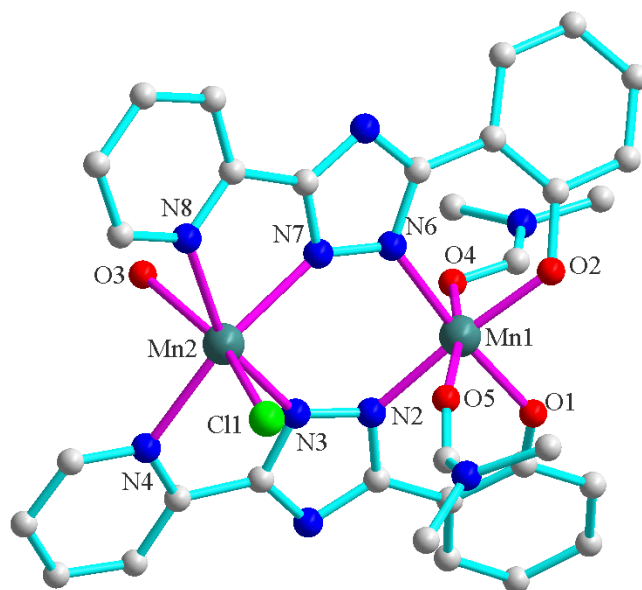
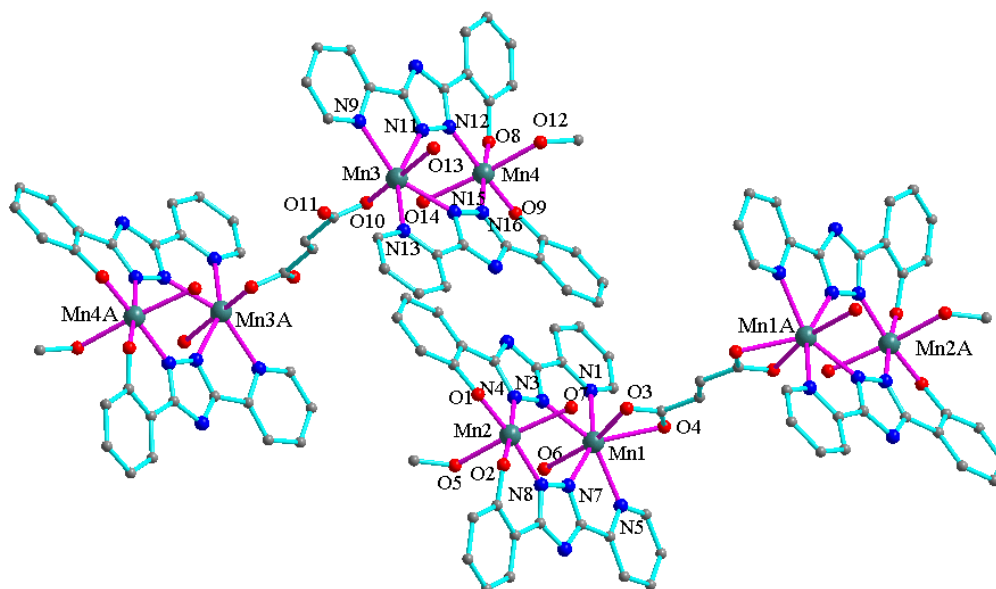


