

Supporting Information for:

**Base-promoted lipase-catalyzed kinetic resolution of atropisomeric
1,1'-biaryl-2,2'-diols**

Gamal A. I. Moustafa,^{a,b} Kengo Kasama,^a Koichi Higashio,^a and Shuji Akai*^a

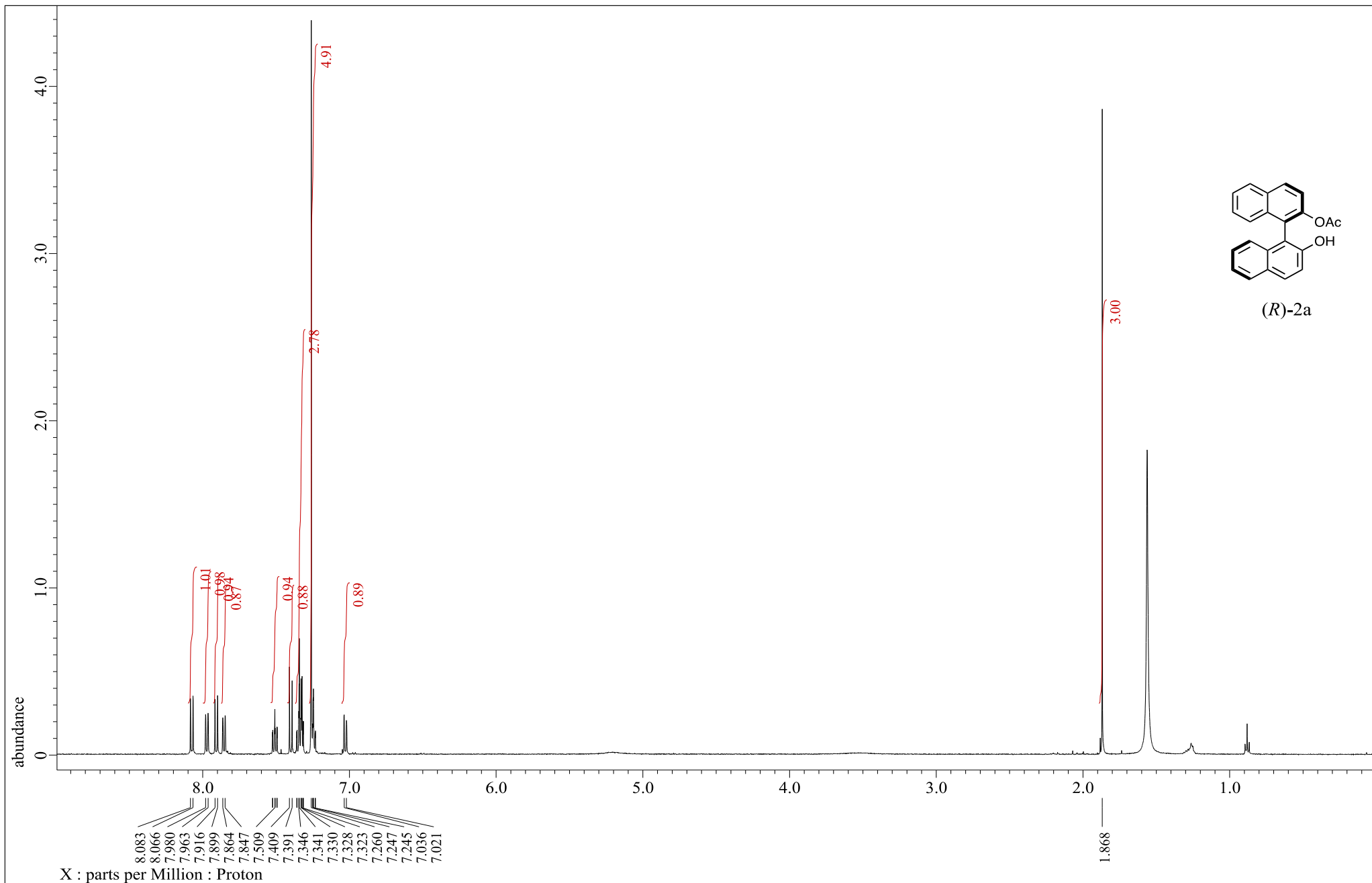
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^bDepartment of Medicinal Chemistry, Faculty of Pharmacy, Minia University, Minia 61519, Egypt.

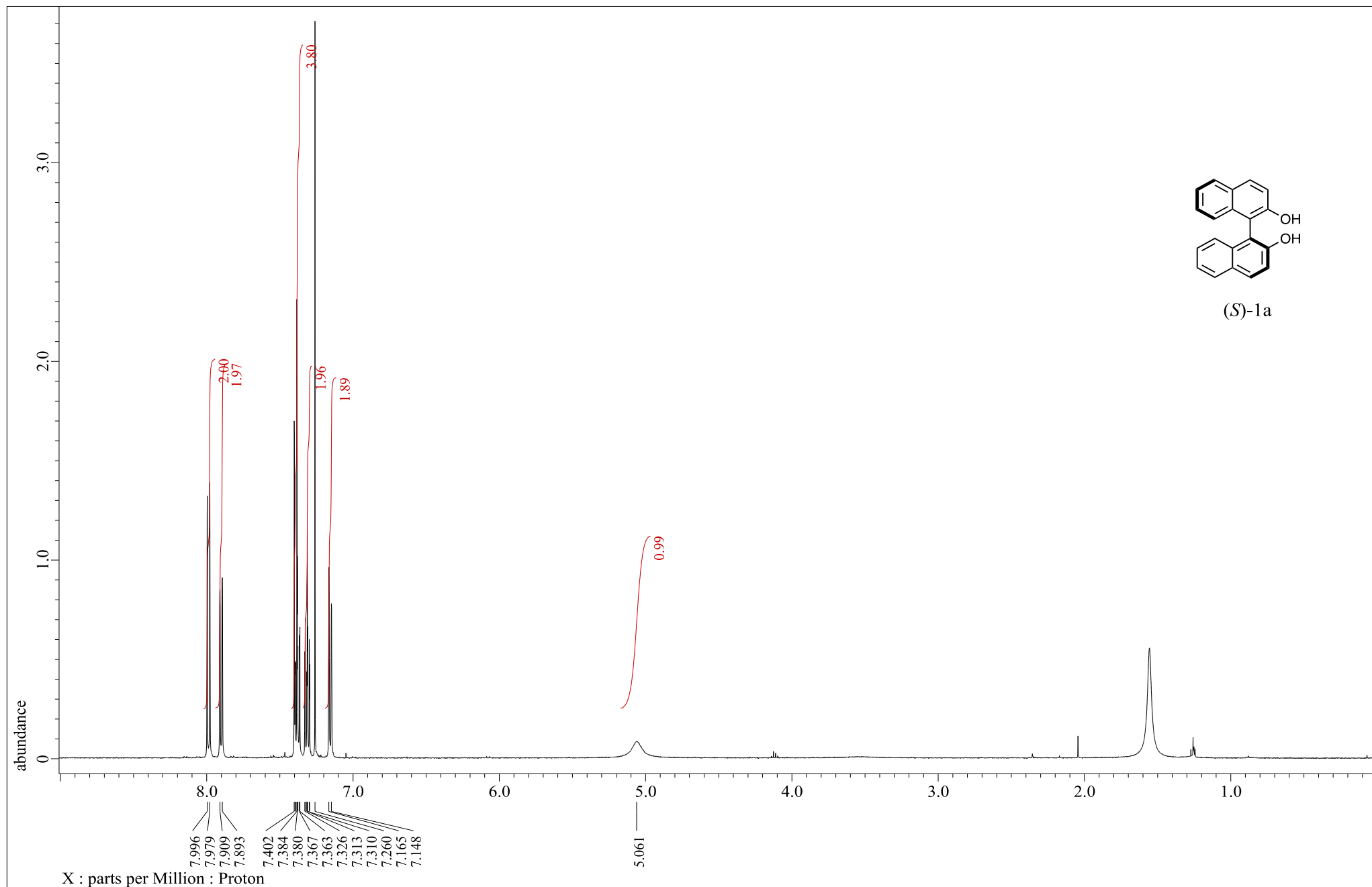
E-mail: akai@phs.osaka-u.ac.jp.

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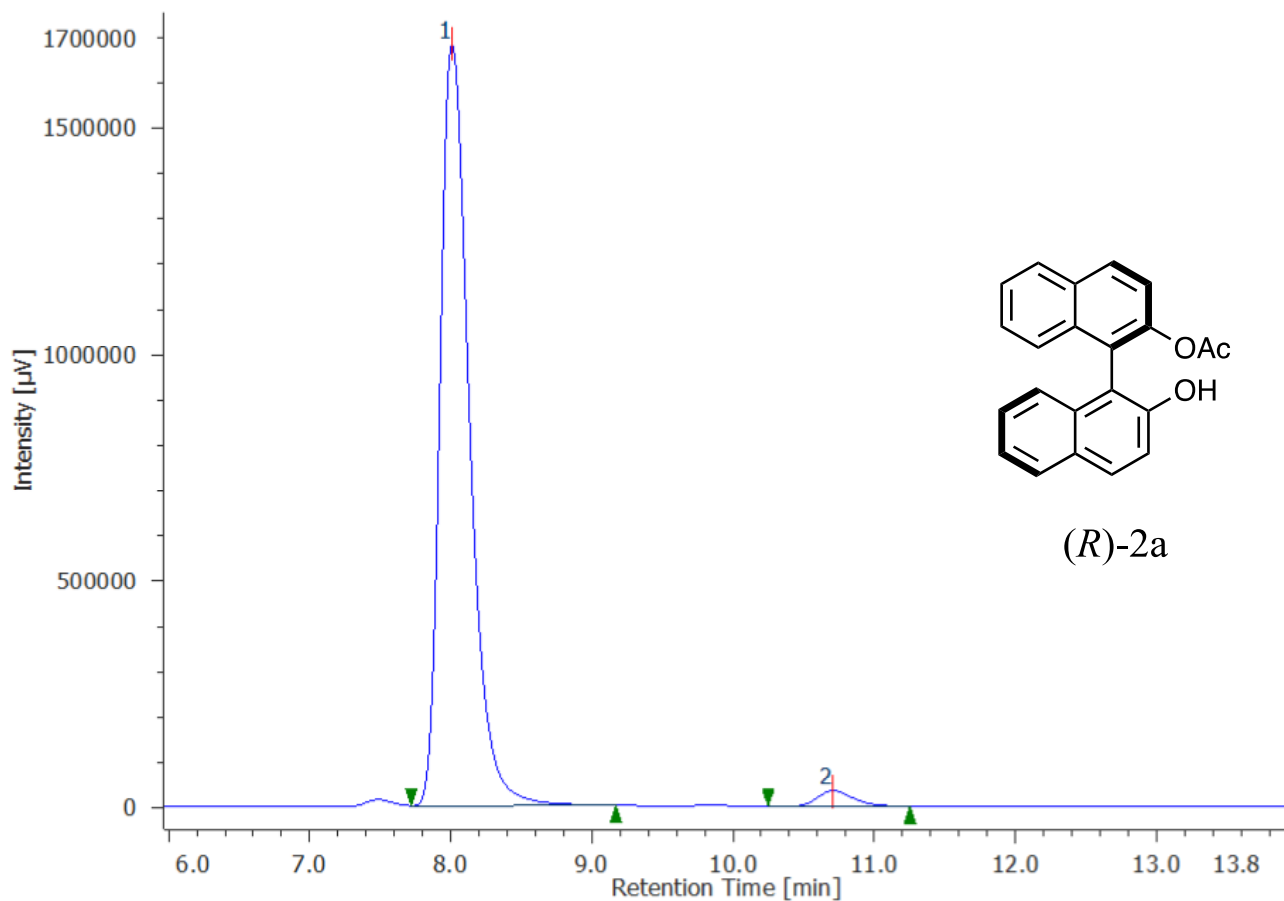
NMR spectra and HPLC charts of racemic and enantioenriched compounds.....S2-S59



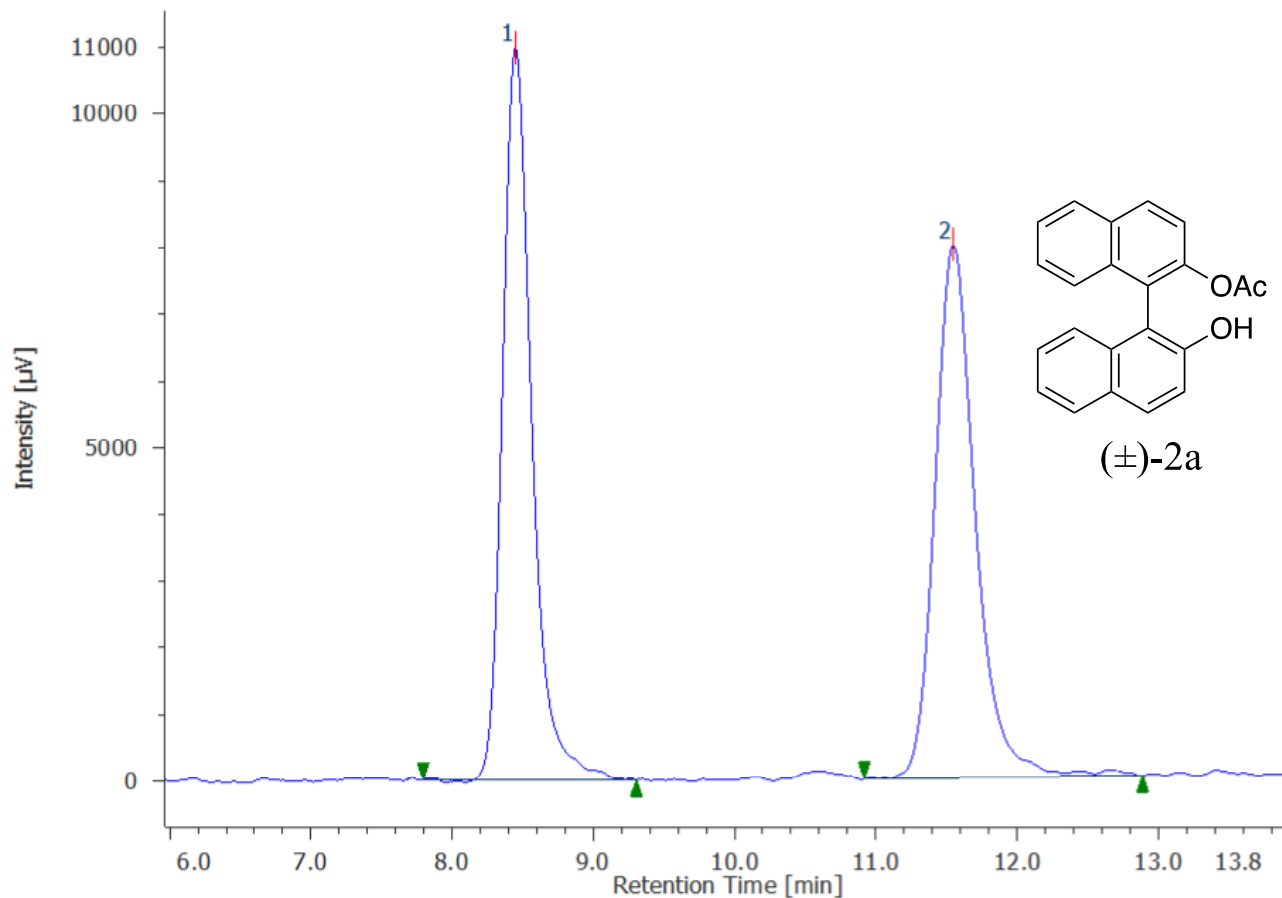
¹H NMR spectrum (500 MHz, CDCl₃) of (R)-2a



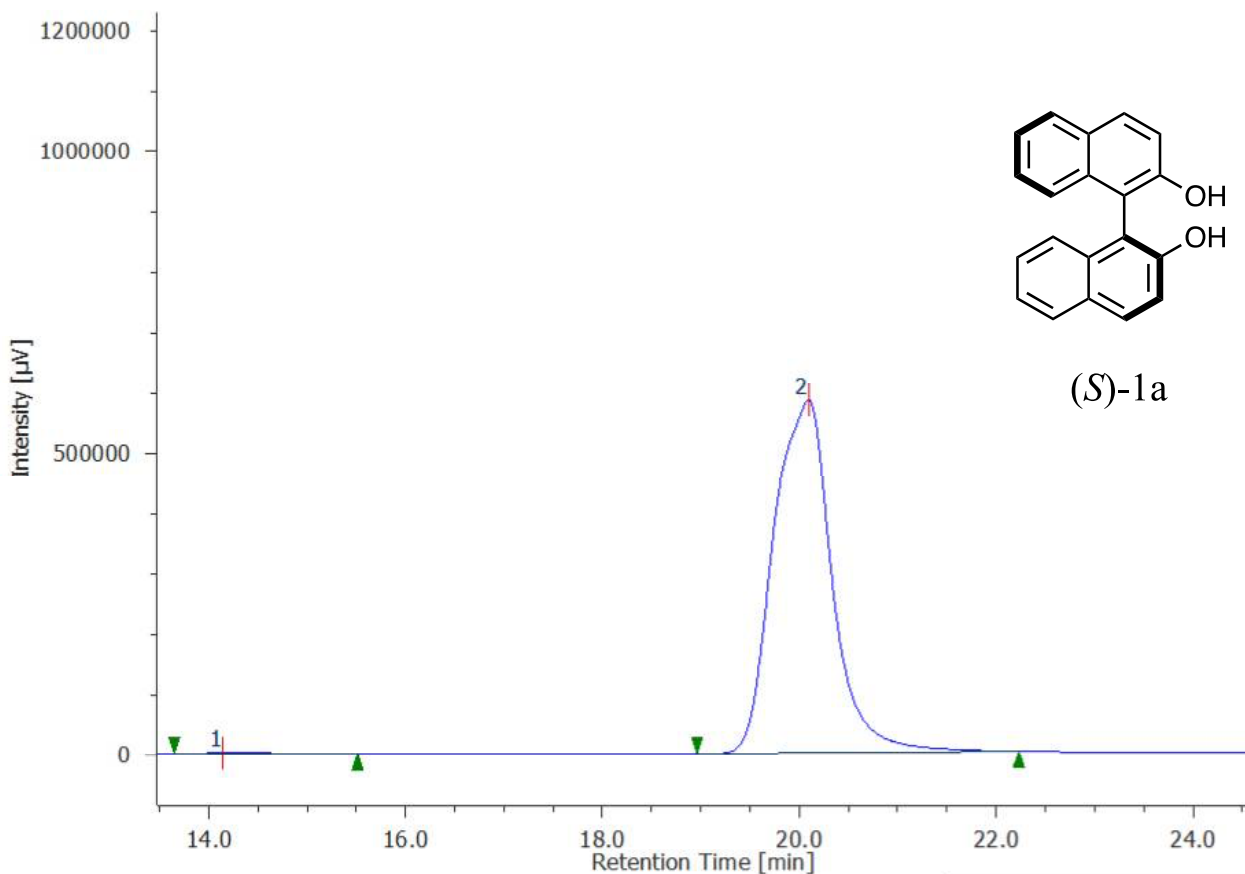
¹H NMR spectrum (500 MHz, CDCl₃) of (S)-1a



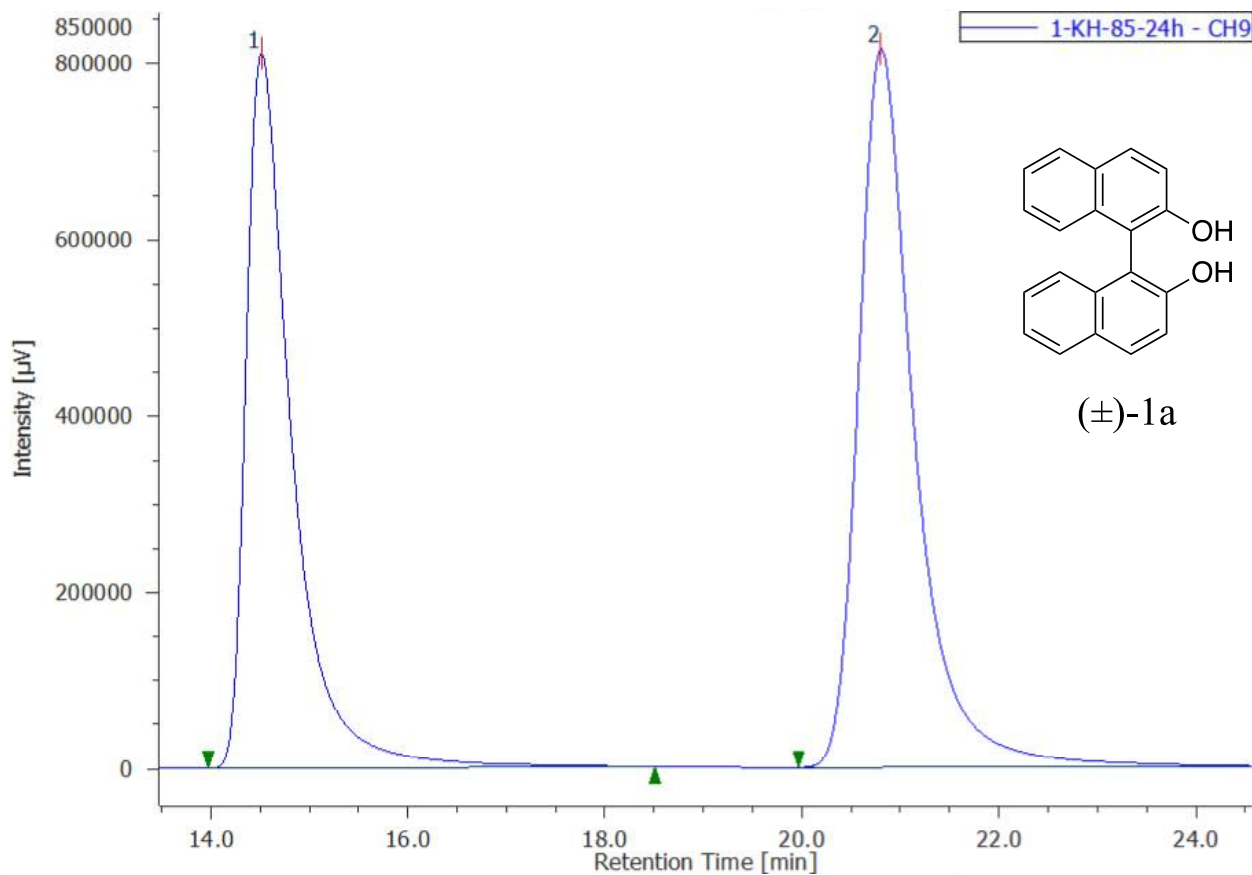
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|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 8.010 | 24409638 | 1682764 | 97.585 | 98.001 | N/A | 7577 | 6.583 | 1.402 | |
| 2 | Unknown | 9 | 10.710 | 604182 | 34328 | 2.415 | 1.999 | N/A | 8887 | N/A | 1.251 | |



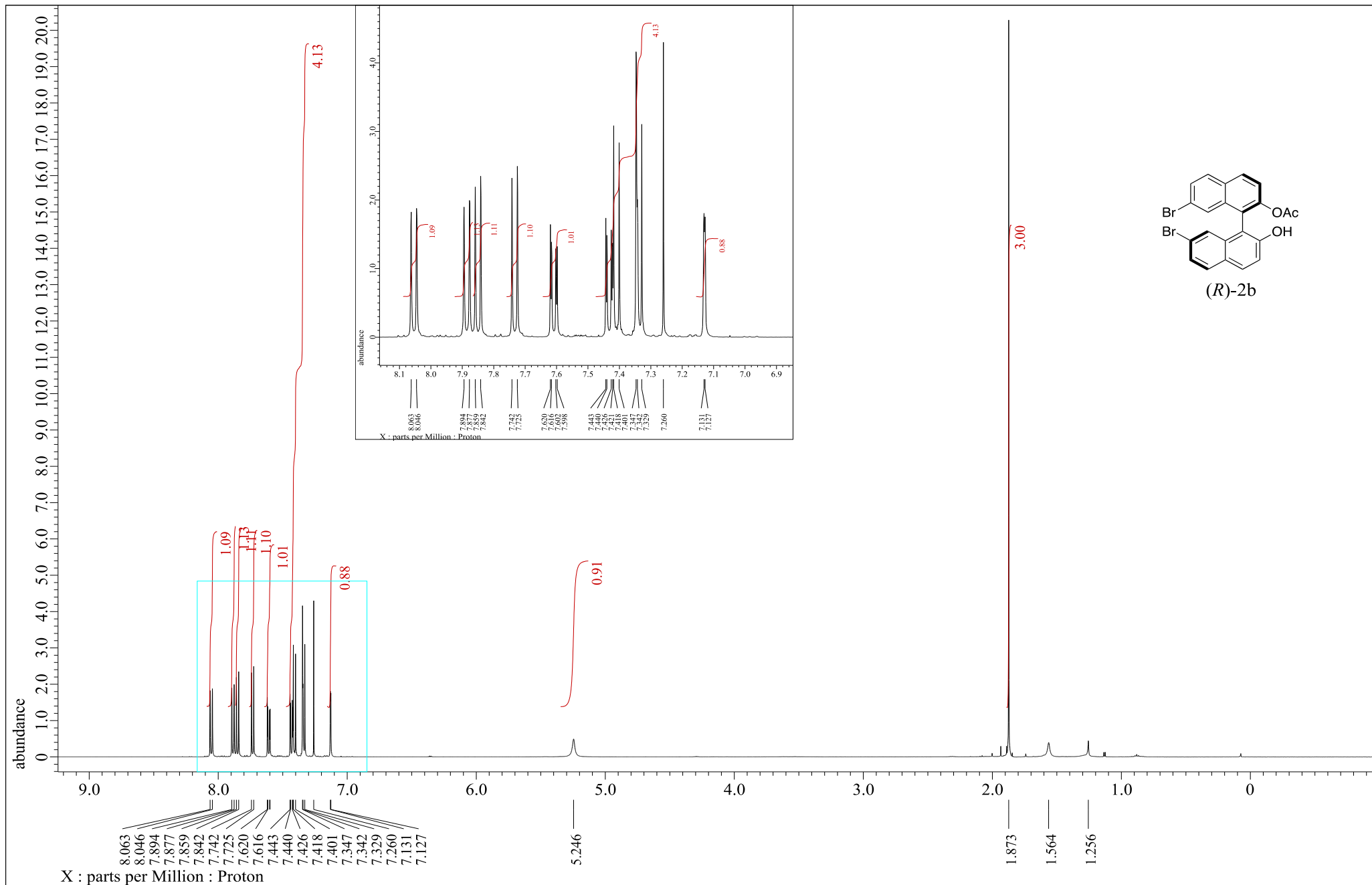
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|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 8.447 | 157049 | 10972 | 49.694 | 57.866 | N/A | 8929 | 7.271 | 1.320 | |
| 2 | Unknown | 9 | 11.543 | 158983 | 7989 | 50.306 | 42.134 | N/A | 8650 | N/A | 1.258 | |



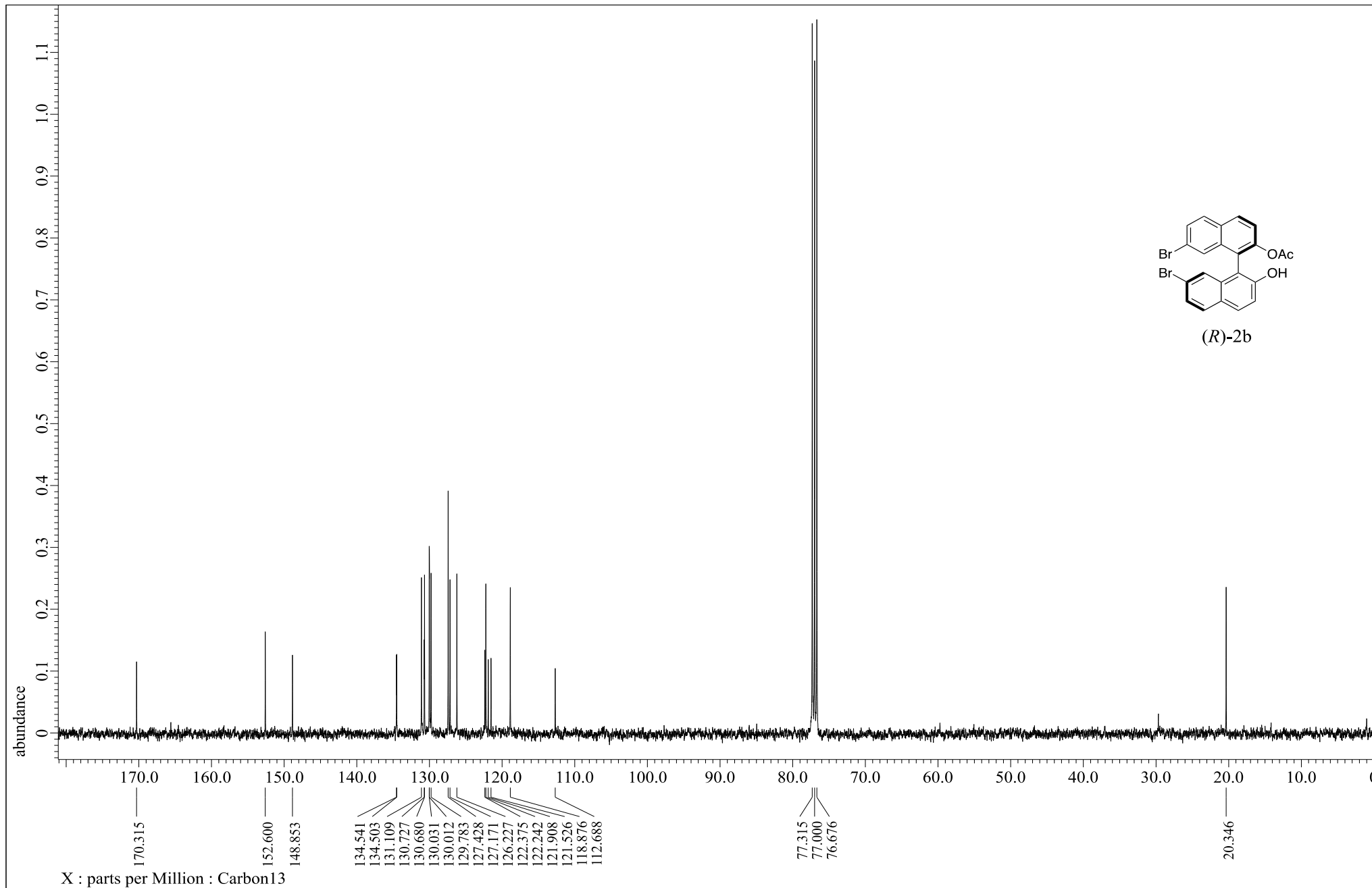
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|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 14.147 | 44389 | 998 | 0.184 | 0.170 | N/A | 2006 | 5.074 | 2.060 | |
| 2 | Unknown | 9 | 20.093 | 24142267 | 585458 | 99.816 | 99.830 | N/A | 5469 | N/A | 1.048 | |



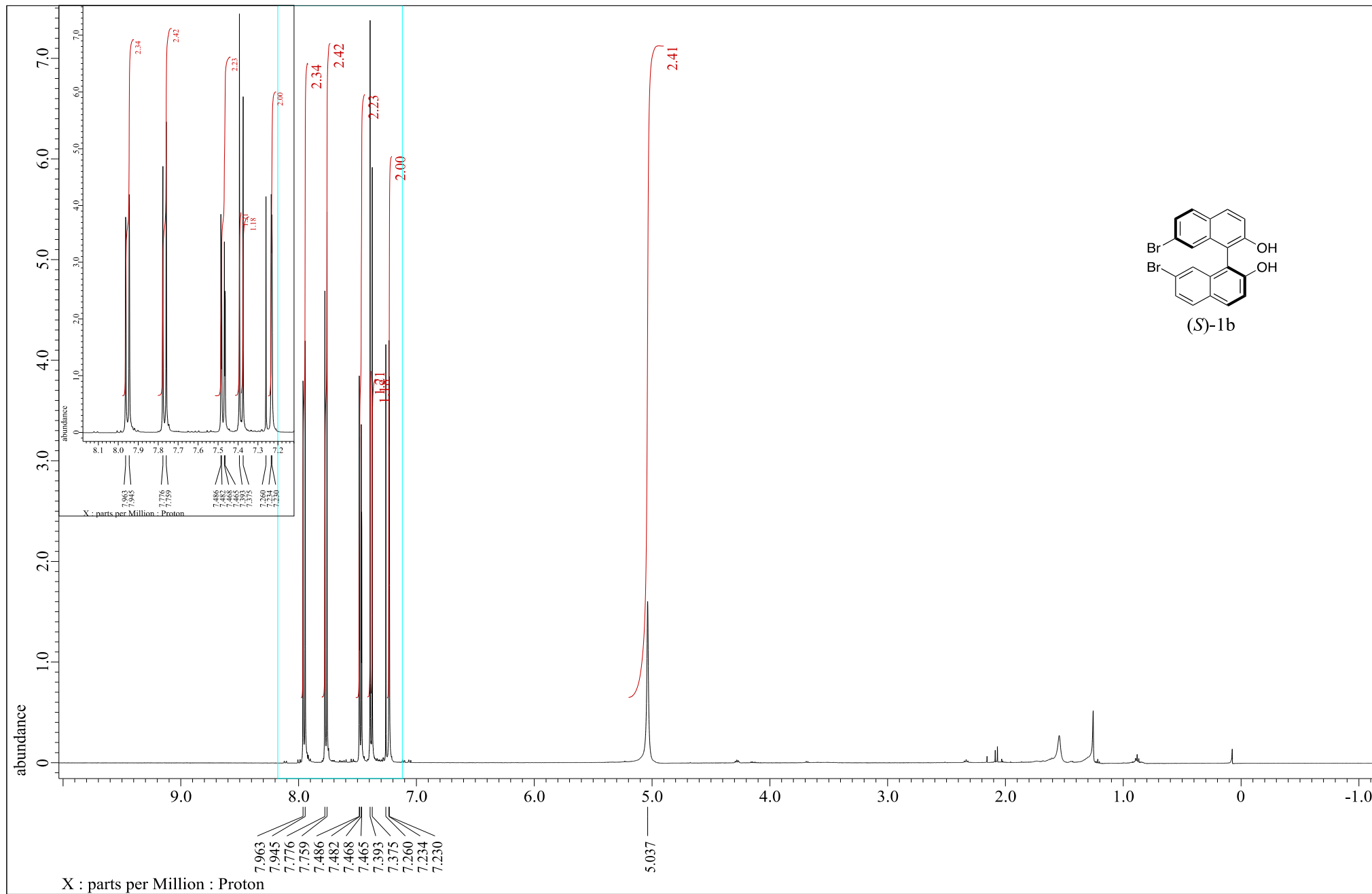
| # | ピーク名 | CH | tR [min] | 面積 [μV·sec] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 14.513 | 26492163 | 810738 | 44.923 | 49.888 | N/A | 5630 | 7.282 | 1.951 | |
| 2 | Unknown | 9 | 20.803 | 32480328 | 814371 | 55.077 | 50.112 | N/A | 7538 | N/A | 1.512 | |



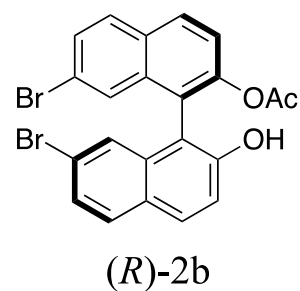
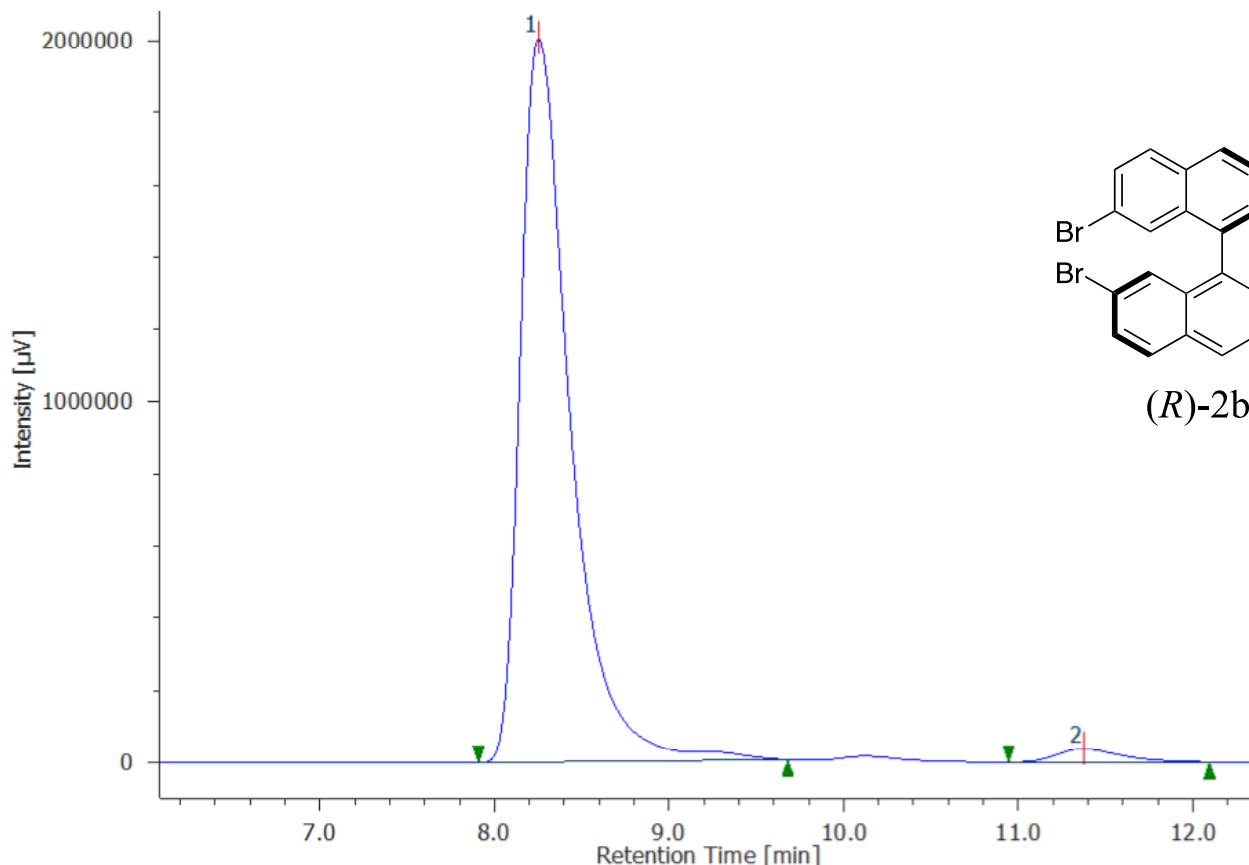
¹H NMR spectrum (500 MHz, CDCl₃) of (R)-2b



