

## Supplementary Information

### **Rational design and characterization of novel phosphorescent rhenium (I) complexes for extremely high-efficiency organic light-emitting diodes**

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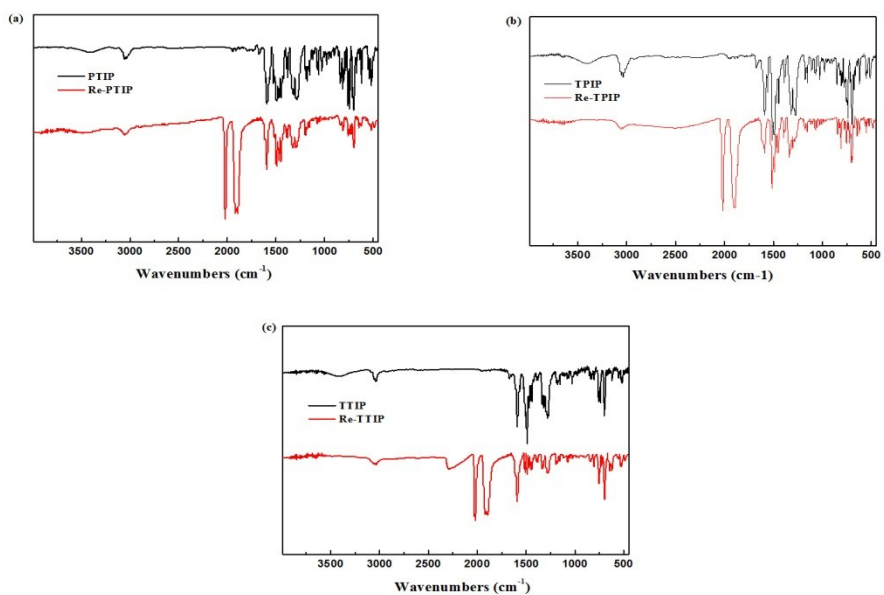


Figure S1 FT-IR spectra of PTIP and Re-PTIP (a), TPIP and Re-TPIP (b), TTIP and Re-TTIP (c).

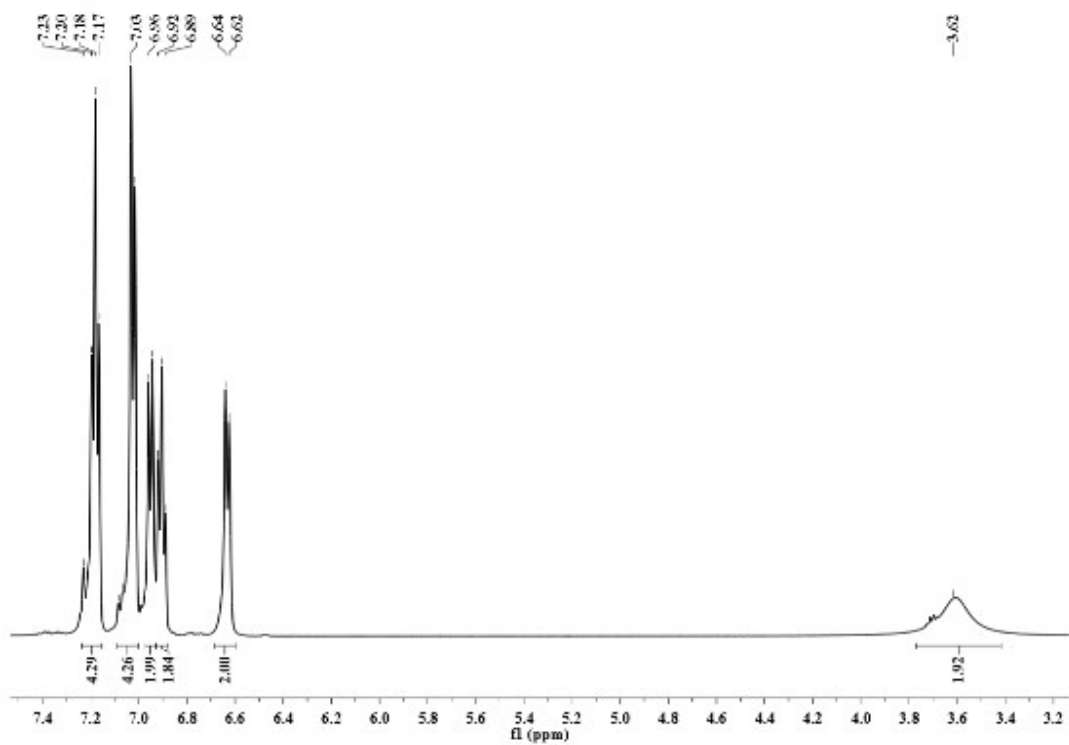


Figure S2  $^1\text{H}$  NMR of 4-(diphenylamino)aniline.

