

Supporting Information

A New Type of Palladium–Pincer Complexes Generated via Hydrolytic Ring-Opening of Imidazole-2-ylidenes

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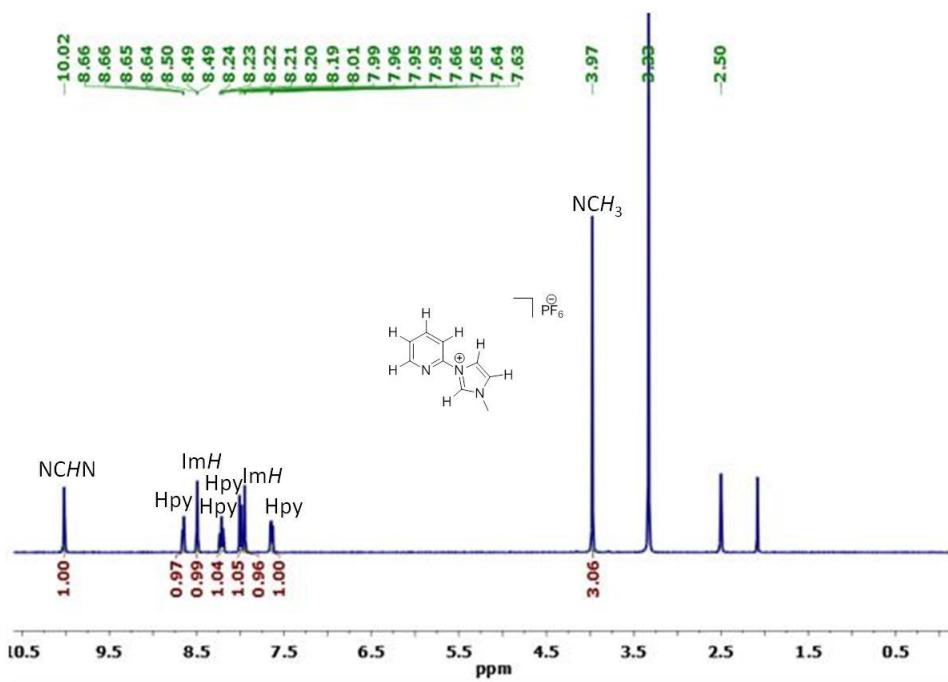
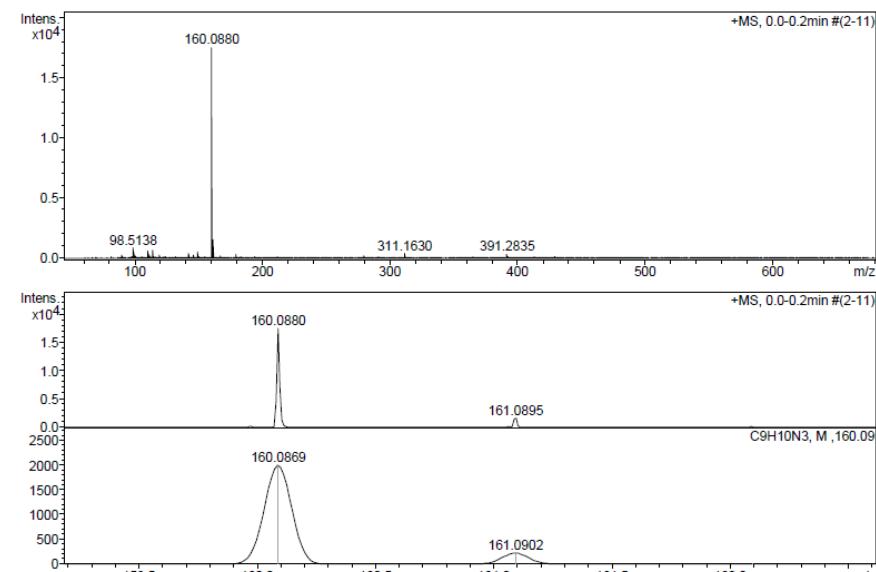


Figure S1. ^1H NMR spectrum of $[\text{L}_1\text{H}]\text{PF}_6$ (400 MHz, $\text{DMSO}-d_6$, 300 K).



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Figure S2. ESI-MS (positive ion mode) spectrum of $[\text{L}_1\text{H}]\text{PF}_6$.

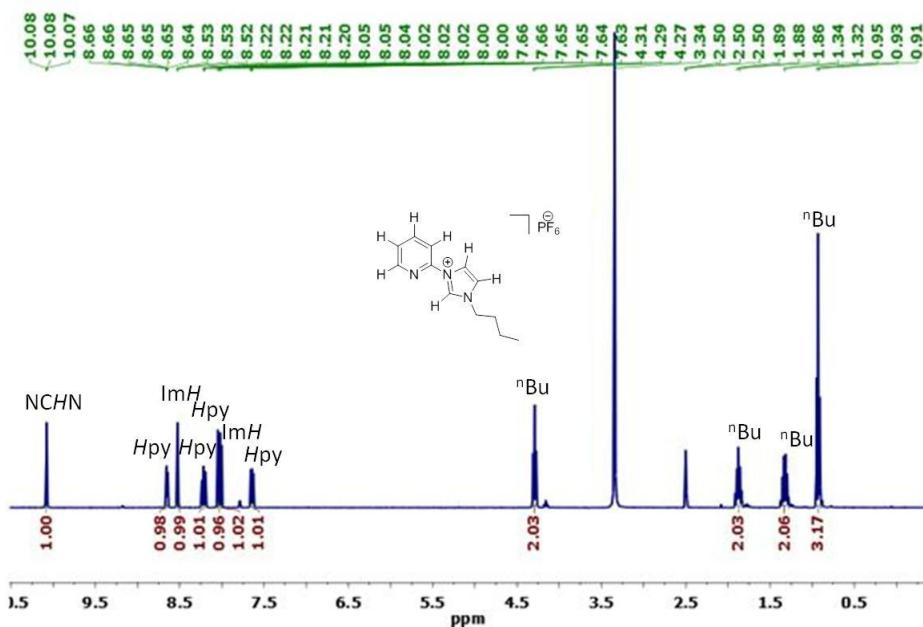


Figure S3. ^1H NMR spectrum of $[\text{L}_2\text{H}]\text{PF}_6$ (400 MHz, $\text{DMSO}-d_6$, 300 K).

