

Supporting Information (SI)

Ambient Synthesis of a Multifunctional 1D/2D Hierarchical Ag-Ag₂S Nanowire/Nanosheet Heterostructure with Diverse Applications

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Fig. S1

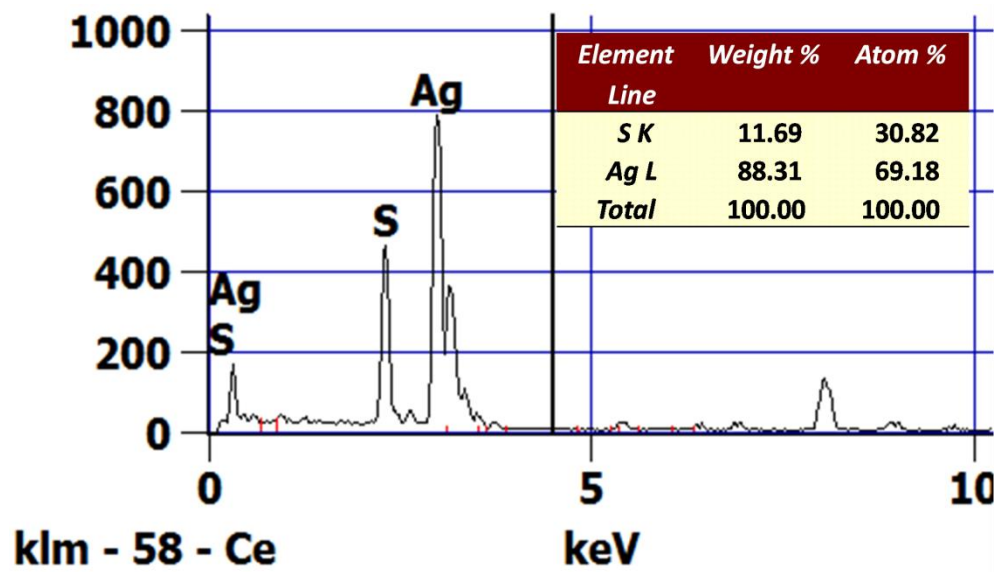


Fig. S1 EDX spectrum of as-synthesized 1D/2D Ag-Ag₂S heterostructures

Fig. S2

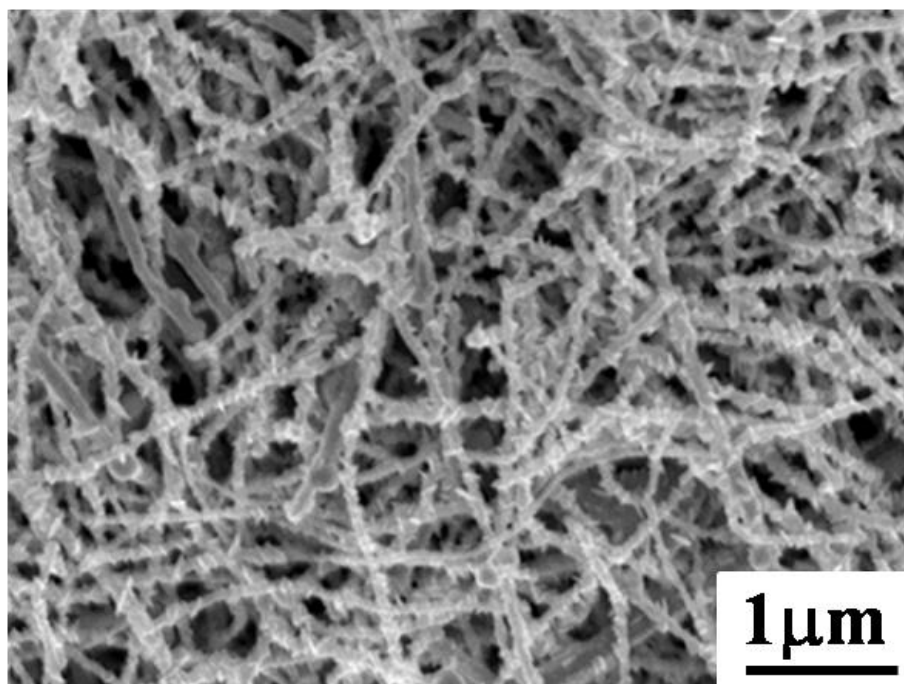


Fig. S2 SEM image of the as-prepared Ag-Ag₂S heterostructures.

