

**Supplementary Information (SI) for nanoscale.**

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## **Decreasing Photosensitizers' Aggregation to Facilitate Energy Transfer for Improved Photodynamic Therapy**

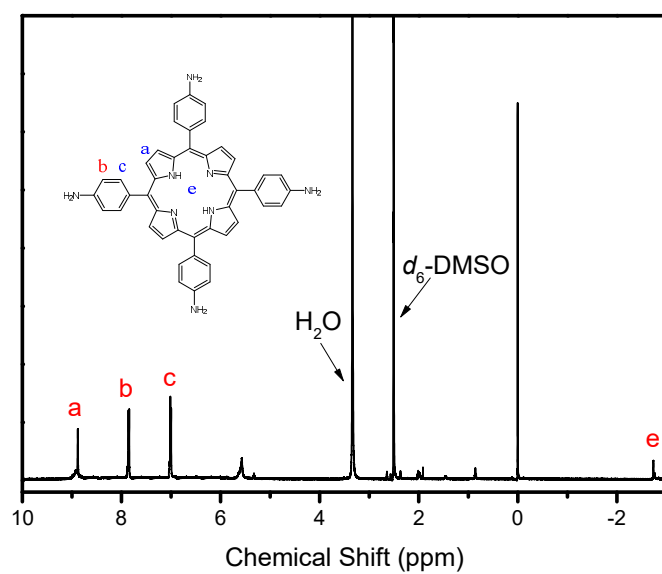
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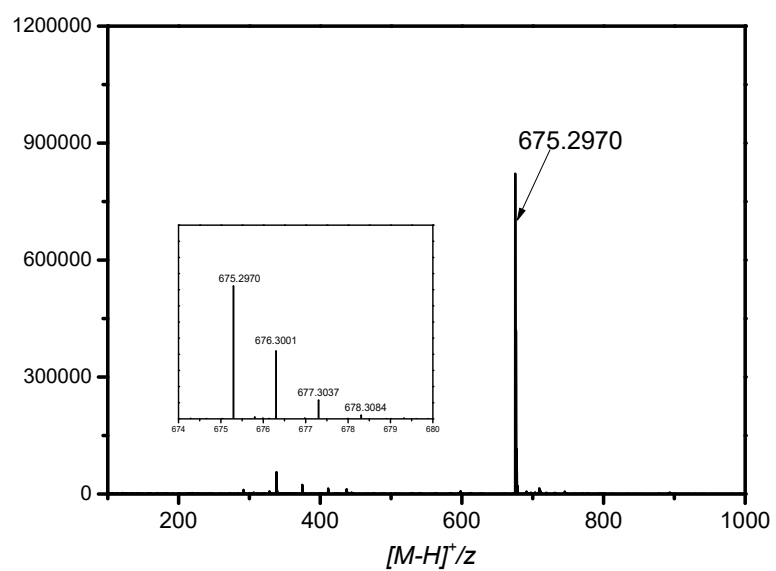
Email:sk\_wuyelin@tongji.edu.cn;20310114@tongji.edu.cn.

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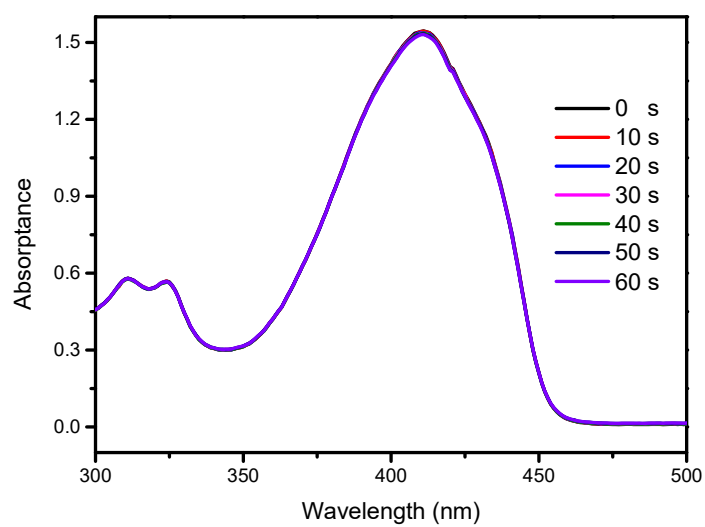
1. The <sup>1</sup>H NMR of TATPP in *d*<sub>6</sub>-DMSO.
2. The high-resolution mass spectrum of TATPP
3. UV-Vis absorptance spectra of DPBF upon 650 nm laser irradiation.
4. Body weights of K.M. mice after the intravenous injection of HA-TPP NHs.
5. Pathological H&E stained images of tissue sections from heart, liver, spleen, lung and kidney of the mice treated with HA-TPP NHs.
6. Images of mice tumor growth after treatments (0, 7, and 14 days).



