

# Supplementary Files A: The diversity of volatile compounds in Australia's semi-desert genus *Eremophila* (Scrophulariaceae)

Nicholas J. Sadgrove <sup>1,\*</sup>, Guillermo F. Paddilla-González<sup>1</sup>, Alison Green<sup>1</sup>, Moses K. Langat<sup>1</sup>, Eduard Mas-Claret<sup>1</sup>, Dane Lyddiard<sup>2</sup>, Julian Klepp<sup>2</sup>, Sarah V.A.-M. Legendre<sup>2</sup>, Ben W. Greatrex<sup>2</sup>, Graham L. Jones<sup>2</sup>, Iskandar M. Ramli<sup>2</sup>, Olga Leuner<sup>3</sup>, and Eloy Fernandez-Cusimamani<sup>3,\*</sup>

<sup>1</sup> Jodrell Science Laboratory, Royal Botanic Gardens Kew, Richmond TW9 3DS, UK; [f.paddilla@kew.org](mailto:f.paddilla@kew.org) (G.F.P.-G.), [m.langat@kew.org](mailto:m.langat@kew.org) (M.K.L.)

<sup>2</sup> School of Science and Technology and School of Rural Medicine, University of New England, Armidale NSW 2351, Australia; [bgreatre@une.edu.au](mailto:bgreatre@une.edu.au) (B.W.G.), [gjones2@une.edu.au](mailto:gjones2@une.edu.au) (G.L.J.)

<sup>3</sup> Department of Crop Sciences and Agroforestry, Faculty of Tropical AgriSciences, Czech University of Life Sciences Prague, Kamýcká 129, 16500 Prague, Czech Republic

\* Correspondence: [n.sadgrove@kew.org](mailto:n.sadgrove@kew.org) (N.J.S.); [eloy@ftz.czu.cz](mailto:eloy@ftz.czu.cz) (E.F.-C.); Tel.: +44-7857569823 (N.J.S.); +420-224382183 (E.F.-C.)

## Document Structure

Supplementary File A1 – EI Mass spectral data (Table and images)

Supplementary File A2 – Full NMR shift values (tables only)

Supplementary File A3 – Structures (images)

Supplementary File A4 – EI mass spectral data (images) of selected unknown compounds

Supplementary Files B – 1H and 13C NMR images of rare or new compounds from species of *Eremophila* (Scrophulariaceae)

# Supplementary Files – A1; EI Mass spectral data (Table and images)

Table A1-1 - Mass spectral data for electron impact ionisation of rare compounds

| Name  | AI   | RT    | Electron Impact Mass Spectrum of compounds, determined using GCMS  |
|---|------|-------|--|
| Myodesert-1-ene                               | 1141 | 9.39  | m/z(rel.int.): 152 (M <sup>+</sup> , 76), 137 (100), 122 (19), 110 (46), 95 (60), 81(70), 67(50), 53 (15), 41(22)  |
| Methoxymyodesert-3-ene                        | 1284 | 13.1  | m/z(rel.int.): 182 (M <sup>+</sup> , 80), 151 (27), 135 (67), 108 (38), 98 (76), 85(100), 55(26) 41 (23)   |
| Cis, Cis – Nepetalactone                      | 1394 | 17.91 | m/z(rel.int.): 214 (M <sup>+</sup> , 1), 166 (98), 123 (100), 109 (49), 95 (65), 81 (75), 69(63), 67 (39), 41 (34)   |
| 1-Acetoxymyodesert-3-ene                      | 1459 | 17.52 | m/z(rel.int.): 210 (M <sup>+</sup> , 32), 168 (29), 150 (52), 135 (83), 122 (64), 108 (100), 43 (59)   |
| Z-11,12-Dehydroisodendrolasin                 | 1597 | 20.8  | m/z(rel.int.): 200 (M <sup>+</sup> , 9), 135 (24), 119 (19), 107 (51), 93 (86), 81 (100), 55(94), 41(60)   |
| Eremoacetal                                   | 1630 | 13.63 | m/z(rel.int.): 248 (M <sup>+</sup> , 8), 121 (59), 95 (100)  |
| Myomontanone                                  | 1646 | 21.9  | m/z(rel.int.): 232 (M <sup>+</sup> , 18), 217 (85), 203 (60), 189 (42), 161 (100), 147 (15), 95 (94) 39 (15)   |
| Isomyodesmone                                 | 1649 | 21.97 | m/z(rel.int.): 232 (M <sup>+</sup> , 38), 175 (100)  |
| Myodesmone                                    | 1650 | 21.98 | m/z(rel.int.): 232 (M <sup>+</sup> , 52), 175 (100), 161 (8), 147 (9), 105 (9), 91 (9)   |
| Anymol  | 1668 | 22.76 | m/z(rel.int.): 222 (M <sup>+</sup> , 1), 204 (35), 189 (9), 175 (4), 161 (22), 147 (9), 134 (13), 119 (81) 109 (72), 93 (100), 79 (33), 69 (67), 55 (23), 41(44) |
| Z-11-Hydroxydendrolasin                       | 1677 | 22.6  | m/z(rel.int.): 216 (M <sup>+</sup> , 14), 201 (27), 161 (17), 135 (71), 119 (32), 107 (72), 93(100), 81 (90), 55 (41), 43 (39)                                   |
| Ngaione                                       | 1687 | 22.82 | m/z(rel.int.): 250 (M <sup>+</sup> , 8), 151 (100), 110 (26), 85 (80), 57 (44), 43 (47)  |
| Epignaione                                    | 1694 | 22.98 | m/z(rel.int.): 250 (M <sup>+</sup> ,7), 150 (47), 110 (100), 85 (29), 57 (26), 43 (29)   |
| Mitchellene G                                 | 1695 | 22.98 | m/z(rel.int.) 220 (M <sup>+</sup> ,43), 162 (100)  |
| Eremophilone                                  | 1740 | 23.94 | m/z(rel.int.): 218 (M <sup>+</sup> , 64), 203 (29), 176 (100), 161 (58), 147 (40), 133 (74), 119 (58), 107 (83), 91 (79), 79 (75) 41 (40)                        |
| 9-Hydroxydendrolasin                          | 1741 | 23.97 | m/z(rel.int.): 216 (M <sup>+</sup> , 5), 150 (11), 135 (37), 107 (48), 93 (81), 81 (100), 65(22), 53(84), 41 (79)  |
| Dehydrongaione                                | 1742 | 24.2  | m/z(rel.int.): 248 (M <sup>+</sup> , 5), 151 (55), 83 (100), 55 (14), 43 (23)  |
| 10-Hydroxydihydro- $\alpha$ -humulene acetate | 1755 | 24.04 | m/z(rel.int.): 204 (M <sup>+</sup> , 46), 189 (37), 161 (41), 147 (30), 121 (61), 109 (44), 93 (100), 80 (33), 67 (33), 43 (73)                                  |
| Santalcamphor                                 | 1760 | 24.37 | m/z(rel.int.): 236 (M <sup>+</sup> , 29), 207 (100), 123 (40), 109 (52), 95 (35), 69 (57), 55 (31), 41 (31)  |
| Myoporone                                     | 1837 | 25.97 | m/z(rel.int.): 250 (M <sup>+</sup> , 5), 150 (32), 110 (53), 95 (100), 85 (20), 57 (27), 41 (11)   |
| 9-Hydroxy-7(11), 9-eremophiladien-8-one       | 1849 | 26.21 | m/z(rel.int.): 234 (M <sup>+</sup> , 62), 219 (50), 201 (26), 191 (54), 177 (43), 163 (100), 153 (96), 137 (42), 91 (40), 41(33)                                 |
| Dehydromyoporone                              | 1901 | 27.26 | m/z(rel.int.): 248 (M <sup>+</sup> , 1), 95 (40), 83 (100), 55 (16), 39 (8)  |
| Freelingnite                                  | 1987 | 30.93 | m/z(rel.int.): 246 (M <sup>+</sup> , 5), 149 (10), 97 (38), 81 (100), 53 (13), 41 (11)   |
| Mitchellene B                                 | 2083 | 32.73 | m/z(rel.int.): 232 (M <sup>+</sup> , 47), 217 (11), 188 (100), 173 (31), 131 (62), 123 (94), 105 (57), 91 (61), 77 (42), 55 (26) 41 (21)                         |
| Oppositifolic acid                            | 2149 | 34.07 | m/z(rel.int.): 260 (M <sup>+</sup> , 6), 200 (20), 185 (30), 157 (29), 145 (41), 131 (49), 105 (51), 91 (79), 79 (47), 43 (100)                                  |

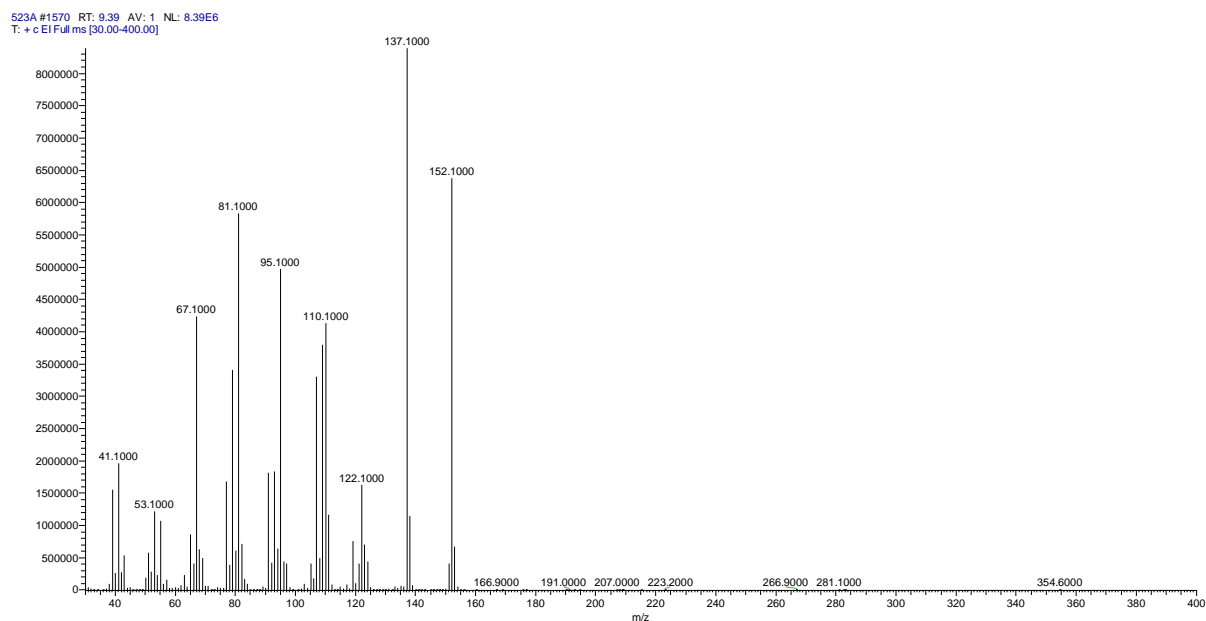


Figure A1-1 - Electron impact mass spectrum of **Myodesert-1-ene**; Arithmetic index = 1141, DB5 column.

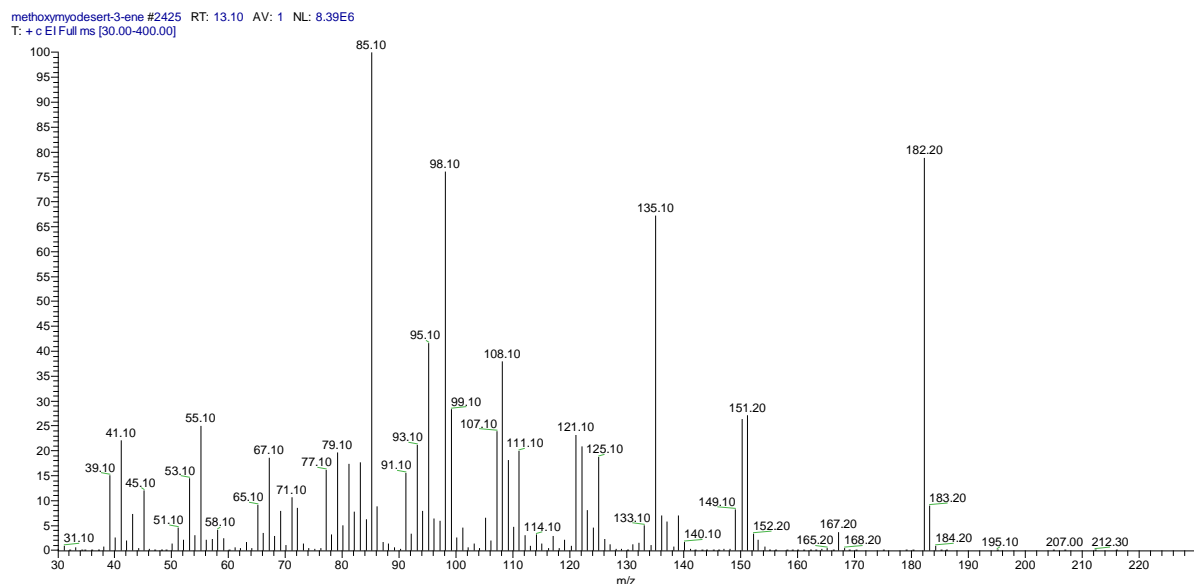


Figure A1-2 - Electron impact mass spectrum of **Methoxymyodesert-3-ene**; Arithmetic index = 1284, DB5 column.

E. dalyana grafted onto myop mont #3534 RT: 17.91 AV: 1 NL: 8.44E5  
T: + c EI Full ms [30.00-400.00]

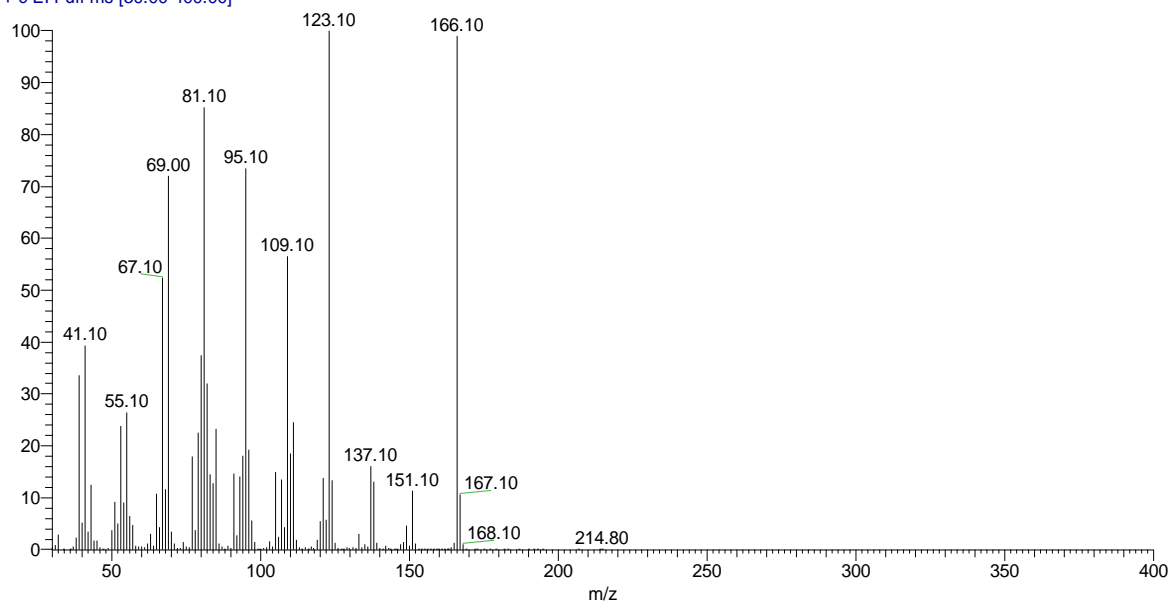


Figure A1-3 - Electron impact mass spectrum of *Cis,Cis-Nepetalactone*; Arithmetic index = 1394, DB5 column.

1-acetoxymyodesert-3-ene #3445 RT: 17.52 AV: 1 NL: 9.07E5  
T: + c EI Full ms [30.00-400.00]

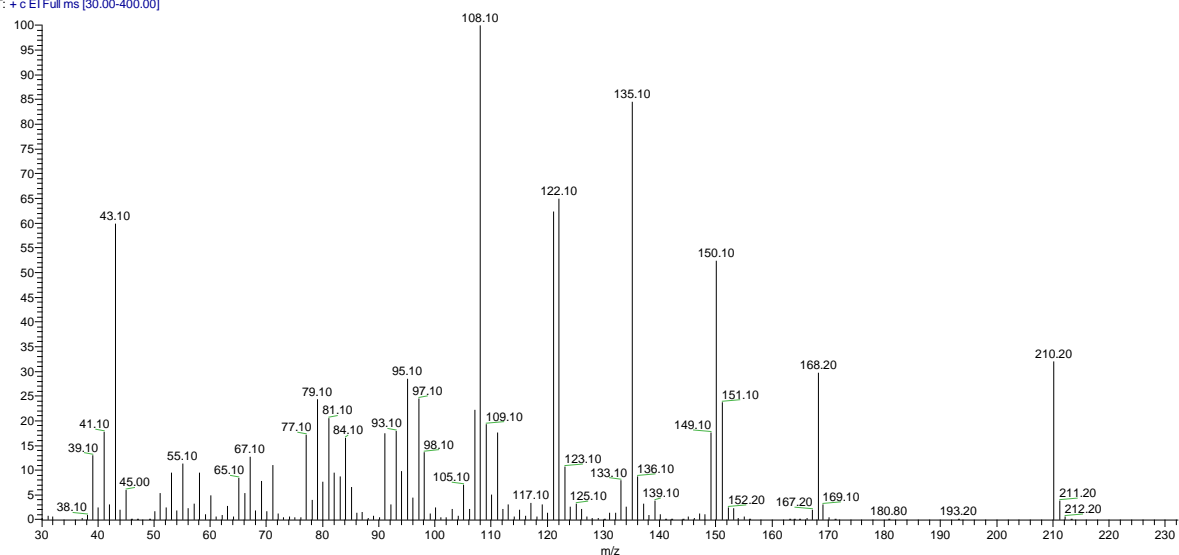


Figure A1-4 – Electron impact mass spectrum of *1-Acetoxymyodesert-3-ene*; Arithmetic index = 1459, DB5 column.

486 EO #4200 RT: 20.80 AV: 1 NL: 3.80E4  
T: +c EI Full ms [30.00-393.00]

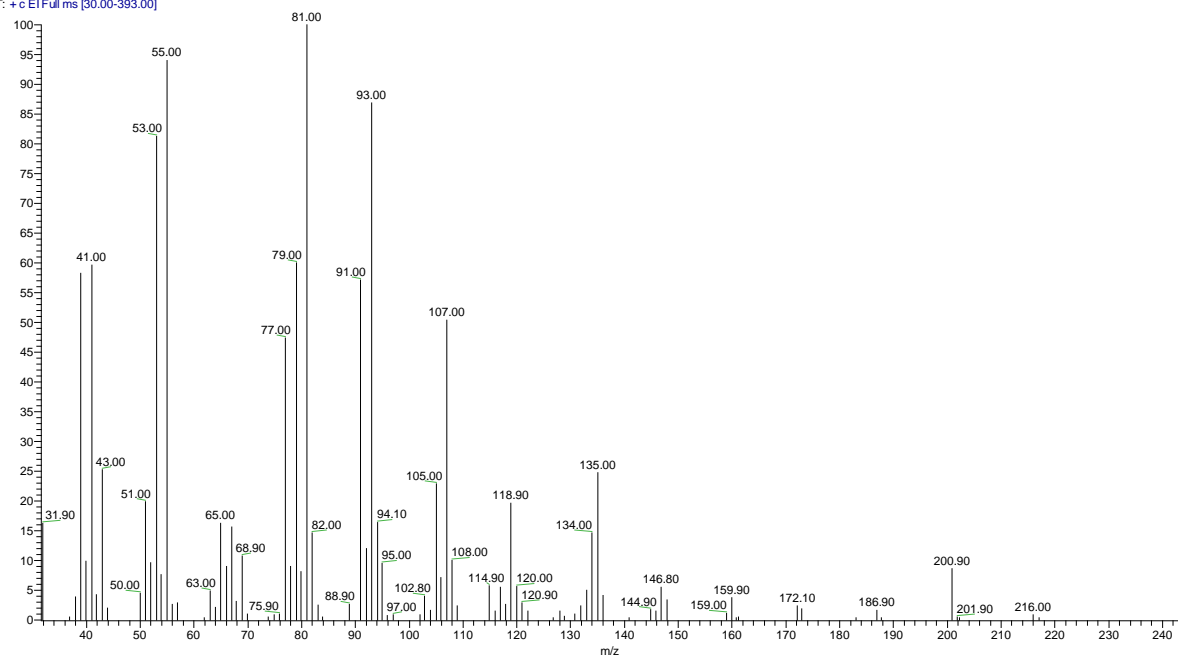


Figure A1-5 - Electron impact mass spectrum of *Z*-11,12-Dehydroisodendrolasin; Arithmetic index = 1597, DB5 column.

