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Preparation of amino-modified biochar supported sulfide nanoscale zero-valent iron composite and its efficient removal of U(VI) from wastewater by adsorption and reduction

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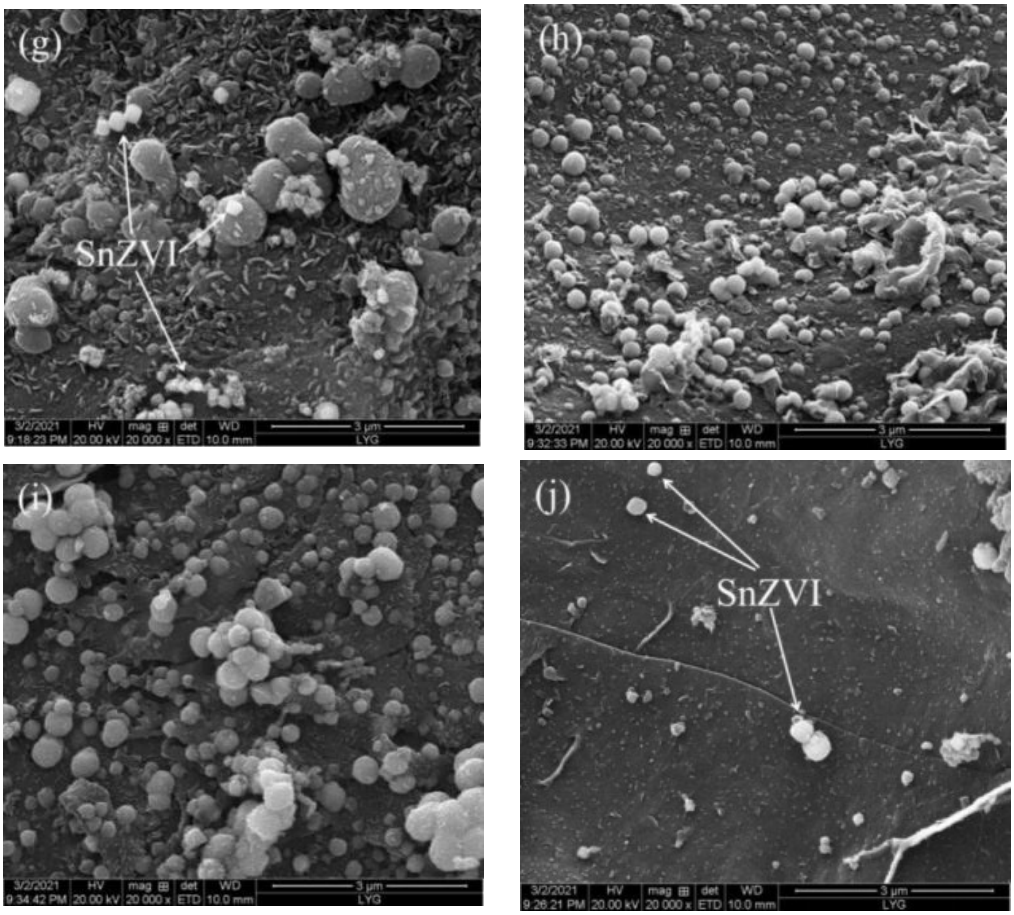

Figure S1. SEM images of SnZVI-BC-NH_2 with C: Fe mass ratios of 1: 1 (g), 1: 2 (h), and 1: 3 (i), and SEM image of SnZVI-BC with a C: Fe mass ratio of 1: 2 (j).