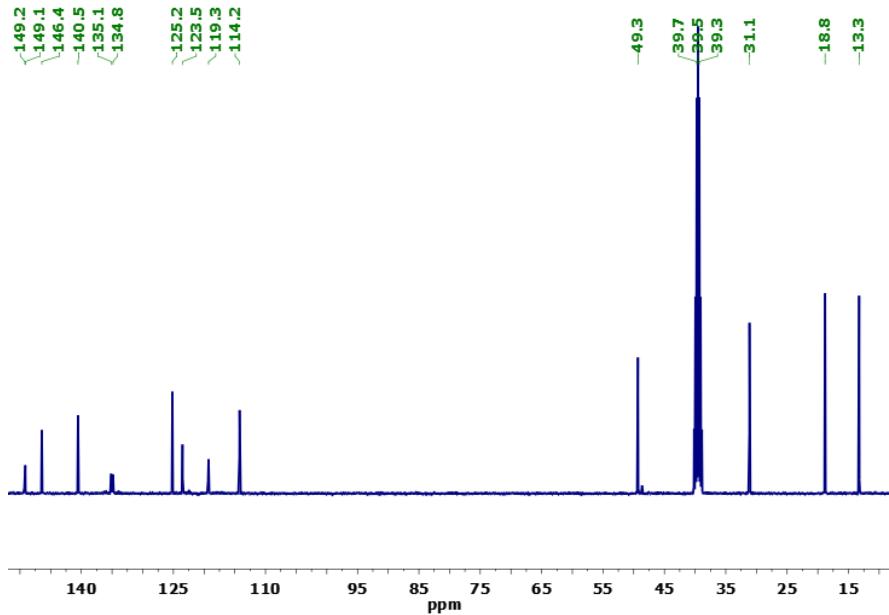


Figure S4. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of $[\text{L}_2\text{H}]\text{PF}_6$ (400 MHz, $\text{DMSO}-d_6$, 300 K).

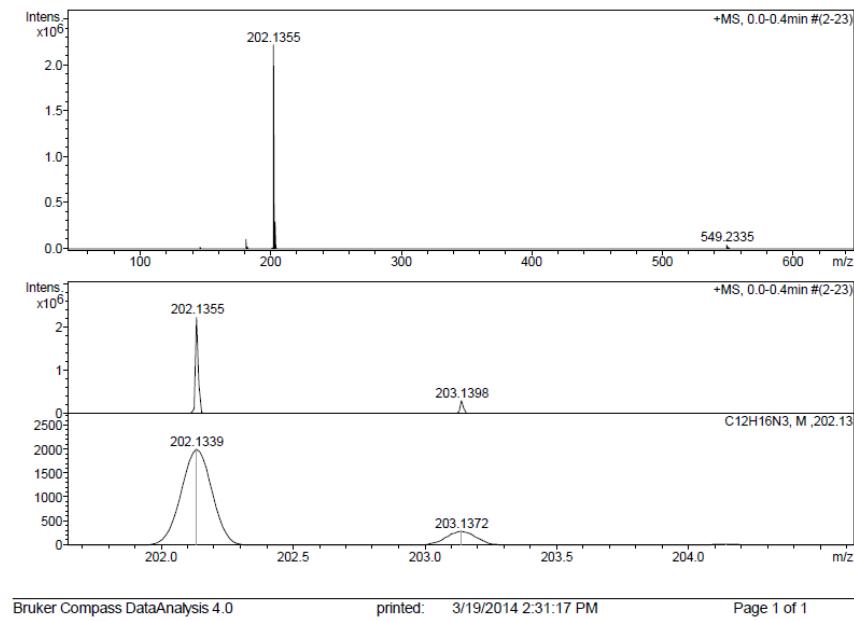


Figure S5. ESI-MS (positive ion mode) spectrum of $[L_2H]PF_6$.

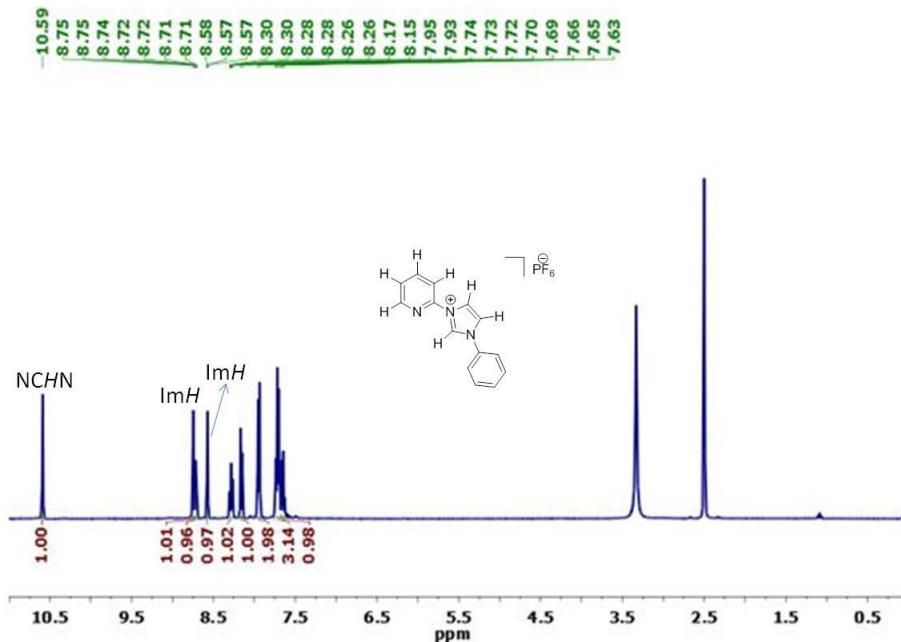


Figure S6. ^1H NMR spectrum of $[\text{L}_3\text{H}]\text{PF}_6$ (400 MHz, $\text{DMSO}-d_6$, 300 K).

