Supporting Information

Controllable synthesis and biomedical applications of bismuth-based nanospheres: enhanced photothermal therapy and CT imaging efficiency

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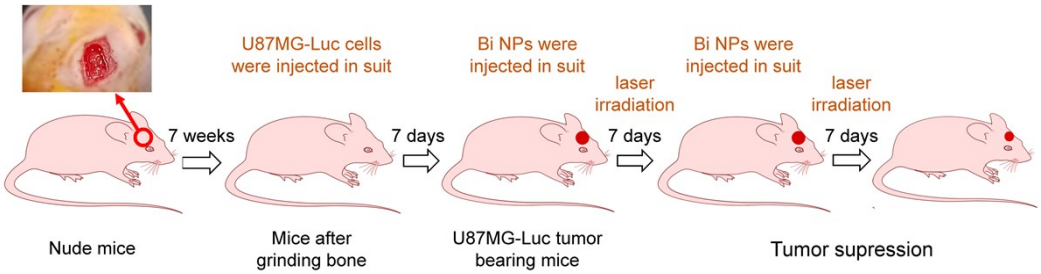

Scheme S1. Schematic diagram of photothermal therapy in tumor-bearing mice.

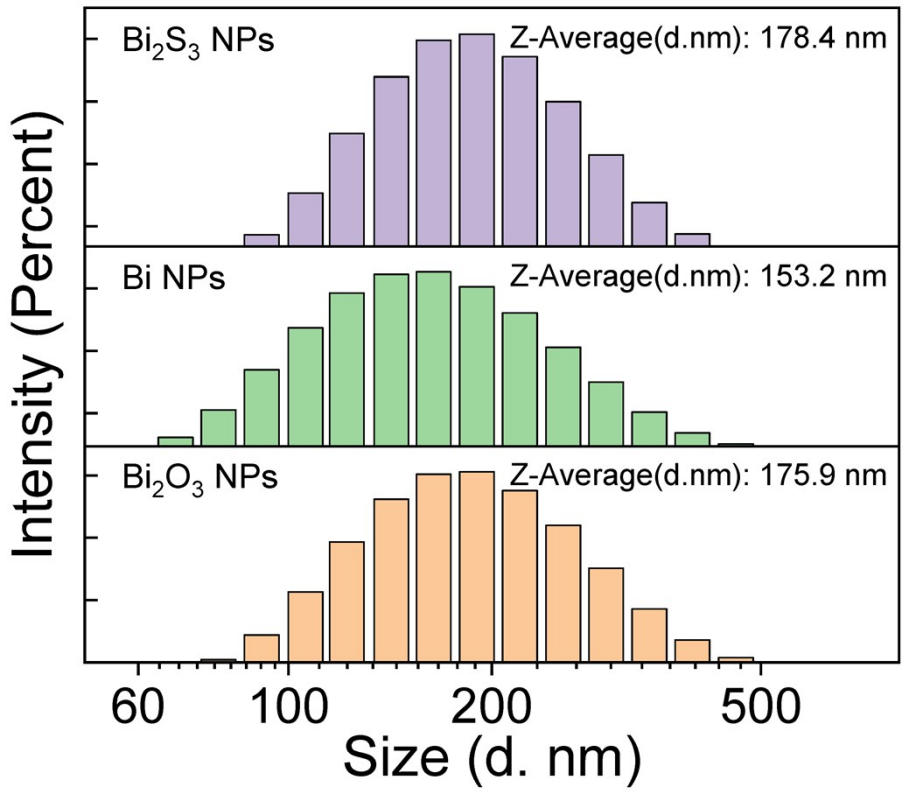

Figure S1. Typical DLS curve of the size distribution of the obtained Bi_2S_3 NPs, Bi NPs, and Bi_2O_3 NPs.

