Supporting information

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1. SEM image of thin film silver

Figure S1. Scanning electron microscopy image of a thermally evaporated silver thin film.

2. SEM image of SNW

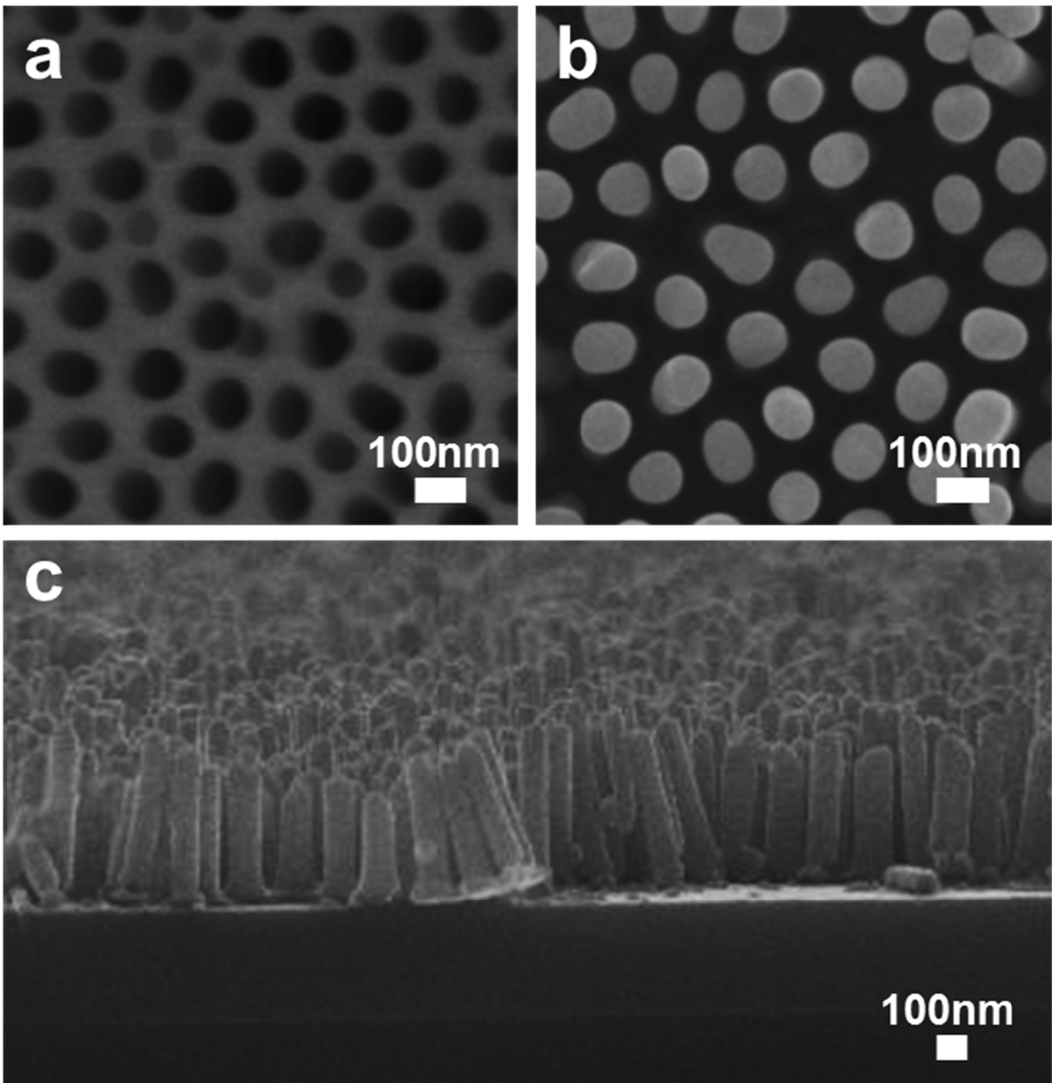

Figure S2. Scanning electron microscopy images of the top-view of an a) AAO template, b) silver nanowire array and c) side-view image of the silver nanowire array.