Iskandar-E veronica dry leaves-1 #2433 RT: 13.63 AV: 1 NL: 5.03E6  
T: +c EI Full ms [30.00-400.00]

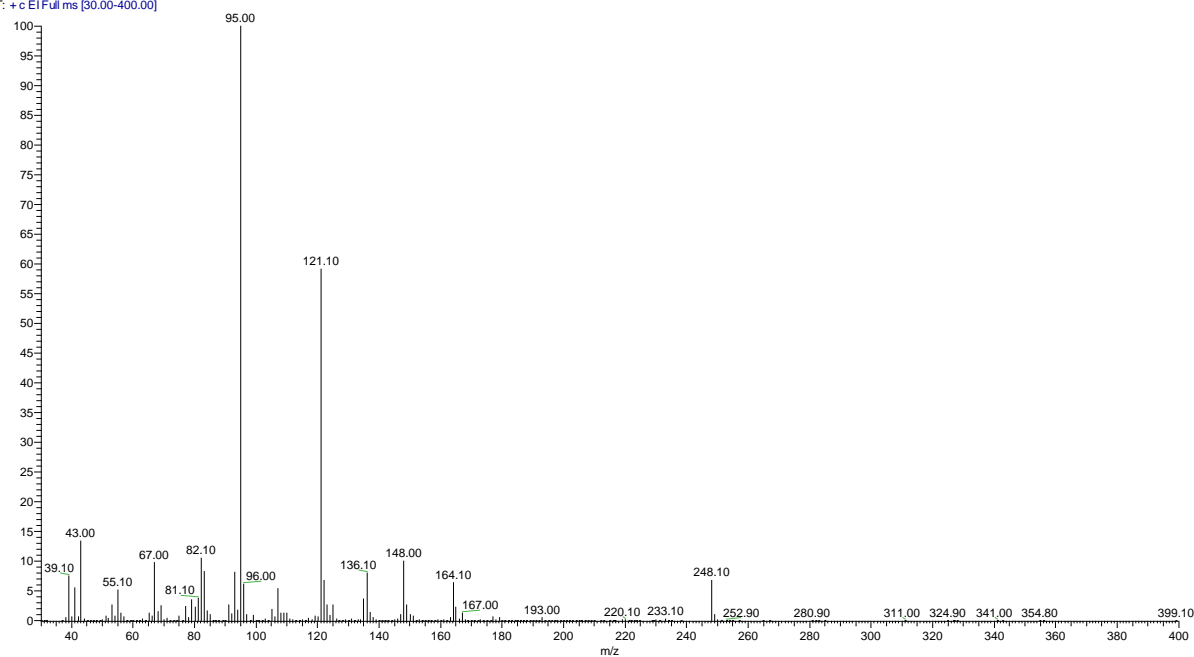


Figure A1-6 - Electron impact mass spectrum of *Eremoacetal*; Arithmetic index = 1630, DB5 column.

DL-21 Stem EO #4455 RT: 21.90 AV: 1 NL: 3.09E6  
T: + c EI Full ms [30.00-400.00]

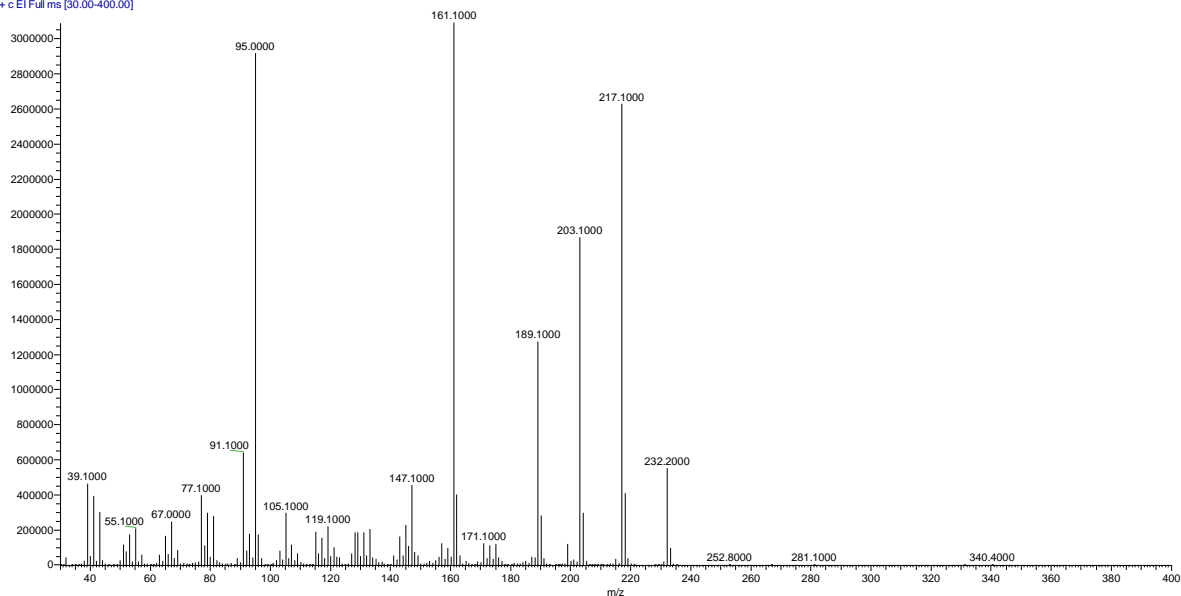


Figure A1-7 - Electron impact mass spectrum of *Myomontanone*; Arithmetic index = 1646, DB5 column.

Isomyodesmone #4472 RT: 21.97 AV: 1 NL: 3.53E5  
T: + c EI Full ms [30.00-400.00]

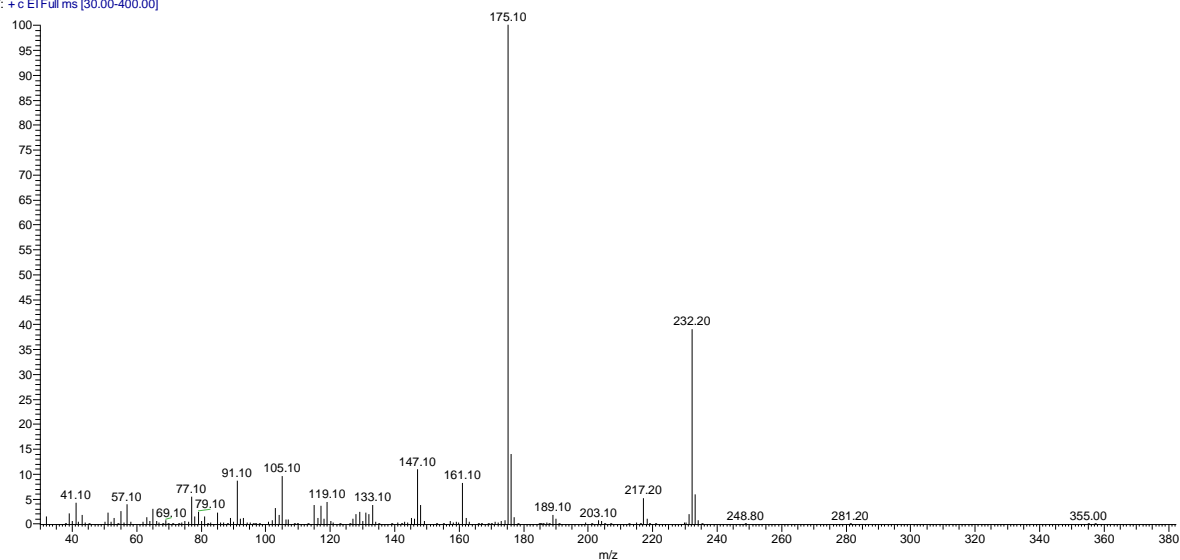


Figure A1-8 - Electron impact mass spectrum of *Isomyodesmone*; Arithmetic index = 1649, DB5 column.

myodesmone #4474 RT: 21.98 AV: 1 NL: 9.26E5  
T: +c EI Full ms [30.00-400.00]

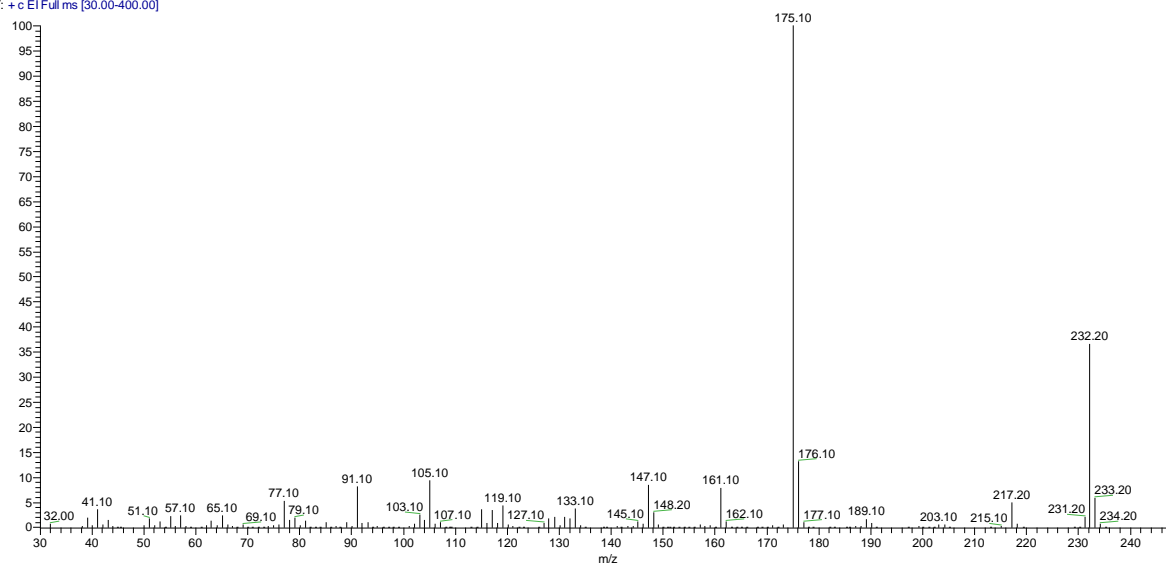


Figure A1-9 - Electron impact mass spectrum of **Myodesmone**; Arithmetic index = 1650, DB5 column.

269 EO #4653 RT: 22.76 AV: 1 NL: 6.35E5  
T: +c EI Full ms [30.00-393.00]

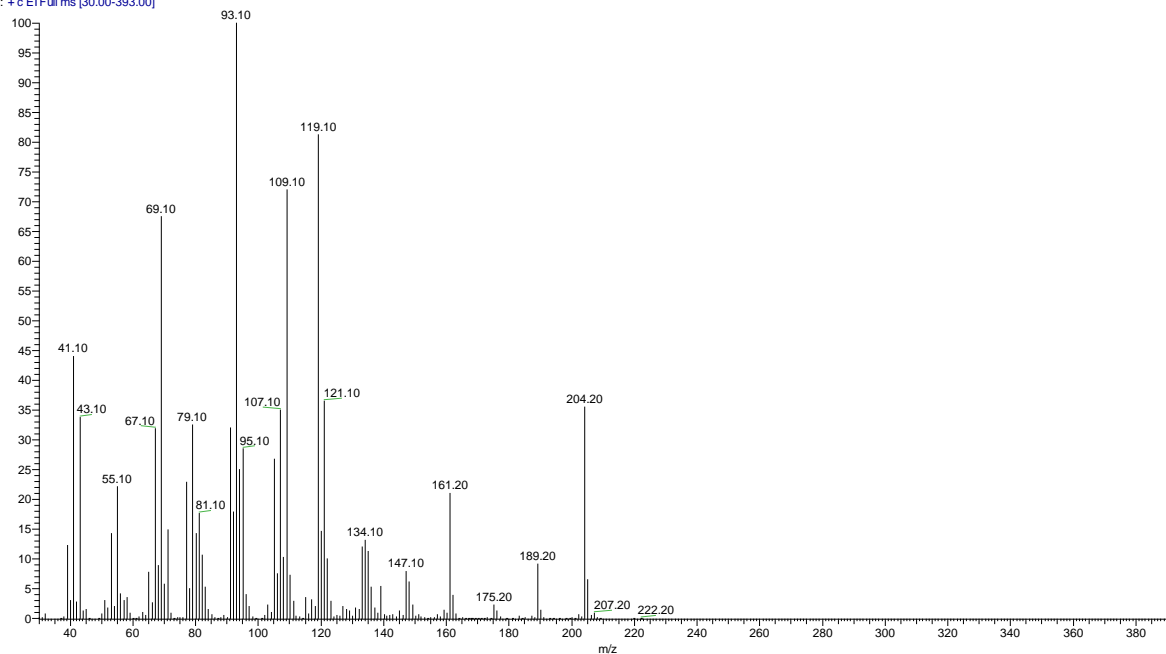


Figure A1-10 - Electron impact mass spectrum of **Anymol**; Arithmetic index = 1668, DB5 column.

486 concentrated dcm on hydrossol #4619 RT: 22.61 AV: 1 NL: 6.29E4  
T: + c EI Full ms [30.00-400.00]

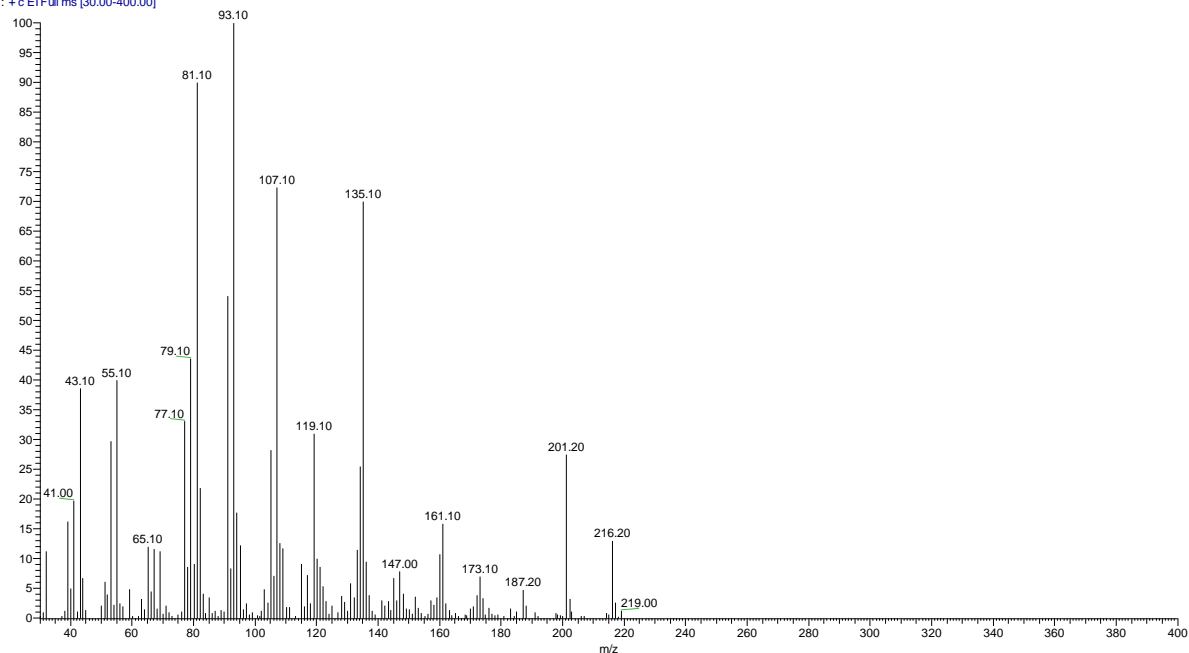


Figure A1-11 - Electron impact mass spectrum of **Z-11-Hydroxydendrolasin**; Arithmetic index = 1677, DB5 column.

ngaione #4667 RT: 22.82 AV: 1 NL: 5.14E5  
T: + c EI Full ms [30.00-400.00]

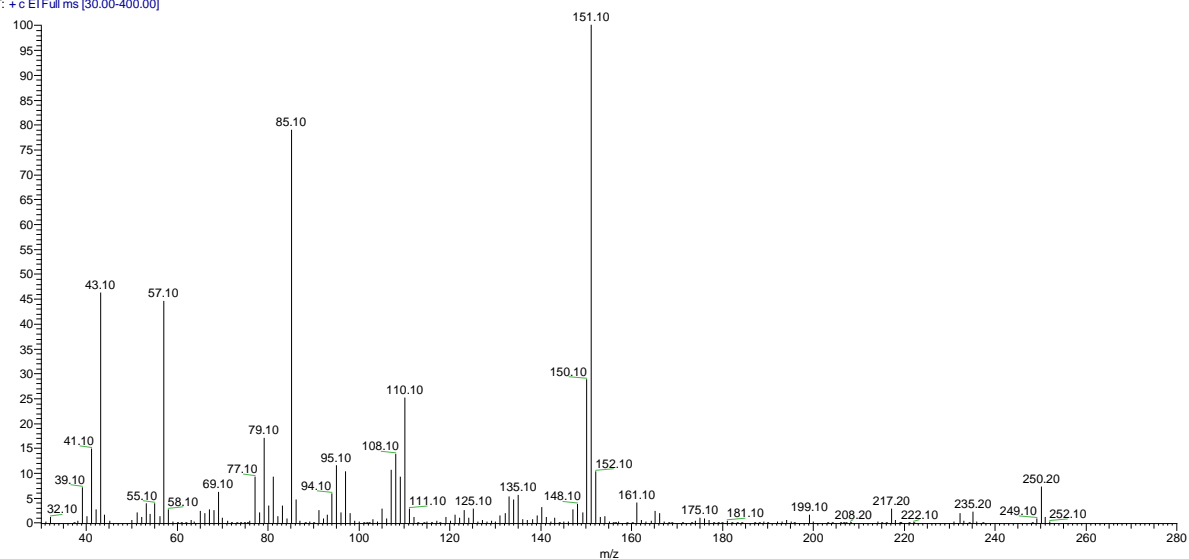


Figure A1-12 - Electron impact mass spectrum of **Ngaione**; Arithmetic index = 1687, DB5 column.



