

Supplementary File

Towards Volatile Organoselenium Compounds with Cost-Effective Synthesis

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1. NMR Spectra of *i*Pr₃Si-SeH

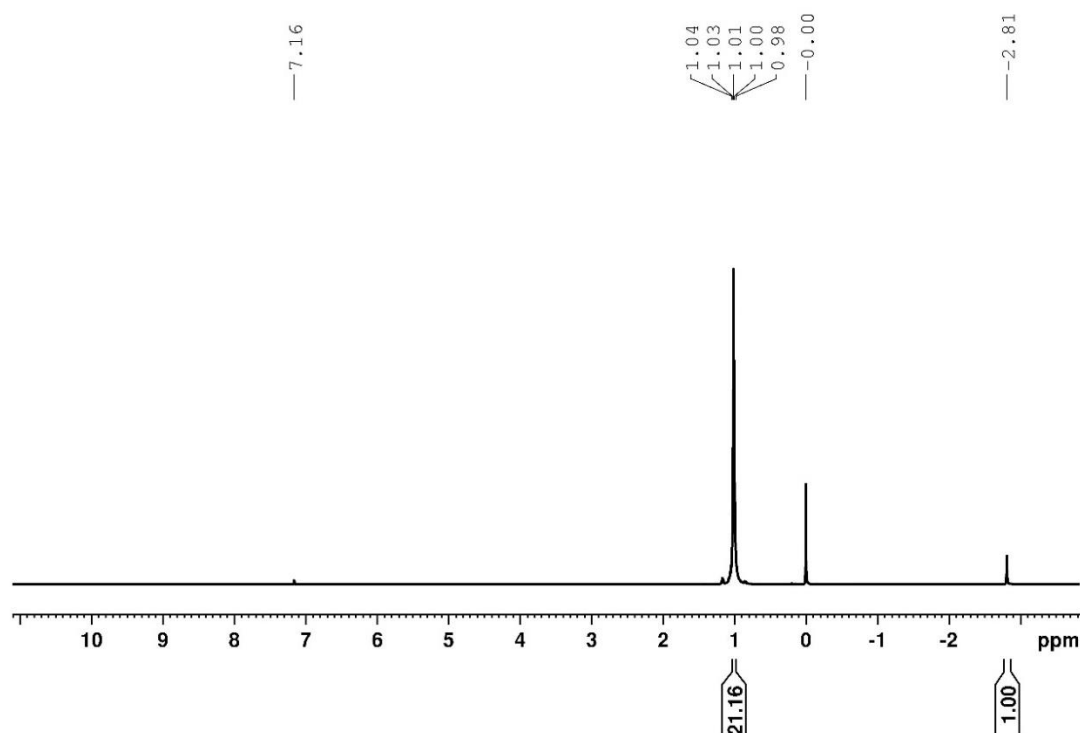


Figure S1. ¹H NMR (400 MHz, 25 °C, C₆D₆) spectrum of *i*Pr₃Si-SeH.

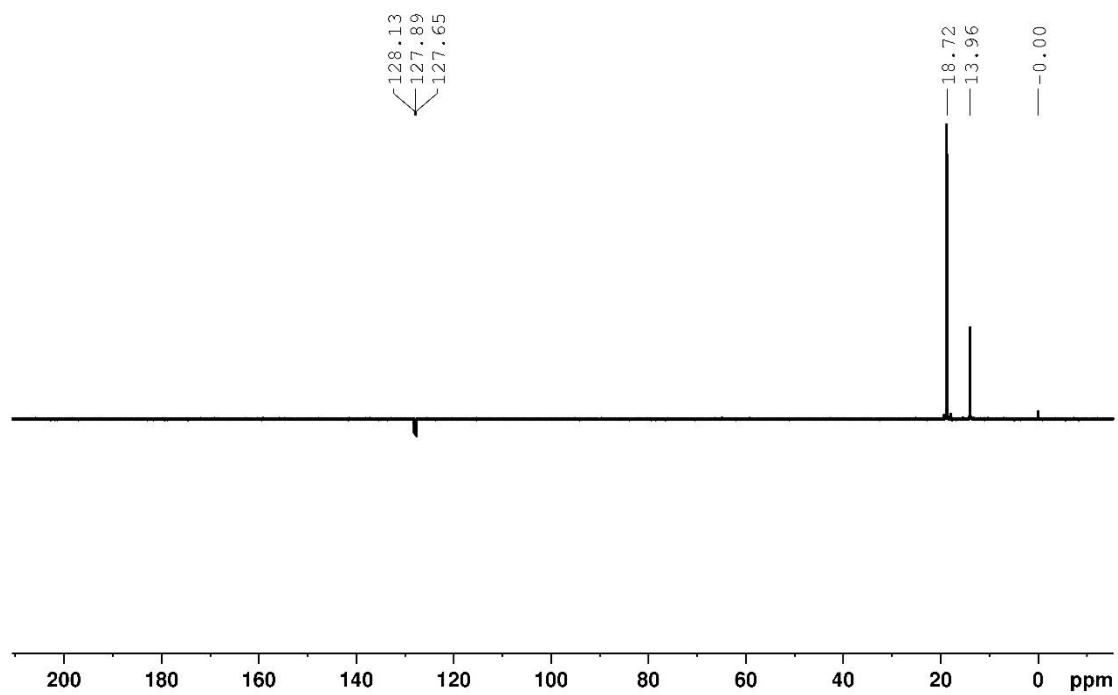


Figure S2. ^{13}C -NMR (125 MHz, 25 °C, C_6D_6) spectrum of $i\text{Pr}_3\text{Si-SeH}$.

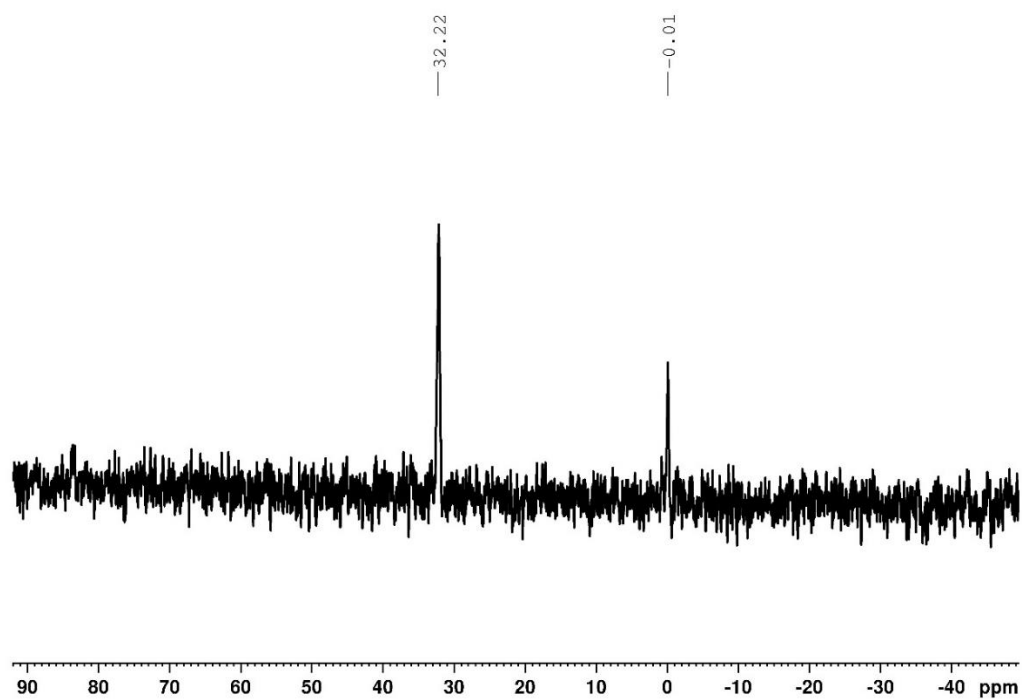


Figure S3. ^{29}Si -NMR (99 MHz, 25 °C, C_6D_6) spectrum of $i\text{Pr}_3\text{Si-SeH}$.

