# Supplemental Information

## for

## Homogeneous $Cs_xWO_3$ Nanorods with Broad Near-Infra-Red Absorption for Photothermal Ablation Cancer Therapy

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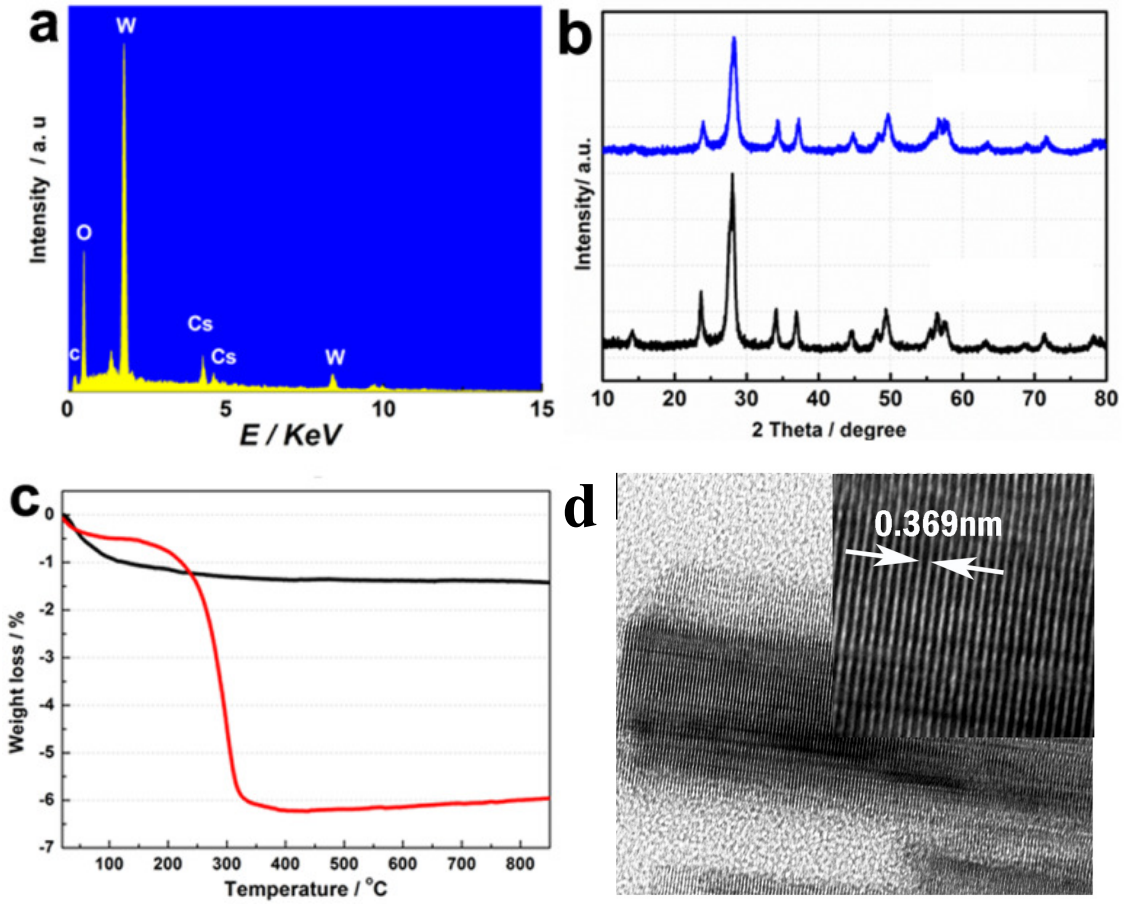


**Figure SI 1. (a)** EDS spectra of as-prepared $Cs_xWO_3$ nanorod performed on the TEM device; **(b)** XRD patterns of as-prepared $Cs_xWO_3$ (black) and $Cs_xWO_3$-PEGS (blue)

nanorods; **(c)** weight loss curves of as-prepared $Cs_xWO_3$ (black) and $Cs_xWO_3$-PEGS (red) nanorods as determined by TG-DTA analysis.

