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Communication

Mesoporous One-Component Gold Microshells as 3D SERS Substrates

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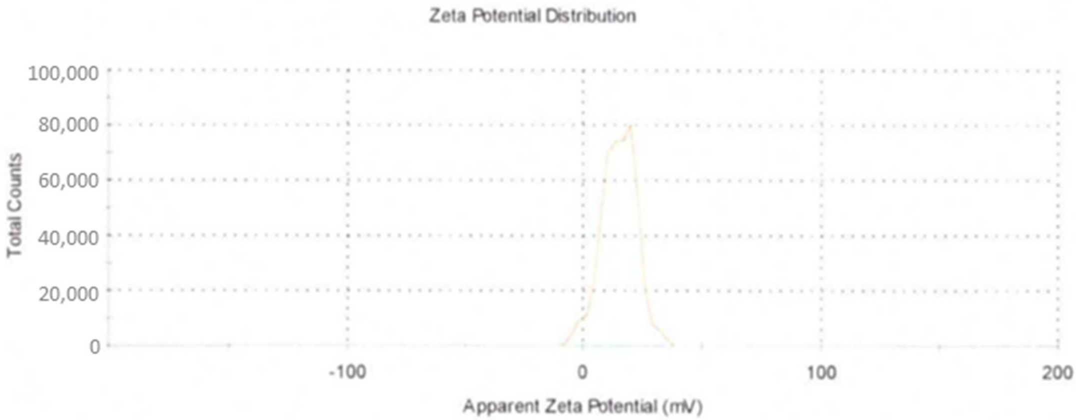

Figure S1. Zeta-potential distribution for the aqueous dispersion of Au NPs used in this study.

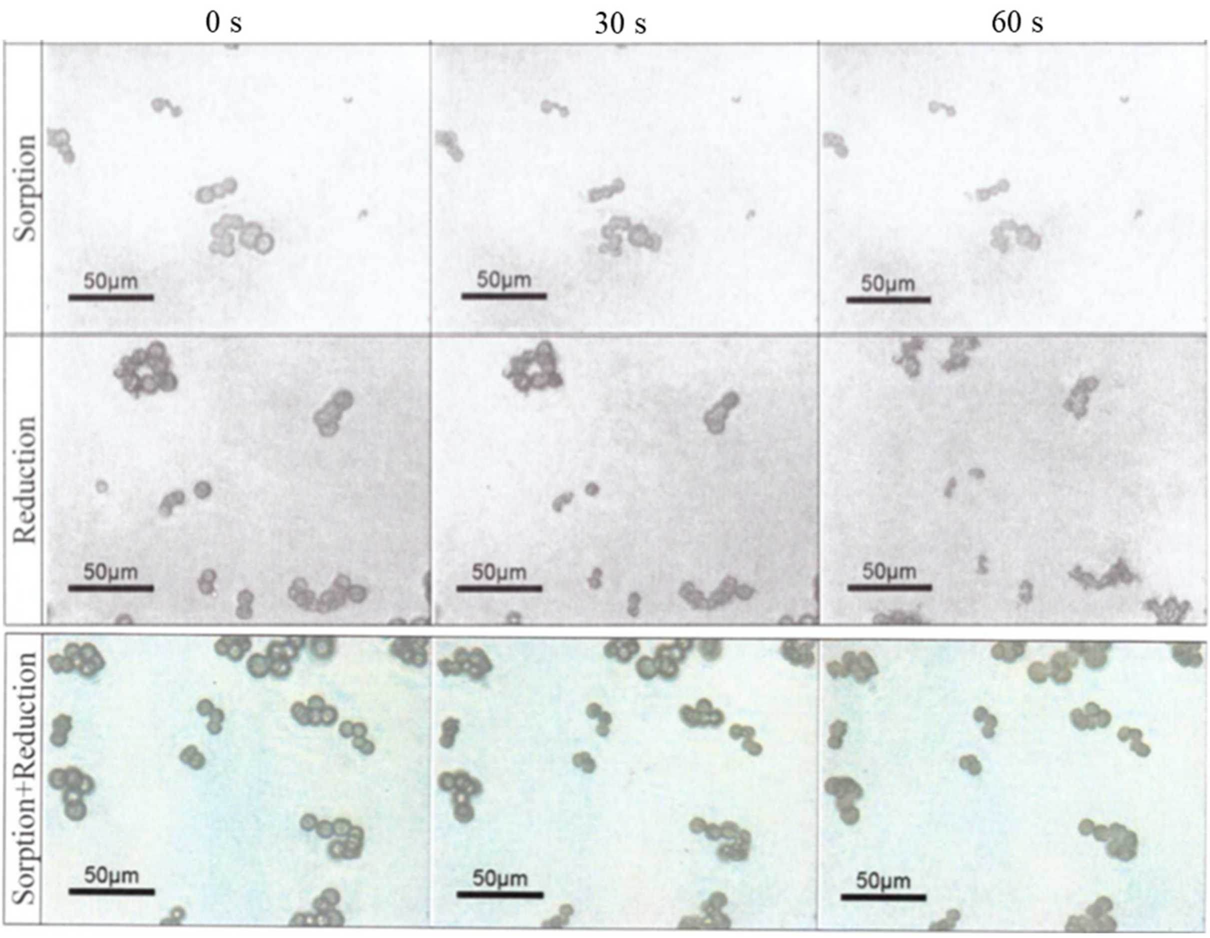

Figure S2. Light transmittance images of the particles prepared by one of three methods (sorption, reduction, or sorption+reduction) before (0 s), during (30 s), and after complete dissolution of the $CaCO_3$ (60 s); $CaCO_3$ was dissolved by addition of EDTA-Na_2 to the suspension of $CaCO_3$/Au hybrid particles.

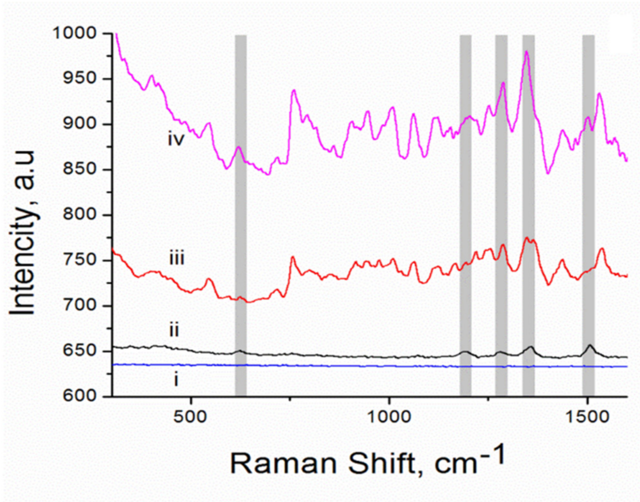

Figure S3. Raman spectra of dried Rhodamine B: (**i**) at 0.4 μW and (**ii**) at 40 mW laser power, respectively. (**iii**) Raman spectrum of a water dispersion of porous Au microshells; (**iv**) SERS spectrum of Rhodamine B in the presence of porous Au microshell dispersion, laser power 0.4 μW. The characteristic modes of rhodamine B are marked with grey color. Au microshells were prepared by dual sorption+reduction using $AuHCl_4$ and Au NPs stabilized by CTAB (5 nm, Sigma-Aldrich, Hamburg, Germany).