Electronic Supporting Information

Fucoidan coated core-shell magnetic mesoporous silica nanoparticles for chemotherapy and magnetic hyperthermia-based thermal therapy applications

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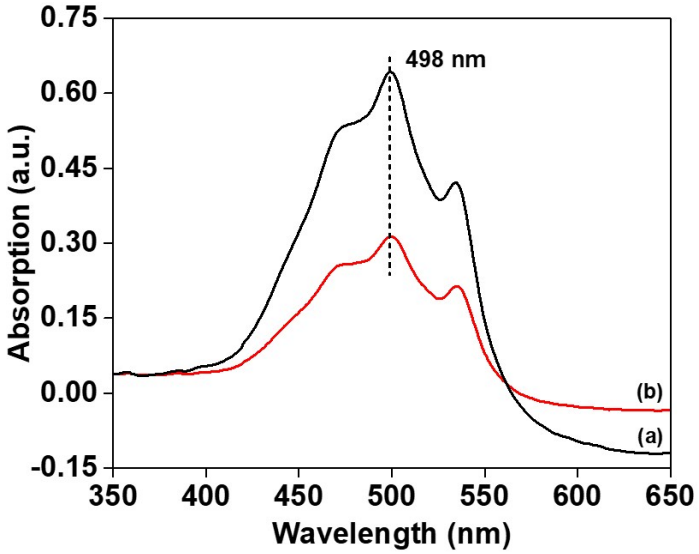

Figure S1 UV-vis spectra of (a) initial concentration of Dox solution; and (b) final concentration of Dox solution after absorption by FeNP@SiOH@Fuc NPs.

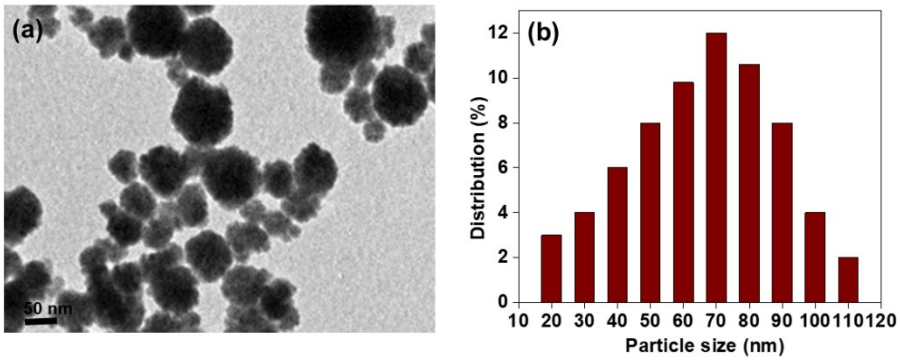

Figure S2 (a) FETEM and (b) the corresponding particle size distribution of the pristine Fe_3O_4 nanoparticles.

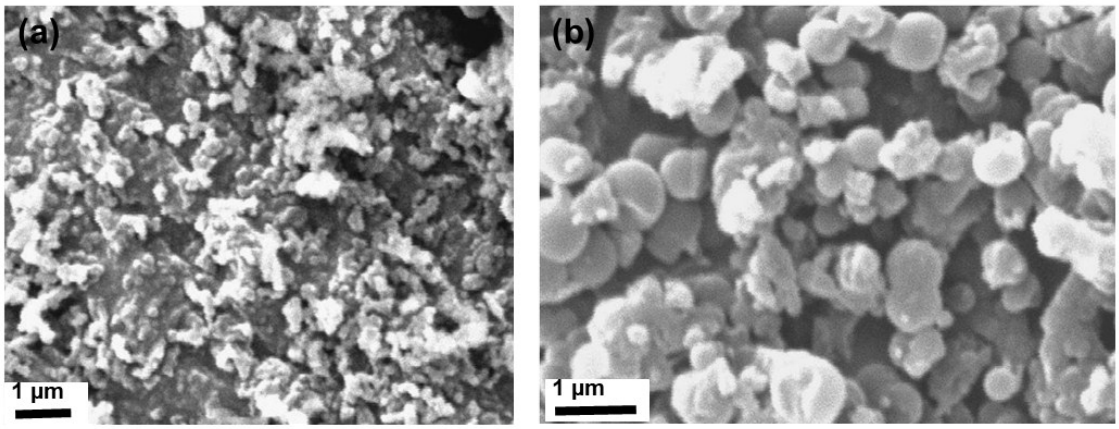

Figure S3 FESEM images of the (a) pristine Fe_3O_4 nanoparticles and the (b) FeNP@SiOH@Fuc NPs, respectively.

