Supporting Information for the article:

Bending and Shell Formation of Tellurium Nanowires Induced by Thiols

T. S. Sreeprasad, A. K. Samal and T. Pradeep*

DST Unit on Nanoscience (DST-UNS), Department of Chemistry and Sophisticated Analytical Instrument Facility, Indian Institute of Technology, Madras, Chennai 600 036, India

*For correspondence, Email: pradeep@iitm.ac.in Fax: + 91-44 2257-0545

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Figure S1. UV/vis spectral changes of Te NW after the addition of different concentrations of A) cystiene, B) IPA, C) butanol and D) SA.
Figure S2. UV/Vis spectra of (a) 0.05 mM DMSA and (b) Te NW sample containing 0.05 mM DMSA showing that there is a clear difference in the spectra.
Figure S3. EDS spectrum and elemental maps of the pristine Te NW sample after one centrifugation-redispersion cycle (Te$_1$). The elemental maps are moved slightly to the left in comparison to the bring field image.
Figure S4. UV/Vis spectral changes of Te NW sample upon centrifugation redispersion cycles. (a) As-prepared Te NW without centrifugation, (b) and (c) after 1 and 4 rounds of centrifugation redispersion cycles. We can see that peak I is smeared in the as-prepared sample.
Figure S5. EDS spectrum and elemental maps of the pristine Te NW sample after four rounds centrifugation-redispersion cycles (Te$_2$). The elemental maps are moved slightly in comparison to the bright field image.
Figure S6. A) HRTEM image showing the defects over a large region of a single bent Te NW. B) Lattice resolved TEM image of the portion marked by yellow rectangle in B. We can clearly see a row of atoms missing near the bend, denoted by arrows. C) Lattice resolved TEM image of the portion marked by green rectangle in B, clearly showing a large number of defects.
Figure S7. HRTEM image of a single pristine Te NW. a1 to a14) Consecutive lattice resolved HRTEM images taken along the length of the NW, starting from the tip, showing a defect-free surface throughout the NW. Scale bar in each image 5 nm. b1 to b14) Consecutive corresponding FFTs generated from the HRTEM images given in Figure a1 to a14 emphasizing a defect free surface although the NW.
Figure S8. a1 to a18) Consecutive corresponding FFTs generated from the HRTEM images given in Figure 11 a1 to a18 in main manuscript showing the defects around the bend.
Figure S9. A) TEM micrograph of a single Te NW B) Lattice resolved image and C) IFFT image from a portion of Te NW showing the perfect single crystalline nature. Inset i and ii FFT and SAED pattern from the same area showing the single crystalline nature.
Figure S10. XPS spectra in the Te 3d region for (a) as-prepared Te NW, (b) Te$_1$ and (c) Te$_2$. 
Figure S11. HRTEM image of a bent nanowire and reconstructed image of a bent nanowire from consecutive lattice resolved images taken from one end to the other end along the length of nanowire. $b_1$-$b_{30}$ consecutive lattice resolved images taken from one end to the other end along the length of same nanowire. Scale bar in each lattice resolved image is 5 nm.