

Size control of laser-fabricated surfactant-free gold nanoparticles with highly diluted electrolytes and their subsequent bioconjugation

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Supporting information:

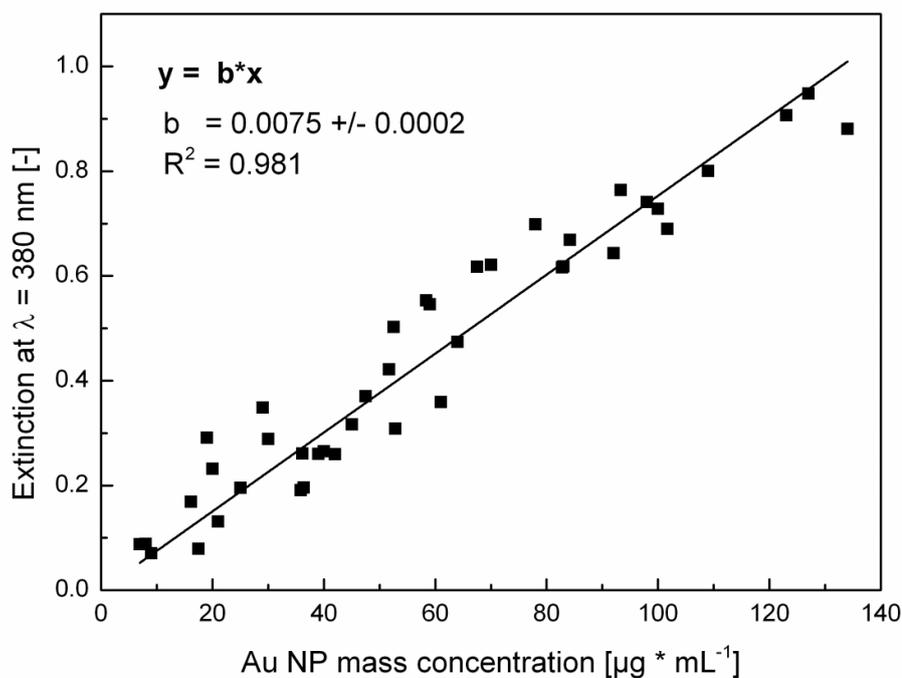


Figure S1: Calibration curve correlating the Au NP interband absorption at $\lambda = 380$ nm to the gravimetrically determined mass concentration (c_{Au})

