Electronic Supplementary Material (ESI) for Analyst.

Supplementary Data

In situ synthesis of metal-organic frameworks in porous polymer monolith as stationary phase for capillary liquid chromatography

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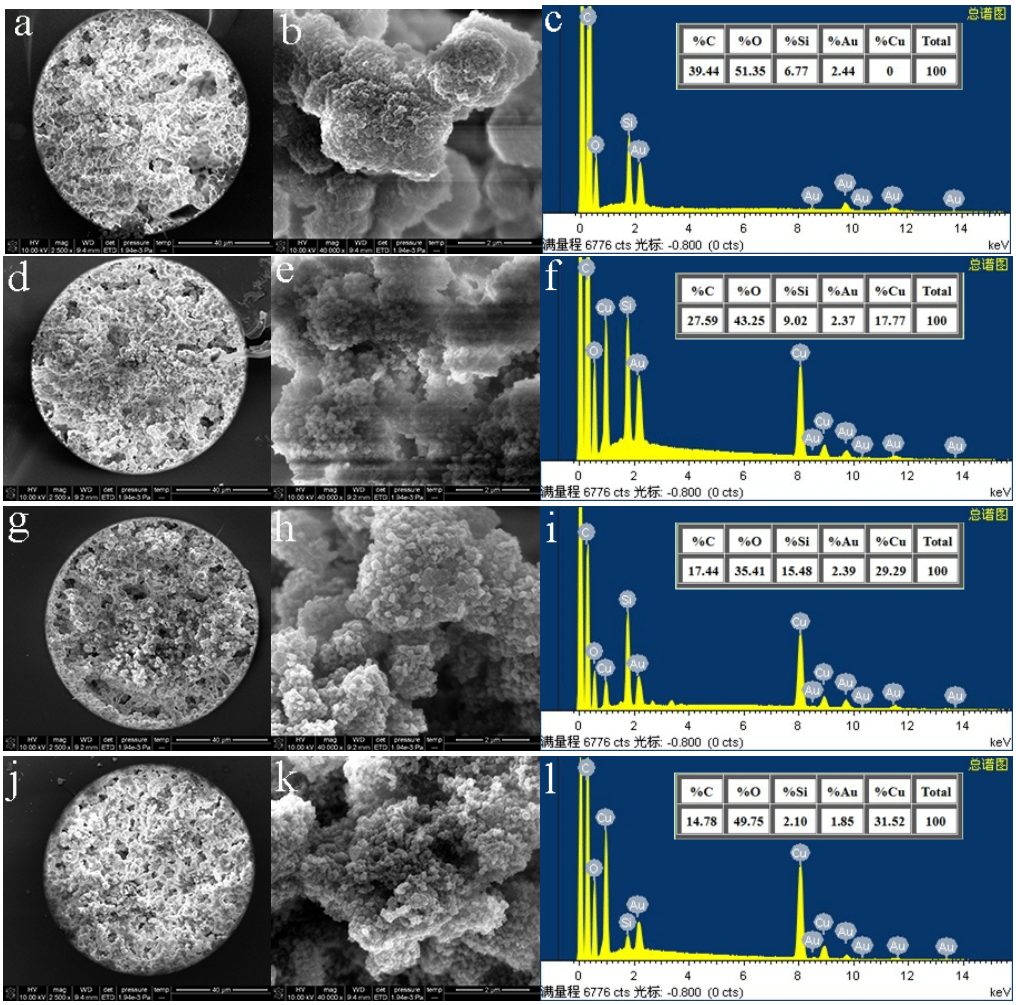

Fig. S1 SEM-EDS spectrum of 0-LC (a-c), 2-LC (d-f), 4-LC (g-i) and 6-LC (j-l) monoliths.