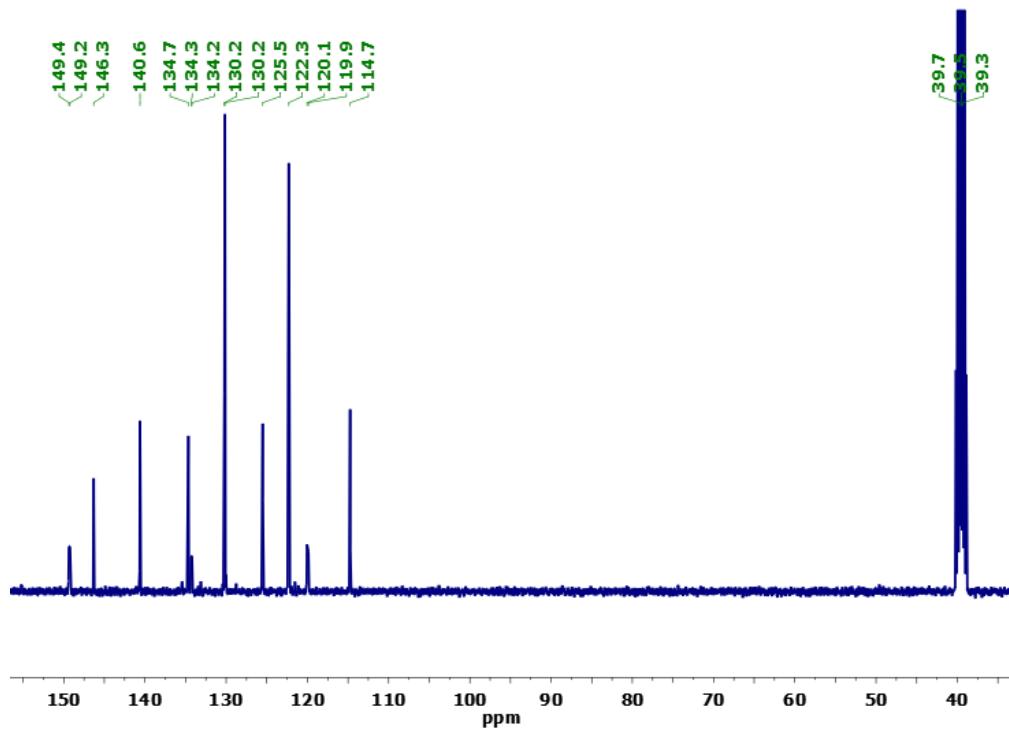


Figure S7. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of $[\text{L}_3\text{H}]\text{PF}_6$ (400 MHz, $\text{DMSO}-d_6$, 300 K).

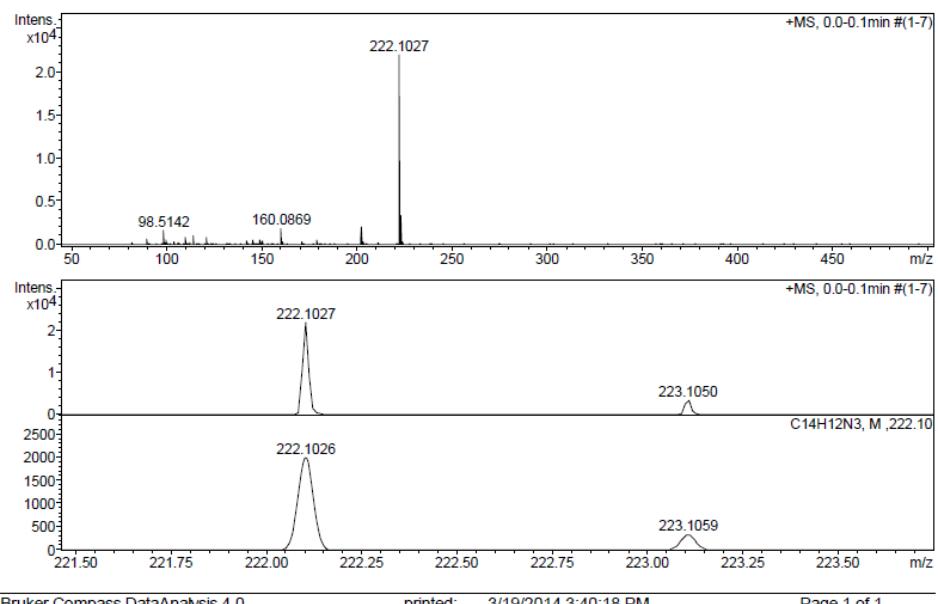


Figure S8. ESI-MS (positive ion mode) spectrum of $[\text{L}_3\text{H}]\text{PF}_6$.

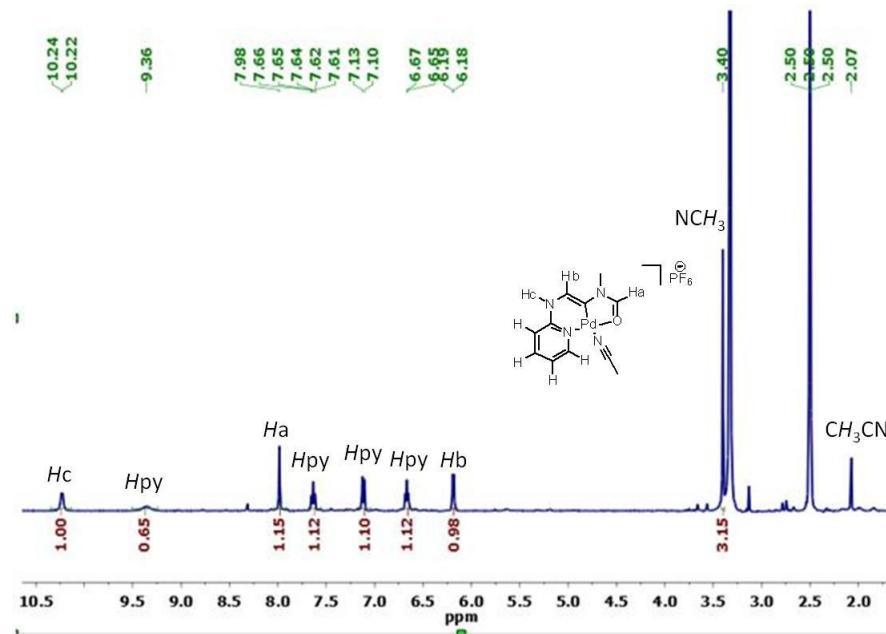


Figure S9. ^1H NMR spectrum of Complex **1** (400 MHz, $\text{DMSO}-d_6$, 300 K).

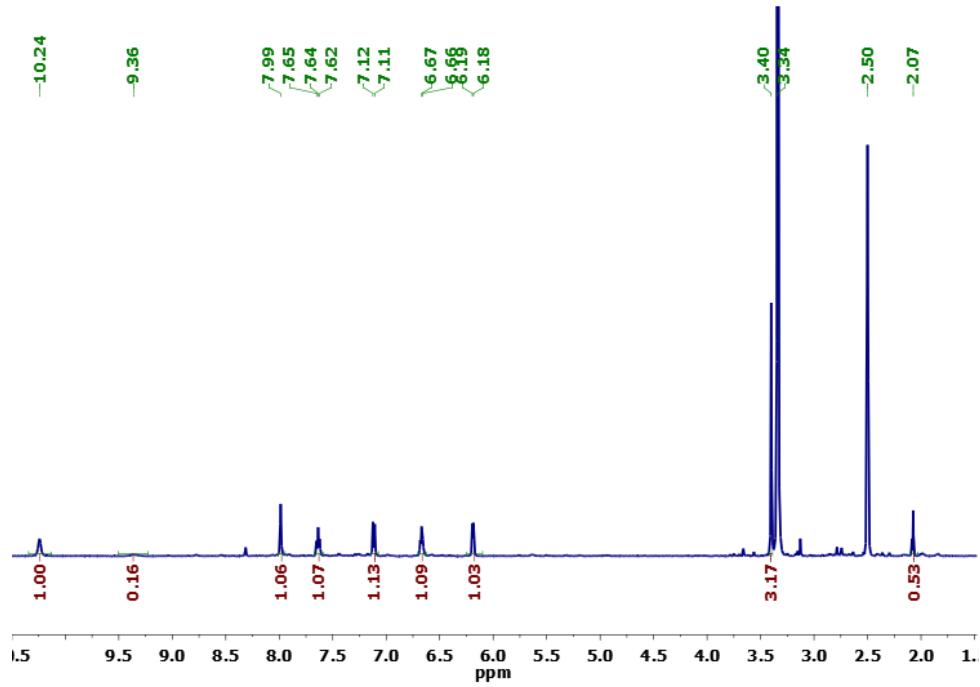


Figure S9a. ^1H NMR spectrum of Complex **1** (500 MHz, $\text{DMSO}-d_6$, 300 K) (recorded after 12 h) showing the decrease of intensity of the pyridyl C-H peak at 9.36 ppm due to H-D exchange with $\text{DMSO}-d_6$.

