Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Porous polydopamine nanospheres with yolk shell-like structure to effectively remove methylene blue, bisphenol A, and tetracycline from wastewaters

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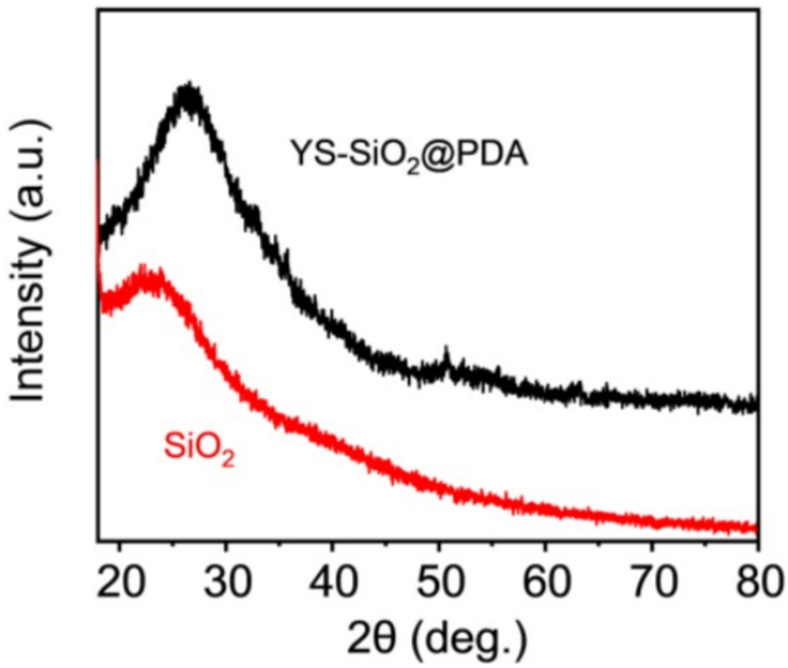

Fig. S1 XRD pattern of SiO_2 and YS-SiO_2@PDA.

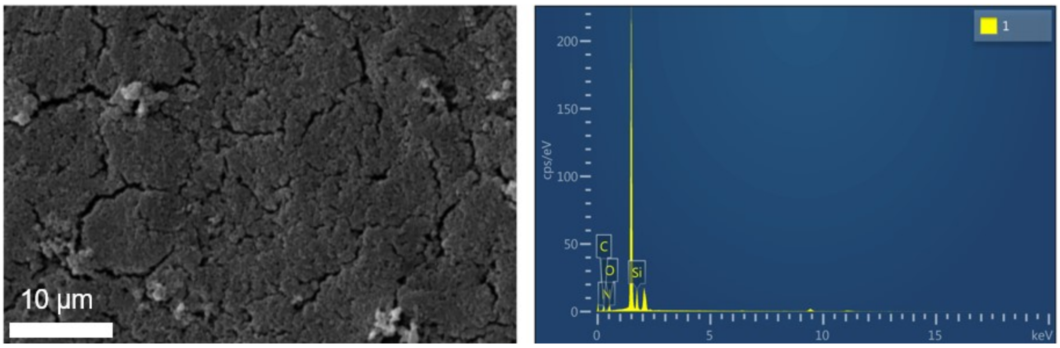

Fig. S2 EDS patterns of YS-SiO_2@PDA nanospheres.

