

Piperidinium and Pyrrolidinium Ionic Liquids as Precursors in the Synthesis of New Platinum Catalysts for Hydrosilylation

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Outline:

1. NMR Spectra of complexes
2. ESI-MS spectra of complexes
3. NMR spectra of isolated products

1. NMR Spectra of complexes

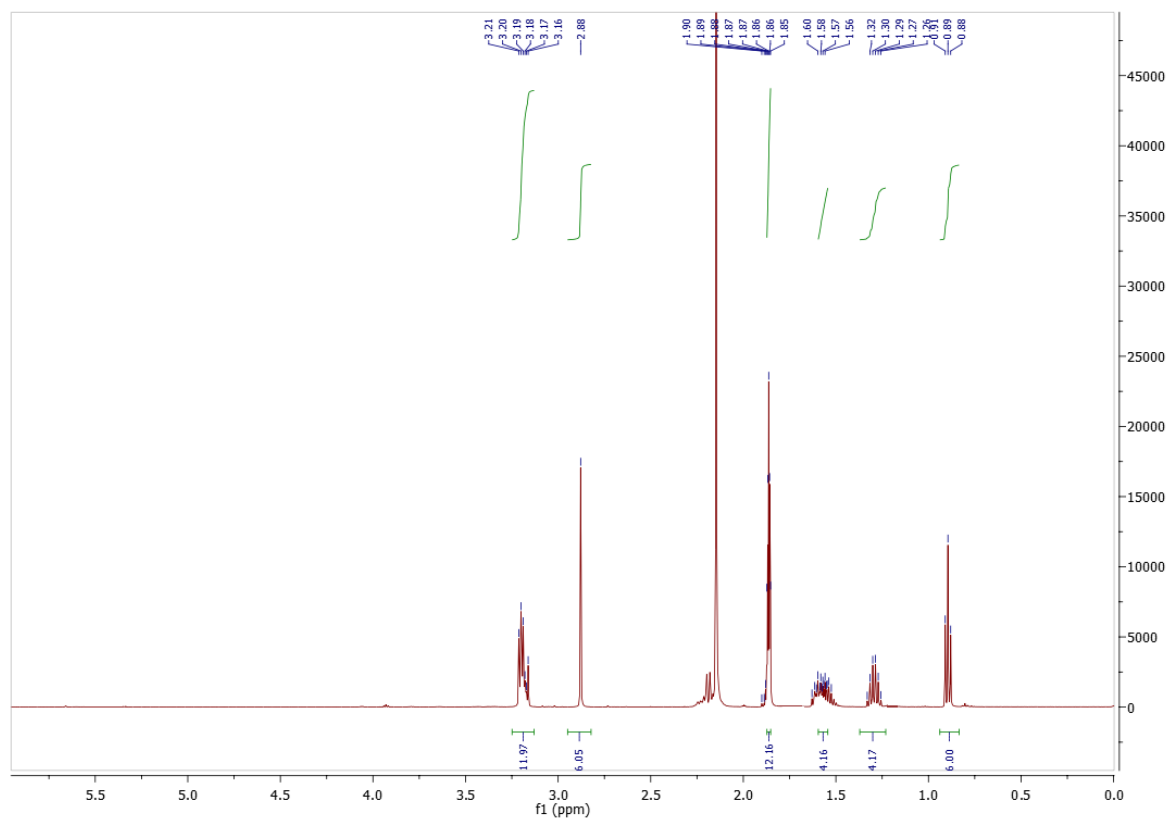


Figure S1: ^1H NMR spectrum of Bis(1-butyl-1-methylpiperidinium) Tetrachloroplatinate(II) [BMPip] $_2$ [PtCl $_4$]

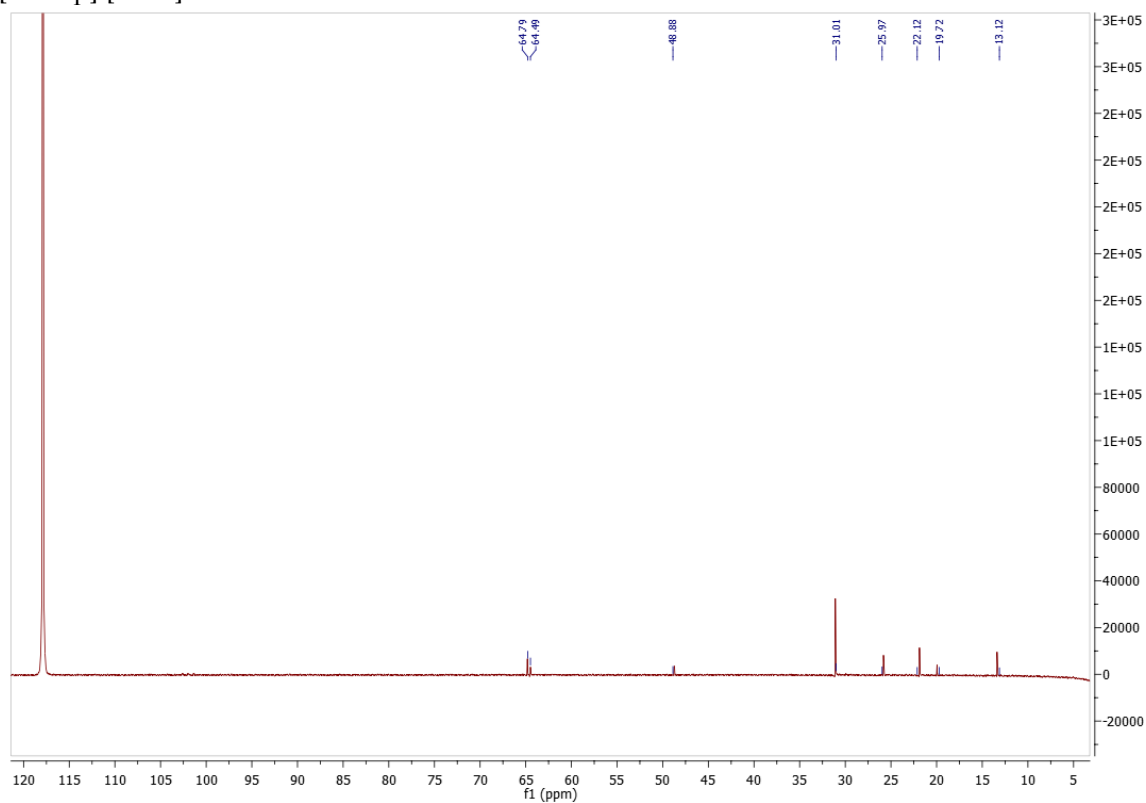


Figure S2: ^{13}C NMR spectrum of Bis(1-butyl-1-methylpiperidinium) Tetrachloroplatinate(II) [BMPip] $_2$ [PtCl $_4$]

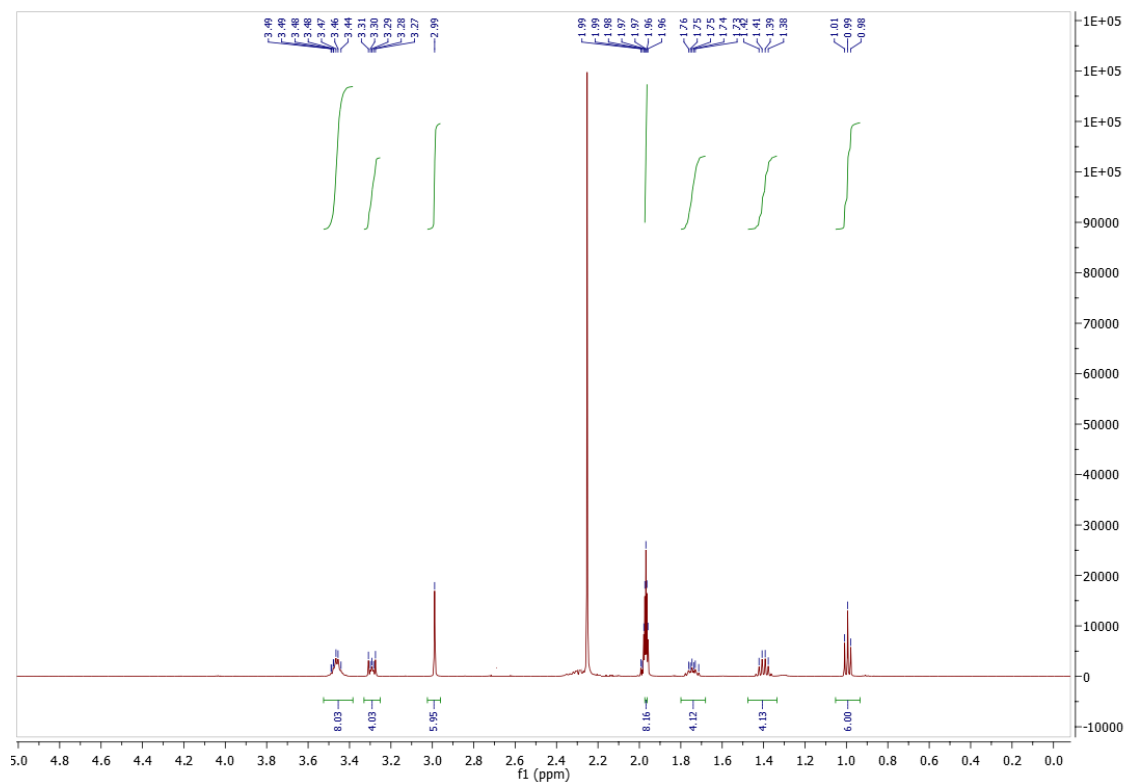


Figure S3: ¹H NMR spectrum of Bis(1-butyl-1-methylpyrrolidinium) Tetrachloroplatinate(II) [BMPyrr]₂[PtCl₄]

