

Figure S1. ^1H NMR spectrum of octyl gallate (og).

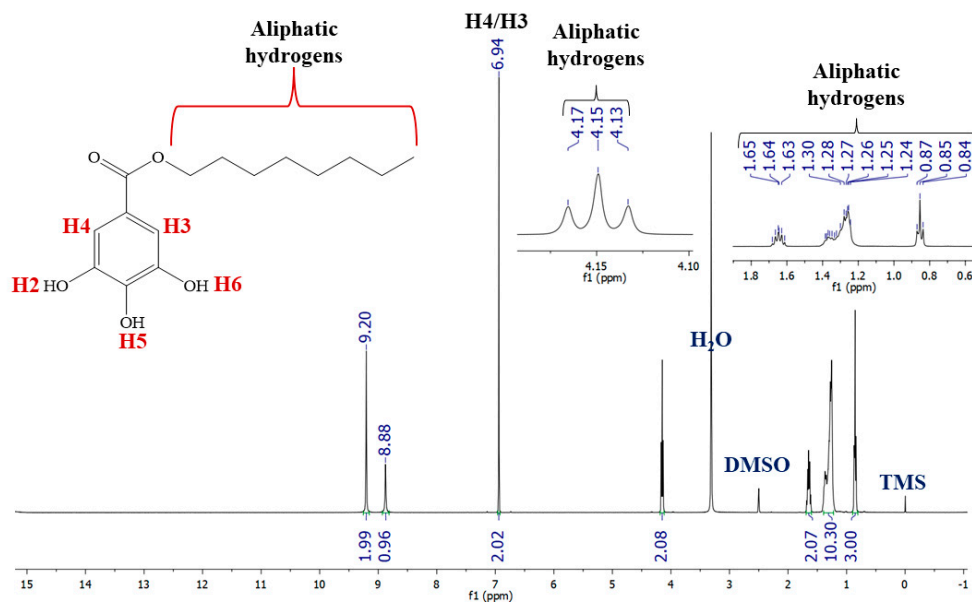


Figure S2. ^1H NMR spectrum of $[\text{Pd}(\text{meg})(1,10\text{-phen})]$ 1.

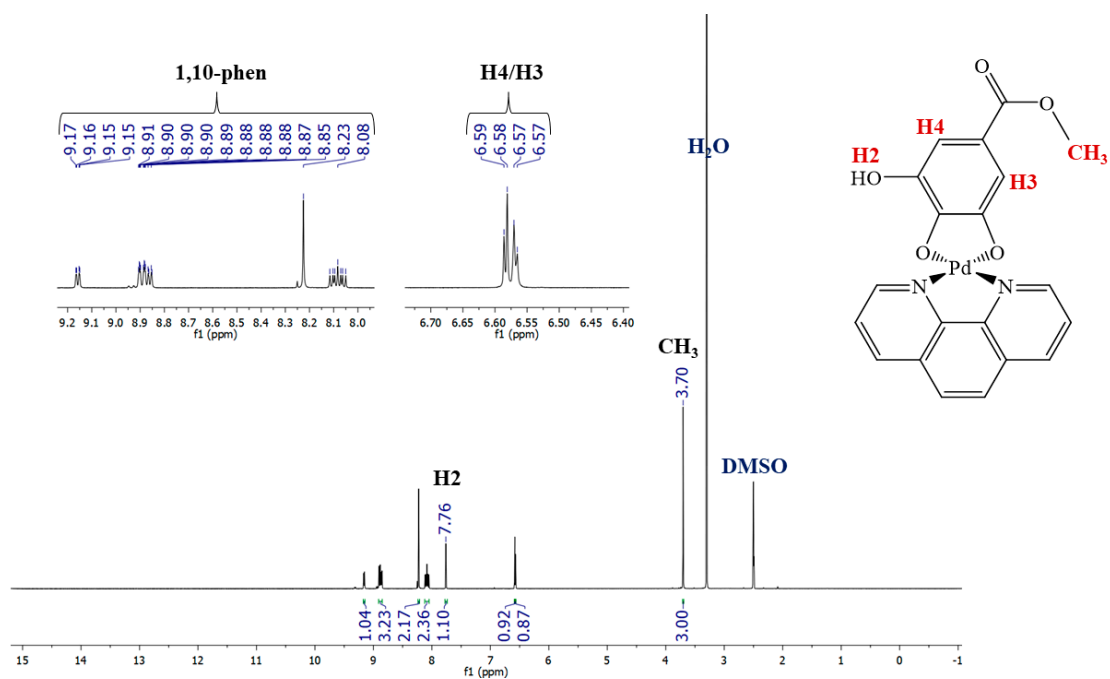


Figure S3. ^1H NMR spectrum of $[\text{Pd}(\text{og})(1,10\text{-phen})]$ 3.

