

## Supporting Information for

# Orthorhombic $\text{KSc}_2\text{F}_7$ :Yb/Er Nanorods: Controlled Synthesis and Strong Red Upconversion Emission

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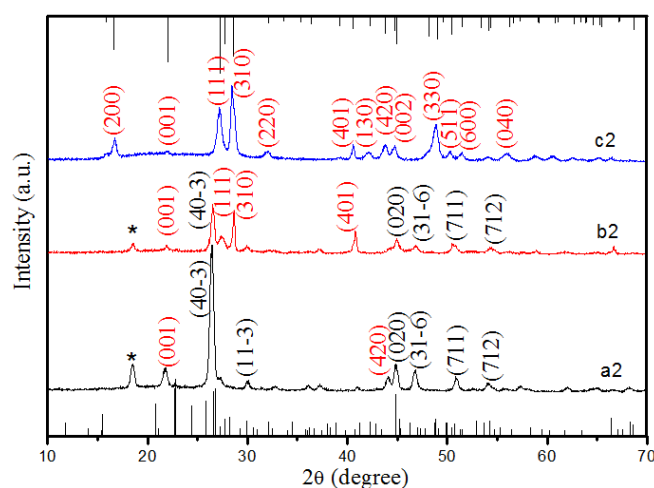


Figure S1 XRD patterns of  $\text{KScF}_x$  synthesized at (a2) 4.0, (b2) 2.8, and (c2) 1.6 mmol of  $\text{F}^-$  content, respectively. The straight line pattern below shows the standard pattern of monoclinic phase  $\text{KScF}_4$  (JCPDS card 48-0677), whose lattice planes are shown in black. The upside is orthorhombic phase  $\text{KSc}_2\text{F}_7$  (JCPDS card 77-1321), whose lattice planes are shown in red. The peaks marked with asterisks refer to unknown composition.

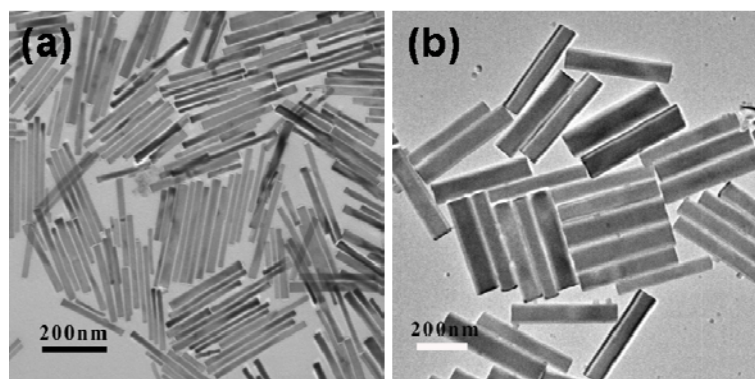


Figure S2 TEM images of KSc<sub>2</sub>F<sub>7</sub>:Yb/Er nanorods (a) and β-NaYF<sub>4</sub>:Yb/Er nanorods (b)