Electronic supplementary information

Efficient Regioselective Synthesis of Novel Ensembles of Organylselanyl-Functionalized Divinyl Sulfides and 1,3-Thiaselenoles Under Phase Transfer Catalysis Conditions

Andrey S. Filippov, Svetlana V. Amosova, Nataliya A. Makhaeva, Alexander I. Albanov * and Vladimir A. Potapov

A. E. Favorsky Irkutsk Institute of Chemistry, Siberian Division of The Russian Academy of Sciences, 1 Favorsky Str., Irkutsk 664033, Russia; filippov@irioch.irk.ru (A.S.F.); amosova@irioch.irk.ru (S.V.A.); ggm@irioch.irk.ru (N.A.M.); v.a.potapov@mail.ru (V.A.P.)
* Correspondence: albanov@irioch.irk.ru

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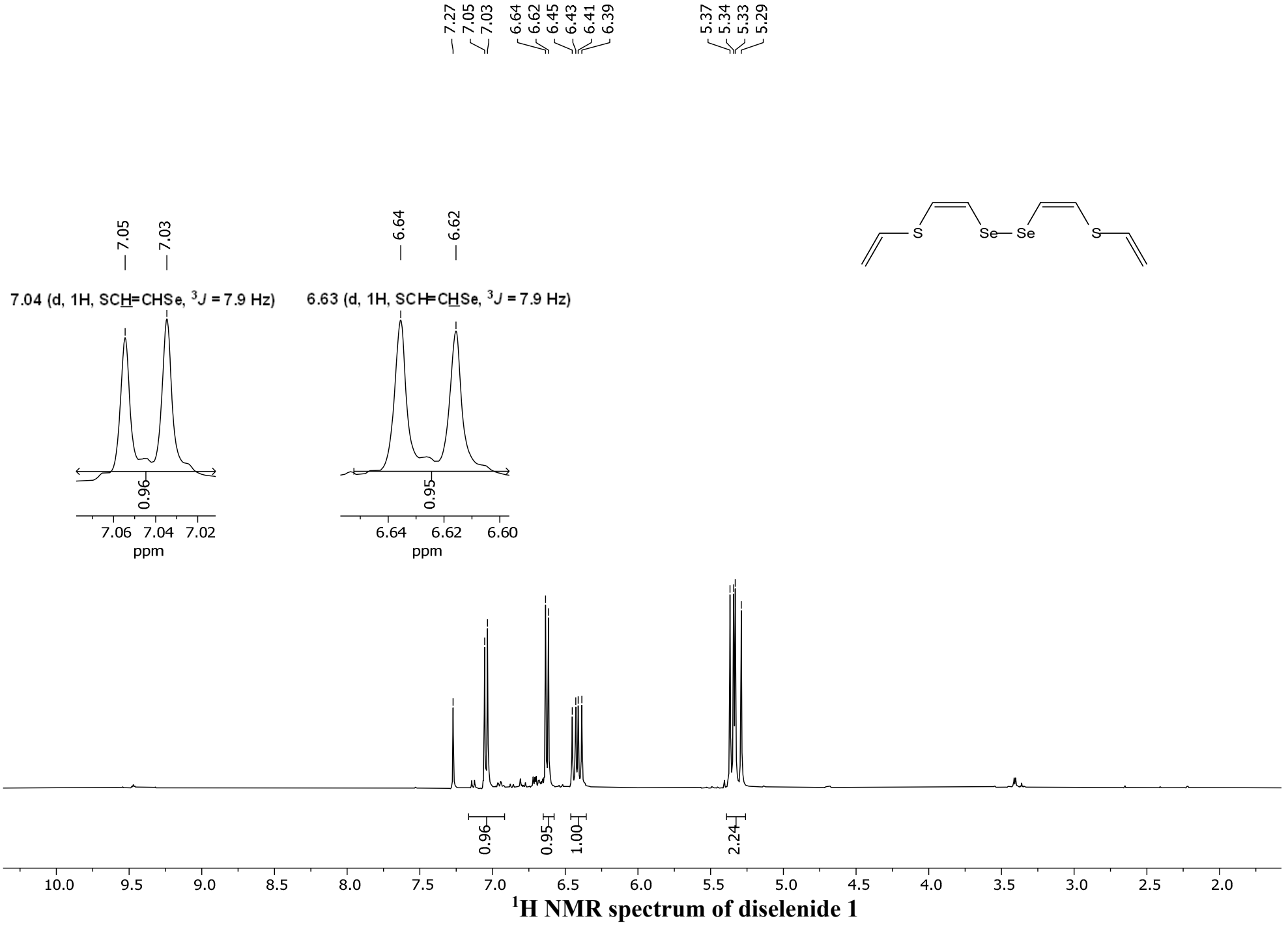
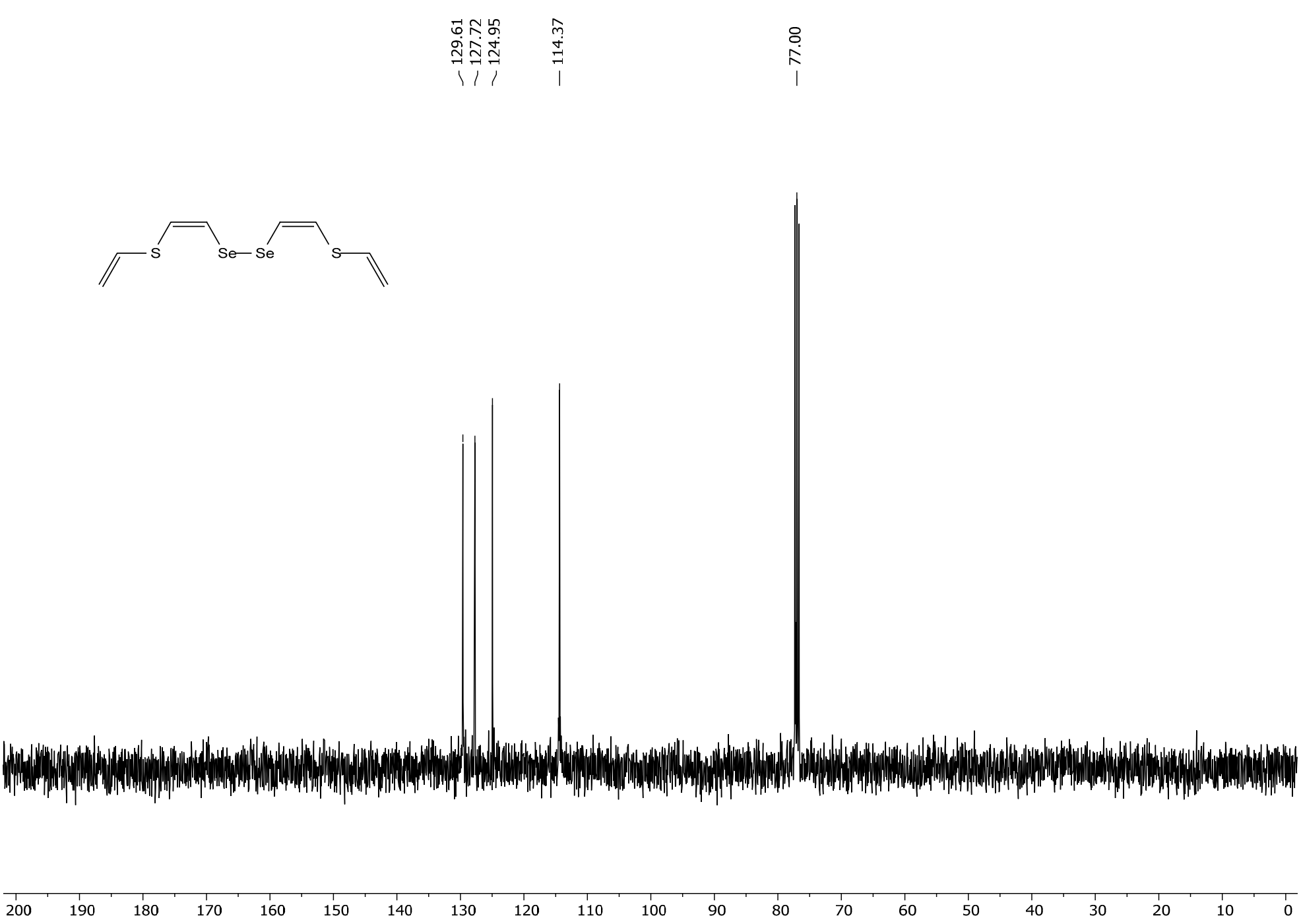
Experimental

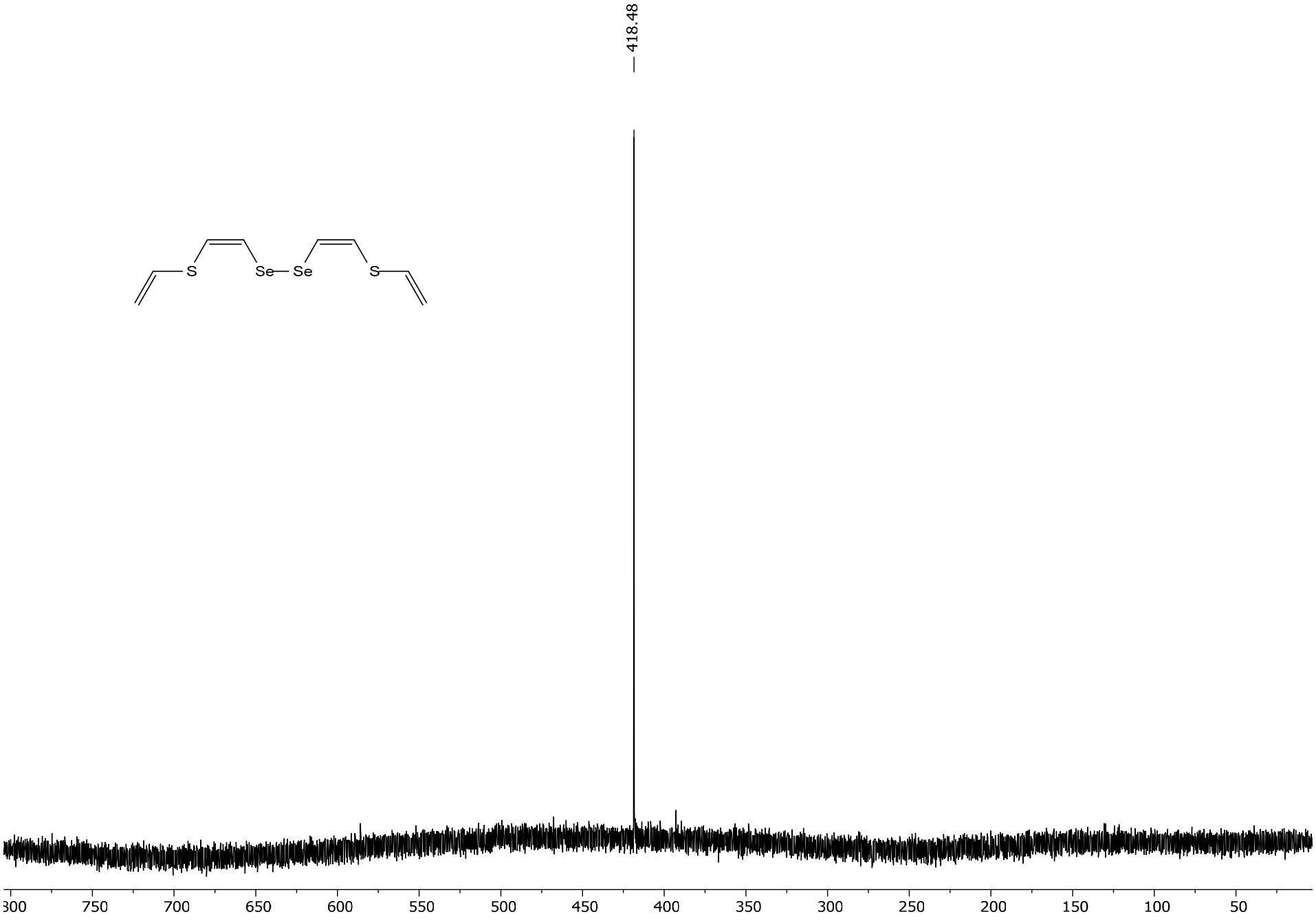
The ^{1}H (400.1 MHz), ^{13}C (100.6 MHz), and ^{77}Se (76.3 MHz) NMR spectra (the spectra can be found in Supplementary Materials) were recorded on a Bruker DPX-400 spectrometer (Bruker BioSpin GmbH, Rheinstetten, Germany) in $CDCl_3$ solutions and referred to the residual solvent peaks ($CDCl_3$, δ = 7.27 and 77.0 ppm for ^{1}H- and ^{13}C-NMR, respectively), and dimethyl selenide (^{77}Se).



