Water-induced poly(vinyl alcohol)/carbon quantum dots nanocomposites with tunable shape recovery performance and

fluorescence

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Figure S1. The size distribution of CQDs origins from TEM result.



Figure S2. DSC curves of composites with different CQDs contents.



Figure S3. Typical stress-strain behavior of all samples.



Figure S4. Shape recovery behavior of PC-2 immersed in water with different pH values and temperatures



Figure S5 (a) Shape fixity ratio of samples, (b) Water-induced shape recovery ratio of samples ($pH=7, 25^{\circ}C$).



Figure S6. Weight swelling degree and volume swelling degree and of PC-2 as a function of immersion time.



Figure S7. XRD spectra of PC-2 before and after immersed in water for 10 min.