Epigaione #4703 RT: 22.98 AV: 1 NL: 8.27E5  
T: + c EI Full ms [30.00-400.00]

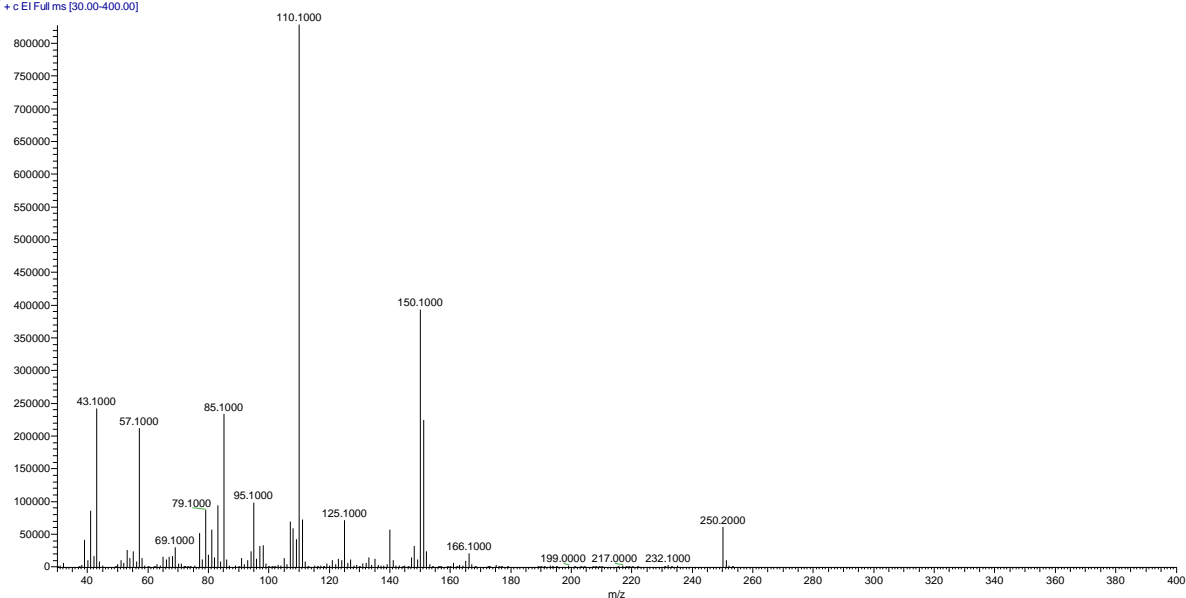


Figure A1-13 - Electron impact mass spectrum of **Epigaione**; Arithmetic index = 1694, DB5 column.

530 EO #4704 RT: 22.98 AV: 1 NL: 4.35E5  
T: + c EI Full ms [30.00-400.00]

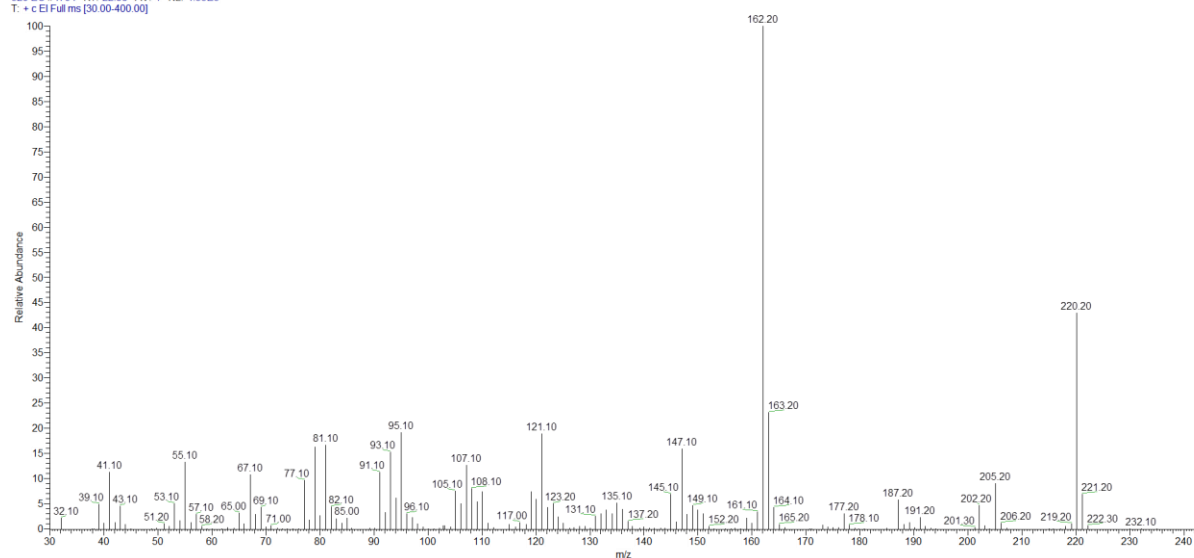


Figure A1-14 - Electron impact mass spectrum of **Mitchellene G**; Arithmetic index = 1695, DB5 column.

Erick lassak wood oil *Eremophila mitchellii* #4926 RT: 23.94 AV:  
T: +c EI Full ms [30.00-400.00]

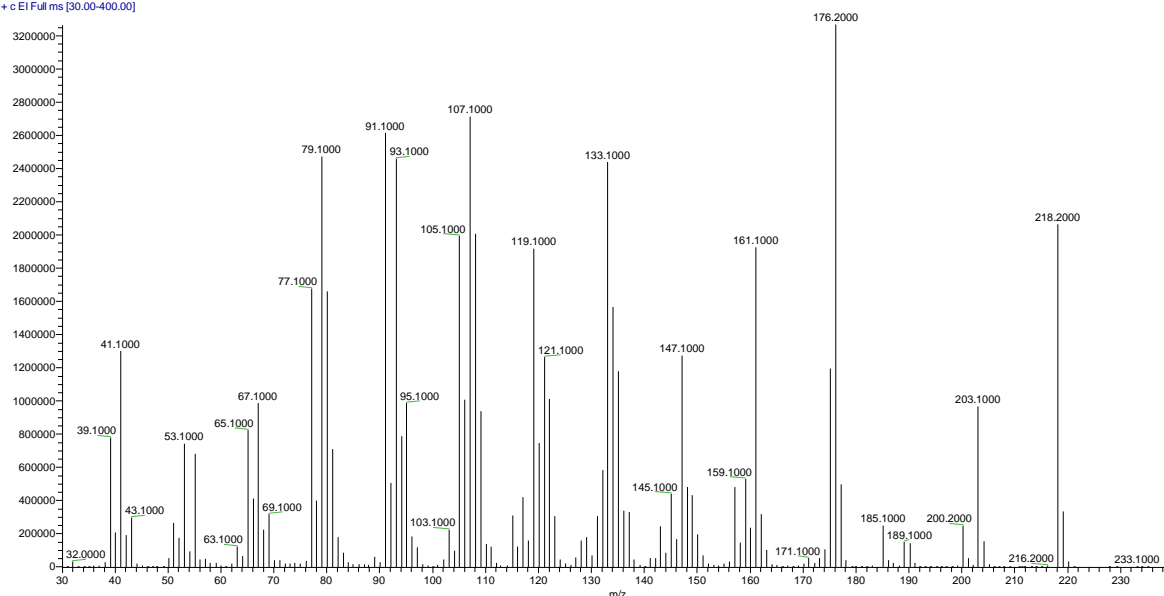


Figure A1-15 - Electron impact mass spectrum of **Eremophilone**; Arithmetic index = 1740, DB5 column.

486 EO #4933 RT: 23.97 AV: 1 NL: 7.30E4  
T: +c EI Full ms [30.00-393.00]

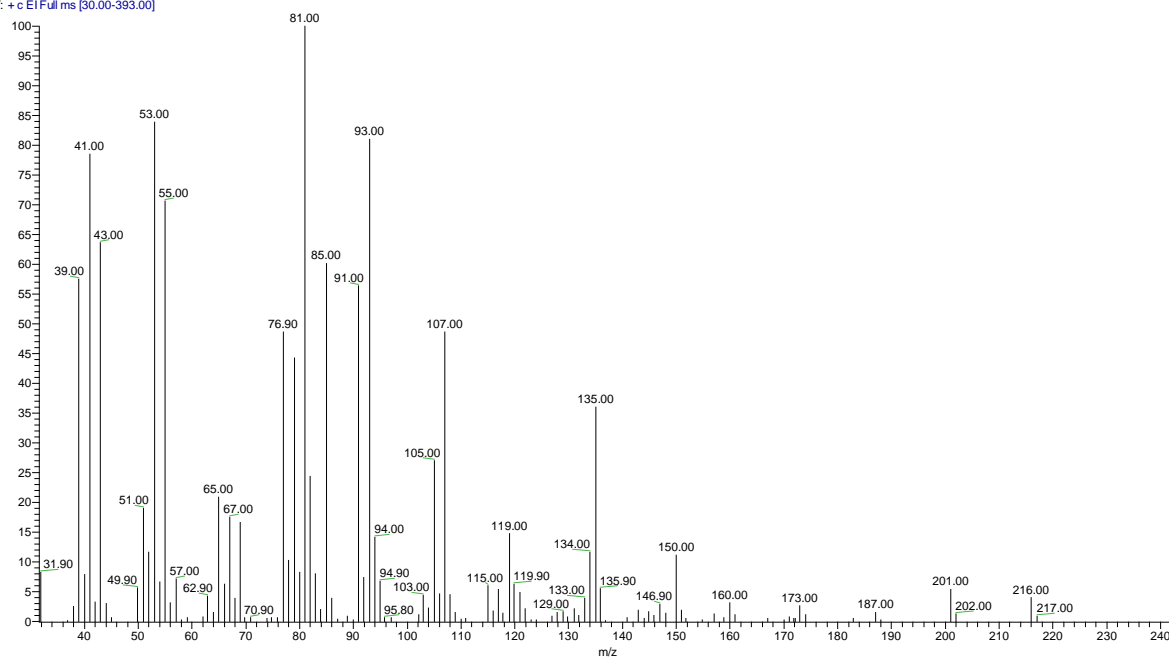


Figure A1-16 - Electron impact mass spectrum of **9-Hydroxydendrolasin**; Arithmetic index = 1741, DB5 column.

dehydrongaione #4985 RT: 24.20 AV: 1 NL: 1.10E6  
T: + c EI Full ms [30.00-400.00]

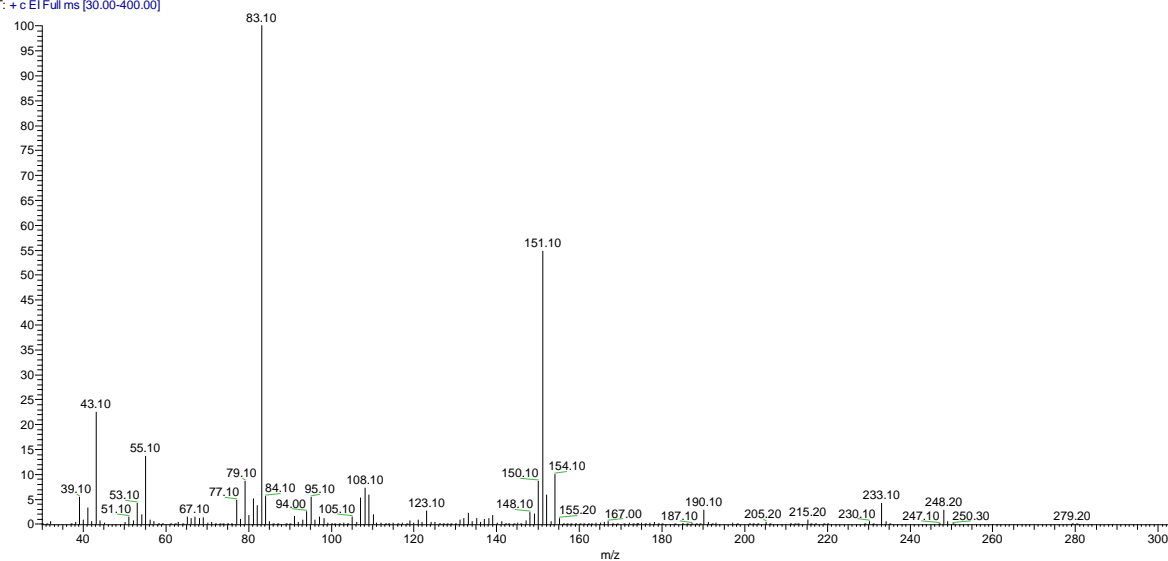


Figure A1-17 - Electron impact mass spectrum of *Dehydrongaione*; Arithmetic index = 1742, DB5 column.

538A Fraction7 #2534 RT: 13.94 AV: 1 NL: 1.09E6  
T: + c EI Full ms [35.00-400.00]

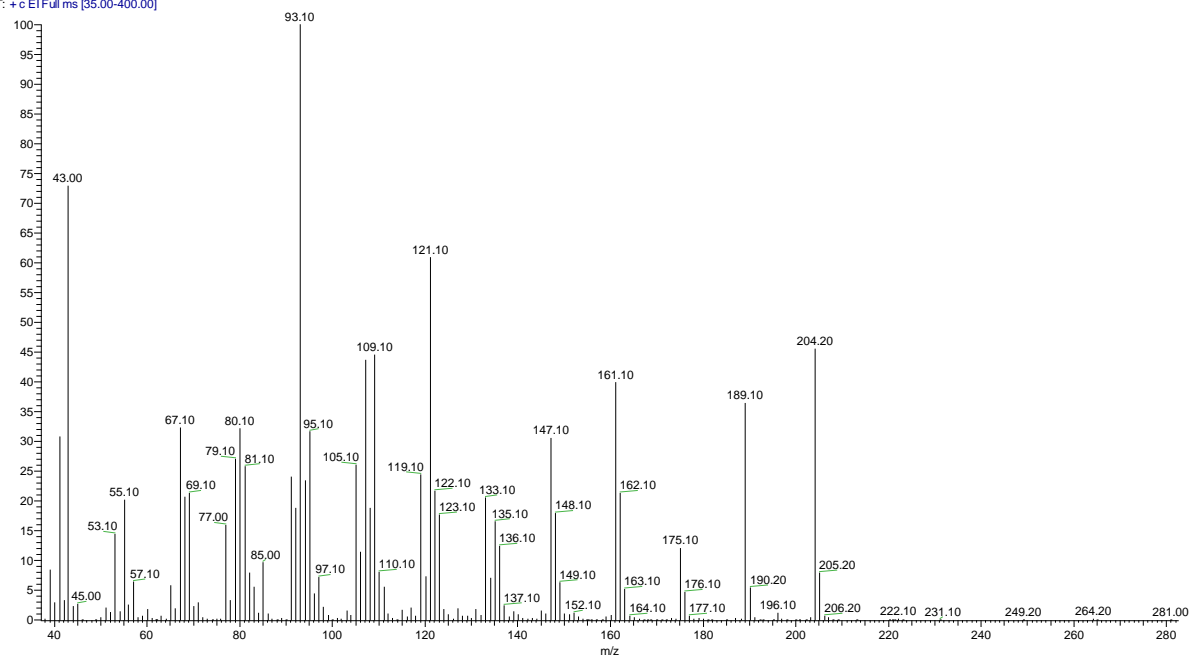


Figure A1-18 - Electron impact mass spectrum of *10-Hydroxydihydro- $\alpha$ -humulene acetate*; Arithmetic index = 1755, DB5 column.

Erick lassak wood oil Eremophila mitchellii #5025 RT: 24.37 AV:  
T: + c EI Full ms [30.00-400.00]

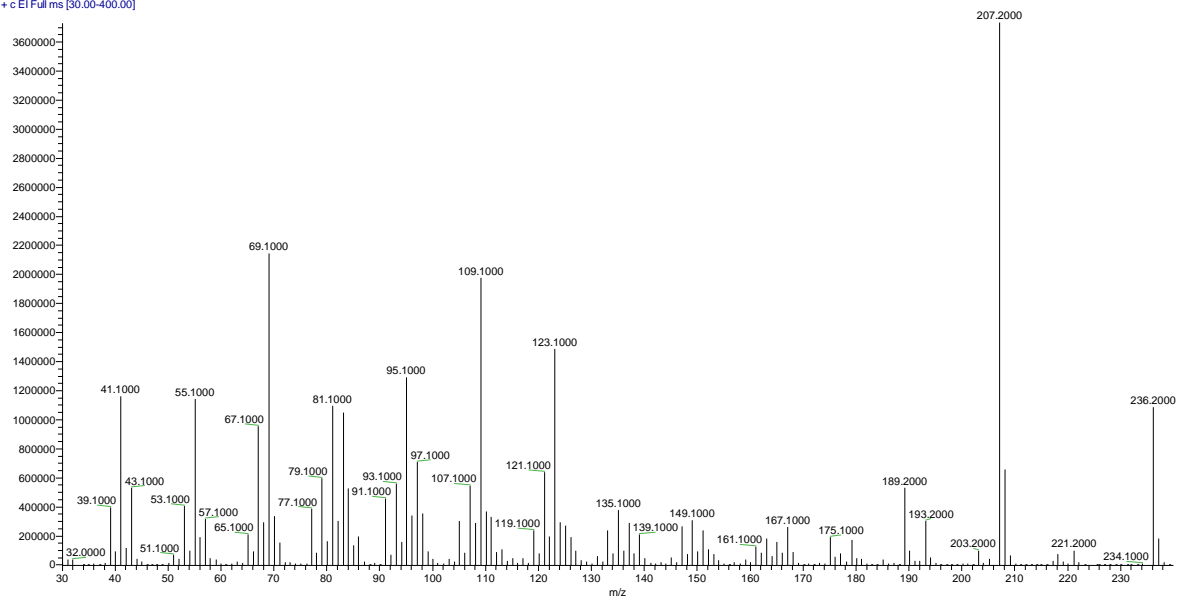


Figure A1-19 - Electron impact mass spectrum of **Santalcamphor**; Arithmetic index = 1760, DB5 column.

myoporone #5394 RT: 25.97 AV: 1 NL: 2.43E6  
T: + c EI Full ms [30.00-400.00]

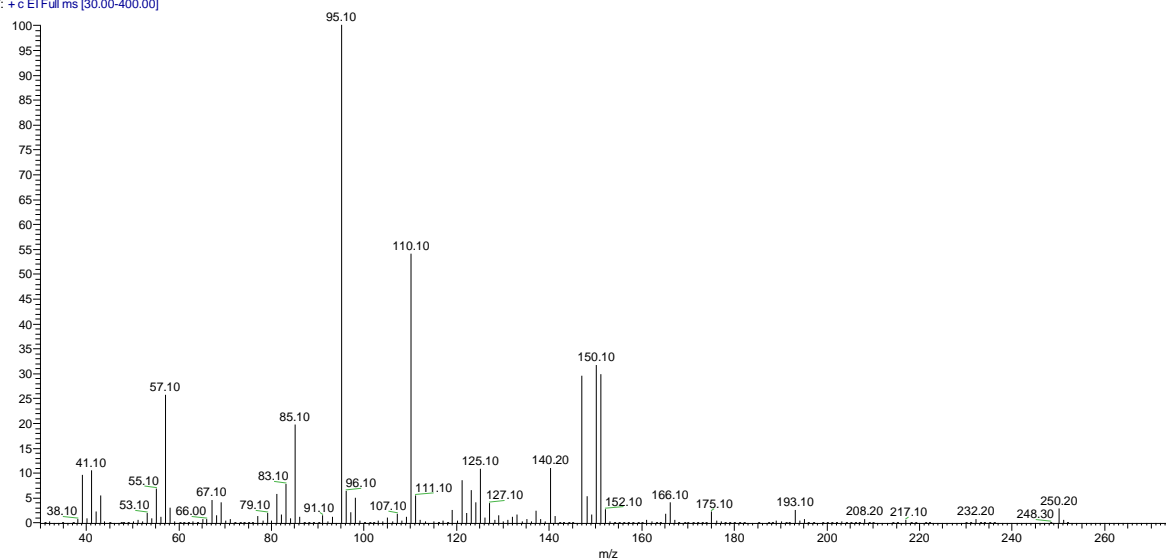


Figure A1-20 - Electron impact mass spectrum of **Myoporone**; Arithmetic index = 1837, DB5 column.

