

Electronic supplementary information (ESI):

Hollow hydroxyapatite/polyelectrolyte hybrid microparticles with controllable size, wall thickness and drug delivery property

Jing Wei, Jun Shi*, Qiong Wu, Liu Yang and Shaokui Cao*

Figure Captions:

Fig. S1 SEM micrographs and corresponding EDX spectra of vaterite CaCO_3 cores (A1 and A2), 6h-HAP (B1 and B2), 6h-HAP/CHI/HA (C1 and C2) and 6h-HAP/CHI/HA microparticles (D1 and D2). 1 refers to SEM micrograph and 2 refers to EDX spectrum.

Fig. S2 N_2 adsorption/desorption isotherms of 3h-H-HAP microparticles (A) and the corresponding pore size distribution curves (B)

Fig. S3 Plots of $\ln(M_t/M_\infty)$ versus $\ln t$ for hybrid microparticles at pH 7.4 and 37 °C (A), and plots of $\ln(M_t/M_\infty)$ versus $\ln t$ for hybrid microparticles at pH 2.1 and 37 °C (B).

Table Captions:

Table S1 Parameters n , k and R^2 determined by Eq. (1) for the DOX release of hybrid microparticles at different release conditions

Sample	Release conditions	k	n	R^2
12h-H-HAP	pH=7.4	0.212	0.352	0.998
12h-H-HAP/CHI/HA	pH=7.4	0.179	0.368	0.983
6h-H-HAP/CHI/HA	pH=7.4	0.138	0.468	0.992
3h-H-HAP/CHI/HA	pH=7.4	0.098	0.489	0.958
12h-H-HAP/CHI/HA	pH=2.1	0.619	0.152	0.908
6h-H-HAP/CHI/HA	pH=2.1	0.555	0.189	0.927
3h-H-HAP/CHI/HA	pH=2.1	0.459	0.229	0.973