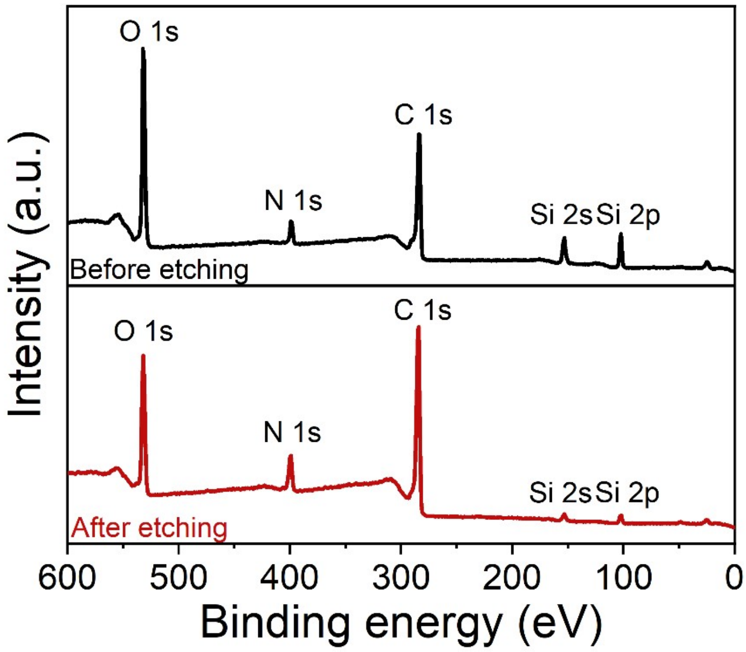

Fig. S3 XPS spectra of nanospheres before and after etching.

Table S1 XPS spectra element content analysis of nanospheres before etching.

Element	Pos.	At%
C 1s	284.08	58.27
N 1s	400.08	5.16
Si 2p	103.08	8.95
O 1s	553.08	27.61

Table S2 XPS spectra element content analysis of nanospheres after etching.

Element	Pos.	At%
C 1s	284.08	72.26
N 1s	400.08	7.94
Si 2p	103.08	2.08
O 1s	553.08	17.72

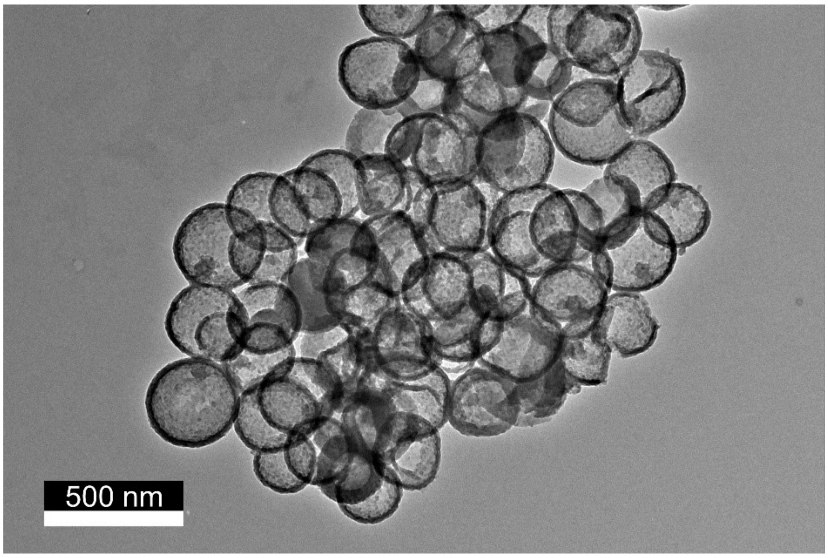

Fig. S4 Low magnification TEM image of YS-SiO_2@PDA nanospheres.

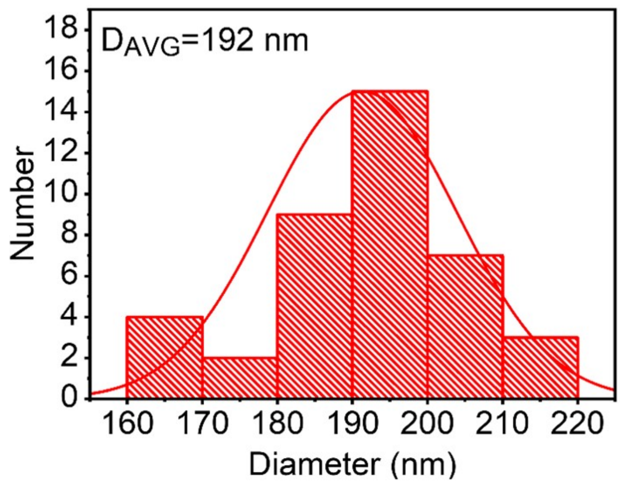

Fig. S5 Diameter distribution of SiO_2 nanospheres.