Erick lassak wood oil Eremophila mitchellii #5450 RT: 26.21 AV:  
T: + c EI Full ms [30.00-400.00]

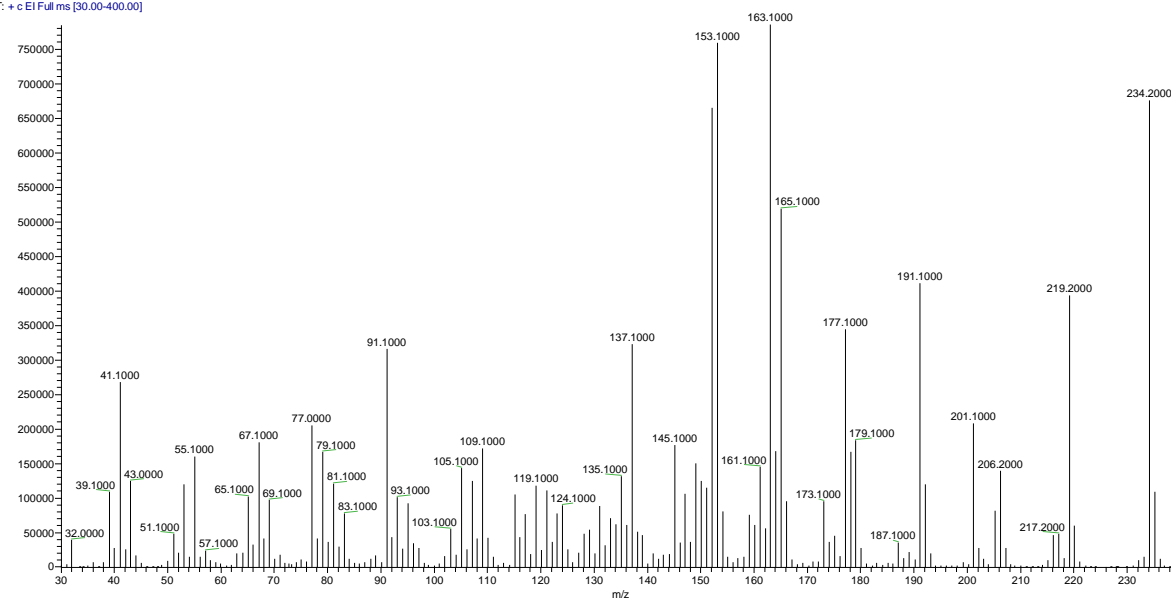


Figure A1-21 - Electron impact mass spectrum of **9-hydroxy-7(11), 9-eremophiladien-8-one**; Arithmetic index = 1849, DB5 column.

dehydromyoporone #5692 RT: 27.26 AV: 1 NL: 1.90E6  
T: + c EI Full ms [30.00-400.00]

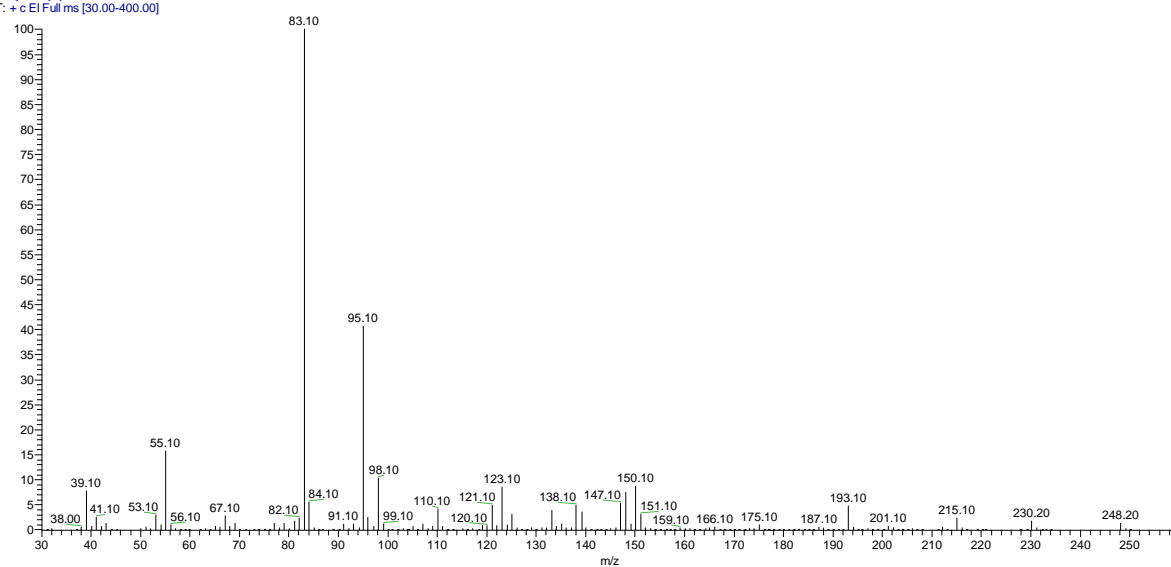


Figure A1-22 - Electron impact mass spectrum of **Dehydromyoporone**; Arithmetic index = 1901, DB5 column.

Eremophila arbuscula #6532 RT: 30.91 AV: 1 NL: 6.37E6  
T: + c EI Full ms [30.00-400.00]

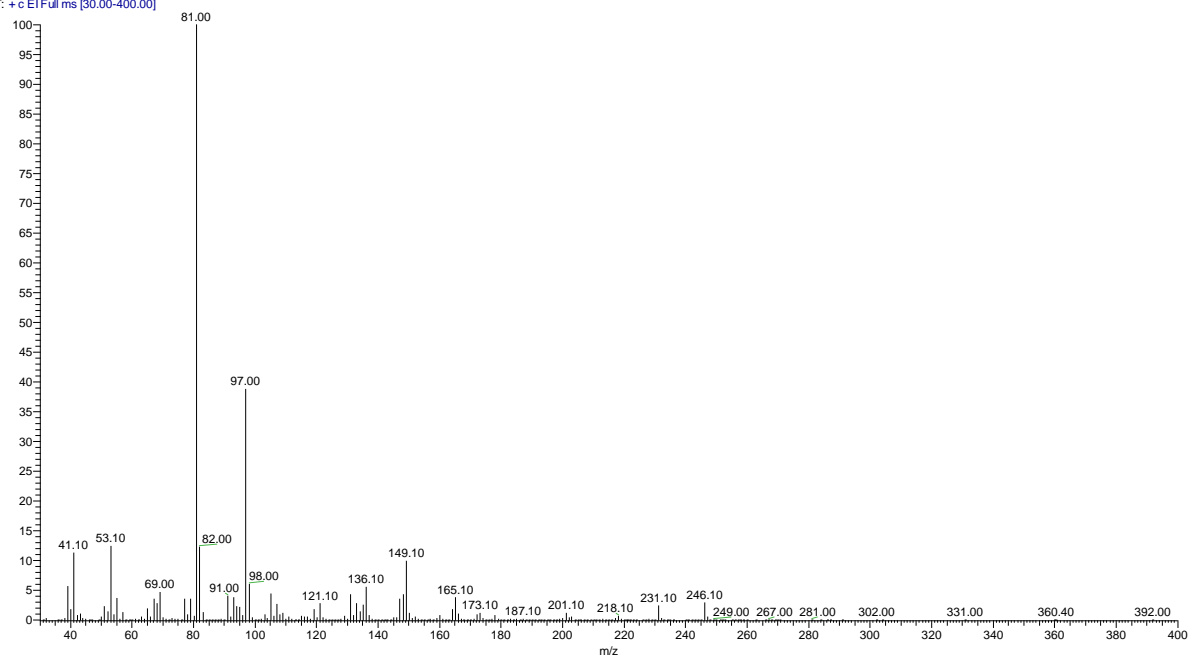


Figure A1-23 - Electron impact mass spectrum of **Freelingnite**; Arithmetic index = 1987, DB5 column.

534 #6952 RT: 32.73 AV: 1 NL: 8.13E5  
T: + c EI Full ms [30.00-400.00]

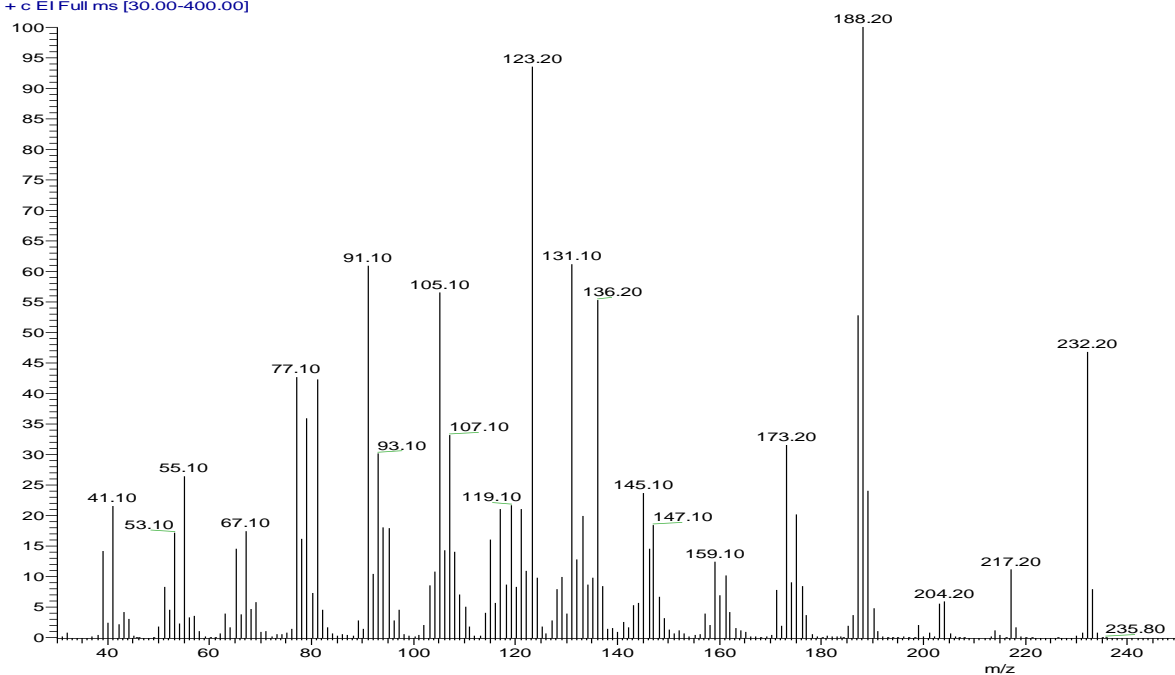


Figure A1-24 - Electron impact mass spectrum of **Mitchellene B**; Arithmetic index = 2083, DB5 column.

535 opp rubra #7260 RT: 34.06 AV: 1 NL: 1.18E5  
T: +c EI Full ms [30.00-400.00]

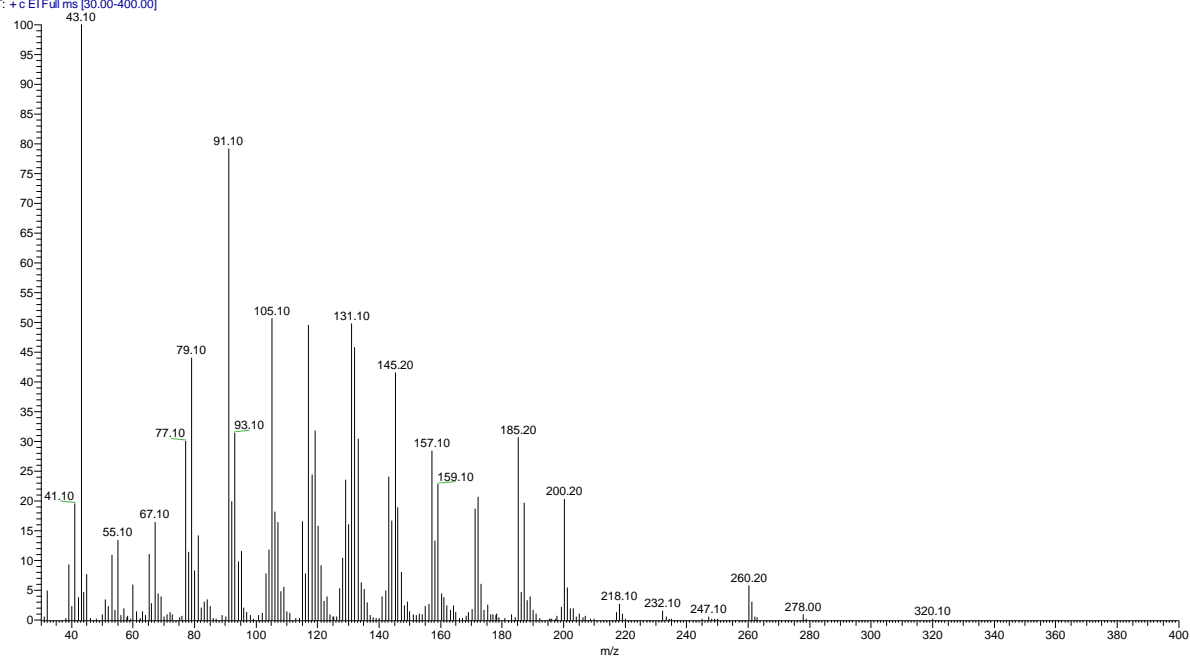


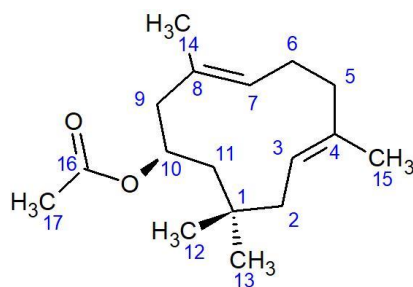
Figure A1-25 - Electron impact mass spectrum of **Oppositifolic acid**; Arithmetic index = 2149, DB5 column.

## Supplementary Files – A2; full NMR shift values (tables only)

Table A2-2 – <sup>13</sup>C NMR spectra (ppm) for rare compounds from the genus *Eremophila*

| Name  | AI   | RT    | <sup>13</sup> C NMR chemical shifts (ppm) for isolated compounds                                  |
|---|------|-------|---|
| Methoxymyodesert-3-ene                        | 1284 | 13.1  | 134.3, 99.3, 113.8, 55.5, 43.9, 29.5, 32.9, 35.6, 38.0, 16.3, 16.5                                |
| 1-Acetoxymyodesert-3-ene                      | 1459 | 17.52 | 169.8, 132.7, 114.3, 89.7, 42.7, 38.9, 36.6, 32.3, 30.7, 21.6, 17.2, 15.1                         |
| Z-11,12-Dehydroisodendrolasin                 | 1597 | 20.8  | 142.7, 142.3, 139.0, 134.8, 128.9, 125.0, 114.5, 111.2, 43.1, 28.7, 25.1, 18.9, 16.4              |
| Myomontanone                                  | 1646 | 21.9  | 189.4, 153.0, 147.5, 143.7, 136.4, 128.6, 109.6, 45.6, 43.7, 39.4, 31.6, 21.2, 27.4, 22.8, 22.6   |
| Myodesmone                                    | 1650 | 21.98 | 204.9, 143.0, 142.9, 142.5, 136.8, 121.4, 110.3, 51.2, 42.9, 36.3, 31.3, 24.9, 23.0, 22.8, 20.2   |
| Anymol  | 1668 | 22.76 | 134.0, 131.8, 124.7, 120.9, 74.5, 43.5, 39.5, 31.2, 26.2, 25.8, 24.1, 24.1, 23.5, 22.4, 17.8      |
| Z-11-Hydroxyisodendrolasin                    | 1677 | 22.6  | 142.7, 139.5, 139.0, 134.6, 125.3, 125.0, 124.8, 111.2, 70.8, 29.9, 28.6, 25.1, 16.2, 42.4        |
| Ngaione                                       | 1687 | 22.82 | 209.5, 143.4, 139.3, 127.3, 109.0, 81.9, 72.7, 54.4, 53.8, 37.2, 33.2, 26.8, 24.5, 22.7           |
| Epingaione                                    | 1694 | 22.98 | 209.7, 143.5, 139.4, 127.6, 108.8, 81.9, 73.7, 53.8, 53.8, 37.4, 33.6, 28.1, 24.6, 22.7, 22.7     |
| Mitchellene G                                 | 1695 | 22.98 | 133.3, 126.0, 75.4, 48.4, 47.3, 45.1, 40.4, 37.9, 35.3, 30.8, 29.0, 24.0, 20.9, 19.3, 11.3        |
| Eremophilone                                  | 1740 | 23.94 | 203.8, 147.7, 144.4, 135.3, 110.1, 43.3, 41.5, 39.2, 39.0, 36.0, 26.6, 25.7, 24.9, 20.7, 16.1     |
| 9-Hydroxydendrolasin                          | 1741 | 23.97 | 142.9, 139.0, 135.1, 132.6, 128.0, 127.6, 124.8, 111.1, 65.9, 48.3, 28.6, 25.9, 24.9, 18.3, 16.3  |
| Dehydrongaione                                | 1742 | 24.2  | 199.2, 154.9, 143.2, 139.2, 127.3, 125.5, 108.9, 82.2, 72.7, 55.5, 36.9, 33.3, 27.7, 27.0, 20.7   |
| 10-Hydroxydihydro- $\alpha$ -humulene acetate | 1755 | 24.04 | 170.9, 134.3, 131.9, 127.7, 124.5, 72.6, 46.3, 39.5, 42.8, 39.0, 33.7, 31.0, 27.1, 25.3, 21.8     |
| Santalcamphor                                 | 1760 | 24.37 | 211.7, 145.1, 112.2, 76.6, 54.1, 48.1, 41.2, 40.0, 33.8, 22.3, 21.4, 20.9, 19.5, 15.4             |
| Myoporone                                     | 1837 | 25.97 | 210.5, 195.1, 147.2, 144.3, 127.8, 108.8, 52.6, 50.7, 38.3, 31.2, 28.9, 24.6, 22.7, 22.7, 19.9    |
| 9-Hydroxy-7(11), 9-eremophiladien-8-one       | 1849 | 26.21 | 185.6, 146.6, 142.6, 137.3, 125.8, 43.0, 40.7, 39.8, 30.7, 25.7, 23.1, 22.9, 16.3, 15.7           |
| Dehydromyoporone                              | 1901 | 27.26 | 200.7, 195.2, 155.4, 147.2, 144.3, 127.8, 124.2, 108.8, 51.6, 38.4, 31.4, 29.6, 27.8, 20.9, 20.0  |
| Freelingnite                                  | 1987 | 30.93 | 174.3, 148.8, 142.8, 139.0, 130.2, 130.0, 128.5, 124.7, 111.1, 80.0, 43.6, 28.5, 24.8, 16.8, 10.7 |
| Mitchellene B                                 | 2083 | 32.73 | 171.9, 137.2, 128.4, 83.8, 46.2, 44.6, 42.9, 42.1, 35.3, 33.0, 29.5, 28.7, 23.3, 18.9, 11.6       |
| Oppositifolic acid                            | 2149 | 34.07 | 171.9, 170.9, 141.7, 141.5, 136.7, 131.0, 129.6, 122.1, 58.5, 33.5, 32.0, 29.3, 29.3, 29.2, 22.8  |
| 4-Hydroxyngaione i.e., ngaiol                 |      |       | 207.5, 143.4, 139.3, 127.1, 109.1, 72.8, 81.9, 55.4, 58.7, 41.5, 37.2, 33.0, 32.6, 32.6, 26.9     |
| Mitchellene F                                 |      |       | 136.6, 128.3, 76.7, 68.6, 48.6, 45.8, 44.7, 35.3, 37.9, 40.4, 29.1, 30.4, 19.3, 20.8, 11.3        |
| <i>t</i> -Muurolol                            |      |       | 133.6, 125.0, 72.5, 46.2, 44.1, 34.8, 34.6, 31.4, 29.4, 26.8, 23.7, 21.7, 21.1, 19.5, 15.5        |

