

***Characterization of Leptazolines A-D, Polar
Oxazolines from the Cyanobacterium
Leptolyngbya sp., Reveals a Glitch with the
“Willoughby-Hoye” Scripts for Calculating
NMR Chemical Shifts***

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EXPERIMENTAL SECTION

General experimental procedures. Optical rotations were measured on a JASCO DIP-370 polarimeter at 589 nm using a sample cell of path length 0.1 dm. UV spectra were obtained on a Varian Cary 50 Bio UV-Visible spectrophotometer. IR spectra of the compounds, as thin films on CaF₂ discs, were recorded using a Shimadzu IRAffinity-1 Fourier Transform spectrophotometer. NMR spectra were acquired on a Varian Inova 500 MHz spectrometer operating at 500 (¹H) or 125 (¹³C) MHz using the residual solvent signals as internal references (CD₃OD δ_H 3.30, δ_C 49.0; DMSO-*d*₆ δ_H 2.50, δ_C 39.5; CDCl₃ δ_H 7.26, δ_C 77.0). Samples were placed in 3-mm Shigemi NMR tubes as necessary. HRMS data were obtained from an Agilent 6545 LC/QTOF instruments using electrospray ionization in positive and negative modes. Samples were purified using a combination of chromatographic techniques, including high performance liquid chromatography. Purity of the compounds was assessed from their UV absorptions at the appropriate wavelengths, or from their ¹H NMR spectra. Percent yields of natural products were based on the amount of freeze-dried biological material or crude extract from the culture broth.

Biological material. The strain O-2-5 (*Leptolyngbya* sp.) was obtained from the Patterson culture collection housed at the University of Hawaii at Manoa. This strain was originally collected from the Blaisdell Center in Honolulu in 1996 and it was identified as *Lyngbya limnetica* by Dr. Gregory Patterson based on its unbranched, long fine trichomes and very small cells. Subsequent 16S rRNA phylogenetic studies revised the identification to *Leptolyngbya* sp. Strain O-2-5 is an unbranched cyanobacterium with long fine straight trichomes and much smaller cells that clustered like a hairball.

Cultivation. The strain was cultured in 11 L BG-11 media with MOPS buffer, under continuous illumination and aeration (3-4 L air/min; no CO₂ added) for 30 days. Cells were filtered off from the suspension and the media was extracted using 25 g of HP-20 resin. The cells were freeze-dried to obtain 5.61 g of dry biomass from the initial harvest.

Extraction, purification and isolation of metabolites. For the initial screening, 570 mg of freeze-dried cells were extracted using 50 mL of 4:1 methanol and dichloromethane (3 times) to yield 111.4 mg of crude extract. The crude extract was fractionated on a C8 column (diameter 2.2 cm, height 1.2 cm) and each fraction was collected by eluting with an increasing concentration of methanol in water (15 mL total volume), followed by isopropanol (with 0.1% TFA). At the same time, HP-20 resin that had been soaked overnight in the media was separated from the medium and re-suspended in 100 mL of organic solvent (methanol) for 2 h. The solution was filtered off

to get rid of the resin and the solvent was removed *in vacuo* to yield 25 mg of the crude media extract. After screening all C8 fractions and the crude media extract at a test concentration of 50 µg/mL, the media extract was found to exhibit activity against PANC-1 cell lines.

The media extract was purified by RP-HPLC (Phenomenex Luna C18, 250 x 10 mm, 5 µm particle size, 100 Å) eluting with MeCN/H₂O (with 0.1% formic acid) at 2.75 mL/min using the following gradient: 25% MeCN for 5 min, then a linear gradient to 70% MeCN over 30 min, and another gradient to 100% MeCN over 5 min, then a 10 min wash with MeCN. HPLC fractions were tested again in the PANC-1 assay at a test concentration of 20 µg/mL in order to identify compounds responsible for the growth inhibition. Due to the lack of sufficient material for structure elucidation, the culture was regrown several times in an effort to isolate sufficient quantities of the new natural products. There was considerable variability in the composition of the metabolites from the various growths and, as a result, material was combined from several extracts, based on LC-MS analysis, to allow for purification and isolation of the compounds of interest.

Like fractions (combined mass of 4.3 mg) showing LC-MS signals at ca. m/z 300 [M+H]⁺ were combined and purified by RP-HPLC (Phenomenex Luna C18, 250 x 10 mm, 5 µm particle size, 100 Å) eluting with MeCN/H₂O at 2.75 mL/min using the following gradient: 25% MeCN for 5 min then a linear gradient to 45% MeCN over 20 min and then increasing to 100% MeCN over 5 min before a 10 min wash with MeCN, which yielded compounds **5** (t_R 6.6 min, 0.8 mg, 1.1% yield, >99% purity by LC-UV detection at 315 nm) and **1** (t_R 15.5 min, 1.0 mg, 1.4% yield, >99% purity by LC-UV detection at 315 nm).

Similarly, like fractions (3.9 mg) showing LC-MS signals at ca. m/z 389 [M+H]⁺ were purified by RP-HPLC (Phenomenex Luna C18, 250 x 10 mm, 5 µm particle size, 100 Å) eluting with MeOH/H₂O at 2.75 mL/min using the following gradient: 45-85% MeOH over 20 min and then increasing to 100% MeOH over 5 min before a 10 min wash with MeOH, which yielded compounds **6** (t_R 6.9 min, 1.0 mg, 0.55% yield, 90% purity by LC-UV detection at 315 nm) and **2** (t_R 19.3 min, 1.0 mg, 0.55% yield, 96% purity by LC-UV detection at 315 nm).

From another harvest, purification of two fractions (1.8 mg and 9.1 mg) using the conditions described above led to the isolation of compound **3** (t_R 18.5 min, 0.3 mg, 0.19% yield, >95% purity by ¹H NMR) and compound **4** (t_R 14.5 min, 0.2 mg, 0.13% yield, isolated with other unidentified impurities). Further analysis and biological evaluation of these compounds was not possible because of the lack of sufficient material.

Leptazoline A (**1**): white, amorphous solid; $[\alpha]_D^{22} +47$ (c 0.2, CH₃OH); UV (CH₃OH) λ_{\max} (log ϵ) 317 (3.45), 263 (3.25), 251 (3.58), 210 (4.36) nm; IR (CaF₂ disc) ν_{\max} 3600-2500 (br), 3381, 3206, 2986, 2920, 1694, 1682, 1639, 1574, 1246, 1101 cm⁻¹; ¹H NMR (500 MHz, DMSO-*d*₆) see Table 1; ¹H NMR (500 MHz, CD₃OD) δ 7.58 (d, *J* = 2.7 Hz, 1H), 7.34 (dd, *J* = 8.9, 2.7 Hz, 1H), 6.93 (d, *J* = 8.9 Hz, 1H), 4.79 (p, *J* = 6.4 Hz, 1H), 4.10 (ddd, *J* = 7.8, 5.5, 3.4 Hz, 1H), 3.99 (dd, *J* = 6.7, 3.4 Hz, 1H), 2.57 – 2.46 (m, 2H), 1.45 (d, *J* = 6.3 Hz, 3H); ¹³C NMR (125 MHz, DMSO-*d*₆) see Table 1; ¹³C NMR (125 MHz, CD₃OD) δ 178.2, 165.7, 159.9, 134.1, 128.3, 124.2, 119.3, 113.2, 79.2, 77.5, 70.4, 41.1, 21.0; HRESIMS *m/z* 300.0630 [M+H]⁺ (calcd for C₁₃H₁₅ClNO₅, 300.0633).

Leptazoline B (**2**): off-white, amorphous solid; $[\alpha]_D^{22} +44$ (c 0.2, CH₃OH); UV (CH₃OH) λ_{\max} (log ϵ) 315 (3.60), 262 (3.46), 251 (3.77), 210 (4.55) nm; IR (CaF₂ disc) ν_{\max} 3476, 3277, 2926, 1676, 1661, 1643, 1556, 1229, 1069 cm⁻¹; ¹H NMR (500 MHz, CD₃OD) see Table S4; ¹³C NMR (125 MHz, CD₃OD) see Table S4; HRESIMS *m/z* 389.1111 [M+H]⁺ (calcd for C₁₆H₂₂ClN₂O₇, 389.1110).

Leptazoline C (**3**): white, amorphous solid; ¹H NMR (500 MHz, CD₃OD) δ 7.65 (dd, *J* = 7.8, 1.7 Hz, 1H), 7.37 (ddd, *J* = 8.3, 7.6, 1.7 Hz, 1H), 6.94 (d, *J* = 8.3 Hz, 1H), 6.87 (t, *J* = 7.6 Hz, 1H), 4.78 (p, *J* = 6.3 Hz, 1H), 4.08 (ddd, *J* = 6.7, 6.3, 3.7 Hz, 1H), 3.98 (dd, *J* = 6.7, 3.7 Hz, 1H), 2.47 (m, 2H), 1.46 (d, *J* = 6.3 Hz, 3H); HRESIMS *m/z* 266.1019 [M+H]⁺ (calcd for C₁₃H₁₆NO₅, 266.1023).

Leptazoline D (**4**): off-white, amorphous solid; ¹H NMR (500 MHz, CD₃OD) δ 7.63 (d, *J* = 7.8 Hz, 1H), 7.36 (t, *J* = 7.7 Hz, 1H), 6.92 (d, *J* = 8.3 Hz, 1H), 6.86 (t, *J* = 7.5 Hz, 1H), 4.79 (p, *J* = 6.5 Hz, 1H), 4.24 (dd, *J* = 6.9, 3.2 Hz, 1H), 4.19 (d, *J* = 7.4 Hz, 1H), 3.96 (p, *J* = 5.7 Hz, 1H), 3.74 (dd, *J* = 7.6, 3.3 Hz, 1H), 3.69-3.58 (m, 4H), 1.46 (d, *J* = 6.2 Hz, 3H); HRESIMS *m/z* 355.1496 [M+H]⁺ (calcd for C₁₆H₂₃N₂O₇, 355.1500).

Compound **5**: ¹H NMR (500 MHz, CD₃OD) δ 7.76 (d, *J* = 3.0 Hz, 1H), 7.01 (dd, *J* = 8.8, 3.0 Hz, 1H), 6.62 (d, *J* = 8.8 Hz, 1H), 4.27 (ddd, *J* = 7.3, 5.6, 3.4 Hz, 1H), 4.10 (m, 1H), 3.97 (t, *J* = 3.6 Hz, 1H), 2.41 – 2.33 (m, 2H), 1.20 (d, *J* = 6.3 Hz, 3H); ¹³C NMR (125 MHz, CD₃OD) δ 180.7, 180.4, 171.1, 133.0, 130.0, 124.7, 121.0, 118.1, 71.9, 70.3, 59.0, 42.9, 20.6; HRESIMS *m/z* 318.0737 [M+H]⁺ (calcd for C₁₃H₁₇ClNO₆, 318.0739).

Compound **6**: ¹H NMR (600 MHz, CD₃OD) δ 7.93 (d, *J* = 2.7 Hz, 1H), 7.36 (dd, *J* = 8.8, 2.7 Hz, 1H), 6.93 (d, *J* = 8.7 Hz, 1H), 4.29 (dd, *J* = 4.3, 2.5 Hz, 1H), 4.13 (qd, *J* = 6.3, 4.3 Hz, 1H), 4.06 (dd, *J* = 7.2, 2.5 Hz, 1H), 3.97 (d, *J* = 7.0 Hz, 1H); 3.97 (m, 1H), 3.68 – 3.60 (m, 4H), 1.23 (d, *J* = 6.3 Hz, 3H); ¹³C NMR (150 MHz, CD₃OD) δ 173.9 (extrapolated from HMBC data), 169.1, 158.5, 134.2, 130.2, 125.2, 119.8, 119.8, 74.6, 73.1, 69.7, 61.9, 61.8, 56.1, 54.0, 20.6; HRESIMS *m/z* 407.1224 [M+H]⁺ (calcd for C₁₆H₂₄ClN₂O₈, 407.1216).

Acetylation of compound 1. The reaction was carried out in an N₂ atmosphere using balloons. To 0.5 mg (1.7 μmol) of compound **1** in a reaction vial were added a drop of pyridine, 5 μL of acetic anhydride, and 0.5 mL dry CH₂Cl₂. The mixture was stirred at room temperature for 1 h. An additional 0.5 mL CH₂Cl₂ was added to the vial and the contents were washed sequentially with aq. NaHCO₃ (1 mL) and brine (1 mL). The organic layer was then dried over anhydrous MgSO₄ and filtered. Upon removal of the solvent by evaporation under a stream of N₂, 0.6 mg of crude solid was obtained. The residue was purified by RP-HPLC (Phenomenex Luna C18, 150 x 4.6 mm, 5 μm particle size, 100 Å) eluting with CH₃OH in H₂O at 0.7 mL/min using a linear gradient from 50% CH₃OH in H₂O to 100% CH₃OH over 20 min, which yielded compound **7** (*t*_R 6.4 min, 0.1 mg, 0.3 μmol, 17% yield, isolated with unidentified impurities) and compound **8** (*t*_R 7.8 min, 0.3 mg, 0.9 μmol, 52% yield).

3-Acetyl-**1** (**7**): ¹H NMR (500 MHz, CD₃OD) δ 7.57 (d, *J* = 2.7 Hz, 1H), 7.36 (dd, *J* = 8.9, 2.7 Hz, 1H), 6.94 (d, *J* = 8.9 Hz, 1H), 5.44 (td, *J* = 7.0, 3.8 Hz, 1H), 4.67 (p, *J* = 6.3 Hz, 1H), 4.23 (dd, *J* = 6.3, 3.8 Hz, 1H), 2.60-2.52 (m, 2H), 1.98 (s, 3H), 1.44 (d, *J* = 6.3 Hz, 3H); HRESIMS *m/z* 342.0743 [M+H]⁺ (calcd for C₁₅H₁₆ClNO₆, 342.0739).

9-Acetyl-**1** (**8**): ¹H NMR (500 MHz, CD₃OD) δ 7.57 (d, *J* = 2.6 Hz, 1H), 7.33 (dd, *J* = 8.9, 2.7 Hz, 1H), 6.92 (d, *J* = 9.0 Hz, 1H), 4.79 (m, 1H), 4.05 (m, 1H), 3.98 (dd, *J* = 6.8, 3.5 Hz, 1H), 2.45 (m, 2H), 1.88 (s, 3H), 1.45 (d, *J* = 6.3 Hz, 3H).

NMR shift Calculations. Conformers of all diastereomers of **1** and **2** within 5 kcal/mol of the lowest energy conformer were searched using the Monte Carlo multiple minimum (MCMM) method and the OPLS-2005 force field in MacroModel¹ (Schrodinger Inc.). Each conformer within 5 kcal/mol of the lowest energy conformer was optimized in Gaussian09 at the M06-2X²/6-31+G level and the geometries of all conformers with similar energies were checked for redundancy. NMR shielding tensors of all unique conformers within the energy window were computed using the gauge-independent atomic orbital (GIAO) method at the B3LYP³⁻⁶/6-311+G^{7, 8} level and ¹H and ¹³C chemical shifts were obtained after applying appropriate scaling factors (¹H: intercept = 31.9477, slope = -1.0767; ¹³C: intercept = 181.2412, slope = -1.0522). Statistical comparisons of the computed shifts with the experimental data were carried out using the spreadsheet provided by Sarotti.⁹

The new scripts were tested using Python V3 (Windows 10 using Anaconda 1.9.6 running Python 3.7.1; Python 3.6.5 on Mac Mavericks; Python 3.7.1 on Mac Mojave) and Python V2 (Python 2.7.10 on Mac El Capitan 10.11.6; Python 2.7.16 on Mac Mojave).

Growth inhibitory assay. Human pancreatic carcinoma (PANC-1) cell lines were maintained in DMEM media supplemented with 10% premium fetal bovine serum and 50 U/mL penicillin and 50 µg/mL streptomycin. One day before treatment, cancer cells were seeded at 5,000 cells per well into a 96-well tissue culture plate. Twenty-four hours post seeding, the serially diluted compounds were added to the cells for the growth inhibition assay, and incubated at 37 °C with 5% CO₂ for 72 h. Then, 40 µL MTS dye (Cell Titer aqueous One Solution Cell Proliferation Assay) was added to each well and incubated with 5% CO₂ at 37 °C for 90 minutes. Cell viability data were collected with a Modulus Microplate Reader and GI₅₀ curves were generated using GraphPad Prism 5. For GI₅₀ determination, samples were tested in triplicate at each concentration and the results were averaged. Three consecutive biological replicates were collected and average GI₅₀ values were calculated.

Table S1. NMR Spectroscopic Data of Compound 1 in MeOH-*d*₄

| C/H# | δ_C , type | δ_H (J in Hz) | COSY | HMBC ^a |
|------|-----------------------|---------------------------|--------|-------------------|
| 1 | 178.2, C | | | |
| 2 | 41.1, CH ₂ | 2.54, dd (14.7, 5.1) | 3 | 1, 3, 4 |
| | | 2.50, dd (14.7, 6.7) | 3 | |
| 3 | 70.4, CH | 4.10, ddd (7.8, 5.5, 3.4) | 2, 4 | 1,2, 5 |
| 4 | 77.5, CH | 3.99, dd (6.7, 3.4) | 3, 5 | 2, 3, 5, 7, 8 |
| 5 | 79.2, CH | 4.79, p (6.4) | 4, 6 | 3, 7 |
| 6 | 21.0, CH ₃ | 1.45, d (6.3) | | 4, 5 |
| 7 | 165.7, C | | | |
| 8 | 113.2, C | | | |
| 9 | 159.9, C | | | |
| 10 | 119.3, CH | 6.93, d (8.9) | 11 | 7, 8, 9, 12 |
| 11 | 134.1, CH | 7.34, dd (8.9, 2.7) | 10, 11 | 9, 12, 13 |
| 12 | 124.2, C | | | |
| 13 | 128.3, CH | 7.58, d (2.7) | 11 | 7, 9, 11, 12 |
| NH | | 12.28, brs | | |

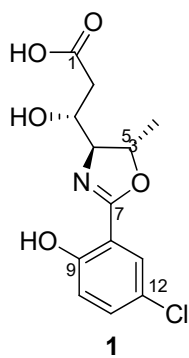
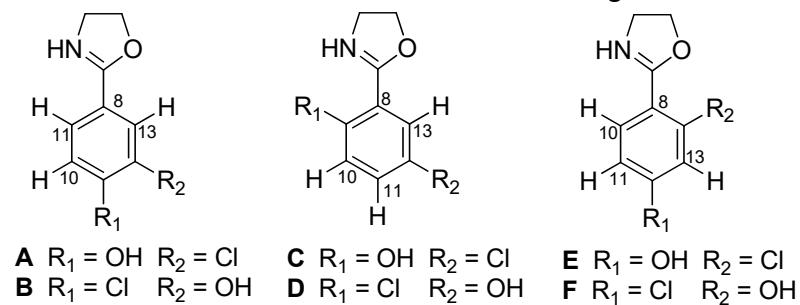
^a HMBC correlations, optimized for 7 Hz, are from proton(s) stated to the indicated carbon

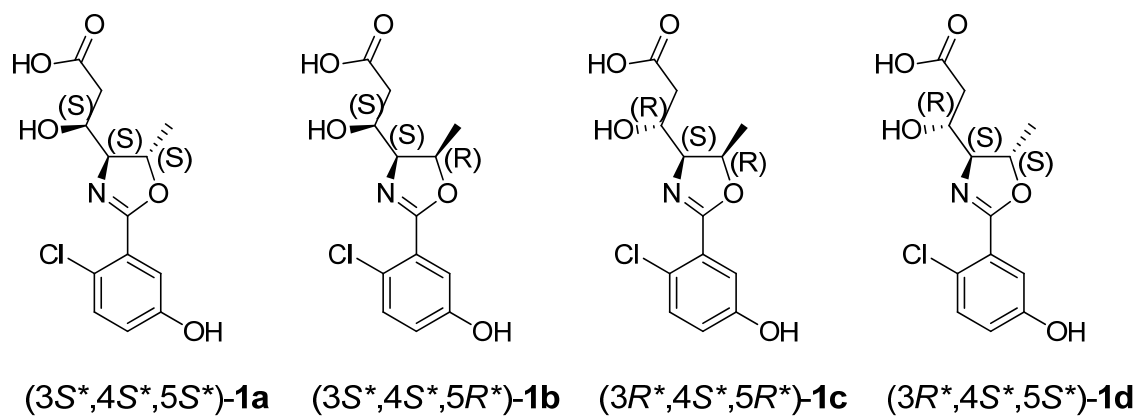
Table S2. Comparison of Calculated and Experimental Chemical Shifts for Aromatic Substitutions

| Pos ^a | Exp. ^a | A ^b | B ^b | C ^b | D ^b | E ^b | F ^b |
|------------------|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 8 | 113.2, C | 129.6 | 127.3 | 110.7 | 127.4 | 121.0 | 111.0 |
| 9 (OH) | 159.9, C | 158.4 | 151.6 | 155.7 | 154.8 | 156.8 | 158.3 |
| 10 | 119.3, CH | 117.9 | 128.4 | 118.5 | 132.1 | 130.4 | 129.8 |
| 11 | 134.1, CH | 127.5 | 122.7 | 131.8 | 119.0 | 114.6 | 121.0 |
| | 124.2, C | 120.8 | 122.6 | 125.0 | 126.2 | 136.2 | 138.6 |
| 13 | 128.3, CH | 129.3 | 115.4 | 128.9 | 116.4 | 116.7 | 116.6 |
| MAE | | 5.1 | 9.6 | 1.9 | 10.2 | 10.9 | 8.9 |

^a Numbered for **A-F** as below with C9 as C-OH and C12 as C-Cl always, C13 corresponding to the carbon bearing the proton that gives rise to the doublet observed in the ¹H NMR spectrum with a meta coupling to H-13, which defines the position of C13.

^b ¹³C NMR Chemical shifts calculated using ACD Labs Prediction V12





The four diastereomers of compound 1

Table S3. Experimental and Computed Chemical Shifts of Compound 1

| Nuclei | Position | Experimental δ | Computed δ | | | |
|---------------|----------|-----------------------|-------------------|-------------|-----------|--------------|
| | | 1 | 1a | 1b | 1c | 1d |
| H | 2a | 2.53 | 2.55 | 2.88 | 2.86 | 2.76 |
| | 2b | 2.53 | 2.55 | 2.92 | 2.85 | 2.82 |
| | 3 | 4.10 | 4.46 | 4.15 | 4.31 | 3.96 |
| | 4 | 3.99 | 4.03 | 4.43 | 4.40 | 3.96 |
| | 5 | 4.79 | 4.70 | 4.96 | 4.97 | 4.70 |
| | 6 | 1.45 | 1.42 | 1.42 | 1.53 | 1.45 |
| | 10 | 6.93 | 6.90 | 6.88 | 6.91 | 6.90 |
| | 11 | 7.34 | 7.34 | 7.33 | 7.35 | 7.35 |
| | 13 | 7.58 | 7.64 | 7.64 | 7.68 | 7.66 |
| | | | MAE (all) | 0.07 | 0.17 | 0.18 |
| | | MAE (H3-H5) | 0.16 | 0.22 | 0.27 | 0.09 |
| C | 1 | 178.2 | 172.0 | 173.2 | 172.1 | 172.0 |
| | 2 | 41.1 | 34.9 | 37.7 | 40.0 | 38.0 |
| | 3 | 70.4 | 68.0 | 68.4 | 66.1 | 69.5 |
| | 4 | 77.5 | 76.4 | 70.5 | 70.3 | 76.4 |
| | 5 | 79.2 | 74.9 | 78.4 | 78.5 | 77.9 |
| | 6 | 21.0 | 19.4 | 13.3 | 14.7 | 18.9 |
| | 7 | 165.7 | 162.7 | 162.5 | 163.3 | 163.2 |
| | 8 | 113.2 | 109.6 | 109.8 | 109.7 | 109.5 |
| | 9 | 159.9 | 156.6 | 156.5 | 156.4 | 156.5 |
| | 10 | 119.3 | 115.6 | 115.5 | 115.5 | 115.5 |
| | 11 | 134.1 | 131.6 | 131.6 | 131.7 | 131.7 |
| | 12 | 124.2 | 126.6 | 126.6 | 126.6 | 126.6 |
| | 13 | 128.3 | 125.7 | 125.6 | 125.8 | 125.8 |
| | | MAE (all) | 3.3 | 3.6 | 3.6 | 2.7 |
| | | MAE (C3-C5) | 2.6 | 3.3 | 4.1 | 1.1 |
| Probabilities | sDP4+ | H | 0.916 | 0.001 | 0.000 | 0.083 |
| | | C | 0.003 | 0.000 | 0.000 | 0.997 |
| | | all | 0.033 | 0.000 | 0.000 | 0.967 |

Key:

1a = (3*S**,4*S**,5*S**)-1; **1b** = (3*S**,4*S**,5*R**)-1;**1c** = (3*R**,4*S**,5*R**)-1; **1d** = (3*R**,4*S**,5*S**)-1

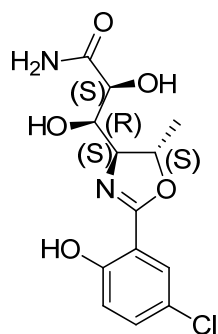
Table S4. NMR Spectroscopic Data of Compound 2 in CD₃OD

| Pos. | δ_C , type | δ_H (J in Hz) | COSY | HMBC ^a | ROESY |
|-------|-----------------------|----------------------|--------|-------------------|---------|
| 1 | 175.6, C | | | | |
| 2 | 73.5, CH | 4.18, d (7.4) | 3 | 1, 3, 4 | 4, 3 |
| 3 | 74.2, CH | 3.75, dd (7.5, 3.3) | 2, 4 | 1, 2, 5 | 2, 4, 5 |
| 4 | 74.3, CH | 4.26, dd (6.7, 3.2) | 3, 5 | 6, 7, 2, 3, 8 | 2, 3, 6 |
| 5 | 79.3, CH | 4.81, p (6.3) | 4, 6 | 3, 7 | 3, 6 |
| 6 | 20.8, CH ₃ | 1.46, d (6.3) | 5 | 5, 4 | 4, 5 |
| 7 | 165.8, C | | | | |
| 8 | 113.2, C | | | | |
| 9 | 160.0, C | | | | |
| 10 | 119.3, CH | 6.93, d (8.8) | 11 | 7, 8, 9, 12 | 11 |
| 11 | 134.2, CH | 7.34, dd (8.8, 2.7) | 10, 13 | 9, 12, 13 | 10, 13 |
| 12 | 124.2, C | | | | |
| 13 | 128.3, CH | 7.58, d (2.6) | 11 | 7, 9, 11, 12 | 11 |
| 1' | 54.0, CH | 3.96, p (5.5) | 2', 3' | 2', 3', 1 | 2', 3' |
| 2'/3' | 61.7, CH ₂ | 3.69-3.56, m | 1' | 1', 2' | 1', 2' |

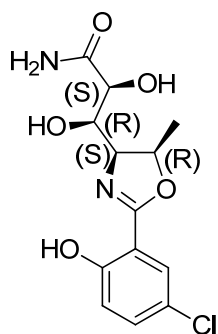
Table S5. Computed Chemical Shifts of a Truncated Version of 2

| Nuclei | Pos. | Experimental δ | | Computed δ | | | | | | | | |
|---------------------|------|-----------------------|-------------|-------------------|-----------|-----------|-------------|-------------|-----------|-----------|--------------|------------|
| | | 2 | | 2a | 2b | 2c | 2d | 2e | 2f | 2g | 2h | |
| H | 2 | 4.18 | | 4.04 | 4.33 | 4.38 | 4.24 | 4.62 | 4.66 | 4.06 | 4.22 | |
| | 3 | 3.75 | | 3.94 | 4.34 | 4.13 | 3.85 | 4.50 | 4.90 | 4.12 | 3.38 | |
| | 4 | 4.26 | | 4.28 | 4.36 | 4.21 | 4.24 | 4.05 | 4.17 | 4.60 | 4.52 | |
| | 5 | 4.81 | | 4.84 | 5.12 | 4.76 | 4.63 | 5.07 | 4.96 | 4.87 | 4.68 | |
| | 6 | 1.46 | | 1.55 | 1.41 | 1.63 | 1.43 | 1.55 | 1.43 | 1.41 | 1.37 | |
| | 10 | 6.93 | | 6.90 | 6.91 | 6.90 | 6.90 | 6.90 | 6.92 | 6.91 | 6.91 | |
| | 11 | 7.34 | | 7.34 | 7.34 | 7.33 | 7.35 | 7.34 | 7.35 | 7.36 | 7.35 | |
| | 13 | 7.58 | | 7.64 | 7.68 | 7.59 | 7.65 | 7.62 | 7.67 | 7.67 | 7.67 | |
| | | | | MAE (all) | 0.07 | 0.17 | 0.11 | 0.06 | 0.23 | 0.25 | 0.13 | 0.13 |
| | | | | MAE (H2-H5) | 0.10 | 0.29 | 0.17 | 0.09 | 0.41 | 0.47 | 0.22 | 0.20 |
| C | 1 | 175. | | 169.6 | 169.5 | 172.1 | 171. | 169.8 | 169.9 | 171.6 | 170.1 | |
| | 2 | 73.5 | | 71.7 | 72.9 | 74.8 | 72.2 | 74.2 | 74.1 | 72.3 | 73.2 | |
| | 3 | 74.2 | | 74.3 | 74.6 | 68.4 | 73.7 | 71.6 | 73.8 | 70.6 | 75.4 | |
| | 4 | 74.3 | | 72.9 | 68.6 | 68.2 | 72.2 | 73.9 | 67.7 | 67.9 | 71.9 | |
| | 5 | 79.3 | | 75.4 | 78.8 | 78.5 | 77.8 | 75.9 | 80.1 | 77.1 | 78.1 | |
| | 6 | 20.8 | | 18.6 | 15.9 | 12.6 | 18.4 | 18.4 | 16.6 | 13.1 | 18.9 | |
| | 7 | 165. | | 162.7 | 163.2 | 163.3 | 163. | 162.9 | 163.8 | 163.4 | 163.6 | |
| | 8 | 113. | | 109.6 | 110.0 | 109.7 | 109. | 109.5 | 110.1 | 109.6 | 109.5 | |
| | 9 | 160. | | 156.6 | 156.7 | 156.9 | 156. | 156.8 | 156.7 | 156.6 | 156.7 | |
| | 10 | 119. | | 115.5 | 115.5 | 115.6 | 115.7 | 115.6 | 115.6 | 115.7 | 115.7 | |
| | 11 | 134. | | 131.6 | 131.6 | 131.5 | 131. | 131.6 | 131.7 | 131.9 | 131.8 | |
| | 12 | 124. | | 126.5 | 126.6 | 126.4 | 126. | 126.4 | 126.6 | 126.7 | 126.6 | |
| | 13 | 128. | | 125.7 | 125.6 | 125.6 | 125. | 125.6 | 125.6 | 125.8 | 125.8 | |
| | | | | MAE (all) | 2.8 | 3.0 | 3.5 | 2.5 | 2.8 | 2.9 | 3.5 | 2.5 |
| | | | MAE (C2-C5) | 1.8 | 1.8 | 3.5 | 1.4 | 1.8 | 2.1 | 3.4 | 1.3 | |
| Probabilities sDP4+ | H | | | 0.349 | 0.003 | 0.030 | 0.59 | 0.000 | 0.001 | 0.009 | 0.012 | |
| | C | | | 0.019 | 0.003 | 0.000 | 0.46 | 0.023 | 0.005 | 0.000 | 0.481 | |
| | all | | | 0.022 | 0.000 | 0.000 | 0.95 | 0.000 | 0.000 | 0.000 | 0.021 | |

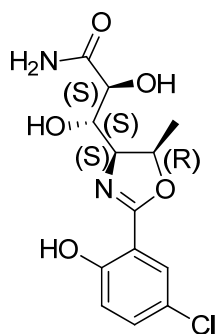
Key: **2a** = (2S*,3R*,4S*,5S*)-**2a**; **2b** = (2S*,3R*,4S*,5R*)-**2a**; **2c** = (2S*,3S*,4S*,5R*)-**2a**;
2d = (2S*,3S*,4S*,5S*)-**2a**; **2e** = (2R*,3R*,4S*,5S*)-**2a**; **2f** = (2R*,3R*,4S*,5R*)-**2a**; **2g** =
(2R*,3S*,4S*,5R*)-**2a**; **2h** = (2R*,3S*,4S*,5S*)-**2a**



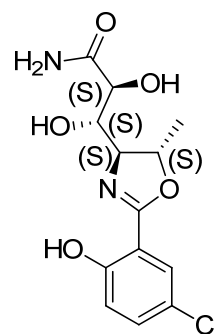
(2S*,3R*,4S*,5S*)-2a



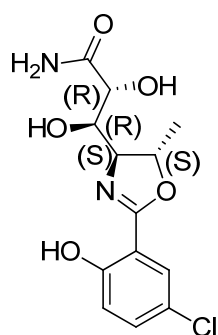
(2S*,3R*,4S*,5R*)-2b



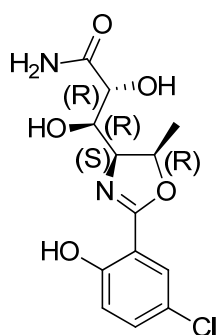
(2S*,3S*,4S*,5R*)-2c



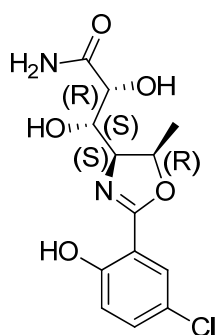
(2S*,3S*,4S*,5S*)-2d



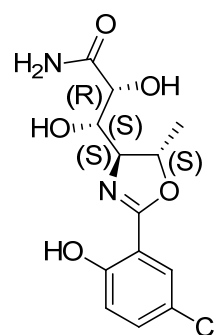
(2R*,3R*,4S*,5S*)-2e



(2R*,3R*,4S*,5R*)-2f



(2R*,3S*,4S*,5R*)-2g



(2R*,3S*,4S*,5S*)-2h

Figure S1. ¹H NMR Spectrum of Compound 1 in CD₃OD (500 MHz)

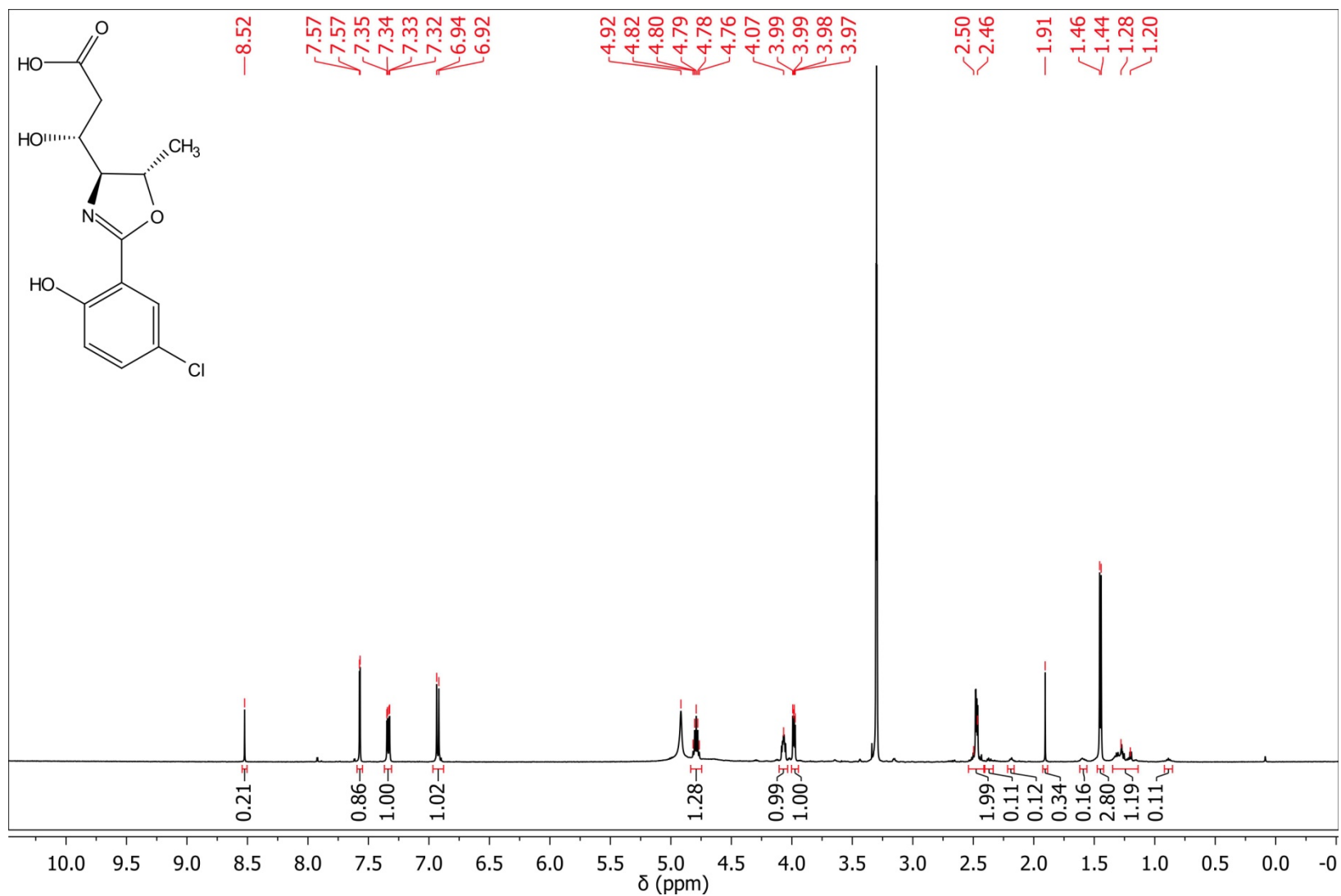


Figure S2. ¹H NMR Spectrum of Compound 1 in DMSO-d₆ (500 MHz)

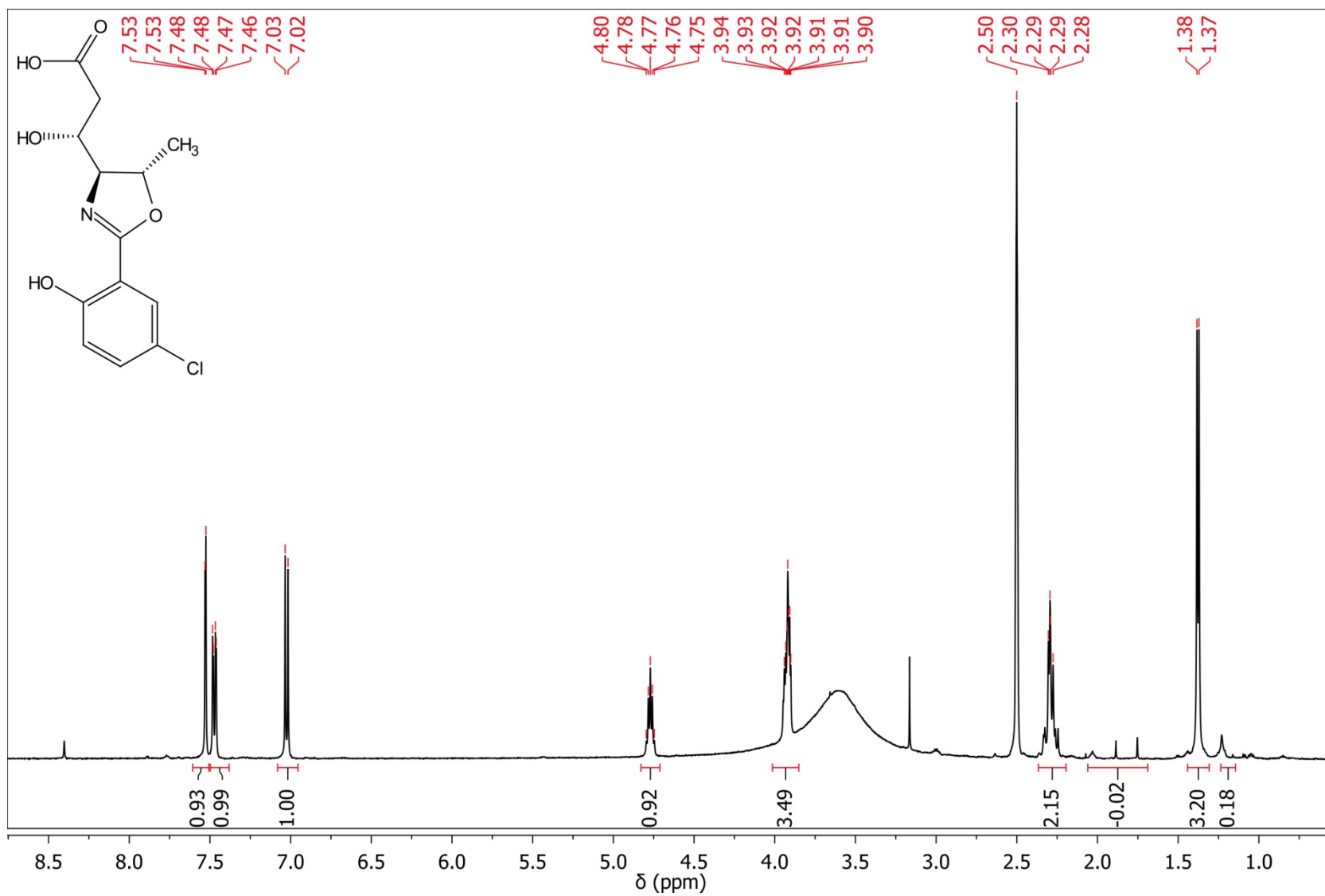


Figure S3. ^{13}C NMR Spectrum of Compound 1 in CD_3OD (125 MHz)

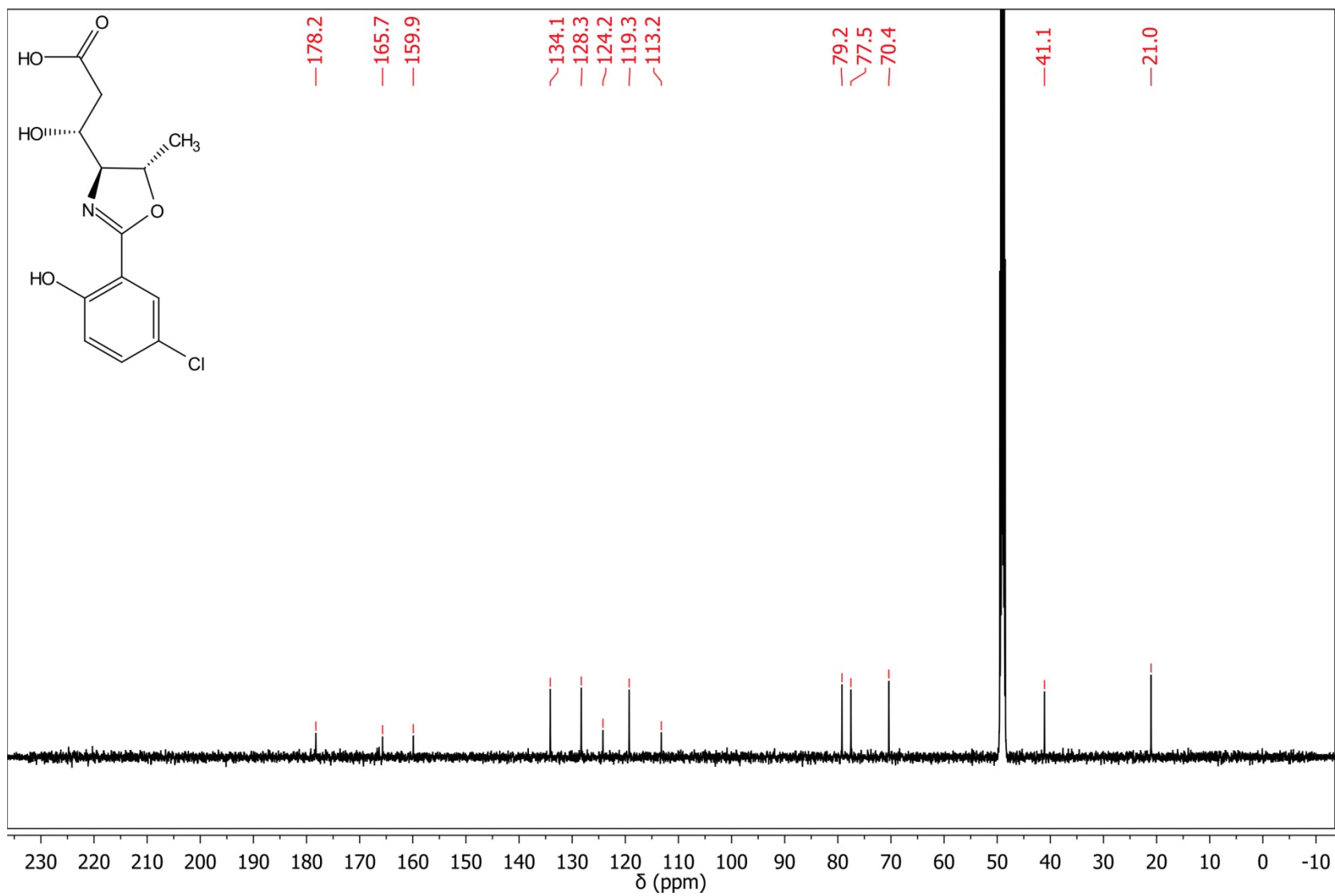


Figure S4. ^{13}C NMR Spectrum of Compound 1 in $\text{DMSO-}d_6$ (125 MHz)

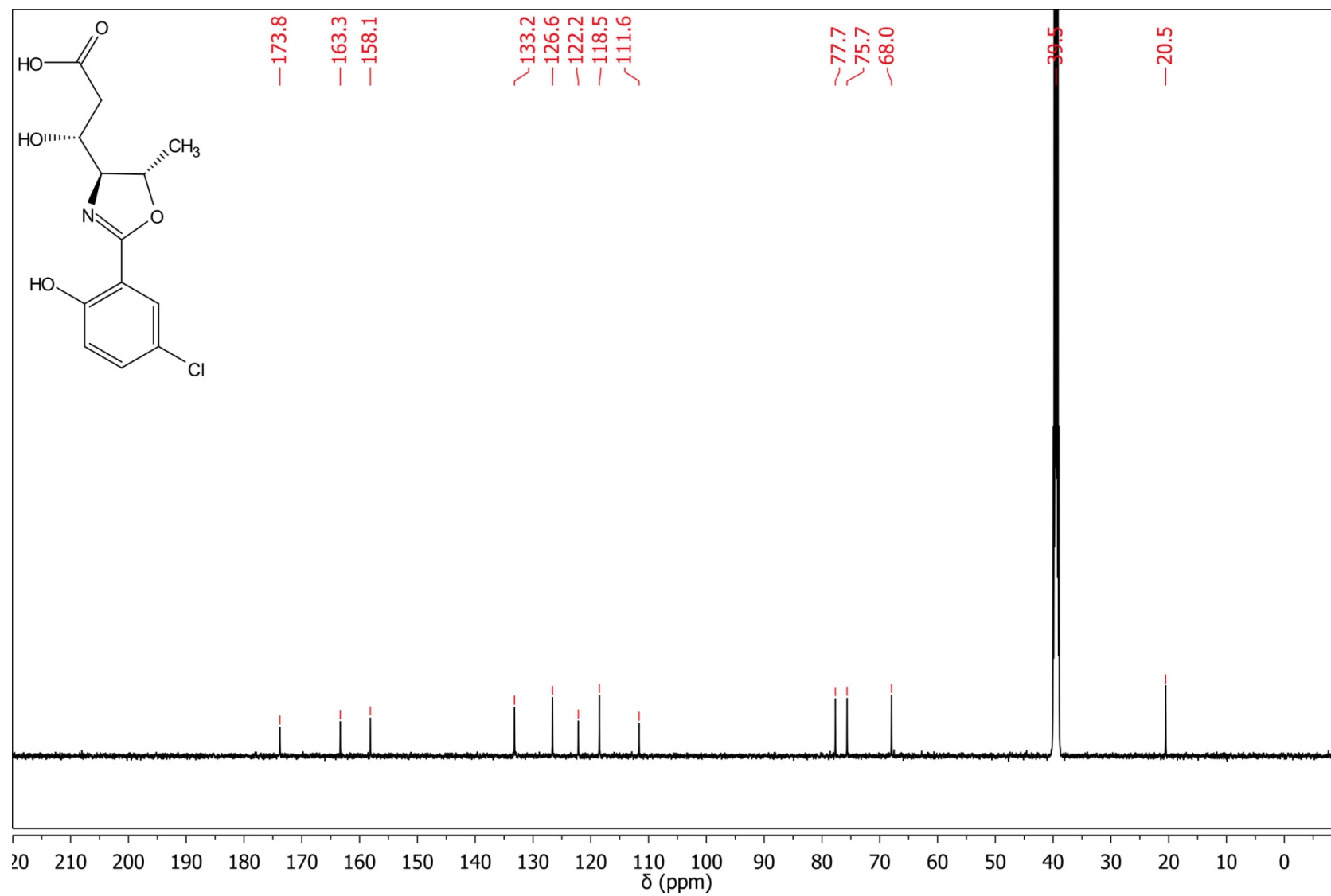


Figure S5. COSY Spectrum of Compound 1 in CD₃OD (500 MHz)

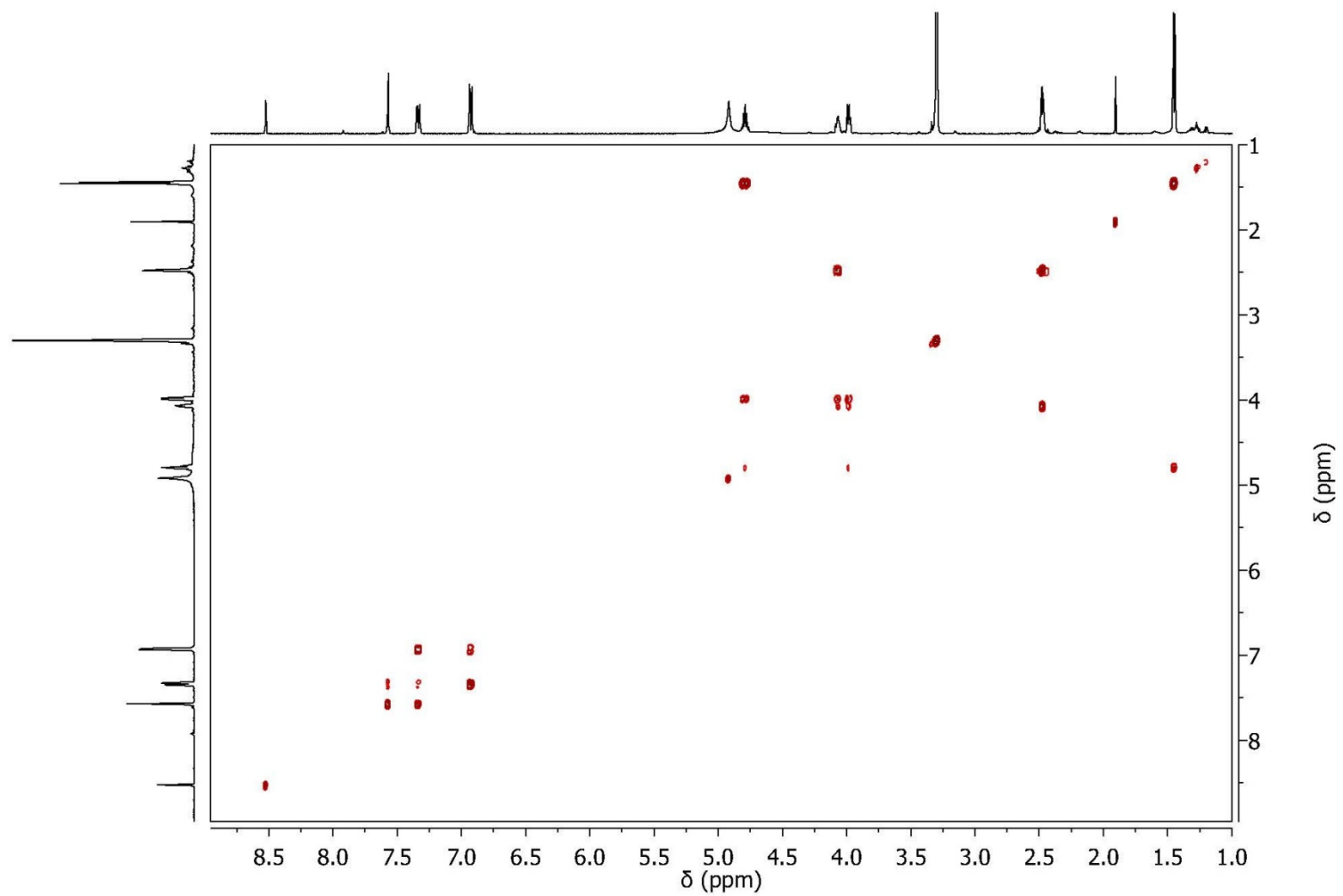


Figure S6. COSY Spectrum of Compound 1 in DMSO- d_6 (500 MHz)

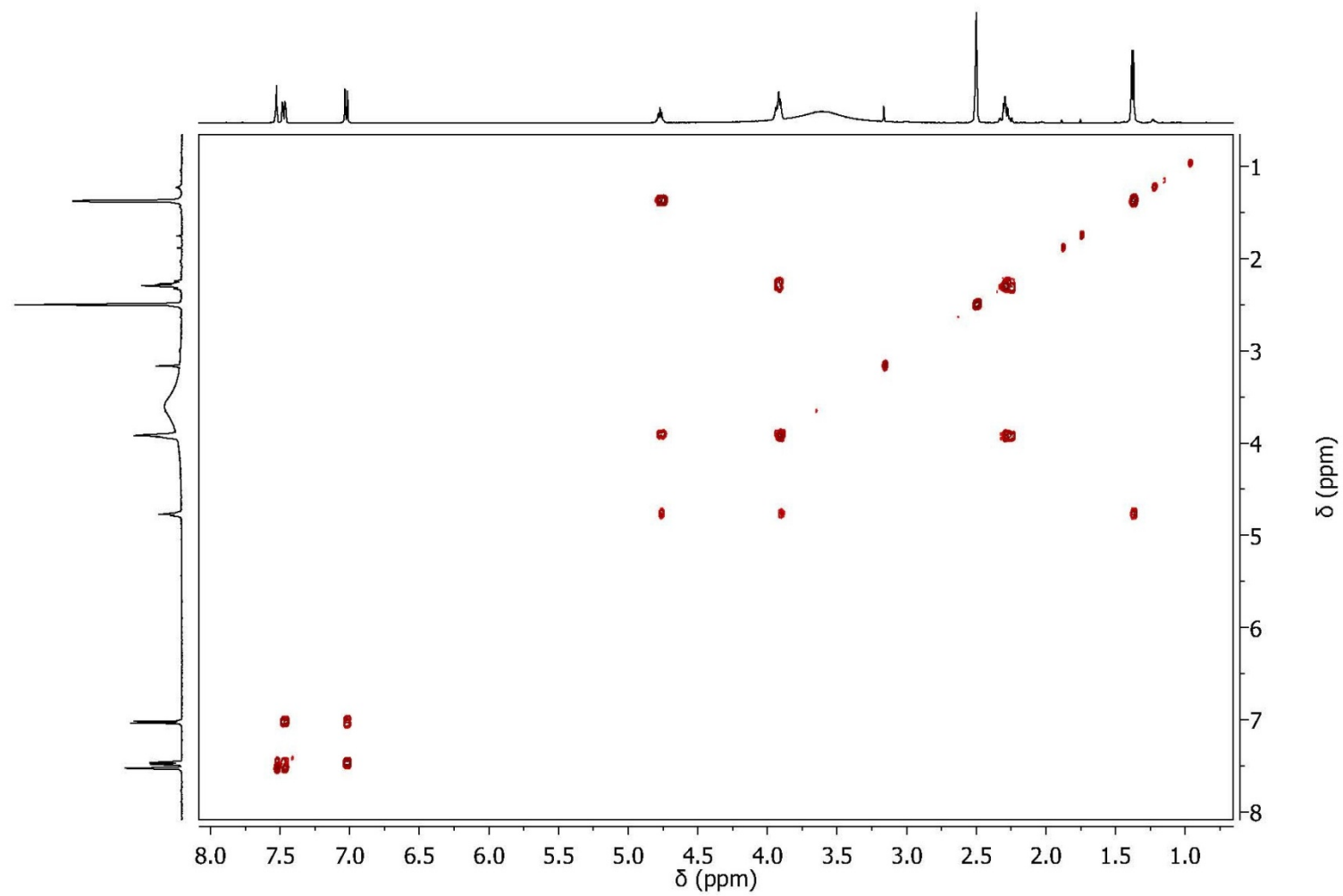


Figure S7. HSQC Spectrum of Compound 1 in CD₃OD (500 MHz)

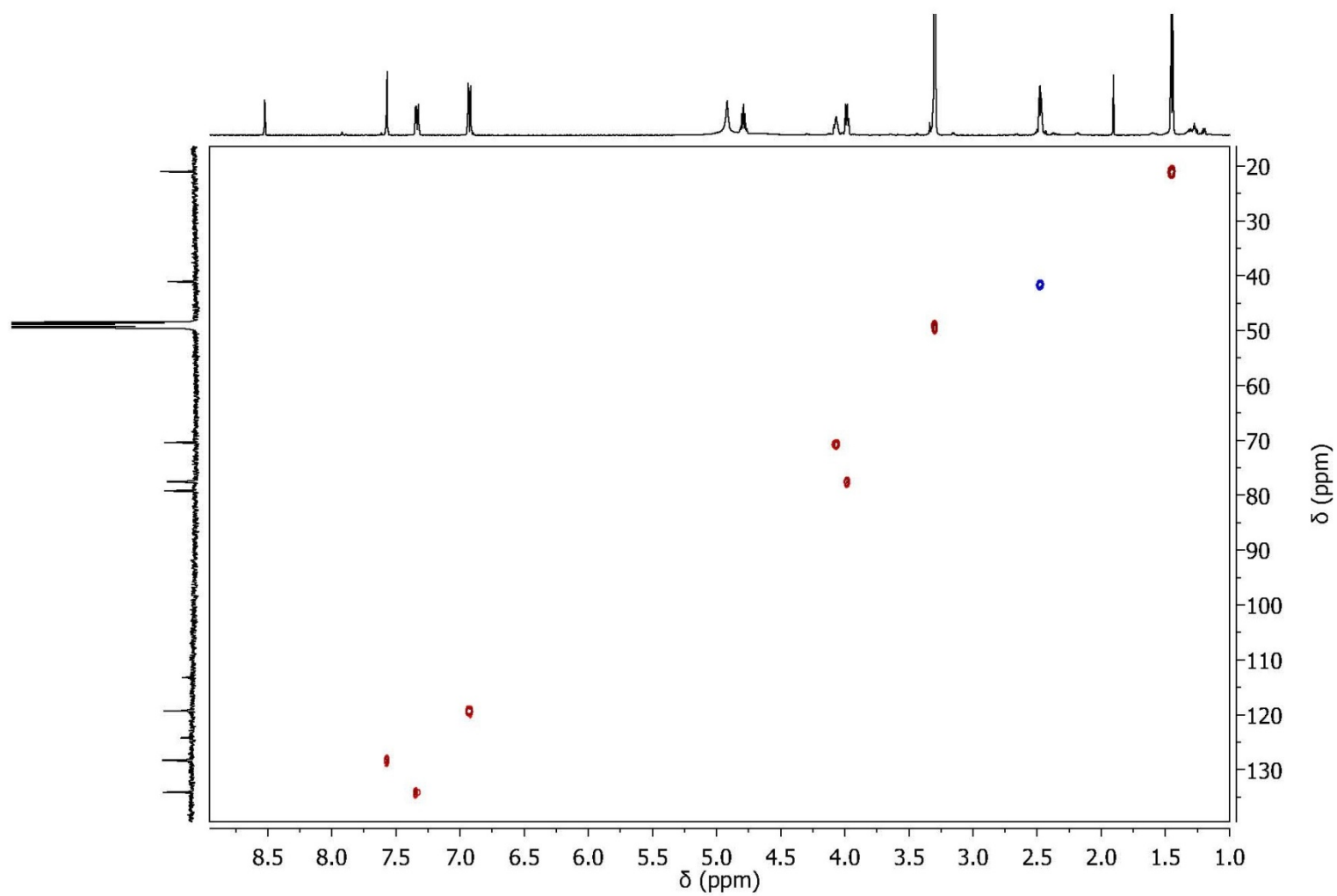


Figure S8. HSQC Spectrum of Compound 1 in DMSO- d_6 (500 MHz)

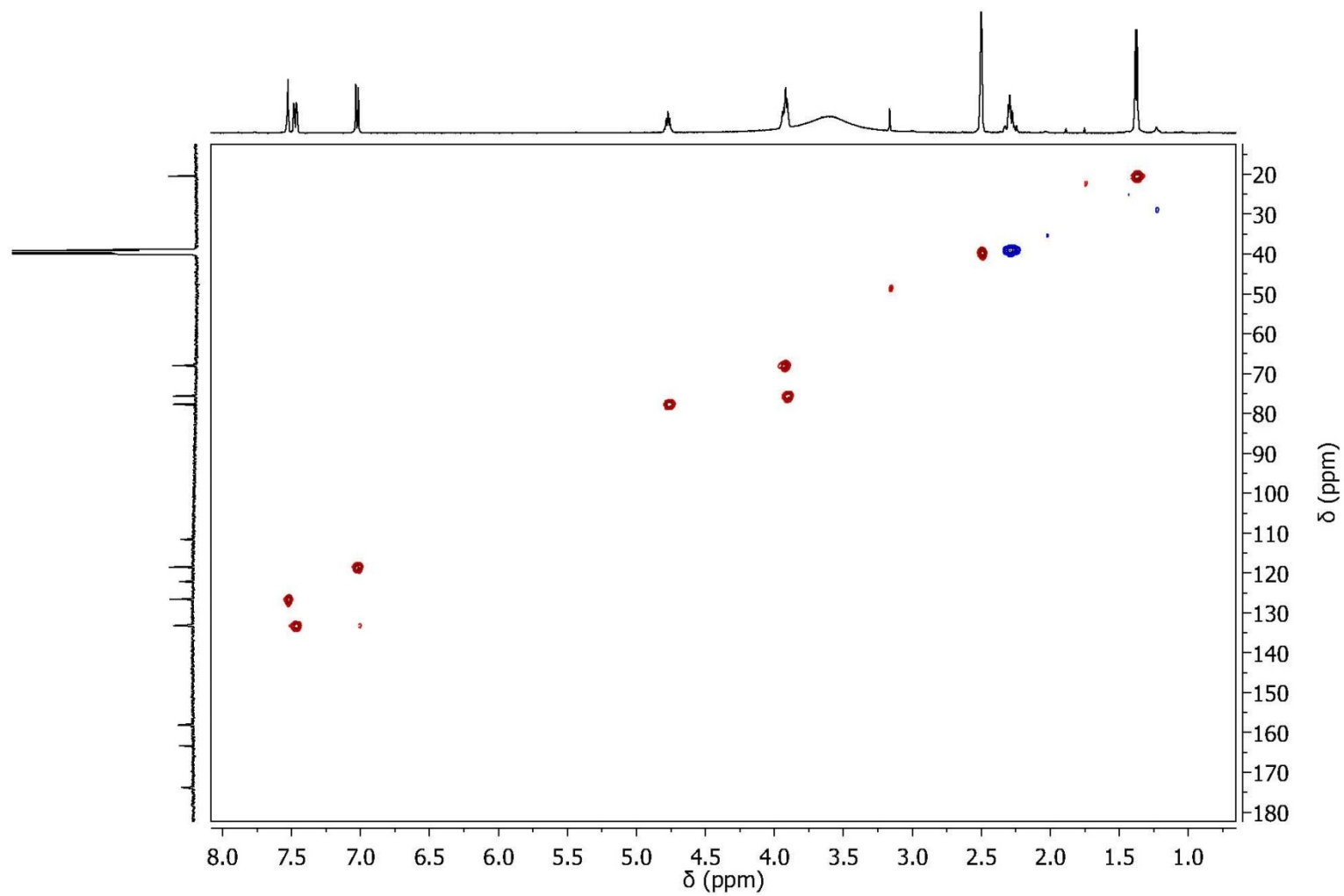


Figure S9. HMBC Spectrum of Compound 1 in CD₃OD (500 MHz)

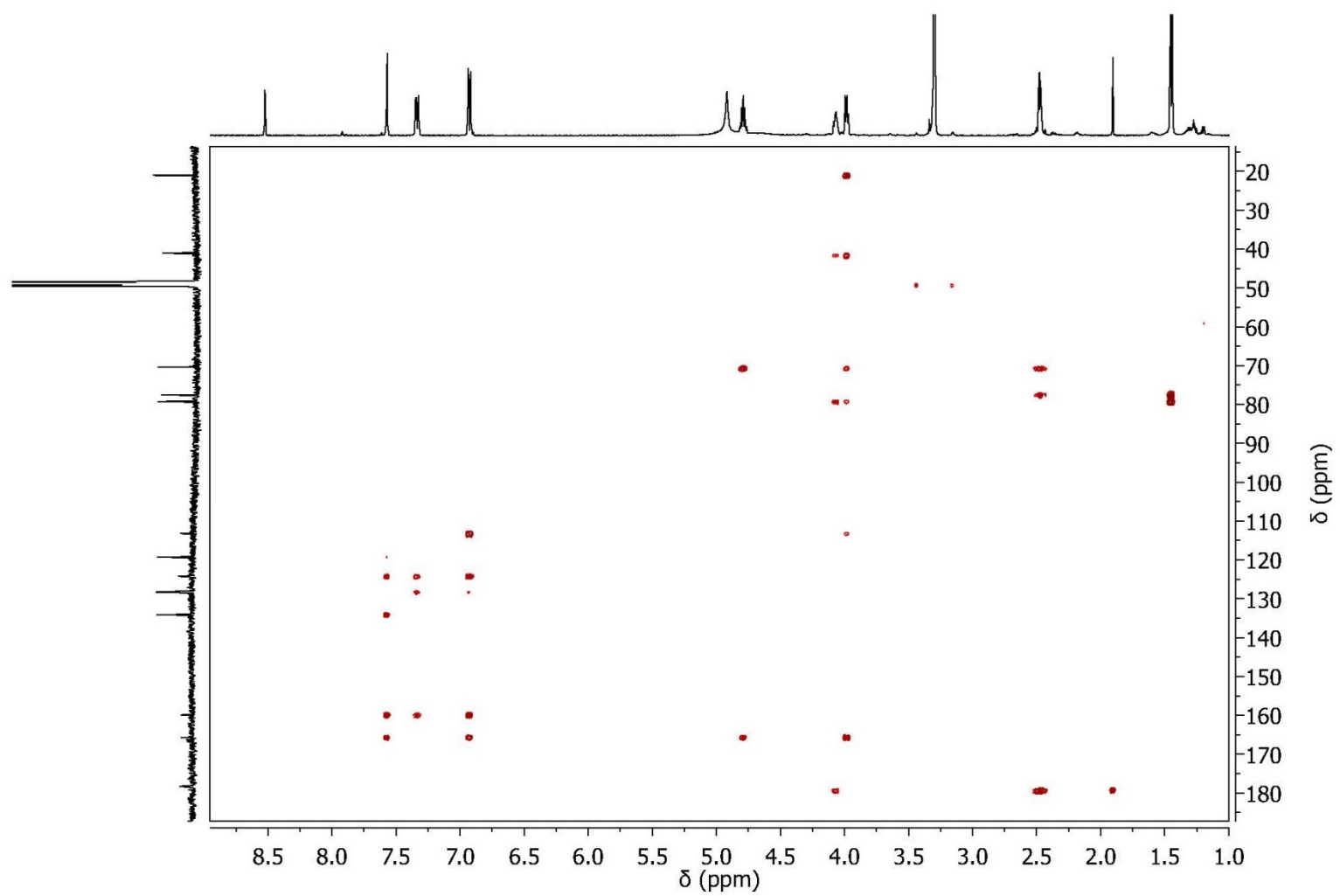


Figure S10. HMBC Spectrum of Compound 1 in DMSO- d_6 (500 MHz)