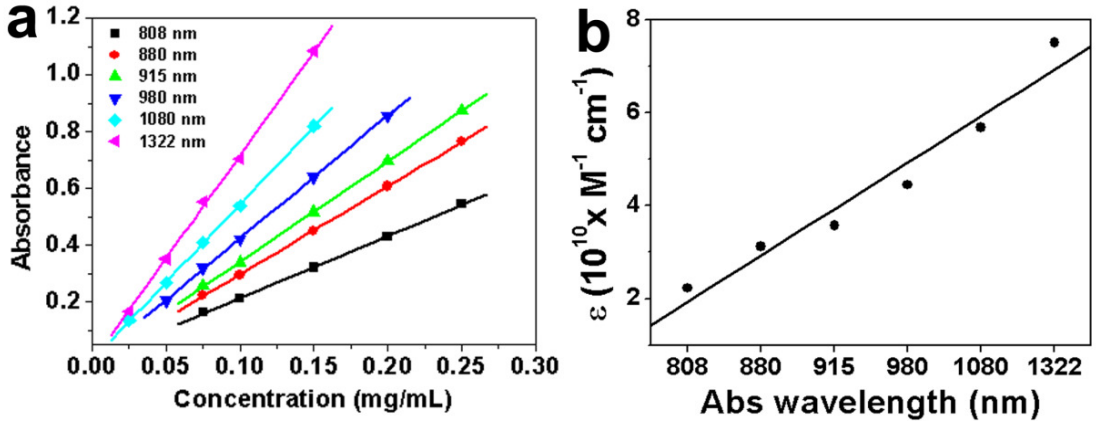


**Figure SI 2. (a)** Linear correlations between NIR absorbance and $Cs_xWO_3$-PEGS nanorod concentrations determined at various wavelengths; **(b)** Linear correlation between calculated molar excitation coefficient (**ε**) and NIR wavelengths.

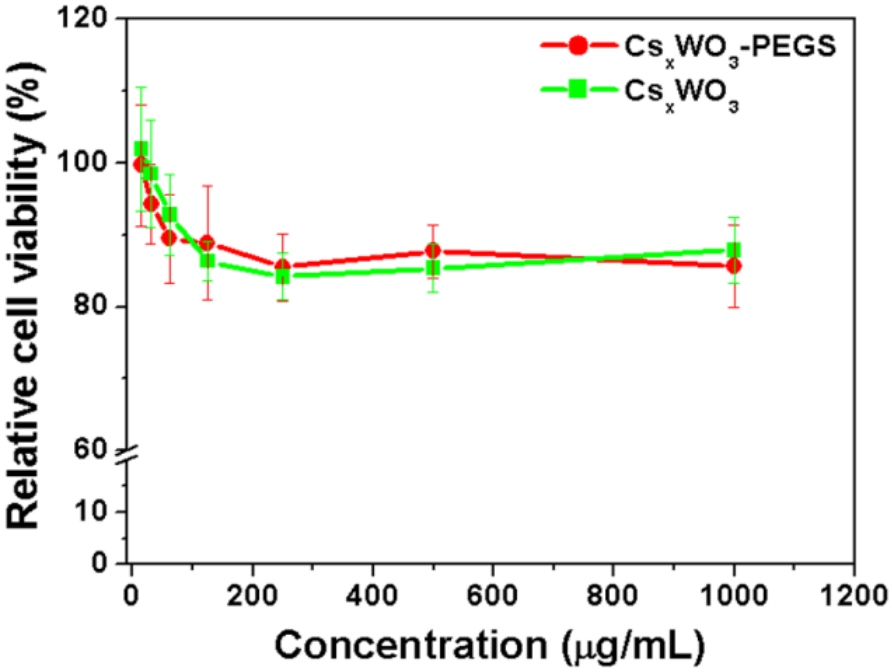


**Figure SI 3.** Cytotoxicity for $Cs_xWO_3$ (green curve) and $Cs_xWO_3$-PEGS (red curve) nanorods as determined by MTT **assay.**

