

Support Information

Room-temperature ultrafast synthesis, morphology and upconversion luminescent of $\text{K}_{0.3}\text{Bi}_{0.7}\text{F}_{2.4}:\text{Yb}^{3+}/\text{Er}^{3+}$ nanoparticles for temperature sensing application

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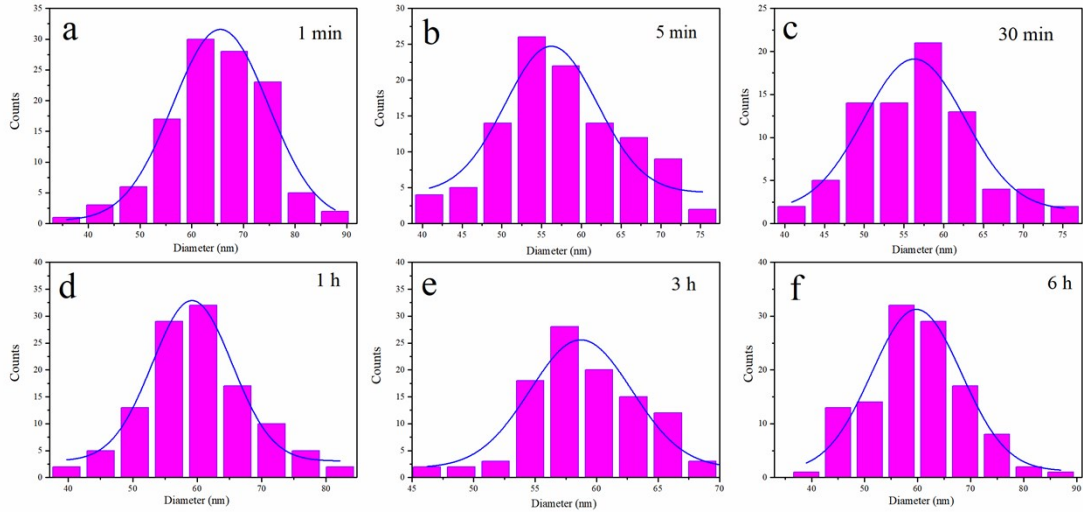


Figure S1. Size distribution of as-prepared the $K_{0.3}Bi_{0.7}F_{2.4}$ samples at different reaction time. (a) 1 min, (b) 5 min, (c) 30 min, (d) 1 h, (e) 3 h, (f) 6 h

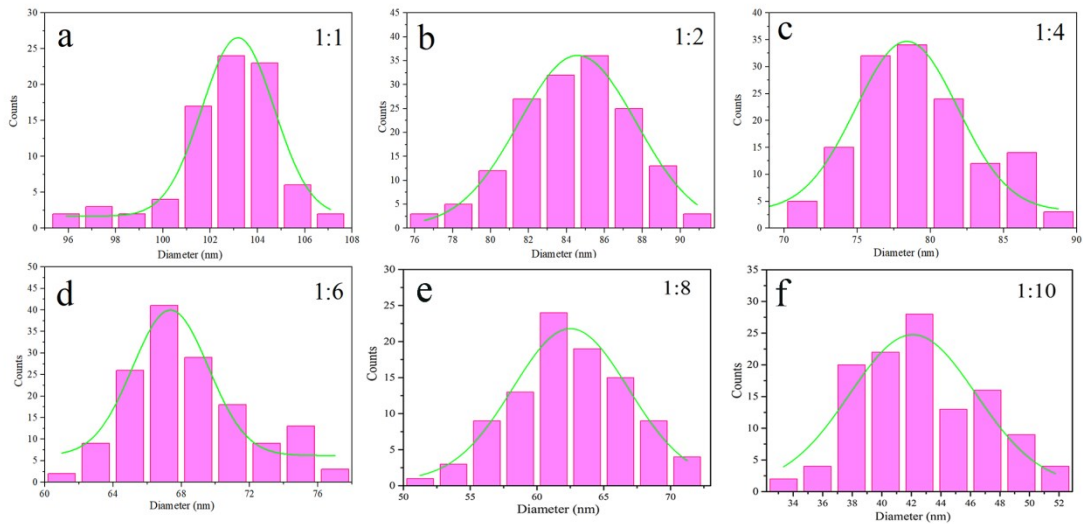


Figure S2. Size distribution of the $K_{0.3}Bi_{0.7}F_{2.4}$ samples at different mole ratio of Bi source and NH_4F . (a) $Bi:NH_4F=1:1$, (b) $Bi:NH_4F=1:2$, (c) $Bi:NH_4F=1:4$, (d) $Bi:NH_4F=1:6$, (e) $Bi:NH_4F=1:8$, (f) $Bi:NH_4F=1:10$

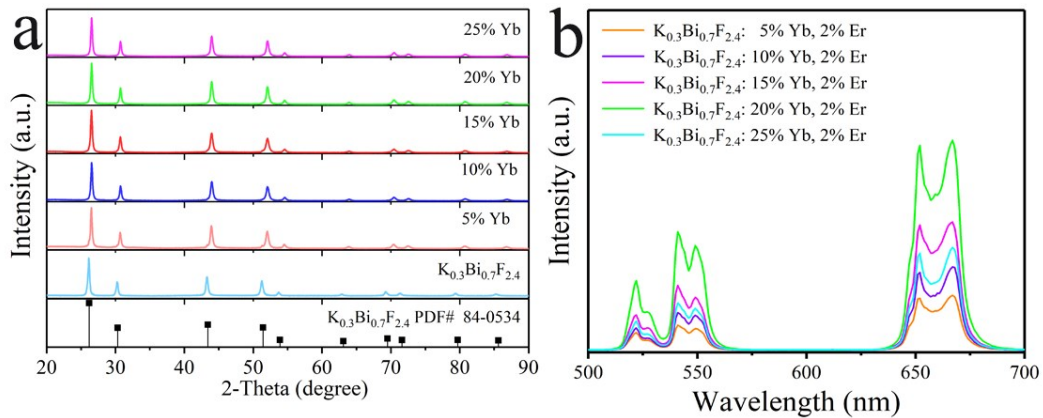


Figure S3. (a) XRD and (b) Photoluminescence emission spectra of $K_{0.3}Bi_{0.7}F_{2.4}:xYb^{3+}, 2\%Er^{3+}$ samples. ($x=5\%, 10\%, 15\%, 20\%, 25\%$) under 980 nm excitation.