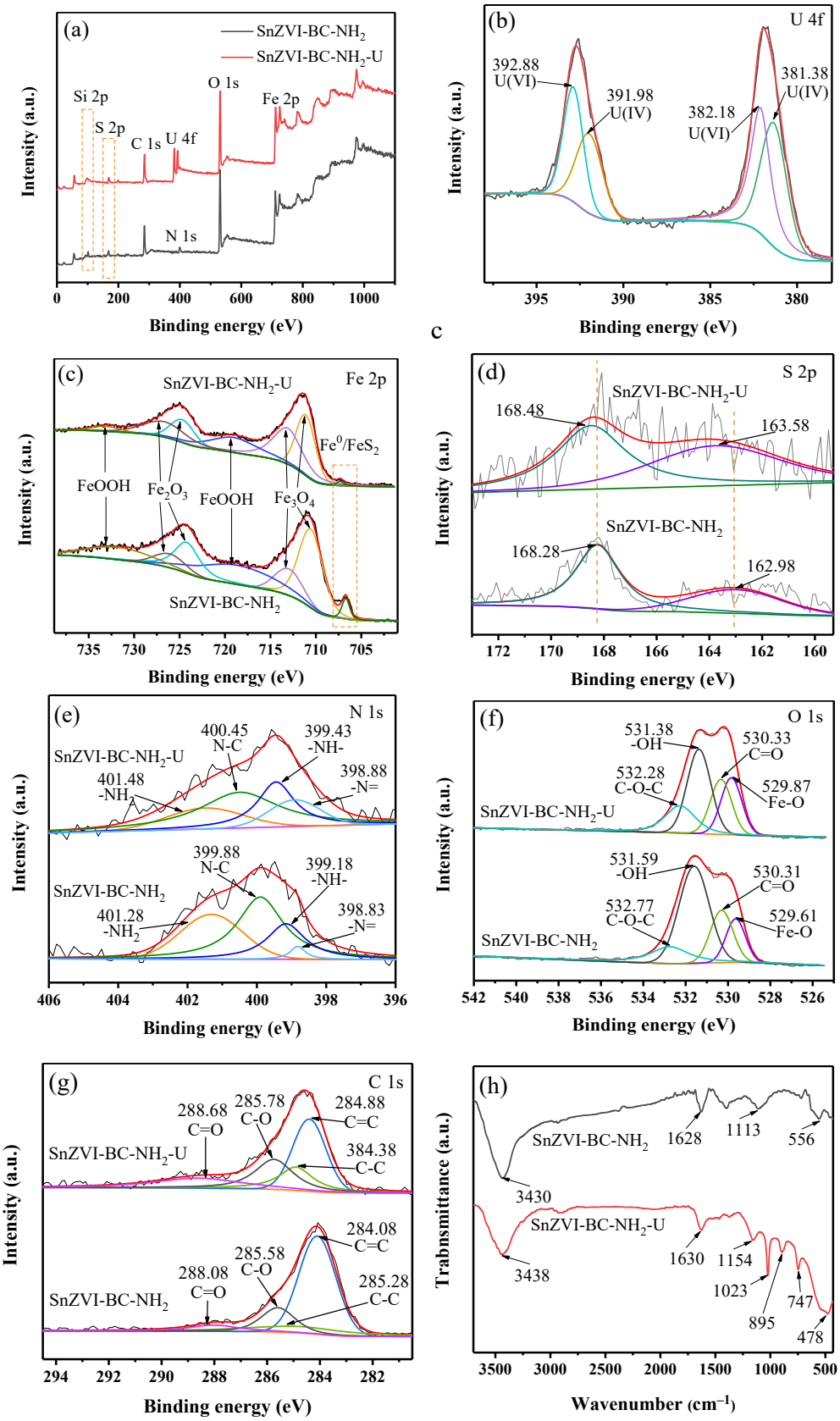

Figure S2. XPS spectra of SnZVI-BC-NH_2 before and after adsorption of U(VI)(a), high-resolution XPS spectra of U 4f(b), Fe 2p (c), S 2p(d), N 1s(e), O 1s(f), and C 1s(g). FT-IR spectra of SnZVI-BC-NH_2 before and after adsorption of U(VI) (h).

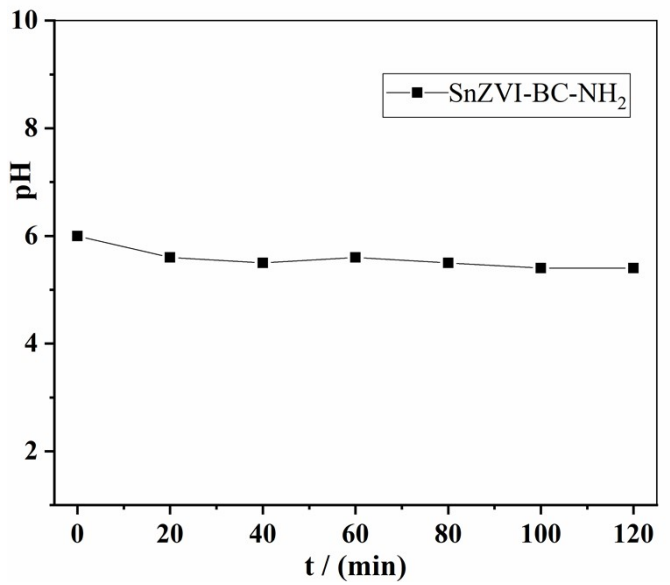

Figure S3. Change of pH during the U(VI) removal process by SnZVI-BC-NH_2 (pH = 6, T = 298 K, V = 50 mL, C_0(U) = 20 mg·L^{-1}).