

Electronic Supplementary Information (ESI)

Protein-modified silver nanoplates for complementary analytical method of localized surface plasmon resonance (LSPR) and matrix assisted laser desorption/ionization mass spectrometry (MALDI-MS)

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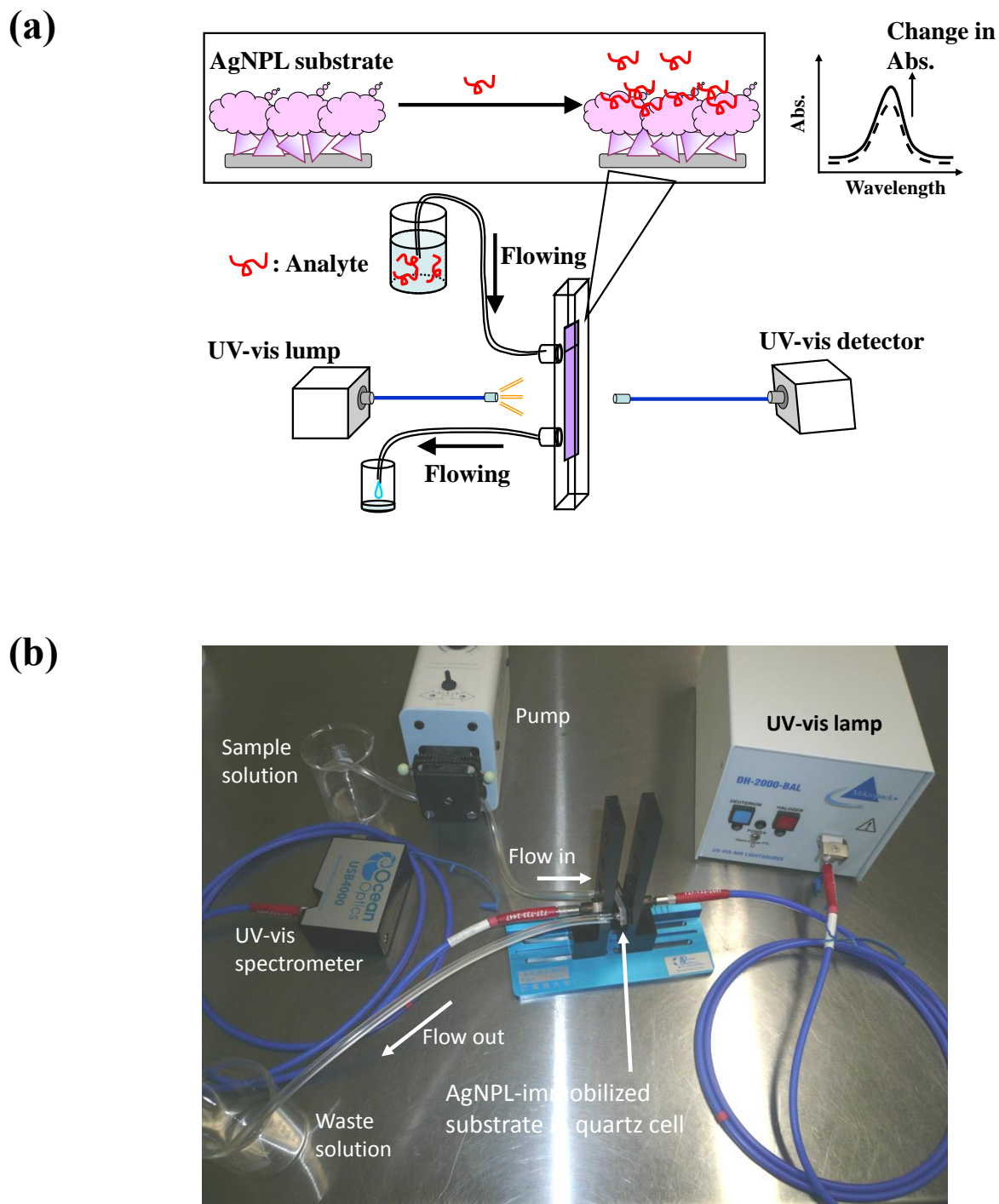


Figure S1. (a) Schematic and (b) photograph images of LSPR sensing system.

