

Supplementary Information

Continuous Broadband Emission from a Metal–Organic Framework as Human-Friendly White Light Source

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Table S1 Crystal and structure refinement data for compound **1**.

Chemical formula	C ₂₈ H ₂₀ O ₂₀ Sr ₂
Formula weight (g/mol)	851.68
Crystal system	Monoclinic
Space group	<i>P</i> 2 ₁ / <i>c</i>
Temperature (K)	200 (2)
<i>a</i> (Å)	8.9442(9)
<i>b</i> (Å)	25.154(2)
<i>c</i> (Å)	6.7966(7)
β (°)	98.632(7)
<i>V</i> (Å ³)	1511.8(3)
<i>Z</i>	2
<i>D</i> _{calcd} (g/cm ³)	1.871
θ range (°)	1.62 – 25.07
μ (mm ⁻¹)	3.623
<i>F</i> (000)	848
Reflns collected	9558
Unique reflns	2660
Parameters	230
<i>R</i> _{int}	0.0580
<i>R</i> ₁ , <i>wR</i> ₂ ^a (<i>I</i> > 2σ(<i>I</i>))	0.0496, 0.1169
<i>R</i> ₁ , <i>wR</i> ₂ ^a (all data)	0.0702, 0.1276
GOF	1.043

$$^aR_1 = \frac{\sum ||F_0| - |F_c||}{\sum |F_0|} ; wR_2 = \left[\frac{\sum w(F_0^2 - F_c^2)^2}{\sum w(F_0^2)^2} \right]^{1/2}$$

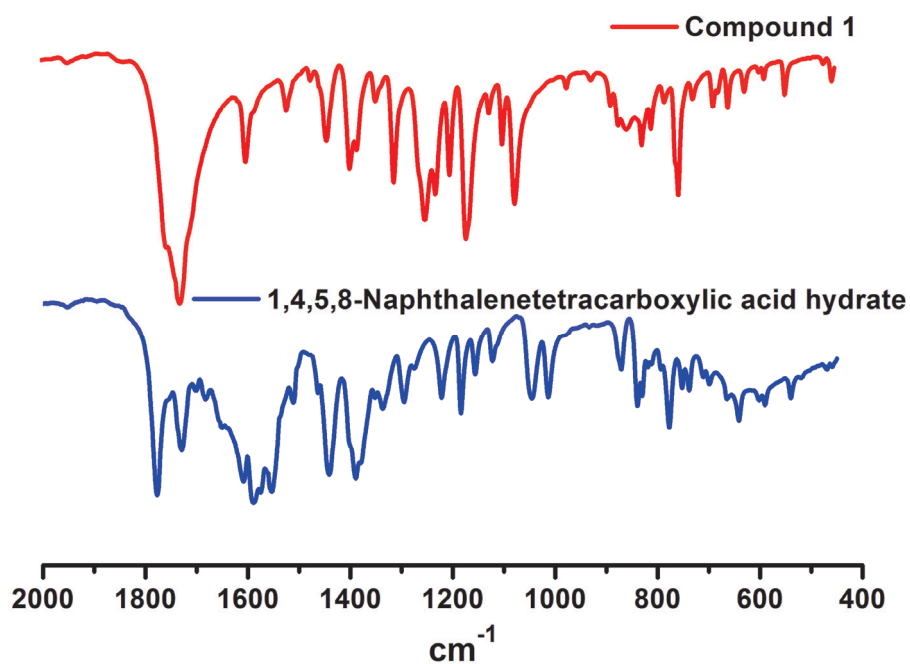


Figure S1 Infrared spectra of 1,4,5,8-naphthalenetetracarboxylic acid hydrate (H₄ntc) and compound **1**.

