

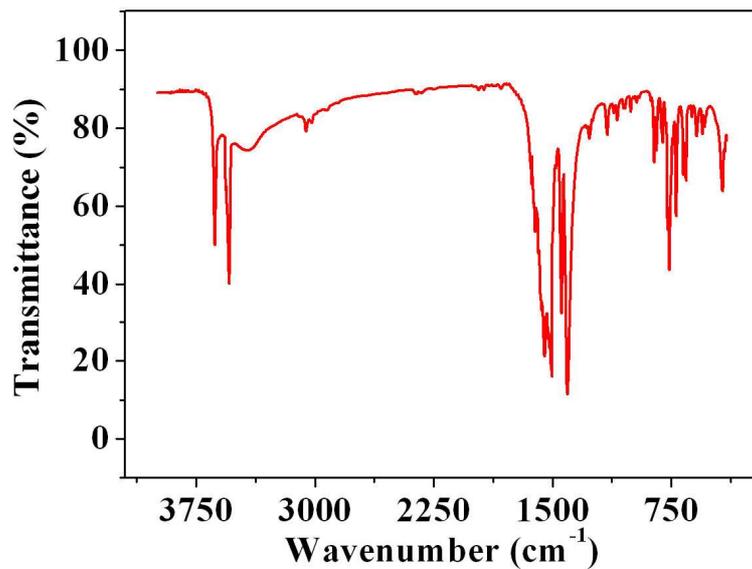
## Supporting Information

**A unique optical and electrical multifunctional metal–organic framework based on polynuclear rod-shaped secondary building units that constructed from a “three birds with one stone” in situ reaction process**

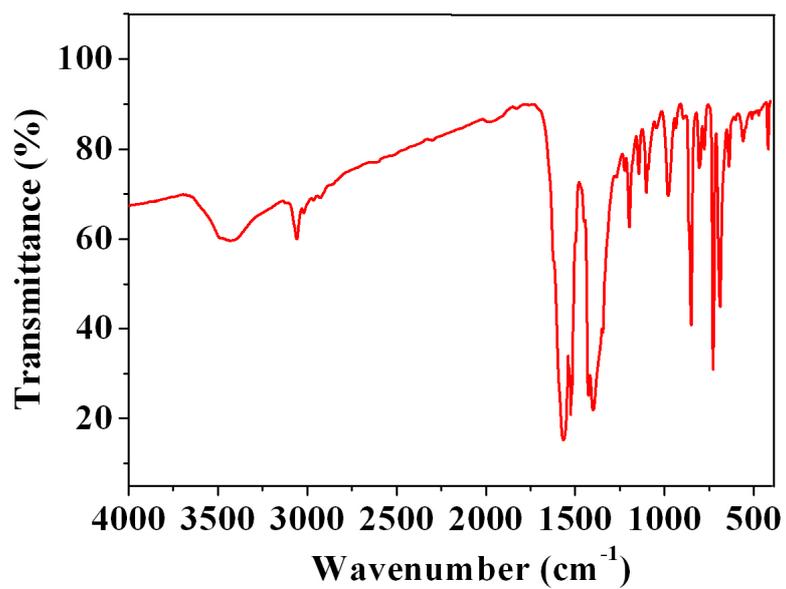
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**Figure S1** IR of complex **1** at room temperature.



**Figure S2** IR of complex **2** at room temperature.

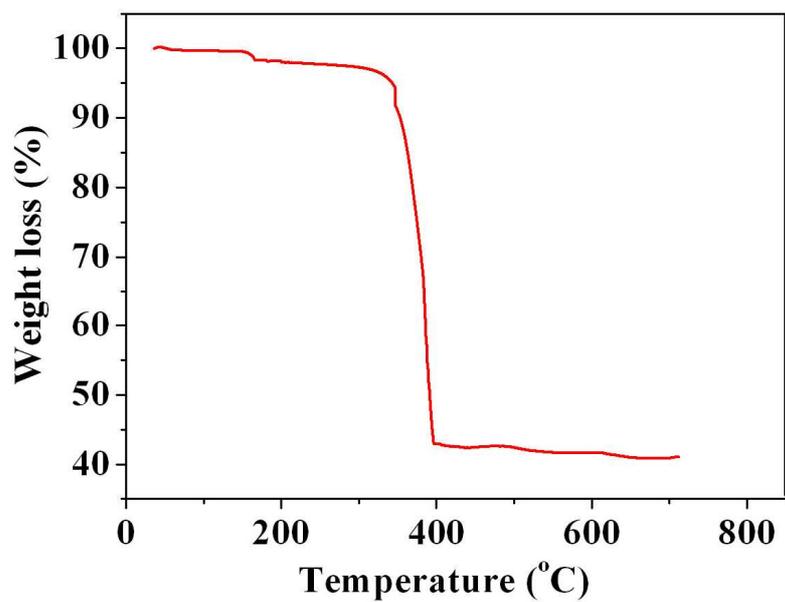


Figure S3 TGA curve of complex 1 from 30 to 700°C.

