

Supplementary Material

Microwave assisted non-solvothermal synthesis of metal-organic frameworks

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Effect of solvent

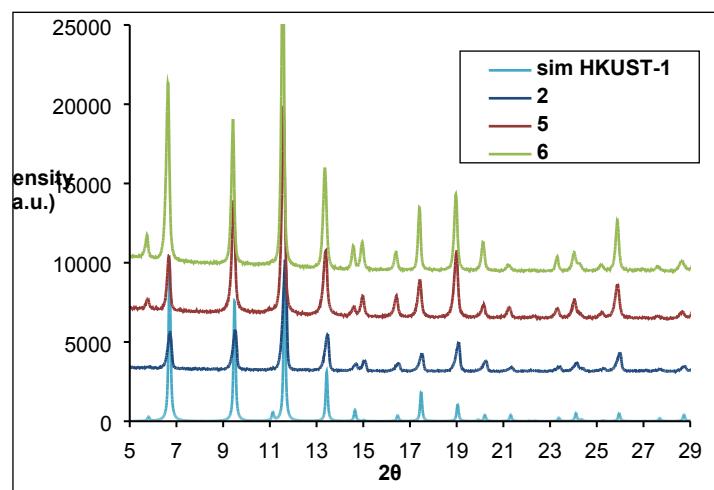


Fig. S1 The PXRD patterns of samples **2**, **5** and **6** compared with simulated diffraction patterns from the crystallographic data.¹

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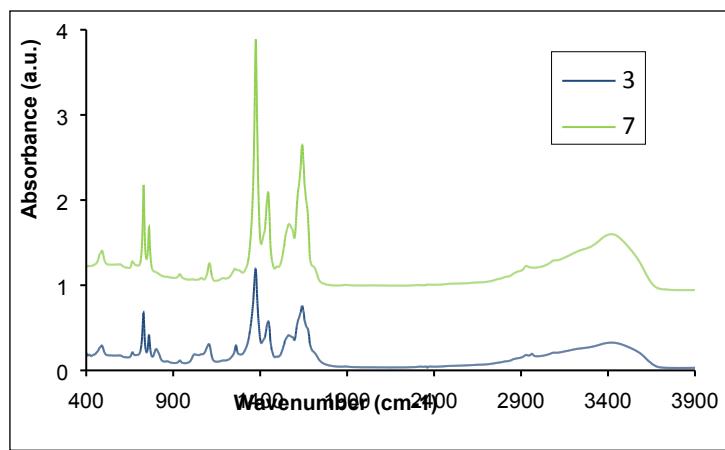


Fig. S2 The FT-IR spectra of samples **2** and **6**.

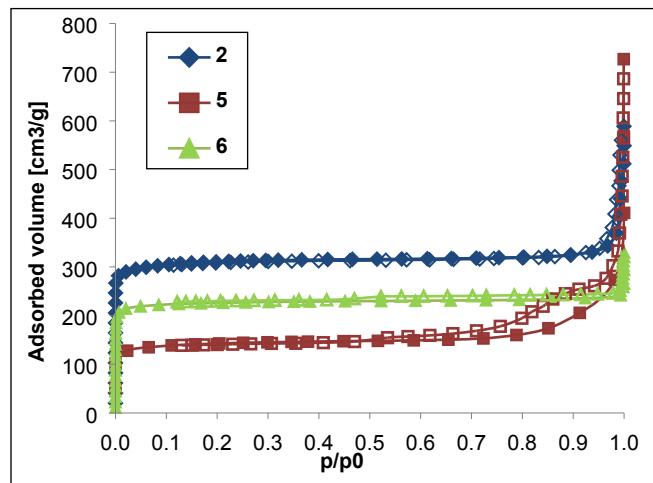


Fig. S3 Adsorption (filled symbol) and desorption (empty symbol) isotherms for nitrogen at (-196) $^{\circ}\text{C}$ K of HKUST-1 samples **2**, **5** and **6**.

