

## Supporting Information

### Amphibious Polymer-Functionalized CdTe Quantum Dots: Synthesis, Thermo-responsive Self-assembly, and Photoluminescent Properties

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#### Figure caption

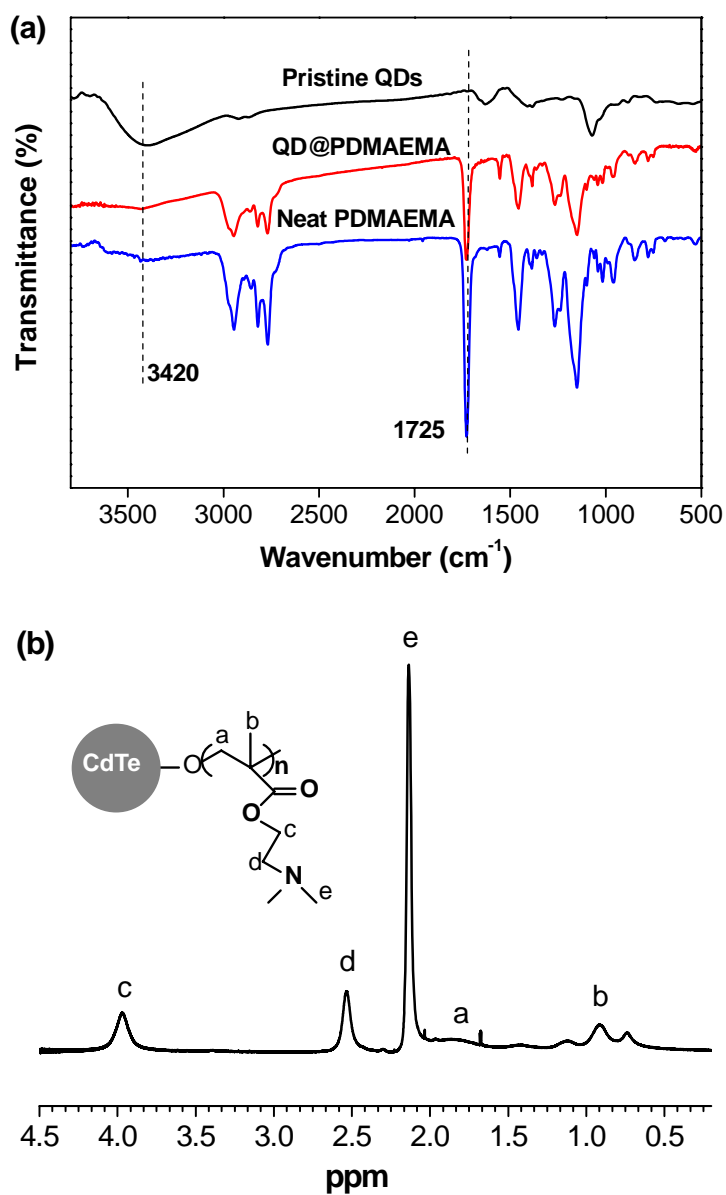
**Fig. S1** (a) FTIR spectra of pristine QDs, QD@PDMAEMA and neat PDMAEMA. (b) <sup>1</sup>H NMR spectrum of QD@PDMAEMA3 in D<sub>2</sub>O.

**Fig. S2** Representative TEM images of QD@PDMAEMA by dropping a sample onto the Cu grid at room temperature (a), 30 °C (b), 40 °C under higher magnification (c) and lower magnification (d).

**Fig. S3** Dynamic light scattering (DLS) plots of QD@PDMAEMA4 at 28 (a), 32 (b), 34 (c), 36 (d), 38 (e), and 42 °C (f) during the heating process, and at 35 (g) and 32 °C (h) during the cooling process.

