Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Supporting Information for:

Origin of Enhancement in Raman Scattering from Ag-dressed Carbon-Nanotube Antennas: Experiment and Modelling

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1 Tabulated data of Raman enhancement (attenuation) factors for bare and Ag-dressed MWCNTs (Si substrate) with inclusion of Ni nanoparticle at top of MWCNTs

Table S1 Enhancement factors, EF, for MWCNT Raman signals and attenuation factors, AF [in square brackets], for Si-substrate Raman signals for model systems as denoted in left-most column and described in Figure 3 and the text, but with Ni sphere included at the top of the MWCNT in all cases. In the top row (Bare MWCNTs) EF is set to unity with absolute value of $|\mathbf{E}_{loc}|^4$ given assuming input field of unit intensity (1 V/m). The corresponding experimental data are also given where EF and AF are evaluated from the areas beneath the spectra shown in Figure 2 in the range 507 - 531 cm^{-1} (Si-peak) and 1200 – 1700 cm^{-1} (MWCNT D- and G-bands, i.e. excluding the region with the subsidiary peak at ~1150 cm^{-1}).

	EF relative to *Bare* case		EF relative to *Bare* case [AF relative to *Bare* case]		Experiment	
	MWCNT		Si		MWCNT	Si
	0°	25°	0°	25°		
Bare ($\|E_{loc}\|^4$)	1.00 ± 0.03 (3.13 ± 0.08 × 10^{-2})	1.00 ± 0.40 (4.54 ± 1.77 × 10^{-2})	1.00 ± 0.02 (1.50 ± 0.002 × 10^{-2})	1.00 ± 0.04 (0.98 ± 0.004 × 10^{-2})	1.00 ± 0.03	1.00 ± 0.01
Capped 7.0 nm	1.18 ± 0.07	1.05 ± 0.43	0.85 ± 0.05 [1.16 ± 0.07]	0.94 ± 0.07 [1.06 ± 0.075]	4.22 ± 0.25	0.46 ± 0.01 2.19 ± 0.04
Coated 11.0 nm	4.50 ± 0.21	3.4 ± 3.06	0.124 ± 0.006 [8.08 ± 0.37]	0.113 ± 0.007 [8.88 ± 0.54]	N/A	N/A
Grainy-1	5.27 ± 0.27	4.4 ± 2.9	0.083 ± 0.003 [12.1 ± 0.4]	0.018 ± 001 [55.3 ± 3.2]	14.13 ± 0.85	0.173 ± 0.004 5.77 ± 0.12
Grainy-2	4.07 ± 0.19	4.2 ± 3.2	0.212 ± 0.02 [4.72 ± 0.52]	0.143 ± 0.011 [6.97 ± 0.54]		
Grainy-3	3.51 ± 0.17	3.9 ± 3.1	0.263 ± 0.024 [3.80 ± 0.35]	0.177 ± 0.010 [5.66 ± 0.38]		