Supporting Information *for the article:*

Large scale self organization of gold nanorods leading to one, two and three dimensional superstructures induced by monolayers of dimercaptosuccinic acid

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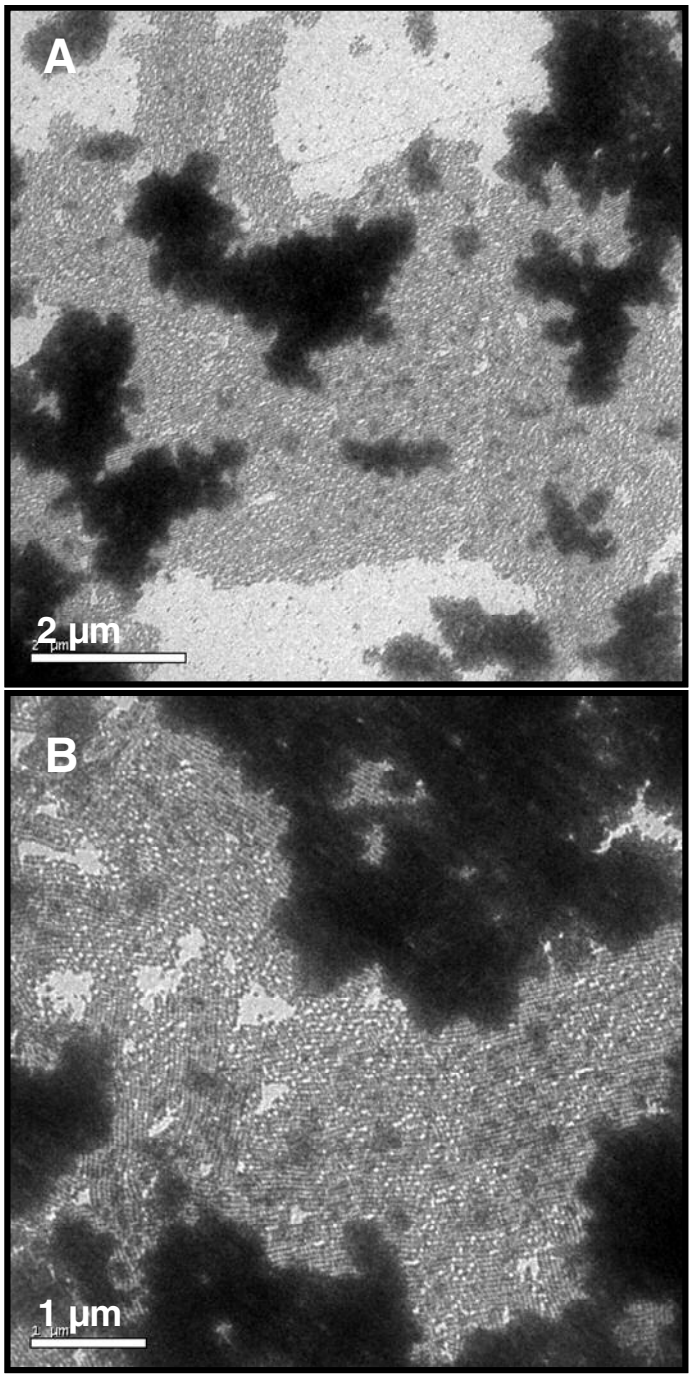

Figure S1. Extended ordered arrangements of gold nanorods induced by DMSA (1 mM) and imaged in the Low MAG mode of the TEM.

