

Supplementary Information

Adamantane three-dimensional porous organic framework as a fluorescence sensor for rapid determination of tetracycline in aquatic products

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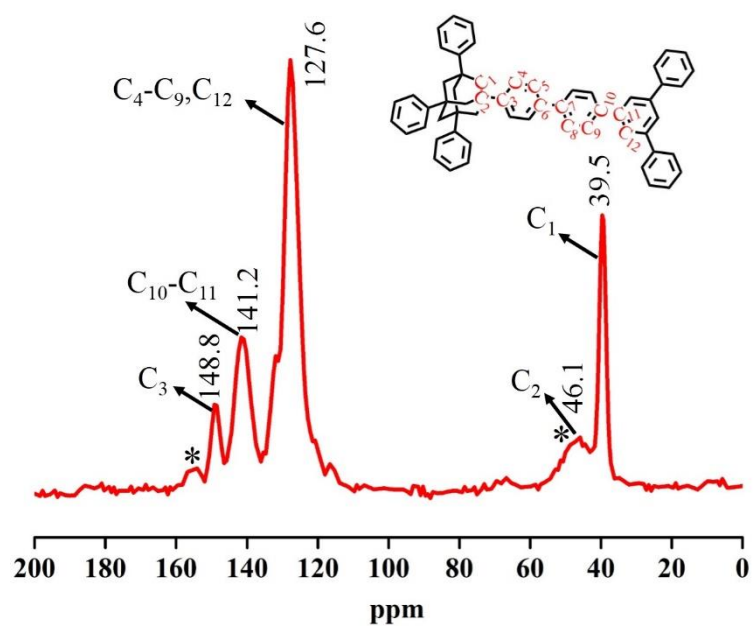


Figure S1. ^{13}C CP/MAS NMR spectrum of AdaPOF

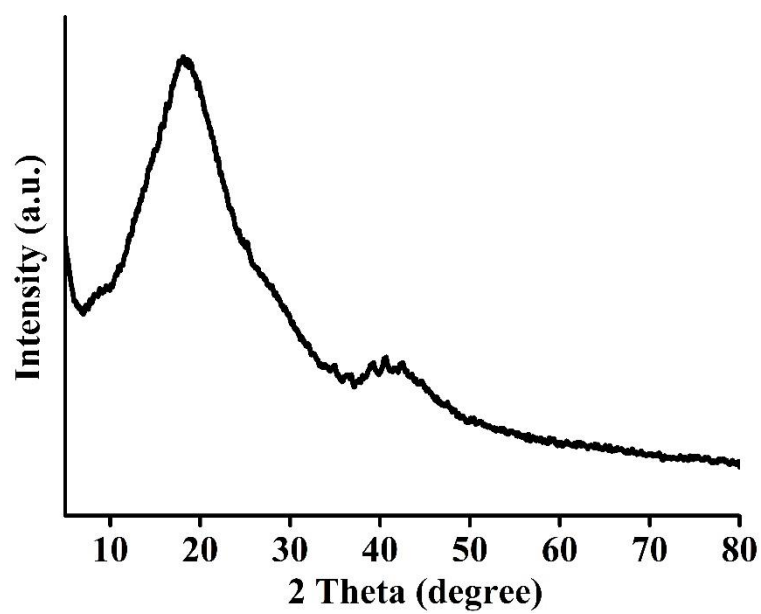


Figure S2. XRD pattern of AdaPOF

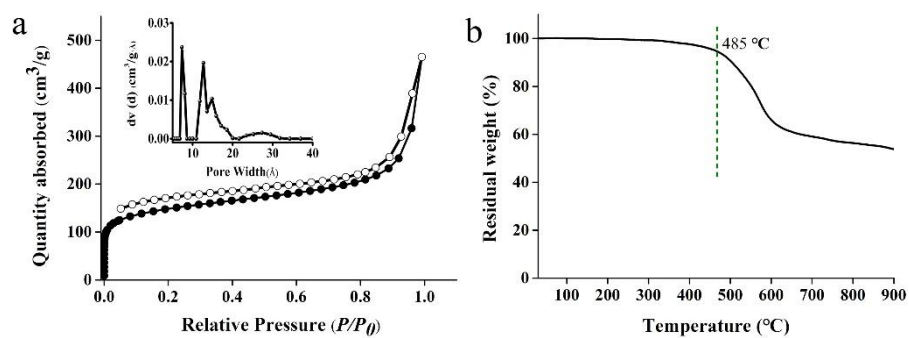


Figure S3. (a) N₂ adsorption-desorption isotherms and pore size distribution of AdaPOF; (b) TGA curve of AdaPOF

