

Electronic Supplementary Information

NIR-responsive metal-containing polymer hydrogel for light-controlled microvalve

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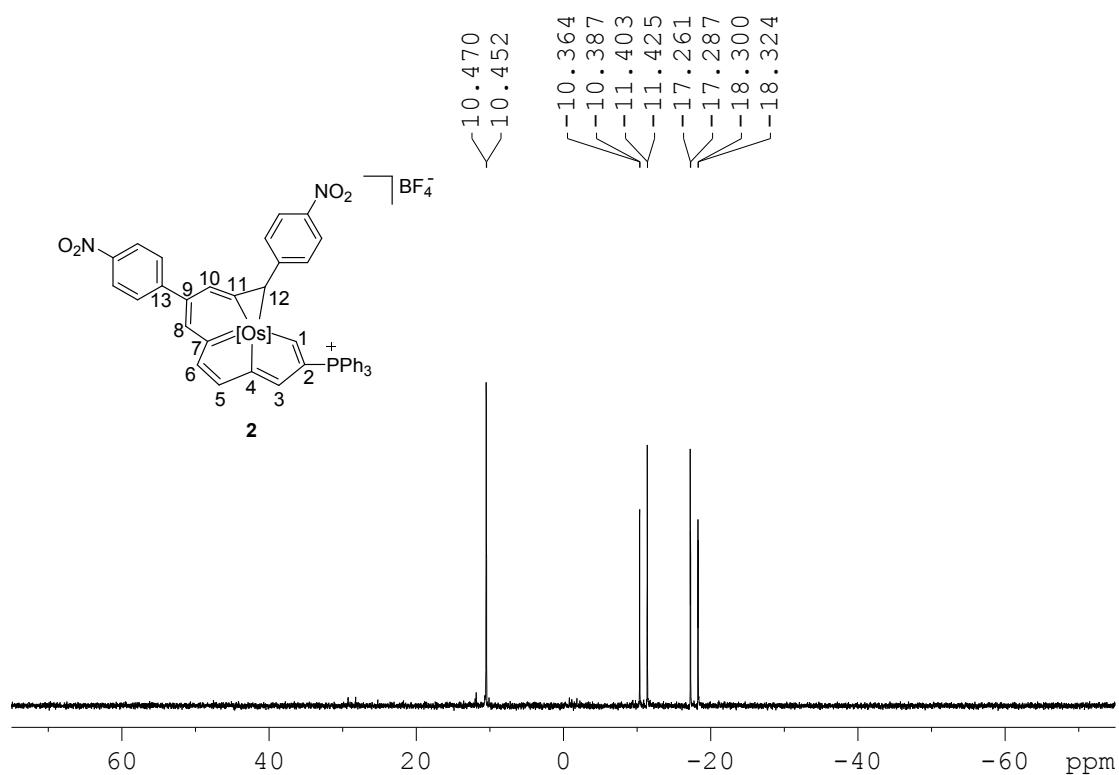


Figure S1. The $^{31}\text{P}\{\text{H}\}$ NMR (242.9 MHz, CD_2Cl_2) spectrum of complex **2**.

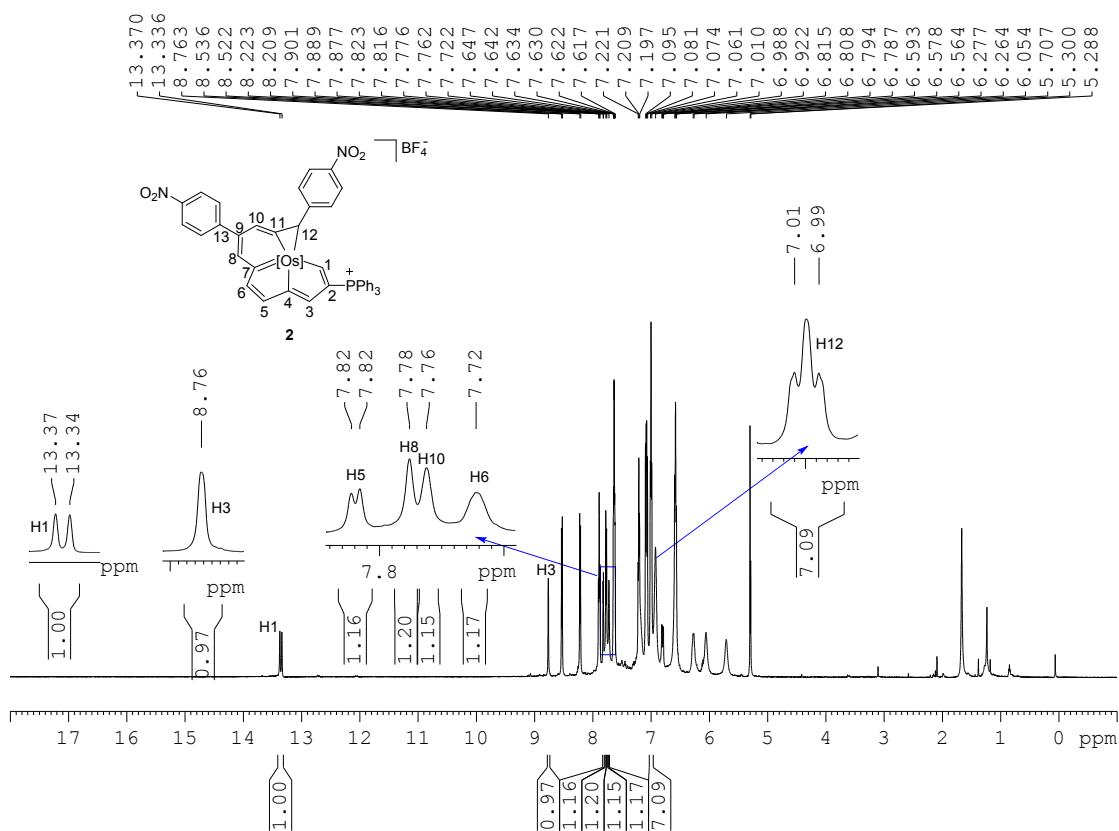


Figure S2. The ^1H NMR (600.1 MHz, CD_2Cl_2) spectrum of complex **2**.

