

## Electronic Supplementary Information

### NIR-I and NIR-II Irradiation Tumor Ablation from NbS<sub>2</sub> Nanosheets Photothermal Agent†

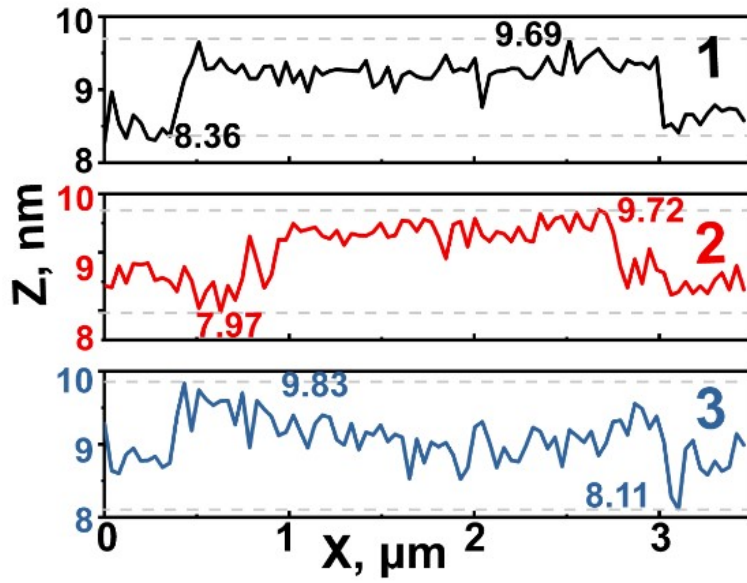
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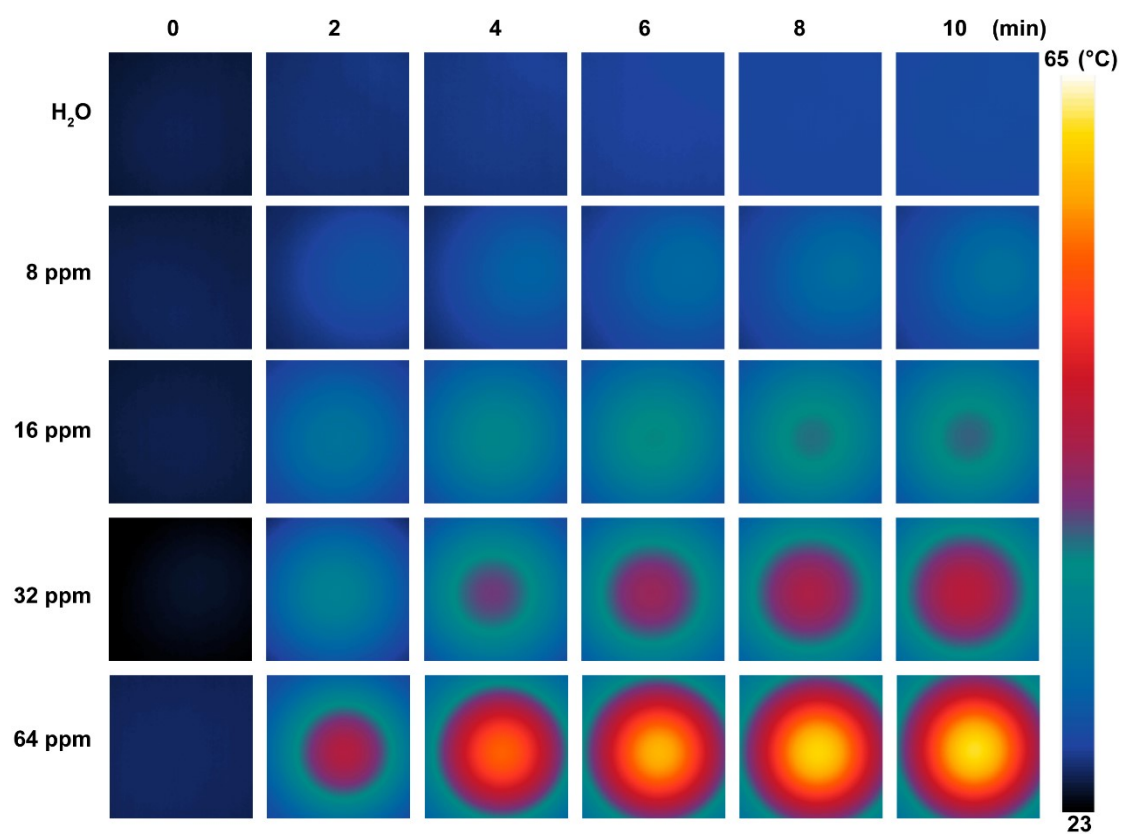
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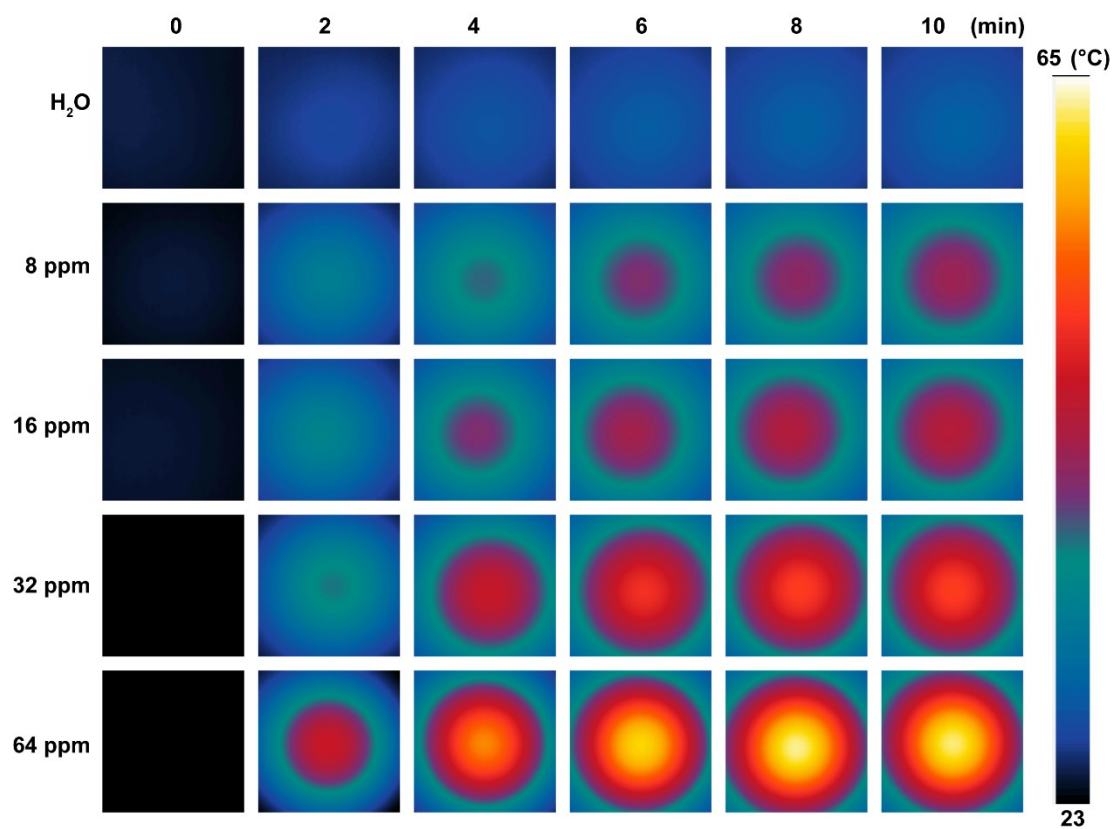
<sup>d</sup> School of Material Science and Engineering, Shanghai University, Shanghai 200444, China



