Supporting information

Electrocatalytic Selenocyclization for the Synthesis of Selenium-Containing Oxazolidinones

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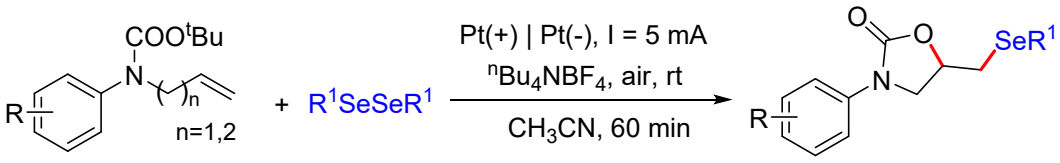
1. General information

Commercial reagents and solvents were obtained from the commercial providers and used without further purification. The products were purified using a commercial flash chromatography system or a regular glass column. TLC was developed on silica gel 60 F254 glassplates. ^{1}H NMR (500 MHz), ^{13}C NMR (151 MHz) and ^{19}F NMR (376 MHz) spectra were recorded on a Bruker NMR apparatus. The chemical shifts are reported in δ (ppm) values (^{1}H and ^{13}C NMR relative to $CDCl_3$, δ 7.26 ppm for ^{1}H NMR and δ 77.0 ppm for ^{13}C NMR). Or alternatively, ^{1}H NMR chemical shifts were referenced to tetramethylsilane signal (0 ppm). Multiplicities are recorded by s (singlet), d (doublet), t (triplet), q (quartet), p (pentet), h (hextet), m (multiplet), dd (doublet of doublets), dt (doublet of triplets), td (triplet of doublets), tq (triplet of quartets), ddd (doublet of doublet of doublets), and br (broad). Coupling constants (*J*), are reported in Hertz (Hz).

2. General Procedure for Experiments



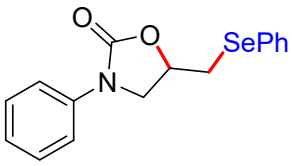
1 **2** **3**

An undivided cell was equipped with Pt anode (1.0 cm × 1.0 cm × 0.1 cm) and Pt cathode (1.0 cm × 1.0 cm × 0.1 cm). To the cell was added **1** (0.2 mmol), **2** (0.24 mmol), $^{n}Bu_4NBF_4$ (0.1 mmol), CH_3CN (4.0 mL). The mixture was electrolyzed using constant current conditions (*I* = 5 mA) at room temperature under magnetic stirring for 1 h, the solvent was removed under reduced pressure. The residue was poured into a saturated aqueous solution of NaCl and the product was then extracted with CH_2Cl_2 (3×20 mL), dried over Na_2SO_4, and concentrated in vacuo. The residue was purified by column chromatography on silica gel using a mixture of petroleum ether/EtOA eluent to afford the desired pure product **3**.

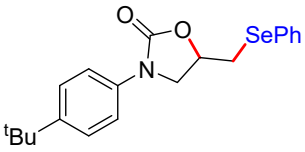
3. General Procedure for Gram-Scale Experiments

An undivided cell was equipped with Pt anode (1.0 cm × 1.0 cm × 0.1 cm) and Pt cathode (1.0 cm × 1.0 cm × 0.1 cm). To the cell was added **1a** (1.0 mmol, 0.233 g), **2a** (1.2 mmol, 0.374 g), $^{n}Bu_4NBF_4$ (0.5 mmol, 0.165 g), CH_3CN (20.0 mL). The mixture was electrolyzed using constant current conditions (*I* =

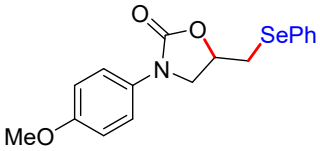
5 mA) at room temperature under magnetic stirring for 5 h. Then, the solvent was removed under reduced pressure. The residue was poured into a saturated aqueous solution of NaCl and the product was then extracted with CH_2Cl_2 (3×20 mL), dried over Na_2SO_4, and concentrated in vacuo. The residue was purified by column chromatography on silica gel using a mixture of petroleum ether/EtOA eluent to afford the desired pure product **3a** (0.3 g, 90%).



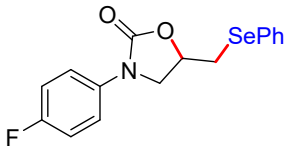
3-phenyl-5-((phenylselanyl)methyl)oxazolidin-2-one (**3a**), 59.9 mg, 90% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (dd, *J* = 7.5, 2.1 Hz, 2H), 7.48 (d, *J* = 7.9 Hz, 2H), 7.41 - 7.26 (m, 5H), 7.12 (t, *J* = 7.4 Hz, 1H), 4.71 (tdd, *J* = 8.8, 6.3, 4.3 Hz, 1H), 4.09 (t, *J* = 8.8 Hz, 1H), 3.77 (dd, *J* = 9.1, 6.4 Hz, 1H), 3.36 (dd, *J* = 12.9, 4.3 Hz, 1H), 3.05 (dd, *J* = 12.9, 9.1 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.4, 138.2, 133.7, 129.6, 129.1, 128.1, 128.0, 124.1, 118.2, 71.8, 50.2, 31.1. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{16}H_{16}NO_2Se$ 334.0346; Found 334.0357. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



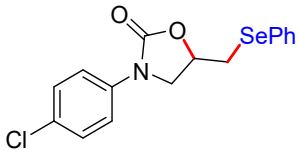
3-(4-(tert-butyl)phenyl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3b**), 70.8 mg, 91% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (d, *J* = 7.8 Hz, 2H), 7.38 (q, *J* = 8.9 Hz, 4H), 7.33 - 7.26 (m, 3H), 4.70 (dtd, *J* = 13.0, 8.9, 7.6, 4.4 Hz, 1H), 4.08 (t, *J* = 8.8 Hz, 1H), 3.75 (dd, *J* = 9.1, 6.3 Hz, 1H), 3.35 (dd, *J* = 12.9, 4.4 Hz, 1H), 3.04 (dd, *J* = 12.9, 9.0 Hz, 1H), 1.30 (s, 9H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.5, 147.2, 135.6, 133.7, 129.6, 128.1, 128.0, 126.0, 118.1, 71.8, 50.4, 34.4, 31.4, 31.1. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{20}H_{24}NO_2Se$ 390.0972; Found 390.0973. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



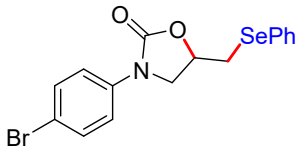
3-(4-methoxyphenyl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3c**), 63.2 mg, 87% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (dd, *J* = 7.4, 2.2 Hz, 2H), 7.37 (d, *J* = 9.1 Hz, 2H), 7.34 - 7.26 (m, 3H), 6.88 (d, *J* = 9.1 Hz, 2H), 4.70 (tdd, *J* = 8.7, 6.4, 4.3 Hz, 1H), 4.05 (t, *J* = 8.8 Hz, 1H), 3.78 (s, 3H), 3.73 (dd, *J* = 9.0, 6.4 Hz, 1H), 3.35 (dd, *J* = 12.9, 4.4 Hz, 1H), 3.05 (dd, *J* = 12.8, 9.1 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 156.5, 154.8, 133.7, 131.4, 129.6, 128.2, 128.0, 120.4, 114.4, 71.8, 55.6, 50.9, 31.2. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{18}NO_3Se$ 364.0452; Found 364.0454. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



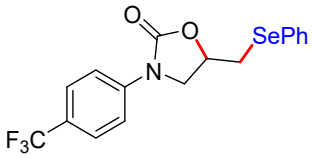
3-(4-fluorophenyl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3d**), 58.3 mg, 83% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (dd, *J* = 7.5, 2.0 Hz, 2H), 7.48 - 7.40 (m, 2H), 7.35 - 7.26 (m, 3H), 7.04 (dd, *J* = 9.2, 8.1 Hz, 2H), 4.72 (tdd, *J* = 8.7, 6.4, 4.3 Hz, 1H), 4.07 (t, *J* = 8.7 Hz, 1H), 3.74 (dd, *J* = 9.0, 6.4 Hz, 1H), 3.36 (dd, *J* = 12.9, 4.3 Hz, 1H), 3.05 (dd, *J* = 12.9, 9.0 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 159.3 (d, *J* = 244.1 Hz), 154.5, 134.3 (d, *J* = 2.8 Hz), 133.7, 129.6, 128.1, 127.9, 120.0 (d, *J* = 7.9 Hz), 115.8 (d, *J* = 22.5 Hz), 71.6, 50.5, 31.0. **^{19}F NMR** (376 MHz, $CDCl_3$) δ -118.37. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{16}H_{15}FNO_2Se$ 352.0252; Found 352.0250. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



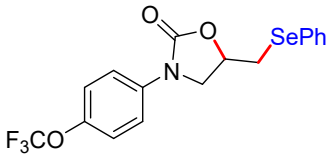
3-(4-chlorophenyl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3e**), 65.3 mg, 89% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (dd, *J* = 7.5, 2.0 Hz, 2H), 7.44 (d, *J* = 9.0 Hz, 2H), 7.39 - 7.26 (m, 5H), 4.73 (tdd, *J* = 8.8, 6.3, 4.2 Hz, 1H), 4.08 (t, *J* = 8.8 Hz, 1H), 3.75 (dd, *J* = 9.1, 6.4 Hz, 1H), 3.37 (dd, J = 12.9, 4.3 Hz, 1H), 3.06 (dd, *J* = 12.9, 9.1 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.3, 136.8, 133.8, 129.7, 129.4, 129.2, 128.3, 127.9, 119.4, 71.9, 50.3, 31.1. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{16}H_{15}ClNO_2Se$ 367.9957; Found 367.9958. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



(4-bromophenyl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3f**), 71.5 mg, 87% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.55 (d, *J* = 6.5 Hz, 2H), 7.50 - 7.41 (m, 2H), 7.41 - 7.34 (m, 2H), 7.29 (d, *J* = 6.6 Hz, 3H), 4.71 (dtt, *J* = 8.7, 4.5, 2.2 Hz, 1H), 4.03 (dd, *J* = 8.8, 4.6 Hz, 1H), 3.71 (q, *J* = 6.1 Hz, 1H), 3.34 (dd, *J* = 12.9, 3.9 Hz, 1H), 3.04 (dd, *J* = 12.9, 9.0 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.2, 137.3, 133.7, 132.0, 129.6, 128.2, 127.8, 119.7, 116.9, 71.8, 50.1, 31.0. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{16}H_{15}BrNO_2Se$ 411.9451; Found 411.9450. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

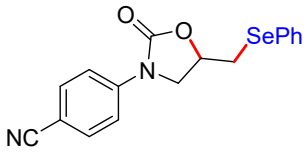


5-((phenylselanyl)methyl)-3-(4-(trifluoromethyl)phenyl)oxazolidin-2-one (**3g**), 70.6 mg, 88% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.61 (s, 4H), 7.57 (dd, *J* = 7.8, 1.9 Hz, 2H), 7.38 - 7.27 (m, 3H), 4.77 (tdd, *J* = 8.8, 6.3, 4.2 Hz, 1H), 4.13 (t, *J* = 8.8 Hz, 1H), 3.79 (dd, *J* = 9.1, 6.3 Hz, 1H), 3.39 (dd, *J* = 13.0, 4.2 Hz, 1H), 3.08 (dd, *J* = 13.0, 9.1 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.2, 141.2, 133.9, 129.7, 128.4, 127.8, 126.4 (q, *J* =2.0 Hz), 117.8, 72.0, 50.1, 31.1. **^{19}F NMR** (376 MHz, $CDCl_3$) δ -62.16. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{15}F_3NO_2Se$ 402.0220; Found 402.0222. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

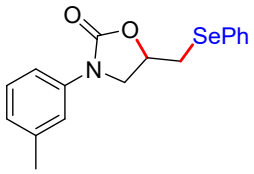


5-((phenylselanyl)methyl)-3-(4-(trifluoromethoxy)phenyl)oxazolidin-2-one (**3h**), 68.4 mg, 82% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (dd, *J* = 7.6, 1.9 Hz, 2H), 7.53 - 7.46 (m, 2H), 7.37 - 7.26 (m, 3H), 7.20 (d, *J* = 8.7 Hz, 2H), 4.73 (tdd, *J* = 8.7, 6.3, 4.3 Hz, 1H), 4.08 (t, *J* = 8.7 Hz, 1H), 3.75 (dd, *J* = 9.0, 6.4 Hz, 1H), 3.36 (dd, *J* = 12.9, 4.3 Hz, 1H), 3.06 (dd, *J* = 13.0, 9.0 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.4, 145.3, 136.9, 133.8, 133.8, 129.7, 128.3, 127.9, 121.9, 119.3, 71.9, 50.3, 31.0. **^{19}F NMR** (376 MHz, $CDCl_3$) δ -58.13. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{15}NF_3O_3Se$ 418.0169; Found 418.0168.

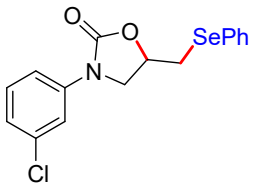
The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



4-(2-oxo-5-((phenylselanyl)methyl)oxazolidin-3-yl)benzonitrile (**3i**), 64.4 mg, 90% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.62 (d, *J* = 2.3 Hz, 4H), 7.56 (dd, *J* = 7.8, 1.8 Hz, 2H), 7.38 - 7.27 (m, 3H), 4.78 (tdd, *J* = 8.7, 6.3, 4.2 Hz, 1H), 4.12 (t, *J* = 8.8 Hz, 1H), 3.78 (dd, *J* = 9.2, 6.4 Hz, 1H), 3.38 (dd, *J* = 13.0, 4.2 Hz, 1H), 3.08 (dd, *J* = 13.0, 9.0 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 153.8, 142.0, 133.8, 133.7, 133.7, 133.2, 129.6, 128.3, 127.7, 118.7, 117.9, 106.9, 72.0, 49.8, 30.9. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{15}N_2O_2Se$ 359.0299; Found 359.0298. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

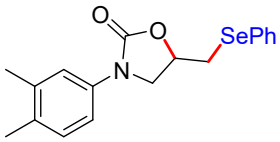


5-((phenylselanyl)methyl)-3-(m-tolyl)oxazolidin-2-one (**3j**), 59.0 mg, 85% yield. ^{1}H NMR (500 MHz, $CDCl_3$) δ 7.56 (dd, *J* = 7.4, 2.2 Hz, 2H), 7.36 - 7.22 (m, 6H), 6.94 (d, *J* = 6.8 Hz, 1H), 4.70 (tdd, *J* = 8.7, 6.3, 4.3 Hz, 1H), 4.08 (t, *J* = 8.8 Hz, 1H), 3.76 (dd, *J* = 9.1, 6.4 Hz, 1H), 3.35 (dd, *J* = 12.9, 4.3 Hz, 1H), 3.04 (dd, *J* = 12.8, 9.1 Hz, 1H), 2.35 (s, 3H). ^{13}C NMR (151 MHz, $CDCl_3$) δ 154.4, 139.1, 138.1, 133.7, 133.7, 133.7, 129.6, 128.9, 128.1, 128.0, 125.0, 119.0, 115.4, 71.7, 50.4, 31.1, 21.7. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{18}NO_2Se$ 348.0503; Found 348.0505. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

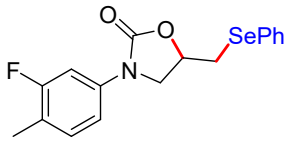


3-(3-chlorophenyl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3k**), 61.7 mg, 84% yield. ^{1}H NMR (500 MHz, $CDCl_3$) δ 7.61 – 7.53 (m, 2H), 7.51 (t, *J* = 2.1 Hz, 1H), 7.42 – 7.36 (m, 1H), 7.35 – 7.25 (m,

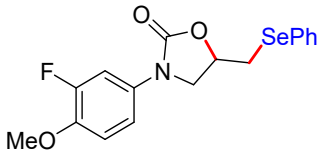
4H), 7.14 – 7.06 (m, 1H), 4.73 (tdd, *J* = 8.8, 6.3, 4.2 Hz, 1H), 4.06 (t, *J* = 8.8 Hz, 1H), 3.73 (dd, *J* = 9.1, 6.3 Hz, 1H), 3.36 (dd, *J* = 13.0, 4.3 Hz, 1H), 3.05 (dd, *J* = 12.9, 9.0 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.1, 139.3, 134.9, 133.7, 130.1, 129.6, 128.2, 127.8, 124.1, 118.2, 116.1, 71.9, 50.1, 31.0. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{16}H_{15}ClNO_2Se$ 367. 9957; Found 367. 9955. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



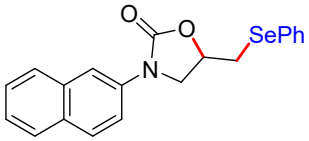
3-(3,4-dimethylphenyl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3l**), 61.4 mg, 85% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (dd, *J* = 7.3, 2.2 Hz, 2H), 7.36 - 7.26 (m, 4H), 7.17 (dd, *J* = 8.2, 2.4 Hz, 1H), 7.09 (d, *J* = 8.2 Hz, 1H), 4.68 (tdd, *J* = 8.8, 6.3, 4.3 Hz, 1H), 4.05 (t, *J* = 8.8 Hz, 1H), 3.73 (dd, *J* = 9.1, 6.3 Hz, 1H), 3.34 (dd, *J* = 12.8, 4.3 Hz, 1H), 3.03 (dd, *J* = 12.9, 9.1 Hz, 1H), 2.25 (s, 3H), 2.22 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.5, 137.4, 135.9, 133.6, 132.6, 130.1, 129.6, 128.1, 128.0, 119.8, 115.9, 71.7, 50.5, 31.1, 20.1, 19.2. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{18}H_{20}NO_2Se$ 362.0659; Found 362.0657. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



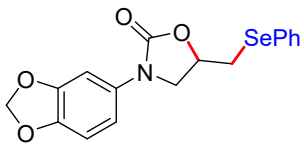
3-(3-fluoro-4-methylphenyl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3m**), 62.8 mg, 86% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (d, *J* = 7.2 Hz, 2H), 7.30 (dd, *J* = 7.4, 4.3 Hz, 4H), 7.18 - 7.01 (m, 2H), 4.72 (ddt, *J* = 8.9, 5.9, 3.0 Hz, 1H), 4.05 (dd, *J* = 8.8, 6.0 Hz, 1H), 3.78 - 3.67 (m, 1H), 3.35 (dd, *J* = 9.3, 3.7 Hz, 1H), 3.04 (ddd, *J* = 12.2, 9.0, 2.9 Hz, 1H), 2.23 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 161.3 (d, *J* = 244.4 Hz), 154.2, 137.3, 137.3, 133.7, 131.6 (d, *J* = 6.4 Hz), 129.6, 128.2, 127.9, 120.4, 120.3, 113.2 (d, *J* = 3.4 Hz), 105.7 (d, *J* = 27.9 Hz), 71.8, 50.3, 31.1, 14.1. **^{19}F NMR** (376 MHz, $CDCl_3$) δ -114.93. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{17}FNO_2Se$ 366.0409; Found 366.0409. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



3-(3-fluoro-4-methoxyphenyl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3n**), 64.0 mg, 84% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (dd, *J* = 7.5, 2.1 Hz, 2H), 7.39 (dd, *J* = 13.1, 2.7 Hz, 1H), 7.35 - 7.26 (m, 3H), 7.07 (ddd, *J* = 8.9, 2.8, 1.5 Hz, 1H), 6.92 (t, *J* = 9.1 Hz, 1H), 4.71 (tdd, *J* = 8.7, 6.3, 4.3 Hz, 1H), 4.04 (t, *J* = 8.7 Hz, 1H), 3.86 (s, 3H), 3.70 (dd, *J* = 9.0, 6.4 Hz, 1H), 3.35 (dd, *J* = 13.0, 4.3 Hz, 1H), 3.05 (dd, *J* = 12.9, 9.0 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.3, 152.2 (d, *J* = 245.7 Hz), 144.3 (d, *J* = 10.7 Hz), 133.7, 131.7 (d, *J* = 9.2 Hz), 129.6, 128.1, 127.9, 113.8 (d, *J* = 3.6 Hz), 113.7 (d, *J* = 2.9 Hz), 107.6 (d, *J* = 23.5 Hz), 71.7, 56.6, 50.4, 31.1. **^{19}F NMR** (376 MHz, $CDCl_3$) δ -132.35. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{17}FNO_3Se$ 382.0358; Found 382.0359. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

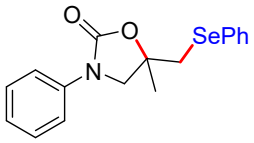


3-(naphthalen-2-yl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3o**), 61.3 mg, 80% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.93 - 7.80 (m, 3H), 7.58 (dd, *J* = 6.5, 2.9 Hz, 2H), 7.52 (dtd, *J* = 14.1, 6.9, 1.6 Hz, 2H), 7.49 - 7.40 (m, 2H), 7.37 - 7.25 (m, 3H), 4.91 (tdd, *J* = 8.4, 6.4, 4.3 Hz, 1H), 4.14 (t, *J* = 8.8 Hz, 1H), 3.84 (dd, *J* = 9.2, 6.5 Hz, 1H), 3.44 (dd, *J* = 13.0, 4.3 Hz, 1H), 3.24 (dd, *J* = 12.9, 8.6 Hz, 1H). **^{13}C NMR** (151 MHz, Chloroform-d) δ 156.6, 134.7, 133.8, 133.6, 129.9, 129.6, 128.7, 128.7, 128.3, 128.0, 127.1, 126.6, 125.7, 124.8, 122.4, 73.0, 54.0, 31.3. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{20}H_{28}NO_2Se$ 384.0503; Found 384.0505. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

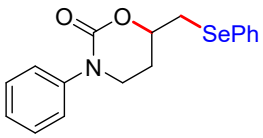


3-(benzo[d][1,3]dioxol-5-yl)-5-((phenylselanyl)methyl)oxazolidin-2-one (**3p**), 64.1 mg, 85% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (dd, *J* = 7.3, 2.2 Hz, 2H), 7.36 - 7.26 (m, 3H), 7.24 (d, *J* = 2.3 Hz, 1H),

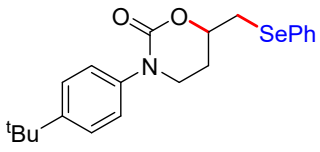
6.76 (d, J = 8.4 Hz, 1H), 6.69 (dd, J = 8.5, 2.3 Hz, 1H), 5.95 (s, 2H), 4.69 (tdd, J = 8.8, 6.4, 4.3 Hz, 1H), 4.04 (t, J = 8.7 Hz, 1H), 3.71 (dd, J = 9.1, 6.4 Hz, 1H), 3.35 (dd, J = 12.9, 4.3 Hz, 1H), 3.05 (dd, J = 12.9, 9.1 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.6, 148.2, 144.4, 133.6, 132.6, 129.6, 128.1, 128.0, 111.5, 108.0, 101.5, 101.5, 71.7, 51.0, 31.1. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{16}NO_4Se$ 378.0245; Found 378.0247. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



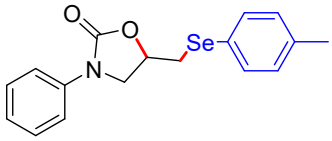
5-methyl-3-phenyl-5-((phenylselanyl)methyl)oxazolidin-2-one (**3q**), 61.1 mg, 88% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.53 (dd, J = 7.5, 2.0 Hz, 2H), 7.46 (d, J = 7.6 Hz, 2H), 7.38 - 7.31 (m, 2H), 7.28 - 7.22 (m, 3H), 7.12 (t, J = 7.4 Hz, 1H), 3.92 (d, J = 9.0 Hz, 1H), 3.69 (d, J = 9.0 Hz, 1H), 3.27 (q, J = 13.0 Hz, 2H), 1.60 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.0, 138.3, 133.5, 133.4, 133.4, 129.6, 129.5, 129.1, 127.8, 124.1, 118.3, 78.8, 55.2, 38.1, 26.2. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{18}NO_2Se$ 348.0503; Found 348.0506. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



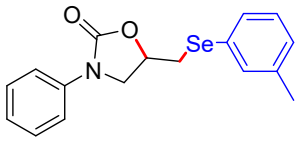
3-phenyl-6-((phenylselanyl)methyl)-1,3-oxazinan-2-one (**3r**), 59.7 mg, 86% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.55 (dd, J = 7.3, 2.3 Hz, 2H), 7.38 (t, J = 7.8 Hz, 2H), 7.34 - 7.24 (m, 6H), 4.52 (dddd, J = 10.3, 9.0, 4.4, 2.6 Hz, 1H), 3.73 (td, J = 11.5, 4.7 Hz, 1H), 3.63 (ddd, J = 11.8, 5.6, 3.1 Hz, 1H), 3.39 (dd, J = 13.0, 4.4 Hz, 1H), 3.05 (dd, J = 13.0, 9.0 Hz, 1H), 2.41 (ddt, J = 13.8, 5.1, 2.9 Hz, 1H), 2.02 (dtd, J = 13.8, 10.8, 5.6 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 152.3, 142.6, 132.7, 129.4, 129.2, 129.1, 127.5, 126.9, 125.8, 76.9, 47.8, 31.0, 26.9. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{18}NO_2Se$ 348.0503; Found 348.0503. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



3-(4-(tert-butyl)phenyl)-6-((phenylselanyl)methyl)-1,3-oxazinan-2-one (**3s**), 70.9 mg, 88% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.55 (dd, *J* = 5.0, 2.1 Hz, 2H), 7.39 (d, *J* = 8.7 Hz, 2H), 7.30 (dd, *J* = 5.2, 2.0 Hz, 3H), 7.21 (d, *J* = 8.7 Hz, 2H), 4.51 (ttd, *J* = 10.5, 9.2, 4.1, 2.5 Hz, 1H), 3.71 (td, *J* = 11.6, 4.7 Hz, 1H), 3.62 (ddd, *J* = 11.9, 5.6, 3.0 Hz, 1H), 3.40 (dd, *J* = 13.0, 4.4 Hz, 1H), 3.04 (dd, *J* = 13.0, 9.1 Hz, 1H), 2.45 - 2.37 (m, 1H), 2.02 (dtd, *J* = 14.0, 10.8, 5.5 Hz, 1H), 1.30 (s, 9H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 152.5, 149.8, 140.0, 132.8, 129.5, 129.1, 127.6, 126.3, 125.3, 76.9, 48.0, 34.6, 31.3, 31.0, 27.0. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{21}H_{26}NO_2Se$ 404.1130; Found 404.1130. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

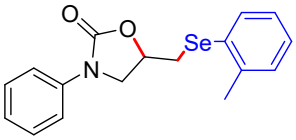


3-phenyl-5-((p-tolylselanyl)methyl)oxazolidin-2-one (**3t**), 59.7 mg, 86% yield. **^{1}H NMR** (500 MHz, $CDCl_3CDCl_3$) δ 7.47 (dd, *J* = 15.4, 7.9 Hz, 4H), 7.35 (t, *J* = 7.8 Hz, 2H), 7.11 (t, *J* = 6.7 Hz, 3H), 4.68 (ddt, *J* = 13.4, 8.9, 3.6 Hz, 1H), 4.08 (t, *J* = 8.8 Hz, 1H), 3.76 (dd, *J* = 9.1, 6.4 Hz, 1H), 3.31 (dd, *J* = 12.8, 4.3 Hz, 1H), 2.99 (dd, *J* = 12.8, 9.2 Hz, 1H), 2.33 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.5, 138.4, 138.2, 134.2, 130.4, 129.1, 124.1, 124.06, 118.3, 71.8, 50.3, 31.3, 21.2. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{18}NO_2Se$ 348.0503; Found 348.0503. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

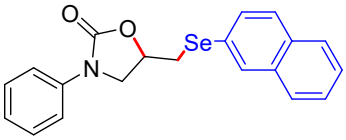


3-phenyl-5-((m-tolylselanyl)methyl)oxazolidin-2-one (**3u**), 59.0 mg, 85% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.49 (d, *J* = 7.6 Hz, 2H), 7.41 - 7.31 (m, 4H), 7.18 (t, *J* = 7.6 Hz, 1H), 7.16 - 7.09 (m, 2H), 4.71 (tdd, *J* = 8.9, 6.3, 4.2 Hz, 1H), 4.10 (t, *J* = 8.8 Hz, 1H), 3.78 (dd, *J* = 9.2, 6.3 Hz, 1H), 3.36 (dd, *J* = 12.9, 4.2 Hz, 1H), 3.03 (dd, *J* = 12.8, 9.2 Hz, 1H), 2.32 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.5, 139.5, 138.2, 134.3, 130.6, 129.4, 129.1, 129.0, 127.7, 124.2, 118.3, 71.8, 50.3, 31.0, 21.4. HRMS (ESI) m/z: [M

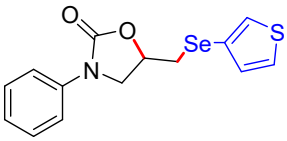
+ H]$^+$ Calcd for $C_{17}H_{18}NO_2Se$ 348.0503; Found 348.0503. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



3-phenyl-5-((o-tolylselanyl)methyl)oxazolidin-2-one (**3v**), 55.5 mg, 80% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.51 (dd, *J* = 12.5, 7.9 Hz, 3H), 7.40 - 7.32 (m, 2H), 7.22 (d, *J* = 6.6 Hz, 2H), 7.13 (t, *J* = 7.3 Hz, 2H), 4.71 (tdd, *J* = 8.8, 6.3, 4.3 Hz, 1H), 4.10 (t, *J* = 8.8 Hz, 1H), 3.80 (dd, *J* = 9.1, 6.3 Hz, 1H), 3.34 (dd, *J* = 12.8, 4.3 Hz, 1H), 3.03 (dd, *J* = 12.8, 9.3 Hz, 1H), 2.45 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.5, 140.4, 138.2, 133.3, 130.6, 129.2, 128.9, 128.2, 127.0, 124.2, 118.3, 71.7, 50.4, 30.0, 22.7. HRMS (ESI) m/z: [M + H]$^+$ Calcd for $C_{17}H_{18}NO_2Se$ 348.0503; Found 348.0503. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

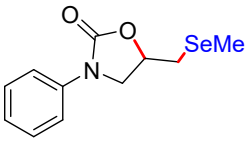


5-((naphthalen-2-ylselanyl)methyl)-3-phenyloxazolidin-2-one (**3w**), 62.8 mg, 82% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 8.40 (d, *J* = 8.4 Hz, 1H), 7.88 (dd, *J* = 13.8, 7.6 Hz, 3H), 7.56 (dt, *J* = 24.3, 6.9 Hz, 2H), 7.43 (d, *J* = 7.5 Hz, 2H), 7.41 - 7.30 (m, 3H), 7.11 (t, *J* = 7.4 Hz, 1H), 4.63 (tdd, *J* = 8.7, 6.4, 4.4 Hz, 1H), 4.03 (t, *J* = 8.8 Hz, 1H), 3.73 (dd, *J* = 9.1, 6.3 Hz, 1H), 3.37 (dd, *J* = 12.7, 4.5 Hz, 1H), 3.08 (dd, *J* = 12.7, 9.0 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.4, 138.2, 134.5, 134.4, 134.3, 129.8, 129.2, 129.0, 127.6, 127.4, 127.2, 126.7, 126.0, 124.2, 118.3, 71.9, 50.3, 31.3. HRMS (ESI) m/z: [M + H]$^+$ Calcd for $C_{20}H_{18}NO_2Se$ 384.0503; Found 384.0504. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

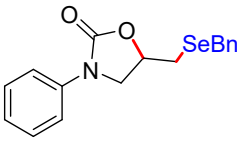


3-phenyl-5-((thiophen-3-ylselanyl)methyl)oxazolidin-2-one (**3x**), 52.9 mg, 78% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.50 (d, *J* = 7.6 Hz, 2H), 7.43 (dd, *J* = 3.0, 1.2 Hz, 1H), 7.41 - 7.30 (m, 3H), 7.21 - 7.09

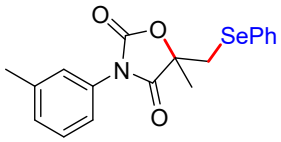
(m, 2H), 4.72 (tdd, *J* = 8.7, 6.4, 4.4 Hz, 1H), 4.12 (t, *J* = 8.8 Hz, 1H), 3.77 (dd, *J* = 9.1, 6.3 Hz, 1H), 3.27 (dd, *J* = 12.9, 4.4 Hz, 1H), 2.98 (dd, *J* = 12.8, 8.9 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.5, 138.2, 132.6, 129.4, 129.2, 127.4, 124.3, 120.7, 118.3, 71.9, 50.3, 31.8. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{14}H_{24}NO_2SSe$ 339.9910; Found 339.9912. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



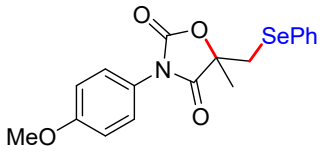
5-((methylselanyl)methyl)-3-phenyloxazolidin-2-one (**3y**), 50.4 mg, 93% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.54 (d, *J* = 7.4 Hz, 2H), 7.42 - 7.35 (m, 2H), 7.14 (t, *J* = 7.4 Hz, 1H), 4.83 (tdd, *J* = 8.2, 6.5, 4.5 Hz, 1H), 4.16 (t, *J* = 8.7 Hz, 1H), 3.81 (dd, *J* = 9.0, 6.4 Hz, 1H), 2.95 (dd, *J* = 13.1, 4.5 Hz, 1H), 2.82 (dd, *J* = 13.1, 7.9 Hz, 1H), 2.12 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.5, 138.2, 129.1, 124.1, 118.3, 72.2, 50.4, 28.6, 5.4. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{11}H_{14}NO_2Se$ 272.0190; Found 272.0189. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



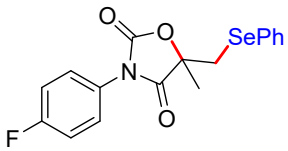
5-((benzylselanyl)methyl)-3-phenyloxazolidin-2-one (**3z**), 40.3 mg, 58% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.48 (d, *J* = 8.1 Hz, 2H), 7.36 (t, *J* = 8.0 Hz, 2H), 7.30 (d, *J* = 4.4 Hz, 4H), 7.22 (dq, *J* = 8.6, 4.3, 3.8 Hz, 1H), 7.13 (t, *J* = 7.4 Hz, 1H), 4.63 (tdd, *J* = 8.2, 6.6, 4.5 Hz, 1H), 4.00 (t, *J* = 8.7 Hz, 1H), 3.89 (s, 2H), 3.62 (dd, *J* = 9.0, 6.5 Hz, 1H), 2.86 (dd, *J* = 13.2, 4.5 Hz, 1H), 2.76 (dd, *J* = 13.2, 7.8 Hz, 1H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 154.5, 138.6, 138.2, 129.1, 129.1, 128.8, 127.3, 124.2, 118.4, 72.1, 50.4, 28.1, 26.9. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{17}H_{18}NO_2Se$ 348.0503; Found 348.0503. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



5-methyl-5-((phenylselanyl)methyl)-3-(m-tolyl)oxazolidine-2,4-dione (**5a**), 56.3 mg, 75% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.57 (dd, *J* = 7.5, 2.1 Hz, 2H), 7.36 (t, *J* = 7.7 Hz, 1H), 7.32 - 7.25 (m, 3H), 7.25 - 7.14 (m, 3H), 3.43 (q, *J* = 13.8 Hz, 2H), 2.39 (s, 3H), 1.75 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 173.7, 153.4, 139.6, 133.7, 133.7, 130.9, 130.0, 129.5, 129.3, 129.0, 128.1, 126.4, 123.0, 85.3, 34.5, 23.0, 21.5. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{18}H_{18}NO_3Se$ 376.0452; Found 376.0455. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

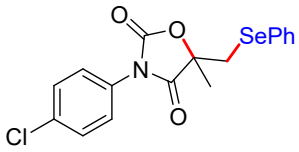


3-(4-methoxyphenyl)-5-methyl-5-((phenylselanyl)methyl)oxazolidine-2,4-dione (**5b**), 61.0 mg, 78% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.56 (dd, *J* = 7.5, 2.1 Hz, 2H), 7.32 (d, *J* = 9.0 Hz, 2H), 7.29 - 7.20 (m, 3H), 6.98 (d, *J* = 8.9 Hz, 2H), 3.82 (s, 3H), 3.47 - 3.36 (m, 2H), 1.74 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 173.8, 159.9, 153.6, 133.7, 129.4, 129.0, 128.1, 127.3, 123.6, 114.7, 85.4, 55.6, 34.6, 22.9. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{18}H_{18}NO_4Se$ 392.0401; Found 392.0400. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

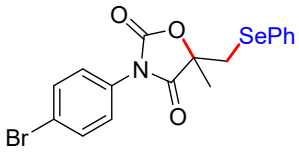


3-(4-fluorophenyl)-5-methyl-5-((phenylselanyl)methyl)oxazolidine-2,4-dione (**5c**), 53.1 mg, 70% yield. ^{1}H NMR (500 MHz, $CDCl_3$) δ 7.55 (d, *J* = 7.9 Hz, 2H), 7.41 (dd, *J* = 9.0, 4.7 Hz, 2H), 7.32 - 7.23 (m, 3H), 7.18 (t, *J* = 8.6 Hz, 2H), 3.49 - 3.39 (m, 2H), 1.77 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 173.5, 162.5 (d, *J* = 249.8 Hz), 153.2, 133.7, 129.5, 128.9, 128.2, 127.8 (d, *J* = 8.9 Hz), 127.0 (d, *J* = 3.1 Hz), 116.5 (d, *J* = 23.1 Hz), 85.6, 34.6, 23.0. **^{19}F NMR** (376 MHz, $CDCl_3$) δ -111.50. HRMS (ESI) m/z: [M +

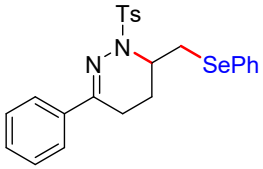
H]$^+$ Calcd for $C_{20}H_{24}NO_2Se$ 390.0972; Found 390.0973. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



3-(4-chlorophenyl)-5-methyl-5-((phenylselanyl)methyl)oxazolidine-2,4-dione (**5d**), 57.7 mg, 73% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.54 (dd, *J* = 7.7, 1.8 Hz, 2H), 7.49 - 7.42 (m, 2H), 7.42 - 7.34 (m, 2H), 7.32 - 7.20 (m, 3H), 3.48 - 3.37 (m, 2H), 1.76 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 173.3, 152.9, 134.8, 133.6, 129.6, 129.5, 129.5, 128.8, 128.2, 126.9, 85.5, 34.5, 22.9. HRMS (ESI) m/z: [M + H]$^+$ Calcd for $C_{17}H_{15}NO_3Se$ 380.0201; Found 380.0203. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).

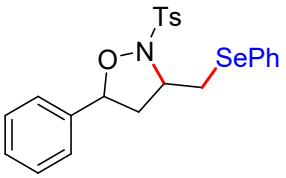


3-(4-bromophenyl)-5-methyl-5-((phenylselanyl)methyl)oxazolidine-2,4-dione (**5e**), 65.8 mg, 75% yield. **^{1}H NMR** (500 MHz, $CDCl_3$) δ 7.61 (d, *J* = 8.7 Hz, 2H), 7.54 (dd, *J* = 7.8, 1.8 Hz, 2H), 7.33 (d, *J* = 8.7 Hz, 2H), 7.29 - 7.23 (m, 3H), 3.48 - 3.38 (m, 2H), 1.76 (s, 3H). **^{13}C NMR** (151 MHz, $CDCl_3$) δ 173.3, 152.9, 133.7, 132.7, 130.1, 129.5, 128.8, 128.2, 127.2, 122.9, 85.6, 34.5, 23.0. HRMS (ESI) m/z: [M + H]$^+$ Calcd for $C_{17}H_{15}BrNO_3Se$ 439.9401; Found 439.9402. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 10 ~ 20%, v/v).



