

Figure S1. pH values at different concentration of (a) DOX@HMSN-PEM and (c) DOX/GOX@HMSN-PEM in DEME (glucose concentration equals to 1 mg/mL), incubated for 3 hours in the dark at 37 °C. H₂O₂ concentration arising from the different concentration of (b) DOX/GOX@HMSN-PEM and (d) DOX/GOX@HMSN-PEM in DEME (glucose concentration equals to 1 mg/mL), incubated for 3 hours in the dark at 37 °C.

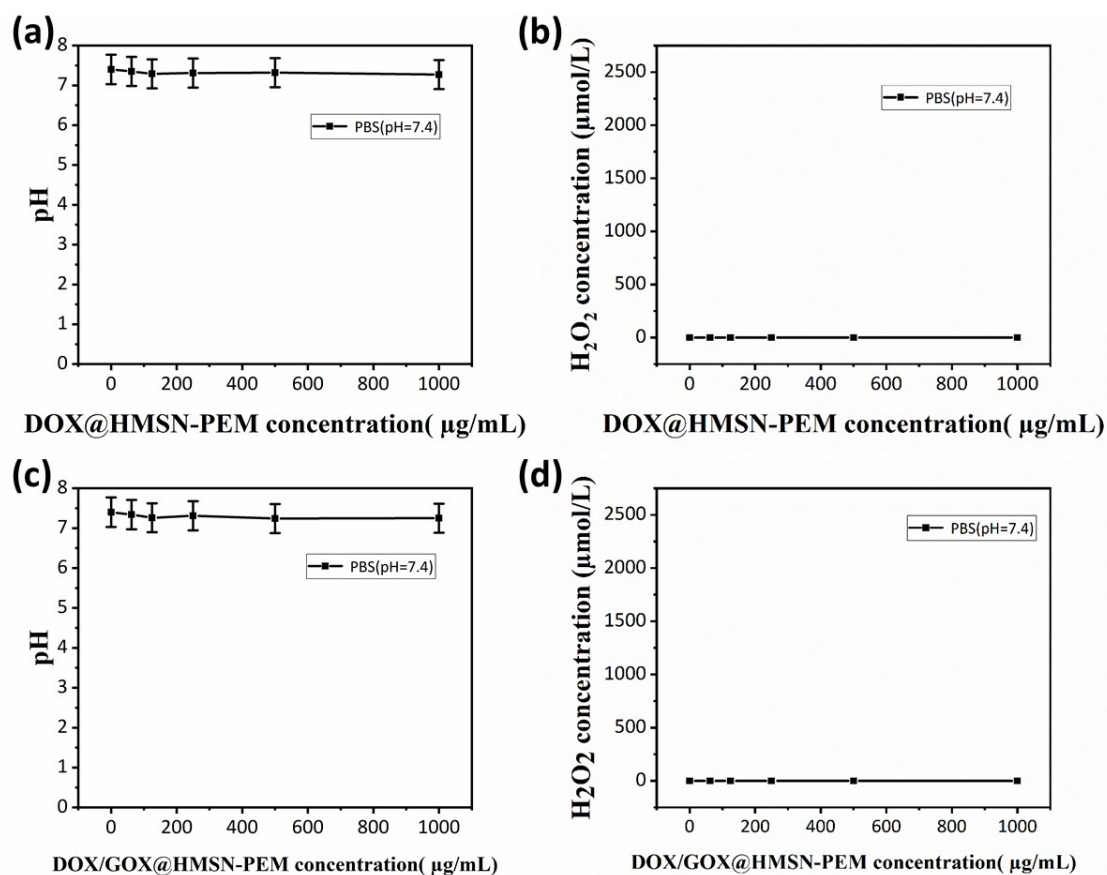


Figure S2. pH values at different concentration of (a) DOX@HMSN-PEM and (c) DOX/GOX@HMSN-PEM in PBS (pH=7.4), incubated for 3 hours in the dark at 37 °C. H_2O_2 concentration arising from the different concentration of (b) DOX/GOX@HMSN-PEM and (d) DOX/GOX@HMSN-PEM in PBS (pH=7.4), incubated for 3 hours in the dark at 37 °C.