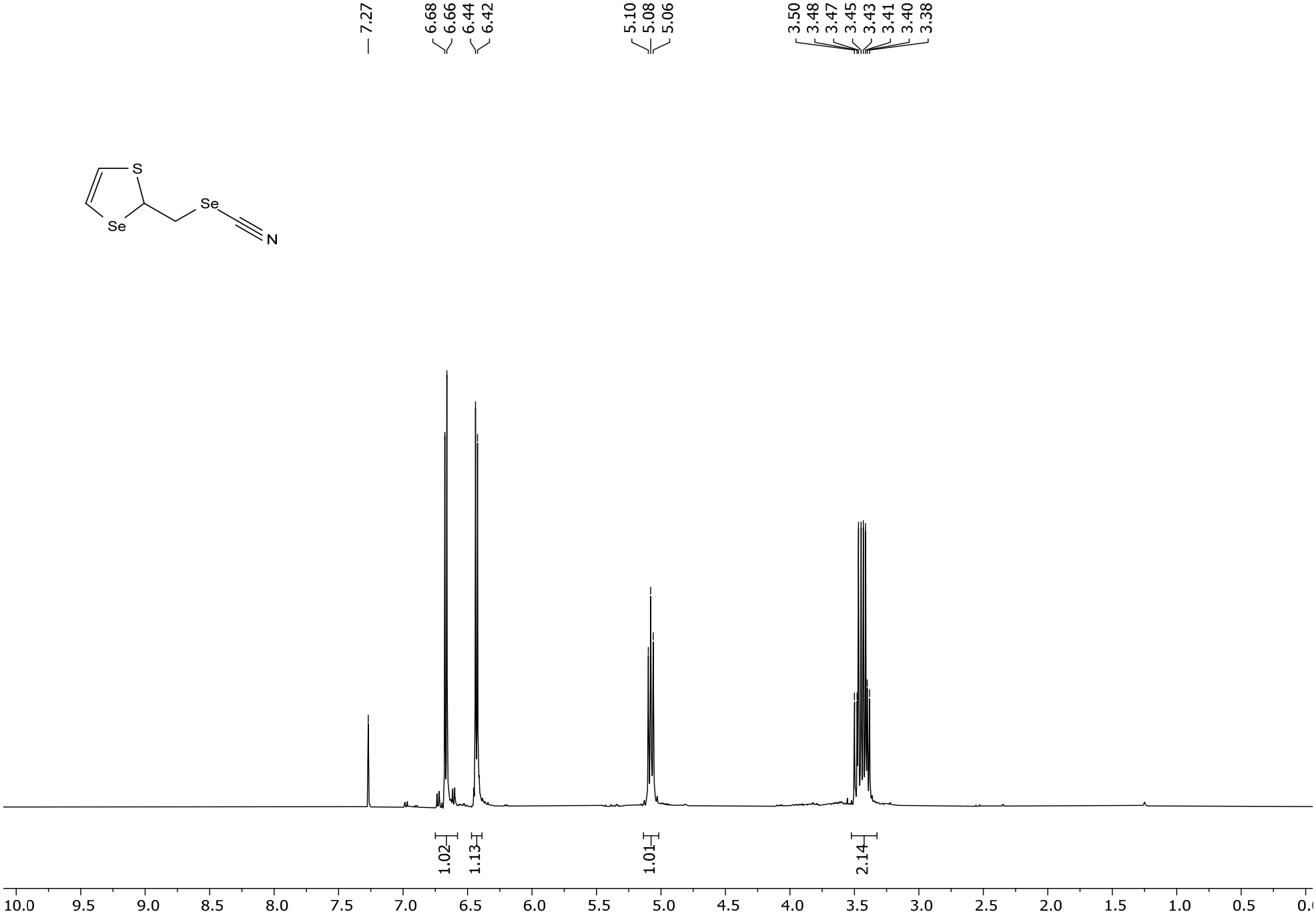
^{1}H NMR spectrum of diselenide 1



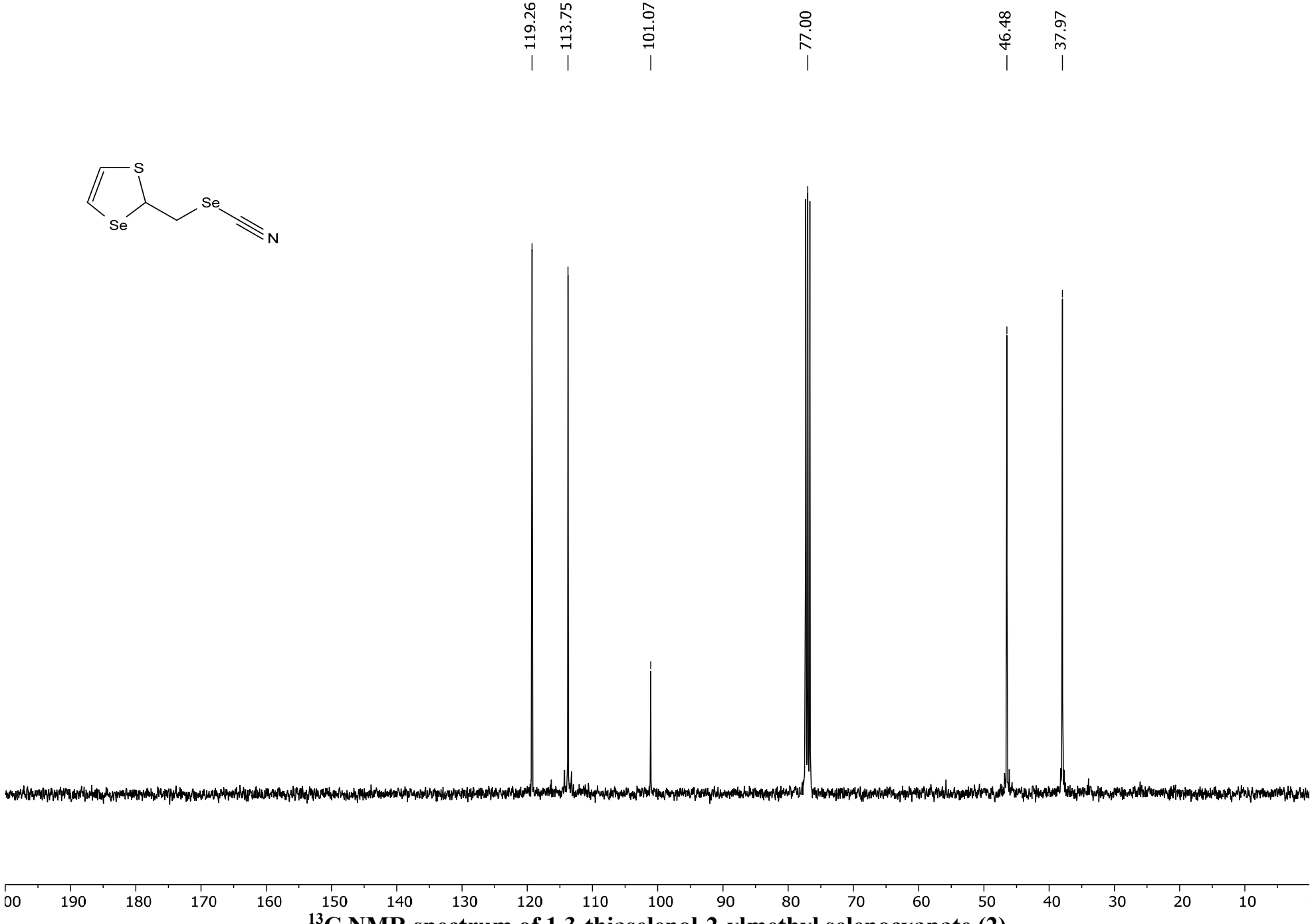
^{13}C NMR spectrum of diselenide 1



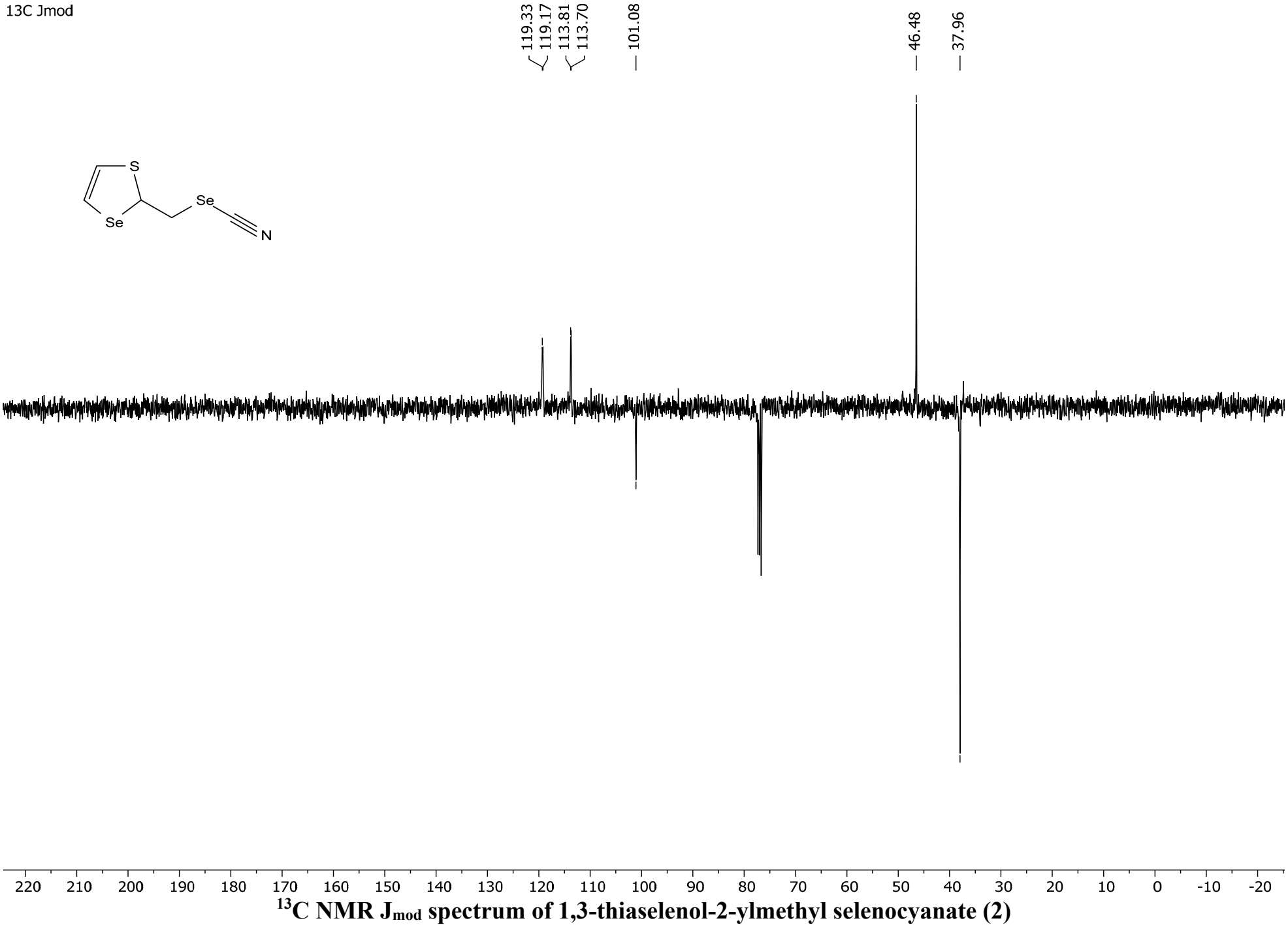
^{77}Se NMR spectrum of diselenide 1



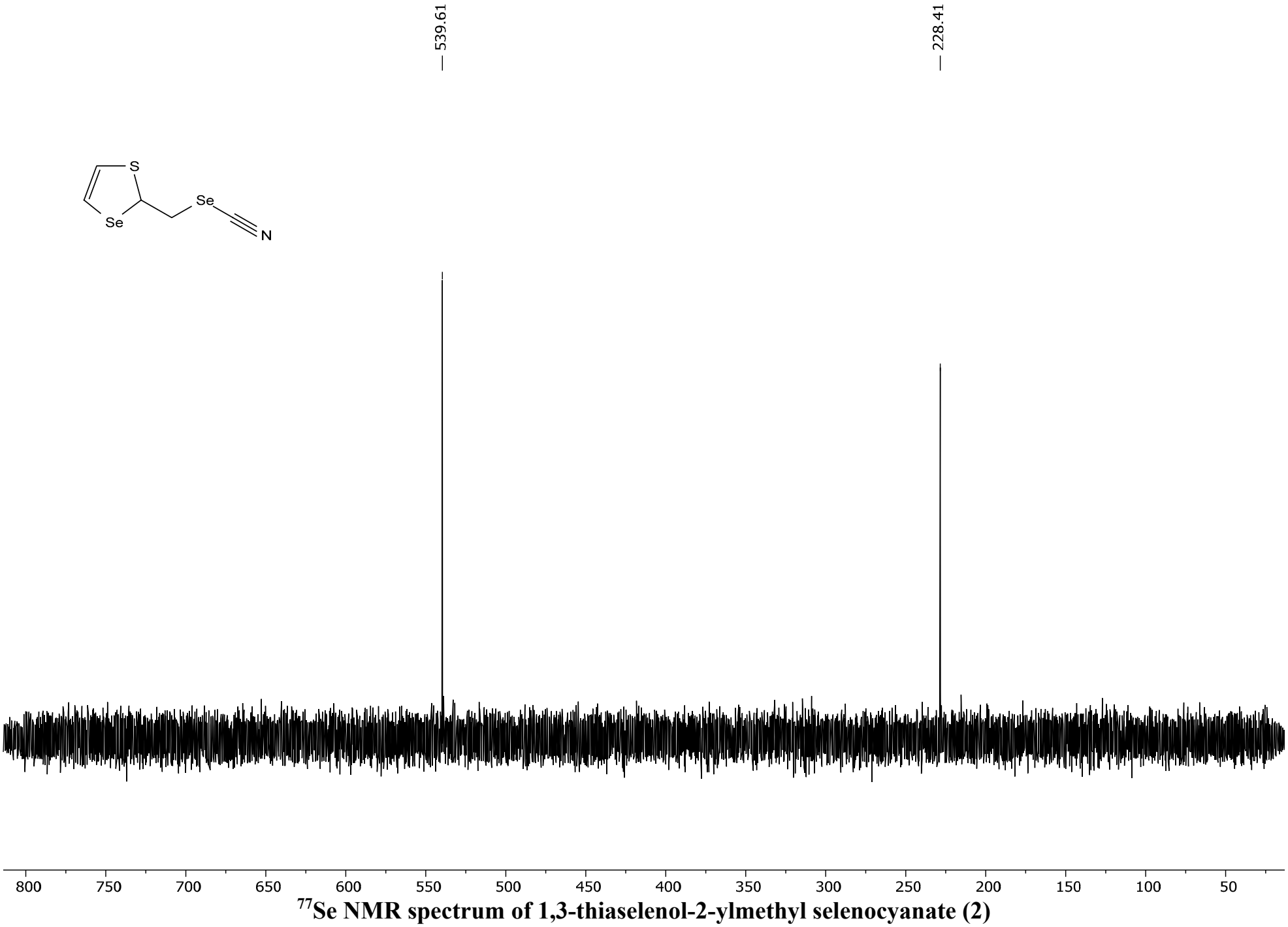
^{1}H NMR spectrum of 1,3-thiaselenol-2-ylmethyl selenocyanate (2)



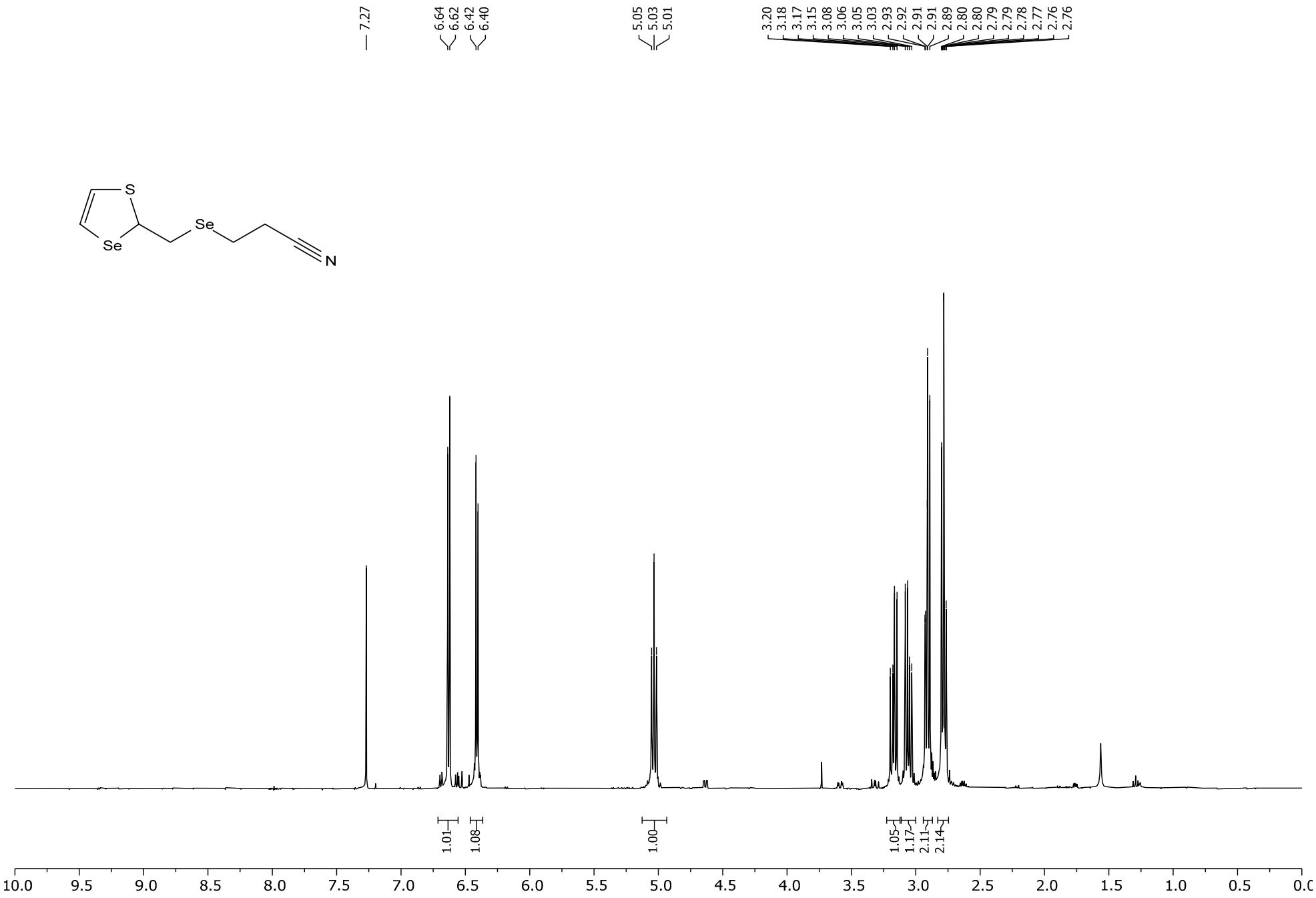
^{13}C NMR spectrum of 1,3-thiaselenol-2-ylmethyl selenocyanate (2)



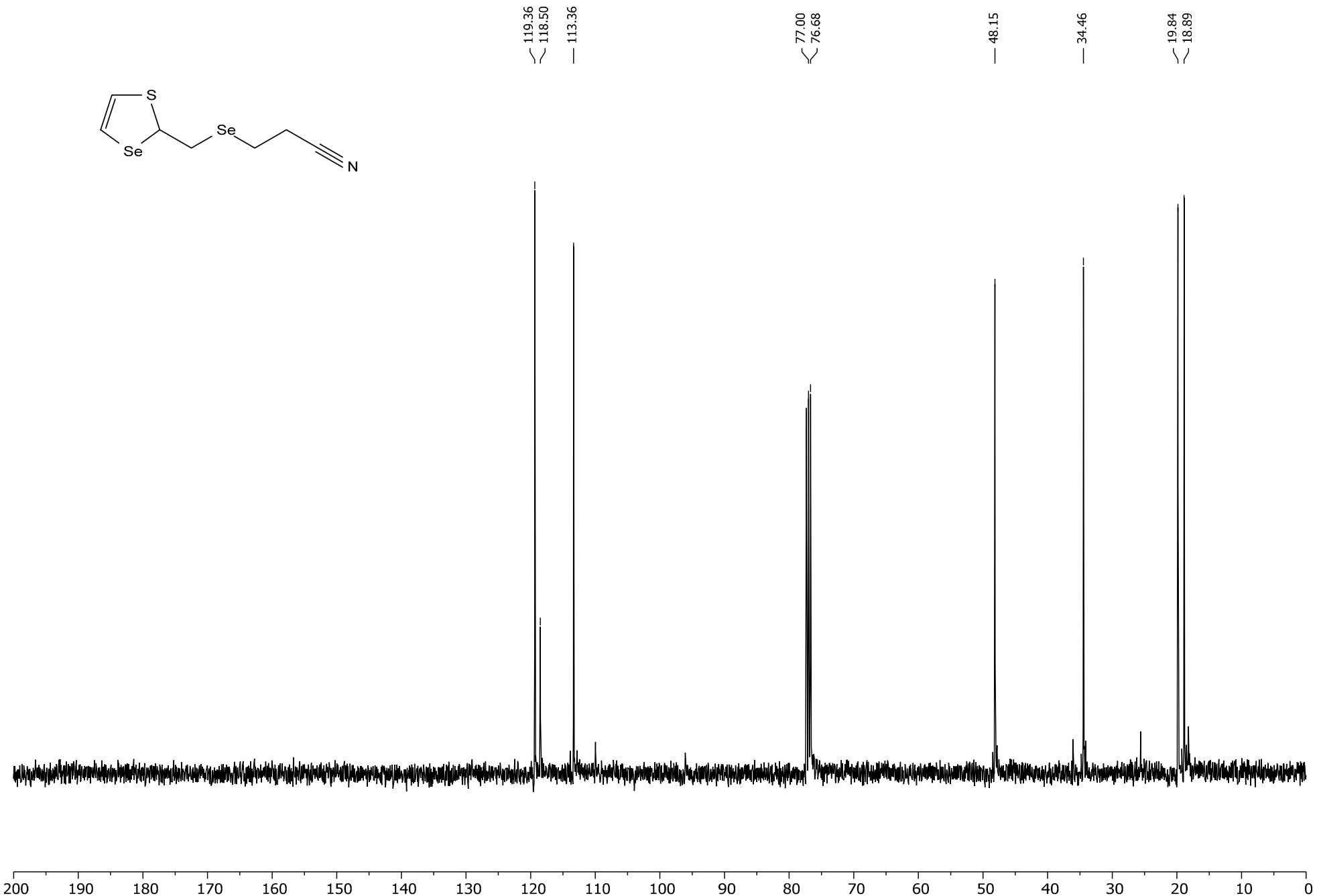
^{13}C NMR J_{mod} spectrum of 1,3-thiaselenol-2-ylmethyl selenocyanate (2)



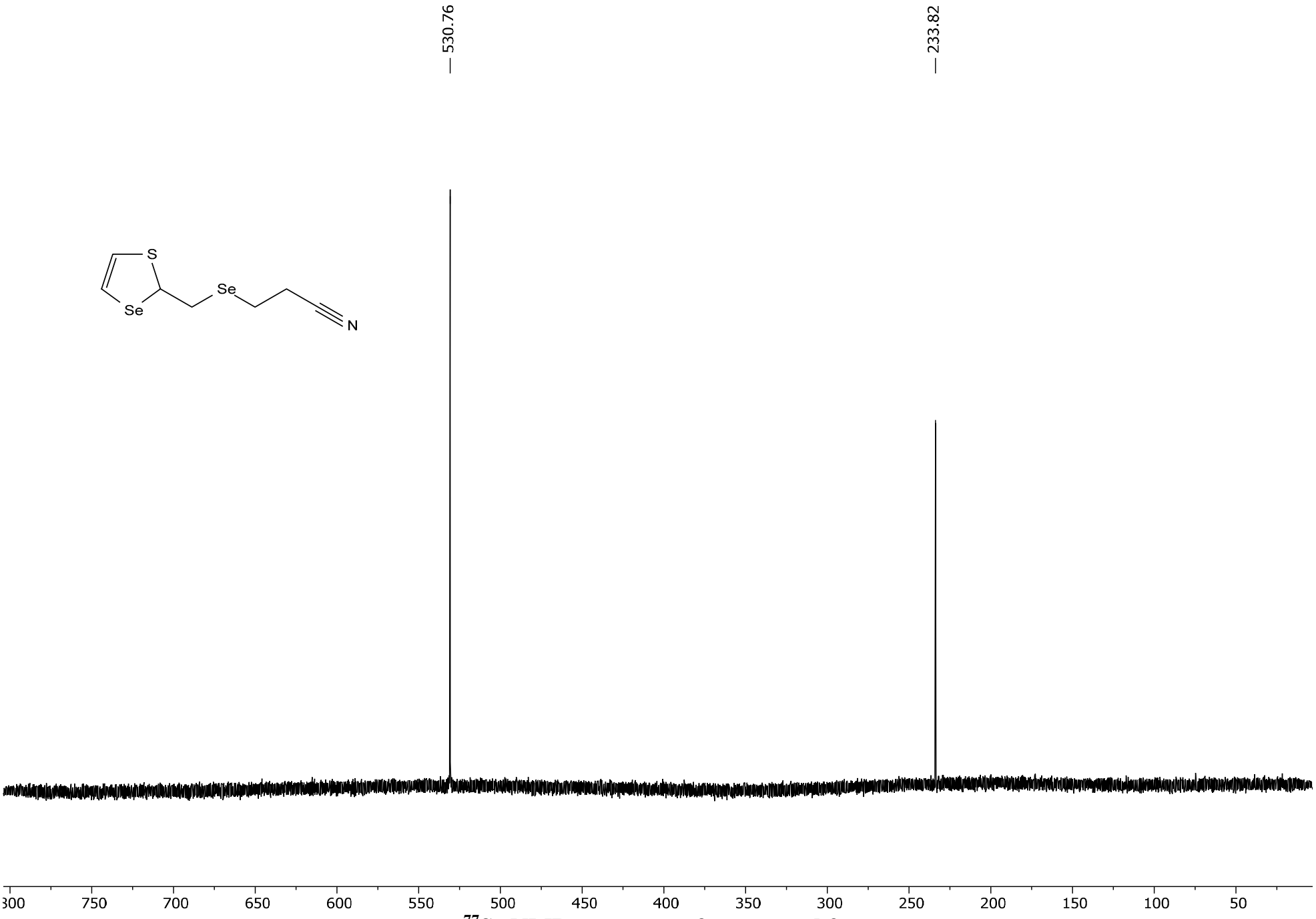
^{77}Se NMR spectrum of 1,3-thiaselenol-2-ylmethyl selenocyanate (2)