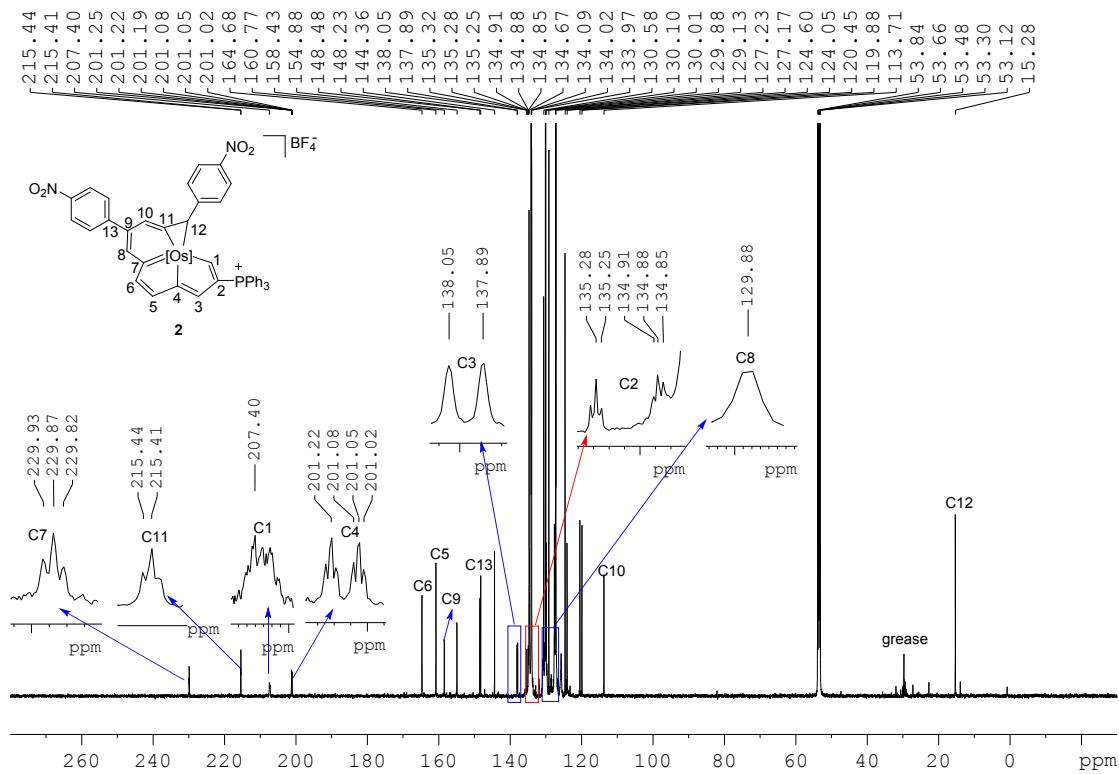


Figure S3. The ^{13}C NMR (150.9 MHz, CD₂Cl₂) spectrum of complex **2**.

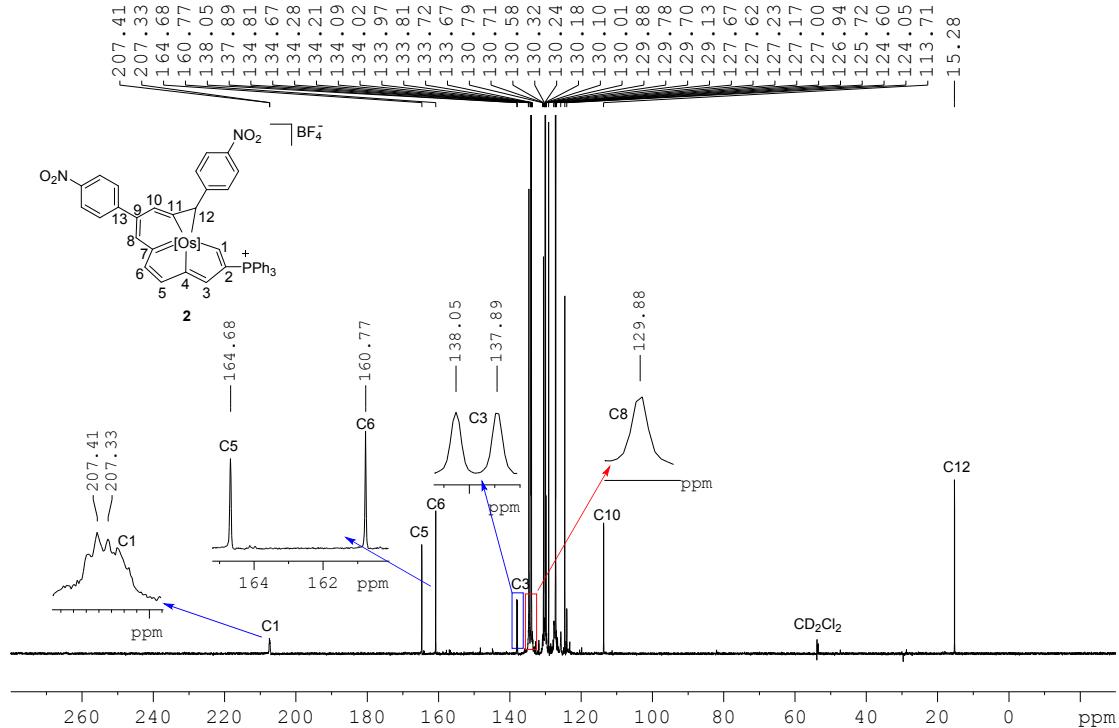


Figure S4. DEPT-135 (150.9 MHz, CD₂Cl₂) spectrum of complex **2**.

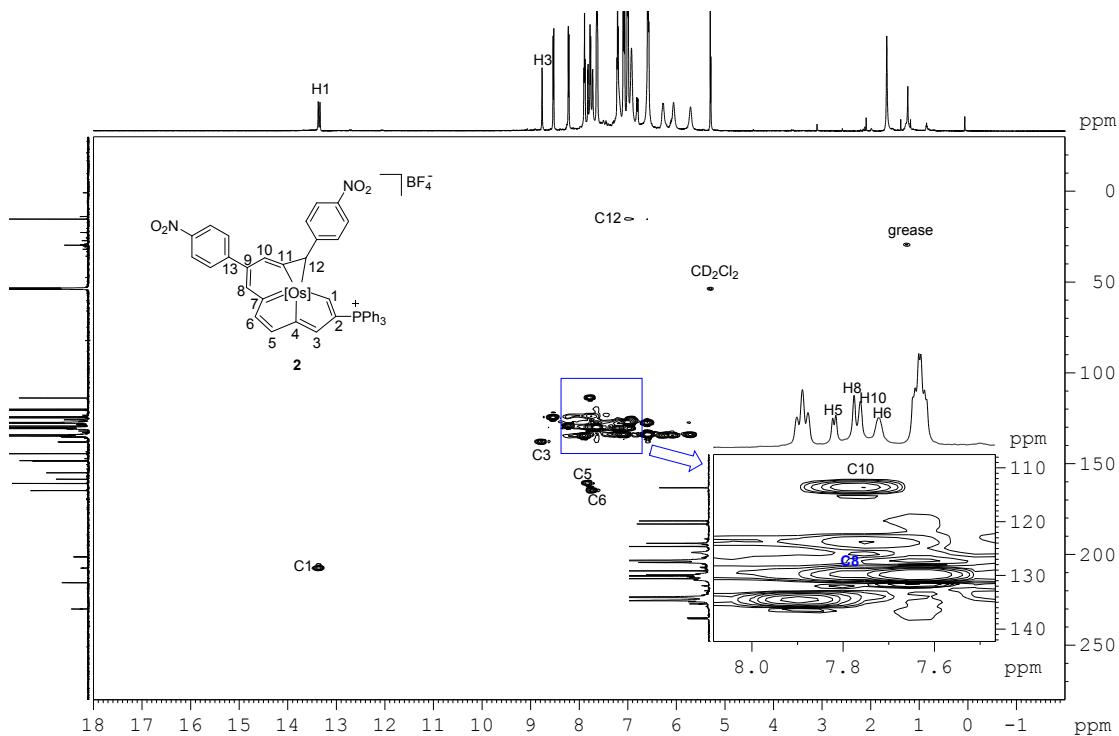


Figure S5. ^1H - ^{13}C HSQC (150.9 MHz, CD_2Cl_2) spectrum of complex **2**.

