

Electronic Supplementary Information for

pH-dependent assembly of two polyoxometalate host-guest structural isomers based on keggin polyoxoanion templates

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Table S1. Selected Bond Lengths (Å) and Angles (°) for compound **1**.

Bond	Distance	Angle	(°)
Ag1—N1	2.207 (11)	N1—Ag1—N2 ⁱ	126.6 (4)
Ag1—N2 ⁱ	2.282 (11)	N1—Ag1—Cl1	134.1 (3)
Ag1—Cl1	2.495 (4)	N2 ⁱ —Ag1—Cl1	99.3 (3)
Ag2—N7	2.168 (11)	N7—Ag2—N3	170.3 (5)
Ag2—N3	2.171 (10)	N9—Ag3—N8 ⁱ	121.3 (4)
Ag3—N9	2.262 (11)	N9—Ag3—Cl1 ⁱⁱ	135.1 (3)
Ag3—N8 ⁱ	2.385 (11)	N8 ⁱ —Ag3—Cl1 ⁱⁱ	92.9 (3)
Ag3—Cl1 ⁱⁱ	2.625 (4)	N9—Ag3—Cl1 ⁱⁱⁱ	116.2 (4)
Ag3—Cl1 ⁱⁱⁱ	2.869 (5)	N8 ⁱ —Ag3—Cl1 ⁱⁱⁱ	95.3 (3)
		Cl1 ⁱⁱ —Ag3—Cl1 ⁱⁱⁱ	85.33 (14)
Symmetry codes: (i) $x-1, y, z$; (ii) $x, y, z-1$; (iii) $-x, -y, -z$.			

Table S2. Selected Bond Lengths (Å) and Angles (°) for compound **2**.

Bond	Distance	Angle	(°)
Ag1—N1	2.169 (7)	N1—Ag1—N2 ⁱ	145.6 (3)
Ag1—N2 ⁱ	2.168 (8)	N1—Ag1—C11	112.0 (2)
Ag1—C11	2.689 (3)	N2 ⁱ —Ag1—C11	100.9 (2)
Ag2—N3	2.117 (7)	N3—Ag2—N7	172.6 (3)
Ag2—N7	2.127 (8)	N9—Ag3—C11 ⁱⁱ	175.3 (2)
Ag3—N9	2.142 (7)		
Ag3—C11 ⁱⁱ	2.348 (3)		

Symmetry codes: (i) $x, -y-1, z+1/2$; (ii) $x-1/2, -y+1/2, z-1/2$.

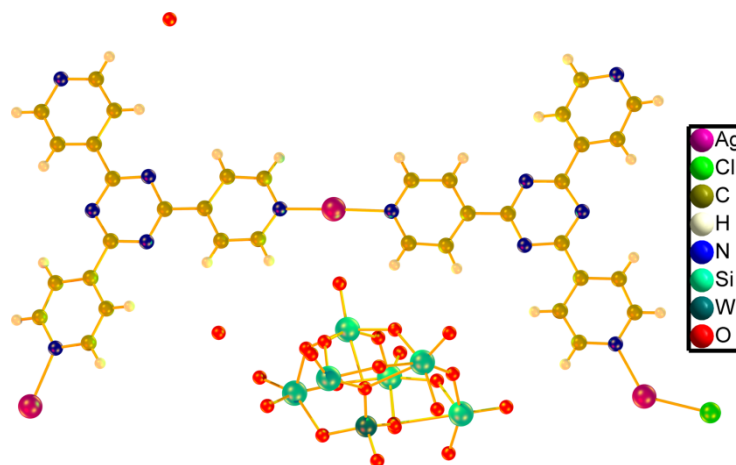


Fig. S1 The asymmetric units of compounds **1** and **2**.

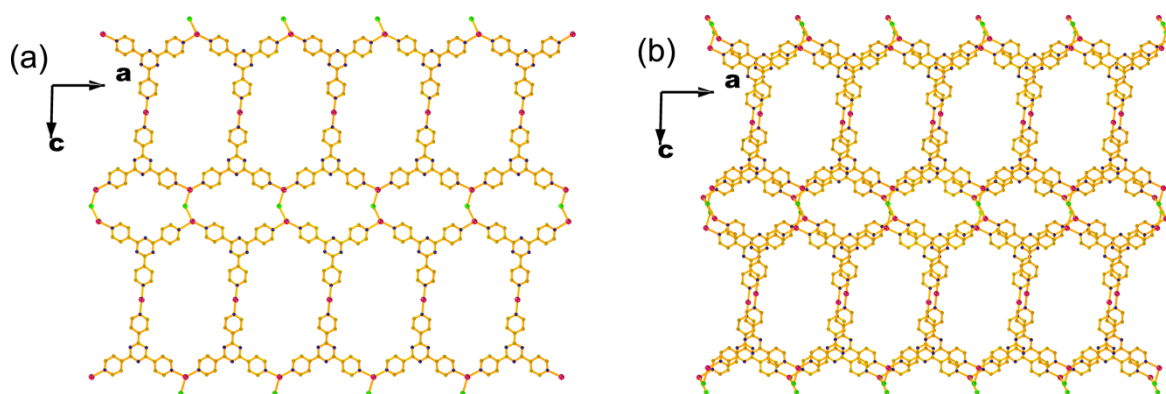


Fig. S2 The railway-shaped network in compound **1**.

