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Supporting Information for

Silicon dioxide covered Au and Ag nanoparticles for Shell-Isolated Nanoparticles Enhanced Spectroscopies in the near-infrared

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S.1 –TEM images of $Ag@SiO_2$ and $Au@SiO_2$

Figure S1 presents TEM micrographs of Ag@SiO₂ nanoparticles prepared using AgNP obtained using Lee and Meisel's methodology.¹

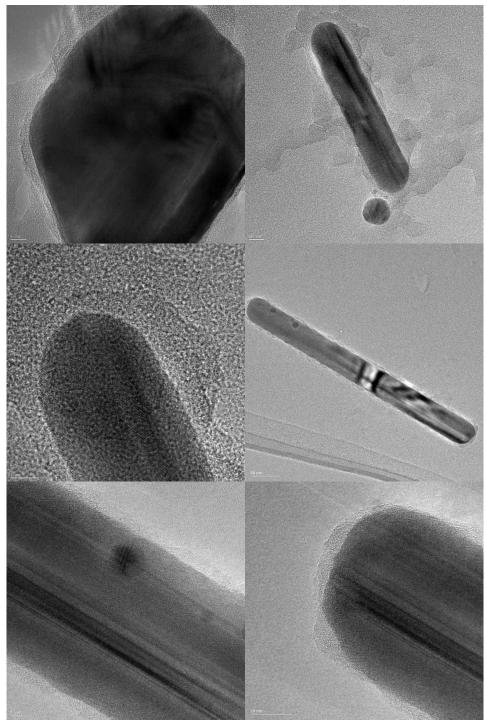


Figure S1. TEM micrographs of $Ag@SiO_2$ at different magnifications. The scale bars are presented in the images.

One can notice from the micrographs in Figure S1 that this methodology results in nanoparticles with very different shapes, but the silica layer can be observed over the Ag core, and no evident lack of silica layers was found in the micrographs.

Figure S2 present TEM micrographs for Au@SiO₂ nanoparticles.

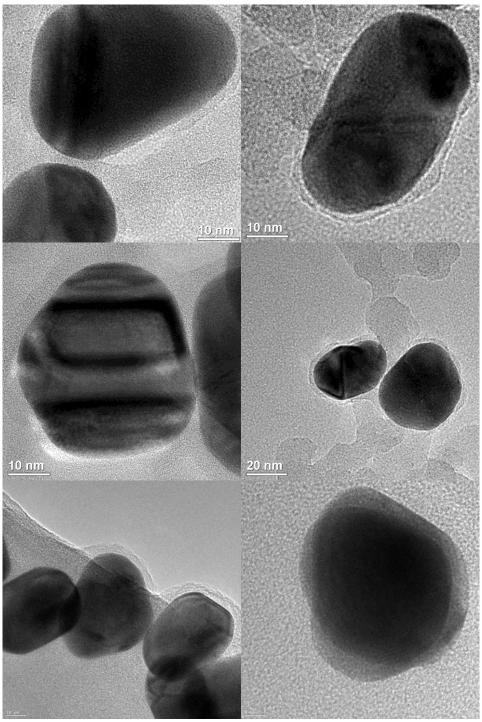


Figure S2. TEM micrographs of $Au@SiO_2$ at different magnifications. The scale bars are presented in the images.

Similar to the TEM micrographs for Ag@SiO₂ one can notice for Au@SiO₂ that the AuNP used present different shapes, ranging from spheroidal to cylindrical, which is expected considering the use of Frens' methodology.² However, the different shapes of the AuNP has not been observed to influence in any way the performance of the silica coverage.

References

- 1. P. C. Lee and D. Meisel, *Journal of Physical Chemistry*, 1982, **86**, 3391-3395.
- 2. G. Frens, *Nature-Physical Science*, 1973, **241**, 20-22.