Electronic Supplementary Material (ESI) for Lab on a Chip.

Supporting Information

Direct Laser Writing of μ-chips Based on Hybrid C-Au-Ag Nanoparticles for Express Analysis of Hazardous and Biological Substances

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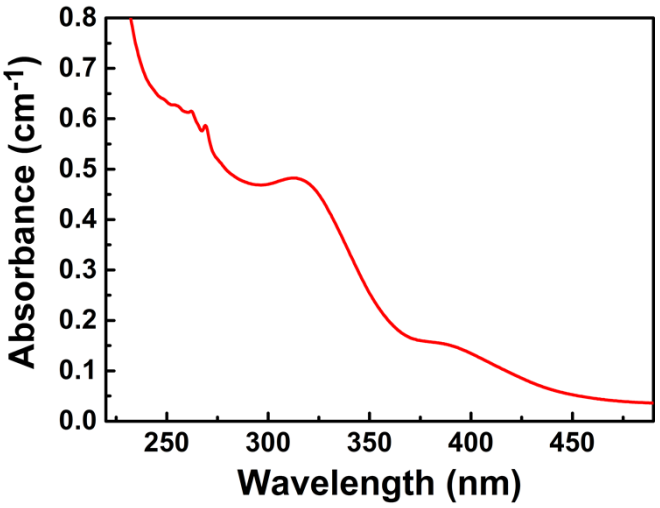

Figure SI 1. Absorption spectrum of $[\{Au_{10}Ag_{12}(C_2Ph)_{20}\}Au_3(PPh_2(C_6H_4)_3PPh_2)_3][PF_6]$ supra-molecular complex.

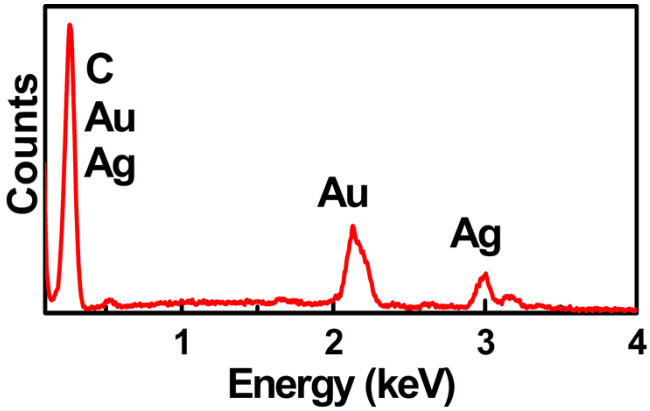

Figure SI 2. EDX spectrum of the deposited NPs

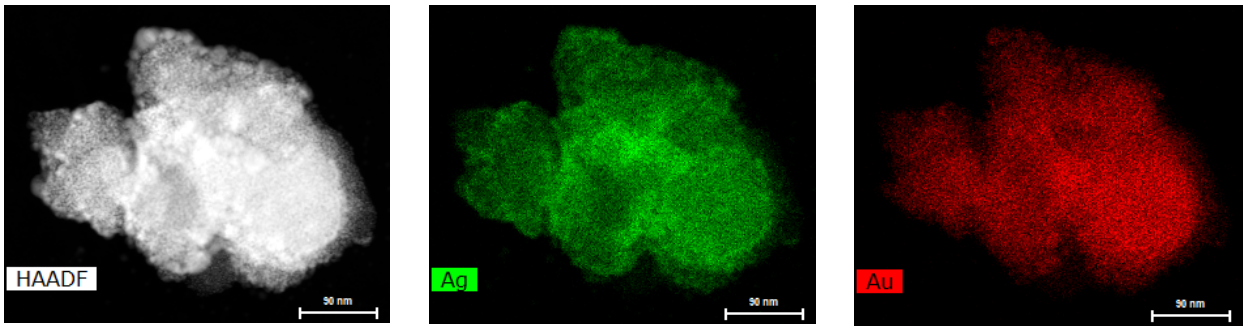

Figure SI 3. HAADF image of hybrid C-Au-Ag NPs, superimposed with a chemical map of silver (Ag-green) and gold (Au-red).

