

Supporting Information

Facile fabrication of N-doped magnetic porous carbon for highly efficient mercury removal

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The supporting information contains 9 figures and 1 table in 11 pages.

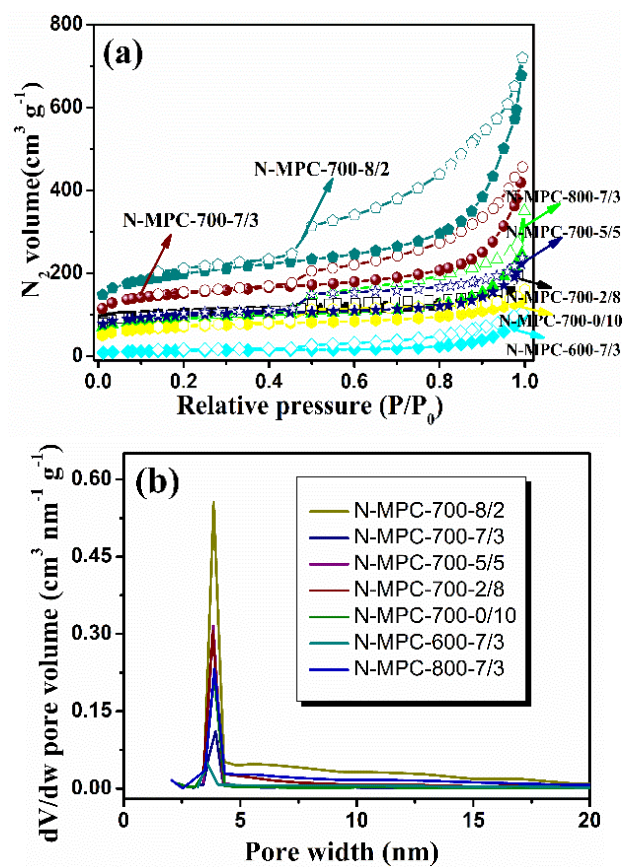


Figure S1 N_2 adsorption-desorption isotherms (a) and pore size distributions (b) of prepared N-MPCs.

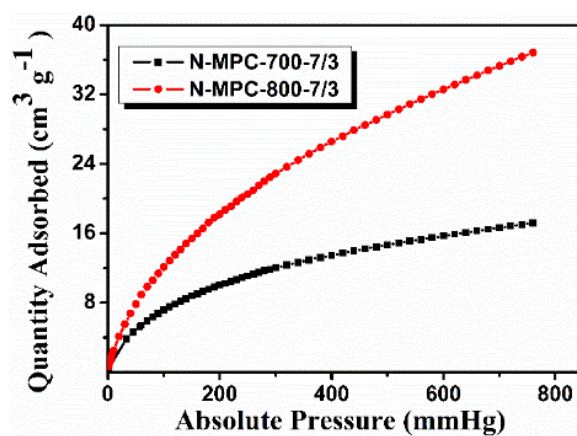


Figure S2 CO₂ adsorption isotherms of N-MPC-700-7/3 and N-MPC-800-3 at 300 K.

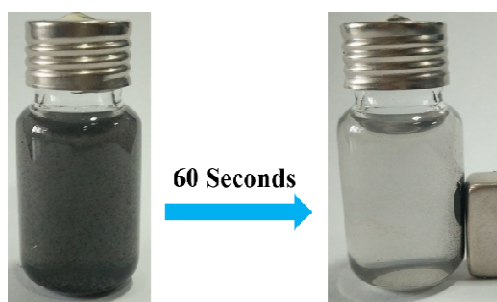


Figure S3 Photographs of N-MPC-700-7/3 aqueous solutions before (left) and after (right) magnetic separation.