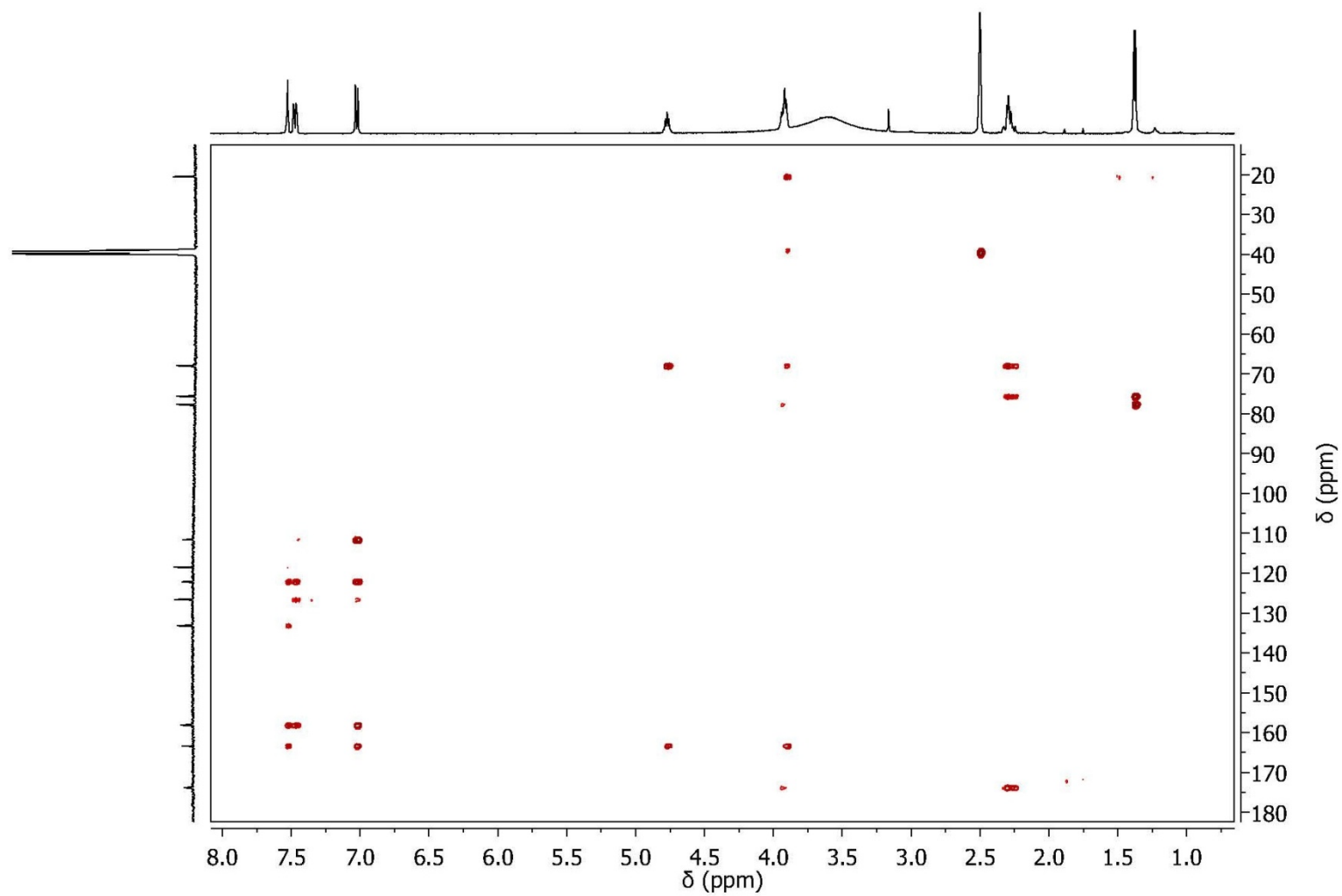


Figure S11. ^{15}N HMBC Spectrum of Compound 1 in $\text{DMSO-}d_6$ (500 MHz)

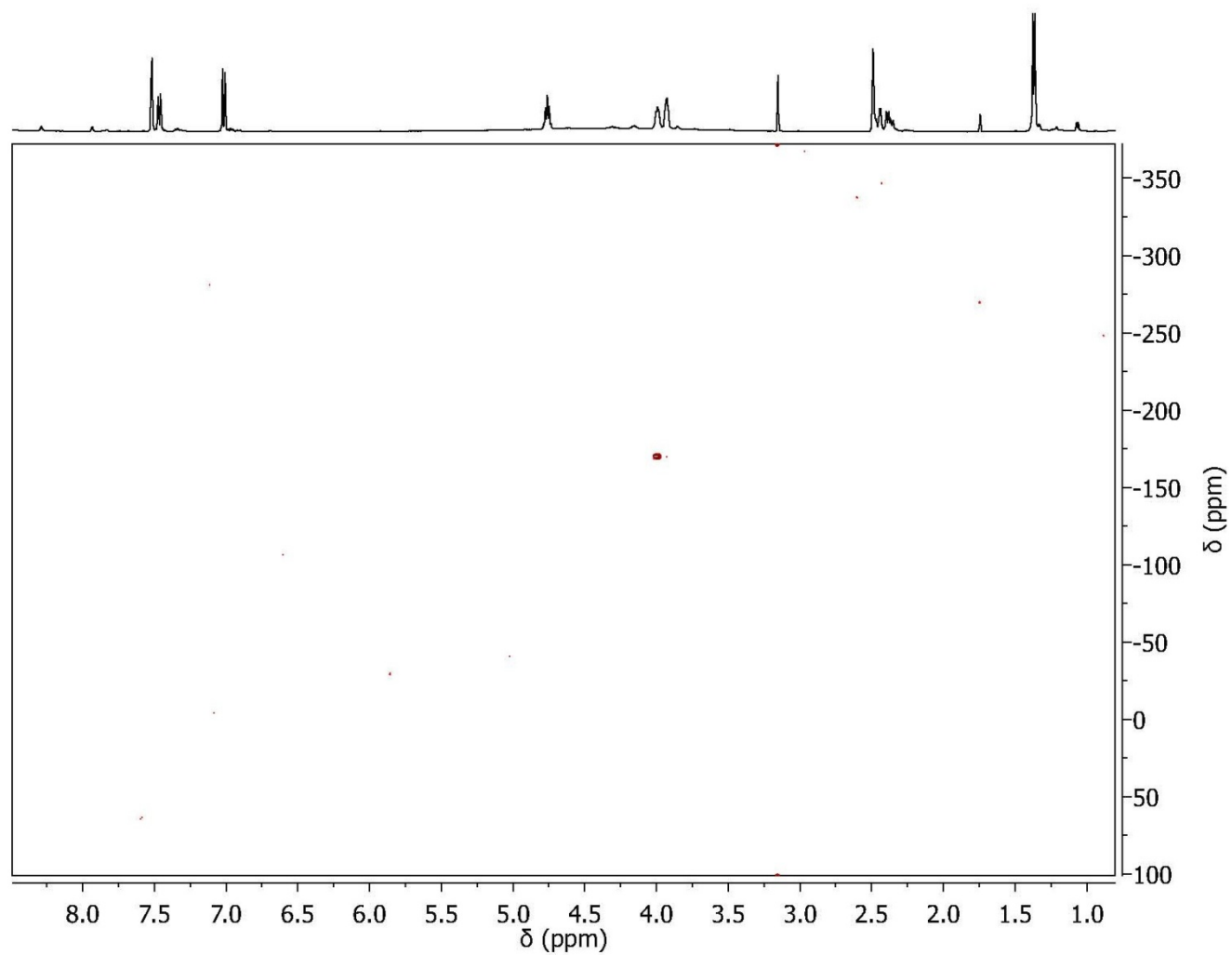


Figure S12. CIGAR Spectrum of Compound 1 in CD₃OD (500 MHz)

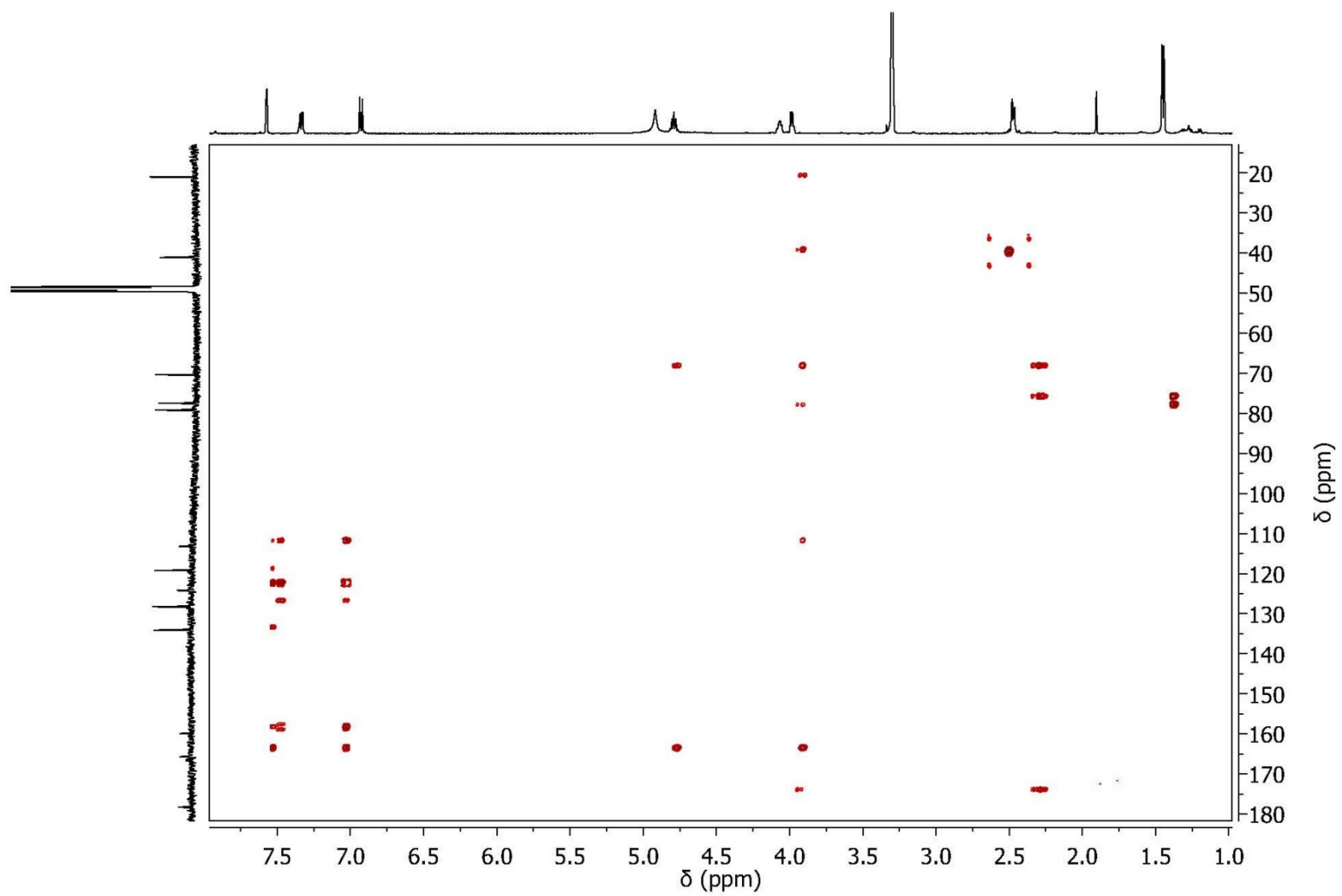


Figure S13. IR Spectrum of Compound 1 (CaF₂ disc)

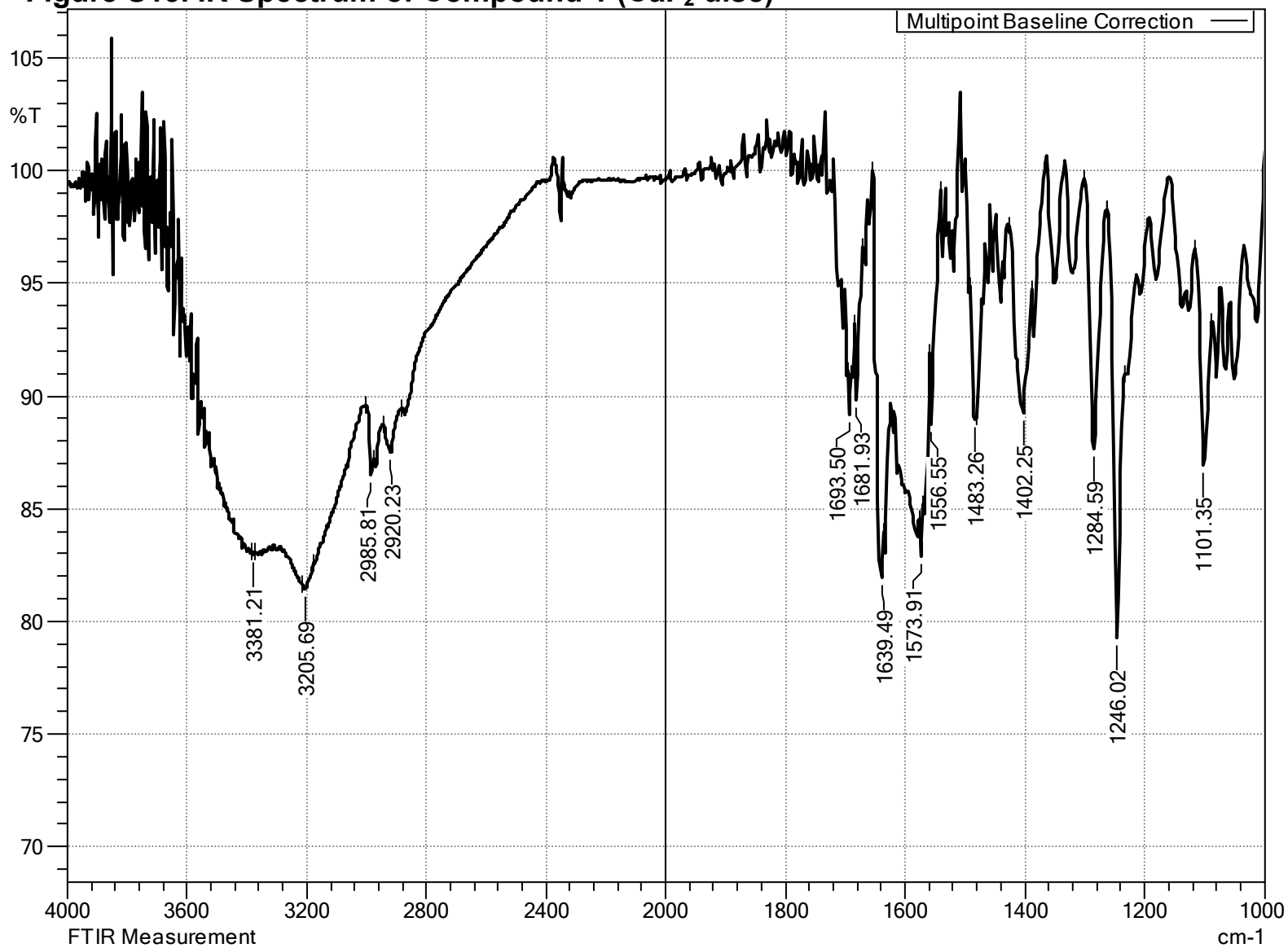
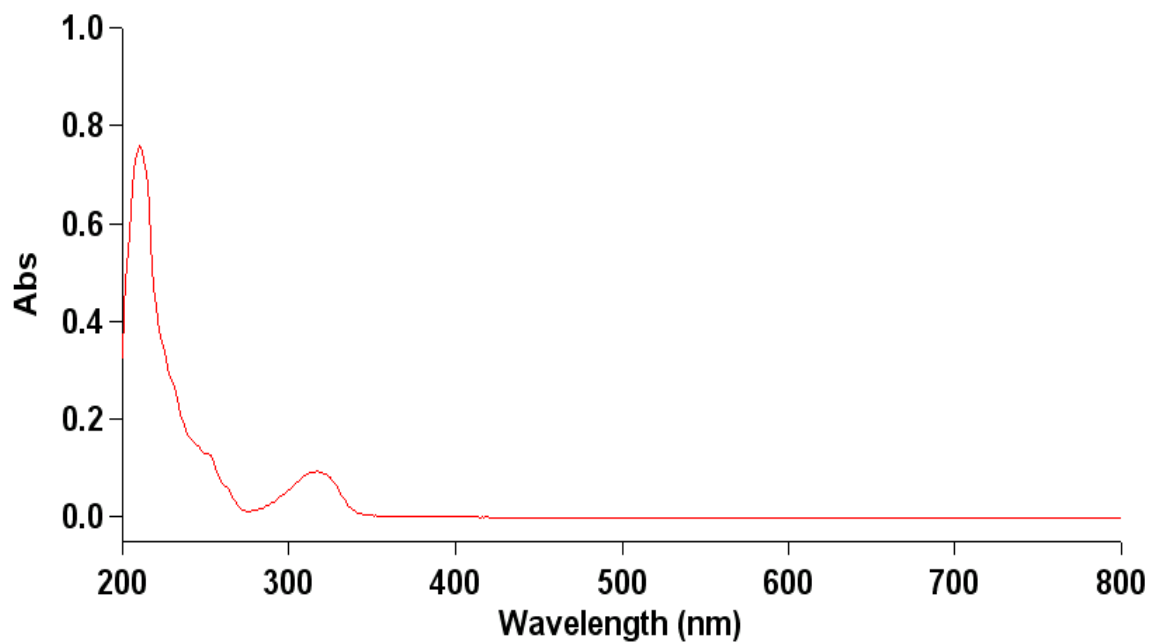


Figure S14. UV-Vis Spectrum of Compound 1 in CH₃OH



Range 799.9nm to 199.9nm

Conc: 10 µg/mL, which equals 3.337×10^{-5} mol/L

MW: 299.71 g/mol

$\epsilon = A / (c \cdot l)$, where c is in mol/L and l is in cm

| Wavelength (nm) | Abs | molar absorptivity (ϵ) | log ϵ |
|-----------------|-------|-----------------------------------|----------------|
| 317.0 | 0.093 | 2787 | 3.45 |
| 210.0 | 0.758 | 22718 | 4.36 |
| 251.1 | 0.128 | 3836 | 3.58 |
| 263.0 | 0.059 | 1768 | 3.25 |

Figure S15. ¹H NMR Spectrum of Compound 2 in CD₃OD (500 MHz)

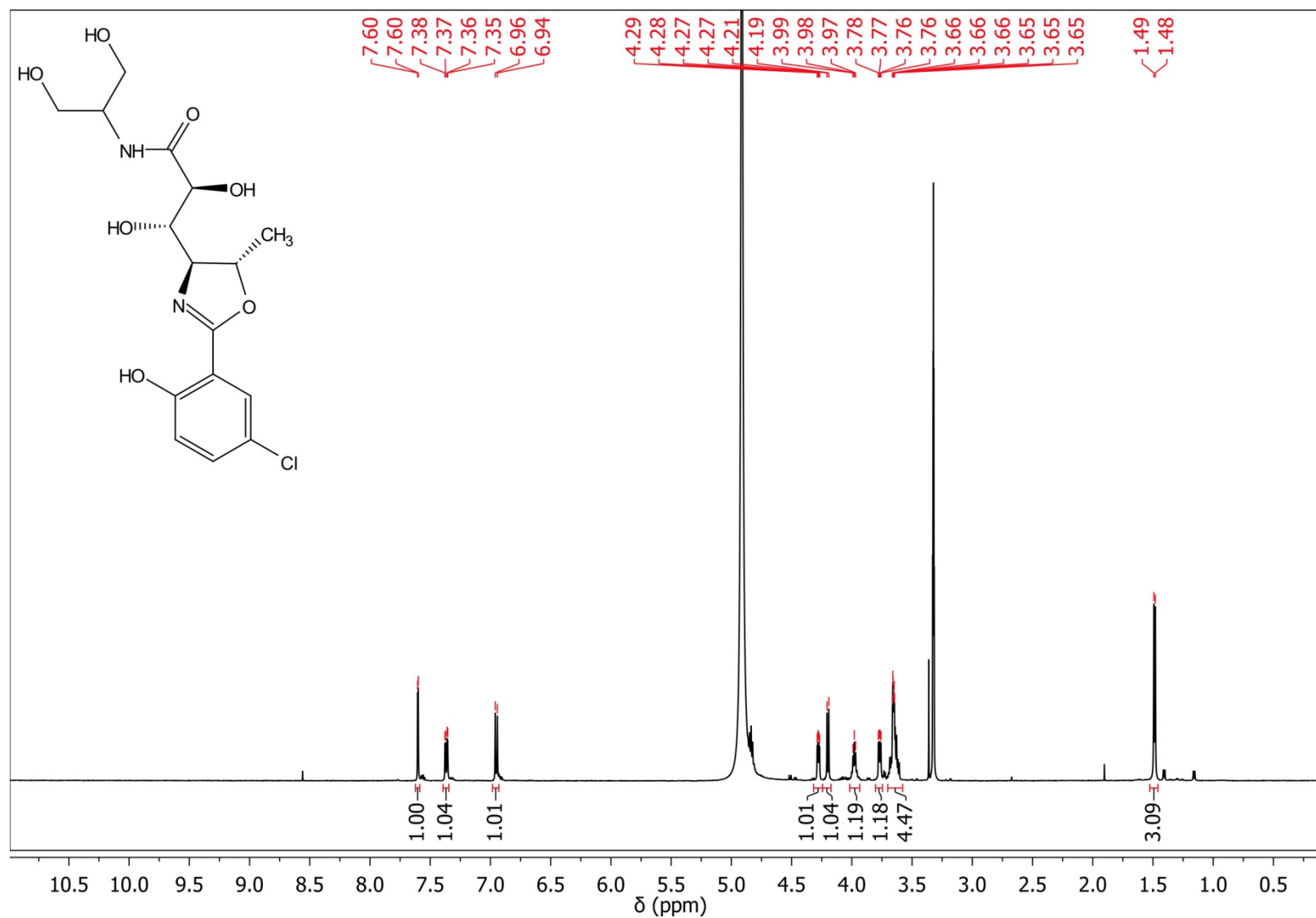


Figure S16. ^{13}C NMR Spectrum of Compound 2 in CD_3OD (125 MHz)

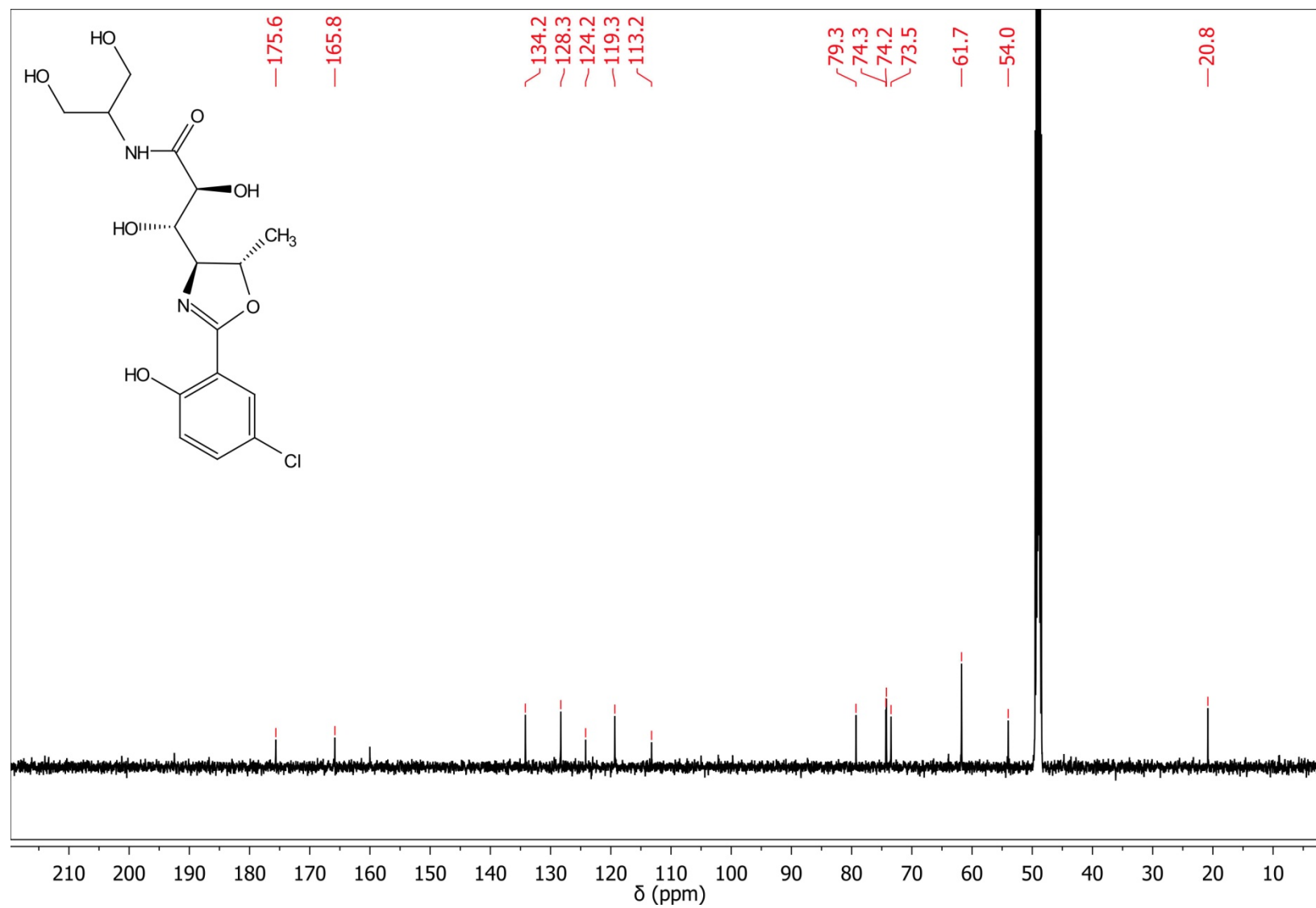


Figure S17. COSY Spectrum of Compound 2 in CD₃OD (500 MHz)

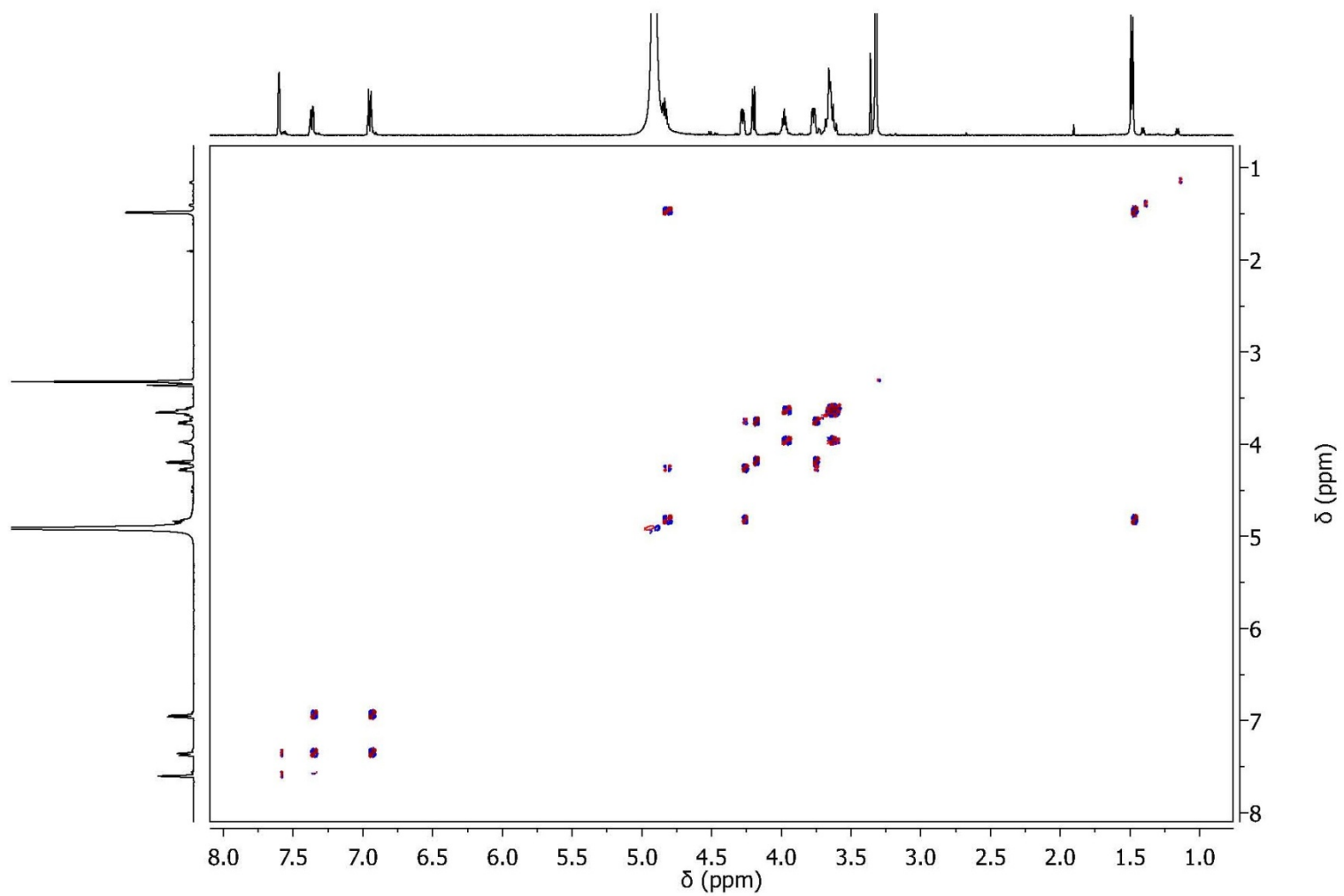


Figure S18. HSQC Spectrum of Compound 2 in CD₃OD (500 MHz)

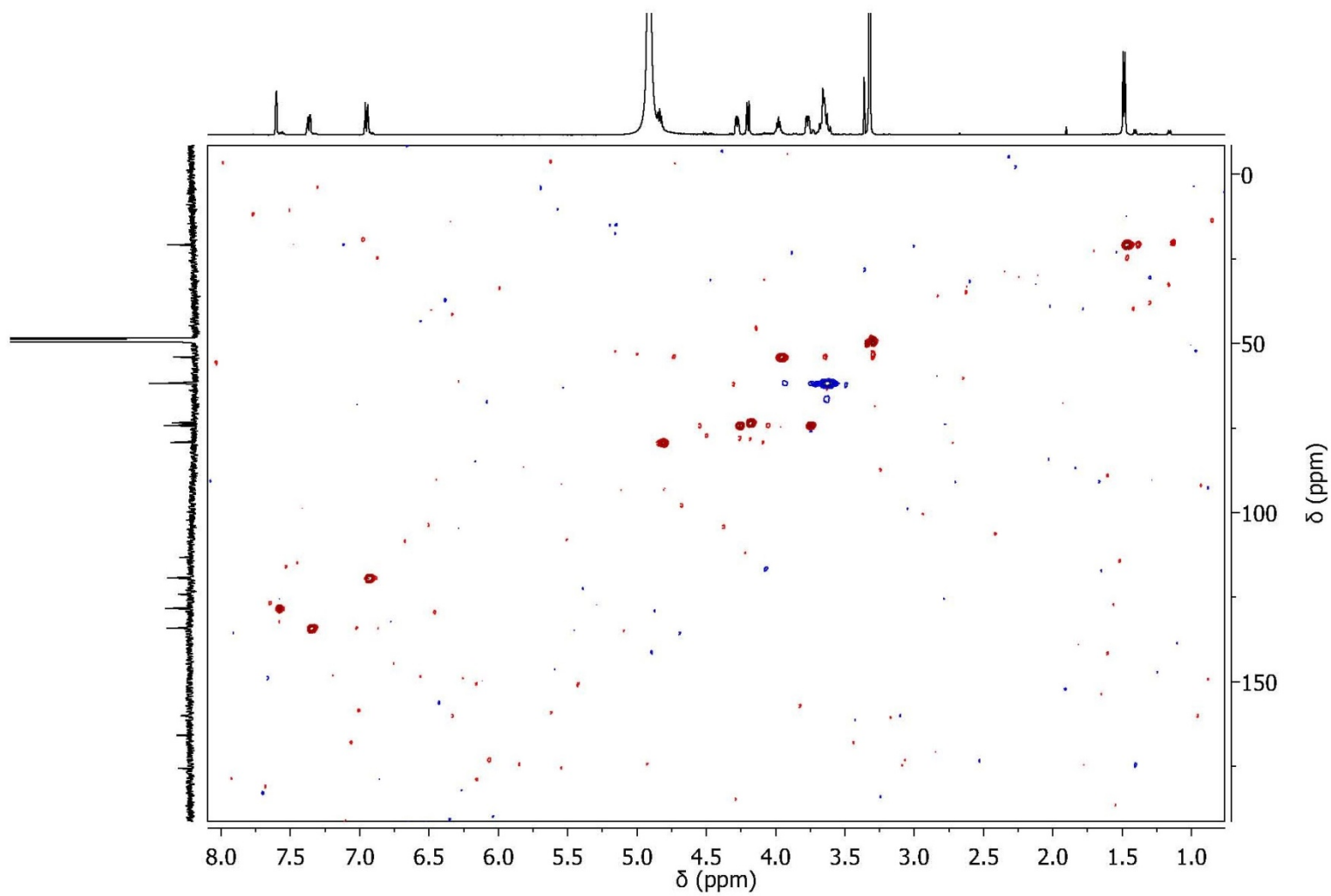


Figure S19. HMBC Spectrum of Compound 2 in CD₃OD (500 MHz)

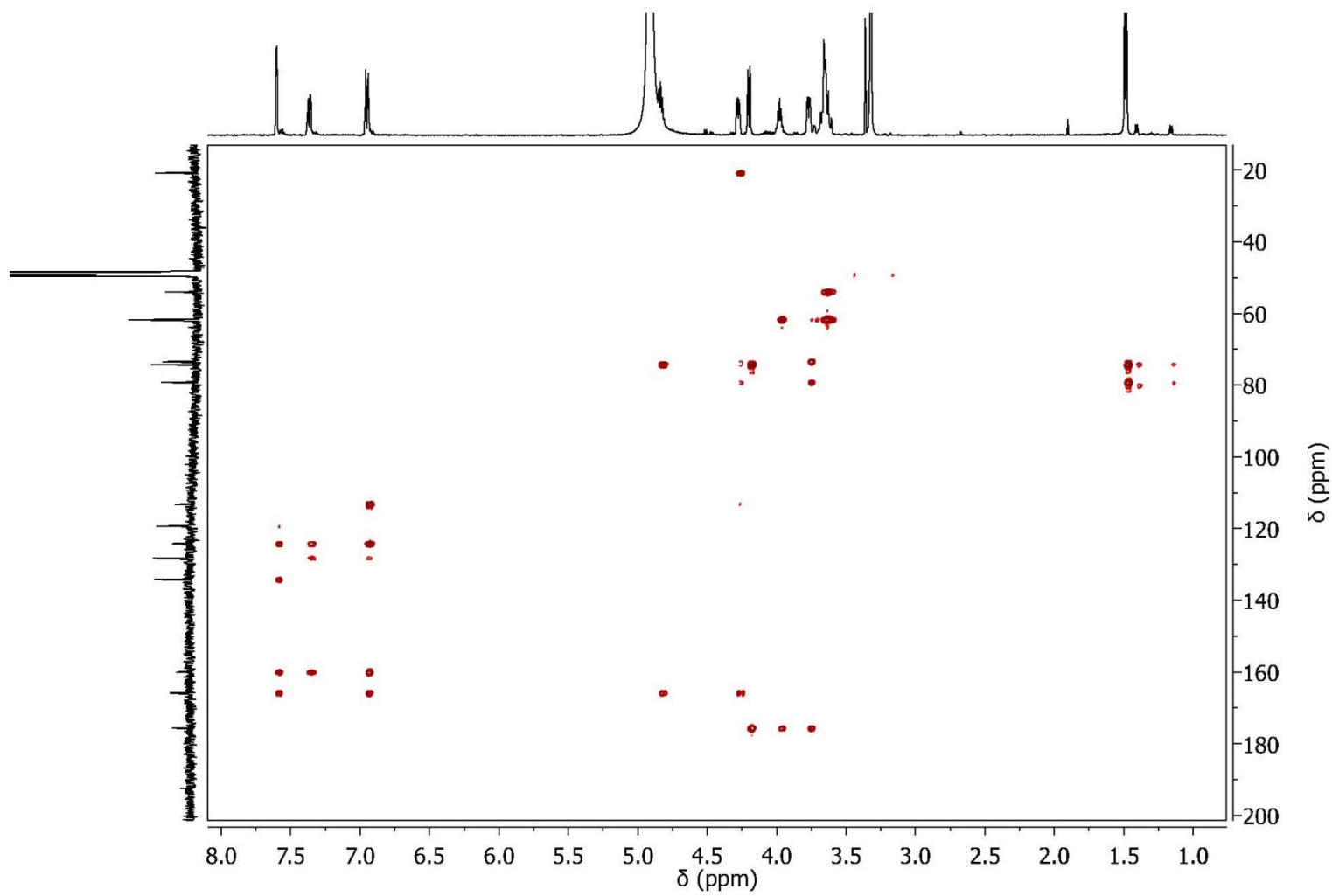


Figure S20. ^{15}N HMBC Spectrum of Compound 2 in CD_3OD (500 MHz)

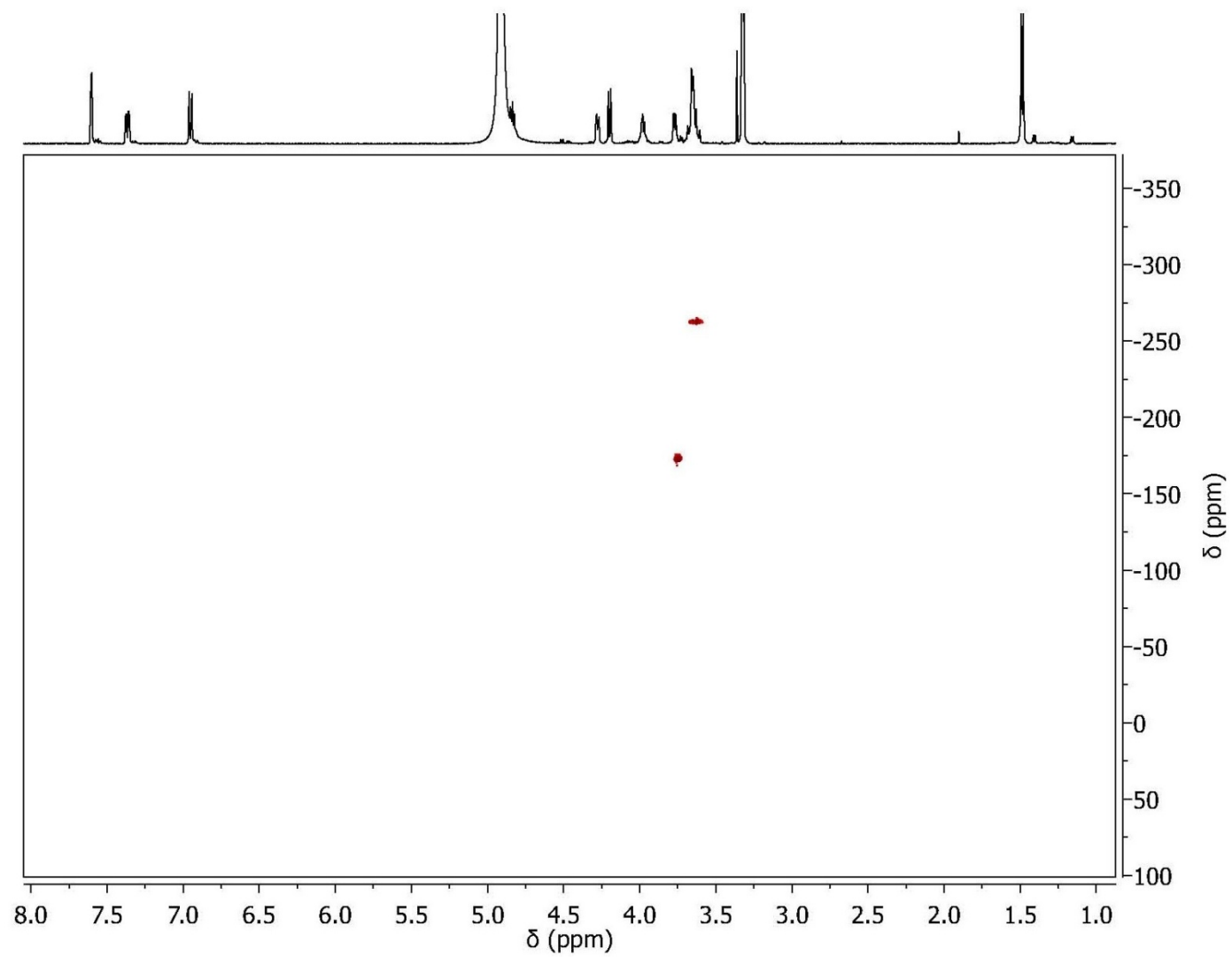


Figure S21. ROESY Spectrum of Compound 2 in CD₃OD (500 MHz)

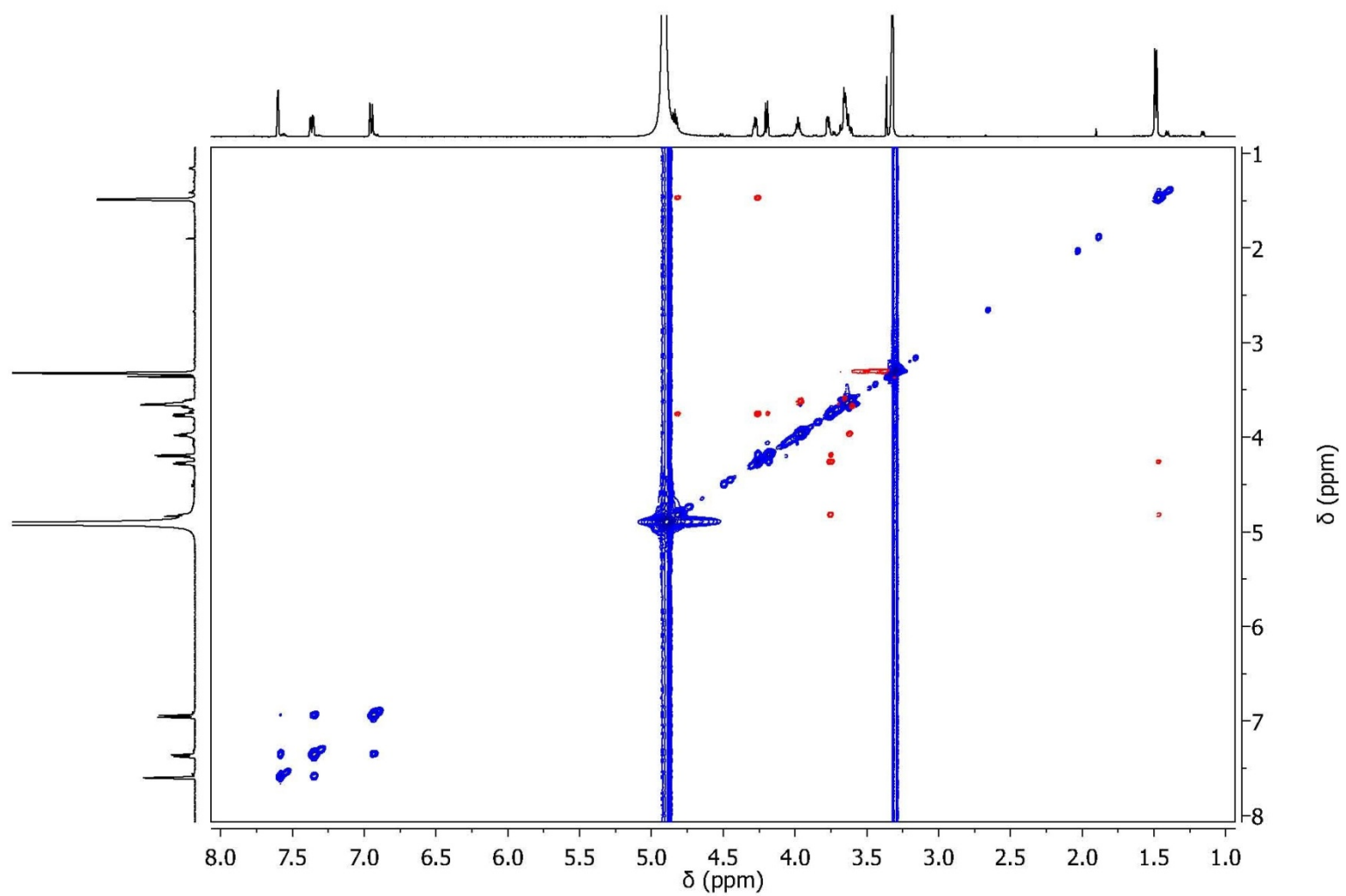


Figure S22. IR Spectrum of Compound 2 (CaF₂ disc)

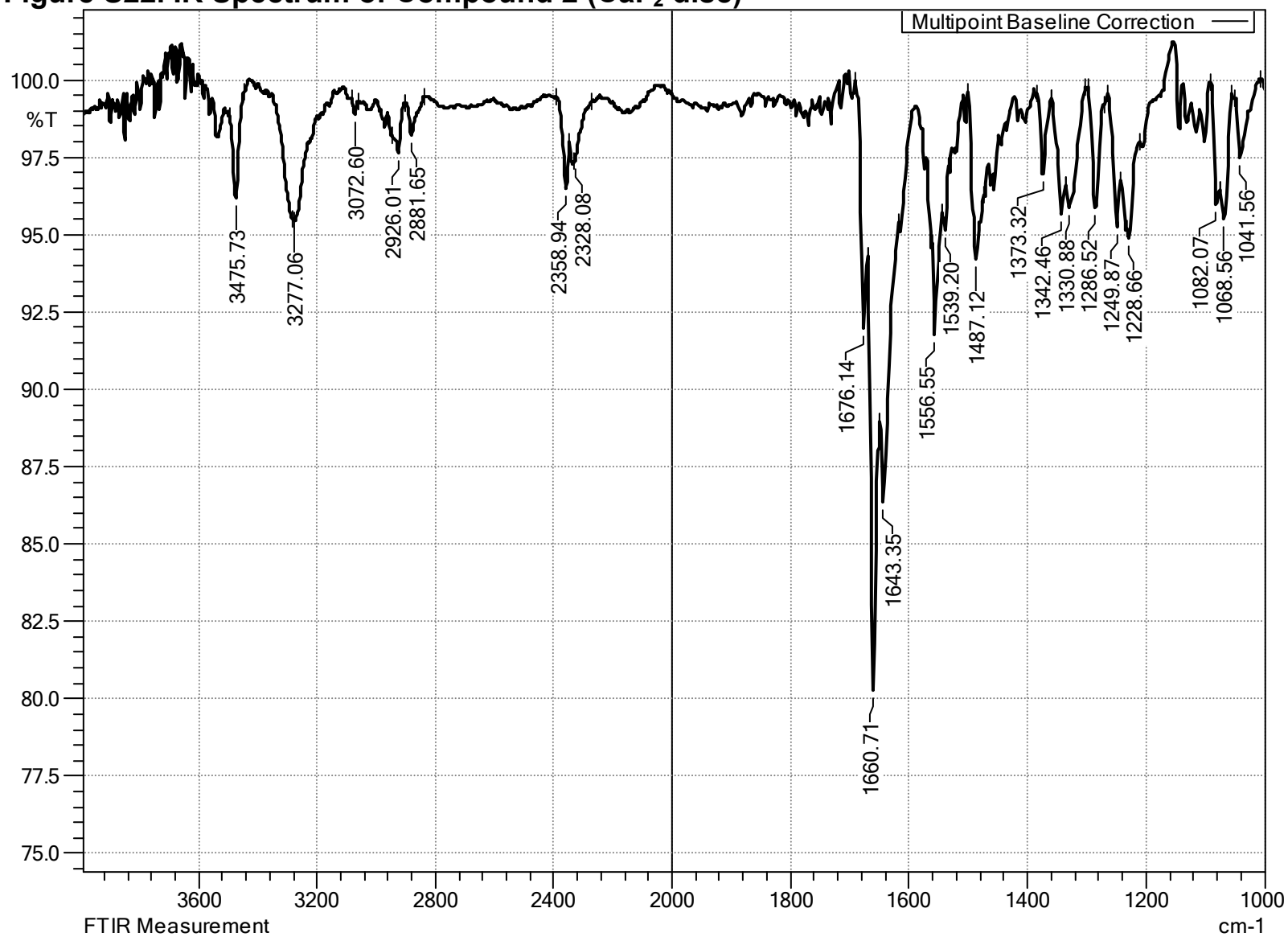
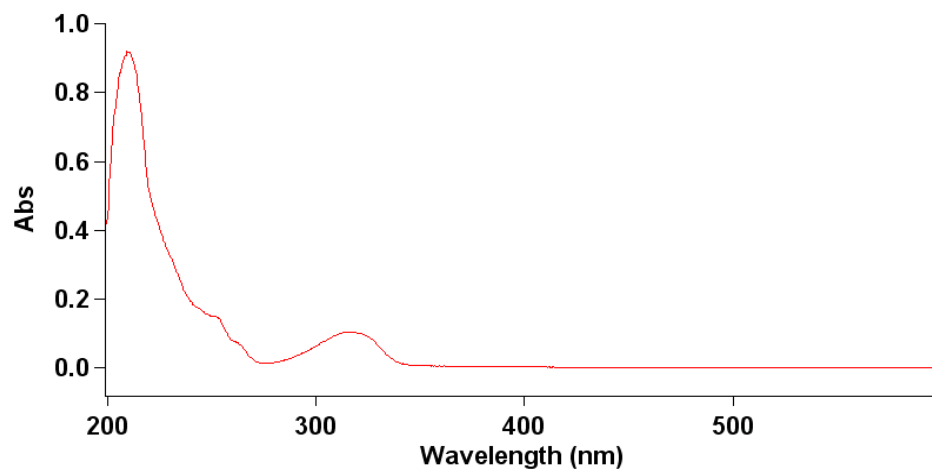


Figure S23. UV-Vis Spectrum of Compound 2 in CH₃OH



Peak Threshold 0.0100
Range 799.9nm to 199.9nm

Conc: 10 µg/mL, which equals 2.572 x 10⁻⁵ mol/L
MW: 388.80 g/mol

Pathlength = 1 cm

$\epsilon = A / (c \cdot l)$, where c is in mol/L and l is in cm

| Wavelength (nm) | Abs | molar absorptivity (ϵ) | log ϵ |
|-----------------|-------|-----------------------------------|----------------|
| 314.9 | 0.103 | 4005 | 3.60 |
| 209.5 | 0.921 | 35808 | 4.55 |
| 251.0 | 0.150 | 5832 | 3.77 |
| 261.5 | 0.075 | 2916 | 3.46 |

Figure S24. ¹H NMR Spectrum of Compound 3 in CD₃OD (500 MHz)

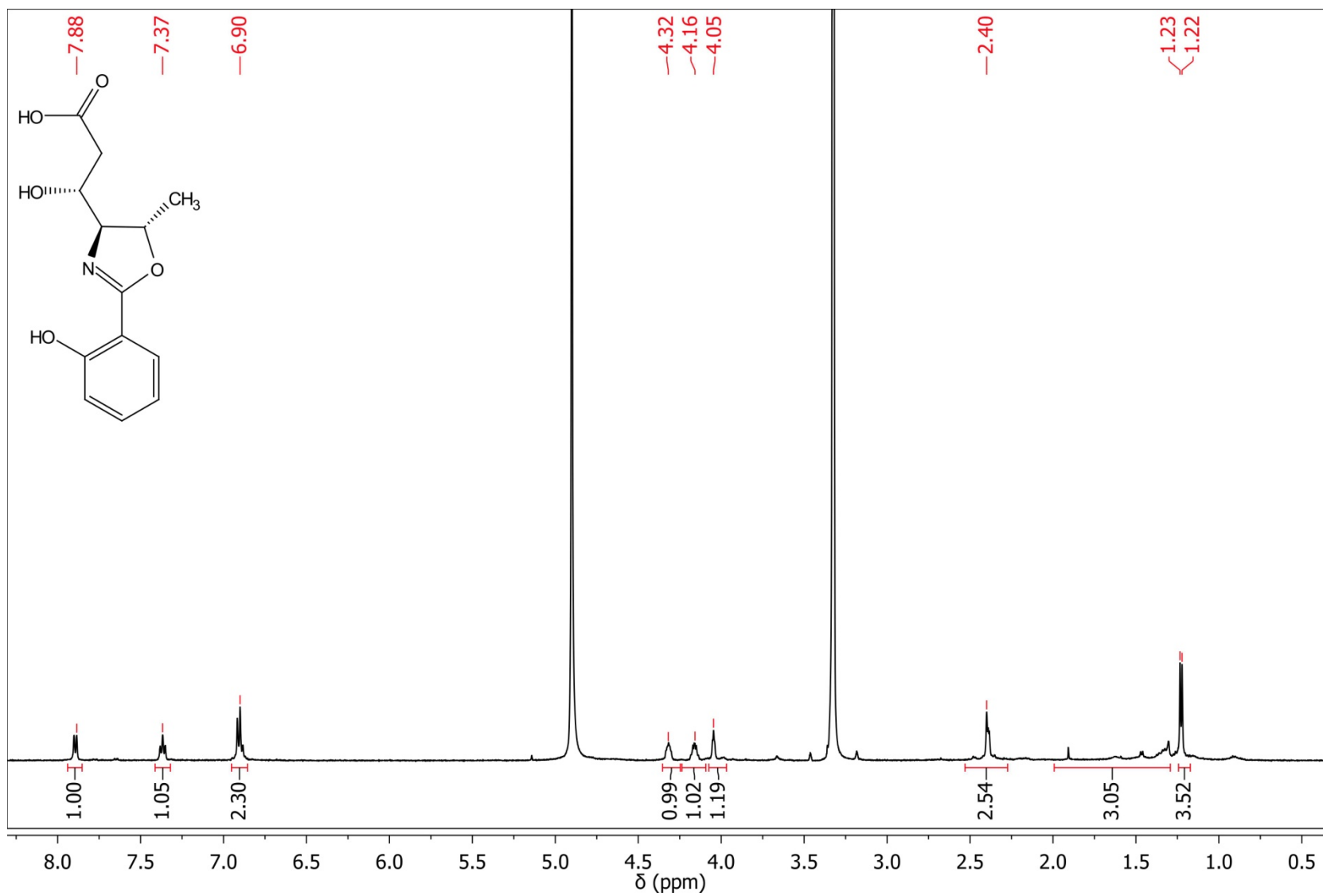


Figure S25. ¹H NMR Spectrum of Compound 4 in CD₃OD (500 MHz)

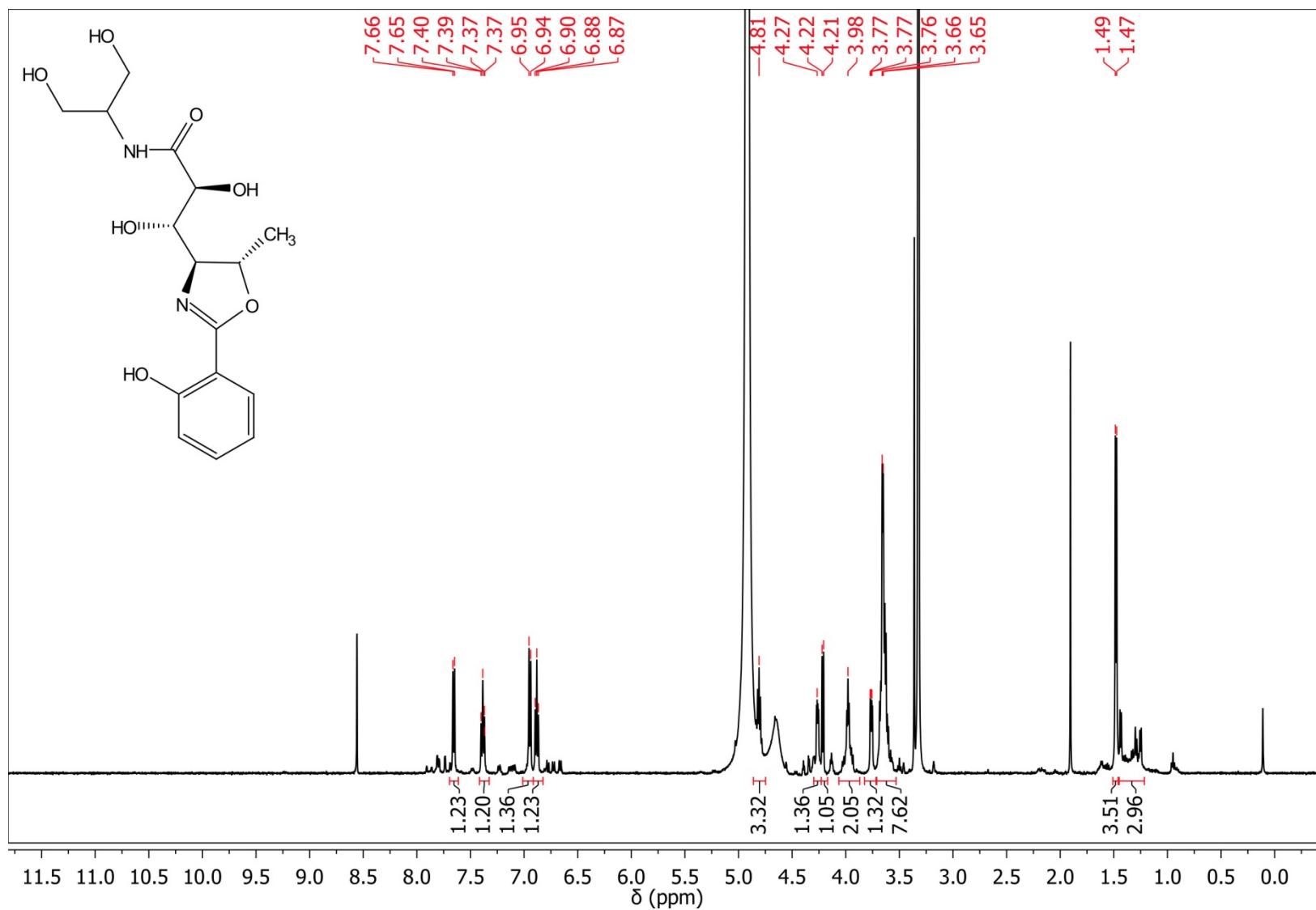


Figure S26. ^1H NMR Spectrum of Compound 5 in CD_3OD (500 MHz)

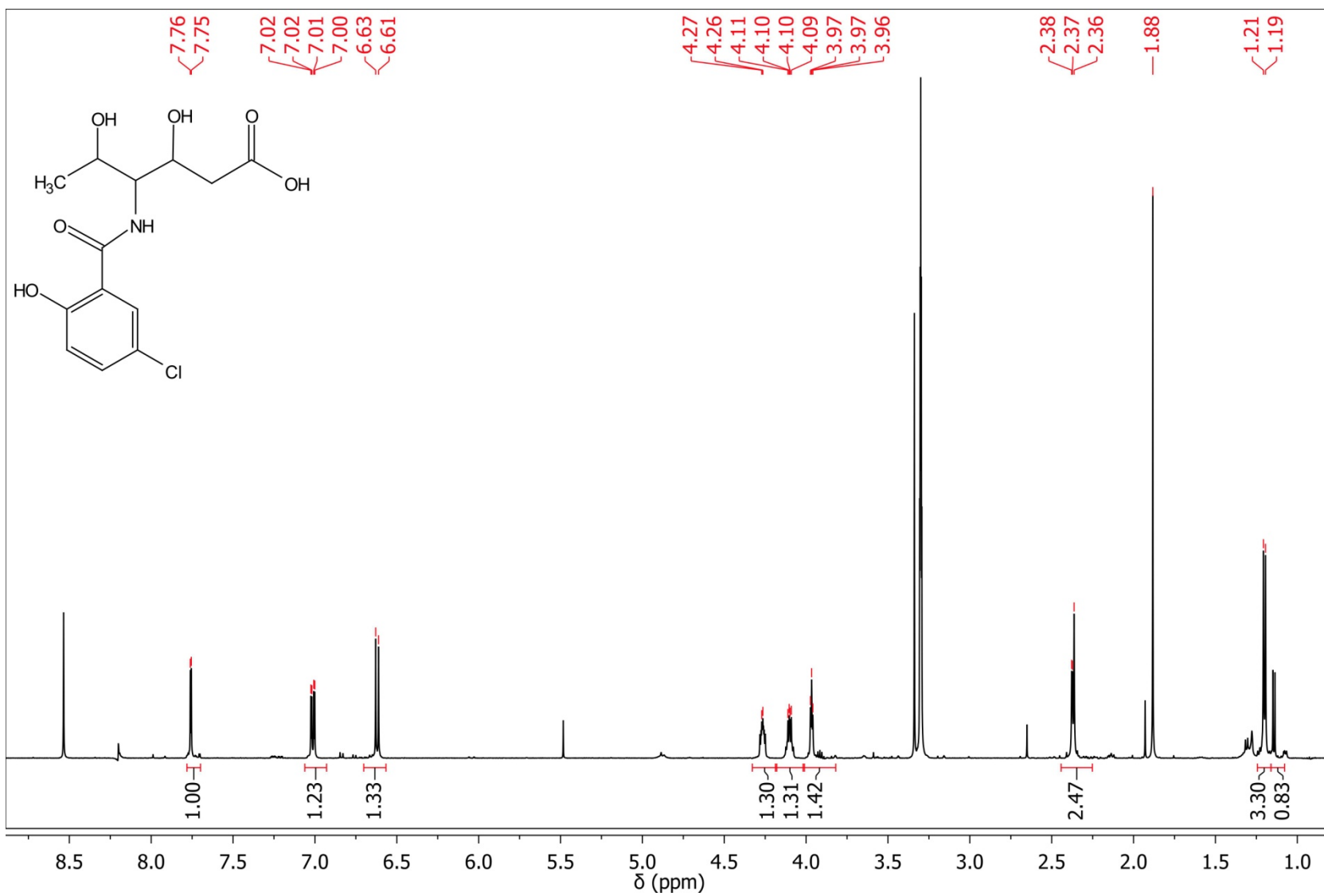


Figure S27. ^{13}C NMR Spectrum of Compound 5 in CD_3OD (125 MHz)

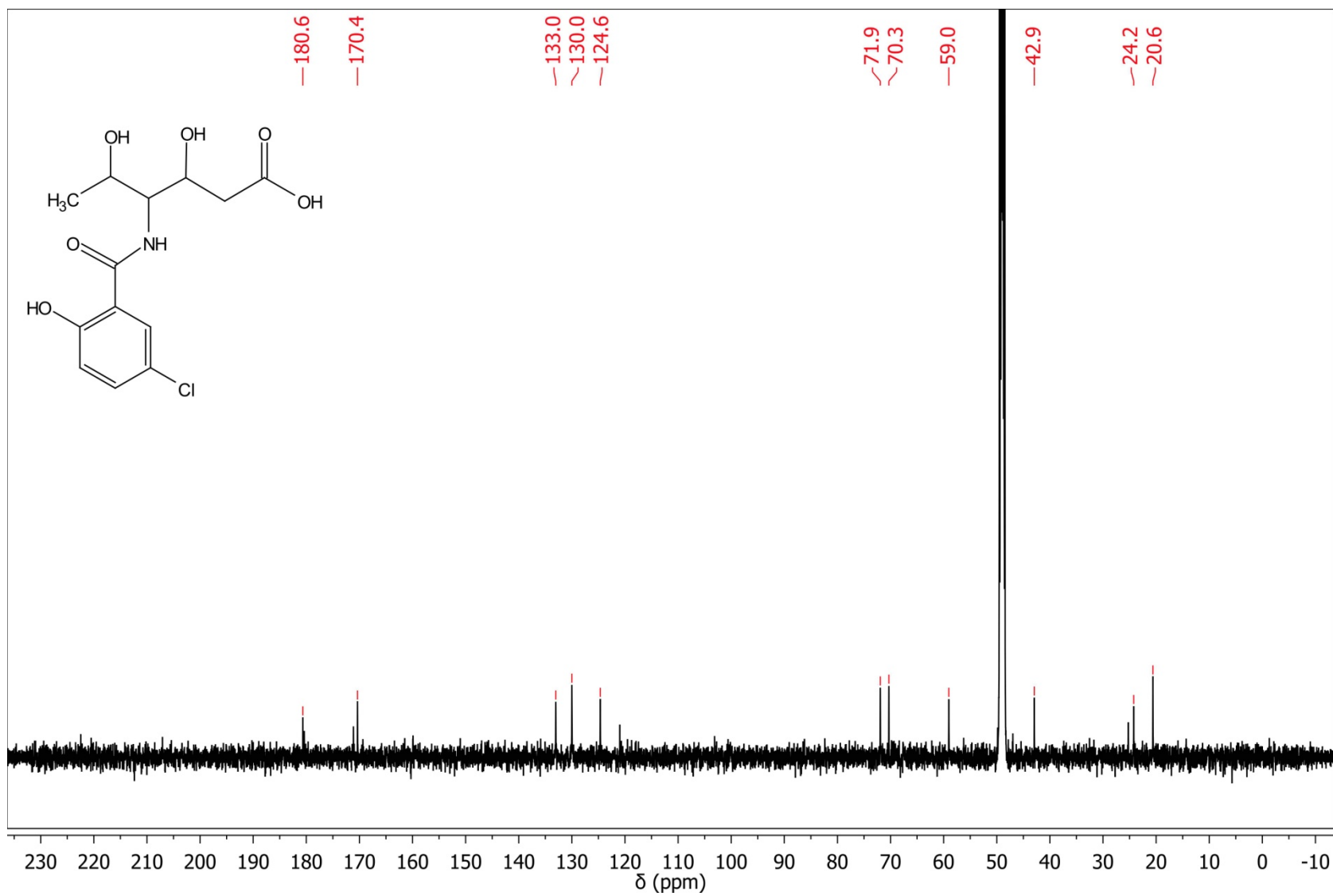


Figure S28. COSY Spectrum of Compound 5 in CD₃OD (500 MHz)

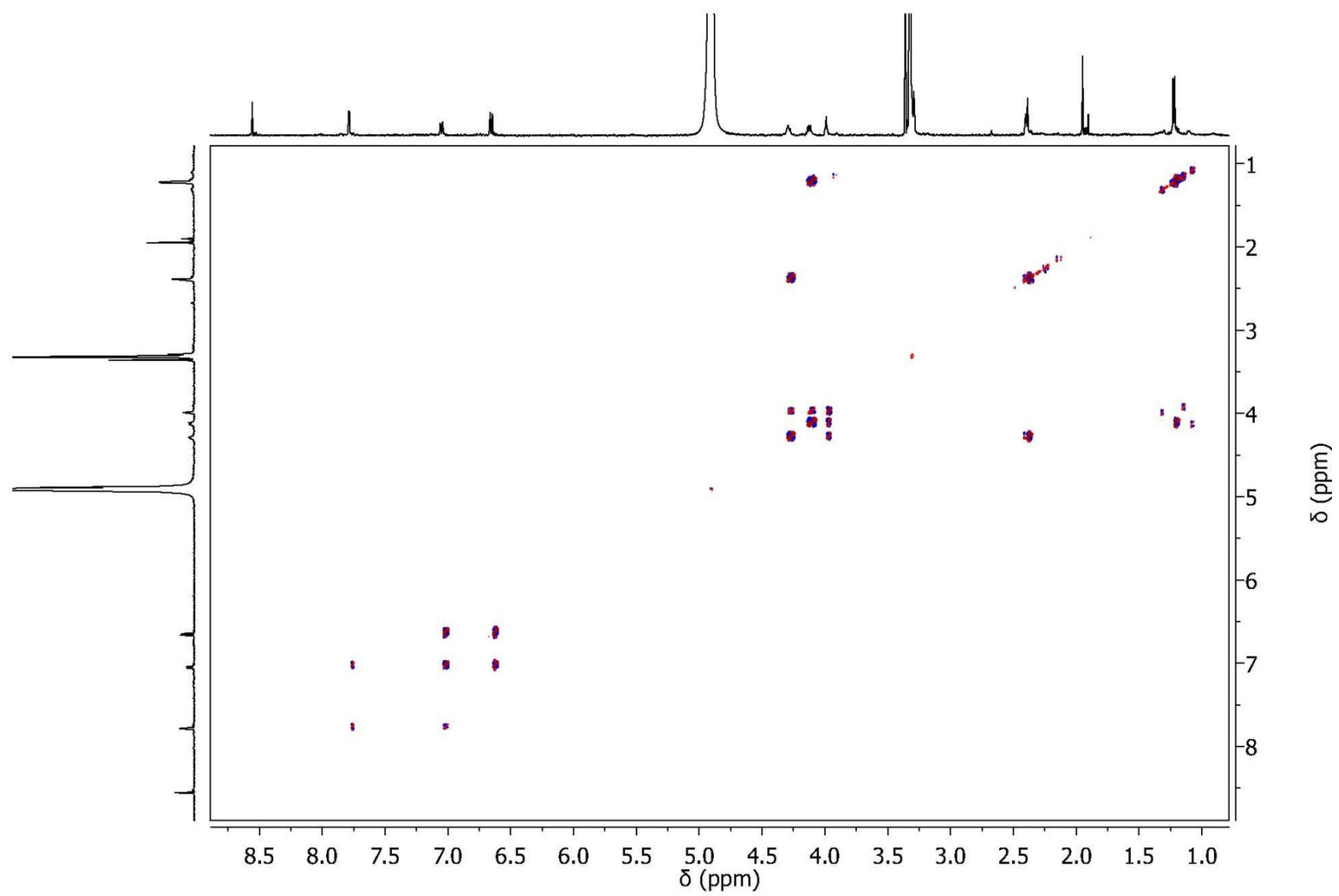


Figure S29. HSQC Spectrum of Compound 5 in CD₃OD (500 MHz)