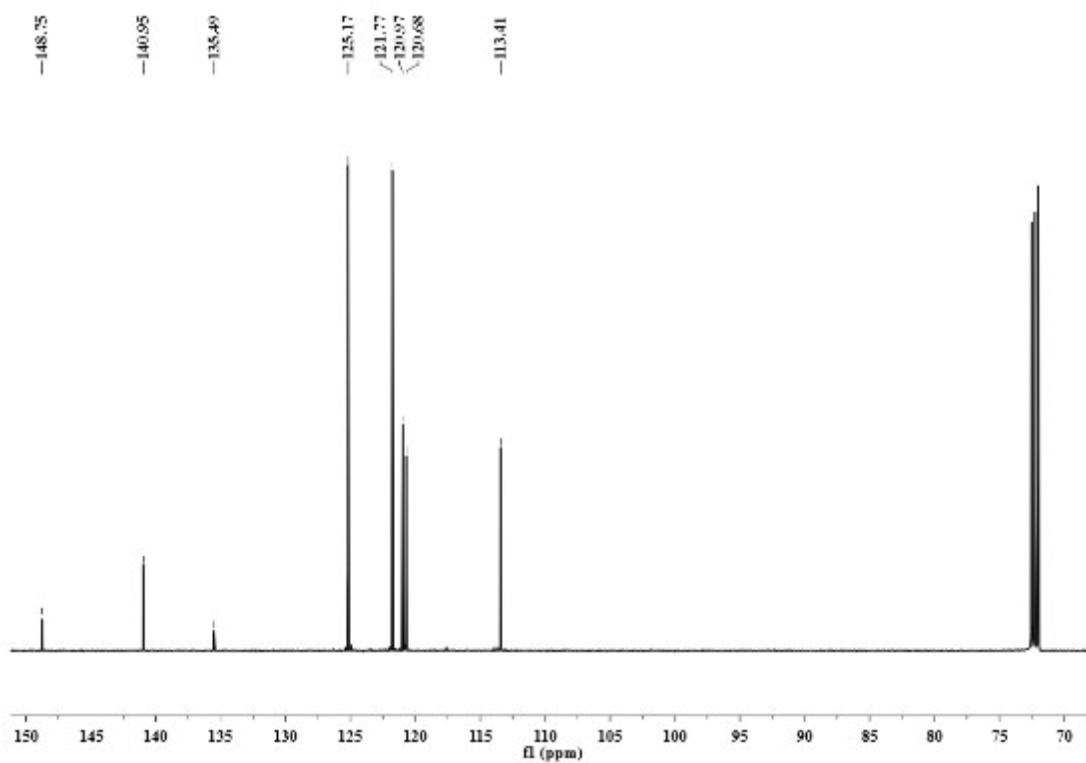


Figure S3  $^{13}\text{C}$  NMR of 4-(diphenylamino)aniline.

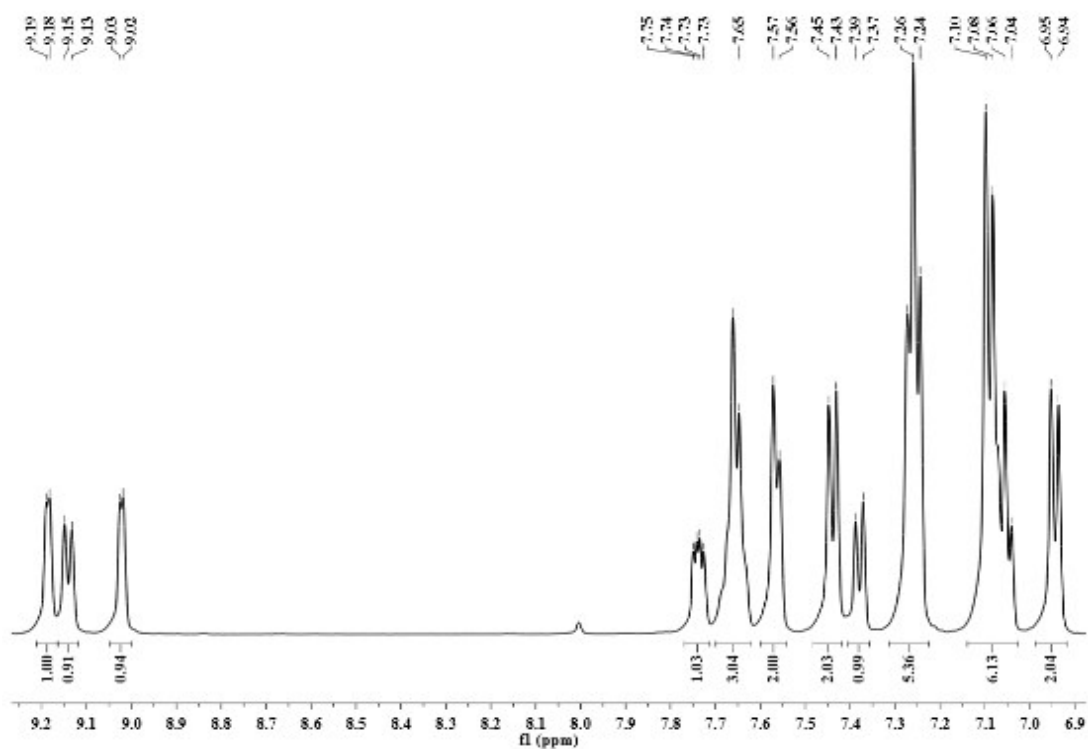


Figure S4  $^1\text{H}$  NMR of PTIP.