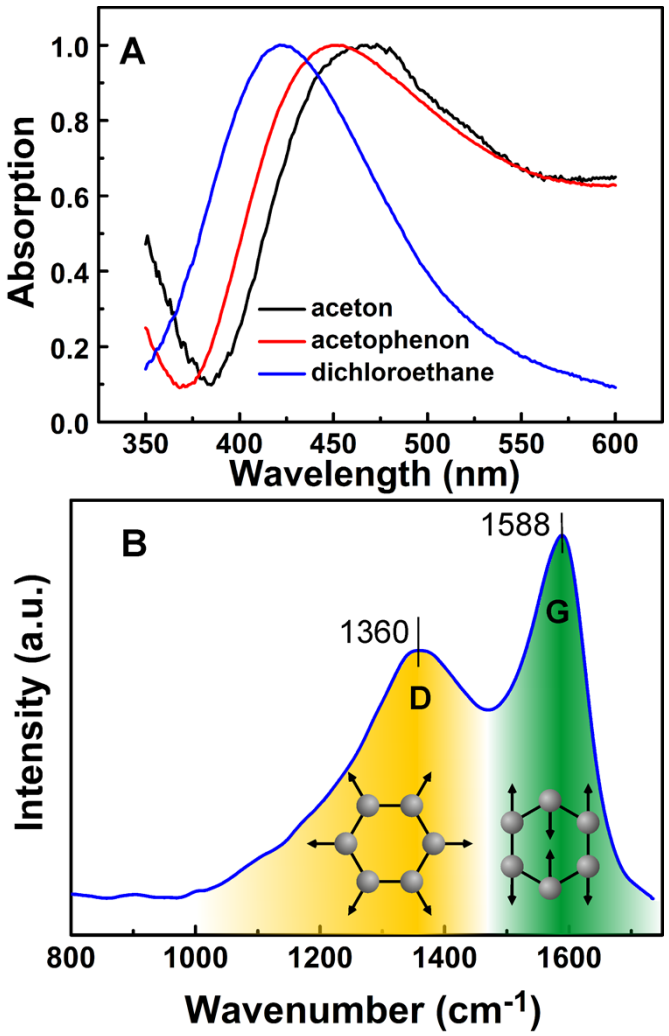

Figure SI 4. a) Absorption spectra of NPs deposited onto ITO/glass substrate from solutions of acetone (black line), dichloroethane (blue line) and acetophenone (red line), b) Raman spectrum of deposited NPs.

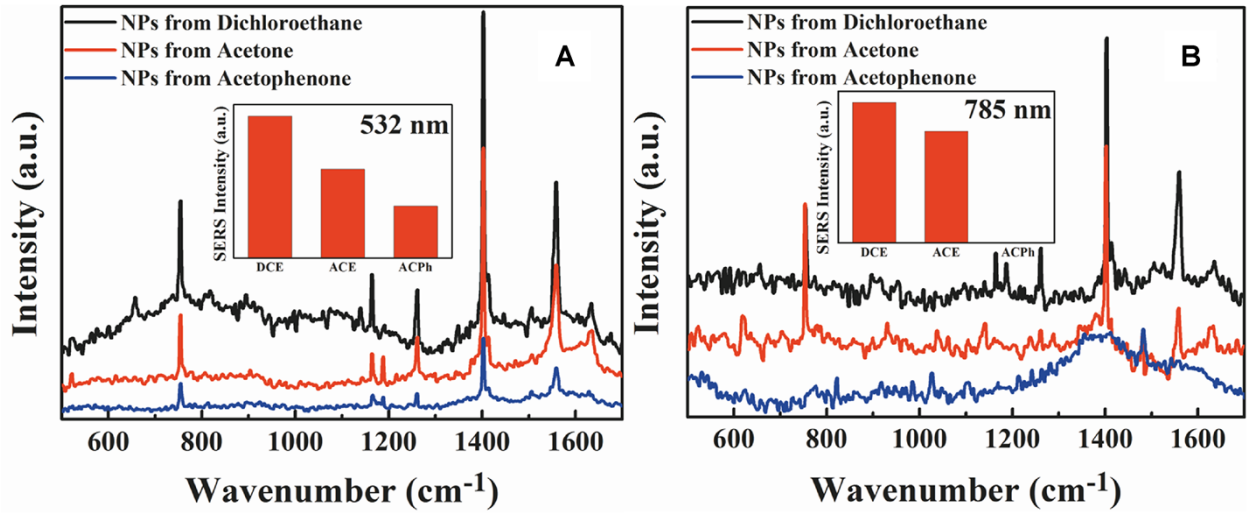

Figure SI 5. SERS signals of the 10^{-4} M anthracene using different Raman excitation wavelengths: a) 532 nm, (inset: comparison of integrated SERS intensity of the 1400cm^{-1} peak of anthracene using NPs in different solvents for signal enhancement – DCE: dichloroethane, ACE: acetone, ACPh: acetophenone); b) 785 nm, (inset: comparison of integrated SERS intensity similar to conditions in a)).

