

Supporting information

Colorimetric plasmon sensors with multilayered metallic nanoparticle sheets

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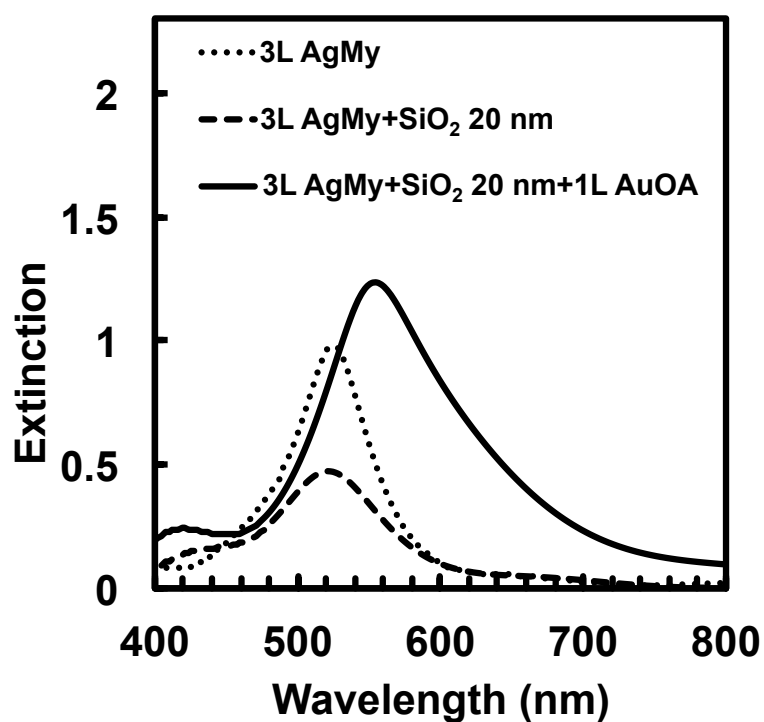


Fig. S1 FDTD simulation results of 1L AuOA on a 20-nm SiO₂/3-layered AgMy/Ag substrate.

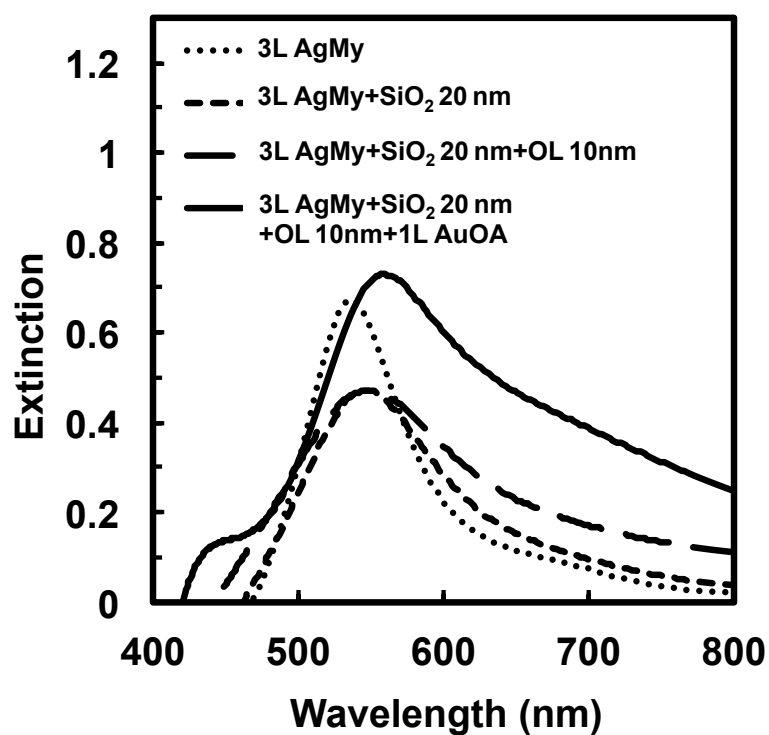


Fig. S2 FDTD simulation results of 1L AuOA on a 10-nm organic layer (OL, $n = 1.45$)/20-nm SiO₂/3-layered AgMy/Au substrate.

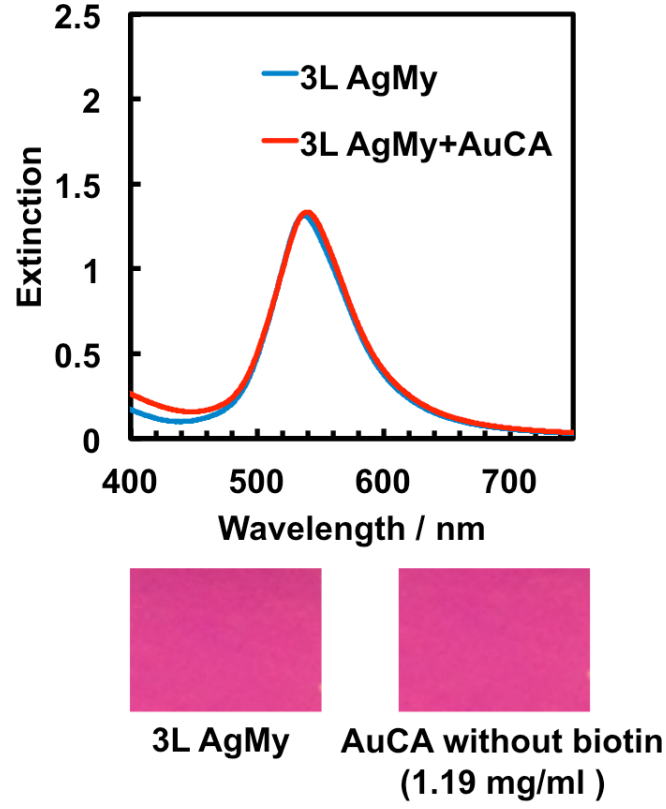


Fig. S3 Control experiment: adsorption of AuCA NPs (without biotin) onto an avidin/biotin-PEG-SiO₂/3-layered AgMy/Au substrate. The solution concentration was 1.19 mg/m.

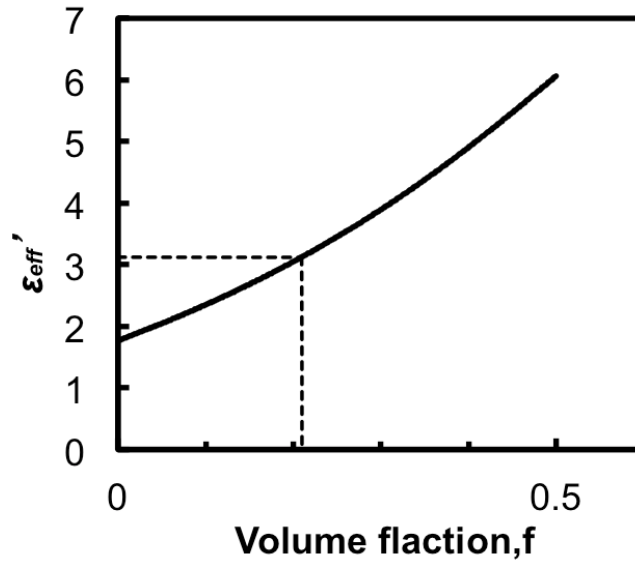


Fig. S4 Effective dielectric constant of the particle composite layer ϵ'_{eff} as a function of the volume fraction f , based on the simplified Maxwell-Garnett equation (eq. 1).