3. Stability study of silver nanograss as a SERS substrate

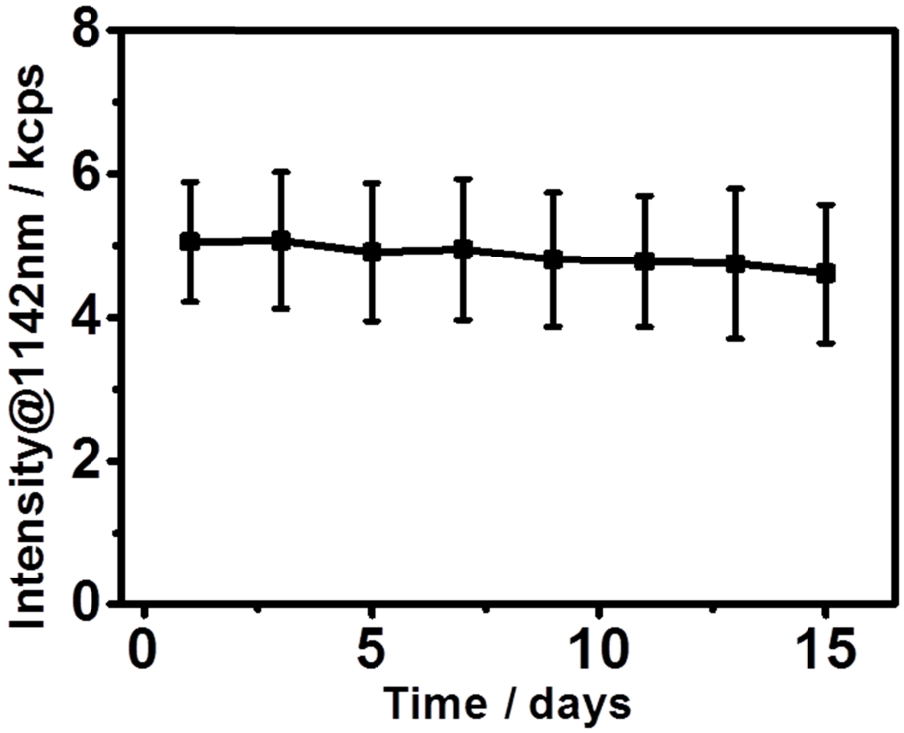

Figure S3. Plot of SERS intensity (1142 nm) of p-ATP (10^{-5} M) deposited silver nanograss vs time. The laser (λ = 633 nm) on the sample was 500 μW and the integration time was 10 s.

4. Schematic route of the preparation of patterned silver nanograss

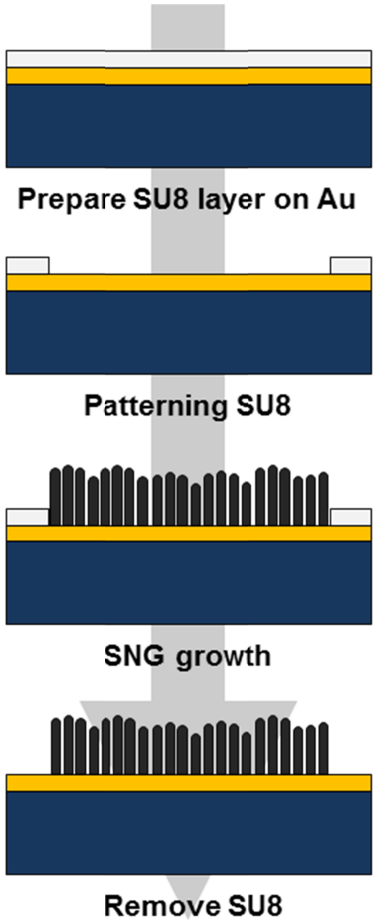

Figure S4. Schematic route of preparation of patterned silver nanograss.

