

A simple and effective strategy for the directed and high-yield assembly of large-sized gold nanoparticles driven by bithiol-modified complementary dsDNA architectures

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Electronic Supplementary Information

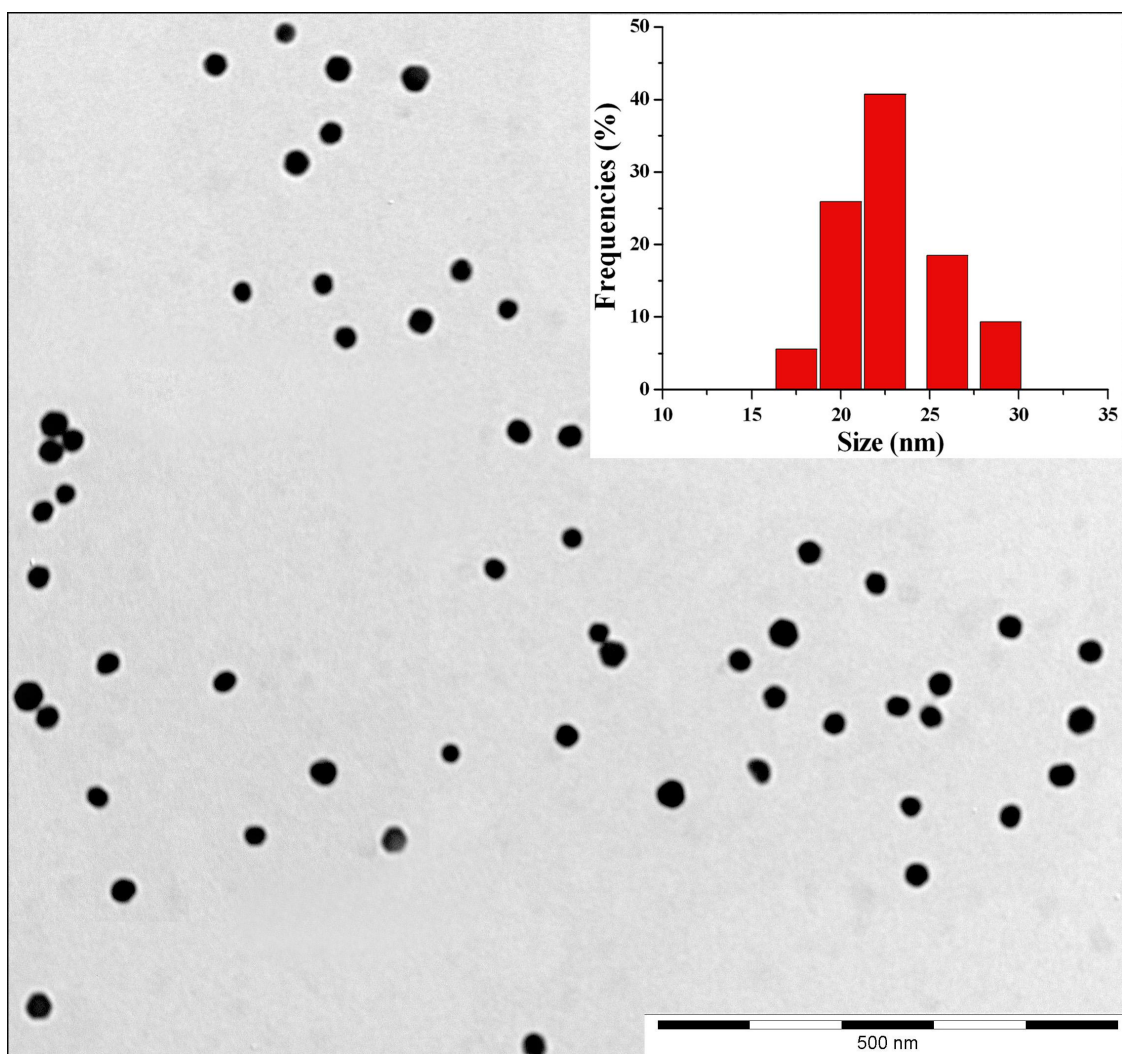


Fig. S1 TEM image of the AuNPs prepared in this study by the citrate reduction route. Inset: size distribution of the Au NPs.

