Supporting Information

Highly oriented langmuir-blodgett film of silver cuboctahedra as an effective matrix-free sample plate in surface-assisted laser desorption/ionization mass spectrometry

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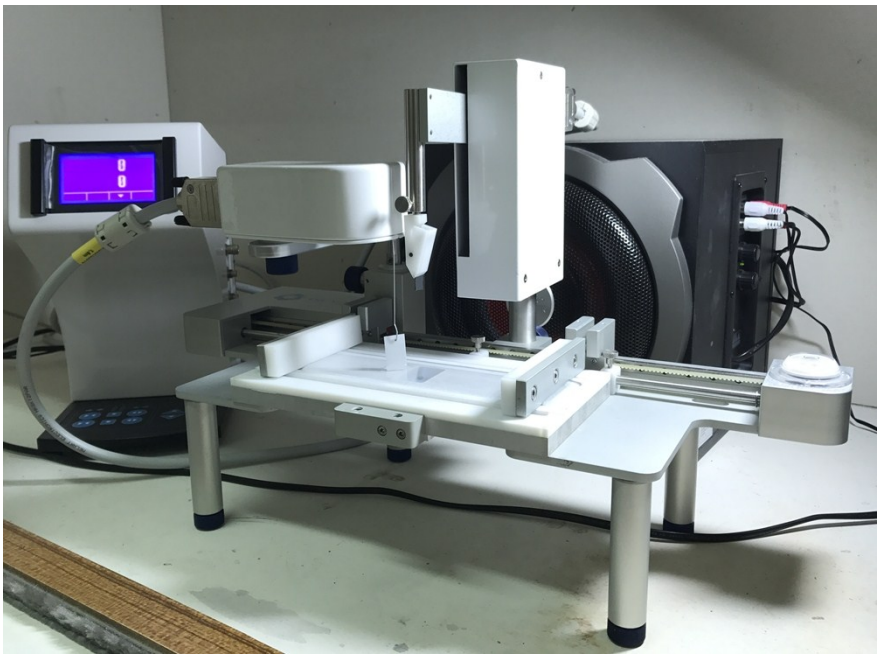

Figure S1. KSV NIMA LB Trough (KN 2001) was used to fabricate silver nanocrystal LB films with precise control of lateral packing density.

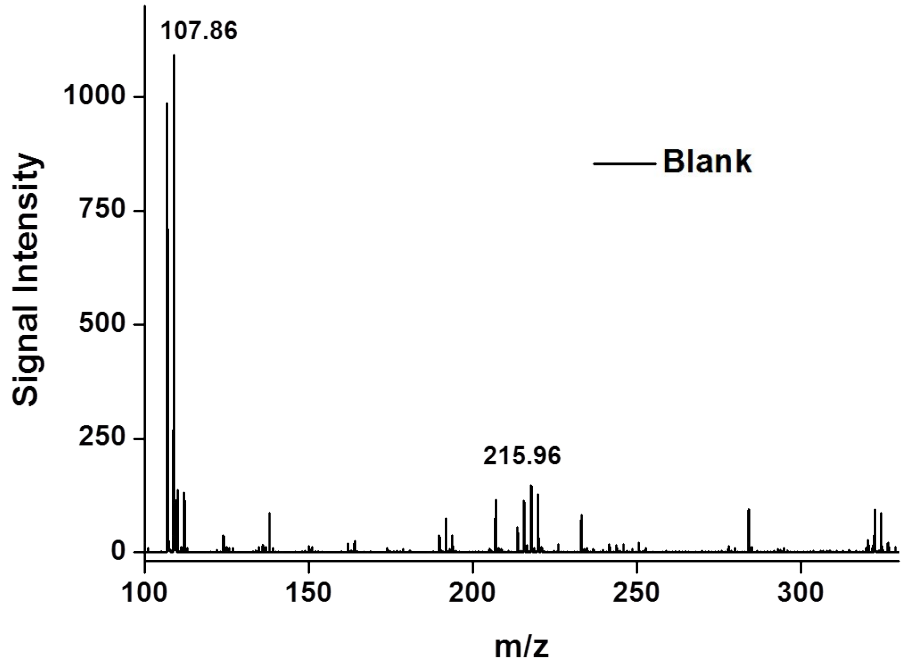

Figure S2. Mass spectra obtained from silver cuboctahedron LB film. Peak identity: m/z 107.86, $[Ag]^+$; m/z 215.96, $[Ag_2]^+$.