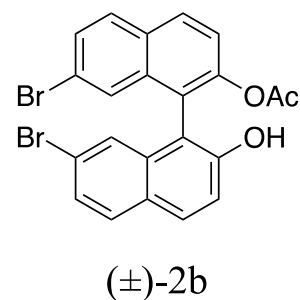
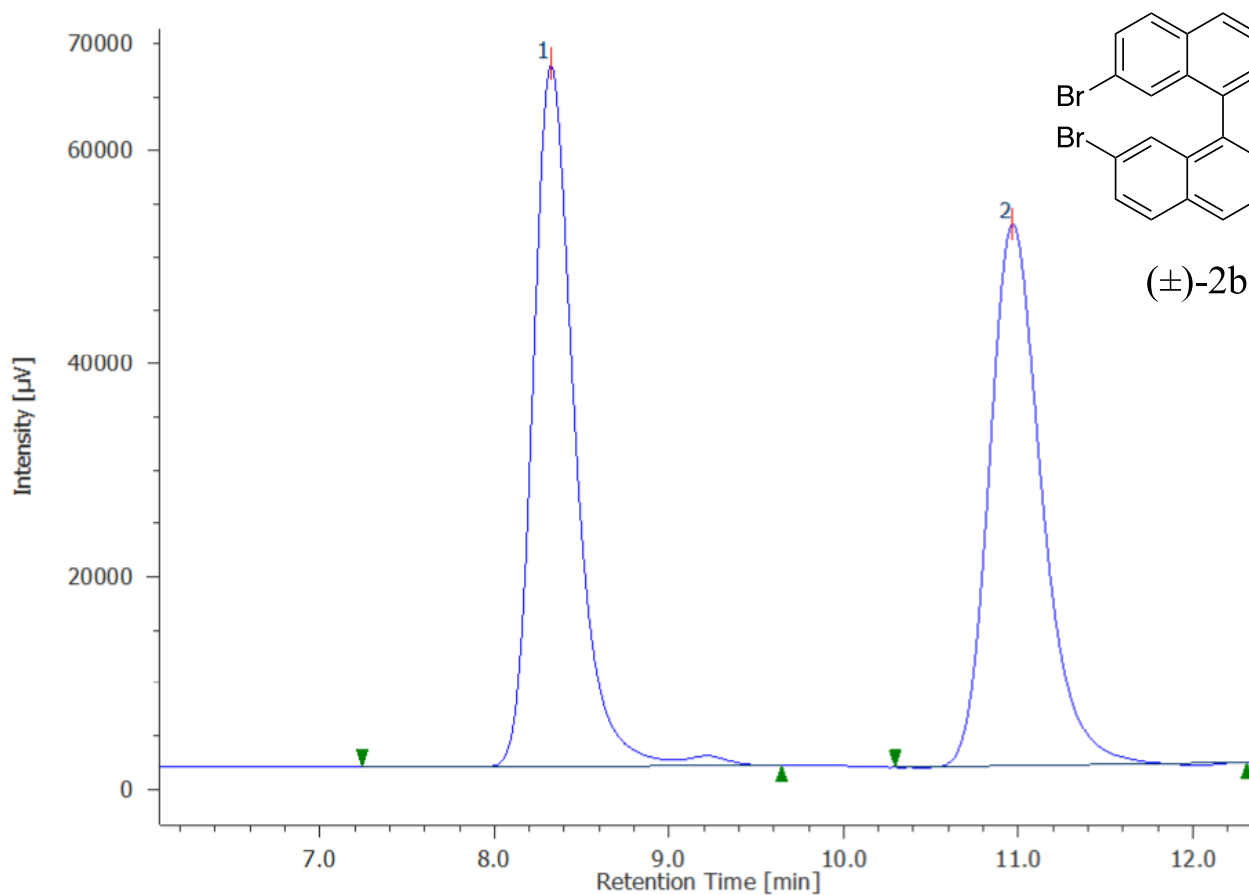
¹³C NMR spectrum (100 MHz, CDCl₃) of *(R)*-2b



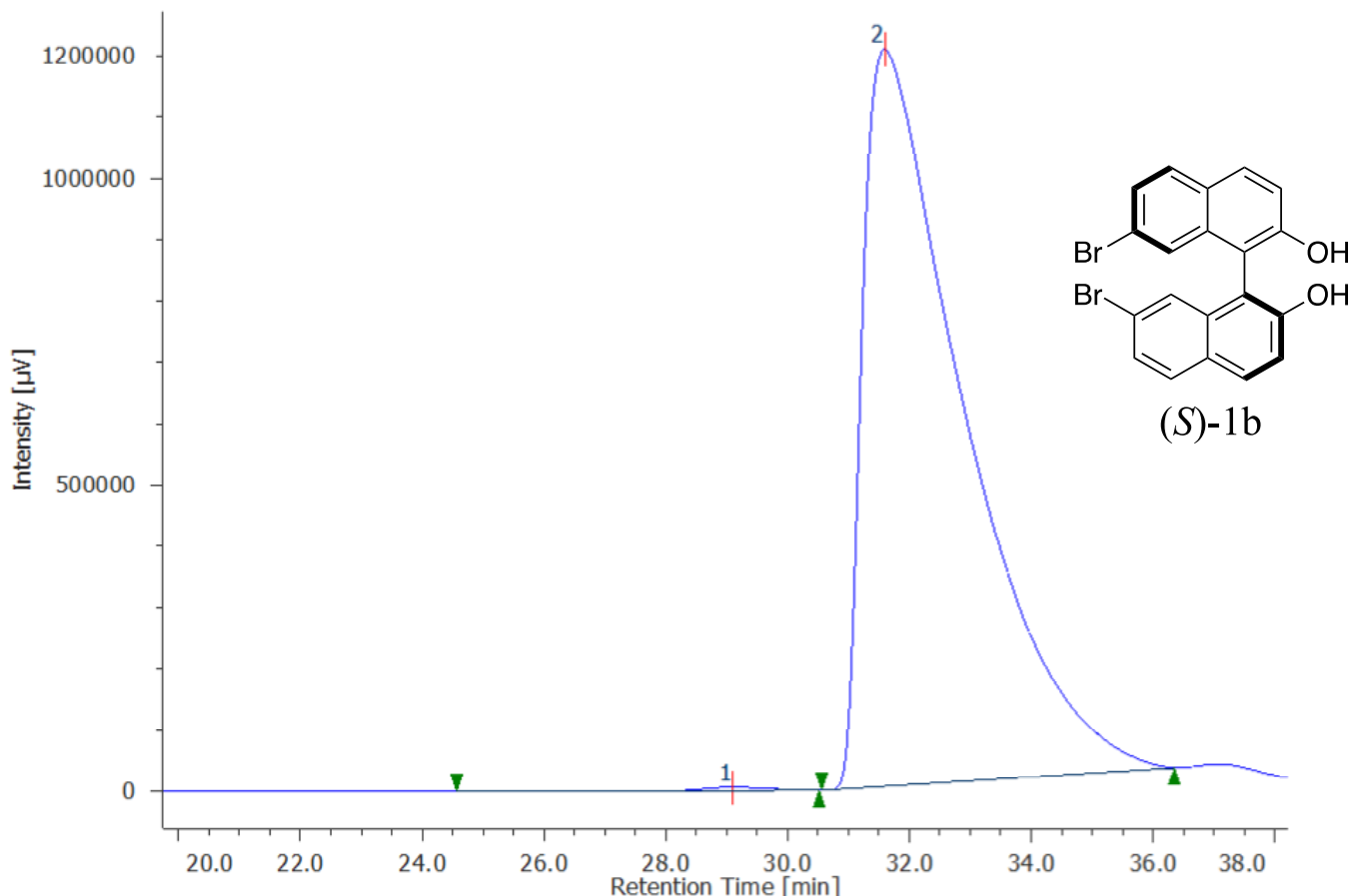
^1H NMR spectrum (500 MHz, CDCl_3) of (S)-1b



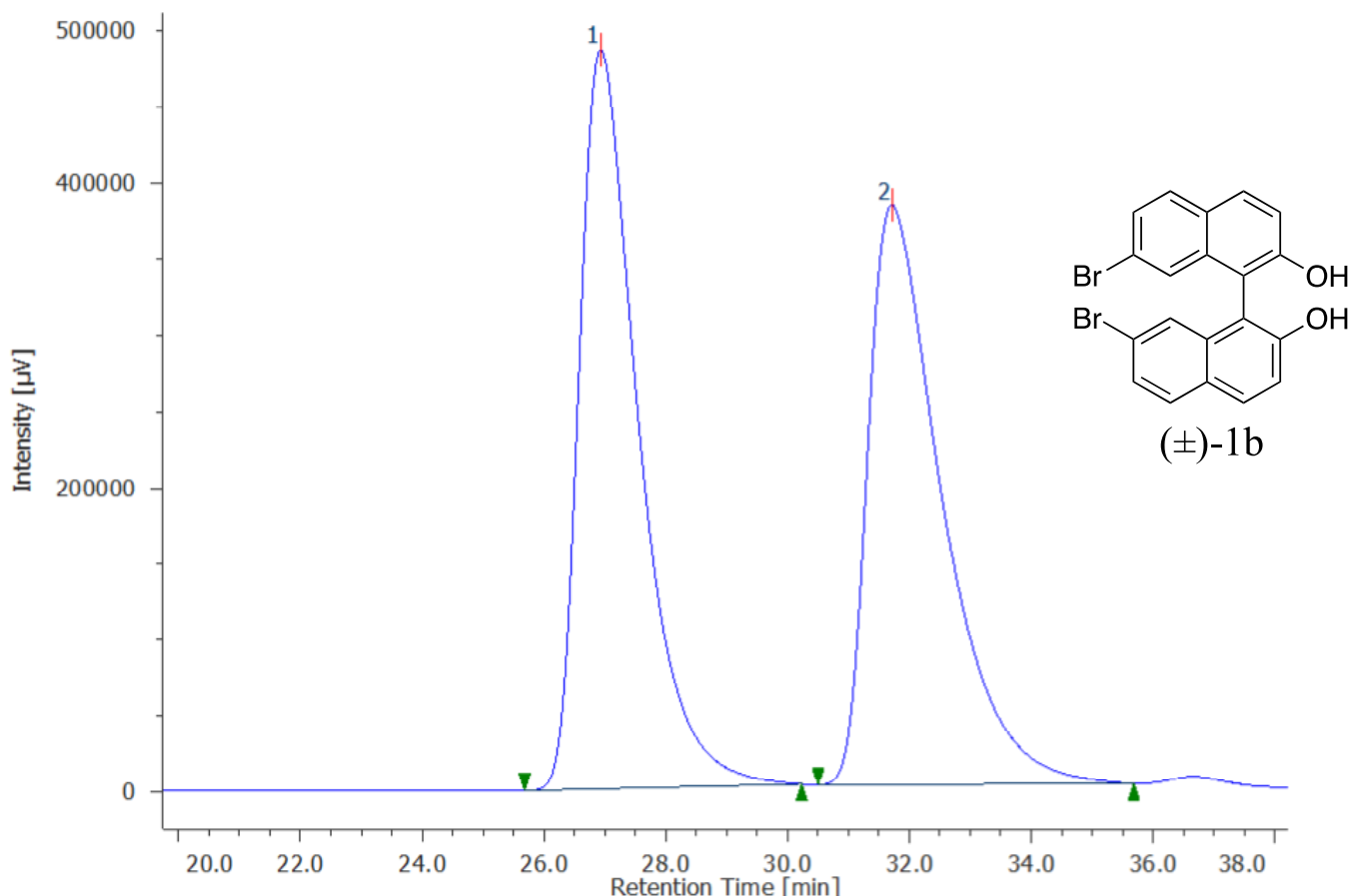
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|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 8.253 | 39879650 | 2002522 | 97.684 | 98.183 | N/A | 4608 | 5.454 | 1.697 | |
| 2 | Unknown | 9 | 11.370 | 945646 | 37063 | 2.316 | 1.817 | N/A | 4755 | N/A | 1.398 | |



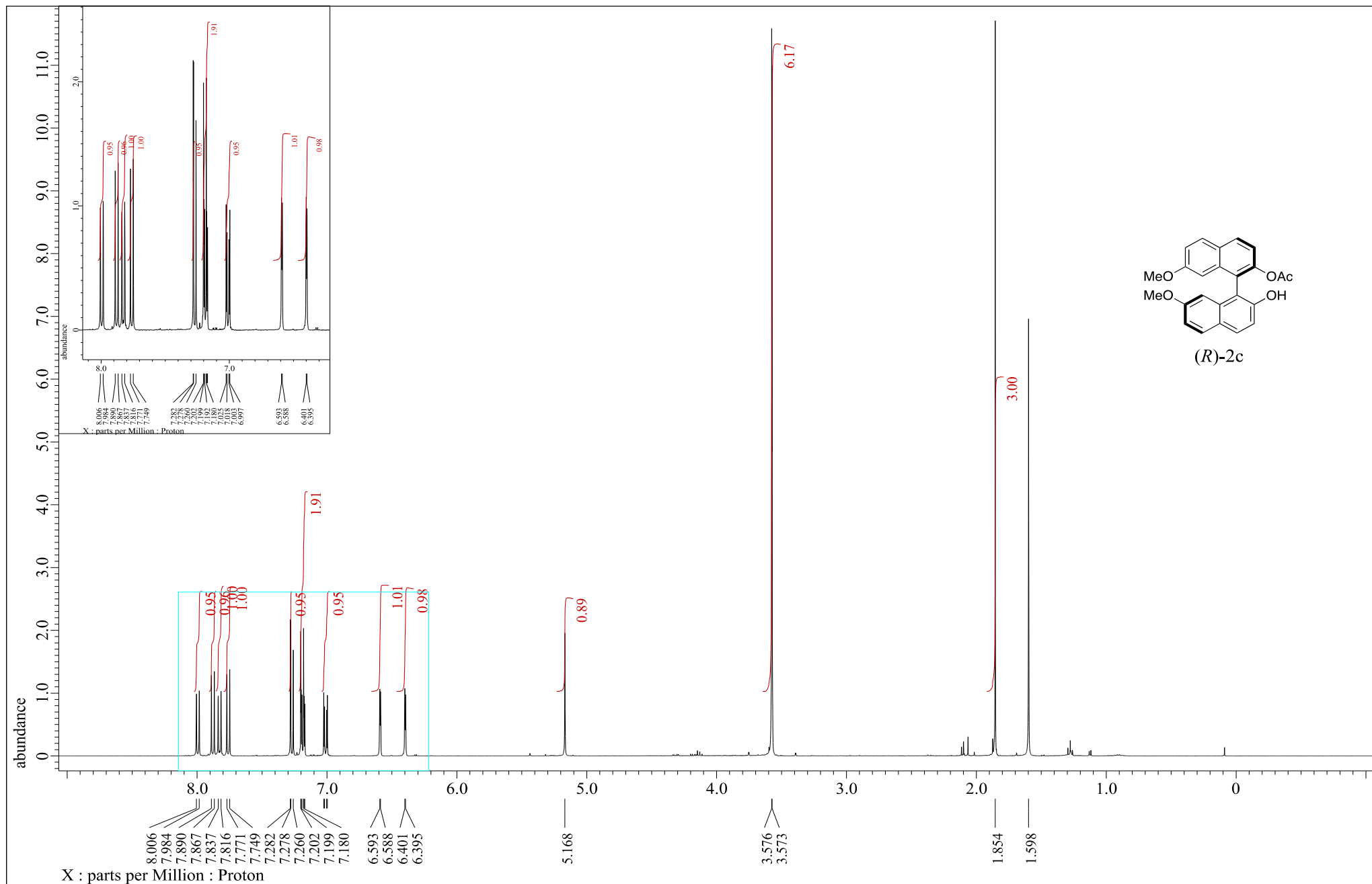
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|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 8.323 | 1101313 | 65835 | 51.011 | 56.412 | N/A | 6419 | 5.598 | 1.315 | |
| 2 | Unknown | 9 | 10.967 | 1057641 | 50870 | 48.989 | 43.588 | N/A | 6815 | N/A | 1.263 | |



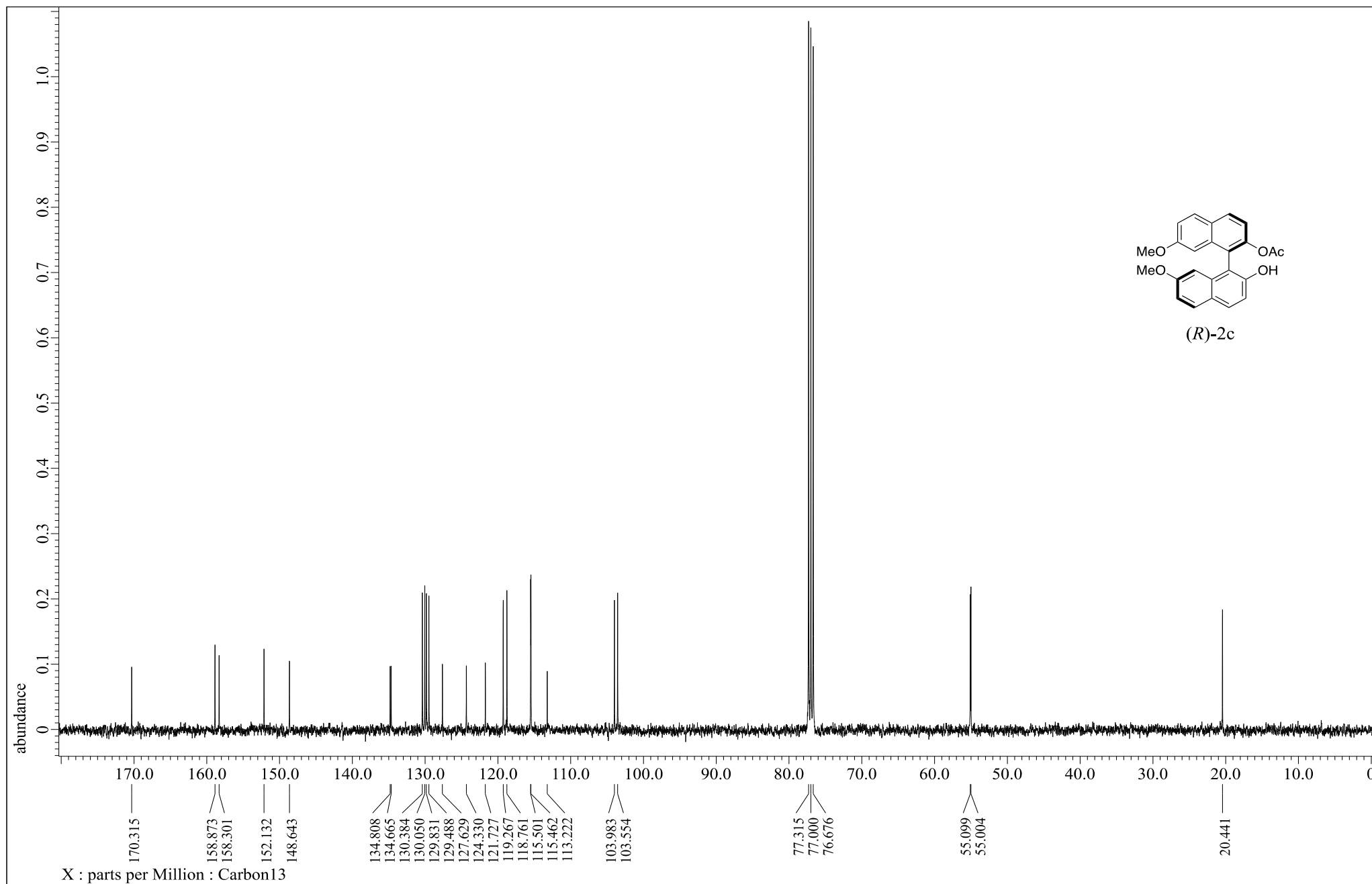
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|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 29.103 | 381629 | 5410 | 0.273 | 0.448 | N/A | 3447 | 1.013 | 1.285 | |
| 2 | Unknown | 9 | 31.597 | 139264406 | 1201835 | 99.727 | 99.552 | N/A | 1832 | N/A | 3.265 | |



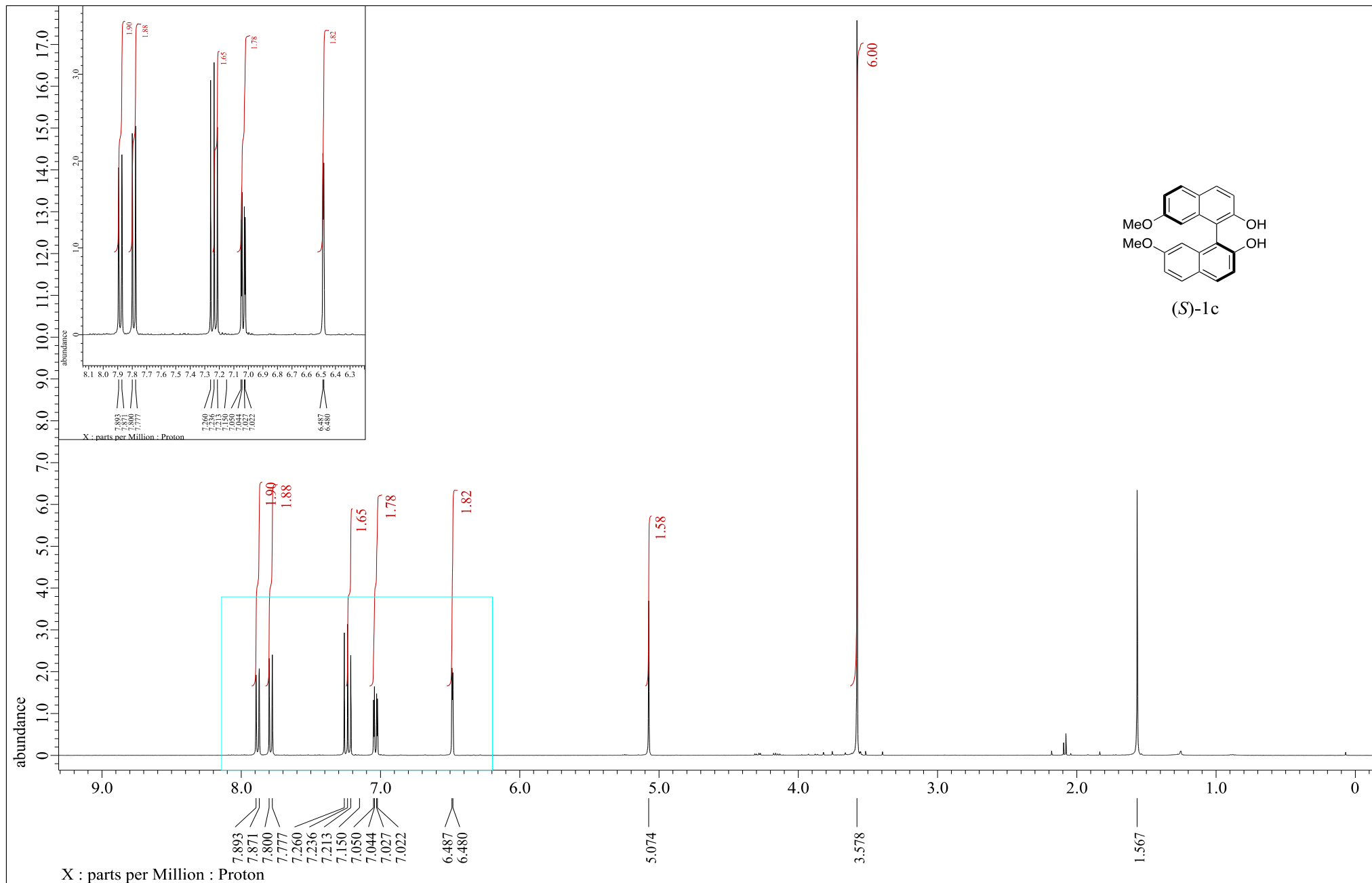
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|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 26.930 | 32735045 | 484797 | 50.574 | 56.087 | N/A | 3988 | 2.501 | 1.689 | |
| 2 | Unknown | 9 | 31.713 | 31991547 | 379567 | 49.426 | 43.913 | N/A | 3548 | N/A | 1.924 | |



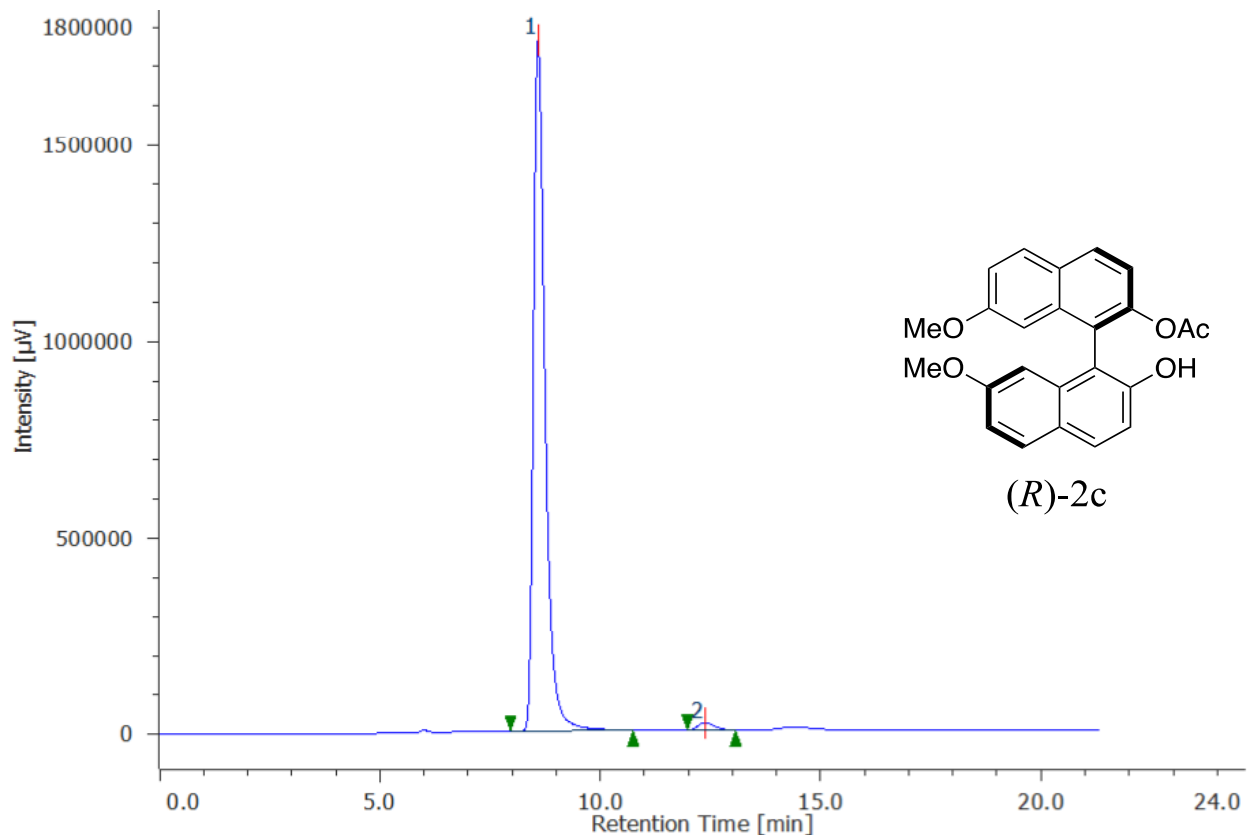
¹H NMR spectrum (400 MHz, CDCl₃) of (*R*)-**2c**



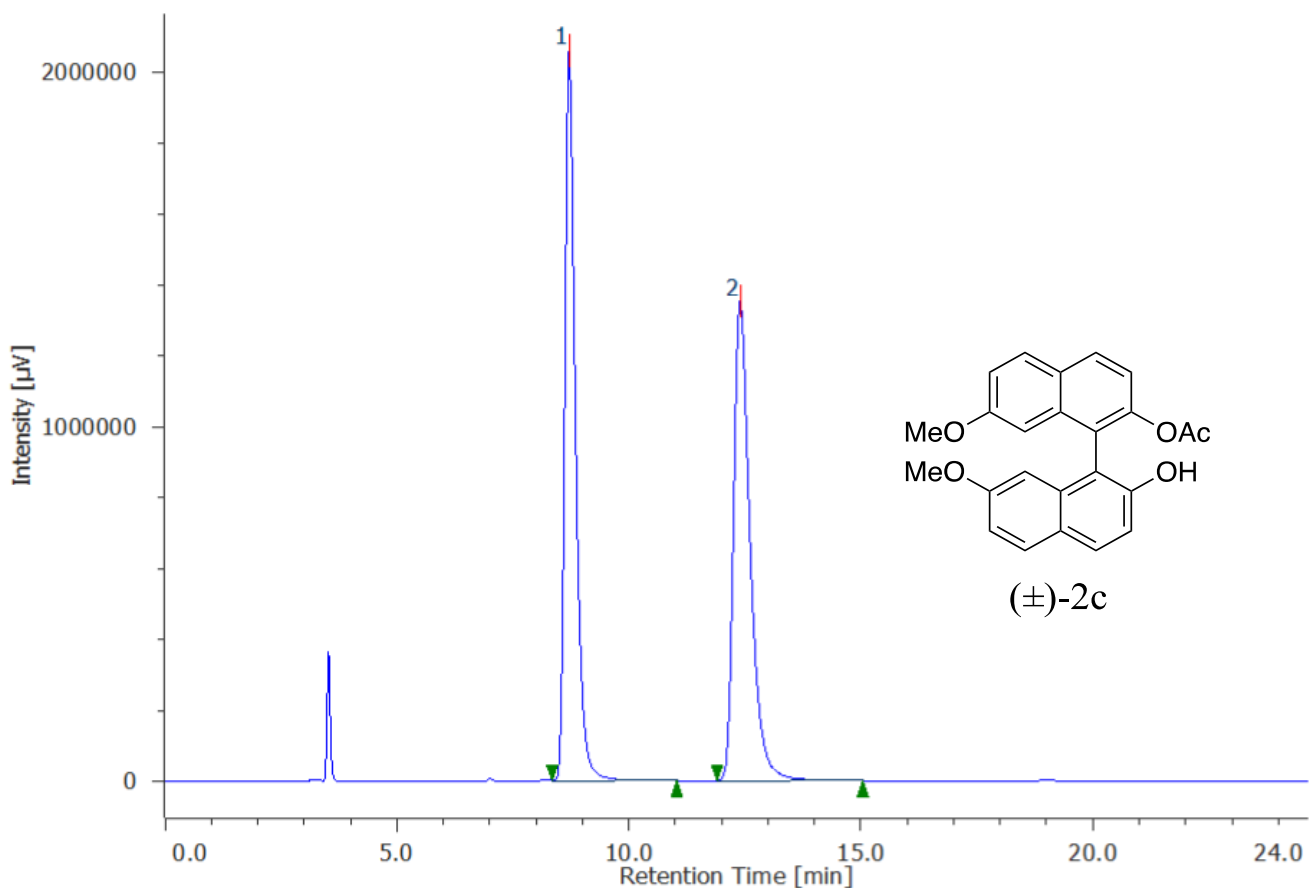
^{13}C NMR spectrum (100 MHz, CDCl_3) of *(R)*-2c



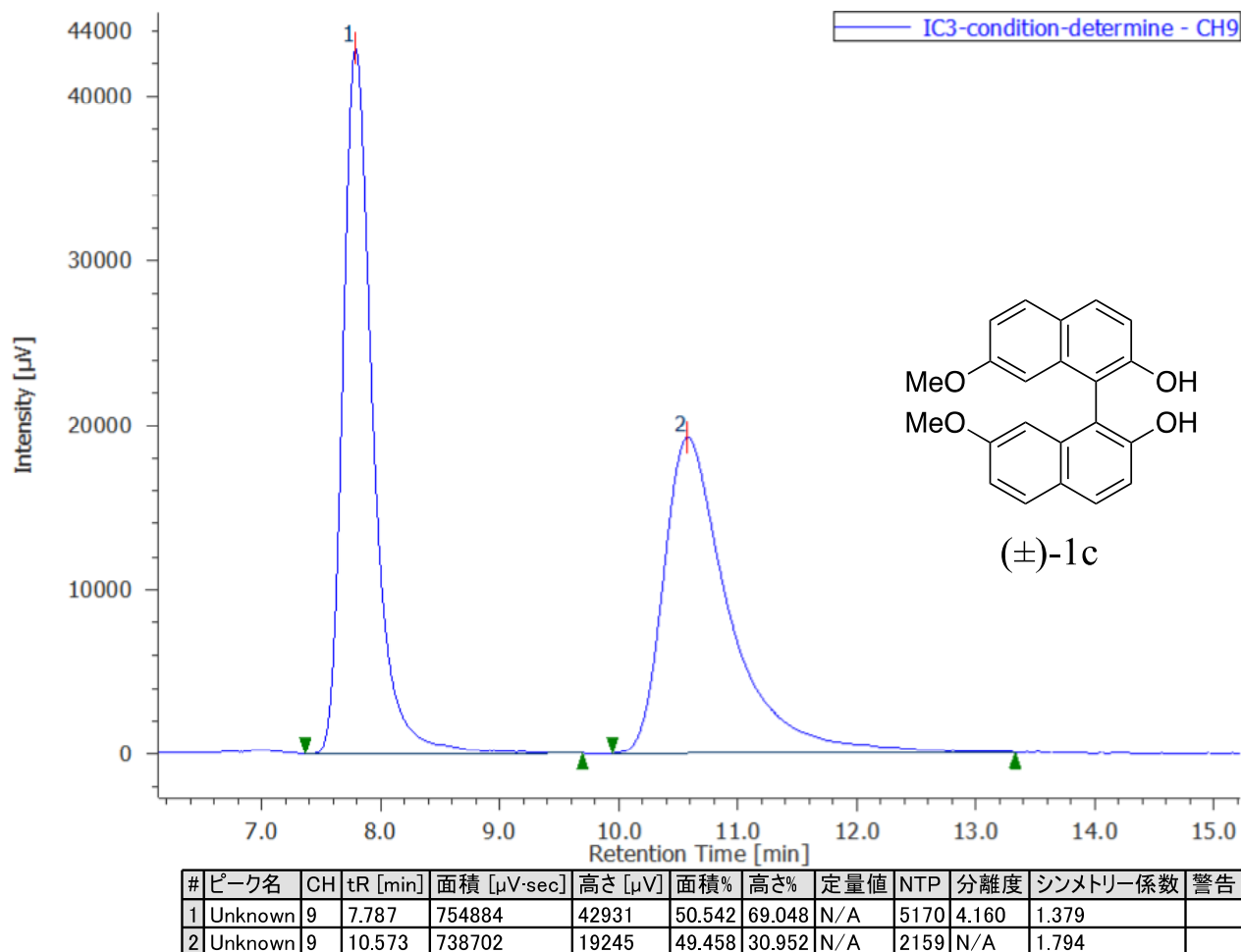
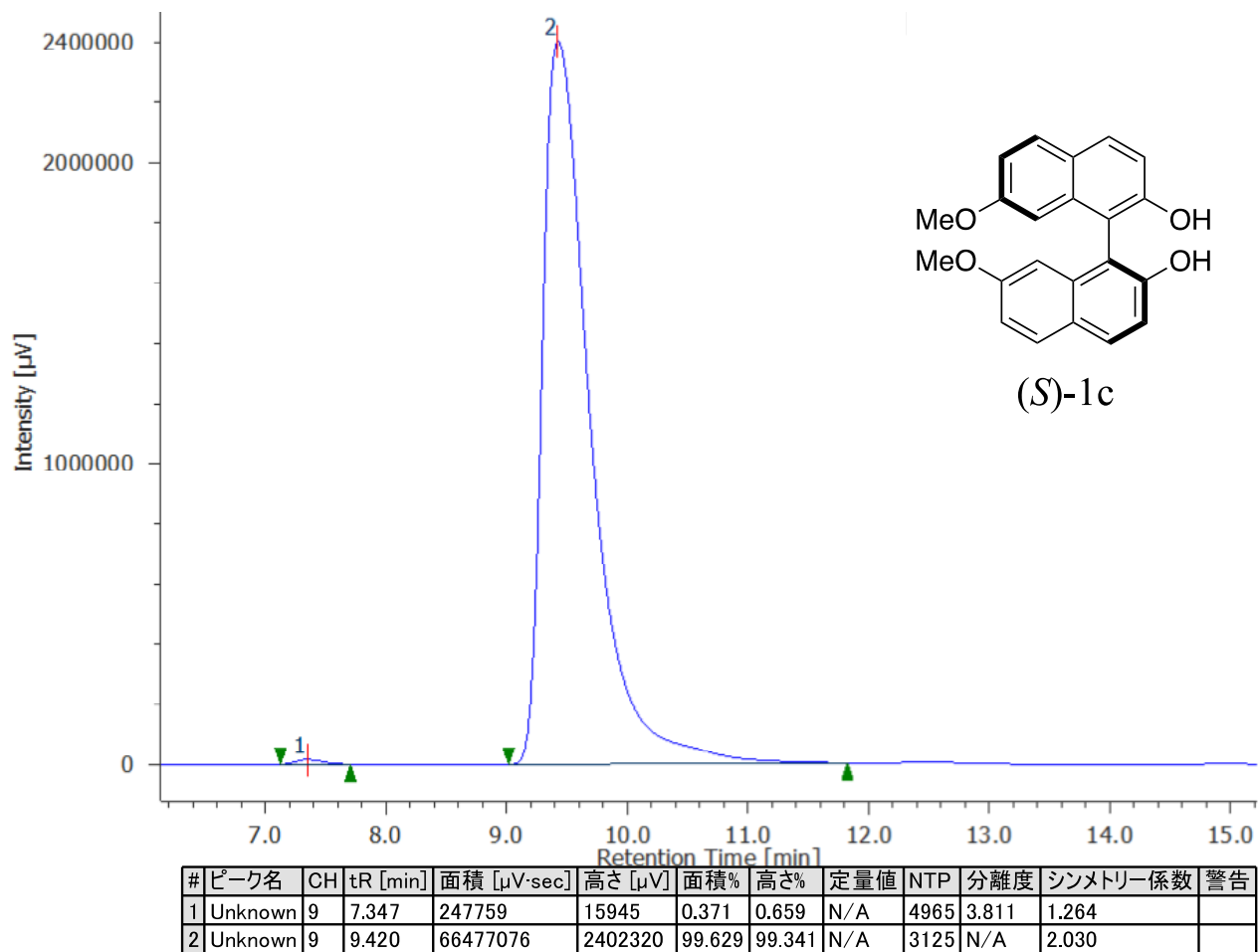
¹H NMR spectrum (400 MHz, CDCl₃) of (S)-1c

