

Supplementary materials for

Six unprecedented Cytochalasins Derivatives from the Potato Endophytic Fungus *Xylaria curta* E10 and Their Cytotoxicity

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Spectroscopic data

Figure S1.1 ^1H NMR spectrum of **1** in $\text{DMSO}-d_6$

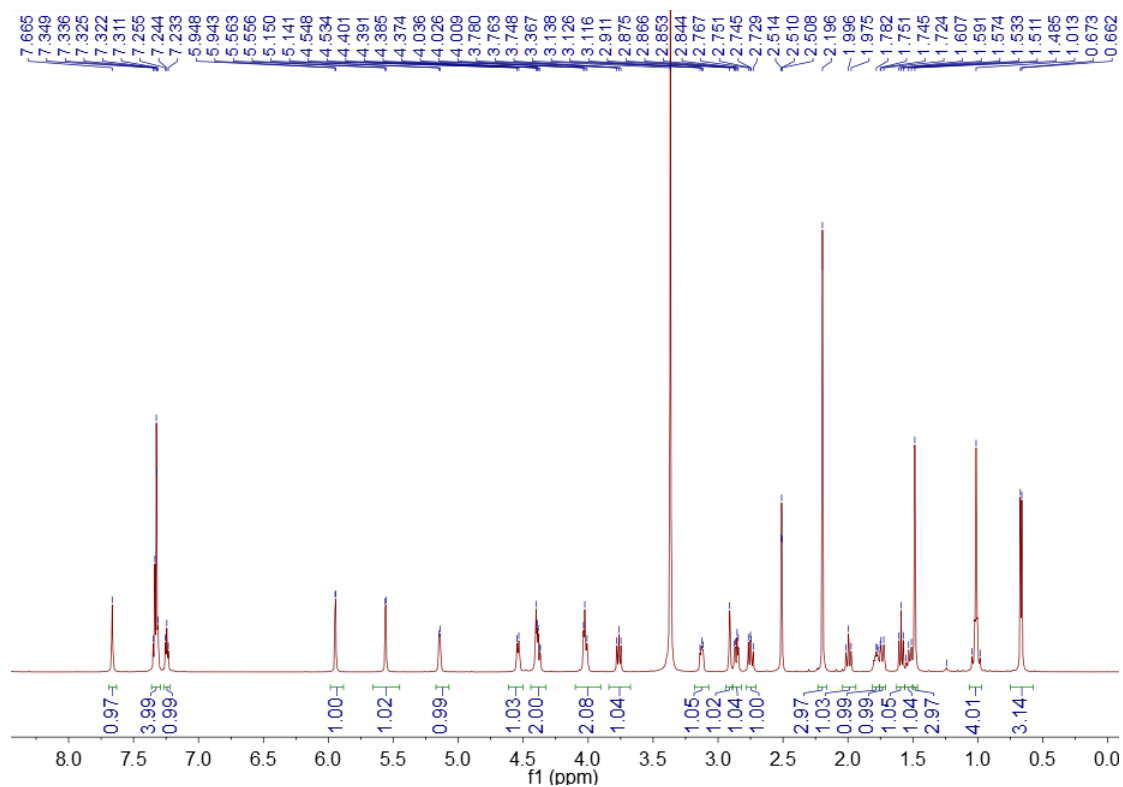


Figure S1.2 ^{13}C NMR spectrum of **1** in $\text{DMSO}-d_6$

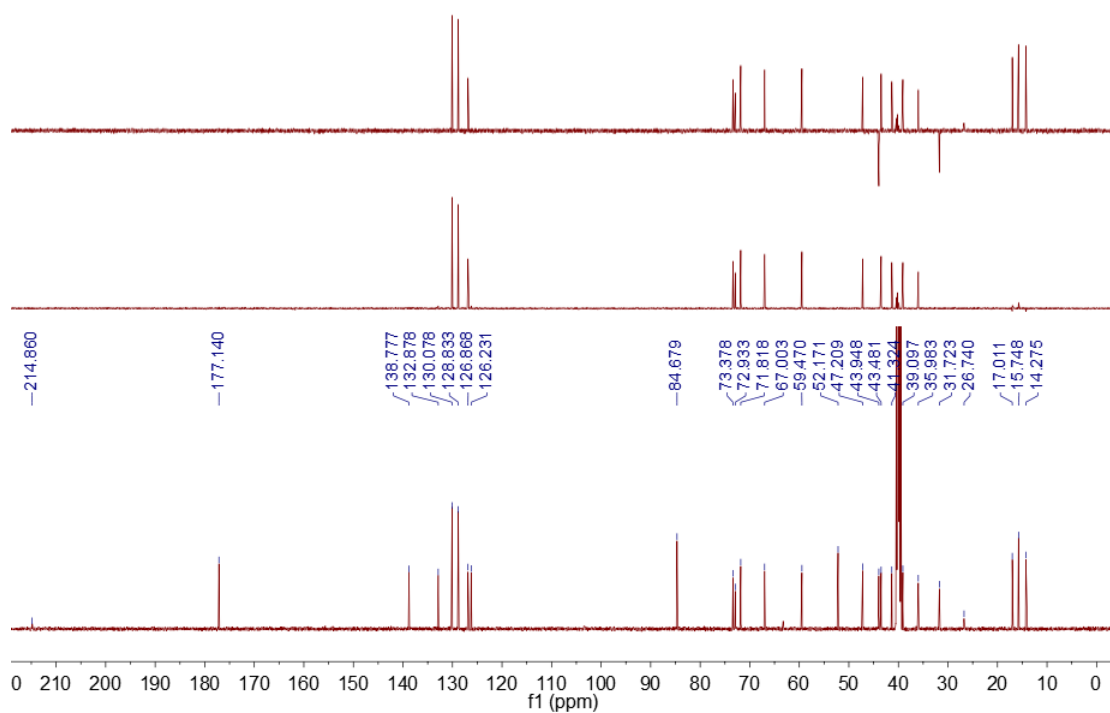


Figure S1.3 HSQC spectrum of **1** in DMSO-*d*₆

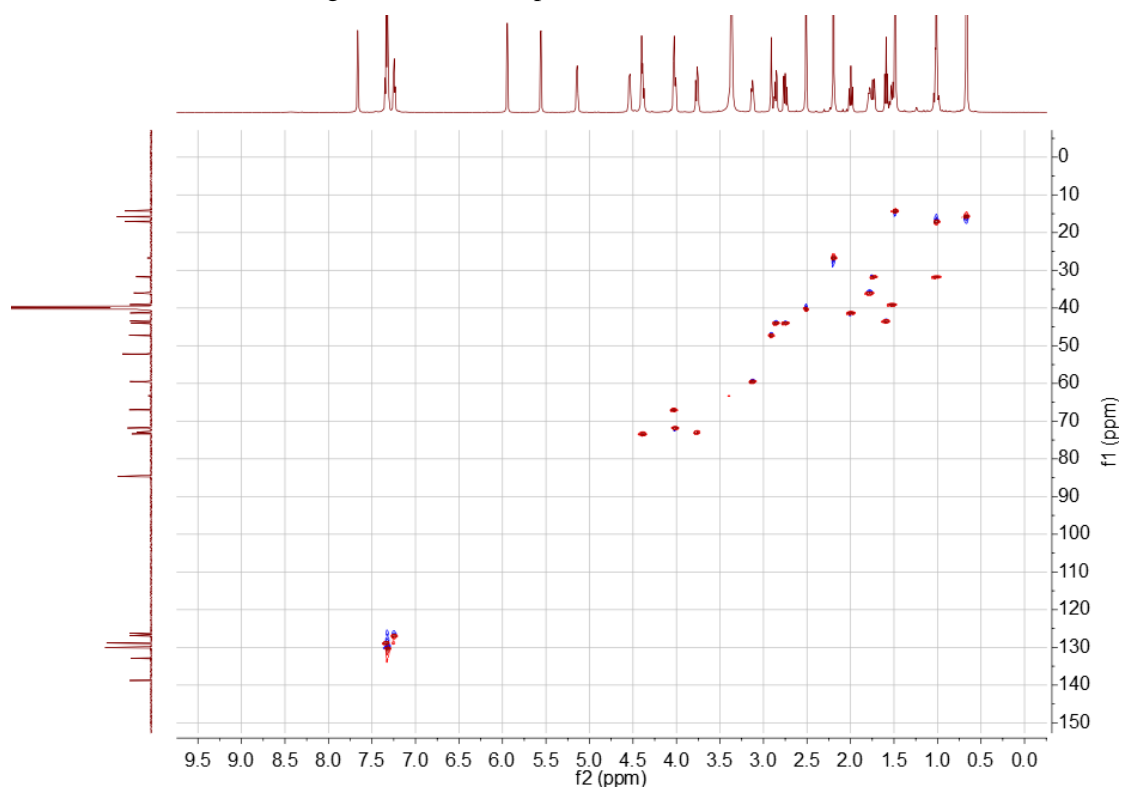


Figure S1.4 HMBC spectrum of **1** in DMSO-*d*₆

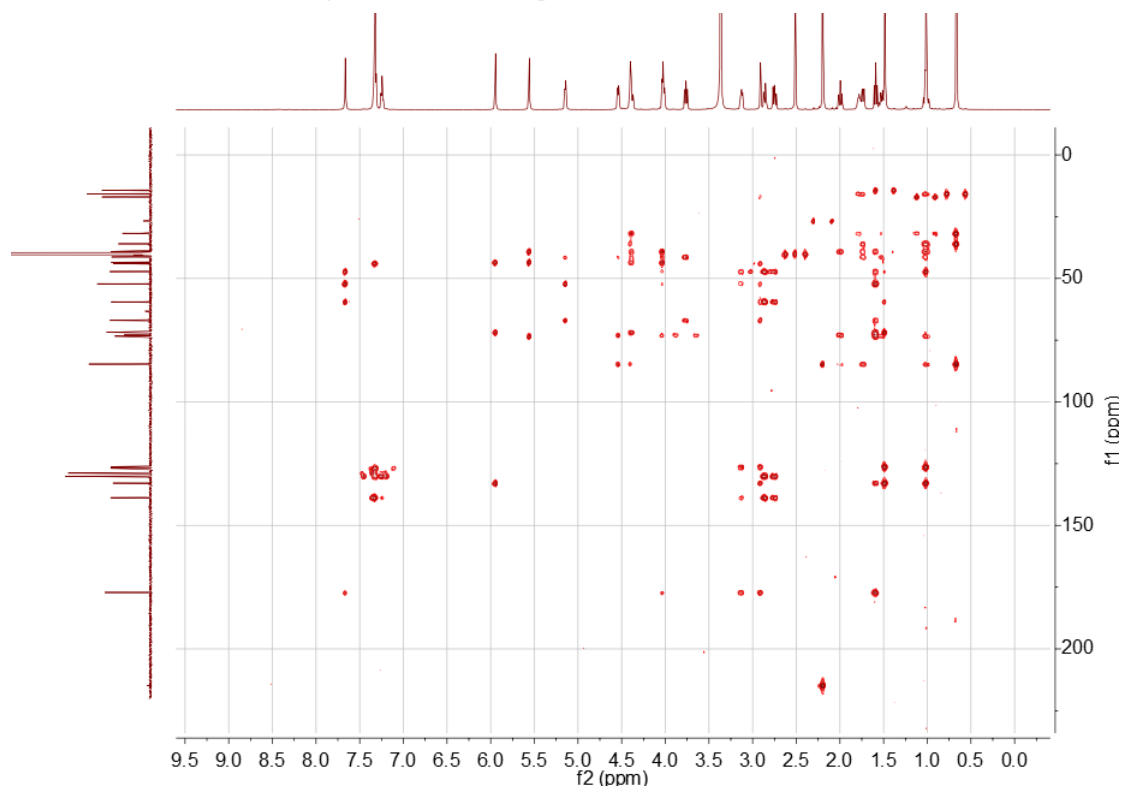


Figure S1.5 COSY spectrum of **1** in DMSO- d_6

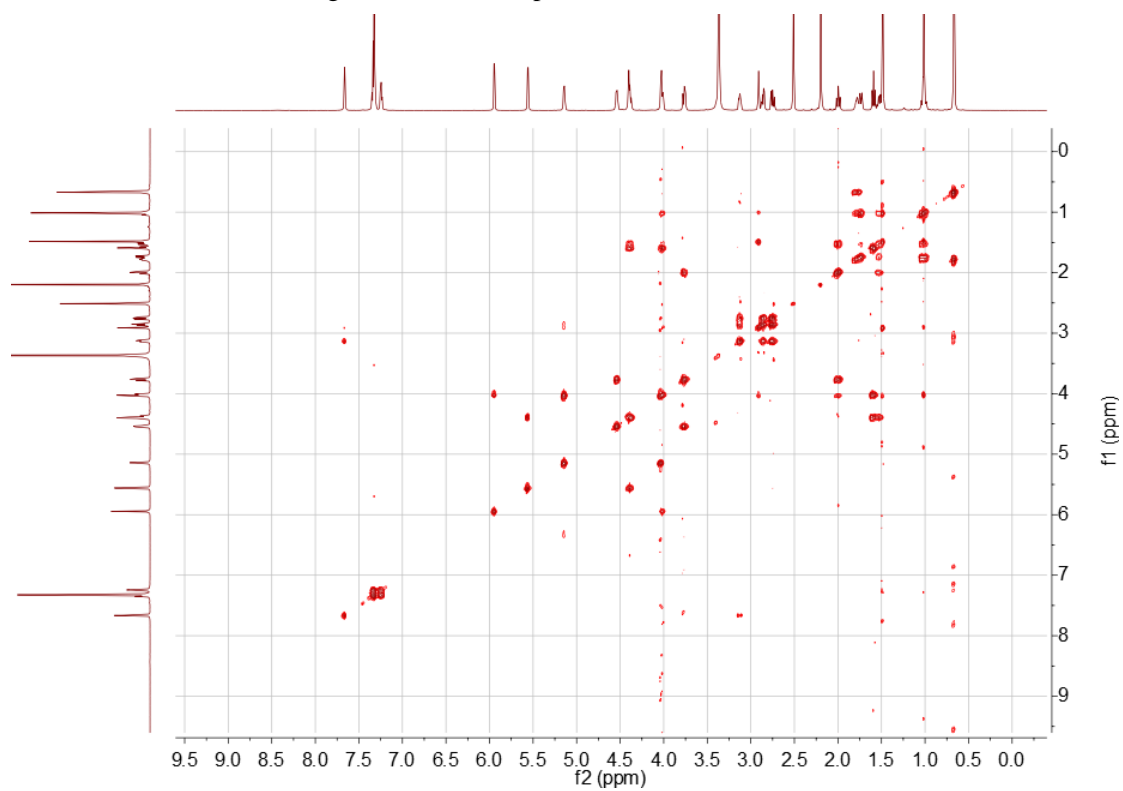


Figure S1.6 ROESY spectrum of **1** in DMSO- d_6

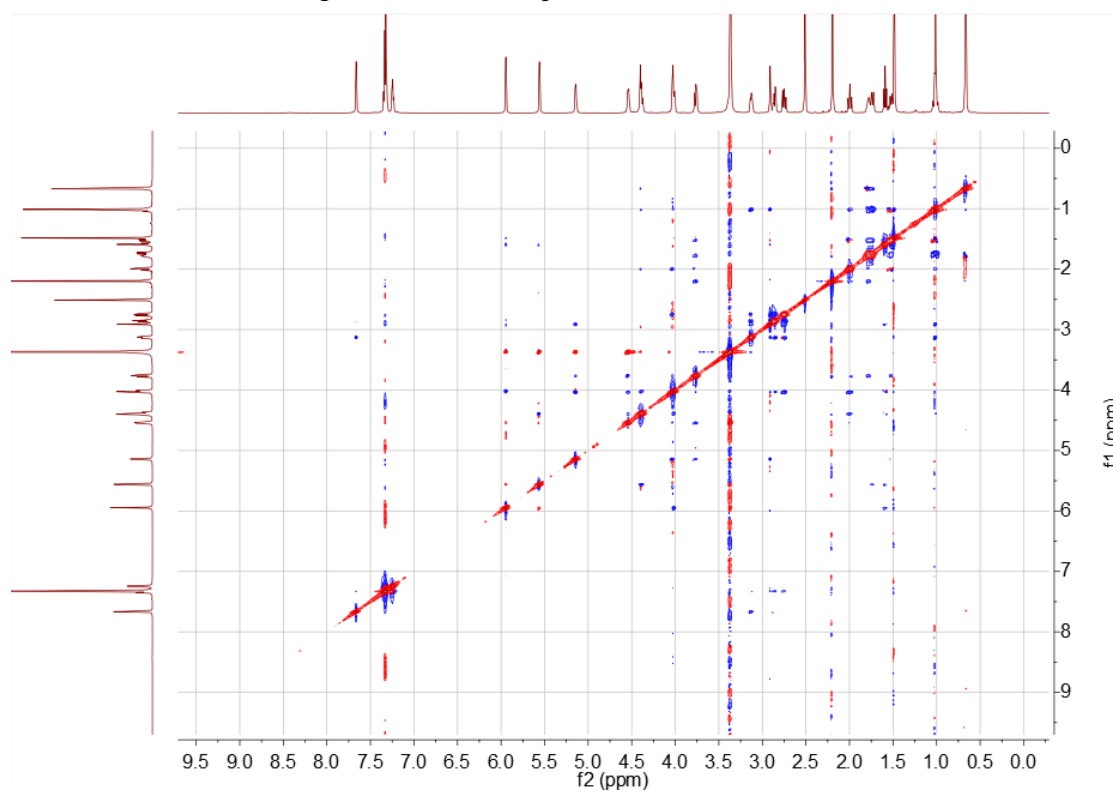


Figure S1.7 HRMS spectrum of **1**

LTF-47b #2032 RT: 8.61 AV: 1 NL: 3.63E4
T: FTMS + p ESI Full ms [300.00-1000.00]

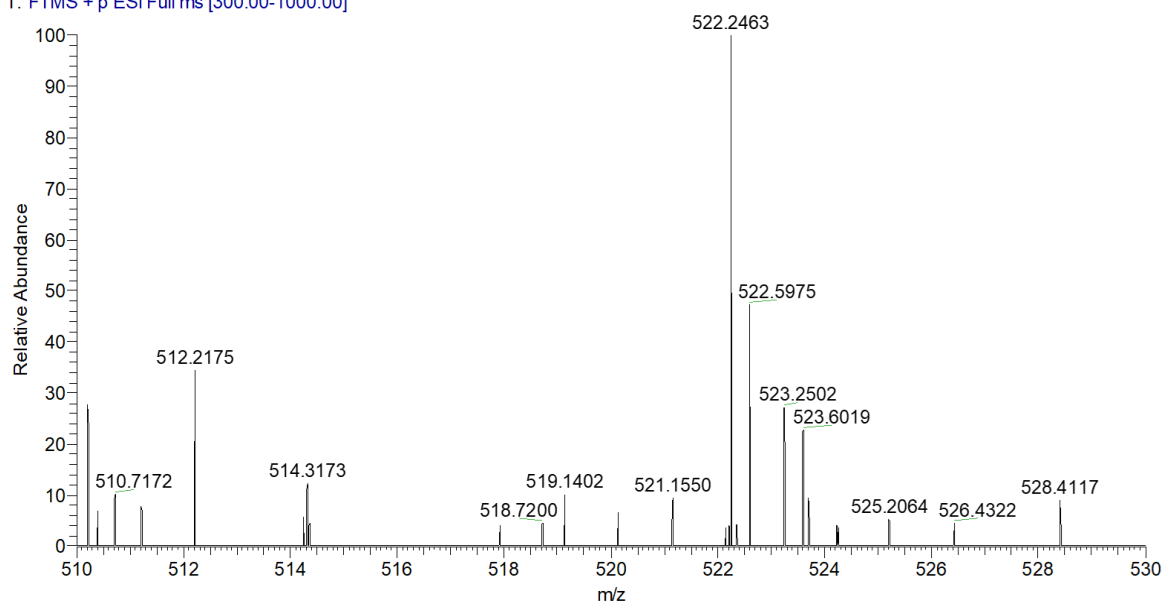


Figure S2.1 ^1H NMR spectrum of **2** in $\text{DMSO-}d_6$

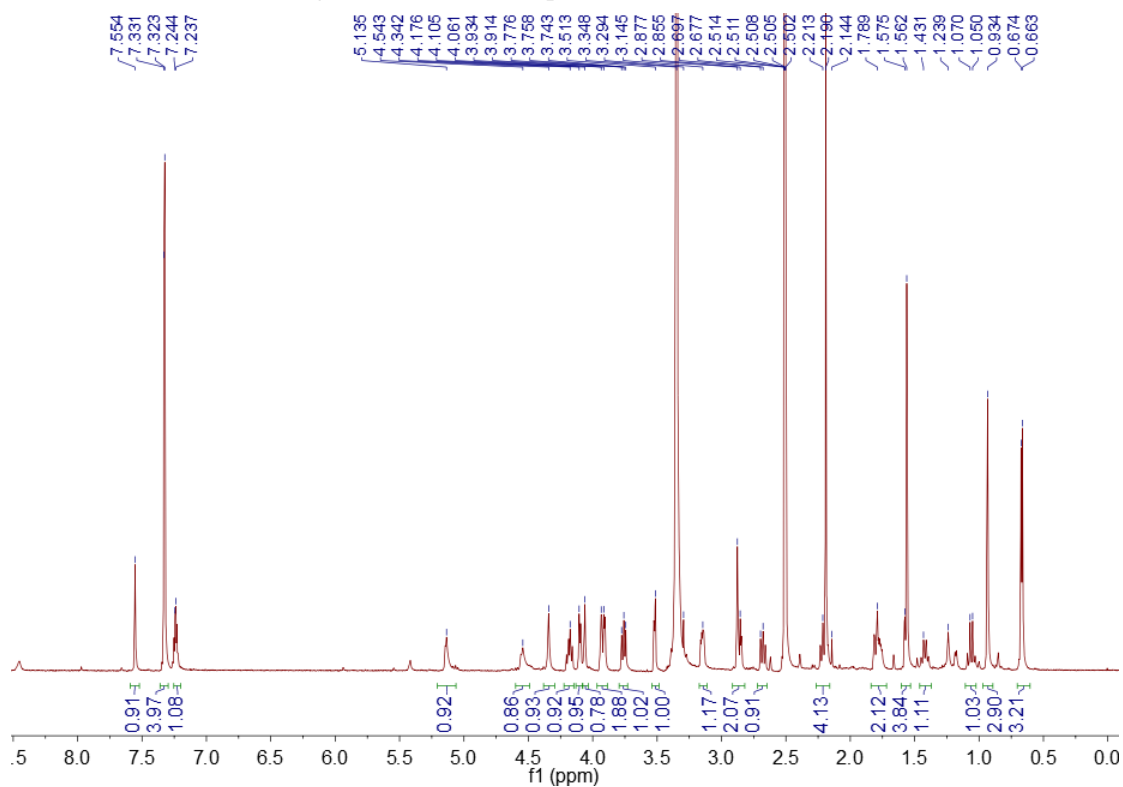


Figure S2.2 ^{13}C NMR spectrum of **2** in $\text{DMSO-}d_6$

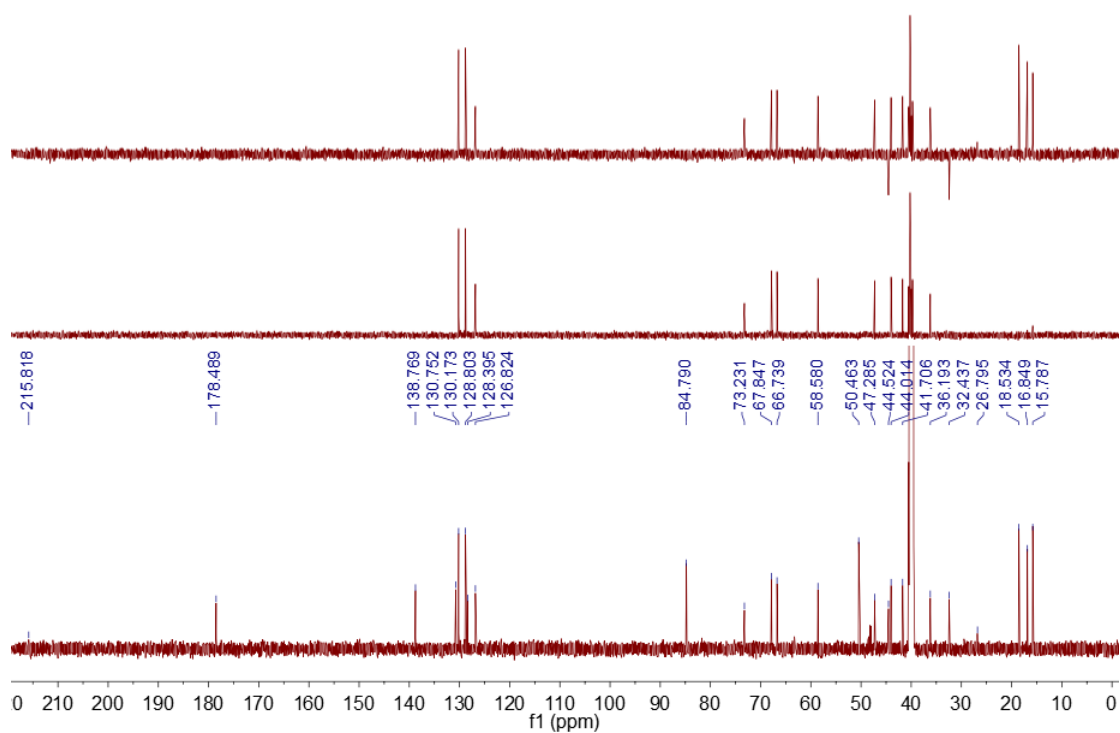


Figure S2.3 HSQC spectrum of **2** in DMSO-*d*₆

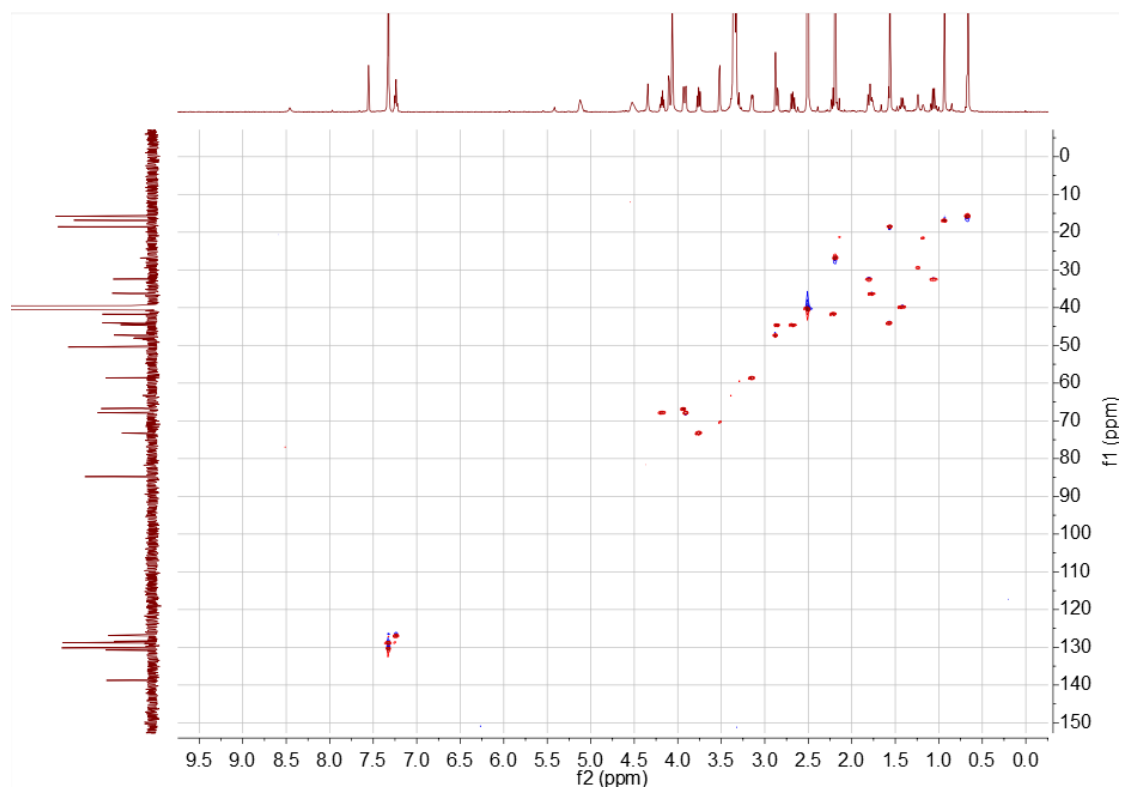


Figure S2.4 HMBC spectrum of **2** in DMSO-*d*₆

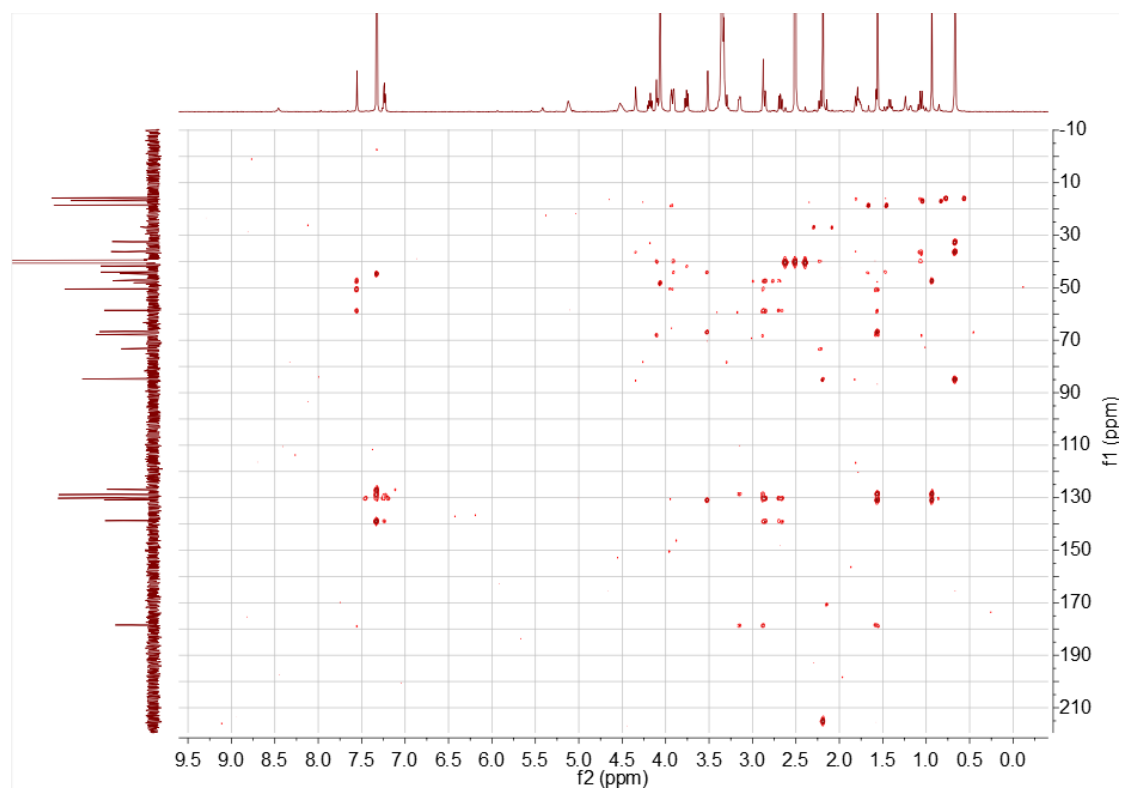


Figure S2.5 COSY spectrum of **2** in DMSO- d_6

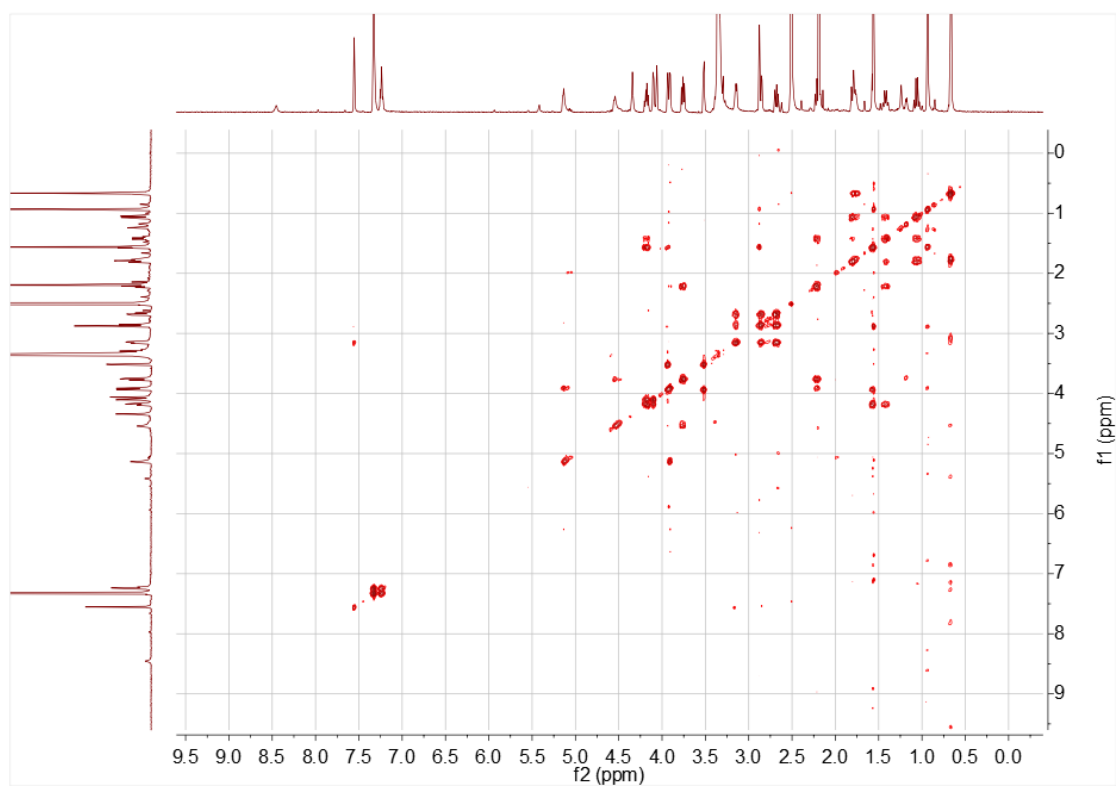


Figure S2.6 Roesy spectrum of **2** in DMSO- d_6

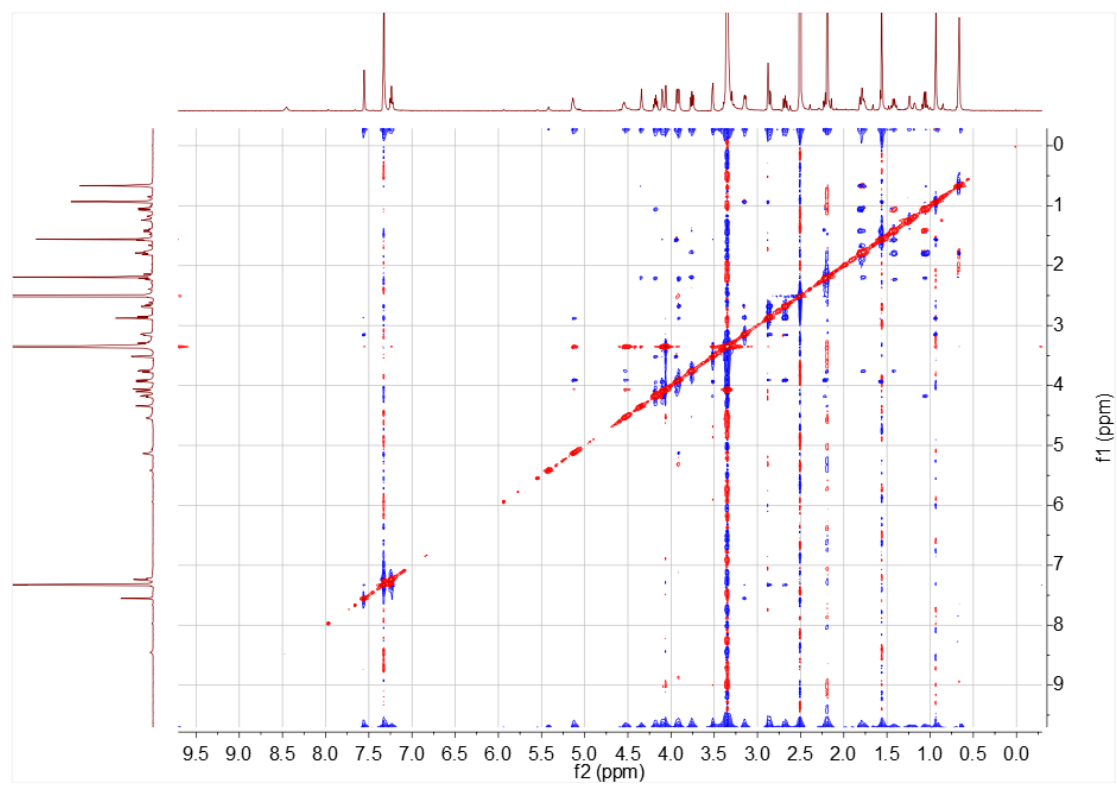


Figure S2.7 HRMS spectrum of **2**

LXE-46 #13 RT: 0.17 AV: 1 SB: 7 1.44-1.60 NL: 1.98E8
T: FTMS + p ESI Full ms [400.0000-1000.0000]

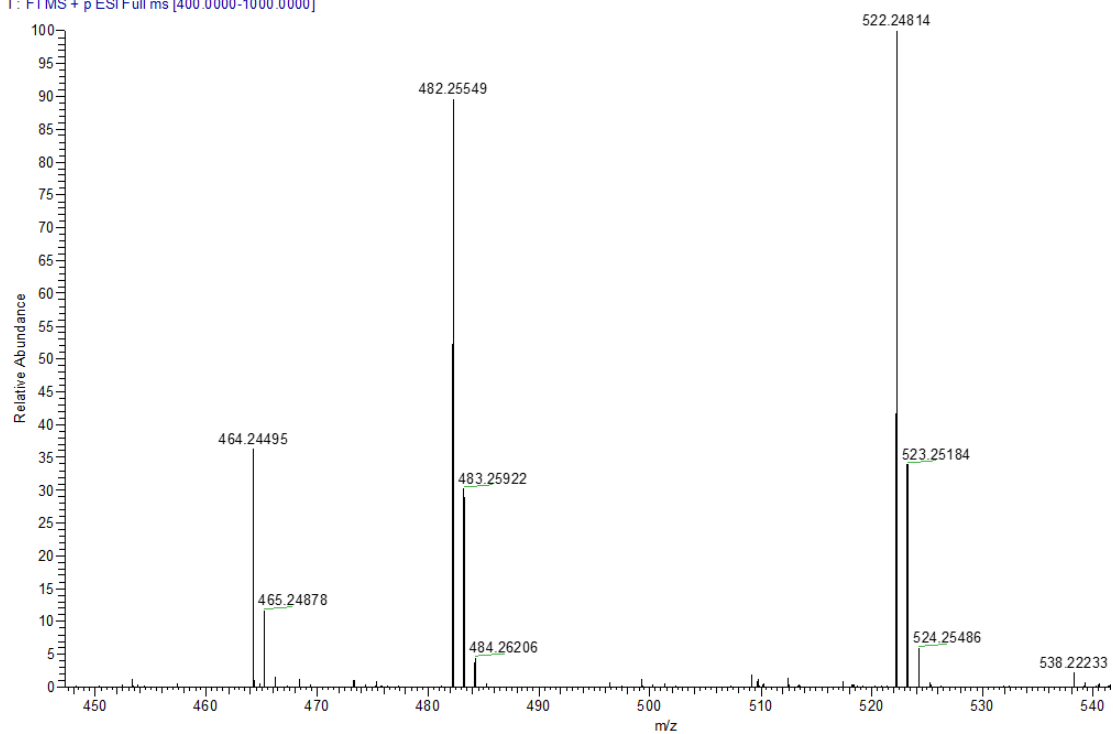


Figure S3.1 ^1H NMR spectrum of **3** in CD_3OD

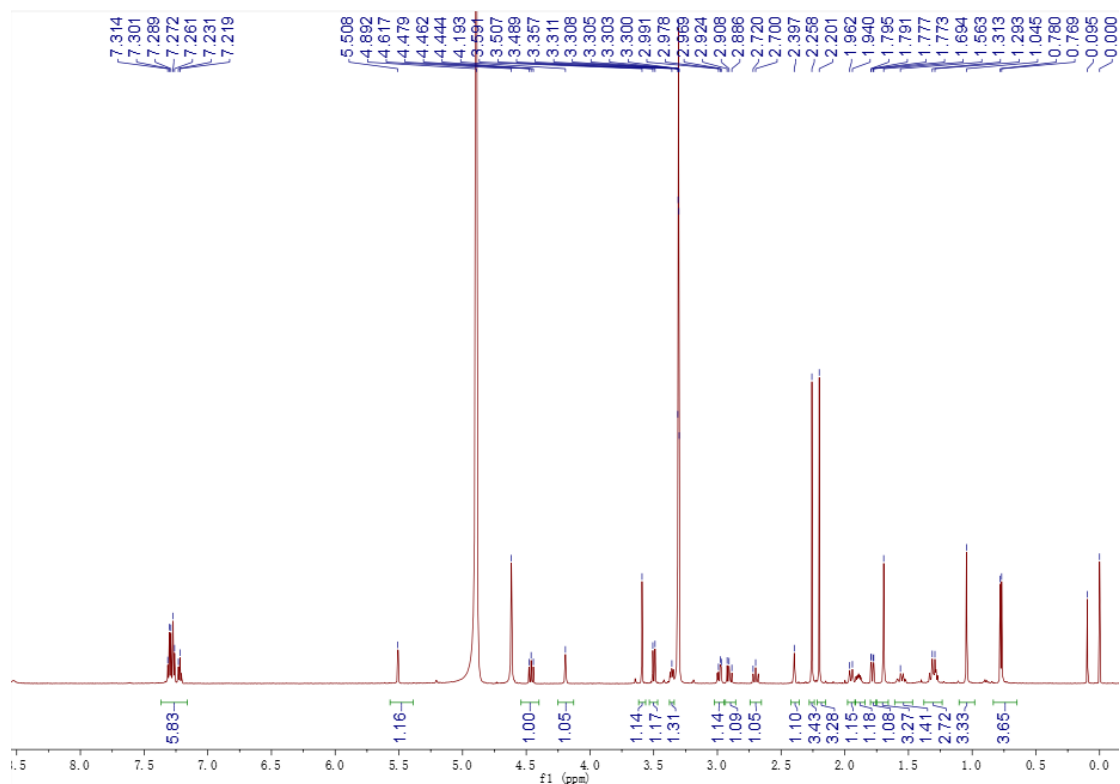


Figure S3.2 ^{13}C NMR spectrum of **3** in CD_3OD

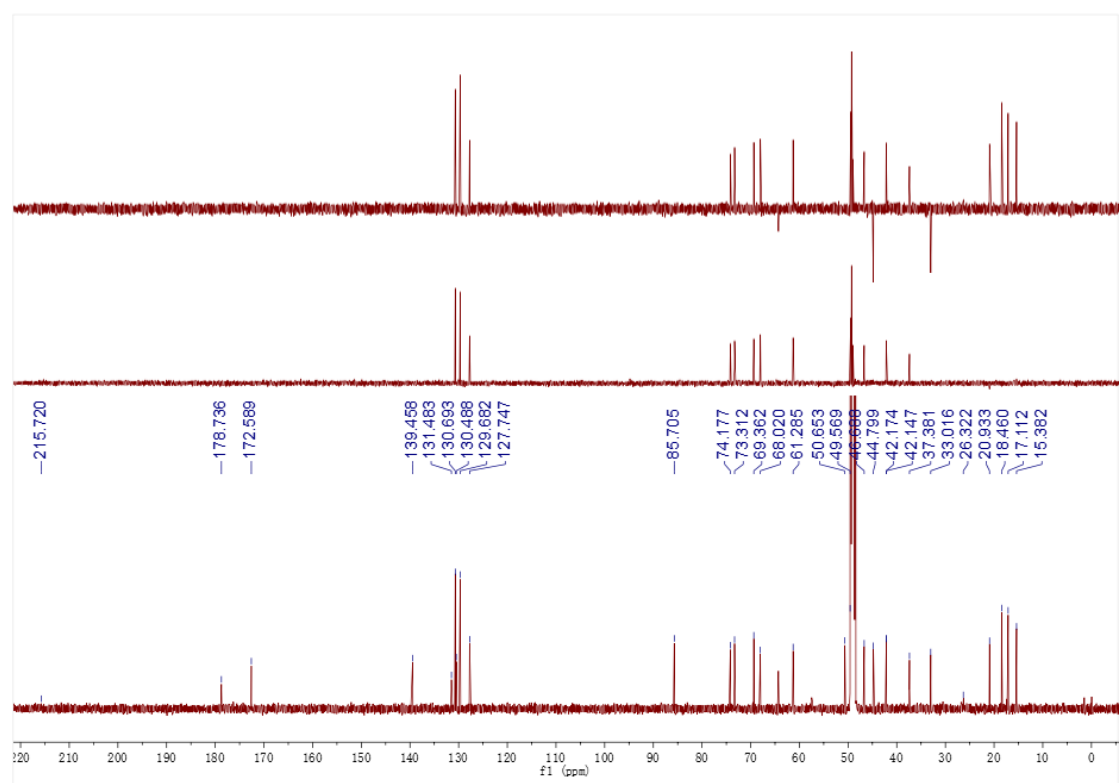


Figure S3.3 HSQC spectrum of **3** in CD₃OD

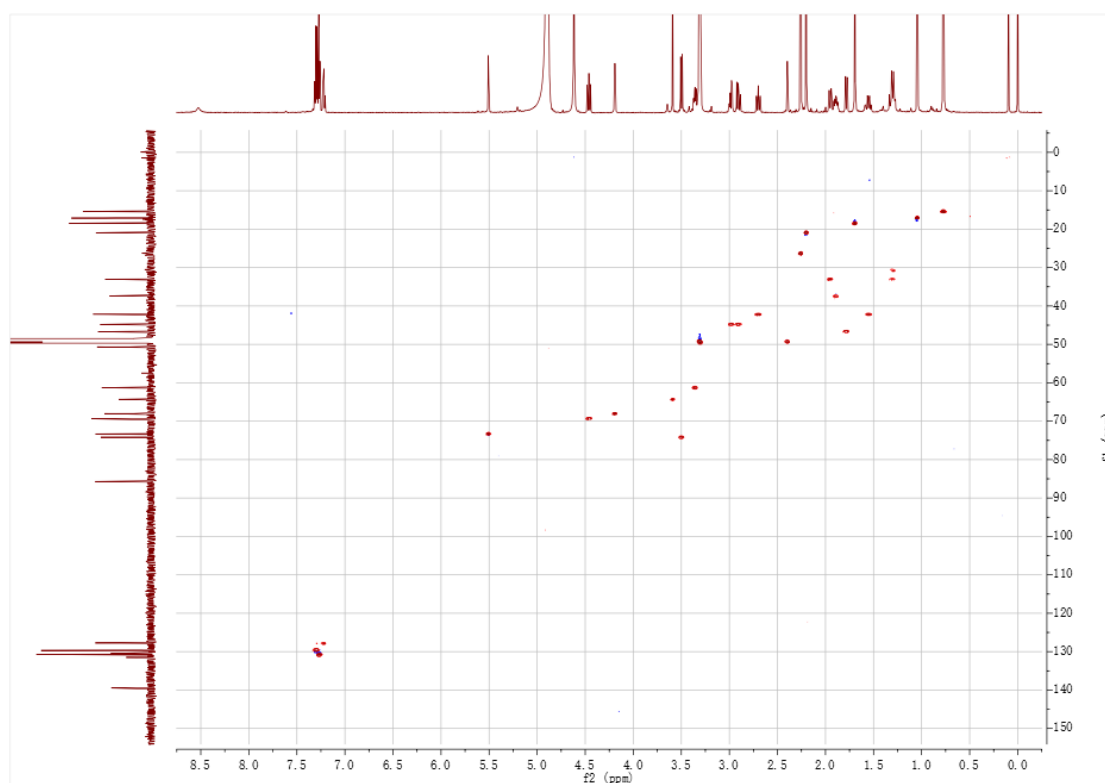


Figure S3.4 HMBC spectrum of **3** in CD₃OD

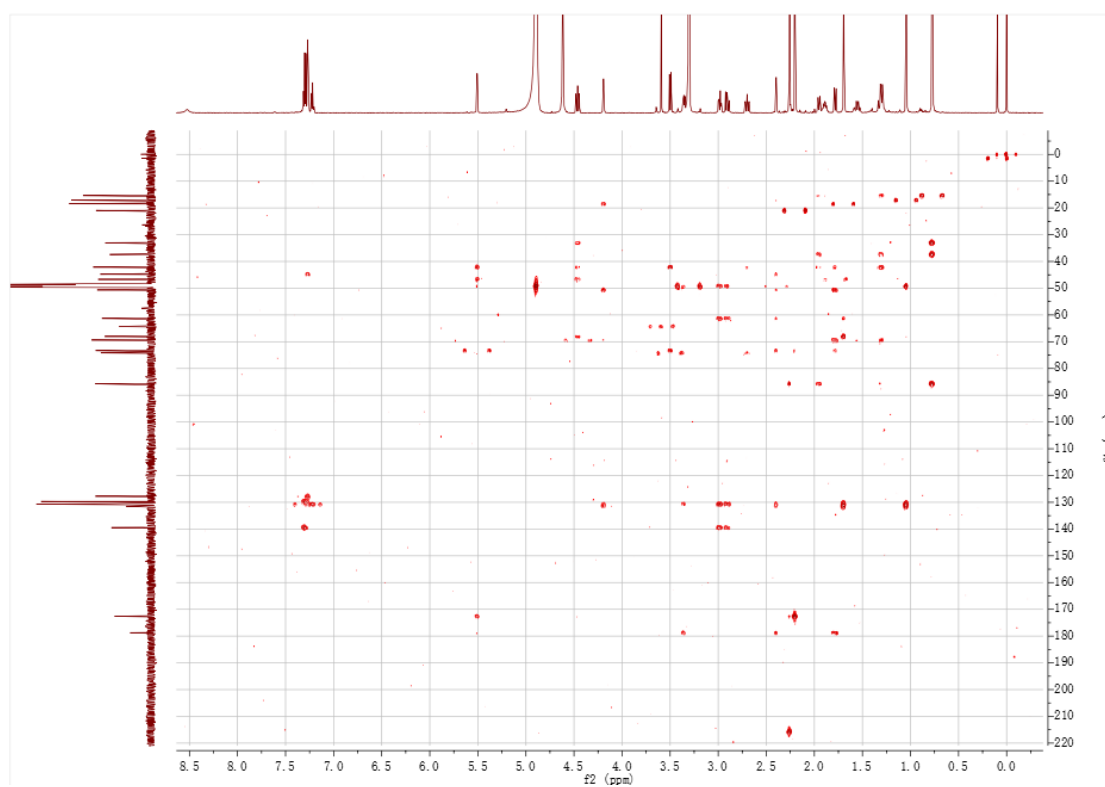


Figure S3.5 COSY spectrum of **3** in CD₃OD

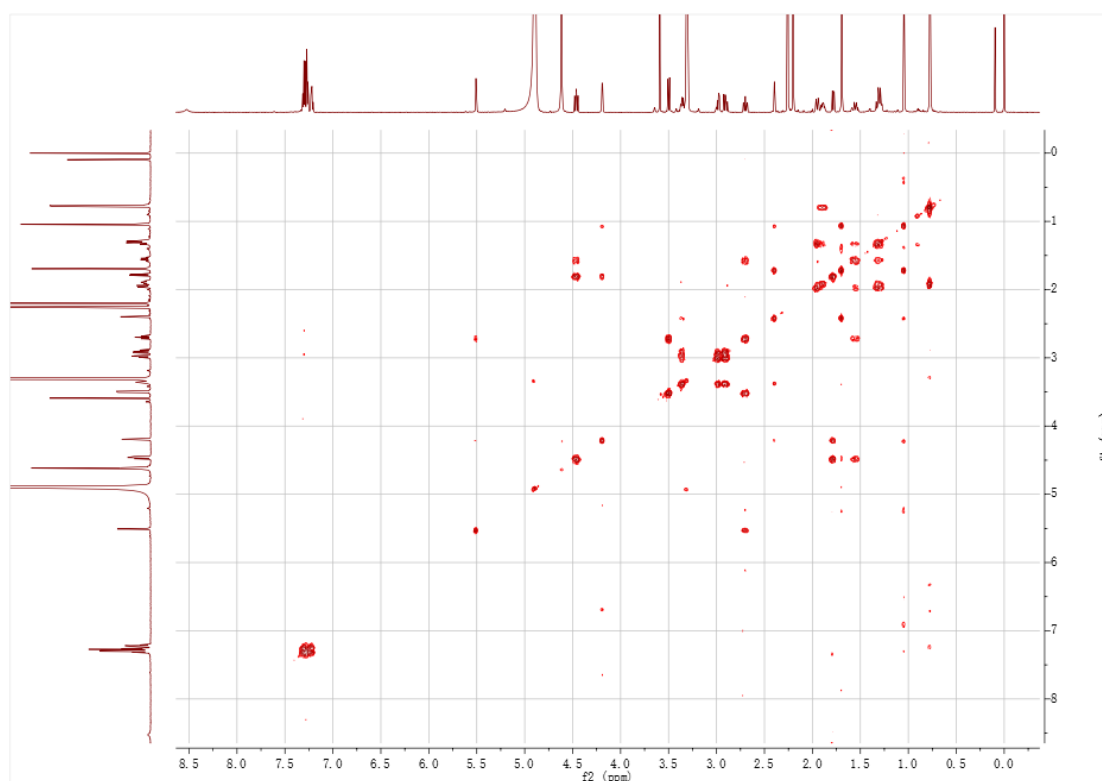


Figure S3.6 Roesy spectrum of **3** in CD₃OD

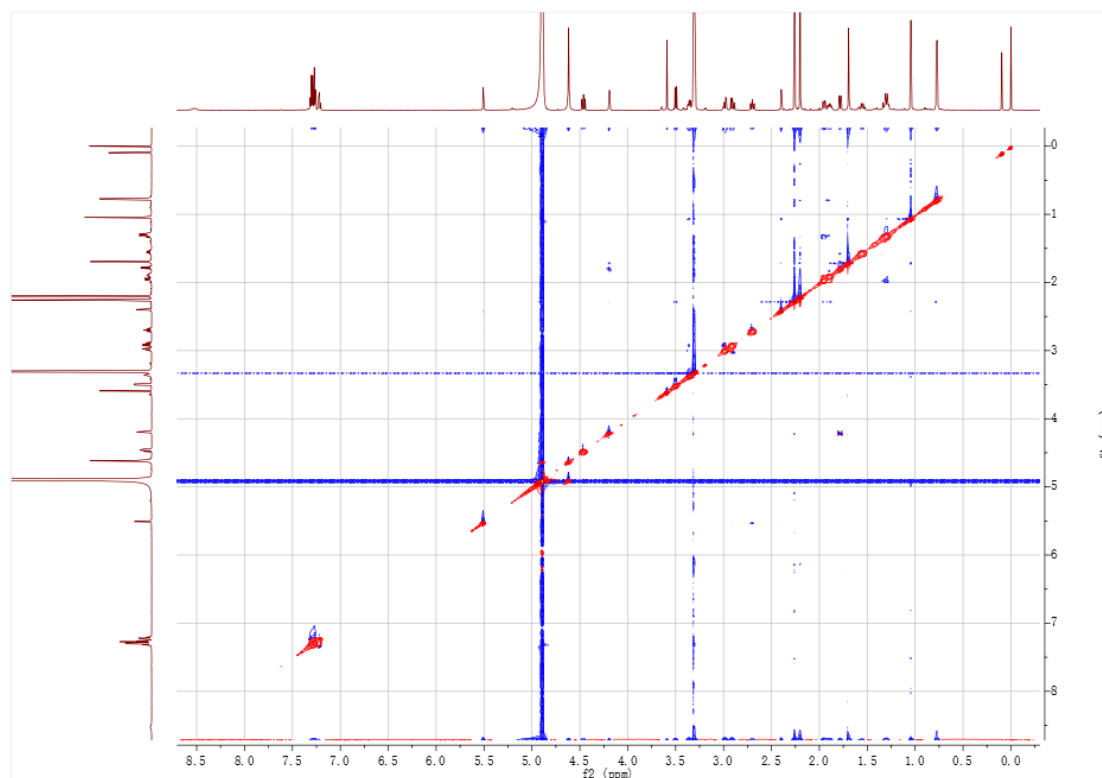


Figure S3.7 HRMS spectrum of **3**

LXE-57 #13 RT: 0.17 AV: 1 SB: 8 1.36-1.56 NL: 1.39E8
T: FTMS + p ESI Full ms [400.0000-1000.0000]