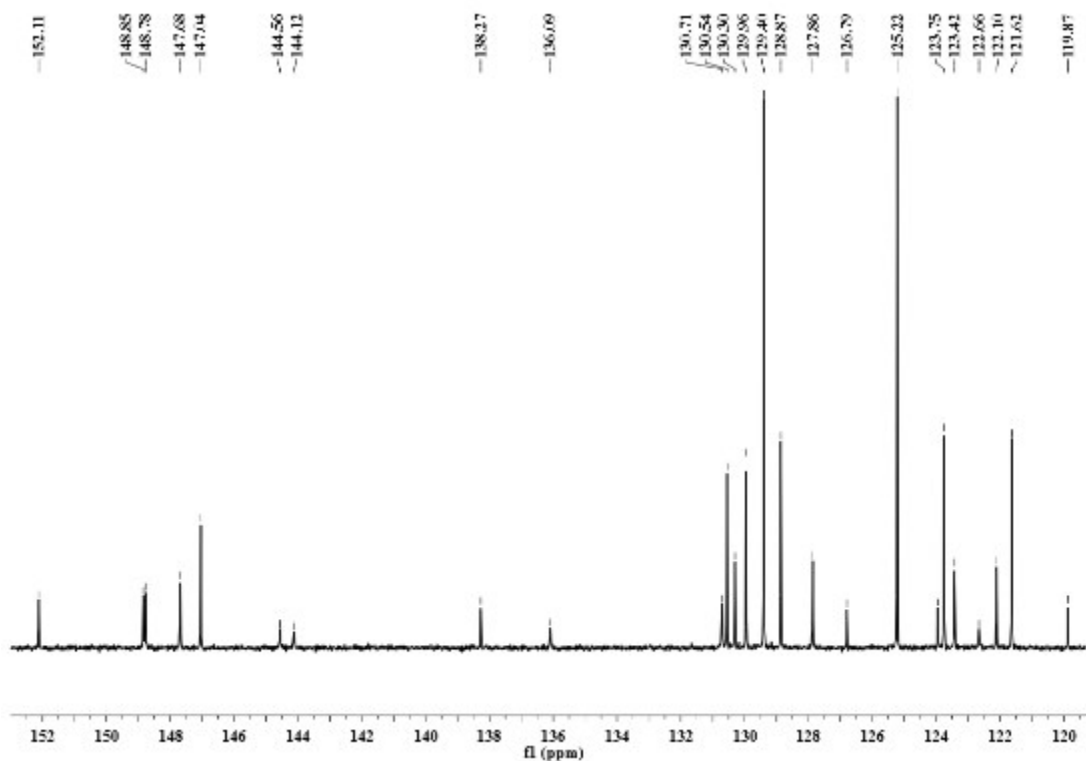


Figure S5  $^{13}\text{C}$  NMR of PTIP.

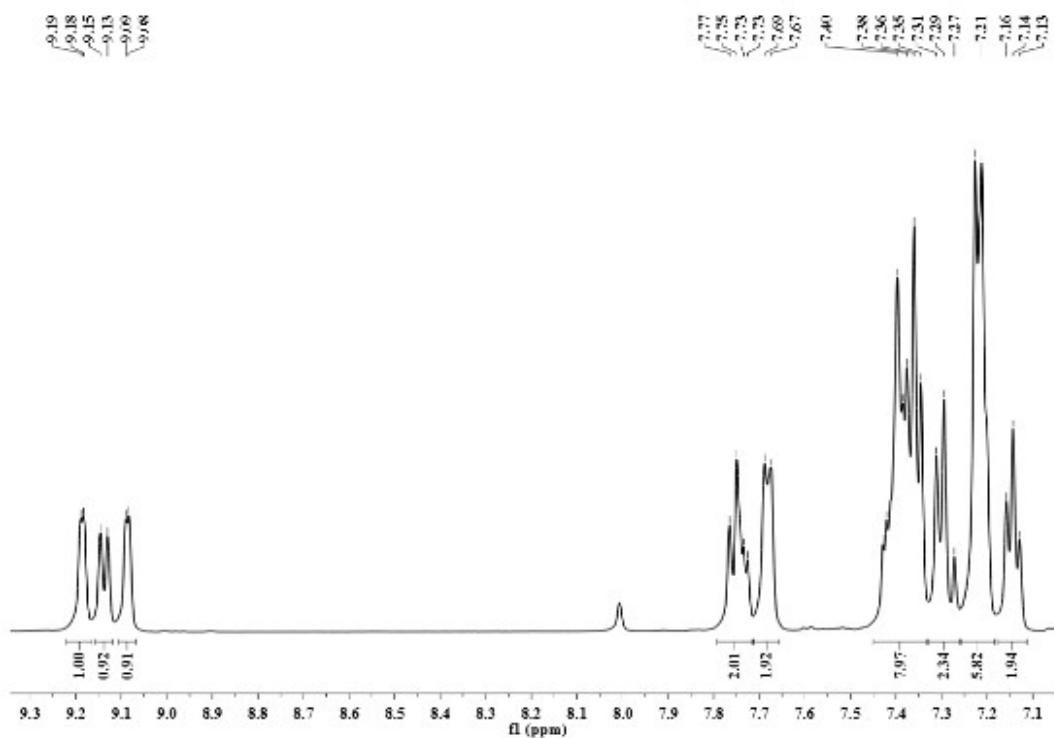


Figure S6  $^1\text{H}$  NMR of TPIP.

