

One-Step *in-Situ* Growth of MoS₂@Lentian as a Dual-Stimuli-Responsive Nanocarrier for Synergistic Chemo-Photothermal Therapy

Yilong Tian,^[a] Wenhui Yi,^{*[a]} Lei Bai,^[a] Xin Cheng,^[a] Mingzhu Mu,^[b] Ping Zhang,^[c] Jinhai Si,^[a] Xun Hou,^[a] and Jin Hou^{*[d]}

^[a]Key Laboratory for Information Photonic Technology of Shaanxi Province & Key Laboratory for Physical Electronics and Devices of the Ministry of Education, School of Information and Electronics Engineering, Xi'an Jiaotong University, Xi'an 710049, China

^[b]Department of Gynecology, Xi'an Jiaotong University Second Affiliated Hospital, Xi'an 710004, China

^[c]School of Science, Northwest A&F University, Yang ling 712100, China

^[d]Department of Pharmacology, School of Basic Medical Sciences, Xi'an Medical University, Xi'an 710021, China

1. Chemicals and Materials.

Thioacetamide (TAA, 99%) and H₂₄Mo₇N₆O₂₄·4H₂O (99%) were purchased from Aladdin Chemistry. LTN was achieved from Puzhen Chemistry Co., Ltd. Deionized water (DI water) was obtained from Millipore water system and used throughout. All chemical reagents were used without further purification.

2. Characterization.

The crystalline phase and morphologies of prepared MoS₂@LTN NFs were observed using Empyrean X-ray diffractometer (PANalytical, Netherlands) and field emission transmission electron microscope (JEOL JEM-F200, Japan), respectively. The absorption spectra were acquired on a spectrophotometer (Shimadzu UV-2550, Japan). Surface zeta (ζ) potentials and DLS size of these samples were characterized using a Zetasizer (Nano ZX90, Malvern). The surface element composition and

chemical valences were measured on an X-ray photoelectron spectroscopy (Thermo Fisher ESCALAB Xi+). The functional groups were acquired by a Fourier transform infrared (FTIR) Spectrometer (Bruker VERTEX70, Germany).

3. Supplemental Figures

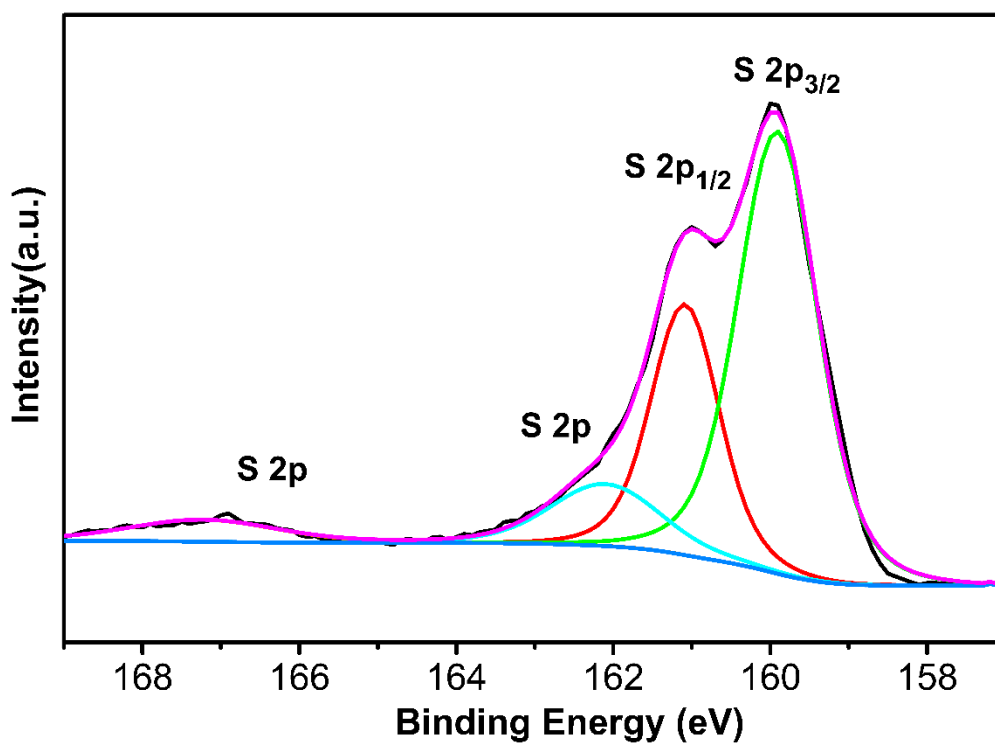


Figure S1. Narrow scan spectra and fitted curves of S 2p.

