

Supporting Information

Syntheses, crystal structures, MMCT and magnetic properties of four one-dimensional cyanide-bridged complexes comprised of M^{II} -CN- Fe^{III} ($M = Fe, Ru, Os$)

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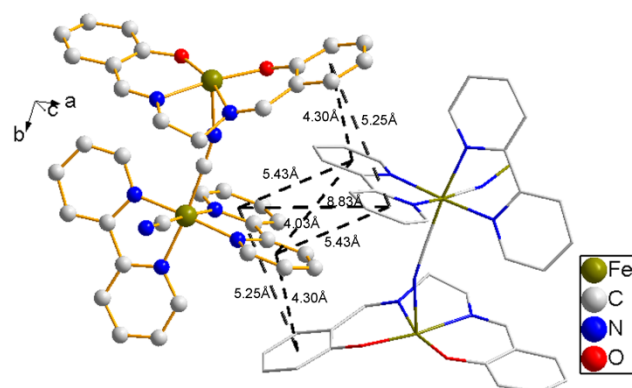


Figure S1 Packing structure of complex **3**.

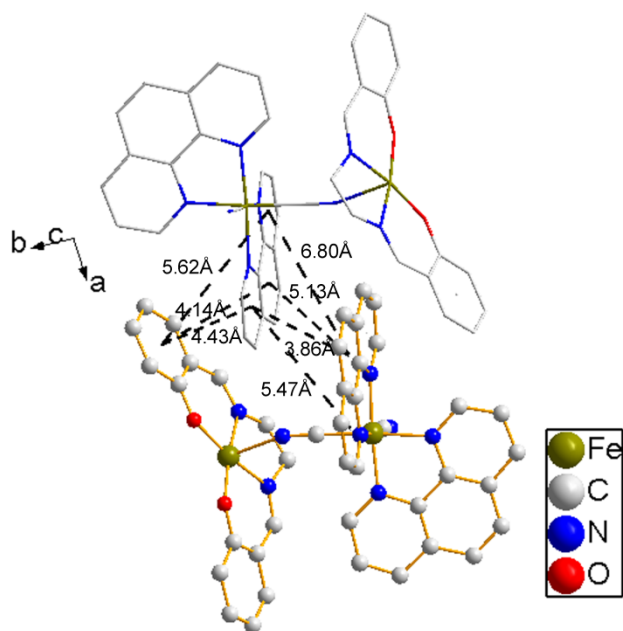


Figure S2 Packing structure of complex 4.

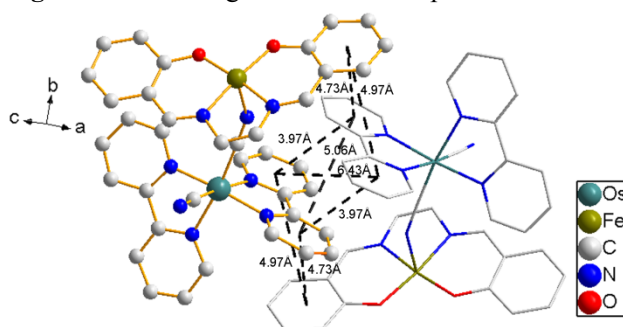


Figure S3 Packing structure of complex 6.

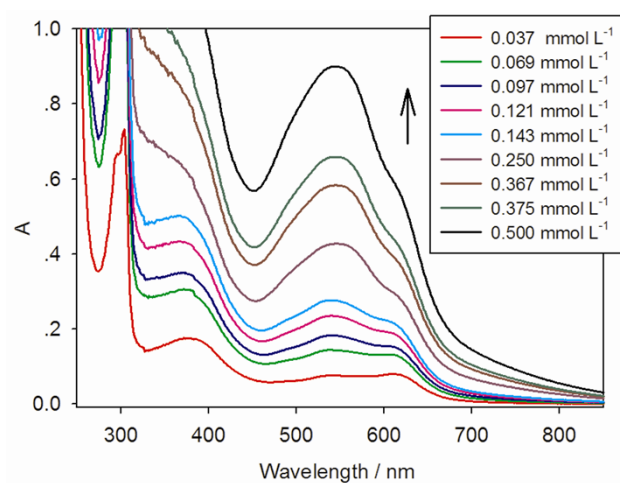


Figure S4 Spectral variation of complex 3 at different concentration in acetonitrile solution (from bottom to top: 3.7×10^{-5} , 6.9×10^{-5} , 9.7×10^{-5} , 1.21×10^{-4} , 1.43×10^{-4} , 2.50×10^{-4} , 3.67×10^{-4} , 3.75×10^{-4} and 5.0×10^{-4} mol L⁻¹).

