Supporting Information

Liquid Exfoliated Biocompatible WS₂@BSA Nanosheets with Enhanced Theranostic Capacity

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Figure S1. The particle size distribution of the $WS_2@BSA$ NSs obtained by SEM images.



Figure S2. UV-Vis absorption spectra of WS₂@BSA NSs in different concentrations.



Figure S3. (a) The heating and cooling curve of WS₂@BSA NSs after laser stimulation. **(b)** Linear curve of cooling time vs $-\ln\theta$ obtained from the cooling stage in (a).



Figure S4. The time-dependent PDI curve to show the change in the dispersion of the $WS_2@BSA$ NSs in aqueous solution.

As for the time-dependent stability analysis in aqueous solution, we supplemented the experiment to record the change of polydispersity index (PDI) of $WS_2@BSA$ NSs in aqueous solution (**Figure S4**). PDI can reflect the dispersion of the material, thus assisting to show the stability of the material in aqueous solution.[1]

Reference

[1] S. Bhattacharjee, DLS and zeta potential – What they are and what they are not?, Journal of Controlled Release 235 (2016) 337-351.