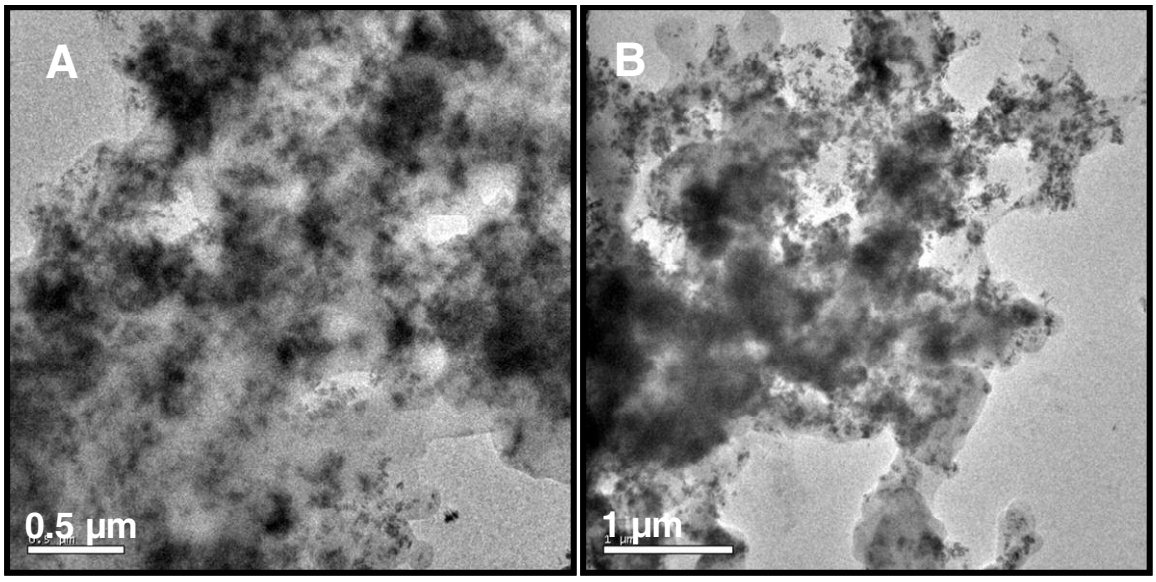

Figure S2. Aggregated structures of gold nanorods formed at 3 mM concentration of DMSA. Images taken from the residue that settled from the mixture.