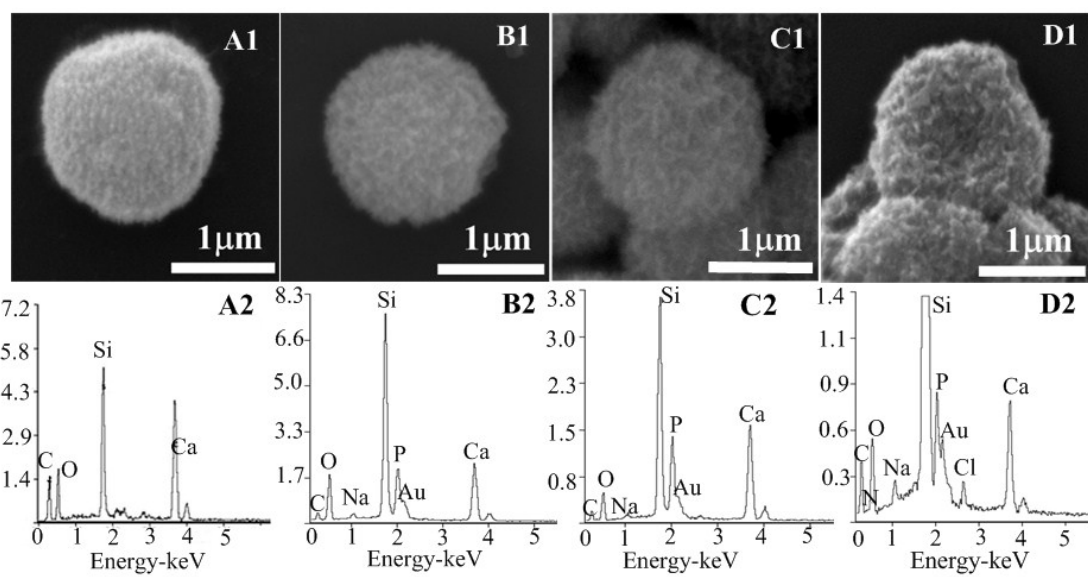


Fig. S1

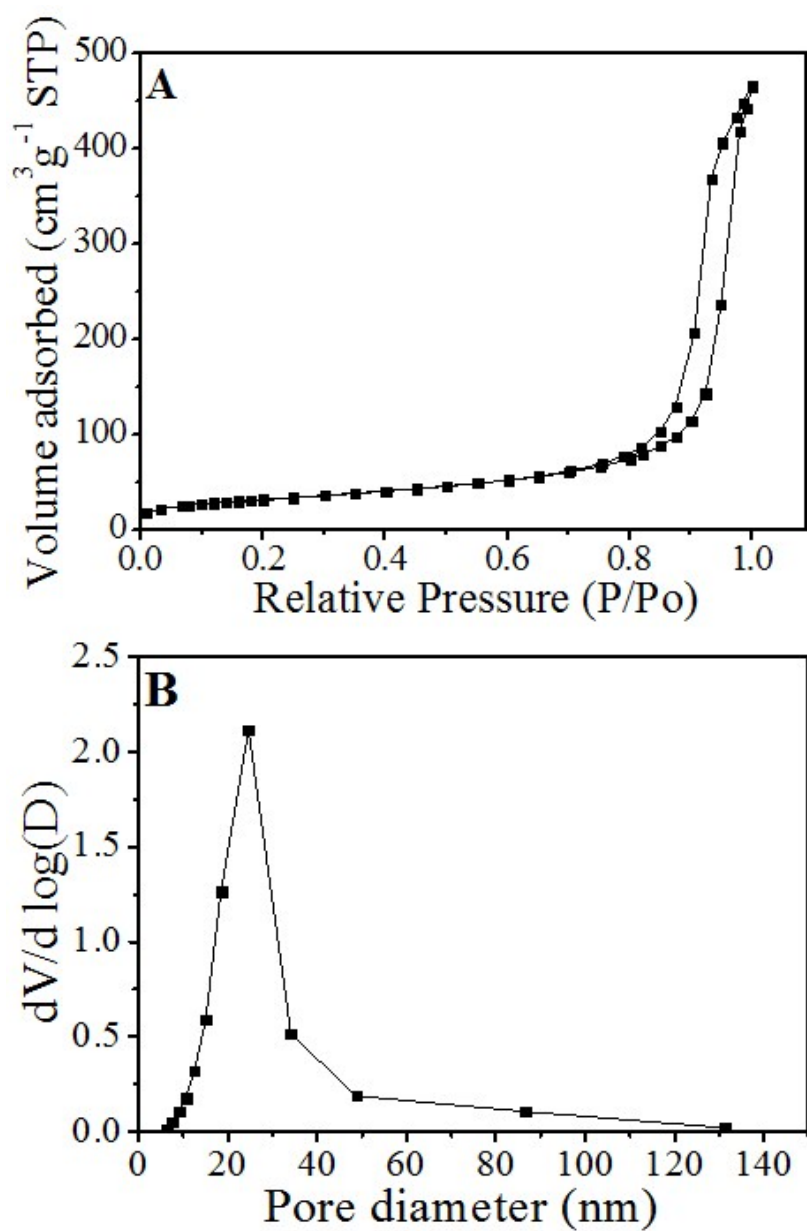


Fig. S2

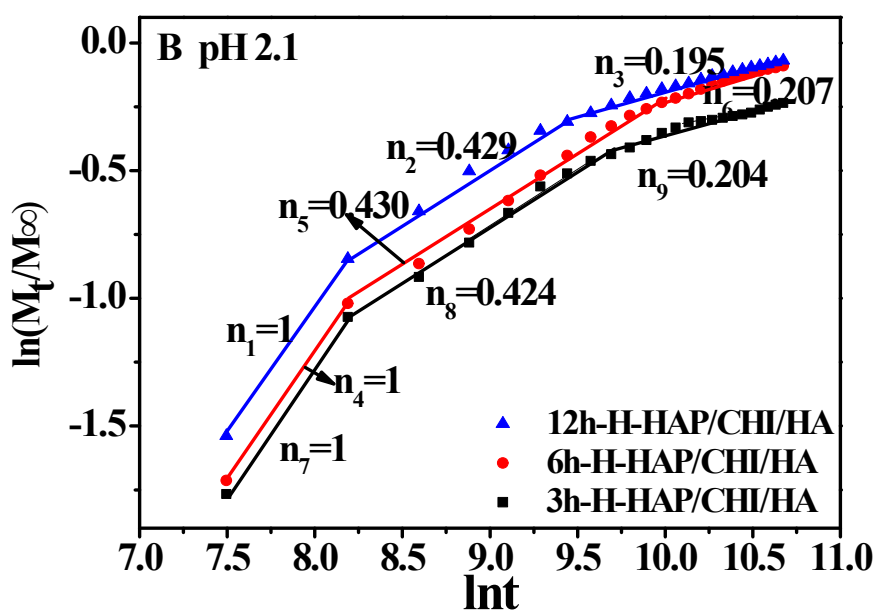
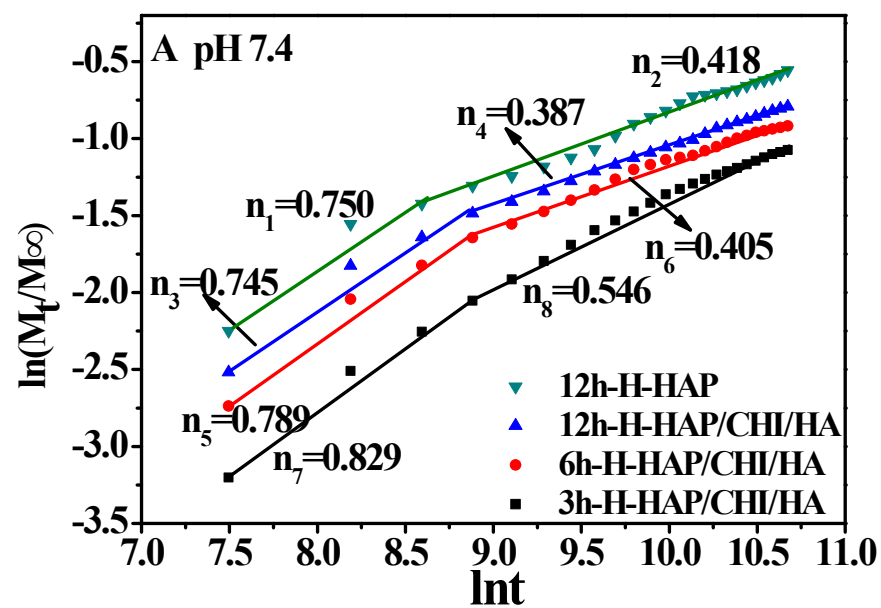


Fig. S3