

## Electronic Supplementary Information

### Enzymatic product-mediated stabilization of CdS quantum dots produced *in situ*: Application for detection of acetylcholinesterase activity

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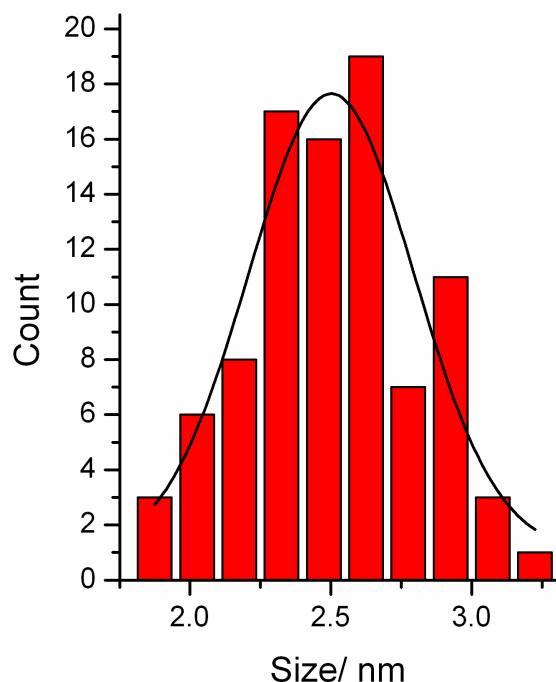
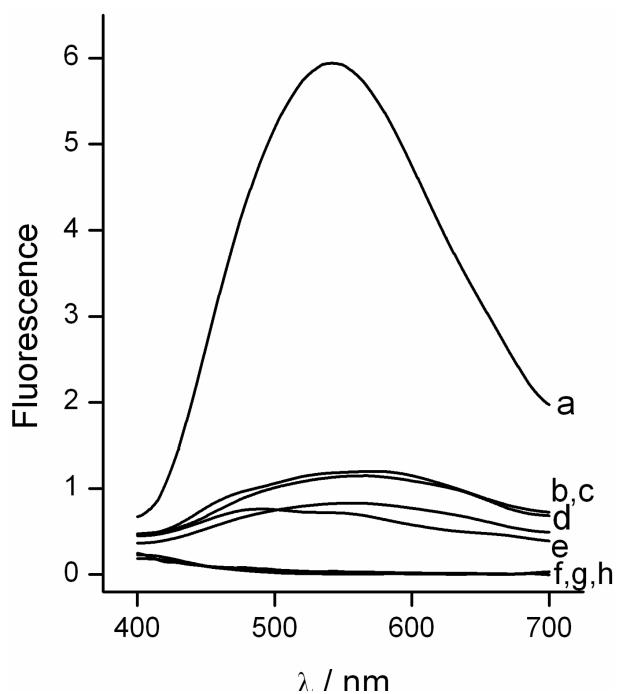


Figure 1S. Size distribution of the thiocholine stabilized CdS QDs.



**Figure 2S.** Emission spectra in the system containing: a) AChE ( $10 \text{ mU mL}^{-1}$ ), ATCh (0.5 mM),  $\text{Na}_2\text{S}$  (0.1 mM) and  $\text{Cd}(\text{NO}_3)_2$  (1.25 mM); b) Acetylcholine (0.5 mM),  $\text{Na}_2\text{S}$  (0.1 mM) and  $\text{Cd}(\text{NO}_3)_2$  (1.25 mM); c) AChE ( $50 \text{ mU mL}^{-1}$ ), Acetylcholine (0.5 mM),  $\text{Na}_2\text{S}$  (0.1 mM) and  $\text{Cd}(\text{NO}_3)_2$  (1.25 mM); d) ATCh (0.5 mM),  $\text{Na}_2\text{S}$  (0.1 mM) and  $\text{Cd}(\text{NO}_3)_2$  (1.25 mM); e) AChE ( $10 \text{ mU mL}^{-1}$ ),  $\text{Na}_2\text{S}$  (0.1 mM) and  $\text{Cd}(\text{NO}_3)_2$  (1.25 mM); f) AChE ( $10 \text{ mU mL}^{-1}$ ), ATCh (0.5 mM) and  $\text{Cd}(\text{NO}_3)_2$  (1.25 mM); g) AChE ( $10 \text{ mU mL}^{-1}$ ), ATCh (0.5 mM) and  $\text{Na}_2\text{S}$  (0.1 mM); h) AChE ( $10 \text{ mU mL}^{-1}$ ).