

Supplementary Information for

Does Halloysite Behave Like an Inert Carrier for Doxorubicin?

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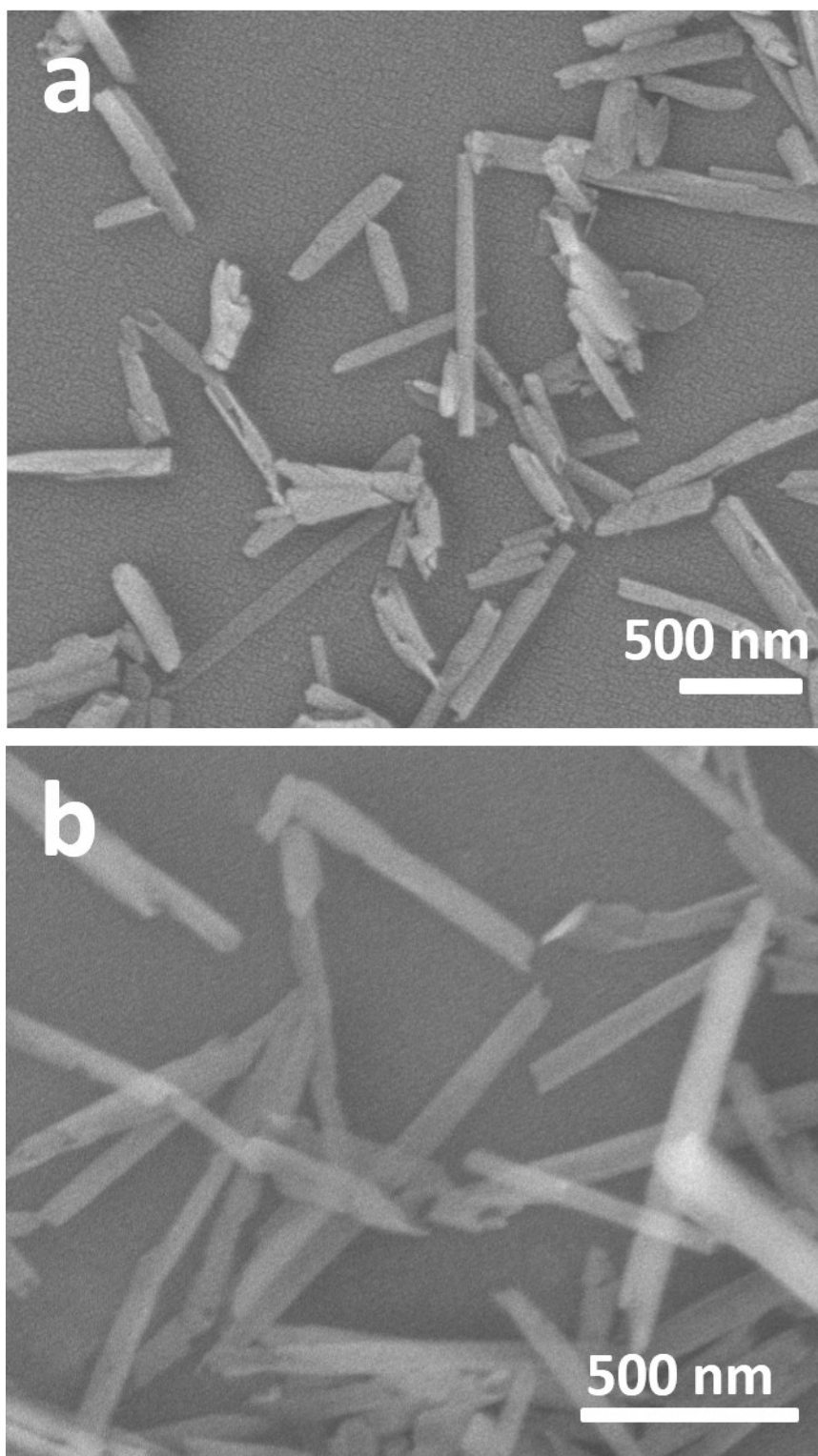


Fig. S1 SEM images of zHNTs and sHNTs samples after 10 h etching time. (a) zHNTs, (b) sHNTs.