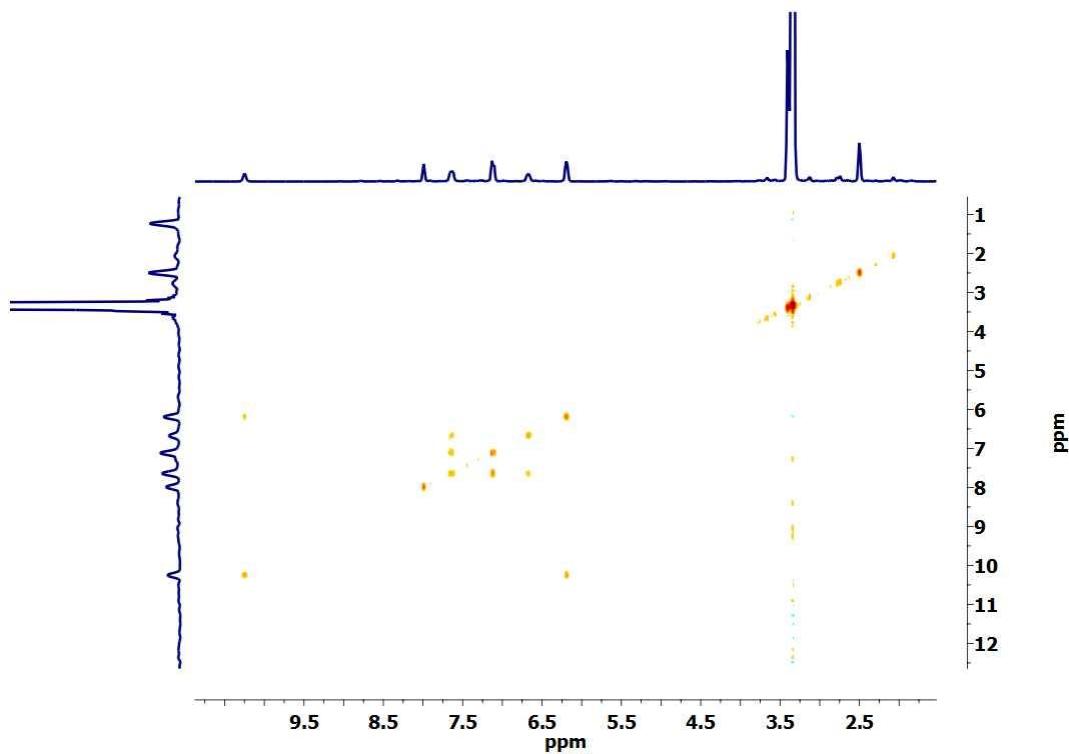


Figure S10. ^1H - ^1H COSY NMR spectrum of Complex **1** (DMSO- d_6 , 300 K).

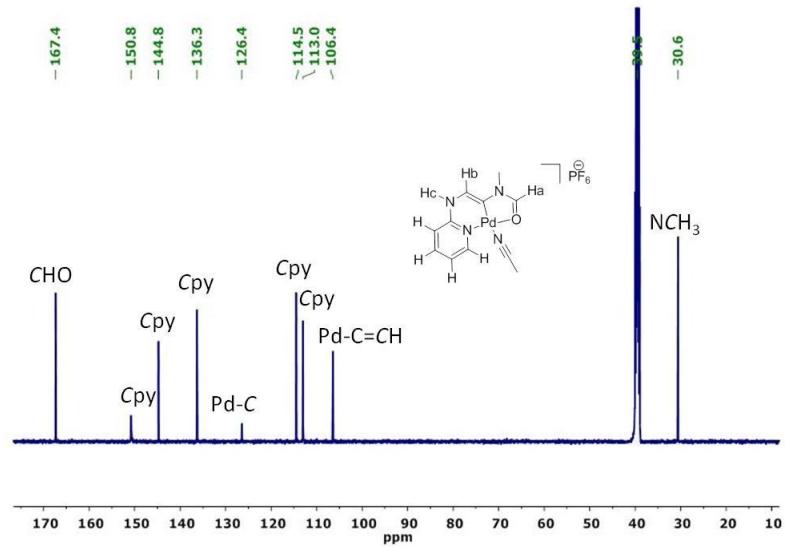


Figure S11. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of Complex **1** (125 MHz, DMSO- d_6 , 300 K).

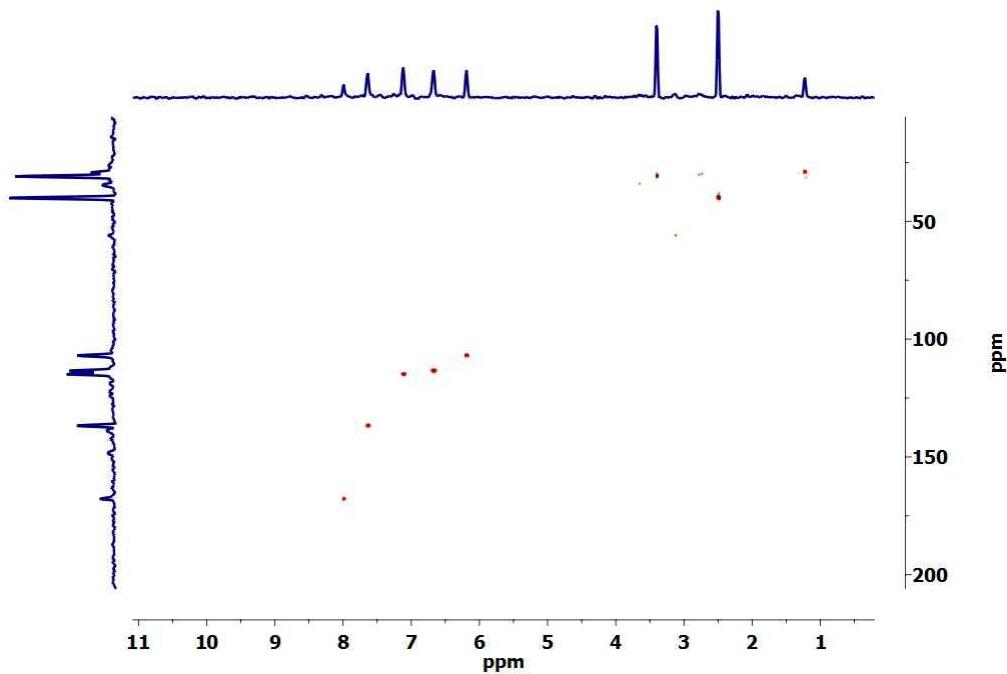


Figure S12. ^1H - ^{13}C HSQC NMR spectrum of Complex **1** (DMSO- d_6 , 300 K)

