

Supporting Information

Viable Stretchable Plasmonics Based on Unidirectional Nanoprisms

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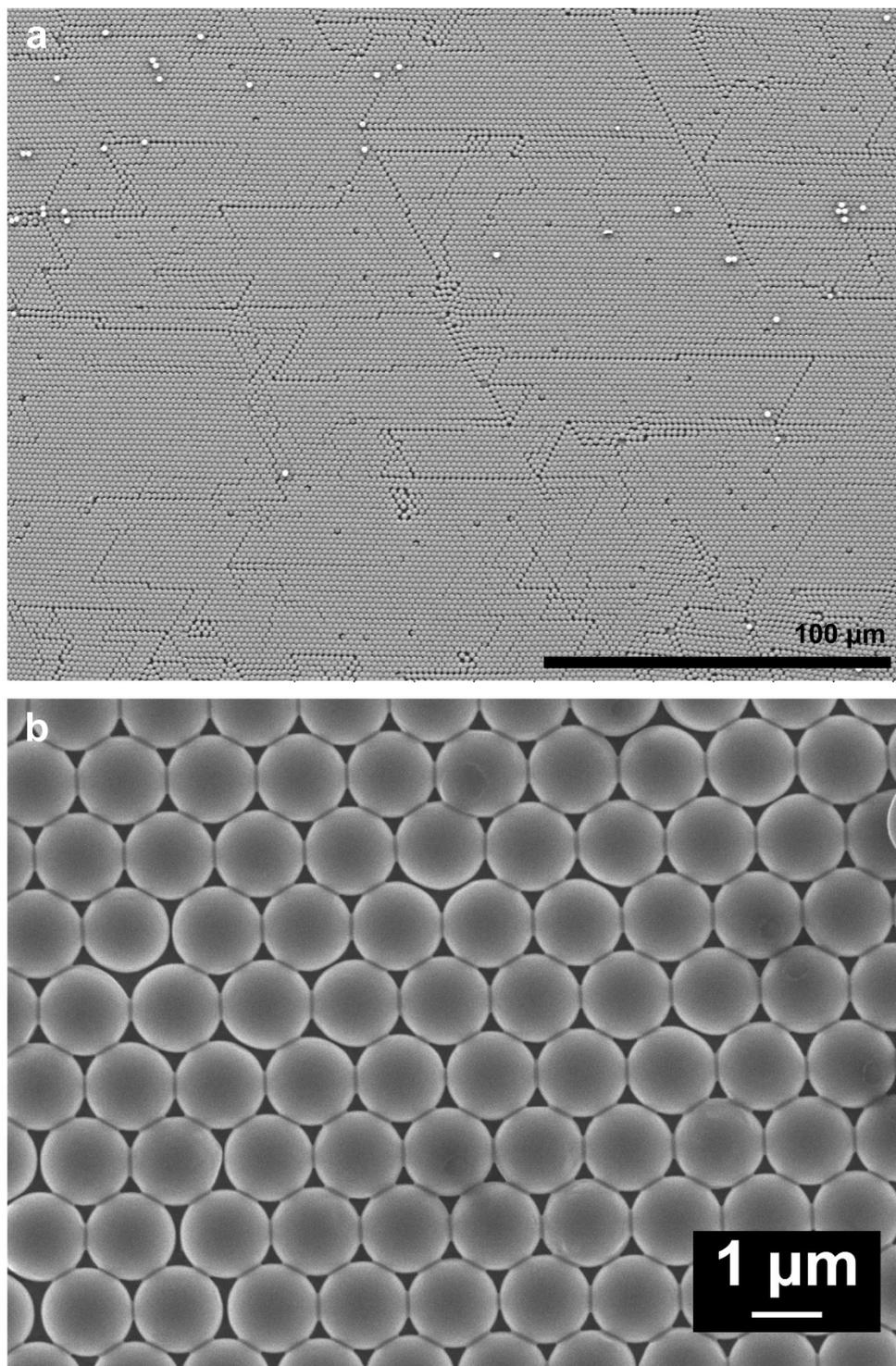


Figure S1. (a) SEM image of closely packed PS monolayer on the PDMS film by rubbing process.
(b) Magnified SEM image of PS bead monolayer arrays.