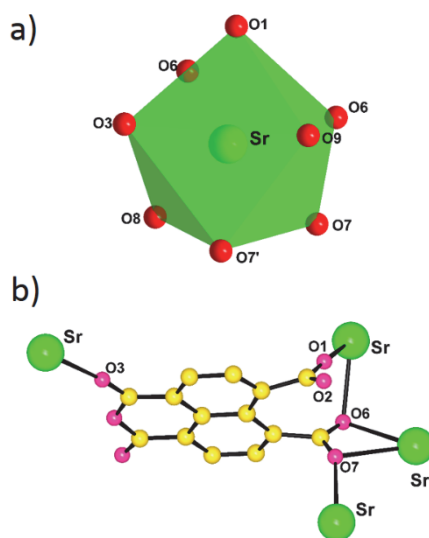


Figure S2 (a) Coordination environment of the metal center and (b) 1,4,5,8-naphthalenetetracarboxylate monoanhydride (ntca) ligand.

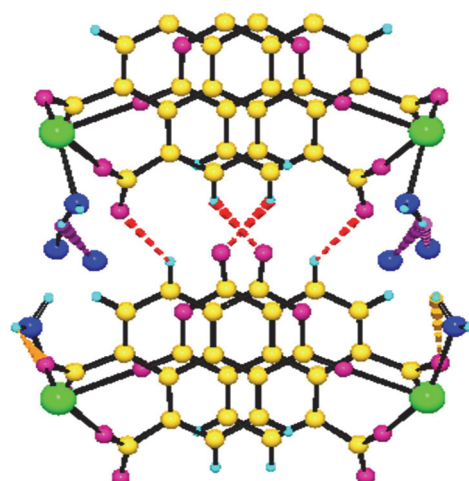


Figure S3 Hydrogen bonding interactions in compound 1.

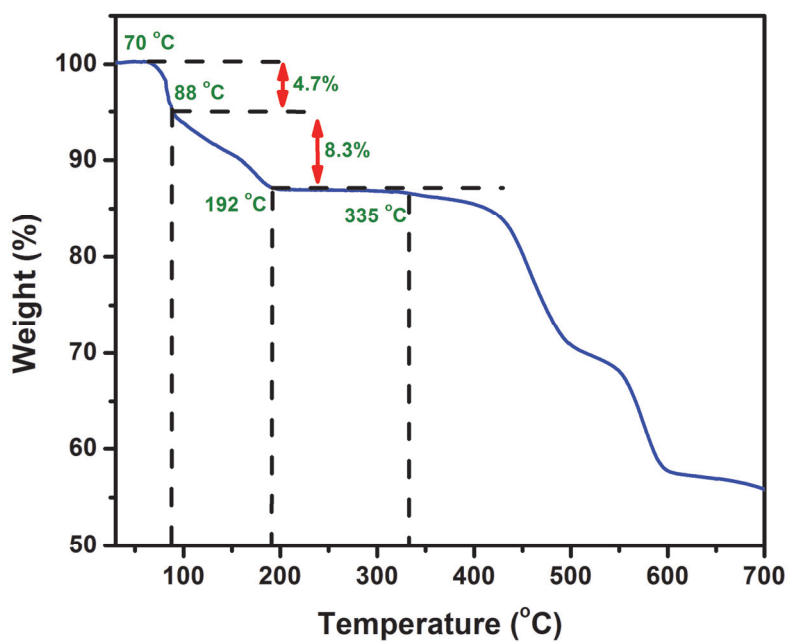


Figure S4 Thermogravimetric diagram for compound 1.

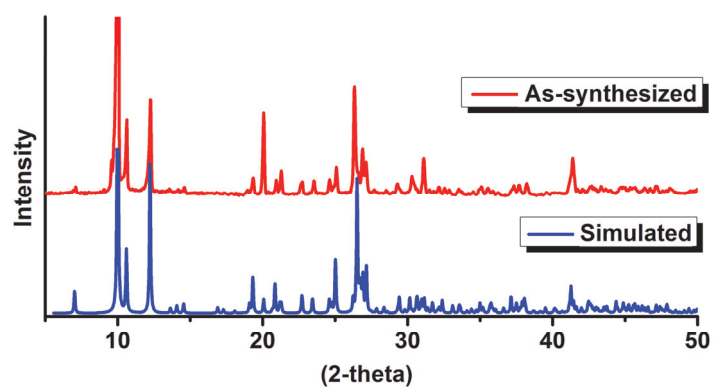


Figure S5 Powder X-ray diffraction patterns of **1** at ambient temperature.

