Supporting information

Tailored Silica Coated Ag Nanoparticles for Non Invasive Surface Enhanced Spectroscopy of Biomolecular Targets

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Figure S1: Size distribution of Ag$_{413}$@SiO$_2$ NPs with lower (A,C, E) and higher (B,D, F) SiO$_2$ thickness. Distribution of the shorter diameter (A, B), longer diameter (C,D) and SiO$_2$ coating thickness (E,F).
Figure S2: SERR intensity as a function of Cyt c solution concentration. The determination procedure of $\Gamma_{\text{max}} = 1.2 \, \mu\text{M}$ was done according to ref. [7].

Figure S3: TEM pictures of Ag$_{413}$@SiO$_2$ NPs with different silica thickness (A) $d(\text{SiO}_2) = 6\pm2$ nm, (B) $d(\text{SiO}_2) = 15$ nm. The particle coating was achieved under the following conditions: (A) 2.5 mL and (B) 4 ml of 2 % sodium silicate solution at pH 11. (C) $\nu_4$ region of the corresponding Cyt c RR (black) and SERR spectra: (blue: $d(\text{SiO}_2) = 4$ nm, green: $d(\text{SiO}_2) = 6$ nm, red: $d(\text{SiO}_2) = 15$ nm). The SERR spectra were recorded 10 min after adding the NPs. Experimental conditions: Laser power 1 mW, Accumulation time 10 sec, Cyt c concentration $c_0 = 20 \, \mu\text{M}$. 