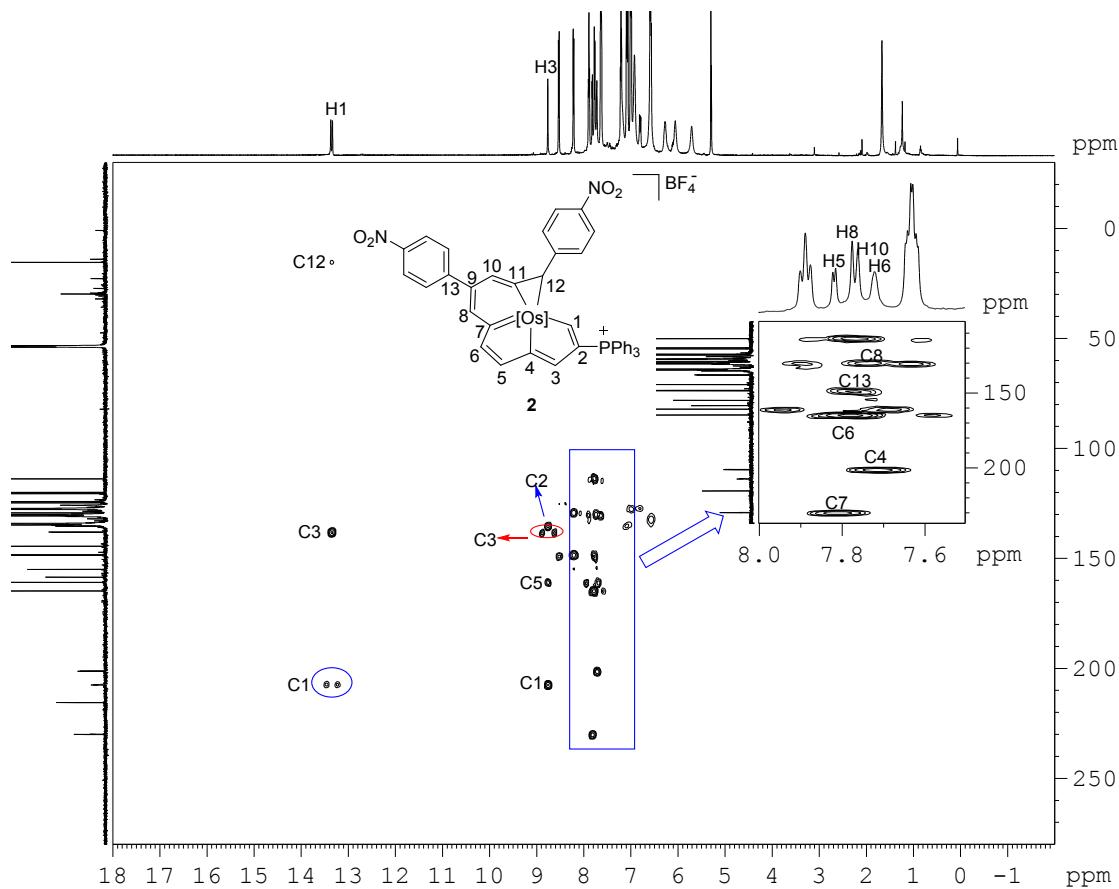


Figure S6. ^1H - ^{13}C HMBC (150.9 MHz, CD_2Cl_2) spectrum of complex **2**.

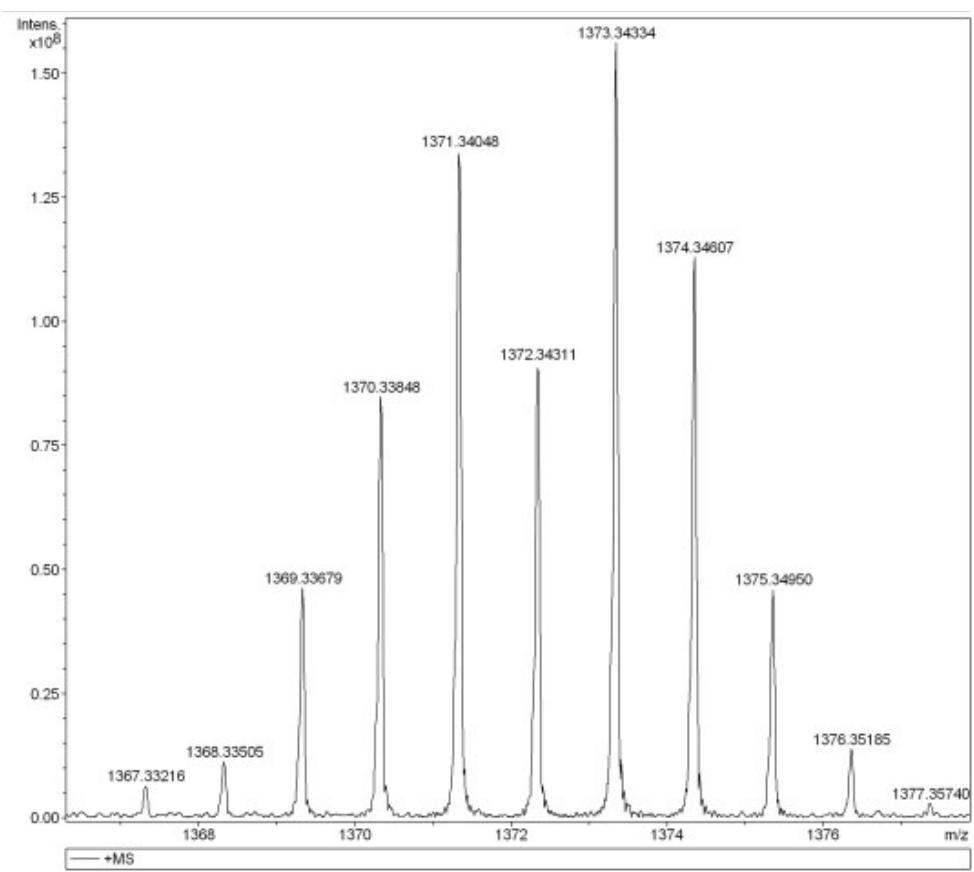


Figure S7. Positive-ion ESI-MS spectrum of $[2]^+$.

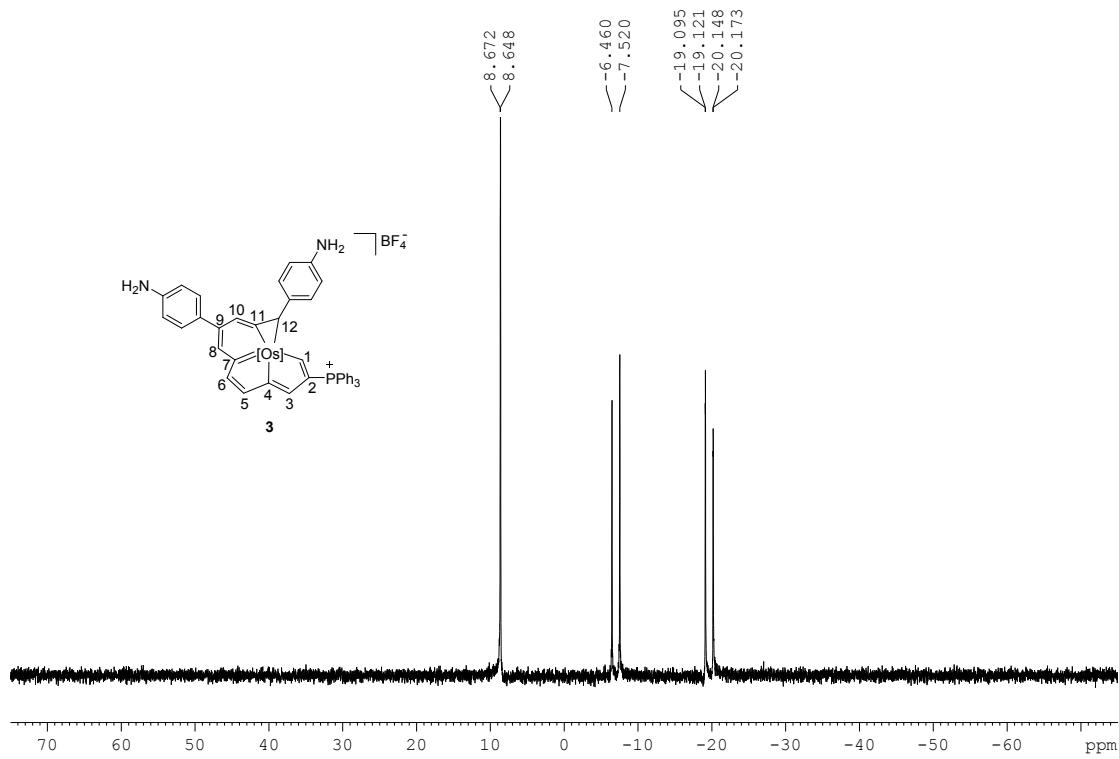


Figure S8. The $^{31}\text{P}\{^1\text{H}\}$ NMR (242.9 MHz, CD_2Cl_2) spectrum of complex 3.

