



STRUCTURAL
CHEMISTRY

Volume 75 (2019)

Supporting information for article:

Synthesis, characterization, and crystal structures of organonickel(II) complexes coordinated to novel 1-bromo-2,6-bis- $\{[(\lambda^5\text{-phosphanylidene})\text{imino}]\text{methyl}\}$ benzene NCN-pincer ligands

Gary L. Guillet, Skyler L. Pitts, Kirkland W. Sheriff, Donna N. Rucker and Aaryn L. Rogers

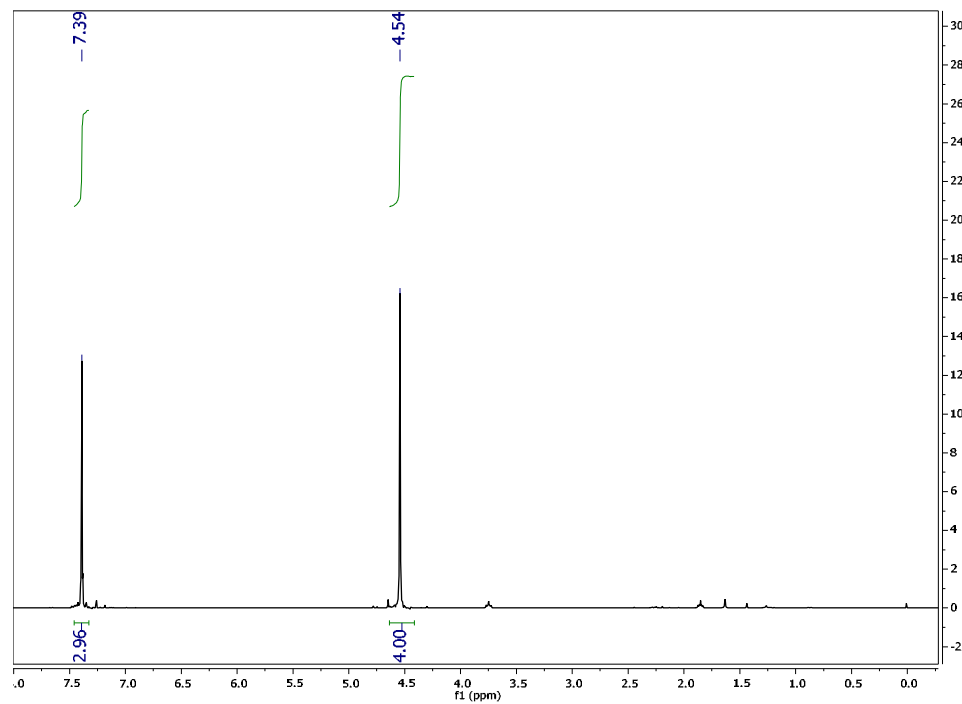
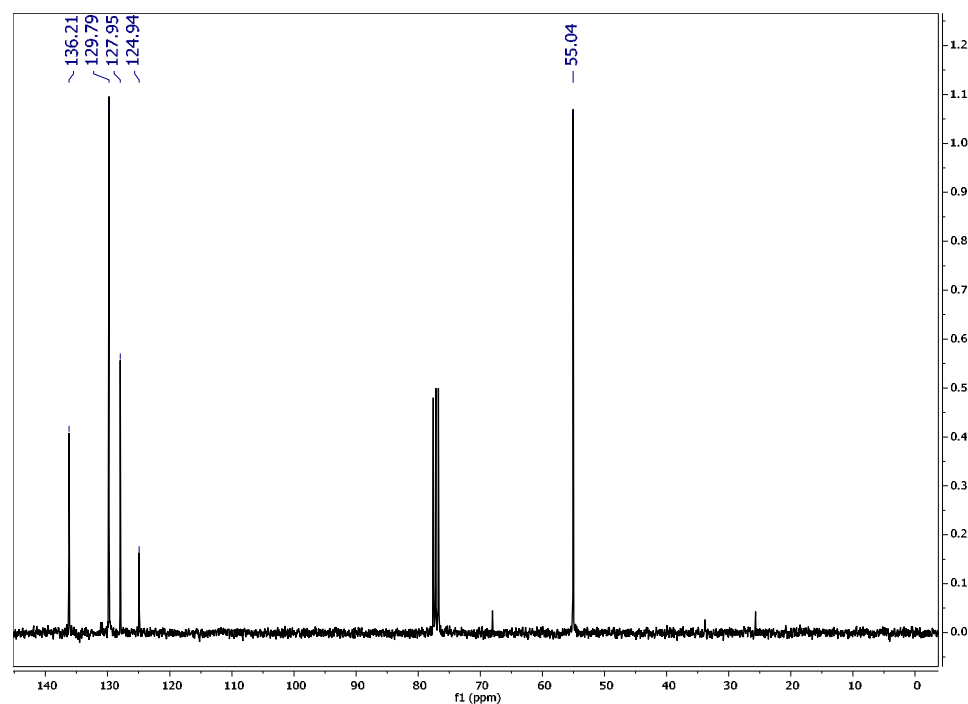
S1. ^1H , ^{13}C , and ^{31}P NMR spectraFigure S1 ^1H NMR of 1,3-di(azidomethyl)-2-bromobenzene (**1**) in chloroform-*d*.Figure S2 ^{13}C NMR of 1,3-bis(azidomethyl)-2-bromobenzene (**1**) in chloroform-*d*

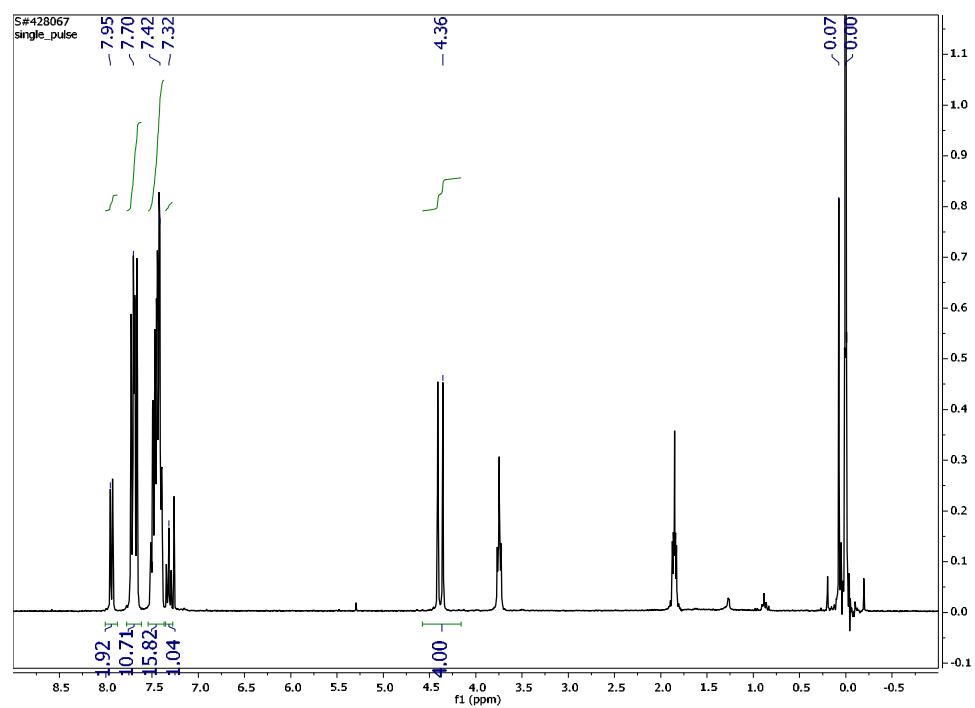
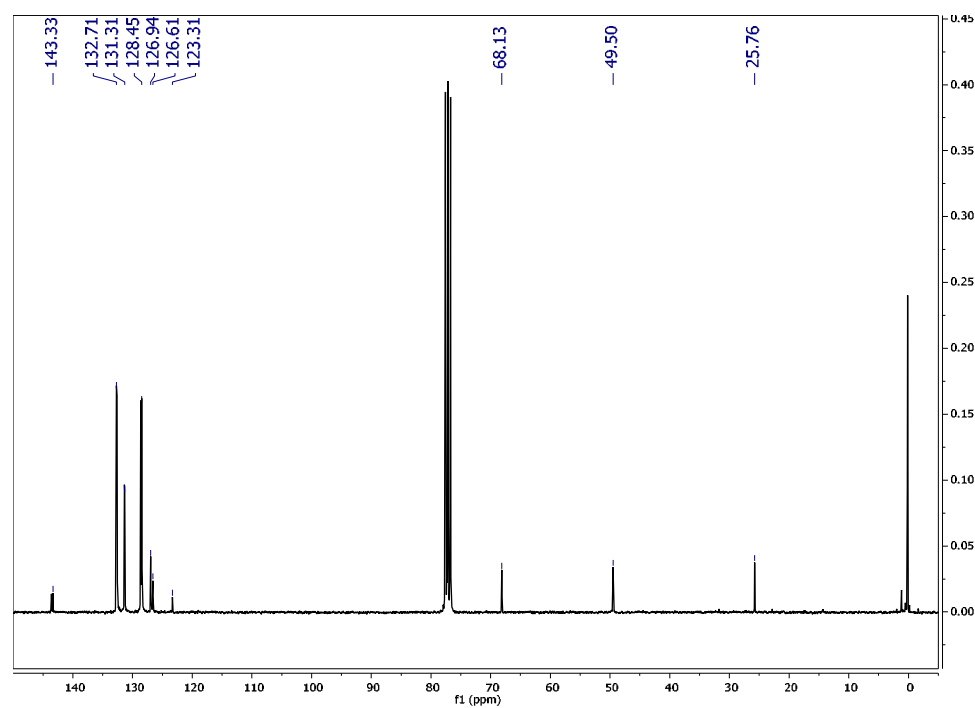
Figure S3 ^1H NMR of L^1 chloroform- d .**Figure S4** ^{13}C NMR of L^1 chloroform- d .

