**ESI Fig. 1**  HR-TEM image of Glutathione- capped Cd(Se,S) QDs. The scale bar in the inset of HR-TEM image was 20 nm.

**ESI Fig. 2**  X-Ray Diffraction of Cd (Se,S) powder synthesized in presence of TGA. Expected diffraction lines for pure CdSe and CdS phases are also shown.
ESI Fig. 3  FT-IR spectra for (A) Thioglycolic acid (TGA) and (B) Thioglycolic acid-capped Cd(Se,S) QDs.

ESI Fig. 4  FT-IR spectra for (A) L-Glutathione and (B) L-Glutathione capped Cd(Se,S) QDs.