

Supplementary Information

Table 1: EDX data for TiO₂ samples

Spectrum 1	Line Type	k factor	Absorption Correction	Wt%	Wt% Sigma	Atomic %
O	K series	1.181	1.00	47.29	0.32	72.87
Ti	K series	0.635	1.00	52.71	0.32	27.13
Total				100.00		100.00

Table 2: EDX data for Au/TiO₂ samples

Spectrum 1	Line Type	k factor	Absorption Correction	Wt%	Wt% Sigma	Atomic %
O	K series	1.181	1	51.61	0.64	77
Ti	K series	0.635	1	45.45	0.61	22.65
Au	M series	1.012	1	2.94	0.6	0.36
Total				100		100

Table 3: Nanoparticle composition data from XPS measurements

Sample	Sample Description	Titanium Content (at. %)	Oxygen Content (at. %)	Au (gold) Content (at. %)
TiO ₂	Unmodified TiO ₂	22.4	62.05	-
Au/TiO ₂	Gold-doped TiO ₂	20.54	53.24	0.51

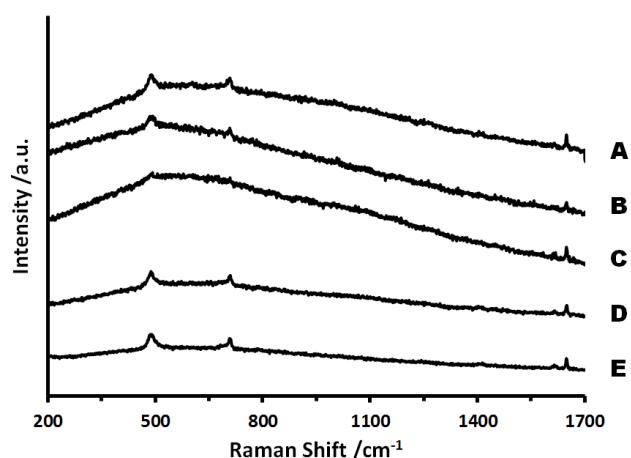


Figure 1: Raman spectra of: a) control solvent-treated silicone, b) TiO₂-encapsulated silicone, c) TiO₂-encapsulated silicone irradiated with UV light (365 nm, 18 h), d) Au/TiO₂-encapsulated silicone and e) TiO₂-encapsulated silicone irradiated with UV light (365 nm, 18 h)