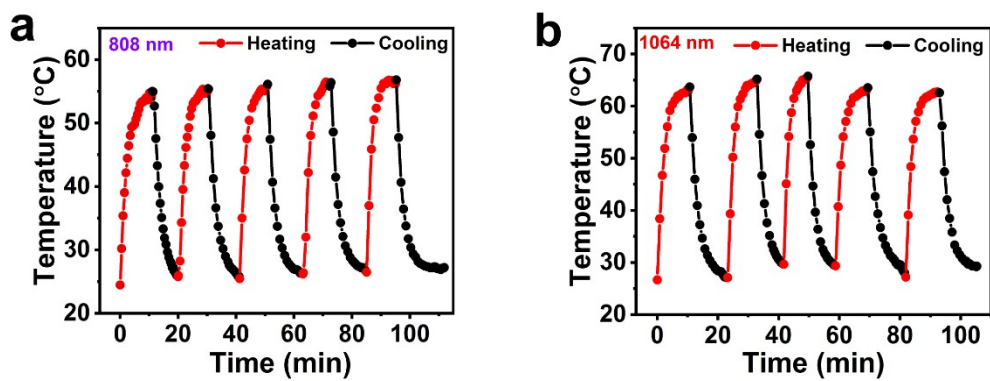
**Fig. S1.** Data analysis of atomic force microscope (AFM) image of Figure 1c in the paper. The number of 1, 2, and 3 is responsive to the marked area in Figure 1c respectively.