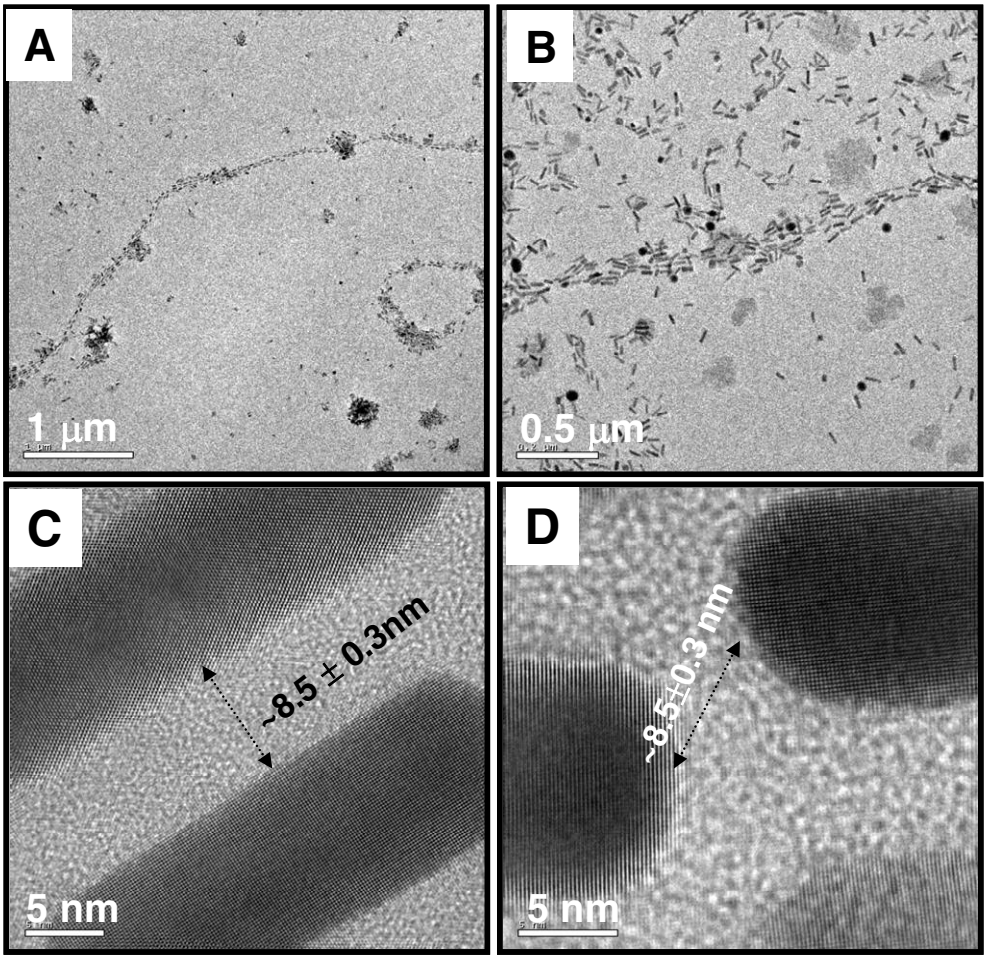

Figure S3. TEM images of samples with DMSA concentrations of A) 200 μM, B) 350 μM and showing the longitudinal assembly of gold nanorods in one dimension. Lattice resolved TEM images of assemblies showing C) side-to-side alignment in a 'nanorod tape' D) Staggered tip-to-tip alignment in consecutive tapes.

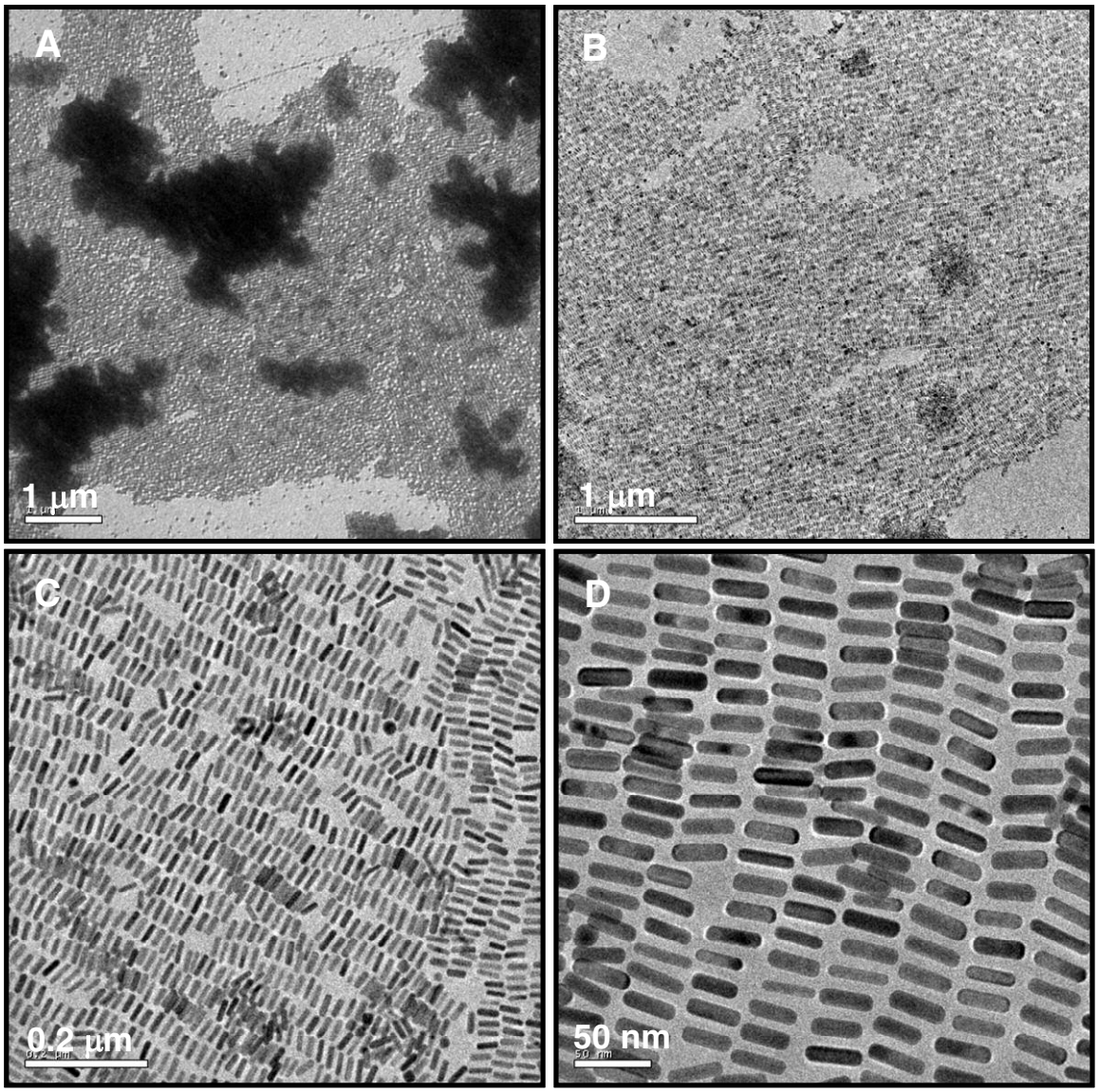

Figure S4. TEM images of assembled nanorod in presence of 1 mM DMSA.