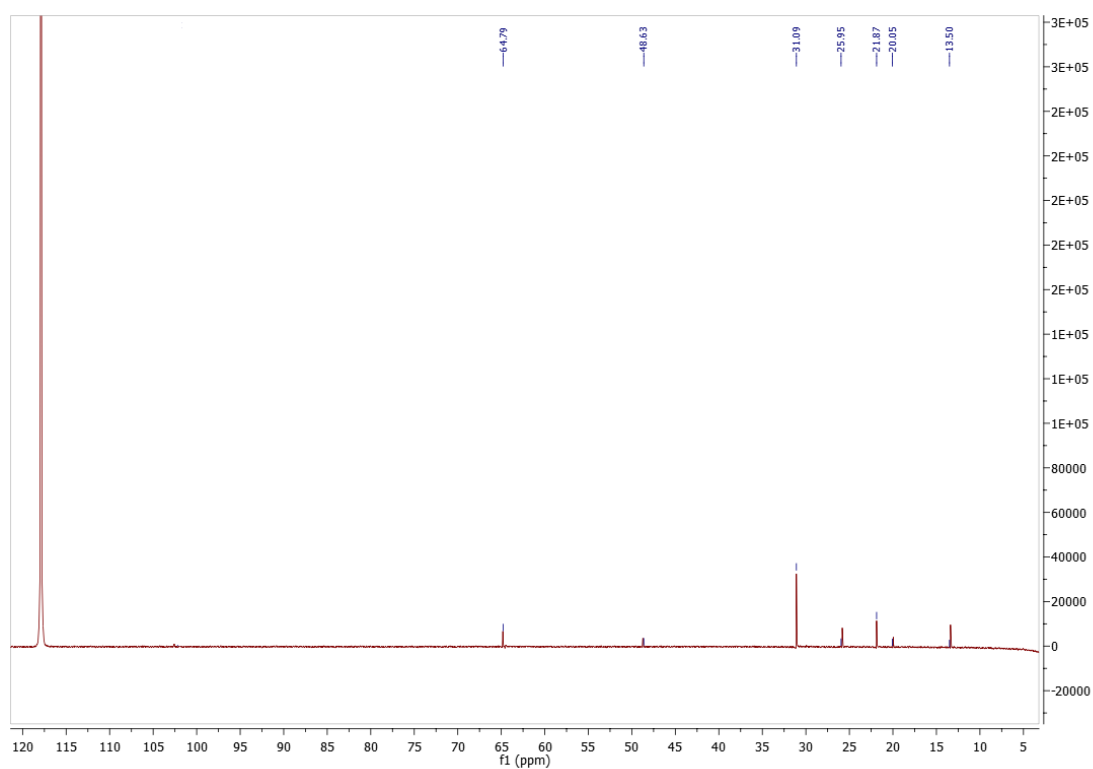


Figure S4: ¹³C NMR spectrum of Bis(1-butyl-1-methylpyrrolidinium) Tetrachloroplatinate(II) [BMPyrr]₂[PtCl₄]

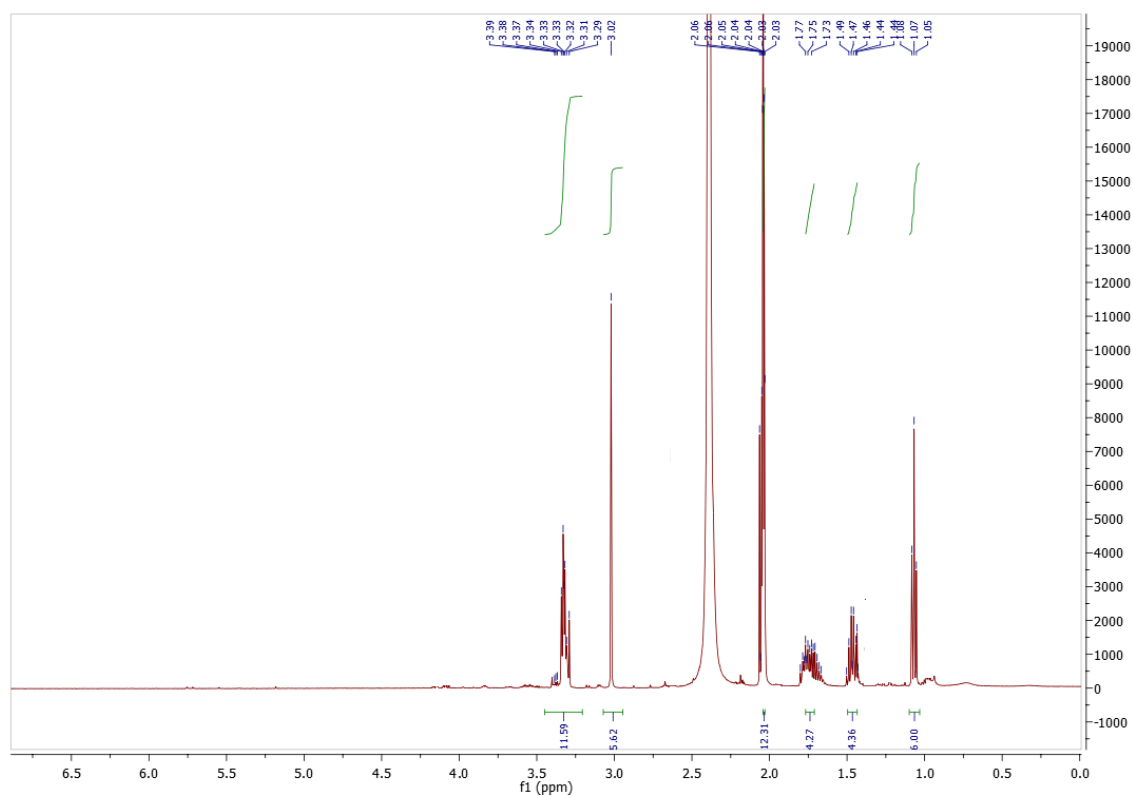


Figure S5: ¹H NMR spectrum of Bis(1-butyl-1-methylpiperidinium) Heksachloroplatinate(IV) [BMPip]₂[PtCl₆]

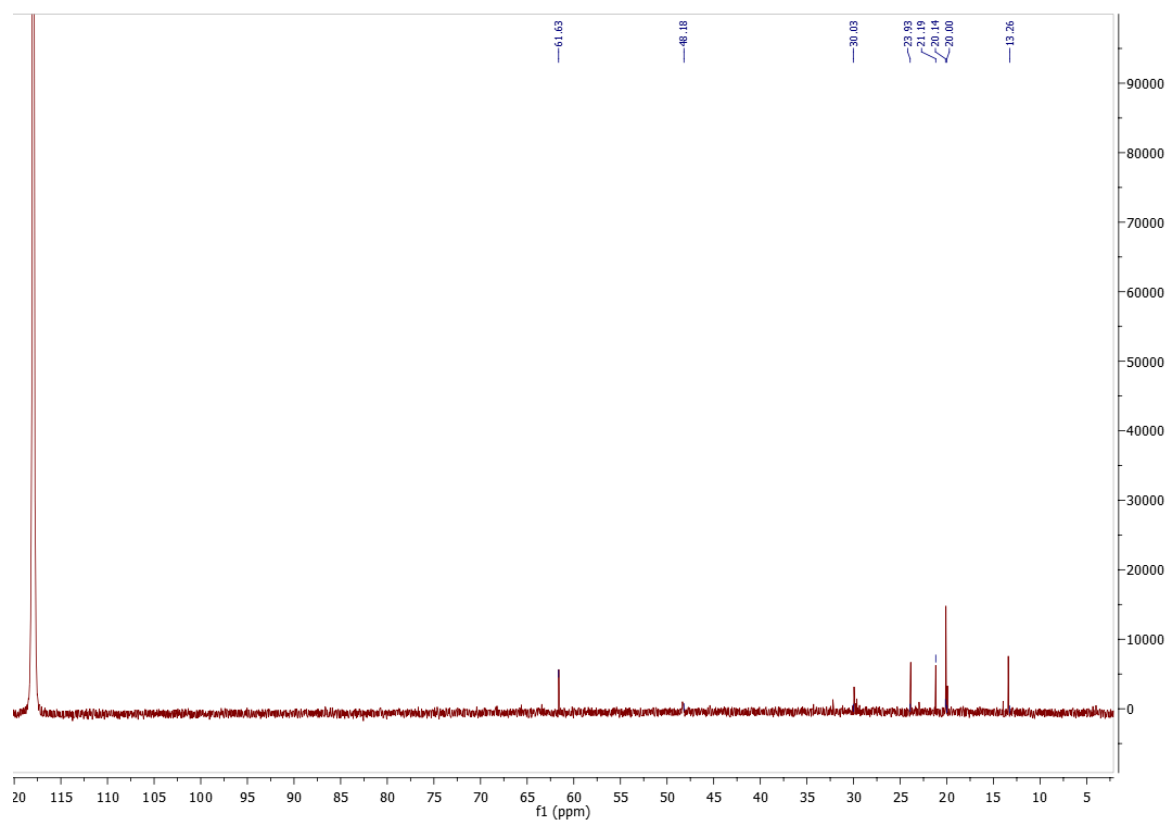


Figure S6: ¹³C NMR spectrum of Bis(1-butyl-1-methylpiperidinium) Heksachloroplatinate(IV) [BMPip]₂[PtCl₆]

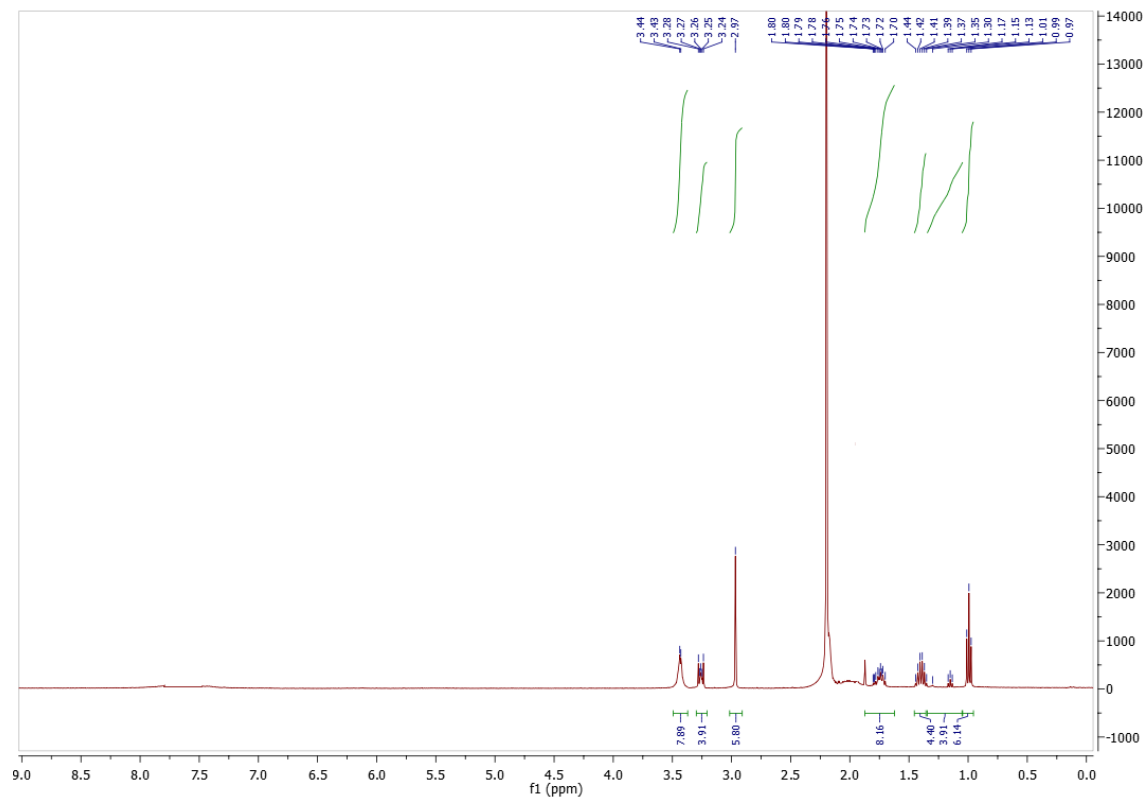


Figure S7: ¹H NMR spectrum of Bis(1-butyl-1-methylpyrrolidinium) Heksachloroplatinate(IV) [BMPyrr]₂[PtCl₆]

