Electronic Supplementary Material (ESI) for Nanoscale.

High-yield synthesis of monodisperse gold nanorod with tunable plasmon peak using 3-aminophenol as the reducing agent

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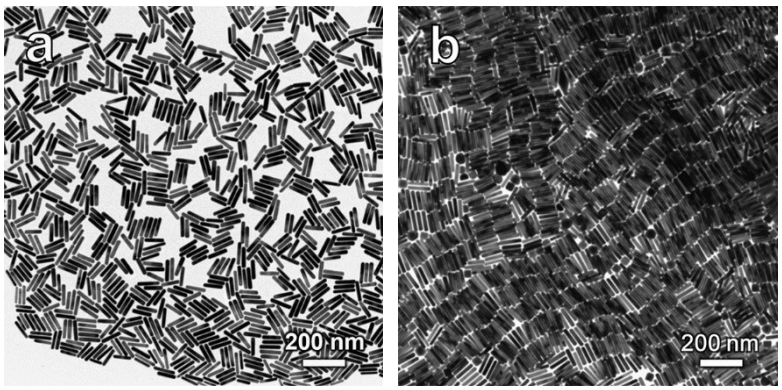

Fig. S1 TEM image of AuNRs acquired from the sample the same to Fig.1b.

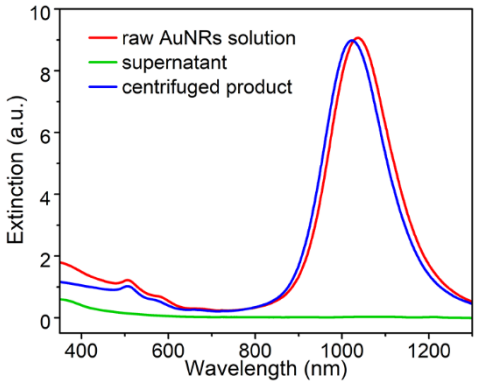

Fig. S2 Extinction spectra of raw AuNRs solution and the corresponding supernatant and sediment solution acquired after centrifugation.

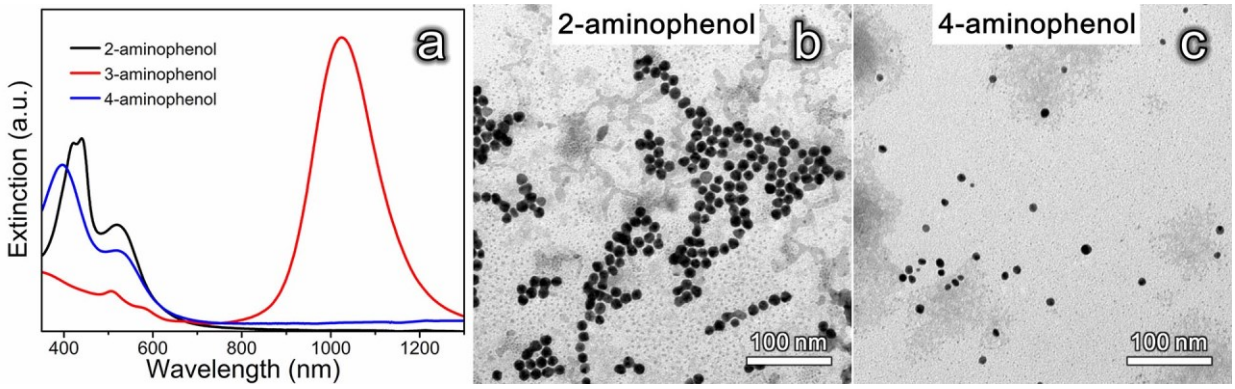

Fig. S3 (a) Extinction spectra of AuNRs synthesized using 2-aminophenol, 3-aminophenol, and 4-aminophenol as the reducing agent, respectively; (b) and (c) are TEM images of the 2-aminophenol and 3-aminophenol reduced products, respectively.

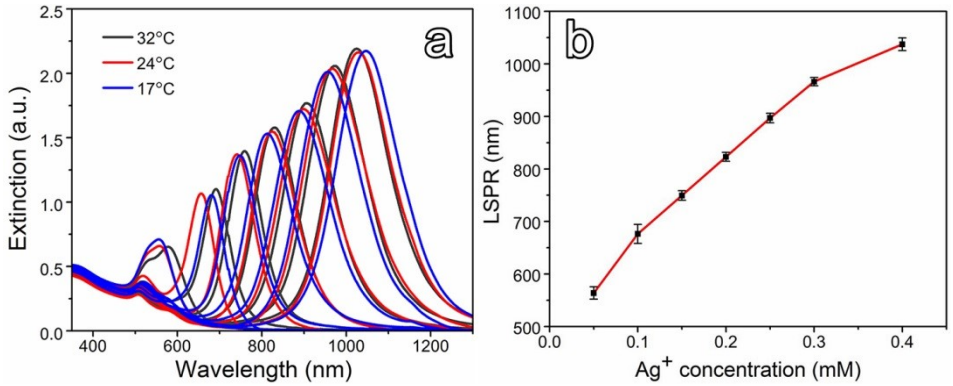

Fig. S4 (a) Extinction spectra of AuNRs synthesized by varied amounts of silver ions at different room temperatures; (b) variations of LSPR wavelength as a function of different concentrations of silver ions.

