A new family of 3D heterometallic 3d-4f organodisulfonate complexes based on the linkages of 2D $[Ln(nds)(H_2O)]^+$ layers and $[Cu(ina)_2]^-$ chains

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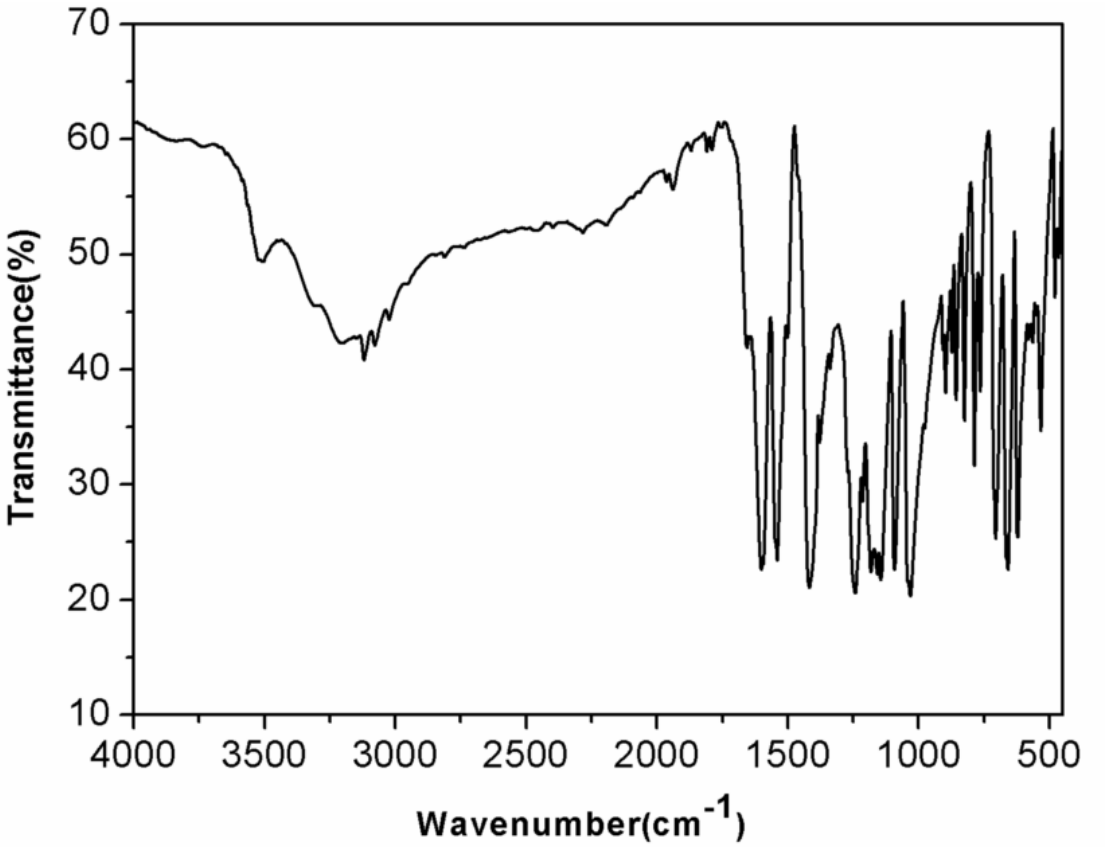

