



SUPPLEMENTARY MATERIAL TO

A new zinc(II) supramolecular square: synthesis, crystal structure, thermal behavior and luminescence

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TABLE S-I. Crystal data and structure refinement for **1**

Parameter	Value
Chemical formula	C ₇₂ H ₅₆ N ₁₂ O ₁₈ Zn ₄
Formula weight	1638.77
Wavelength, Å	0.71073
Temperature, K	293(2)
Crystal system	Triclinic
Space group	P-1
a / Å	10.773(2)
b / Å	12.641(3)
c / Å	13.573(3)
α / °	107.44(3)
β / °	102.66(3)
γ / °	93.89(3)
V / Å ³	1702.8(6)
Z	1
D _{calc} / g cm ⁻³	1.598
μ / mm ⁻¹	1.475
F(000)	836
(θ _{min} – θ _{max}) / °	3.15–25.03
Diffraction measured fraction, θ _{max} / °	25.03
Refined difference density, max/min	0.450/-0.363
Reflection collected/unique (<i>R</i> _{int})	13258 / 5920 (0.0597)
Data/restraints/parameters	5920/6/494
Goodness-of-fit on <i>F</i> ²	1.045
<i>R</i> indices (all data)	<i>R</i> ₁ = 0.0472, <i>wR</i> ₂ = 0.0919
Final <i>R</i> indices (<i>I</i> > 2σ(<i>I</i>))	<i>R</i> ₁ = 0.0863, <i>wR</i> ₂ = 0.1076

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TABLE S-II. Selected bond lengths (\AA) and angles ($^\circ$) for **1**; symmetry transformations used to generate equivalent atoms: A: $-x+2, -y+1, -z+2$

Bond	Value	Bond	Value
Bond length, \AA			
Zn(1)–N(1)	2.125(3)	Zn(1)–N(2)	2.196(4)
Zn(2)–N(3)	2.192(3)	Zn(2)–N(4)	2.124(4)
Zn(2)–N(5) ^A	2.023(4)	Zn(1)–N(6)	2.034(3)
Zn(1)–O(2)	2.009(3)	Zn(1)–O(3)	2.038(3)
Zn(2)–O(5)	2.057(3)	Zn(2)–O(6)	1.971(3)
Bond angle, $^\circ$			
O(2)–Zn(1)–N(6)	99.99(13)	O(2)–Zn(1)–O(3)	89.18(12)
N(6)–Zn(1)–O(3)	95.62(13)	O(2)–Zn(1)–N(1)	110.16(13)
N(6)–Zn(1)–N(1)	149.54(15)	O(3)–Zn(1)–N(1)	89.16(12)
O(2)–Zn(1)–N(2)	92.84(14)	N(6)–Zn(1)–N(2)	98.16(14)
O(3)–Zn(1)–N(2)	165.50(11)	N(1)–Zn(1)–N(2)	76.66(13)
O(6)–Zn(2)–N(5) ^A	136.09(14)	O(6)–Zn(2)–O(5)	88.94(12)
N(5) ^A –Zn(2)–O(5)	92.79(14)	O(6)–Zn(2)–N(4)	113.64(15)
N(5) ^A –Zn(2)–N(4)	110.12(15)	O(5)–Zn(2)–N(4)	92.33(14)
O(6)–Zn(2)–N(3)	89.50(12)	N(5) ^A –Zn(2)–N(3)	96.66(13)
O(5)–Zn(2)–N(3)	167.89(14)	N(4)–Zn(2)–N(3)	77.31(13)