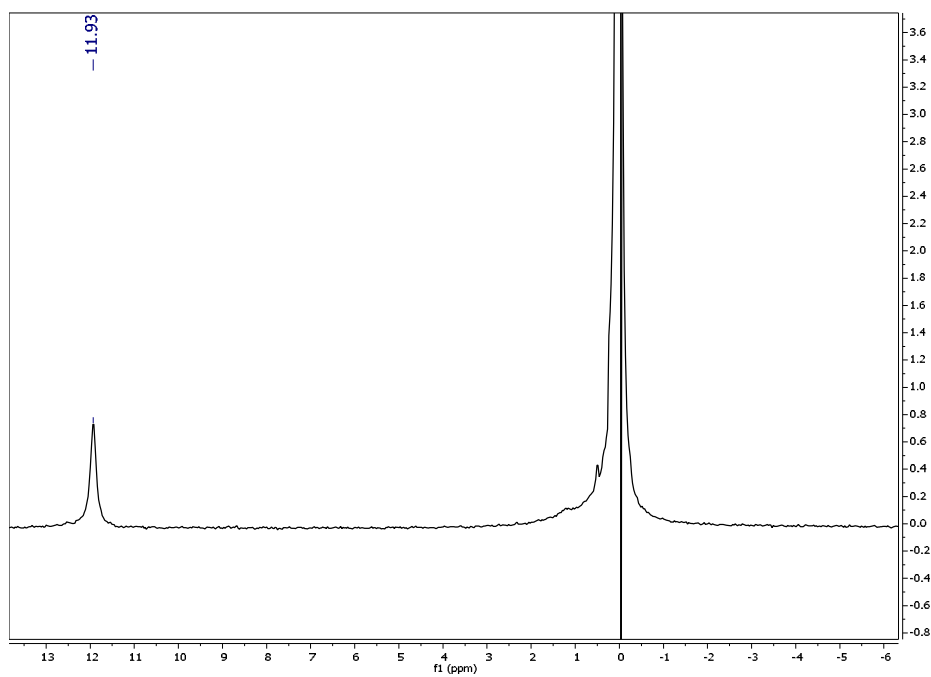
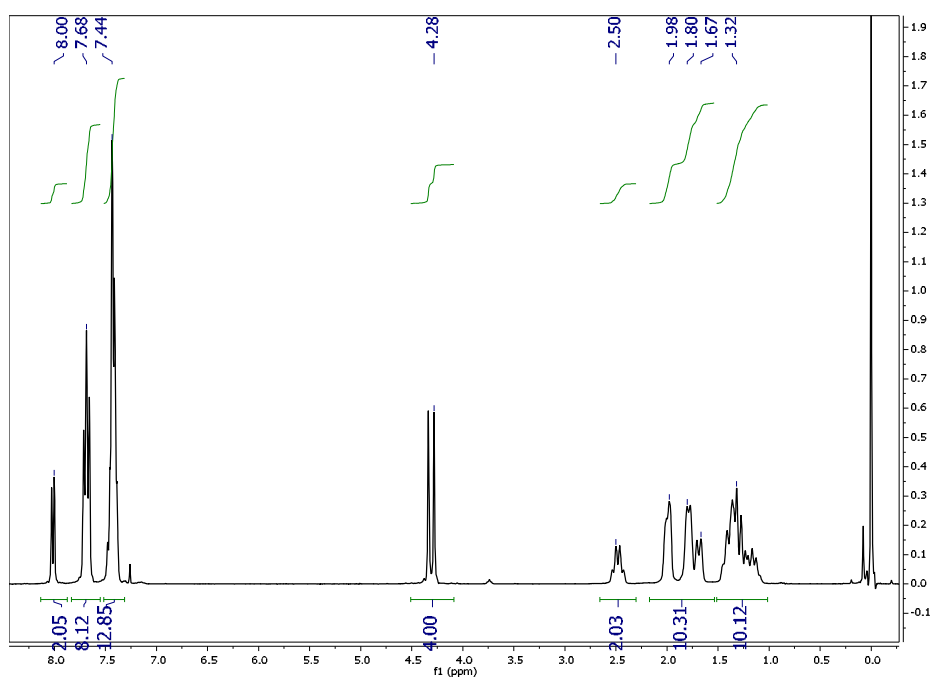
Figure S5 ^{31}P NMR of L^1 chloroform-*d*.**Figure S6** ^1H NMR of L^2 chloroform-*d*.

