

Supplementary Information

Keggin polyoxoanion supported organic-inorganic trinuclear lutetium cluster, $\{\text{Na}(\text{H}_2\text{O})_3[\text{Lu}(\text{pydc})(\text{H}_2\text{O})_3]_3\}[\text{SiW}_{12}\text{O}_{40}] \cdot 26.5\text{H}_2\text{O}$

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Fig. S1 The IR spectra of **1**, $\text{H}_4[\text{SiW}_{12}\text{O}_{40}] \cdot n\text{H}_2\text{O}$ and H_2pydc ligands.

Fig. S2 The UV spectra of **1**, $\text{H}_4[\text{SiW}_{12}\text{O}_{40}] \cdot n\text{H}_2\text{O}$ and H_2pydc ligands.

Fig. S3 The TG/DTA curve of **1**.

Fig. S4 Comparison of the simulated and experimental PXRD patterns of **1**.

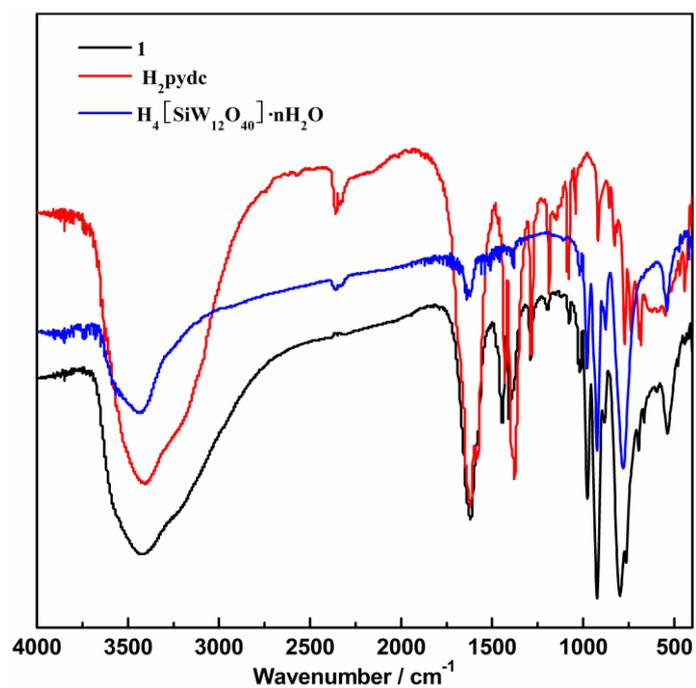


Fig. S1 The IR spectra of **1**, H₄[SiW₁₂O₄₀]·nH₂O and H₂pydc ligands.