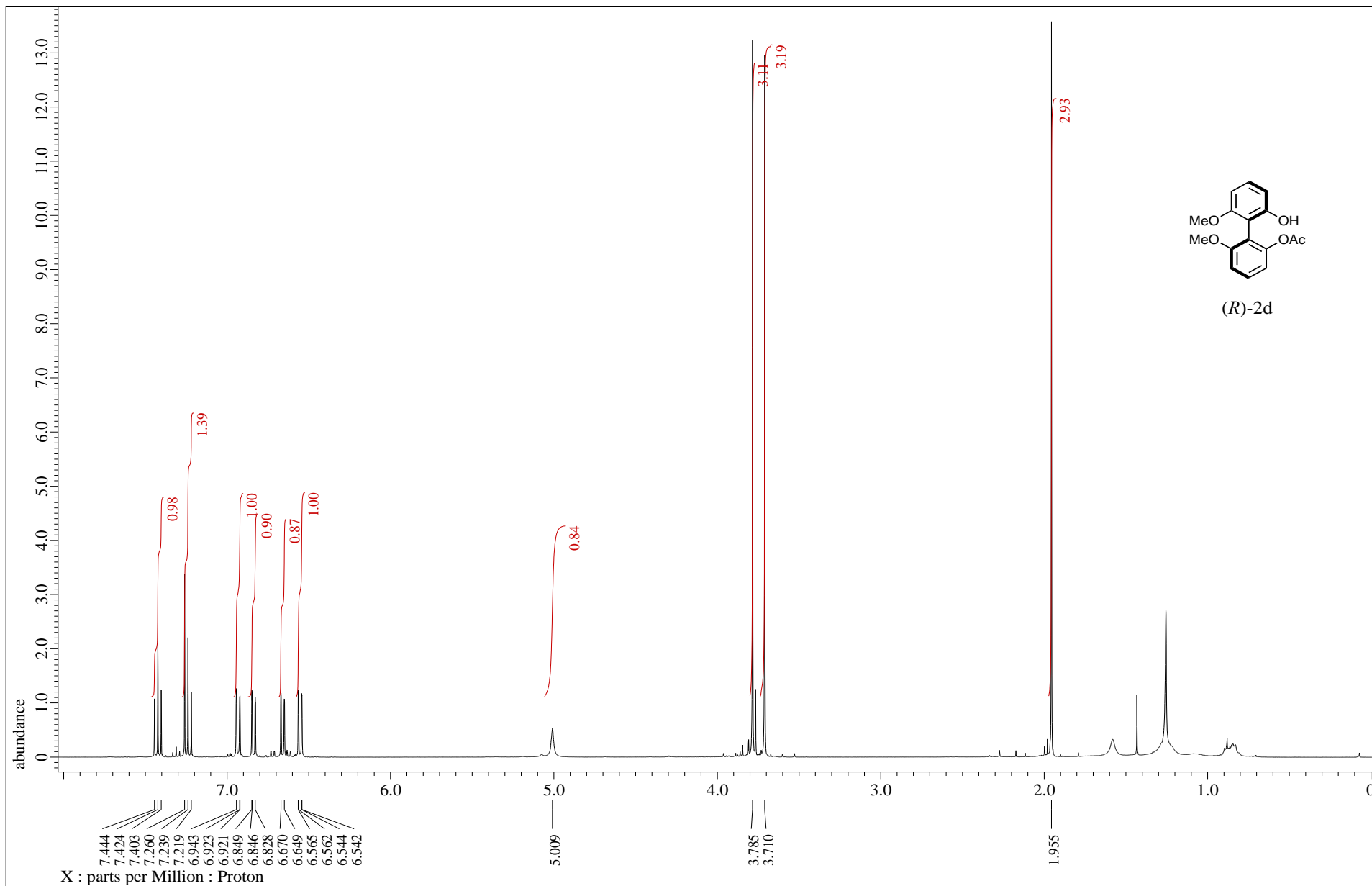


| # | ピーク名 | CH | tR [min] | 面積 [μV·sec] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 8.587 | 32434818 | 1758278 | 98.533 | 98.943 | N/A | 5669 | 6.721 | 1.527 | |
| 2 | Unknown | 9 | 12.380 | 482909 | 18788 | 1.467 | 1.057 | N/A | 5371 | N/A | 1.279 | |

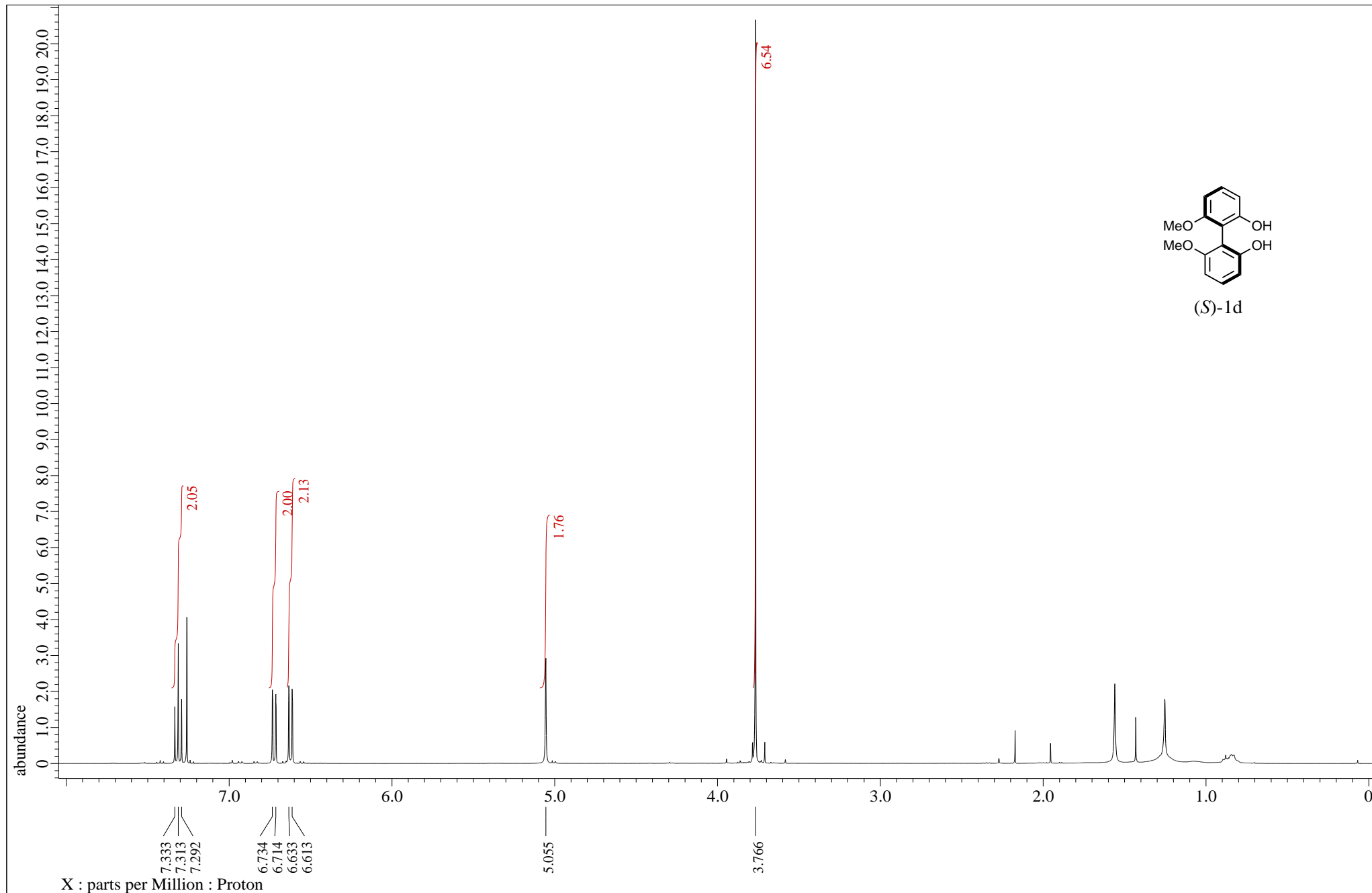


| # | ピーク名 | CH | tR [min] | 面積 [μV·sec] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 8.710 | 32896703 | 2056299 | 49.457 | 60.358 | N/A | 7646 | 7.240 | 1.449 | |
| 2 | Unknown | 9 | 12.397 | 33619093 | 1350533 | 50.543 | 39.642 | N/A | 6340 | N/A | 1.496 | |

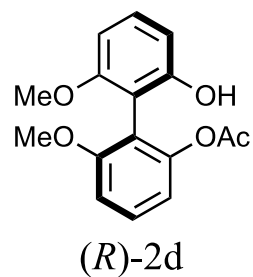
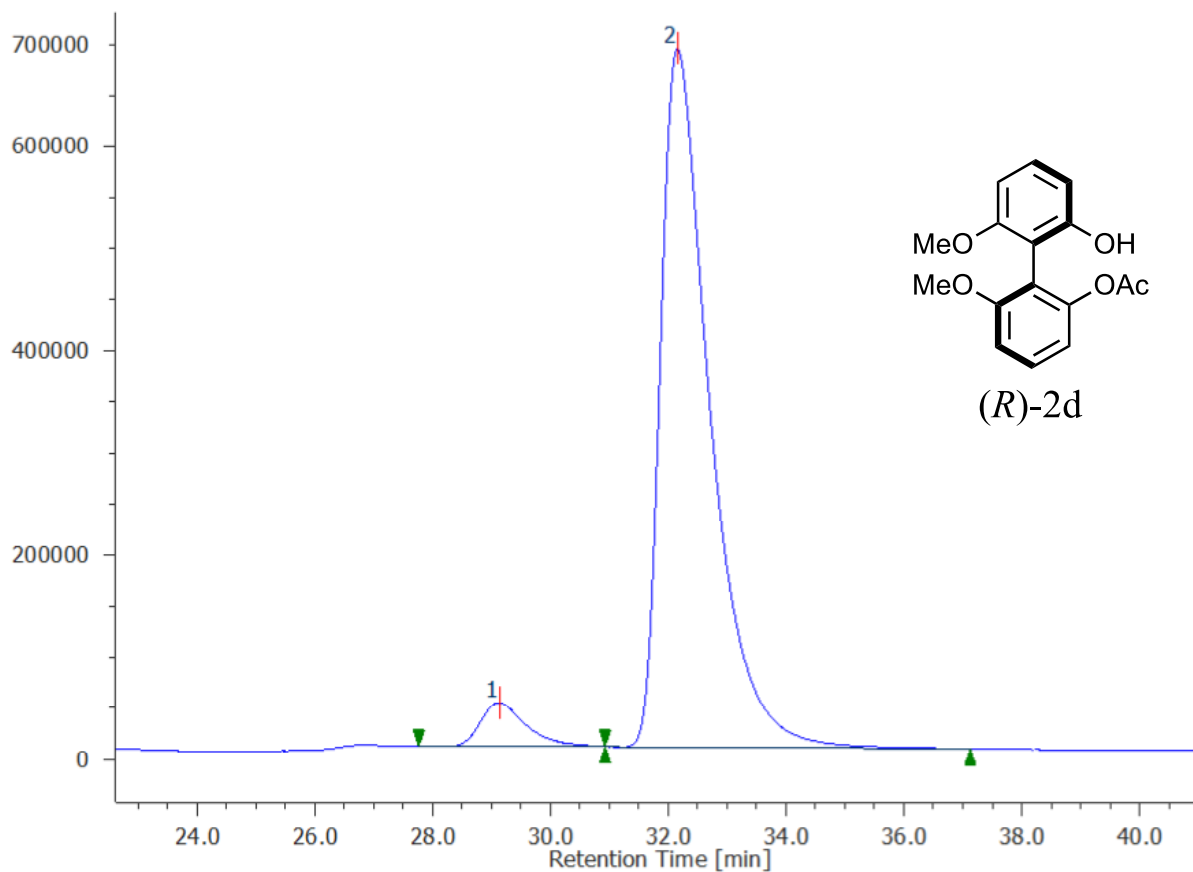




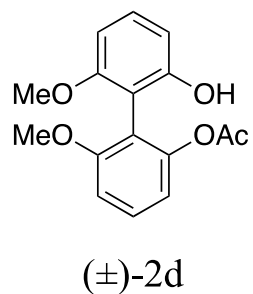
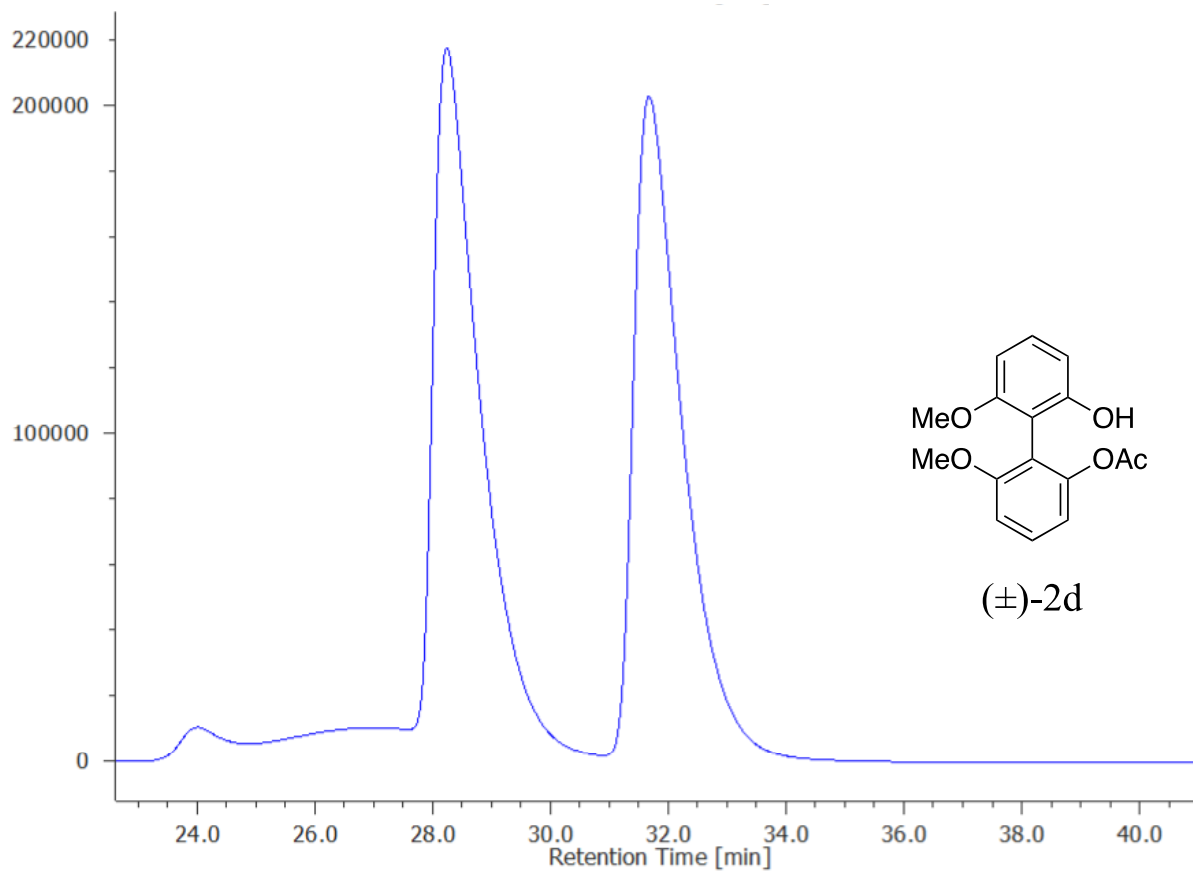
^1H NMR spectrum (400 MHz, CDCl_3) of (*R*)-**2d**

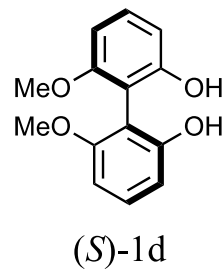
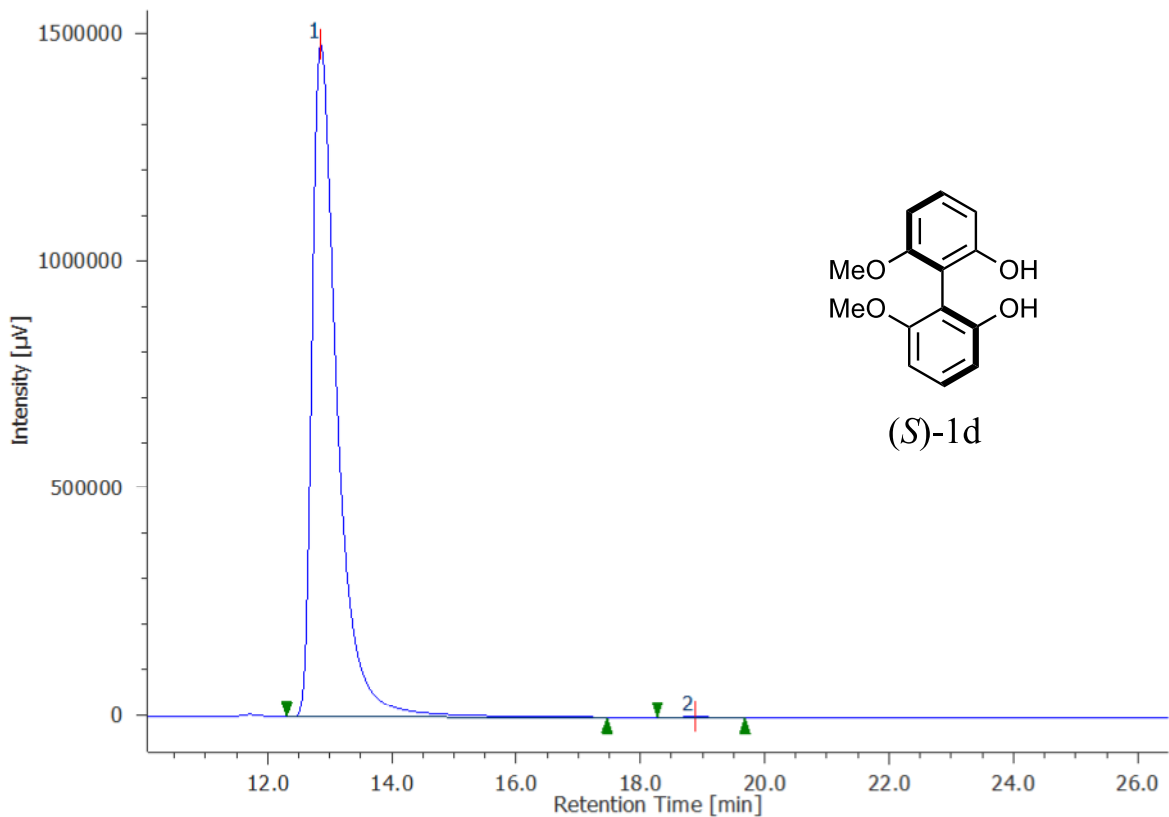


¹H NMR spectra (400 MHz, CDCl₃) of (S)-1d

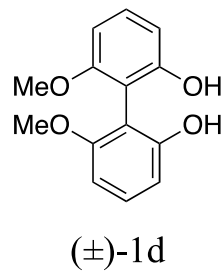
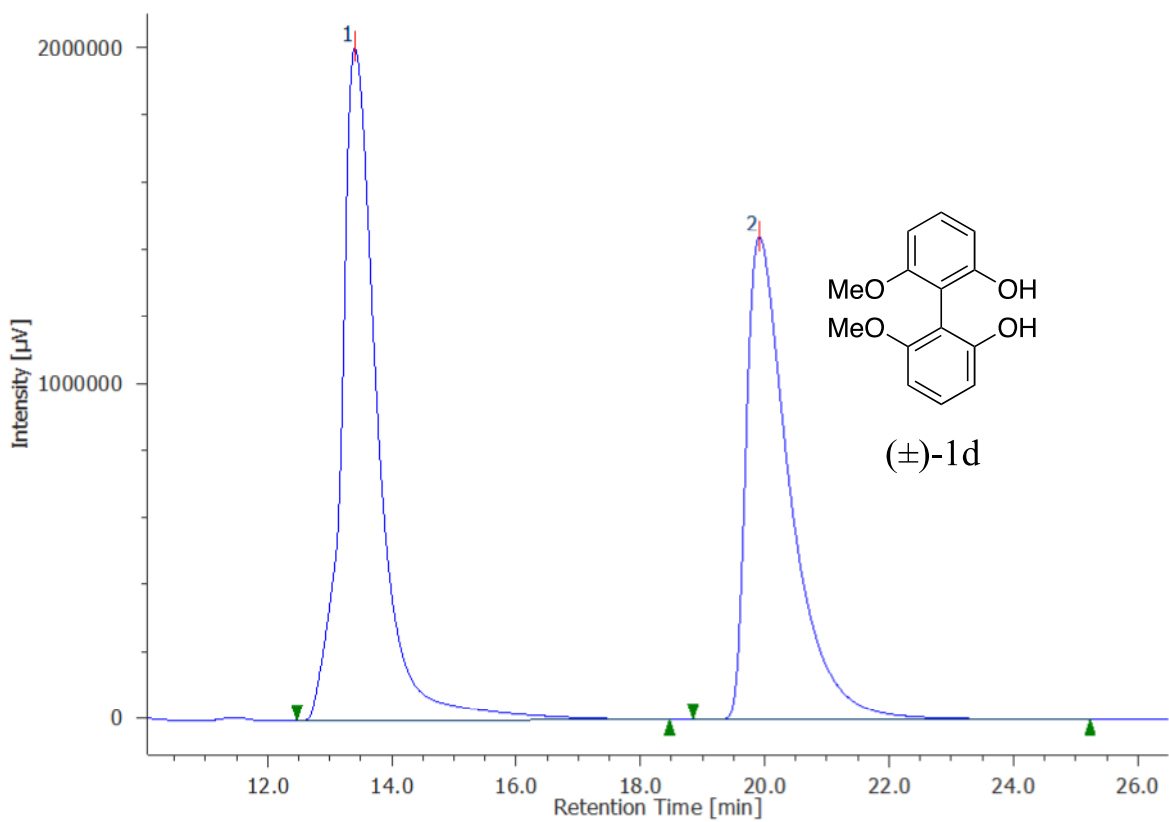


| # | ピーク名 | CH | tR [min] | 面積 [μV·sec] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シメトリー係数 | 警告 |
|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|---------|----|
| 1 | Unknown | 9 | 29.127 | 2278319 | 42397 | 5.427 | 5.843 | N/A | 7390 | 2.161 | 1.456 | |
| 2 | Unknown | 9 | 32.150 | 39700334 | 683229 | 94.573 | 94.157 | N/A | 7867 | N/A | 1.834 | |

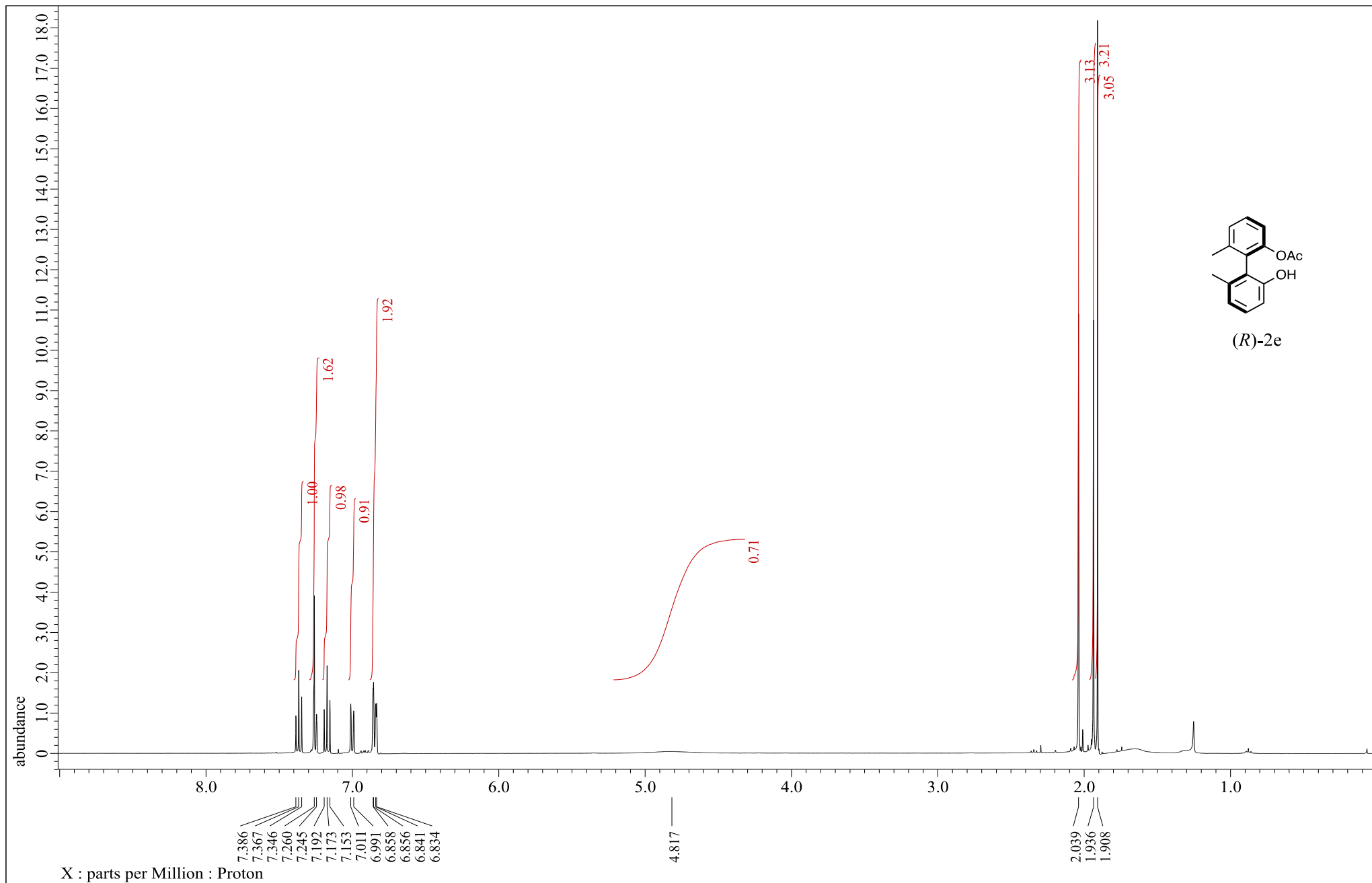




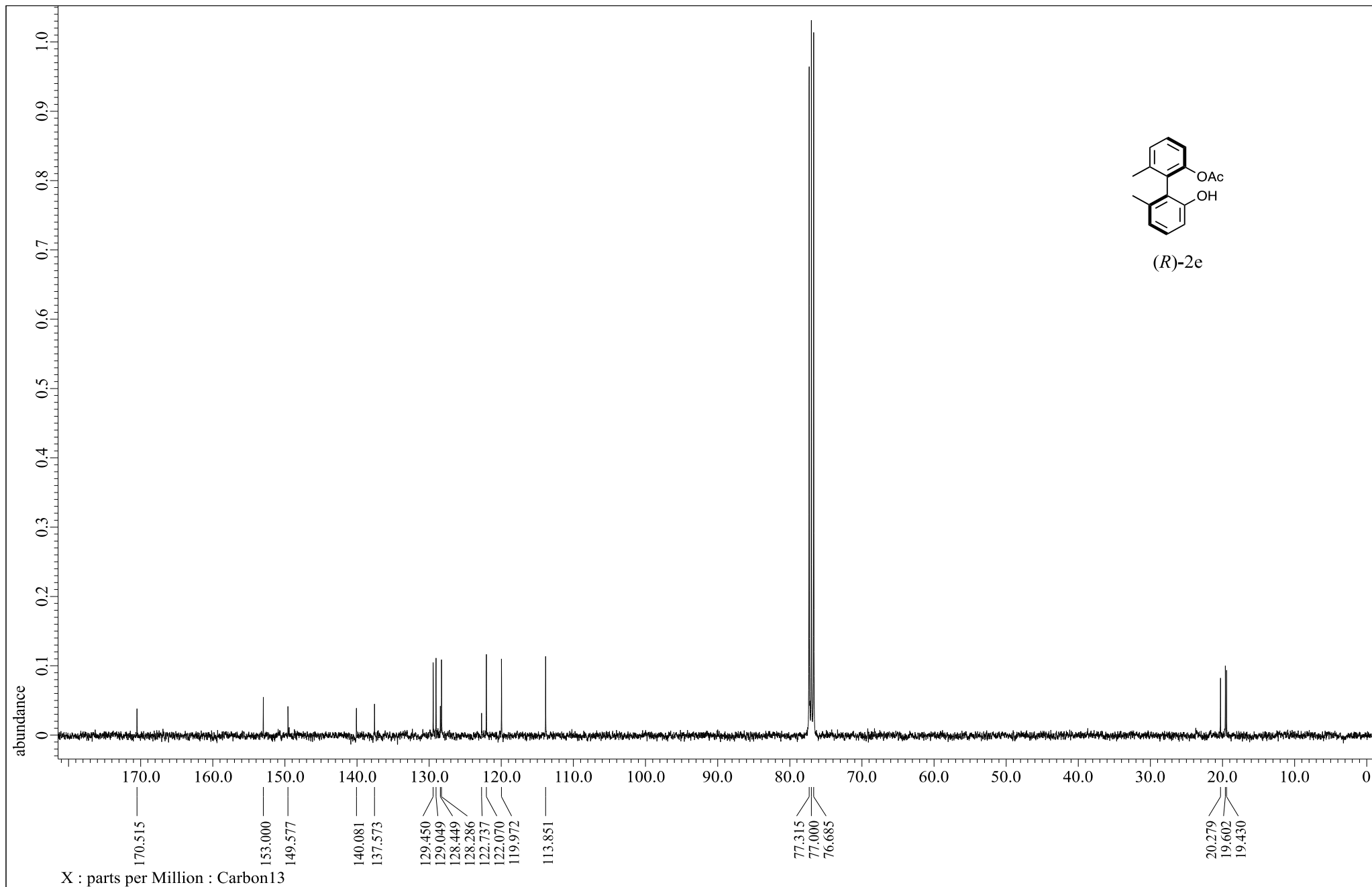
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|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 12.857 | 41595458 | 1480102 | 99.899 | 99.923 | N/A | 5713 | 7.239 | 1.825 | |
| 2 | Unknown | 9 | 18.877 | 42121 | 1140 | 0.101 | 0.077 | N/A | 5850 | N/A | 1.169 | |



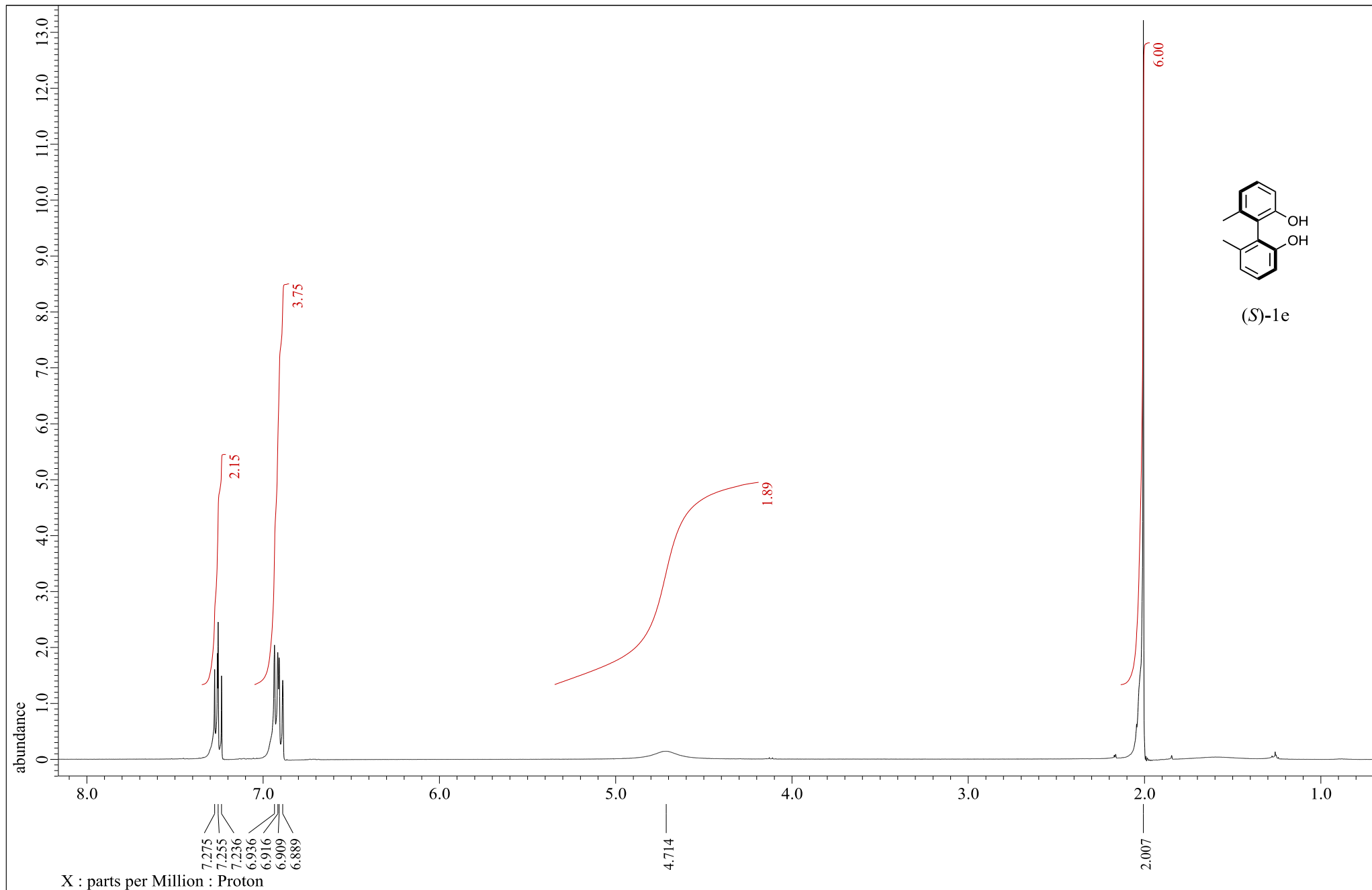
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|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 13.403 | 81456823 | 2006547 | 53.731 | 58.230 | N/A | 3502 | 6.203 | 1.312 | |
| 2 | Unknown | 9 | 19.913 | 70143878 | 1439324 | 46.269 | 41.770 | N/A | 4416 | N/A | 2.236 | |