3-phenyl-6-((phenylselanyl)methyl)-1-tosyl-1,4,5,6-tetrahydropyridazine (**7a**), 92.0 mg, 95% yield. **^{1}H NMR** (400 MHz, $CDCl_3$) δ 7.80 (d, *J* = 8.1 Hz, 2H), 7.67 (dd, *J* = 7.5, 2.3 Hz, 2H), 7.58 (dd, *J* = 7.7, 1.8 Hz, 2H), 7.44 - 7.28 (m, 6H), 7.26 (d, *J* = 8.2 Hz, 2H), 4.50 (d, *J* = 11.4 Hz, 1H), 3.35 (dd, *J* = 12.9, 2.6 Hz, 1H), 2.79 (t, *J* = 12.3 Hz, 1H), 2.60 - 2.46 (m, 2H), 2.38 (s, 3H), 2.28 - 2.10 (m, 1H), 1.57 (dq, *J* = 13.0, 6.6, 5.1 Hz, 1H). **^{13}C NMR** (100 MHz, $CDCl_3$) δ 148.0, 143.9, 136.7, 135.9, 132.6, 129.6, 129.5,

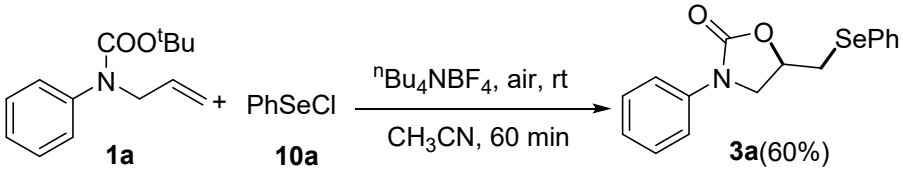
129.4, 128.9, 128.5, 128.0, 127.5, 125.3, 51.4, 28.1, 21.7, 19.7, 17.8. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{24}H_{25}N_2O_2Se$ 485.0802; Found 485.0804. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 2 ~ 5%, v/v).



5-phenyl-3-((phenylselanyl)methyl)-2-tosylisoxazolidine (**9a**), 88.0 mg, 93% yield. **dr = 1.2:1**. **^{1}H NMR** (400 MHz, $CDCl_3$) δ 7.75 (d, *J* = 8.0 Hz, 2H), 7.67 (d, *J* = 8.0 Hz, 1.66H), 7.58 (qd, *J* = 4.3, 2.9, 1.8 Hz, 3.71H), 7.36 - 7.20 (m, 18.4H), 5.16 (dd, *J* = 11.0, 5.7 Hz, 0.83H), 4.94 (dd, *J* = 10.5, 5.6 Hz, 1H), 4.43 (dt, *J* = 12.6, 6.3 Hz, 1H), 4.31 (td, *J* = 9.2, 5.1 Hz, 0.83H), 3.57 (dd, *J* = 12.6, 4.5 Hz, 1H), 3.46 (dd, *J* = 12.8, 5.0 Hz, 0.83H), 3.11 (dd, *J* = 12.6, 9.4 Hz, 1H), 3.07 - 3.00 (m, 0.83H), 2.83 (dt, *J* = 12.7, 6.5 Hz, 1H), 2.54 (dd, *J* = 12.9, 5.8 Hz, 0.84H), 2.42 (s, 5.5H), 2.22 - 2.14 (m, 1H), 2.14 - 2.07 (m, 0.83H). **^{13}C NMR** (100 MHz, $CDCl_3$) δ 145.1, 145.1, 136.6, 136.2, 133.0, 132.7, 132.4, 131.2, 129.7, 129.6, 129.5, 129.4, 129.3, 129.3, 128.9, 128.8, 128.7, 128.6, 128.5, 127.5, 127.4, 127.1, 126.9, 83.3, 82.4, 61.9, 61.1, 43.3, 40.8, 32.5, 31.2, 21.7, 21.7. HRMS (ESI) m/z: $[M + H]^+$ Calcd for $C_{23}H_{24}NO_3SSe$ 474.0642; Found 474.0641. The isolated yield was obtained by chromatography column on silica gel (gradient eluent of EtOAc in Petroleum ether: 2 ~ 10%, v/v).

4. Mechanistic studies

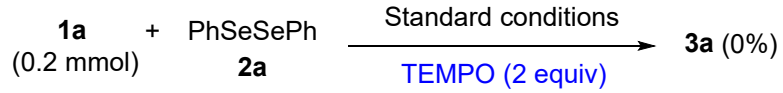
a) Synthesis of Selenium-Containing Oxazolidinones with Phenylselenium Chloride as the Selenium Source



To the cell was added **1a** (0.2 mmol, 46.6 mg), **10a** (0.24 mmol, 45.96 mg), ^{n}Bu_4NBF (0.1 mmol, 32.93 mg), CH_3CN (4.0 mL). The mixture was stirred at room temperature for 60 min. Then, the solvent was removed under reduced pressure. The residue was poured into a saturated aqueous solution of NaCl and

the product was then extracted with CH_2Cl_2 (3×20 mL), dried over Na_2SO_4, and concentrated in vacuo. The residue was purified by column chromatography on silica gel using a mixture of petroleum ether/EtOA eluent to afford the desired pure product **3a** (40 mg, 60%).

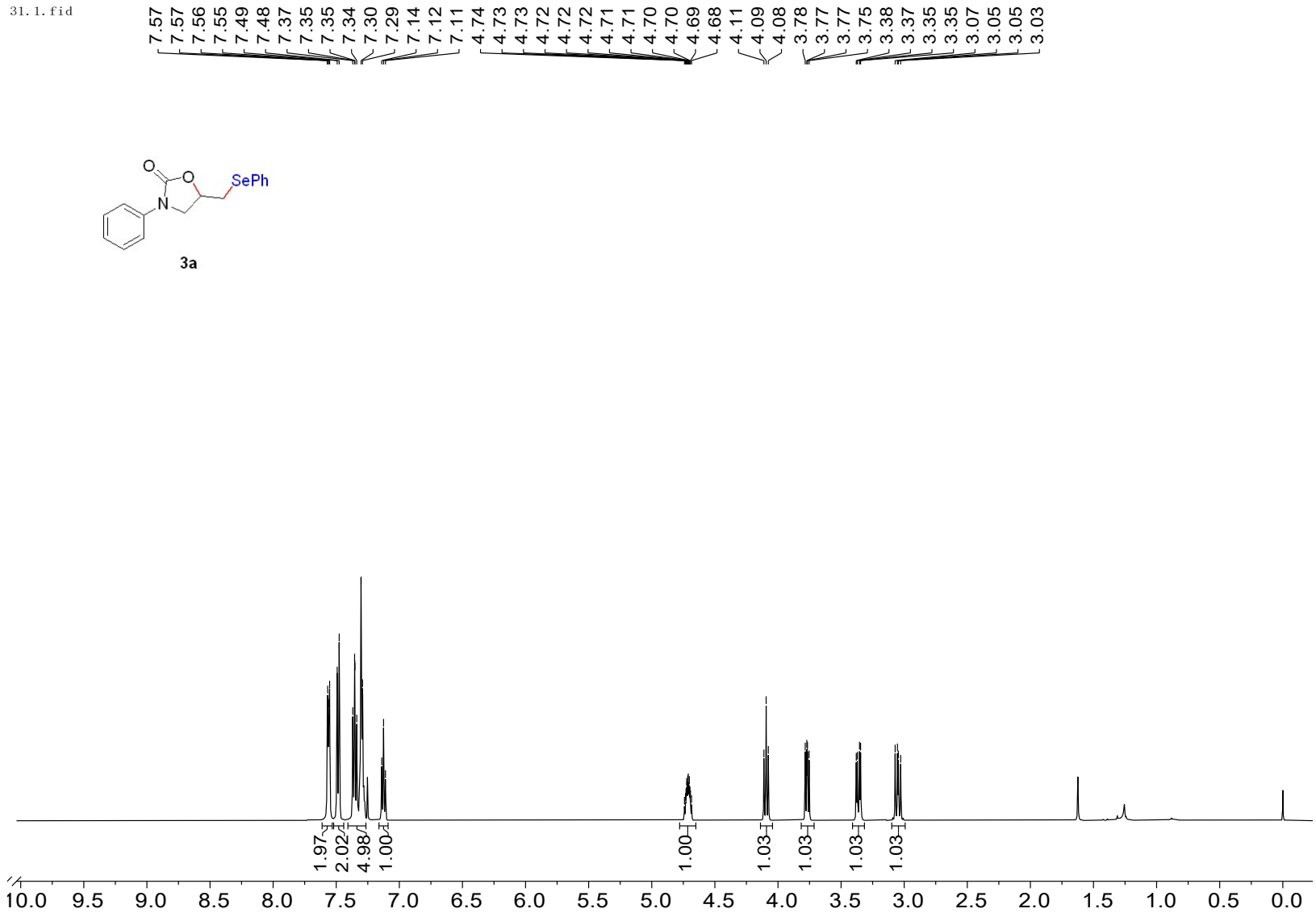
b) Radical trapping experiments



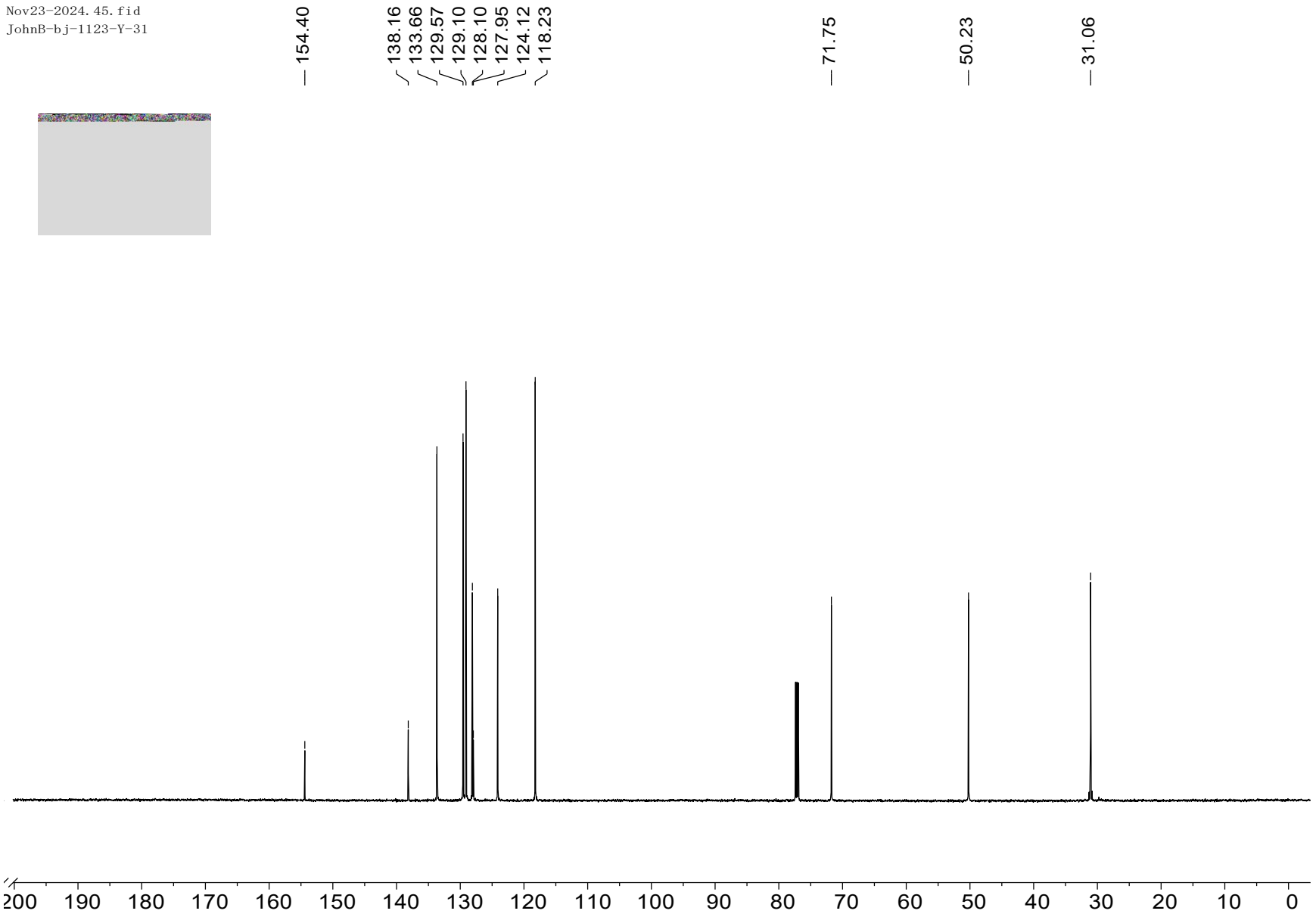
An undivided cell was equipped with Pt anode (1.0 cm × 1.0 cm × 0.1 cm) and Pt cathode (1.0 cm × 1.0 cm × 0.1 cm). To the cell was added **1a** (0.2 mmol, 46.6 mg), **2a** (0.24 mmol, 74.88 mg), $^{n}Bu_4NBF$ (0.1 mol, 32.93 mg), TEMPO (0.4 mmol, 62.5 mg), CH_3CN (4.0 mL). The mixture was electrolyzed using constant current conditions (I = 5 mA) at room temperature under magnetic stirring for 60 min. After the reaction was completed, analysis by GC-MS did not detect the target compound **3a**.

6. Copies of NMR spectra

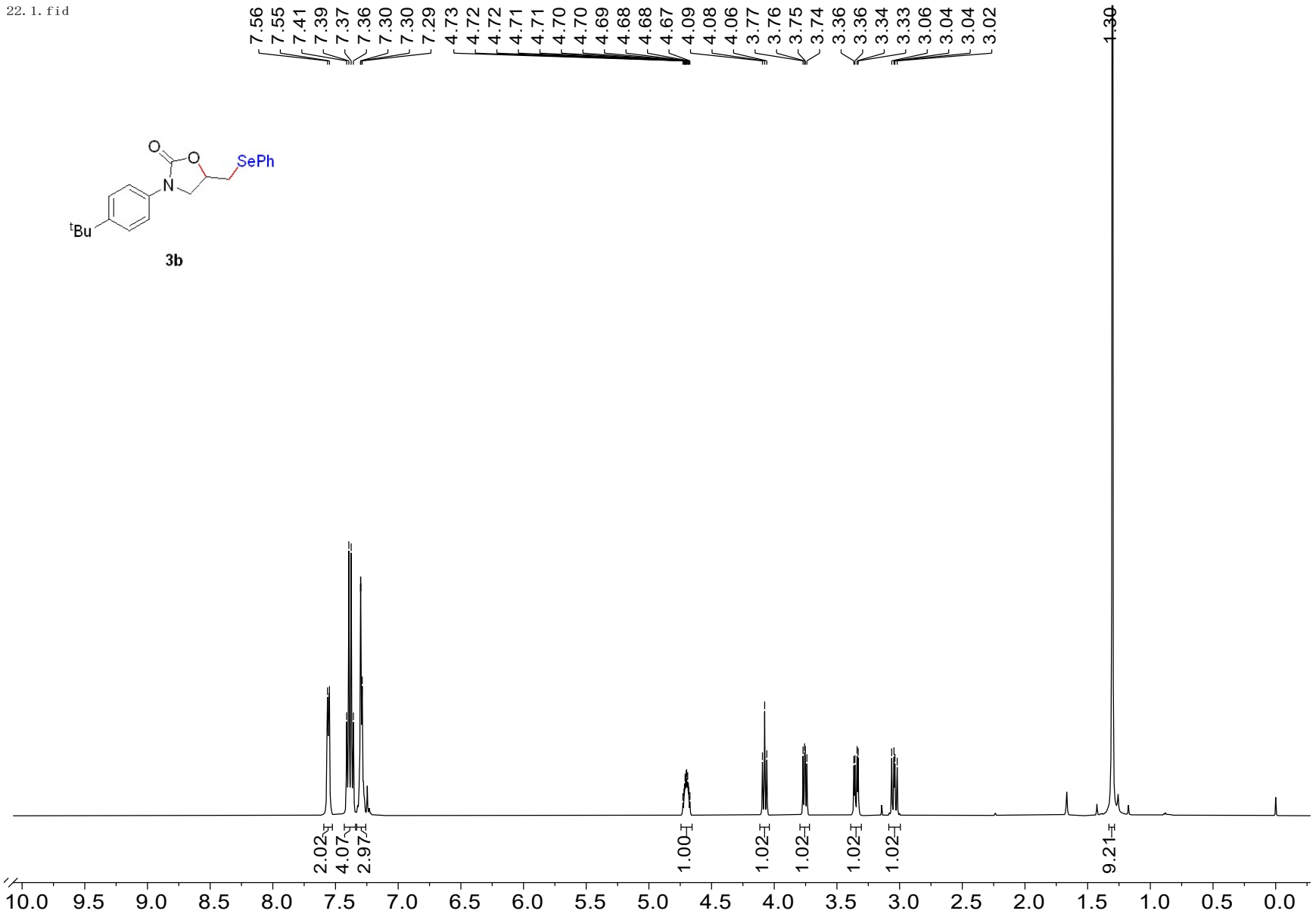
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3a**.



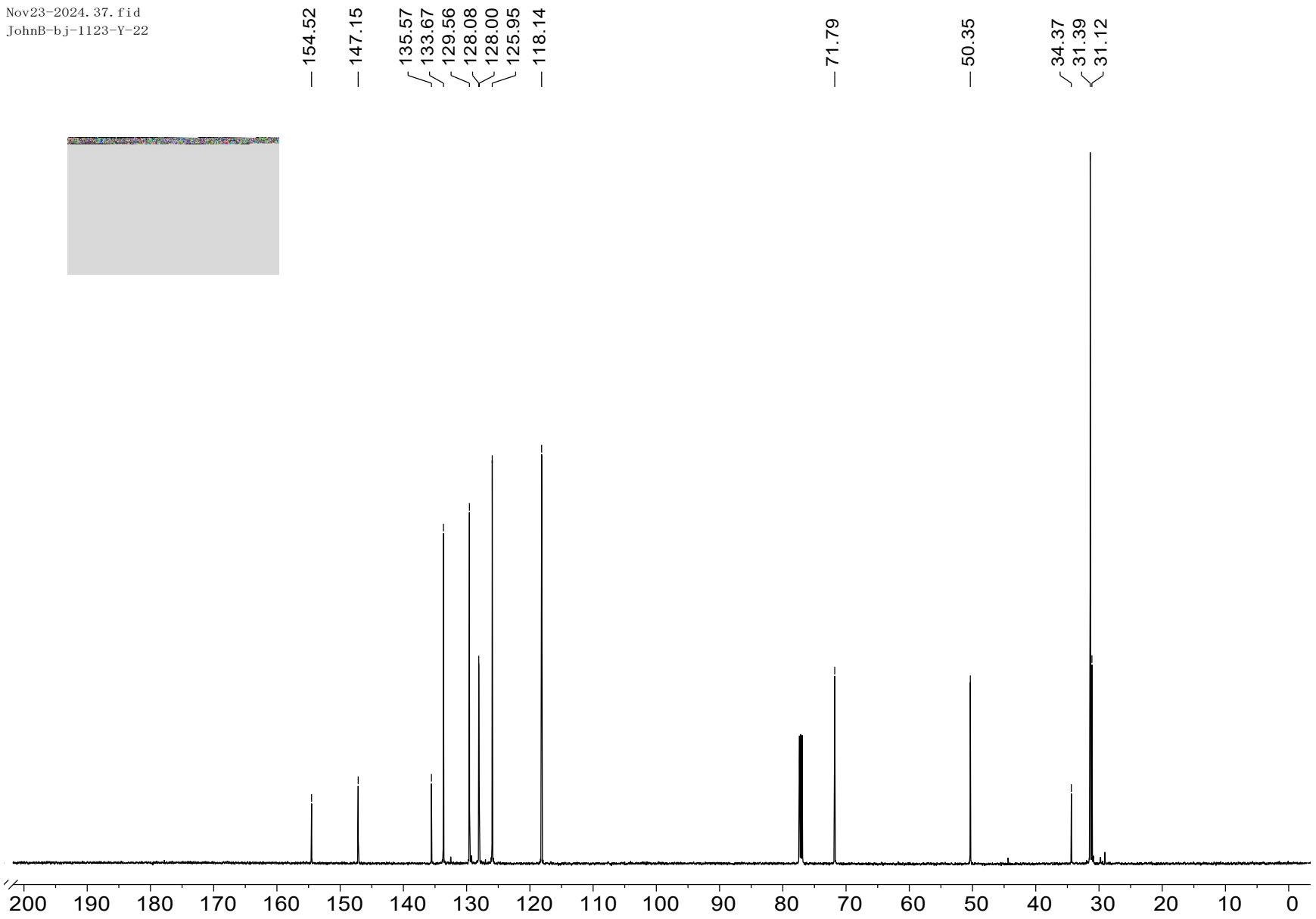
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3a**.



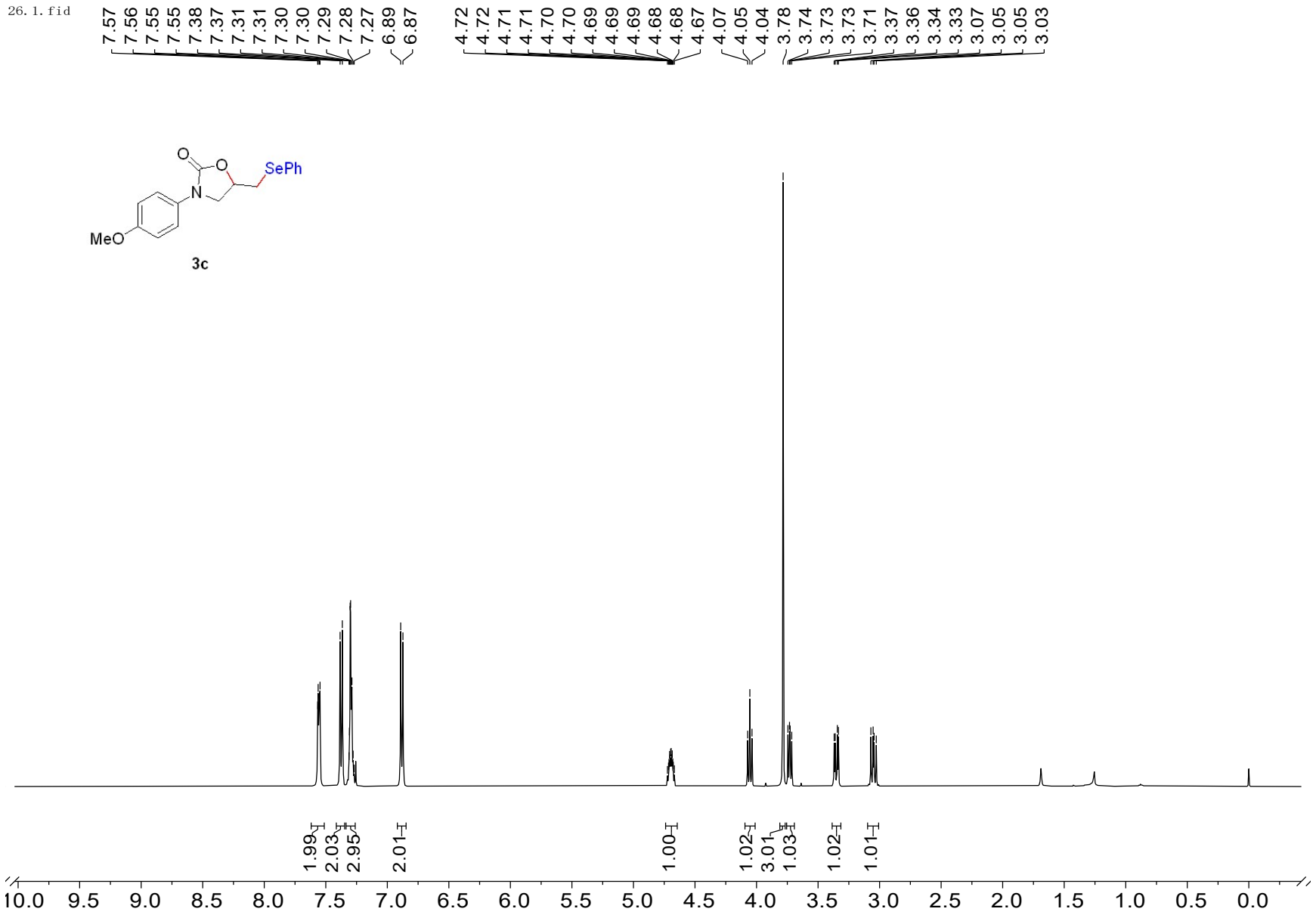
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3b**.



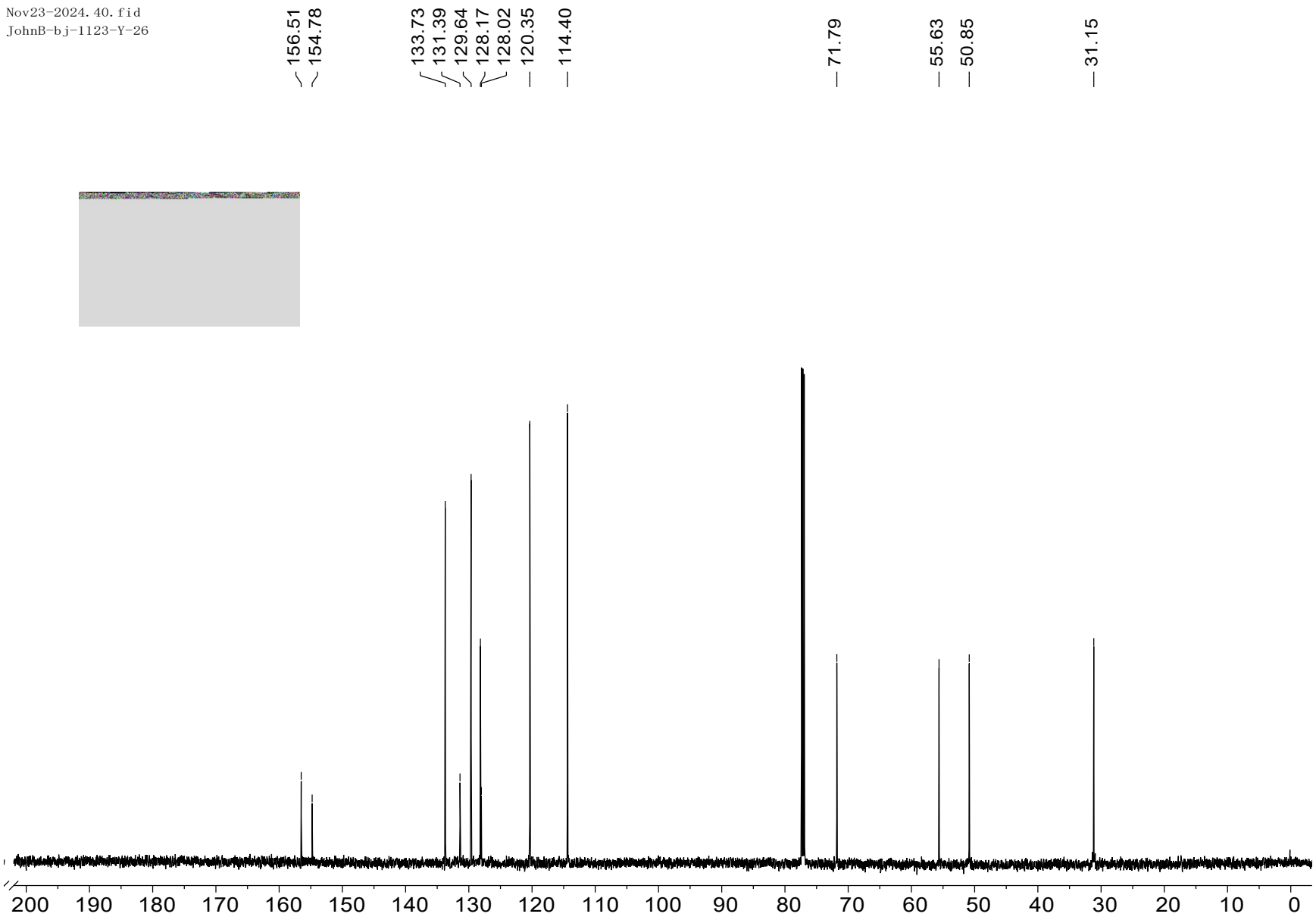
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3b**.



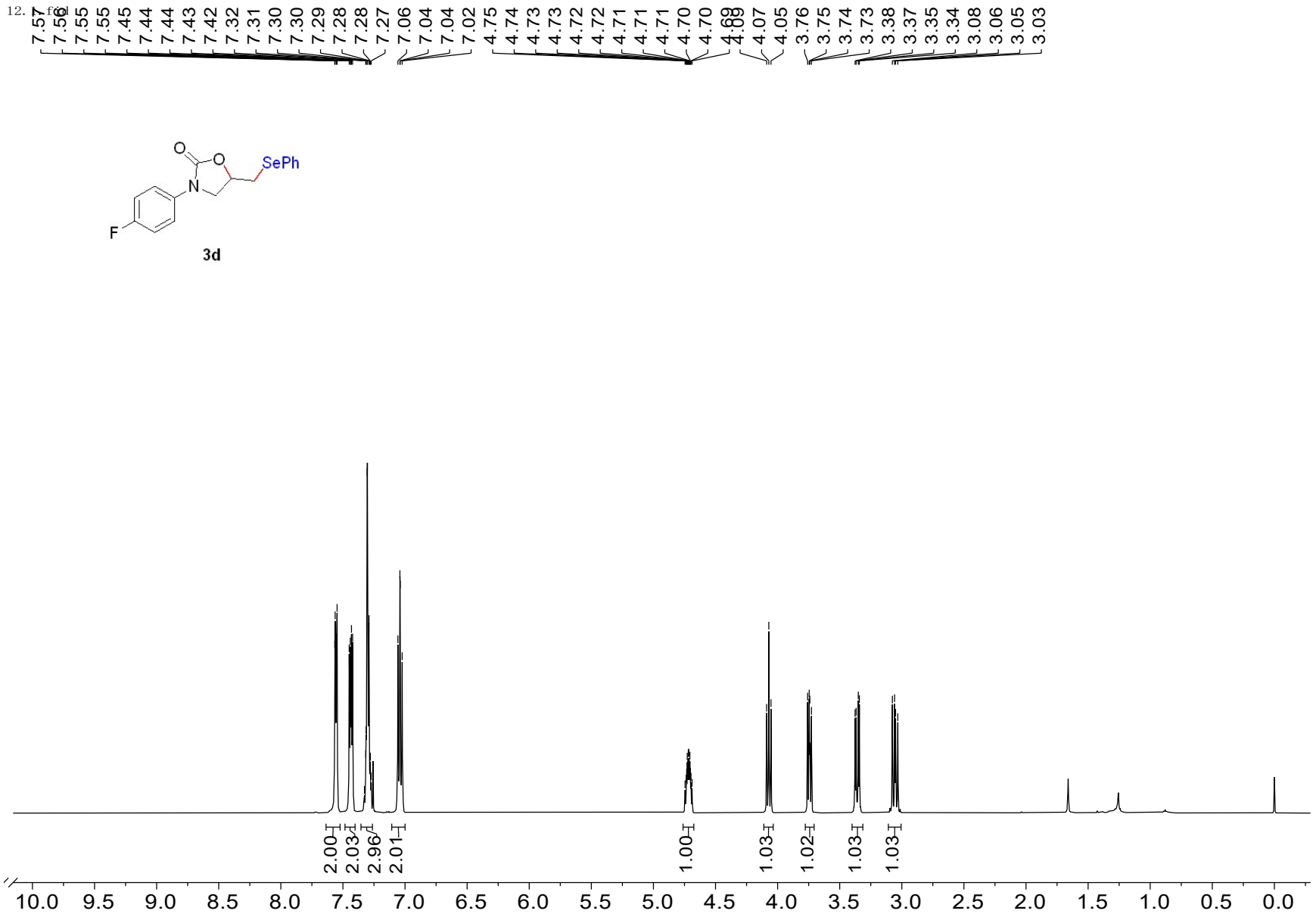
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3c**.



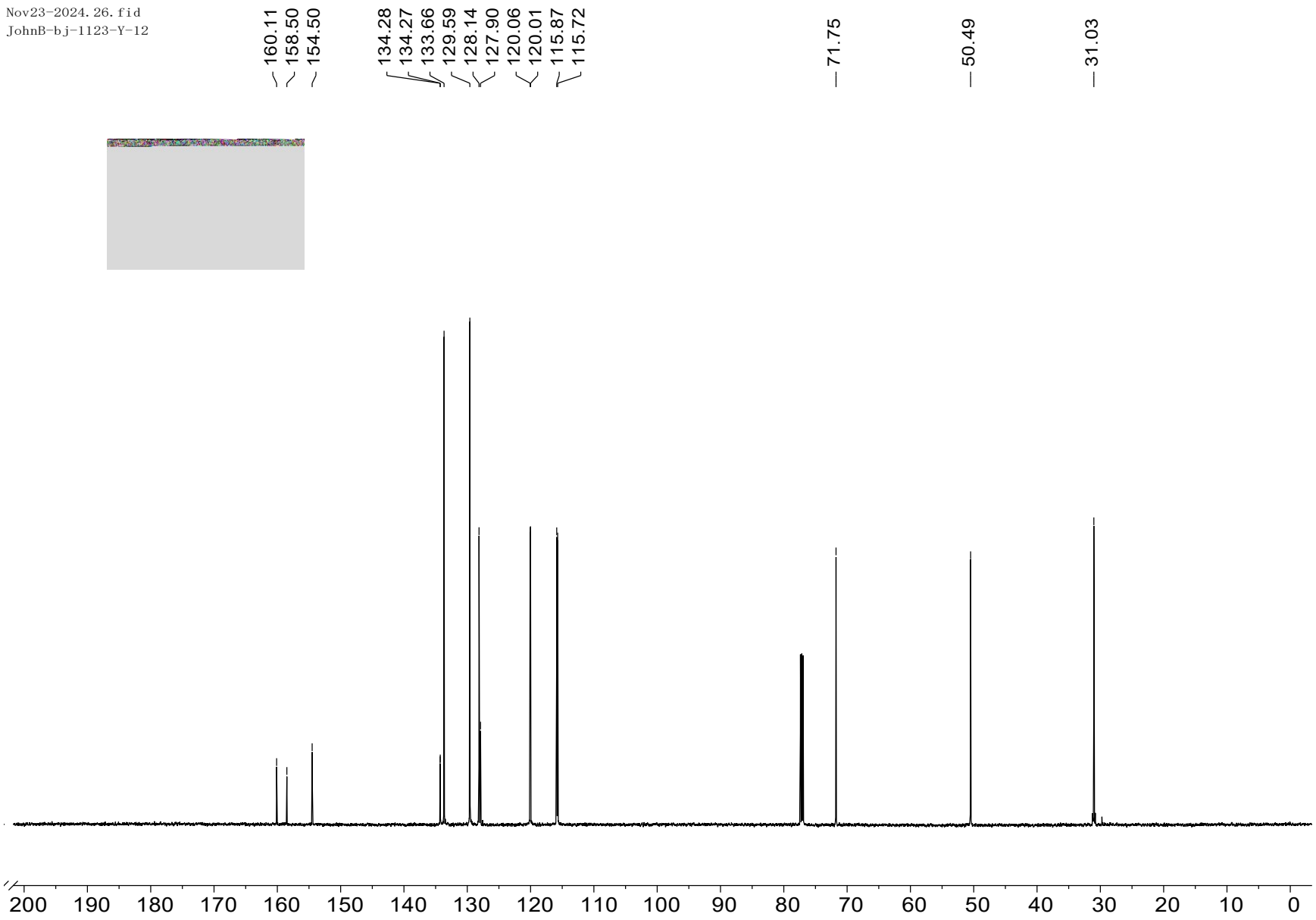
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3c**.



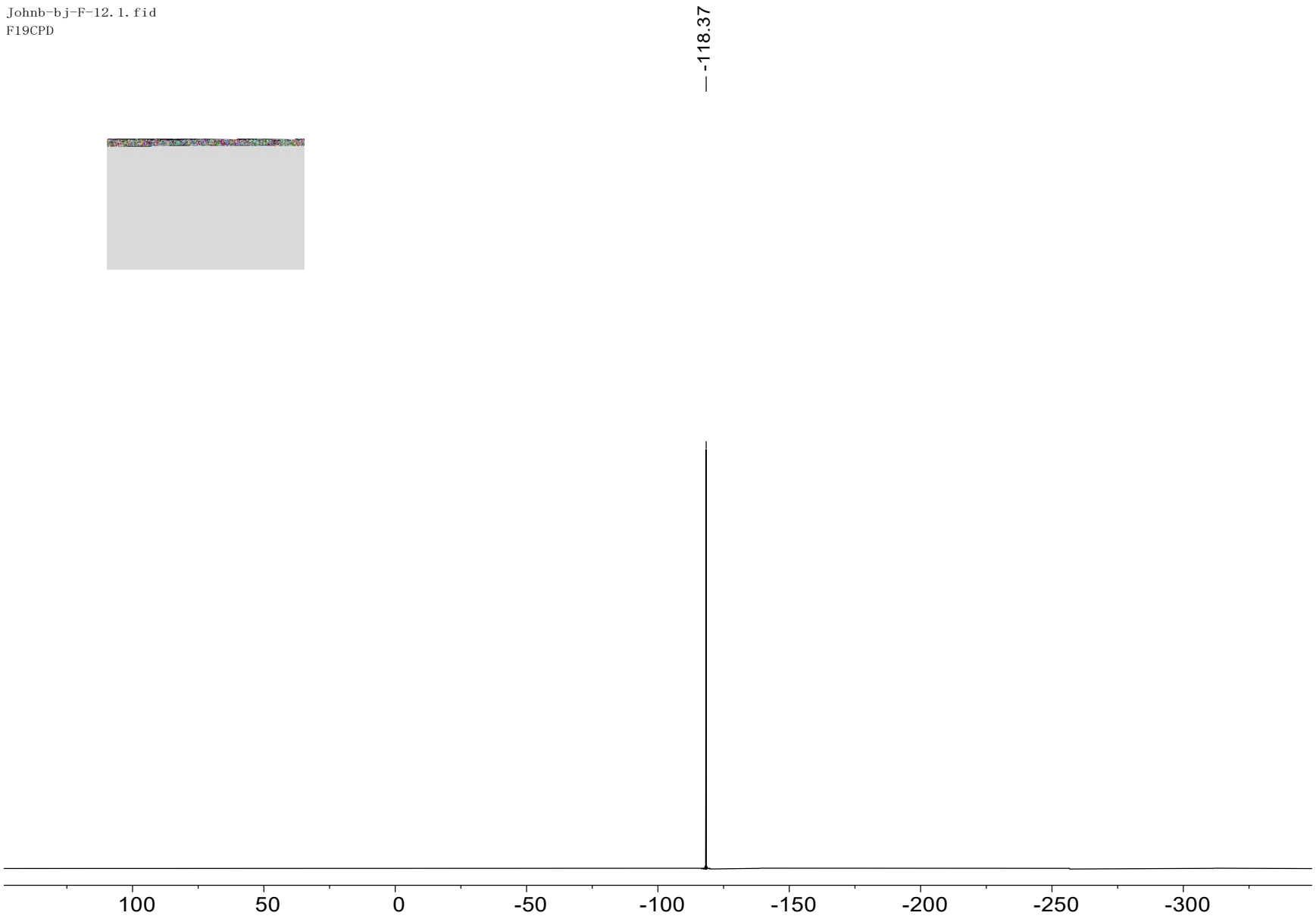
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3d**.



