Electronic Supplementary Material (ESI) for Nanoscale.

Electronic Supplementary Information

LaF_3:Ln mesoporous spheres: controllable synthesis, tunable luminescence and application for dual-modal chemo-/photo-thermal therapy

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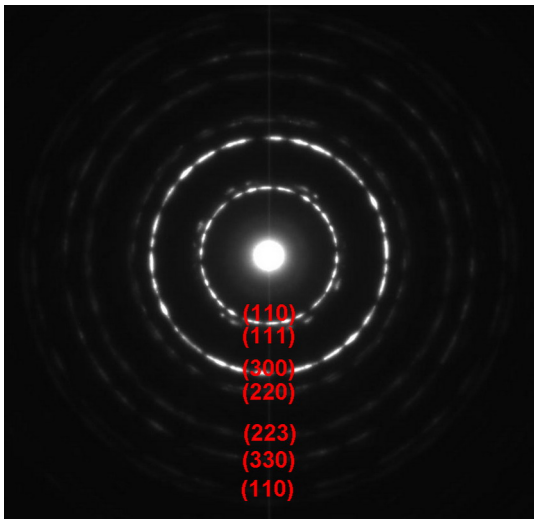

Fig. S1. SAED pattern of flower-like LaF_3:Yb,Er spheres.

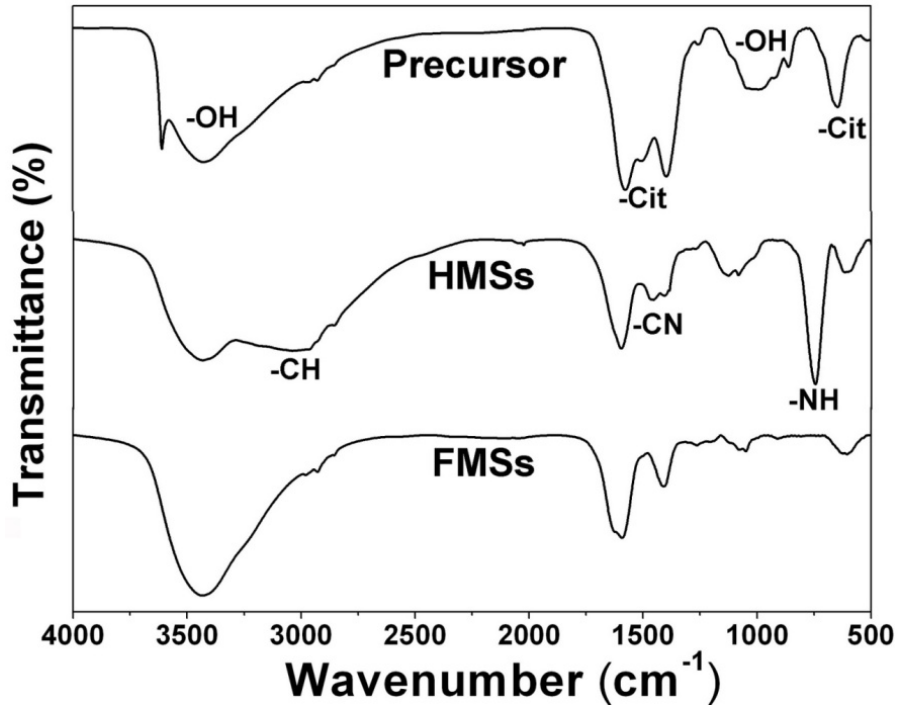

Fig. S2. FT-IR spectra of the $La(OH)_3$:Ln precursor, LaF_3:Ln HMSs and LaF_3:Ln FMSs.