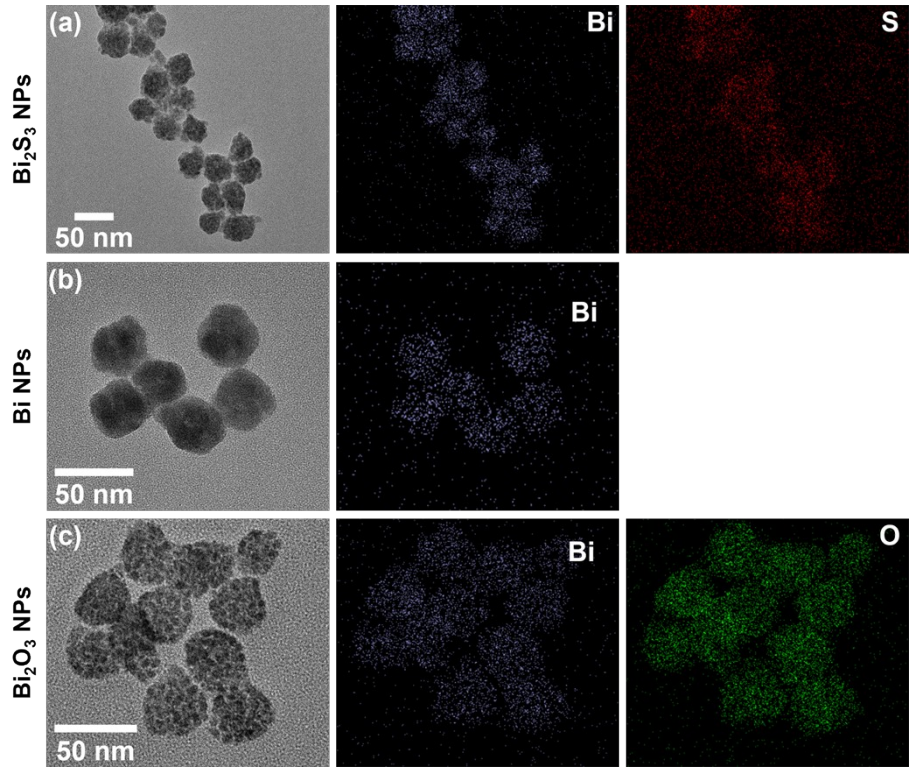

Figure S2. Elemental mapping images of the Bi_2S_3 NPs (a), Bi NPs (b), and Bi_2O_3 NPs (c), respectively.

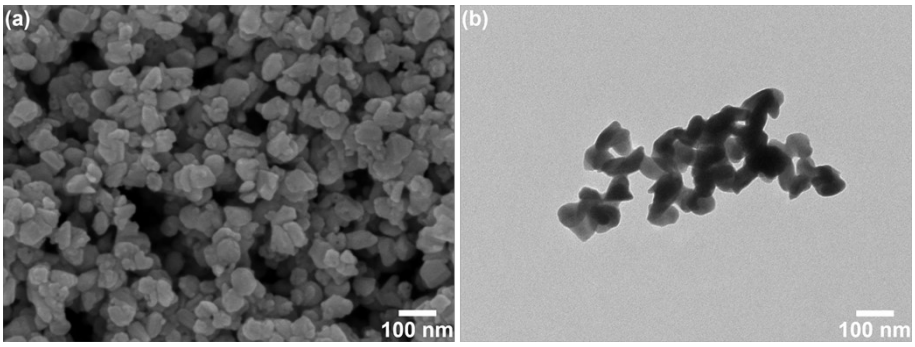

Figure S3. (a) SEM images and (b) TEM images of the Bi_2S_3 NPs without PVP.