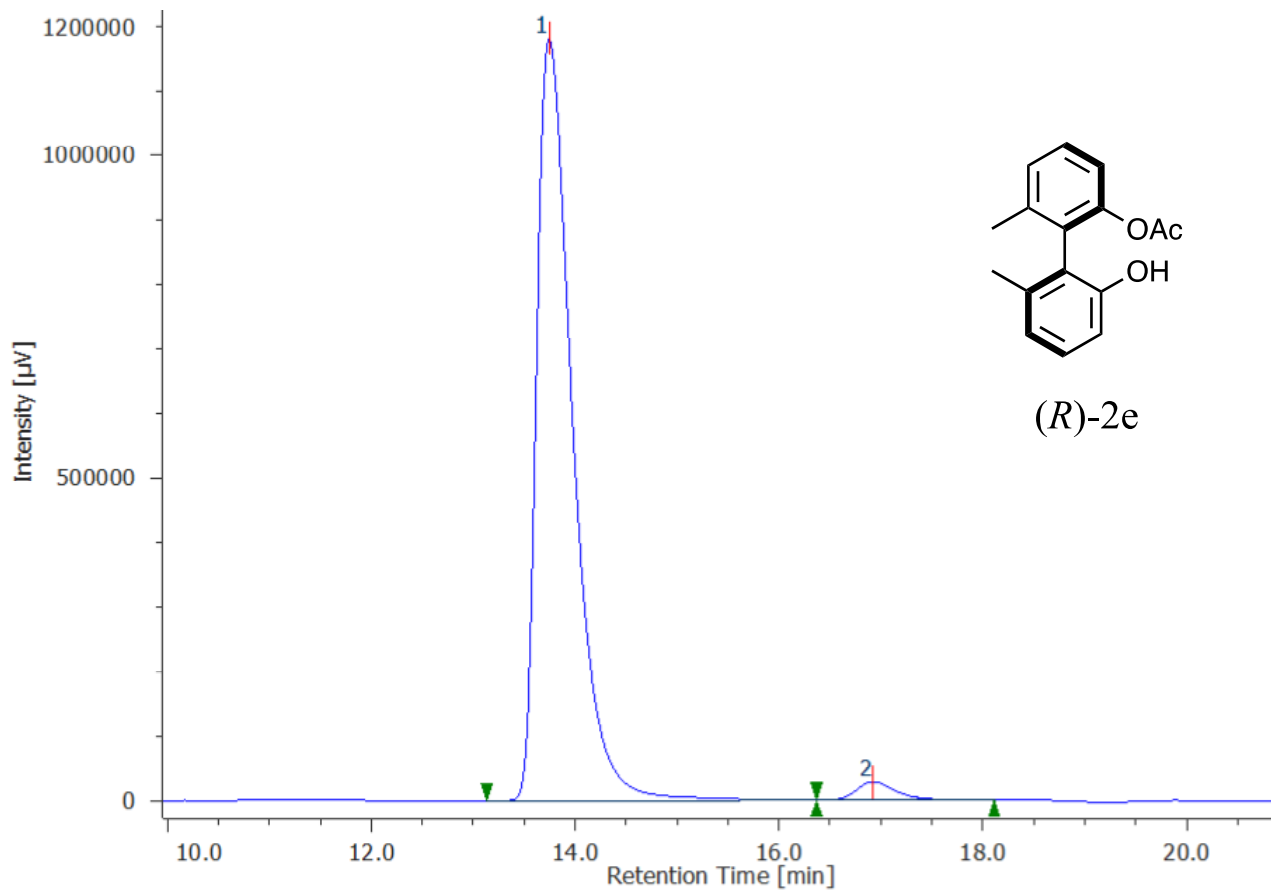
¹H NMR spectrum (400 MHz, CDCl₃) of (*R*)-2e



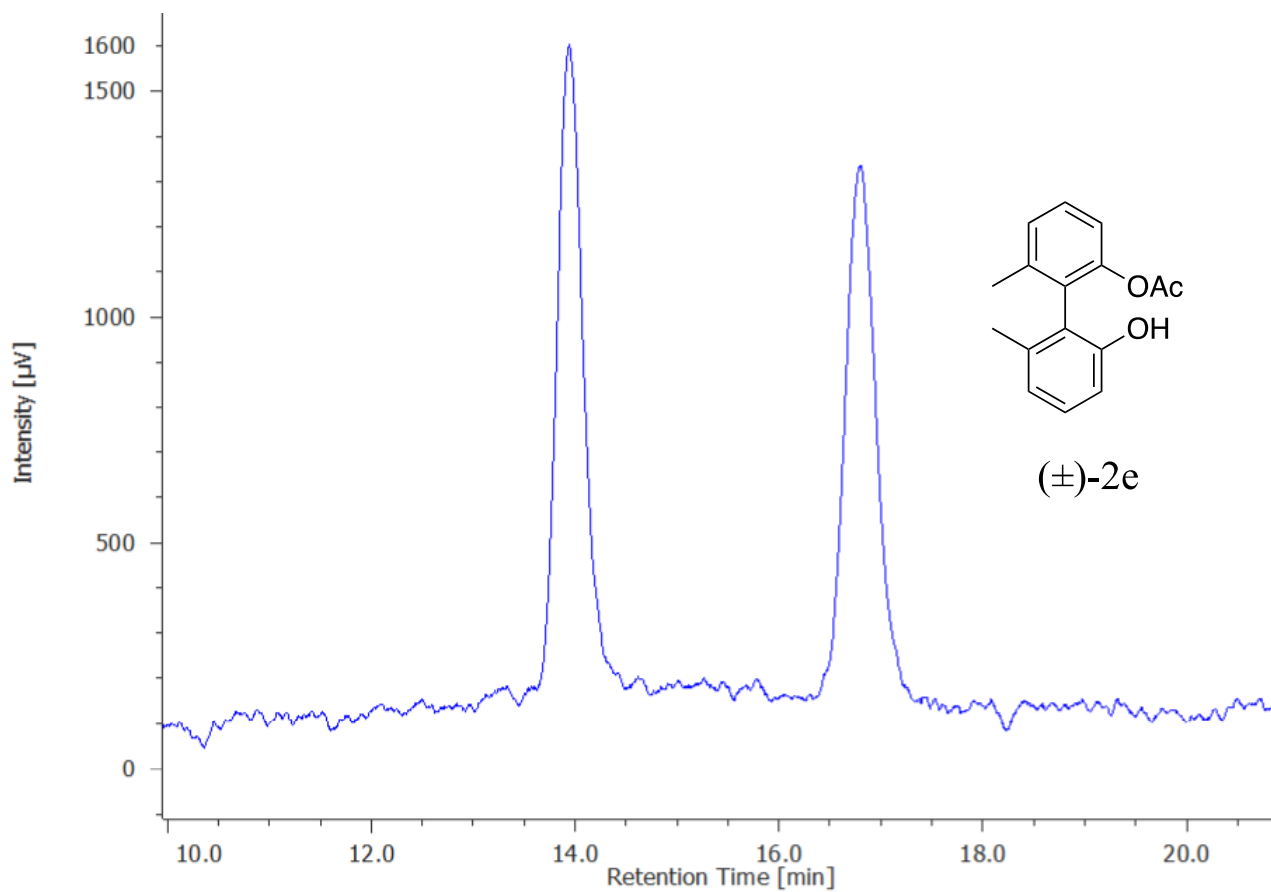
¹³C NMR spectrum (100 MHz, CDCl₃) of *(R)*-2e

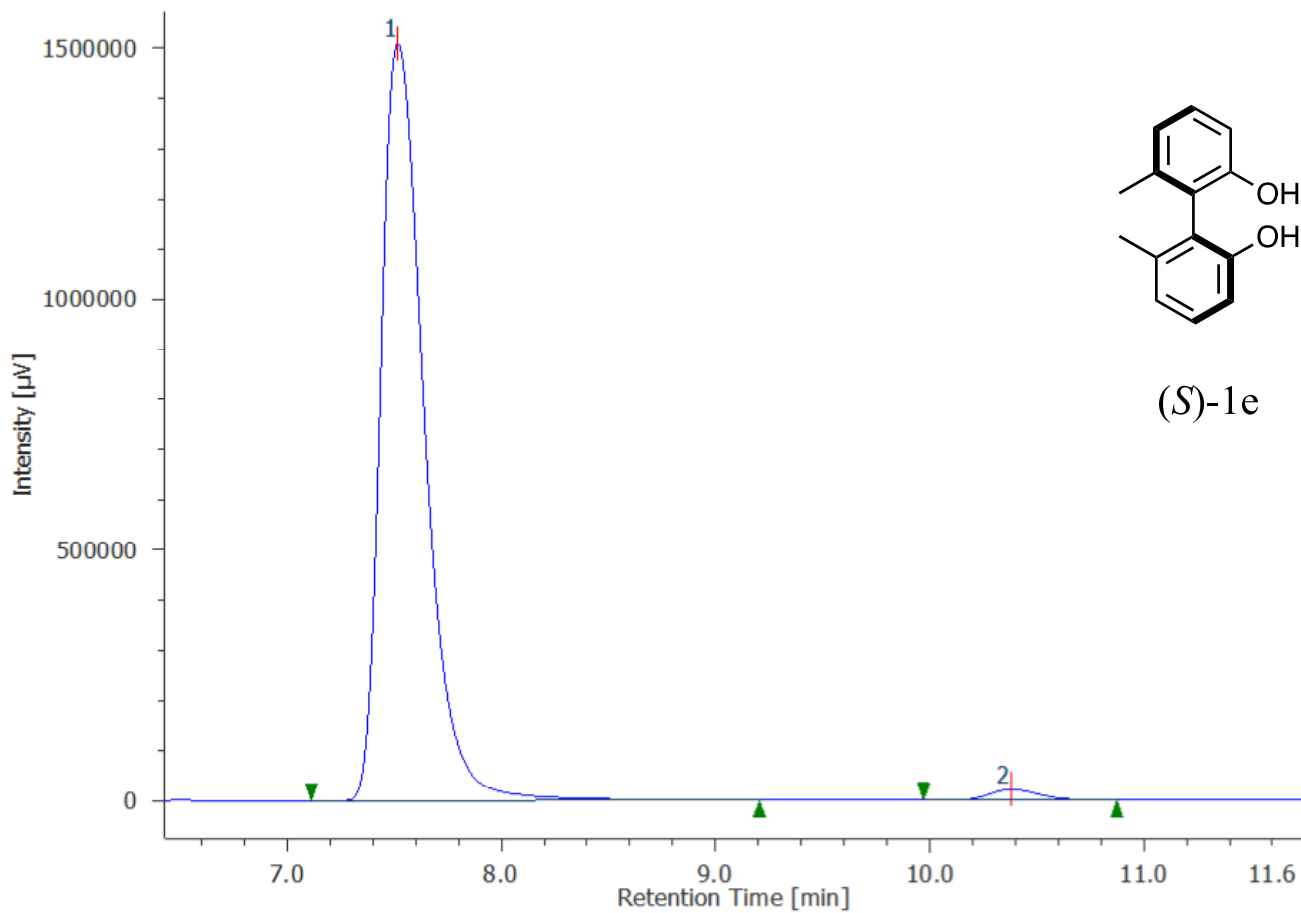


^1H NMR spectrum (400 MHz, CDCl_3) of (S)-1e

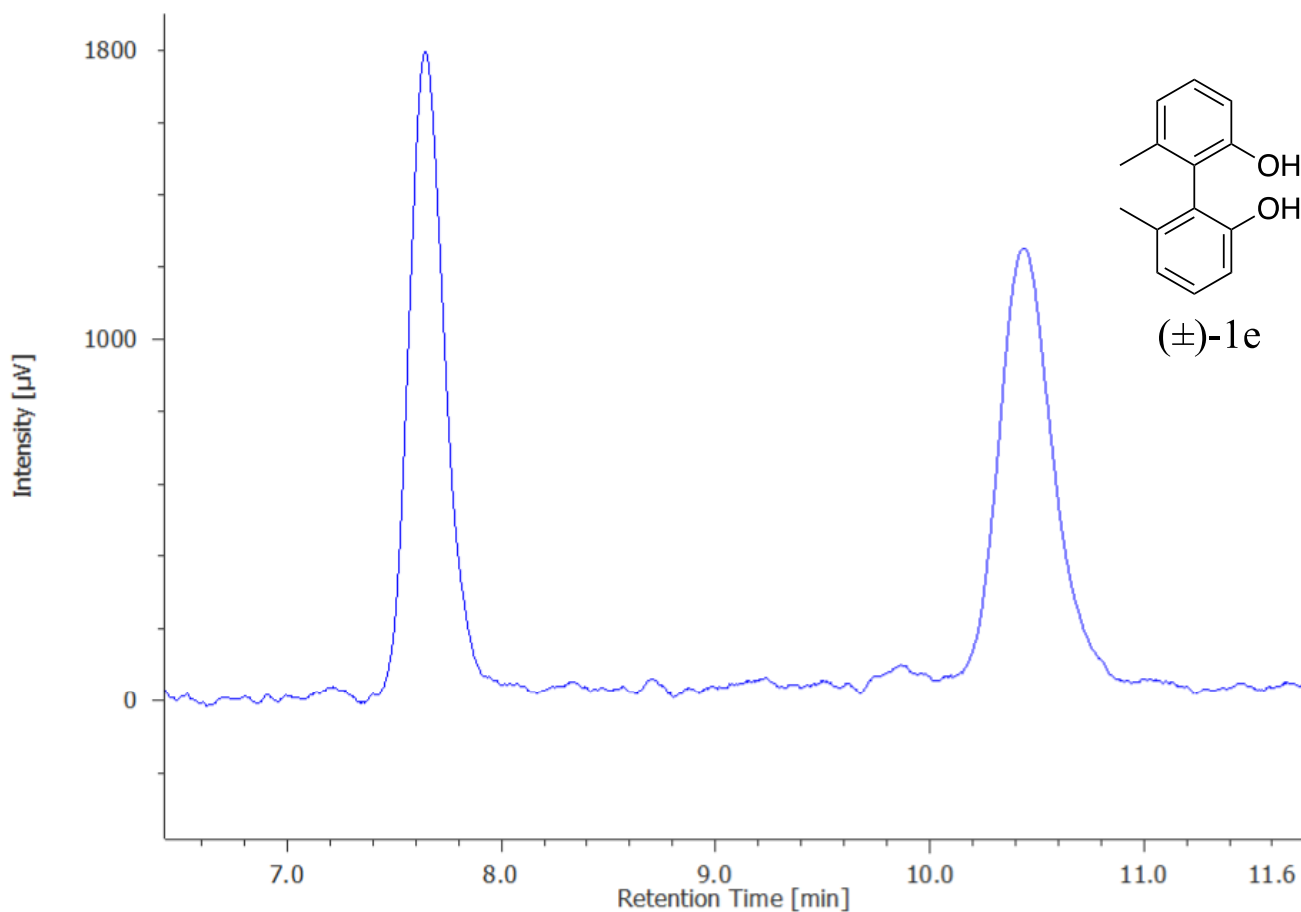


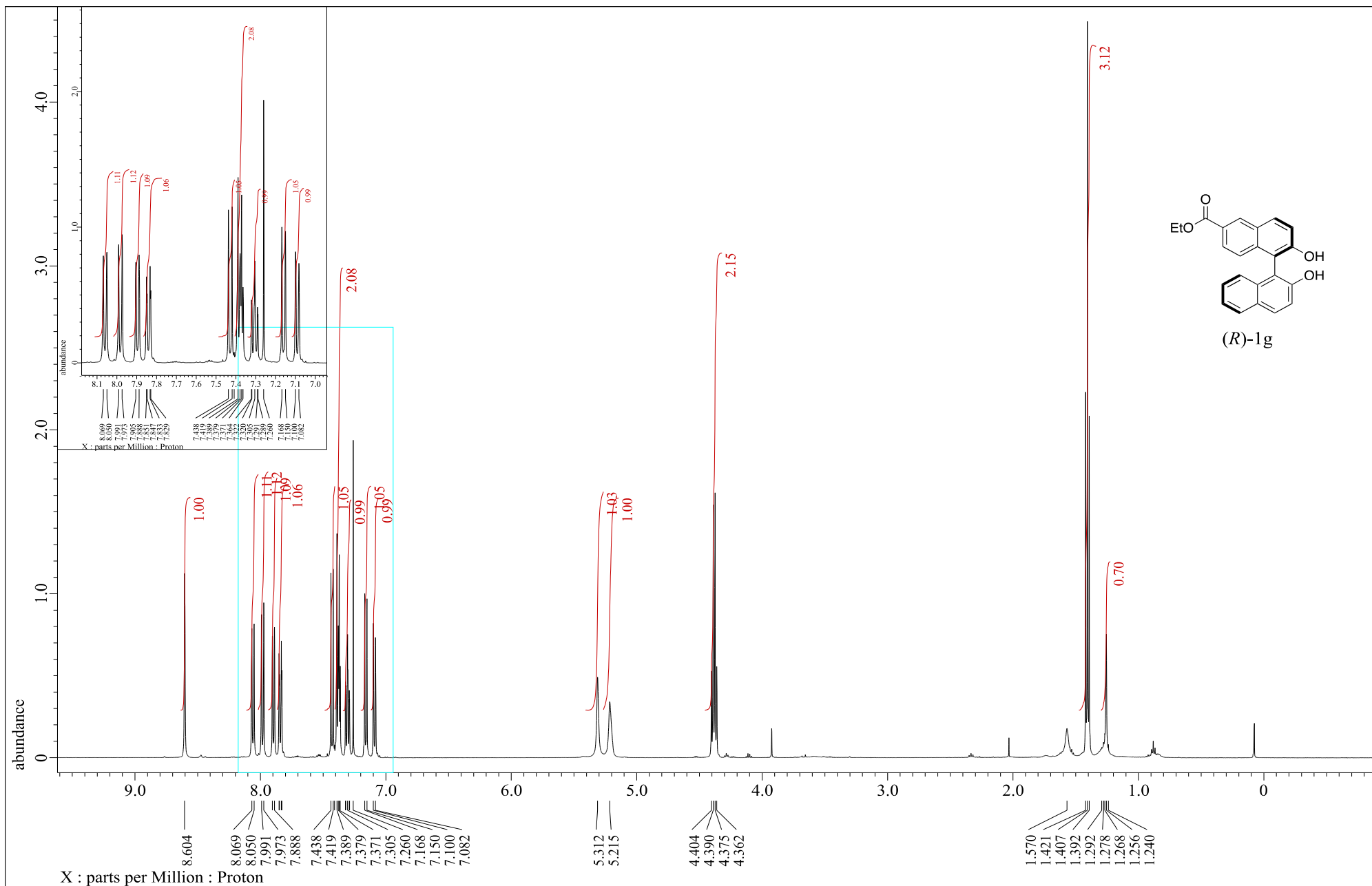
| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 13.743 | 28930516 | 1180747 | 97.465 | 97.713 | N/A | 7870 | 4.904 | 1.753 | |
| 2 | Unknown | 9 | 16.923 | 752519 | 27641 | 2.535 | 2.287 | N/A | 9887 | N/A | 1.355 | |



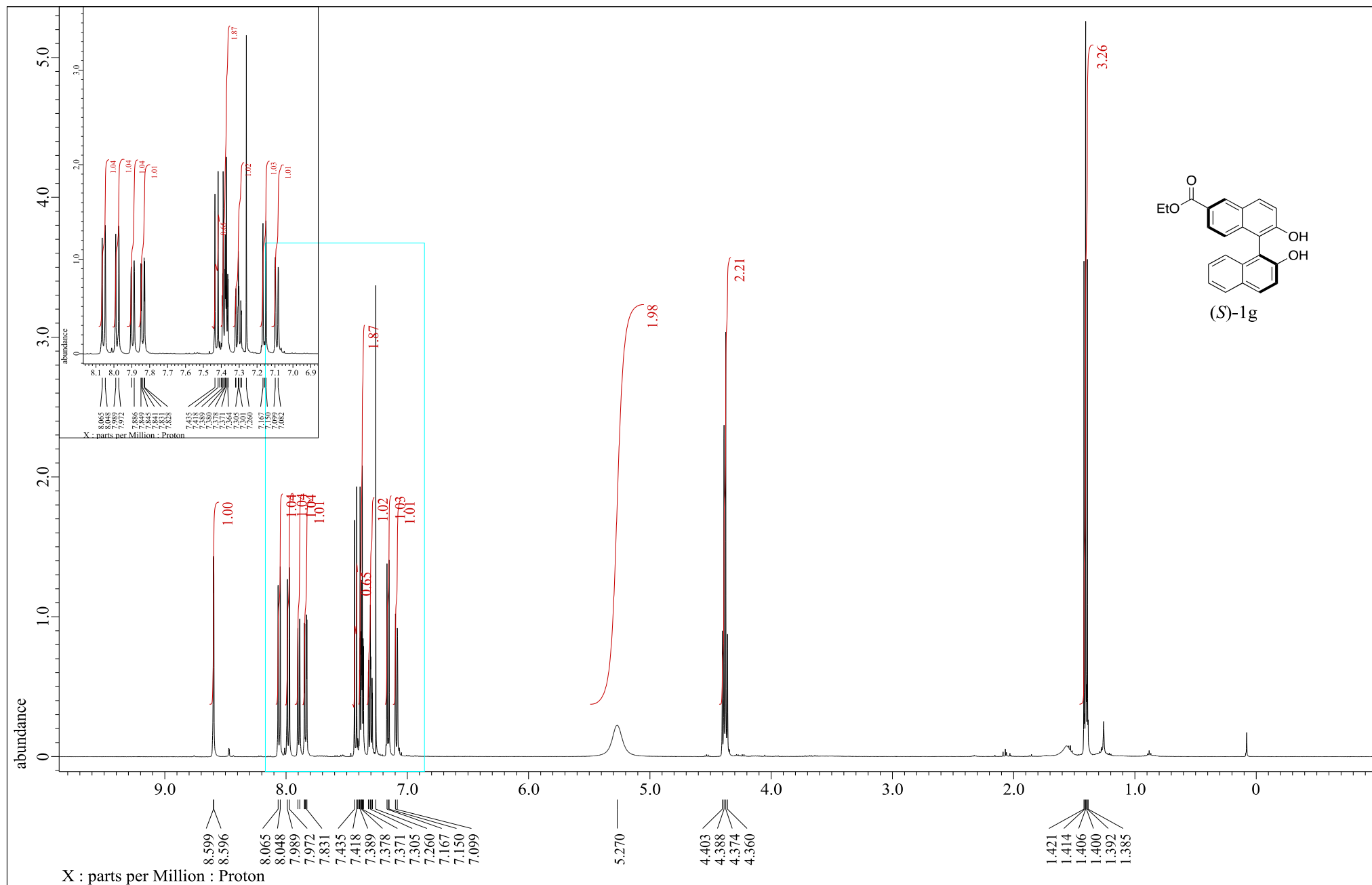


| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シメトリ係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|--------|----|
| 1 | Unknown | 9 | 7.517 | 21189661 | 1507116 | 98.353 | 98.588 | N/A | 7035 | 7.304 | 1.470 | |
| 2 | Unknown | 9 | 10.380 | 354942 | 21582 | 1.647 | 1.412 | N/A | 9427 | N/A | 1.239 | |

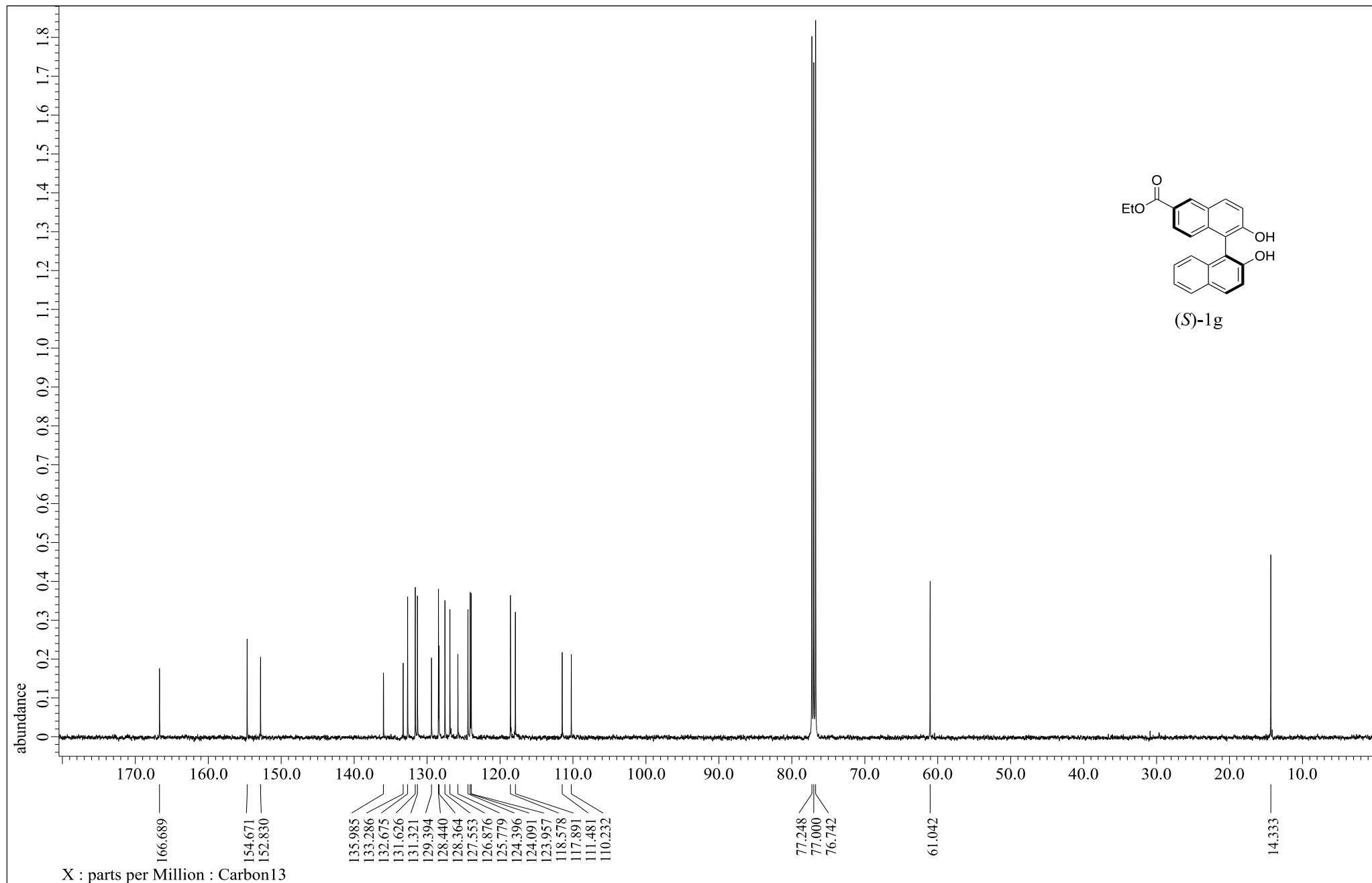




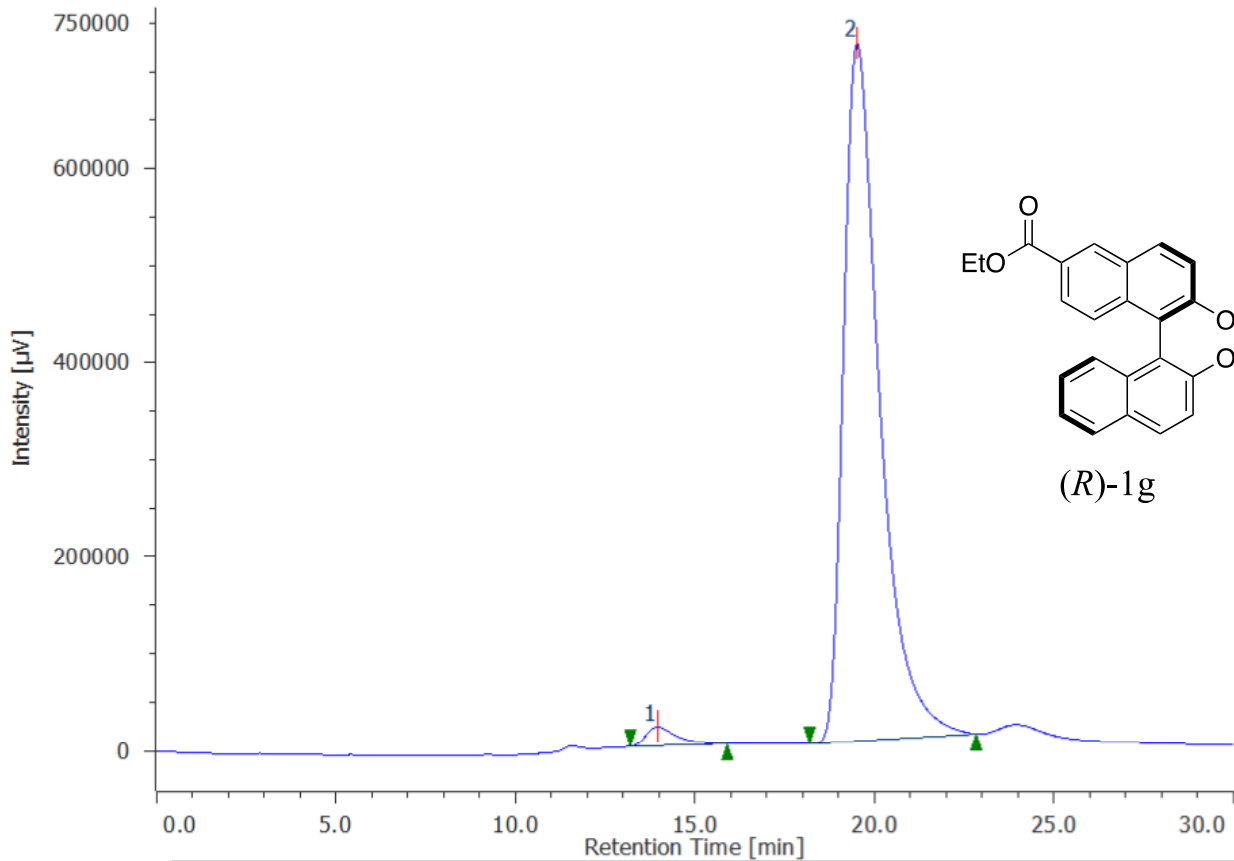
¹H NMR spectrum (500 MHz, CDCl₃) of *(R)*-1g



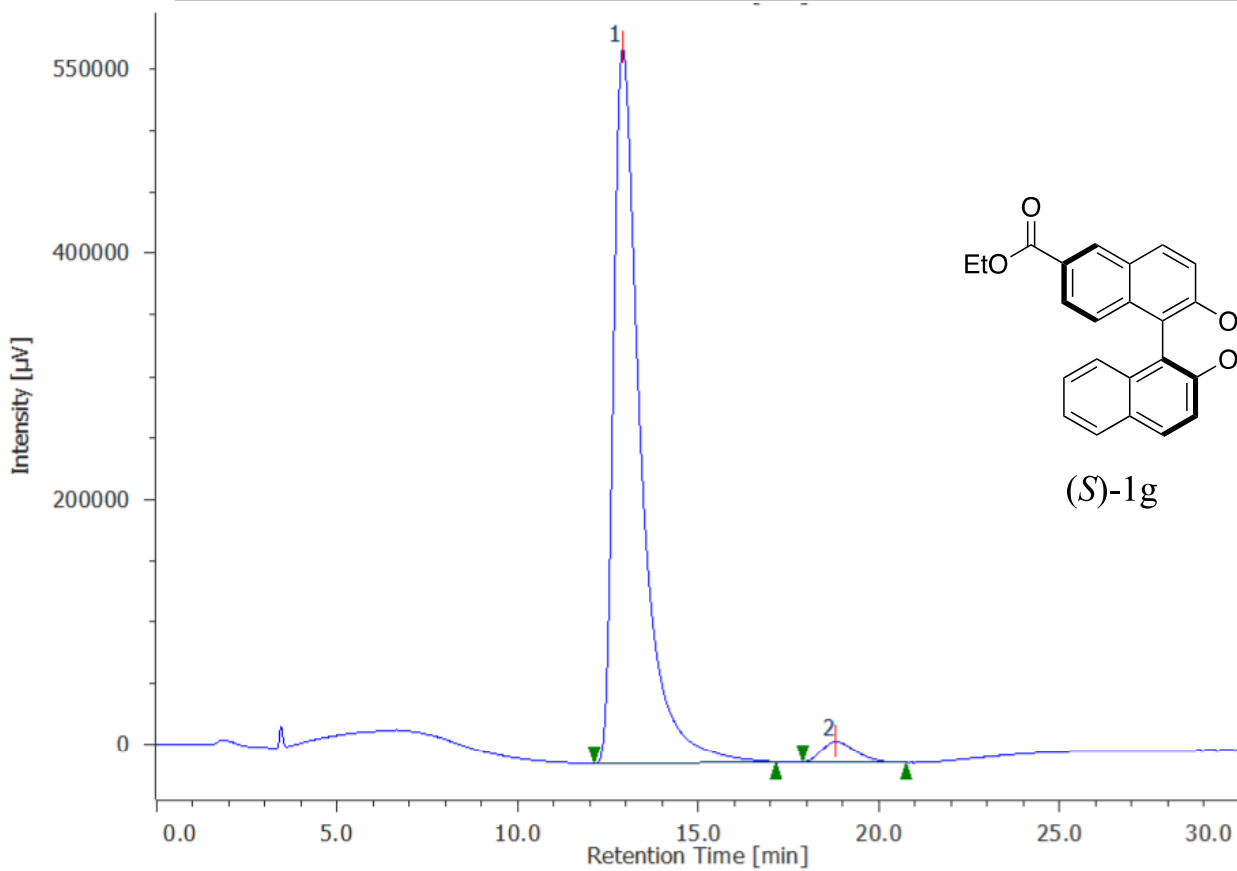
¹H NMR spectrum (500 MHz, CDCl₃) of (S)-1g



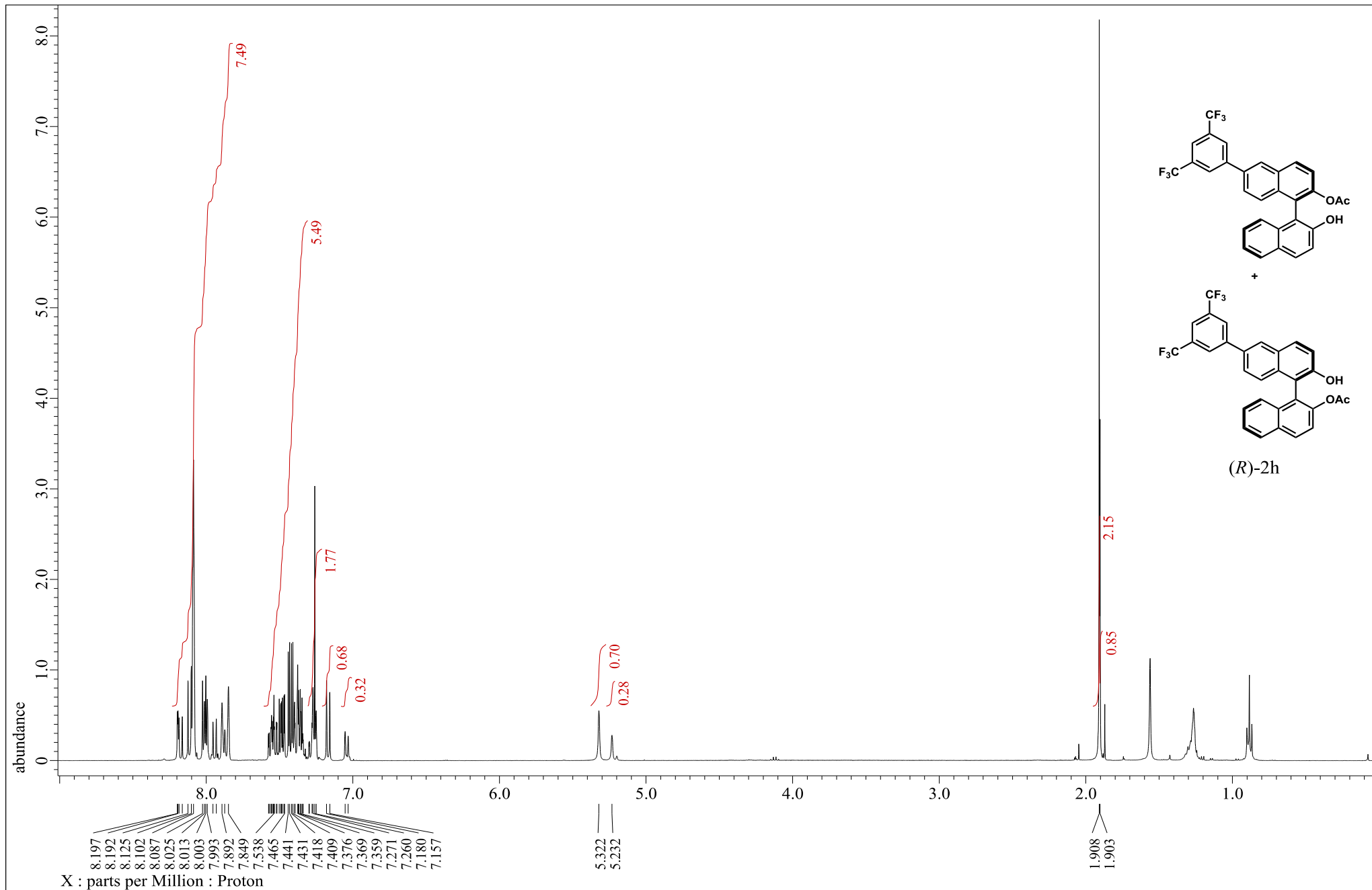
^{13}C NMR spectrum (125 MHz, CDCl_3) of (S)-1g



