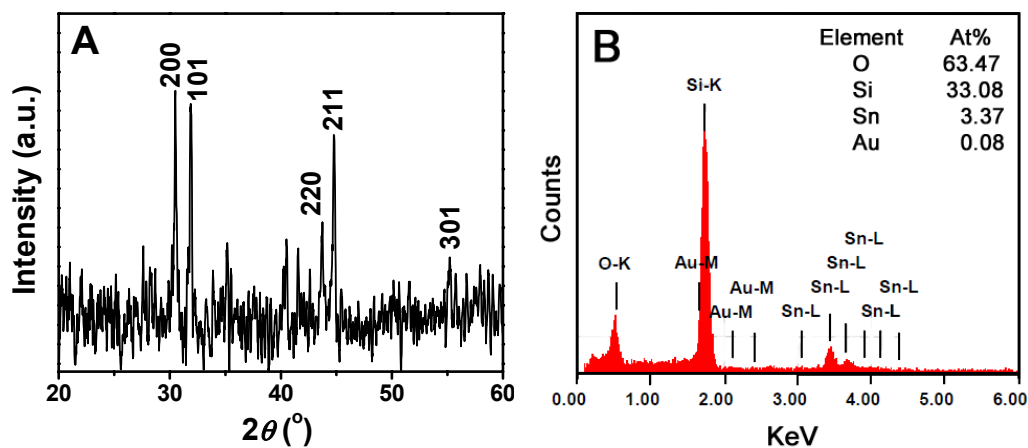
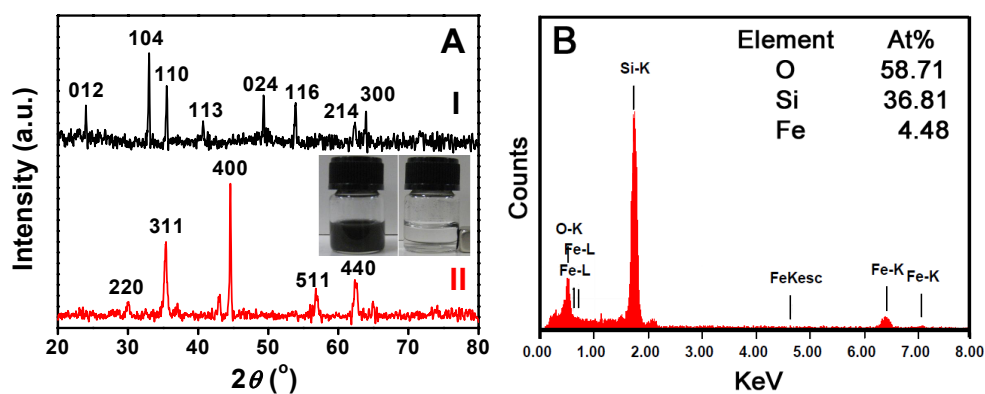


Supporting Information for

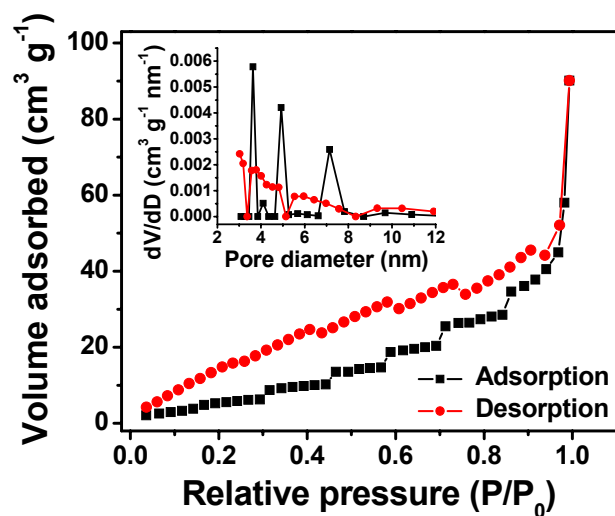
### SiO<sub>2</sub>-based Complex Nanorattles as Multifunctional Carrier for Anticancer Drugs



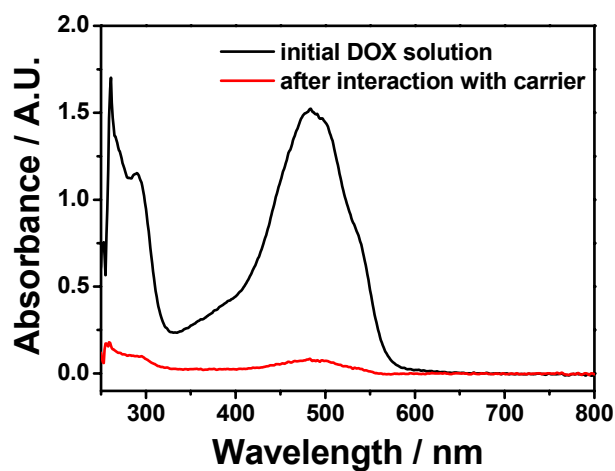
**Fig. S1** XRD pattern (A) and Energy-dispersive X-ray spectrum (EDX; B) of Au-Sn@SiO<sub>2</sub> nanorattles.



**Fig. S2** XRD patterns (A) of α-Fe<sub>2</sub>O<sub>3</sub>@SiO<sub>2</sub> nanorattles (I) and Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub> nanorattles (II) after the reduction in H<sub>2</sub>; EDX (B) of Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub> nanorattles. The inset in A is a photograph showing the magnetic separation of Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub> nanorattles in an aqueous suspension.



**Fig. S3** N<sub>2</sub> adsorption-desorption isotherm of the Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub> nanorattles. The inset shows the pore size distribution.



**Fig. S4** UV-vis spectra of DOX before and after interaction with Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub>@SiO<sub>2</sub>.