Table S1. Hydrogen-bond geometry (Å, °) in $[NiCl_2(Hhp)_4]$ (**1**), $[Ni(Hhp)_6]Cl_2$ (**2**), $[MnCl_2(Hhp)_4]$ (**5**).

***D*–H···A**	***D*–H**	**H···A**	***D*···A**	***D*–H···A**
		1		
N1–H1···O2	0.8800	2.0000	2.968(3)	146.00
N2–H2···Cl1^{i}	0.8800	2.0000	3.076(2)	175.00
		2		
N1–H1···O2	0.8600	2.5200	2.949(3)	112.00
N1–H1···O3^{i}	0.8600	2.0800	2.821(3)	143.00
N2–H2···Cl1	0.8600	2.2900	3.150(3)	174.00
N3–H3···Cl1^{i}	0.8600	2.3000	3.142(3)	167.00
		5		
N1–H1···O2	0.8600	2.4300	3.176(2)	145.00
N2–H2···Cl1^{i}	0.8600	2.2300	3.090(1)	175.00

Symmetry code in **1**: (i) –1 + *x*, *y*, *z*; in **2**: (i) –*x*, –*y*, –*z*; in **5**: (i) 1 + *x*, *y*, –*z*.

Table S2. Hydrogen-bond geometry (Å, °) in **3**, $[NiCl_2(Hhp)(H_2O)_2]_2{\cdot}2Hhp$.

***D*–H····A**	***D*–H**	**H····A**	***D*····A**	***D*–H····A**
O1–H1A····O20	0.89(3)	2.04(3)	2.911(2)	167(3)
O2–H2A····Cl1^{i}	0.85(3)	2.35(3)	3.1810(16)	170(3)
O2–H2B····O20^{ii}	0.86(3)	1.90(3)	2.755(2)	171(3)
N10–H10····O20^{iii}	0.8800	1.9200	2.793(2)	171.00
C21–H21····O10^{iv}	0.9500	2.2500	3.160(3)	159.00

Symmetry code: (i)1– *x*, –*y*, –*z*; (ii) –1 + *x*, *y*, *z*; (iii) 2 – *x*,1 – *y*, –*z*; (iv) 2 – *x*, –*y*,1 – *z*.

Table S3. Hydrogen-bond geometry (Å, °) in **4**, $[Ni_2Cl_4(Hhp)_5]{\cdot}2MeCN$.

***D*–H····A**	***D*–H**	**H····A**	***D*····A**	***D*–H····A**
N1–H1···Cl1	0.8800	2.3600	3.178(2)	154.00
N1–H2···Cl2	0.8800	2.3300	3.128(2)	150.00