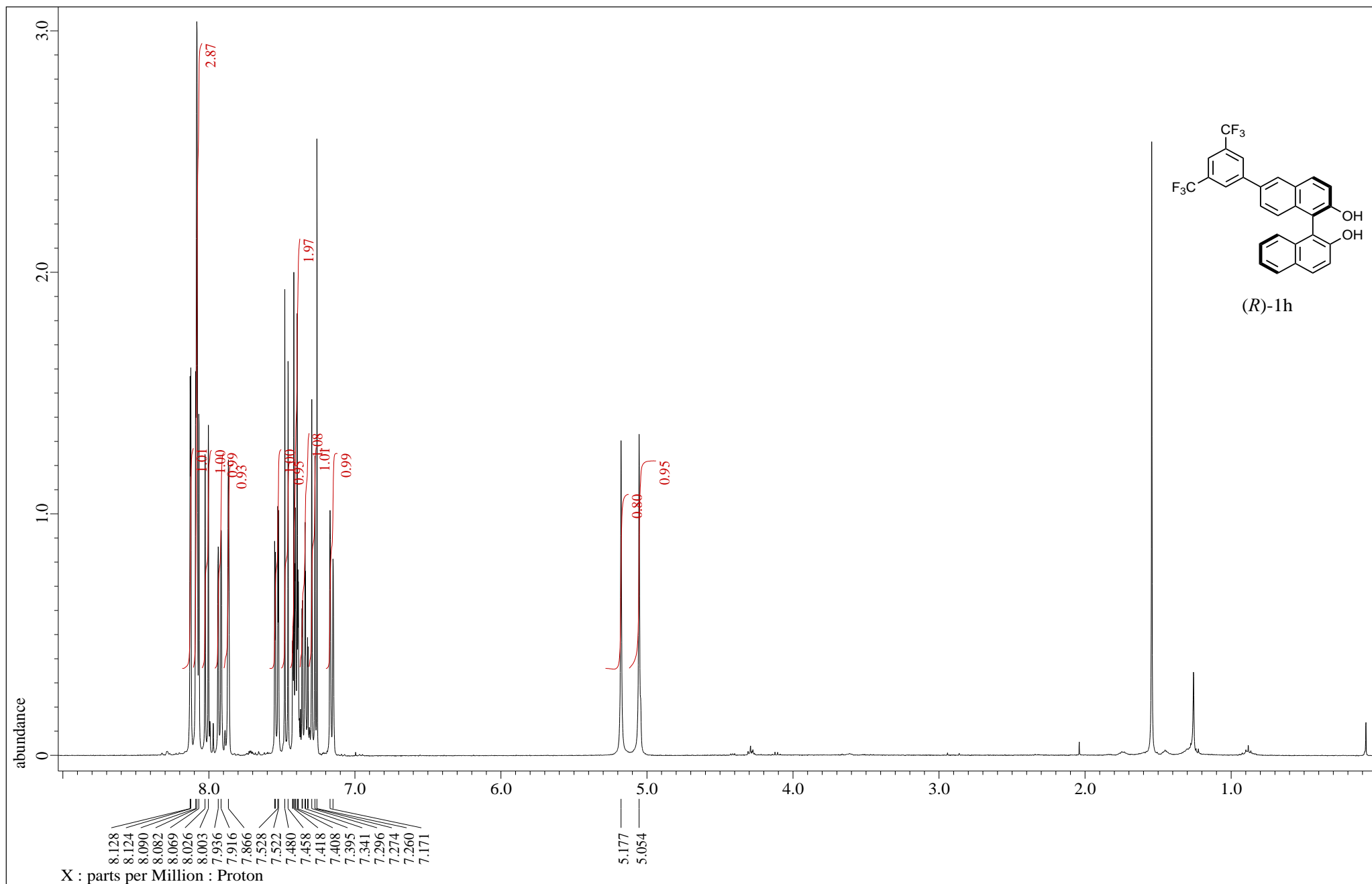
| # | ピーク名 | CH | tR [min] | 面積 [μV·sec] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 13.967 | 1106405 | 19053 | 2.155 | 2.580 | N/A | 1477 | 3.484 | 1.638 | |
| 2 | Unknown | 9 | 19.520 | 50245907 | 719391 | 97.845 | 97.420 | N/A | 2006 | N/A | 1.678 | |



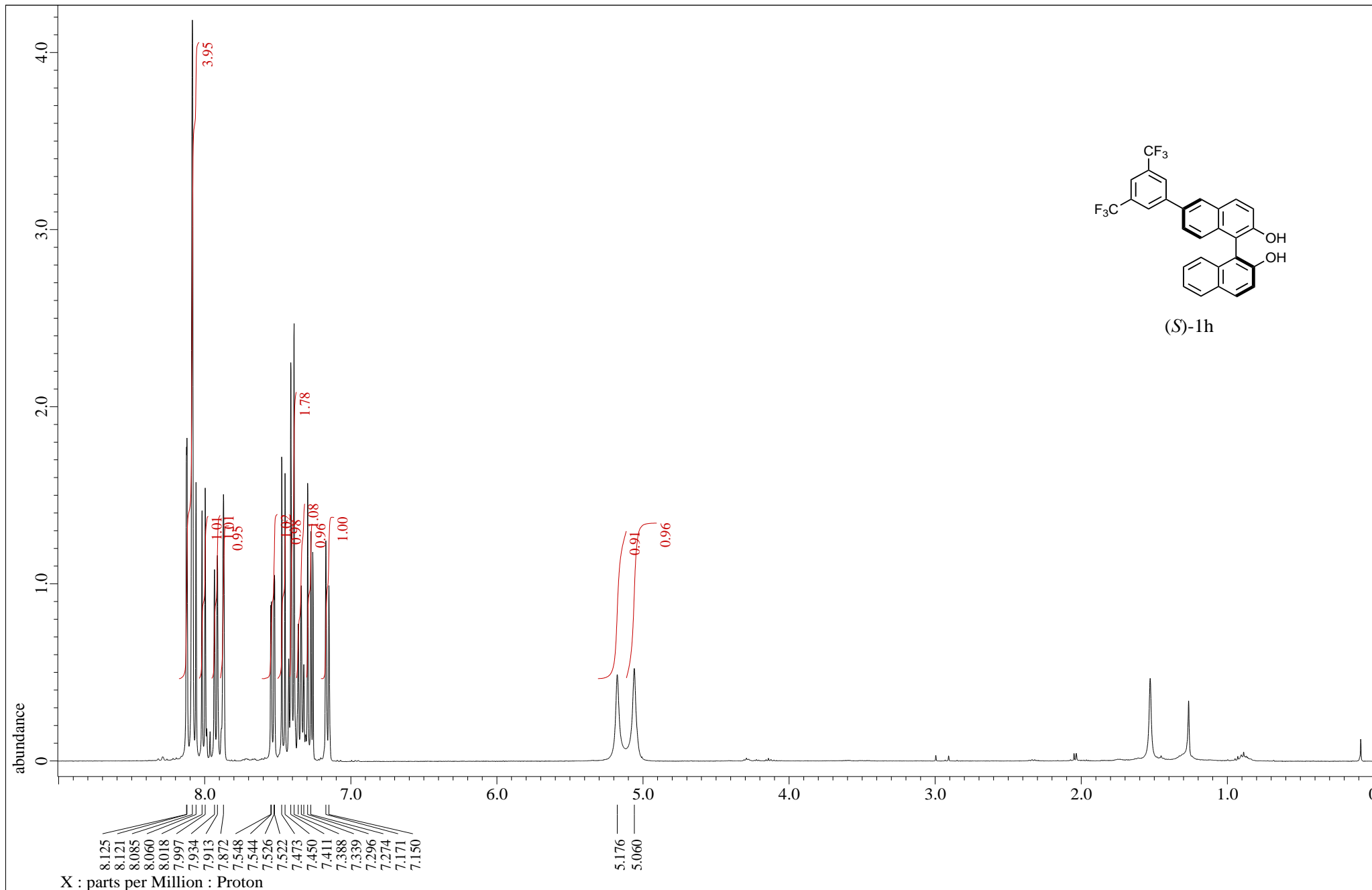
| # | ピーク名 | CH | tR [min] | 面積 [μV·sec] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 12.913 | 30325295 | 581986 | 96.485 | 97.178 | N/A | 1739 | 3.989 | 1.977 | |
| 2 | Unknown | 9 | 18.810 | 1104769 | 16898 | 3.515 | 2.822 | N/A | 1902 | N/A | 1.369 | |



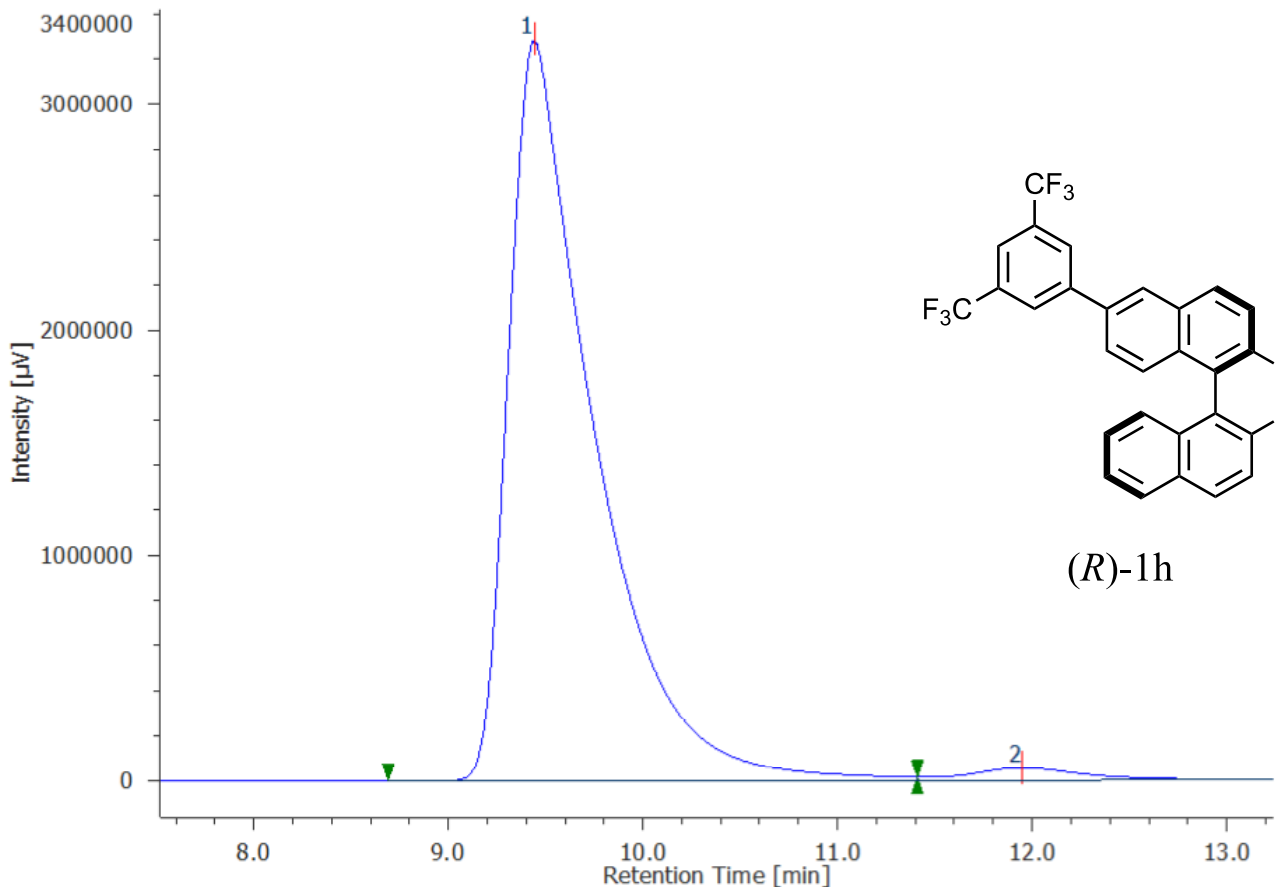
^1H NMR spectra (400 MHz, CDCl_3) of (R)-2h



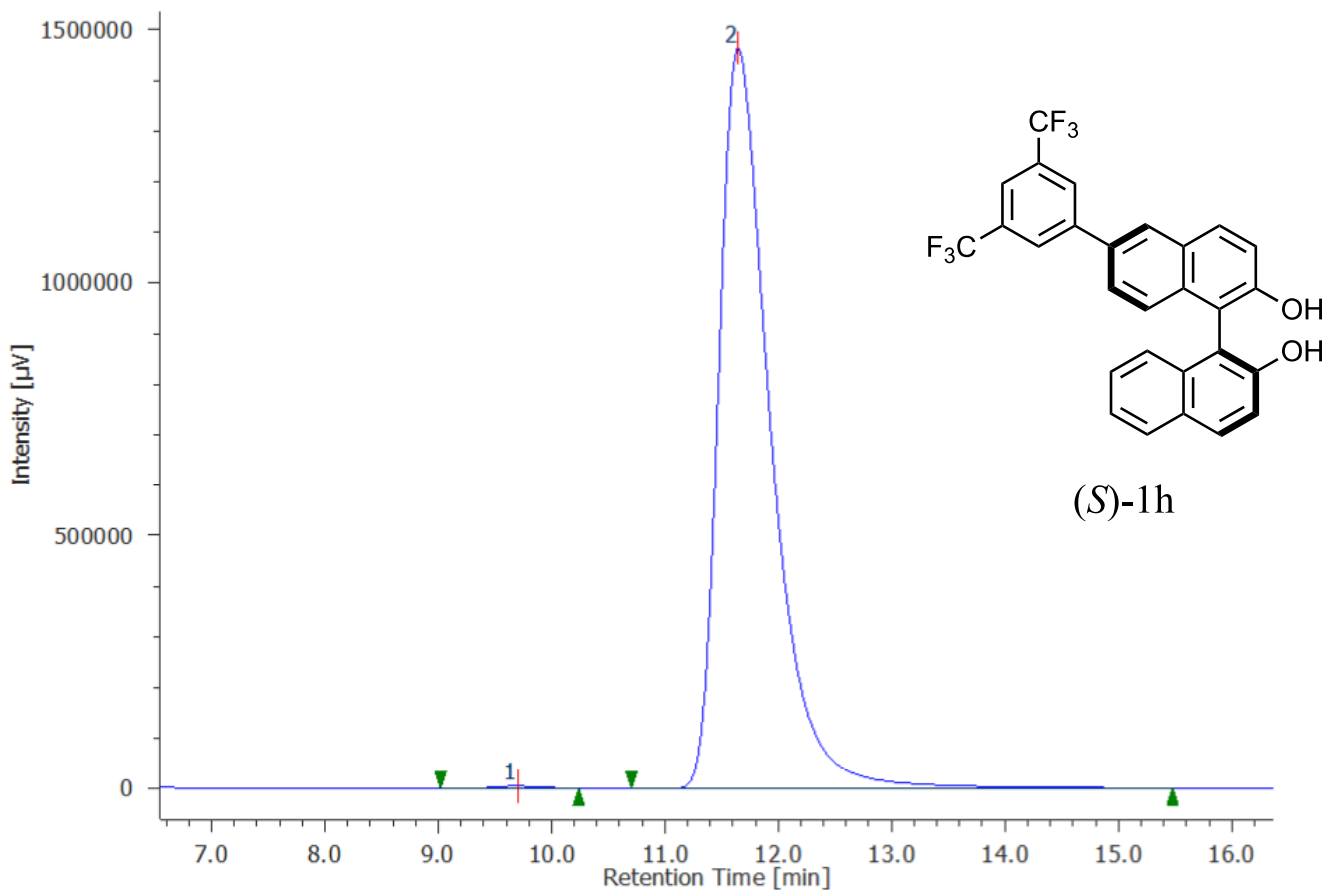
^1H NMR spectrum (400 MHz, CDCl_3) of (R)-1h



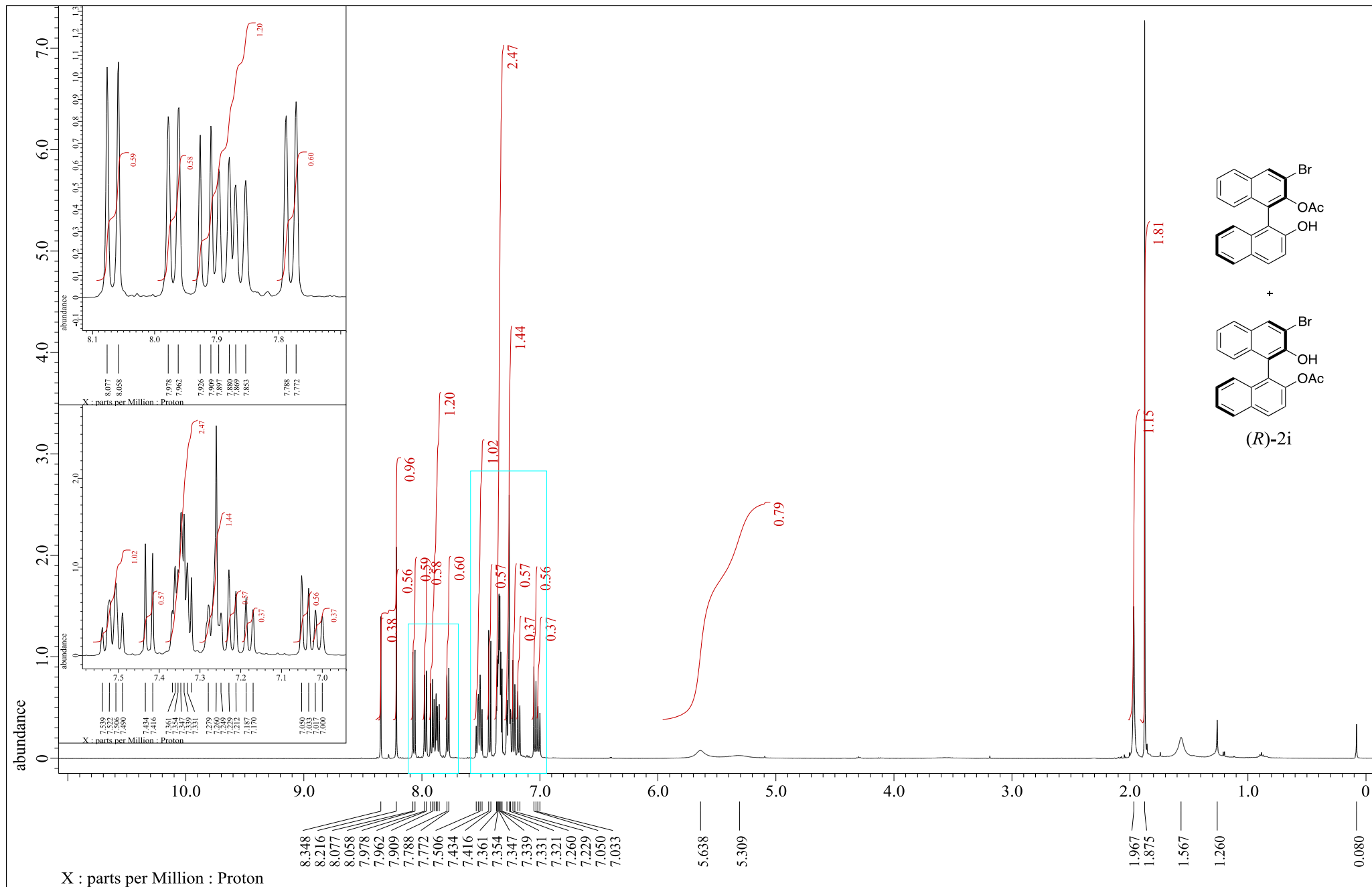
¹H NMR spectrum (400 MHz, CDCl₃) of (S)-1



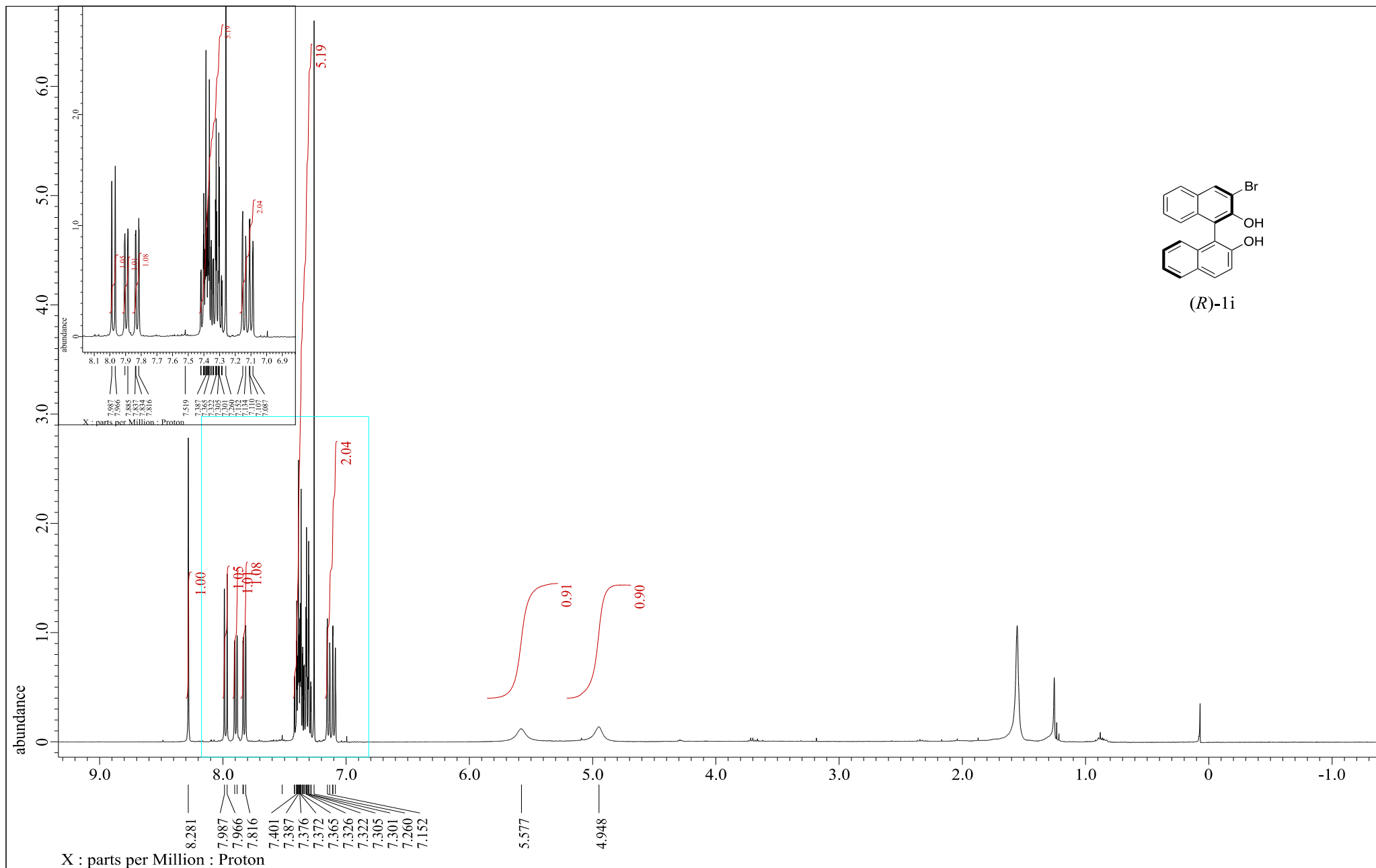
| # | ピーク名 | CH | tR [min] | 面積 [μV·sec] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 9.443 | 100343899 | 3284082 | 97.730 | 98.338 | N/A | 2578 | 2.894 | 2.121 | |
| 2 | Unknown | 9 | 11.950 | 2331205 | 55487 | 2.270 | 1.662 | N/A | 2317 | N/A | N/A | |



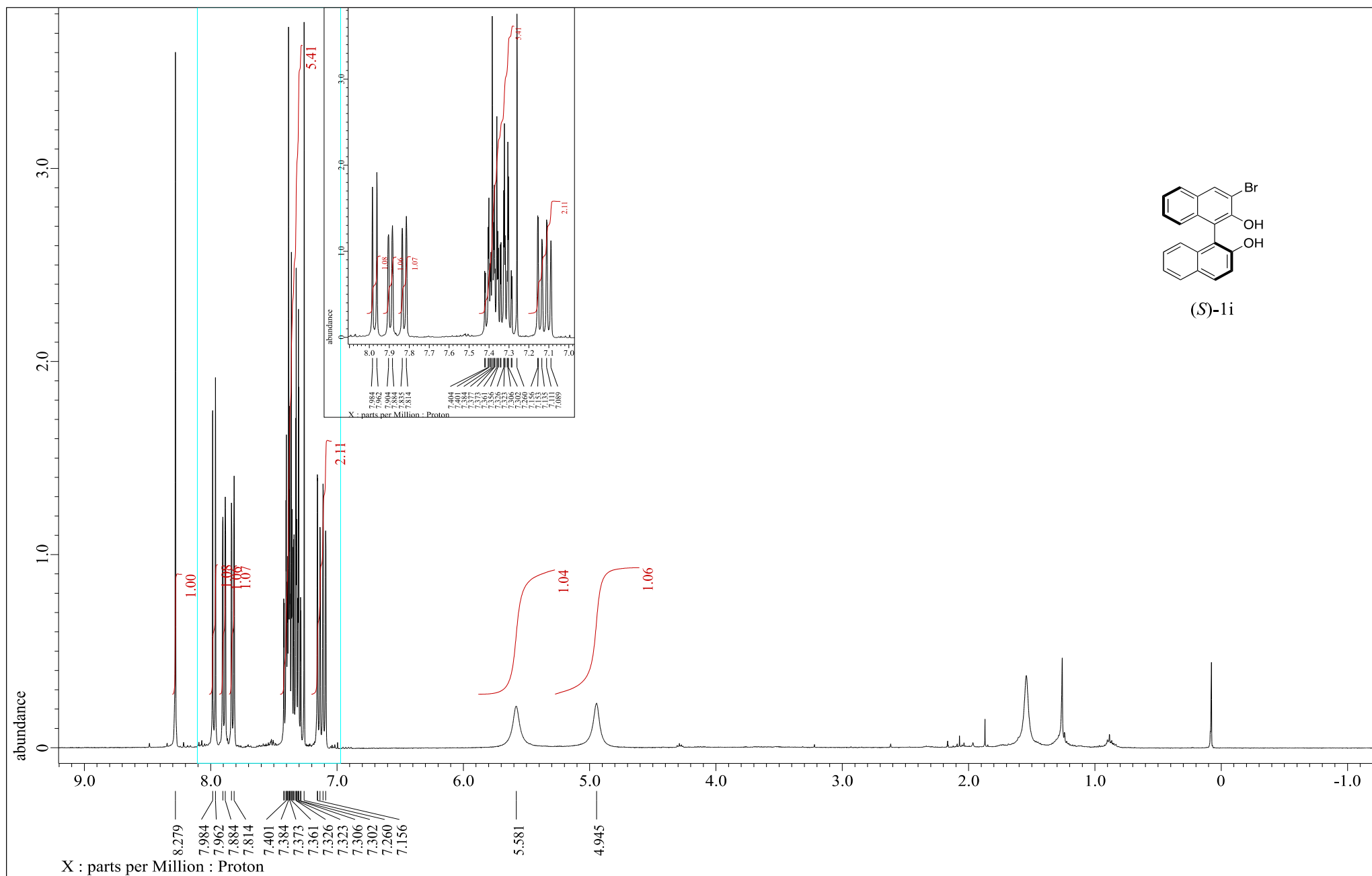
| # | ピーク名 | CH | tR [min] | 面積 [μV·sec] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 10 | 9.700 | 126056 | 4489 | 0.271 | 0.306 | N/A | 2501 | 2.491 | 1.133 | |
| 2 | Unknown | 10 | 11.647 | 46324946 | 1462624 | 99.729 | 99.694 | N/A | 3467 | N/A | 1.589 | |



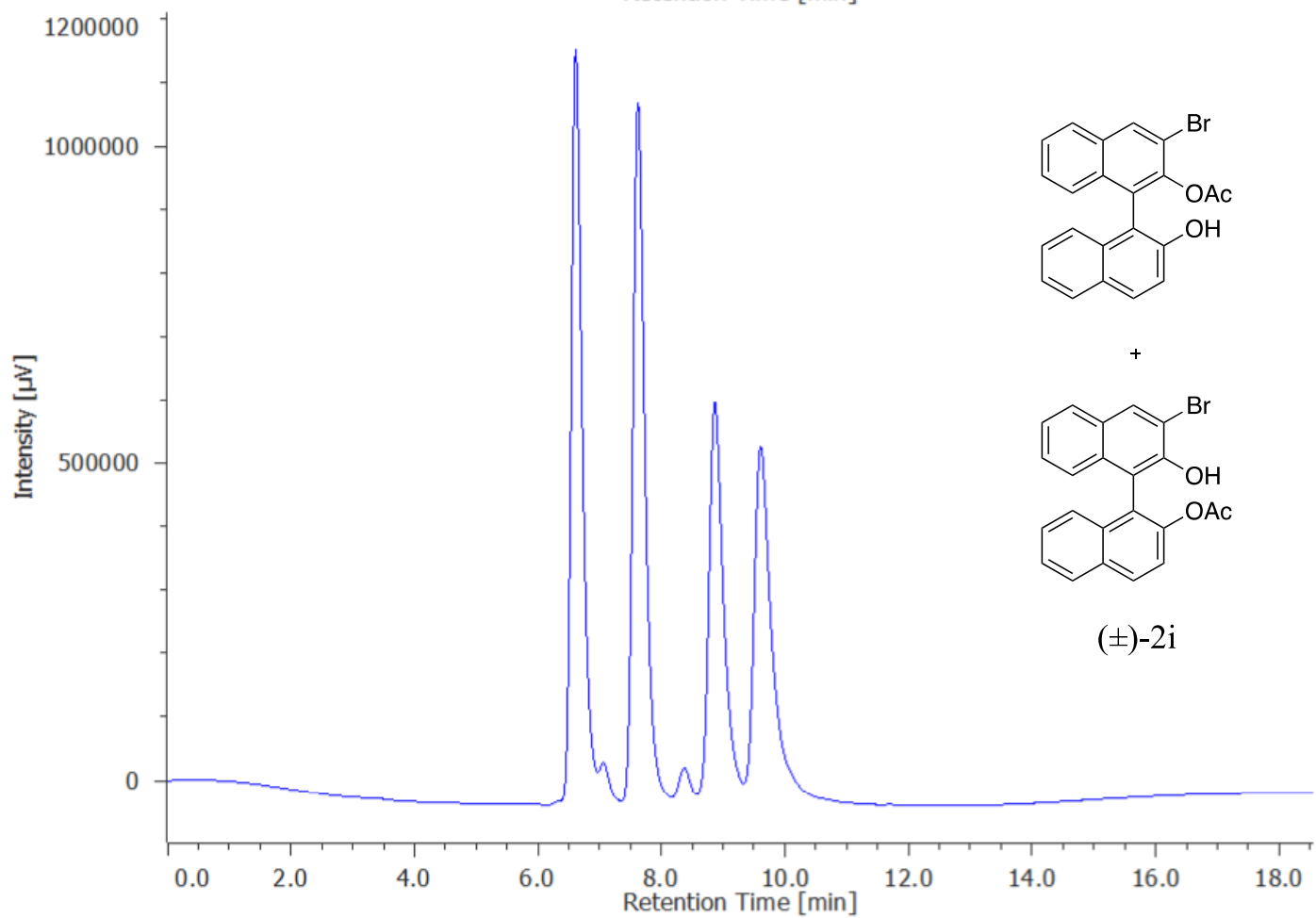
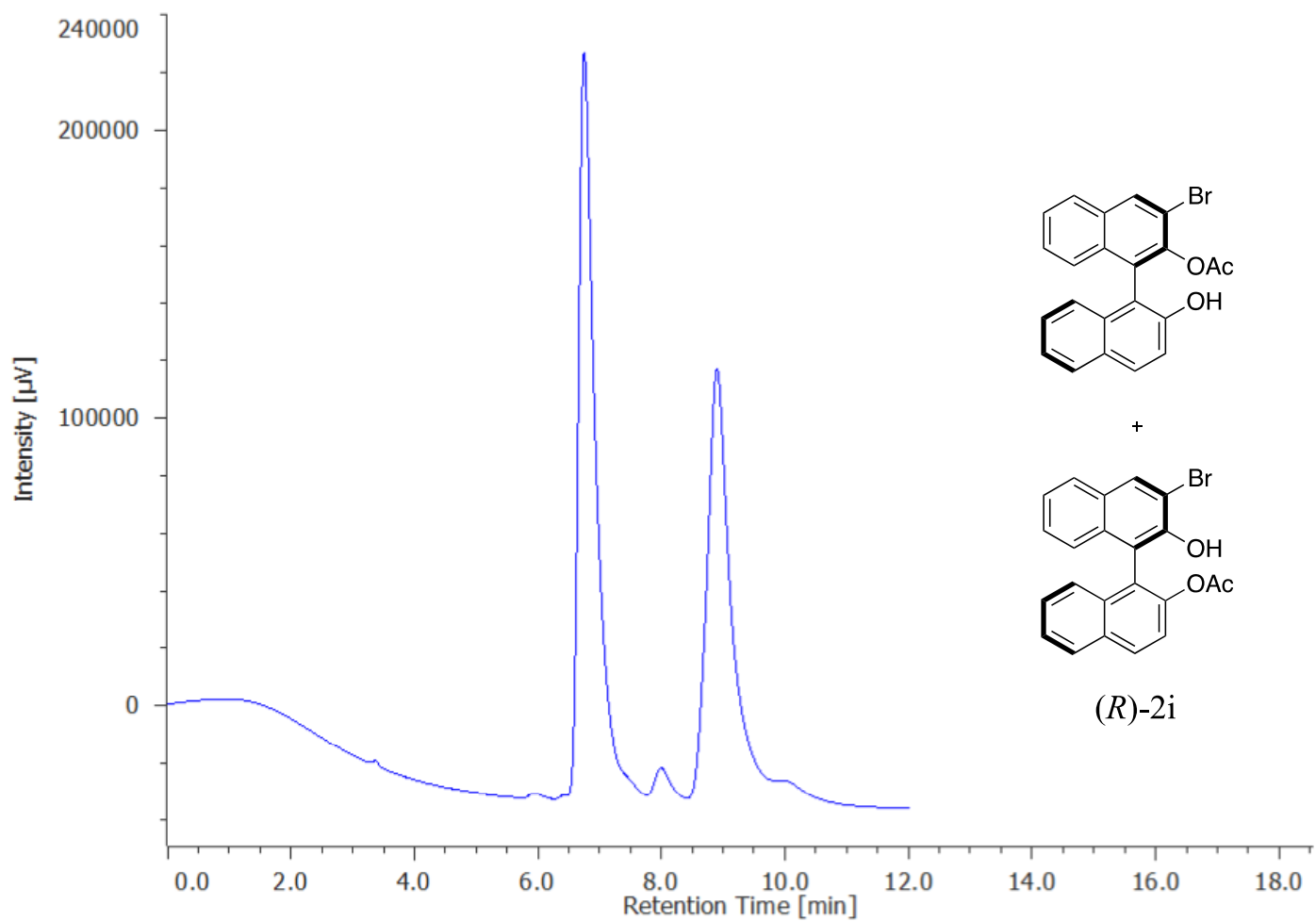
¹H NMR spectrum (500 MHz, CDCl₃) of *(R)*-2i