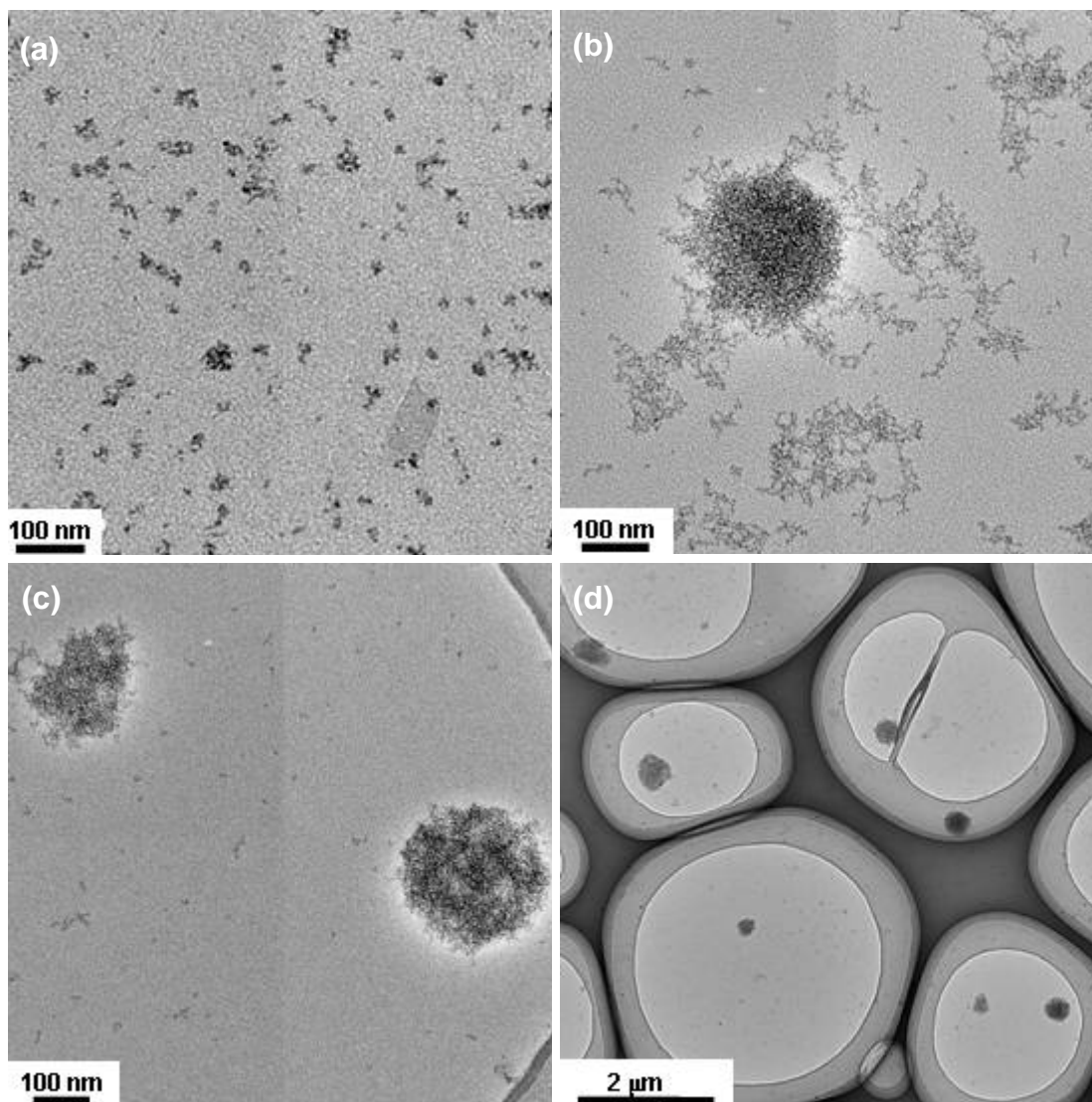
**Fig. S4** (a) TGA curves of pristine SiO<sub>2</sub> and SiO<sub>2</sub>-NH<sub>2</sub>, (b) FTIR spectra of pristine SiO<sub>2</sub>, SiO<sub>2</sub>-NH<sub>2</sub>, and SiO<sub>2</sub> spheres after one LbL assembly cycle of PAANa/QD@PDMAEMA (Designed as SiO<sub>2</sub>-QD@PDMAEMA).

