

Table 1

	Complex 1	Complex 2
Compound reference		
Chemical formula	C ₅₆ H ₇₀ Mn ₆ N ₁₂ O ₂₂ •10(CH ₃ OH)	C _{66.37} H _{75.75} Mn ₈ N ₁₆ O _{22.5} •5.25(CH ₃ OH)•9.45(H ₂ O)
Formula Mass	1913.30	2251.67
Crystal system	Triclinic	Triclinic
<i>a</i> /Å	11.514(3)	16.608(5)
<i>b</i> /Å	11.767(4)	17.907(5)
<i>c</i> /Å	17.730(6)	19.811(6)
α /°	95.80(5)	78.12(4)
β /°	105.73(5)	65.89(4)
γ /°	99.28(5)	75.79(3)
Unit cell volume/Å ³	2255.3(15)	5176(3)
Temperature/K	100(2)	85(2)
Space group	<i>P</i> -1	<i>P</i> -1
No. of formula units per unit cell, <i>Z</i>	1	2
No. of reflections measured	25491	51148
No. of independent reflections	11459	27840
<i>R</i> _{int}	0.0530	0.0543
Final <i>R</i> _{<i>i</i>} values (<i>I</i> > 2σ(<i>I</i>))	0.0679	0.0498
Final <i>wR</i> (<i>F</i> ²) values (<i>I</i> > 2σ(<i>I</i>))	0.1751	0.1102
Final <i>R</i> _{<i>i</i>} values (all data)	0.1390	0.1136
Final <i>wR</i> (<i>F</i> ²) values (all data)	0.1942	0.1179

Data were collected on an Xcalibur PX diffractometer with CCD Onyx and Mo-K α radiation ($\lambda = 0.71073$ Å) at 100 K and 85 K for **1** and **2** respectively. Structures were solved by direct methods and refined by full-matrix least-squares techniques on *F*² (SHELX).¹

In both structures the non-hydrogen atoms, except disordered atoms, were refined anisotropically, and hydrogen atoms were placed in calculated positions and refined using a riding model.

In the structure of **1** acetate anion was disordered over two position with occupation factors 0.56/0.46. Also one of the methanol solvent molecules was splitted into two positions due to disorder.

In the structure of **2** one of the coordination sites of Mn7 atom consists of disordered over two positions methanol (67%, 20%) and water (13%) molecules. Some other water and methanol molecules were refined with partial occupation due to disorder.

[1] G.M. Sheldrick, *Acta Cryst.* (2008) **A64** 112.

Synthesis

[Mn^{III}₆O₂(phamidox)₆(OAc)₂(MeOH)₄]•10MeOH (1•10H₂O). Mn(OAc)₂•4H₂O (1 mmol, 245 mg), phamidoxH₂ (1 mmol, 166 mg) and NEt₃ (2 mmol) were stirred in MeOH (20 ml) for a period of 35 minutes to form a dark brown solution. After filtration the solution was left to slowly evaporate and black crystals were formed during ~4 days. The crystals were collected by filtration, washed with Et₂O (2 x 5 mL), and dried in vacuo; yield, ~40%.

[Mn^{III}₈O₄(phamidox)₈(MeOH)₂(H₂O)]•5.25MeOH•9.45H₂O (2• 5.25MeOH•9.45H₂O). MnBr₂•4H₂O (1 mmol, 286 mg), phamidoxH₂ (1 mmol, 166 mg) and NEt₃ (2 mmol) were stirred in MeOH (20 ml) for a period of ~45 minutes to form a dark brown solution. The solution was filtered and allowed to evaporate slowly. Black crystals were formed during ~5

days and were collected by filtration, washed with Et₂O (2 x 5 mL), and dried in vacuo; yield, ~30%.

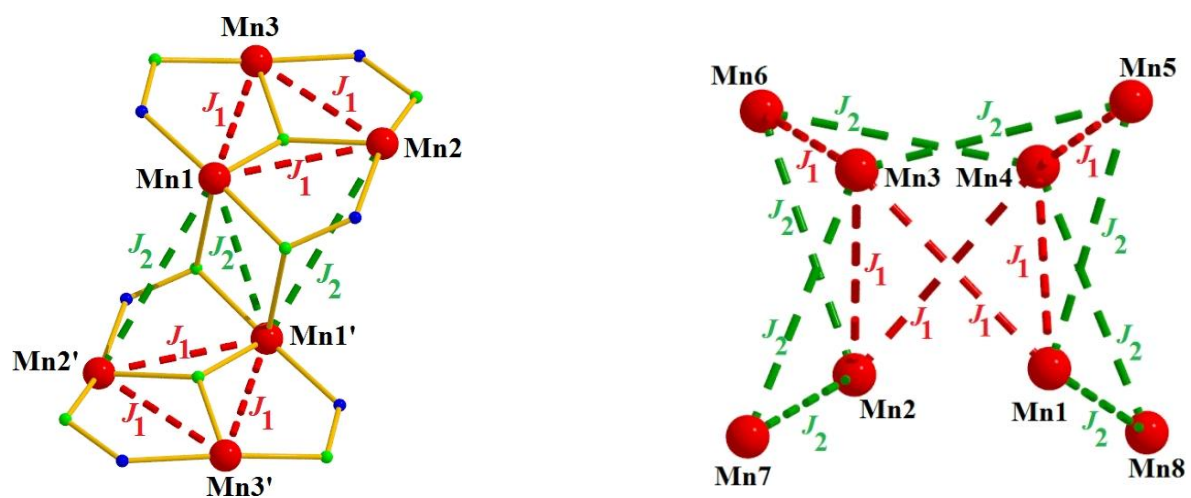


Fig. S1. Interaction schemes for complexes **1** (left) and **2** (right).