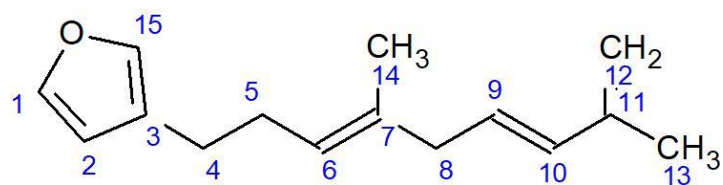




10-hydroxydihydro- $\alpha$ -humulene acetate

Table A2-3 - NMR data for 10-hydroxydihydro- $\alpha$ -humulene acetate

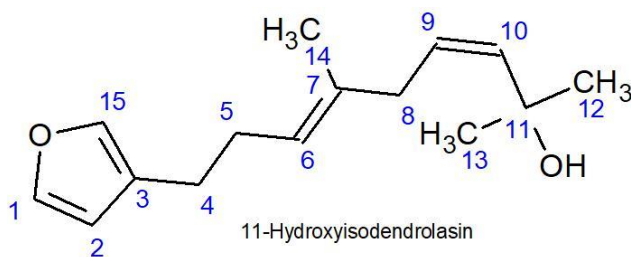
| -  | <sup>13</sup> C $\delta$ | Appearance | Hydrogens | Multiplicity | <sup>1</sup> H $\delta$ | J (Hz)          | HMBC          |
|----|--------------------------|------------|-----------|--------------|-------------------------|-----------------|---------------|
| 1  | 33.67                    | Thin       | -         | -            | -                       | -               | 2, 11, 12, 13 |
| 11 | 42.79                    | Broad      | 2H        | d            | 1.8                     | 15.2            | 3, 12, 13     |
| -  | -                        | -          | -         | ddd          | 1.35                    | 0.6, 8.03, 15.2 | -             |
| 10 | 72.63                    | Broad      | 1H        | dt           | 4.48                    | 0.6, 8.98       | 4, 12, 14, 16 |
| 9  | 46.35                    | Broad      | 2H        | dd           | 2.09                    | 10.6, 12.1      | -             |
| -  | -                        | -          | -         | dd           | 1.96                    | 10.6, 12.2      | -             |
| 8  | 131.89                   | Thin       | -         | -            | -                       | -               | 14            |
| 7  | 127.67                   | Thin       | 1H        | dd           | 4.93                    | 5.37, 9.61      | 14            |
| 6  | 25.3                     | Thin       | 2H        | ddd          | 2.3                     | 4.7, 10.5, 13.2 | -             |
| -  | -                        | -          | -         | n.d.         | 2.09                    | -               | -             |
| 5  | 39.52                    | Thin       | 2H        | ddd          | 2.17                    | 0.95, 6.5, 11.6 | 11            |
| -  | -                        | -          | -         | ddd          | 2.04                    | 5.6, 6.5, 11.6  | -             |
| 4  | 134.31                   | Thin       | -         | -            | -                       | -               | 15            |
| 3  | 124.51                   | Thin       | 1H        | dd           | 4.86                    | 3.6, 8.1        | 15            |
| 2  | 39.05                    | Broad      | 2H        | n.d.         | 2.03                    | -               | 2, 8, 11, 15  |
| -  | -                        | -          | -         | brd          | 1.78                    | 14.9            | -             |
| 12 | 30.97                    | Broad      | 3H        | S            | 0.96                    | -               | 2, 11, 13     |
| 13 | 27.12                    | Broad      | 3H        | S            | 0.86                    | -               | 2, 11, 12     |
| 14 | 18.03                    | Thin/Broad | 3H        | S            | 1.69                    | -               | 3             |
| 15 | 16.07                    | Thin       | 3H        | S            | 1.48                    | -               | 10            |
| 17 | 21.75                    | Thin       | 3H        | S            | 2.01                    | -               | 3, 17         |
| 16 | 170.9                    | Thin       | -         | -            | -                       | -               | 16            |



11,12-dehydroisodendrolasin

Table A2-4 - NMR data for 11,12-dehydroisodendrolasin

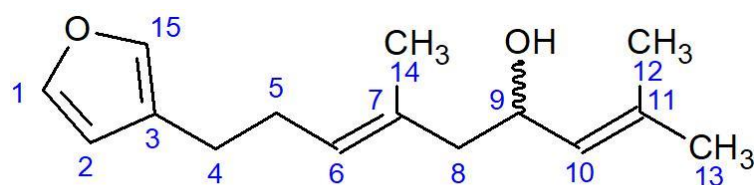
| -  | <sup>13</sup> C (ppm) | Proton | Multi | J (Hz)    | <sup>1</sup> H (ppm) | COSY  | HMBC        |
|----|-----------------------|--------|-------|-----------|----------------------|-------|-------------|
| 1  | 142.72                | 1H     | t     | 1.6       | 7.34                 | 2     | -           |
| 2  | 111.24                | 1H     | m     | -         | 6.28                 | 1     | -           |
| 3  | 125.06                | -      | -     | -         | -                    | -     | -           |
| 4  | 25.13                 | 2H     | dd    | 7.2, 7.9  | 2.46                 | 5     | -           |
| 5  | 28.72                 | 2H     | q     | 7.5       | 2.26                 | 4, 6  | -           |
| 6  | 124.91                | 1H     | tq    | 1.3, 7.1  | 5.21                 | 5     | 7, 8        |
| 7  | 134.75                | -      | -     | -         | -                    | -     | 14          |
| 8  | 43.08                 | 2H     | d     | 7.0       | 2.76                 | 9     | 6, 7, 9, 10 |
| 9  | 128.90                | 1H     | dt    | 7.0, 15.6 | 5.62                 | 8, 10 | -           |
| 10 | 134.15                | 1H     | brd   | 15.6      | 6.13                 | 9     | 8, 13       |
| 11 | 142.26                | -      | -     | -         | -                    | -     | 13          |
| 12 | 114.76                | 2H     | s     | -         | 4.88                 | -     | 13          |
| 13 | 18.87                 | 3H     | t     | 1.0       | 1.84                 | -     | 10, 12      |
| 14 | 16.36                 | 3H     | s     | -         | 1.53                 | -     | 5, 6        |
| 15 | 139.00                | 1H     | dt    | 1.0, 2.5  | 7.21                 | -     | 4           |



11-Hydroxyisodendrolasin

Table A2-5 - NMR data for 11-Hydroxyisodendrolasin

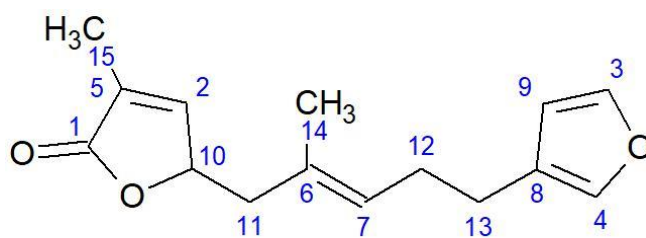
| -  | <sup>13</sup> C (ppm) | Proton | Multi | J (Hz)   | <sup>1</sup> H (ppm) | COSY | HMBC      |
|----|-----------------------|--------|-------|----------|----------------------|------|-----------|
| 1  | 142.71                | 1H     | t     | 1.7      | 7.34                 | 2    | 2, 15     |
| 2  | 111.24                | 1H     | dd    | 0.8, 1.7 | 6.37                 | 1    | 4, 15     |
| 3  | 125.02                | -      | -     | -        | -                    | -    | 2         |
| 4  | 25.09                 | 2H     | t     | 7.6      | 2.46                 | 5    | 5         |
| 5  | 28.64                 | 2H     | q     | 7.2      | 2.25                 | 4, 6 | 4         |
| 6  | 124.83                | 1H     | tq    | 1.3, 7.2 | 5.18                 | 5    | 14        |
| 7  | 134.65                | -      | -     | -        | -                    | -    | 5, 8, 14  |
| 8  | 42.46                 | 2H     | d     | 5.6      | 2.67                 | 9    | 6, 14     |
| 9  | 125.37                | 1H     | t     | 5.6      | 5.59                 | -    | 12, 13    |
| 10 | 139.49                | 1H     | s     | -        | 5.6                  | -    | 8, 12, 13 |
| 11 | 70.83                 | -      | -     | -        | -                    | -    | 12, 13,   |
| 12 | 29.98                 | 3H     | s     | -        | 1.31                 | -    | 10, 13    |
| 13 | 29.98                 | 3H     | s     | -        | 1.31                 | -    | 10, 12    |
| 14 | 16.24                 | 3H     | s     | -        | 1.56                 | -    | 6, 8      |
| 15 | 139.02                | 1H     | dt    | 0.8, 2.4 | 7.21                 | -    | 1, 2, 4   |



9-hydroxydendrolasin

Table A2-6- NMR data for **9-Hydroxydendrolasin**

| -  | <sup>13</sup> C | Proton | Multi | J (Hz)   | <sup>1</sup> H |
|----|-----------------|--------|-------|----------|----------------|
| 1  | 142.87          | 1H     | t     | 1.1      | 7.34           |
| 2  | 111.07          | 1H     | brS   | -        | 6.27           |
| 3  | 124.8           | -      | -     | -        | -              |
| 4  | 24.95           | 2H     | dd    | 7.4,     | 2.48           |
| 5  | 28.6            | 2H     | dt    | 7.4      | 2.29           |
| 6  | 128.02          | 1H     | t     | 6.9      | 5.27           |
| 7  | 132.55          | -      | -     | -        | -              |
| 8  | 48.28           | 2H     | d     | 6.7      | 2.13           |
| 9  | 65.94           | 1H     | dd    | 6.8, 8.1 | 4.40           |
| 10 | 127.59          | 1H     | td    | 1.1, 8.4 | 5.14           |
| 11 | 135.07          | -      | -     | -        | -              |
| 12 | 25.88           | 3H     | d     | 1.2      | 1.72           |
| 13 | 18.32           | 3H     | d     | 1.3      | 1.68           |
| 14 | 16.34           | 3H     | brS   | -        | 1.63           |
| 15 | 139.02          | 1H     | brS   | -        | 7.21           |



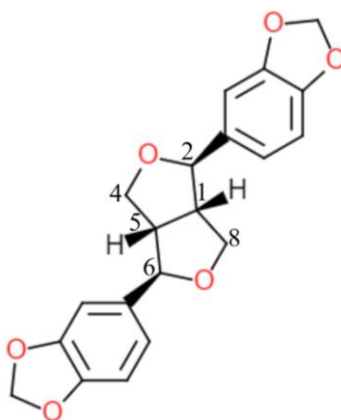
Freelingnite

Table A2-7 - NMR data for **freelingnite**

|     | <sup>13</sup> C | Hydro No. | <sup>1</sup> H ppm | Multi | J (Hz)        | Key Cosy            | Key HMBC        |
|-----|-----------------|-----------|--------------------|-------|---------------|---------------------|-----------------|
| 1   | 174.26          | -         | -                  | -     | -             | -                   | 2, 15           |
| 2   | 148.81          | 1H        | 6.94               | brt   | 1.5           | 10, 15 (long range) | 15              |
| 3   | 142.78          | 1H        | 7.33               | t     | 1.5           | 9                   | -               |
| 4   | 138.97          | 1H        | 7.20               | brS   | -             | 13                  | -               |
| 5   | 130.22          | -         | -                  | -     | -             | -                   | 15              |
| 6   | 129.96          | -         | -                  | -     | -             | -                   | 2, 11, 14       |
| 7   | 128.48          | 1H        | 5.26               | dd    | 7.1, 7.2      | 12, 14 (long range) | -               |
| 8   | 124.71          | -         | -                  | -     | -             | -                   | 3, 4, 9, 12, 13 |
| 9   | 111.08          | 1H        | 6.26               | brS   | -             | 3                   | -               |
| 10  | 80.04           | 1H        | 4.93               | ddt   | 1.7, 7.0, 7.2 | 11, 15 (long range) | 2, 15           |
| 11a | 43.58           | 2H        | 2.38               | dd    | 7.2, 13.8     | 10,                 | 14, 15          |
| 11b | -               | -         | 2.24               | dd    | 7.0, 13.8     | -                   | -               |
| 12  | 28.49           | 2H        | 2.27               | dt    | 7.1, 7.3      | 7, 13               | -               |
| 13  | 24.75           | 2H        | 2.46               | dd    | n.d., 7.3     | 4, 12               | 14              |
| 14  | 16.83           | 3H        | 1.65               | d     | 0.9           | -                   | -               |
| 15  | 10.73           | 3H        | 1.89               | dd    | 1.5, 1.7      | 2, 10               | -               |

Table A2-8 - NMR data for *t*-Muurolol

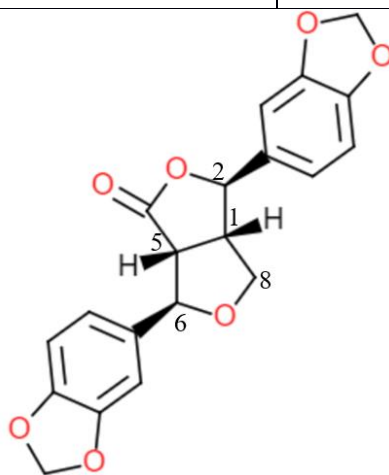
| -  | <sup>13</sup> C δ | Multiplicity | <sup>1</sup> H δ | J (Hz)          |
|----|-------------------|--------------|------------------|-----------------|
| 1  | 133.96            | -            | -                | -               |
| 2  | 131.85            | -            | -                | -               |
| 3  | 124.72            | tp           | 5.12             | 1.4, 7.2        |
| 4  | 120.91            | dt           | 5.39             | 1.4, 3.5        |
| 5  | 74.47             | -            | -                | -               |
| 6  | 43.46             | ddq          | 1.55             | 2.3, 11.5, 12.6 |
| 7  | 39.48             | 2H, dt       | 1.5              | 1.8, 7.0        |
| 8  | 31.20             | 2H, dt       | 1.97             | 5.7, 17.3       |
| 9  | 26.22             | n.d.         | 2.04             | n.d.            |
| -  | -                 | tp           | 1.86             | 2.0, 13.2       |
| 10 | 25.84             | 3Hs          | 1.64             | broad           |
| 11 | 24.13             | ddt          | 1.79             | 2.3, 7.5, 12.3  |
| -  | -                 | dq           | 1.26             | 5.6, 12.3       |
| 12 | 24.08             | 3Hs          | 1.13             | -               |
| 13 | 23.46             | 3Hd          | 1.68             | 1.4             |
| 14 | 22.42             | 2H, dd       | 2.04             | 8.7, 16.6?      |
| 15 | 17.80             | 3HS          | 1.62             | -               |

**Sesamin.**Table A2-9 -<sup>1</sup>H NMR spectra of *sesamin* in comparison with its commercial literature spectra.

|                    | <sup>1</sup> H δ ppm                    |  |
|--------------------|---|--|
| Position           | Experimental                            | Literature                               |
| 1,5                | 3.05, <i>m</i> , 2H                     | 3.05, <i>m</i> , 2H                      |
| 2,6                | 4.72, <i>d</i> , <i>J</i> = 4.6 Hz, 2H  | 4.71, <i>d</i> , <i>J</i> = 4.5 Hz, 2H   |
| 4a,8a              | 3.87, <i>dd</i> , <i>J</i> = 3.9 Hz, 2H | 3.87, <i>dd</i> , <i>J</i> = 4, 9 Hz, 2H |
| 4b,8b              | 4.24, <i>m</i> , 2H                     | 4.24, <i>dd</i> , <i>J</i> = 7, 9 Hz, 2H |
| OCH <sub>2</sub> O | 5.95, <i>s</i> , 4H                     | 5.95, <i>s</i> , 4H                      |
| Aromatics          | 6.75–6.88, <i>m</i> , 6H                | 6.77–6.84, <i>m</i> , 6H                 |

Table A2-10 -  $^{13}\text{C}$  NMR spectra of *sesamin* in comparison with its commercial literature spectra.

| Position           | $^{13}\text{C}$ $\delta$ ppm |            |
|--------------------|------------------------------|------------|
|                    | Experimental                 | Literature |
| 1,5                | 53.4                         | 54.3       |
| 2,6                | 85.8                         | 85.8       |
| 4a,8a              | 71.7                         | 71.7       |
| 4b,8b              | -                            | -          |
| OCH <sub>2</sub> O | 101.1                        | 101.2      |
| Aromatics          | -                            | -          |
| 1'                 | 135.1                        | 134.9      |
| 2'                 | 106.5                        | 106.6      |
| 3'                 | 147.2                        | 147.3      |
| 4'                 | 148.0                        | 148.1      |
| 5'                 | 108.2                        | 108.3      |
| 6'                 | 119.4                        | 119.5      |



Aptosimon.

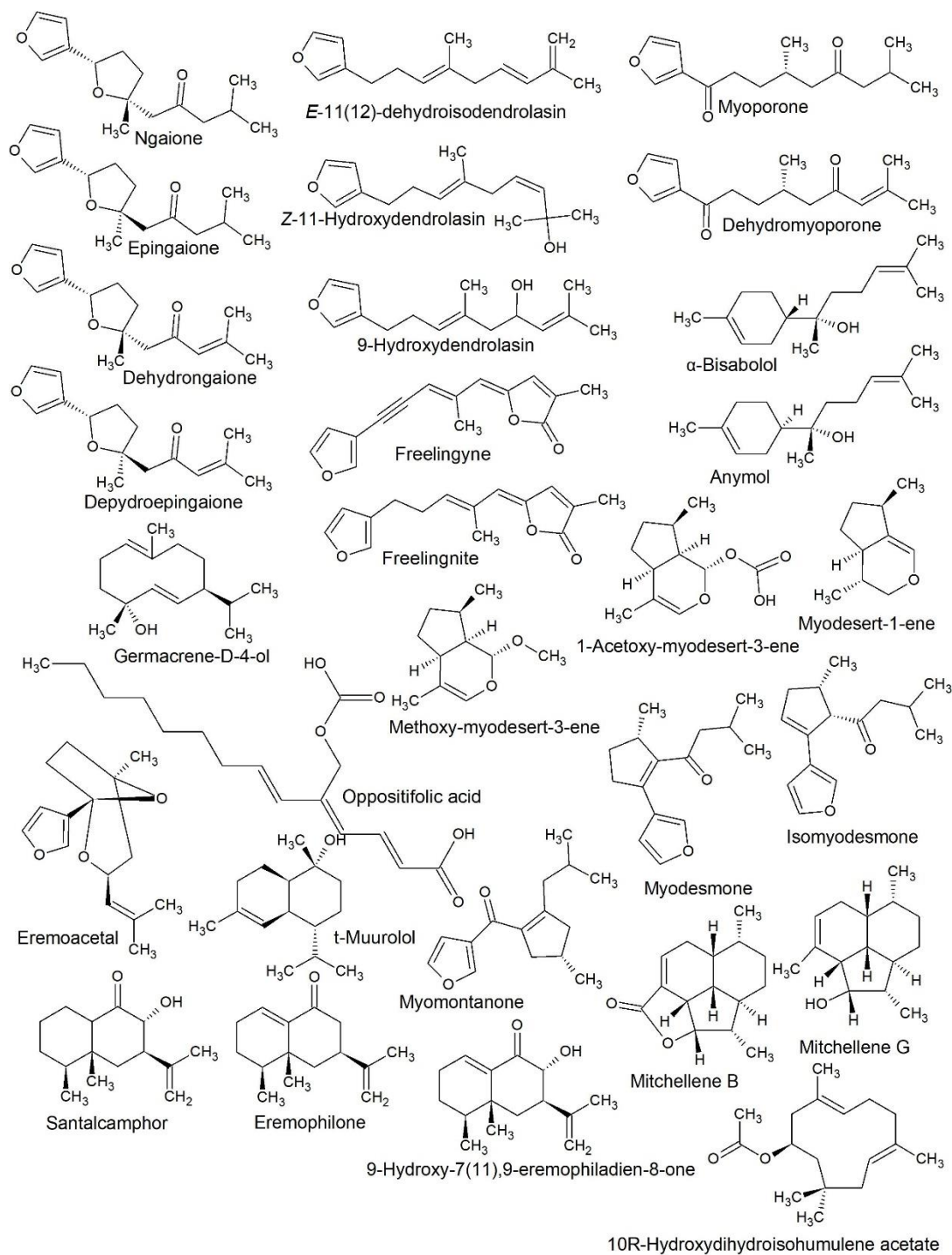
Table A2-11 -  $^1\text{H}$  NMR spectra of *aptosimon* in comparison with its literature spectra.

