

Synthesis of novel decorated one-dimensional gold nanoparticle and its application in ultrasensitive detection of insecticide

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Supporting Information



Fig. S1 Gel electrophoresis (0.5% agarose in 0.5x TBE) of before and after ligand exchange: lane A, one-dimensional gold nanoparticles-CTAB; lane B, one-dimensional gold nanoparticles-mono-6-thio- β -cyclodextrin

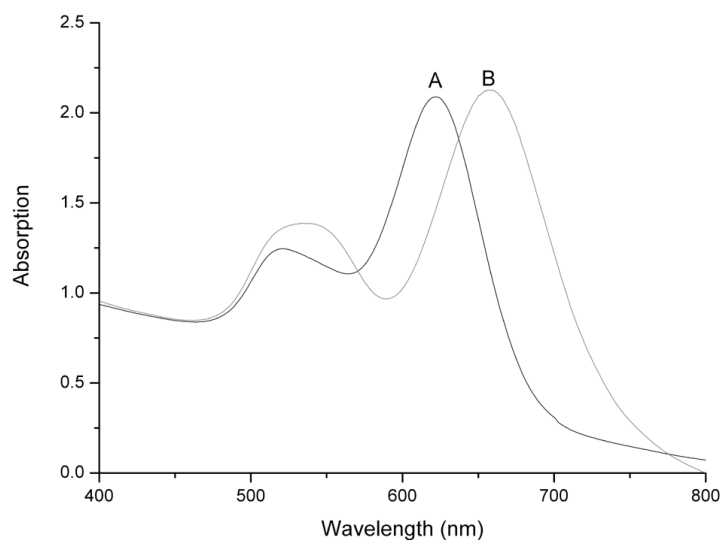


Fig. S2. UV-Vis spectra of one-dimensional gold nanoparticles with aspect ratio ca. 2 upon ligand functionalization. (A) UV-Vis spectrum of one dimensional gold nanoparticles-CTAB before and after (B) ligand exchange with one-dimensional gold nanoparticles- mono-6-thio-β-cyclodextrin

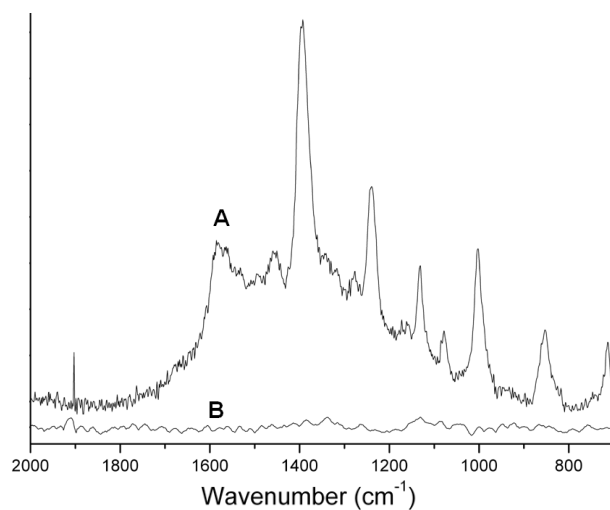


Fig. S3. (A) SERS spectra of methyl parathion captured by one-dimensional gold nanoparticles-mono-6-thio-β-cyclodextrin, (B) SERS spectra of one-dimensional gold nanoparticles-mono-6-thio-β-cyclodextrin

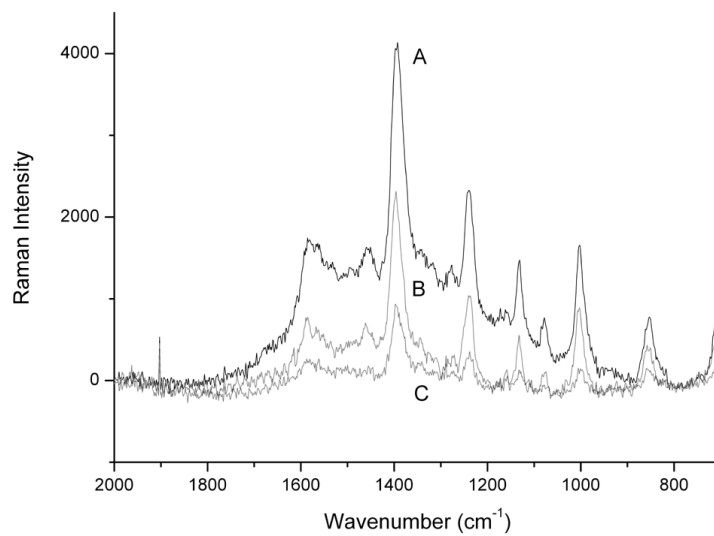


Fig. S4. SERS spectra of methyl parathion at 10^{-8} M captured by decorated one-dimensional gold nanoparticles with different aspect ratio (A) aspect ratio ca. 2 (B) aspect ratio ca. 5 (C) aspect ratio ca 15