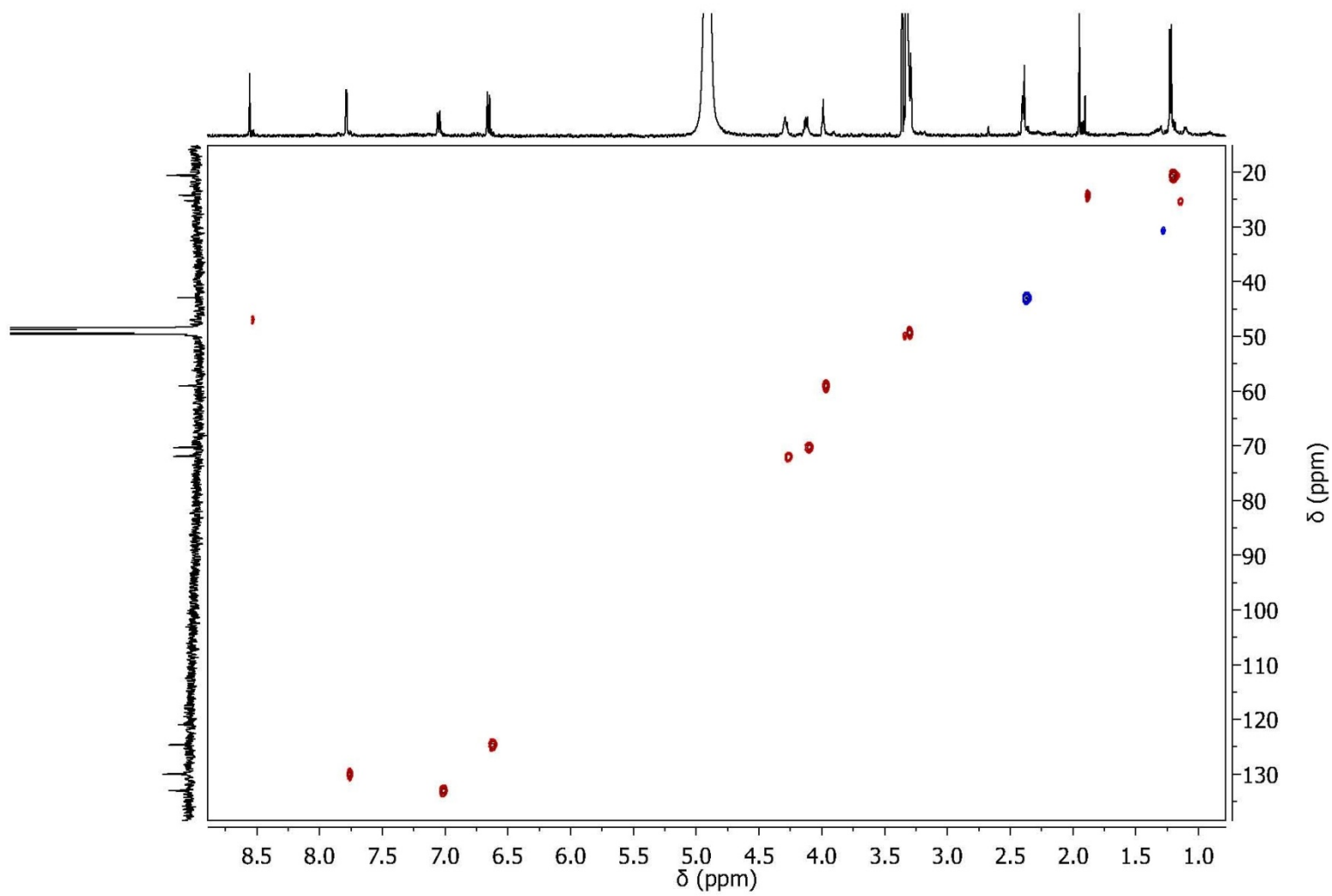


Figure S30. HMBC Spectrum of Compound 5 in CD₃OD (500 MHz)

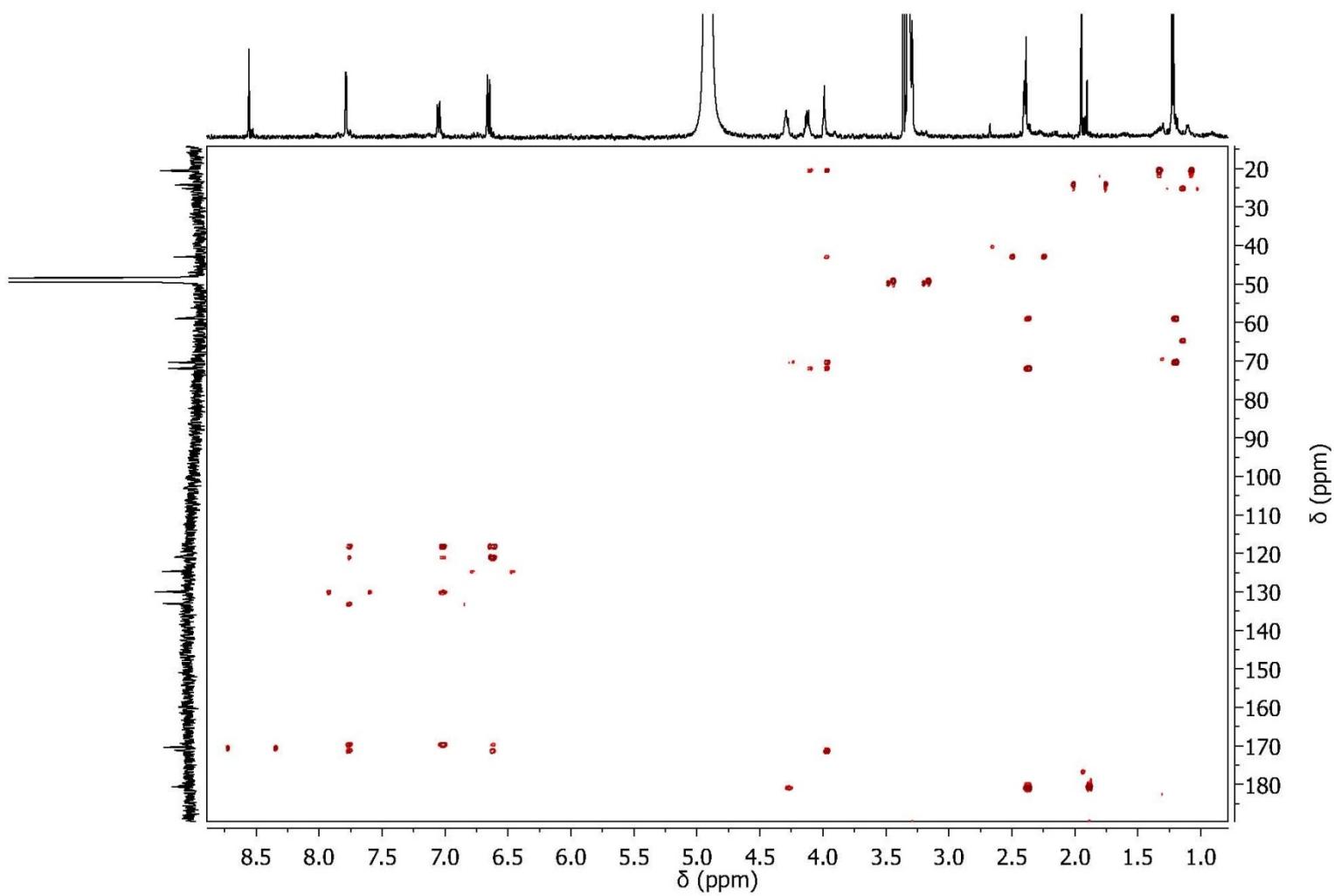


Figure S31. ¹H NMR Spectrum of Compound 6 in CD₃OD (500 MHz)

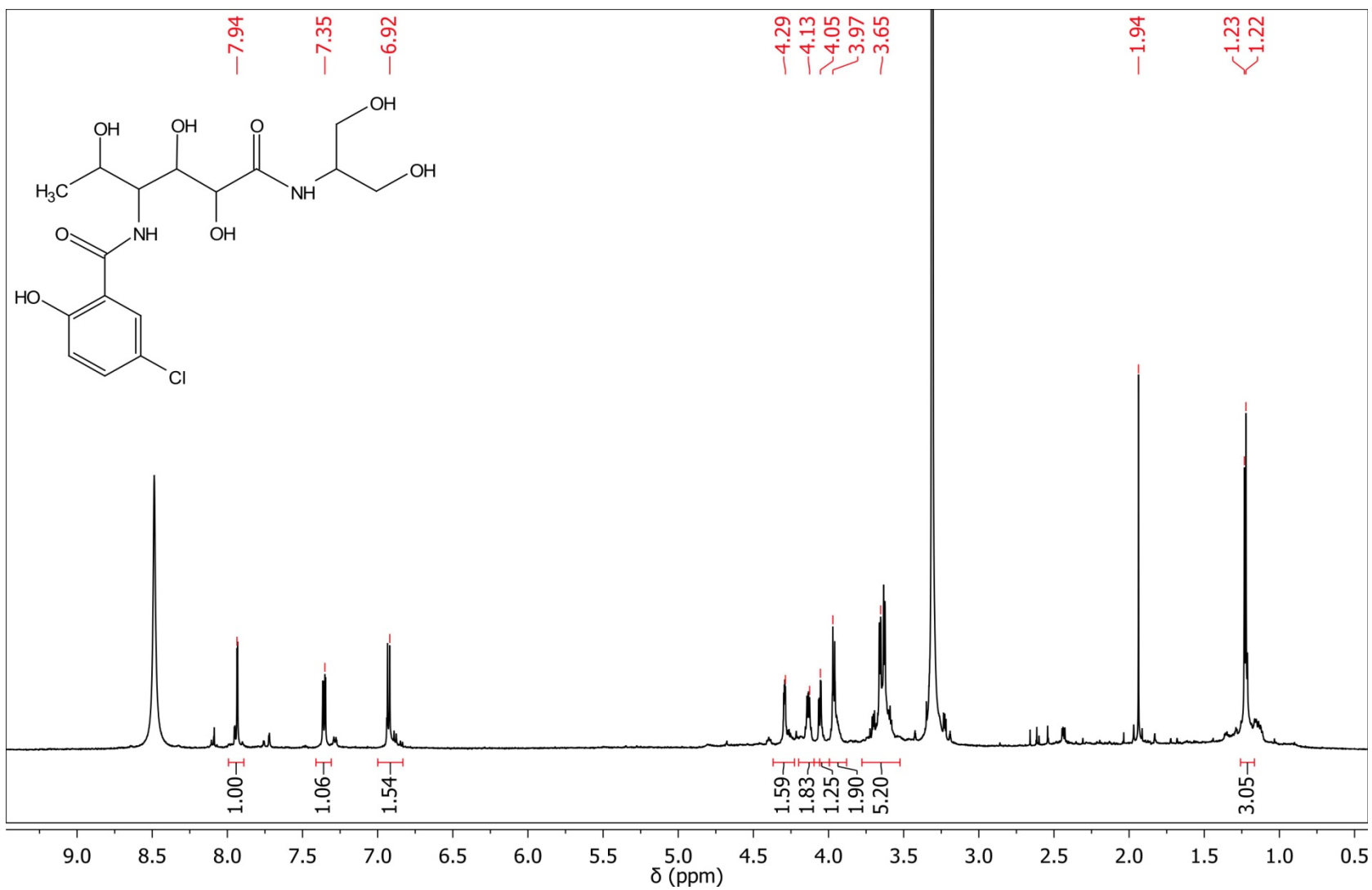


Figure S32. ^{13}C NMR Spectrum of Compound 6 in CD_3OD (125 MHz)

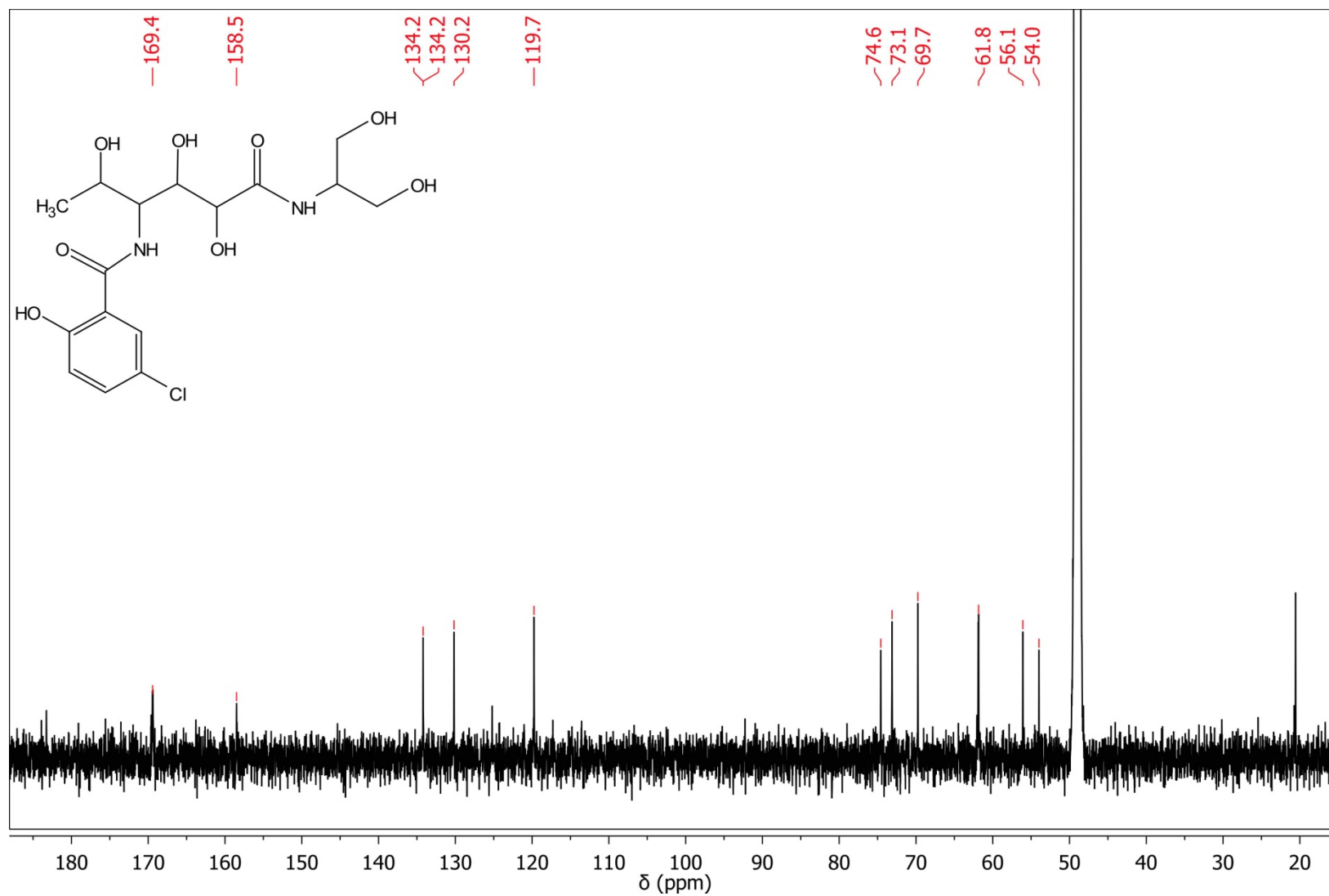


Figure S33. COSY Spectrum of Compound 6 in CD₃OD (500 MHz)

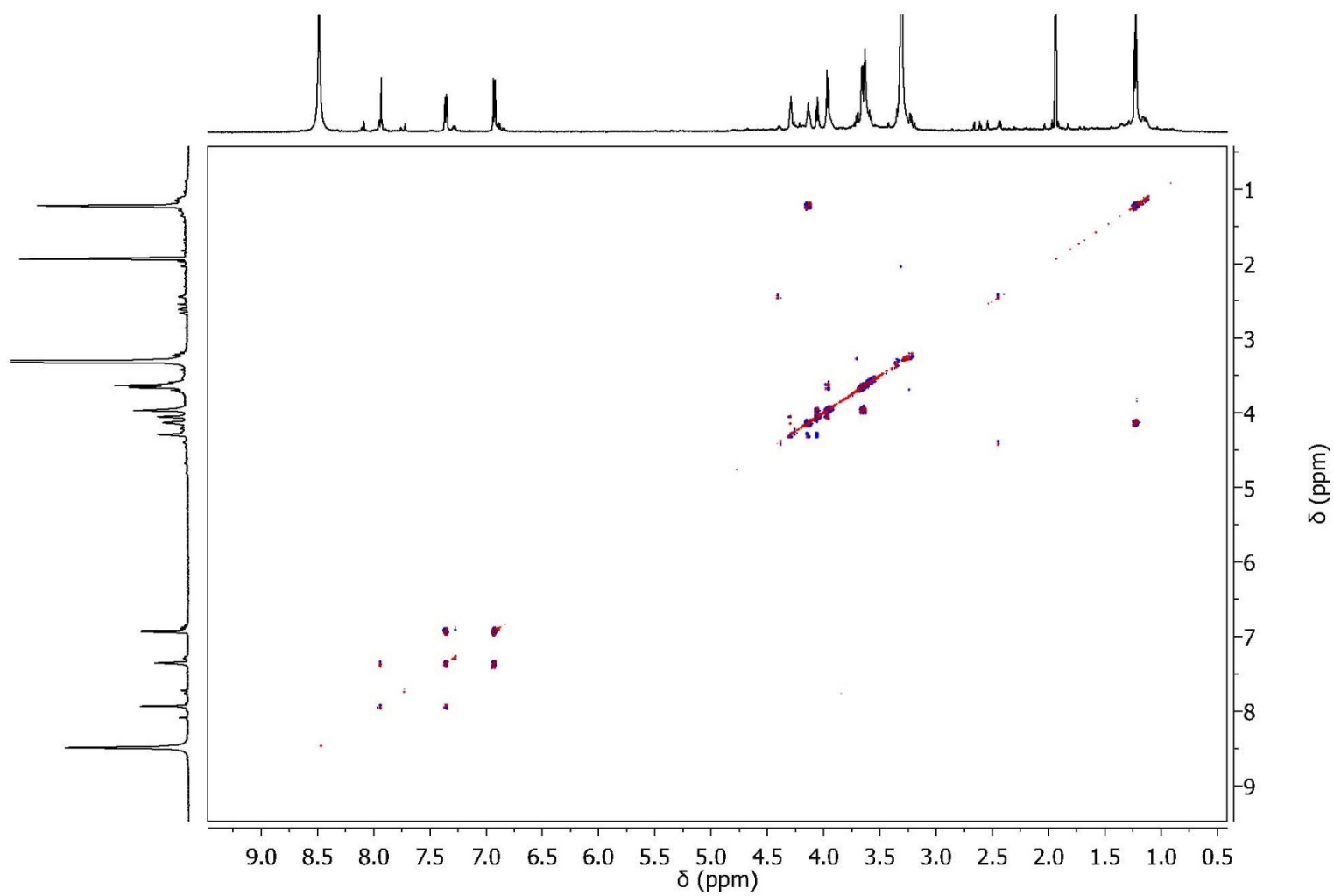


Figure S34. HSQC Spectrum of Compound 6 in CD₃OD (500 MHz)

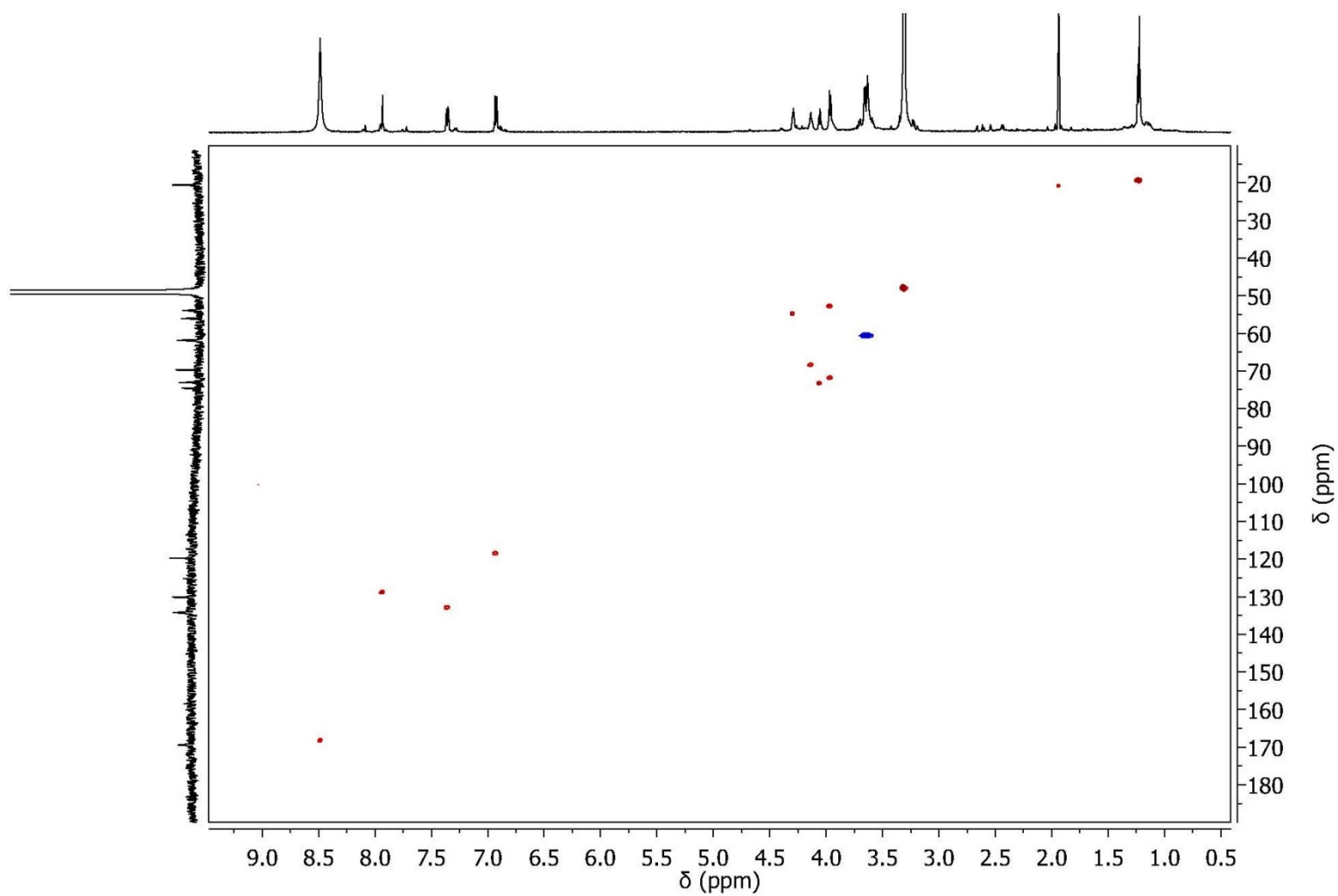


Figure S35. HMBC Spectrum of Compound 6 in CD₃OD (500 MHz)

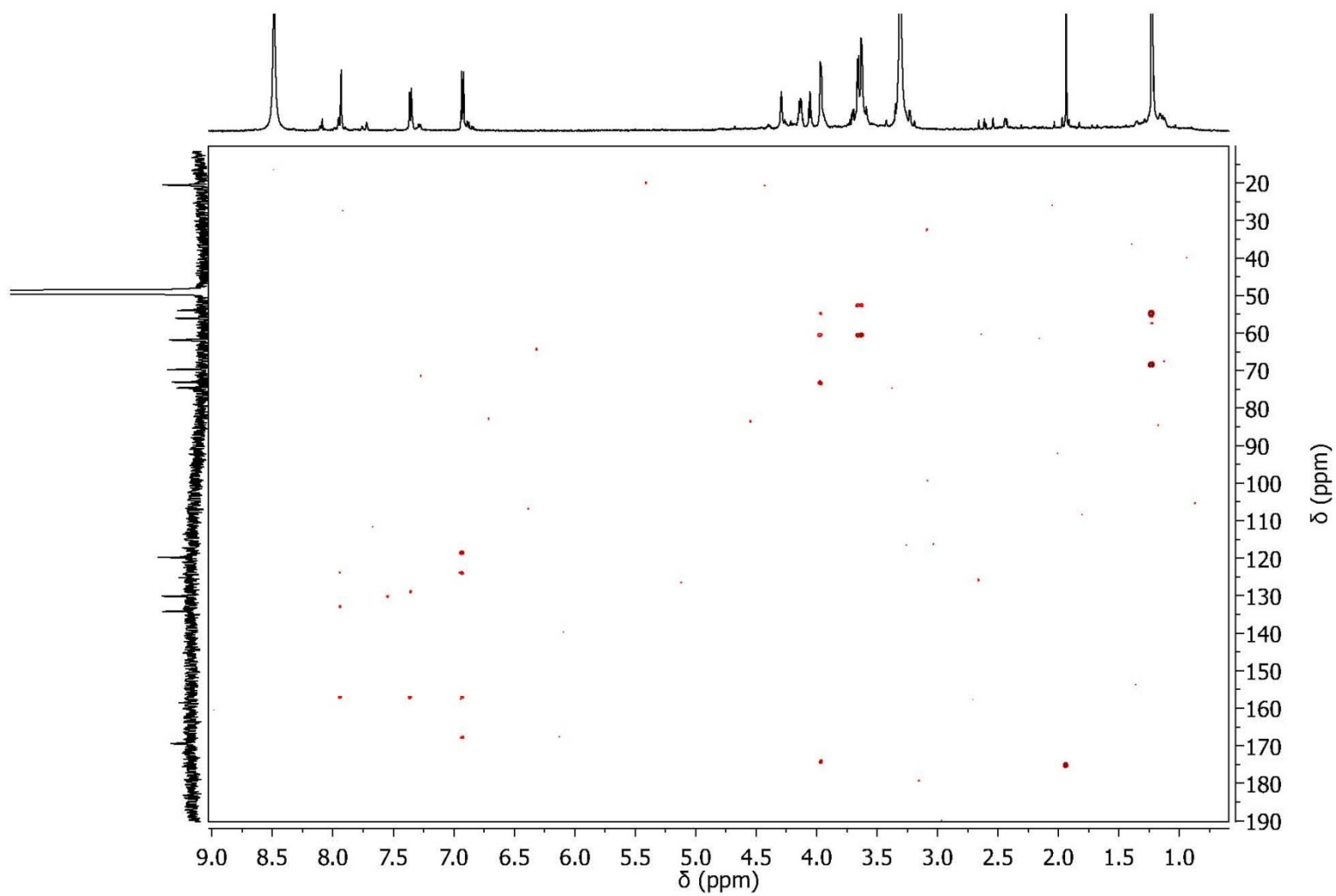


Figure S36. ^1H NMR Spectrum of Compound 7 in CD_3OD (500 MHz)

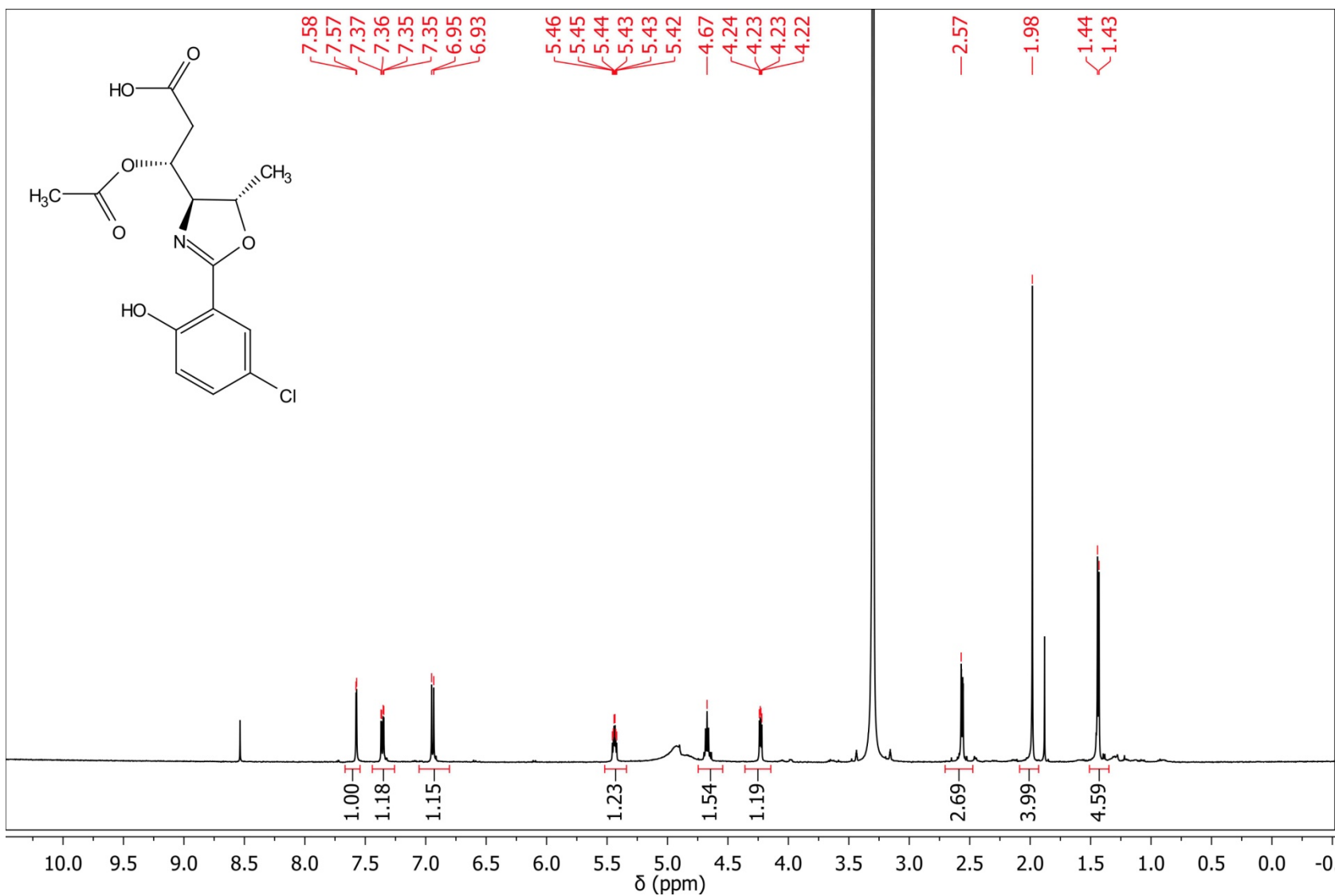


Figure S37. ¹H NMR Spectrum of Compound 8 in CD₃OD (500 MHz)

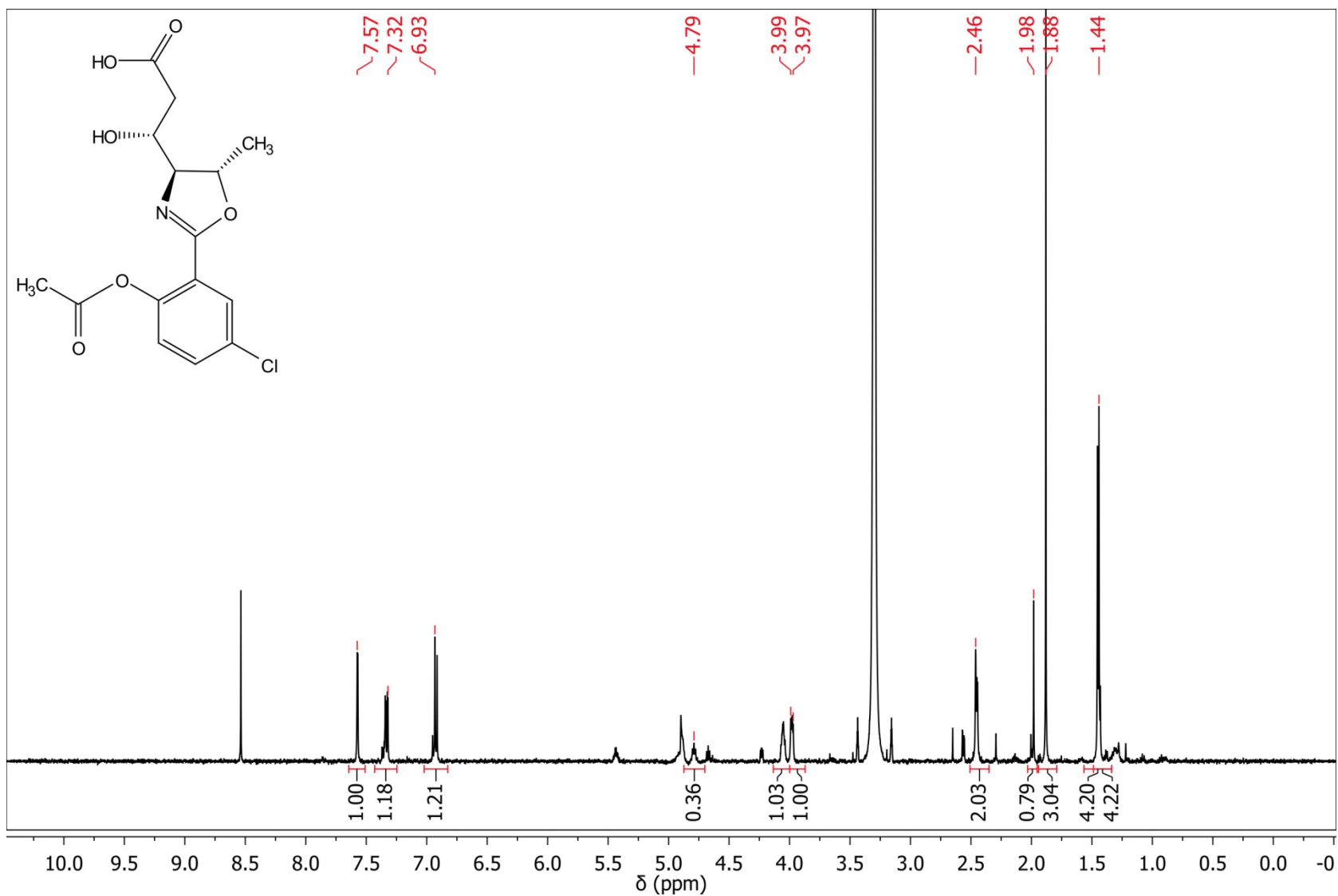


Figure S38. Growth Inhibition Curves for 2

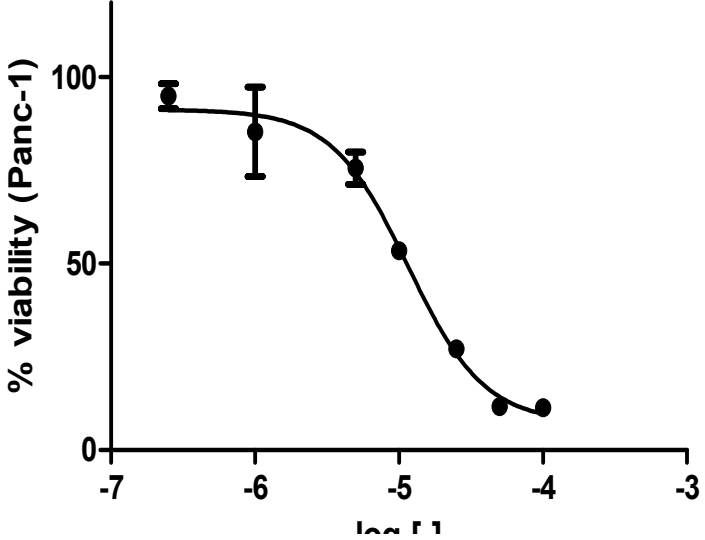


Figure S39. Micrographs of the Cyanobacterium O-2-5

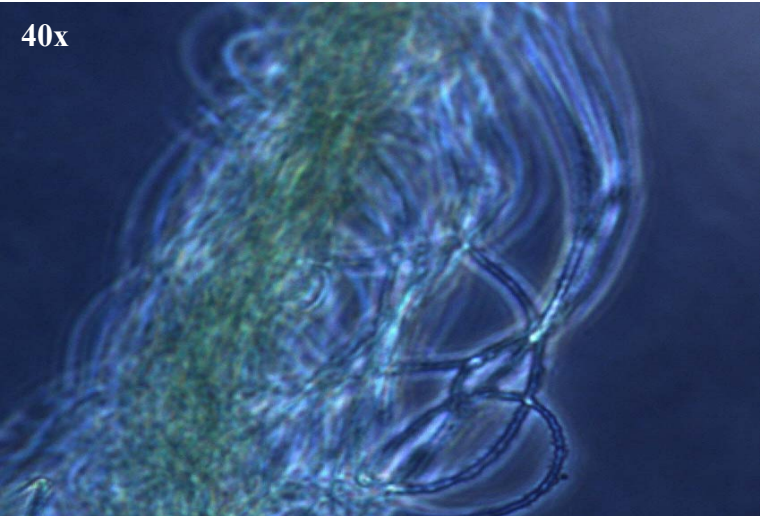
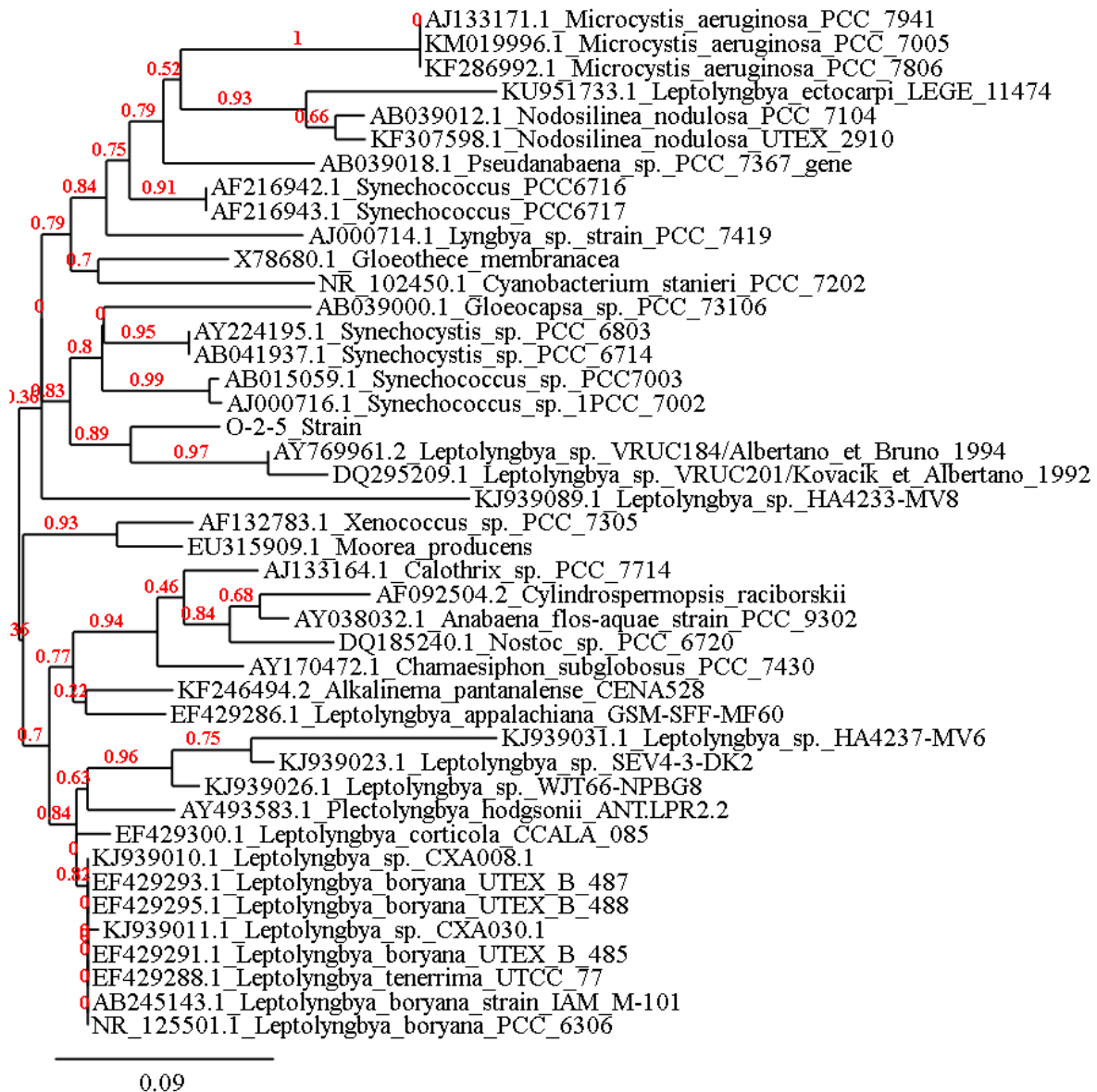


Figure S40. 16S sRNA Sequence of the Cyanobacterium O-2-5

CGGACGGGGNNAGTAACGCGTGAGGATCTGCCTACAGGACTGGGACAACGACTGGAAACGGTCGCTAAAACCGGNATGTGCCGAGAGGTGAAATATTTATAGCCTGT
AGATGAGCTCGCGTCTGATTAGCTAGTTGGTGAGGTAATGGCTCACCAAGGCGACGATCAGTAGCTGGTCTGAGAGGACGATCAGCCACACTGGGACTGAGACACGG
CCCAGACTCCTACGGGAGGCAGCAGTGGGAATTTTCCGCAATGGGCGCAAGCCTGACGGAGCAATACCGCGTGAGGGAGGAAGGTCTGTGGATTGTAAACCTCTTT
TGATAGGGAAGAACAACAATGACGGTACCTATCGAATCAGCATCGGCTAACTCCGTGCCAGCAGCCGCGTAATACGGAGGATGCAAGCGTTATCCGGAATTATTGGGC
GTAAAGCGTCCGTAGGTGGTTAATCAAGTCTATTGTCAAAGCCTGGGGCTTAACCCTGGAGAGGCGGTGGAAACTGGTTAACTTGAGTGCGGTAGGGGCAGAGGGAAT
TCCCAGTGTAGCGGTGAAATGCGTAGATATTGGGAAGAACACCGGTGGCGAAAGCGCTCTGCTGGGCCTGCACTGACACTGAGGGACGAAAGCTAGGGGAGCGAATG
GGATTAGATACCCCCAGTAGTCA

Figure S41. 16S sRNA Phylogenetic Analysis of Strain O-2-5



Dereeper A., Audic S., Claverie J.M., Blanc G. BMC Evol Biol. 2010 Jan 12;10:8.

Dereeper A.*, Guignon V.*, Blanc G., Audic S., Buffet S., Chevenet F., Dufayard J.F., Guindon S., Lefort V., Lescot M., Claverie J.M., Gascuel O. Nucleic Acids Res. 2008 Jul 1;36(Web Server issue):W465-9. Epub 2008 Apr 19.

Table S6. Boltzmann Distribution of Conformers of (3S*,4S*,5S*)-1a

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|------------------------------|---|-----------------------------|--|--|
| conformer #24 | -874980.3599 | 0.00 | 1.000 | 0.676 | 0 |
| conformer #1 | -874979.5567 | 0.80 | 0.257 | 0.174 | 0 |
| conformer #18 | -874978.7867 | 1.57 | 0.070 | 0.047 | 0 |
| conformer #27 | -874978.6989 | 1.66 | 0.060 | 0.041 | 0 |
| conformer #6 | -874978.3431 | 2.02 | 0.033 | 0.022 | 0 |
| conformer #23 | -874978.1573 | 2.20 | 0.024 | 0.016 | 0 |
| conformer #22 | -874977.6459 | 2.71 | 0.010 | 0.007 | 0 |
| conformer #10 | -874977.4206 | 2.94 | 0.007 | 0.005 | 0 |
| conformer #4 | -874977.1144 | 3.25 | 0.004 | 0.003 | 0 |
| conformer #16 | -874977.0435 | 3.32 | 0.004 | 0.002 | 0 |
| conformer #3 | -874976.9676 | 3.39 | 0.003 | 0.002 | 0 |
| conformer #12 | -874976.8396 | 3.52 | 0.003 | 0.002 | 0 |
| conformer #5 | -874976.6977 | 3.66 | 0.002 | 0.001 | 0 |
| conformer #19 | -874976.4034 | 3.96 | 0.001 | 0.001 | 0 |
| conformer #2 | -874975.7126 | 4.65 | 0.000 | 0.000 | 0 |
| conformer #11 | -874975.1516 | 5.21 | 0.000 | 0.000 | 0 |
| conformer #13 | -874974.9733 | 5.39 | 0.000 | 0.000 | 0 |
| conformer #26 | -874974.7782 | 5.58 | 0.000 | 0.000 | 0 |
| conformer #21 | -874973.3343 | 7.03 | 0.000 | 0.000 | 0 |
| conformer #20 | -874973.3136 | 7.05 | 0.000 | 0.000 | 0 |
| conformer #8 | -874972.8906 | 7.47 | 0.000 | 0.000 | 0 |
| conformer #7 | -874972.8812 | 7.48 | 0.000 | 0.000 | 0 |
| conformer #9 | -874972.8279 | 7.53 | 0.000 | 0.000 | 0 |
| conformer #17 | -874972.3485 | 8.01 | 0.000 | 0.000 | 0 |
| conformer #15 | -874972.3428 | 8.02 | 0.000 | 0.000 | 0 |
| conformer #28 | -874970.8236 | 9.54 | 0.000 | 0.000 | 0 |

Table S7. Boltzmann Distribution of Conformers of (3*S,4*S**,5*R**)-1b**

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|------------------------------|---|-----------------------------|--|--|
| conformer #7 | -874977.05 | 0.00 | 1.000 | 0.518 | 0 |
| conformer #18 | -874976.75 | 0.30 | 0.602 | 0.312 | 0 |
| conformer #4 | -874975.83 | 1.22 | 0.127 | 0.066 | 0 |
| conformer #12 | -874975.5 | 1.55 | 0.073 | 0.038 | 0 |
| conformer #8 | -874975.47 | 1.57 | 0.070 | 0.036 | 0 |
| conformer #16 | -874974.94 | 2.11 | 0.028 | 0.015 | 0 |
| conformer #1 | -874974.68 | 2.37 | 0.018 | 0.009 | 0 |
| conformer #9 | -874973.98 | 3.07 | 0.006 | 0.003 | 0 |
| conformer #5 | -874973.43 | 3.61 | 0.002 | 0.001 | 0 |
| conformer #17 | -874972.73 | 4.32 | 0.001 | 0.000 | 0 |
| conformer #13 | -874972.51 | 4.53 | 0.000 | 0.000 | 0 |
| conformer #11 | -874972.49 | 4.55 | 0.000 | 0.000 | 0 |
| conformer #6 | -874972.39 | 4.66 | 0.000 | 0.000 | 0 |
| conformer #15 | -874971.72 | 5.33 | 0.000 | 0.000 | 0 |
| conformer #2 | -874970.93 | 6.12 | 0.000 | 0.000 | 0 |
| conformer #3 | -874970.07 | 6.98 | 0.000 | 0.000 | 0 |
| conformer #10 | -874968.92 | 8.12 | 0.000 | 0.000 | 0 |
| conformer #19 | -874968.47 | 8.58 | 0.000 | 0.000 | 0 |
| conformer #14 | -874967.85 | 9.19 | 0.000 | 0.000 | 0 |

Table S8. Boltzmann Distribution of Conformers of (3*R,4*S**,5*R**)-1c**

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|------------------------------|---|-----------------------------|--|--|
| conformer #1 | -874977.46 | 0.25 | 0.658 | 0.261 | 0 |
| conformer #10 | -874975.12 | 2.59 | 0.013 | 0.005 | 0 |
| conformer #11 | -874973.38 | 4.33 | 0.001 | 0.000 | 0 |
| conformer #13 | -874971.33 | 6.38 | 0.000 | 0.000 | 0 |
| conformer #14 | -874976.55 | 1.15 | 0.143 | 0.057 | 0 |
| conformer #15 | -874973.79 | 3.92 | 0.001 | 0.001 | 0 |
| conformer #17 | -874970.8 | 6.90 | 0.000 | 0.000 | 0 |
| conformer #18 | -874974.79 | 2.91 | 0.007 | 0.003 | 0 |
| conformer #19 | -874976.61 | 1.10 | 0.156 | 0.062 | 0 |
| conformer #2 | -874973.9 | 3.81 | 0.002 | 0.001 | 0 |
| conformer #20 | -874973 | 4.70 | 0.000 | 0.000 | 0 |
| conformer #22 | -874971.41 | 6.30 | 0.000 | 0.000 | 0 |
| conformer #23 | -874973.82 | 3.89 | 0.001 | 0.001 | 0 |
| conformer #24 | -874976.6 | 1.10 | 0.155 | 0.061 | 0 |
| conformer #25 | -874976.09 | 1.61 | 0.065 | 0.026 | 0 |
| conformer #26 | -874967.85 | 9.86 | 0.000 | 0.000 | 0 |
| conformer #27 | -874977.7 | 0.00 | 1.000 | 0.397 | 0 |
| conformer #28 | -874967.36 | 10.35 | 0.000 | 0.000 | 0 |
| conformer #29 | -874972.41 | 5.29 | 0.000 | 0.000 | 0 |
| conformer #3 | -874973.51 | 4.20 | 0.001 | 0.000 | 0 |
| conformer #4 | -874970 | 7.71 | 0.000 | 0.000 | 0 |
| conformer #5 | -874973.81 | 3.89 | 0.001 | 0.001 | 0 |
| conformer #6 | -874970.22 | 7.48 | 0.000 | 0.000 | 0 |
| conformer #7 | -874973.64 | 4.06 | 0.001 | 0.000 | 0 |
| conformer #8 | -874977.02 | 0.68 | 0.315 | 0.125 | 0 |
| conformer #9 | -874970.01 | 7.69 | 0.000 | 0.000 | 0 |

Table S9. Boltzmann Distribution of Conformers of (3R*,4S*,5S*)-1d

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|---------------|-------------------|----------------------------|------------------|---------------------------|---------------------------------|
| conformer #32 | -874980.28 | 0 | 1 | 0.495 | 0 |
| conformer #1 | -874979.64 | 0.65 | 0.335 | 0.165 | 0 |
| conformer #18 | -874979.35 | 0.94 | 0.205 | 0.102 | 0 |
| conformer #34 | -874979.19 | 1.09 | 0.158 | 0.078 | 0 |
| conformer #10 | -874978.99 | 1.3 | 0.112 | 0.055 | 0 |
| conformer #21 | -874978.42 | 1.86 | 0.043 | 0.021 | 0 |
| conformer #27 | -874978.34 | 1.95 | 0.037 | 0.018 | 0 |
| conformer #13 | -874978.16 | 2.13 | 0.027 | 0.013 | 0 |
| | - | | | | |
| conformer #29 | 874978.12 | 2.16 | 0.026 | 0.013 | 0 |
| conformer #12 | -874978.11 | 2.18 | 0.025 | 0.013 | 0 |
| conformer #19 | -874977.98 | 2.31 | 0.02 | 0.010 | 0 |
| conformer #7 | -874977.63 | 2.65 | 0.011 | 0.006 | 0 |
| conformer #2 | -874977.49 | 2.79 | 0.009 | 0.004 | 0 |
| conformer #4 | -874977.18 | 3.1 | 0.005 | 0.003 | 0 |
| conformer #9 | -874976.76 | 3.52 | 0.003 | 0.001 | 0 |
| conformer #20 | -874976.73 | 3.55 | 0.002 | 0.001 | 0 |
| conformer #26 | -874975.91 | 4.37 | 0.001 | 0 | 0 |
| conformer #5 | -874975.41 | 4.88 | 0 | 0 | 0 |
| conformer #15 | -874975.18 | 5.1 | 0 | 0 | 0 |
| conformer #8 | -874974.13 | 6.15 | 0 | 0 | 0 |
| conformer #16 | -874974.09 | 6.19 | 0 | 0 | 0 |
| conformer #17 | -874974.09 | 6.19 | 0 | 0 | 0 |
| conformer #31 | -874973.97 | 6.31 | 0 | 0 | 0 |
| conformer #30 | -874973.67 | 6.61 | 0 | 0 | 0 |
| conformer #6 | -874973.67 | 6.62 | 0 | 0 | 0 |
| conformer #3 | -874973.58 | 6.7 | 0 | 0 | 0 |
| conformer #11 | -874973.54 | 6.75 | 0 | 0 | 0 |
| conformer #22 | -874973.18 | 7.1 | 0 | 0 | 0 |
| conformer #33 | -874973.01 | 7.27 | 0 | 0 | 0 |
| conformer #14 | -874971.94 | 8.34 | 0 | 0 | 0 |
| conformer #24 | -874971.75 | 8.54 | 0 | 0 | 0 |
| conformer #23 | -874971.13 | 9.15 | 0 | 0 | 0 |
| conformer #25 | -874970.95 | 9.34 | 0 | 0 | 0 |
| conformer #35 | -874970.36 | 9.93 | 0 | 0 | 0 |

Table S10. Boltzmann Distribution of Conformers of (2S*,3R*,4S*,5S*)-2a

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|------------------------------|---|-----------------------------|--|--|
| conformer #1 | -909695.77 | 0.00 | 1.000 | 0.992 | 0 |
| conformer #5 | -909692.8 | 2.97 | 0.007 | 0.007 | 0 |
| conformer #7 | -909691.85 | 3.93 | 0.001 | 0.001 | 0 |
| conformer #2 | -909691.39 | 4.39 | 0.001 | 0.001 | 0 |
| conformer #6 | -909689.09 | 6.69 | 0.000 | 0.000 | 0 |
| conformer #3 | -909689.02 | 6.76 | 0.000 | 0.000 | 0 |
| conformer #4 | -909687.67 | 8.10 | 0.000 | 0.000 | 0 |

Table S11. Boltzmann Distribution of Conformers of (2S*,3R*,4S*,5R*)-2b

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|------------------------------|---|-----------------------------|--|--|
| conformer #1 | -909691.49 | 0.00 | 1.000 | 0.999 | 0 |
| conformer #2 | -909687.19 | 4.29 | 0.001 | 0.001 | 0 |
| conformer #3 | -909685.22 | 6.26 | 0.000 | 0.000 | 0 |
| conformer #4 | -909684.56 | 6.93 | 0.000 | 0.000 | 0 |

Table S12. Boltzmann Distribution of Conformers of (2S*,3S*,4S*,5R*)-2c

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|------------------------------|---|-----------------------------|--|--|
| conformer #10 | -909693.2 | 0.00 | 1.000 | 0.915 | 0 |
| conformer #2 | -909691.21 | 1.99 | 0.035 | 0.032 | 0 |
| conformer #1 | -909690.97 | 2.23 | 0.023 | 0.021 | 0 |
| conformer #5 | -909690.76 | 2.44 | 0.016 | 0.015 | 0 |
| conformer #11 | -909690.74 | 2.46 | 0.016 | 0.014 | 0 |
| conformer #12 | -909689.8 | 3.40 | 0.003 | 0.003 | 0 |
| conformer #3 | -909687.93 | 5.27 | 0.000 | 0.000 | 0 |
| conformer #4 | -909687.25 | 5.95 | 0.000 | 0.000 | 0 |
| conformer #8 | -909685.23 | 7.96 | 0.000 | 0.000 | 0 |
| conformer #6 | -909685.22 | 7.98 | 0.000 | 0.000 | 0 |
| conformer #7 | -909684.91 | 8.29 | 0.000 | 0.000 | 0 |
| conformer #9 | -909684.74 | 8.46 | 0.000 | 0.000 | 0 |

Table S13. Boltzmann Distribution of Conformers of (2S*,3S*,4S*,5S*)-2d

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|------------------------------|---|-----------------------------|--------------------------------------|--|
| conformer #1 | -909694 | 0 | 1.000 | 0.380 | 0 |
| conformer #3 | -909694 | 0.08 | 0.874 | 0.332 | 0 |
| conformer #7 | -909694 | 0.19 | 0.730 | 0.277 | 0 |
| conformer #8 | -909692 | 2.2 | 0.024 | 0.009 | 0 |
| conformer #2 | -909691 | 3.33 | 0.004 | 0.001 | 0 |
| conformer #4 | -909690 | 4.12 | 0.001 | 0.000 | 0 |
| conformer #5 | -909688 | 5.65 | 0.000 | 0.000 | 0 |
| conformer #6 | -909688 | 5.84 | 0.000 | 0.000 | 0 |

Table S14. Boltzmann Distribution of Conformers of (2R*,3R*,4S*,5S*)-2e

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|--------------------------|-----------------------------------|-------------------------|----------------------------------|--|
| conformer #1 | -909695.54 | 0.00 | 1.000 | 0.951 | 0 |
| conformer #8 | -909693.76 | 1.78 | 0.050 | 0.047 | 0 |
| conformer #2 | -909691.72 | 3.81 | 0.002 | 0.002 | 0 |
| conformer #5 | -909691.14 | 4.40 | 0.001 | 0.001 | 0 |
| conformer #4 | -909689.35 | 6.19 | 0.000 | 0.000 | 0 |
| conformer #3 | -909687.31 | 8.23 | 0.000 | 0.000 | 0 |
| conformer #6 | -909686.69 | 8.85 | 0.000 | 0.000 | 0 |

Table S15. Boltzmann Distribution of Conformers of (2R*,3R*,4S*,5R*)-2f

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|--------------------------|-----------------------------------|-------------------------|----------------------------------|--|
| conformer #1 | -909690.66 | 0.00 | 1.000 | 0.996 | 0 |
| conformer #6 | -909687.06 | 3.60 | 0.002 | 0.002 | 0 |
| conformer #2 | -909686.87 | 3.78 | 0.002 | 0.002 | 0 |
| conformer #5 | -909683.96 | 6.69 | 0.000 | 0.000 | 0 |
| conformer #4 | -909683.36 | 7.30 | 0.000 | 0.000 | 0 |
| conformer #3 | -909683.15 | 7.50 | 0.000 | 0.000 | 0 |

Table S16. Boltzmann Distribution of Conformers of (2R*,3S*,4S*,5R*)-2g

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|--------------------------|-----------------------------------|-------------------------|----------------------------------|--|
| conformer #7 | -909692.71 | 0.00 | 1.000 | 0.542 | 0 |
| conformer #3 | -909692.53 | 0.18 | 0.736 | 0.399 | 0 |
| conformer #2 | -909691.39 | 1.32 | 0.107 | 0.058 | 0 |
| conformer #8 | -909688.66 | 4.05 | 0.001 | 0.001 | 0 |
| conformer #1 | -909688.56 | 4.15 | 0.001 | 0.000 | 0 |
| conformer #4 | -909688.08 | 4.63 | 0.000 | 0.000 | 0 |
| conformer #9 | -909685.73 | 6.98 | 0.000 | 0.000 | 0 |
| conformer #5 | -909685.39 | 7.32 | 0.000 | 0.000 | 0 |
| conformer #6 | -909684.9 | 7.81 | 0.000 | 0.000 | 0 |

Table S17. Boltzmann Distribution of Conformers of (2R*,3S*,4S*,5S*)-2h

| Conformer | Energy (kcal/mol) | Relative Energy (kcal/mol) | Boltzmann Factor | Equilibrium Mole Fraction | Number of Imaginary Frequencies |
|------------------|--------------------------|-----------------------------------|-------------------------|----------------------------------|--|
| conformer #3 | -909695.07 | 0.00 | 1.000 | 0.946 | 0 |
| conformer #1 | -909693.37 | 1.70 | 0.056 | 0.053 | 0 |
| conformer #4 | -909690.98 | 4.09 | 0.001 | 0.001 | 0 |
| conformer #2 | -909689.69 | 5.38 | 0.000 | 0.000 | 0 |
| conformer #6 | -909688.72 | 6.35 | 0.000 | 0.000 | 0 |
| conformer #5 | -909687.24 | 7.83 | 0.000 | 0.000 | 0 |

XYZ Coordinates of Conformers

for the Diastereomers of 1

1d NMR Conformer 35

Energy: -875532.0543687

| | | | |
|----|----------|----------|----------|
| O | -1.77742 | 2.87577 | -0.37603 |
| C | -2.45820 | 1.71700 | -0.24738 |
| C | -1.87626 | 0.46775 | 0.04053 |
| C | -0.42955 | 0.27817 | 0.23301 |
| N | 0.18135 | -0.83708 | 0.30543 |
| C | 1.59455 | -0.53107 | 0.56929 |
| C | 2.48345 | -1.41655 | -0.30975 |
| O | 2.14144 | -2.77401 | -0.09987 |
| C | 3.96482 | -1.31068 | 0.03750 |
| C | 4.66925 | -0.10935 | -0.55502 |
| O | 5.86769 | 0.19599 | -0.03804 |
| O | 4.23162 | 0.55880 | -1.46389 |
| C | 1.71149 | 0.98782 | 0.32635 |
| C | 2.49367 | 1.76148 | 1.36350 |
| O | 0.31732 | 1.40833 | 0.36059 |
| C | -2.69441 | -0.66898 | 0.13769 |
| C | -4.05822 | -0.56120 | -0.04674 |
| Cl | -5.06447 | -1.98550 | 0.08104 |
| C | -4.64647 | 0.67354 | -0.33260 |
| C | -3.84621 | 1.79842 | -0.43059 |
| H | -0.82745 | 2.74435 | -0.21073 |
| H | 1.80870 | -0.78172 | 1.62133 |
| H | 2.33132 | -1.13633 | -1.36233 |
| H | 1.17842 | -2.85842 | -0.20793 |
| H | 4.46994 | -2.19955 | -0.36282 |
| H | 4.10691 | -1.33468 | 1.12560 |
| H | 6.13751 | -0.40407 | 0.68480 |
| H | 2.07145 | 1.19717 | -0.68647 |
| H | 3.54118 | 1.44382 | 1.35902 |
| H | 2.46646 | 2.83291 | 1.15283 |
| H | 2.08223 | 1.58095 | 2.36046 |
| H | -2.23435 | -1.62650 | 0.36209 |
| H | -5.72069 | 0.74830 | -0.47492 |
| H | -4.27775 | 2.76966 | -0.65339 |

1d NMR Conformer 34

Energy: -875540.5706700

| | | | |
|---|---------|----------|----------|
| O | 1.32006 | -2.53201 | -0.87853 |
| C | 2.22205 | -1.63670 | -0.44488 |

| | | | |
|----|----------|----------|----------|
| C | 1.89915 | -0.28661 | -0.19625 |
| C | 0.52926 | 0.17875 | -0.41128 |
| N | -0.43683 | -0.56705 | -0.80702 |
| C | -1.63678 | 0.26961 | -0.88335 |
| C | -2.71541 | -0.28062 | 0.05500 |
| O | -3.02848 | -1.61931 | -0.27238 |
| C | -4.01374 | 0.50765 | -0.07754 |
| C | -5.09915 | -0.06970 | 0.79821 |
| O | -4.72027 | -0.16094 | 2.07792 |
| O | -6.19692 | -0.40365 | 0.40977 |
| C | -1.13895 | 1.68586 | -0.49996 |
| C | -1.25658 | 2.70941 | -1.60910 |
| O | 0.26554 | 1.47665 | -0.18608 |
| C | 2.88558 | 0.60275 | 0.25151 |
| C | 4.17528 | 0.14553 | 0.44947 |
| Cl | 5.40874 | 1.25203 | 1.00824 |
| C | 4.50907 | -1.18982 | 0.20833 |
| C | 3.53692 | -2.07192 | -0.23625 |
| H | 0.44521 | -2.07895 | -0.98609 |
| H | -2.02884 | 0.24291 | -1.90998 |
| H | -2.34539 | -0.21393 | 1.08984 |
| H | -2.22803 | -2.16169 | -0.16714 |
| H | -4.36922 | 0.48478 | -1.11077 |
| H | -3.85750 | 1.55078 | 0.22330 |
| H | -5.45735 | -0.53719 | 2.60277 |
| H | -1.60376 | 2.04773 | 0.42500 |
| H | -2.31285 | 2.87886 | -1.84093 |
| H | -0.80829 | 3.65983 | -1.31138 |
| H | -0.75691 | 2.34546 | -2.51190 |
| H | 2.62807 | 1.64072 | 0.43918 |
| H | 5.52731 | -1.53262 | 0.36878 |
| H | 3.77692 | -3.11293 | -0.43068 |

1d NMR Conformer 33

Energy: -875534.3141370

| | | | |
|---|----------|----------|----------|
| O | -2.47070 | -2.79681 | 0.20188 |
| C | -2.74146 | -1.47878 | 0.08933 |
| C | -1.77304 | -0.46743 | -0.05461 |
| C | -0.32530 | -0.73420 | -0.09867 |
| N | 0.59739 | 0.14408 | -0.08488 |
| C | 1.87287 | -0.57343 | -0.17707 |
| C | 2.80504 | -0.15023 | 0.96453 |
| O | 2.18543 | -0.36002 | 2.21793 |
| C | 3.25494 | 1.30296 | 0.82142 |
| C | 4.22199 | 1.51054 | -0.32322 |
| O | 4.54556 | 2.77884 | -0.61312 |
| O | 4.72121 | 0.61206 | -0.96105 |
| C | 1.50150 | -2.07117 | -0.11664 |
| C | 2.04113 | -2.90605 | -1.25571 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| O | 0.04815 | -2.04003 | -0.17706 | H | -5.96711 | -2.35022 | 0.87464 |
| C | -2.18375 | 0.87086 | -0.15438 | H | -1.30674 | 2.56675 | 0.80717 |
| C | -3.52602 | 1.19086 | -0.11128 | H | -1.90350 | 3.82370 | -1.29070 |
| Cl | -4.02228 | 2.86206 | -0.24141 | H | -0.27916 | 4.26176 | -0.72381 |
| C | -4.49519 | 0.19474 | 0.03140 | H | -0.47173 | 3.14200 | -2.09487 |
| C | -4.09807 | -1.12726 | 0.13064 | H | 2.79728 | 1.44336 | 0.57688 |
| H | -1.51404 | -2.96509 | 0.14179 | H | 5.06272 | -2.16205 | -0.01139 |
| H | 2.35434 | -0.32924 | -1.13341 | H | 3.03410 | -3.29108 | -0.90553 |
| H | 3.68715 | -0.80049 | 0.95096 | | | | |
| H | 1.36325 | 0.16148 | 2.25137 | | | | |
| H | 3.76084 | 1.61392 | 1.74391 | | | | |
| H | 2.38481 | 1.95891 | 0.68898 | | | | |
| H | 4.08737 | 3.42783 | -0.04503 | | | | |
| H | 1.76152 | -2.50071 | 0.85745 | | | | |
| H | 3.13511 | -2.89945 | -1.22072 | | | | |
| H | 1.69924 | -3.94112 | -1.18281 | | | | |
| H | 1.72106 | -2.48976 | -2.21530 | | | | |
| H | -1.42879 | 1.64276 | -0.26774 | | | | |
| H | -5.54888 | 0.45707 | 0.06249 | | | | |
| H | -4.83113 | -1.92045 | 0.24301 | | | | |

1d NMR Conformer 32

Energy: -875541.1477590

| | | | |
|----|----------|----------|----------|
| O | 0.71302 | -2.22897 | -1.16243 |
| C | 1.77551 | -1.57128 | -0.66957 |
| C | 1.71159 | -0.22738 | -0.24742 |
| C | 0.44577 | 0.49907 | -0.34599 |
| N | -0.64877 | -0.00924 | -0.78516 |
| C | -1.67476 | 1.03289 | -0.72111 |
| C | -2.82887 | 0.59758 | 0.18868 |
| O | -2.37128 | 0.36845 | 1.50720 |
| C | -3.55062 | -0.62400 | -0.36798 |
| C | -4.81717 | -0.91788 | 0.39639 |
| O | -5.11799 | -2.22032 | 0.40021 |
| O | -5.51025 | -0.08109 | 0.93137 |
| C | -0.92530 | 2.27523 | -0.17720 |
| C | -0.88746 | 3.45020 | -1.13046 |
| O | 0.42780 | 1.78528 | 0.03692 |
| C | 2.85473 | 0.40760 | 0.25536 |
| C | 4.04439 | -0.29307 | 0.33476 |
| Cl | 5.47282 | 0.49704 | 0.95929 |
| C | 4.12064 | -1.62476 | -0.07961 |
| C | 2.99239 | -2.25653 | -0.57774 |
| H | -0.06571 | -1.61289 | -1.17052 |
| H | -2.07176 | 1.21688 | -1.72924 |
| H | -3.53925 | 1.42840 | 0.27031 |
| H | -1.73995 | -0.37425 | 1.50076 |
| H | -2.89964 | -1.50292 | -0.35766 |
| H | -3.84140 | -0.44721 | -1.41263 |