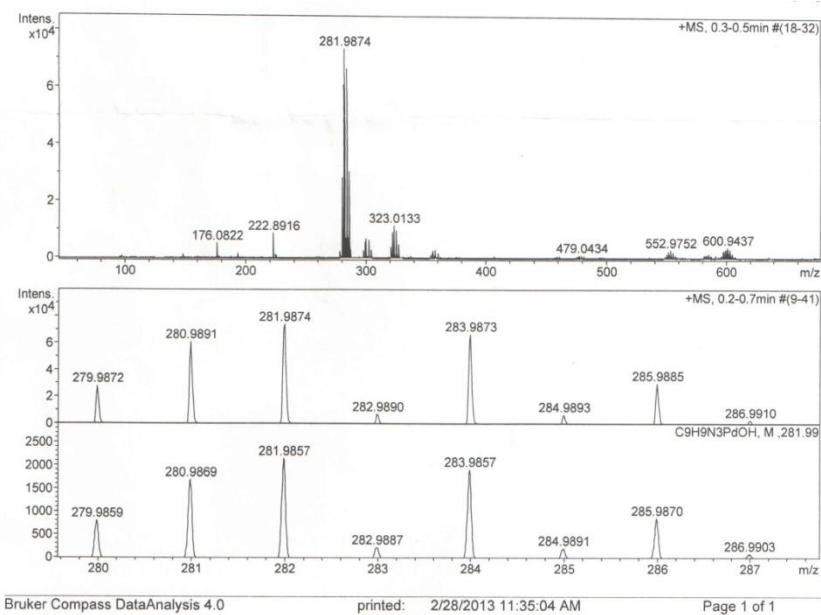


Figure S13. ESI-MS (positive ion mode) spectrum of Complex **1**.

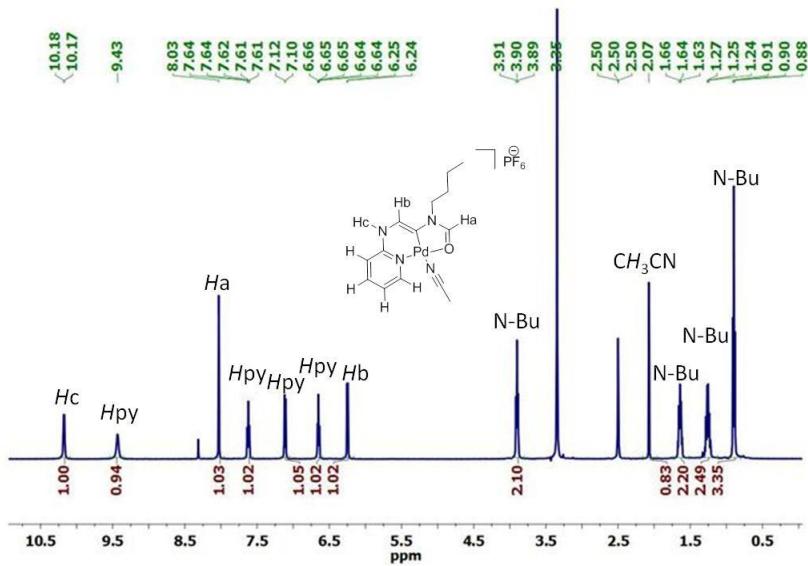


Figure S14. ^1H NMR spectrum of Complex **2** (500 MHz, $\text{DMSO}-d_6$, 300 K)

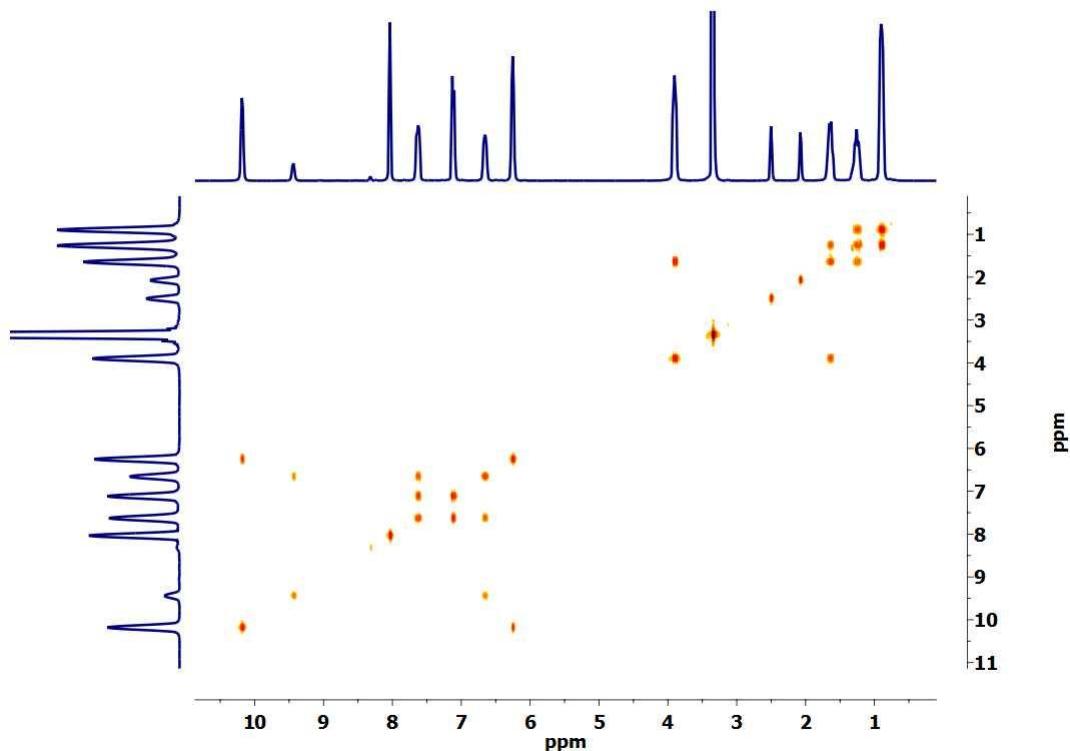


Figure S15. ^1H - ^1H COSY NMR spectrum of Complex **2** ($\text{DMSO}-d_6$, 300 K).

