

Supporting Information

Structure and luminescent behavior of the single-ion activated single-phased $\text{Ba}_2\text{Y}_3(\text{SiO}_4)_3\text{F}:\text{Eu}$ white-light phosphor

Jiaomei Wang,^a Hang Lin,^{*a} Qingming Huang,^b Guangcan Xiao,^b Ju Xu,^a Bo Wang,^a
Tao Hu,^a Yuansheng Wang^a

^a Key Laboratory of Design and Assembly of Functional Nanostructures, Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences; University of Chinese Academy of Sciences, Fuzhou, Fujian, 350002 (P. R. China);

^b Instrumentation Analysis and Research Center, Fuzhou University, Fuzhou, Fujian, 350002 (P. R. China)

Table S1. The measured and calculated absorption efficiencies (ϵ_{abs}), internal quantum efficiencies (η_{int}), and external quantum efficiencies (η_{ext}) of the $\text{Ba}_2\text{Y}_3(\text{SiO}_4)_3\text{F}:\text{xEu}^{2+}$ ($\text{x}=0.005, 0.01, 0.02, 0.04$) samples

Sample	x=0.005	x=0.010	x=0.020	x=0.040
ϵ_{abs}	33.3%	43.6%	50.0%	60.8%
η_{int}	15.9%	11.2%	8.8%	6.0%
η_{ext}	5.3%	4.9%	4.4%	3.6%

*E-mail: lingh@fjirsm.ac.cn; Tel/Fax: +86-591-63179423

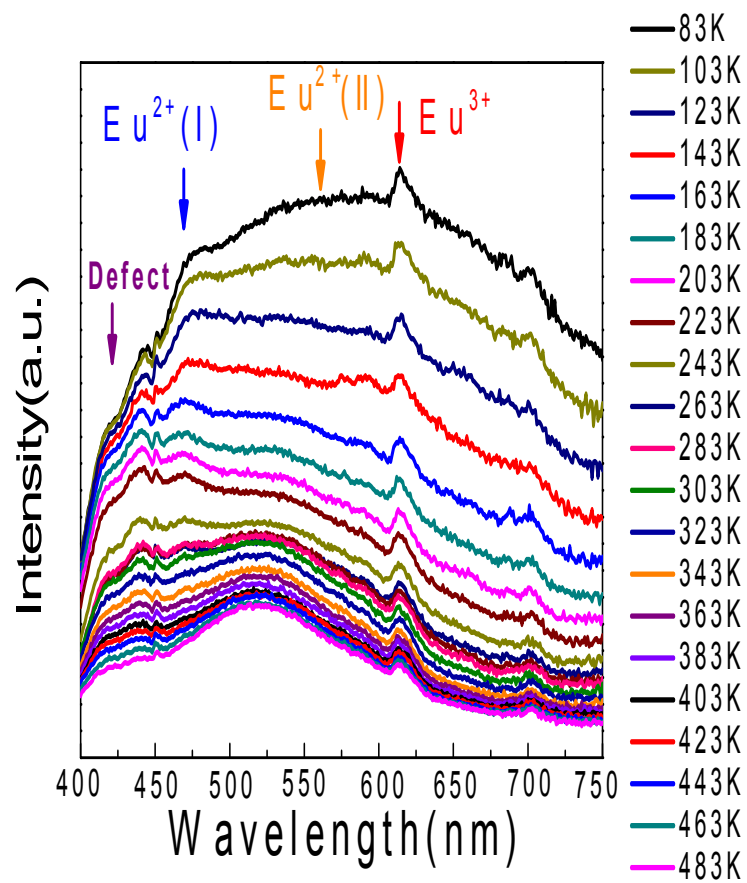


Figure S1. Temperature dependent PL spectra for the PiG sample.