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Electronic Supporting Information

Mechanistic investigation of the sulfur precursor evolution in the synthesis of highly photoluminescent Cd_{0.15}Zn_{0.85}S quantum dots

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Figure S1. ¹H and ¹³C NMR spectra of (Z)-1-(octadec-9-enyl)-3-phenylthiourea



Figure S2. ¹H and ¹³C NMR spectra of linoleic acid (technical grade)





Figure S3. ¹H (a) and ¹³C (b) NMR spectra of isolated from the reaction mixture amide **6** and (c) copyright ¹³C NMR spectrum from reference (*A. Modak, T. Naveen, D. Maiti, An efficient dehydroxymethylation reaction by a palladium catalyst, Chem. Commun. 49 (2013) 252-254*)





Figure S4. 1 H and 13 C NMR spectra of isolated from the reaction mixture amide **7**





Figure S5. ¹H and ¹³C NMR spectra of isolated from the reaction mixture anhydride of linoleic acid



Figure S6. TG/DTG curves of $Cd_{0.15}Zn_{0.85}S$ QDs prepared by methods **A**, **B**, **C** and **D**



Figure S7. FT-IR spectra of prepared $Cd_{0.15}Zn_{0.85}S$ QDs by methods **A**, **B**, **C** and **D** in comparison with linoleic acid