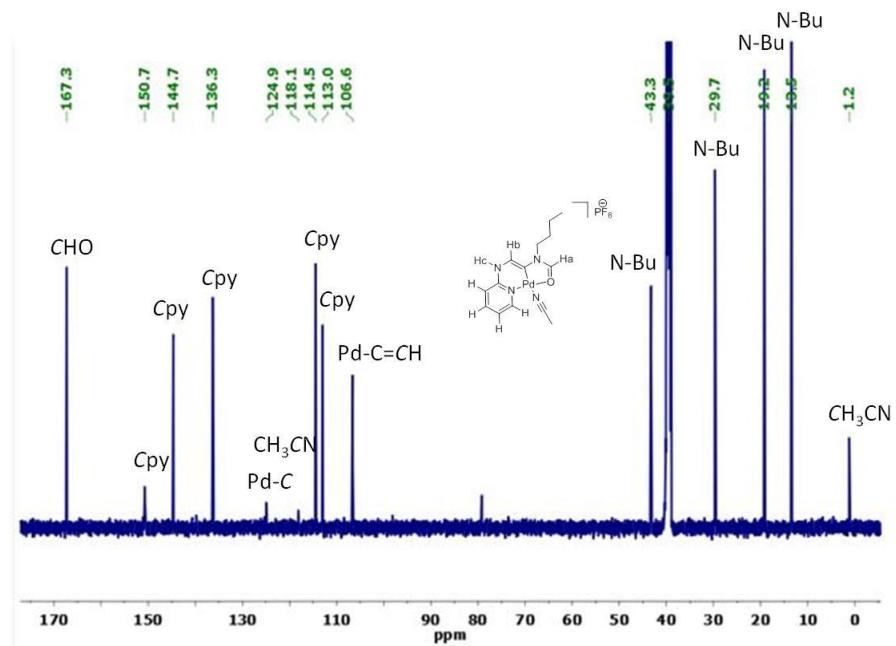


Figure S16. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of Complex 2 (125 MHz, DMSO-*d*₆, 300 K).

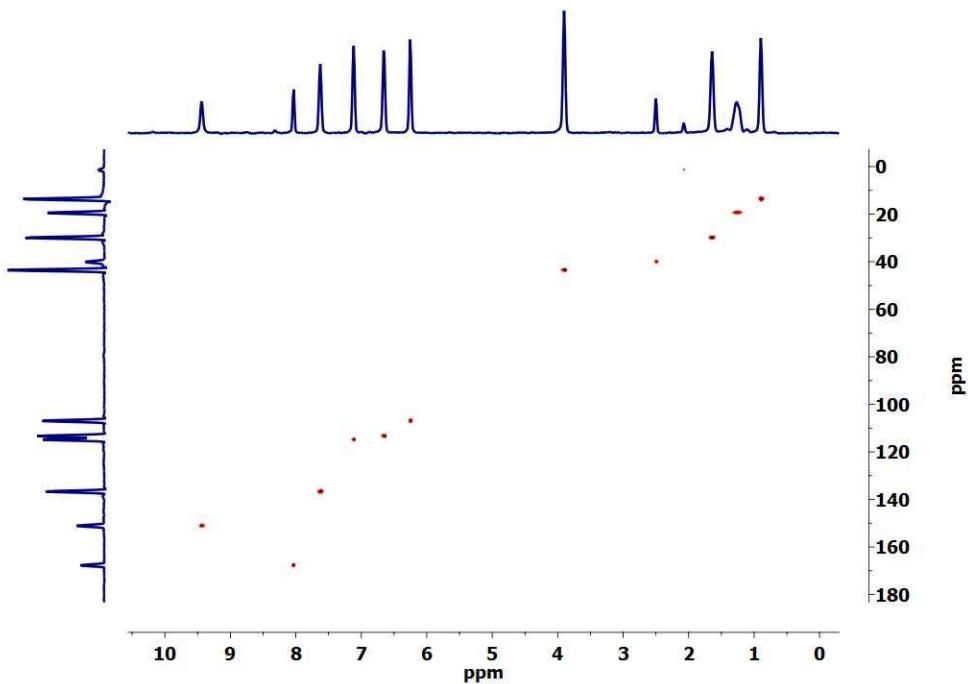


Figure S17. ^1H - ^{13}C HSQC NMR spectrum of Complex 2 (DMSO-*d*₆, 300 K)

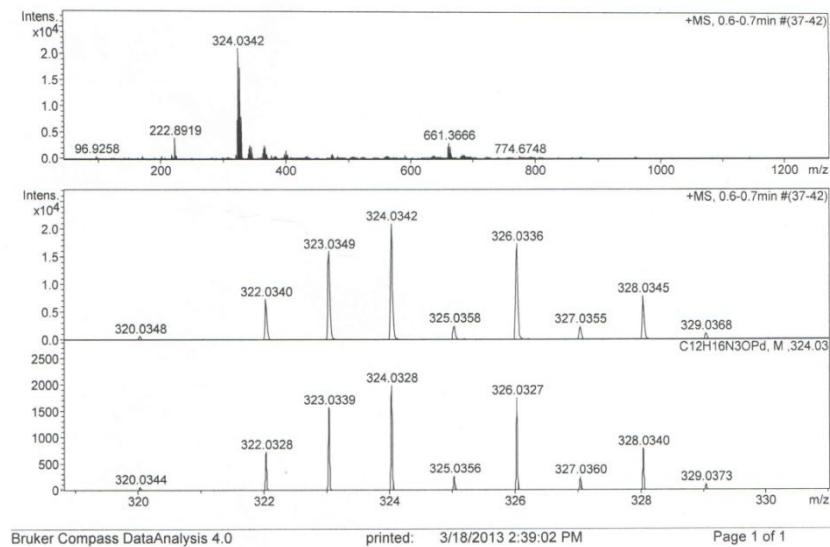


Figure S18. ESI-MS (positive ion mode) spectrum of Complex 2.

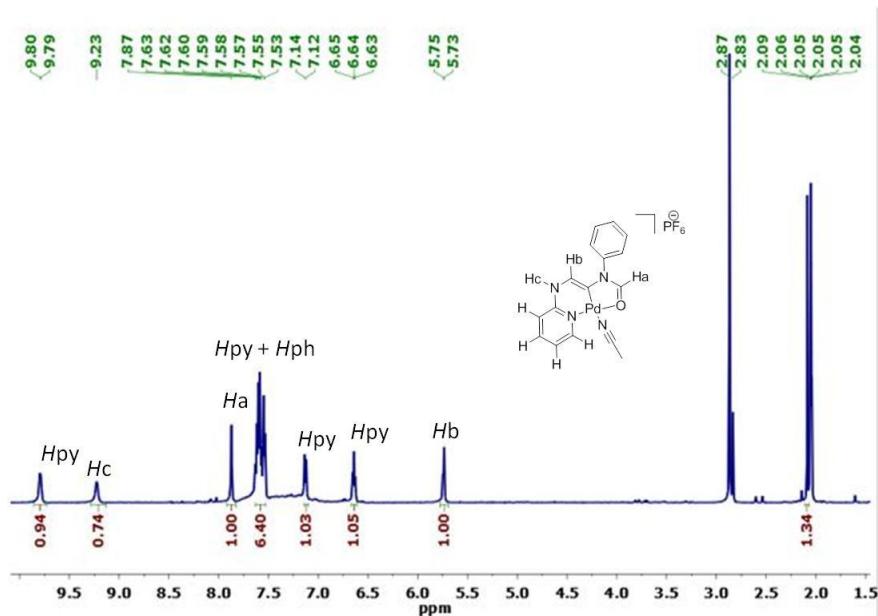


Figure S19. ¹H NMR spectrum of Complex 3 (500 MHz, acetone-*d*₆, 300 K).