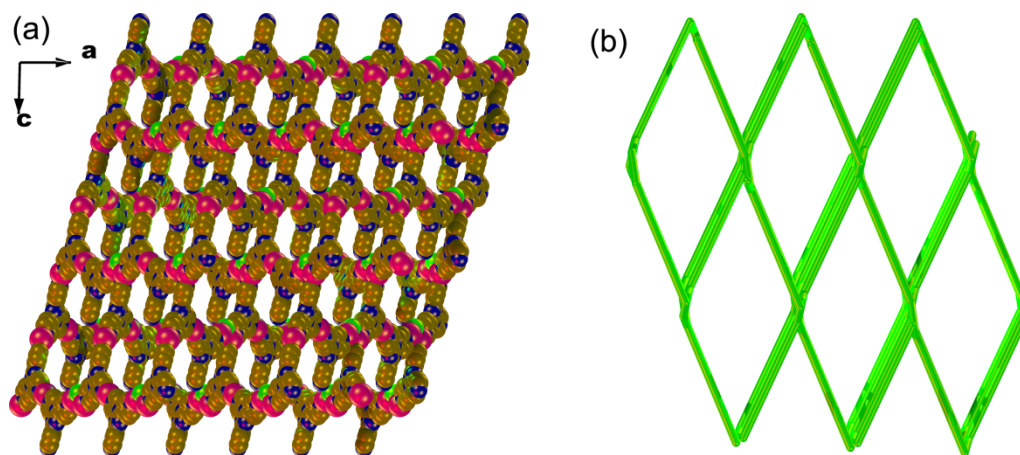


Fig. S3 (a) Views of the 3D host framework of compound **2** along the *b* direction. (b) The net topology of compound **2**.

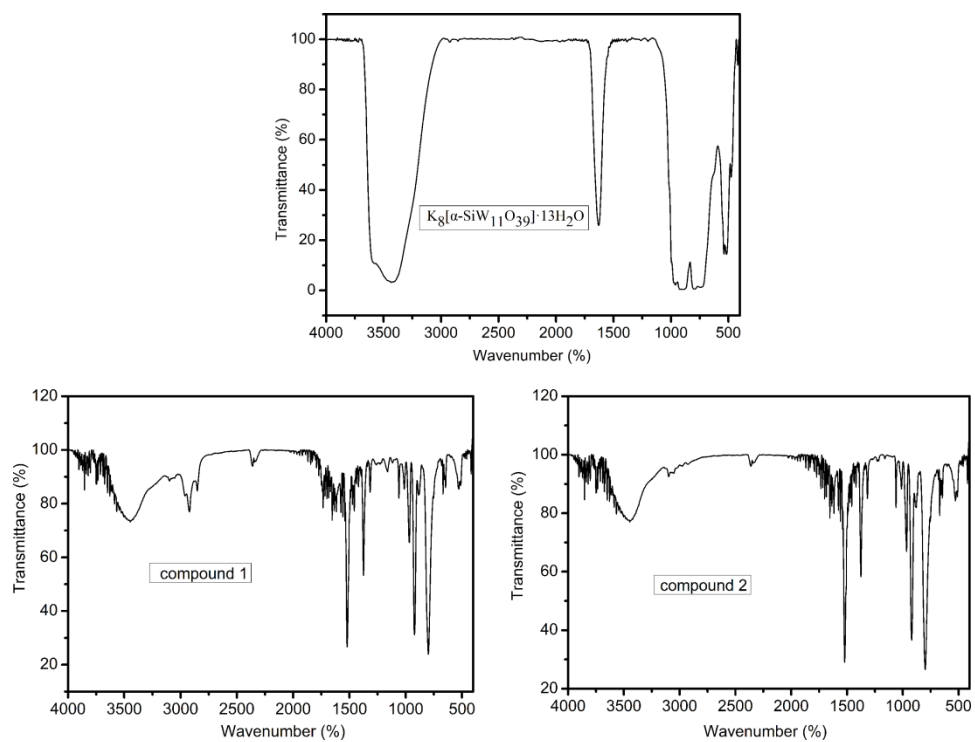


Fig. S4 The IR of $\text{K}_8[\alpha\text{-SiW}_{11}\text{O}_{39}] \cdot 13\text{H}_2\text{O}$, **1** and **2**.