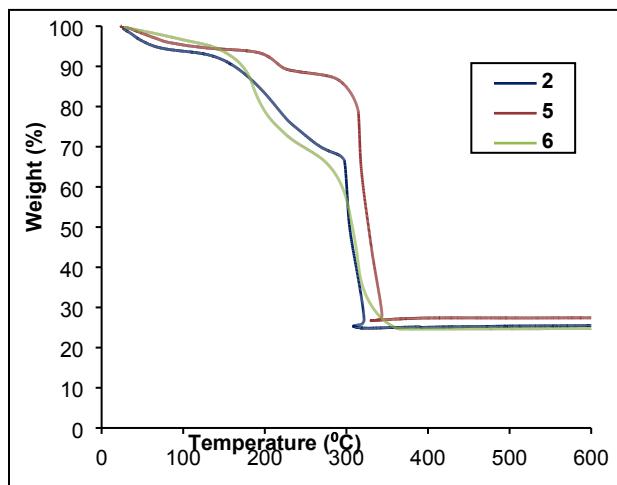


Fig. S4 TGA traces at 10 $^{\circ}\text{C}/\text{min}$ of samples **2**, **5** and **6**.

Effect of temperature

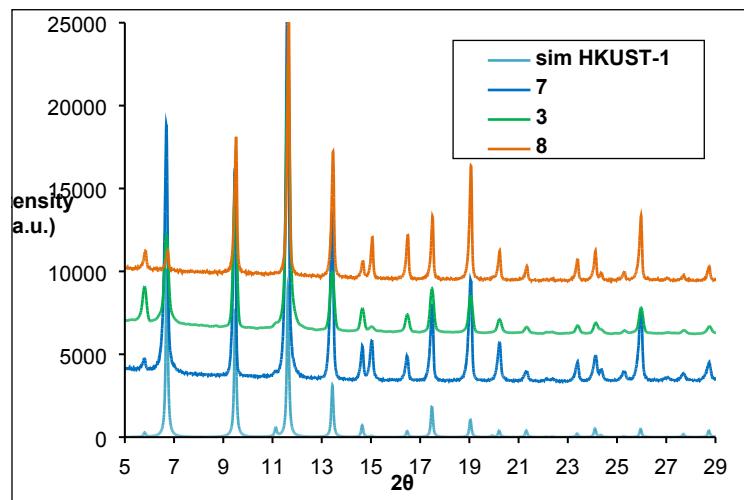


Fig. S5 The PXRD patterns of samples **7**, **3** and **8** compared with simulated diffraction patterns from the crystallographic data.¹

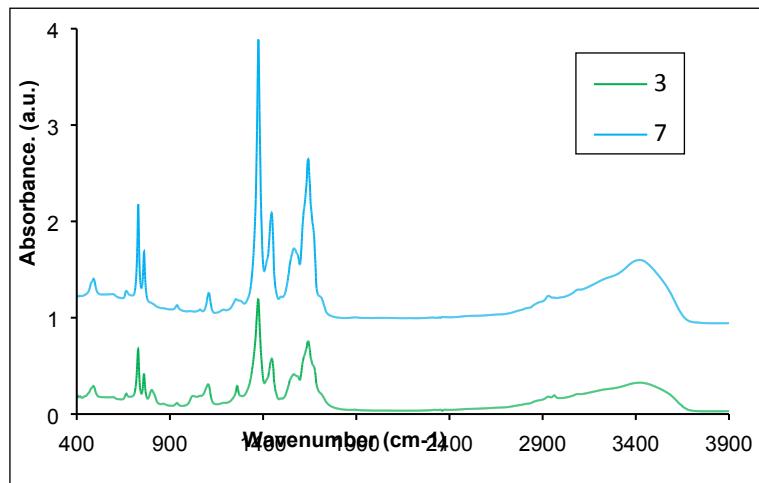


Fig. S6 The FT-IR spectra of samples **3** and **7**.