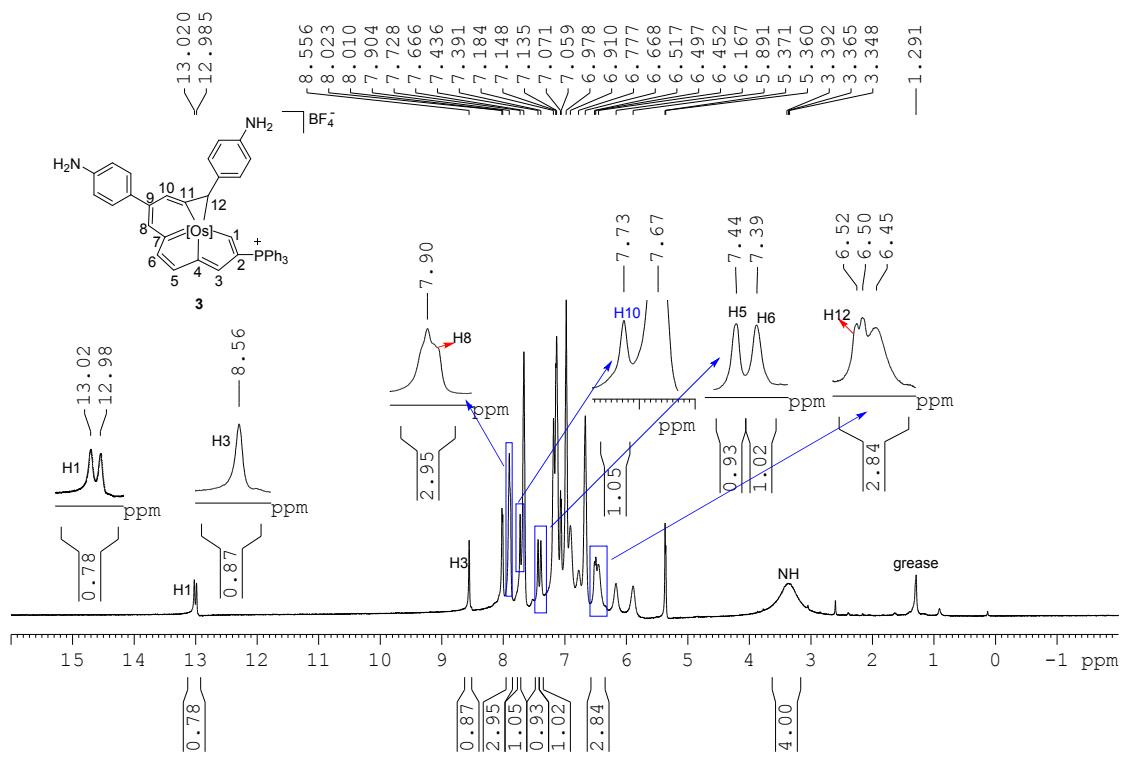


Figure S9. The ^1H NMR (600.1 MHz, CD_2Cl_2) spectrum of complex **3**.

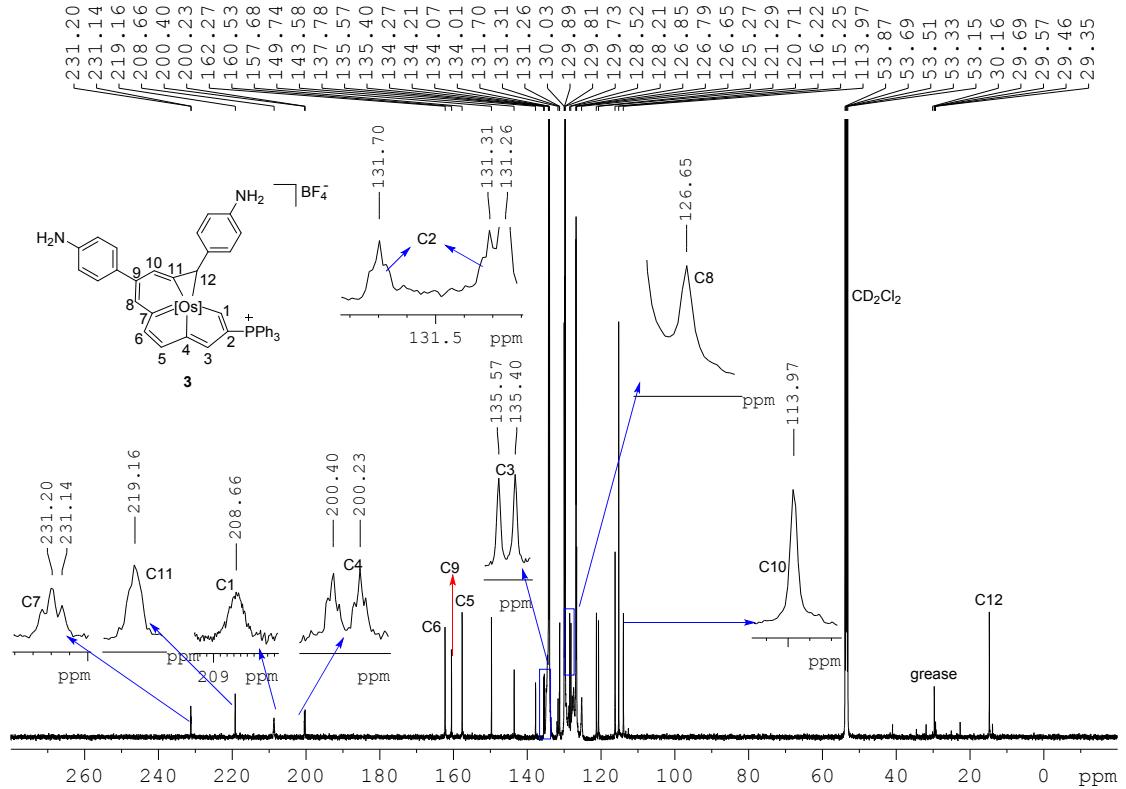


Figure S10. The ^{13}C NMR (150.9 MHz, CD_2Cl_2) spectrum of complex **3**.