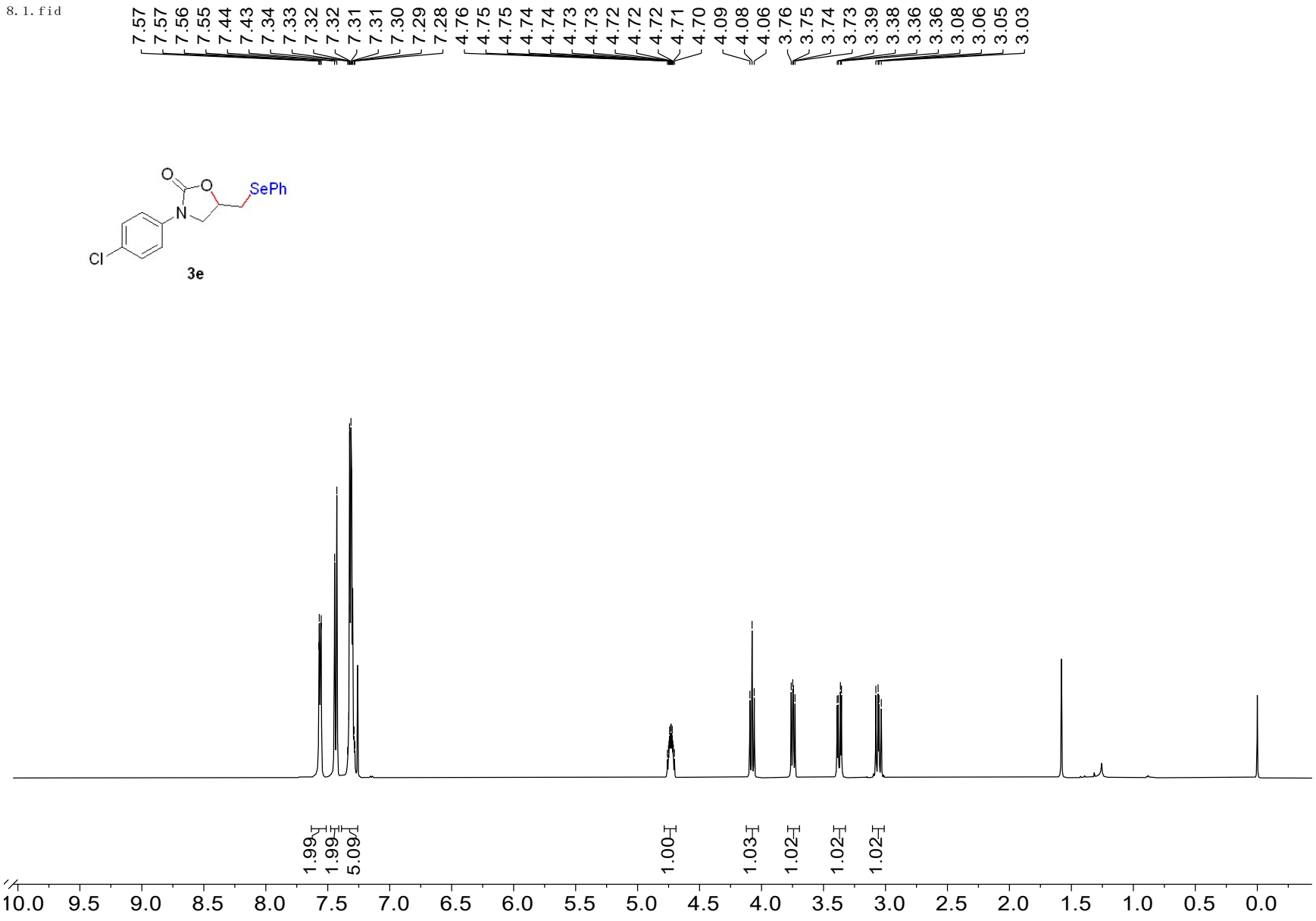
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3d**.



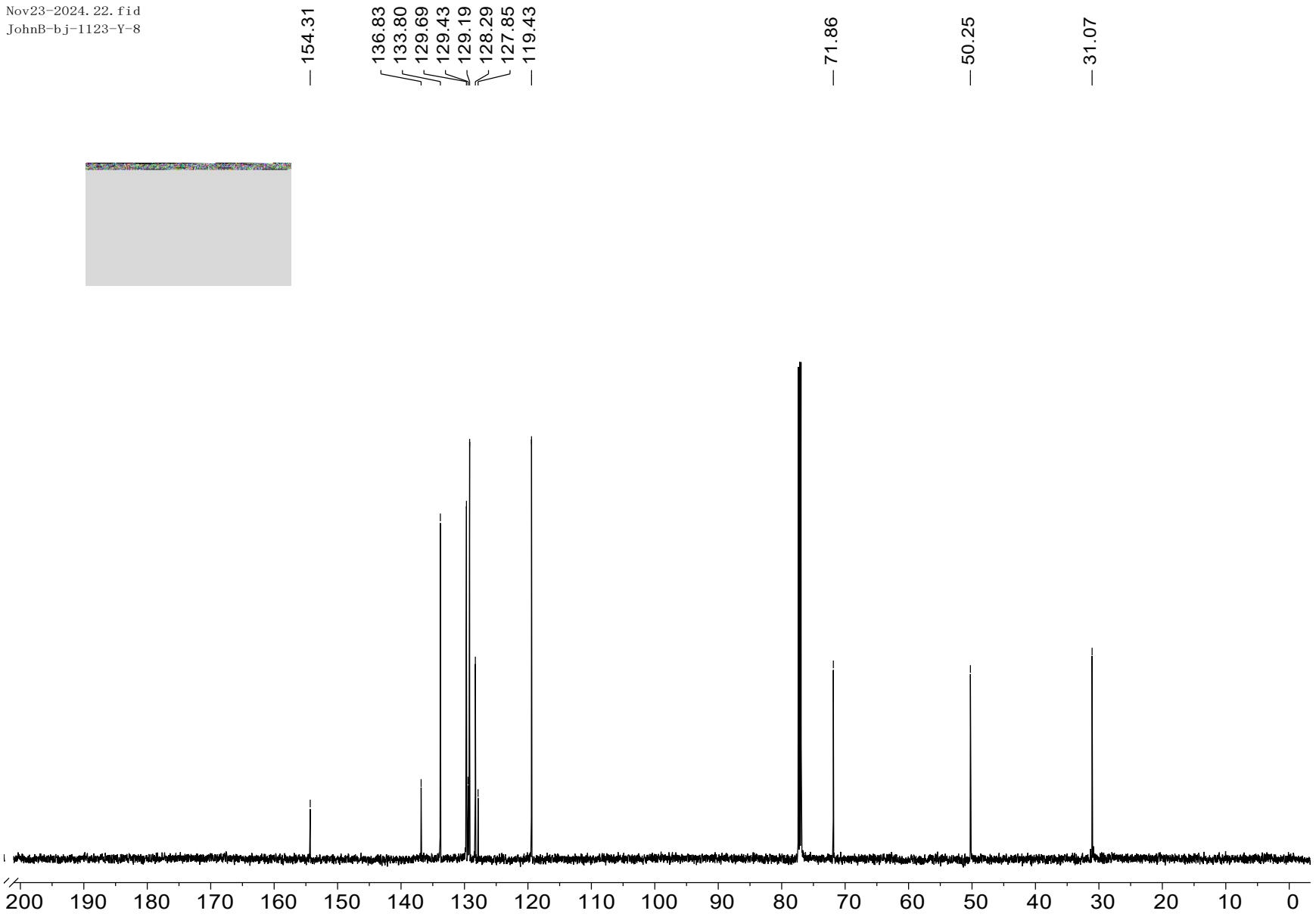
^{19}F NMR (376 MHz, $CDCl_3$) spectrum of **3d**.



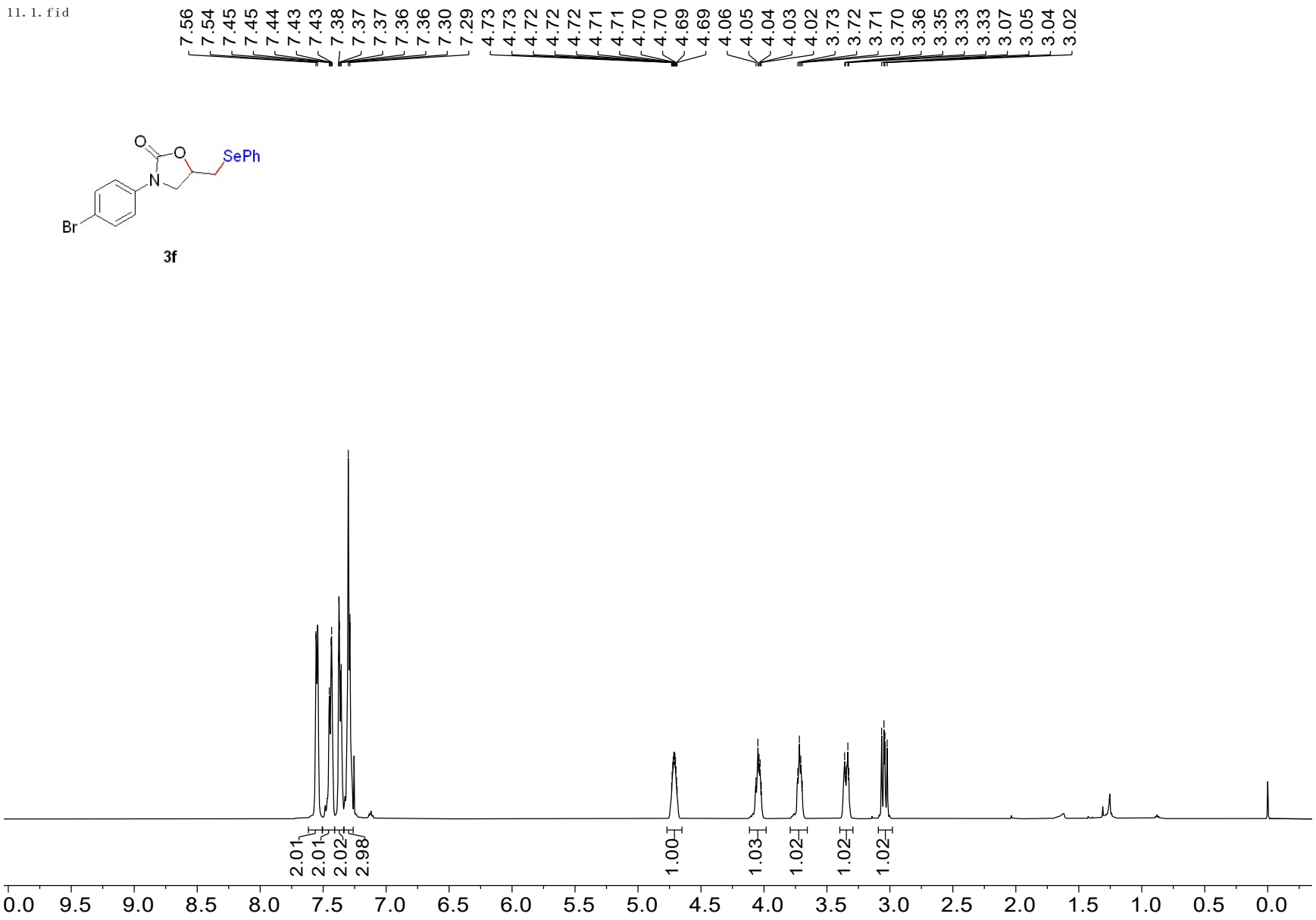
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3e**.



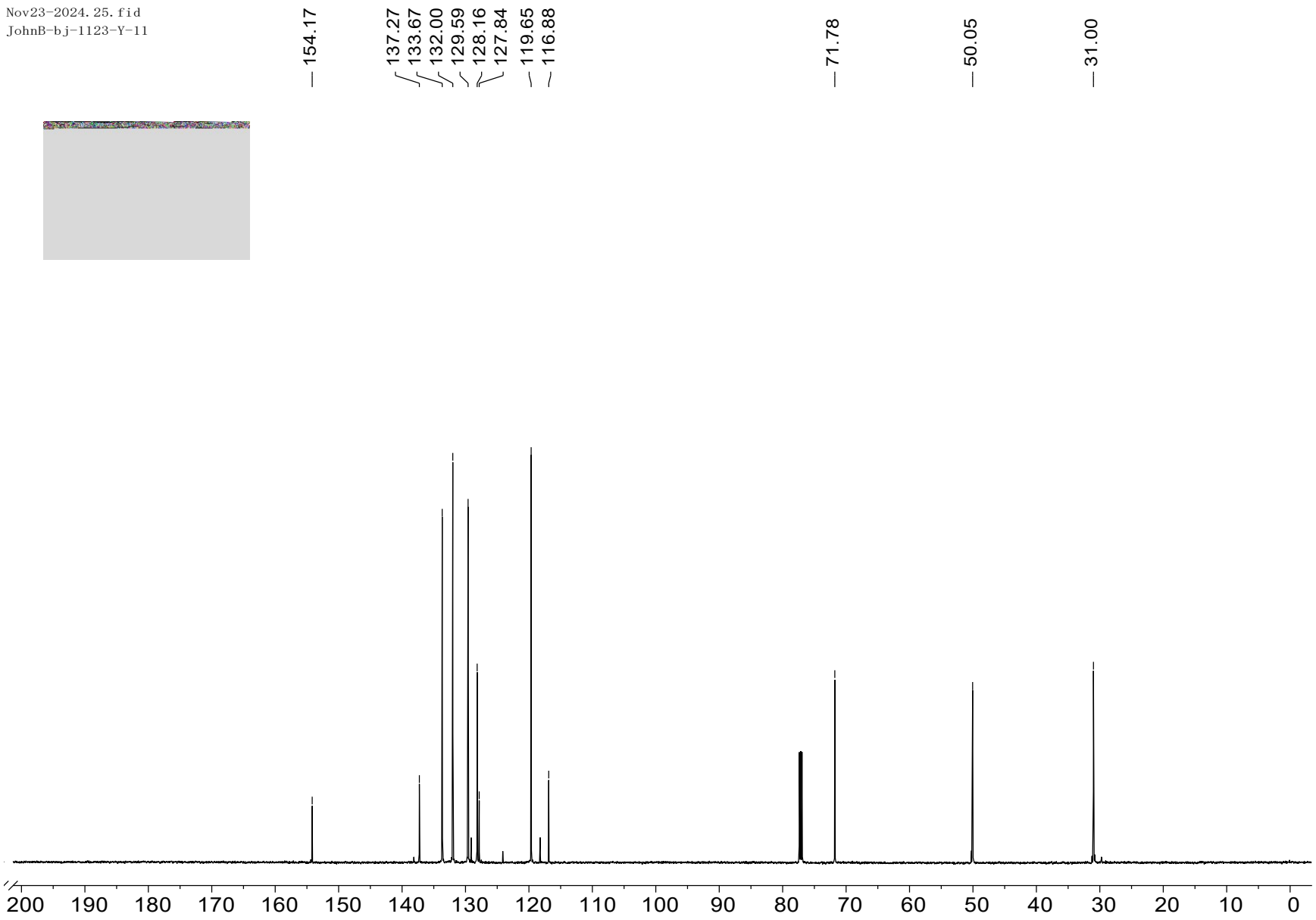
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3e**.



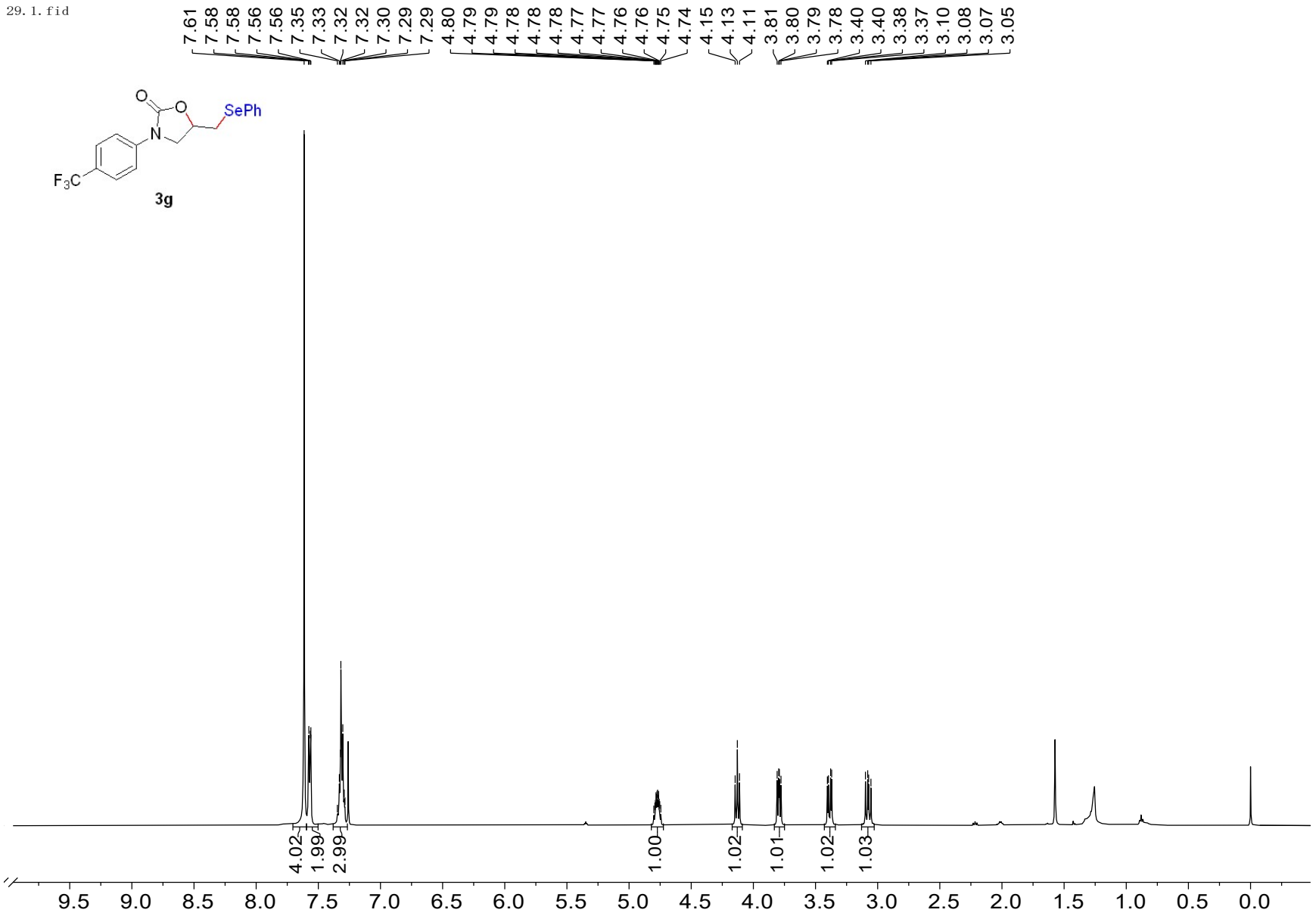
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3f**.



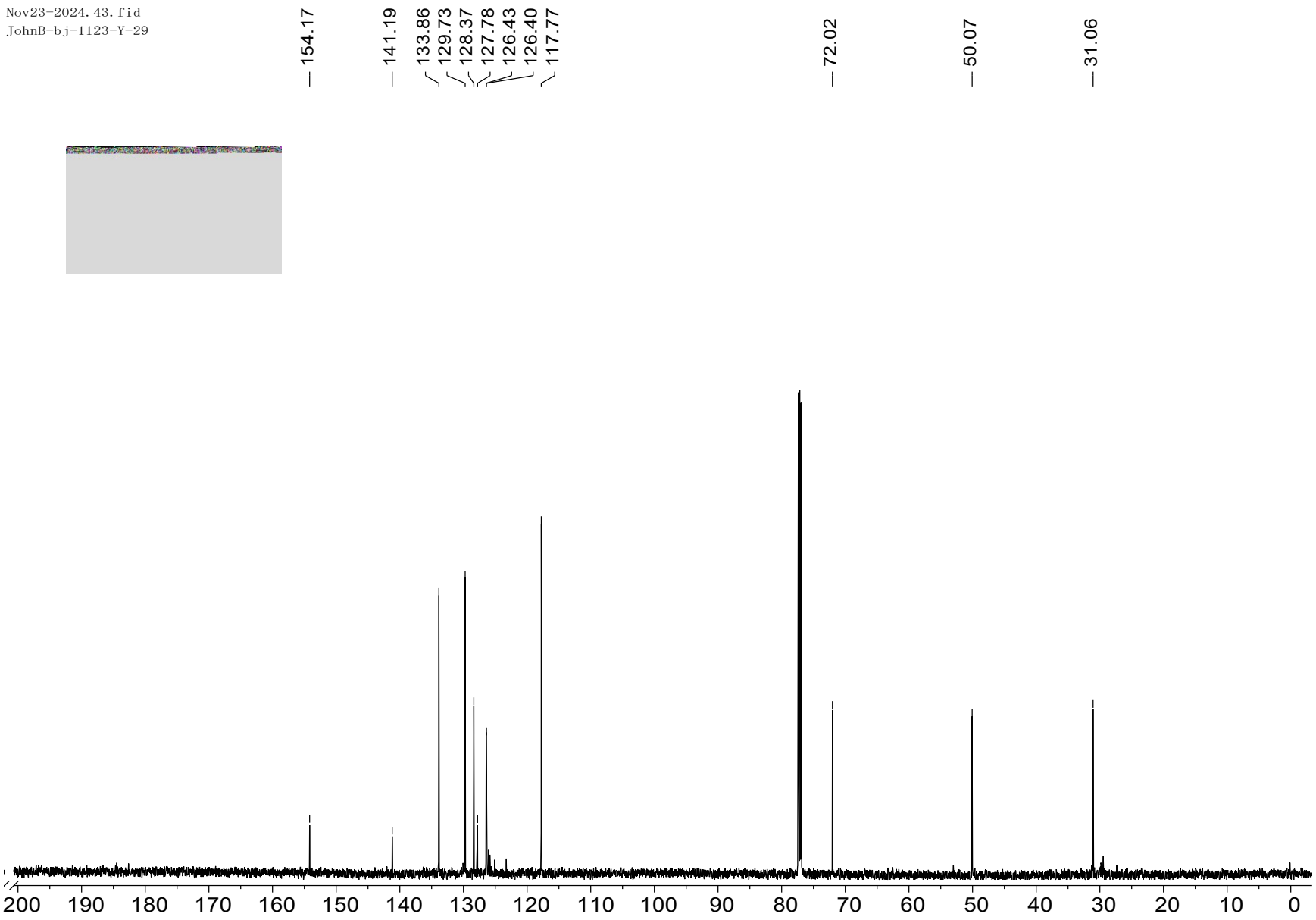
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3f**.



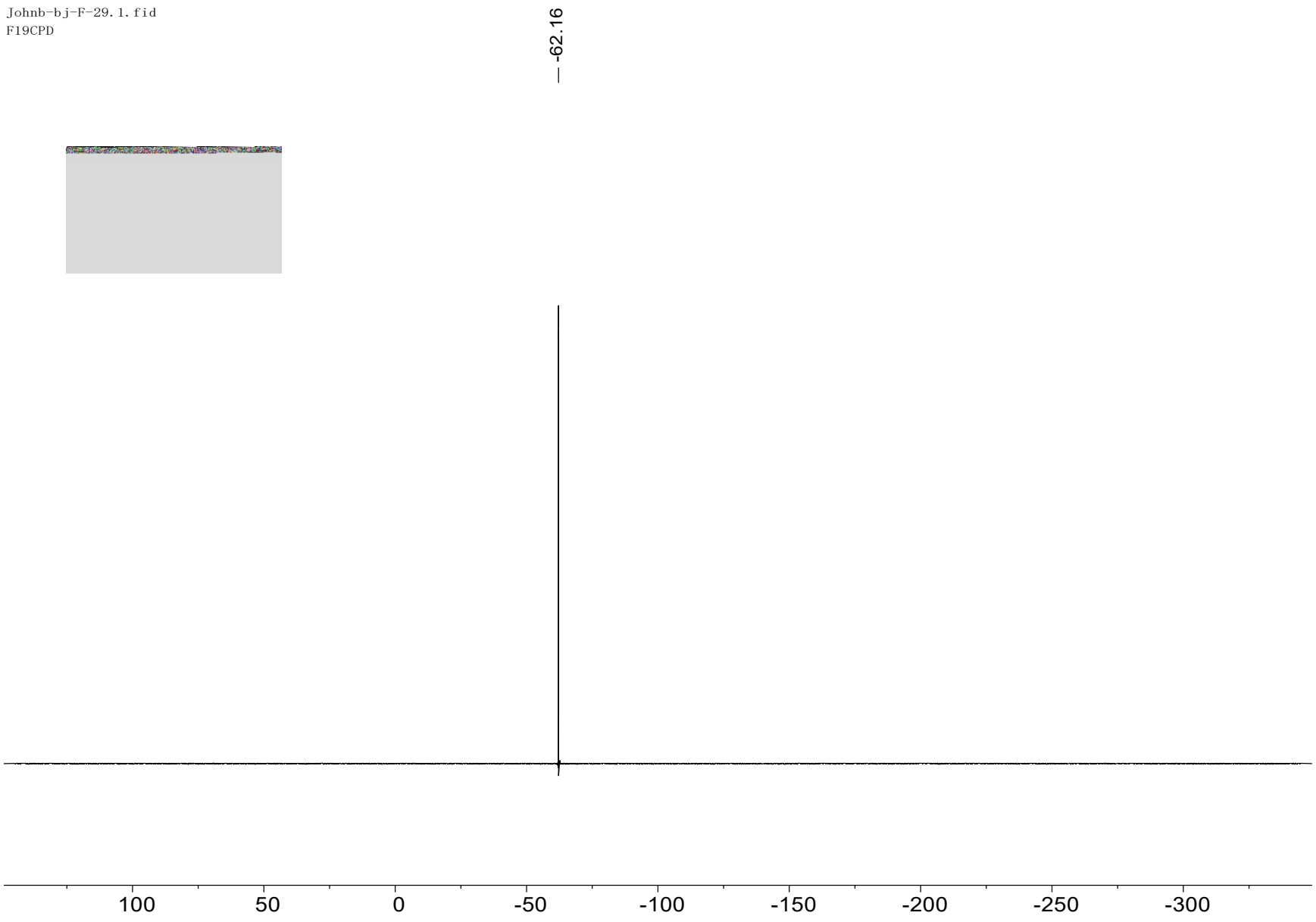
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3g**.



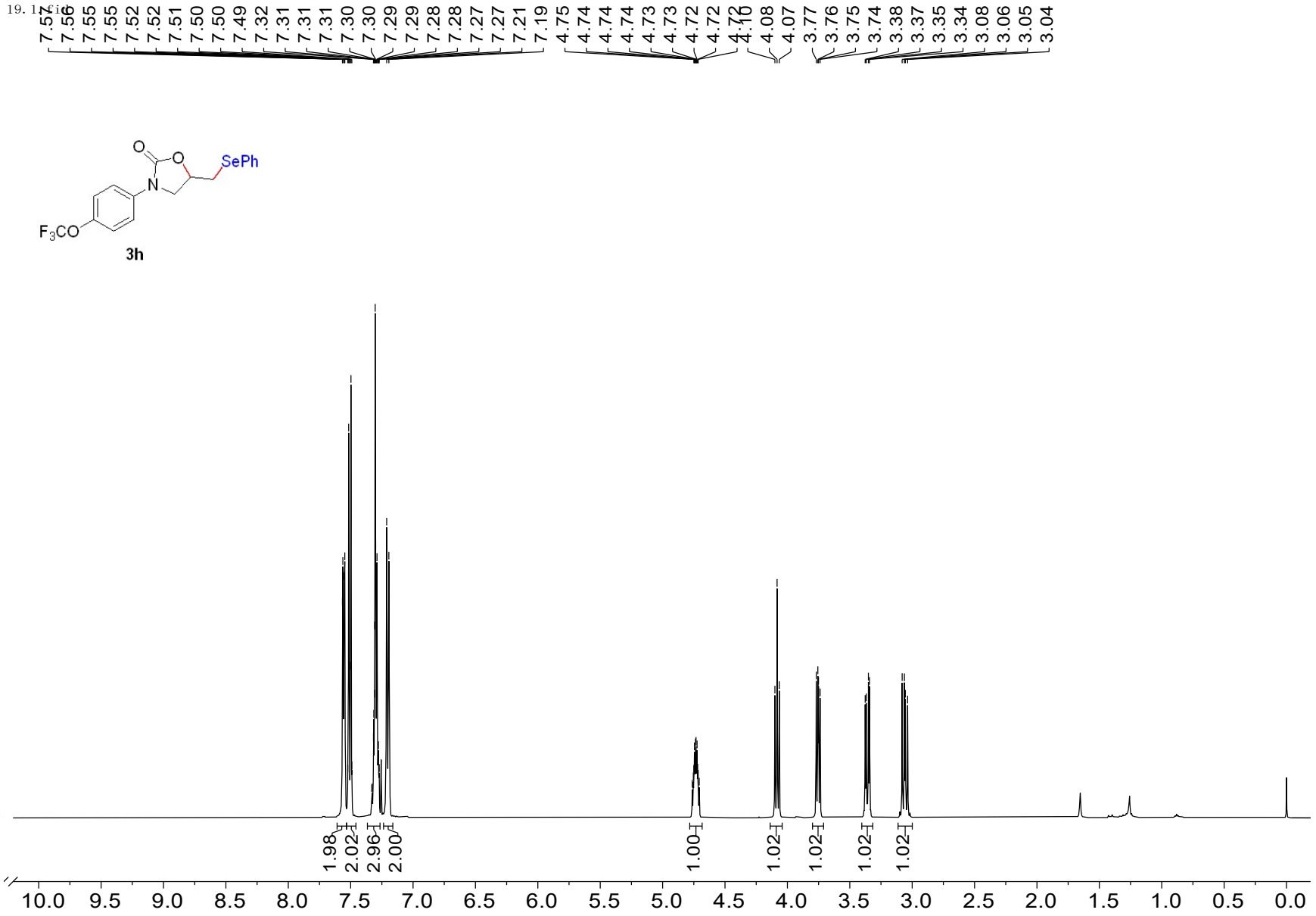
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3g**.



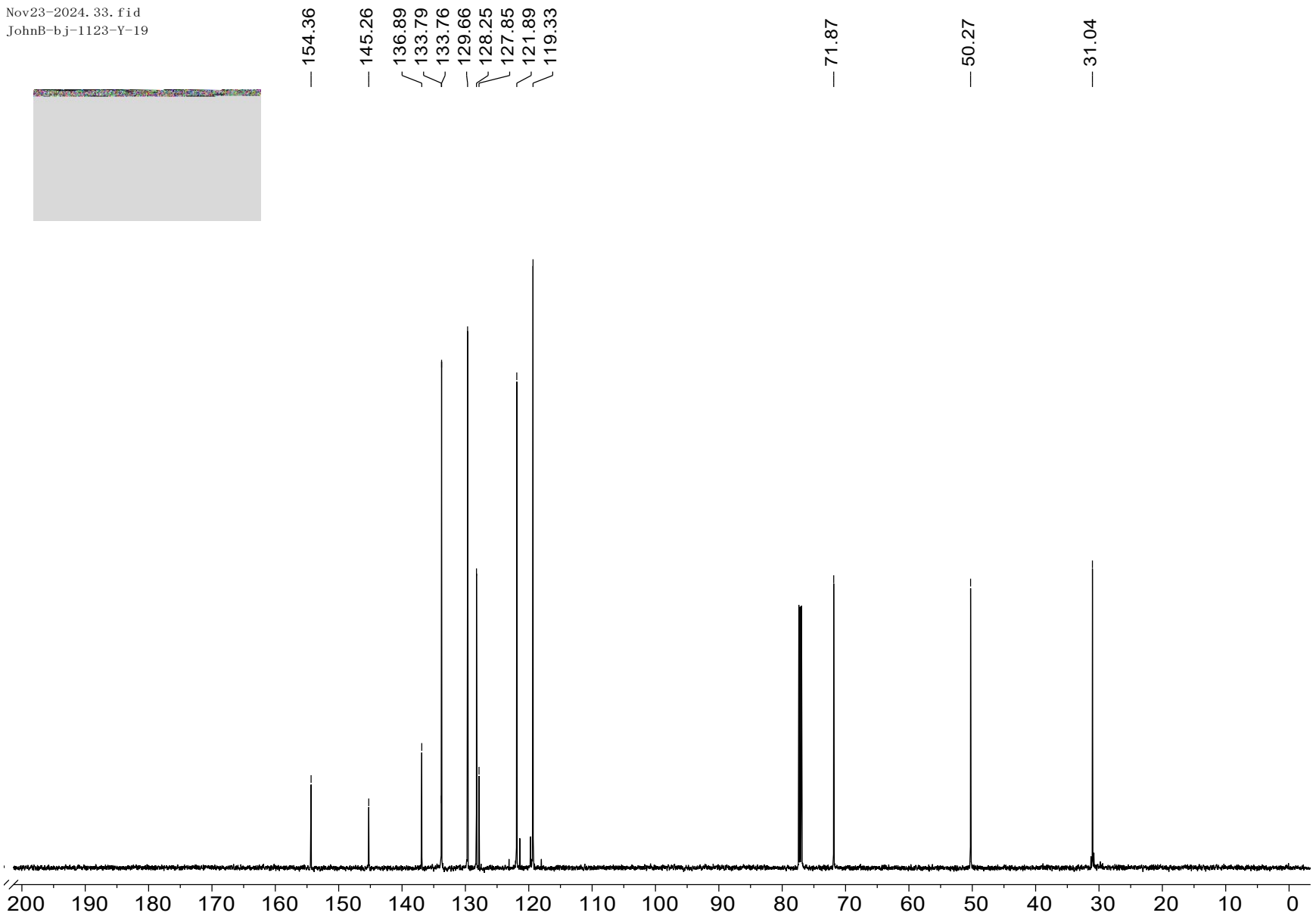
^{19}F NMR (376 MHz, $CDCl_3$) spectrum of **3g**.



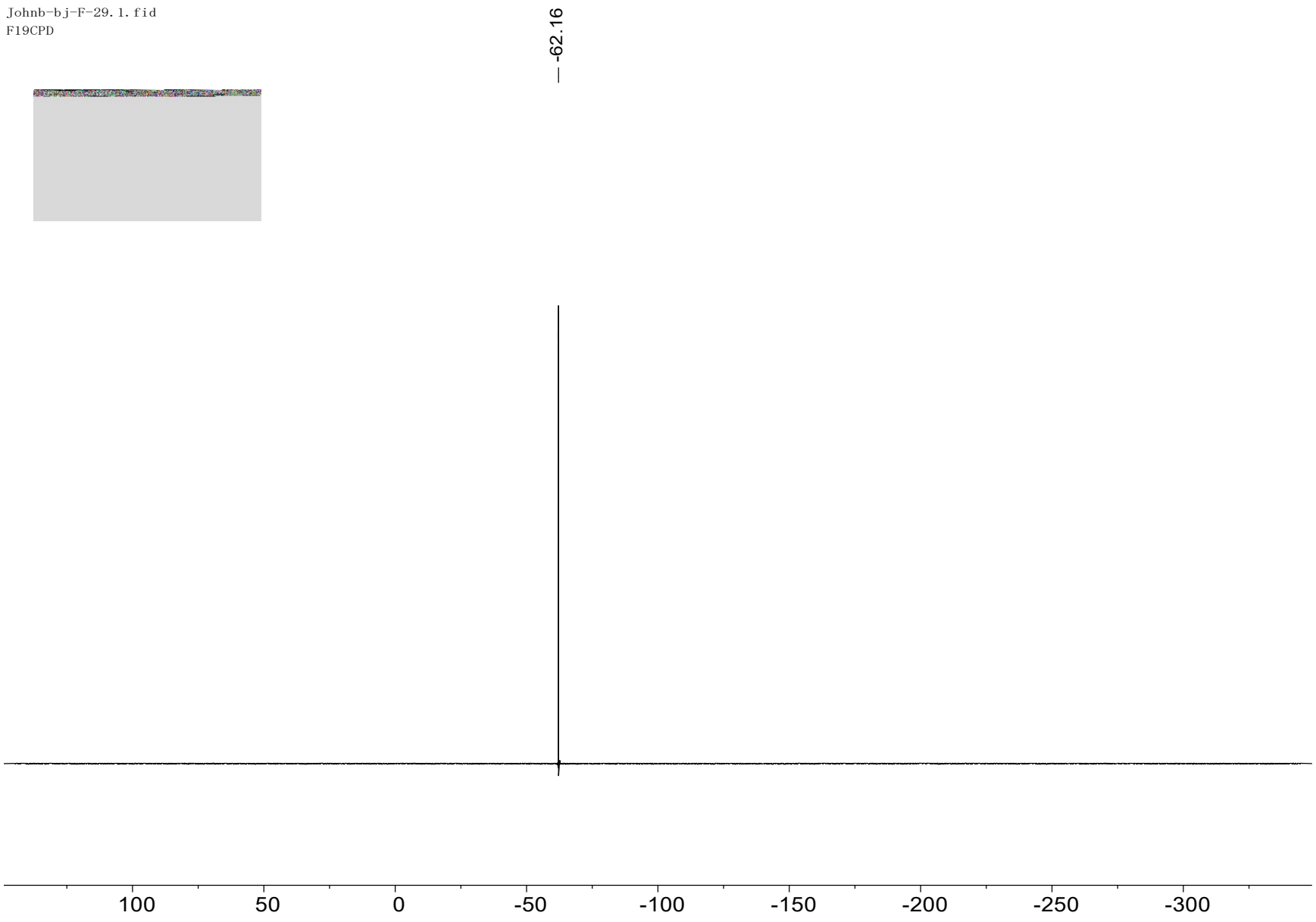
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3h**.