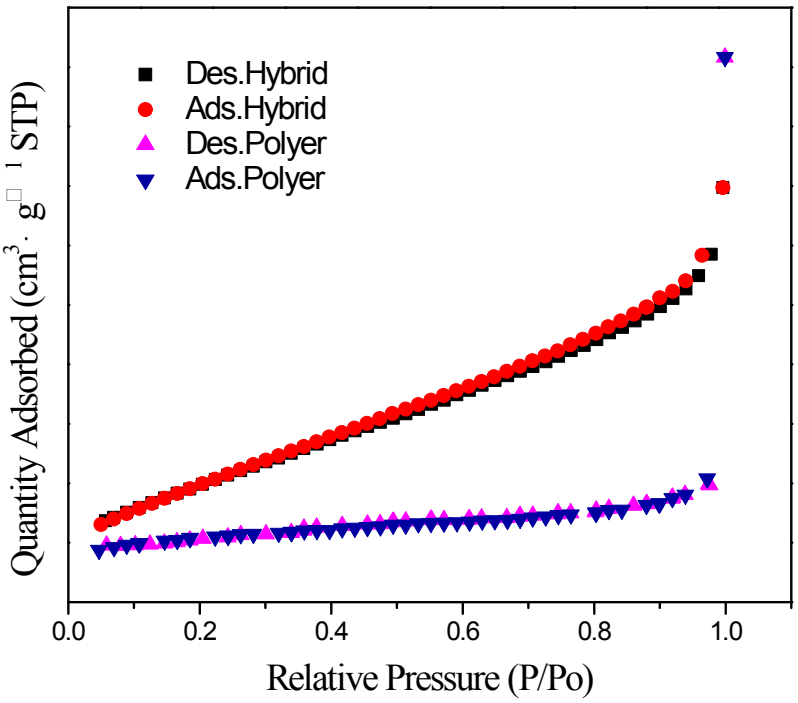

Fig. S2 N_2 sorption isotherm of 0-LC and 2-LC monoliths.

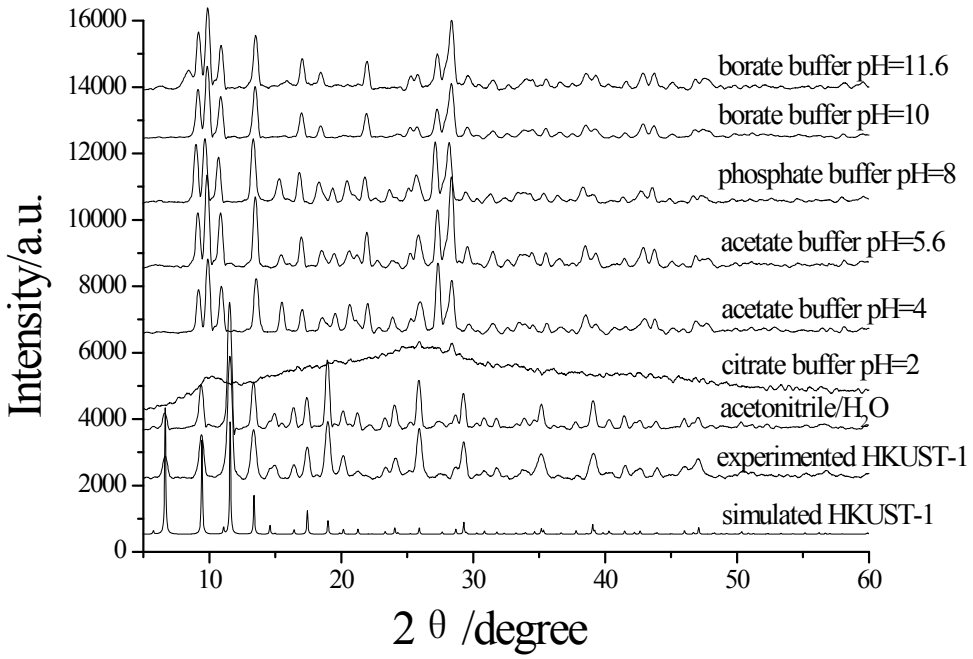

Fig. S3 XRD patterns of the simulated, experimented HKUST-1 and HKUST-1 treated in buffers with different pH values for 24 h.

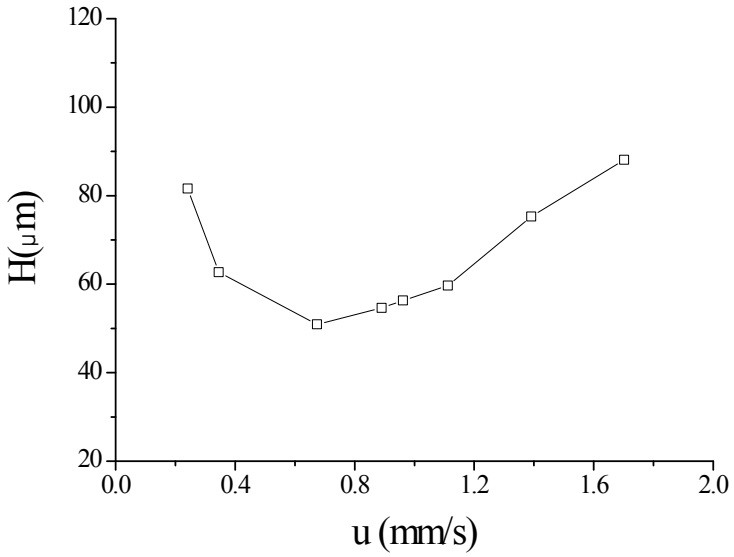

Fig. S4 Van Deemter curves of *p*-benzenediol on 6-LC monolith. Experimental conditions: mobile phase, acetonitrile/H_2O (40/60, v/v), detection wavelength, 214 nm; pump flow: 0.05 mL/min; applied different pressure. monoliths: 36 cm×100 μm id (26 cm effective length).