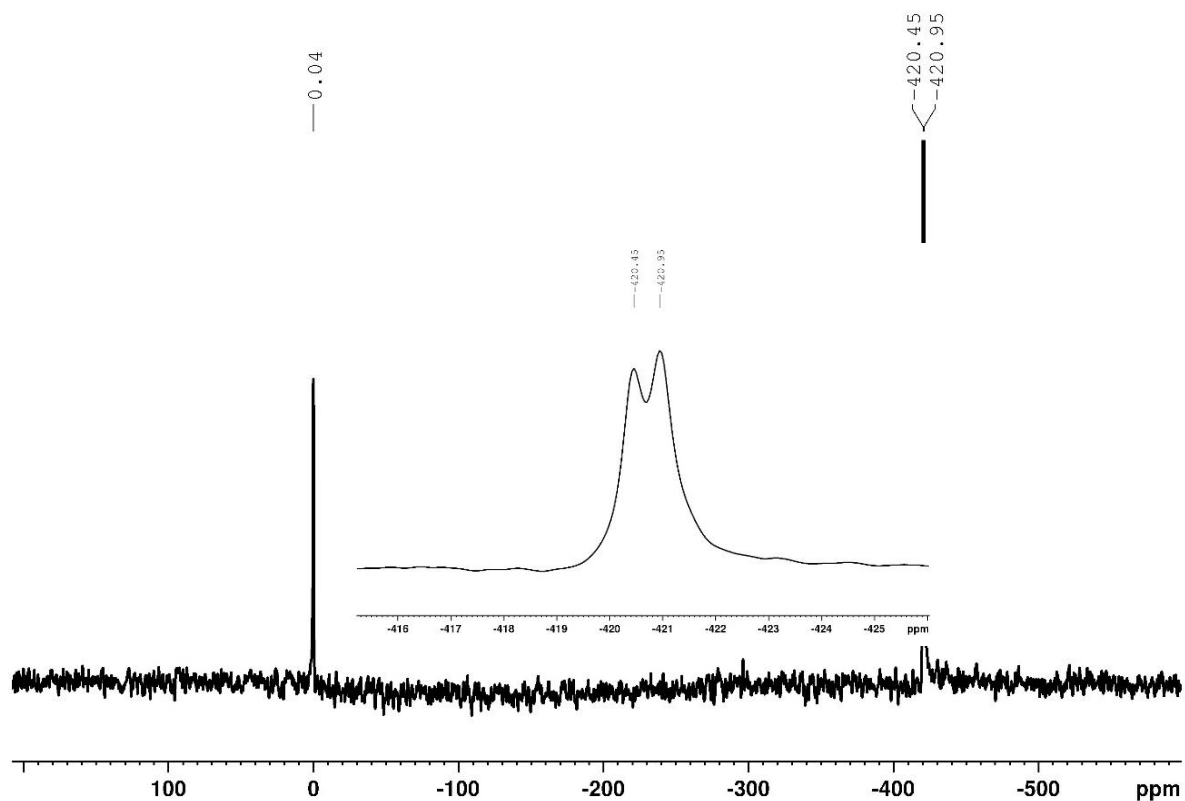


Figure S4. ^{77}Se -NMR (95 MHz, 25 °C, C_6D_6 , gated) spectrum of $i\text{Pr}_3\text{Si-SeH}$ (detail around 420 ppm as an inset).

2. NMR Spectra of $\text{PhMe}_2\text{Si-Se-SiMe}_2\text{Ph}$

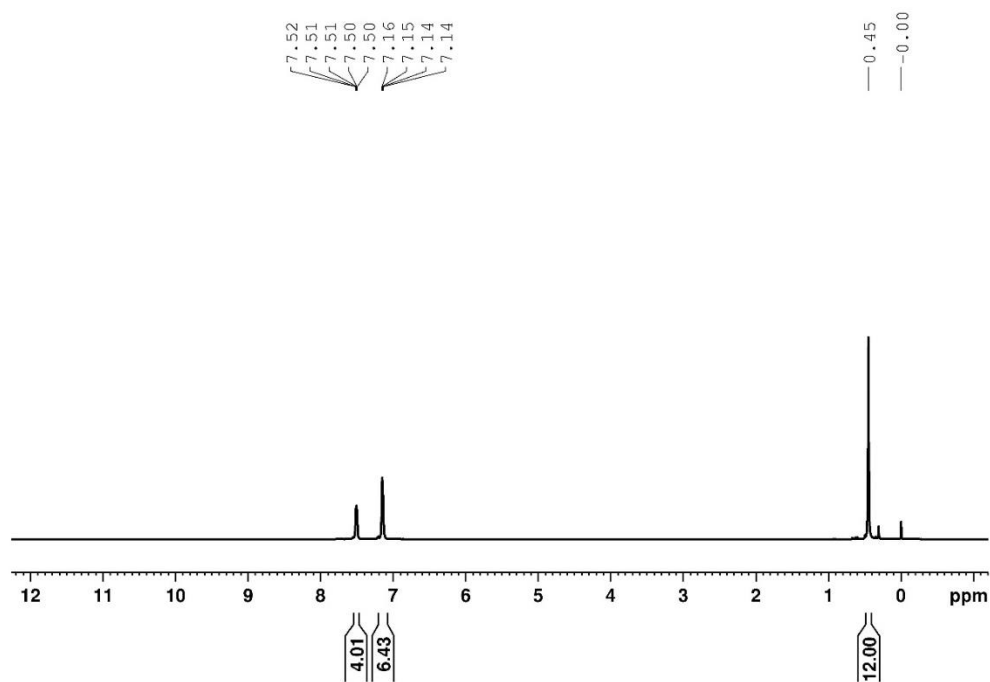


Figure S5. ^1H -NMR (400 MHz, 25 °C, C_6D_6) spectrum of $\text{PhMe}_2\text{Si-Se-SiMe}_2\text{Ph}$.

