Supporting information

Mussel-inspired PDA-based MIP-SERS sensor for the detection of trace MG in environmental water

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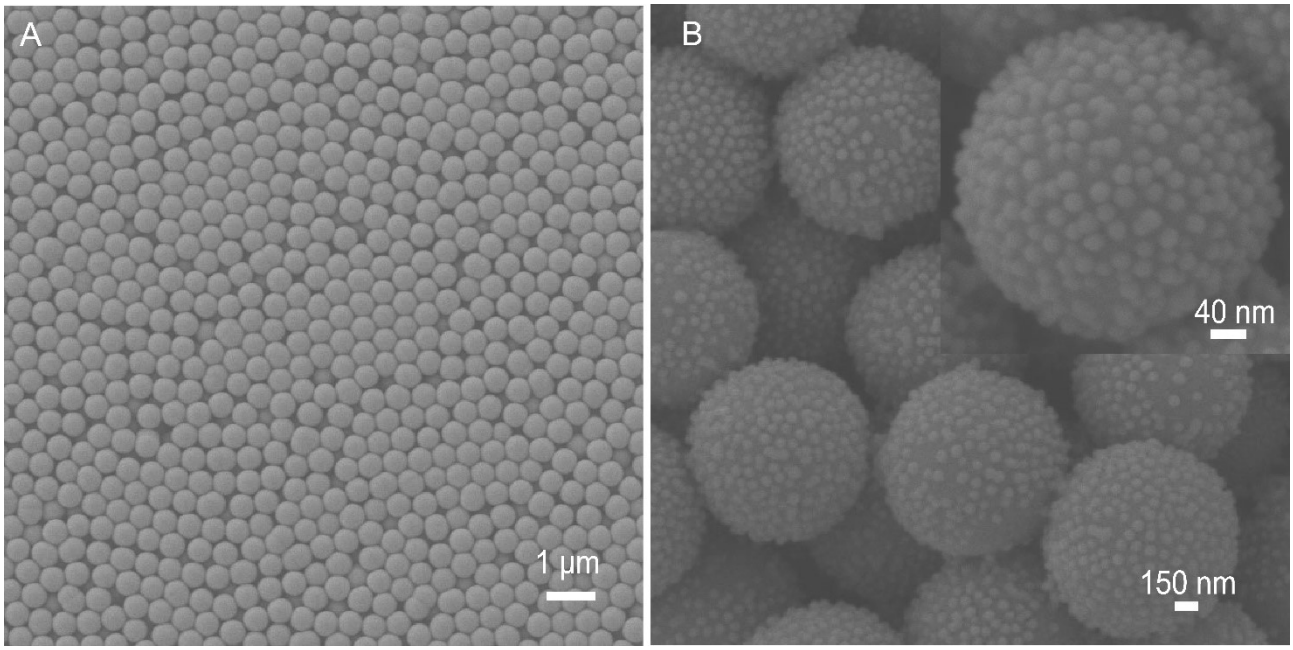

Figure S1. SEM images of SiO_2 NPs (A) and SiO_2@Au NPs (B).

