Supporting Information

Title:

Magnetic-plasmonic Ni@Au core-shell nanoparticle arrays and their SERS properties

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Figures

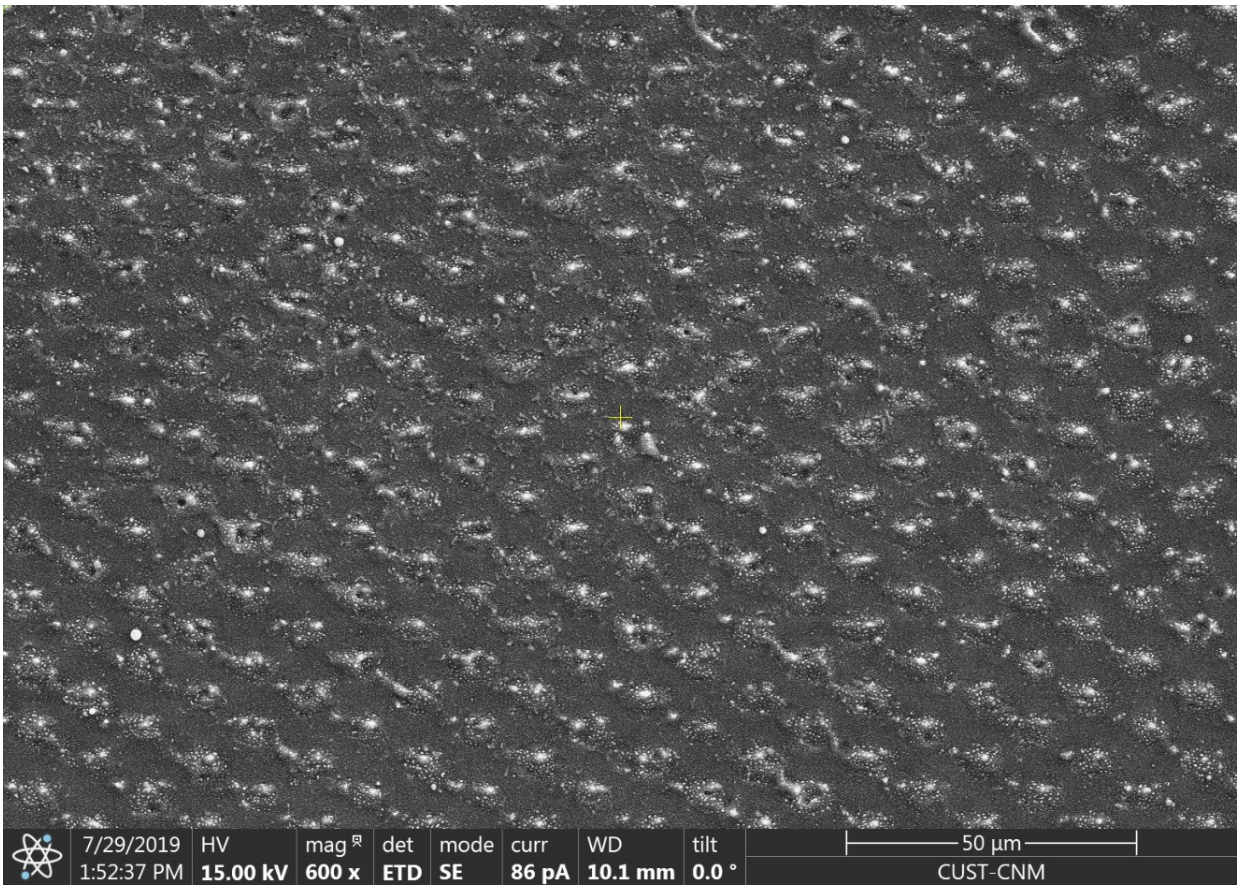

Figure S1. Low magnification SEM image of the $Ni_{50}@Au_{50}$ NPAs corresponding to Figure 1(c).

