

Electronic Supplementary Information

Tubular nanocomposites catalysts based on size-controlled and highly dispersed silver nanoparticles assembled on electrospun silica nanotubes for catalytic reduction of 4-nitrophenol

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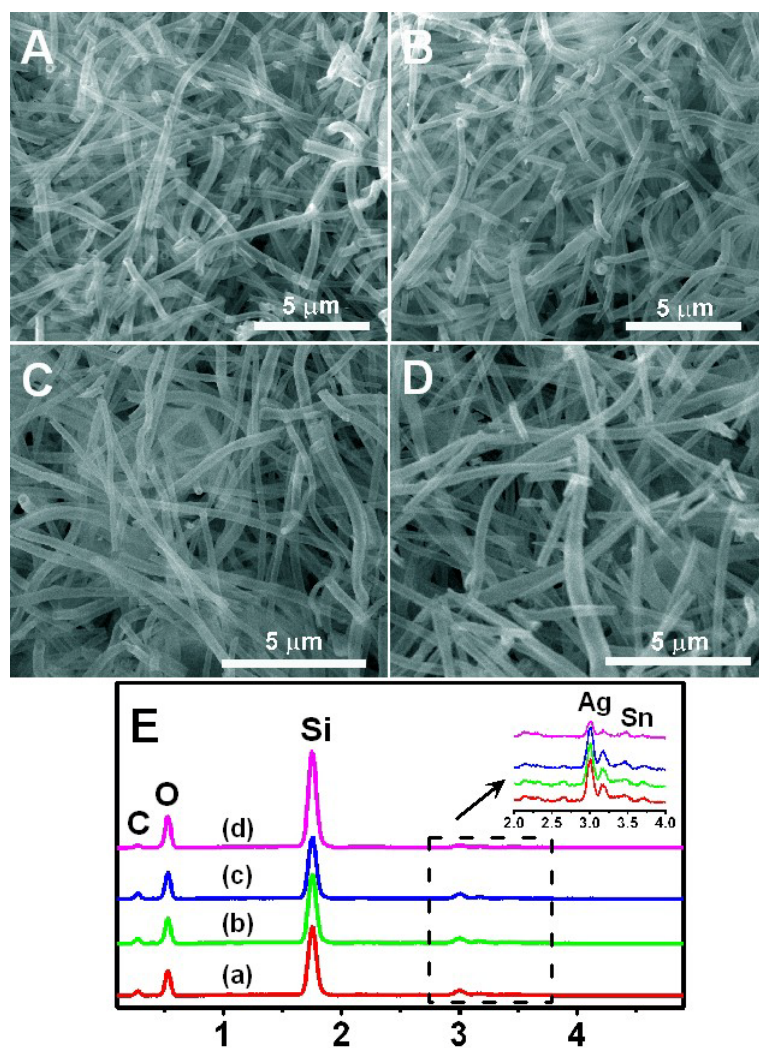


Figure S1. SEM images of the as-prepared AgNPs/SNTs tubular nanocomposites: (A) AgNPs/SNTs-1; (B) AgNPs/SNTs-2; (C) AgNPs/SNTs-3; (D) AgNPs/SNTs-4. (E) EDX spectra from: (a) image A; (b) image B; (c) image C; (d) image D.