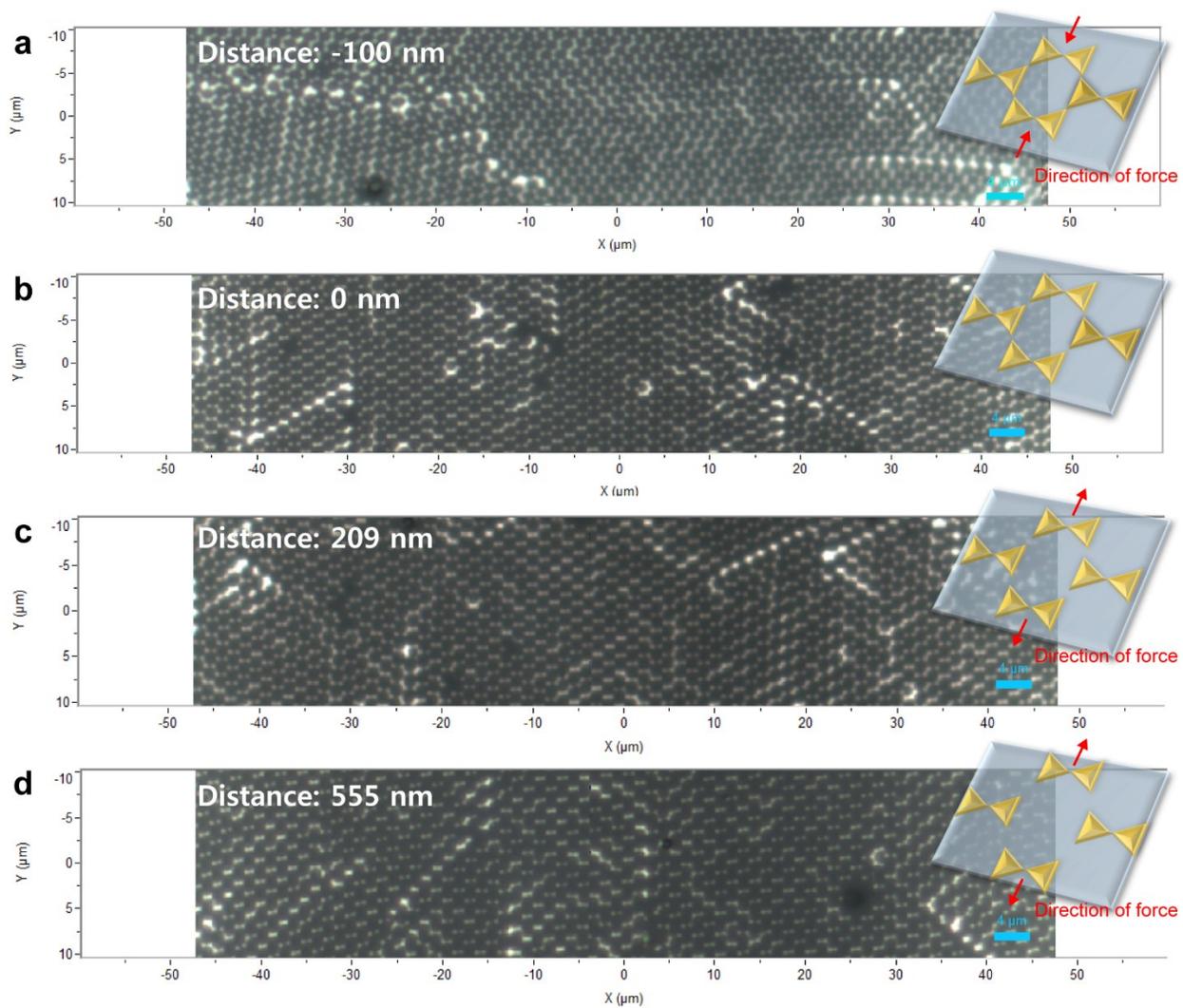


Figure S2. Optical microscope images of Ag/Au bilayer nanoprism arrays with extension and contraction states: (a) -6%, (b) 0%, (c) 20% and (d) 100%.

