Electronic Supplementary Information for Dalton Transactions

Supplementary materials

Table S1 Selected bond lengths (Å) and angles (°) for the title compounds

Compound **1**			
Pb(1)-O(4)	2.361(2)	Pb(1)-N(6)	2.598(3)
Pb(1)-N(5)	2.620(3)	Pb(1)-N(2)	2.690(3)
Pb(1)-O(2)#1	2.757(2)	O(1)-C(7)	1.233(4)
O(2)-C(8)	1.289(4)	O(4)-C(16)	1.314(4)
O(3)-C(15)	1.258(4)		
O(4)-Pb(1)-N(6)	78.63(8)	O(4)-Pb(1)-O(2)#1	89.09(8)
O(4)-Pb(1)-N(5)	91.61(9)	N(6)-Pb(1)-O(2)#1	160.89(8)
N(6)-Pb(1)-N(5)	63.38(8)	N(5)-Pb(1)-O(2)#1	132.32(8)
O(4)-Pb(1)-N(2)	75.81(9)	N(2)-Pb(1)-O(2)#1	74.81(8)
N(6)-Pb(1)-N(2)	87.90(9)	N(5)-Pb(1)-N(2)	150.62(9)
Compound **2**			
Pb(1)-O(1)	2.512(5)	Pb(1)-N(1)	2.699(6)
Pb(1)-O(3)	2.329(5)	Pb(1)-N(4)	2.732(6)
Pb(1)-O(1)#1	2.531(5)	O(1)-C(6)	1.308(8)
O(2)-C(7)	1.251(9)	O(3)-C(13)	1.311(8)
O(4)-C(14)	1.280(9)		
O(3)-Pb(1)-O(1)	89.41(17)	O(3)-Pb(1)-O(1)#1	89.82(19)
O(3)-Pb(1)-N(4)	65.17(17)	O(1)-Pb(1)-O(1)#1	62.24(19)
O(1)-Pb(1)-N(4)	148.44(19)	O(3)-Pb(1)-N(1)	73.18(18)
O(1)#1-Pb(1)-N(4)	97.57(17)	O(1)-Pb(1)-N(1)	62.71(16)
N(1)-Pb(1)-N(4)	121.44(17)	O(1)#1-Pb(1)-N(1)	122.13(16)
Compound **3**			
Pb(1)-O(2)#1	2.503(2)	Pb(1)-O(2)#3	2.654(2)
Pb(1)-N(1)	2.752(3)	C(6)-O(1)	1.244(4)
C(7)-O(2)	1.312(4)		
O(2)#1-Pb(1)-O(2)#2	88.98(11)	O(2)#1-Pb(1)-O(2)#3	94.14(7)
O(2)#1-Pb(1)-O(2)#4	176.89(8)	O(2)#3-Pb(1)-O(2)#4	82.75(10)
N(1)-Pb(1)-O(2)#1	71.66(8)	N(1)-Pb(1)-O(2)#2	99.36(8)
N(1)-Pb(1)-O(2)#3	81.65(8)	N(1)-Pb(1)-O(2)#4	107.76(8)
N(1)-Pb(1)-N(1)#5	167.77(12)		
Compound **4**			

Cu(1)-N(1)	1.916(3)	Cu(1)-O(1)#1	1.900(3)
Cu(1)-O(2)#2	2.262(3)	Cu(1)-Cu(1)#1	2.6006(11)
C(7)-O(1)	1.288(4)	C(8)-O(2)	1.256(5)
N(1)-Cu(1)-O(1)#1	169.72(12)	N(1)-Cu(1)-O(2)#2	92.07(12)
O(1)#1-Cu(1)-O(2)#2	97.92(11)		
Compound **5**			
Mn(1)-O(1)	2.1635(16)	Mn(1)-Ow(1)	2.2159(19)
Mn(1)-N(1)	2.2209(19)	O(1)-C(6)	1.314(3)
O(2)-C(7)	2.2209(19)		
O(1)-Mn(1)-Ow(1)	90.68(7)	O1-Mn1-N1	77.52(7)
Ow(1)-Mn(1)-N(1)	91.29(8)		
Compound **10**			
C(3)-O(1)	1.273(3)		

Symmetry transformations used to generate equivalent atoms: #1 -*x*+2, *y*, -*z*+1/2 for **1**; #1 -*x*+2, -*y*+2, -*z* for **2**; #1 *x*+1/2, -*y*+1/2, -*z*+2 #2 -*x*+1/2, *y*+1/2, -*z*+2 #3 *x*+1/2, -*y*+1/2, -*z*+1 #4 -*x*+1/2, *y*+1/2, -*z*+1 #5 -*x*+1, -*y*+1, *z* for **3**; #1 -*x*+1, -*y*, -*z* #2 -*x*+1, *y*-1/2, -*z*+1/2 for **4**.