1d NMR Conformer 31

Energy: -875536.1637149

| | | | |
|----|----------|----------|----------|
| O | 1.62140 | 2.74626 | 0.09491 |
| C | 2.39053 | 1.64892 | 0.01725 |
| C | 1.86503 | 0.34332 | 0.08445 |
| C | 0.42779 | 0.15270 | 0.27330 |
| N | -0.42637 | 1.10668 | 0.37142 |
| C | -1.73256 | 0.49429 | 0.63140 |
| C | -2.79634 | 1.11583 | -0.27444 |
| O | -2.88298 | 2.50126 | -0.00463 |
| C | -4.19144 | 0.56088 | -0.00451 |
| C | -4.49995 | -0.74404 | -0.70058 |
| O | -5.53819 | -1.44096 | -0.22313 |
| O | -3.91338 | -1.15370 | -1.67414 |
| C | -1.48368 | -1.01656 | 0.41282 |
| C | -2.01758 | -1.91759 | 1.50374 |
| O | -0.02925 | -1.10567 | 0.37357 |
| C | 2.71688 | -0.76509 | -0.01592 |
| C | 4.07472 | -0.56707 | -0.17719 |
| Cl | 5.14199 | -1.94769 | -0.30395 |
| C | 4.61035 | 0.72173 | -0.24002 |
| C | 3.77122 | 1.81936 | -0.14264 |
| H | 0.67632 | 2.46537 | 0.20357 |
| H | -2.01928 | 0.70965 | 1.67316 |
| H | -2.52024 | 0.93332 | -1.32352 |
| H | -2.02635 | 2.91050 | -0.22004 |
| H | -4.92189 | 1.28840 | -0.38288 |
| H | -4.36906 | 0.47136 | 1.07534 |
| H | -5.95027 | -1.03269 | 0.56297 |
| H | -1.83521 | -1.33894 | -0.57317 |
| H | -3.10998 | -1.84187 | 1.54891 |
| H | -1.75912 | -2.96141 | 1.31224 |
| H | -1.61475 | -1.61831 | 2.47553 |
| H | 2.30232 | -1.76753 | 0.03621 |
| H | 5.68065 | 0.85908 | -0.36689 |
| H | 4.16699 | 2.82947 | -0.19273 |

1d NMR Conformer 30

Energy: -875533.9523276

| | | | |
|---|----------|---------|----------|
| O | -2.26888 | 2.83677 | -0.47727 |
|---|----------|---------|----------|

| | | | |
|----|----------|----------|----------|
| C | -2.72458 | 1.58237 | -0.27119 |
| C | -1.91285 | 0.45647 | -0.03581 |
| C | -0.44191 | 0.51273 | 0.01668 |
| N | 0.33890 | -0.46573 | 0.24911 |
| C | 1.71222 | 0.04953 | 0.19005 |
| C | 2.46781 | -0.70756 | -0.90904 |
| O | 2.46378 | -2.09356 | -0.63476 |
| C | 3.93364 | -0.29972 | -1.08575 |
| C | 4.81492 | -0.72709 | 0.06318 |
| O | 4.58704 | -0.01492 | 1.17606 |
| O | 5.64949 | -1.60205 | 0.00638 |
| C | 1.56463 | 1.56628 | -0.07425 |
| C | 2.07645 | 2.44141 | 1.04966 |
| O | 0.12538 | 1.72945 | -0.20471 |
| C | -2.51433 | -0.79571 | 0.16640 |
| C | -3.88853 | -0.92144 | 0.13215 |
| Cl | -4.62157 | -2.48820 | 0.38583 |
| C | -4.70305 | 0.18921 | -0.10175 |
| C | -4.11799 | 1.42734 | -0.30064 |
| H | -1.29705 | 2.86852 | -0.43892 |
| H | 2.20355 | -0.13925 | 1.15047 |
| H | 1.95273 | -0.49906 | -1.86118 |
| H | 1.54092 | -2.37545 | -0.50854 |
| H | 4.01163 | 0.78631 | -1.20924 |
| H | 4.32272 | -0.78118 | -1.98433 |
| H | 5.17858 | -0.33715 | 1.88937 |
| H | 1.98937 | 1.86847 | -1.03882 |
| H | 3.15660 | 2.30019 | 1.15034 |
| H | 1.87177 | 3.49622 | 0.85220 |
| H | 1.60130 | 2.15390 | 1.99277 |
| H | -1.87930 | -1.65717 | 0.34907 |
| H | -5.78357 | 0.07989 | -0.12631 |
| H | -4.72812 | 2.30686 | -0.48338 |

1d NMR Conformer 29

Energy: -875538.6179295

| | | | |
|---|----------|----------|----------|
| O | 0.19678 | -2.13016 | -0.88969 |
| C | 1.30296 | -1.44878 | -0.55284 |
| C | 1.28934 | -0.07428 | -0.23922 |
| C | 0.02554 | 0.66192 | -0.28447 |
| N | -1.10451 | 0.13345 | -0.58915 |
| C | -2.12847 | 1.17191 | -0.47579 |
| C | -3.14993 | 0.80109 | 0.60772 |
| O | -2.54227 | 0.71896 | 1.87832 |
| C | -3.94856 | -0.46118 | 0.23548 |
| C | -3.12824 | -1.71605 | 0.08250 |
| O | -2.46511 | -2.02686 | 1.20878 |
| O | -3.06982 | -2.39939 | -0.91422 |
| C | -1.33003 | 2.45498 | -0.13326 |

| | | | |
|----|----------|----------|----------|
| C | -1.37170 | 3.52626 | -1.19956 |
| O | 0.04113 | 1.97018 | 0.00466 |
| C | 2.47586 | 0.57874 | 0.11925 |
| C | 3.65962 | -0.13303 | 0.15690 |
| Cl | 5.14316 | 0.67706 | 0.60871 |
| C | 3.69022 | -1.49285 | -0.16055 |
| C | 2.51856 | -2.14245 | -0.51223 |
| H | -0.57264 | -1.49995 | -0.88388 |
| H | -2.65786 | 1.27540 | -1.43383 |
| H | -3.87208 | 1.62342 | 0.68122 |
| H | -2.03181 | -0.10557 | 1.93836 |
| H | -4.48074 | -0.29926 | -0.70482 |
| H | -4.68325 | -0.64118 | 1.02830 |
| H | -1.93878 | -2.84234 | 1.06176 |
| H | -1.61763 | 2.84588 | 0.84728 |
| H | -2.39554 | 3.89927 | -1.30461 |
| H | -0.72285 | 4.36411 | -0.93380 |
| H | -1.04959 | 3.11615 | -2.16165 |
| H | 2.45301 | 1.63698 | 0.36307 |
| H | 4.63028 | -2.03669 | -0.12782 |
| H | 2.52076 | -3.19993 | -0.76001 |

1d NMR Conformer 27

Energy: -875537.4782029

| | | | |
|----|----------|----------|----------|
| O | 0.25228 | -2.25334 | -0.41234 |
| C | 1.38019 | -1.54413 | -0.25357 |
| C | 1.39599 | -0.13947 | -0.13163 |
| C | 0.14012 | 0.60495 | -0.18521 |
| N | -1.01483 | 0.07006 | -0.34999 |
| C | -1.99393 | 1.15742 | -0.38557 |
| C | -3.17930 | 0.87159 | 0.53472 |
| O | -2.78321 | 0.47592 | 1.84539 |
| C | -4.09918 | -0.21663 | -0.03258 |
| C | -3.44420 | -1.57457 | -0.20123 |
| O | -2.89313 | -2.10714 | 0.89538 |
| O | -3.44343 | -2.19689 | -1.23969 |
| C | -1.17667 | 2.41597 | -0.00496 |
| C | -1.34964 | 3.59446 | -0.93420 |
| O | 0.19707 | 1.94347 | -0.05781 |
| C | 2.60940 | 0.54028 | 0.04109 |
| C | 3.79027 | -0.17578 | 0.08607 |
| Cl | 5.30645 | 0.66996 | 0.29567 |
| C | 3.79082 | -1.56791 | -0.03581 |
| C | 2.59300 | -2.24346 | -0.20382 |
| H | -0.52070 | -1.63725 | -0.42938 |
| H | -2.39134 | 1.25381 | -1.40714 |
| H | -3.77347 | 1.79371 | 0.61036 |
| H | -1.83012 | 0.61093 | 1.99400 |
| H | -4.49207 | 0.09275 | -1.00307 |

| | | | |
|---|----------|----------|----------|
| H | -4.94318 | -0.33635 | 0.65723 |
| H | -2.87845 | -1.44456 | 1.61456 |
| H | -1.36208 | 2.71050 | 1.03743 |
| H | -2.38980 | 3.93321 | -0.90250 |
| H | -0.70695 | 4.42430 | -0.63309 |
| H | -1.10578 | 3.30552 | -1.96029 |
| H | 2.61002 | 1.62202 | 0.13541 |
| H | 4.72796 | -2.11589 | 0.00177 |
| H | 2.57239 | -3.32491 | -0.29907 |

1d NMR Conformer 26

Energy: -875536.3307767

| | | | |
|----|----------|----------|----------|
| O | 2.31241 | 2.70798 | 0.92234 |
| C | 2.75886 | 1.47600 | 0.59685 |
| C | 1.96957 | 0.44773 | 0.04700 |
| C | 0.53370 | 0.59281 | -0.24699 |
| N | -0.22542 | -0.30117 | -0.74261 |
| C | -1.56766 | 0.27869 | -0.84993 |
| C | -2.55408 | -0.57747 | -0.05105 |
| O | -2.52116 | -1.91588 | -0.50495 |
| C | -3.98420 | -0.09724 | -0.22904 |
| C | -4.93768 | -0.84737 | 0.67131 |
| O | -6.15359 | -0.96524 | 0.12871 |
| O | -4.66196 | -1.26920 | 1.77299 |
| C | -1.42706 | 1.72809 | -0.32483 |
| C | -1.73999 | 2.80231 | -1.34419 |
| O | -0.02226 | 1.80154 | 0.03691 |
| C | 2.56081 | -0.79177 | -0.24595 |
| C | 3.90219 | -1.00031 | 0.00390 |
| Cl | 4.62082 | -2.55080 | -0.36508 |
| C | 4.69442 | 0.01324 | 0.54902 |
| C | 4.11949 | 1.23785 | 0.84000 |
| H | 1.36442 | 2.80243 | 0.72643 |
| H | -1.87733 | 0.26330 | -1.90523 |
| H | -2.27886 | -0.52632 | 1.01430 |
| H | -1.60548 | -2.23696 | -0.43845 |
| H | -4.29592 | -0.21154 | -1.27164 |
| H | -4.07839 | 0.96473 | 0.03381 |
| H | -6.74504 | -1.41904 | 0.76638 |
| H | -1.98860 | 1.88355 | 0.60478 |
| H | -2.79773 | 2.74804 | -1.62047 |
| H | -1.53747 | 3.79677 | -0.94026 |
| H | -1.13808 | 2.65172 | -2.24520 |
| H | 1.94319 | -1.57738 | -0.67025 |
| H | 5.74932 | -0.15949 | 0.74176 |
| H | 4.71222 | 2.04285 | 1.26402 |

1d NMR Conformer 25

Energy: -875530.1720976

| | | | |
|----|----------|----------|----------|
| O | 1.90767 | 2.91130 | -0.11593 |
| C | 2.57816 | 1.74310 | -0.00765 |
| C | 1.87325 | 0.52894 | -0.08375 |
| C | 0.40915 | 0.43142 | -0.26248 |
| N | -0.19014 | -0.61855 | -0.67688 |
| C | -1.62105 | -0.29693 | -0.72321 |
| C | -2.43087 | -1.43950 | -0.10376 |
| O | -2.08570 | -2.65749 | -0.73915 |
| C | -3.93352 | -1.27889 | -0.30480 |
| C | -4.60163 | -0.32956 | 0.65707 |
| O | -5.76935 | 0.11599 | 0.18197 |
| O | -4.17122 | -0.01330 | 1.74595 |
| C | -1.72755 | 1.06213 | -0.00185 |
| C | -2.57017 | 2.10507 | -0.70314 |
| O | -0.34578 | 1.50562 | 0.05177 |
| C | 2.58059 | -0.67819 | 0.00100 |
| C | 3.95379 | -0.67638 | 0.16724 |
| Cl | 4.81228 | -2.19544 | 0.28371 |
| C | 4.66097 | 0.52175 | 0.24889 |
| C | 3.96958 | 1.72013 | 0.15835 |
| H | 2.52876 | 3.66169 | -0.07825 |
| H | -1.92113 | -0.21173 | -1.78068 |
| H | -2.20460 | -1.48891 | 0.97197 |
| H | -1.11511 | -2.71876 | -0.75064 |
| H | -4.40481 | -2.25734 | -0.14583 |
| H | -4.16584 | -0.98370 | -1.33346 |
| H | -6.19258 | 0.68717 | 0.85824 |
| H | -2.04817 | 0.92919 | 1.03783 |
| H | -3.61065 | 1.76924 | -0.76566 |
| H | -2.55023 | 3.05293 | -0.16060 |
| H | -2.20012 | 2.26732 | -1.71951 |
| H | 2.02987 | -1.61138 | -0.06122 |
| H | 5.73900 | 0.51769 | 0.38088 |
| H | 4.50873 | 2.66339 | 0.21363 |

1d NMR Conformer 24

Energy: -875534.0879638

| | | | |
|---|----------|----------|----------|
| O | -1.89752 | 2.46138 | -1.37490 |
| C | -2.59790 | 1.40563 | -0.90597 |
| C | -1.93856 | 0.43789 | -0.12848 |
| C | -0.51028 | 0.52518 | 0.23646 |
| N | 0.23229 | -0.48642 | 0.47812 |
| C | 1.54774 | 0.03555 | 0.85649 |
| C | 2.60682 | -0.53781 | -0.08416 |
| O | 2.55525 | -1.96026 | -0.05541 |
| C | 4.01777 | -0.14457 | 0.33973 |
| C | 5.11860 | -0.61963 | -0.59479 |
| O | 4.96587 | -1.82448 | -1.14877 |
| O | 6.11442 | 0.03255 | -0.81769 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| C | 1.40476 | 1.57468 | 0.77677 | H | 4.52812 | -1.99431 | -0.85366 |
| C | 1.64592 | 2.29597 | 2.08638 | H | 4.06542 | -1.65366 | 0.80816 |
| O | 0.02549 | 1.75577 | 0.37502 | H | 6.23084 | 0.94588 | 0.30935 |
| C | -2.64804 | -0.68132 | 0.32331 | H | 2.15390 | 1.33148 | -0.23842 |
| C | -3.99071 | -0.82559 | 0.01803 | H | 3.41525 | 0.88281 | 1.90738 |
| Cl | -4.86376 | -2.22321 | 0.60078 | H | 2.37138 | 2.30817 | 2.03941 |
| C | -4.65581 | 0.13362 | -0.74278 | H | 1.86600 | 0.76167 | 2.76303 |
| C | -3.95611 | 1.24015 | -1.20210 | H | -2.30022 | -1.57354 | 0.58317 |
| H | -2.46847 | 3.03221 | -1.92143 | H | -5.70493 | 0.82708 | -0.48230 |
| H | 1.78889 | -0.29664 | 1.87746 | H | -4.19433 | 2.72591 | -0.99614 |
| H | 2.40007 | -0.17821 | -1.10514 | | | | |
| H | 1.66978 | -2.25210 | -0.34041 | | | | |
| H | 4.21830 | -0.57661 | 1.33008 | | | | |
| H | 4.11887 | 0.94052 | 0.42079 | | | | |
| H | 4.10889 | -2.22405 | -0.87837 | | | | |
| H | 2.01901 | 2.00237 | -0.02650 | | | | |
| H | 2.68904 | 2.16832 | 2.39275 | | | | |
| H | 1.44103 | 3.36420 | 1.98592 | | | | |
| H | 1.00141 | 1.88105 | 2.86717 | | | | |
| H | -2.13033 | -1.42570 | 0.92057 | | | | |
| H | -5.71019 | 0.01561 | -0.97586 | | | | |
| H | -4.46152 | 1.99034 | -1.80637 | | | | |

1d NMR Conformer 23

Energy: -875530.5521173

| | | | |
|----|----------|----------|----------|
| O | -1.55308 | 2.66258 | -0.79243 |
| C | -2.39940 | 1.65435 | -0.48598 |
| C | -1.86519 | 0.43767 | -0.03150 |
| C | -0.41674 | 0.22412 | 0.15979 |
| N | 0.18475 | -0.88179 | -0.05507 |
| C | 1.57629 | -0.69147 | 0.37287 |
| C | 2.52828 | -1.26330 | -0.68196 |
| O | 2.18693 | -2.61351 | -0.94266 |
| C | 3.98066 | -1.28518 | -0.21960 |
| C | 4.70026 | 0.03330 | -0.34595 |
| O | 5.76509 | 0.09621 | 0.46020 |
| O | 4.39225 | 0.93252 | -1.09831 |
| C | 1.69307 | 0.82785 | 0.61956 |
| C | 2.37430 | 1.22322 | 1.91156 |
| O | 0.30576 | 1.25449 | 0.64951 |
| C | -2.72186 | -0.63393 | 0.23873 |
| C | -4.08970 | -0.48732 | 0.07544 |
| Cl | -5.14877 | -1.83288 | 0.42534 |
| C | -4.63089 | 0.71976 | -0.36048 |
| C | -3.78388 | 1.78293 | -0.64208 |
| H | -2.04761 | 3.42754 | -1.13810 |
| H | 1.73169 | -1.26008 | 1.30452 |
| H | 2.44126 | -0.66116 | -1.59870 |
| H | 1.23230 | -2.64666 | -1.12575 |

1d NMR Conformer 22

Energy: -875532.5550836

| | | | |
|----|----------|----------|----------|
| O | 2.22889 | -2.65677 | -0.74571 |
| C | 2.68063 | -1.42096 | -0.43764 |
| C | 1.76459 | -0.45238 | 0.00564 |
| C | 0.32157 | -0.72354 | 0.17473 |
| N | -0.59521 | 0.14960 | 0.00329 |
| C | -1.86583 | -0.50233 | 0.33797 |
| C | -2.83896 | -0.40507 | -0.84391 |
| O | -2.25727 | -0.95471 | -2.01191 |
| C | -3.29653 | 1.02978 | -1.09387 |
| C | -4.21895 | 1.55396 | -0.02448 |
| O | -4.46624 | 2.85920 | -0.17493 |
| O | -4.70190 | 0.89231 | 0.86963 |
| C | -1.48662 | -1.96156 | 0.67621 |
| C | -1.92437 | -2.42678 | 2.04773 |
| O | -0.03770 | -1.95164 | 0.60354 |
| C | 2.21408 | 0.84319 | 0.28242 |
| C | 3.55340 | 1.16205 | 0.13410 |
| Cl | 4.09999 | 2.78273 | 0.49583 |
| C | 4.47126 | 0.20594 | -0.29492 |
| C | 4.03018 | -1.07798 | -0.58159 |
| H | 2.95933 | -3.21029 | -1.07784 |
| H | -2.31548 | -0.00071 | 1.20563 |
| H | -3.71358 | -1.02841 | -0.62502 |
| H | -1.44888 | -0.45365 | -2.22239 |
| H | -3.84337 | 1.07585 | -2.04308 |
| H | -2.43690 | 1.70375 | -1.18461 |
| H | -5.08592 | 3.14984 | 0.52738 |
| H | -1.83382 | -2.64734 | -0.10581 |
| H | -3.01760 | -2.42178 | 2.10324 |
| H | -1.57140 | -3.44115 | 2.24933 |
| H | -1.53365 | -1.75424 | 2.81741 |
| H | 1.49899 | 1.58797 | 0.61875 |
| H | 5.52071 | 0.46364 | -0.40598 |
| H | 4.73535 | -1.83021 | -0.92848 |

1d NMR Conformer 21

Energy: -875537.2831227

| | | | |
|----|----------|----------|----------|
| O | 0.26303 | -2.13781 | -1.00866 |
| C | 1.34018 | -1.45631 | -0.58702 |
| C | 1.28899 | -0.09215 | -0.25262 |
| C | 0.02167 | 0.63232 | -0.30465 |
| N | -1.11244 | 0.10320 | -0.59868 |
| C | -2.11576 | 1.16438 | -0.52993 |
| C | -3.22928 | 0.80239 | 0.45912 |
| O | -2.75768 | 0.77595 | 1.79064 |
| C | -3.90576 | -0.51352 | 0.05294 |
| C | -3.04344 | -1.71360 | 0.33934 |
| O | -2.70522 | -2.39412 | -0.75306 |
| O | -2.67461 | -2.04304 | 1.45021 |
| C | -1.31548 | 2.42499 | -0.12522 |
| C | -1.35794 | 3.55097 | -1.13163 |
| O | 0.05276 | 1.94201 | -0.01754 |
| C | 2.45176 | 0.58209 | 0.13463 |
| C | 3.64710 | -0.10704 | 0.19577 |
| Cl | 5.10394 | 0.72755 | 0.67897 |
| C | 3.70818 | -1.46493 | -0.12012 |
| C | 2.55914 | -2.13274 | -0.50932 |
| H | -0.49491 | -1.50864 | -1.05765 |
| H | -2.58056 | 1.29548 | -1.51739 |
| H | -3.99319 | 1.58693 | 0.41439 |
| H | -2.40191 | -0.10527 | 1.99161 |
| H | -4.16085 | -0.49441 | -1.00988 |
| H | -4.82770 | -0.63122 | 0.63032 |
| H | -2.16328 | -3.16660 | -0.49598 |
| H | -1.60494 | 2.76792 | 0.87150 |
| H | -2.38216 | 3.92679 | -1.22303 |
| H | -0.71485 | 4.37522 | -0.81474 |
| H | -1.02771 | 3.19781 | -2.11276 |
| H | 2.40478 | 1.63702 | 0.38937 |
| H | 4.65653 | -1.99110 | -0.06639 |
| H | 2.58850 | -3.18578 | -0.77138 |

1d NMR Conformer 20

Energy: -875538.7888003

| | | | |
|---|----------|----------|----------|
| O | 0.59304 | -2.40651 | -0.53628 |
| C | 1.68663 | -1.65175 | -0.34558 |
| C | 1.62535 | -0.25538 | -0.15443 |
| C | 0.32409 | 0.41303 | -0.15837 |
| N | -0.79644 | -0.18809 | -0.33895 |
| C | -1.85611 | 0.81733 | -0.21957 |
| C | -2.73145 | 0.51313 | 1.00346 |
| O | -1.95377 | 0.51641 | 2.18467 |
| C | -3.48715 | -0.80684 | 0.86269 |
| C | -4.57848 | -0.76241 | -0.18404 |

| | | | |
|----|----------|----------|----------|
| O | -5.19739 | -1.92056 | -0.45419 |
| O | -4.92652 | 0.24364 | -0.75910 |
| C | -1.09174 | 2.15708 | -0.08775 |
| C | -1.22541 | 3.06614 | -1.29103 |
| O | 0.29729 | 1.73994 | 0.03893 |
| C | 2.80134 | 0.48180 | 0.03833 |
| C | 4.02048 | -0.17043 | 0.04066 |
| Cl | 5.49082 | 0.74675 | 0.27749 |
| C | 4.09654 | -1.55319 | -0.14605 |
| C | 2.93575 | -2.28594 | -0.33755 |
| H | -0.20564 | -1.81632 | -0.52624 |
| H | -2.48459 | 0.80634 | -1.11754 |
| H | -3.45297 | 1.33047 | 1.11416 |
| H | -1.29912 | -0.20357 | 2.13825 |
| H | -3.95847 | -1.05075 | 1.82301 |
| H | -2.79140 | -1.62331 | 0.62877 |
| H | -4.83668 | -2.67269 | 0.05439 |
| H | -1.34352 | 2.67411 | 0.84301 |
| H | -2.26491 | 3.39376 | -1.38721 |
| H | -0.58984 | 3.94819 | -1.18509 |
| H | -0.94301 | 2.53086 | -2.20296 |
| H | 2.74379 | 1.55635 | 0.18320 |
| H | 5.06290 | -2.04938 | -0.14169 |
| H | 2.97415 | -3.36097 | -0.48556 |

1d NMR Conformer 19

Energy: -875538.5023172

| | | | |
|----|----------|----------|----------|
| O | -1.25901 | 2.57279 | -0.66481 |
| C | -2.18671 | 1.63897 | -0.40081 |
| C | -1.86019 | 0.29704 | -0.11448 |
| C | -0.45709 | -0.11773 | -0.10374 |
| N | 0.53324 | 0.66487 | -0.33402 |
| C | 1.76208 | -0.12621 | -0.20238 |
| C | 2.60488 | 0.45316 | 0.94130 |
| O | 2.92906 | 1.80264 | 0.67798 |
| C | 3.93155 | -0.27403 | 1.18862 |
| C | 4.94427 | -0.04724 | 0.09213 |
| O | 4.62690 | -0.69543 | -1.03817 |
| O | 5.94326 | 0.62720 | 0.20131 |
| C | 1.25754 | -1.56761 | 0.04960 |
| C | 1.57081 | -2.52923 | -1.07680 |
| O | -0.18560 | -1.40609 | 0.16260 |
| C | -2.87446 | -0.63215 | 0.15390 |
| C | -4.19475 | -0.22258 | 0.13790 |
| Cl | -5.46333 | -1.37864 | 0.47514 |
| C | -4.53265 | 1.10338 | -0.14486 |
| C | -3.53306 | 2.02487 | -0.41271 |
| H | -0.36176 | 2.15149 | -0.62370 |
| H | 2.33392 | -0.06018 | -1.13368 |

| | | | |
|---|----------|----------|----------|
| H | 2.00801 | 0.36965 | 1.86420 |
| H | 2.10334 | 2.30818 | 0.58151 |
| H | 3.75892 | -1.35032 | 1.29666 |
| H | 4.36826 | 0.10506 | 2.11372 |
| H | 5.31004 | -0.50913 | -1.71706 |
| H | 1.58945 | -1.96528 | 1.01546 |
| H | 2.65569 | -2.64338 | -1.16080 |
| H | 1.12173 | -3.50782 | -0.89288 |
| H | 1.19065 | -2.13281 | -2.02358 |
| H | -2.61401 | -1.66347 | 0.37205 |
| H | -5.57538 | 1.40806 | -0.15376 |
| H | -3.77498 | 3.06001 | -0.63463 |

1d NMR Conformer 18

Energy: -875540.8857989

| | | | |
|----|----------|----------|----------|
| O | -1.37394 | 2.53874 | -0.86935 |
| C | -2.26045 | 1.62744 | -0.43665 |
| C | -1.91482 | 0.28204 | -0.19301 |
| C | -0.53821 | -0.15914 | -0.41532 |
| N | 0.41373 | 0.60234 | -0.81475 |
| C | 1.62786 | -0.21366 | -0.89243 |
| C | 2.69347 | 0.35227 | 0.05167 |
| O | 2.96075 | 1.70602 | -0.25605 |
| C | 4.01231 | -0.38631 | -0.09632 |
| C | 5.01697 | 0.05149 | 0.94303 |
| O | 6.27369 | -0.05207 | 0.49967 |
| O | 4.73915 | 0.42463 | 2.06125 |
| C | 1.15235 | -1.63993 | -0.51561 |
| C | 1.27492 | -2.65366 | -1.63341 |
| O | -0.25201 | -1.45281 | -0.19104 |
| C | -2.88491 | -0.62419 | 0.25584 |
| C | -4.18148 | -0.18880 | 0.45885 |
| Cl | -5.39448 | -1.31763 | 1.01717 |
| C | -4.53770 | 1.14125 | 0.22170 |
| C | -3.58147 | 2.04046 | -0.22326 |
| H | -0.49102 | 2.10074 | -0.97619 |
| H | 2.02113 | -0.17685 | -1.91850 |
| H | 2.33173 | 0.25830 | 1.08739 |
| H | 2.14862 | 2.22312 | -0.11755 |
| H | 4.42609 | -0.22368 | -1.09599 |
| H | 3.87719 | -1.46829 | 0.03538 |
| H | 6.88856 | 0.20221 | 1.22068 |
| H | 1.62911 | -2.00173 | 0.40364 |
| H | 2.33111 | -2.80739 | -1.87630 |
| H | 0.84168 | -3.61222 | -1.33926 |
| H | 0.76235 | -2.28912 | -2.52885 |
| H | -2.60989 | -1.65842 | 0.43978 |
| H | -5.56114 | 1.46721 | 0.38525 |
| H | -3.83961 | 3.07781 | -0.41432 |

1d NMR Conformer 17

Energy: -875537.6474234

| | | | |
|----|----------|----------|----------|
| O | 2.56356 | 2.58170 | 0.90310 |
| C | 2.79767 | 1.30066 | 0.54755 |
| C | 1.84055 | 0.42834 | -0.00410 |
| C | 0.44514 | 0.81844 | -0.26044 |
| N | -0.49700 | 0.03543 | -0.61510 |
| C | -1.69553 | 0.86027 | -0.78487 |
| C | -2.86061 | 0.27269 | 0.01208 |
| O | -2.52647 | 0.18318 | 1.39556 |
| C | -3.28355 | -1.09363 | -0.53389 |
| C | -4.49757 | -1.69523 | 0.15310 |
| O | -4.64238 | -1.45243 | 1.45903 |
| O | -5.30570 | -2.38480 | -0.42828 |
| C | -1.28879 | 2.27203 | -0.30423 |
| C | -1.56204 | 3.38643 | -1.28824 |
| O | 0.14579 | 2.13523 | -0.10795 |
| C | 2.20906 | -0.88790 | -0.32448 |
| C | 3.49987 | -1.32089 | -0.10009 |
| Cl | 3.94617 | -2.96073 | -0.50834 |
| C | 4.45784 | -0.46326 | 0.44741 |
| C | 4.10191 | 0.83490 | 0.76649 |
| H | 1.64705 | 2.84153 | 0.70626 |
| H | -1.97766 | 0.87231 | -1.84792 |
| H | -3.70601 | 0.97166 | -0.03492 |
| H | -1.68416 | -0.30545 | 1.48783 |
| H | -2.44955 | -1.79841 | -0.41697 |
| H | -3.51132 | -1.03060 | -1.60085 |
| H | -3.91409 | -0.87924 | 1.78770 |
| H | -1.71699 | 2.49032 | 0.68092 |
| H | -2.64124 | 3.47154 | -1.44949 |
| H | -1.19436 | 4.34257 | -0.90906 |
| H | -1.08109 | 3.17231 | -2.24691 |
| H | 1.46320 | -1.55098 | -0.75194 |
| H | 5.47142 | -0.81420 | 0.61887 |
| H | 4.82669 | 1.52090 | 1.19459 |

1d NMR Conformer 16

Energy: -875534.1286201

| | | | |
|---|----------|----------|----------|
| O | -2.28894 | 2.83355 | -0.47044 |
| C | -2.74202 | 1.57845 | -0.26352 |
| C | -1.92814 | 0.45367 | -0.03143 |
| C | -0.45699 | 0.51163 | 0.01474 |
| N | 0.32866 | -0.47780 | 0.17014 |
| C | 1.69877 | 0.04907 | 0.15822 |
| C | 2.49362 | -0.66749 | -0.93847 |
| O | 2.50146 | -2.06108 | -0.70437 |
| C | 3.95695 | -0.22835 | -1.04185 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| C | 4.73860 | -0.59056 | 0.19850 | H | 2.54850 | -0.31708 | -1.13067 |
| O | 5.61815 | -1.57293 | -0.00832 | H | 3.67165 | -0.70241 | 1.05560 |
| O | 4.59507 | -0.05041 | 1.27621 | H | 1.20853 | 0.09837 | 2.20211 |
| C | 1.54722 | 1.57103 | -0.06857 | H | 3.67815 | 1.62173 | 1.86646 |
| C | 2.12878 | 2.42877 | 1.03319 | H | 2.19165 | 1.98634 | 0.96190 |
| O | 0.10321 | 1.74456 | -0.11478 | H | 5.46172 | 1.23650 | -1.21566 |
| C | -2.52721 | -0.80064 | 0.16695 | H | 2.02700 | -2.56094 | 0.68097 |
| C | -3.90097 | -0.92863 | 0.13372 | H | 3.01830 | -2.83104 | -1.62110 |
| Cl | -4.63111 | -2.49756 | 0.38546 | H | 1.56592 | -3.83511 | -1.43675 |
| C | -4.71828 | 0.18111 | -0.09637 | H | 1.48029 | -2.30049 | -2.33561 |
| C | -4.13550 | 1.42057 | -0.29247 | H | -1.35751 | 1.61499 | -0.27461 |
| H | -1.31752 | 2.86795 | -0.42637 | H | -5.46387 | 0.39455 | 0.10770 |
| H | 2.16902 | -0.16197 | 1.12599 | H | -4.72187 | -1.97631 | 0.27816 |
| H | 2.00897 | -0.44027 | -1.90188 | | | | |
| H | 1.58085 | -2.35316 | -0.58601 | | | | |
| H | 4.01412 | 0.85743 | -1.17071 | | | | |
| H | 4.40688 | -0.70764 | -1.91316 | | | | |
| H | 6.08371 | -1.76443 | 0.83362 | | | | |
| H | 1.91876 | 1.88003 | -1.05357 | | | | |
| H | 3.20829 | 2.25932 | 1.08732 | | | | |
| H | 1.93970 | 3.48885 | 0.84936 | | | | |
| H | 1.69005 | 2.14672 | 1.99505 | | | | |
| H | -1.88990 | -1.66089 | 0.34722 | | | | |
| H | -5.79854 | 0.07004 | -0.11975 | | | | |
| H | -4.74674 | 2.29972 | -0.47325 | | | | |

1d NMR Conformer 15

Energy: -875534.9461645

| | | | |
|----|----------|----------|----------|
| O | -2.35877 | -2.83392 | 0.20278 |
| C | -2.63854 | -1.51739 | 0.09874 |
| C | -1.68070 | -0.49787 | -0.05802 |
| C | -0.23077 | -0.74834 | -0.12817 |
| N | 0.67410 | 0.13576 | -0.28299 |
| C | 1.96377 | -0.55868 | -0.23226 |
| C | 2.74969 | -0.11204 | 1.00887 |
| O | 2.03482 | -0.41748 | 2.18940 |
| C | 3.10035 | 1.37985 | 0.96707 |
| C | 3.92589 | 1.77307 | -0.23099 |
| O | 4.94984 | 0.93357 | -0.43594 |
| O | 3.71552 | 2.73606 | -0.93581 |
| C | 1.60960 | -2.06384 | -0.19961 |
| C | 1.93382 | -2.80735 | -1.47808 |
| O | 0.16741 | -2.04312 | -0.01446 |
| C | -2.10536 | 0.83724 | -0.15397 |
| C | -3.44920 | 1.14597 | -0.09445 |
| Cl | -3.96058 | 2.81390 | -0.21537 |
| C | -4.40848 | 0.14184 | 0.06159 |
| C | -3.99794 | -1.17608 | 0.15664 |
| H | -1.40075 | -2.99489 | 0.15171 |

1d NMR Conformer 14

Energy: -875533.0743414

| | | | |
|----|----------|----------|----------|
| O | -2.05570 | 2.72625 | -0.76424 |
| C | -2.67631 | 1.57362 | -0.42902 |
| C | -1.89615 | 0.46497 | -0.06128 |
| C | -0.42202 | 0.50997 | 0.00671 |
| N | 0.34078 | -0.47864 | -0.26299 |
| C | 1.70935 | -0.03938 | 0.02108 |
| C | 2.59848 | -0.31500 | -1.19096 |
| O | 2.56717 | -1.69897 | -1.51909 |
| C | 4.06081 | 0.05525 | -0.94683 |
| C | 4.69557 | -0.65185 | 0.23916 |
| O | 4.46697 | -1.96382 | 0.34476 |
| O | 5.39958 | -0.08733 | 1.04747 |
| C | 1.58336 | 1.45920 | 0.37253 |
| C | 2.21987 | 1.86100 | 1.68521 |
| O | 0.14793 | 1.65359 | 0.44174 |
| C | -2.52112 | -0.74992 | 0.24100 |
| C | -3.90172 | -0.85097 | 0.19282 |
| Cl | -4.66968 | -2.37124 | 0.58623 |
| C | -4.68583 | 0.24563 | -0.15851 |
| C | -4.06978 | 1.44993 | -0.47037 |
| H | -2.70693 | 3.39845 | -1.03468 |
| H | 2.09192 | -0.61914 | 0.87697 |
| H | 2.22351 | 0.27658 | -2.03850 |
| H | 1.63977 | -1.99906 | -1.53246 |
| H | 4.16899 | 1.13115 | -0.79060 |
| H | 4.63755 | -0.21083 | -1.84102 |
| H | 3.82271 | -2.25461 | -0.33749 |
| H | 1.94243 | 2.09388 | -0.44937 |
| H | 3.30144 | 1.69626 | 1.63612 |
| H | 2.03757 | 2.91610 | 1.90086 |
| H | 1.81398 | 1.25477 | 2.50023 |
| H | -1.90978 | -1.60295 | 0.51936 |
| H | -5.76799 | 0.15897 | -0.19067 |

H -4.67074 2.30963 -0.75803

1d NMR Conformer 13

Energy: -875538.6297079

O -1.27262 2.58949 -0.61267
C -2.20087 1.64951 -0.37113
C -1.87326 0.30442 -0.10245
C -0.46926 -0.10666 -0.08266
N 0.52287 0.68370 -0.27395
C 1.74911 -0.11410 -0.17034
C 2.62883 0.45550 0.94850
O 2.96788 1.79935 0.67188
C 3.94793 -0.29861 1.14362
C 4.84303 -0.18060 -0.06702
O 5.89290 0.61699 0.13647
O 4.64119 -0.74985 -1.12014
C 1.24553 -1.55399 0.09673
C 1.61757 -2.54750 -0.98208
O -0.20099 -1.40348 0.14461
C -2.88748 -0.63192 0.13911
C -4.20914 -0.22641 0.11441
Cl -5.47712 -1.39205 0.41682
C -4.54770 1.10298 -0.15028
C -3.54787 2.03185 -0.39159
H -0.37533 2.16993 -0.57123
H 2.29908 -0.05343 -1.11638
H 2.06015 0.38361 1.88967
H 2.14687 2.31158 0.57012
H 3.74917 -1.36167 1.31221
H 4.45693 0.10785 2.01927
H 6.42323 0.65980 -0.68787
H 1.54178 -1.91593 1.08879
H 2.70722 -2.63369 -1.02945
H 1.18646 -3.52994 -0.77635
H 1.25843 -2.19447 -1.95378
H -2.62642 -1.66584 0.34388
H -5.59116 1.40499 -0.16678
H -3.79096 3.06941 -0.60045

1d NMR Conformer 12

Energy: -875542.2180768

O 0.69343 -2.28938 -0.99481
C 1.77229 -1.60543 -0.58150
C 1.72245 -0.24237 -0.22598
C 0.45525 0.48015 -0.32008
N -0.65286 -0.05136 -0.69546
C -1.66614 1.00491 -0.69271
C -2.86897 0.58612 0.15227
O -2.46567 0.29208 1.48731

C -3.60744 -0.60270 -0.46942
C -4.87637 -1.00130 0.26474
O -4.87840 -0.86774 1.59363
O -5.85247 -1.43884 -0.30241
C -0.92837 2.24315 -0.12867
C -0.98252 3.46954 -1.01129
O 0.44925 1.78667 -0.01502
C 2.88237 0.41762 0.20297
C 4.07437 -0.27858 0.27322
Cl 5.52511 0.54128 0.80226
C 4.13856 -1.62983 -0.07759
C 2.99404 -2.28540 -0.50173
H -0.08854 -1.68100 -1.00158
H -2.01215 1.18290 -1.72100
H -3.54902 1.44343 0.24047
H -1.75518 -0.38012 1.46556
H -2.94116 -1.47584 -0.47979
H -3.88379 -0.38930 -1.50510
H -4.02030 -0.50381 1.90540
H -1.26365 2.46667 0.89037
H -2.01946 3.80716 -1.10461
H -0.39191 4.28275 -0.58373
H -0.59974 3.23592 -2.00895
H 2.83445 1.46829 0.47297
H 5.08377 -2.16181 -0.01715
H 3.02362 -3.33508 -0.77813

1d NMR Conformer 11

Energy: -875533.2600968

O -1.61356 2.84928 -0.56321
C -2.31500 1.71129 -0.37460
C -1.76404 0.47530 0.01317
C -0.32800 0.27010 0.26407
N 0.22551 -0.82590 0.60382
C 1.66901 -0.57607 0.69578
C 2.38534 -1.43707 -0.35704
O 1.96568 -2.78162 -0.24933
C 3.90439 -1.47119 -0.16048
C 4.58163 -0.15112 -0.42069
O 4.52088 0.20203 -1.71027
O 5.11311 0.53560 0.42572
C 1.81918 0.95356 0.50027
C 2.22403 1.70102 1.75291
O 0.47408 1.35597 0.11559
C -2.60810 -0.63558 0.17482
C -3.96490 -0.51587 -0.04550
Cl -5.00269 -1.90736 0.16492
C -4.52243 0.70579 -0.43288
C -3.69754 1.80458 -0.59409

| | | | |
|---|----------|----------|----------|
| H | -0.66717 | 2.71446 | -0.38343 |
| H | 2.02370 | -0.88473 | 1.68915 |
| H | 2.14679 | -1.03764 | -1.35632 |
| H | 0.99351 | -2.79064 | -0.21250 |
| H | 4.30851 | -2.20967 | -0.86009 |
| H | 4.13485 | -1.78354 | 0.86072 |
| H | 4.96810 | 1.06705 | -1.82931 |
| H | 2.45720 | 1.21776 | -0.34894 |
| H | 3.24243 | 1.41369 | 2.02882 |
| H | 2.19681 | 2.78037 | 1.58666 |
| H | 1.54751 | 1.44879 | 2.57542 |
| H | -2.17190 | -1.58327 | 0.47536 |
| H | -5.59171 | 0.78964 | -0.60438 |
| H | -4.10411 | 2.76579 | -0.89398 |

1d NMR Conformer 10

Energy: -875539.6733314

| | | | |
|----|----------|----------|----------|
| O | 0.66625 | -2.47141 | -0.31789 |
| C | 1.73471 | -1.66395 | -0.21341 |
| C | 1.62670 | -0.26134 | -0.12127 |
| C | 0.30514 | 0.36663 | -0.13174 |
| N | -0.80521 | -0.27513 | -0.20634 |
| C | -1.88724 | 0.70877 | -0.15934 |
| C | -2.79161 | 0.44691 | 1.05101 |
| O | -2.04056 | 0.49509 | 2.24663 |
| C | -3.53716 | -0.88685 | 0.93095 |
| C | -4.42749 | -0.97249 | -0.28067 |
| O | -5.14556 | 0.14490 | -0.45339 |
| O | -4.50376 | -1.92272 | -1.02605 |
| C | -1.16234 | 2.07449 | -0.07103 |
| C | -1.43344 | 3.00567 | -1.23273 |
| O | 0.24606 | 1.70551 | -0.06177 |
| C | 2.78002 | 0.52758 | -0.01651 |
| C | 4.02246 | -0.07867 | -0.00441 |
| Cl | 5.46267 | 0.90289 | 0.12762 |
| C | 4.14274 | -1.46679 | -0.09693 |
| C | 3.00518 | -2.25050 | -0.20137 |
| H | -0.15662 | -1.91573 | -0.32278 |
| H | -2.48583 | 0.64230 | -1.08034 |
| H | -3.51548 | 1.26549 | 1.12578 |
| H | -1.40995 | -0.24774 | 2.25749 |
| H | -4.16765 | -1.01219 | 1.81913 |
| H | -2.83179 | -1.72157 | 0.88741 |
| H | -5.71805 | 0.04053 | -1.24343 |
| H | -1.35951 | 2.56194 | 0.89020 |
| H | -2.49257 | 3.28206 | -1.24114 |
| H | -0.83732 | 3.91762 | -1.14833 |
| H | -1.19421 | 2.50944 | -2.17848 |
| H | 2.68831 | 1.60740 | 0.05535 |

| | | | |
|---|---------|----------|----------|
| H | 5.12642 | -1.92876 | -0.08661 |
| H | 3.07992 | -3.33155 | -0.27483 |

1d NMR Conformer 9

Energy: -875537.6349924

| | | | |
|----|----------|----------|----------|
| O | 1.59354 | 2.73708 | 0.42169 |
| C | 2.33334 | 1.63869 | 0.20189 |
| C | 1.77972 | 0.34343 | 0.13964 |
| C | 0.33964 | 0.16373 | 0.31942 |
| N | -0.49335 | 1.11844 | 0.52654 |
| C | -1.83313 | 0.52600 | 0.61149 |
| C | -2.69238 | 1.04569 | -0.55319 |
| O | -2.64686 | 2.45637 | -0.60452 |
| C | -4.17693 | 0.70454 | -0.38505 |
| C | -4.47869 | -0.76803 | -0.47563 |
| O | -4.28313 | -1.24739 | -1.70926 |
| O | -4.84213 | -1.46096 | 0.45045 |
| C | -1.56288 | -1.00143 | 0.59460 |
| C | -1.80703 | -1.68225 | 1.92479 |
| O | -0.14578 | -1.08638 | 0.26885 |
| C | 2.60604 | -0.76543 | -0.08916 |
| C | 3.96516 | -0.57834 | -0.25665 |
| Cl | 4.99898 | -1.95931 | -0.54453 |
| C | 4.52727 | 0.69972 | -0.19905 |
| C | 3.71425 | 1.79815 | 0.02947 |
| H | 0.64598 | 2.46895 | 0.53043 |
| H | -2.30605 | 0.83667 | 1.55328 |
| H | -2.31144 | 0.61171 | -1.49195 |
| H | -1.71551 | 2.73406 | -0.64882 |
| H | -4.72225 | 1.21830 | -1.18275 |
| H | -4.52883 | 1.07161 | 0.58200 |
| H | -4.48497 | -2.20764 | -1.71876 |
| H | -2.08030 | -1.51826 | -0.21952 |
| H | -2.87530 | -1.64729 | 2.15571 |
| H | -1.48844 | -2.72646 | 1.88805 |
| H | -1.25392 | -1.16785 | 2.71702 |
| H | 2.17094 | -1.75936 | -0.13262 |
| H | 5.59768 | 0.82866 | -0.33271 |
| H | 4.13170 | 2.79941 | 0.07869 |

1d NMR Conformer 8

Energy: -875537.2548032

| | | | |
|---|----------|----------|----------|
| O | -2.29425 | 2.72922 | -0.91122 |
| C | -2.74464 | 1.49563 | -0.59796 |
| C | -1.95975 | 0.45962 | -0.05684 |
| C | -0.52458 | 0.59835 | 0.24078 |
| N | 0.23743 | -0.31390 | 0.69962 |
| C | 1.57369 | 0.26942 | 0.84073 |
| C | 2.57336 | -0.55884 | 0.03272 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| O | 2.54711 | -1.91012 | 0.47567 | C | 3.55869 | 2.04918 | 0.19765 |
| C | 4.00306 | -0.06426 | 0.22513 | H | 0.46952 | 2.09964 | 0.95351 |
| C | 5.04368 | -0.78967 | -0.61290 | H | -2.03033 | -0.19697 | 1.90546 |
| O | 4.88056 | -2.10421 | -0.77909 | H | -2.34002 | 0.20767 | -1.10233 |
| O | 6.00344 | -0.22803 | -1.09253 | H | -2.18244 | 2.20187 | 0.04963 |
| C | 1.43592 | 1.73187 | 0.35292 | H | -4.39991 | -0.26589 | 1.11709 |
| C | 1.76229 | 2.77964 | 1.39509 | H | -3.88790 | -1.52656 | -0.01846 |
| O | 0.02763 | 1.81857 | 0.00764 | H | -4.49555 | 1.76996 | -0.70481 |
| C | -2.55490 | -0.78122 | 0.22318 | H | -1.61803 | -2.04514 | -0.39597 |
| C | -3.89621 | -0.98284 | -0.03147 | H | -2.31065 | -2.83400 | 1.89100 |
| Cl | -4.62182 | -2.53310 | 0.32244 | H | -0.81036 | -3.62557 | 1.36482 |
| C | -4.68408 | 0.03869 | -0.56867 | H | -0.74923 | -2.28843 | 2.53980 |
| C | -4.10551 | 1.26431 | -0.84668 | H | 2.61135 | -1.66069 | -0.43950 |
| H | -1.34843 | 2.82363 | -0.70612 | H | 5.54228 | 1.48425 | -0.40513 |
| H | 1.87431 | 0.22594 | 1.89812 | H | 3.81000 | 3.08932 | 0.38241 |
| H | 2.29158 | -0.50822 | -1.03144 | | | | |
| H | 1.65107 | -2.27133 | 0.34533 | | | | |
| H | 4.27942 | -0.19494 | 1.28055 | | | | |
| H | 4.08968 | 0.99812 | -0.01592 | | | | |
| H | 4.05816 | -2.41225 | -0.33864 | | | | |
| H | 1.98921 | 1.90852 | -0.57800 | | | | |
| H | 2.82215 | 2.71592 | 1.66084 | | | | |
| H | 1.56000 | 3.78379 | 1.01588 | | | | |
| H | 1.16723 | 2.61041 | 2.29728 | | | | |
| H | -1.94126 | -1.57264 | 0.64226 | | | | |
| H | -5.73912 | -0.12968 | -0.76477 | | | | |
| H | -4.69493 | 2.07506 | -1.26427 | | | | |

1d NMR Conformer 7

Energy: -875541.7962210

| | | | |
|----|----------|----------|----------|
| O | 1.34959 | 2.53915 | 0.84044 |
| C | 2.23991 | 1.62930 | 0.41333 |
| C | 1.90309 | 0.27980 | 0.17848 |
| C | 0.53017 | -0.17029 | 0.40294 |
| N | -0.43037 | 0.58658 | 0.79265 |
| C | -1.63413 | -0.24182 | 0.88089 |
| C | -2.70571 | 0.30003 | -0.06701 |
| O | -2.97594 | 1.66498 | 0.23031 |
| C | -4.02446 | -0.44910 | 0.10062 |
| C | -5.11725 | -0.03394 | -0.87044 |
| O | -5.20793 | 1.26600 | -1.15767 |
| O | -5.90095 | -0.82239 | -1.35055 |
| C | -1.14490 | -1.66804 | 0.51869 |
| C | -1.25612 | -2.66967 | 1.64819 |
| O | 0.25665 | -1.46816 | 0.19141 |
| C | 2.87964 | -0.62340 | -0.26311 |
| C | 4.17313 | -0.18106 | -0.46828 |
| Cl | 5.39387 | -1.30570 | -1.01807 |
| C | 4.52074 | 1.15311 | -0.24035 |

1d NMR Conformer 6

Energy: -875533.7052959

| | | | |
|----|----------|----------|----------|
| O | -1.75805 | 2.87849 | -0.36725 |
| C | -2.44553 | 1.72304 | -0.24396 |
| C | -1.87139 | 0.46954 | 0.04081 |
| C | -0.42631 | 0.26997 | 0.23641 |
| N | 0.17565 | -0.84942 | 0.31622 |
| C | 1.59039 | -0.55297 | 0.58127 |
| C | 2.47866 | -1.44086 | -0.29446 |
| O | 2.14287 | -2.79860 | -0.07565 |
| C | 3.95941 | -1.32046 | 0.04756 |
| C | 4.65138 | -0.12395 | -0.55449 |
| O | 5.79445 | 0.15577 | 0.07924 |
| O | 4.25676 | 0.50909 | -1.51087 |
| C | 1.71978 | 0.96394 | 0.33440 |
| C | 2.50434 | 1.73274 | 1.37354 |
| O | 0.32930 | 1.39561 | 0.35915 |
| C | -2.69659 | -0.66264 | 0.13280 |
| C | -4.05936 | -0.54627 | -0.05364 |
| Cl | -5.07416 | -1.96521 | 0.06699 |
| C | -4.63996 | 0.69289 | -0.33618 |
| C | -3.83282 | 1.81324 | -0.42901 |
| H | -0.80881 | 2.74090 | -0.20312 |
| H | 1.80204 | -0.80271 | 1.63385 |
| H | 2.31912 | -1.16829 | -1.34834 |
| H | 1.18065 | -2.88898 | -0.18468 |
| H | 4.47296 | -2.20465 | -0.35119 |
| H | 4.11976 | -1.33035 | 1.13109 |
| H | 6.23601 | 0.90657 | -0.37254 |
| H | 2.08654 | 1.16729 | -0.67778 |
| H | 3.54513 | 1.39331 | 1.38577 |
| H | 2.49949 | 2.80284 | 1.15456 |

| | | | |
|---|----------|----------|----------|
| H | 2.07778 | 1.56756 | 2.36681 |
| H | -2.24244 | -1.62354 | 0.35476 |
| H | -5.71347 | 0.77448 | -0.47998 |
| H | -4.25819 | 2.78783 | -0.64904 |

1d NMR Conformer 5

Energy: -875535.6156983

| | | | |
|----|----------|----------|----------|
| O | -2.48564 | -2.78040 | 0.18536 |
| C | -2.72093 | -1.45491 | 0.08488 |
| C | -1.72791 | -0.46749 | -0.05680 |
| C | -0.28658 | -0.76790 | -0.11180 |
| N | 0.64557 | 0.07376 | -0.32653 |
| C | 1.91393 | -0.65732 | -0.23531 |
| C | 2.72235 | -0.15009 | 0.96718 |
| O | 1.99493 | -0.33672 | 2.16708 |
| C | 3.13980 | 1.31001 | 0.81288 |
| C | 4.18160 | 1.52112 | -0.25518 |
| O | 4.41611 | 2.81896 | -0.47437 |
| O | 4.76513 | 0.63706 | -0.84639 |
| C | 1.51066 | -2.14351 | -0.09340 |
| C | 1.80973 | -2.98826 | -1.31374 |
| O | 0.06968 | -2.06454 | 0.08977 |
| C | -2.10713 | 0.88072 | -0.15829 |
| C | -3.44098 | 1.23335 | -0.11687 |
| Cl | -3.89586 | 2.91732 | -0.24215 |
| C | -4.43475 | 0.26132 | 0.02517 |
| C | -4.06903 | -1.06954 | 0.12440 |
| H | -1.53173 | -2.97053 | 0.16262 |
| H | 2.50099 | -0.49533 | -1.14717 |
| H | 3.61824 | -0.77489 | 1.05916 |
| H | 1.19006 | 0.21094 | 2.13715 |
| H | 3.56580 | 1.66618 | 1.75824 |
| H | 2.27357 | 1.94391 | 0.59249 |
| H | 5.11434 | 2.90640 | -1.15745 |
| H | 1.91305 | -2.58907 | 0.82111 |
| H | 2.89280 | -3.05404 | -1.45438 |
| H | 1.41186 | -3.99912 | -1.19793 |
| H | 1.37024 | -2.53177 | -2.20620 |
| H | -1.33256 | 1.63360 | -0.26778 |
| H | -5.48175 | 0.54866 | 0.05766 |
| H | -4.82047 | -1.84571 | 0.23442 |

1d NMR Conformer 4

Energy: -875538.2946366

| | | | |
|---|----------|---------|---------|
| O | 1.66007 | 2.74958 | 0.20747 |
| C | 2.41196 | 1.64569 | 0.08085 |
| C | 1.87218 | 0.34401 | 0.10274 |
| C | 0.43256 | 0.15310 | 0.27232 |
| N | -0.42157 | 1.10645 | 0.37452 |

| | | | |
|----|----------|----------|----------|
| C | -1.73669 | 0.49541 | 0.58646 |
| C | -2.77293 | 1.10158 | -0.36673 |
| O | -2.79856 | 2.50962 | -0.21693 |
| C | -4.18907 | 0.63353 | -0.04664 |
| C | -4.56621 | -0.70828 | -0.62030 |
| O | -5.58649 | -1.25906 | 0.04242 |
| O | -4.03975 | -1.24038 | -1.57367 |
| C | -1.47814 | -1.01811 | 0.39266 |
| C | -1.99520 | -1.89390 | 1.51159 |
| O | -0.02516 | -1.10689 | 0.33214 |
| C | 2.71266 | -0.76856 | -0.03266 |
| C | 4.07220 | -0.57938 | -0.18784 |
| Cl | 5.12467 | -1.96631 | -0.35640 |
| C | 4.62097 | 0.70499 | -0.21284 |
| C | 3.79325 | 1.80734 | -0.07881 |
| H | 0.71535 | 2.47653 | 0.32390 |
| H | -2.06083 | 0.72113 | 1.61406 |
| H | -2.51117 | 0.82541 | -1.39956 |
| H | -1.89987 | 2.85416 | -0.35329 |
| H | -4.88890 | 1.35748 | -0.48294 |
| H | -4.37439 | 0.63611 | 1.03306 |
| H | -5.83075 | -2.10439 | -0.38880 |
| H | -1.84028 | -1.36604 | -0.57946 |
| H | -3.08766 | -1.81944 | 1.56283 |
| H | -1.73104 | -2.94040 | 1.34477 |
| H | -1.58473 | -1.56742 | 2.47116 |
| H | 2.28812 | -1.76788 | -0.01358 |
| H | 5.69217 | 0.83514 | -0.33628 |
| H | 4.19944 | 2.81415 | -0.09510 |

1d NMR Conformer 3

Energy: -875536.0724311

| | | | |
|---|----------|----------|----------|
| O | 2.18889 | 2.88115 | 0.39550 |
| C | 2.67947 | 1.63816 | 0.20579 |
| C | 1.89968 | 0.48095 | 0.01952 |
| C | 0.42813 | 0.48954 | 0.01026 |
| N | -0.32869 | -0.53538 | 0.00851 |
| C | -1.70872 | -0.04664 | -0.04269 |
| C | -2.53061 | -0.70457 | 1.06595 |
| O | -2.49334 | -2.11966 | 0.93513 |
| C | -4.00167 | -0.29195 | 1.03136 |
| C | -4.70827 | -0.59331 | -0.28005 |
| O | -4.50389 | -1.80401 | -0.80598 |
| O | -5.44569 | 0.19518 | -0.82979 |
| C | -1.60272 | 1.48864 | 0.09602 |
| C | -2.32793 | 2.28098 | -0.96834 |
| O | -0.17087 | 1.71109 | -0.01379 |
| C | 2.53557 | -0.75855 | -0.15762 |
| C | 3.91332 | -0.84039 | -0.14977 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| Cl | 4.69031 | -2.39007 | -0.37635 | H | 1.38156 | -3.50656 | -0.48519 |
| C | 4.69700 | 0.30179 | 0.03426 | H | 1.54011 | -2.25817 | -1.74563 |
| C | 4.07756 | 1.52652 | 0.21024 | H | -2.57750 | -1.70758 | 0.23815 |
| H | 1.21711 | 2.88864 | 0.35155 | H | -5.60601 | 1.30912 | -0.21807 |
| H | -2.14103 | -0.32847 | -1.01668 | H | -3.83792 | 3.04175 | -0.48656 |
| H | -2.10575 | -0.40880 | 2.03601 | | | | |
| H | -1.56976 | -2.40445 | 0.80584 | | | | |
| H | -4.11342 | 0.77602 | 1.23291 | | | | |
| H | -4.52884 | -0.83600 | 1.82472 | | | | |
| H | -3.83112 | -2.29510 | -0.28520 | | | | |
| H | -1.88821 | 1.81888 | 1.10395 | | | | |
| H | -3.40333 | 2.08648 | -0.90038 | | | | |
| H | -2.15967 | 3.35263 | -0.84151 | | | | |
| H | -1.98351 | 1.97866 | -1.96139 | | | | |
| H | 1.92406 | -1.64382 | -0.30288 | | | | |
| H | 5.78065 | 0.22770 | 0.03730 | | | | |
| H | 4.66288 | 2.42945 | 0.35605 | | | | |

1d NMR Conformer 2

Energy: -875540.2859564

| | | | |
|----|----------|----------|----------|
| O | -1.31055 | 2.63154 | -0.42394 |
| C | -2.21812 | 1.65329 | -0.27425 |
| C | -1.86352 | 0.30384 | -0.06914 |
| C | -0.45202 | -0.07431 | -0.01855 |
| N | 0.52747 | 0.74970 | -0.11800 |
| C | 1.76197 | -0.03351 | -0.05452 |
| C | 2.69432 | 0.52942 | 1.01962 |
| O | 3.01137 | 1.88770 | 0.74807 |
| C | 4.02064 | -0.22701 | 1.09257 |
| C | 4.80462 | -0.24900 | -0.20975 |
| O | 4.91746 | 0.91099 | -0.86321 |
| O | 5.33061 | -1.24858 | -0.64680 |
| C | 1.28745 | -1.47657 | 0.24064 |
| C | 1.80280 | -2.52622 | -0.71820 |
| O | -0.15869 | -1.37712 | 0.12964 |
| C | -2.85982 | -0.67104 | 0.08055 |
| C | -4.19015 | -0.29936 | 0.02646 |
| Cl | -5.43463 | -1.51313 | 0.21370 |
| C | -4.55582 | 1.03403 | -0.17709 |
| C | -3.57418 | 2.00062 | -0.32646 |
| H | -0.40301 | 2.24042 | -0.37108 |
| H | 2.26718 | 0.03009 | -1.03165 |
| H | 2.18998 | 0.45083 | 1.99350 |
| H | 2.19128 | 2.39632 | 0.61160 |
| H | 3.86391 | -1.26264 | 1.40340 |
| H | 4.64852 | 0.25614 | 1.85095 |
| H | 4.38134 | 1.60788 | -0.42700 |
| H | 1.49269 | -1.75591 | 1.28283 |
| H | 2.89349 | -2.58771 | -0.64348 |

1d NMR Conformer 1

Energy: -875540.4403551

| | | | |
|----|----------|----------|----------|
| O | 0.67749 | -2.46249 | -0.32923 |
| C | 1.75968 | -1.67429 | -0.22970 |
| C | 1.67338 | -0.27139 | -0.11485 |
| C | 0.35951 | 0.37262 | -0.10503 |
| N | -0.75611 | -0.25827 | -0.18140 |
| C | -1.82814 | 0.73999 | -0.14491 |
| C | -2.78956 | 0.44689 | 1.01332 |
| O | -2.08297 | 0.39330 | 2.23691 |
| C | -3.58640 | -0.83605 | 0.78859 |
| C | -4.60830 | -0.71424 | -0.31223 |
| O | -5.18554 | -1.88712 | -0.58831 |
| O | -4.89980 | 0.31496 | -0.88318 |
| C | -1.08977 | 2.08815 | 0.02498 |
| C | -1.37737 | 3.10644 | -1.05525 |
| O | 0.31673 | 1.71132 | -0.02261 |
| C | 2.83890 | 0.49973 | -0.01230 |
| C | 4.07206 | -0.12510 | -0.02524 |
| Cl | 5.52886 | 0.83406 | 0.10313 |
| C | 4.17248 | -1.51372 | -0.14033 |
| C | 3.02234 | -2.27982 | -0.24183 |
| H | -0.13437 | -1.89007 | -0.31313 |
| H | -2.38738 | 0.71085 | -1.08912 |
| H | -3.48413 | 1.28996 | 1.10397 |
| H | -1.46421 | -0.35860 | 2.21100 |
| H | -4.12676 | -1.09200 | 1.70744 |
| H | -2.92224 | -1.67919 | 0.56378 |
| H | -5.85531 | -1.75657 | -1.29213 |
| H | -1.26167 | 2.50198 | 1.02467 |
| H | -2.43687 | 3.37971 | -1.02391 |
| H | -0.78198 | 4.01076 | -0.90951 |
| H | -1.15510 | 2.68680 | -2.04086 |
| H | 2.76274 | 1.57929 | 0.07637 |
| H | 5.14964 | -1.98847 | -0.14985 |
| H | 3.07976 | -3.36046 | -0.33210 |

1c NMR Conformer 29

Energy: -875533.1911586

| | | | |
|---|---------|---------|----------|
| O | 2.51552 | 2.83640 | 0.04728 |
| C | 2.89786 | 1.54172 | 0.05239 |
| C | 2.03668 | 0.44700 | -0.14820 |
| C | 0.59038 | 0.58828 | -0.37848 |

| | | | | | | | |
|----|----------|----------|----------|----|----------|----------|----------|
| N | -0.26079 | -0.35704 | -0.42911 | C | 3.92741 | -0.74604 | 0.00211 |
| C | -1.54909 | 0.26288 | -0.77264 | Cl | 4.73000 | -2.28734 | 0.20742 |
| C | -2.68861 | -0.44742 | -0.04313 | C | 4.68993 | 0.41272 | -0.13630 |
| O | -2.62891 | -1.83868 | -0.29510 | C | 4.04396 | 1.62844 | -0.29870 |
| C | -4.05166 | 0.01467 | -0.54931 | H | 2.66714 | 3.60714 | -0.61043 |
| C | -5.17276 | -0.71320 | 0.15081 | H | -2.00411 | -0.01758 | -1.40858 |
| O | -5.09148 | -0.59926 | 1.48184 | H | -2.71732 | -1.01211 | 1.35741 |
| O | -6.05812 | -1.32456 | -0.40548 | H | -1.01271 | -2.35635 | 0.07574 |
| C | -1.33571 | 1.75963 | -0.45355 | H | -4.47528 | -2.22275 | 0.05003 |
| C | -1.72282 | 2.22253 | 0.94128 | H | -3.81648 | -1.57931 | -1.44309 |
| O | 0.11732 | 1.85601 | -0.55848 | H | -6.58198 | 0.44486 | -0.69735 |
| C | 2.55904 | -0.85657 | -0.11756 | H | -2.27751 | 1.99040 | -0.19125 |
| C | 3.90492 | -1.05985 | 0.10860 | H | -2.88085 | 1.12686 | 2.07393 |
| Cl | 4.54265 | -2.68757 | 0.13943 | H | -1.20452 | 0.56655 | 2.31611 |
| C | 4.76891 | 0.02026 | 0.31032 | H | -1.55405 | 2.30138 | 2.18043 |
| C | 4.26188 | 1.30710 | 0.28064 | H | 1.95238 | -1.59454 | 0.09039 |
| H | 1.56147 | 2.91928 | -0.12417 | H | 5.77482 | 0.36427 | -0.11871 |
| H | -1.70632 | 0.12440 | -1.85318 | H | 4.62413 | 2.54143 | -0.41529 |
| H | -2.60790 | -0.26093 | 1.03651 | | | | |
| H | -1.73715 | -2.15021 | -0.06270 | | | | |
| H | -4.13986 | -0.18066 | -1.62057 | | | | |
| H | -4.18356 | 1.08841 | -0.37343 | | | | |
| H | -5.83787 | -1.08556 | 1.89022 | | | | |
| H | -1.74990 | 2.41234 | -1.22481 | | | | |
| H | -2.80660 | 2.19498 | 1.08371 | | | | |
| H | -1.25495 | 1.59223 | 1.70369 | | | | |
| H | -1.38879 | 3.25236 | 1.08658 | | | | |
| H | 1.88583 | -1.69311 | -0.27747 | | | | |
| H | 5.82686 | -0.15119 | 0.48659 | | | | |
| H | 4.91043 | 2.16430 | 0.43488 | | | | |

1c NMR Conformer 28

Energy: -875525.8315958

| | | | |
|---|----------|----------|----------|
| O | 2.01561 | 2.88970 | -0.50027 |
| C | 2.64476 | 1.70824 | -0.32055 |
| C | 1.88509 | 0.53505 | -0.17227 |
| C | 0.40788 | 0.50467 | -0.17652 |
| N | -0.28673 | -0.55309 | -0.36167 |
| C | -1.69907 | -0.13060 | -0.35616 |
| C | -2.58141 | -1.22726 | 0.28952 |
| O | -1.97300 | -2.49970 | 0.14522 |
| C | -3.94760 | -1.36201 | -0.37612 |
| C | -4.84181 | -0.16118 | -0.24177 |
| O | -6.02718 | -0.35371 | -0.82893 |
| O | -4.56481 | 0.85374 | 0.36310 |
| C | -1.64409 | 1.26231 | 0.31337 |
| C | -1.83631 | 1.30999 | 1.81826 |
| O | -0.25868 | 1.65293 | 0.04395 |
| C | 2.54591 | -0.69222 | -0.01793 |

