## One-pot synthesis of high-quality Cd:CuInS<sub>2</sub> quaternary quantum dots as sensitizers for photovoltaic cell

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Supplementary Information



**Figure S1.** EDS spectra of Cd:CuInS<sub>2</sub> q-QDs. The Au signals are owing to the Au TEM grid.



**Figure S2.** Comparison of the absorption (solid line) and photoluminescence emission (dot line) spectra of samples S1–S5.



**EXAMPLE 1 20** (degree) **Figure S3.** (a) HRTEM image, (b) EDS spectrum, and (c) XRD of Zn:CuInS<sub>2</sub> q-QDs. The white circles show the location of q-QDs. The Au signals are owing to the Au TEM grid.



**Figure S4.** IPCE curves of Cd:CuInS<sub>2</sub>/CdS(3) (red dot) and Cd:CuInS<sub>2</sub>/CdSe(4) (blue dot) based QDSSC.