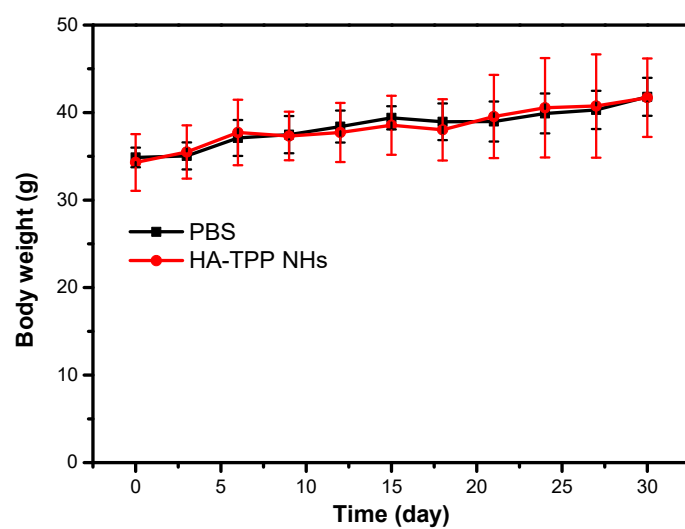
**Figure S1.** The  $^1\text{H}$  NMR of TATPP in  $d_6$ -DMSO.



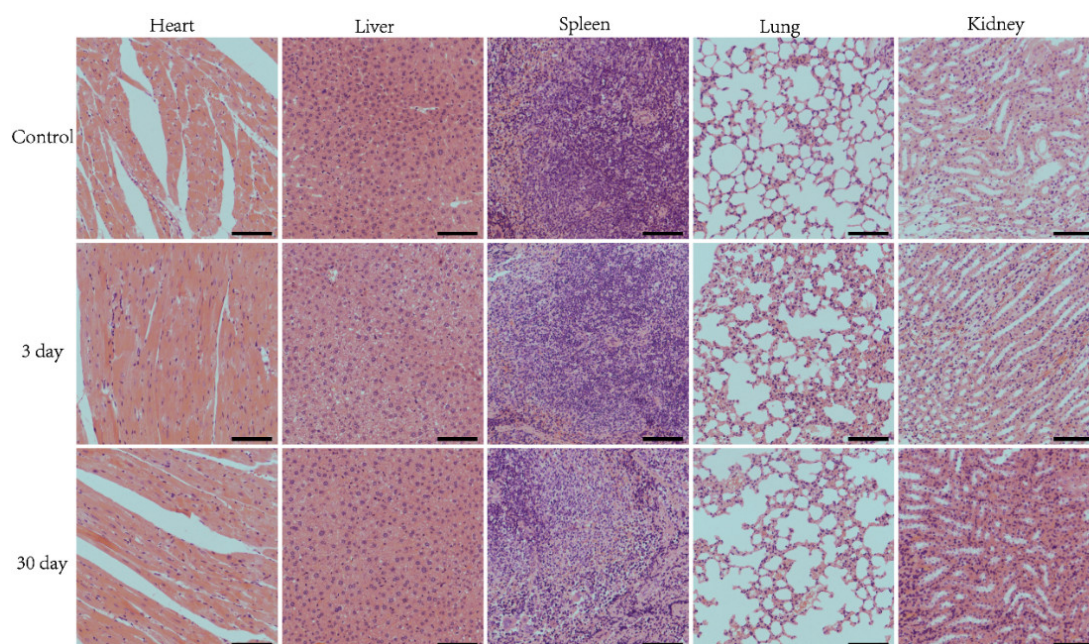
**Figure S2.** The high-resolution mass spectrum of TATPP.