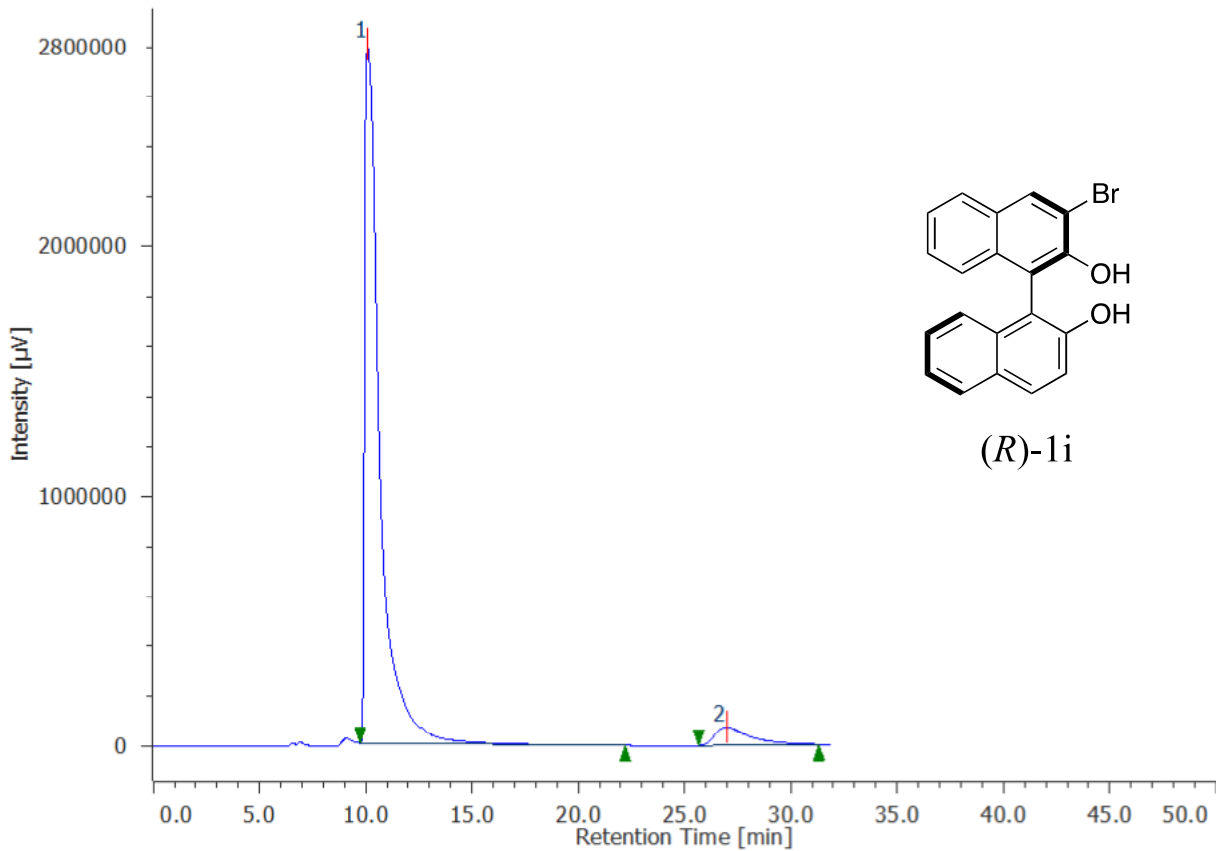


¹H NMR spectrum (400 MHz, CDCl₃) of *(R)*-1i

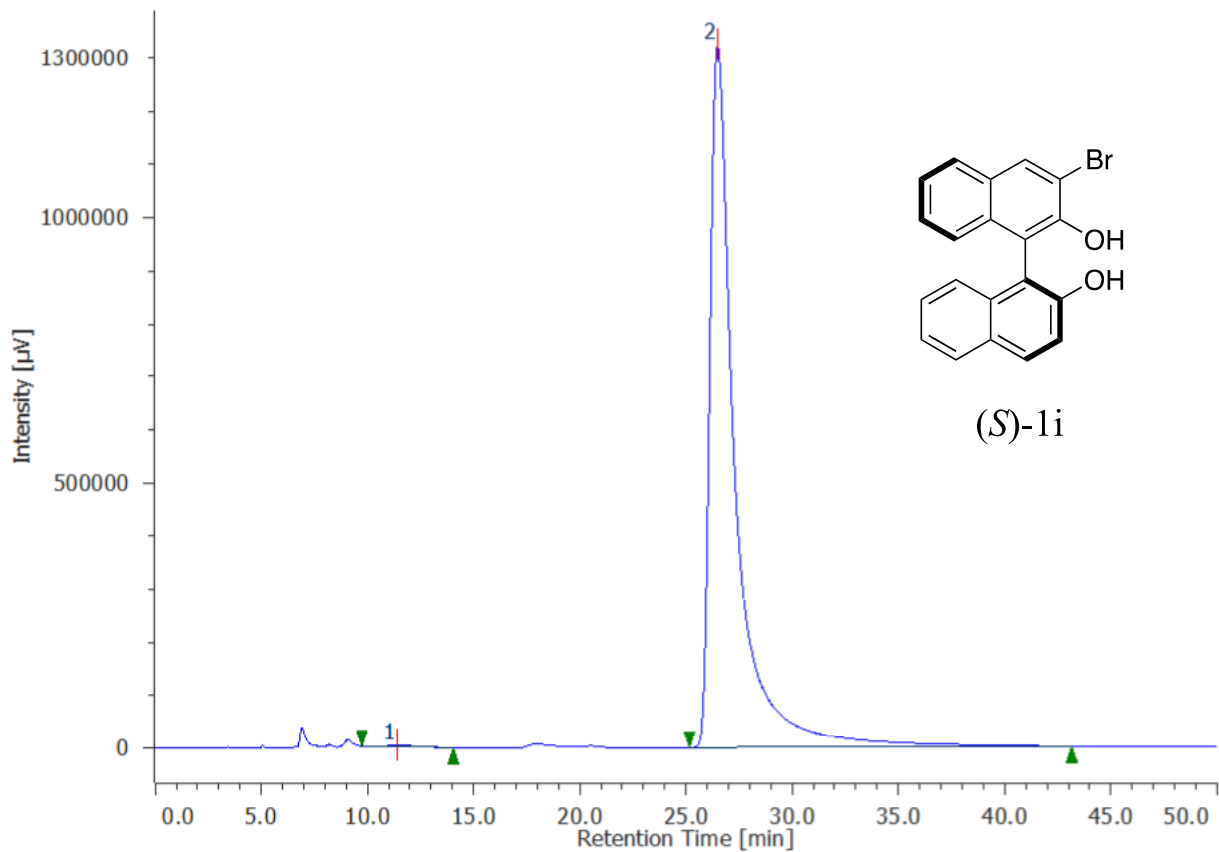


¹H NMR spectrum (400 MHz, CDCl₃) of (S)-1i

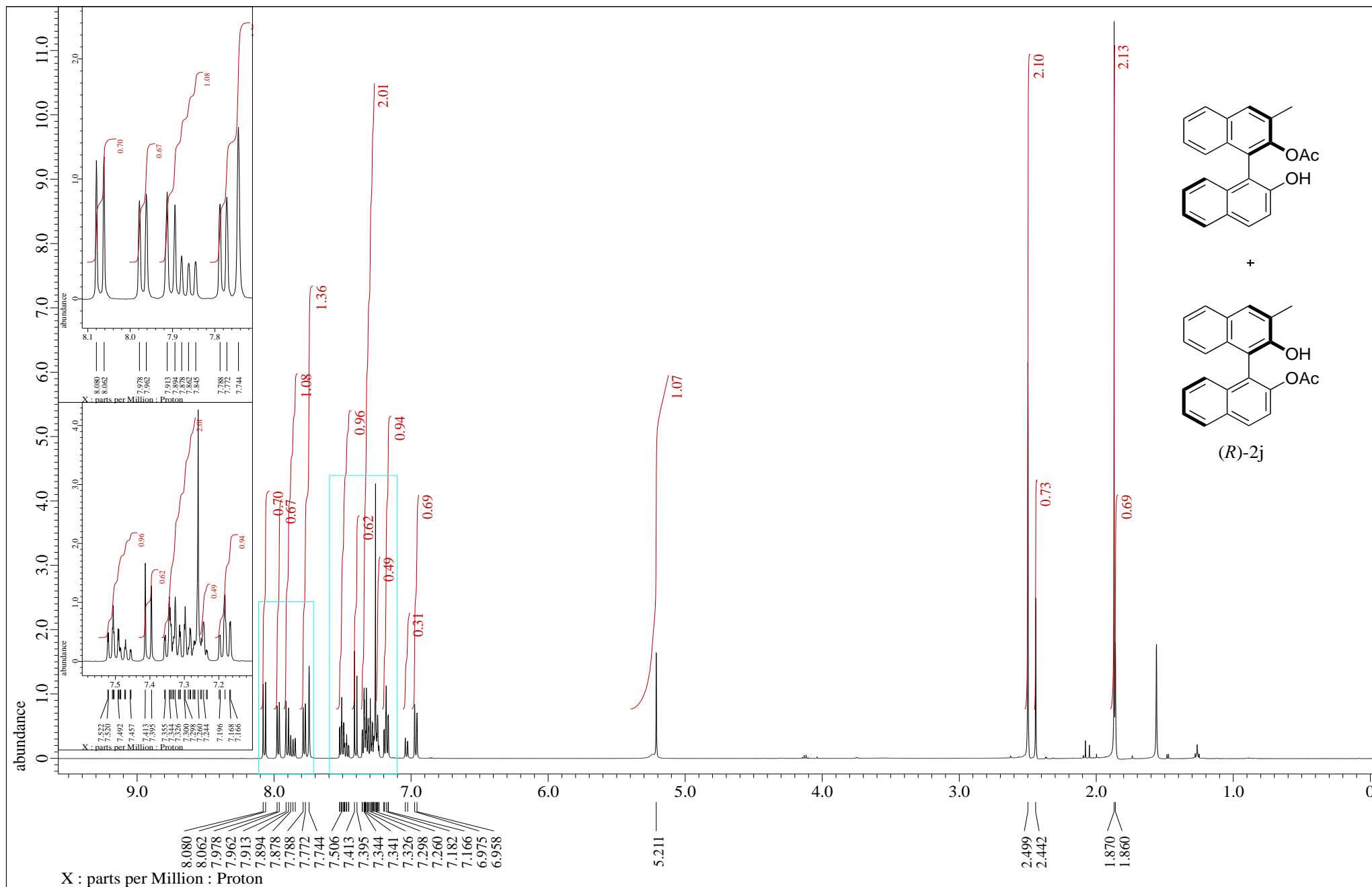




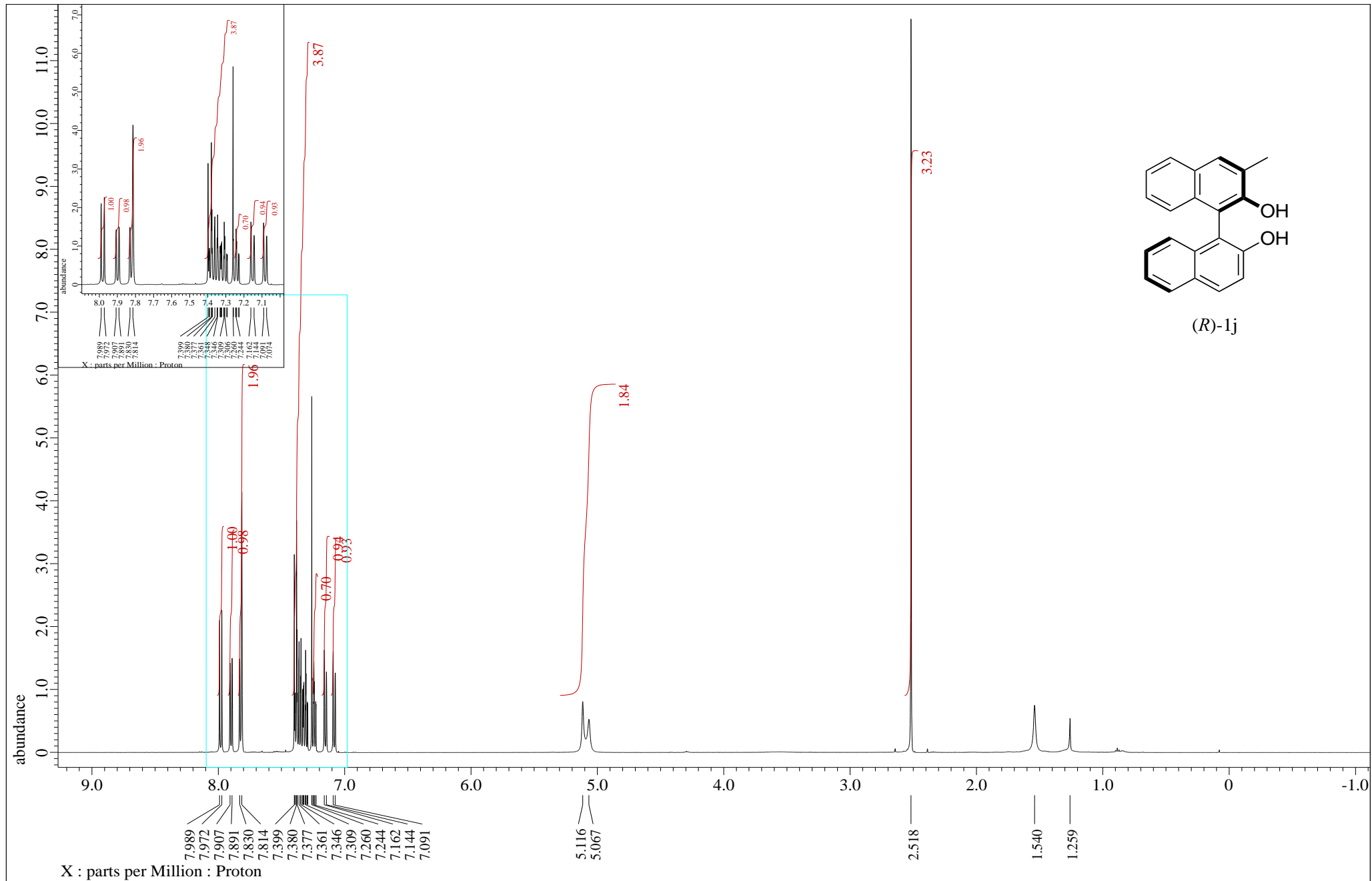
| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|---------|----|
| 1 | Unknown | 6 | 10.087 | 121213244 | 2991984 | 95.605 | 98.280 | N/A | 2146 | 9.502 | 3.979 | |
| 2 | Unknown | 6 | 26.980 | 5571902 | 52363 | 4.395 | 1.720 | N/A | 1605 | N/A | 1.870 | |



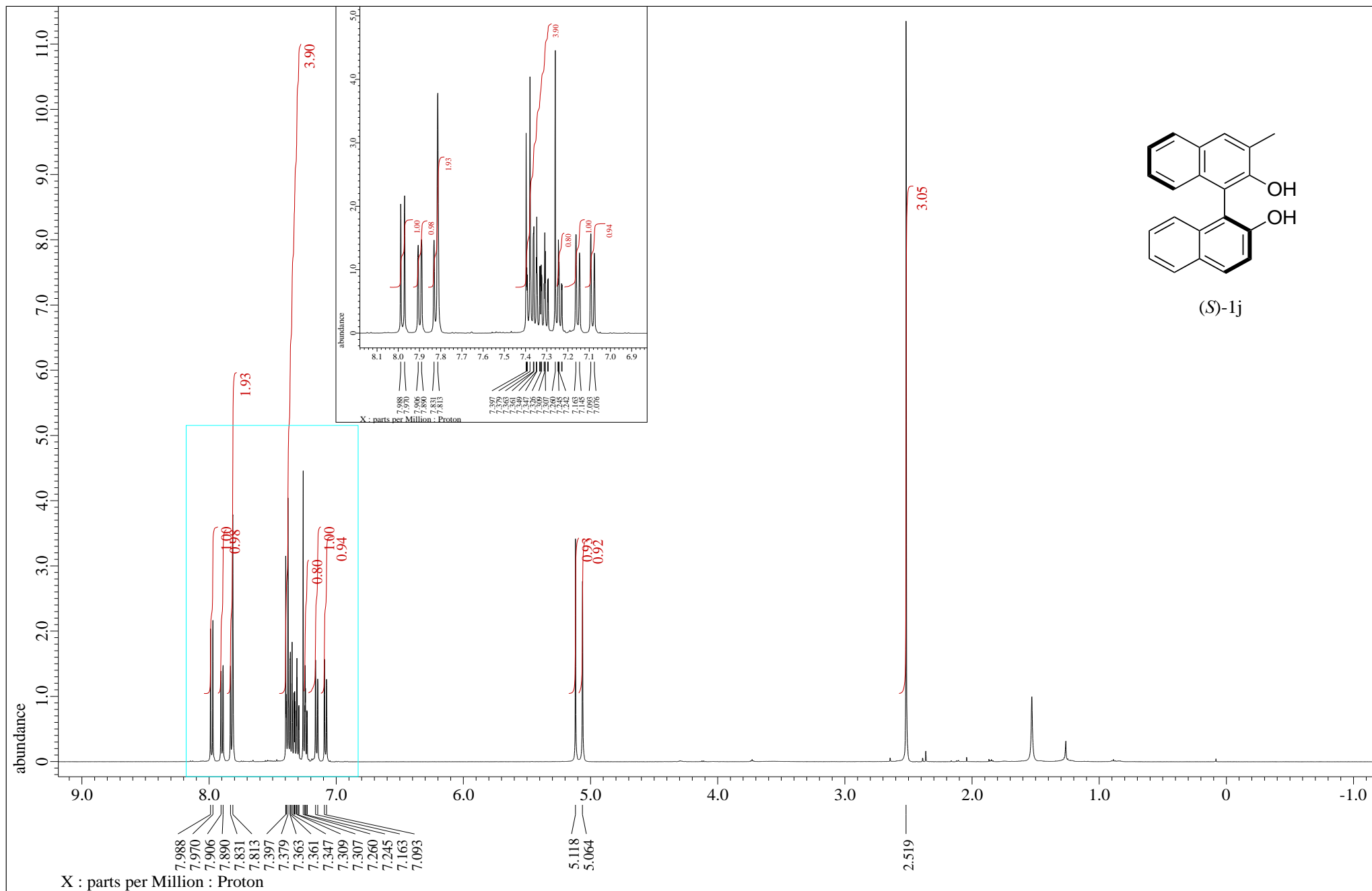
| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|---------|----|
| 1 | Unknown | 9 | 11.373 | 235037 | 2783 | 0.213 | 0.210 | N/A | 415 | 7.566 | 1.221 | |
| 2 | Unknown | 9 | 26.487 | 109925291 | 1322223 | 99.787 | 99.790 | N/A | 3576 | N/A | 2.508 | |



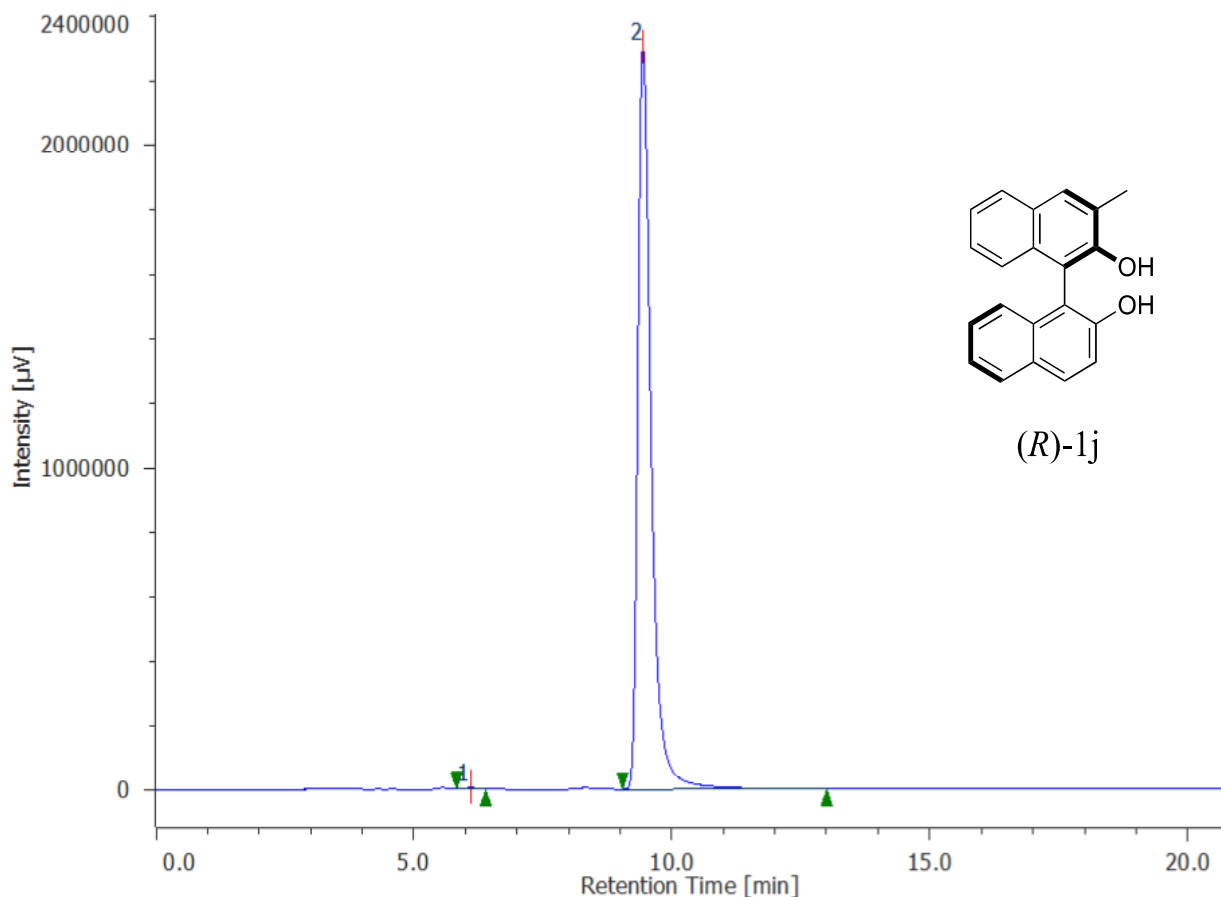
¹H NMR spectrum (500 MHz, CDCl₃) of (R)-2j



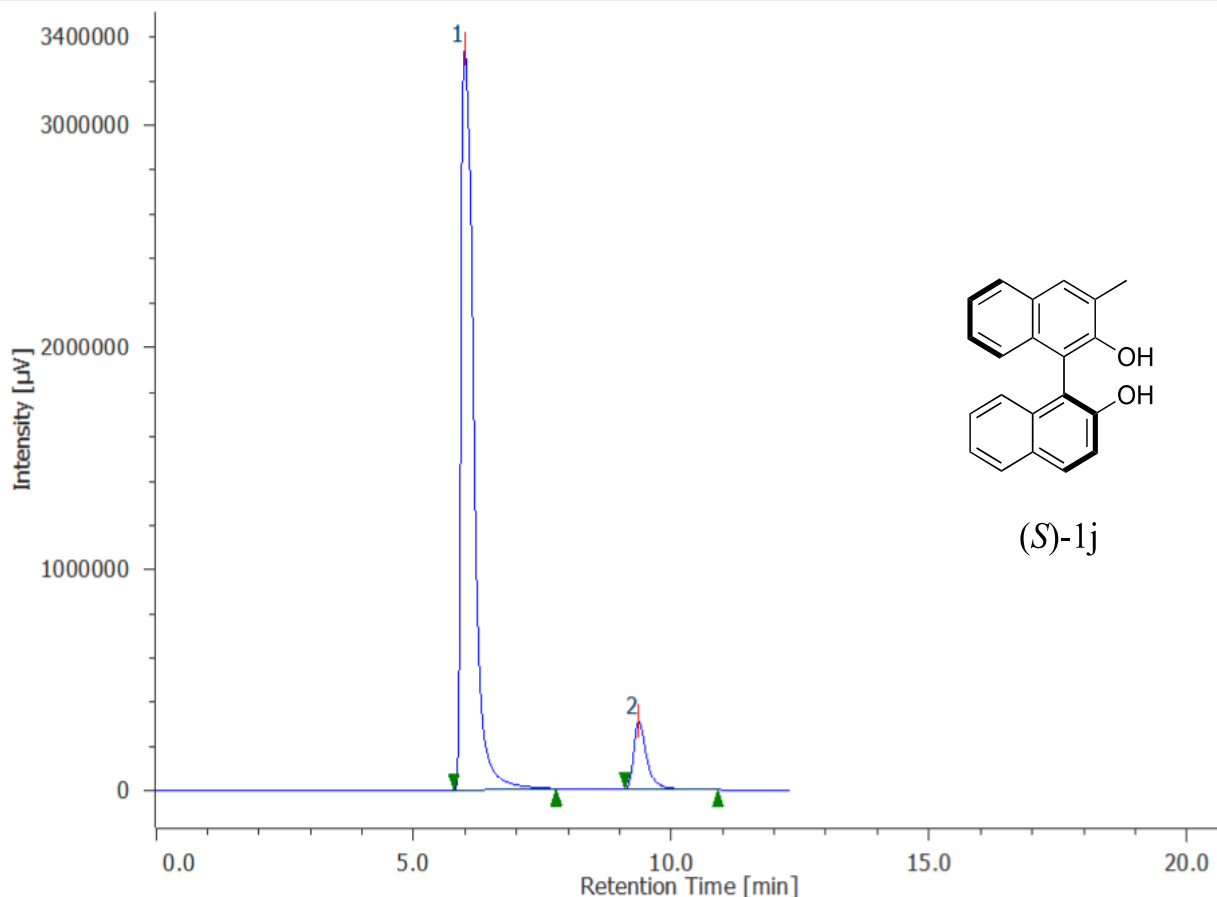
¹H NMR spectrum (500 MHz, CDCl₃) of (R)-1j



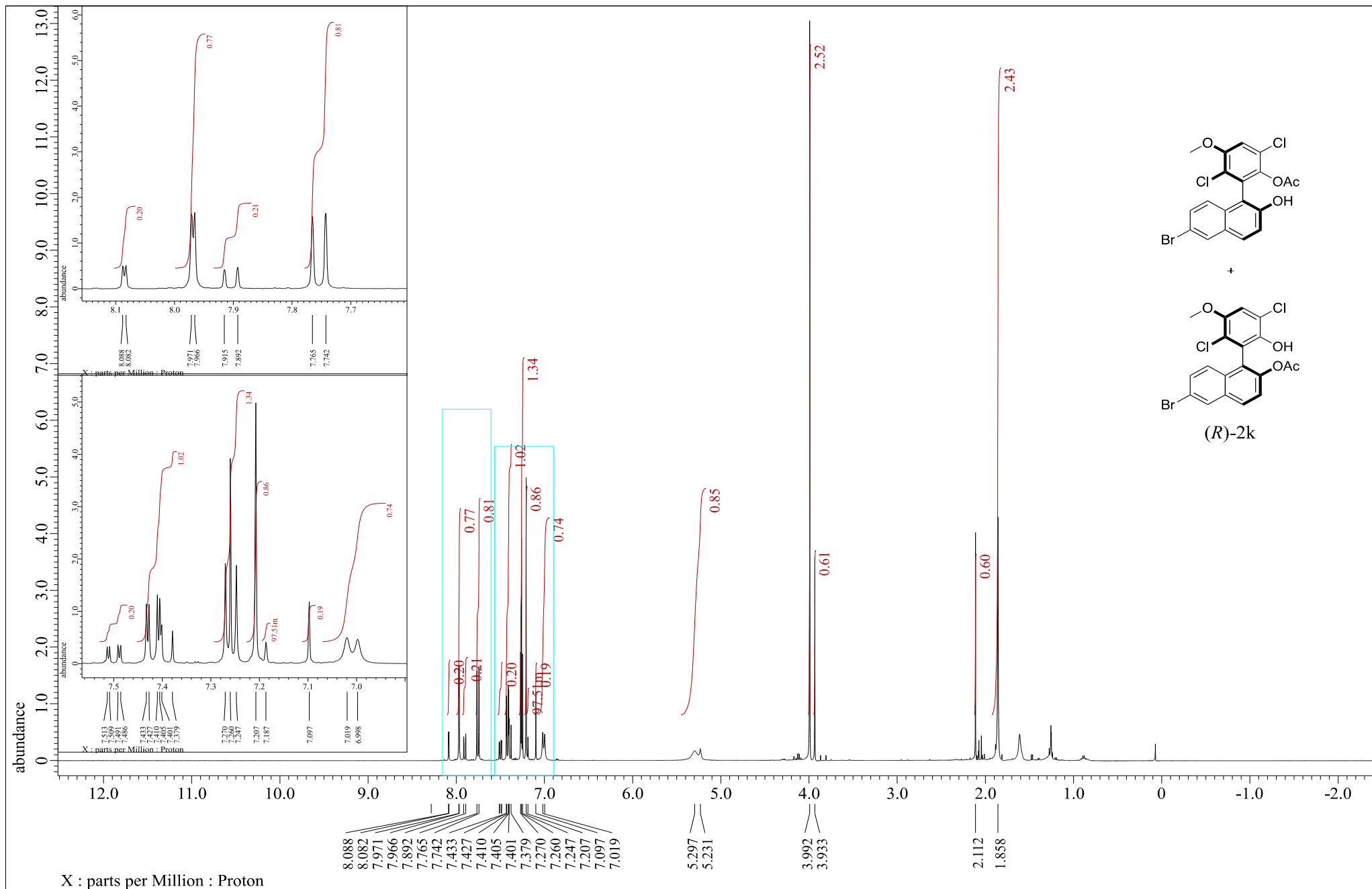
¹H NMR spectrum (500 MHz, CDCl₃) of (S)-1j



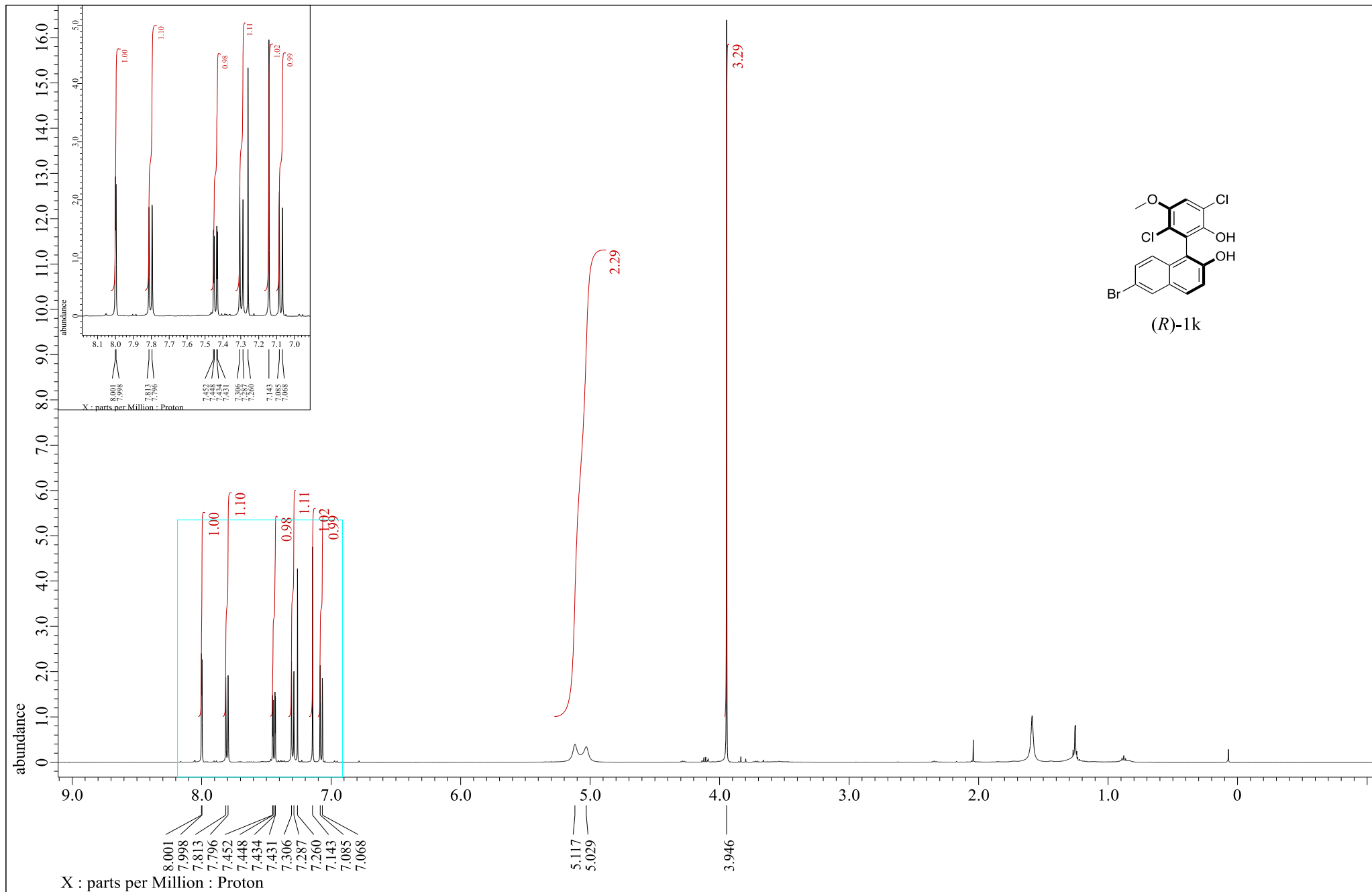
| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 5.957 | 12489285 | 997407 | 95.780 | 96.955 | N/A | 6626 | 9.067 | 1.754 | |
| 2 | Unknown | 9 | 9.297 | 550302 | 31322 | 4.220 | 3.045 | N/A | 6952 | N/A | 1.514 | |



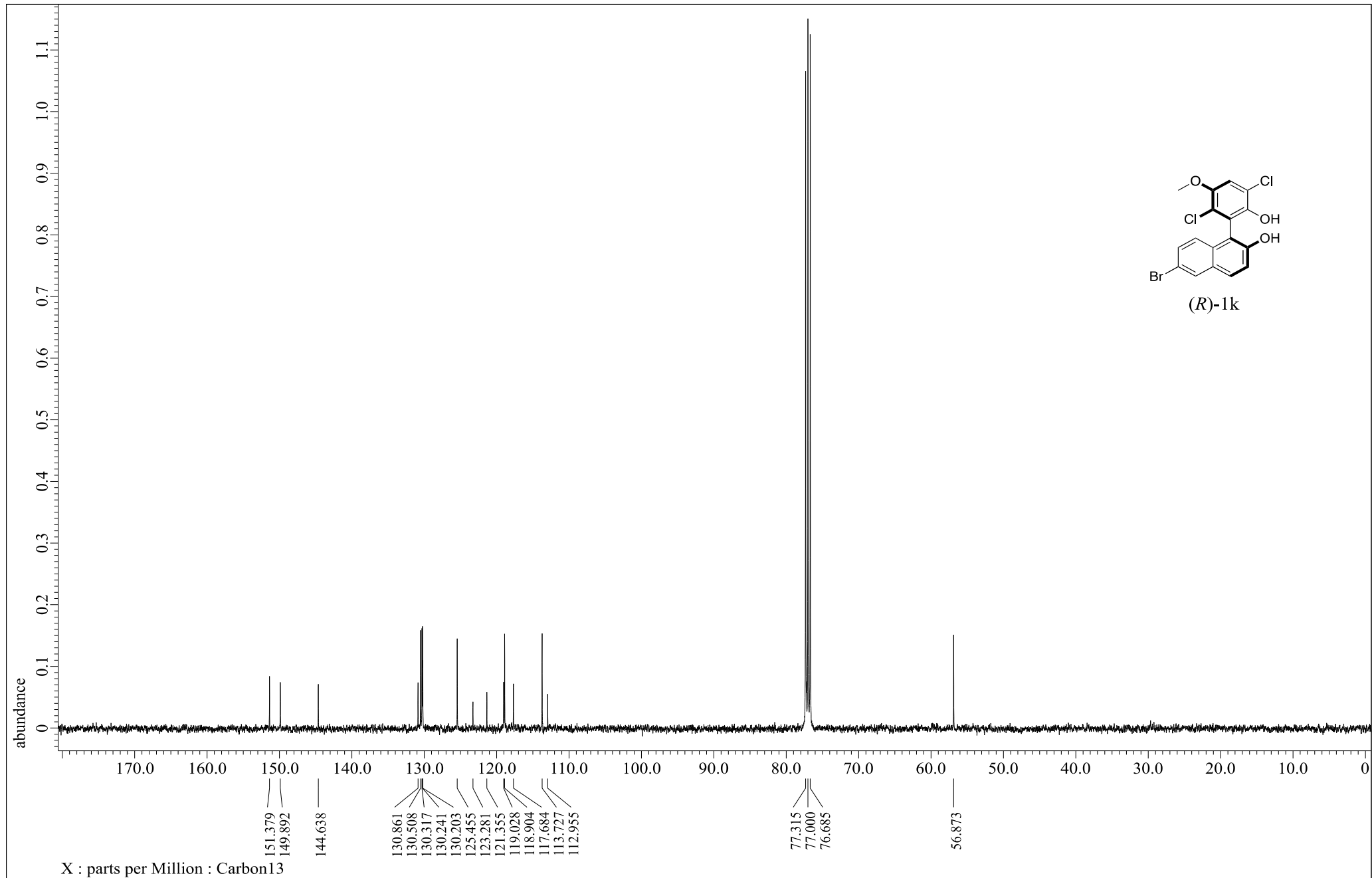
| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 6.093 | 94943 | 7427 | 0.203 | 0.316 | N/A | 5401 | 8.181 | 1.490 | |
| 2 | Unknown | 9 | 9.437 | 46635200 | 2345576 | 99.797 | 99.684 | N/A | 5985 | N/A | 1.652 | |



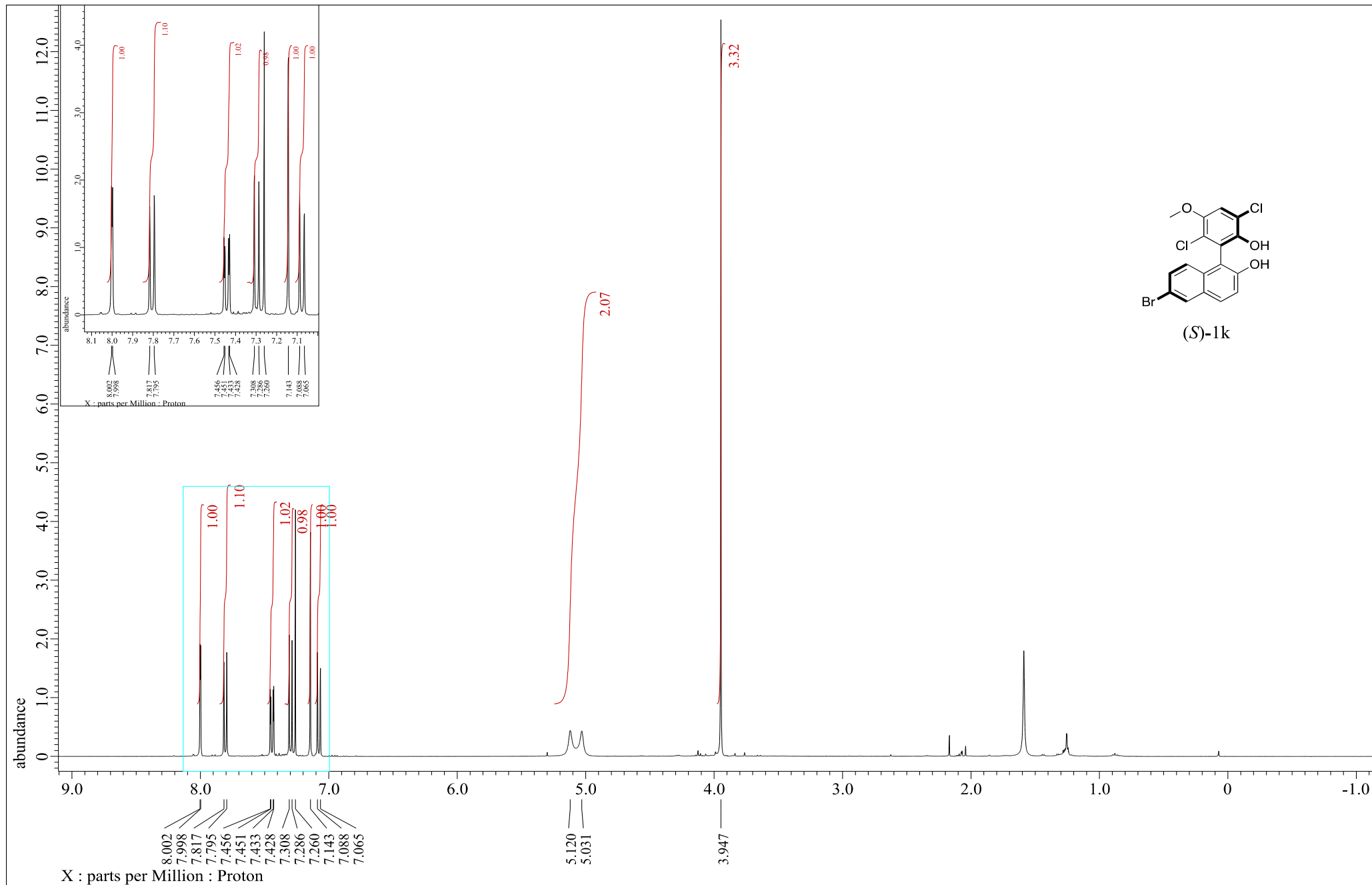
¹H NMR spectrum (500 MHz, CDCl₃) of (R)-1k