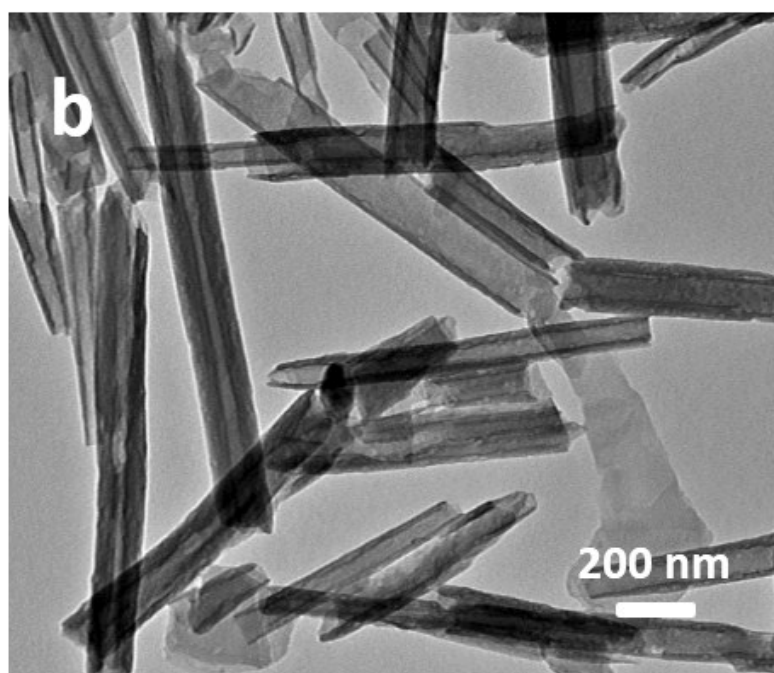
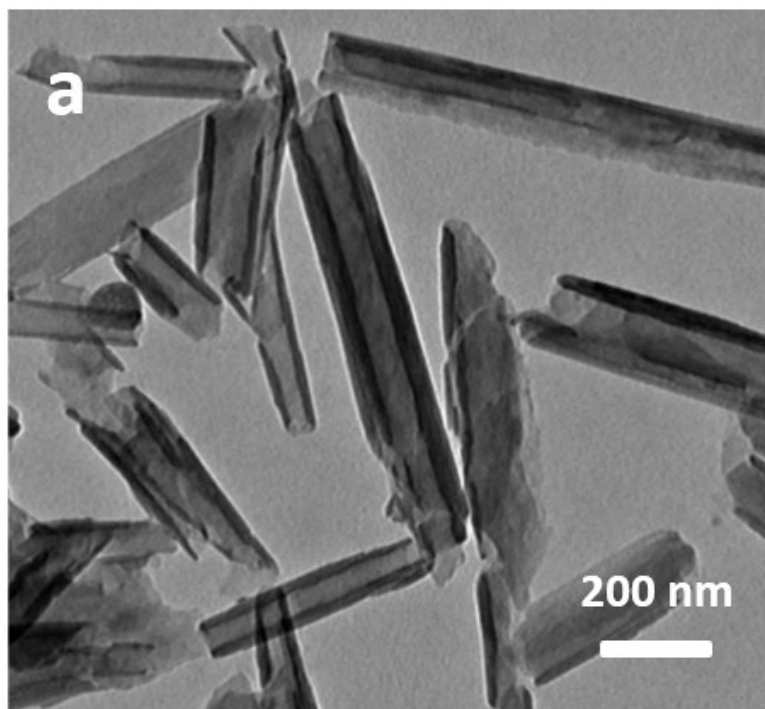
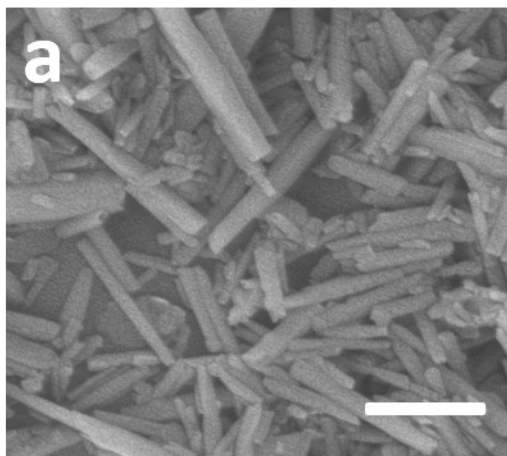
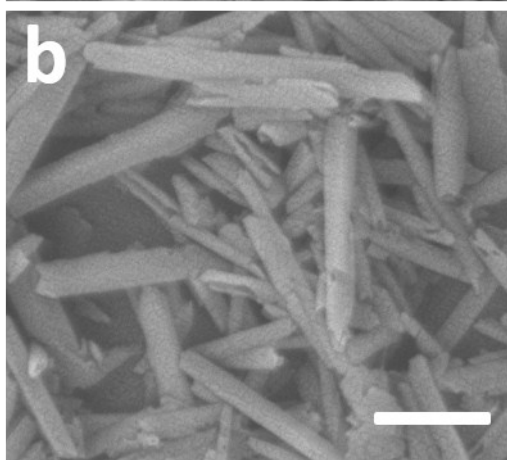


Fig. S2 TEM images of zHNTs and sHNTs samples after 10 h etching time. (a) zHNTs, (b) sHNTs.

Element	Weight%	Atomic%
O	56.46	69.06
Al	21.01	15.24
Si	22.53	15.70



Element	Weight%	Atomic%
O	63.07	74.63
Al	17.20	12.07
Si	19.72	13.30



Element	Weight%	Atomic%
O	73.80	82.91
Al	12.02	8.01
Si	14.18	9.08

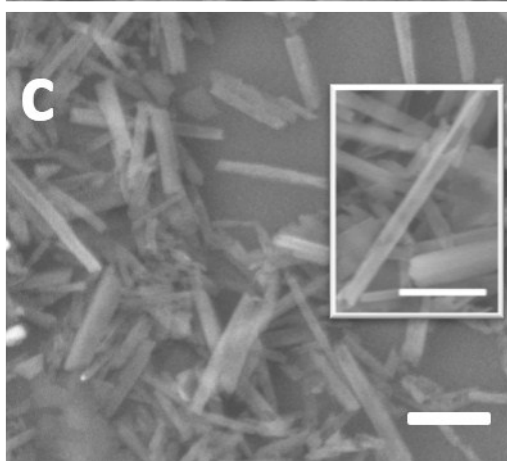


Fig. S3 SEM images and corresponding EDS data of sHNTs after various etching time: (a) 0 h, (b) 8 h, and (c) 15 h, respectively. All scale bars are 500 nm.

