

Supplementary Information

AgPt/MoS₂ hybrid as electrochemical sensor for detecting H₂O₂ released from living cells

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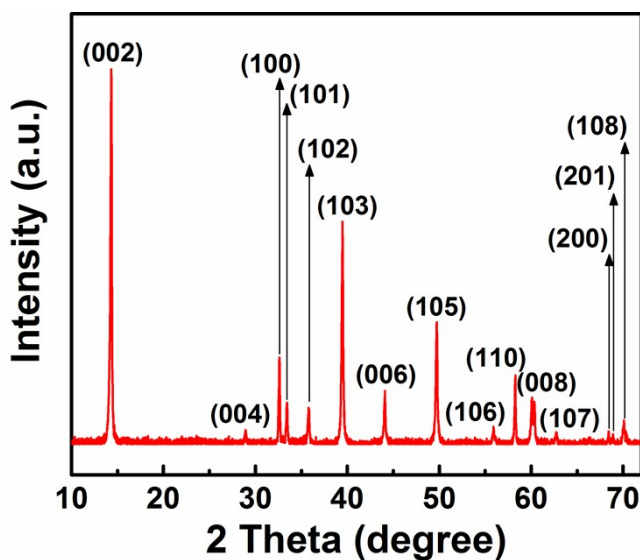


Figure S1. XRD pattern of MoS₂ nanosheets.

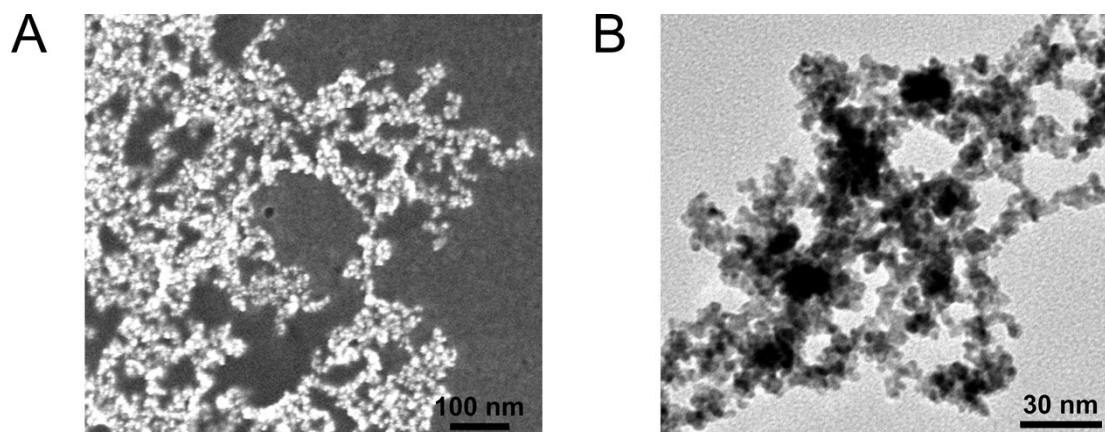


Figure S2. SEM (A) and TEM (B) image of bimetallic AgPt nanoparticles.

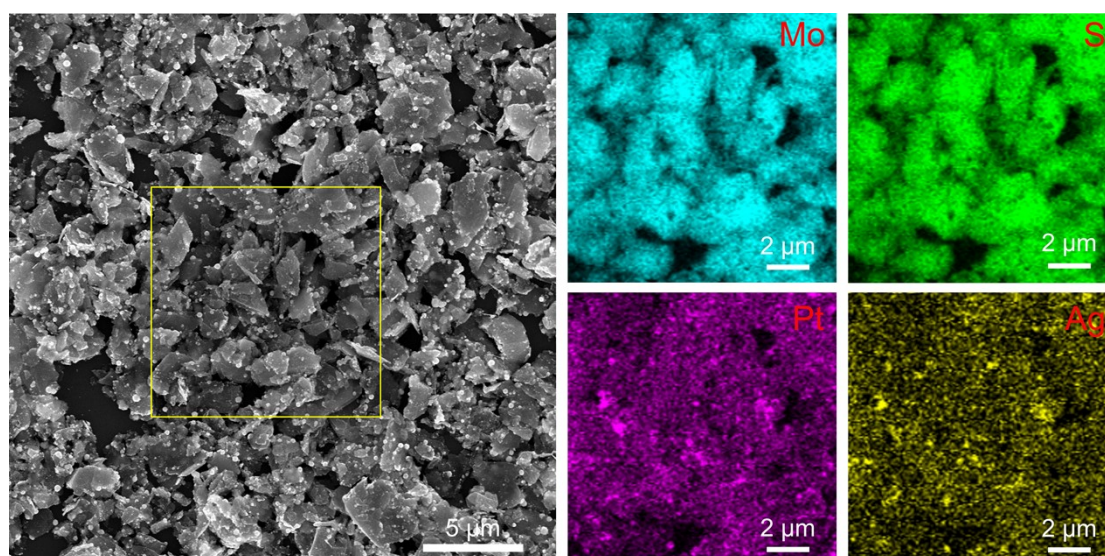


Figure S3. Elemental mapping of AgPt/MoS₂ nanohybrid.