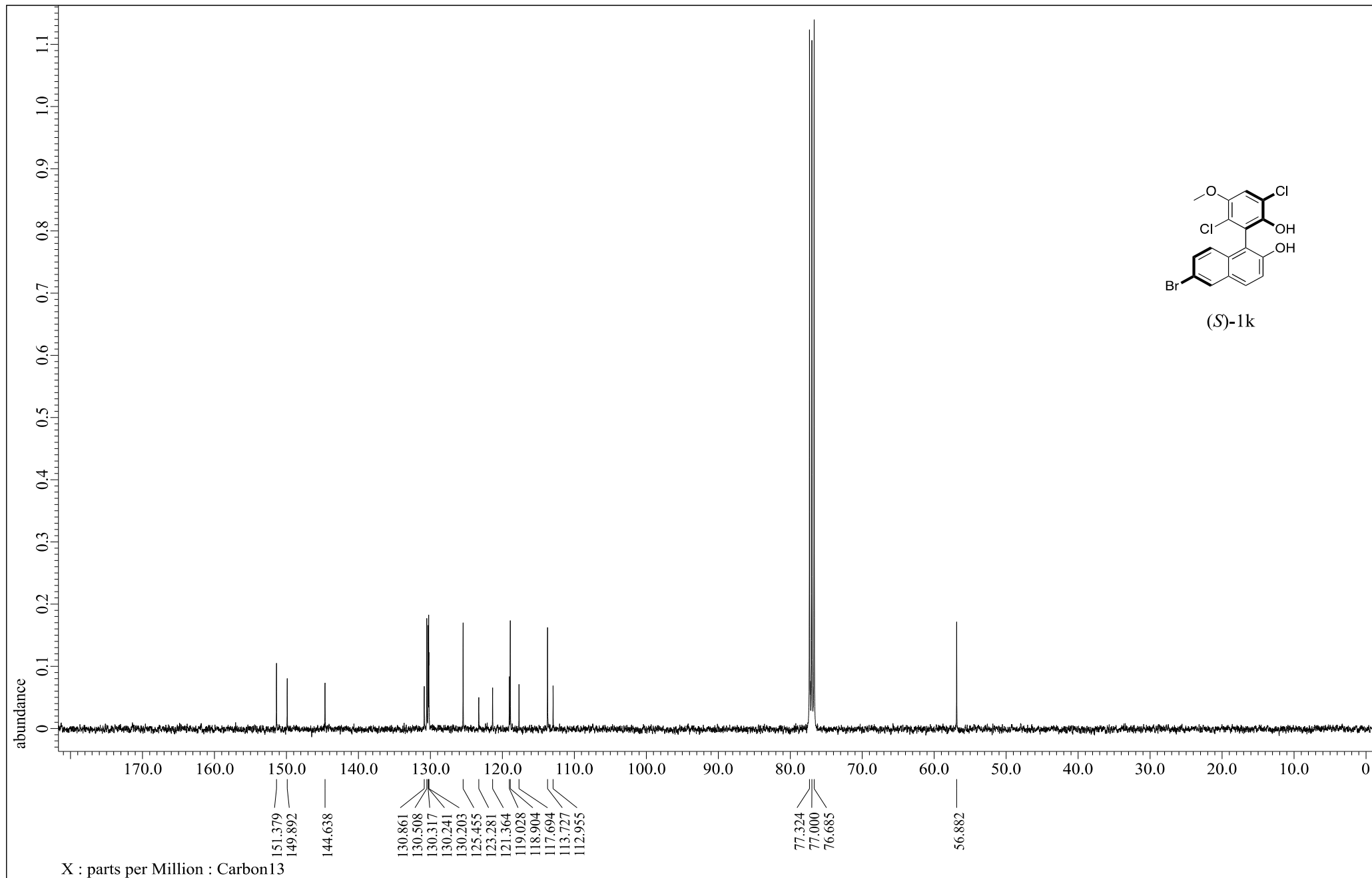
¹H NMR spectrum (500 MHz, CDCl₃) of (R)-1k



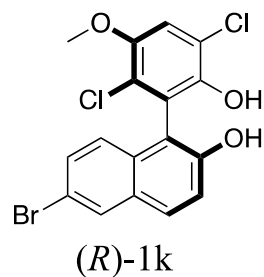
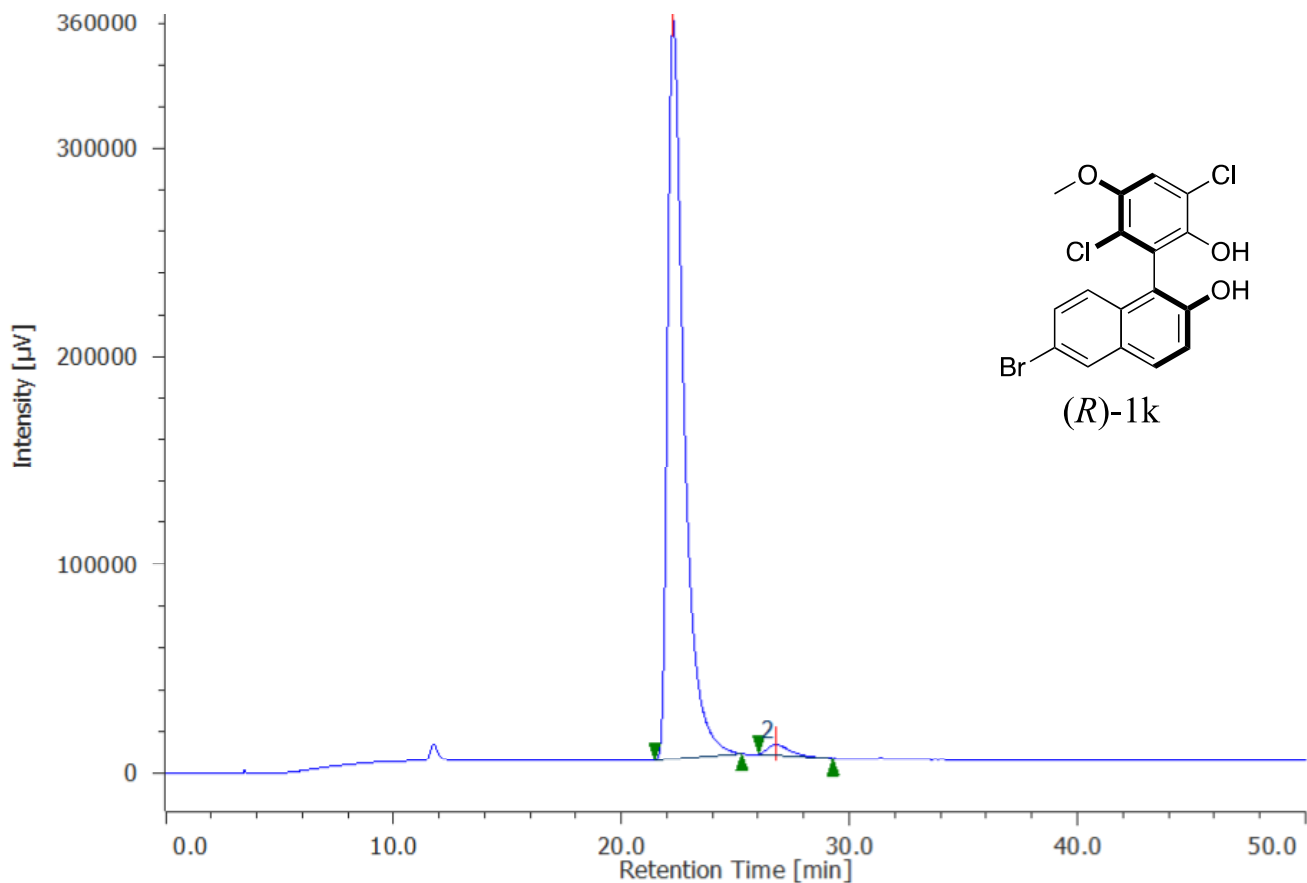
^{13}C NMR spectrum (100 MHz, CDCl_3) of *(R)*-1k



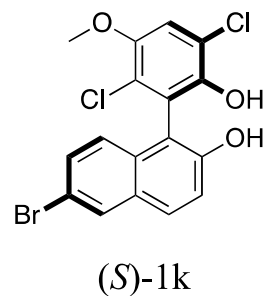
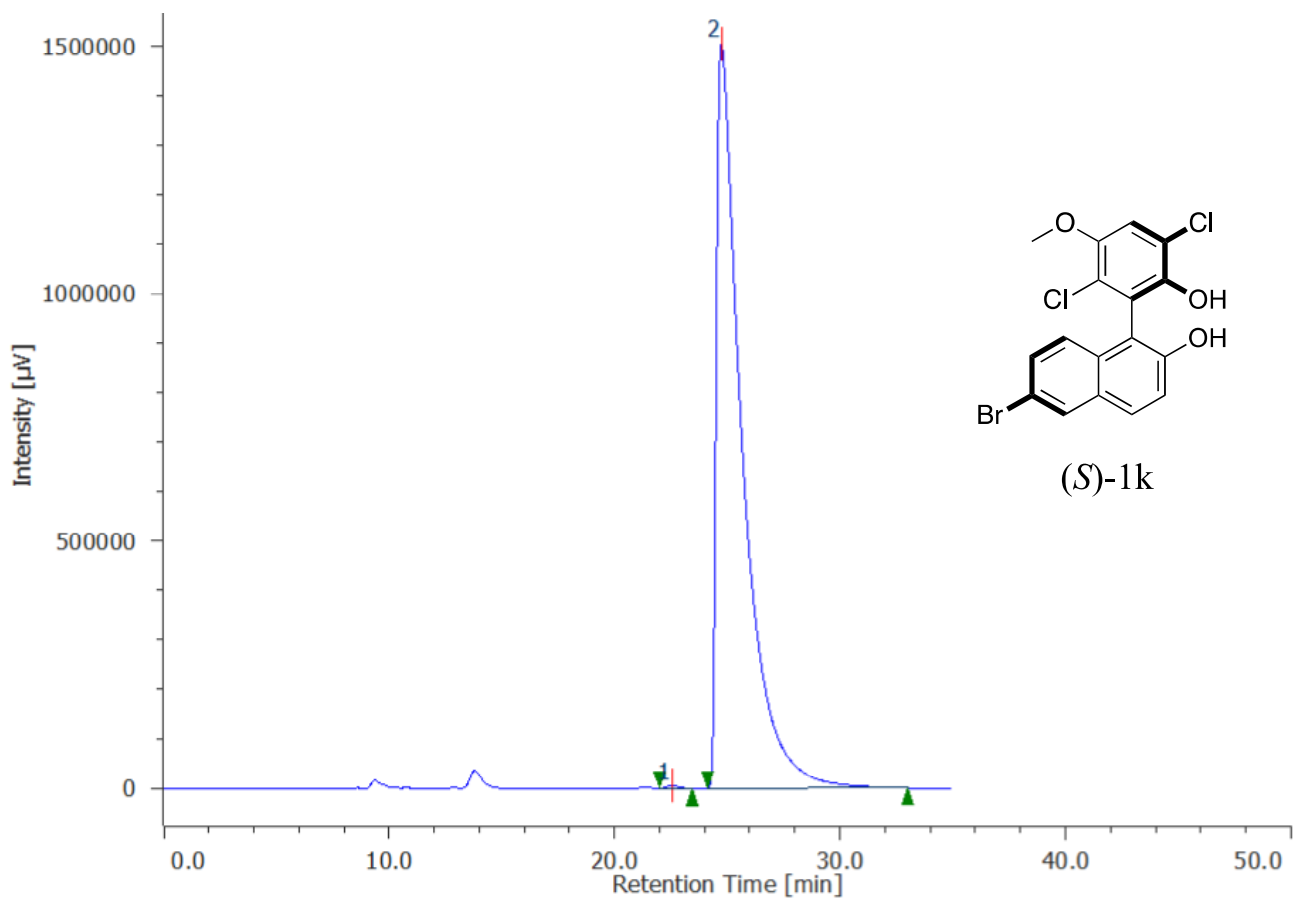
^1H NMR spectrum (400 MHz, CDCl_3) of (S)-1k



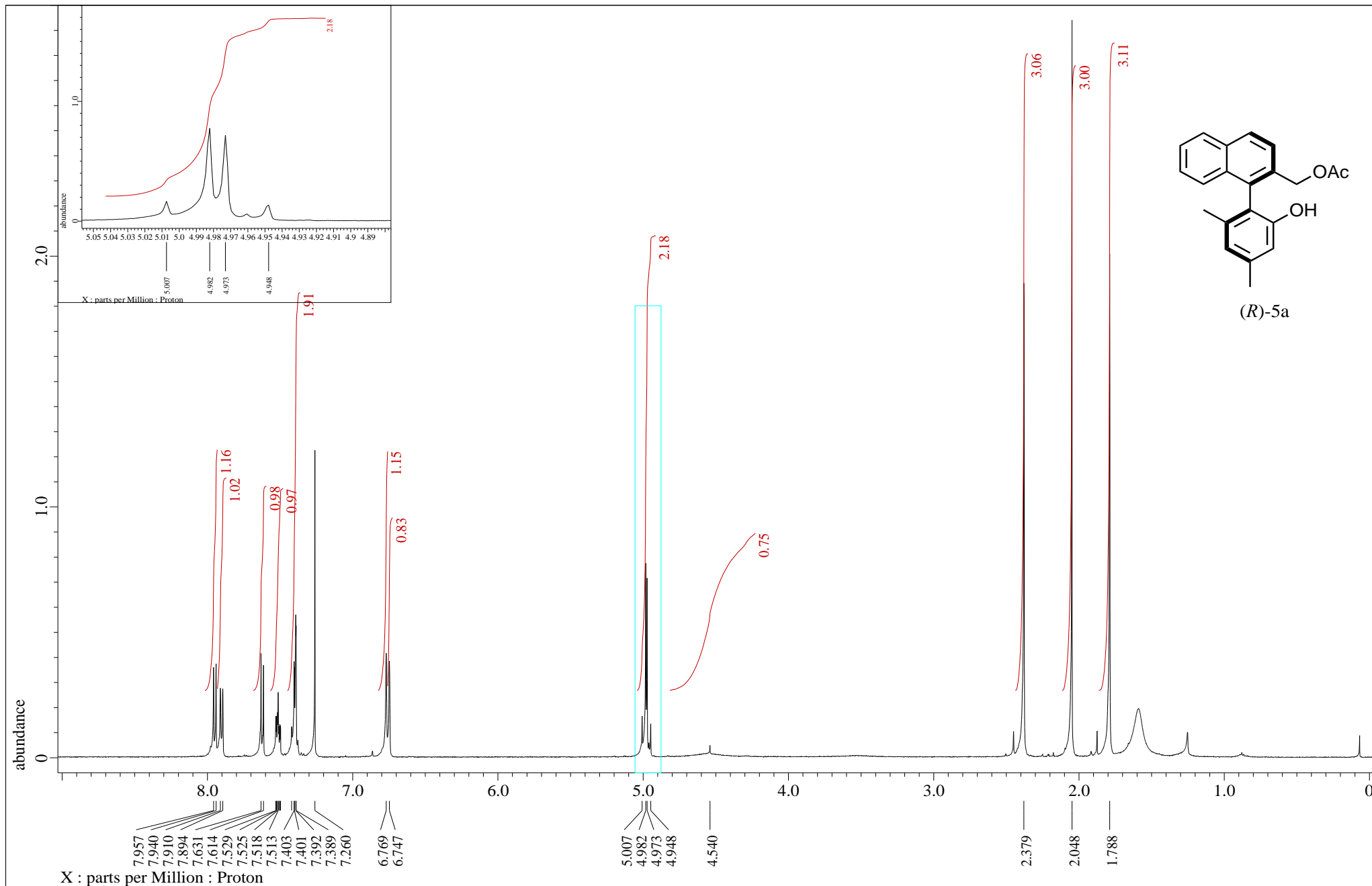
^{13}C NMR spectrum (100 MHz, CDCl_3) of (S)-1k



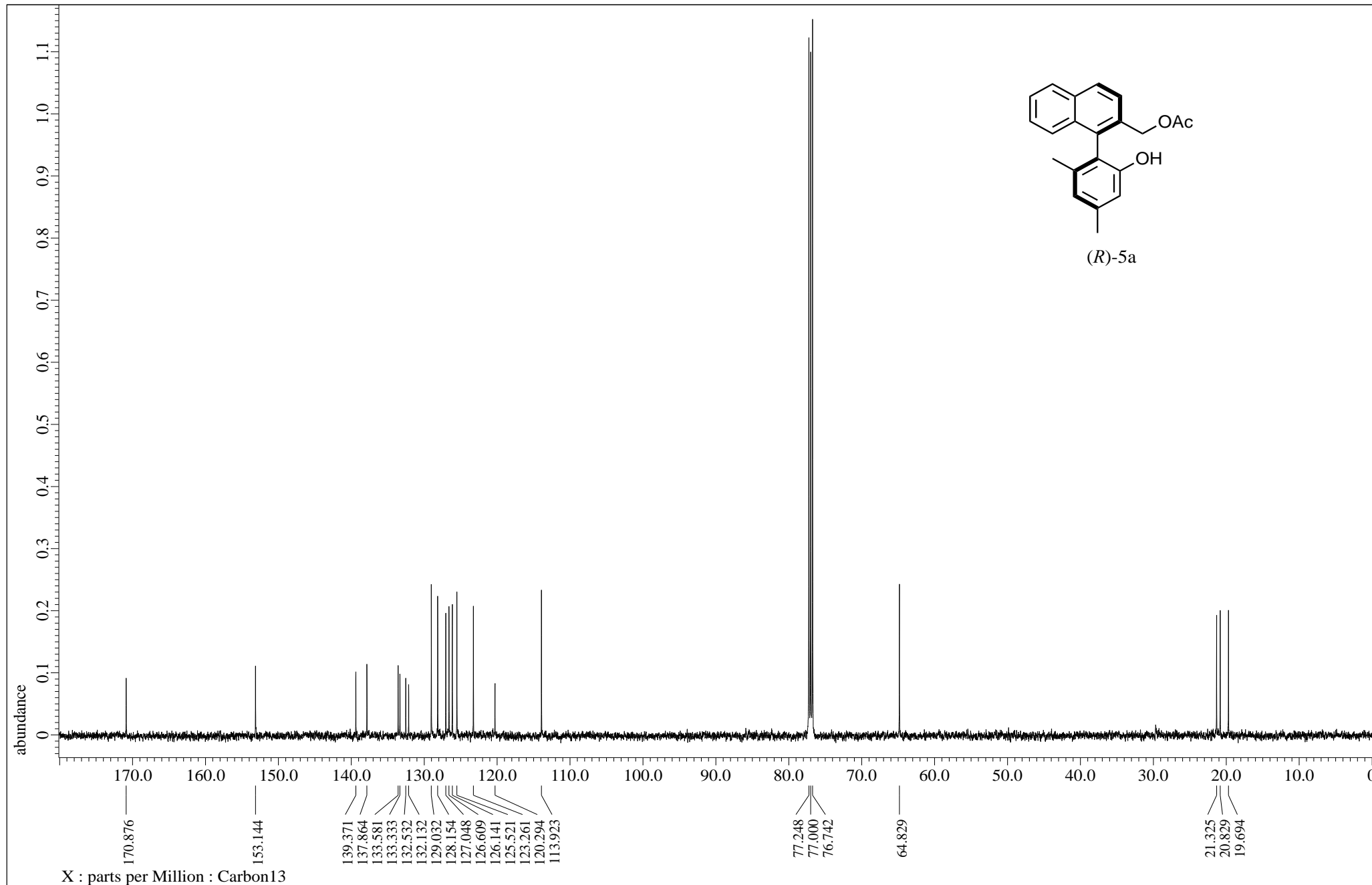
| # | ピーク名 | CH | tR [min] | 面積 [μV·sec] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 22.270 | 17900836 | 354826 | 98.155 | 98.644 | N/A | 5240 | 2.984 | 1.898 | |
| 2 | Unknown | 9 | 26.777 | 336494 | 4878 | 1.845 | 1.356 | N/A | 3549 | N/A | 1.640 | |



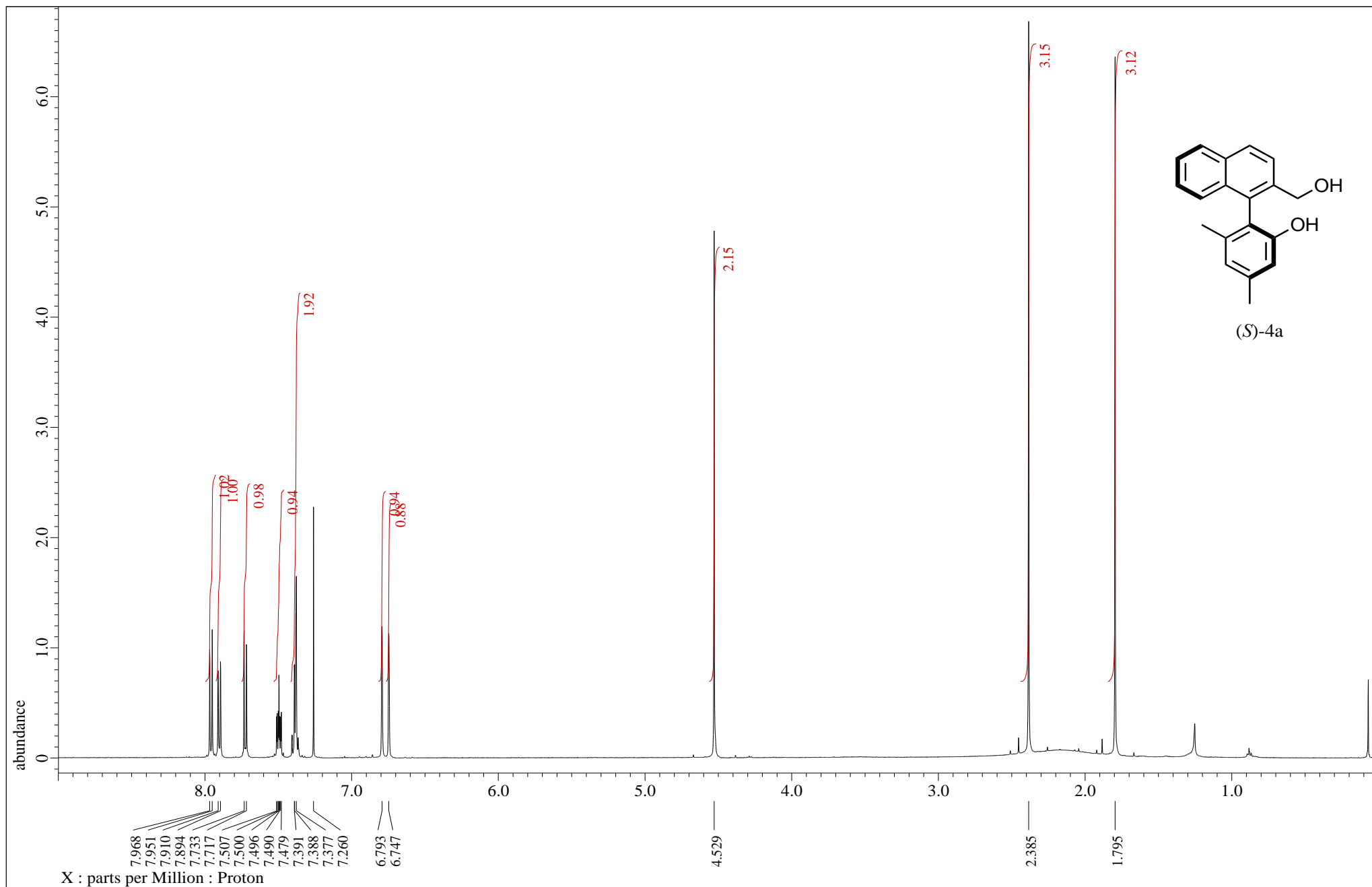
| # | ピーク名 | CH | tR [min] | 面積 [μV·sec] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------|---------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 22.540 | 202886 | 5313 | 0.169 | 0.352 | N/A | 7690 | 1.528 | 1.284 | |
| 2 | Unknown | 9 | 24.743 | 120046402 | 1504739 | 99.831 | 99.648 | N/A | 2822 | N/A | 3.920 | |



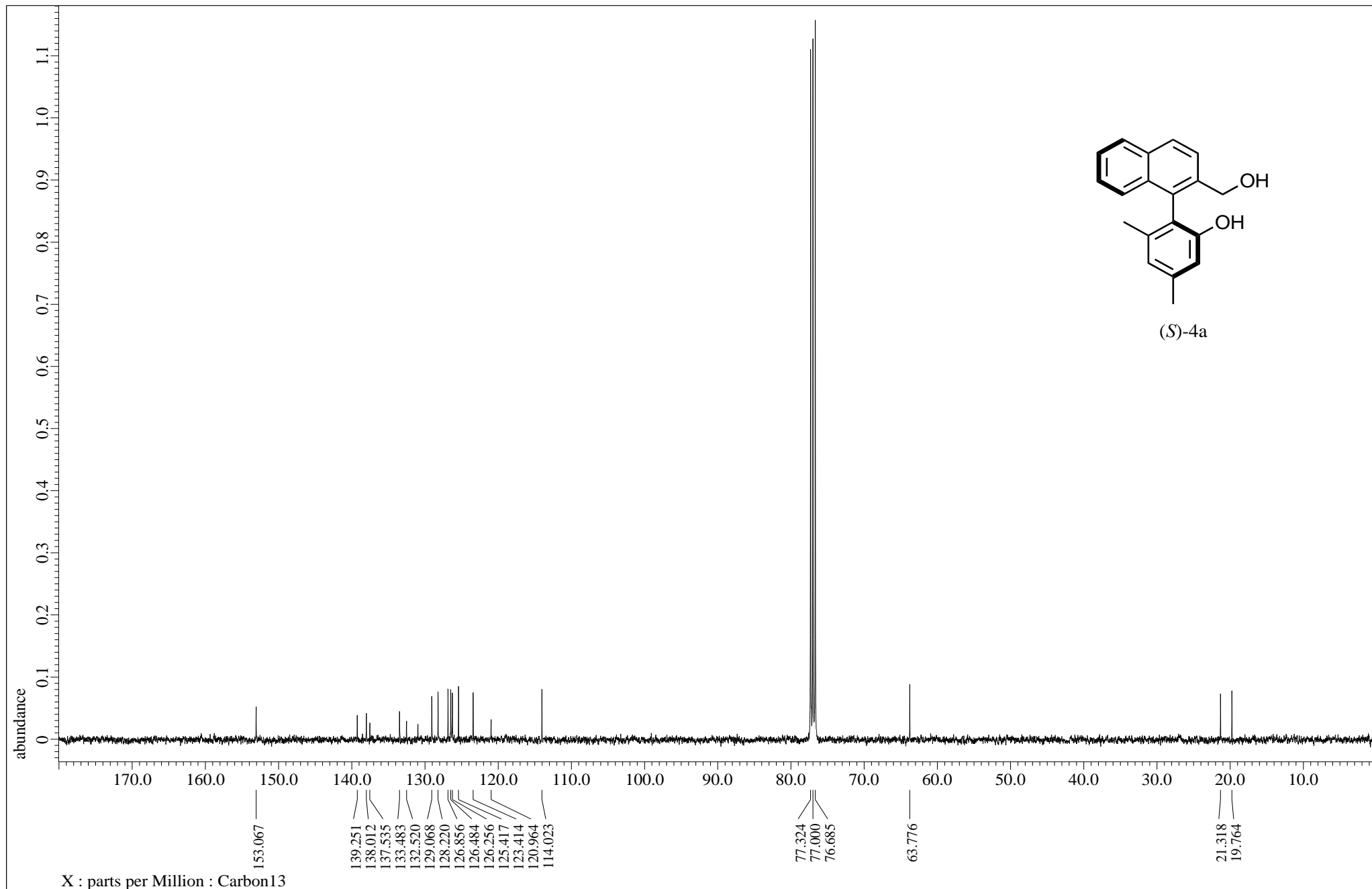
¹H NMR spectrum (500 MHz, CDCl₃) of (R)-5a



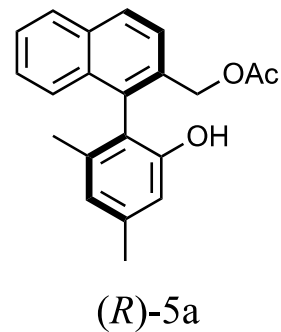
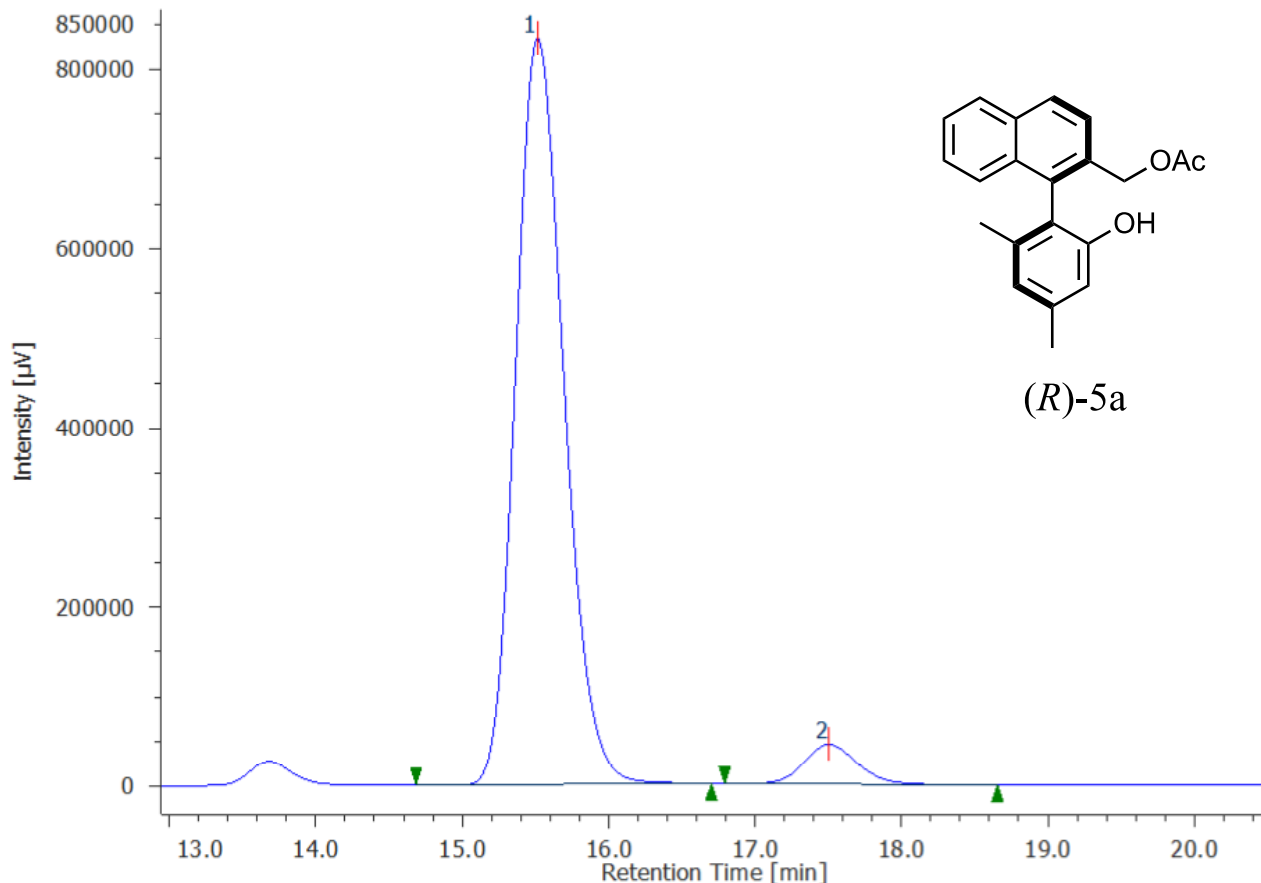
^{13}C NMR spectrum (125 MHz, CDCl_3) of (R)-5a



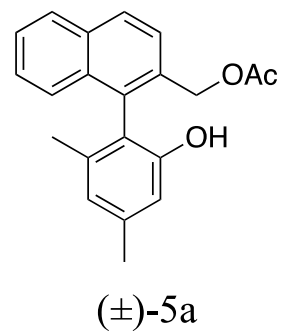
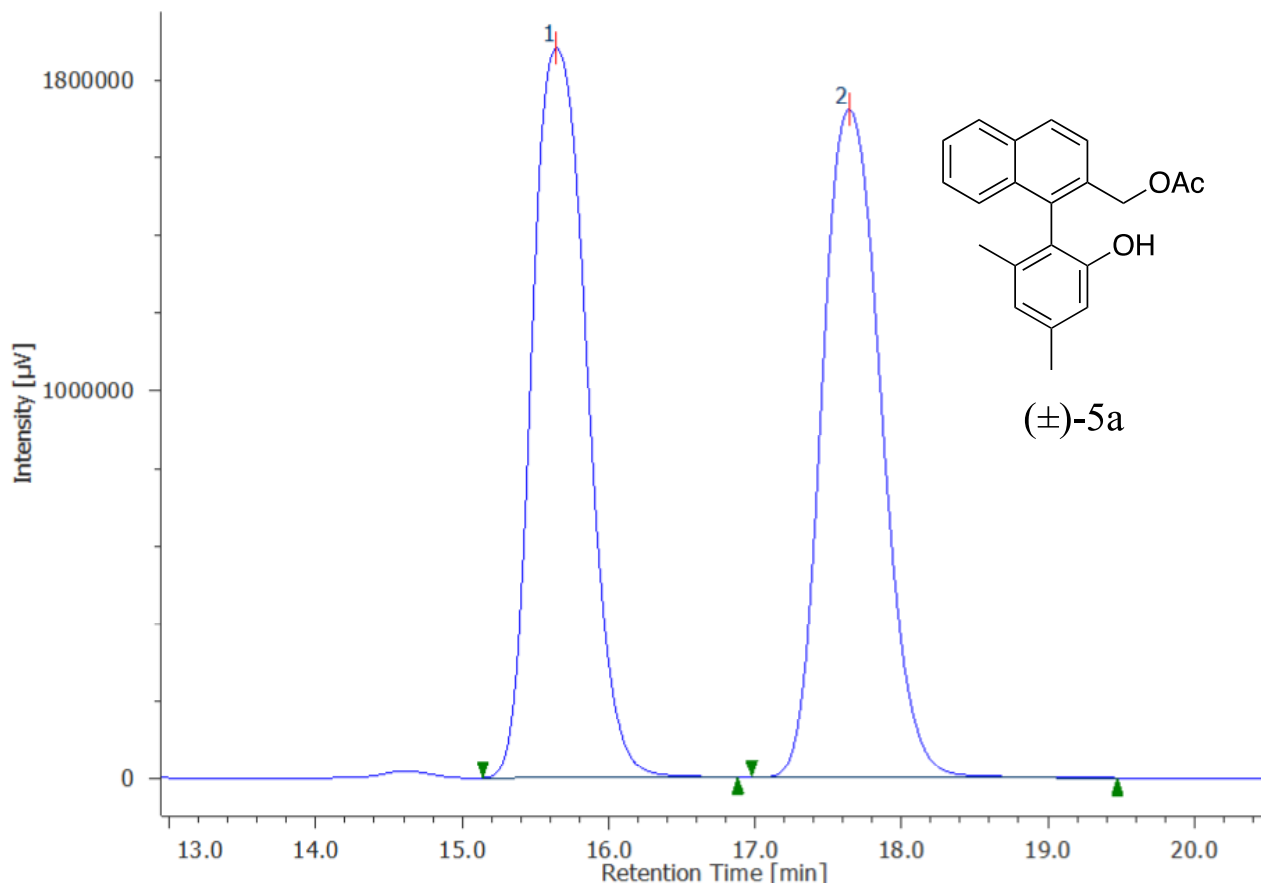
^1H NMR spectrum (400 MHz, CDCl_3) of (S)-4a



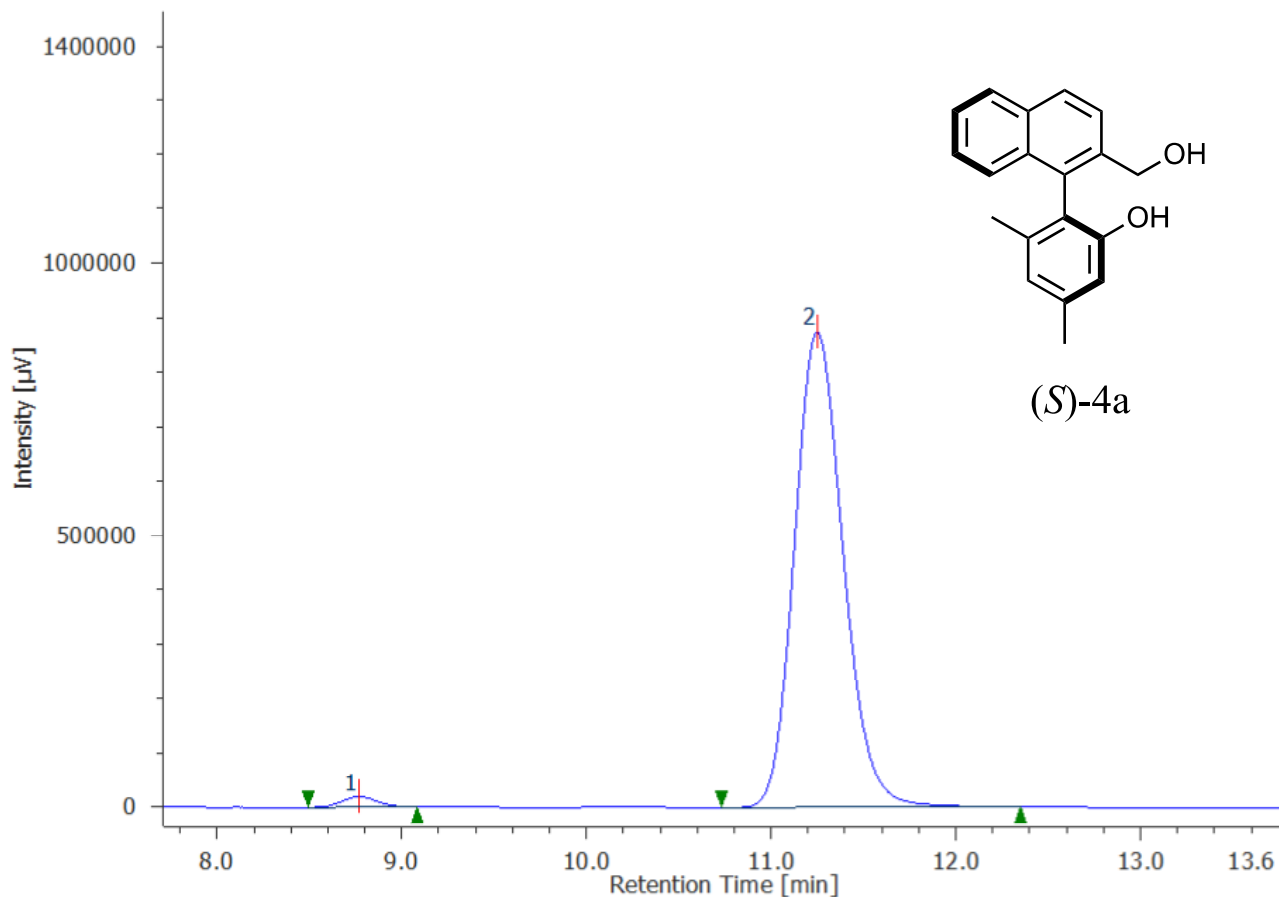
^{13}C NMR spectrum (100 MHz, CDCl_3) of (S)-4a



