

<Electronic Supplementary Information>

**Rapid size-dependent separation of CdTe quantum dots
with prion protein**

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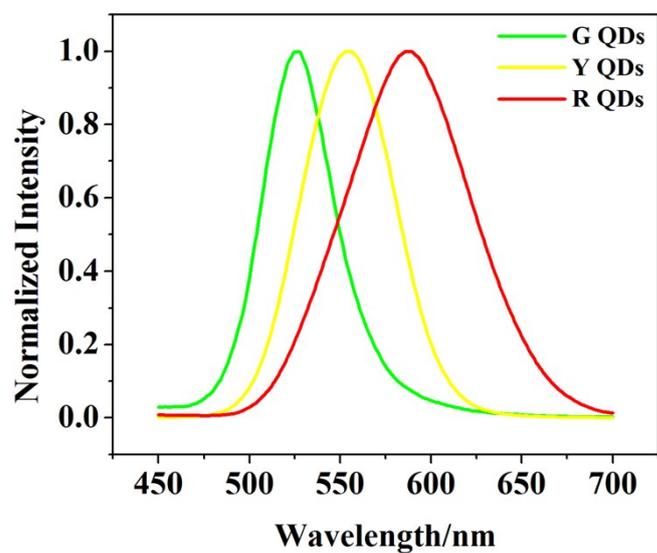


Fig. S1. Normalized fluorescence spectra of G QDs (green), Y QDs (yellow) and R QDs (red). The concentration of QDs in each solution was 1.0×10^{-6} mol L⁻¹ and the excitation wavelength was 360 nm.

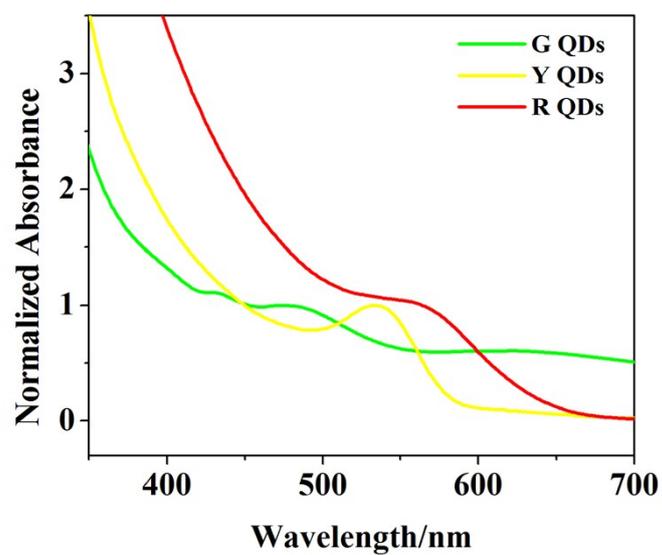


Fig. S2. Normalized absorption spectra of G QDs (green line), Y QDs (yellow line) and R QDs (red line). The concentration of QDs in each solution was $1.0 \times 10^{-6} \text{ mol L}^{-1}$.

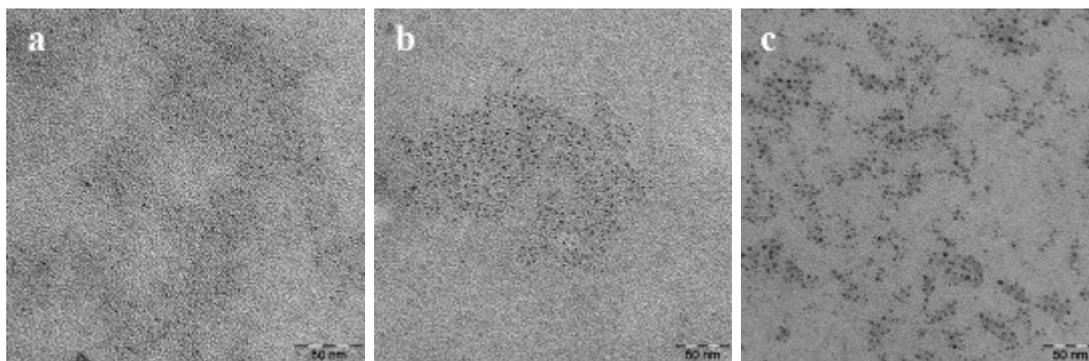


Fig. S3. TEM images of original CdTe QDs (a) G QDs, (b) Y QDs, and (c) R QDs.

Scale bar = 50 nm.

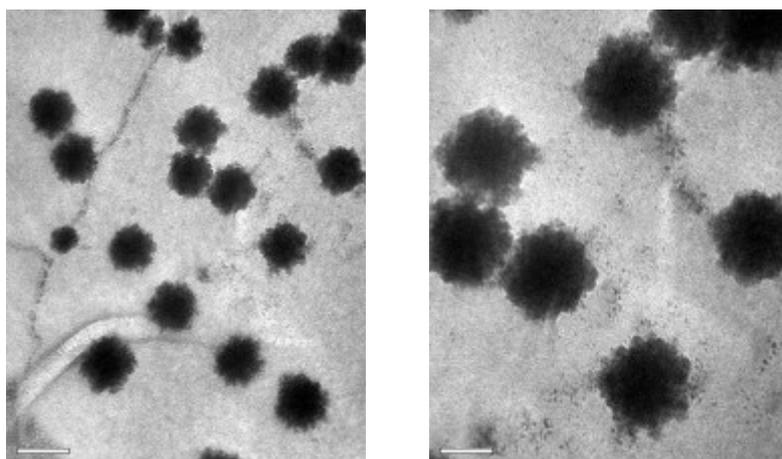


Fig. S4. TEM images of R QDs precipitated by PrP. The precipitate was dispersed in ultrapure water. The concentration of QDs was 1.0×10^{-6} mol L⁻¹, and the concentration of PrP was 480 nmol L⁻¹. Left: scale bar = 100 nm; Right: amplified view of left image, scale bar = 50 nm.

Table S1 FWHM of QDs

Sample	G QDs	Y QDs	R QDs
FWHM of pure QDs (nm)	46	60	104
FWHM of QDs after separation (nm)	50	60	94