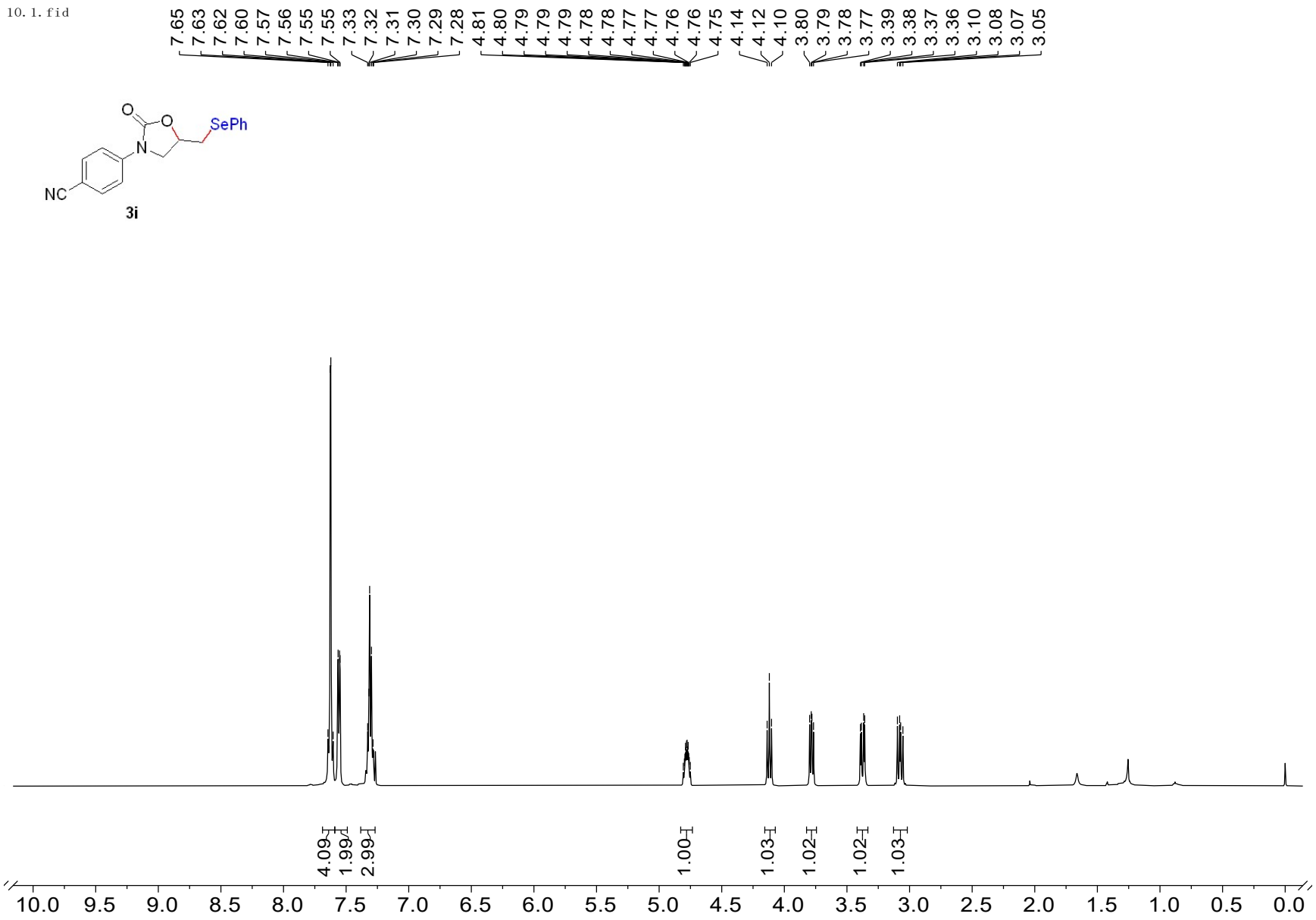
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3h**.



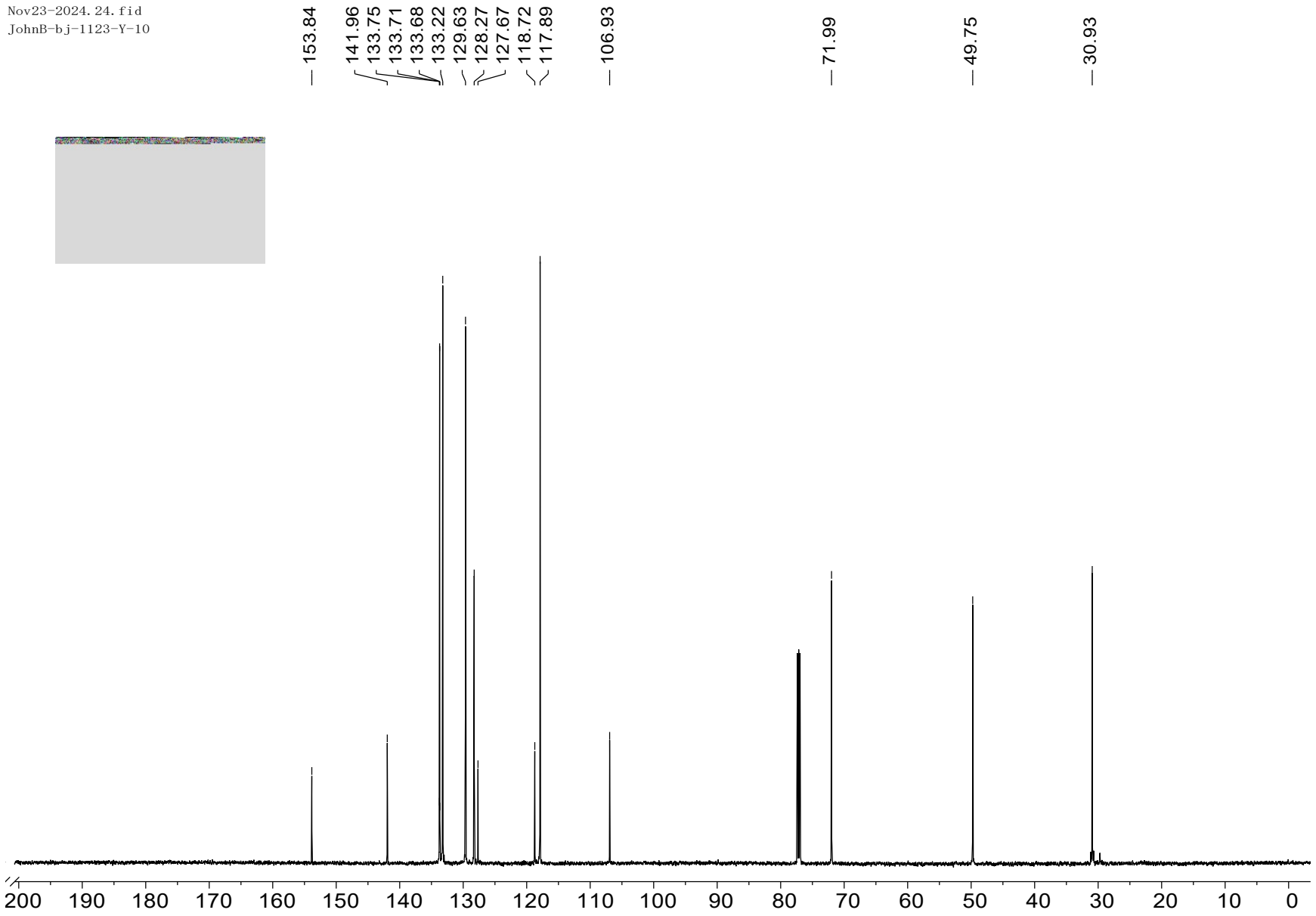
^{19}F NMR (376 MHz, $CDCl_3$) spectrum of **3h**.



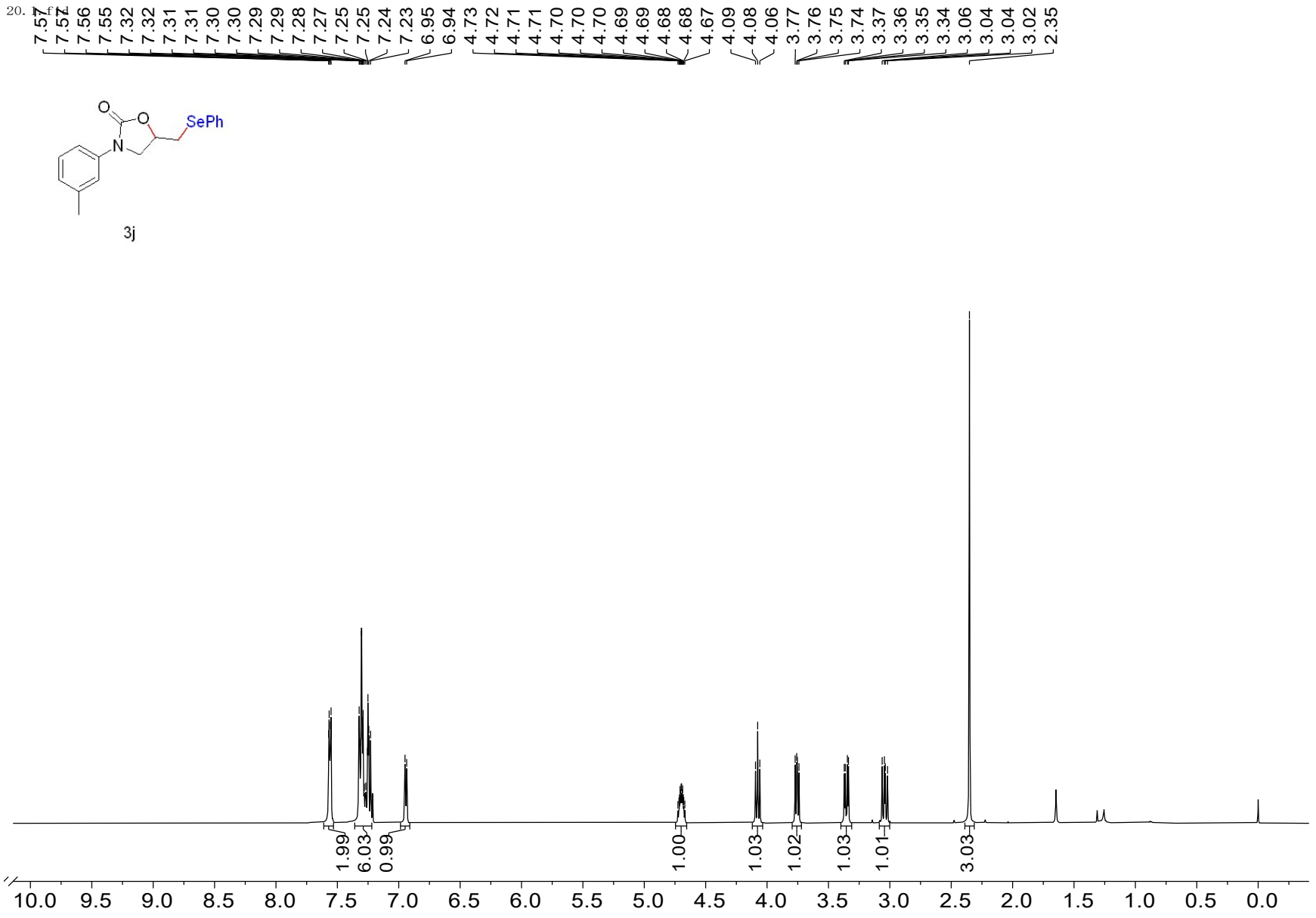
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3i**.



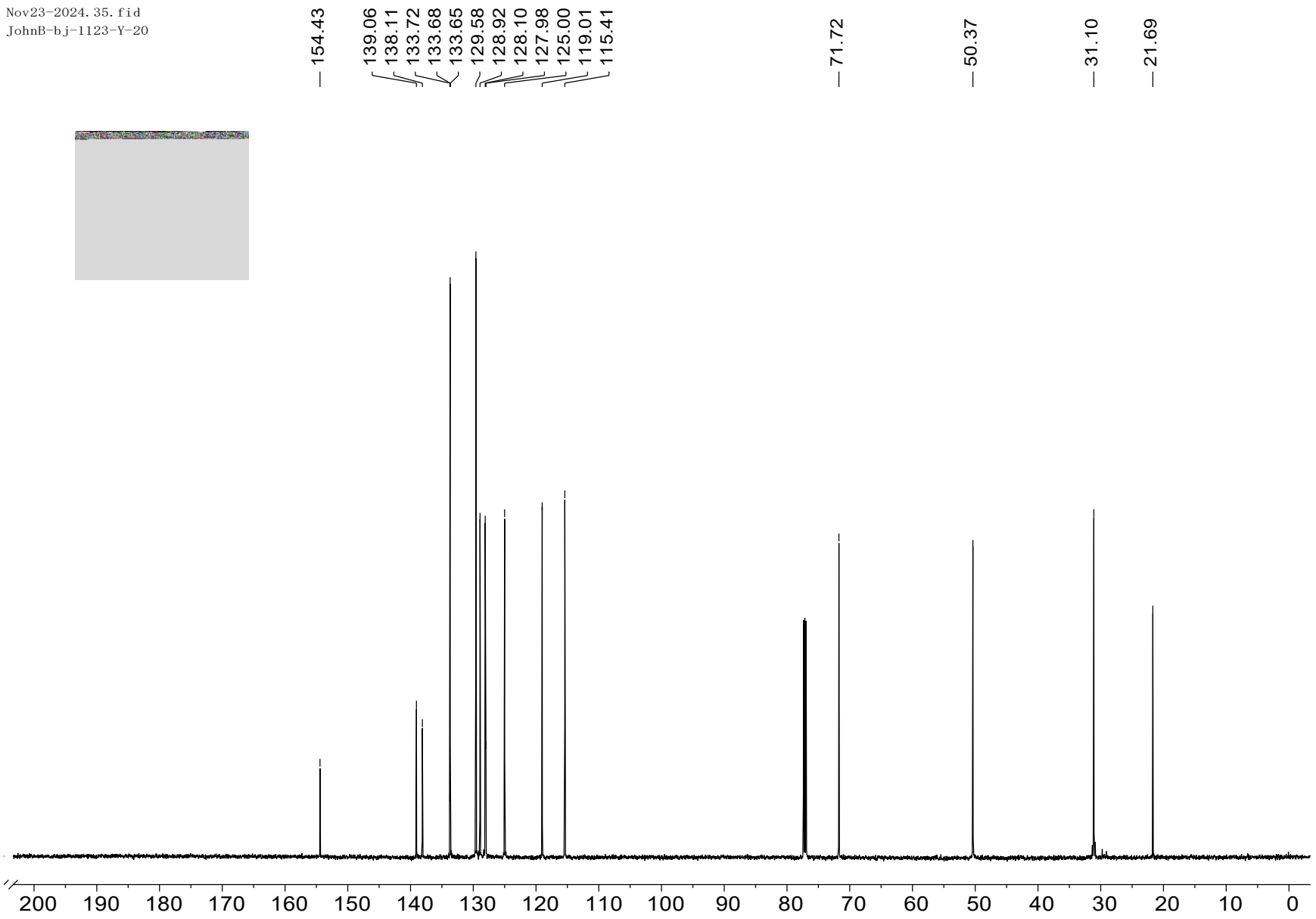
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3i**.



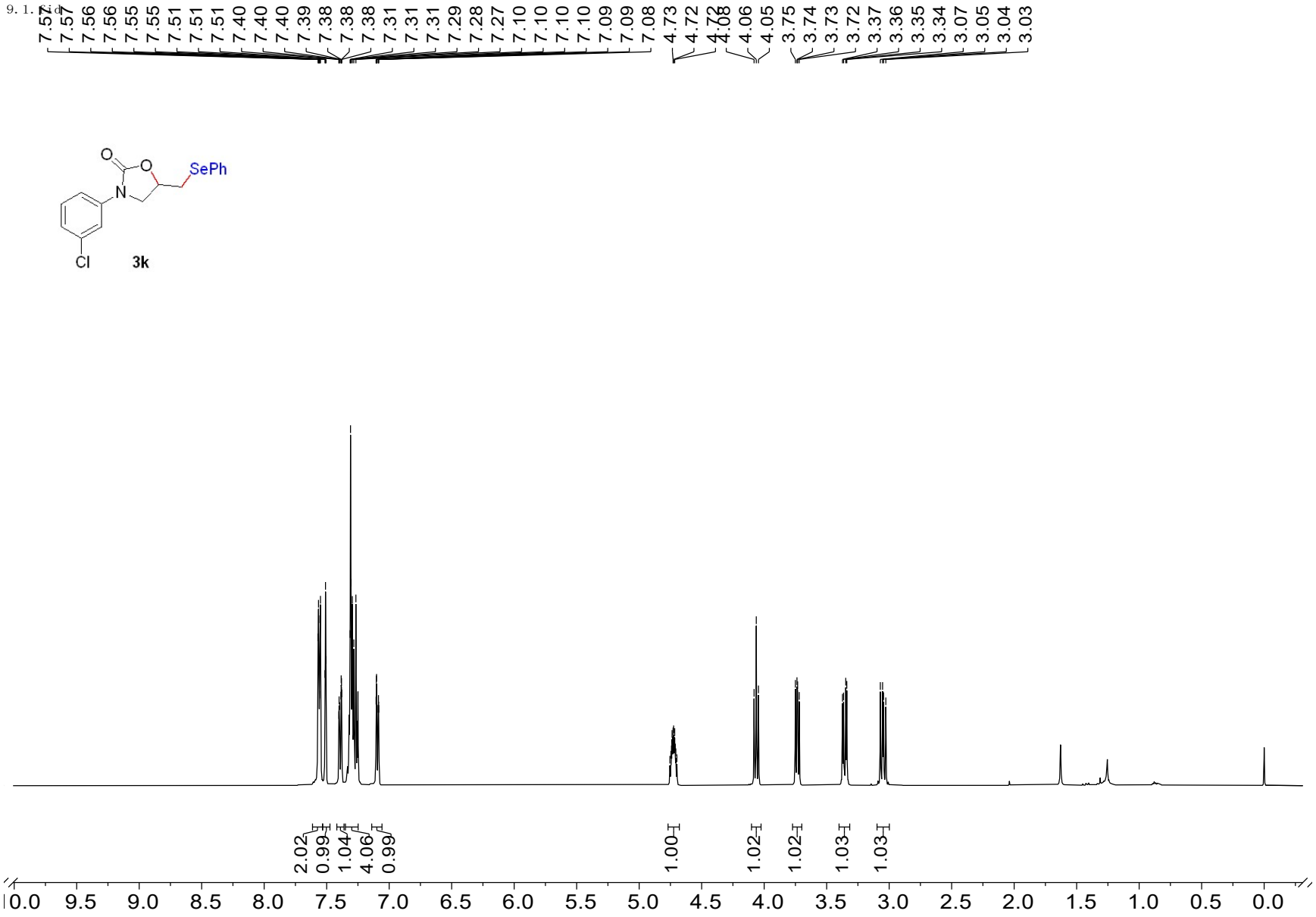
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3j**.



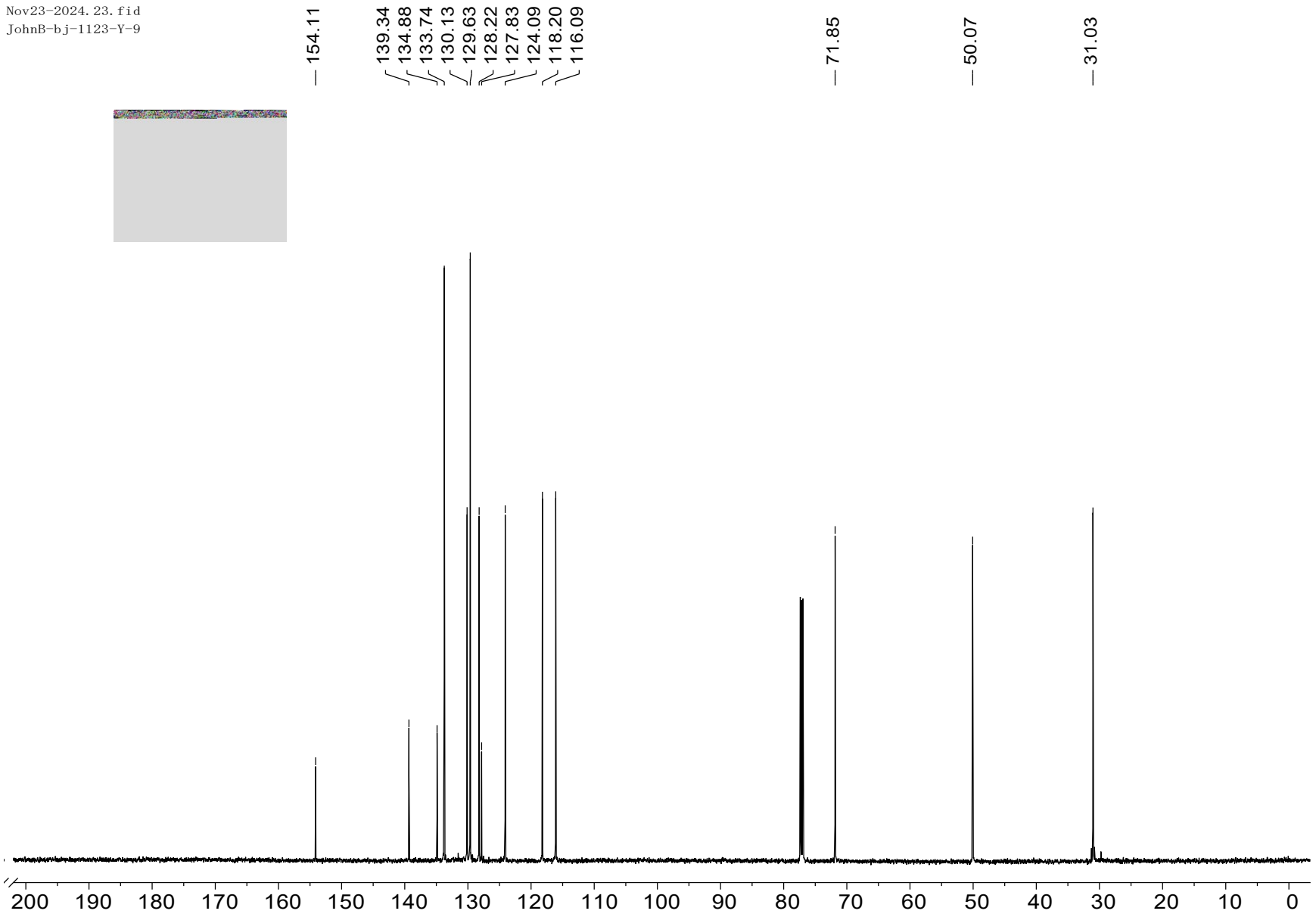
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3j**.



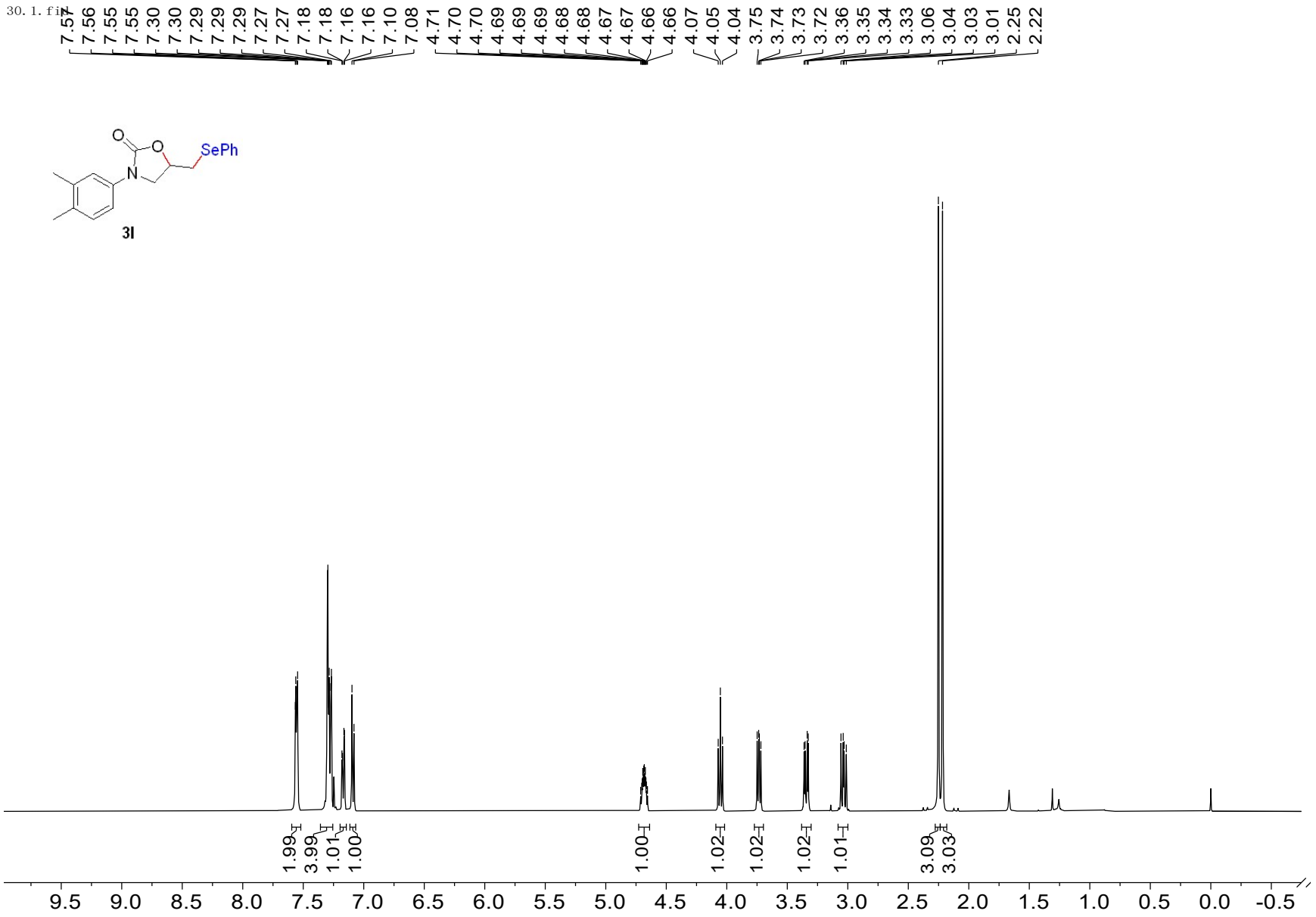
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3k**.



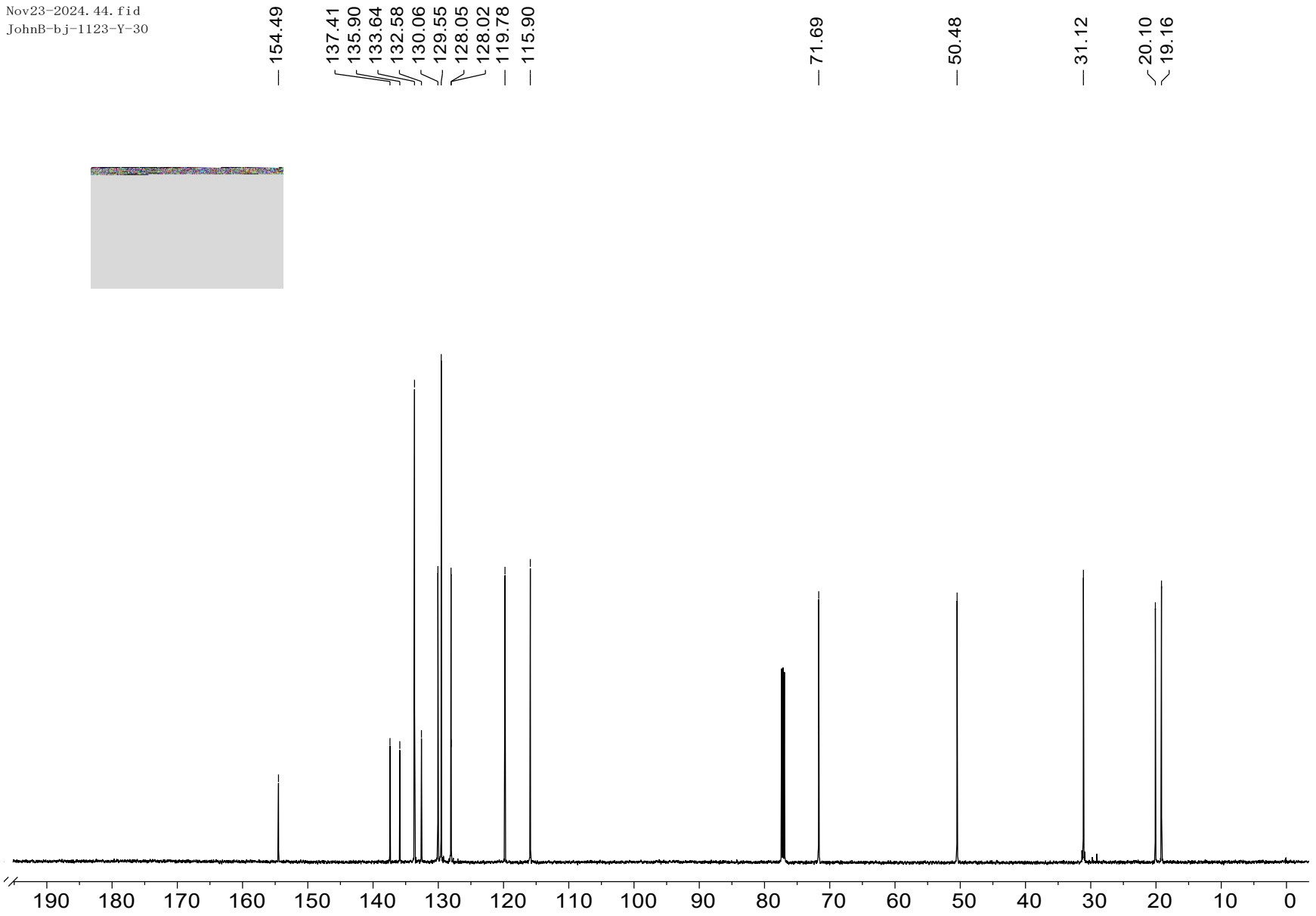
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3k**.



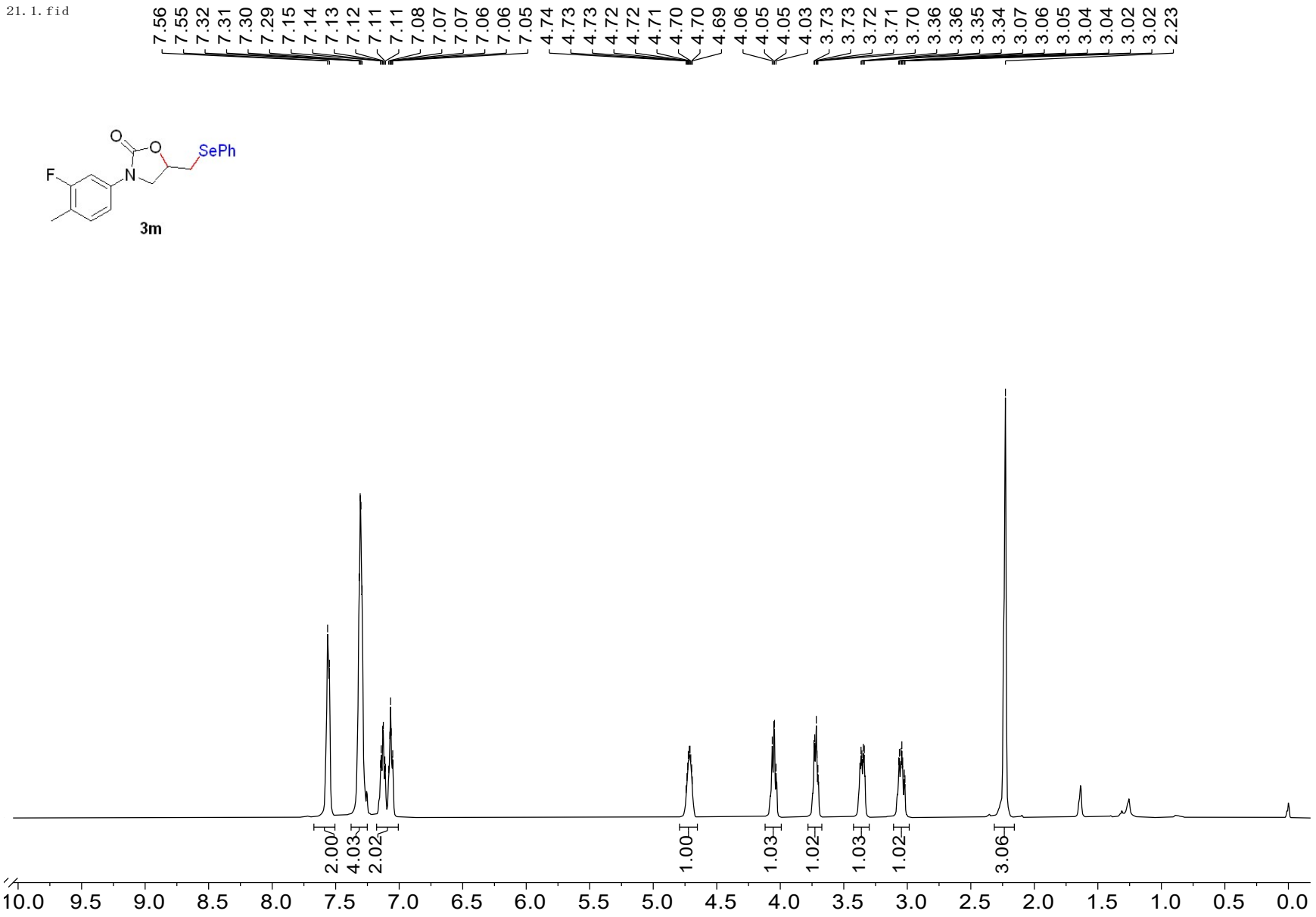
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3l**.



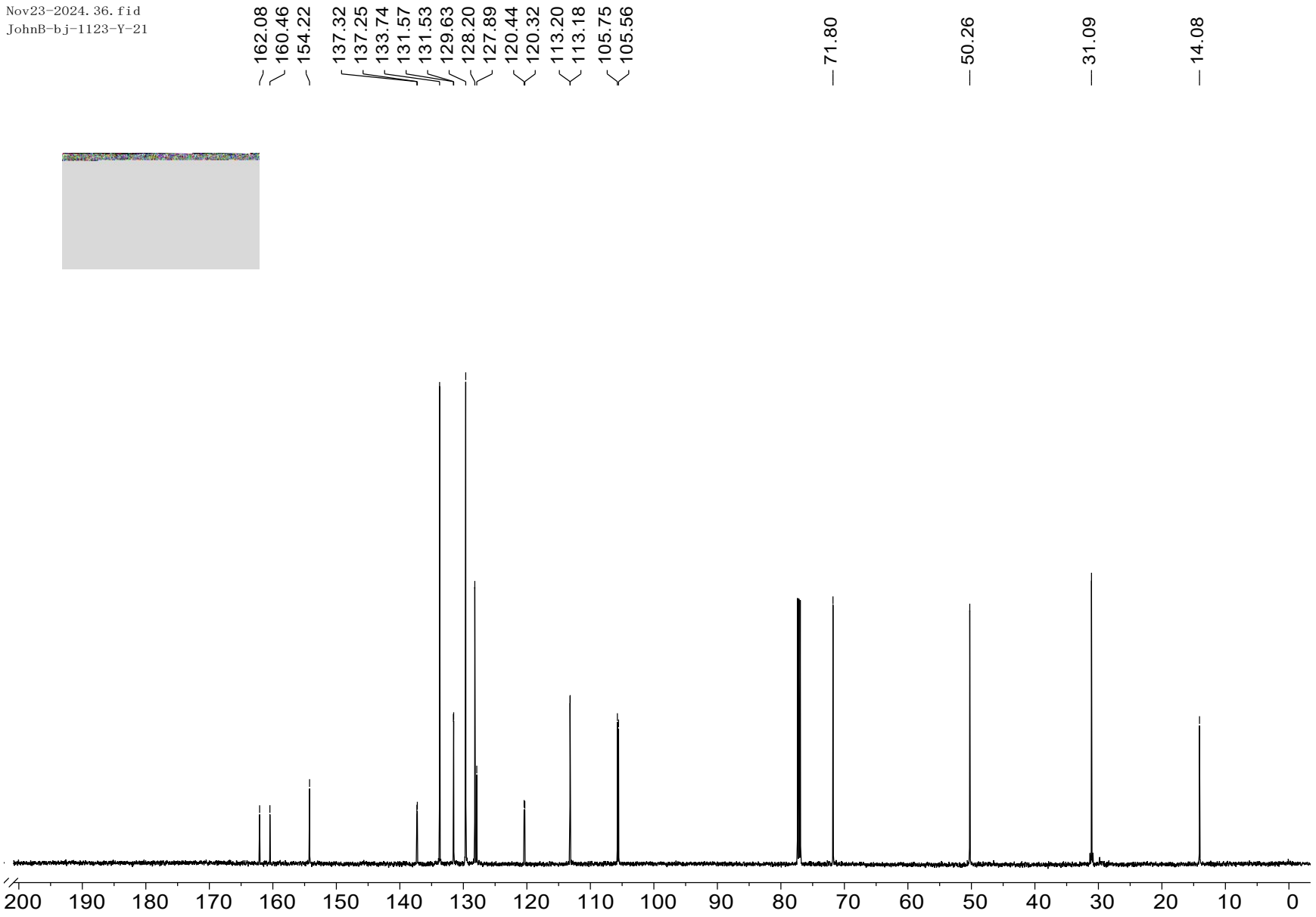
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3l**.



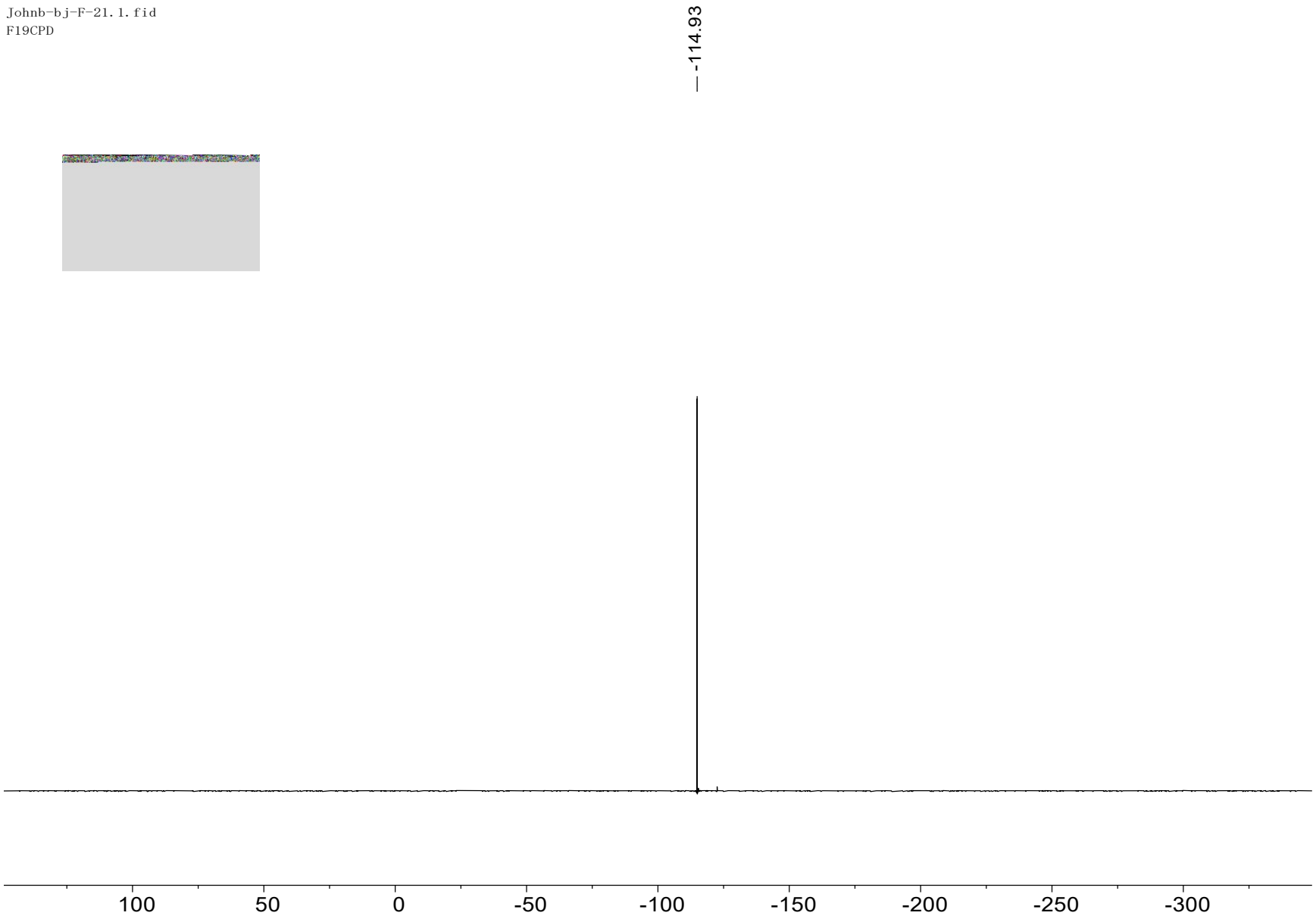
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3m**.



