

**Electronic Supplementary Information (ESI)**

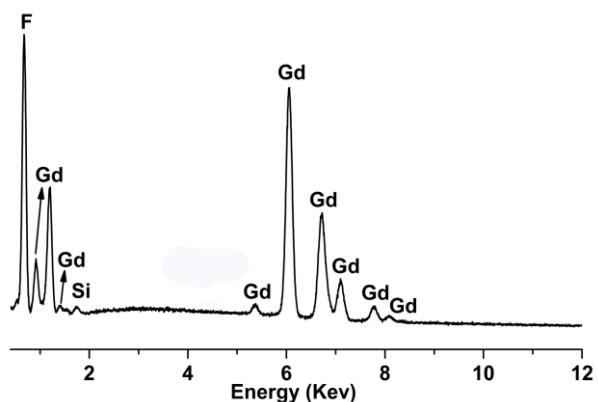
**Inorganic-Salt-Induced Morphological Transformation and Luminescent Performance of  $\text{GdF}_3$  Nanostructures**

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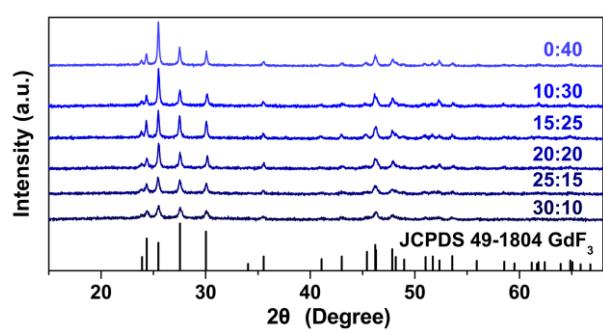
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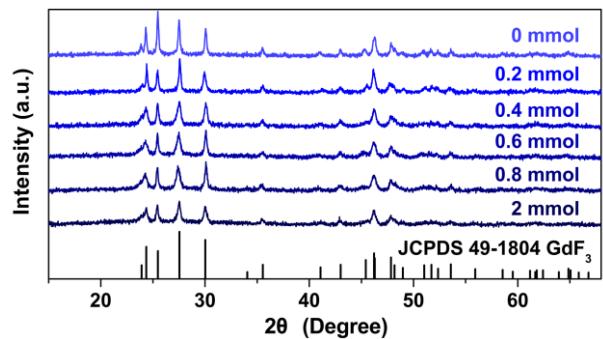
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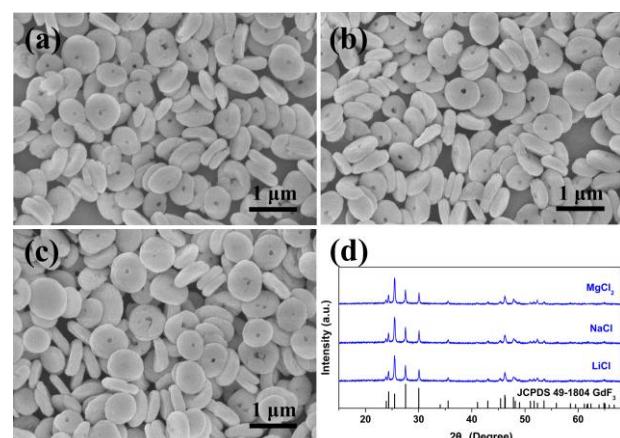
**Fig. S1.** The typical EDS spectrum of the  $\text{GdF}_3$  prepared with  $\text{BaCl}_2$



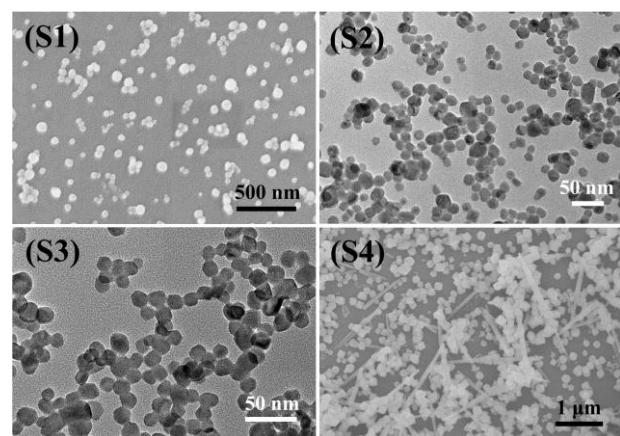
**Fig. S2.** XRD patterns of  $\text{GdF}_3$  prepared without  $\text{BaCl}_2$  at different  $\text{EG}/\text{H}_2\text{O}$  ratios



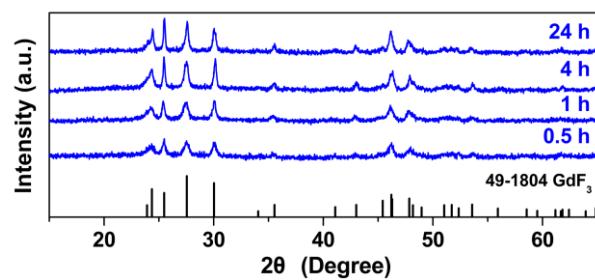
**Fig. S3.** XRD patterns of  $\text{GdF}_3$  obtained with different amount of  $\text{BaCl}_2$  at  $\text{EG}/\text{H}_2\text{O}$  ratio of 20/20.



**Fig. S4.** SEM images of samples synthesized at EG/H<sub>2</sub>O ratio of 20/20 in the presence of (a) MgCl<sub>2</sub>, (b) NaCl, (c) LiCl, and (d) their corresponding XRD patterns.



**Fig. S5.** SEM and TEM images of samples S1–S4.



**Fig. S6.** XRD patterns of GdF<sub>3</sub> obtained at EG/H<sub>2</sub>O ratio of 20/20 reacting for different time.