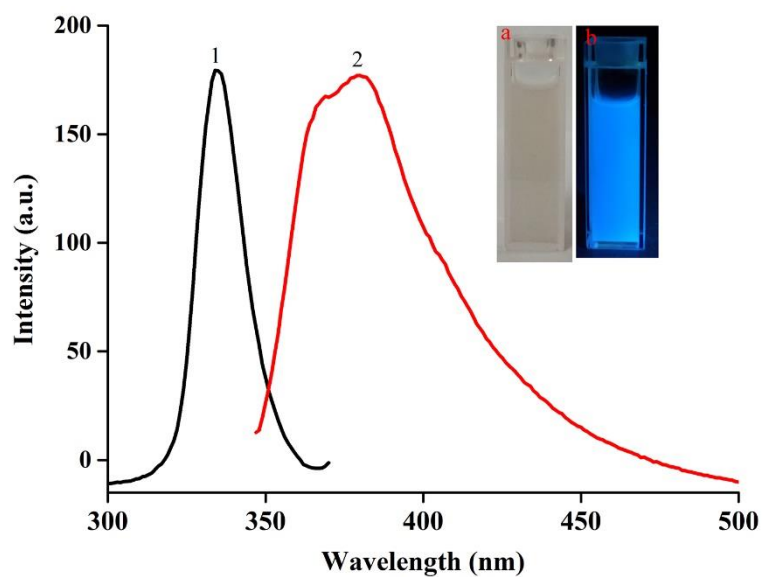


Figure S4. The excitation and emission spectra of suspension solution of AdaPOF ($\lambda_{\text{ex}}=334$ nm). (Illustrations a, b are sunlight and fluorescent photographs of suspension solution of AdaPOF, $\lambda_{\text{ex}}=365$ nm)

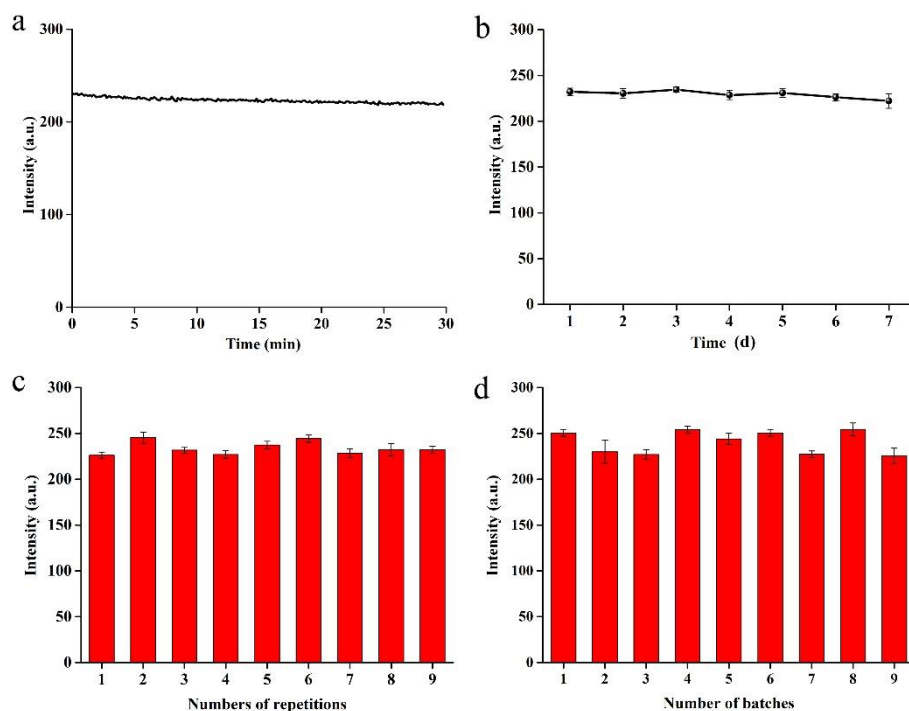


Figure S5. Variation of fluorescence intensity of AdaPOF suspension solution in 30 min (a) and 7 d (b); (b) Fluorescence stability in the same batch (c) and different batches (d) of the AdaPOF suspension solution

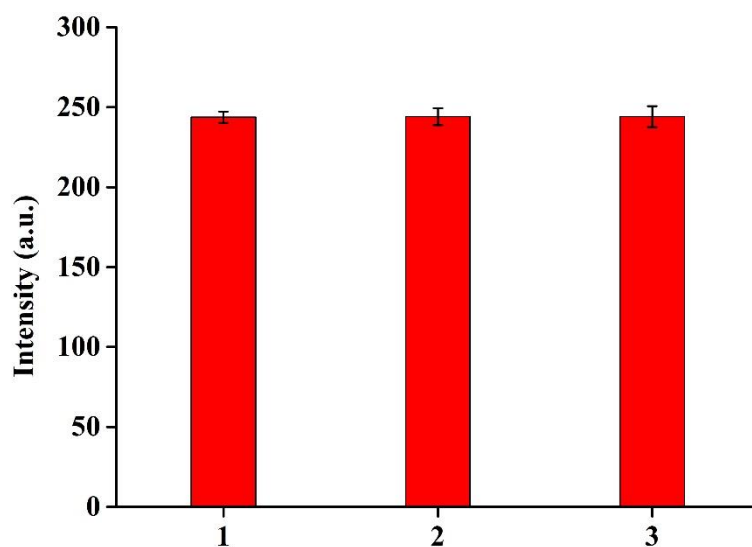


Figure S6. Variation of fluorescence intensity of AdaPOF suspension solution after methanol added (1: AdaPOF dichloromethane suspension solution; 2: AdaPOF dichloromethane/methanol (v/v=9:1) suspension solution; 3: AdaPOF dichloromethane/methanol (v/v=1:1) suspension solution)

Table S1 Responses of average fluorescence lifetimes of AdaPOF towards TC of various concentrations

TC concentration ($\mu\text{mol/L}$)	τ (ns)
0	1.51
0.1	1.52
1.0	1.53
9.0	1.51

Calculation of LOD

The LOD was calculated by testing the lowest concentration of TC solution in the linear range based on the following equations:

$$\text{LOD} = 3\sigma/S$$

Where σ is the standard deviation of 21 TC sample ($0.10 \mu\text{mol/L}$) measurements, S is the slope of linear calibration curve.