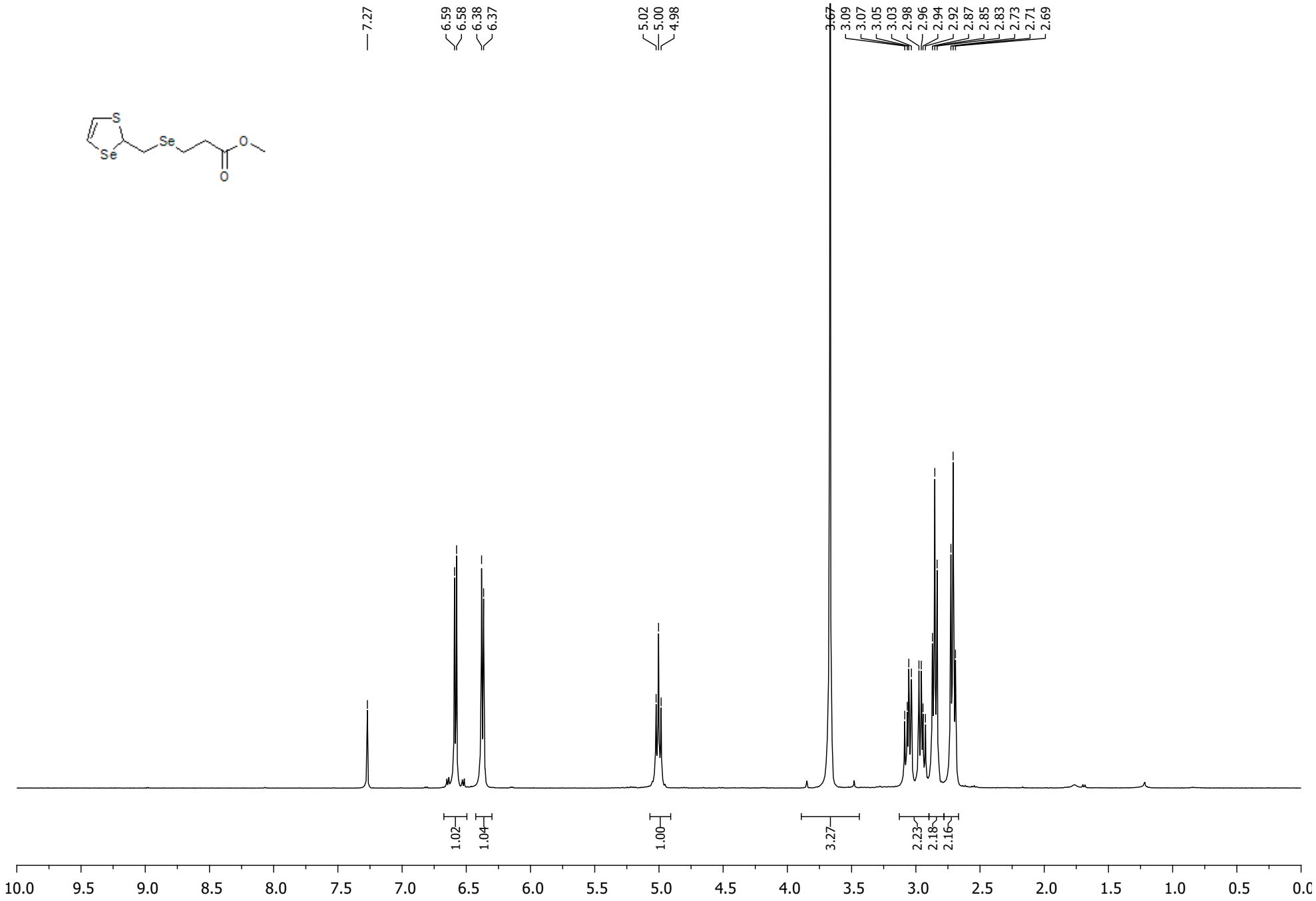
^{1}H NMR spectrum of compound 3a



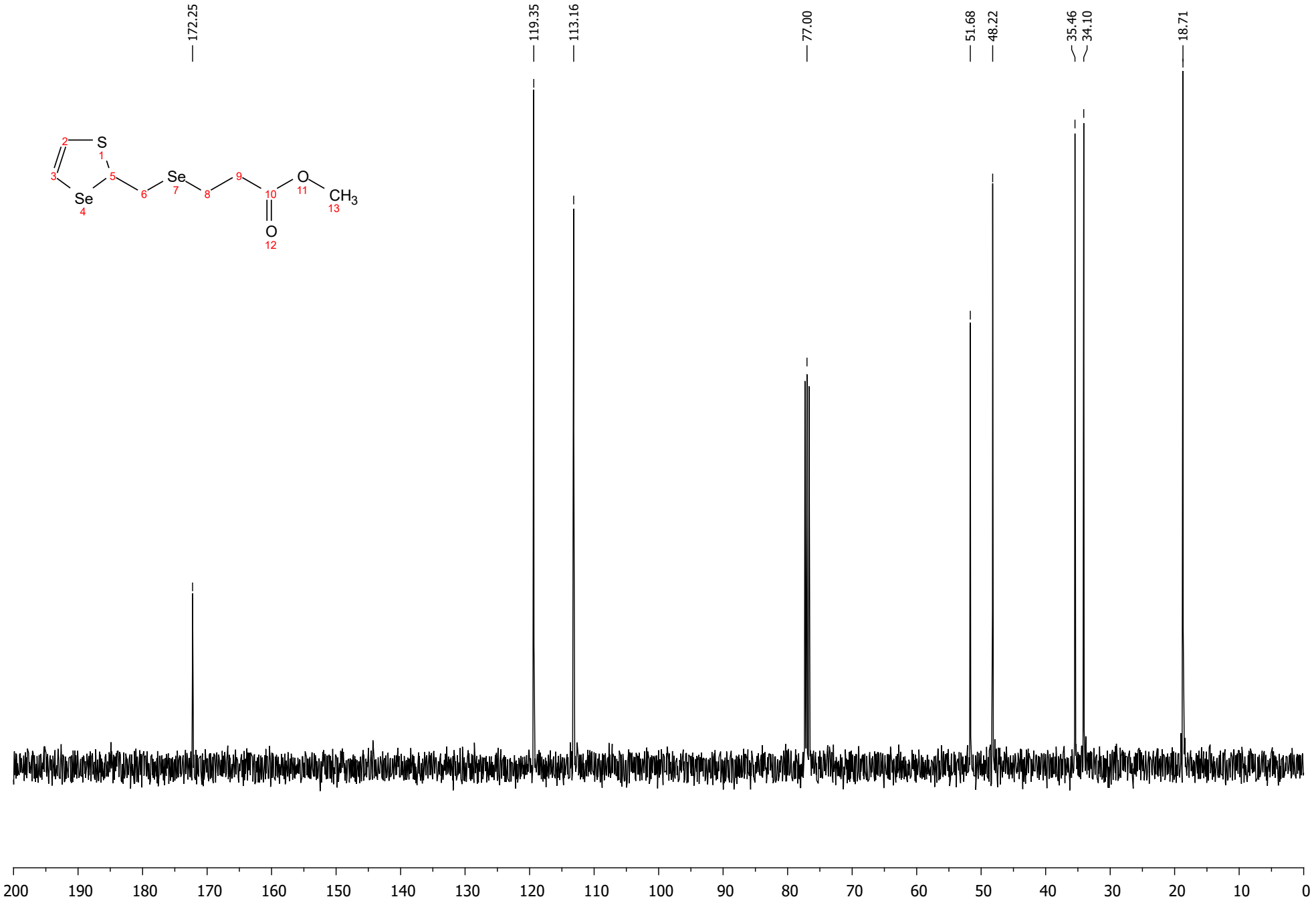
^{13}C NMR spectrum of compound 3a



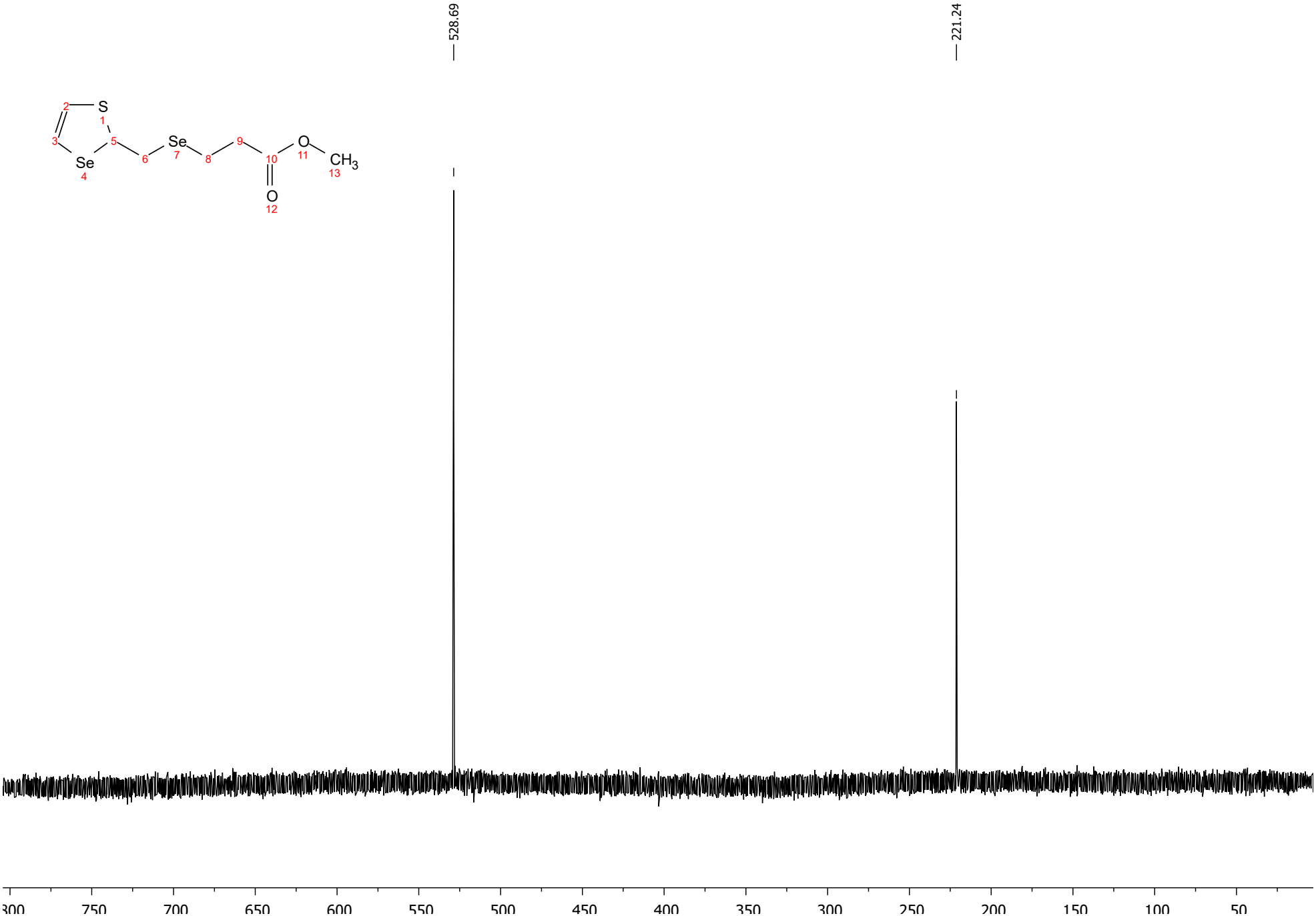
^{77}Se NMR spectrum of compound 3a



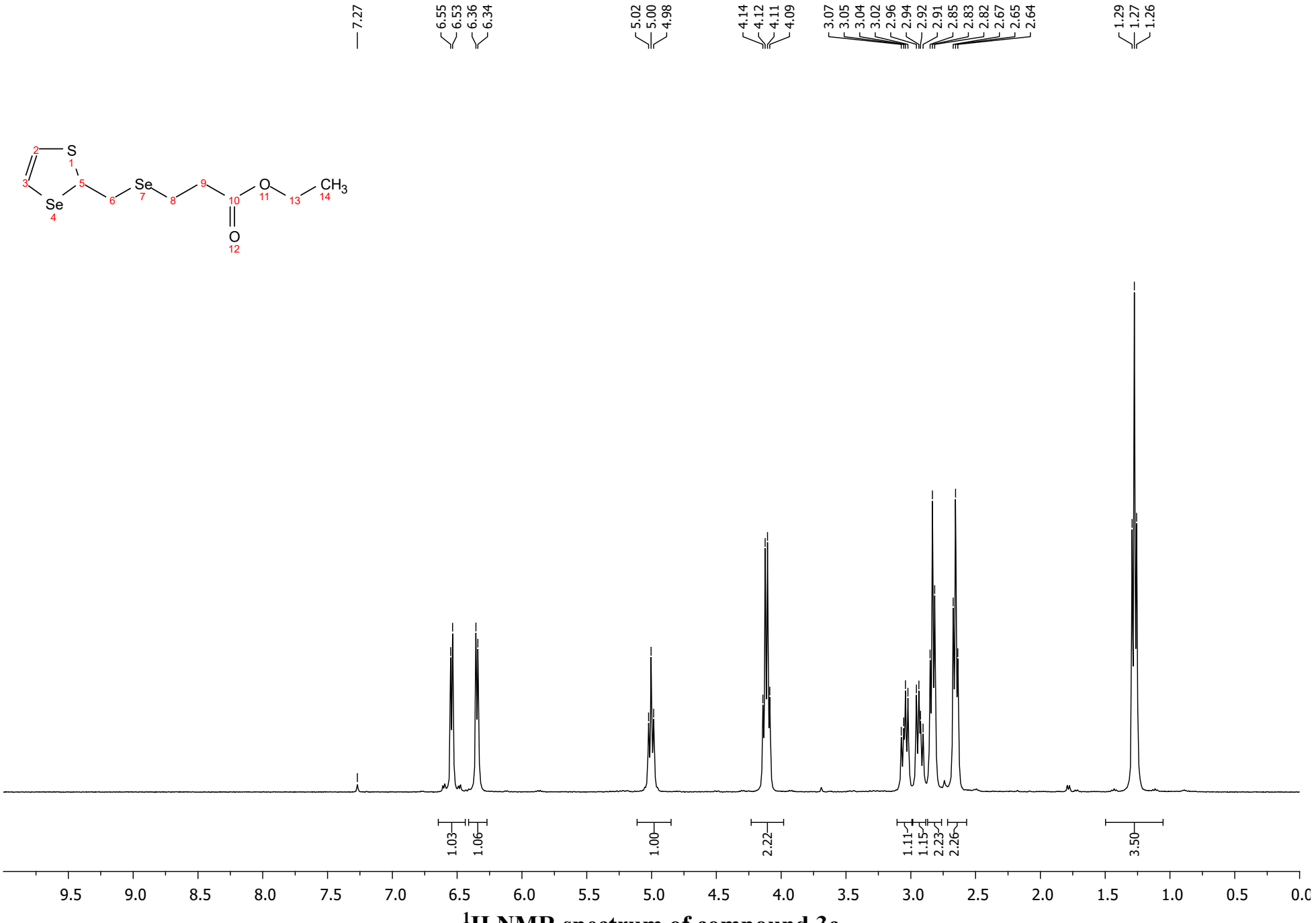
^{1}H NMR spectrum of compound 3b



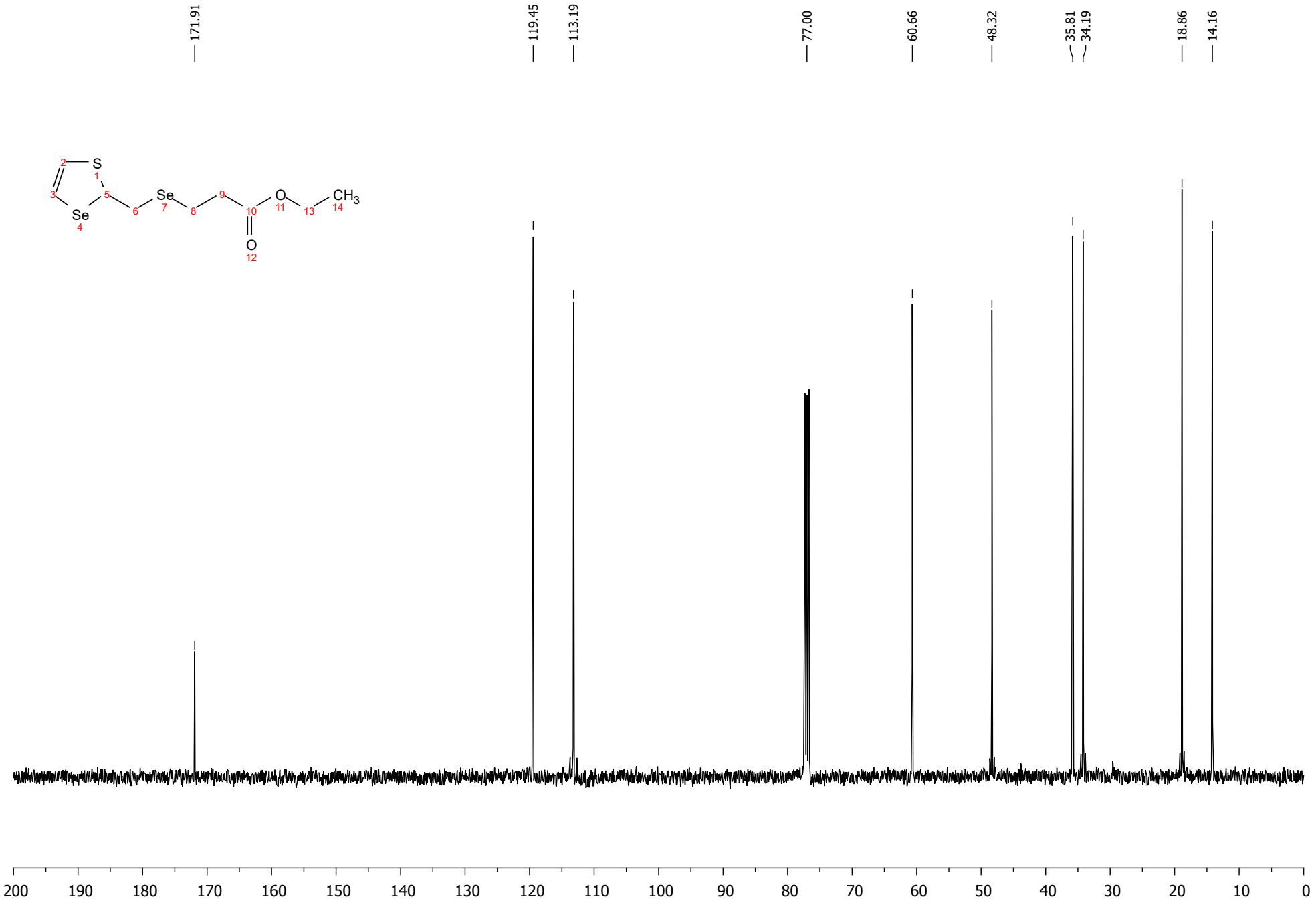
^{13}C NMR spectrum of compound 3b



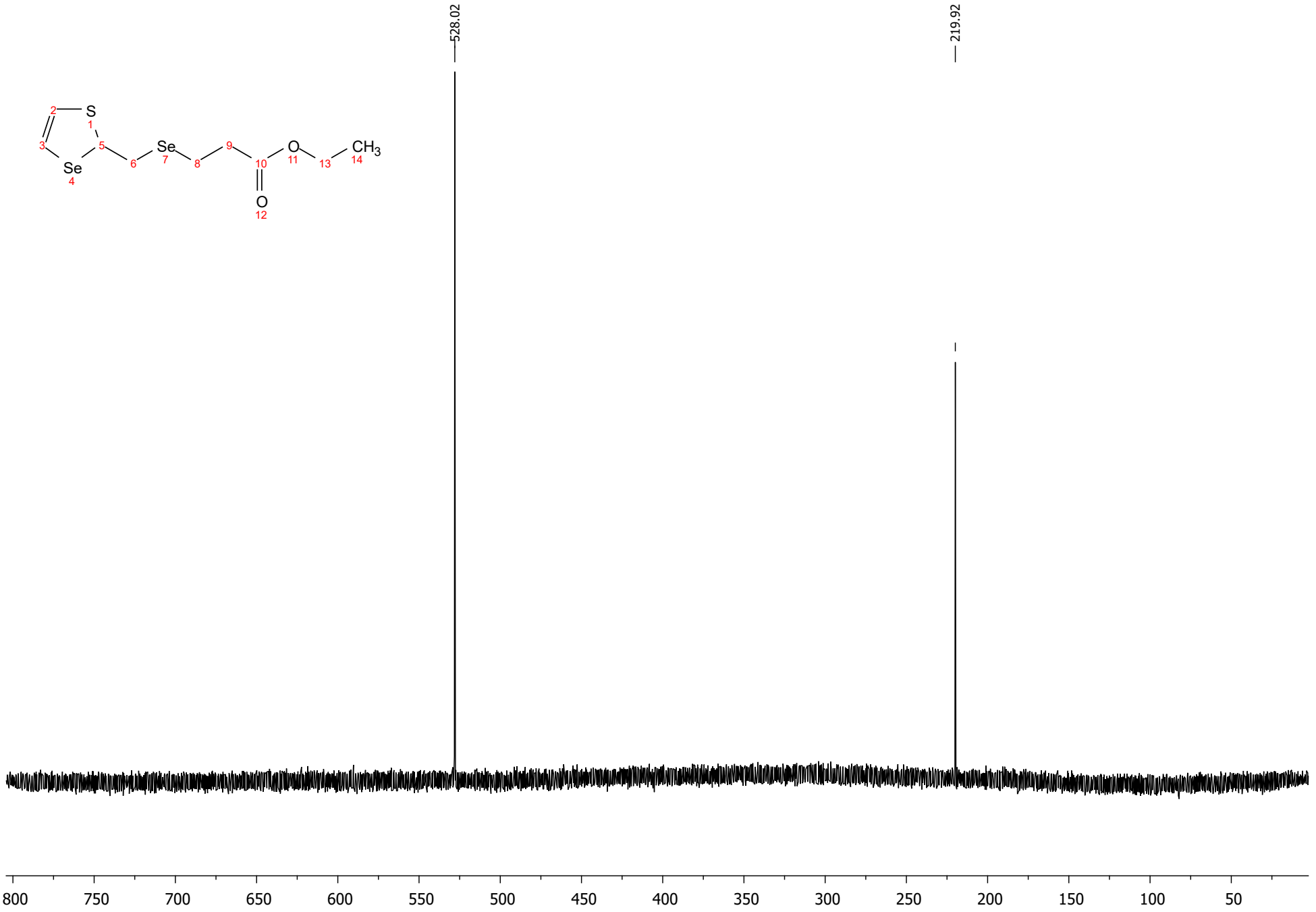
^{77}Se NMR spectrum of compound 3b



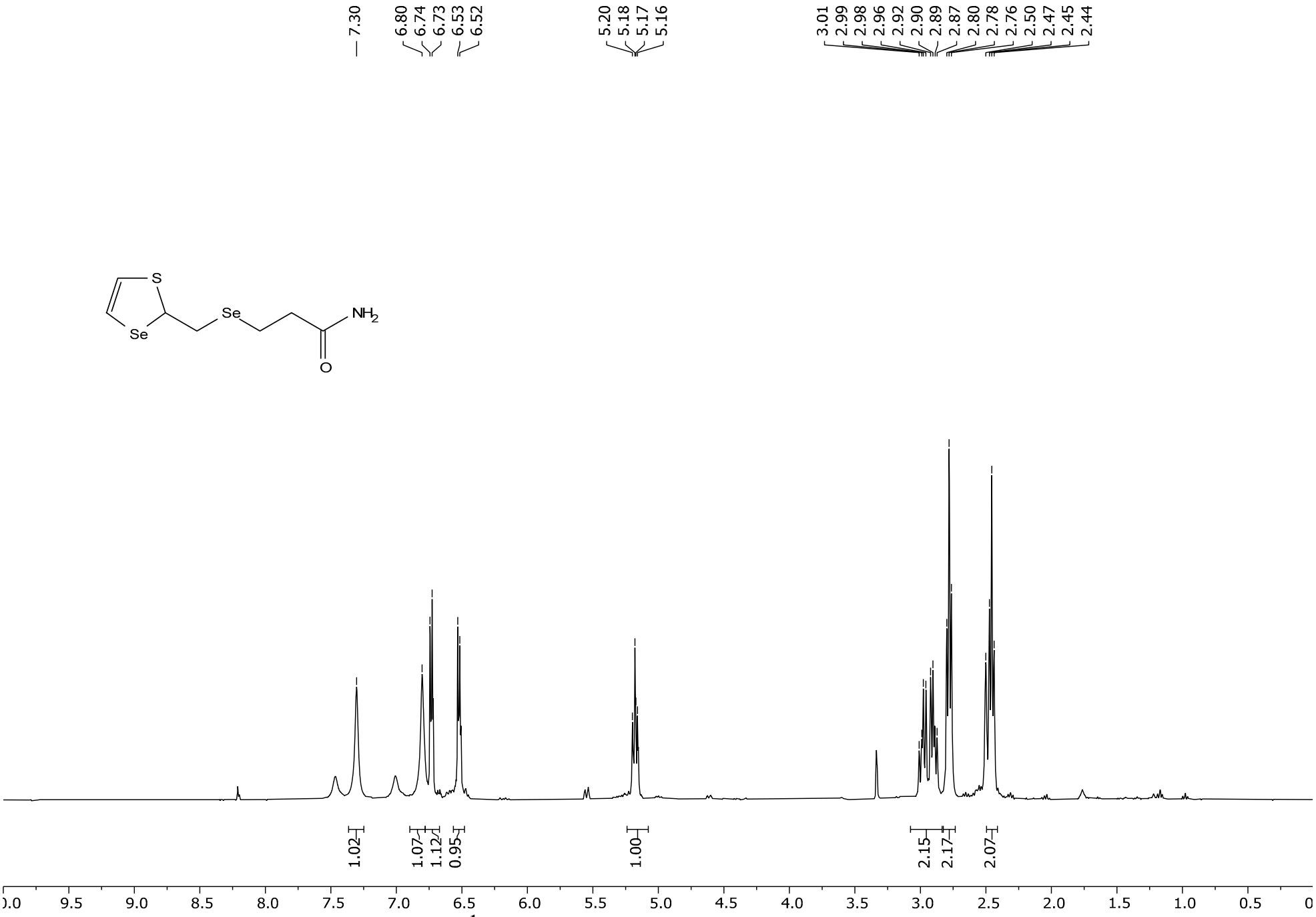
