

## **Supporting Information:**

### **Simple Synthesis of Highly Luminescent Water-Soluble CdTe Quantum Dots with Controllable Surface Functionality**

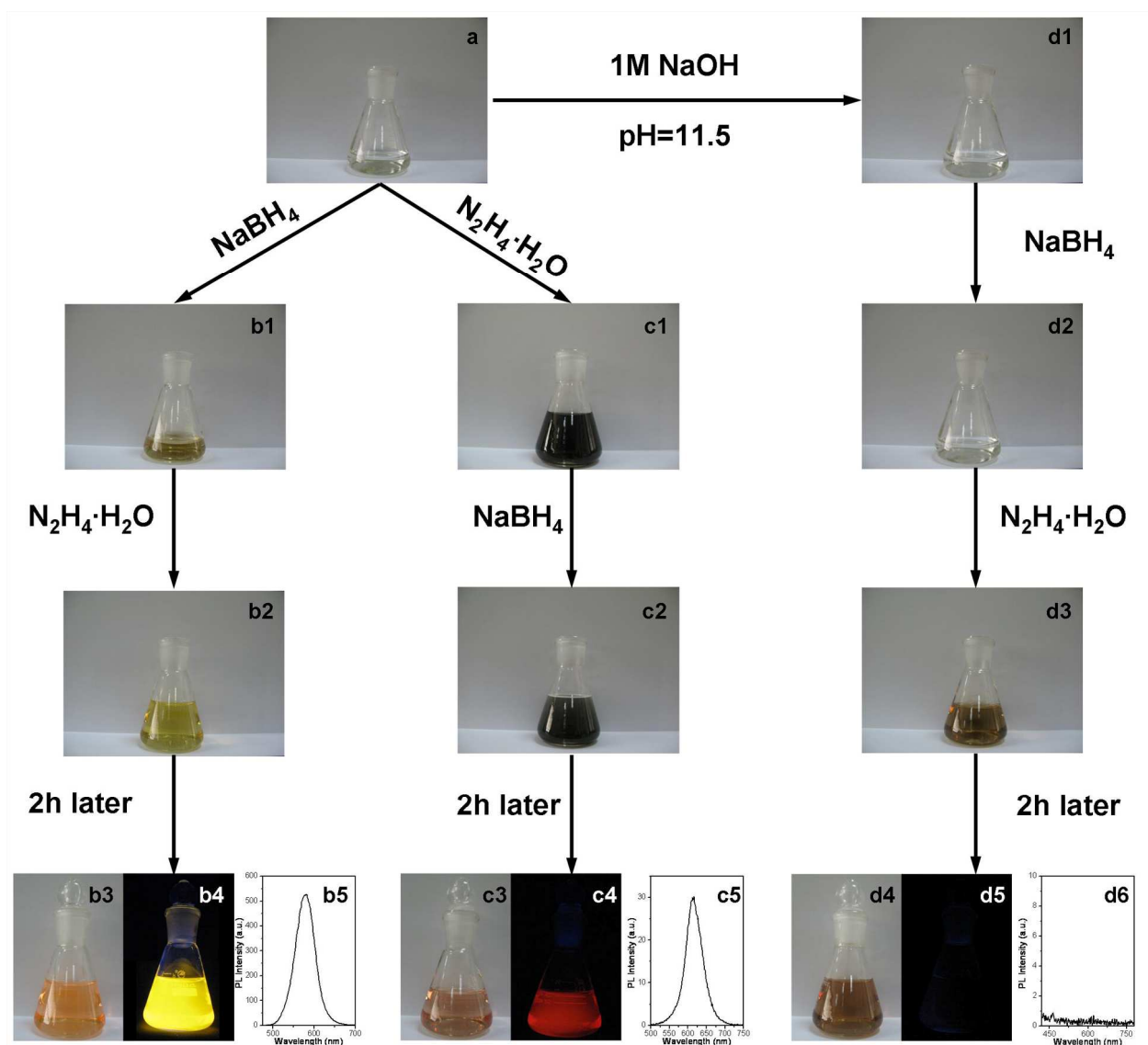
*Ding Zhou, Min Lin, Zhaolai Chen, Haizhu Sun, Hao Zhang\*, Hongchen Sun, and Bai Yang*

*State Key Laboratory of Supramolecular Structure and Materials, College of Chemistry,*

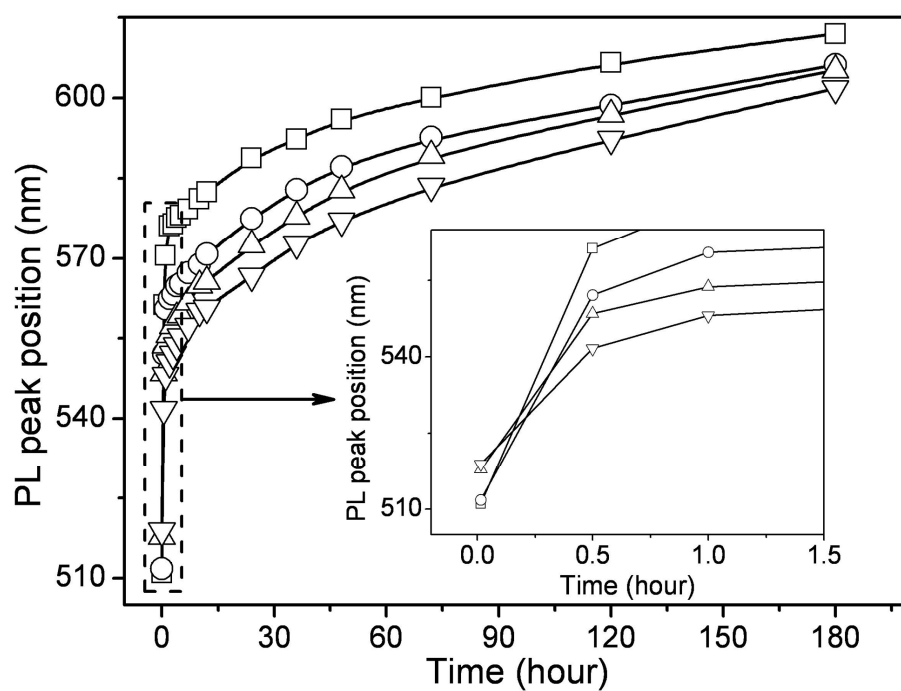
*Jilin University, Changchun 130012, P. R. China*

*E-mail: hao\_zhang@jlu.edu.cn*

**Figure S1.** Photographic illustration of the influence of alkalinity and the addition sequence of  $\text{NaBH}_4$  and  $\text{N}_2\text{H}_4\cdot\text{H}_2\text{O}$  on the nucleation process. Figure (a): the mixture of  $\text{CdCl}_2$ , MPA and  $\text{Na}_2\text{TeO}_3$ .



**Figure S2** Temporal evolution of the PL peak positions of CdTe QDs with the addition of different amounts of NaBH<sub>4</sub>, 1.5 mg/mL (star), 0.75 mg/mL (triangle), 0.375 mg/mL (circle), and 0.125 mg/mL (square). The growth of QDs was performed through a room-temperature N<sub>2</sub>H<sub>4</sub>-promoted approach, and the QDs to N<sub>2</sub>H<sub>4</sub> molar was fixed at 1:5000. The concentration of QDs was referred to Cd<sup>2+</sup>.



The PLQY of MBA-stabilized CdTe QDs is 2.6%, which is estimated at room temperature using quinine in aqueous 0.5mol/L H<sub>2</sub>SO<sub>4</sub> as PL reference.