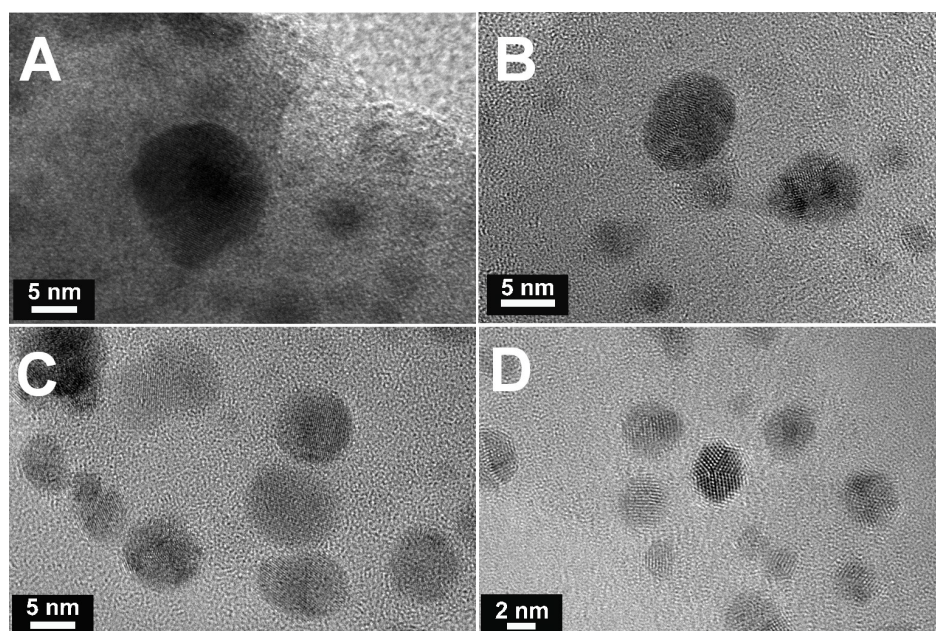


Figure S2. TEM images of the as-prepared AgNPs/SNTs tubular nanocomposites: (A) AgNPs/SNTs-1; (B) AgNPs/SNTs-2; (C) AgNPs/SNTs-3; (D) AgNPs/SNTs-4.

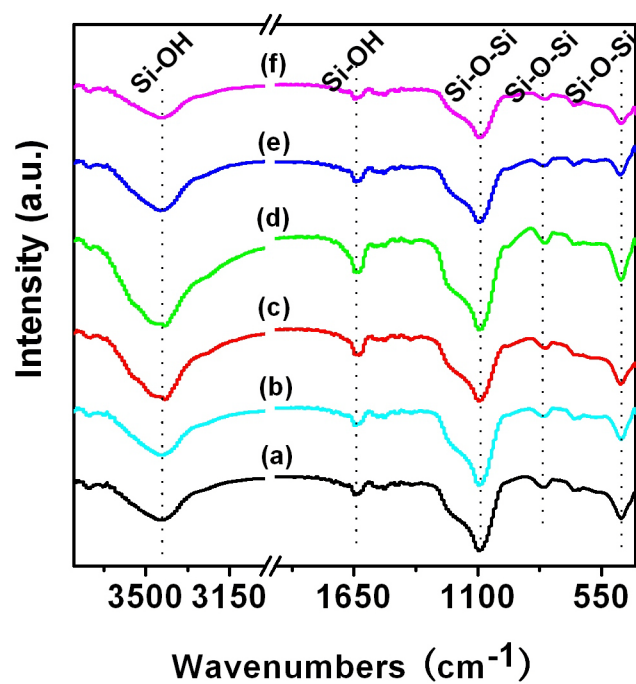


Figure S3. FT-IR spectra of the as-prepared products: (a) SNTs; (b) Sn²⁺/SNTs; (c) AgNPs/SNTs-1; (d) AgNPs/SNTs-2; (e) AgNPs/SNTs-3; (f) AgNPs/SNTs-4.