^{1}H NMR spectrum of compound 3c



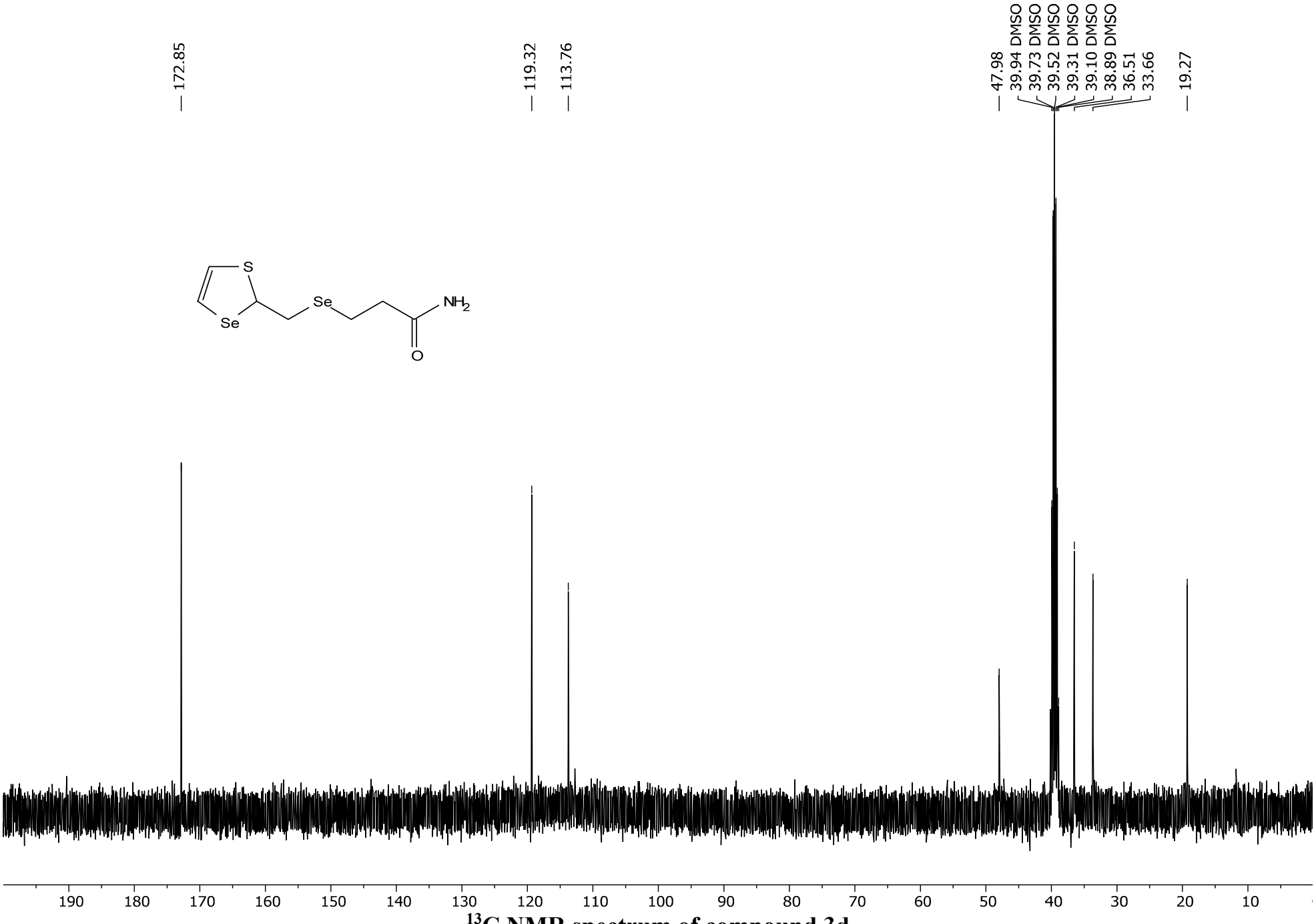
^{13}C NMR spectrum of compound 3c



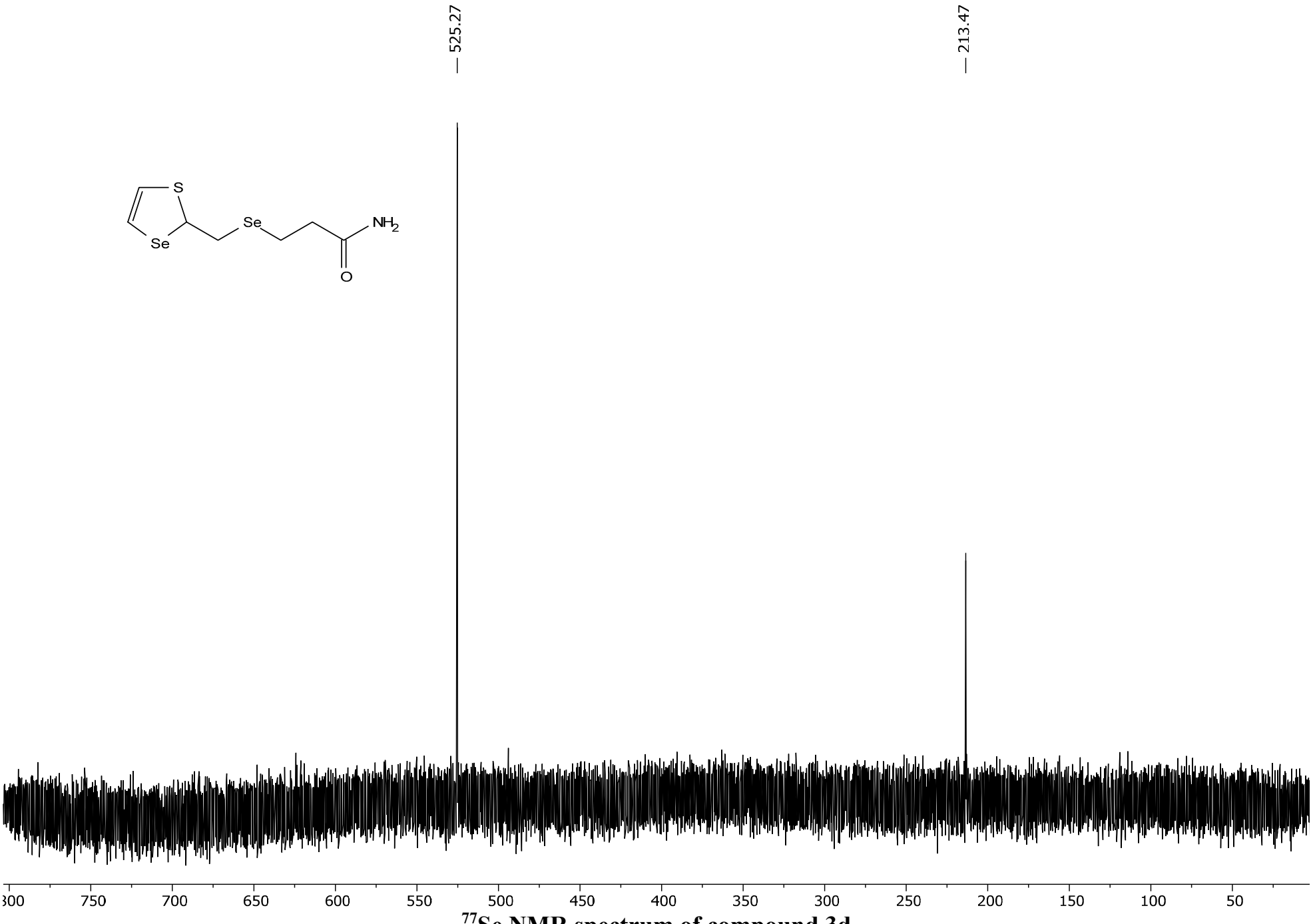
^{77}Se NMR spectrum of compound 3c



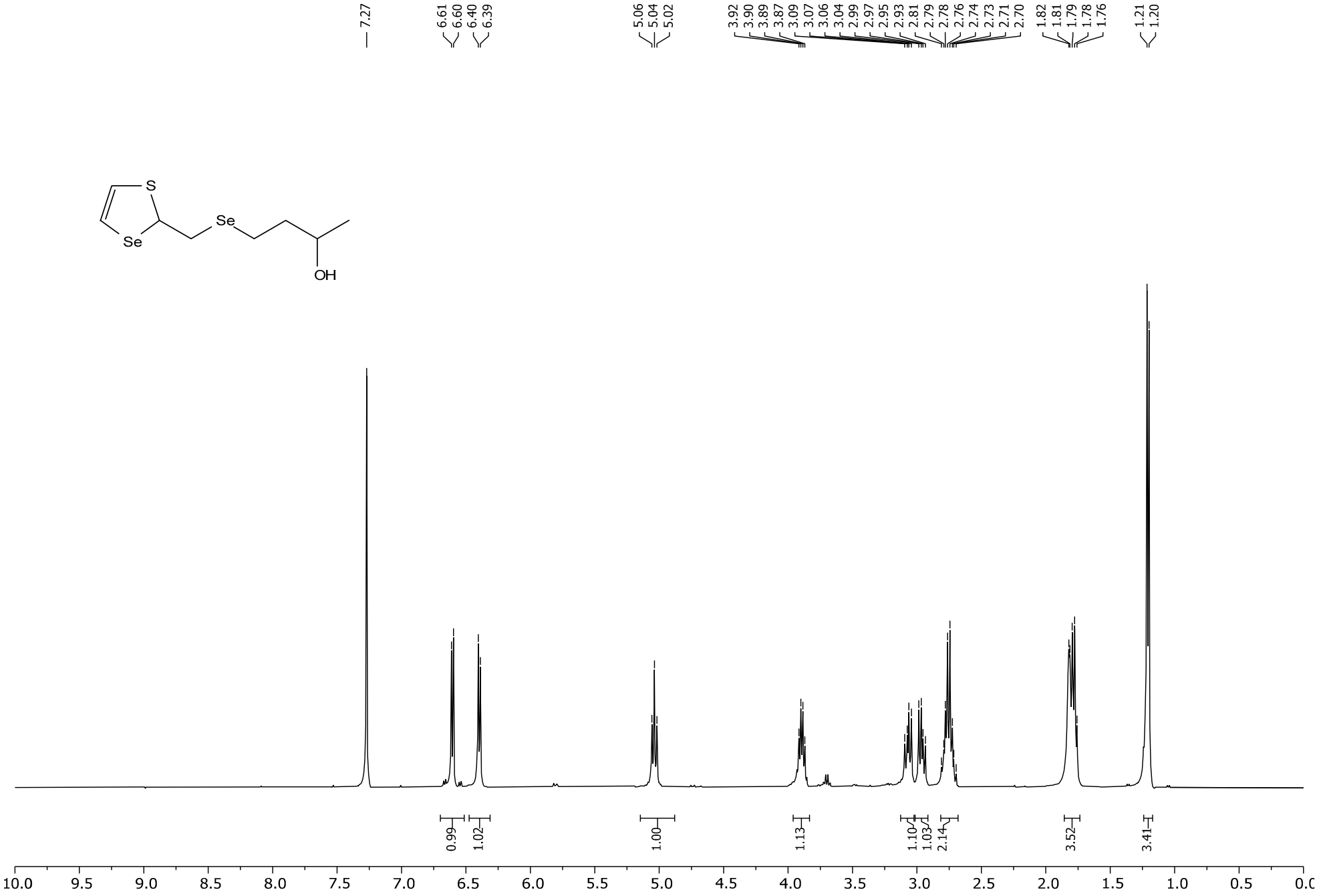
^{1}H NMR spectrum of compound 3d



^{13}C NMR spectrum of compound 3d



^{77}Se NMR spectrum of compound 3d



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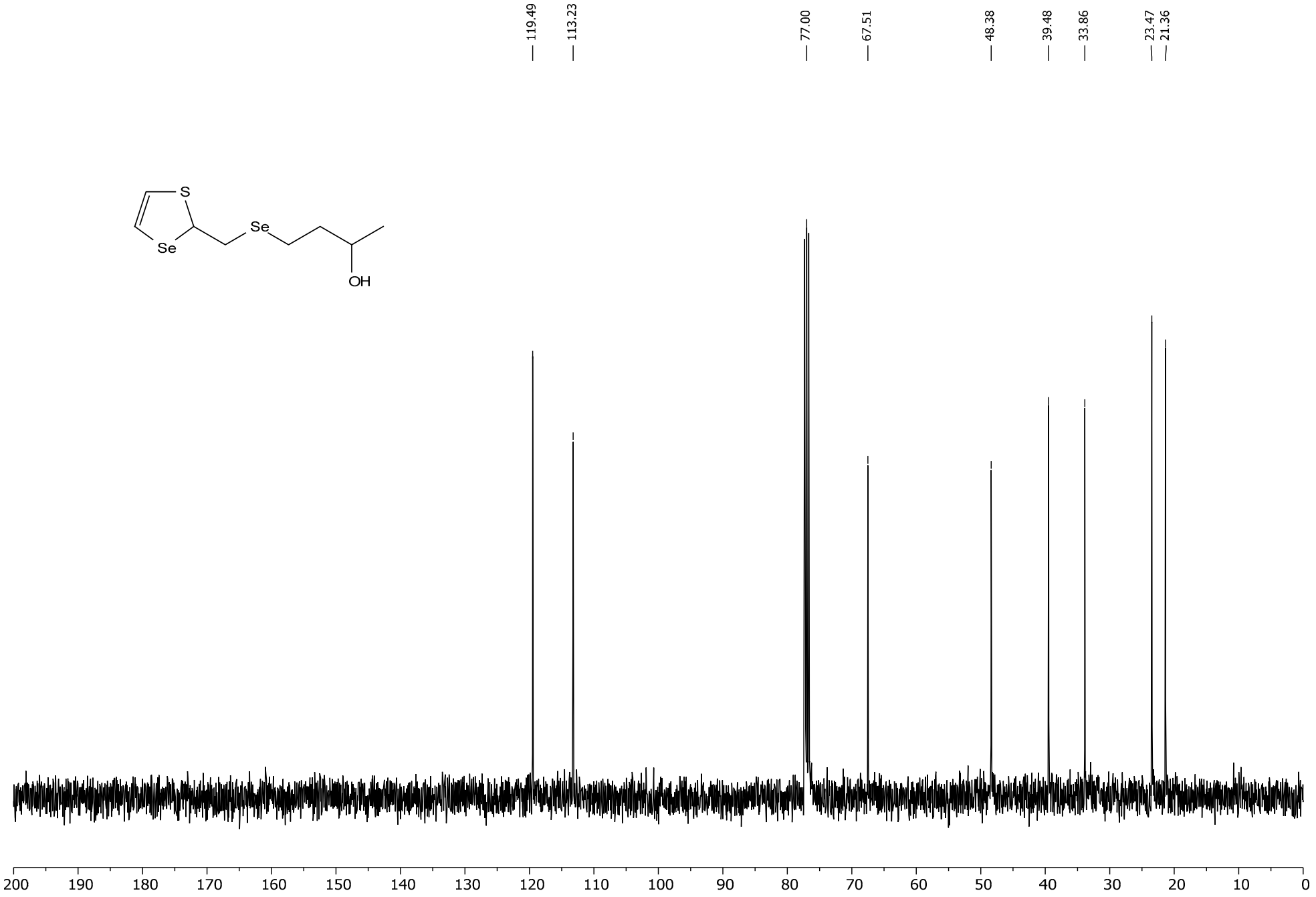

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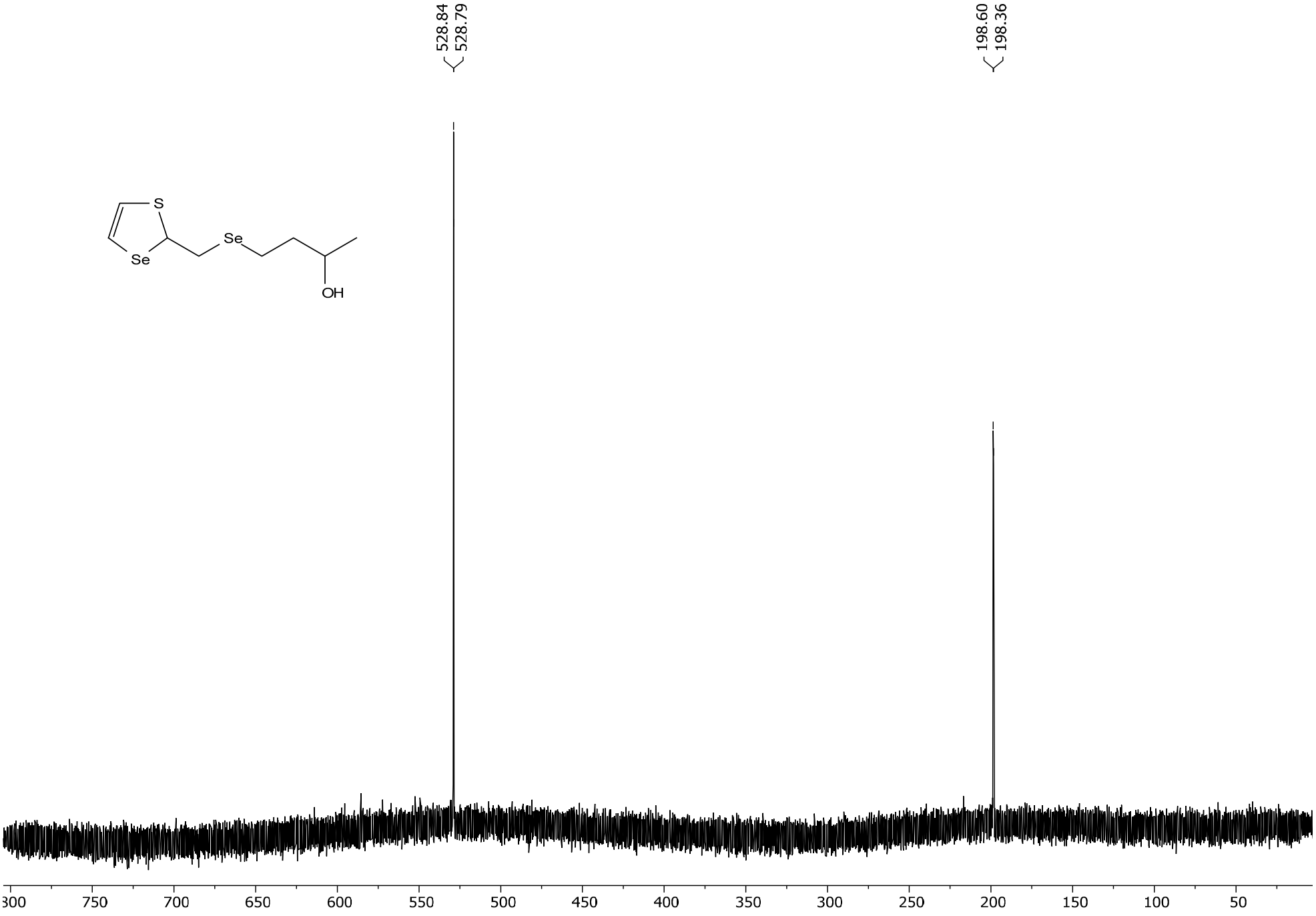