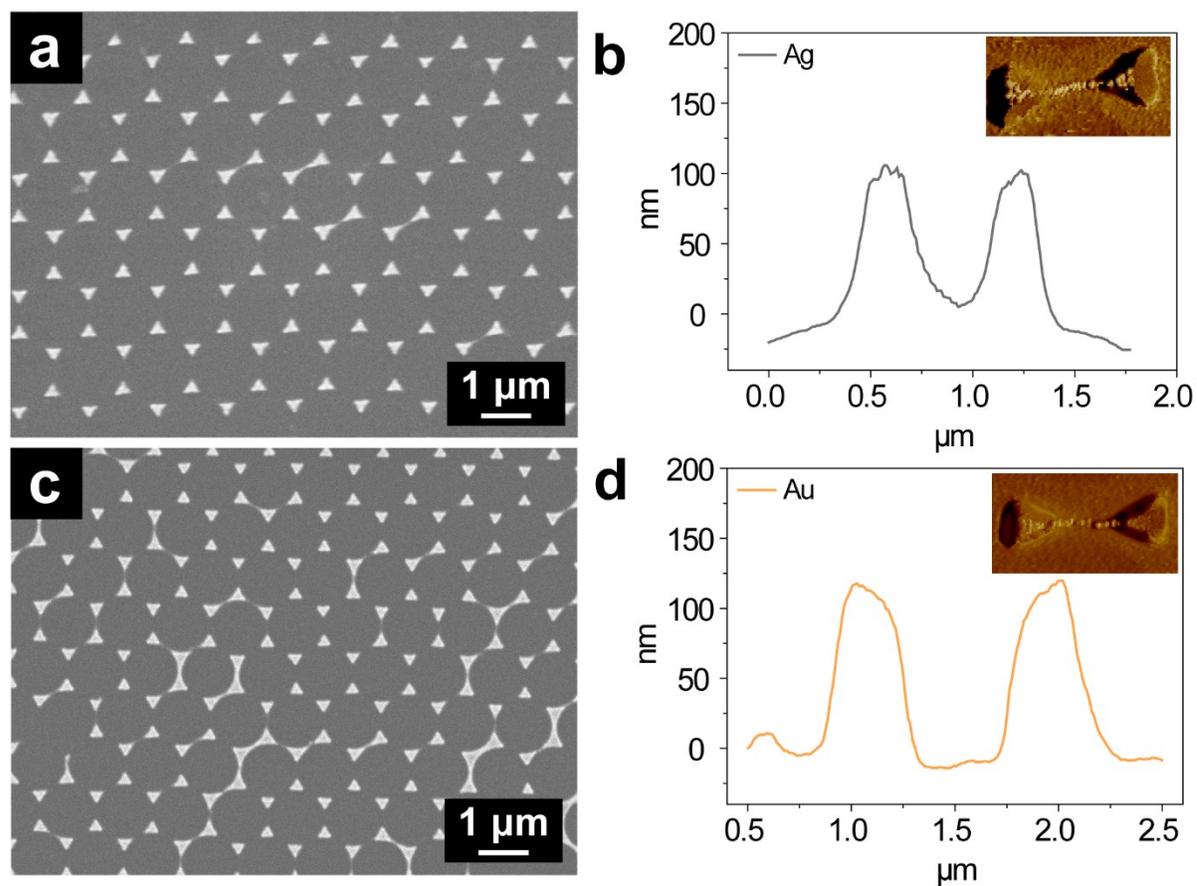


Figure S3. SEM images (a, c) and cross-sectional AFM profiles (b, d) of the sample surfaces. Insets in Figure B & D are height contrast AFM images. (a), (b) Ag nanoprism arrays; (c), (d) Au nanoprism arrays.

