Supplementary Material

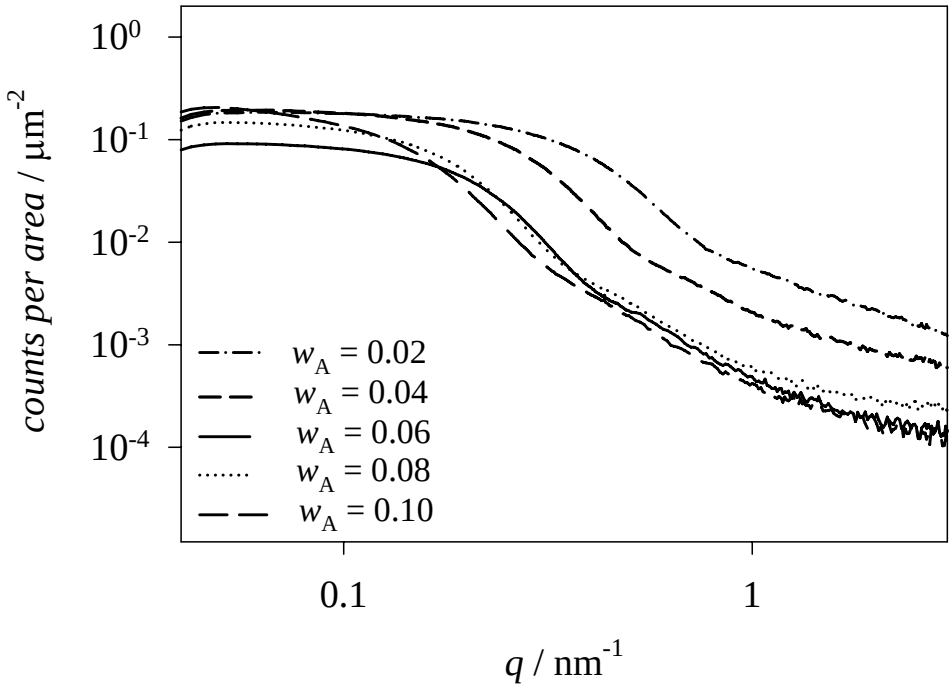

Figure S1: Normalized small-angle X-ray scattering (SAXS) curves of the w/o-microemulsion containing 160 mM of $NaBH_4$ at w_A = 0.02, 0.04, 0.06, 0.08 and 0.10.

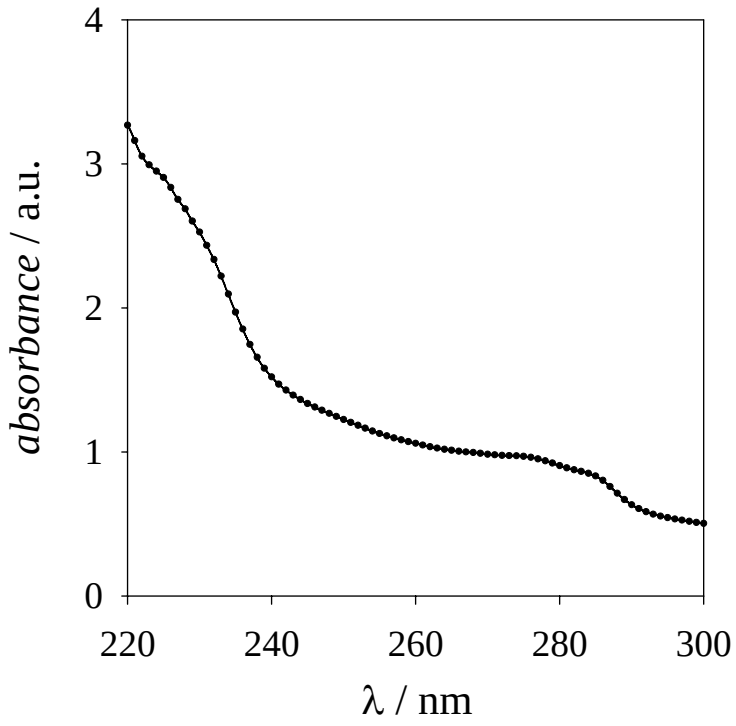

Figure S2: (a) UV-Vis spectra of the sample 1g. The absence of any peak at 260 nm proves the absence of $PtCl_6^{-2}$ ions. The shoulder at 280 nm is given by an impurity in the Brij30 stock solution.

