

Supplementary data

Instruments

TEM images were recorded by a H-800 electron microscope (HITACHI, Japan) operating at 200 kV. Samples for TEM were prepared by casting one drop of the CdTe sample solution onto a standard formvar film on copper grid (230 meshes).

HRTEM image was recorded by a JEOL-2010F high-resolution transmission electron microscope.

Power X-ray diffraction (XRD) measurement was performed on a Rigaku D/Max-rB X-ray Diffractometer with Cu K α radiation (1.5406 Å).

Energy disperse spectroscopy (EDS) data were obtained from GENESIS X-ray Energy disperse spectroscope (EDAX Inc., America).

Luminescence spectra data were obtained from Cary Eclipse Fluorescence Spectrophotometer (Varian, Australia). The excitation and emission slit width were both 5 nm. The detector voltage was fixed at 600 V.

Figures

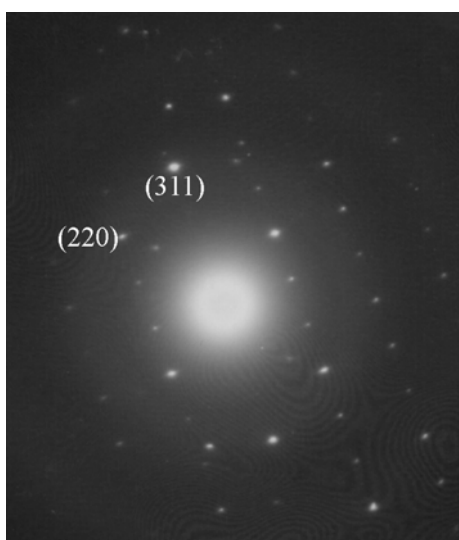


Fig. S1 SAED pattern of CdTe NWs showing that the nanowires have a cubic CdTe crystal structure.

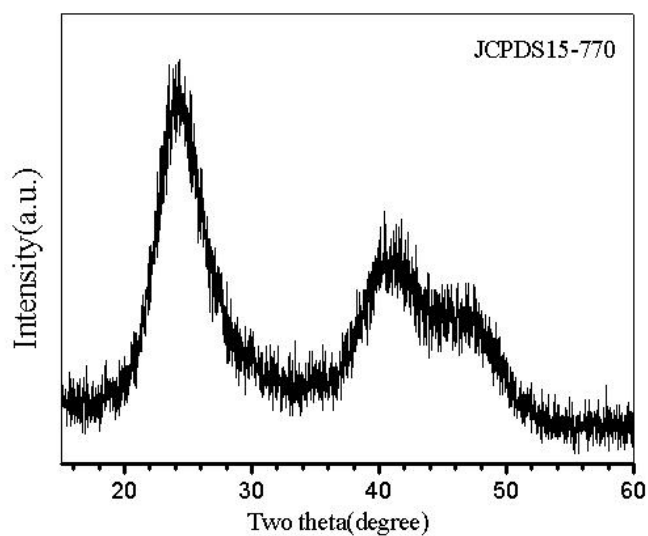


Fig. S2 XRD pattern of CdTe NWs showing that the nanowires have a cubic CdTe crystal structure.

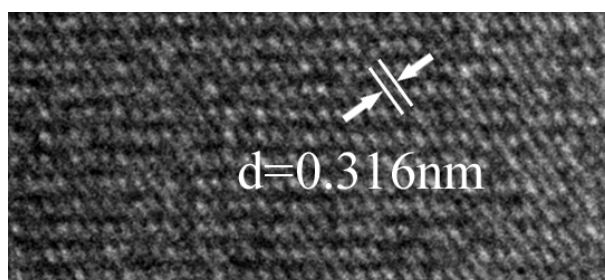


Fig. S3 HRTEM image of CdTe NWs showing that the interplanar spacing was about 0.316nm, which corresponded to the (200) plane of the cubic CdTe crystallite.

