

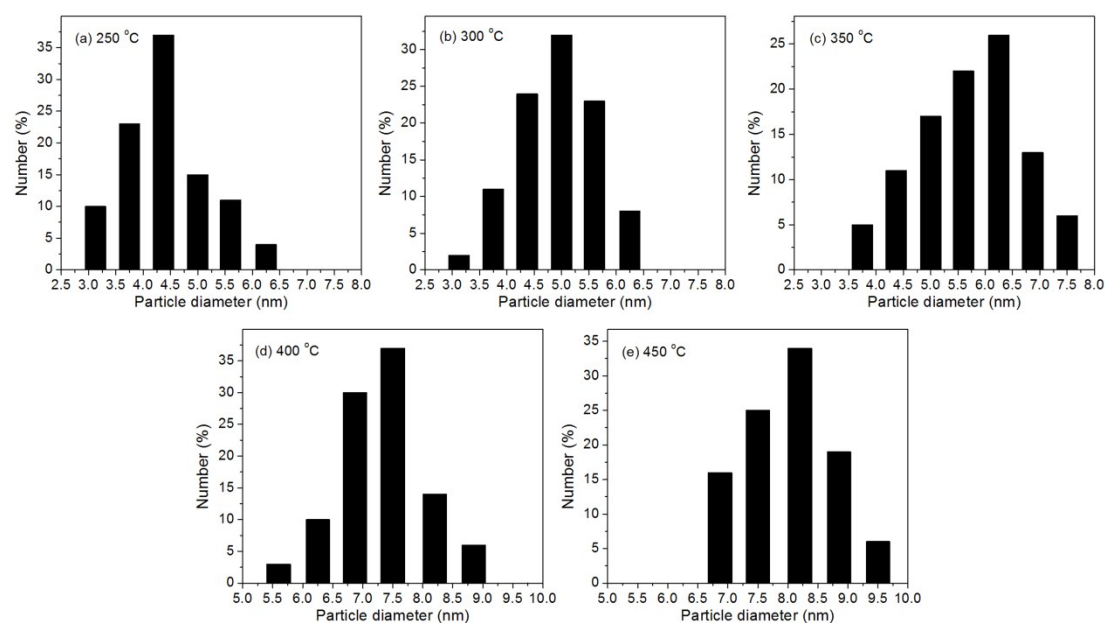
## Supporting informaton

### Improving the Performance of Solid-State Quantum Dot-Sensitized Solar Cells Based on TiO<sub>2</sub>/CuInS<sub>2</sub> photoelectrode with Annealing Treatment

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**Fig. S1** Particle size distribution patterns of CIS QDs for TiO<sub>2</sub>/CIS photoelectrodes annealed at different temperatures (250–450 °C).

**Table S1** Average particle sizes of CIS QDs as a function of annealing temperature.

| Annealing temperature (°C) | 250      | 300      | 350      | 400      | 450      |
|----------------------------|----------|----------|----------|----------|----------|
| Average particle size (nm) | 4.4±0.03 | 4.9±0.06 | 5.7±0.07 | 7.3±0.05 | 8.0±0.07 |

As shown the results above, it can be seen that particle size distribution (PSD) of CIS QDs annealed at 350 °C is the widest, so there is a great variation in particle size, ranging from 3.75 to 7.5 nm. When the annealing temperature is 450 °C, CIS has an average particle diameter around 8 nm, and possesses a narrowest PSD, ranging from 6.87 to 9.5 nm. In general, the average particle

size calculated from PSD patterns shows an increasing trend with the increase of annealing temperature, which is in a good agreement with the result obtained from UV-vis spectra, thus providing a strong evidence to support the effect of annealing on particle size.