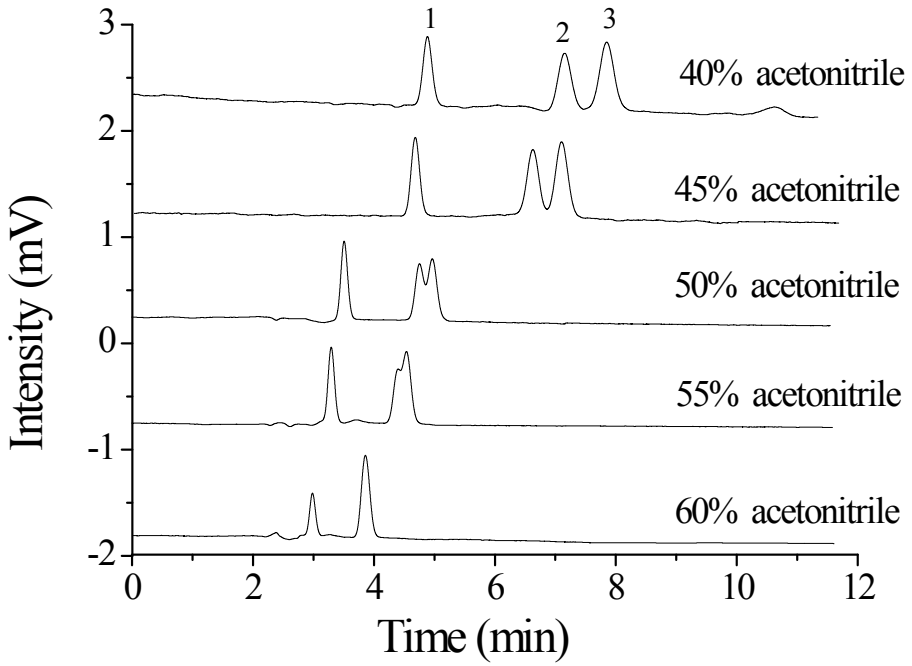

Fig. S5 Chromatograms of the benzenediols on 6-LC monolith.

Conditions: mobile phase, 40%-60% (v/v) acetonitrile; flow rate, 0.05mL/min; UV detection at 214 nm; supplement pressure, 1000 psi. Solutes 1, *p*-benzenediol; 2, *m*-benzenediol; 3, *o*-benzenediol.

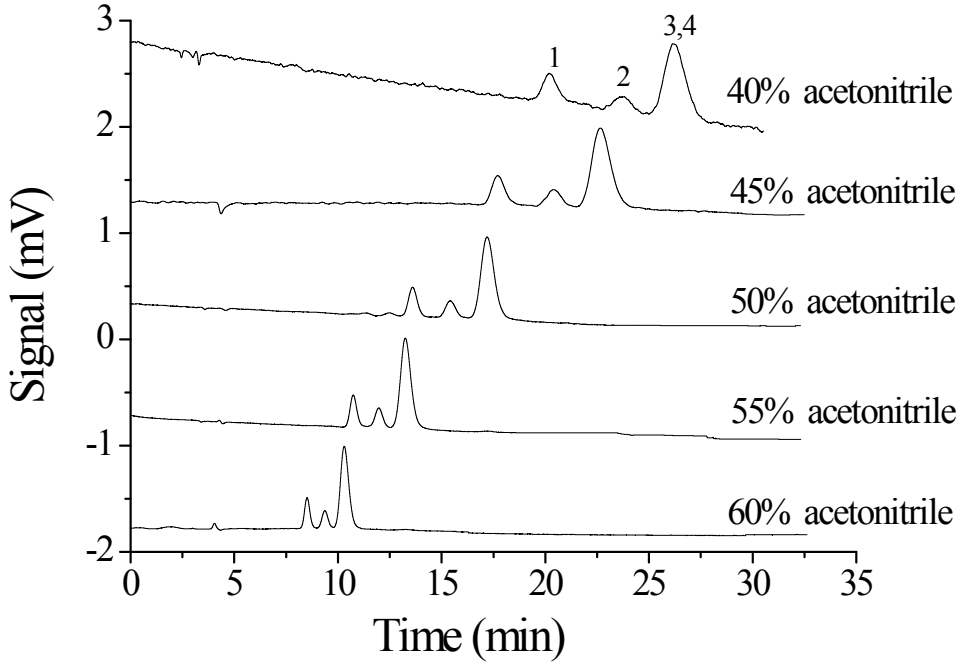

Fig. S6 Chromatograms of ethylbenzene and xylenes on 6-LC monolith.

Conditions: mobile phase, 40%-60% (v/v) acetonitrile. Other conditions were the same as those in Fig. S5. Solutes 1, ethylbenzene; 2, *p*-xylene; 3, *m*-xylene; 4, *o*-xylene.