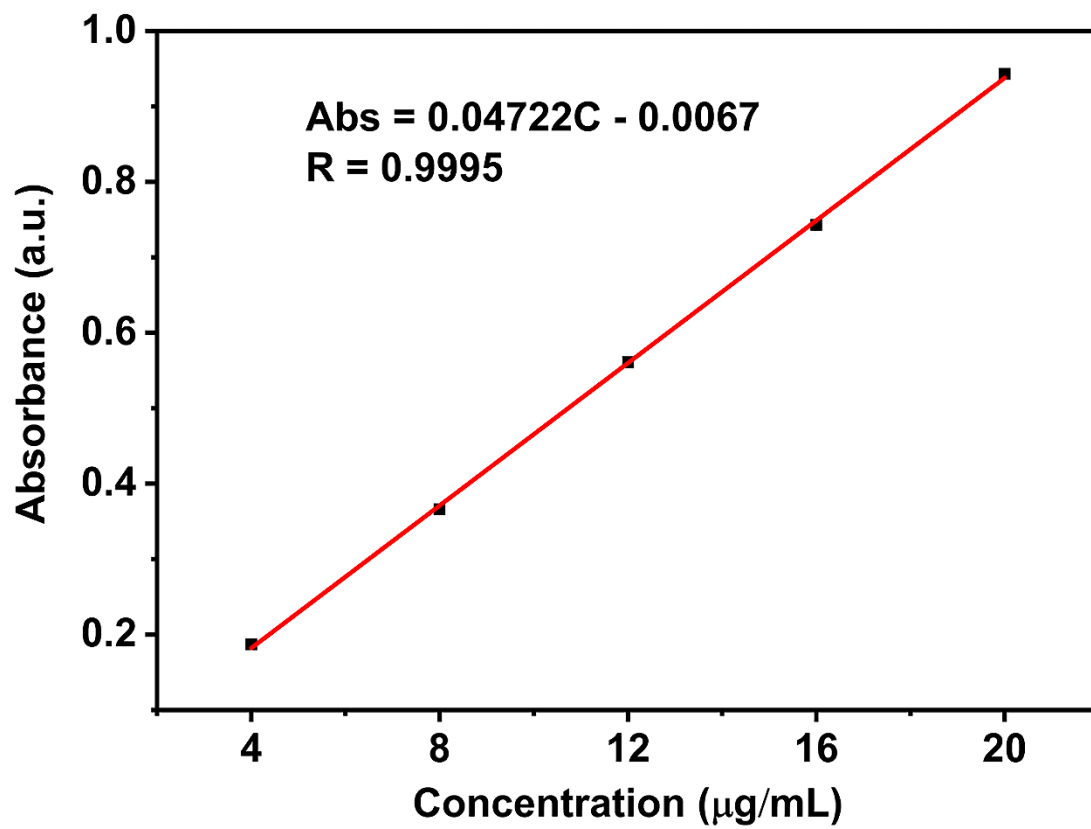


Figure S2. The calibration curve of GEM.

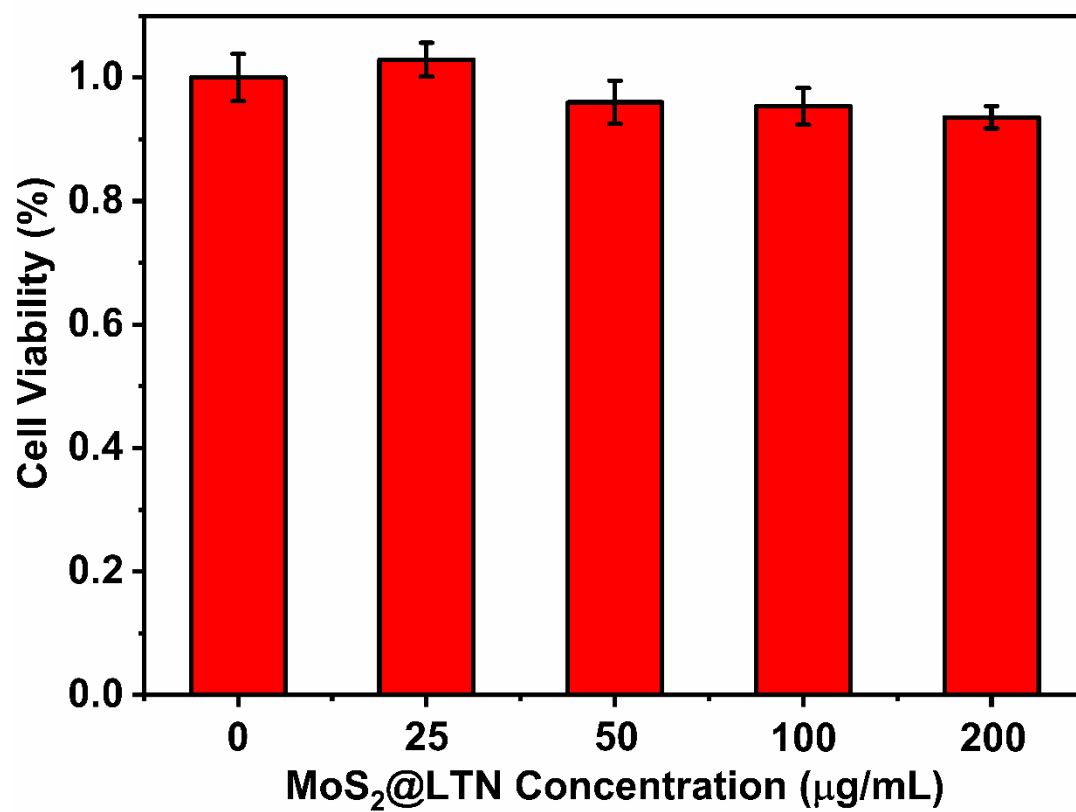


Figure S3. Cell viability of HUVECs cells ((human umbilical vein endothelial cells, normal cells) after treated with different concentrations of MoS₂@LTN.