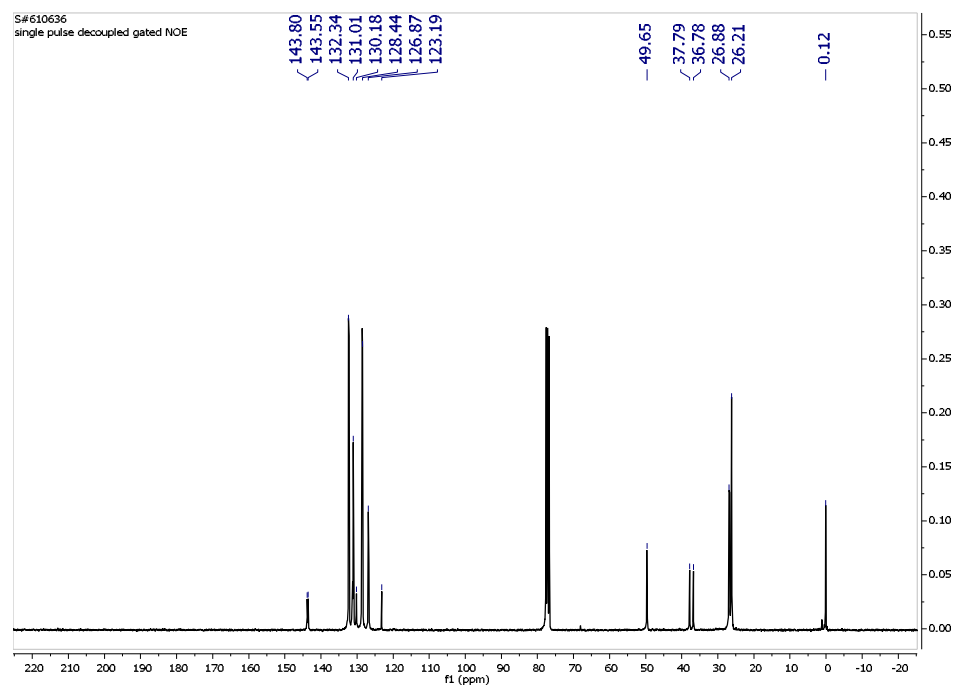
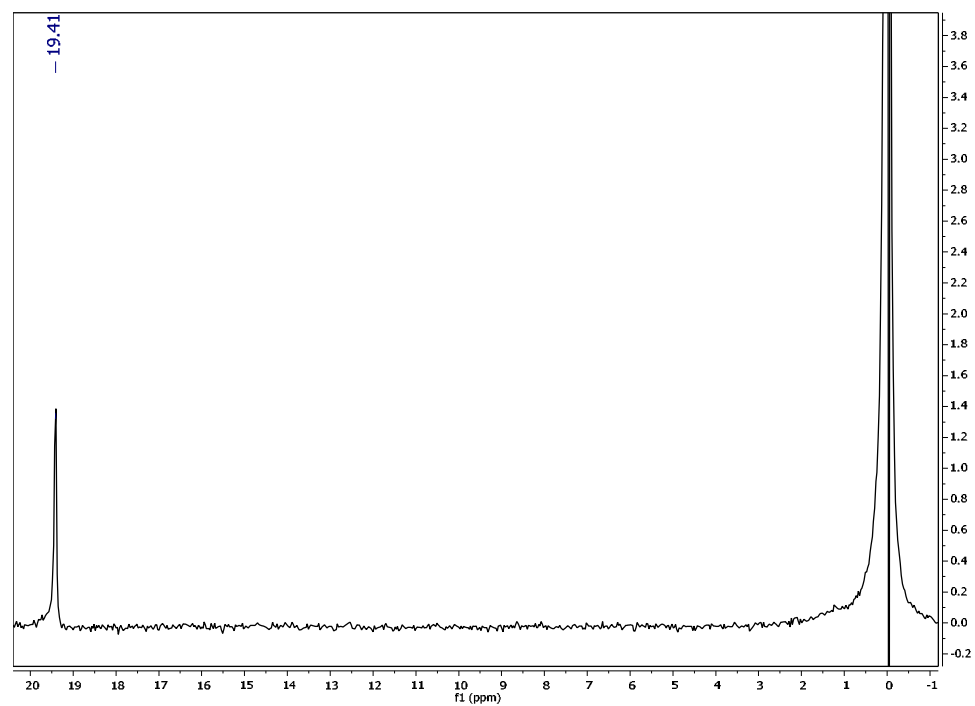
Figure S7 ^{13}C NMR of L^2 chloroform- d .**Figure S8** ^{31}P NMR of L^2 chloroform- d .

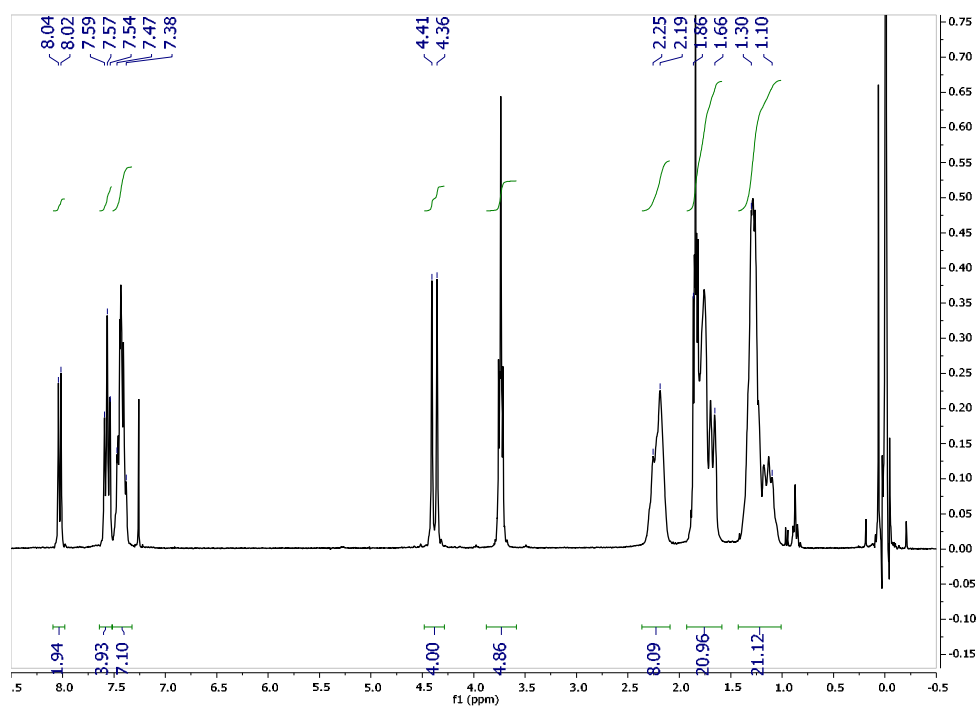
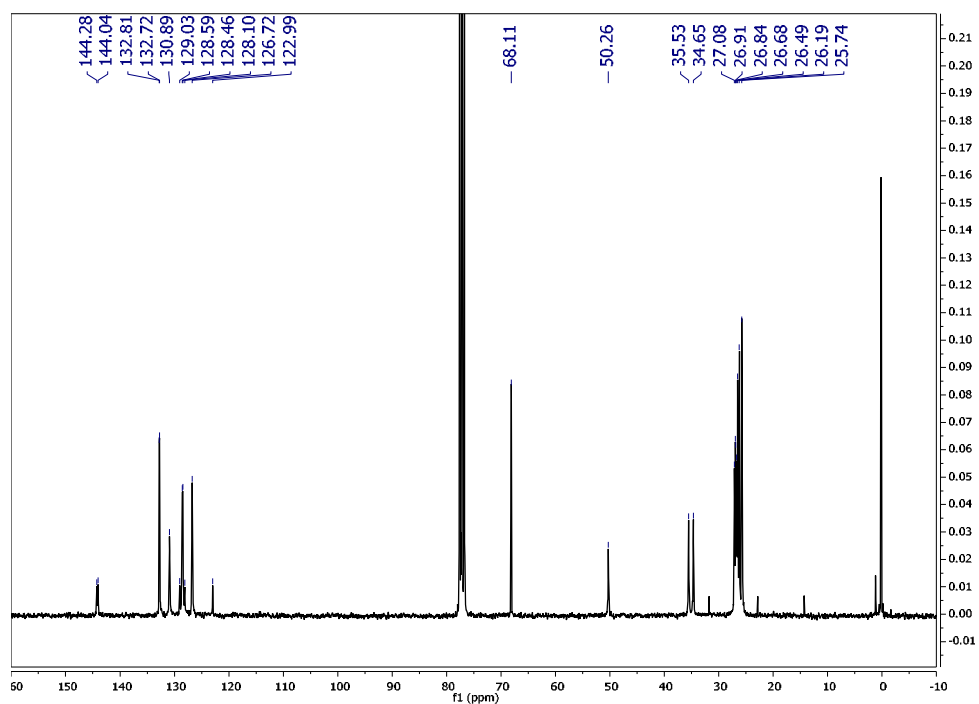
Figure S9 ^1H NMR of L^3 chloroform- d .**Figure S10** ^{13}C NMR of L^3 chloroform- d .