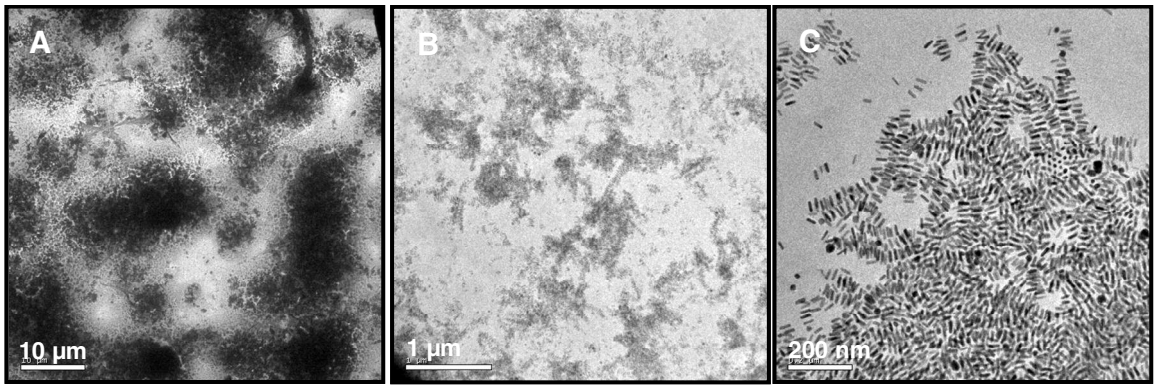

Figure S5. Arranged aggregated structures at 2 mM concentration A) Low MAG image B) and C) image in MAG I mode

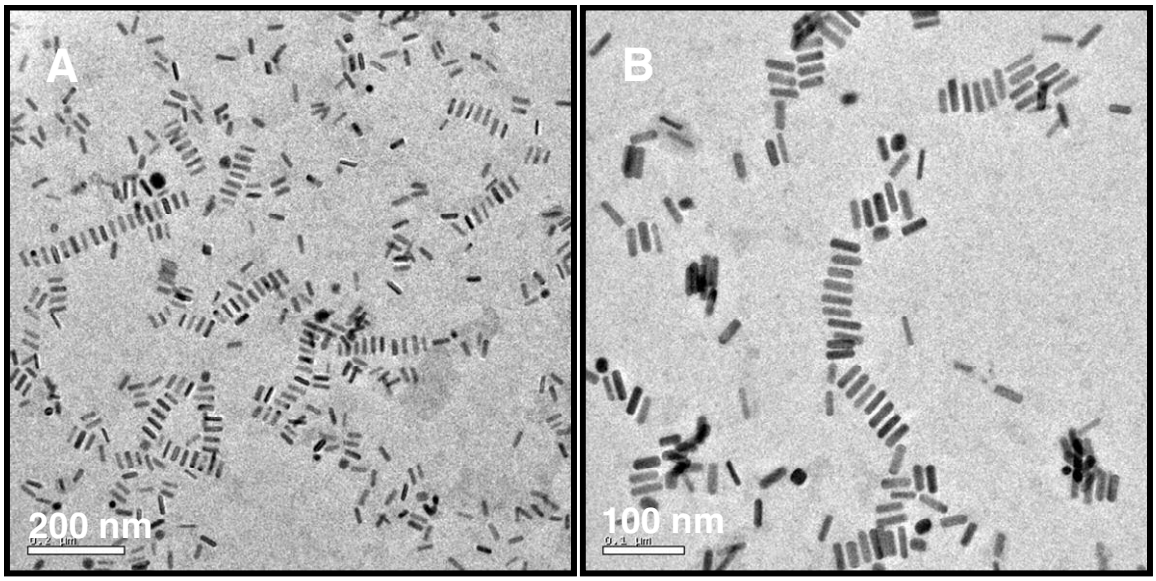

Figure S6. Structures of gold nanorods formed at 3 mM concentration of DMSA. Images were taken for the supernatant of the mixture.

