

Table S2. Hydrogen-bonding Geometry (Å and °) for **1-4**

D—H···A	D—H	H···A	D···A	D—H···A
[Zn(atza)₂(H₂O)₄] (1)				
O(3)—H(3A)···N(3)#1	0.96	2.31	3.146(4)	145
O(3)—H(3B)···O(2)	0.96	2.19	2.706(4)	113
O(4)—H(4A)···N(1)#2	0.96	2.27	2.921(4)	124
O(4)—H(4B)···N(2)#3	0.96	2.51	3.470(4)	173
O(4)—H(4A)···N(3)#3	0.96	2.45	3.345(4)	155
O(5)—H(5A)···O(2)#4	0.86	2.03	2.858(4)	161
O(5)—H(5B)···N(2)#5	0.86	2.23	3.076(4)	166
[Zn(pytza)₂](2)				
C(6)—H(6)···O(1)#1	0.93	2.48	3.102	124
C(7)—H(7)···O(2)#2	0.93	2.40	2.009	123
[Zn(datza)(H₂O)₂]·3H₂O (3)				
O(3)—H(3C)···O(5)#1	0.85	1.96	2.776(6)	161
O(3)—H(3D)···O(9)#2	0.85	1.99	2.836(5)	170
O(4)—H(4A)···O(1)	0.85	2.33	2.769(7)	113
O(4)—H(4A)···O(1)#3	0.85	2.47	3.111(7)	133
O(4)—H(4B)···O(6)#1	0.85	2.05	2.782(7)	144
O(7)—H(7A)···O(6)#4	0.85	2.04	2.813(8)	152
O(8)—H(8A)···O(2)	0.85	2.59	3.405(5)	160
O(9)—H(9A)···N(5)	0.85	2.00	2.719(8)	143
O(9)—H(9B)···O(1)#5	0.85	1.89	2.708(8)	163
C(3)—H(3B)···O(6)#6	0.97	2.54	3.390(10)	146
O(5)—H(5B)···N(8)#5	0.97	2.61	3.228(12)	122
[Zn₃(tzpha)₂(H₂O)₁₂]·MeOH·EtOH·4H₂O (4)				

O(7)—H(7A) ···O(14)	0.85	2.53	3.255(14)	144
O(7)—H(7A) ···N(6)# 1	0.85	2.45	2.976(12)	121
O(9)—H(9A) ···O(15)# 2	0.85	2.23	2.778(19)	122
O(9)—H(9B) ···O(13)	0.85	2.54	3.147(13)	129
O(11)—H(11B) ···O(1)	0.85	1.95	2.685(10)	144
O(10)—H(11C) ···N(5)# 3	0.85	2.21	2.868(11)	134
O(12)—H(12D) ···N(4)# 4	0.85	2.18	2.892(11)	141
O(13)—H(13A) ···O(3)# 3	0.85	2.11	2.736(14)	130
O(14)—H(14E) ···O(3)# 1	0.85	2.60	3.433(16)	168
C(10)—H(10A) ···O(8)	0.97	2.55	3.334(11)	138
C(16)—H(16A) ···O(9)# 5	0.96	2.28	2.917(19)	123
C(16)—H(16B) ···O(12)# 5	0.96	1.79	2.587(17)	138
C(16)—H(16C) ···O(6)# 6	0.96	1.63	2.37(2)	131
C(18)—H(18C) ···O(5)# 7	0.95	2.04	2.04(3)	156

Symmetry codes

For **1**: # 1: -1+x, 1+y, z; # 2: -1+x,y,1+z; # 3: 1-x, 2-y, 1-z; # 4: 1-x, 2-y, -z; # 5: -1+x,y,z

For **2**: # 1: 0.5+x, 0.5-y, 0.5+z; # 2: 0.5+x, -0.5+y, z.

For **3**: # 1: -1+x,y,1+z; # 2: -1+x,-1+y,z; # 3: -x,1-y,1-z; # 4: -x,-y,-z; # 5: 1+x,y,z; # 6: 1-x,1-y,-z

For **4**: # 1: 1+x,-1+y,z; # 2: -1+x, y, z; # 3: x, -1+y, z; # 4: -x, 3-y, -z; # 5: 1+x, y, z; # 6: x, -1+y, 1+z; # 7: 1-x, 2-y, -z