1c NMR Conformer 27

Energy: -875537.7357265

| | | | |
|----|----------|----------|----------|
| O | 0.70578 | -2.42462 | -0.31249 |
| C | 1.80729 | -1.67212 | -0.15983 |
| C | 1.78468 | -0.26322 | -0.22270 |
| C | 0.51989 | 0.42816 | -0.47376 |
| N | -0.60903 | -0.16082 | -0.63387 |
| C | -1.61195 | 0.87654 | -0.90029 |
| C | -2.86370 | 0.62484 | -0.04912 |
| O | -2.54765 | 0.45526 | 1.31849 |
| C | -3.62775 | -0.58857 | -0.57485 |
| C | -4.94147 | -0.76506 | 0.14456 |
| O | -5.27353 | -2.05201 | 0.29224 |
| O | -5.64545 | 0.14335 | 0.52742 |
| C | -0.84611 | 2.21076 | -0.66199 |
| C | -1.18282 | 3.01920 | 0.57700 |
| O | 0.54103 | 1.76718 | -0.55309 |
| C | 2.96801 | 0.46794 | -0.05269 |
| C | 4.15557 | -0.20186 | 0.17615 |
| Cl | 5.63485 | 0.70674 | 0.38561 |
| C | 4.19222 | -1.59692 | 0.24043 |
| C | 3.02456 | -2.32387 | 0.07298 |
| H | -0.06893 | -1.82531 | -0.47354 |
| H | -1.90764 | 0.81057 | -1.95593 |
| H | -3.52052 | 1.50006 | -0.09688 |
| H | -1.90944 | -0.27630 | 1.40118 |
| H | -3.02681 | -1.49754 | -0.47836 |
| H | -3.86308 | -0.46079 | -1.63971 |
| H | -6.15131 | -2.10606 | 0.72674 |
| H | -0.89349 | 2.84206 | -1.55272 |

| | | | |
|---|----------|----------|----------|
| H | -2.21831 | 3.36833 | 0.53187 |
| H | -1.06213 | 2.41940 | 1.48020 |
| H | -0.52821 | 3.89265 | 0.62577 |
| H | 2.94125 | 1.55234 | -0.10341 |
| H | 5.13400 | -2.10774 | 0.42084 |
| H | 3.03324 | -3.40880 | 0.11973 |

1c NMR Conformer 26

Energy: -875526.0295562

| | | | |
|----|----------|----------|----------|
| O | 1.88507 | 2.78279 | 0.30299 |
| C | 2.58866 | 1.64315 | 0.12214 |
| C | 1.89233 | 0.44064 | -0.08892 |
| C | 0.41995 | 0.36865 | -0.15387 |
| N | -0.27542 | -0.61876 | 0.26347 |
| C | -1.66278 | -0.34495 | -0.16058 |
| C | -2.66405 | -0.91724 | 0.86483 |
| O | -2.12968 | -2.08313 | 1.47088 |
| C | -3.97063 | -1.39101 | 0.23617 |
| C | -4.80936 | -0.32607 | -0.41255 |
| O | -5.92235 | -0.83519 | -0.95187 |
| O | -4.53982 | 0.85567 | -0.45560 |
| C | -1.64521 | 1.18076 | -0.40971 |
| C | -1.95198 | 2.06905 | 0.78404 |
| O | -0.23778 | 1.38601 | -0.74496 |
| C | 2.60592 | -0.75524 | -0.22625 |
| C | 3.99006 | -0.75007 | -0.16971 |
| Cl | 4.86713 | -2.25165 | -0.35283 |
| C | 4.69078 | 0.43767 | 0.02565 |
| C | 3.98720 | 1.62539 | 0.17361 |
| H | 2.48727 | 3.52904 | 0.47824 |
| H | -1.81315 | -0.87125 | -1.11728 |
| H | -2.87391 | -0.16438 | 1.63671 |
| H | -1.17423 | -1.94476 | 1.58354 |
| H | -4.58257 | -1.87443 | 1.00604 |
| H | -3.75555 | -2.16312 | -0.51241 |
| H | -6.44024 | -0.10875 | -1.35876 |
| H | -2.22523 | 1.46977 | -1.28502 |
| H | -3.01333 | 2.02708 | 1.03026 |
| H | -1.36272 | 1.76414 | 1.65535 |
| H | -1.68625 | 3.09924 | 0.53532 |
| H | 2.05827 | -1.67950 | -0.38372 |
| H | 5.77623 | 0.43540 | 0.06530 |
| H | 4.52334 | 2.55721 | 0.33973 |

1c NMR Conformer 25

Energy: -875537.3319242

| | | | |
|---|----------|---------|----------|
| O | -1.28181 | 2.61046 | 0.06918 |
| C | -2.24416 | 1.67326 | 0.07308 |
| C | -1.97568 | 0.30402 | -0.12579 |

| | | | |
|----|----------|----------|----------|
| C | -0.60177 | -0.13430 | -0.36380 |
| N | 0.42277 | 0.63776 | -0.36380 |
| C | 1.56876 | -0.19103 | -0.76464 |
| C | 2.83466 | 0.22518 | -0.01818 |
| O | 3.07745 | 1.60655 | -0.21207 |
| C | 4.06245 | -0.49460 | -0.56508 |
| C | 5.31763 | -0.06366 | 0.15373 |
| O | 5.21468 | -0.21041 | 1.47956 |
| O | 6.31797 | 0.35243 | -0.38739 |
| C | 1.05526 | -1.62961 | -0.53030 |
| C | 1.34583 | -2.23502 | 0.83386 |
| O | -0.38813 | -1.44011 | -0.62201 |
| C | -3.02172 | -0.62887 | -0.10593 |
| C | -4.31697 | -0.19490 | 0.10824 |
| Cl | -5.62493 | -1.35442 | 0.13439 |
| C | -4.59699 | 1.15989 | 0.30408 |
| C | -3.56529 | 2.08512 | 0.28515 |
| H | -0.40874 | 2.17422 | -0.09155 |
| H | 1.74325 | -0.02044 | -1.83801 |
| H | 2.71980 | 0.01201 | 1.05308 |
| H | 2.32707 | 2.10862 | 0.14881 |
| H | 4.19071 | -0.27067 | -1.62669 |
| H | 3.95937 | -1.57932 | -0.44539 |
| H | 6.05193 | 0.07770 | 1.89849 |
| H | 1.33837 | -2.30740 | -1.33843 |
| H | 2.41242 | -2.43860 | 0.96286 |
| H | 1.01910 | -1.56383 | 1.63416 |
| H | 0.80651 | -3.17993 | 0.93023 |
| H | -2.80558 | -1.68194 | -0.25844 |
| H | -5.62011 | 1.48417 | 0.47156 |
| H | -3.76286 | 3.14205 | 0.43650 |

1c NMR Conformer 24

Energy: -875535.1879502

| | | | |
|---|----------|----------|----------|
| O | 0.22305 | -2.24548 | -0.11522 |
| C | 1.36306 | -1.53644 | -0.05738 |
| C | 1.39054 | -0.13472 | -0.19740 |
| C | 0.14182 | 0.59301 | -0.41862 |
| N | -1.01198 | 0.03350 | -0.45303 |
| C | -1.99711 | 1.07705 | -0.74001 |
| C | -3.20393 | 0.94686 | 0.20168 |
| O | -2.81779 | 0.92314 | 1.55720 |
| C | -4.08287 | -0.26027 | -0.18007 |
| C | -3.38058 | -1.59340 | -0.12622 |
| O | -2.95571 | -1.89406 | 1.11280 |
| O | -3.20190 | -2.32944 | -1.07061 |
| C | -1.17906 | 2.39716 | -0.66286 |
| C | -1.40446 | 3.31366 | 0.52582 |
| O | 0.20077 | 1.91947 | -0.61026 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| C | 2.60605 | 0.55782 | -0.13036 | H | 1.43096 | -1.78817 | -1.47295 |
| C | 3.77832 | -0.14573 | 0.07627 | H | 2.90853 | -2.72933 | 0.25724 |
| Cl | 5.29889 | 0.71205 | 0.16617 | H | 1.78717 | -2.20635 | 1.54804 |
| C | 3.76602 | -1.53572 | 0.21549 | H | 1.28956 | -3.43396 | 0.37203 |
| C | 2.56450 | -2.22365 | 0.14772 | H | -2.52452 | -1.71433 | -0.01677 |
| H | -0.52448 | -1.61137 | -0.28003 | H | -5.57506 | 1.31317 | 0.06173 |
| H | -2.35660 | 0.93442 | -1.76853 | H | -3.82895 | 3.07579 | -0.16133 |
| H | -3.83813 | 1.83243 | 0.08236 | | | | |
| H | -2.30457 | 0.11620 | 1.72399 | | | | |
| H | -4.47014 | -0.13257 | -1.19315 | | | | |
| H | -4.92664 | -0.29304 | 0.51661 | | | | |
| H | -2.52288 | -2.77216 | 1.10516 | | | | |
| H | -1.27263 | 2.95890 | -1.59501 | | | | |
| H | -2.43733 | 3.67404 | 0.54010 | | | | |
| H | -1.21217 | 2.79065 | 1.46325 | | | | |
| H | -0.74155 | 4.17822 | 0.44549 | | | | |
| H | 2.61717 | 1.63824 | -0.23910 | | | | |
| H | 4.69629 | -2.07233 | 0.37661 | | | | |
| H | 2.53511 | -3.30376 | 0.25296 | | | | |

1c NMR Conformer 23

Energy: -875534.1505766

| | | | |
|----|----------|----------|----------|
| O | -1.30622 | 2.67494 | -0.33752 |
| C | -2.20099 | 1.68239 | -0.21303 |
| C | -1.83360 | 0.32190 | -0.16895 |
| C | -0.42174 | -0.05146 | -0.24711 |
| N | 0.54732 | 0.78328 | -0.35112 |
| C | 1.80220 | 0.01484 | -0.32054 |
| C | 2.57906 | 0.44809 | 0.93840 |
| O | 2.76027 | 1.85280 | 0.90653 |
| C | 3.98689 | -0.14729 | 1.09143 |
| C | 4.79652 | -0.07417 | -0.17924 |
| O | 4.51091 | -1.08940 | -1.01046 |
| O | 5.60367 | 0.78576 | -0.45099 |
| C | 1.31923 | -1.45909 | -0.43429 |
| C | 1.86633 | -2.51520 | 0.50201 |
| O | -0.11691 | -1.35586 | -0.19581 |
| C | -2.81681 | -0.66900 | -0.04732 |
| C | -4.14649 | -0.30169 | 0.03413 |
| Cl | -5.37605 | -1.53617 | 0.18858 |
| C | -4.52512 | 1.04271 | -0.00398 |
| C | -3.55616 | 2.02536 | -0.12739 |
| H | -0.40039 | 2.28010 | -0.40050 |
| H | 2.39779 | 0.28974 | -1.19715 |
| H | 1.99642 | 0.16446 | 1.82912 |
| H | 1.89799 | 2.27372 | 0.75167 |
| H | 3.93120 | -1.18647 | 1.41669 |
| H | 4.50194 | 0.43642 | 1.85641 |
| H | 5.03936 | -0.99316 | -1.83083 |

1c NMR Conformer 22

Energy: -875531.3672521

| | | | |
|----|----------|----------|----------|
| O | 2.29316 | 2.85026 | -0.34222 |
| C | 2.73074 | 1.57707 | -0.24372 |
| C | 1.90026 | 0.44564 | -0.13658 |
| C | 0.43095 | 0.51941 | -0.10888 |
| N | -0.36965 | -0.44574 | 0.10967 |
| C | -1.72640 | 0.09550 | -0.07804 |
| C | -2.68511 | -0.56733 | 0.91136 |
| O | -2.63875 | -1.97109 | 0.74147 |
| C | -4.15552 | -0.15910 | 0.75728 |
| C | -4.78708 | -0.69730 | -0.50466 |
| O | -4.35078 | -0.06555 | -1.60331 |
| O | -5.60734 | -1.58712 | -0.54293 |
| C | -1.53044 | 1.62154 | 0.03412 |
| C | -1.67172 | 2.22885 | 1.42043 |
| O | -0.12827 | 1.74187 | -0.35411 |
| C | 2.48140 | -0.82910 | -0.03941 |
| C | 3.85447 | -0.96939 | -0.04536 |
| Cl | 4.56290 | -2.56367 | 0.07236 |
| C | 4.68805 | 0.14737 | -0.14926 |
| C | 4.12284 | 1.40657 | -0.24781 |
| H | 1.32091 | 2.88728 | -0.35031 |
| H | -2.04619 | -0.16592 | -1.09419 |
| H | -2.37331 | -0.30247 | 1.93222 |
| H | -1.70863 | -2.25088 | 0.79699 |
| H | -4.25125 | 0.93119 | 0.75765 |
| H | -4.71988 | -0.56381 | 1.59897 |
| H | -4.78385 | -0.45743 | -2.39135 |
| H | -2.11276 | 2.16943 | -0.70992 |
| H | -2.70815 | 2.19735 | 1.76604 |
| H | -1.04649 | 1.69563 | 2.14317 |
| H | -1.35698 | 3.27454 | 1.39189 |
| H | 1.83143 | -1.69530 | 0.03805 |
| H | 5.76747 | 0.02642 | -0.15486 |
| H | 4.74705 | 2.29127 | -0.33029 |

1c NMR Conformer 20

Energy: -875533.5458207

| | | | |
|---|---------|---------|---------|
| O | 2.47614 | 2.85105 | 0.07368 |
| C | 2.88647 | 1.56492 | 0.06518 |

| | | | | | | | |
|----|----------|----------|----------|----|----------|----------|----------|
| C | 2.04836 | 0.45321 | -0.14224 | O | 0.24885 | 1.92700 | -0.54979 |
| C | 0.59862 | 0.56409 | -0.36739 | C | 2.66562 | 0.52980 | -0.18628 |
| N | -0.23213 | -0.39852 | -0.42515 | C | 3.82945 | -0.18922 | 0.01017 |
| C | -1.53324 | 0.19621 | -0.76636 | Cl | 5.37679 | 0.62703 | -0.08590 |
| C | -2.65923 | -0.53820 | -0.04000 | C | 3.79282 | -1.56006 | 0.27763 |
| O | -2.57661 | -1.92621 | -0.30856 | C | 2.57253 | -2.21132 | 0.35171 |
| C | -4.02594 | -0.09240 | -0.53293 | H | -0.54043 | -1.55448 | 0.15708 |
| C | -5.14008 | -0.64577 | 0.32374 | H | -2.26382 | 0.99912 | -1.76897 |
| O | -6.27541 | -0.79627 | -0.36558 | H | -3.79766 | 1.90776 | 0.02555 |
| O | -5.04627 | -0.89637 | 1.50537 | H | -2.40926 | 0.09908 | 1.68963 |
| C | -1.34997 | 1.69638 | -0.44282 | H | -4.42399 | -0.05225 | -1.31477 |
| C | -1.75490 | 2.14562 | 0.95147 | H | -4.99129 | -0.18073 | 0.35989 |
| O | 0.09976 | 1.82316 | -0.54287 | H | -3.22472 | -3.20816 | -0.95861 |
| C | 2.59921 | -0.83850 | -0.12565 | H | -1.20949 | 3.05330 | -1.45781 |
| C | 3.95008 | -1.01501 | 0.09565 | H | -2.35285 | 3.65715 | 0.71217 |
| Cl | 4.62186 | -2.62926 | 0.11071 | H | -1.20741 | 2.62619 | 1.58503 |
| C | 4.79070 | 0.08152 | 0.30506 | H | -0.63084 | 4.07515 | 0.71297 |
| C | 4.25558 | 1.35757 | 0.28784 | H | 2.69460 | 1.59376 | -0.40090 |
| H | 1.52215 | 2.91548 | -0.10539 | H | 4.71806 | -2.10998 | 0.42974 |
| H | -1.68717 | 0.05877 | -1.84768 | H | 2.52059 | -3.27450 | 0.56933 |
| H | -2.57977 | -0.36412 | 1.04171 | | | | |
| H | -1.69150 | -2.23160 | -0.04540 | | | | |
| H | -4.16976 | -0.40897 | -1.57024 | | | | |
| H | -4.12408 | 1.00060 | -0.50970 | | | | |
| H | -6.97719 | -1.11452 | 0.24122 | | | | |
| H | -1.77485 | 2.34303 | -1.21344 | | | | |
| H | -2.83875 | 2.09174 | 1.08655 | | | | |
| H | -1.27786 | 1.52251 | 1.71406 | | | | |
| H | -1.44564 | 3.18224 | 1.10325 | | | | |
| H | 1.94382 | -1.68810 | -0.29133 | | | | |
| H | 5.85269 | -0.06781 | 0.47718 | | | | |
| H | 4.88628 | 2.22697 | 0.44761 | | | | |

1c NMR Conformer 19

Energy: -875534.5226898

| | | | |
|---|----------|----------|----------|
| O | 0.21957 | -2.18406 | 0.27664 |
| C | 1.37312 | -1.50964 | 0.15835 |
| C | 1.42812 | -0.12664 | -0.12087 |
| C | 0.17848 | 0.60012 | -0.35463 |
| N | -0.97986 | 0.05509 | -0.41365 |
| C | -1.95055 | 1.11677 | -0.72138 |
| C | -3.20597 | 0.99397 | 0.15713 |
| O | -2.89130 | 0.93119 | 1.52787 |
| C | -4.09988 | -0.17856 | -0.27951 |
| C | -3.44967 | -1.52790 | -0.10109 |
| O | -3.62510 | -2.32923 | -1.15457 |
| O | -2.88119 | -1.88713 | 0.91078 |
| C | -1.12589 | 2.42822 | -0.56506 |
| C | -1.34063 | 3.24467 | 0.69521 |

1c NMR Conformer 18

Energy: -875535.4580679

| | | | |
|----|----------|----------|----------|
| O | -1.22830 | 2.63801 | 0.16582 |
| C | -2.16588 | 1.68367 | 0.04933 |
| C | -1.85126 | 0.31223 | -0.04706 |
| C | -0.45149 | -0.10913 | -0.03494 |
| N | 0.55146 | 0.67802 | 0.10339 |
| C | 1.75593 | -0.15090 | -0.06936 |
| C | 2.87243 | 0.33462 | 0.85502 |
| O | 3.15659 | 1.69429 | 0.58498 |
| C | 4.19899 | -0.42043 | 0.70263 |
| C | 4.89333 | -0.13326 | -0.60774 |
| O | 4.28479 | -0.72171 | -1.64697 |
| O | 5.89482 | 0.53633 | -0.72770 |
| C | 1.22158 | -1.58332 | 0.15115 |
| C | 1.27170 | -2.11762 | 1.57375 |
| O | -0.18623 | -1.42151 | -0.19650 |
| C | -2.87452 | -0.63833 | -0.16270 |
| C | -4.19242 | -0.22092 | -0.18343 |
| Cl | -5.47089 | -1.40550 | -0.32806 |
| C | -4.51868 | 1.13461 | -0.09094 |
| C | -3.50957 | 2.07800 | 0.02426 |
| H | -0.33460 | 2.21256 | 0.16742 |
| H | 2.09139 | -0.03097 | -1.10658 |
| H | 2.54205 | 0.21903 | 1.89730 |
| H | 2.34154 | 2.21124 | 0.70544 |
| H | 4.03596 | -1.49967 | 0.78084 |

| | | | |
|---|----------|----------|----------|
| H | 4.87219 | -0.10514 | 1.50135 |
| H | 4.76876 | -0.49811 | -2.47038 |
| H | 1.64548 | -2.29349 | -0.56226 |
| H | 2.29890 | -2.30264 | 1.89790 |
| H | 0.80787 | -1.41155 | 2.26956 |
| H | 0.72538 | -3.06209 | 1.62221 |
| H | -2.62223 | -1.69188 | -0.23500 |
| H | -5.55940 | 1.44545 | -0.10915 |
| H | -3.74260 | 3.13601 | 0.09777 |

1c NMR Conformer 17

Energy: -875529.6753109

| | | | |
|----|----------|----------|----------|
| O | -2.05681 | -2.66696 | 0.66516 |
| C | -2.57989 | -1.44898 | 0.39913 |
| C | -1.73991 | -0.43950 | -0.10025 |
| C | -0.30313 | -0.64115 | -0.38548 |
| N | 0.57388 | 0.28600 | -0.30846 |
| C | 1.86561 | -0.33330 | -0.63939 |
| C | 2.73930 | -0.36391 | 0.62571 |
| O | 2.07458 | -1.01324 | 1.69439 |
| C | 3.17010 | 1.04108 | 1.04457 |
| C | 4.18259 | 1.65657 | 0.11408 |
| O | 4.42095 | 2.93853 | 0.41139 |
| O | 4.74316 | 1.07610 | -0.79190 |
| C | 1.47481 | -1.71521 | -1.21884 |
| C | 2.27819 | -2.92567 | -0.79369 |
| O | 0.09452 | -1.86462 | -0.79118 |
| C | -2.26412 | 0.83786 | -0.33179 |
| C | -3.60194 | 1.09853 | -0.08709 |
| Cl | -4.24024 | 2.69744 | -0.39456 |
| C | -4.44604 | 0.10165 | 0.39611 |
| C | -3.92927 | -1.16314 | 0.63902 |
| H | -2.74126 | -3.25941 | 1.02645 |
| H | 2.38630 | 0.26134 | -1.39680 |
| H | 3.63413 | -0.96074 | 0.42040 |
| H | 1.25468 | -0.52696 | 1.89188 |
| H | 3.62852 | 0.99616 | 2.03957 |
| H | 2.30530 | 1.70993 | 1.12047 |
| H | 5.10048 | 3.28789 | -0.20322 |
| H | 1.44389 | -1.64957 | -2.31337 |
| H | 3.30668 | -2.83012 | -1.15467 |
| H | 2.28676 | -3.02203 | 0.29377 |
| H | 1.84877 | -3.82909 | -1.23326 |
| H | -1.60678 | 1.61383 | -0.71153 |
| H | -5.49514 | 0.31103 | 0.58372 |
| H | -4.57433 | -1.94801 | 1.02804 |

1c NMR Conformer 15

Energy: -875534.1408816

| | | | |
|----|----------|----------|----------|
| O | -1.30672 | 2.66233 | -0.30209 |
| C | -2.21334 | 1.67769 | -0.19343 |
| C | -1.85498 | 0.31581 | -0.15816 |
| C | -0.44516 | -0.05904 | -0.24574 |
| N | 0.51633 | 0.77860 | -0.38314 |
| C | 1.77364 | 0.01395 | -0.36284 |
| C | 2.56821 | 0.47456 | 0.87746 |
| O | 2.80400 | 1.87108 | 0.77953 |
| C | 3.94889 | -0.15959 | 1.07557 |
| C | 4.74796 | -0.24228 | -0.20241 |
| O | 5.82451 | 0.54723 | -0.20663 |
| O | 4.44859 | -0.95674 | -1.13863 |
| C | 1.29137 | -1.46081 | -0.45571 |
| C | 1.86173 | -2.50797 | 0.47527 |
| O | -0.13898 | -1.36370 | -0.19027 |
| C | -2.84262 | -0.67080 | -0.04002 |
| C | -4.17069 | -0.29587 | 0.04473 |
| Cl | -5.40723 | -1.52393 | 0.19164 |
| C | -4.54158 | 1.05141 | 0.01530 |
| C | -3.56615 | 2.02963 | -0.10302 |
| H | -0.40427 | 2.26084 | -0.35519 |
| H | 2.35464 | 0.27835 | -1.25038 |
| H | 1.97163 | 0.26294 | 1.77829 |
| H | 1.96026 | 2.31468 | 0.59455 |
| H | 3.85383 | -1.17471 | 1.46402 |
| H | 4.48220 | 0.44011 | 1.81536 |
| H | 6.29746 | 0.43786 | -1.05760 |
| H | 1.38208 | -1.79771 | -1.49361 |
| H | 2.90060 | -2.71306 | 0.20859 |
| H | 1.80173 | -2.19296 | 1.52053 |
| H | 1.29154 | -3.43307 | 0.36341 |
| H | -2.55634 | -1.71775 | -0.01741 |
| H | -5.58952 | 1.32750 | 0.08385 |
| H | -3.83207 | 3.08181 | -0.12771 |

1c NMR Conformer 14

Energy: -875537.7637636

| | | | |
|---|----------|----------|----------|
| O | -1.35382 | 2.62646 | 0.01411 |
| C | -2.29233 | 1.66662 | 0.04022 |
| C | -1.99245 | 0.30043 | -0.14126 |
| C | -0.60904 | -0.10684 | -0.38027 |
| N | 0.39689 | 0.68875 | -0.39336 |
| C | 1.56459 | -0.11689 | -0.77862 |
| C | 2.81088 | 0.32954 | -0.01620 |
| O | 3.02255 | 1.71728 | -0.20459 |
| C | 4.05880 | -0.35909 | -0.54390 |
| C | 5.25217 | -0.12255 | 0.35124 |
| O | 6.40464 | -0.19469 | -0.32198 |
| O | 5.19480 | 0.07589 | 1.54498 |

| | | | |
|----|----------|----------|----------|
| C | 1.07984 | -1.56737 | -0.54068 |
| C | 1.39564 | -2.17148 | 0.81800 |
| O | -0.36779 | -1.41095 | -0.62069 |
| C | -3.01533 | -0.65674 | -0.09858 |
| C | -4.31870 | -0.25063 | 0.12037 |
| Cl | -5.59754 | -1.44233 | 0.17763 |
| C | -4.63064 | 1.09976 | 0.29866 |
| C | -3.62201 | 2.04951 | 0.25753 |
| H | -0.47069 | 2.20804 | -0.14630 |
| H | 1.74759 | 0.05366 | -1.85041 |
| H | 2.69103 | 0.11350 | 1.05369 |
| H | 2.26682 | 2.19961 | 0.17174 |
| H | 4.28245 | -0.00027 | -1.55314 |
| H | 3.92366 | -1.44630 | -0.60996 |
| H | 7.14918 | -0.07966 | 0.30622 |
| H | 1.36862 | -2.23733 | -1.35337 |
| H | 2.46886 | -2.34273 | 0.93932 |
| H | 1.05437 | -1.51438 | 1.62376 |
| H | 0.88485 | -3.13217 | 0.91234 |
| H | -2.77412 | -1.70629 | -0.23702 |
| H | -5.66019 | 1.40154 | 0.46907 |
| H | -3.84407 | 3.10357 | 0.39430 |

1c NMR Conformer 13

Energy: -875531.6743992

| | | | |
|----|----------|----------|----------|
| O | 2.33325 | 2.83921 | -0.36673 |
| C | 2.75527 | 1.56175 | -0.25534 |
| C | 1.91078 | 0.44102 | -0.14575 |
| C | 0.44235 | 0.53349 | -0.12391 |
| N | -0.37116 | -0.42008 | 0.09848 |
| C | -1.72089 | 0.13789 | -0.09066 |
| C | -2.68676 | -0.50335 | 0.90508 |
| O | -2.64887 | -1.91016 | 0.75689 |
| C | -4.15014 | -0.08730 | 0.71867 |
| C | -4.70727 | -0.59827 | -0.58883 |
| O | -5.60874 | -1.56838 | -0.42573 |
| O | -4.38237 | -0.17665 | -1.67999 |
| C | -1.50527 | 1.66201 | 0.01028 |
| C | -1.64175 | 2.28172 | 1.39159 |
| O | -0.10051 | 1.76163 | -0.37658 |
| C | 2.47602 | -0.83995 | -0.03735 |
| C | 3.84733 | -0.99643 | -0.03463 |
| Cl | 4.53650 | -2.59800 | 0.09743 |
| C | 4.69472 | 0.10975 | -0.14030 |
| C | 4.14530 | 1.37495 | -0.24996 |
| H | 1.36129 | 2.88684 | -0.37892 |
| H | -2.05066 | -0.12645 | -1.10355 |
| H | -2.38353 | -0.22510 | 1.92479 |
| H | -1.71919 | -2.19332 | 0.80274 |

| | | | |
|---|----------|----------|----------|
| H | -4.23830 | 1.00320 | 0.71154 |
| H | -4.73896 | -0.48374 | 1.54773 |
| H | -5.92408 | -1.85981 | -1.30762 |
| H | -2.07850 | 2.21238 | -0.73897 |
| H | -2.67947 | 2.26466 | 1.73476 |
| H | -1.02478 | 1.74631 | 2.11991 |
| H | -1.31481 | 3.32346 | 1.35623 |
| H | 1.81537 | -1.69784 | 0.04206 |
| H | 5.77263 | -0.02451 | -0.13847 |
| H | 4.78046 | 2.25168 | -0.33421 |

1c NMR Conformer 11

Energy: -875532.4154000

| | | | |
|----|----------|----------|----------|
| O | 2.35257 | 2.84812 | -0.30986 |
| C | 2.65071 | 1.53602 | -0.19968 |
| C | 1.70612 | 0.49235 | -0.20069 |
| C | 0.25549 | 0.71467 | -0.32554 |
| N | -0.62855 | -0.18875 | -0.49367 |
| C | -1.93404 | 0.48462 | -0.45302 |
| C | -2.66823 | 0.07455 | 0.83450 |
| O | -1.89715 | 0.36610 | 1.98338 |
| C | -3.04906 | -1.41123 | 0.81713 |
| C | -3.97686 | -1.79388 | -0.30741 |
| O | -4.96364 | -0.90323 | -0.47576 |
| O | -3.87269 | -2.79312 | -0.98506 |
| C | -1.58724 | 1.98930 | -0.57282 |
| C | -2.32676 | 2.97366 | 0.30574 |
| O | -0.17035 | 2.00300 | -0.23835 |
| C | 2.14678 | -0.83626 | -0.09067 |
| C | 3.49418 | -1.11503 | 0.01957 |
| Cl | 4.02647 | -2.77478 | 0.16043 |
| C | 4.44013 | -0.08665 | 0.02300 |
| C | 4.01368 | 1.22532 | -0.08672 |
| H | 1.39058 | 2.98442 | -0.36265 |
| H | -2.54016 | 0.17454 | -1.31244 |
| H | -3.57951 | 0.67448 | 0.92413 |
| H | -1.07817 | -0.16021 | 1.95683 |
| H | -3.55874 | -1.64301 | 1.75969 |
| H | -2.15597 | -2.03665 | 0.74354 |
| H | -5.54685 | -1.20549 | -1.20402 |
| H | -1.64929 | 2.29217 | -1.62464 |
| H | -3.38622 | 2.98274 | 0.03304 |
| H | -2.22859 | 2.70275 | 1.35850 |
| H | -1.93122 | 3.98031 | 0.15119 |
| H | 1.40885 | -1.63268 | -0.09275 |
| H | 5.49809 | -0.31606 | 0.11154 |
| H | 4.72768 | 2.04349 | -0.08859 |

1c NMR Conformer 10

Energy: -875535.7417336

| | | | |
|----|----------|----------|----------|
| O | -1.22394 | 2.63673 | 0.18896 |
| C | -2.16525 | 1.68723 | 0.06920 |
| C | -1.85755 | 0.31642 | -0.05056 |
| C | -0.46111 | -0.11619 | -0.04697 |
| N | 0.54850 | 0.65875 | 0.11483 |
| C | 1.74672 | -0.17665 | -0.07360 |
| C | 2.86743 | 0.27520 | 0.86189 |
| O | 3.16190 | 1.64121 | 0.63309 |
| C | 4.18377 | -0.48467 | 0.66716 |
| C | 4.78927 | -0.20401 | -0.68773 |
| O | 5.90115 | 0.52991 | -0.62156 |
| O | 4.32393 | -0.60123 | -1.73599 |
| C | 1.19988 | -1.60742 | 0.11227 |
| C | 1.24211 | -2.17297 | 1.52257 |
| O | -0.20718 | -1.42630 | -0.23669 |
| C | -2.88583 | -0.62709 | -0.17759 |
| C | -4.20129 | -0.20342 | -0.18459 |
| Cl | -5.48644 | -1.37963 | -0.34150 |
| C | -4.52098 | 1.15150 | -0.06721 |
| C | -3.50706 | 2.08767 | 0.05838 |
| H | -0.33166 | 2.20858 | 0.16532 |
| H | 2.08825 | -0.03849 | -1.10707 |
| H | 2.54425 | 0.12903 | 1.90270 |
| H | 2.34176 | 2.15549 | 0.72494 |
| H | 4.01478 | -1.56326 | 0.73445 |
| H | 4.88130 | -0.18703 | 1.45203 |
| H | 6.23765 | 0.67967 | -1.53036 |
| H | 1.62035 | -2.30495 | -0.61537 |
| H | 2.26755 | -2.37297 | 1.84430 |
| H | 0.78327 | -1.47781 | 2.23252 |
| H | 0.68829 | -3.11393 | 1.55006 |
| H | -2.63885 | -1.68057 | -0.26758 |
| H | -5.56038 | 1.46689 | -0.07516 |
| H | -3.73412 | 3.14564 | 0.14909 |

1c NMR Conformer 9

Energy: -875529.8919460

| | | | |
|---|----------|----------|----------|
| O | 1.84815 | 2.92772 | -0.02161 |
| C | 2.48416 | 1.73716 | -0.01260 |
| C | 1.85224 | 0.48478 | -0.12985 |
| C | 0.39664 | 0.32338 | -0.27018 |
| N | -0.24489 | -0.77604 | -0.24377 |
| C | -1.65260 | -0.45078 | -0.52869 |
| C | -2.56225 | -1.38354 | 0.28588 |
| O | -2.09298 | -2.71215 | 0.16100 |
| C | -4.00834 | -1.44128 | -0.22562 |
| C | -4.78394 | -0.17189 | 0.00602 |
| O | -4.67852 | 0.68805 | -1.01495 |

| | | | |
|----|----------|----------|----------|
| O | -5.41616 | 0.07552 | 1.01047 |
| C | -1.73087 | 1.07400 | -0.27209 |
| C | -2.13531 | 1.51371 | 1.12500 |
| O | -0.33342 | 1.45761 | -0.45903 |
| C | 2.62905 | -0.68490 | -0.10257 |
| C | 3.99938 | -0.60582 | 0.04140 |
| Cl | 4.95360 | -2.07050 | 0.07320 |
| C | 4.63664 | 0.63230 | 0.15965 |
| C | 3.87826 | 1.78931 | 0.13147 |
| H | 0.89015 | 2.81308 | -0.14619 |
| H | -1.83222 | -0.66123 | -1.59428 |
| H | -2.55299 | -1.08273 | 1.34411 |
| H | -1.13098 | -2.70170 | 0.30436 |
| H | -4.51450 | -2.24041 | 0.31972 |
| H | -3.99277 | -1.68329 | -1.29203 |
| H | -5.19346 | 1.49846 | -0.80944 |
| H | -2.30167 | 1.59326 | -1.04142 |
| H | -3.18511 | 1.29141 | 1.33114 |
| H | -1.52038 | 1.01502 | 1.88091 |
| H | -1.99354 | 2.59305 | 1.21774 |
| H | 2.13153 | -1.64515 | -0.19811 |
| H | 5.71593 | 0.68421 | 0.27032 |
| H | 4.34807 | 2.76418 | 0.22119 |

1c NMR Conformer 8

Energy: -875536.2261395

| | | | |
|----|----------|----------|----------|
| O | 0.69984 | -2.41818 | 0.51421 |
| C | 1.76688 | -1.63275 | 0.28940 |
| C | 1.65079 | -0.27234 | -0.05663 |
| C | 0.32409 | 0.32471 | -0.20178 |
| N | -0.77670 | -0.30642 | -0.01045 |
| C | -1.86888 | 0.62165 | -0.31296 |
| C | -2.94117 | 0.54669 | 0.78174 |
| O | -2.38622 | 0.72233 | 2.06724 |
| C | -3.69353 | -0.79145 | 0.72060 |
| C | -4.40198 | -1.02026 | -0.58751 |
| O | -5.09004 | 0.06026 | -0.97777 |
| O | -4.35383 | -2.03786 | -1.24217 |
| C | -1.15712 | 1.99079 | -0.52329 |
| C | -1.31146 | 3.05739 | 0.54579 |
| O | 0.24963 | 1.60950 | -0.58300 |
| C | 2.79962 | 0.49997 | -0.27311 |
| C | 4.04694 | -0.08318 | -0.14622 |
| Cl | 5.48158 | 0.87707 | -0.41579 |
| C | 4.17541 | -1.43204 | 0.19247 |
| C | 3.04110 | -2.19865 | 0.40733 |
| H | -0.12418 | -1.88052 | 0.39868 |
| H | -2.32967 | 0.31297 | -1.26303 |
| H | -3.65674 | 1.36312 | 0.64416 |

| | | | |
|---|----------|----------|----------|
| H | -1.71403 | 0.03263 | 2.21242 |
| H | -4.44357 | -0.79303 | 1.51952 |
| H | -3.00820 | -1.62732 | 0.88415 |
| H | -5.53383 | -0.13173 | -1.82985 |
| H | -1.40355 | 2.40157 | -1.50558 |
| H | -2.35916 | 3.35812 | 0.63536 |
| H | -0.97696 | 2.68860 | 1.51651 |
| H | -0.72496 | 3.93575 | 0.26570 |
| H | 2.70141 | 1.54799 | -0.54007 |
| H | 5.16228 | -1.87646 | 0.28775 |
| H | 3.12209 | -3.24854 | 0.67261 |

1c NMR Conformer 7

Energy: -875533.8523904

| | | | |
|----|----------|----------|----------|
| O | -1.54680 | 2.72468 | 0.01597 |
| C | -2.34725 | 1.64639 | 0.01405 |
| C | -1.85509 | 0.33009 | -0.10279 |
| C | -0.41716 | 0.10520 | -0.24164 |
| N | 0.47624 | 1.02523 | -0.20944 |
| C | 1.76423 | 0.37757 | -0.51068 |
| C | 2.89008 | 1.03866 | 0.29917 |
| O | 2.79040 | 2.44517 | 0.18080 |
| C | 4.29594 | 0.72118 | -0.23010 |
| C | 4.72033 | -0.70890 | -0.02488 |
| O | 4.38925 | -1.49571 | -1.05615 |
| O | 5.27840 | -1.12556 | 0.96736 |
| C | 1.45598 | -1.12160 | -0.26469 |
| C | 1.75042 | -1.65874 | 1.12620 |
| O | 0.00656 | -1.15624 | -0.43603 |
| C | -2.74113 | -0.75589 | -0.09695 |
| C | -4.09906 | -0.52622 | 0.02378 |
| Cl | -5.20626 | -1.87984 | 0.03208 |
| C | -4.60069 | 0.77287 | 0.13914 |
| C | -3.72795 | 1.84973 | 0.13324 |
| H | -0.60757 | 2.42793 | -0.07626 |
| H | 1.97950 | 0.54851 | -1.57649 |
| H | 2.81318 | 0.74540 | 1.35636 |
| H | 1.89531 | 2.71256 | 0.45020 |
| H | 4.99795 | 1.35361 | 0.31687 |
| H | 4.33350 | 0.97429 | -1.29348 |
| H | 4.68085 | -2.41459 | -0.86943 |
| H | 1.87738 | -1.75917 | -1.04130 |
| H | 2.82356 | -1.70992 | 1.32478 |
| H | 1.28569 | -1.02791 | 1.89070 |
| H | 1.34025 | -2.66740 | 1.21289 |
| H | -2.35238 | -1.76561 | -0.18715 |
| H | -5.67060 | 0.93570 | 0.23295 |
| H | -4.09815 | 2.86669 | 0.22148 |

1c NMR Conformer 6

Energy: -875529.9378044

| | | | |
|----|----------|----------|----------|
| O | 1.84601 | 2.92454 | -0.05353 |
| C | 2.48455 | 1.73541 | -0.02731 |
| C | 1.85368 | 0.48195 | -0.13633 |
| C | 0.39842 | 0.32158 | -0.27967 |
| N | -0.24430 | -0.77740 | -0.24553 |
| C | -1.64826 | -0.45076 | -0.54378 |
| C | -2.57078 | -1.38123 | 0.25693 |
| O | -2.10586 | -2.71149 | 0.13807 |
| C | -4.00614 | -1.42222 | -0.28273 |
| C | -4.72551 | -0.10608 | -0.15825 |
| O | -5.35988 | 0.02366 | 1.01205 |
| O | -4.71195 | 0.76778 | -0.99971 |
| C | -1.72837 | 1.07093 | -0.28243 |
| C | -2.11715 | 1.50188 | 1.12192 |
| O | -0.33085 | 1.45497 | -0.48062 |
| C | 2.62997 | -0.68727 | -0.09524 |
| C | 3.99935 | -0.60566 | 0.05543 |
| Cl | 4.95497 | -2.06845 | 0.10499 |
| C | 4.63537 | 0.63393 | 0.16674 |
| C | 3.87745 | 1.79066 | 0.12428 |
| H | 0.88936 | 2.80395 | -0.18473 |
| H | -1.81665 | -0.65509 | -1.61252 |
| H | -2.57443 | -1.08038 | 1.31513 |
| H | -1.14717 | -2.70490 | 0.30199 |
| H | -4.54962 | -2.19055 | 0.27165 |
| H | -3.97073 | -1.69496 | -1.34079 |
| H | -5.80032 | 0.89943 | 1.04561 |
| H | -2.31016 | 1.59347 | -1.04138 |
| H | -3.16422 | 1.27715 | 1.33775 |
| H | -1.49398 | 0.99831 | 1.86798 |
| H | -1.97631 | 2.58083 | 1.21966 |
| H | 2.13384 | -1.64881 | -0.18465 |
| H | 5.71407 | 0.68610 | 0.28302 |
| H | 4.34659 | 2.76638 | 0.20775 |

1c NMR Conformer 5

Energy: -875534.0240582

| | | | |
|---|----------|----------|----------|
| O | -1.55562 | 2.72650 | 0.03545 |
| C | -2.35183 | 1.64650 | 0.02949 |
| C | -1.85871 | 0.33259 | -0.10437 |
| C | -0.42191 | 0.10492 | -0.24914 |
| N | 0.47278 | 1.02488 | -0.21093 |
| C | 1.75825 | 0.37683 | -0.52054 |
| C | 2.89373 | 1.02819 | 0.28505 |
| O | 2.79846 | 2.43665 | 0.19792 |
| C | 4.28601 | 0.71425 | -0.28268 |
| C | 4.65543 | -0.74225 | -0.20540 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| O | 5.25460 | -1.06107 | 0.94646 | H | -2.79564 | -0.65858 | 1.55434 |
| O | 4.42354 | -1.55697 | -1.07401 | H | -1.09226 | -2.32383 | 0.84819 |
| C | 1.45066 | -1.11949 | -0.27371 | H | -4.53011 | -2.13701 | 0.52328 |
| C | 1.73726 | -1.65215 | 1.12018 | H | -3.79143 | -1.92473 | -1.05257 |
| O | -0.00206 | -1.15544 | -0.44854 | H | -6.52902 | 0.26399 | -1.00836 |
| C | -2.74328 | -0.75452 | -0.10803 | H | -2.27845 | 1.79818 | -0.73368 |
| C | -4.09990 | -0.52777 | 0.02238 | H | -2.92932 | 1.59646 | 1.68235 |
| Cl | -5.20650 | -1.88301 | 0.01831 | H | -1.25216 | 1.16224 | 2.10019 |
| C | -4.60338 | 0.76868 | 0.15813 | H | -1.62704 | 2.77991 | 1.47185 |
| C | -3.73215 | 1.84602 | 0.16057 | H | 2.05319 | -1.67051 | -0.17690 |
| H | -0.61848 | 2.43169 | -0.08321 | H | 5.77386 | 0.48030 | 0.00236 |
| H | 1.96469 | 0.54828 | -1.58762 | H | 4.51220 | 2.62926 | -0.01683 |
| H | 2.83397 | 0.71346 | 1.33739 | | | | |
| H | 1.90820 | 2.70372 | 0.48075 | | | | |
| H | 5.01198 | 1.30684 | 0.27767 | | | | |
| H | 4.30442 | 1.01648 | -1.33298 | | | | |
| H | 5.47102 | -2.01723 | 0.94473 | | | | |
| H | 1.87615 | -1.75934 | -1.04597 | | | | |
| H | 2.80867 | -1.69423 | 1.32955 | | | | |
| H | 1.26073 | -1.02358 | 1.87894 | | | | |
| H | 1.33519 | -2.66407 | 1.20475 | | | | |
| H | -2.35338 | -1.76243 | -0.21216 | | | | |
| H | -5.67282 | 0.92745 | 0.26021 | | | | |
| H | -4.10175 | 2.86172 | 0.26333 | | | | |

1c NMR Conformer 4

Energy: -875529.4905031

| | | | |
|----|----------|----------|----------|
| O | 2.00817 | 2.91215 | -0.11369 |
| C | 2.58838 | 1.69280 | -0.10736 |
| C | 1.88841 | 0.47275 | -0.14841 |
| C | 0.41926 | 0.39235 | -0.18110 |
| N | -0.27515 | -0.66861 | -0.05976 |
| C | -1.67963 | -0.27474 | -0.27539 |
| C | -2.62331 | -1.14669 | 0.58608 |
| O | -2.05562 | -2.42646 | 0.79377 |
| C | -3.96246 | -1.42870 | -0.08945 |
| C | -4.82587 | -0.22144 | -0.32844 |
| O | -6.00700 | -0.55033 | -0.86026 |
| O | -4.50801 | 0.92531 | -0.08847 |
| C | -1.66037 | 1.24984 | -0.02492 |
| C | -1.88296 | 1.72011 | 1.40063 |
| O | -0.26111 | 1.55512 | -0.36304 |
| C | 2.60436 | -0.73611 | -0.13941 |
| C | 3.98271 | -0.72301 | -0.08530 |
| Cl | 4.86457 | -2.23308 | -0.07712 |
| C | 4.68897 | 0.48379 | -0.03923 |
| C | 3.99050 | 1.67764 | -0.05098 |
| H | 1.04049 | 2.83380 | -0.17622 |
| H | -1.90531 | -0.46476 | -1.33547 |

1c NMR Conformer 3

Energy: -875533.3646963

| | | | |
|----|----------|----------|----------|
| O | -1.44764 | 2.67149 | -0.06852 |
| C | -2.30574 | 1.63847 | -0.08407 |
| C | -1.87758 | 0.29680 | -0.10067 |
| C | -0.44610 | -0.00217 | -0.12231 |
| N | 0.47743 | 0.88963 | -0.08288 |
| C | 1.75447 | 0.17598 | -0.27386 |
| C | 2.89578 | 0.84803 | 0.52627 |
| O | 2.65204 | 2.23262 | 0.68101 |
| C | 4.24226 | 0.78815 | -0.18857 |
| C | 4.80614 | -0.59398 | -0.36354 |
| O | 5.99930 | -0.57417 | -0.96494 |
| O | 4.26072 | -1.62050 | -0.01391 |
| C | 1.37821 | -1.28407 | 0.07530 |
| C | 1.53606 | -1.71309 | 1.52226 |
| O | -0.06495 | -1.28424 | -0.21181 |
| C | -2.81765 | -0.74380 | -0.11501 |
| C | -4.16610 | -0.44046 | -0.11117 |
| Cl | -5.34412 | -1.73513 | -0.13163 |
| C | -4.60687 | 0.88625 | -0.09343 |
| C | -3.67970 | 1.91649 | -0.08019 |
| H | -0.52238 | 2.32161 | -0.08876 |
| H | 1.99636 | 0.24077 | -1.34536 |
| H | 2.98676 | 0.37561 | 1.51285 |
| H | 1.72937 | 2.35307 | 0.95239 |
| H | 4.97339 | 1.38455 | 0.36733 |
| H | 4.15368 | 1.25519 | -1.17719 |
| H | 6.32298 | -1.49230 | -1.06464 |
| H | 1.82714 | -2.00362 | -0.60644 |
| H | 2.59166 | -1.84275 | 1.76552 |
| H | 1.09474 | -0.97660 | 2.20157 |
| H | 1.02476 | -2.66732 | 1.66725 |
| H | -2.47631 | -1.77404 | -0.12979 |
| H | -5.67061 | 1.10410 | -0.09069 |
| H | -3.99816 | 2.95429 | -0.06695 |

1c NMR Conformer 2

Energy: -875532.5727857

| | | | |
|----|----------|----------|----------|
| O | -2.50030 | -2.75622 | -0.52402 |
| C | -2.76470 | -1.44514 | -0.34124 |
| C | -1.79013 | -0.43830 | -0.21118 |
| C | -0.34164 | -0.70138 | -0.25780 |
| N | 0.57957 | 0.14504 | -0.02196 |
| C | 1.85698 | -0.54205 | -0.25735 |
| C | 2.86307 | -0.16158 | 0.83749 |
| O | 2.30545 | -0.30926 | 2.12797 |
| C | 3.36216 | 1.27103 | 0.64455 |
| C | 4.29188 | 1.42662 | -0.53050 |
| O | 4.60784 | 2.70650 | -0.75313 |
| O | 4.72843 | 0.51439 | -1.20079 |
| C | 1.48132 | -2.04147 | -0.38204 |
| C | 1.73730 | -2.94354 | 0.81080 |
| O | 0.03849 | -1.96384 | -0.59688 |
| C | -2.19618 | 0.89245 | -0.02188 |
| C | -3.53855 | 1.20786 | 0.03774 |
| Cl | -4.02835 | 2.87042 | 0.26917 |
| C | -4.51424 | 0.21548 | -0.08958 |
| C | -4.12207 | -1.09804 | -0.27748 |
| H | -1.54177 | -2.91551 | -0.57390 |
| H | 2.26002 | -0.19414 | -1.21722 |
| H | 3.72020 | -0.84194 | 0.79168 |
| H | 1.47211 | 0.19372 | 2.15785 |
| H | 3.91093 | 1.58355 | 1.54037 |
| H | 2.52181 | 1.96544 | 0.52720 |
| H | 5.22837 | 2.75519 | -1.51061 |
| H | 1.90225 | -2.47498 | -1.29205 |
| H | 2.81034 | -3.00778 | 1.01194 |
| H | 1.24530 | -2.55885 | 1.70557 |
| H | 1.36812 | -3.94864 | 0.59256 |
| H | -1.43632 | 1.66204 | 0.07267 |
| H | -5.56807 | 0.47457 | -0.04317 |
| H | -4.85874 | -1.88932 | -0.37947 |

1b NMR Conformer 19

Energy: -875526.2154182

| | | | |
|---|----------|----------|----------|
| O | -0.83770 | -2.75189 | -0.25299 |
| C | -1.63405 | -1.66181 | -0.19974 |
| C | -1.21474 | -0.34505 | -0.46269 |
| C | 0.16780 | 0.00317 | -0.82778 |
| N | 0.64824 | 1.18095 | -0.91608 |
| C | 2.09204 | 1.01896 | -1.15644 |
| C | 2.89682 | 1.41398 | 0.10728 |
| O | 3.15284 | 2.80994 | 0.08772 |

| | | | |
|----|----------|----------|----------|
| C | 2.23519 | 1.07875 | 1.45973 |
| C | 2.09340 | -0.39093 | 1.76932 |
| O | 0.82247 | -0.77638 | 1.93247 |
| O | 3.03158 | -1.15095 | 1.90222 |
| C | 2.19852 | -0.42787 | -1.67379 |
| C | 3.43246 | -1.24716 | -1.37597 |
| O | 1.01470 | -1.03475 | -1.08706 |
| C | -2.13725 | 0.70798 | -0.34936 |
| C | -3.44655 | 0.45060 | 0.00643 |
| Cl | -4.58536 | 1.77234 | 0.13377 |
| C | -3.87584 | -0.85408 | 0.26543 |
| C | -2.96946 | -1.89581 | 0.16263 |
| H | 0.06034 | -2.51789 | -0.54060 |
| H | 2.41996 | 1.70814 | -1.94116 |
| H | 3.88235 | 0.93769 | 0.05724 |
| H | 2.30838 | 3.28509 | -0.00231 |
| H | 1.26308 | 1.57067 | 1.52414 |
| H | 2.89568 | 1.49270 | 2.22738 |
| H | 0.80479 | -1.73173 | 2.15201 |
| H | 2.01301 | -0.41254 | -2.75501 |
| H | 3.61190 | -1.34401 | -0.30438 |
| H | 3.33170 | -2.24440 | -1.80997 |
| H | 4.30089 | -0.76659 | -1.83693 |
| H | -1.79937 | 1.72038 | -0.54744 |
| H | -4.90736 | -1.04688 | 0.54448 |
| H | -3.27308 | -2.91908 | 0.36190 |

1b NMR Conformer 18

Energy: -875536.3383759

| | | | |
|----|----------|----------|----------|
| O | -0.40391 | 2.25349 | -0.40999 |
| C | -1.49449 | 1.48353 | -0.25604 |
| C | -1.43548 | 0.07554 | -0.22870 |
| C | -0.14195 | -0.58955 | -0.37830 |
| N | 0.97779 | 0.02364 | -0.50170 |
| C | 2.00743 | -0.99895 | -0.71690 |
| C | 3.28193 | -0.69037 | 0.06231 |
| O | 4.21252 | -1.67763 | -0.34145 |
| C | 3.78681 | 0.72308 | -0.25763 |
| C | 2.99845 | 1.77584 | 0.48232 |
| O | 2.60013 | 2.78361 | -0.30273 |
| O | 2.78213 | 1.74981 | 1.67504 |
| C | 1.28818 | -2.32357 | -0.35620 |
| C | 1.55943 | -2.88212 | 1.02682 |
| O | -0.11986 | -1.93316 | -0.41692 |
| C | -2.60679 | -0.67566 | -0.06243 |
| C | -3.81876 | -0.02489 | 0.07582 |
| Cl | -5.28308 | -0.95924 | 0.28338 |
| C | -3.89205 | 1.36991 | 0.05282 |
| C | -2.73572 | 2.11576 | -0.11240 |

| | | | |
|---|----------|----------|----------|
| H | 0.39148 | 1.67235 | -0.51646 |
| H | 2.28189 | -0.99592 | -1.78259 |
| H | 3.09230 | -0.75183 | 1.14166 |
| H | 4.97939 | -1.66561 | 0.25660 |
| H | 3.77164 | 0.91424 | -1.33396 |
| H | 4.82298 | 0.80761 | 0.09132 |
| H | 2.14396 | 3.45501 | 0.24916 |
| H | 1.43256 | -3.08528 | -1.12440 |
| H | 1.33422 | -2.13904 | 1.79858 |
| H | 0.93283 | -3.76053 | 1.19687 |
| H | 2.60890 | -3.17630 | 1.11102 |
| H | -2.55025 | -1.75986 | -0.04313 |
| H | -4.85262 | 1.86552 | 0.16333 |
| H | -2.77138 | 3.20096 | -0.13406 |

1b NMR Conformer 17

Energy: -875533.1031127

| | | | |
|----|----------|----------|----------|
| O | -2.49119 | -2.80743 | -0.51710 |
| C | -2.75258 | -1.49890 | -0.31198 |
| C | -1.77519 | -0.49718 | -0.16227 |
| C | -0.32770 | -0.76421 | -0.20599 |
| N | 0.59772 | 0.07523 | 0.03836 |
| C | 1.86637 | -0.61974 | -0.22045 |
| C | 2.93564 | -0.25606 | 0.81180 |
| O | 4.12744 | -0.97971 | 0.55890 |
| C | 3.17730 | 1.25155 | 0.89605 |
| C | 3.73553 | 1.84971 | -0.37000 |
| O | 3.64625 | 3.17974 | -0.38613 |
| O | 4.23988 | 1.21386 | -1.27641 |
| C | 1.47985 | -2.11758 | -0.25996 |
| C | 1.64825 | -2.89477 | 1.03192 |
| O | 0.05162 | -2.02791 | -0.55368 |
| C | -2.17798 | 0.83105 | 0.05010 |
| C | -3.51962 | 1.14953 | 0.11354 |
| Cl | -4.00405 | 2.80917 | 0.37681 |
| C | -4.49791 | 0.16262 | -0.03301 |
| C | -4.10890 | -1.14855 | -0.24431 |
| H | -1.53248 | -2.96795 | -0.56377 |
| H | 2.22646 | -0.30871 | -1.21168 |
| H | 2.59205 | -0.57916 | 1.80045 |
| H | 4.49864 | -0.66224 | -0.28187 |
| H | 3.90560 | 1.45644 | 1.69042 |
| H | 2.25389 | 1.77427 | 1.15823 |
| H | 4.05707 | 3.52003 | -1.20978 |
| H | 1.93933 | -2.63917 | -1.10107 |
| H | 1.11916 | -2.40219 | 1.85403 |
| H | 1.24115 | -3.90135 | 0.91145 |
| H | 2.70841 | -2.96959 | 1.28531 |
| H | -1.41574 | 1.59616 | 0.16105 |

| | | | |
|---|----------|----------|----------|
| H | -5.55118 | 0.42331 | 0.01704 |
| H | -4.84790 | -1.93556 | -0.36140 |

1b NMR Conformer 16

Energy: -875533.5766502

| | | | |
|----|----------|----------|----------|
| O | 0.37681 | -2.17228 | -1.28810 |
| C | 1.35293 | -1.36412 | -0.84711 |
| C | 1.14005 | -0.00507 | -0.52389 |
| C | -0.19709 | 0.57429 | -0.66125 |
| N | -1.22131 | -0.04802 | -1.12274 |
| C | -2.38209 | 0.84165 | -0.95957 |
| C | -3.34192 | 0.31135 | 0.13271 |
| O | -4.22210 | -0.66383 | -0.38459 |
| C | -2.59511 | -0.17485 | 1.38520 |
| C | -1.82885 | -1.46143 | 1.17520 |
| O | -0.62523 | -1.43718 | 1.75549 |
| O | -2.27478 | -2.45591 | 0.63303 |
| C | -1.71953 | 2.21278 | -0.67980 |
| C | -2.33694 | 3.13476 | 0.34808 |
| O | -0.37937 | 1.84130 | -0.24820 |
| C | 2.20125 | 0.78007 | -0.05158 |
| C | 3.45532 | 0.21497 | 0.09238 |
| Cl | 4.78101 | 1.19449 | 0.68037 |
| C | 3.68282 | -1.12749 | -0.22556 |
| C | 2.63629 | -1.90900 | -0.69185 |
| H | -0.46517 | -1.65288 | -1.35784 |
| H | -2.95327 | 0.87934 | -1.89136 |
| H | -3.98653 | 1.14253 | 0.43474 |
| H | -3.74114 | -1.50181 | -0.47910 |
| H | -3.31565 | -0.36262 | 2.19011 |
| H | -1.89762 | 0.58951 | 1.74017 |
| H | -0.20007 | -2.31285 | 1.64000 |
| H | -1.58775 | 2.73949 | -1.63184 |
| H | -2.41935 | 2.65680 | 1.32742 |
| H | -1.72389 | 4.03230 | 0.45252 |
| H | -3.33418 | 3.44107 | 0.02042 |
| H | 2.02730 | 1.82232 | 0.19639 |
| H | 4.67443 | -1.55332 | -0.10584 |
| H | 2.78958 | -2.95426 | -0.94186 |

1b NMR Conformer 15

Energy: -875531.4802164

| | | | |
|---|----------|----------|----------|
| O | -1.76959 | 2.71659 | -1.15485 |
| C | -2.27598 | 1.53861 | -0.73249 |
| C | -1.59814 | 0.61677 | 0.08762 |
| C | -0.23290 | 0.83491 | 0.59140 |
| N | 0.38652 | 0.10524 | 1.43348 |
| C | 1.75601 | 0.63785 | 1.51749 |
| C | 2.73498 | -0.33194 | 0.83306 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| O | 2.94527 | -1.47346 | 1.64379 | C | 2.89633 | -1.98767 | -0.14598 |
| C | 2.27974 | -0.76804 | -0.56647 | H | -0.24411 | -2.18863 | 0.21351 |
| C | 3.33192 | -1.61673 | -1.23243 | H | -2.10220 | 2.35623 | 1.42034 |
| O | 4.49984 | -0.97103 | -1.34445 | H | -3.84077 | 1.14462 | -0.01654 |
| O | 3.16650 | -2.75018 | -1.62700 | H | -2.08639 | 3.15303 | -0.95223 |
| C | 1.63361 | 2.04809 | 0.90498 | H | -1.36975 | 0.84359 | -1.80688 |
| C | 2.77559 | 2.60851 | 0.08648 | H | -3.06299 | 0.85713 | -2.37668 |
| O | 0.43993 | 1.90867 | 0.08259 | H | -3.73479 | -2.32697 | -1.27661 |
| C | -2.23962 | -0.57532 | 0.46238 | H | -1.68085 | 0.58681 | 2.83210 |
| C | -3.52359 | -0.83852 | 0.03031 | H | -3.48481 | -1.01555 | 0.92496 |
| Cl | -4.30940 | -2.32732 | 0.50231 | H | -3.05165 | -1.44311 | 2.58912 |
| C | -4.20568 | 0.07006 | -0.78367 | H | -4.02386 | 0.00038 | 2.27194 |
| C | -3.58049 | 1.24657 | -1.15697 | H | 2.12775 | 1.77919 | 0.29703 |
| H | -0.86208 | 2.84497 | -0.82771 | H | 4.92922 | -1.38492 | -0.51638 |
| H | 2.06827 | 0.70531 | 2.56440 | H | 3.08684 | -3.04857 | -0.27680 |
| H | 3.71275 | 0.15686 | 0.76415 | | | | |
| H | 2.08877 | -1.91219 | 1.79540 | | | | |
| H | 2.08264 | 0.10111 | -1.20459 | | | | |
| H | 1.36345 | -1.35902 | -0.49804 | | | | |
| H | 5.15240 | -1.56098 | -1.77677 | | | | |
| H | 1.36708 | 2.75290 | 1.70219 | | | | |
| H | 3.04345 | 1.96473 | -0.75397 | | | | |
| H | 2.50510 | 3.59231 | -0.30365 | | | | |
| H | 3.65407 | 2.72831 | 0.72693 | | | | |
| H | -1.70608 | -1.27923 | 1.09384 | | | | |
| H | -5.21580 | -0.14721 | -1.11898 | | | | |
| H | -4.08805 | 1.97024 | -1.78775 | | | | |

1b NMR Conformer 14

Energy: -875524.3062771

| | | | |
|----|----------|----------|----------|
| O | 0.65697 | -2.55447 | 0.25932 |
| C | 1.58690 | -1.58205 | 0.15201 |
| C | 1.31928 | -0.21279 | 0.32840 |
| C | -0.01901 | 0.28958 | 0.69289 |
| N | -0.49279 | 1.43656 | 0.40064 |
| C | -1.89036 | 1.43407 | 0.86897 |
| C | -2.84112 | 1.45278 | -0.34638 |
| O | -2.97580 | 2.78762 | -0.79851 |
| C | -2.40030 | 0.59051 | -1.54958 |
| C | -2.48144 | -0.89715 | -1.34769 |
| O | -3.73400 | -1.35591 | -1.42410 |
| O | -1.53240 | -1.62286 | -1.11100 |
| C | -1.94372 | 0.23023 | 1.82871 |
| C | -3.19791 | -0.61142 | 1.89684 |
| O | -0.80859 | -0.56403 | 1.39389 |
| C | 2.35087 | 0.72467 | 0.16681 |
| C | 3.63293 | 0.29801 | -0.13466 |
| Cl | 4.91469 | 1.47628 | -0.31964 |
| C | 3.91900 | -1.06021 | -0.28605 |

1b NMR Conformer 13

Energy: -875531.5614789

| | | | |
|----|----------|----------|----------|
| O | -0.72983 | 2.79207 | 0.06184 |
| C | -1.60798 | 1.77688 | 0.03626 |
| C | -1.26047 | 0.48228 | -0.39690 |
| C | 0.10946 | 0.21315 | -0.82107 |
| N | 1.03113 | 1.10604 | -0.89793 |
| C | 2.27610 | 0.40874 | -1.24404 |
| C | 3.29748 | 0.48826 | -0.08090 |
| O | 4.08608 | 1.65885 | -0.22542 |
| C | 2.68804 | 0.50880 | 1.33547 |
| C | 1.96957 | -0.74388 | 1.76472 |
| O | 2.81958 | -1.74076 | 2.05180 |
| O | 0.76773 | -0.86352 | 1.85721 |
| C | 1.76317 | -0.97461 | -1.71896 |
| C | 2.54603 | -2.21689 | -1.36831 |
| O | 0.42847 | -1.05018 | -1.14821 |
| C | -2.21590 | -0.54050 | -0.40312 |
| C | -3.50347 | -0.26889 | 0.01851 |
| Cl | -4.70356 | -1.54242 | 0.00532 |
| C | -3.86311 | 1.00836 | 0.45511 |
| C | -2.91847 | 2.02232 | 0.46379 |
| H | 0.14279 | 2.46340 | -0.27995 |
| H | 2.76205 | 0.91524 | -2.08366 |
| H | 4.00215 | -0.34564 | -0.16925 |
| H | 3.50374 | 2.43909 | -0.22811 |
| H | 1.98321 | 1.33960 | 1.41308 |
| H | 3.51950 | 0.67403 | 2.02600 |
| H | 2.30676 | -2.52659 | 2.33692 |
| H | 1.61722 | -0.92680 | -2.80478 |
| H | 2.67983 | -2.32927 | -0.29114 |
| H | 2.02668 | -3.09860 | -1.75008 |
| H | 3.53211 | -2.17250 | -1.83988 |

| | | | |
|---|----------|----------|----------|
| H | -1.93560 | -1.53459 | -0.73813 |
| H | -4.87965 | 1.20339 | 0.78405 |
| H | -3.17731 | 3.02214 | 0.79882 |

1b NMR Conformer 12

Energy: -875536.1029845

| | | | |
|----|----------|----------|----------|
| O | -1.30696 | 2.63310 | -0.05248 |
| C | -2.26406 | 1.69227 | -0.02531 |
| C | -1.98650 | 0.31749 | -0.17247 |
| C | -0.60698 | -0.11966 | -0.38083 |
| N | 0.40855 | 0.66414 | -0.41518 |
| C | 1.56826 | -0.17168 | -0.76039 |
| C | 2.83700 | 0.35863 | -0.08971 |
| O | 2.74368 | 0.38747 | 1.32070 |
| C | 4.06184 | -0.46353 | -0.45047 |
| C | 5.34316 | 0.23616 | -0.06305 |
| O | 6.34742 | -0.62988 | 0.11354 |
| O | 5.48050 | 1.43416 | 0.04303 |
| C | 1.07096 | -1.60358 | -0.44792 |
| C | 1.32958 | -2.17696 | 0.93535 |
| O | -0.37805 | -1.43240 | -0.56974 |
| C | -3.02668 | -0.62041 | -0.12542 |
| C | -4.32574 | -0.18665 | 0.06285 |
| Cl | -5.62732 | -1.35388 | 0.12215 |
| C | -4.61596 | 1.17236 | 0.20724 |
| C | -3.58986 | 2.10273 | 0.16254 |
| H | -0.42817 | 2.19206 | -0.18666 |
| H | 1.72512 | -0.08229 | -1.84665 |
| H | 2.98315 | 1.37818 | -0.47476 |
| H | 2.05227 | 1.02272 | 1.57358 |
| H | 4.10408 | -0.62506 | -1.53546 |
| H | 4.04265 | -1.44891 | 0.02268 |
| H | 7.16599 | -0.13184 | 0.32057 |
| H | 1.36646 | -2.30831 | -1.22865 |
| H | 0.97153 | -1.49615 | 1.71044 |
| H | 0.80395 | -3.13124 | 1.02172 |
| H | 2.39405 | -2.34682 | 1.10592 |
| H | -2.80201 | -1.67679 | -0.23788 |
| H | -5.64248 | 1.49554 | 0.35506 |
| H | -3.79468 | 3.16319 | 0.27487 |

1b NMR Conformer 11

Energy: -875530.9938087

| | | | |
|---|----------|---------|----------|
| O | -0.67131 | 2.80958 | -0.13129 |
| C | -1.54892 | 1.79333 | -0.11117 |
| C | -1.19012 | 0.47344 | -0.45033 |
| C | 0.19342 | 0.18197 | -0.81399 |
| N | 1.11765 | 1.06818 | -0.92076 |
| C | 2.37046 | 0.34091 | -1.17668 |

| | | | |
|----|----------|----------|----------|
| C | 3.31637 | 0.41959 | 0.04737 |
| O | 4.15074 | 1.56002 | -0.07017 |
| C | 2.62831 | 0.48551 | 1.42453 |
| C | 1.85397 | -0.74650 | 1.82279 |
| O | 0.55019 | -0.51219 | 1.99523 |
| O | 2.33989 | -1.85596 | 1.90958 |
| C | 1.85646 | -1.03979 | -1.64189 |
| C | 2.64917 | -2.28403 | -1.32024 |
| O | 0.53204 | -1.10212 | -1.04192 |
| C | -2.14406 | -0.55105 | -0.40786 |
| C | -3.44132 | -0.25556 | -0.03193 |
| Cl | -4.63628 | -1.53288 | 0.02456 |
| C | -3.81401 | 1.04838 | 0.30628 |
| C | -2.87116 | 2.06415 | 0.26609 |
| H | 0.21228 | 2.46159 | -0.41741 |
| H | 2.91465 | 0.81660 | -1.99834 |
| H | 3.99573 | -0.43934 | 0.01931 |
| H | 3.59446 | 2.35479 | -0.14892 |
| H | 1.98047 | 1.36365 | 1.46816 |
| H | 3.42978 | 0.59864 | 2.16023 |
| H | 0.09827 | -1.35559 | 2.21049 |
| H | 1.68226 | -0.98168 | -2.72348 |
| H | 2.78601 | -2.41488 | -0.24626 |
| H | 2.13656 | -3.16129 | -1.72103 |
| H | 3.63067 | -2.21888 | -1.79976 |
| H | -1.85468 | -1.56458 | -0.66819 |
| H | -4.83796 | 1.26220 | 0.59823 |
| H | -3.13911 | 3.08383 | 0.52545 |