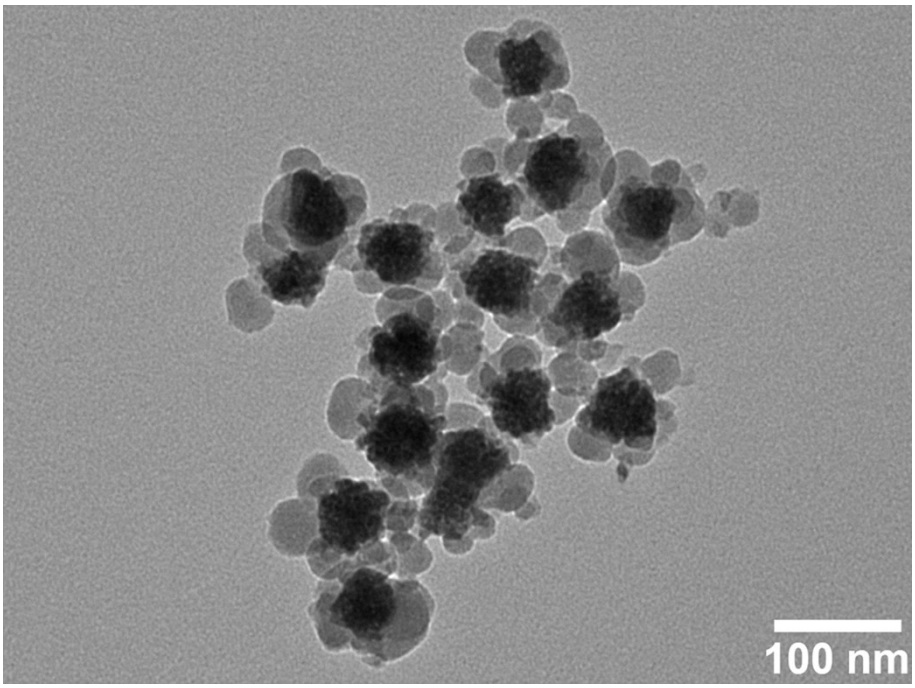

Figure S4. TEM images of the Bi_2S_3@SiO_2 NPs.

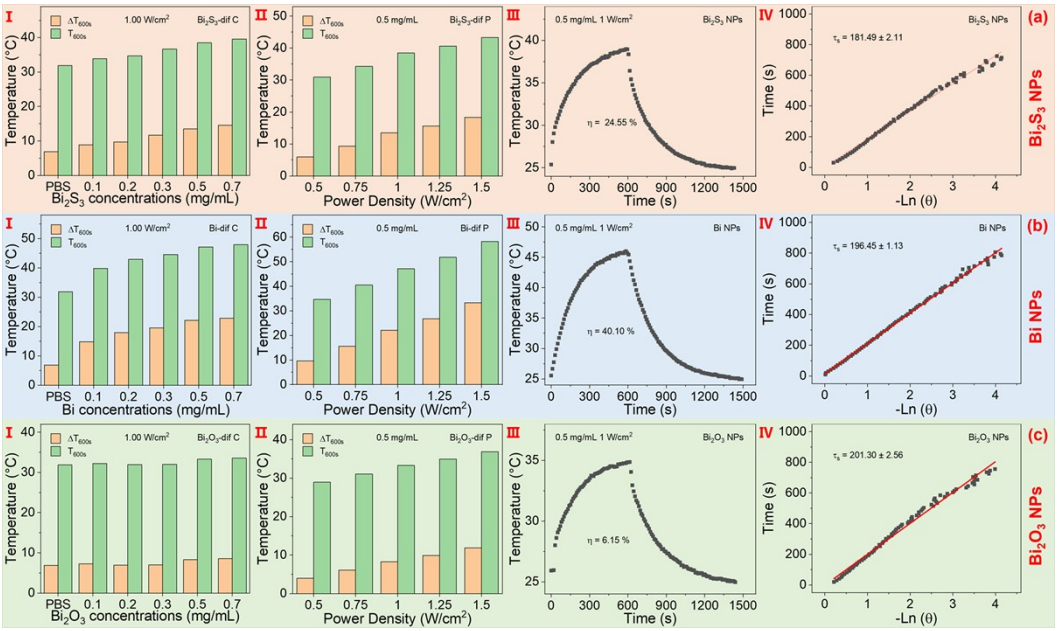

Figure S5. The temperatures after 600 s of irradiation by 808nm laser for solutions of Bi-based NPs at different concentrations (a-I, b-I, and c-I). The temperatures after 600 s of irradiation by 808nm laser at different working power densities for Bi-based NPs solution (0.5 mg mL^{-1}) are represented as (a-II, b-II, and c-II). The photothermal conversion efficiency of Bi-based NPs under 808 nm laser (a-III, b-III, and c-III). The plot of cooling time (t) versus the negative natural logarithm of the temperature driving force (θ) obtained from the cooling stage (a-IV, b-IV, and c-IV).

