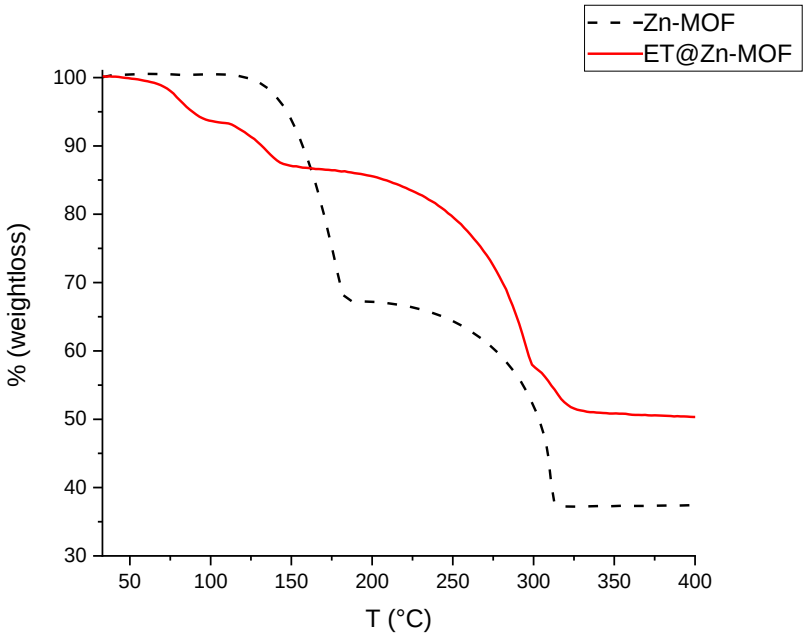

Fig. S1. TGA compound **1** and mixture X.

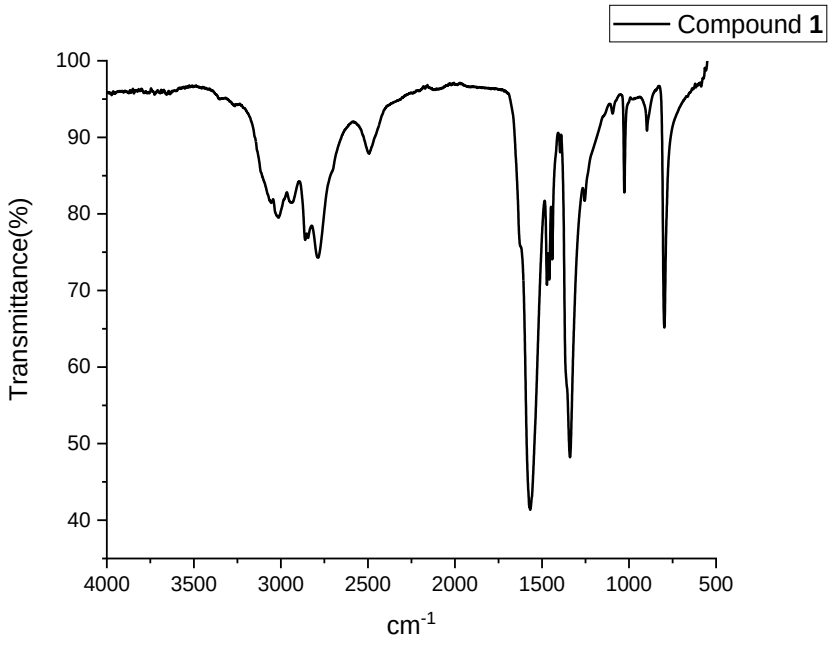

Fig. S2. IR compound **1**.

Table S3. labels of compound 1 doped with different proportions of Eu^{3+} and Tb^{3+}, separately.