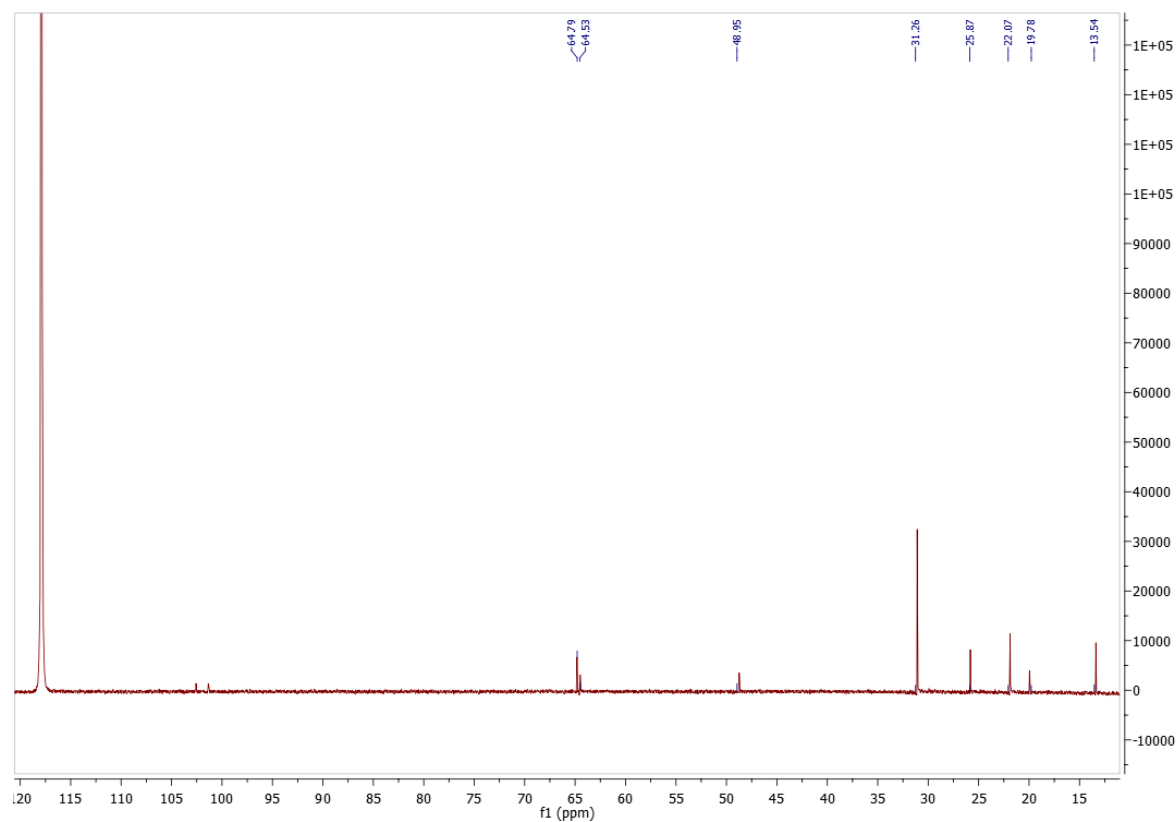


Figure S8: ¹³C NMR spectrum of Bis(1-butyl-1-methylpyrrolidinium) Heksachloroplatinate(IV) [BMPyrr]₂[PtCl₆]

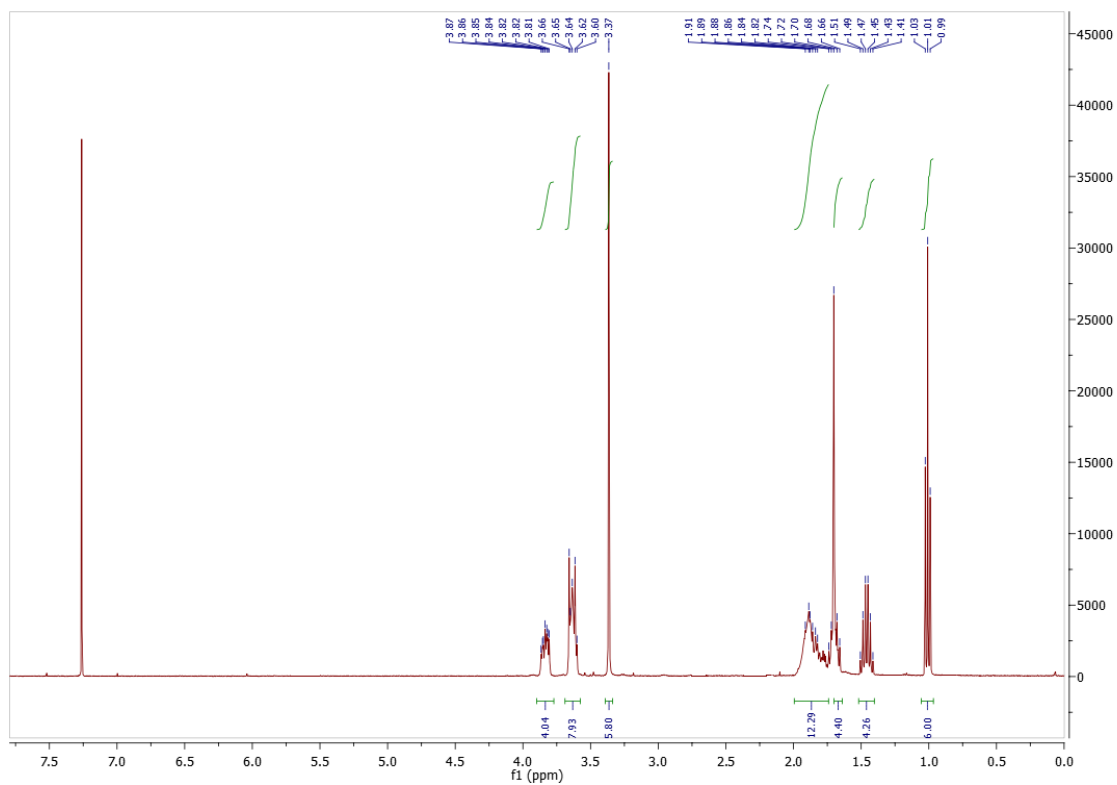


Figure S9: ¹H NMR spectrum of Bis(1-butyl-1-methylpiperidinium) Hexachlorodiplatinate(II) [BMPip]₂[Pt₂Cl₆]

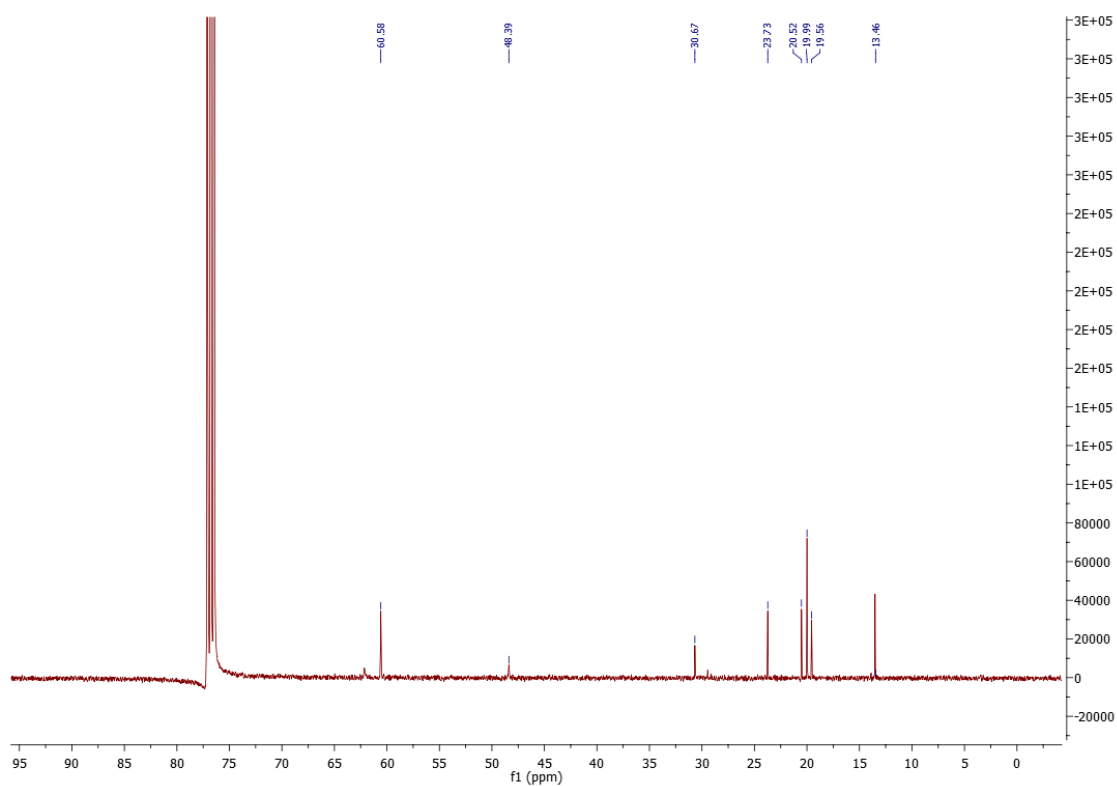


Figure S10: ¹³C NMR spectrum of Bis(1-butyl-1-methylpiperidinium) Hexachlorodiplatinate(II) [BMPip]₂[Pt₂Cl₆]

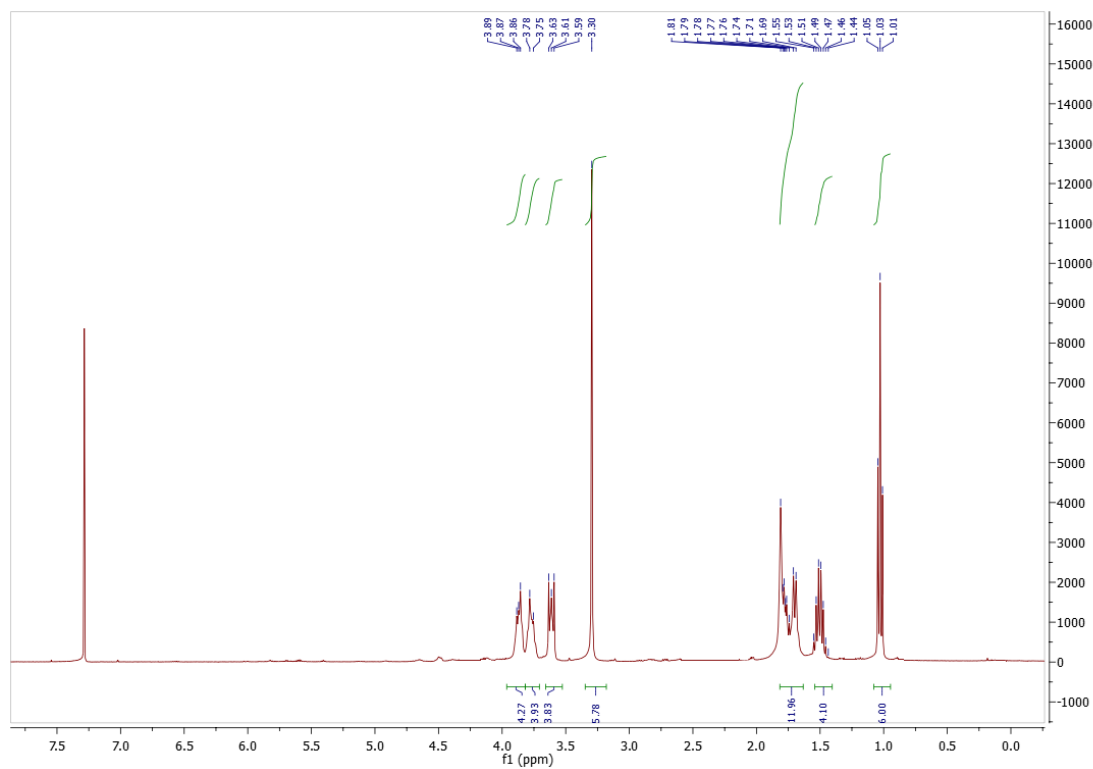


Figure S11: ¹H NMR spectrum of Bis(1-butyl-1-methylpyrrolidinium) Hexachlorodiplatinate(II) [BMPyrr]₂[Pt₂Cl₆]