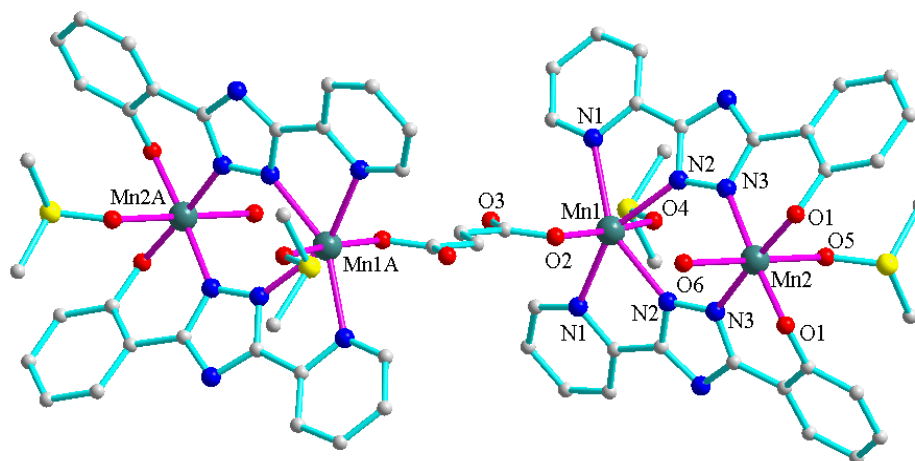
complex 2



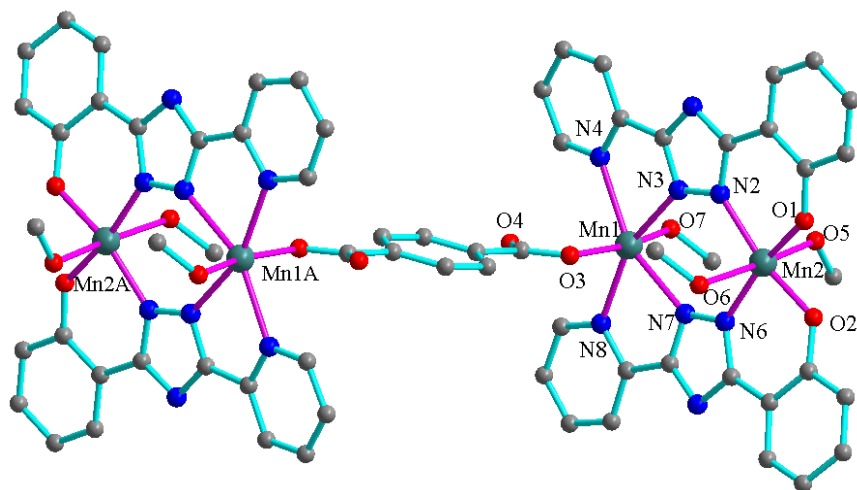
complex 3



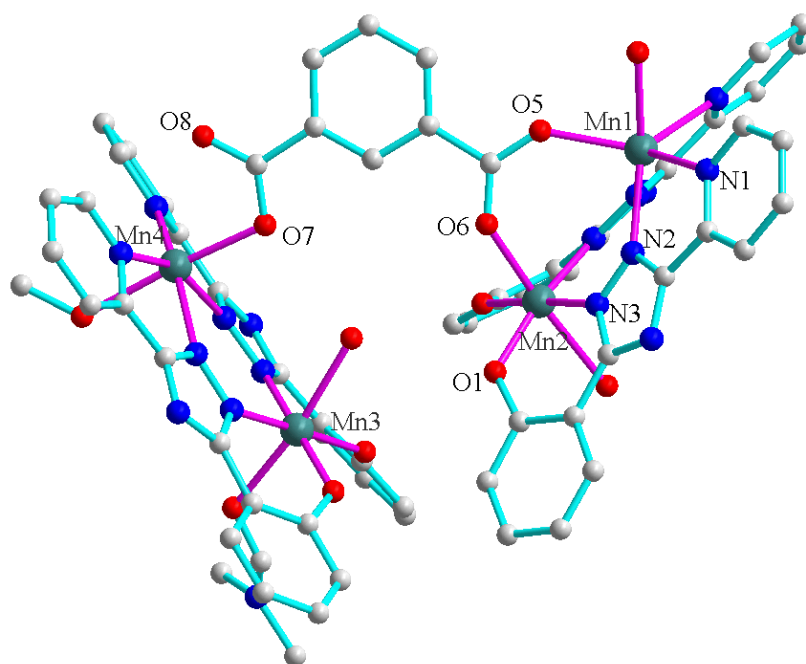
complex 4



complex 5

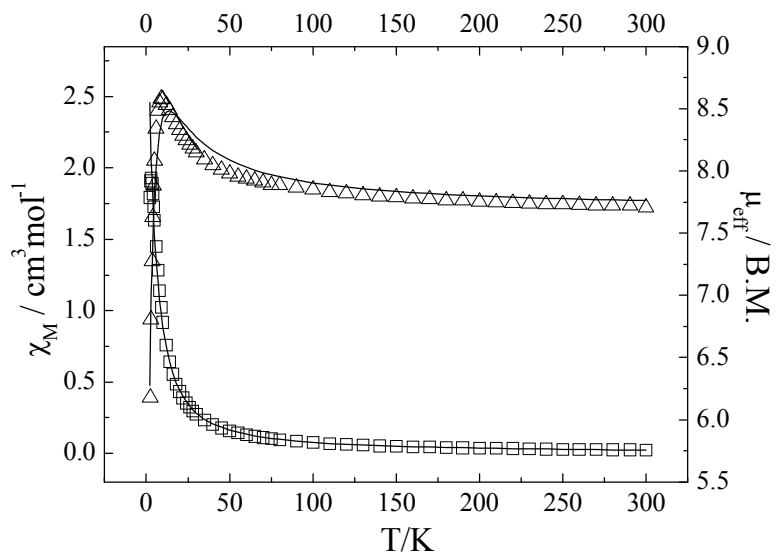


complex 6



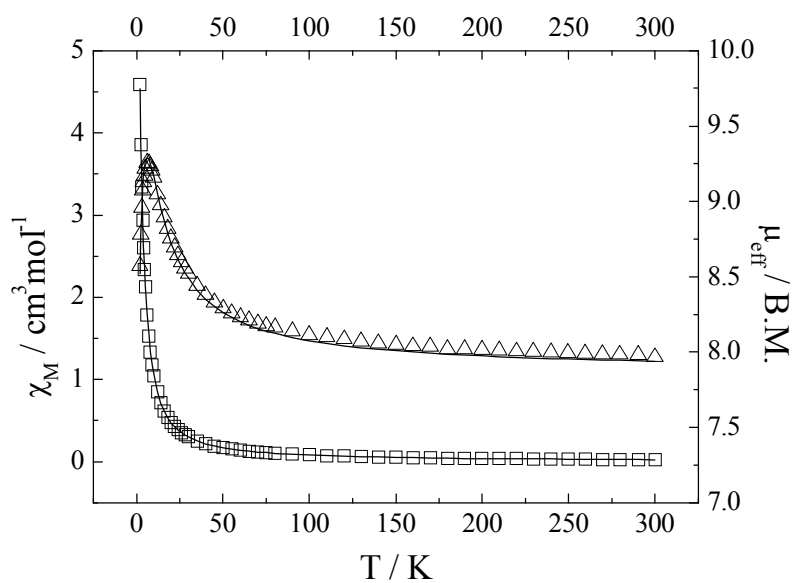
complex 7

Figure S1



