

Supporting Information

**Tuning the Net Topology of Ternary
Ag(I)-1,2,4,5-Tetra(4-pyridyl)benzene-Carboxylate
Framework: Structures and Photoluminescence**

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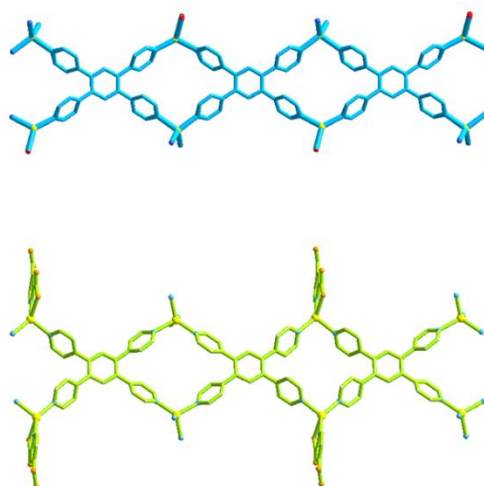


Figure S1. Two kinds of $[\text{Ag}_2(\text{bztpy})]_\infty$ chains that forms the whole framework of **3**. One chain (marked by blue) is composed of bztpy ligand, Ag1 and Ag2, whereas the other chain (marked by green) is composed of bztpy ligand, Ag2 and Ag3.

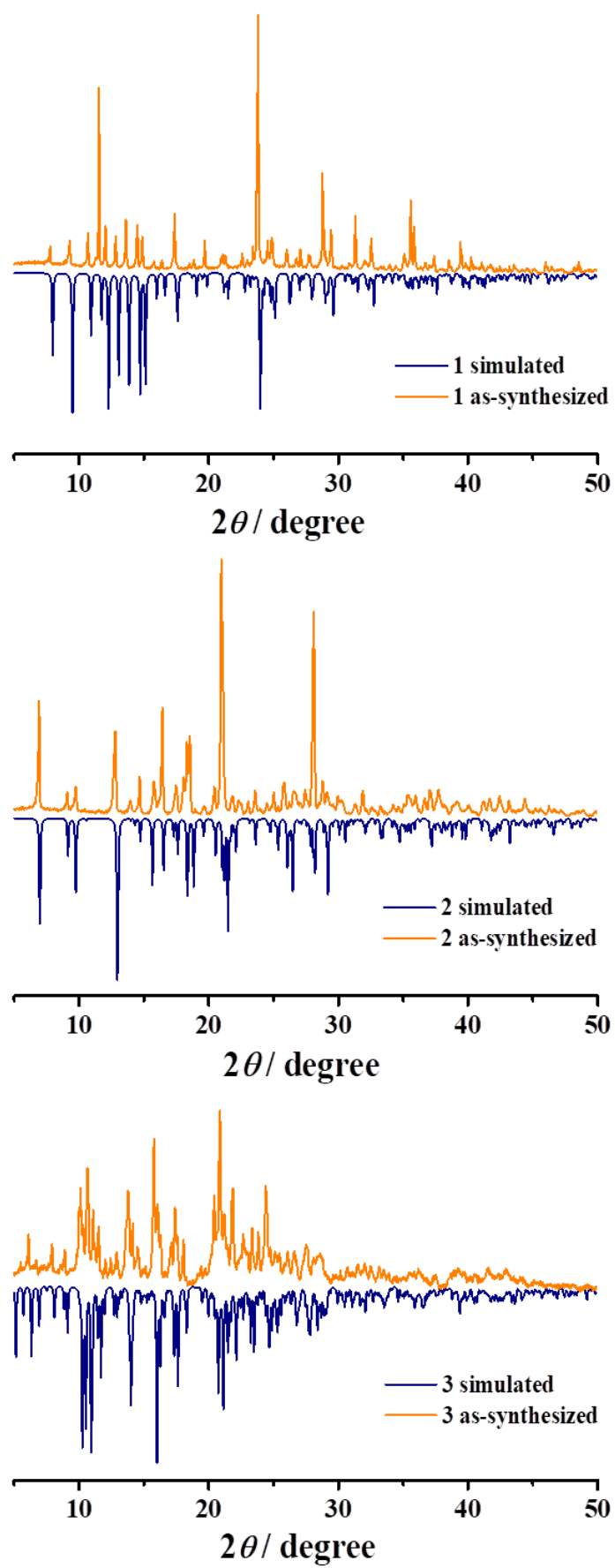


Figure S2. PXRD data as well as the simulated ones.