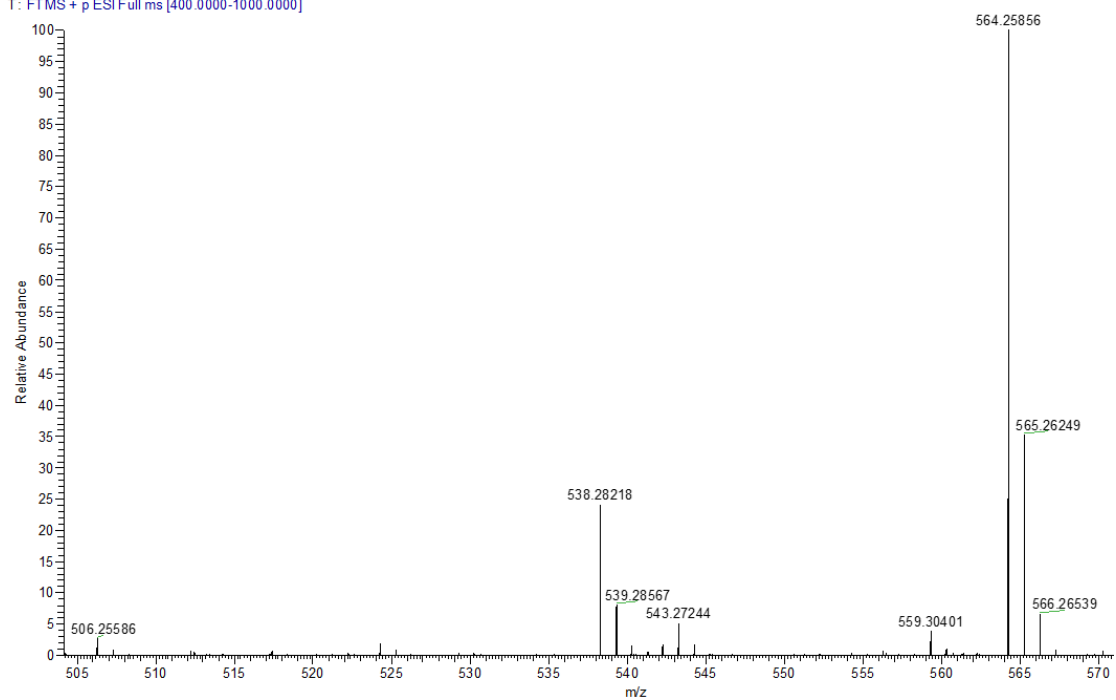


Figure S4.1 ^1H NMR spectrum of **4** in CD_3OD

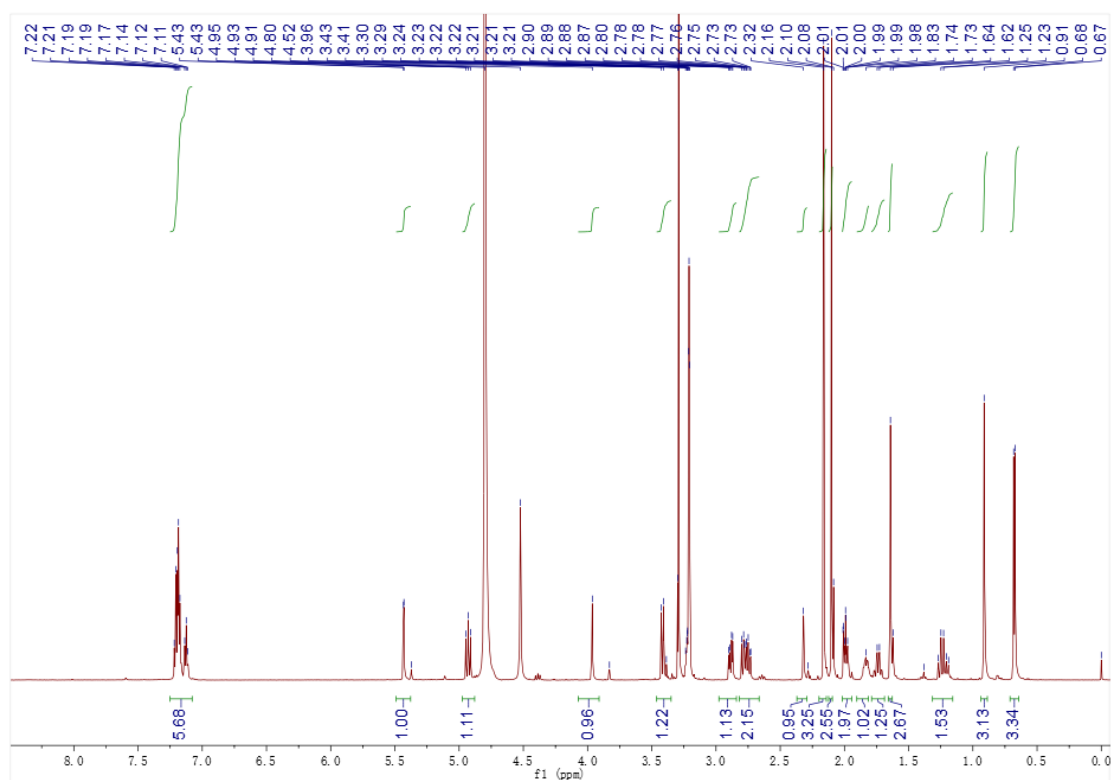


Figure S4.2 ^{13}C NMR spectrum of **4** in CD_3OD

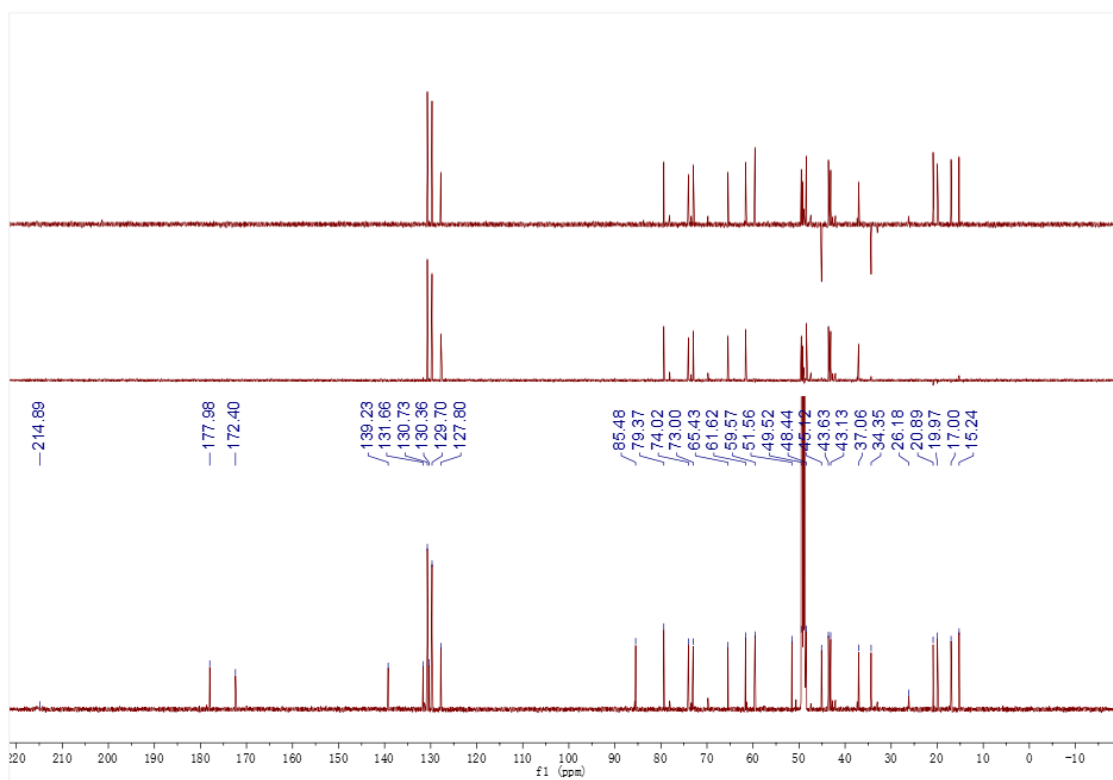


Figure S4.3 HSQC spectrum of **4** in CD₃OD

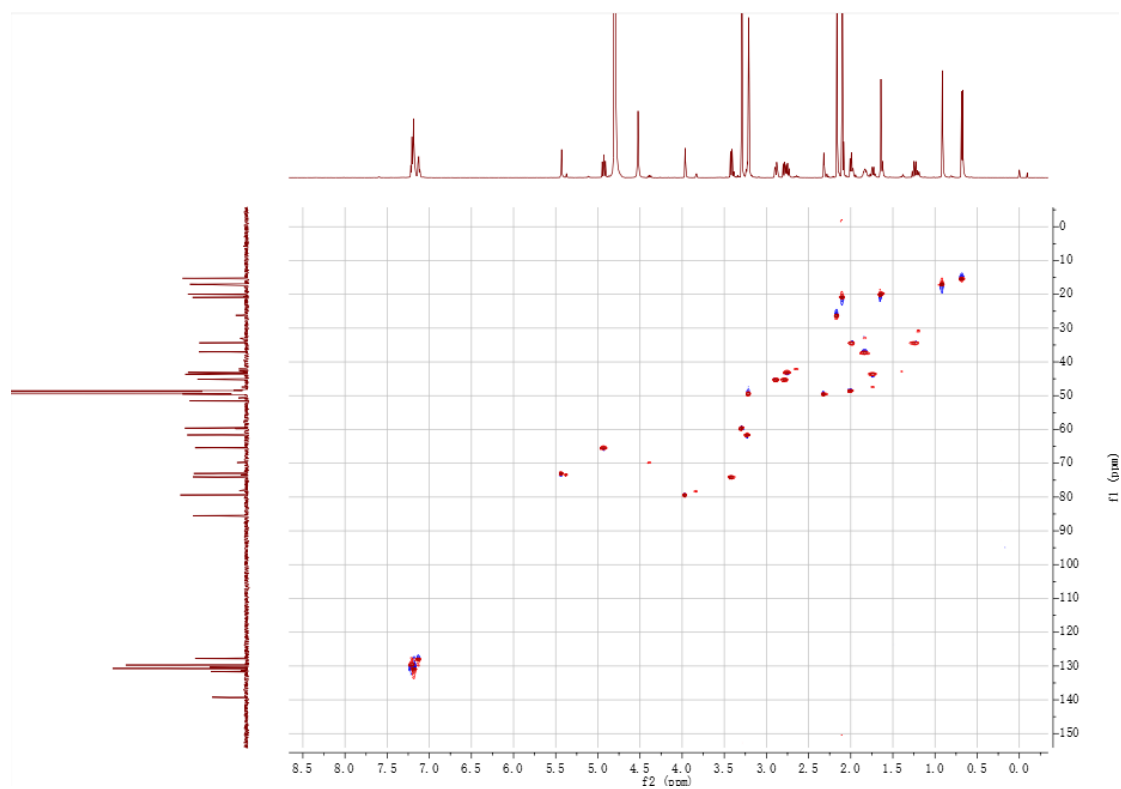


Figure S4.4 HMBC spectrum of **4** in CD₃OD

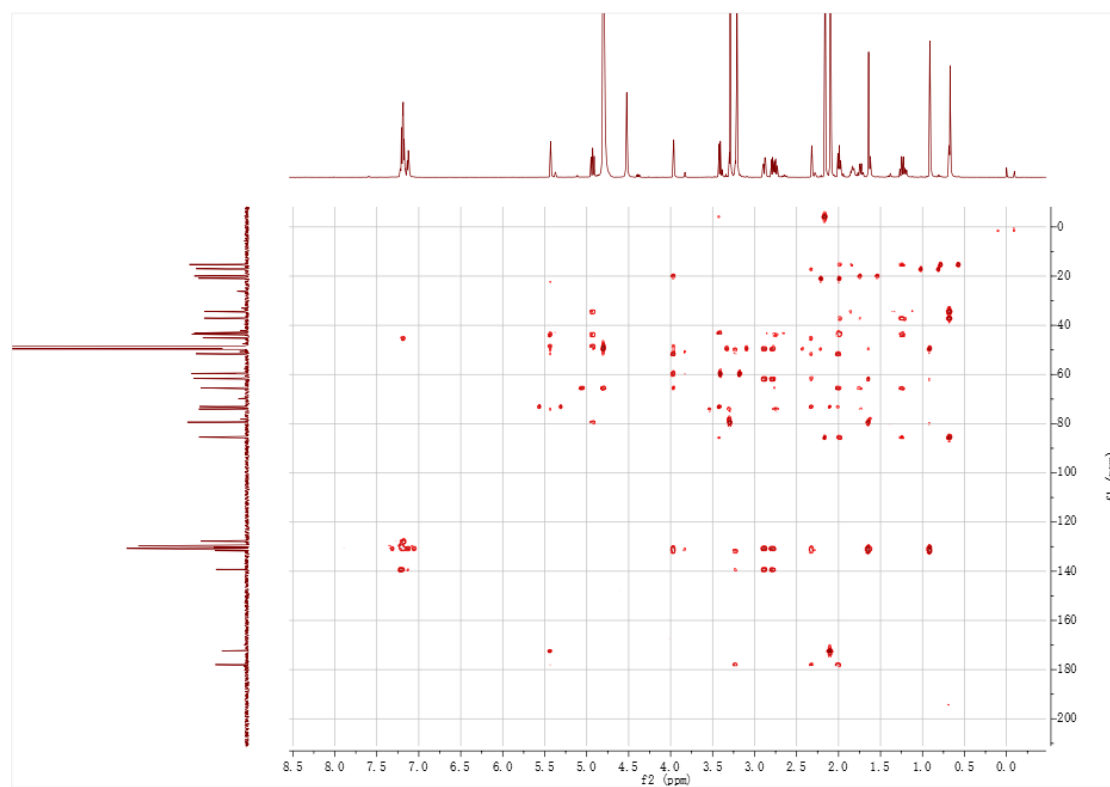


Figure S4.5 COSY spectrum of **4** in CD₃OD

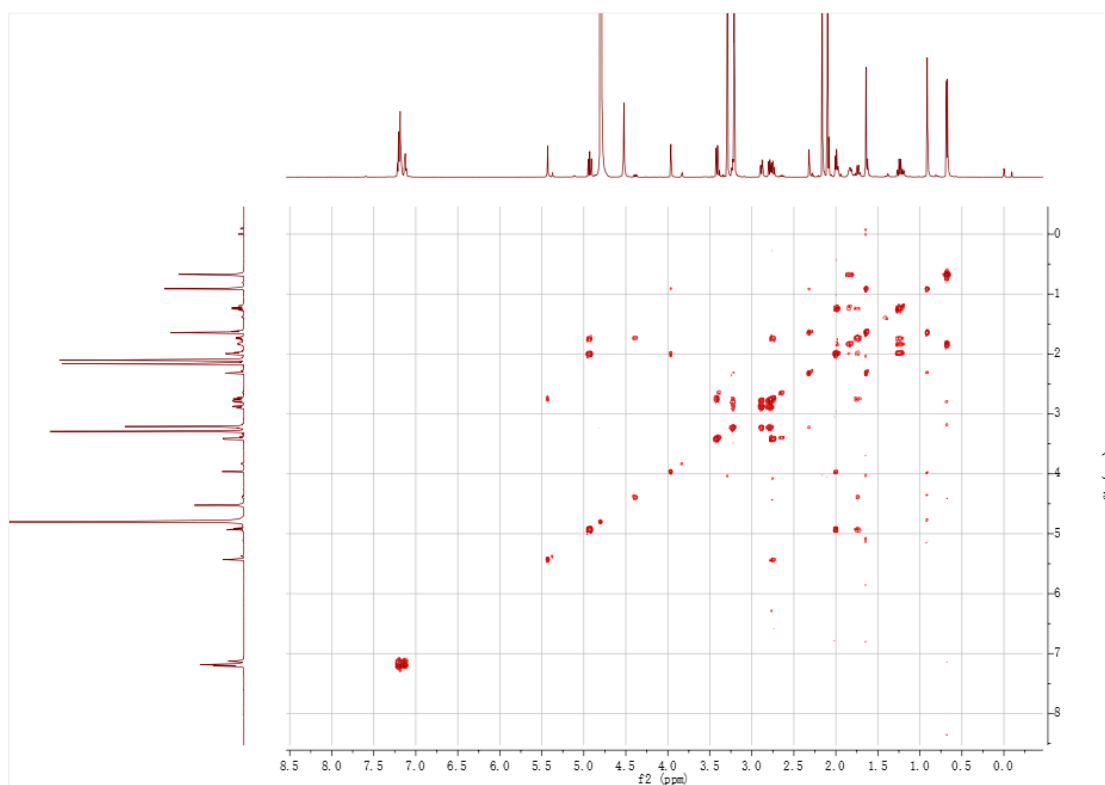


Figure S4.6 Roesy spectrum of **4** in CD₃OD

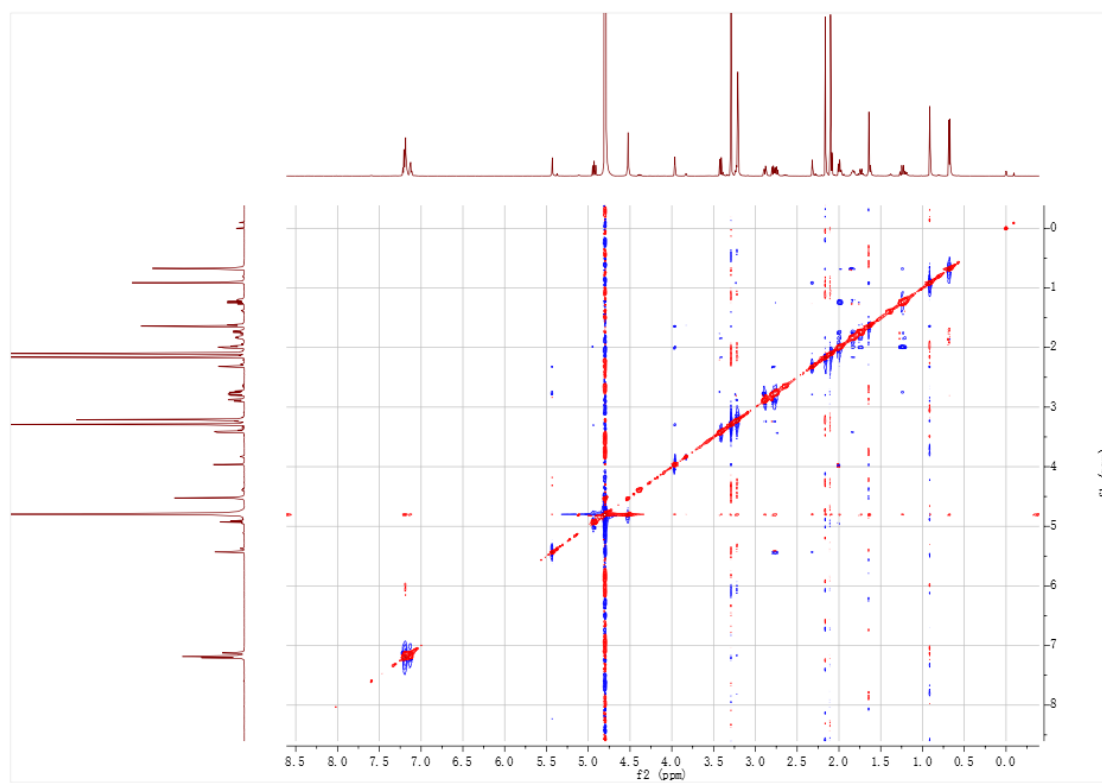


Figure S4.7 ^1H NMR spectrum of **4** in $\text{DMSO}-d_6$

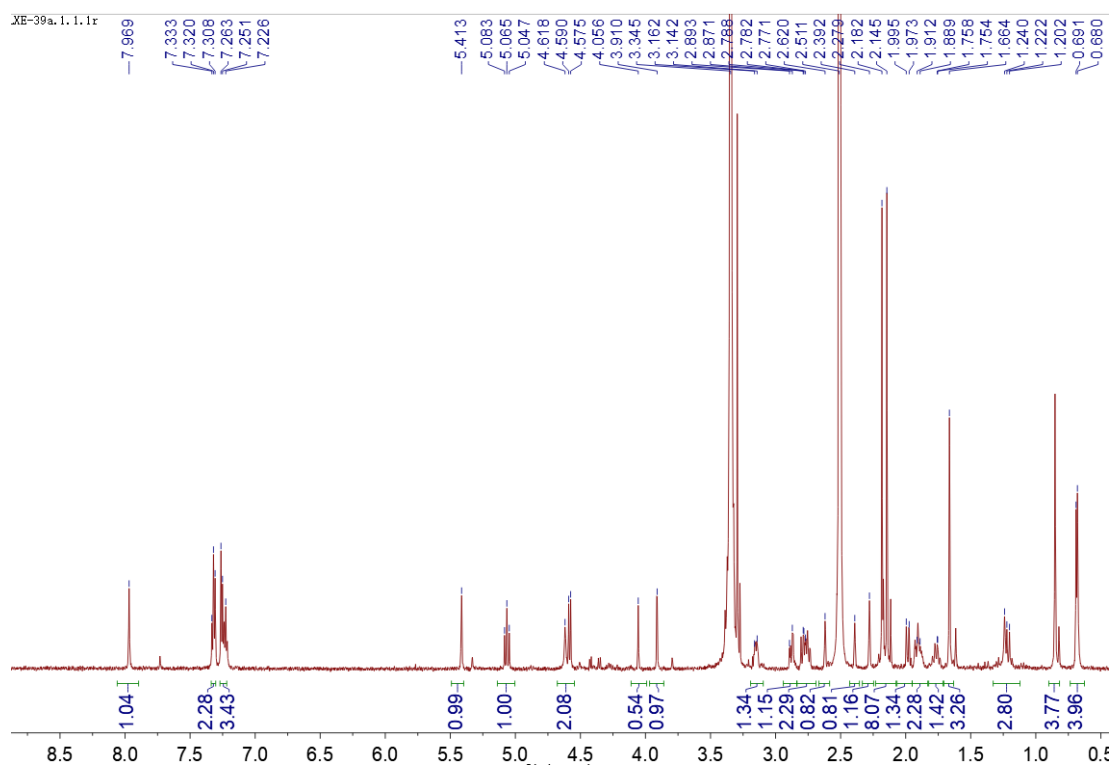


Figure S4.8 ^{13}C NMR spectrum of **4** in $\text{DMSO}-d_6$

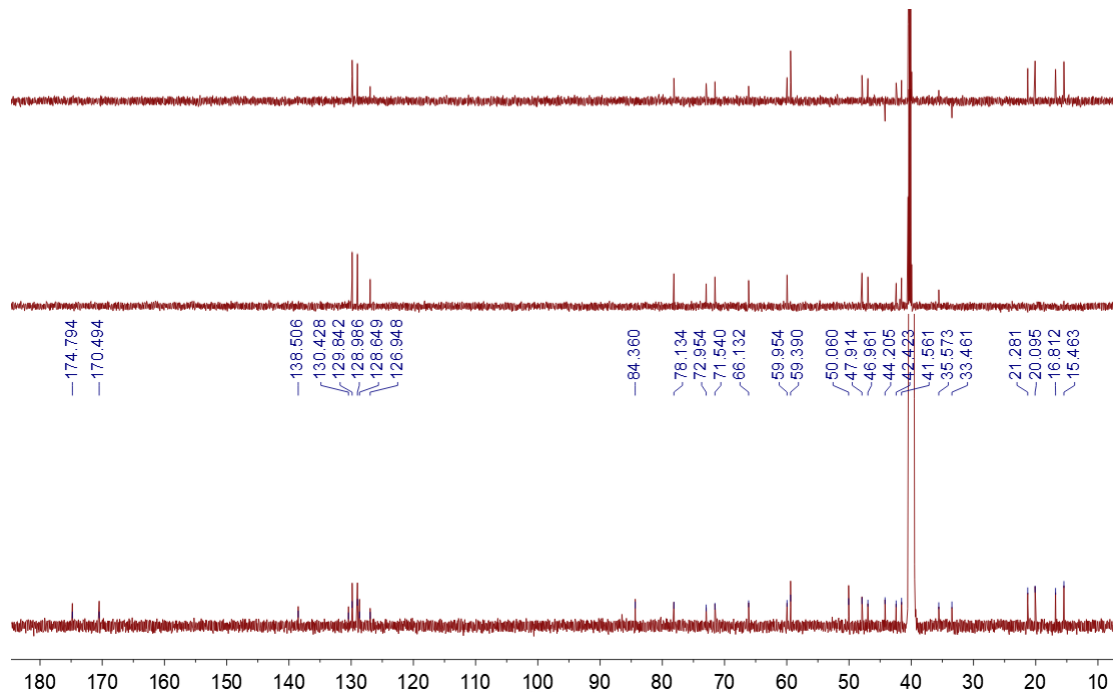


Figure S4.9 HSQC spectrum of **4** in DMSO-*d*₆

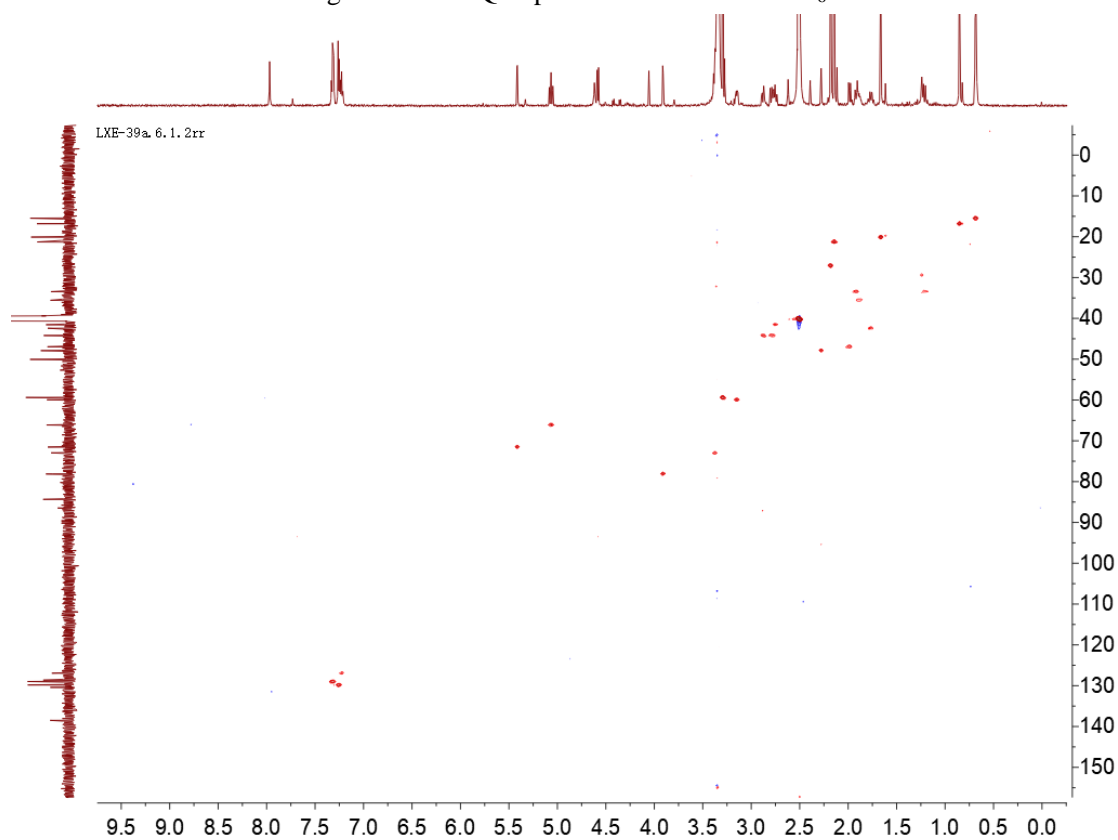


Figure S4.10 HMBC spectrum of **4** in DMSO-*d*₆

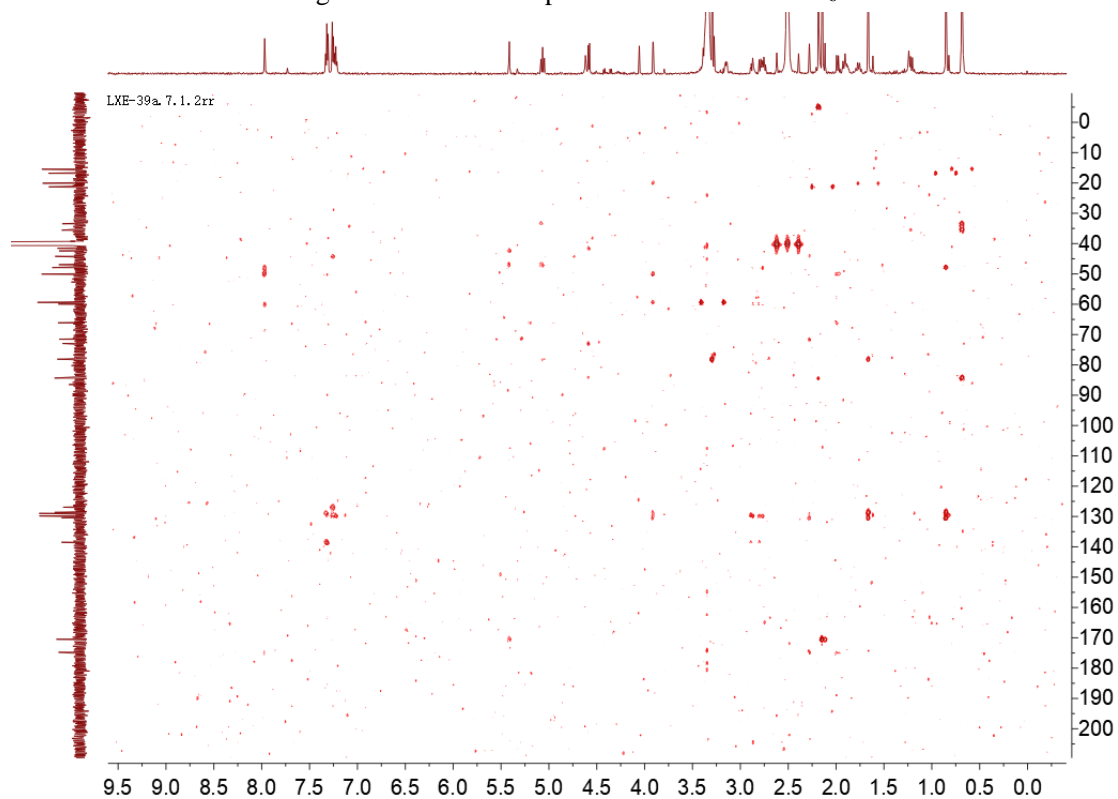


Figure S4.11 COSY spectrum of **4** in DMSO- d_6

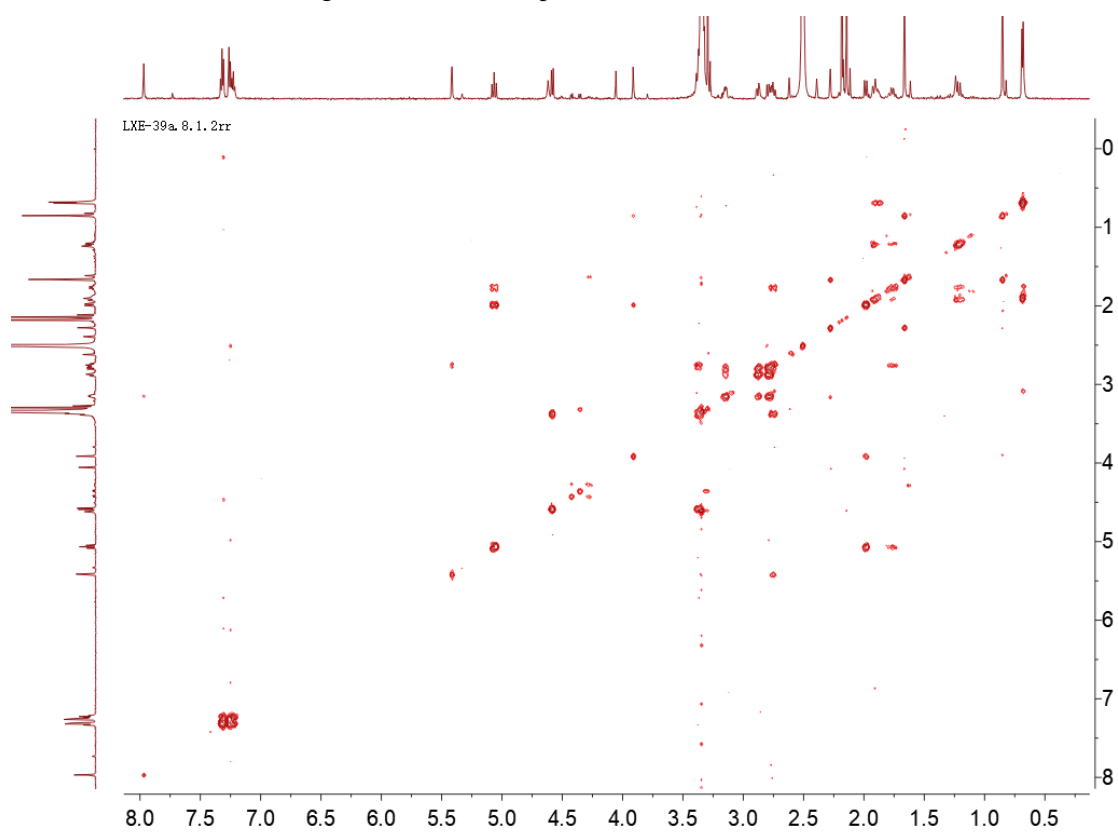


Figure S4.12 Roesy spectrum of **4** in DMSO- d_6

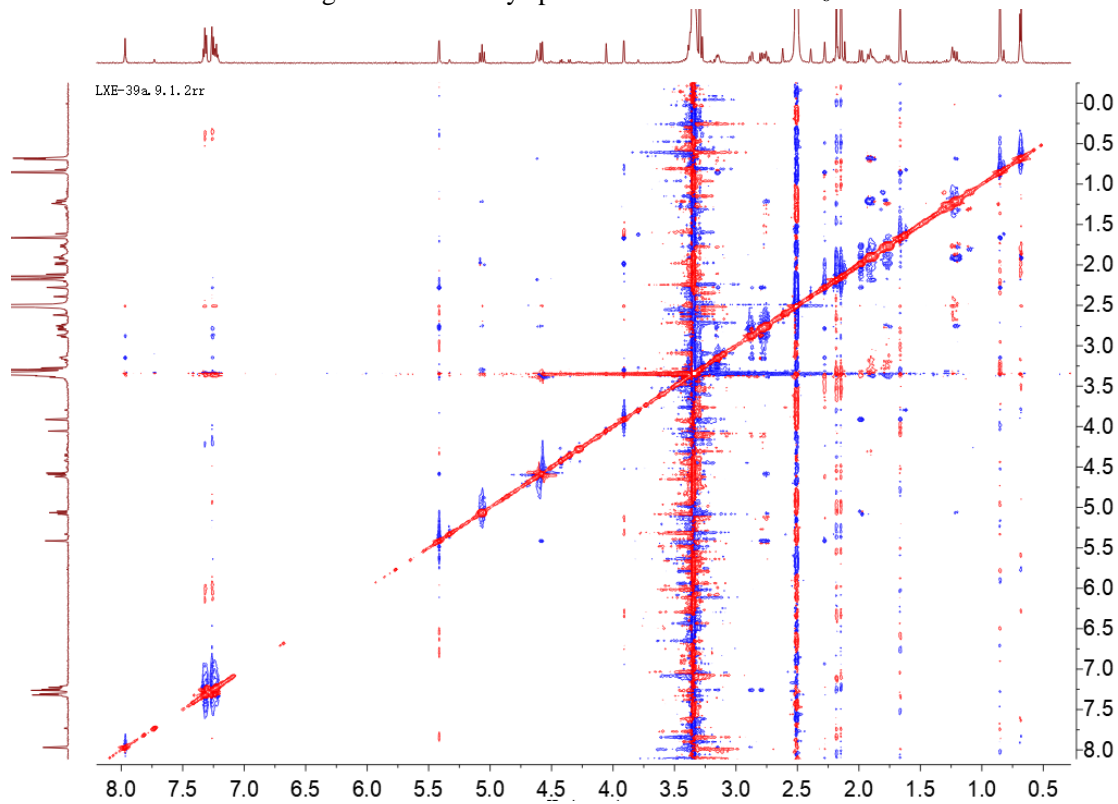


Figure S4.13 HRMS spectrum of **4**

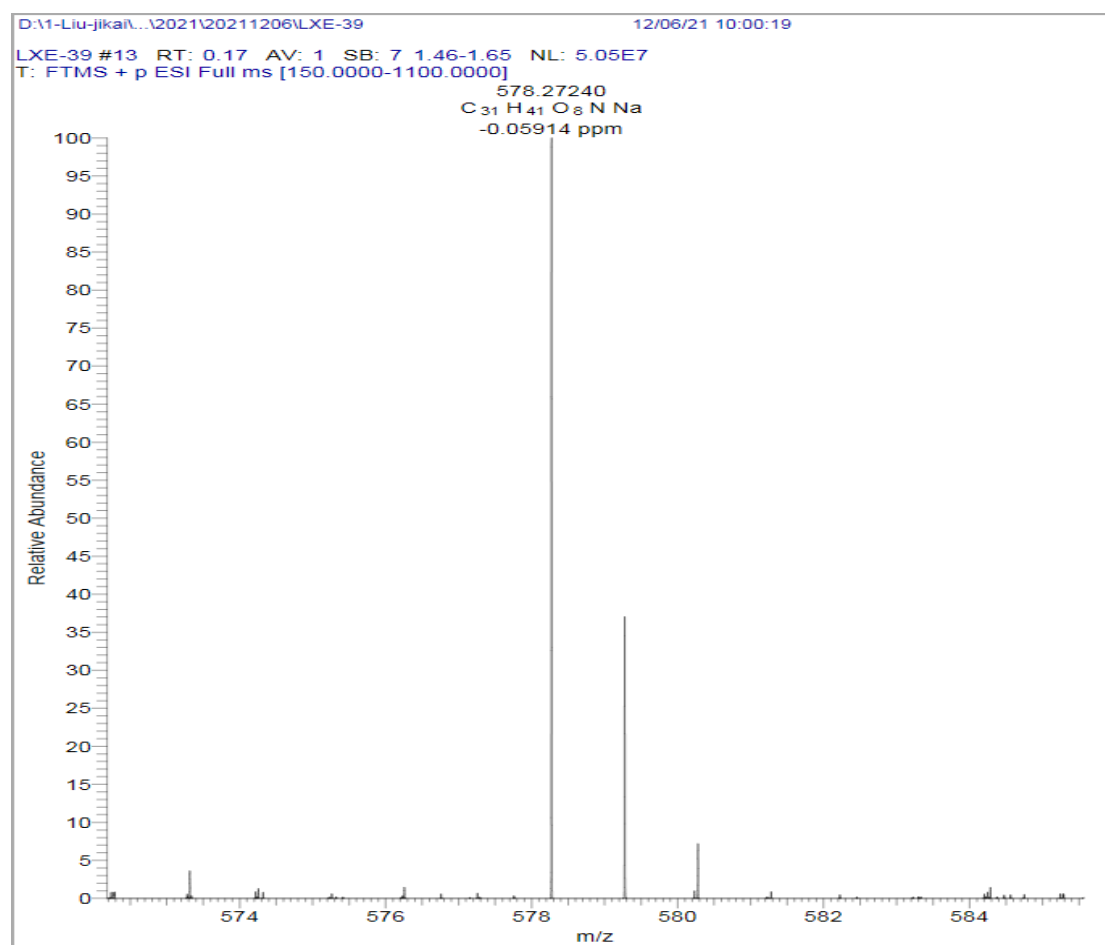


Figure S5.1 ^1H NMR spectrum of **5** in CD_3OD

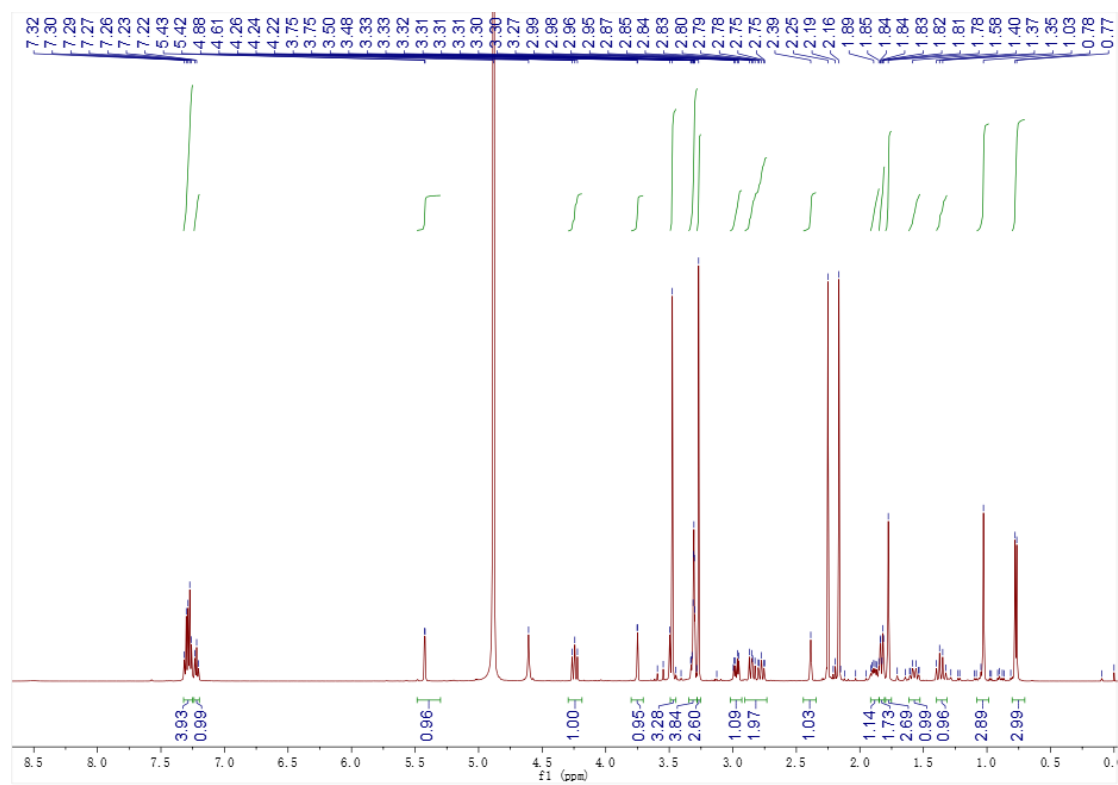


Figure S5.2 ^{13}C NMR spectrum of **5** in CD_3OD

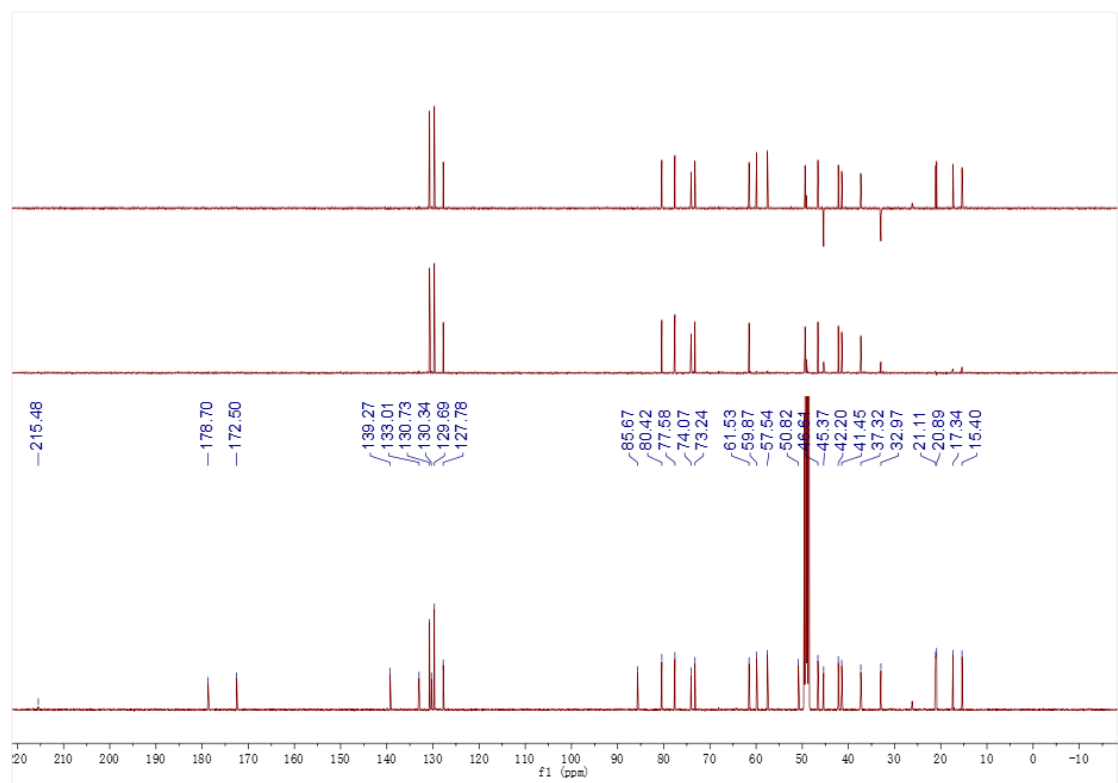


Figure S5.3 HSQC spectrum of **5** in CD₃OD

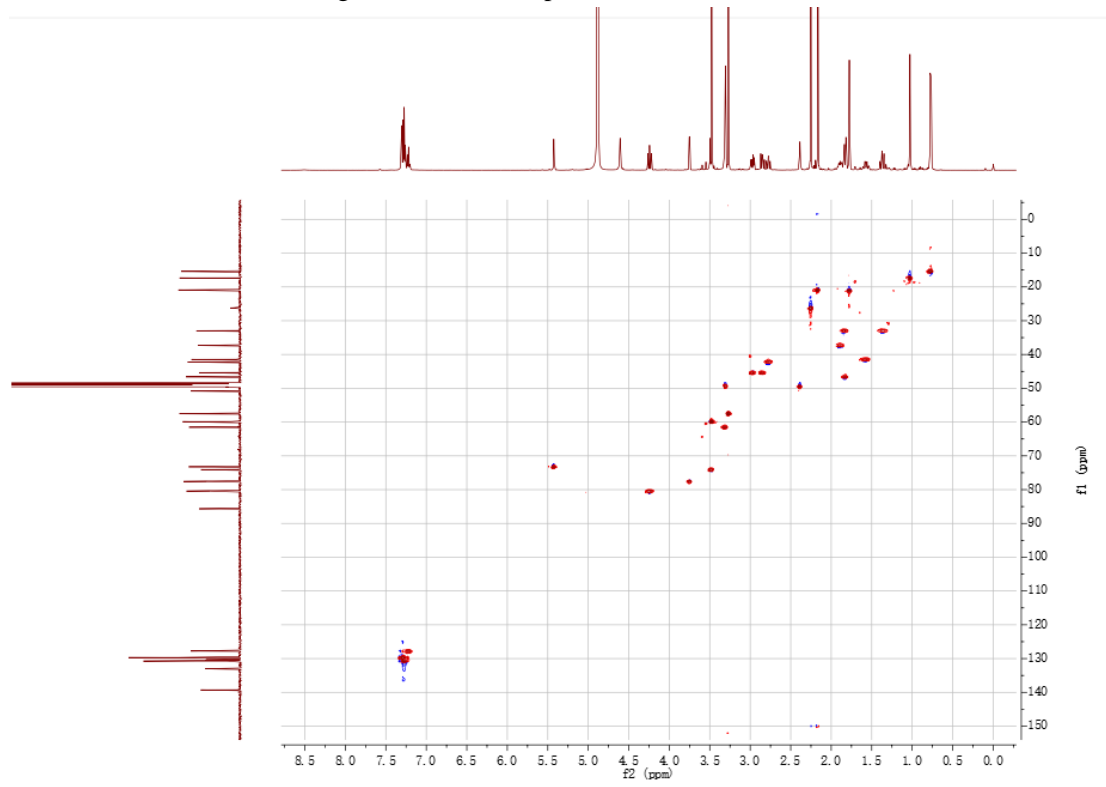


Figure S5.4 HMBC spectrum of **5** in CD₃OD

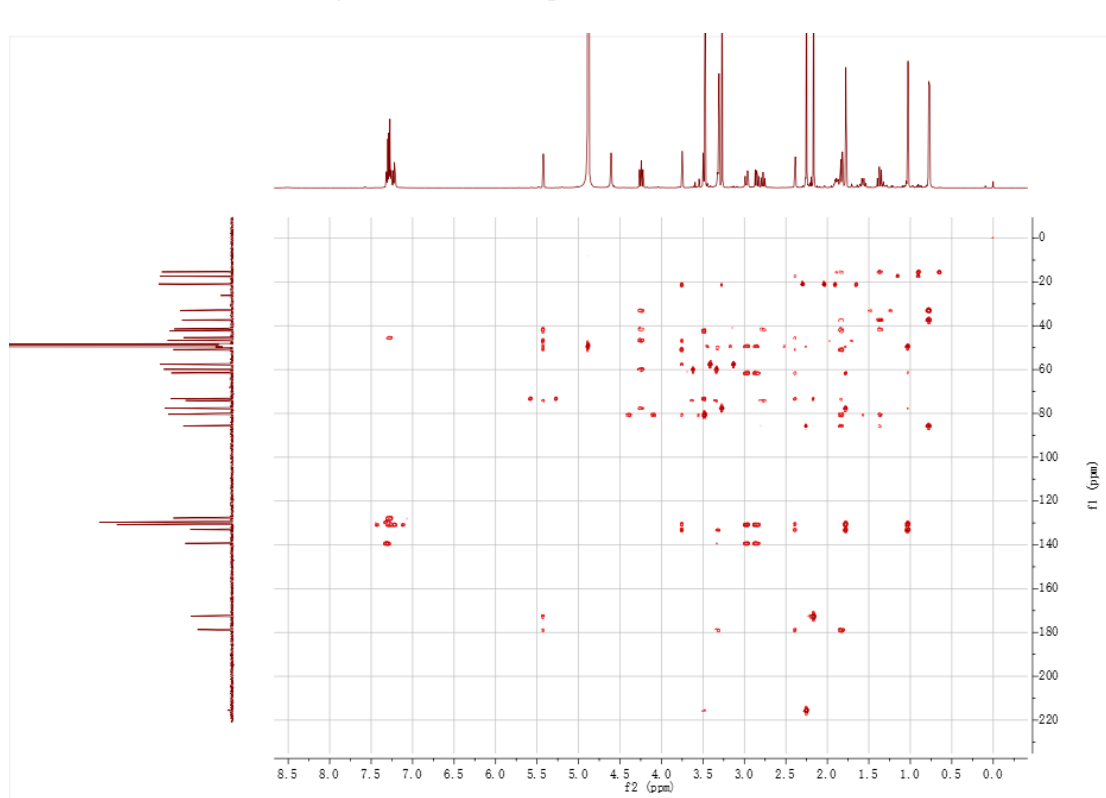


Figure S5.5 COSY spectrum of **5** in CD₃OD

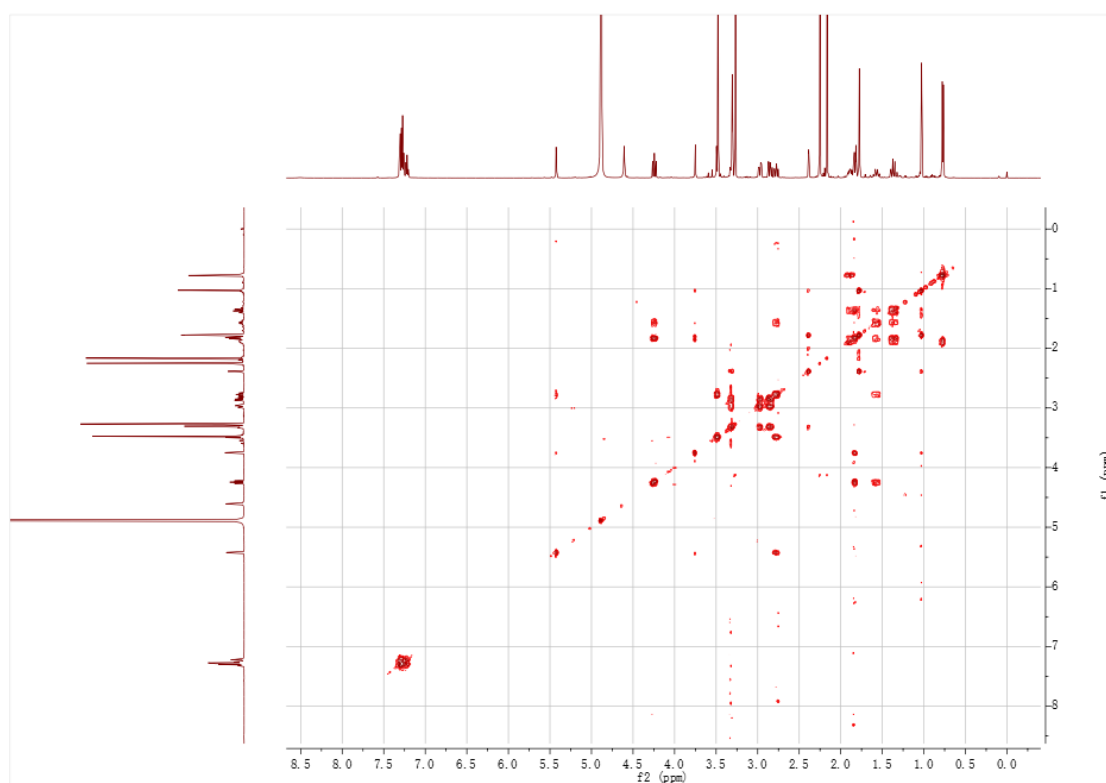


Figure S5.6 Roesy spectrum of **5** in CD₃OD

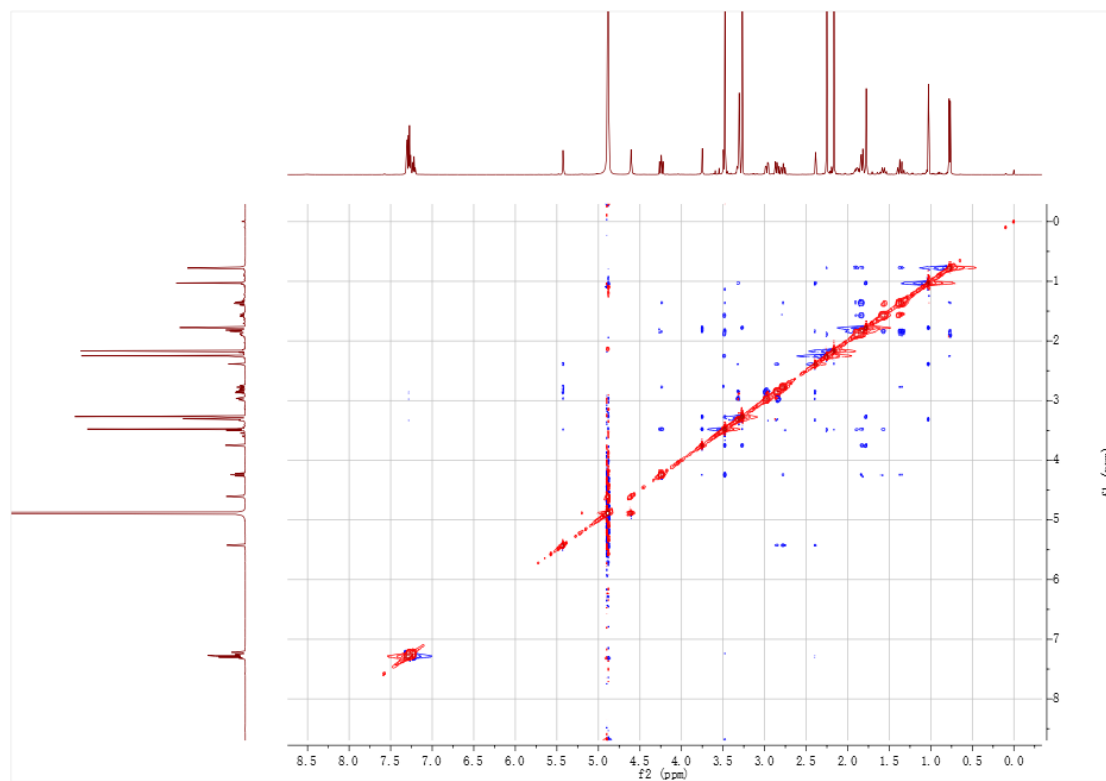


Figure S5.7 HRMS spectrum of **5**

LXE-37 #13 RT: 0.17 AV: 1 SB: 6 1.44-1.59 NL: 9.17E8
T: FTMS + p ESI Full ms [400.0000-1000.0000]

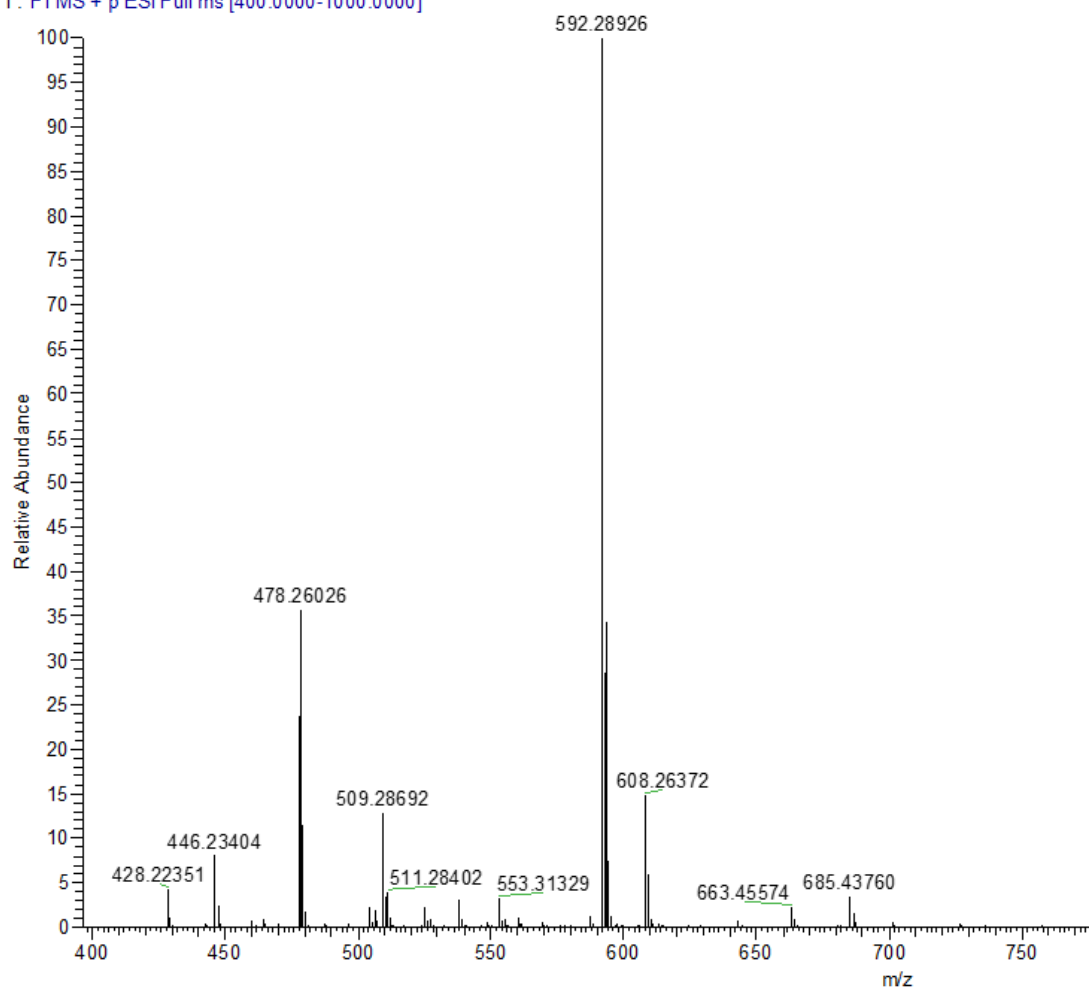


Figure S6.1 ^1H NMR spectrum of **6** in $\text{DMSO}-d_6$

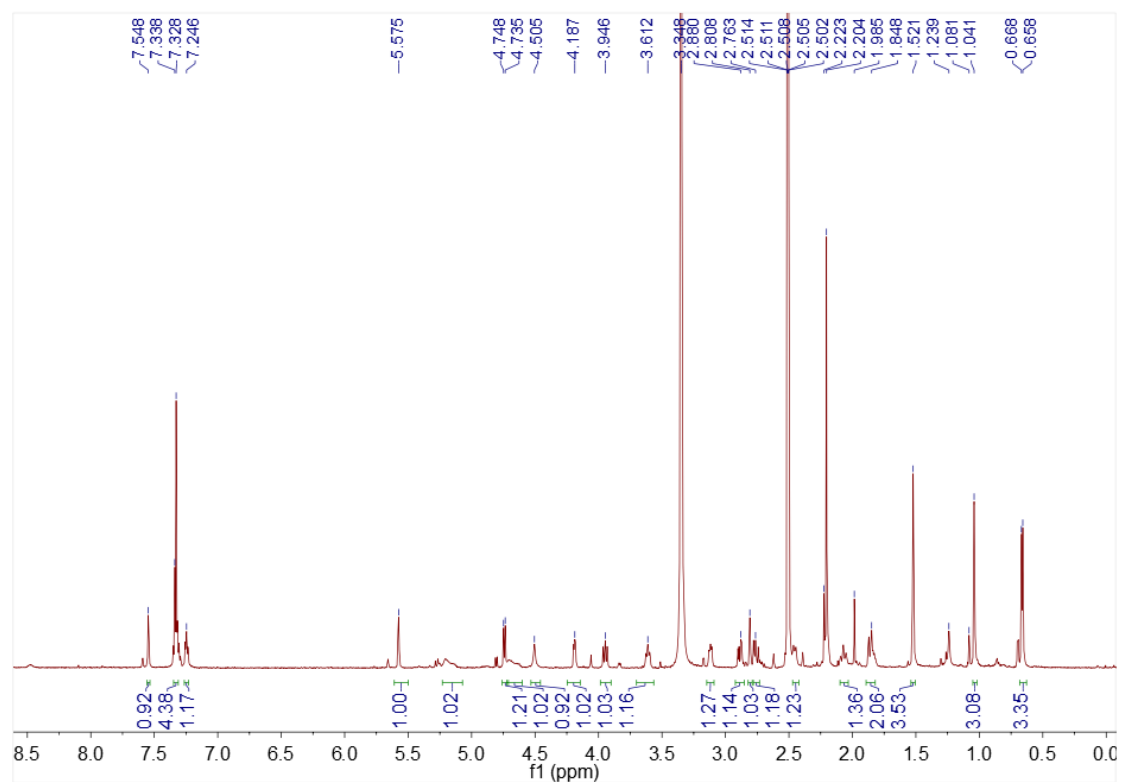


Figure S6.2 ^{13}C NMR spectrum of **6** in $\text{DMSO}-d_6$

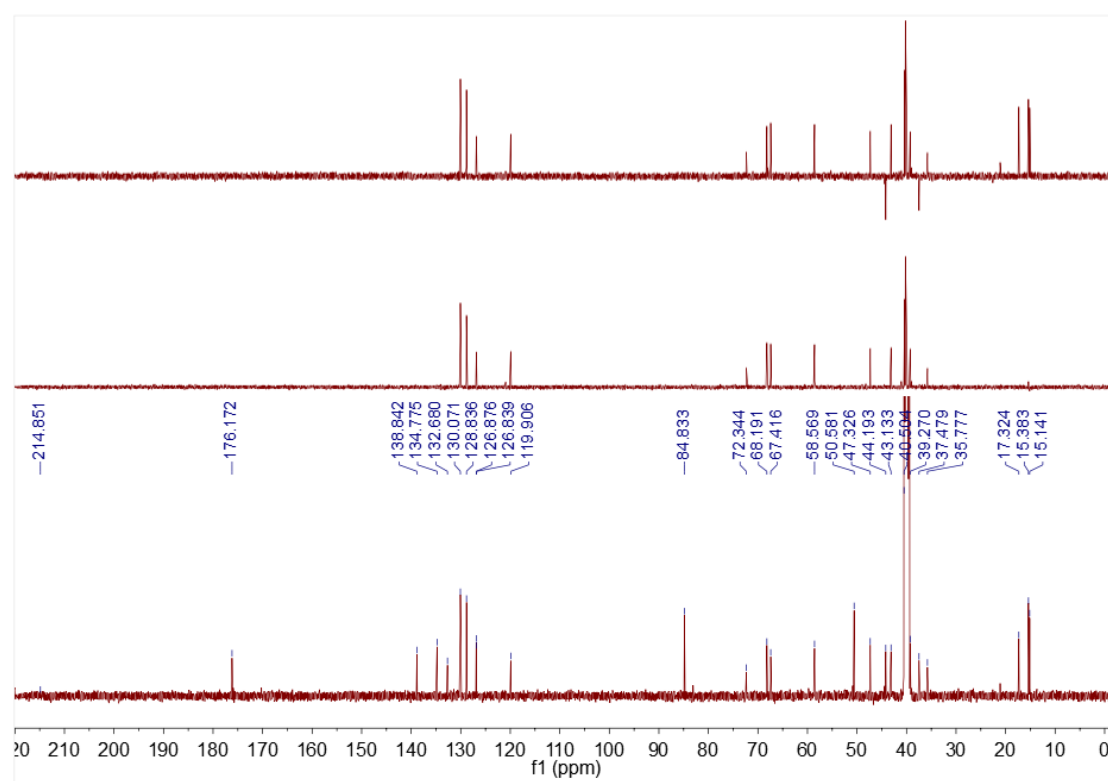


Figure S6.3 HSQC spectrum of **6** in DMSO-*d*₆

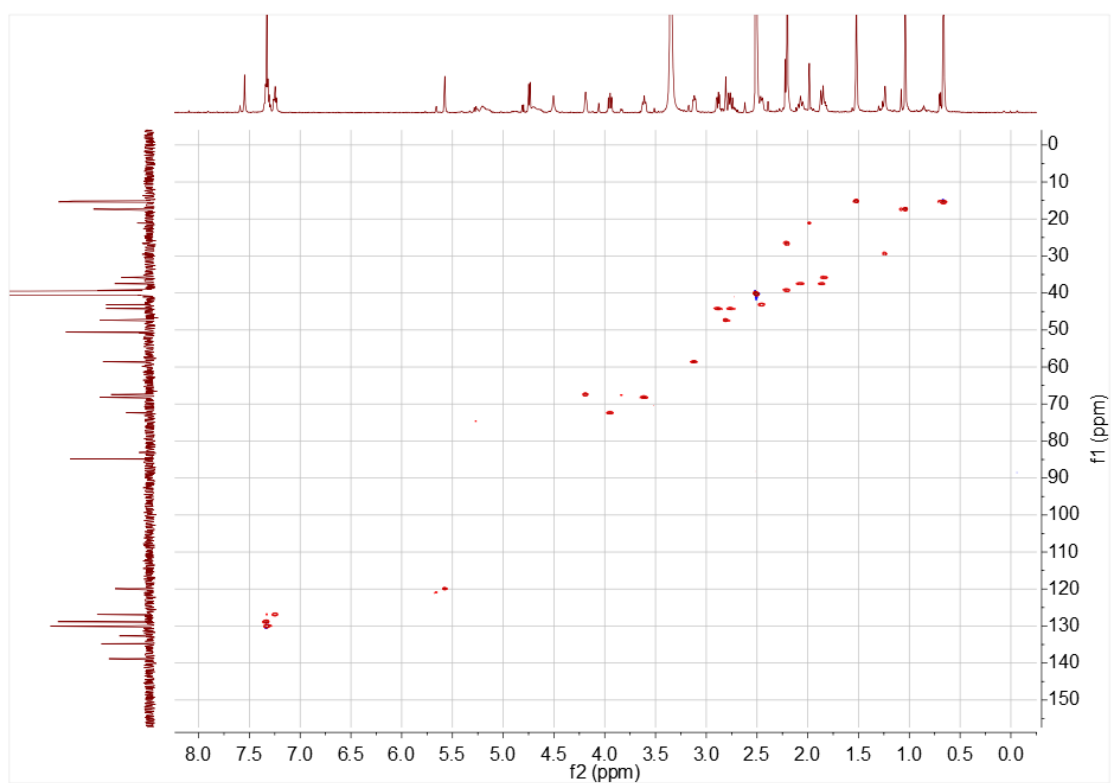


Figure S6.4 HMBC spectrum of **6** in DMSO-*d*₆

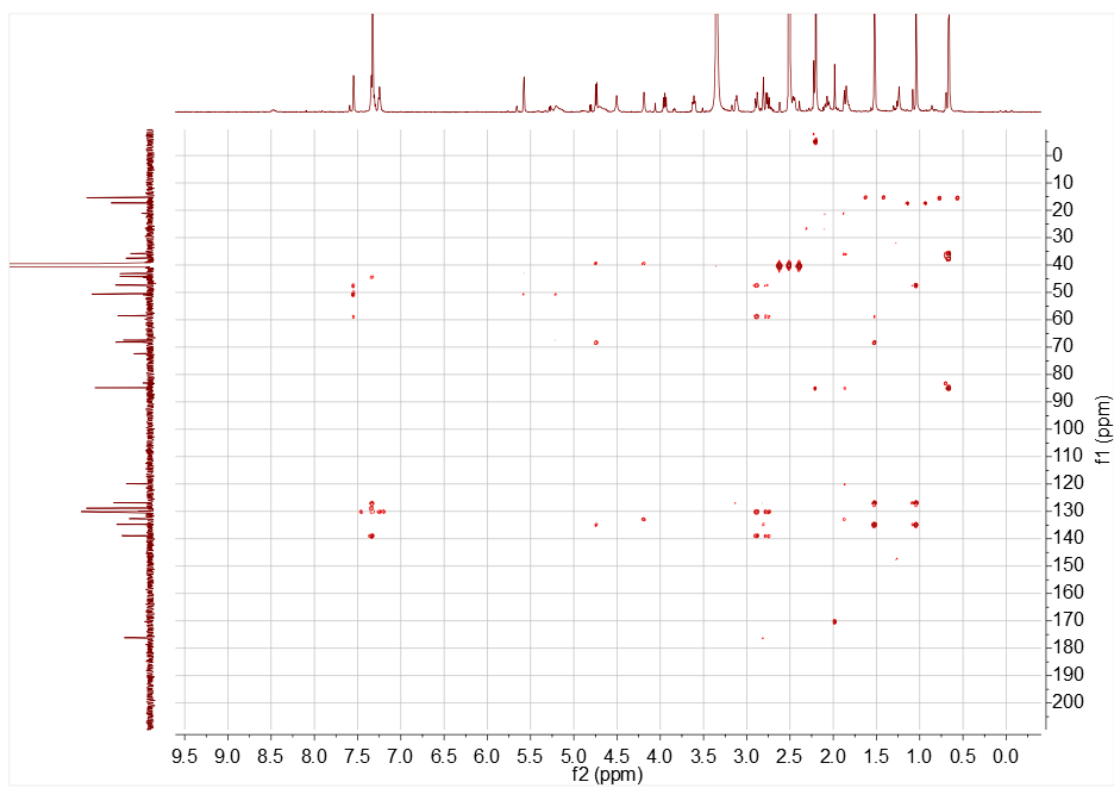


Figure S6.5 COSY spectrum of **6** in DMSO- d_6

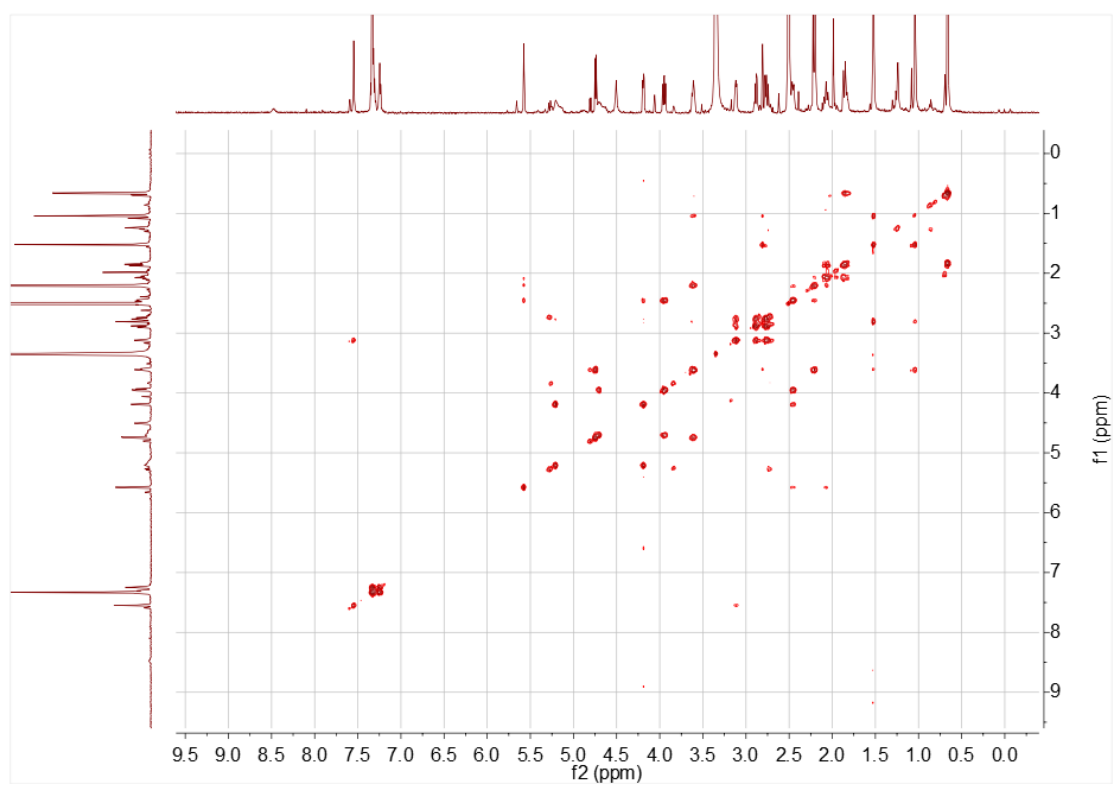


Figure S6.6 Roesy spectrum of **6** in DMSO- d_6

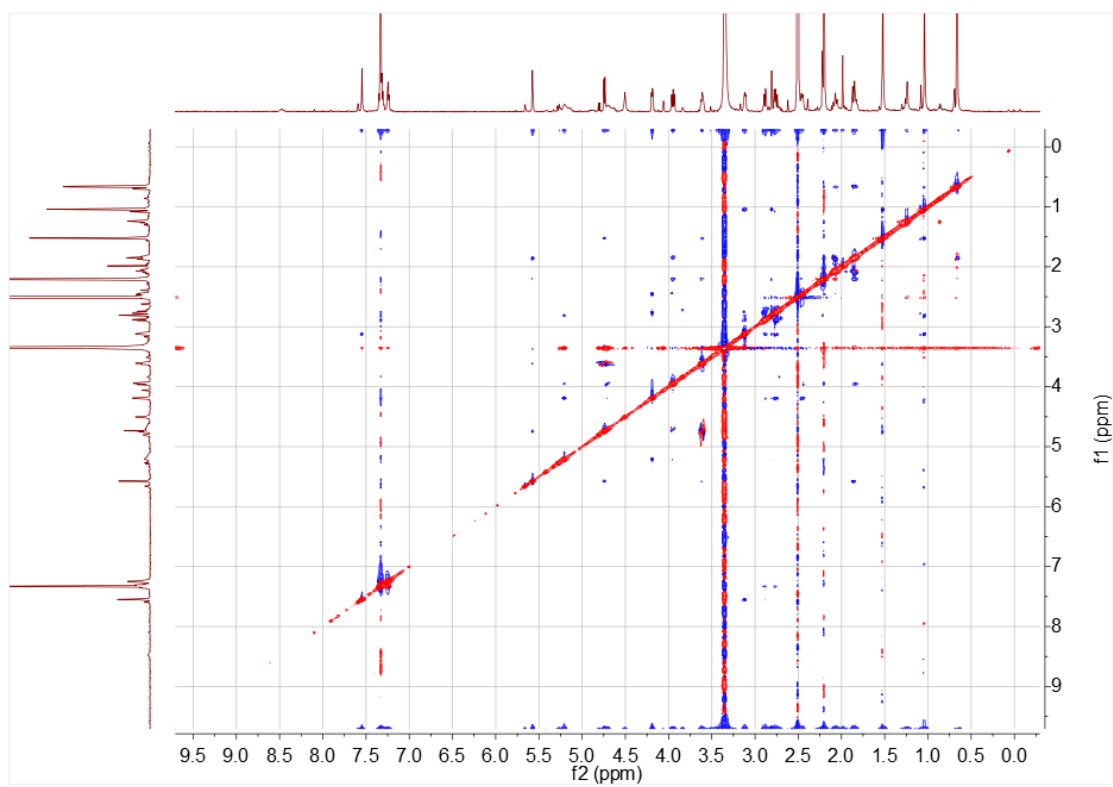
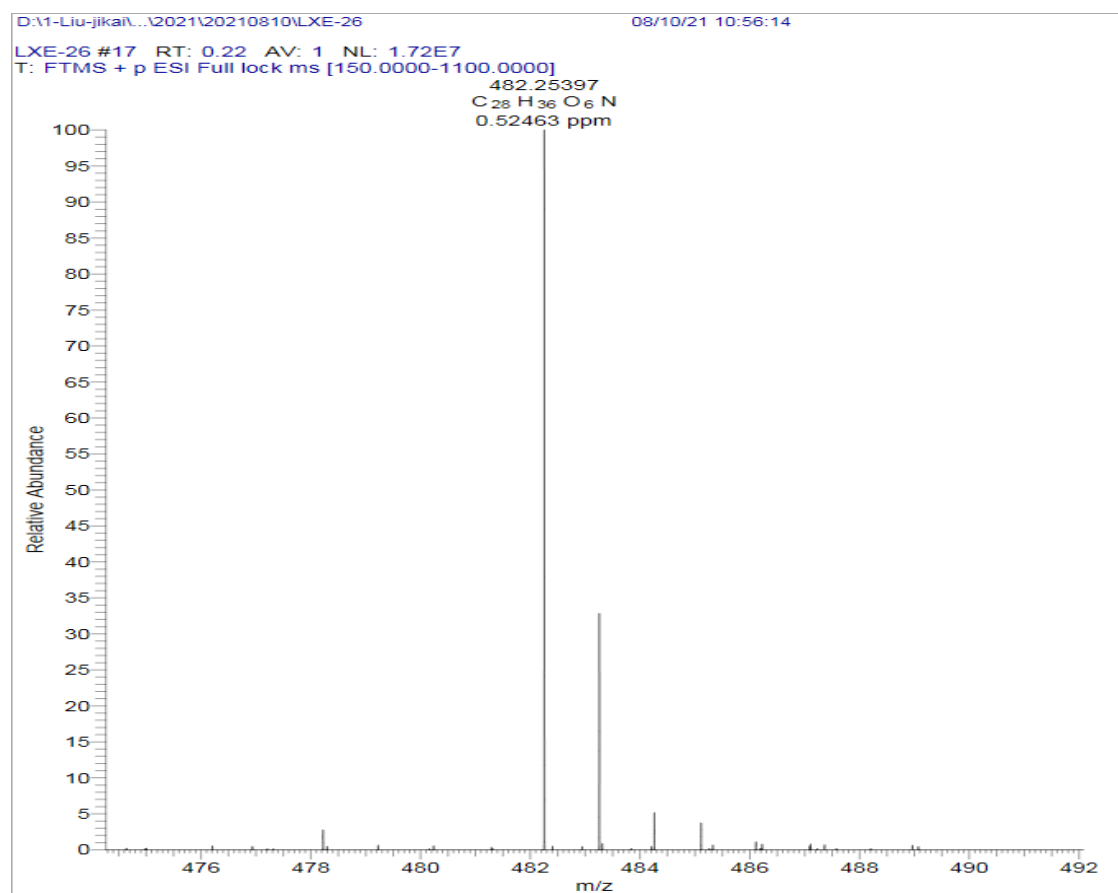


Figure S6.7 HRMS spectrum of **6**



Quantum chemical calculation

The ECD calculation was carried out using Gaussian 16 software package. Systematic conformational analyses were performed via Spartan 14 using the MMFF94s molecular mechanics force field calculation with 3 kcal/mol of cutoff energy. The optimization and frequency of conformers were calculated on B3LYP-D3(BJ)/6-311G* level of theory with IEFPCM solvent model (MeOH) by using Gaussian 16. These primary conformations were subjected to theoretical calculations of ECD utilizing time-dependent density functional theory (TDDFT) calculations at the B3LYP-D3(BJ)/6-311G* level in MeOH. The ECD curves was simulated in SpecDis V1.71 using a Gaussian function. The calculated ECD data of all conformers were Boltzmann averaged by Gibbs free energy.

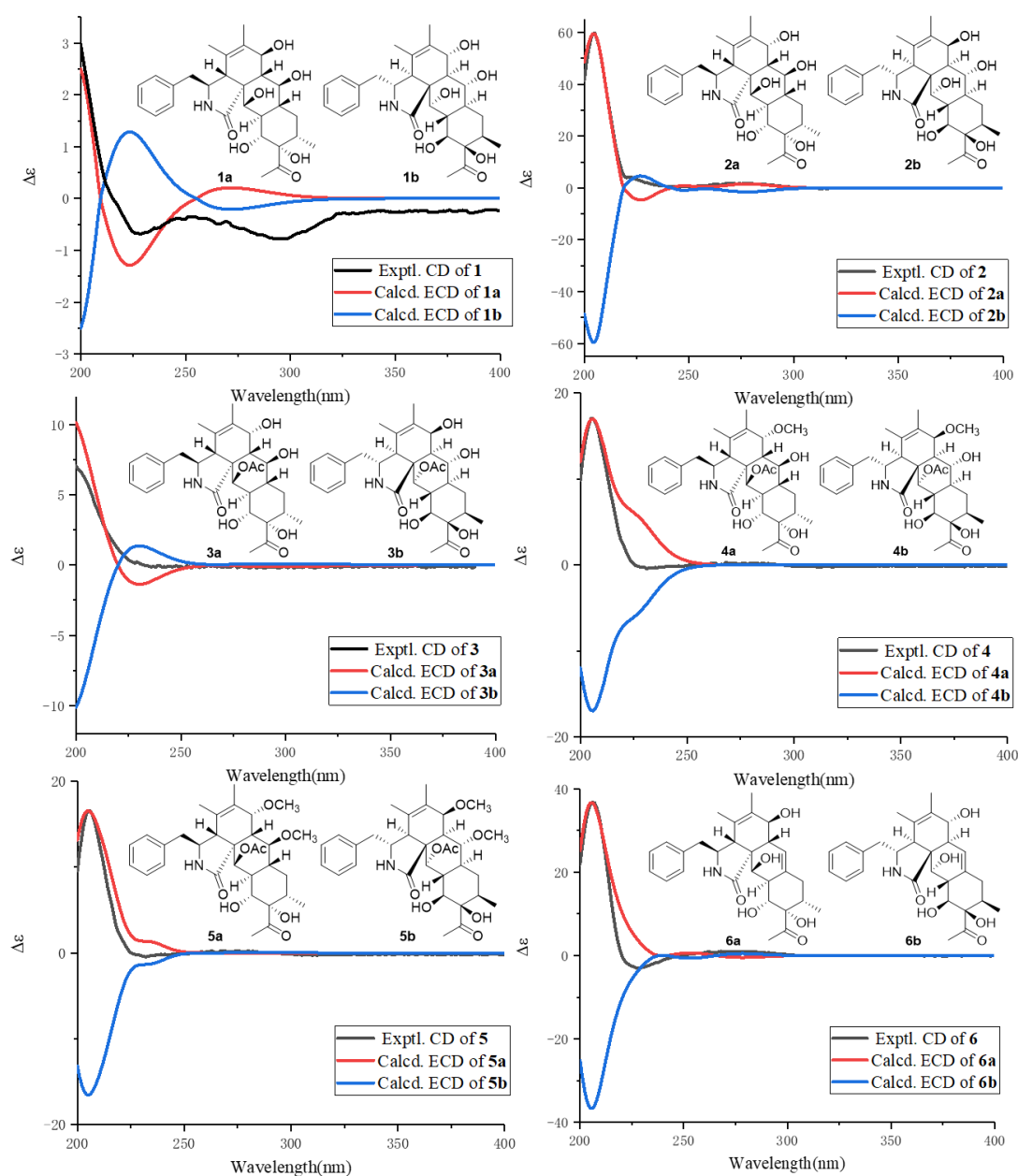