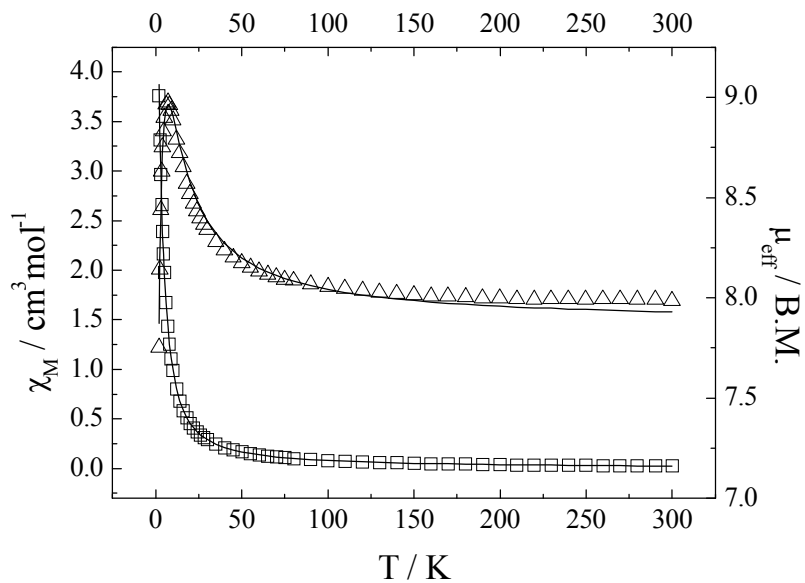
$$J = 1.17 \text{ cm}^{-1}, \quad g = 2.00, \quad zJ' = -0.13 \text{ cm}^{-1}, \quad R = 1.90 \times 10^{-3}$$

Complex 2



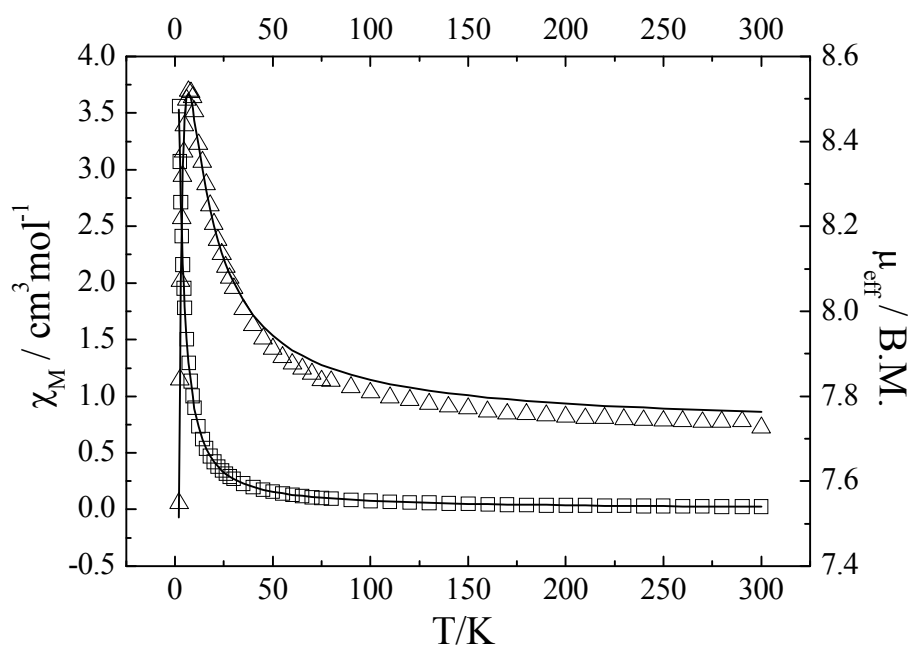
$$J = 0.86 \text{ cm}^{-1}, \quad zJ' = -3.63 \times 10^{-2} \text{ cm}^{-1}, \quad g = 2.05, \quad R = 6.24 \times 10^{-5}$$