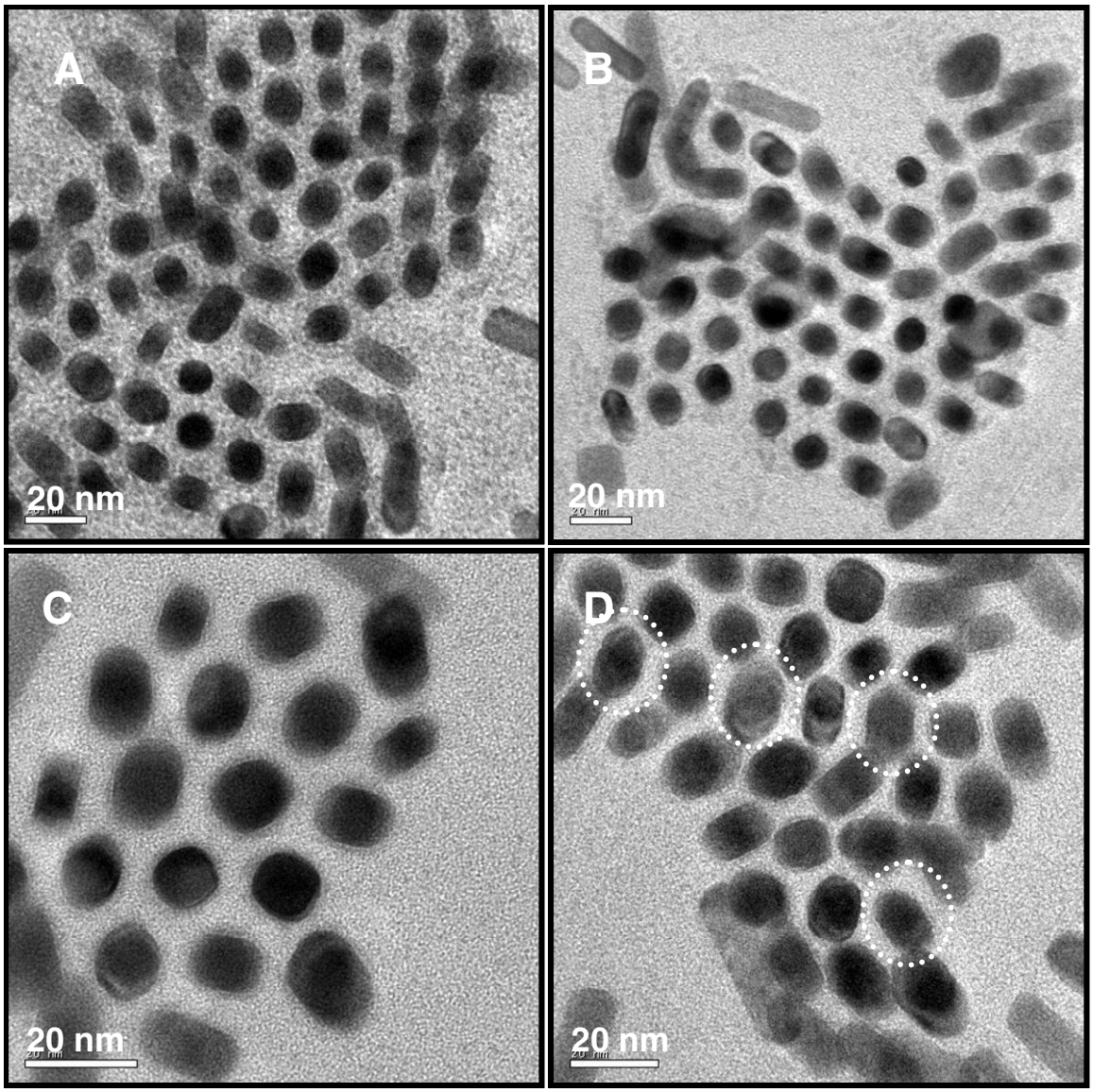

Figure S7. Perpendicularly arranged super structures, showing the smaller rods which can be the rods oriented at some angle less than 90^{o} but greater than 0^{o} with respect to substrate. Some of them are marked by doted circles.