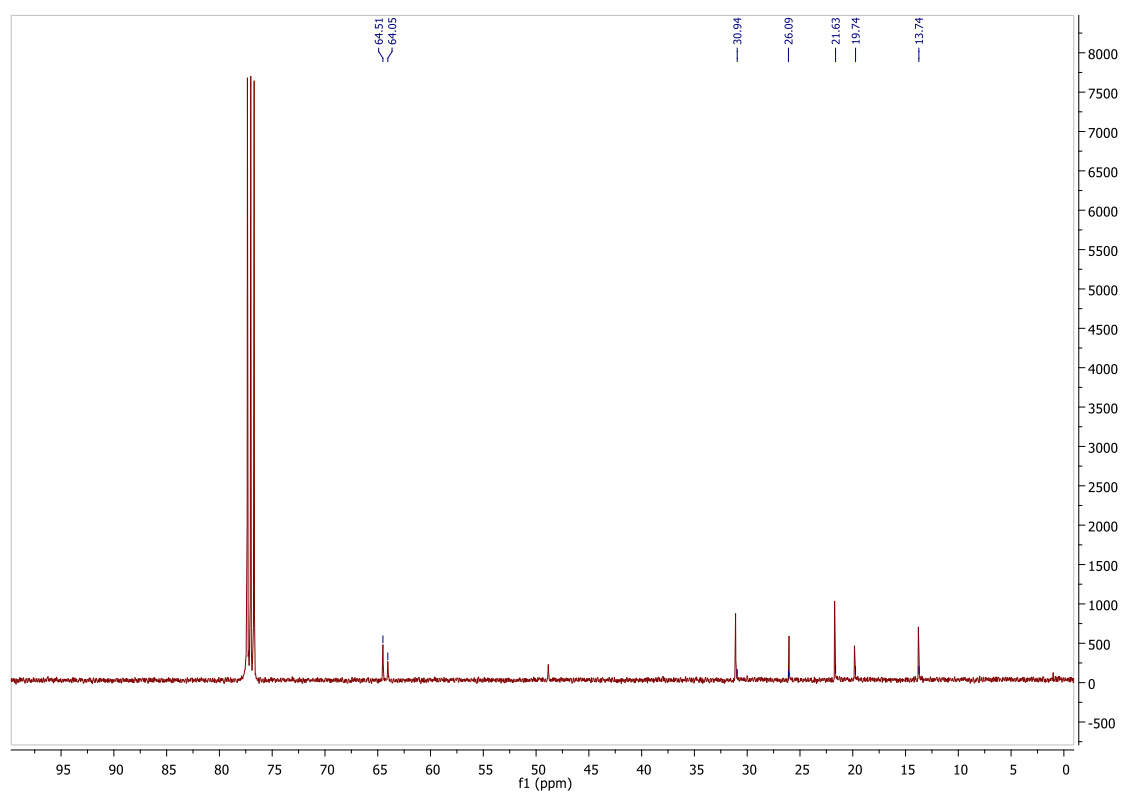


Figure S12: ¹³C NMR spectrum of Bis(1-butyl-1-methylpyrrolidinium) Hexachlorodiplatinate(II) [BMPyrr]₂[Pt₂Cl₆]

2. ESI-MS spectra of complexes

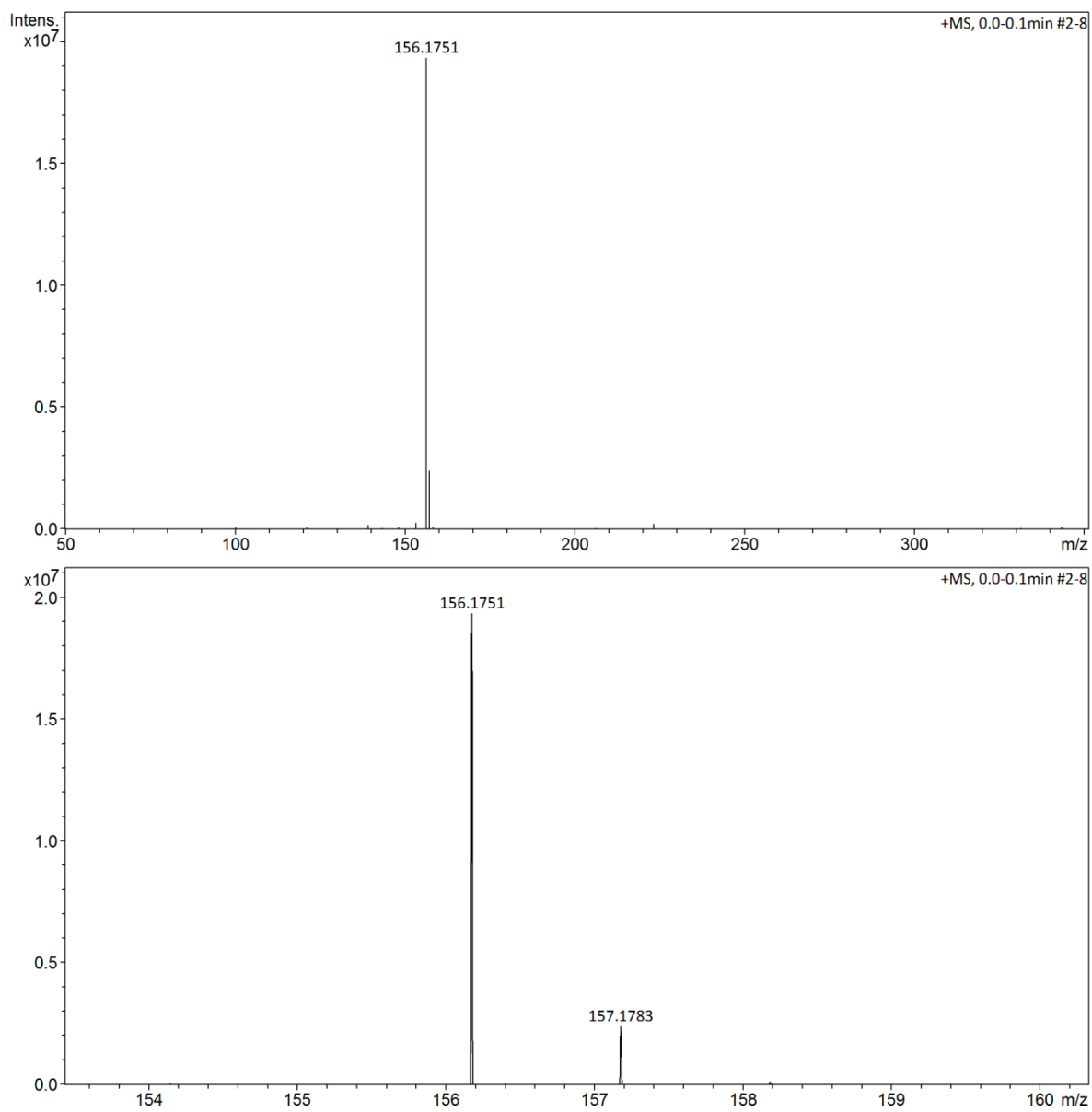


Figure S13: ESI-MS(+) of $[\text{BMPip}]_2[\text{PtCl}_4]$

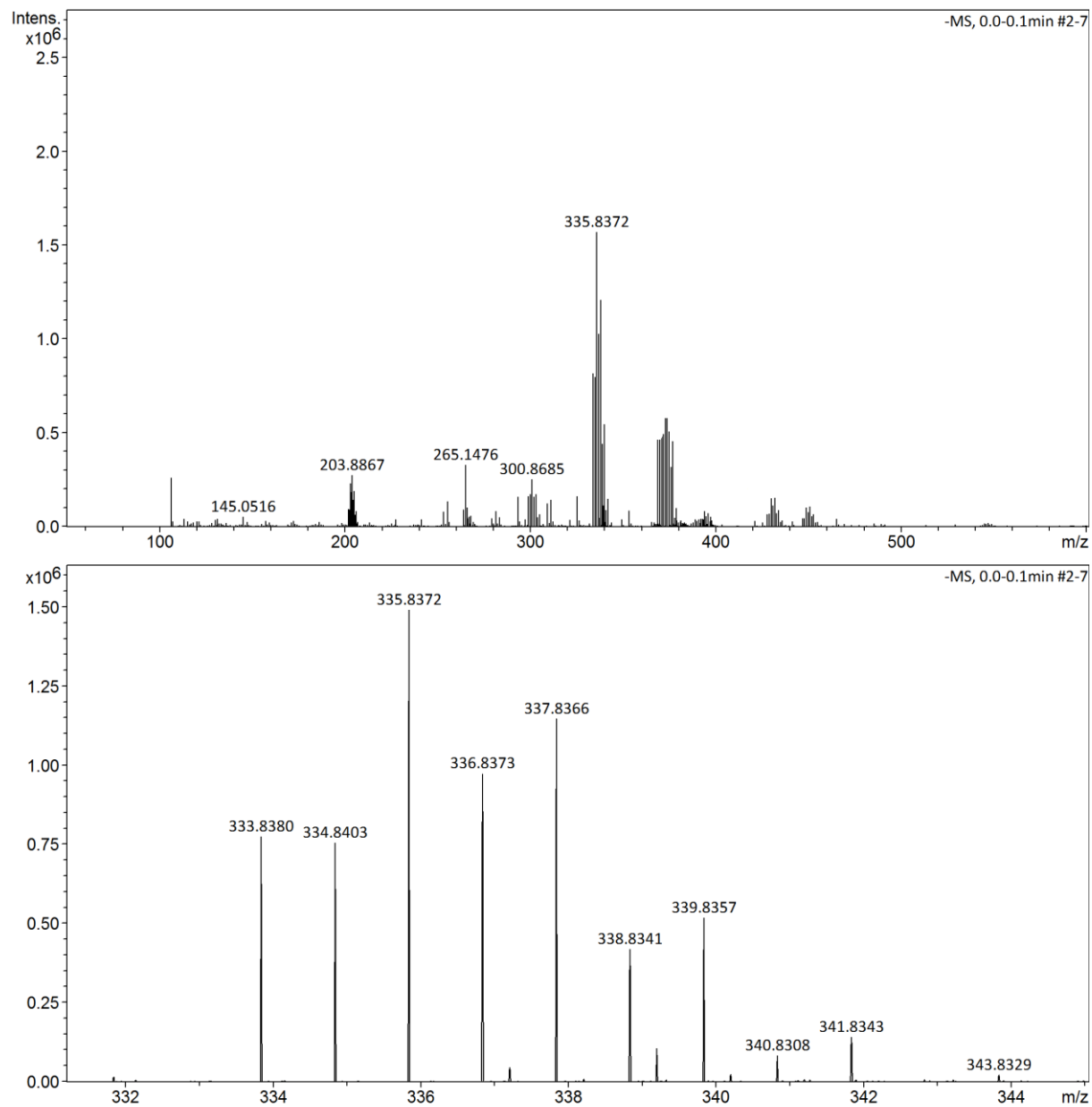


Figure S14: ESI-MS(-) of [BMPip]₂[PtCl₄]