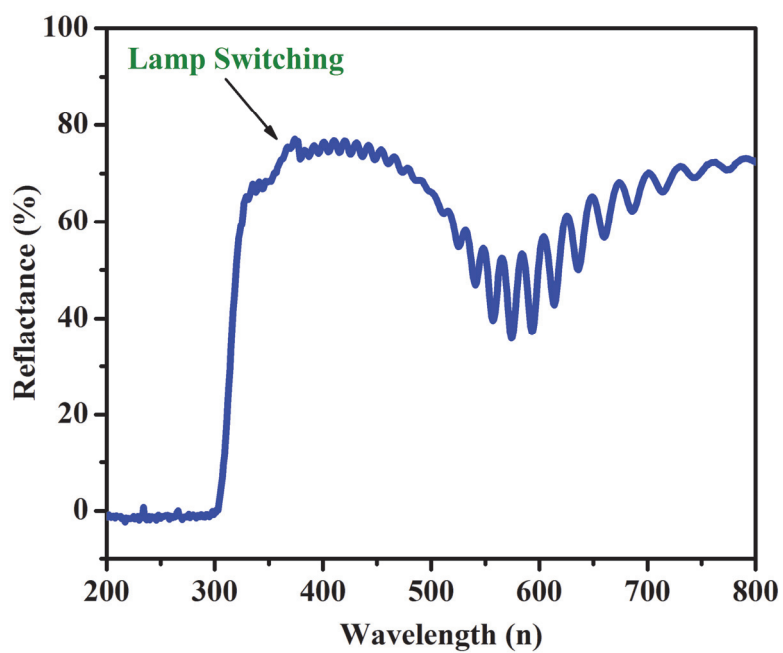


Figure S6 Diffuse reflectance spectrum of compound **1**. The noise is due to changing the lamp.

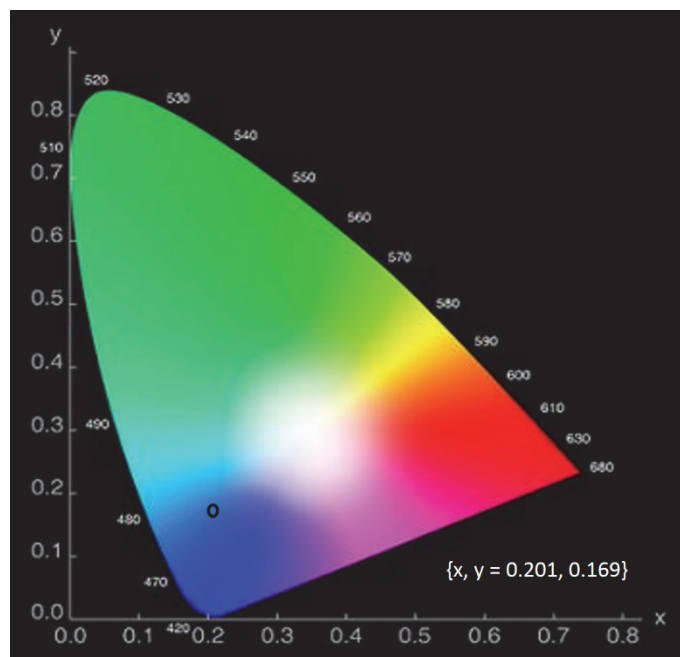


Figure S7 The ligand 1,4,5,8-naphthalenetetracarboxylic acid hydrate (H_4ntc) exhibits blue light emission when excited at 266 nm with CIE coordinates at (0.201, 0.169).