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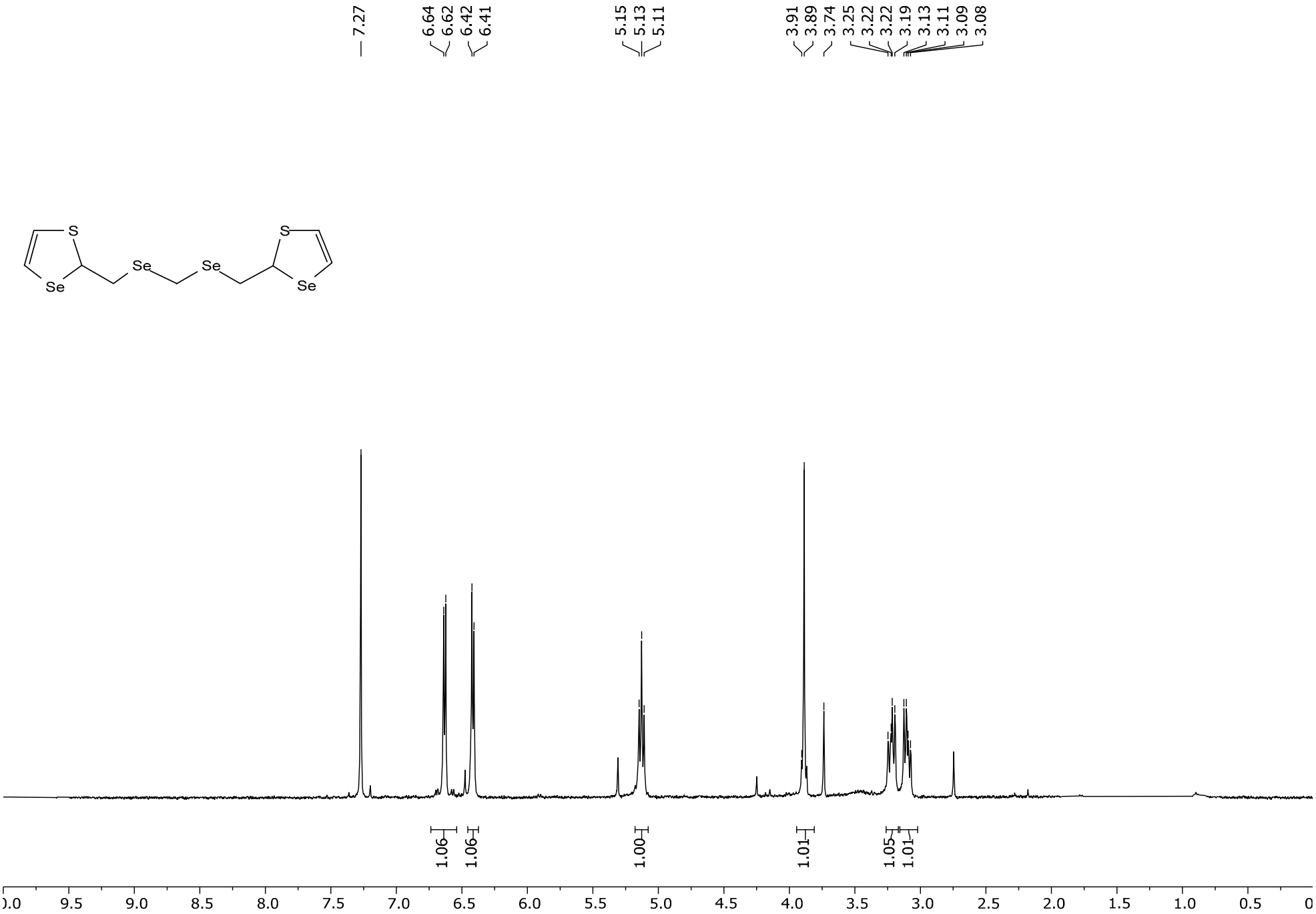
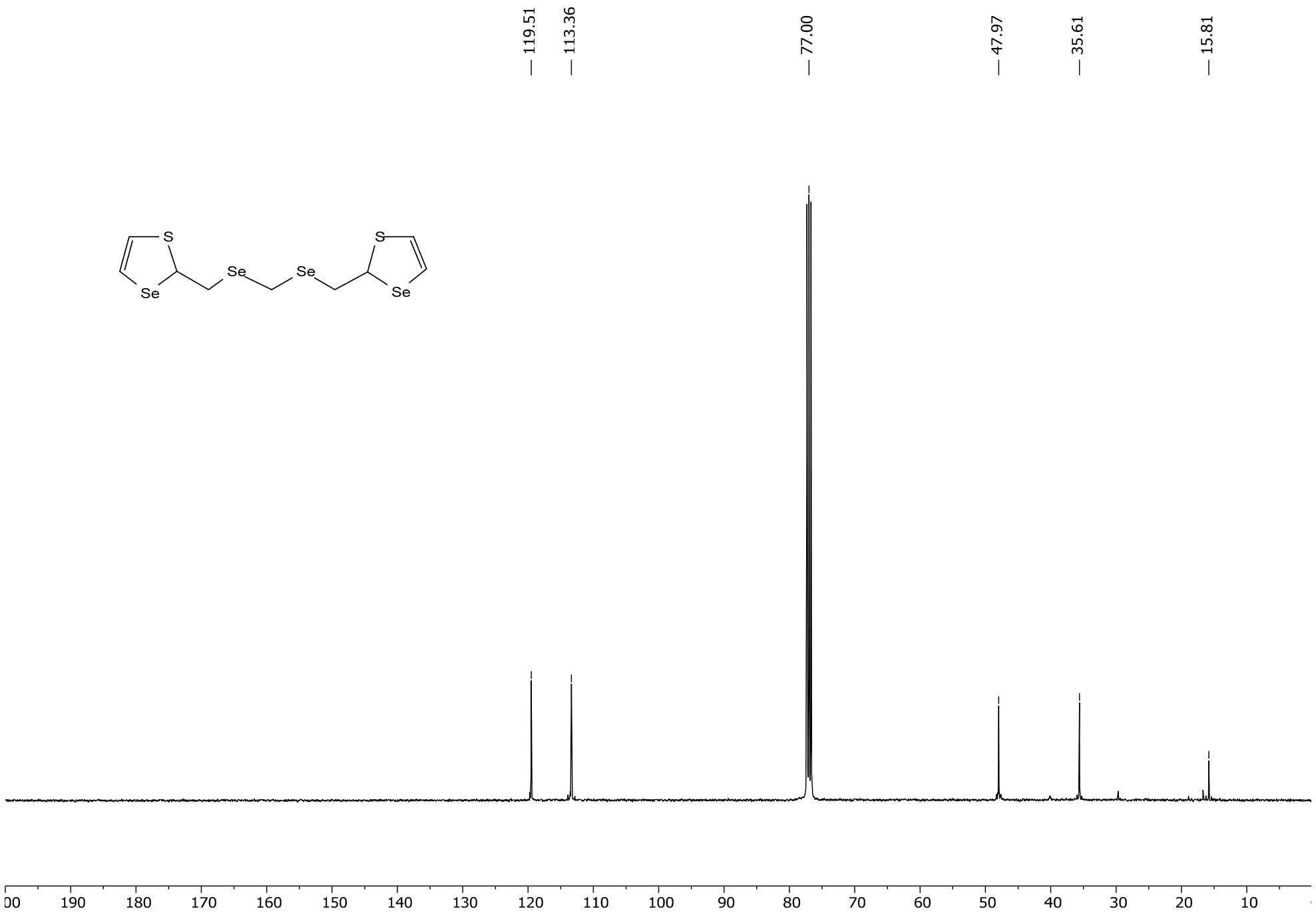
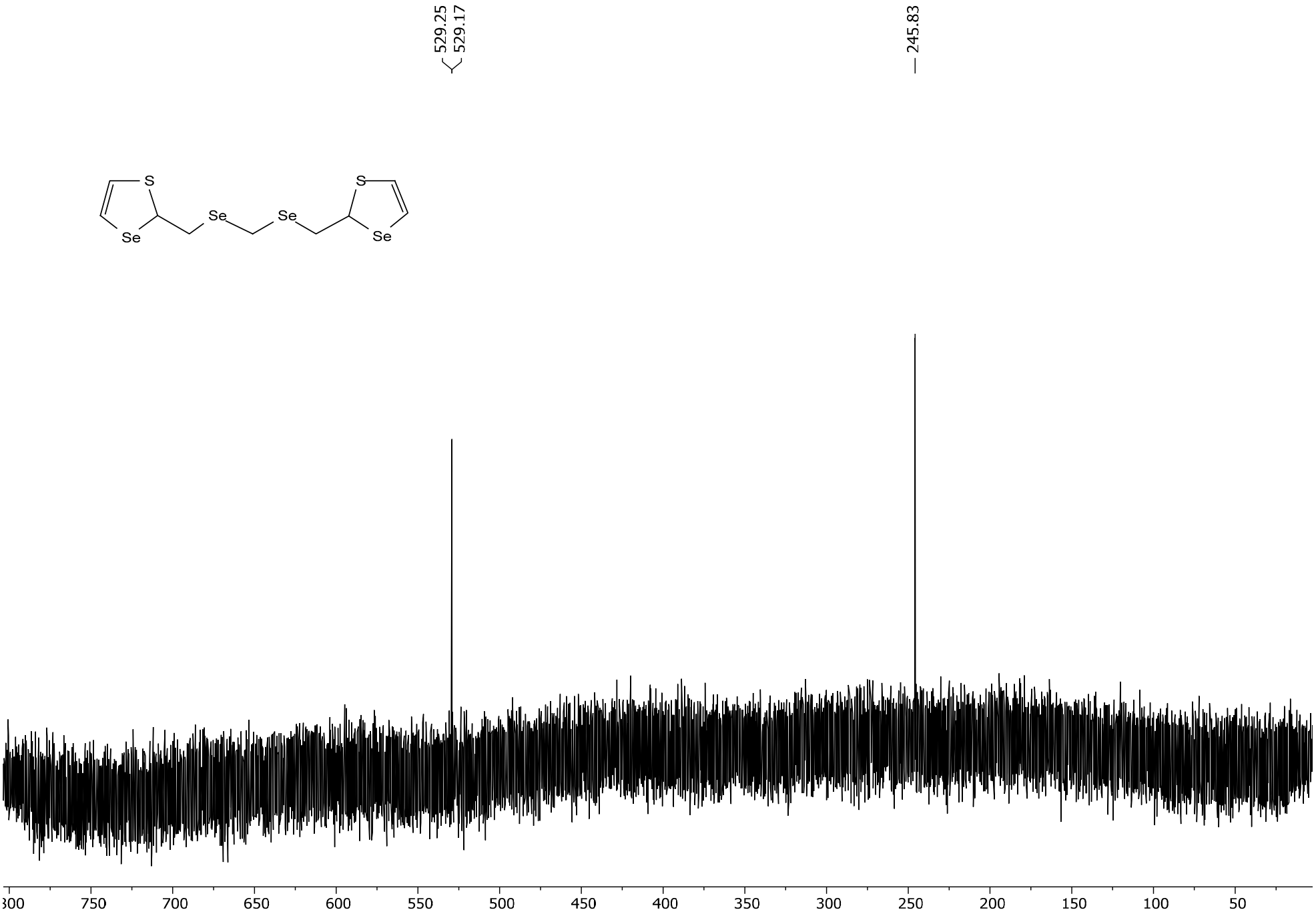


^{1}H NMR spectrum of compound 4



^{13}C NMR spectrum of compound 4



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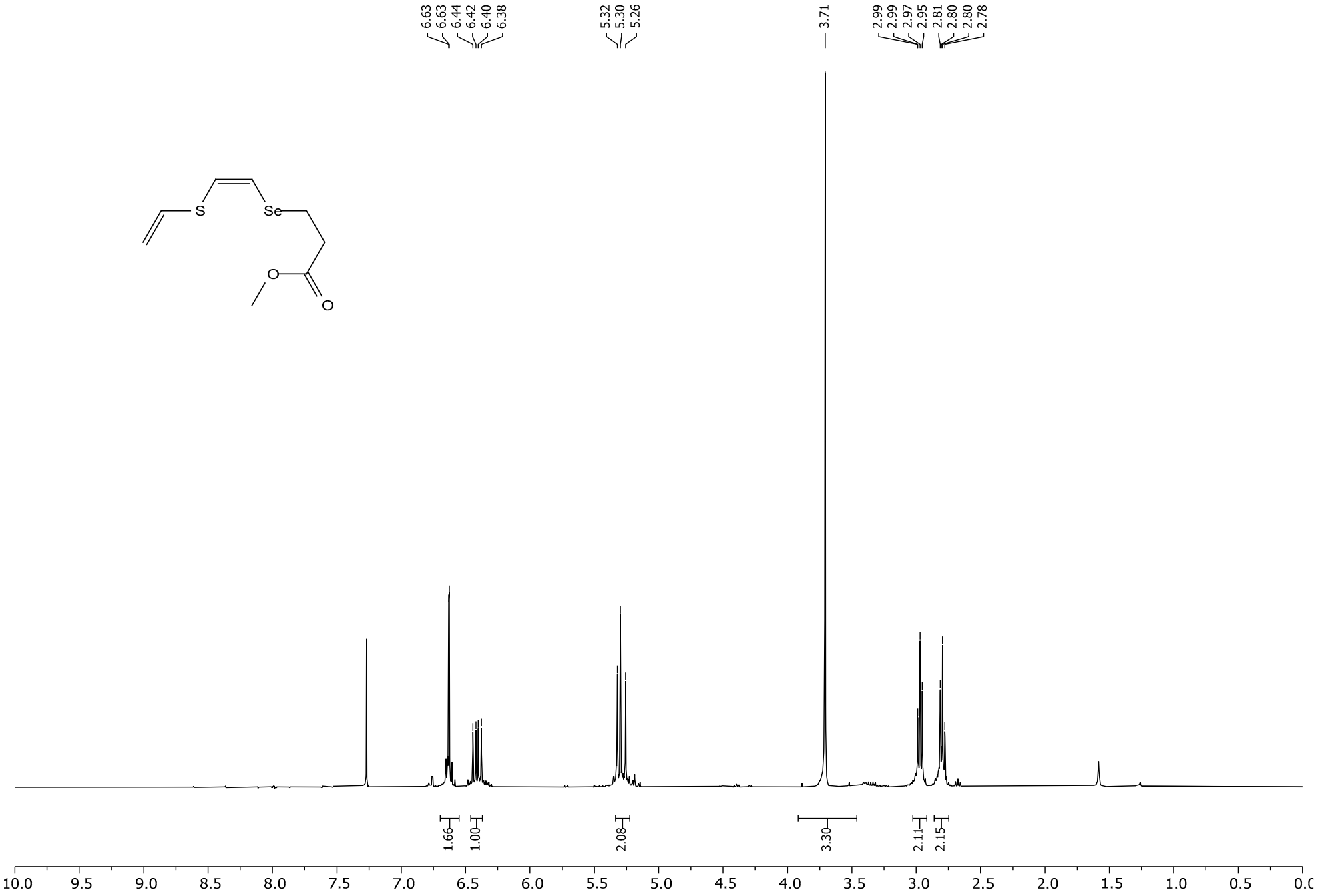
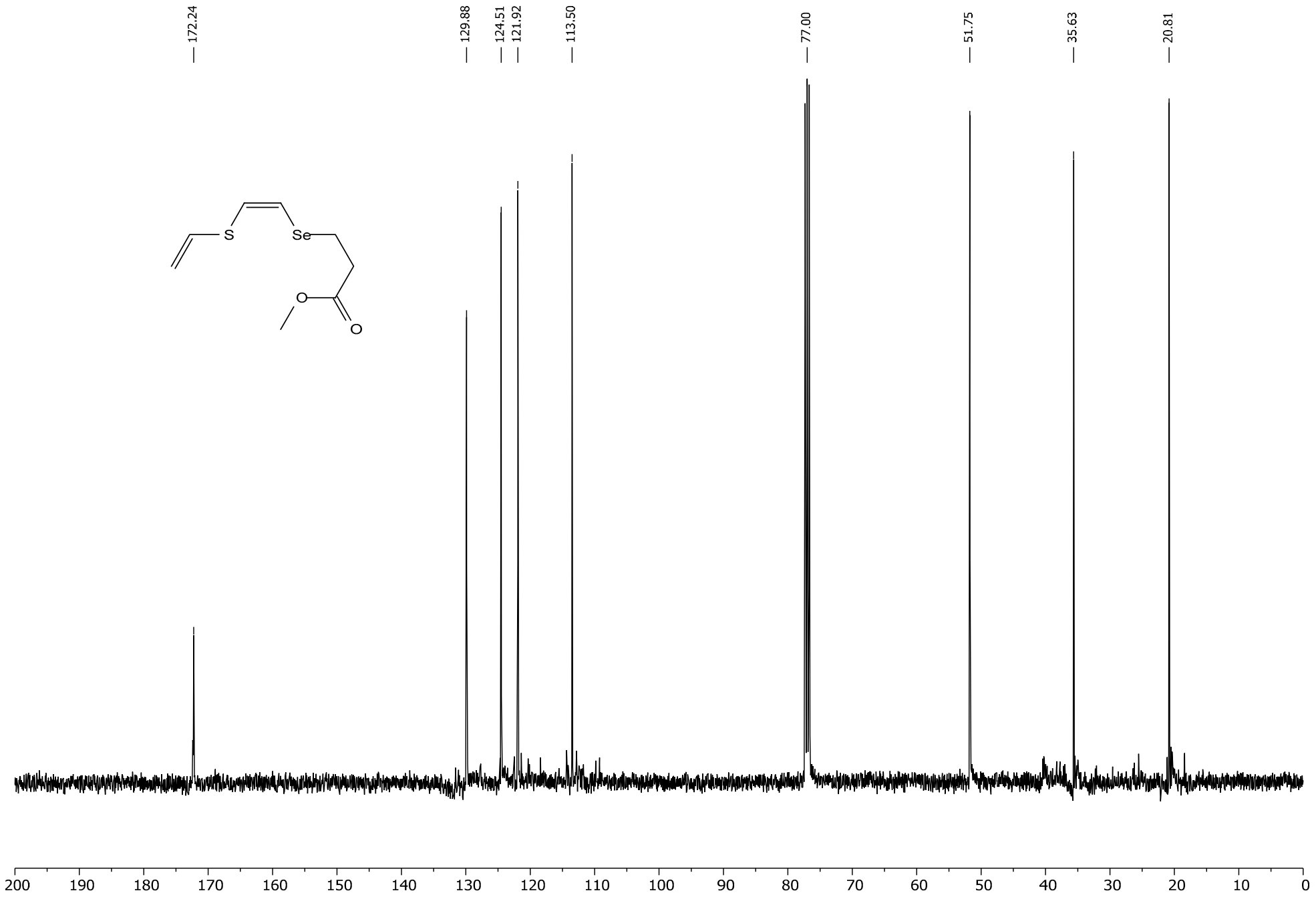


^{1}H NMR spectrum of compound 5a



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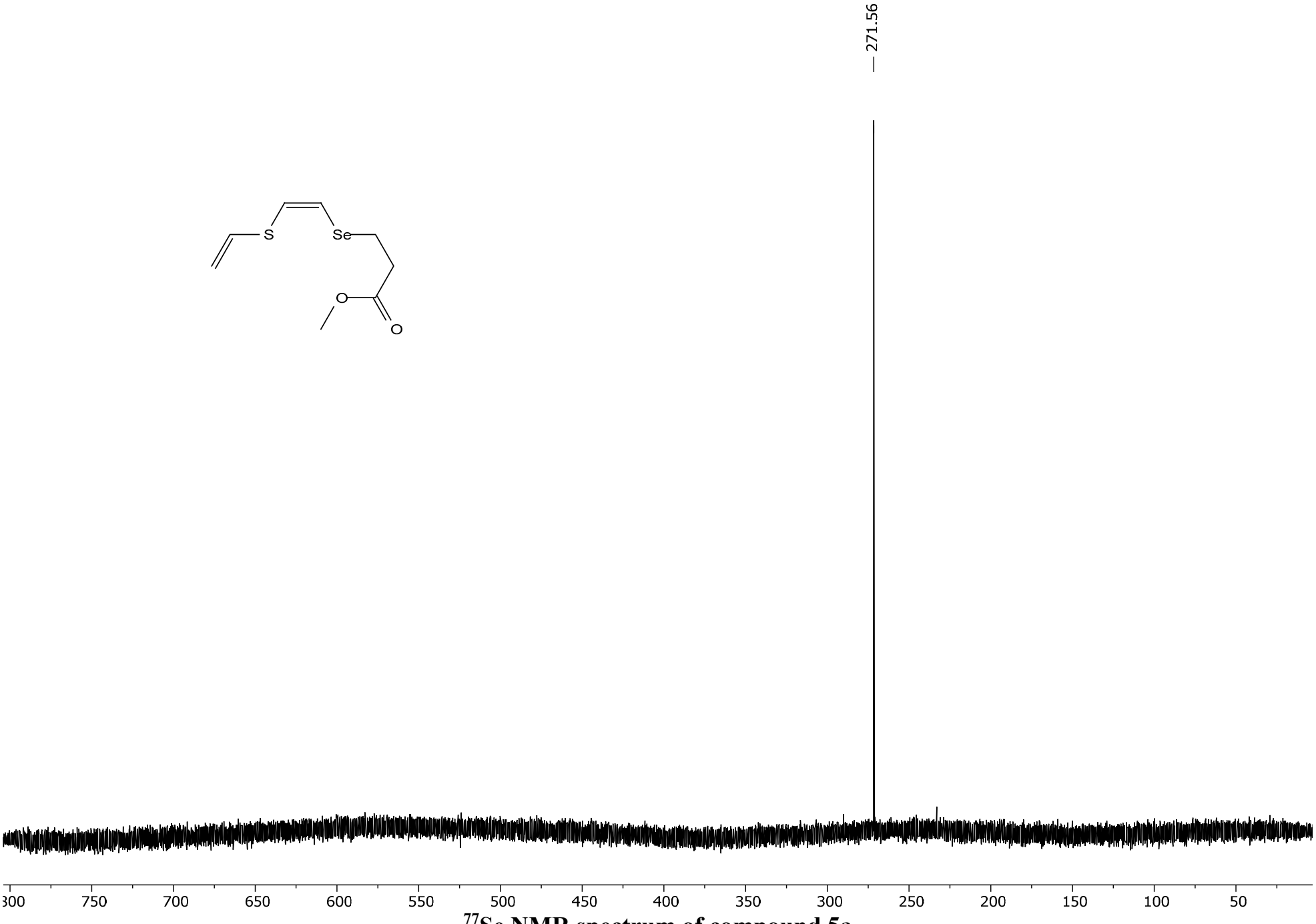

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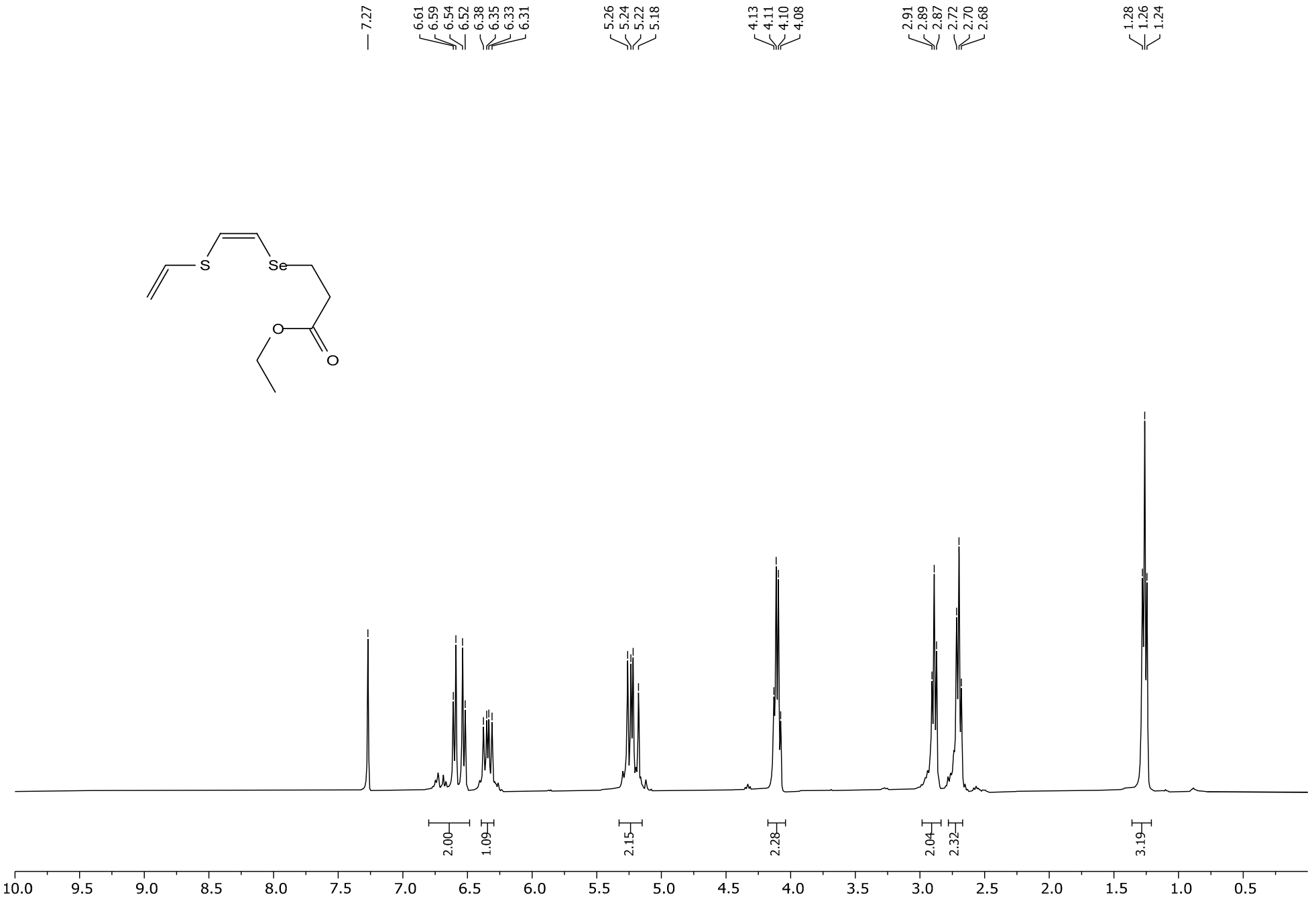