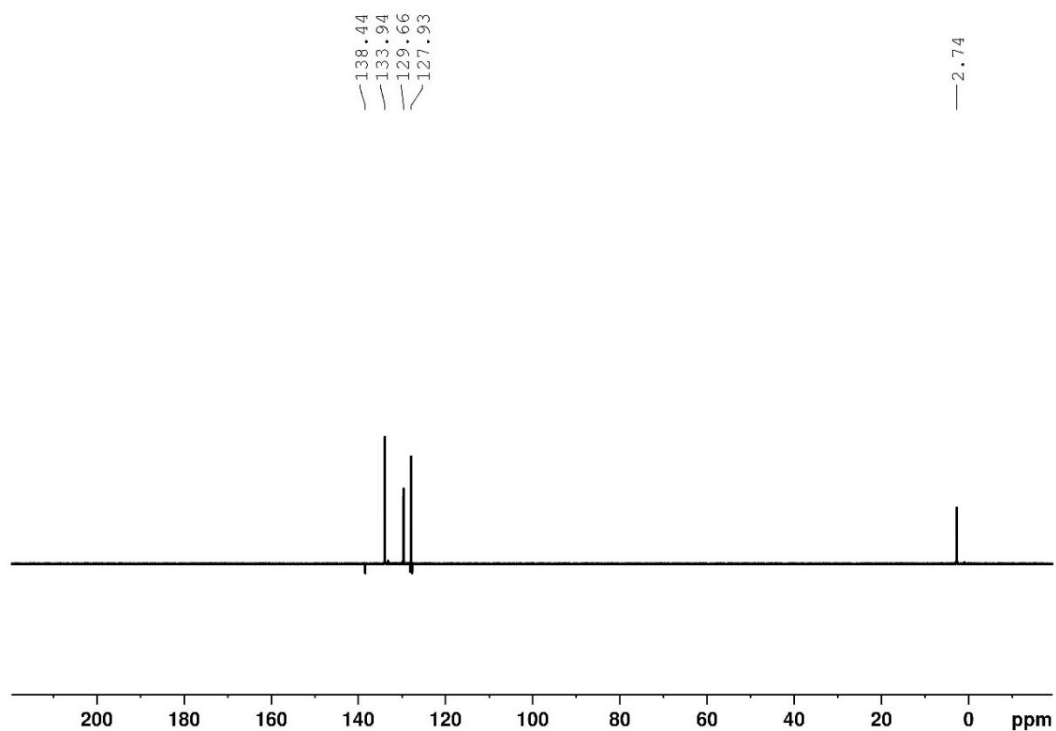


Figure S6. ^{13}C -NMR (125 MHz, 25 °C, C_6D_6) spectrum of $\text{PhMe}_2\text{Si-Se-SiMe}_2\text{Ph}$.

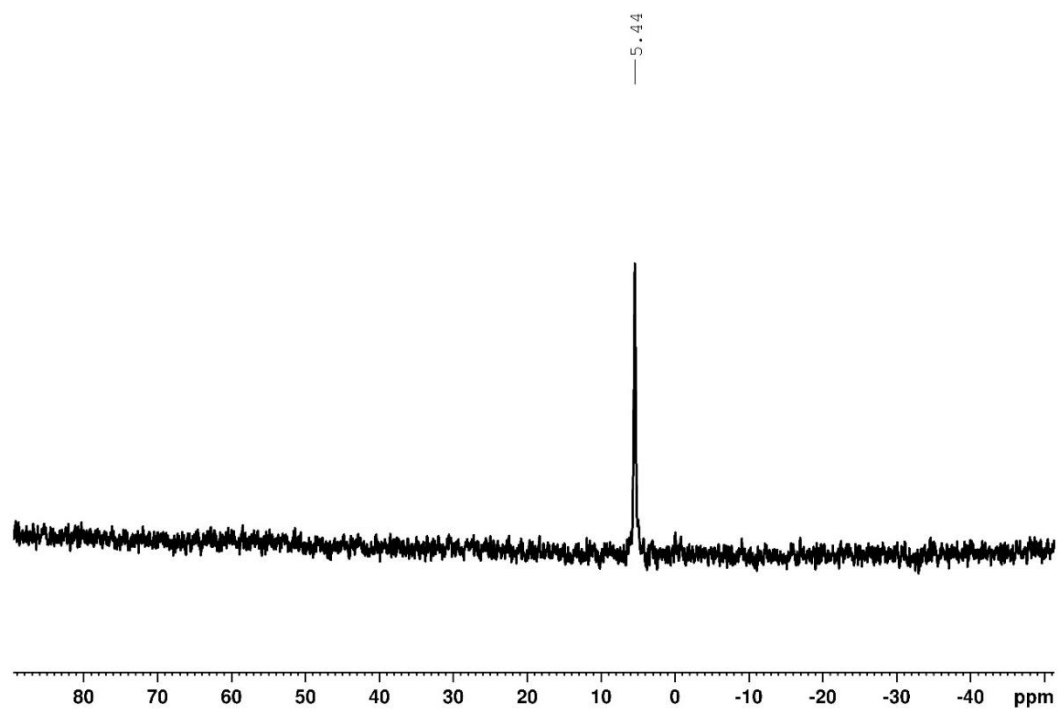


Figure S7. ^{29}Si -NMR (99 MHz, 25 °C, C_6D_6) spectrum of $\text{PhMe}_2\text{Si-Se-SiMe}_2\text{Ph}$.

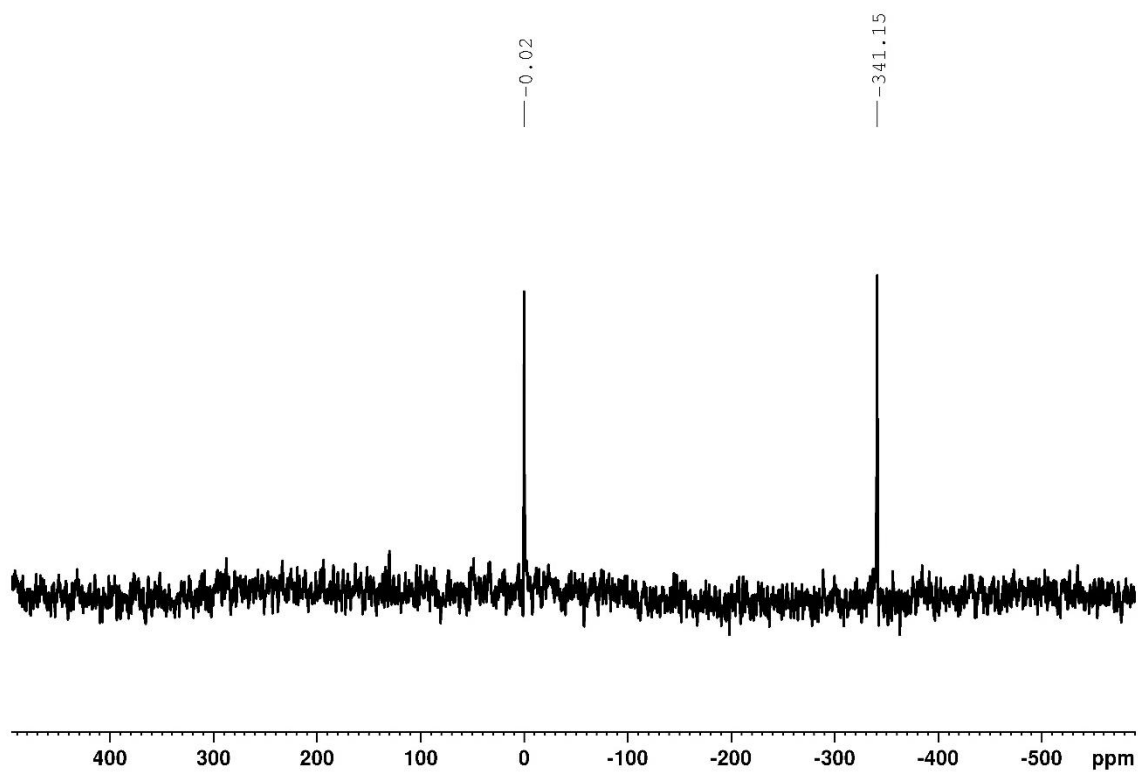


Figure S8. ^{77}Se -NMR (95 MHz, 25 °C, C_6D_6) spectrum of $\text{PhMe}_2\text{Si-Se-SiMe}_2\text{Ph}$.