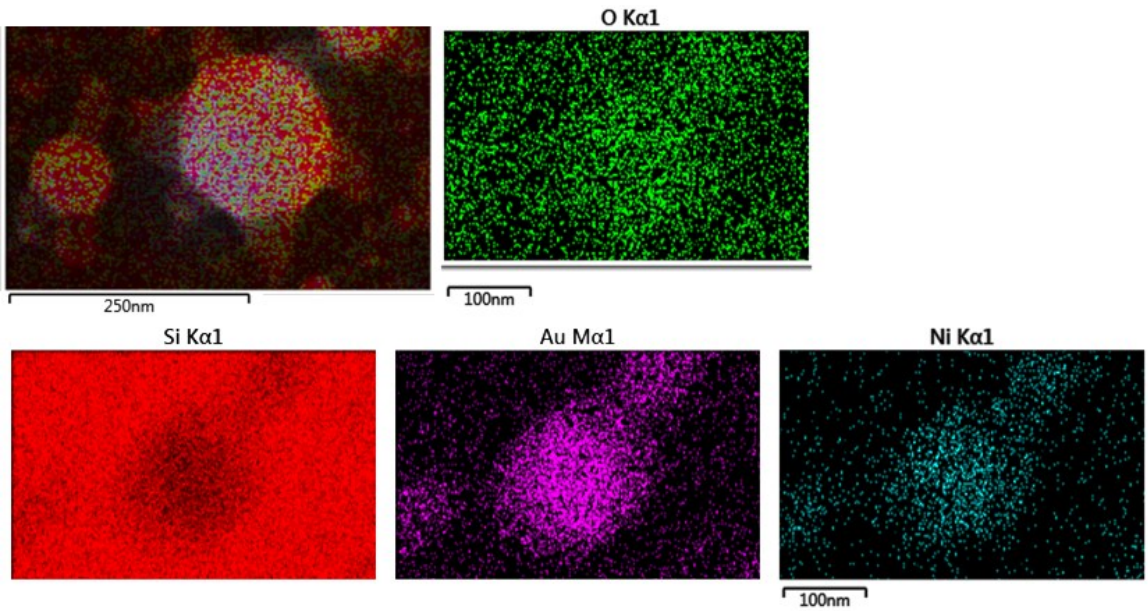

Figure S2. Higher magnification EDS mapping of single crystalized particle corresponding to Figure 2(d).

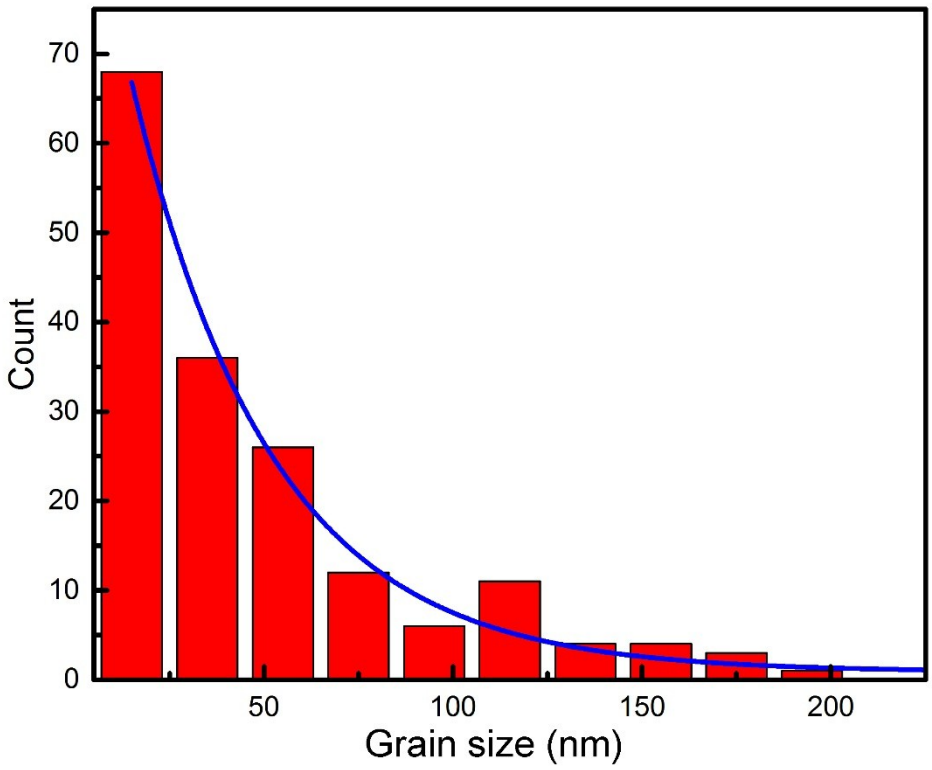

Figure S3. Plots of the grainsize distribution of the as-annealed Ni_{50}@Au_{50} core–shell particles in the

TEM image of Figure 7(a).

