

Supporting Information

Fig. S1

Fig. S1. SEM images of HS-C₂-S-AgNDs/ESS (a), HS-C₃-S-AgNDs/ESS (b), HS-C₆-S-AgNDs/ESS (c) and HS-C₈-S-AgNDs/ESS (d) fibers (×20000).

Fig. S2

Fig. S2. SEM images of the SH-C₈-S-AgNDs/ESS fiber after self-assembly of octanedithiol within 12 h, 24 h, 36 h. Conditions: applied voltage, -0.3 V to 0.3 V; scan rate, 20 mV s⁻¹; CV cycles, 20.

Fig. S3

Fig. S3. EDS spectra of the SH-C₈-S-AgNDs/ESS fiber after self-assembly of octanedithiol within 12 h, 24 h, 36 h.

Fig. S4

Fig. S4. Typical chromatograms of UV filters by direct HPLC (a) and by SPME-HPLC with the bare SS wire (b), the ESS wire (c), the AgNDs/ESS fiber (d) and the SH-C₈-S-

AgNDs/ESS fiber (e). Conditions: UV filters, 100 $\mu\text{g L}^{-1}$; extraction, 30 min; desorption, 4 min; temperature, 35 $^{\circ}\text{C}$; stirring, 400 r min^{-1} .