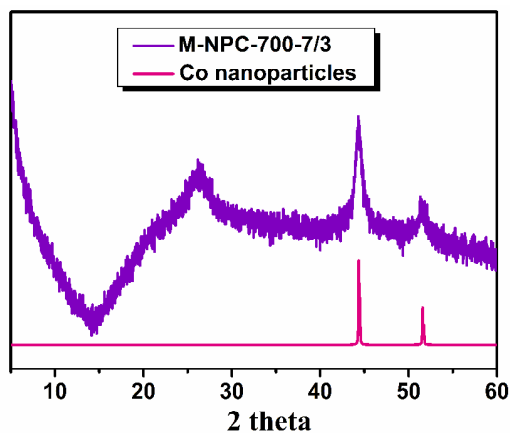


Figure S4 Standard XRD patterns for cobalt nanoparticles and XRD patterns of N-MPC-700-7/3.

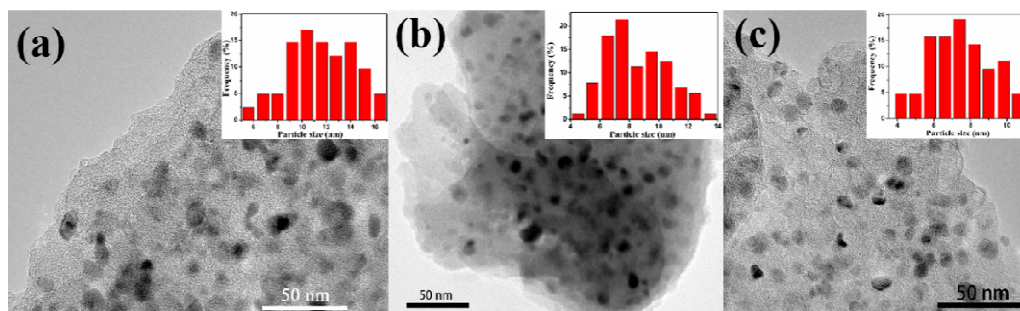


Figure S5 TEM images of the prepared N-MPC-700-0/10 (a), N-MPC-700-7/3 (b) and N-MPC-700-8/2 (c). The insets show the size distribution of Co nanoparticles.

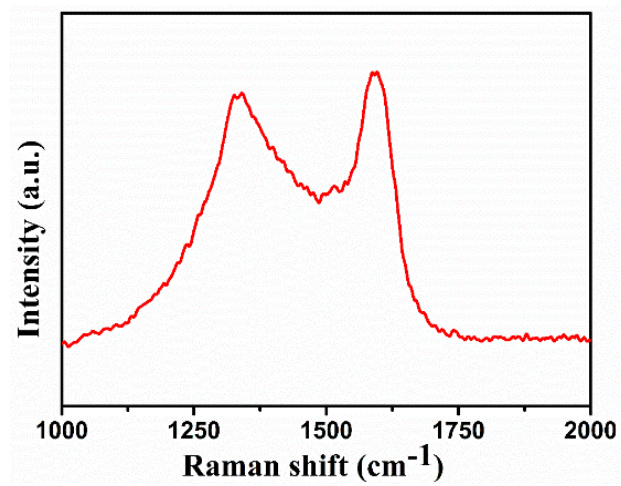


Figure S6 Raman spectra of N-MPC-700-7/3.

