

**Supporting Information**

**Silsesquioxane-based luminescent PMMA nanocomposites**

*Rong Shen<sup>a</sup>, Shengyu Feng<sup>a</sup> and Hongzhi Liu<sup>a,b\*</sup>*

a. Key Laboratory of Special Functional Aggregated Materials, Ministry of Education, School of Chemistry and Chemical Engineering, Shandong University, Jinan 250100, P. R. China

b. State Key Laboratory of Molecular Engineering of Polymers, Fudan University, Shanghai 200433, P. R. China

\*Corresponding Author. Fax: +86 531 88364691, E-mail: [liuhongzhi@sdu.edu.cn](mailto:liuhongzhi@sdu.edu.cn)

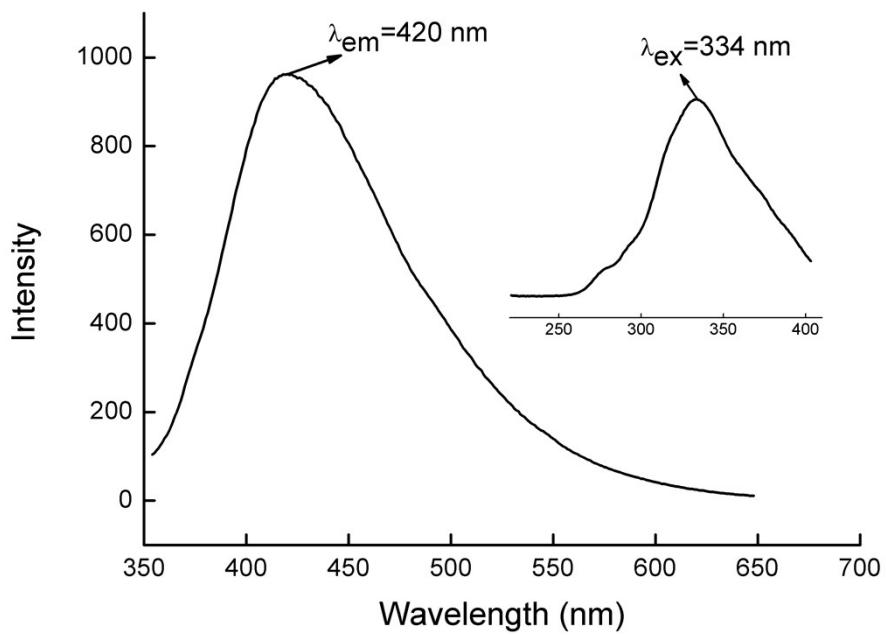


Fig.S1 Emission and excitation spectra of  $T_{\text{mix}}\text{-Tb}$  in THF solution.

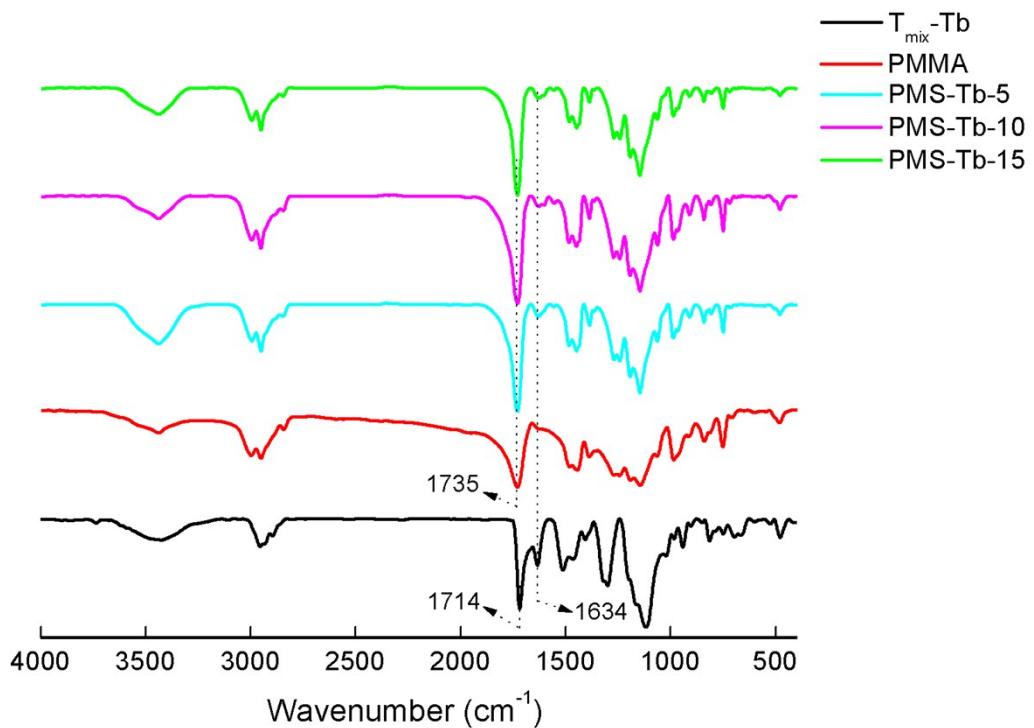


Fig.S2 FT-IR spectra of PMMA,  $T_{\text{mix}}\text{-Tb}$  and PMS-Tb.