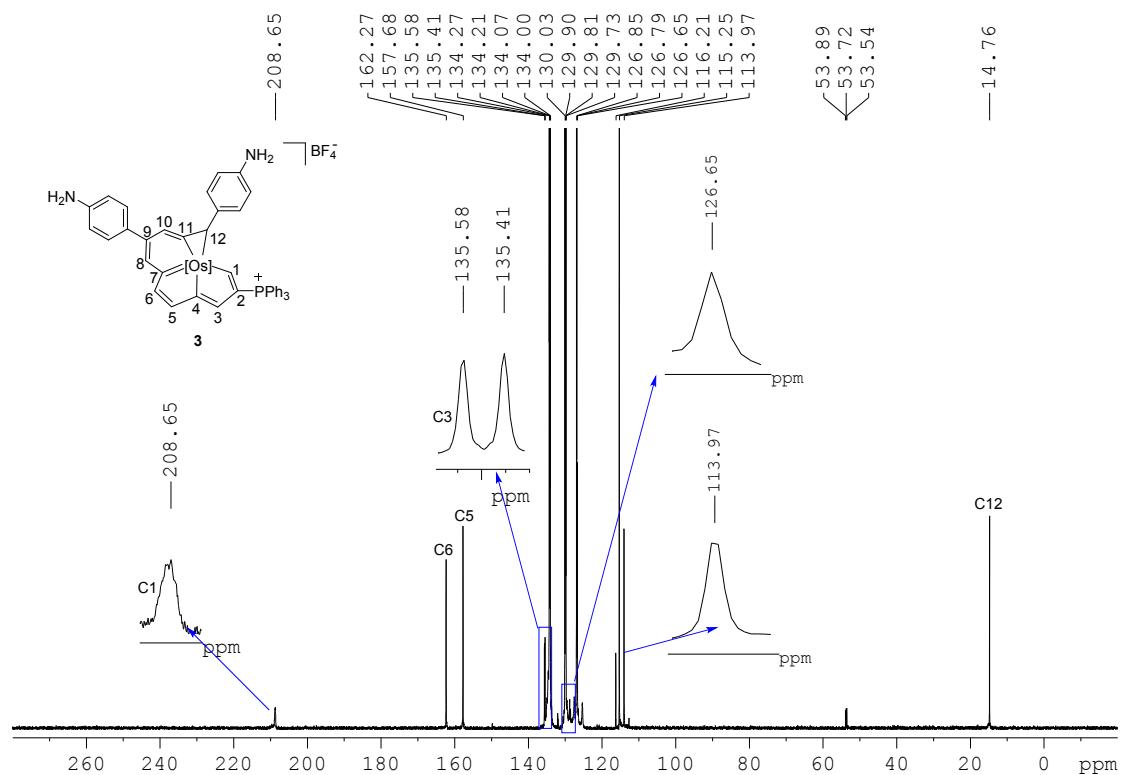


Figure S11. DEPT-135 (150.9 MHz, CD_2Cl_2) spectrum of complex **3**.

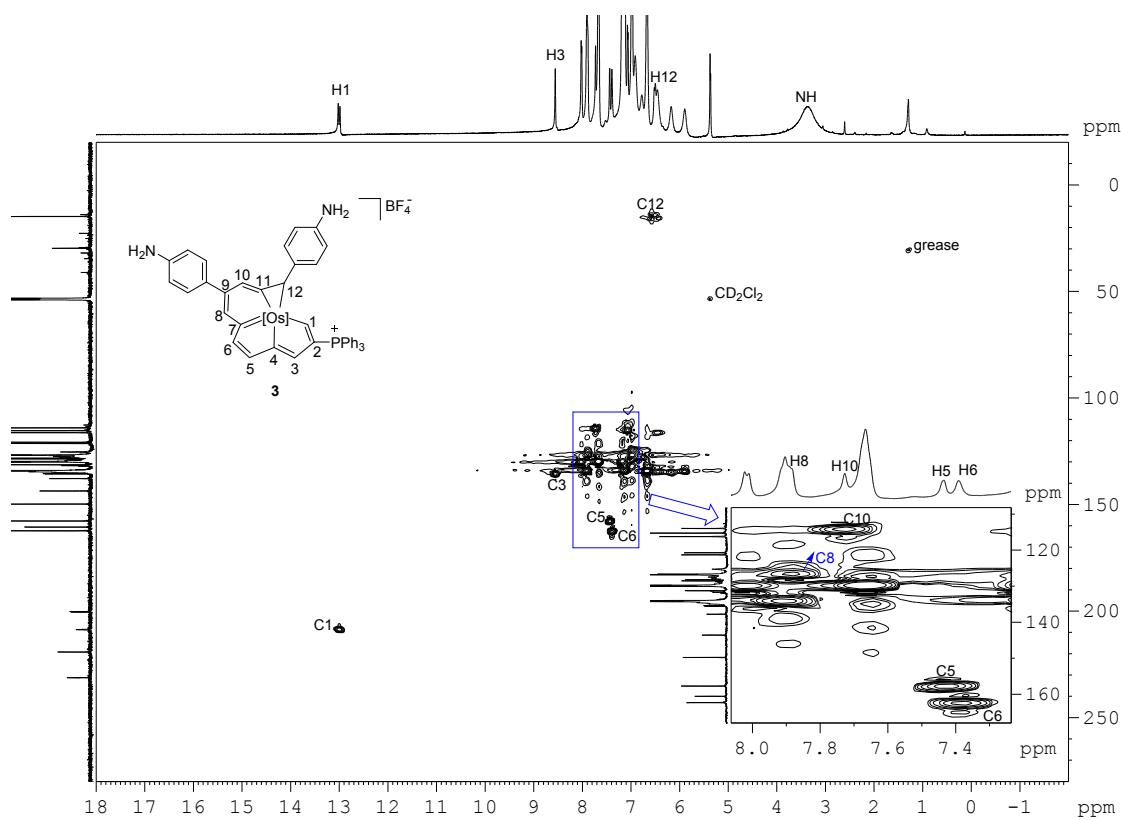


Figure S12. ^1H - ^{13}C HSQC (150.9 MHz, CD_2Cl_2) spectrum of complex **3**.

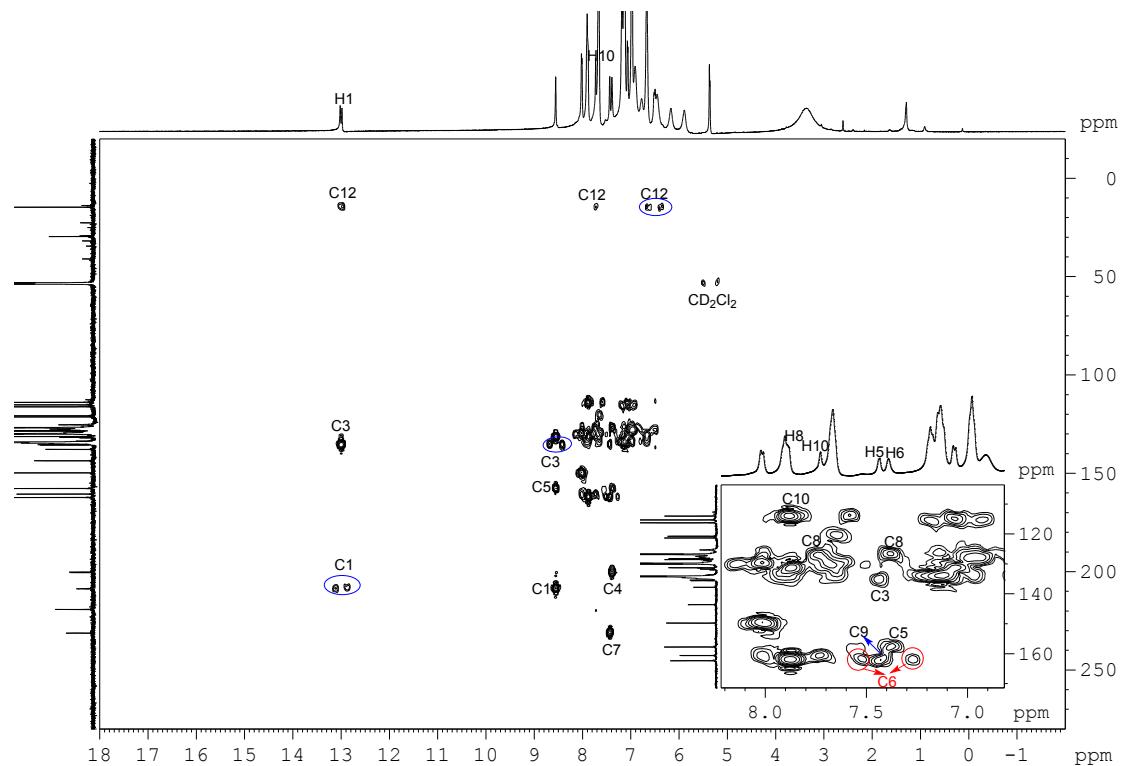


Figure S13. ^1H - ^{13}C HMBC (150.9 MHz, CD_2Cl_2) spectrum of complex **3**.