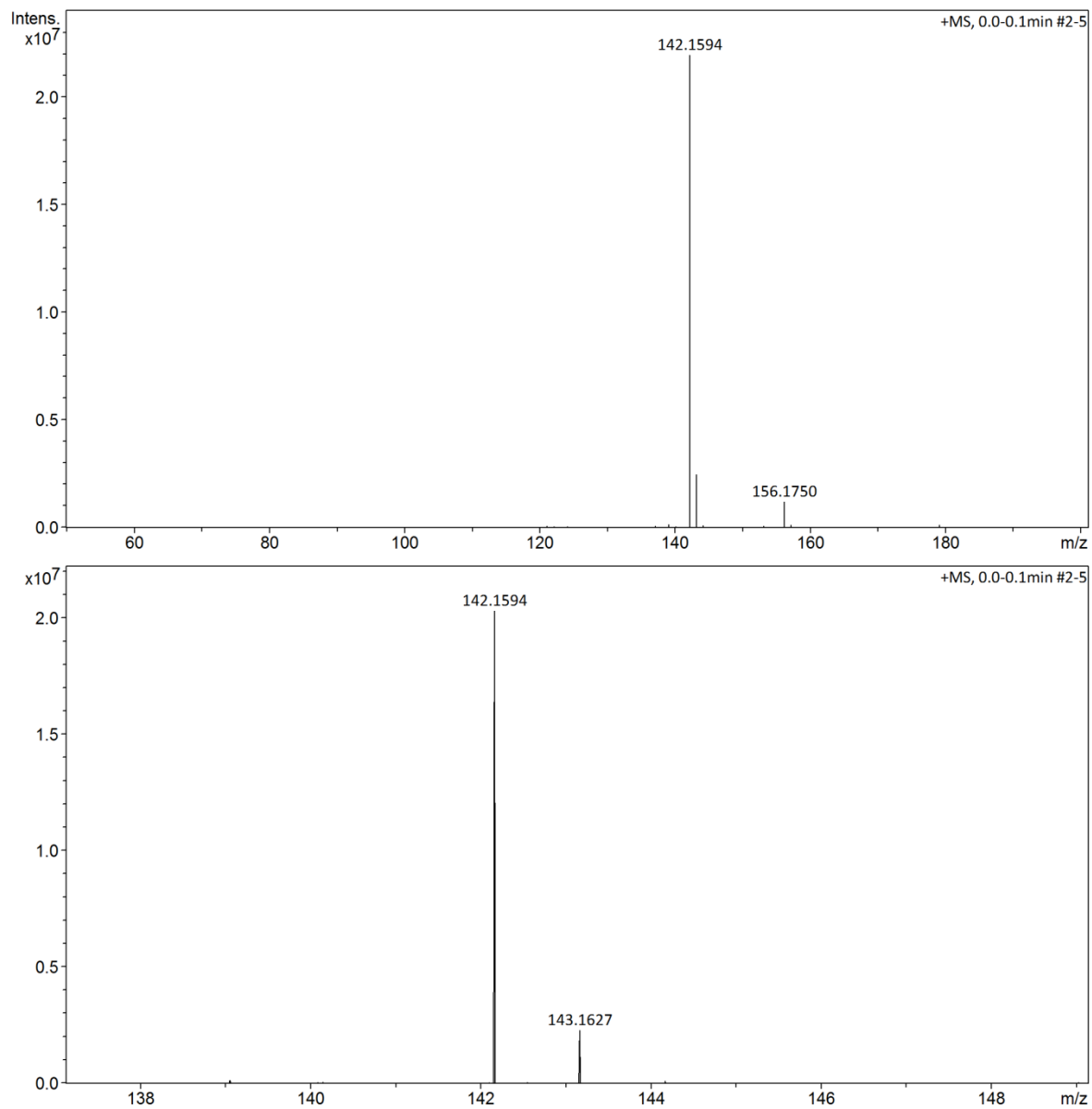


Figure S15: ESI-MS(+) of [BMPyr]₂[PtCl₄]

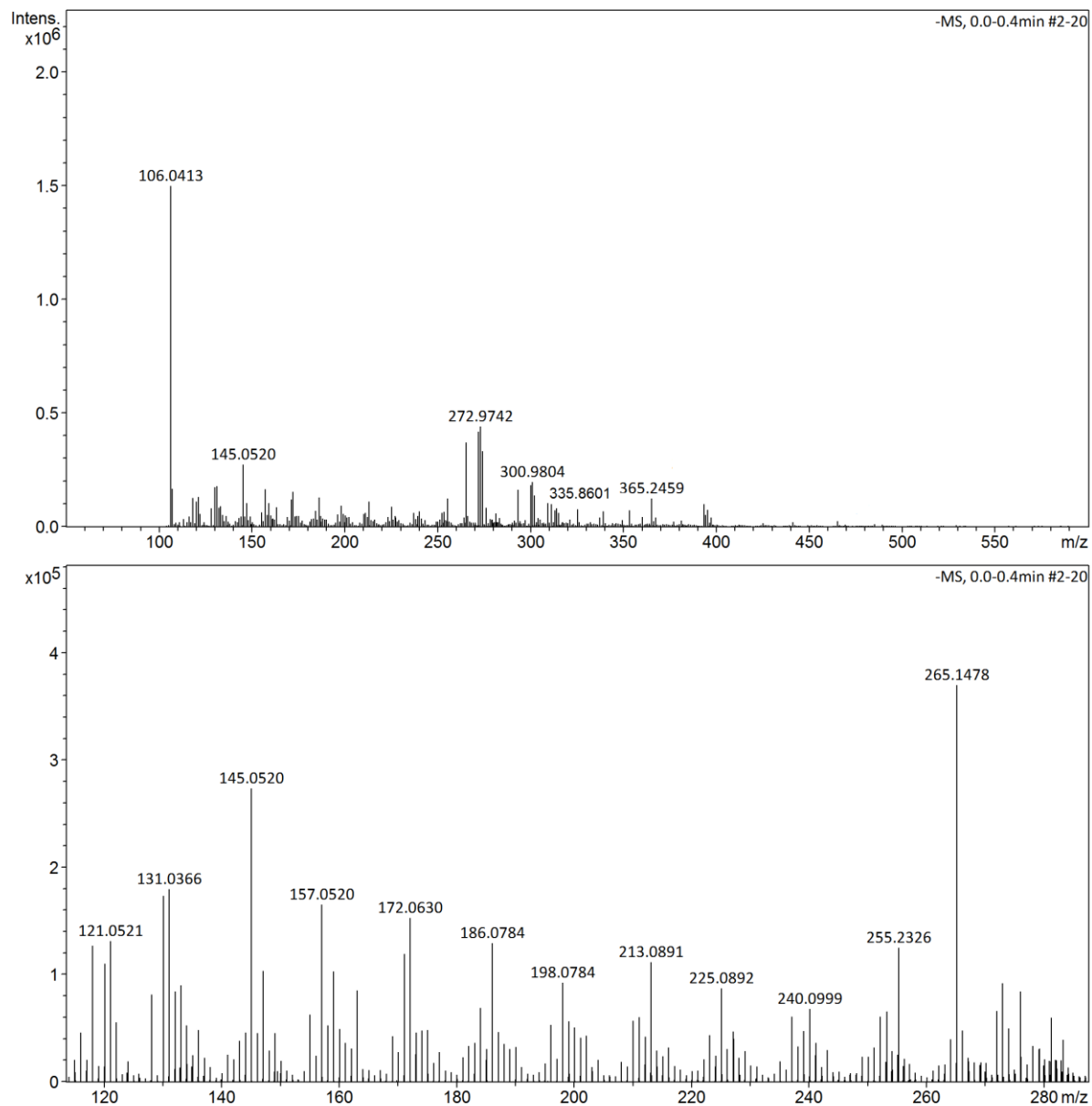


Figure S16: ESI-MS(-) of [BMPyrr]₂[PtCl₄]