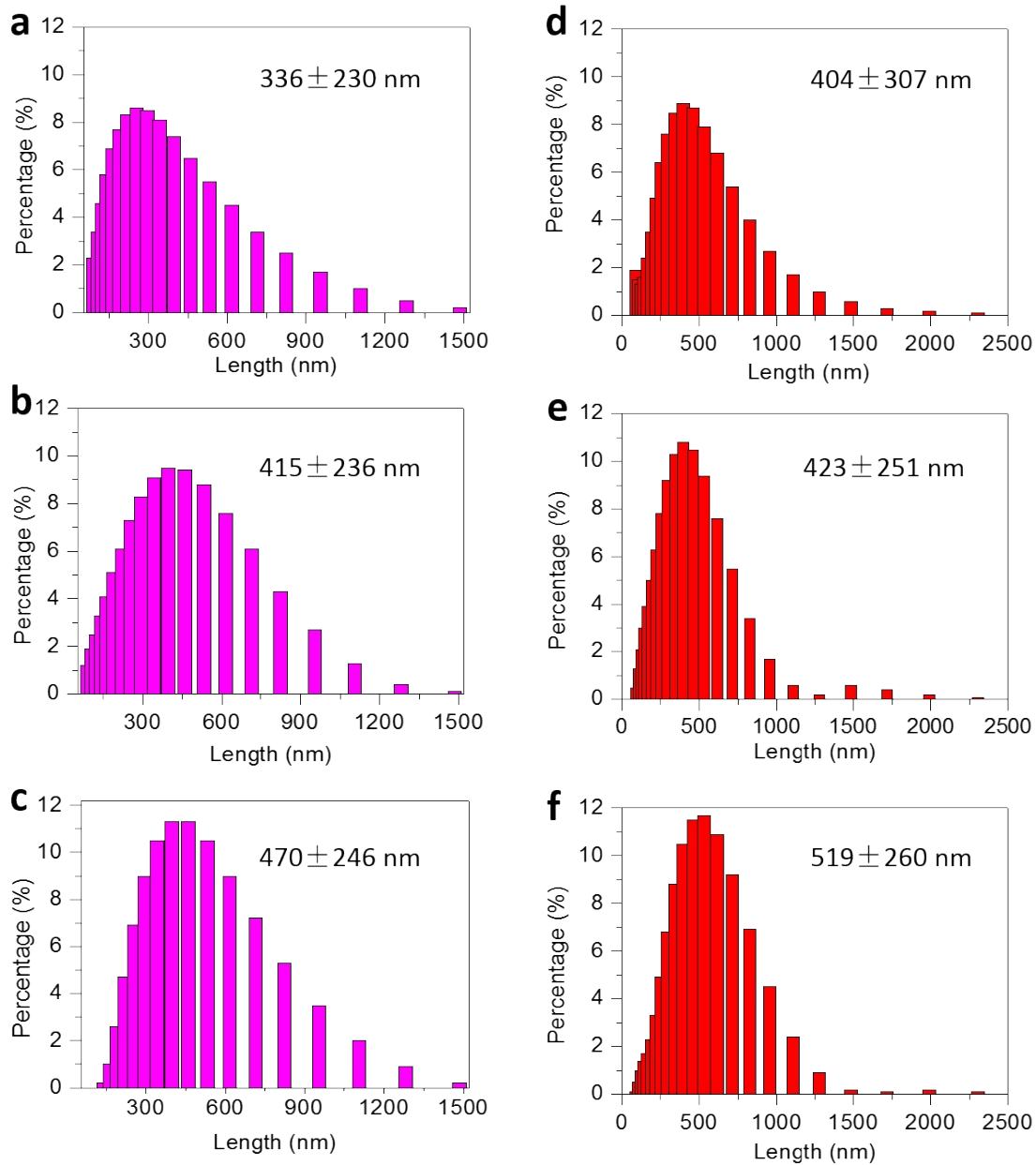


Fig. S4 The particle size distribution of zHNTs and sHNTs samples after various etching time:

zHNTs: (a) 0 h, (b) 8 h, (c) 15 h; sHNTs: (d) 0 h, (e) 8 h, (f) 15 h.

