Investigation of luminescence properties and the energy transfer mechanism of tunable emitting $Sr_3Y_2(Si_3O_9)_2:Eu^{2+}$, Tb^{3+} phosphors

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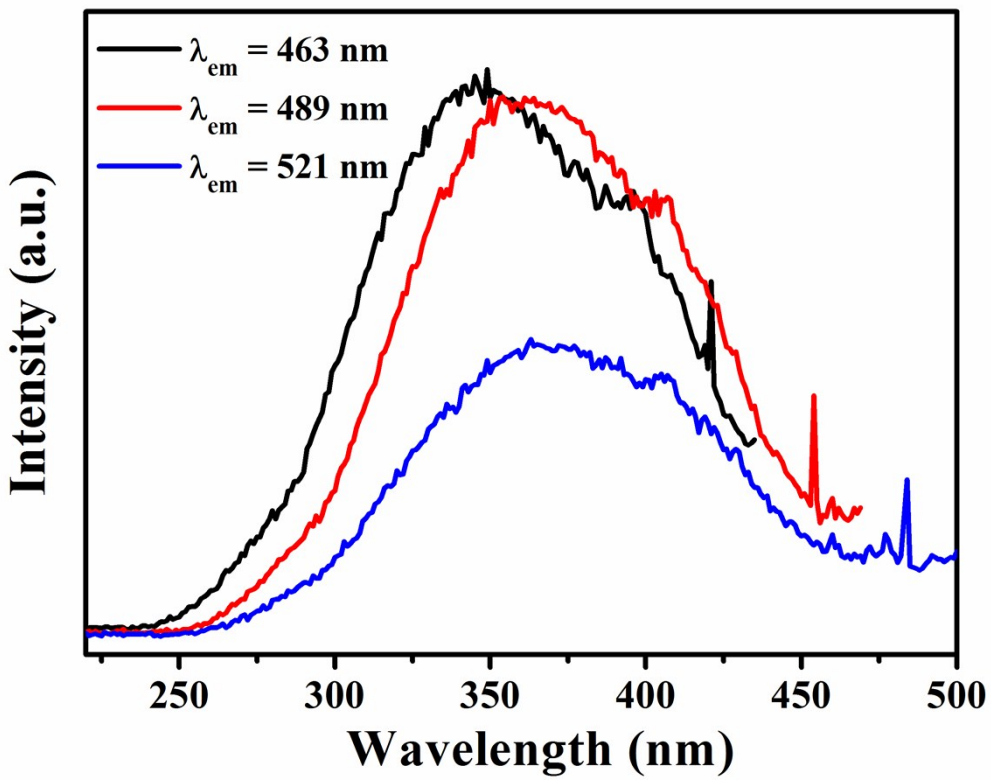

Figure S1. The excitation spectra of SYSO:0.01Eu^{2+}. (λ_{em} = 463 nm, λ_{em} = 489 nm, λ_{em} = 521 nm)

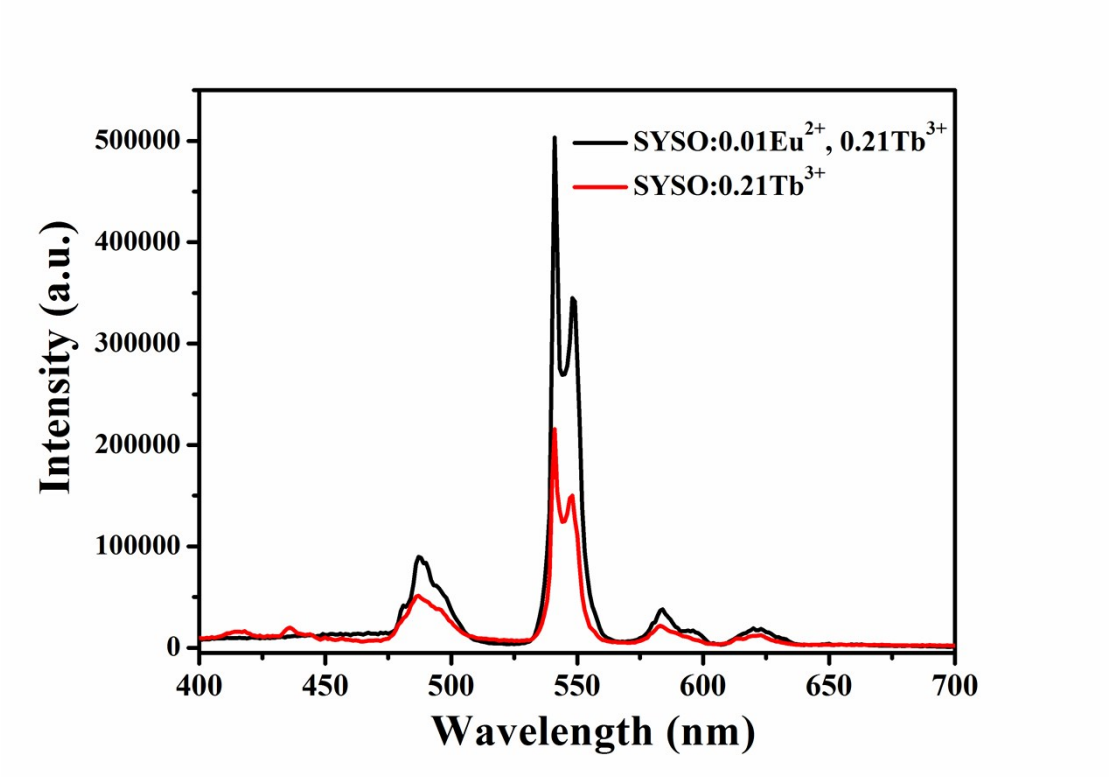

Figure S2. The PL spectra of SYSO:0.01, $0.21Tb^{3+}$ (black line), SYSO:$0.21Tb^{3+}$ (red line).

S-Table 1 The integrate intensity and ratio of the Gaussian peaks fitting of SYSO:xEu^{2+} in 463 nm, 489 nm, and 521 nm.

x	463 nm	489 nm	521 nm	ratio
0.006	32641	33625	12084	1:1.03:0.37
0.008	38525	42445	14973	1:1.10:0.39
0.01	74212	83307	28020	1:1.12:0.38
0.03	29274	41292	18726	1:1.41:0.64
0.05	10731	24186	12100	1:2.25:1.13
0.07	6981	15667	8353	1:2.24:1.20