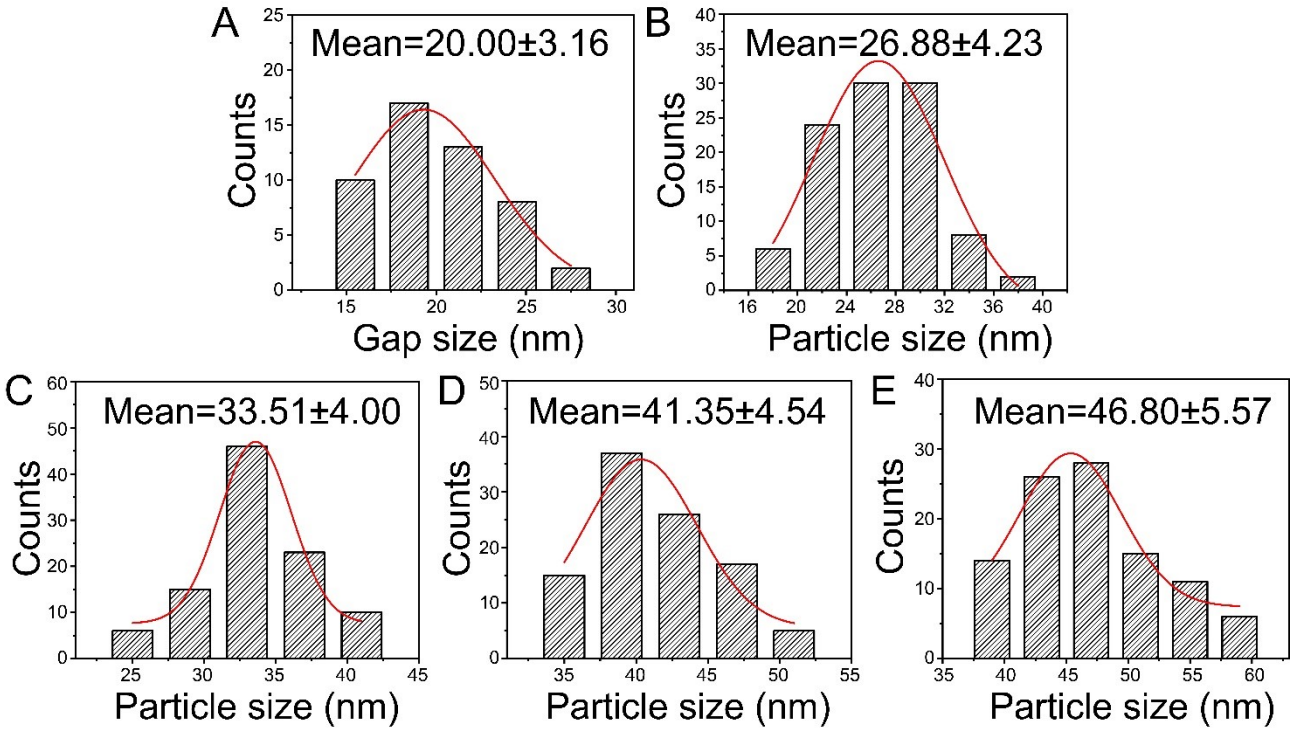

Figure S2. (A) SA surface gold nanoparticle gap. The size of Au NPs on the surface of SA (B), SA-50 (C), SA-100 (D) and SA-200 (E).

