

**Complexes of Platinum(II) containing Ferrocenylethynyl ligands:
Synthesis, Characterization and Spectroscopic and Electrochemical
Properties.**

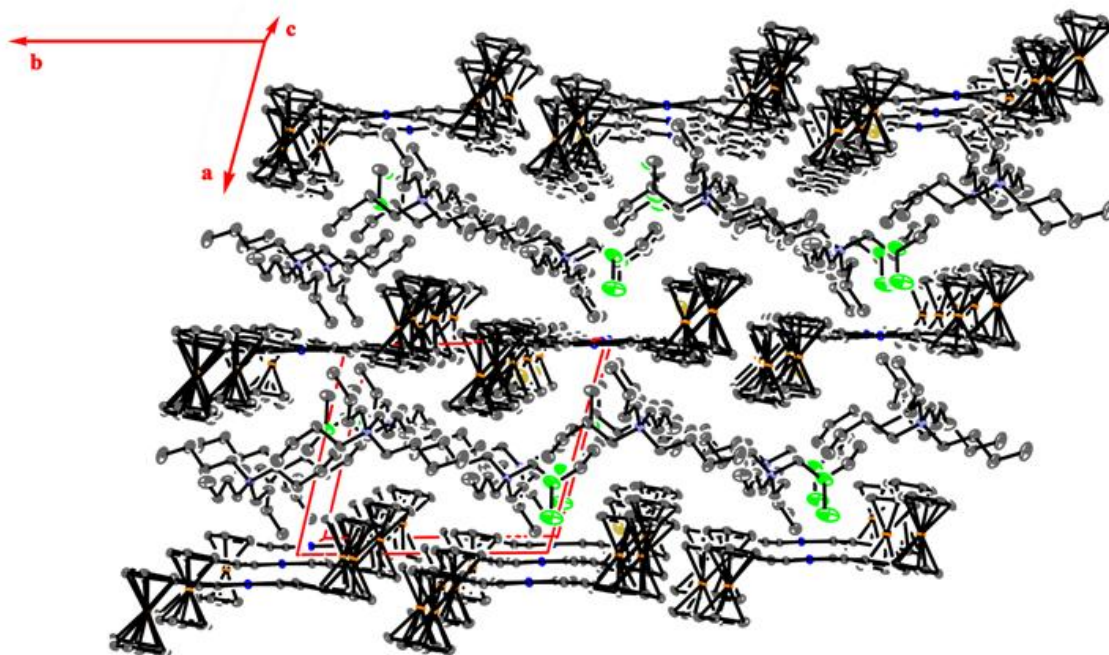


Figure S1. Stacking Pattern of complex $6 \cdot 2\text{H}_2\text{O} \cdot 2\text{CH}_2\text{Cl}_2$

Some crystal data for (NBu₄)[Pt(bzq)(C≡Cfc)₂].0.5CHCl₃ **5·0.5CHCl₃**

Empirical formula	C ₁₀₇ H ₁₂₀ Cl ₃ Fe ₄ N ₄ Pt ₂	
Formula weight	2182.00	
Temperature	173(1) K	
Wavelength	0.71073 Å	
Crystal system	<i>P</i> 21/a	
Space group	Monoclinic	
Unit cell dimensions	<i>a</i> = 15.787 Å	<i>α</i> = 90°.
	<i>b</i> = 25.990 Å	<i>β</i> = 105.34°.
	<i>c</i> = 25.055 Å	<i>γ</i> = 90°.
Volume	9913.8 Å ³	
<i>Z</i>	4	
Density (calculated)	1.462 Mg/m ³	
Absorption coefficient	3.509 mm ⁻¹	
F(000)	4404	
Crystal size	0.5 x 0.125 x 0.05 mm ³	
Theta range for data collection	4.09 to 25.35°.	
Index ranges	0 ≤ <i>h</i> ≤ 19, 0 ≤ <i>k</i> ≤ 31, -30 ≤ <i>l</i> ≤ 29	
Reflections collected	18048	
Independent reflections	18048 [R(int) = 0.0000]	