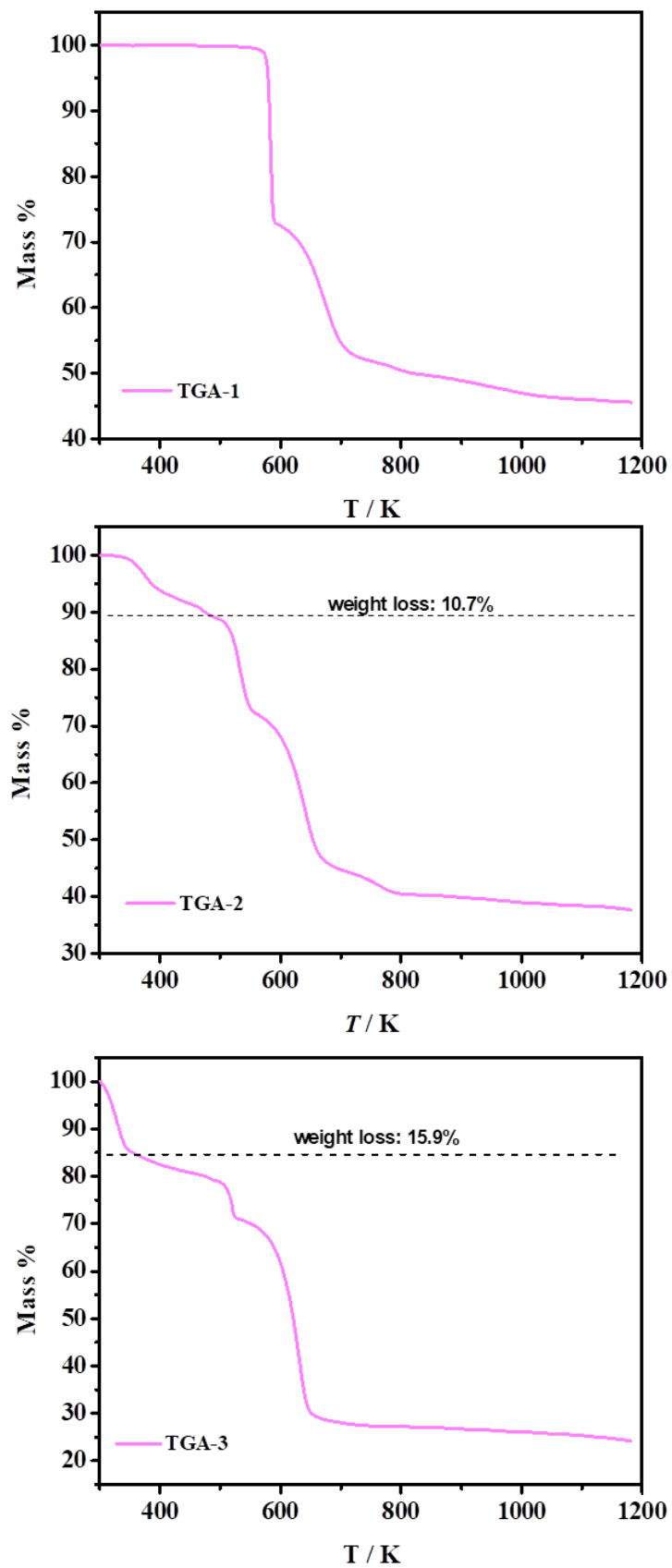


Figure S3. Thermogravimetric analyses.

