

Table S1. Quantum yields of compounds **1**, **2**, and their Eu<sup>3+</sup>-only analogue. Sample letters A and B indicate two independently synthesized sample of each compound. Average quantum yields are: Eu<sup>3+</sup> = 22.5%, Tb<sup>3+</sup> = 31.6%, Eu<sup>3+</sup>/Tb<sup>3+</sup> = 38.5%.

Ln <sup>3+</sup>	Sample	Wavelength (nm)	Φ (%)
Eu	A	313	24.8
Eu	B	313	22.6
Eu	A	340	22.8
Eu	B	340	19.7
Tb	A	313	36.8
Tb	B	313	36.1
Tb	A	340	33.7
Tb	B	340	20.8
Eu/Tb	A	313	36.4
Eu/Tb	B	313	41.2
Eu/Tb	A	340	37.3
Eu/Tb	B	340	39.0

Table S2. Lifetime measurements of compounds **1**, **2**, and their Eu<sup>3+</sup>-only analogue. Sample letters A and B indicate two independently synthesized samples of each compound. The values are given as microseconds (μs).

Sample	Eu <sup>3+</sup>	Tb <sup>3+</sup>
Eu-A	740	
Eu-B	720	
Tb-A		1400
Tb-B		1430
Eu/Tb-A	770	~520
Eu/Tb-B	770	680

Figures S1 and S2: Excitation spectrum of Compound **1** and combined excitation/emission spectrum of Compound **1**.

