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Supplementary Information

NIR Photoresponsive Drug Delivery and Synergistic Chemo-Photothermal Therapy by Monodispersed MoS₂ Nanosheets Wrapped Periodic Mesoporous Organosilicas

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Figure S1. XRD pattern of the positively charged thioether-bridged PMOs prepared by a CTABdirected sol–gel process followed by 3-aminopropyltrimethoxysilane (APTES) modification.



Figure S2. N_2 absorption-desorption isotherms (a) and pore size distribution curve (b) of the positively charged thioether-bridged PMOs prepared by a CTAB-directed sol-gel process followed by APTES modification.



Figure S3. TEM image of MoS_2 nanosheets prepared by using an ultrasonication enhanced lithium intercalation method.



Figure S4. TEM images of the positively charged thioether-bridged PMOs (a) prepared via a CTAB-directed sol–gel process followed by APTES modification and MoS_2 wrapped PMO-Dox (PMO-Dox@MoS₂) prepared by mixing PMO-Dox with MoS_2 under sonication in the water for 1 (b), 2 (c), 5 (d) minutes. The scale bars are 100 nm.



Figure S5. The drug release profiles of the PMO-Dox@MoS₂-PEG at different pH with or without laser irradiation.



Figure S6. Relative tumor volumn of tumor-bearing mice with or without NIR irradiation (808 nm, 1.0 W/cm^2) for 5 min after injection of 100 µL saline solution of PMO-Dox@MoS₂-PEG or PMO@MoS₂-PEG into the tumor.