Electronic Supplementary Material (ESI) for Dalton Transactions.

Synthesis, crystal structure, and luminescence properties of a new europium silicate

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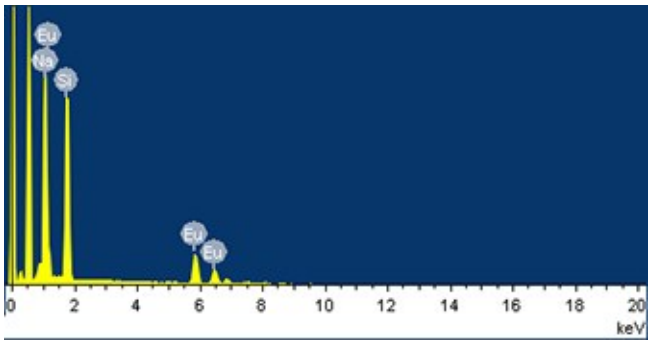

Figure S1 EDS spectrum of **1.**

Table S1 EDS analysis data of **1**

	Na	Eu	Si
1	1.01	1.0	3.0

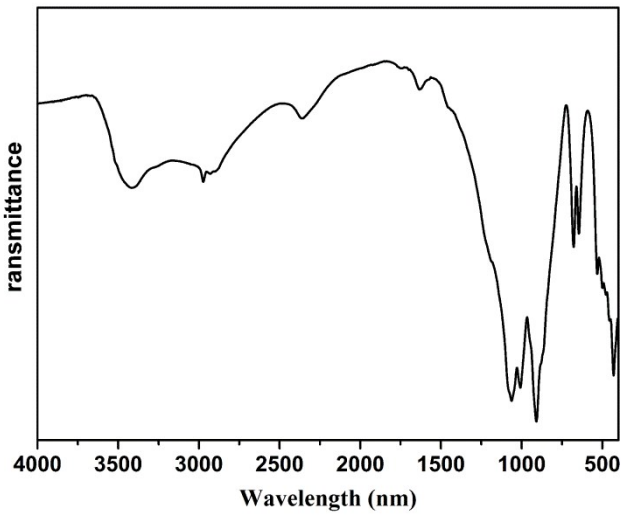

Figure S2. The IR spectrum of **1.**

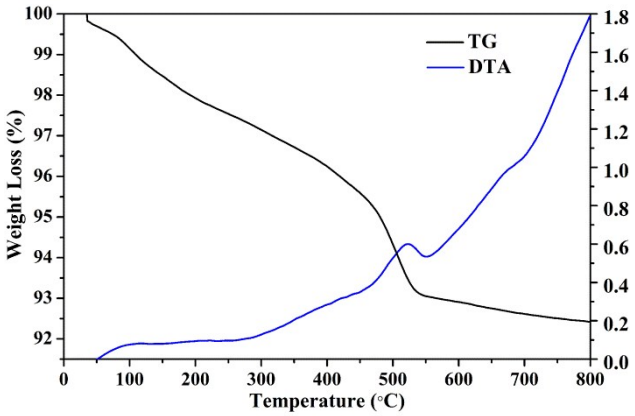

Figure S3 The TG and DTA curves of **1**.

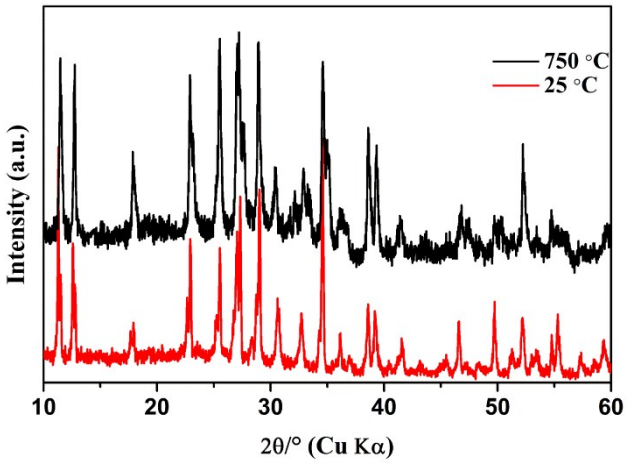

Figure S4 Powder XRD patterns of **1** after calcination at 750 ˚C. The red line shows the powder XRD patterns of 1 without calcination.