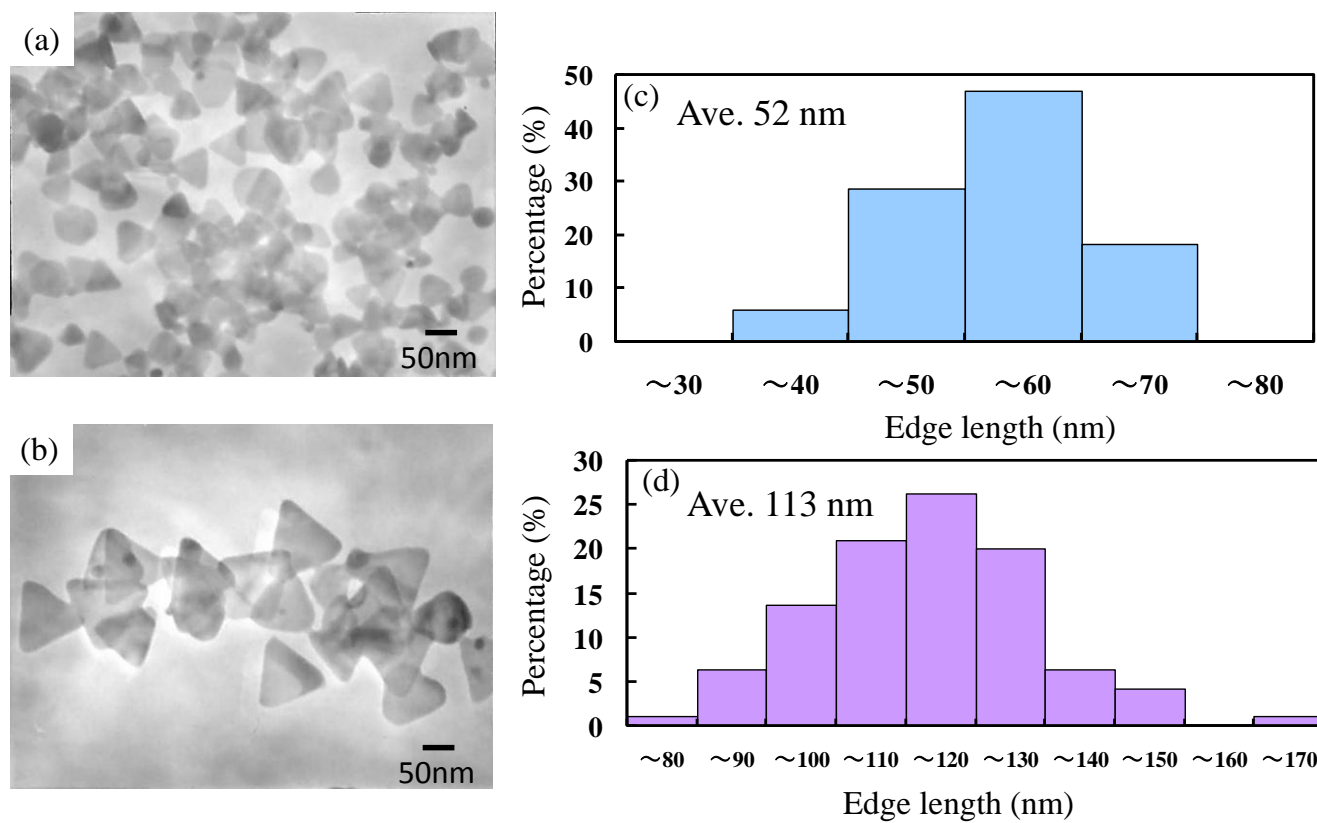


Figure S2. TEM images of Ag NPL at the irradiated times of (a) 4h and (b) 7h in the presence of excess Ag^+ ions. The size distributions of edge lengths of Ag NPL at the irradiated times of (c) 4h and (d) 7h in the presence of excess Ag^+ ions.