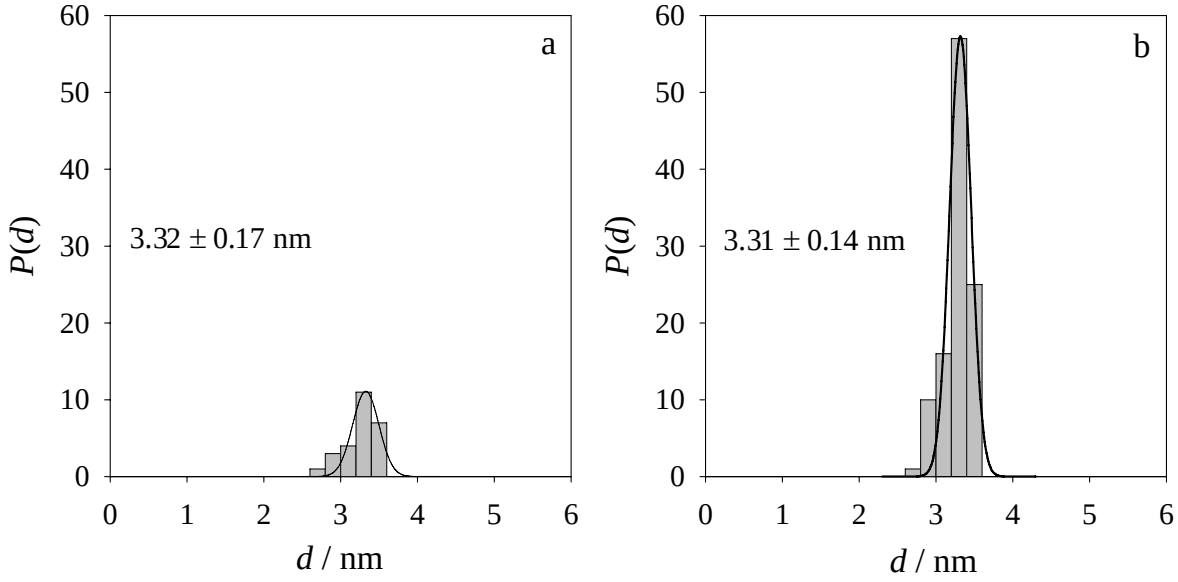

Figure S3: Simulated particle size distribution $P(d)$ for the systems: (a) $n_{react}(H_2PtCl_6) = 6$, $n_{react}(NaBH_4) = 50$, $f = 1400$; (b) $n_{react}(H_2PtCl_6) = 26$, $n_{react}(NaBH_4) = 208$, $f = 1400$. The mean particle size and the error obtained from fitting the data with a Gaussian distribution are also given.