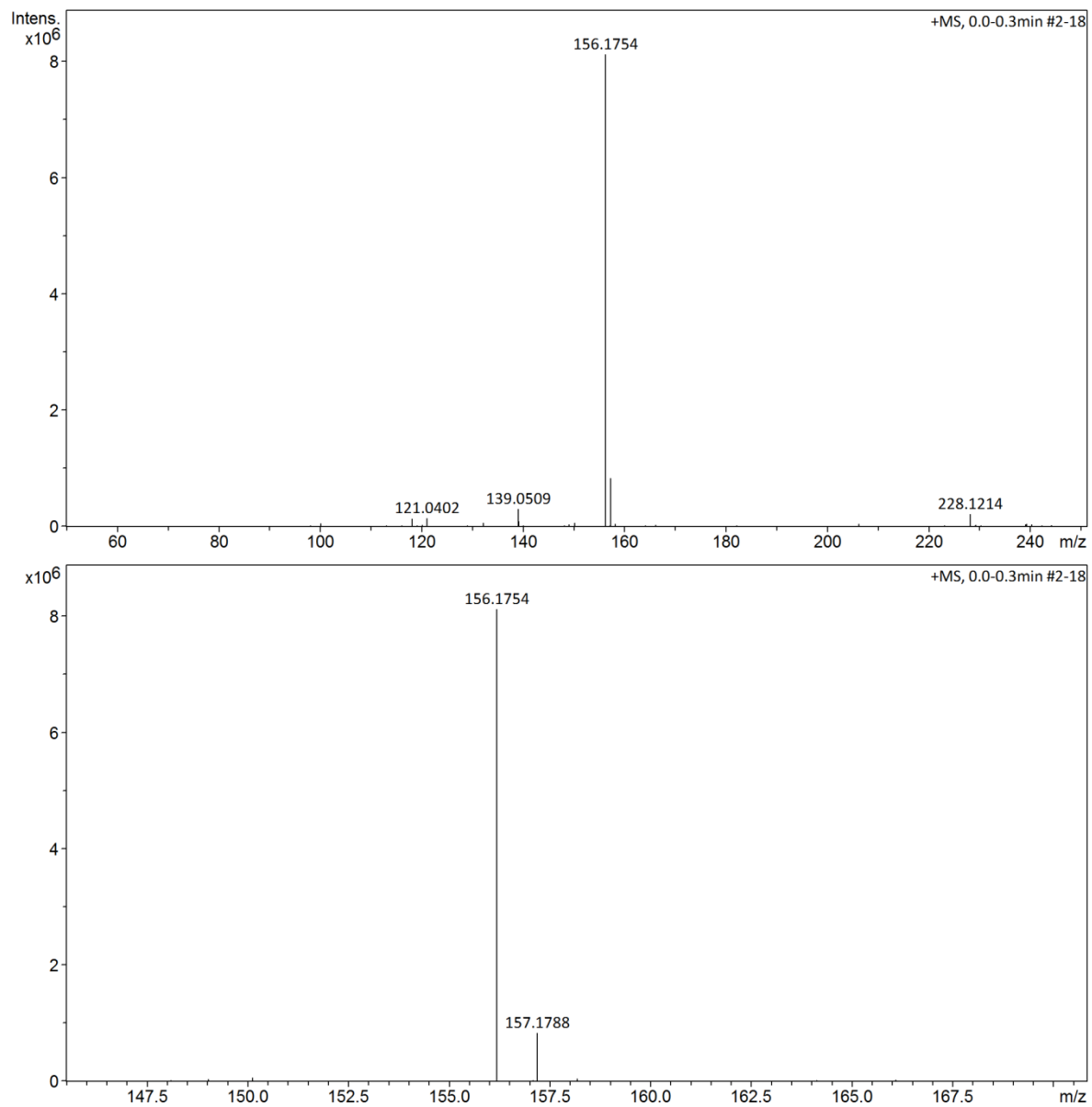


Figure S17: ESI-MS(+) of $[\text{BMPip}]_2[\text{PtCl}_6]$

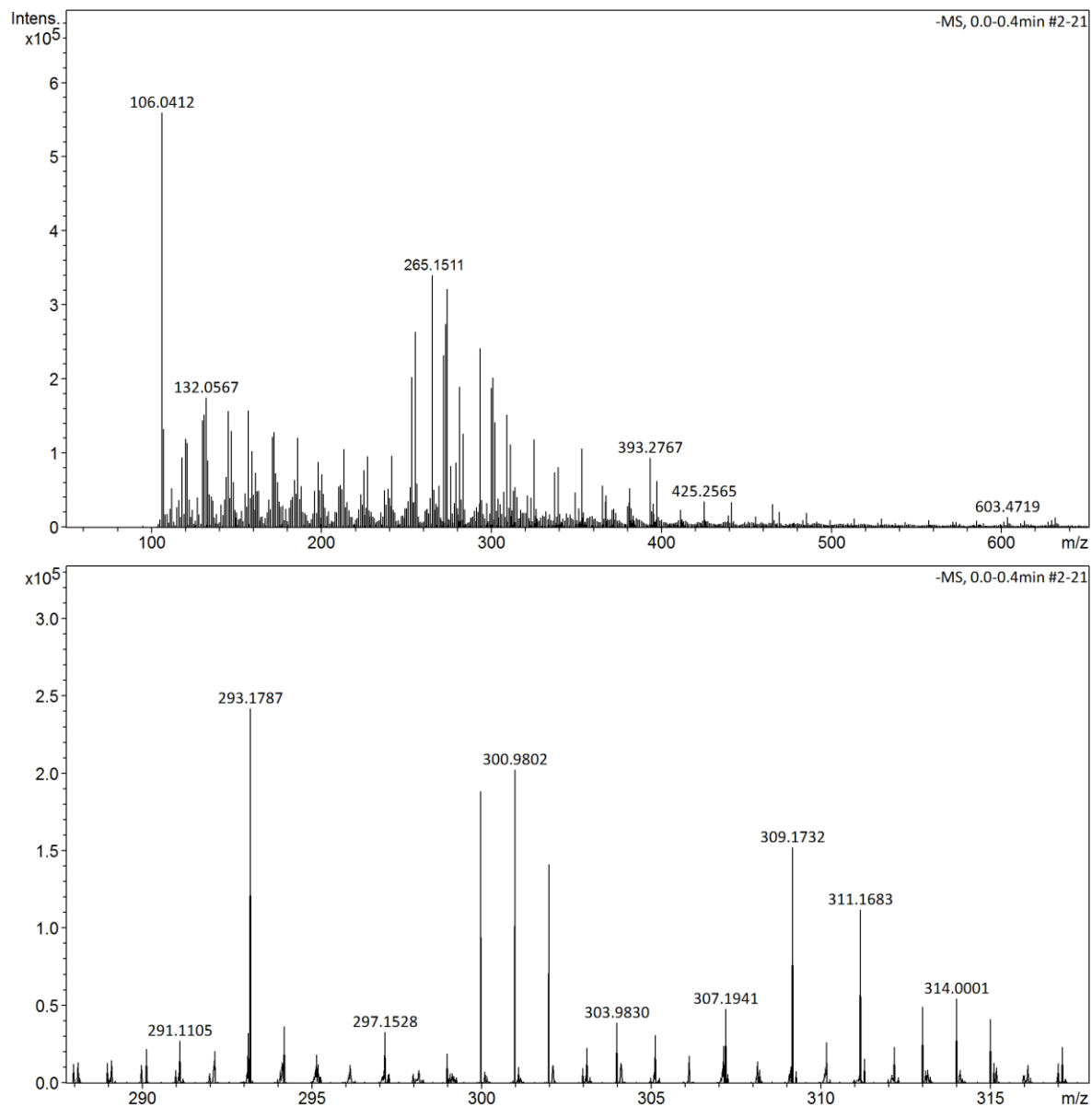


Figure S18: ESI-MS(-) of [BMPip]₂[Pt₂Cl₆]

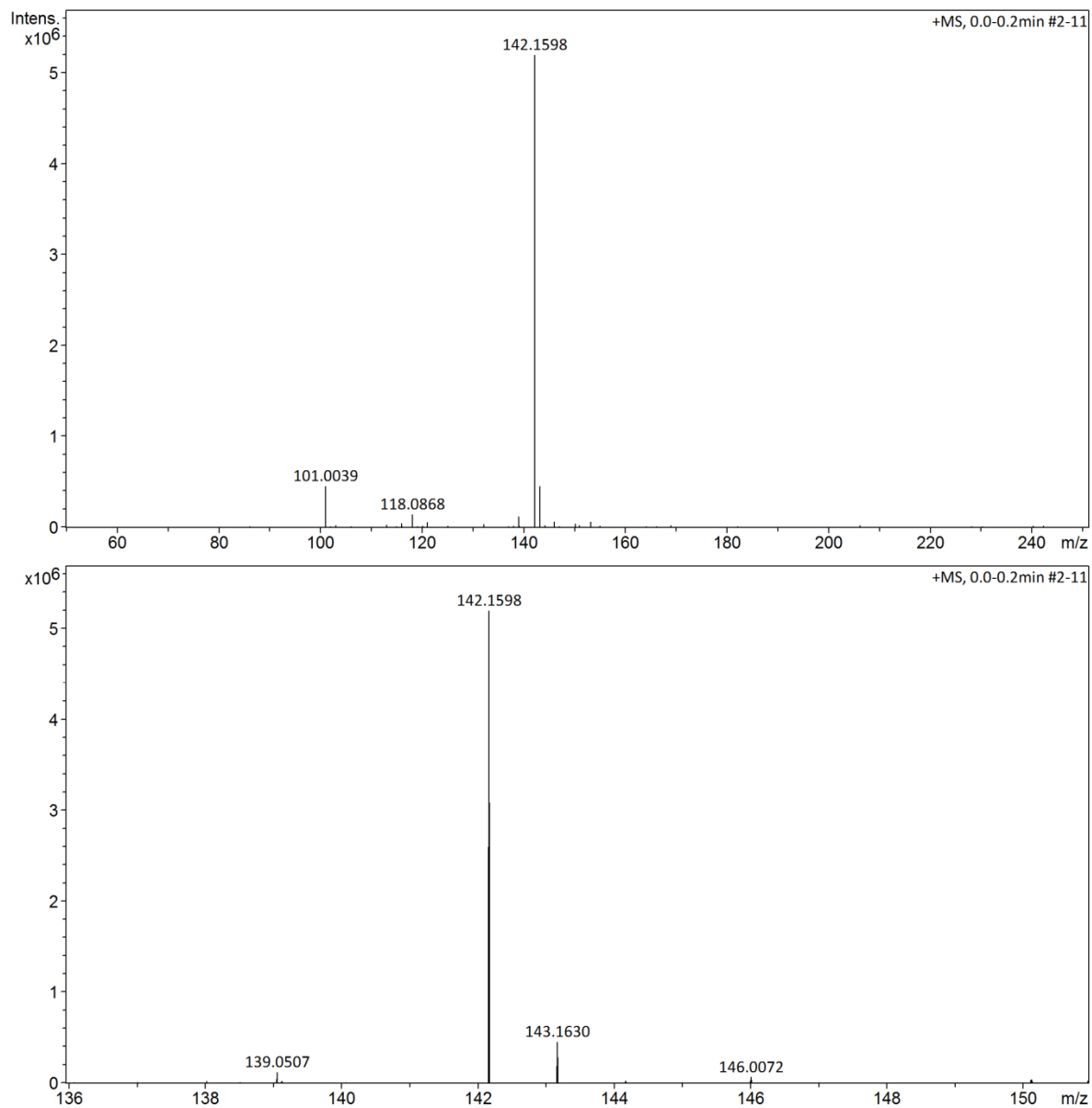


Figure S19: ESI-MS(+) of [BMPyr]₂[Pt₂Cl₆]