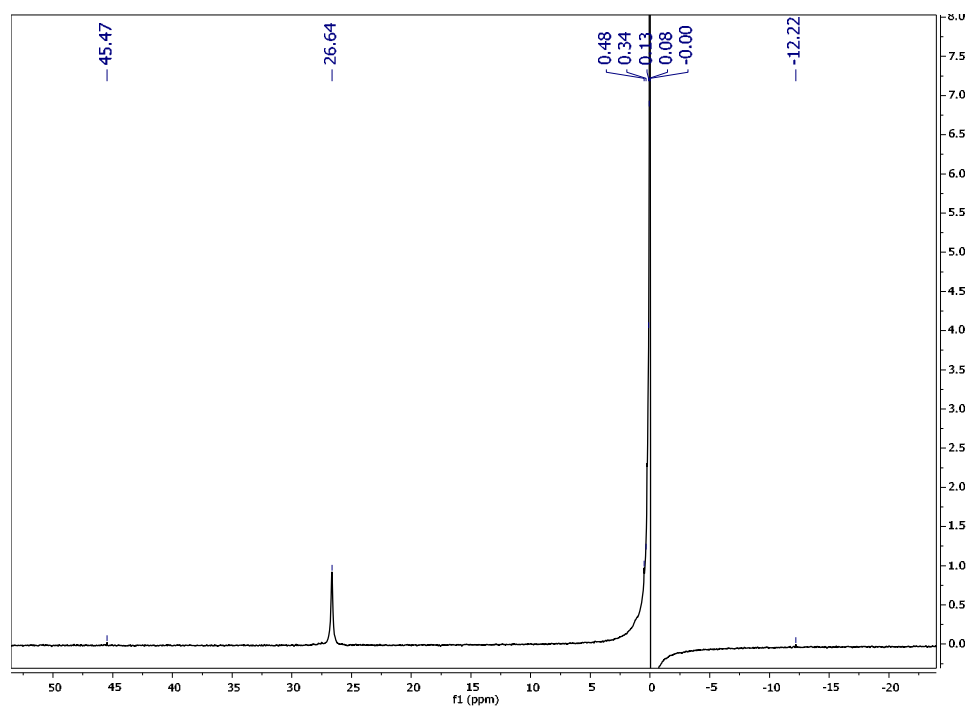
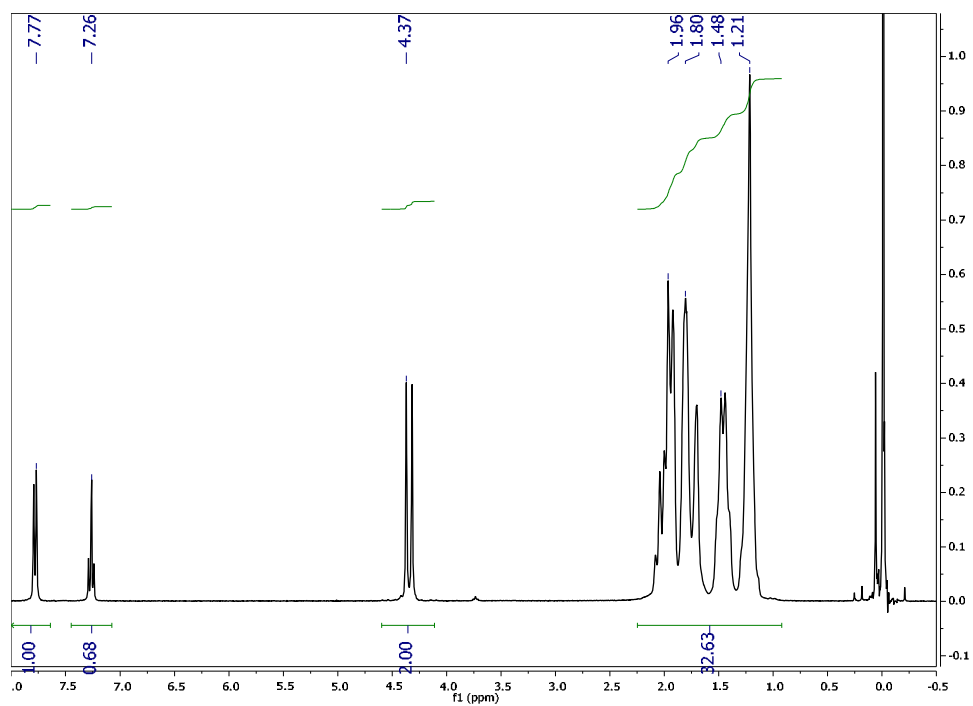
Figure S11 ^{31}P NMR of L^3 chloroform-*d*.**Figure S12** ^1H NMR of L^4 chloroform-*d*.

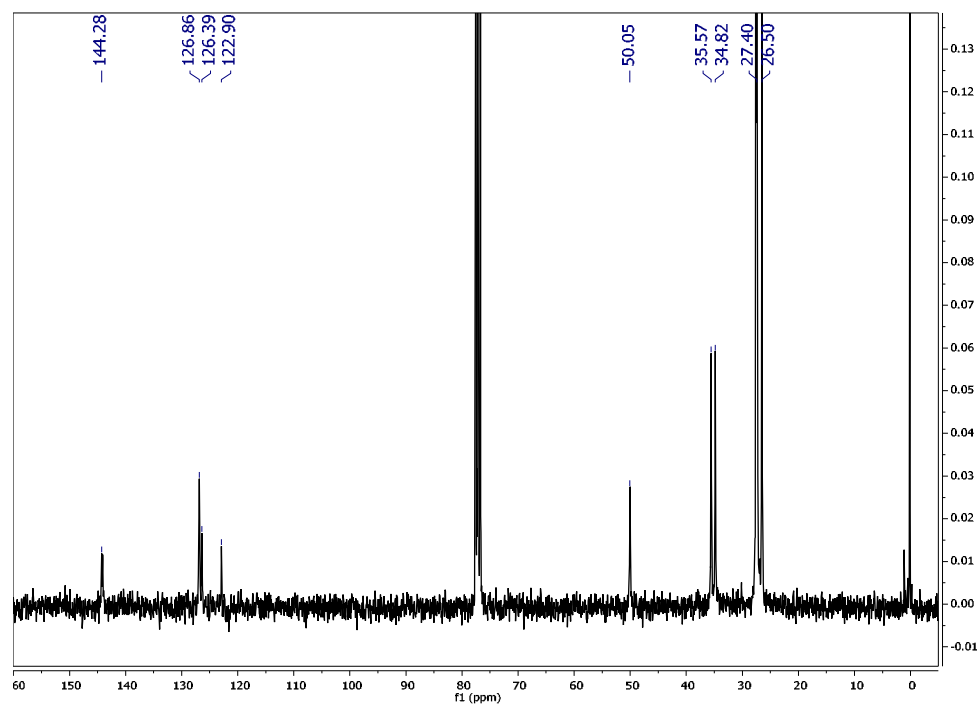
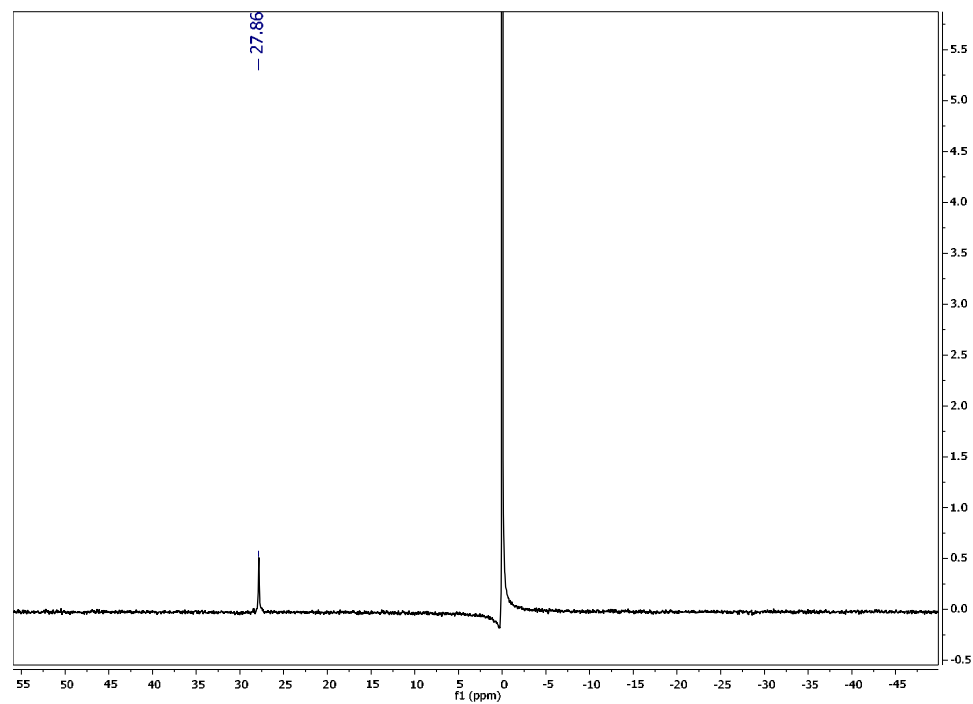
Figure S13 ^{13}C NMR of L^4 chloroform-*d*.**Figure S14** ^{31}P NMR of L^4 chloroform-*d*.

