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Effect of anion on morphology of CdS nanoparticles prepared via thermal decomposition of different cadmium thiourea complexes in a solvent and solid state

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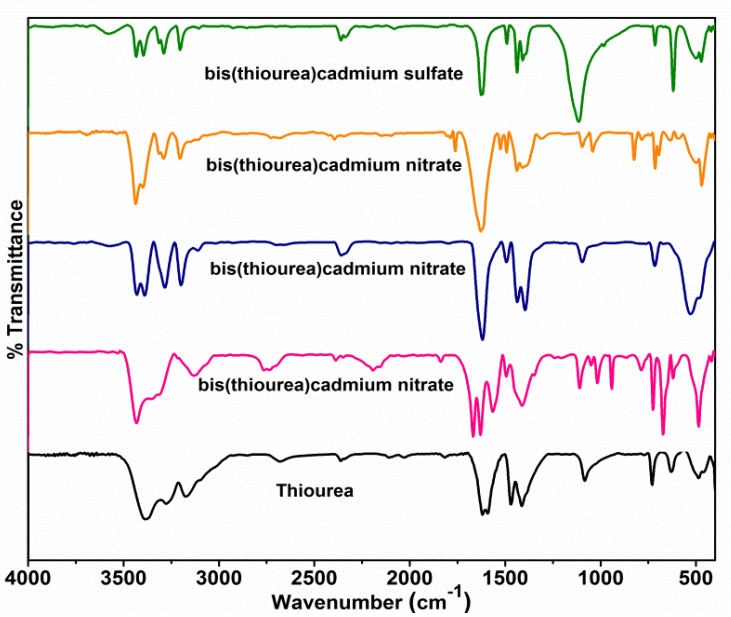

Fig S1: FT-IR spectra of cadmium thiourea complexes with different anions (acetate, chloride, nitrate and sulphate).

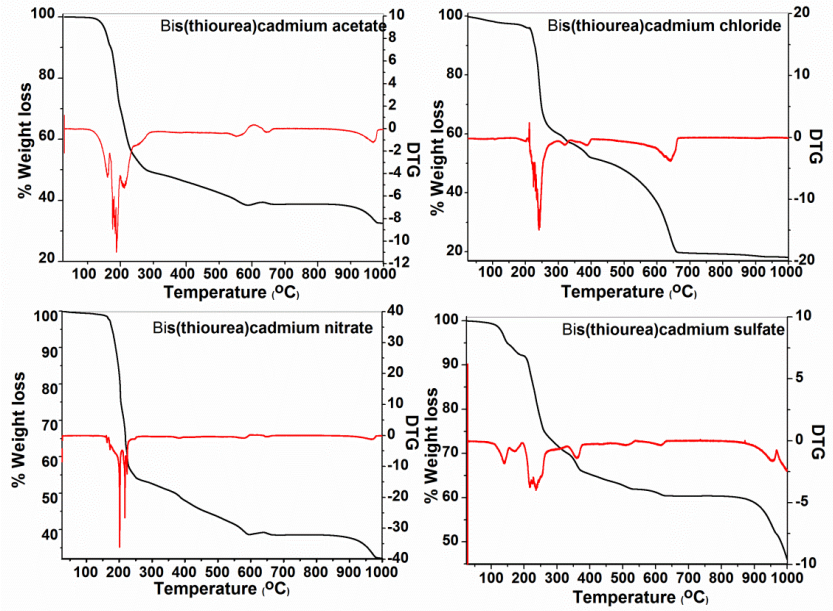

Fig S2: TGA plots for cadmium thiourea complexes with different anions (acetate, chloride, nitrate and sulphate).