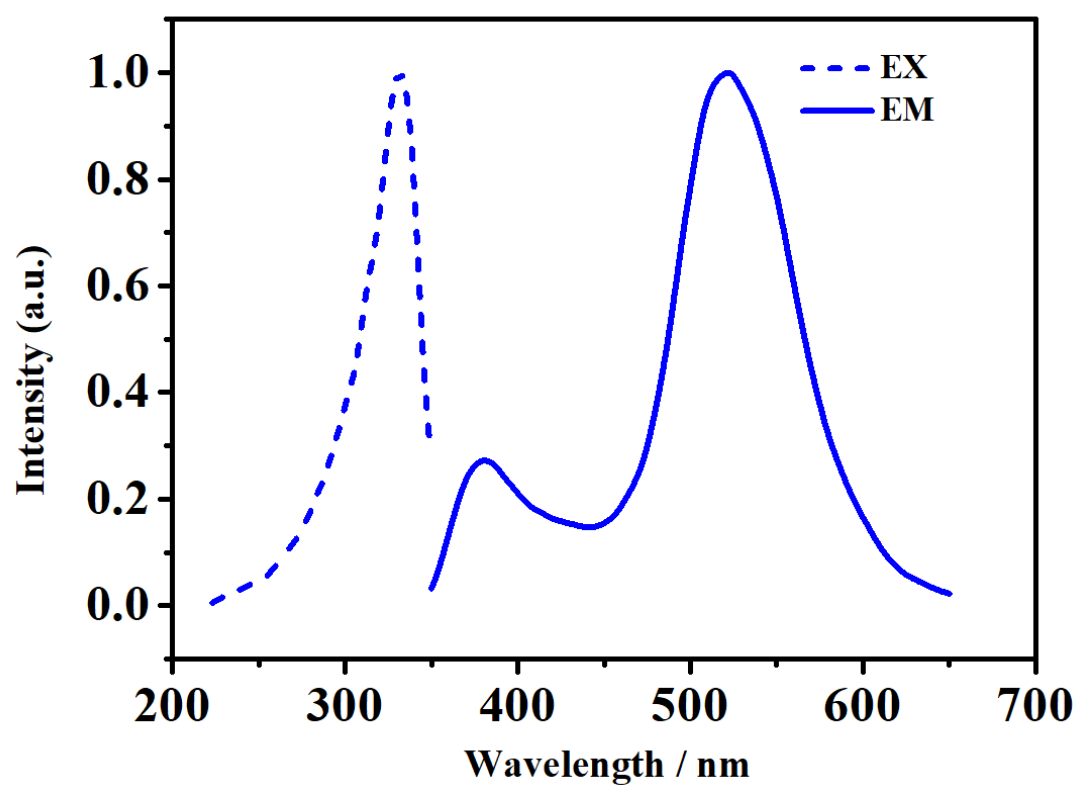


Figure S4. The solid state excitation and emission spectra bztpy ligands at room temperature.