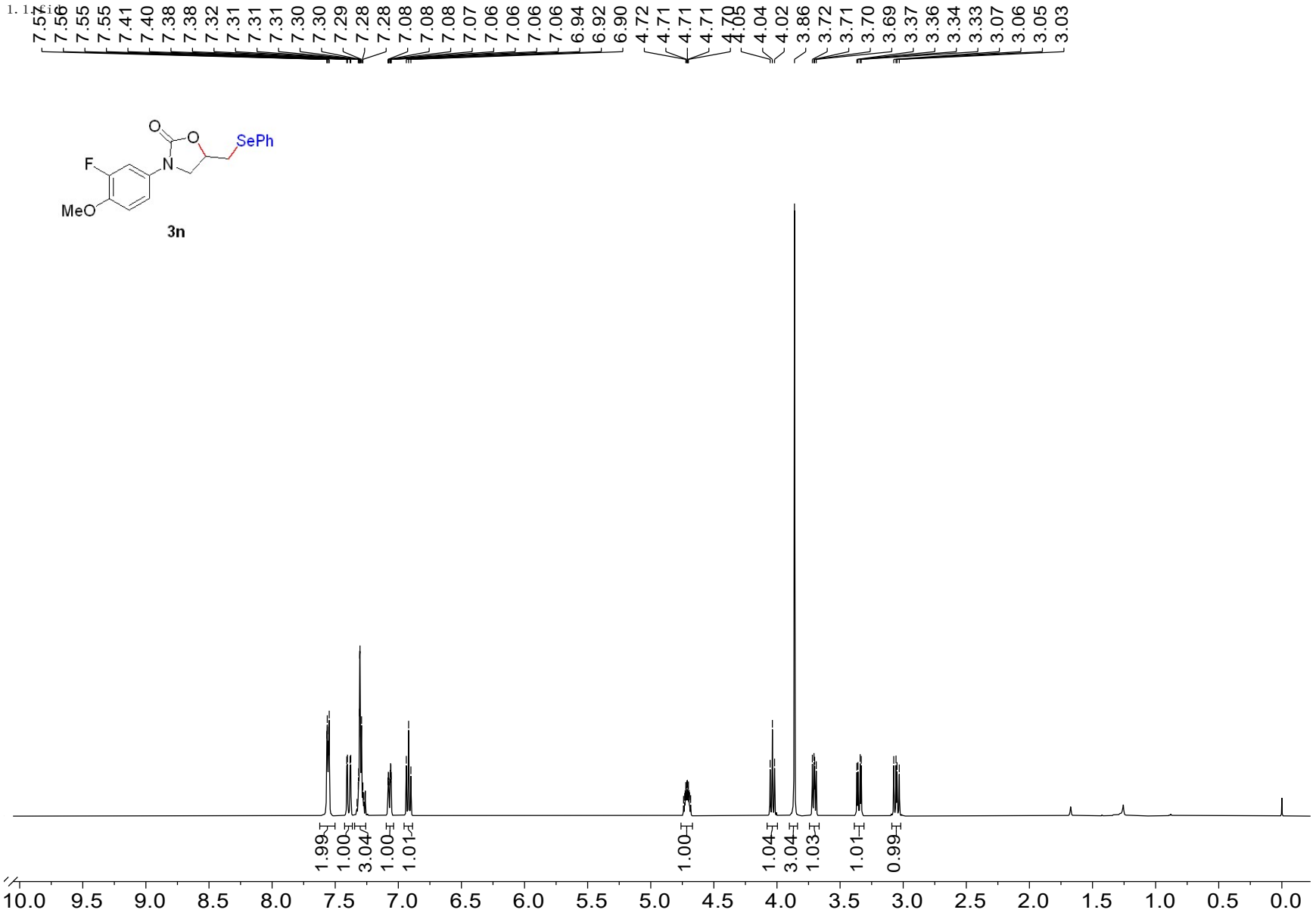
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3m**.



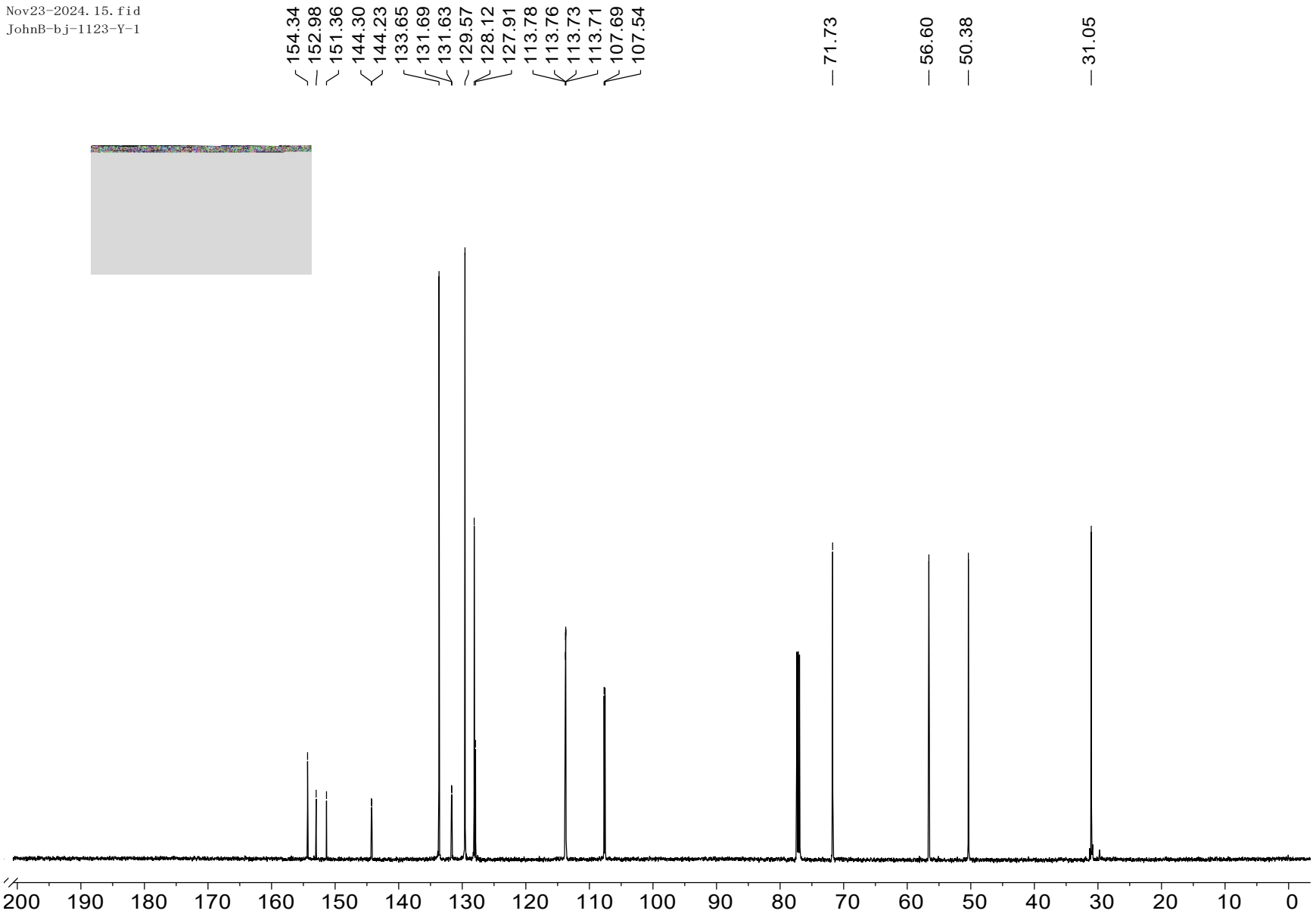
^{19}F NMR (376 MHz, $CDCl_3$) spectrum of **3m**.



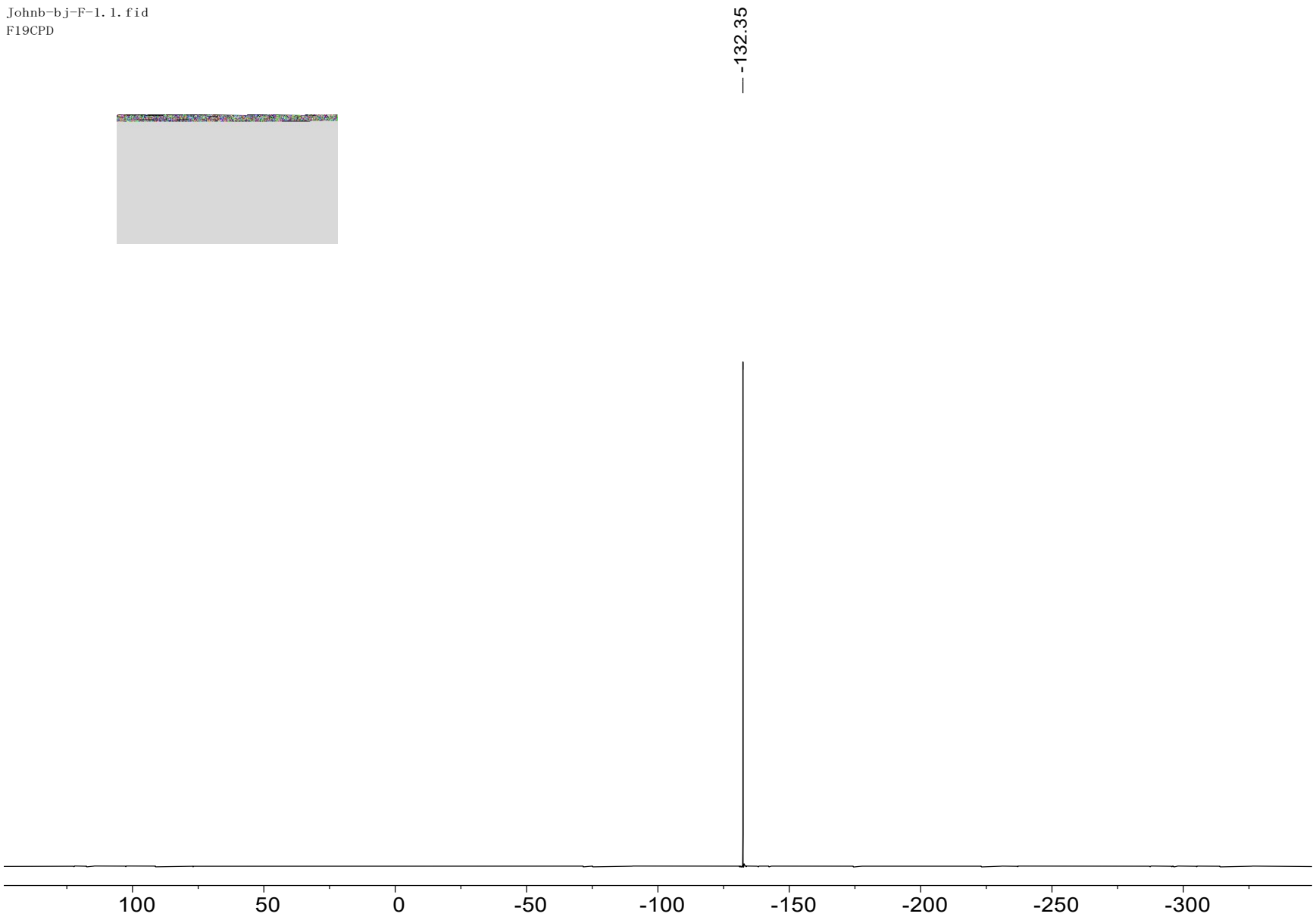
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3n**.



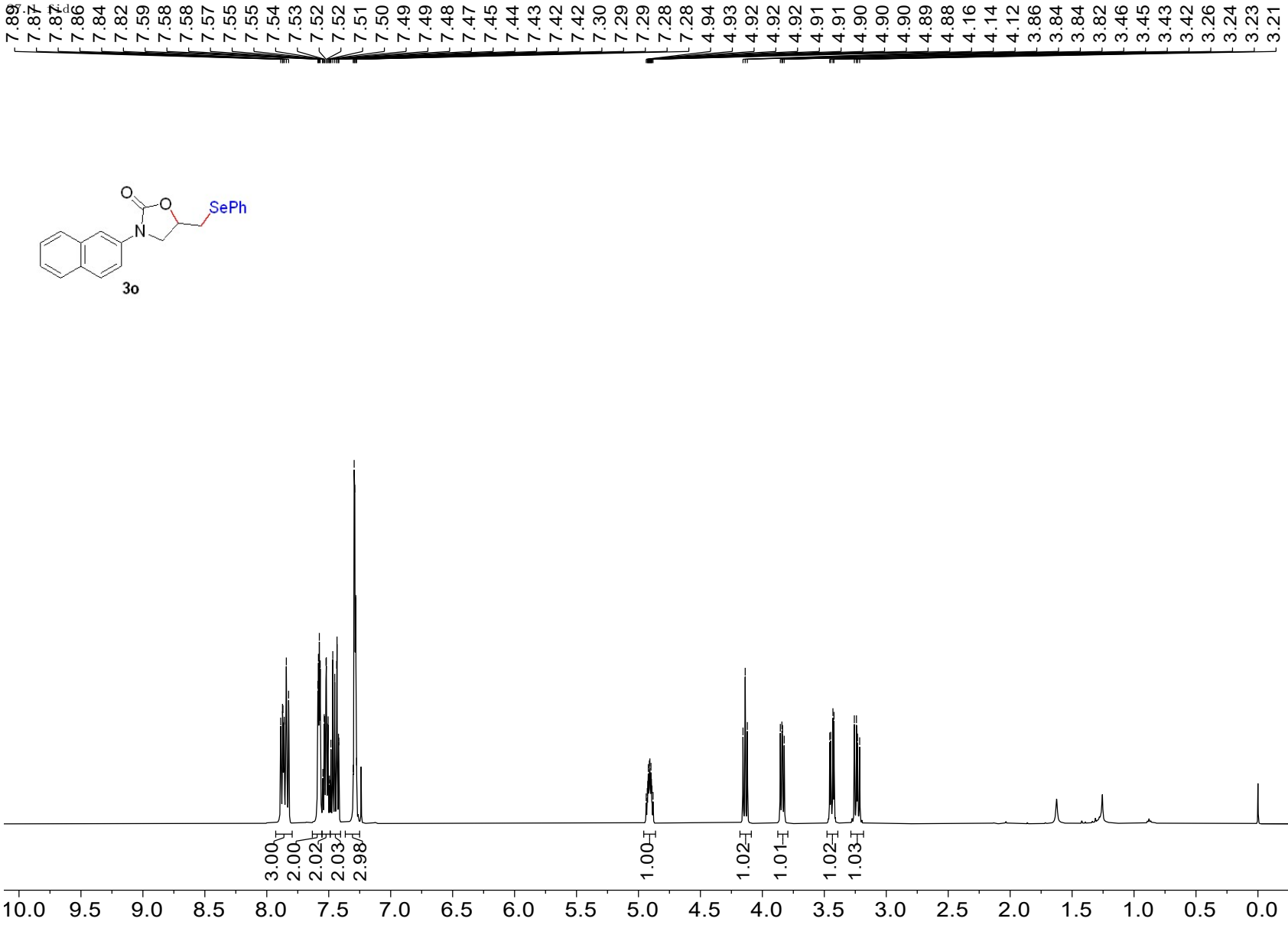
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3n**.



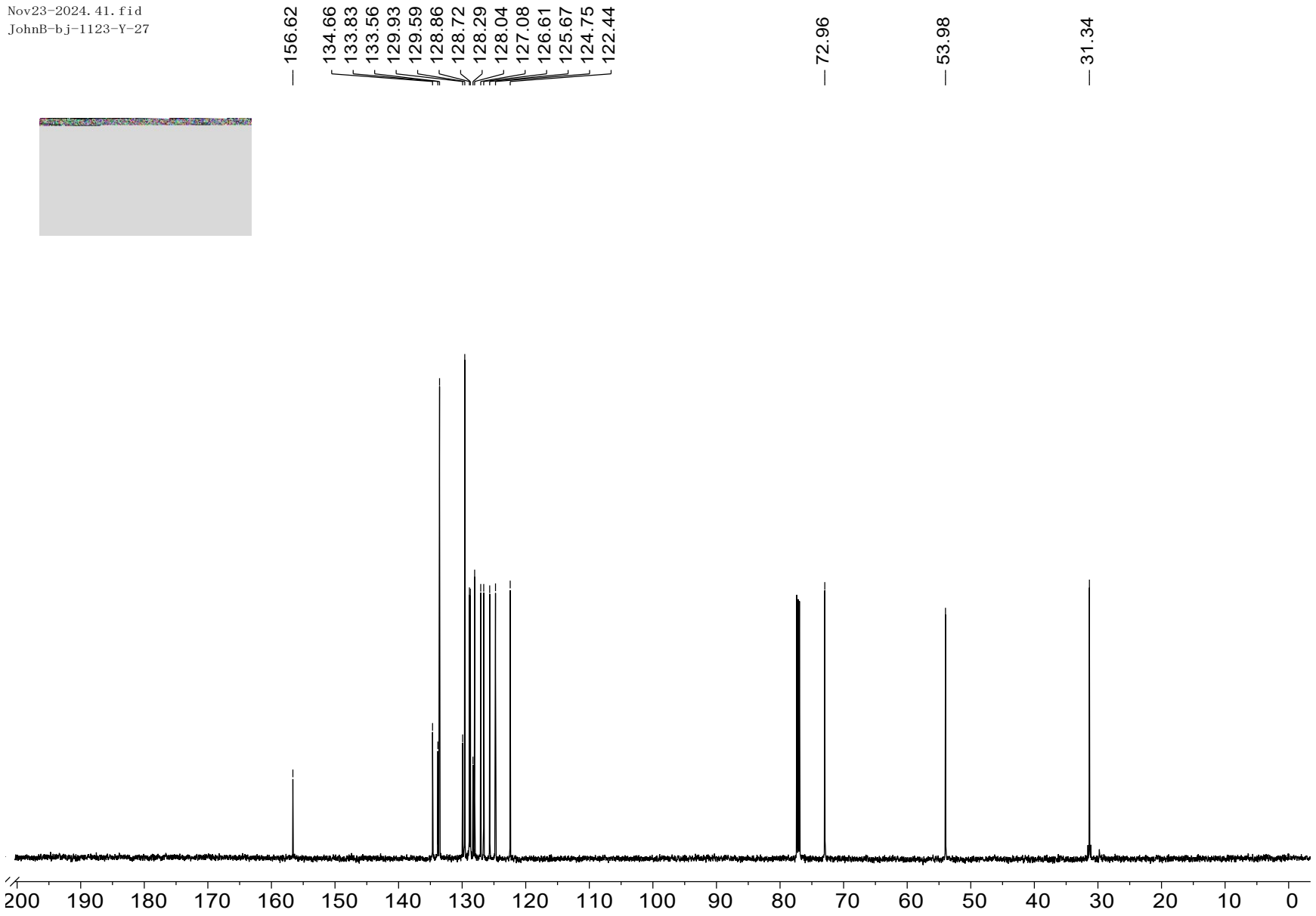
^{19}F NMR (376 MHz, $CDCl_3$) spectrum of **3n**.



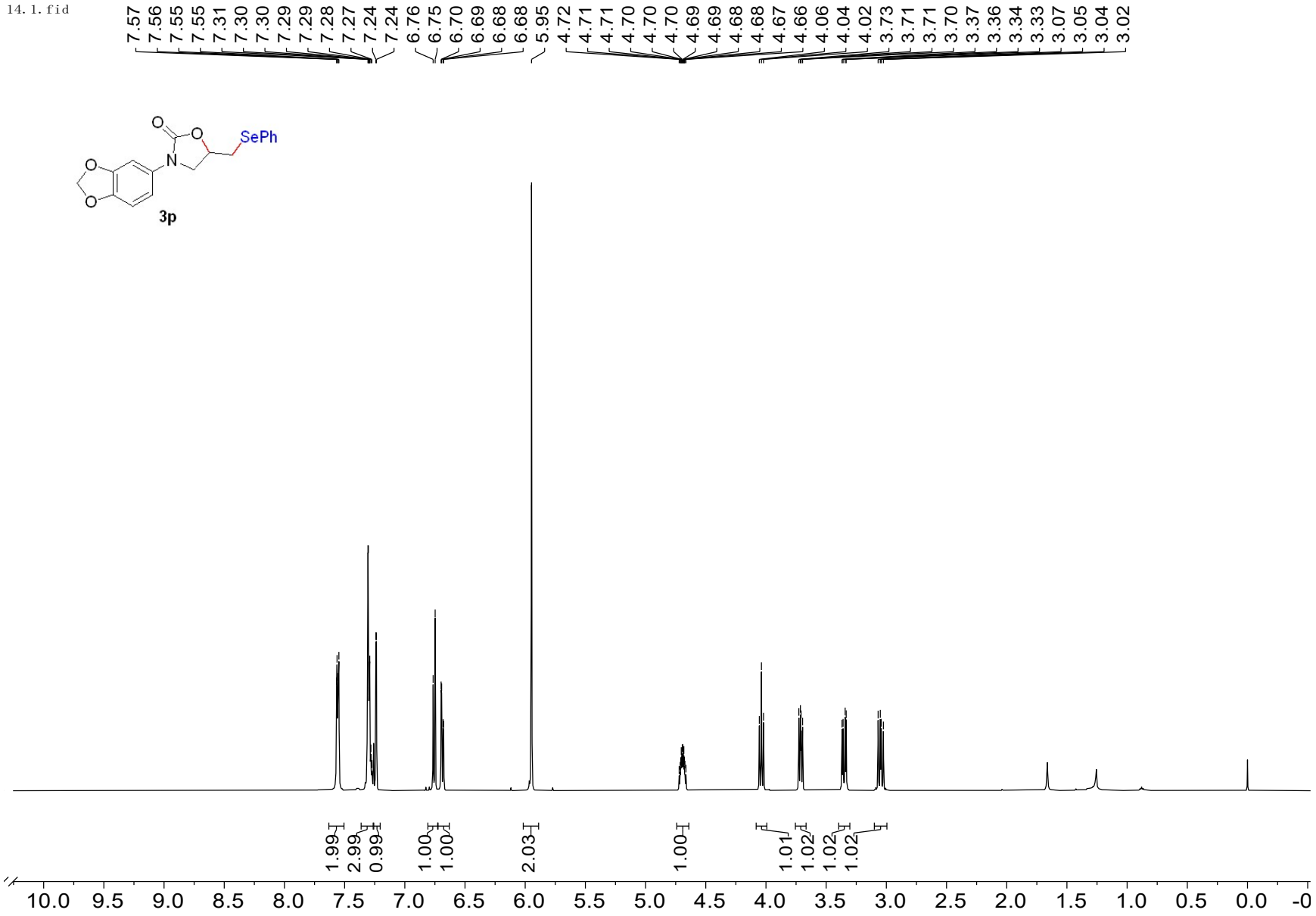
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3o**.



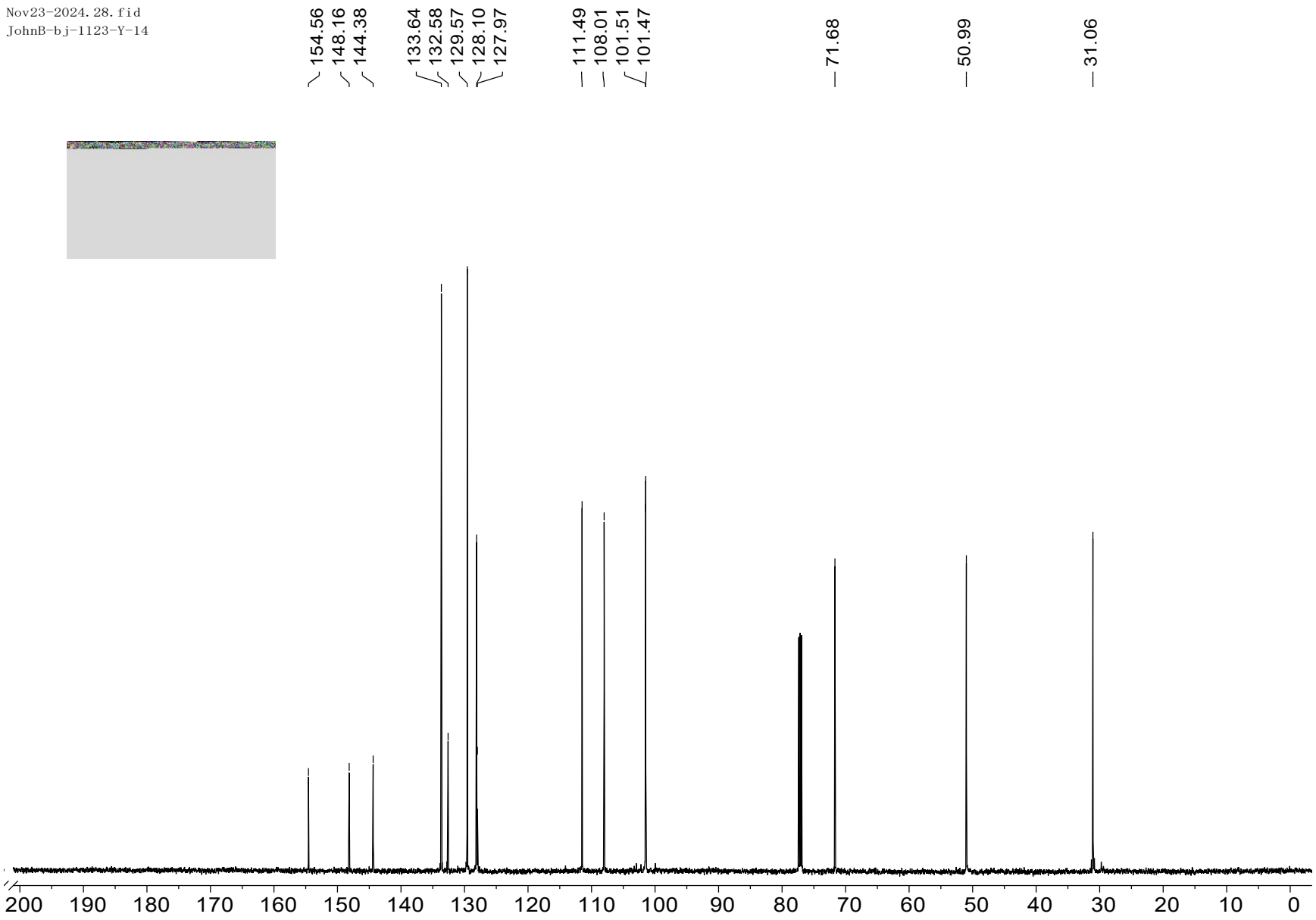
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3o**.



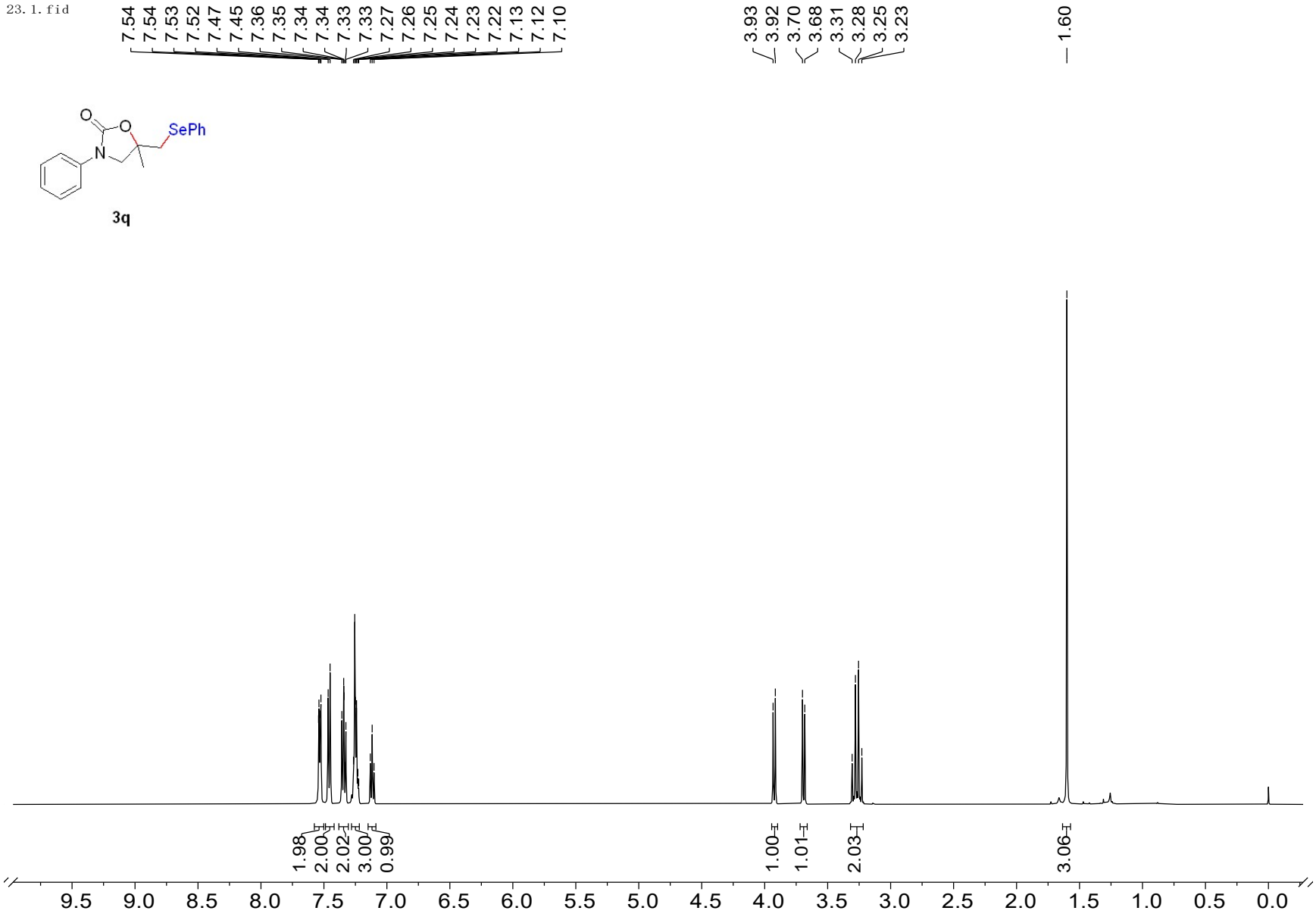
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3p**.



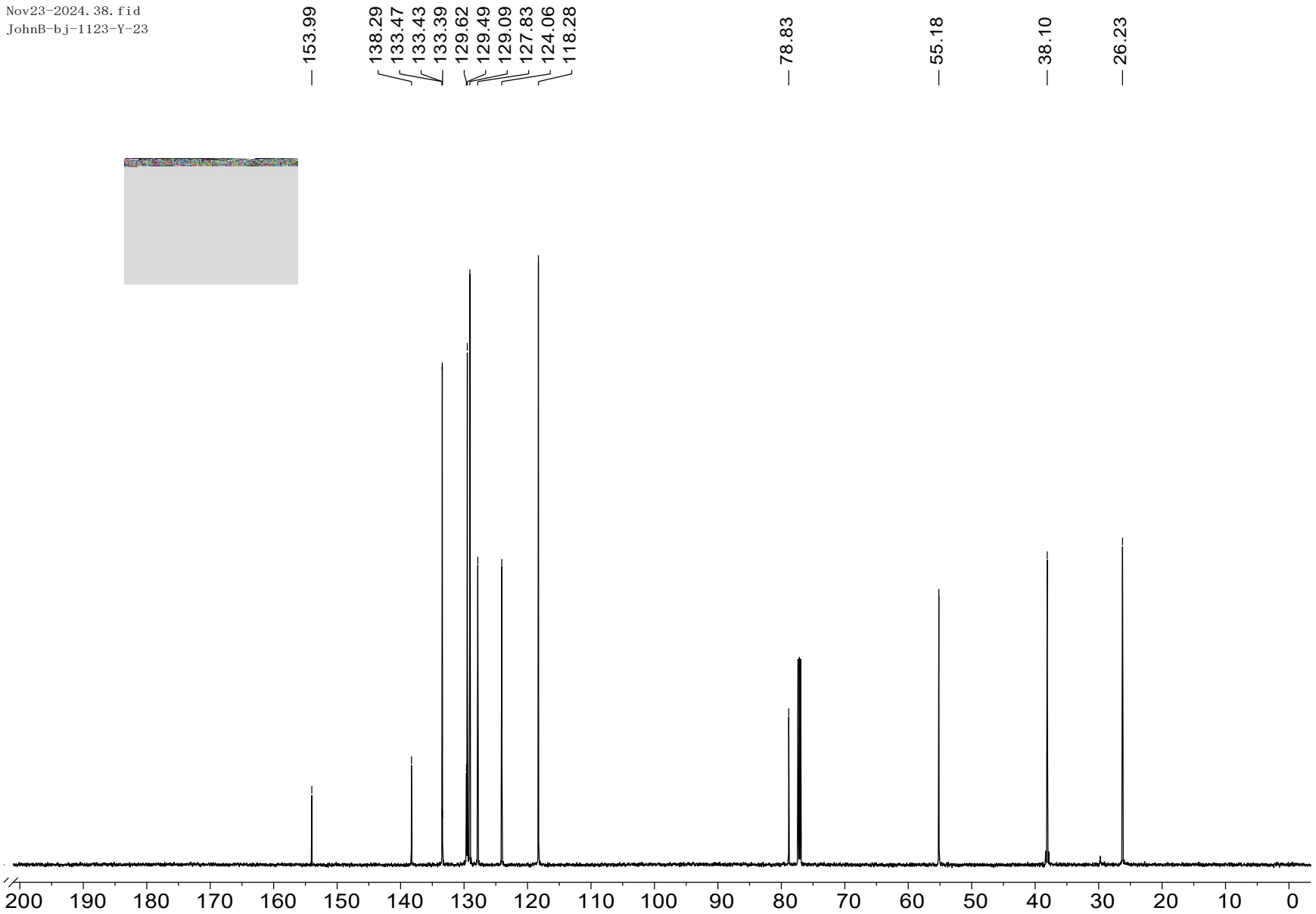
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3p**.



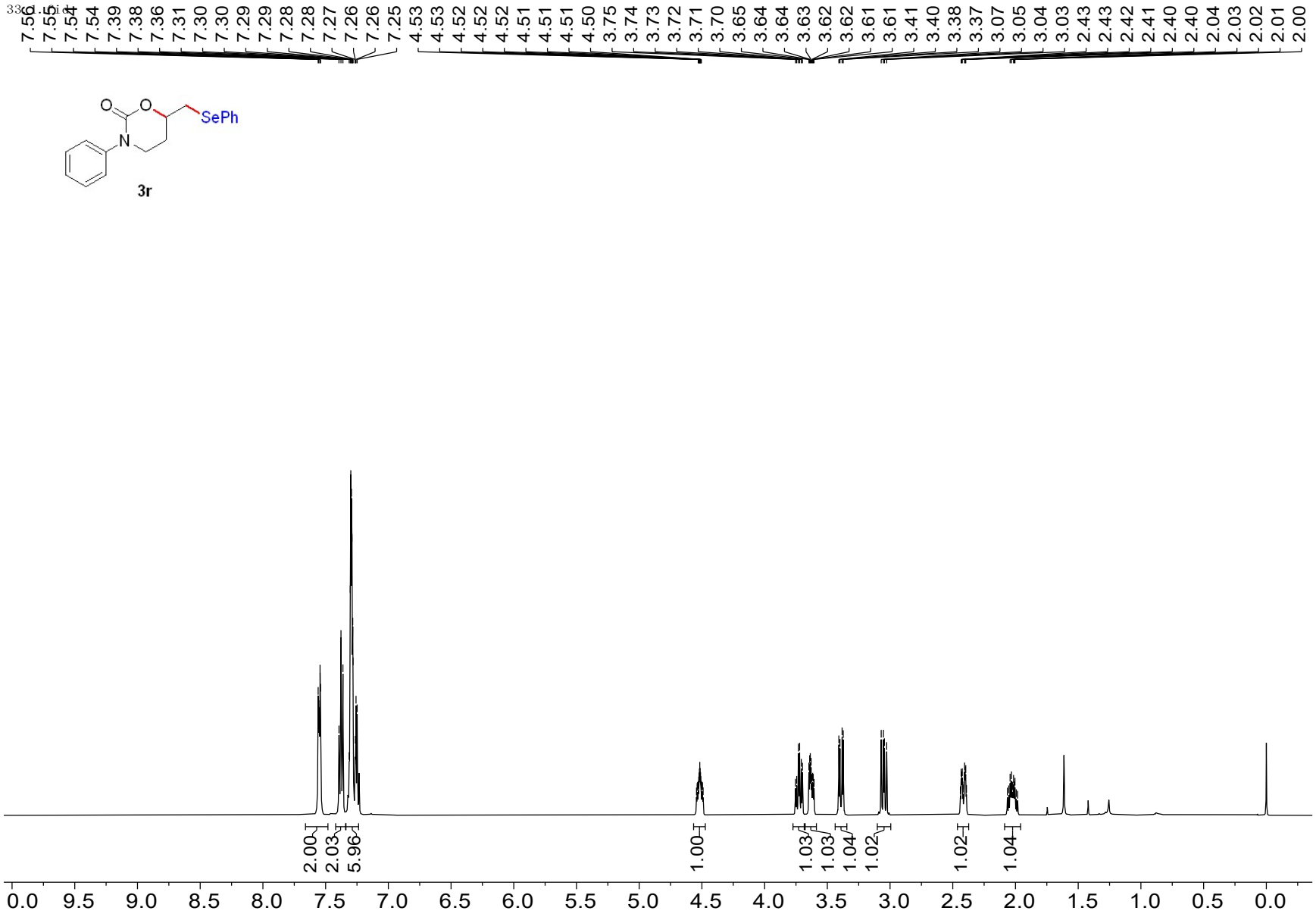
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3q**.