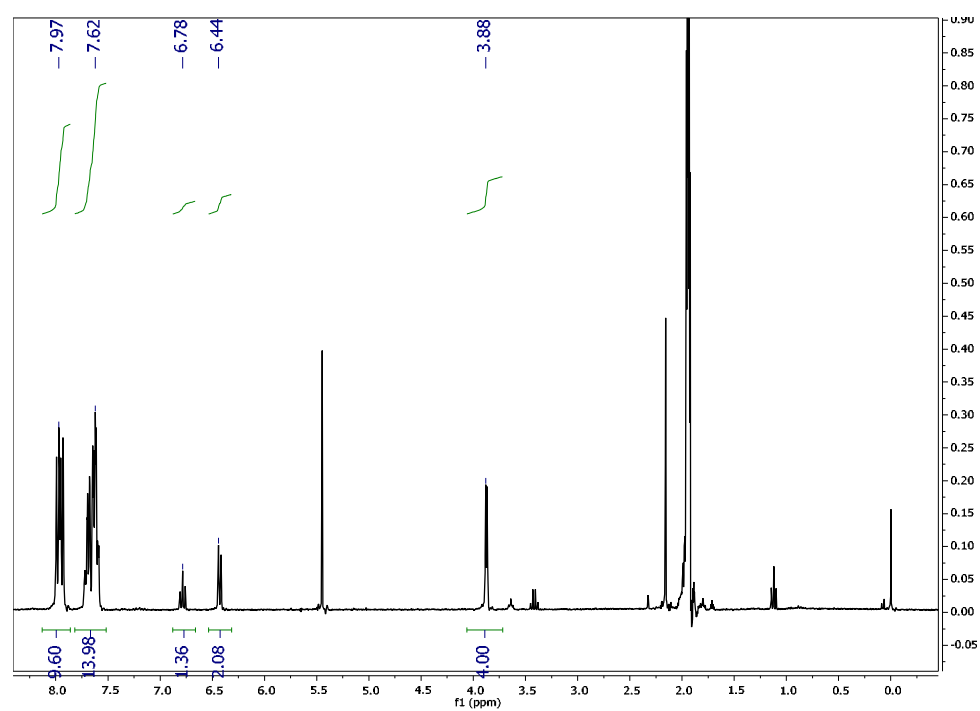
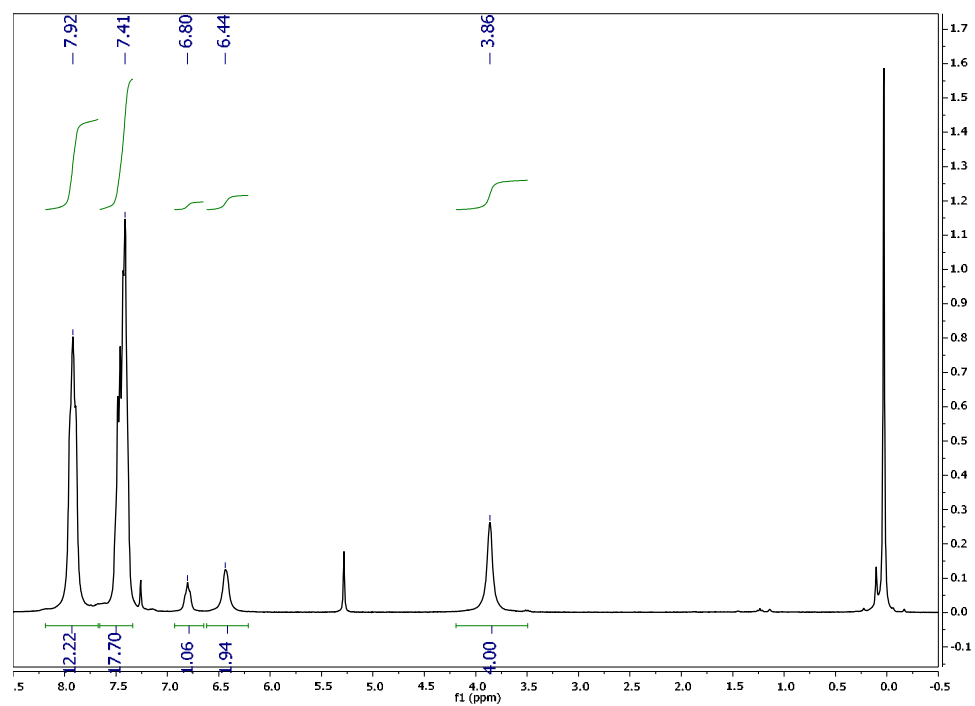
Figure S15 ^1H NMR of L^1NiBr in acetonitrile- d_3 .**Figure S16** ^1H NMR of L^1NiBr in chloroform- d .

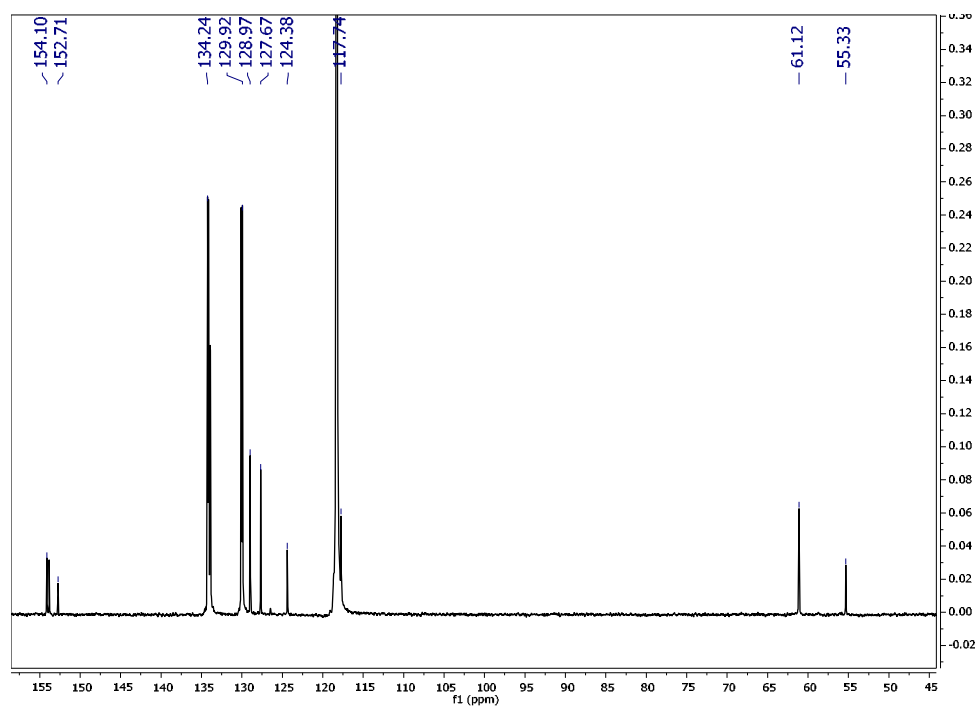
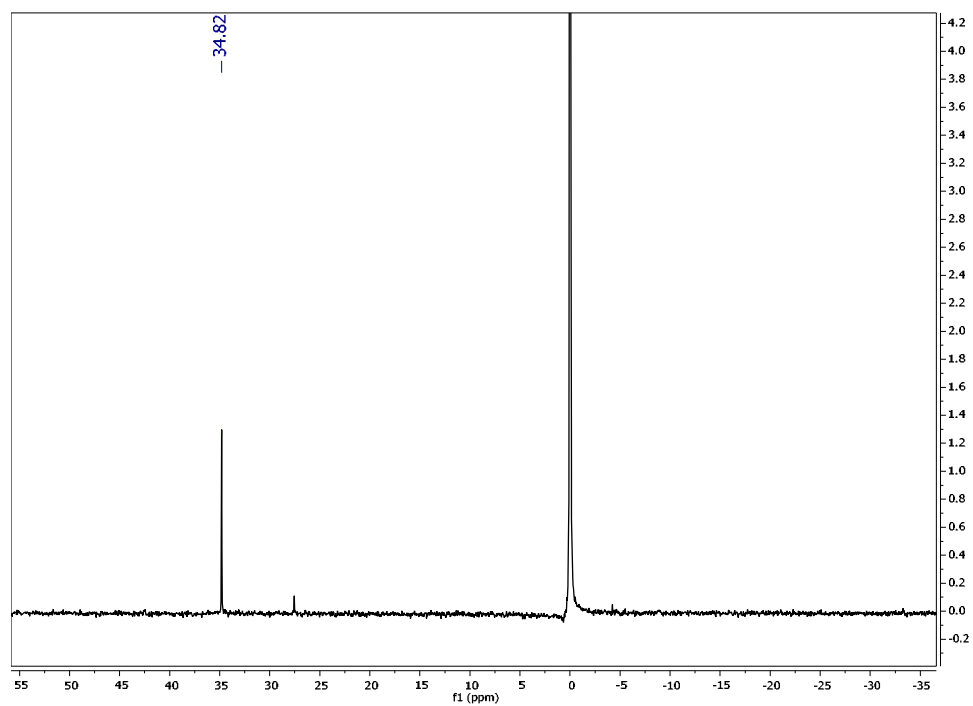
Figure S17 ^{13}C NMR of L^1NiBr in acetonitrile- d_3 .**Figure S18** ^{31}P NMR of L^1NiBr in acetonitrile- d_3 .