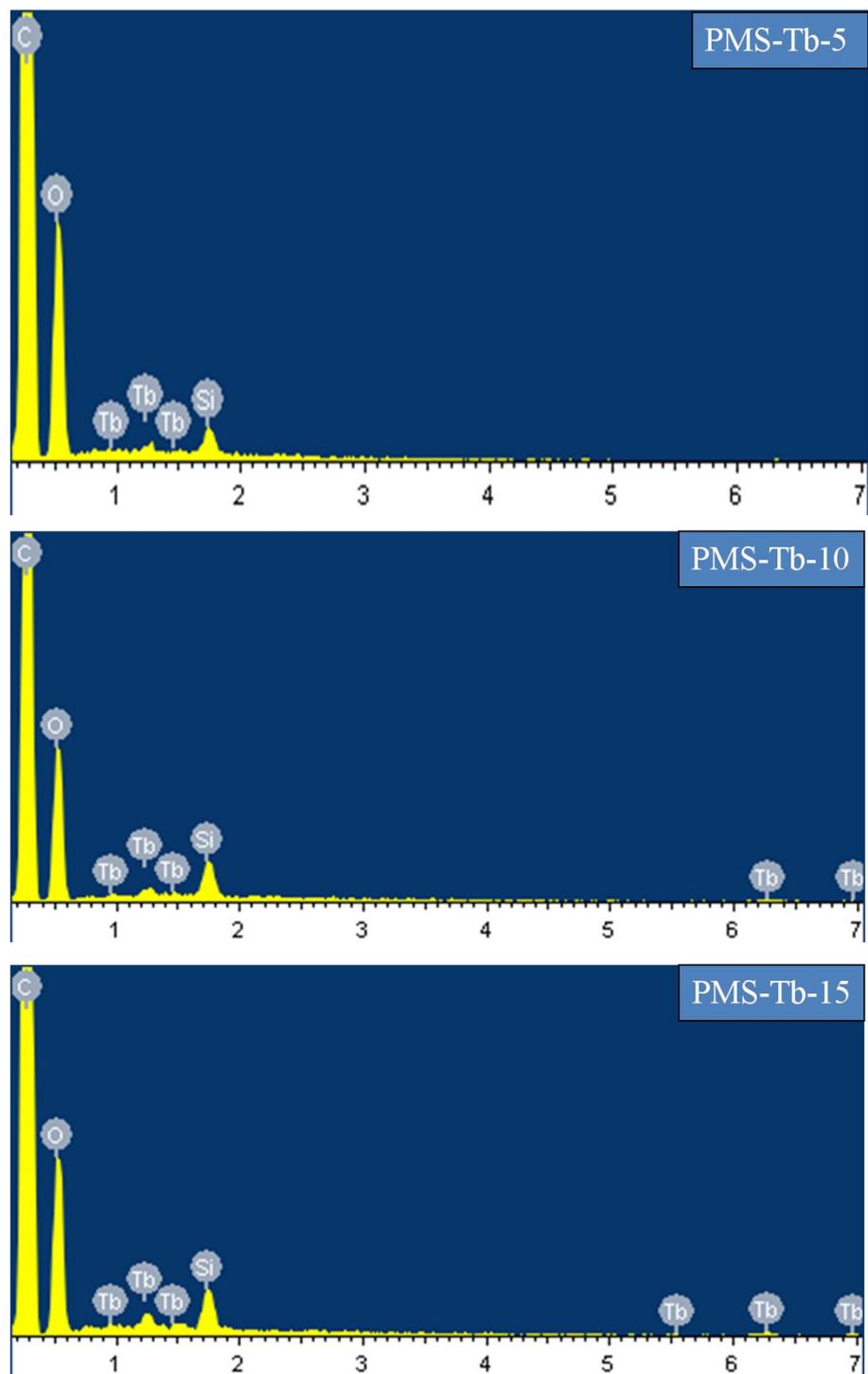


Fig.S3 EDS spectra of PMS-Tb.