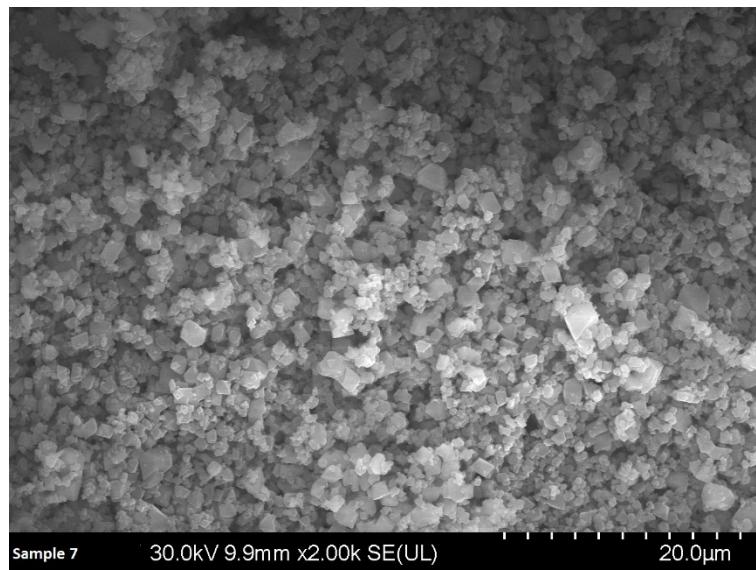


Fig. S7 SEM micrograph of sample 7.

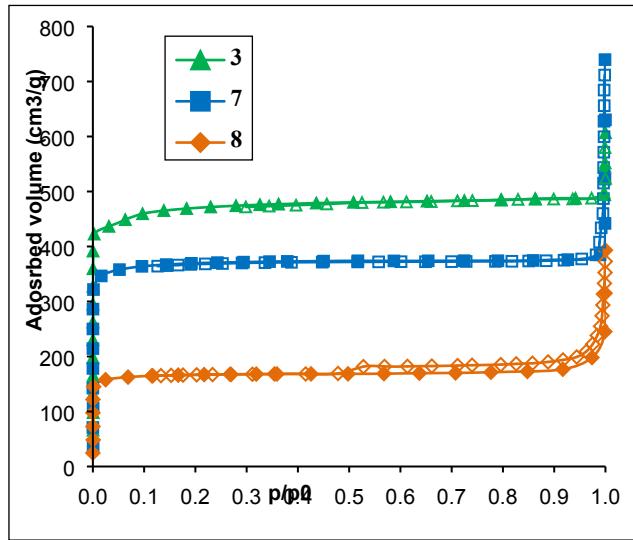


Fig. S8 Nitrogen adsorption (filled symbol)/desorption (empty symbol) isotherms of samples 7, 3 and 8 at (-196)°C.

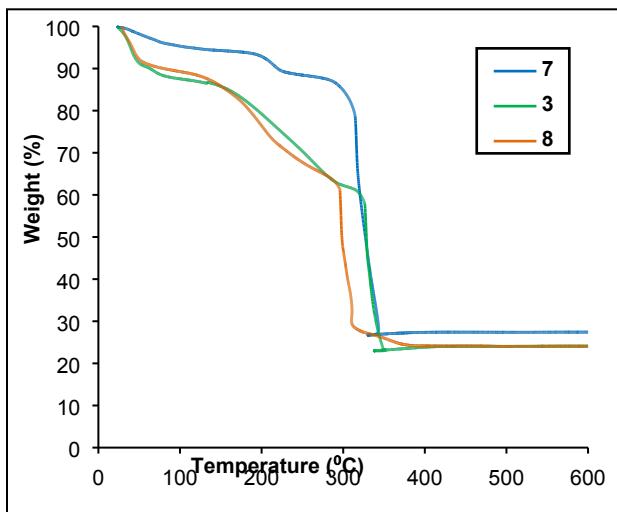


Fig. S9 The TGA (left) and DTG (right) traces of samples **7**, **3** and **8** at 10°C/min.