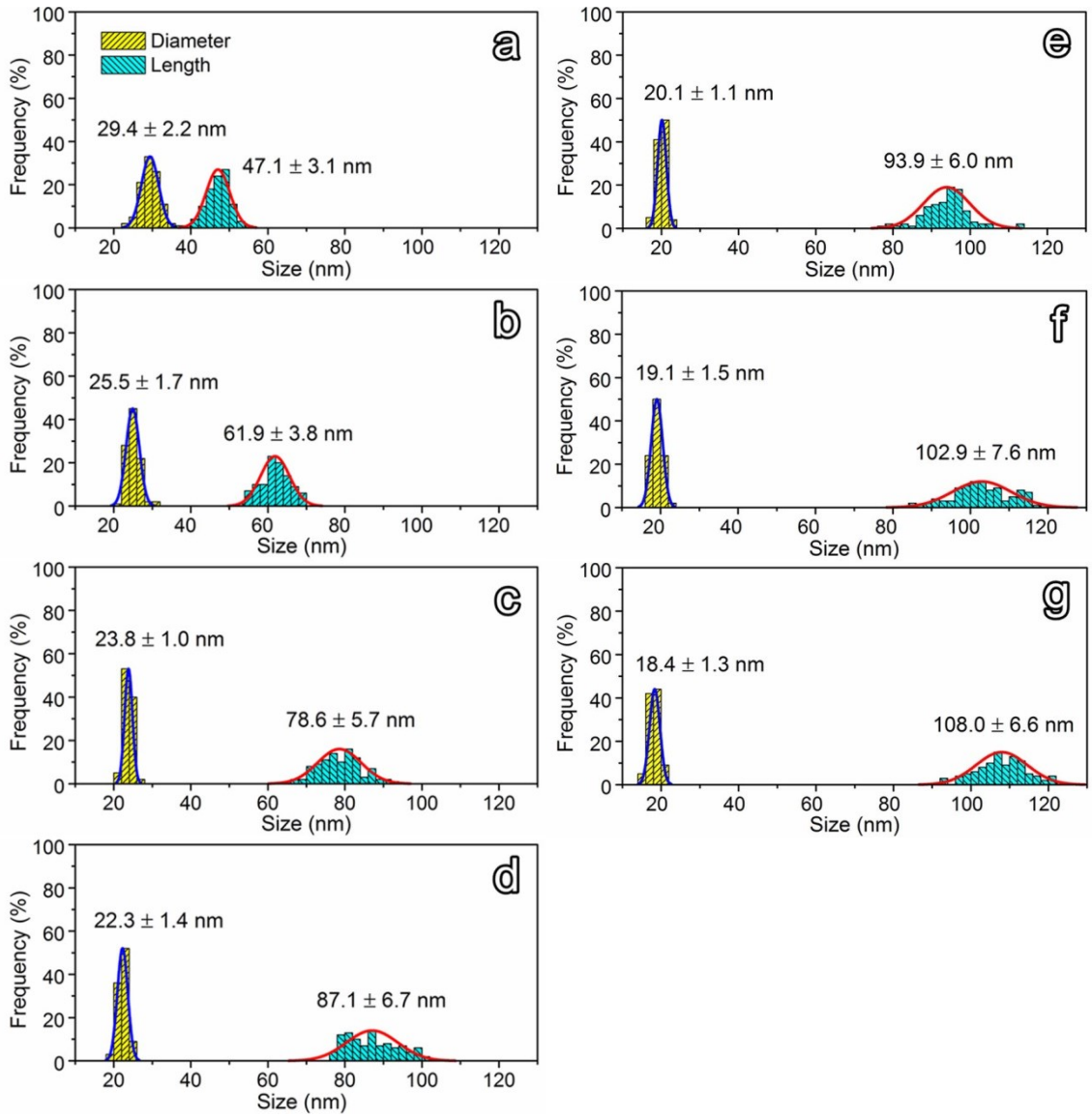

Fig. S5 Particle size distributions of AuNRs arranged in the order of increasing silver ions corresponding to Figure 3. The amount of silver ions is: (a) 0.1 mL, (b) 0.2 mL, (c) 0.3 mL, (d) 0.4 mL, (e) 0.5 mL, (f) 0.6 mL, and (g) 0.8 mL, respectively.

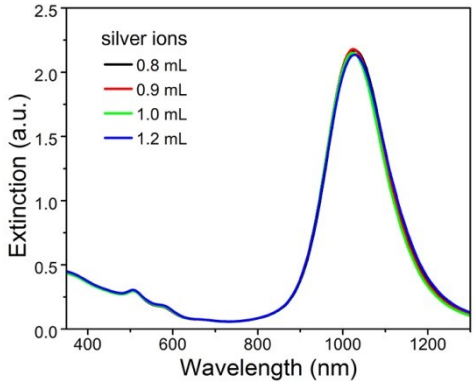

Fig. S6 Extinction spectra of products acquired by increasing the silver ions to above 0.8 mL.