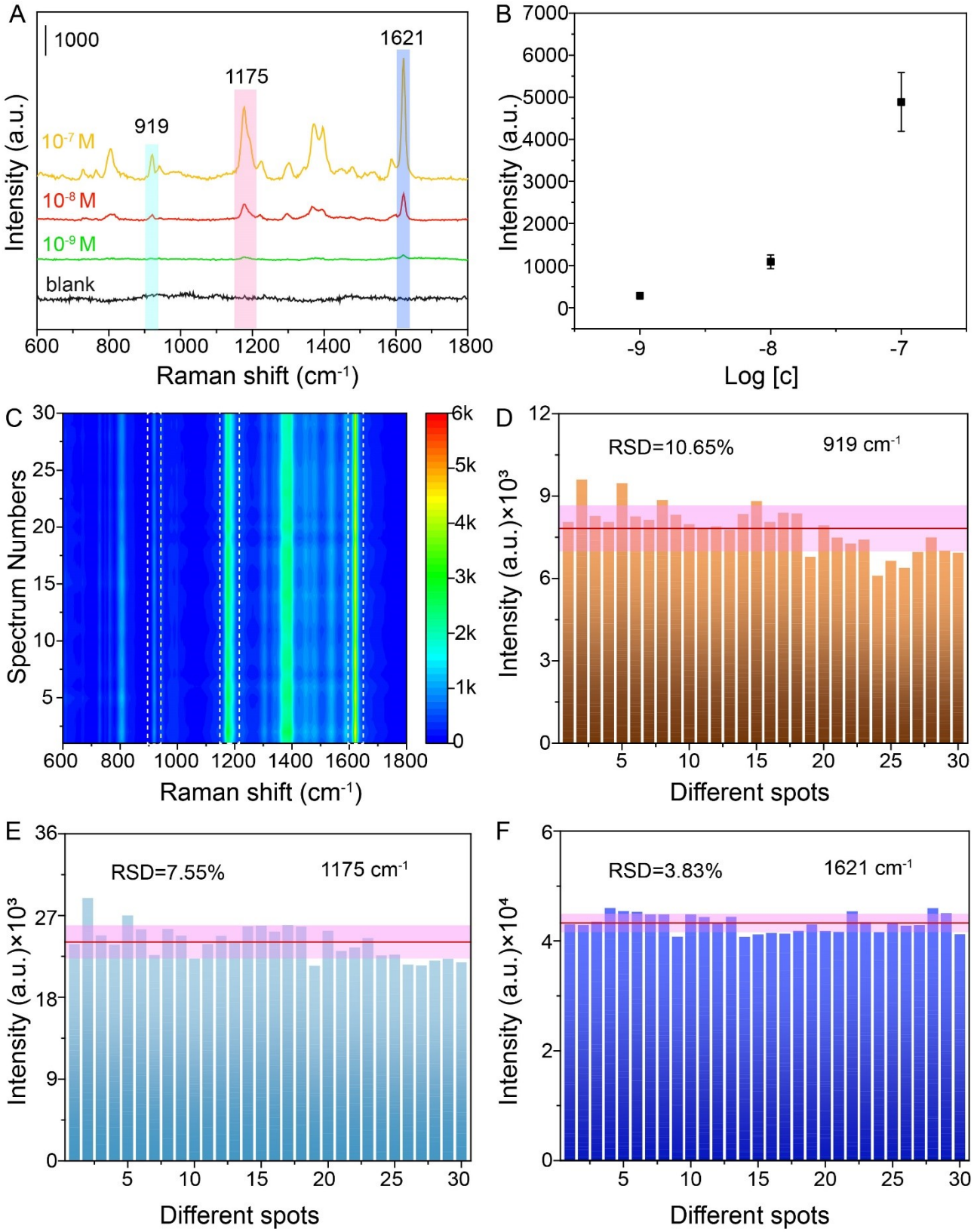

Figure S3. (A) SERS spectra of different CV concentrations. (B) Relationship between SERS intensity at 1621 cm^{-1} and MG concentration. (C) 2D image of 30 spectra randomly collected from 30 spots with 1×10^{-5} mol/L CV. (D) Histogram of SERS intensity at 919 cm^{-1} from 30 spectra. (E) Histogram of SERS intensity at 1175 cm^{-1} from 30 spectra. (F) Histogram of SERS intensity at 1621 cm^{-1} from 30 spectra.