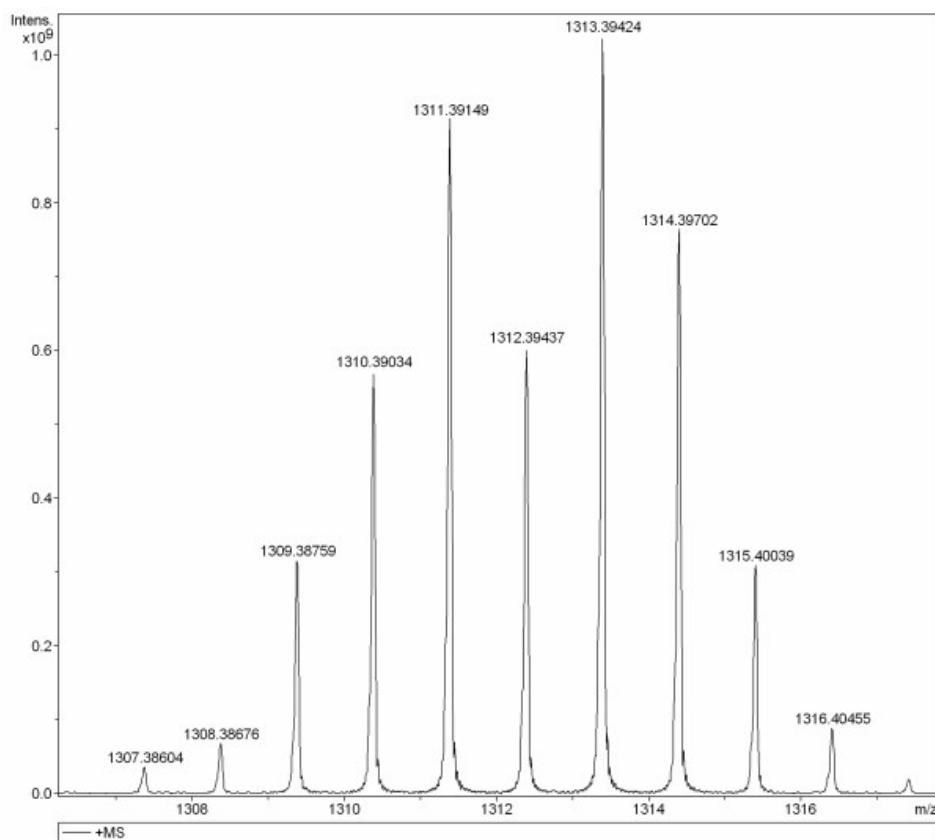


Figure S14. Positive-ion ESI-MS spectrum of $[3]^+$.

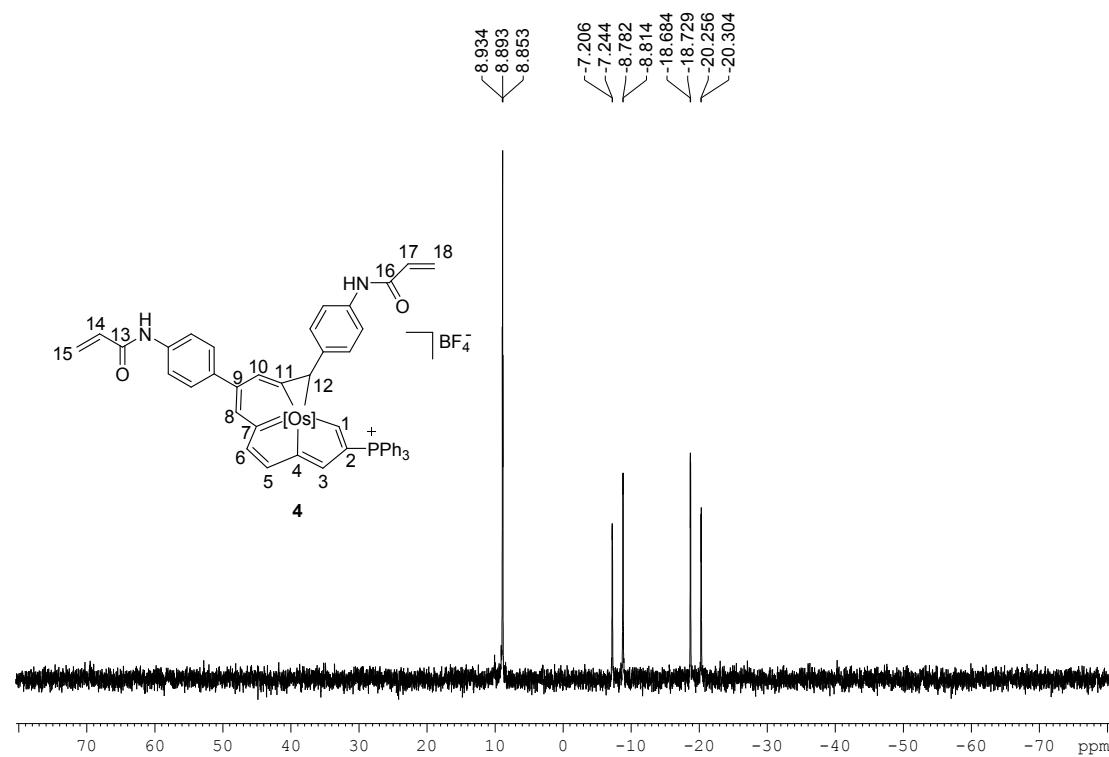


Figure S15. The $^{31}\text{P}\{^1\text{H}\}$ NMR (162.0 MHz, CD_2Cl_2) spectrum of complex 4.

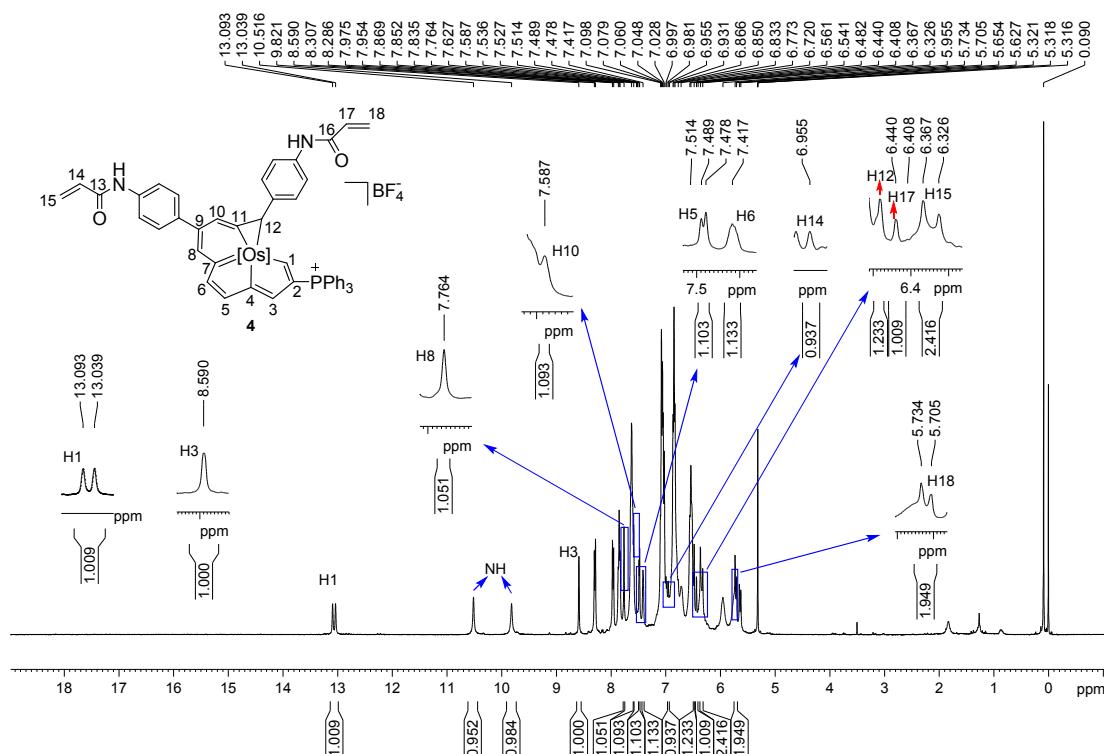


Figure S16. The ^1H NMR (400.1 MHz, CD_2Cl_2) spectrum of complex 4.