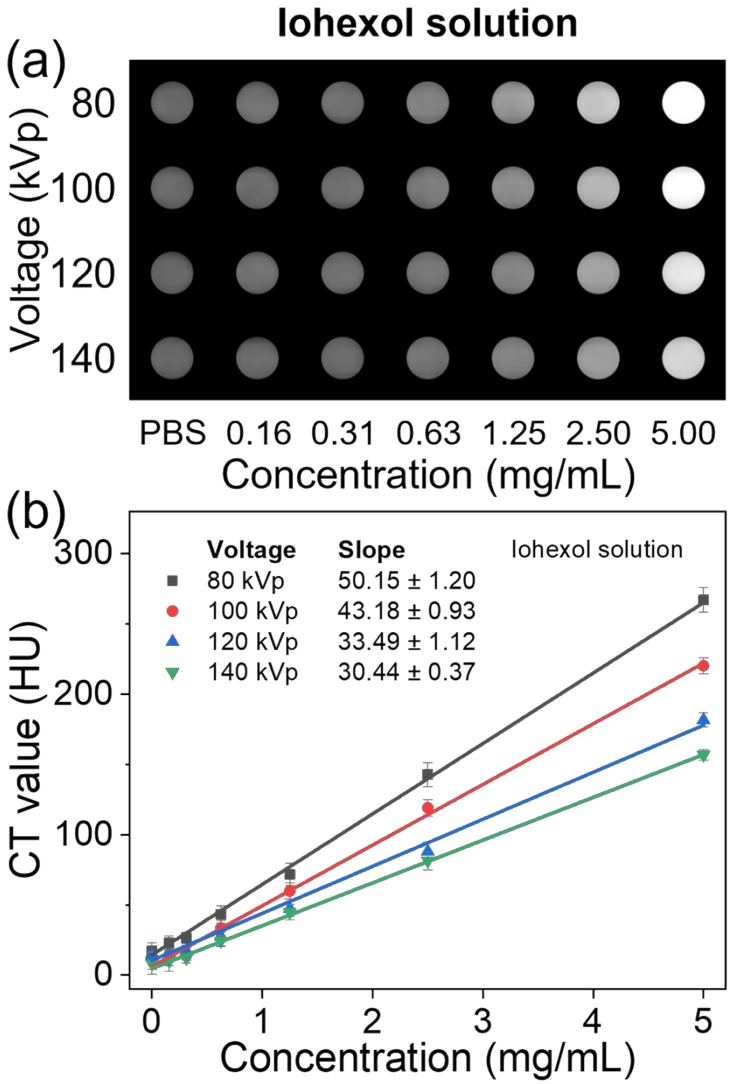

Figure S6. In vitro CT images of the commercial iohexol injection with different concentrations and work voltages.