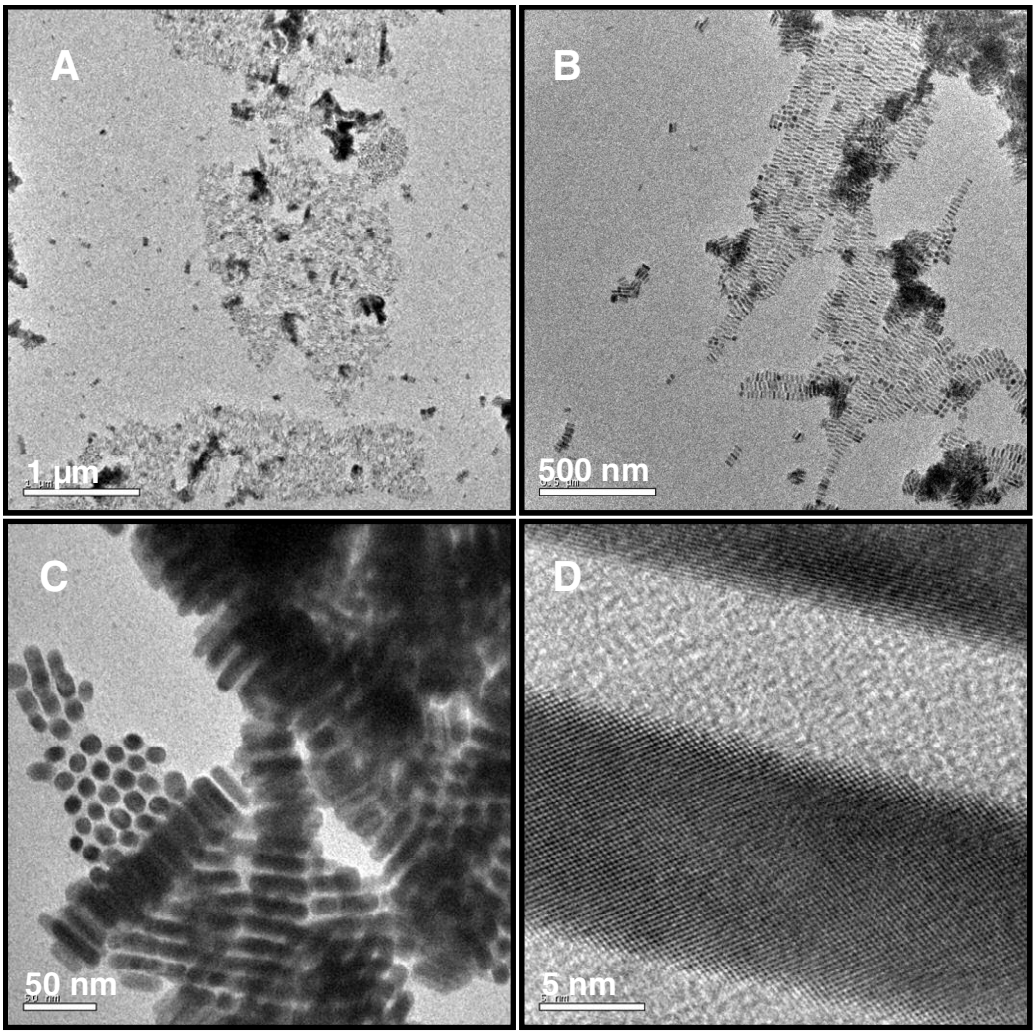

Figure S8. Well arranged superstructures of gold nanorods in presence of MSA.