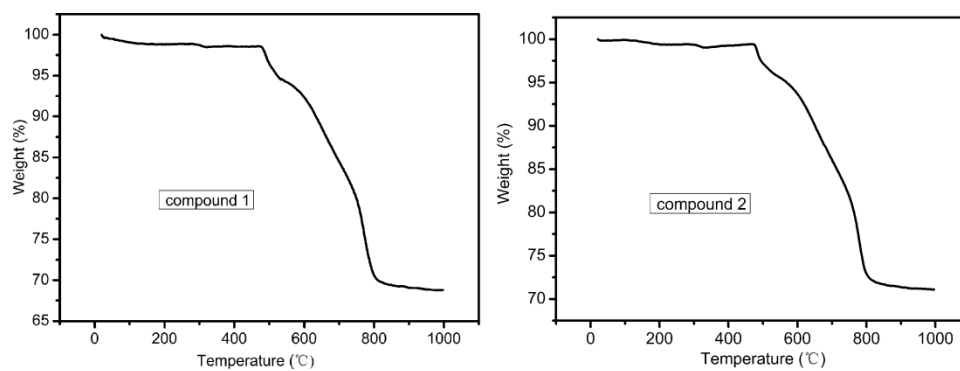


Fig. S5 The TG of compounds **1** and **2**.

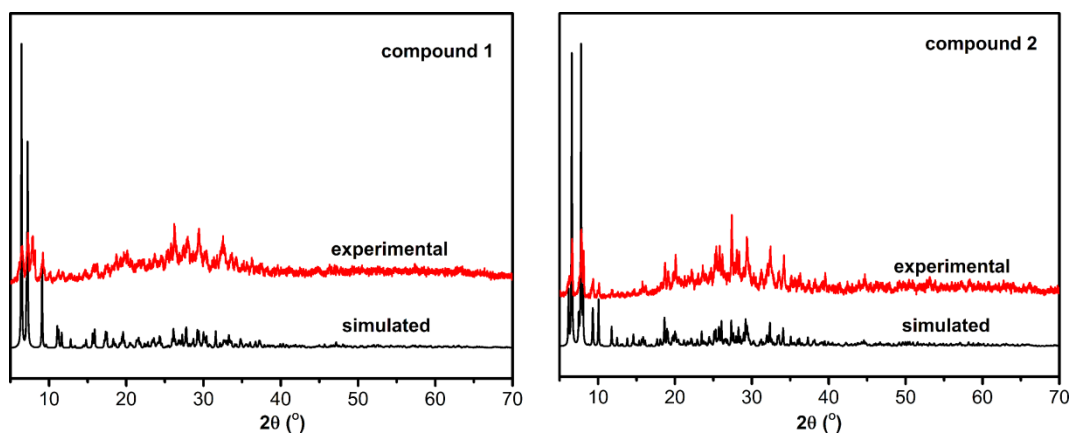
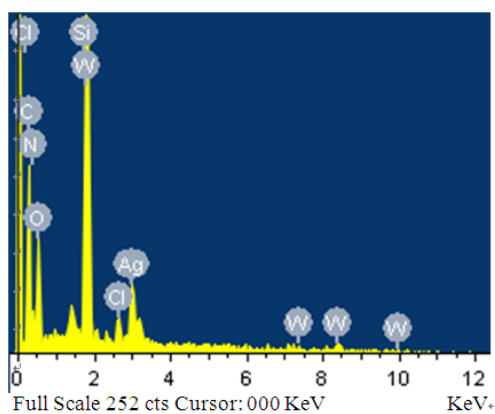
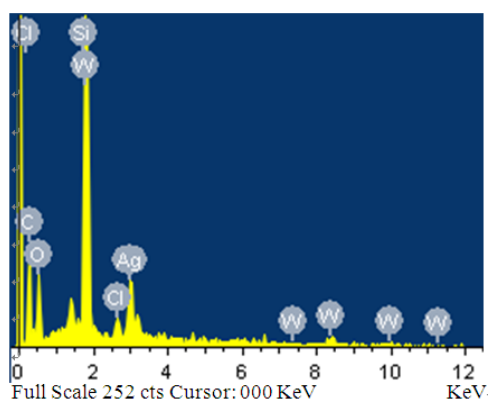


Fig.S6 The PXRD of compounds 1 and 2.



Element	Weight (%)	Atomic (%)
C K	27.21	42.77
N K	19.16	25.83
O K	23.56	27.81
Si K	-0.51	-0.34
Cl K	0.90	0.48
Ag L	5.57	0.97
W M	24.11	2.48
Totals	100.00	

Fig. S7 The EDS analysis of compound 1.



Element	Weight (%)	Atomic (%)
C K	27.66	58.06
O K	21.61	34.05
Si K	-1.05	-0.94
Cl K	1.22	0.87
Ag L	10.76	2.52
W M	39.79	5.46
Totals	100.00	

Fig. S8 The EDS analysis of compound 2.