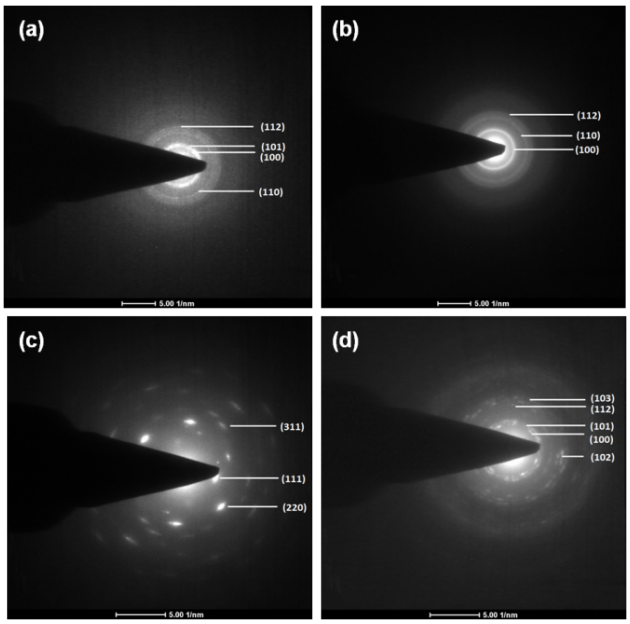

Fig S3: Selected area electron diffraction patterns for CdS nanoparticles synthesized by solid state thermal decomposition of different cadmium complexes at 300 °C; (a) CTA-SS, (b) CTC-SS, (c) CTN-SS and (d) CTS-SS.

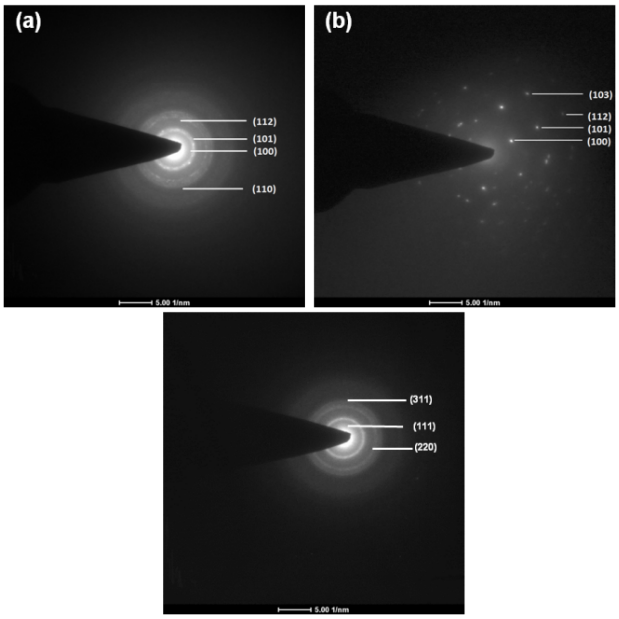

Fig S4: Selected area electron diffraction patterns for different CdS nanoparticles synthesized by thermal decomposition of cadmium complexes in diphenyl ether at 200 °C; (a) CTA-TS, (b) CTC-TS and (c) CTN-TS.

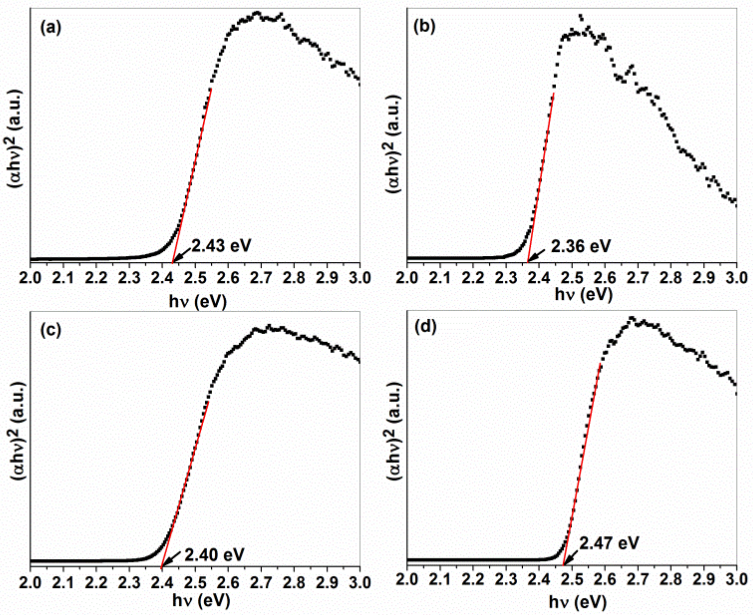

Fig S5: Tauc plots of CdS nanoparticles synthesized by solid state thermal decomposition of different cadmium complexes at 300 °C; (a) CTA-SS, (b) CTC-SS, (c) CTN-SS and (d) CTS-SS.