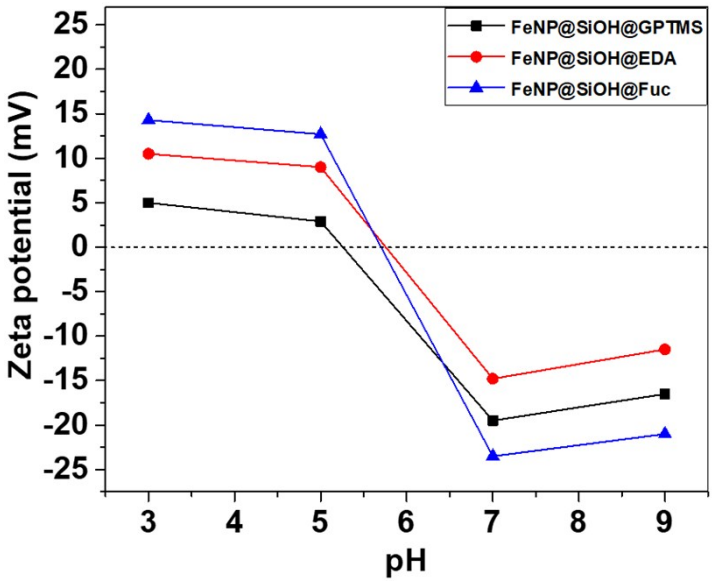

Figure S4 Zeta potentials of FeNP@SiOH@GPTMS; FeNP@SiOH@EDA and FeNP@SiOH@Fuc nanoparticles as a function of different pH (pH 3, 5, 7 and 9) conditions.

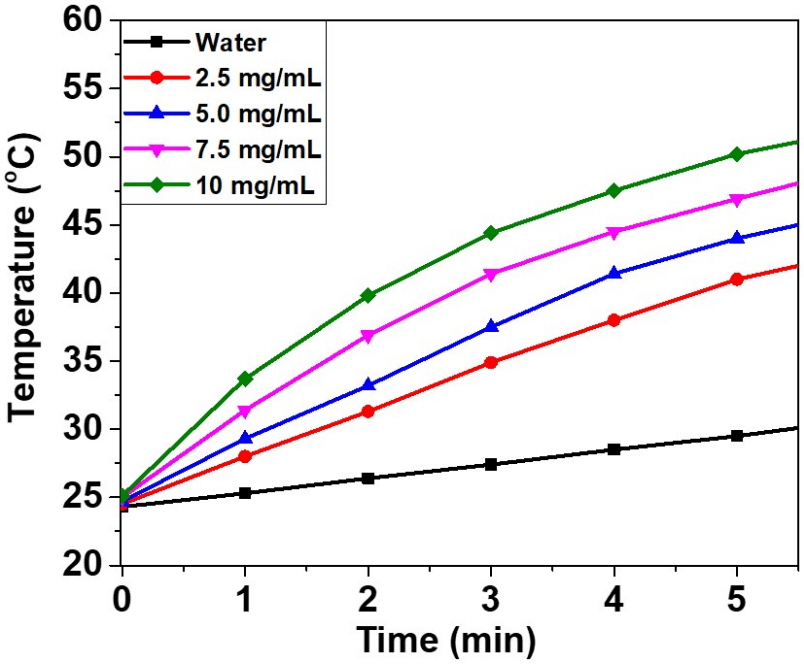

Figure S5 Thermal response curves of FeNP@SiOH@Fuc NPs dispersed in water with the different concentrations and subjected to an AMF (f = 409 kHz and H = 180 Gauss).

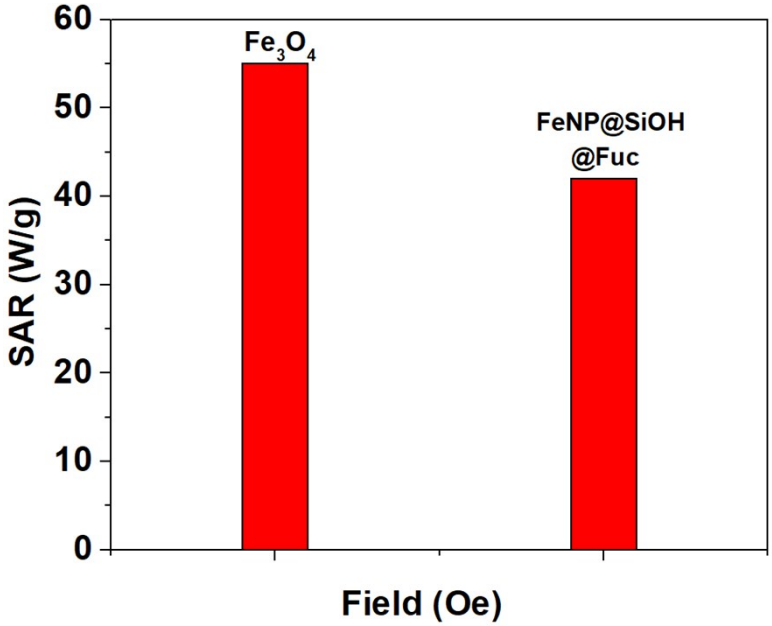

Figure S6 The SAR values of pristine Fe_3O_4 nanoparticles and FeNP@SiOH@Fuc NPs under magnetic field frequency f = 409 kHz and applied magnetic field H = 180 Gauss.