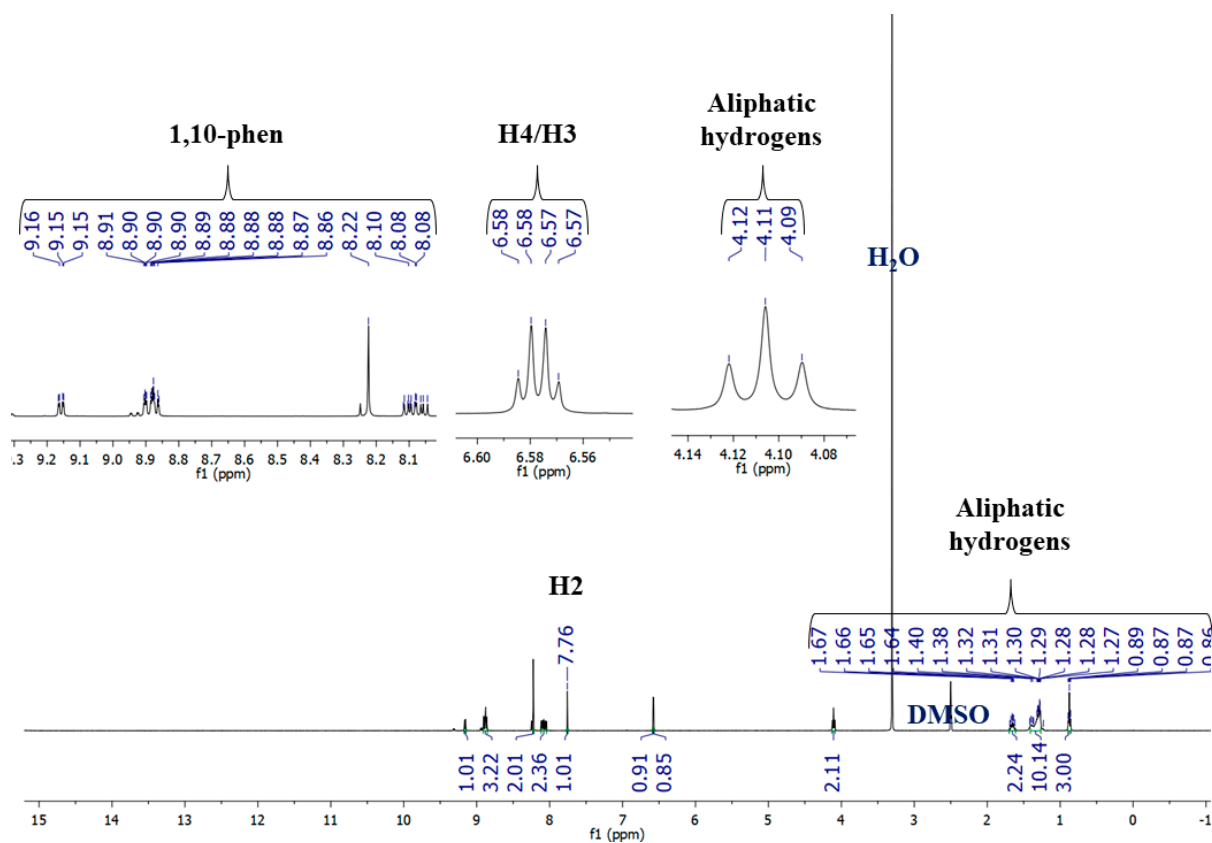


Figure S4. ^1H NMR spectrum of $[\text{Pd}(\text{og})(\text{PPh}_3)_2]$ 4.

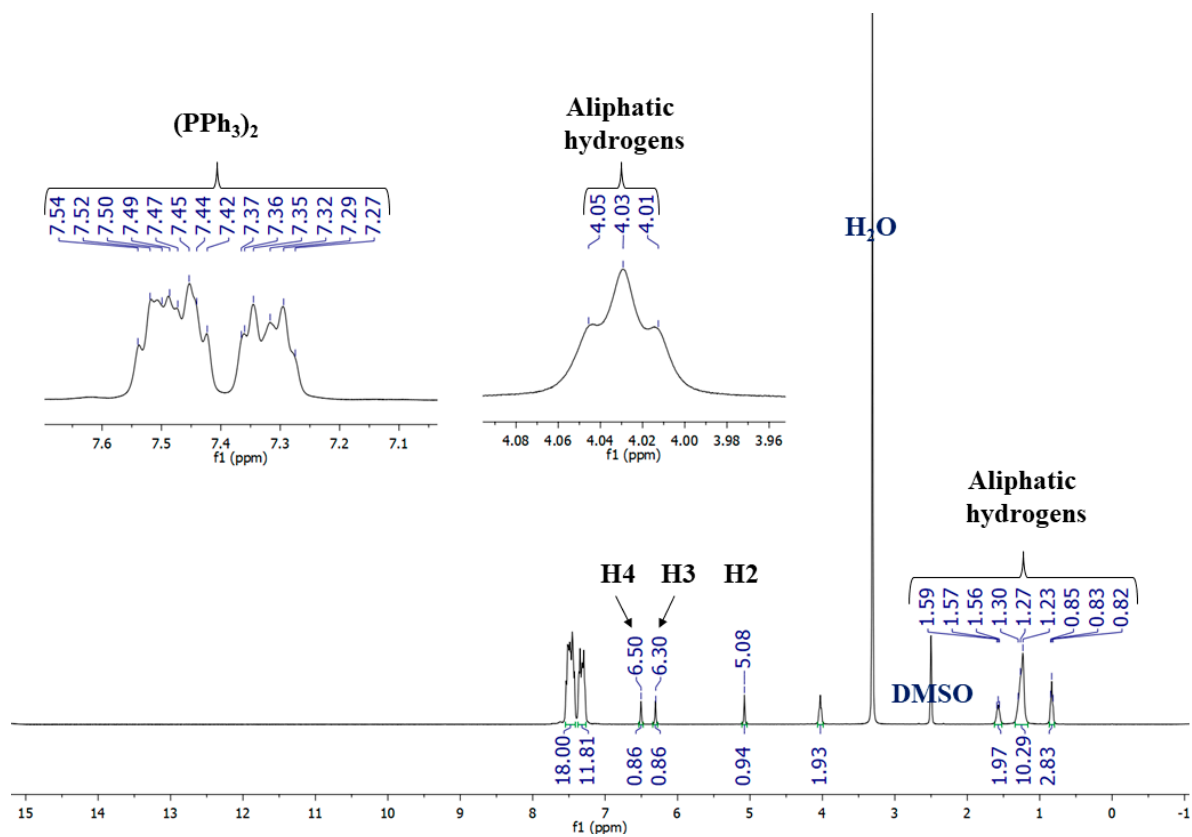


Figure S5. ^{13}C $\{^1\text{H}\}$ NMR spectrum of methyl gallate (meg).