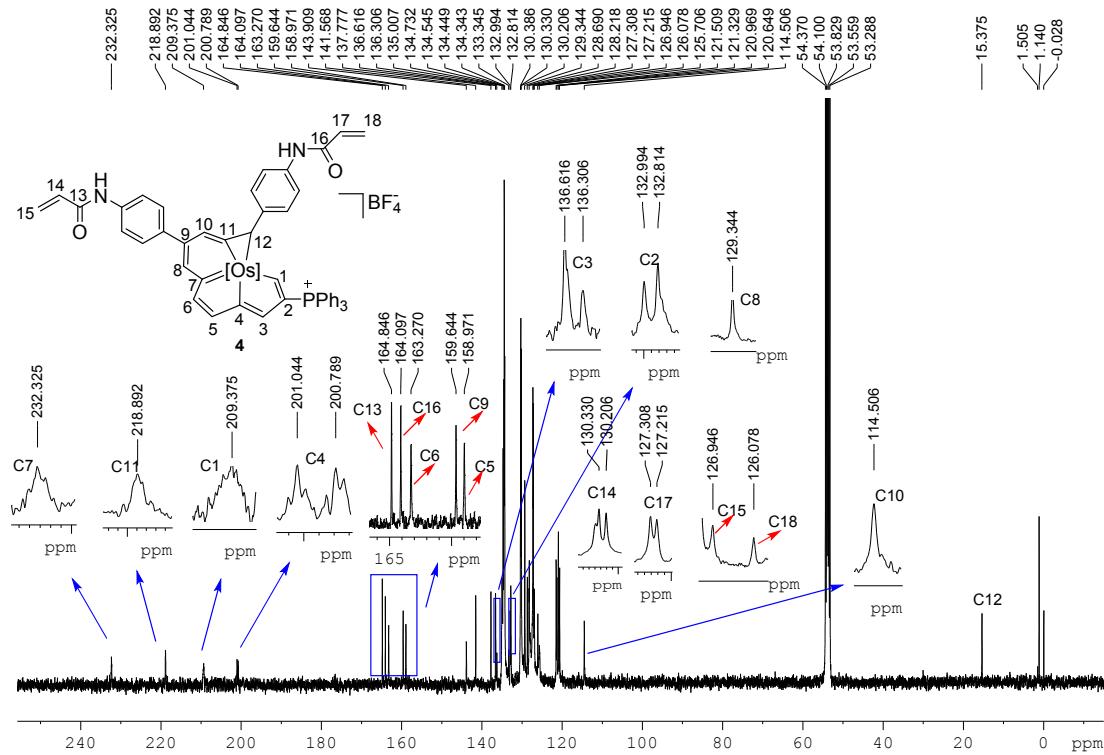


Figure S17. The ^{13}C NMR (100.6 MHz, CD_2Cl_2) spectrum of complex 4.

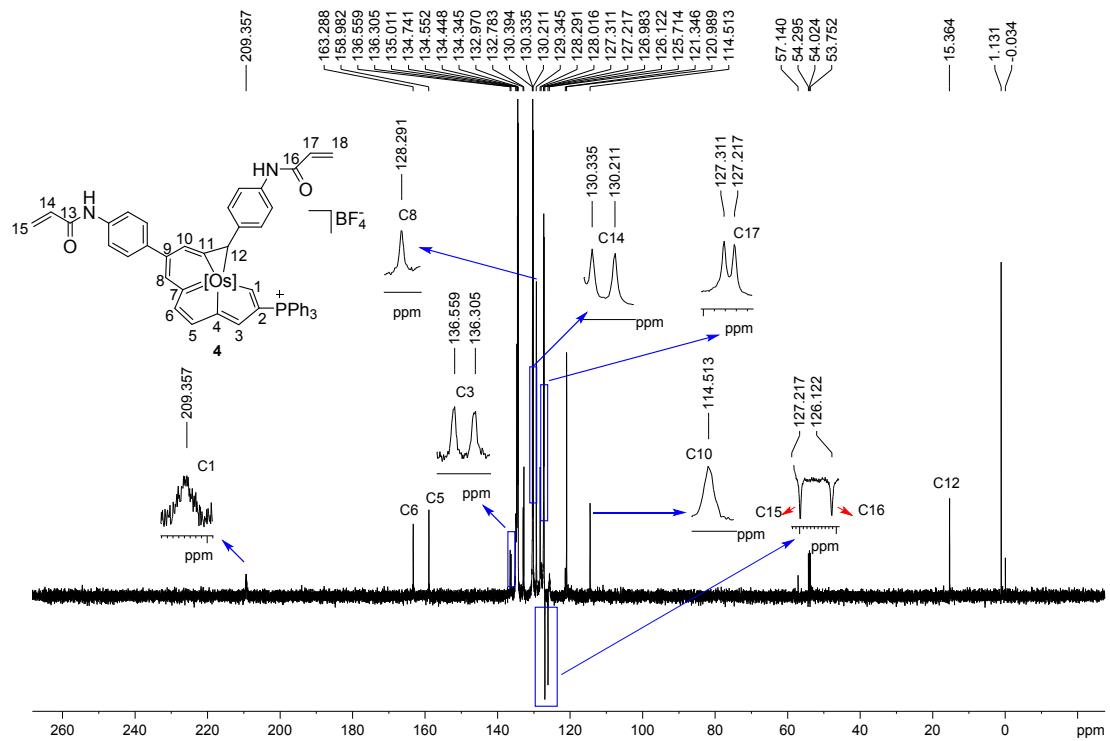


Figure S18. DEPT-135 (100.6 MHz, CD_2Cl_2) spectrum of complex 4.