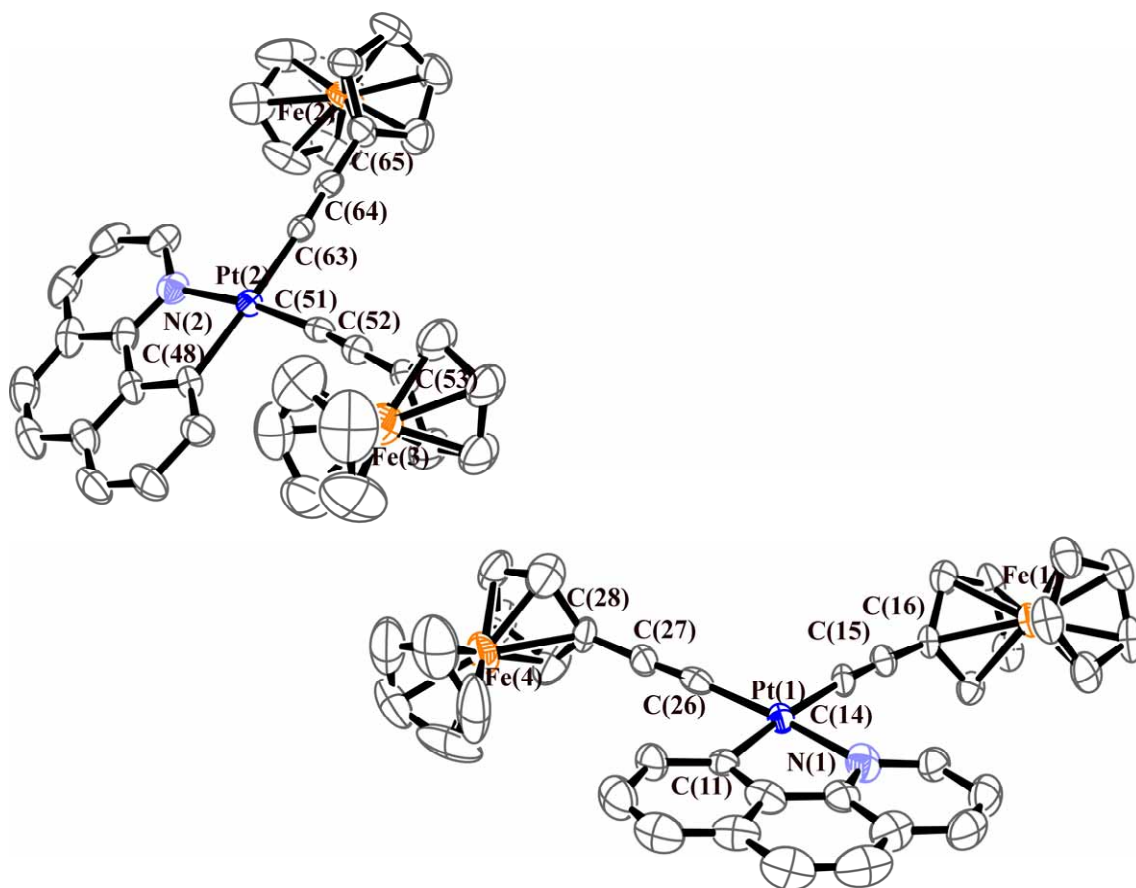


Figure S2. View of the anionic part in the asymmetric unit of the anion $[\text{Pt}(\text{bzq})(\text{C}\equiv\text{CFc})_2]^-$ of complex **5**. Hydrogen atoms have been omitted for clarity. Full ellipsoids for all atoms are at their 50% probability level.

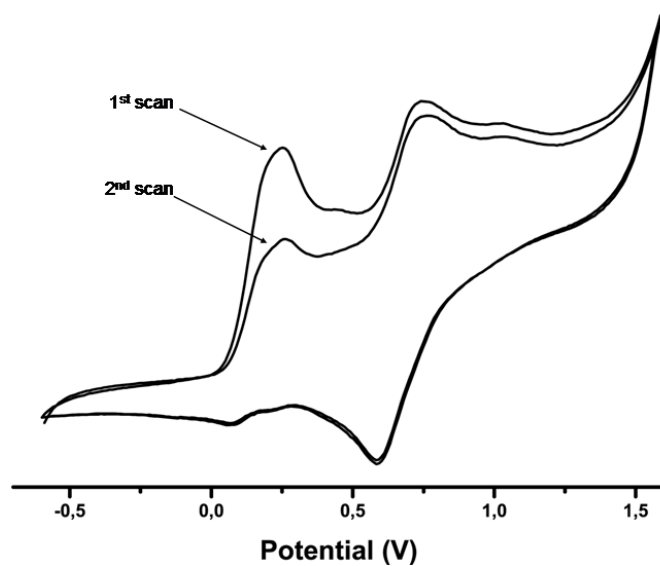


Figure S3. Cyclic voltammogram of complex **3** in CH_2Cl_2 at 25 °C. Scan rate 100 mV s^{-1} , NBu_4PF_6 used as supporting electrolyte.