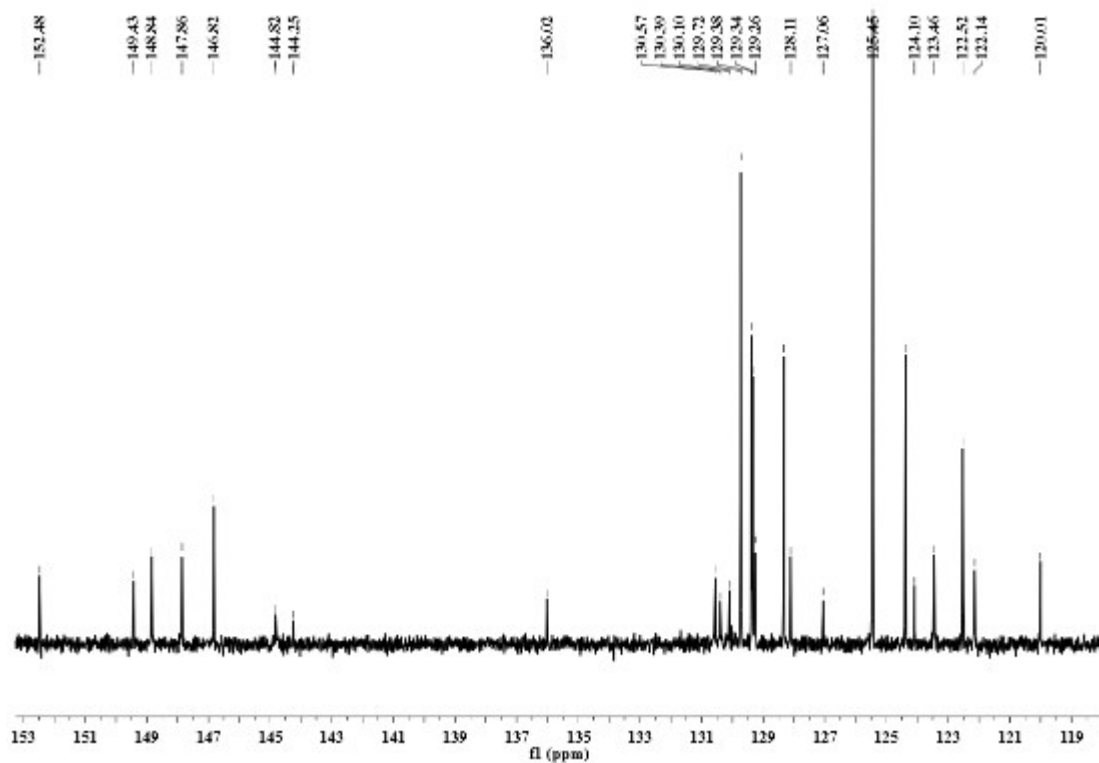


Figure S7  $^{13}\text{C}$  NMR of TPIP.