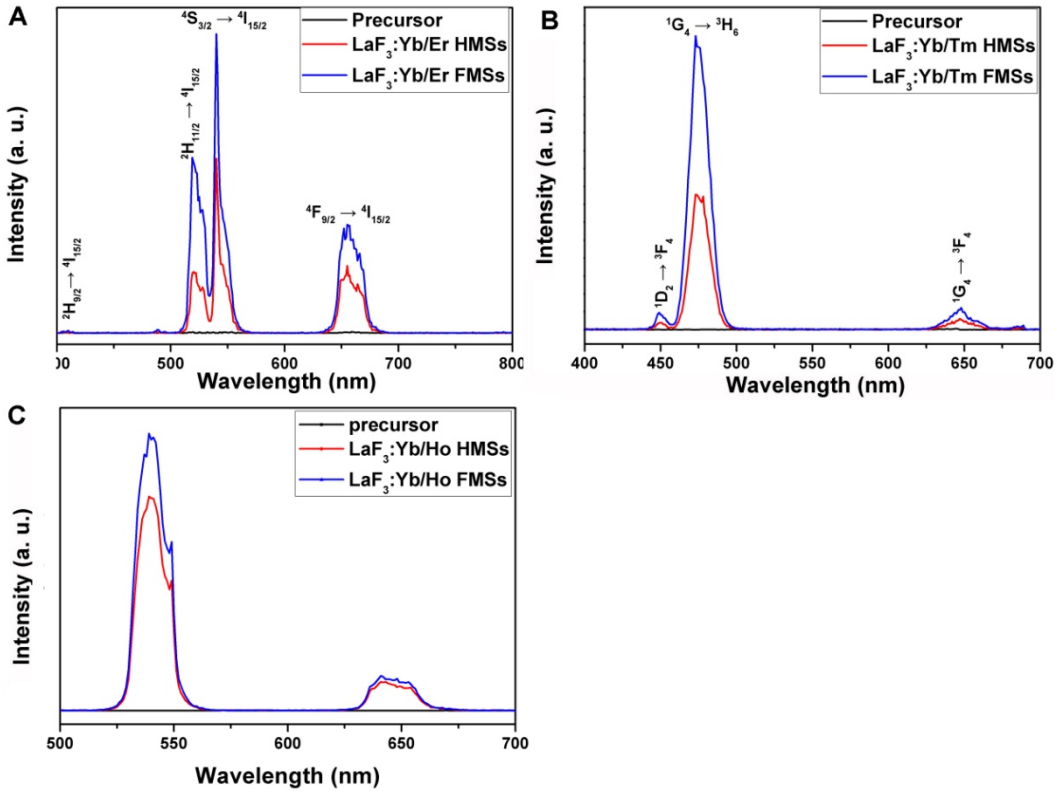

Fig. S3 UC emission spectra of (A) the $La(OH)_3$:Yb/Er precursor, LaF_3:Yb/Er HMSs, LaF_3:Yb/Er FMSs; (B) $La(OH)_3$:Yb/Tm precursor, LaF_3:Yb/Tm HMSs, LaF_3:Yb/Tm FMSs; (C) $La(OH)_3$:Yb/Ho precursor, LaF_3:Yb/Ho HMSs and LaF_3:Yb/Ho FMSs under 980 nm NIR excitation.

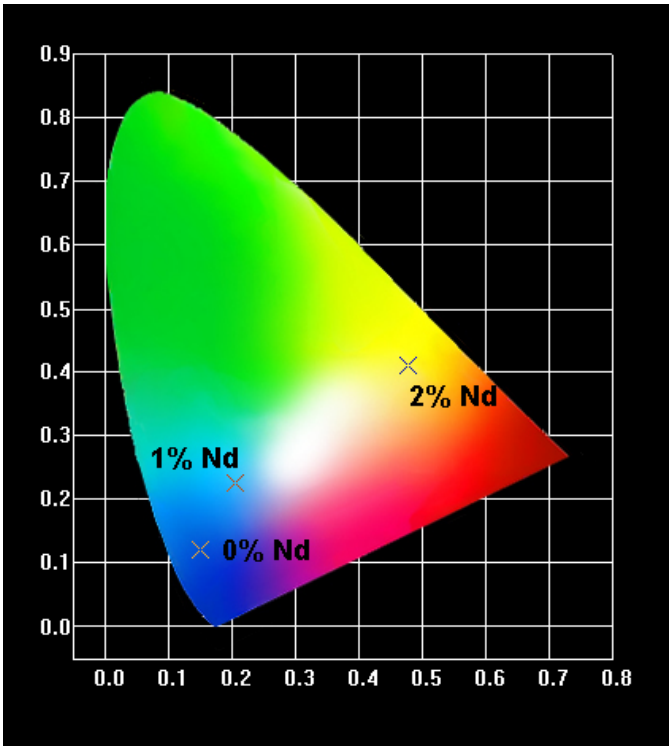

Figure S4. CIE chromaticity diagram of LaF_3:10%Yb/0.5%Tm/x%Nd (x = 0, 1, and 2) under 980 nm NIR excitation.