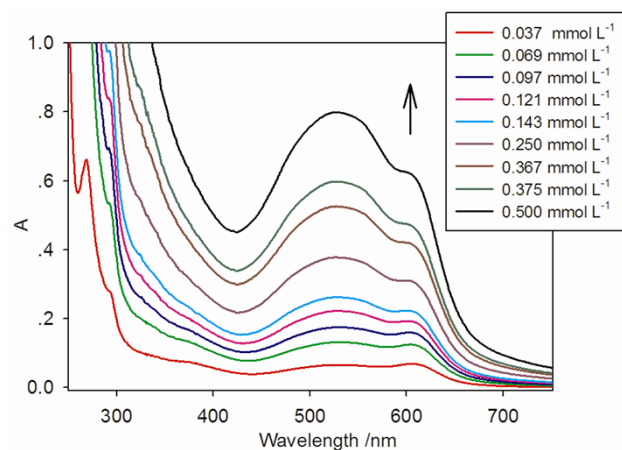


Figure S5 Spectral variation of complex **4** at different concentration in acetonitrile solution (from bottom to top: 3.7×10^{-5} , 6.9×10^{-5} , 9.7×10^{-5} , 1.21×10^{-4} , 1.43×10^{-4} , 2.50×10^{-4} , 3.67×10^{-4} , 3.75×10^{-4} and 5.0×10^{-4} mol L⁻¹).

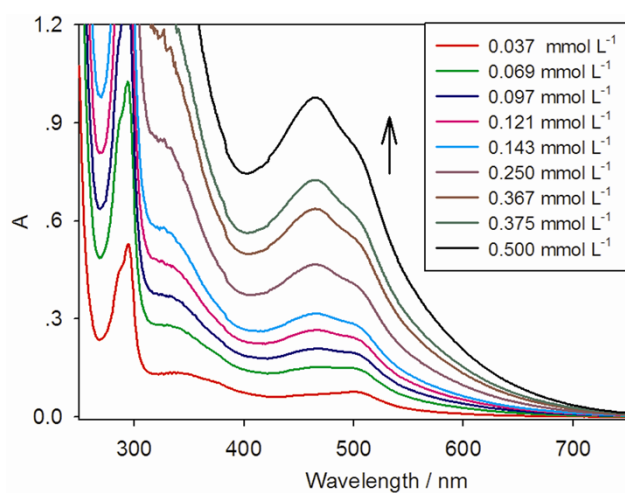


Figure S6 Spectral variation of complex **5** at different concentration in acetonitrile solution (from bottom to top: 3.7×10^{-5} , 6.9×10^{-5} , 9.7×10^{-5} , 1.21×10^{-4} , 1.43×10^{-4} , 2.50×10^{-4} , 3.67×10^{-4} , 3.75×10^{-4} and 5.0×10^{-4} mol L⁻¹).

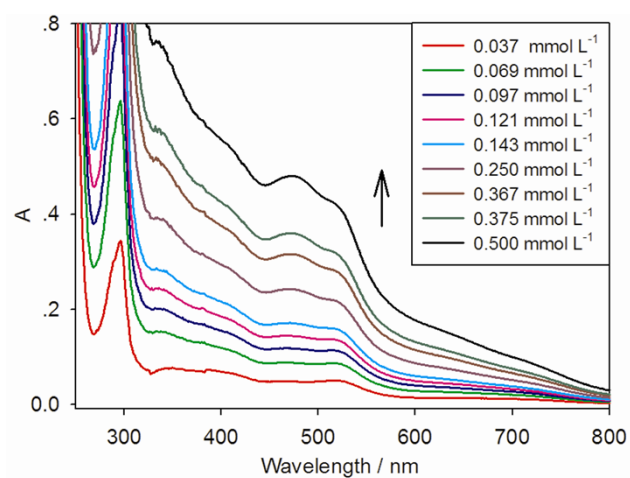


Figure S7 Spectral variation of complex **6** at different concentration in acetonitrile solution (from

bottom to top: 3.7×10^{-5} , 6.9×10^{-5} , 9.7×10^{-5} , 1.21×10^{-4} , 1.43×10^{-4} , 2.50×10^{-4} , 3.67×10^{-4} , 3.75×10^{-4} and $5.0 \times 10^{-4} \text{ mol L}^{-1}$).