5. CV at various concentrations of hydrogen peroxide

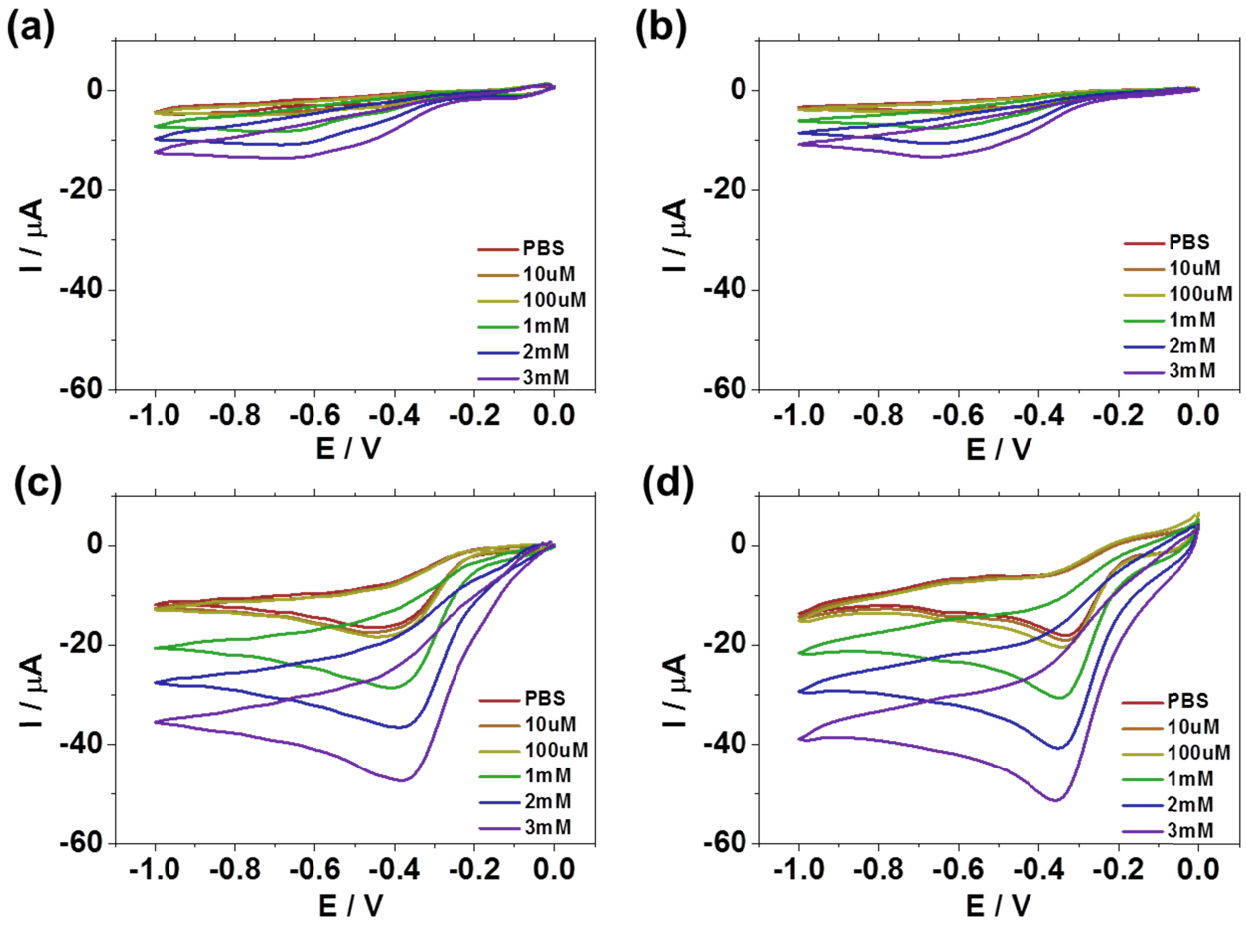

Figure S5. Cyclic voltammograms of a) thin film silver, b) SNG0.8, c) nanograss and d) SNW in the presence of H_2O_2 at various concentrations (from the top: 0, 0.01, 0.1, 1, 2 and 3 mM) under 1x PBS solution (pH 7.0). Scan rate = 50mV/s.