Tb_x@ (**1**)	Label	Eu_x@ (**1**)	Label
$Tb_{0.05}$@**1**	**2**	$Eu_{0.05}$@**1**	**12**
$Tb_{0.10}$@**1**	**3**	$Eu_{0.10}$@**1**	**13**
$Tb_{0.15}$@**1**	**4**	$Eu_{0.15}$@**1**	**14**
$Tb_{0.20}$@**1**	**5**	$Eu_{0.20}$@**1**	**15**
$Tb_{0.25}$@**1**	**6**	$Eu_{0.25}$@**1**	**16**
$Tb_{0.30}$@**1**	**7**	$Eu_{0.30}$@**1**	**17**
$Tb_{0.35}$@**1**	**8**	$Eu_{0.35}$@**1**	**18**
$Tb_{0.40}$@**1**	**9**	$Eu_{0.40}$@**1**	**19**
$Tb_{0.45}$@**1**	**10**	$Eu_{0.45}$@**1**	**20**
$Tb_{0.50}$@**1**	**11**	$Eu_{0.50}$@**1**	**21**

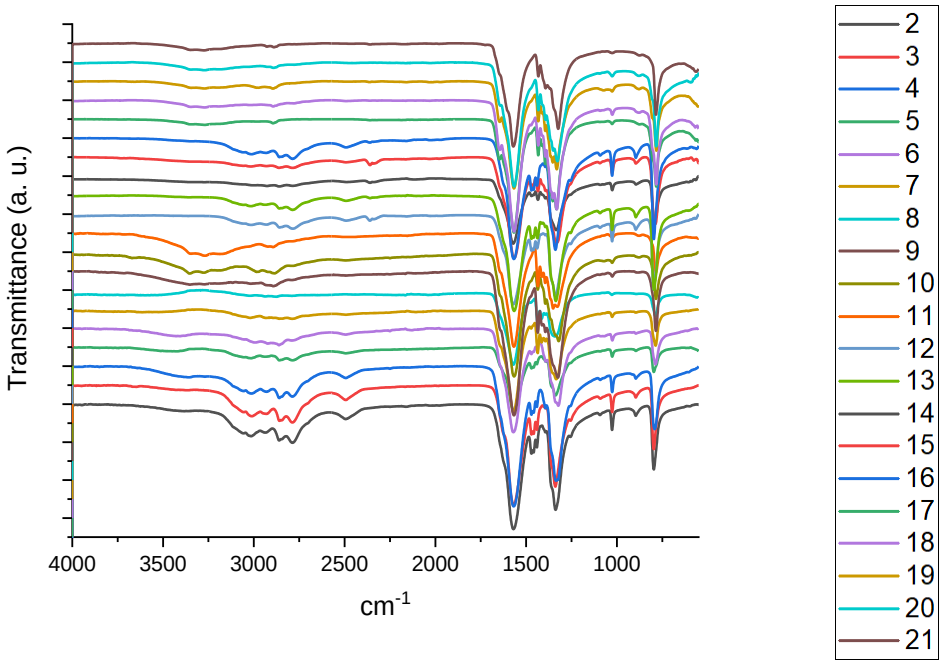

Fig. S4. IR all mixture of Ln@**1.**

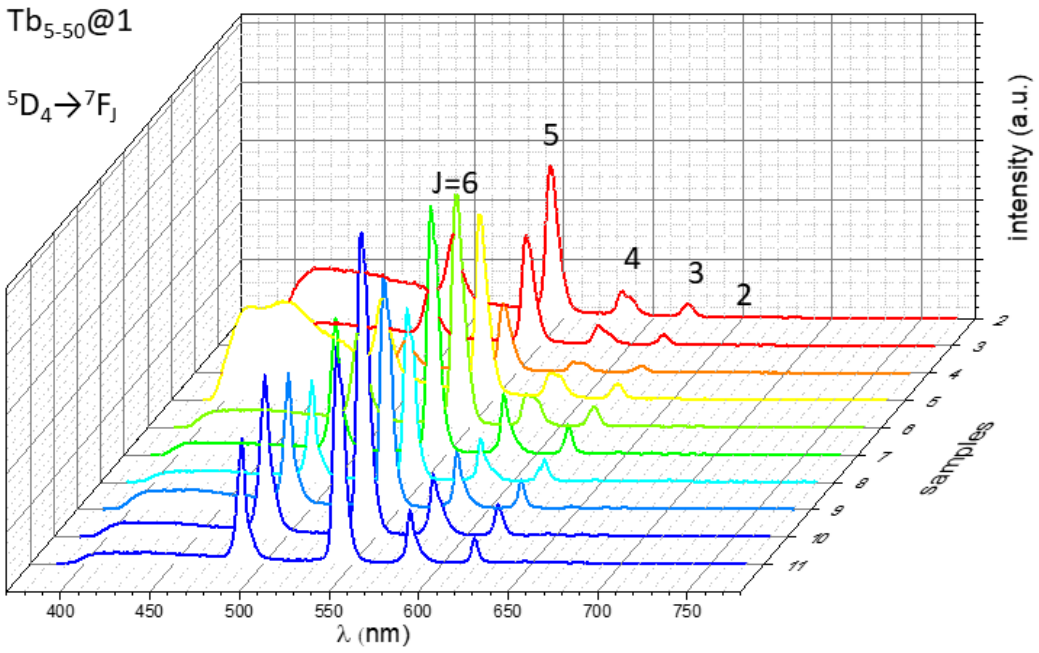

Fig. S5. Emission spectra for $Tb_{5\text{-}50\%}$@**1** (samples **2**-**11**).

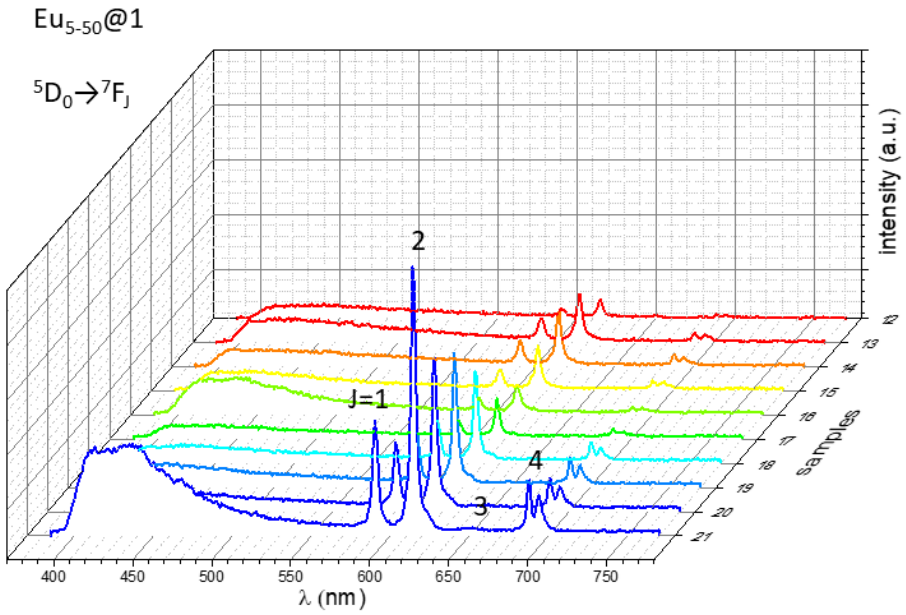

Fig. S6. Emission spectra for $Eu_{5\text{-}50\%}$@**1** (samples **12**-**21**).