1b NMR Conformer 10

Energy: -875527.0749117

| | | | |
|----|----------|----------|----------|
| O | 1.96988 | 2.71349 | -0.15979 |
| C | 2.63889 | 1.53884 | -0.14225 |
| C | 1.89803 | 0.34546 | -0.15615 |
| C | 0.42380 | 0.33836 | -0.22744 |
| N | -0.33752 | -0.44232 | 0.43531 |
| C | -1.69849 | -0.18889 | -0.07119 |
| C | -2.72852 | -0.38716 | 1.04000 |
| O | -2.49611 | 0.45510 | 2.15376 |
| C | -4.16055 | -0.13053 | 0.58712 |
| C | -4.68241 | -1.17018 | -0.37208 |
| O | -5.86653 | -0.81776 | -0.88376 |
| O | -4.12915 | -2.21293 | -0.64884 |
| C | -1.57388 | 1.18779 | -0.76436 |
| C | -1.83428 | 2.44027 | 0.05825 |
| O | -0.15695 | 1.19006 | -1.10468 |
| C | 2.56095 | -0.88252 | -0.07644 |
| C | 3.94524 | -0.91876 | -0.00586 |
| Cl | 4.76430 | -2.46126 | 0.08201 |

| | | | |
|---|----------|----------|----------|
| C | 4.69056 | 0.25728 | -0.00822 |
| C | 4.03442 | 1.48027 | -0.07218 |
| H | 2.59322 | 3.46107 | -0.10704 |
| H | -1.91022 | -0.95124 | -0.83513 |
| H | -2.64880 | -1.44032 | 1.34533 |
| H | -1.59198 | 0.28965 | 2.47191 |
| H | -4.28291 | 0.85693 | 0.13101 |
| H | -4.81582 | -0.14464 | 1.46646 |
| H | -6.18254 | -1.53079 | -1.47823 |
| H | -2.12434 | 1.21488 | -1.70815 |
| H | -1.21409 | 2.44665 | 0.95702 |
| H | -1.58594 | 3.31457 | -0.54871 |
| H | -2.87860 | 2.50990 | 0.36830 |
| H | 1.97885 | -1.79939 | -0.07870 |
| H | 5.77476 | 0.21995 | 0.04447 |
| H | 4.60616 | 2.40551 | -0.05854 |

1b NMR Conformer 9

Energy: -875533.0536399

| | | | |
|----|----------|----------|----------|
| O | 0.35946 | -2.26052 | -0.77817 |
| C | 1.41494 | -1.48294 | -0.50861 |
| C | 1.32961 | -0.08474 | -0.37908 |
| C | 0.04319 | 0.58392 | -0.53073 |
| N | -1.06847 | 0.00048 | -0.80397 |
| C | -2.07635 | 1.06110 | -0.93027 |
| C | -3.45961 | 0.66405 | -0.38481 |
| O | -4.17496 | -0.09209 | -1.34811 |
| C | -3.46055 | -0.04097 | 0.98246 |
| C | -2.67153 | -1.32388 | 1.00774 |
| O | -1.78333 | -1.37319 | 1.99880 |
| O | -2.87381 | -2.26835 | 0.27400 |
| C | -1.36291 | 2.30653 | -0.33372 |
| C | -1.67489 | 2.70104 | 1.09610 |
| O | 0.04318 | 1.92116 | -0.38414 |
| C | 2.47506 | 0.66583 | -0.09873 |
| C | 3.68679 | 0.02534 | 0.05365 |
| Cl | 5.12189 | 0.96397 | 0.40392 |
| C | 3.78607 | -1.36027 | -0.06688 |
| C | 2.65532 | -2.10526 | -0.34725 |
| H | -0.43201 | -1.67993 | -0.91187 |
| H | -2.24470 | 1.23289 | -2.00168 |
| H | -4.03941 | 1.58746 | -0.26541 |
| H | -3.76230 | -0.96967 | -1.44297 |
| H | -4.50012 | -0.30754 | 1.20280 |
| H | -3.10574 | 0.61678 | 1.77543 |
| H | -1.33250 | -2.24811 | 1.97900 |
| H | -1.47351 | 3.16334 | -1.00152 |
| H | -1.39087 | 1.90613 | 1.79072 |
| H | -1.10211 | 3.59562 | 1.35222 |

| | | | |
|---|----------|----------|----------|
| H | -2.73967 | 2.92727 | 1.21603 |
| H | 2.39714 | 1.74539 | 0.00005 |
| H | 4.74844 | -1.84964 | 0.05752 |
| H | 2.70948 | -3.18551 | -0.44751 |

1b NMR Conformer 8

Energy: -875535.9737803

| | | | |
|----|----------|----------|----------|
| O | 0.99435 | -2.29555 | -1.45234 |
| C | 1.86350 | -1.49596 | -0.81478 |
| C | 1.57255 | -0.15265 | -0.49769 |
| C | 0.27205 | 0.40518 | -0.86300 |
| N | -0.63732 | -0.22794 | -1.51307 |
| C | -1.82960 | 0.63427 | -1.52235 |
| C | -2.90644 | 0.05754 | -0.58658 |
| O | -3.53731 | -1.06123 | -1.18121 |
| C | -2.36447 | -0.32550 | 0.79729 |
| C | -3.47863 | -0.78487 | 1.70219 |
| O | -4.42123 | 0.15405 | 1.85393 |
| O | -3.53500 | -1.86758 | 2.24237 |
| C | -1.24981 | 2.01581 | -1.14806 |
| C | -2.06953 | 2.95762 | -0.29361 |
| O | -0.01255 | 1.66038 | -0.46424 |
| C | 2.51933 | 0.63536 | 0.17161 |
| C | 3.73901 | 0.08499 | 0.51764 |
| Cl | 4.92486 | 1.06430 | 1.35098 |
| C | 4.04064 | -1.24474 | 0.21111 |
| C | 3.10767 | -2.02697 | -0.45050 |
| H | 0.16684 | -1.78191 | -1.64142 |
| H | -2.26842 | 0.66387 | -2.52447 |
| H | -3.69846 | 0.80585 | -0.47569 |
| H | -2.86926 | -1.74902 | -1.35431 |
| H | -1.86137 | 0.52560 | 1.27097 |
| H | -1.64574 | -1.14368 | 0.70821 |
| H | -5.12410 | -0.18867 | 2.44529 |
| H | -0.94548 | 2.52390 | -2.07146 |
| H | -2.35477 | 2.51473 | 0.66314 |
| H | -1.49794 | 3.86718 | -0.09635 |
| H | -2.97903 | 3.23864 | -0.83231 |
| H | 2.28580 | 1.66875 | 0.40963 |
| H | 5.00389 | -1.66116 | 0.49200 |
| H | 3.32307 | -3.06257 | -0.69615 |

1b NMR Conformer 7

Energy: -875537.6477371

| | | | |
|---|----------|----------|----------|
| O | 0.67220 | -2.35646 | 0.57768 |
| C | 1.76218 | -1.60808 | 0.34479 |
| C | 1.68891 | -0.24525 | -0.01146 |
| C | 0.37990 | 0.39258 | -0.14549 |
| N | -0.73926 | -0.19779 | 0.06768 |

| | | | |
|----|----------|----------|----------|
| C | -1.79554 | 0.76406 | -0.27064 |
| C | -2.95891 | 0.71571 | 0.72250 |
| O | -3.93127 | 1.68662 | 0.37968 |
| C | -3.55884 | -0.68527 | 0.85345 |
| C | -4.18642 | -1.19513 | -0.41872 |
| O | -4.38414 | -2.51248 | -0.39742 |
| O | -4.50825 | -0.49601 | -1.36094 |
| C | -1.04241 | 2.11675 | -0.33798 |
| C | -1.08901 | 2.97935 | 0.90923 |
| O | 0.33920 | 1.68081 | -0.53023 |
| C | 2.86125 | 0.48737 | -0.24003 |
| C | 4.08878 | -0.13655 | -0.11477 |
| Cl | 5.55461 | 0.77536 | -0.39785 |
| C | 4.17687 | -1.48602 | 0.23644 |
| C | 3.01946 | -2.21398 | 0.46393 |
| H | -0.13475 | -1.79251 | 0.44974 |
| H | -2.18360 | 0.50818 | -1.26672 |
| H | -2.58714 | 0.99733 | 1.71336 |
| H | -4.34173 | 1.41781 | -0.45966 |
| H | -4.35185 | -0.66551 | 1.61119 |
| H | -2.80549 | -1.40110 | 1.19272 |
| H | -4.83054 | -2.78532 | -1.22752 |
| H | -1.31530 | 2.68987 | -1.22558 |
| H | -0.74121 | 2.41887 | 1.78293 |
| H | -0.44105 | 3.84851 | 0.77624 |
| H | -2.11080 | 3.32182 | 1.08937 |
| H | 2.79388 | 1.53627 | -0.51258 |
| H | 5.14957 | -1.96036 | 0.33043 |
| H | 3.06702 | -3.26361 | 0.73794 |

1b NMR Conformer 6

Energy: -875531.8549964

| | | | |
|---|----------|----------|----------|
| O | 1.74742 | 2.68882 | 1.21888 |
| C | 2.25558 | 1.52397 | 0.76301 |
| C | 1.57833 | 0.62638 | -0.08411 |
| C | 0.21413 | 0.86101 | -0.58286 |
| N | -0.39707 | 0.16917 | -1.46173 |
| C | -1.77007 | 0.69671 | -1.52730 |
| C | -2.73906 | -0.32025 | -0.90199 |
| O | -2.91339 | -1.42315 | -1.77516 |
| C | -2.29287 | -0.81255 | 0.47365 |
| C | -3.40572 | -1.53327 | 1.19531 |
| O | -2.93618 | -2.40239 | 2.09743 |
| O | -4.58909 | -1.34263 | 1.01854 |
| C | -1.66265 | 2.07269 | -0.83853 |
| C | -2.81188 | 2.56875 | 0.01078 |
| O | -0.46791 | 1.90390 | -0.02358 |
| C | 2.21969 | -0.55392 | -0.49343 |
| C | 3.50388 | -0.82926 | -0.06903 |

| | | | |
|----|----------|----------|----------|
| Cl | 4.28934 | -2.30425 | -0.58211 |
| C | 4.18574 | 0.05585 | 0.77055 |
| C | 3.56026 | 1.22089 | 1.17832 |
| H | 0.83740 | 2.82142 | 0.90038 |
| H | -2.07486 | 0.81760 | -2.57143 |
| H | -3.72878 | 0.14114 | -0.81940 |
| H | -2.04238 | -1.82308 | -1.94671 |
| H | -1.97333 | 0.01256 | 1.12390 |
| H | -1.43189 | -1.48169 | 0.37983 |
| H | -3.69161 | -2.81439 | 2.56703 |
| H | -1.40600 | 2.82481 | -1.59462 |
| H | -3.06884 | 1.87175 | 0.81164 |
| H | -2.55557 | 3.53131 | 0.45911 |
| H | -3.69300 | 2.71285 | -0.62081 |
| H | 1.68661 | -1.23949 | -1.14516 |
| H | 5.19590 | -0.17087 | 1.09933 |
| H | 4.06801 | 1.92585 | 1.82974 |

1b NMR Conformer 5

Energy: -875532.1193787

| | | | |
|----|----------|----------|----------|
| O | 0.30974 | -2.26000 | -0.85247 |
| C | 1.35812 | -1.46937 | -0.56576 |
| C | 1.24716 | -0.06605 | -0.45924 |
| C | -0.05606 | 0.56376 | -0.66585 |
| N | -1.11692 | -0.07345 | -0.99482 |
| C | -2.21020 | 0.90007 | -1.06588 |
| C | -3.47990 | 0.32715 | -0.40809 |
| O | -3.93866 | -0.74980 | -1.20443 |
| C | -3.38787 | -0.09843 | 1.07419 |
| C | -2.21403 | -0.98399 | 1.42008 |
| O | -2.31091 | -2.20114 | 0.86461 |
| O | -1.28835 | -0.65806 | 2.13444 |
| C | -1.57482 | 2.22464 | -0.54883 |
| C | -1.98678 | 2.76634 | 0.80683 |
| O | -0.15707 | 1.88905 | -0.47567 |
| C | 2.37104 | 0.70822 | -0.14230 |
| C | 3.59023 | 0.08615 | 0.05816 |
| Cl | 4.99708 | 1.05068 | 0.44827 |
| C | 3.71732 | -1.30167 | -0.04762 |
| C | 2.60599 | -2.07218 | -0.35673 |
| H | -0.48655 | -1.68659 | -1.00502 |
| H | -2.47991 | 1.02667 | -2.12130 |
| H | -4.26529 | 1.08955 | -0.46870 |
| H | -3.24559 | -1.43143 | -1.23611 |
| H | -4.30634 | -0.65496 | 1.28365 |
| H | -3.35353 | 0.76756 | 1.73240 |
| H | -1.51651 | -2.72414 | 1.10402 |
| H | -1.66799 | 2.99995 | -1.31272 |
| H | -1.70716 | 2.07157 | 1.60208 |

| | | | |
|---|----------|----------|----------|
| H | -1.47616 | 3.71543 | 0.98432 |
| H | -3.06519 | 2.94880 | 0.83910 |
| H | 2.27358 | 1.78607 | -0.05738 |
| H | 4.68266 | -1.77241 | 0.11384 |
| H | 2.68266 | -3.15188 | -0.44055 |

1b NMR Conformer 4

Energy: -875536.3348995

| | | | |
|----|----------|----------|----------|
| O | 0.99527 | -2.22236 | -1.58625 |
| C | 1.85511 | -1.44777 | -0.90640 |
| C | 1.55196 | -0.12283 | -0.52957 |
| C | 0.24753 | 0.43812 | -0.87411 |
| N | -0.65259 | -0.17713 | -1.55294 |
| C | -1.85441 | 0.67221 | -1.53168 |
| C | -2.92314 | 0.03647 | -0.62788 |
| O | -3.52424 | -1.06892 | -1.28008 |
| C | -2.38285 | -0.39240 | 0.73534 |
| C | -3.49757 | -0.68575 | 1.71040 |
| O | -3.10700 | -1.52091 | 2.67907 |
| O | -4.61002 | -0.20810 | 1.66108 |
| C | -1.29269 | 2.04126 | -1.09082 |
| C | -2.12823 | 2.92365 | -0.18999 |
| O | -0.05091 | 1.67235 | -0.42268 |
| C | 2.48860 | 0.64121 | 0.18032 |
| C | 3.71069 | 0.08466 | 0.50818 |
| Cl | 4.88423 | 1.03283 | 1.39313 |
| C | 4.02445 | -1.22752 | 0.14307 |
| C | 3.10121 | -1.98582 | -0.55926 |
| H | 0.16630 | -1.70483 | -1.75889 |
| H | -2.28646 | 0.74160 | -2.53454 |
| H | -3.73328 | 0.75952 | -0.48614 |
| H | -2.83132 | -1.71429 | -1.50678 |
| H | -1.75468 | 0.38285 | 1.19409 |
| H | -1.75097 | -1.28068 | 0.63451 |
| H | -3.84687 | -1.64741 | 3.30993 |
| H | -0.99510 | 2.59934 | -1.98702 |
| H | -1.57135 | 3.82918 | 0.06042 |
| H | -3.04045 | 3.21985 | -0.71563 |
| H | -2.40939 | 2.42257 | 0.73919 |
| H | 2.24545 | 1.66065 | 0.46430 |
| H | 4.98939 | -1.64886 | 0.41019 |
| H | 3.32615 | -3.00724 | -0.85110 |

1b NMR Conformer 3

Energy: -875529.5350123

| | | | |
|---|---------|---------|----------|
| O | 2.02031 | 2.86157 | -0.28372 |
| C | 2.56333 | 1.62655 | -0.23234 |
| C | 1.82998 | 0.42679 | -0.16350 |
| C | 0.35952 | 0.37870 | -0.13201 |

| | | | |
|----|----------|----------|----------|
| N | -0.35802 | -0.65656 | 0.05785 |
| C | -1.75205 | -0.21923 | -0.11584 |
| C | -2.68299 | -1.04312 | 0.77491 |
| O | -2.35398 | -0.94973 | 2.14405 |
| C | -4.15609 | -0.63800 | 0.64746 |
| C | -4.60879 | -0.73421 | -0.78764 |
| O | -4.66451 | 0.46075 | -1.38808 |
| O | -4.85891 | -1.77352 | -1.35874 |
| C | -1.68476 | 1.31448 | 0.05661 |
| C | -1.85729 | 1.89454 | 1.45034 |
| O | -0.29739 | 1.55661 | -0.34033 |
| C | 2.51526 | -0.79774 | -0.11060 |
| C | 3.89531 | -0.82319 | -0.12233 |
| Cl | 4.73359 | -2.35621 | -0.05320 |
| C | 4.63279 | 0.36174 | -0.19087 |
| C | 3.96465 | 1.57243 | -0.24566 |
| H | 1.04839 | 2.81412 | -0.28754 |
| H | -2.03019 | -0.43854 | -1.15971 |
| H | -2.58500 | -2.08478 | 0.43401 |
| H | -1.44307 | -1.27183 | 2.26088 |
| H | -4.30934 | 0.37568 | 1.02224 |
| H | -4.75223 | -1.33266 | 1.24381 |
| H | -4.93079 | 0.33833 | -2.32475 |
| H | -2.31395 | 1.82896 | -0.67233 |
| H | -1.17618 | 1.41636 | 2.15757 |
| H | -1.64588 | 2.96640 | 1.41425 |
| H | -2.87504 | 1.75318 | 1.81758 |
| H | 1.93928 | -1.71678 | -0.06151 |
| H | 5.71847 | 0.33113 | -0.20250 |
| H | 4.51323 | 2.50803 | -0.29929 |

1b NMR Conformer 2

Energy: -875530.6456162

| | | | |
|---|----------|----------|----------|
| O | 2.15605 | 2.83575 | -0.45389 |
| C | 2.66328 | 1.59111 | -0.32591 |
| C | 1.89448 | 0.41818 | -0.20524 |
| C | 0.42270 | 0.41450 | -0.19357 |
| N | -0.32763 | -0.58362 | 0.05374 |
| C | -1.70810 | -0.11901 | -0.16017 |
| C | -2.66715 | -0.84500 | 0.78341 |
| O | -2.33996 | -0.64920 | 2.14610 |
| C | -4.11945 | -0.41694 | 0.61245 |
| C | -4.72657 | -0.86672 | -0.69259 |
| O | -5.93865 | -0.33523 | -0.88106 |
| O | -4.21016 | -1.62876 | -1.48161 |
| C | -1.59335 | 1.42152 | -0.09155 |
| C | -1.76488 | 2.10500 | 1.25500 |
| O | -0.19619 | 1.59613 | -0.48753 |
| C | 2.54296 | -0.82033 | -0.07340 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| C | 3.92177 | -0.88475 | -0.05850 | H | 0.87392 | -1.39453 | 2.15836 |
| Cl | 4.71509 | -2.43432 | 0.10602 | H | 0.92849 | -3.01687 | 1.42543 |
| C | 4.69430 | 0.27357 | -0.17681 | H | 2.42839 | -2.12909 | 1.76338 |
| C | 4.06246 | 1.49764 | -0.30966 | H | -2.54601 | -1.71134 | -0.31823 |
| H | 1.18347 | 2.81379 | -0.47771 | H | -5.61101 | 1.29546 | -0.08852 |
| H | -1.99494 | -0.40592 | -1.18215 | H | -3.86456 | 3.05768 | 0.12580 |
| H | -2.59168 | -1.91172 | 0.52932 | | | | |
| H | -1.43446 | -0.97434 | 2.28951 | | | | |
| H | -4.25011 | 0.66624 | 0.70231 | | | | |
| H | -4.71452 | -0.86405 | 1.41776 | | | | |
| H | -6.30735 | -0.67227 | -1.72504 | | | | |
| H | -2.19597 | 1.90644 | -0.86310 | | | | |
| H | -1.09535 | 1.66923 | 1.99950 | | | | |
| H | -1.53639 | 3.16810 | 1.14274 | | | | |
| H | -2.78638 | 2.00469 | 1.62605 | | | | |
| H | 1.93994 | -1.71886 | 0.01502 | | | | |
| H | 5.77867 | 0.21200 | -0.16637 | | | | |
| H | 4.63857 | 2.41336 | -0.40321 | | | | |

1b NMR Conformer 1

Energy: -875535.0092543

| | | | |
|----|----------|----------|----------|
| O | -1.32989 | 2.66524 | 0.14670 |
| C | -2.22849 | 1.67525 | 0.02483 |
| C | -1.85813 | 0.32002 | -0.10264 |
| C | -0.44120 | -0.03975 | -0.11715 |
| N | 0.52410 | 0.79531 | 0.01177 |
| C | 1.76480 | 0.02840 | -0.17596 |
| C | 2.88836 | 0.60410 | 0.68731 |
| O | 2.57389 | 0.59508 | 2.06632 |
| C | 4.20780 | -0.14128 | 0.52904 |
| C | 4.85018 | 0.06125 | -0.82028 |
| O | 5.92718 | -0.71515 | -0.97359 |
| O | 4.46799 | 0.83542 | -1.67136 |
| C | 1.30516 | -1.43499 | 0.03818 |
| C | 1.39238 | -2.02739 | 1.43520 |
| O | -0.11683 | -1.33507 | -0.29167 |
| C | -2.84170 | -0.67096 | -0.22174 |
| C | -4.17624 | -0.30939 | -0.21549 |
| Cl | -5.40677 | -1.54318 | -0.36615 |
| C | -4.55785 | 1.02906 | -0.09136 |
| C | -3.58801 | 2.01219 | 0.02793 |
| H | -0.41827 | 2.27471 | 0.12133 |
| H | 2.07416 | 0.15524 | -1.22311 |
| H | 3.03634 | 1.63728 | 0.34226 |
| H | 1.76971 | 1.12565 | 2.20007 |
| H | 4.10608 | -1.21666 | 0.70684 |
| H | 4.91247 | 0.22806 | 1.28352 |
| H | 6.32751 | -0.53683 | -1.85084 |
| H | 1.74781 | -2.10494 | -0.70264 |

1a NMR Conformer 28

Energy: -875532.9115592

| | | | |
|----|----------|----------|----------|
| O | 1.17358 | 1.50477 | 2.30294 |
| C | 1.99484 | 0.79476 | 1.49960 |
| C | 1.54367 | 0.40433 | 0.22725 |
| C | 0.20918 | 0.74557 | -0.30507 |
| N | -0.40787 | 0.05502 | -1.18708 |
| C | -1.69581 | 0.71892 | -1.40916 |
| C | -2.82491 | -0.18375 | -0.89963 |
| O | -2.85581 | -1.38737 | -1.66596 |
| C | -2.69802 | -0.51487 | 0.59324 |
| C | -3.85632 | -1.32975 | 1.14105 |
| O | -4.35146 | -2.28186 | 0.34691 |
| O | -4.31184 | -1.16498 | 2.25186 |
| C | -1.56496 | 2.07079 | -0.67758 |
| C | -1.32550 | 3.24258 | -1.60881 |
| O | -0.38508 | 1.87234 | 0.14441 |
| C | 2.37720 | -0.36966 | -0.59012 |
| C | 3.63931 | -0.73228 | -0.15402 |
| Cl | 4.67166 | -1.68504 | -1.19508 |
| C | 4.10035 | -0.34273 | 1.10215 |
| C | 3.27508 | 0.41377 | 1.92106 |
| H | 1.60240 | 1.67495 | 3.16131 |
| H | -1.85982 | 0.86282 | -2.48424 |
| H | -3.78257 | 0.31567 | -1.09276 |
| H | -1.94918 | -1.74811 | -1.71347 |
| H | -2.62338 | 0.38890 | 1.20292 |
| H | -1.78075 | -1.09892 | 0.74925 |
| H | -3.89303 | -2.26809 | -0.52358 |
| H | -2.39892 | 2.27377 | 0.00255 |
| H | -2.21574 | 3.41621 | -2.22044 |
| H | -1.10876 | 4.14905 | -1.03973 |
| H | -0.48217 | 3.02950 | -2.27322 |
| H | 2.01874 | -0.67072 | -1.56954 |
| H | 5.09265 | -0.62947 | 1.43756 |
| H | 3.61764 | 0.71567 | 2.90828 |

1a NMR Conformer 27

Energy: -875539.1679980

| | | | |
|---|----------|----------|---------|
| O | -0.91774 | -1.32992 | 2.34509 |
| C | -1.80496 | -0.97180 | 1.40332 |
| C | -1.53444 | 0.01868 | 0.43629 |

| | | | |
|----|----------|----------|----------|
| C | -0.23479 | 0.68796 | 0.43496 |
| N | 0.70274 | 0.46384 | 1.28294 |
| C | 1.86051 | 1.26038 | 0.86416 |
| C | 2.98286 | 0.34267 | 0.35862 |
| O | 3.49170 | -0.44876 | 1.41488 |
| C | 2.53940 | -0.54565 | -0.81024 |
| C | 3.66373 | -1.44971 | -1.24847 |
| O | 4.75426 | -0.76175 | -1.60586 |
| O | 3.60784 | -2.65967 | -1.28365 |
| C | 1.28144 | 2.21439 | -0.20437 |
| C | 1.02471 | 3.61808 | 0.30517 |
| O | 0.00731 | 1.59188 | -0.53246 |
| C | -2.50268 | 0.35250 | -0.52080 |
| C | -3.72272 | -0.29736 | -0.50992 |
| Cl | -4.93332 | 0.11812 | -1.70137 |
| C | -4.00375 | -1.28215 | 0.44098 |
| C | -3.04951 | -1.61457 | 1.38952 |
| H | -0.09538 | -0.78789 | 2.23376 |
| H | 2.25818 | 1.81753 | 1.72049 |
| H | 3.81520 | 0.97708 | 0.03315 |
| H | 2.76607 | -0.98165 | 1.78740 |
| H | 2.23950 | 0.06793 | -1.66849 |
| H | 1.69751 | -1.17890 | -0.51792 |
| H | 5.45570 | -1.39127 | -1.87515 |
| H | 1.87112 | 2.22928 | -1.12675 |
| H | 1.97640 | 4.10708 | 0.53214 |
| H | 0.49689 | 4.20924 | -0.44638 |
| H | 0.42305 | 3.58395 | 1.21906 |
| H | -2.28568 | 1.11748 | -1.26013 |
| H | -4.96765 | -1.78330 | 0.43522 |
| H | -3.24948 | -2.37643 | 2.13701 |

1a NMR Conformer 26
Energy: -875534.8899899

| | | | |
|---|----------|----------|----------|
| O | 1.81485 | 2.36033 | 1.68582 |
| C | 2.28125 | 1.27196 | 1.03736 |
| C | 1.56226 | 0.53261 | 0.07907 |
| C | 0.18974 | 0.86306 | -0.33729 |
| N | -0.46899 | 0.30401 | -1.27321 |
| C | -1.81410 | 0.89311 | -1.25608 |
| C | -2.83685 | -0.15999 | -0.80925 |
| O | -2.93332 | -1.18925 | -1.77613 |
| C | -2.51354 | -0.74901 | 0.56228 |
| C | -3.64138 | -1.61552 | 1.06770 |
| O | -3.20503 | -2.59655 | 1.86515 |
| O | -4.81454 | -1.44225 | 0.81849 |
| C | -1.69438 | 2.11294 | -0.31836 |
| C | -1.59471 | 3.43767 | -1.04677 |
| O | -0.43731 | 1.84955 | 0.36532 |

| | | | |
|----|----------|----------|----------|
| C | 2.16606 | -0.58048 | -0.52823 |
| C | 3.45325 | -0.94481 | -0.18882 |
| Cl | 4.18959 | -2.33534 | -0.95114 |
| C | 4.17627 | -0.21738 | 0.76036 |
| C | 3.58799 | 0.88032 | 1.36348 |
| H | 0.89892 | 2.55950 | 1.42581 |
| H | -2.09102 | 1.20324 | -2.27061 |
| H | -3.82508 | 0.31268 | -0.77297 |
| H | -2.04098 | -1.54536 | -1.93474 |
| H | -2.36420 | 0.03936 | 1.31275 |
| H | -1.59170 | -1.33745 | 0.52445 |
| H | -3.97603 | -3.10210 | 2.19945 |
| H | -2.47168 | 2.13987 | 0.45237 |
| H | -2.54196 | 3.65015 | -1.55059 |
| H | -1.38064 | 4.24951 | -0.34803 |
| H | -0.80114 | 3.39548 | -1.79949 |
| H | 1.60102 | -1.14436 | -1.26409 |
| H | 5.18843 | -0.51246 | 1.02157 |
| H | 4.12753 | 1.46307 | 2.10407 |

1a NMR Conformer 24
Energy: -875540.9871794

| | | | |
|----|----------|----------|----------|
| O | -1.37033 | -2.54378 | 0.95963 |
| C | -2.25452 | -1.64016 | 0.50702 |
| C | -1.90591 | -0.29965 | 0.23974 |
| C | -0.52812 | 0.14211 | 0.45525 |
| N | 0.41700 | -0.61600 | 0.87749 |
| C | 1.63441 | 0.19392 | 0.94639 |
| C | 2.72329 | -0.43212 | 0.06788 |
| O | 2.31942 | -0.46702 | -1.28915 |
| C | 4.01545 | 0.36446 | 0.12343 |
| C | 5.14797 | -0.36793 | -0.55677 |
| O | 6.05994 | 0.47132 | -1.05754 |
| O | 5.25091 | -1.57280 | -0.62498 |
| C | 1.18287 | 1.60100 | 0.47854 |
| C | 1.35957 | 2.69419 | 1.51000 |
| O | -0.23440 | 1.42690 | 0.19997 |
| C | -2.87257 | 0.59990 | -0.22877 |
| C | -4.16955 | 0.16327 | -0.42690 |
| Cl | -5.37943 | 1.28395 | -1.00881 |
| C | -4.52890 | -1.16184 | -0.16762 |
| C | -3.57559 | -2.05485 | 0.29608 |
| H | -0.48768 | -2.10147 | 1.06557 |
| H | 1.99558 | 0.21401 | 1.98466 |
| H | 2.91245 | -1.44916 | 0.43594 |
| H | 1.63401 | -1.14838 | -1.39769 |
| H | 4.31944 | 0.52621 | 1.16609 |
| H | 3.89437 | 1.34699 | -0.34344 |
| H | 6.79228 | -0.05043 | -1.44943 |

| | | | |
|---|----------|----------|----------|
| H | 1.64545 | 1.86904 | -0.47715 |
| H | 2.42560 | 2.83385 | 1.71601 |
| H | 0.94973 | 3.64073 | 1.15029 |
| H | 0.85859 | 2.41961 | 2.44321 |
| H | -2.59464 | 1.62985 | -0.43142 |
| H | -5.55238 | -1.48861 | -0.32865 |
| H | -3.83612 | -3.08825 | 0.50433 |

1a NMR Conformer 23

Energy: -875537.8587497

| | | | |
|----|----------|----------|----------|
| O | 0.36522 | -1.98446 | -1.44924 |
| C | 1.39031 | -1.29308 | -0.93037 |
| C | 1.24686 | -0.00605 | -0.37161 |
| C | -0.06851 | 0.63088 | -0.35184 |
| N | -1.15152 | 0.08314 | -0.77103 |
| C | -2.23166 | 1.06059 | -0.59584 |
| C | -3.44474 | 0.46912 | 0.13758 |
| O | -4.27377 | -0.25689 | -0.74328 |
| C | -3.06163 | -0.36112 | 1.37500 |
| C | -2.36143 | -1.65604 | 1.04106 |
| O | -1.19676 | -1.79795 | 1.67874 |
| O | -2.80259 | -2.50184 | 0.28982 |
| C | -1.55671 | 2.24287 | 0.13836 |
| C | -1.73448 | 3.58645 | -0.52909 |
| O | -0.14572 | 1.88024 | 0.13757 |
| C | 2.36034 | 0.65940 | 0.15850 |
| C | 3.59747 | 0.04693 | 0.12567 |
| Cl | 4.99058 | 0.87594 | 0.78745 |
| C | 3.75696 | -1.22480 | -0.42925 |
| C | 2.65927 | -1.88630 | -0.95314 |
| H | -0.46296 | -1.44432 | -1.37148 |
| H | -2.58770 | 1.37525 | -1.58705 |
| H | -4.05374 | 1.31467 | 0.48356 |
| H | -3.84101 | -1.09999 | -0.96315 |
| H | -3.98385 | -0.63396 | 1.89972 |
| H | -2.44235 | 0.21819 | 2.06363 |
| H | -0.80266 | -2.66279 | 1.43214 |
| H | -1.86109 | 2.29208 | 1.19141 |
| H | -2.79773 | 3.84654 | -0.54149 |
| H | -1.19382 | 4.36608 | 0.01182 |
| H | -1.37229 | 3.54646 | -1.56020 |
| H | 2.23834 | 1.64913 | 0.58837 |
| H | 4.73843 | -1.69020 | -0.44678 |
| H | 2.76006 | -2.87593 | -1.38890 |

1a NMR Conformer 22

Energy: -875536.7003924

| | | | |
|---|---------|----------|----------|
| O | 0.32419 | -2.03871 | -1.41694 |
| C | 1.34462 | -1.31598 | -0.92517 |

| | | | |
|----|----------|----------|----------|
| C | 1.18287 | -0.00762 | -0.42611 |
| C | -0.14014 | 0.60907 | -0.42617 |
| N | -1.18918 | 0.05959 | -0.91980 |
| C | -2.30875 | 0.97282 | -0.69647 |
| C | -3.47504 | 0.24867 | -0.01011 |
| O | -4.02375 | -0.72038 | -0.88111 |
| C | -3.14499 | -0.34833 | 1.37281 |
| C | -2.01185 | -1.34576 | 1.38662 |
| O | -2.26808 | -2.41768 | 0.62285 |
| O | -0.97743 | -1.21402 | 2.00588 |
| C | -1.68678 | 2.15069 | 0.09174 |
| C | -1.86440 | 3.50323 | -0.55998 |
| O | -0.27125 | 1.82221 | 0.13616 |
| C | 2.28171 | 0.69186 | 0.08768 |
| C | 3.52780 | 0.09242 | 0.09418 |
| Cl | 4.90204 | 0.96347 | 0.73259 |
| C | 3.70517 | -1.20010 | -0.40522 |
| C | 2.61809 | -1.89713 | -0.91065 |
| H | -0.50097 | -1.49197 | -1.37228 |
| H | -2.68763 | 1.31327 | -1.66904 |
| H | -4.27030 | 0.98519 | 0.15690 |
| H | -3.33912 | -1.37436 | -1.09378 |
| H | -4.05198 | -0.85587 | 1.71433 |
| H | -2.89959 | 0.43583 | 2.09165 |
| H | -1.49303 | -3.01389 | 0.63882 |
| H | -2.02935 | 2.17547 | 1.13247 |
| H | -2.92931 | 3.75090 | -0.60155 |
| H | -1.35013 | 4.27993 | 0.00958 |
| H | -1.46999 | 3.48733 | -1.57965 |
| H | 2.14583 | 1.69627 | 0.47675 |
| H | 4.69079 | -1.65513 | -0.39387 |
| H | 2.73523 | -2.90362 | -1.29949 |

1a NMR Conformer 21

Energy: -875532.0460919

| | | | |
|---|----------|----------|----------|
| O | 1.93393 | 2.74350 | 0.33577 |
| C | 2.61295 | 1.58511 | 0.17973 |
| C | 1.89228 | 0.39905 | -0.03894 |
| C | 0.41838 | 0.35873 | -0.13574 |
| N | -0.30063 | -0.62165 | 0.25423 |
| C | -1.68790 | -0.29030 | -0.08726 |
| C | -2.56612 | -0.40093 | 1.16491 |
| O | -2.10705 | 0.47411 | 2.17926 |
| C | -4.01573 | -0.01691 | 0.90175 |
| C | -4.72903 | -0.96241 | -0.03032 |
| O | -5.88479 | -0.45086 | -0.46643 |
| O | -4.33413 | -2.06451 | -0.34608 |
| C | -1.61806 | 1.13593 | -0.68126 |
| C | -2.20486 | 1.27060 | -2.07024 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| O | -0.19456 | 1.40634 | -0.72637 | H | -2.03192 | -2.92252 | -0.26099 |
| C | 2.58056 | -0.81384 | -0.15398 | H | -3.02432 | 1.66340 | 0.82195 |
| C | 3.96303 | -0.84048 | -0.06893 | H | -3.96184 | 2.70905 | -1.25208 |
| Cl | 4.80816 | -2.36313 | -0.22761 | H | -2.80102 | 3.78792 | -0.45306 |
| C | 4.68783 | 0.33102 | 0.13597 | H | -2.31589 | 2.87435 | -1.90335 |
| C | 4.00910 | 1.53545 | 0.26263 | H | 1.21057 | -1.16347 | -0.95135 |
| H | 2.55025 | 3.47729 | 0.51464 | H | 4.92380 | 0.56719 | 0.35764 |
| H | -2.05479 | -1.01501 | -0.82667 | H | 3.69727 | 2.60899 | 1.08443 |
| H | -2.52446 | -1.44331 | 1.50845 | | | | |
| H | -1.19971 | 0.21588 | 2.41716 | | | | |
| H | -4.09731 | 1.00433 | 0.51299 | | | | |
| H | -4.56392 | -0.02367 | 1.85178 | | | | |
| H | -6.32960 | -1.11021 | -1.04050 | | | | |
| H | -2.04877 | 1.87387 | 0.00615 | | | | |
| H | -3.28130 | 1.06951 | -2.03728 | | | | |
| H | -2.05617 | 2.27869 | -2.46420 | | | | |
| H | -1.73989 | 0.54984 | -2.74940 | | | | |
| H | 2.01501 | -1.72627 | -0.31655 | | | | |
| H | 5.77178 | 0.30330 | 0.19895 | | | | |
| H | 4.56280 | 2.45576 | 0.43507 | | | | |

1a NMR Conformer 20

Energy: -875532.9183363

| | | | |
|----|----------|----------|----------|
| O | 1.22187 | 3.02937 | 0.89811 |
| C | 1.78104 | 1.87623 | 0.47275 |
| C | 1.07665 | 0.80982 | -0.11209 |
| C | -0.37722 | 0.82135 | -0.31855 |
| N | -1.04830 | -0.05713 | -0.95407 |
| C | -2.45730 | 0.30769 | -0.82803 |
| C | -3.22011 | -0.75960 | -0.05082 |
| O | -3.41425 | -1.93910 | -0.83157 |
| C | -2.53561 | -1.16831 | 1.26221 |
| C | -1.23022 | -1.93820 | 1.14706 |
| O | -1.22603 | -2.96736 | 0.29381 |
| O | -0.28117 | -1.75007 | 1.87192 |
| C | -2.46130 | 1.68386 | -0.11802 |
| C | -2.90874 | 2.83969 | -0.98443 |
| O | -1.06283 | 1.85943 | 0.23743 |
| C | 1.77022 | -0.34081 | -0.51626 |
| C | 3.13554 | -0.41613 | -0.34700 |
| Cl | 3.99281 | -1.85459 | -0.84791 |
| C | 3.84797 | 0.64040 | 0.22855 |
| C | 3.16947 | 1.77412 | 0.63306 |
| H | 0.25678 | 3.01722 | 0.77667 |
| H | -2.91268 | 0.38117 | -1.82713 |
| H | -4.20521 | -0.34565 | 0.21352 |
| H | -3.22901 | -1.77281 | -1.77404 |
| H | -3.23612 | -1.82042 | 1.79888 |
| H | -2.35308 | -0.29542 | 1.89358 |

1a NMR Conformer 19

Energy: -875538.4063521

| | | | |
|----|----------|----------|----------|
| O | -1.35854 | 2.66171 | -0.51406 |
| C | -2.24063 | 1.66675 | -0.32500 |
| C | -1.84896 | 0.32324 | -0.15413 |
| C | -0.42810 | -0.02289 | -0.18127 |
| N | 0.52017 | 0.82303 | -0.35890 |
| C | 1.78559 | 0.08936 | -0.30146 |
| C | 2.65861 | 0.66250 | 0.82451 |
| O | 2.00391 | 0.53221 | 2.07339 |
| C | 3.98807 | -0.06501 | 0.96994 |
| C | 4.92861 | 0.15231 | -0.19555 |
| O | 6.06265 | -0.56120 | -0.18382 |
| O | 4.72510 | 0.92671 | -1.10078 |
| C | 1.35891 | -1.38355 | -0.07325 |
| C | 1.76937 | -2.33162 | -1.17972 |
| O | -0.09240 | -1.31237 | -0.01535 |
| C | -2.81483 | -0.67255 | 0.04148 |
| C | -4.15372 | -0.32772 | 0.06549 |
| Cl | -5.36178 | -1.56838 | 0.30461 |
| C | -4.55553 | 0.99969 | -0.10139 |
| C | -3.60294 | 1.98750 | -0.29529 |
| H | -0.44235 | 2.27973 | -0.51036 |
| H | 2.31863 | 0.21170 | -1.25254 |
| H | 2.85064 | 1.71863 | 0.59379 |
| H | 1.22927 | 1.12054 | 2.08305 |
| H | 3.83546 | -1.14235 | 1.11954 |
| H | 4.48935 | 0.30066 | 1.87479 |
| H | 6.12967 | -1.16280 | 0.58305 |
| H | 1.68005 | -1.74781 | 0.90883 |
| H | 2.86186 | -2.39522 | -1.22496 |
| H | 1.37159 | -3.33381 | -1.00360 |
| H | 1.40476 | -1.96674 | -2.14474 |
| H | -2.50427 | -1.70506 | 0.17129 |
| H | -5.61146 | 1.25451 | -0.07894 |
| H | -3.89655 | 3.02471 | -0.42641 |

1a NMR Conformer 18

Energy: -875539.4893456

| | | | |
|---|----------|----------|---------|
| O | -0.94284 | -0.84408 | 2.58021 |
|---|----------|----------|---------|

| | | | |
|----|----------|----------|----------|
| C | -1.81617 | -0.67097 | 1.57560 |
| C | -1.52653 | 0.11054 | 0.43720 |
| C | -0.22162 | 0.76011 | 0.32516 |
| N | 0.70665 | 0.68876 | 1.20890 |
| C | 1.87396 | 1.39349 | 0.66683 |
| C | 2.99800 | 0.39407 | 0.36221 |
| O | 3.49658 | -0.16675 | 1.56218 |
| C | 2.56232 | -0.70674 | -0.60121 |
| C | 3.73711 | -1.53190 | -1.06757 |
| O | 3.37505 | -2.77502 | -1.40258 |
| O | 4.87535 | -1.12851 | -1.16323 |
| C | 1.31365 | 2.13293 | -0.56841 |
| C | 1.06817 | 3.60986 | -0.33467 |
| O | 0.03559 | 1.47144 | -0.78865 |
| C | -2.48112 | 0.25672 | -0.57870 |
| C | -3.70637 | -0.37194 | -0.45663 |
| Cl | -4.90019 | -0.19315 | -1.72173 |
| C | -4.00631 | -1.14984 | 0.66494 |
| C | -3.06585 | -1.29622 | 1.67218 |
| H | -0.11359 | -0.34075 | 2.37358 |
| H | 2.25911 | 2.10051 | 1.41079 |
| H | 3.83567 | 0.94645 | -0.07865 |
| H | 2.76195 | -0.59810 | 2.03428 |
| H | 2.09324 | -0.29092 | -1.50373 |
| H | 1.82339 | -1.36388 | -0.13162 |
| H | 4.16077 | -3.25671 | -1.73835 |
| H | 1.91217 | 1.96847 | -1.47063 |
| H | 2.02343 | 4.12330 | -0.19278 |
| H | 0.55421 | 4.05456 | -1.18966 |
| H | 0.45773 | 3.75350 | 0.56258 |
| H | -2.24953 | 0.86133 | -1.45037 |
| H | -4.97419 | -1.63671 | 0.74506 |
| H | -3.28088 | -1.89592 | 2.55158 |

1a NMR Conformer 17

Energy: -875529.6416011

| | | | |
|---|----------|----------|----------|
| O | 0.75506 | -2.63312 | 0.24569 |
| C | 1.62388 | -1.60556 | 0.15846 |
| C | 1.26780 | -0.25812 | 0.33031 |
| C | -0.10688 | 0.14697 | 0.65265 |
| N | -0.62459 | 1.29221 | 0.44469 |
| C | -2.03955 | 1.19056 | 0.81281 |
| C | -2.93959 | 1.40138 | -0.42343 |
| O | -3.03877 | 2.77781 | -0.72809 |
| C | -2.46357 | 0.63889 | -1.67636 |
| C | -2.40635 | -0.85973 | -1.52667 |
| O | -3.62626 | -1.40393 | -1.42025 |
| O | -1.39086 | -1.52129 | -1.51211 |
| C | -2.17503 | -0.19162 | 1.49548 |

| | | | |
|----|----------|----------|----------|
| C | -2.36788 | -0.11585 | 2.99544 |
| O | -0.88839 | -0.81251 | 1.22202 |
| C | 2.23426 | 0.74439 | 0.16698 |
| C | 3.53500 | 0.40042 | -0.13987 |
| Cl | 4.74031 | 1.65229 | -0.33154 |
| C | 3.90667 | -0.93847 | -0.29471 |
| C | 2.95273 | -1.92961 | -0.14768 |
| H | -0.14269 | -2.30233 | 0.43466 |
| H | -2.29826 | 1.99206 | 1.51516 |
| H | -3.95473 | 1.08202 | -0.16109 |
| H | -2.15885 | 3.11052 | -0.97891 |
| H | -1.46564 | 0.97998 | -1.95963 |
| H | -3.16339 | 0.86881 | -2.48591 |
| H | -3.53643 | -2.37644 | -1.34522 |
| H | -2.94188 | -0.82288 | 1.03529 |
| H | -3.33902 | 0.33485 | 3.22041 |
| H | -2.33320 | -1.11278 | 3.44026 |
| H | -1.58374 | 0.50275 | 3.44298 |
| H | 1.94289 | 1.78253 | 0.29463 |
| H | 4.93500 | -1.19472 | -0.53253 |
| H | 3.21163 | -2.97651 | -0.27524 |

1a NMR Conformer 16

Energy: -875537.0329284

| | | | |
|----|----------|----------|----------|
| O | 0.29409 | -1.89469 | -1.61881 |
| C | 1.29640 | -1.21355 | -1.04487 |
| C | 1.12515 | 0.04678 | -0.43944 |
| C | -0.20013 | 0.65829 | -0.40680 |
| N | -1.25346 | 0.14606 | -0.93607 |
| C | -2.38214 | 1.00598 | -0.58612 |
| C | -3.36594 | 0.29191 | 0.35420 |
| O | -4.13428 | -0.69688 | -0.31665 |
| C | -2.65469 | -0.40309 | 1.52070 |
| C | -1.78546 | -1.60527 | 1.18655 |
| O | -2.24983 | -2.47526 | 0.28748 |
| O | -0.71574 | -1.80523 | 1.71347 |
| C | -1.72215 | 2.23732 | 0.08867 |
| C | -1.78505 | 3.50893 | -0.72777 |
| O | -0.33468 | 1.82958 | 0.23913 |
| C | 2.21687 | 0.70215 | 0.14573 |
| C | 3.46235 | 0.10636 | 0.11765 |
| Cl | 4.82845 | 0.91955 | 0.84708 |
| C | 3.64804 | -1.14031 | -0.48423 |
| C | 2.57088 | -1.79234 | -1.05909 |
| H | -0.54333 | -1.38056 | -1.52199 |
| H | -2.92451 | 1.29608 | -1.49710 |
| H | -4.03743 | 1.05491 | 0.77734 |
| H | -4.58758 | -0.31604 | -1.09048 |
| H | -3.41387 | -0.75495 | 2.22969 |

| | | | |
|---|----------|----------|----------|
| H | -2.01678 | 0.30997 | 2.05069 |
| H | -3.07564 | -2.13258 | -0.11313 |
| H | -2.11230 | 2.40536 | 1.10013 |
| H | -2.82669 | 3.82980 | -0.82717 |
| H | -1.21835 | 4.30774 | -0.24395 |
| H | -1.37594 | 3.33350 | -1.72755 |
| H | 2.07347 | 1.67110 | 0.61510 |
| H | 4.63480 | -1.59496 | -0.49793 |
| H | 2.69353 | -2.76335 | -1.52980 |

1a NMR Conformer 15

Energy: -875530.3261512

| | | | |
|----|----------|----------|----------|
| O | -0.56225 | 2.50937 | 0.26632 |
| C | -1.53691 | 1.58319 | 0.15154 |
| C | -1.32431 | 0.19416 | 0.20034 |
| C | 0.01097 | -0.37681 | 0.44686 |
| N | 0.48821 | -1.43634 | -0.07619 |
| C | 1.87827 | -1.53589 | 0.38935 |
| C | 2.82883 | -1.31284 | -0.80004 |
| O | 2.71599 | -2.39401 | -1.70264 |
| C | 2.58924 | 0.00583 | -1.56472 |
| C | 2.95515 | 1.25797 | -0.81316 |
| O | 4.26244 | 1.32981 | -0.55553 |
| O | 2.17389 | 2.12519 | -0.47073 |
| C | 1.97852 | -0.49690 | 1.52652 |
| C | 1.91387 | -1.11013 | 2.91182 |
| O | 0.79386 | 0.31389 | 1.31584 |
| C | -2.39670 | -0.68523 | 0.00571 |
| C | -3.66985 | -0.18367 | -0.19831 |
| Cl | -5.00732 | -1.28745 | -0.42473 |
| C | -3.90106 | 1.19238 | -0.21884 |
| C | -2.83696 | 2.06460 | -0.04954 |
| H | 0.33415 | 2.12732 | 0.24078 |
| H | 2.07590 | -2.54712 | 0.76426 |
| H | 3.85930 | -1.33213 | -0.42605 |
| H | 1.77955 | -2.49038 | -1.95274 |
| H | 1.54361 | 0.08122 | -1.87371 |
| H | 3.21951 | -0.03582 | -2.45875 |
| H | 4.45317 | 2.16052 | -0.06829 |
| H | 2.84556 | 0.16555 | 1.43822 |
| H | 2.81269 | -1.70652 | 3.09251 |
| H | 1.84945 | -0.33141 | 3.67484 |
| H | 1.03912 | -1.76294 | 2.99381 |
| H | -2.21540 | -1.75576 | 0.03505 |
| H | -4.90547 | 1.57537 | -0.37437 |
| H | -2.98981 | 3.13922 | -0.08303 |

1a NMR Conformer 13

Energy: -875537.3230574

| | | | |
|----|----------|----------|----------|
| O | 2.16999 | 2.58614 | 1.10527 |
| C | 2.67560 | 1.40738 | 0.68104 |
| C | 1.94175 | 0.40990 | 0.01053 |
| C | 0.51060 | 0.53880 | -0.31022 |
| N | -0.23511 | -0.37714 | -0.78810 |
| C | -1.57278 | 0.19339 | -0.94743 |
| C | -2.58693 | -0.67388 | -0.19710 |
| O | -2.27838 | -0.70310 | 1.19609 |
| C | -4.00766 | -0.13698 | -0.32887 |
| C | -5.07394 | -1.02769 | 0.28622 |
| O | -4.77191 | -1.60919 | 1.45023 |
| O | -6.15982 | -1.19916 | -0.21902 |
| C | -1.46593 | 1.64116 | -0.40758 |
| C | -1.83516 | 2.71864 | -1.40422 |
| O | -0.05792 | 1.75128 | -0.07475 |
| C | 2.58259 | -0.77807 | -0.37176 |
| C | 3.92208 | -0.96568 | -0.09254 |
| Cl | 4.70931 | -2.44717 | -0.57840 |
| C | 4.65796 | 0.01745 | 0.57267 |
| C | 4.03301 | 1.19231 | 0.95368 |
| H | 1.23220 | 2.67549 | 0.86343 |
| H | -1.84506 | 0.18424 | -2.01290 |
| H | -2.52872 | -1.69017 | -0.61106 |
| H | -1.46240 | -1.21951 | 1.33356 |
| H | -4.26550 | 0.00364 | -1.38143 |
| H | -4.08228 | 0.84037 | 0.16884 |
| H | -3.85433 | -1.38327 | 1.72195 |
| H | -2.01195 | 1.76169 | 0.53497 |
| H | -2.89614 | 2.63401 | -1.66001 |
| H | -1.65898 | 3.71349 | -0.98836 |
| H | -1.24702 | 2.60509 | -2.31976 |
| H | 2.00979 | -1.54085 | -0.89003 |
| H | 5.71103 | -0.14069 | 0.78774 |
| H | 4.58408 | 1.97014 | 1.47354 |

1a NMR Conformer 12

Energy: -875536.3395430

| | | | |
|---|----------|----------|----------|
| O | 0.82234 | 2.83078 | -0.18473 |
| C | 1.67291 | 1.79301 | -0.14019 |
| C | 1.28158 | 0.50275 | 0.27404 |
| C | -0.10719 | 0.26238 | 0.66343 |
| N | -1.02450 | 1.16083 | 0.67341 |
| C | -2.28129 | 0.49705 | 1.02952 |
| C | -3.29622 | 0.59500 | -0.12359 |
| O | -3.83671 | 1.90106 | -0.17505 |
| C | -2.72366 | 0.23931 | -1.50645 |
| C | -2.26992 | -1.18748 | -1.67503 |
| O | -3.26711 | -2.06162 | -1.47545 |
| O | -1.14592 | -1.52881 | -1.97182 |

| | | | | | | | |
|----|----------|----------|----------|----|----------|----------|----------|
| O | 1.18911 | 2.86067 | 0.33748 | C | -1.85759 | 1.12371 | -0.80289 |
| C | 1.91651 | 1.72639 | 0.25937 | C | -2.55296 | 2.03426 | -1.78567 |
| C | 1.43302 | 0.48819 | -0.20233 | O | -0.46590 | 1.52785 | -0.63797 |
| C | 0.04865 | 0.27823 | -0.65798 | C | 2.46317 | -0.64131 | -0.19324 |
| N | -0.42837 | -0.80528 | -1.12701 | C | 3.78673 | -0.58445 | 0.19115 |
| C | -1.85650 | -0.57432 | -1.37614 | Cl | 4.77991 | -2.02014 | 0.09289 |
| C | -2.69233 | -1.48810 | -0.46138 | C | 4.34822 | 0.60832 | 0.65826 |
| O | -2.40456 | -2.83707 | -0.77771 | C | 3.56023 | 1.74252 | 0.73424 |
| C | -2.47187 | -1.23420 | 1.03621 | H | 0.61262 | 2.77154 | 0.18101 |
| C | -3.36873 | -0.17778 | 1.63667 | H | -1.72749 | -0.40878 | -2.34271 |
| O | -2.93064 | 0.22332 | 2.83417 | H | -3.71258 | -1.10730 | -1.16708 |
| O | -4.39006 | 0.24476 | 1.13415 | H | -1.46766 | -2.80691 | -0.94844 |
| C | -2.05151 | 0.94489 | -1.17685 | H | -1.92912 | -1.16325 | 1.30872 |
| C | -2.21532 | 1.71809 | -2.46914 | H | -3.20637 | -2.35187 | 1.11497 |
| O | -0.79699 | 1.33965 | -0.54741 | H | -4.66120 | 0.24792 | 2.94819 |
| C | 2.29698 | -0.62023 | -0.23956 | H | -2.31089 | 1.20950 | 0.19002 |
| C | 3.60600 | -0.49341 | 0.17621 | H | -3.59181 | 1.70926 | -1.89672 |
| Cl | 4.66874 | -1.88160 | 0.12977 | H | -2.55305 | 3.06684 | -1.43021 |
| C | 4.09767 | 0.73216 | 0.63913 | H | -2.06228 | 1.99034 | -2.76145 |
| C | 3.25353 | 1.82718 | 0.67642 | H | 2.02481 | -1.56478 | -0.55853 |
| H | 0.27920 | 2.71569 | 0.02828 | H | 5.39179 | 0.64169 | 0.95617 |
| H | -2.08663 | -0.86061 | -2.40903 | H | 3.96885 | 2.68182 | 1.09447 |
| H | -3.75190 | -1.33302 | -0.69202 | | | | |
| H | -1.44138 | -2.96126 | -0.72878 | | | | |
| H | -1.42897 | -0.99916 | 1.27319 | | | | |
| H | -2.70389 | -2.16282 | 1.57194 | | | | |
| H | -3.56546 | 0.86837 | 3.20783 | | | | |
| H | -2.84769 | 1.18658 | -0.47013 | | | | |
| H | -3.15890 | 1.43651 | -2.94556 | | | | |
| H | -2.22761 | 2.79362 | -2.28132 | | | | |
| H | -1.39628 | 1.48454 | -3.15600 | | | | |
| H | 1.91186 | -1.56964 | -0.59819 | | | | |
| H | 5.12965 | 0.82068 | 0.96429 | | | | |
| H | 3.60650 | 2.79147 | 1.02919 | | | | |

1a NMR Conformer 8

Energy: -875532.9436877

| | | | |
|---|----------|----------|----------|
| O | 1.53524 | 2.87466 | 0.47143 |
| C | 2.21096 | 1.71218 | 0.35014 |
| C | 1.65740 | 0.50683 | -0.11932 |
| C | 0.25043 | 0.37310 | -0.52905 |
| N | -0.35264 | -0.71435 | -0.80372 |
| C | -1.70406 | -0.34059 | -1.24510 |
| C | -2.73992 | -1.34464 | -0.72377 |
| O | -2.39198 | -2.63316 | -1.19670 |
| C | -2.88311 | -1.35278 | 0.80174 |
| C | -3.91231 | -0.37958 | 1.32176 |
| O | -3.96969 | -0.38099 | 2.65685 |
| O | -4.62377 | 0.32182 | 0.63251 |

1a NMR Conformer 7

Energy: -875536.1302623

| | | | |
|----|----------|----------|----------|
| O | 1.80333 | 2.41382 | 1.58722 |
| C | 2.27570 | 1.29742 | 0.99406 |
| C | 1.56731 | 0.51456 | 0.06360 |
| C | 0.19961 | 0.82399 | -0.38072 |
| N | -0.46940 | 0.17989 | -1.25426 |
| C | -1.79928 | 0.79381 | -1.30682 |
| C | -2.83831 | -0.19139 | -0.75794 |
| O | -2.90268 | -1.34213 | -1.59816 |
| C | -2.55508 | -0.61137 | 0.69060 |
| C | -3.63884 | -1.48855 | 1.29296 |
| O | -4.19885 | -2.39271 | 0.48637 |
| O | -3.98933 | -1.40359 | 2.44927 |
| C | -1.66332 | 2.10094 | -0.49715 |
| C | -1.54081 | 3.34331 | -1.35464 |
| O | -0.40914 | 1.88903 | 0.21058 |
| C | 2.17631 | -0.62618 | -0.48544 |
| C | 3.45788 | -0.97458 | -0.11397 |
| Cl | 4.20463 | -2.39510 | -0.80679 |
| C | 4.17032 | -0.20558 | 0.81144 |
| C | 3.57734 | 0.91875 | 1.35571 |
| H | 0.90107 | 2.61925 | 1.28817 |
| H | -2.06872 | 1.00070 | -2.34943 |
| H | -3.82761 | 0.27849 | -0.82438 |
| H | -1.99626 | -1.67827 | -1.73948 |

| | | | |
|---|----------|----------|----------|
| H | -2.43994 | 0.25453 | 1.34757 |
| H | -1.61537 | -1.17961 | 0.72076 |
| H | -3.82684 | -2.31521 | -0.42077 |
| H | -2.44049 | 2.21778 | 0.26478 |
| H | -2.48383 | 3.52182 | -1.87942 |
| H | -1.31302 | 4.21613 | -0.73913 |
| H | -0.74763 | 3.21282 | -2.09731 |
| H | 1.62013 | -1.22180 | -1.20261 |
| H | 5.17842 | -0.48986 | 1.09820 |
| H | 4.10765 | 1.53454 | 2.07594 |

1a NMR Conformer 6

Energy: -875541.9519124

| | | | |
|----|----------|----------|----------|
| O | 1.34615 | -2.48285 | -1.12897 |
| C | 2.23105 | -1.60661 | -0.62561 |
| C | 1.88377 | -0.28551 | -0.27659 |
| C | 0.50766 | 0.17286 | -0.46369 |
| N | -0.44051 | -0.55264 | -0.93537 |
| C | -1.65356 | 0.26406 | -0.95319 |
| C | -2.74641 | -0.42147 | -0.12930 |
| O | -2.32723 | -0.56575 | 1.22707 |
| C | -4.03811 | 0.39032 | -0.11941 |
| C | -5.20710 | -0.30083 | 0.56103 |
| O | -4.93188 | -0.98944 | 1.67034 |
| O | -6.34696 | -0.21093 | 0.16511 |
| C | -1.20203 | 1.63391 | -0.38437 |
| C | -1.38441 | 2.80006 | -1.33156 |
| O | 0.21557 | 1.43881 | -0.12628 |
| C | 2.85179 | 0.58273 | 0.24603 |
| C | 4.14853 | 0.13415 | 0.41567 |
| Cl | 5.35933 | 1.21338 | 1.06732 |
| C | 4.50618 | -1.17221 | 0.07305 |
| C | 3.55187 | -2.03363 | -0.44407 |
| H | 0.46298 | -2.03917 | -1.20488 |
| H | -2.01598 | 0.35758 | -1.98689 |
| H | -2.92725 | -1.41163 | -0.57068 |
| H | -1.64498 | -1.26048 | 1.28699 |
| H | -4.34864 | 0.62914 | -1.13934 |
| H | -3.87234 | 1.33766 | 0.41342 |
| H | -3.96542 | -0.97524 | 1.84977 |
| H | -1.66035 | 1.83311 | 0.59079 |
| H | -2.45114 | 2.95605 | -1.52207 |
| H | -0.97142 | 3.71670 | -0.90429 |
| H | -0.88776 | 2.59487 | -2.28469 |
| H | 2.57569 | 1.59866 | 0.51227 |
| H | 5.52955 | -1.50932 | 0.21245 |
| H | 3.81127 | -3.05251 | -0.71585 |

1a NMR Conformer 5

Energy: -875540.4842305

| | | | |
|----|----------|----------|----------|
| O | 0.87845 | -1.22604 | -2.41802 |
| C | 1.77398 | -0.91673 | -1.46690 |
| C | 1.51768 | 0.02911 | -0.45327 |
| C | 0.22464 | 0.70844 | -0.40982 |
| N | -0.72553 | 0.52611 | -1.25523 |
| C | -1.86953 | 1.31638 | -0.79117 |
| C | -2.99004 | 0.38607 | -0.31183 |
| O | -3.52874 | -0.34179 | -1.41320 |
| C | -2.53355 | -0.57960 | 0.78959 |
| C | -3.65713 | -1.41904 | 1.37240 |
| O | -4.58841 | -1.85613 | 0.52133 |
| O | -3.71799 | -1.71497 | 2.54502 |
| C | -1.27287 | 2.21680 | 0.31352 |
| C | -1.01491 | 3.64058 | -0.13496 |
| O | 0.00157 | 1.57347 | 0.59601 |
| C | 2.49510 | 0.31155 | 0.51132 |
| C | 3.71006 | -0.34503 | 0.46080 |
| Cl | 4.93228 | 0.00608 | 1.66090 |
| C | 3.97730 | -1.28601 | -0.53743 |
| C | 3.01424 | -1.56708 | -1.49309 |
| H | 0.06051 | -0.68707 | -2.27799 |
| H | -2.27275 | 1.91384 | -1.61731 |
| H | -3.81418 | 1.01088 | 0.05523 |
| H | -2.79953 | -0.76489 | -1.90687 |
| H | -2.06334 | -0.05122 | 1.62289 |
| H | -1.78860 | -1.27053 | 0.37106 |
| H | -4.41274 | -1.51579 | -0.38393 |
| H | -1.85197 | 2.19227 | 1.24233 |
| H | -1.96636 | 4.14479 | -0.32702 |
| H | -0.47466 | 4.19315 | 0.63662 |
| H | -0.42447 | 3.64538 | -1.05660 |
| H | 2.28880 | 1.04235 | 1.28735 |
| H | 4.93747 | -1.79355 | -0.56175 |
| H | 3.20288 | -2.29470 | -2.27667 |

1a NMR Conformer 4

Energy: -875537.4695997

| | | | |
|---|----------|----------|----------|
| O | -1.21641 | 2.74001 | 0.05042 |
| C | -2.04766 | 1.68707 | 0.11029 |
| C | -1.63433 | 0.37152 | -0.18370 |
| C | -0.25013 | 0.12276 | -0.58477 |
| N | 0.65578 | 1.02721 | -0.67641 |
| C | 1.86503 | 0.36991 | -1.18795 |
| C | 3.11748 | 0.88028 | -0.46578 |
| O | 3.24274 | 2.27023 | -0.70535 |
| C | 3.13456 | 0.58653 | 1.03765 |
| C | 3.77047 | -0.73392 | 1.39603 |
| O | 3.67828 | -0.98968 | 2.70402 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| O | 4.32111 | -1.48114 | 0.61472 | H | -2.75294 | 2.44641 | -1.00365 |
| C | 1.54624 | -1.13314 | -1.05732 | H | -1.53850 | 0.14486 | -1.65735 |
| C | 1.94163 | -1.98116 | -2.24299 | H | -3.15408 | 0.07060 | -2.34005 |
| O | 0.09808 | -1.13868 | -0.89679 | H | -1.84979 | -3.24697 | -1.89810 |
| C | -2.54608 | -0.68945 | -0.09536 | H | -2.47131 | -1.33155 | 1.36557 |
| C | -3.85240 | -0.43494 | 0.27910 | H | -2.73429 | -0.18335 | 3.57571 |
| Cl | -4.99334 | -1.75597 | 0.38854 | H | -1.31320 | -1.24919 | 3.58581 |
| C | -4.27639 | 0.86421 | 0.57104 | H | -1.10719 | 0.51081 | 3.40919 |
| C | -3.37752 | 1.91574 | 0.48605 | H | 1.81700 | -1.43824 | 0.81035 |
| H | -0.31866 | 2.42403 | -0.22402 | H | 4.98732 | 0.85312 | -0.97264 |
| H | 1.98008 | 0.64622 | -2.24650 | H | 3.42610 | 2.76813 | -1.28658 |
| H | 3.99546 | 0.41562 | -0.92607 | | | | |
| H | 2.43100 | 2.71355 | -0.40262 | | | | |
| H | 2.13243 | 0.63214 | 1.48120 | | | | |
| H | 3.72975 | 1.36172 | 1.53419 | | | | |
| H | 4.12554 | -1.84070 | 2.89603 | | | | |
| H | 1.94858 | -1.55899 | -0.13268 | | | | |
| H | 3.03069 | -1.96430 | -2.34768 | | | | |
| H | 1.62505 | -3.01709 | -2.10378 | | | | |
| H | 1.49227 | -1.58877 | -3.15937 | | | | |
| H | -2.21839 | -1.69927 | -0.32273 | | | | |
| H | -5.30652 | 1.04638 | 0.86365 | | | | |
| H | -3.68692 | 2.93215 | 0.71021 | | | | |

1a NMR Conformer 3

Energy: -875536.8972170

| | | | |
|----|----------|----------|----------|
| O | 0.95211 | 2.81309 | -0.61343 |
| C | 1.74971 | 1.75166 | -0.41884 |
| C | 1.29652 | 0.55511 | 0.17387 |
| C | -0.09665 | 0.44790 | 0.60132 |
| N | -0.96044 | 1.39584 | 0.52029 |
| C | -2.25041 | 0.82820 | 0.93482 |
| C | -3.17491 | 0.67034 | -0.28855 |
| O | -3.55353 | 1.95140 | -0.75468 |
| C | -2.56999 | -0.14813 | -1.43734 |
| C | -2.64213 | -1.64535 | -1.26143 |
| O | -1.72857 | -2.27918 | -2.00019 |
| O | -3.45526 | -2.23061 | -0.57742 |
| C | -1.84770 | -0.48090 | 1.64327 |
| C | -1.74007 | -0.34387 | 3.14885 |
| O | -0.51663 | -0.73068 | 1.09840 |
| C | 2.17567 | -0.52240 | 0.35024 |
| C | 3.48888 | -0.40192 | -0.06251 |
| Cl | 4.59254 | -1.74070 | 0.16090 |
| C | 3.95177 | 0.77682 | -0.65341 |
| C | 3.08591 | 1.84402 | -0.82890 |
| H | 0.04625 | 2.59964 | -0.26950 |
| H | -2.75213 | 1.51158 | 1.62886 |
| H | -4.09785 | 0.18403 | 0.04548 |