Fig. S3

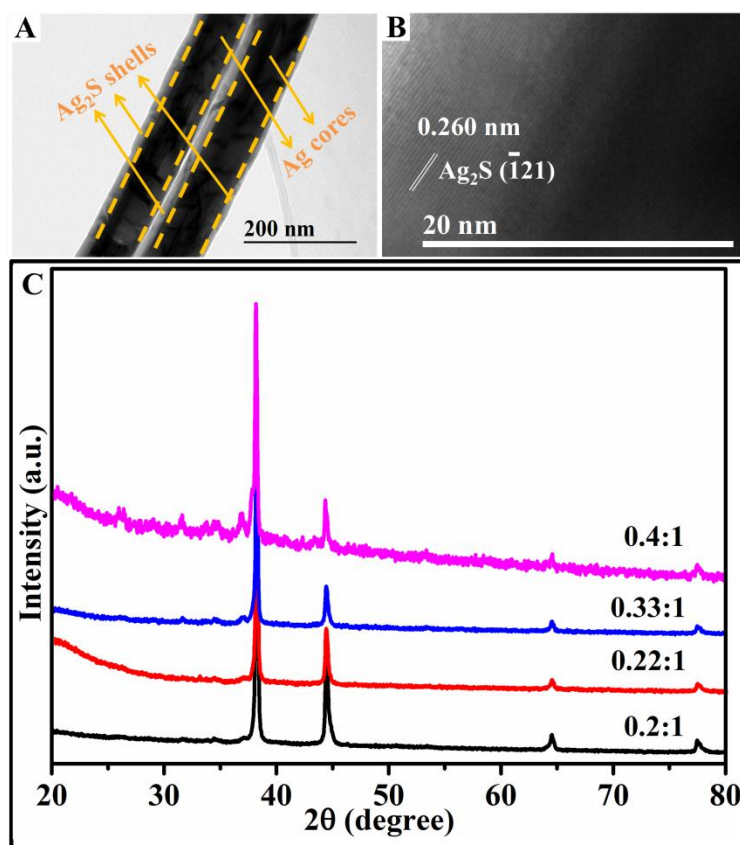


Fig. S3 (A) TEM image and (B) HRTEM image of the product prepared with an S to Ag ratio of 0.2:1; (C) XRD patterns of the products prepared with different molar ratios of sulfur powder to Ag nanowires.

Fig. S4

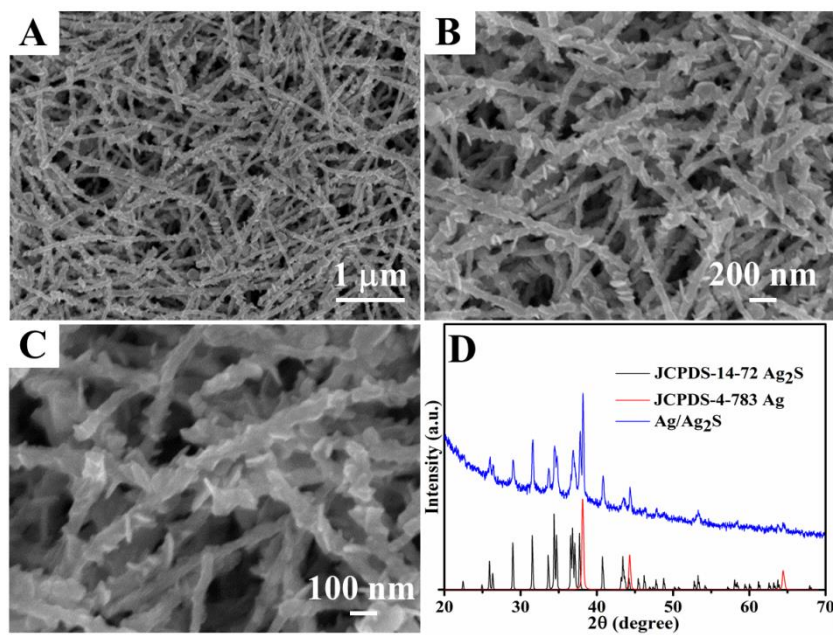


Fig. S4 (A-C) SEM images and (D) XRD pattern of the Ag-Ag₂S heterostructures obtained after 6 days.

