

Supporting Information

Tunable multicolor and bright white emission of one-dimensional NaLuF₄:Yb³⁺,Ln³⁺ (Ln = Er, Tm, Ho, Er/Tm, Tm/Ho) microstructures

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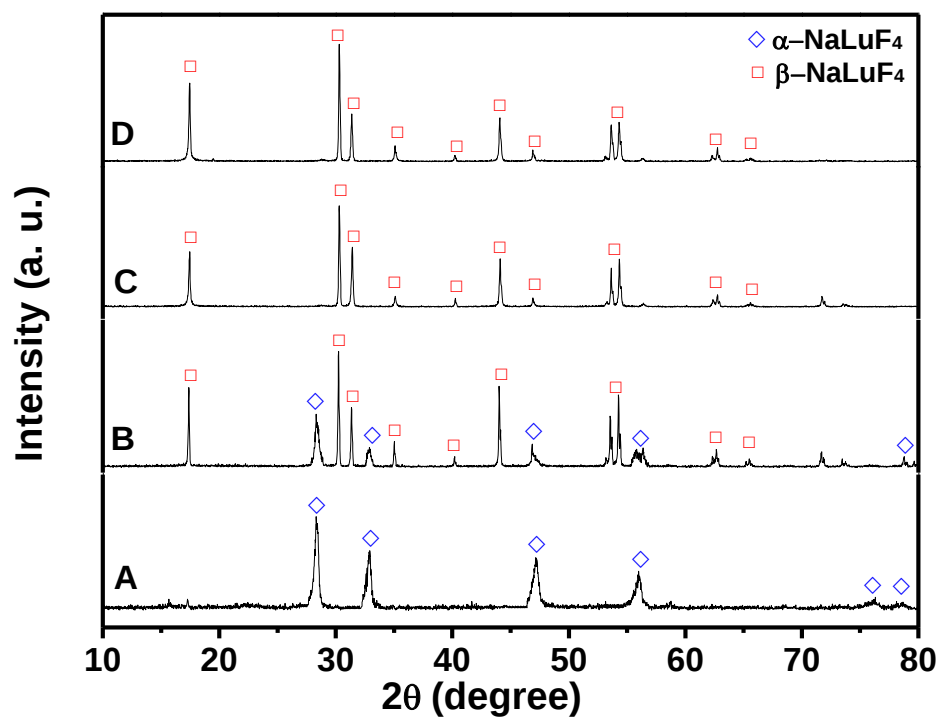


Fig. S1 XRD patterns of NaLuF₄:20%Yb³⁺, 2%Tm³⁺ prepared at 350 °C for different reaction time (A) 0.5 h, (B) 2 h, (C) 3 h, (D) 4 h.

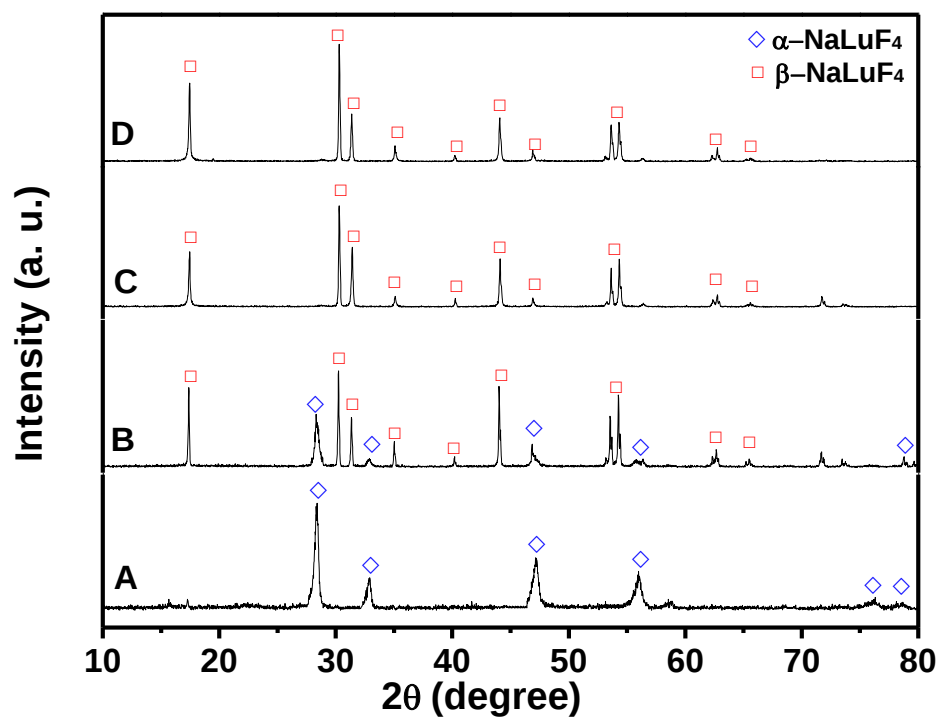


Fig. S2 XRD patterns of NaLuF₄:20%Yb³⁺,2%Ho³⁺ prepared at 350 °C for different reaction time (A) 0.5 h, (B) 2 h, (C) 3 h, (D) 4 h.