Effect of reaction time

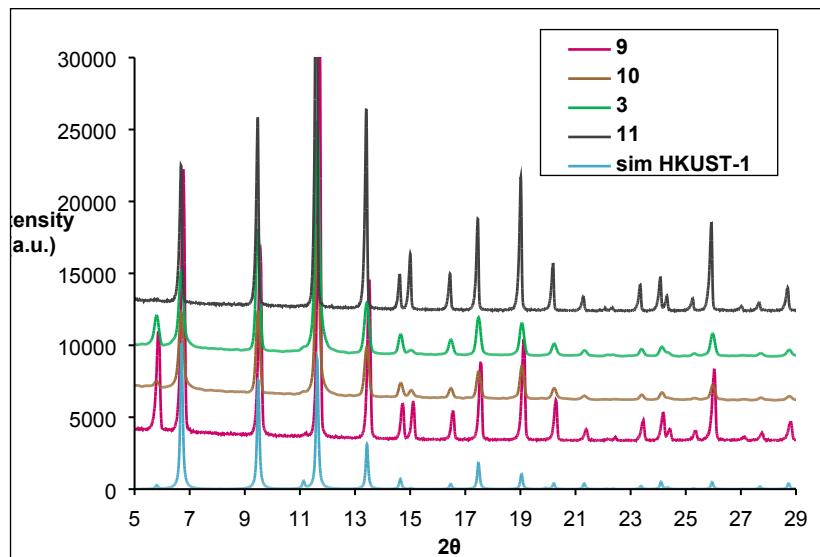


Fig. S10 The PXRD patterns of samples **9**, **10**, **3** and **11** compared with simulated diffraction patterns from the crystallographic data.¹

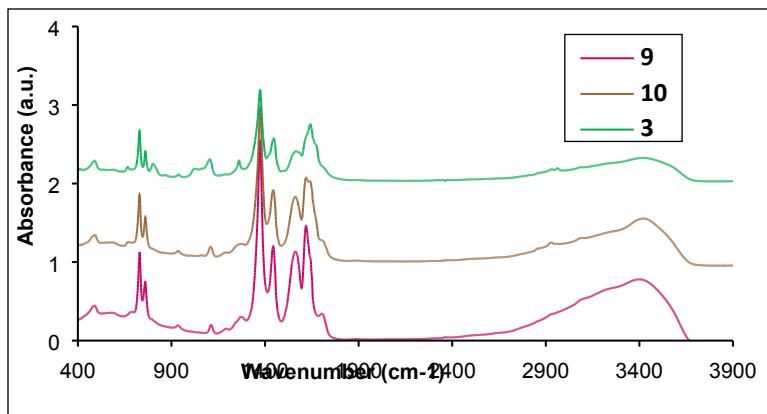


Fig. S11 The FT-IR spectra of samples **9**, **10** and **3**.