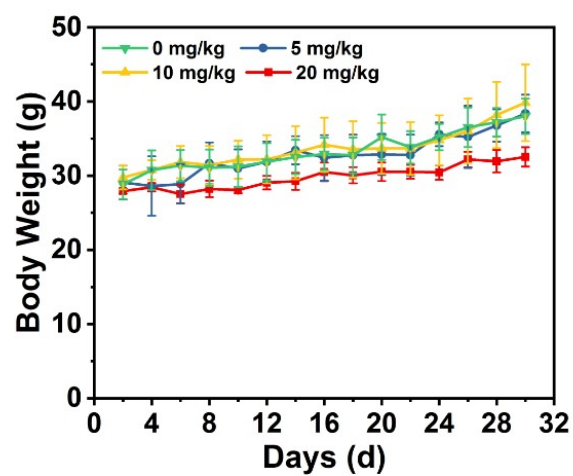
**Fig. S2.** Infrared thermal images of different concentrations of NbS<sub>2</sub>-PVP nanosheets irradiated by 808 nm laser at 1.5 W/cm<sup>2</sup> for 10 min.



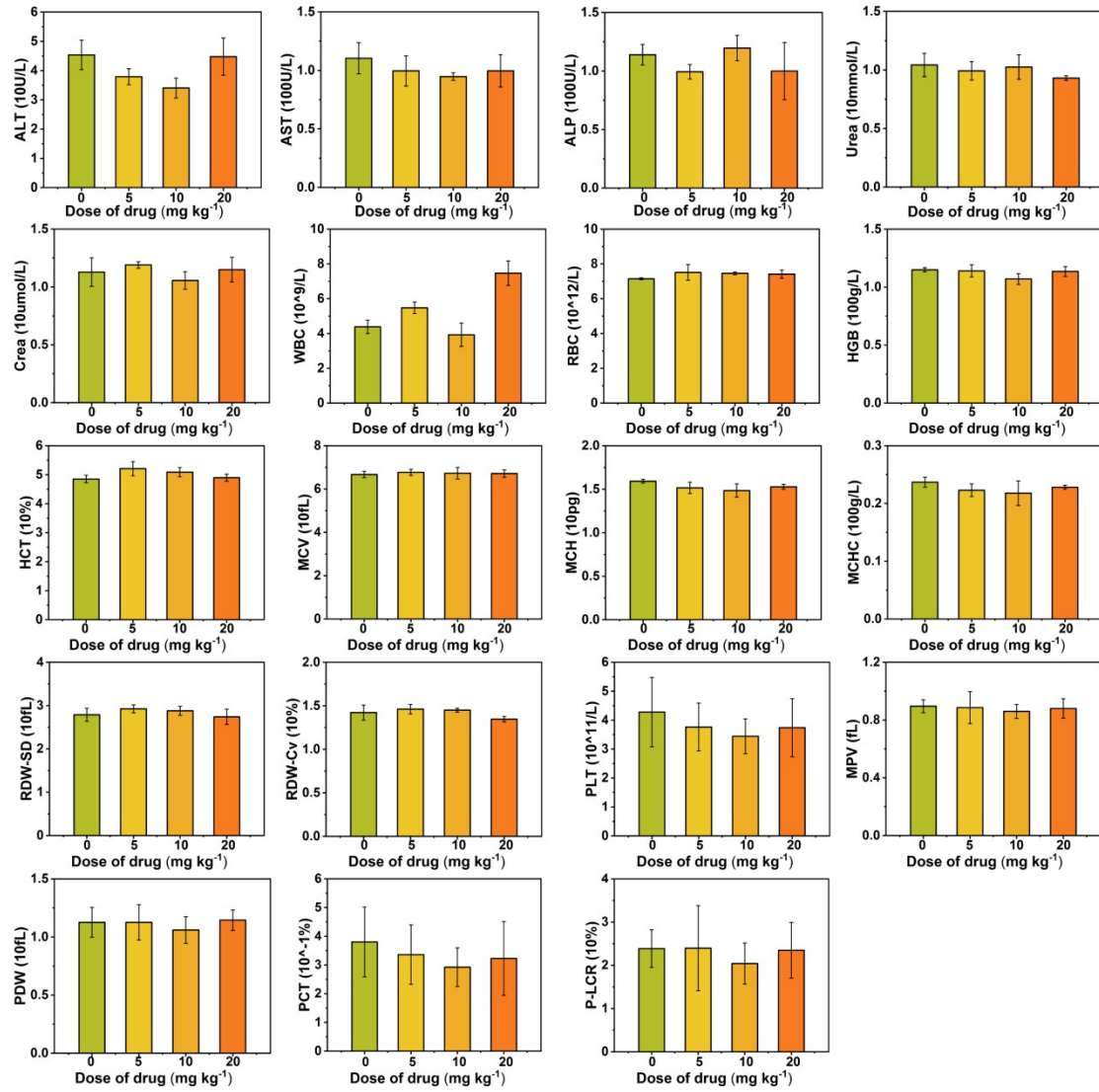
**Fig. S3.** Infrared thermal images of different concentrations of NbS<sub>2</sub>-PVP nanosheets irradiated by 1064 nm laser at 1.5 W/cm<sup>2</sup> for 10 min.