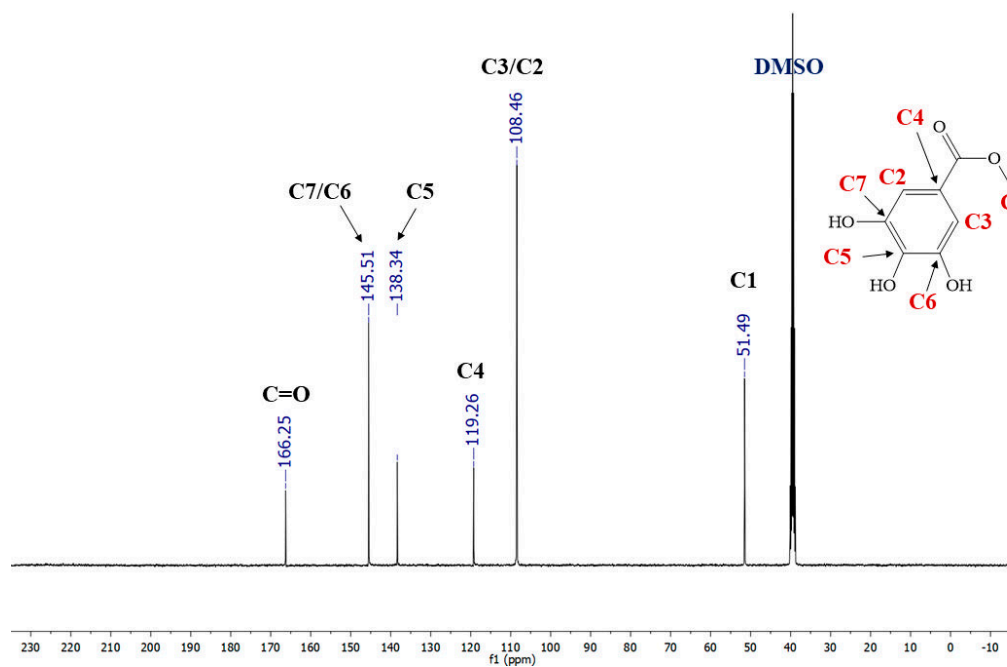


Figure S6. ^{13}C $\{^1\text{H}\}$ NMR spectrum of octyl gallate (og).

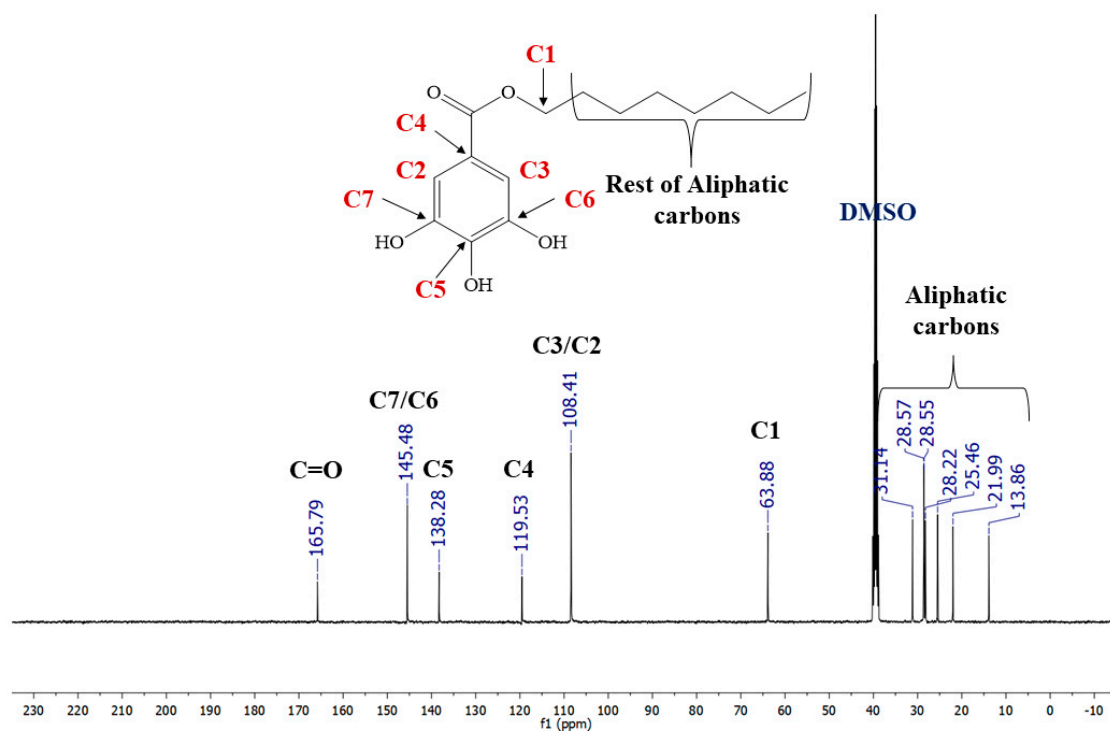


Figure S7. ^{13}C $\{^1\text{H}\}$ NMR spectrum of $[\text{Pd}(\text{meg})(1,10\text{-phen})]$ **1**.

