

Electronic Supplementary Information

Luminescent $\text{LaF}_3:\text{Yb}^{3+}/\text{Er}^{3+}$ Crystals with Self-assembling Microstructures by a Facile Ionothermal Process

Yuan Wu,^{†, ‡} Dongmei Yang,^{†, ‡} Xiaojiao Kang,^{†, ‡} Yang Zhang,^{†, ‡} Shanshan Huang,[†] Chunxia Li,^{*, †} and Jun Lin^{*, †}

[†]State Key Laboratory of Rare Earth Resource Utilization, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, P. R. China

[‡]University of the Chinese Academy of Sciences, Beijing 100049, P. R. China

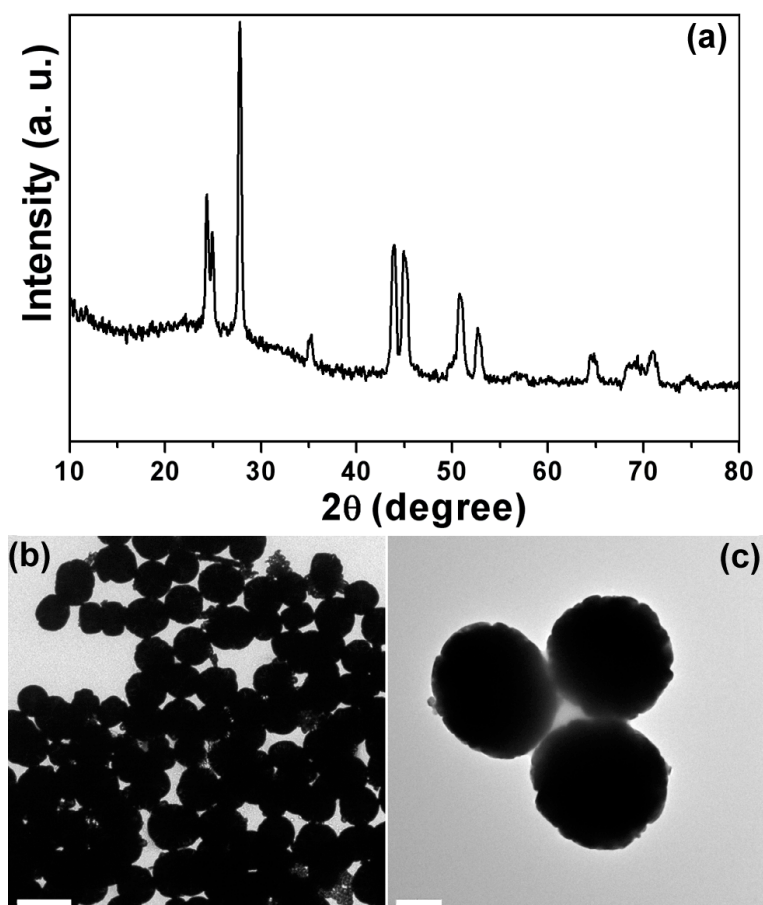


Fig. S1 XRD pattern (a) and TEM images (b, c) of the products synthesized at 240 °C for 8 h with the filling percentage of 80% in Teflon-lined autoclave.

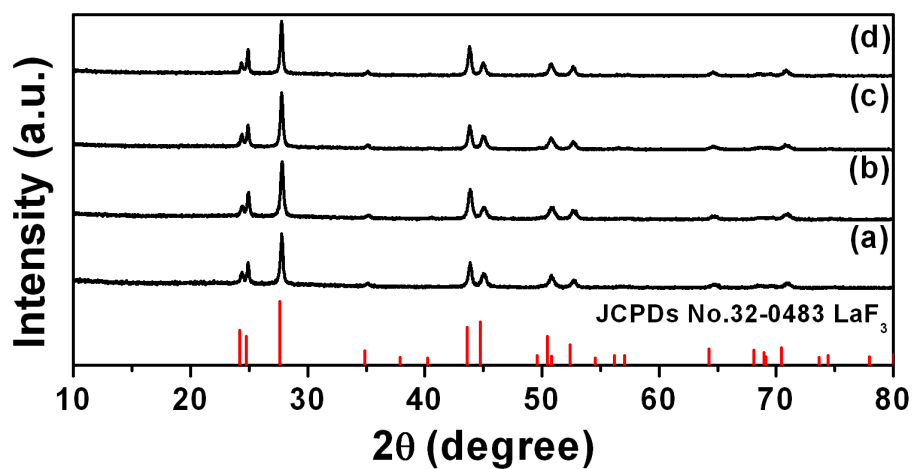


Fig. S2 XRD patterns of the products synthesized at 240 °C for different reaction time: (a) 2 h, (b) 8 h, (c) 19 h, and (d) 24 h.