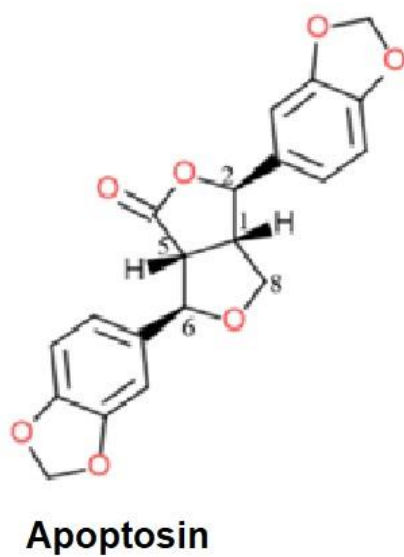
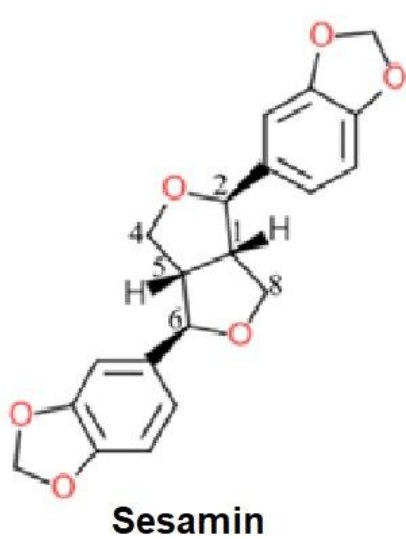
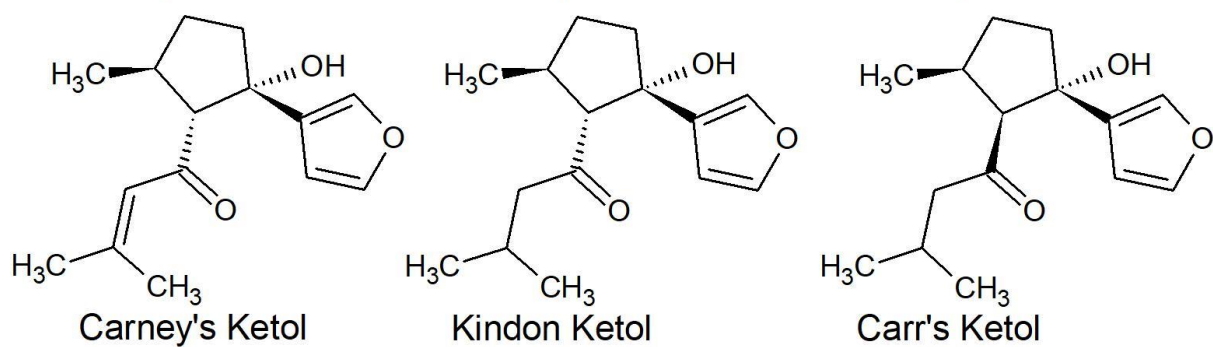
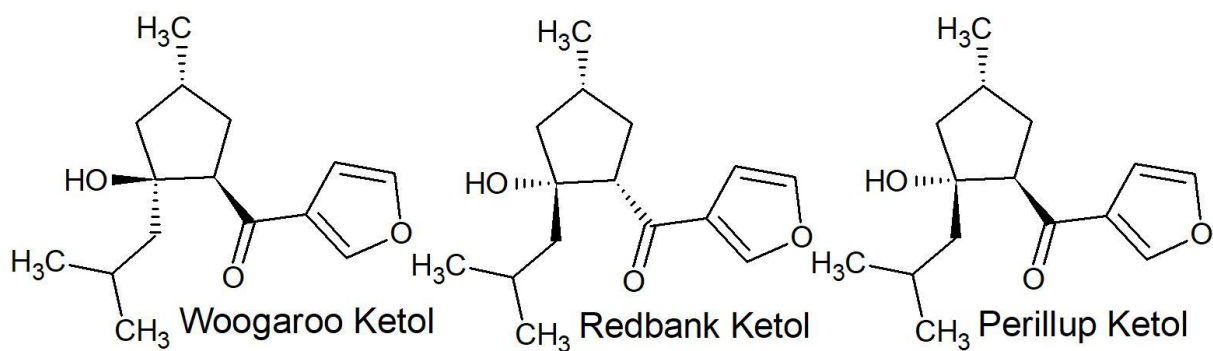
| Position           | $^1\text{H}$ $\delta$ ppm                   |   |
|--------------------|---|---|
|                    | Experimental                                | Literature                                  |
| 1                  | 3.05, <i>m</i> , 1H                         | 3.2, <i>m</i> , 1H                          |
| 2                  | 5.29, <i>d</i> , <i>J</i> =3.9 Hz, 1H       | 5.28, <i>d</i> , <i>J</i> =3.9 Hz, 1H       |
| 4                  | -   | -   |
| 5                  | 3.42, <i>dd</i> , <i>J</i> =3.7, 9.2 Hz, 1H | 3.42, <i>dd</i> , <i>J</i> =9.0, 3.4 Hz, 1H |
| 6                  | 5.3, <i>d</i> , <i>J</i> =3.9 Hz, 1H        | 5.30, <i>d</i> , <i>J</i> =3.4 Hz, 1H       |
| 8a                 | 4.33, <i>dd</i> , <i>J</i> =6.9, 9.6 Hz, 1H | 4.32, <i>dd</i> , <i>J</i> =9.6, 6.8 Hz, 1H |
| 8b                 | 4.00, <i>dd</i> , <i>J</i> =4.6, 9.5 Hz, 1H | 4.00, <i>dd</i> , <i>J</i> =9.6, 4.9 Hz, 1H |
| OCH <sub>2</sub> O | 5.96, <i>s</i> , 2H                         | 5.95, <i>s</i> , 2H                         |
| OCH <sub>2</sub> O | 5.98, <i>s</i> , 2H                         | 5.97, <i>s</i> , 2H                         |
| Aromatics          | 6.75–6.88, <i>m</i> , 6H                    | 6.75–6.86, <i>m</i> , 6H                    |

Table A2-12 -  $^{13}\text{C}$  NMR spectra of **aptosimon** in comparison with its literature spectra.

|                    | $^{13}\text{C}$ $\delta$ ppm |            |
|--------------------|------------------------------|------------|
| Position           | Experimental                 | Literature |
| 1                  | 50.0                         | 49.9       |
| 2                  | 83.4                         | 83.3       |
| 4                  | 176.7                        | 176.6      |
| 5                  | 53.2                         | 53.2       |
| 6                  | 84.4                         | 84.3       |
| 8a                 | 72.7                         | 72.6       |
| 8b                 | -                            | -          |
| OCH <sub>2</sub> O | 101.2                        | 101.1      |
| OCH <sub>2</sub> O | 101.5                        | 101.4      |
| Aromatics          | -                            | -          |
| 1'                 | 133.0                        | 133.0      |
| 1''                | 134.3                        | 134.3      |
| 2'                 | 105.7                        | 105.7      |
| 2''                | 106.0                        | 105.9      |
| 3'                 | 147.3                        | 147.2      |
| 3''                | 147.3                        | 147.2      |
| 4'                 | 148.0                        | 148.0      |
| 4''                | 148.4                        | 148.3      |
| 5'                 | 108.4                        | 108.3      |
| 5''                | 108.6                        | 108.5      |
| 6'                 | 118.8                        | 118.8      |
| 6''                | 119.0                        | 119.0      |

## Supplementary A3 - Structures







## Supplementary Files – A4; EI mass spectral data (images) of selected unknown compounds

### *E. bowmannii* Unknowns

E. bowmannii #6621 RT: 31.29 AV: 1 NL: 1.26E6  
T: + c EI Full ms [30.00-400.00]

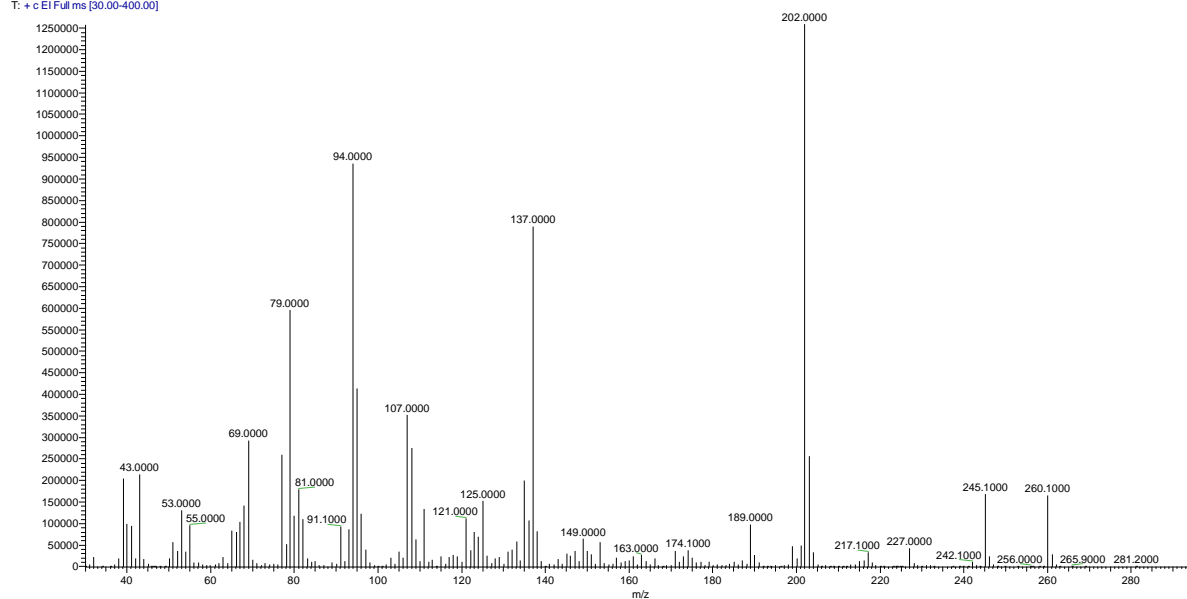


Figure A4-1 - Electron impact mass spectrum of **Unknown From *E. bowmannii***, DB5 column.

E. bowmannii #6740 RT: 31.81 AV: 1 NL: 1.21E6  
T: + c EI Full ms [30.00-400.00]

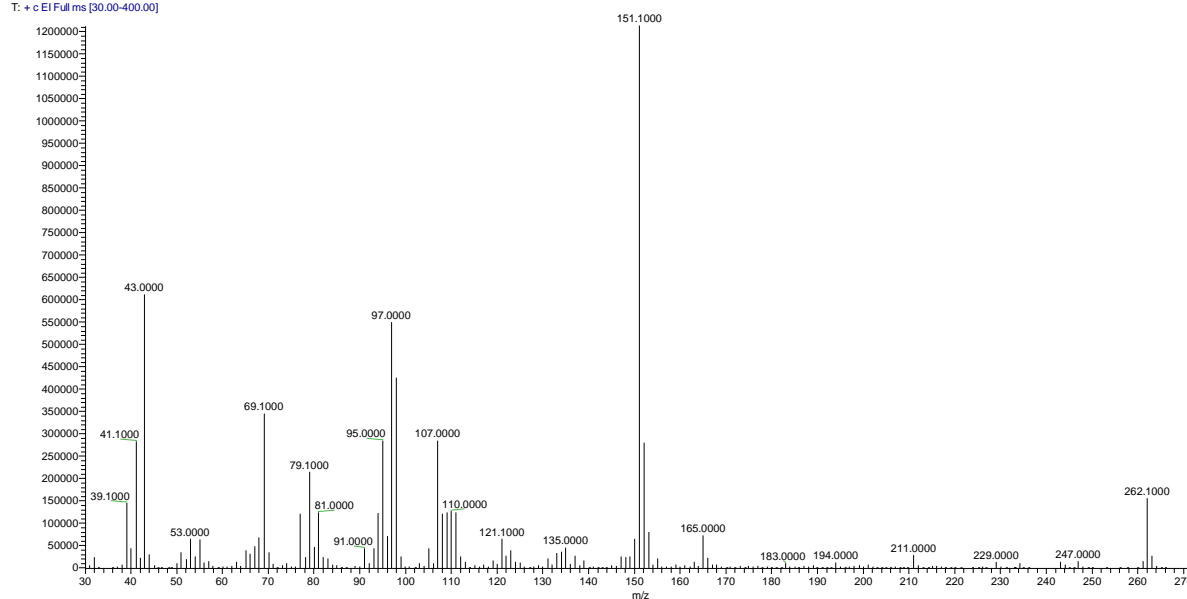


Figure A4-2 - Electron impact mass spectrum of **Unknown From *E. bowmannii***, DB5 column.

E. bowmanii #7041 RT: 33.11 AV: 1 NL: 3.72E5  
T: + c EI Full ms [30.00-400.00]

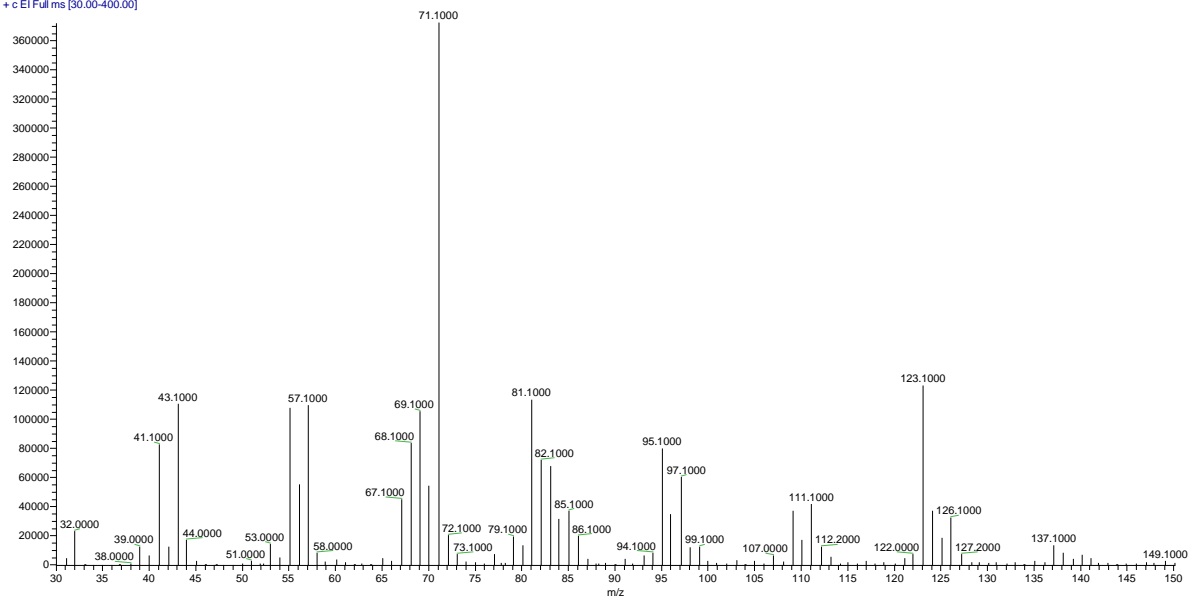


Figure A4-3 - Electron impact mass spectrum of **Unknown From E. bowmanii**, DB5 column.

## *E. oppositifolia* Unknowns

E. opp subsp. opp pink flower #6822 RT: 32.16 AV: 1 NL: 1.47E  
T: + c EI Full ms [30.00-400.00]

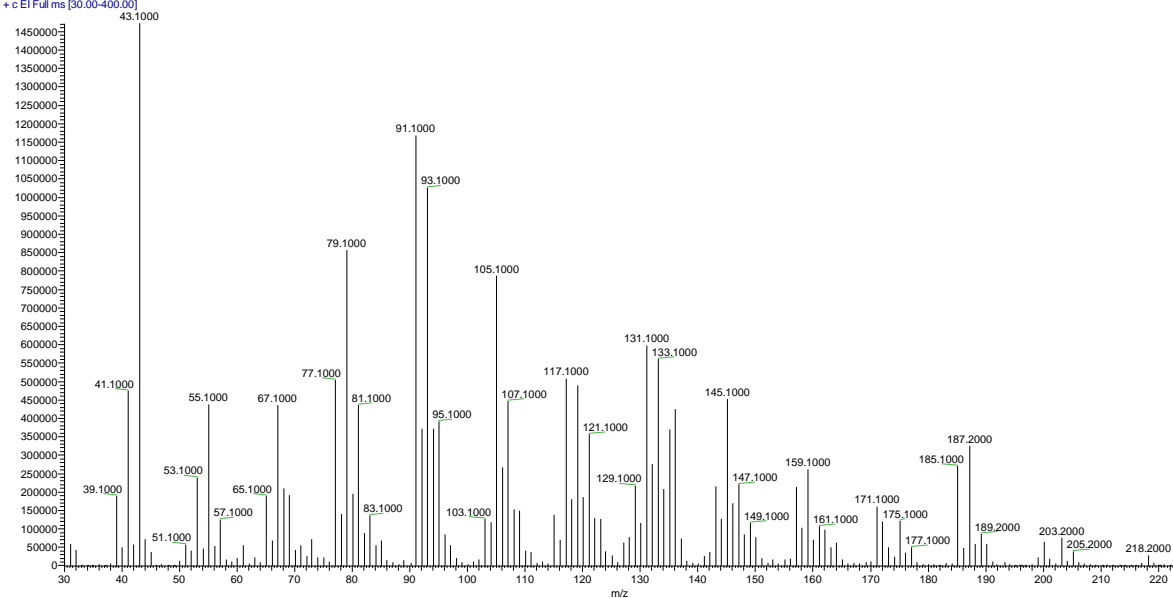


Figure A4-4 - Electron impact mass spectrum of **Unknown From E. oppositifolia**, DB5 column.

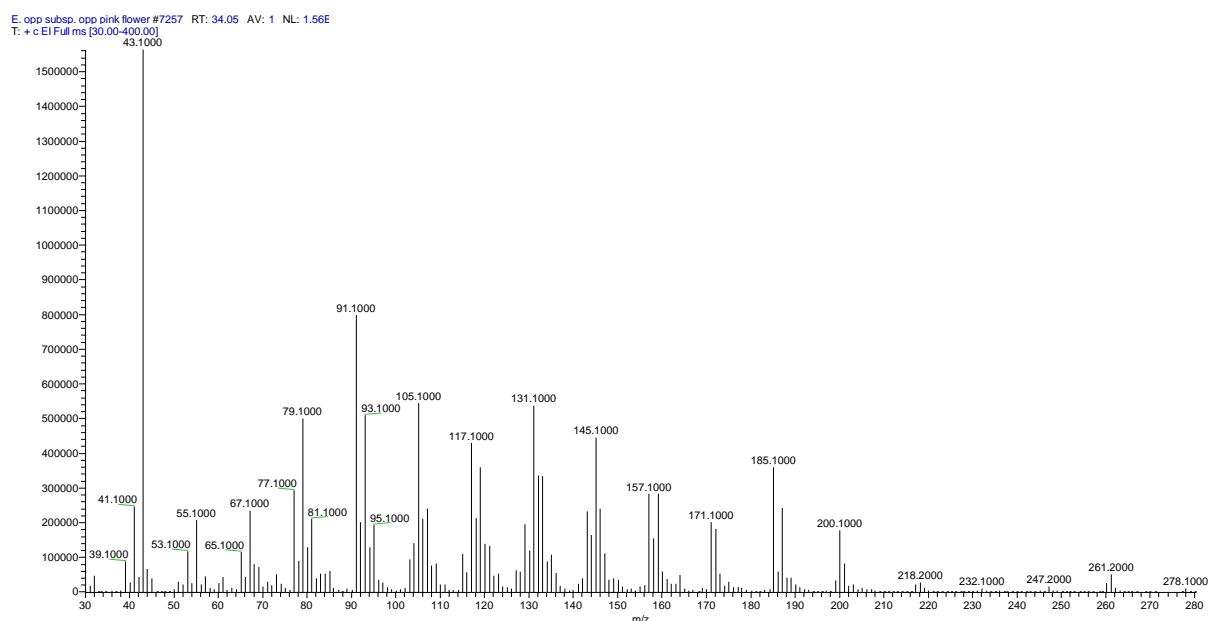


Figure A4-5 - Electron impact mass spectrum of **Unknown From *E. oppositifolia***, DB5 column.