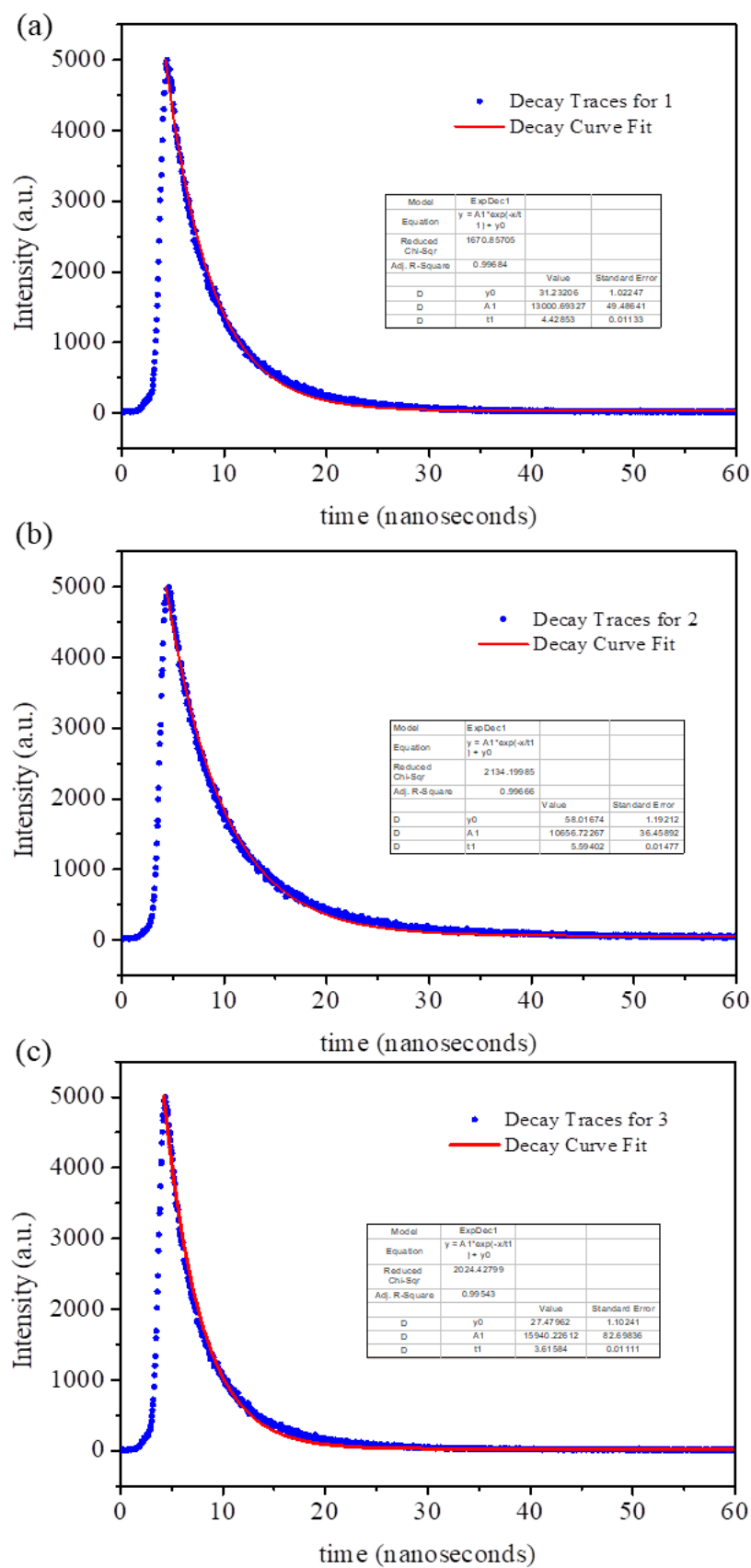


Figure S5. Emission decay curves of **1** (4.43 ns, *top*), **2** (5.59 ns, *middle*) and **3** (3.62 ns, *bottom*).

Table S1. Crystallographic data of **1-3**.

Compound reference	1	2	3
Chemical formula	C ₂₀ H ₁₄ AgN ₂ O ₂	C ₃₆ H ₃₄ Ag ₂ N ₄ O ₈	C _{68.5} H _{70.5} N _{9.5} Ag ₃ O ₁₅
Formula Mass	422.20	866.41	1590.45
Temperature / K	120(2)	150(2)	120(2)
Crystal system	triclinic	monoclinic	triclinic
Space group	<i>P</i> -1	<i>Cc</i>	<i>P</i> -1
<i>a</i> / Å	8.2278(6)	18.1253(7)	13.8004(6)
<i>b</i> / Å	9.2785(8)	19.3124(10)	17.5129(6)
<i>c</i> / Å	11.2960(11)	10.4700(4)	18.7660(8)
α / °	83.923(7)	90	67.675(4)
β / °	78.995(7)	112.6240(10)	76.215(4)
γ / °	84.363(6)	90	68.734(4)
<i>V</i> / Å ³	839.05(13)	3382.9(3)	3883.2(3)
<i>Z</i>	2	4	2
$\mu(\text{MoK}\alpha)$ / mm ⁻¹	1.216	1.217	0.796
reflns collected	8811	14657	74961
independent reflns	3701	7211	17432
<i>R</i> _{int}	0.0935	0.0399	0.0935
<i>R</i> _I ^a (<i>I</i> > 2σ(<i>I</i>))	0.0377	0.0386	0.0688
<i>wR</i> ₂ ^b (all data)	0.0907	0.0907	0.1681
GOF	1.061	1.041	1.024

$$^a R_1 = \sum ||F_o| - |F_c|| / \sum |F_o|, \quad ^b wR_2 = [\sum w(F_o^2 - F_c^2)^2 / \sum w(F_o^2)^2]^{1/2}$$