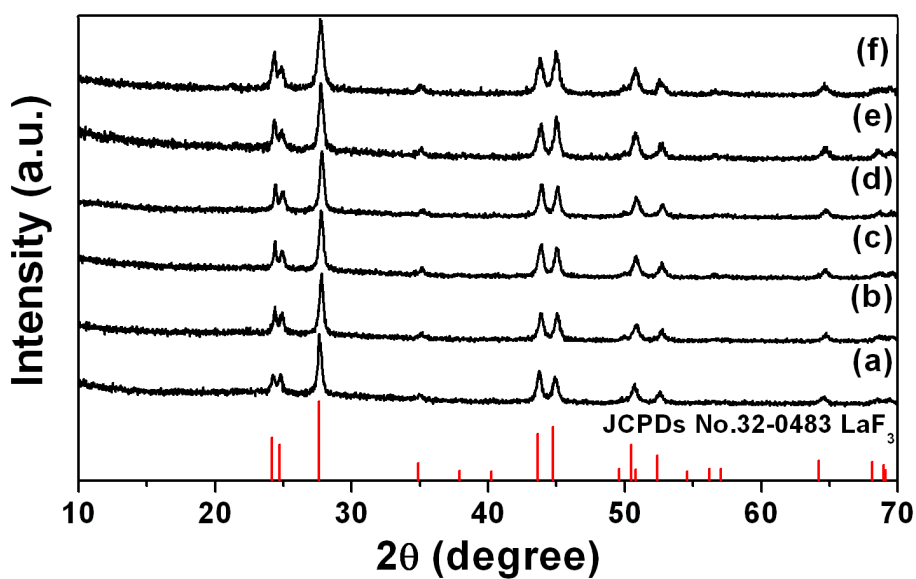


Fig. S3 XRD patterns of the products synthesized under different volume ratio of IL/water at 240 °C for 8 h: (a) 1:4, (b) 1.5:3.5, (c) 2:3, (d) 3:2, (e) 4:1, and (f) 5:0.

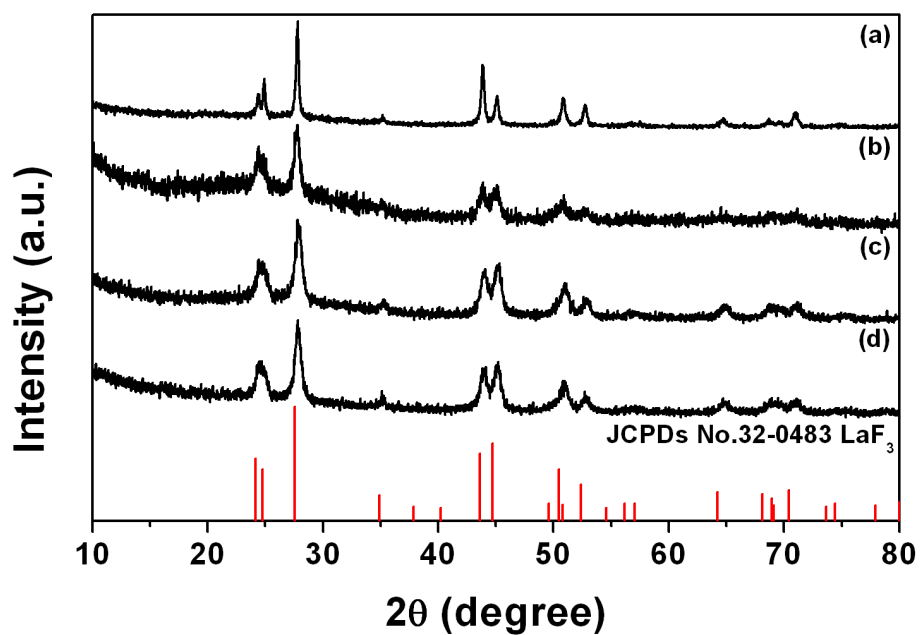


Fig. S4 XRD patterns of the products synthesized under different solvent composition at 120 °C for 15 h: (a) water and IL, (b) ethanol and IL, (c) EG and IL, (d) DEG and IL.