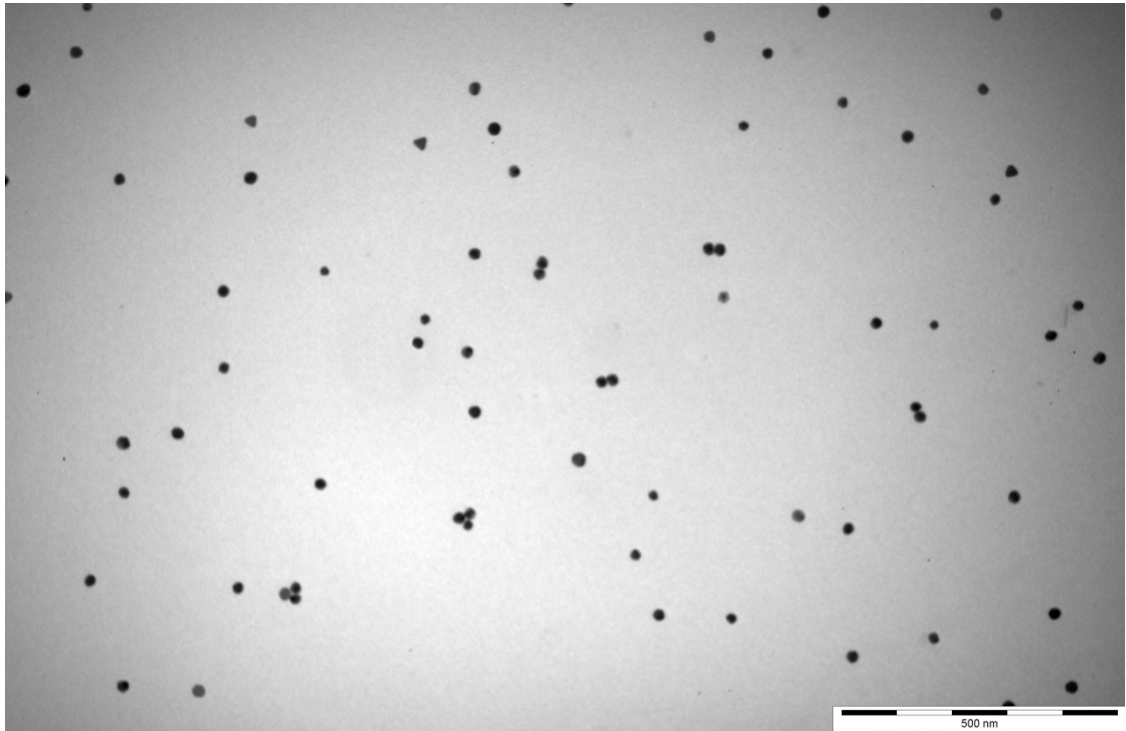


Fig. S2 TEM image of the conjugates between Au NPs and dsDNA at concentration ratio of 1:15.