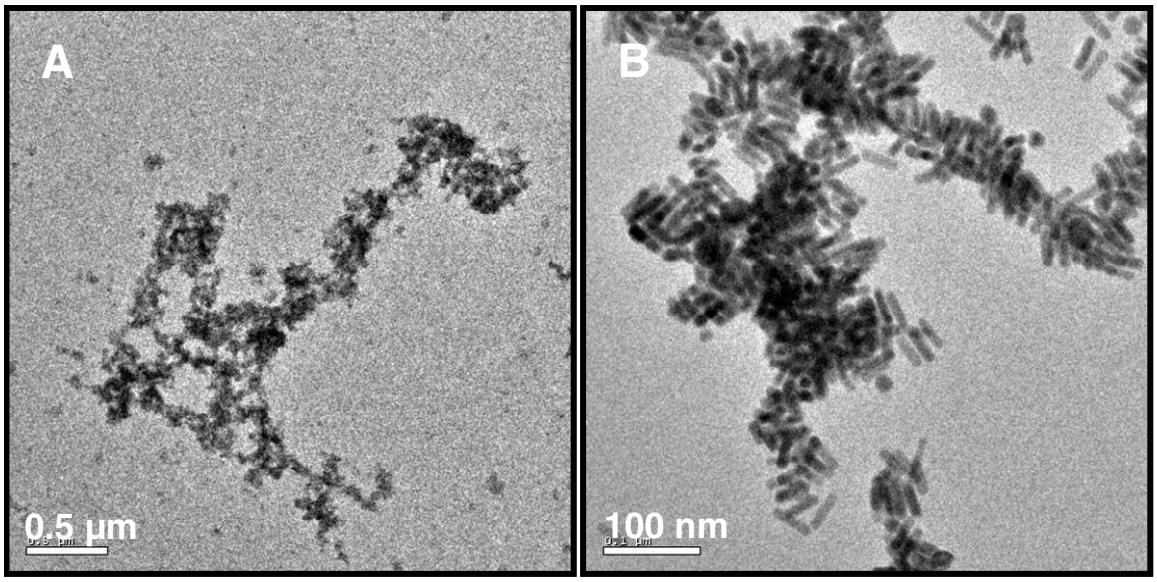

Figure S9. Aggregated structures of gold nanorods formed in presence of MPA.

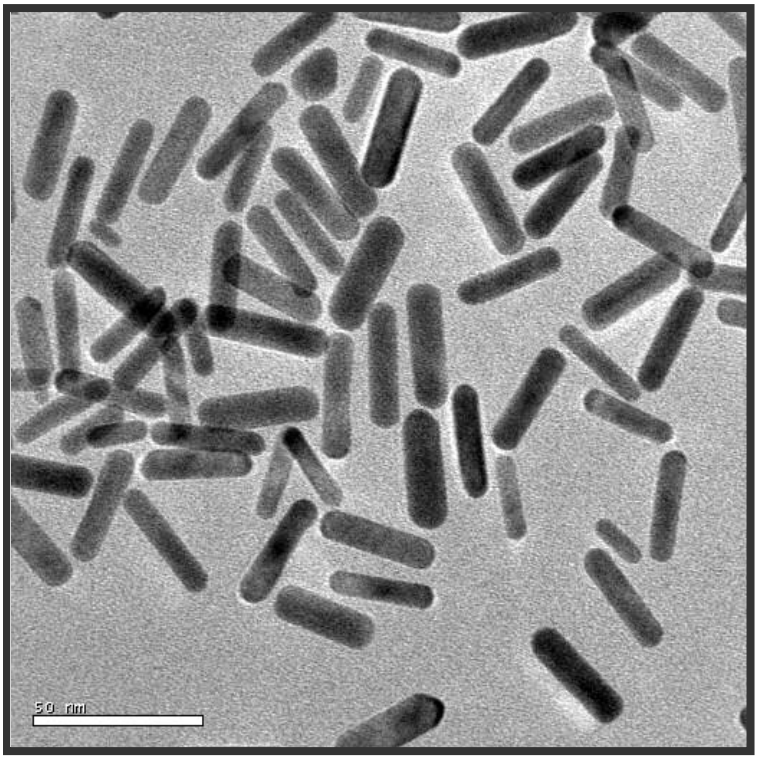

Figure S10. Randomly oriented gold nanorods in presence of 1 mM butyric acid.