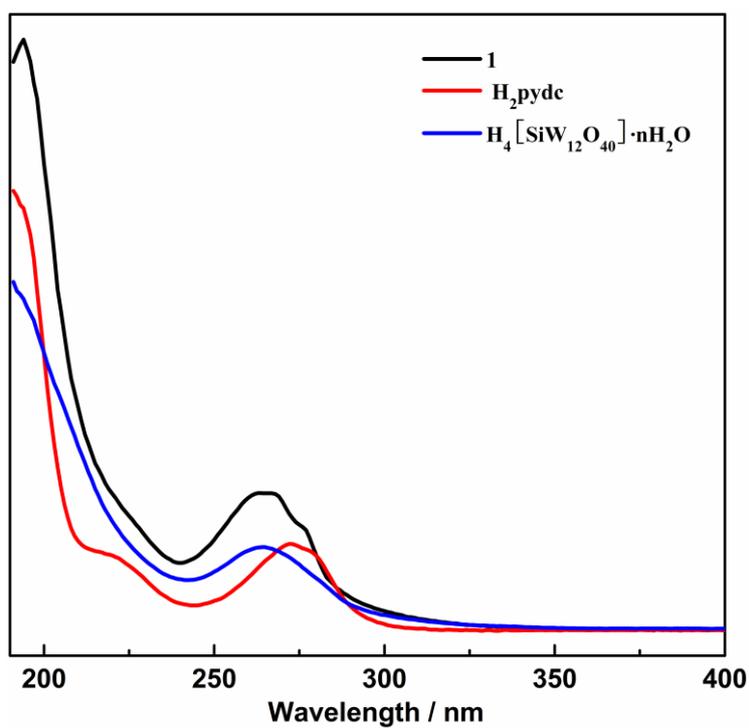


Fig. S2 The UV spectra of **1**, H₄[SiW₁₂O₄₀]·nH₂O and H₂pydc ligands.

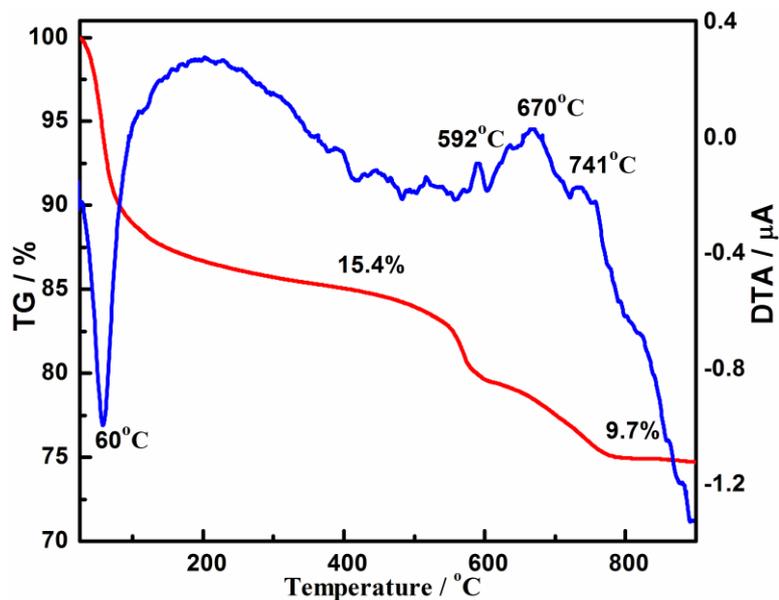


Fig. S3 The TG/DTA curve of **1**.

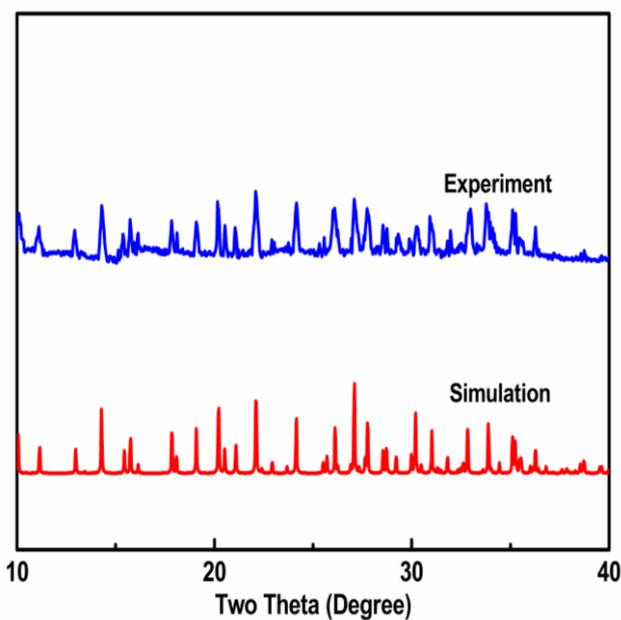


Fig. S4 Comparison of the simulated and experimental PXRD patterns of **1**.

The experimental PXRD pattern of the bulk product of **1** is in good agreement with the simulated PXRD pattern, confirming the phase purity of the sample (Fig. S4). The difference in intensity between them is attributed to the variation in preferred orientation of the powder sample during collection of the experimental PXRD.