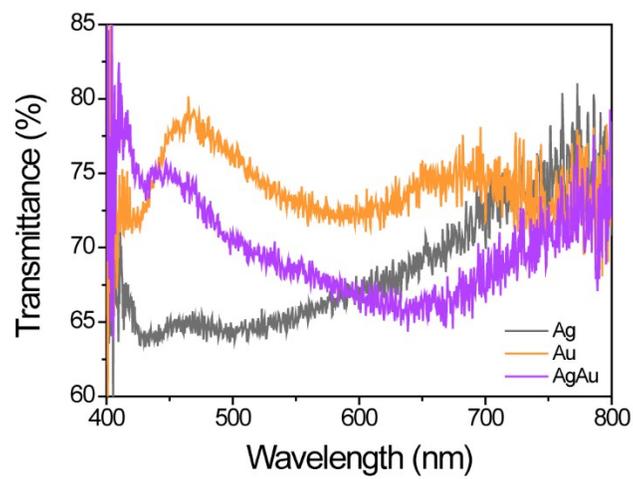


Figure S4. Transmittance spectra of the unit of the different metal single nanoprisms with contraction of 0%.

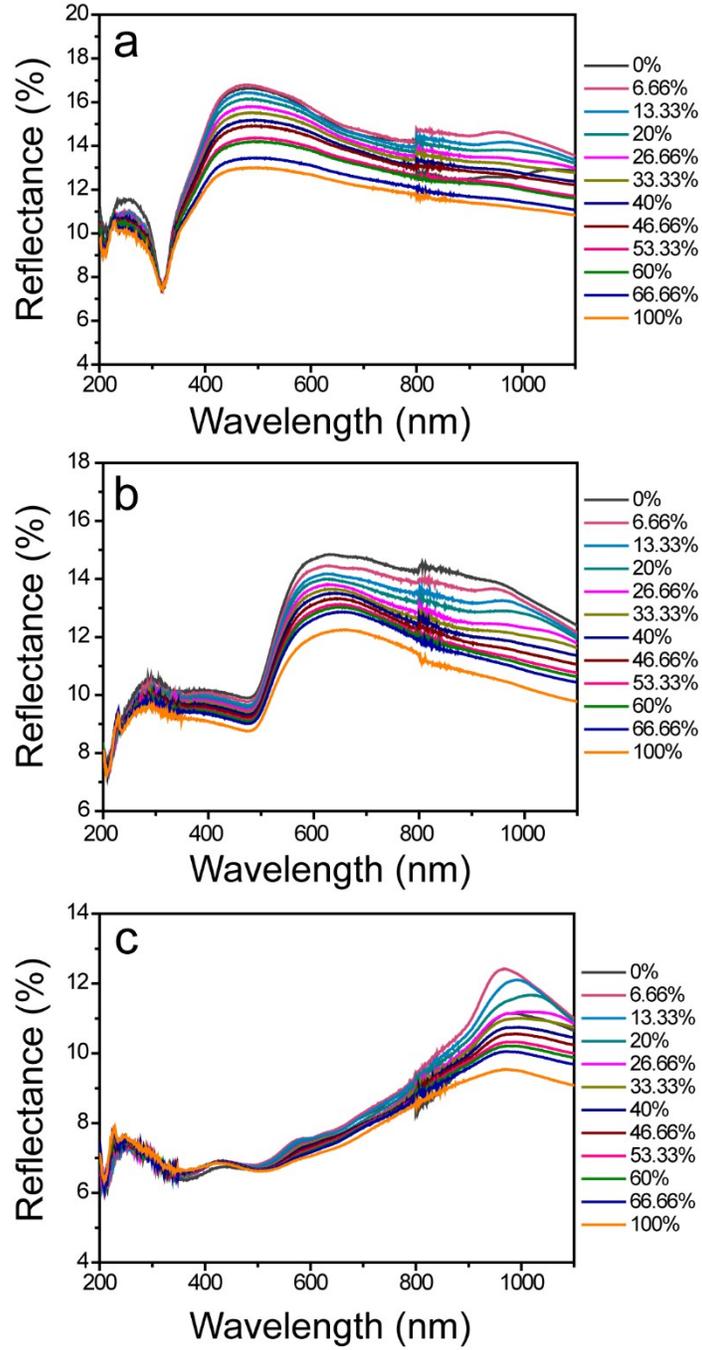


Figure S5. Reflectance spectra of metal nanoprism arrays on thinner PDMS substrates with different extension ratio obtained from (a) Ag nanoprism arrays (b) Au nanoprism arrays, and (c) Ag/Au bilayer nanoprism arrays.

