

Silver Tip Formation on Colloidal CdSe Nanorods by a Facile Phase Transfer Protocol

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Supporting Information SI-1

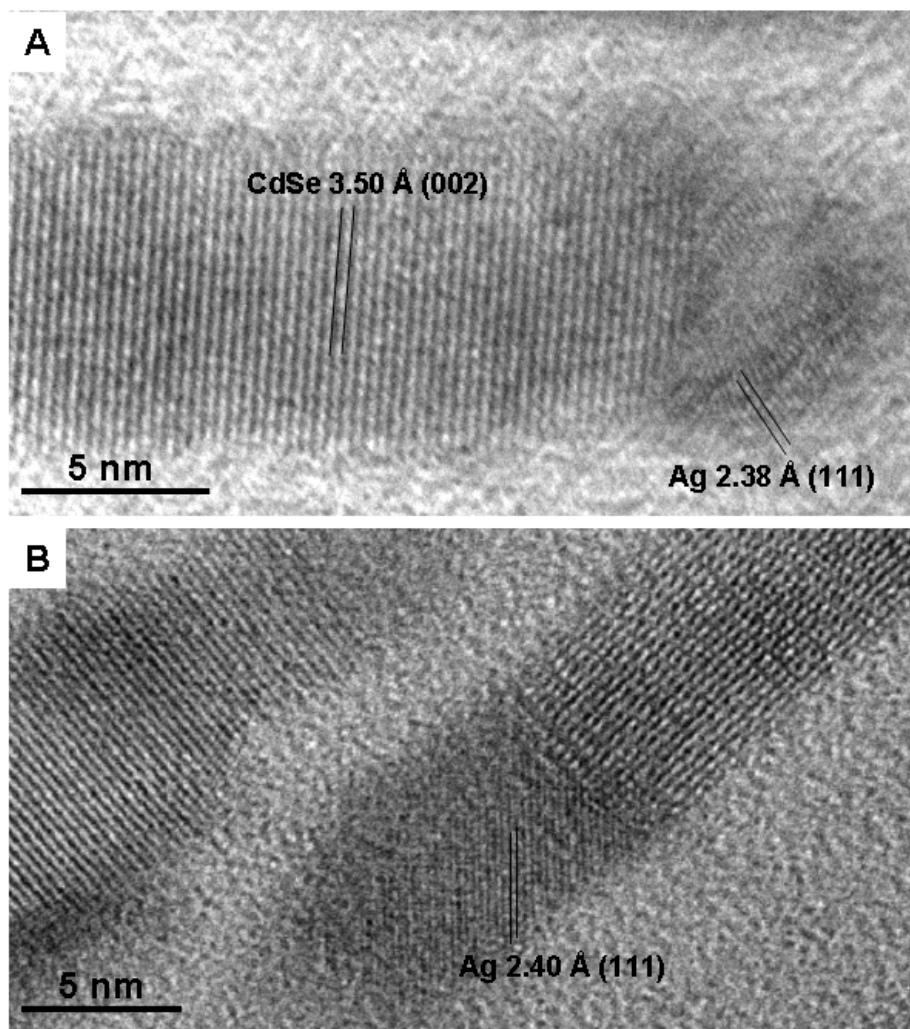


Figure S1: HRTEM images of CdSe nanorods with ripened Ag tips clearly revealing an interface between the semiconductor and noble metal.