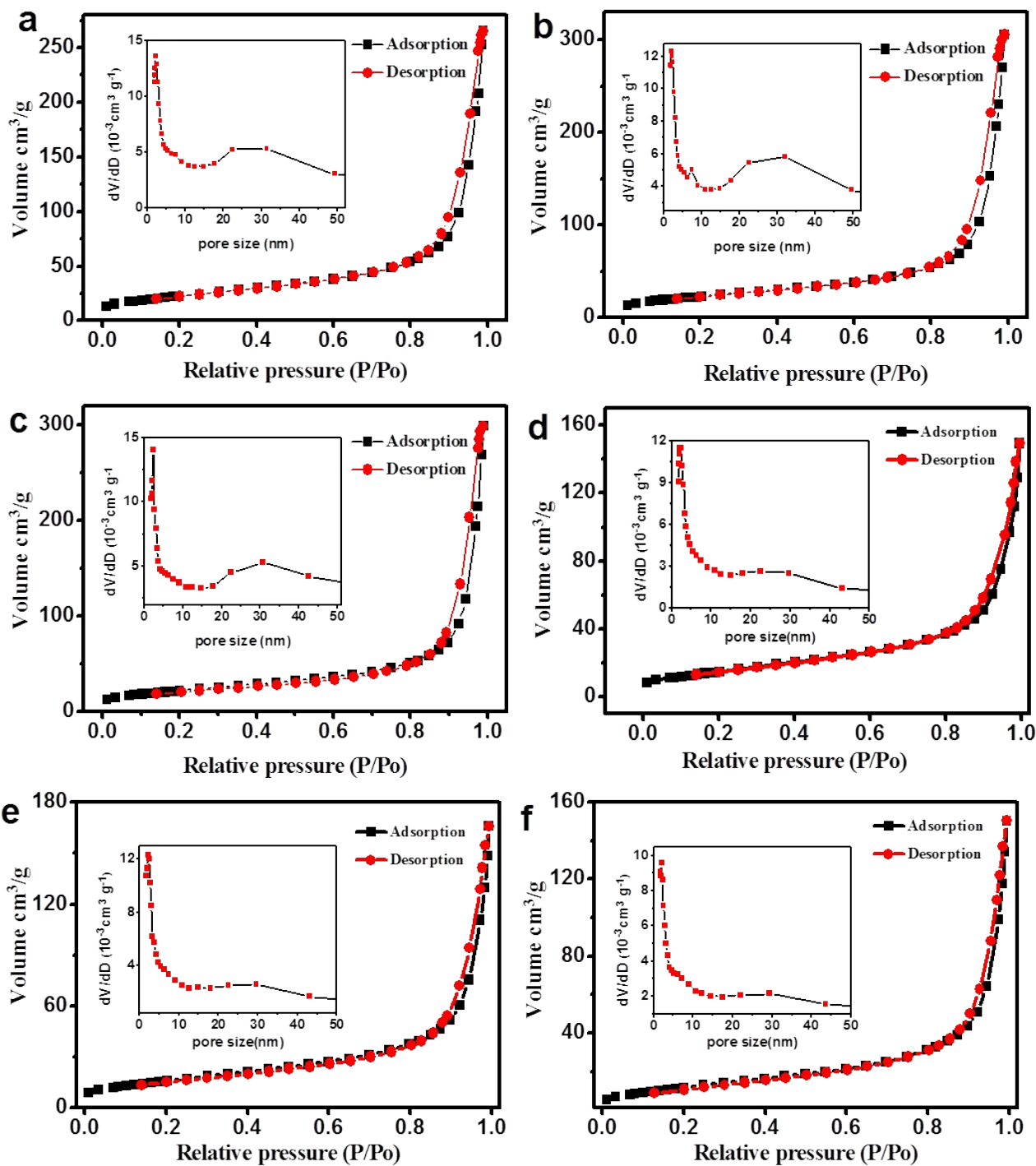


Fig. S5 BET and pore size distribution of zHNTs and sHNTs samples after various etching time, zHNTs: 8 h (a); 10 h (c); 15 h (e); sHNTs: 8 h (b); 10 h (d); 15 h (f).

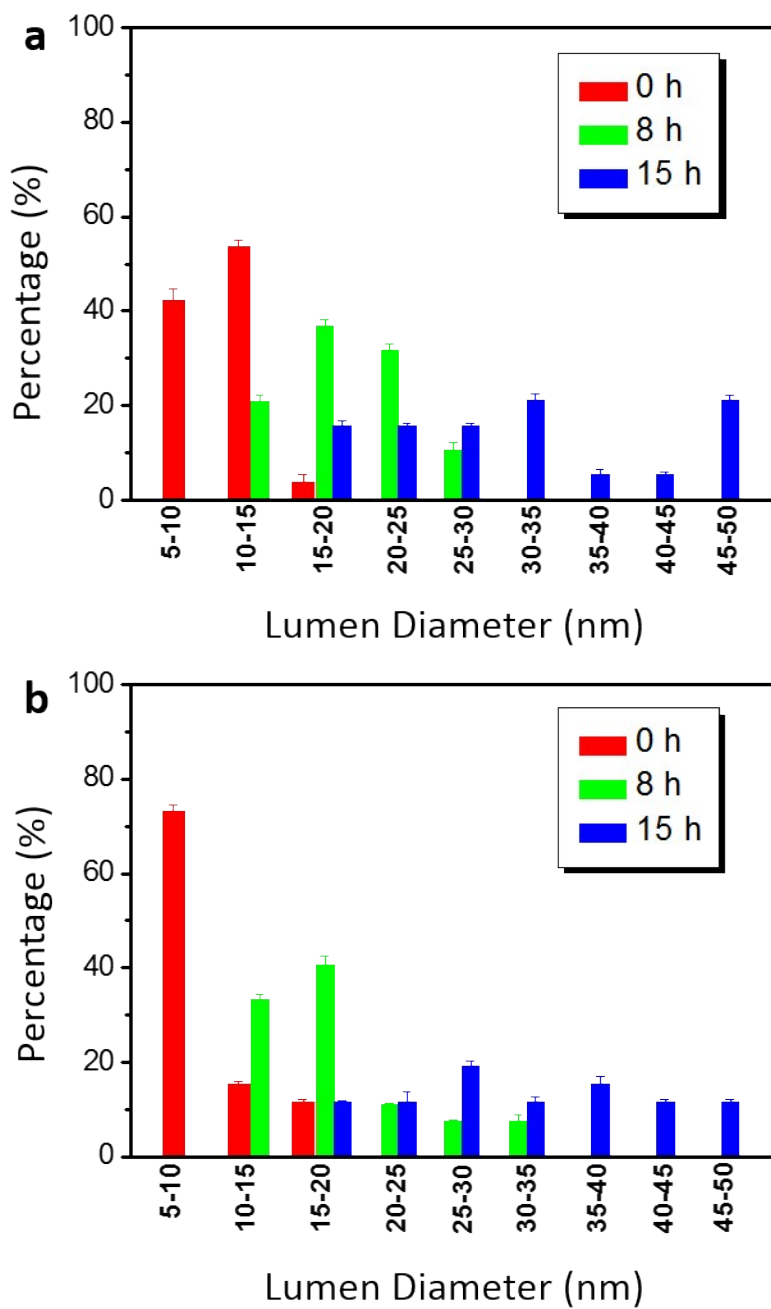


Fig. S6 Distributions of inner lumen diameters of zHNTs (a) and sHNTs (b) after various etching time. (Each value was obtained according to a collection of 50 nanotubes.)