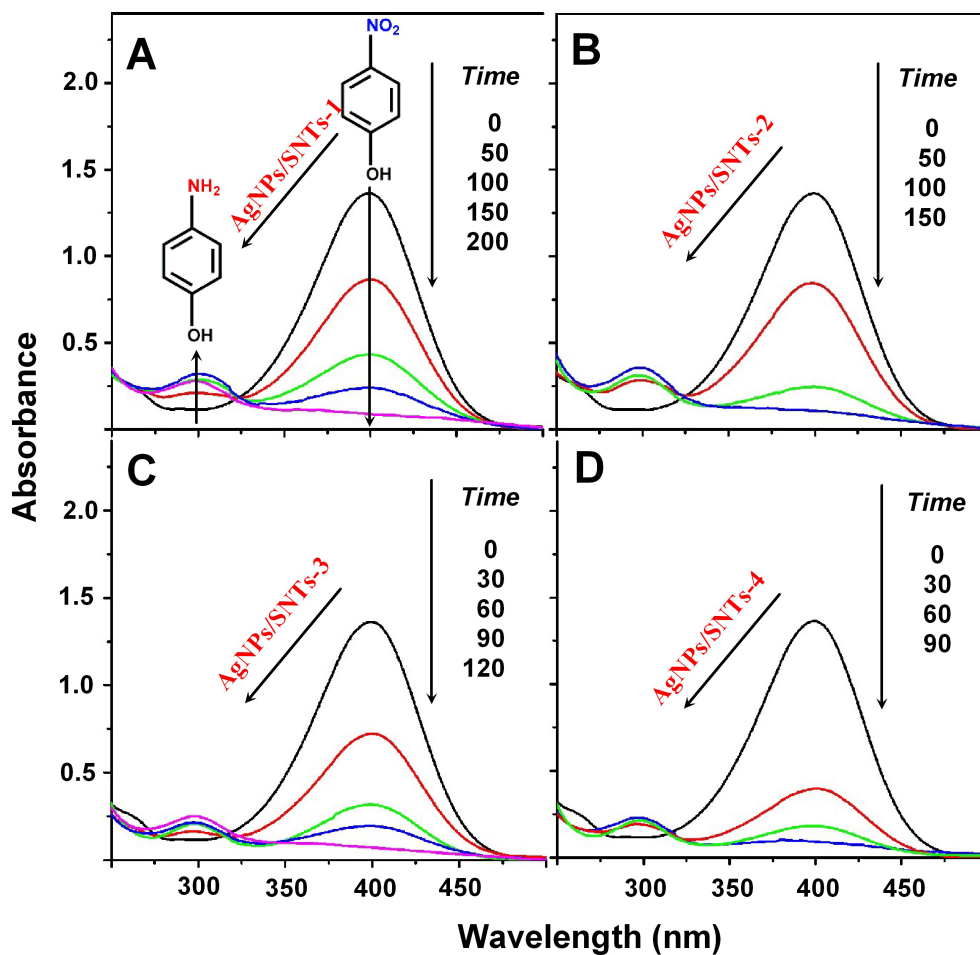


Figure S4. Successive UV-Vis absorption spectra of the reduction of 4-NP by NaBH_4 in the presence of the as-prepared tubular nanocatalysts: (A) AgNPs/SNTs-1; (B) AgNPs/SNTs-2; (C) AgNPs/SNTs-3; (D) AgNPs/SNTs-4.