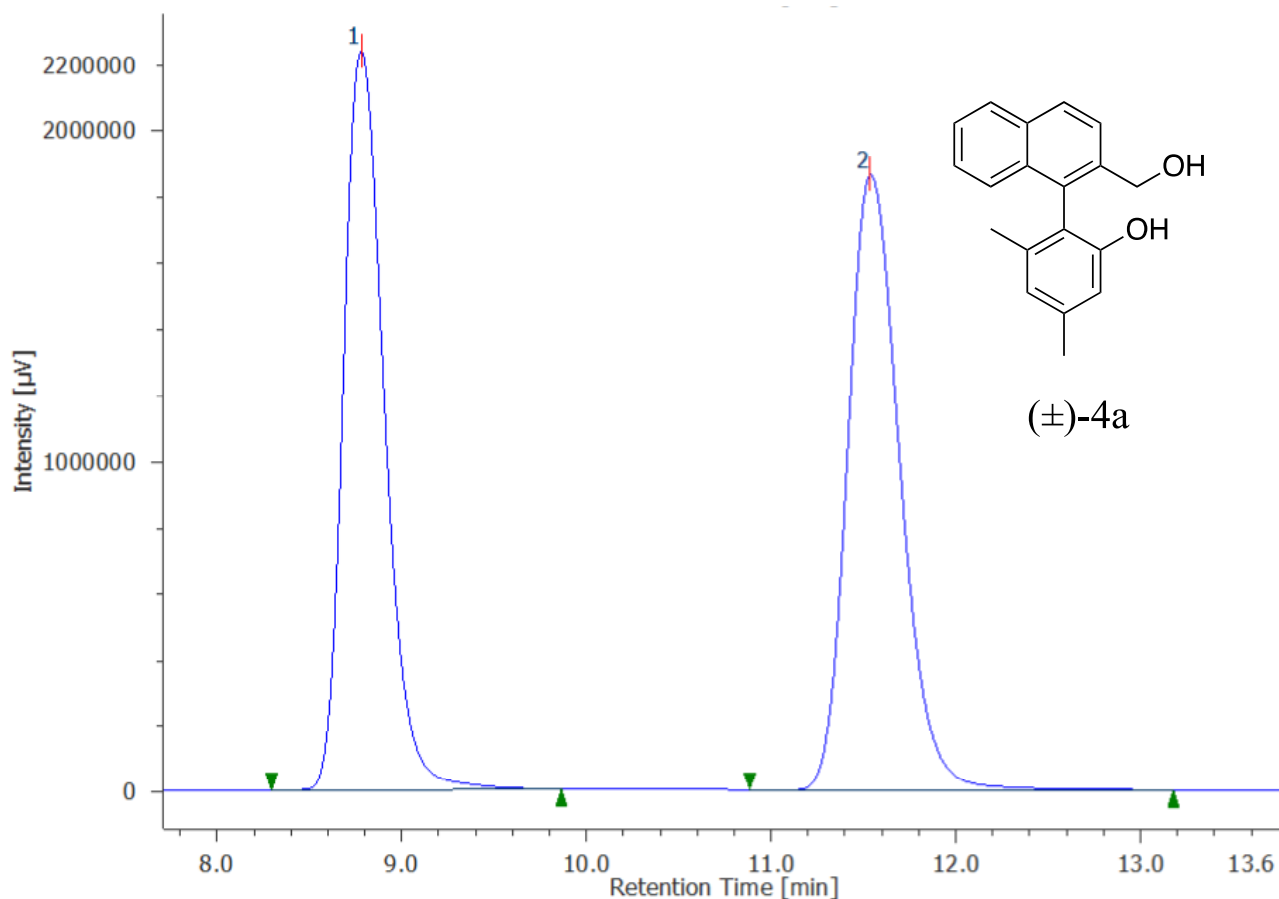
| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|-------|-------|----------|----|
| 1 | Unknown | 9 | 15.513 | 19103734 | 832754 | 94.470 | 94.955 | N/A | 10601 | 3.166 | 1.189 | |
| 2 | Unknown | 9 | 17.503 | 1118358 | 44249 | 5.530 | 5.045 | N/A | 11325 | N/A | 1.109 | |



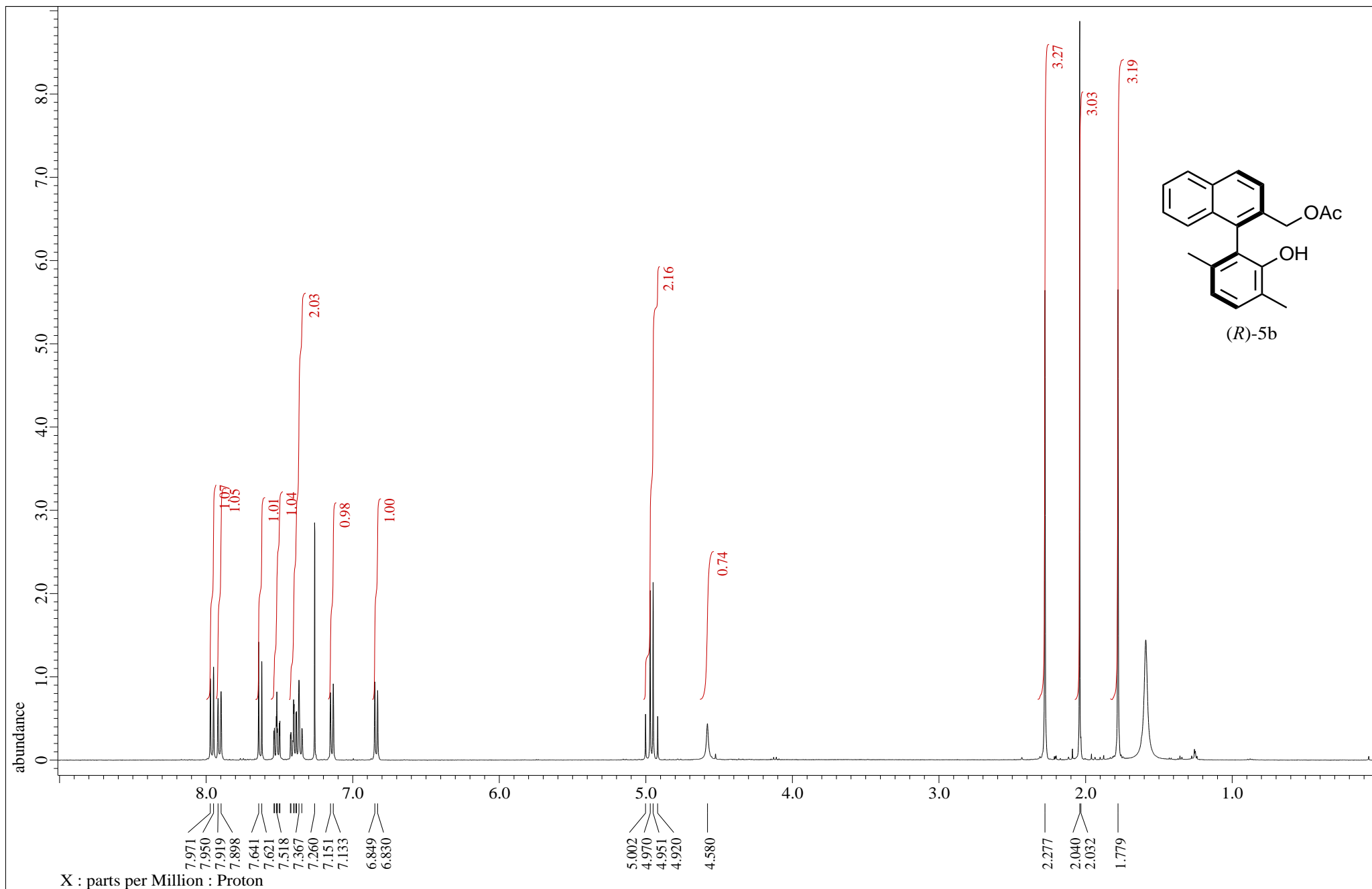
| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 15.643 | 48950183 | 1879216 | 50.307 | 52.239 | N/A | 7946 | 2.757 | 1.195 | |
| 2 | Unknown | 9 | 17.643 | 48351924 | 1718137 | 49.693 | 47.761 | N/A | 8786 | N/A | 1.159 | |



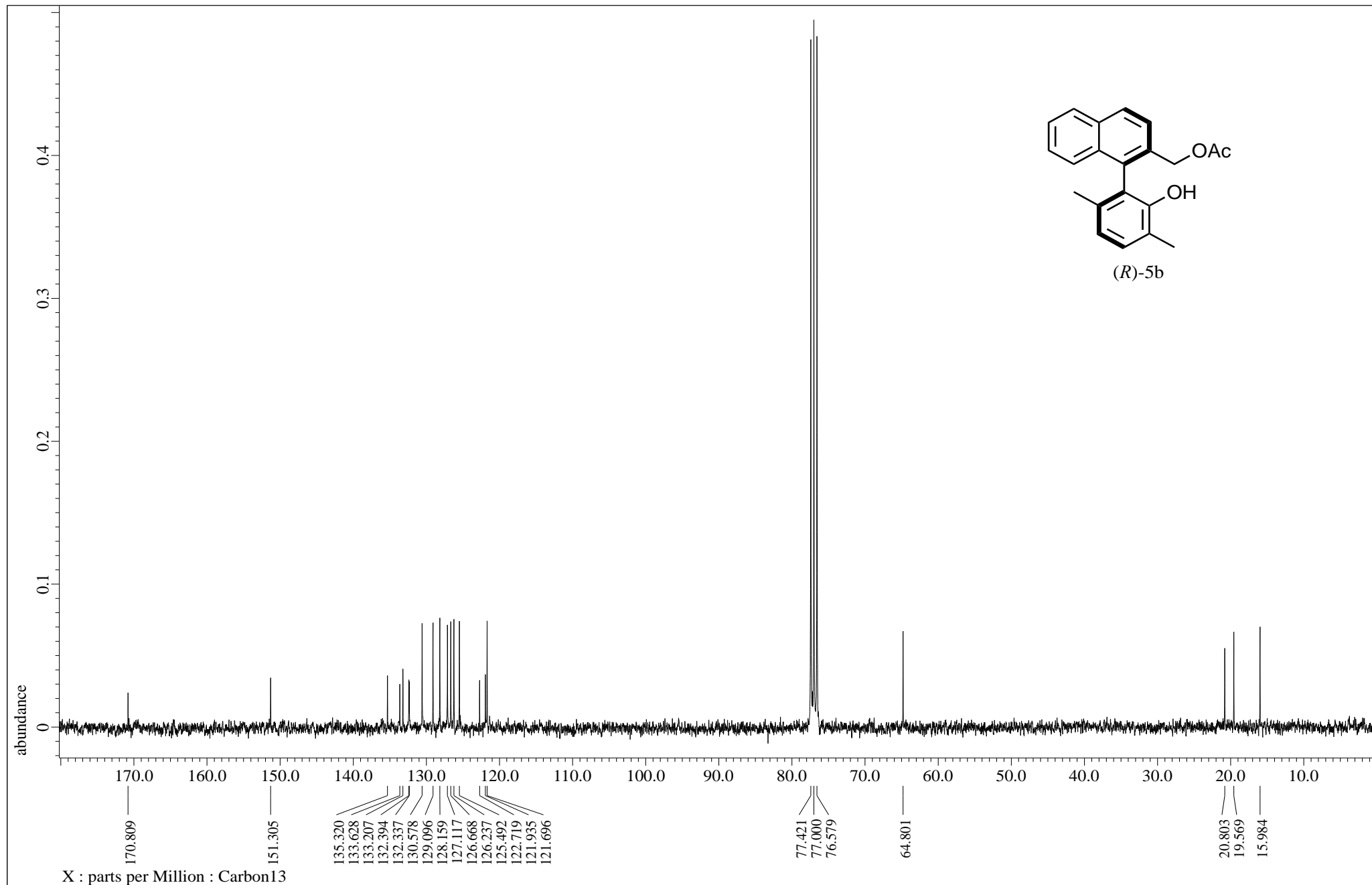
| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 8.767 | 256123 | 19129 | 1.573 | 2.141 | N/A | 9584 | 5.950 | 1.095 | |
| 2 | Unknown | 9 | 11.247 | 16027587 | 874469 | 98.427 | 97.859 | N/A | 8870 | N/A | 1.167 | |



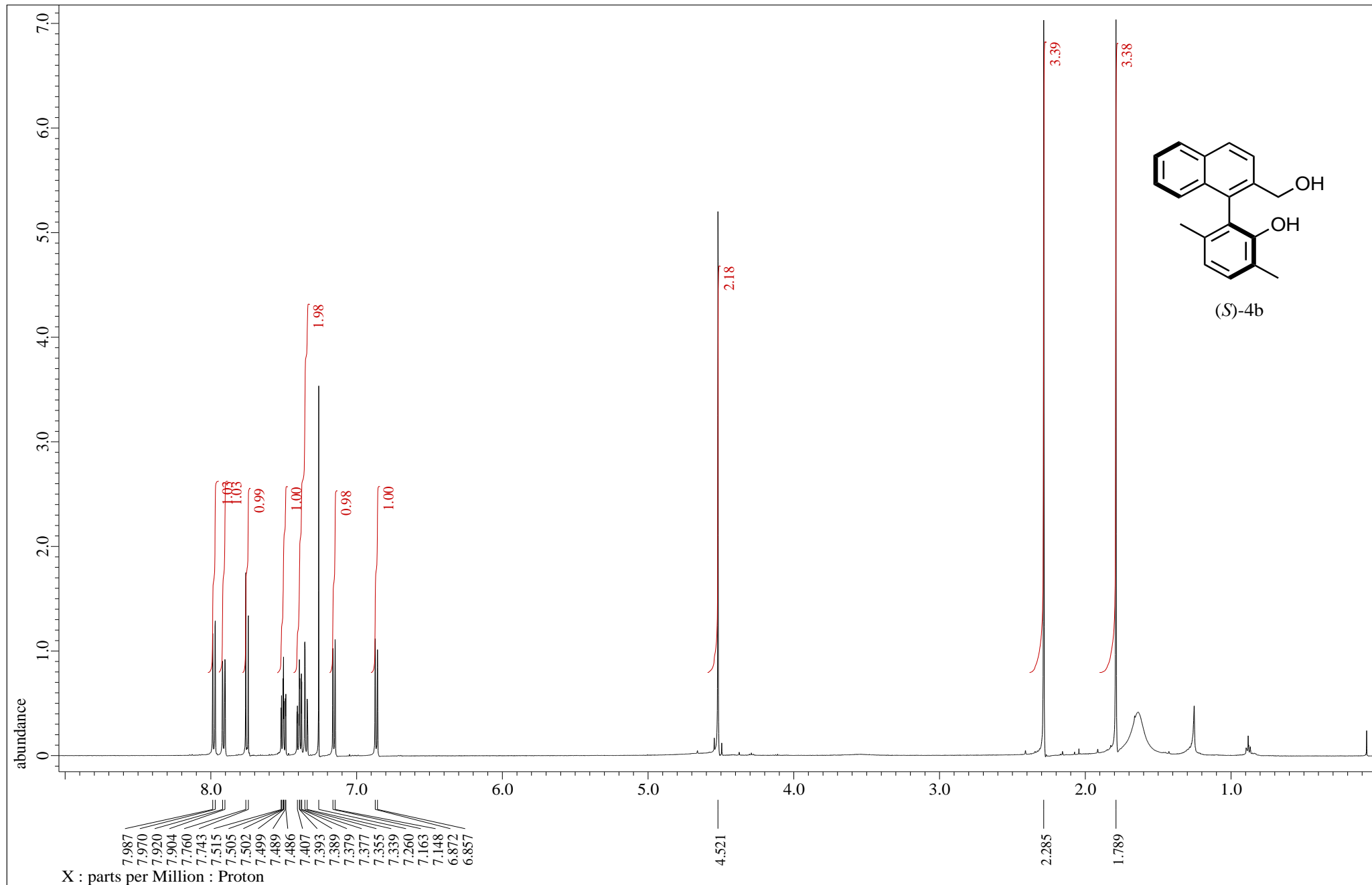
| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|-------|----------|----|
| 1 | Unknown | 9 | 8.780 | 34492473 | 2236135 | 48.547 | 54.556 | N/A | 7752 | 6.076 | 1.275 | |
| 2 | Unknown | 9 | 11.537 | 36557345 | 1862678 | 51.453 | 45.444 | N/A | 8160 | N/A | 1.237 | |



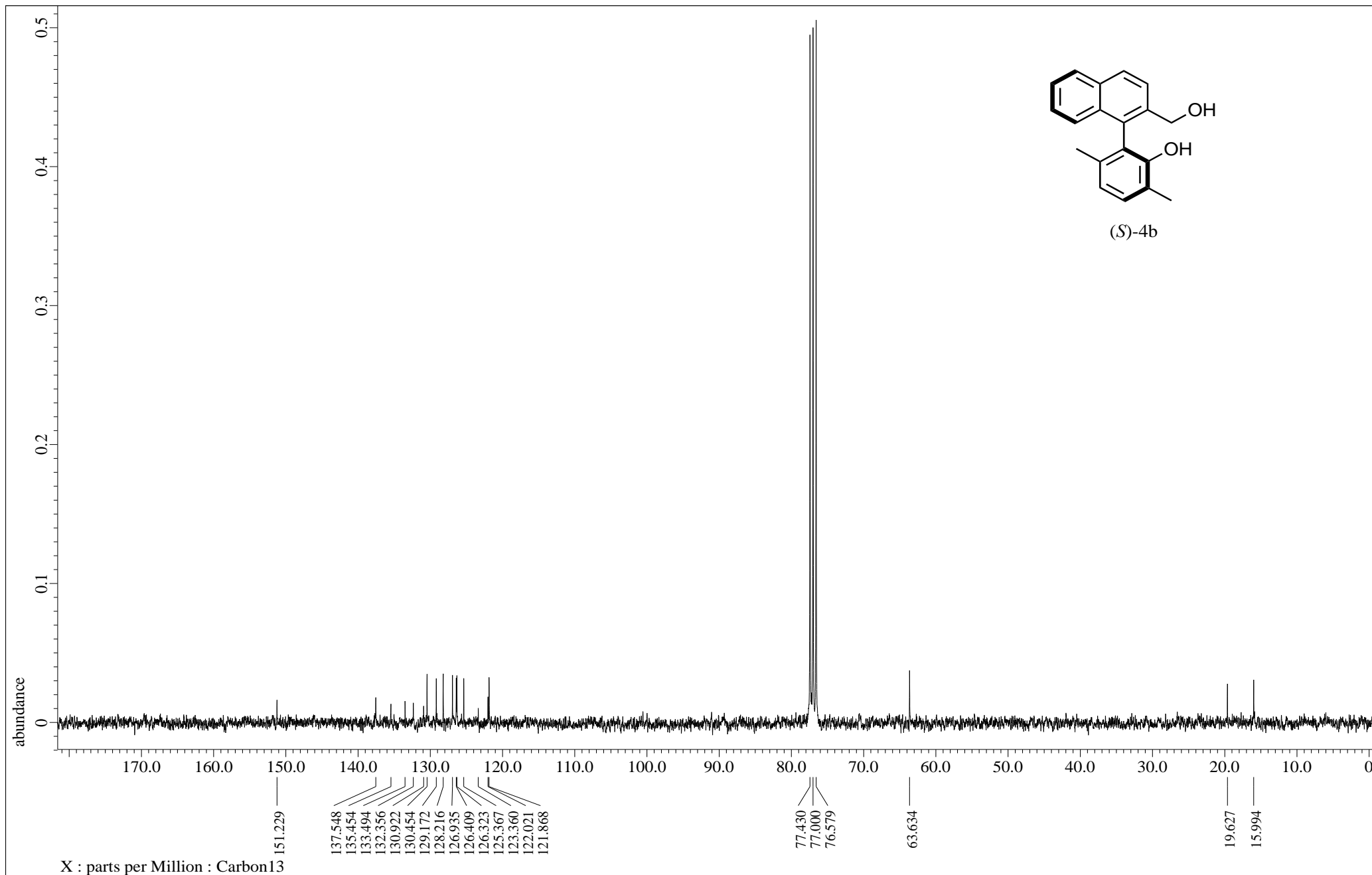
¹H NMR spectrum (400 MHz, CDCl₃) of *(R)*-5b



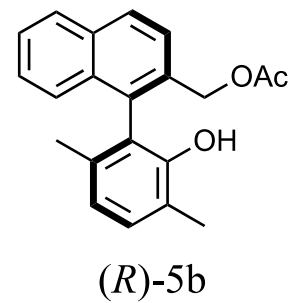
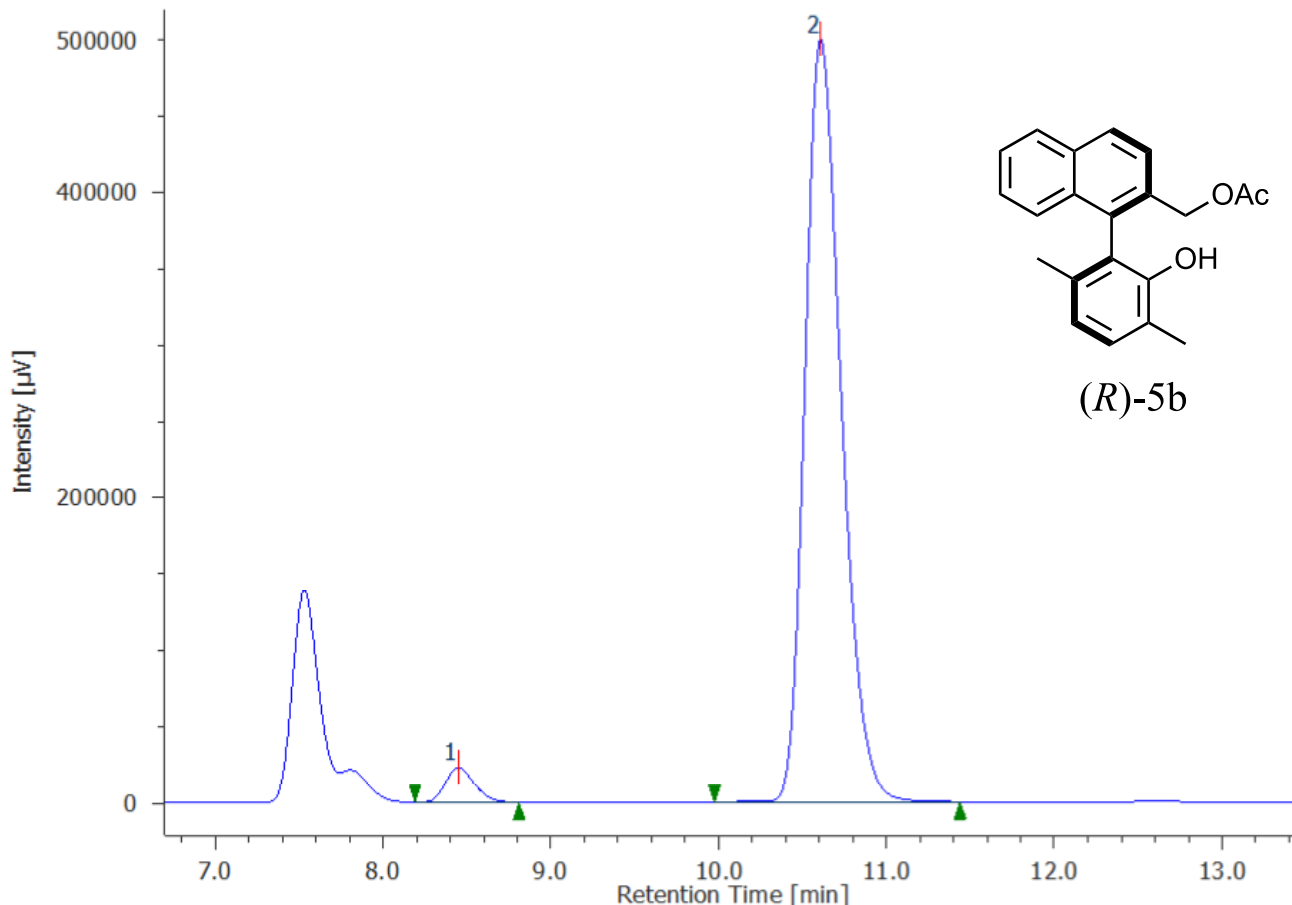
^{13}C NMR spectrum (100 MHz, CDCl_3) of (R)-5b



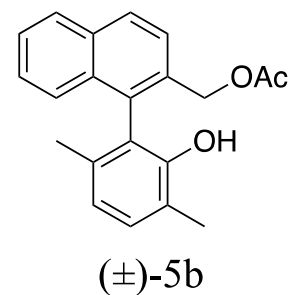
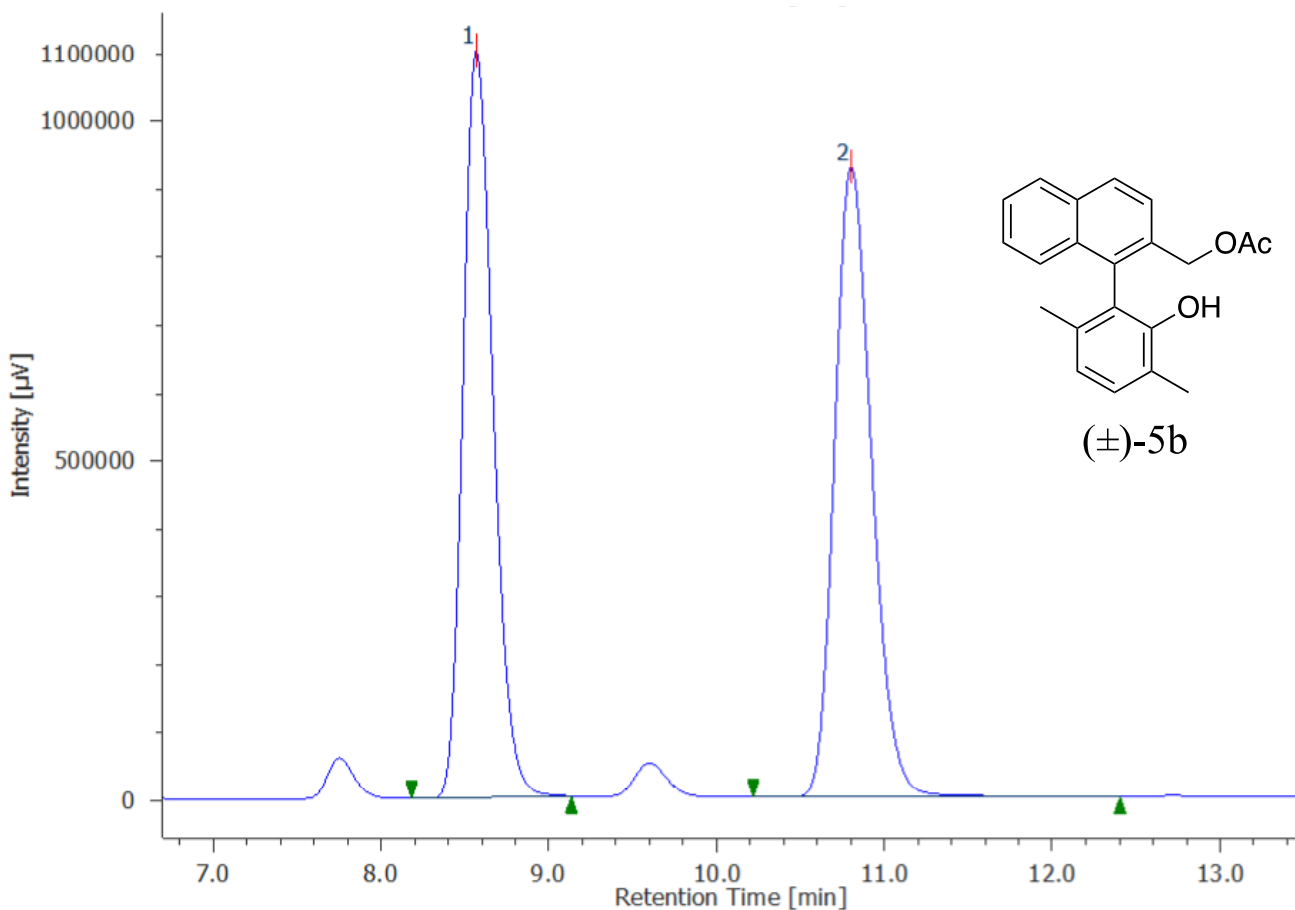
¹H NMR spectrum (400 MHz, CDCl₃) of (S)-4b



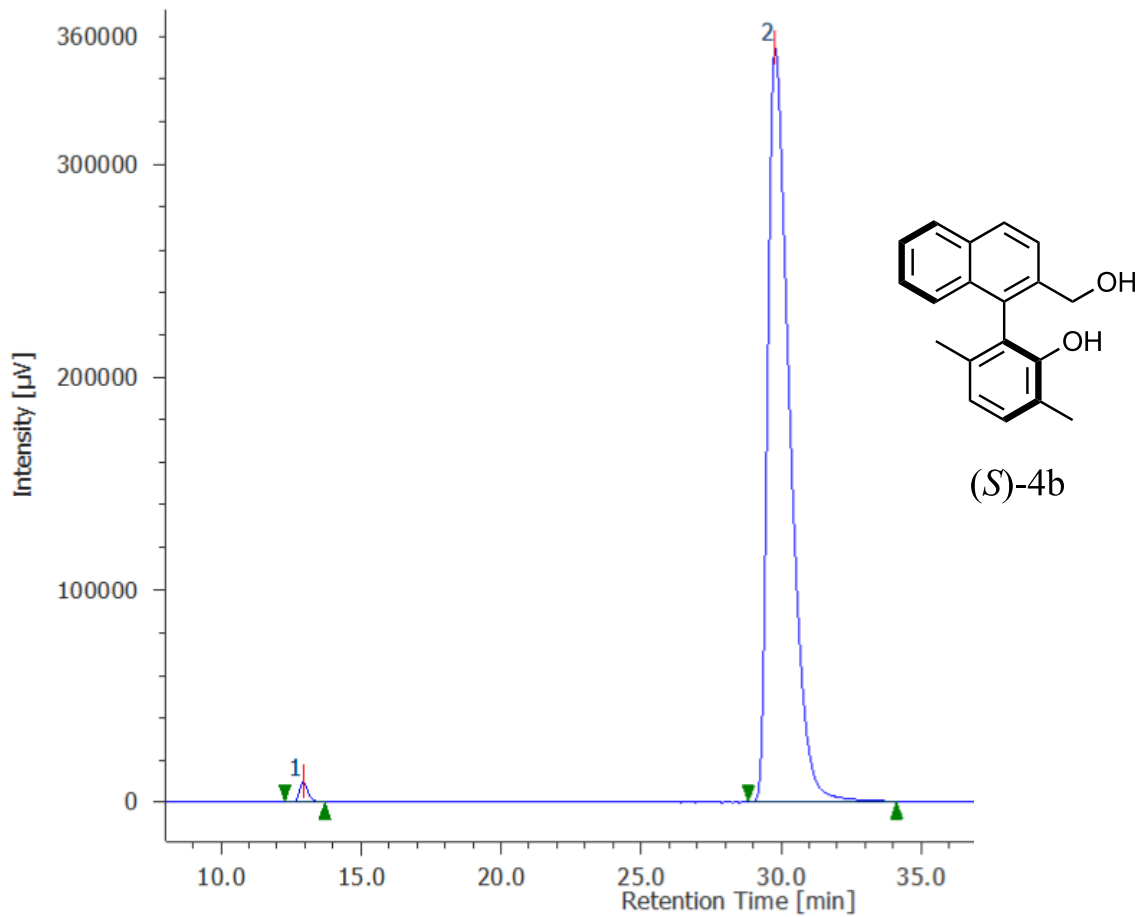
^{13}C NMR spectrum (100 MHz, CDCl_3) of (S)-4b



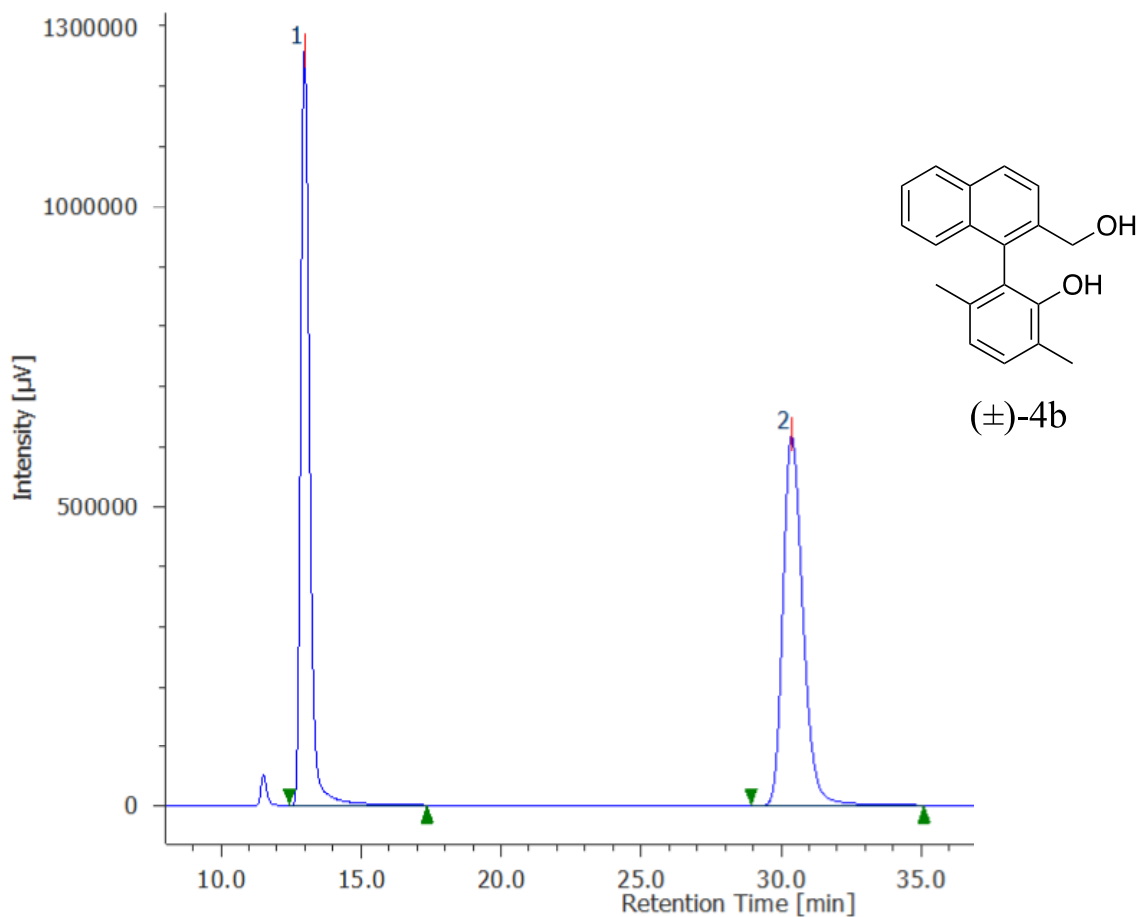
| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|-------|-------|----------|----|
| 1 | Unknown | 9 | 8.447 | 276228 | 22965 | 3.548 | 4.390 | N/A | 11512 | 6.132 | 1.230 | |
| 2 | Unknown | 9 | 10.607 | 7509485 | 500197 | 96.452 | 95.610 | N/A | 11744 | N/A | 1.276 | |



| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|-------|-------|----------|----|
| 1 | Unknown | 9 | 8.567 | 13687664 | 1099721 | 48.969 | 54.245 | N/A | 10985 | 6.140 | 1.227 | |
| 2 | Unknown | 9 | 10.800 | 14264005 | 927612 | 51.031 | 45.755 | N/A | 11519 | N/A | 1.216 | |



| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|--------|----------|----|
| 1 | Unknown | 9 | 12.933 | 195818 | 9737 | 1.006 | 2.671 | N/A | 9922 | 17.513 | 1.271 | |
| 2 | Unknown | 9 | 29.787 | 19263402 | 354842 | 98.994 | 97.329 | N/A | 7136 | N/A | 1.727 | |



| # | ピーク名 | CH | tR [min] | 面積 [$\mu\text{V}\cdot\text{sec}$] | 高さ [μV] | 面積% | 高さ% | 定量値 | NTP | 分離度 | シンメトリー係数 | 警告 |
|---|---------|----|----------|-------------------------------------|----------------------|--------|--------|-----|------|--------|----------|----|
| 1 | Unknown | 9 | 12.980 | 28267262 | 1258238 | 47.991 | 67.105 | N/A | 8505 | 18.938 | 1.316 | |
| 2 | Unknown | 9 | 30.373 | 30633675 | 616782 | 52.009 | 32.895 | N/A | 9026 | N/A | 1.260 | |