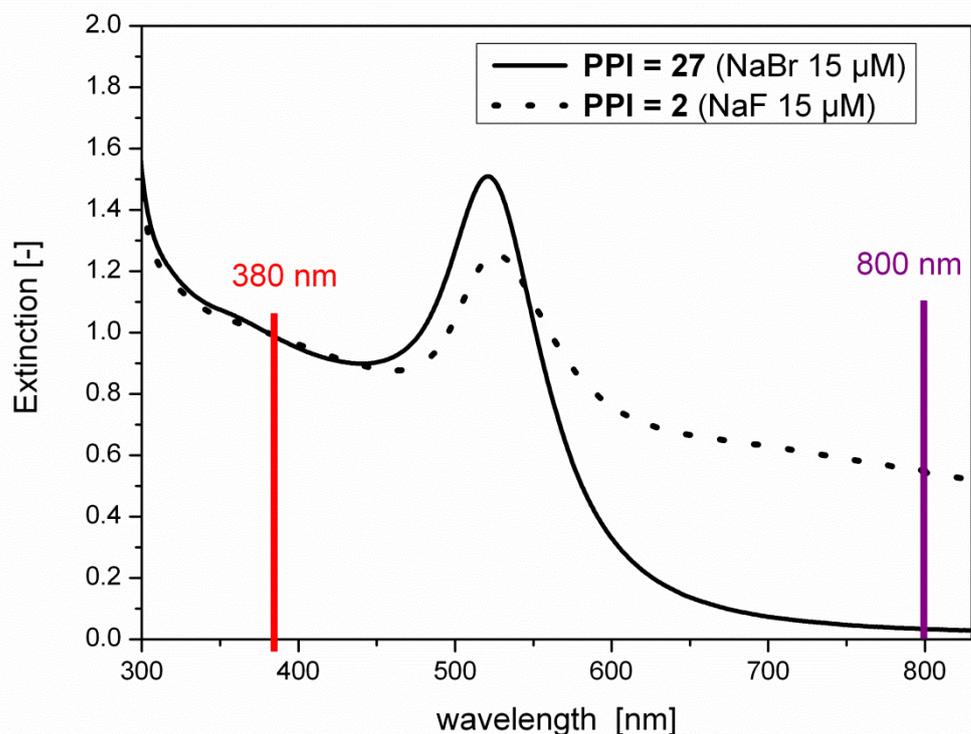


Figure S2: Exemplary spectra elucidating the primary-particle-index (PPI). UV-Vis spectra of Au NPs synthesized in the presence of 15 μM NaF and NaBr resulting in a low and high PPI were chosen

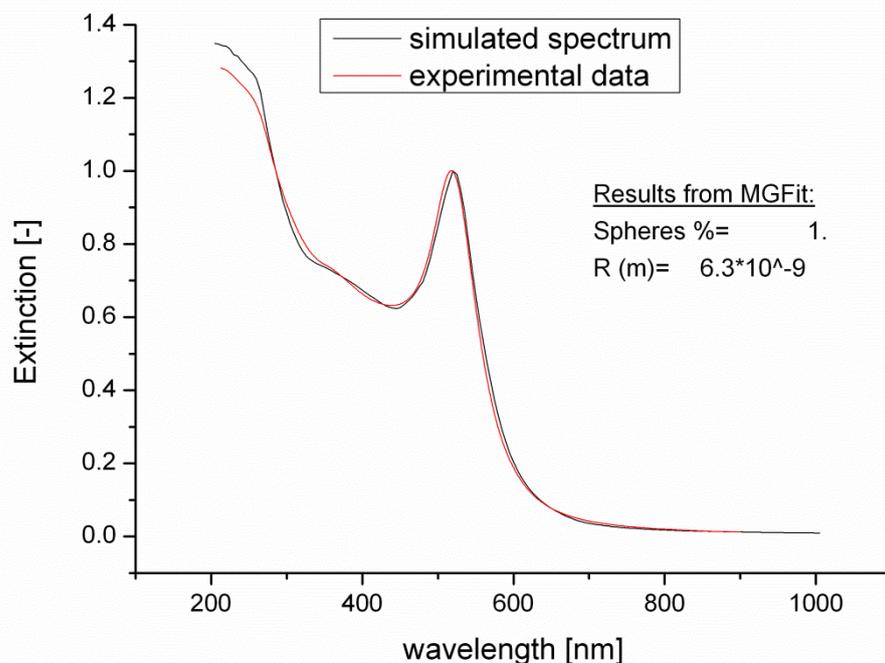


Figure S3: Exemplary UV-Vis spectrum of gold nanoparticles synthesized in the presence of 15 μM NaBr (red curve). Simulated spectrum using the program MGFIT 1.0 described by Amendola and Meneghetti⁴¹ (black curve) to fit the experimental data based on a Mie-Gans plot.