Fig. S1 IR spectrum of **1**

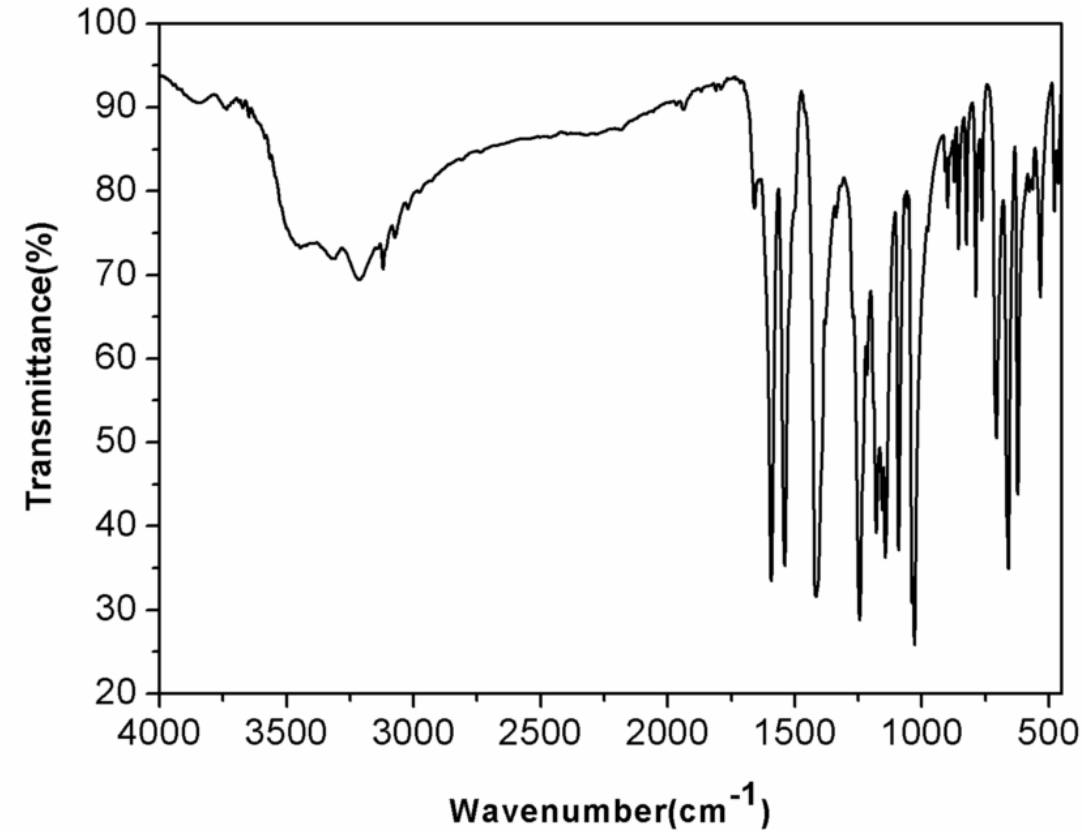

Fig. S2 IR spectrum of **2**

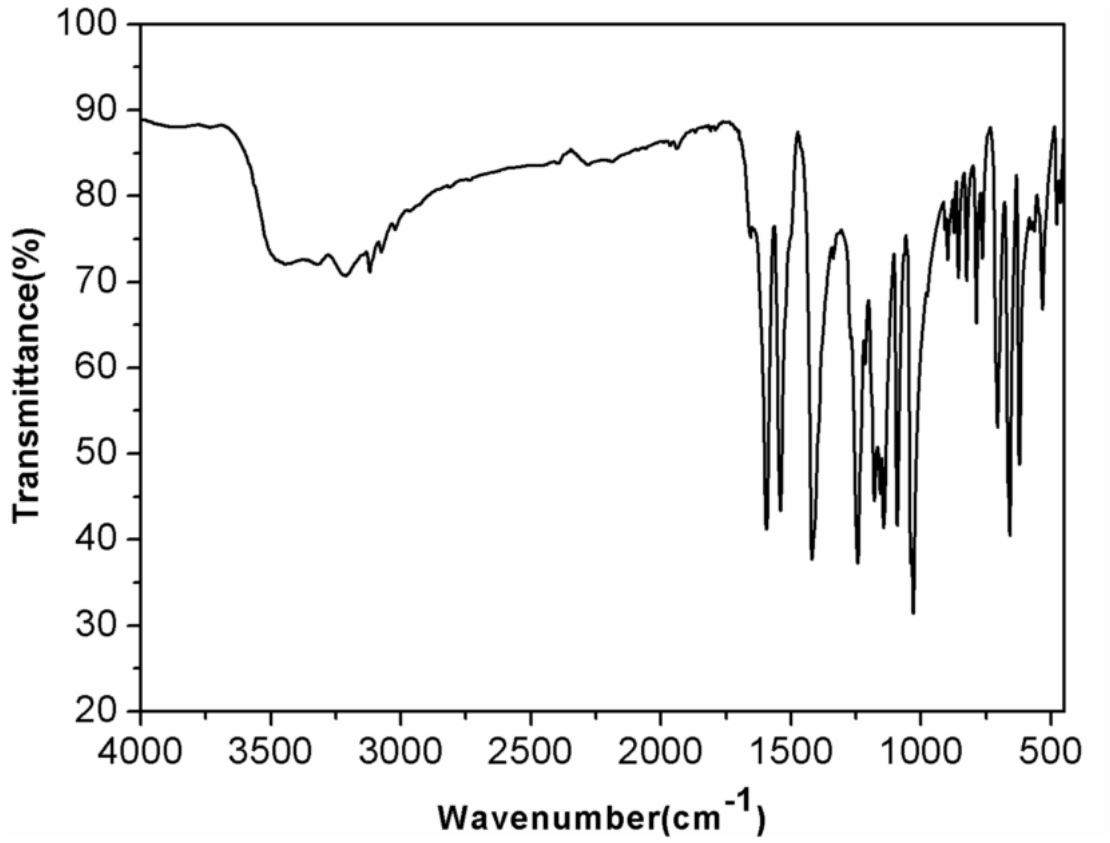

