Supplementary Information (SI) for New Journal of Chemistry. This journal is © The Royal Society of Chemistry and the Centre National de la Recherche Scientifique 2024

Supporting Information

HAase/GSH dual-responsive mesoporous organosilica nanoparticle

for synergistic photodynamic/photothermal/pharmacological

antibacterial therapy

Wei Guo,^a Yunhan Huang,^a Jingrui Chang, ^a Xinyu Wang^a and Bo Lu*^a

^a School of Chemistry, Chemical Engineering and Life Sciences, Wuhan University of Technology, Wuhan, 430070, PR China.
*Corresponding author: School of Chemistry, Chemical Engineering and Life Sciences, Wuhan University of Technology, Wuhan, 430070, PR China.

E-mail: lvb@whut.edu.cn

Tel & Fax: 086-027-87749300



Fig. S1. The average hydrated particle diameter distributions of MON, MP and MPH



Fig. S2. Raman Spectrogram of MON



Fig. S3. BET N₂ adsorption/desorption isotherms



Fig. S4. Infrared spectra of different nanoparticles



Fig. S5. Irradiation-cooling curve of ICG under 2 W·cm⁻² 808 nm laser irradiation



Fig. S6. Linear relationship between time (s) with $-Ln(\theta)$.

MIC ($\mu g \cdot mL^{-1}$)		S. aureus		E. coli			
ІСМРН		40	20				
Table S1. MIC of ICMPH against S. aureus and E. coli (n = 3)							
IC ₅₀ (μg·mL ⁻¹)	MON	MON + Laser	MPH	MPH + Laser			
L929 cells	226.41	260.51	291.22	340.20			
Table S2. IC ₅₀ values of various samples on L929 cells for 24 h (n = 3)							

IC ₅₀ (μg·mL ⁻¹)	MON	MON + Laser	MPH	MPH + Laser
L929 cells	187.95	224.45	222.37	279.28

Table S3. IC₅₀ values of various samples on L929 cells for 48 h (n = 3)