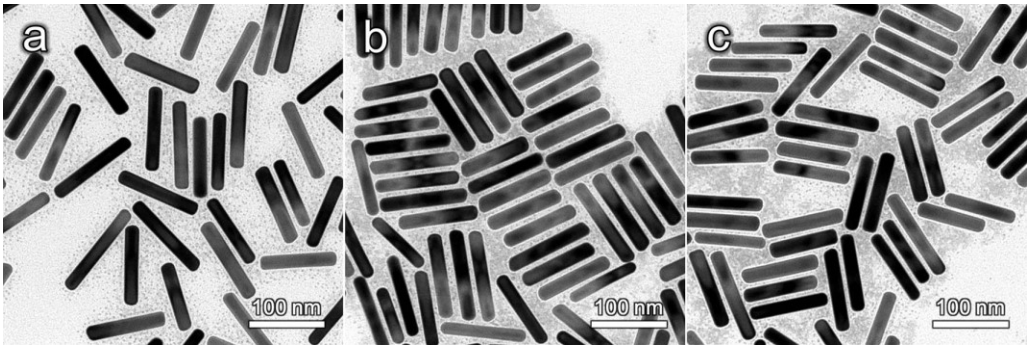

Fig. S7 TEM images of AuNRs acquired from different added amounts of silver ions: (a) 0.9 mL, (b) 1.0 mL, (c) 1.2 mL.

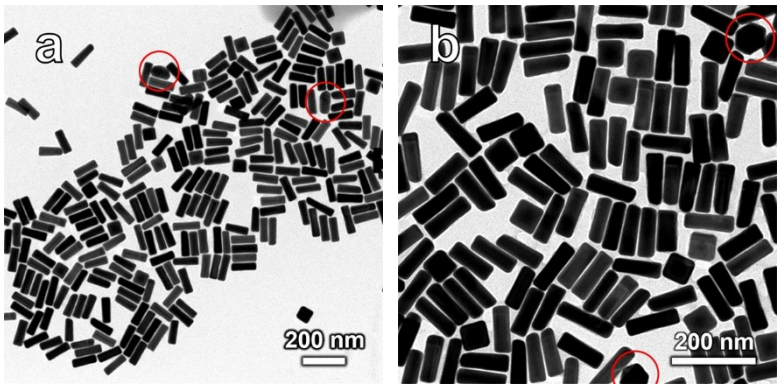

Fig. S8 TEM images of products prepared by addition of 2.5 μL gold seeds. The rod shapes and prolonged rhombic dodecahedrons with aspect ratios smaller than other AuNRs are marked with red circles.

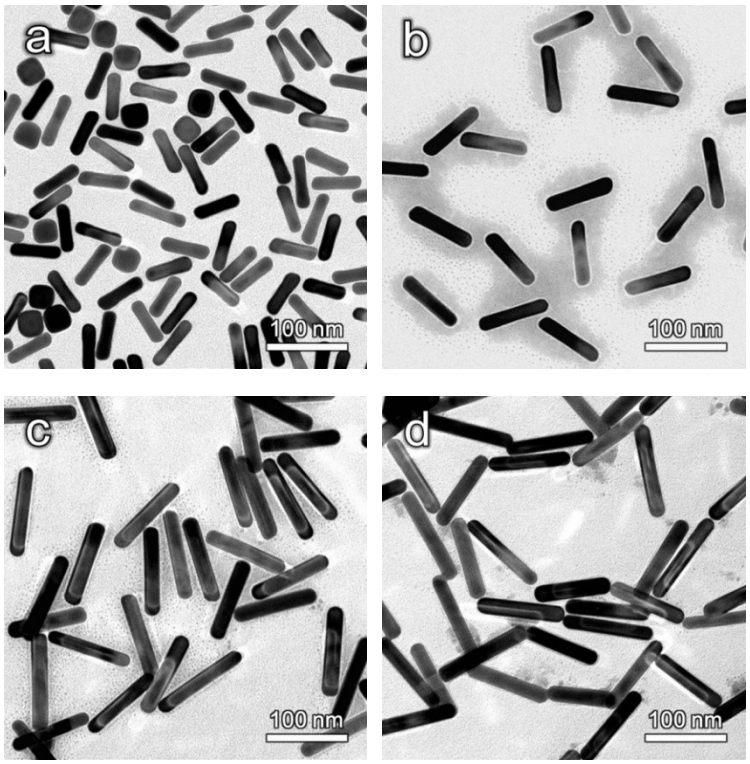

Fig. S9 TEM images of AuNRs prepared from increased concentration of CTAB: (a) 0.03 mM, (b) 0.06 mM, (c) 0.10 mM, (d) 0.12 mM.