Fig. S3 IR spectrum of **3**

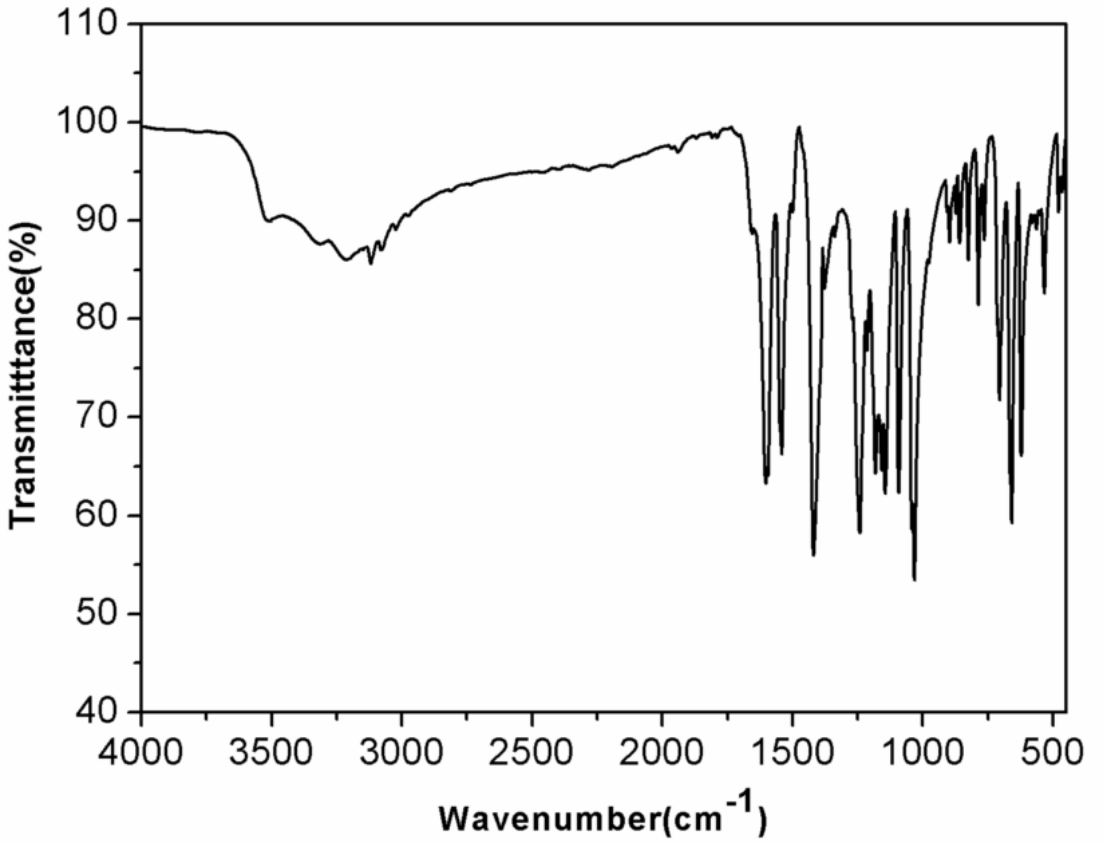

Fig. S4 IR spectrum of **4**