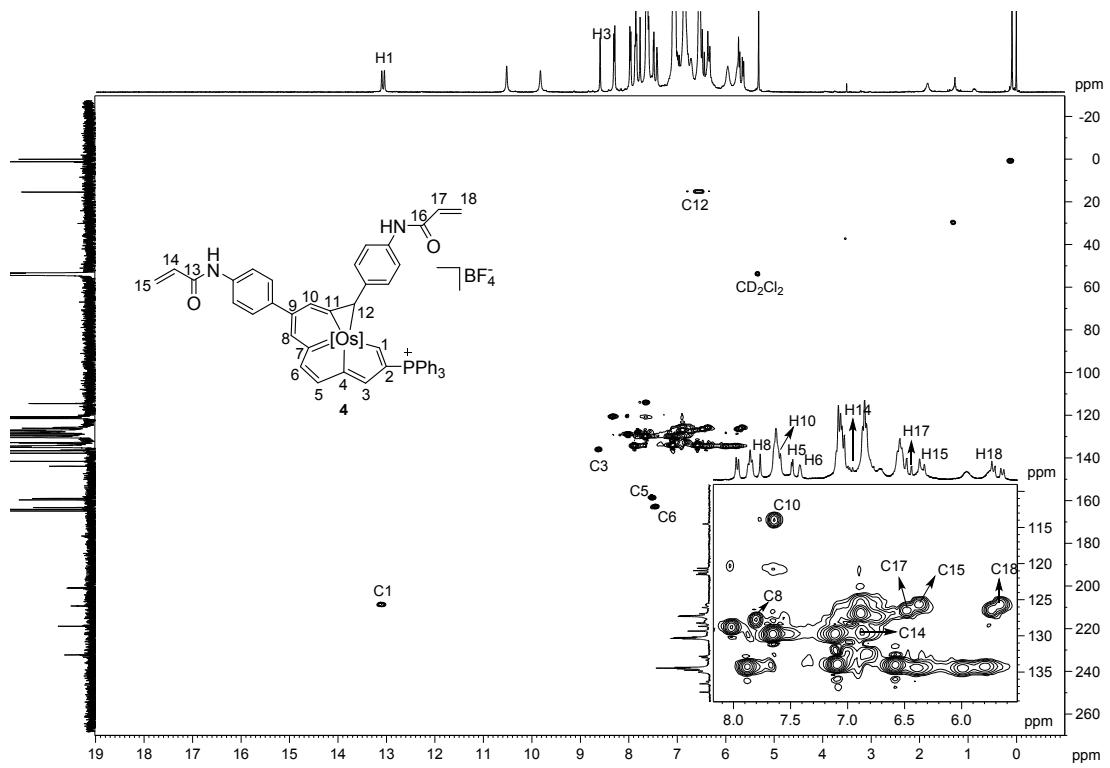


Figure S19. ^1H - ^{13}C HSQC (100.6 MHz, CD_2Cl_2) spectrum of complex 4.

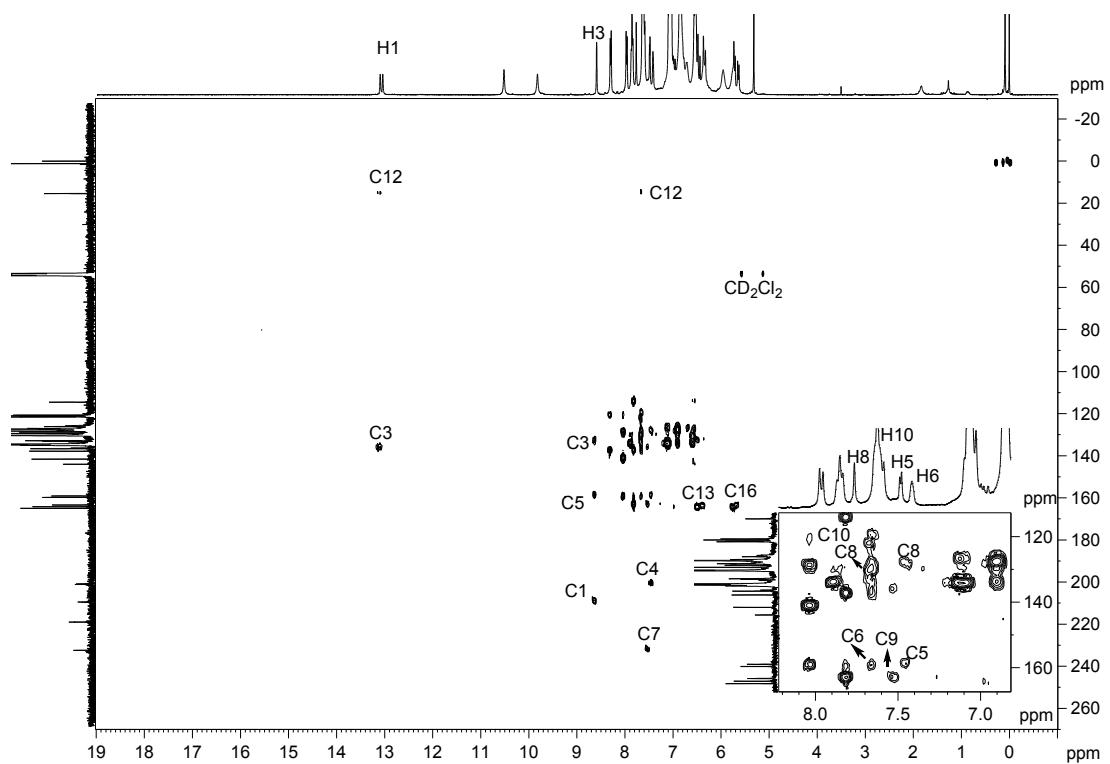


Figure S20. ^1H - ^{13}C HMBC (100.6 MHz, CD_2Cl_2) spectrum of complex 4.

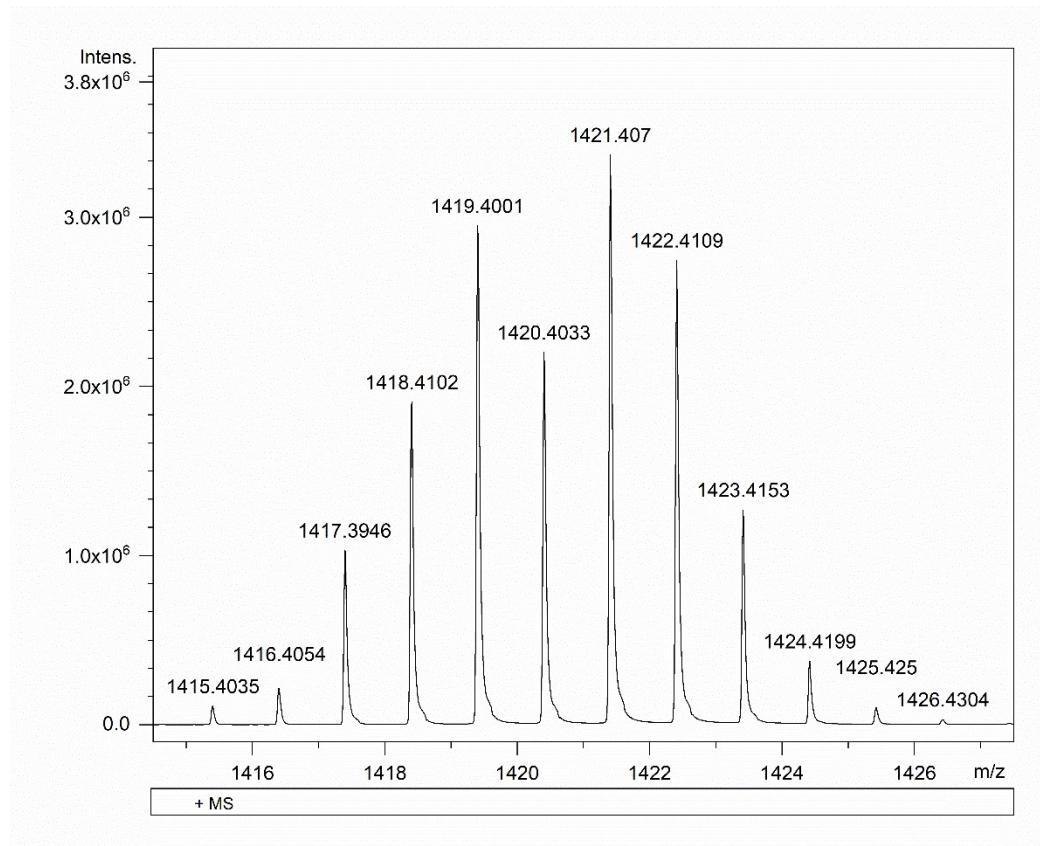


Figure S21. Positive-ion ESI-MS spectrum of $[4]^+$.