

Efficient capture of uranium by hydroxyapatite-modified polyethyleneimine@carbon
nanotube composite from radioactive nuclear waste

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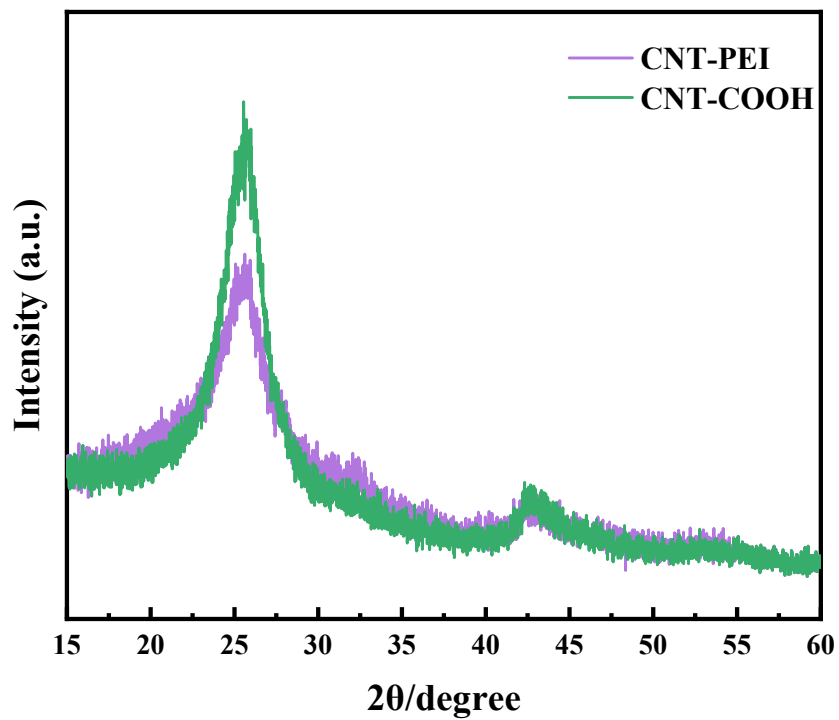


Fig. S1 The XRD pattern of CNT-COOH and CNT-PEI.

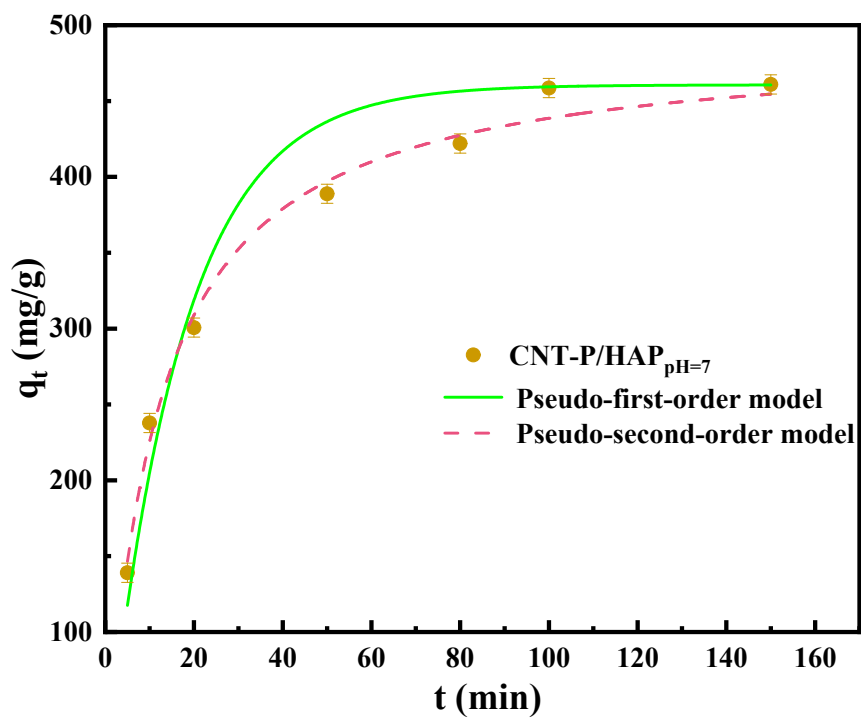


Fig. S2 Influence of the contact time on the adsorption capacity and fitting of the pseudo-first-order and pseudo-second-order kinetic models.

($M_{\text{CNT-P/HAP}} = 0.005$ g, $V = 30$ mL, $\text{pH} = 7$, $T = 298$ K, $C_0 = 100$ mg/L, $t = 5 \sim 150$ min)

Table S1 Kinetic fit parameters of CNT-P/HAP

($M_{\text{CNT-P/HAP}} = 0.005$ g, $V = 30$ mL, $\text{pH} = 7$, $T = 298$ K, $C_0 = 100$ mg/L, $t = 5 \sim 150$ min).

Kinetic model	$q_e(\text{mg-U/g-ads})$	$k_1(\text{min}^{-1})/k_2(\text{g/mg}\cdot\text{min})$	R^2
pseudo-first-order kinetic model	460.6	0.05891	0.9409
pseudo-second-order kinetic model	647.3	1.739×10^{-4}	0.9911