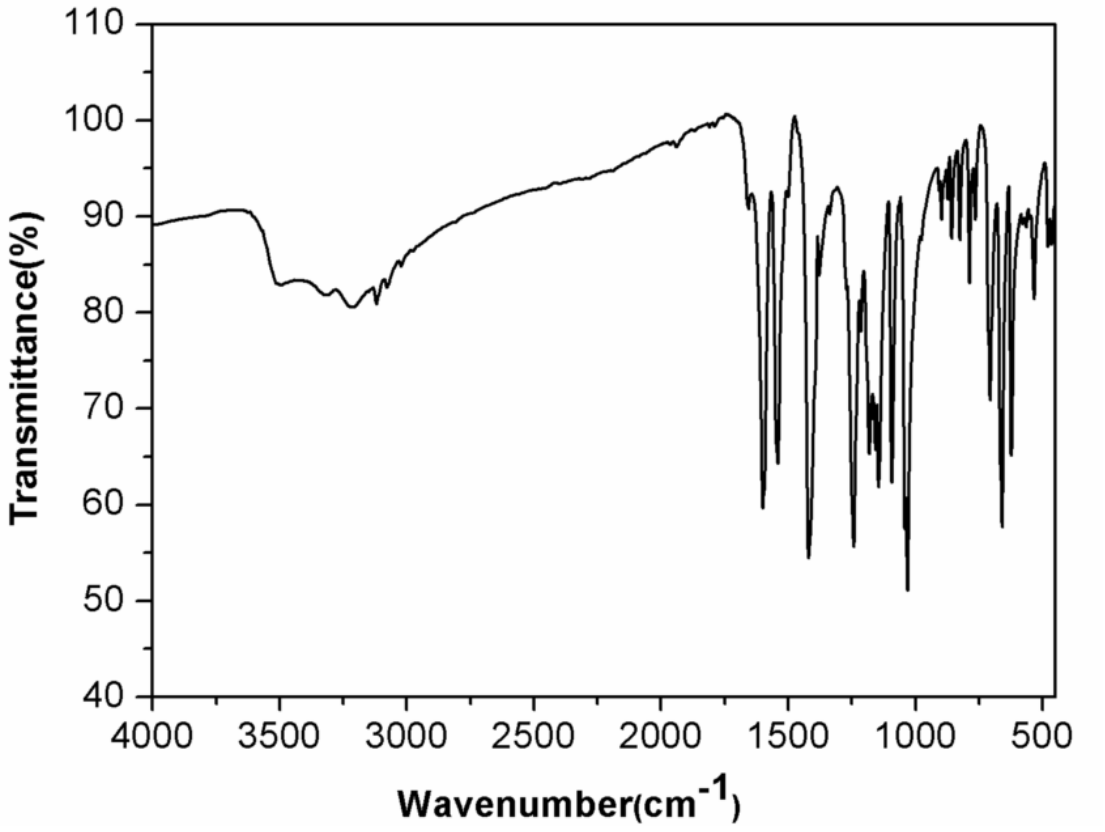

Fig. S5 IR spectrum of **5**

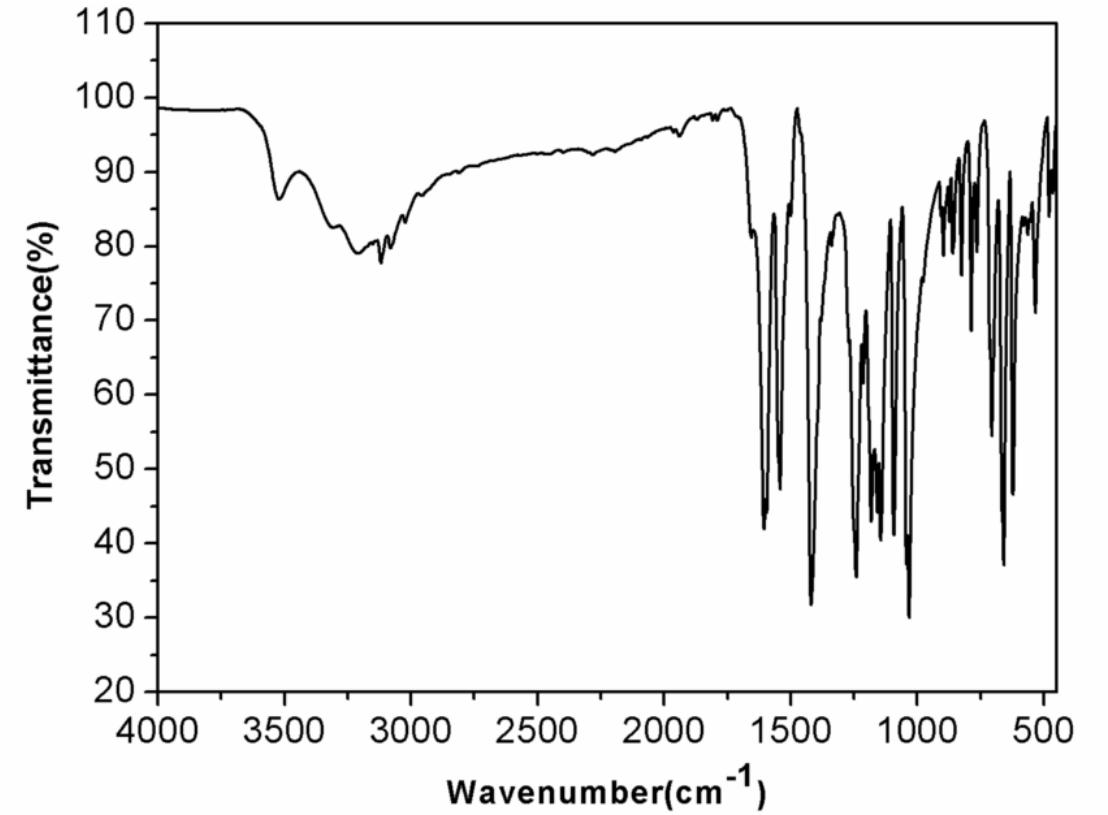