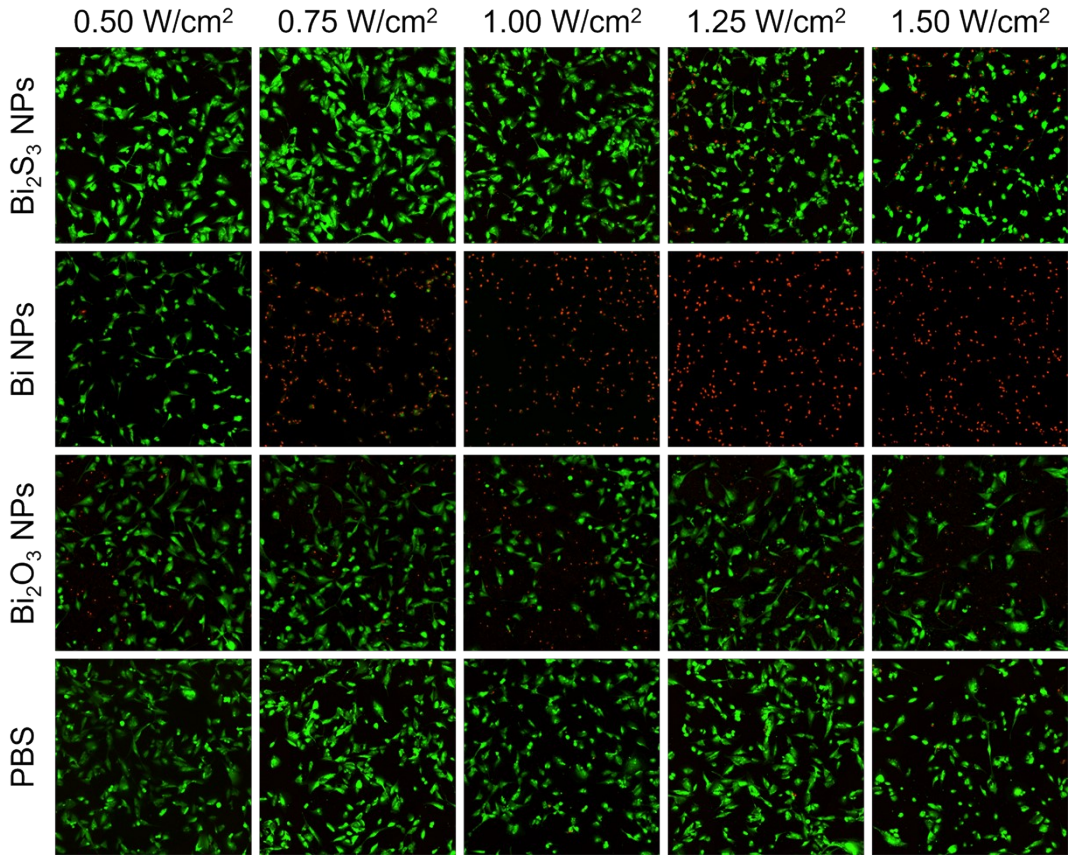

Figure S7. Fluorescence micrographs of Bi-based nanospheres at different power density NIR laser irradiation.

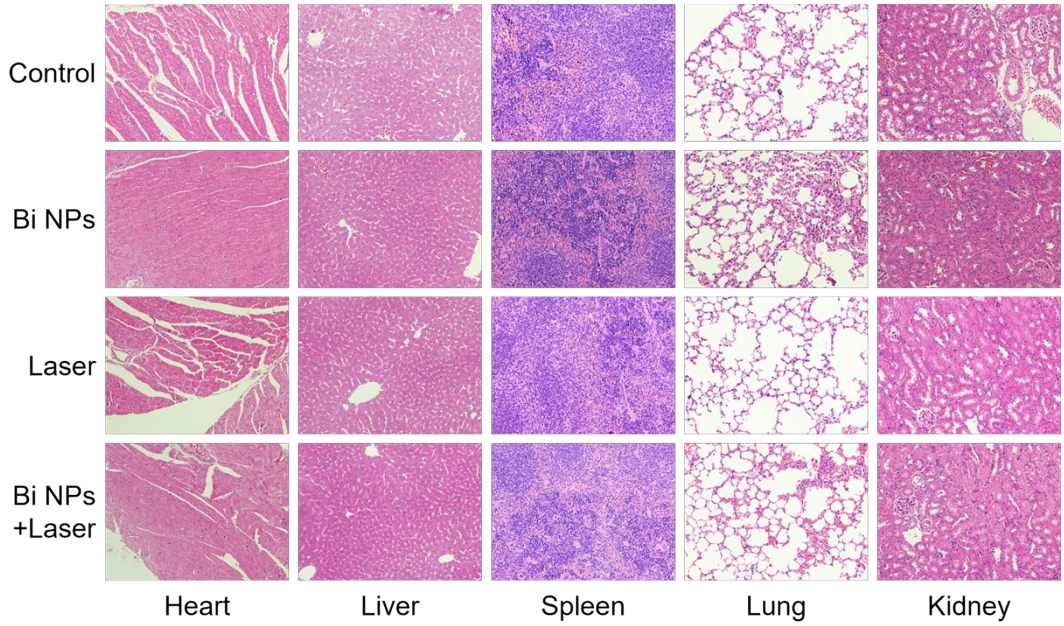

Figure S8 H&E assay image of major organs from each group after 14 days of treatment.