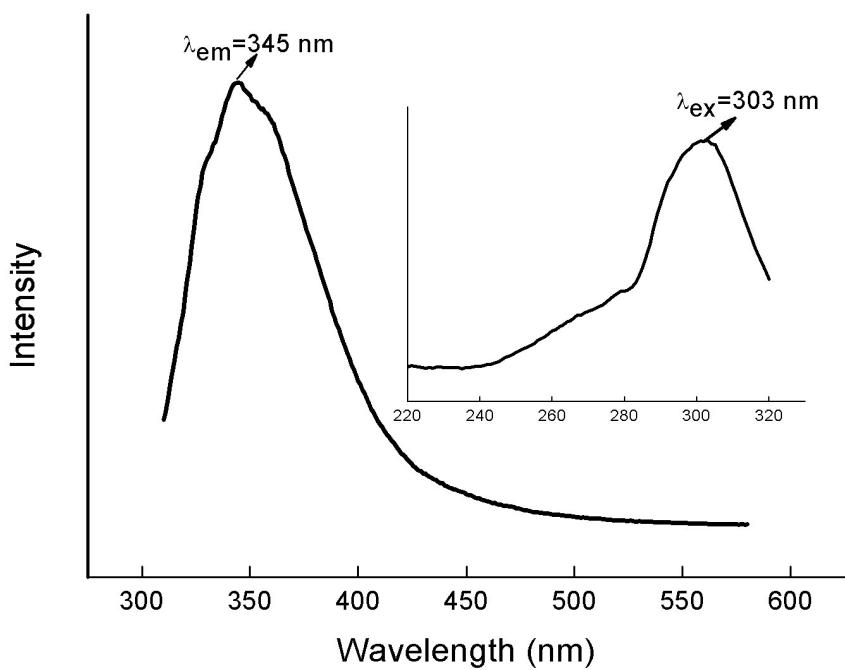


Fig.S4 The luminescence spectra of PMMA.

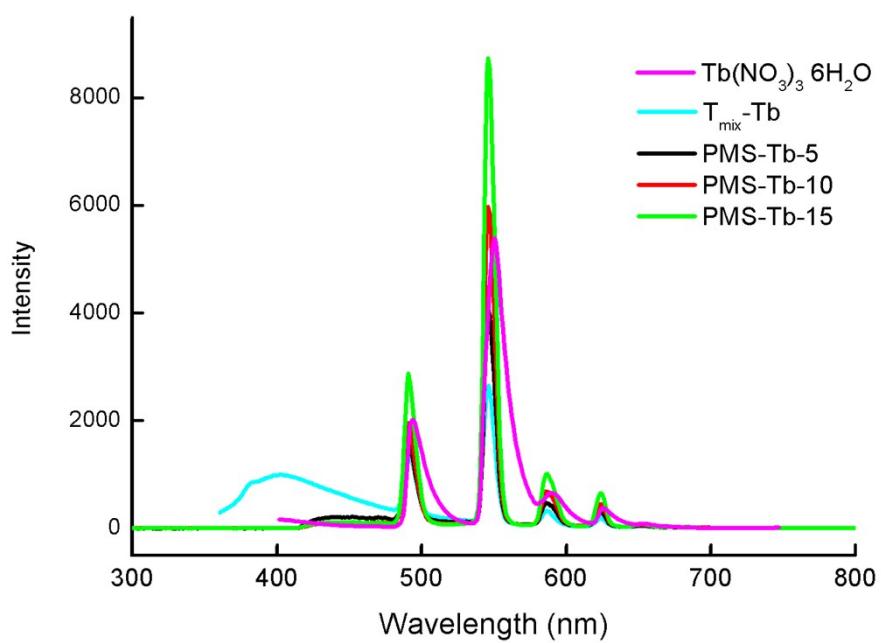


Fig.S5 The luminescence emission spectra of  $\text{Tb}(\text{NO}_3)_3 \cdot 6\text{H}_2\text{O}$ ,  $T_{\text{mix}}\text{-Tb}$  and PMS-Tb.

