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One-step surfactant-free synthesis of KSc_2F_7 microcrystals: controllable phases, rich morphologies and multicolor down conversion luminescence properties

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Table S1 The length and diameter of the samples from the SEM pictures in Fig. 8.

	Length (μm)	Diameter (μm)
No doping	10	0.4
Lu^{3+}	8.9	5.2
Tb^{3+}	3.1	1.9
Gd^{3+}	2.2	1.1
Eu^{3+}	1.9	0.6
Sm^{3+}	1.7	0.1
Ce^{3+}	1.4	0.2
La^{3+}	0.7	0.1

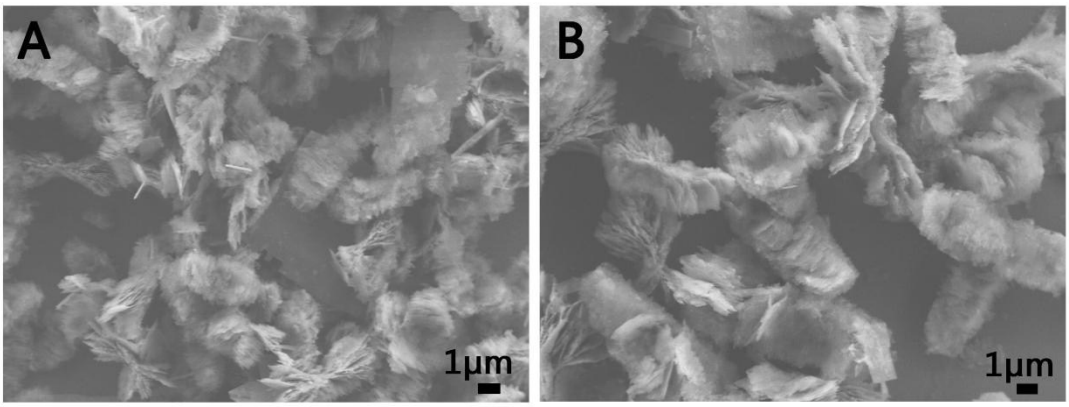

Fig. S1 SEM images of the KSc_2F_7 host materials with different process: synthesis process (A) and washing process (B).

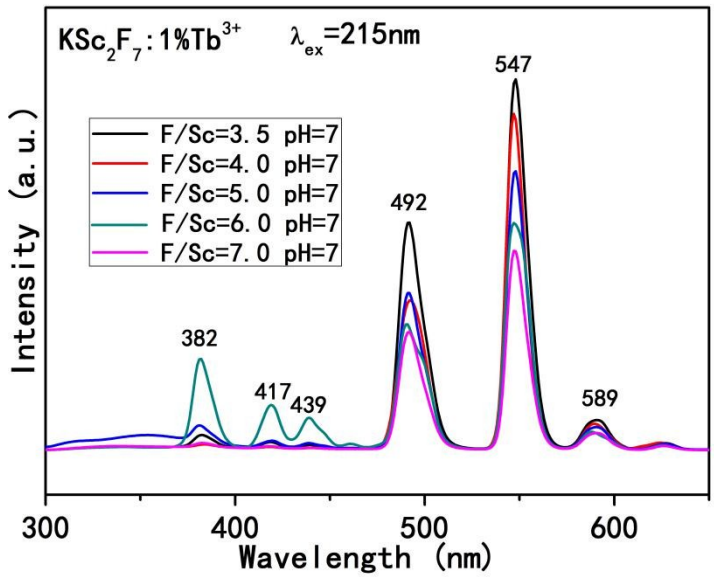

Fig. S2 PL emission spectra of KSc_2F_7:1%Tb^{3+} prepared with different ratio of F/Sc.

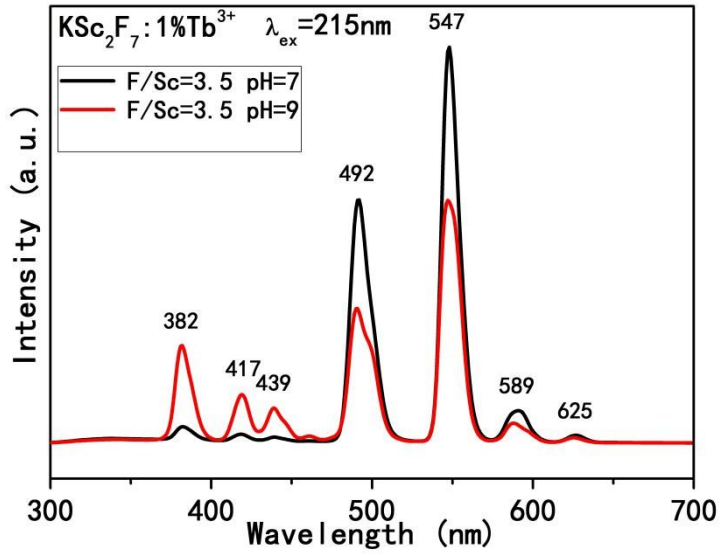

Fig. S3 PL emission spectra of KSc_2F_7:1%Tb^{3+} prepared with different pH.

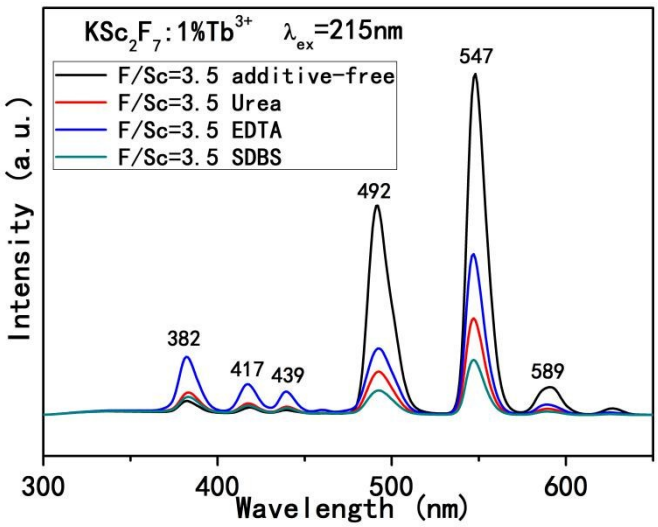

Fig. S4 PL emission spectra of KSc_2F_7:1%Tb^{3+} prepared with different surfactant.