Supplementary information for:

Bifunctional CoP/N-doped porous carbon composite derived from single source precursor for bisphenol A removal

Wenhua Tong, Yi Xie, Wanrong Hu, Yuanyuan Peng, Wenbin Liu, Yonghong Li, Yongkui Zhang, Yabo Wang*

School of Chemical Engineering, Sichuan University, Chengdu 610065, China

Corresponding author:

Yabo Wang

School of Chemical Engineering, Sichuan University, Chengdu 610065, China

Tel.: +86-28-85405221; Fax: +86-28-85405221

Email: ybwang@scu.edu.cn (Y. Wang)

Text S1 BPA analogues removal using CP-900 sample

Besides of BPA, other BPA analogue pollutants including bisphenol F (BPF), bisphenol S (BPS) and bisphenol AF (BPAF) were also attempted to investigate the removal applicability of the developed cobalt phosphide/carbon composite. The operation procedure was consistent with the BPA removal experiment as described in the main manuscript. HPLC was also applied to quantify the residual concentration of bisphenol analogues. The detection wavelengths for BPF, BPS and BPAF were set at 270, 260, and 280 nm, respectively. The mobile phase for BPF was the same as that of BPA. The mobile phase for BPS consisted of 0.1% (v:v) acetic acid solution and methanol at volume ratio of 50:50, while the mobile phase for BPAF was a mixture of 75% methanol and 25% ultrapure water (v:v).

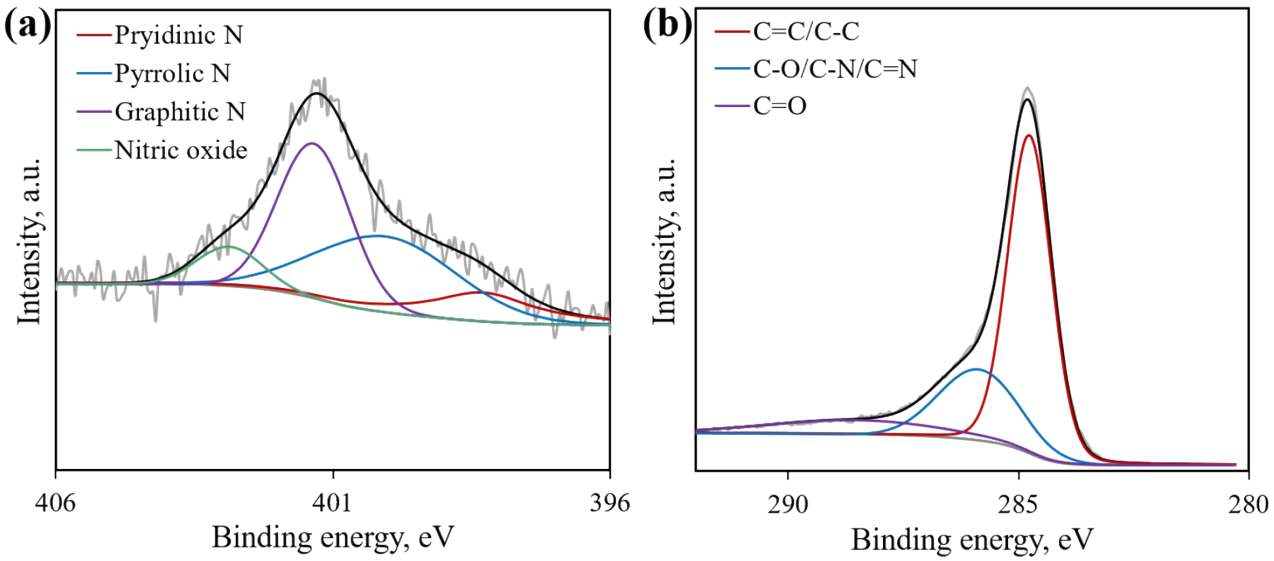

Fig. S1 XPS spectra of N 1s (a) and C 1s (b) for CP-900 sample.