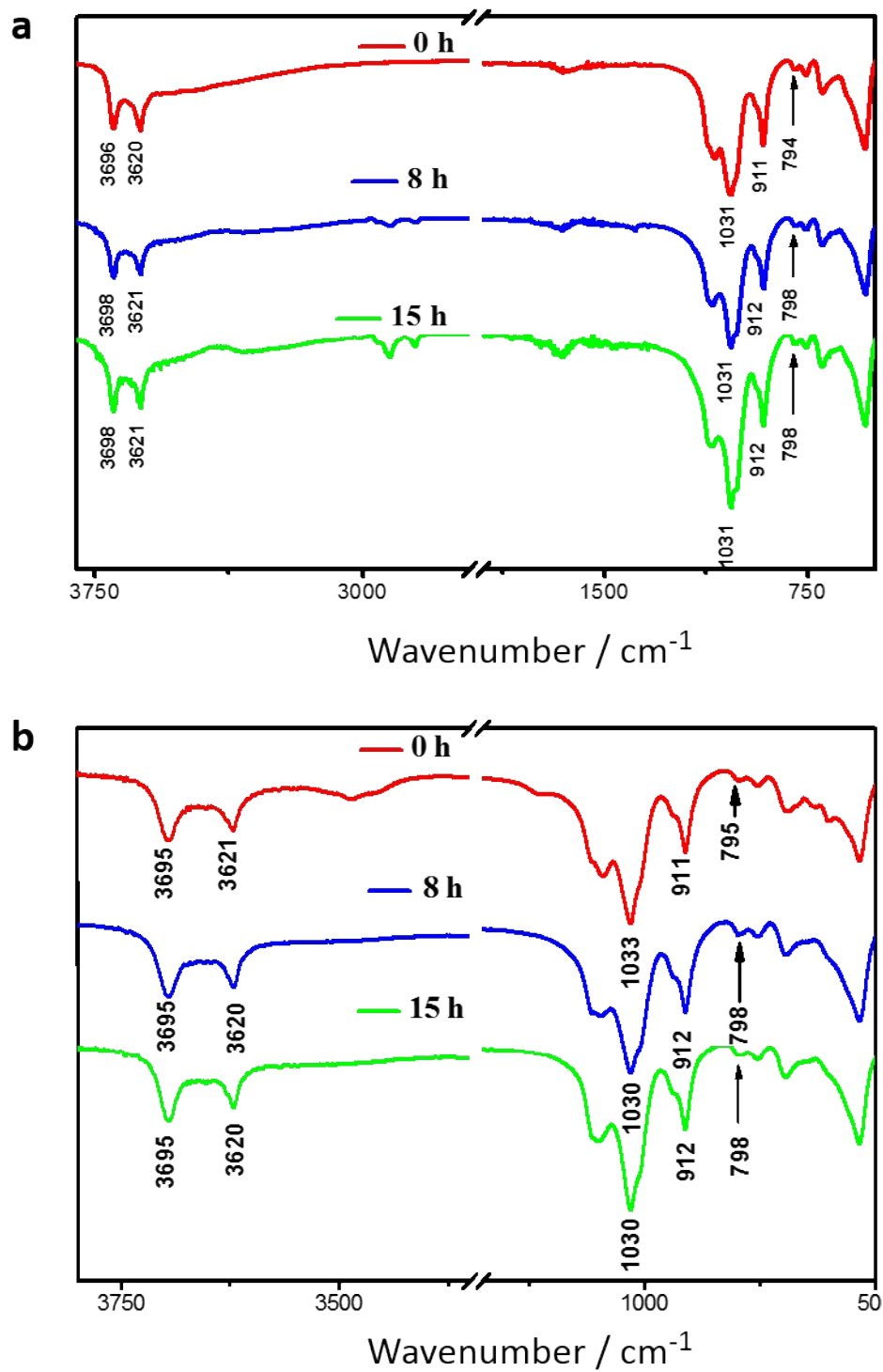


Fig. S7 FTIR characterizations of zHNTs (a) and sHNTs (b) after various etching time.