1a NMR Conformer 2

Energy: -875535.3620966

| | | | |
|----|----------|----------|----------|
| O | 2.11814 | 2.83510 | 0.33416 |
| C | 2.63890 | 1.60035 | 0.16896 |
| C | 1.88843 | 0.42993 | -0.05049 |
| C | 0.41698 | 0.41021 | -0.12735 |
| N | -0.31211 | -0.62761 | -0.23874 |
| C | -1.70712 | -0.17845 | -0.26572 |
| C | -2.47790 | -0.84785 | 0.87981 |
| O | -1.92378 | -0.48551 | 2.13165 |
| C | -3.94157 | -0.43222 | 0.92838 |
| C | -4.74879 | -0.93157 | -0.24252 |
| O | -5.97138 | -0.39165 | -0.26554 |
| O | -4.36592 | -1.73617 | -1.06483 |
| C | -1.63808 | 1.36383 | -0.15114 |
| C | -2.22238 | 2.10872 | -1.33180 |
| O | -0.20825 | 1.61710 | -0.07990 |
| C | 2.55513 | -0.79703 | -0.19879 |
| C | 3.93259 | -0.85353 | -0.13106 |
| Cl | 4.74668 | -2.38978 | -0.31860 |
| C | 4.68712 | 0.30243 | 0.08500 |
| C | 4.03751 | 1.51520 | 0.23290 |
| H | 1.14798 | 2.81979 | 0.26307 |
| H | -2.16344 | -0.48816 | -1.21465 |
| H | -2.41592 | -1.93391 | 0.73007 |
| H | -1.02305 | -0.84881 | 2.18717 |
| H | -4.05277 | 0.65598 | 1.00170 |
| H | -4.39740 | -0.84278 | 1.83726 |
| H | -6.47118 | -0.76256 | -1.02361 |
| H | -2.05433 | 1.71805 | 0.79789 |
| H | -3.29921 | 1.91651 | -1.38803 |
| H | -2.06942 | 3.18593 | -1.23378 |
| H | -1.76137 | 1.76441 | -2.26234 |
| H | 1.96641 | -1.69346 | -0.36731 |
| H | 5.77073 | 0.24815 | 0.13571 |
| H | 4.59872 | 2.42917 | 0.40282 |

1a NMR Conformer 1

Energy: -875540.0004709

| | | | |
|----|----------|----------|----------|
| O | -1.36216 | 2.65966 | -0.51579 |
| C | -2.24392 | 1.66362 | -0.33142 |
| C | -1.85159 | 0.32083 | -0.15149 |
| C | -0.42919 | -0.02025 | -0.16147 |
| N | 0.51856 | 0.82841 | -0.32784 |
| C | 1.78464 | 0.09594 | -0.26489 |
| C | 2.66979 | 0.68505 | 0.84156 |
| O | 2.03024 | 0.58018 | 2.10087 |
| C | 3.99755 | -0.04627 | 0.97812 |
| C | 4.90581 | 0.13326 | -0.21159 |
| O | 5.94609 | -0.70426 | -0.17053 |
| O | 4.74430 | 0.94369 | -1.09820 |
| C | 1.36100 | -1.37302 | -0.00978 |
| C | 1.80800 | -2.34853 | -1.07720 |
| O | -0.09161 | -1.30890 | 0.00963 |
| C | -2.81797 | -0.67597 | 0.03622 |
| C | -4.15764 | -0.33321 | 0.04362 |
| Cl | -5.36626 | -1.57542 | 0.27310 |
| C | -4.56004 | 0.99294 | -0.13194 |
| C | -3.60725 | 1.98207 | -0.31789 |
| H | -0.44505 | 2.27974 | -0.50461 |
| H | 2.30939 | 0.20266 | -1.22317 |
| H | 2.86050 | 1.73683 | 0.59019 |
| H | 1.24919 | 1.16064 | 2.10398 |
| H | 3.85498 | -1.11676 | 1.16589 |
| H | 4.52960 | 0.34599 | 1.85323 |
| H | 6.52781 | -0.53146 | -0.94170 |
| H | 1.66030 | -1.70588 | 0.99028 |
| H | 2.90196 | -2.40157 | -1.09079 |
| H | 1.41664 | -3.34978 | -0.88240 |
| H | 1.46583 | -2.01578 | -2.06186 |
| H | -2.50670 | -1.70731 | 0.17327 |
| H | -5.61667 | 1.24607 | -0.12278 |
| H | -3.90140 | 3.01826 | -0.45622 |

XYZ Coordinates of Conformers

for the Diastereomers of 2

2h NMR Conformer 6

Energy: -910280.4668546

| | | | |
|----|----------|----------|----------|
| O | 2.28958 | -2.58848 | -0.96823 |
| C | 2.79355 | -1.38311 | -0.62051 |
| C | 1.94367 | -0.44237 | -0.01587 |
| C | 0.52455 | -0.71908 | 0.28941 |
| N | -0.40247 | 0.15914 | 0.24195 |
| C | -1.64118 | -0.51288 | 0.64965 |
| C | -2.64642 | -0.49571 | -0.50424 |
| O | -2.09365 | -1.09270 | -1.66401 |
| C | -3.15965 | 0.91181 | -0.87445 |
| O | -3.95208 | 0.83400 | -2.04035 |
| C | -3.99721 | 1.50271 | 0.25567 |
| N | -5.32514 | 1.47201 | 0.06592 |
| O | -3.45832 | 1.93868 | 1.27346 |
| C | -1.20473 | -1.94986 | 1.02869 |
| C | -1.36721 | -2.27587 | 2.49870 |
| O | 0.20576 | -1.96639 | 0.69104 |
| C | 2.43615 | 0.82774 | 0.30289 |
| C | 3.75860 | 1.14666 | 0.04068 |
| Cl | 4.36228 | 2.73365 | 0.45869 |
| C | 4.61353 | 0.21729 | -0.54675 |
| C | 4.12575 | -1.03977 | -0.87715 |
| H | 2.97225 | -3.12909 | -1.40648 |
| H | -2.07862 | 0.01280 | 1.50538 |
| H | -3.51109 | -1.11824 | -0.23533 |
| H | -1.24499 | -0.65563 | -1.86711 |
| H | -2.29869 | 1.57897 | -1.02290 |
| H | -3.53788 | 0.19056 | -2.64117 |
| H | -5.70576 | 1.15617 | -0.81715 |
| H | -5.93781 | 1.85515 | 0.77606 |
| H | -1.68757 | -2.70139 | 0.39526 |
| H | -2.42972 | -2.27002 | 2.76051 |
| H | -0.95741 | -3.26232 | 2.72777 |
| H | -0.85415 | -1.52688 | 3.10995 |
| H | 1.76973 | 1.55079 | 0.76328 |
| H | 5.64976 | 0.47319 | -0.74789 |
| H | 4.77979 | -1.77008 | -1.34852 |

2h NMR Conformer 5

Energy: -910277.1685581

| | | | |
|---|----------|---------|----------|
| O | -1.66669 | 2.40852 | -1.39733 |
| C | -2.50795 | 1.47628 | -0.89804 |

| | | | |
|----|----------|----------|----------|
| C | -1.98274 | 0.43232 | -0.11800 |
| C | -0.54783 | 0.31272 | 0.21313 |
| N | 0.04574 | -0.79907 | 0.42948 |
| C | 1.45905 | -0.47844 | 0.68963 |
| C | 2.27204 | -0.96786 | -0.52211 |
| O | 1.85684 | -2.26156 | -0.92133 |
| C | 3.77650 | -1.13583 | -0.27155 |
| O | 4.40735 | -1.57371 | -1.45599 |
| C | 4.43414 | 0.16048 | 0.18283 |
| N | 5.03084 | 0.87539 | -0.78275 |
| O | 4.35879 | 0.51323 | 1.35963 |
| C | 1.45800 | 1.05430 | 0.88755 |
| C | 1.50752 | 1.48022 | 2.34126 |
| O | 0.16984 | 1.44584 | 0.33420 |
| C | -2.83895 | -0.56542 | 0.36243 |
| C | -4.19459 | -0.51277 | 0.08468 |
| Cl | -5.25090 | -1.76114 | 0.70362 |
| C | -4.72738 | 0.52471 | -0.67725 |
| C | -3.88140 | 1.51009 | -1.16656 |
| H | -2.15720 | 3.05483 | -1.93760 |
| H | 1.79842 | -0.99978 | 1.59344 |
| H | 2.13054 | -0.25411 | -1.35296 |
| H | 0.88415 | -2.27505 | -0.94192 |
| H | 3.90644 | -1.86278 | 0.54273 |
| H | 3.88740 | -2.31100 | -1.81973 |
| H | 5.12864 | 0.48792 | -1.71336 |
| H | 5.50417 | 1.73928 | -0.54404 |
| H | 2.21638 | 1.56981 | 0.29217 |
| H | 2.48194 | 1.21812 | 2.75803 |
| H | 1.35651 | 2.55873 | 2.42876 |
| H | 0.72276 | 0.96769 | 2.90768 |
| H | -2.42380 | -1.37201 | 0.95896 |
| H | -5.79204 | 0.56092 | -0.88906 |
| H | -4.28241 | 2.31913 | -1.77316 |

2h NMR Conformer 4

Energy: -910283.6187217

| | | | |
|---|----------|----------|----------|
| O | 2.75416 | 2.71254 | 0.49383 |
| C | 2.96134 | 1.39650 | 0.27530 |
| C | 1.95661 | 0.45891 | -0.03032 |
| C | 0.52998 | 0.80638 | -0.14715 |
| N | -0.41544 | 0.00258 | -0.43913 |
| C | -1.66385 | 0.77191 | -0.39629 |
| C | -2.56123 | 0.24765 | 0.72859 |
| O | -1.89229 | 0.29975 | 1.97609 |
| C | -3.07919 | -1.18835 | 0.50266 |
| O | -3.75651 | -1.63540 | 1.65726 |
| C | -4.03683 | -1.23777 | -0.68442 |
| N | -5.33882 | -1.31808 | -0.37117 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| O | -3.60880 | -1.17076 | -1.83713 | H | -2.19857 | 0.91102 | -1.26423 |
| C | -1.22412 | 2.23800 | -0.16139 | H | -3.26441 | 1.29796 | 0.98247 |
| C | -1.43806 | 3.14659 | -1.35324 | H | -1.13386 | -0.33107 | 1.90008 |
| O | 0.20289 | 2.10473 | 0.08448 | H | -2.68333 | -1.62527 | 0.28330 |
| C | 2.30807 | -0.88496 | -0.23749 | H | -3.54496 | -0.96152 | 2.49514 |
| C | 3.62611 | -1.28238 | -0.14026 | H | -5.91004 | -0.52949 | 0.70823 |
| Cl | 4.04650 | -2.95956 | -0.40051 | H | -6.32307 | -0.33508 | -0.98672 |
| C | 4.63114 | -0.36060 | 0.16470 | H | -1.15193 | 2.62370 | 0.89628 |
| C | 4.29297 | 0.96541 | 0.36908 | H | -1.97929 | 3.52070 | -1.30634 |
| H | 1.81200 | 2.93954 | 0.40922 | H | -0.31408 | 4.05094 | -0.99081 |
| H | -2.19272 | 0.66281 | -1.34877 | H | -0.62491 | 2.71963 | -2.13148 |
| H | -3.42811 | 0.91489 | 0.83199 | H | 2.95432 | 1.54658 | 0.33239 |
| H | -1.05269 | -0.19316 | 1.90604 | H | 5.28769 | -2.02988 | -0.16545 |
| H | -2.22931 | -1.84288 | 0.26214 | H | 3.21780 | -3.30482 | -0.70398 |
| H | -3.27404 | -1.30763 | 2.43587 | | | | |
| H | -5.62395 | -1.42893 | 0.59369 | | | | |
| H | -6.02728 | -1.35953 | -1.11335 | | | | |
| H | -1.65664 | 2.65550 | 0.75285 | | | | |
| H | -2.51040 | 3.25435 | -1.54160 | | | | |
| H | -1.01553 | 4.13735 | -1.17076 | | | | |
| H | -0.96953 | 2.71696 | -2.24415 | | | | |
| H | 1.52464 | -1.59845 | -0.47408 | | | | |
| H | 5.66564 | -0.68300 | 0.23991 | | | | |
| H | 5.05401 | 1.70259 | 0.60688 | | | | |

2h NMR Conformer 3

Energy: -910288.3351582

| | | | |
|----|----------|----------|----------|
| O | 0.84052 | -2.34378 | -0.78551 |
| C | 1.92354 | -1.60830 | -0.48963 |
| C | 1.85360 | -0.23051 | -0.19492 |
| C | 0.55412 | 0.44037 | -0.20423 |
| N | -0.55842 | -0.14243 | -0.47399 |
| C | -1.62135 | 0.85711 | -0.33562 |
| C | -2.55912 | 0.47290 | 0.81169 |
| O | -1.84412 | 0.32683 | 2.02537 |
| C | -3.37203 | -0.81357 | 0.56072 |
| O | -4.10508 | -1.14145 | 1.72050 |
| C | -4.34207 | -0.63203 | -0.60335 |
| N | -5.62656 | -0.45467 | -0.26062 |
| O | -3.93059 | -0.62299 | -1.76384 |
| C | -0.86197 | 2.18022 | -0.06111 |
| C | -0.94498 | 3.18246 | -1.19276 |
| O | 0.51975 | 1.74938 | 0.08943 |
| C | 3.01919 | 0.48635 | 0.10736 |
| C | 4.23720 | -0.16761 | 0.11473 |
| Cl | 5.69400 | 0.72308 | 0.49395 |
| C | 4.32227 | -1.53195 | -0.17535 |
| C | 3.17187 | -2.24431 | -0.47536 |
| H | 0.04011 | -1.75675 | -0.76449 |

2h NMR Conformer 2

Energy: -910280.5262358

| | | | |
|----|----------|----------|----------|
| O | -2.00227 | 2.78249 | -0.89497 |
| C | -2.62324 | 1.62476 | -0.58521 |
| C | -1.99172 | 0.49020 | -0.04140 |
| C | -0.55150 | 0.43148 | 0.25820 |
| N | 0.05830 | -0.53616 | 0.82187 |
| C | 1.49117 | -0.19478 | 0.83055 |
| C | 2.19462 | -1.12426 | -0.17459 |
| O | 1.75014 | -2.45919 | -0.02146 |
| C | 3.71603 | -1.23779 | -0.00447 |
| O | 4.23585 | -2.10996 | -0.98441 |
| C | 4.41466 | 0.10983 | -0.12582 |
| N | 4.94389 | 0.38157 | -1.32753 |
| O | 4.42853 | 0.88615 | 0.82961 |
| C | 1.52281 | 1.30467 | 0.45622 |
| C | 1.68804 | 2.22738 | 1.64560 |
| O | 0.19206 | 1.50616 | -0.10925 |
| C | -2.75484 | -0.65426 | 0.24162 |
| C | -4.11113 | -0.66614 | -0.01318 |
| Cl | -5.04720 | -2.09919 | 0.34372 |
| C | -4.74778 | 0.45393 | -0.55467 |
| C | -4.00294 | 1.58571 | -0.83525 |
| H | -1.05024 | 2.73332 | -0.70101 |
| H | 1.90278 | -0.36244 | 1.83338 |
| H | 1.97859 | -0.76820 | -1.19743 |
| H | 0.77767 | -2.46019 | 0.00182 |
| H | 3.91651 | -1.61115 | 1.01002 |
| H | 3.67911 | -2.90749 | -1.00469 |
| H | 5.44055 | 1.25386 | -1.46844 |
| H | 4.96620 | -0.33294 | -2.04504 |
| H | 2.22802 | 1.54126 | -0.34388 |
| H | 2.69018 | 2.09697 | 2.05833 |
| H | 1.55708 | 3.26940 | 1.34437 |

| | | | |
|---|----------|----------|----------|
| H | 0.94642 | 1.98491 | 2.41384 |
| H | -2.25722 | -1.52301 | 0.66158 |
| H | -5.81558 | 0.43450 | -0.75276 |
| H | -4.47250 | 2.47011 | -1.25542 |

2h NMR Conformer 1

Energy: -910284.8126212

| | | | |
|----|----------|----------|----------|
| O | 1.72199 | 2.61552 | 0.82874 |
| C | 2.49652 | 1.59663 | 0.42415 |
| C | 1.99242 | 0.29897 | 0.19672 |
| C | 0.56822 | 0.03509 | 0.39730 |
| N | -0.28511 | 0.91474 | 0.78261 |
| C | -1.60738 | 0.26950 | 0.77655 |
| C | -2.41534 | 0.84683 | -0.40018 |
| O | -2.29725 | 2.25557 | -0.45992 |
| C | -3.93238 | 0.62845 | -0.31061 |
| O | -4.55470 | 1.16545 | -1.45687 |
| C | -4.29866 | -0.84506 | -0.19429 |
| N | -4.65104 | -1.44612 | -1.33989 |
| O | -4.21701 | -1.41704 | 0.89269 |
| C | -1.26349 | -1.23346 | 0.64120 |
| C | -1.30100 | -1.98845 | 1.95387 |
| O | 0.11614 | -1.20589 | 0.16361 |
| C | 2.85071 | -0.72799 | -0.21865 |
| C | 4.19307 | -0.45748 | -0.40874 |
| Cl | 5.26717 | -1.73583 | -0.92964 |
| C | 4.70617 | 0.82391 | -0.19004 |
| C | 3.86125 | 1.84159 | 0.22395 |
| H | 0.79202 | 2.28625 | 0.93656 |
| H | -2.12675 | 0.47864 | 1.71921 |
| H | -2.04843 | 0.39516 | -1.33826 |
| H | -1.35893 | 2.49143 | -0.55817 |
| H | -4.29033 | 1.11876 | 0.60616 |
| H | -4.19073 | 2.05502 | -1.60765 |
| H | -4.92626 | -2.42164 | -1.32737 |
| H | -4.77456 | -0.89852 | -2.18302 |
| H | -1.84049 | -1.74134 | -0.13536 |
| H | -2.33318 | -2.04216 | 2.30485 |
| H | -0.91176 | -3.00066 | 1.82265 |
| H | -0.69173 | -1.47011 | 2.70175 |
| H | 2.45332 | -1.72426 | -0.38734 |
| H | 5.76375 | 1.01880 | -0.34360 |
| H | 4.24133 | 2.84324 | 0.40096 |

2g NMR Conformer 9

Energy: -910277.6763514

| | | | |
|---|---------|---------|----------|
| O | 2.58024 | 2.72019 | 0.11982 |
| C | 2.98859 | 1.43319 | 0.06968 |
| C | 2.03535 | 0.42385 | -0.14918 |

| | | | |
|----|----------|----------|----------|
| C | 0.60073 | 0.70129 | -0.36030 |
| N | -0.34418 | -0.07789 | 0.00419 |
| C | -1.58476 | 0.51221 | -0.52301 |
| C | -2.70562 | 0.38414 | 0.50971 |
| O | -2.27506 | 0.75443 | 1.80601 |
| C | -3.26903 | -1.05726 | 0.58315 |
| O | -4.09784 | -1.18264 | 1.71653 |
| C | -4.08547 | -1.38590 | -0.66406 |
| N | -5.41715 | -1.32394 | -0.51137 |
| O | -3.52896 | -1.64813 | -1.73138 |
| C | -1.17449 | 1.94690 | -0.94010 |
| C | -1.49126 | 3.07854 | 0.02150 |
| O | 0.27217 | 1.82266 | -1.03457 |
| C | 2.43907 | -0.91612 | -0.15406 |
| C | 3.77105 | -1.24276 | 0.03977 |
| Cl | 4.25983 | -2.92139 | 0.01677 |
| C | 4.72590 | -0.24975 | 0.24564 |
| C | 4.32928 | 1.08044 | 0.26304 |
| H | 3.33420 | 3.30823 | 0.30960 |
| H | -1.88382 | -0.05754 | -1.41052 |
| H | -3.53488 | 1.05928 | 0.25940 |
| H | -1.39175 | 0.36669 | 1.95313 |
| H | -2.43042 | -1.76772 | 0.62328 |
| H | -3.70512 | -0.64767 | 2.42833 |
| H | -6.01823 | -1.53637 | -1.29874 |
| H | -5.81602 | -1.16980 | 0.40603 |
| H | -1.53391 | 2.18125 | -1.94489 |
| H | -2.57287 | 3.19757 | 0.13130 |
| H | -1.06439 | 2.88393 | 1.00741 |
| H | -1.07860 | 4.01117 | -0.37038 |
| H | 1.69455 | -1.68885 | -0.31964 |
| H | 5.76935 | -0.51251 | 0.39378 |
| H | 5.06367 | 1.86421 | 0.43524 |

2g NMR Conformer 8

Energy: -910282.0096996

| | | | |
|---|----------|----------|----------|
| O | 2.71425 | 2.84354 | -0.03438 |
| C | 3.10647 | 1.55227 | 0.00478 |
| C | 2.24912 | 0.44446 | -0.13490 |
| C | 0.79702 | 0.56650 | -0.33635 |
| N | -0.04997 | -0.38394 | -0.32436 |
| C | -1.34792 | 0.21289 | -0.67304 |
| C | -2.46394 | -0.44804 | 0.13189 |
| O | -2.40840 | -1.85482 | -0.02632 |
| C | -3.85067 | -0.04751 | -0.37938 |
| O | -4.09075 | -0.56362 | -1.66711 |
| C | -4.91551 | -0.46721 | 0.64310 |
| N | -5.95037 | -1.16267 | 0.15124 |
| O | -4.79758 | -0.14018 | 1.82362 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| C | -1.13516 | 1.72717 | -0.44858 | H | 2.48426 | -0.03783 | 1.20010 |
| C | -1.51843 | 2.27327 | 0.91646 | H | 2.02756 | 2.13304 | 0.31686 |
| O | 0.31518 | 1.82129 | -0.57330 | H | 3.72777 | -1.46188 | -0.52639 |
| C | 2.78245 | -0.85315 | -0.07303 | H | 3.98969 | 1.08763 | -1.67897 |
| C | 4.13544 | -1.03956 | 0.12608 | H | 6.96488 | 0.36699 | 0.73844 |
| Cl | 4.78538 | -2.66128 | 0.19487 | H | 6.24689 | 0.50442 | -0.85468 |
| C | 4.99522 | 0.05280 | 0.26837 | H | 1.16480 | -2.20700 | -1.34858 |
| C | 4.47719 | 1.33458 | 0.20691 | H | 2.21668 | -2.43840 | 0.95857 |
| H | 1.75799 | 2.91436 | -0.19855 | H | 0.79373 | -1.63586 | 1.65490 |
| H | -1.53362 | 0.01039 | -1.73773 | H | 0.62682 | -3.21333 | 0.85714 |
| H | -2.38425 | -0.17956 | 1.19179 | H | -2.99215 | -1.67890 | -0.30909 |
| H | -1.49120 | -2.14643 | 0.11701 | H | -5.86560 | 1.42416 | 0.46493 |
| H | -3.92086 | 1.04591 | -0.45092 | H | -4.03031 | 3.10622 | 0.52750 |
| H | -3.69149 | -1.45195 | -1.71431 | | | | |
| H | -6.70701 | -1.43725 | 0.76663 | | | | |
| H | -6.00698 | -1.36315 | -0.83910 | | | | |
| H | -1.55870 | 2.32845 | -1.25576 | | | | |
| H | -2.60114 | 2.23784 | 1.06719 | | | | |
| H | -1.03830 | 1.69760 | 1.71385 | | | | |
| H | -1.19709 | 3.31435 | 0.99496 | | | | |
| H | 2.11219 | -1.69960 | -0.18726 | | | | |
| H | 6.05882 | -0.10417 | 0.42298 | | | | |
| H | 5.12324 | 2.20072 | 0.31432 | | | | |

2g NMR Conformer 7

Energy: -910286.0306359

| | | | |
|----|----------|----------|----------|
| O | -1.53639 | 2.62064 | 0.19428 |
| C | -2.48393 | 1.67028 | 0.14798 |
| C | -2.19255 | 0.31121 | -0.09056 |
| C | -0.80797 | -0.10183 | -0.31286 |
| N | 0.20837 | 0.67933 | -0.26242 |
| C | 1.37322 | -0.12336 | -0.66227 |
| C | 2.60463 | 0.26262 | 0.15290 |
| O | 2.83651 | 1.65723 | 0.06148 |
| C | 3.87701 | -0.38084 | -0.40653 |
| O | 4.19784 | 0.13530 | -1.67692 |
| C | 5.01667 | -0.22660 | 0.60998 |
| N | 6.16157 | 0.27634 | 0.12756 |
| O | 4.85125 | -0.57988 | 1.77704 |
| C | 0.86628 | -1.57708 | -0.50796 |
| C | 1.14714 | -2.25371 | 0.82350 |
| O | -0.57697 | -1.39562 | -0.61055 |
| C | -3.22632 | -0.63474 | -0.12531 |
| C | -4.53138 | -0.22450 | 0.07447 |
| Cl | -5.82414 | -1.40161 | 0.02971 |
| C | -4.83458 | 1.11898 | 0.31039 |
| C | -3.81537 | 2.05749 | 0.34573 |
| H | -0.65328 | 2.20329 | 0.03722 |
| H | 1.58409 | 0.09645 | -1.71855 |

2g NMR Conformer 6

Energy: -910274.8529101

| | | | |
|----|----------|----------|----------|
| O | -2.38309 | -2.86866 | -0.54789 |
| C | -2.94829 | -1.66920 | -0.28718 |
| C | -2.12492 | -0.53685 | -0.16764 |
| C | -0.65261 | -0.58470 | -0.28270 |
| N | 0.06948 | 0.40297 | -0.64935 |
| C | 1.46217 | -0.07904 | -0.65760 |
| C | 2.37663 | 1.05054 | -0.16362 |
| O | 1.98857 | 2.27367 | -0.76663 |
| C | 3.85283 | 0.91306 | -0.56710 |
| O | 4.57193 | 2.04603 | -0.13084 |
| C | 4.49791 | -0.33561 | 0.01807 |
| N | 5.27055 | -0.13971 | 1.09712 |
| O | 4.26362 | -1.44001 | -0.47257 |
| C | 1.39185 | -1.39053 | 0.16190 |
| C | 1.71606 | -1.29087 | 1.64337 |
| O | -0.02288 | -1.72869 | 0.05365 |
| C | -2.70857 | 0.71571 | 0.05886 |
| C | -4.08252 | 0.83364 | 0.17991 |
| Cl | -4.79071 | 2.40466 | 0.47738 |
| C | -4.90713 | -0.28427 | 0.07330 |
| C | -4.33577 | -1.52650 | -0.16237 |
| H | -3.06893 | -3.55581 | -0.63513 |
| H | 1.73299 | -0.30021 | -1.70080 |
| H | 2.31443 | 1.14459 | 0.93134 |
| H | 1.02001 | 2.34360 | -0.70899 |
| H | 3.89585 | 0.81185 | -1.66136 |
| H | 4.05821 | 2.83780 | -0.36608 |
| H | 5.48071 | 0.80127 | 1.40701 |
| H | 5.74729 | -0.92890 | 1.51840 |
| H | 1.95162 | -2.19537 | -0.31120 |
| H | 2.77637 | -1.08231 | 1.80595 |
| H | 1.12327 | -0.50345 | 2.12020 |
| H | 1.47766 | -2.24185 | 2.12539 |

| | | | |
|---|----------|----------|----------|
| H | -2.06604 | 1.58660 | 0.14443 |
| H | -5.98425 | -0.18492 | 0.17090 |
| H | -4.96835 | -2.40620 | -0.25877 |

2g NMR Conformer 5

Energy: -910275.1128057

| | | | |
|----|----------|----------|----------|
| O | -1.95578 | 2.68450 | -0.69295 |
| C | -2.73265 | 1.61388 | -0.41390 |
| C | -2.11491 | 0.43526 | 0.03650 |
| C | -0.65736 | 0.34192 | 0.24967 |
| N | 0.05611 | -0.67657 | -0.03902 |
| C | 1.41003 | -0.38756 | 0.47222 |
| C | 2.43757 | -0.96023 | -0.51221 |
| O | 2.04293 | -2.26402 | -0.90658 |
| C | 3.84254 | -1.18013 | 0.06912 |
| O | 4.66967 | -1.77782 | -0.90518 |
| C | 4.48934 | 0.11775 | 0.53315 |
| N | 5.39930 | 0.64422 | -0.30033 |
| O | 4.14079 | 0.63807 | 1.59280 |
| C | 1.38266 | 1.14241 | 0.70998 |
| C | 1.88525 | 2.02013 | -0.42429 |
| O | -0.04791 | 1.38751 | 0.84335 |
| C | -2.88845 | -0.70411 | 0.27757 |
| C | -4.26139 | -0.66161 | 0.09043 |
| Cl | -5.22060 | -2.08841 | 0.40813 |
| C | -4.88623 | 0.50535 | -0.34165 |
| C | -4.11941 | 1.63539 | -0.59552 |
| H | -2.49738 | 3.42010 | -1.03303 |
| H | 1.52601 | -0.91679 | 1.43009 |
| H | 2.51752 | -0.31565 | -1.40089 |
| H | 1.09826 | -2.23571 | -1.13753 |
| H | 3.74451 | -1.82271 | 0.95626 |
| H | 4.17642 | -2.51103 | -1.31109 |
| H | 5.88308 | 1.49491 | -0.03616 |
| H | 5.69409 | 0.12956 | -1.12122 |
| H | 1.84509 | 1.41445 | 1.65685 |
| H | 2.96559 | 1.92071 | -0.55648 |
| H | 1.38616 | 1.76400 | -1.36444 |
| H | 1.66215 | 3.06397 | -0.19192 |
| H | -2.40049 | -1.61225 | 0.61901 |
| H | -5.96283 | 0.53143 | -0.48300 |
| H | -4.59565 | 2.54792 | -0.94725 |

2g NMR Conformer 4

Energy: -910280.9544106

| | | | |
|---|---------|---------|----------|
| O | 2.81288 | 2.75620 | -0.34711 |
| C | 3.03965 | 1.43068 | -0.23130 |
| C | 2.03815 | 0.44264 | -0.18237 |
| C | 0.59969 | 0.74556 | -0.25456 |

| | | | |
|----|----------|----------|----------|
| N | -0.35287 | -0.08470 | -0.09263 |
| C | -1.59791 | 0.65381 | -0.35452 |
| C | -2.68229 | 0.22763 | 0.63584 |
| O | -2.20045 | 0.19197 | 1.96536 |
| C | -3.26973 | -1.16474 | 0.29701 |
| O | -4.07822 | -1.60647 | 1.36363 |
| C | -4.11731 | -1.10530 | -0.97112 |
| N | -5.44410 | -1.08443 | -0.77485 |
| O | -3.58636 | -1.04441 | -2.08103 |
| C | -1.17745 | 2.14438 | -0.32819 |
| C | -1.41087 | 2.92443 | 0.95201 |
| O | 0.26290 | 2.03379 | -0.53910 |
| C | 2.40614 | -0.90677 | -0.05678 |
| C | 3.73832 | -1.25929 | 0.02127 |
| Cl | 4.18117 | -2.94394 | 0.17394 |
| C | 4.74052 | -0.28652 | -0.02590 |
| C | 4.38579 | 1.04506 | -0.15134 |
| H | 1.86090 | 2.94352 | -0.41963 |
| H | -1.94294 | 0.38970 | -1.36075 |
| H | -3.50701 | 0.95298 | 0.63028 |
| H | -1.33057 | -0.25046 | 1.96333 |
| H | -2.44342 | -1.86528 | 0.10663 |
| H | -3.65250 | -1.32817 | 2.19311 |
| H | -6.06458 | -1.04870 | -1.57497 |
| H | -5.82206 | -1.19934 | 0.15706 |
| H | -1.57472 | 2.68133 | -1.19226 |
| H | -2.48200 | 3.01019 | 1.15450 |
| H | -0.94061 | 2.42968 | 1.80413 |
| H | -0.99971 | 3.93107 | 0.84430 |
| H | 1.62525 | -1.66049 | -0.02642 |
| H | 5.78620 | -0.57448 | 0.03289 |
| H | 5.14424 | 1.82116 | -0.19113 |

2g NMR Conformer 3

Energy: -910285.8626516

| | | | |
|---|----------|----------|----------|
| O | 0.88901 | -2.48451 | -0.32624 |
| C | 1.95836 | -1.68474 | -0.19176 |
| C | 1.86991 | -0.27756 | -0.24170 |
| C | 0.56639 | 0.35313 | -0.44538 |
| N | -0.53168 | -0.29423 | -0.60983 |
| C | -1.61322 | 0.69680 | -0.69114 |
| C | -2.50311 | 0.57552 | 0.55167 |
| O | -1.75082 | 0.66925 | 1.74815 |
| C | -3.32573 | -0.73204 | 0.59133 |
| O | -4.00287 | -0.82656 | 1.82512 |
| C | -4.35255 | -0.77092 | -0.53766 |
| N | -5.61510 | -0.49814 | -0.17631 |
| O | -4.00328 | -1.00755 | -1.69460 |
| C | -0.85257 | 2.04230 | -0.83860 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| C | -1.32043 | 3.22753 | -0.02328 | H | 1.71662 | 2.53403 | 0.51648 |
| O | 0.50784 | 1.69358 | -0.45056 | H | 4.10196 | 0.87156 | -1.33743 |
| C | 3.02190 | 0.50729 | -0.09728 | H | 4.70631 | 2.11678 | 0.62996 |
| C | 4.24428 | -0.10841 | 0.09739 | H | 5.44570 | -2.35922 | 0.72965 |
| Cl | 5.68460 | 0.86685 | 0.27879 | H | 5.59457 | -0.71810 | 1.33148 |
| C | 4.34732 | -1.50116 | 0.15014 | H | 1.51230 | -1.94078 | -1.08968 |
| C | 3.21072 | -2.28101 | 0.00596 | H | 2.53770 | -1.91751 | 1.22635 |
| H | 0.08472 | -1.92017 | -0.47140 | H | 1.04643 | -1.17779 | 1.85442 |
| H | -2.22741 | 0.50426 | -1.57382 | H | 1.01554 | -2.81853 | 1.17933 |
| H | -3.20766 | 1.41695 | 0.57934 | H | -2.70203 | -1.75379 | -0.12886 |
| H | -1.04580 | -0.00542 | 1.73539 | H | -5.88341 | 1.11153 | 0.26363 |
| H | -2.64931 | -1.58678 | 0.44296 | H | -4.22423 | 2.96572 | 0.16149 |
| H | -3.41081 | -0.49331 | 2.52180 | | | | |
| H | -5.84869 | -0.37182 | 0.80052 | | | | |
| H | -6.34714 | -0.51346 | -0.87664 | | | | |
| H | -0.79926 | 2.30732 | -1.90064 | | | | |
| H | -2.32345 | 3.52295 | -0.34493 | | | | |
| H | -1.34138 | 2.98400 | 1.04068 | | | | |
| H | -0.65111 | 4.07512 | -0.18741 | | | | |
| H | 2.94302 | 1.58939 | -0.14019 | | | | |
| H | 5.31614 | -1.96845 | 0.30242 | | | | |
| H | 3.27079 | -3.36457 | 0.04247 | | | | |

2g NMR Conformer 2

Energy: -910282.4639662

| | | | |
|----|----------|----------|----------|
| O | -1.68539 | 2.69726 | -0.08495 |
| C | -2.53569 | 1.65905 | -0.03778 |
| C | -2.10716 | 0.31794 | -0.12089 |
| C | -0.68292 | 0.02326 | -0.27575 |
| N | 0.24693 | 0.90733 | -0.29112 |
| C | 1.50672 | 0.19986 | -0.57944 |
| C | 2.64496 | 0.82879 | 0.23743 |
| O | 2.57299 | 2.24259 | 0.16009 |
| C | 4.05774 | 0.53218 | -0.29194 |
| O | 5.01003 | 1.20144 | 0.50298 |
| C | 4.38181 | -0.95543 | -0.29941 |
| N | 5.16996 | -1.38419 | 0.69750 |
| O | 3.89730 | -1.68794 | -1.16185 |
| C | 1.13925 | -1.28319 | -0.30739 |
| C | 1.45953 | -1.82594 | 1.07469 |
| O | -0.31741 | -1.25909 | -0.43030 |
| C | -3.04192 | -0.72462 | -0.06427 |
| C | -4.38530 | -0.42786 | 0.07351 |
| Cl | -5.55420 | -1.72696 | 0.14640 |
| C | -4.82416 | 0.89612 | 0.15589 |
| C | -3.90298 | 1.93033 | 0.09948 |
| H | -0.76299 | 2.34966 | -0.18662 |
| H | 1.73468 | 0.34330 | -1.64569 |
| H | 2.58462 | 0.51266 | 1.28937 |

2g NMR Conformer 1

Energy: -910278.4650366

| | | | |
|----|----------|----------|----------|
| O | -2.26982 | -2.92309 | 0.09256 |
| C | -2.82923 | -1.69476 | 0.06142 |
| C | -2.12141 | -0.49169 | -0.12095 |
| C | -0.66085 | -0.43257 | -0.29155 |
| N | 0.05070 | 0.62320 | -0.31767 |
| C | 1.43305 | 0.19639 | -0.60022 |
| C | 2.39475 | 1.08378 | 0.20341 |
| O | 1.98923 | 2.43809 | 0.10526 |
| C | 3.83930 | 1.11268 | -0.32009 |
| O | 4.60321 | 2.01563 | 0.44787 |
| C | 4.50107 | -0.25760 | -0.27103 |
| N | 5.35156 | -0.45730 | 0.74666 |
| O | 4.21123 | -1.11327 | -1.10735 |
| C | 1.41408 | -1.32387 | -0.30468 |
| C | 1.82763 | -1.75825 | 1.09052 |
| O | -0.01243 | -1.61763 | -0.44522 |
| C | -2.82098 | 0.72571 | -0.12950 |
| C | -4.19035 | 0.74164 | 0.04292 |
| Cl | -5.04680 | 2.26615 | 0.02739 |
| C | -4.90274 | -0.44647 | 0.22633 |
| C | -4.22040 | -1.65044 | 0.23372 |
| H | -1.31026 | -2.87387 | -0.06091 |
| H | 1.62456 | 0.36916 | -1.66965 |
| H | 2.40530 | 0.77832 | 1.26079 |
| H | 1.03483 | 2.48394 | 0.28802 |
| H | 3.80920 | 1.41483 | -1.37720 |
| H | 4.09297 | 2.83770 | 0.54542 |
| H | 5.84415 | -1.34056 | 0.81750 |
| H | 5.60218 | 0.31070 | 1.35749 |
| H | 1.93166 | -1.89491 | -1.07254 |
| H | 2.89677 | -1.60170 | 1.25254 |
| H | 1.26970 | -1.20552 | 1.85329 |
| H | 1.61894 | -2.82391 | 1.21162 |
| H | -2.26490 | 1.64678 | -0.27493 |

| | | | |
|---|----------|----------|---------|
| H | -5.98052 | -0.42371 | 0.35943 |
| H | -4.74962 | -2.58822 | 0.37394 |

2f NMR Conformer 6

Energy: -910278.5257231

| | | | |
|----|----------|----------|----------|
| O | 0.61664 | -2.27642 | -1.16799 |
| C | 1.61556 | -1.48994 | -0.73437 |
| C | 1.46173 | -0.10353 | -0.52823 |
| C | 0.16635 | 0.52685 | -0.78038 |
| N | -0.86508 | -0.08871 | -1.22898 |
| C | -1.96659 | 0.87703 | -1.27530 |
| C | -3.21690 | 0.30111 | -0.58759 |
| O | -3.56908 | -0.89291 | -1.27292 |
| C | -3.21367 | 0.00618 | 0.93539 |
| O | -4.35016 | -0.77245 | 1.24249 |
| C | -1.92536 | -0.65593 | 1.43250 |
| N | -1.91443 | -1.99994 | 1.42230 |
| O | -0.96955 | 0.03486 | 1.78360 |
| C | -1.32399 | 2.21622 | -0.80634 |
| C | -1.89658 | 2.94244 | 0.39447 |
| O | 0.04780 | 1.83326 | -0.50702 |
| C | 2.54071 | 0.66218 | -0.06817 |
| C | 3.75600 | 0.04986 | 0.17796 |
| Cl | 5.10356 | 1.00569 | 0.75337 |
| C | 3.92368 | -1.32209 | -0.02428 |
| C | 2.85769 | -2.08410 | -0.47717 |
| H | -0.19242 | -1.71996 | -1.29735 |
| H | -2.28002 | 0.98512 | -2.32061 |
| H | -4.05279 | 0.99071 | -0.75900 |
| H | -2.77435 | -1.44968 | -1.36861 |
| H | -3.29922 | 0.94464 | 1.48749 |
| H | -4.61041 | -1.26145 | 0.44162 |
| H | -2.77227 | -2.52027 | 1.28656 |
| H | -1.09524 | -2.48938 | 1.76498 |
| H | -1.26777 | 2.89548 | -1.66199 |
| H | -2.96692 | 3.12538 | 0.25566 |
| H | -1.73202 | 2.35700 | 1.30037 |
| H | -1.40092 | 3.90952 | 0.50726 |
| H | 2.41189 | 1.72819 | 0.09198 |
| H | 4.88500 | -1.78757 | 0.17389 |
| H | 2.96645 | -3.15234 | -0.63898 |

2f NMR Conformer 5

Energy: -910273.3693083

| | | | |
|---|----------|----------|----------|
| O | 2.12290 | 2.74035 | -0.28112 |
| C | 2.79031 | 1.56656 | -0.21837 |
| C | 2.05074 | 0.37388 | -0.14767 |
| C | 0.57543 | 0.35571 | -0.17854 |
| N | -0.16056 | -0.42635 | 0.51300 |

| | | | |
|----|----------|----------|----------|
| C | -1.53221 | -0.20141 | 0.01422 |
| C | -2.56029 | -0.51685 | 1.09887 |
| O | -2.50346 | 0.36166 | 2.20451 |
| C | -4.00989 | -0.48484 | 0.60462 |
| O | -4.41374 | 0.80732 | 0.20571 |
| C | -4.18333 | -1.45335 | -0.56131 |
| N | -4.61215 | -0.91300 | -1.71136 |
| O | -3.91278 | -2.64543 | -0.41623 |
| C | -1.44384 | 1.19569 | -0.63384 |
| C | -1.62970 | 2.42434 | 0.24127 |
| O | -0.04100 | 1.19130 | -1.04578 |
| C | 2.71943 | -0.84779 | -0.02202 |
| C | 4.10483 | -0.88013 | 0.01265 |
| Cl | 4.92906 | -2.41545 | 0.15857 |
| C | 4.84792 | 0.29437 | -0.07315 |
| C | 4.18765 | 1.51143 | -0.18434 |
| H | 2.74910 | 3.48738 | -0.28482 |
| H | -1.69475 | -0.93807 | -0.79008 |
| H | -2.35649 | -1.54887 | 1.41742 |
| H | -1.61275 | 0.31704 | 2.59239 |
| H | -4.64628 | -0.85608 | 1.42012 |
| H | -4.51489 | 1.35825 | 1.00041 |
| H | -4.85315 | 0.06900 | -1.75825 |
| H | -4.75796 | -1.51006 | -2.51713 |
| H | -2.04533 | 1.25922 | -1.54302 |
| H | -2.66409 | 2.52096 | 0.56635 |
| H | -0.98772 | 2.37225 | 1.12438 |
| H | -1.34840 | 3.30660 | -0.33951 |
| H | 2.13891 | -1.76350 | 0.03966 |
| H | 5.93327 | 0.26046 | -0.04918 |
| H | 4.75769 | 2.43637 | -0.23702 |

2f NMR Conformer 4

Energy: -910274.5525904

| | | | |
|---|----------|----------|----------|
| O | 0.55163 | 2.25509 | -0.02002 |
| C | 1.66471 | 1.49778 | 0.03749 |
| C | 1.65252 | 0.09505 | 0.14313 |
| C | 0.39068 | -0.64680 | 0.29084 |
| N | -0.67261 | -0.22130 | 0.85113 |
| C | -1.61637 | -1.34636 | 0.82515 |
| C | -3.07841 | -0.90648 | 0.71072 |
| O | -3.43767 | -0.22596 | 1.90622 |
| C | -3.56953 | -0.04949 | -0.48231 |
| O | -4.93287 | 0.25068 | -0.27154 |
| C | -2.74211 | 1.22051 | -0.69272 |
| N | -3.17336 | 2.31924 | -0.05651 |
| O | -1.72010 | 1.19707 | -1.38546 |
| C | -1.00780 | -2.33950 | -0.19260 |
| C | -1.52261 | -2.30328 | -1.61880 |

| | | | |
|----|----------|----------|----------|
| O | 0.38176 | -1.90912 | -0.20568 |
| C | 2.85919 | -0.61637 | 0.12898 |
| C | 4.06048 | 0.06792 | 0.06078 |
| Cl | 5.56423 | -0.82627 | 0.06154 |
| C | 4.08807 | 1.46078 | -0.00806 |
| C | 2.89361 | 2.16556 | -0.02615 |
| H | -0.24002 | 1.71723 | -0.21980 |
| H | -1.57509 | -1.81477 | 1.81958 |
| H | -3.69998 | -1.81150 | 0.69326 |
| H | -2.77119 | 0.46127 | 2.09400 |
| H | -3.49973 | -0.61485 | -1.41325 |
| H | -5.09833 | 0.28538 | 0.68783 |
| H | -4.08584 | 2.33712 | 0.38296 |
| H | -2.68854 | 3.19857 | -0.20374 |
| H | -1.02062 | -3.35856 | 0.20060 |
| H | -2.55688 | -2.65913 | -1.66129 |
| H | -1.46725 | -1.28758 | -2.02142 |
| H | -0.91202 | -2.96479 | -2.23802 |
| H | 2.84191 | -1.70050 | 0.18944 |
| H | 5.03704 | 1.98660 | -0.06004 |
| H | 2.88989 | 3.24858 | -0.10537 |

2f NMR Conformer 3

Energy: -910272.8050330

| | | | |
|----|----------|----------|----------|
| O | 0.97159 | 2.41830 | 1.07421 |
| C | 1.81869 | 1.45779 | 0.64638 |
| C | 1.45023 | 0.43009 | -0.23993 |
| C | 0.10405 | 0.36305 | -0.83884 |
| N | -0.56024 | -0.70292 | -1.05154 |
| C | -1.86014 | -0.28913 | -1.59675 |
| C | -2.98804 | -0.89912 | -0.74281 |
| O | -2.79016 | -2.30526 | -0.72579 |
| C | -3.22474 | -0.42277 | 0.71792 |
| O | -4.06187 | -1.35726 | 1.36154 |
| C | -1.94593 | -0.17608 | 1.52124 |
| N | -1.50831 | -1.19242 | 2.27195 |
| O | -1.37585 | 0.91836 | 1.45296 |
| C | -1.73160 | 1.24603 | -1.80051 |
| C | -2.79046 | 2.17691 | -1.24318 |
| O | -0.45093 | 1.54588 | -1.18261 |
| C | 2.37901 | -0.55851 | -0.58602 |
| C | 3.66878 | -0.49659 | -0.08654 |
| Cl | 4.82963 | -1.72426 | -0.53931 |
| C | 4.05815 | 0.53792 | 0.76411 |
| C | 3.13157 | 1.50332 | 1.13005 |
| H | 0.04684 | 2.13112 | 0.96262 |
| H | -1.99318 | -0.76670 | -2.57453 |
| H | -3.94168 | -0.74198 | -1.26147 |
| H | -1.84480 | -2.47948 | -0.55939 |

| | | | |
|---|----------|----------|----------|
| H | -3.75030 | 0.53541 | 0.70096 |
| H | -3.95012 | -2.21771 | 0.91851 |
| H | -0.67760 | -1.07031 | 2.84093 |
| H | -2.07800 | -2.01978 | 2.40056 |
| H | -1.59878 | 1.43742 | -2.87037 |
| H | -3.78478 | 1.86355 | -1.57711 |
| H | -2.75238 | 2.18825 | -0.15322 |
| H | -2.61753 | 3.19212 | -1.60798 |
| H | 2.07984 | -1.35357 | -1.26287 |
| H | 5.07477 | 0.57995 | 1.14430 |
| H | 3.40403 | 2.30399 | 1.81126 |

2f NMR Conformer 2

Energy: -910277.0598735

| | | | |
|----|----------|----------|----------|
| O | 2.26487 | 2.81909 | -0.57945 |
| C | 2.79719 | 1.59176 | -0.39547 |
| C | 2.05033 | 0.41430 | -0.20166 |
| C | 0.57937 | 0.39013 | -0.16459 |
| N | -0.15173 | -0.59503 | 0.17852 |
| C | -1.53973 | -0.16636 | -0.07674 |
| C | -2.51035 | -0.89811 | 0.84923 |
| O | -2.35973 | -0.55280 | 2.21070 |
| C | -3.97939 | -0.65429 | 0.49657 |
| O | -4.34061 | 0.70610 | 0.61242 |
| C | -4.25997 | -1.13660 | -0.92547 |
| N | -4.78632 | -0.22642 | -1.75751 |
| O | -3.98976 | -2.29336 | -1.24806 |
| C | -1.44630 | 1.37365 | -0.07551 |
| C | -1.53948 | 2.11652 | 1.24581 |
| O | -0.06436 | 1.53180 | -0.54620 |
| C | 2.72126 | -0.80512 | -0.01740 |
| C | 4.10122 | -0.84634 | -0.02121 |
| Cl | 4.92250 | -2.37366 | 0.20473 |
| C | 4.85203 | 0.31694 | -0.20897 |
| C | 4.19766 | 1.52250 | -0.39444 |
| H | 1.29276 | 2.77370 | -0.60086 |
| H | -1.78263 | -0.49095 | -1.10205 |
| H | -2.32102 | -1.97009 | 0.70059 |
| H | -1.46193 | -0.79463 | 2.49609 |
| H | -4.58887 | -1.27777 | 1.16515 |
| H | -4.51532 | 0.90836 | 1.54690 |
| H | -5.01082 | -0.49397 | -2.70880 |
| H | -5.01860 | 0.69996 | -1.42240 |
| H | -2.09082 | 1.82066 | -0.83429 |
| H | -2.54796 | 2.05932 | 1.65092 |
| H | -0.84710 | 1.69491 | 1.97914 |
| H | -1.27921 | 3.16485 | 1.07565 |
| H | 2.13470 | -1.70759 | 0.12526 |
| H | 5.93735 | 0.27362 | -0.21197 |

H 4.75702 2.44132 -0.54295

2f NMR Conformer 1

Energy: -910281.4362375

| | | | |
|----|----------|----------|----------|
| O | -1.53179 | 2.67751 | 0.30052 |
| C | -2.41361 | 1.68193 | 0.11778 |
| C | -2.02006 | 0.33885 | -0.05961 |
| C | -0.59735 | 0.00335 | -0.06263 |
| N | 0.35043 | 0.84629 | 0.13568 |
| C | 1.60321 | 0.10637 | -0.09777 |
| C | 2.75265 | 0.70804 | 0.71078 |
| O | 2.60662 | 0.55188 | 2.10657 |
| C | 4.11809 | 0.11701 | 0.35070 |
| O | 4.19957 | -1.26157 | 0.64308 |
| C | 4.40997 | 0.34226 | -1.13109 |
| N | 4.68813 | -0.75763 | -1.84541 |
| O | 4.36550 | 1.47927 | -1.60055 |
| C | 1.16786 | -1.36364 | 0.09211 |
| C | 1.17877 | -1.95878 | 1.48904 |
| O | -0.24294 | -1.27243 | -0.30468 |
| C | -2.98554 | -0.66080 | -0.23851 |
| C | -4.32547 | -0.31929 | -0.24287 |
| Cl | -5.53426 | -1.56452 | -0.46258 |
| C | -4.72999 | 1.00726 | -0.07224 |
| C | -3.77798 | 1.99897 | 0.10639 |
| H | -0.61431 | 2.29926 | 0.28271 |
| H | 1.85828 | 0.25321 | -1.15990 |
| H | 2.78671 | 1.77307 | 0.44243 |
| H | 1.80662 | 1.02380 | 2.39494 |
| H | 4.87893 | 0.67941 | 0.90957 |
| H | 4.33917 | -1.37217 | 1.59878 |
| H | 4.74198 | -1.66197 | -1.39380 |
| H | 4.90754 | -0.66792 | -2.83073 |
| H | 1.65605 | -2.02343 | -0.62741 |
| H | 2.19832 | -2.08863 | 1.84732 |
| H | 0.64337 | -1.31465 | 2.19131 |
| H | 0.68187 | -2.93178 | 1.45386 |
| H | -2.67141 | -1.69164 | -0.37168 |
| H | -5.78700 | 1.25787 | -0.07908 |
| H | -4.07268 | 3.03526 | 0.24171 |

2e NMR Conformer 8

Energy: -910285.0601109

| | | | |
|---|----------|---------|---------|
| O | 1.74858 | 2.63731 | 0.91050 |
| C | 2.51439 | 1.62131 | 0.48240 |
| C | 2.00025 | 0.32936 | 0.24503 |
| C | 0.57628 | 0.07141 | 0.46235 |
| N | -0.25896 | 0.94698 | 0.89231 |
| C | -1.59203 | 0.32089 | 0.87969 |

| | | | |
|----|----------|----------|----------|
| C | -2.39635 | 0.99521 | -0.24146 |
| O | -1.98656 | 0.53102 | -1.51863 |
| C | -3.92314 | 0.84077 | -0.19260 |
| O | -4.49578 | 1.52004 | -1.28732 |
| C | -4.38485 | -0.61618 | -0.10758 |
| N | -5.02962 | -1.09914 | -1.17904 |
| O | -4.15690 | -1.26992 | 0.91125 |
| C | -1.27297 | -1.17886 | 0.66737 |
| C | -1.31610 | -1.99265 | 1.94494 |
| O | 0.10786 | -1.15483 | 0.19154 |
| C | 2.84623 | -0.69532 | -0.19866 |
| C | 4.18765 | -0.42933 | -0.40386 |
| Cl | 5.24650 | -1.70647 | -0.95909 |
| C | 4.71109 | 0.84563 | -0.17419 |
| C | 3.87738 | 1.86202 | 0.26612 |
| H | 0.81733 | 2.30756 | 1.02175 |
| H | -2.09304 | 0.48761 | 1.83989 |
| H | -2.21007 | 2.07520 | -0.16143 |
| H | -1.17994 | 0.99855 | -1.79583 |
| H | -4.28221 | 1.31795 | 0.72694 |
| H | -3.87892 | 1.45477 | -2.03879 |
| H | -5.39802 | -2.04300 | -1.15262 |
| H | -5.27898 | -0.48711 | -1.94529 |
| H | -1.86085 | -1.62997 | -0.13219 |
| H | -2.34605 | -2.04290 | 2.30183 |
| H | -0.94710 | -3.00522 | 1.76502 |
| H | -0.69068 | -1.52224 | 2.71120 |
| H | 2.44052 | -1.68668 | -0.37628 |
| H | 5.76748 | 1.03696 | -0.33986 |
| H | 4.26558 | 2.85911 | 0.45117 |

2e NMR Conformer 6

Energy: -910278.3681241

| | | | |
|---|----------|----------|----------|
| O | -0.53437 | -2.33205 | -0.17642 |
| C | -1.63153 | -1.55658 | -0.05198 |
| C | -1.58581 | -0.15511 | 0.02340 |
| C | -0.29922 | 0.57163 | 0.07844 |
| N | 0.64353 | 0.36253 | 0.90806 |
| C | 1.66283 | 1.38417 | 0.62676 |
| C | 3.08644 | 0.82923 | 0.68735 |
| O | 3.29323 | 0.20052 | 1.93908 |
| C | 3.57725 | -0.11692 | -0.43437 |
| O | 4.87861 | -0.55230 | -0.11175 |
| C | 2.63349 | -1.29111 | -0.67586 |
| N | 2.95898 | -2.44714 | -0.09337 |
| O | 1.60852 | -1.13235 | -1.35609 |
| C | 1.21283 | 2.04653 | -0.69242 |
| C | 1.22774 | 3.55910 | -0.67957 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| O | -0.14919 | 1.56453 | -0.82885 | H | -3.35708 | 0.68807 | 1.68288 |
| C | -2.77300 | 0.58312 | 0.08174 | H | -4.67446 | -1.36086 | 0.33719 |
| C | -3.99053 | -0.07709 | 0.12006 | H | -2.87862 | -2.73633 | 1.05114 |
| Cl | -5.47140 | 0.84941 | 0.21566 | H | -1.21341 | -2.79111 | 1.56535 |
| C | -4.05037 | -1.46965 | 0.08919 | H | -1.78725 | 2.10093 | 0.97028 |
| C | -2.87407 | -2.19991 | -0.00383 | H | -2.59414 | 3.80078 | -0.70587 |
| H | 0.23027 | -1.83303 | -0.54615 | H | -1.04144 | 4.27441 | 0.00992 |
| H | 1.61640 | 2.11789 | 1.44623 | H | -1.09128 | 3.57960 | -1.62866 |
| H | 3.78086 | 1.67951 | 0.66280 | H | 2.37405 | 1.57330 | 0.62036 |
| H | 2.53035 | -0.37569 | 2.13184 | H | 4.94367 | -1.74919 | -0.29848 |
| H | 3.62785 | 0.43327 | -1.38076 | H | 3.05212 | -2.89190 | -1.44690 |
| H | 4.97400 | -0.54861 | 0.85813 | | | | |
| H | 2.38731 | -3.27118 | -0.25090 | | | | |
| H | 3.85842 | -2.55525 | 0.36089 | | | | |
| H | 1.76268 | 1.65423 | -1.55576 | | | | |
| H | 2.25560 | 3.91361 | -0.55375 | | | | |
| H | 0.83730 | 3.96126 | -1.61695 | | | | |
| H | 0.62381 | 3.93696 | 0.15030 | | | | |
| H | -2.73083 | 1.66840 | 0.11880 | | | | |
| H | -5.01060 | -1.97611 | 0.12320 | | | | |
| H | -2.89786 | -3.28426 | -0.05816 | | | | |

2e NMR Conformer 5

Energy: -910283.0069564

| | | | |
|----|----------|----------|----------|
| O | 0.67138 | -1.97386 | -1.69662 |
| C | 1.65465 | -1.31065 | -1.06632 |
| C | 1.46588 | -0.04193 | -0.48001 |
| C | 0.15059 | 0.59356 | -0.54269 |
| N | -0.87565 | 0.07978 | -1.11586 |
| C | -1.98221 | 1.02538 | -0.94876 |
| C | -3.24752 | 0.31760 | -0.45203 |
| O | -3.54921 | -0.76430 | -1.31589 |
| C | -3.28127 | -0.17705 | 1.01538 |
| O | -4.43663 | -0.96593 | 1.19518 |
| C | -2.01063 | -0.91772 | 1.44261 |
| N | -2.01623 | -2.25015 | 1.26362 |
| O | -1.05110 | -0.29042 | 1.88969 |
| C | -1.39982 | 2.14668 | -0.05223 |
| C | -1.53434 | 3.53878 | -0.62942 |
| O | 0.00705 | 1.79357 | 0.03758 |
| C | 2.53010 | 0.59855 | 0.16833 |
| C | 3.76514 | -0.02077 | 0.22515 |
| Cl | 5.09642 | 0.77751 | 1.03173 |
| C | 3.96703 | -1.27671 | -0.35258 |
| C | 2.91619 | -1.91500 | -0.99272 |
| H | -0.15278 | -1.42442 | -1.66449 |
| H | -2.24059 | 1.42568 | -1.93978 |
| H | -4.09039 | 1.01400 | -0.54738 |
| H | -2.73900 | -1.28489 | -1.46703 |

2e NMR Conformer 4

Energy: -910278.6131351

| | | | |
|----|----------|----------|----------|
| O | 2.12289 | -2.75057 | -0.29761 |
| C | 2.79998 | -1.58833 | -0.16028 |
| C | 2.07495 | -0.40180 | 0.03869 |
| C | 0.60057 | -0.36940 | 0.13804 |
| N | -0.12553 | 0.58652 | -0.29745 |
| C | -1.51127 | 0.27130 | 0.07750 |
| C | -2.39576 | 0.37371 | -1.17046 |
| O | -2.08145 | -0.63605 | -2.11138 |
| C | -3.89193 | 0.22714 | -0.89020 |
| O | -4.21655 | -1.03703 | -0.35153 |
| C | -4.36644 | 1.31974 | 0.06323 |
| N | -5.07000 | 0.90291 | 1.12637 |
| O | -4.09960 | 2.49874 | -0.16858 |
| C | -1.43175 | -1.13011 | 0.73143 |
| C | -2.00242 | -1.21043 | 2.13012 |
| O | -0.00067 | -1.38830 | 0.78196 |
| C | 2.75781 | 0.81542 | 0.13362 |
| C | 4.14059 | 0.84568 | 0.04898 |
| Cl | 4.97990 | 2.37380 | 0.18483 |
| C | 4.86973 | -0.32615 | -0.13657 |
| C | 4.19567 | -1.53543 | -0.24414 |
| H | 2.74036 | -3.48598 | -0.46536 |
| H | -1.85489 | 1.02656 | 0.80093 |
| H | -2.23831 | 1.37119 | -1.60029 |
| H | -1.16200 | -0.51544 | -2.40593 |
| H | -4.42300 | 0.39096 | -1.83965 |
| H | -4.04318 | -1.71707 | -1.02515 |
| H | -5.29092 | -0.07791 | 1.24366 |
| H | -5.43897 | 1.58678 | 1.77694 |
| H | -1.85983 | -1.89708 | 0.08137 |
| H | -3.07924 | -1.02766 | 2.08871 |
| H | -1.83133 | -2.19848 | 2.56442 |
| H | -1.53915 | -0.45566 | 2.77303 |
| H | 2.18883 | 1.72835 | 0.28103 |
| H | 5.95360 | -0.29521 | -0.19942 |

H 4.75307 -2.45617 -0.40165

2e NMR Conformer 3

Energy: -910278.0638698

O 0.93549 -1.24238 2.28509
C 1.81041 -0.78236 1.36662
C 1.46329 0.11817 0.34442
C 0.11070 0.70289 0.25462
N -0.58818 0.79361 -0.80652
C -1.84708 1.44538 -0.42379
C -3.03582 0.62404 -0.94124
O -2.83716 0.34835 -2.31599
C -3.39580 -0.69659 -0.20620
O -4.31119 -1.41697 -0.99833
C -2.18486 -1.54992 0.17222
N -1.81426 -2.49138 -0.69813
O -1.60309 -1.33465 1.24398
C -1.73721 1.67262 1.10534
C -1.85040 3.12405 1.52159
O -0.40042 1.19131 1.40435
C 2.41375 0.49353 -0.61143
C 3.70866 0.01060 -0.51906
Cl 4.89715 0.49561 -1.70736
C 4.07900 -0.84976 0.51391
C 3.12915 -1.24591 1.44480
H 0.00987 -1.17108 1.96932
H -1.90711 2.40914 -0.94887
H -3.94081 1.24162 -0.88619
H -1.90437 0.09524 -2.44690
H -3.88459 -0.44996 0.74295
H -4.17661 -1.15930 -1.92836
H -1.02731 -3.09384 -0.48071
H -2.39231 -2.70674 -1.50187
H -2.42616 1.04207 1.67538
H -2.85439 3.49328 1.29080
H -1.67753 3.23598 2.59426
H -1.12130 3.73211 0.97787
H 2.12895 1.17852 -1.40501
H 5.09935 -1.21630 0.58022
H 3.38808 -1.93746 2.24110

2e NMR Conformer 2

Energy: -910281.8465346

O 2.27098 2.85291 0.20035
C 2.81040 1.62012 0.08754
C 2.07477 0.43066 -0.07131
C 0.60285 0.39220 -0.13305
N -0.11754 -0.65803 -0.12843
C -1.51795 -0.22490 -0.22577

C -2.31508 -0.88429 0.90599
O -1.89881 -0.40784 2.17130
C -3.82198 -0.63060 0.83915
O -4.14400 0.73978 0.95365
C -4.39937 -1.17947 -0.46278
N -5.18233 -0.33885 -1.15523
O -4.13905 -2.32939 -0.81564
C -1.46431 1.32216 -0.18713
C -2.12057 2.01011 -1.36255
O -0.03012 1.59065 -0.21298
C 2.75658 -0.79285 -0.16684
C 4.13537 -0.82744 -0.10639
Cl 4.96951 -2.35934 -0.23214
C 4.87519 0.34727 0.05085
C 4.21018 1.55723 0.14639
H 1.30154 2.81800 0.12279
H -1.92495 -0.58107 -1.18420
H -2.16043 -1.96757 0.82436
H -0.97421 -0.67232 2.31907
H -4.28815 -1.20647 1.65229
H -3.94545 1.03415 1.85922
H -5.62292 -0.66085 -2.00928
H -5.39419 0.58212 -0.79246
H -1.82893 1.71109 0.76570
H -3.19392 1.80475 -1.33925
H -1.97065 3.09146 -1.31721
H -1.70756 1.63214 -2.30266
H 2.17901 -1.70382 -0.29029
H 5.95977 0.30989 0.09611
H 4.76009 2.48545 0.26980

2e NMR Conformer 1

Energy: -910286.5401736

O -1.54798 2.69731 -0.34859
C -2.42991 1.69191 -0.23525
C -2.03636 0.34131 -0.12953
C -0.61215 0.00516 -0.14450
N 0.33050 0.87068 -0.24218
C 1.60368 0.14106 -0.24034
C 2.51319 0.71873 0.85129
O 2.00005 0.45488 2.14250
C 3.93050 0.14336 0.83666
O 3.94629 -1.24974 1.06739
C 4.61309 0.44444 -0.49504
N 5.18431 -0.60220 -1.10876
O 4.61409 1.59174 -0.94045
C 1.18989 -1.34074 -0.04829
C 1.66230 -2.27114 -1.14260
O -0.26923 -1.28762 -0.05905

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| C | -3.00229 | -0.66695 | -0.01328 | H | -1.20226 | -1.66022 | 0.37301 |
| C | -4.34273 | -0.32734 | -0.00296 | H | -2.72532 | -3.07699 | -0.87099 |
| Cl | -5.55190 | -1.58308 | 0.14250 | H | -4.03734 | -2.73632 | -1.98157 |
| C | -4.74756 | 1.00598 | -0.10642 | H | -1.86495 | 2.73908 | 0.77529 |
| C | -3.79506 | 2.00636 | -0.22187 | H | -2.80597 | 3.20989 | -1.51604 |
| H | -0.63011 | 2.31612 | -0.34729 | H | -1.30700 | 4.12263 | -1.24928 |
| H | 2.09298 | 0.29249 | -1.21395 | H | -1.28694 | 2.64725 | -2.24627 |
| H | 2.59446 | 1.79856 | 0.67331 | H | 1.33424 | -1.53877 | -0.28613 |
| H | 1.16680 | 0.94323 | 2.25994 | H | 5.49283 | -0.51004 | 0.07180 |
| H | 4.50839 | 0.67121 | 1.60938 | H | 4.86583 | 1.89358 | 0.24054 |
| H | 3.70541 | -1.41846 | 1.99451 | | | | |
| H | 5.68158 | -0.45614 | -1.97973 | | | | |
| H | 5.18471 | -1.51568 | -0.67248 | | | | |
| H | 1.47090 | -1.70596 | 0.94118 | | | | |
| H | 2.75449 | -2.31548 | -1.12382 | | | | |
| H | 1.26815 | -3.27923 | -0.99425 | | | | |
| H | 1.33898 | -1.90280 | -2.12100 | | | | |
| H | -2.68904 | -1.70354 | 0.06695 | | | | |
| H | -5.80492 | 1.25493 | -0.09651 | | | | |
| H | -4.08950 | 3.04833 | -0.30378 | | | | |

3d NMR Conformer 8

Energy: -910285.2429233

| | | | |
|----|----------|----------|----------|
| O | 2.54647 | 2.86213 | 0.17125 |
| C | 2.76195 | 1.53395 | 0.07503 |
| C | 1.75638 | 0.56006 | -0.07348 |
| C | 0.32278 | 0.88363 | -0.14085 |
| N | -0.62214 | 0.05932 | -0.37844 |
| C | -1.88525 | 0.80052 | -0.26687 |
| C | -2.68255 | 0.29911 | 0.94810 |
| O | -1.98637 | 0.55725 | 2.14798 |
| C | -3.03973 | -1.19349 | 0.84848 |
| O | -1.90483 | -2.02899 | 0.94388 |
| C | -3.88409 | -1.45423 | -0.40142 |
| N | -3.49277 | -2.48556 | -1.16433 |
| O | -4.85417 | -0.73810 | -0.65240 |
| C | -1.46059 | 2.28071 | -0.13130 |
| C | -1.72651 | 3.12038 | -1.36258 |
| O | -0.02204 | 2.17686 | 0.07044 |
| C | 2.11639 | -0.79421 | -0.17056 |
| C | 3.44418 | -1.16617 | -0.11831 |
| Cl | 3.87599 | -2.85568 | -0.23806 |
| C | 4.45040 | -0.20751 | 0.03064 |
| C | 4.10393 | 1.12845 | 0.12550 |
| H | 1.59681 | 3.07068 | 0.14386 |
| H | -2.48535 | 0.64606 | -1.17316 |
| H | -3.61733 | 0.86748 | 0.99506 |
| H | -1.26297 | -0.08822 | 2.23936 |
| H | -3.67792 | -1.43656 | 1.70738 |