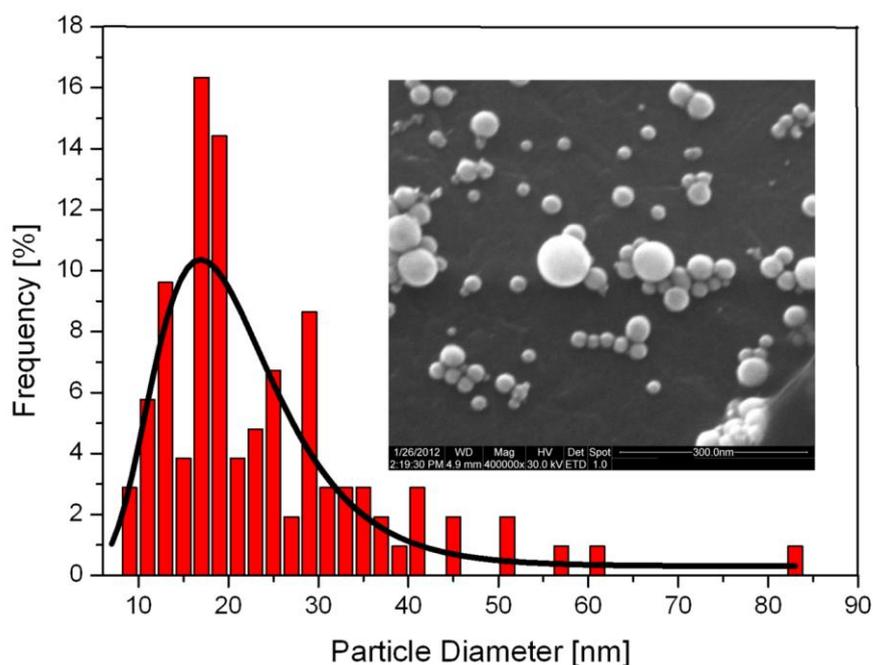


Figure S4: Representative image and size distribution from SEM measurements from a sample containing 1 μM sodium phosphate buffer. Distributions were calculated from 110 particles on 3 different images. Fitting was done by a log-normal function.

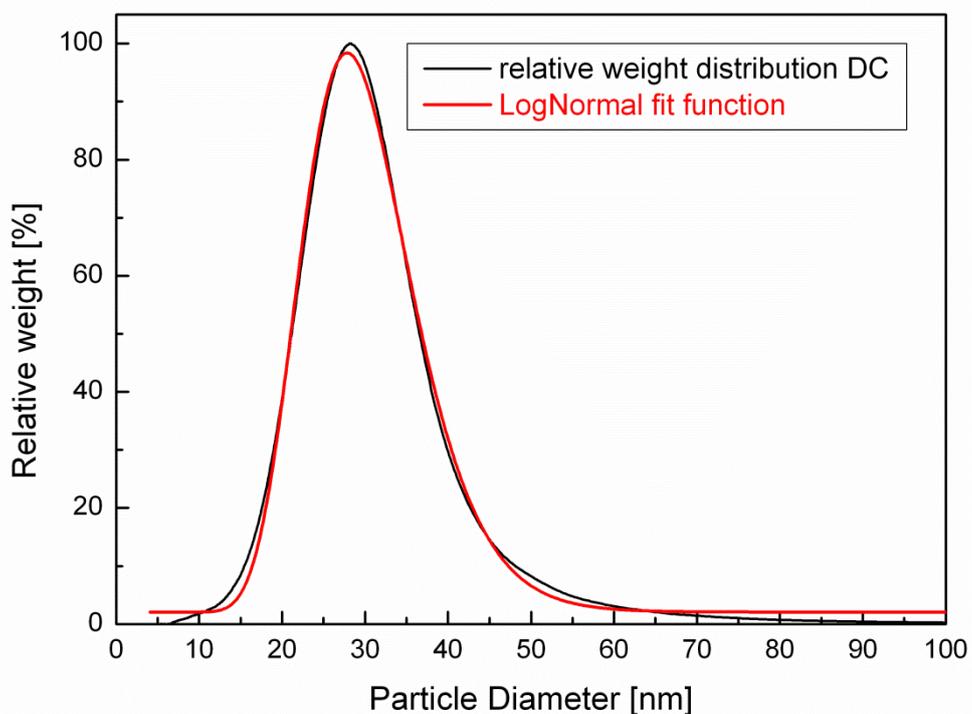


Figure S5: Representative size distribution from disk centrifugation with NaCl containing 1 μM ionic strength. Fitting was done with a log-normal function