Fig. S6 IR spectrum of **6**

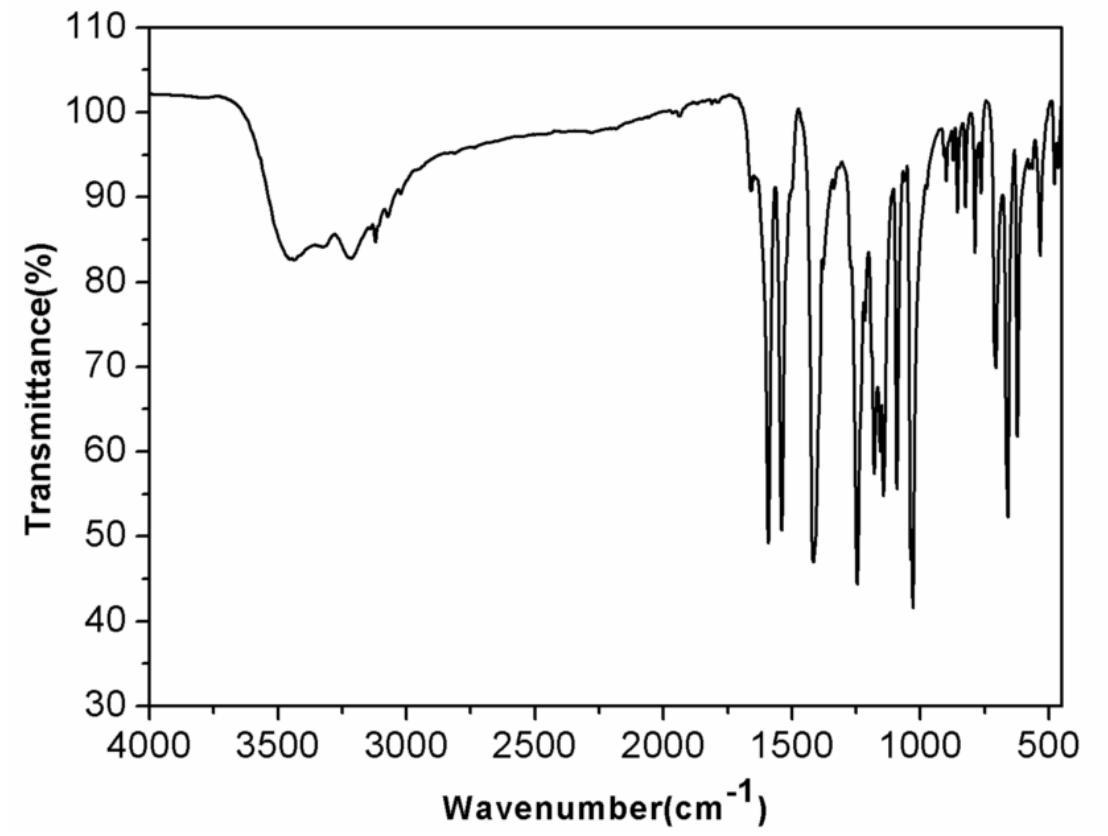

Fig. S7 IR spectrum of **7**

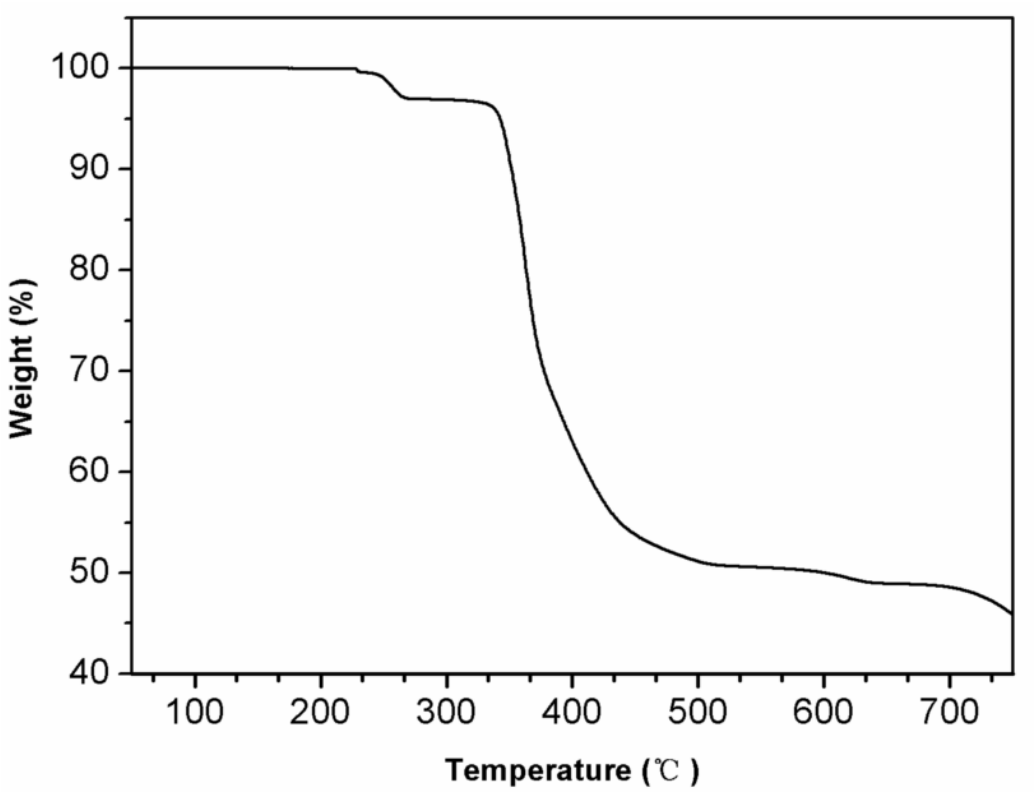

