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Microwave-assisted Preparation of Paramagnetic Zwitterionic Amphiphilic Copolymer Hybrid Molybdenum Disulfide for T_1-weighted Magnetic Resonance Imaging-guided Photothermal Therapy

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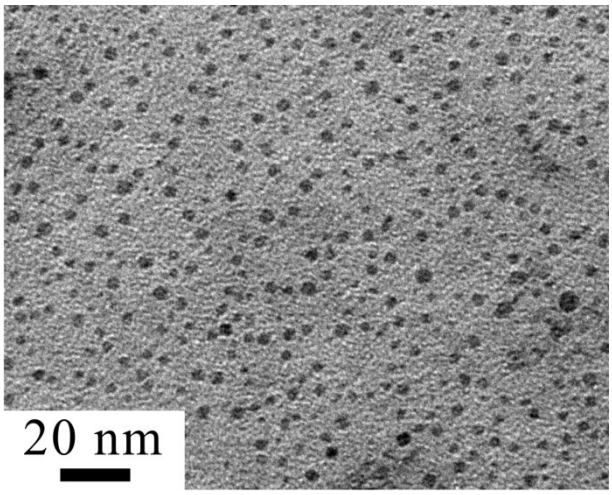

Figure S1. TEM image of PZAC.

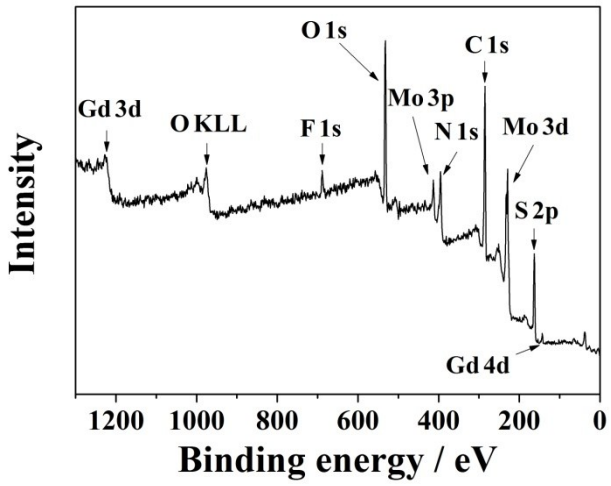

Figure S2. XPS survey spectrum of MoS_2@PZAC.

Table S1. Element content of MoS_2@PZAC.

Element	Atoms / %
C	57.53
N	3.83
O	22.03
F	3.55
Mo	3.98
S	8.56
Gd	0.52

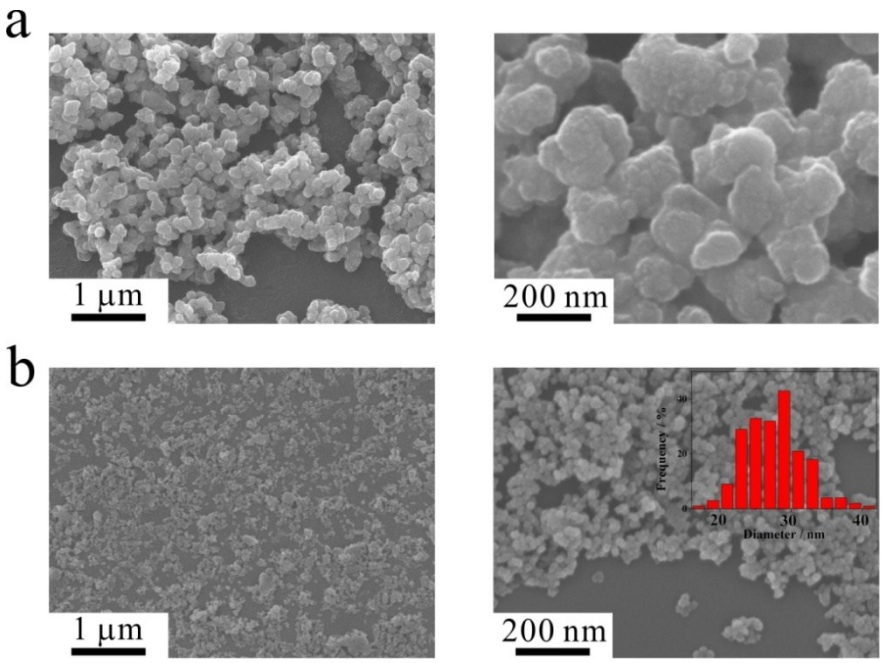

Figure S3. SEM images of (a) MoS_2 and (b) MoS_2@PZAC.