3. NMR Spectra of $i\text{Pr}_3\text{Si-Se-SiMe}_3$

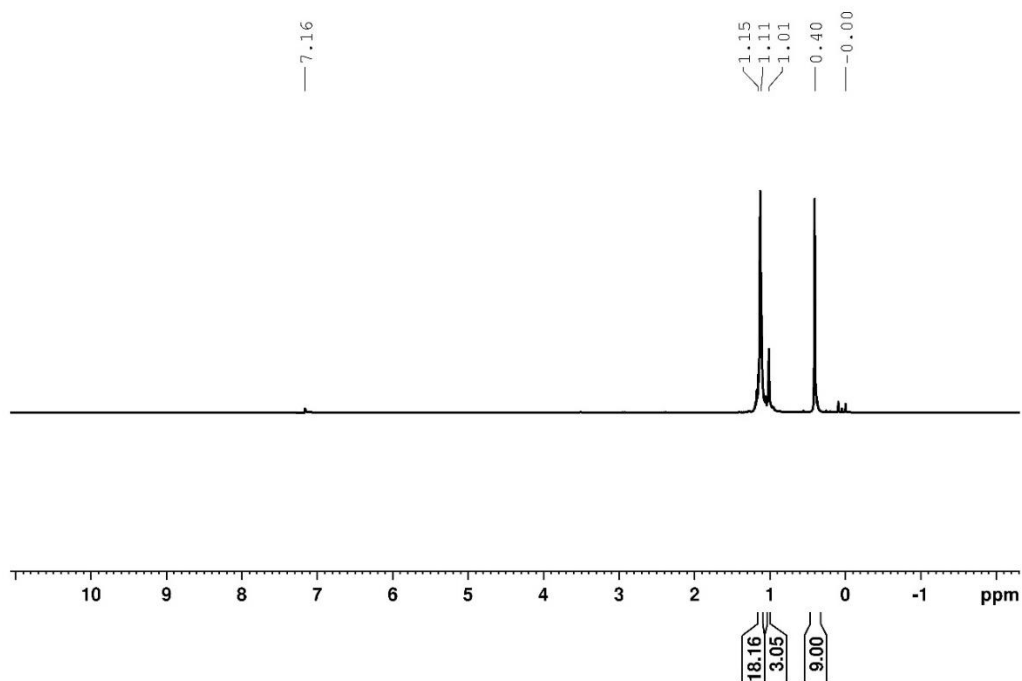


Figure S9. ^1H -NMR (400 MHz, 25 °C, C_6D_6) spectrum of $i\text{Pr}_3\text{Si-Se-SiMe}_3$.

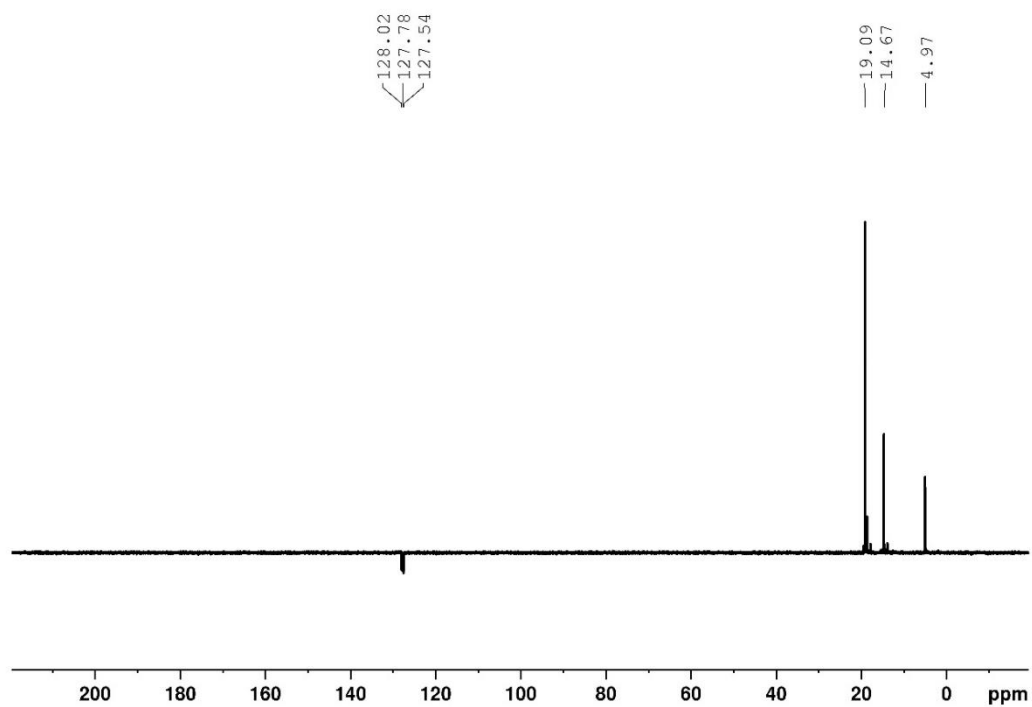


Figure S10. ^{13}C -NMR (125 MHz, 25 °C, C_6D_6) spectrum of $i\text{Pr}_3\text{Si-Se-SiMe}_3$.

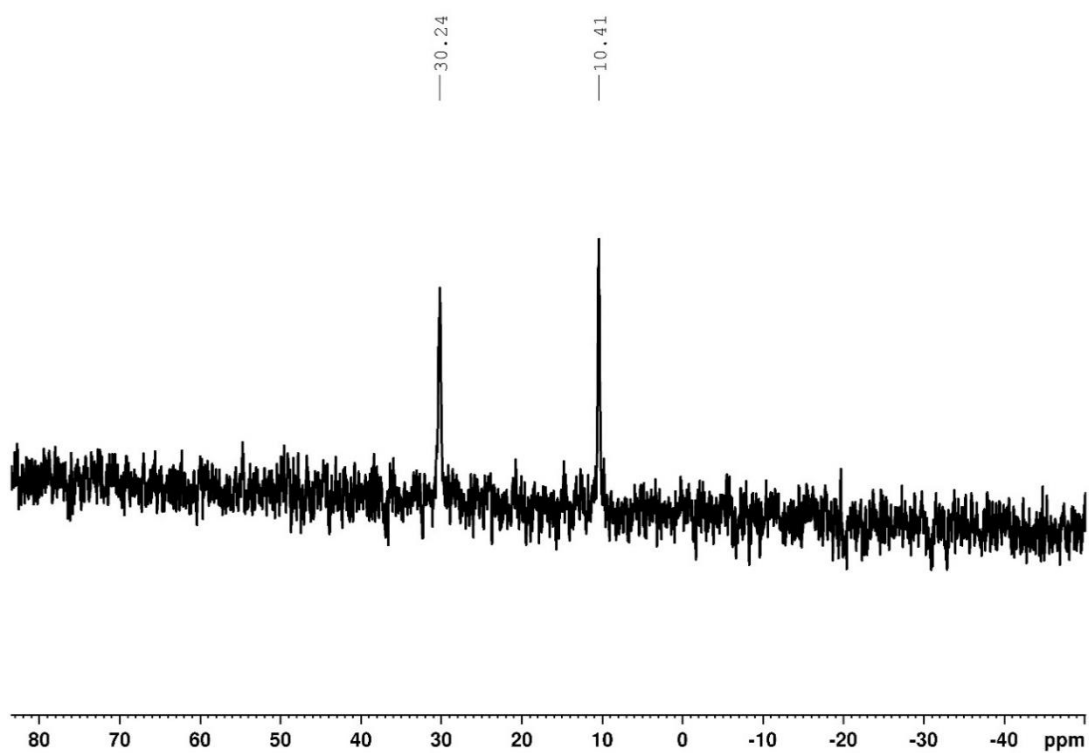


Figure S11. ^{29}Si -NMR (99 MHz, 25 °C, C_6D_6) spectrum of $i\text{Pr}_3\text{Si-Se-SiMe}_3$.