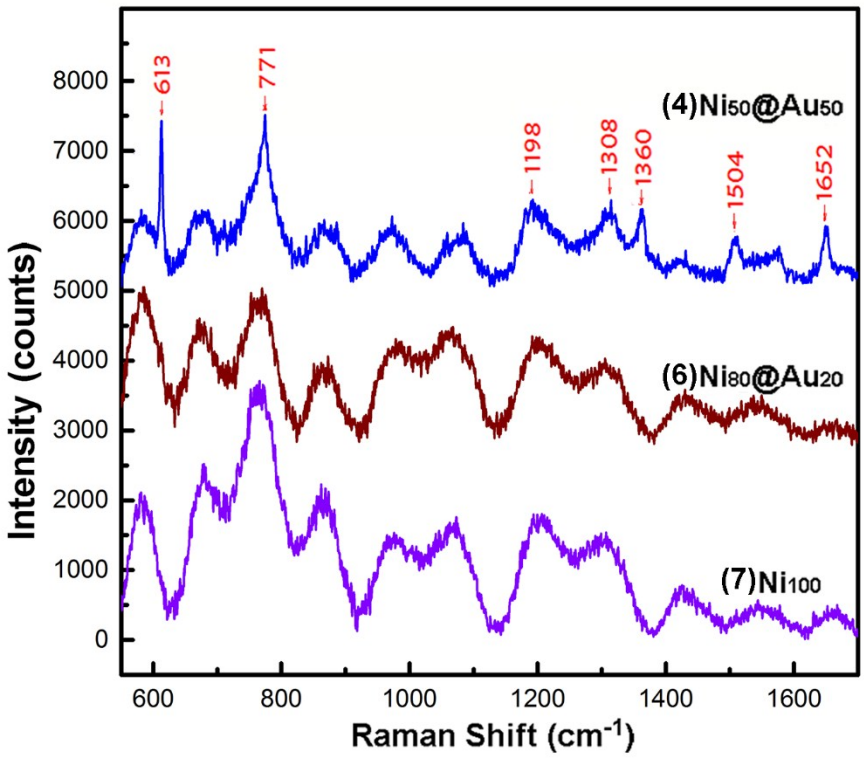

Figure S4. SERS spectra of the 10^{-6} M R6G molecules adsorbed on the substrates of Ni_{100} (7), $Ni_{80}@Au_{20}$ (6) and $Ni_{50}@Au_{50}$ (4), respectively.

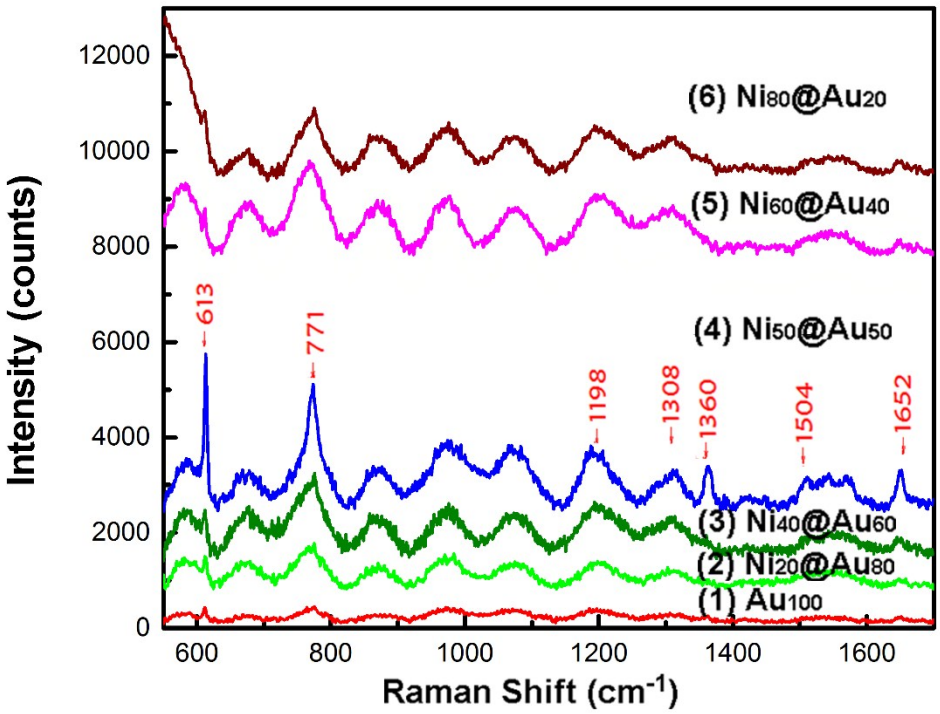

Figure S5. SERS spectra of the 10^{-4} M R6G molecules adsorbed on the substrates of Au_{100} (1), $Ni_{20}@Au_{80}$ (2), $Ni_{40}@Au_{60}$ (3), $Ni_{50}@Au_{50}$ (4), $Ni_{60}@Au_{40}$ (5) and $Ni_{80}@Au_{20}$ (6) NPAs, respectively.