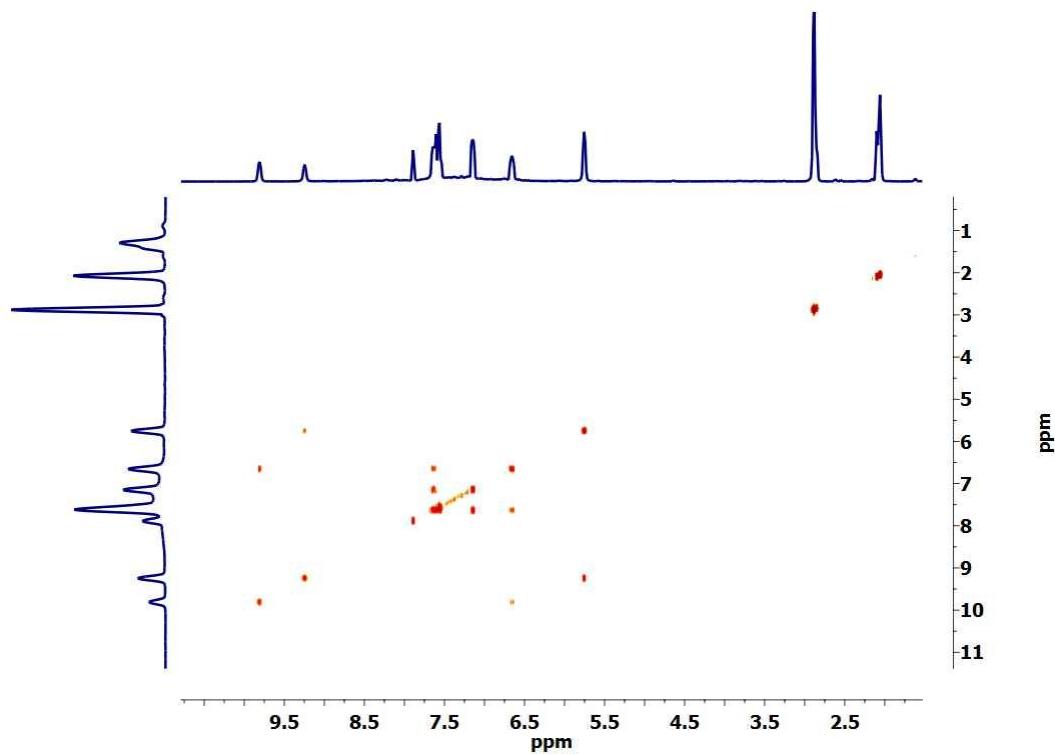


Figure S20. ^1H - ^1H COSY NMR spectrum of Complex **3** (acetone- d_6 , 300 K).

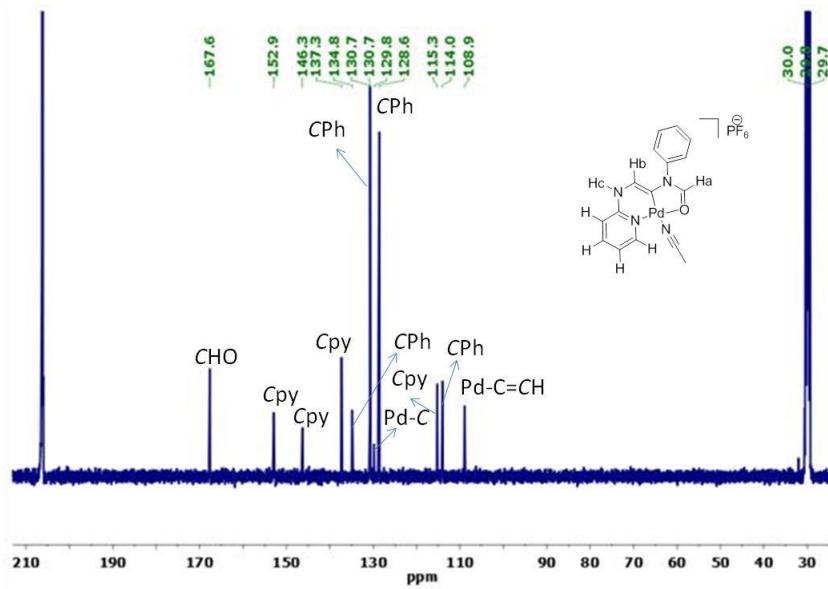


Figure S21. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of Complex **3** (125 MHz, acetone- d_6 , 300 K).

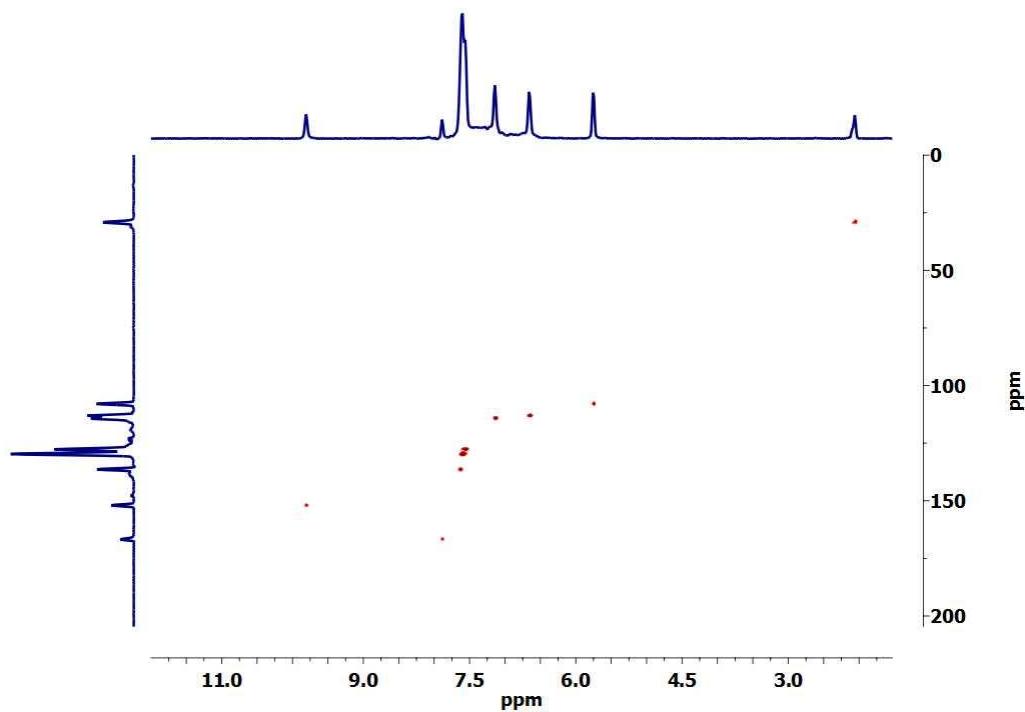


Figure S22. ^1H - ^{13}C HSQC NMR spectrum of Complex **3** (acetone- d_6 , 300 K)