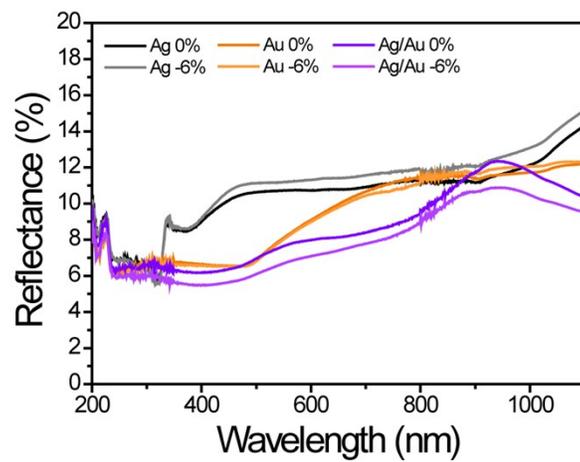


Figure S6. Reflectance spectra of metal nanoprism arrays on thicker PDMS substrates with contraction ratio of 0 and -6%.

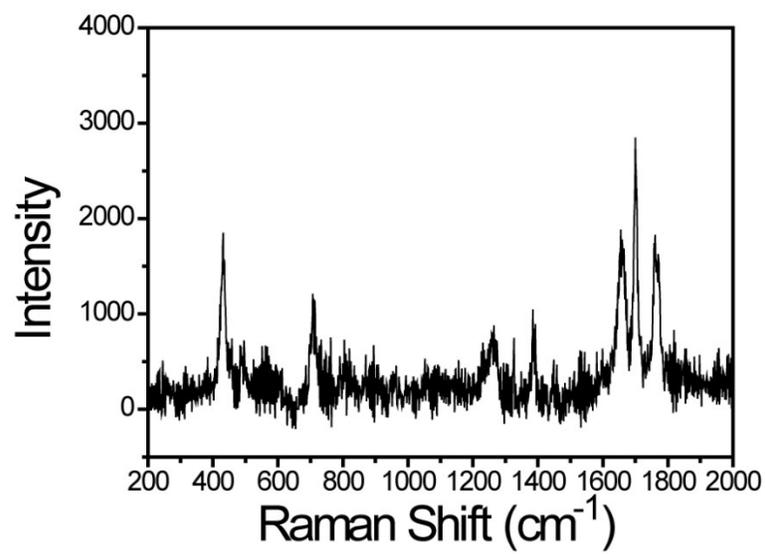


Figure S7. SERS spectrum of adsorbed *p*-ATP molecules on the PDMS without metal nanoprism arrays.

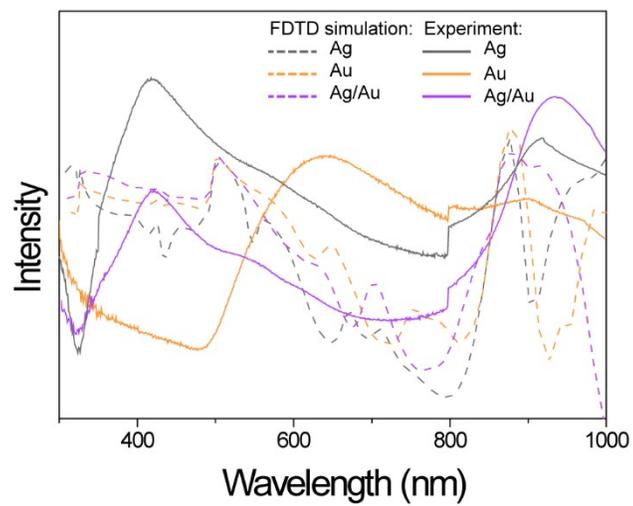


Figure S8. FDTD calculated absorption spectra of different metal nanoprism arrays with contraction of 0%.