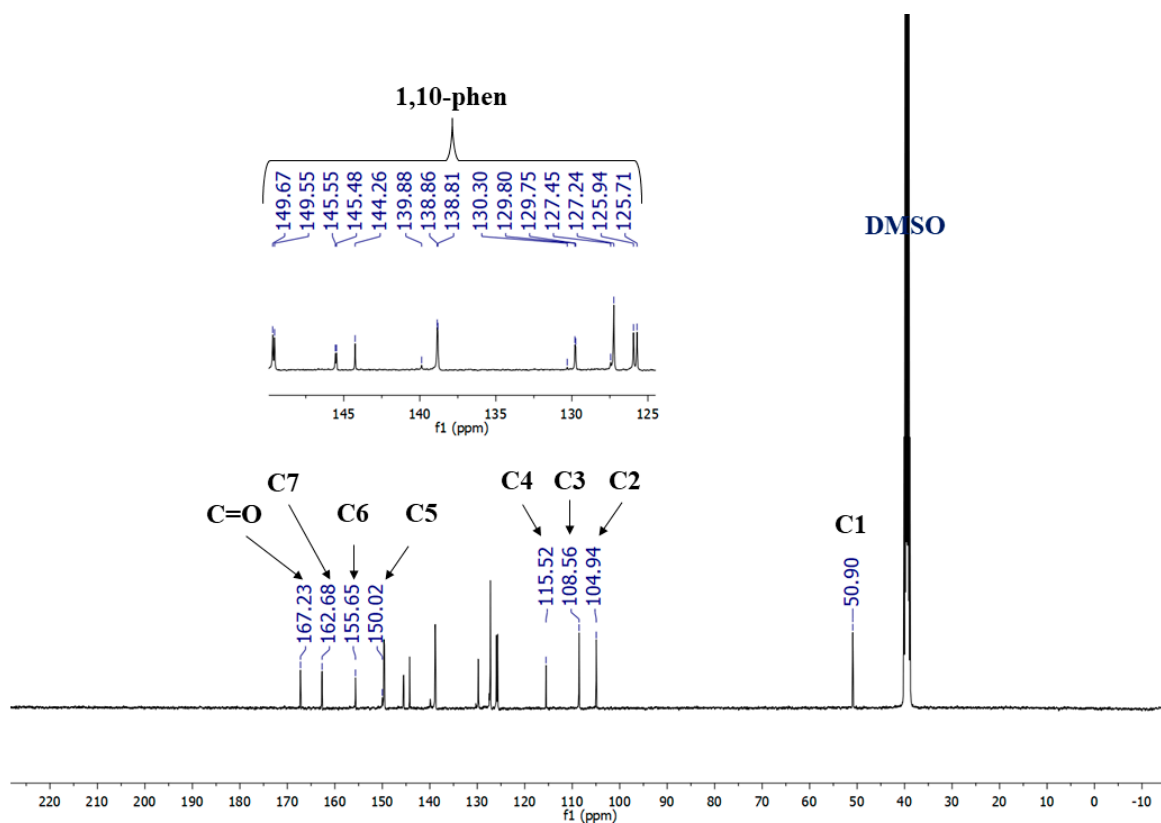


Figure S8. ^{13}C $\{^1\text{H}\}$ NMR spectrum of $[\text{Pd}(\text{meg})(\text{PPh}_3)_2]$ **2**.

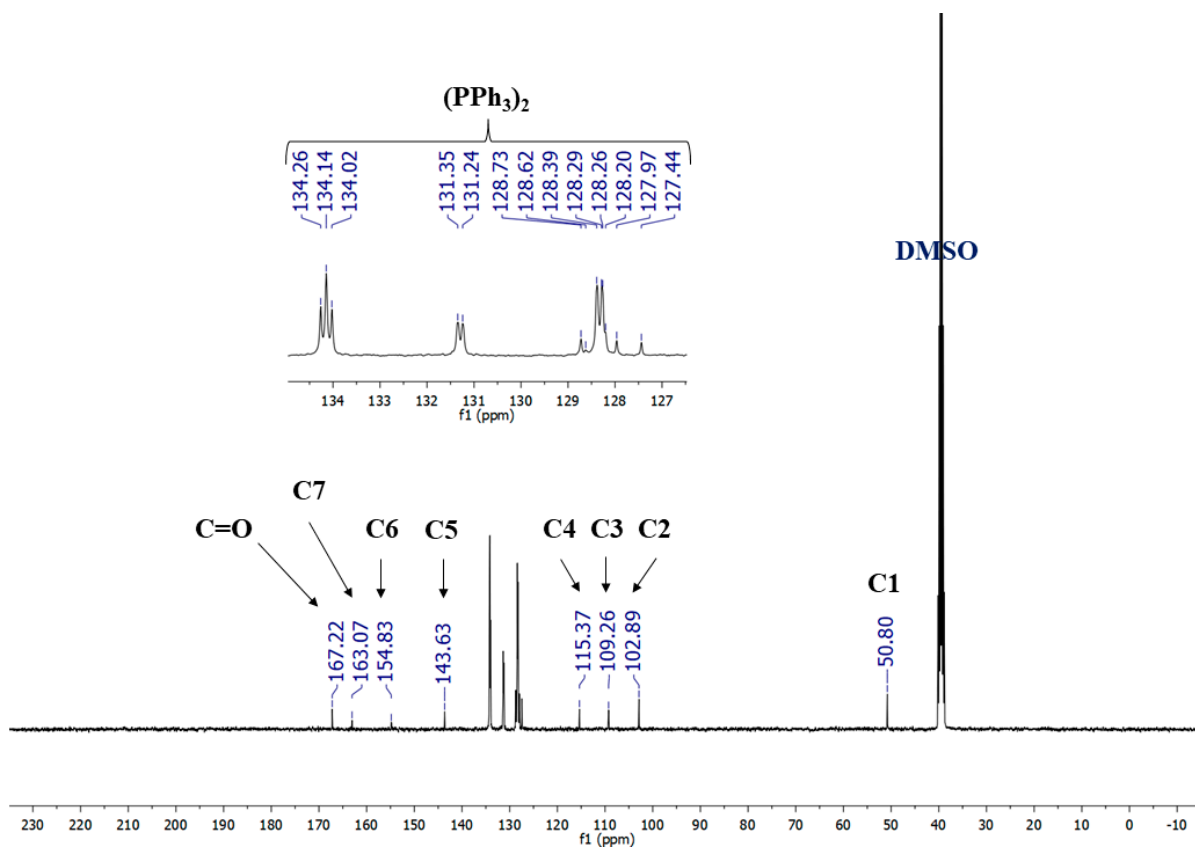


Figure S9. ^{13}C $\{^1\text{H}\}$ NMR spectrum of $[\text{Pd}(\text{og})(1,10\text{-phen})]$ **3**.