3d NMR Conformer 7

Energy: -910285.9607376

| | | | |
|----|----------|----------|----------|
| O | 0.47679 | -2.18586 | -0.65342 |
| C | 1.60746 | -1.51951 | -0.37361 |
| C | 1.63956 | -0.12630 | -0.14709 |
| C | 0.39493 | 0.63585 | -0.22286 |
| N | -0.75028 | 0.10545 | -0.45467 |
| C | -1.74097 | 1.18131 | -0.47734 |
| C | -2.84612 | 0.91834 | 0.54883 |
| O | -2.30475 | 0.56795 | 1.80715 |
| C | -3.90282 | -0.11911 | 0.11120 |
| O | -4.76323 | -0.39103 | 1.19460 |
| C | -3.27857 | -1.39861 | -0.45475 |
| N | -3.05963 | -2.38311 | 0.43755 |
| O | -2.97009 | -1.47003 | -1.64212 |
| C | -0.92081 | 2.45500 | -0.14380 |
| C | -0.99962 | 3.54365 | -1.19053 |
| O | 0.44716 | 1.96590 | -0.05655 |
| C | 2.85112 | 0.51615 | 0.13979 |
| C | 4.01595 | -0.22586 | 0.20104 |
| Cl | 5.53076 | 0.57018 | 0.56222 |
| C | 4.00116 | -1.60568 | -0.02085 |
| C | 2.80486 | -2.24448 | -0.30655 |
| H | -0.27875 | -1.53794 | -0.67506 |
| H | -2.19089 | 1.24272 | -1.47775 |
| H | -3.39350 | 1.85552 | 0.71622 |
| H | -1.66192 | -0.15695 | 1.68972 |
| H | -4.49213 | 0.31258 | -0.70572 |
| H | -4.29542 | -0.18414 | 2.02346 |
| H | -3.49594 | -2.34757 | 1.35084 |
| H | -2.69567 | -3.27094 | 0.10923 |
| H | -1.17401 | 2.83528 | 0.85222 |
| H | -2.02899 | 3.90891 | -1.25821 |
| H | -0.35040 | 4.38282 | -0.93135 |
| H | -0.70369 | 3.15061 | -2.16761 |
| H | 2.86311 | 1.58852 | 0.31045 |
| H | 4.92594 | -2.17333 | 0.03052 |
| H | 2.77459 | -3.31545 | -0.48309 |

3d NMR Conformer 6

Energy: -910278.7782392

| | | | |
|----|----------|----------|----------|
| O | -2.15196 | 2.60263 | -1.01327 |
| C | -2.82949 | 1.49505 | -0.63740 |
| C | -2.11816 | 0.42672 | -0.06625 |
| C | -0.65997 | 0.46762 | 0.17207 |
| N | 0.10712 | -0.55073 | 0.10760 |
| C | 1.46443 | -0.07836 | 0.42323 |
| C | 2.32382 | -0.29832 | -0.82345 |
| O | 2.36823 | -1.67436 | -1.15696 |
| C | 3.78853 | 0.14619 | -0.74957 |
| O | 4.41276 | -0.09441 | -1.99320 |
| C | 4.53960 | -0.50703 | 0.41624 |
| N | 5.57644 | -1.28971 | 0.08466 |
| O | 4.19087 | -0.28125 | 1.57588 |
| C | 1.27961 | 1.40336 | 0.82374 |
| C | 1.53521 | 1.67439 | 2.29146 |
| O | -0.11989 | 1.65317 | 0.52414 |
| C | -2.79803 | -0.74603 | 0.27987 |
| C | -4.16499 | -0.84357 | 0.07612 |
| Cl | -5.00112 | -2.31209 | 0.52638 |
| C | -4.88169 | 0.21457 | -0.47734 |
| C | -4.20986 | 1.37607 | -0.83424 |
| H | -2.75696 | 3.25067 | -1.41843 |
| H | 1.87649 | -0.66677 | 1.24810 |
| H | 1.87136 | 0.27670 | -1.64924 |
| H | 1.45633 | -1.98919 | -1.28320 |
| H | 3.83035 | 1.22646 | -0.56539 |
| H | 4.02863 | -0.90456 | -2.37462 |
| H | 6.13574 | -1.71069 | 0.81719 |
| H | 5.86865 | -1.37114 | -0.88045 |
| H | 1.85522 | 2.08662 | 0.18892 |
| H | 2.58459 | 1.46361 | 2.51342 |
| H | 1.30793 | 2.71319 | 2.54206 |
| H | 0.91048 | 1.01654 | 2.90445 |
| H | -2.23962 | -1.56971 | 0.71422 |
| H | -5.95359 | 0.13149 | -0.63148 |
| H | -4.75556 | 2.20509 | -1.27940 |

3d NMR Conformer 5

Energy: -910278.3188646

| | | | |
|---|----------|----------|----------|
| O | -1.80537 | 2.66886 | -0.92423 |
| C | -2.58417 | 1.62431 | -0.56647 |
| C | -1.97939 | 0.46571 | -0.05028 |
| C | -0.52240 | 0.32724 | 0.14985 |
| N | 0.09667 | -0.79123 | 0.13029 |
| C | 1.51982 | -0.49166 | 0.34542 |
| C | 2.26848 | -0.77964 | -0.96948 |

| | | | |
|----|----------|----------|----------|
| O | 1.84783 | -2.01540 | -1.51670 |
| C | 3.78497 | -0.94829 | -0.79209 |
| O | 4.07561 | -2.02645 | 0.06799 |
| C | 4.42240 | 0.32481 | -0.25391 |
| N | 4.90109 | 0.25386 | 0.99757 |
| O | 4.43800 | 1.34404 | -0.94393 |
| C | 1.52421 | 0.99100 | 0.78510 |
| C | 1.69159 | 1.17922 | 2.28063 |
| O | 0.19325 | 1.43959 | 0.40978 |
| C | -2.77672 | -0.63690 | 0.28065 |
| C | -4.14990 | -0.57955 | 0.11464 |
| Cl | -5.12947 | -1.96301 | 0.54374 |
| C | -4.76062 | 0.56789 | -0.38667 |
| C | -3.97481 | 1.65981 | -0.72630 |
| H | -2.34918 | 3.38774 | -1.29531 |
| H | 1.91808 | -1.14457 | 1.13242 |
| H | 2.08334 | 0.04411 | -1.67635 |
| H | 0.88672 | -2.09274 | -1.38548 |
| H | 4.21304 | -1.11482 | -1.79081 |
| H | 3.54808 | -2.79114 | -0.22345 |
| H | 5.36695 | 1.06061 | 1.39804 |
| H | 4.91905 | -0.63326 | 1.48640 |
| H | 2.22862 | 1.60656 | 0.21924 |
| H | 2.69399 | 0.86393 | 2.58205 |
| H | 1.55438 | 2.22806 | 2.55346 |
| H | 0.95535 | 0.57399 | 2.81964 |
| H | -2.30068 | -1.52970 | 0.67407 |
| H | -5.83870 | 0.60716 | -0.51281 |
| H | -4.43760 | 2.55788 | -1.12958 |

3d NMR Conformer 4

Energy: -910281.9093796

| | | | |
|---|----------|----------|----------|
| O | 2.45736 | 2.76430 | 0.77934 |
| C | 2.91459 | 1.53274 | 0.46725 |
| C | 2.11121 | 0.45587 | 0.04711 |
| C | 0.64874 | 0.54579 | -0.10416 |
| N | -0.11559 | -0.36172 | -0.56711 |
| C | -1.49397 | 0.14433 | -0.46447 |
| C | -2.22003 | -0.72255 | 0.56840 |
| O | -2.26780 | -2.06850 | 0.12928 |
| C | -3.67338 | -0.35200 | 0.89021 |
| O | -4.18874 | -1.26232 | 1.83678 |
| C | -4.54391 | -0.25617 | -0.36726 |
| N | -5.55827 | -1.12786 | -0.45269 |
| O | -4.29894 | 0.60324 | -1.21555 |
| C | -1.33866 | 1.63013 | -0.07379 |
| C | -1.60676 | 2.58934 | -1.21367 |
| O | 0.06852 | 1.70824 | 0.29954 |
| C | 2.71353 | -0.77634 | -0.25357 |

| | | | |
|----|----------|----------|----------|
| C | 4.08023 | -0.92982 | -0.13664 |
| Cl | 4.81378 | -2.47219 | -0.51181 |
| C | 4.88691 | 0.13200 | 0.28082 |
| C | 4.30088 | 1.34981 | 0.57809 |
| H | 1.48978 | 2.81209 | 0.68915 |
| H | -1.99525 | 0.04112 | -1.43044 |
| H | -1.66708 | -0.65390 | 1.52037 |
| H | -1.35760 | -2.38704 | 0.00066 |
| H | -3.69886 | 0.64477 | 1.34594 |
| H | -3.78963 | -2.13501 | 1.66837 |
| H | -6.19162 | -1.07875 | -1.24220 |
| H | -5.76077 | -1.75455 | 0.31548 |
| H | -1.90425 | 1.90177 | 0.82267 |
| H | -2.65987 | 2.51302 | -1.49500 |
| H | -1.38008 | 3.61694 | -0.92005 |
| H | -0.99099 | 2.32202 | -2.07866 |
| H | 2.08415 | -1.59978 | -0.57679 |
| H | 5.96140 | 0.00113 | 0.37086 |
| H | 4.90407 | 2.19190 | 0.90397 |

3d NMR Conformer 3

Energy: -910286.4325369

| | | | |
|----|----------|----------|----------|
| O | -1.52692 | 2.49632 | -0.97925 |
| C | -2.42725 | 1.59118 | -0.56382 |
| C | -2.07143 | 0.27875 | -0.18890 |
| C | -0.66748 | -0.12893 | -0.24310 |
| N | 0.29474 | 0.63166 | -0.62043 |
| C | 1.54131 | -0.13341 | -0.46818 |
| C | 2.36121 | 0.52423 | 0.64594 |
| O | 2.71550 | 1.84826 | 0.28733 |
| C | 3.68548 | -0.15420 | 1.02066 |
| O | 4.31247 | 0.58678 | 2.04320 |
| C | 4.59672 | -0.36841 | -0.19305 |
| N | 5.77252 | 0.27416 | -0.16994 |
| O | 4.23533 | -1.11418 | -1.10478 |
| C | 1.05635 | -1.56798 | -0.15396 |
| C | 1.20878 | -2.52686 | -1.31549 |
| O | -0.36230 | -1.38301 | 0.12906 |
| C | -3.05595 | -0.62478 | 0.23267 |
| C | -4.37677 | -0.21860 | 0.28076 |
| Cl | -5.60818 | -1.34443 | 0.80608 |
| C | -4.74391 | 1.07865 | -0.08622 |
| C | -3.77326 | 1.97483 | -0.50580 |
| H | -0.62736 | 2.07707 | -0.97237 |
| H | 2.11117 | -0.10142 | -1.40022 |
| H | 1.74814 | 0.53088 | 1.56247 |
| H | 1.90759 | 2.38369 | 0.20458 |
| H | 3.48002 | -1.15476 | 1.41862 |
| H | 4.11846 | 1.53025 | 1.89606 |

| | | | |
|---|----------|----------|----------|
| H | 6.05025 | 0.80491 | 0.64556 |
| H | 6.43230 | 0.13172 | -0.92583 |
| H | 1.49572 | -1.97512 | 0.76186 |
| H | 2.27287 | -2.65562 | -1.52801 |
| H | 0.76159 | -3.49523 | -1.07994 |
| H | 0.71940 | -2.11619 | -2.20474 |
| H | -2.77230 | -1.63351 | 0.51719 |
| H | -5.78643 | 1.38078 | -0.04304 |
| H | -4.03861 | 2.98682 | -0.79661 |

3d NMR Conformer 2

Energy: -910281.6744275

| | | | |
|----|----------|----------|----------|
| O | -2.00071 | 2.88089 | -0.51868 |
| C | -2.62404 | 1.69875 | -0.33002 |
| C | -1.98269 | 0.48995 | 0.00007 |
| C | -0.52779 | 0.36956 | 0.18742 |
| N | 0.09932 | -0.68474 | 0.53440 |
| C | 1.53348 | -0.35789 | 0.52137 |
| C | 2.18754 | -1.12366 | -0.64383 |
| O | 1.75940 | -2.47187 | -0.64857 |
| C | 3.71640 | -1.22301 | -0.53295 |
| O | 4.09408 | -1.88449 | 0.65245 |
| C | 4.36761 | 0.15185 | -0.58341 |
| N | 4.96073 | 0.55859 | 0.54928 |
| O | 4.29234 | 0.83041 | -1.60761 |
| C | 1.57148 | 1.18303 | 0.38965 |
| C | 1.84440 | 1.90138 | 1.69580 |
| O | 0.21057 | 1.48807 | -0.03366 |
| C | -2.75050 | -0.67357 | 0.17155 |
| C | -4.12104 | -0.63143 | 0.01672 |
| Cl | -5.06233 | -2.08883 | 0.23271 |
| C | -4.76802 | 0.56307 | -0.31197 |
| C | -4.01858 | 1.71343 | -0.48235 |
| H | -1.03947 | 2.79707 | -0.39563 |
| H | 1.99019 | -0.68740 | 1.46280 |
| H | 1.93050 | -0.62622 | -1.59199 |
| H | 0.80754 | -2.49286 | -0.44925 |
| H | 4.06979 | -1.76882 | -1.41938 |
| H | 3.58999 | -2.71552 | 0.70687 |
| H | 5.04980 | -0.07650 | 1.33367 |
| H | 5.44415 | 1.44994 | 0.56434 |
| H | 2.22354 | 1.53328 | -0.41408 |
| H | 2.86661 | 1.69125 | 2.02115 |
| H | 1.72912 | 2.98078 | 1.57377 |
| H | 1.15080 | 1.55410 | 2.46833 |
| H | -2.24525 | -1.59983 | 0.42734 |
| H | -5.84731 | 0.58610 | -0.43204 |
| H | -4.49565 | 2.65496 | -0.73743 |

3d NMR Conformer 1

Energy: -910285.9174081

| | | | |
|----|----------|----------|----------|
| O | 1.70198 | 2.70761 | 0.50047 |
| C | 2.48649 | 1.64420 | 0.26237 |
| C | 1.98187 | 0.33220 | 0.14982 |
| C | 0.54546 | 0.09557 | 0.28795 |
| N | -0.32782 | 1.01242 | 0.50276 |
| C | -1.64882 | 0.36678 | 0.49754 |
| C | -2.41133 | 0.82304 | -0.75968 |
| O | -2.35429 | 2.23063 | -0.88996 |
| C | -3.91669 | 0.52327 | -0.70517 |
| O | -4.51738 | 1.14203 | 0.40915 |
| C | -4.18938 | -0.97425 | -0.66765 |
| N | -4.73687 | -1.44036 | 0.46493 |
| O | -3.87447 | -1.67959 | -1.62587 |
| C | -1.30747 | -1.14336 | 0.54266 |
| C | -1.46592 | -1.75881 | 1.91864 |
| O | 0.10476 | -1.16802 | 0.18368 |
| C | 2.85258 | -0.73892 | -0.09316 |
| C | 4.20731 | -0.49828 | -0.22641 |
| Cl | 5.29534 | -1.83265 | -0.53271 |
| C | 4.72111 | 0.79682 | -0.11926 |
| C | 3.86392 | 1.85835 | 0.12435 |
| H | 0.76344 | 2.40264 | 0.58086 |
| H | -2.21243 | 0.67641 | 1.38576 |
| H | -1.98164 | 0.32701 | -1.64372 |
| H | -1.43325 | 2.52128 | -0.77700 |
| H | -4.35096 | 0.89393 | -1.64460 |
| H | -4.27818 | 2.08569 | 0.39919 |
| H | -5.03724 | -0.79793 | 1.18843 |
| H | -4.97483 | -2.42381 | 0.53335 |
| H | -1.82320 | -1.72476 | -0.22511 |
| H | -2.52327 | -1.76870 | 2.19619 |
| H | -1.08990 | -2.78426 | 1.92627 |
| H | -0.91315 | -1.17200 | 2.65946 |
| H | 2.45483 | -1.74582 | -0.17543 |
| H | 5.78847 | 0.96827 | -0.22586 |
| H | 4.24390 | 2.87170 | 0.21276 |

2c NMR Conformer 12

Energy: -910282.6158925

| | | | |
|---|----------|----------|----------|
| O | 2.50636 | 2.89227 | -0.18065 |
| C | 2.75235 | 1.56684 | -0.13103 |
| C | 1.77268 | 0.55963 | -0.21835 |
| C | 0.33782 | 0.84207 | -0.37733 |
| N | -0.57949 | -0.02368 | -0.57788 |
| C | -1.86298 | 0.69488 | -0.52862 |
| C | -2.59411 | 0.31722 | 0.77289 |
| O | -1.82546 | 0.64440 | 1.91135 |

| | | | |
|----|----------|----------|----------|
| C | -2.98068 | -1.17186 | 0.80862 |
| O | -1.85589 | -2.02225 | 0.89160 |
| C | -3.90938 | -1.50928 | -0.36007 |
| N | -3.57824 | -2.59731 | -1.07091 |
| O | -4.88728 | -0.79928 | -0.59788 |
| C | -1.45589 | 2.18107 | -0.65411 |
| C | -2.17386 | 3.20136 | 0.19998 |
| O | -0.04388 | 2.13972 | -0.29312 |
| C | 2.16206 | -0.78860 | -0.15880 |
| C | 3.49340 | -1.12215 | -0.01589 |
| Cl | 3.96153 | -2.80453 | 0.06105 |
| C | 4.47408 | -0.13005 | 0.07179 |
| C | 4.09865 | 1.20024 | 0.01368 |
| H | 1.55426 | 3.07198 | -0.26827 |
| H | -2.49082 | 0.40486 | -1.37859 |
| H | -3.51928 | 0.89880 | 0.83345 |
| H | -1.11650 | -0.01480 | 2.01484 |
| H | -3.56404 | -1.33613 | 1.72346 |
| H | -1.17036 | -1.69343 | 0.27693 |
| H | -4.17706 | -2.89813 | -1.83129 |
| H | -2.79710 | -3.17505 | -0.78653 |
| H | -1.48367 | 2.47484 | -1.71003 |
| H | -3.22838 | 3.23895 | -0.08910 |
| H | -2.09935 | 2.94328 | 1.25762 |
| H | -1.74469 | 4.19257 | 0.03618 |
| H | 1.39954 | -1.55901 | -0.22607 |
| H | 5.51945 | -0.40247 | 0.18521 |
| H | 4.84040 | 1.99063 | 0.07879 |

2c NMR Conformer 11

Energy: -910282.8631250

| | | | |
|---|----------|----------|----------|
| O | -0.49098 | -2.22616 | -0.19488 |
| C | -1.64027 | -1.53360 | -0.15364 |
| C | -1.68720 | -0.14352 | 0.08625 |
| C | -0.44149 | 0.58131 | 0.32636 |
| N | 0.72260 | 0.04503 | 0.27476 |
| C | 1.68369 | 1.06956 | 0.70027 |
| C | 2.94988 | 1.00587 | -0.15595 |
| O | 2.66182 | 0.84500 | -1.53050 |
| C | 3.94081 | -0.09269 | 0.29986 |
| O | 4.97258 | -0.20836 | -0.65221 |
| C | 3.25219 | -1.43622 | 0.56433 |
| N | 3.19865 | -2.28229 | -0.48229 |
| O | 2.75228 | -1.67544 | 1.66152 |
| C | 0.86082 | 2.38373 | 0.63297 |
| C | 1.02778 | 3.24838 | -0.60274 |
| O | -0.51108 | 1.88319 | 0.65098 |
| C | -2.91720 | 0.52665 | 0.12191 |
| C | -4.08479 | -0.18464 | -0.08294 |

| | | | | | | | |
|----|----------|----------|----------|---|----------|----------|----------|
| Cl | -5.62327 | 0.64593 | -0.03604 | H | -3.17089 | -2.40476 | -0.94045 |
| C | -4.05481 | -1.56122 | -0.32220 | H | -0.97158 | 2.50589 | -1.74038 |
| C | -2.84016 | -2.22798 | -0.35623 | H | -2.42151 | 3.70058 | -0.09389 |
| H | 0.26295 | -1.60363 | -0.01781 | H | -1.38126 | 3.12483 | 1.23406 |
| H | 1.96618 | 0.86119 | 1.74081 | H | -0.73828 | 4.23539 | -0.00153 |
| H | 3.49709 | 1.95297 | -0.07404 | H | 2.85510 | 1.61268 | -0.33270 |
| H | 1.97908 | 0.15534 | -1.63280 | H | 5.05798 | -2.03094 | 0.26870 |
| H | 4.37934 | 0.21149 | 1.25680 | H | 2.93089 | -3.32334 | 0.22660 |
| H | 4.63117 | 0.09424 | -1.51285 | | | | |
| H | 2.80714 | -3.20774 | -0.34480 | | | | |
| H | 3.77489 | -2.11897 | -1.29897 | | | | |
| H | 0.98577 | 2.97277 | 1.54401 | | | | |
| H | 2.04187 | 3.65432 | -0.65181 | | | | |
| H | 0.84376 | 2.67171 | -1.51157 | | | | |
| H | 0.32551 | 4.08374 | -0.55540 | | | | |
| H | -2.94065 | 1.59555 | 0.31184 | | | | |
| H | -4.98210 | -2.10504 | -0.47866 | | | | |
| H | -2.79773 | -3.29766 | -0.53799 | | | | |

2c NMR Conformer 10

Energy: -910283.9806001

| | | | |
|----|----------|----------|----------|
| O | 0.58069 | -2.34020 | -0.09146 |
| C | 1.69748 | -1.59643 | -0.08477 |
| C | 1.68372 | -0.19379 | -0.24546 |
| C | 0.40133 | 0.48733 | -0.41861 |
| N | -0.71086 | -0.12558 | -0.59844 |
| C | -1.77096 | 0.88409 | -0.53958 |
| C | -2.55632 | 0.72473 | 0.77452 |
| O | -1.70644 | 0.81300 | 1.89509 |
| C | -3.36515 | -0.58707 | 0.85076 |
| O | -2.47202 | -1.66924 | 1.03436 |
| C | -4.22921 | -0.74169 | -0.39874 |
| N | -3.93007 | -1.78233 | -1.18856 |
| O | -5.11288 | 0.08257 | -0.63702 |
| C | -0.99057 | 2.21702 | -0.68269 |
| C | -1.40755 | 3.39032 | 0.17571 |
| O | 0.37471 | 1.82936 | -0.35256 |
| C | 2.88004 | 0.53358 | -0.21308 |
| C | 4.07740 | -0.13434 | -0.03136 |
| Cl | 5.57504 | 0.76964 | 0.00627 |
| C | 4.10882 | -1.52217 | 0.12614 |
| C | 2.92579 | -2.24469 | 0.10159 |
| H | -0.20321 | -1.74371 | -0.24241 |
| H | -2.46119 | 0.76512 | -1.38179 |
| H | -3.27330 | 1.54973 | 0.84502 |
| H | -1.21011 | -0.02348 | 1.95154 |
| H | -4.04682 | -0.49851 | 1.70568 |
| H | -2.84737 | -2.29471 | 1.67678 |
| H | -4.44904 | -1.92868 | -2.04661 |

2c NMR Conformer 9

Energy: -910276.0839582

| | | | |
|----|----------|----------|----------|
| O | -2.39795 | -2.83733 | -0.51627 |
| C | -2.96888 | -1.62320 | -0.35194 |
| C | -2.14155 | -0.51007 | -0.12882 |
| C | -0.67067 | -0.60653 | -0.02842 |
| N | 0.14138 | 0.31372 | -0.37887 |
| C | 1.48983 | -0.23577 | -0.14618 |
| C | 2.42087 | 0.88163 | 0.31149 |
| O | 2.46028 | 1.90177 | -0.67395 |
| C | 3.89003 | 0.50195 | 0.54268 |
| O | 4.61836 | 1.65379 | 0.90576 |
| C | 4.50296 | -0.22332 | -0.66144 |
| N | 5.49052 | 0.42024 | -1.29908 |
| O | 4.09220 | -1.34096 | -0.97717 |
| C | 1.23818 | -1.40924 | 0.81889 |
| C | 1.30467 | -1.09383 | 2.30540 |
| O | -0.14751 | -1.73385 | 0.51170 |
| C | -2.71533 | 0.76027 | -0.00685 |
| C | -4.08976 | 0.91342 | -0.08708 |
| Cl | -4.79149 | 2.50616 | 0.08407 |
| C | -4.92003 | -0.18541 | -0.29521 |
| C | -4.35491 | -1.44611 | -0.43015 |
| H | -3.07768 | -3.51365 | -0.69116 |
| H | 1.86264 | -0.61570 | -1.10406 |
| H | 2.04985 | 1.29865 | 1.26018 |
| H | 1.55372 | 2.22303 | -0.82065 |
| H | 3.96071 | -0.20766 | 1.37422 |
| H | 4.22703 | 2.41946 | 0.44825 |
| H | 5.96045 | -0.03286 | -2.07413 |
| H | 5.84569 | 1.29722 | -0.94077 |
| H | 1.84329 | -2.28129 | 0.56366 |
| H | 2.32765 | -0.88110 | 2.62599 |
| H | 0.67520 | -0.23160 | 2.54735 |
| H | 0.94444 | -1.95480 | 2.87293 |
| H | -2.06883 | 1.61663 | 0.15955 |
| H | -5.99694 | -0.05765 | -0.35429 |
| H | -4.99060 | -2.31124 | -0.60556 |

2c NMR Conformer 8

Energy: -910276.3824394

| | | | |
|----|----------|----------|----------|
| O | -2.31546 | 2.73187 | -0.25968 |
| C | -2.93658 | 1.53797 | -0.13483 |
| C | -2.15101 | 0.39491 | 0.08752 |
| C | -0.68259 | 0.46579 | 0.21848 |
| N | 0.13779 | -0.36891 | -0.28935 |
| C | 1.46578 | 0.01762 | 0.22571 |
| C | 2.51006 | -0.23672 | -0.85591 |
| O | 2.49173 | -1.60873 | -1.21784 |
| C | 3.97319 | 0.05192 | -0.49341 |
| O | 4.79983 | -0.30896 | -1.57788 |
| C | 4.39786 | -0.62225 | 0.81667 |
| N | 5.34868 | -1.56162 | 0.71647 |
| O | 3.88233 | -0.27405 | 1.87990 |
| C | 1.25597 | 1.46619 | 0.70866 |
| C | 1.51919 | 2.56935 | -0.30442 |
| O | -0.17433 | 1.46465 | 0.97828 |
| C | -2.76040 | -0.86083 | 0.16074 |
| C | -4.13677 | -0.97052 | 0.03418 |
| Cl | -4.89014 | -2.54512 | 0.13880 |
| C | -4.92662 | 0.15767 | -0.17126 |
| C | -4.32314 | 1.40600 | -0.25903 |
| H | -2.96277 | 3.43576 | -0.44857 |
| H | 1.69440 | -0.63016 | 1.07981 |
| H | 2.27640 | 0.38060 | -1.73676 |
| H | 1.59498 | -1.83490 | -1.51968 |
| H | 4.10476 | 1.12593 | -0.32210 |
| H | 4.39823 | -1.07638 | -2.02340 |
| H | 5.69851 | -2.00712 | 1.55668 |
| H | 5.79694 | -1.74405 | -0.17201 |
| H | 1.76709 | 1.65455 | 1.65449 |
| H | 2.58492 | 2.66353 | -0.52817 |
| H | 0.97786 | 2.37634 | -1.23580 |
| H | 1.17060 | 3.52097 | 0.10283 |
| H | -2.14391 | -1.73993 | 0.32412 |
| H | -6.00434 | 0.06266 | -0.26704 |
| H | -4.92899 | 2.29214 | -0.43468 |

3c NMR Conformer 7

Energy: -910275.0332187

| | | | |
|---|----------|----------|----------|
| O | -2.13551 | -2.88017 | -0.61517 |
| C | -2.77623 | -1.71426 | -0.38154 |
| C | -2.02818 | -0.54486 | -0.15907 |
| C | -0.55190 | -0.50042 | -0.14009 |
| N | 0.13477 | 0.57151 | -0.25782 |
| C | 1.54525 | 0.15344 | -0.26104 |
| C | 2.42304 | 1.21391 | 0.42037 |
| O | 1.95589 | 2.51265 | 0.10208 |
| C | 3.87369 | 1.20163 | -0.09720 |

| | | | |
|----|----------|----------|----------|
| O | 3.91788 | 1.55404 | -1.46019 |
| C | 4.50678 | -0.16895 | 0.09641 |
| N | 4.72818 | -0.87373 | -1.02364 |
| O | 4.74607 | -0.58093 | 1.23170 |
| C | 1.49225 | -1.25829 | 0.36530 |
| C | 1.63458 | -1.34305 | 1.87570 |
| O | 0.12809 | -1.65459 | 0.03459 |
| C | -2.70059 | 0.66760 | 0.04783 |
| C | -4.08293 | 0.71120 | 0.04713 |
| Cl | -4.89869 | 2.23427 | 0.31716 |
| C | -4.83357 | -0.44413 | -0.16427 |
| C | -4.17599 | -1.64559 | -0.37936 |
| H | -2.77988 | -3.59442 | -0.77323 |
| H | 1.85992 | 0.08057 | -1.31351 |
| H | 2.43356 | 1.07091 | 1.50796 |
| H | 0.98479 | 2.47870 | 0.05021 |
| H | 4.45187 | 1.90995 | 0.51241 |
| H | 3.33681 | 2.32522 | -1.58422 |
| H | 4.56074 | -0.45516 | -1.93051 |
| H | 5.16393 | -1.78671 | -0.95969 |
| H | 2.15801 | -1.96215 | -0.13900 |
| H | 2.66013 | -1.12321 | 2.17953 |
| H | 0.95242 | -0.64171 | 2.36789 |
| H | 1.38203 | -2.35580 | 2.19866 |
| H | -2.11684 | 1.56755 | 0.21357 |
| H | -5.91896 | -0.40410 | -0.16276 |
| H | -4.74812 | -2.55418 | -0.55401 |

3c NMR Conformer 6

Energy: -910275.3522132

| | | | |
|----|----------|----------|----------|
| O | -2.03060 | 2.81103 | -0.27358 |
| C | -2.73560 | 1.66948 | -0.11087 |
| C | -2.03712 | 0.46290 | 0.06517 |
| C | -0.56436 | 0.39710 | 0.11562 |
| N | 0.13938 | -0.55104 | -0.37142 |
| C | 1.52181 | -0.28845 | 0.06815 |
| C | 2.52590 | -0.75371 | -0.99574 |
| O | 2.08429 | -1.95989 | -1.59260 |
| C | 3.89776 | -1.11432 | -0.39540 |
| O | 3.78760 | -2.21351 | 0.47898 |
| C | 4.49229 | 0.07227 | 0.34979 |
| N | 4.54779 | -0.04521 | 1.68520 |
| O | 4.85002 | 1.07263 | -0.27234 |
| C | 1.49206 | 1.21390 | 0.43194 |
| C | 1.80328 | 2.19537 | -0.68543 |
| O | 0.08553 | 1.37871 | 0.77774 |
| C | -2.74672 | -0.73695 | 0.18180 |
| C | -4.13178 | -0.73111 | 0.14117 |
| Cl | -5.00611 | -2.23671 | 0.30161 |

| | | | | | | | |
|---|----------|----------|----------|---|----------|----------|----------|
| C | -4.83491 | 0.46035 | -0.01917 | H | 1.17521 | -1.99748 | -1.38890 |
| C | -4.13422 | 1.65236 | -0.14807 | H | 2.57022 | -2.74377 | 0.46387 |
| H | -2.63145 | 3.56265 | -0.42986 | H | 1.48051 | -1.99082 | 1.66685 |
| H | 1.69066 | -0.88587 | 0.97744 | H | 0.92820 | -3.36160 | 0.68898 |
| H | 2.66741 | 0.01891 | -1.76174 | H | -2.82803 | -1.70912 | 0.02993 |
| H | 1.11538 | -1.92089 | -1.67171 | H | -5.82081 | 1.37683 | 0.10391 |
| H | 4.57658 | -1.34073 | -1.22944 | H | -4.04710 | 3.10142 | -0.18311 |
| H | 3.23127 | -2.88318 | 0.04283 | | | | |
| H | 4.95114 | 0.70488 | 2.23488 | | | | |
| H | 4.28941 | -0.91707 | 2.13097 | | | | |
| H | 2.06901 | 1.43446 | 1.33256 | | | | |
| H | 2.86486 | 2.16714 | -0.93952 | | | | |
| H | 1.20906 | 1.96667 | -1.57637 | | | | |
| H | 1.54627 | 3.20325 | -0.35128 | | | | |
| H | -2.19721 | -1.66444 | 0.31225 | | | | |
| H | -5.92074 | 0.45794 | -0.04670 | | | | |
| H | -4.67291 | 2.58706 | -0.28741 | | | | |

3c NMR Conformer 5

Energy: -910282.9111357

| | | | |
|----|----------|----------|----------|
| O | -1.53016 | 2.64777 | -0.38855 |
| C | -2.44505 | 1.67693 | -0.23467 |
| C | -2.10241 | 0.31030 | -0.17318 |
| C | -0.69783 | -0.08706 | -0.28131 |
| N | 0.27886 | 0.73166 | -0.41861 |
| C | 1.52126 | -0.05658 | -0.46522 |
| C | 2.43412 | 0.48139 | 0.64794 |
| O | 2.71028 | 1.84715 | 0.37341 |
| C | 3.82310 | -0.16539 | 0.81017 |
| O | 4.61649 | 0.62410 | 1.66576 |
| C | 4.50032 | -0.44286 | -0.53603 |
| N | 5.64375 | 0.21469 | -0.77048 |
| O | 3.99097 | -1.24897 | -1.31713 |
| C | 1.02893 | -1.53328 | -0.40987 |
| C | 1.53934 | -2.45583 | 0.67810 |
| O | -0.41392 | -1.39604 | -0.23277 |
| C | -3.10134 | -0.65922 | -0.01426 |
| C | -4.42318 | -0.26537 | 0.08445 |
| Cl | -5.67176 | -1.47421 | 0.28287 |
| C | -4.77736 | 1.08487 | 0.02573 |
| C | -3.79226 | 2.04705 | -0.13370 |
| H | -0.63210 | 2.23094 | -0.44832 |
| H | 2.02129 | 0.13548 | -1.41746 |
| H | 1.91893 | 0.39430 | 1.61674 |
| H | 1.88377 | 2.35652 | 0.42942 |
| H | 3.71270 | -1.14202 | 1.28740 |
| H | 4.35304 | 1.55398 | 1.54671 |
| H | 6.05260 | 0.79784 | -0.05141 |
| H | 6.15822 | 0.03283 | -1.62446 |

3c NMR Conformer 4

Energy: -910279.7764122

| | | | |
|----|----------|----------|----------|
| O | 2.56546 | 2.86163 | -0.16323 |
| C | 2.99336 | 1.58165 | -0.13123 |
| C | 2.15435 | 0.45136 | -0.11696 |
| C | 0.68485 | 0.53298 | -0.12551 |
| N | -0.12649 | -0.44166 | -0.01302 |
| C | -1.47383 | 0.12688 | -0.20007 |
| C | -2.46140 | -0.62587 | 0.68619 |
| O | -2.44904 | -2.00119 | 0.34032 |
| C | -3.93599 | -0.20983 | 0.58815 |
| O | -4.71265 | -1.04638 | 1.41564 |
| C | -4.43989 | -0.18307 | -0.85984 |
| N | -5.39901 | -1.06624 | -1.16845 |
| O | -3.97324 | 0.63528 | -1.65386 |
| C | -1.27514 | 1.63324 | 0.05276 |
| C | -1.45139 | 2.11765 | 1.48232 |
| O | 0.13979 | 1.77541 | -0.28158 |
| C | 2.72636 | -0.83073 | -0.08504 |
| C | 4.09833 | -0.97987 | -0.06338 |
| Cl | 4.79446 | -2.58363 | -0.02627 |
| C | 4.94032 | 0.13538 | -0.07507 |
| C | 4.38422 | 1.40208 | -0.10950 |
| H | 1.59360 | 2.90554 | -0.18684 |
| H | -1.76176 | -0.03749 | -1.24456 |
| H | -2.16818 | -0.50580 | 1.74034 |
| H | -1.54636 | -2.34312 | 0.46234 |
| H | -4.05482 | 0.81602 | 0.95394 |
| H | -4.30504 | -1.93134 | 1.42375 |
| H | -5.79843 | -1.06266 | -2.09979 |
| H | -5.80294 | -1.65531 | -0.45177 |
| H | -1.83693 | 2.24139 | -0.65797 |
| H | -2.49930 | 2.07535 | 1.78957 |
| H | -0.85851 | 1.51147 | 2.17433 |
| H | -1.12010 | 3.15591 | 1.55746 |
| H | 2.06998 | -1.69553 | -0.07940 |
| H | 6.01891 | 0.00775 | -0.05952 |
| H | 5.01502 | 2.28592 | -0.12019 |

3c NMR Conformer 3

Energy: -910278.5124450

| | | | | | | | |
|----|----------|----------|----------|----|----------|----------|----------|
| O | 2.16423 | 2.93589 | -0.25344 | C | 4.44993 | -0.47926 | -0.89422 |
| C | 2.73500 | 1.71436 | -0.18603 | N | 5.58529 | 0.14746 | -1.23105 |
| C | 2.03093 | 0.49647 | -0.12766 | O | 3.79617 | -1.18420 | -1.66441 |
| C | 0.56266 | 0.41056 | -0.12549 | C | 0.99134 | -1.53725 | 0.14151 |
| N | -0.13231 | -0.64411 | 0.04238 | C | 1.08679 | -1.97692 | 1.59363 |
| C | -1.53524 | -0.24858 | -0.16824 | O | -0.42908 | -1.40988 | -0.17157 |
| C | -2.47275 | -1.07597 | 0.72339 | C | -3.12375 | -0.65061 | -0.10305 |
| O | -2.01545 | -2.41253 | 0.81000 | C | -4.44588 | -0.24618 | -0.11197 |
| C | -3.88708 | -1.20247 | 0.12557 | Cl | -5.71685 | -1.44733 | -0.15067 |
| O | -3.85402 | -1.92818 | -1.08075 | C | -4.78305 | 1.10964 | -0.09241 |
| C | -4.49324 | 0.17154 | -0.12325 | C | -3.78079 | 2.06689 | -0.06317 |
| N | -4.65249 | 0.51617 | -1.41002 | H | -0.60383 | 2.23253 | -0.02025 |
| O | -4.76538 | 0.90424 | 0.82808 | H | 1.79457 | -0.06347 | -1.24028 |
| C | -1.50806 | 1.28271 | 0.04012 | H | 2.35374 | 0.42912 | 1.71687 |
| C | -1.70791 | 1.78603 | 1.45855 | H | 2.16577 | 2.33391 | 0.44408 |
| O | -0.12345 | 1.56839 | -0.33710 | H | 3.87403 | -1.31806 | 0.94990 |
| C | 2.74542 | -0.71071 | -0.05858 | H | 4.75496 | 1.31334 | 1.32584 |
| C | 4.12538 | -0.70191 | -0.04445 | H | 6.12703 | 0.63857 | -0.53165 |
| Cl | 5.00031 | -2.21301 | 0.04449 | H | 5.96242 | 0.02596 | -2.16381 |
| C | 4.83412 | 0.50123 | -0.10180 | H | 1.40723 | -2.28189 | -0.53921 |
| C | 4.13735 | 1.69464 | -0.17238 | H | 2.12372 | -2.14325 | 1.89559 |
| H | 1.19374 | 2.86831 | -0.26986 | H | 0.64490 | -1.22635 | 2.25653 |
| H | -1.77986 | -0.47352 | -1.21775 | H | 0.54301 | -2.91546 | 1.72157 |
| H | -2.54841 | -0.63426 | 1.72466 | H | -2.86271 | -1.70441 | -0.11915 |
| H | -1.04315 | -2.40210 | 0.84091 | H | -5.82703 | 1.40984 | -0.10040 |
| H | -4.52123 | -1.70299 | 0.87061 | H | -4.02267 | 3.12534 | -0.04785 |
| H | -3.29723 | -2.71398 | -0.93897 | | | | |
| H | -5.07170 | 1.41081 | -1.63724 | | | | |
| H | -4.46003 | -0.15362 | -2.14485 | | | | |
| H | -2.14242 | 1.81320 | -0.67278 | | | | |
| H | -2.74797 | 1.65863 | 1.76487 | | | | |
| H | -1.05569 | 1.24957 | 2.15566 | | | | |
| H | -1.46026 | 2.84958 | 1.49799 | | | | |
| H | 2.19207 | -1.64396 | -0.01840 | | | | |
| H | 5.92024 | 0.49772 | -0.09259 | | | | |
| H | 4.66345 | 2.64349 | -0.21788 | | | | |

3c NMR Conformer 2

Energy: -910284.0294580

| | | | |
|---|----------|----------|----------|
| O | -1.50098 | 2.65239 | -0.02119 |
| C | -2.43305 | 1.68599 | -0.05221 |
| C | -2.10761 | 0.31394 | -0.07394 |
| C | -0.70352 | -0.09337 | -0.07781 |
| N | 0.29418 | 0.71049 | -0.01521 |
| C | 1.50031 | -0.11866 | -0.18650 |
| C | 2.64307 | 0.43959 | 0.65534 |
| O | 2.93334 | 1.76813 | 0.25158 |
| C | 3.98454 | -0.30171 | 0.55654 |
| O | 4.94118 | 0.35740 | 1.35398 |

3c NMR Conformer 1

Energy: -910282.3190304

| | | | |
|----|----------|----------|----------|
| O | -1.61460 | 2.69650 | 0.07303 |
| C | -2.46119 | 1.65610 | 0.00662 |
| C | -2.02348 | 0.31714 | -0.05990 |
| C | -0.59131 | 0.02398 | -0.07428 |
| N | 0.33930 | 0.90017 | 0.04392 |
| C | 1.60941 | 0.18799 | -0.17218 |
| C | 2.73926 | 0.78095 | 0.68376 |
| O | 2.62994 | 2.19006 | 0.75148 |
| C | 4.12583 | 0.55151 | 0.05348 |
| O | 4.23643 | 1.23011 | -1.17600 |
| C | 4.38399 | -0.93376 | -0.16038 |
| N | 4.42352 | -1.34310 | -1.43719 |
| O | 4.50234 | -1.68181 | 0.81017 |
| C | 1.21430 | -1.28749 | 0.08350 |
| C | 1.33440 | -1.79061 | 1.51134 |
| O | -0.21015 | -1.25501 | -0.24482 |
| C | -2.95776 | -0.72586 | -0.12503 |
| C | -4.30854 | -0.43122 | -0.12417 |
| Cl | -5.47658 | -1.73030 | -0.20435 |
| C | -4.75585 | 0.89107 | -0.06099 |

| | | | |
|---|----------|----------|----------|
| C | -3.83564 | 1.92547 | 0.00300 |
| H | -0.68612 | 2.35676 | 0.06678 |
| H | 1.87934 | 0.32281 | -1.23043 |
| H | 2.73264 | 0.34924 | 1.69199 |
| H | 1.70546 | 2.42712 | 0.93608 |
| H | 4.87900 | 0.90722 | 0.77024 |
| H | 3.91167 | 2.13875 | -1.04772 |
| H | 4.37354 | -0.66927 | -2.19161 |
| H | 4.61275 | -2.31799 | -1.64105 |
| H | 1.68455 | -1.97087 | -0.62652 |
| H | 2.38311 | -1.91180 | 1.78924 |
| H | 0.85174 | -1.09720 | 2.20824 |
| H | 0.83725 | -2.76048 | 1.58713 |
| H | -2.61135 | -1.75362 | -0.17521 |
| H | -5.82087 | 1.10497 | -0.06208 |
| H | -4.16295 | 2.95962 | 0.05240 |

2b NMR Conformer 4

Energy: -910273.8160951

| | | | |
|----|----------|----------|----------|
| O | -0.98543 | 2.60042 | -0.06458 |
| C | -1.87408 | 1.58466 | -0.07509 |
| C | -1.56970 | 0.26838 | 0.31557 |
| C | -0.24274 | -0.10363 | 0.83894 |
| N | 0.33845 | -1.22480 | 0.66648 |
| C | 1.66660 | -1.10169 | 1.28381 |
| C | 2.77535 | -1.28216 | 0.22798 |
| O | 3.02409 | -2.67133 | 0.04890 |
| C | 2.52650 | -0.70639 | -1.18937 |
| O | 3.59565 | -1.09788 | -2.02606 |
| C | 2.43706 | 0.81320 | -1.23198 |
| N | 3.58134 | 1.45026 | -1.51280 |
| O | 1.37744 | 1.39378 | -0.98486 |
| C | 1.58447 | 0.21549 | 2.09782 |
| C | 2.75073 | 1.17988 | 2.08044 |
| O | 0.38975 | 0.84430 | 1.57206 |
| C | -2.54597 | -0.73054 | 0.21700 |
| C | -3.81651 | -0.41197 | -0.22939 |
| Cl | -5.03391 | -1.66402 | -0.33599 |
| C | -4.14185 | 0.89641 | -0.58800 |
| C | -3.17024 | 1.88306 | -0.51384 |
| H | -0.07236 | 2.26597 | 0.00046 |
| H | 1.82669 | -1.93144 | 1.98122 |
| H | 3.71836 | -0.86982 | 0.60872 |
| H | 2.17812 | -3.12208 | -0.13269 |
| H | 1.56633 | -1.09209 | -1.55744 |
| H | 3.79949 | -2.02816 | -1.82776 |
| H | 3.58336 | 2.46182 | -1.58385 |
| H | 4.39493 | 0.92234 | -1.80594 |
| H | 1.34807 | -0.04483 | 3.13632 |

| | | | |
|---|----------|----------|----------|
| H | 3.62825 | 0.70020 | 2.52414 |
| H | 3.00172 | 1.51190 | 1.07210 |
| H | 2.50774 | 2.05880 | 2.68239 |
| H | -2.29529 | -1.74550 | 0.51118 |
| H | -5.14416 | 1.13648 | -0.93071 |
| H | -3.39303 | 2.90412 | -0.80900 |

2b NMR Conformer 3

Energy: -910274.7785503

| | | | |
|----|----------|----------|----------|
| O | 2.29664 | 2.72959 | -0.03413 |
| C | 2.91328 | 1.52728 | -0.04591 |
| C | 2.12955 | 0.36417 | -0.13645 |
| C | 0.65786 | 0.39864 | -0.24819 |
| N | -0.13053 | -0.45829 | 0.27634 |
| C | -1.47106 | -0.12243 | -0.23689 |
| C | -2.52545 | -0.48066 | 0.80688 |
| O | -2.31262 | 0.16403 | 2.04976 |
| C | -3.97384 | -0.14178 | 0.43079 |
| O | -4.84262 | -0.60196 | 1.44253 |
| C | -4.36264 | -0.78394 | -0.89675 |
| N | -5.12460 | -1.88316 | -0.80701 |
| O | -3.95701 | -0.30434 | -1.95558 |
| C | -1.31924 | 1.33473 | -0.72229 |
| C | -1.60361 | 2.45933 | 0.26085 |
| O | 0.11048 | 1.37366 | -1.00839 |
| C | 2.74918 | -0.88942 | -0.09916 |
| C | 4.12740 | -0.98103 | 0.01152 |
| Cl | 4.88715 | -2.55579 | 0.04447 |
| C | 4.91424 | 0.16530 | 0.09025 |
| C | 4.30339 | 1.41223 | 0.06445 |
| H | 2.94995 | 3.44517 | 0.07172 |
| H | -1.65745 | -0.75995 | -1.11201 |
| H | -2.47439 | -1.57273 | 0.94591 |
| H | -1.45537 | -0.12771 | 2.40568 |
| H | -4.07742 | 0.94261 | 0.29331 |
| H | -4.46066 | -0.35392 | 2.30228 |
| H | -5.42784 | -2.35105 | -1.65318 |
| H | -5.47121 | -2.18990 | 0.09356 |
| H | -1.84203 | 1.48947 | -1.66795 |
| H | -2.66433 | 2.51434 | 0.51286 |
| H | -1.04106 | 2.31645 | 1.18600 |
| H | -1.30299 | 3.40580 | -0.19552 |
| H | 2.13502 | -1.78252 | -0.16456 |
| H | 5.99421 | 0.08578 | 0.17431 |
| H | 4.90654 | 2.31447 | 0.13812 |

2b NMR Conformer 2

Energy: -910278.2625519

| | | | |
|---|---------|---------|----------|
| O | 2.47120 | 2.84107 | -0.09183 |
|---|---------|---------|----------|

| | | | | | | | |
|----|----------|----------|----------|----|----------|----------|----------|
| C | 2.93599 | 1.57350 | -0.10581 | N | 5.41362 | 0.34425 | -1.50097 |
| C | 2.12827 | 0.42202 | -0.16159 | O | 3.89173 | -1.34233 | -1.62568 |
| C | 0.65754 | 0.46771 | -0.19935 | C | 1.05896 | -1.46333 | 0.10452 |
| N | -0.12962 | -0.52809 | -0.10016 | C | 1.18750 | -1.89747 | 1.55469 |
| C | -1.48704 | 0.00645 | -0.30311 | O | -0.37379 | -1.37078 | -0.18183 |
| C | -2.48096 | -0.81048 | 0.52003 | C | -3.08307 | -0.64820 | -0.10516 |
| O | -2.17180 | -0.82034 | 1.90126 | C | -4.41058 | -0.26130 | -0.11014 |
| C | -3.94456 | -0.35537 | 0.44828 | Cl | -5.66570 | -1.47839 | -0.05096 |
| O | -4.75173 | -1.25906 | 1.17005 | C | -4.76574 | 1.08912 | -0.15995 |
| C | -4.42894 | -0.28595 | -0.99577 | C | -3.77621 | 2.05899 | -0.20358 |
| N | -5.21371 | -1.29646 | -1.39405 | H | -0.60062 | 2.26372 | -0.22495 |
| O | -4.07270 | 0.64502 | -1.71857 | H | 1.80514 | -0.05196 | -1.35242 |
| C | -1.33289 | 1.52148 | -0.04892 | H | 2.85004 | 1.59683 | -0.01567 |
| C | -1.53723 | 2.04738 | 1.36169 | H | 1.69051 | 1.45649 | 1.93401 |
| O | 0.08579 | 1.69504 | -0.36688 | H | 3.91614 | -1.09929 | 0.93698 |
| C | 2.73345 | -0.84484 | -0.16597 | H | 4.65334 | 0.98503 | 1.89411 |
| C | 4.10807 | -0.95874 | -0.11201 | H | 5.74943 | 0.18253 | -2.44340 |
| Cl | 4.84593 | -2.54421 | -0.11945 | H | 5.86696 | 1.03306 | -0.91328 |
| C | 4.91923 | 0.17756 | -0.05459 | H | 1.47115 | -2.21137 | -0.57469 |
| C | 4.33006 | 1.42996 | -0.05261 | H | 2.23328 | -2.01950 | 1.84274 |
| H | 1.50036 | 2.85620 | -0.15944 | H | 0.73597 | -1.16195 | 2.22358 |
| H | -1.74510 | -0.14170 | -1.36016 | H | 0.68009 | -2.85754 | 1.67801 |
| H | -2.44304 | -1.83853 | 0.12554 | H | -2.80783 | -1.69788 | -0.06735 |
| H | -1.31699 | -1.26827 | 2.02546 | H | -5.81367 | 1.37534 | -0.16382 |
| H | -4.03868 | 0.65995 | 0.85557 | H | -4.03207 | 3.11358 | -0.24212 |
| H | -4.31687 | -1.43566 | 2.02250 | | | | |
| H | -5.57648 | -1.30413 | -2.34030 | | | | |
| H | -5.51147 | -2.00210 | -0.73167 | | | | |
| H | -1.89607 | 2.10209 | -0.78132 | | | | |
| H | -2.58177 | 1.96737 | 1.66805 | | | | |
| H | -0.93178 | 1.48767 | 2.07773 | | | | |
| H | -1.24918 | 3.10151 | 1.39018 | | | | |
| H | 2.10069 | -1.72583 | -0.21307 | | | | |
| H | 6.00004 | 0.07745 | -0.01395 | | | | |
| H | 4.93683 | 2.32944 | -0.00874 | | | | |

2b NMR Conformer 1

Energy: -910282.6440677

| | | | |
|---|----------|----------|----------|
| O | -1.50370 | 2.67398 | -0.23517 |
| C | -2.42332 | 1.69630 | -0.19688 |
| C | -2.07994 | 0.32901 | -0.14921 |
| C | -0.66990 | -0.05852 | -0.15455 |
| N | 0.31234 | 0.76688 | -0.15224 |
| C | 1.53257 | -0.04486 | -0.28908 |
| C | 2.68332 | 0.61945 | 0.46488 |
| O | 2.40750 | 0.80571 | 1.84042 |
| C | 4.02212 | -0.13085 | 0.43050 |
| O | 5.01520 | 0.65222 | 1.05441 |
| C | 4.44796 | -0.43879 | -1.00105 |

2a NMR Conformer 7

Energy: -910283.8128669

| | | | |
|----|----------|----------|----------|
| O | -0.93656 | 2.69158 | -0.57097 |
| C | -1.85030 | 1.74502 | -0.30139 |
| C | -1.56560 | 0.36614 | -0.38526 |
| C | -0.22454 | -0.06874 | -0.77395 |
| N | 0.73945 | 0.72971 | -1.05504 |
| C | 1.91074 | -0.09540 | -1.35300 |
| C | 3.13099 | 0.31224 | -0.52015 |
| O | 3.75258 | 1.45863 | -1.08051 |
| C | 2.87544 | 0.62075 | 0.97111 |
| O | 4.09929 | 0.98704 | 1.57346 |
| C | 2.30125 | -0.56469 | 1.73954 |
| N | 3.21234 | -1.36886 | 2.31298 |
| O | 1.08841 | -0.76580 | 1.77048 |
| C | 1.41343 | -1.55329 | -1.16992 |
| C | 1.54453 | -2.40578 | -2.41424 |
| O | 0.01009 | -1.38765 | -0.84598 |
| C | -2.55722 | -0.57669 | -0.08541 |
| C | -3.81662 | -0.14468 | 0.28865 |
| Cl | -5.05706 | -1.31959 | 0.66594 |
| C | -4.11414 | 1.21765 | 0.37262 |
| C | -3.13475 | 2.15391 | 0.07917 |

| | | | |
|---|----------|----------|----------|
| H | -0.08439 | 2.24636 | -0.81925 |
| H | 2.20650 | 0.06826 | -2.39884 |
| H | 3.88149 | -0.48798 | -0.58370 |
| H | 3.08727 | 2.16536 | -1.17756 |
| H | 2.13519 | 1.43012 | 1.03856 |
| H | 4.55814 | 1.59742 | 0.97020 |
| H | 4.18491 | -1.08822 | 2.34644 |
| H | 2.89944 | -2.15939 | 2.86479 |
| H | 1.87737 | -2.04783 | -0.31016 |
| H | 2.60327 | -2.52983 | -2.66178 |
| H | 1.10693 | -3.39399 | -2.25612 |
| H | 1.04238 | -1.92337 | -3.25805 |
| H | -2.32672 | -1.63582 | -0.14808 |
| H | -5.10867 | 1.53954 | 0.66814 |
| H | -3.34533 | 3.21739 | 0.14048 |

2a NMR Conformer 6

Energy: -910278.4652751

| | | | |
|----|----------|----------|----------|
| O | -0.95442 | 2.57185 | 0.27716 |
| C | -1.86240 | 1.58800 | 0.10795 |
| C | -1.57112 | 0.21879 | 0.24031 |
| C | -0.23208 | -0.24686 | 0.64485 |
| N | 0.38334 | -1.25903 | 0.17759 |
| C | 1.69010 | -1.29313 | 0.84290 |
| C | 2.82945 | -1.27288 | -0.18120 |
| O | 2.96983 | -2.54851 | -0.78594 |
| C | 2.71118 | -0.24438 | -1.33038 |
| O | 3.83609 | -0.38136 | -2.17350 |
| C | 2.65947 | 1.20225 | -0.85400 |
| N | 3.84345 | 1.81614 | -0.74623 |
| O | 1.58442 | 1.73497 | -0.56420 |
| C | 1.66418 | -0.11663 | 1.85145 |
| C | 1.75053 | -0.55447 | 3.29933 |
| O | 0.37106 | 0.48615 | 1.61163 |
| C | -2.56368 | -0.73487 | -0.01255 |
| C | -3.84041 | -0.32458 | -0.35615 |
| Cl | -5.08213 | -1.52118 | -0.65110 |
| C | -4.15233 | 1.03112 | -0.45974 |
| C | -3.16362 | 1.97710 | -0.23315 |
| H | -0.04288 | 2.22499 | 0.28433 |
| H | 1.79883 | -2.24564 | 1.37962 |
| H | 3.77533 | -1.08933 | 0.34706 |
| H | 2.10053 | -2.82974 | -1.12778 |
| H | 1.77492 | -0.43211 | -1.87354 |
| H | 3.98170 | -1.33213 | -2.32203 |
| H | 4.68066 | 1.36515 | -1.09622 |
| H | 3.87816 | 2.78724 | -0.45628 |
| H | 2.41972 | 0.64601 | 1.63312 |
| H | 2.72750 | -1.01017 | 3.48686 |

| | | | |
|---|----------|----------|----------|
| H | 1.62896 | 0.29824 | 3.97108 |
| H | 0.97285 | -1.29297 | 3.51649 |
| H | -2.32226 | -1.78966 | 0.08248 |
| H | -5.15898 | 1.34152 | -0.72452 |
| H | -3.37774 | 3.03730 | -0.33031 |

2a NMR Conformer 5

Energy: -910284.8141272

| | | | |
|----|----------|----------|----------|
| O | -1.05716 | -0.82763 | 2.57982 |
| C | -1.91291 | -0.65398 | 1.55970 |
| C | -1.62019 | 0.16448 | 0.44876 |
| C | -0.32642 | 0.83826 | 0.37694 |
| N | 0.56614 | 0.80392 | 1.29813 |
| C | 1.75672 | 1.47013 | 0.75532 |
| C | 2.84915 | 0.43880 | 0.44266 |
| O | 3.20125 | -0.27964 | 1.61279 |
| C | 2.50506 | -0.56132 | -0.67507 |
| O | 1.48891 | -1.47385 | -0.32688 |
| C | 3.79589 | -1.26720 | -1.11974 |
| N | 3.72715 | -2.60393 | -1.20385 |
| O | 4.80015 | -0.61127 | -1.39585 |
| C | 1.21154 | 2.22936 | -0.46968 |
| C | 0.89776 | 3.68580 | -0.18993 |
| O | -0.03112 | 1.52246 | -0.74492 |
| C | -2.55469 | 0.30969 | -0.58532 |
| C | -3.76405 | -0.35597 | -0.50776 |
| Cl | -4.93461 | -0.17526 | -1.79447 |
| C | -4.06631 | -1.17250 | 0.58525 |
| C | -3.14459 | -1.31906 | 1.61007 |
| H | -0.24389 | -0.28717 | 2.40854 |
| H | 2.16523 | 2.16232 | 1.50112 |
| H | 3.74095 | 0.98425 | 0.11382 |
| H | 2.43012 | -0.34305 | 2.20318 |
| H | 2.14990 | -0.01988 | -1.56171 |
| H | 1.61552 | -1.75733 | 0.59702 |
| H | 2.85758 | -3.08569 | -1.01614 |
| H | 4.53090 | -3.12411 | -1.53545 |
| H | 1.84084 | 2.12226 | -1.35827 |
| H | 1.82657 | 4.23494 | -0.01170 |
| H | 0.38154 | 4.13617 | -1.04040 |
| H | 0.26416 | 3.77321 | 0.69837 |
| H | -2.31994 | 0.94190 | -1.43626 |
| H | -5.02101 | -1.68885 | 0.62966 |
| H | -3.36119 | -1.94896 | 2.46763 |

2a NMR Conformer 4

Energy: -910280.6986064

| | | | |
|---|----------|---------|----------|
| O | -1.64024 | 2.56750 | -1.44848 |
| C | -2.25526 | 1.47698 | -0.94422 |

| | | | |
|----|----------|----------|----------|
| C | -1.68083 | 0.57557 | -0.02814 |
| C | -0.31419 | 0.71529 | 0.50019 |
| N | 0.24068 | -0.04703 | 1.35761 |
| C | 1.61530 | 0.43180 | 1.52982 |
| C | 2.59662 | -0.63356 | 1.02977 |
| O | 2.46426 | -1.81741 | 1.78896 |
| C | 2.42421 | -0.94387 | -0.49710 |
| O | 1.93234 | -2.23739 | -0.73617 |
| C | 3.73543 | -0.66453 | -1.23485 |
| N | 4.18534 | -1.64577 | -2.02764 |
| O | 4.29464 | 0.42438 | -1.08856 |
| C | 1.67876 | 1.76629 | 0.75414 |
| C | 1.71428 | 2.99341 | 1.64069 |
| O | 0.42341 | 1.75120 | 0.01436 |
| C | -2.43153 | -0.52304 | 0.42140 |
| C | -3.72110 | -0.71585 | -0.03030 |
| Cl | -4.64309 | -2.08706 | 0.54091 |
| C | -4.30114 | 0.17248 | -0.94007 |
| C | -3.56767 | 1.25675 | -1.38811 |
| H | -0.73543 | 2.65456 | -1.10211 |
| H | 1.81661 | 0.58642 | 2.59739 |
| H | 3.61279 | -0.26336 | 1.19940 |
| H | 1.51836 | -1.96462 | 1.97518 |
| H | 1.70153 | -0.24606 | -0.94164 |
| H | 2.22288 | -2.81158 | -0.00492 |
| H | 3.65265 | -2.50075 | -2.12755 |
| H | 5.02914 | -1.50682 | -2.57111 |
| H | 2.48328 | 1.77905 | 0.01169 |
| H | 2.65859 | 3.01753 | 2.19234 |
| H | 1.63579 | 3.90502 | 1.04411 |
| H | 0.89006 | 2.96534 | 2.36021 |
| H | -1.97739 | -1.21192 | 1.12699 |
| H | -5.31660 | 0.01192 | -1.29067 |
| H | -3.99423 | 1.96229 | -2.09481 |

2a NMR Conformer 3

Energy: -910279.1517391

| | | | |
|---|----------|----------|----------|
| O | 2.10240 | -2.71592 | -0.32927 |
| C | 2.79157 | -1.55629 | -0.23474 |
| C | 2.08883 | -0.37114 | 0.03804 |
| C | 0.62841 | -0.33588 | 0.26552 |
| N | -0.12898 | 0.62833 | -0.09010 |
| C | -1.48546 | 0.28751 | 0.35717 |
| C | -2.38883 | 0.18877 | -0.87487 |
| O | -1.94449 | -0.84091 | -1.74331 |
| C | -3.85302 | -0.16508 | -0.57427 |
| O | -4.56906 | -0.29161 | -1.78299 |
| C | -4.51025 | 0.91049 | 0.28531 |
| N | -5.31667 | 1.75899 | -0.36875 |

| | | | |
|----|----------|----------|----------|
| O | -4.26594 | 0.97592 | 1.49002 |
| C | -1.32177 | -1.04205 | 1.13291 |
| C | -1.61533 | -0.92473 | 2.61353 |
| O | 0.08073 | -1.36603 | 0.94200 |
| C | 2.78037 | 0.84379 | 0.08813 |
| C | 4.15120 | 0.87302 | -0.11220 |
| Cl | 5.00215 | 2.39863 | -0.02970 |
| C | 4.85962 | -0.29769 | -0.37014 |
| C | 4.17559 | -1.50434 | -0.43390 |
| H | 2.70308 | -3.45190 | -0.54762 |
| H | -1.86581 | 1.08033 | 1.01044 |
| H | -2.37080 | 1.15719 | -1.39765 |
| H | -1.11308 | -0.56265 | -2.16505 |
| H | -3.89292 | -1.10084 | 0.00254 |
| H | -4.01621 | -0.79463 | -2.40551 |
| H | -5.79012 | 2.49299 | 0.14485 |
| H | -5.52036 | 1.61390 | -1.34979 |
| H | -1.88805 | -1.85908 | 0.67470 |
| H | -2.66671 | -0.65446 | 2.74721 |
| H | -1.41180 | -1.86581 | 3.12991 |
| H | -0.99726 | -0.13623 | 3.05518 |
| H | 2.22833 | 1.75590 | 0.29350 |
| H | 5.93457 | -0.26806 | -0.52270 |
| H | 4.71527 | -2.42435 | -0.64755 |

2a NMR Conformer 2

Energy: -910282.4184279

| | | | |
|----|----------|----------|----------|
| O | 2.42356 | 2.74750 | 0.66725 |
| C | 2.88888 | 1.51373 | 0.37628 |
| C | 2.09052 | 0.41929 | -0.00666 |
| C | 0.62483 | 0.49176 | -0.14194 |
| N | -0.13729 | -0.44729 | -0.54090 |
| C | -1.51390 | 0.06036 | -0.48578 |
| C | -2.29845 | -0.77899 | 0.52698 |
| O | -1.74295 | -0.64959 | 1.82566 |
| C | -3.77166 | -0.37947 | 0.69782 |
| O | -4.37721 | -1.20931 | 1.66376 |
| C | -4.53333 | -0.50416 | -0.61759 |
| N | -5.31281 | -1.58851 | -0.73406 |
| O | -4.38936 | 0.34517 | -1.49713 |
| C | -1.37572 | 1.55301 | -0.10063 |
| C | -1.74667 | 2.51036 | -1.21232 |
| O | 0.04548 | 1.67505 | 0.19082 |
| C | 2.70138 | -0.81344 | -0.28663 |
| C | 4.07122 | -0.95059 | -0.18596 |
| Cl | 4.81476 | -2.49387 | -0.53762 |
| C | 4.87293 | 0.12870 | 0.19416 |
| C | 4.27841 | 1.34723 | 0.47125 |
| H | 1.45480 | 2.78483 | 0.58325 |

| | | | | | | | |
|---|----------|----------|----------|---|----------|----------|----------|
| H | -1.98053 | -0.04630 | -1.47056 | H | -0.90390 | 2.24568 | -2.09417 |
| H | -2.26573 | -1.83029 | 0.20353 | H | 2.76076 | 1.61953 | 0.42141 |
| H | -0.90733 | -1.14612 | 1.86660 | H | 5.76505 | -1.40310 | -0.14723 |
| H | -3.83096 | 0.67704 | 0.99811 | H | 4.00029 | -3.03049 | -0.81045 |
| H | -3.77020 | -1.27721 | 2.42134 | | | | |
| H | -5.85421 | -1.72513 | -1.57971 | | | | |
| H | -5.43157 | -2.21712 | 0.05070 | | | | |
| H | -1.89351 | 1.79212 | 0.83264 | | | | |
| H | -2.80929 | 2.38888 | -1.44036 | | | | |
| H | -1.55242 | 3.54526 | -0.92093 | | | | |
| H | -1.16952 | 2.27903 | -2.11342 | | | | |
| H | 2.07601 | -1.65013 | -0.58244 | | | | |
| H | 5.95001 | 0.01116 | 0.27072 | | | | |
| H | 4.87746 | 2.20294 | 0.76800 | | | | |

2a NMR Conformer 1

Energy: -910287.1231174

| | | | |
|----|----------|----------|----------|
| O | 1.48323 | -2.54792 | -0.93627 |
| C | 2.39307 | -1.63152 | -0.56947 |
| C | 2.04498 | -0.31038 | -0.21801 |
| C | 0.63917 | 0.09506 | -0.24990 |
| N | -0.32609 | -0.67586 | -0.59655 |
| C | -1.56942 | 0.09181 | -0.47216 |
| C | -2.46058 | -0.58435 | 0.57378 |
| O | -1.83262 | -0.58505 | 1.84518 |
| C | -3.81166 | 0.10805 | 0.80945 |
| O | -4.52217 | -0.57223 | 1.81860 |
| C | -4.64993 | 0.12833 | -0.46518 |
| N | -5.64867 | -0.76436 | -0.51410 |
| O | -4.37419 | 0.91231 | -1.37350 |
| C | -1.09662 | 1.51510 | -0.08157 |
| C | -1.35456 | 2.55847 | -1.14676 |
| O | 0.34008 | 1.35530 | 0.10041 |
| C | 3.03856 | 0.60434 | 0.15463 |
| C | 4.36128 | 0.20163 | 0.17572 |
| Cl | 5.60391 | 1.34231 | 0.63884 |
| C | 4.72105 | -1.10380 | -0.16864 |
| C | 3.74097 | -2.01181 | -0.53815 |
| H | 0.58349 | -2.12703 | -0.91907 |
| H | -2.09241 | 0.10126 | -1.43382 |
| H | -2.65763 | -1.61664 | 0.24723 |
| H | -1.12283 | -1.25045 | 1.85261 |
| H | -3.63972 | 1.15742 | 1.09203 |
| H | -3.90202 | -0.76753 | 2.54226 |
| H | -5.85656 | -1.34109 | 0.29165 |
| H | -6.25045 | -0.79487 | -1.32884 |
| H | -1.48816 | 1.82418 | 0.89206 |
| H | -2.43415 | 2.65513 | -1.29291 |
| H | -0.93746 | 3.52546 | -0.85648 |

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