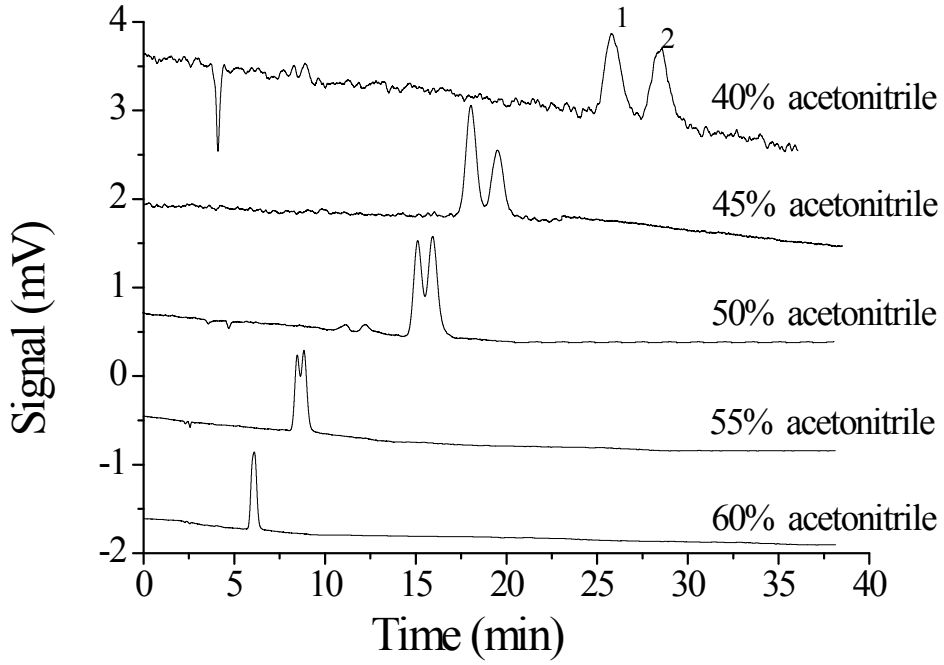

Fig. S7 Chromatograms of the ethylbenzene and styrene on 6-LC monolith.

Conditions: mobile phase, 40%-60% (v/v) acetonitrile. Other conditions were the same as those in Fig. S5. Solutes 1, ethylbenzene; 2, styrene.

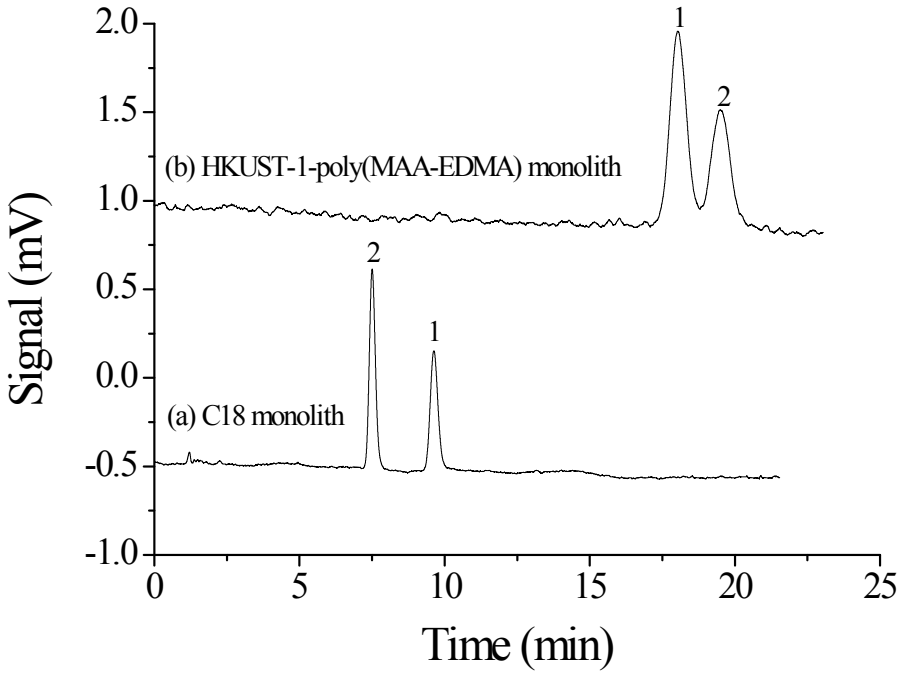

Fig. S8 Chromatograms of ethylbenzene and styrene on C18 and 6-LC monoliths

Conditions: mobile phase, acetonitrile/H_2O (45/55, v/v). Other conditions were the same as those in Fig. S5. Solutes 1, ethylbenzene; 2, styrene.