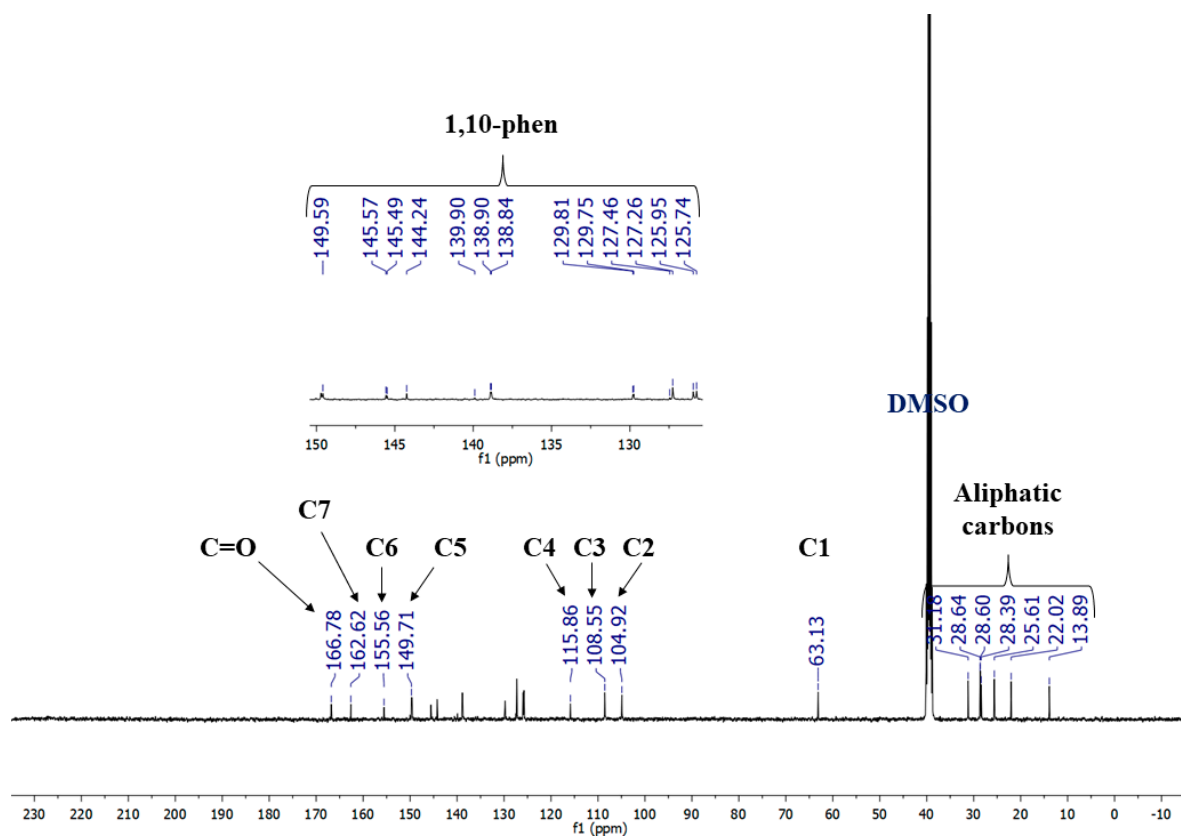


Figure S10. ^{13}C $\{^1\text{H}\}$ NMR spectrum of $[\text{Pd}(\text{og})(\text{PPh}_3)_2]$ **4**.

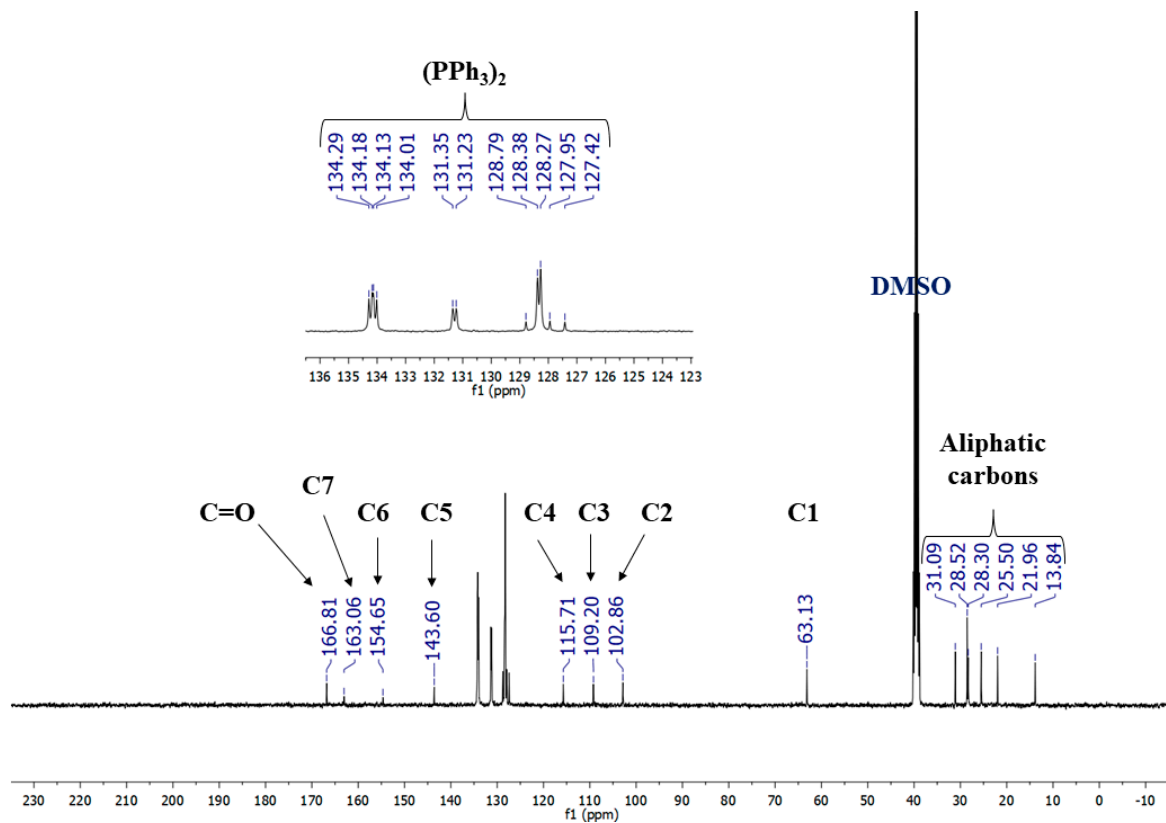


Figure S11. $^{31}\text{P}\{^1\text{H}\}$ NMR spectrum of $[\text{Pd}(\text{meg})(\text{PPh}_3)_2]$ **2**.