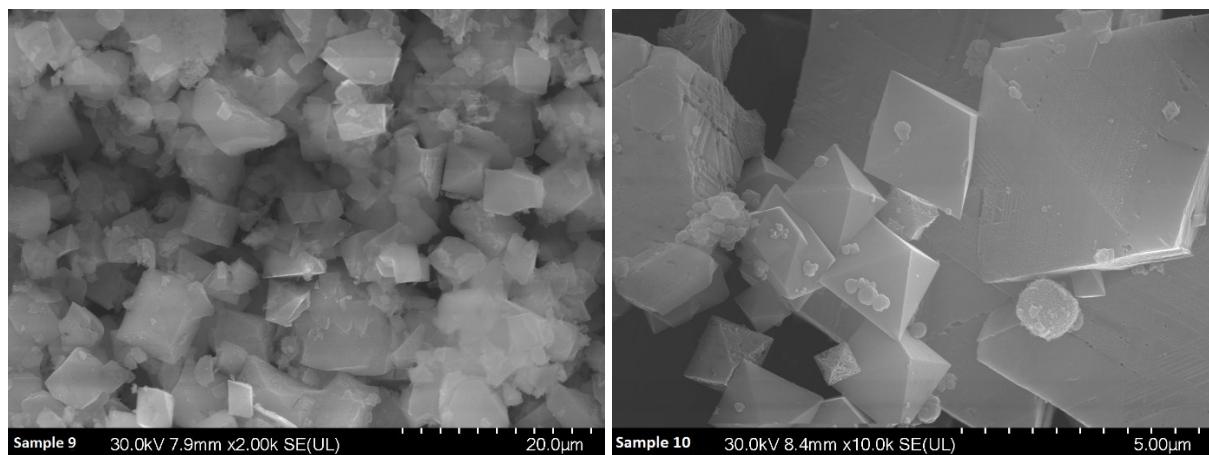


Fig. S12 SEM micrographs of samples **9** and **10**.

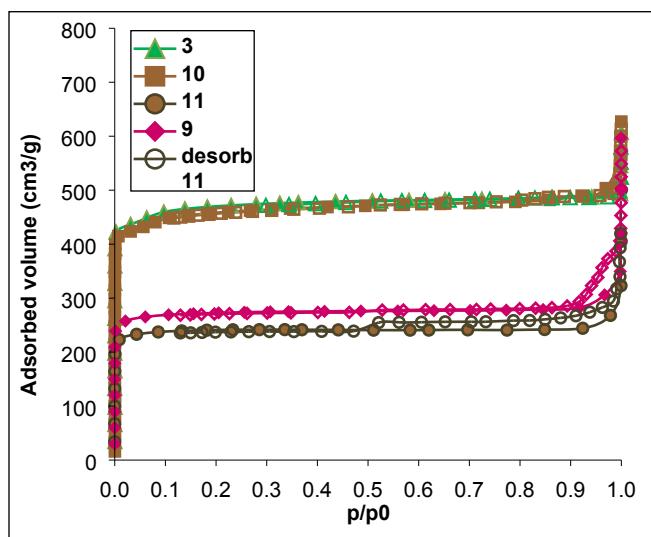


Fig. S13 Adsorption (filled symbol) and desorption (empty symbol) isotherms for nitrogen at (-196)°C of HKUST-1 samples **9**, **3**, **10** and **11**.

Effect of applied microwave power

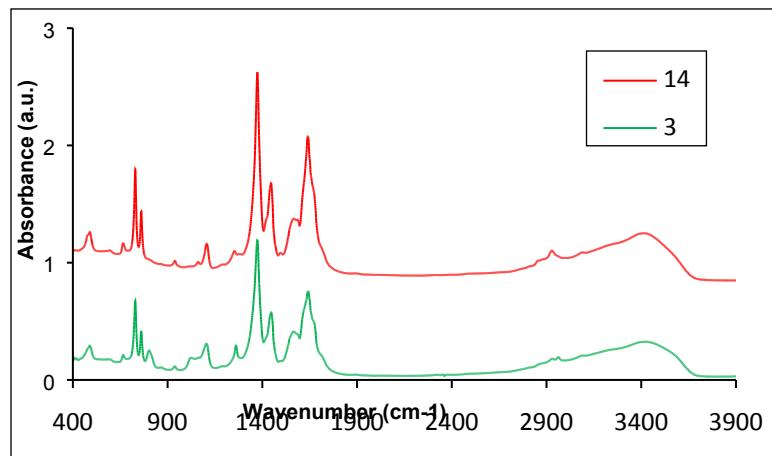


Fig. S14 The FT-IR spectra of samples **14** and **3**.