Figure S1. ECD calculations of 1–6.

Table S1. Cartesian coordinates for the low-energy optimized conformers of **1a** at B3LYP-D3(BJ)/6-311G* level

| conformer 1a_1 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -1.2284072 | 2.82156584 | 1.26878075 | C | 4.94582393 | -2.7152129 | -2.6210636 |
| C | 1.13852366 | 1.58881776 | 0.19096591 | H | -1.4374297 | 0.73516901 | 1.5967229 |
| C | 1.01401138 | 3.126138 | 0.18871393 | O | 0.1082026 | -3.2266082 | -1.5026308 |
| C | -0.1851098 | 3.62671256 | 0.96340921 | H | 0.97273819 | 3.51729809 | -0.8338385 |
| C | -0.0443751 | -0.6169612 | -0.2641873 | H | -0.9461042 | -1.061629 | -0.6957561 |
| C | 1.15857082 | -1.0869475 | -1.1156597 | H | 2.28234224 | 1.51650798 | -1.6718874 |
| C | 2.4691868 | -0.4133423 | -0.690195 | H | 1.51048088 | -2.9404044 | -0.0421641 |
| C | 2.34426176 | 1.11901084 | -0.6531338 | H | 4.14041751 | -2.6734476 | -0.6452087 |
| C | 1.33551616 | -2.6214314 | -1.0752241 | H | 4.55376937 | -0.3758719 | -1.3068979 |
| C | 2.49154336 | -3.1088546 | -1.9773635 | H | 3.41549265 | -0.4801096 | -2.6431073 |
| C | 3.8098486 | -2.3721617 | -1.6479896 | H | -3.2611898 | 2.16906437 | -0.106027 |
| C | 3.61522178 | -0.8453248 | -1.6268953 | H | -2.6028669 | 1.71169722 | -2.320302 |
| C | -0.1888877 | 0.92605931 | -0.209836 | H | -4.2137834 | -0.071357 | -0.7778012 |
| C | -1.3639579 | 1.3892986 | 0.72154317 | H | -2.9102966 | -0.8829781 | 0.0361323 |
| C | -2.625375 | 1.2802308 | -0.187067 | H | -2.9794221 | -1.2259498 | 2.43328398 |
| N | -2.0968034 | 1.32388872 | -1.5319727 | H | -4.2525323 | -1.0668875 | 4.53921948 |
| C | -0.7217379 | 1.36627996 | -1.5622083 | H | -6.2812671 | 0.35311495 | 4.67054088 |
| O | -0.0690861 | 1.66282195 | -2.5470846 | H | -7.041441 | 1.61611553 | 2.67647461 |
| C | -3.5008122 | 0.03788992 | 0.05101202 | H | -5.7848001 | 1.46914122 | 0.55805424 |
| C | -4.2864157 | 0.11210026 | 1.33844421 | H | -2.6510203 | 2.40684698 | 2.83335014 |
| C | -3.8688684 | -0.6003709 | 2.47060441 | H | -2.0343343 | 4.03846244 | 2.88847258 |
| C | -4.5845078 | -0.5119876 | 3.66541281 | H | -3.2127622 | 3.59660046 | 1.63816859 |
| C | -5.7239282 | 0.28649461 | 3.73979483 | H | 0.51361939 | 5.24585276 | 2.20170664 |
| C | -6.1502188 | 0.99639188 | 2.61927569 | H | 0.26841468 | 5.67639988 | 0.49422392 |
| C | -5.4359091 | 0.91008337 | 1.42357929 | H | -1.1162118 | 5.51179176 | 1.54988939 |
| C | -2.3431038 | 3.24566699 | 2.20065125 | H | 2.1456536 | 3.45170826 | 1.74211999 |
| C | -0.130626 | 5.09156933 | 1.3305998 | H | 3.44280243 | 2.57935997 | 0.0471136 |
| O | 2.1967973 | 3.66565367 | 0.79169782 | H | -0.209793 | -2.0566891 | 1.03964864 |
| H | 1.36681357 | 1.29281589 | 1.22791289 | H | 3.12412287 | -6.2916545 | -0.5868561 |
| O | 3.56257531 | 1.61481064 | -0.0854212 | H | 3.40965465 | -4.7128964 | 0.15765024 |
| O | 0.07289704 | -1.1228467 | 1.06861871 | H | 1.73557092 | -5.3157604 | -0.0617951 |
| H | 2.73573336 | -0.7536835 | 0.32144642 | H | 2.5227395 | -3.5217228 | -3.8880361 |
| H | 0.93701742 | -0.7992883 | -2.1528174 | H | 5.16637895 | -3.7869887 | -2.6140882 |
| C | 2.67755532 | -4.6386754 | -1.8606538 | H | 4.70223308 | -2.4226181 | -3.6476439 |
| O | 2.79118208 | -5.3254358 | -2.8829209 | H | 5.86593741 | -2.1930117 | -2.3363326 |
| C | 2.73711937 | -5.2724949 | -0.4952892 | H | 0.10435778 | -3.1384161 | -2.4805562 |
| O | 2.09825697 | -2.8294112 | -3.3373231 | | | | |