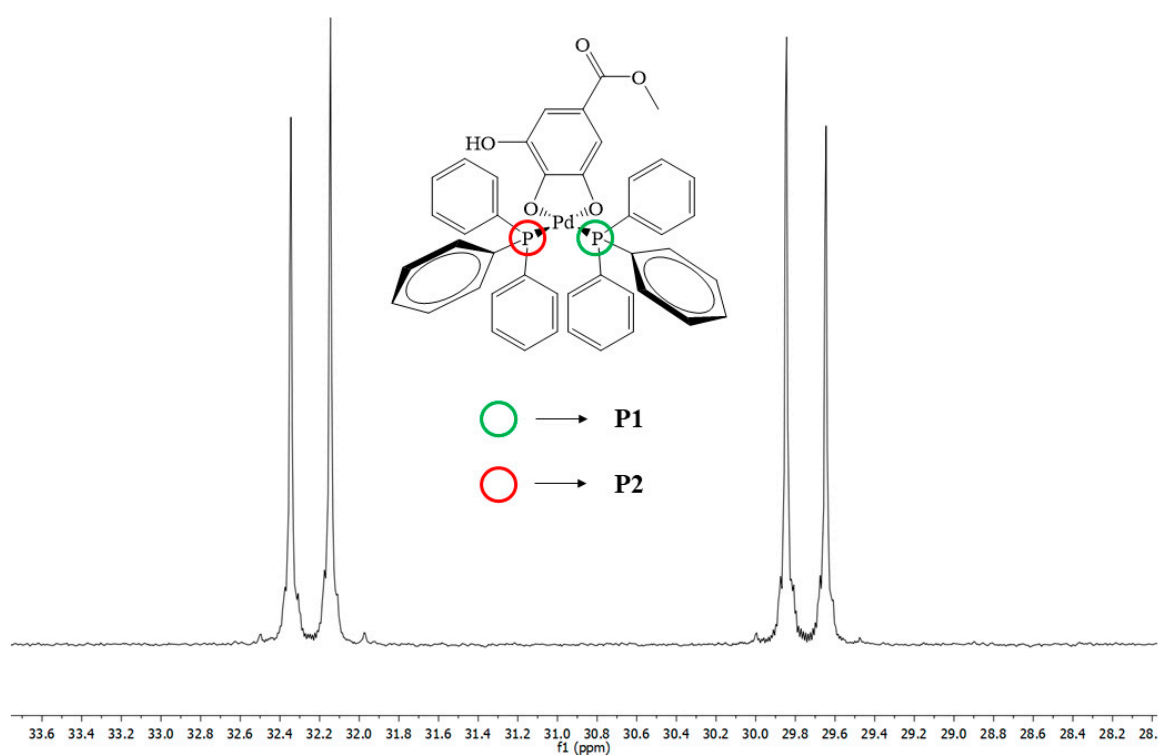


Figure S12. $^{31}\text{P}\{^1\text{H}\}$ NMR spectrum of $[\text{Pd}(\text{og})(\text{PPh}_3)_2]$ **4**.

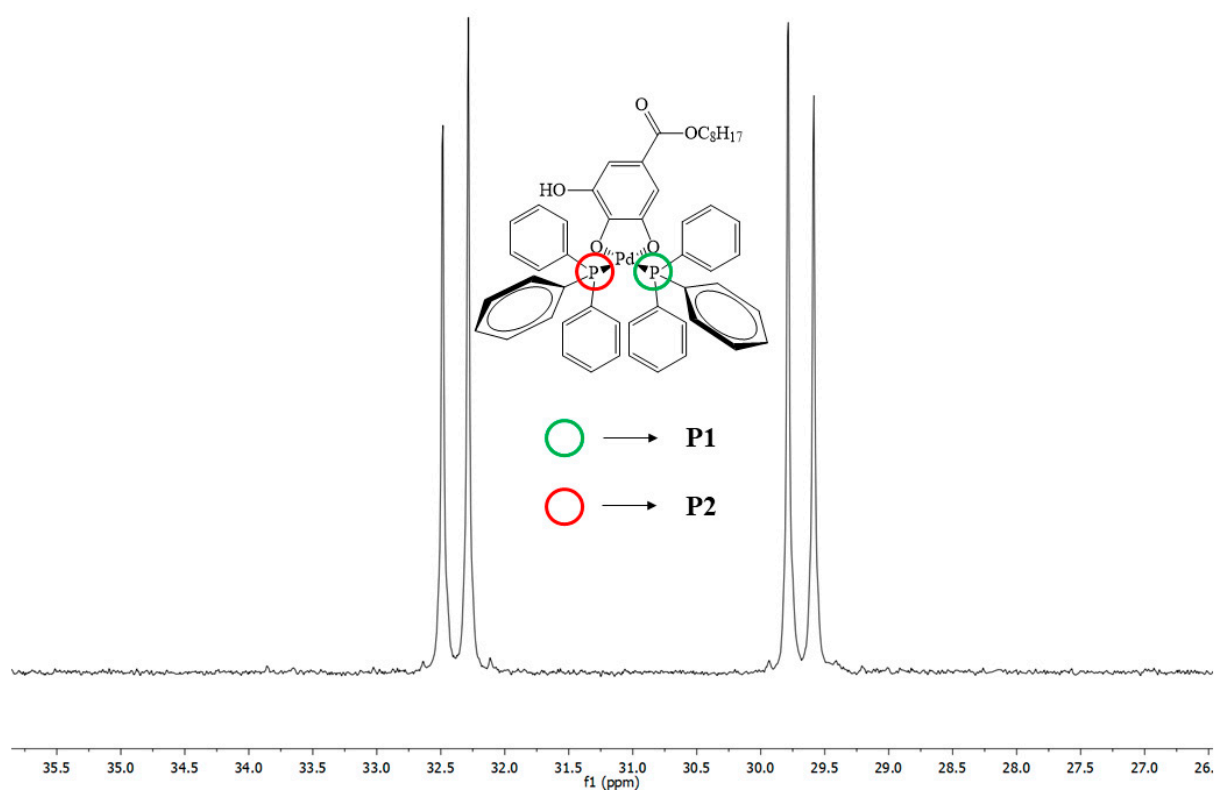


Figure S13. FTIR spectrum of $[Pd(meg)(1,10-phen)] \cdot 2H_2O$ 1.