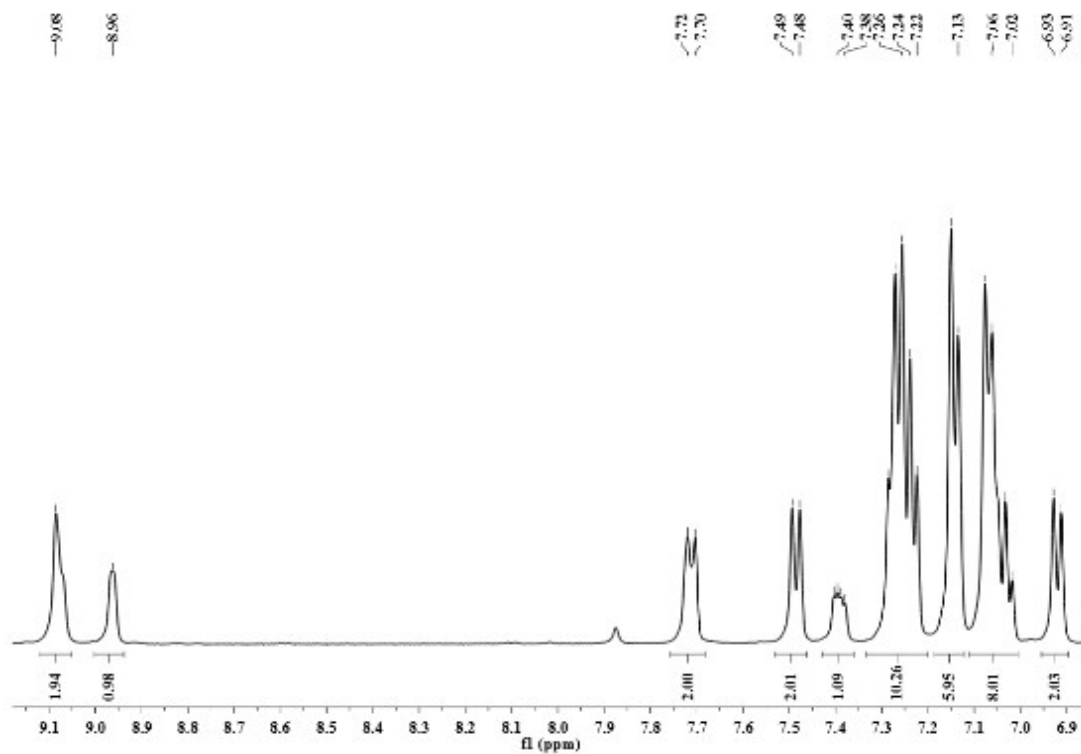


Figure S8  $^1\text{H}$  NMR of TTIP.

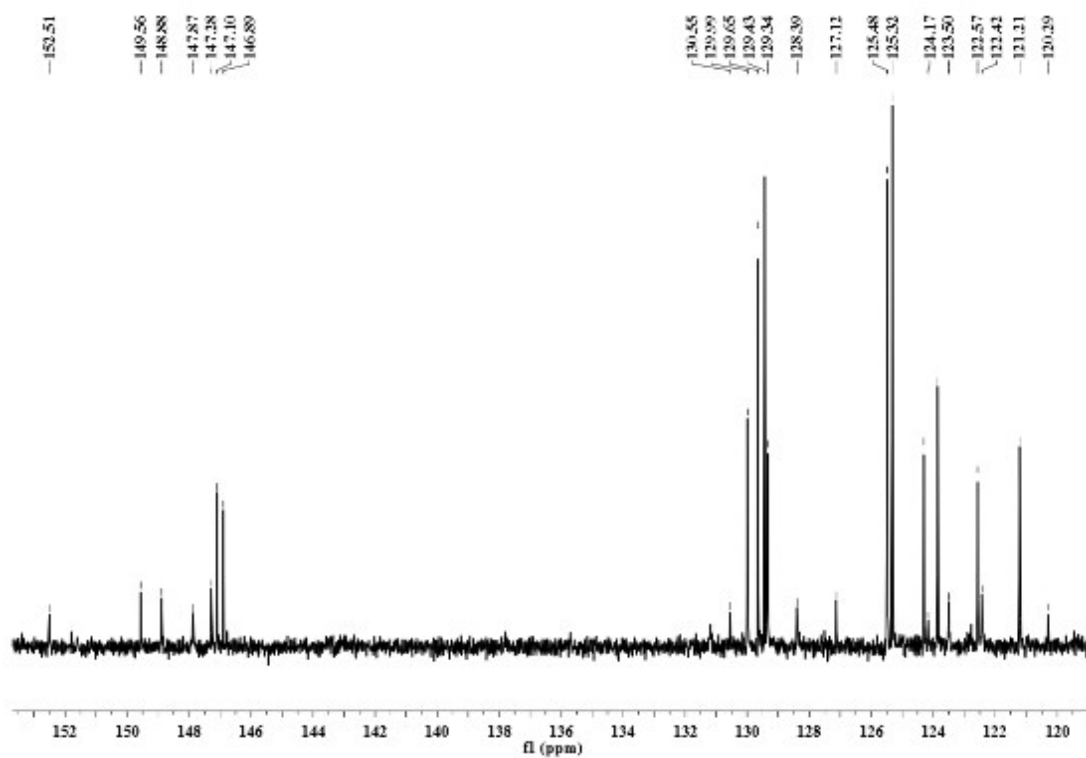


Figure S9  $^{13}\text{C}$  NMR of TTIP.