Fig. S5

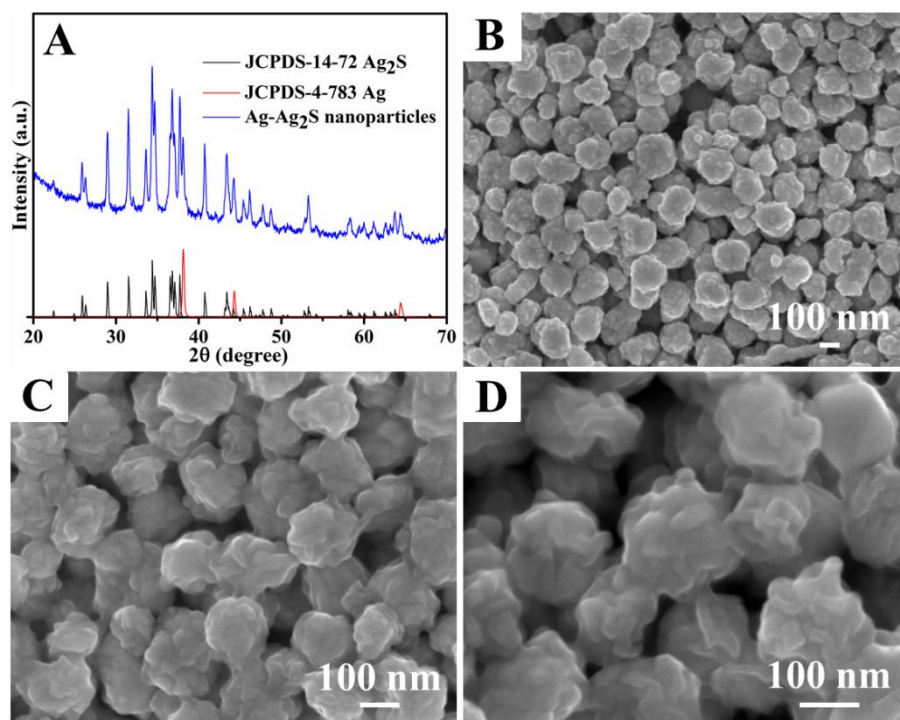


Fig. S5 (A) XRD pattern and (B-D) SEM images of the Ag- Ag_2S nanoparticles.

Fig. S6

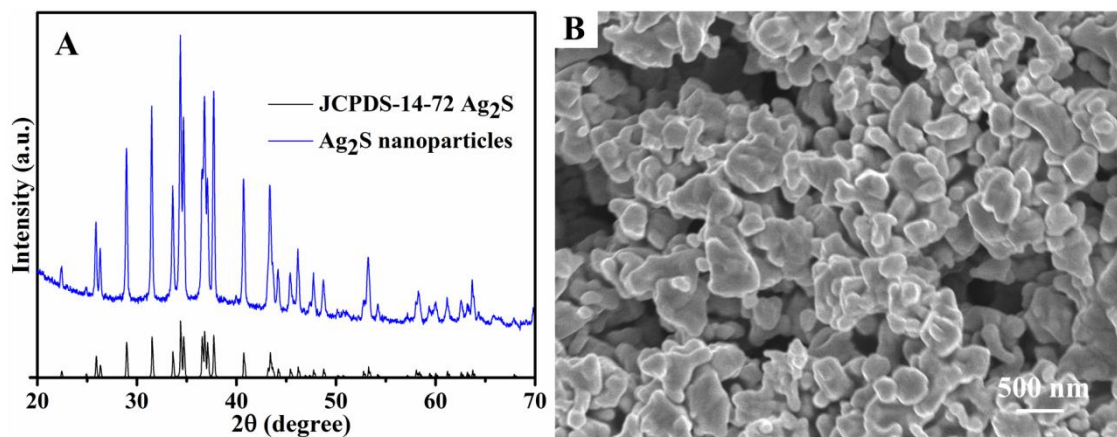


Fig. S6 (A) XRD pattern and (B) SEM image of the pure Ag₂S nanoparticles.

Fig. S7

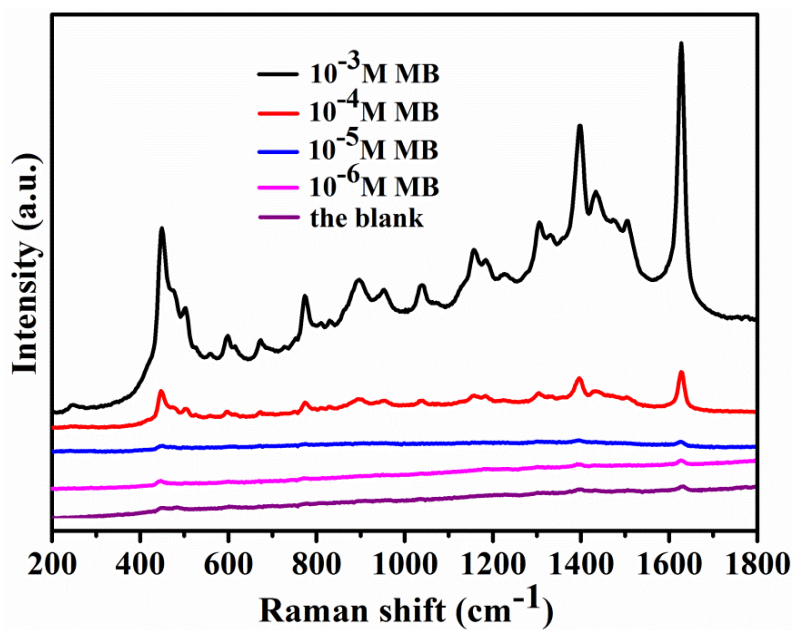


Fig. S7 SERS spectra of MB solutions with different concentrations adsorbed on 1D/2D hierarchical Ag-Ag₂S hybrid heterostructures.