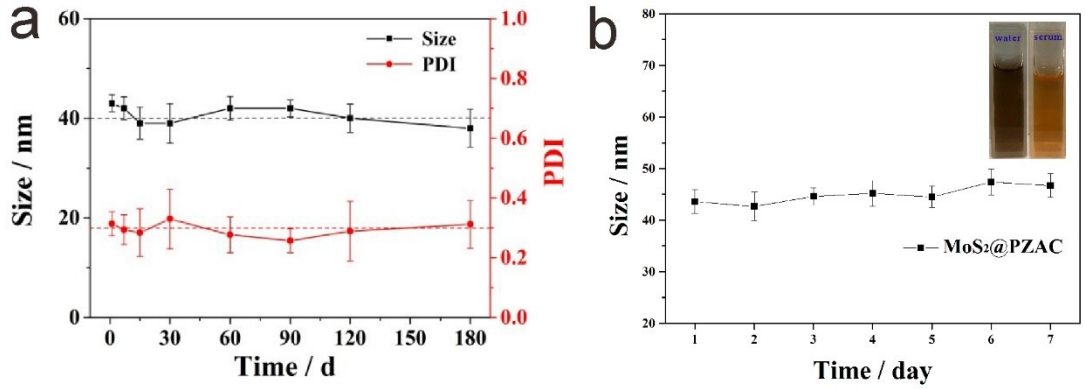

Figure S4. (a) Stability of MoS_2@PZAC dispersed in PBS solution. (b) Size of MoS_2@PZAC dispersed in serum for 7 days.

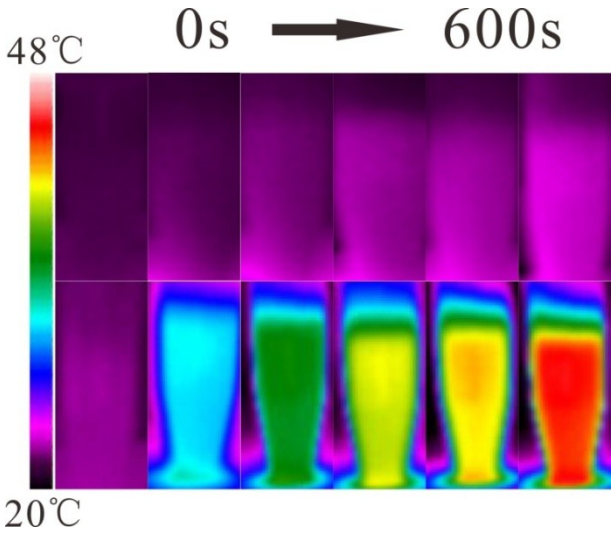

Figure S5. Infrared thermal images of water (top) and MoS_2@PZAC dispersion (bottom) at different time points under NIR laser irradiation (1 W/cm^2).

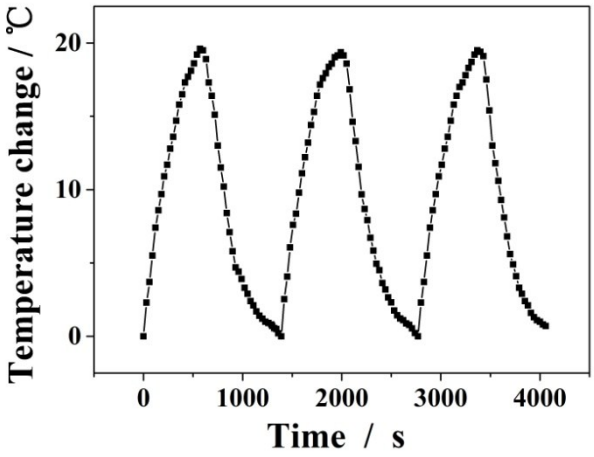

Figure S6. The temperature variations of MoS_2@PZAC dispersion at 100 μg/mL under irradiation with an 808 nm laser at a power density of 1 W/cm^2 for three on-off cycles

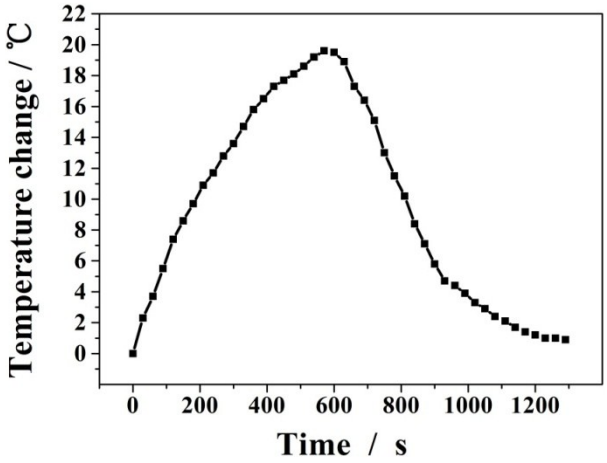

Figure S7. The PTT temperature change of MoS_2@PZAC aqueous dispersion with a NIR laser irradiation on-off.

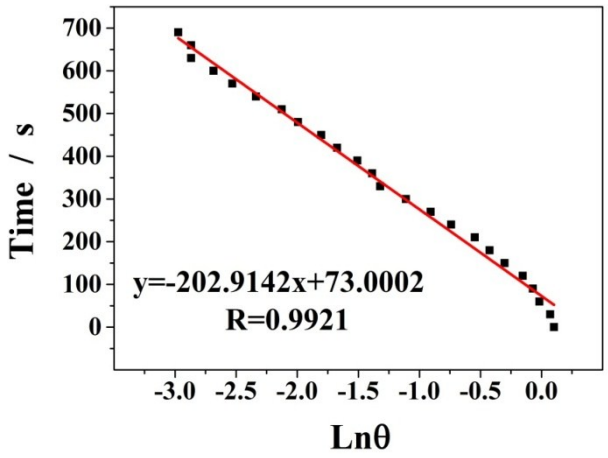

Figure S8. Linear time versus Lnθ obtained from the cooling period in Figure S7.