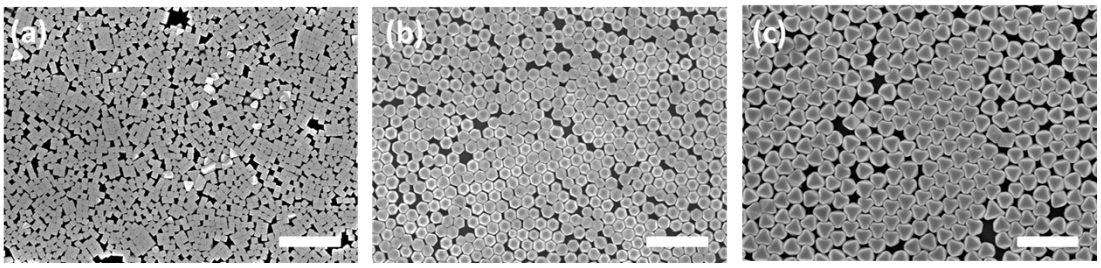

Figure S3. Low magnification SEM images of (a) silver cube LB film (b) silver cuboctahedron LB film and (c) silver octahedron LB film. The scale is 1 μm.

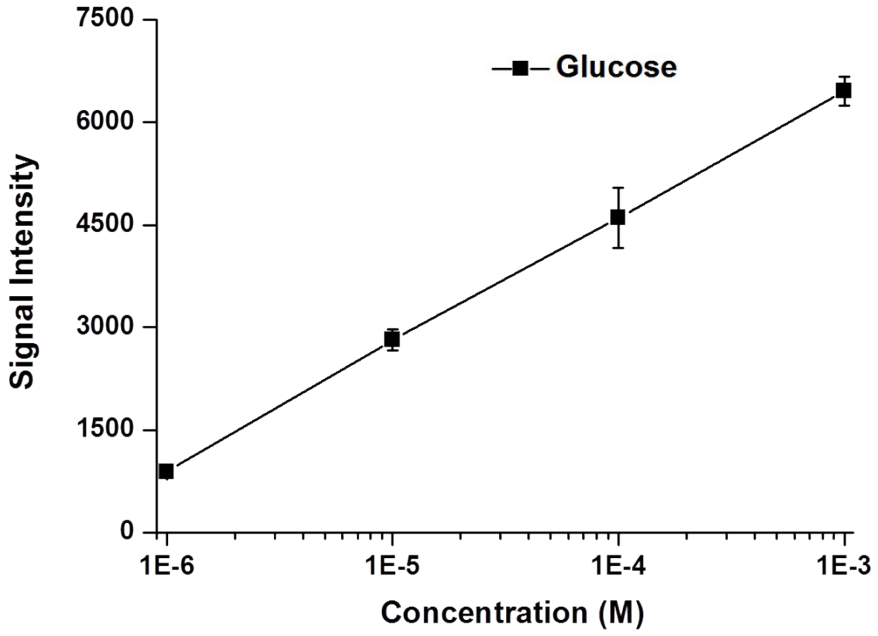

Figure S4. Calibration curve of glucose obtained by using sample plate of silver cuboctahedron LB film in SALDI MS. The limit of detection of glucose was obtained to be 1 μM.