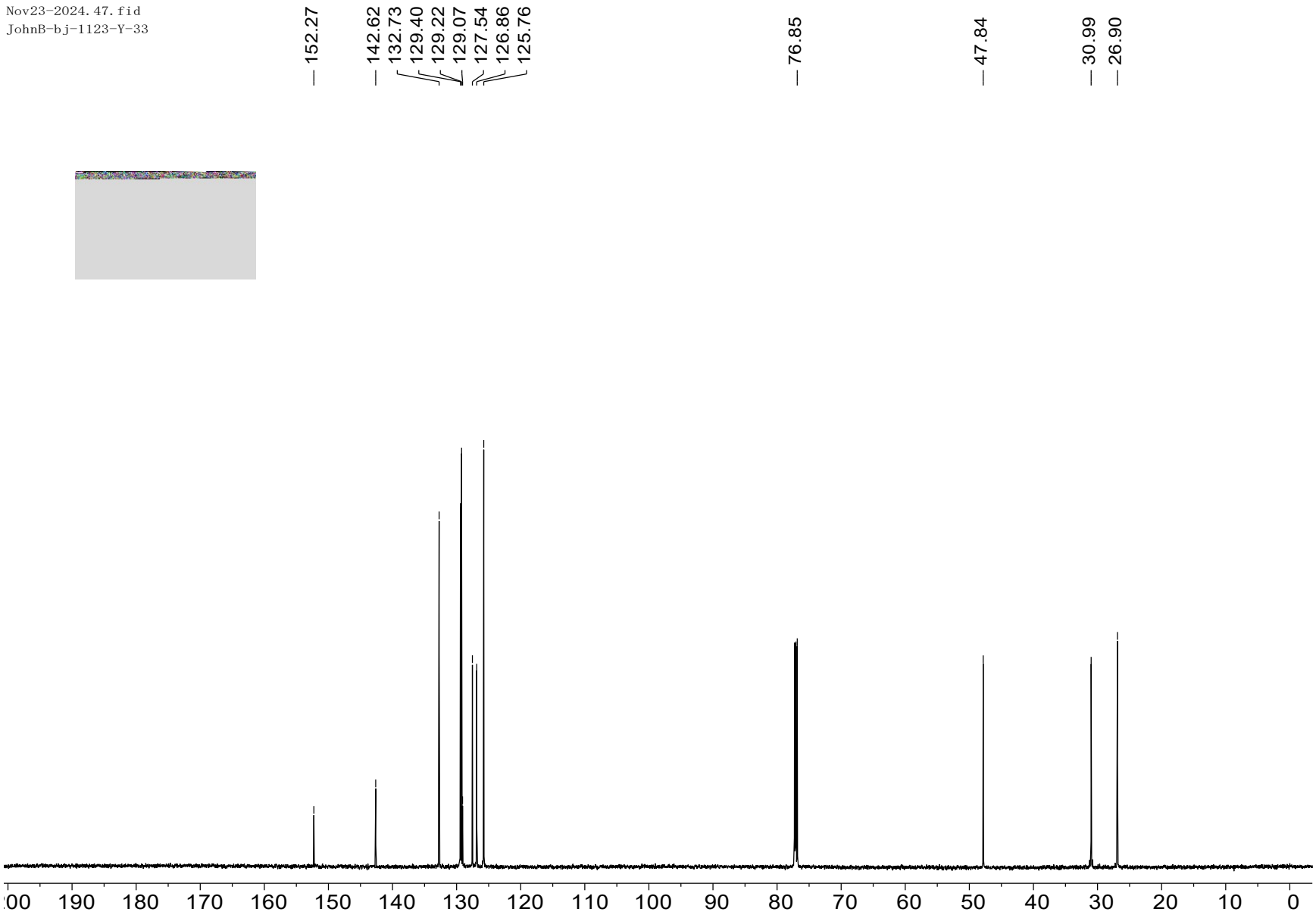
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3q**.



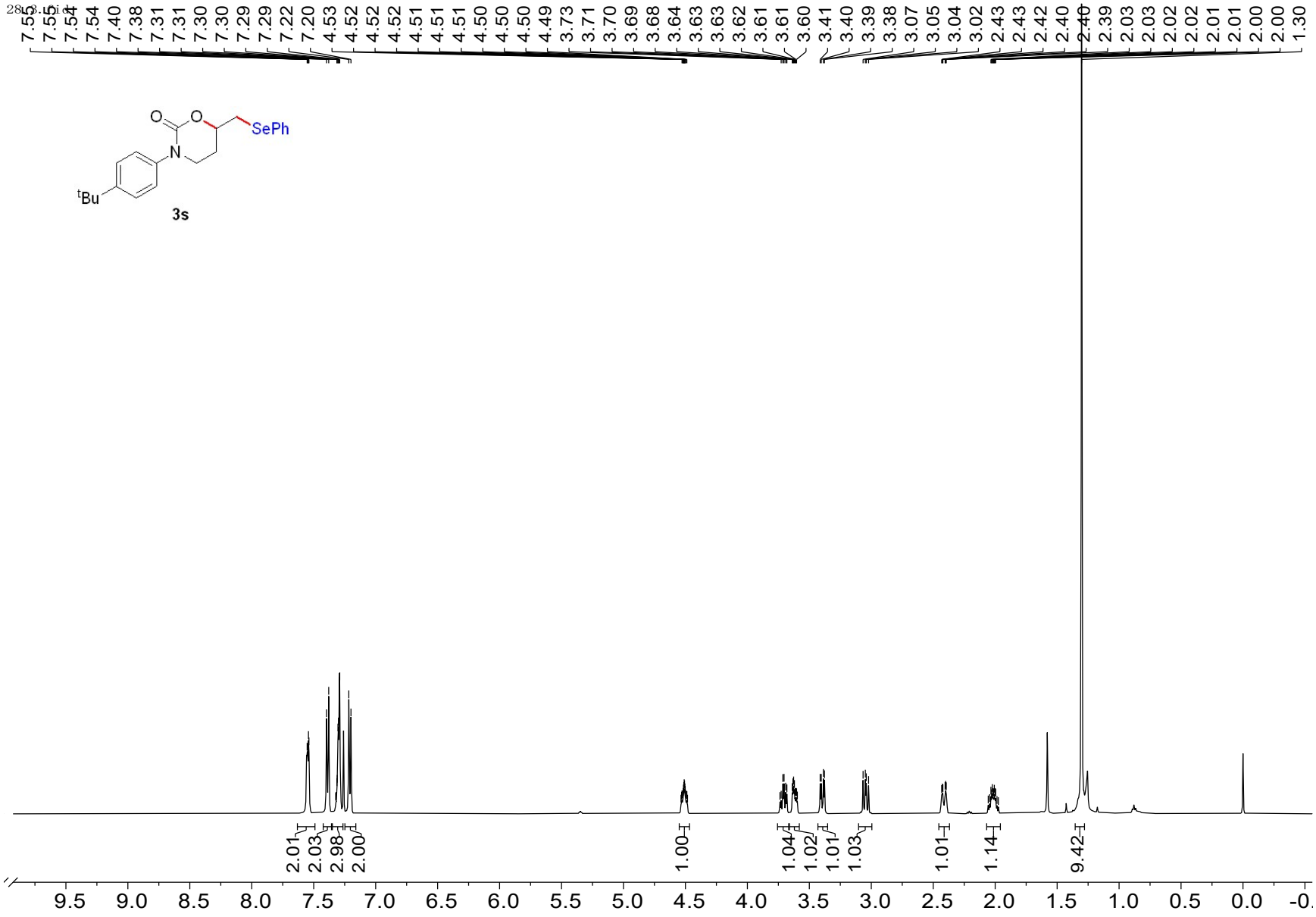
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3r**.



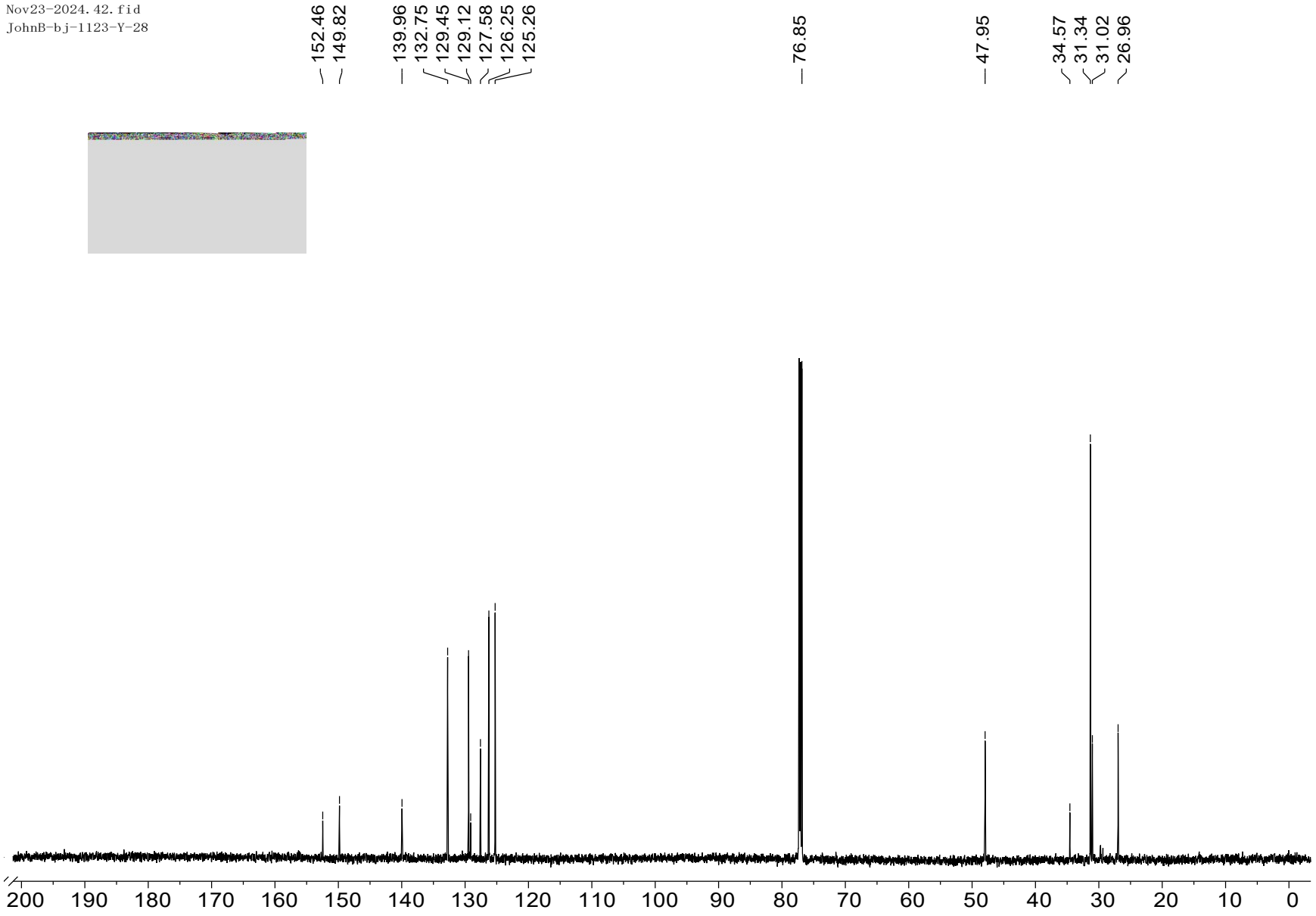
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3r**.



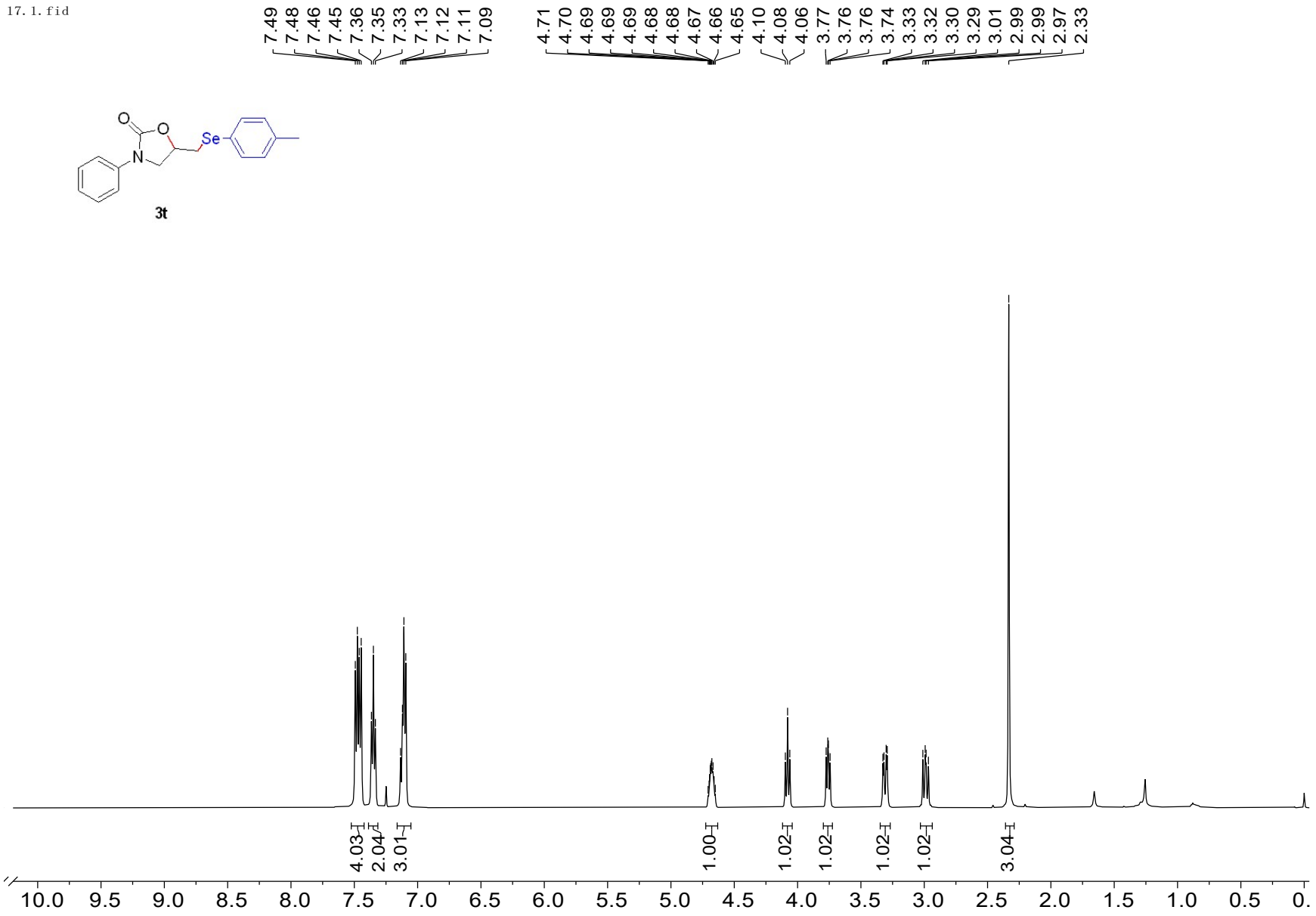
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3s**.



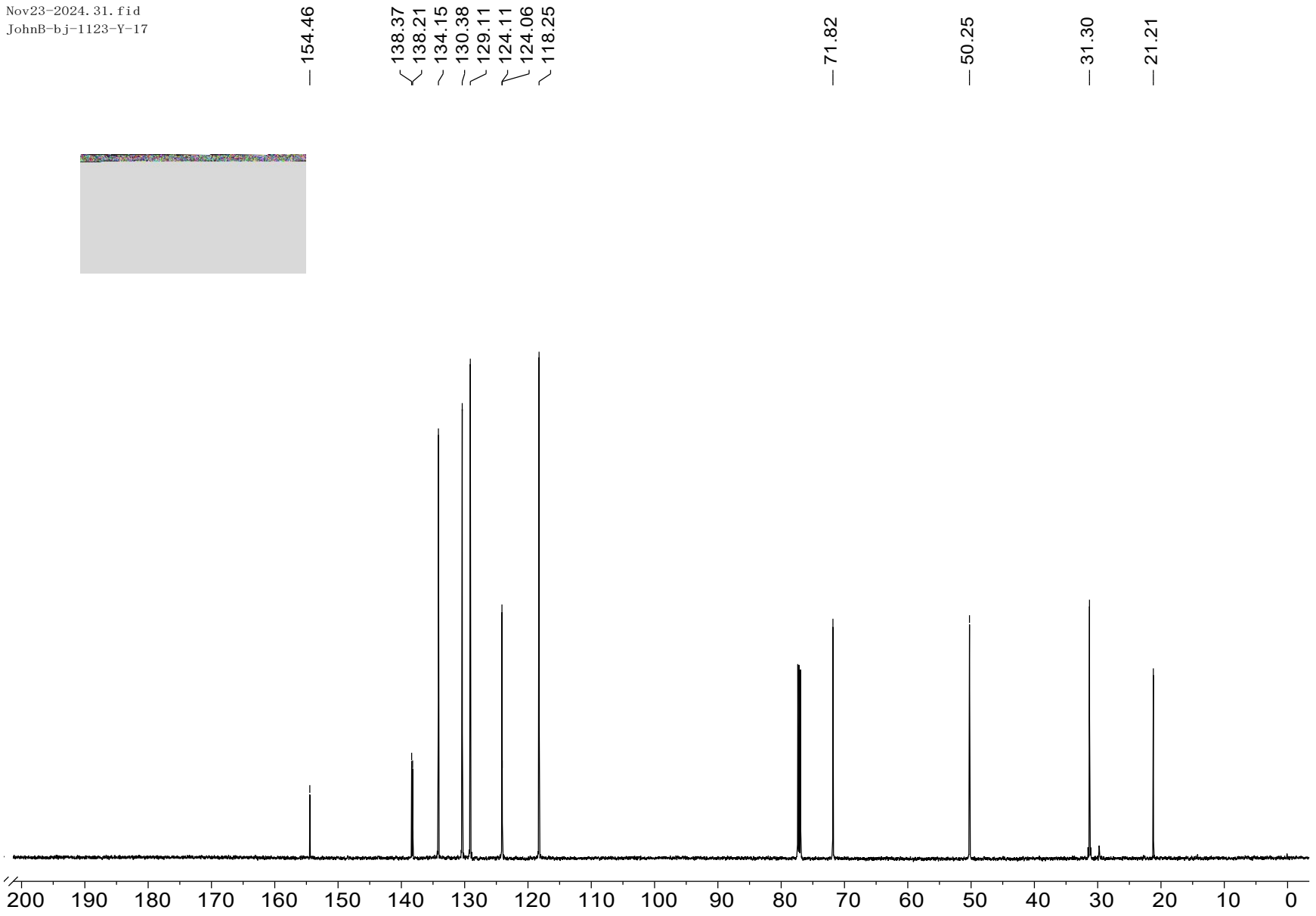
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3s**.



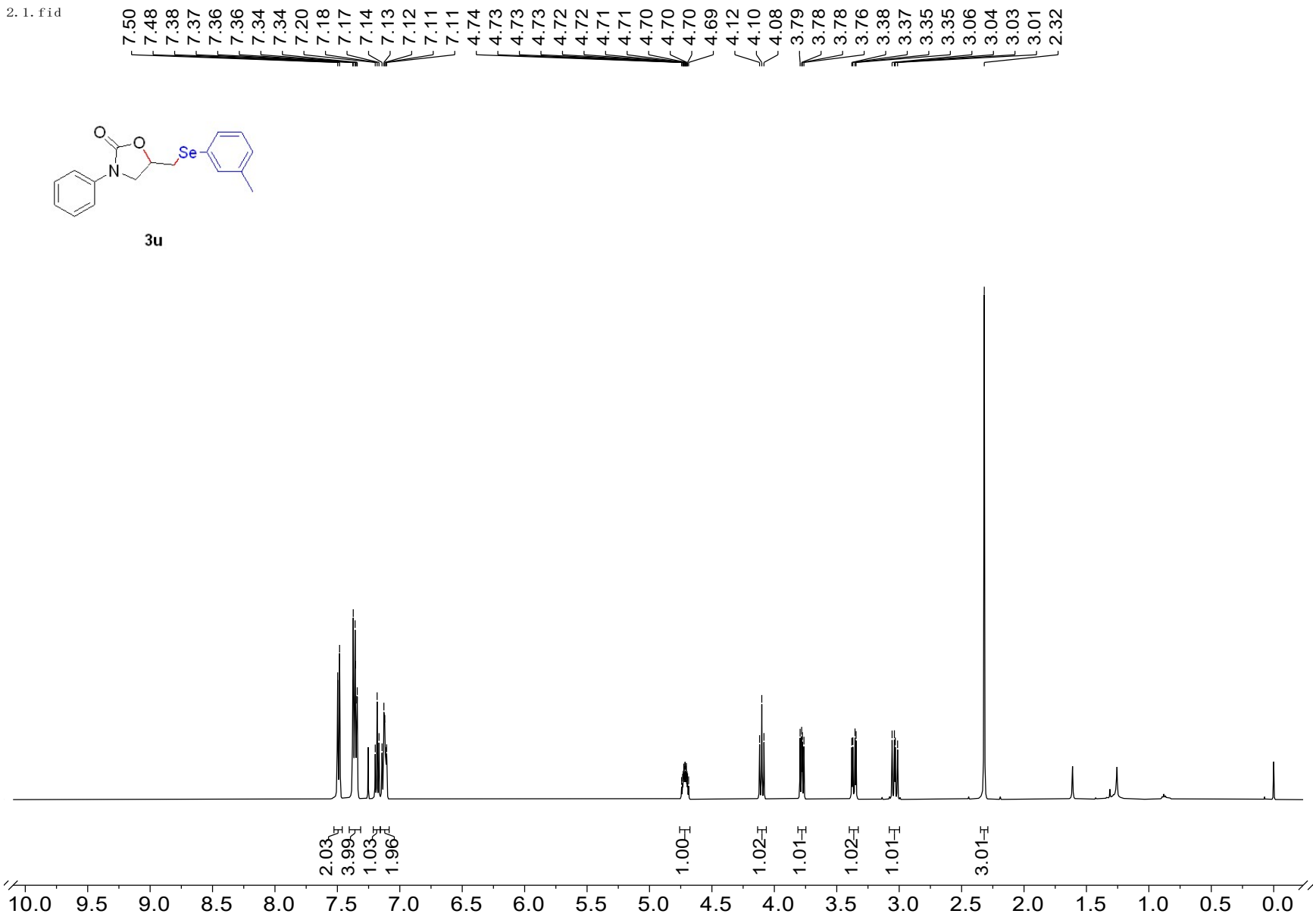
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3t**.



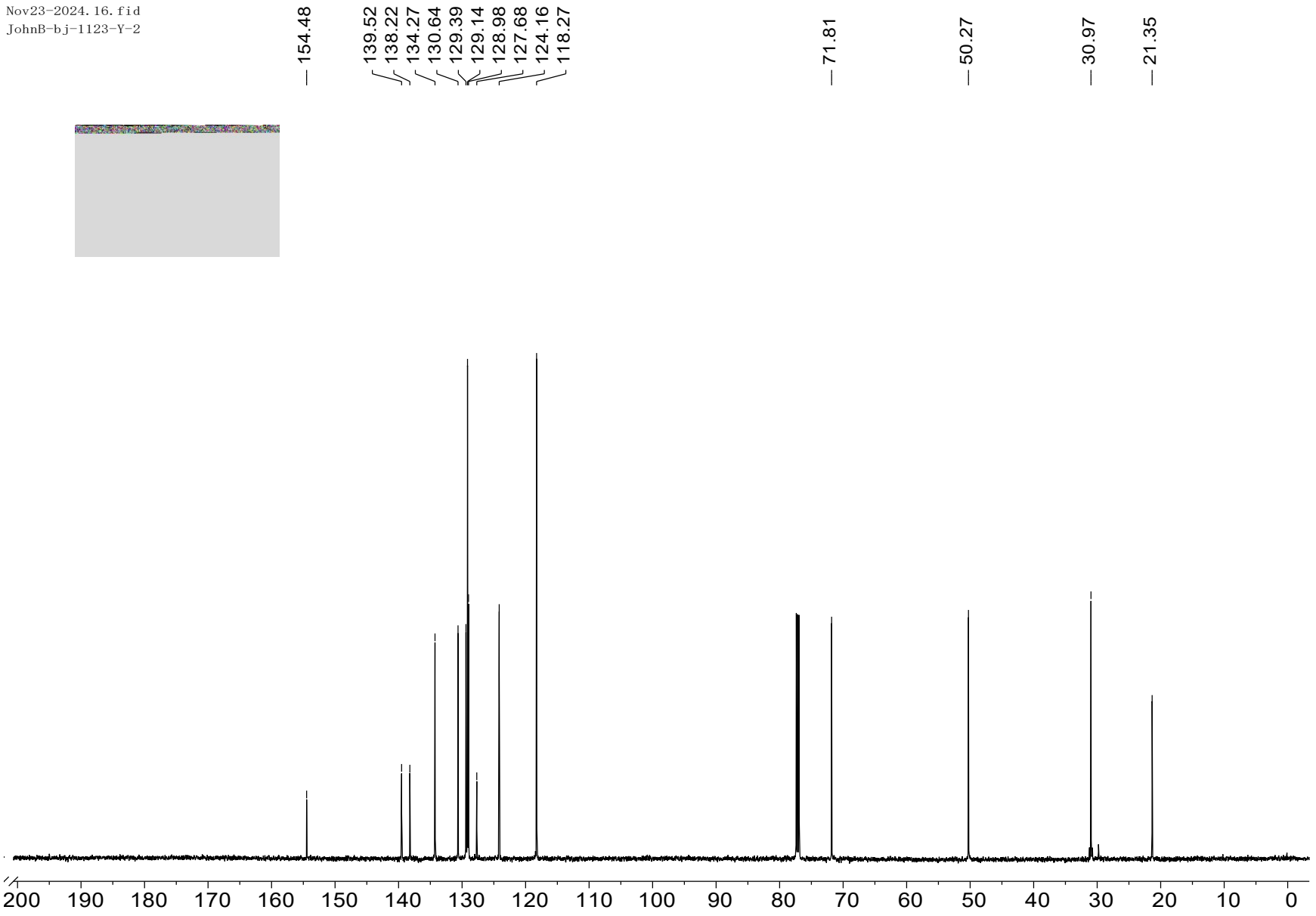
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3t**.



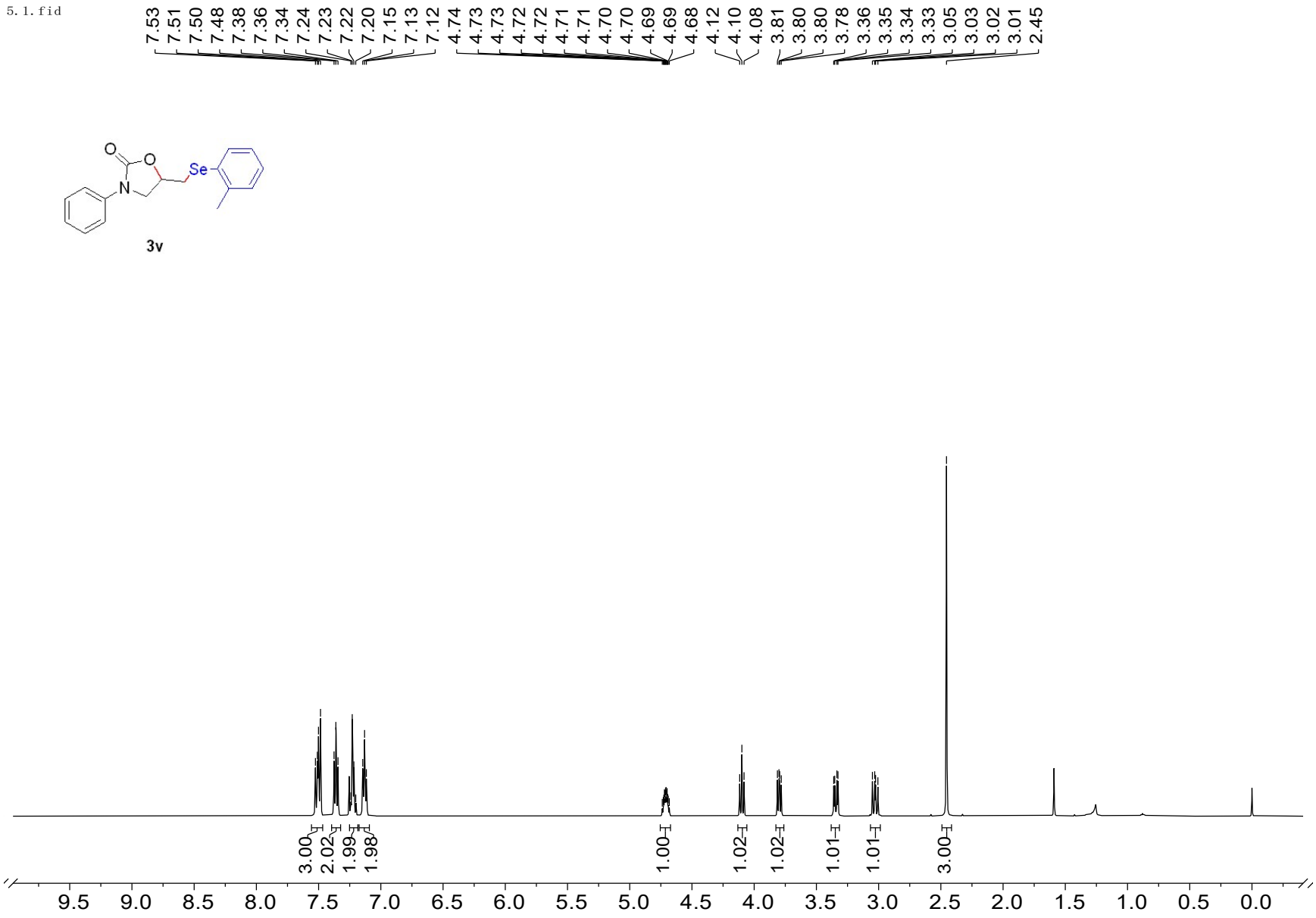
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3u**.



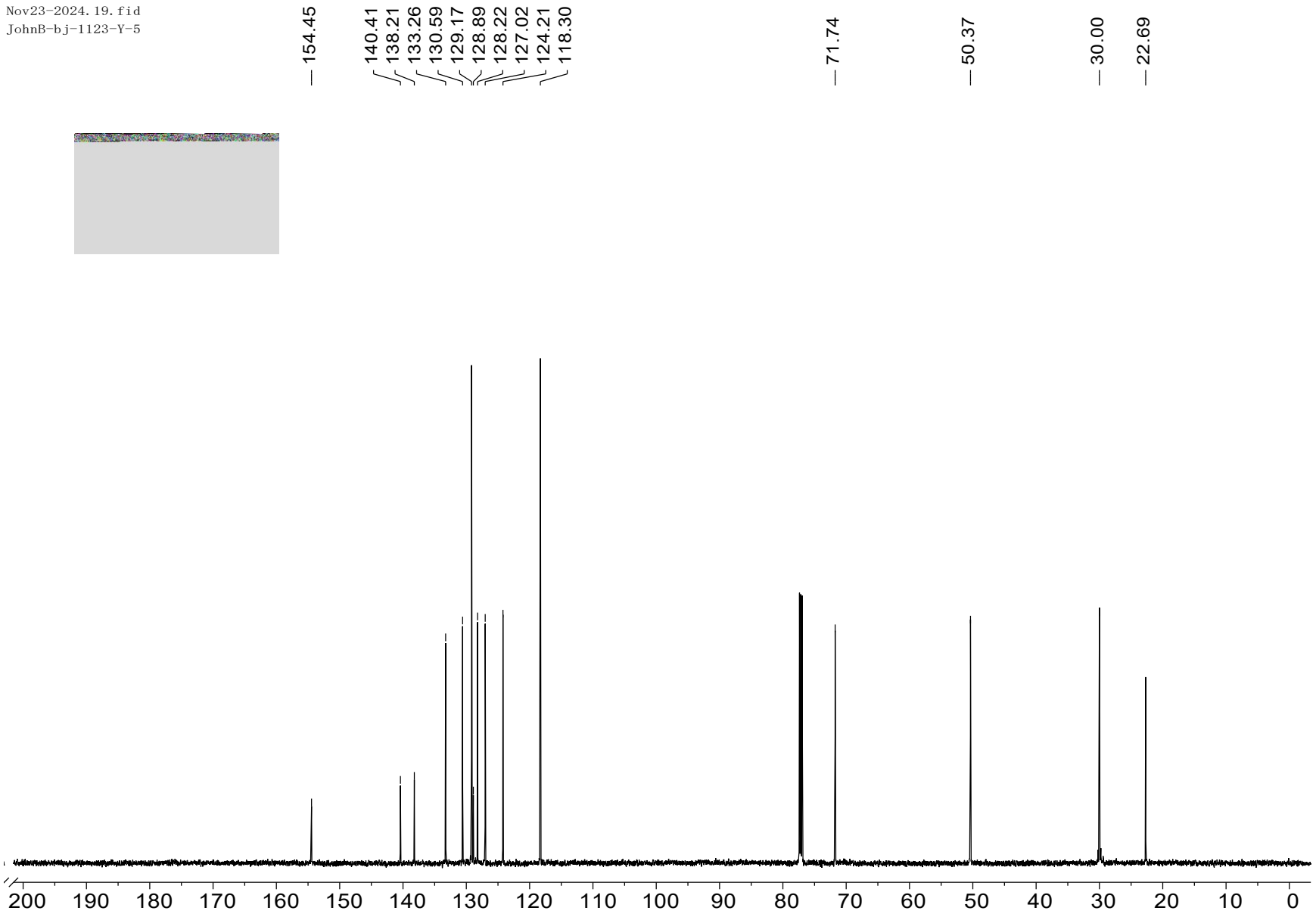
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3u**.



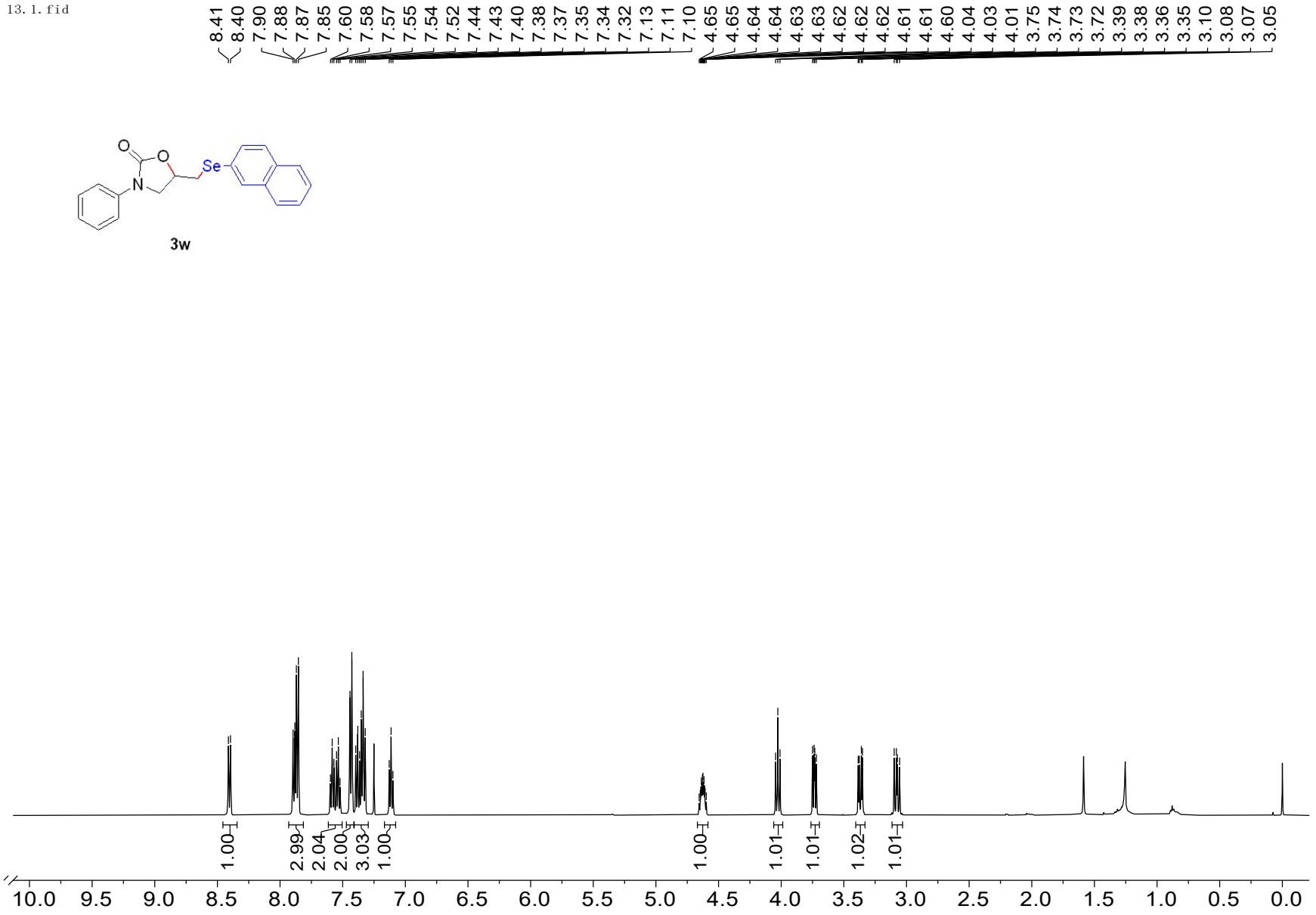
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3v**.



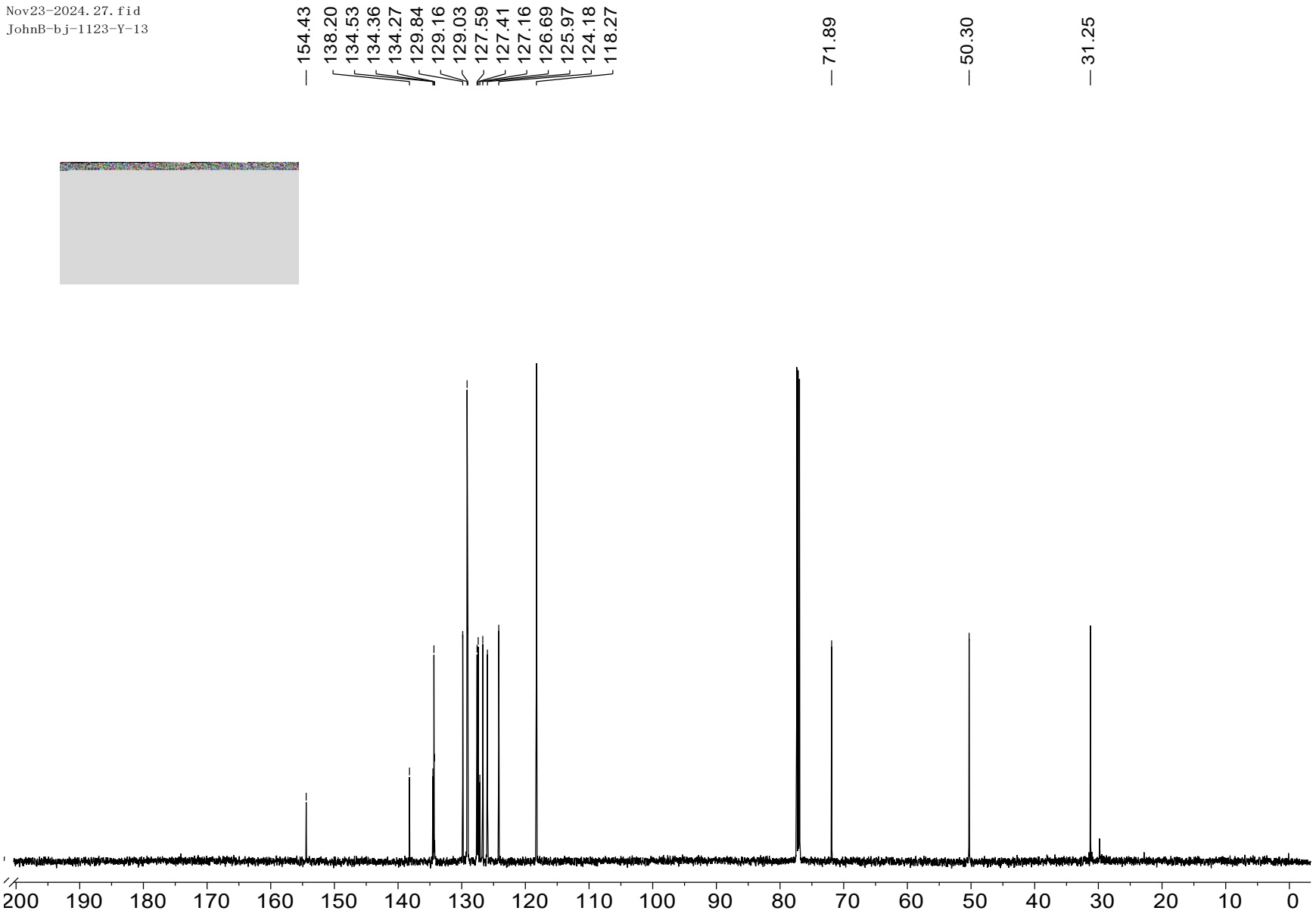
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3v**.