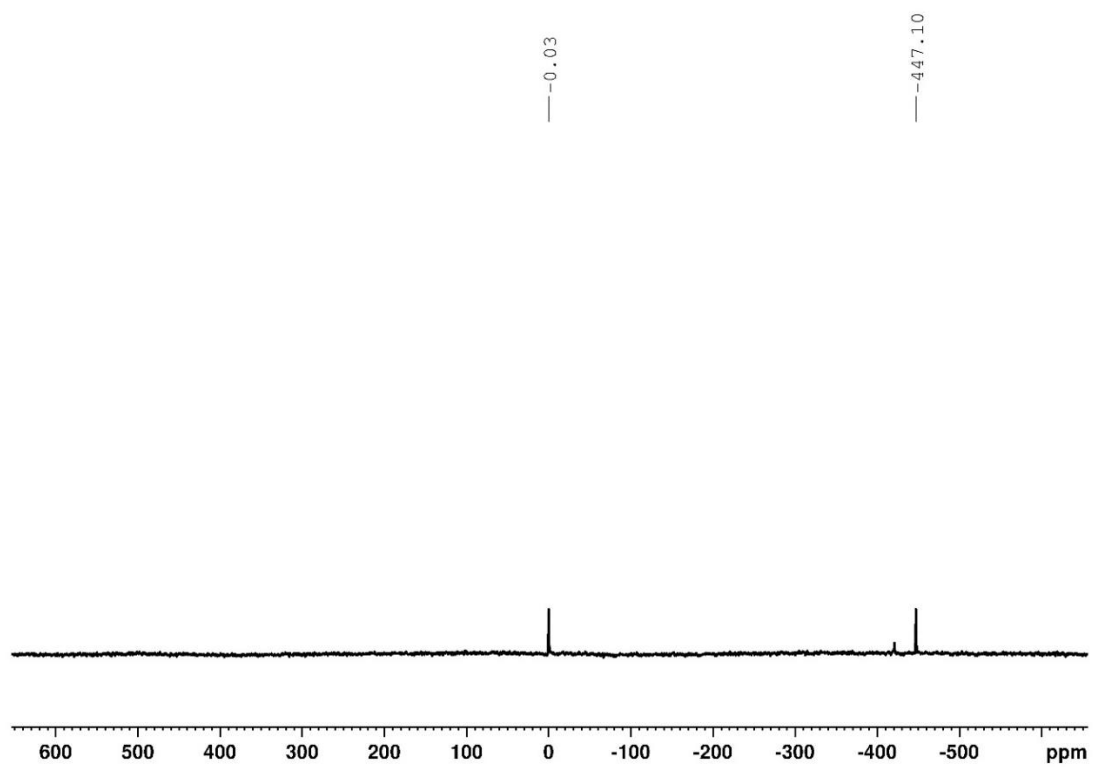
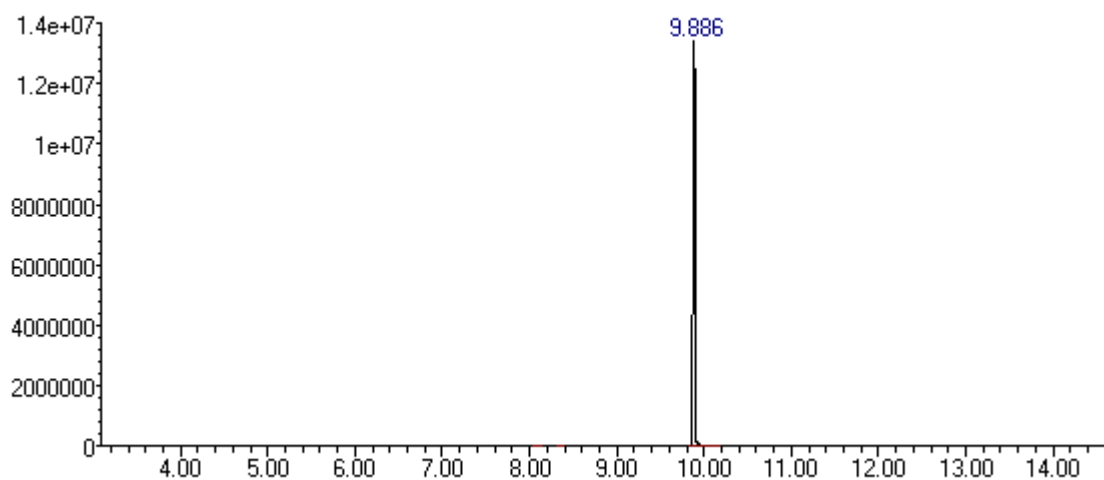


Figure S12. ^{77}Se -NMR (95 MHz, 25 °C, C_6D_6) spectrum of $i\text{Pr}_3\text{Si-Se-SiMe}_3$.

4. GC/MS Records

Abundance



Time-->

Abundance

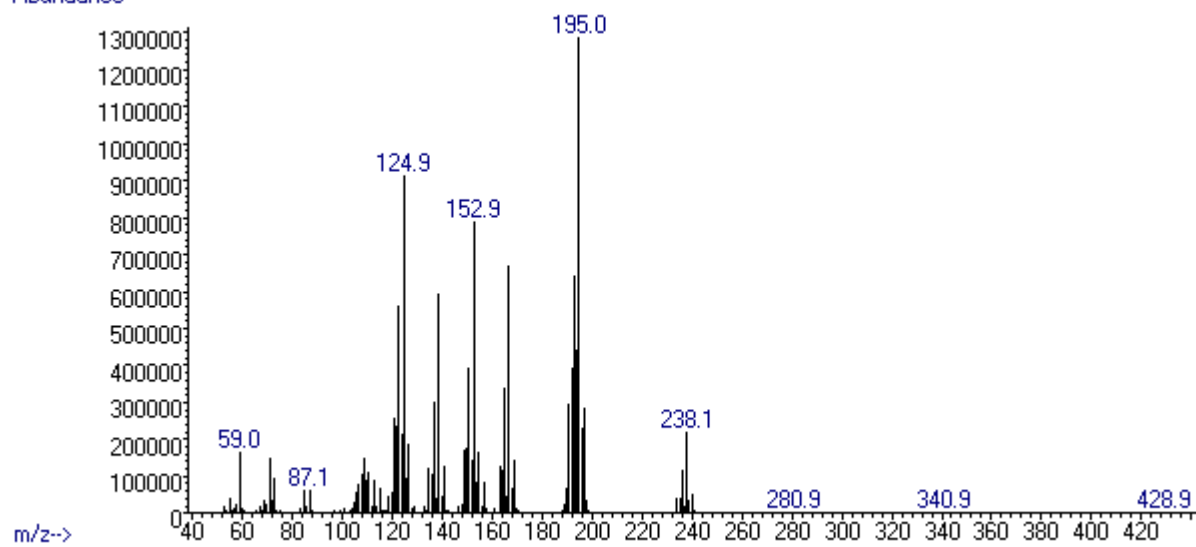


Figure S13. GC/MS record of *i*Pr₃Si-SeH.