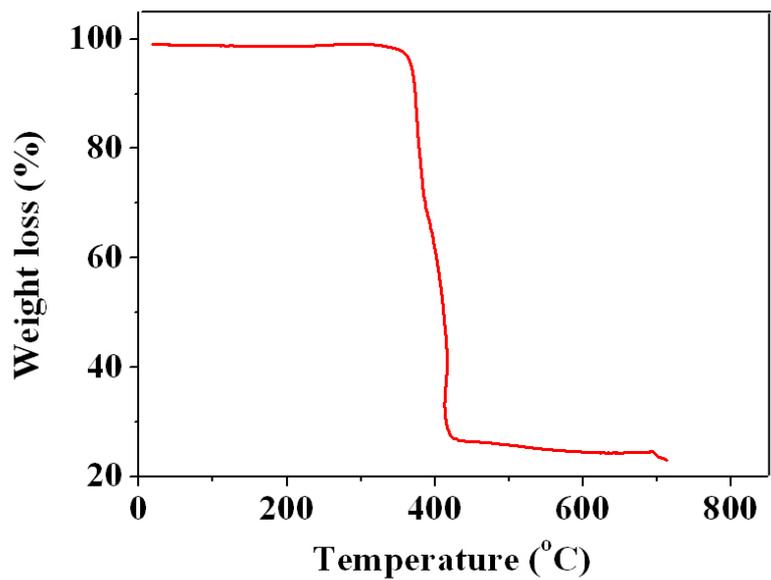
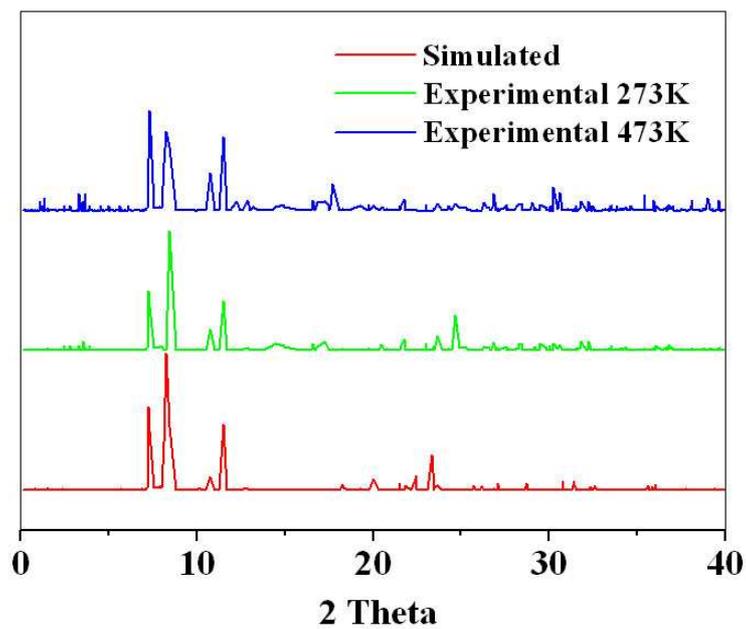
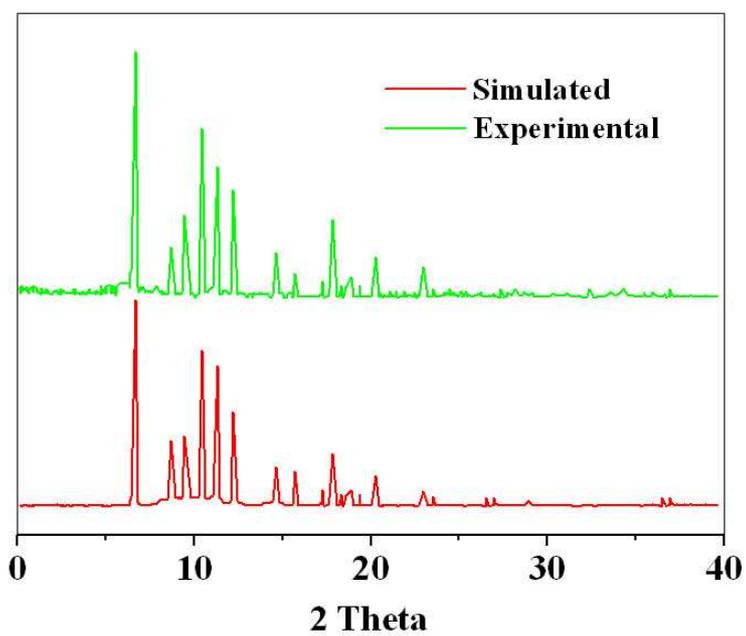


Figure S4 TGA curve of complex 2 from 30 to 700°C.



**Figure S 5** The PXRD of single crystal of complex 1.



**Figure S6** The PXRD of single crystal of complex 2.