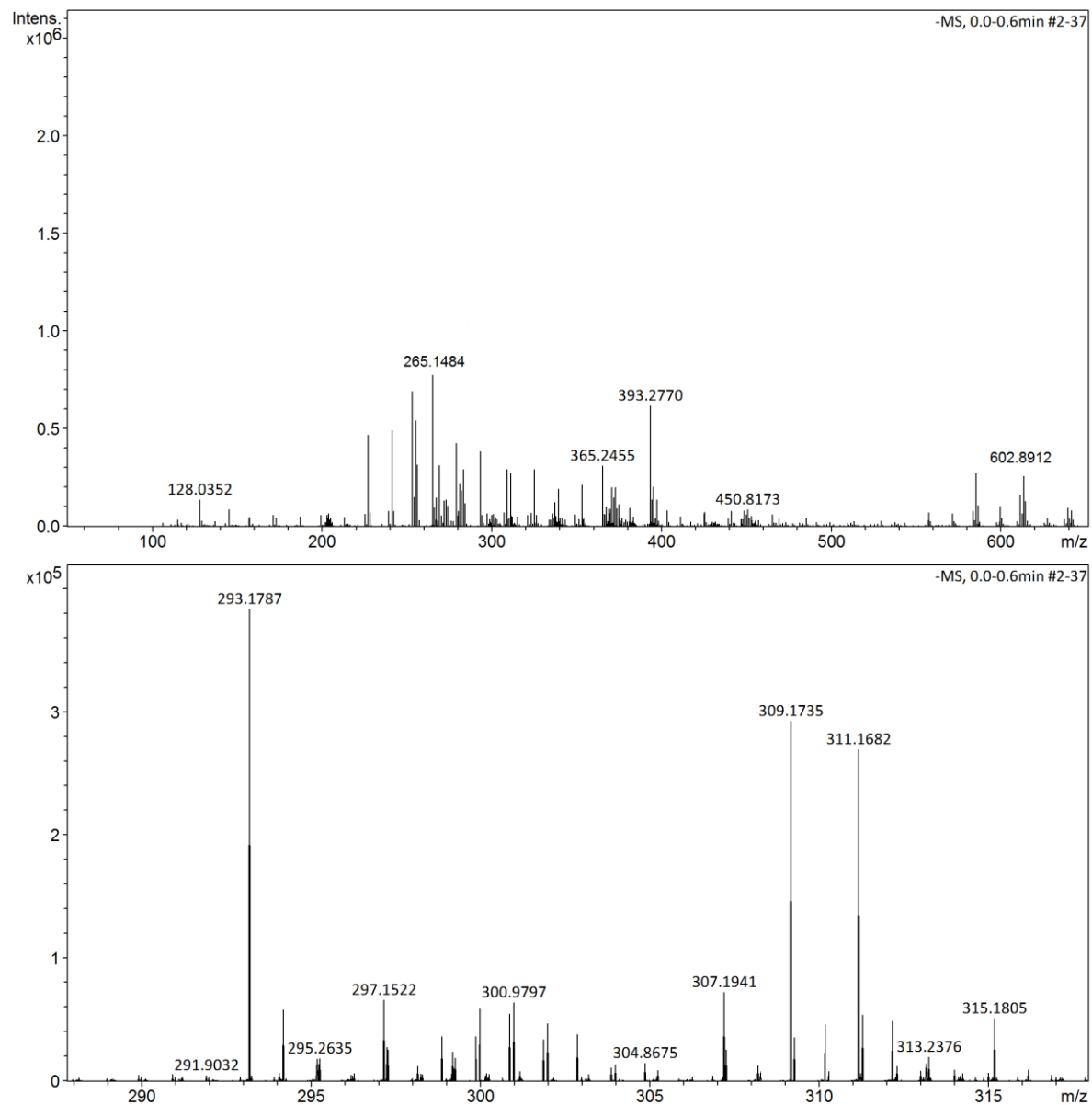


Figure S20: ESI-MS(-) of [BMPyrr]₂[Pt₂Cl₆]

3. NMR spectra of isolated products

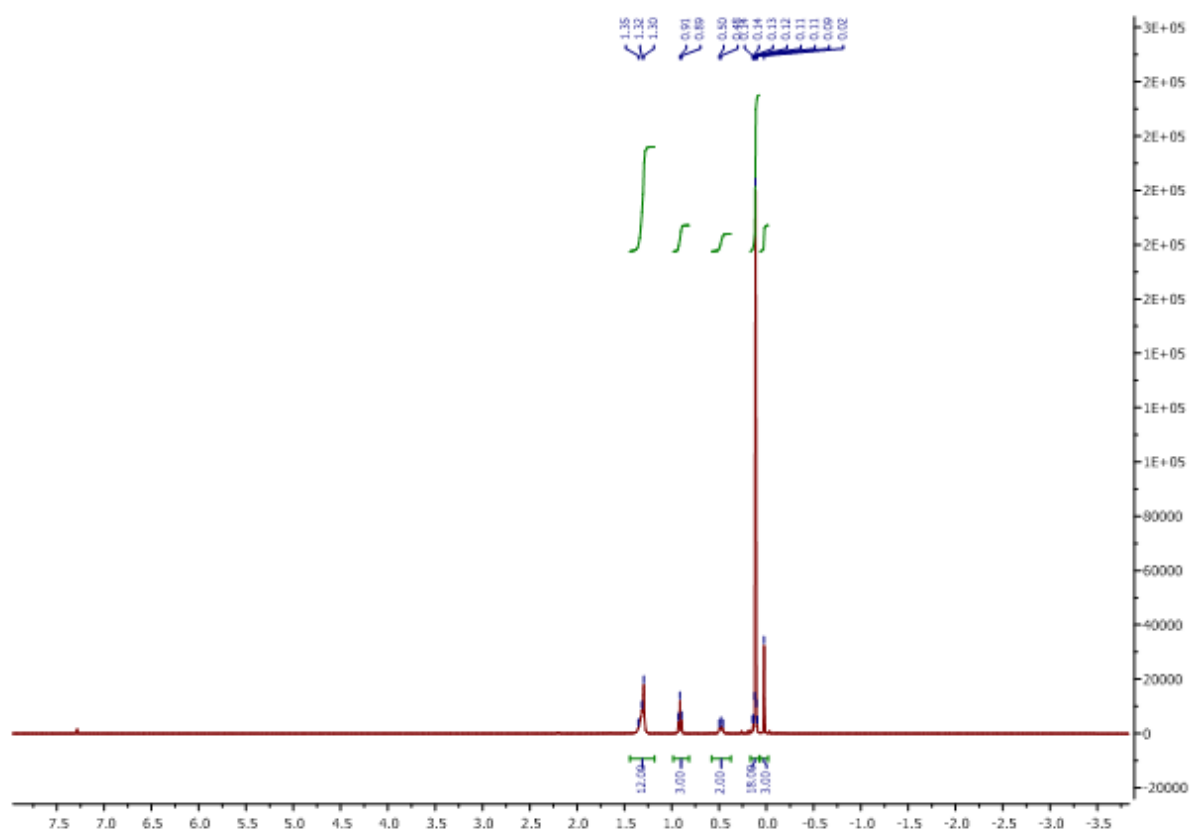


Figure S21: ^1H NMR spectrum of 3-octyl-1,1,1,3,5,5,5-heptamethyltrisiloxane

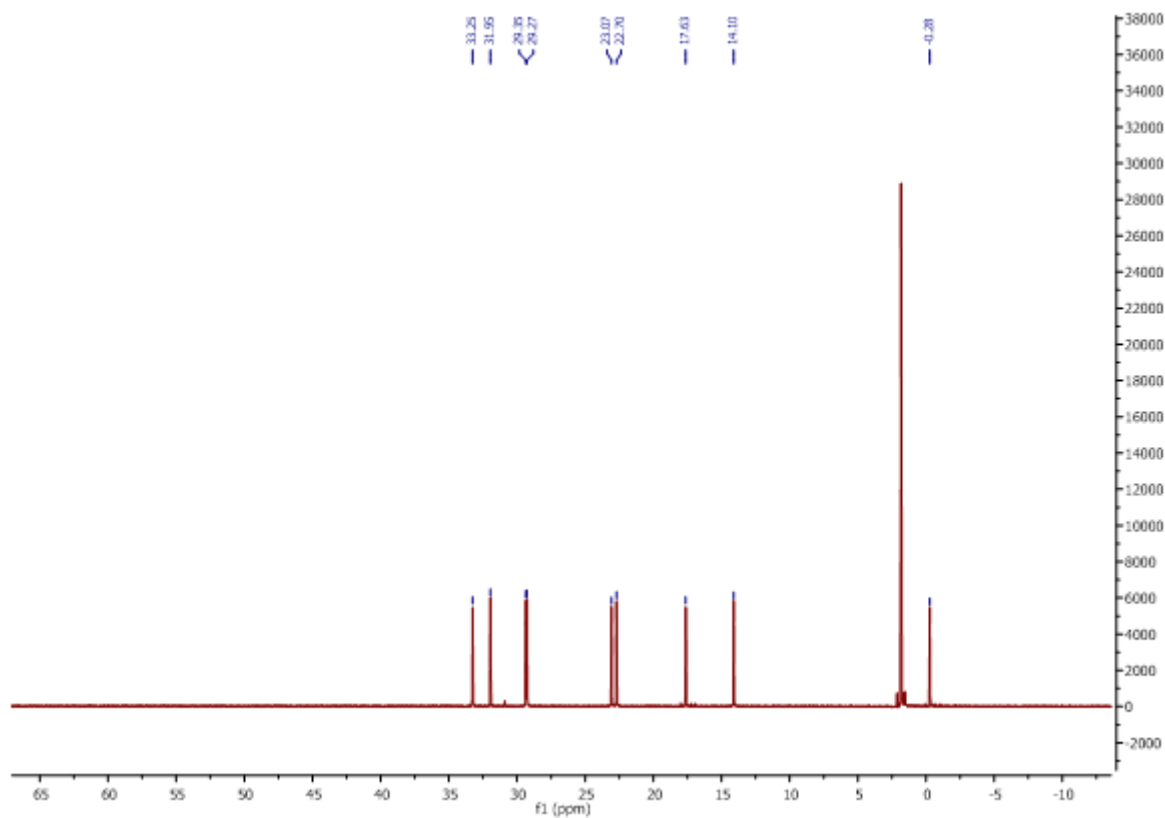


Figure S22: ^{13}C NMR spectrum of 3-octyl-1,1,1,3,5,5,5-heptamethyltrisiloxane

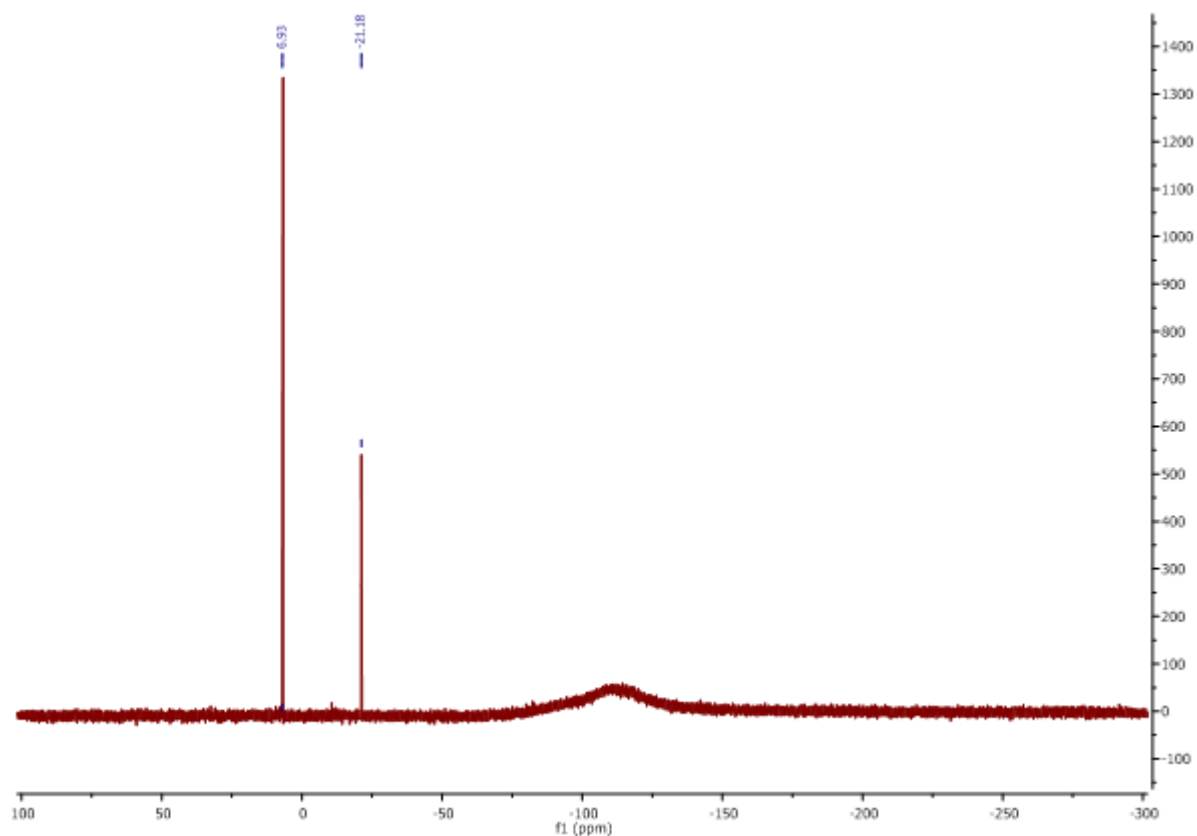


Figure S23: ^{29}Si NMR spectrum of 3-octyl-1,1,1,3,5,5,5-heptamethyltrisiloxane.