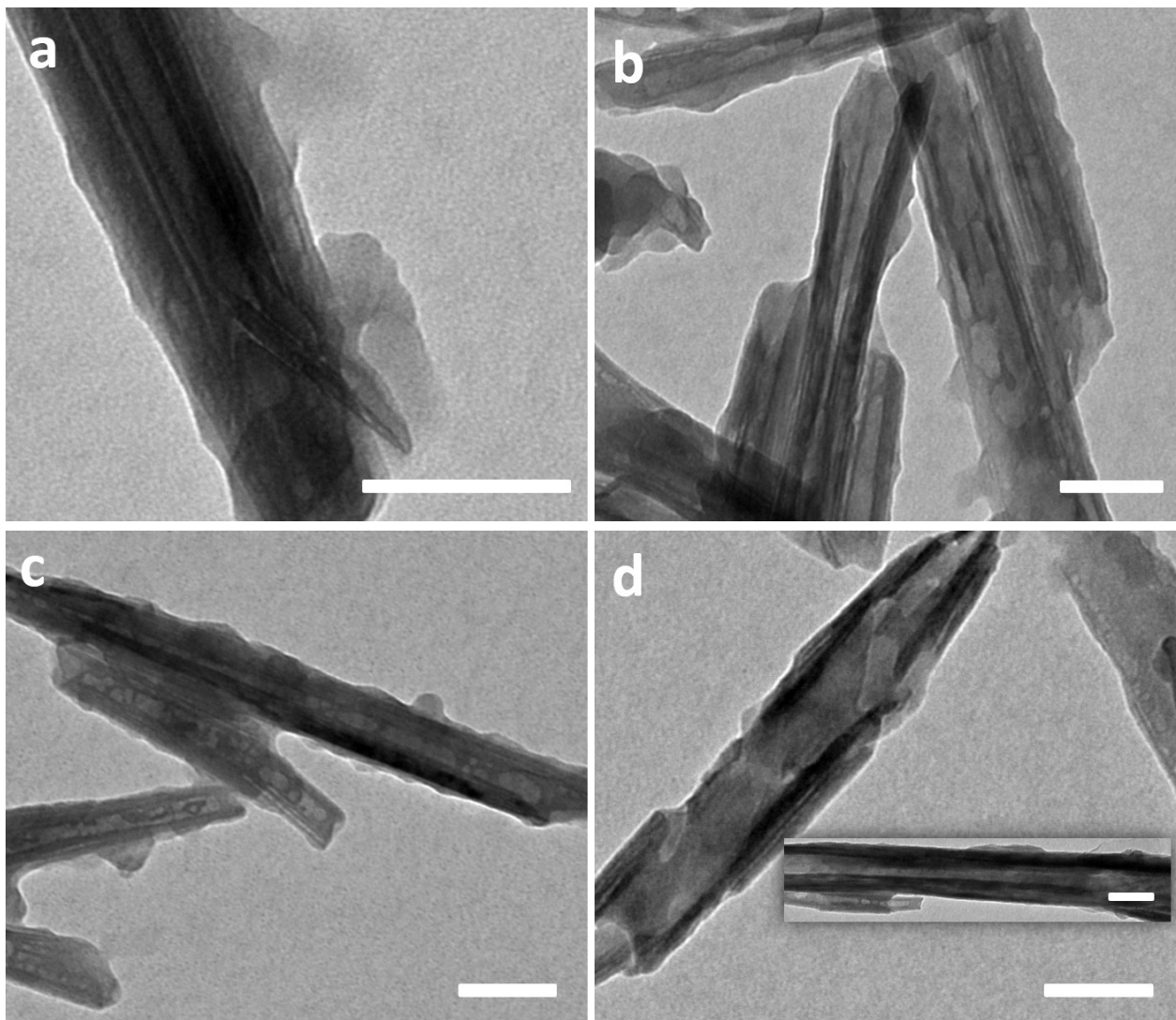
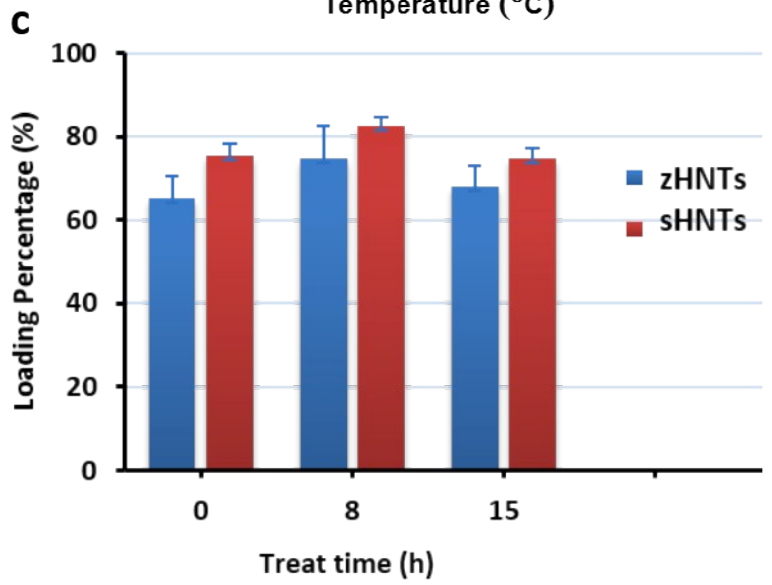
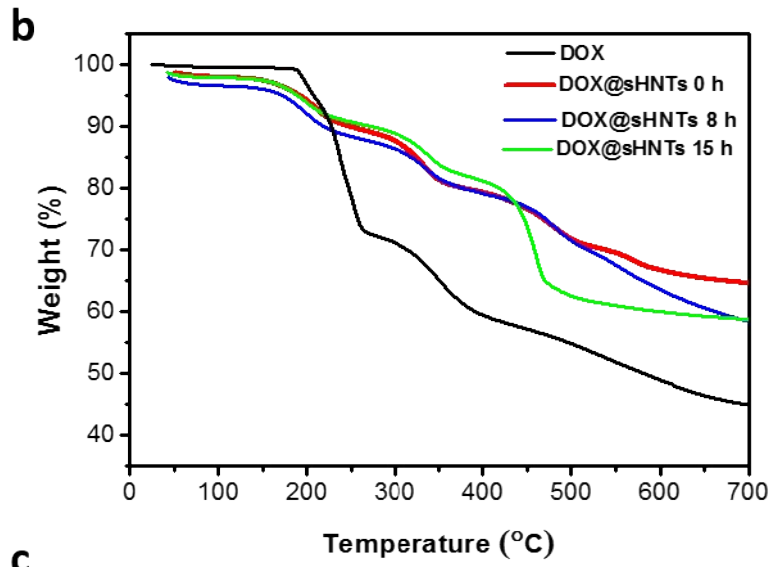
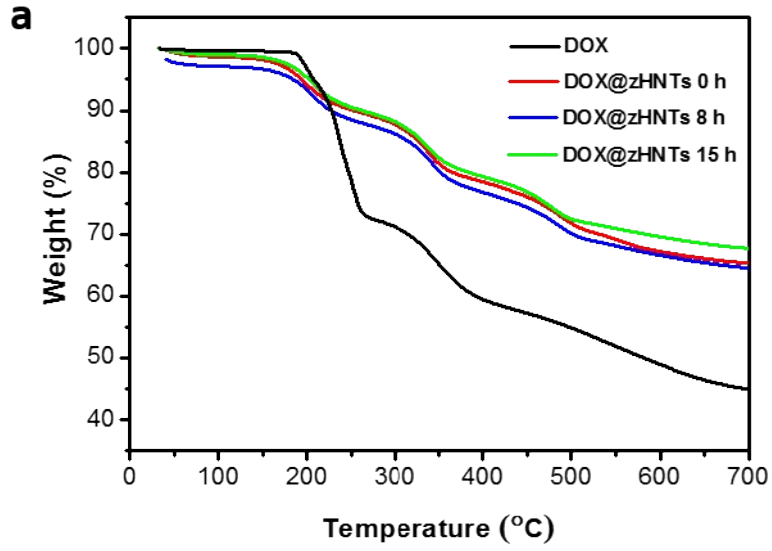