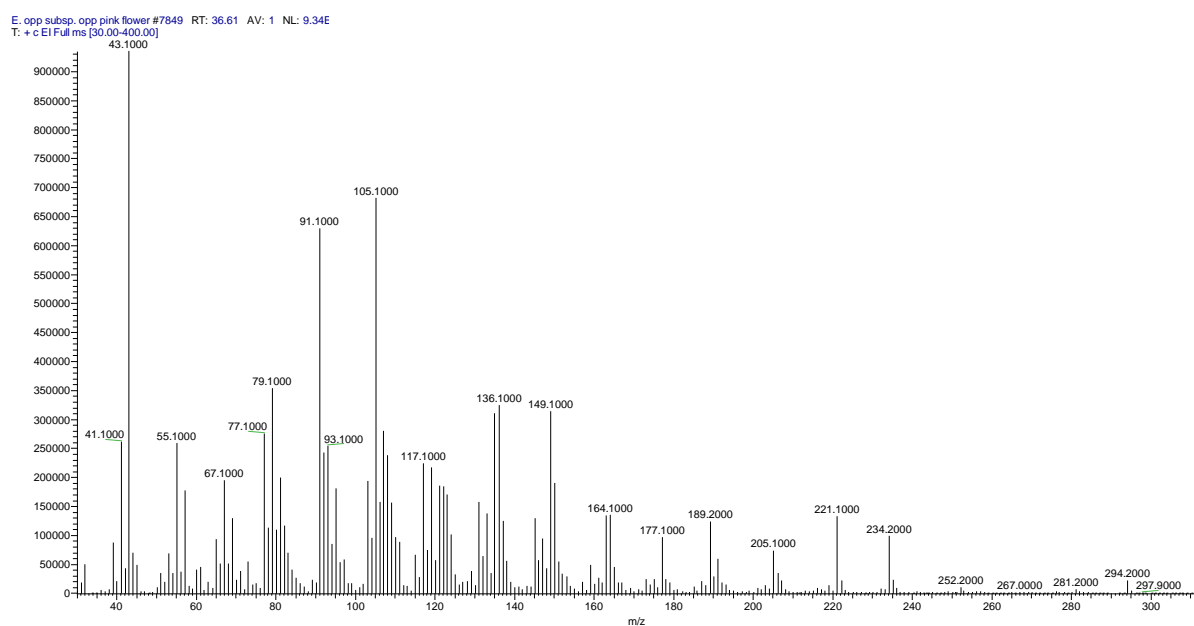


Figure A4-6 - Electron impact mass spectrum of **Unknown From *E. oppositifolia***, DB5 column.

## *E. gilesii* Unknowns

518 eo #7965 RT: 37.12 AV: 1 NL: 4.83E5  
T: + c EI Full ms [30.00-400.00]

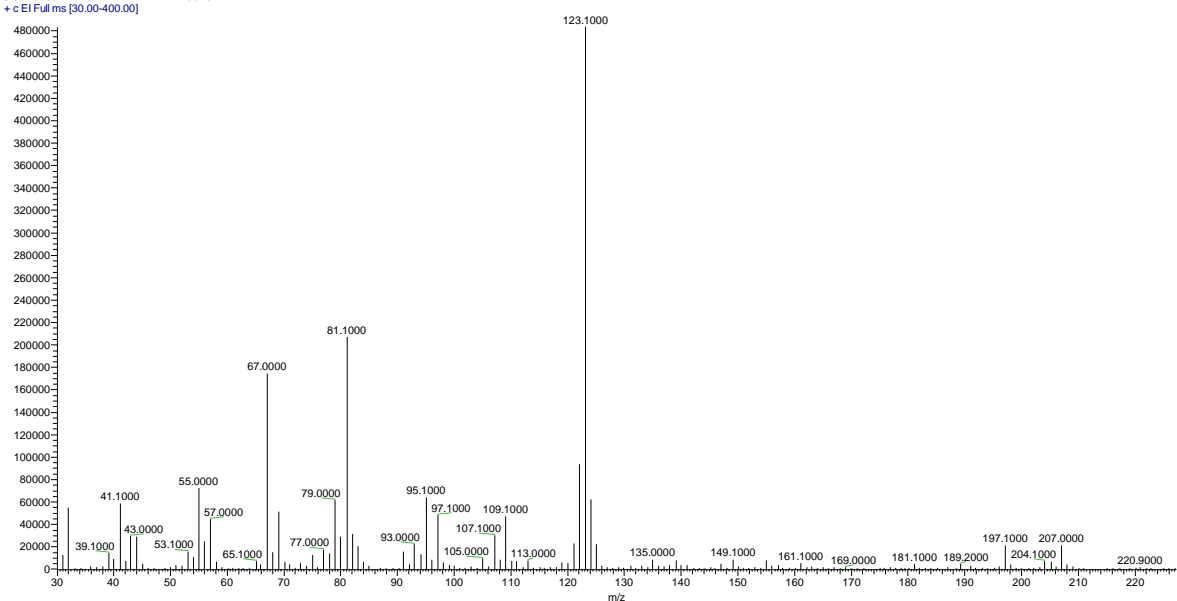


Figure A4-7 - Electron impact mass spectrum of *Unknown From E.gilesii*, DB5 column.

# Supplementary Files B: The diversity of volatile compounds in Australia's semi-desert genus *Eremophila* (Scrophulariaceae)

Nicholas J. Sadgrove <sup>1,\*</sup>, Guillermo F. Paddilla-González<sup>1</sup>, Alison Green<sup>1</sup>, Moses K. Langat<sup>1</sup>, Eduard Mas-Claret<sup>1</sup>, Dane Lyddiard<sup>2</sup>, Julian Klepp<sup>2</sup>, Sarah V.A.-M. Legendre<sup>2</sup>, Ben W. Greatrex<sup>2</sup>, Graham L. Jones<sup>2</sup>, Iskandar M. Ramli<sup>2</sup>, Olga Leuner<sup>3</sup>, and Eloy Fernandez-Cusimamani<sup>3,\*</sup>

<sup>1</sup> Jodrell Science Laboratory, Royal Botanic Gardens Kew, Richmond TW9 3DS, UK; [f.paddilla@kew.org](mailto:f.paddilla@kew.org) (G.F.P.-G.), [m.langat@kew.org](mailto:m.langat@kew.org) (M.K.L.)

<sup>2</sup> School of Science and Technology and School of Rural Medicine, University of New England, Armidale NSW 2351, Australia; [bgreatre@une.edu.au](mailto:bgreatre@une.edu.au) (B.W.G.), [gjones2@une.edu.au](mailto:gjones2@une.edu.au) (G.L.J.)

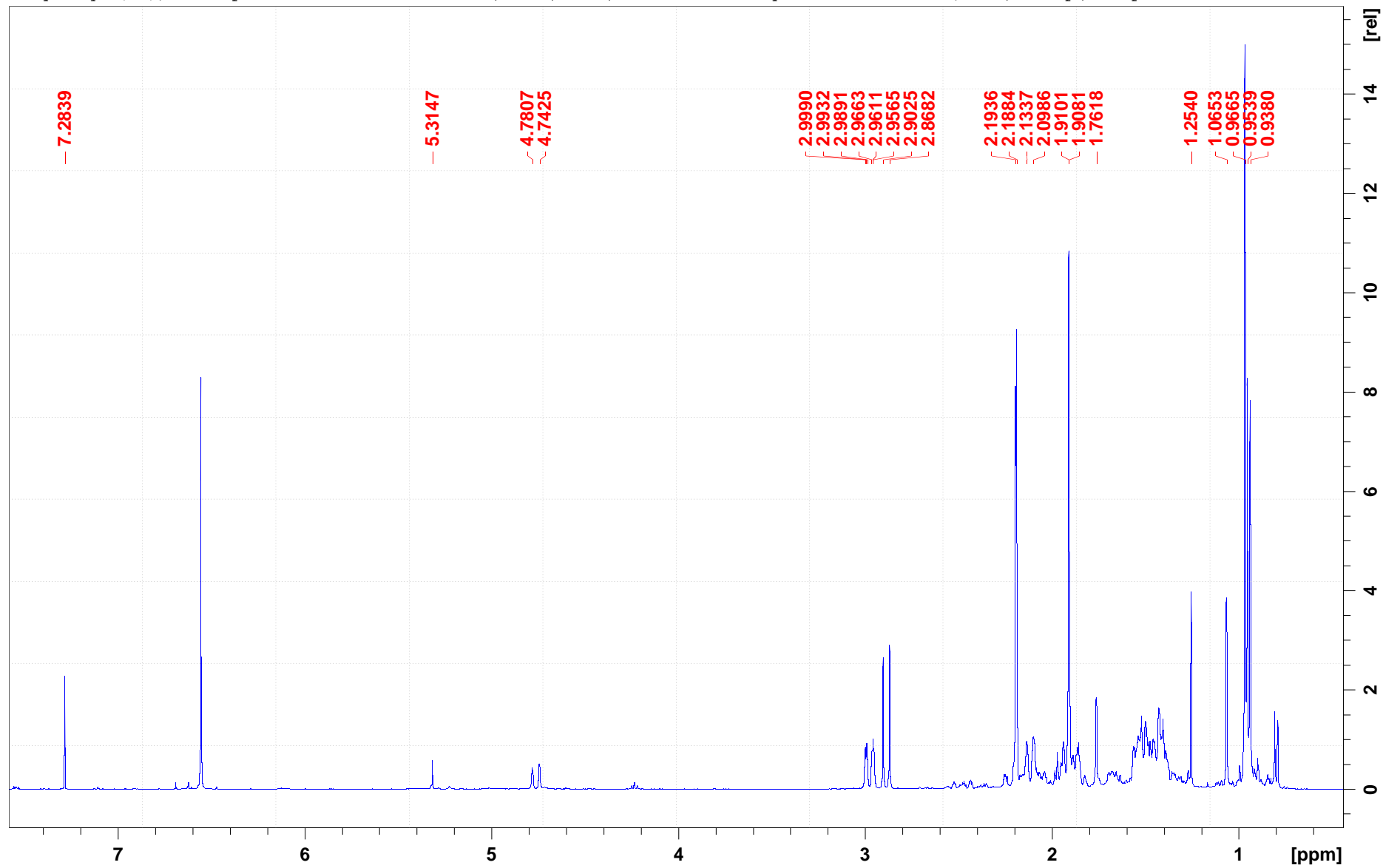
<sup>3</sup> Department of Crop Sciences and Agroforestry, Faculty of Tropical AgriSciences, Czech University of Life Sciences Prague, Kamýcká 129, 16500 Prague, Czech Republic

\* Correspondence: [n.sadgrove@kew.org](mailto:n.sadgrove@kew.org) (N.J.S.); [eloy@ftz.czu.cz](mailto:eloy@ftz.czu.cz) (E.F.-C.); Tel.: +44-7857569823 (N.J.S.); +420-224382183 (E.F.-C.)

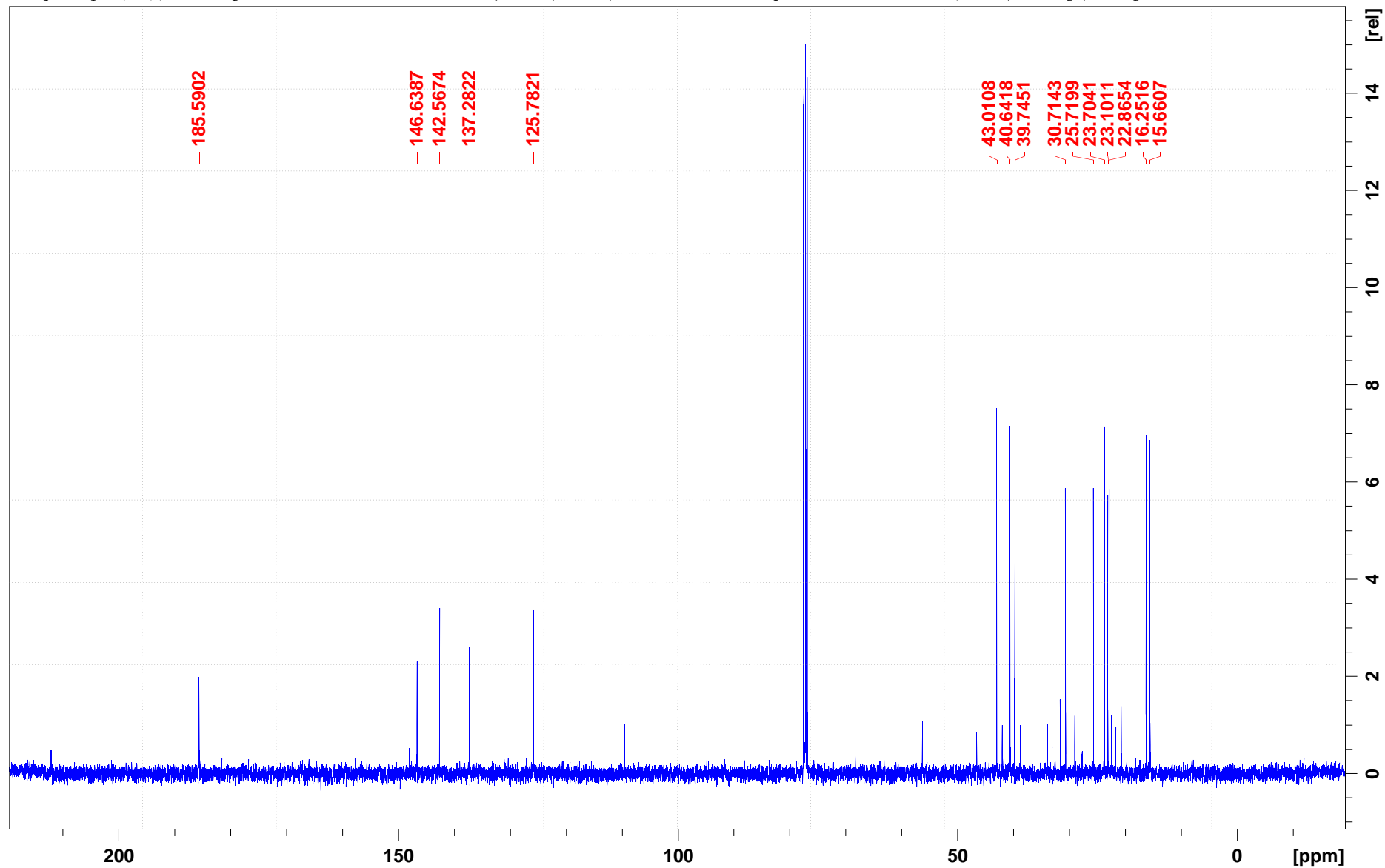
## Document Structure

Supplementary Files B – 1H and 13C NMR images of rare or new compounds from species of *Eremophila* (Scrophulariaceae)

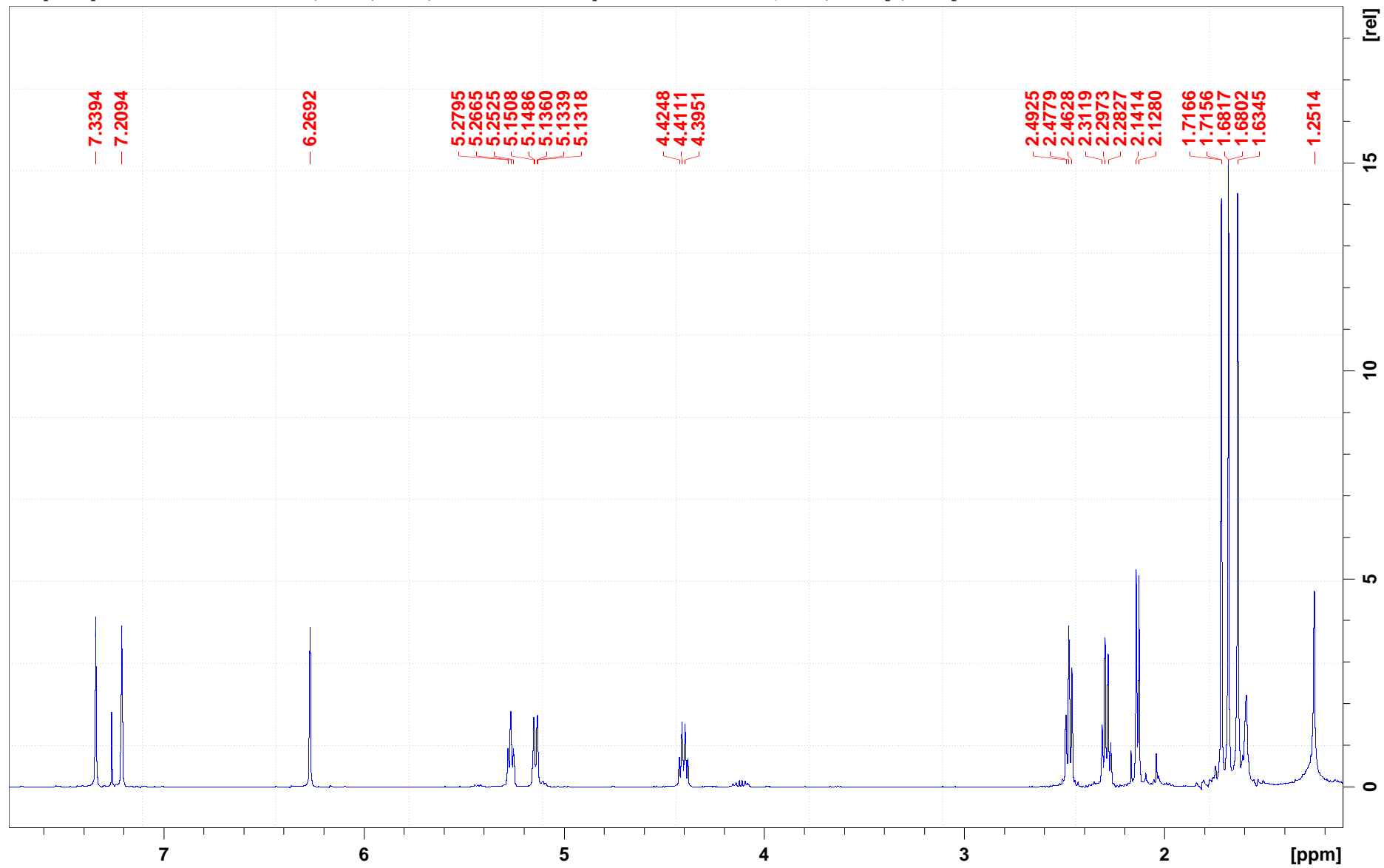
9-Hydroxy-7(11),9-eremophiladien-8-one 10 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



9-Hydroxy-7(11),9-eremophiladien-8-one 11 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

