Supplementary Information

Self-Assembled PVP-Gold Nanostar Films as Plasmonic Substrates for Surface-Enhanced Spectroscopies: Influence of the Polymeric Coating on the Enhancement Efficiency

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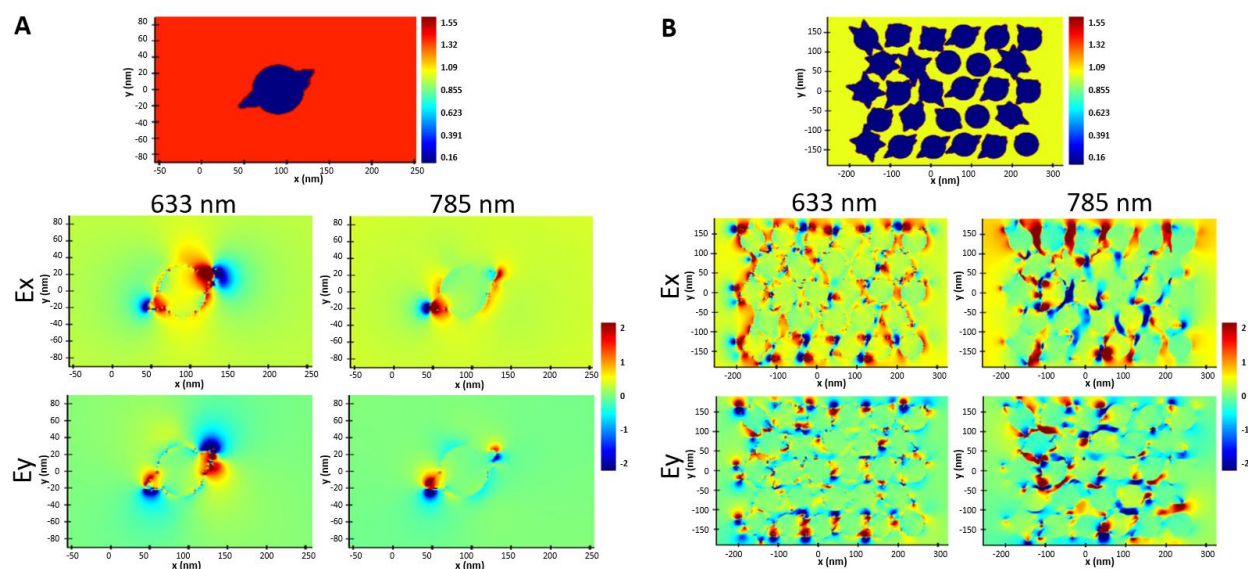
Figure S1. E_X and E_Y electric field components for a single GNSt (A) and for aGNSts film, at 633 nm and 785 nm.
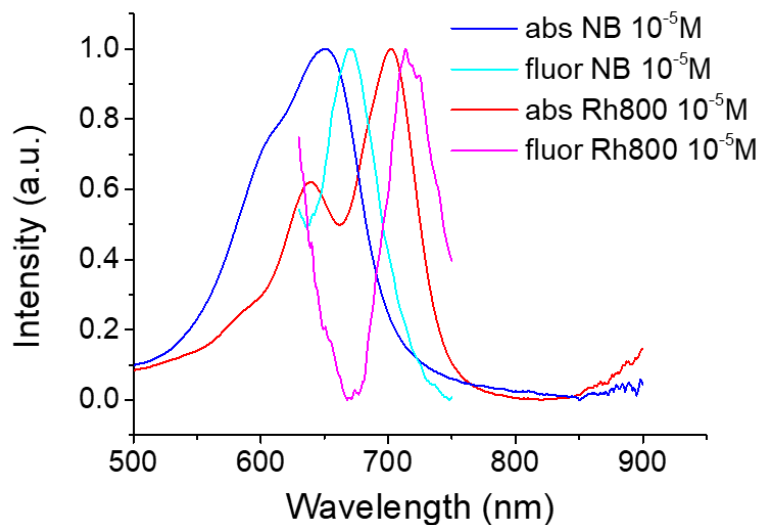
Figure S2. Absorption and fluorescence spectra of 10^{-5}M NB and Rh800 in ethanol solution.
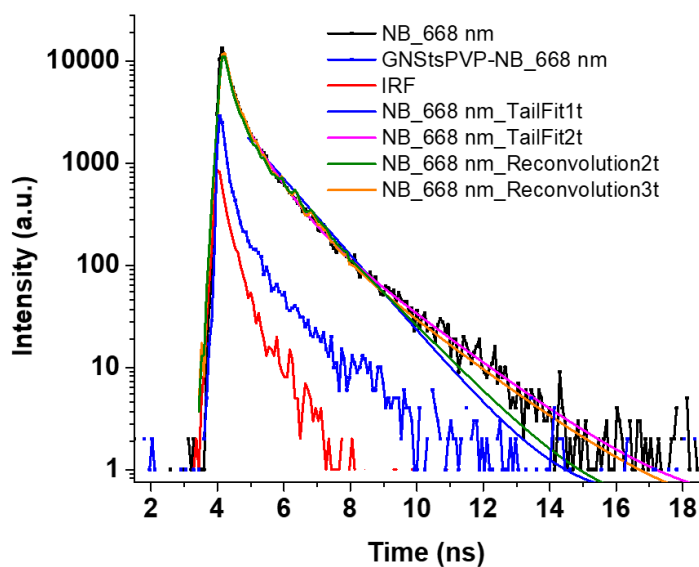

Figure S3. Kinetic traces recorded at 668 nm corresponding to NB in the presence and absence of the GNSts plotted together with the IRF and fitting curves obtained using the tail-fitting method with one, respectively two exponential functions and the reconvolution method with two, respectively three exponential functions.

Table S1. The lifetime components obtained for NB in the absence of GNSts using various fitting methods with several exponential functions.

Fitting method	τ_1 (ns)	τ_2 (ns)	τ_3 (ns)	$\tau_{avg\ int}$ (ns)
Tail-fitting 1 exponential	1.15±0.02			1.15±0.02
Tail-fitting 2 exponentials	0.66±0.04	1.85±0.09		1.21±0.02
Reconvolution 2 exponentials	0.05±0.01	1.32±0.03		0.23±0.03
Reconvolution 3 exponentials	0.04±0	0.67±0.13	1.78±0.19	0.17±0.03