Fig. S8 TEM images of DOX@zHNTs (a, b) and DOX@sHNTs (c, d). DOX@zHNTs: 0 h (a), 8 h (b); DOX@sHNTs: 0 h (c), 15 h (d). The scale bars in all images are 100 nm.



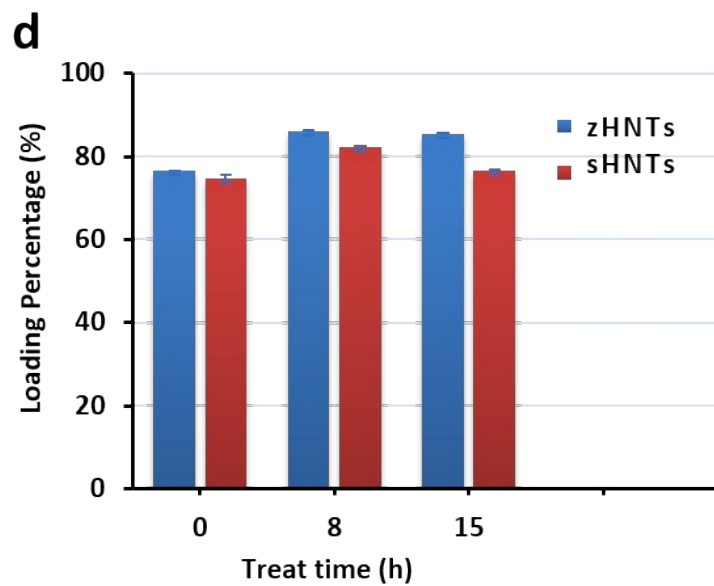


Fig.S9 TGA curves of pure DOX, DOX@zHNTs (a), DOX@sHNTs (b). (c) The loading capacity of DOX on zHNTs and sHNTs calculated based on TGA data and (d) The loading capacity of DOX on zHNTs and sHNTs calculated based on UV-Vis spectra.