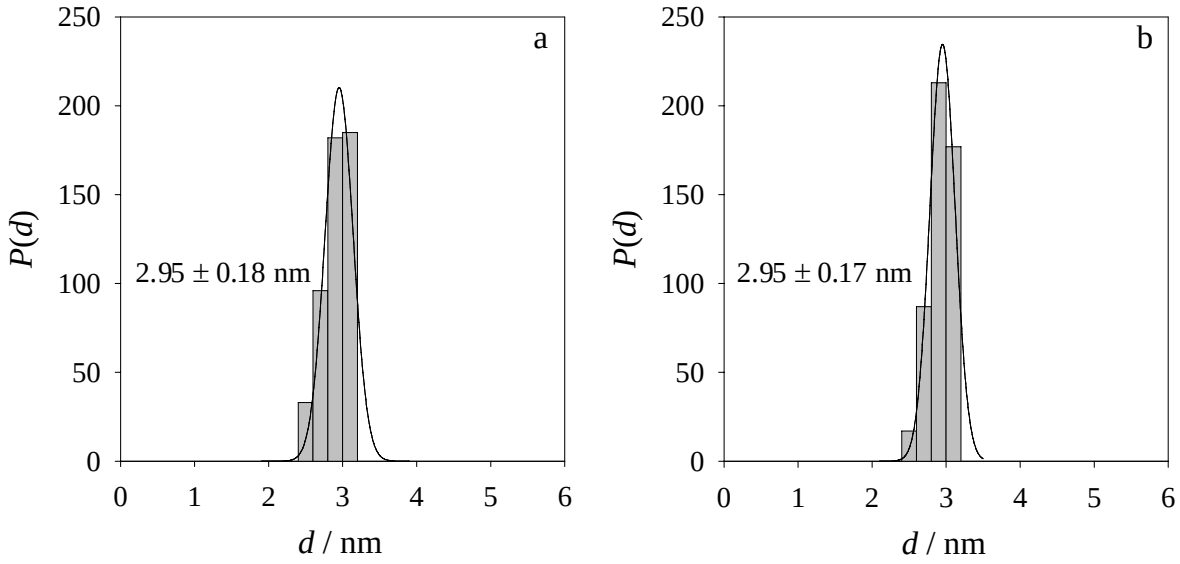

Figure S4: Simulated particle size distribution $P(d)$ for the systems: (a) $n_{react}(H_2PtCl_6) = 83$, $n_{react}t(NaBH_4) = 467$, $k_{ex}(H_2PtCl_6) = 0.5$, $k_{ex}(NaBH_4) = 0.5$, $v_r = 0.5$, $f = 1000$; (b) $n_{react}(H_2PtCl_6) = 83$, $n_{react}(NaBH_4) = 467$, $k_{ex}(H_2PtCl_6) = 1.0$, $k_{ex}(NaBH_4) = 1.0$, $v_r = 1.0$, $f = 1000$. The mean particle size and the error obtained from fitting the data with a Gaussian distribution are also given.

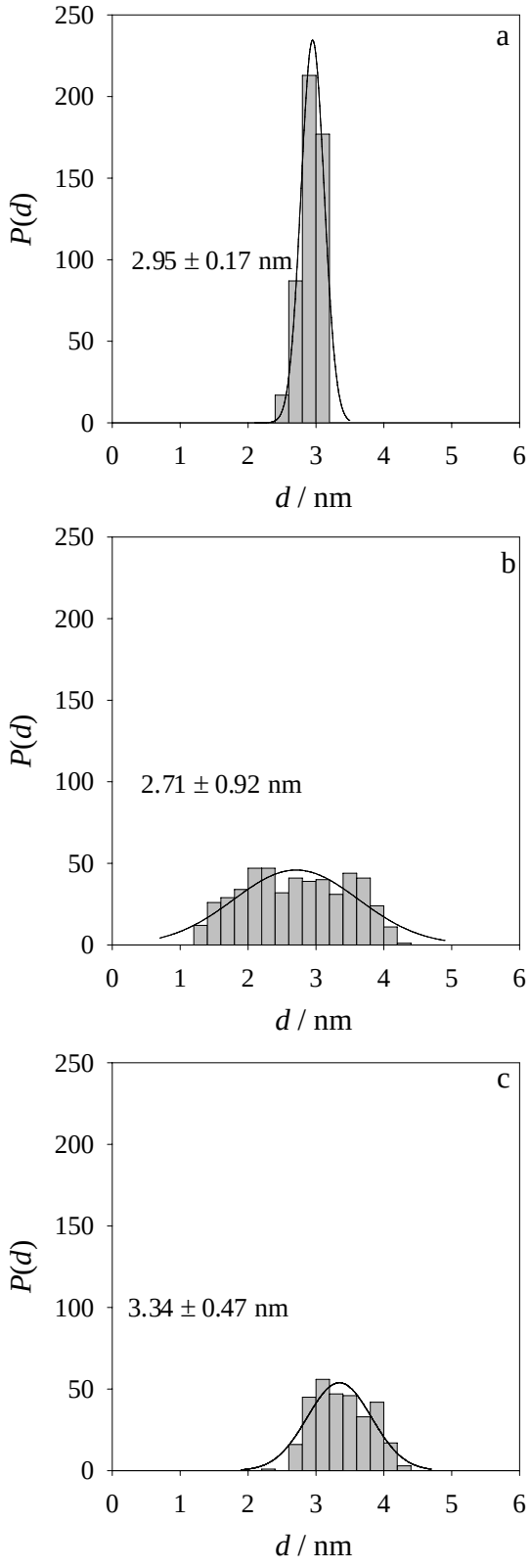

Figure S5: Simulated particle size distribution $P(d)$ for the systems with $n_{react}(H_2PtCl_6) = 83$, $n_{react}(NaBH_4) = 467$ and (a) $f = 100$, $w_{ncrit} = 1.0$ (growth via Ostwald ripening); (b) $f = 1$, $w_{ncrit} = 0.001$(growth exclusively via autocatalysis); (c) $f = 1000$, $w_{ncrit} = 0.001$ (both growth mechanism involved). The mean particle size and the error obtained from fitting the data with a Gaussian distribution are also given.