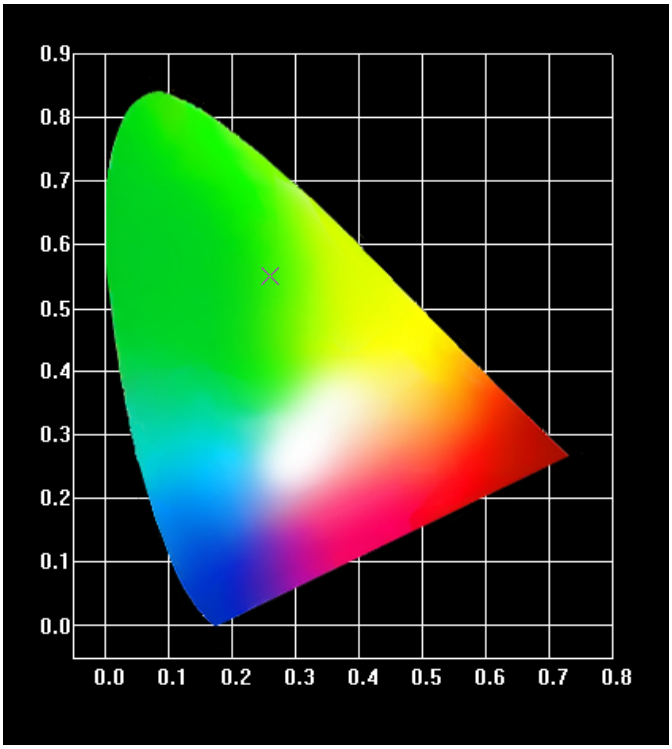

Figure S5. CIE chromaticity diagram of LaF_3:Yb/Er/Tm/Nd under 980 nm NIR excitation.

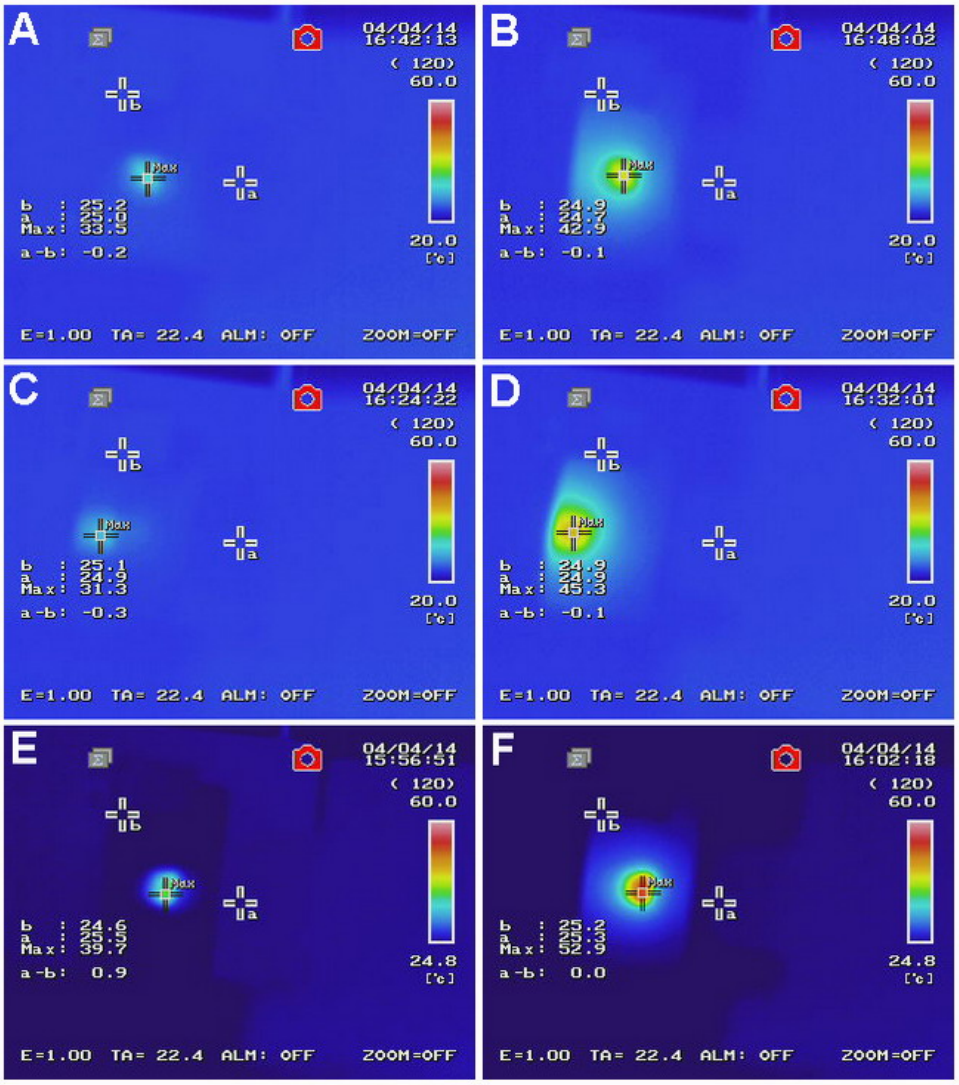

Figure S6. Infrared thermal image of (A, B) LaF_3:Yb/Er, (C, D) LaF_3:Yb/Er/Tm, and (E, F) LaF_3:Yb/Er/Tm/Nd HMSs before and after irradiated for 6-8 min under 980 nm laser irradiation with the pump power of 0.6 W/cm^2.