Fig S1



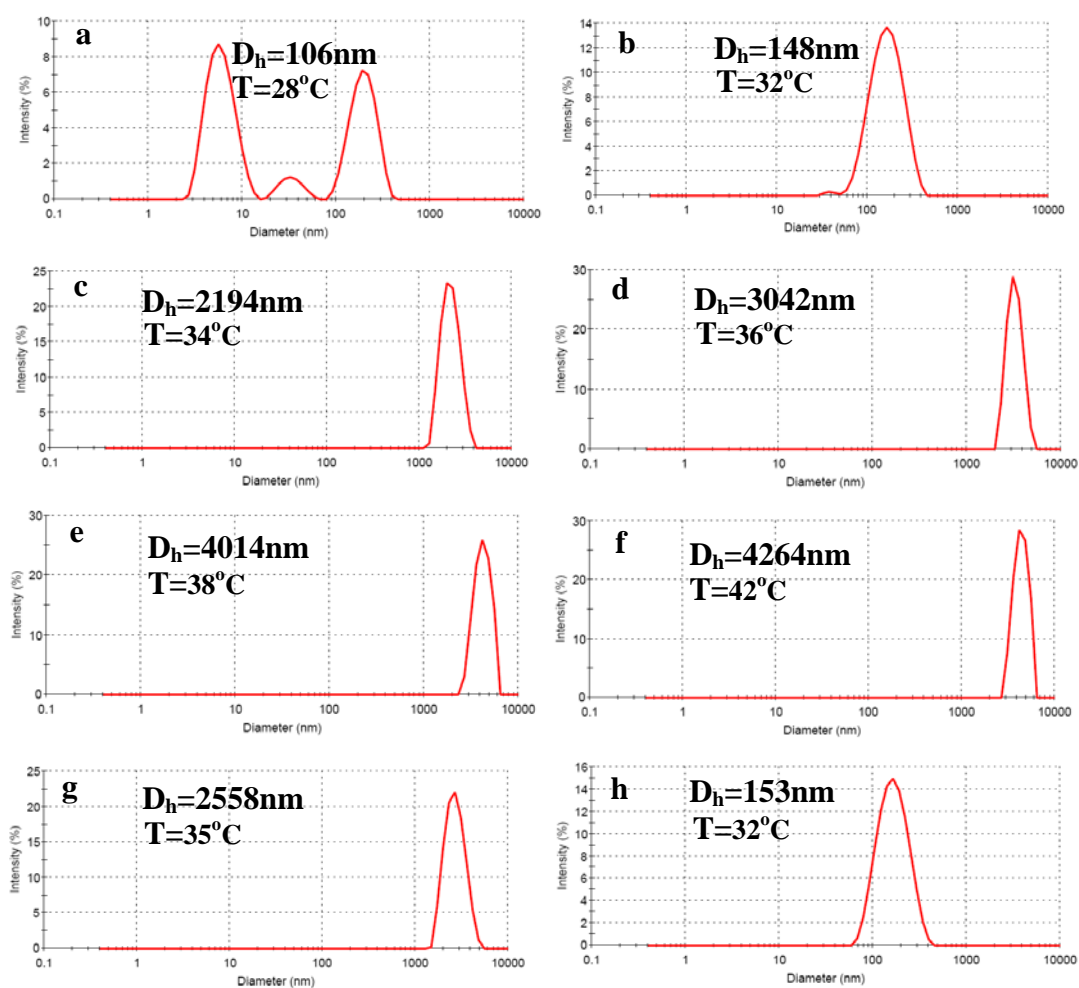
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**Fig S2**



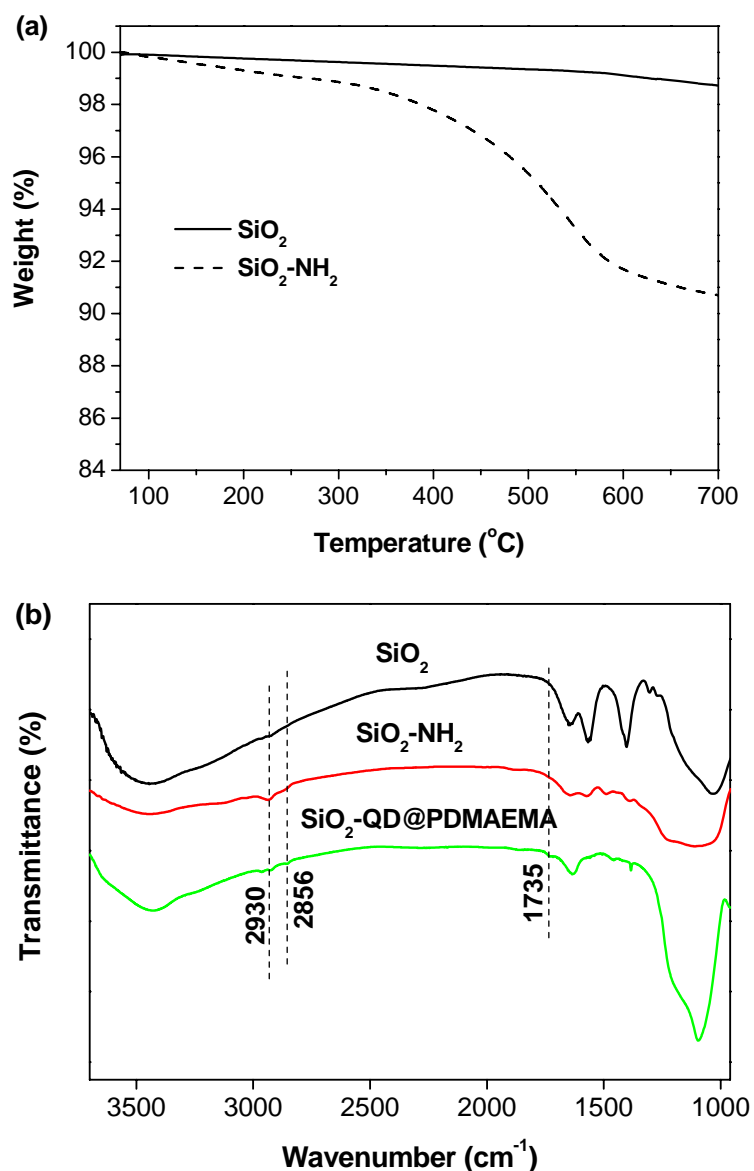
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Fig S3



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Fig S4



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