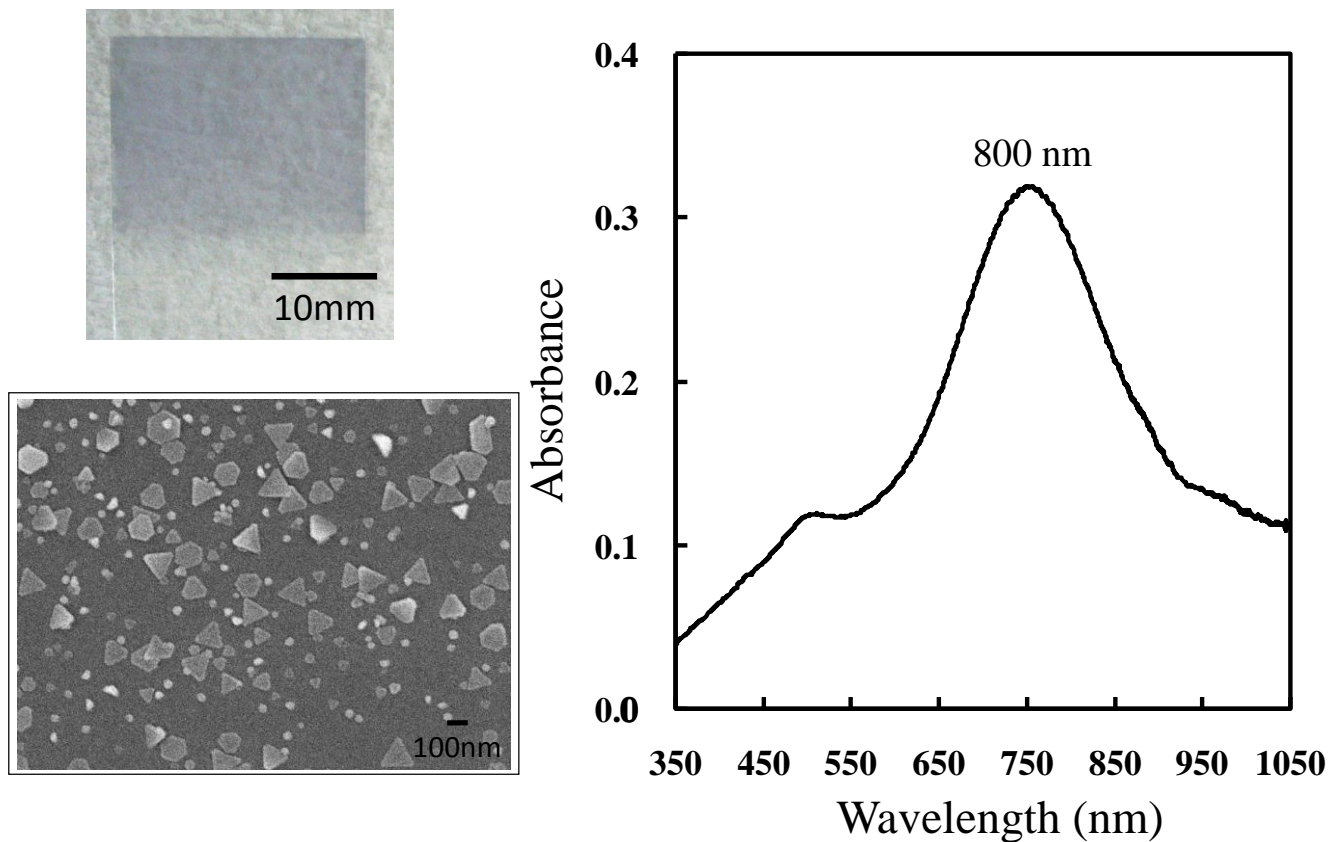


Figure S3. (a) Optical image, (b) SEM image and (c) UV-vis spectrum of AgNPL-immobilized substrate under air.

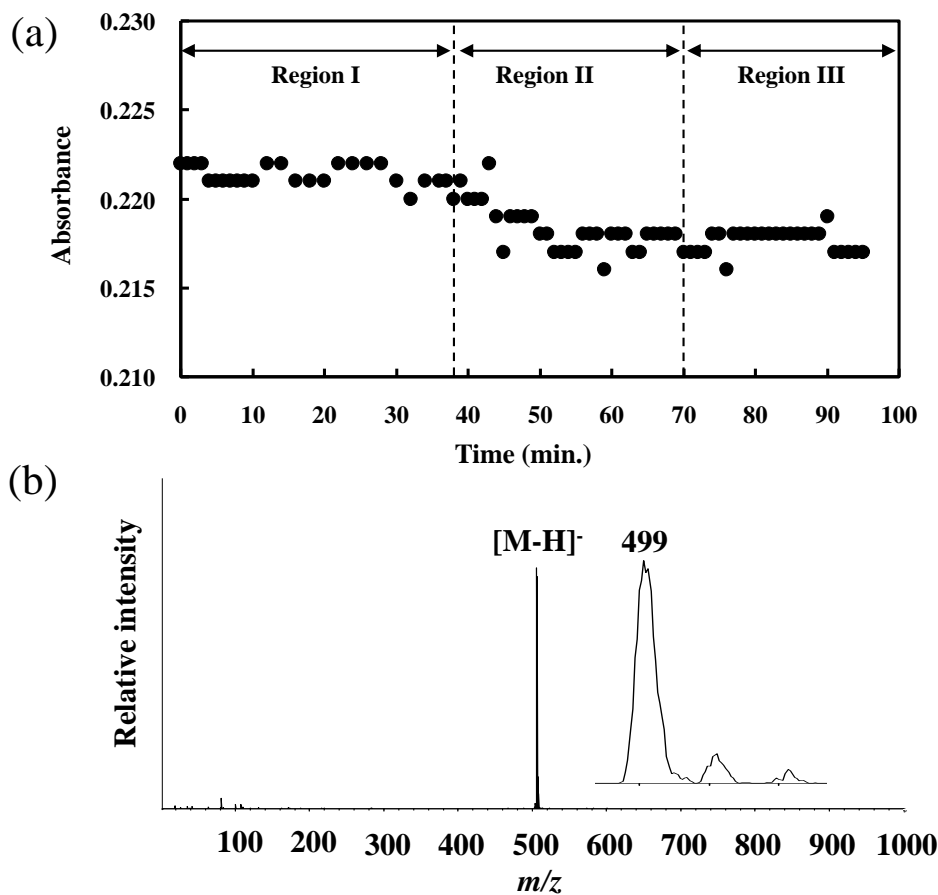


Figure S4. (a) LSPR absorbance changes of Lyz-Ag NPL substrate as a function of time. (b) Matrix-free LDI mass spectrum of PFOS from the Lyz-Ag NPL substrate.

Note: (a) In water (region I), no change in the absorbance can be observed. On the addition of 20 μM PFOS solution (region II) and during the subsequent washing with water (region III), no absorbance change can be seen. (b) The matrix-free LDI-MS clearly showed the deprotonated ion peak of PFOS at m/z 499 in the mass spectrum