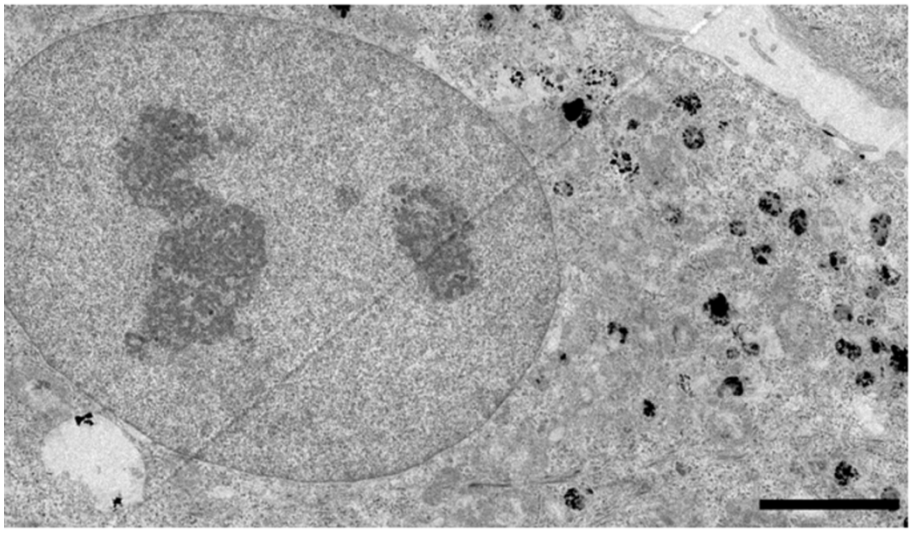

**Figure SI 4.** TEM image of intracellular distribution of $Cs_xWO_3$-PEGS nanorods in A549 cells (scale bar 4 μm), no nuclear entry of the nanorods was found.

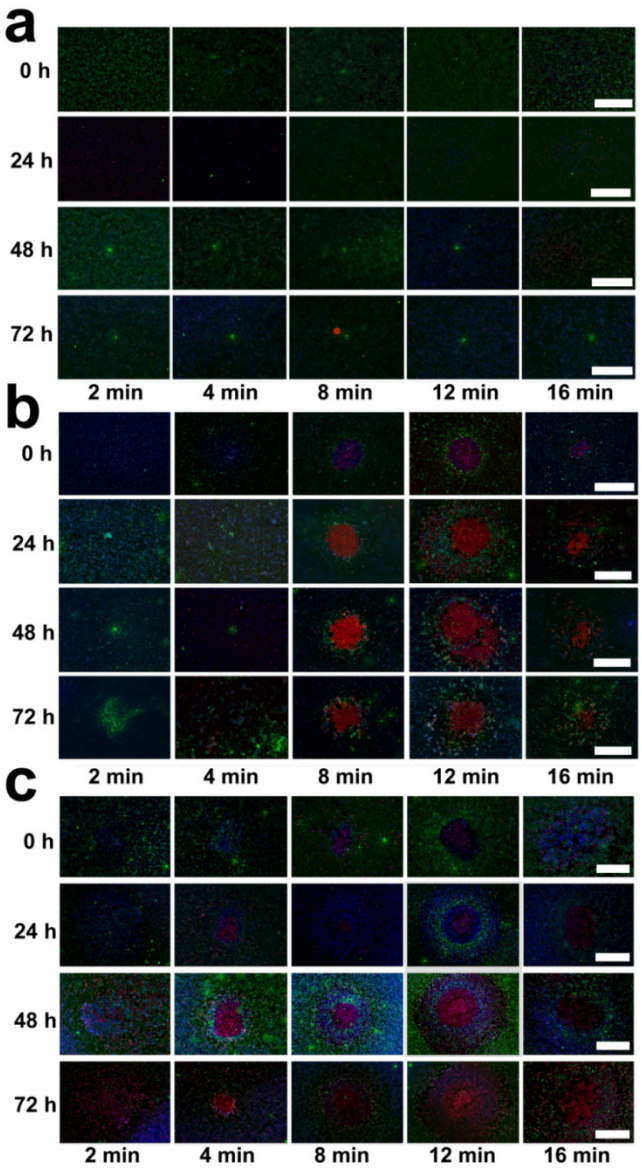


**Figure SI 5.** Fluorescence images of HeLa cells irradiated with 980 nm laser for different time durations. (a) nanorod untreated cell control (scale bar 500 μm applied for all images); (b) HeLa cells were incubated with 0.25 mg/mL of $Cs_xWO_3$-PEGS nanorods (scale bar 500 μm applied for all images); (c) HeLa cells were incubated with 0.50 mg/mL of $Cs_xWO_3$-PEGS nanorods (scale bar 1000 μm applied for all

images). The images were taken 0 h, 24 h, 48 h, and 72 h post NIR irradiation via Calcein AM/EthD-1/Hoechst staining.