| conformer 1a_2 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -0.7225607 | 3.10906265 | 1.62281978 | C | 4.71781208 | -3.3164783 | -1.9836849 |
| C | 1.46199227 | 1.57629027 | 0.5431688 | H | -1.0811046 | 1.09437702 | 2.190211 |
| C | 1.4550631 | 3.10955303 | 0.37859447 | O | -0.0535049 | -3.2906144 | -0.5200816 |
| C | 0.35769527 | 3.78637589 | 1.171074 | H | 1.36613646 | 3.3924935 | -0.6761278 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | 0.08605139 | -0.5580501 | 0.42259352 | H | -0.8769026 | -0.9722931 | 0.1097389 |
| C | 1.1834916 | -1.2187434 | -0.4443509 | H | 2.46058821 | 1.20546305 | -1.3674767 |
| C | 2.56919546 | -0.6146346 | -0.1837355 | H | 1.46407129 | -2.9662045 | 0.81213676 |
| C | 2.56472261 | 0.91795271 | -0.3157659 | H | 4.06104733 | -2.9871528 | 0.01996156 |
| C | 1.24377314 | -2.748749 | -0.2384173 | H | 4.60021477 | -0.8204703 | -0.9314197 |
| C | 2.29285963 | -3.4285706 | -1.14695 | H | 3.36339408 | -0.9771887 | -2.1715235 |
| C | 3.68364975 | -2.7729322 | -0.9886514 | H | -2.8818729 | 2.49921634 | 0.45631228 |
| C | 3.60799676 | -1.2423482 | -1.1343198 | H | -2.4482089 | 1.70327037 | -1.7273413 |
| C | 0.06279219 | 0.98771949 | 0.30296418 | H | -2.8184749 | -0.5549821 | 0.80692189 |
| C | -1.0048338 | 1.64565703 | 1.24514046 | H | -3.4543717 | 0.55633519 | 1.99511517 |
| C | -2.3297227 | 1.55258589 | 0.43398458 | H | -5.5073064 | 1.90751299 | 1.52352001 |
| N | -1.8965119 | 1.39504617 | -0.9339169 | H | -7.6610437 | 1.94908206 | 0.31905887 |
| C | -0.5294894 | 1.31474004 | -1.0577747 | H | -7.9984597 | 0.53168485 | -1.6874133 |
| O | 0.07337391 | 1.43390519 | -2.1094331 | H | -6.1676289 | -0.9354127 | -2.4915773 |
| C | -3.2685493 | 0.43580065 | 0.91981565 | H | -4.0051869 | -0.9907735 | -1.3026174 |
| C | -4.5988985 | 0.45042379 | 0.20169081 | H | -2.1506017 | 2.97143896 | 3.23304796 |
| C | -5.6385334 | 1.27880884 | 0.64588376 | H | -1.3046537 | 4.50183139 | 3.19051394 |
| C | -6.8579942 | 1.30631225 | -0.0323259 | H | -2.5700472 | 4.16568165 | 1.98801926 |
| C | -7.0482787 | 0.5100424 | -1.1601354 | H | 1.28317173 | 5.4585753 | 2.16624833 |
| C | -6.0197378 | -0.3146328 | -1.6115611 | H | 0.91081021 | 5.73560453 | 0.44975187 |
| C | -4.799697 | -0.3443901 | -0.9351023 | H | -0.3762258 | 5.78994972 | 1.63447512 |
| C | -1.7423854 | 3.72730222 | 2.553233 | H | 2.72654135 | 3.49271705 | 1.80591838 |
| C | 0.55091569 | 5.27132902 | 1.37473022 | H | 3.82048475 | 2.34918105 | 0.13552143 |
| O | 2.71668786 | 3.60995872 | 0.83759749 | H | -0.0948694 | -1.8151961 | 1.90258782 |
| H | 1.74039451 | 1.37462648 | 1.59049661 | H | 3.23430463 | -4.8548554 | 1.1004274 |
| O | 3.85465217 | 1.36911842 | 0.114277 | H | 1.50850419 | -5.3383652 | 1.05582375 |
| O | 0.26743156 | -0.9149486 | 1.79592795 | H | 2.77977393 | -6.4778299 | 0.56412659 |
| H | 2.88155327 | -0.8626841 | 0.84156276 | H | 2.157786 | -4.0525295 | -2.9948939 |
| H | 0.90966006 | -1.0298775 | -1.4916011 | H | 4.42468353 | -3.1206515 | -3.0202857 |
| C | 2.36968016 | -4.9460227 | -0.8640523 | H | 5.69306208 | -2.8449446 | -1.8196101 |
| O | 2.35785028 | -5.749598 | -1.8041122 | H | 4.85586351 | -4.3955134 | -1.8652876 |
| C | 2.4775239 | -5.4264188 | 0.55969854 | H | -0.1157521 | -3.3121982 | -1.4997967 |
| O | 1.82615189 | -3.2707716 | -2.5033485 | | | | |
| conformer 1a_3 | | | | | | | |
| C | -0.8226621 | 3.02739988 | 1.19882688 | C | 3.89567862 | -3.1950311 | -3.6023851 |
| C | 1.08657725 | 1.59529494 | -0.4238379 | H | -0.8502283 | 1.01905304 | 1.87632022 |
| C | 0.95858701 | 3.12633344 | -0.5743055 | O | -0.3222226 | -3.388296 | -0.9428932 |
| C | 0.05128144 | 3.75216669 | 0.46336189 | H | 0.59745259 | 3.39225085 | -1.5744571 |
| C | -0.1258852 | -0.6199884 | -0.1279337 | H | -1.1083495 | -1.0999014 | -0.1706754 |
| C | 0.74350313 | -1.2428121 | -1.2476686 | H | 1.44657505 | 1.19504954 | -2.5416298 |
| C | 2.10120599 | -0.5366831 | -1.3925995 | H | 1.46918391 | -2.9199529 | -0.0751938 |
| C | 1.91532751 | 0.98075384 | -1.5757261 | H | 3.74739384 | -2.8157173 | -1.5070085 |
| C | 0.96161252 | -2.7573972 | -1.0320533 | H | 3.88481791 | -0.6724407 | -2.6268568 |
| C | 1.77528117 | -3.4073233 | -2.1721533 | H | 2.38530162 | -0.9465221 | -3.5051076 |
| C | 3.1137114 | -2.6678629 | -2.3914855 | H | -3.1784752 | 2.23048024 | 0.69654266 |
| C | 2.90091251 | -1.1515979 | -2.557653 | H | -3.2852673 | 1.45082146 | -1.5185461 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -0.2835966 | 0.91969357 | -0.2508051 | H | -4.2284354 | -0.0726176 | 0.70275784 |
| C | -1.091536 | 1.53752363 | 0.94237501 | H | -2.7051928 | -0.7726571 | 1.16097297 |
| C | -2.5807627 | 1.32621746 | 0.53562941 | H | -1.9702173 | -0.7271165 | 3.47310552 |
| N | -2.5352789 | 1.16269875 | -0.9003952 | H | -2.4997039 | -0.2284426 | 5.82904444 |
| C | -1.2511217 | 1.17231913 | -1.3945794 | H | -4.4367046 | 1.21130116 | 6.39845827 |
| O | -0.9761784 | 1.30067333 | -2.5748812 | H | -5.8542468 | 2.15242777 | 4.5944984 |
| C | -3.2896825 | 0.14971487 | 1.22864919 | H | -5.3445866 | 1.66416866 | 2.23015796 |
| C | -3.6189343 | 0.43143633 | 2.67507106 | H | -1.654663 | 2.87560302 | 3.18124563 |
| C | -2.827332 | -0.0977646 | 3.70314508 | H | -1.0722519 | 4.4771852 | 2.80893691 |
| C | -3.1213679 | 0.18331948 | 5.03809961 | H | -2.5876694 | 3.9120322 | 2.0794056 |
| C | -4.2089813 | 0.99318641 | 5.35834247 | H | 1.08710216 | 5.49424999 | 1.19769518 |
| C | -5.0046688 | 1.52221815 | 4.34435265 | H | 0.31367356 | 5.71069619 | -0.389184 |
| C | -4.7121324 | 1.2432266 | 3.00870041 | H | -0.6677 | 5.72589823 | 1.0570318 |
| C | -1.5783707 | 3.61055811 | 2.37335677 | H | 2.89487533 | 3.10826223 | -0.8086245 |
| C | 0.20402712 | 5.24989342 | 0.59905875 | H | 3.58985012 | 1.44799586 | -2.4790856 |
| O | 2.24666352 | 3.72876338 | -0.4140775 | H | 0.14558339 | -1.8396354 | 1.3698364 |
| H | 1.67058923 | 1.42425892 | 0.49524045 | H | 2.86901707 | -6.3749472 | -0.6022259 |
| O | 3.20393288 | 1.60944568 | -1.5982432 | H | 3.36118474 | -4.7162358 | -0.2340378 |
| O | 0.43857833 | -0.9355621 | 1.14759005 | H | 1.71358561 | -5.2823466 | 0.1896292 |
| H | 2.69271698 | -0.6974484 | -0.4795046 | H | 1.17434495 | -4.1150861 | -3.8929561 |
| H | 0.18248369 | -1.1124316 | -2.1837513 | H | 3.33494823 | -3.0665293 | -4.5339969 |
| C | 2.01515606 | -4.9087153 | -1.8963474 | H | 4.84523198 | -2.6590518 | -3.7093297 |
| O | 1.80692523 | -5.7376026 | -2.7902302 | H | 4.13447176 | -4.2570785 | -3.4907468 |
| C | 2.52036029 | -5.3396214 | -0.5443151 | H | -0.6538149 | -3.4386009 | -1.8652851 |
| O | 0.96851489 | -3.313554 | -3.3646661 | | | | |
| conformer 1a_4 | | | | | | | |
| C | -0.5306435 | 3.17912163 | 1.62964555 | C | 4.40464227 | -3.2957702 | -2.581849 |
| C | 1.47808309 | 1.65271817 | 0.22628937 | H | -0.7202142 | 1.18330669 | 2.3207528 |
| C | 1.42791162 | 3.18528738 | 0.05090272 | O | -0.0662891 | -3.2814922 | -0.3672372 |
| C | 0.44604716 | 3.85880056 | 0.98656287 | H | 1.18039316 | 3.45262537 | -0.9828984 |
| C | 0.15892335 | -0.5088881 | 0.43057161 | H | -0.8321192 | -0.9548155 | 0.30384342 |
| C | 1.10941292 | -1.1843267 | -0.5880005 | H | 2.03464163 | 1.20413972 | -1.8388695 |
| C | 2.50141445 | -0.5317517 | -0.6061532 | H | 1.64284605 | -2.8664553 | 0.67674932 |
| C | 2.39448828 | 0.98865429 | -0.8276593 | H | 4.06060937 | -2.8705947 | -0.5185256 |
| C | 1.24423899 | -2.7017666 | -0.3299921 | H | 4.39229055 | -0.7559742 | -1.653438 |
| C | 2.14431246 | -3.4025682 | -1.3708508 | H | 2.97813429 | -0.9919113 | -2.6730482 |
| C | 3.52540588 | -2.7169008 | -1.4649136 | H | -2.8412412 | 2.47944385 | 0.88892133 |
| C | 3.38874814 | -1.197372 | -1.6756866 | H | -2.7811986 | 1.61130674 | -1.3044812 |
| C | 0.07202675 | 1.03237305 | 0.26518451 | H | -2.6247436 | -0.5545408 | 1.33809937 |
| C | -0.8295707 | 1.69947041 | 1.35922199 | H | -3.0765943 | 0.59232699 | 2.57556631 |
| C | -2.2744376 | 1.54518015 | 0.80265759 | H | -5.2170026 | 1.88459377 | 2.41114653 |
| N | -2.0889427 | 1.34097077 | -0.6143765 | H | -7.5496117 | 1.82193433 | 1.60737781 |
| C | -0.7636172 | 1.29343669 | -0.977551 | H | -8.1946702 | 0.2980187 | -0.2394655 |
| O | -0.363834 | 1.37959859 | -2.1254428 | H | -6.4927971 | -1.1708816 | -1.2869299 |
| C | -3.078856 | 0.42924706 | 1.48986136 | H | -4.1537344 | -1.1221982 | -0.4990884 |
| C | -4.5145803 | 0.38057859 | 1.01845587 | H | -1.6761716 | 3.07163668 | 3.45428554 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -5.4830783 | 1.20938868 | 1.60105232 | H | -0.8659135 | 4.60624288 | 3.23851506 |
| C | -6.8031941 | 1.1780518 | 1.14934119 | H | -2.3060196 | 4.2300554 | 2.26569303 |
| C | -7.1662432 | 0.32195011 | 0.11132287 | H | 1.48553383 | 5.5656341 | 1.79483514 |
| C | -6.2100115 | -0.5036751 | -0.4767305 | H | 0.85125296 | 5.79917553 | 0.1494971 |
| C | -4.8894957 | -0.4745542 | -0.0267634 | H | -0.2405886 | 5.86330978 | 1.51454272 |
| C | -1.3923083 | 3.81277988 | 2.69907931 | H | 3.37532875 | 3.09007557 | 0.01018679 |
| C | 0.64478364 | 5.35070709 | 1.12780714 | H | 4.16909832 | 1.37586504 | -1.5614468 |
| O | 2.71625111 | 3.73821458 | 0.33664608 | H | 0.23300459 | -1.6967469 | 1.97714279 |
| H | 1.95835775 | 1.47216752 | 1.20192997 | H | 3.47349405 | -4.7293751 | 0.73968808 |
| O | 3.70220821 | 1.56837337 | -0.727248 | H | 1.77163896 | -5.2294174 | 1.00086046 |
| O | 0.58823006 | -0.8137971 | 1.7602969 | H | 2.96087272 | -6.3765246 | 0.34828872 |
| H | 2.99219016 | -0.6982503 | 0.36386273 | H | 1.6952109 | -4.1207589 | -3.1332601 |
| H | 0.64988242 | -1.0505613 | -1.5773317 | H | 3.9461093 | -3.1648063 | -3.5674585 |
| C | 2.2975663 | -4.9060671 | -1.0486463 | H | 5.38005824 | -2.7971786 | -2.6001611 |
| O | 2.14950781 | -5.7440699 | -1.9460206 | H | 4.58993552 | -4.3635031 | -2.4300631 |
| C | 2.64633381 | -5.328746 | 0.35441765 | H | -0.2999562 | -3.337561 | -1.3188681 |
| O | 1.46625902 | -3.3029606 | -2.6406466 | | | | |
| conformer 1a_5 | | | | | | | |
| C | -0.4987198 | 3.21259912 | 0.79523314 | C | 3.68742713 | -4.0208226 | -2.9493119 |
| C | 1.31768556 | 1.38945925 | -0.4867078 | H | -0.8528317 | 1.31152006 | 1.66781813 |
| C | 1.38473592 | 2.89040392 | -0.8383925 | O | -0.7039861 | -3.4120387 | -0.6542098 |
| C | 0.51016277 | 3.73751735 | 0.06163183 | H | 1.10473637 | 3.07041422 | -1.8827413 |
| C | -0.187241 | -0.6198924 | -0.074126 | H | -1.2186069 | -0.9797667 | -0.134945 |
| C | 0.66430679 | -1.4633518 | -1.0528402 | H | 1.84889012 | 0.71068652 | -2.4896303 |
| C | 2.1125829 | -0.9609273 | -1.131244 | H | 1.06198863 | -3.0931409 | 0.3249169 |
| C | 2.16836463 | 0.54153646 | -1.4562063 | H | 3.44279102 | -3.4265293 | -0.9139913 |
| C | 0.65682464 | -2.9639597 | -0.6844143 | H | 3.94511539 | -1.4266535 | -2.1992581 |
| C | 1.46016364 | -3.8233507 | -1.6865735 | H | 2.48935789 | -1.600812 | -3.170527 |
| C | 2.8993963 | -3.2845772 | -1.8575239 | H | -2.8918679 | 2.66712798 | 0.15274748 |
| C | 2.90569784 | -1.7766478 | -2.169723 | H | -2.9312904 | 1.64401905 | -1.9655578 |
| C | -0.1363837 | 0.90213733 | -0.3738228 | H | -4.2501303 | 0.54052703 | 0.31150121 |
| C | -0.9471214 | 1.74818852 | 0.66782725 | H | -2.8776372 | -0.2978893 | 0.97008827 |
| C | -2.4139516 | 1.68091651 | 0.14703726 | H | -2.3341961 | -0.1073619 | 3.32366806 |
| N | -2.2777312 | 1.34192735 | -1.2517439 | H | -2.9589303 | 0.72075516 | 5.56067914 |
| C | -0.9693007 | 1.13429276 | -1.6225919 | H | -4.6918966 | 2.47727526 | 5.8054908 |
| O | -0.5864004 | 1.09037337 | -2.7783212 | H | -5.8092035 | 3.40488717 | 3.79546446 |
| C | -3.3303027 | 0.69517642 | 0.89223798 | H | -5.2020596 | 2.58900698 | 1.54752926 |
| C | -3.7213245 | 1.18018316 | 2.26761752 | H | -1.4688087 | 3.38480691 | 2.71181426 |
| C | -3.0997617 | 0.66054714 | 3.41098763 | H | -0.6670003 | 4.85437012 | 2.22138664 |
| C | -3.4481742 | 1.12727721 | 4.67921549 | H | -2.1911055 | 4.39300813 | 1.43888373 |
| C | -4.4212242 | 2.11494193 | 4.81717207 | H | 1.72579062 | 5.40275929 | 0.68896585 |
| C | -5.048228 | 2.63622637 | 3.68746613 | H | 1.07988867 | 5.54213491 | -0.962266 |
| C | -4.7010669 | 2.17156194 | 2.41825387 | H | 0.02886707 | 5.83936088 | 0.40222491 |
| C | -1.2487326 | 4.00991643 | 1.84029118 | H | 3.28170159 | 2.76942662 | -1.2411946 |
| C | 0.85340161 | 5.20927604 | 0.05699416 | H | 3.85827855 | 0.78567007 | -0.4855635 |
| O | 2.72993788 | 3.34540227 | -0.6724537 | H | -0.1666929 | -1.672617 | 1.56702593 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| H | 1.79077857 | 1.28136782 | 0.50297568 | H | 2.70329928 | -5.1104928 | 0.49841181 |
| O | 3.53553142 | 0.9718693 | -1.3878507 | H | 0.96842734 | -5.4283869 | 0.82045444 |
| O | 0.26228718 | -0.8493507 | 1.26480887 | H | 2.03266327 | -6.7266411 | 0.23913752 |
| H | 2.60134979 | -1.1178251 | -0.158609 | H | 0.92007359 | -4.6109867 | -3.3931177 |
| H | 0.20062656 | -1.3573396 | -2.0433163 | H | 3.21786974 | -3.9104192 | -3.9322358 |
| C | 1.47845571 | -5.3071297 | -1.2548652 | H | 4.70610175 | -3.6239638 | -3.0212509 |
| O | 1.23368791 | -6.1921305 | -2.0831385 | H | 3.77116869 | -5.0892641 | -2.7283667 |
| C | 1.81637904 | -5.6564086 | 0.17095782 | H | -0.9640932 | -3.5175044 | -1.5950841 |
| O | 0.75920803 | -3.7526724 | -2.9452002 | | | | |
| conformer 1a_6 | | | | | | | |
| C | -0.9651817 | 3.20739242 | 1.32007921 | C | 4.96380929 | -3.1981021 | -1.4504897 |
| C | 1.34320274 | 1.71532545 | 0.47261764 | H | -1.2515864 | 1.23125838 | 2.03921321 |
| C | 1.27683893 | 3.22901823 | 0.18221571 | O | 0.11680239 | -3.2966655 | -0.2618909 |
| C | 0.10500476 | 3.90084994 | 0.86745636 | H | 1.22492397 | 3.42846256 | -0.8943851 |
| C | 0.08567447 | -0.4940664 | 0.48094329 | H | -0.8429016 | -0.9864923 | 0.17768241 |
| C | 1.25081025 | -1.166078 | -0.2838294 | H | 2.41796417 | 1.21907209 | -1.35885 |
| C | 2.59164338 | -0.4712318 | -0.0079322 | H | 1.53873473 | -2.7967079 | 1.11981643 |
| C | 2.50819148 | 1.04044446 | -0.2825244 | H | 4.16955032 | -2.7433992 | 0.47769911 |
| C | 1.3691842 | -2.6709798 | 0.04512584 | H | 4.66882987 | -0.6331141 | -0.6195417 |
| C | 2.49864114 | -3.3637635 | -0.7504618 | H | 3.51801299 | -0.9524586 | -1.9105621 |
| C | 3.84661447 | -2.629068 | -0.565529 | H | -3.0278575 | 2.39587737 | 0.10864152 |
| C | 3.71145285 | -1.1203059 | -0.8427411 | H | -2.4528102 | 1.43576281 | -1.9706206 |
| C | -0.0122888 | 1.03343268 | 0.2241368 | H | -2.8422568 | -0.6080593 | 0.73874954 |
| C | -1.1563592 | 1.70758571 | 1.05576753 | H | -3.5884579 | 0.57094113 | 1.7898789 |
| C | -2.433562 | 1.47898525 | 0.19722299 | H | -5.6709943 | 1.77734482 | 1.09560519 |
| N | -1.9275892 | 1.22114147 | -1.1298203 | H | -7.7618898 | 1.6013674 | -0.2035821 |
| C | -0.5539448 | 1.20940575 | -1.1848785 | H | -7.937028 | -0.0135248 | -2.0772039 |
| O | 0.09244213 | 1.26661679 | -2.2158334 | H | -6.0061138 | -1.4597785 | -2.6524665 |
| C | -3.3435442 | 0.36455444 | 0.73975535 | H | -3.9050375 | -1.2984202 | -1.3669076 |
| C | -4.6355019 | 0.24714309 | -0.0365314 | H | -2.4649365 | 3.12203996 | 2.86776165 |
| C | -5.7311145 | 1.06266101 | 0.27798687 | H | -1.6833616 | 4.68197514 | 2.7513258 |
| C | -6.915322 | 0.96735848 | -0.4543555 | H | -2.8710922 | 4.2014552 | 1.51837523 |
| C | -7.0143095 | 0.06009634 | -1.5075676 | H | 0.90793386 | 5.67266598 | 1.79498937 |
| C | -5.9295027 | -0.7528236 | -1.8302985 | H | 0.61490383 | 5.82307333 | 0.04700657 |
| C | -4.7444787 | -0.6598464 | -1.0994592 | H | -0.732975 | 5.89608009 | 1.1594719 |
| C | -2.0549461 | 3.84426121 | 2.15327188 | H | 3.21250888 | 3.38324384 | 0.24061397 |
| C | 0.2268582 | 5.40294027 | 0.98175069 | H | 3.87562863 | 1.45232429 | 1.06590741 |
| O | 2.46745152 | 3.84780805 | 0.67526126 | H | -0.1295378 | -1.6031066 | 2.07130349 |
| H | 1.58238018 | 1.61698435 | 1.54415639 | H | 3.01358333 | -6.2551809 | 1.20879939 |
| O | 3.74619784 | 1.64548386 | 0.11786394 | H | 3.36571078 | -4.5779874 | 1.64686956 |
| O | 0.24609257 | -0.7213509 | 1.88467967 | H | 1.66777411 | -5.1438558 | 1.54029106 |
| H | 2.85832971 | -0.6110278 | 1.04984982 | H | 2.49070957 | -4.1307875 | -2.5494467 |
| H | 1.01943996 | -1.0732606 | -1.3538679 | H | 4.72570363 | -3.1029627 | -2.5149448 |
| C | 2.62633625 | -4.8512026 | -0.3510309 | H | 5.90426796 | -2.6653087 | -1.2714887 |
| O | 2.71023646 | -5.7189853 | -1.2280115 | H | 5.14442993 | -4.2553258 | -1.2335863 |
| C | 2.6678648 | -5.2221204 | 1.108365 | H | 0.10577485 | -3.3892201 | -1.2393317 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| O | 2.10803657 | -3.3258647 | -2.1385371 | | | | |
| conformer 1a_7 | | | | | | | |
| C | -0.9860546 | 3.00157113 | 1.01267091 | C | 4.52458657 | -3.2572859 | -2.7640066 |
| C | 1.18628451 | 1.55034558 | -0.170397 | H | -1.1983706 | 0.9892877 | 1.65208872 |
| C | 1.07931772 | 3.07343529 | -0.4090832 | O | -0.15687 | -3.4125397 | -1.0416512 |
| C | 0.01945311 | 3.72115235 | 0.46033794 | H | 0.87388192 | 3.29298399 | -1.4630535 |
| C | -0.0898373 | -0.6574873 | -0.1576335 | H | -1.0480373 | -1.1199192 | -0.4133887 |
| C | 0.98652769 | -1.2856105 | -1.0728402 | H | 2.10832437 | 1.17161758 | -2.1118139 |
| C | 2.35452703 | -0.6157032 | -0.8994002 | H | 1.41551571 | -2.9931705 | 0.19700822 |
| C | 2.27610299 | 0.9117332 | -1.0609757 | H | 3.96122071 | -2.9167403 | -0.7339343 |
| C | 1.1276525 | -2.8071441 | -0.8431956 | H | 4.35091415 | -0.7487971 | -1.7516028 |
| C | 2.15518907 | -3.4584271 | -1.7957536 | H | 3.05832791 | -0.9845814 | -2.920095 |
| C | 3.52145842 | -2.7397468 | -1.7243333 | H | -3.1953998 | 2.25159994 | 0.01176424 |
| C | 3.36907583 | -1.2174796 | -1.8928771 | H | -2.8437223 | 1.46615847 | -2.1839579 |
| C | -0.1916782 | 0.88244765 | -0.3034285 | H | -4.2708775 | -0.0273173 | -0.2211552 |
| C | -1.224916 | 1.51515221 | 0.69186118 | H | -2.8928613 | -0.7637266 | 0.54001203 |
| C | -2.595947 | 1.33475819 | -0.0250959 | H | -2.6609864 | -0.748142 | 2.95424748 |
| N | -2.246237 | 1.17412144 | -1.4189179 | H | -3.6616382 | -0.2480678 | 5.1516262 |
| C | -0.8862086 | 1.15275803 | -1.6271177 | H | -5.6422893 | 1.2350383 | 5.31625553 |
| O | -0.3601409 | 1.28749478 | -2.717867 | H | -6.6287902 | 2.21787045 | 3.2642982 |
| C | -3.4591228 | 0.17119464 | 0.49218527 | H | -5.6455096 | 1.72847563 | 1.05456325 |
| C | -4.0785598 | 0.45439166 | 1.83983269 | H | -2.1879319 | 2.83230463 | 2.79477664 |
| C | -3.532391 | -0.0985211 | 3.00587563 | H | -1.5236858 | 4.42888583 | 2.57226667 |
| C | -4.0935299 | 0.18330112 | 4.25214146 | H | -2.8767851 | 3.89920649 | 1.55197073 |
| C | -5.2056749 | 1.01749476 | 4.34499439 | H | 0.9503153 | 5.44630416 | 1.35178658 |
| C | -5.7590105 | 1.56998798 | 3.19180739 | H | 0.38985832 | 5.68906147 | -0.3194138 |
| C | -5.1991078 | 1.29032312 | 1.94451888 | H | -0.7685091 | 5.69072011 | 0.98686186 |
| C | -1.9471825 | 3.57824072 | 2.03036404 | H | 2.36089378 | 4.54410272 | -0.481146 |
| C | 0.15240979 | 5.21472071 | 0.63940578 | H | 3.44492066 | 2.34806193 | -0.4167836 |
| O | 2.35480309 | 3.64833932 | -0.1002597 | H | -0.1283674 | -1.9010924 | 1.34391605 |
| H | 1.53398374 | 1.41620679 | 0.86703612 | H | 3.28008676 | -4.7980474 | 0.42093058 |
| O | 3.5698359 | 1.41981728 | -0.7097611 | H | 1.57729301 | -5.3558779 | 0.48001813 |
| O | 0.17738668 | -0.9843981 | 1.20845907 | H | 2.8687179 | -6.44932 | -0.0610614 |
| H | 2.73158022 | -0.8274594 | 0.11219811 | H | 1.94792605 | -4.1257744 | -3.6213945 |
| H | 0.64760933 | -1.1295024 | -2.1064003 | H | 5.4849549 | -2.7400363 | -2.6614318 |
| C | 2.31485466 | -4.9651613 | -1.4910234 | H | 4.71723197 | -4.3265728 | -2.6339621 |
| O | 2.28809992 | -5.7869313 | -2.4149981 | H | 4.16811516 | -3.0956555 | -3.7865627 |
| C | 2.52084804 | -5.412116 | -0.0671852 | H | -0.273929 | -3.4541564 | -2.0155748 |
| O | 1.610074 | -3.3481584 | -3.1275463 | | | | |
| conformer 1a_8 | | | | | | | |
| C | -0.4302685 | 3.27720458 | 1.35357659 | C | 4.36680972 | -3.712336 | -2.0987137 |
| C | 1.55685339 | 1.56080081 | 0.19915908 | H | -0.7772445 | 1.3502027 | 2.1746781 |
| C | 1.55375756 | 3.06195419 | -0.1664523 | O | -0.2117585 | -3.3318546 | -0.1514384 |
| C | 0.59964809 | 3.86320692 | 0.69828709 | H | 1.30259222 | 3.2084937 | -1.2232531 |
| C | 0.11963737 | -0.5250809 | 0.47811766 | H | -0.8845115 | -0.9299227 | 0.32058293 |
| C | 1.08981767 | -1.3172054 | -0.4282351 | H | 2.33864285 | 0.94148875 | -1.7422747 |

| | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| C | 2.51296102 | -0.748278 | -0.3849177 | H | 1.45157484 | -2.936292 | 0.97161221 |
| C | 2.54351756 | 0.76092251 | -0.681485 | H | 3.9445443 | -3.1475607 | -0.0844595 |
| C | 1.12483171 | -2.8190113 | -0.0670838 | H | 4.44177946 | -1.1178338 | -1.3186502 |
| C | 2.0462783 | -3.6334182 | -1.0027095 | H | 3.07088245 | -1.350904 | -2.3948558 |
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| C | 3.4206192 | -1.5159632 | -1.3670465 | H | -2.5921474 | 1.59732468 | -1.5970596 |
| C | 0.12645351 | 0.99822289 | 0.19213838 | H | -2.7159503 | -0.3592345 | 1.19439229 |
| C | -0.7998752 | 1.79584787 | 1.17276226 | H | -3.1716685 | 0.89639705 | 2.32011271 |
| C | -2.2149894 | 1.67499462 | 0.53866553 | H | -5.224721 | 2.27843573 | 1.94302047 |
| N | -1.9556238 | 1.35609259 | -0.8452761 | H | -7.5058307 | 2.28369719 | 1.00055629 |
| C | -0.616838 | 1.20177885 | -1.1180006 | H | -8.1250613 | 0.67547193 | -0.7825069 |
| O | -0.1415665 | 1.18565125 | -2.2397148 | H | -6.449404 | -0.9469778 | -1.6257941 |
| C | -3.1203276 | 0.65586286 | 1.25015109 | H | -4.1620342 | -0.9678118 | -0.6979499 |
| C | -4.5265162 | 0.65082077 | 0.69464583 | H | -1.650131 | 3.3415264 | 3.13268607 |
| C | -5.4796714 | 1.56601074 | 1.1618444 | H | -0.751425 | 4.81577276 | 2.85963979 |
| C | -6.7705892 | 1.57327267 | 0.63148819 | H | -2.1712511 | 4.45246438 | 1.85062336 |
| C | -7.1192344 | 0.66975973 | -0.3706881 | H | 1.72621908 | 5.56623057 | 1.38188137 |
| C | -6.177858 | -0.2421274 | -0.8440657 | H | 1.06112843 | 5.72995013 | -0.2604381 |
| C | -4.8866439 | -0.2518295 | -0.3152404 | H | 0.01015802 | 5.92527837 | 1.12219389 |
| C | -1.2980222 | 4.01858083 | 2.34667535 | H | 2.93869945 | 4.40809556 | -0.4443748 |
| C | 0.86097776 | 5.34979508 | 0.74753212 | H | 3.85323613 | 2.14823321 | -0.2294484 |
| O | 2.88492702 | 3.55578341 | 0.02300844 | H | 0.07175656 | -1.6121223 | 2.09745189 |
| H | 1.94975162 | 1.48730739 | 1.22651318 | H | 3.18500261 | -4.8556236 | 1.27330205 |
| O | 3.88981175 | 1.19053809 | -0.4401843 | H | 1.4509798 | -5.2687685 | 1.46473008 |
| O | 0.44517387 | -0.7442147 | 1.85314337 | H | 2.6255324 | -6.505273 | 0.96694822 |
| H | 2.92903306 | -0.9007019 | 0.62207398 | H | 1.68958869 | -4.4414542 | -2.7466963 |
| H | 0.705849 | -1.2256608 | -1.4536692 | H | 3.96771588 | -3.613936 | -3.1135324 |
| C | 2.10711555 | -5.114952 | -0.5668436 | H | 5.36815257 | -3.2677764 | -2.0911062 |
| O | 1.96693926 | -6.0110026 | -1.4077965 | H | 4.48396906 | -4.7779009 | -1.8790778 |
| C | 2.35644293 | -5.4483722 | 0.88097142 | H | -0.3807335 | -3.4508964 | -1.1112814 |
| O | 1.4383916 | -3.5987991 | -2.3113532 | | | | |
| conformer 1a_9 | | | | | | | |
| C | -1.3874387 | 3.09553592 | 1.83914769 | C | 4.47087974 | -2.1084957 | -2.8792231 |
| C | 0.82193679 | 2.03118437 | 0.34998284 | H | -1.5461057 | 0.99080088 | 2.07248273 |
| C | 0.60177685 | 3.55598598 | 0.38570343 | O | -0.1450543 | -2.8678375 | -1.1691234 |
| C | -0.452471 | 3.96547561 | 1.39314904 | H | 0.33097038 | 3.9419161 | -0.6030874 |
| C | -0.2659547 | -0.2461638 | 0.11158247 | H | -1.1915192 | -0.7596827 | -0.1541755 |
| C | 0.81569929 | -0.6629492 | -0.91339 | H | 1.67056611 | 1.98820982 | -1.6674509 |
| C | 2.13049577 | 0.09823396 | -0.6929829 | H | 1.3934209 | -2.4803745 | 0.12270929 |
| C | 1.91337707 | 1.62170919 | -0.6645536 | H | 3.91949458 | -2.0528179 | -0.8181162 |
| C | 1.08305626 | -2.1846066 | -0.8850113 | H | 4.10237843 | 0.24495668 | -1.5947329 |
| C | 2.14545592 | -2.6218335 | -1.918983 | H | 2.80018048 | 0.02871797 | -2.7566822 |
| C | 3.44747955 | -1.802302 | -1.77733 | H | -3.3983409 | 2.63923087 | 0.50539622 |
| C | 3.16097675 | -0.2904121 | -1.7699111 | H | -3.2093726 | 1.81310652 | -1.6528818 |
| C | -0.5081338 | 1.28488856 | 0.15354716 | H | -4.2942631 | 1.03611805 | 2.03220854 |
| C | -1.5693966 | 1.69391392 | 1.23368721 | H | -4.9137107 | 0.79087842 | 0.42104135 |

| | | | | | | | |
|-----------------|------------|------------|------------|---|------------|------------|------------|
| C | -2.9303741 | 1.6451726 | 0.47934121 | H | -4.1193214 | -1.1818666 | -0.9678568 |
| N | -2.6034109 | 1.47756536 | -0.9124851 | H | -3.5382284 | -3.5759799 | -0.8310218 |
| C | -1.2505291 | 1.63411937 | -1.1246231 | H | -2.7586682 | -4.5543405 | 1.3057953 |
| O | -0.7643221 | 1.95128547 | -2.1956968 | H | -2.5666363 | -3.1266715 | 3.32740361 |
| C | -4.0047015 | 0.69166027 | 1.03038948 | H | -3.1316312 | -0.7294489 | 3.21156767 |
| C | -3.6593822 | -0.7729201 | 1.10906752 | H | -2.5030017 | 2.5351764 | 3.59413656 |
| C | -3.7820984 | -1.5943196 | -0.019457 | H | -1.9673323 | 4.19883763 | 3.62832333 |
| C | -3.4562973 | -2.9493778 | 0.05354924 | H | -3.316072 | 3.73538225 | 2.56957944 |
| C | -3.0143587 | -3.4991564 | 1.25518092 | H | 0.39827784 | 5.563812 | 2.56104429 |
| C | -2.9027101 | -2.696193 | 2.38756483 | H | -0.1891535 | 6.0547411 | 0.95591735 |
| C | -3.2246447 | -1.3400292 | 2.31594996 | H | -1.3358547 | 5.77055123 | 2.24534579 |
| C | -2.3464707 | 3.41729747 | 2.96355268 | H | 2.01484265 | 3.92285623 | 1.67667301 |
| C | -0.3935157 | 5.41346801 | 1.82066315 | H | 3.01004221 | 3.17062137 | -0.194444 |
| O | 1.83843215 | 4.17905438 | 0.75184796 | H | -0.3041832 | -1.5745777 | 1.52499872 |
| H | 1.22318456 | 1.75465504 | 1.3390085 | H | 3.14548884 | -5.7242706 | -0.5658045 |
| O | 3.16827649 | 2.20861584 | -0.2997513 | H | 3.40674758 | -4.1130587 | 0.11540293 |
| O | 0.11563819 | -0.6982942 | 1.41476725 | H | 1.76421565 | -4.831845 | 0.10690147 |
| H | 2.55741494 | -0.197579 | 0.27691995 | H | 1.95262981 | -3.0883752 | -3.8075894 |
| H | 0.42473251 | -0.4096439 | -1.9083463 | H | 4.75721939 | -3.1646064 | -2.8748178 |
| C | 2.437637 | -4.1348879 | -1.8015447 | H | 4.0822026 | -1.8633683 | -3.8730304 |
| O | 2.46853314 | -4.8379246 | -2.818878 | H | 5.38517828 | -1.5243327 | -2.7268914 |
| C | 2.7020944 | -4.7316282 | -0.443826 | H | -0.2855141 | -2.7548516 | -2.1332697 |
| O | 1.56924031 | -2.3987119 | -3.224561 | | | | |
| conformer 1a_10 | | | | | | | |
| C | -1.7913324 | 2.59451883 | 1.10957217 | C | 5.48834329 | -1.9042925 | -2.1517582 |
| C | 0.80553505 | 1.77476477 | 0.2006928 | H | -1.6544127 | 0.51019328 | 1.49629202 |
| C | 0.41888857 | 3.26669202 | 0.12757716 | O | 0.68260539 | -3.1037907 | -1.6822861 |
| C | -0.8910568 | 3.56450189 | 0.82563818 | H | 0.36680612 | 3.61339925 | -0.9101034 |
| C | 0.05727983 | -0.6133286 | -0.247296 | H | -0.7248942 | -1.2235347 | -0.7048894 |
| C | 1.35524868 | -0.8720792 | -1.0495744 | H | 2.09648923 | 1.86674708 | -1.5658228 |
| C | 2.50928951 | -0.0047673 | -0.5329401 | H | 1.81473799 | -2.7230448 | -0.0155929 |
| C | 2.13487735 | 1.49053744 | -0.537561 | H | 4.44716427 | -1.9980895 | -0.2902391 |
| C | 1.74028928 | -2.3682278 | -1.0487812 | H | 4.60948872 | 0.34942822 | -0.9537407 |
| C | 3.05413963 | -2.6489784 | -1.8140095 | H | 3.63199574 | 0.07451393 | -2.3894969 |
| C | 4.20350817 | -1.7377366 | -1.3287738 | H | -3.6099333 | 1.55384631 | -0.3309506 |
| C | 3.78683262 | -0.256135 | -1.3540059 | H | -2.7551469 | 1.19547448 | -2.5062873 |
| C | -0.3615947 | 0.87950892 | -0.248051 | H | -4.1553343 | -0.789547 | -0.9874399 |
| C | -1.6489986 | 1.14602664 | 0.60494086 | H | -2.7315195 | -1.3888065 | -0.1962324 |
| C | -2.818413 | 0.79680846 | -0.3651454 | H | -2.7506415 | -1.8529873 | 2.16382638 |
| N | -2.2320042 | 0.92819919 | -1.6800749 | H | -4.0163002 | -1.9721697 | 4.27868471 |
| C | -0.8843406 | 1.1986286 | -1.639123 | H | -6.2313121 | -0.8726671 | 4.47483671 |
| O | -0.2321678 | 1.59128246 | -2.5902644 | H | -7.1861916 | 0.34571445 | 2.53734151 |
| C | -3.4682755 | -0.5816913 | -0.1555265 | H | -5.9388487 | 0.47390247 | 0.41155224 |
| C | -4.2493087 | -0.6747295 | 1.13306853 | H | -3.2057934 | 1.97331705 | 2.61230363 |
| C | -3.7219756 | -1.3651536 | 2.23288287 | H | -2.8817565 | 3.6882712 | 2.64814231 |
| C | -4.4330426 | -1.4335855 | 3.43147384 | H | -3.8967812 | 3.02210006 | 1.35427609 |

| | | | | | | | |
|------------------------|------------|------------|------------|---|------------|------------|------------|
| C | -5.6771149 | -0.8156674 | 3.54163997 | H | -0.5646643 | 5.3180995 | 2.03544094 |
| C | -6.2128696 | -0.1307105 | 2.45275151 | H | -0.7839482 | 5.64837296 | 0.30234844 |
| C | -5.5035566 | -0.0605602 | 1.25297318 | H | -2.1755168 | 5.26692858 | 1.2909966 |
| C | -3.0121499 | 2.83917264 | 1.97057053 | H | 1.35077529 | 3.89217994 | 1.72614797 |
| C | -1.1197496 | 5.02535333 | 1.13890659 | H | 2.93799673 | 3.12013536 | 0.18404028 |
| O | 1.45718431 | 4.02014071 | 0.76546447 | H | 0.89117315 | -0.591232 | 1.55381034 |
| H | 1.00804347 | 1.56337926 | 1.2631129 | H | 3.98949008 | -5.7479208 | -0.4093241 |
| O | 3.20113329 | 2.17602981 | 0.1280739 | H | 3.91768602 | -4.172906 | 0.39277205 |
| O | 0.19010626 | -1.0869877 | 1.09852732 | H | 2.40515515 | -5.0239945 | -0.0583434 |
| H | 2.74586271 | -0.2923125 | 0.50147209 | H | 3.34311603 | -3.0118999 | -3.7138729 |
| H | 1.14871345 | -0.5895992 | -2.0911405 | H | 5.86247162 | -2.9314399 | -2.1031475 |
| C | 3.45037353 | -4.1384823 | -1.7026379 | H | 5.33214171 | -1.6462583 | -3.2042892 |
| O | 3.79529682 | -4.7607356 | -2.7145237 | H | 6.27965848 | -1.253235 | -1.7640054 |
| C | 3.43420776 | -4.8070295 | -0.3530649 | H | 0.79069548 | -2.9405815 | -2.6433195 |
| O | 2.78614544 | -2.381274 | -3.2085155 | | | | |
| conformer 1a_11 | | | | | | | |
| C | -1.4922248 | 2.77199864 | 2.27820783 | C | 4.4772883 | -1.5080665 | -3.1807603 |
| C | 0.71459898 | 2.0343681 | 0.58669601 | H | -1.5235928 | 0.65195307 | 2.24716657 |
| C | 0.4412287 | 3.52806436 | 0.85943629 | O | -0.0691651 | -2.6752068 | -1.5214709 |
| C | -0.6128153 | 3.73833525 | 1.92845319 | H | 0.13787687 | 4.04645646 | -0.0571681 |
| C | -0.266095 | -0.2512246 | 0.10061385 | H | -1.1731413 | -0.7785576 | -0.2000403 |
| C | 0.79739105 | -0.4777275 | -1.0022222 | H | 1.39689229 | 2.2620048 | -1.4781434 |
| C | 2.07862925 | 0.32930159 | -0.7301922 | H | 1.48032001 | -2.3833163 | -0.2169794 |
| C | 1.75307487 | 1.82393631 | -0.5404845 | H | 3.9494556 | -1.7197827 | -1.1230636 |
| C | 1.13325816 | -1.9764642 | -1.1726228 | H | 4.02904666 | 0.6539186 | -1.6294004 |
| C | 2.18818256 | -2.2294001 | -2.2718608 | H | 2.71717213 | 0.52634615 | -2.7949582 |
| C | 3.45575633 | -1.3782957 | -2.0425065 | H | -3.5266627 | 2.37397492 | 0.96815298 |
| C | 3.10490571 | 0.10915505 | -1.8563756 | H | -3.3870818 | 1.83626439 | -1.2786273 |
| C | -0.5860608 | 1.24773531 | 0.34854248 | H | -4.2771943 | 0.55122083 | 2.31073349 |
| C | -1.6208461 | 1.45264471 | 1.50700542 | H | -4.9416135 | 0.46087004 | 0.70144447 |
| C | -3.0079641 | 1.41941345 | 0.80171493 | H | -4.0885402 | -1.2849532 | -0.9365694 |
| N | -2.7327112 | 1.44391001 | -0.6111382 | H | -3.3718741 | -3.6405795 | -1.1021855 |
| C | -1.4009974 | 1.70989251 | -0.8476228 | H | -2.4651131 | -4.8150309 | 0.88043739 |
| O | -0.9797238 | 2.17982831 | -1.8902447 | H | -2.2802508 | -3.6244184 | 3.05106161 |
| C | -4.0063739 | 0.34508897 | 1.26655764 | H | -2.9790455 | -1.2670674 | 3.23641192 |
| C | -3.5773943 | -1.0956062 | 1.15957099 | H | -2.5280029 | 1.93057023 | 3.96926838 |
| C | -3.6948475 | -1.7850981 | -0.0544463 | H | -2.0520559 | 3.59329729 | 4.21945532 |
| C | -3.2924973 | -3.1178906 | -0.1523076 | H | -3.4173584 | 3.22608612 | 3.14379528 |
| C | -2.7789153 | -3.777661 | 0.96239186 | H | 0.20031475 | 5.19023109 | 3.2988285 |
| C | -2.6716765 | -3.1075574 | 2.17852291 | H | -0.4434809 | 5.87903613 | 1.79011371 |
| C | -3.0696668 | -1.7735033 | 2.27758833 | H | -1.5473772 | 5.36560624 | 3.04404308 |
| C | -2.4242723 | 2.8965405 | 3.46282108 | H | 2.38464304 | 3.70938552 | 0.88565748 |
| C | -0.6011388 | 5.1127039 | 2.55748588 | H | 3.47747334 | 2.62386355 | -1.0122355 |
| O | 1.63546804 | 4.15905714 | 1.33033891 | H | -0.2408618 | -1.719892 | 1.37062102 |
| H | 1.18696921 | 1.64372961 | 1.50318126 | H | 1.94200093 | -4.6973326 | -0.5478175 |
| O | 2.95530105 | 2.52490472 | -0.19471 | H | 3.33623376 | -5.4404684 | -1.3605703 |

| | | | | | | | |
|-----------------|------------|------------|------------|---|------------|------------|------------|
| O | 0.1942826 | -0.8459085 | 1.31794597 | H | 3.55787864 | -3.9232654 | -0.4785247 |
| H | 2.54530709 | -0.0343874 | 0.19694735 | H | 1.94459198 | -2.4775163 | -4.1958932 |
| H | 0.3565176 | -0.1252643 | -1.9449443 | H | 4.06449455 | -1.1691293 | -4.1365594 |
| C | 2.54229475 | -3.730888 | -2.3608489 | H | 5.36633754 | -0.9035758 | -2.9696593 |
| O | 2.57741515 | -4.2891922 | -3.4640901 | H | 4.81124104 | -2.5432486 | -3.3003094 |
| C | 2.8614829 | -4.4900405 | -1.0996377 | H | -0.24776 | -2.4377713 | -2.4557835 |
| O | 1.58106797 | -1.8564055 | -3.5282386 | | | | |
| conformer 1a_12 | | | | | | | |
| C | -0.9464318 | 3.47298015 | 1.437247 | C | 4.22226573 | -3.1210503 | -2.2289213 |
| C | 1.1422416 | 1.90123112 | 0.26070658 | H | -1.501773 | 1.46250388 | 1.82792339 |
| C | 1.21412361 | 3.43792734 | 0.15424199 | O | -0.5974333 | -2.8625878 | -0.9992383 |
| C | 0.16861002 | 4.11511551 | 1.01843501 | H | 1.10225486 | 3.77574361 | -0.8822695 |
| C | -0.321008 | -0.1638056 | 0.10356044 | H | -1.302618 | -0.5331251 | -0.1973342 |
| C | 0.73937303 | -0.8593546 | -0.7840058 | H | 2.09728372 | 1.49875573 | -1.6593626 |
| C | 2.15047918 | -0.3304496 | -0.4877346 | H | 0.85511351 | -2.6570119 | 0.42708511 |
| C | 2.20802505 | 1.2030026 | -0.611319 | H | 3.4913522 | -2.7752436 | -0.2533938 |
| C | 0.70574779 | -2.3960719 | -0.6259353 | H | 4.18834799 | -0.6291222 | -1.1723787 |
| C | 1.75805995 | -3.1079024 | -1.5064522 | H | 2.98614766 | -0.7123085 | -2.4535171 |
| C | 3.17351466 | -2.5318615 | -1.2758645 | H | -2.8945935 | 3.24932287 | -0.0394055 |
| C | 3.1834901 | -0.998568 | -1.4120114 | H | -2.6941258 | 2.1927944 | -2.0897471 |
| C | -0.2831305 | 1.38451692 | -0.0003802 | H | -4.1942276 | 2.00213177 | 1.51954501 |
| C | -1.3330347 | 2.07451533 | 0.93606605 | H | -4.7096276 | 1.6826339 | -0.1151858 |
| C | -2.6169659 | 2.19095997 | 0.06440823 | H | -4.1613072 | -0.5441059 | -1.2137908 |
| N | -2.2200557 | 1.82793527 | -1.2711179 | H | -4.028921 | -2.9697477 | -0.7813192 |
| C | -0.8481827 | 1.73144476 | -1.3668053 | H | -3.6265762 | -3.8120804 | 1.51231218 |
| O | -0.2308455 | 1.8503738 | -2.4104031 | H | -3.360573 | -2.2129128 | 3.39266809 |
| C | -3.8876662 | 1.50172816 | 0.59121847 | H | -3.4766949 | 0.21571291 | 2.98147455 |
| C | -3.8170664 | 0.01858815 | 0.84932106 | H | -2.2879862 | 3.2881396 | 3.11222666 |
| C | -3.9860353 | -0.8951852 | -0.1991679 | H | -1.4463935 | 4.81933128 | 3.07863174 |
| C | -3.9137192 | -2.2680961 | 0.0410996 | H | -2.7680211 | 4.52144883 | 1.9294337 |
| C | -3.6830426 | -2.7418817 | 1.33102286 | H | 1.21219371 | 5.6184253 | 2.15652584 |
| C | -3.5295125 | -1.8437701 | 2.38426749 | H | 0.86417577 | 6.07652963 | 0.473105 |
| C | -3.5970702 | -0.4703174 | 2.14551031 | H | -0.4172032 | 6.11761091 | 1.66106198 |
| C | -1.9131883 | 4.06588717 | 2.4377056 | H | 3.15719952 | 3.38276302 | 0.09513612 |
| C | 0.47033035 | 5.55728099 | 1.35414368 | H | 3.6612096 | 1.33062518 | 0.70218101 |
| O | 2.49245729 | 3.88145405 | 0.61434474 | H | -0.7595433 | -1.2604274 | 1.64401063 |
| H | 1.40674927 | 1.65674092 | 1.30277554 | H | 2.50365828 | -4.6315872 | 0.74651098 |
| O | 3.51308277 | 1.64463425 | -0.2102848 | H | 0.76172502 | -5.0307968 | 0.60032516 |
| O | -0.1099479 | -0.5512671 | 1.46552282 | H | 2.00285529 | -6.2177142 | 0.14463062 |
| H | 2.42595144 | -0.599081 | 0.54263321 | H | 1.65032121 | -3.6918254 | -3.3696442 |
| H | 0.48657916 | -0.6260855 | -1.8272762 | H | 3.98606469 | -2.904176 | -3.275813 |
| C | 1.74090048 | -4.6335974 | -1.2610871 | H | 5.21186618 | -2.7009528 | -2.0177371 |
| O | 1.73773773 | -5.412043 | -2.2222403 | H | 4.30038862 | -4.2064011 | -2.1136318 |
| C | 1.75047152 | -5.1532734 | 0.15275071 | H | -0.6235432 | -2.8039866 | -1.9779684 |
| O | 1.3657164 | -2.8910148 | -2.8790255 | | | | |

Table S2. Cartesian coordinates for the low-energy optimized conformers of **2a** at B3LYP-D3(BJ)/6-311G* level.

