

H₂2

¹H NMR (250MHz, CDCl₃): δ (ppm) = -2.75 (2H, s), 1.0 (27H, m), 1.50 (40H, m), 1.80 (2H, qn), 1.90 (2H, qn), 4.00 (4H, d,), 4.20 (4H, d), 7.20 (2H, d), 7.30 (2H, b), 7.60 (6H, m), 7.65 (2H, s), 7.70 (2H, s), 7.85 (1H, b), 8.05 (2H, d), 8.15 (4H, b), 8.30 (2H, s), 8.50 (1H, b), 8.65 (4H, b), 8.80 (4H, s), 8.90 (4H, s).

MS (+ve FAB): (29) Found $m/z = 1444$. C₉₅H₁₀₈N₉O₇ requires 1443.92. Accurate Mass (+ve FAB): (29) Calculated mass = 1443.831359; C₉₅H₁₀₈N₉O₇ requires 1443.843952: (- 12.6 mDa, - 8.7 PPM).

Mpt: 188 – 190°C.

UV-Vis (CHCl₃): λ_{\max} (ϵ) (nm (M⁻¹ cm⁻¹)) = 423.1 (3.20x10⁵), 517.6 (1.65x10⁴), 553.6 (8.67x10³), 592.0 (6.49x10³), 648.0 (4.62x10³).

Co2

MS (MALDI-TOF): Found $m/z = 1501$; C₉₄H₁₀₄N₈O₆Co requires 1500.84.

Mpt: > 298°C.

UV-Vis (CHCl₃): λ_{\max} (ϵ) (nm (M⁻¹ cm⁻¹)) = 439.2 (5.90x10⁴), 556.0 (1.65x10⁴).

Zn4

¹H NMR (250MHz, CDCl₃): δ (ppm) = 8.97 (4H, d), 8.80 (2H, d), 8.58 (2H, d), 8.10 (6H, m), 8.08 (1H, d), 8.03 (1H, d), 7.51 (6H, m), 7.38 (1H, d), 6.96 (2H, d), 6.45 (1H, s), 2.96 (6H, t), 1.95 (6H, qn), 1.46 (2H, bs), 1.57 (12H), 0.98 (9H, t).

MS (+ve FAB): m/z (%): 1009 (100) (M⁺: C₆₅H₆₃N₆ZnO requires 1009.78).

Mpt: > 298 °C.

UV-Vis (CHCl₃): λ_{\max} (ϵ) (nm (M⁻¹ cm⁻¹)) = 429 (1.06x10⁵), 561 (4.30x10³), 602 (2.06x10³).

Zn5

¹H NMR (250MHz, CDCl₃): δ (ppm) = 8.90 (9H, bs), 8.10 (8H, bm), 7.7 - 6.8 (12H, bm), 5.55 (2H, bs), 2.96 (6H, m), 2.45 (2H, bs), 1.92 (6H, bm), 1.55 (12H, bm), 0.88 (9H, m).

MS (+ve FAB): m/z (%): 1085 (100) (M⁺: C₇₁H₆₆N₆OZn requires 1084.71)

Mpt: > 298 °C.

UV-Vis (CHCl₃): λ_{\max} (ϵ) (nm (M⁻¹ cm⁻¹)) = 421.5 (6.0x10⁵), 549.5 (3.5x10⁴), 591 (1.8x10⁴).