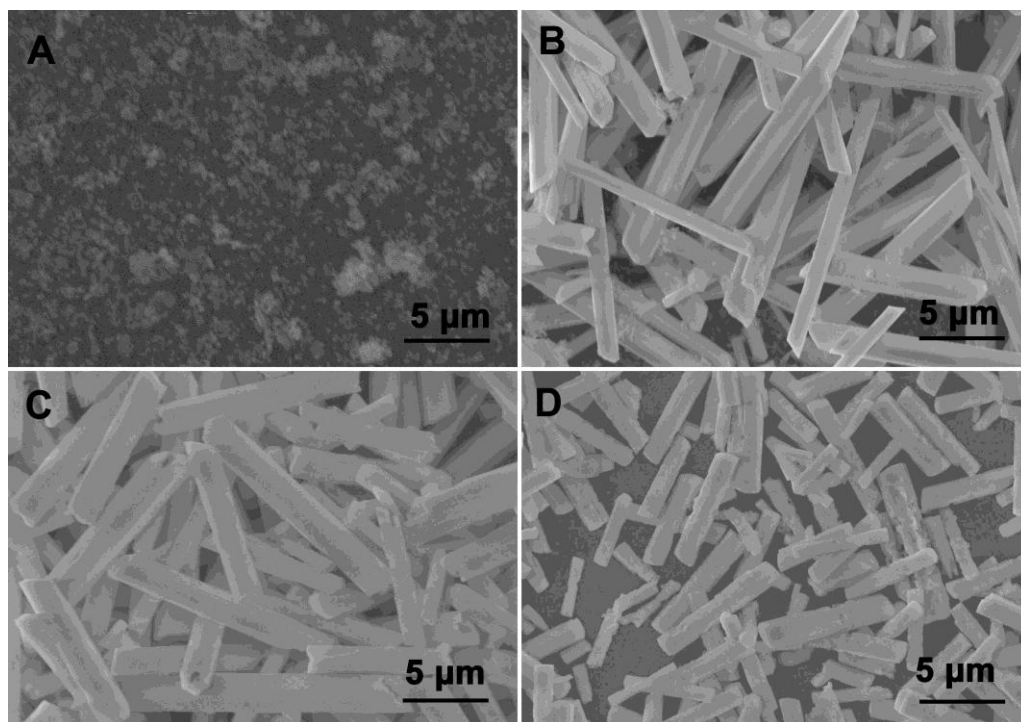


Fig. S3 SEM images of NaLuF₄:20%Yb³⁺, 2%Tm³⁺ prepared at 350 °C for reaction time of (A) 0.5 h, (B) 2 h, (C) 3 h, and (D) 4 h.

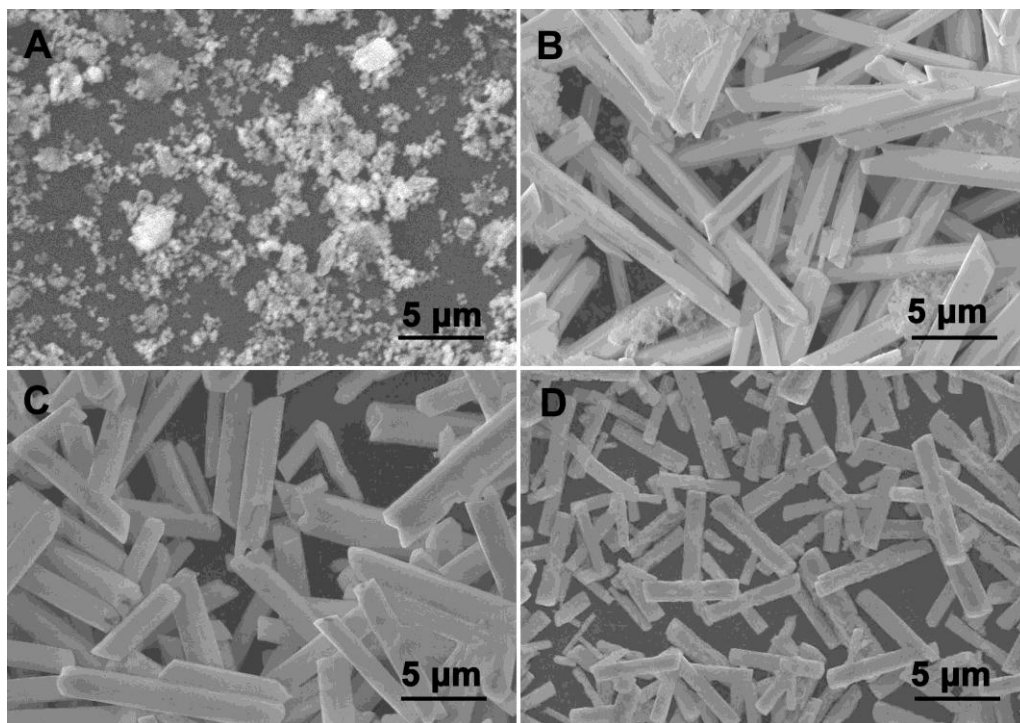


Fig. S4 SEM images of NaLuF₄:20%Yb³⁺, 2%Ho³⁺ prepared at 350 °C for reaction time of (A) 0.5 h, (B) 2 h, (C) 3 h, and (D) 4 h.