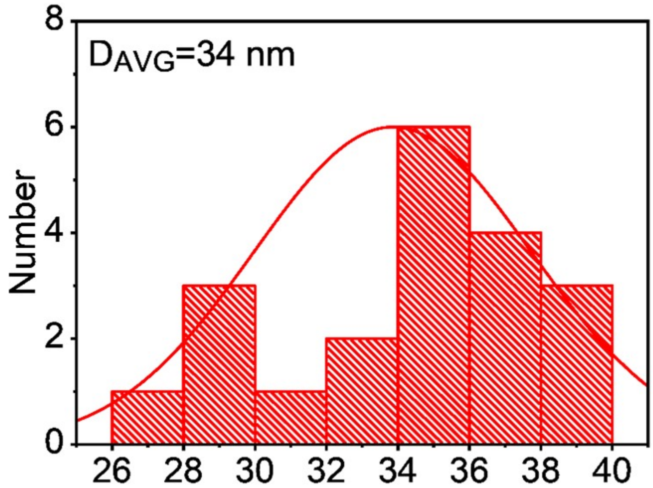

Fig. S6 PDA shell layer thickness distribution of YS-SiO_2@PDA nanospheres.

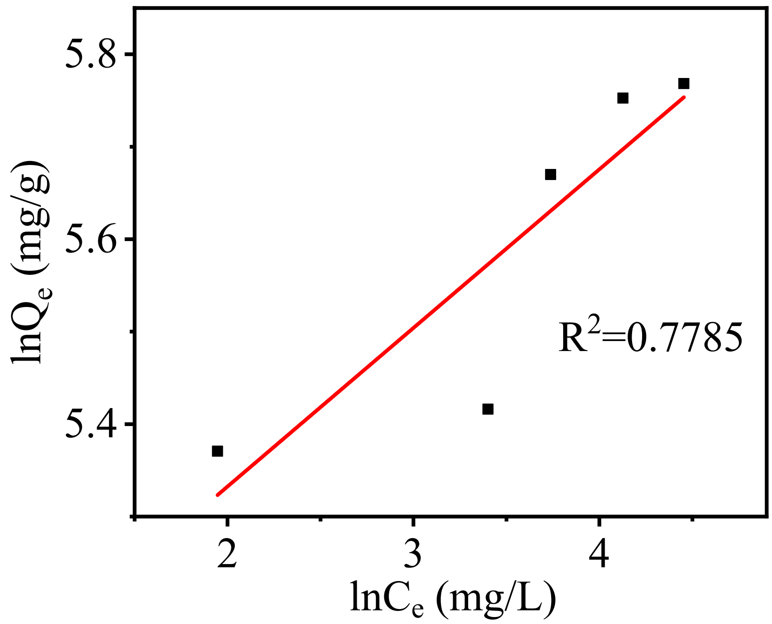

Fig. S7 Freundlich linear fitting model of MB adsorption by YS-SiO_2@PDA nanospheres.

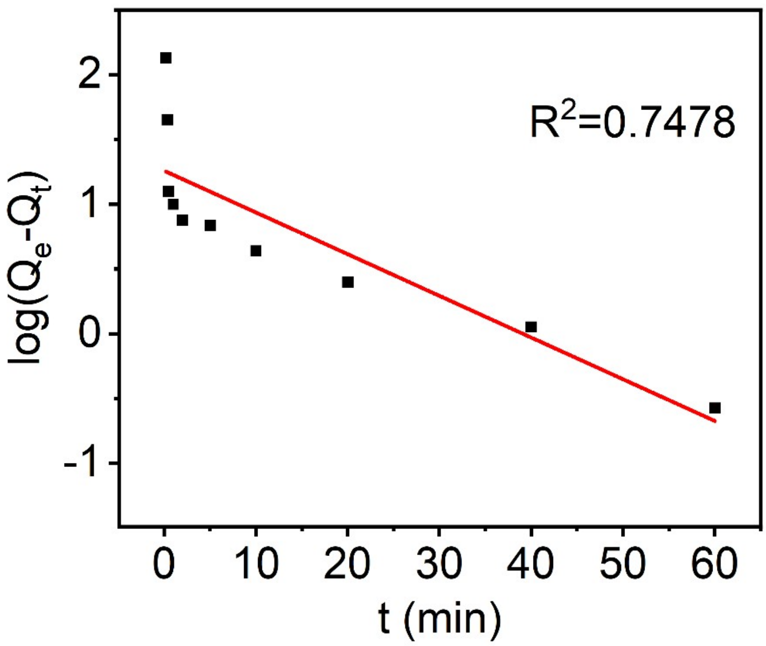

Fig. S8 Pseudo-first-order kinetic model of MB adsorption by YS-SiO_2@PDA nanospheres.