| conformer 2a_1 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -1.4074312 | 3.03848905 | -0.2130818 | C | 5.28167855 | -3.1059743 | 1.03687339 |
| C | 1.05063952 | 1.63279923 | 0.40496802 | H | -1.9511117 | 1.11430043 | 0.49958741 |
| C | 1.08520723 | 3.13854853 | 0.09218329 | O | 0.52106133 | -3.4744386 | -0.4193819 |
| C | -0.2754607 | 3.76837052 | -0.0825725 | H | 1.55489928 | 3.63225398 | 0.9532817 |
| C | 0.02868112 | -0.6443983 | -0.0830858 | H | -0.5625655 | -1.2088322 | -0.81039 |
| C | 1.44379264 | -1.2728435 | -0.0594896 | H | 2.9049345 | 1.07797843 | -0.6264265 |
| C | 2.42772662 | -0.4684483 | 0.80198773 | H | 1.01666625 | -2.7828425 | 1.44023911 |
| C | 2.4569001 | 1.00578479 | 0.37051028 | H | 3.59286754 | -2.5876301 | 2.2347179 |
| C | 1.41963481 | -2.7406046 | 0.42266379 | H | 4.52588219 | -0.522275 | 1.36330618 |
| C | 2.81590827 | -3.4007076 | 0.38559554 | H | 4.22003518 | -1.0034342 | -0.3001702 |
| C | 3.85238285 | -2.5629388 | 1.16811994 | H | -2.5999456 | 1.93422222 | -2.1758343 |
| C | 3.83639382 | -1.0890345 | 0.72523655 | H | -0.9914183 | 1.01059967 | -3.5830923 |
| C | 0.02439013 | 0.86535812 | -0.4507234 | H | -3.2796814 | -0.4603404 | -2.6291704 |
| C | -1.4042944 | 1.50659756 | -0.3643589 | H | -2.6236473 | -0.9439377 | -1.0942545 |
| C | -2.0783888 | 1.09149491 | -1.7083752 | H | -3.875398 | -0.5956744 | 0.95538832 |
| N | -0.964394 | 0.81161427 | -2.5890808 | H | -6.0010996 | 0.05354688 | 2.02331194 |
| C | 0.24408574 | 0.96206519 | -1.9475571 | H | -7.7152802 | 1.30419412 | 0.73999965 |
| O | 1.30454646 | 1.14786336 | -2.519253 | H | -7.2976637 | 1.9025438 | -1.6299819 |
| C | -3.0606935 | -0.0891643 | -1.6185109 | H | -5.1790225 | 1.26045111 | -2.7197749 |
| C | -4.3683799 | 0.28498939 | -0.9627332 | H | -3.4908132 | 2.98537026 | 0.34133887 |
| C | -4.6170697 | -0.0508335 | 0.37486237 | H | -2.8044848 | 4.58455995 | 0.43011734 |
| C | -5.8174665 | 0.31625152 | 0.98459926 | H | -3.1595821 | 3.87737524 | -1.1597925 |
| C | -6.7803928 | 1.01985764 | 0.26410598 | H | -0.0490926 | 5.61374914 | 0.99681996 |
| C | -6.5449235 | 1.35633027 | -1.0672929 | H | 0.54437888 | 5.67111968 | -0.6751146 |
| C | -5.3450212 | 0.99104318 | -1.6790039 | H | -1.1747783 | 5.74110793 | -0.3690828 |
| C | -2.786294 | 3.6604501 | -0.1549026 | H | 1.67893288 | 2.87021752 | -1.7705703 |
| C | -0.2458682 | 5.27819005 | -0.0264058 | H | 3.58937527 | 2.52768514 | 0.80464706 |
| O | 1.90485288 | 3.45953621 | -1.0246937 | H | -0.9272001 | -1.7366473 | 1.21878671 |
| H | 0.69952644 | 1.56550524 | 1.4477536 | H | 0.97598118 | -5.0798315 | 2.08842181 |
| O | 3.31573703 | 1.71252438 | 1.26785671 | H | 2.32902133 | -6.1171734 | 2.58763659 |
| O | -0.6010829 | -0.8169293 | 1.18930665 | H | 2.36573665 | -4.3953652 | 2.99078941 |
| H | 2.11212189 | -0.5120794 | 1.85457059 | H | 3.7613461 | -4.2789328 | -1.0829055 |
| H | 1.80102175 | -1.2608369 | -1.099283 | H | 5.97877118 | -2.4979143 | 1.62397947 |
| C | 2.75938919 | -4.8467157 | 0.92787842 | H | 5.35378327 | -4.1321615 | 1.40991306 |
| O | 3.3011487 | -5.762105 | 0.29694584 | H | 5.62555829 | -3.0948204 | -0.0025707 |
| C | 2.05786652 | -5.1183979 | 2.23301395 | H | 1.02003095 | -3.6408511 | -1.2483024 |
| O | 3.19705171 | -3.4798248 | -1.0040949 | | | | |
| conformer 2a_2 | | | | | | | |
| C | -0.413407 | 3.40907269 | 1.12882861 | C | 4.41870665 | -3.8819378 | -1.6144665 |
| C | 1.62006519 | 1.55570469 | 0.21705901 | H | -0.805313 | 1.55231268 | 2.08168232 |
| C | 1.7500718 | 3.05480732 | -0.1010715 | O | -0.2548358 | -3.2912649 | 0.03528147 |
| C | 0.6966065 | 3.92010767 | 0.54816043 | H | 2.71983764 | 3.38250304 | 0.29628979 |
| C | 0.09836393 | -0.4586407 | 0.51016858 | H | -0.9026041 | -0.8488987 | 0.30394741 |

| | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| C | 1.10364166 | -1.322988 | -0.2897064 | H | 2.37181712 | 0.78071214 | -1.6921796 |
| C | 2.53713037 | -0.778445 | -0.207299 | H | 1.35423202 | -2.859985 | 1.22228996 |
| C | 2.58844012 | 0.70064526 | -0.6214916 | H | 3.89021462 | -3.1810671 | 0.33105621 |
| C | 1.08628121 | -2.8002437 | 0.16202961 | H | 4.50672657 | -1.243377 | -0.9971813 |
| C | 2.03932394 | -3.6870014 | -0.6700857 | H | 3.19720712 | -1.5209665 | -2.1375596 |
| C | 3.47367448 | -3.1116416 | -0.6824836 | H | -2.6969188 | 2.71694334 | 0.2733207 |
| C | 3.48171606 | -1.6253255 | -1.0820505 | H | -2.4646949 | 1.59652854 | -1.7636774 |
| C | 0.16475631 | 1.05324964 | 0.15859049 | H | -2.7172803 | -0.2269457 | 1.15927277 |
| C | -0.789561 | 1.92088527 | 1.04879656 | H | -3.2116727 | 1.10931864 | 2.1681844 |
| C | -2.1835294 | 1.75358433 | 0.37387356 | H | -5.2459983 | 2.45600277 | 1.61452074 |
| N | -1.8757026 | 1.3438275 | -0.977237 | H | -7.4881687 | 2.39254339 | 0.58522292 |
| C | -0.5205222 | 1.23011135 | -1.1828491 | H | -8.0403132 | 0.6613242 | -1.1020327 |
| O | 0.01676065 | 1.26900435 | -2.276129 | H | -6.3362173 | -1.0155036 | -1.7617916 |
| C | -3.11935 | 0.78972323 | 1.12190232 | H | -4.0868528 | -0.9684939 | -0.7459308 |
| C | -4.5025824 | 0.74408959 | 0.51346715 | H | -1.8573016 | 3.6472537 | 2.71606124 |
| C | -5.4714831 | 1.68940599 | 0.87674142 | H | -0.8359241 | 5.04815458 | 2.49521162 |
| C | -6.7405749 | 1.65801889 | 0.29691886 | H | -2.1271593 | 4.70666595 | 1.31771686 |
| C | -7.0514851 | 0.68537723 | -0.6515023 | H | 1.88806229 | 5.58680115 | 1.19914227 |
| C | -6.0940864 | -0.2570267 | -1.0217171 | H | 1.31389507 | 5.71136352 | -0.4764293 |
| C | -4.8245921 | -0.2281204 | -0.443303 | H | 0.21036192 | 6.03266012 | 0.84296775 |
| C | -1.3590842 | 4.25486234 | 1.95256379 | H | 1.07047319 | 2.85273907 | -1.9431857 |
| C | 1.04016863 | 5.39158957 | 0.53471352 | H | 4.02617339 | 1.95822584 | -0.9936584 |
| O | 1.79644809 | 3.32926269 | -1.4953454 | H | -0.0932995 | -1.4610196 | 2.17275036 |
| H | 1.94162791 | 1.45892724 | 1.26706355 | H | 2.43211703 | -6.4539355 | 1.48719921 |
| O | 3.92510613 | 1.16810065 | -0.4285261 | H | 3.02194545 | -4.8042549 | 1.73034517 |
| O | 0.32753985 | -0.6192945 | 1.91270315 | H | 1.26888736 | -5.1606574 | 1.84843582 |
| H | 2.89872355 | -0.8573653 | 0.82831971 | H | 1.75713706 | -4.5881099 | -2.3819246 |
| H | 0.77559587 | -1.283555 | -1.3383473 | H | 5.4275629 | -3.4564482 | -1.5752345 |
| C | 2.03790084 | -5.1418925 | -0.1490136 | H | 4.49895685 | -4.932907 | -1.3204632 |
| O | 1.92066859 | -6.0807042 | -0.9455141 | H | 4.08206391 | -3.842627 | -2.6555939 |
| C | 2.19888443 | -5.3971823 | 1.32686451 | H | -0.3748542 | -3.4712744 | -0.922333 |
| O | 1.50949433 | -3.7133094 | -2.0123494 | | | | |
| conformer 2a_3 | | | | | | | |
| C | -0.8730751 | 3.62423182 | 1.08445327 | C | 4.07517157 | -3.3118313 | -2.2623315 |
| C | 1.13441094 | 1.92152009 | -0.1011206 | H | -1.2716798 | 1.67933503 | 1.83855769 |
| C | 1.19068093 | 3.43836352 | -0.3366133 | O | -0.5715418 | -2.9884829 | -0.5004088 |
| C | 0.18328156 | 4.2139032 | 0.47891114 | H | 2.18477613 | 3.77563035 | -0.0148197 |
| C | -0.2809495 | -0.1599593 | 0.18147069 | H | -1.2760713 | -0.5819068 | 0.03233301 |
| C | 0.70108711 | -0.945529 | -0.7230031 | H | 1.82180503 | 1.26967107 | -2.0804407 |
| C | 2.1172293 | -0.3498124 | -0.6781655 | H | 1.03030669 | -2.5535371 | 0.69726985 |
| C | 2.09283862 | 1.14819765 | -1.0264142 | H | 3.571293 | -2.7068948 | -0.2781944 |
| C | 0.74785467 | -2.4453664 | -0.3551957 | H | 4.06943086 | -0.6984233 | -1.5623761 |
| C | 1.71604685 | -3.2500653 | -1.2513714 | H | 2.72708969 | -0.9876715 | -2.6611799 |
| C | 3.12496993 | -2.6173361 | -1.277386 | H | -2.9957811 | 3.1126104 | -0.0477468 |
| C | 3.05815094 | -1.1195412 | -1.6225682 | H | -2.9943591 | 1.82484845 | -1.9458089 |
| C | -0.3029551 | 1.36455367 | -0.1138503 | H | -4.0083052 | 2.05419565 | 1.826644 |

| | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| C | -1.2533587 | 2.15303987 | 0.8516618 | H | -4.7159352 | 1.49560015 | 0.33506112 |
| C | -2.6473387 | 2.09073512 | 0.15789628 | H | -4.2237776 | -0.8444702 | -0.5158713 |
| N | -2.4071868 | 1.56326012 | -1.1614708 | H | -3.9268322 | -3.181653 | 0.21734312 |
| C | -1.0533565 | 1.53981921 | -1.4184991 | H | -3.18016 | -3.684399 | 2.52432645 |
| O | -0.5666799 | 1.6512443 | -2.5307867 | H | -2.7302798 | -1.8314764 | 4.11429987 |
| C | -3.8005799 | 1.43959311 | 0.94045828 | H | -3.0066623 | 0.51161585 | 3.39895121 |
| C | -3.6265675 | 0.00999784 | 1.38274134 | H | -2.1030637 | 3.66650155 | 2.85429578 |
| C | -3.8964811 | -1.045529 | 0.50185936 | H | -1.2462867 | 5.16363262 | 2.5824741 |
| C | -3.7320572 | -2.3691263 | 0.91289429 | H | -2.6463175 | 4.75836935 | 1.56456133 |
| C | -3.307988 | -2.6519137 | 2.20967971 | H | 1.38246839 | 5.82594762 | 1.24251738 |
| C | -3.05211 | -1.6116491 | 3.09950411 | H | 0.74555896 | 6.10145524 | -0.3915276 |
| C | -3.2110276 | -0.2871318 | 2.68896734 | H | -0.3133849 | 6.2810603 | 0.98860957 |
| C | -1.764961 | 4.34991351 | 2.06754459 | H | 0.43164945 | 3.24214549 | -2.1529892 |
| C | 0.51227975 | 5.68363147 | 0.59379329 | H | 3.47013229 | 2.47084336 | -1.4151618 |
| O | 1.08311708 | 3.81345737 | -1.7030114 | H | -0.486976 | -1.1064045 | 1.86377423 |
| H | 1.51439621 | 1.78281416 | 0.9246445 | H | 2.2830868 | -6.089413 | 0.76664364 |
| O | 3.41894885 | 1.65966004 | -0.8748341 | H | 2.79200958 | -4.4239857 | 1.07617782 |
| O | 0.07342291 | -0.3681232 | 1.55188923 | H | 1.06239064 | -4.8768921 | 1.21015882 |
| H | 2.52575209 | -0.4579586 | 0.3372642 | H | 1.41451179 | -4.0924777 | -2.9894798 |
| H | 0.31802159 | -0.8617243 | -1.7498688 | H | 5.06599527 | -2.8451049 | -2.2336071 |
| C | 1.78716608 | -4.7257316 | -0.7980875 | H | 4.20788382 | -4.3683443 | -2.0102034 |
| O | 1.69202322 | -5.6321455 | -1.6344404 | H | 3.70846205 | -3.2491795 | -3.2920963 |
| C | 1.99218224 | -5.0401402 | 0.66079791 | H | -0.7079006 | -3.0816888 | -1.4671358 |
| O | 1.15410457 | -3.2383789 | -2.5823646 | | | | |
| conformer 2a_4 | | | | | | | |
| C | -1.8489603 | 2.73192906 | -0.6718042 | C | 5.54729429 | -2.1049351 | 1.75501758 |
| C | 0.74373904 | 1.81922829 | 0.2246249 | H | -2.1441469 | 0.84314295 | 0.25571343 |
| C | 0.5806312 | 3.26030925 | -0.2892101 | O | 1.17258245 | -3.3665883 | -0.2513719 |
| C | -0.8481255 | 3.64060491 | -0.5967463 | H | 0.9192869 | 3.92568868 | 0.51603475 |
| C | 0.11197448 | -0.6318874 | -0.006598 | H | -0.3477454 | -1.3690113 | -0.6690036 |
| C | 1.60653819 | -1.0199822 | 0.1157313 | H | 2.74702329 | 1.46169194 | -0.5987101 |
| C | 2.38166562 | 0.00291182 | 0.95755021 | H | 1.24869697 | -2.5388849 | 1.62324031 |
| C | 2.22532881 | 1.41558884 | 0.36368723 | H | 3.65328029 | -1.7807927 | 2.68617679 |
| C | 1.78205653 | -2.4508575 | 0.67106414 | H | 4.3922458 | 0.33387325 | 1.70211873 |
| C | 3.26537482 | -2.8497336 | 0.8439209 | H | 4.33680315 | -0.33468 | 0.07663759 |
| C | 4.04653116 | -1.7971129 | 1.66110946 | H | -2.7490907 | 1.22598076 | -2.522575 |
| C | 3.86548075 | -0.3890965 | 1.06681416 | H | -0.9262644 | 0.41397306 | -3.7411303 |
| C | -0.1005671 | 0.80056317 | -0.5684317 | H | -3.0691301 | -1.2417619 | -2.7344534 |
| C | -1.6108961 | 1.21079553 | -0.62721 | H | -2.3495563 | -1.5087205 | -1.1777025 |
| C | -2.127911 | 0.53874611 | -1.9372947 | H | -3.6588255 | -1.3007427 | 0.82954712 |
| N | -0.9310078 | 0.35242398 | -2.7290414 | H | -5.8608314 | -0.9242041 | 1.87800985 |
| C | 0.1984628 | 0.75372384 | -2.0549152 | H | -7.7311708 | 0.02483232 | 0.55346728 |
| O | 1.25726639 | 1.03477675 | -2.5900464 | H | -7.3943401 | 0.59205218 | -1.8370791 |
| C | -2.914368 | -0.7707877 | -1.753868 | H | -5.2011646 | 0.22046349 | -2.9062213 |
| C | -4.2661084 | -0.5617529 | -1.1149843 | H | -3.9288571 | 2.42229319 | -0.1935155 |
| C | -4.4695489 | -0.8836208 | 0.23383611 | H | -3.4964504 | 4.10801844 | -0.2869035 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -5.7123489 | -0.6709804 | 0.83144131 | H | -3.6506805 | 3.16530134 | -1.7842085 |
| C | -6.7628825 | -0.1376516 | 0.08737108 | H | -0.9653482 | 5.61951743 | 0.23558956 |
| C | -6.572817 | 0.18139318 | -1.2557531 | H | -0.2916857 | 5.55882284 | -1.4056394 |
| C | -5.3306961 | -0.0300062 | -1.8557169 | H | -2.0166612 | 5.39606023 | -1.1765519 |
| C | -3.3068299 | 3.13362294 | -0.7464566 | H | 1.32462385 | 2.85368034 | -2.0730781 |
| C | -1.0499132 | 5.13152318 | -0.7406322 | H | 3.1138756 | 3.11288274 | 0.70997915 |
| O | 1.40997522 | 3.55949377 | -1.4024449 | H | -0.1823613 | -0.1347946 | 1.89350507 |
| H | 0.32990723 | 1.84180741 | 1.24557684 | H | 2.64234644 | -3.7556254 | 3.43857137 |
| O | 2.87225921 | 2.33311425 | 1.24686102 | H | 1.53899058 | -4.7529036 | 2.43673838 |
| O | -0.550002 | -0.7701307 | 1.25641993 | H | 2.97991948 | -5.4736771 | 3.18610465 |
| H | 1.98608522 | 0.01346873 | 1.98292701 | H | 4.49949551 | -3.6525414 | -0.4432472 |
| H | 2.01830942 | -1.0104967 | -0.9037213 | H | 6.05898265 | -1.3422951 | 2.3524765 |
| C | 3.38968487 | -4.249136 | 1.48729511 | H | 5.72673542 | -3.0692241 | 2.24013598 |
| O | 4.16519101 | -5.0817044 | 1.00207714 | H | 6.01970919 | -2.1253919 | 0.7674867 |
| C | 2.57929483 | -4.5711225 | 2.71529177 | H | 1.80193649 | -3.4435857 | -0.999377 |
| O | 3.82770796 | -2.9378801 | -0.4845072 | | | | |
| conformer 2a_5 | | | | | | | |
| C | -1.396596 | 2.89973667 | 0.77251883 | C | 5.2896897 | -2.8868631 | -1.5316129 |
| C | 1.06781438 | 1.65961865 | 0.00270393 | H | -1.6573913 | 0.85574487 | 1.23392733 |
| C | 0.89367449 | 3.17670585 | -0.208366 | O | 0.37579452 | -3.43492 | -0.8344515 |
| C | -0.3419197 | 3.69769551 | 0.48735585 | H | 1.77072604 | 3.69262521 | 0.20133865 |
| C | 0.00696206 | -0.6451373 | -0.1404512 | H | -0.8425692 | -1.2054638 | -0.545218 |
| C | 1.30643122 | -1.2076375 | -0.7672957 | H | 2.3531929 | 1.27419045 | -1.7226624 |
| C | 2.54354967 | -0.393056 | -0.355548 | H | 1.60113847 | -2.8032142 | 0.67462194 |
| C | 2.35154344 | 1.10820495 | -0.6417864 | H | 4.26534341 | -2.5125082 | 0.30298727 |
| C | 1.52820139 | -2.6950713 | -0.4128448 | H | 4.67846707 | -0.3618191 | -0.7495555 |
| C | 2.79150885 | -3.2806613 | -1.0839067 | H | 3.70056712 | -0.7808071 | -2.1501174 |
| C | 4.04091971 | -2.425209 | -0.7683392 | H | -3.2230348 | 2.13176788 | -0.8300557 |
| C | 3.79778001 | -0.9339069 | -1.067109 | H | -2.3503722 | 1.27186652 | -2.8718175 |
| C | -0.1921835 | 0.87338428 | -0.4004145 | H | -4.1729842 | -0.1703152 | -1.28727 |
| C | -1.4705128 | 1.43180481 | 0.32089072 | H | -2.976179 | -0.8811162 | -0.2457324 |
| C | -2.6177549 | 1.22590493 | -0.7096058 | H | -3.3756 | -1.0026827 | 2.12865328 |
| N | -1.943349 | 1.04475144 | -1.9720218 | H | -4.8712766 | -0.5776097 | 4.04301932 |
| C | -0.5750517 | 1.01827133 | -1.8648856 | H | -6.8168484 | 0.94017151 | 3.79727117 |
| O | 0.17936783 | 1.00928116 | -2.8239057 | H | -7.2688342 | 2.03269265 | 1.61732084 |
| C | -3.5491827 | 0.03838711 | -0.4069846 | H | -5.7873975 | 1.61872737 | -0.3117317 |
| C | -4.4682342 | 0.27953432 | 0.76583665 | H | -2.8989077 | 2.57232802 | 2.28022188 |
| C | -4.2256955 | -0.3362346 | 2.00102175 | H | -2.3568478 | 4.22718135 | 2.21588439 |
| C | -5.0680607 | -0.097554 | 3.0878867 | H | -3.4260181 | 3.61484118 | 0.94070353 |
| C | -6.1610336 | 0.75563638 | 2.95046088 | H | 0.40101769 | 5.33734774 | 1.65717355 |
| C | -6.4143801 | 1.3695854 | 1.72572388 | H | 0.11175522 | 5.73095231 | -0.0490089 |
| C | -5.5733559 | 1.13250413 | 0.63768265 | H | -1.2443032 | 5.60773899 | 1.04779588 |
| C | -2.5829417 | 3.36046944 | 1.58911658 | H | 1.54915565 | 3.22930327 | -2.0484358 |
| C | -0.2718704 | 5.16972746 | 0.81023203 | H | 3.5505607 | 1.63687194 | 0.82419132 |
| O | 0.76756792 | 3.55416859 | -1.5694023 | H | -0.2835975 | -1.794873 | 1.40662171 |
| H | 1.19613257 | 1.53218466 | 1.09035157 | H | 3.36180182 | -6.1138402 | 0.94419916 |

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|-----------------------|------------|------------|------------|---|------------|------------|------------|
| O | 3.4773828 | 1.82602402 | -0.1278197 | H | 3.50988092 | -4.4116633 | 1.4020048 |
| O | 0.03396696 | -0.8813342 | 1.27256286 | H | 1.89199308 | -5.1321265 | 1.12252872 |
| H | 2.71078002 | -0.5143109 | 0.72472366 | H | 3.03582122 | -4.0468304 | -2.8666869 |
| H | 1.1863006 | -1.1387555 | -1.8566698 | H | 6.15432635 | -2.2705306 | -1.2615913 |
| C | 3.01381361 | -4.7501723 | -0.6600622 | H | 5.54338506 | -3.9236484 | -1.2905881 |
| O | 3.27118525 | -5.605591 | -1.5151961 | H | 5.15329957 | -2.8109651 | -2.6153317 |
| C | 2.93499826 | -5.1170759 | 0.79883651 | H | 0.46191622 | -3.5161081 | -1.8091849 |
| O | 2.54457017 | -3.2783199 | -2.5047022 | | | | |
| conformer 2a_6 | | | | | | | |
| C | -1.5940552 | 2.92325935 | -0.6615897 | C | 5.21672433 | -2.5381673 | 2.12681633 |
| C | 0.84400231 | 1.78430301 | 0.39985466 | H | -2.1034453 | 1.0418013 | 0.17783606 |
| C | 0.829723 | 3.24833537 | -0.0748466 | O | 0.83329231 | -3.4297273 | -0.0114193 |
| C | -0.5368818 | 3.74822064 | -0.4773997 | H | 1.15414236 | 3.86238782 | 0.77574933 |
| C | 0.04752853 | -0.6034453 | 0.03630525 | H | -0.3785843 | -1.2776539 | -0.7113574 |
| C | 1.47923306 | -1.1192457 | 0.31304595 | H | 2.86328772 | 1.28068962 | -0.2987395 |
| C | 2.27933619 | -0.1603623 | 1.20502017 | H | 0.90206465 | -2.5567867 | 1.85884689 |
| C | 2.27627501 | 1.26480884 | 0.62601862 | H | 3.34004735 | -2.0194338 | 3.00508786 |
| C | 1.4747573 | -2.5403286 | 0.92315627 | H | 4.27924876 | 0.00509623 | 2.03677428 |
| C | 2.90557383 | -3.0835383 | 1.16797826 | H | 4.23615705 | -0.6704479 | 0.41352608 |
| C | 3.75617461 | -2.0873903 | 1.99022133 | H | -2.4558239 | 1.5421562 | -2.6254849 |
| C | 3.71996506 | -0.675358 | 1.38268191 | H | -0.6080425 | 0.62689202 | -3.7235056 |
| C | -0.0094781 | 0.85769496 | -0.4866953 | H | -2.9336413 | -0.8967952 | -2.9317619 |
| C | -1.4750345 | 1.38864352 | -0.6490574 | H | -2.3744421 | -1.2423157 | -1.3248971 |
| C | -1.9369916 | 0.79431252 | -2.0154135 | H | -3.8316459 | -0.9476303 | 0.57533481 |
| N | -0.6989939 | 0.53234175 | -2.7177128 | H | -6.0836815 | -0.4233965 | 1.43459228 |
| C | 0.40178624 | 0.82599112 | -1.9466607 | H | -7.7607271 | 0.66497487 | -0.0329123 |
| O | 1.51835623 | 1.02997959 | -2.390625 | H | -7.1792514 | 1.22453075 | -2.3776155 |
| C | -2.8311237 | -0.4548255 | -1.9310307 | H | -4.9337289 | 0.70617739 | -3.2596697 |
| C | -4.2142427 | -0.155628 | -1.4059811 | H | -3.7236175 | 2.76316554 | -0.360364 |
| C | -4.5556889 | -0.4715759 | -0.0838763 | H | -3.1586994 | 4.41190335 | -0.3582938 |
| C | -5.827555 | -0.1752825 | 0.40766628 | H | -3.2612762 | 3.5291593 | -1.8961879 |
| C | -6.7697195 | 0.43665765 | -0.4165725 | H | -0.5689427 | 5.70526148 | 0.4124118 |
| C | -6.4421332 | 0.75134816 | -1.7338755 | H | 0.22584802 | 5.63973534 | -1.173508 |
| C | -5.1706985 | 0.45653273 | -2.2277973 | H | -1.5192025 | 5.60617333 | -1.0830307 |
| C | -3.0065238 | 3.43983168 | -0.8363182 | H | 1.68119323 | 2.83297018 | -1.8092516 |
| C | -0.6128298 | 5.25401829 | -0.5839613 | H | 3.27714986 | 2.87879575 | 1.05787921 |
| O | 1.7624213 | 3.51346256 | -1.1128995 | H | -0.4122257 | -0.206835 | 1.92131575 |
| H | 0.35765744 | 1.80518672 | 1.3886134 | H | 3.10575202 | -6.5091312 | 2.00868144 |
| O | 2.9321626 | 2.1181379 | 1.56470639 | H | 2.68213597 | -5.8651684 | 0.40888208 |
| O | -0.768442 | -0.7572546 | 1.20043465 | H | 4.31591949 | -5.5838352 | 1.09842424 |
| H | 1.82633301 | -0.1258228 | 2.20615937 | H | 2.79998958 | -3.6269509 | -0.6871565 |
| H | 1.97841614 | -1.1745767 | -0.6654081 | H | 5.78128387 | -1.8295024 | 2.74267113 |
| C | 2.75804591 | -4.4002095 | 1.96703668 | H | 5.28666659 | -3.5175522 | 2.61017871 |
| O | 2.25134299 | -4.4232753 | 3.09258721 | H | 5.71375717 | -2.6021996 | 1.15324199 |
| C | 3.24987075 | -5.6702509 | 1.32176283 | H | -0.1237616 | -3.3813182 | 0.18071877 |
| O | 3.51751002 | -3.2917192 | -0.1093414 | | | | |

| conformer 2a_7 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -2.2063807 | 2.86133879 | 0.16651516 | C | 5.55494117 | -1.717382 | 1.84208642 |
| C | 0.48576463 | 2.04001676 | 0.83653572 | H | -2.358884 | 0.92728957 | 1.03689229 |
| C | 0.22015042 | 3.48853118 | 0.39154616 | O | 1.0875048 | -3.1033452 | 0.14663817 |
| C | -1.2439189 | 3.81228985 | 0.20806205 | H | 0.59224942 | 4.14137717 | 1.19220304 |
| C | -0.0604473 | -0.4264402 | 0.57116031 | H | -0.5455309 | -1.1632336 | -0.0737464 |
| C | 1.45354464 | -0.7538071 | 0.5616956 | H | 2.43273796 | 1.80186787 | -0.1498502 |
| C | 2.25223509 | 0.27521816 | 1.37400979 | H | 1.27867525 | -2.3337463 | 2.03812588 |
| C | 1.98968555 | 1.69901459 | 0.84689966 | H | 3.73163434 | -1.5035442 | 2.93253394 |
| C | 1.73077319 | -2.1924085 | 1.05098035 | H | 4.30211843 | 0.67012275 | 1.96406422 |
| C | 3.23829908 | -2.5320007 | 1.09242995 | H | 4.14030309 | 0.04945081 | 0.32669392 |
| C | 4.04029125 | -1.4717685 | 1.87925402 | H | -3.1632192 | 1.39335849 | -1.6701717 |
| C | 3.75464763 | -0.0552584 | 1.34935411 | H | -1.4219277 | 0.62761003 | -3.0377953 |
| C | -0.3723727 | 1.011269 | 0.07300828 | H | -2.5834557 | -1.3806792 | -0.477357 |
| C | -1.898321 | 1.35493931 | 0.13800798 | H | -4.0208304 | -0.4442457 | -0.1548209 |
| C | -2.4819069 | 0.70731307 | -1.1536192 | H | -5.6652109 | 0.05793694 | -1.99223 |
| N | -1.3388841 | 0.57690652 | -2.0280349 | H | -6.6813466 | -0.8079537 | -4.0684414 |
| C | -0.1812369 | 1.01623538 | -1.4322947 | H | -5.4902785 | -2.5046795 | -5.4293532 |
| O | 0.82321733 | 1.35662638 | -2.0331262 | H | -3.2692622 | -3.3388042 | -4.705333 |
| C | -3.2335986 | -0.6104599 | -0.9018071 | H | -2.2349979 | -2.4840604 | -2.6328393 |
| C | -3.875815 | -1.1522391 | -2.158972 | H | -4.2590879 | 2.3882647 | 0.64036688 |
| C | -5.1292755 | -0.6854583 | -2.5776384 | H | -3.8906533 | 4.0905062 | 0.78679726 |
| C | -5.7075188 | -1.1717575 | -3.7511024 | H | -4.0543226 | 3.36176526 | -0.8296976 |
| C | -5.0386493 | -2.1252724 | -4.5165007 | H | -1.3415276 | 5.76064569 | 1.11164354 |
| C | -3.7910115 | -2.5941146 | -4.1097116 | H | -0.866446 | 5.7733305 | -0.5992125 |
| C | -3.2107564 | -2.1097428 | -2.9368744 | H | -2.5450494 | 5.53071816 | -0.168608 |
| C | -3.6808132 | 3.20031867 | 0.18593804 | H | 0.83518116 | 3.1767578 | -1.4594941 |
| C | -1.5222176 | 5.29616314 | 0.13691307 | H | 2.83269056 | 3.42045969 | 1.18697291 |
| O | 0.94459873 | 3.86201486 | -0.7711664 | H | -0.1953447 | -0.0153463 | 2.51022289 |
| H | 0.1521431 | 2.00908049 | 1.8862329 | H | 2.863156 | -3.5406551 | 3.69643701 |
| O | 2.6633361 | 2.61426149 | 1.71239658 | H | 1.724742 | -4.555281 | 2.7529562 |
| O | -0.6134509 | -0.623302 | 1.87781352 | H | 3.24984845 | -5.2341266 | 3.36178269 |
| H | 1.94291983 | 0.235124 | 2.42785327 | H | 4.39678706 | -3.2412741 | -0.3145733 |
| H | 1.78164723 | -0.6953976 | -0.4860366 | H | 6.08230877 | -0.9520978 | 2.42228164 |
| C | 3.47057326 | -3.9434293 | 1.67692878 | H | 5.81218982 | -2.6874797 | 2.27811633 |
| O | 4.23719455 | -4.7271252 | 1.1041281 | H | 5.94578209 | -1.6871038 | 0.81976764 |
| C | 2.77572565 | -4.3365003 | 2.95405451 | H | 1.6599642 | -3.1302242 | -0.6491351 |
| O | 3.69438897 | -2.556378 | -0.2787574 | | | | |

| conformer 2a_8 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -1.8940138 | 3.35091253 | -0.0254715 | C | 5.07199901 | -2.4333239 | 1.02745401 |
| C | 0.67380599 | 2.12123472 | 0.19126726 | H | -2.3530026 | 1.34389272 | 0.45540638 |
| C | 0.58954271 | 3.58904008 | -0.2711611 | O | 0.2806278 | -3.0672863 | -0.1775612 |
| C | -0.7988721 | 4.14605204 | -0.0384561 | H | 1.31158044 | 4.18162121 | 0.30271481 |
| C | -0.3053569 | -0.2134498 | 0.02086842 | H | -0.9580251 | -0.8547482 | -0.5762906 |
| C | 1.12521684 | -0.8052547 | -0.0303743 | H | 2.47647278 | 1.55169078 | -0.9130576 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | 2.14456623 | 0.10445563 | 0.67914942 | H | 0.81269006 | -2.2049112 | 1.59987686 |
| C | 2.09678069 | 1.53799597 | 0.11273931 | H | 3.42068955 | -1.8391729 | 2.24300734 |
| C | 1.17522511 | -2.2297022 | 0.56679174 | H | 4.26986651 | 0.14421617 | 1.12357987 |
| C | 2.59060809 | -2.8461366 | 0.51669403 | H | 3.88499392 | -0.4999596 | -0.4675687 |
| C | 3.63479944 | -1.9133222 | 1.1685903 | H | -2.7619097 | 2.54205956 | -2.2016567 |
| C | 3.56029127 | -0.4921603 | 0.58119842 | H | -1.5148152 | 1.14990428 | -3.5915377 |
| C | -0.384249 | 1.24545626 | -0.5015556 | H | -4.5719068 | 1.354444 | -1.1532074 |
| C | -1.8228294 | 1.85178234 | -0.3564522 | H | -4.2004693 | 0.67996768 | -2.719105 |
| C | -2.5045851 | 1.58464756 | -1.7272017 | H | -2.9454058 | -1.5411345 | -2.8820491 |
| N | -1.4811158 | 1.04400317 | -2.5841714 | H | -2.8058535 | -3.7934557 | -1.8834433 |
| C | -0.2373384 | 1.16431577 | -2.0100184 | H | -3.5230961 | -4.1709192 | 0.45681535 |
| O | 0.8101264 | 1.14681343 | -2.6374179 | H | -4.3994649 | -2.2806694 | 1.80606191 |
| C | -3.8132994 | 0.77460798 | -1.6952665 | H | -4.5384987 | -0.0196815 | 0.83124093 |
| C | -3.7425393 | -0.6088785 | -1.0971243 | H | -3.8082962 | 3.10730896 | 0.92788455 |
| C | -3.2687201 | -1.6887592 | -1.8539459 | H | -3.2738041 | 4.76972421 | 0.89551195 |
| C | -3.1887994 | -2.9644913 | -1.2936785 | H | -3.8629235 | 4.01144927 | -0.5980976 |
| C | -3.5898411 | -3.1762504 | 0.02380118 | H | -0.4175543 | 5.89444676 | 1.14613165 |
| C | -4.0773858 | -2.1140935 | 0.78134299 | H | -0.2033017 | 6.13348908 | -0.5996948 |
| C | -4.1552535 | -0.8369992 | 0.2238189 | H | -1.81775 | 6.07586724 | 0.07208689 |
| C | -3.2807018 | 3.84487875 | 0.31307347 | H | 1.44483202 | 3.08897331 | -1.9801653 |
| C | -0.8196468 | 5.64045349 | 0.16020553 | H | 3.8721003 | 2.22518374 | 0.57742872 |
| O | 0.86653274 | 3.79908645 | -1.6501928 | H | -1.3378888 | -1.0597939 | 1.43076932 |
| H | 0.4246023 | 2.14427389 | 1.26554546 | H | 0.88331832 | -4.4367737 | 2.4341698 |
| O | 2.96161135 | 2.37098128 | 0.88858467 | H | 2.29724909 | -5.3732913 | 2.96359564 |
| O | -0.7759374 | -0.2619034 | 1.37230851 | H | 2.27847141 | -3.6219862 | 3.21179022 |
| H | 1.89745139 | 0.15631772 | 1.74970989 | H | 3.46002759 | -3.8488805 | -0.9189779 |
| H | 1.40124954 | -0.8783278 | -1.0911291 | H | 5.77658184 | -1.75251 | 1.51779656 |
| C | 2.60819101 | -4.2406961 | 1.18198777 | H | 5.18896473 | -3.4139632 | 1.49870782 |
| O | 3.15885582 | -5.1880847 | 0.60810337 | H | 5.37034292 | -2.5204294 | -0.0224179 |
| C | 1.97076927 | -4.4212996 | 2.53474095 | H | 0.72575734 | -3.2271325 | -1.0363293 |
| O | 2.91765937 | -3.0317156 | -0.8777744 | | | | |

Table S3. Cartesian coordinates for the low-energy optimized conformers of **3a** at B3LYP-D3(BJ)/6-311G* level.

| conformer 3a_1 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -0.4883692 | 3.34882583 | 0.63292012 | O | 0.23524374 | -0.673379 | 1.24982012 |
| C | 1.52922651 | 1.49322356 | -0.2955556 | O | -1.4060616 | -2.2593382 | 1.43972072 |
| C | 1.71749465 | 3.00193047 | -0.5267873 | C | -0.5288957 | -1.5651842 | 1.93530309 |
| C | 0.6645335 | 3.85643367 | 0.13757998 | C | -0.1314413 | -1.588759 | 3.3779379 |
| C | -0.0521654 | -0.4821565 | -0.1595826 | H | 2.68035743 | 3.27545151 | -0.0752669 |
| C | 0.93148512 | -1.3280826 | -1.0118582 | H | -1.066804 | -0.8188966 | -0.3894368 |
| C | 2.38350533 | -0.8540872 | -0.8415156 | H | 2.38678159 | 0.82537311 | -2.2010369 |
| C | 2.51790353 | 0.65280913 | -1.1275164 | H | 1.0224137 | -3.0465202 | 0.34106069 |
| C | 0.82488008 | -2.8417918 | -0.7171938 | H | 3.60847717 | -3.3458004 | -0.4721708 |
| C | 1.78413672 | -3.6888142 | -1.5907047 | H | 4.35747182 | -1.331937 | -1.6114196 |
| C | 3.23819935 | -3.1721303 | -1.4921898 | H | 3.07645547 | -1.4536731 | -2.8100424 |
| C | 3.3213577 | -1.6609261 | -1.7598243 | H | -2.7161823 | 2.83176472 | -0.4710243 |
| C | 0.06343288 | 1.04053299 | -0.4544516 | H | -2.3785231 | 1.80102761 | -2.5364359 |
| C | -0.9258435 | 1.88991027 | 0.41837171 | H | -4.1659135 | 0.79582646 | -0.5426261 |
| C | -2.2724588 | 1.83473339 | -0.3726646 | H | -2.9535719 | -0.1348793 | 0.28356053 |
| N | -1.8814451 | 1.47167148 | -1.7154985 | H | -3.1766855 | -0.3463728 | 2.63131691 |
| C | -0.5236754 | 1.30240296 | -1.827334 | H | -4.1235987 | 0.41286963 | 4.77593587 |
| O | 0.08820003 | 1.37054436 | -2.8792027 | H | -5.4554403 | 2.50114134 | 4.88563065 |
| C | -3.3453666 | 0.88136368 | 0.18319827 | H | -5.8482789 | 3.82927139 | 2.82913052 |
| C | -3.9396768 | 1.33344165 | 1.49531278 | H | -4.9065734 | 3.09216216 | 0.67406288 |
| C | -3.7413076 | 0.5820738 | 2.66122667 | H | -1.8494053 | 3.53653138 | 2.29244426 |
| C | -4.2809608 | 1.00391917 | 3.87725222 | H | -0.9202752 | 4.98305171 | 2.01372542 |
| C | -5.0318032 | 2.17564659 | 3.93901441 | H | -2.245467 | 4.57741683 | 0.90530343 |
| C | -5.2514854 | 2.92176793 | 2.78343816 | H | 1.83922905 | 5.43252349 | 1.0089784 |
| C | -4.7129418 | 2.50102506 | 1.56650845 | H | 1.45827493 | 5.67344337 | -0.7077658 |
| C | -1.4267527 | 4.16157469 | 1.4990922 | H | 0.22646658 | 5.96895735 | 0.49535923 |
| C | 1.06278957 | 5.31052504 | 0.24706846 | H | 1.14741374 | 2.88667876 | -2.4176391 |
| O | 1.82428552 | 3.36087586 | -1.897264 | H | 4.05086204 | 1.83863562 | -1.3312047 |
| H | 1.79513145 | 1.33524108 | 0.76243096 | H | 1.83142248 | -6.264927 | -2.8605082 |
| O | 3.85219756 | 1.04469143 | -0.7987511 | H | 1.24608326 | -7.1782198 | -1.4559695 |
| H | 2.70751412 | -1.0379958 | 0.19308997 | H | 0.16986768 | -5.9992252 | -2.2339771 |
| H | 0.63822668 | -1.1794342 | -2.0608031 | H | 0.35570626 | -3.6015877 | -2.8931192 |
| C | 1.72582819 | -5.1359618 | -1.0451637 | H | 5.21152352 | -3.5408231 | -2.3310994 |
| O | 2.08200635 | -5.4109127 | 0.10476511 | H | 4.19680845 | -4.9817664 | -2.252597 |
| C | 1.20744074 | -6.2109999 | -1.9652073 | H | 3.89926292 | -3.7550543 | -3.4973332 |
| O | 1.33480428 | -3.6012677 | -2.9463772 | H | -1.0524763 | -3.1248158 | -0.2089911 |
| C | 4.18549432 | -3.9055714 | -2.4511862 | H | -0.2469239 | -0.591337 | 3.8097188 |
| H | -1.0345582 | 1.45064632 | 1.41637527 | H | -0.7826492 | -2.2791067 | 3.92148149 |
| O | -0.5178111 | -3.2637619 | -1.0231678 | H | 0.90159227 | -1.9324403 | 3.47132833 |
| conformer 3a_2 | | | | | | | |
| C | -0.7585213 | 3.40764464 | 1.11686791 | O | 0.84614387 | -0.3686131 | 1.69990249 |
| C | 1.3947689 | 1.91875202 | -0.1241098 | O | -0.3887665 | -2.2317371 | 2.20222146 |
| C | 1.23001599 | 3.41839537 | -0.4246269 | C | 0.40016436 | -1.3545487 | 2.52570232 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | 0.1611288 | 4.09506279 | 0.40088812 | C | 1.03378218 | -1.2274473 | 3.87555292 |
| C | 0.29314457 | -0.3151655 | 0.35958758 | H | 2.18284211 | 3.90149723 | -0.1709174 |
| C | 1.26100357 | -1.004861 | -0.6397339 | H | -0.6577064 | -0.8541627 | 0.32180762 |
| C | 2.59279574 | -0.2473105 | -0.7570057 | H | 2.00084058 | 1.30450928 | -2.1400478 |
| C | 2.36211273 | 1.2339273 | -1.1084144 | H | 1.93022804 | -2.5887017 | 0.71463025 |
| C | 1.51516696 | -2.490018 | -0.2947244 | H | 4.3415696 | -2.4247057 | -0.5507697 |
| C | 2.4587943 | -3.1863548 | -1.3072374 | H | 4.45612851 | -0.3806377 | -1.8648618 |
| C | 3.77230116 | -2.391646 | -1.4901961 | H | 3.03646877 | -0.8256717 | -2.8023501 |
| C | 3.49868212 | -0.9136418 | -1.8101236 | H | -2.9922828 | 2.38078764 | 0.51844762 |
| C | 0.04792907 | 1.18256486 | 0.01398643 | H | -2.868108 | 1.26595525 | -1.5325395 |
| C | -0.9073083 | 1.88156759 | 1.04116974 | H | -2.4825844 | -0.5317529 | 1.35296852 |
| C | -2.336719 | 1.50250193 | 0.54726217 | H | -3.0105865 | 0.71953037 | 2.45291404 |
| N | -2.1463689 | 1.12444777 | -0.8329034 | H | -5.2605903 | 1.81064628 | 2.16832058 |
| C | -0.8328069 | 1.23296885 | -1.2194633 | H | -7.592138 | 1.441824 | 1.44898482 |
| O | -0.460449 | 1.35430078 | -2.3732164 | H | -8.1354808 | -0.3787443 | -0.1442045 |
| C | -3.0205982 | 0.41930871 | 1.39707529 | H | -6.3325345 | -1.8385545 | -1.021221 |
| C | -4.4549682 | 0.18624345 | 0.98109524 | H | -3.9936484 | -1.4863619 | -0.3163168 |
| C | -5.4806834 | 1.00742906 | 1.4690291 | H | -1.9789644 | 3.39958237 | 2.89780618 |
| C | -6.8007867 | 0.80330277 | 1.06475574 | H | -1.236619 | 4.94878005 | 2.5764418 |
| C | -7.1069587 | -0.2196373 | 0.16919996 | H | -2.6124696 | 4.4093787 | 1.58294049 |
| C | -6.0939494 | -1.0399725 | -0.3233219 | H | 1.1553537 | 5.92657553 | 0.92927058 |
| C | -4.7732979 | -0.8382801 | 0.07928407 | H | 0.33328519 | 5.97118299 | -0.6439313 |
| C | -1.6989227 | 4.08453303 | 2.08986619 | H | -0.6053667 | 6.09983047 | 0.82714301 |
| C | 0.26210946 | 5.60315604 | 0.38520081 | H | 0.34244458 | 3.08798908 | -2.1607126 |
| O | 1.01360208 | 3.69952818 | -1.8003247 | H | 3.55549917 | 2.67757846 | -1.6438354 |
| H | 1.87619377 | 1.88150138 | 0.86683327 | H | 1.25456121 | -5.799888 | -1.5794698 |
| O | 3.62502723 | 1.90020868 | -1.0569588 | H | 2.7983254 | -5.7796011 | -2.4961511 |
| H | 3.12481613 | -0.2949804 | 0.20414697 | H | 2.66555481 | -6.6986552 | -0.9837922 |
| H | 0.76172574 | -0.980005 | -1.6188978 | H | 0.83735166 | -3.4574813 | -2.3278346 |
| C | 2.79072078 | -4.5806093 | -0.7232086 | H | 5.60292589 | -2.4216095 | -2.6656643 |
| O | 3.39313462 | -4.7092186 | 0.34701579 | H | 4.93116262 | -4.02459 | -2.3635072 |
| C | 2.34433759 | -5.7907863 | -1.50237 | H | 4.17916864 | -2.9607859 | -3.5657952 |
| O | 1.77187618 | -3.2718066 | -2.5595183 | H | -0.1512677 | -3.0999228 | 0.55151891 |
| C | 4.66734303 | -2.9859959 | -2.5859673 | H | 0.81273285 | -0.2436541 | 4.29731847 |
| H | -0.7313223 | 1.50542675 | 2.05621356 | H | 0.62177484 | -1.9902647 | 4.54221566 |
| O | 0.25279033 | -3.1824376 | -0.3419627 | H | 2.11294468 | -1.3776012 | 3.79262121 |
| conformer 3a_3 | | | | | | | |
| C | -0.4456091 | 3.35257019 | 0.64870403 | O | 0.48555043 | -0.6075552 | 1.19958494 |
| C | 1.38258915 | 1.53892696 | -0.6391311 | O | -1.0424732 | -2.2219692 | 1.750711 |
| C | 1.45120406 | 3.04147815 | -0.9784713 | C | -0.1121883 | -1.4852902 | 2.04902975 |
| C | 0.56901835 | 3.87766587 | -0.0777713 | C | 0.54282557 | -1.4349959 | 3.3936645 |
| C | -0.0710625 | -0.4774947 | -0.1337153 | H | 2.48773791 | 3.36506433 | -0.8186122 |
| C | 0.7612414 | -1.3276203 | -1.1300793 | H | -1.1001209 | -0.8479207 | -0.1535576 |
| C | 2.2038724 | -0.8104761 | -1.2503765 | H | 1.94194702 | 0.84694099 | -2.6338939 |
| C | 2.24473862 | 0.69123766 | -1.5932071 | H | 1.15859241 | -2.9941617 | 0.23428964 |
| C | 0.75846653 | -2.831991 | -0.7729882 | H | 3.55128588 | -3.2582288 | -1.0413927 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | 1.56112421 | -3.6850717 | -1.7867762 | H | 4.0145736 | -1.2717836 | -2.3586837 |
| C | 2.99163971 | -3.1299035 | -1.9784115 | H | 2.5374917 | -1.4617524 | -3.2943578 |
| C | 2.9783745 | -1.6272055 | -2.302405 | H | -2.8261999 | 2.79809707 | -0.0515766 |
| C | -0.0663992 | 1.03298607 | -0.4966932 | H | -2.8635944 | 1.69010479 | -2.1188799 |
| C | -0.8968807 | 1.88828402 | 0.52305344 | H | -4.2431551 | 0.75248605 | 0.19406526 |
| C | -2.3613977 | 1.80645202 | -0.0114976 | H | -2.8861557 | -0.1563932 | 0.78765655 |
| N | -2.2165723 | 1.40443396 | -1.3916061 | H | -2.68378 | -0.3518797 | 3.13574925 |
| C | -0.905446 | 1.2138853 | -1.7450058 | H | -3.2204149 | 0.42553835 | 5.41192353 |
| O | -0.4997264 | 1.1890917 | -2.8950441 | H | -4.509913 | 2.51641149 | 5.74783316 |
| C | -3.3016063 | 0.85534257 | 0.75120204 | H | -5.2745293 | 3.82855709 | 3.78789745 |
| C | -3.6435974 | 1.31978219 | 2.1461239 | H | -4.745159 | 3.07311292 | 1.50247554 |
| C | -3.2340219 | 0.57729659 | 3.26172717 | H | -1.4211904 | 3.5205729 | 2.56183127 |
| C | -3.5408621 | 1.00944257 | 4.55283415 | H | -0.6156215 | 4.98905776 | 2.08330594 |
| C | -4.2678641 | 2.18254054 | 4.74215331 | H | -2.1354595 | 4.53555916 | 1.28778353 |
| C | -4.6965718 | 2.91966185 | 3.640679 | H | 1.8857729 | 5.46458811 | 0.52801616 |
| C | -4.3910537 | 2.48856985 | 2.34885149 | H | 1.14280282 | 5.70487407 | -1.0657188 |
| C | -1.1965827 | 4.14860374 | 1.69348056 | H | 0.19473211 | 5.98385856 | 0.37528546 |
| C | 0.96507196 | 5.335576 | -0.0498316 | H | 0.63105742 | 2.66021806 | -2.7494974 |
| O | 1.13928066 | 3.37598634 | -2.3253117 | H | 4.02672975 | 1.01445341 | -2.3355803 |
| H | 1.84758649 | 1.45063919 | 0.35672697 | H | 1.37525367 | -6.3088632 | -2.9521637 |
| O | 3.59831183 | 1.13546386 | -1.4692312 | H | 1.11364778 | -7.1710418 | -1.4230636 |
| H | 2.71910241 | -0.9542897 | -0.2894408 | H | -0.1166317 | -6.0250722 | -1.9942111 |
| H | 0.27305633 | -1.2267801 | -2.109378 | H | -0.0854657 | -3.6754658 | -2.8038043 |
| C | 1.6488071 | -5.1137587 | -1.1983065 | H | 4.7846353 | -3.4834078 | -3.1591671 |
| O | 2.25388047 | -5.3456957 | -0.1472428 | H | 3.84192814 | -4.9427802 | -2.852073 |
| C | 0.95662466 | -6.2235823 | -1.9465062 | H | 3.28537558 | -3.764741 | -4.0541196 |
| O | 0.86678818 | -3.6519348 | -3.0370997 | H | -0.9817606 | -3.1369656 | 0.08842685 |
| C | 3.76459095 | -3.8742078 | -3.0756544 | H | 0.02245325 | -2.113736 | 4.07529262 |
| H | -0.8212718 | 1.46009647 | 1.52894484 | H | 1.58518299 | -1.7517909 | 3.30934081 |
| O | -0.6034992 | -3.2979508 | -0.8056034 | H | 0.47889167 | -0.4217511 | 3.79849471 |
| conformer 3a_4 | | | | | | | |
| C | -0.7803421 | 3.37396479 | 1.2145722 | O | 0.33520819 | -0.5568187 | 1.82783782 |
| C | 1.49985749 | 1.79481875 | 0.41644758 | O | -1.1158125 | -2.3296179 | 1.8247405 |
| C | 1.51904008 | 3.31927192 | 0.18794564 | C | -0.3834054 | -1.5503419 | 2.4188998 |
| C | 0.33877834 | 4.02463961 | 0.8196124 | C | -0.1266574 | -1.5705164 | 3.89314141 |
| C | 0.15952446 | -0.3620427 | 0.40135945 | H | 2.42721957 | 3.70776528 | 0.66670966 |
| C | 1.30605996 | -1.0656677 | -0.373647 | H | -0.7843882 | -0.8073143 | 0.07332015 |
| C | 2.67120089 | -0.4301106 | -0.0682889 | H | 2.62154222 | 1.29650256 | -1.3883084 |
| C | 2.65738174 | 1.09039575 | -0.3130556 | H | 1.47712775 | -2.7993802 | 0.95297947 |
| C | 1.35169287 | -2.5892523 | -0.1152248 | H | 4.14089185 | -2.7726108 | 0.37544673 |
| C | 2.4771251 | -3.29545 | -0.9119764 | H | 4.74852277 | -0.6594296 | -0.6599173 |
| C | 3.84581815 | -2.6171935 | -0.6716576 | H | 3.60290158 | -0.8950542 | -1.9732786 |
| C | 3.77509641 | -1.1001477 | -0.9083518 | H | -2.8339617 | 2.6363529 | -0.0686263 |
| C | 0.12001816 | 1.16994039 | 0.13631656 | H | -2.25623 | 1.63699421 | -2.1088362 |
| C | -1.0210111 | 1.8836343 | 0.93852485 | H | -2.806086 | -0.3623547 | 0.60611871 |
| C | -2.2874011 | 1.69341253 | 0.0510094 | H | -3.5185152 | 0.86216698 | 1.63004177 |