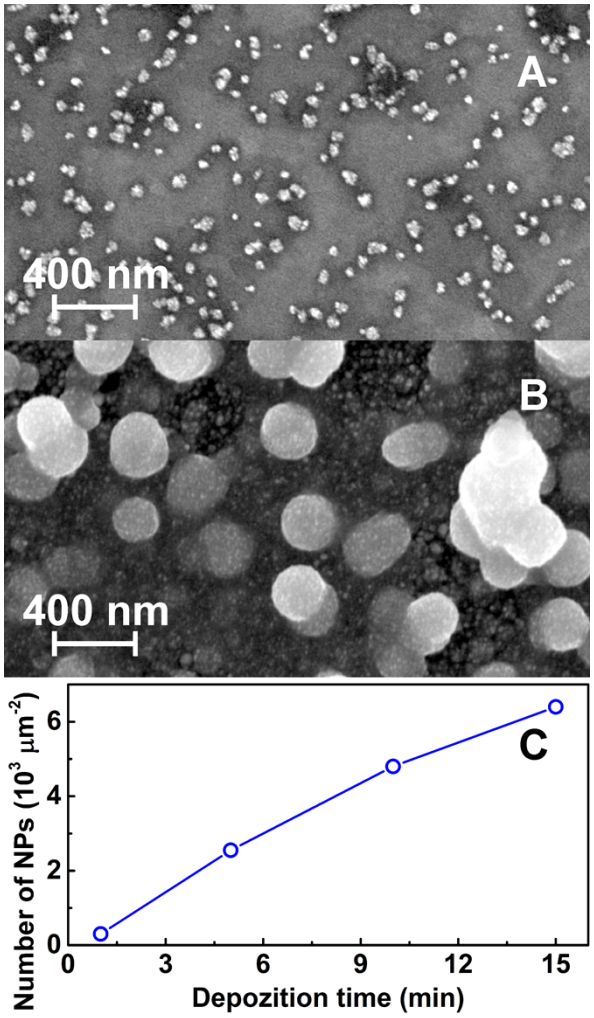

Figure SI 6. Deposition time effect on the NPs' number per square unit for the LCLD process from dichloroethane solution of **1**.

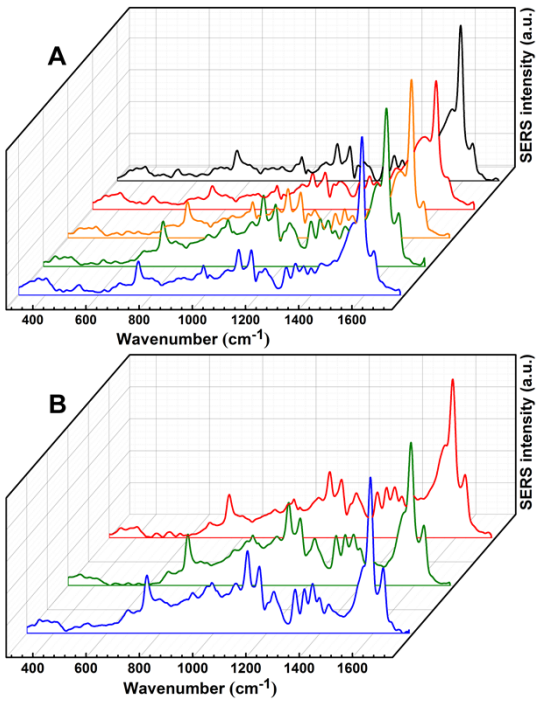

Figure SI 7. SERS spectra of whole human blood water solution (20 g/l) measured in different areas of spot (a) and in 3 different spots (b).