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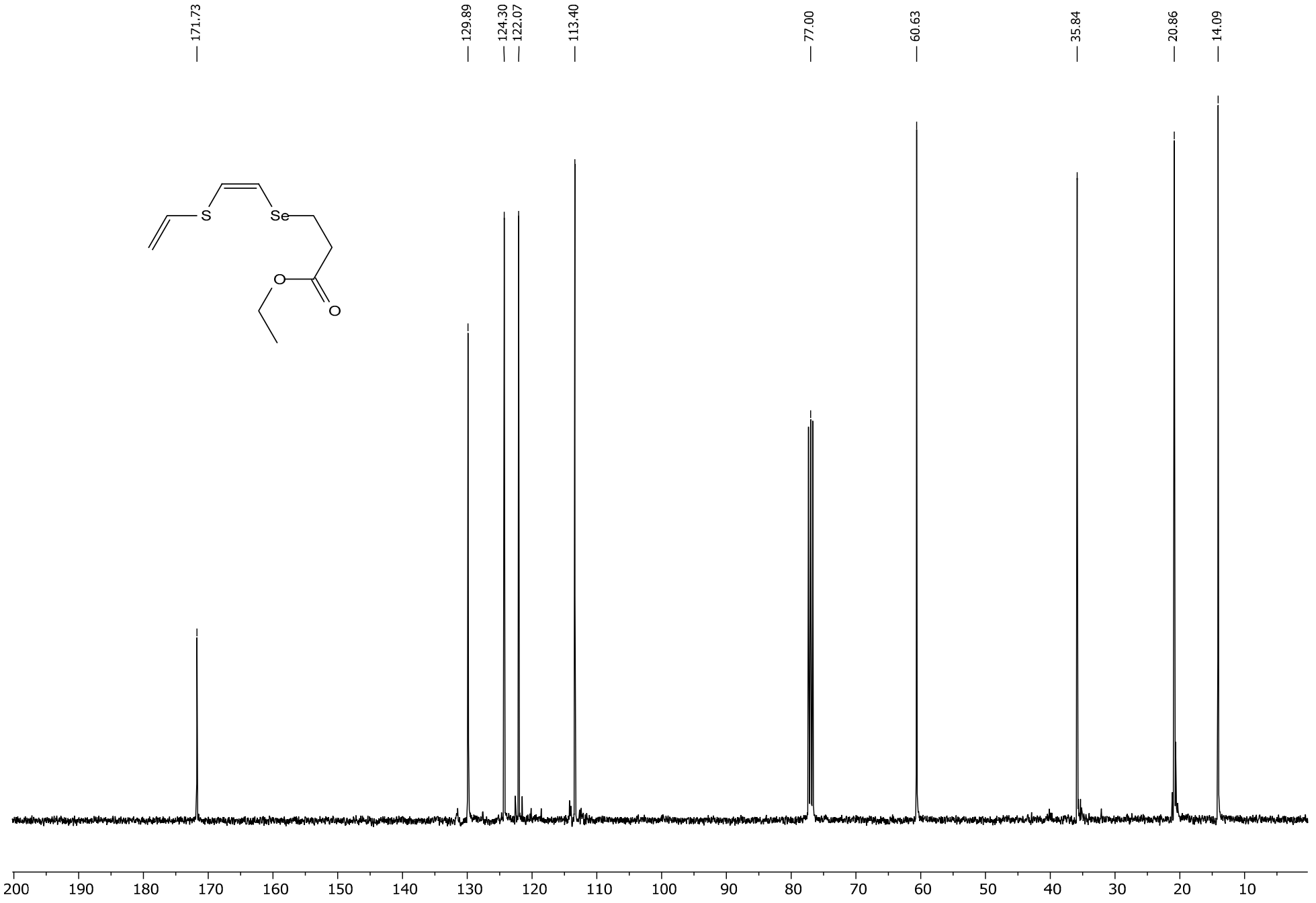

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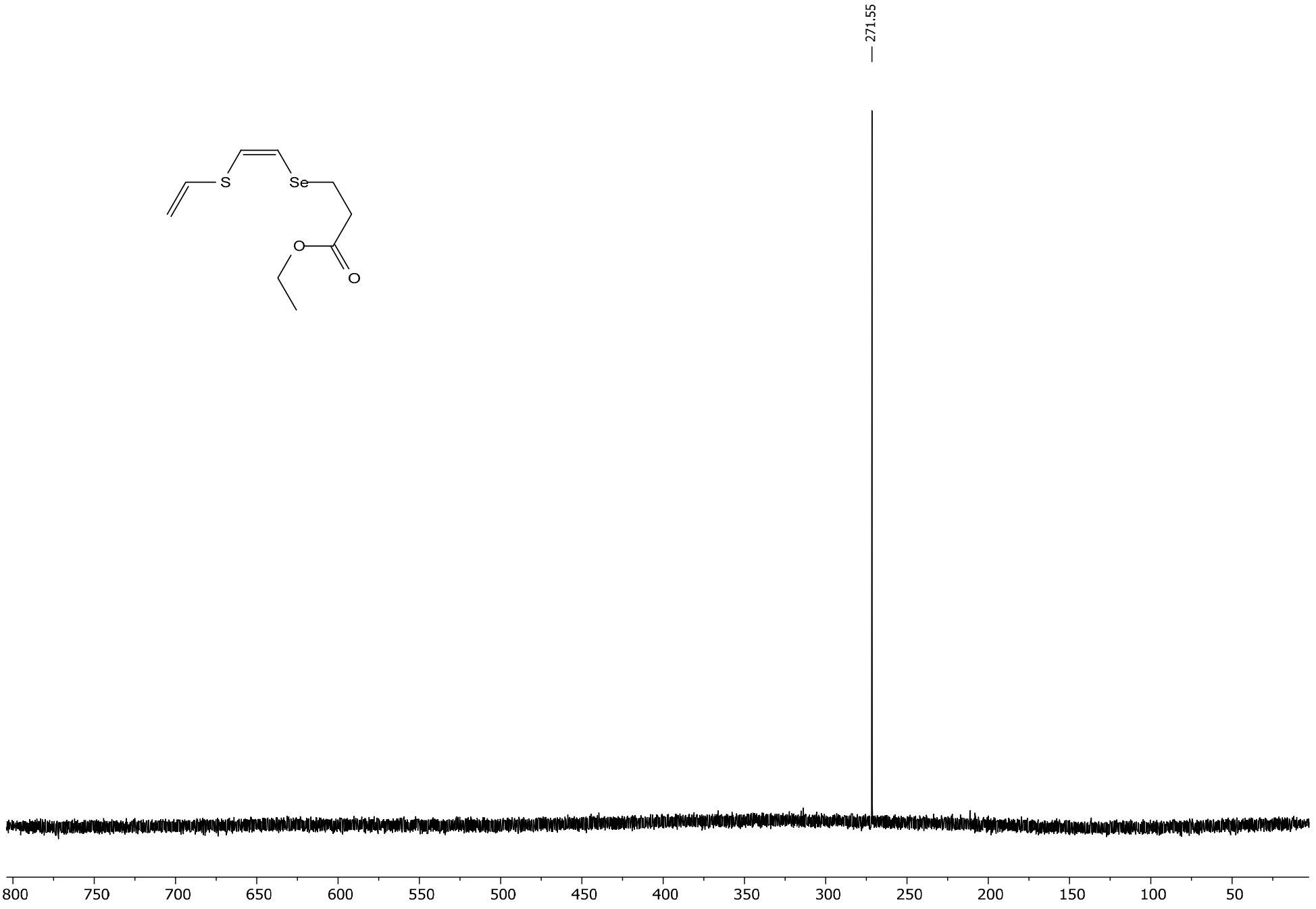
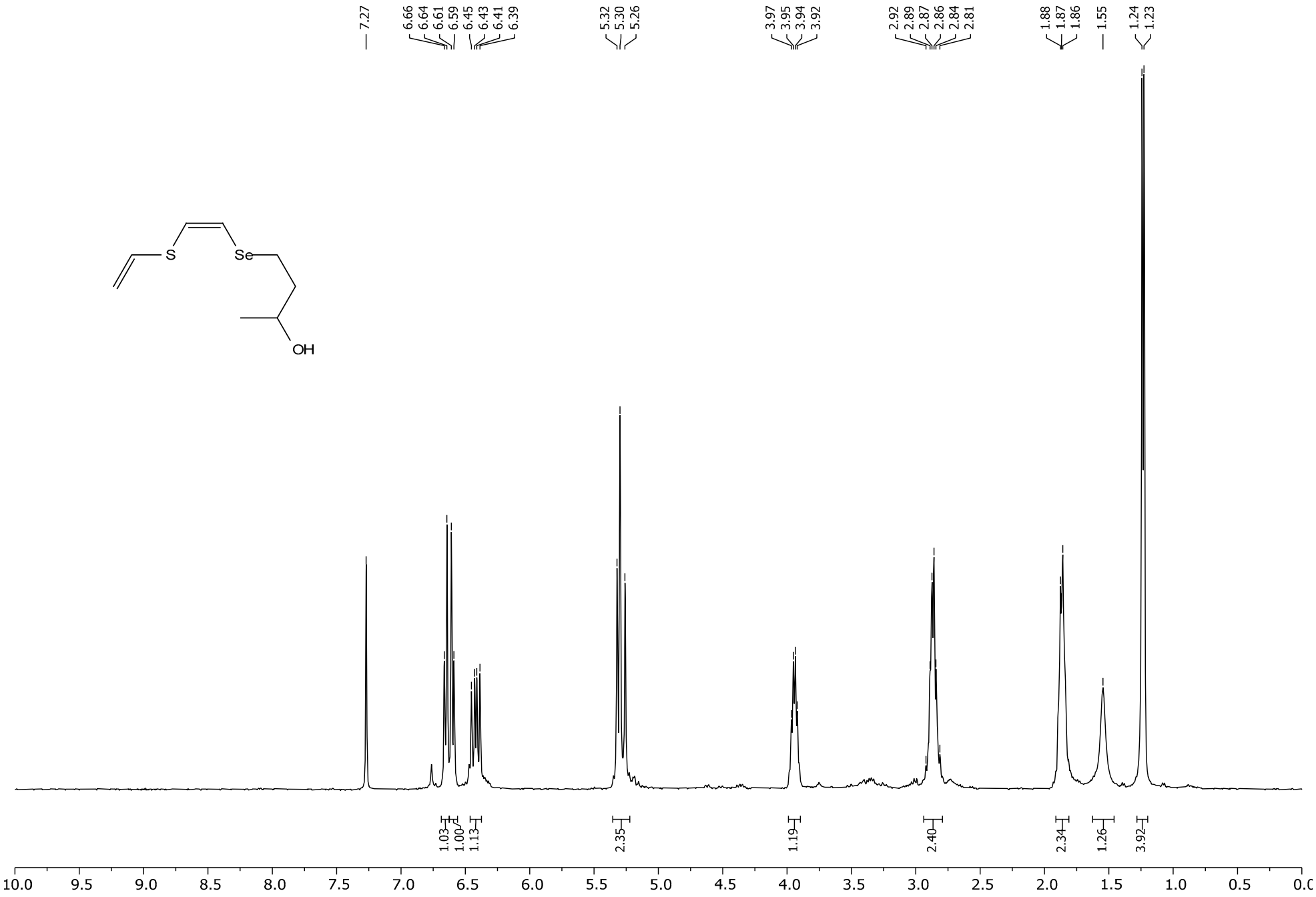


^{77}Se NMR spectrum of compound 5b



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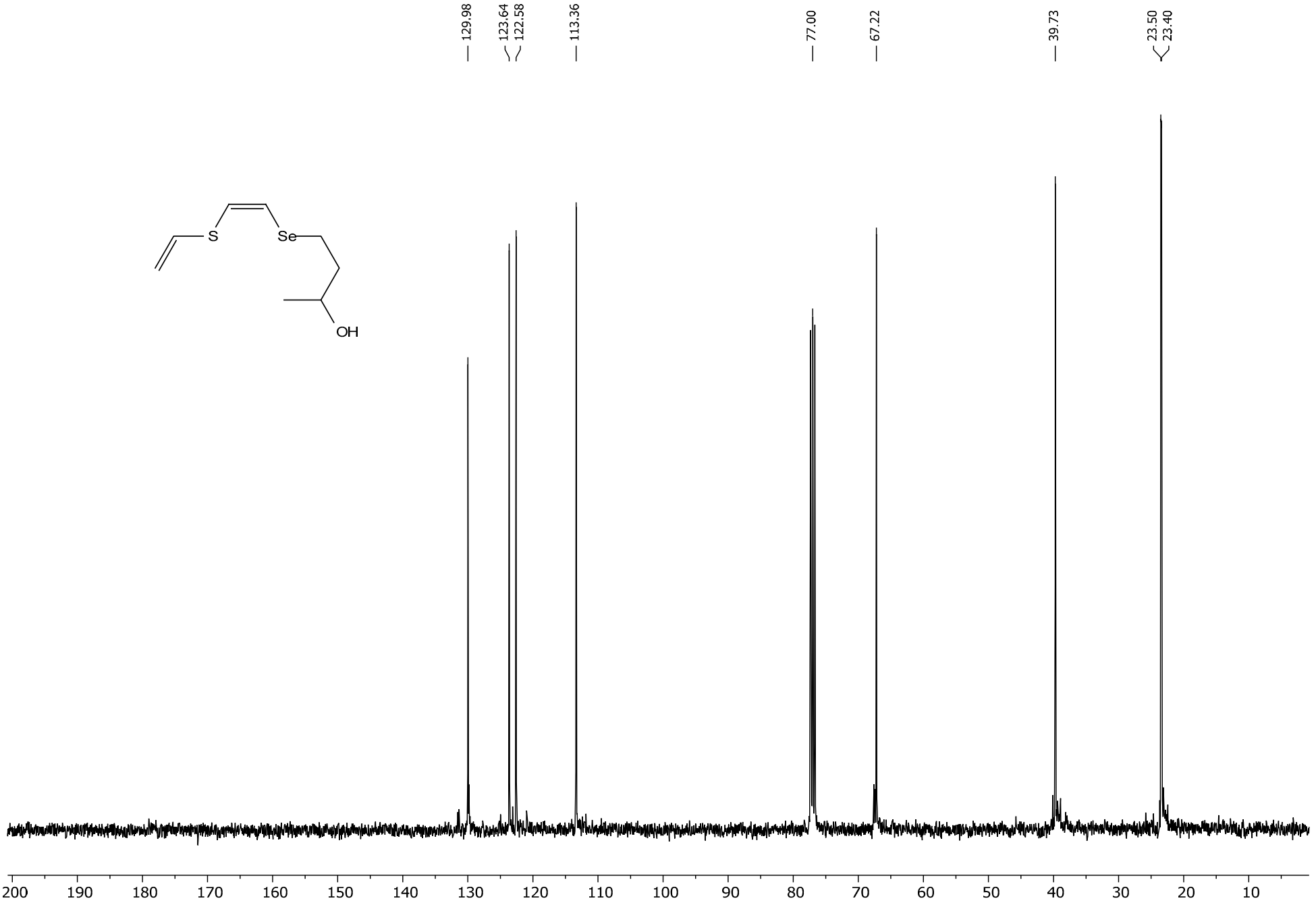

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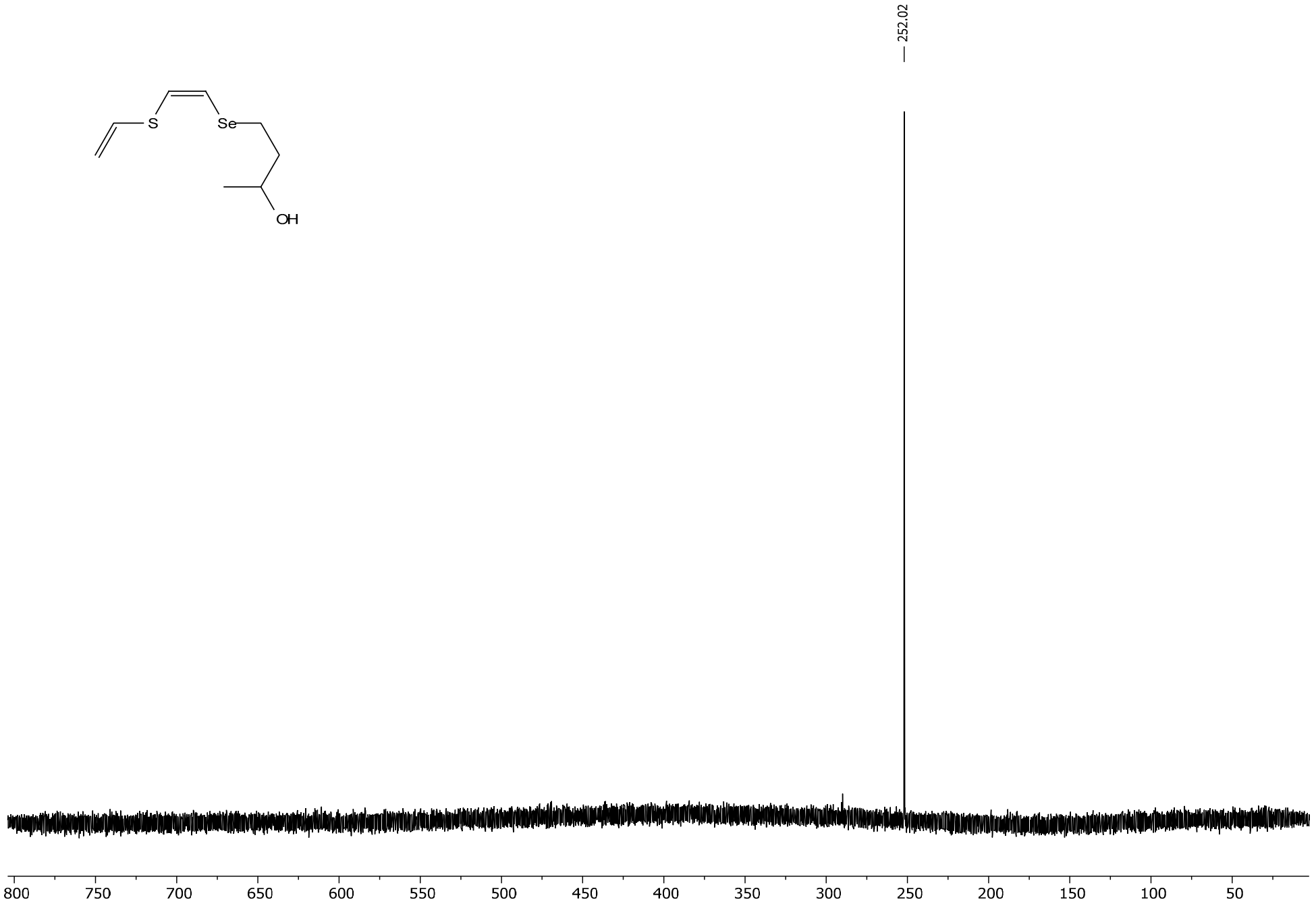