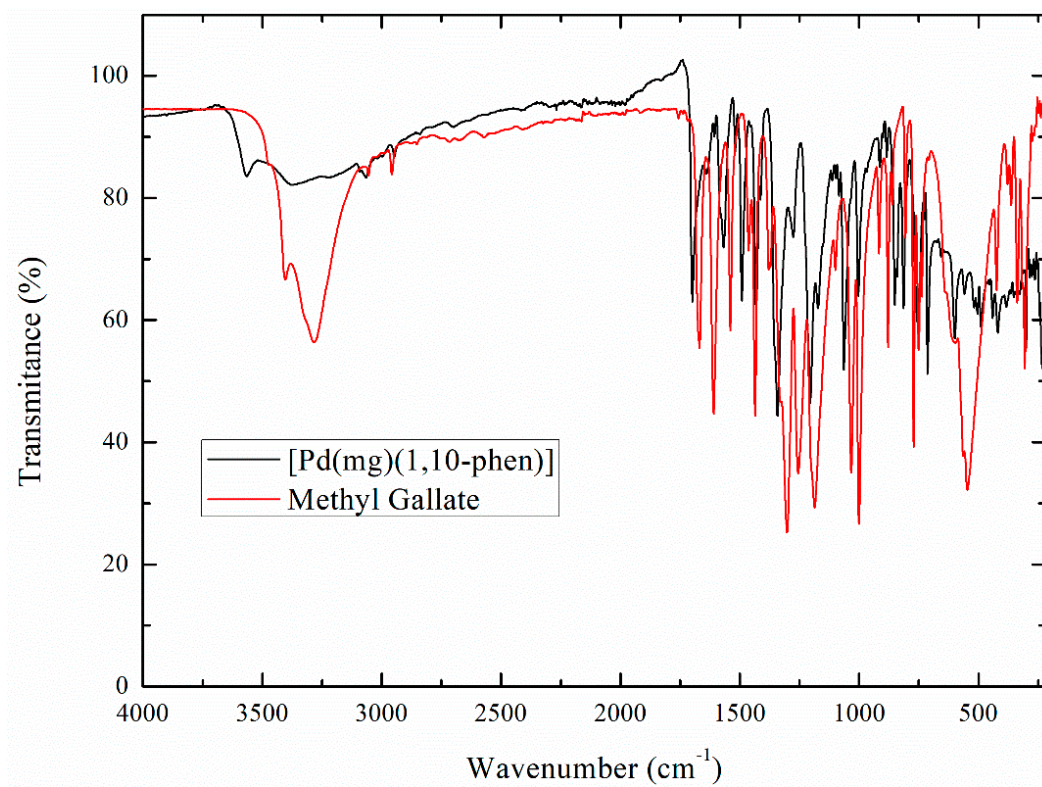


Figure S14. FTIR spectrum of [Pd(meg)(PPh₃)₂] **2**.

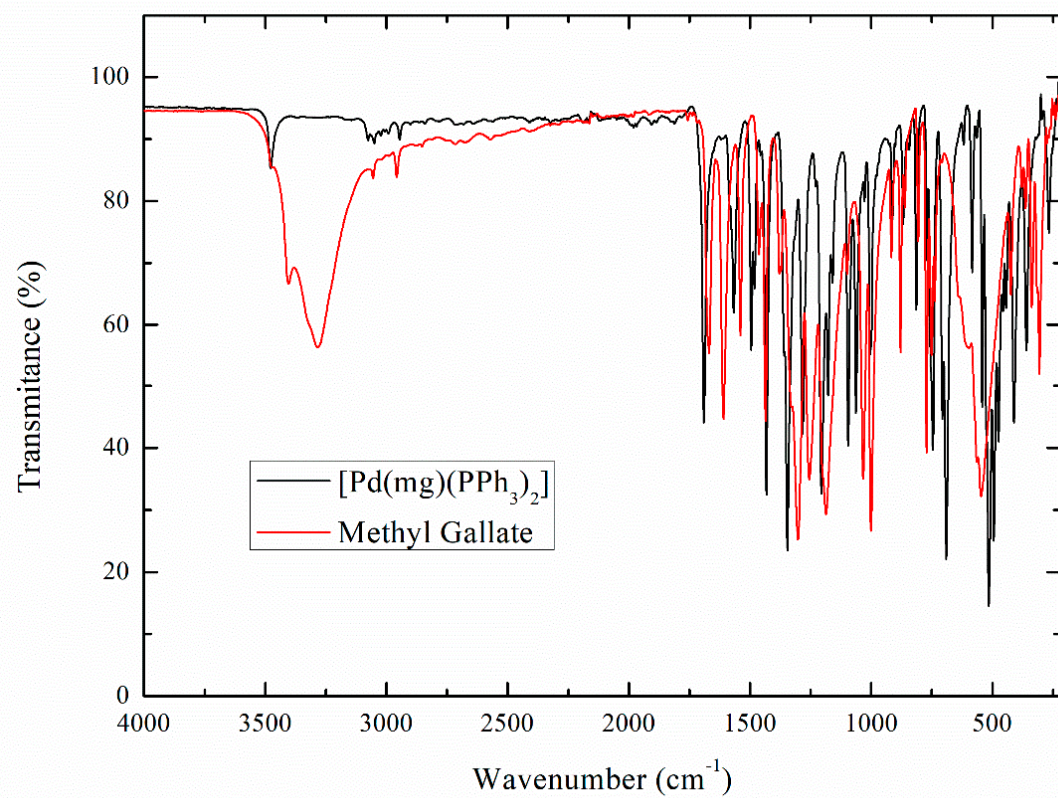


Figure S15. FTIR spectrum of $[\text{Pd}(\text{og})(1,10\text{-phen})]\cdot 2.5\text{H}_2\text{O}$ **3**.