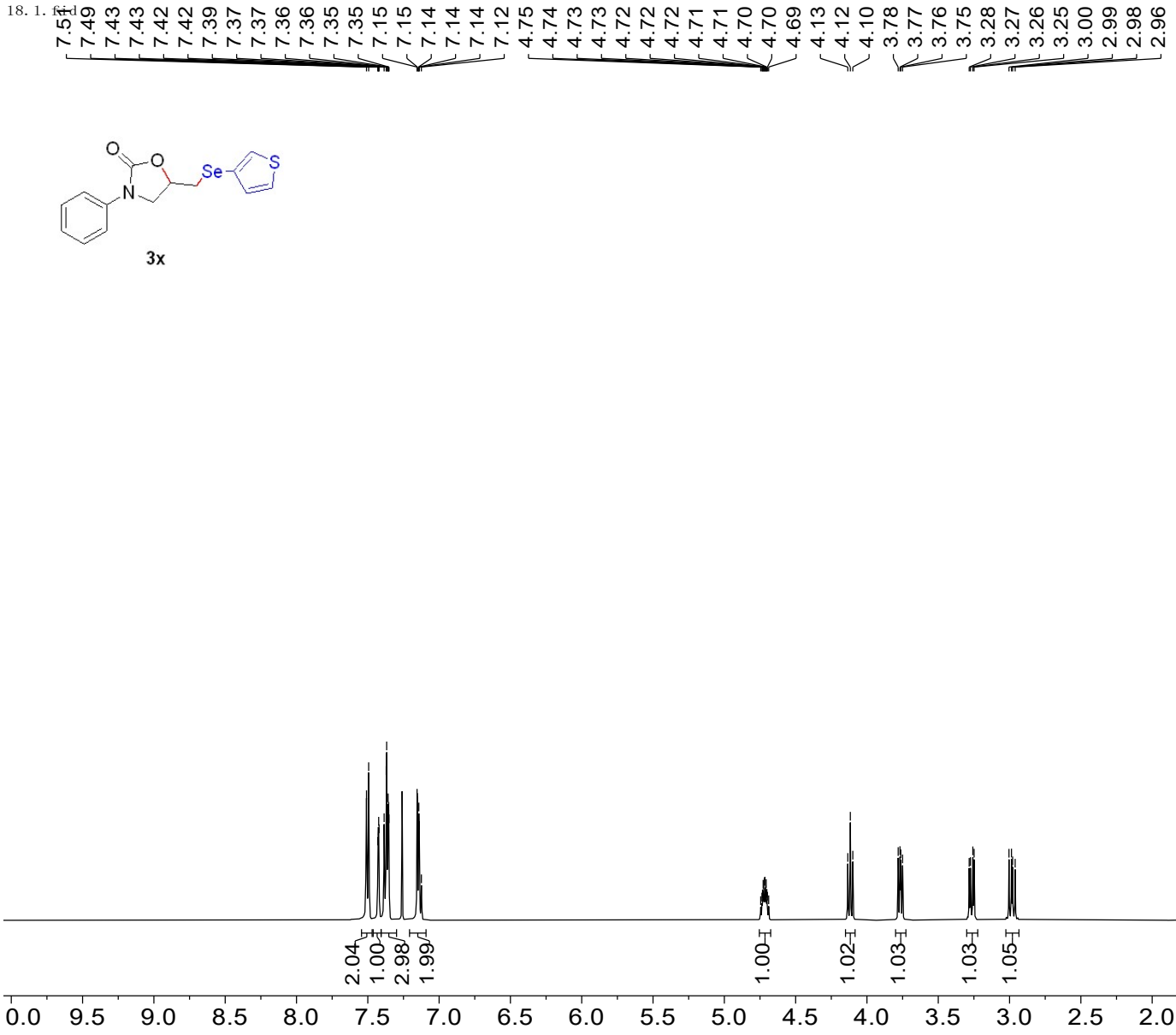
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3w**.



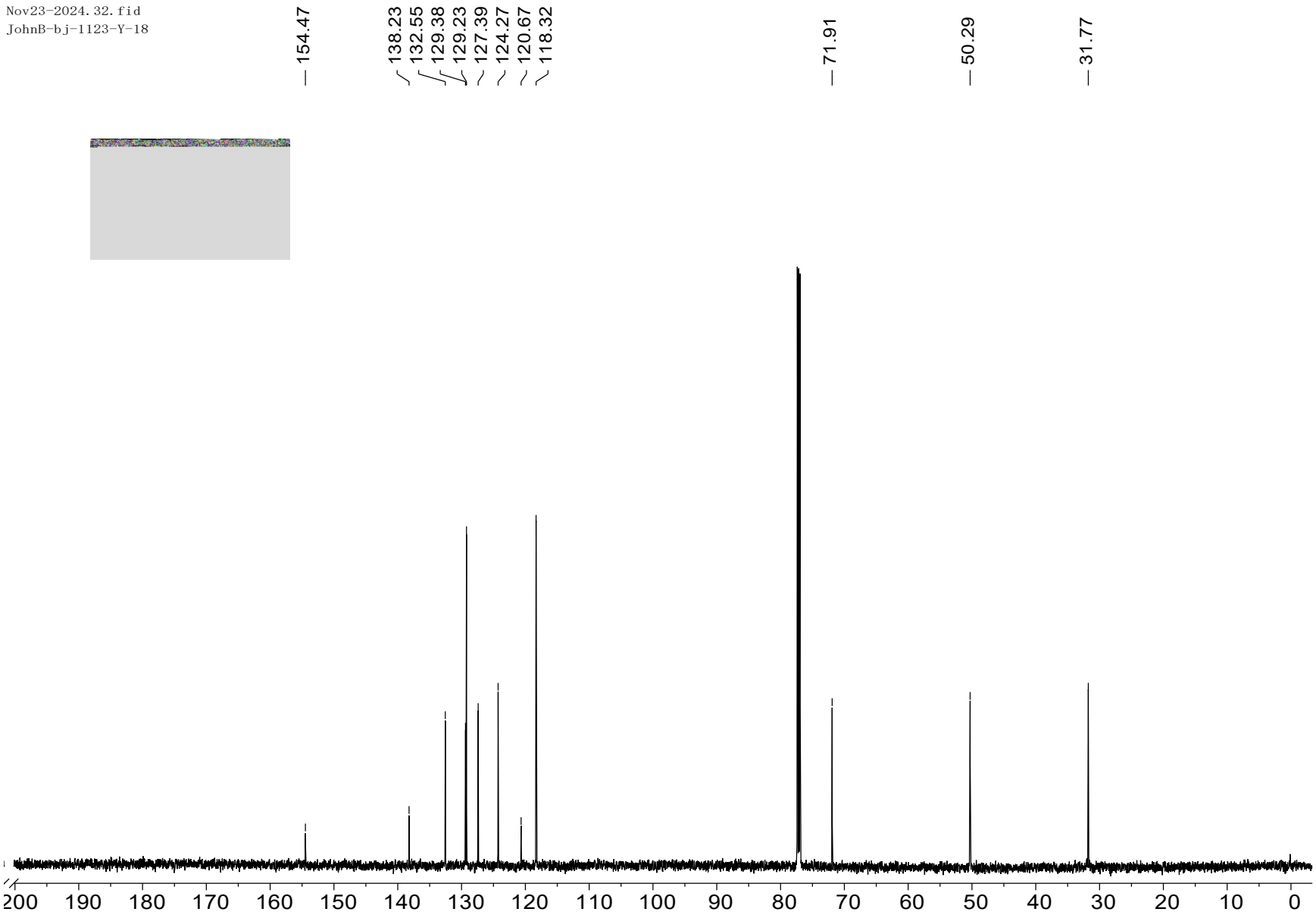
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3w**.



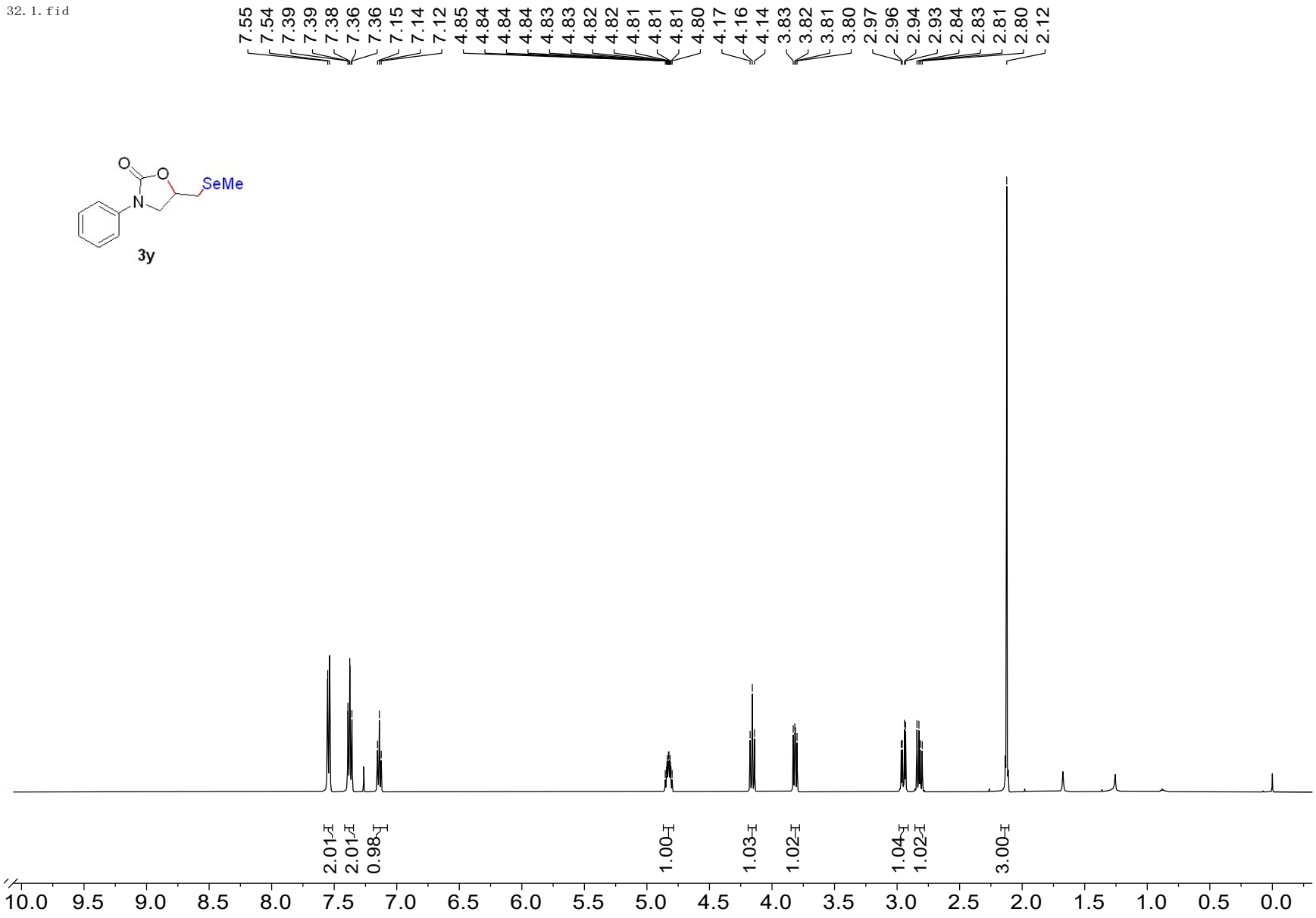
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3x**.



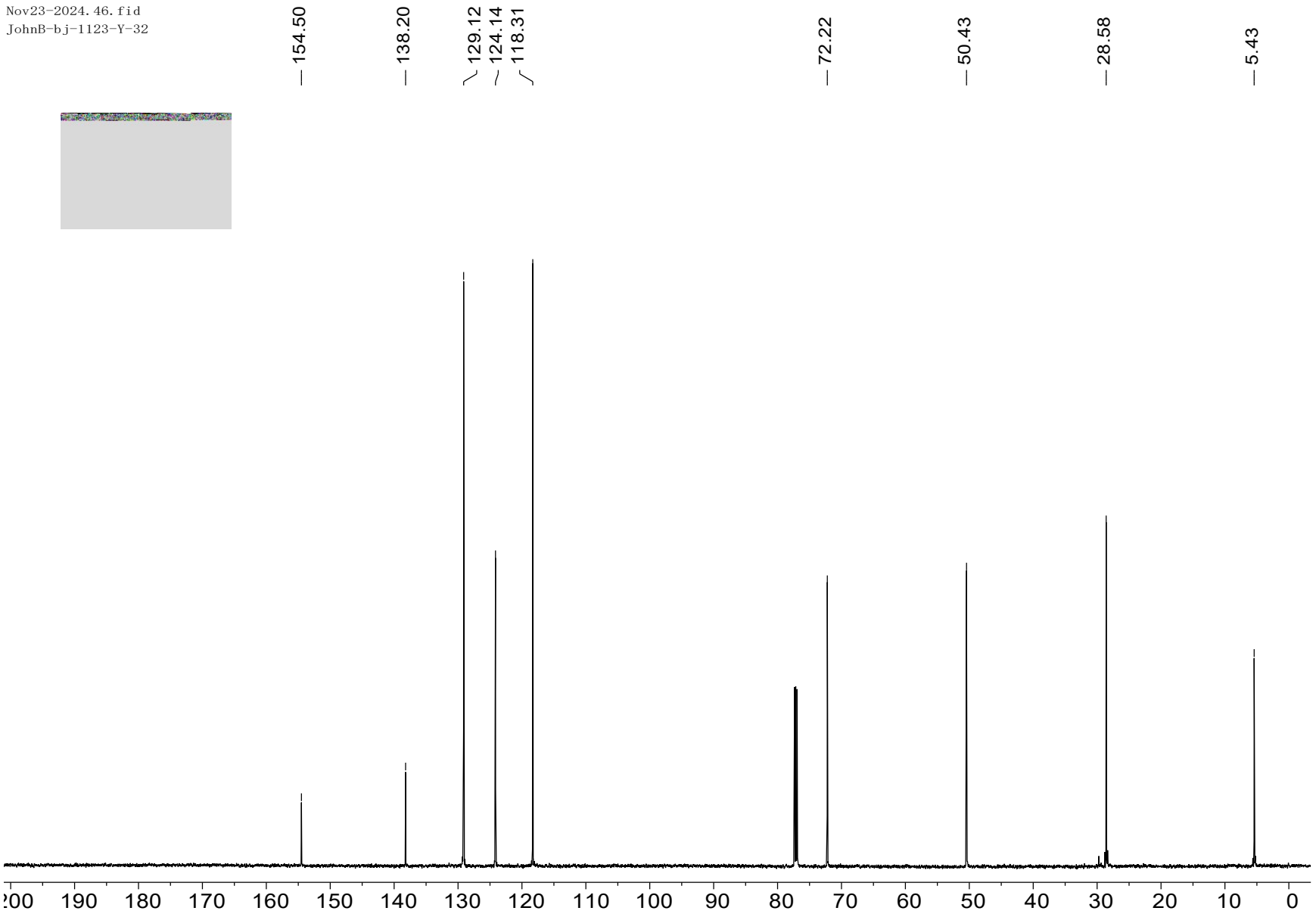
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3x**.



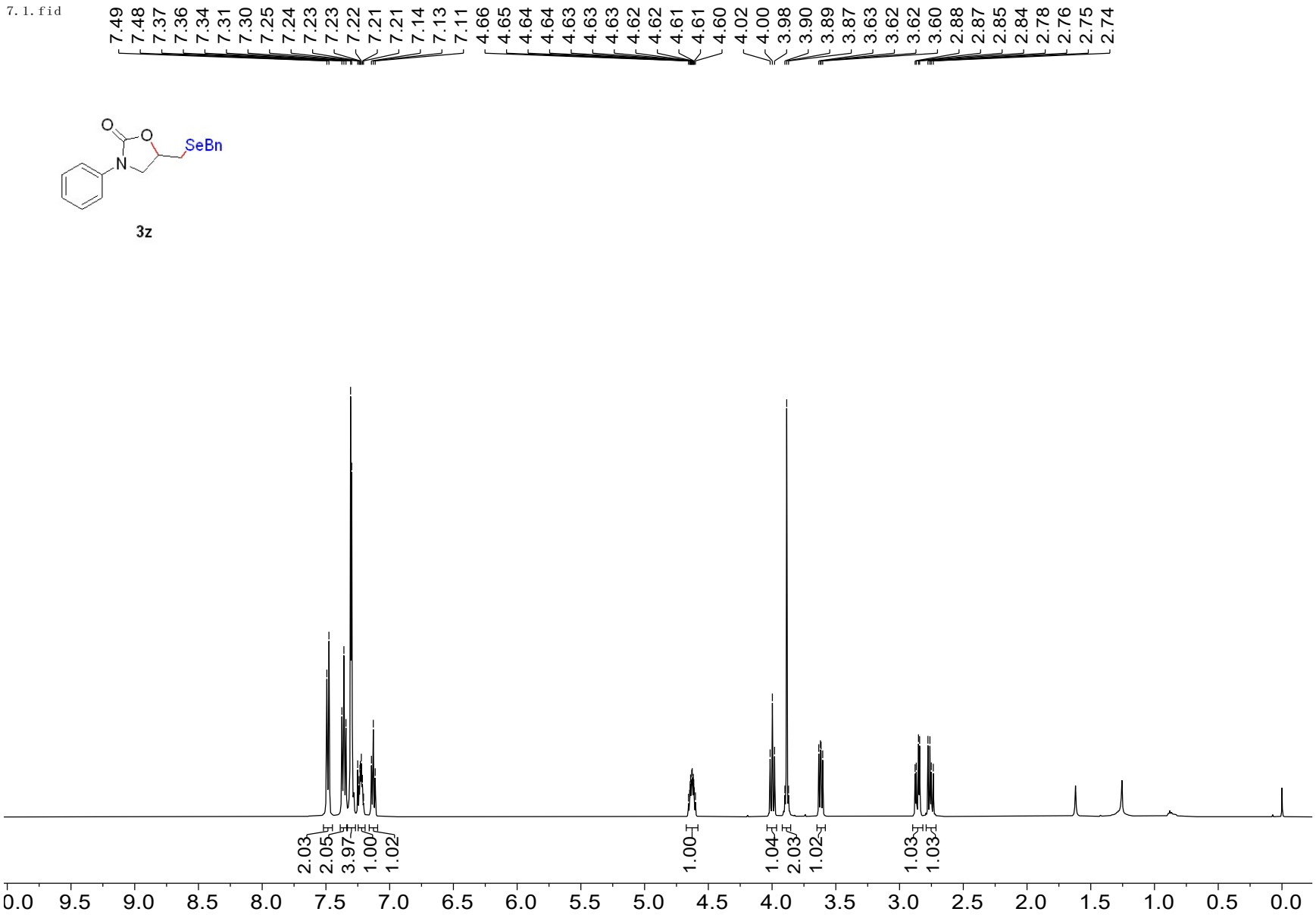
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3y**.



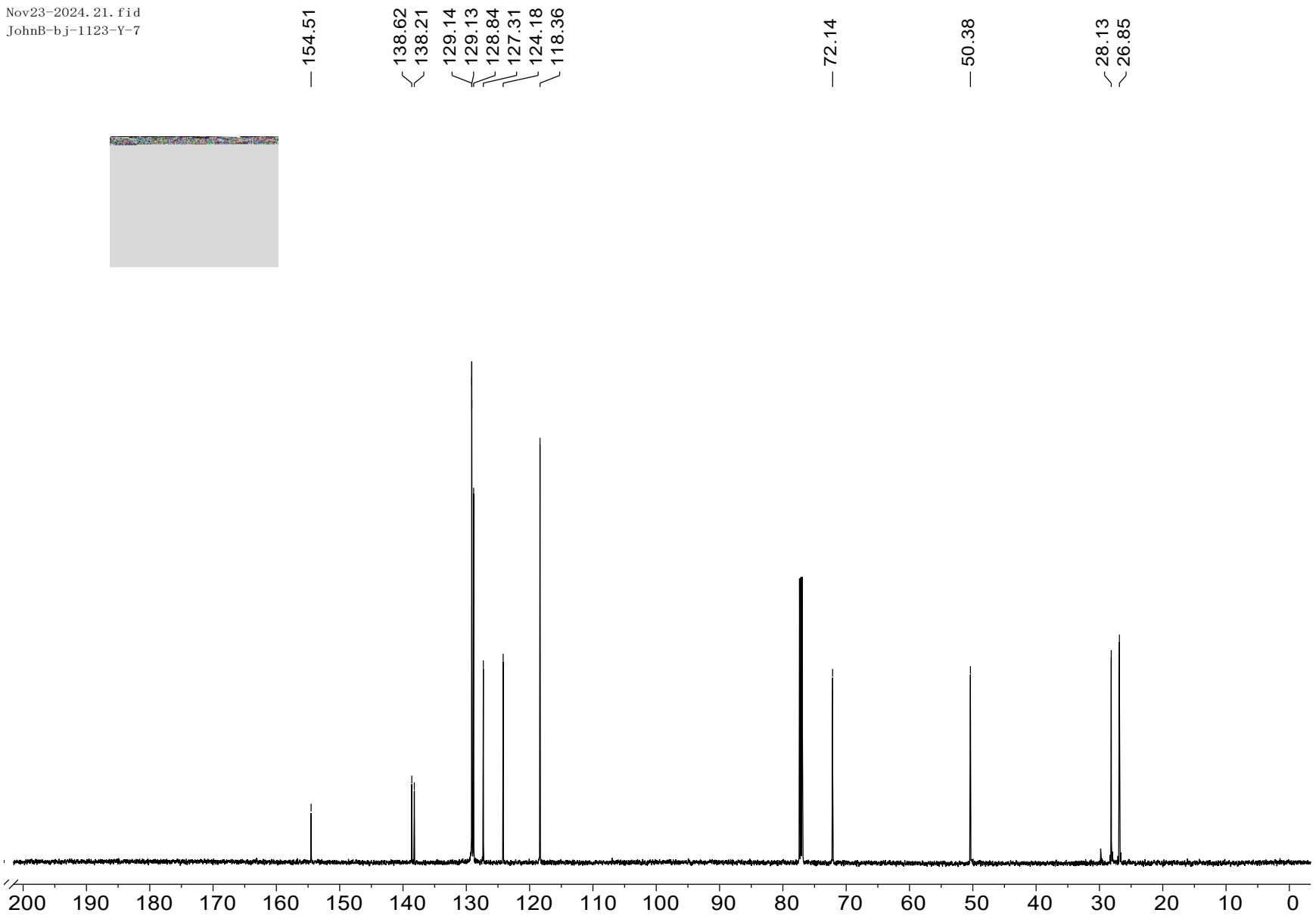
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3y**.



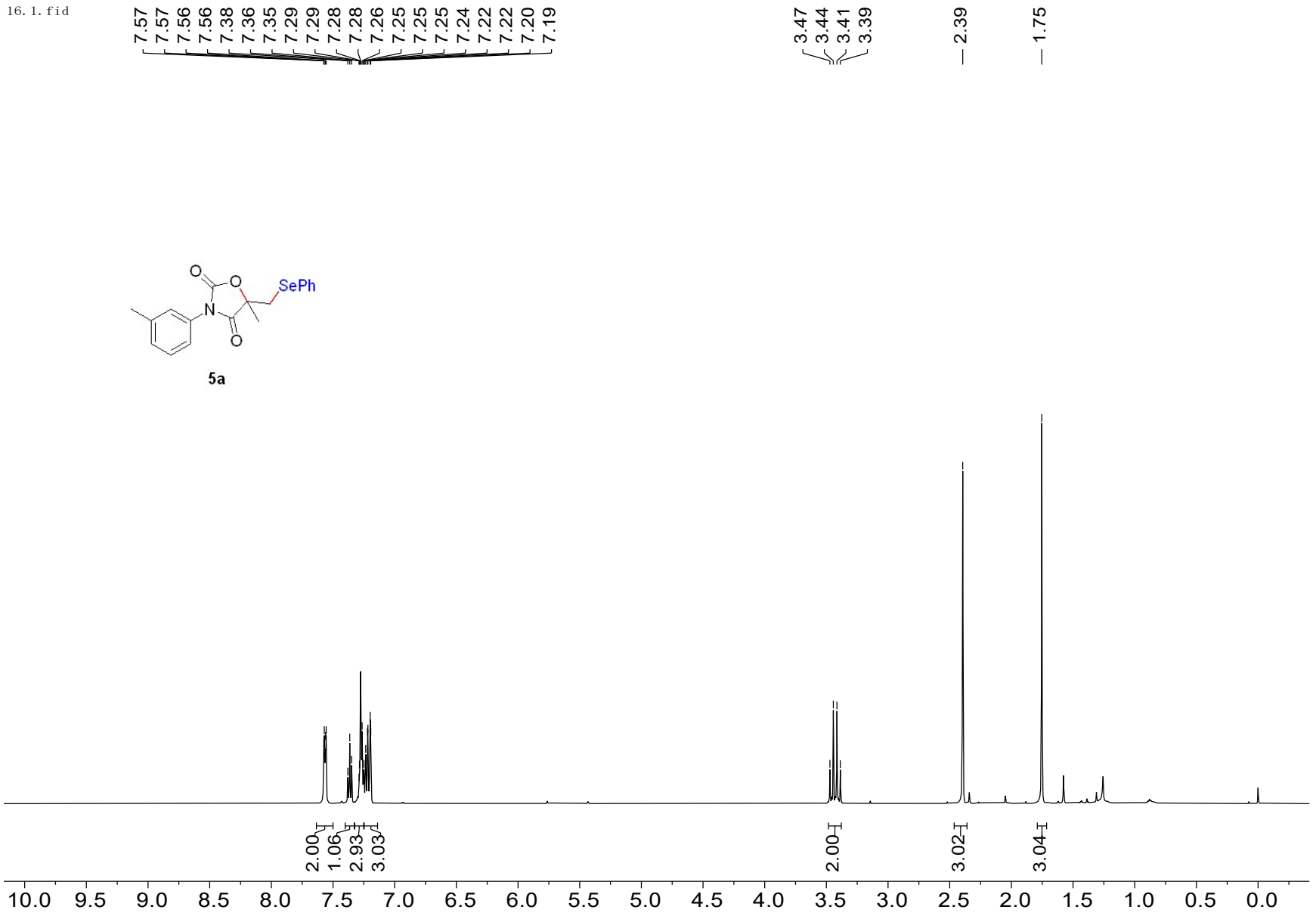
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **3z**.



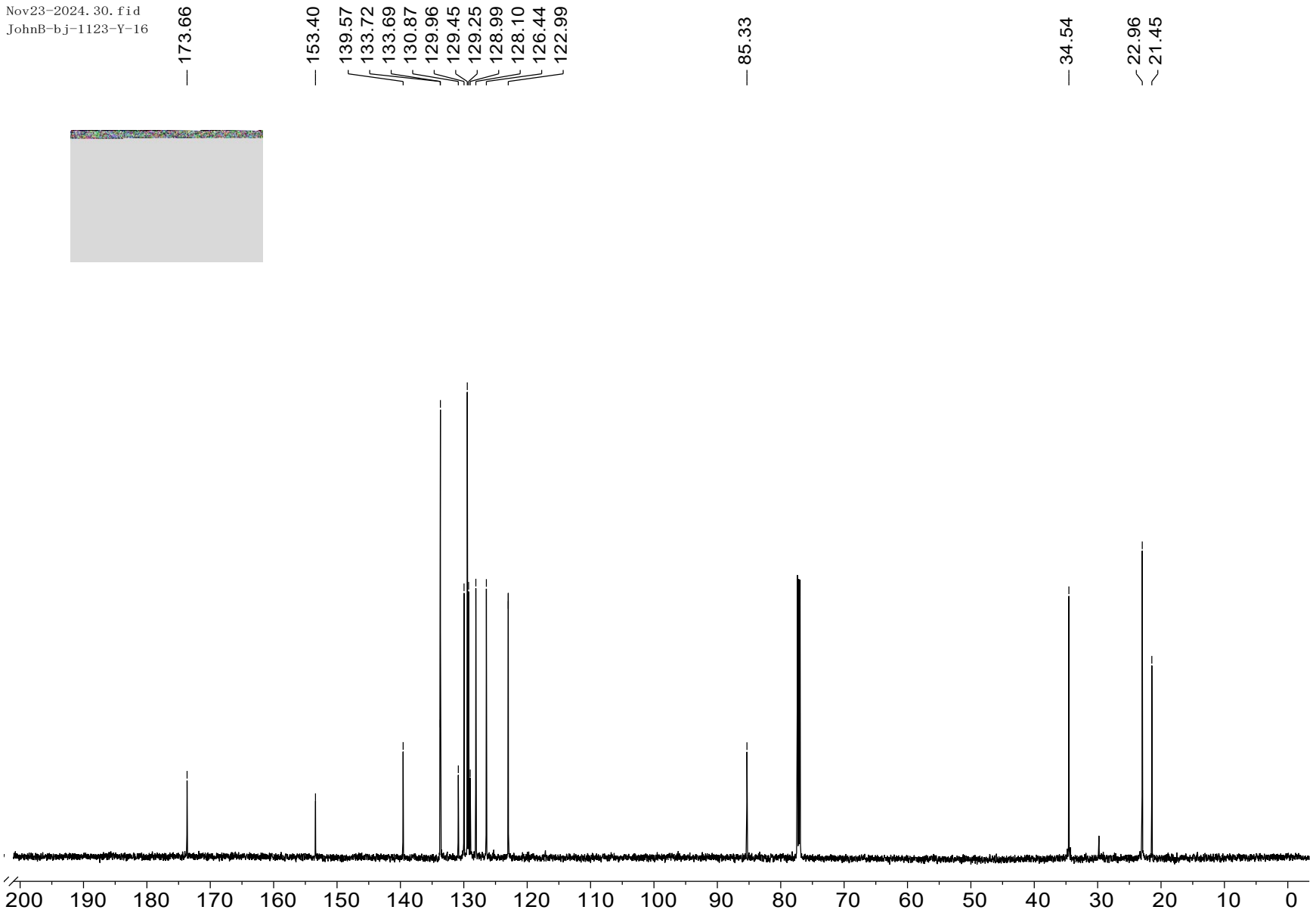
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **3z**.



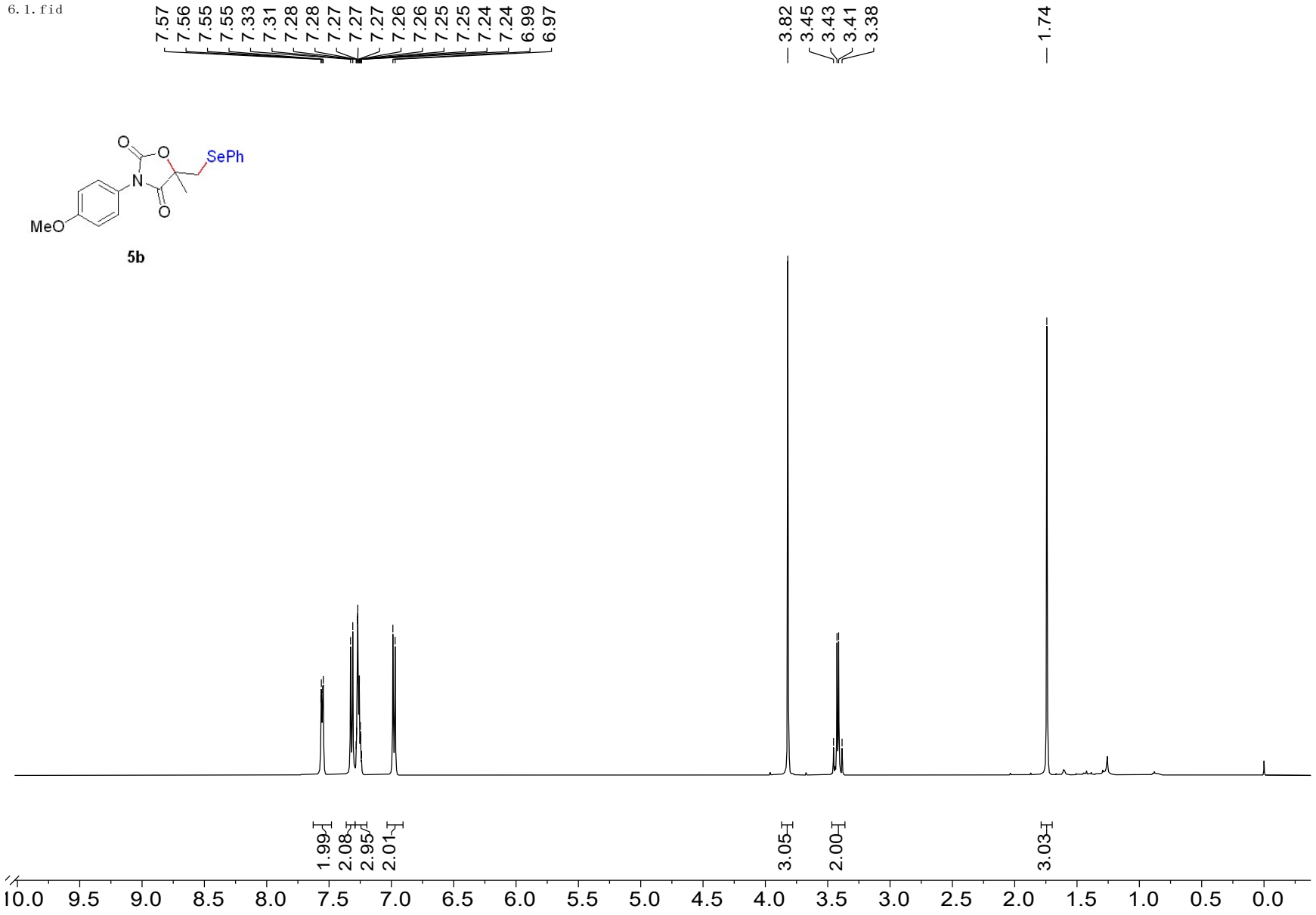
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **5a**.



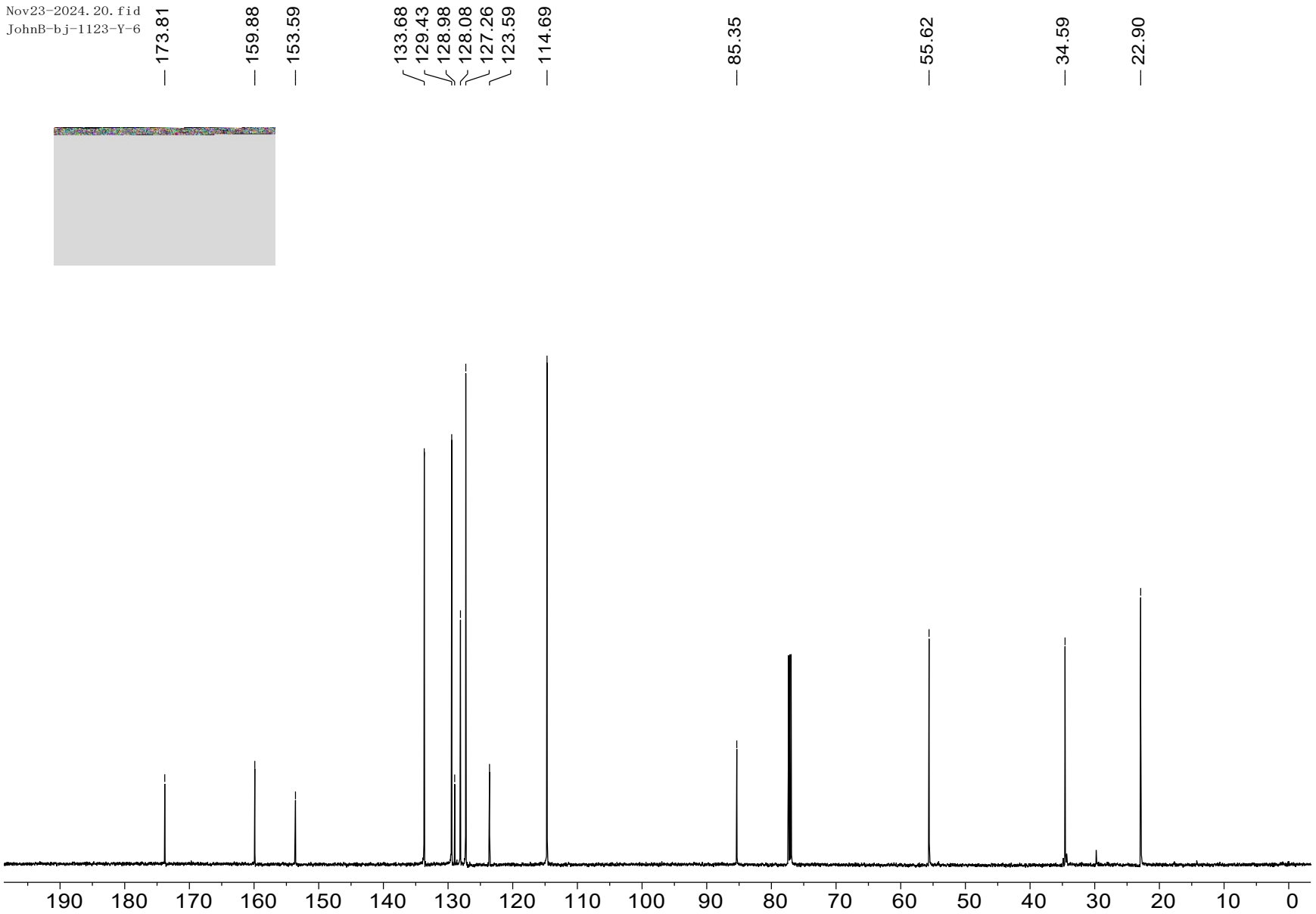
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **5a**.



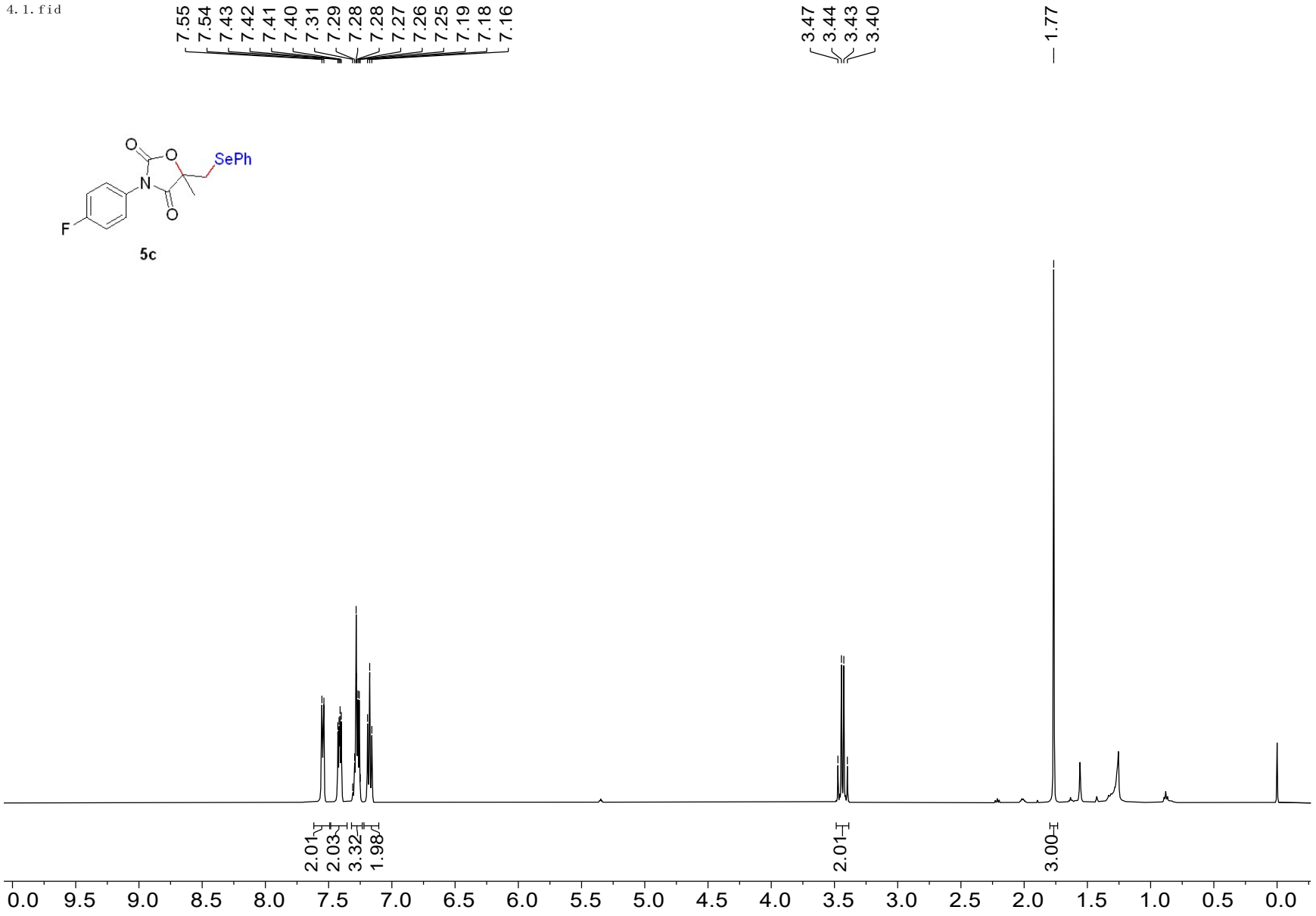
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **5b**.