Complex 3



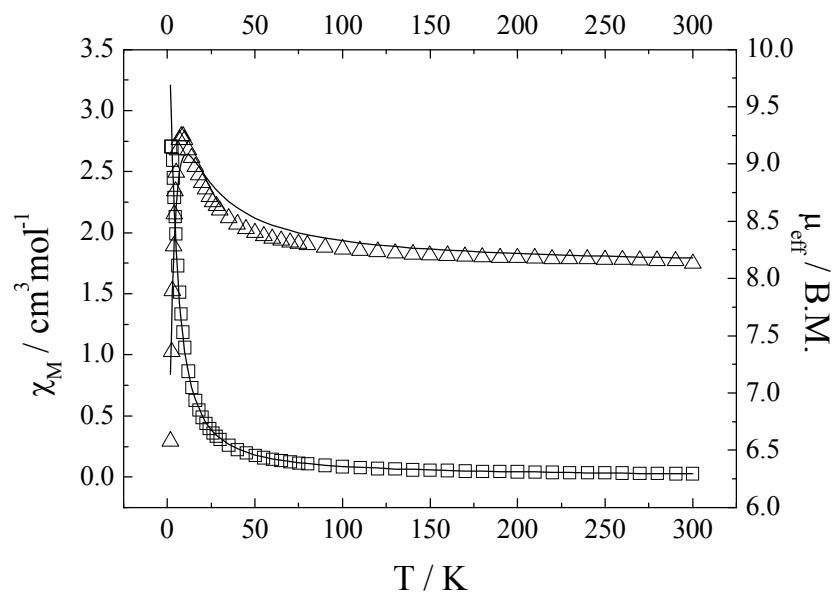
$$J = 0.78 \text{ cm}^{-1}, \quad g = 2.05, \quad zJ' = -5.69 \times 10^{-2} \text{ cm}^{-1}, \quad R = 2.58 \times 10^{-4}$$

Complex 4



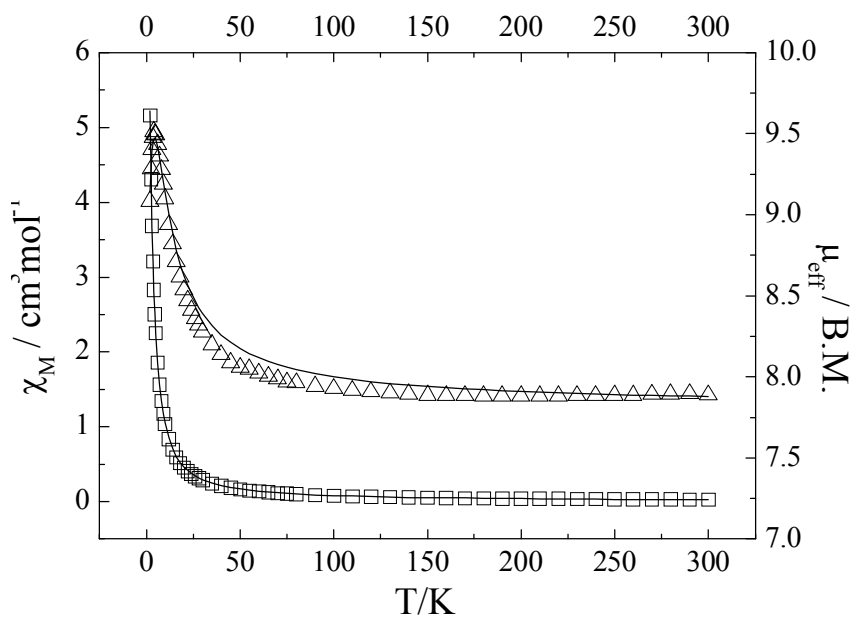
$$J = 0.58 \text{ cm}^{-1}, \quad g = 2.01, \quad zJ' = -6.46 \times 10^{-2} \text{ cm}^{-1}, \quad R = 2.61 \times 10^{-5}$$

Complex 5



$$J = 1.08 \text{ cm}^{-1}, \quad g = 2.11, \quad zJ' = -9.65 \times 10^{-2} \text{ cm}^{-1}, \quad R = 6.63 \times 10^{-3}$$

Complex 6



$$J = 0.75 \text{ cm}^{-1}, \quad g = 2.04, \quad zJ' = -1.90 \times 10^{-2} \text{ cm}^{-1}, \quad R = 6.62 \times 10^{-5}$$

