

Supplementary information

Preparation of poly (ionic liquid@MOF) composite monolithic column and its application in on- line enrichment and purification of tectochrysin in medicinal plants

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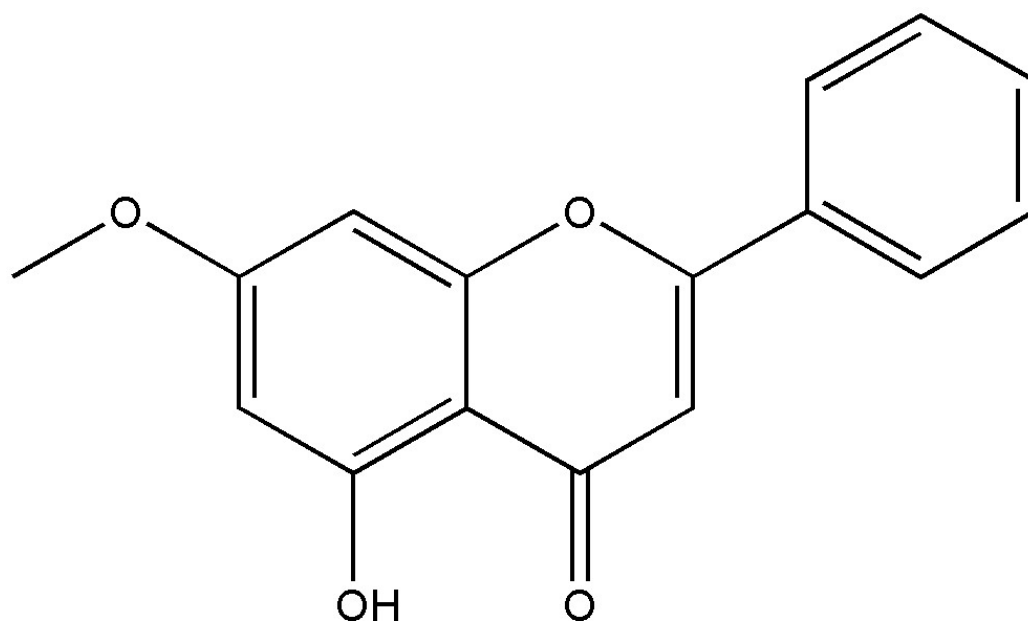


Figure S1. Structure of Tectochrysin

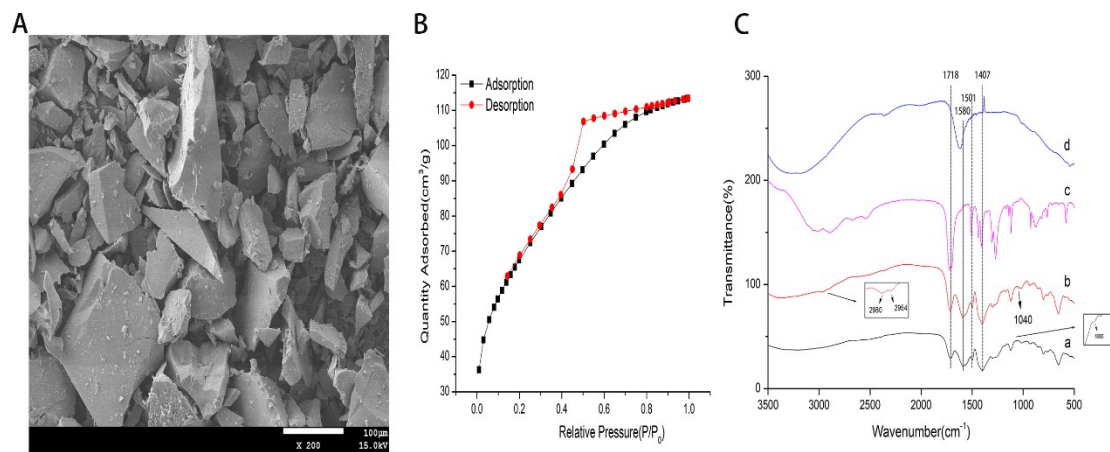


Figure S2. Characterization of UiO66-2COOH. (A) SEM images of UiO66-2COOH, (B) Nitrogen adsorption-desorption isotherms of UiO66-2COOH, (C) The FT-IR spectra of ZrCl₄ (d), Pyromellitic acid (c), the derivatized UiO66-2COOH (b) and UiO66-2COOH (a).