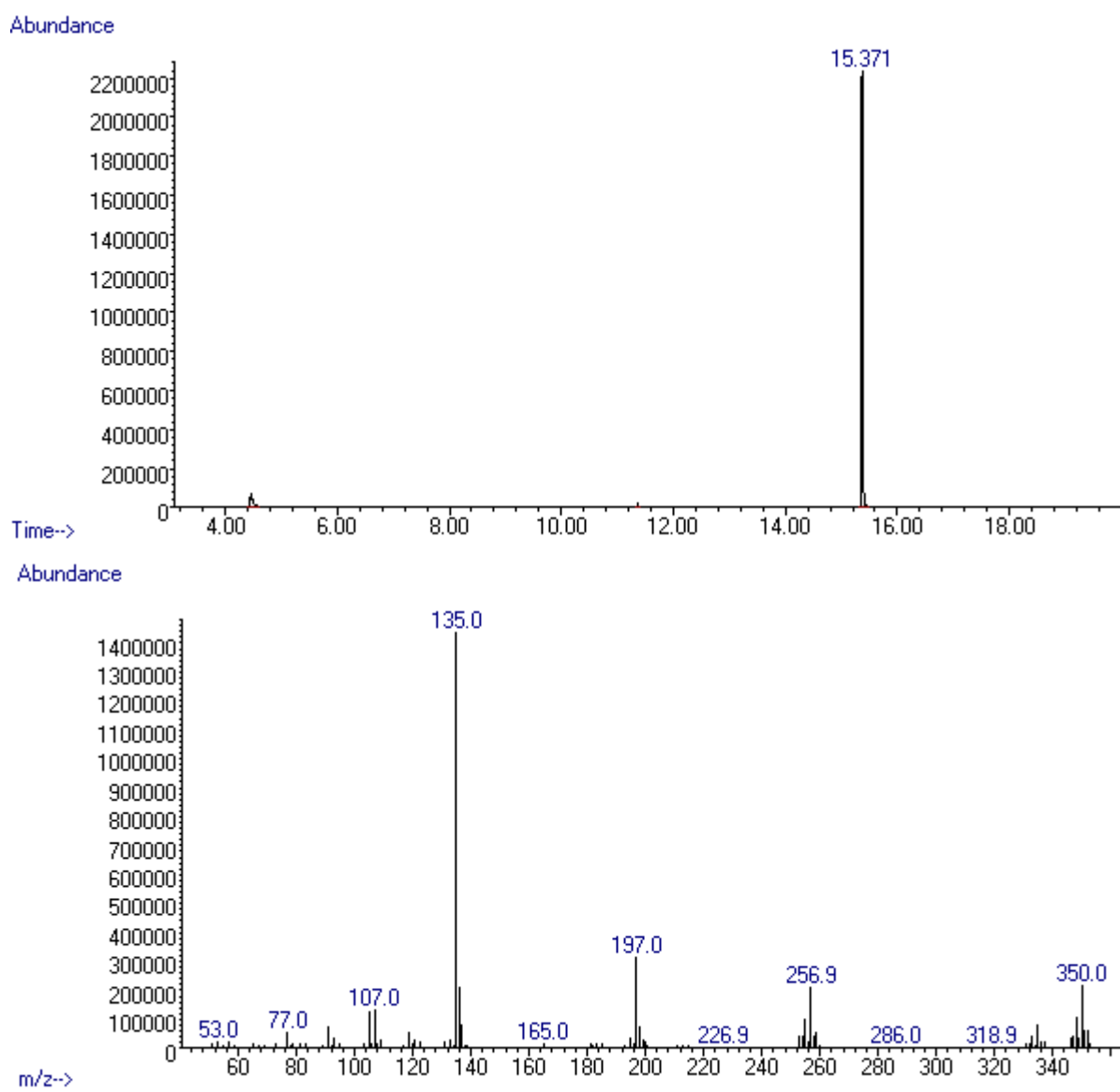


Figure S14. GC/MS record of PhMe₂Si-Se-SiMe₂Ph.