Complex 7

Figure S2

Table S1 Selected bond lengths (Å) and bond angles (°) for complex **2**

<i>Bond lengths</i>			
Mn(1)-N (1)	2.288(3)	Mn(1)-N (5)	2.281(2)
Mn(1)-N (3)	2.163(2)	Mn(1)-N(7)	2.198(2)
Mn(1)-O (4)	2.177(2)	Mn(1)-O (5)	2.287(2)
Mn(2)-O (1)	1.903(2)	Mn(2)-O (2)	1.870(2)
Mn(2)-N (4)	2.002(2)	Mn(2)-N (8)	2.013(2)
Mn(2)-O (6)	2.273(2)	Mn(2)-O (7)	2.232(2)
<i>Bond angles</i>			
N(3)-Mn(1)-O(4)	134.19(8)	N(3)-Mn(1)-N (7)	82.45(9)
O(4)-Mn(1)-N (7)	128.18(9)	N(3)-Mn(1)-N (5)	139.97(9)
O(4)-Mn(1)-N (5)	85.44(8)	N(7)-Mn(1)-N (5)	73.08(8)
N(3)-Mn(1)-O (5)	92.08(8)	O(4)-Mn(1)-O (5)	59.00(7)
N(7)-Mn(1)-O (5)	91.18(8)	N(5)-Mn(1)-O (5)	119.04(9)
N(3)-Mn(1)-N (1)	73.39(9)	O(4)-Mn(1)-N (1)	93.46(9)
N(7)-Mn(1)-N (1)	136.85(9)	N(5)-Mn(1)-N(1)	103.77(9)
O(5)-Mn(1)-N (1)	124.24(8)	O(2)-Mn(2)-O (1)	88.33(9)
O(2)-Mn(2)-N (4)	174.17(9)	O(1)-Mn(2)-N (4)	86.18(9)
O(2)-Mn(2)-N (8)	87.42(9)	O(1)-Mn(2)-N (8)	175.75(9)
N(4)-Mn(2)-N (8)	98.07(9)	O(2)-Mn(2)-O (7)	95.02(9)
O(1)-Mn(2)-O (7)	89.55(9)	N(4)-Mn(2)-O (7)	82.98(9)
N(8)-Mn(2)-O (7)	90.85(9)	O(2)-Mn(2)-O (6)	90.45(9)
O(1)-Mn(2)-O (6)	92.56(8)	N(4)-Mn(2)-O (6)	91.76(9)
N(8)-Mn(2)-O (6)	87.44(8)	O(7)-Mn(2)-O (6)	174.19(8)

Table S2 Selected bond lengths (Å) and bond angles (°) for complex **3**

<i>Bond lengths</i>			
Mn(1)-O (1)	1.882(3)	Mn(1)-O (2)	1.898(3)
Mn(1)-N (2)	2.007(3)	Mn(1)-N (6)	2.029(3)
Mn(1)-O (4)	2.285(3)	Mn(1)-O(5)	2.223(6)
Mn(2)-N (3)	2.240(3)	Mn(2)-N (7)	2.179(3)
Mn(2)-N (4)	2.257(3)	Mn(2)-N (8)	2.294(3)
Mn(2)-C1 (1)	2.4402(13)	Mn(2)-O (3)	2.260(3)
<i>Bond angles</i>			
O(1)-Mn(1)-O (2)	87.10(11)	O(1)-Mn(1)-N (2)	87.67(12)
O(2)-Mn(1)-N (2)	174.76(12)	O(1)-Mn(1)-N (6)	173.90(12)
O(2)-Mn(1)-N (6)	86.81(12)	N(2)-Mn(1)-N (6)	98.41(13)
O(1)-Mn(1)-O (5)	93.3(2)	O(2)-Mn(1)-O(5)	99.0(2)
N(2)-Mn(1)-O (5)	81.0(2)	N(6)-Mn(1)-O (5)	87.3(2)
O(1)-Mn(1)-O (4)	88.73(10)	O(2)-Mn(1)-O (4)	91.43(11)
N(2)-Mn(1)-O (4)	88.80(11)	N(6)-Mn(1)-O (4)	91.79(11)
O(5)-Mn(1)-O (4)	169.5(2)	N(7)-Mn(2)-N (3)	85.16(12)
N(7)-Mn(2)-N (4)	155.74(12)	N(3)-Mn(2)-N (4)	72.97(11)
N(7)-Mn(2)-O (3)	91.61(12)	N(3)-Mn(2)-O (3)	99.17(13)
N(4)-Mn(2)-O (3)	81.88(11)	N(7)-Mn(2)-N (8)	73.39(11)
N(3)-Mn(2)-N (8)	158.43(12)	N(4)-Mn(2)-N (8)	127.51(12)
O(3)-Mn(2)-N (8)	79.52(12)	N(7)-Mn(2)-C1 (1)	101.62(9)
N(3)-Mn(2)-C1(1)	97.37(9)	N(4)-Mn(2)-C1 (1)	91.69(9)
O(3)-Mn(2)-C1 (1)	159.60(11)	N(8)-Mn(2)-C1 (1)	89.38(9)