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|----------------|------------|------------|------------|---|------------|------------|------------|
| N | -1.7627728 | 1.38595332 | -1.2581159 | H | -5.5033072 | 2.20009165 | 0.83697664 |
| C | -0.3905372 | 1.37088839 | -1.2761794 | H | -7.5699663 | 2.10878564 | -0.5084453 |
| O | 0.29190822 | 1.49119941 | -2.2791036 | H | -7.8039587 | 0.44099742 | -2.3283026 |
| C | -3.2615924 | 0.63214681 | 0.58785358 | H | -5.9568084 | -1.1445792 | -2.8025401 |
| C | -4.5404005 | 0.56840249 | -0.2152961 | H | -3.8805066 | -1.0695613 | -1.4702944 |
| C | -5.5889819 | 1.4618336 | 0.0430562 | H | -2.3946624 | 3.33478858 | 2.64674753 |
| C | -6.7595019 | 1.41463596 | -0.7155013 | H | -1.4964441 | 4.83371754 | 2.66120924 |
| C | -6.8916462 | 0.47768492 | -1.7386375 | H | -2.6208258 | 4.49465594 | 1.32299374 |
| C | -5.8538682 | -0.4133171 | -2.0048377 | H | 1.30940261 | 5.69092498 | 1.76870656 |
| C | -4.6825395 | -0.3684546 | -1.2479188 | H | 0.91375322 | 5.95613519 | 0.05834798 |
| C | -1.8815584 | 4.05329329 | 1.9980545 | H | -0.3505744 | 6.05292264 | 1.26411568 |
| C | 0.55823311 | 5.5096825 | 0.9932177 | H | 1.15641723 | 3.06155421 | -1.7476078 |
| O | 1.59813589 | 3.7163168 | -1.1754699 | H | 4.49642395 | 1.70592819 | -0.5615964 |
| H | 1.68913993 | 1.66691475 | 1.49511554 | H | 2.87161908 | -5.8263893 | -2.2212362 |
| O | 3.88369938 | 1.62532792 | 0.19167777 | H | 2.2896314 | -6.8235769 | -0.8733409 |
| H | 2.9210582 | -0.6038691 | 0.98854402 | H | 1.15516805 | -5.7374157 | -1.7017866 |
| H | 1.09012221 | -0.9254665 | -1.4421252 | H | 1.17304099 | -3.3341843 | -2.3413936 |
| C | 2.53986963 | -4.7542942 | -0.3992058 | H | 5.91653832 | -2.736882 | -1.328653 |
| O | 2.85553387 | -5.0191724 | 0.76478231 | H | 5.07180101 | -4.2852546 | -1.3696659 |
| C | 2.18908067 | -5.8534723 | -1.3684314 | H | 4.7492866 | -3.0664411 | -2.6158229 |
| O | 2.14624066 | -3.2199563 | -2.3017625 | H | -0.5195803 | -3.0952678 | 0.2110865 |
| C | 4.95465472 | -3.2121715 | -1.5501719 | H | -0.7564274 | -2.3331214 | 4.35994038 |
| H | -1.1573925 | 1.41103741 | 1.91886148 | H | 0.92148083 | -1.8147881 | 4.08218787 |
| O | 0.100911 | -3.1549229 | -0.5505322 | H | -0.3804941 | -0.5998173 | 4.3266447 |
| conformer 3a_5 | | | | | | | |
| C | -0.8690199 | 3.22548092 | 0.68874908 | O | 0.61689649 | -0.4835653 | 1.13148777 |
| C | 1.04182649 | 1.71194133 | -0.8102237 | O | -0.6202195 | -2.2808153 | 1.83004129 |
| C | 0.83794601 | 3.20077805 | -1.148702 | C | 0.19750453 | -1.3975189 | 2.0483594 |
| C | 0.00788154 | 3.89504435 | -0.0946021 | C | 0.89631618 | -1.1817794 | 3.35395725 |
| C | -0.0343499 | -0.4930134 | -0.1672364 | H | 1.81791627 | 3.69047597 | -1.2038803 |
| C | 0.86973428 | -1.2402233 | -1.1850519 | H | -0.9927652 | -1.0190669 | -0.1092726 |
| C | 2.18908237 | -0.48786 | -1.4318462 | H | 1.51236807 | 1.02398416 | -2.8292653 |
| C | 1.94146685 | 0.98339856 | -1.8243297 | H | 1.63957501 | -2.7384067 | 0.21300029 |
| C | 1.1566741 | -2.7017354 | -0.7701215 | H | 3.96392528 | -2.6368759 | -1.2351176 |
| C | 2.03658946 | -3.4524808 | -1.8025018 | H | 3.96444213 | -0.6720582 | -2.6676201 |
| C | 3.32589814 | -2.6617843 | -2.1295339 | H | 2.48192791 | -1.174087 | -3.4701996 |
| C | 3.0181051 | -1.2050336 | -2.5124869 | H | -3.2065159 | 2.45796306 | 0.01793834 |
| C | -0.2962899 | 0.98712595 | -0.5679805 | H | -3.2363888 | 1.27194823 | -2.0617485 |
| C | -1.1765627 | 1.73149241 | 0.50137184 | H | -4.3957566 | 0.27323749 | 0.29301653 |
| C | -2.6424308 | 1.51838688 | 0.02158961 | H | -2.9198403 | -0.508034 | 0.7771992 |
| N | -2.5152842 | 1.13694416 | -1.3621464 | H | -2.6018431 | -0.7854479 | 3.09978054 |
| C | -1.2190738 | 0.97694323 | -1.7780201 | H | -3.0890103 | -0.1492752 | 5.43067429 |
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| C | -3.4394699 | 0.4559781 | 0.80267348 | H | -5.5029637 | 3.12458873 | 4.05395817 |
| C | -3.7477463 | 0.83544145 | 2.23051161 | H | -5.0254416 | 2.50933709 | 1.71538949 |
| C | -3.2216155 | 0.08719713 | 3.2923731 | H | -1.6653363 | 3.19011107 | 2.68930561 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -3.4993513 | 0.43917396 | 4.61402512 | H | -1.0995755 | 4.76850377 | 2.21463184 |
| C | -4.3131231 | 1.53614518 | 4.88797618 | H | -2.6201393 | 4.1537662 | 1.53887703 |
| C | -4.8573858 | 2.27630932 | 3.84081233 | H | 1.21753317 | 5.58313 | 0.45059583 |
| C | -4.5812222 | 1.92514153 | 2.51851236 | H | 0.27060811 | 5.81278021 | -1.0329722 |
| C | -1.6056411 | 3.87565769 | 1.83754418 | H | -0.523145 | 5.92404378 | 0.52131233 |
| C | 0.25252314 | 5.38246426 | -0.0255126 | H | 0.71230971 | 3.01815841 | -3.0878084 |
| O | 0.17395609 | 3.41655654 | -2.3818272 | H | 3.69853219 | 1.49130202 | -1.089939 |
| H | 1.59608801 | 1.70812871 | 0.14275366 | H | 0.80731966 | -6.0627876 | -1.763921 |
| O | 3.19450482 | 1.66834291 | -1.9032183 | H | 2.25841274 | -6.1364093 | -2.8187821 |
| H | 2.78555451 | -0.4994789 | -0.5080371 | H | 2.26150037 | -6.932138 | -1.2322814 |
| H | 0.31133099 | -1.281555 | -2.1295861 | H | 0.35012899 | -3.7851681 | -2.6939411 |
| C | 2.42600089 | -4.8024014 | -1.1541318 | H | 5.06759185 | -2.7558764 | -3.4299547 |
| O | 3.13464115 | -4.8544115 | -0.1439262 | H | 4.42586617 | -4.3402431 | -2.9927847 |
| C | 1.89952931 | -6.0632541 | -1.7893563 | H | 3.58549184 | -3.3442622 | -4.1946402 |
| O | 1.26889886 | -3.6237469 | -2.9965714 | H | -0.4635471 | -3.2409178 | 0.20957872 |
| C | 4.14263543 | -3.3154551 | -3.2524209 | H | 0.7019425 | -0.1683631 | 3.71436667 |
| H | -1.0249341 | 1.27712029 | 1.48682941 | H | 0.51142986 | -1.8911813 | 4.09200002 |
| O | -0.0978083 | -3.4032306 | -0.6889144 | H | 1.96919113 | -1.3484748 | 3.23112162 |
| conformer 3a_6 | | | | | | | |
| C | 0.03542248 | 3.42127249 | 0.93472667 | O | 0.37447288 | -0.6955741 | 1.78433588 |
| C | 1.85617469 | 1.28083321 | 0.21953857 | O | -1.8264953 | -0.7262652 | 2.4381781 |
| C | 2.24387741 | 2.74243672 | -0.060941 | C | -0.6366748 | -0.8530415 | 2.6782109 |
| C | 1.27290079 | 3.75350111 | 0.49998045 | C | -0.0750421 | -1.1742621 | 4.02882512 |
| C | 0.04352648 | -0.4774669 | 0.3843875 | H | 3.20783154 | 2.91606586 | 0.43543897 |
| C | 0.92524654 | -1.4635731 | -0.4318454 | H | -1.0051832 | -0.7212862 | 0.19252844 |
| C | 2.42242786 | -1.1802818 | -0.2124911 | H | 2.72156891 | 0.43453884 | -1.6144 |
| C | 2.76853696 | 0.2857505 | -0.5307047 | H | 0.73289901 | -3.0918687 | 0.99124934 |
| C | 0.60876237 | -2.9354548 | -0.0853831 | H | 3.28082273 | -3.7887429 | 0.32159326 |
| C | 1.48355518 | -3.9356047 | -0.8756969 | H | 4.34603703 | -1.9440027 | -0.8664987 |
| C | 2.9878362 | -3.6166979 | -0.722572 | H | 3.11197766 | -1.9542911 | -2.1194901 |
| C | 3.28287633 | -2.1423084 | -1.0512684 | H | -2.1481416 | 3.14094798 | -0.2846779 |
| C | 0.35112487 | 1.00223936 | 0.00816273 | H | -1.8684781 | 1.92706989 | -2.2652829 |
| C | -0.5683656 | 2.01896003 | 0.76284964 | H | -2.935955 | 0.26104635 | 0.38809844 |
| C | -1.8584647 | 2.09738806 | -0.1134006 | H | -3.2072546 | 1.58719898 | 1.51009254 |
| N | -1.4426779 | 1.60359187 | -1.4031444 | H | -4.7543352 | 3.46800133 | 0.90486762 |
| C | -0.119409 | 1.24908361 | -1.4156023 | H | -6.8072792 | 4.06789586 | -0.3281968 |
| O | 0.5554867 | 1.17138874 | -2.4280546 | H | -7.5847658 | 2.66325059 | -2.2182956 |
| C | -3.0735365 | 1.34450131 | 0.44857172 | H | -6.2996314 | 0.64578912 | -2.8746774 |
| C | -4.3481087 | 1.70423368 | -0.2853945 | H | -4.243265 | 0.02975443 | -1.6540444 |
| C | -5.0809775 | 2.84270617 | 0.07732611 | H | -1.5351923 | 3.87421844 | 2.34653558 |
| C | -6.241937 | 3.18574934 | -0.6171264 | H | -0.283771 | 5.09300279 | 2.2902724 |
| C | -6.6793315 | 2.39677333 | -1.6794952 | H | -1.4604874 | 4.97736682 | 0.95859343 |
| C | -5.9572584 | 1.2633927 | -2.0483887 | H | 2.62700015 | 5.20042728 | 1.33338125 |
| C | -4.7962088 | 0.91822619 | -1.3556983 | H | 2.28099818 | 5.43523017 | -0.3922579 |
| C | -0.8569898 | 4.40079049 | 1.66600941 | H | 1.09439328 | 5.91360136 | 0.80147723 |
| C | 1.84308161 | 5.15153837 | 0.57075945 | H | 1.7491175 | 2.62888039 | -1.9705643 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| O | 2.46997042 | 3.01543623 | -1.4365788 | H | 4.44829127 | 1.26111726 | -0.6710986 |
| H | 2.05495459 | 1.14248723 | 1.29467857 | H | 1.98488197 | -5.2953765 | 1.54392505 |
| O | 4.12492854 | 0.50970575 | -0.1375949 | H | 0.19574094 | -5.3674452 | 1.45080051 |
| H | 2.67893862 | -1.3675066 | 0.84047161 | H | 1.17636991 | -6.816232 | 1.14054939 |
| H | 0.68368264 | -1.3146785 | -1.4928062 | H | 1.21737233 | -4.7048787 | -2.6537019 |
| C | 1.18558062 | -5.3899964 | -0.4468572 | H | 4.93717637 | -4.2599509 | -1.4439213 |
| O | 1.01384517 | -6.2620583 | -1.3068525 | H | 3.75703774 | -5.5651571 | -1.3453576 |
| C | 1.1314685 | -5.7298978 | 1.01957011 | H | 3.66111159 | -4.3808992 | -2.662027 |
| O | 1.10202867 | -3.8119374 | -2.2628464 | H | -0.807663 | -3.2707368 | -1.3719343 |
| C | 3.88089107 | -4.5074429 | -1.5969024 | H | -0.8953243 | -1.3670518 | 4.72607666 |
| H | -0.7995513 | 1.66552447 | 1.77240831 | H | 0.54449574 | -2.0728111 | 3.9685135 |
| O | -0.7682321 | -3.1806709 | -0.3959582 | H | 0.50926593 | -0.3274649 | 4.39704619 |
| conformer 3a_7 | | | | | | | |
| C | -0.4921893 | 3.19867051 | 0.81474943 | O | 0.60355208 | -0.8158366 | 1.07723776 |
| C | 1.36268672 | 1.46111694 | -0.5690205 | O | -1.2309424 | -1.8056883 | 2.04402283 |
| C | 1.44971421 | 2.98256602 | -0.7703068 | C | -0.0662697 | -1.4439868 | 2.07835598 |
| C | 0.52657956 | 3.7683719 | 0.12934756 | C | 0.83667006 | -1.6160036 | 3.26080309 |
| C | -0.0811233 | -0.5837499 | -0.1843164 | H | 2.47464456 | 3.27899613 | -0.510539 |
| C | 0.71009195 | -1.3454368 | -1.2852712 | H | -1.1028671 | -0.9748016 | -0.1571519 |
| C | 2.15842453 | -0.8327087 | -1.3807631 | H | 1.85938081 | 0.90126622 | -2.63406 |
| C | 2.19615341 | 0.68894078 | -1.61404 | H | 1.08856768 | -3.0932067 | -0.0561575 |
| C | 0.69716683 | -2.8721531 | -1.0543424 | H | 3.48162214 | -3.2961643 | -1.3352667 |
| C | 1.49753005 | -3.6475606 | -2.1258507 | H | 3.96425756 | -1.2175032 | -2.5214026 |
| C | 2.93433014 | -3.0978015 | -2.2663221 | H | 2.48578758 | -1.3400151 | -3.465636 |
| C | 2.9275318 | -1.575137 | -2.4882741 | H | -2.8390502 | 2.68469541 | 0.04402219 |
| C | -0.0909653 | 0.95056138 | -0.450893 | H | -2.9007105 | 1.64132691 | -2.0309916 |
| C | -0.9288623 | 1.7372552 | 0.6154216 | H | -4.2593135 | 0.5890147 | 0.19590404 |
| C | -2.393587 | 1.68329287 | 0.06932209 | H | -2.9243577 | -0.2542264 | 0.92037038 |
| N | -2.2506103 | 1.3216393 | -1.3211148 | H | -2.752839 | -0.2116188 | 3.3111501 |
| C | -0.9331478 | 1.21555068 | -1.6834481 | H | -3.462248 | 0.69400075 | 5.48930231 |
| O | -0.5311347 | 1.33911761 | -2.8278477 | H | -4.938136 | 2.68483913 | 5.59694701 |
| C | -3.3591993 | 0.74233169 | 0.80737366 | H | -5.7138198 | 3.76479842 | 3.50334426 |
| C | -3.8064412 | 1.27928926 | 2.146666 | H | -5.0133826 | 2.87532581 | 1.3130068 |
| C | -3.387927 | 0.67061865 | 3.33633593 | H | -1.51368 | 3.26958521 | 2.71122234 |
| C | -3.7909697 | 1.17739659 | 4.57295939 | H | -0.6957363 | 4.75846583 | 2.32778307 |
| C | -4.6216066 | 2.2940484 | 4.63353788 | H | -2.1974975 | 4.35042672 | 1.47497399 |
| C | -5.0564626 | 2.90038813 | 3.45737595 | H | 1.80433863 | 5.348995 | 0.83058877 |
| C | -4.6549689 | 2.39393142 | 2.22025763 | H | 1.08831385 | 5.64662579 | -0.7659836 |
| C | -1.2688502 | 3.9407 | 1.88170065 | H | 0.10790757 | 5.8466789 | 0.6662152 |
| C | 0.89752417 | 5.23025161 | 0.22905911 | H | 0.51789874 | 2.90531848 | -2.512547 |
| O | 1.26559606 | 3.39380827 | -2.1173283 | H | 3.62784946 | 1.94032959 | -2.0383584 |
| H | 1.84105648 | 1.28284175 | 0.40775799 | H | 0.995912 | -5.4550081 | 0.24086946 |
| O | 3.55955001 | 1.1106016 | -1.5280631 | H | 2.07575032 | -6.6924886 | -0.4369367 |
| H | 2.68362924 | -1.045269 | -0.4381839 | H | 2.72968678 | -5.0965031 | -0.0433325 |
| H | 0.20139168 | -1.1547613 | -2.2399144 | H | 0.93461932 | -4.3072466 | -3.8784383 |
| C | 1.51734422 | -5.1610118 | -1.8141914 | H | 4.73623628 | -3.3525687 | -3.4590077 |

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|-----------------------|------------|------------|------------|---|------------|------------|------------|
| O | 1.28115613 | -5.9770927 | -2.7130381 | H | 3.81433232 | -4.8398298 | -3.2497061 |
| C | 1.84973915 | -5.6222671 | -0.419378 | H | 3.24455967 | -3.5950396 | -4.3771558 |
| O | 0.7919823 | -3.4771319 | -3.3743831 | H | -0.9164179 | -3.3280912 | -2.0372774 |
| C | 3.72089906 | -3.7607427 | -3.4053265 | H | 0.30235874 | -2.1527829 | 4.04986361 |
| H | -0.8539817 | 1.25265379 | 1.59510163 | H | 1.71358771 | -2.2025222 | 2.97507673 |
| O | -0.6639907 | -3.3158047 | -1.0898193 | H | 1.13537448 | -0.6368725 | 3.64335894 |
| conformer 3a_8 | | | | | | | |
| C | -1.6938991 | 2.78961699 | 1.53006034 | O | 0.0114467 | -0.8668127 | 1.72109234 |
| C | 0.96243394 | 1.84393259 | 0.99096857 | O | -1.0412913 | -2.8099062 | 1.11729966 |
| C | 0.69220244 | 3.35731004 | 1.01971241 | C | -0.6281976 | -2.0407699 | 1.9742273 |
| C | -0.6768797 | 3.68013622 | 1.57710221 | C | -0.7261222 | -2.270499 | 3.44984365 |
| C | 0.13813915 | -0.4589756 | 0.33311185 | H | 1.45562363 | 3.83920403 | 1.64256453 |
| C | 1.55587655 | -0.8246544 | -0.1873766 | H | -0.5973202 | -0.9863657 | -0.2837235 |
| C | 2.65257087 | -0.0058327 | 0.51673858 | H | 2.50336016 | 1.89289142 | -0.5561229 |
| C | 2.36721653 | 1.5105148 | 0.46097968 | H | 1.77725965 | -2.6810177 | 0.9529325 |
| C | 1.86042189 | -2.336857 | -0.0842233 | H | 4.44610971 | -2.0776656 | 1.06981998 |
| C | 3.26245394 | -2.7008761 | -0.6357268 | H | 4.81033008 | 0.23658691 | 0.43289234 |
| C | 4.36627163 | -1.8263917 | 0.00298028 | H | 4.05683183 | -0.0015732 | -1.1386943 |
| C | 4.03022941 | -0.328875 | -0.0910082 | H | -3.1753597 | 2.22177787 | -0.4487016 |
| C | -0.149611 | 1.0695388 | 0.26000266 | H | -1.9596861 | 1.66766582 | -2.4562815 |
| C | -1.5673587 | 1.42642176 | 0.83641115 | H | -2.7852164 | -0.8317626 | -0.427749 |
| C | -2.5252919 | 1.34149312 | -0.3819462 | H | -3.9357024 | 0.00807633 | 0.58866373 |
| N | -1.6561254 | 1.40715459 | -1.5246128 | H | -5.8709303 | 1.26599846 | -0.4317737 |
| C | -0.3188334 | 1.40576414 | -1.2175996 | H | -7.5042827 | 1.26064317 | -2.2820962 |
| O | 0.55942887 | 1.53047862 | -2.0542675 | H | -6.996697 | 0.06345391 | -4.3935361 |
| C | -3.3976858 | 0.07425872 | -0.3659754 | H | -4.8405861 | -1.1348938 | -4.6521302 |
| C | -4.4131168 | 0.05787173 | -1.4854216 | H | -3.1929749 | -1.1410127 | -2.8147561 |
| C | -5.6328584 | 0.73491844 | -1.3503464 | H | -3.4623253 | 2.09221297 | 2.55029824 |
| C | -6.559318 | 0.73539916 | -2.3941462 | H | -2.9637994 | 3.68722914 | 3.05726287 |
| C | -6.2747019 | 0.0629287 | -3.5811532 | H | -3.7380875 | 3.47218683 | 1.47031516 |
| C | -5.0635648 | -0.6107437 | -3.7262821 | H | -0.2287061 | 5.07695962 | 3.14396024 |
| C | -4.1357406 | -0.613211 | -2.6841278 | H | -0.3476052 | 5.80800401 | 1.53211041 |
| C | -3.0353711 | 3.03243537 | 2.18428599 | H | -1.806745 | 5.36678568 | 2.38894312 |
| C | -0.7780012 | 5.05223754 | 2.19733439 | H | 0.63358543 | 4.86944597 | -0.2110754 |
| O | 0.77905738 | 3.91284405 | -0.2825078 | H | 4.11175291 | 2.33508148 | 0.75323835 |
| H | 0.9474975 | 1.52915547 | 2.04730752 | H | 3.77563397 | -6.1794426 | -0.9834674 |
| O | 3.32200777 | 2.17236033 | 1.29965199 | H | 2.6514816 | -5.1961997 | -1.9435609 |
| H | 2.69356607 | -0.3013835 | 1.57549065 | H | 4.42244954 | -4.9227695 | -2.0570201 |
| H | 1.57216943 | -0.5736835 | -1.2558387 | H | 2.35111031 | -2.7450415 | -2.343109 |
| C | 3.51375939 | -4.1826389 | -0.2666833 | H | 6.50926092 | -1.4721399 | -0.1235976 |
| O | 3.63315151 | -4.5477204 | 0.90702186 | H | 6.04065806 | -3.1228495 | -0.5344175 |
| C | 3.59460686 | -5.1812575 | -1.3923755 | H | 5.7576166 | -1.807633 | -1.6888215 |
| O | 3.25188785 | -2.4900059 | -2.050741 | H | 0.09734158 | -3.1809596 | -0.3205117 |
| C | 5.74400785 | -2.0734029 | -0.6266495 | H | -1.2986489 | -3.1833325 | 3.63700241 |
| H | -1.854261 | 0.68895726 | 1.59613765 | H | 0.274591 | -2.3888547 | 3.87240301 |
| O | 0.89456287 | -3.0486647 | -0.8813556 | H | -1.2470604 | -1.433256 | 3.92134345 |

Table S4. Cartesian coordinates for the low-energy optimized conformers of **4a** at B3LYP-D3(BJ)/6-311G* level.

| conformer 4a_1 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -0.4174462 | 1.65888626 | 2.8225526 | O | -1.3940816 | 1.11000732 | -2.6798823 |
| C | 0.0690941 | -0.937653 | 1.71579484 | C | -1.9872739 | 0.62721707 | -1.7247775 |
| C | 0.40638154 | -0.6861839 | 3.19974221 | C | -3.4728219 | 0.6404923 | -1.5447052 |
| C | -0.1629787 | 0.63776895 | 3.67279018 | H | -0.0513332 | -1.4859716 | 3.798564 |
| C | 0.06020865 | -0.0435489 | -0.6542114 | H | 0.46854396 | 0.74093906 | -1.2997381 |
| C | 0.55630632 | -1.4158712 | -1.1837246 | H | 1.66482232 | -2.3749978 | 1.31174278 |
| C | 0.15085353 | -2.569239 | -0.2479252 | H | -1.0061682 | -1.6864251 | -2.694902 |
| C | 0.57751182 | -2.3006999 | 1.21243416 | H | -0.8014177 | -4.3613602 | -2.1747422 |
| C | 0.08771525 | -1.701991 | -2.62918 | H | 0.41891674 | -4.7223021 | -0.1115126 |
| C | 0.61533986 | -3.0556572 | -3.1676525 | H | 1.83280157 | -3.862512 | -0.7083959 |
| C | 0.28737676 | -4.2141425 | -2.1976577 | H | 1.30188766 | 3.27456707 | 1.86032001 |
| C | 0.73673666 | -3.8983152 | -0.7612826 | H | 3.19593662 | 2.16455712 | 0.86690803 |
| C | 0.50376905 | 0.23144447 | 0.81114377 | H | 1.7009479 | 4.09544413 | -0.4739789 |
| C | -0.0501575 | 1.60793022 | 1.33224099 | H | 0.59888177 | 2.91180419 | -1.1121839 |
| C | 1.06875474 | 2.63707552 | 0.99995764 | H | -1.5978811 | 3.65567575 | -1.5635673 |
| N | 2.24243478 | 1.83182361 | 0.78415924 | H | -3.4361077 | 5.26335577 | -1.2301829 |
| C | 2.00645569 | 0.48135417 | 0.7883554 | H | -3.2285017 | 7.06818341 | 0.45784522 |
| O | 2.89102433 | -0.3516358 | 0.67772873 | H | -1.1597016 | 7.26682179 | 1.81056766 |
| C | 0.79314134 | 3.52742713 | -0.2271386 | H | 0.68956618 | 5.66699832 | 1.49696711 |
| C | -0.3279602 | 4.51937628 | -0.0348366 | H | -1.8010194 | 3.27114703 | 2.46589977 |
| C | -1.4946491 | 4.42920218 | -0.8060477 | H | -1.7323622 | 2.7983695 | 4.14054176 |
| C | -2.536154 | 5.3404534 | -0.6254529 | H | -0.3871217 | 3.72341627 | 3.44510828 |
| C | -2.4187915 | 6.35624181 | 0.32064451 | H | -0.5969029 | 1.69473803 | 5.53836414 |
| C | -1.2565791 | 6.46708785 | 1.08070011 | H | -1.2618925 | 0.05505495 | 5.42300459 |
| C | -0.2138244 | 5.55693177 | 0.90091782 | H | 0.47040159 | 0.3221267 | 5.70373861 |
| C | -1.1146384 | 2.93104232 | 3.24835043 | H | 0.54814097 | -4.1166365 | 1.94012005 |
| C | -0.4075999 | 0.68725025 | 5.16080585 | H | 1.20061891 | -2.2986138 | -5.8862612 |
| H | -1.0315259 | -0.9918102 | 1.67977305 | H | 1.50102948 | -4.060949 | -5.7196269 |
| O | 0.00499126 | -3.3156669 | 2.04545167 | H | 0.10128547 | -3.4723461 | -6.6385692 |
| H | -0.9437445 | -2.6756648 | -0.2642125 | H | 2.19649147 | -2.03118 | -3.6127089 |
| H | 1.65241213 | -1.3638326 | -1.2123832 | H | 0.58001051 | -5.8262518 | -3.6430483 |
| C | -0.099928 | -3.3068276 | -4.5168772 | H | 2.0101659 | -5.4887394 | -2.6514778 |
| O | -1.3165492 | -3.5095566 | -4.5780296 | H | 0.62940927 | -6.3496274 | -1.958757 |
| C | 0.73734943 | -3.2810794 | -5.769553 | H | -0.016432 | 0.08453374 | -3.4485629 |
| O | 2.03431354 | -2.9522095 | -3.3170338 | H | 3.3873198 | -1.5627876 | 4.32729157 |
| C | 0.9165101 | -5.5420723 | -2.6411184 | H | 1.85082155 | -1.6798596 | 5.20770281 |
| H | -0.9727708 | 1.86026882 | 0.79776037 | H | 2.12377911 | -2.6544325 | 3.72898458 |
| O | 0.61200099 | -0.6712176 | -3.4874145 | H | -3.9316413 | 1.20175639 | -2.3635869 |
| O | 1.81274536 | -0.6219165 | 3.42269085 | H | -3.8564609 | -0.3825072 | -1.5606105 |
| C | 2.3076817 | -1.6921483 | 4.21376122 | H | -3.7267366 | 1.13333675 | -0.6027302 |
| O | -1.3917325 | -0.0156686 | -0.6851862 | | | | |

| conformer 4a_2 | | | | | | | |
|-----------------------|--|--|--|--|--|--|--|
|-----------------------|--|--|--|--|--|--|--|

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | 0.09666166 | 3.25313288 | 1.30584919 | O | -0.745675 | 0.14286092 | -3.3132352 |
| C | -1.0689724 | 0.66390269 | 1.72186931 | C | -1.5614335 | 0.66533908 | -2.5661479 |
| C | -0.7186354 | 1.53215152 | 2.94816472 | C | -2.7421456 | 1.46818988 | -3.0146251 |
| C | -0.3713825 | 2.95199165 | 2.53854671 | H | -1.5983136 | 1.57339336 | 3.60553673 |
| C | -0.4175047 | -0.1172166 | -0.6011358 | H | 0.41912723 | -0.1699859 | -1.3064246 |
| C | -0.8395081 | -1.567394 | -0.2394722 | H | -0.664336 | -1.2799687 | 2.63310136 |
| C | -1.9094223 | -1.5911189 | 0.86742543 | H | -2.161435 | -1.8834979 | -1.9570718 |
| C | -1.4750144 | -0.7707105 | 2.10267552 | H | -3.6666408 | -3.4371905 | -0.287248 |
| C | -1.31247 | -2.3760147 | -1.4694967 | H | -3.0247593 | -3.0583822 | 2.02008727 |
| C | -1.7009572 | -3.8323931 | -1.110699 | H | -1.3542923 | -3.5138159 | 1.7091775 |
| C | -2.7174448 | -3.873792 | 0.05342925 | H | 2.46778541 | 2.92628062 | 0.46945021 |
| C | -2.2379361 | -3.0450148 | 1.25658214 | H | 3.34041615 | 0.71145763 | 0.76865544 |
| C | 0.02892244 | 0.70438151 | 0.64382732 | H | 1.79097083 | 1.38687032 | -2.1092015 |
| C | 0.40249964 | 2.17913801 | 0.25683522 | H | 1.73847191 | 3.13117026 | -1.9761912 |
| C | 1.92265852 | 2.13411024 | -0.0573743 | H | 3.84664846 | 4.4458712 | -1.5071154 |
| N | 2.37552967 | 0.89624672 | 0.51775554 | H | 6.27105386 | 4.5524371 | -1.9568208 |
| C | 1.37644116 | 0.13984734 | 1.07541372 | H | 7.52189037 | 2.49754196 | -2.5586467 |
| O | 1.5789628 | -0.8854562 | 1.70430595 | H | 6.3366288 | 0.32402504 | -2.7101012 |
| C | 2.21962114 | 2.23485872 | -1.5635143 | H | 3.91285238 | 0.19543438 | -2.2627984 |
| C | 3.69992403 | 2.31282529 | -1.8581831 | H | 0.15398025 | 4.76218539 | -0.2342074 |
| C | 4.37950321 | 3.53555934 | -1.7716696 | H | -0.313406 | 5.39289725 | 1.32539469 |
| C | 5.75056119 | 3.60063597 | -2.0242216 | H | 1.38602595 | 4.95812755 | 1.02670683 |
| C | 6.45419398 | 2.44615127 | -2.3622324 | H | -1.6594608 | 4.08627246 | 3.82831377 |
| C | 5.78819714 | 1.22512674 | -2.4477945 | H | -0.1075771 | 3.63165418 | 4.56144786 |
| C | 4.41739704 | 1.15735156 | -2.1961193 | H | -0.1694544 | 4.94793461 | 3.41173528 |
| C | 0.34744186 | 4.6691773 | 0.84013829 | H | -2.6369502 | -1.5334087 | 3.47917579 |
| C | -0.5887082 | 3.96433942 | 3.63588075 | H | -1.4923943 | -6.4014166 | -2.4014385 |
| H | -1.9703224 | 1.13113938 | 1.29188452 | H | -2.1911464 | -5.8808562 | -3.9477211 |
| O | -2.585628 | -0.6856846 | 3.00320336 | H | -0.6420381 | -5.1921325 | -3.4204205 |
| H | -2.8373841 | -1.1474603 | 0.47787197 | H | 0.19566301 | -4.1699723 | -1.3015001 |
| H | 0.05938524 | -2.0701689 | 0.1404844 | H | -3.7707544 | -5.3037445 | 1.31049422 |
| C | -2.3530977 | -4.4426649 | -2.3745759 | H | -3.4077149 | -5.9157452 | -0.304069 |
| O | -3.4345041 | -4.033309 | -2.8082011 | H | -2.1212094 | -5.7998015 | 0.90997162 |
| C | -1.6149526 | -5.5522408 | -3.0780309 | H | -0.2544421 | -1.627892 | -2.9517228 |
| O | -0.5120029 | -4.5276189 | -0.7241377 | H | -0.6004774 | -0.2719418 | 4.90762353 |
| C | -3.0160374 | -5.3064232 | 0.51639998 | H | 1.04043439 | 0.18590912 | 5.40172208 |
| H | -0.1589109 | 2.48142471 | -0.6357166 | H | -0.2786245 | 1.36122606 | 5.57112871 |
| O | -0.2235959 | -2.448132 | -2.4093951 | H | -2.7067396 | 1.5883586 | -4.1010792 |
| O | 0.41781008 | 1.02772219 | 3.64485438 | H | -3.6653147 | 0.94850973 | -2.7469174 |
| C | 0.11572441 | 0.55283107 | 4.94838823 | H | -2.7113806 | 2.46001027 | -2.5563406 |
| O | -1.5408766 | 0.57456305 | -1.2084945 | | | | |

| conformer 4a_3 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | 0.26776495 | 2.4131383 | 2.23569129 | O | -0.6179342 | 0.74514118 | -3.0544785 |
| C | -0.4103719 | -0.3411895 | 1.88926408 | C | -1.403618 | 0.85893404 | -2.123701 |
| C | -0.0421982 | 0.15833839 | 3.30225593 | C | -2.7294448 | 1.54844391 | -2.2027405 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | 0.0103012 | 1.67347642 | 3.33905461 | H | -0.8235153 | -0.1709153 | 4.00143994 |
| C | 0.0788233 | -0.2628736 | -0.5985256 | H | 0.82097411 | 0.05332154 | -1.3388906 |
| C | -0.0719791 | -1.8053837 | -0.6885078 | H | 0.36003581 | -2.3710101 | 2.10926342 |
| C | -0.996101 | -2.348957 | 0.41408599 | H | -1.5257565 | -1.8247014 | -2.3248131 |
| C | -0.5672804 | -1.8696881 | 1.81752941 | H | -2.5702236 | -4.0632659 | -1.1308385 |
| C | -0.5603779 | -2.2802472 | -2.0765165 | H | -1.7175606 | -4.2653265 | 1.13673471 |
| C | -0.6819883 | -3.8232949 | -2.1692764 | H | -0.0495244 | -4.2953953 | 0.57922331 |
| C | -1.5301813 | -4.3966314 | -1.0089102 | H | 2.56687705 | 2.81048006 | 1.20853594 |
| C | -1.0442459 | -3.8866152 | 0.35771952 | H | 3.80526046 | 0.77406393 | 0.84007486 |
| C | 0.53809121 | 0.21605851 | 0.80903239 | H | 3.38858824 | 2.67844113 | -1.1532171 |
| C | 0.63663189 | 1.78460025 | 0.8828338 | H | 1.90775913 | 1.92193405 | -1.6613024 |
| C | 2.11011689 | 2.10835057 | 0.50192958 | H | 0.304127 | 3.33704378 | -2.661238 |
| N | 2.80768712 | 0.86278552 | 0.68513737 | H | -0.6486685 | 5.5774698 | -3.0456945 |
| C | 1.99384269 | -0.2022829 | 0.9726303 | H | 0.24222505 | 7.54214612 | -1.8224536 |
| O | 2.4167593 | -1.3216289 | 1.20859202 | H | 2.10758699 | 7.25781247 | -0.2135405 |
| C | 2.31294971 | 2.63276789 | -0.9328236 | H | 3.07263022 | 5.02565407 | 0.18988353 |
| C | 1.73730718 | 4.00591373 | -1.1798642 | H | -0.2459365 | 4.27403038 | 1.28019185 |
| C | 0.69588706 | 4.18286092 | -2.1009155 | H | -0.4522318 | 4.32269223 | 3.00922359 |
| C | 0.15681526 | 5.45016386 | -2.3269774 | H | 1.1866732 | 4.36172664 | 2.33045499 |
| C | 0.65902146 | 6.55461393 | -1.6424066 | H | -1.2982922 | 2.14508253 | 4.97457715 |
| C | 1.70664034 | 6.39430647 | -0.7382624 | H | 0.3534551 | 1.71487542 | 5.46174366 |
| C | 2.24733346 | 5.12767993 | -0.5115912 | H | 0.03605423 | 3.30078319 | 4.79995715 |
| C | 0.19108451 | 3.92288759 | 2.22080373 | H | -2.4362884 | -1.9990271 | 2.43173571 |
| C | -0.2406889 | 2.24759995 | 4.71159471 | H | -0.2944412 | -5.839029 | -4.1886409 |
| H | -1.412864 | 0.07323366 | 1.69199559 | H | -1.2315147 | -5.0139746 | -5.4501327 |
| O | -1.5647856 | -2.2739611 | 2.76449939 | H | 0.26728481 | -4.2697754 | -4.8563295 |
| H | -2.0187709 | -1.9888915 | 0.22932503 | H | 1.20599742 | -3.7387543 | -2.5918199 |
| H | 0.92973095 | -2.2299826 | -0.543811 | H | -2.1865133 | -6.3037605 | -0.1932492 |
| C | -1.3906978 | -4.1313068 | -3.5098539 | H | -1.9326243 | -6.3317873 | -1.9391386 |
| O | -2.5572901 | -3.7843909 | -3.7202323 | H | -0.5412913 | -6.3438165 | -0.8406001 |
| C | -0.6040934 | -4.8619544 | -4.5672078 | H | 0.18568573 | -0.9438542 | -3.3147978 |
| O | 0.63538795 | -4.3764542 | -2.1128068 | H | 0.63132697 | -2.1411946 | 4.46237667 |
| C | -1.5432751 | -5.9311788 | -0.9979954 | H | 2.21226259 | -1.5513096 | 5.00854415 |
| H | -0.0531362 | 2.23144601 | 0.15819882 | H | 0.73582775 | -0.8154609 | 5.66270602 |
| O | 0.40471366 | -1.8687661 | -3.0624327 | H | -2.7728401 | 2.3522756 | -1.4633754 |
| O | 1.24119737 | -0.2936651 | 3.72028655 | H | -2.8508869 | 1.98640668 | -3.1974963 |
| C | 1.18865204 | -1.2523065 | 4.76756069 | H | -3.5323297 | 0.82643807 | -2.0353179 |
| O | -1.2056093 | 0.3585902 | -0.8739641 | | | | |

| conformer 4a_4 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | 1.89832661 | 2.84188585 | 1.23008936 | O | -1.2172701 | 0.54242292 | -2.8882608 |
| C | 0.13978037 | 0.73398901 | 1.98860776 | C | -1.3905054 | 1.32450944 | -1.9643606 |
| C | 1.03825406 | 1.36642598 | 3.06553093 | C | -2.1299353 | 2.62095959 | -2.0742548 |
| C | 1.62871518 | 2.66494839 | 2.54426196 | H | 0.429166 | 1.59626119 | 3.95034921 |
| C | -0.103296 | -0.0015457 | -0.4151422 | H | 0.45313211 | -0.2611941 | -1.3233191 |
| C | -0.9405693 | -1.2334634 | 0.04334333 | H | 0.01819939 | -1.2915955 | 2.80016583 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | -1.6354828 | -0.9914827 | 1.39934128 | H | -2.6789005 | -0.9076626 | -1.2489245 |
| C | -0.6512316 | -0.4879259 | 2.48105867 | H | -4.1670985 | -1.9981563 | 0.76528164 |
| C | -1.9675861 | -1.7064074 | -1.0106975 | H | -2.872791 | -2.088733 | 2.81112866 |
| C | -2.750211 | -2.9654727 | -0.5600338 | H | -1.611833 | -3.0589932 | 2.0610516 |
| C | -3.3842331 | -2.7660887 | 0.83573801 | H | 3.87495077 | 1.45898962 | 0.62461996 |
| C | -2.3529576 | -2.2733653 | 1.86367296 | H | 3.88842852 | -0.8576696 | 0.17722055 |
| C | 0.90865576 | 0.45427905 | 0.68284738 | H | 3.94957163 | 2.64445542 | -1.4595745 |
| C | 1.74609456 | 1.70122826 | 0.21590747 | H | 4.71254946 | 1.08454532 | -1.6343152 |
| C | 3.14934693 | 1.13942509 | -0.137229 | H | 3.25510581 | -0.8624893 | -2.6864111 |
| N | 3.06612735 | -0.2819108 | 0.03757006 | H | 1.88670994 | -1.3206706 | -4.6837556 |
| C | 1.96923982 | -0.6360484 | 0.7831792 | H | 0.75453702 | 0.53342824 | -5.876504 |
| O | 1.87233638 | -1.716957 | 1.34122468 | H | 0.99525965 | 2.86146701 | -5.0625265 |
| C | 3.73649628 | 1.56864784 | -1.4931348 | H | 2.35086075 | 3.34418237 | -3.058836 |
| C | 2.8967972 | 1.27454903 | -2.7130855 | H | 1.9406637 | 4.32009929 | -0.3334203 |
| C | 2.76279346 | -0.0351427 | -3.1926514 | H | 2.14998404 | 5.0076341 | 1.2581185 |
| C | 1.99360371 | -0.2997846 | -4.3262228 | H | 3.48587143 | 4.1042469 | 0.51415551 |
| C | 1.35896068 | 0.74245405 | -4.9978837 | H | 0.9345998 | 4.0936007 | 3.98634934 |
| C | 1.49085158 | 2.0501645 | -4.5362524 | H | 2.4084399 | 3.22657945 | 4.46408727 |
| C | 2.2558441 | 2.31596717 | -3.3999646 | H | 2.50799661 | 4.52100487 | 3.29064925 |
| C | 2.40018059 | 4.13854885 | 0.64430095 | H | -1.6705202 | -0.8993645 | 4.10038329 |
| C | 1.88328763 | 3.68794728 | 3.62073491 | H | -4.5890834 | -4.3796517 | -3.2260656 |
| H | -0.6185915 | 1.50538693 | 1.77406871 | H | -2.8207868 | -4.26527 | -3.1251488 |
| O | -1.403352 | -0.0884421 | 3.63285519 | H | -3.7317741 | -5.2914568 | -1.9675875 |
| H | -2.4101832 | -0.2218476 | 1.26734133 | H | -1.2129502 | -3.9144835 | -1.25186 |
| H | -0.2302049 | -2.0605261 | 0.16760805 | H | -4.5281975 | -3.8591092 | 2.32940977 |
| C | -3.8735836 | -3.1881705 | -1.6018147 | H | -4.8228868 | -4.4030688 | 0.67681939 |
| O | -4.8443029 | -2.4291055 | -1.6831637 | H | -3.3201655 | -4.8516305 | 1.50310445 |
| C | -3.7378761 | -4.360388 | -2.5394157 | H | -1.1228859 | -1.2285388 | -2.7154524 |
| O | -1.8357338 | -4.0651555 | -0.5090209 | H | 2.08401922 | 0.81281522 | 5.45312344 |
| C | -4.0482033 | -4.0458676 | 1.36249913 | H | 1.15728733 | -0.5966223 | 4.84536278 |
| H | 1.26771348 | 2.13495999 | -0.6681592 | H | 2.93090969 | -0.6392189 | 4.88273796 |
| O | -1.2521878 | -2.0640867 | -2.2082504 | H | -1.4998417 | 3.43837887 | -1.7140113 |
| O | 2.14168942 | 0.52847638 | 3.40010087 | H | -2.372803 | 2.81127022 | -3.1235136 |
| C | 2.06208918 | 0.00337999 | 4.71721145 | H | -3.0575473 | 2.56737682 | -1.4994291 |
| O | -0.9778645 | 1.12787263 | -0.6835586 | | | | |