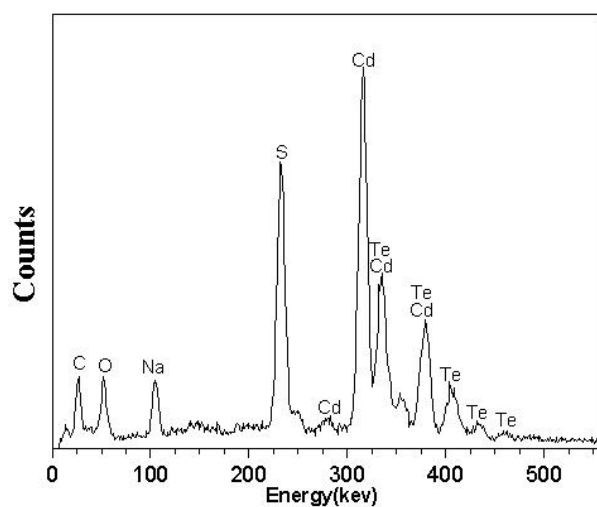


Fig. S4 EDS pattern of CdTe NWs showing that the major elements of the nanowires were Cd, Te and S.

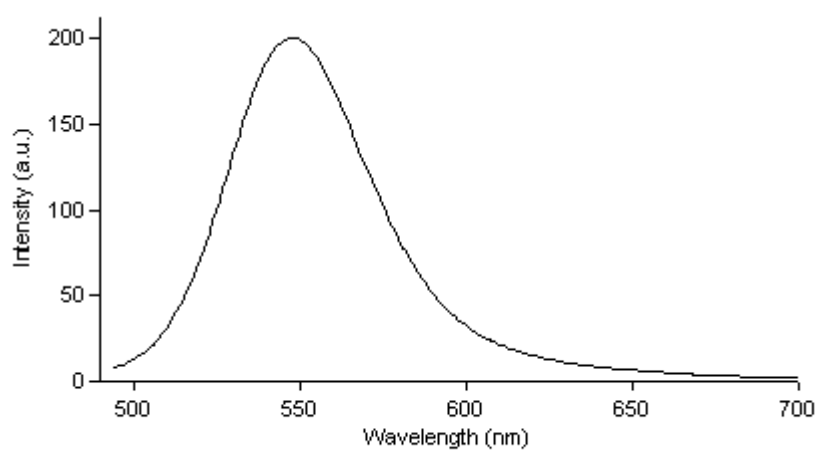


Fig. S5 PL spectrum of the CdTe QDs stock solution with the excitation wavelength of 400nm.

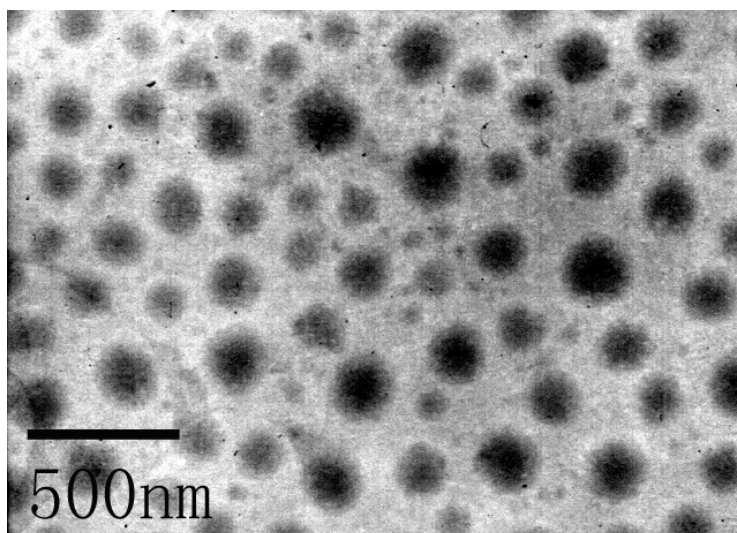


Fig. S6 TEM image of the CdTe QDs.