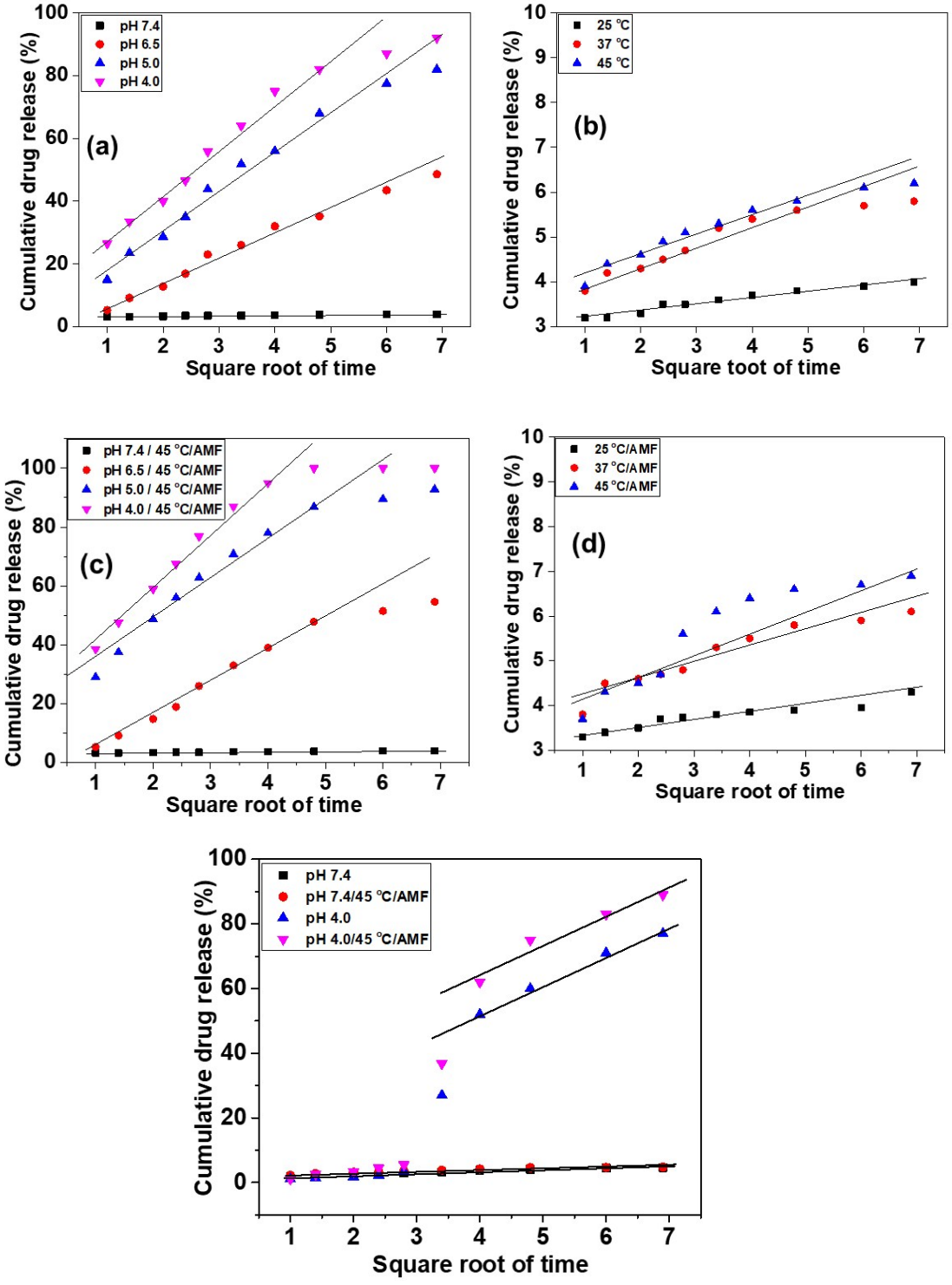

Figure S7 Higuchi release profile of Dox from the FeNP@SiOH@Fuc NPs system.