| conformer 4a_5 | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| C | -1.5911612 | 1.28820264 | 2.8402978 | O | -1.5894209 | 1.0730566 | -2.78769 |
| C | -0.6516779 | -1.1522809 | 1.67343342 | C | -2.2809561 | 0.46287705 | -1.9843092 |
| C | -0.5702827 | -0.9802995 | 3.20533398 | C | -3.7663035 | 0.30574323 | -2.0784836 |
| C | -1.3582203 | 0.23561862 | 3.65739123 | H | -1.0135053 | -1.8673754 | 3.67892332 |
| C | -0.3832318 | -0.0828345 | -0.6141794 | H | 0.03514106 | 0.78756268 | -1.1315525 |
| C | 0.34425479 | -1.3531677 | -1.1330627 | H | 1.1240875 | -2.398023 | 1.4410361 |
| C | -0.0820584 | -2.6079639 | -0.3524946 | H | -0.9092978 | -1.6599309 | -2.9009119 |
| C | 0.06374419 | -2.4180986 | 1.173003 | H | -0.5001887 | -4.343367 | -2.5006644 |
| C | 0.15447755 | -1.5759259 | -2.6512003 | H | 0.40391132 | -4.7228798 | -0.2755796 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | 0.90336127 | -2.8313863 | -3.1682212 | H | 1.78848873 | -3.683898 | -0.5876657 |
| C | 0.55450469 | -4.0852529 | -2.3313472 | H | 0.05760936 | 3.12701823 | 2.26033146 |
| C | 0.72643089 | -3.8297866 | -0.8251327 | H | 2.17505309 | 2.35485992 | 1.43536881 |
| C | -0.215297 | 0.11879907 | 0.92113519 | H | -0.219117 | 2.98038304 | -0.8023845 |
| C | -1.0023494 | 1.37990101 | 1.42785068 | H | -1.3256182 | 3.85708637 | 0.23219369 |
| C | 0.01445632 | 2.54938408 | 1.32938522 | H | -0.5249276 | 5.83786391 | 1.58155661 |
| N | 1.29477149 | 1.90702257 | 1.20524584 | H | 0.99686478 | 7.78072948 | 1.56176328 |
| C | 1.23197748 | 0.53826057 | 1.1449212 | H | 3.01619999 | 7.77180725 | 0.12254807 |
| O | 2.21596934 | -0.1817743 | 1.1459885 | H | 3.51343593 | 5.80481198 | -1.3041213 |
| C | -0.289778 | 3.50081143 | 0.1593552 | H | 2.00557234 | 3.8511613 | -1.2981651 |
| C | 0.62504099 | 4.7035043 | 0.13731135 | H | -2.9920261 | 2.85565896 | 2.36044964 |
| C | 0.35488888 | 5.81826366 | 0.94275311 | H | -3.2285431 | 2.19252879 | 3.95848901 |
| C | 1.21296036 | 6.91894562 | 0.93564847 | H | -1.8469416 | 3.2697053 | 3.65053957 |
| C | 2.34814973 | 6.91454181 | 0.12726315 | H | -2.1990449 | 1.0983912 | 5.48301862 |
| C | 2.62721845 | 5.80966506 | -0.674672 | H | -2.6134803 | -0.5985815 | 5.18603651 |
| C | 1.77077872 | 4.70807761 | -0.6697575 | H | -0.9911327 | -0.1401428 | 5.7425175 |
| C | -2.4570245 | 2.46356428 | 3.23241182 | H | -1.3879283 | -3.720665 | 1.46398494 |
| C | -1.8215785 | 0.15118682 | 5.09069926 | H | 0.98908221 | -3.0821084 | -6.6915108 |
| H | -1.7222528 | -1.3080867 | 1.46067252 | H | 1.84369544 | -1.8672056 | -5.7186553 |
| O | -0.5035643 | -3.5567819 | 1.83378222 | H | 2.27114248 | -3.6056851 | -5.5813657 |
| H | -1.1393274 | -2.8187087 | -0.5701343 | H | 2.41372546 | -1.6252905 | -3.2874697 |
| H | 1.41757552 | -1.1912873 | -0.9699809 | H | 1.09015102 | -6.1864093 | -2.1537835 |
| C | 0.43712018 | -3.0547432 | -4.6266505 | H | 1.25520294 | -5.5511535 | -3.7916375 |
| O | -0.7325249 | -3.3473702 | -4.8947647 | H | 2.45959086 | -5.1425006 | -2.5566664 |
| C | 1.45816253 | -2.8894139 | -5.7224107 | H | -0.002352 | 0.25058908 | -3.3706309 |
| O | 2.30786088 | -2.578031 | -3.080537 | H | 2.31607091 | -1.6270598 | 4.67801338 |
| C | 1.39156938 | -5.3070545 | -2.7335008 | H | 0.70444622 | -2.0300021 | 5.30233766 |
| H | -1.8602254 | 1.56873235 | 0.77088243 | H | 1.30300932 | -2.7805239 | 3.78979359 |
| O | 0.69829303 | -0.4393168 | -3.3479152 | H | -4.0166934 | -0.7447514 | -2.2450191 |
| O | 0.76475336 | -0.773776 | 3.6535397 | H | -4.2365079 | 0.67356254 | -1.1628984 |
| C | 1.28901155 | -1.8686504 | 4.39160299 | H | -4.1402397 | 0.89578474 | -2.9199683 |
| O | -1.8050332 | -0.1961178 | -0.8917155 | | | | |

| conformer 4a_6 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | 0.36366896 | 2.95582557 | 1.0854974 | O | -0.3143895 | 0.39914539 | -3.1222272 |
| C | -0.5084762 | 0.31344331 | 1.75748972 | C | -1.2583411 | 0.32603138 | -2.3519916 |
| C | -0.1751815 | 1.29887077 | 2.89529387 | C | -2.6610558 | 0.72214064 | -2.6961025 |
| C | -0.0105352 | 2.70845558 | 2.36182377 | H | -1.0123121 | 1.30019351 | 3.60730408 |
| C | 0.06826886 | -0.5739729 | -0.5447038 | H | 0.83014293 | -0.5944195 | -1.3323173 |
| C | -0.1660803 | -2.0292061 | -0.0463943 | H | 0.12216372 | -1.5110127 | 2.78635387 |
| C | -1.1721764 | -2.0686039 | 1.12070222 | H | -1.5498183 | -2.5624683 | -1.6314525 |
| C | -0.75689 | -1.1195547 | 2.26560673 | H | -2.8195872 | -4.1286999 | 0.18284368 |
| C | -0.6341729 | -2.963416 | -1.1846843 | H | -2.0995866 | -3.5326607 | 2.42993751 |
| C | -0.8678458 | -4.4150116 | -0.7071145 | H | -0.4144008 | -3.8733118 | 2.05779576 |
| C | -1.8239539 | -4.4610672 | 0.50555255 | H | 2.76062862 | 2.7579638 | 0.29201043 |
| C | -1.3559779 | -3.5116425 | 1.6242664 | H | 3.82005961 | 0.64681716 | 0.66270112 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | 0.52150171 | 0.37007704 | 0.60950084 | H | 3.69251927 | 1.71790914 | -1.8543729 |
| C | 0.76215304 | 1.8403001 | 0.10731617 | H | 2.09001249 | 1.17429374 | -2.2582022 |
| C | 2.28347773 | 1.91195744 | -0.2166752 | H | 0.77258578 | 2.62481828 | -3.6257166 |
| N | 2.84659455 | 0.73910701 | 0.39812087 | H | 0.3730986 | 4.83164009 | -4.6451146 |
| C | 1.92471571 | -0.060995 | 1.01768584 | H | 1.75852244 | 6.78301967 | -3.9899169 |
| O | 2.23347884 | -1.0240582 | 1.70092551 | H | 3.56192698 | 6.51095452 | -2.3085357 |
| C | 2.6291513 | 1.95871121 | -1.7159533 | H | 3.97613656 | 4.31032517 | -1.2756849 |
| C | 2.38719004 | 3.30609042 | -2.3540362 | H | 0.06295109 | 4.33366551 | -0.5436961 |
| C | 1.38233542 | 3.47037764 | -3.3155179 | H | -0.2496723 | 5.04893941 | 1.01257002 |
| C | 1.15491833 | 4.71804487 | -3.898738 | H | 1.42761611 | 4.743567 | 0.52079255 |
| C | 1.9340812 | 5.81315001 | -3.5323551 | H | 0.03456739 | 4.77207127 | 3.08659034 |
| C | 2.94635909 | 5.65988858 | -2.5878427 | H | -1.3726649 | 3.82022499 | 3.59378129 |
| C | 3.1752329 | 4.41251927 | -2.0047178 | H | 0.22291265 | 3.55452595 | 4.3248301 |
| C | 0.40912013 | 4.34671348 | 0.49479815 | H | -1.7416115 | -1.8593585 | 3.78392101 |
| C | -0.2984736 | 3.77623125 | 3.38780854 | H | -2.9454584 | -5.6206646 | -3.2941688 |
| H | -1.4728634 | 0.66411049 | 1.35449935 | H | -3.325533 | -4.3784476 | -2.0931526 |
| O | -1.8258601 | -1.071197 | 3.21865981 | H | -2.1581199 | -4.0322598 | -3.4095985 |
| H | -2.1564314 | -1.7389973 | 0.75634322 | H | 0.4027074 | -5.8949554 | -0.5626845 |
| H | 0.798991 | -2.4136733 | 0.30527494 | H | -2.6808853 | -5.8612041 | 1.9340574 |
| C | -1.3997982 | -5.2978898 | -1.8586152 | H | -2.3878019 | -6.5666573 | 0.34605141 |
| O | -0.9107235 | -6.4175848 | -2.0508002 | H | -1.0307252 | -6.2721179 | 1.44919852 |
| C | -2.529126 | -4.7902888 | -2.7163138 | H | 1.11396008 | -3.4987959 | -1.843296 |
| O | 0.4182153 | -4.94384 | -0.320686 | H | 1.86160993 | 0.32576917 | 5.30970575 |
| C | -1.9839711 | -5.8718788 | 1.08872202 | H | 0.44130314 | 1.37491473 | 5.48822094 |
| H | 0.17213717 | 2.02034661 | -0.7971592 | H | 0.24928405 | -0.3272508 | 4.96202732 |
| O | 0.36988212 | -2.9725121 | -2.2046914 | H | -2.9681576 | 1.56915205 | -2.0776414 |
| O | 1.04854761 | 0.96745253 | 3.54624874 | H | -2.7060024 | 1.02021037 | -3.747466 |
| C | 0.87790898 | 0.56472593 | 4.89683996 | H | -3.3328688 | -0.1272387 | -2.5481068 |
| O | -1.205109 | -0.0977789 | -1.0612257 | | | | |

Table S5. Cartesian coordinates for the low-energy optimized conformers of **5a** at B3LYP-D3(BJ)/6-311G* level.

| conformer 5a_1 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -1.9354897 | 0.41203325 | -2.5608914 | O | -1.2073567 | 1.20279943 | 2.91772139 |
| C | 0.74452737 | 0.08426841 | -1.6210165 | C | -0.8257522 | 1.86973884 | 1.96548565 |
| C | 0.43649849 | -0.2167344 | -3.1041237 | C | -0.9796963 | 3.35329224 | 1.84374492 |
| C | -0.9360214 | 0.31795163 | -3.4682312 | H | 1.19833324 | 0.2811324 | -3.7170021 |
| C | -0.0230592 | -0.0703207 | 0.78924113 | H | -0.7316124 | -0.5715536 | 1.45724812 |
| C | 1.41617982 | -0.4496159 | 1.23025593 | H | 2.31059526 | -1.4156036 | -1.3214586 |
| C | 2.47368785 | 0.08873187 | 0.24888094 | H | 1.61376678 | 1.08968737 | 2.77572045 |
| C | 2.1750187 | -0.3336543 | -1.2127909 | H | 4.25830053 | 1.17201567 | 2.12021843 |
| C | 1.7326229 | 0.00501494 | 2.67384268 | H | 4.63041348 | 0.06097634 | 0.00368729 |
| C | 3.15756227 | -0.3989734 | 3.12720221 | H | 3.95890129 | -1.4565595 | 0.59186979 |
| C | 4.22388024 | 0.0736083 | 2.11365529 | H | -3.3419318 | -1.5179216 | -1.6401854 |
| C | 3.88066171 | -0.3650995 | 0.68076399 | H | -2.0206326 | -3.3499108 | -0.7553366 |
| C | -0.3342728 | -0.4898321 | -0.6752984 | H | -4.0122267 | -2.1065885 | 0.70506955 |
| C | -1.7824723 | -0.0472599 | -1.1050731 | H | -2.9011044 | -0.934126 | 1.34900184 |
| C | -2.6891064 | -1.2706846 | -0.7955565 | H | -3.799772 | 1.17528167 | 1.93018578 |
| N | -1.7714725 | -2.3710863 | -0.676314 | H | -5.5769263 | 2.87485414 | 1.76450178 |
| C | -0.4492728 | -2.0111162 | -0.6920117 | H | -7.4498258 | 2.57447463 | 0.16693539 |
| O | 0.45832006 | -2.823281 | -0.620973 | H | -7.5448752 | 0.55121954 | -1.2637065 |
| C | -3.539995 | -1.1395021 | 0.482793 | H | -5.7750891 | -1.159315 | -1.1177124 |
| C | -4.6353731 | -0.1049229 | 0.39448843 | H | -3.5624302 | 1.74551526 | -2.0976657 |
| C | -4.6031247 | 1.03372986 | 1.21080828 | H | -3.2789012 | 1.59718863 | -3.8185809 |
| C | -5.6099065 | 1.99638164 | 1.12512493 | H | -4.0491606 | 0.26560686 | -2.9567027 |
| C | -6.663641 | 1.82662561 | 0.22988092 | H | -1.1222505 | 1.89330417 | -4.9179337 |
| C | -6.7162395 | 0.69007115 | -0.573975 | H | -0.2417034 | 0.49395357 | -5.5177677 |
| C | -5.7104056 | -0.2738485 | -0.4890354 | H | -1.9886868 | 0.39171995 | -5.3533148 |
| C | -3.2765056 | 1.03544119 | -2.8807561 | H | 3.73342884 | 0.05003942 | 6.58431551 |
| C | -1.0842785 | 0.79932464 | -4.8901028 | H | 2.64554452 | -1.1536099 | 5.86311701 |
| H | 0.7131436 | 1.18313963 | -1.5376574 | H | 4.41593931 | -1.2418046 | 5.57669028 |
| H | 2.46969362 | 1.18803157 | 0.28852134 | H | 2.31714053 | -2.0868027 | 3.56502169 |
| H | 1.46919763 | -1.5458712 | 1.22656571 | H | 6.36717444 | -0.0415911 | 1.75653485 |
| C | 3.40654375 | 0.29822767 | 4.48636337 | H | 5.93228903 | -0.0897086 | 3.465767 |
| O | 3.4687679 | 1.52775822 | 4.58401655 | H | 5.68819573 | -1.5207618 | 2.4483967 |
| C | 3.55912126 | -0.5758994 | 5.70444578 | H | -0.0084201 | -0.088993 | 3.58693356 |
| O | 3.2027838 | -1.8248873 | 3.23528242 | H | 0.89902153 | -3.09667 | -4.6700685 |
| C | 5.63031297 | -0.427491 | 2.46950183 | H | -0.2209956 | -1.8625131 | -5.2556209 |
| H | -2.0935373 | 0.81360079 | -0.5027384 | H | 1.53234992 | -1.4992956 | -5.1096923 |
| O | 0.80446487 | -0.6421318 | 3.56552964 | H | 4.64184101 | 0.09825999 | -3.3839536 |
| O | 0.4787523 | -1.6260496 | -3.3184467 | H | 4.56420441 | -1.1116122 | -2.086347 |
| C | 0.68301224 | -2.0246353 | -4.6634072 | H | 3.3920465 | -1.1606596 | -3.4387289 |
| O | 3.09991497 | 0.36901693 | -2.0630164 | H | -1.535921 | 3.73142665 | 2.70614094 |
| C | 3.96628277 | -0.5086636 | -2.7754878 | H | 0.00480766 | 3.8269673 | 1.82468699 |
| O | -0.1845292 | 1.37114308 | 0.87517763 | H | -1.5412711 | 3.59360684 | 0.93734453 |

| conformer 5a_2 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -2.1494201 | 0.55180912 | -2.4402543 | O | -0.9771095 | 0.77787022 | 3.04803496 |
| C | 0.59084726 | 0.17123886 | -1.7325322 | C | -0.6708713 | 1.547096 | 2.14738299 |
| C | 0.17834511 | -0.0018253 | -3.2091933 | C | -0.8279756 | 3.03430941 | 2.202304 |
| C | -1.2310553 | 0.51170024 | -3.4331737 | H | 0.85775004 | 0.59183049 | -3.835739 |
| C | 0.01902999 | -0.2491228 | 0.70474893 | H | -0.6403213 | -0.8201788 | 1.36659972 |
| C | 1.48354848 | -0.6770018 | 0.98979737 | H | 2.16980944 | -1.2982323 | -1.6806214 |
| C | 2.47114635 | -0.0135006 | 0.01204128 | H | 1.81443559 | 0.66443843 | 2.68786864 |
| C | 2.05774281 | -0.2307704 | -1.4648399 | H | 4.41901767 | 0.80777485 | 1.8357979 |
| C | 1.91345195 | -0.4007243 | 2.44957352 | H | 4.59998018 | -0.0643149 | -0.4277342 |
| C | 3.3660759 | -0.8582181 | 2.73998258 | H | 3.93158094 | -1.6192497 | 0.04590917 |
| C | 4.36042367 | -0.2817054 | 1.70429105 | H | -3.4921903 | -1.4319603 | -1.5689697 |
| C | 3.89530468 | -0.5434003 | 0.26253172 | H | -2.1202695 | -3.3337978 | -1.0071109 |
| C | -0.4075044 | -0.5053688 | -0.76926 | H | -3.9773089 | -2.2311764 | 0.75486101 |
| C | -1.8801448 | -0.0169214 | -1.0378545 | H | -2.8038963 | -1.1299539 | 1.41351429 |
| C | -2.7692789 | -1.2634643 | -0.762797 | H | -3.6501653 | 0.88939307 | 2.2970889 |
| N | -1.855209 | -2.3733887 | -0.8218821 | H | -5.4158581 | 2.60296836 | 2.4425301 |
| C | -0.5376974 | -2.0138041 | -0.9428175 | H | -7.3942979 | 2.48982394 | 0.95153805 |
| O | 0.36601956 | -2.8246426 | -1.0581387 | H | -7.6068104 | 0.63980208 | -0.6859659 |
| C | -3.5127753 | -1.2495205 | 0.58687517 | H | -5.8506788 | -1.0821955 | -0.851676 |
| C | -4.5994806 | -0.2068792 | 0.68694044 | H | -3.7968069 | 1.72387924 | -1.6974706 |
| C | -4.5005631 | 0.8328374 | 1.62147752 | H | -3.5437483 | 1.92250049 | -3.4096132 |
| C | -5.5004145 | 1.80228285 | 1.71225075 | H | -4.2697825 | 0.41894877 | -2.8095102 |
| C | -6.6134851 | 1.73741035 | 0.87706968 | H | -2.5499191 | 1.08014867 | -5.0822518 |
| C | -6.7321917 | 0.69818756 | -0.0430417 | H | -0.9740187 | 1.89438896 | -5.0552098 |
| C | -5.7334672 | -0.2725094 | -0.134559 | H | -1.1178856 | 0.19805603 | -5.557597 |
| C | -3.5134478 | 1.1820075 | -2.6058297 | H | 4.80553881 | -1.9664511 | 4.97439108 |
| C | -1.4895821 | 0.95010828 | -4.8533823 | H | 4.21979006 | -0.790577 | 6.1678599 |
| H | 0.52594131 | 1.25184815 | -1.5358316 | H | 3.06473035 | -1.9061323 | 5.41016673 |
| H | 2.47892016 | 1.06432589 | 0.22006493 | H | 2.5386731 | -2.5810955 | 3.05159953 |
| H | 1.52937804 | -1.7642524 | 0.84732327 | H | 6.46627055 | -0.3773615 | 1.16632313 |
| C | 3.72922255 | -0.3146456 | 4.14249658 | H | 6.16453659 | -0.6262759 | 2.88689234 |
| O | 3.81104037 | 0.89725009 | 4.36651881 | H | 5.81257331 | -1.9213592 | 1.72857185 |
| C | 3.969022 | -1.3165427 | 5.24222198 | H | 0.24501978 | -0.5986785 | 3.47494845 |
| O | 3.40039631 | -2.286908 | 2.68749128 | H | 1.11953382 | -2.7537661 | -4.7790688 |
| C | 5.77925008 | -0.8380548 | 1.88462812 | H | 1.11968061 | -1.107967 | -5.442295 |
| H | -2.1315343 | 0.7930893 | -0.3441394 | H | 2.19311354 | -1.5335331 | -4.0721638 |
| O | 1.04857757 | -1.1459442 | 3.32692243 | H | 2.18168677 | 2.34478872 | -2.3759747 |
| O | 0.16880114 | -1.3655093 | -3.6169467 | H | 3.62121472 | 2.0849831 | -1.3367458 |
| C | 1.21157102 | -1.6947666 | -4.5233612 | H | 3.78187387 | 2.13553485 | -3.0920299 |
| O | 2.96379657 | 0.40800992 | -2.3830216 | H | -1.313669 | 3.31251317 | 3.14187753 |
| C | 3.130425 | 1.81376987 | -2.2742579 | H | 0.15390946 | 3.51176703 | 2.15861622 |
| O | -0.1204232 | 1.17456086 | 0.9603565 | H | -1.4577391 | 3.37039652 | 1.37458147 |

| conformer 5a_3 | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| C | -1.9866989 | 0.8092511 | -2.6756936 | O | -0.8650752 | 2.26377897 | 2.6027084 |
| C | 0.69023186 | 0.28946199 | -1.8032972 | C | -0.4632859 | 2.74628032 | 1.55278556 |
| C | 0.26175764 | -0.1805214 | -3.2114299 | C | -0.438901 | 4.20889946 | 1.23661724 |
| C | -1.0604776 | 0.45993167 | -3.5980077 | H | 1.04071433 | 0.12745882 | -3.9200312 |
| C | 0.04582896 | 0.58299623 | 0.63312697 | H | -0.6790612 | 0.26924646 | 1.39310667 |
| C | 1.45476559 | 0.0966669 | 1.06898926 | H | 2.084847 | -1.3325504 | -1.3406293 |
| C | 2.50973002 | 0.35394895 | -0.0233726 | H | 1.91331134 | 1.80333175 | 2.36261026 |
| C | 2.0825437 | -0.2379491 | -1.3920999 | H | 4.50768499 | 1.47242584 | 1.59391131 |
| C | 1.9028584 | 0.70882347 | 2.41616701 | H | 4.63190537 | 0.03141068 | -0.3457878 |
| C | 3.29645442 | 0.20493865 | 2.86680716 | H | 3.82686435 | -1.2935108 | 0.48873163 |
| C | 4.34964992 | 0.3965349 | 1.75264128 | H | -3.514017 | -0.8079998 | -1.4320405 |
| C | 3.87816085 | -0.1992428 | 0.41629107 | H | -2.4167045 | -2.5769973 | -0.2247098 |
| C | -0.3902331 | -0.0014528 | -0.741484 | H | -2.9584505 | 0.26108778 | 1.40247899 |
| C | -1.7946862 | 0.5509594 | -1.178492 | H | -4.0957152 | 0.99777881 | 0.29323334 |
| C | -2.8199583 | -0.485482 | -0.6471068 | H | -6.1447875 | -0.2728285 | -0.4756296 |
| N | -2.0346466 | -1.6428427 | -0.3215995 | H | -7.8835522 | -1.8703668 | 0.24299763 |
| C | -0.6869391 | -1.4790434 | -0.5069721 | H | -7.447455 | -3.4312814 | 2.1199044 |
| O | 0.11922343 | -2.3844435 | -0.3730073 | H | -5.2569587 | -3.3910984 | 3.28267677 |
| C | -3.6200208 | 0.04379266 | 0.55568134 | H | -3.5043109 | -1.802492 | 2.57888458 |
| C | -4.69787 | -0.9163443 | 1.00316468 | H | -3.346547 | 2.45893885 | -2.4537523 |
| C | -5.9376281 | -0.9492769 | 0.3502319 | H | -3.3560302 | 1.78921254 | -4.0790717 |
| C | -6.9236258 | -1.8514146 | 0.75246004 | H | -4.1424047 | 0.90631768 | -2.77733 |
| C | -6.6791888 | -2.7290682 | 1.80705287 | H | -2.1243021 | 0.21988917 | -5.4562266 |
| C | -5.4487296 | -2.70616 | 2.46066601 | H | -1.334164 | 1.81066095 | -5.2529826 |
| C | -4.4613803 | -1.8049085 | 2.06079909 | H | -0.3821306 | 0.39219403 | -5.6585843 |
| C | -3.2741638 | 1.5252513 | -3.0218239 | H | 4.58404975 | -0.4258161 | 5.36487515 |
| C | -1.2389096 | 0.73525566 | -5.0700367 | H | 4.11144729 | 1.07047654 | 6.19420567 |
| H | 0.79240567 | 1.38420514 | -1.8850949 | H | 2.85412774 | -0.0823339 | 5.70173014 |
| H | 2.63319339 | 1.43961554 | -0.1503008 | H | 2.29655893 | -1.290099 | 3.58213423 |
| H | 1.38020192 | -0.987165 | 1.22562884 | H | 6.44256663 | -0.0243184 | 1.33166811 |
| C | 3.69992767 | 1.05367693 | 4.09654837 | H | 6.10310384 | 0.22562406 | 3.0449027 |
| O | 3.90924536 | 2.2675365 | 4.00754639 | H | 5.64199954 | -1.2969652 | 2.26285075 |
| C | 3.81792732 | 0.3509699 | 5.42446009 | H | 0.21498866 | 0.95067325 | 3.40062556 |
| O | 3.18622472 | -1.1860209 | 3.18289947 | H | 1.11725446 | -1.8692436 | -5.0283128 |
| C | 5.70877333 | -0.2129839 | 2.12297058 | H | 0.28763828 | -3.286112 | -4.3570922 |
| H | -1.9703373 | 1.52336356 | -0.7019021 | H | -0.6724086 | -1.9969493 | -5.0912494 |
| O | 0.96023846 | 0.30944214 | 3.42989335 | H | 3.07245112 | -1.5275511 | -3.5071293 |
| O | 0.12577516 | -1.5995444 | -3.2179979 | H | 4.45773888 | -0.4341704 | -3.6952729 |
| C | 0.22125535 | -2.2036105 | -4.4973769 | H | 4.31635122 | -1.4189714 | -2.224289 |
| O | 3.03249555 | 0.21402886 | -2.3745075 | H | -0.9149752 | 4.7632676 | 2.05031546 |
| C | 3.75294194 | -0.8578685 | -2.9750636 | H | 0.59503811 | 4.54789748 | 1.13640945 |
| O | 0.05181392 | 2.03115207 | 0.51595467 | H | -0.9975354 | 4.39834459 | 0.31644362 |

| conformer 5a_4 | | | | | | | |
|----------------|-----------|-----------|------------|---|------------|------------|------------|
| C | -3.358402 | -0.321416 | -0.8488869 | O | 0.22518128 | 1.57062316 | 3.06051347 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | -0.7631629 | 0.43710814 | -1.7857128 | C | -0.314787 | 2.17280459 | 2.14299332 |
| C | -1.7520108 | -0.2084703 | -2.7793602 | C | -0.9973268 | 3.4983233 | 2.27323597 |
| C | -3.1467539 | -0.2774829 | -2.1842634 | H | -1.8000855 | 0.41436105 | -3.6828408 |
| C | 0.20606171 | 0.43745101 | 0.56345936 | H | 0.27517611 | -0.1539143 | 1.48311537 |
| C | 1.63752762 | 0.60760409 | -0.0135654 | H | 1.06580074 | -0.3597222 | -2.6058921 |
| C | 1.61964305 | 1.31467119 | -1.381661 | H | 2.1979616 | 2.33766763 | 1.20486244 |
| C | 0.65069718 | 0.62705232 | -2.3760171 | H | 3.67921195 | 3.15056644 | -0.9580033 |
| C | 2.58998532 | 1.34482018 | 0.95659239 | H | 3.0330011 | 1.88449503 | -2.932744 |
| C | 4.02603393 | 1.48785921 | 0.39001812 | H | 3.40578459 | 0.35327325 | -2.1549292 |
| C | 4.01785877 | 2.10741725 | -1.0275362 | H | -3.1008565 | -2.3580943 | 0.64166234 |
| C | 3.04456268 | 1.37231767 | -1.9631718 | H | -0.9808103 | -3.4696189 | 0.46844617 |
| C | -0.7564301 | -0.2859937 | -0.4239373 | H | -1.2878514 | -1.081989 | 2.77770001 |
| C | -2.2097345 | -0.3970364 | 0.16421217 | H | -3.0301459 | -0.9167594 | 2.75769787 |
| C | -2.2307791 | -1.7523171 | 0.92125025 | H | -4.5148747 | -2.9396519 | 3.05324817 |
| N | -1.0823847 | -2.4615267 | 0.42645678 | H | -4.7325174 | -5.1000946 | 4.22639462 |
| C | -0.3193693 | -1.7453795 | -0.4603583 | H | -2.7133563 | -6.295827 | 5.0279162 |
| O | 0.62948694 | -2.2171582 | -1.0635004 | H | -0.4638476 | -5.3213788 | 4.65110681 |
| C | -2.2088283 | -1.5767831 | 2.44945887 | H | -0.2239896 | -3.1628847 | 3.47896601 |
| C | -2.3527607 | -2.8886709 | 3.18576358 | H | -4.7161046 | 0.24853702 | 0.72608128 |
| C | -3.6192118 | -3.4494932 | 3.4001877 | H | -5.4650002 | 0.23678575 | -0.8514596 |
| C | -3.7472936 | -4.6713991 | 4.06229505 | H | -5.0994347 | -1.3040463 | -0.0418312 |
| C | -2.6129688 | -5.3440975 | 4.51280536 | H | -4.0140603 | -1.0658656 | -3.9867946 |
| C | -1.3491886 | -4.7963854 | 4.30159543 | H | -5.2189222 | -0.5808566 | -2.8145735 |
| C | -1.21835 | -3.5746954 | 3.64026798 | H | -4.3273057 | 0.65990538 | -3.7123426 |
| C | -4.7362709 | -0.289051 | -0.2283124 | H | 5.57610382 | 1.05633627 | 2.78335788 |
| C | -4.2407725 | -0.3151311 | -3.2222685 | H | 6.70272094 | 1.48663257 | 1.45313087 |
| H | -1.1574603 | 1.44679007 | -1.5966813 | H | 6.37749885 | 2.64063474 | 2.76183318 |
| H | 1.28580889 | 2.3482779 | -1.2227073 | H | 4.26531721 | -0.2898923 | 1.11956457 |
| H | 2.04586423 | -0.4020531 | -0.1497582 | H | 5.38089567 | 2.60842965 | -2.6475209 |
| C | 4.7872634 | 2.43470885 | 1.34834378 | H | 6.12503798 | 2.68324532 | -1.0493994 |
| O | 4.46515439 | 3.61991804 | 1.47923984 | H | 5.80685945 | 1.11218446 | -1.8065835 |
| C | 5.93584871 | 1.85968066 | 2.13622581 | H | 1.92620634 | 0.83425636 | 2.73858961 |
| O | 4.61373182 | 0.18531432 | 0.33566008 | H | -0.0314937 | -1.1234004 | -4.6115436 |
| C | 5.41362568 | 2.12432111 | -1.6652956 | H | -0.6940356 | -2.7670824 | -4.584626 |
| H | -2.3893268 | 0.42896274 | 0.86326674 | H | -1.7139561 | -1.4284085 | -5.1471656 |
| O | 2.68637846 | 0.57612273 | 2.17036296 | H | -0.7725653 | 2.80183508 | -3.2278619 |
| O | -1.3985386 | -1.54914 | -3.1007268 | H | 0.95184478 | 3.29369468 | -3.1647607 |
| C | -0.9345574 | -1.7113564 | -4.4332281 | H | 0.16710311 | 2.97848627 | -4.7121188 |
| O | 0.61242858 | 1.29646508 | -3.6496984 | H | -1.013944 | 3.79524819 | 3.32567578 |
| C | 0.21720872 | 2.65995702 | -3.666799 | H | -0.450739 | 4.25281601 | 1.70229442 |
| O | -0.3555552 | 1.74642186 | 0.85050483 | H | -2.0287545 | 3.42014045 | 1.92008395 |

| conformer 5a_5 | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| C | -3.358402 | -0.321416 | -0.8488869 | O | 0.22518128 | 1.57062316 | 3.06051347 |
| C | -0.7631629 | 0.43710814 | -1.7857128 | C | -0.314787 | 2.17280459 | 2.14299332 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | -1.7520108 | -0.2084703 | -2.7793602 | C | -0.9973268 | 3.4983233 | 2.27323597 |
| C | -3.1467539 | -0.2774829 | -2.1842634 | H | -1.8000855 | 0.41436105 | -3.6828408 |
| C | 0.20606171 | 0.43745101 | 0.56345936 | H | 0.27517611 | -0.1539143 | 1.48311537 |
| C | 1.63752762 | 0.60760409 | -0.0135654 | H | 1.06580074 | -0.3597222 | -2.6058921 |
| C | 1.61964305 | 1.31467119 | -1.381661 | H | 2.1979616 | 2.33766763 | 1.20486244 |
| C | 0.65069718 | 0.62705232 | -2.3760171 | H | 3.67921195 | 3.15056644 | -0.9580033 |
| C | 2.58998532 | 1.34482018 | 0.95659239 | H | 3.0330011 | 1.88449503 | -2.932744 |
| C | 4.02603393 | 1.48785921 | 0.39001812 | H | 3.40578459 | 0.35327325 | -2.1549292 |
| C | 4.01785877 | 2.10741725 | -1.0275362 | H | -3.1008565 | -2.3580943 | 0.64166234 |
| C | 3.04456268 | 1.37231767 | -1.9631718 | H | -0.9808103 | -3.4696189 | 0.46844617 |
| C | -0.7564301 | -0.2859937 | -0.4239373 | H | -1.2878514 | -1.081989 | 2.77770001 |
| C | -2.2097345 | -0.3970364 | 0.16421217 | H | -3.0301459 | -0.9167594 | 2.75769787 |
| C | -2.2307791 | -1.7523171 | 0.92125025 | H | -4.5148747 | -2.9396519 | 3.05324817 |
| N | -1.0823847 | -2.4615267 | 0.42645678 | H | -4.7325174 | -5.1000946 | 4.22639462 |
| C | -0.3193693 | -1.7453795 | -0.4603583 | H | -2.7133563 | -6.295827 | 5.0279162 |
| O | 0.62948694 | -2.2171582 | -1.0635004 | H | -0.4638476 | -5.3213788 | 4.65110681 |
| C | -2.2088283 | -1.5767831 | 2.44945887 | H | -0.2239896 | -3.1628847 | 3.47896601 |
| C | -2.3527607 | -2.8886709 | 3.18576358 | H | -4.7161046 | 0.24853702 | 0.72608128 |
| C | -3.6192118 | -3.4494932 | 3.4001877 | H | -5.4650002 | 0.23678575 | -0.8514596 |
| C | -3.7472936 | -4.6713991 | 4.06229505 | H | -5.0994347 | -1.3040463 | -0.0418312 |
| C | -2.6129688 | -5.3440975 | 4.51280536 | H | -4.0140603 | -1.0658656 | -3.9867946 |
| C | -1.3491886 | -4.7963854 | 4.30159543 | H | -5.2189222 | -0.5808566 | -2.8145735 |
| C | -1.21835 | -3.5746954 | 3.64026798 | H | -4.3273057 | 0.65990538 | -3.7123426 |
| C | -4.7362709 | -0.289051 | -0.2283124 | H | 5.57610382 | 1.05633627 | 2.78335788 |
| C | -4.2407725 | -0.3151311 | -3.2222685 | H | 6.70272094 | 1.48663257 | 1.45313087 |
| H | -1.1574603 | 1.44679007 | -1.5966813 | H | 6.37749885 | 2.64063474 | 2.76183318 |
| H | 1.28580889 | 2.3482779 | -1.2227073 | H | 4.26531721 | -0.2898923 | 1.11956457 |
| H | 2.04586423 | -0.4020531 | -0.1497582 | H | 5.38089567 | 2.60842965 | -2.6475209 |
| C | 4.7872634 | 2.43470885 | 1.34834378 | H | 6.12503798 | 2.68324532 | -1.0493994 |
| O | 4.46515439 | 3.61991804 | 1.47923984 | H | 5.80685945 | 1.11218446 | -1.8065835 |
| C | 5.93584871 | 1.85968066 | 2.13622581 | H | 1.92620634 | 0.83425636 | 2.73858961 |
| O | 4.61373182 | 0.18531432 | 0.33566008 | H | -0.0314937 | -1.1234004 | -4.6115436 |
| C | 5.41362568 | 2.12432111 | -1.6652956 | H | -0.6940356 | -2.7670824 | -4.584626 |
| H | -2.3893268 | 0.42896274 | 0.86326674 | H | -1.7139561 | -1.4284085 | -5.1471656 |
| O | 2.68637846 | 0.57612273 | 2.17036296 | H | -0.7725653 | 2.80183508 | -3.2278619 |
| O | -1.3985386 | -1.54914 | -3.1007268 | H | 0.95184478 | 3.29369468 | -3.1647607 |
| C | -0.9345574 | -1.7113564 | -4.4332281 | H | 0.16710311 | 2.97848627 | -4.7121188 |
| O | 0.61242858 | 1.29646508 | -3.6496984 | H | -1.013944 | 3.79524819 | 3.32567578 |
| C | 0.21720872 | 2.65995702 | -3.666799 | H | -0.450739 | 4.25281601 | 1.70229442 |
| O | -0.3555552 | 1.74642186 | 0.85050483 | H | -2.0287545 | 3.42014045 | 1.92008395 |

| conformer 5a_6 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -2.2023126 | 1.05449473 | -2.4694351 | O | -0.8610516 | 1.85388038 | 2.9006471 |
| C | 0.53131193 | 0.56001824 | -1.8090703 | C | -0.5423071 | 2.4934824 | 1.90763974 |
| C | 0.03484087 | 0.21195568 | -3.2308554 | C | -0.6058755 | 3.98430306 | 1.79255338 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | -1.3228643 | 0.84824131 | -3.4772915 | H | 0.75152948 | 0.59846862 | -3.9669571 |
| C | 0.01645349 | 0.50386242 | 0.67908935 | H | -0.6507394 | 0.05365019 | 1.42336774 |
| C | 1.46688863 | 0.04001062 | 0.97320342 | H | 2.09903244 | -0.9599286 | -1.701006 |
| C | 2.44521418 | 0.51985729 | -0.1143926 | H | 1.90160208 | 1.56451212 | 2.48569028 |
| C | 1.98792975 | 0.11934885 | -1.5465477 | H | 4.45784439 | 1.51230508 | 1.57985161 |
| C | 1.94870571 | 0.47504715 | 2.37698856 | H | 4.56714708 | 0.40413161 | -0.5568118 |
| C | 3.38576106 | -0.0075238 | 2.68957094 | H | 3.88788222 | -1.0896708 | 0.08427943 |
| C | 4.36861509 | 0.41694827 | 1.57668476 | H | -3.5676831 | -0.798589 | -1.3896646 |
| C | 3.86600618 | 0.00336207 | 0.18382258 | H | -2.3302373 | -2.6420193 | -0.473197 |
| C | -0.4638824 | 0.0818116 | -0.7360827 | H | -2.9440166 | -0.0605963 | 1.53470458 |
| C | -1.9133255 | 0.61235721 | -1.0289784 | H | -4.1674852 | 0.73943927 | 0.5704739 |
| C | -2.8573682 | -0.5403075 | -0.595028 | H | -6.1734426 | -0.5512833 | -0.2844021 |
| N | -1.9986065 | -1.6844034 | -0.4442556 | H | -7.7925523 | -2.3219676 | 0.29432329 |
| C | -0.6738911 | -1.4256354 | -0.6849685 | H | -7.1972304 | -4.0656557 | 1.95408544 |
| O | 0.18723818 | -2.2890015 | -0.7295573 | H | -4.9670092 | -4.0348195 | 3.03913627 |
| C | -3.6308505 | -0.2104003 | 0.69317466 | H | -3.3329438 | -2.2738369 | 2.47325668 |
| C | -4.635629 | -1.2788611 | 1.05724125 | H | -4.3369889 | 1.00974312 | -2.7560496 |
| C | -5.8970275 | -1.3071601 | 0.44693606 | H | -3.7595275 | 2.37538751 | -1.7823511 |
| C | -6.8155361 | -2.3069515 | 0.77031361 | H | -3.553551 | 2.41223329 | -3.5152638 |
| C | -6.4815273 | -3.2873324 | 1.70276868 | H | -1.3485216 | 0.31386431 | -5.5583 |
| C | -5.228762 | -3.2697149 | 2.31273766 | H | -2.6234249 | 1.43360103 | -5.1353237 |
| C | -4.3087342 | -2.2710204 | 1.99145731 | H | -0.9533724 | 2.01471596 | -5.2390701 |
| C | -3.5339896 | 1.7451788 | -2.6496944 | H | 3.07896241 | -0.7419642 | 5.45984638 |
| C | -1.5830622 | 1.17603523 | -4.9252836 | H | 4.80783777 | -0.9381872 | 5.0166092 |
| H | 0.55004075 | 1.66228542 | -1.772328 | H | 4.29922865 | 0.3888608 | 6.07983134 |
| H | 2.49795107 | 1.61826412 | -0.0780473 | H | 2.50624097 | -1.6529011 | 3.20522811 |
| H | 1.4592325 | -1.0572265 | 0.96981157 | H | 6.45854397 | 0.19833766 | 1.01109026 |
| C | 3.80310313 | 0.66620199 | 4.01907637 | H | 6.19136501 | 0.16297583 | 2.75471401 |
| O | 3.95377061 | 1.88867188 | 4.10831187 | H | 5.77825865 | -1.2491318 | 1.76594044 |
| C | 4.00876993 | -0.2211282 | 5.21965487 | H | 0.30646596 | 0.48098855 | 3.46088451 |
| O | 3.36654302 | -1.4343992 | 2.78826647 | H | 1.64547905 | -1.9008171 | -4.0299717 |
| C | 5.77685758 | -0.1544468 | 1.79279824 | H | 0.22870074 | -2.8076368 | -4.564543 |
| H | -2.1056479 | 1.50183918 | -0.4165441 | H | 0.58976742 | -1.247163 | -5.3279766 |
| O | 1.07822013 | -0.1202892 | 3.35810228 | H | 3.24883548 | -0.4421446 | -4.0171863 |
| O | -0.1829319 | -1.1868215 | -3.3950883 | H | 4.51656498 | 0.712588 | -3.5983481 |
| C | 0.61937811 | -1.8020242 | -4.3858248 | H | 4.2353288 | -0.6903899 | -2.545879 |
| O | 2.81867119 | 0.85315657 | -2.4681803 | H | -1.0630891 | 4.39805032 | 2.69578503 |
| C | 3.74961672 | 0.05251899 | -3.1839577 | H | 0.40348351 | 4.39016935 | 1.69032069 |
| O | -0.0518424 | 1.95252801 | 0.759114 | H | -1.2223802 | 4.26366626 | 0.93432894 |

| conformer 5a_7 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -2.7868059 | -2.1488581 | 0.70153646 | O | 1.00290873 | 1.35235134 | 2.86264942 |
| C | -1.5479424 | -0.4107562 | -1.1630086 | C | -0.1582885 | 1.40482 | 2.48236415 |
| C | -2.525178 | -1.4785978 | -1.6946601 | C | -1.2738797 | 2.05342201 | 3.24018175 |
| C | -3.3441243 | -1.9997665 | -0.5236098 | H | -3.204224 | -1.0336083 | -2.4327044 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | 0.29053366 | 0.11375802 | 0.4984016 | H | 1.04721829 | -0.3429498 | 1.14779485 |
| C | 0.99773472 | 0.99878877 | -0.5685609 | H | -0.270925 | -0.1677771 | -2.9239005 |
| C | 0.00082241 | 1.55970374 | -1.6028628 | H | 1.21102139 | 2.79583467 | 0.66662686 |
| C | -0.8747875 | 0.44891098 | -2.2513508 | H | 0.90008292 | 4.22252116 | -1.6159645 |
| C | 1.83755186 | 2.1381725 | 0.05375073 | H | 0.02383843 | 2.82092346 | -3.3688762 |
| C | 2.57424528 | 2.98887554 | -1.0089246 | H | 1.38096289 | 1.70196448 | -3.2719138 |
| C | 1.59353656 | 3.50892681 | -2.0823968 | H | -1.1211621 | -4.0142614 | 0.49170918 |
| C | 0.74697401 | 2.37303417 | -2.6778713 | H | 1.10512744 | -3.8598071 | -0.290725 |
| C | -0.5548891 | -1.0191803 | -0.1543085 | H | -1.0683728 | -4.0618271 | 2.88690228 |
| C | -1.2916109 | -1.8864604 | 0.93504327 | H | 0.4357674 | -4.6884757 | 2.26068361 |
| C | -0.5185689 | -3.2306879 | 0.97300617 | H | 2.48547835 | -2.9978193 | 2.14733915 |
| N | 0.6091903 | -3.0666465 | 0.09892143 | H | 3.73795895 | -1.4573771 | 3.60646424 |
| C | 0.43085456 | -2.0100262 | -0.7594357 | H | 2.63234239 | -0.4075374 | 5.55991576 |
| O | 1.05232859 | -1.8887791 | -1.8029661 | H | 0.25622425 | -0.9073228 | 6.05663183 |
| C | -0.1484342 | -3.7644155 | 2.36839265 | H | -1.021637 | -2.4383229 | 4.60486615 |
| C | 0.63251942 | -2.8257828 | 3.2577156 | H | -3.227081 | -2.0357398 | 2.80373641 |
| C | 1.98036485 | -2.5453934 | 2.99775875 | H | -4.6228478 | -2.4491585 | 1.83834235 |
| C | 2.69594217 | -1.6777337 | 3.82351797 | H | -3.3602954 | -3.6657323 | 2.11180911 |
| C | 2.0750372 | -1.0889384 | 4.92265619 | H | -5.3415105 | -1.4380363 | -1.0624202 |
| C | 0.73805837 | -1.3665707 | 5.19772481 | H | -4.7829279 | -2.9562093 | -1.794325 |
| C | 0.01998226 | -2.2312244 | 4.37081452 | H | -5.2754593 | -2.9336987 | -0.1136601 |
| C | -3.5443819 | -2.6041365 | 1.92274579 | H | 4.99063255 | 5.11760854 | 0.44671926 |
| C | -4.7635985 | -2.3499714 | -0.8818519 | H | 5.03467304 | 3.34325907 | 0.43944924 |
| H | -2.1866938 | 0.30003458 | -0.6110222 | H | 5.16686514 | 4.26115372 | -1.0978051 |
| H | -0.6753108 | 2.26105724 | -1.0915667 | H | 3.9032448 | 1.58646997 | -0.9159704 |
| H | 1.70652488 | 0.34842264 | -1.0962641 | H | 1.58702633 | 4.64318129 | -3.9394732 |
| C | 3.19816029 | 4.19351347 | -0.2625927 | H | 2.8887063 | 5.09831192 | -2.8385835 |
| O | 2.50210243 | 5.09674773 | 0.21149237 | H | 2.99648221 | 3.58970487 | -3.7629254 |
| C | 4.69749884 | 4.22398928 | -0.1117868 | H | 2.42602963 | 1.39588071 | 1.77106983 |
| O | 3.56671391 | 2.16699092 | -1.6313484 | H | -2.8372066 | -2.5815657 | -4.0574634 |
| C | 2.31224718 | 4.24927628 | -3.2189876 | H | -1.1512764 | -1.9587756 | -4.0327083 |
| H | -1.2158007 | -1.3719882 | 1.89804664 | H | -1.4623293 | -3.6922414 | -3.9124166 |
| O | 2.84751822 | 1.54589587 | 0.89259787 | H | -2.1182937 | -0.0298968 | -4.6976972 |
| O | -1.8747502 | -2.6360355 | -2.2159701 | H | -2.5209425 | 1.68434271 | -4.8521641 |
| C | -1.8377072 | -2.7047153 | -3.6299805 | H | -0.816398 | 1.19542095 | -4.7539712 |
| O | -1.9264127 | 1.10852994 | -2.9818775 | H | -0.9134366 | 2.35429856 | 4.22795302 |
| C | -1.8250028 | 0.97649798 | -4.3938354 | H | -1.6190489 | 2.94014476 | 2.70321254 |
| O | -0.617027 | 0.92039702 | 1.29665843 | H | -2.092464 | 1.34166711 | 3.37550577 |

| conformer 5a_8 | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| C | -1.2399745 | 0.99581503 | -2.6653312 | O | -0.7385122 | 2.57418112 | 1.96330148 |
| C | 0.68664102 | -0.6780943 | -1.3807489 | C | 0.32867206 | 2.42851716 | 1.38896249 |
| C | 0.28390549 | -0.9926397 | -2.8374673 | C | 1.34349172 | 3.5145217 | 1.20556835 |
| C | -0.4745515 | 0.18090162 | -3.4273215 | H | 1.20120659 | -1.1634669 | -3.4146729 |
| C | -0.0497289 | 0.08908167 | 0.92046264 | H | -0.9122667 | 0.26733406 | 1.57319027 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| C | 0.84597508 | -1.0031688 | 1.57255567 | H | 1.03976786 | -2.7354019 | -0.7133515 |
| C | 2.03604393 | -1.3718645 | 0.66462941 | H | 1.90125796 | 0.36801339 | 2.88353198 |
| C | 1.57409858 | -1.7800241 | -0.756932 | H | 4.07868534 | -1.2148655 | 2.57947017 |
| C | 1.35211521 | -0.5753439 | 2.96860292 | H | 3.75641059 | -2.6942154 | 0.68224392 |
| C | 2.241673 | -1.6479298 | 3.63695873 | H | 2.30494305 | -3.401528 | 1.38340843 |
| C | 3.40273123 | -2.0703249 | 2.7105512 | H | -3.5137571 | 0.31177496 | -1.7520481 |
| C | 2.88947599 | -2.4746541 | 1.31666003 | H | -3.5712048 | -1.6597385 | -0.3734776 |
| C | -0.5364388 | -0.3274263 | -0.4994437 | H | -4.5003952 | 0.70603503 | 0.58618288 |
| C | -1.4408644 | 0.778624 | -1.1595514 | H | -2.9751478 | 1.37805744 | 1.08468888 |
| C | -2.9040881 | 0.35956955 | -0.8419925 | H | -2.6650778 | 3.73988204 | 0.80944781 |
| N | -2.8040631 | -0.9984668 | -0.3823882 | H | -3.4208751 | 5.90348412 | -0.0947275 |
| C | -1.5235574 | -1.4758669 | -0.3136749 | H | -5.2795459 | 5.99420152 | -1.7359313 |
| O | -1.2687448 | -2.6381548 | -0.0424623 | H | -6.3902967 | 3.8991316 | -2.4641437 |
| C | -3.6147522 | 1.23471951 | 0.20659682 | H | -5.6457359 | 1.72317812 | -1.5721767 |
| C | -4.0818324 | 2.56612132 | -0.3318758 | H | -1.7524861 | 3.08528683 | -2.561964 |
| C | -3.4728103 | 3.75743066 | 0.08126345 | H | -1.5671931 | 2.51536695 | -4.2057123 |
| C | -3.9001765 | 4.98581749 | -0.4255114 | H | -3.0060984 | 2.05681706 | -3.2950277 |
| C | -4.9450422 | 5.03685088 | -1.3454855 | H | 0.39312096 | 1.27277422 | -5.0611888 |
| C | -5.5682484 | 3.86001272 | -1.7542621 | H | 0.21293675 | -0.4471638 | -5.3878616 |
| C | -5.1421395 | 2.63116381 | -1.2476802 | H | -1.2136439 | 0.57696935 | -5.4195042 |
| C | -1.9289254 | 2.22500187 | -3.2157768 | H | 4.07360117 | 0.40251606 | 4.27236693 |
| C | -0.2628698 | 0.41049865 | -4.9028931 | H | 2.58283135 | 0.97909905 | 5.08532031 |
| H | 1.32095462 | 0.22107273 | -1.4474383 | H | 3.93157689 | 0.31767942 | 6.03371195 |
| H | 2.69128964 | -0.494083 | 0.56176516 | H | 1.73794419 | -3.1874888 | 4.73236344 |
| H | 0.22344341 | -1.8941155 | 1.71810915 | H | 5.05782068 | -3.4791455 | 2.60389579 |
| C | 2.78068578 | -1.1506894 | 4.99750694 | H | 4.68679131 | -2.9518867 | 4.24392728 |
| O | 2.73880113 | -1.8942025 | 5.98515803 | H | 3.63515782 | -4.1261124 | 3.43111806 |
| C | 3.37684845 | 0.22919959 | 5.09496792 | H | -0.1483957 | -1.2184959 | 4.02075844 |
| O | 1.39874697 | -2.78886 | 3.90236147 | H | -1.0858189 | -3.7904613 | -3.9588307 |
| C | 4.23758664 | -3.2237684 | 3.28390683 | H | -1.222035 | -2.2507726 | -4.8142006 |
| H | -1.2215587 | 1.74752637 | -0.6997279 | H | 0.39040061 | -2.9910655 | -4.5312926 |
| O | 0.21692013 | -0.3339707 | 3.80705089 | H | 3.02666136 | -3.9526447 | -1.2563121 |
| O | -0.533176 | -2.1610925 | -2.860689 | H | 2.08879803 | -3.5121603 | -2.7170344 |
| C | -0.6060183 | -2.8200014 | -4.113609 | H | 3.84428984 | -3.2544995 | -2.6697435 |
| O | 2.75591673 | -1.9125565 | -1.5693908 | H | 2.2996135 | 3.20476457 | 1.63522891 |
| C | 2.92780863 | -3.2333617 | -2.0742796 | H | 1.45389987 | 3.74134161 | 0.14228847 |
| O | 0.7695112 | 1.28493111 | 0.80043045 | H | 1.0069948 | 4.41650747 | 1.72462113 |