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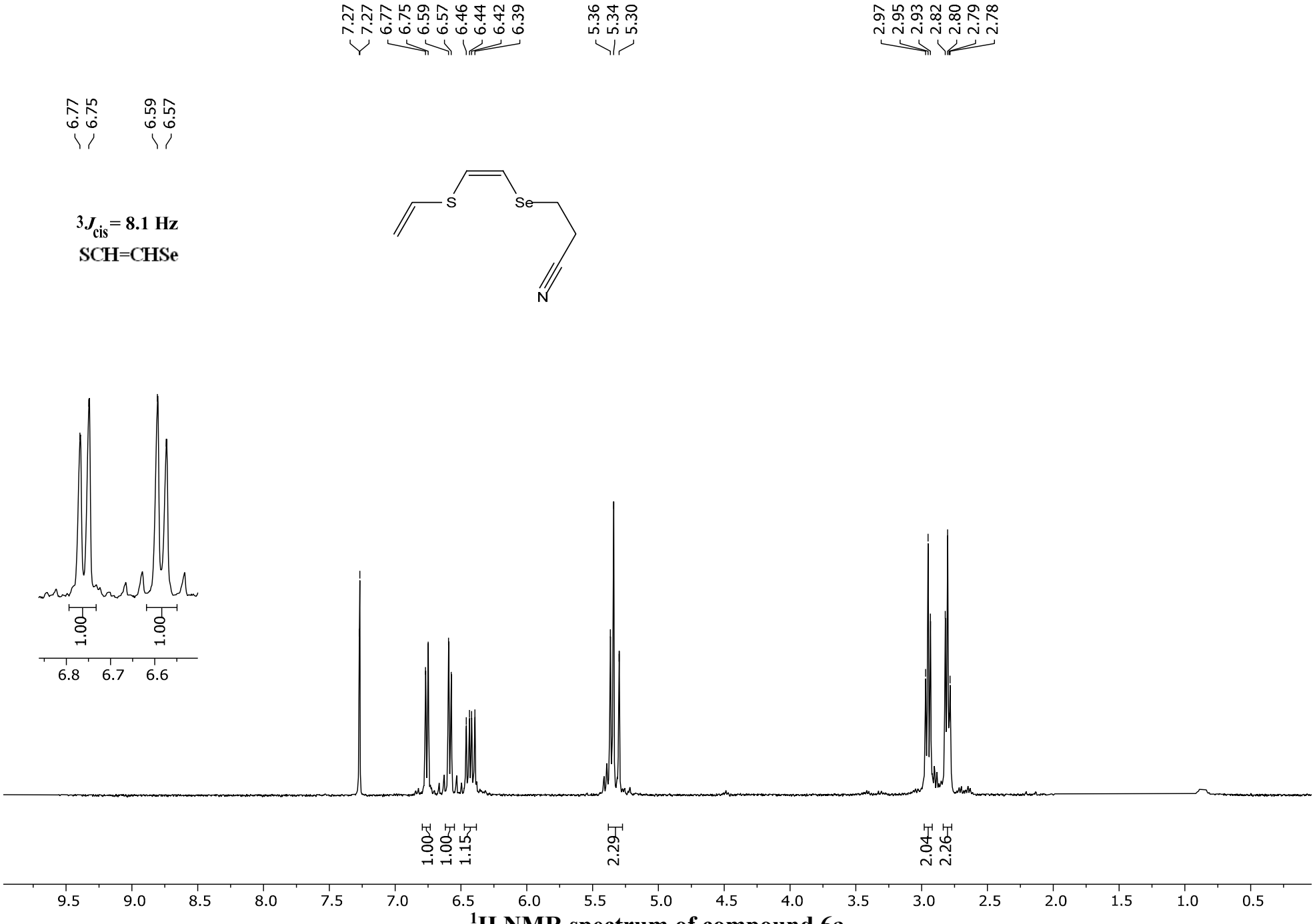

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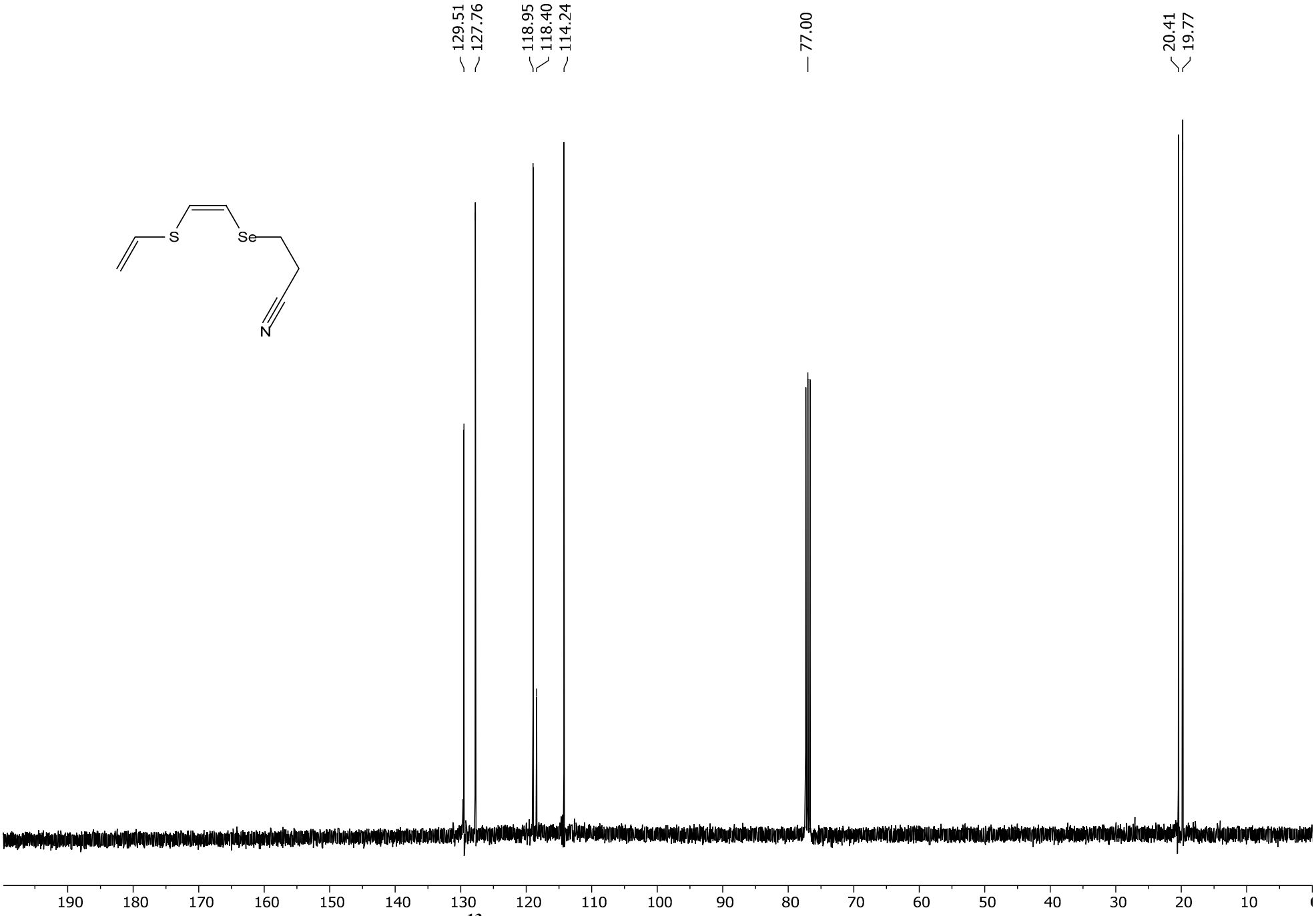

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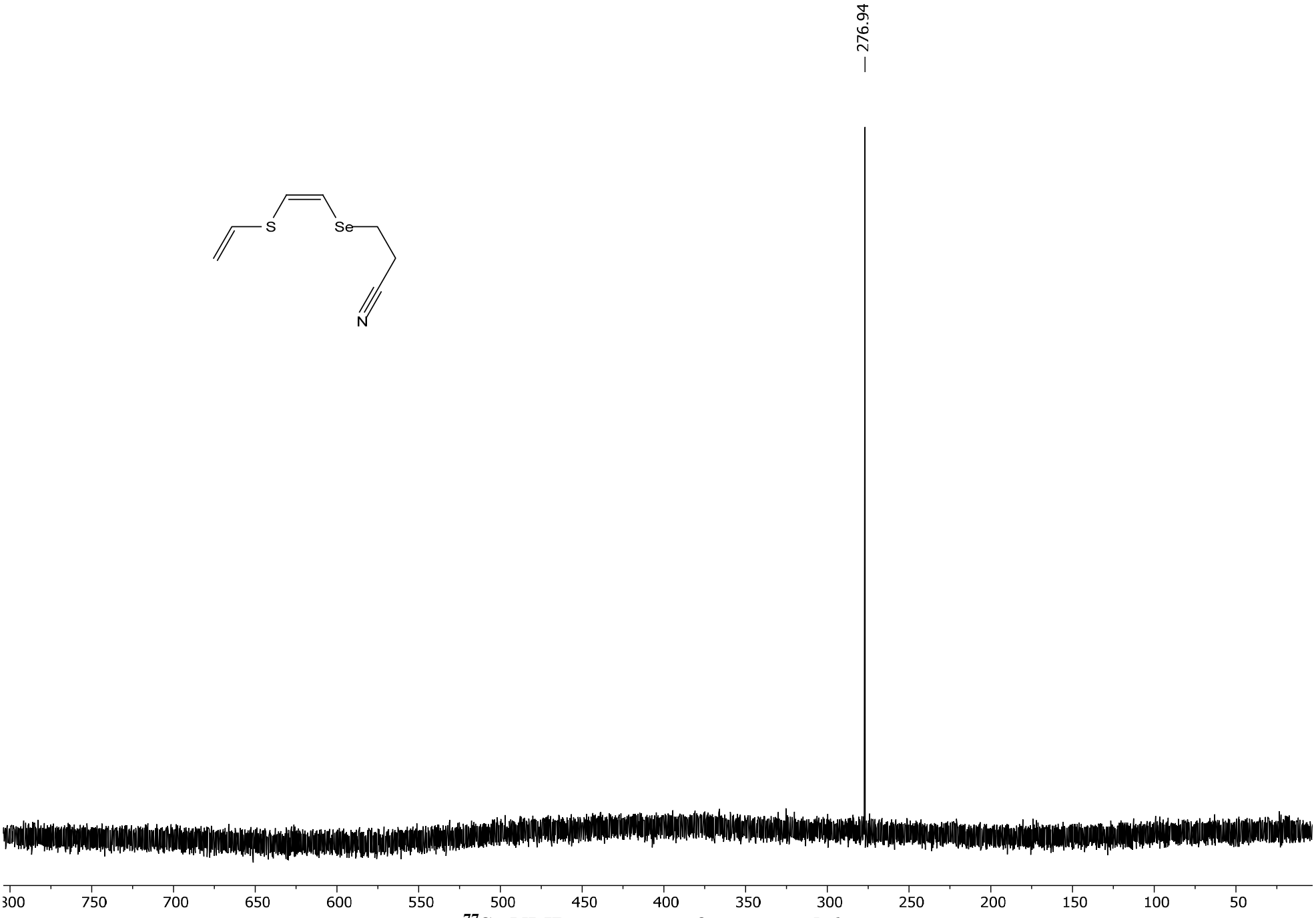

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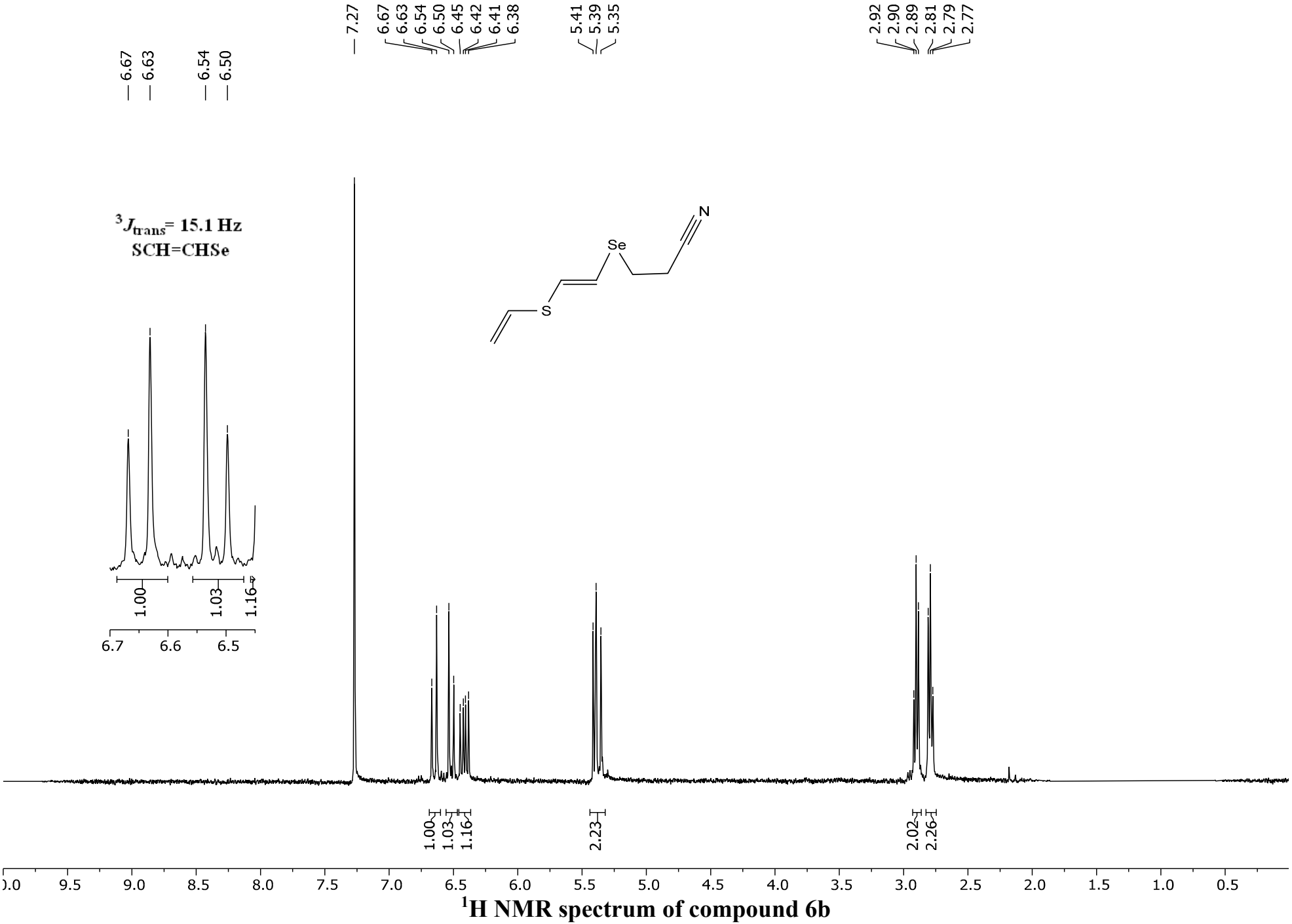
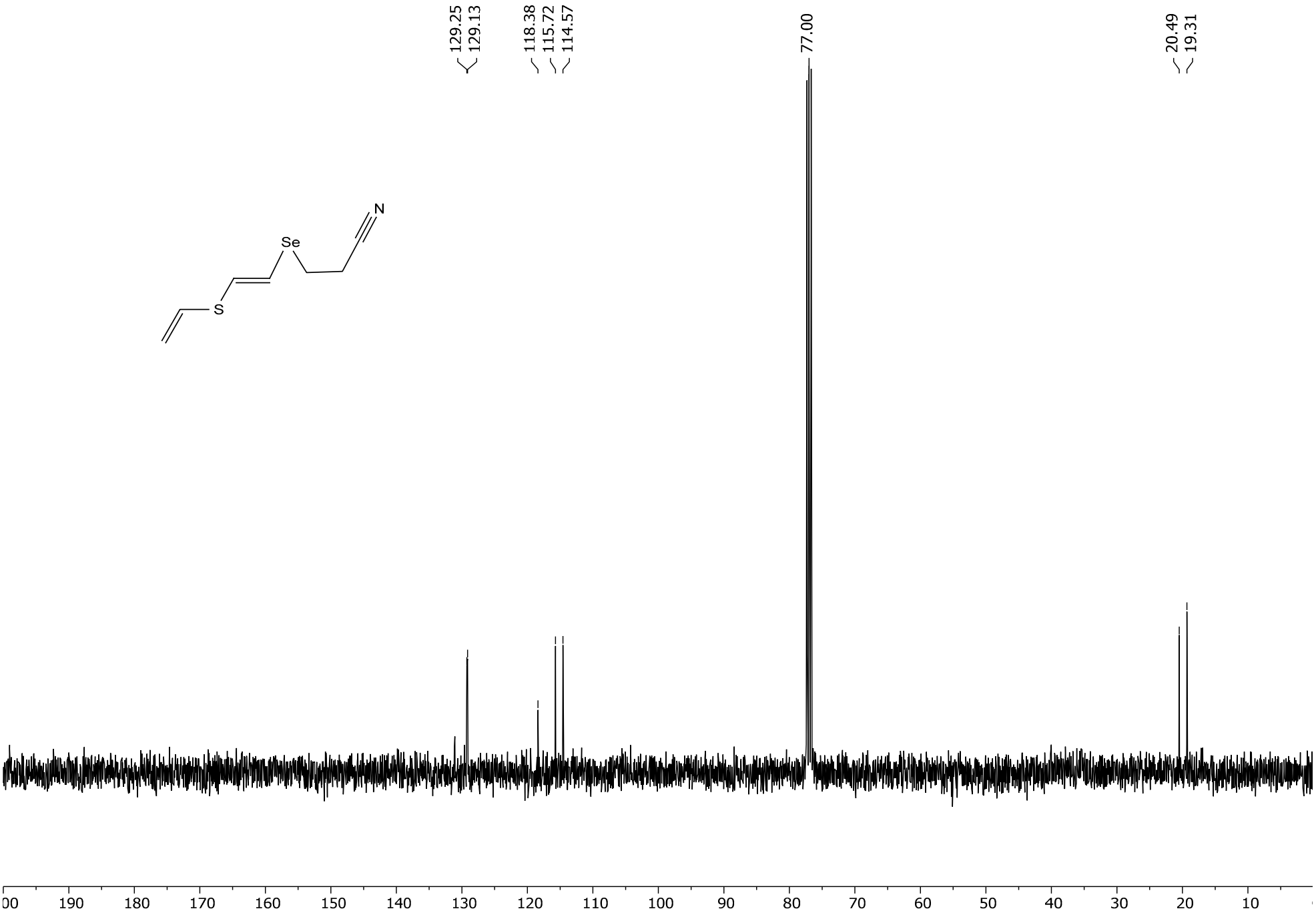
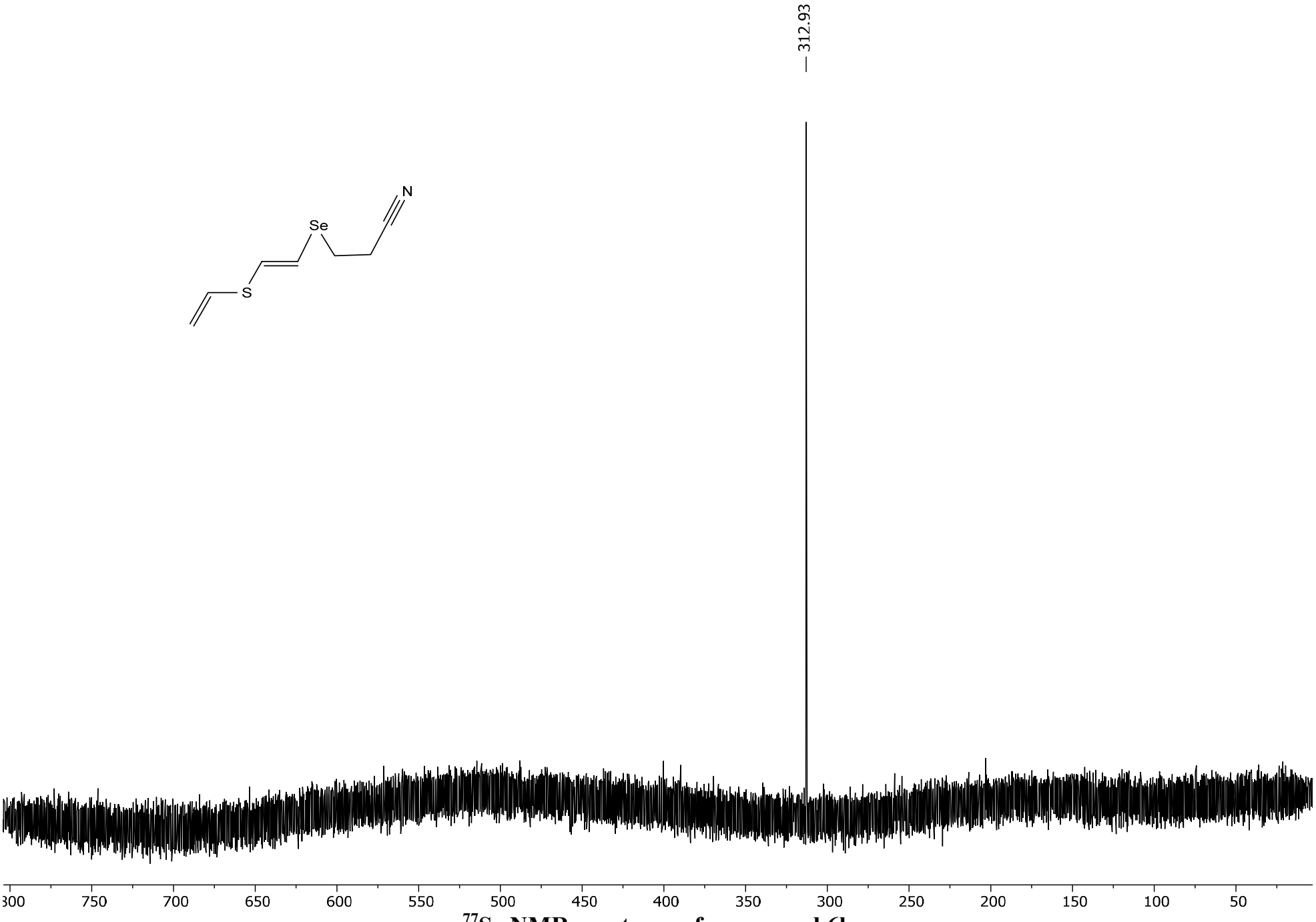