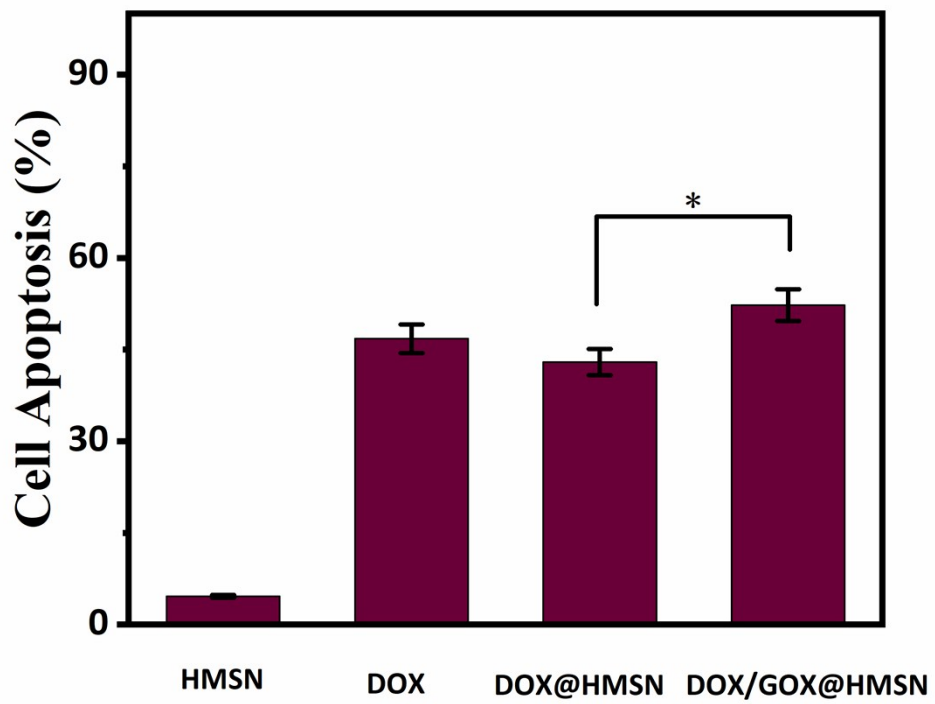


Figure S3. Cell apoptosis induced by HMSN, DOX@HMSN, free DOX, DOX/GOX@HMSN with the same dosage of 5 $\mu\text{g}/\text{mL}$ DOX for 12 h. Data were shown as mean \pm S.D. (n=3). Significance is defined as * $P < 0.05$, ** $P < 0.01$

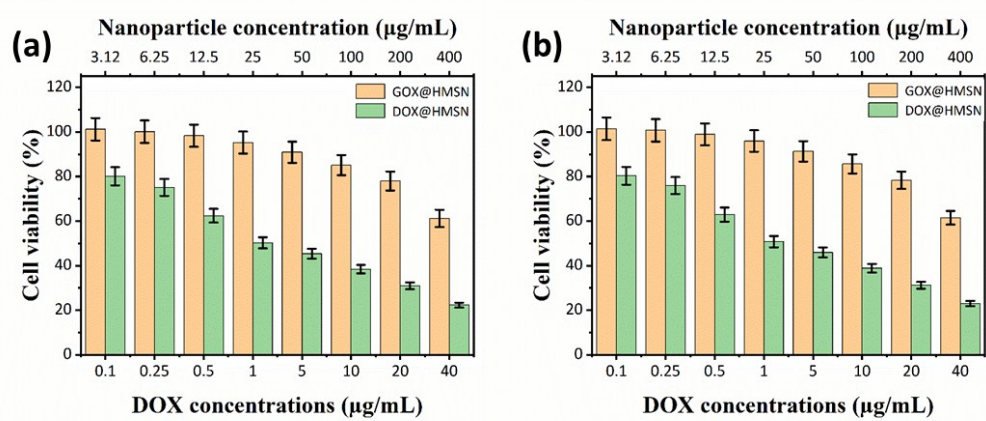


Figure S4. Cell viability rates of A549 (a) and MCF-7(b) treated by different nanoparticles calculated by MTT assay.