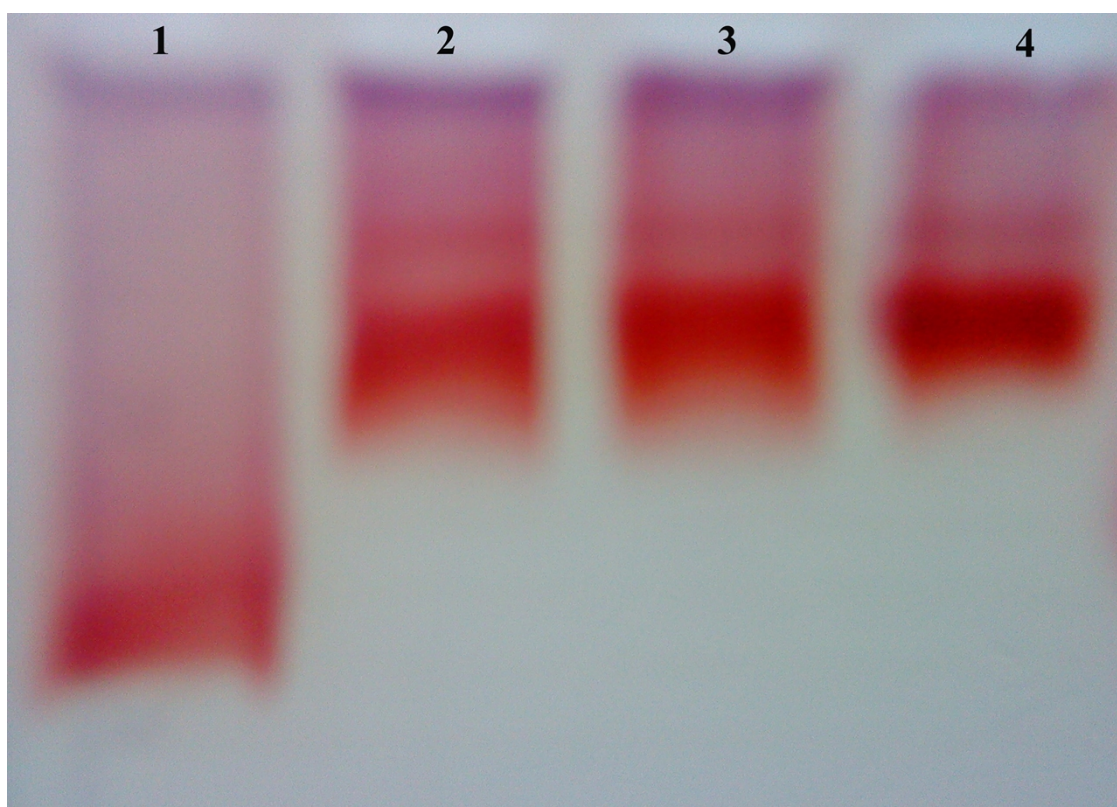


Fig. S3 Gel electrophorogram of the Au NPs and large Au NAs prepared by stepwise assembly. The Au NPs were first coupled with DNA1 and cDNA1 at different molar ratios individually, and the resulting DNA1-Au NPs and cDNA1-Au NPs were then mixed to directly give the large Au NAs. Lane 1: Au NPs alone; Lanes 2-4: the large Au NAs prepared at molar ratio of 1:20, 1:40, 1:60, respectively.



Fig. S4 TEM of the two-AuNPs NAs prepared by the dsDNA self-assembly strategy.



Fig. S5 Large scale TEM images of the Au NAs with (A) three, (B) four and (C) five Au NPs.

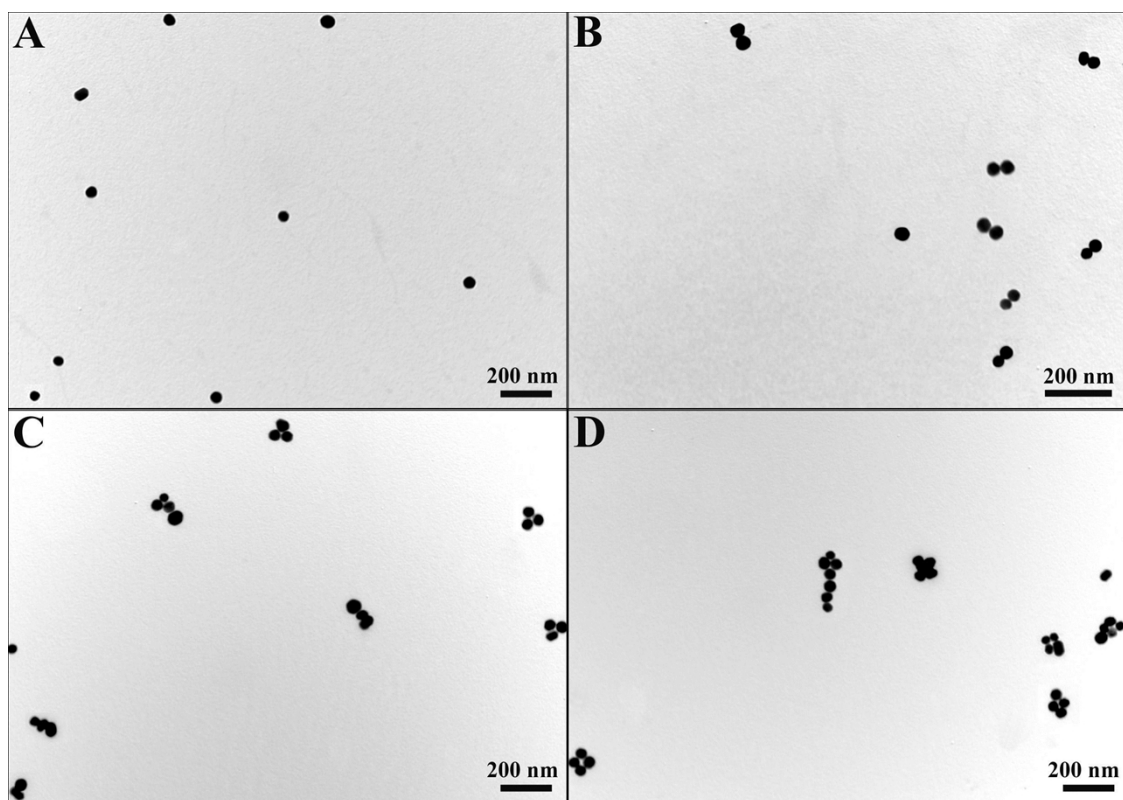


Fig. S6 TEM images of the (A) 48.0-nm Au NPs and its (B) two-, (C) three- and (D) four-AuNPs NAs prepared by the dsDNA self-assembly strategy.