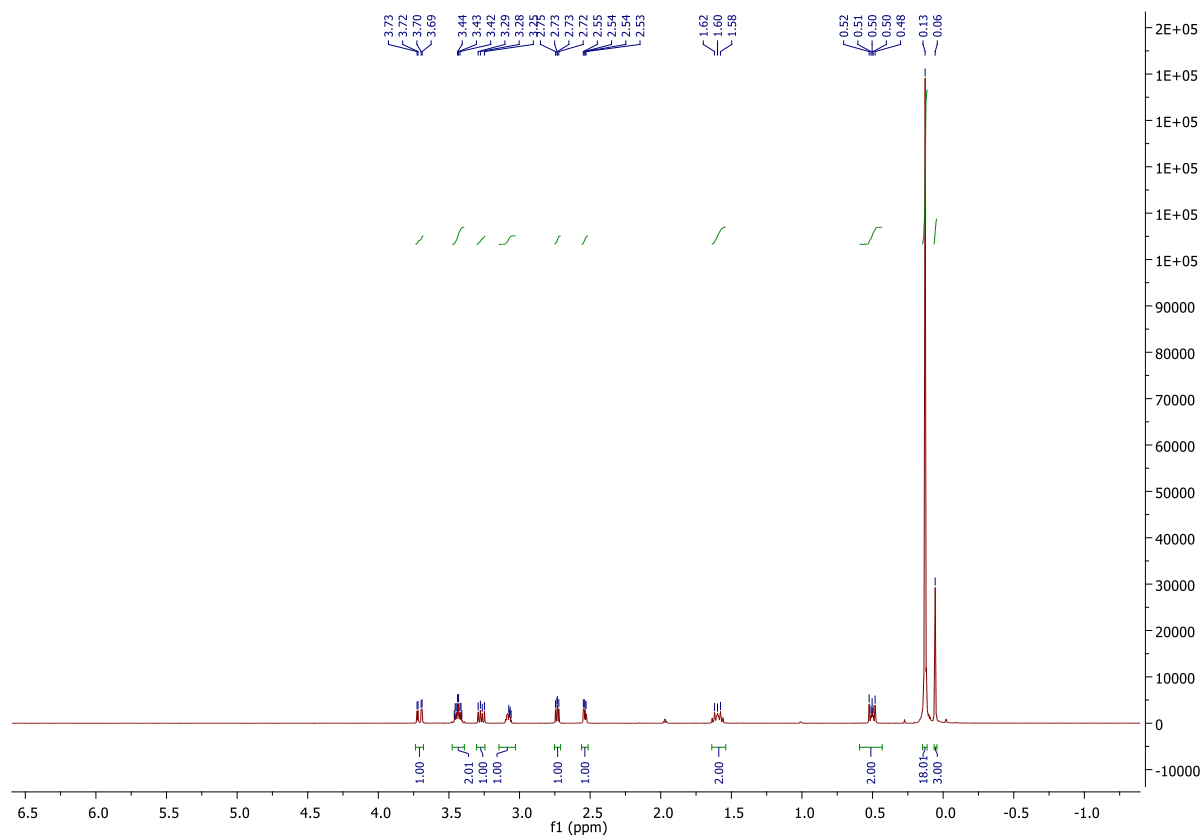


Figure S24: ^1H NMR spectrum of 3-(3-glycidyloxypropyl)-1,1,1,3,5,5,5-heptamethyltrisiloxane.

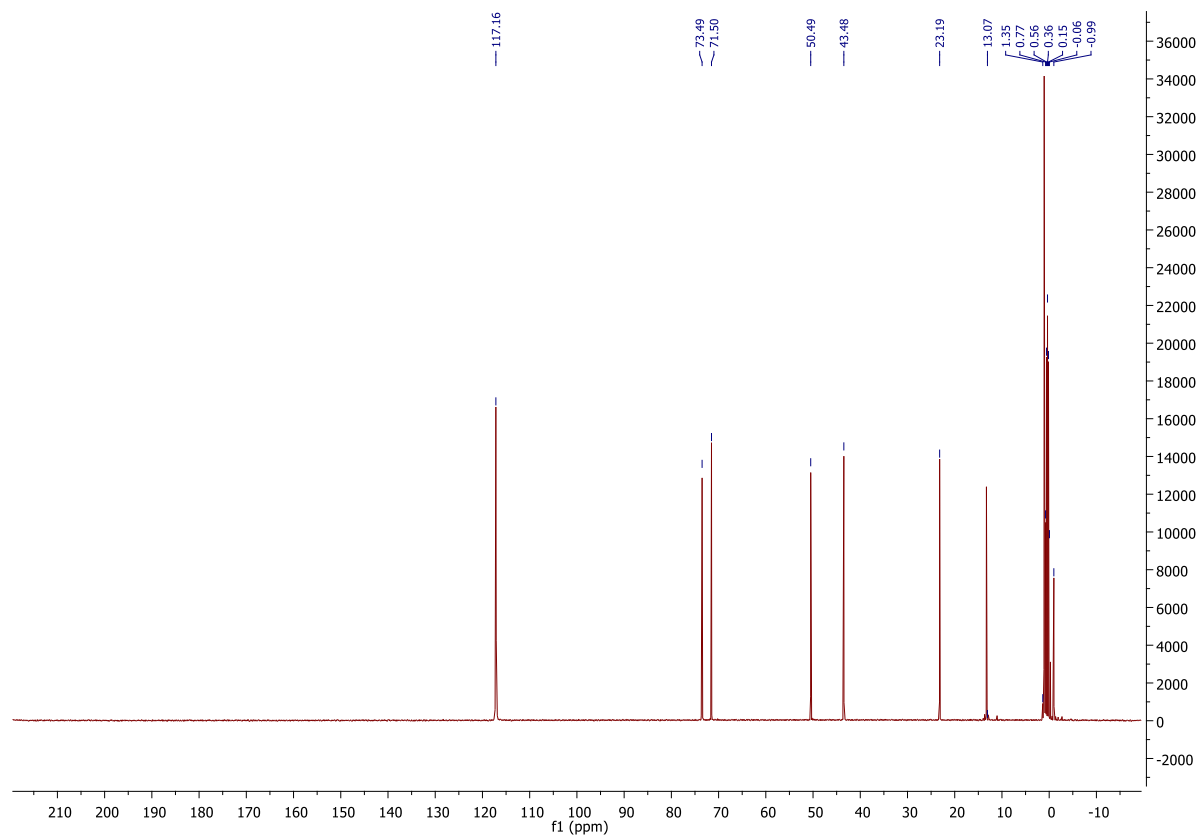


Figure S25: ^{13}C NMR spectrum of 3-(3-glycidyloxypropyl)-1,1,1,3,5,5,5-heptamethyltrisiloxane.

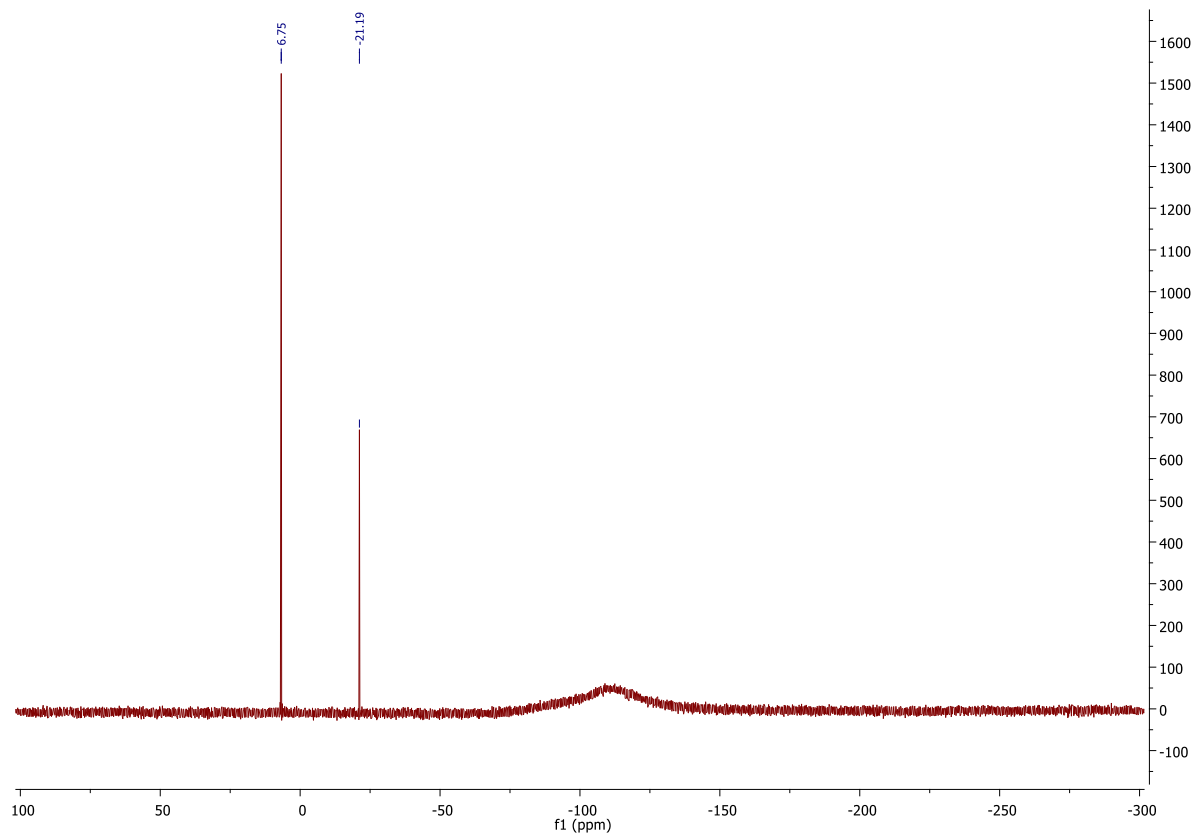


Figure S26: ^{29}Si NMR spectrum of 3-(3-glycidyloxypropyl)-1,1,1,3,5,5,5-heptamethyltrisiloxane.