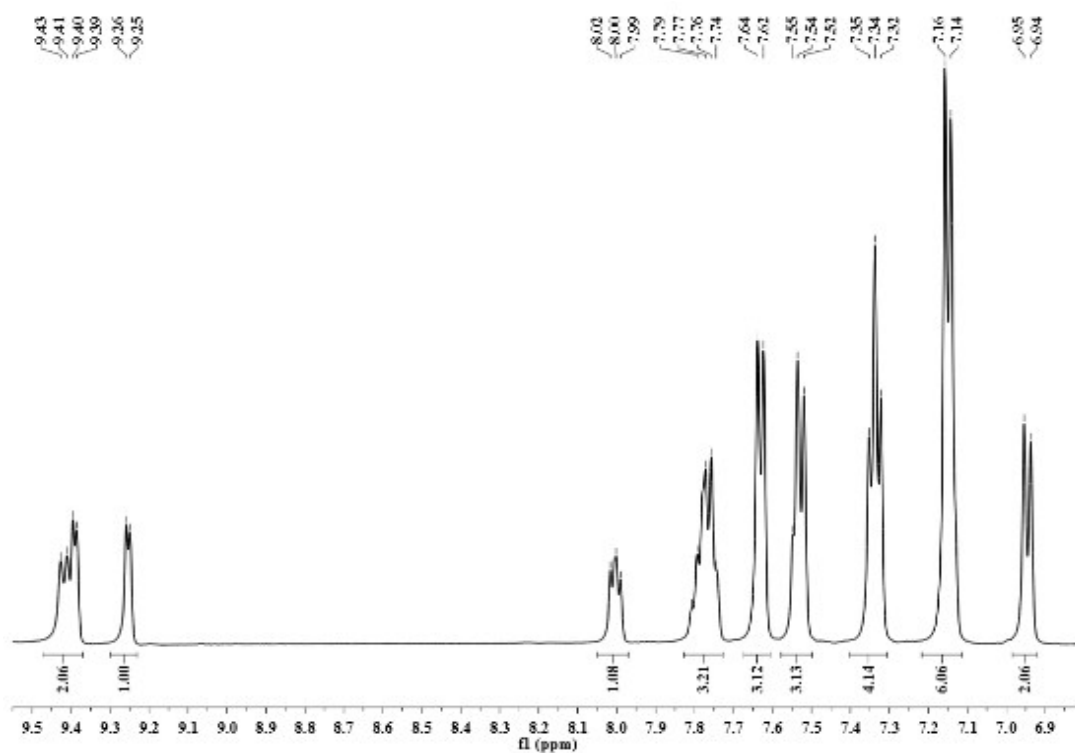


Figure S10  $^1\text{H}$  NMR of Re-PTIP.

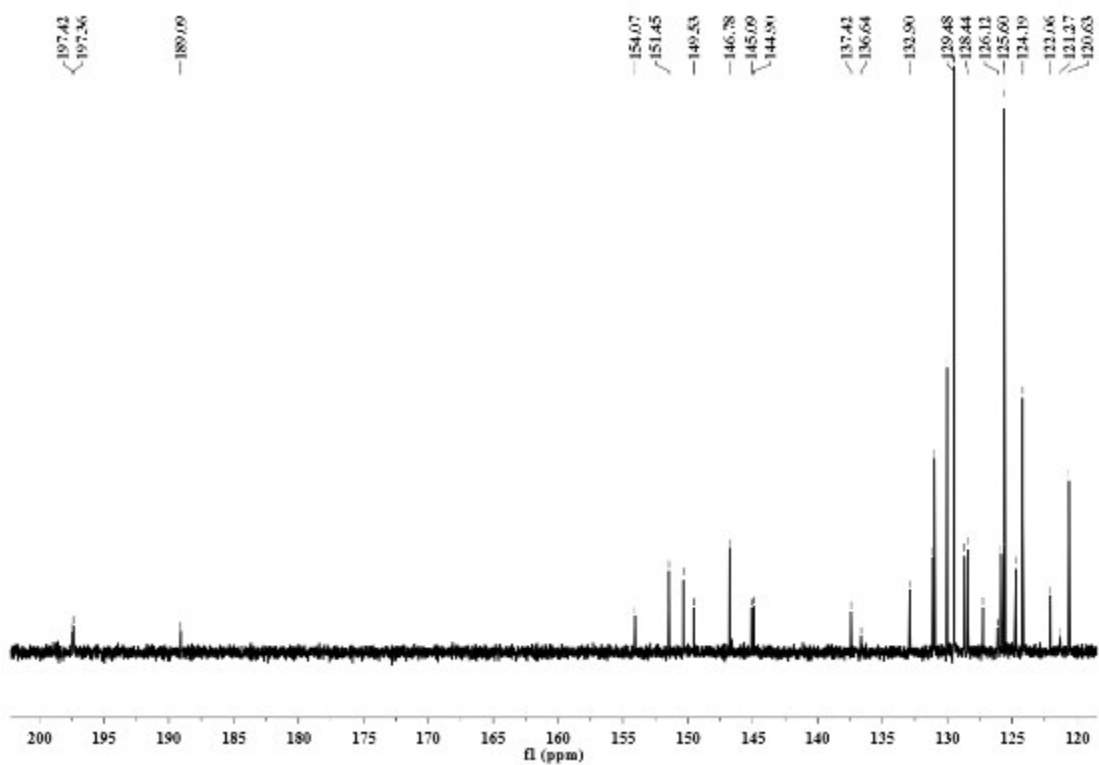


Figure S11  $^{13}\text{C}$  NMR of Re-PTIP.