Table S3 Selected bond lengths (Å) and bond angles (°) for complex **4**

<i>Bond lengths</i>			
Mn(1)-N (3)	2.224(3)	Mn(1)-N (7)	2.221(3)
Mn(1)-N (1)	2.287(3)	Mn(1)-N (5)	2.299(3)
Mn(1)-O (3)	2.340(3)	Mn(1)-O (4)	2.347(3)
Mn(1)-O (6)	2.356(3)		
Mn(2)-O (1)	1.881(3)	Mn(2)-O (2)	1.884(3)
Mn(2)-N (4)	2.015(3)	Mn(2)-N (8)	2.023(3)
Mn(2)-O (5)	2.259(3)	Mn(2)-O (7)	2.261(3)
Mn(3)-N (1 1)	2.233(3)	Mn(3)-N (1 5)	2.229(3)
Mn(3)-N (9)	2.260(3)	Mn(3)-N (1 3)	2.264(3)
Mn(3)-O (1 0)	2.197(3)	Mn(3)-O (1 3)	2.333(3)
Mn(4)-N (1 2)	2.026(3)	Mn(4)-N (1 6)	2.018(3)
Mn(4)-O (8)	1.888(3)	Mn(4)-O (9)	1.880(3)
Mn(4)-O (1 2)	2.256(3)	Mn(4)-O (1 4)	2.293(3)
<i>Bond angles</i>			
N(7)-Mn(1)-N (3)	85.42(12)	N(7)-Mn(1)-N (1)	154.94(12)
N(3)-Mn(1)-N (1)	73.21(12)	N(7)-Mn(1)-N (5)	72.68(12)
N(3)-Mn(1)-N (5)	151.99(12)	N(1)-Mn(1)-N (5)	122.39(12)
N(7)-Mn(1)-O (3)	88.18(11)	N(3)-Mn(1)-O (3)	82.26(11)
N(1)-Mn(1)-O (3)	101.42(11)	N(5)-Mn(1)-O (3)	113.47(11)
N(7)-Mn(1)-O (4)	119.72(11)	N(3)-Mn(1)-O (4)	127.43(11)
N(1)-Mn(1)-O (4)	84.33(11)	N(5)-Mn(1)-O (4)	79.58(11)
O(3)-Mn(1)-O (4)	56.09(10)	N(7)-Mn(1)-O (6)	85.60(11)
N(3)-Mn(1)-O (6)	82.86(11)	N(1)-Mn(1)-O (6)	79.02(11)
N(5)-Mn(1)-O (6)	78.34(11)	O(3)-Mn(1)-O (6)	164.28(10)
O(4)-Mn(1)-O (6)	138.96(10)	O(1)-Mn(2)-O (2)	85.17(12)
O(1)-Mn(2)-N (4)	87.66(12)	O(2)-Mn(2)-N (4)	172.75(12)
O(1)-Mn(2)-N (8)	171.09(13)	O(2)-Mn(2)-N (8)	86.57(13)
N(4)-Mn(2)-N (8)	100.65(13)	O(1)-Mn(2)-O (5)	92.36(12)
O(2)-Mn(2)-O (5)	91.81(12)	N(4)-Mn(2)-O (5)	89.53(13)
N(8)-Mn(2)-O (5)	84.56(13)	O(1)-Mn(2)-O (7)	95.46(12)
O(2)-Mn(2)-O (7)	94.46(12)	N(4)-Mn(2)-O (7)	85.17(12)
N(8)-Mn(2)-O (7)	88.50(12)	O(5)-Mn(2)-O (7)	170.35(11)
O(10)-Mn(3)-N (1 5)	89.70(11)	O(10)-Mn(3)-N(11)	85.58(11)
N(15)-Mn(3)-N (1 1)	83.75(12)	O(10)-Mn(3)-N (9)	100.82(11)
N(15)-Mn(3)-N (9)	154.33(12)	N(11)-Mn(3)-N (9)	73.92(12)
O(10)-Mn(3)-N (1 3)	107.89(11)	N(15)-Mn(3)-N (1 3)	73.27(12)
N(11)-Mn(3)-N (1 3)	152.96(12)	N(9)-Mn(3)-N (1 3)	123.98(12)

O(10)-Mn(3)-O (1 3)	173.52(10)	N(15)-Mn(3)-O (1 3)	88.08(11)
N(11)-Mn(3)-O (1 3)	88.12(11)	N(9)-Mn(3)-O (1 3)	78.85(11)
N(13)-Mn(3)-O (1 3)	77.27(11)	O(9)-Mn(4)-O (8)	85.78(12)
O(9)-Mn(4)-N (1 6)	86.81(13)	O(8)-Mn(4)-N (1 6)	172.59(13)
O(9)-Mn(4)-N (1 2)	173.31(13)	O(8)-Mn(4)-N (1 2)	87.55(13)
N(16)-Mn(4)-N (1 2)	99.86(13)	O(9)-Mn(4)-O (1 2)	91.03(12)
O(8)-Mn(4)-O (1 2)	88.53(12)	N(16)-Mn(4)-O (1 2)	91.77(13)
N(12)-Mn(4)-O (1 2)	89.29(12)	O(9)-Mn(4)-O (1 4)	92.95(12)
O(8)-Mn(4)-O(14)	91.37(12)	N(16)-Mn(4)-O (1 4)	88.85(12)
N(12)-Mn(4)-O (1 4)	86.71(12)	O(12)-Mn(4)-O (1 4)	176.00(11)