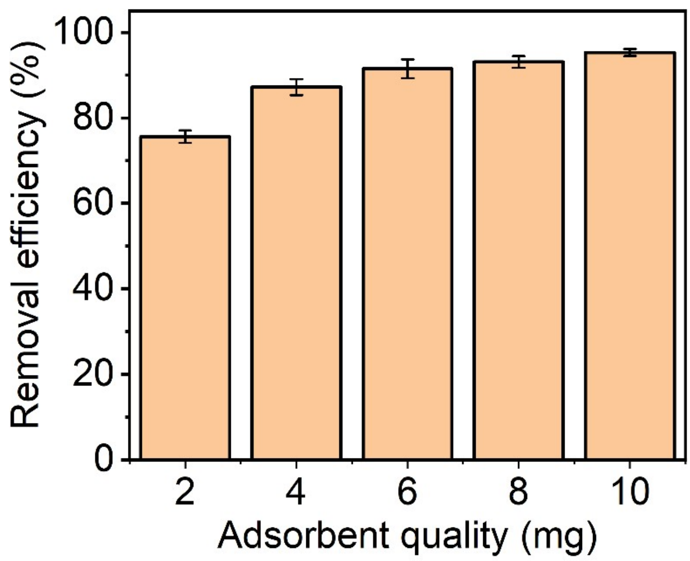

Fig. S9 Effect of YS-SiO_2@PDA dosing levels on adsorption of BPA.

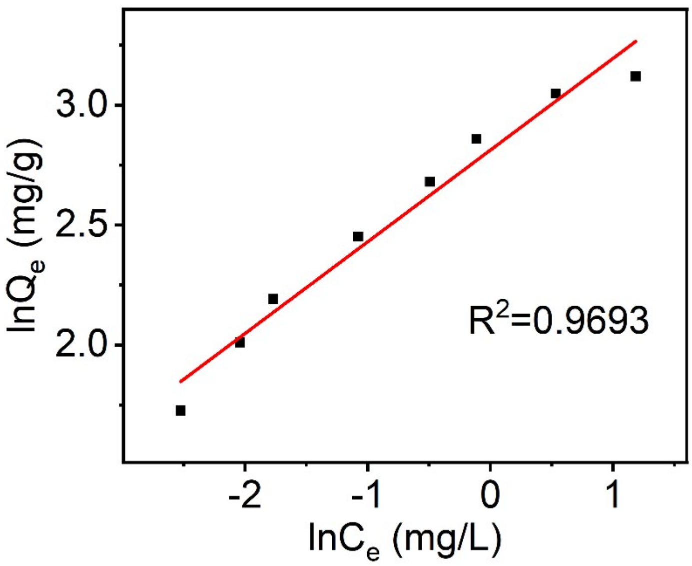

Fig. S10 Freundlich linear fitting model of BPA adsorption by YS-SiO_2@PDA nanospheres.

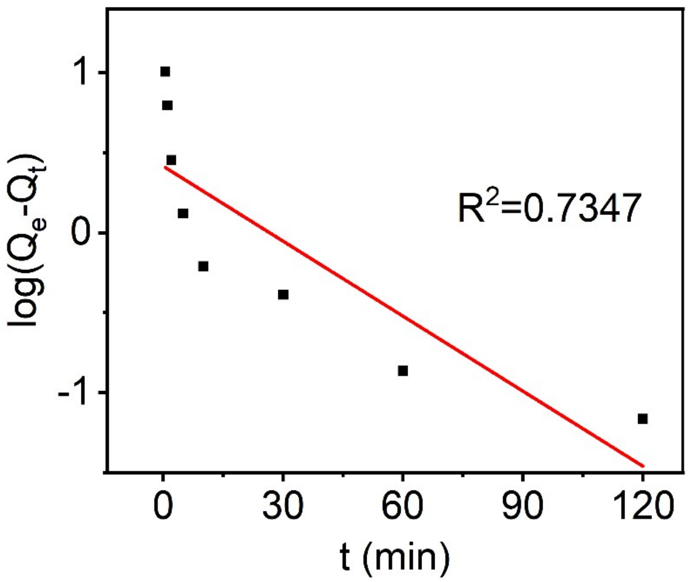

Fig. S11 Pseudo-first-order kinetic model of BPA adsorption by YS-SiO_2@PDA nanospheres.