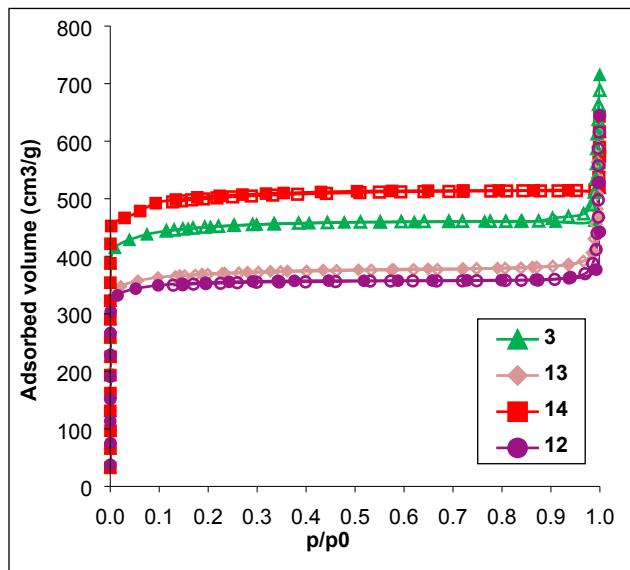


Fig. S15 Adsorption (filled symbol) and desorption (empty symbol) isotherms for nitrogen at (-196) $^{\circ}\text{C}$ of HKUST-1 samples **3**, **12**, **13** and **14**.

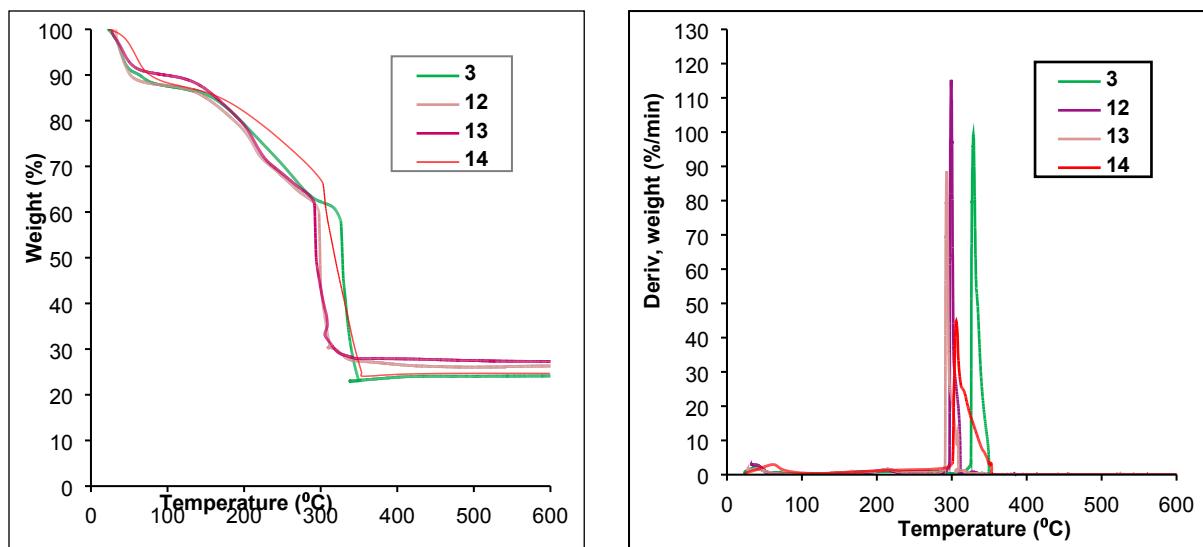


Fig. S16 TGA (left) and DTG (right) traces at $10^{\circ}\text{C}/\text{min}$ of samples **3**, **12**, **13** and **14**.

Mother liquors

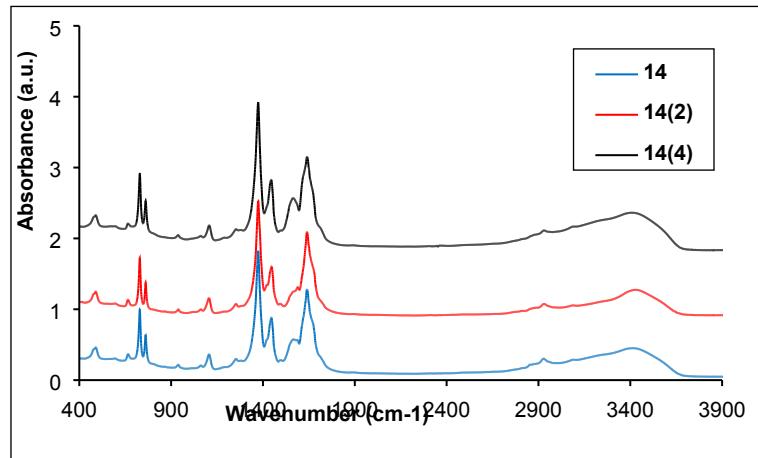


Fig. S17 The FT-IR spectra of samples **14**, **14(2)** and **14(4)**.