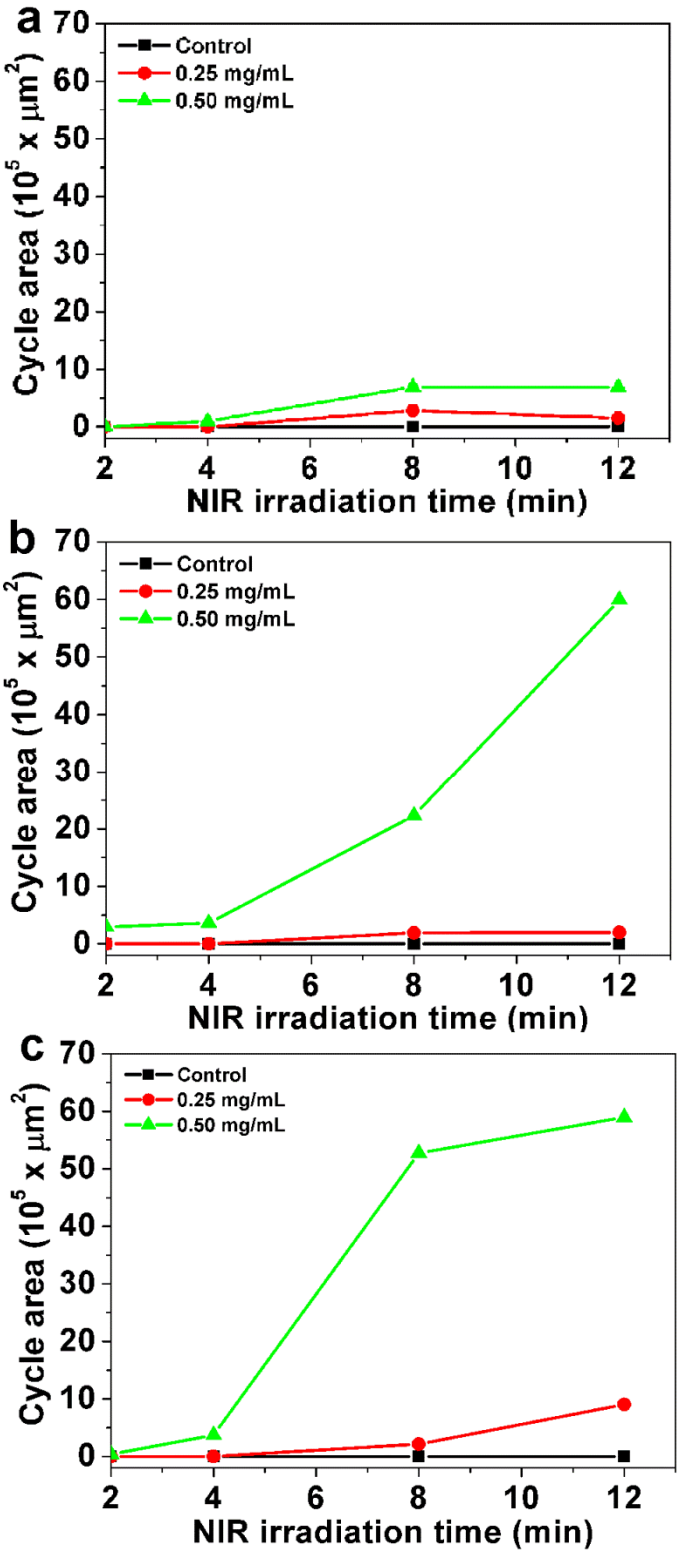


**Figure SI 6.** Cycle area of HeLa cell death as measured with fluorescent images taken at **(a)** 24 h, **(b)** 48 h, and **(c)** 72 h post NIR laser irradiation, respectively.