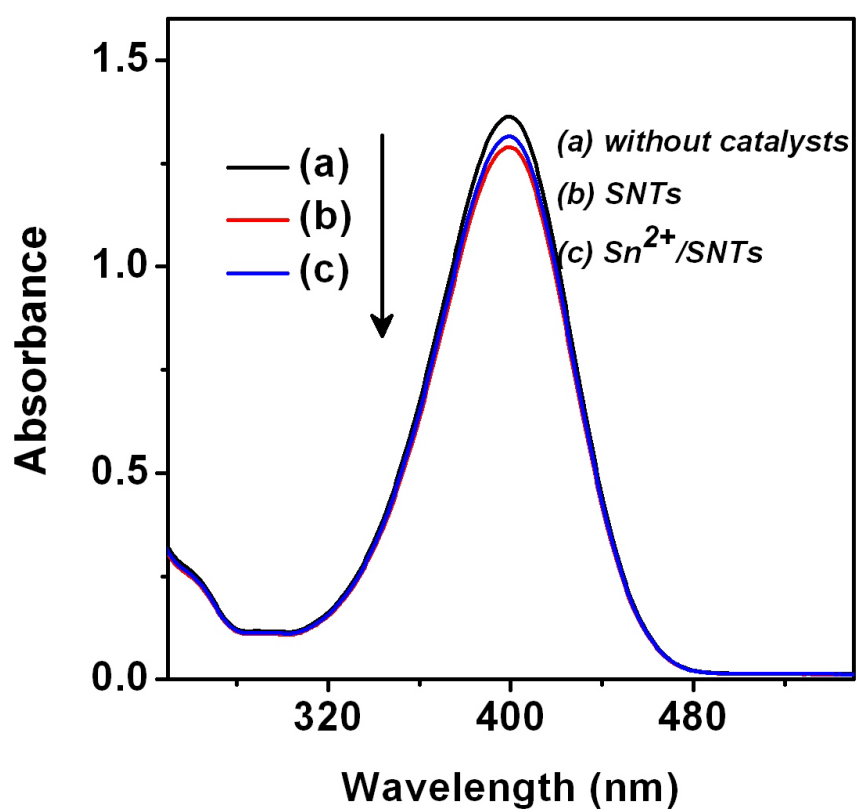


Figure S5. UV-Vis absorption spectra of 4-NP in the presence of (a) NaBH₄; (b) NaBH₄ and SNTs; (c) NaBH₄ and Sn²⁺/SNTs for 1h.

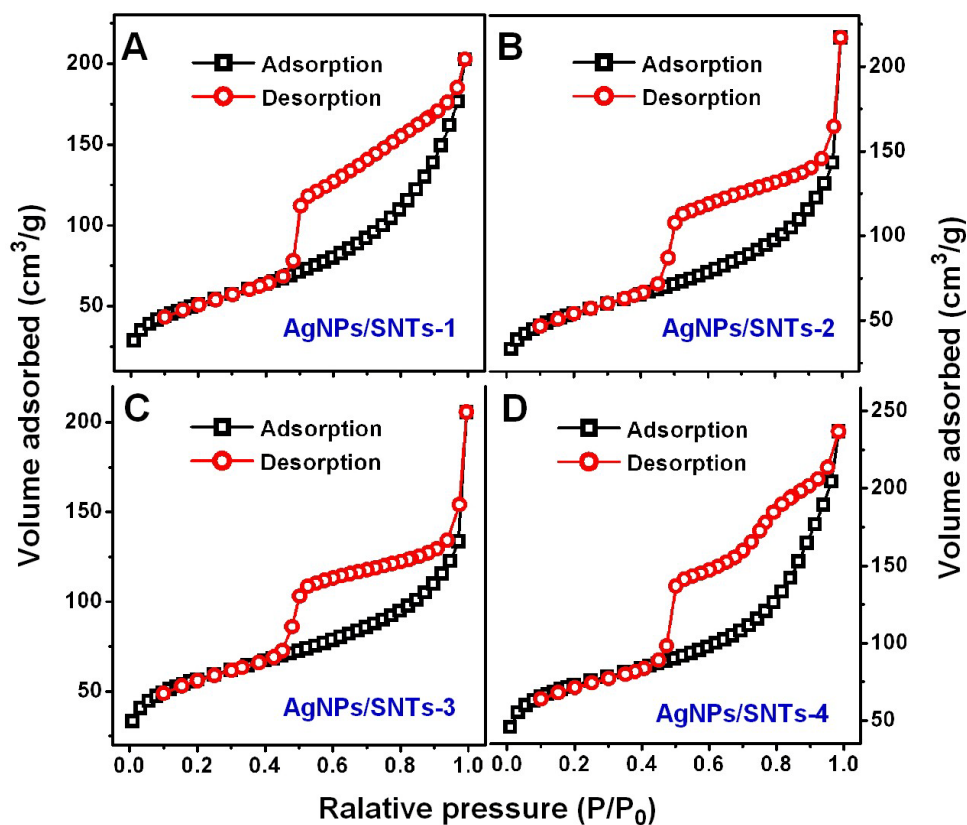


Figure S6. Nitrogen adsorption-desorption isotherm of the as-prepared AgNPs/SNTs tubular nanocomposites: (A) AgNPs/SNTs-1; (B) AgNPs/SNTs-2; (C) AgNPs/SNTs-3; (D) AgNPs/SNTs-4.