

supplementary information

**Study on the room temperature synthesis of highly  
photoluminescent and temperature-sensitive CDs/PNIPAM hybrid  
hydrogels and their properties**

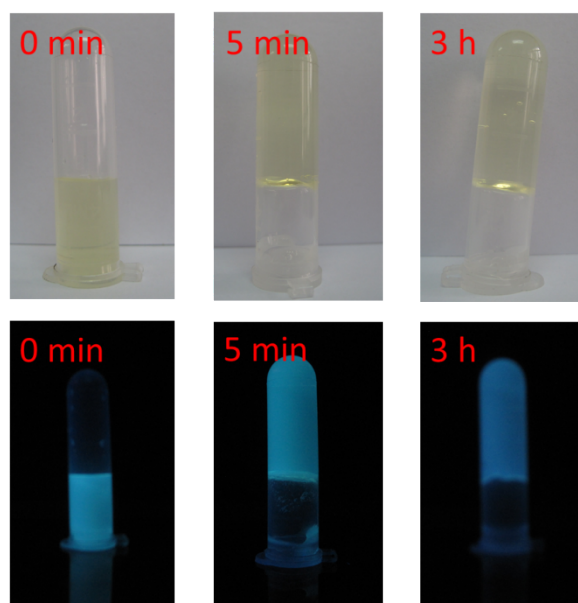
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**1. Preparation of fluorescent CDs**

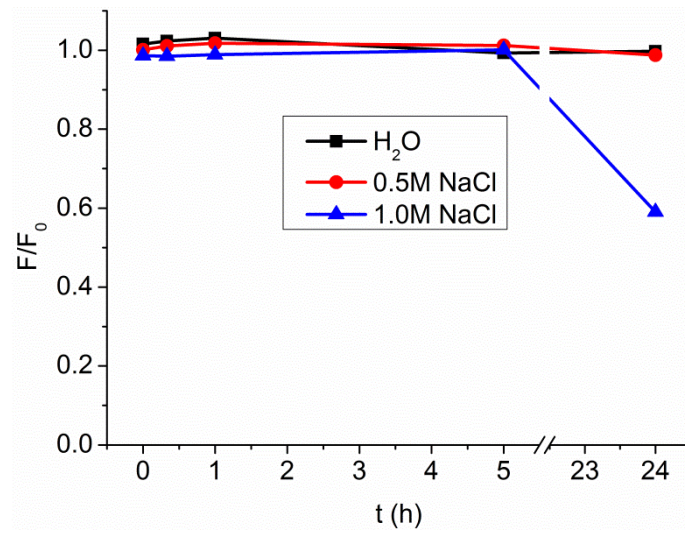
0.125 g of lactose and 2.0 g of Tris were dissolved in 40 mL pure water and it was hydrothermally refluxed at 100 °C with stirring for 24 h. The solution turned from colourless into yellow. After cooled down to room temperature, the solution was dialyzed (MW 1000) against water for 2 days and frozen drying to obtain drying sample. Before synthesis CDs/PNIPAM gel, the drying CDs were resolved in pure water at an appropriate concentration about 30 mg/mL.

**2. Time dependent photographs of the CDs/PNIPAM gel**



**Fig. S1** Time dependent photographs of the CDs/PNIPAM gel under sunlight (up) and under a 365 UV lamp (down)

**3. The affection of NaCl on the fluorescent intensity of CDs/PNIPAM gel**



**Fig. S2** The influence of NaCl on the fluorescent intensity of CDs/PNIPAM gel