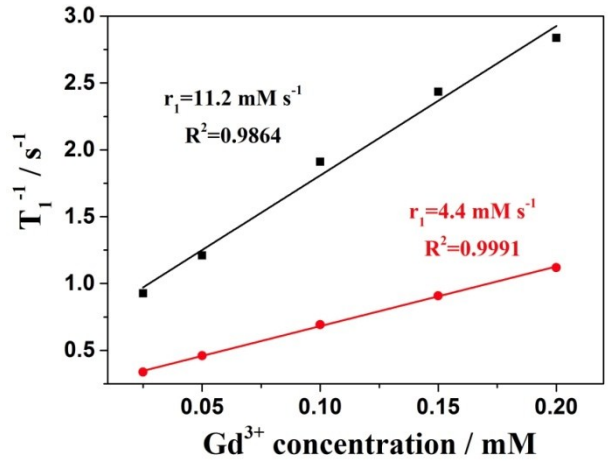

Figure S9. The T_1 relaxation rate of MoS_2@PZAC (black line) and Magnevist® (red line), obtained from the slopes of linear fits of experimental data.

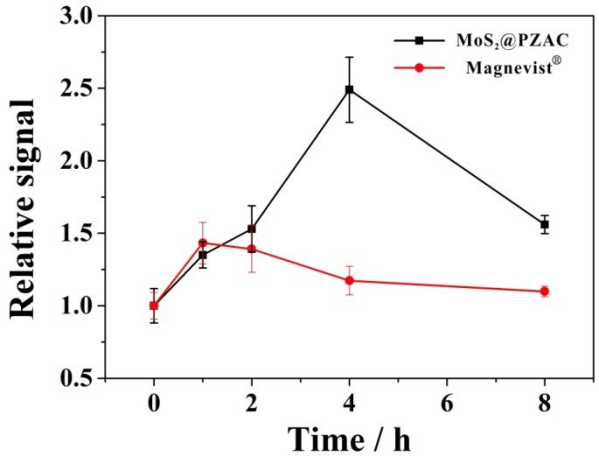

Figure S10. SI of T_1-weighted MR signals from the tumor site at different times post-injection.

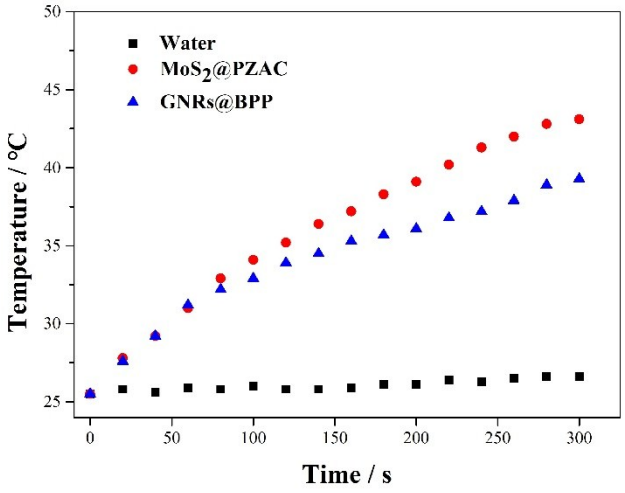

Figure S11. The temperature variations of MoS_2@PZAC and GNRs@BPP with the same concentration under laser irradiation (808 nm, power density of 1 W/cm^2).

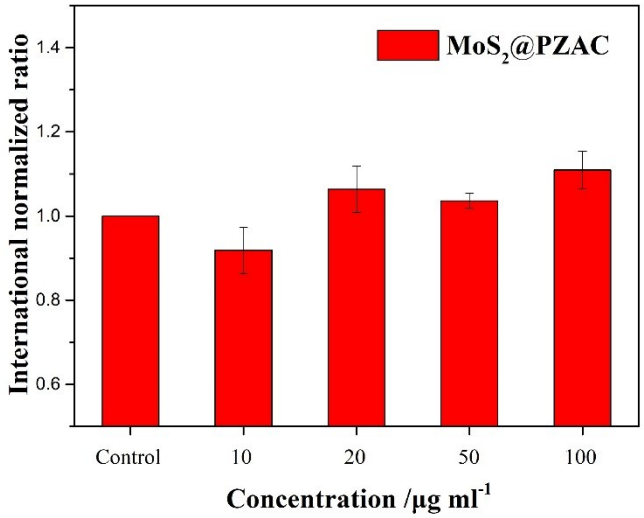

Figure S12. The INR of MoS_2@PZAC with different concentration, control group was added PBS.