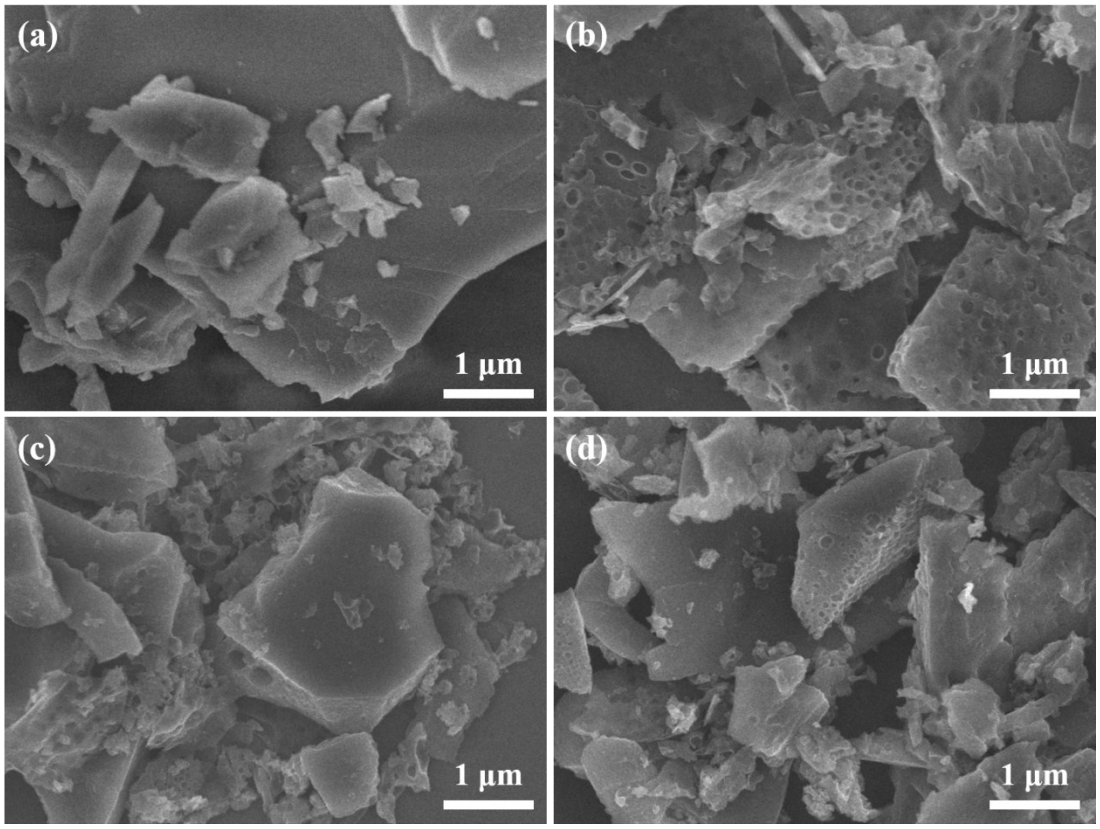

Fig. S2 FESEM images of yeast-extracted nucleic acid (a), C-900 (b), CP-800 (c), and CP-1000 (d) samples.

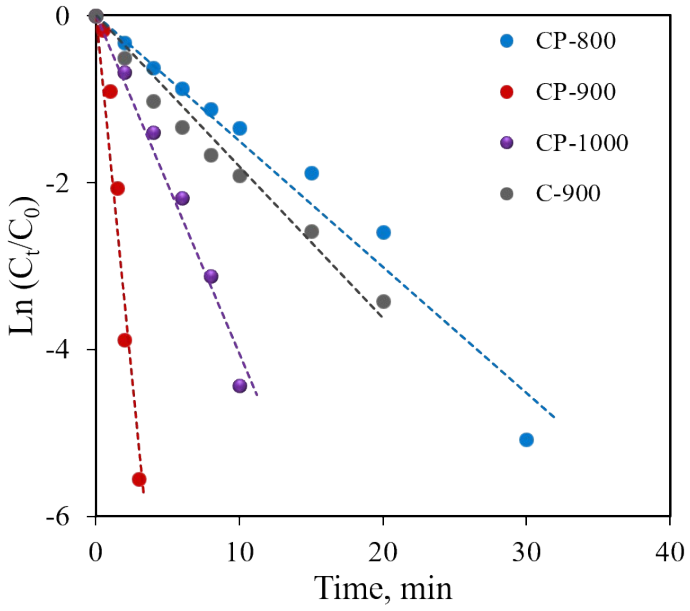

Fig. S3 Pseudo-first-order reaction kinetics for BPA degradation over various catalytic systems. Experimental conditions: $[BPA]_0$ = 0.1 mmol L^{-1}, [catalyst] = 0.4 g L^{-1}, [PMS] = 0.4 g L^{-1}.

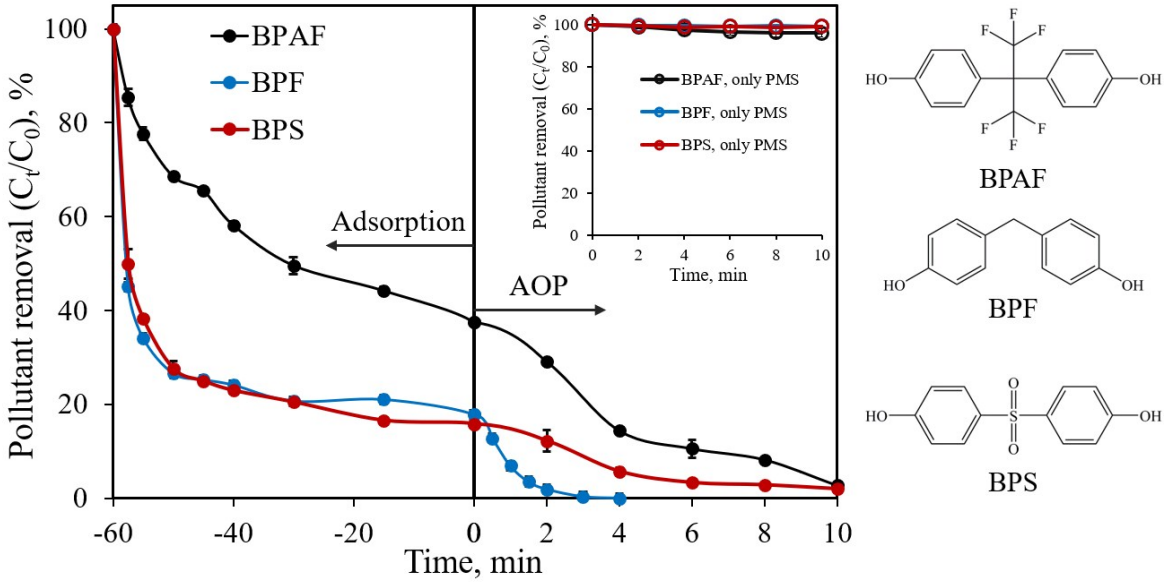

Fig. S4 BPAF, BPF and BPS removal using CP-900 sample. Experimental conditions: $[pollutant]_0$ = 0.1 mmol L^{-1}, [catalyst] = 0.4 g L^{-1}, [PMS] = 0.4 g L^{-1}.