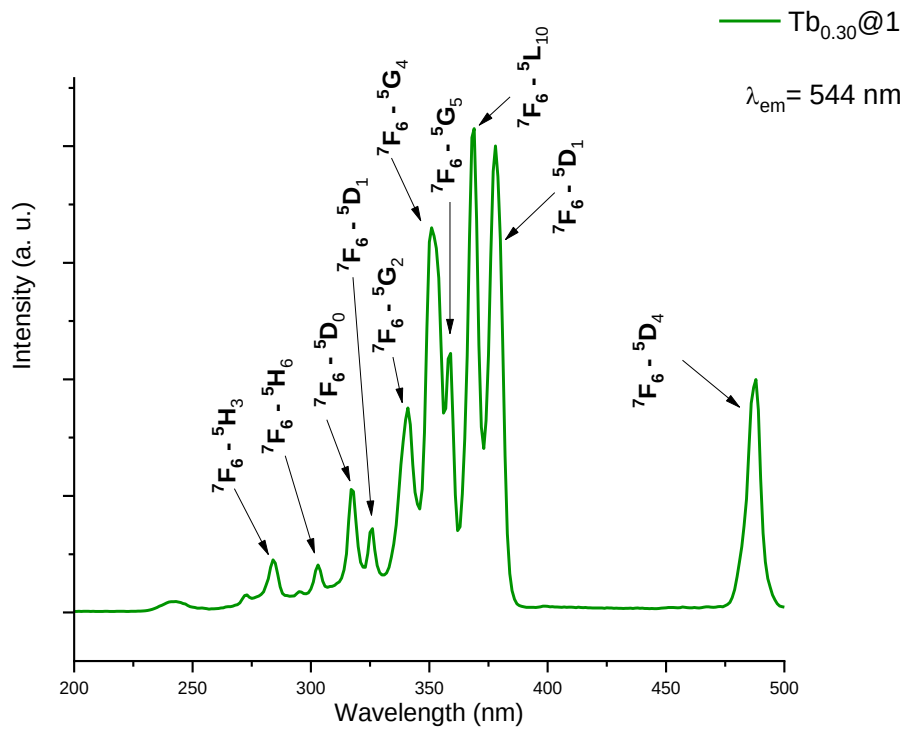

Fig. S7. Excitation spectrum for $Tb_{0.30}$@**1**.

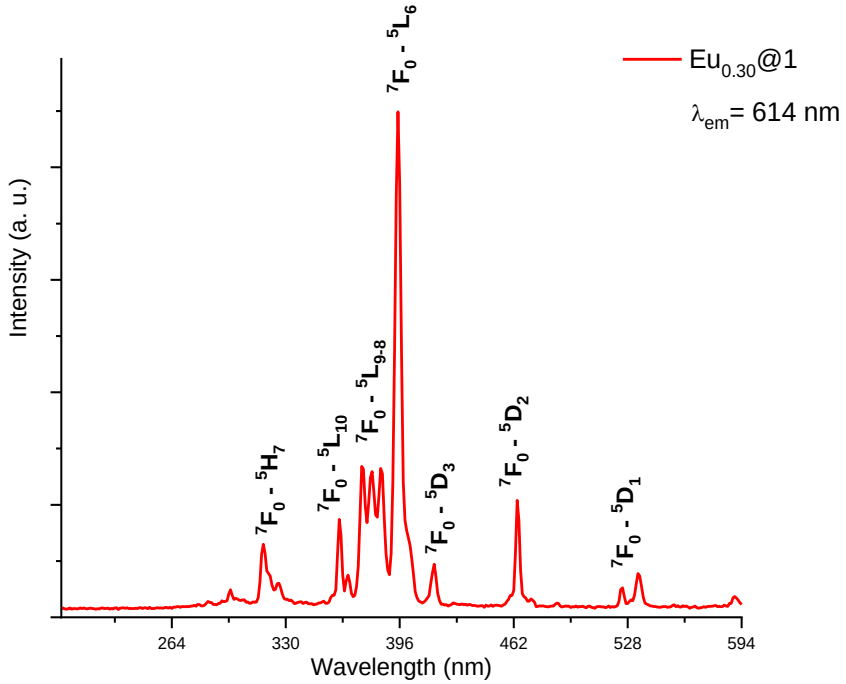

Fig. S8. Excitation spectrum for $Eu_{0.30}$@**1**.