Table S4 Selected bond lengths (Å) and bond angles (°) for complex **5**

<i>Bond lengths</i>			
Mn(1)-N (1)	2.305(3)	Mn(1)-N (1) # 1	2.305(3)
Mn(1)-N (2)	2.229(2)	Mn(1)-N (2) # 1	2.229(2)
Mn(1)-O (2)	2.142(3)	Mn(1)-O (4)	2.315(3)
Mn(2)-O (1)	1.887(2)	Mn(2)-O (1) # 1	1.887(2)
Mn(2)-N (3)	2.017(2)	Mn(2)-N (3) # 1	2.017(2)
Mn(2)-O (5)	2.237(3)	Mn(2)-O (6)	2.238(4)
<i>Bond angles</i>			
O(2)-Mn(1)-N (2)	99.95(9)	N(2)#1-Mn(1)-N (2)	83.04(12)
O(2)-Mn(1)-N (1)	97.80(7)	N(2)#1-Mn(1)-N (1)	152.38(9)
N(2)-Mn(1)-N (1)	73.14(9)	N(1)-Mn(1)-N (1) # 1	125.01(13)
O(2)-Mn(1)-O(4)	168.20(11)	N(2)-Mn(1)-O (4)	88.84(8)
N(1)-Mn(1)-O (4)	77.11(7)	O(1)#1-Mn(2)-O (1)	91.26(13)
O(1)-Mn(2)-N (3)	86.46(9)	O(1)-Mn(2)-N (3) # 1	176.55(10)
N(3)#1-Mn(2)-N (3)	95.70(13)	O(1)-Mn(2)-O (5)	89.42(8)
N(3)-Mn(2)-O (5)	87.97(8)	O(1)-Mn(2)-O (6)	90.84(10)
N(3)-Mn(2)-O (6)	91.78(10)	O(5)-Mn(2)-O (6)	179.62(14)

Table S5 Selected bond lengths (Å) and bond angles (°) for complex **6**

<i>Bond lengths</i>			
Mn(1)-N (3)	2.237(3)	Mn(1)-N (7)	2.255(3)
Mn(1)-N (4)	2.303(4)	Mn(1)-N (8)	2.308(4)
Mn(1)-O (3)	2.128(3)	Mn(1)-O (7)	2.226(3)
Mn(2)-N (2)	2.028(3)	Mn(2)-N (6)	2.020(3)
Mn(2)-O (1)	1.858(3)	Mn(2)-O (2)	1.883(3)
Mn(2)-O (5)	2.272(4)	Mn(2)-O (6)	2.264(3)
<i>Bond angles</i>			
O(3)-Mn(1)-O (7)	164.77(12)	O(3)-Mn(1)-N (3)	91.12(13)
O(7)-Mn(1)-N (3)	98.10(12)	O(3)-Mn(1)-N (7)	97.60(12)
O(7)-Mn(1)-N (7)	94.93(12)	N(3)-Mn(1)-N (7)	87.29(12)
O(3)-Mn(1)-N (4)	91.68(12)	O(7)-Mn(1)-N (4)	79.62(11)
N(3)-Mn(1)-N (4)	72.80(12)	N(7)-Mn(1)-N (4)	158.21(12)
O(3)-Mn(1)-N (8)	93.00(13)	O(7)-Mn(1)-N (8)	82.57(12)
N(3)-Mn(1)-N (8)	159.62(12)	N(7)-Mn(1)-N (8)	72.39(12)
N(4)-Mn(1)-N (8)	126.96(12)	O(1)-Mn(2)-O (2)	82.80(14)
O(1)-Mn(2)-N (6)	168.30(13)	O(2)-Mn(2)-N (6)	86.16(14)
O(1)-Mn(2)-N (2)	87.46(13)	O(2)-Mn(2)-N (2)	169.14(13)
N(6)-Mn(2)-N (2)	103.86(13)	O(1)-Mn(2)-O (6)	94.59(15)
O(2)-Mn(2)-O (6)	96.64(15)	N(6)-Mn(2)-O (6)	82.86(13)
N(2)-Mn(2)-O (6)	88.88(13)	O(1)-Mn(2)-O (5)	93.35(16)
O(2)-Mn(2)-O (5)	89.59(15)	N(6)-Mn(2)-O (5)	90.40(14)
N(2)-Mn(2)-O (5)	86.19(13)	O(6)-Mn(2)-O (5)	170.46(13)

