biosensors

MDPI

Communication

Substituent Effects Impact Surface Charge and Aggregation of Thiophenol-Labeled Gold Nanoparticles for SERS Biosensors

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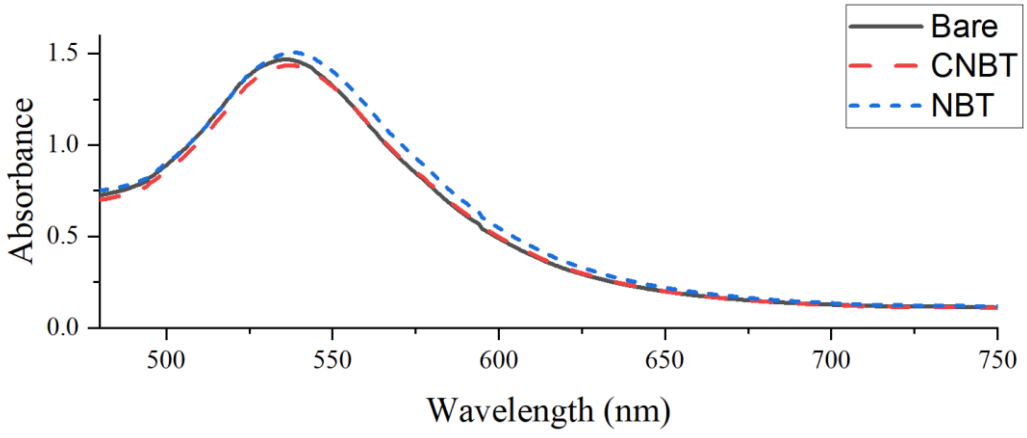
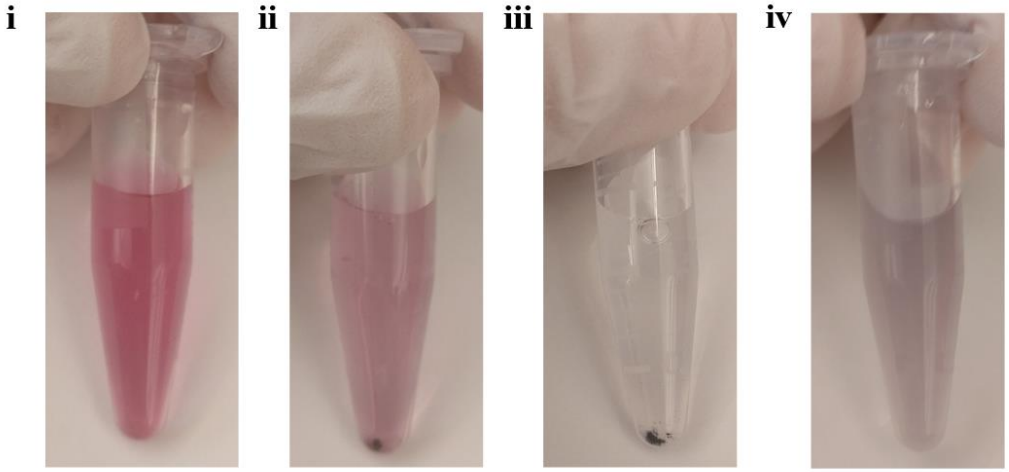


(**a**) UV-visible spectrum of unmodified (DSP linker only, black), DSP linker and CNBT (red) modified, and DSP linker and NBT (blue) modified showing the LSPR peak at 539 nm.



(**b**) Images of AuNPs treated with DSP linker and 4-nitrobenzenethiol (i), 4-methoxythiophenol (ii), and 4-aminothiophenol (iii) exhibiting no, partial, and total precipitation following centrifugation, respectively. AuNPs treated with 4-aminothiophenol prior to centrifugation (iv) exhibit rapid color change (spectral red-shift) associated with nanoparticle aggregation before precipitation occurs.

Figure S1. Surface Plasmon Resonance (LSPR) peak for unmodified and modified 60 nm gold nanoparticles (AuNPs).