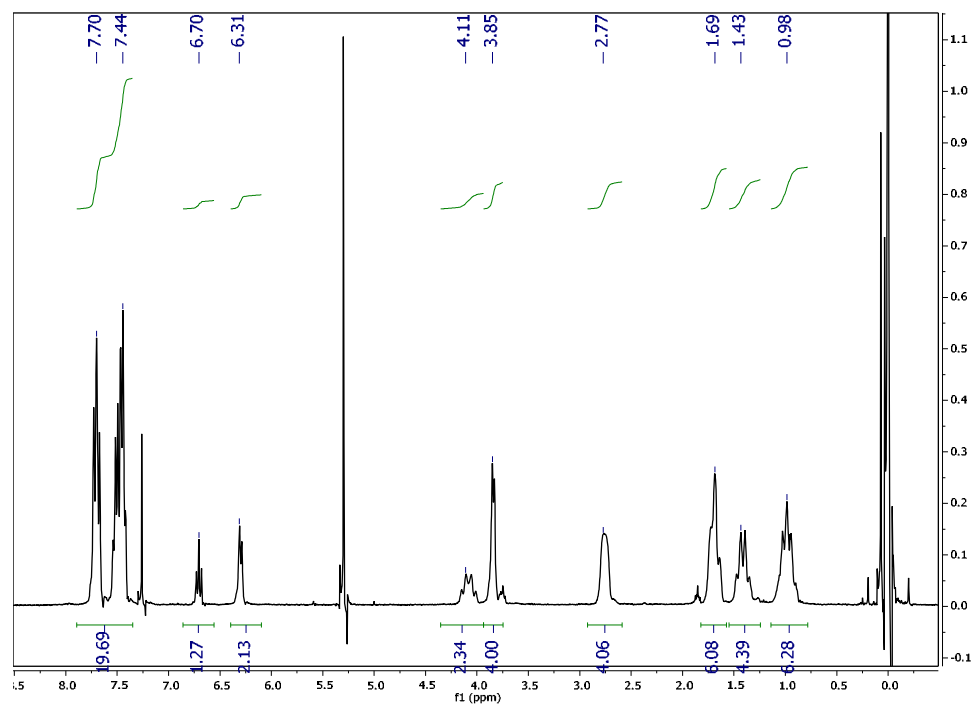
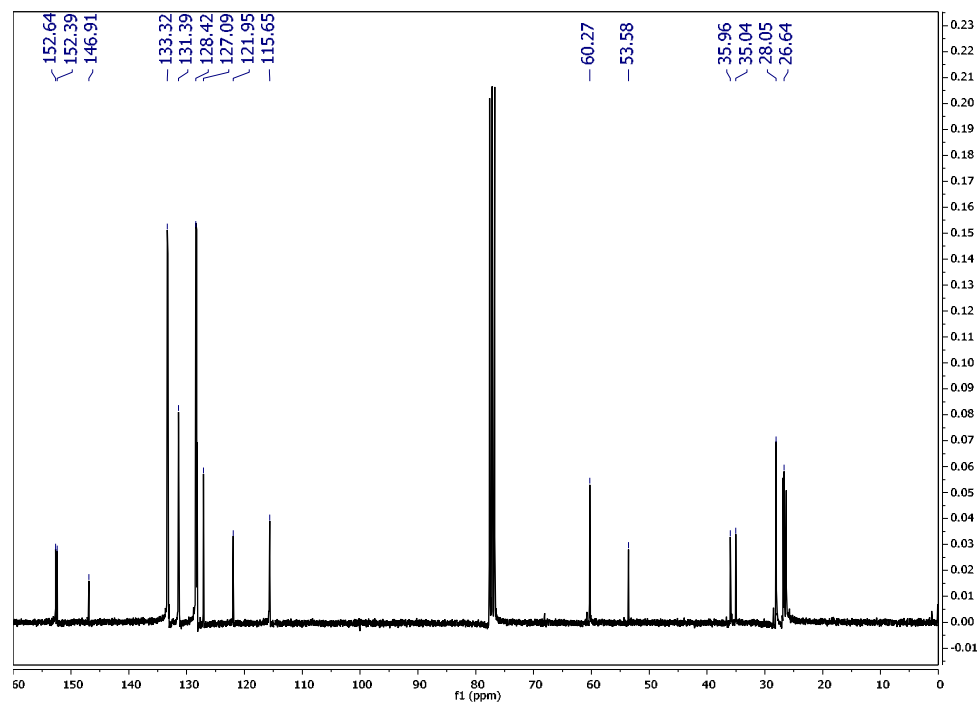
Figure S19 ^1H NMR of L^2NiBr in chloroform-*d*.**Figure S20** ^{13}C NMR of L^2NiBr in chloroform-*d*.

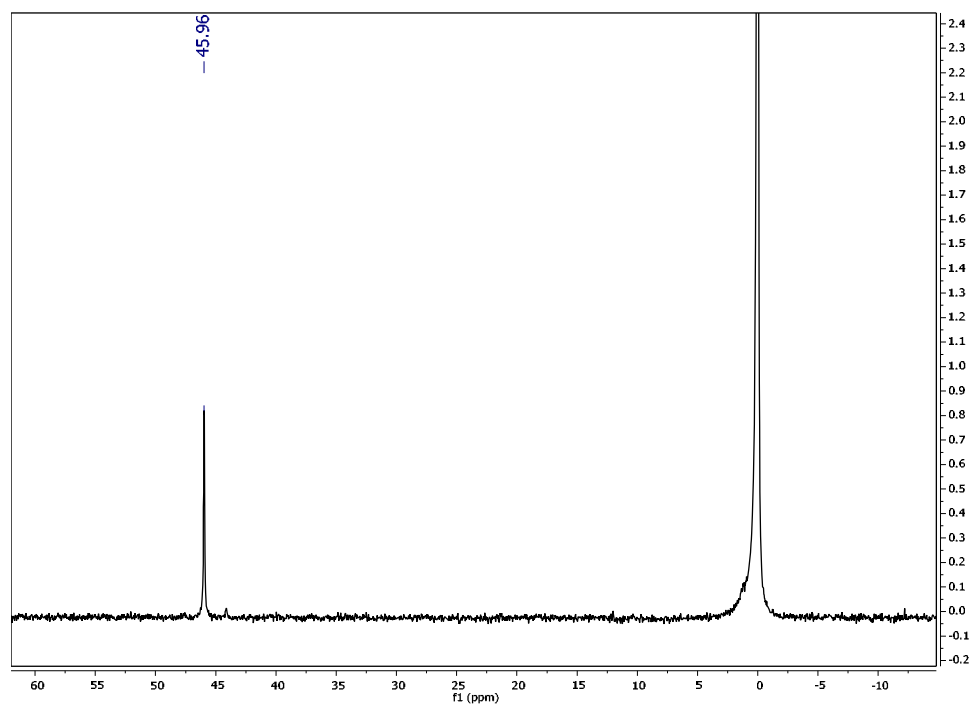
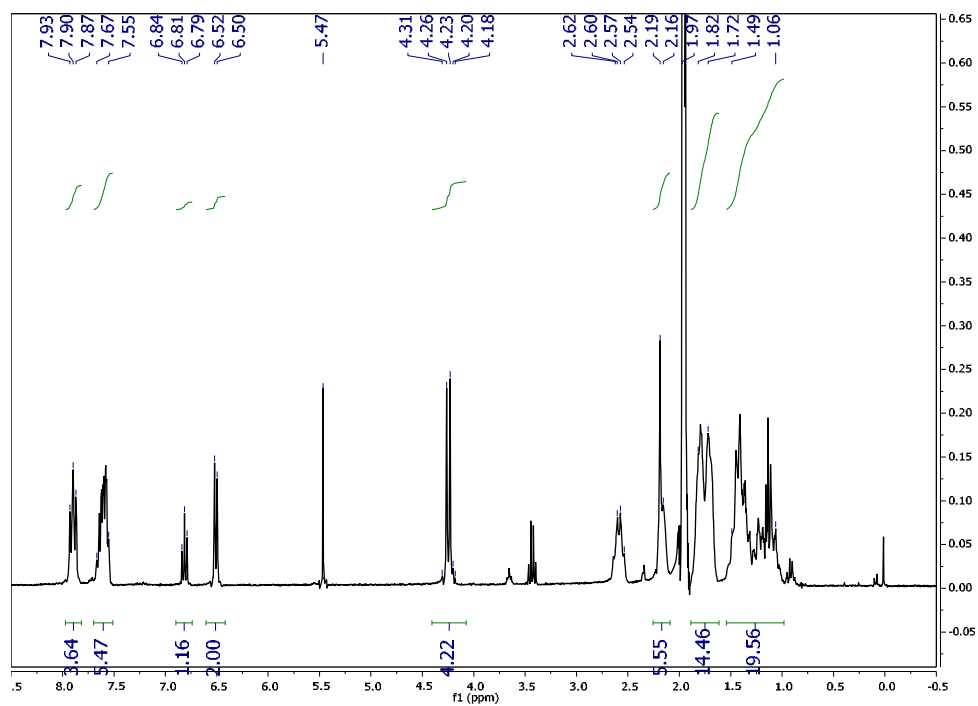
Figure S21 ^{31}P NMR of L^2NiBr in chloroform- d .**Figure S22** ^1H NMR of L^3NiBr in acetonitrile- d_3 .