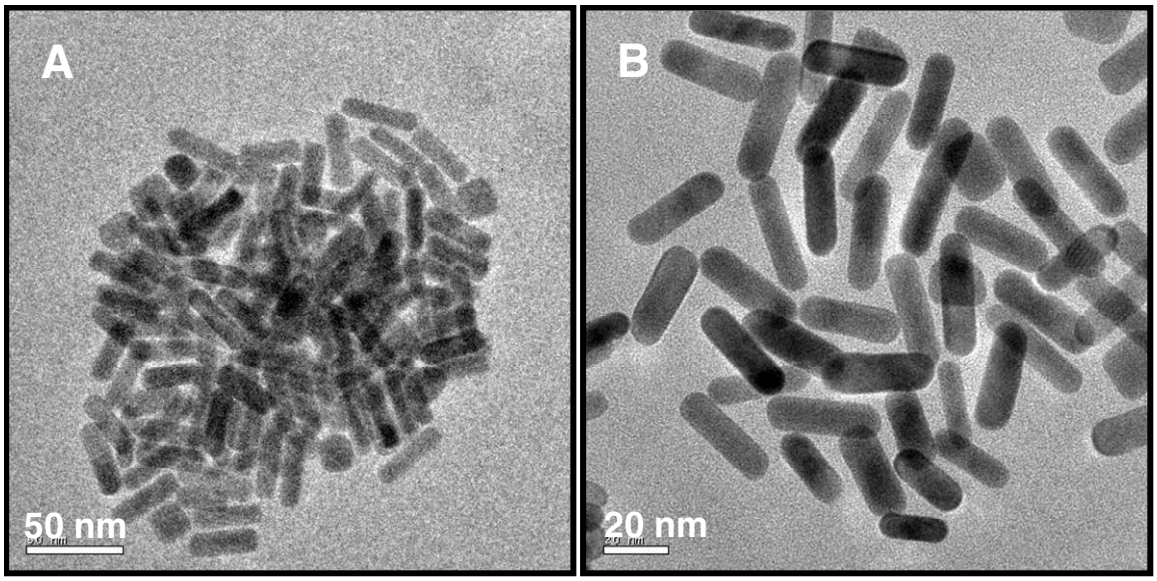

Figure S11. Randomly oriented gold nanorods in presence of 2,5-dimercapto-1,3,4-thiadiazole.

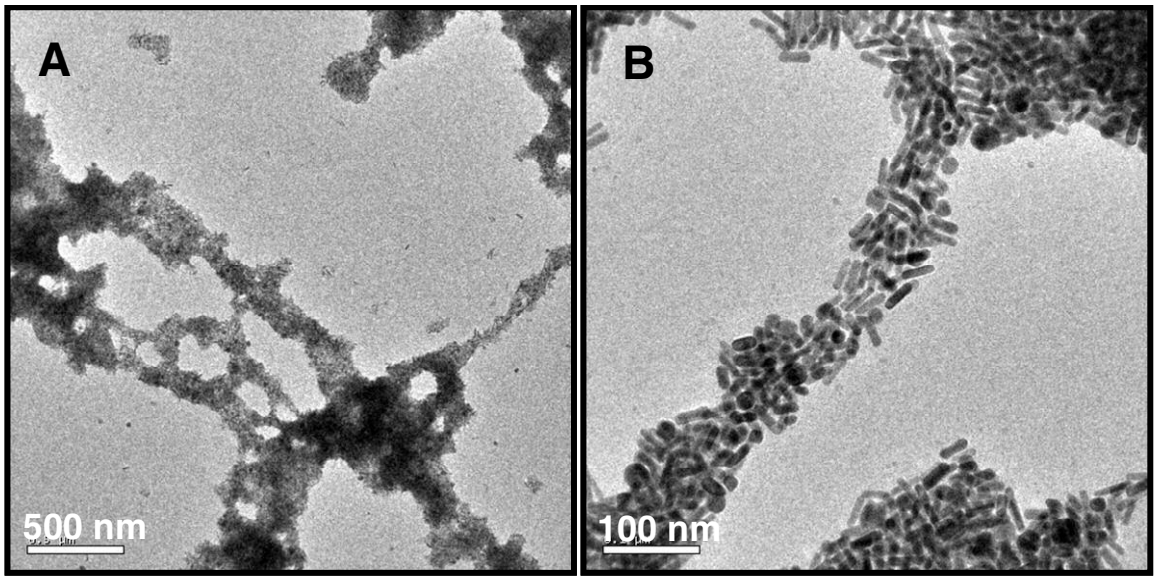

Figure S12. Aggregated structures of gold nanorods formed at 1 mM concentration of DMSA at a pH of 2.3. Nanorods are arranged at various angles and as a result some of them appear like particles (B).