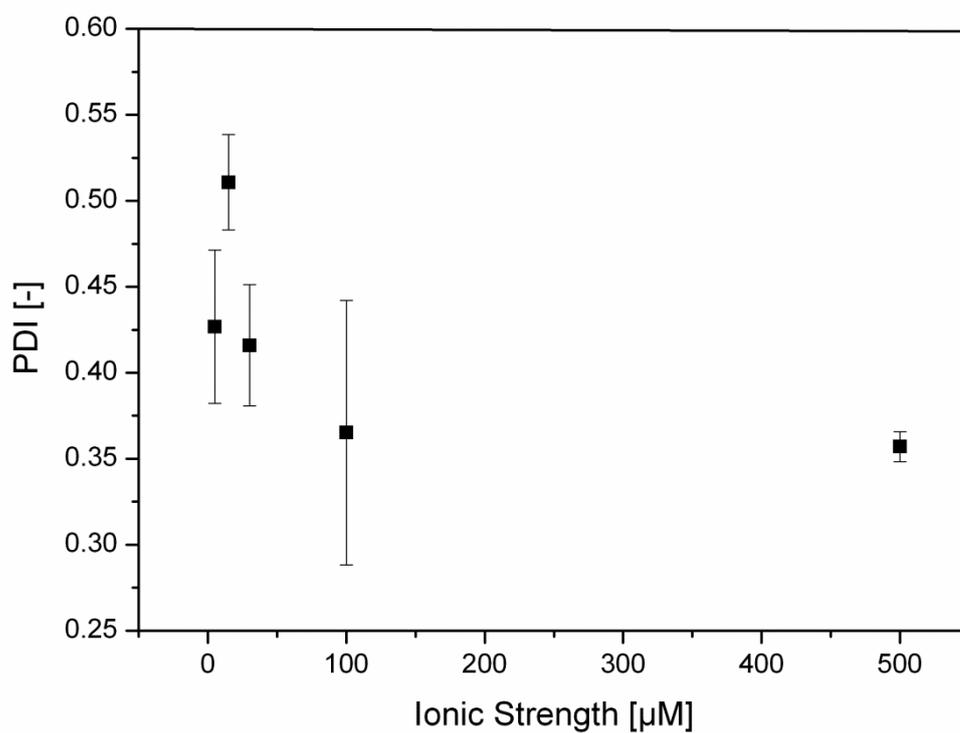


Figure S6: Polydispersity index (PDI) for samples synthesized at different NaBr ionic strengths

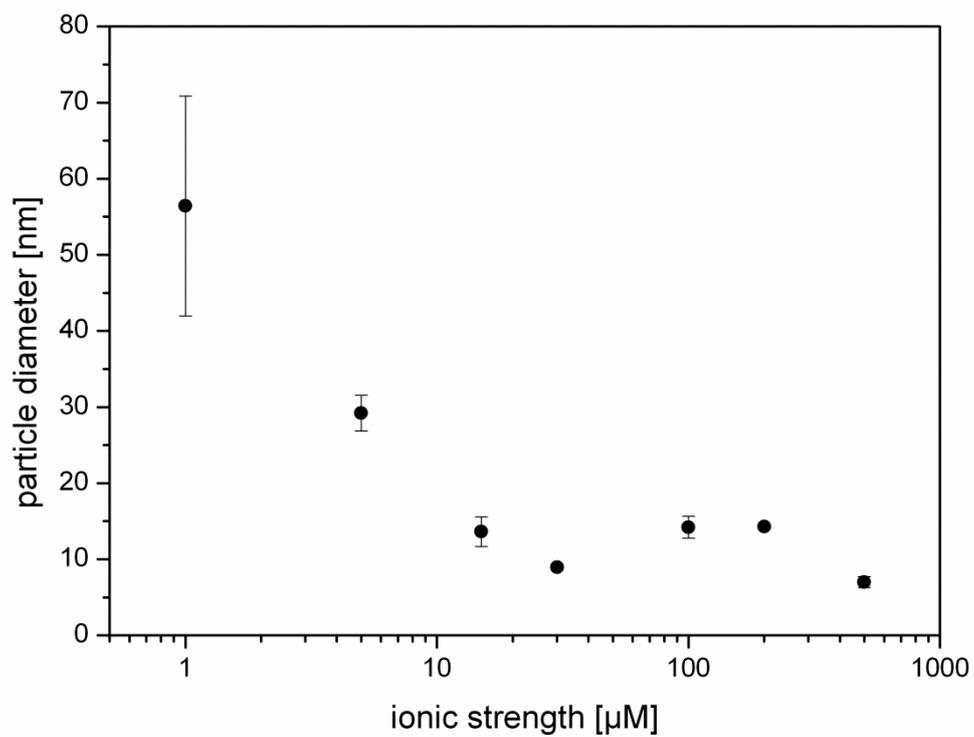


Figure S7: Particle sizes determined by disk centrifugation at different ionic strengths of Na_3PO_4 .