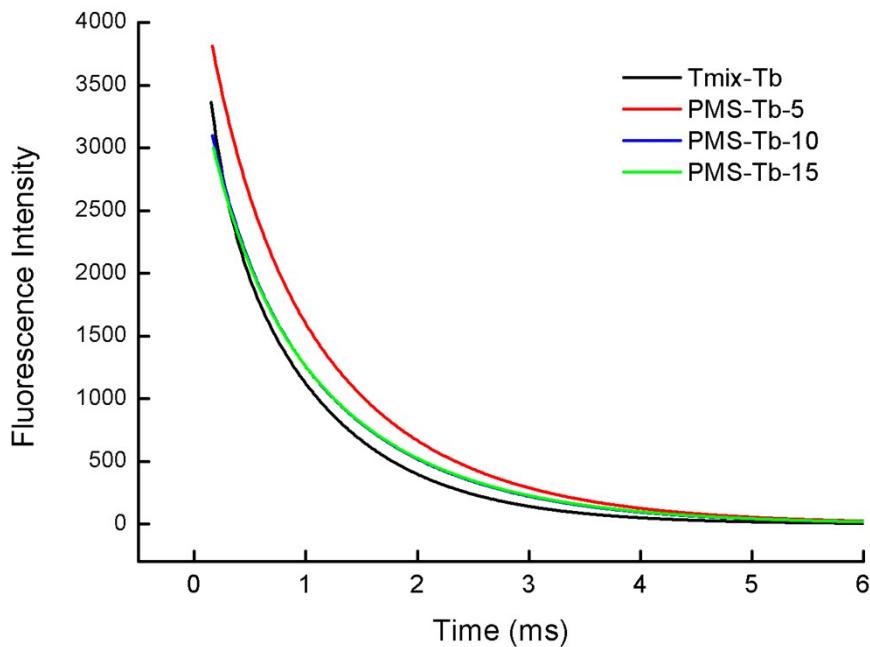


Fig.S6 The luminescent decay curves of  $T_{\text{mix}}\text{-Tb}$  and PMS-Tb.

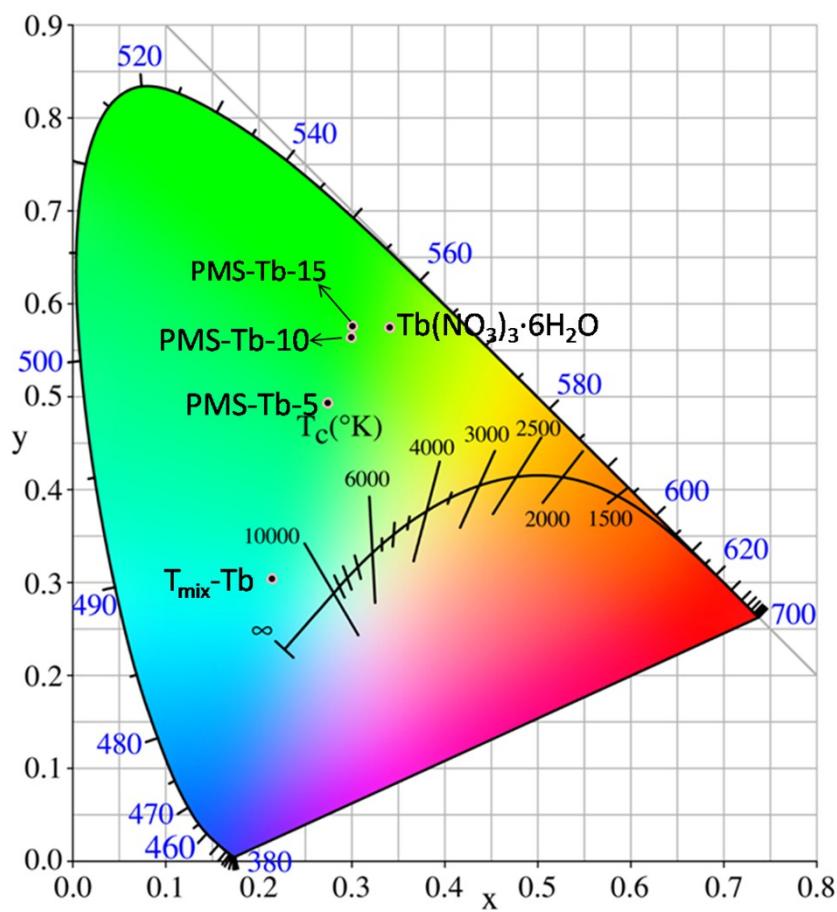


Fig.S7 Color coordinates for  $\text{Tb}(\text{NO}_3)_3 \cdot 6\text{H}_2\text{O}$ ,  $T_{\text{mix}}\text{-Tb}$  and PMS-Tb.

Table .S1 Results of EDS spectra of PMS-Tb.

Sample	Experimental Value		Theoretical Value	
	Si%	Tb%	Si%	Tb%
PMS-Tb-5	0.56	0.45	0.44	0.65
PMS-Tb-10	1.08	1.24	0.87	1.22
PMS-Tb-15	1.13	1.71	1.26	1.80