Controlled Reshaping and Plasmon Tuning Mechanism of Gold

Nanostars

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Supplementary Information



Figure S1: LHS shows optical spectra of gold nanostars in different solvent and RHS shows the shifts in LSPR peak position with respect to refractive index of different solvent. The linear response shows Au nanostars are stable in different solvents.



Figure S2: showing the mean aperture angle alpha of tip like Au nanostructures at different NaOH concentration (in mM) which is signifying that with increase in NaOH volume the alpha angle increases and hence broadness of tips.



Figure S3: UV-Vis-NIR spectroscopic and TEM study of the gold nanostructures with respect to higher NaOH volume/concentration.



Figure S4: Kinetic FTIR spectra over the full energy range (baseline corrected wrt DMF) for (a) pristine Au nanostars, (b) with NaOH = 2.5mM and (c) with NaOH = 5mM.