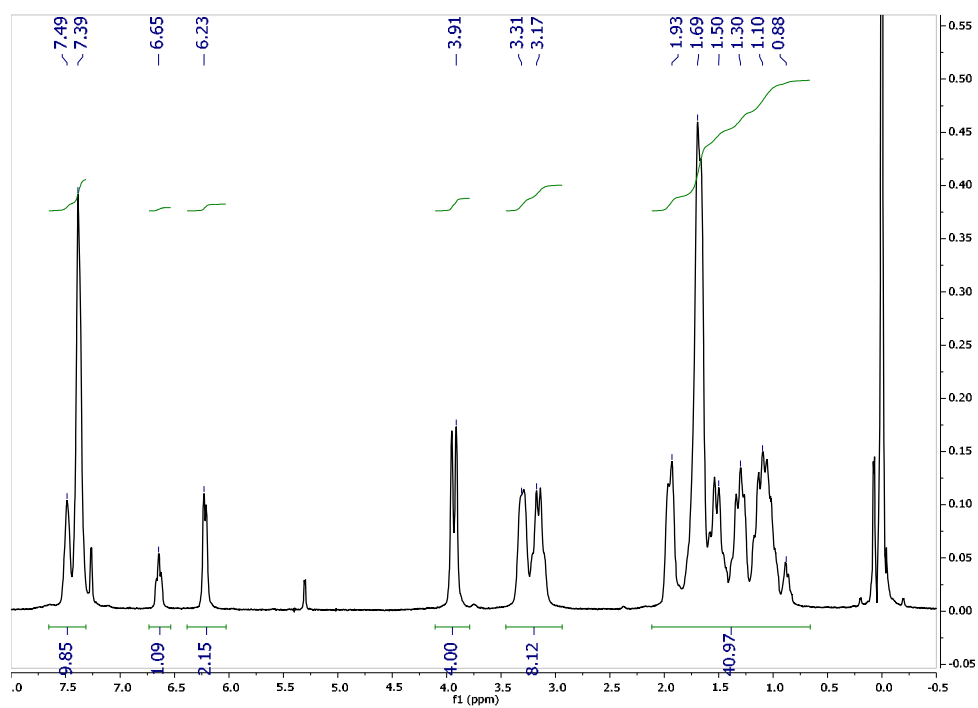
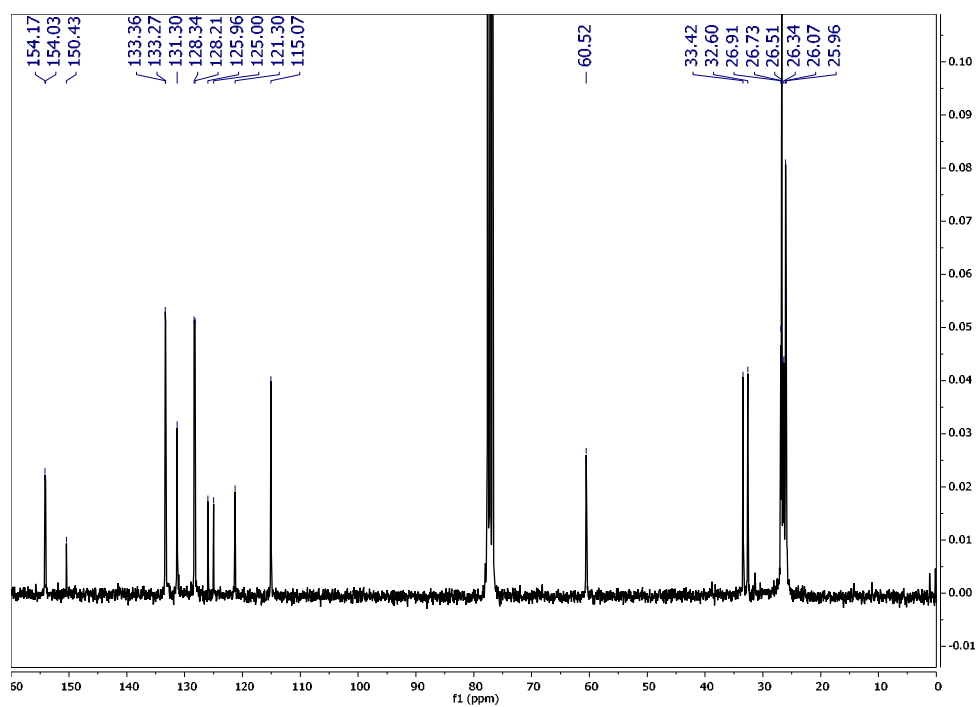
Figure S23 ^1H NMR of L^3NiBr in chloroform-*d*.**Figure S24** ^{13}C NMR of L^3NiBr in chloroform-*d*.

