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Fig. S1. TGA compound 1 and mixture X.



Fig. S2. IR compound 1.

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

- 2 - 3 - 4 - 5 - 6

Table S3. labels of compound 1 doped with different proportions of Eu³⁺ and Tb³⁺, separately.



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



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



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



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



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