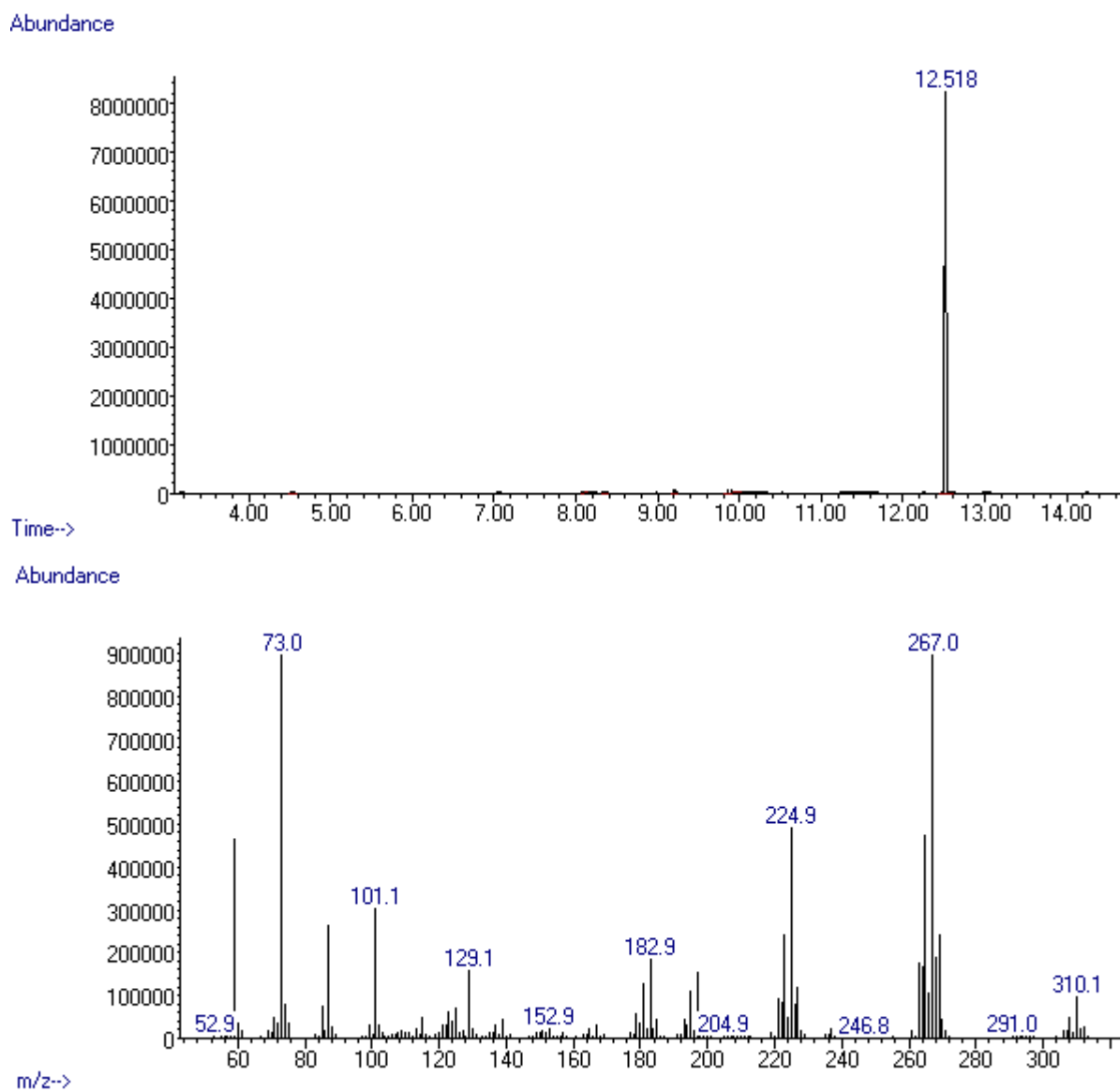


Figure S15. GC/MS record of *i*Pr₃Si-Se-SiMe₃.

5. DSC Thermograms

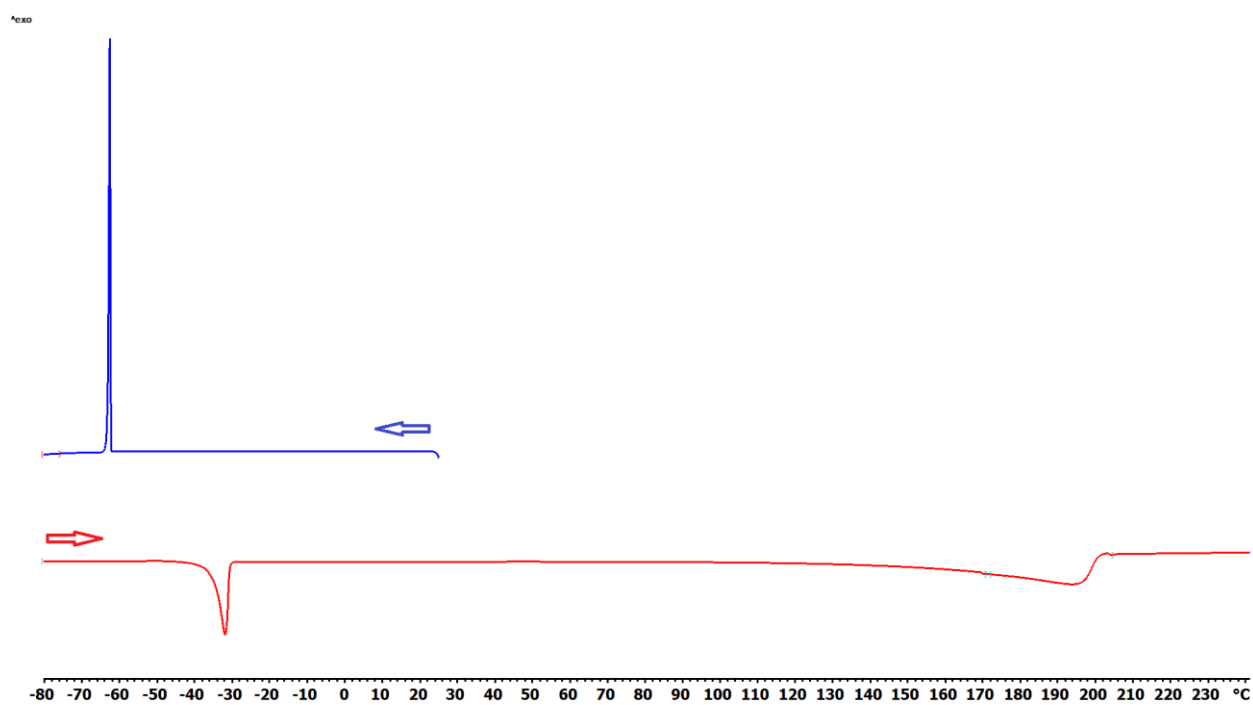


Figure S16. DSC curve of $i\text{Pr}_3\text{Si-SeH}$.

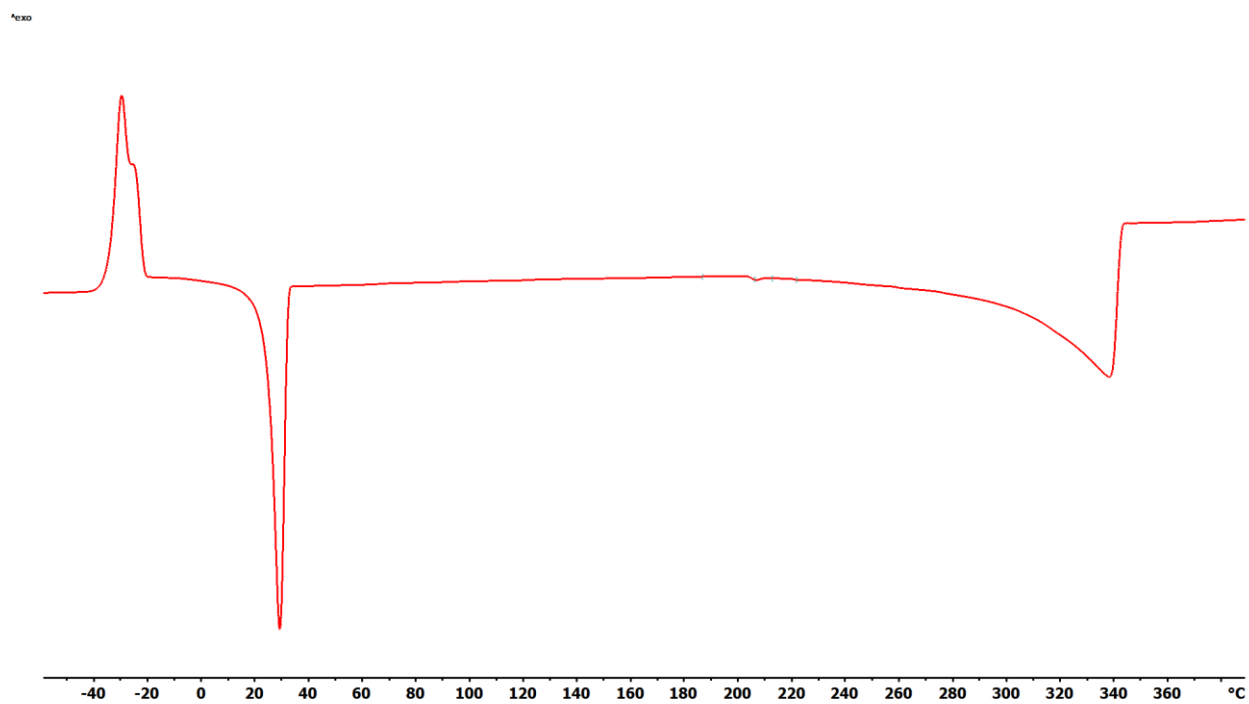


Figure S17. DSC curve of $\text{PhMe}_2\text{Si-Se-SiMe}_2\text{Ph}$.