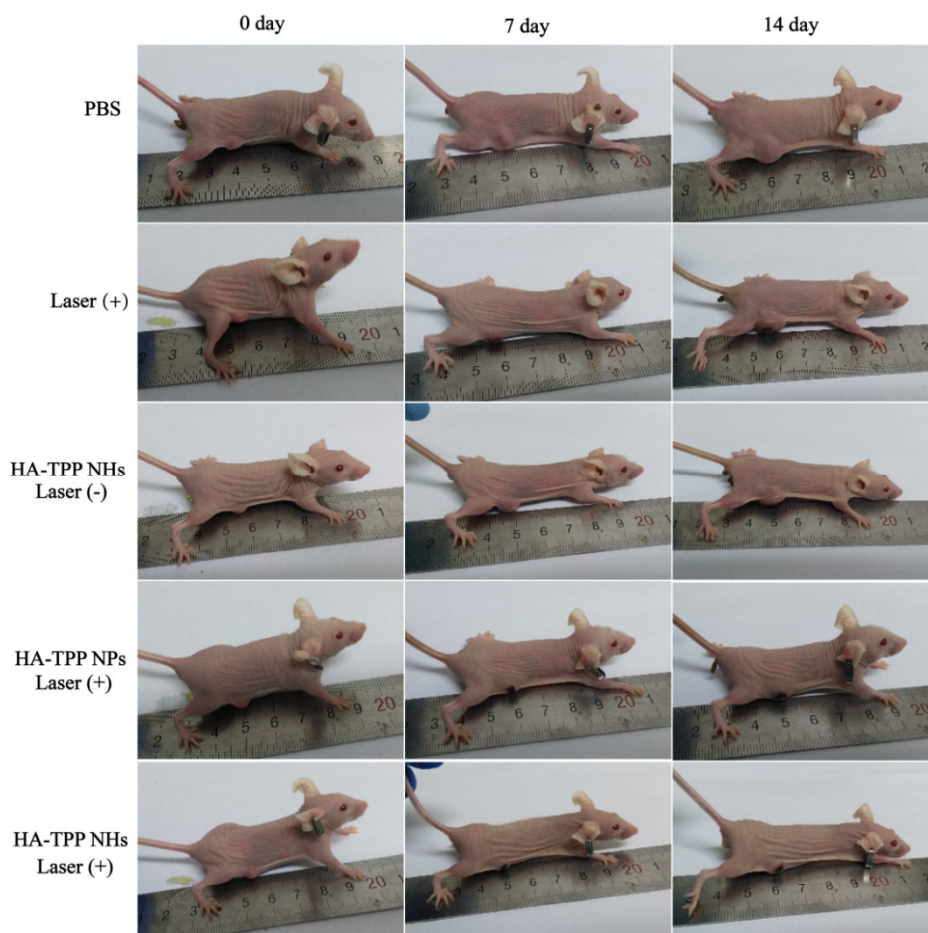
**Figure S3.** UV-Vis absorbance spectra of DPBF upon 650 nm laser irradiation.



**Figure S4.** Body weights of K.M. mice after the intravenous injection of HA-TPP NHs ( $8 \text{ mg kg}^{-1}$ ).



**Figure S5.** Pathological H&E stained images of tissue sections from heart, liver, spleen, lung and kidney of the mice treated with HA-TPP NHs (the tissue sections were harvested in 3 and 30 days after the intravenous injection of a 8 mg porphyrin  $\text{kg}^{-1}$  dosage). Scale bars, 200  $\mu\text{m}$ .



**Figure S6.** Images of mice tumor growth after treatments (0, 7, and 14 days).