Fig. S8 TG curve of **1**

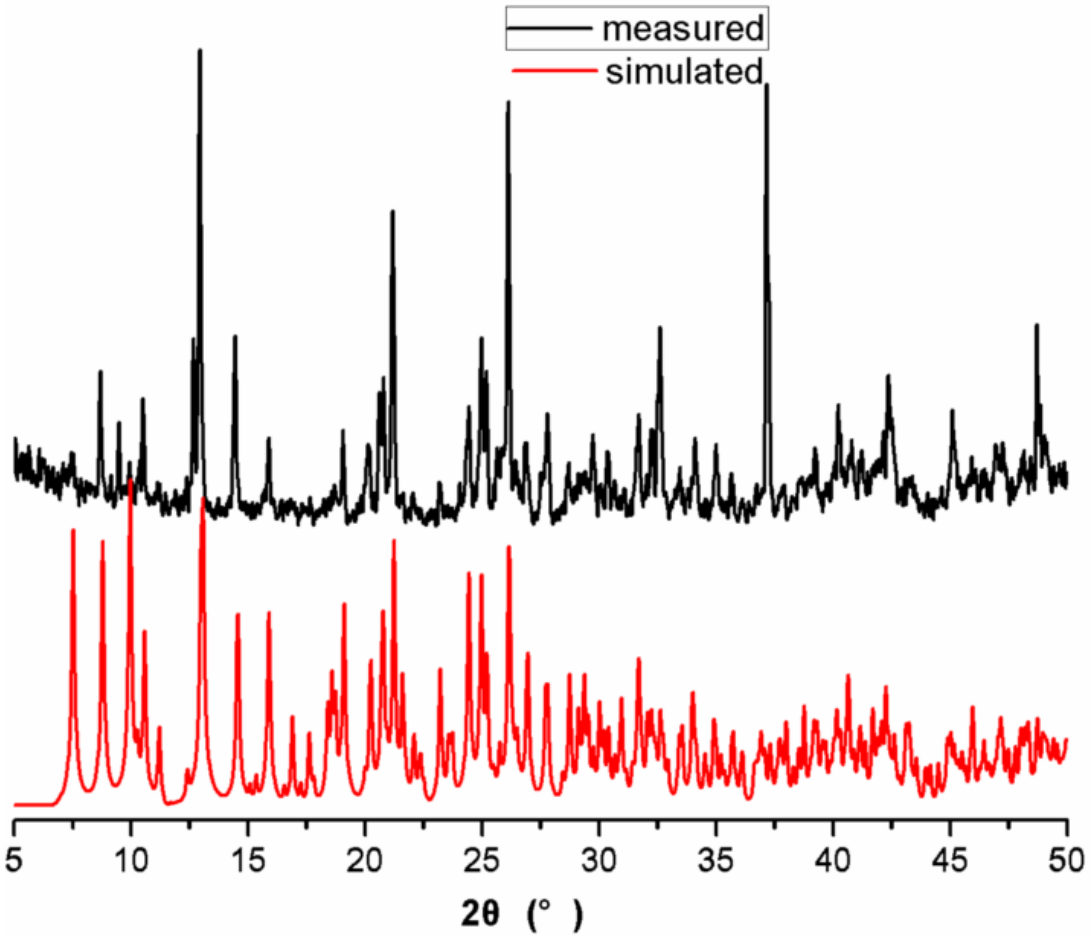

Fig. S9 (Top) The experimental PXRD pattern of complex **1** at room temperature.
(Bottom) The simulated PXRD pattern from single crystal X-ray data of complex **1**.