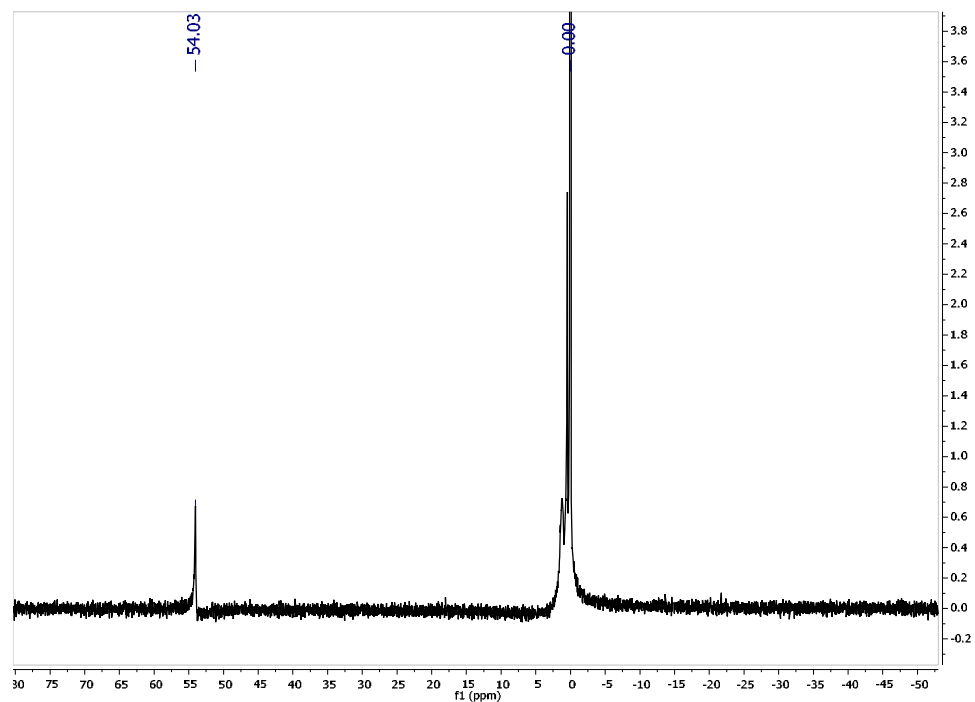
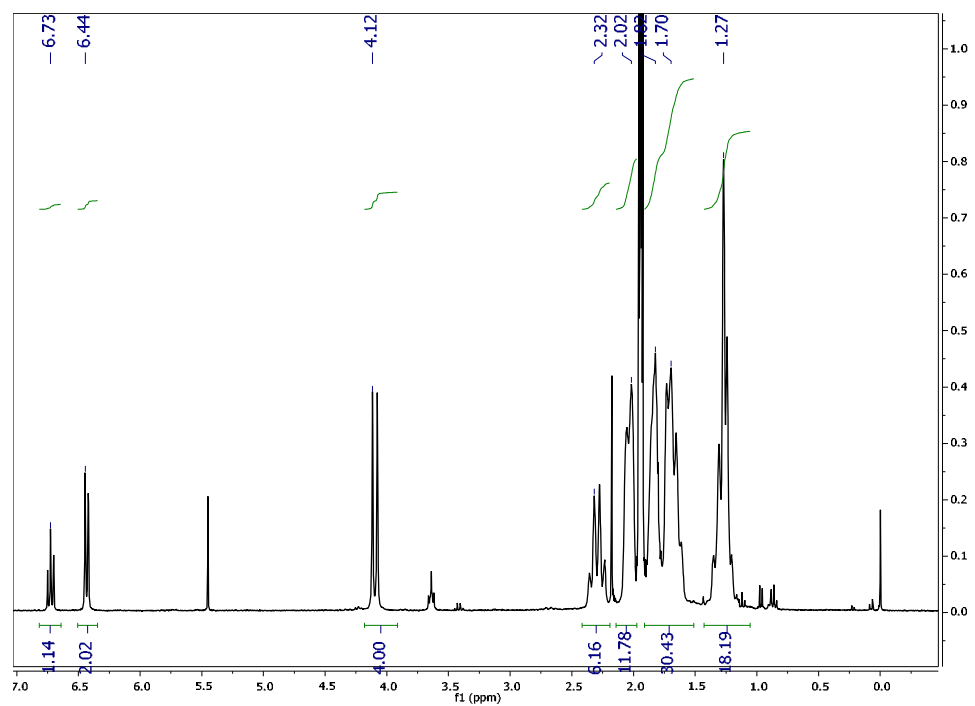
Figure S25 ^{31}P NMR of L^3NiBr in acetonitrile- d_3 .**Figure S26** ^1H NMR of L^4NiBr in acetonitrile- d_3 .

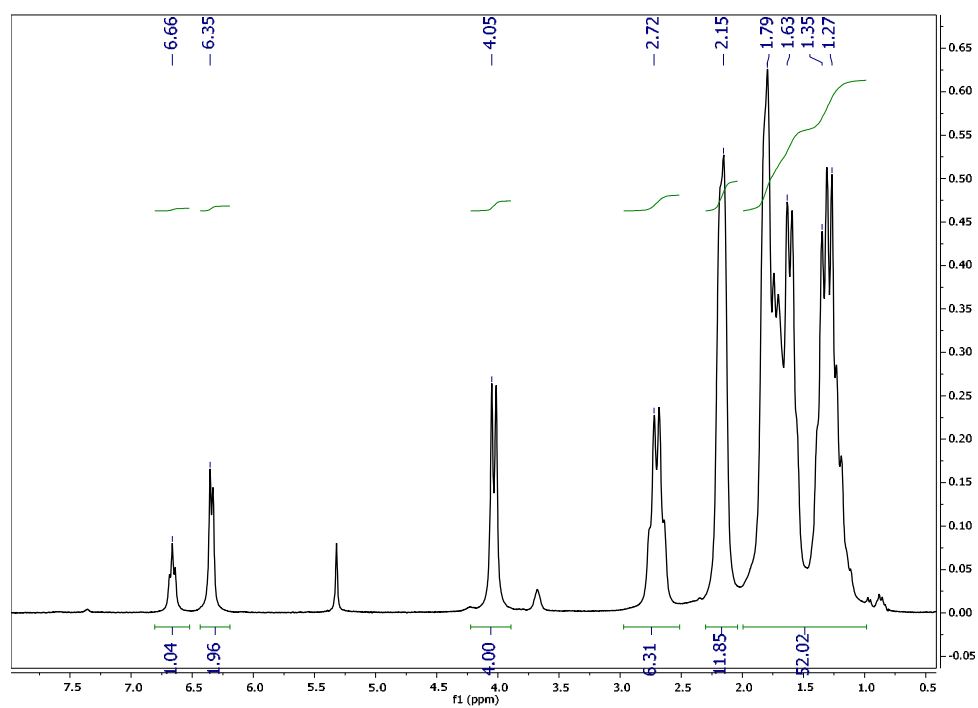
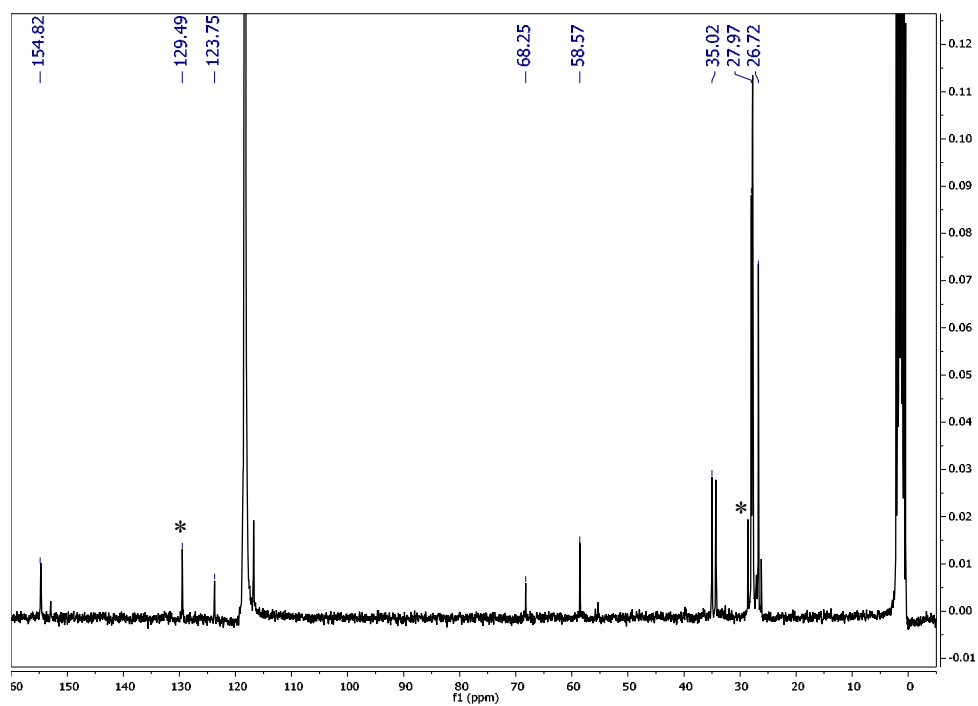
Figure S27 ^1H NMR of L^4NiBr in dichloromethane- d_2 .**Figure S28** ^{13}C NMR of L^4NiBr in acetonitrile- d_3 . Asterisk denotes 1,5-cyclooctadiene impurity.

Figure S29 ^{31}P NMR of L^4NiBr in acetonitrile- d_3 .