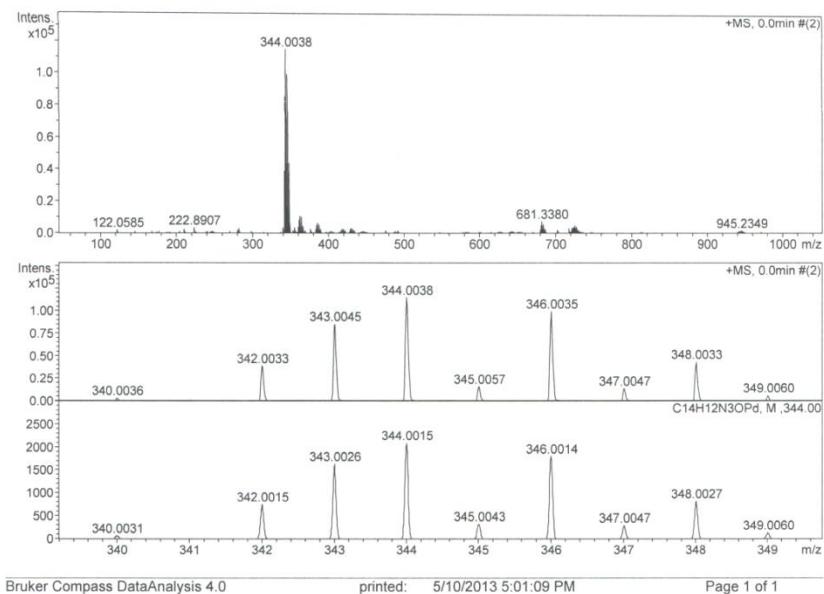


Figure S23. ESI-MS (positive ion mode) spectrum of Complex **3**.

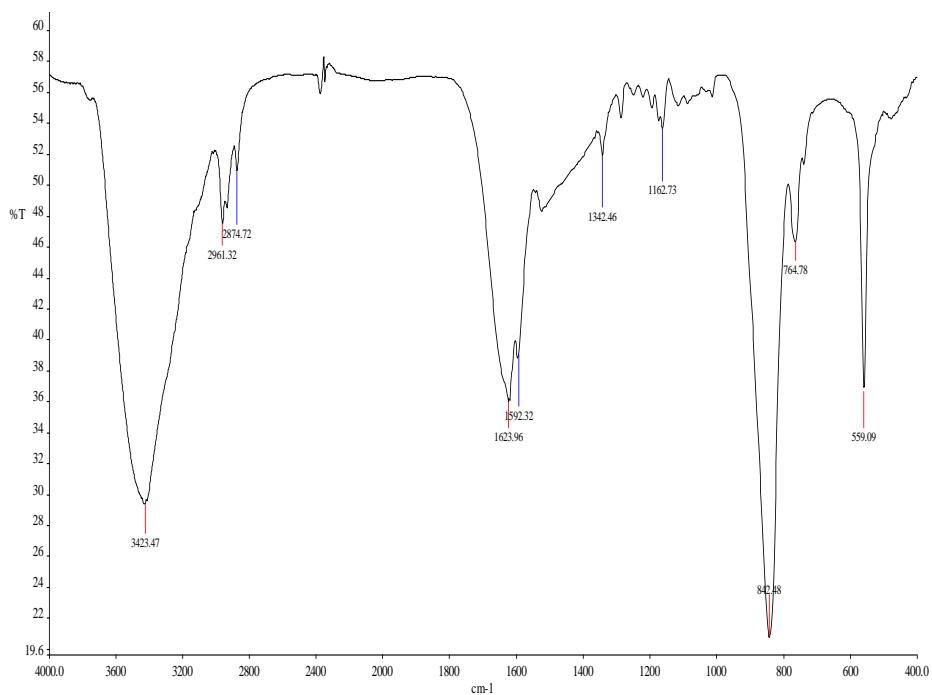


Figure S24. FT-IR spectrum of Complex 2 (KBr).

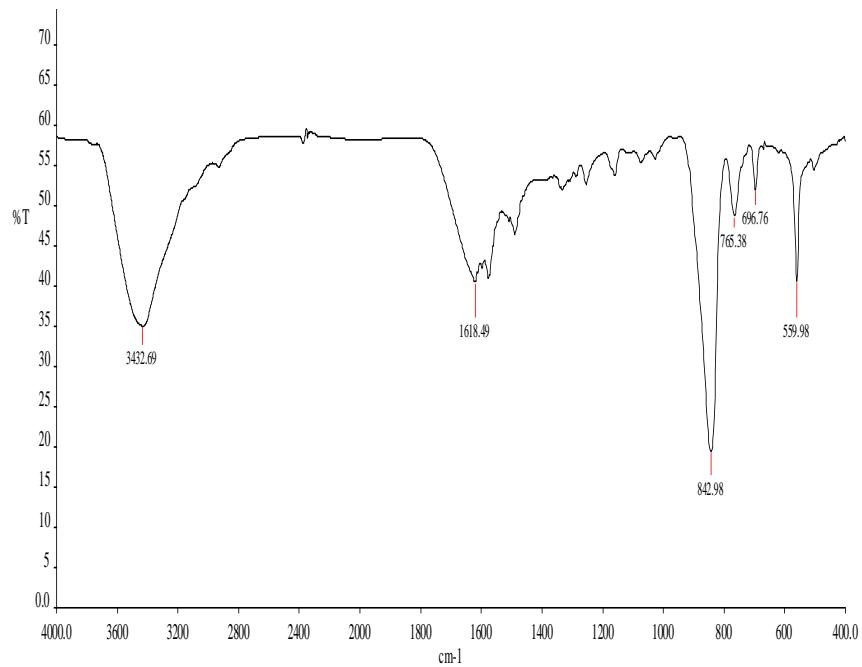


Figure S25. FT-IR spectrum of Complex 3 (KBr).