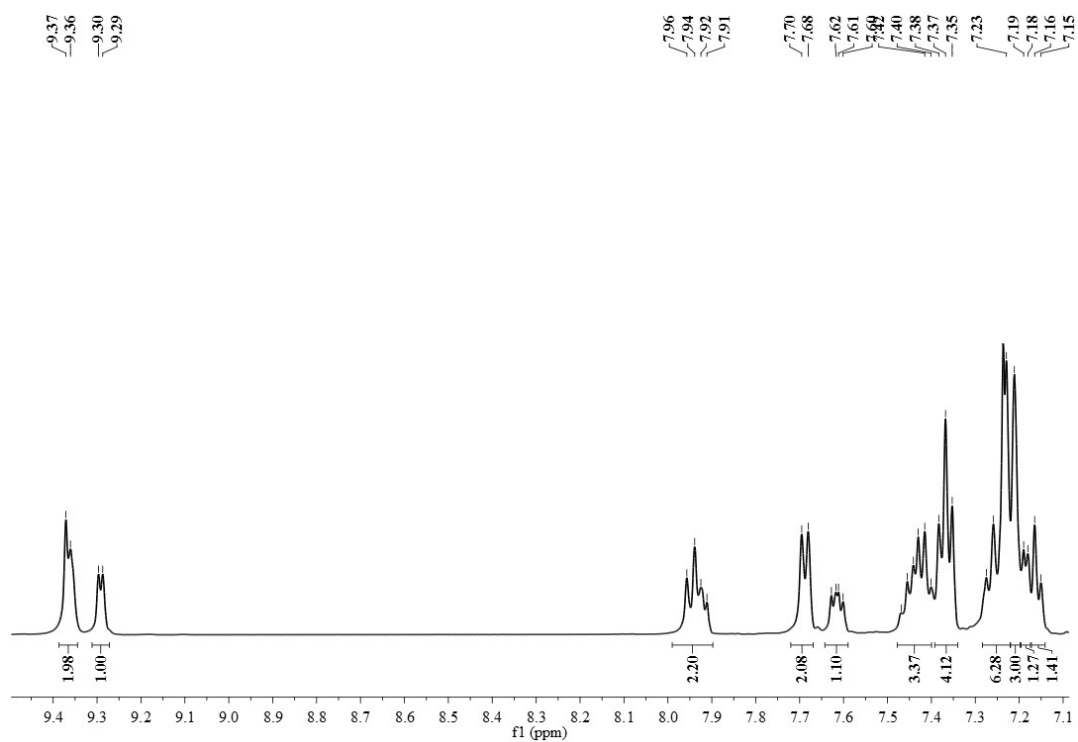


Figure S12  $^1\text{H}$  NMR of Re-TPIP.

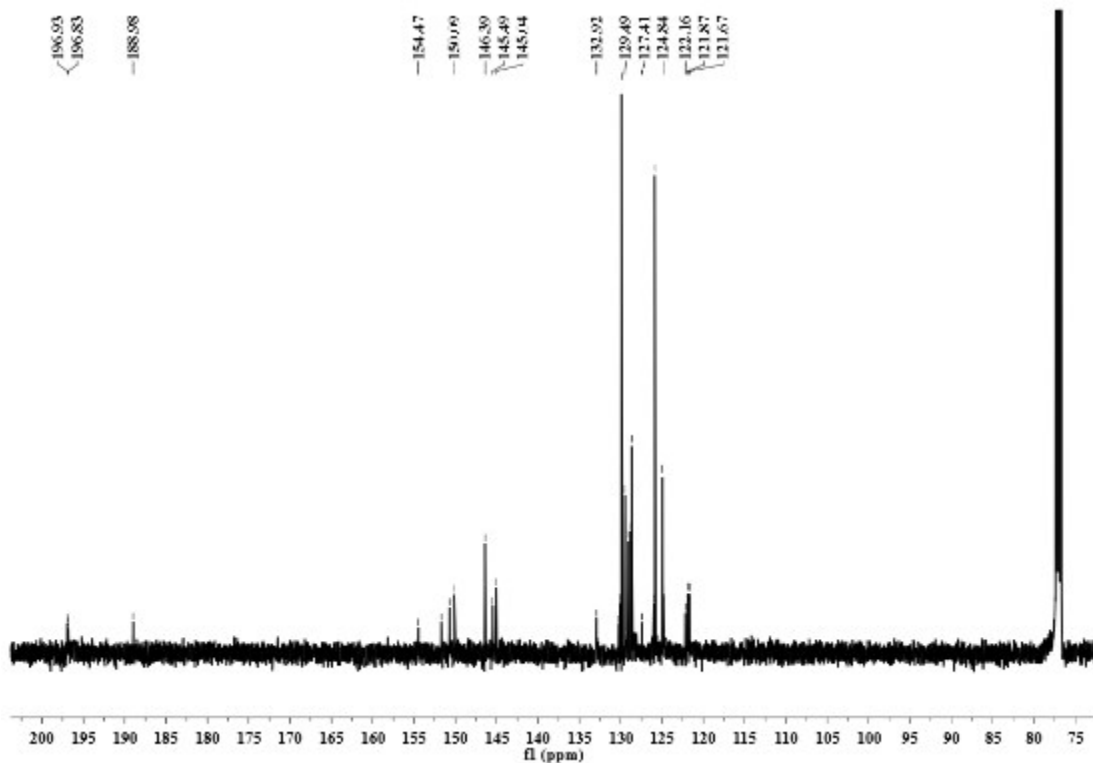


Figure S13  $^{13}\text{C}$  NMR of Re-TPIP.

