Supporting Information

Constructing Cu_7S_4@SiO_2/DOX multifunctional nanoplatforms for synergistic photothermal-chemo therapy on melanoma tumors

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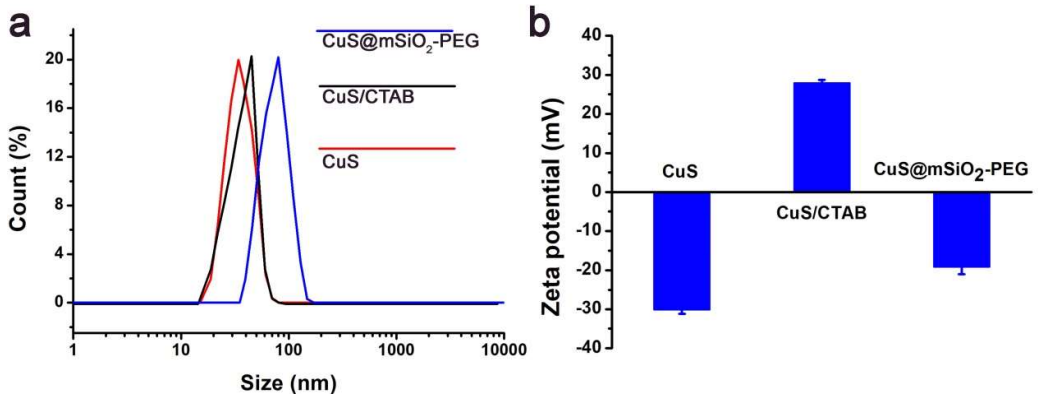

Figure S1. The size (a) and zeta potential (b) of CuS, CuS/CTAB and CuS@mSiO$_2$-PEG nanoparticles.

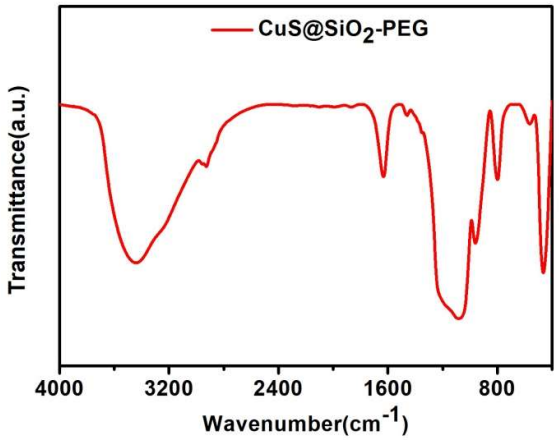

Figure S2. FTIR spectra of CuS@SiO_2-PEG.

The sample shows a broad band at 3432 cm^{-1} due to OH stretching; the band at 2931 cm^{-1} are corresponding to CH_2 symmetric stretching, respectively; the band at 1635 cm^{-1} are assigned to C=O symmetric stretching; the band at 1471 cm^{-1} corresponds to CH_2 scissoring vibrations; In addition, the band at 1082 cm^{-1} is contributed to C-O stretching vibration coordinating to metal cations. These results indicated that the surface polymer coated on CuS@SiO_2 was PEG.

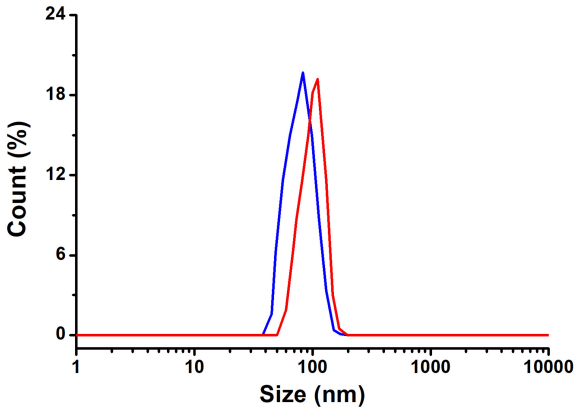

Figure S3. Dynamic light scattering (DLS) data of as-prepared (blue line) and stored (in water for 7 days) Cu_7S_4@SiO_2 core-shell nanoparticles.

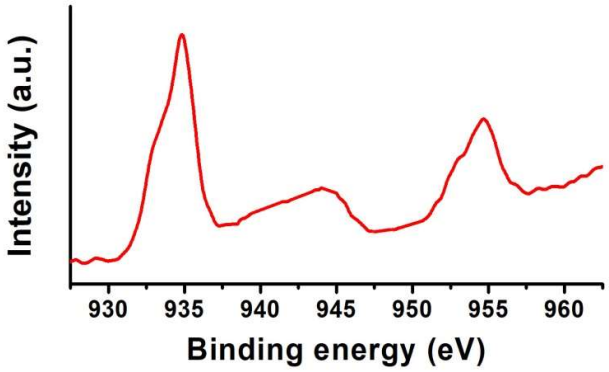

Figure S4. XPS spectra of Cu 2p in the Cu_7S_4@SiO_2 nanoparticles.

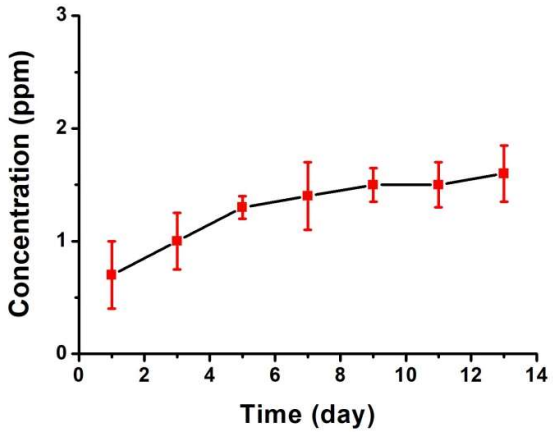

Figure S5. The Cu^{2+} release of Cu_7S_4@SiO_2 nanoparticles (2 mg/mL) in PBS.

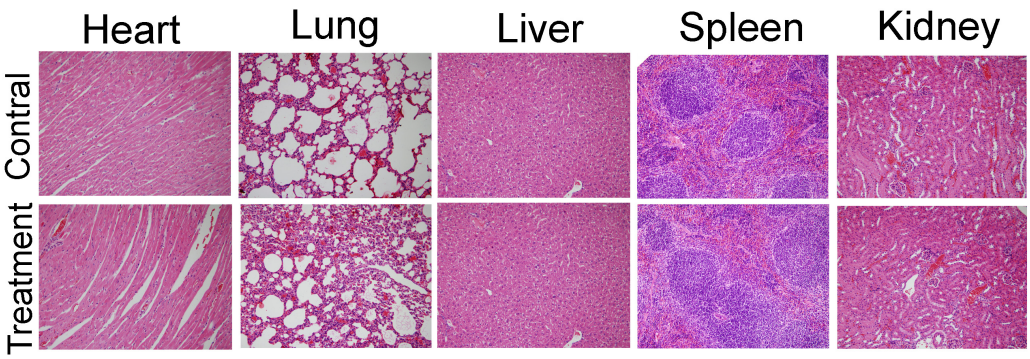

Figure S6. H&E stained slices of main organs. Magnification: 200 times.