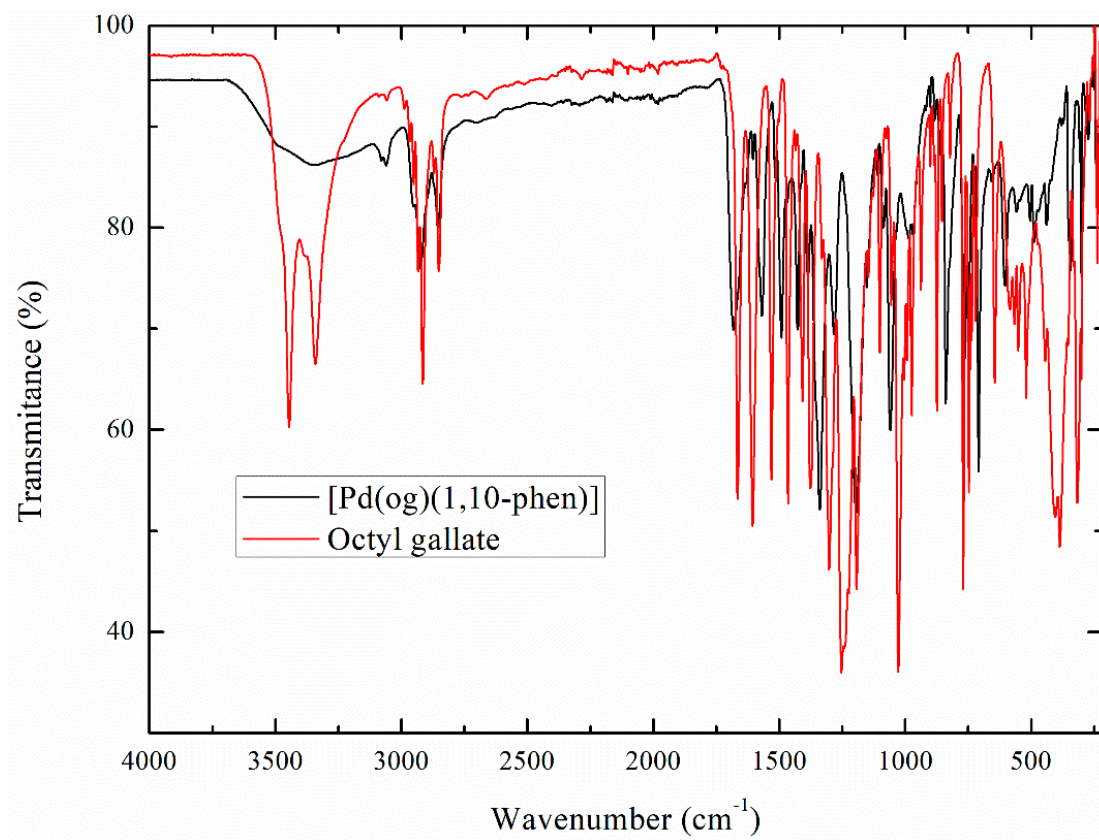


Figure S16. FTIR spectrum of $[\text{Pd}(\text{og})(\text{PPh}_3)_2]$ **4**.

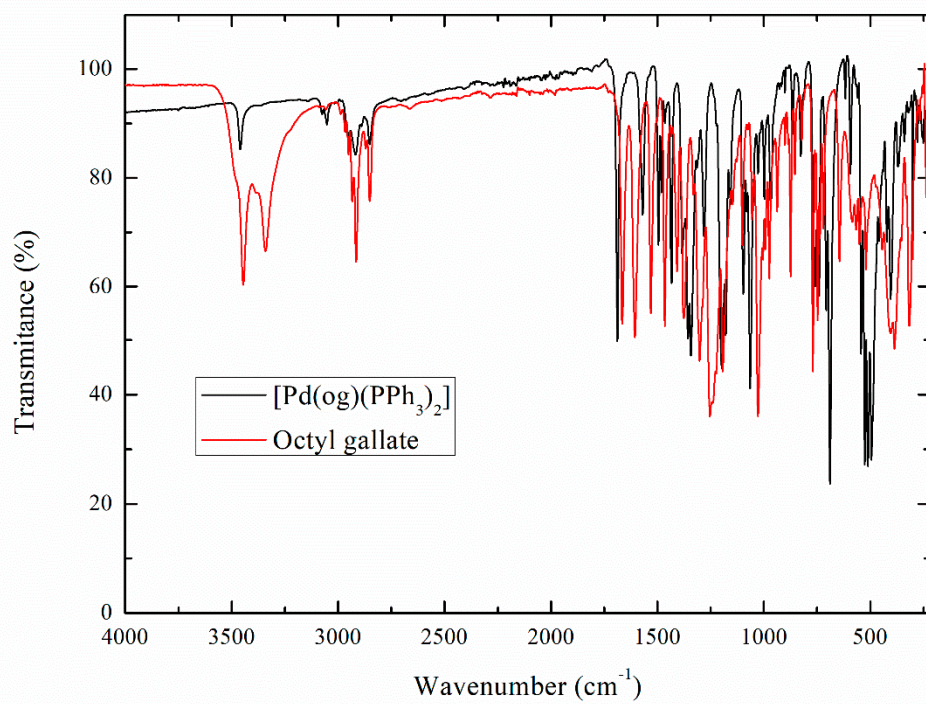


Figure S17. TGA/DTA curve of complex **1**.