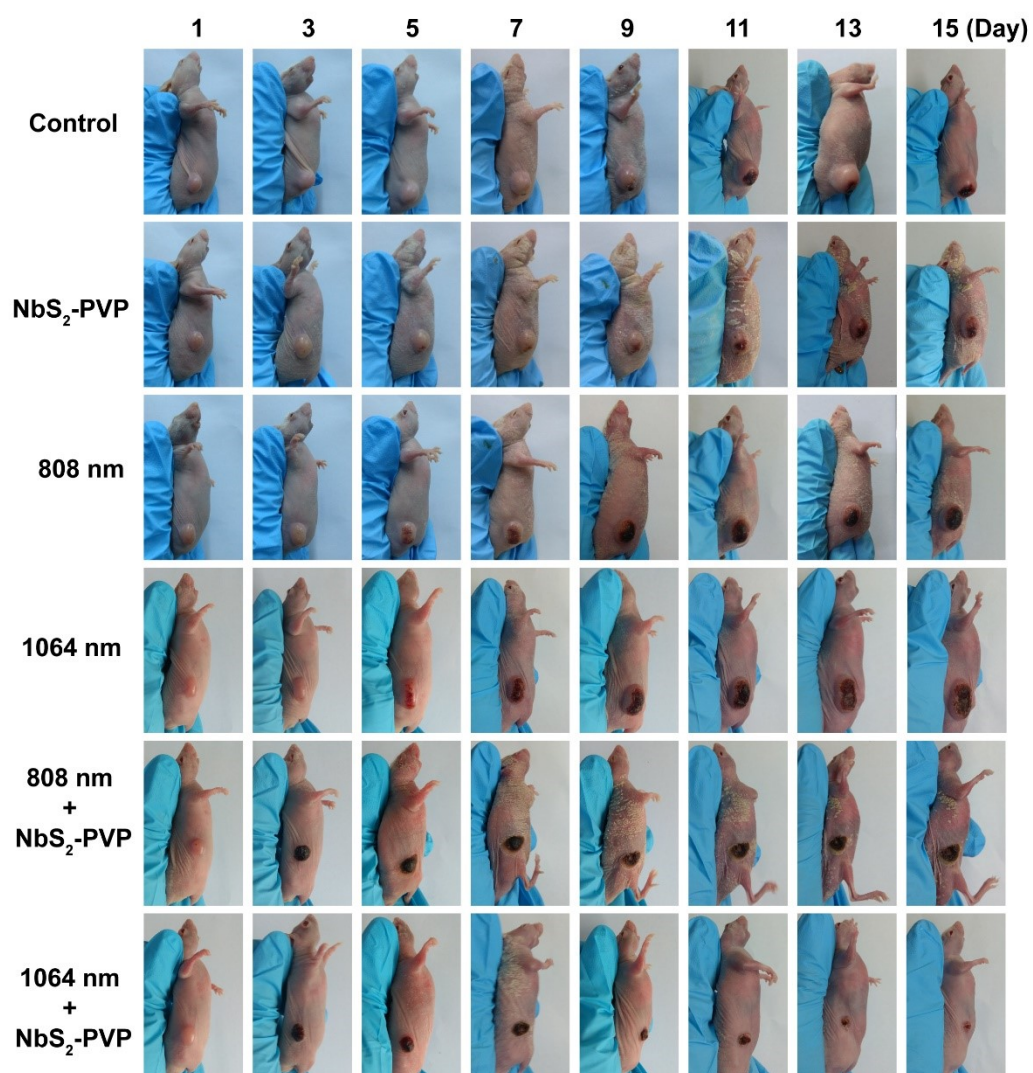
**Fig. S4.** Heating and cooling photothermal curves of NbS<sub>2</sub>-PVP nanosheets for five circles irradiated by 808 nm and 1064 nm laser at 1.5 W/cm<sup>2</sup>, respectively.



