

Microwave-assisted Synthesis of Hydrophilic BaYF₆:Tb/Ce,Tb Green Florescence Colloid Nanocrystal

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Experiment supplement

All the synthesis processes were performed on a programmed microwave synthesis reactor (START SYNTH, Milestone), which is equipped with inner symmetrical quartz tubes. The tubes were located on a rotated plate, which make all the reaction in the same condition. The temperature was monitored by an inner IR detector. All the reaction parameters were programmed with optimized increased time, target temperature, standing time and temperature. For a typical experiment, the set parameters are as follows: microwave irradiation power 600 W, increasing time 10 min, target temperature 170 °C, standing time 10 min, standing temperature 170 °C.

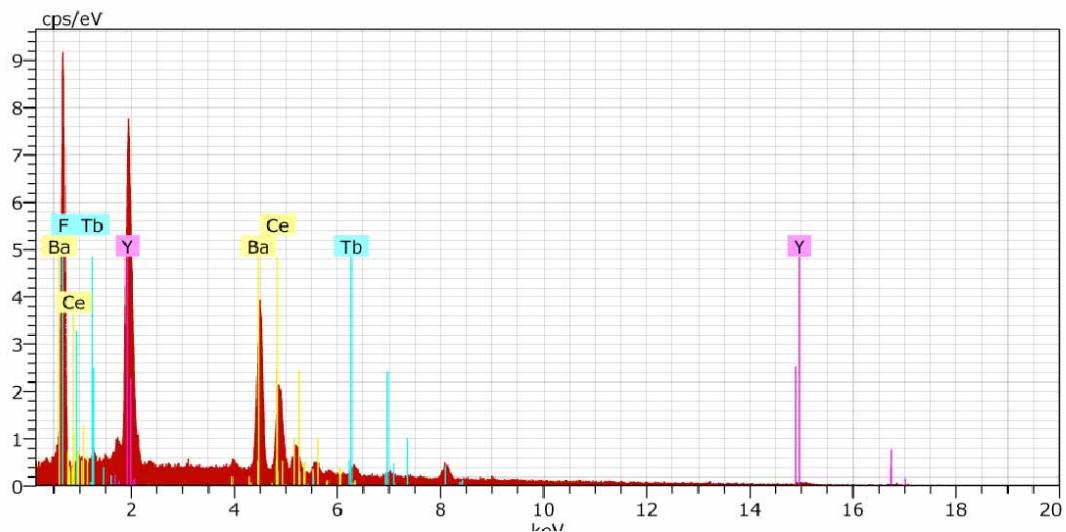


Figure S1 the edx pattern of the BaYF₅:Ce,Tb NCs.

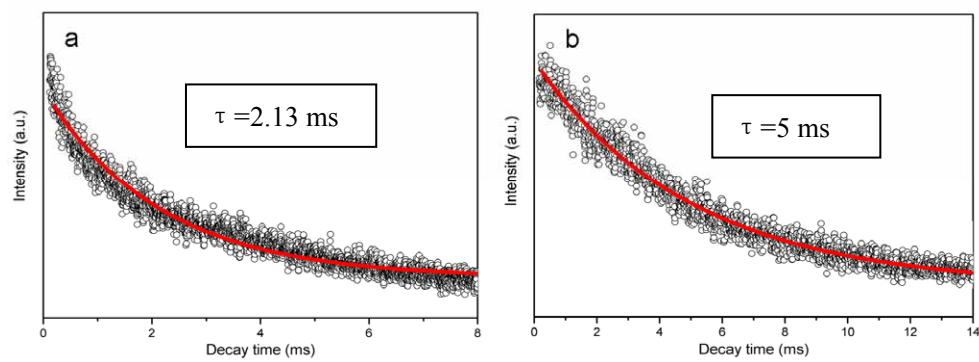


Figure S2 The decay curve of (a) $\text{BaYF}_5:\text{Tb}$ NCs. (b) $\text{BaYF}_5:\text{Ce,Tb}$ NCs