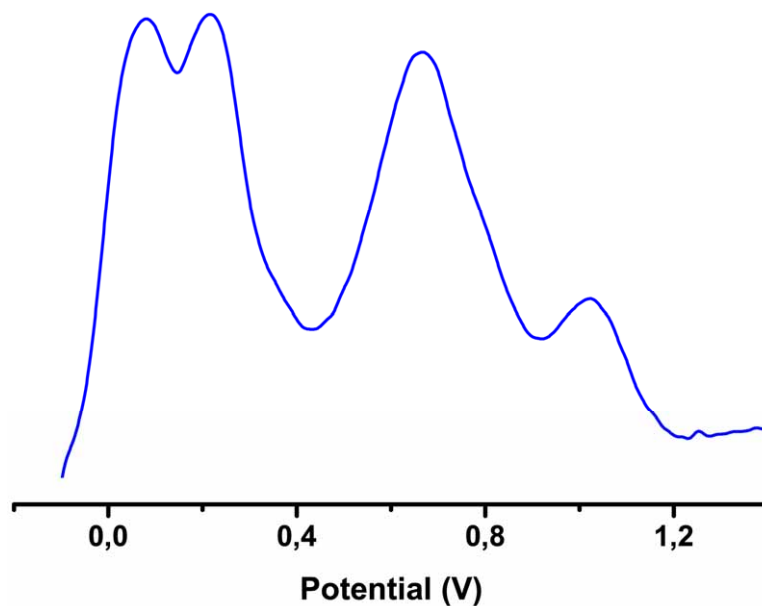


Figure S4. Differential pulse voltammogram of complex **4** in CH_2Cl_2 at 25 °C. Scan rate = 10 mV s^{-1} , pulse amplitude = 10 mV, pulse width = 50 ms, pulse period = 20 ms.

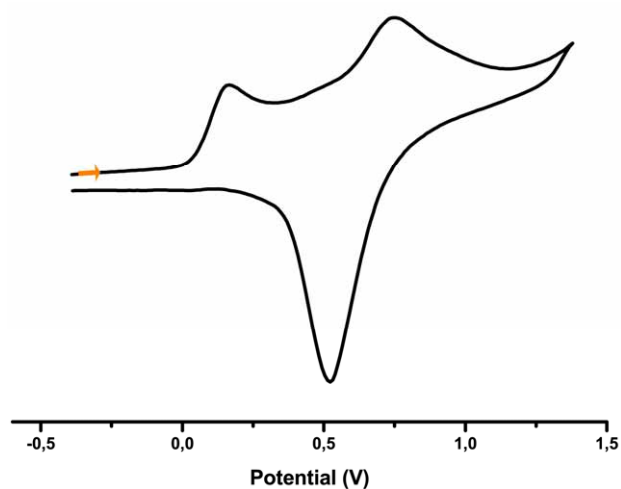


Figure S5. Cyclic voltammogram of complex **6** in CH_2Cl_2 at $25\text{ }^\circ\text{C}$. Scan rate 100 mV s^{-1} , NBu_4PF_6 used as supporting electrolyte.

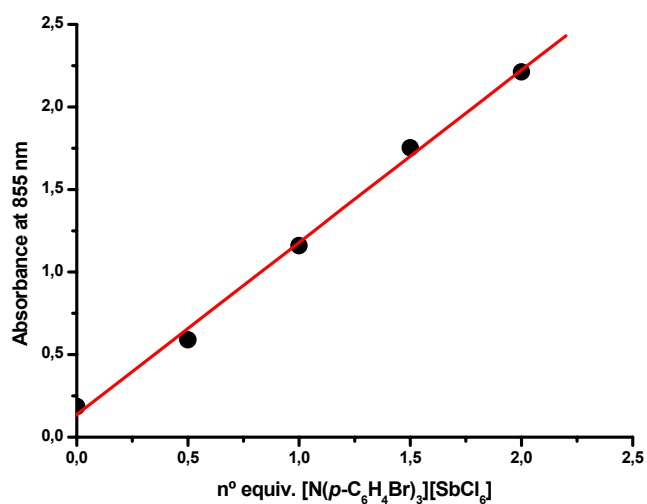


Figure S6. Beer plot of the absorbance at 855 nm of the oxidised complex **1** against the equiv of oxidant