Table S2 Atomic coordinates and equivalent isotropic displacement parameters (Å2) for **1**

	x	y	z	U(eq)
Eu(1)	0.3503(1)	0.4033(1)	0.1450(1)	0.009(1)
Eu(2)	0.6402(2)	0.1079(2)	0.8464(1)	0.016(1)
Na(1)	0.1604(6)	0.7360(6)	0.4401(5)	0.026(1)
Si(1)	0.8416(3)	0.4016(3)	0.2197(3)	0.009(1)
Si(2)	0.8414(3)	-0.0400(3)	0.2176(2)	0.011(1)
Si(3)	0.6510(2)	0.7330(3)	0.4469(2)	0.009(1)
O(1)	0.6755(9)	0.3883(11)	0.0667(9)	0.017(1)
O(2)	0.1042(10)	0.4841(10)	0.1808(8)	0.017(1)
O(3)	0.7807(9)	0.5385(10)	0.3980(8)	0.014(1)
O(4)	0.8807(10)	0.1920(10)	0.2693(9)	0.016(1)
O(5)	0.1045(10)	-0.1394(11)	0.1844(10)	0.022(2)
O(6)	0.6845(10)	-0.1060(10)	0.0621(9)	0.017(1)
O(7)	0.7785(10)	0.9072(10)	0.3959(9)	0.017(1)
O(8)	0.6378(11)	0.7805(10)	0.6485(8)	0.018(2)
O(9)	0.4508(9)	0.6996(10)	0.3318(8)	0.015(1)

TableS3 Selected Bond lengths [Å] and angles [deg] for 1

bond	bond length (Å)	angle	Value (deg)
Eu(1)-O(2)#1	2.284(7)	O(6)#3-Eu(1)-O(1)	82.3(2)
Eu(1)-O(8)#2	2.312(7)	O(2)#1-Eu(1)-O(8)#2	92.9(2)
Eu(1)-O(9)	2.360(7)	O(9)-Eu(1)-O(6)#3	167.8(2)
Eu(1)-O(6)#3	2.379(8)	O(8)#2-Eu(1)-O(1)#4	176.8(2)
Eu(1)-O(1)	2.433(8)	O(9)-Eu(1)-O(1)#4	81.8(2)
Eu(1)-O(1)#4	2.474(8)	O(6)#3-Eu(1)-O(1)	82.3(2)
Eu(2)-O(5)#10	2.297(7)	O(5)#10-Eu(2)-O(8)	91.4(3)
Eu(2)-O(6)#13	2.386(7)	O(8)-Eu(2)-O(1)#13	174.3(3)
Eu(2)-O(9)#9	2.391(7)	O(6)#13-Eu(2)-O(1)#13	91.3(2)
Eu(2)-O(6)#2	2.468(7)	O(9)#9-Eu(2)-O(1)#13	80.8(2)
Eu(2)-O(1)#13	2.494(7)	O(6)#2-Eu(2)-O(1)#13	79.3(2)
Eu(2)-O(8)	2.355(7)	O(8)-Eu(2)-O(1)#13	174.3(3)
Si(1)-O(1)	1.603(7)	O(1)-Si(1)-O(2)	113.9(4)
Si(1)-O(2)	1.607(7)	O(1)-Si(1)-O(4)	112.3(4)
Si(1)-O(4)	1.635(7)	O(2)-Si(1)-O(4)	107.2(4)
Si(1)-O(3)	1.643(7)	O(4)-Si(1)-O(3)	103.8(4)
Si(2)-O(6)	1.576(7)	O(6)-Si(2)-O(4)	113.5(4)
Si(2)-O(4)	1.619(7)	O(6)-Si(2)-O(5)	113.2(4)
Si(2)-O(5)	1.630(7)	O(4)-Si(2)-O(5)	107.2(4)
Si(2)-O(7)#7	1.653(7)	O(6)-Si(2)-O(7)#7	112.3(4)
Si(3)-O(8)	1.593(7)	O(4)-Si(2)-O(7)#7	103.5(4)
Si(3)-O(9)	1.600(7)	O(5)-Si(2)-O(7)#7	106.5(4)
Si(3)-O(3)	1.658(7)	O(8)-Si(3)-O(9)	115.2(4)
Si(3)-O(7)	1.661(7)	O(8)-Si(3)-O(3)	108.2(4)
		O(9)-Si(3)-O(3)	109.3(4)
		O(8)-Si(3)-O(7)	109.5(4)
		O(9)-Si(3)-O(7)	110.2(4)
		O(3)-Si(3)-O(7)	103.9(4)

Symmetry transformations used to generate equivalent atoms:

#1 x-1,y,z #2 -x+1,-y+1,-z+1 #3 -x+1,-y,-z #4 -x+1,-y+1,-z #7 x,y-1,z

#9 -x+1,-y+2,-z+1 #10 -x+2,-y+1,-z+1 #13 x,y+1,z+1