Supporting Information SI-2

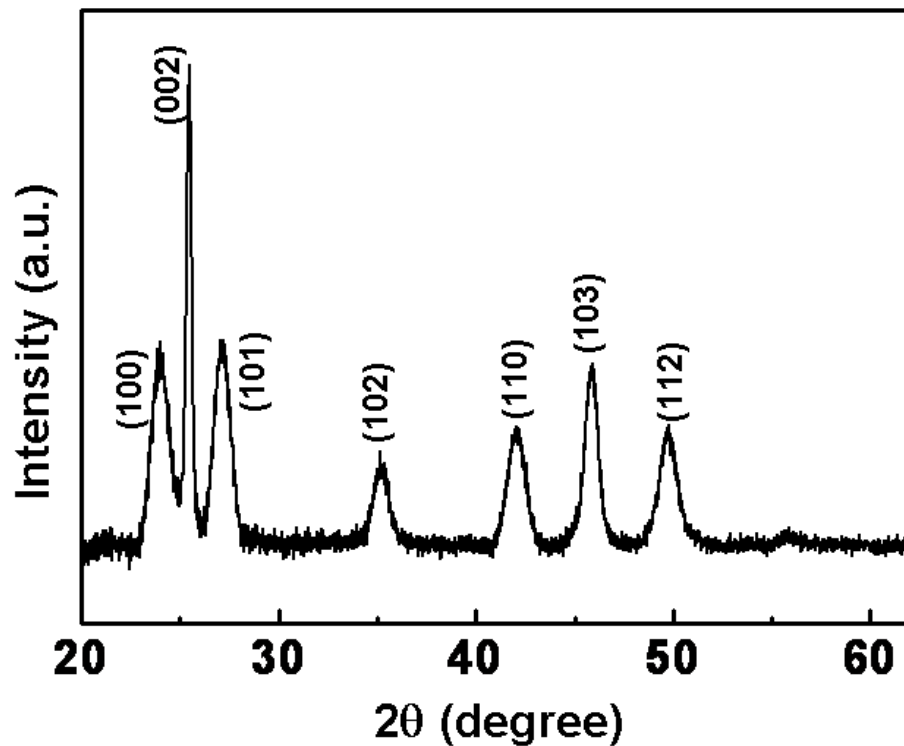


Figure S2: XRD analysis of pristine CdSe nanorods. The peaks could be matched with wurtzite CdSe according to JCPDS 77-002. The comparatively sharp (002) peak indicated the growth of CdSe nanorods along this direction.

Supporting Information SI-3

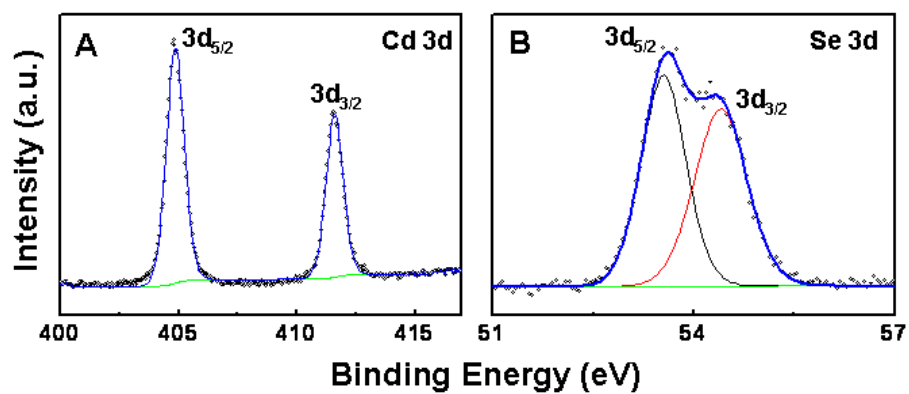


Figure S3: X-ray photoelectron spectroscopic analysis of pristine CdSe nanorods for the elements Cd 3d (A) and Se 3d (B).

Supporting Information SI-4

Control experiment: The control experiment was performed by stirring the alkaline AgNO_3 solution with CdSe nanorods, without any washing with DMP. The concentrations of AgNO_3 and the semiconductor materials were kept same as described for the original experiment. The TEM images obtained from the toluene layer after 2 hrs of stirring are presented in Figure S2 B. None of the rods showed any sign of Ag tipping which conclusively proved that the DMP molecule is responsible for the site selective reduction of Ag^+ to Ag^0 on the surface of semiconductor nanomaterials. The TEM of as synthesized CdSe rods are presented in Figure S2 A for comparison.

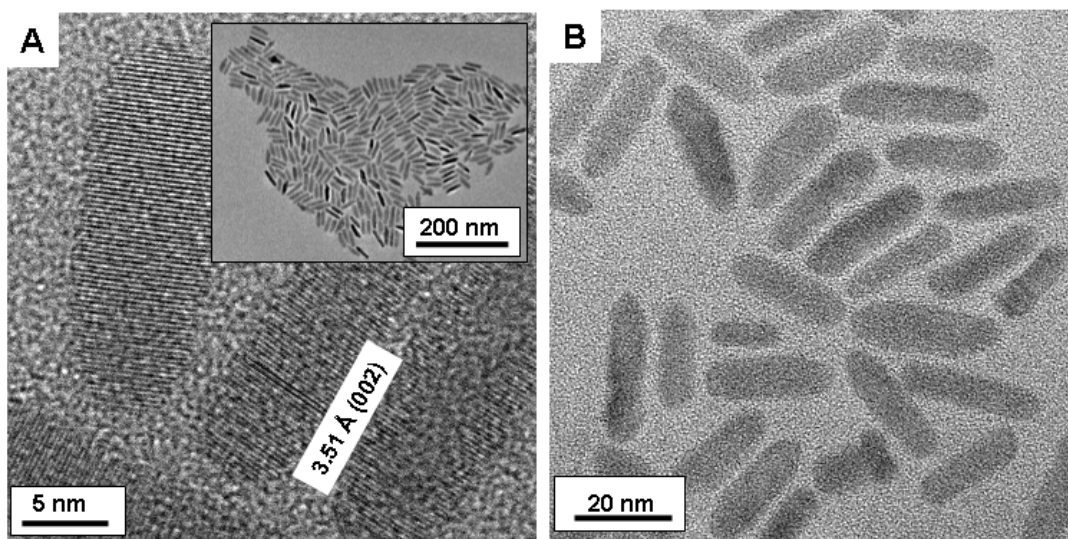


Figure S4: TEM image of the as-synthesized CdSe rods and those obtained from control experiment (B) mentioned in the text above.