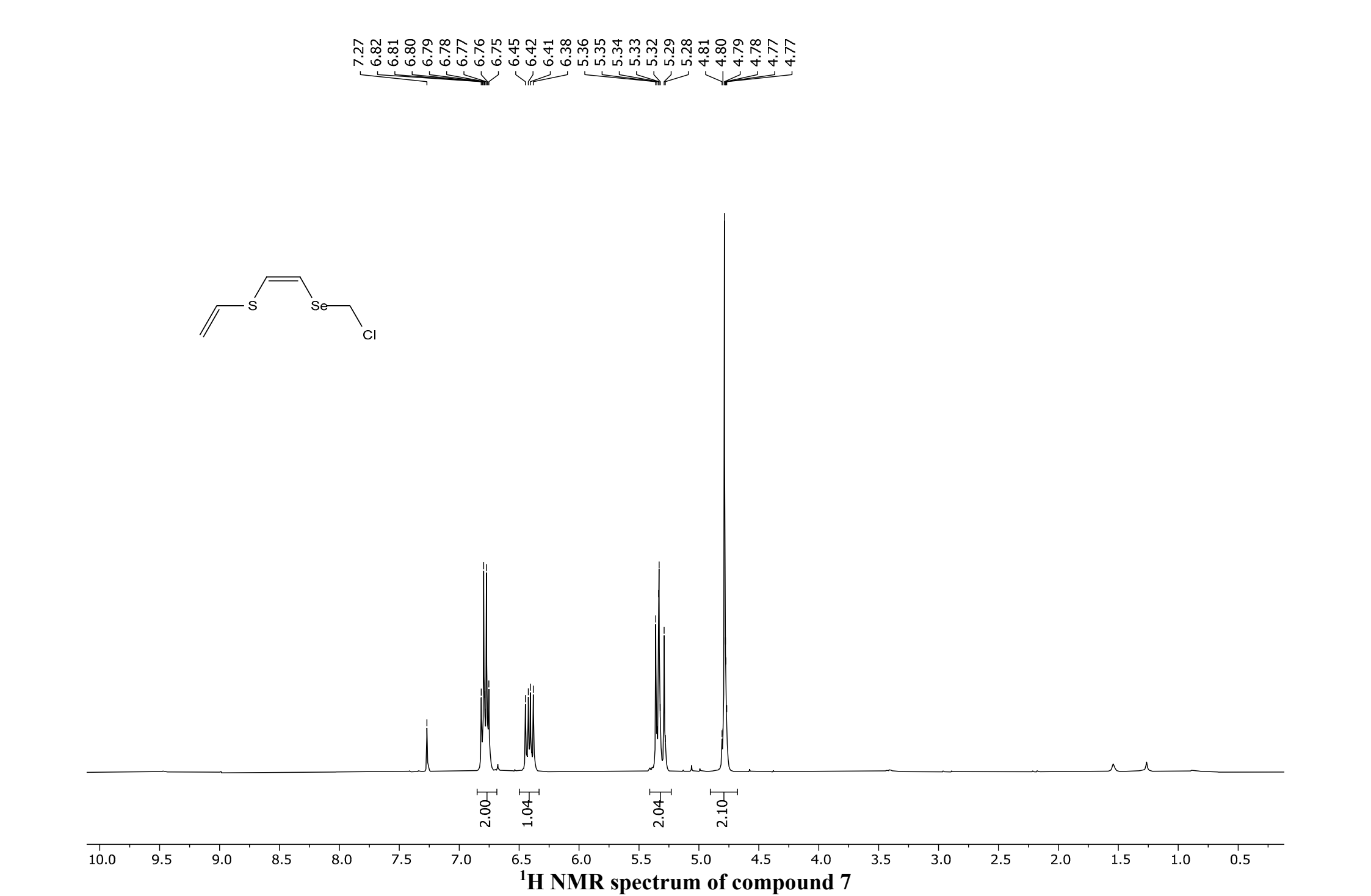
^{1}H NMR spectrum of compound 6b



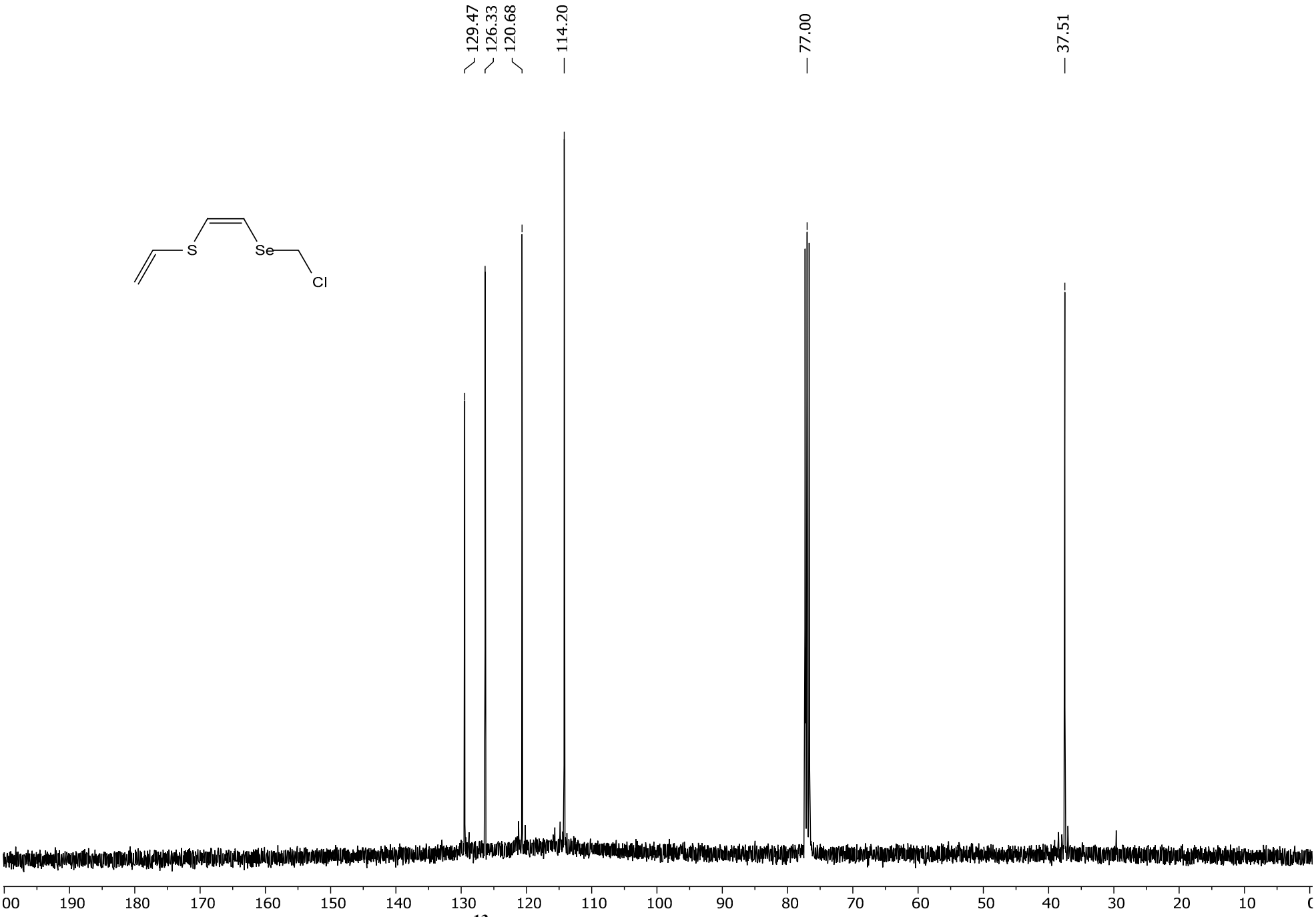
^{13}C NMR spectrum of compound 6b



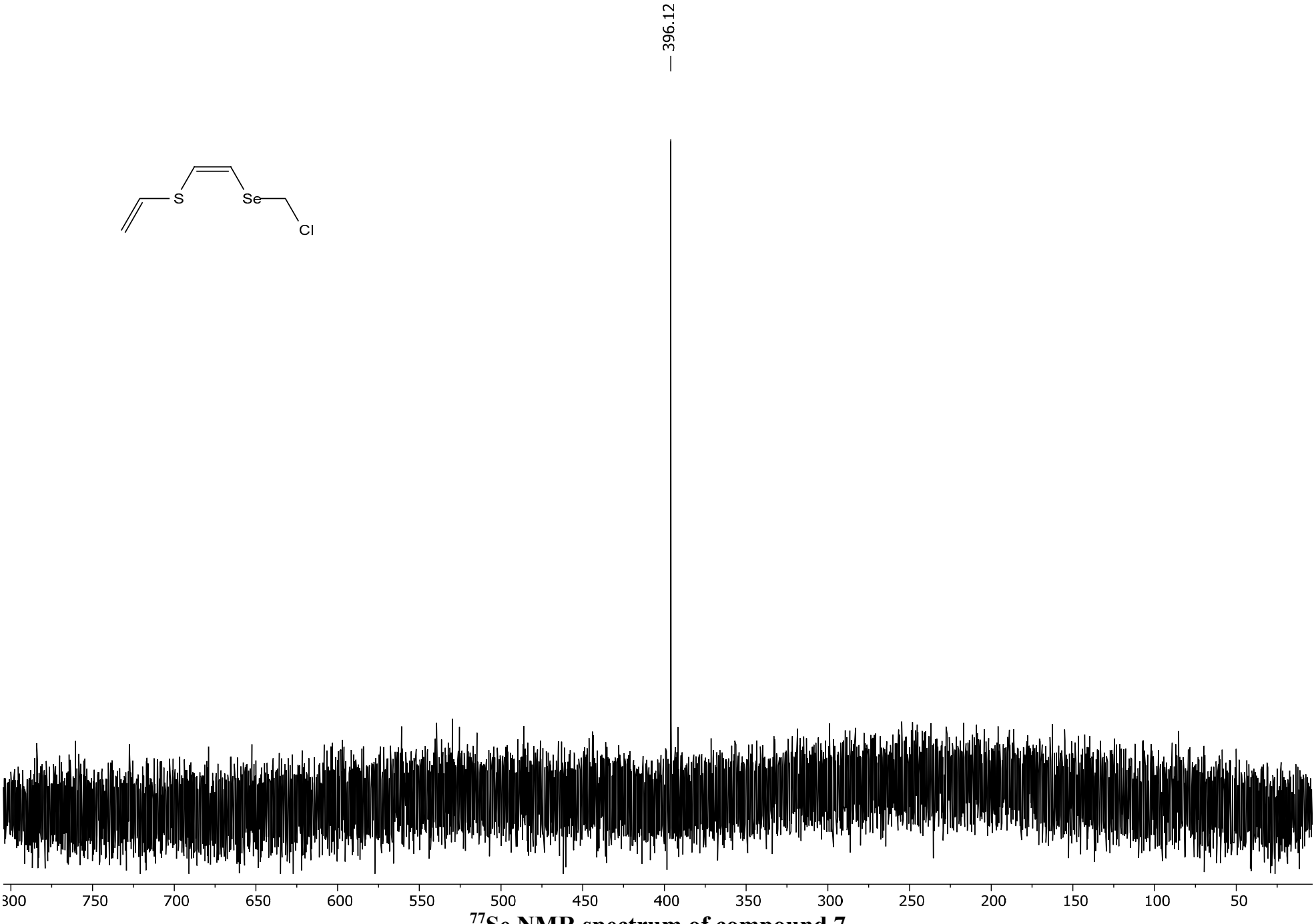
^{77}Se NMR spectrum of compound 6b



^{1}H NMR spectrum of compound 7



^{13}C NMR spectrum of compound 7



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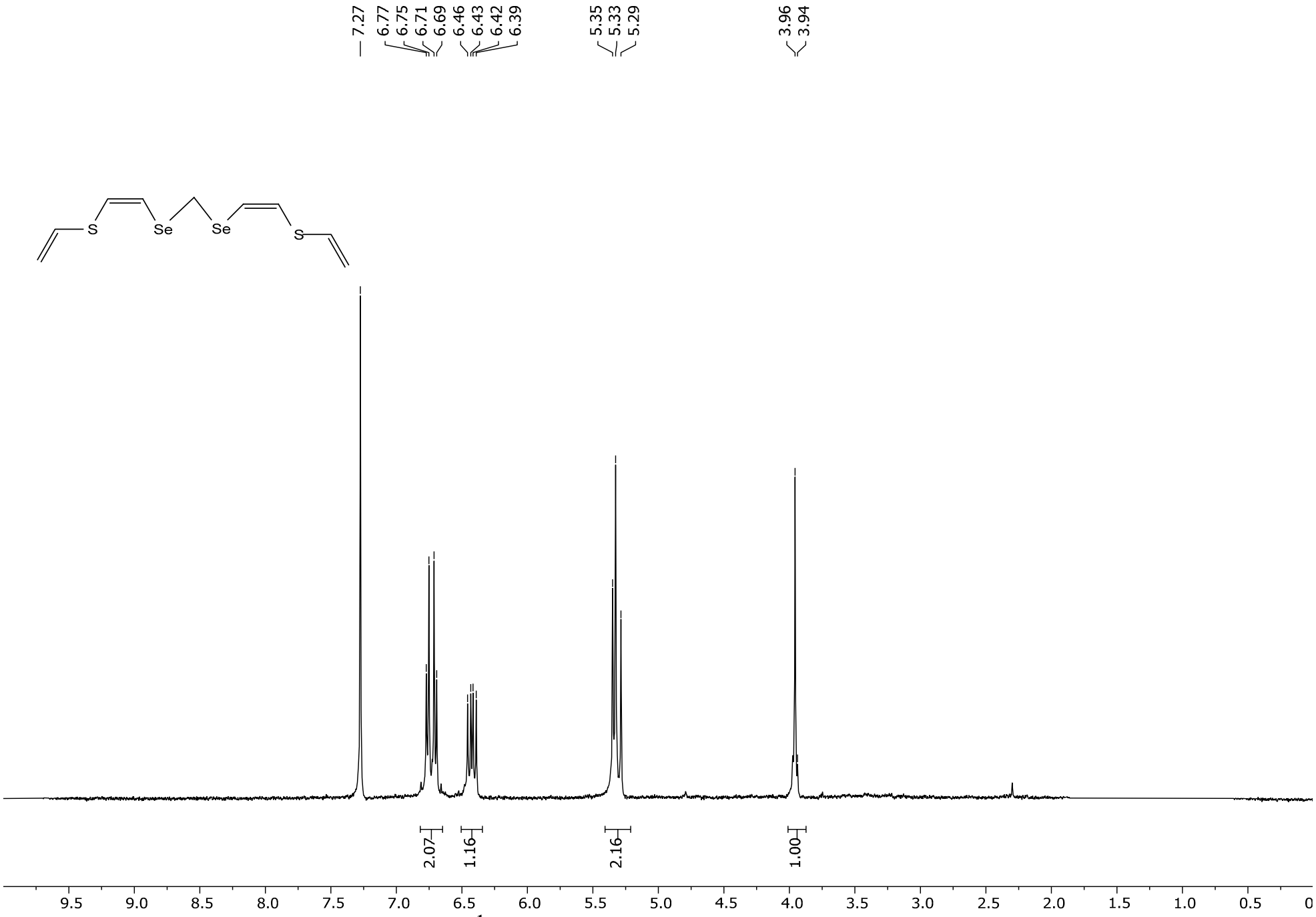
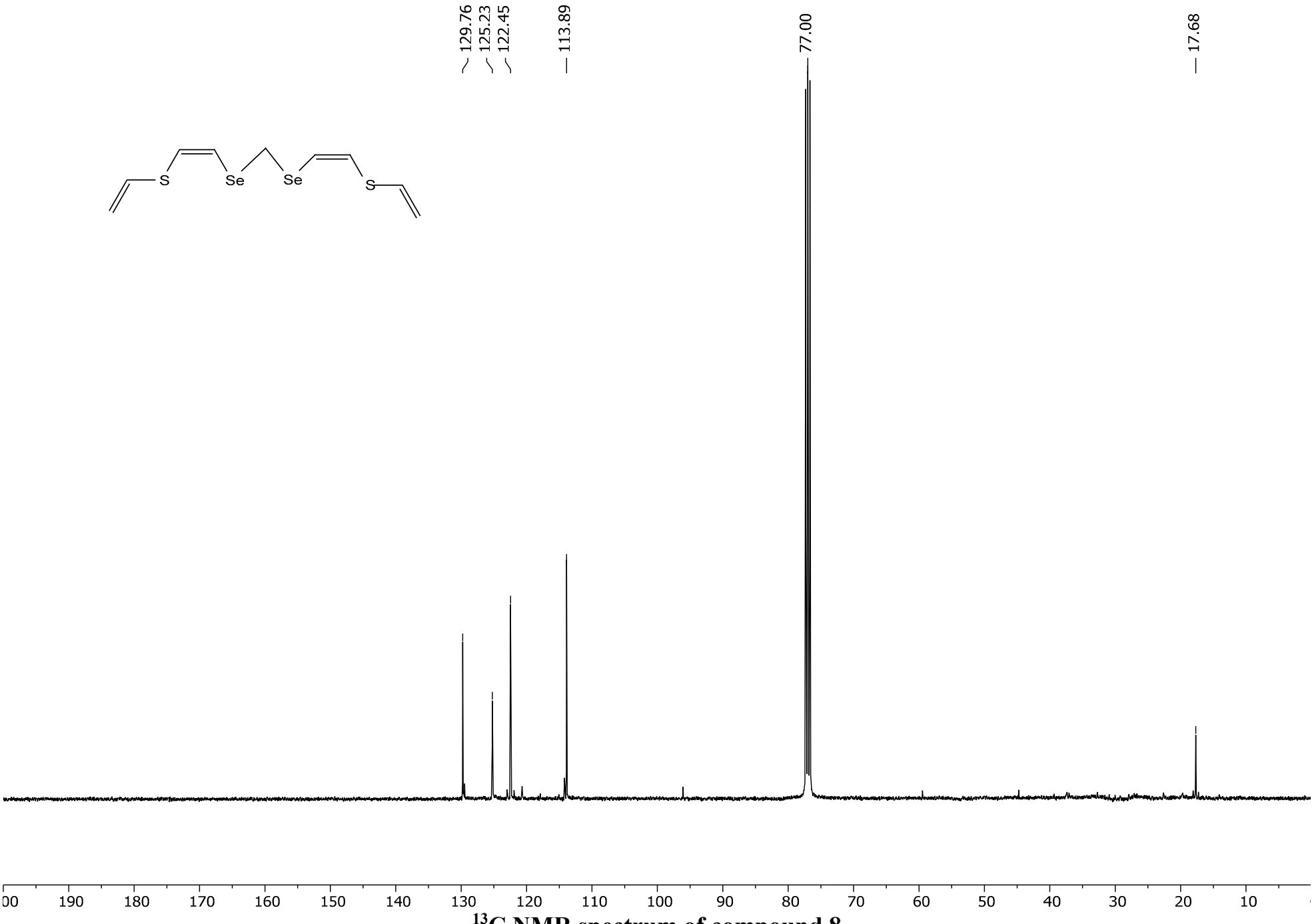
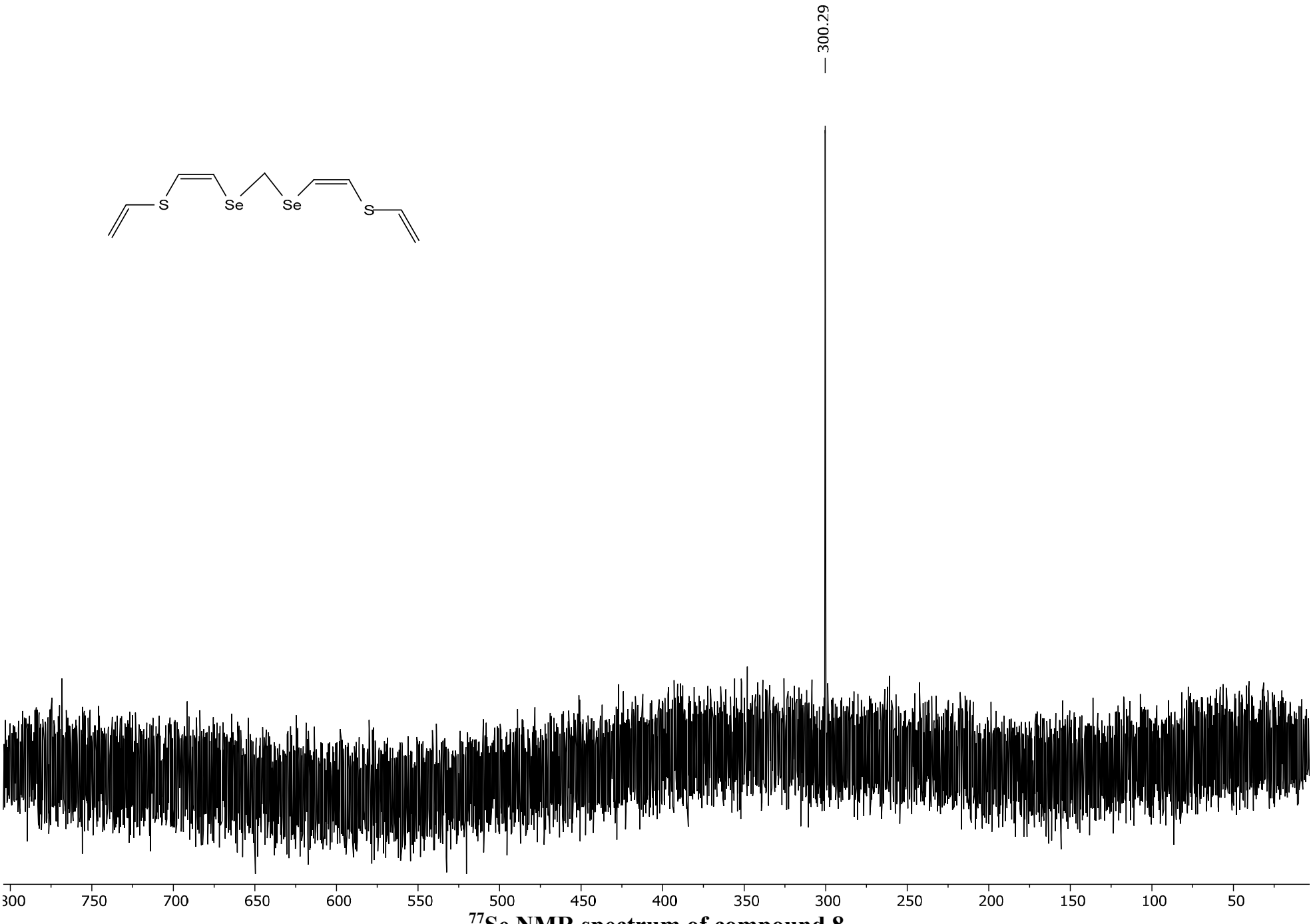


^{1}H NMR spectrum of compound 8



^{13}C NMR spectrum of compound 8



^{77}Se NMR spectrum of compound 8