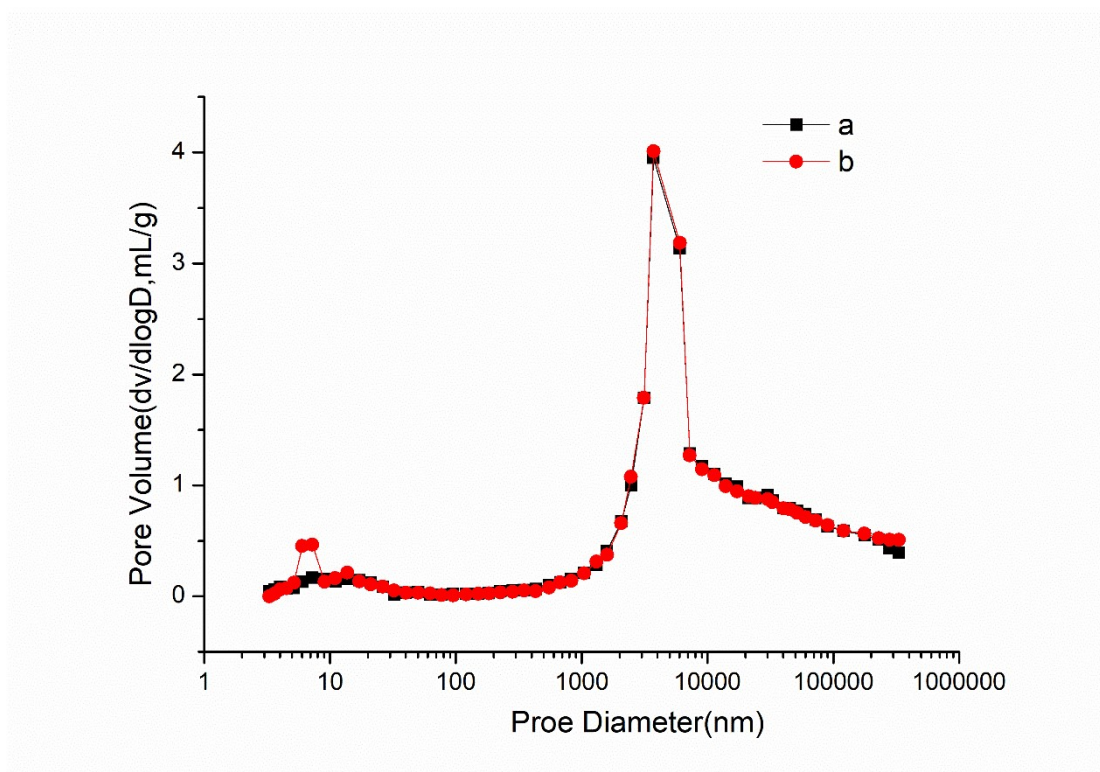


Figure S3. Pore size distribution of monolithic columns.

a: the poly (ionic liquid@MOF) composite monolithic column (the column M1 in Table 1); b: polymer monolithic column without MOF material added (the column M4 in Table 1)

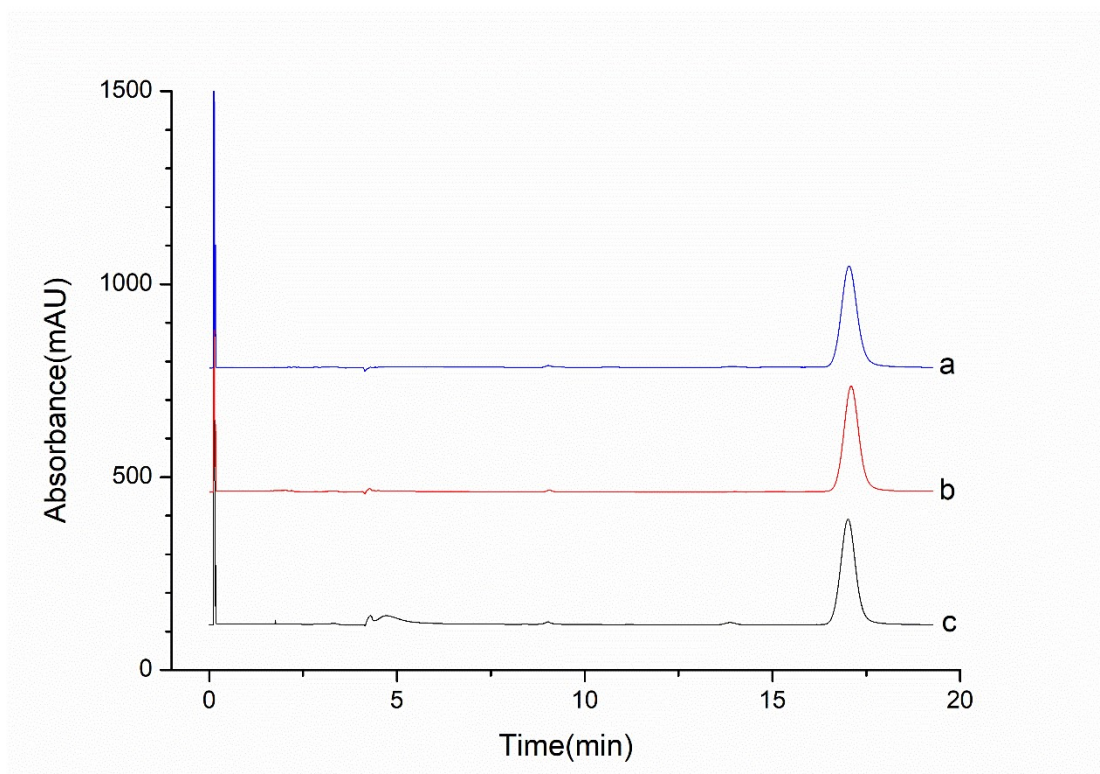


Figure S4. Elution plots after 1 (a), 100 (b) and 300 (c) uses of the poly (ionic liquid@MOF) composite monolithic column

Chromatographic conditions: The enrichment mobile phase was acetonitrile/water phosphate (20/80, v/v, pH4.5) and the elution mobile phase was acetonitrile/water phosphate (80/20, v/v, pH4.5); injection sample: 0.1 mg mL⁻¹ tectochrysin standard solution; flow rate: 1.0 mL min⁻¹; injection volume: 20μL