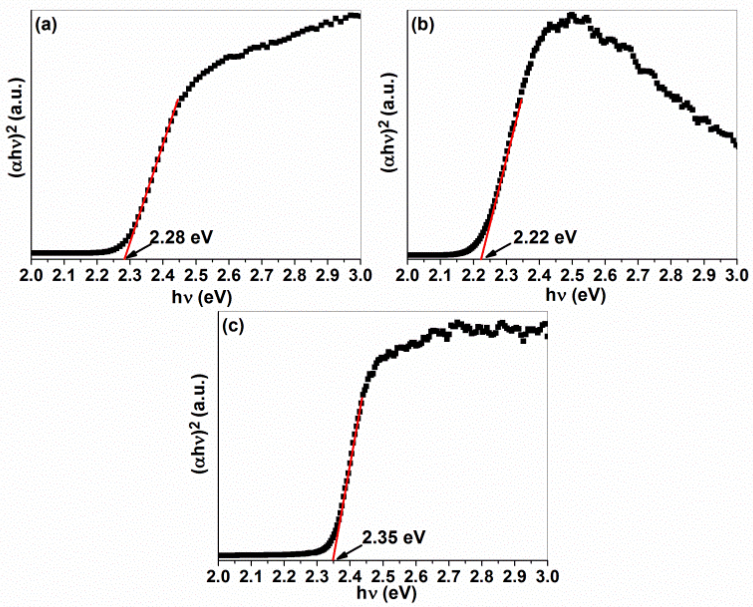

Fig S6: Tauc plots of different CdS nanoparticles synthesized by the thermal decomposition of cadmium complexes in diphenyl ether at 200 °C; (a) CTA-TS, (b) CTC-TS and (c) CTN-TS.

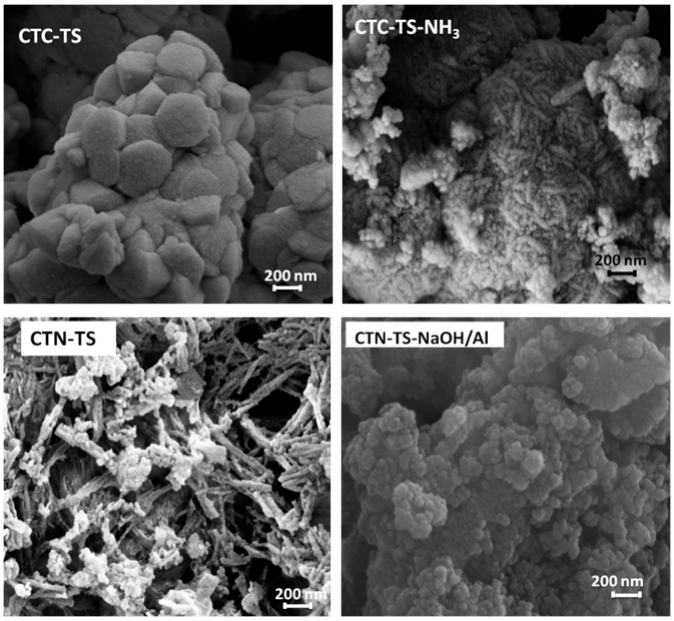

Fig S7: SEM images of CdS nanoparticles synthesized by the thermal decomposition of cadmium complexes, bis(thiourea)cadmium chloride and bis(thiourea)cadmium nitrate, in diphenyl ether. CTC-TS-NH_3 and CTN-TS-NaOH/Al refer to the CdS samples prepared in the absence of anions (Cl^- and NO_3^-, respectively).