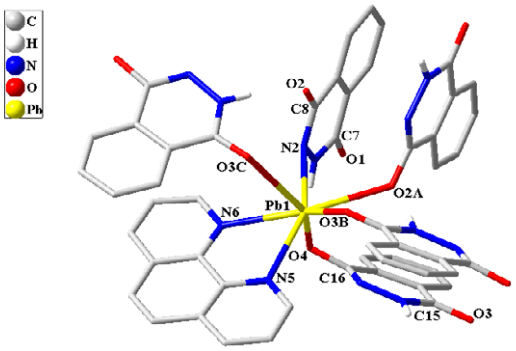

Fig. S1 The coordinated environment of $[Pb_2(PTH)_4(phen)_2] \cdot H_2O$ **1**.

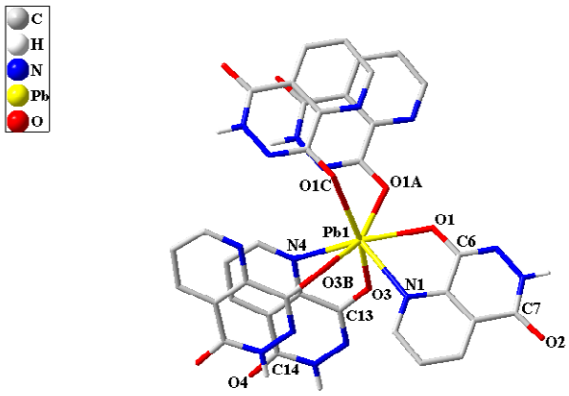

Fig. S2 The coordination environment of Pb(II) in $[Pb(2,3\text{-}PDH)_2]$ **2**.

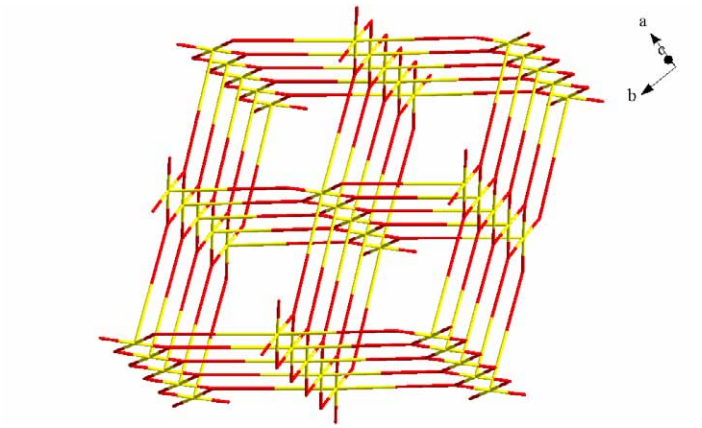

Fig. S3 The topological structure of [Pb(3,4-PDH)$_2$] **3** (the intramolecular hydrogen-bonded interactions are omitted).

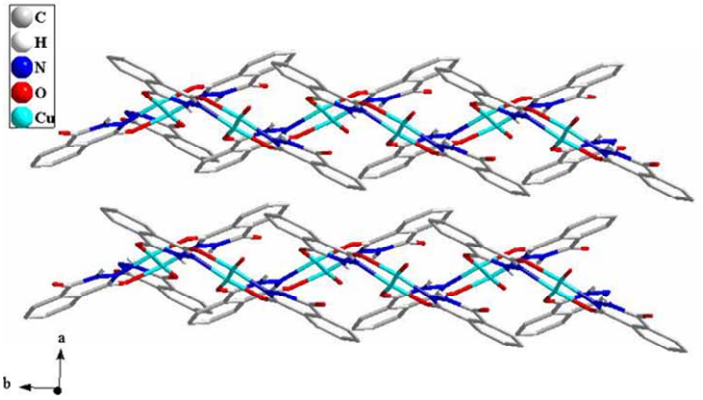

Fig. S4 The 3-D supramolecular network of [Cu(PTH)] **4** showing the intralayer and interlayer π···π stacking interactions between the PTHs.

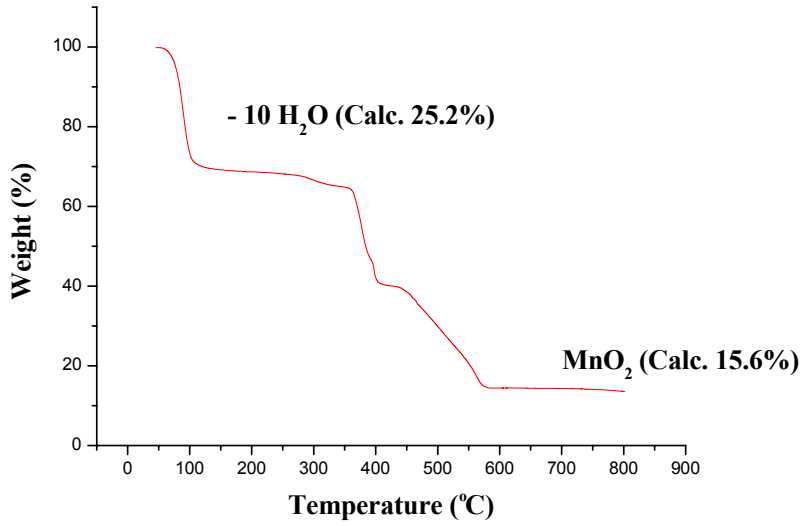

Fig. S5 The TG curve of compound **8**