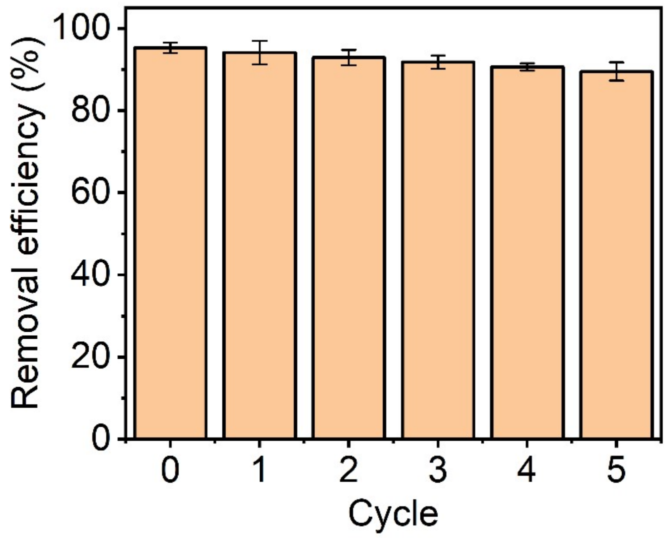

Fig. S12 Recyclability of YS-SiO_2@PDA nanospheres for BPA.

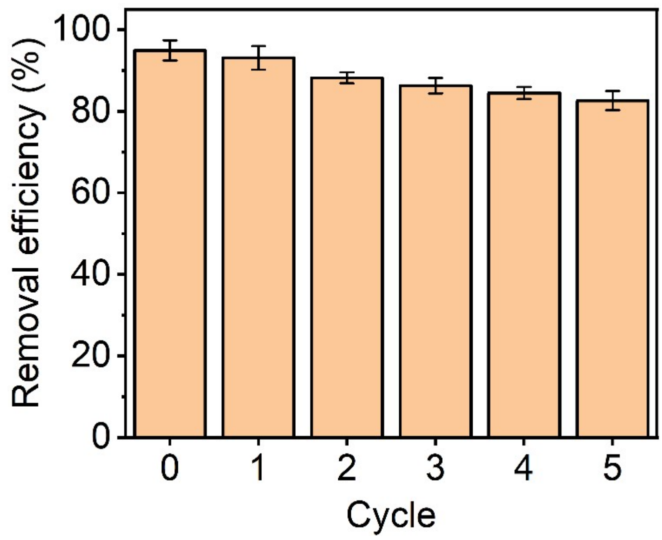

Fig. S13 Recyclability of YS-SiO_2@PDA nanospheres for TC.

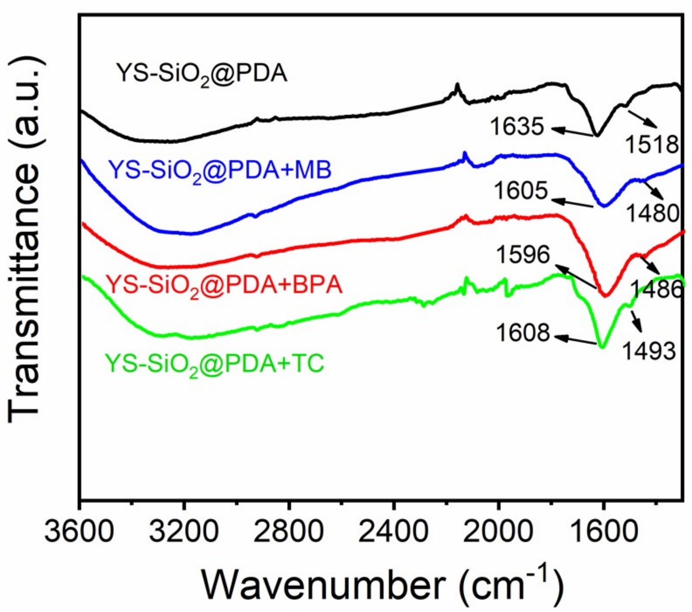

Fig. S14 FTIR spectra of YS-SiO_2@PDA nanospheres and nanospheres after adsorption of MB, BPA, and TC.