*exo

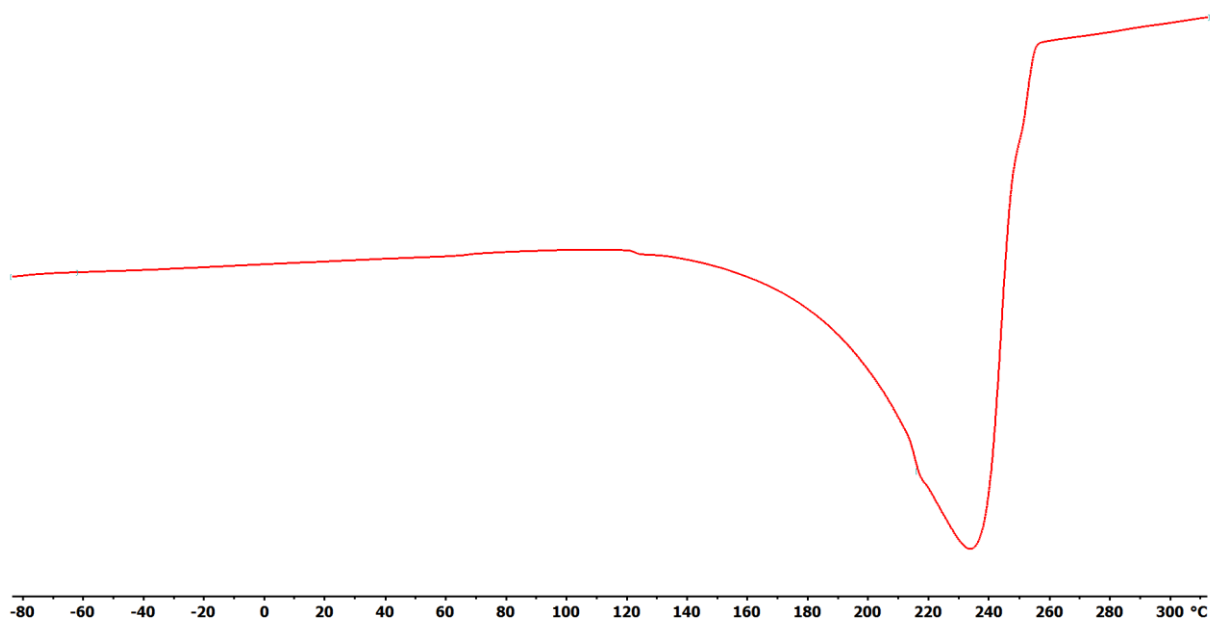


Figure S18. DSC curve of *iPr*₃Si-Se-SiMe₃.

6. TGA

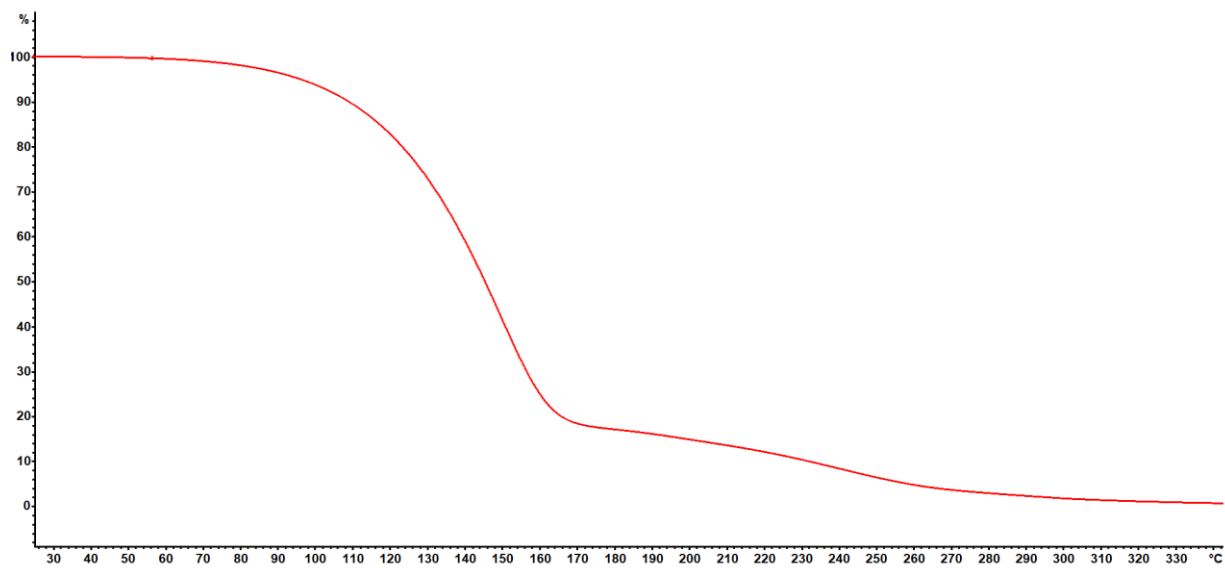


Figure S19. TGA curve of *iPr*₃Si-SeH.

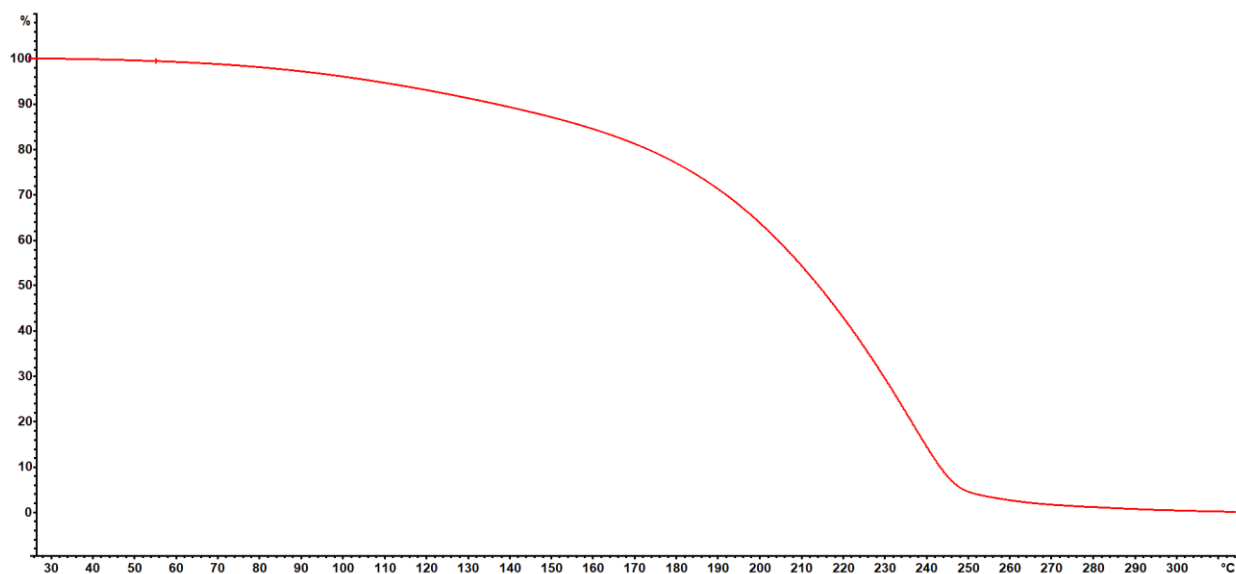


Figure S20. TGA curve of PhMe₂Si-Se-SiMe₂Ph.



Figure S21. TGA curve of *i*Pr₃Si-Se-SiMe₃.

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