Table S6. Cartesian coordinates for the low-energy optimized conformers of **6a** at B3LYP-D3(BJ)/6-311G* level.

| conformer 6a_1 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -1.1992672 | 2.9513075 | -0.7081099 | C | 5.32923108 | -2.913279 | 1.60780801 |
| C | 1.09714471 | 1.53186752 | 0.27789785 | H | -1.8973542 | 1.10595818 | 0.0780239 |
| C | 1.27141671 | 2.97483704 | -0.2476128 | O | 0.43023756 | -3.4914135 | 0.75698565 |
| C | -0.0495053 | 3.64958745 | -0.5589122 | H | 1.91557132 | 3.00334096 | -1.1338462 |
| C | 0.07706527 | -0.7454484 | -0.1201831 | H | -0.4594978 | -1.3684157 | -0.8438425 |

| | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| C | 1.4756033 | -1.4177069 | 0.07145415 | H | 3.27101707 | 1.49607524 | 0.76832485 |
| C | 2.60668301 | -0.4713876 | 0.39899303 | H | 1.138967 | -2.113241 | 2.09799252 |
| C | 2.42829928 | 0.85279785 | 0.51775487 | H | 3.78098436 | -1.7929885 | 2.55946209 |
| C | 1.4402932 | -2.5405264 | 1.13429674 | H | 4.25705084 | -1.5115236 | -0.4488722 |
| C | 2.80057492 | -3.2576063 | 1.29825631 | H | 4.71991639 | -0.3778163 | 0.81138517 |
| C | 3.94557114 | -2.2506891 | 1.57455868 | H | -2.2151512 | 1.74251851 | -2.7042536 |
| C | 3.96043237 | -1.1193561 | 0.53273542 | H | -0.4963985 | 0.62759708 | -3.8555418 |
| C | 0.15600544 | 0.71829561 | -0.6239136 | H | -2.9466436 | -0.6439712 | -3.0631187 |
| C | -1.2434469 | 1.41149873 | -0.7453192 | H | -2.4523525 | -1.05405 | -1.4485577 |
| C | -1.7800527 | 0.92210413 | -2.1228472 | H | -3.8850398 | -0.5665939 | 0.4425082 |
| N | -0.5896384 | 0.54189065 | -2.8497754 | H | -6.0757478 | 0.21000876 | 1.26748166 |
| C | 0.55614584 | 0.65753135 | -2.0896145 | H | -7.6080819 | 1.4553224 | -0.2333086 |
| O | 1.6785389 | 0.65165932 | -2.562863 | H | -6.9421398 | 1.91908795 | -2.5766794 |
| C | -2.8091559 | -0.2194003 | -2.0591037 | H | -4.7564191 | 1.14803938 | -3.4239808 |
| C | -4.1575444 | 0.23418032 | -1.5528586 | H | -3.3116379 | 3.03742366 | -0.2890404 |
| C | -4.5461262 | -0.0251997 | -0.2316568 | H | -2.5641344 | 4.61336363 | -0.3546068 |
| C | -5.7834814 | 0.4143687 | 0.24064089 | H | -2.8549193 | 3.72549735 | -1.8631197 |
| C | -6.6440628 | 1.11484549 | -0.6021004 | H | 0.93785558 | 5.42411925 | -1.268107 |
| C | -6.2691169 | 1.37563107 | -1.9184834 | H | -0.8051606 | 5.57141685 | -1.2651456 |
| C | -5.0319739 | 0.93764063 | -2.3929028 | H | 0.07759736 | 5.63288744 | 0.27383219 |
| C | -2.5515821 | 3.62204776 | -0.817548 | H | 1.31700268 | 3.77429737 | 1.53243909 |
| C | 0.03665216 | 5.15082227 | -0.707847 | H | -0.9057884 | -1.7329443 | 1.24069484 |
| O | 1.92309876 | 3.74597681 | 0.77238151 | H | 2.5400074 | -2.9831217 | 4.09764996 |
| H | 0.64008406 | 1.60593046 | 1.27771573 | H | 1.05000224 | -3.8882857 | 3.67945363 |
| O | -0.7079264 | -0.7871424 | 1.08043074 | H | 2.40266635 | -4.7007732 | 4.49565387 |
| H | 1.71947414 | -1.8621406 | -0.9051999 | H | 3.55839346 | -4.769091 | 0.31474701 |
| C | 2.72925011 | -4.3150584 | 2.42240955 | H | 5.5761909 | -3.3834746 | 0.65033655 |
| O | 3.17043132 | -5.4533777 | 2.2233856 | H | 6.10529236 | -2.1706367 | 1.82359998 |
| C | 2.13831728 | -3.9390501 | 3.75621958 | H | 5.38622595 | -3.6776495 | 2.38875553 |
| O | 3.04875215 | -3.96788 | 0.06589603 | H | 0.84530324 | -4.0405354 | 0.0567109 |
| conformer 6a_2 | | | | | | | |
| C | -1.2012626 | 3.28350003 | 0.20750737 | C | 4.62334229 | -3.3575466 | 2.29060952 |
| C | 0.87221228 | 1.5602563 | 1.20472067 | H | -2.1082536 | 1.40289136 | 0.60589611 |
| C | 1.19445126 | 3.04654955 | 0.93108282 | O | -0.1659869 | -3.4100684 | 0.83681896 |
| C | -0.0388434 | 3.8602923 | 0.59180975 | H | 1.93626425 | 3.15470065 | 0.13156588 |
| C | -0.2378896 | -0.5448255 | 0.36170324 | H | -0.7308519 | -1.013501 | -0.4965012 |
| C | 1.08197533 | -1.3494262 | 0.59515355 | H | 2.96711566 | 1.27972816 | 1.91303379 |
| C | 2.22523021 | -0.5547189 | 1.18220956 | H | 0.46299198 | -2.3025839 | 2.44247084 |
| C | 2.11999379 | 0.74917357 | 1.47992898 | H | 3.04765384 | -2.2647949 | 3.22919379 |
| C | 0.8494722 | -2.608001 | 1.46302373 | H | 3.89390306 | -1.5922698 | 0.36772351 |
| C | 2.13253368 | -3.4483226 | 1.66113911 | H | 4.27644386 | -0.6933282 | 1.82836474 |
| C | 3.29850001 | -2.5875343 | 2.20961868 | H | -2.0363956 | 2.47560502 | -2.0451313 |
| C | 3.50917268 | -1.3228726 | 1.36006119 | H | -0.2910819 | 1.36051884 | -3.1755559 |
| C | -0.0041322 | 0.96336576 | 0.0925208 | H | -2.5564289 | -0.4852903 | -1.4024379 |
| C | -1.3324183 | 1.77573126 | -0.0735861 | H | -3.7116468 | 0.79328046 | -1.1151429 |
| C | -1.7278522 | 1.54276481 | -1.559646 | H | -4.7686386 | 2.02140359 | -3.0037103 |

| | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| N | -0.4890452 | 1.1691472 | -2.1995436 | H | -5.4963128 | 1.8822235 | -5.3578795 |
| C | 0.56397214 | 1.07569734 | -1.3144716 | H | -4.4767717 | 0.21536272 | -6.8847082 |
| O | 1.73193521 | 1.03377003 | -1.65749 | H | -2.7179652 | -1.3200944 | -6.0479802 |
| C | -2.8543456 | 0.51158251 | -1.7404254 | H | -1.9746645 | -1.1960962 | -3.6972132 |
| C | -3.3217738 | 0.41762698 | -3.1754976 | H | -3.3499887 | 3.45112463 | 0.29007761 |
| C | -4.3118917 | 1.28363247 | -3.6593281 | H | -2.5249633 | 4.93603305 | 0.70794955 |
| C | -4.7261069 | 1.20922371 | -4.9900195 | H | -2.5925865 | 4.41890001 | -0.9917097 |
| C | -4.1534658 | 0.27270831 | -5.8486296 | H | 1.1190074 | 5.64241876 | 0.26140974 |
| C | -3.165784 | -0.5904058 | -5.3782095 | H | -0.6049303 | 5.91988379 | 0.13981671 |
| C | -2.7502811 | -0.5184691 | -4.048083 | H | 0.1274398 | 5.67798353 | 1.73703112 |
| C | -2.4819201 | 4.07059663 | 0.03938828 | H | 1.0889572 | 3.55909379 | 2.81196767 |
| C | 0.15268295 | 5.35600121 | 0.69131361 | H | -1.4412348 | -1.6224823 | 1.45074284 |
| O | 1.77070949 | 3.60611806 | 2.12014849 | H | 1.55921754 | -3.5609691 | 4.42473383 |
| H | 0.30538881 | 1.52346388 | 2.14890961 | H | 0.0753025 | -4.2743343 | 3.71518176 |
| O | -1.153787 | -0.6861582 | 1.45735531 | H | 1.26786233 | -5.3015605 | 4.53898746 |
| H | 1.40951977 | -1.6659058 | -0.4065362 | H | 2.90480163 | -4.8575688 | 0.54583632 |
| C | 1.8615127 | -4.6479664 | 2.59626694 | H | 4.95169846 | -3.7032996 | 1.3049823 |
| O | 2.25034158 | -5.777285 | 2.2745794 | H | 5.41408756 | -2.7188489 | 2.69944217 |
| C | 1.14147618 | -4.4224302 | 3.90022201 | H | 4.53839839 | -4.2285117 | 2.94756558 |
| O | 2.47928026 | -3.9908829 | 0.36872257 | H | 0.29465308 | -3.8840003 | 0.11064877 |
| conformer 6a_3 | | | | | | | |
| C | -1.3258202 | 2.79404439 | -1.0537288 | C | 5.51826772 | -2.7602971 | 1.11814219 |
| C | 1.13197974 | 1.51434639 | -0.2927918 | H | -1.8421968 | 1.19699153 | 0.24563055 |
| C | 1.18498212 | 2.78272292 | -1.1769405 | O | 0.54775706 | -3.2703894 | 1.39608113 |
| C | -0.169891 | 3.44821123 | -1.3156973 | H | 1.58063292 | 2.56855604 | -2.1772486 |
| C | 0.03567177 | -0.7454691 | 0.05361509 | H | -0.6482655 | -1.4787805 | -0.3871676 |
| C | 1.43708516 | -1.4355341 | 0.0892337 | H | 3.36623752 | 1.45059264 | -0.228163 |
| C | 2.61756958 | -0.501009 | -0.0360023 | H | 1.52290373 | -1.6790569 | 2.24346088 |
| C | 2.47837621 | 0.82581987 | -0.1797415 | H | 4.19729625 | -1.3918916 | 2.08833285 |
| C | 1.61721276 | -2.310671 | 1.3523204 | H | 4.05424808 | -1.7809918 | -0.9426326 |
| C | 2.9782661 | -3.0426142 | 1.39128692 | H | 4.77155223 | -0.4301298 | -0.0784392 |
| C | 4.15859678 | -2.0553702 | 1.21375105 | H | -2.7440646 | 1.24139374 | -2.4811227 |
| C | 3.96628955 | -1.1742902 | -0.0318145 | H | -1.3189147 | -0.1821762 | -3.688259 |
| C | 0.01199643 | 0.56993723 | -0.7646358 | H | -3.5404435 | -1.1325339 | -2.1426431 |
| C | -1.3793025 | 1.28773876 | -0.7424917 | H | -2.7252622 | -1.1985239 | -0.609417 |
| C | -2.1996888 | 0.54262616 | -1.8359304 | H | -3.7266853 | -0.2154768 | 1.3686006 |
| N | -1.1936045 | -0.0473331 | -2.6915682 | H | -5.6974628 | 0.83327876 | 2.41615345 |
| C | 0.08773634 | 0.17499431 | -2.2313557 | H | -7.5108622 | 1.77329908 | 1.00932089 |
| O | 1.08483375 | 0.02029062 | -2.914834 | H | -7.3490606 | 1.65597865 | -1.4625695 |
| C | -3.1974039 | -0.5032869 | -1.3098205 | H | -5.3872869 | 0.60797506 | -2.5317903 |
| C | -4.4110324 | 0.11774949 | -0.660656 | H | -3.2821185 | 3.07431923 | -0.1936816 |
| C | -4.5151 | 0.18672184 | 0.73510571 | H | -2.5721685 | 4.56057378 | -0.7698401 |
| C | -5.6270589 | 0.78152794 | 1.33266363 | H | -3.2048771 | 3.3873768 | -1.9412651 |
| C | -6.6453005 | 1.31073766 | 0.54237525 | H | 0.63256198 | 5.00262383 | -2.5668547 |
| C | -6.5534757 | 1.2451097 | -0.8463987 | H | -1.0625371 | 5.23025626 | -2.2048486 |
| C | -5.442034 | 0.65157114 | -1.4463007 | H | 0.14743178 | 5.54666091 | -0.944742 |

| | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| C | -2.6661027 | 3.49423871 | -0.995574 | H | 2.95510153 | 3.54010039 | -0.8861061 |
| C | -0.1171753 | 4.88590834 | -1.7761584 | H | -0.6477019 | -1.3675266 | 1.76918465 |
| O | 2.06147736 | 3.73313722 | -0.5584551 | H | 1.74851444 | -3.082159 | 4.15101223 |
| H | 0.9036352 | 1.84646658 | 0.73252785 | H | 3.23459833 | -3.7737911 | 4.83592755 |
| O | -0.4715824 | -0.4907848 | 1.37075666 | H | 3.29771279 | -2.183837 | 4.06398103 |
| H | 1.46436513 | -2.0856394 | -0.7981443 | H | 3.50405834 | -4.7639033 | 0.62546126 |
| C | 3.13354531 | -3.8399773 | 2.70543869 | H | 5.56490983 | -3.435231 | 0.25725823 |
| O | 3.52055316 | -5.0142651 | 2.66790891 | H | 6.3243688 | -2.0263067 | 1.00945795 |
| C | 2.82927662 | -3.1688984 | 4.01942455 | H | 5.72961678 | -3.3421549 | 2.02045911 |
| O | 2.96803435 | -4.0030192 | 0.31303881 | H | 0.80522741 | -3.970558 | 0.75791911 |
| conformer 6a_4 | | | | | | | |
| C | -0.8670375 | 3.00686885 | -0.897031 | C | 4.92689829 | -3.3604646 | 1.96655057 |
| C | 1.24040395 | 1.41627561 | 0.22624653 | H | -1.7759444 | 1.30092167 | -0.0167537 |
| C | 1.58711026 | 2.78558487 | -0.4017723 | O | 0.02278793 | -3.4771567 | 0.97521631 |
| C | 0.35073264 | 3.58527801 | -0.7670278 | H | 2.2275833 | 2.6660804 | -1.2840496 |
| C | -0.0130313 | -0.7655989 | -0.0682434 | H | -0.5890587 | -1.3695071 | -0.7778762 |
| C | 1.29999673 | -1.5691666 | 0.2052468 | H | 3.37862401 | 1.17145887 | 0.8008878 |
| C | 2.51873914 | -0.7308751 | 0.50987773 | H | 0.83336852 | -2.0973963 | 2.25655948 |
| C | 2.48191134 | 0.60934579 | 0.54579373 | H | 3.48025014 | -2.0230581 | 2.78915311 |
| C | 1.11587776 | -2.6134189 | 1.33137979 | H | 4.0694103 | -1.9947538 | -0.2124559 |
| C | 2.38637332 | -3.4566654 | 1.58711856 | H | 4.61731946 | -0.8354876 | 0.9887157 |
| C | 3.6237529 | -2.5599096 | 1.84162876 | H | -1.9813737 | 1.79443075 | -2.8362533 |
| C | 3.78980592 | -1.5088766 | 0.73151799 | H | -0.3717466 | 0.44006759 | -3.8833983 |
| C | 0.23279166 | 0.65110168 | -0.6465739 | H | -2.9468414 | -0.5296827 | -3.0677636 |
| C | -1.0795564 | 1.48178256 | -0.8420673 | H | -2.5371732 | -0.8752431 | -1.4147828 |
| C | -1.6441856 | 0.96911946 | -2.1991209 | H | -3.9386846 | -0.0858367 | 0.40169827 |
| N | -0.4888313 | 0.42353349 | -2.8768536 | H | -6.0533356 | 0.96986298 | 1.105477 |
| C | 0.64945912 | 0.46447085 | -2.0975077 | H | -7.4245719 | 2.23561108 | -0.5283226 |
| O | 1.77416021 | 0.32301946 | -2.5445598 | H | -6.6729754 | 2.43913744 | -2.8829167 |
| C | -2.7888254 | -0.0527158 | -2.090657 | H | -4.5616251 | 1.38778252 | -3.6093655 |
| C | -4.0933029 | 0.57245848 | -1.6573983 | H | -2.9647495 | 3.33218614 | -0.5195874 |
| C | -4.5298636 | 0.46130027 | -0.3304506 | H | -2.0560584 | 4.81641896 | -0.6419733 |
| C | -5.7243582 | 1.05916253 | 0.07329452 | H | -2.4174514 | 3.89304772 | -2.114523 |
| C | -6.4940803 | 1.77130339 | -0.8442279 | H | 1.50610112 | 5.21451602 | -1.5602812 |
| C | -6.0708698 | 1.88587391 | -2.1668274 | H | -0.2099428 | 5.5446668 | -1.5515499 |
| C | -4.8761786 | 1.28967886 | -2.5727443 | H | 0.6902325 | 5.57738679 | -0.0222754 |
| C | -2.1403483 | 3.80885838 | -1.0599073 | H | 2.89576313 | 4.14624924 | 0.08142877 |
| C | 0.58824212 | 5.06089781 | -0.9817641 | H | -1.1323235 | -1.5731997 | 1.30693729 |
| O | 2.3256484 | 3.53309806 | 0.57385964 | H | 2.0758357 | -2.9759462 | 4.35332743 |
| H | 0.77753251 | 1.61643043 | 1.20580143 | H | 0.51053381 | -3.7459047 | 3.93931918 |
| O | -0.8367295 | -0.6626196 | 1.1014748 | H | 1.74537205 | -4.6405468 | 4.85083761 |
| H | 1.51806551 | -2.0972815 | -0.7351988 | H | 3.00098087 | -5.1023676 | 0.72738774 |
| C | 2.17002323 | -4.4259089 | 2.77063747 | H | 5.14982209 | -3.9169006 | 1.05030149 |
| O | 2.49272613 | -5.6146874 | 2.65685483 | H | 5.77146538 | -2.6907093 | 2.16273927 |
| C | 1.58465221 | -3.9048304 | 4.05726857 | H | 4.87891652 | -4.072723 | 2.79587599 |
| O | 2.59374793 | -4.2674219 | 0.41003848 | H | 0.39803661 | -4.1084066 | 0.32360898 |

| conformer 6a_5 | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | -1.5634747 | 3.09272101 | -0.5765344 | C | 5.45932783 | -2.1131539 | 1.86853719 |
| C | 0.92740542 | 1.93965791 | 0.27592969 | H | -2.0576692 | 1.46700992 | 0.6984438 |
| C | 0.947821 | 3.20892351 | -0.6077335 | O | 0.51305728 | -2.8641696 | 1.96444328 |
| C | -0.4335734 | 3.80610194 | -0.7927201 | H | 1.38676863 | 3.01422894 | -1.5938917 |
| C | -0.0704071 | -0.3664576 | 0.59780791 | H | -0.7072494 | -1.133269 | 0.14419527 |
| C | 1.35936479 | -0.9900194 | 0.68547621 | H | 3.15875136 | 1.98453837 | 0.42007269 |
| C | 2.49785739 | -0.0001241 | 0.59803702 | H | 1.37661897 | -1.2254949 | 2.84232811 |
| C | 2.300722 | 1.31800903 | 0.44095751 | H | 4.038645 | -0.807587 | 2.78286888 |
| C | 1.53484423 | -1.8529832 | 1.95742438 | H | 4.02619805 | -1.2126419 | -0.2494356 |
| C | 2.92758187 | -2.5176263 | 2.0493004 | H | 4.64600316 | 0.17384897 | 0.63362025 |
| C | 4.06450972 | -1.4747815 | 1.91064134 | H | -2.8390312 | 1.48386232 | -2.0547394 |
| C | 3.87608933 | -0.6079358 | 0.65455876 | H | -1.325005 | 0.07856998 | -3.1906999 |
| C | -0.1262667 | 0.93978044 | -0.2329785 | H | -2.7662446 | -1.0369511 | -0.2961826 |
| C | -1.5507934 | 1.58690108 | -0.2666279 | H | -3.9680123 | 0.22250544 | -0.1499427 |
| C | -2.2900881 | 0.80668007 | -1.3901678 | H | -5.6300601 | 0.63220094 | -1.9605933 |
| N | -1.2265045 | 0.25600358 | -2.1972515 | H | -6.9238411 | -0.3990686 | -3.7919951 |
| C | 0.02503022 | 0.53763905 | -1.6928396 | H | -6.1332159 | -2.4958154 | -4.854114 |
| O | 1.05541974 | 0.41892414 | -2.3325476 | H | -4.0343406 | -3.5645994 | -4.0770294 |
| C | -3.2745778 | -0.2484199 | -0.8589433 | H | -2.7246433 | -2.5479948 | -2.2477694 |
| C | -4.0845422 | -0.8863087 | -1.965278 | H | -3.6009561 | 3.21188126 | 0.12092235 |
| C | -5.2696689 | -0.2880486 | -2.4146406 | H | -2.9163277 | 4.77114501 | -0.2772088 |
| C | -6.0041788 | -0.8671076 | -3.4504909 | H | -3.3865519 | 3.66008649 | -1.583363 |
| C | -5.5602734 | -2.0453874 | -4.0478292 | H | 0.31718839 | 5.39744679 | -2.0289722 |
| C | -4.3813497 | -2.6461137 | -3.6106723 | H | -1.3923757 | 5.55000682 | -1.6902945 |
| C | -3.6453959 | -2.0694511 | -2.5748466 | H | -0.2165909 | 5.91585937 | -0.4135346 |
| C | -2.9386527 | 3.72187605 | -0.5871951 | H | 2.66757631 | 4.05106768 | -0.2559424 |
| C | -0.438555 | 5.2458784 | -1.2500768 | H | -0.7896781 | -0.9993431 | 2.29534479 |
| O | 1.7543288 | 4.2016024 | 0.03844039 | H | 1.60054423 | -2.6106535 | 4.76254547 |
| H | 0.64583986 | 2.26120672 | 1.29139514 | H | 3.09281764 | -3.2263535 | 5.50415065 |
| O | -0.6295131 | -0.1202793 | 1.8953697 | H | 3.10585769 | -1.6372913 | 4.72791228 |
| H | 1.44869969 | -1.6402598 | -0.1977006 | H | 3.56486051 | -4.2129005 | 1.31051503 |
| C | 3.07305839 | -3.3031247 | 3.3717144 | H | 5.57038516 | -2.7876767 | 1.01324935 |
| O | 3.51800347 | -4.4571792 | 3.35352282 | H | 6.23241991 | -1.3412272 | 1.78599635 |
| C | 2.68835094 | -2.6443616 | 4.67075417 | H | 5.66512063 | -2.6812621 | 2.78084348 |
| O | 3.00344311 | -3.480393 | 0.97570798 | H | 0.82909753 | -3.5523477 | 1.33975577 |
| conformer 6a_6 | | | | | | | |
| C | -1.1392529 | 3.29443144 | -0.2885199 | C | 4.48378414 | -3.0775897 | 2.88645899 |
| C | 0.87799401 | 1.69858931 | 0.98376098 | H | -2.0950835 | 1.51392655 | 0.37128364 |
| C | 1.24797522 | 3.11084772 | 0.47664706 | O | -0.2661684 | -3.2590707 | 1.32208207 |
| C | 0.03366946 | 3.89735651 | 0.01928635 | H | 1.98582019 | 3.06012218 | -0.3333042 |
| C | -0.2667318 | -0.4912912 | 0.43431646 | H | -0.7459629 | -1.0691231 | -0.3631504 |
| C | 1.03002909 | -1.2781316 | 0.81277959 | H | 2.94332865 | 1.47455636 | 1.78854827 |
| C | 2.18001375 | -0.4290645 | 1.30120457 | H | 0.34586659 | -1.9357199 | 2.76329993 |
| C | 2.0991052 | 0.90604001 | 1.40240563 | H | 2.91099112 | -1.8249342 | 3.60436171 |
| C | 0.74991555 | -2.3898844 | 1.85093775 | H | 3.84119826 | -1.6123045 | 0.69790156 |

| | | | | | | | |
|-----------------------|------------|------------|------------|---|------------|------------|------------|
| C | 2.00831432 | -3.2145117 | 2.207595 | H | 4.21169693 | -0.5101044 | 2.01505871 |
| C | 3.17958921 | -2.303503 | 2.65281809 | H | -1.9722804 | 2.18178367 | -2.4055274 |
| C | 3.44019414 | -1.1875644 | 1.62748782 | H | -0.2367384 | 0.88310324 | -3.337276 |
| C | 0.00275125 | 0.95876527 | -0.0407162 | H | -2.5597871 | -0.6429903 | -1.3435407 |
| C | -1.3034282 | 1.76498515 | -0.3448549 | H | -3.6916146 | 0.68528211 | -1.2656351 |
| C | -1.687515 | 1.32403889 | -1.7853379 | H | -4.6961504 | 1.64308505 | -3.3317215 |
| N | -0.4487589 | 0.83868972 | -2.3468114 | H | -5.3969268 | 1.17200462 | -5.6509475 |
| C | 0.59081342 | 0.85776822 | -1.4409229 | H | -4.3959503 | -0.723068 | -6.8984759 |
| O | 1.7632265 | 0.75627287 | -1.7567439 | H | -2.6831503 | -2.1535647 | -5.8160892 |
| C | -2.8325462 | 0.29846995 | -1.8292615 | H | -1.9672658 | -1.6979978 | -3.497686 |
| C | -3.2836037 | 0.00264792 | -3.2421234 | H | -3.2862512 | 3.50466222 | -0.2501923 |
| C | -4.247684 | 0.80754676 | -3.8642556 | H | -2.440522 | 5.01833984 | -0.0234178 |
| C | -4.6465089 | 0.5454826 | -5.1757787 | H | -2.5022465 | 4.28093628 | -1.6409158 |
| C | -4.0842792 | -0.5193489 | -5.877398 | H | 1.20533832 | 5.60489516 | -0.5544708 |
| C | -3.1224511 | -1.3234005 | -5.2689355 | H | -0.5150369 | 5.8890553 | -0.6903387 |
| C | -2.7223871 | -1.0638491 | -3.9575812 | H | 0.23444707 | 5.84506304 | 0.91620884 |
| C | -2.4056711 | 4.07172212 | -0.5714569 | H | 2.46267501 | 4.46216599 | 1.17924303 |
| C | 0.24183458 | 5.38978203 | -0.0790506 | H | -1.5163237 | -1.388065 | 1.63130627 |
| O | 1.84745766 | 3.81944592 | 1.56926293 | H | 1.03303111 | -4.5984097 | 5.30561723 |
| H | 0.29934346 | 1.82988167 | 1.91213142 | H | 1.36549652 | -2.9003283 | 4.94009736 |
| O | -1.2151736 | -0.464364 | 1.50981676 | H | -0.1164053 | -3.6849137 | 4.30540524 |
| H | 1.36964896 | -1.7457923 | -0.1236118 | H | 2.76984187 | -4.7923732 | 1.33826355 |
| C | 1.68745622 | -4.2549186 | 3.30377678 | H | 4.82815637 | -3.5756196 | 1.97420797 |
| O | 2.0584411 | -5.4268091 | 3.16473378 | H | 5.27888416 | -2.3994652 | 3.21558049 |
| C | 0.94147805 | -3.8230012 | 4.53931403 | H | 4.36248153 | -3.8366047 | 3.6652879 |
| O | 2.37511799 | -3.9514738 | 1.02085768 | H | 0.20244915 | -3.8425909 | 0.68670389 |
| conformer 6a_7 | | | | | | | |
| C | -1.0858146 | 2.99853812 | -0.9519438 | C | 5.25202763 | -2.9377098 | 1.69590451 |
| C | 1.19876993 | 1.58910022 | 0.04242222 | H | -1.8114939 | 1.33881025 | 0.16595294 |
| C | 1.41901549 | 2.91230389 | -0.7245141 | O | 0.36852036 | -3.4711577 | 0.94220369 |
| C | 0.11285468 | 3.62521236 | -1.020355 | H | 1.97531125 | 2.75245437 | -1.6547029 |
| C | 0.03409307 | -0.6517693 | 0.07485095 | H | -0.6304084 | -1.3241247 | -0.4751447 |
| C | 1.39679251 | -1.4030907 | 0.18866767 | H | 3.38152544 | 1.46187178 | 0.45569652 |
| C | 2.58620009 | -0.4886761 | 0.3684927 | H | 1.07918971 | -2.0504144 | 2.25877572 |
| C | 2.48875639 | 0.85015345 | 0.32349046 | H | 3.75805579 | -1.6968753 | 2.58904059 |
| C | 1.36412 | -2.4886127 | 1.29406119 | H | 4.16058559 | -1.6660069 | -0.443542 |
| C | 2.71746691 | -3.22842 | 1.45560166 | H | 4.71465355 | -0.4611083 | 0.70933026 |
| C | 3.89028487 | -2.2319429 | 1.63783174 | H | -2.3619186 | 1.58911126 | -2.6430449 |
| C | 3.91510074 | -1.1868665 | 0.51332868 | H | -0.8221873 | 0.20534192 | -3.7606244 |
| C | 0.13746094 | 0.71632339 | -0.6461434 | H | -3.2818948 | -0.7373454 | -2.5962657 |
| C | -1.22627 | 1.47640199 | -0.7492364 | H | -2.6191942 | -1.004492 | -1.0137167 |
| C | -1.9180512 | 0.83187489 | -1.9872901 | H | -3.7960467 | -0.2504824 | 0.95404782 |
| N | -0.8232635 | 0.27381963 | -2.7488742 | H | -5.8183304 | 0.76763196 | 1.93291303 |
| C | 0.39350584 | 0.42099617 | -2.115998 | H | -7.427873 | 1.98663487 | 0.49272544 |
| O | 1.46613996 | 0.27595131 | -2.6737681 | H | -7.0113974 | 2.17968232 | -1.9441653 |
| C | -2.9980057 | -0.2168353 | -1.6711981 | H | -4.996924 | 1.16572847 | -2.9456851 |

| | | | | | | | |
|----------------|------------|------------|------------|---|------------|------------|------------|
| C | -4.2445213 | 0.38550695 | -1.0692107 | H | -3.1367586 | 3.30142655 | -0.3632499 |
| C | -4.4926119 | 0.27884107 | 0.3060886 | H | -2.3073888 | 4.79088504 | -0.739353 |
| C | -5.6339506 | 0.8549758 | 0.86516264 | H | -2.800212 | 3.71266427 | -2.0597169 |
| C | -6.5380589 | 1.54038645 | 0.05626258 | H | 1.12583392 | 5.19285743 | -2.08983 |
| C | -6.3032007 | 1.64900496 | -1.3129055 | H | -0.5971616 | 5.46466152 | -1.9561913 |
| C | -5.1623209 | 1.07413052 | -1.8744209 | H | 0.43568476 | 5.69932392 | -0.5315167 |
| C | -2.4003779 | 3.74360675 | -1.0423363 | H | 1.66455285 | 4.02917615 | 0.86296563 |
| C | 0.27020738 | 5.07557374 | -1.4153945 | H | 0.04261719 | -0.0005148 | 1.93258752 |
| O | 2.2122293 | 3.77647668 | 0.10054145 | H | 1.78289601 | -5.9139567 | 1.94502209 |
| H | 0.82474028 | 1.86605718 | 1.04110228 | H | 3.57069312 | -5.9002577 | 2.11271246 |
| O | -0.5817819 | -0.4853682 | 1.36044481 | H | 2.53655734 | -6.0729286 | 3.54462117 |
| H | 1.54175343 | -1.9063239 | -0.779203 | H | 2.0526084 | -4.3618484 | 0.03233056 |
| C | 2.59793331 | -4.0969774 | 2.73089961 | H | 5.46918521 | -3.4755731 | 0.76714035 |
| O | 2.47435183 | -3.5925898 | 3.8511403 | H | 6.05516944 | -2.2097836 | 1.8548963 |
| C | 2.62402937 | -5.594729 | 2.56479365 | H | 5.29354298 | -3.6546275 | 2.52178557 |
| O | 2.93665602 | -4.0225016 | 0.28507028 | H | -0.4942542 | -3.0695869 | 1.16863581 |
| conformer 6a_8 | | | | | | | |
| C | -2.354825 | 2.12734392 | -1.0019798 | C | 6.20630646 | -0.5883971 | 0.3198943 |
| C | 0.46861352 | 1.82997365 | -0.6431674 | H | -2.0805853 | 0.70546754 | 0.55524017 |
| C | -0.0432682 | 2.86287947 | -1.6725539 | O | 1.86444161 | -2.762446 | 1.37889509 |
| C | -1.5470482 | 3.04361351 | -1.5877624 | H | 0.23244784 | 2.59729728 | -2.6999981 |
| C | 0.28656526 | -0.5551719 | 0.18575221 | H | -0.1908725 | -1.5249499 | 0.01822546 |
| C | 1.8110449 | -0.7919668 | -0.0407486 | H | 2.57855774 | 2.48692547 | -0.9554061 |
| C | 2.57102683 | 0.44986435 | -0.4448346 | H | 2.3018224 | -0.8771446 | 2.09503453 |
| C | 1.96930971 | 1.62544577 | -0.6903266 | H | 4.6344006 | 0.34424634 | 1.42873038 |
| C | 2.47269789 | -1.4688752 | 1.18681873 | H | 4.21326289 | -0.376598 | -1.5140948 |
| C | 3.99687873 | -1.6882244 | 1.00797621 | H | 4.54452306 | 1.21672228 | -0.8522666 |
| C | 4.71251847 | -0.3752974 | 0.60128787 | H | -3.3879197 | -0.0146617 | -1.9004701 |
| C | 4.05563785 | 0.25897628 | -0.6327813 | H | -1.7846044 | -1.1225298 | -3.2177703 |
| C | -0.3232348 | 0.51505128 | -0.7533227 | H | -3.3115321 | -2.4039535 | -1.1464388 |
| C | -1.8495819 | 0.75702014 | -0.5138968 | H | -2.223404 | -1.9942938 | 0.14340712 |
| C | -2.539815 | -0.3865738 | -1.3145258 | H | -3.0642144 | -1.1052935 | 2.22582176 |
| N | -1.549751 | -0.7761349 | -2.2942619 | H | -5.006711 | -0.5254907 | 3.6306179 |
| C | -0.3620069 | -0.0913324 | -2.1478577 | H | -7.2649324 | -0.3298886 | 2.62425805 |
| O | 0.50303389 | -0.0453361 | -3.0044825 | H | -7.5785265 | -0.7245318 | 0.19625162 |
| C | -3.0247123 | -1.5817408 | -0.4763695 | H | -5.6499275 | -1.3091179 | -1.2278675 |
| C | -4.2128829 | -1.2481215 | 0.39291971 | H | -4.117107 | 1.94914342 | 0.22596015 |
| C | -4.0484692 | -1.0273223 | 1.76714258 | H | -4.0539529 | 3.45087577 | -0.6609381 |
| C | -5.1438414 | -0.6968225 | 2.56593465 | H | -4.4453785 | 1.94848748 | -1.520675 |
| C | -6.4125103 | -0.5861431 | 2.00051452 | H | -1.5373226 | 4.51152431 | -3.1596945 |
| C | -6.5879228 | -0.8073859 | 0.63602892 | H | -3.1232617 | 4.27357208 | -2.4633223 |
| C | -5.4940012 | -1.1373936 | -0.1651243 | H | -1.8947566 | 5.16960488 | -1.546717 |
| C | -3.8222486 | 2.38423413 | -0.7346479 | H | 1.36915969 | 4.18360699 | -1.8982416 |
| C | -2.059055 | 4.31892365 | -2.2154428 | H | 0.47175931 | 0.59578593 | 1.77324832 |
| O | 0.55427171 | 4.12895128 | -1.3712201 | H | 5.39215503 | -3.7522956 | 3.5143917 |
| H | 0.28812577 | 2.26644215 | 0.35217215 | H | 4.23406745 | -4.2677749 | 2.27165804 |

| | | | | | | | |
|---|------------|------------|------------|---|------------|------------|------------|
| O | 0.00508247 | -0.2333909 | 1.5552302 | H | 5.88049584 | -3.7209684 | 1.80844384 |
| H | 1.88256703 | -1.484627 | -0.8928859 | H | 3.46945719 | -3.3267556 | 0.1198743 |
| C | 4.54274562 | -2.1515763 | 2.38014627 | H | 6.36653155 | -1.2770013 | -0.5163033 |
| O | 4.5612045 | -1.4000212 | 3.3595362 | H | 6.68840014 | 0.36198732 | 0.06584229 |
| C | 5.04345981 | -3.5686028 | 2.49406 | H | 6.72264163 | -0.9920363 | 1.19640287 |
| O | 4.19206094 | -2.6771125 | -0.0084869 | H | 1.00290828 | -2.5886647 | 1.80916517 |

Table S7. Important thermodynamic parameters of the B3LYP-D3(BJ)/6-311G* optimized conformers of **1a** in the gas phase

| Conformers | C ^a (Hartree) | E ^b (Hartree) | G ^c (Hartree) |
|---------------|--------------------------|--------------------------|--------------------------|
| 1a _10 | 0.565275 | -1668.726258 | -1668.160983 |
| 1a _7 | 0.564920 | -1668.721431 | -1668.160121 |
| 1a _9 | 0.564836 | -1668.724784 | -1668.159948 |
| 1a _1 | 0.563665 | -1668.722845 | -1668.159180 |
| 1a _4 | 0.563411 | -1668.722587 | -1668.159176 |
| 1a _2 | 0.562082 | -1668.721177 | -1668.159095 |
| 1a _8 | 0.564031 | -1668.723115 | -1668.159084 |
| 1a _5 | 0.562724 | -1668.721431 | -1668.158707 |
| 1a _12 | 0.563580 | -1668.722130 | -1668.158550 |
| 1a _3 | 0.563554 | -1668.721435 | -1668.157880 |
| 1a _6 | 0.563658 | -1668.721431 | -1668.157137 |
| 1a _11 | 0.561775 | -1668.717682 | -1668.155907 |

^aThermal correction to Gibbs free energy; ^bElectronic energy; ^cGibbs free energy (E + C).

Table S8. Conformational analysis of the B3LYP-D3(BJ)/6-311G* optimized conformers of **1a** in the gas phase (T=298.15 K)

| Conformers | ΔG (kcal/mol) ^a | Population ^b |
|---------------|------------------------------------|-------------------------|
| 1a _10 | 0.000000 | 39.63% |
| 1a _7 | 0.540908 | 15.89% |
| 1a _9 | 0.649466 | 13.23% |
| 1a _1 | 1.131388 | 5.86% |
| 1a _4 | 1.133898 | 5.84% |
| 1a _2 | 1.184726 | 5.36% |
| 1a _8 | 1.191628 | 5.30% |
| 1a _5 | 1.428197 | 3.55% |
| 1a _12 | 1.526715 | 3.01% |
| 1a _3 | 1.947142 | 1.48% |
| 1a _6 | 2.413377 | 0.67% |
| 1a _11 | 3.185205 | 0.18% |

^aThe relative Gibbs free energy; ^bThe Boltzmann distribution of each conformer.

Table S9. Important thermodynamic parameters of the B3LYP/6-311G* optimized conformers of **2a** in the gas phase

| Conformers | C ^a (Hartree) | E ^b (Hartree) | G ^c (Hartree) |
|-------------|--------------------------|--------------------------|--------------------------|
| 2a_3 | 0.561115 | -1671.078096 | -1670.516981 |
| 2a_2 | 0.559030 | -1671.075902 | -1670.516872 |
| 2a_1 | 0.560529 | -1671.076880 | -1670.516352 |
| 2a_4 | 0.561076 | -1671.077314 | -1670.516238 |
| 2a_7 | 0.559563 | -1671.075752 | -1670.516190 |
| 2a_8 | 0.559917 | -1671.075183 | -1670.515266 |
| 2a_6 | 0.559284 | -1671.073025 | -1670.513741 |
| 2a_5 | 0.557378 | -1671.070645 | -1670.513268 |

^aThermal correction to Gibbs free energy; ^bElectronic energy; ^cGibbs free energy (E + C).

Table S10. Conformational analysis of the B3LYP/6-311G* optimized conformers of **2a** in the gas phase (T=298.15 K)

| Conformers | ΔG (kcal/mol) ^a | Population ^b |
|-------------|------------------------------------|-------------------------|
| 2a_3 | 0.0000000 | 28.52% |
| 2a_2 | 0.0683978 | 25.41% |
| 2a_1 | 0.3946994 | 14.64% |
| 2a_4 | 0.4662347 | 12.98% |
| 2a_7 | 0.4963549 | 12.33% |
| 2a_8 | 1.0761676 | 4.63% |
| 2a_6 | 2.0331097 | 0.92% |
| 2a_5 | 2.3299186 | 0.56% |

^aThe relative Gibbs free energy; ^bThe Boltzmann distribution of each conformer.

Table S11. Important thermodynamic parameters of the B3LYP/6-311G* optimized conformers of **3a** in the gas phase

| Conformers | C ^a (Hartree) | E ^b (Hartree) | G ^c (Hartree) |
|--------------|--------------------------|--------------------------|--------------------------|
| 3a _4 | 0. 5921770 | −1823. 7932322 | −1823. 2010550 |
| 3a _2 | 0. 5923070 | −1823. 7932337 | −1823. 2009260 |
| 3a _1 | 0. 5948740 | −1823. 7952335 | −1823. 2003600 |
| 3a _3 | 0. 5948770 | −1823. 7952335 | −1823. 2003560 |
| 3a _5 | 0. 5916870 | −1823. 7932322 | −1823. 1985720 |
| 3a _6 | 0. 5912700 | −1823. 7932322 | −1823. 1979380 |
| 3a _7 | 0. 5937350 | −1823. 7911947 | −1823. 1974600 |
| 3a _8 | 0. 5886950 | −1823. 7834799 | −1823. 1947850 |

^aThermal correction to Gibbs free energy; ^bElectronic energy; ^cGibbs free energy (E + C).

Table S12. Conformational analysis of the B3LYP/6-311G* optimized conformers of **3a** in the gas phase (T=298.15 K)

| Conformers | ΔG (kcal/mol) ^a | Population ^b |
|--------------|----------------------------|-------------------------|
| 3a _4 | 0. 000000 | 33. 79% |
| 3a _2 | 0. 080948 | 29. 47% |
| 3a _1 | 0. 436115 | 16. 17% |
| 3a _3 | 0. 438625 | 16. 11% |
| 3a _5 | 1. 558090 | 2. 43% |
| 3a _6 | 1. 955927 | 1. 24% |
| 3a _7 | 2. 255873 | 0. 75% |
| 3a _8 | 3. 934444 | 0. 04% |

^aThe relative Gibbs free energy; ^bThe Boltzmann distribution of each conformer.

Table S13. Important thermodynamic parameters of the B3LYP/6-311G* optimized conformers of **4a** in the gas phase

| Conformers | C ^a (Hartree) | E ^b (Hartree) | G ^c (Hartree) |
|--------------|--------------------------|--------------------------|--------------------------|
| 4a _1 | 0. 616836 | -1863. 104872 | -1862. 488036 |
| 4a _4 | 0. 618558 | -1863. 105978 | -1862. 48742 |
| 4a _3 | 0. 617827 | -1863. 104635 | -1862. 486808 |
| 4a _2 | 0. 614872 | -1863. 101431 | -1862. 48656 |
| 4a _5 | 0. 61573 | -1863. 101164 | -1862. 485434 |
| 4a _6 | 0. 6176 | -1863. 100993 | -1862. 483393 |

^aThermal correction to Gibbs free energy; ^bElectronic energy; ^cGibbs free energy (E + C).

Table S14. Conformational analysis of the B3LYP/6-311G* optimized conformers of **4a** in the gas phase (T=298.15 K)

| Conformers | ΔG (kcal/mol) ^a | Population ^b |
|--------------|------------------------------------|-------------------------|
| 4a _1 | 0. 000000 | 48. 25% |
| 4a _4 | 0. 386542 | 25. 12% |
| 4a _3 | 0. 770574 | 13. 13% |
| 4a _2 | 0. 926194 | 10. 10% |
| 4a _5 | 1. 632763 | 3. 06% |
| 4a _6 | 2. 913496 | 0. 35% |

^aThe relative Gibbs free energy; ^bThe Boltzmann distribution of each conformer.

Table S15. Important thermodynamic parameters of the B3LYP/6-311G* optimized conformers of **5a** in the gas phase

| Conformers | C ^a (Hartree) | E ^b (Hartree) | G ^c (Hartree) |
|-------------|--------------------------|--------------------------|--------------------------|
| 5a_4 | 0.645210 | -1902.421409 | -1901.776199 |
| 5a_1 | 0.644777 | -1902.420877 | -1901.776100 |
| 5a_3 | 0.641933 | -1902.417132 | -1901.775200 |
| 5a_7 | 0.645770 | -1902.420382 | -1901.774612 |
| 5a_2 | 0.644733 | -1902.418849 | -1901.774115 |
| 5a_8 | 0.643599 | -1902.420382 | -1901.773501 |
| 5a_6 | 0.643022 | -1902.416296 | -1901.773275 |
| 5a_5 | 0.642424 | -1902.415373 | -1901.772949 |

^aThermal correction to Gibbs free energy; ^bElectronic energy; ^cGibbs free energy (E + C).

Table S16. Conformational analysis of the B3LYP/6-311G* optimized conformers of **5a** in the gas phase (T=298.15 K)

| Conformers | ΔG (kcal/mol) ^a | Population ^b |
|-------------|------------------------------------|-------------------------|
| 5a_4 | 0.000000 | 37.35% |
| 5a_1 | 0.062123 | 33.63% |
| 5a_3 | 0.626875 | 12.96% |
| 5a_7 | 0.995847 | 6.95% |
| 5a_2 | 1.307716 | 4.10% |
| 5a_8 | 1.693003 | 2.14% |
| 5a_6 | 1.834819 | 1.68% |
| 5a_5 | 2.039385 | 1.19% |

^aThe relative Gibbs free energy; ^bThe Boltzmann distribution of each conformer.

Table S17. Important thermodynamic parameters of the B3LYP/6-311G* optimized conformers of **6a** in the gas phase

| Conformers | C ^a (Hartree) | E ^b (Hartree) | G ^c (Hartree) |
|--------------|--------------------------|--------------------------|--------------------------|
| 6a_9 | 0. 531742 | -1594. 601499 | -1594. 069757 |
| 6a_1 | 0. 530085 | -1594. 599328 | -1594. 069243 |
| 6a_2 | 0. 529057 | -1594. 598179 | -1594. 069122 |
| 6a_3 | 0. 530369 | -1594. 597597 | -1594. 067228 |
| 6a_5 | 0. 529503 | -1594. 596613 | -1594. 067110 |
| 6a_10 | 0. 530592 | -1594. 597539 | -1594. 066947 |
| 6a_4 | 0. 531255 | -1594. 598039 | -1594. 066783 |
| 6a_6 | 0. 530253 | -1594. 596916 | -1594. 066662 |
| 6a_7 | 0. 528903 | -1594. 594854 | -1594. 065952 |
| 6a_8 | 0. 529554 | -1594. 594252 | -1594. 064698 |

^aThermal correction to Gibbs free energy; ^bElectronic energy; ^cGibbs free energy (E + C).

Table S18. Conformational analysis of the B3LYP/6-311G* optimized conformers of **6a** in the gas phase (T=298.15 K)

| Conformers | ΔG (kcal/mol) ^a | Population ^b |
|--------------|------------------------------------|-------------------------|
| 6a_9 | 0. 000000 | 42. 14% |
| 6a_1 | 0. 322537 | 24. 44% |
| 6a_2 | 0. 398464 | 21. 50% |
| 6a_3 | 1. 586955 | 2. 89% |
| 6a_5 | 1. 661000 | 2. 55% |
| 6a_10 | 1. 763283 | 2. 14% |
| 6a_4 | 1. 866194 | 1. 80% |
| 6a_6 | 1. 942122 | 1. 59% |
| 6a_7 | 2. 387649 | 0. 75% |
| 6a_8 | 3. 174538 | 0. 20% |

^aThe relative Gibbs free energy; ^bThe Boltzmann distribution of each conformer.