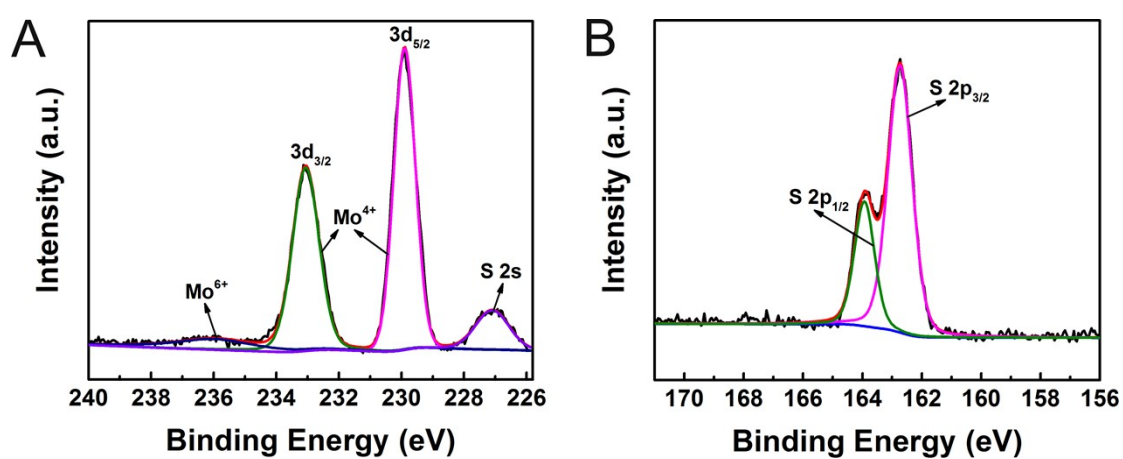


Figure S4. XPS spectra of the Mo 3d and S 2p in AgPt/MoS₂ nanohybrid respectively.

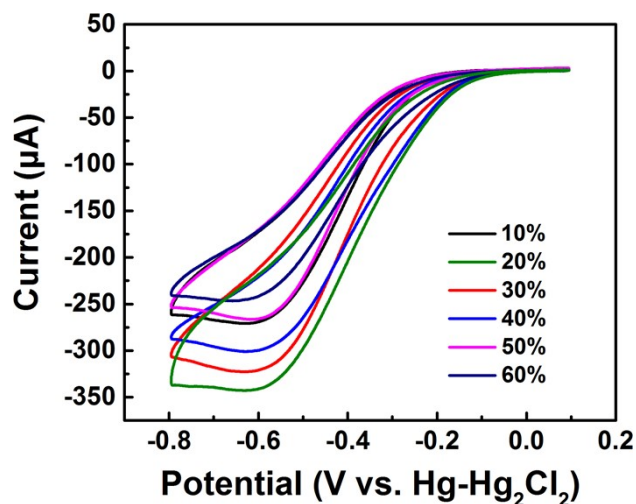


Figure S5. CV of the samples with different mass ratios of AgPt nanoparticles and MoS₂ nanosheets in N₂-saturated 0.01 M PBS (PH 7.4) with 3 mM H₂O₂ at the scan rate of 50 mVs⁻¹.

To investigate changes in the morphology of AgPt/MoS₂ nanohybrid before and after testing, the AgPt/MoS₂/chitosan-modified ITO electrode after testing was characterized by SEM, as shown in Figure S6. It can be seen that the morphology of AgPt/MoS₂ nanohybrid after testing is similar to the morphology (Figure 1B) before testing, which indicates that there are no obvious changes in the morphology of AgPt/MoS₂ nanohybrid as a catalyst before and after catalyzing H₂O₂ reaction.

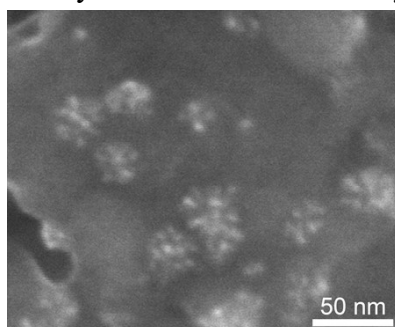


Figure S6. SEM image of AgPt/MoS₂/chitosan after catalyzing H₂O₂ reaction.