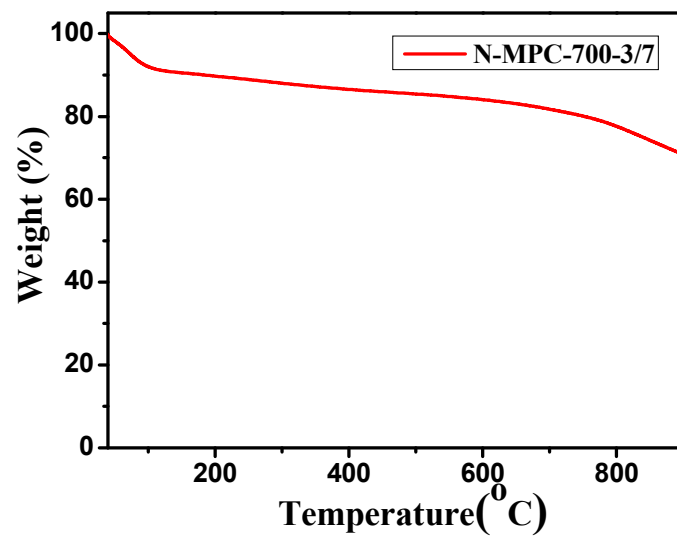


Figure S7 TG curve of N-MPC-700-7/3.

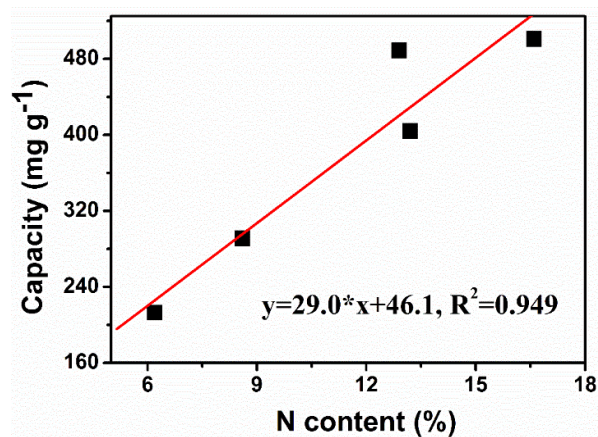


Figure S8 N contents of N-MPCs obtained at 700 °C versus their adsorption capacity for Hg²⁺.

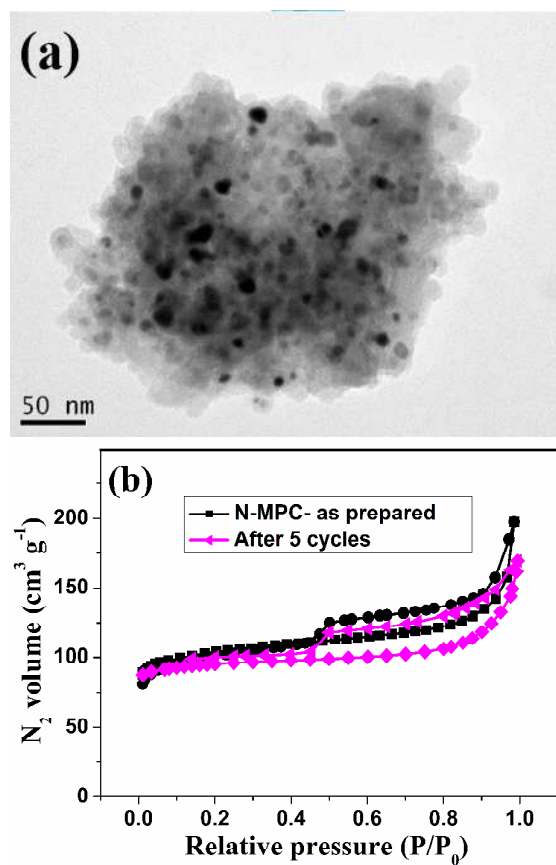


Figure S9 TEM image (a) and N₂ adsorption-desorption isotherms (b) of N-MPC-700-7/3 after 5 cycles.

Table S1 Concentration of cations in the tested lake water and domestic sewage

Element	Lake water (mg L ⁻¹)	Domestic sewage (mg L ⁻¹)
K ⁺	5.6	15.3
Ca ²⁺	46.0	59.7
Na ⁺	19.4	98.5
Mg ²⁺	9.2	11.4
Mn ²⁺	0.02	0.08
Cr ³⁺	0.2	0.5
Cu ²⁺	2.0	3.2
Zn ²⁺	4.5	7.4
Ni ²⁺	2.9	0.04