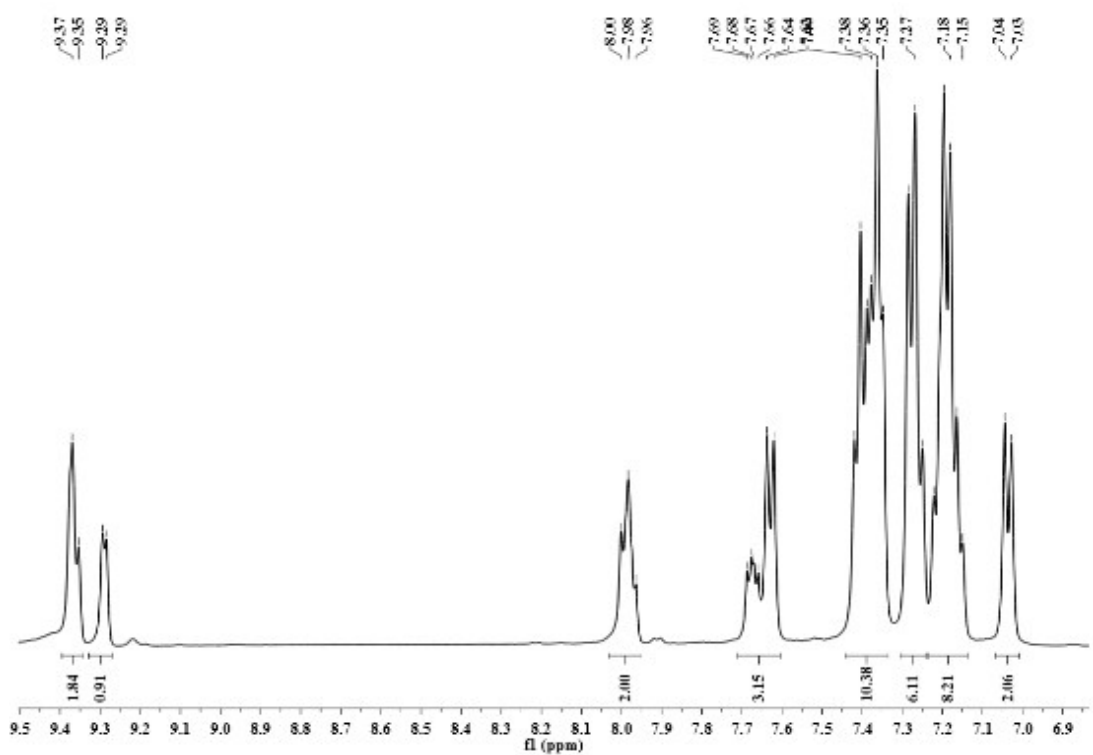


Figure S14  $^1\text{H}$  NMR of Re-TTIP.



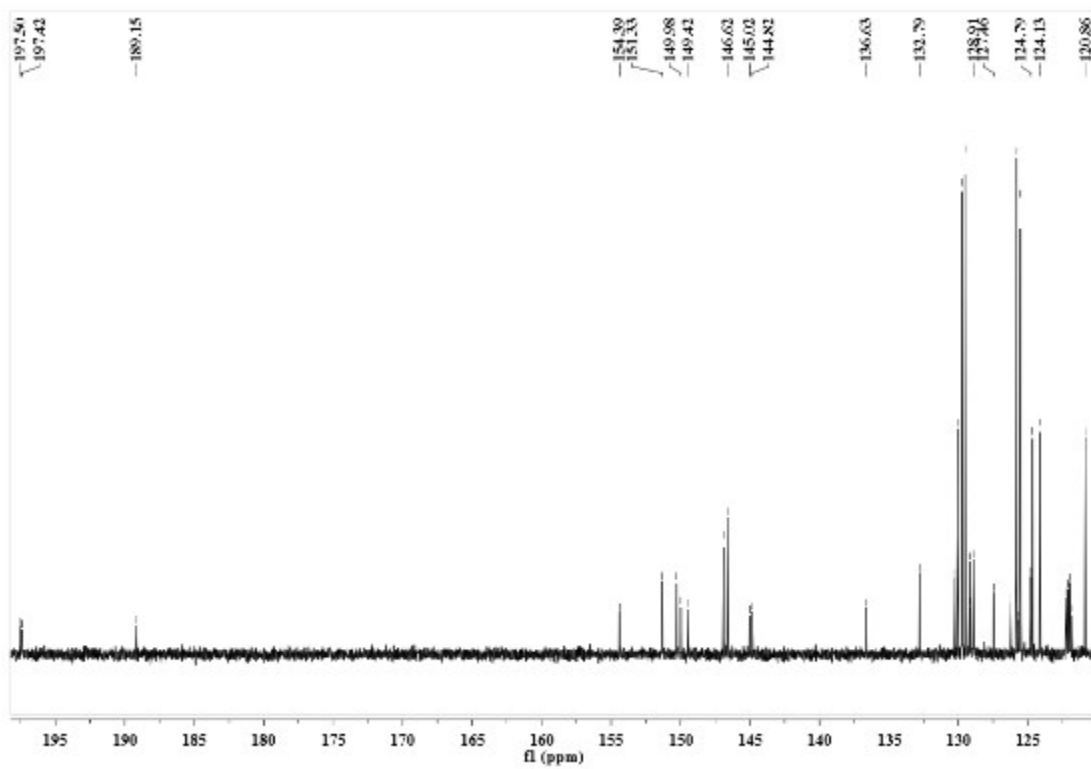


Figure S15  $^{13}\text{C}$  NMR of Re-TTIP.