at 2 K (symbols) compared to the purely paramagnetic signal (solid line) for x = 0.

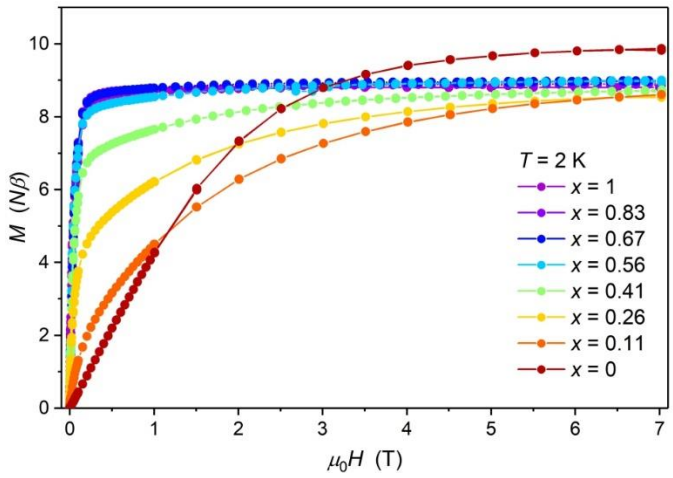

Figure S3. Magnetic field dependence of the molar magnetization for $\mathbf{Nb_xMo_{1-x}Mn_2}$ recorded at 2.0 K.

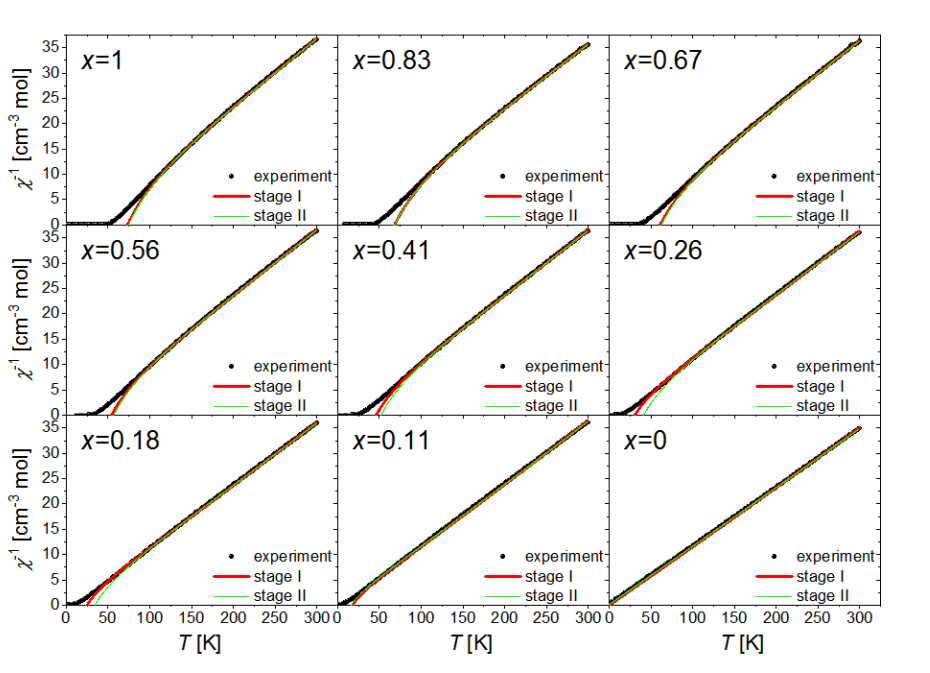

Figure S4. $\chi^{-1}(T)$ dependences for **$Nb_xMo_{1-x}Mn_2$** with the results of the I and II stage fitting. The fitting ranges are as follows: 100-300 K for x = 1, 118-300 K for x = 0.83, 114-300 K for x = 0.67, 93-300 K for x = 0.56, 119-300 K for x = 0.41, 104-300 K for x = 0.26, 99-300 K for x = 0.18, 21-300 K for x = 0.11 and 21-300 K for x = 0.