Table S6 Selected bond lengths (Å) and bond angles (°) for complex 7

<i>Bond lengths</i>			
Mn(1)-N (1)	2.338(3)	Mn(1)-N (5)	2.385(3)
Mn(1)-N (2)	2.206(3)	Mn(1)-N (6)	2.217(3)
Mn(1)-O (5)	2.121(3)	Mn(1)-O (3)	2.207(3)
Mn(2)-O (1)	1.864(2)	Mn(2)-O (2)	1.904(2)
Mn(2)-N (3)	1.989(3)	Mn(2)-N (7)	1.993(3)
Mn(2)-O(6)	2.125(3)	Mn(2)-O (4)	2.449(3)
Mn(3)-O (9)	1.895(2)	Mn(3)-O (1 0)	1.890(3)
Mn(3)-N (1 1)	1.996(3)	Mn(3)-N (1 5)	2.031(3)
Mn(3)-O (1 1)	2.303(2)	Mn(3)-O (1 3)	2.280(3)
Mn(4)-N (9)	2.245(3)	Mn(4)-N (1 3)	2.267(3)
Mn(4)-N (1 0)	2.195(3)	Mn(4)-N (1 4)	2.219(3)
Mn(4)-O (7)	2.138(2)	Mn(4)-O (1 2)	2.295(2)
O(5)-C (2 7)	1.256(4)	O(6)-C (2 7)	1.254(4)
O(7)-C (3 4)	1.275(4)	O(8)-C (3 4)	1.251(4)
<i>Bond angles</i>			
O(5)-Mn(1)-N (2)	97.11(11)	O(5)-Mn(1)-O (3)	81.21(11)
N(2)-Mn(1)-O (3)	139.70(11)	O(5)-Mn(1)-N (6)	87.11(12)
N(2)-Mn(1)-N (6)	79.21(11)	O(3)-Mn(1)-N (6)	140.29(11)
O(5)-Mn(1)-N (1)	132.96(11)	N(2)-Mn(1)-N (1)	70.70(11)
O(3)-Mn(1)-N (1)	81.17(11)	N(6)-Mn(1)-N (1)	131.34(11)
O(5)-Mn(1)-N (5)	119.68(11)	N(2)-Mn(1)-N (5)	128.93(11)
O(3)-Mn(1)-N (5)	83.71(11)	N(6)-Mn(1)-N(5)	69.50(11)
N(1)-Mn(1)-N (5)	101.19(10)	O(1)-Mn(2)-O (2)	89.66(10)
O(1)-Mn(2)-N (3)	87.36(11)	O(2)-Mn(2)-N (3)	176.59(11)
O(1)-Mn(2)-N (7)	168.33(12)	O(2)-Mn(2)-N (7)	86.99(11)
N(3)-Mn(2)-N (7)	95.61(12)	O(1)-Mn(2)-O (6)	99.66(11)
O(2)-Mn(2)-O (6)	93.13(10)	N(3)-Mn(2)-O (6)	89.02(11)
N(7)-Mn(2)-O (6)	91.69(12)	O(1)-Mn(2)-O (4)	83.32(10)
O(2)-Mn(2)-O (4)	89.96(10)	N(3)-Mn(2)-O (4)	88.04(11)
N(7)-Mn(2)-O (4)	85.50(11)	O(6)-Mn(2)-O (4)	175.71(9)
O(10)-Mn(3)-O (9)	86.84(10)	O(10)-Mn(3)-N (1 1)	173.87(10)
O(9)-Mn(3)-N (1 1)	87.47(11)	O(10)-Mn(3)-N (1 5)	86.39(11)
O(9)-Mn(3)-N (1 5)	172.14(11)	N(11)-Mn(3)-N (1 5)	99.45(11)
O(10)-Mn(3)-O (1 3)	89.38(10)	O(9)-Mn(3)-O (1 3)	90.69(10)
N(11)-Mn(3)-O(13)	92.97(10)	N(15)-Mn(3)-O (1 3)	85.25(10)
O(10)-Mn(3)-O (1 1)	92.18(10)	O(9)-Mn(3)-O (1 1)	99.14(10)

N(11)-Mn(3)-O (1 1)	86.48(11)	N(15)-Mn(3)-O (1 1)	85.11(10)
O(13)-Mn(3)-O (1 1)	170.11(9)	O(7)-Mn(4)-N (1 0)	89.60(10)
O(7)-Mn(4)-N (1 4)	92.04(10)	N(10)-Mn(4)-N (1 4)	84.92(11)
O(7)-Mn(4)-N (9)	96.63(10)	N(10)-Mn(4)-N (9)	74.62(11)
N(14)-Mn(4)-N (9)	157.66(10)	O(7)-Mn(4)-N (1 3)	101.79(10)
N(10)-Mn(4)-N (1 3)	155.67(11)	N(14)-Mn(4)-N (1 3)	73.37(10)
N(9)-Mn(4)-N (1 3)	124.34(11)	O(7)-Mn(4)-O (1 2)	176.36(9)
N(10)-Mn(4)-O (1 2)	87.13(10)	N(14)-Mn(4)-O (1 2)	86.09(10)
N(9)-Mn(4)-O (1 2)	84.04(10)	N(13)-Mn(4)-O (1 2)	80.68(10)
O(6)-C(27)-O (5)	126.4(3)	O(8)-C(34)-O (7)	122.9(3)