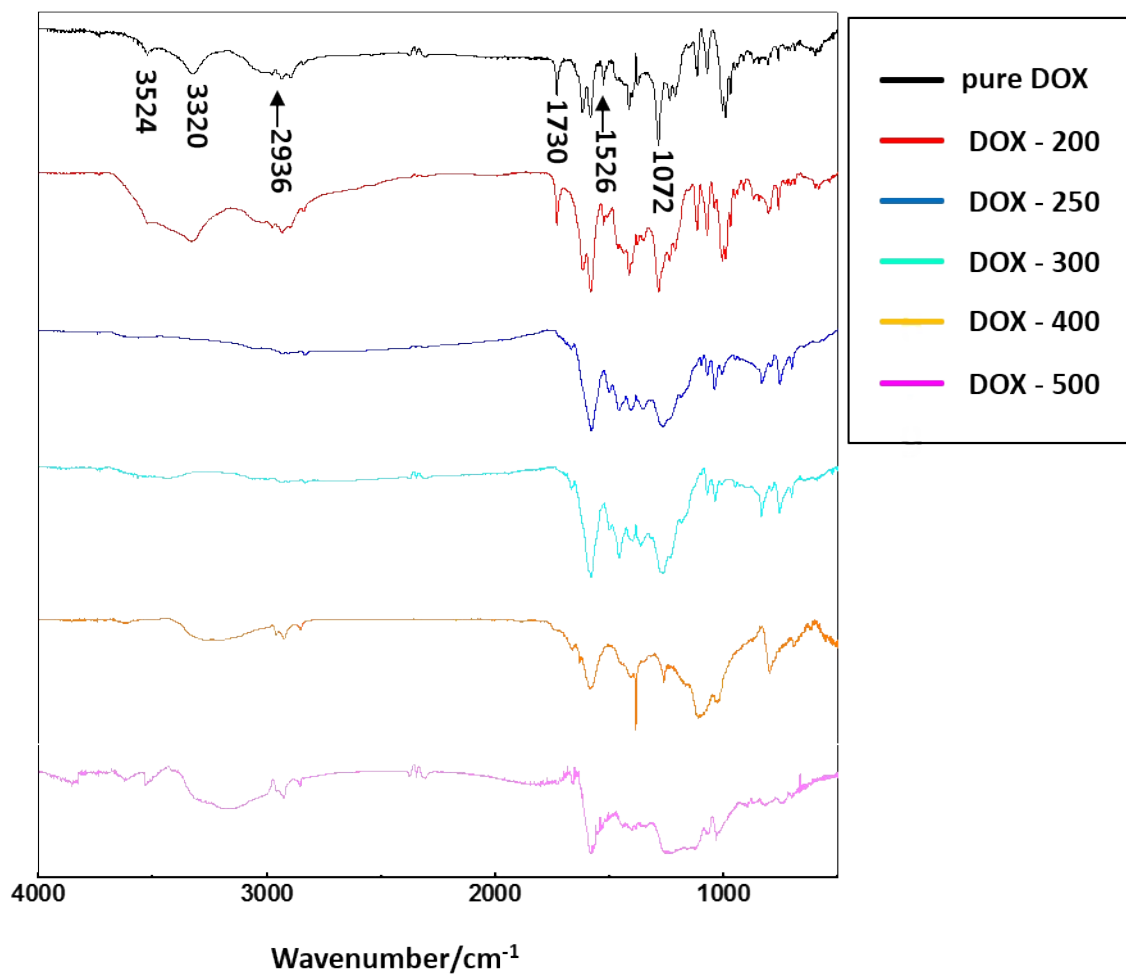


Fig. S10 FTIR spectra of thermally-decomposed DOX products at different temperatures. DOX – 200 to 500 are thermal-decomposed products at various temperatures from 200°C to 500°C. The FTIR spectrum of pure DOX is used as a contrast.

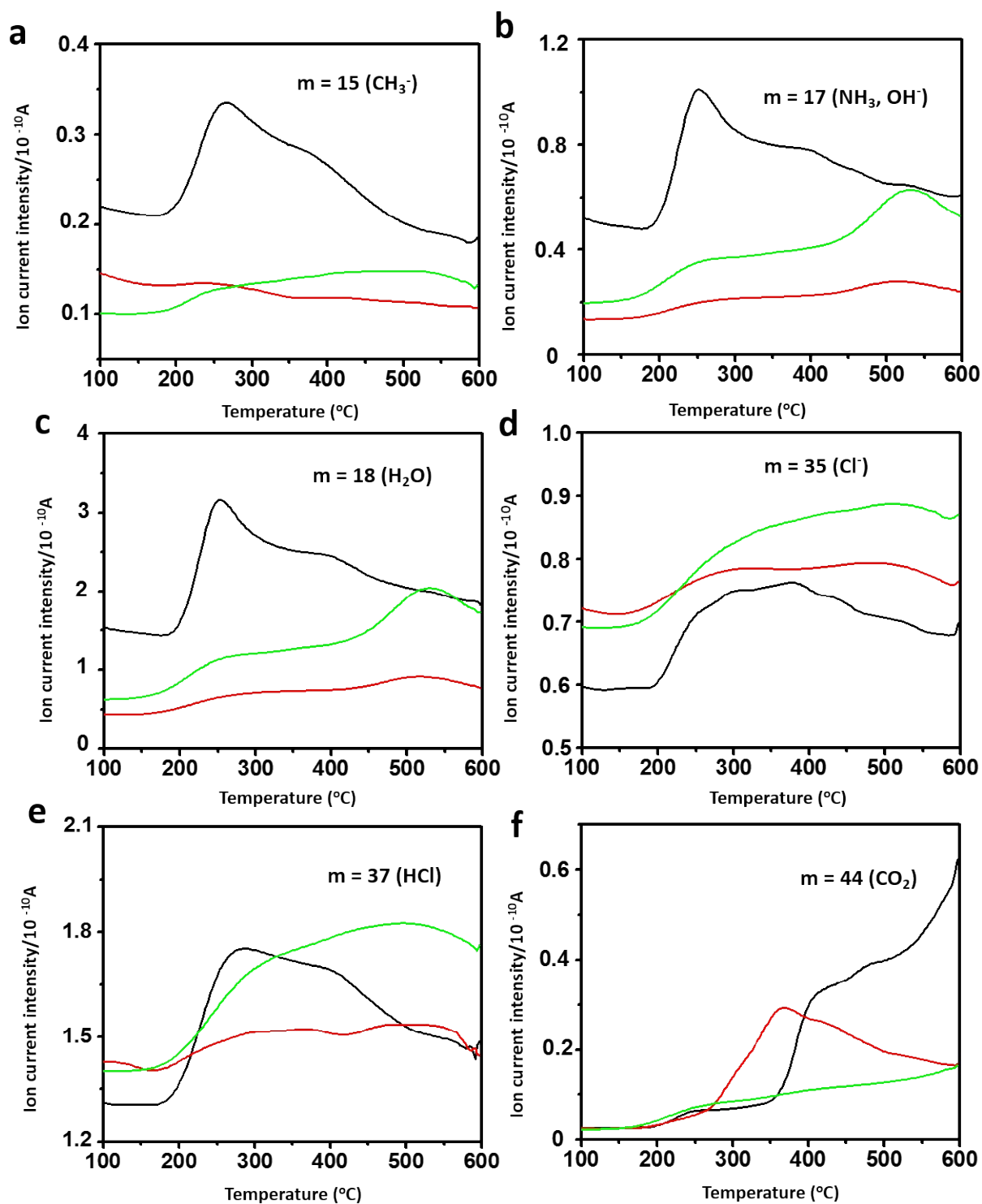


Fig. S11 Ion current intensity of six detected ions with pure DOX, DOX@zHNTs 0 h and DOX@sHNTs 0 h, (a) CH_3^- ; (b) OH^- , NH_3 ; (c) H_2O ; (d) Cl^- ; (e) HCl ; (f) CO_2 . The black line is pure DOX; light green line is DOX@zHNTs, red line is DOX@sHNTs.