**Fig. S5.** Body weight curves of Kunming mice administrated with different concentrations (0, 5, 10, and 20 mg/kg) of NbS<sub>2</sub>-PVP nanosheets during 30 days' biosafety evaluation.

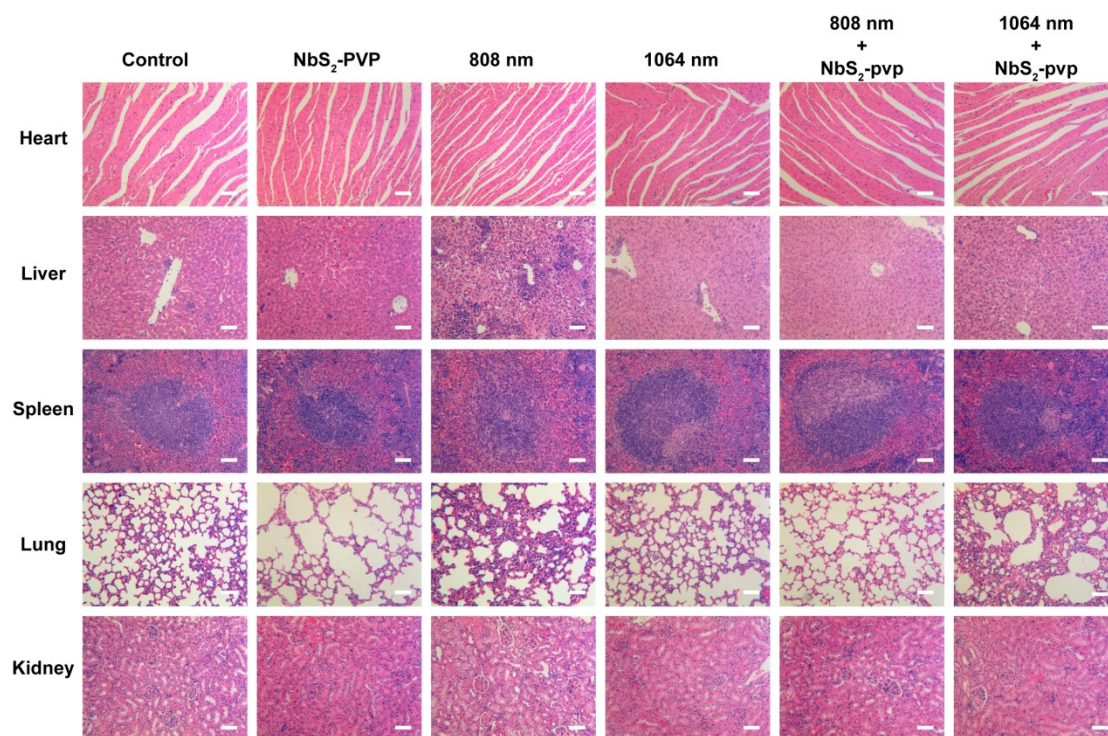


**Fig. S6.** Blood biochemistry (ALT, AST, ALP, Urea, Crea, WBC, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-SD, RDW-CV, PLT, MPV, PDW, PCT, and P-LCR) of female Kunming mice injected with NbS<sub>2</sub>-PVP aqueous at different doses (0, 5, 10, and 20 mg/kg, n = 5).



**Fig. S7.** Photographs of mice after photothermal therapy in different groups (Control, NbS<sub>2</sub>-PVP, 808 nm, 1064 nm, 808 nm + NbS<sub>2</sub>-PVP, and 1064 nm + NbS<sub>2</sub>-PVP).





**Fig. S8.** H&E staining of histology sections from major organs (Heart, Liver, Spleen, Lung, and Kidney) at the last day. Groups: Control, NbS<sub>2</sub>-PVP, 808 nm, 1064 nm, 808 nm + NbS<sub>2</sub>-PVP, and 1064 nm + NbS<sub>2</sub>-PVP.

The meaning of the formula in **Section 4.8.4. Statistical Analysis**, and why the value of relative tumor volume inhibition exceeded to 100 % are given in details as follows:

We choose the tumor volume increment of control group for the standard base. Besides, when we use the tumor volume increment of control group to subtract the increment of experiment group, we can see the tendency of tumor volume in experiment group. When the tumor is treated well and suppressed, the value of tumor volume increment in experiment group is negative, resulting in the value of relative tumor volume inhibition exceeded to 100 %. It also means that tumor is in a state of suppression (volume declining) rather than inhibition (volume growing relatively slowly).