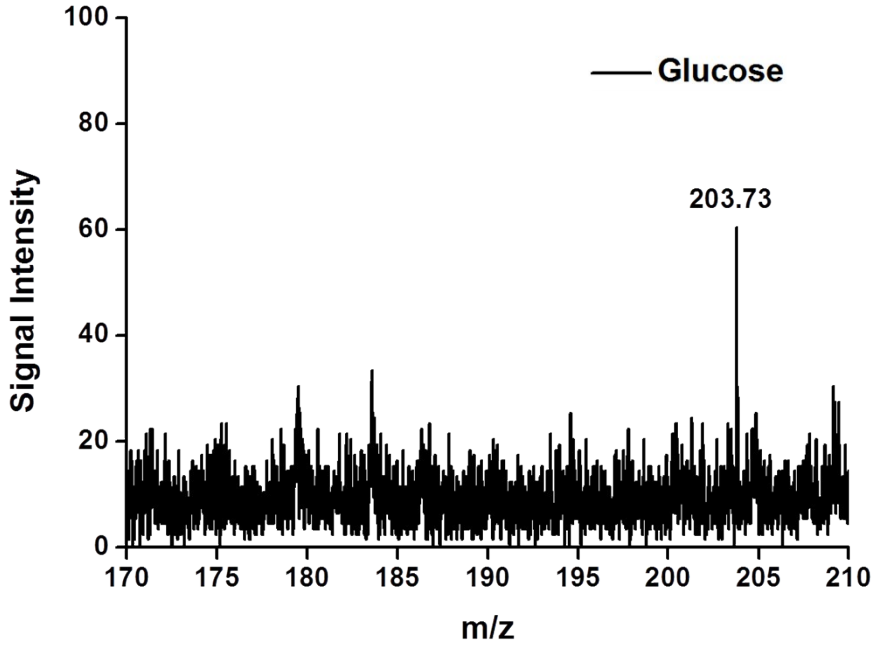

Figure S5. Mass spectra of glucose in blood plasma with the use of sample plate of silver cuboctahedron LB film in SALDI MS. Peak identity: m/z 203, $[Glucose+Na]^+$.

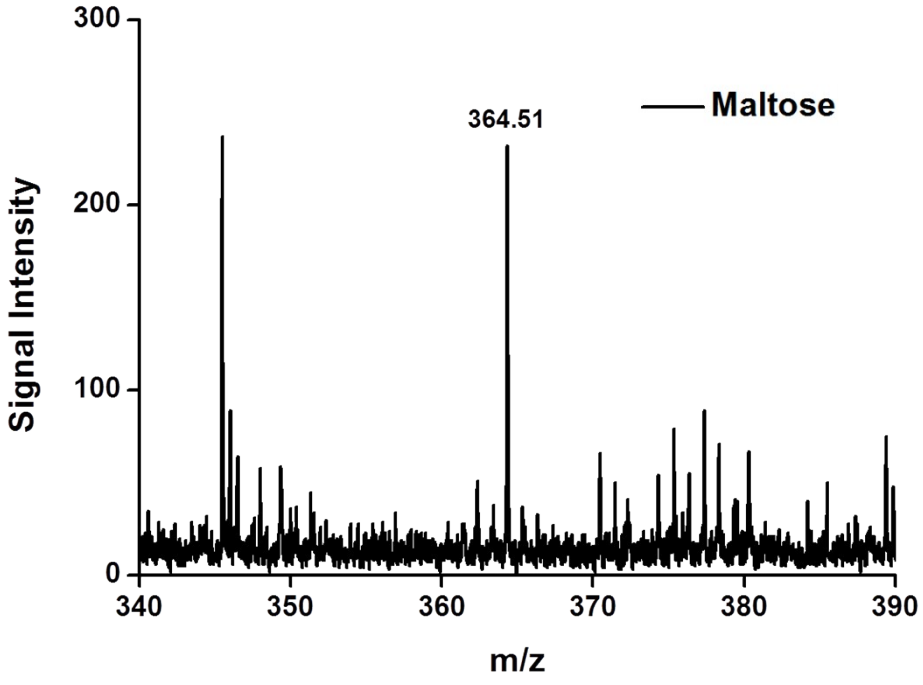

Figure S6. Mass spectra of maltose with the use of sample plate of silver cuboctahedron LB film in SALDI MS. The concentration of maltose is 10^{-4} M. Peak identity: m/z 364.51, $[Maltose+Na]^+$.