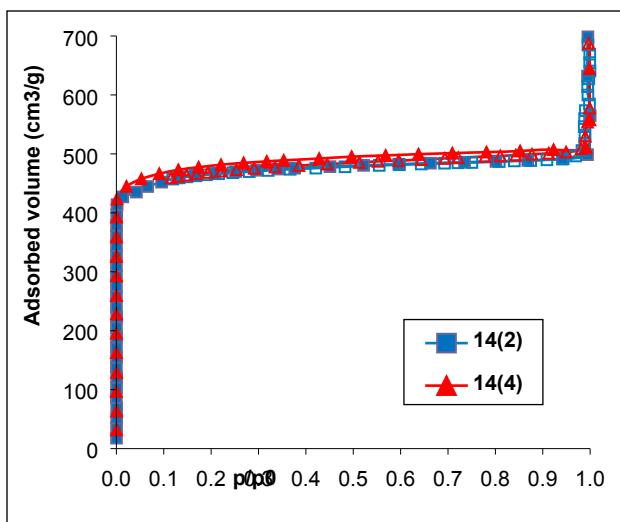


Fig. S18 Adsorption (filled symbol) and desorption (empty symbol) isotherms for nitrogen at (-196)^oC of HKUST-1 samples **14(2)** and **14(4)**.

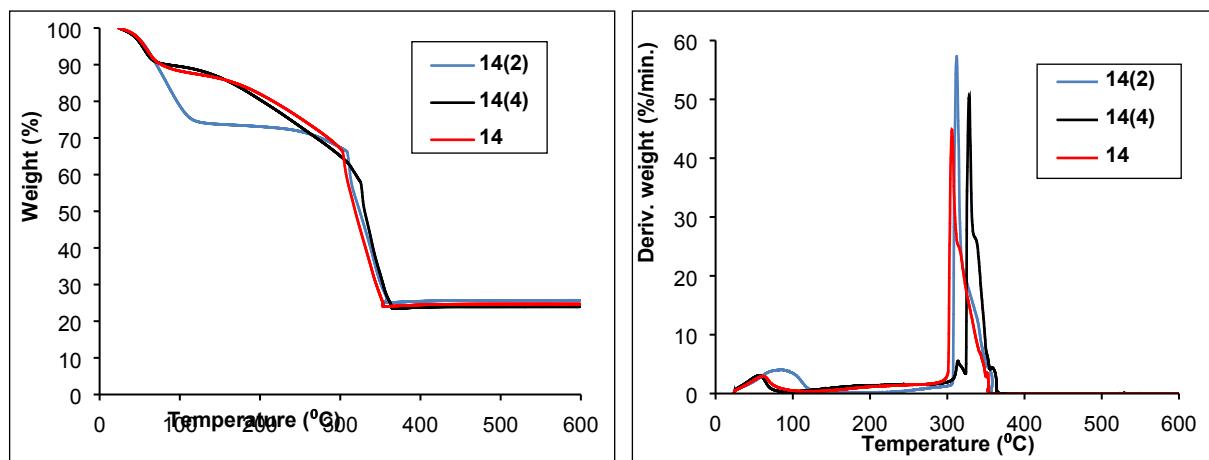


Fig. S19 The comparison between TGA (left) and DTG (right) traces at 10°C/min of samples **14**, **14(2)** and **14(4)**.

¹ S.S.Y. Chui, S.M.F. Lo, J.P.H. Charmant, A. Guy Orpen, I.D. Williams, *Science*, 1999, **283**, 1148-1150.