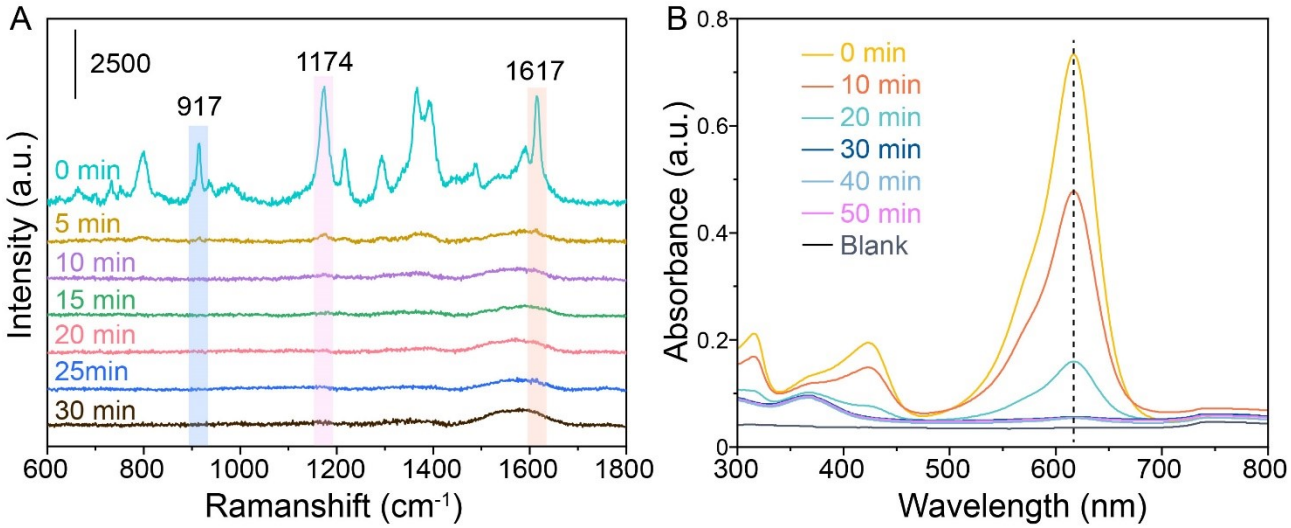

Figure S4. (A) SERS spectra of SA-100@PDA under different elution times. (B) UV-vis absorption spectra of MG solution under different adsorption time.

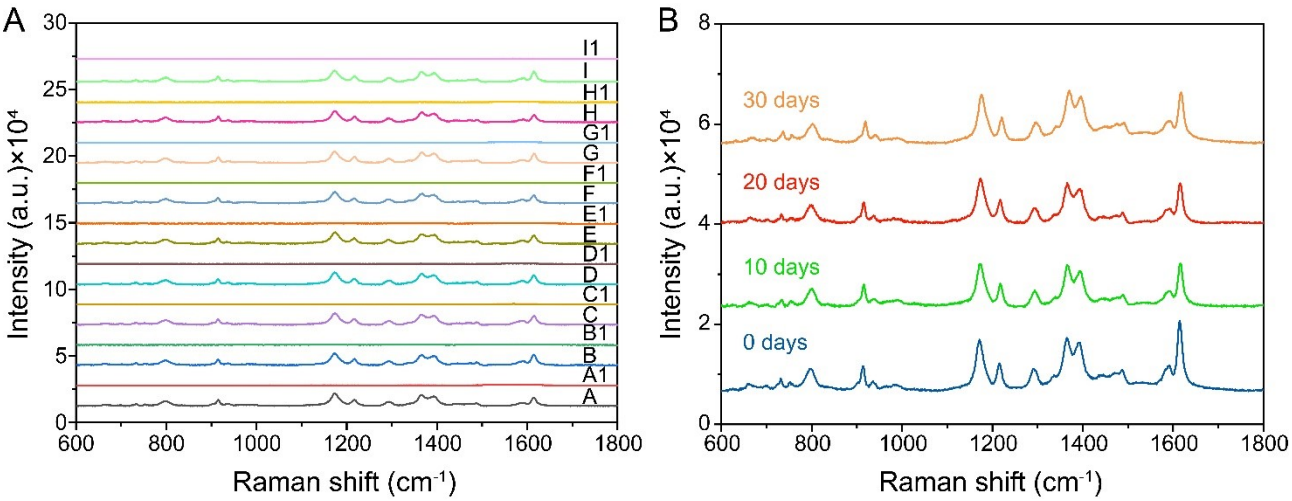

Figure S5. SERS spectra of MG (1×10^{-5} mol/L) under different elution times (A) and different storage times (B).