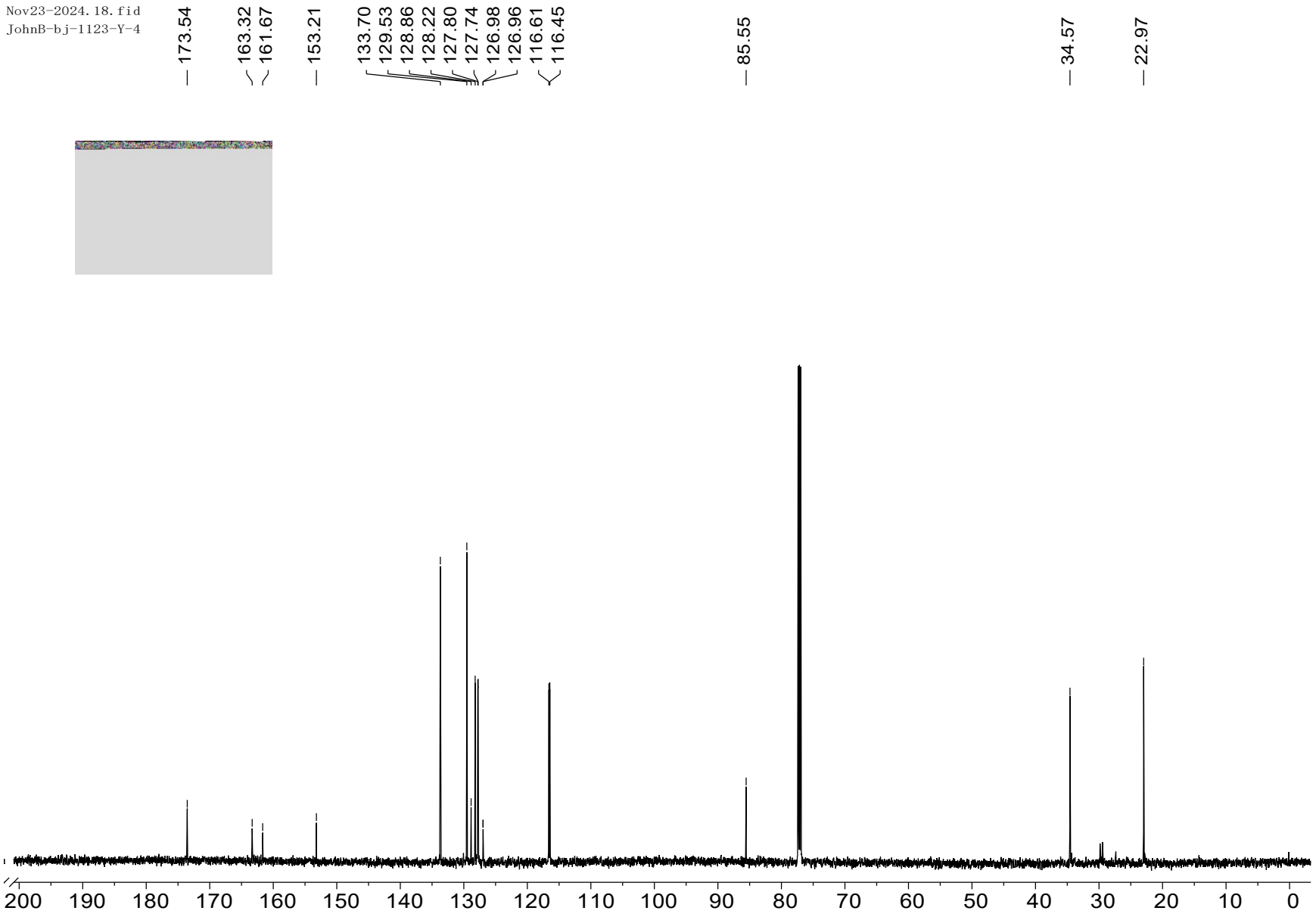
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **5b**.



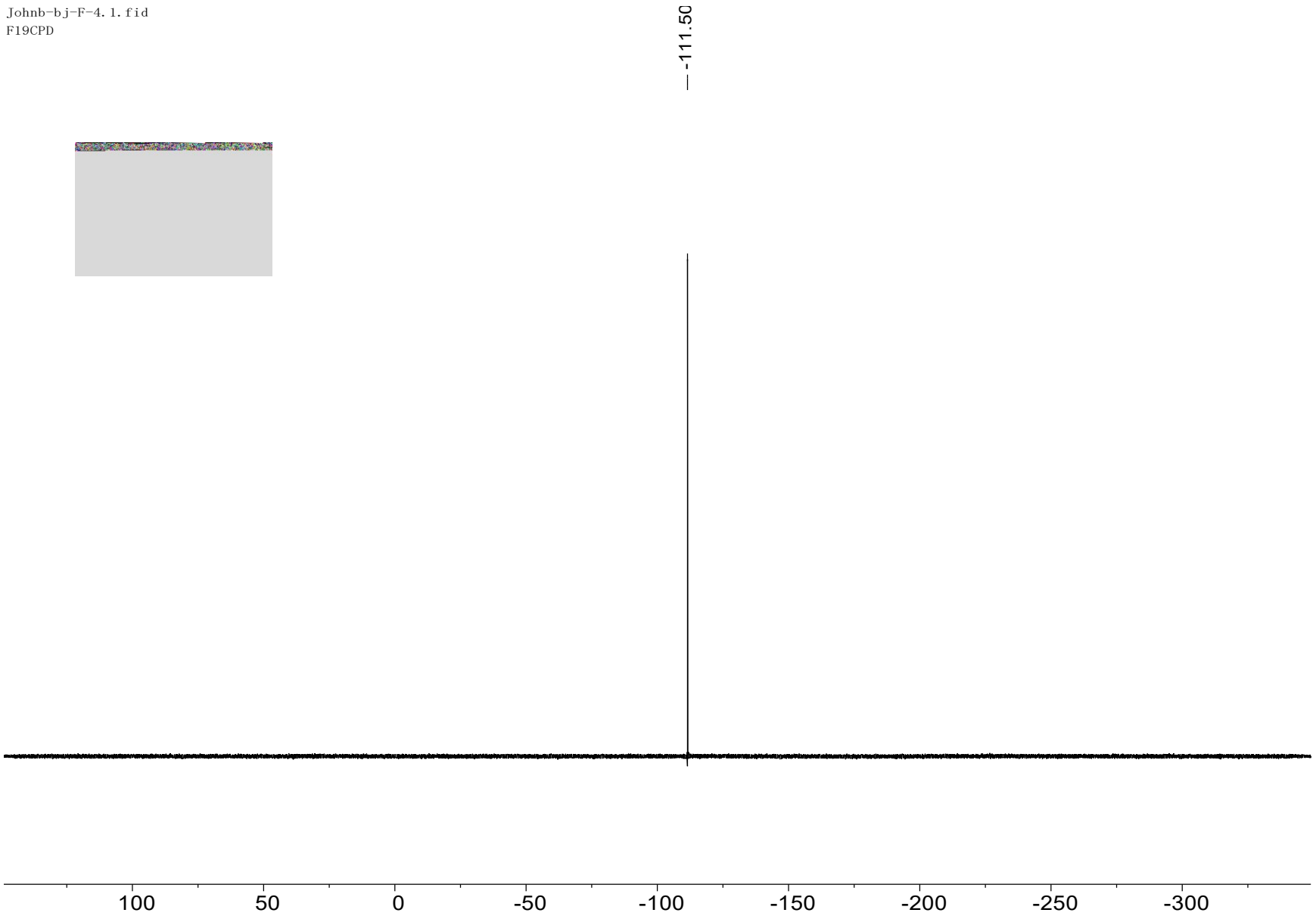
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **5c**.



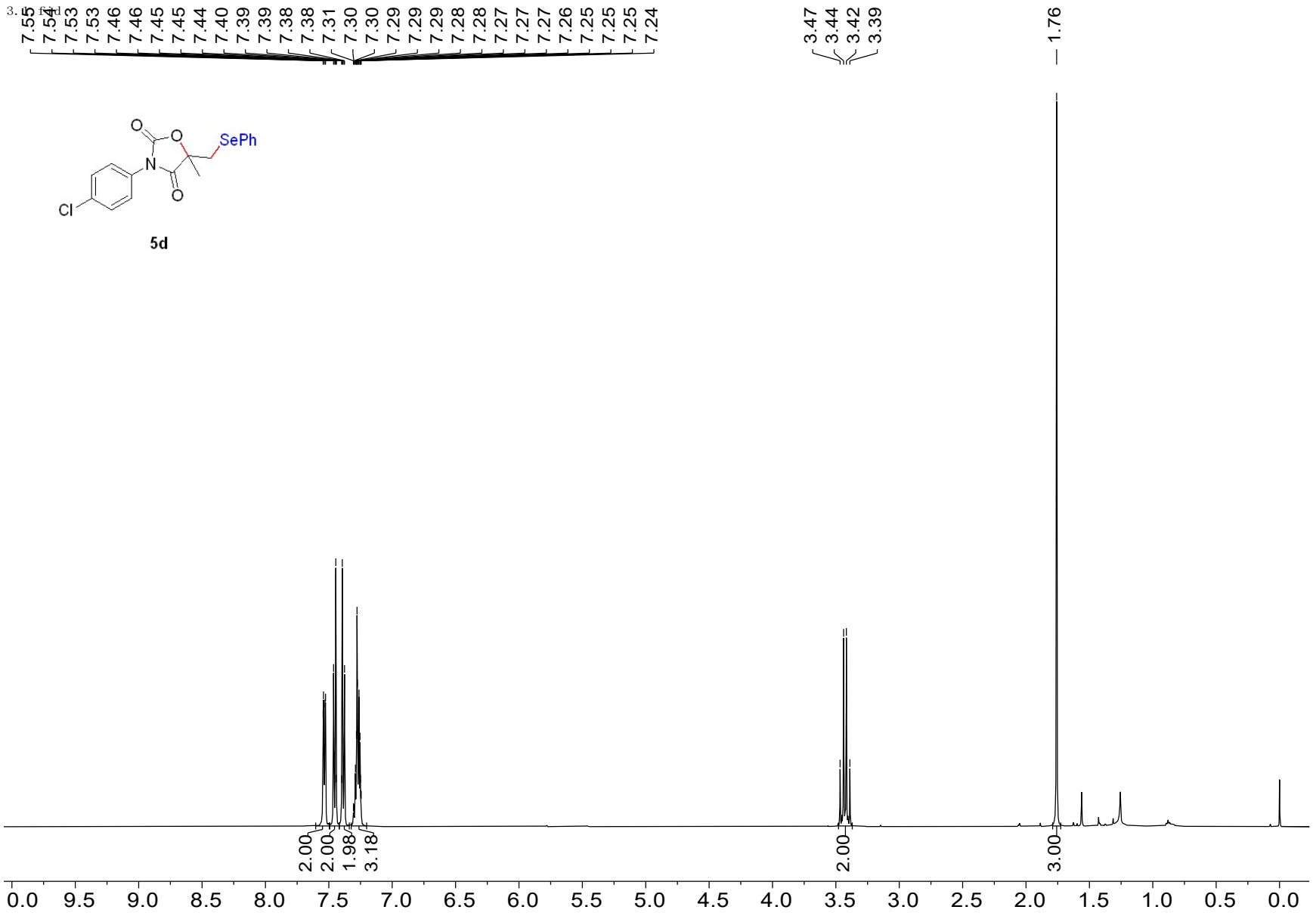
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **5c**.



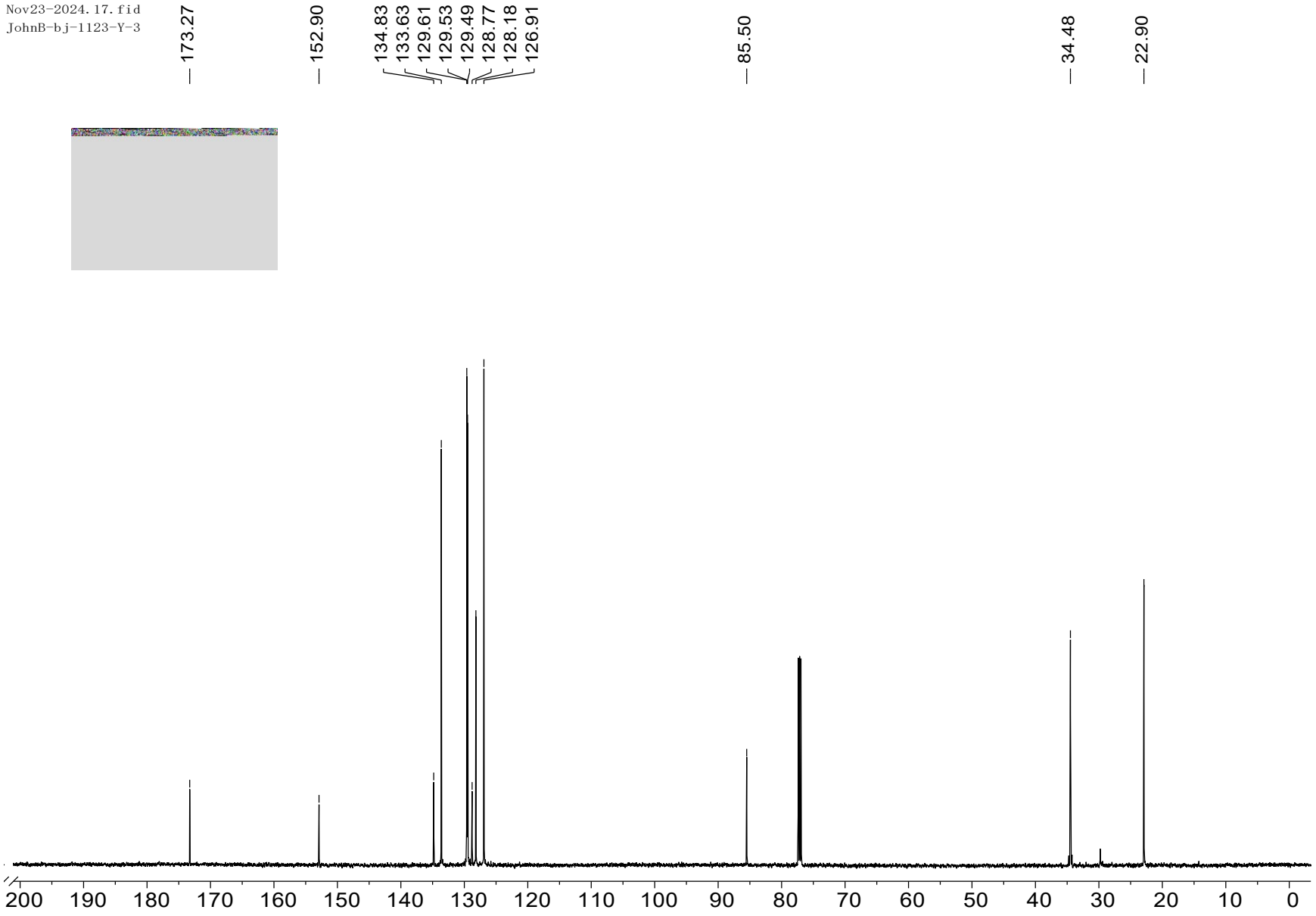
^{19}F NMR (376 MHz, $CDCl_3$) spectrum of **5c**.



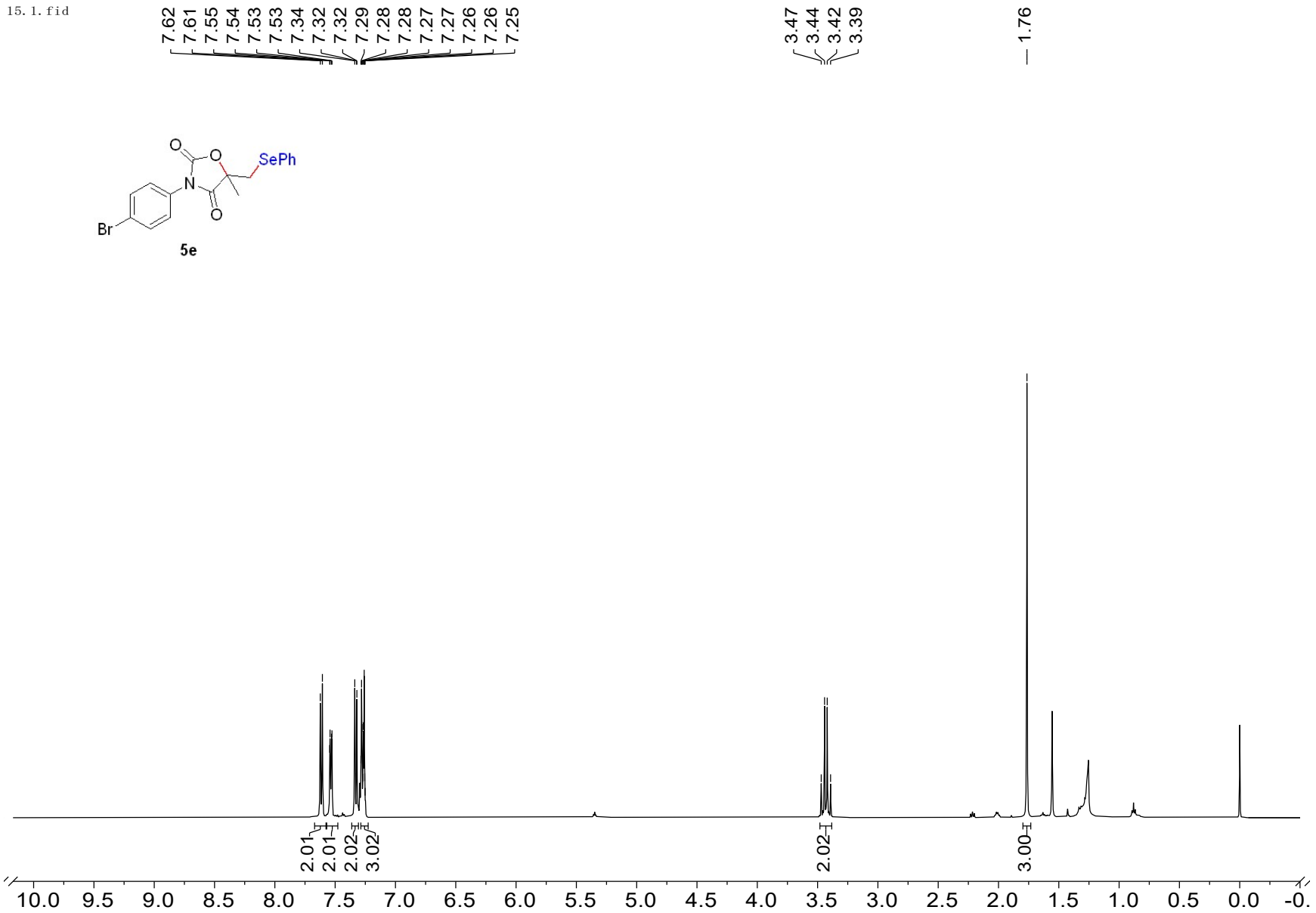
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **5d**.



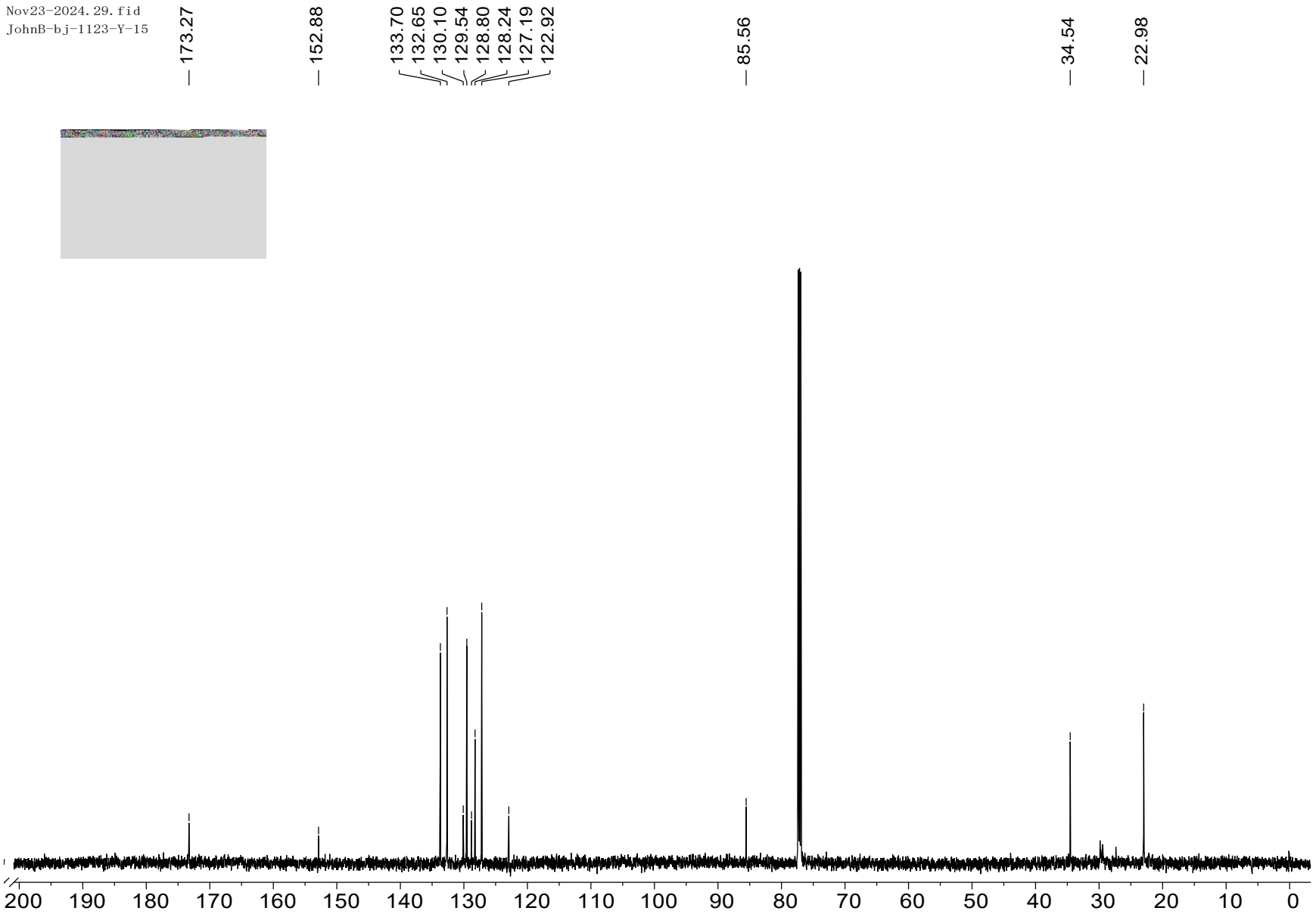
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **5d**.



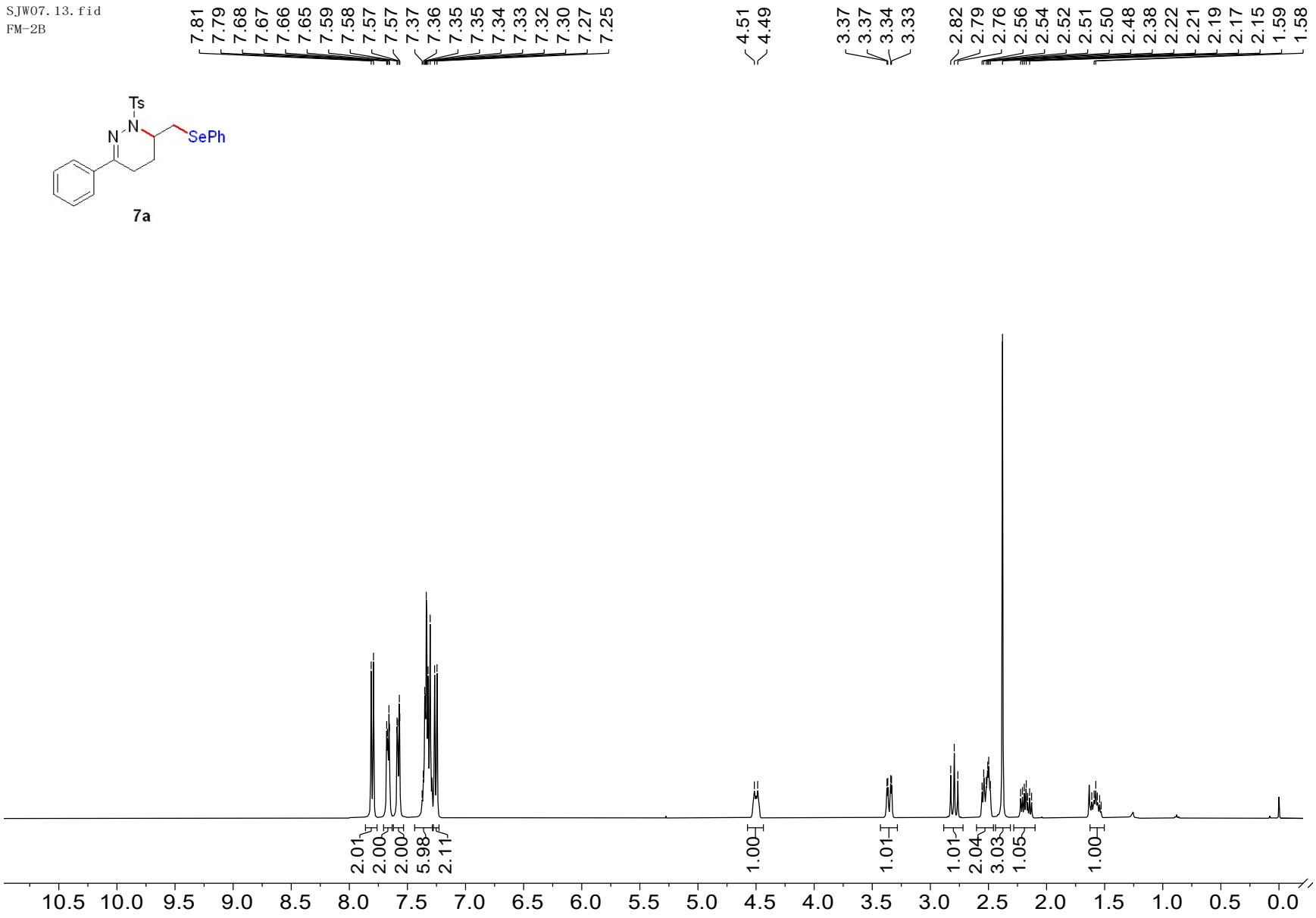
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **5e**.



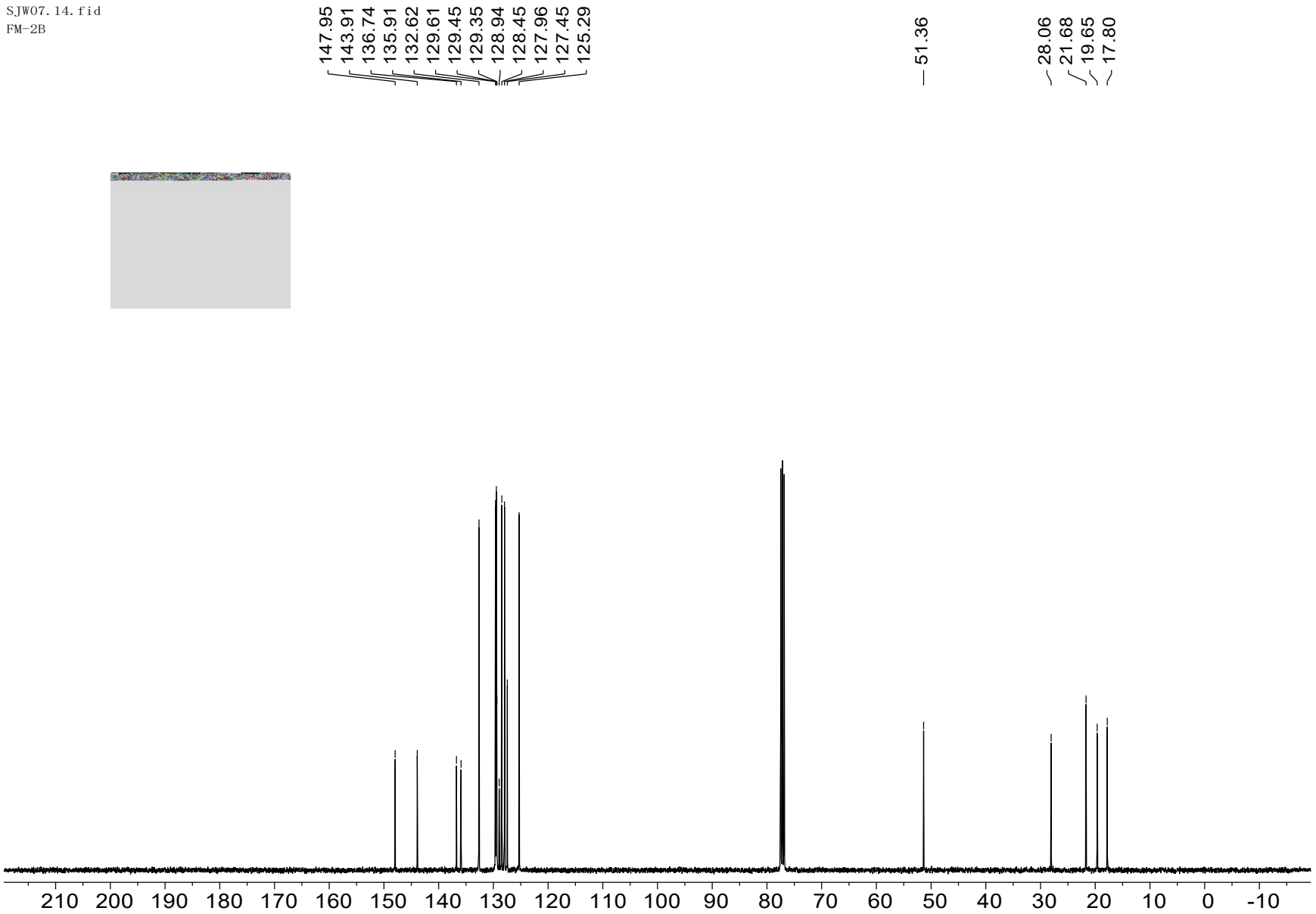
^{13}C NMR (151 MHz, $CDCl_3$) spectrum of **5e**.



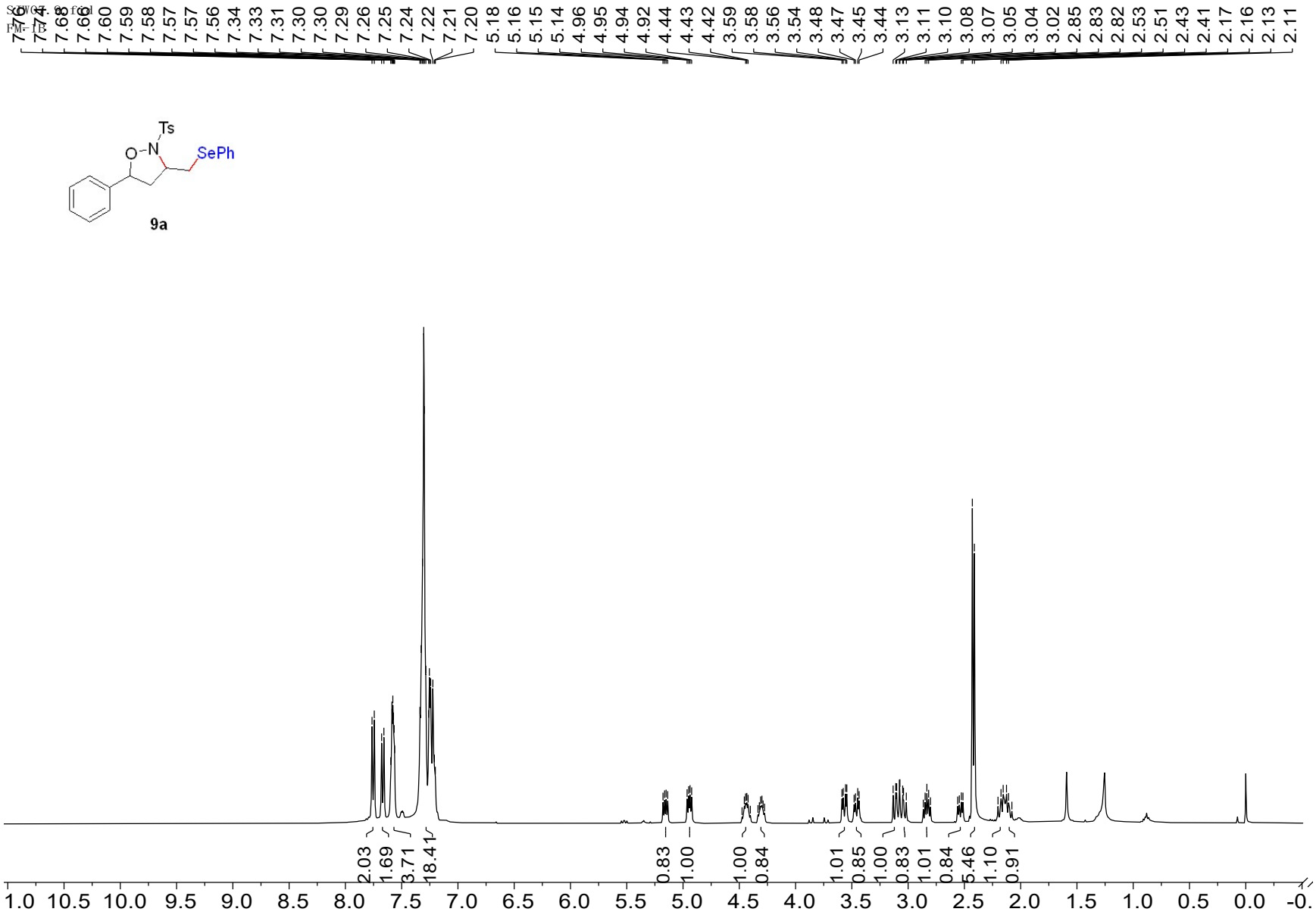
^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **7a**.



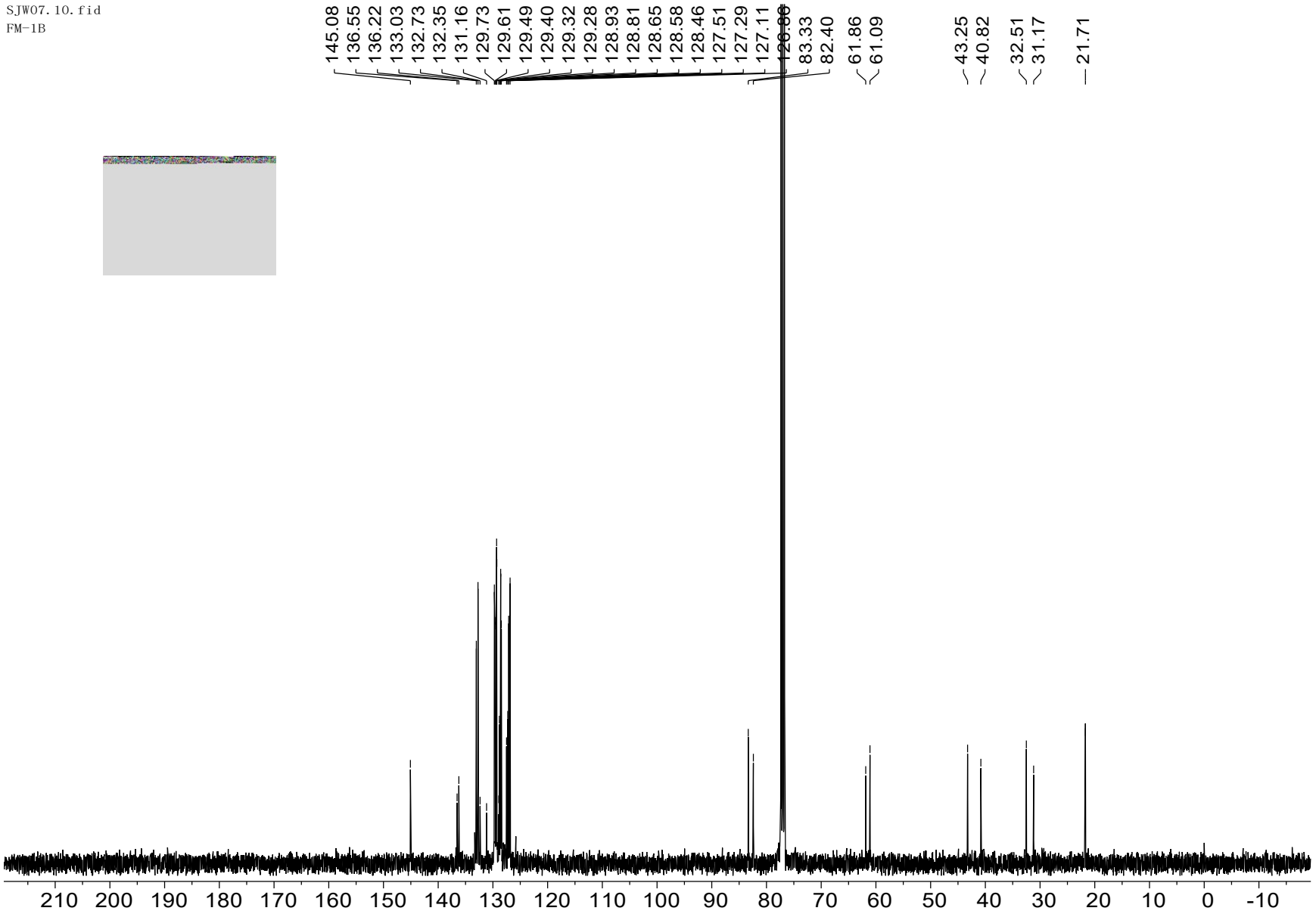
^{13}C NMR (100 MHz, $CDCl_3$) spectrum of **7a**.



^{1}H NMR (500 MHz, $CDCl_3$) spectrum of **9a**.



^{13}C NMR (100 MHz, $CDCl_3$) spectrum of **9a**.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