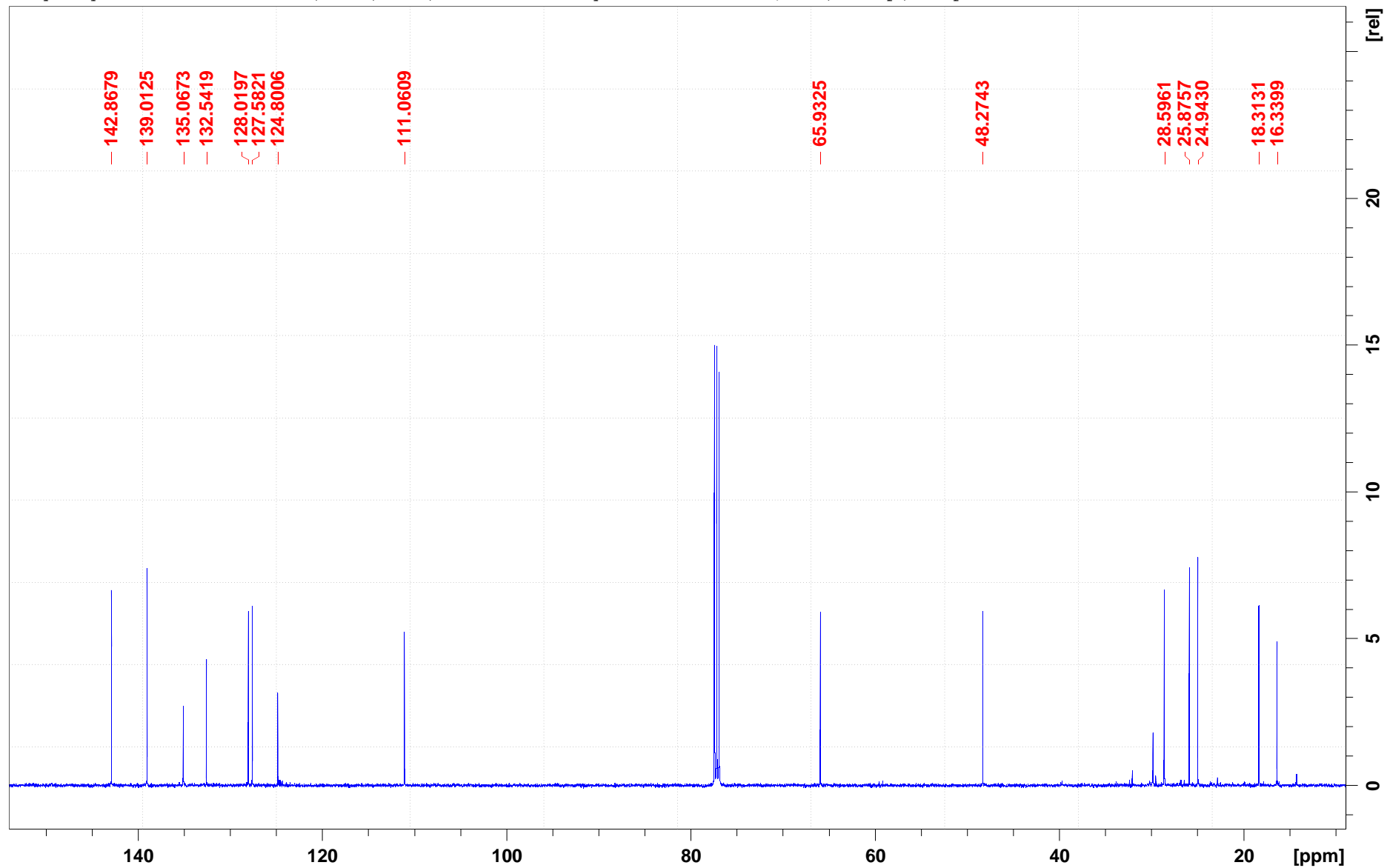


9-Hydroxydendrolasin 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

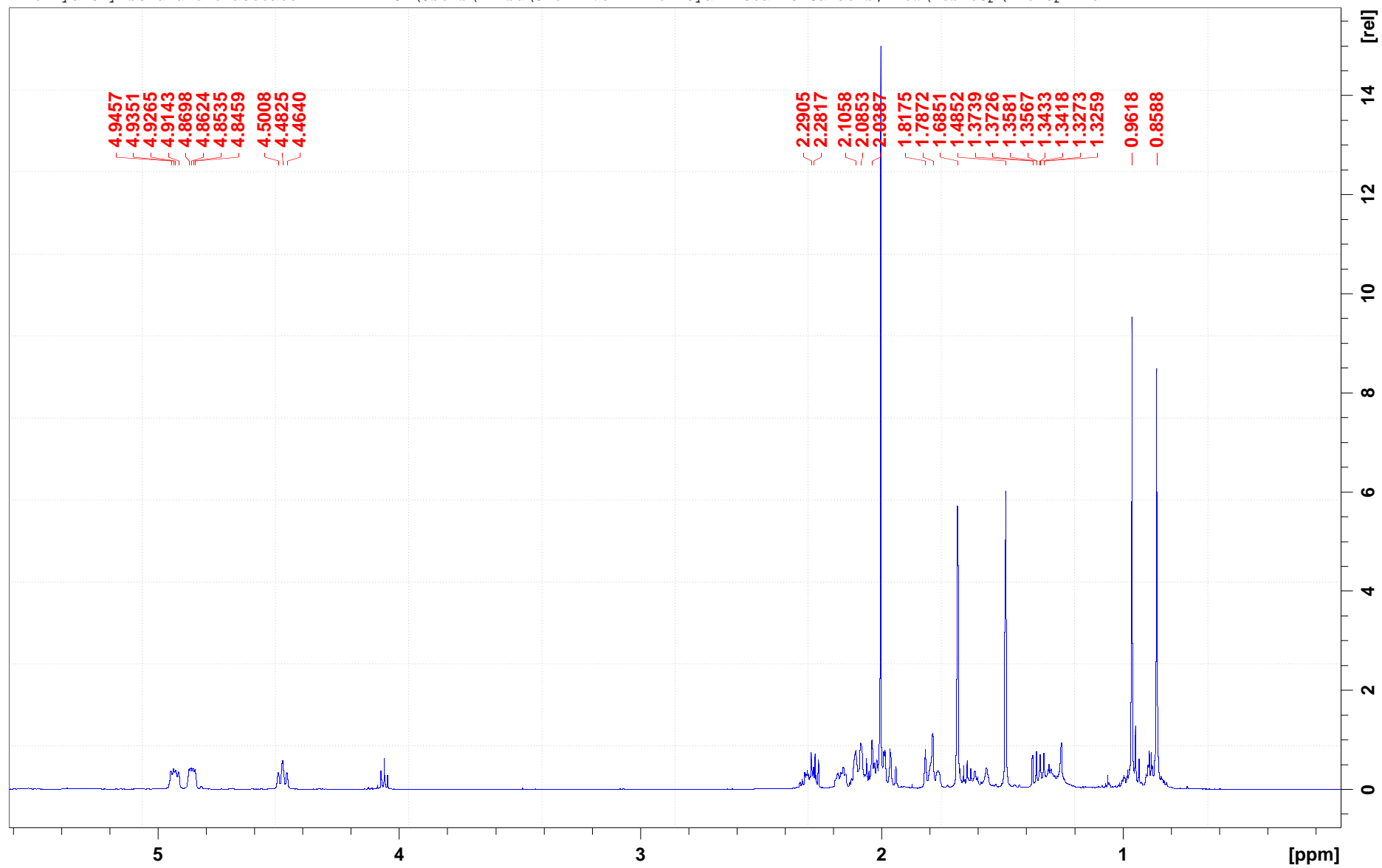




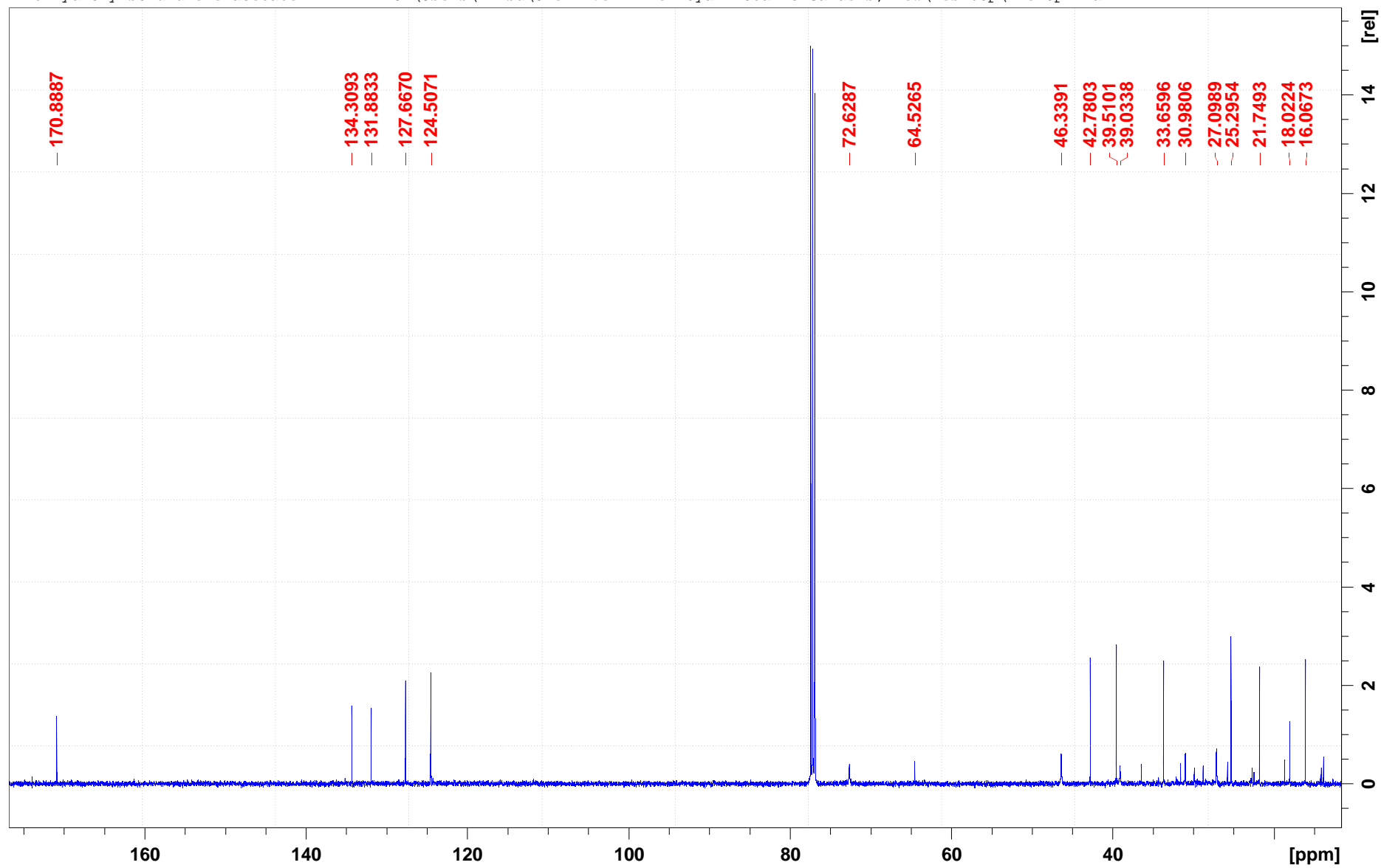
9-Hydroxydendrolasin 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



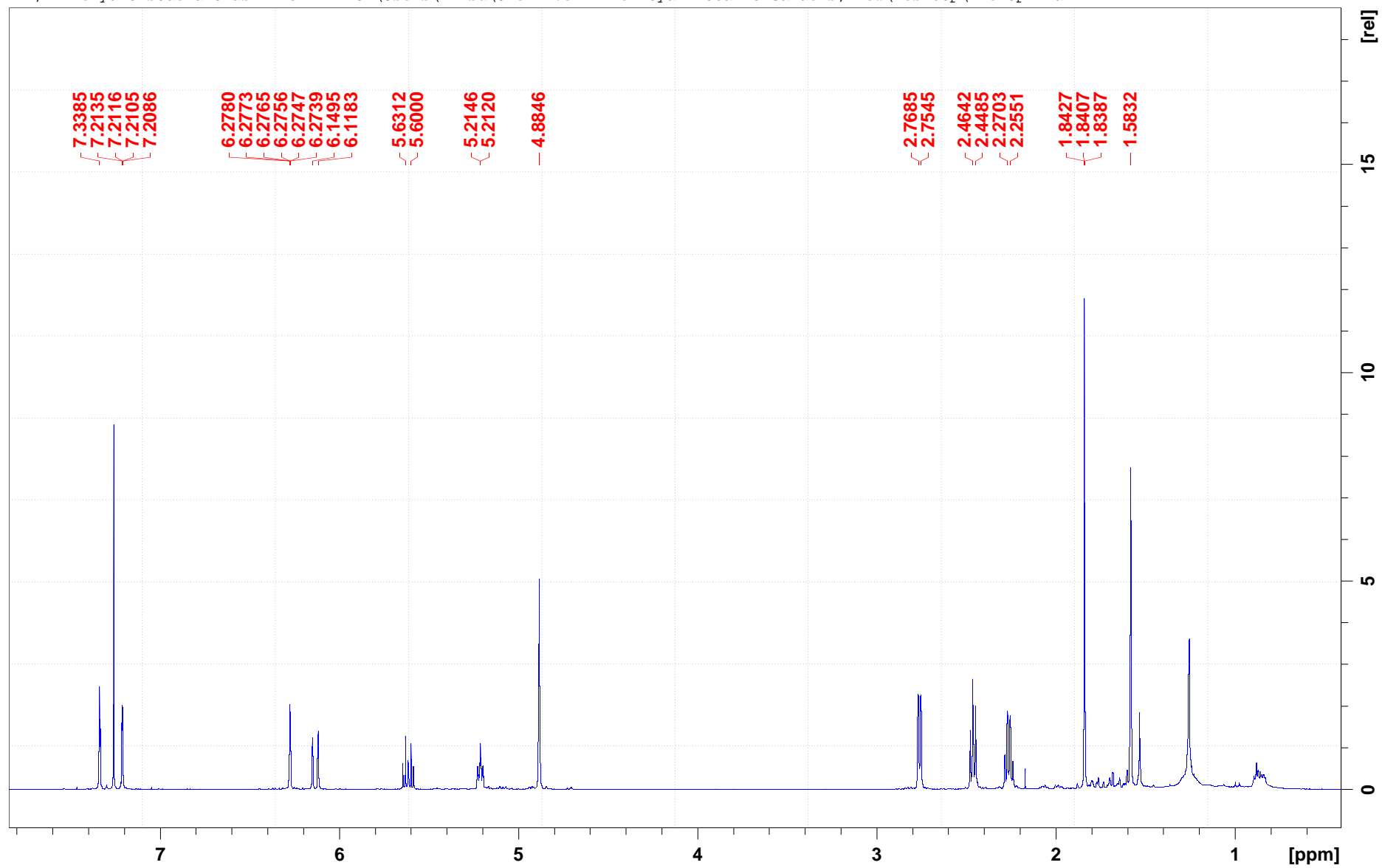
"10-Hydroxyisohumulene acetate" 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



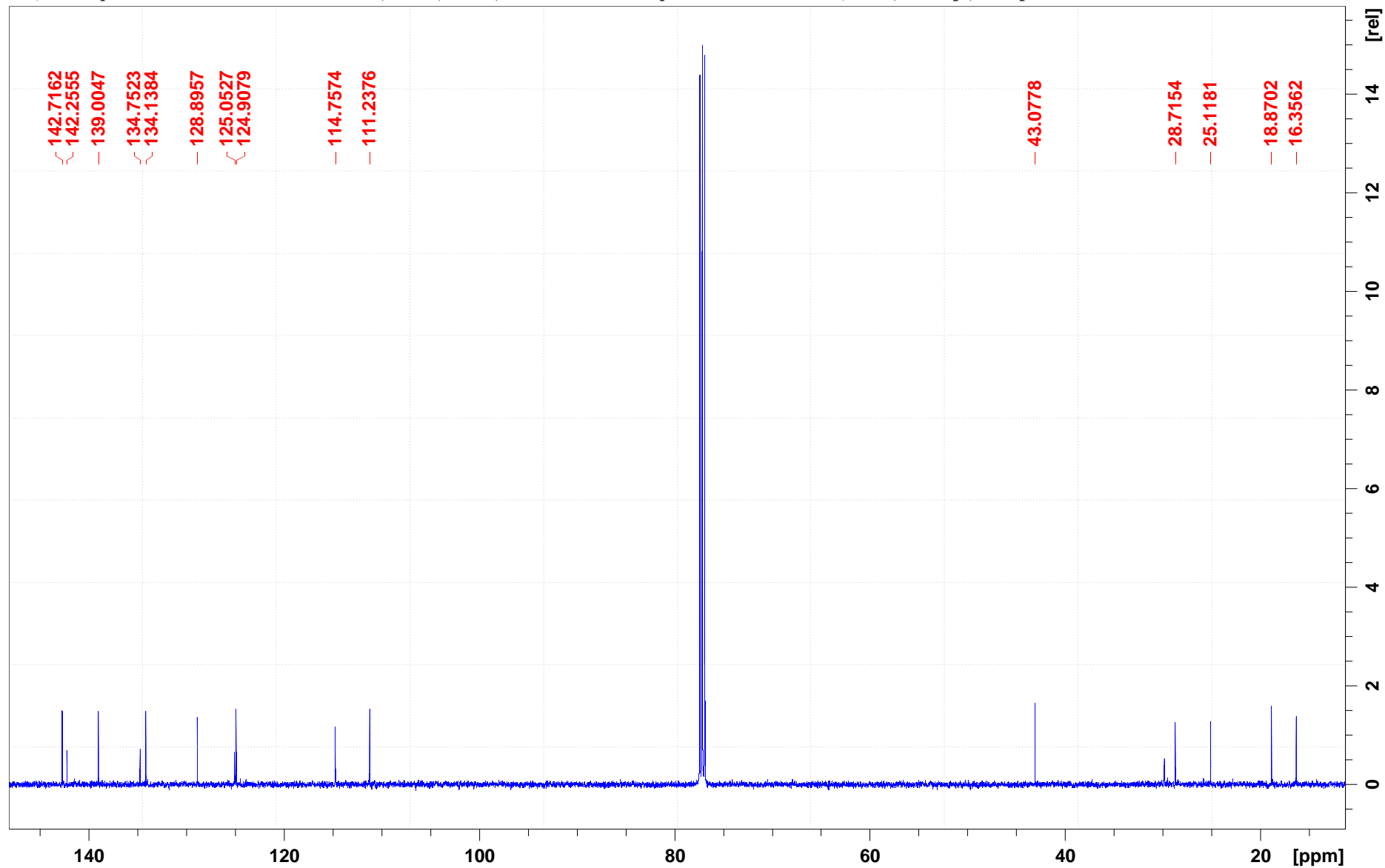
"10-Hydroxyisohumulene acetate" 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



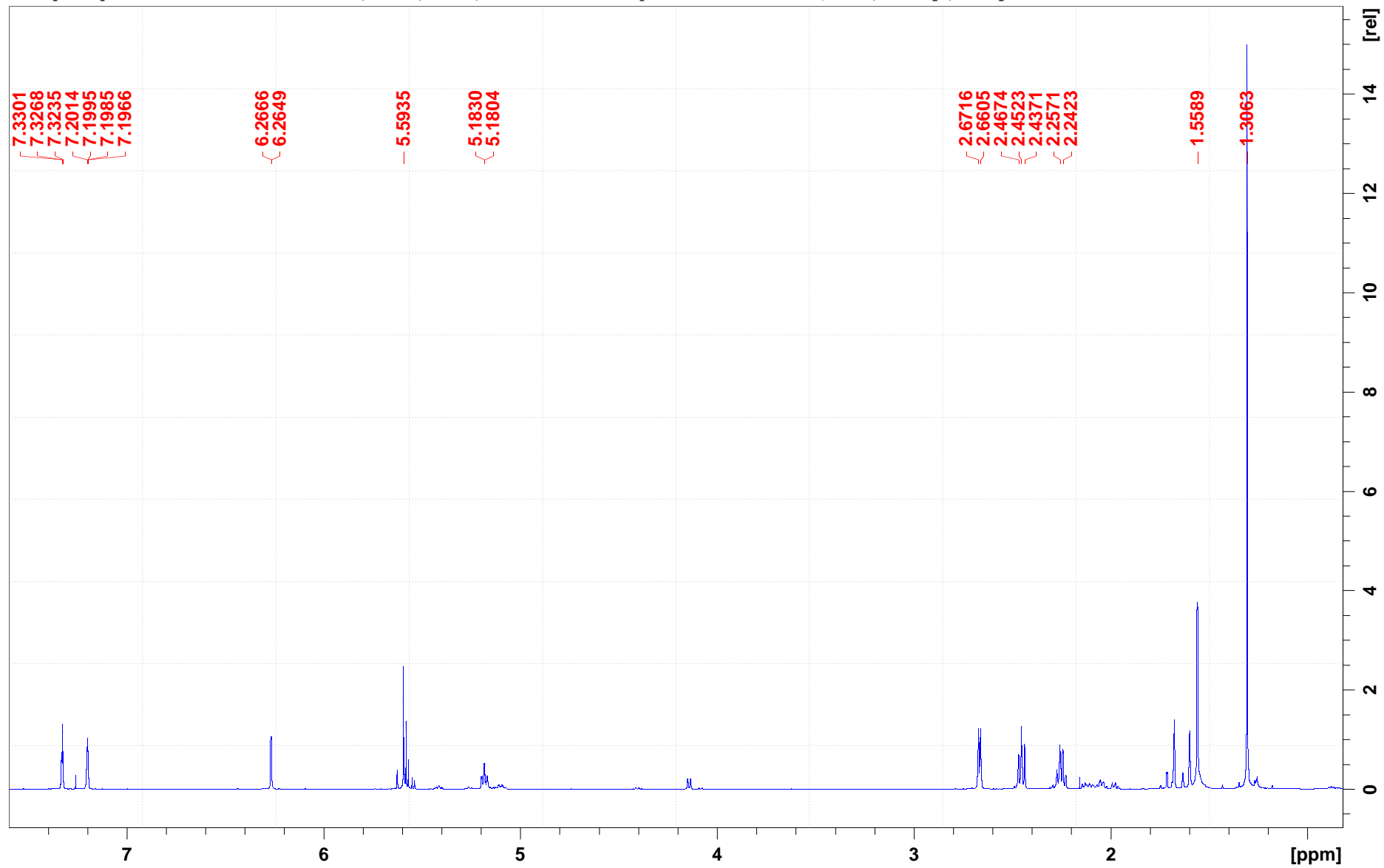
11,12-Dehydroisodendrolasin 3 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



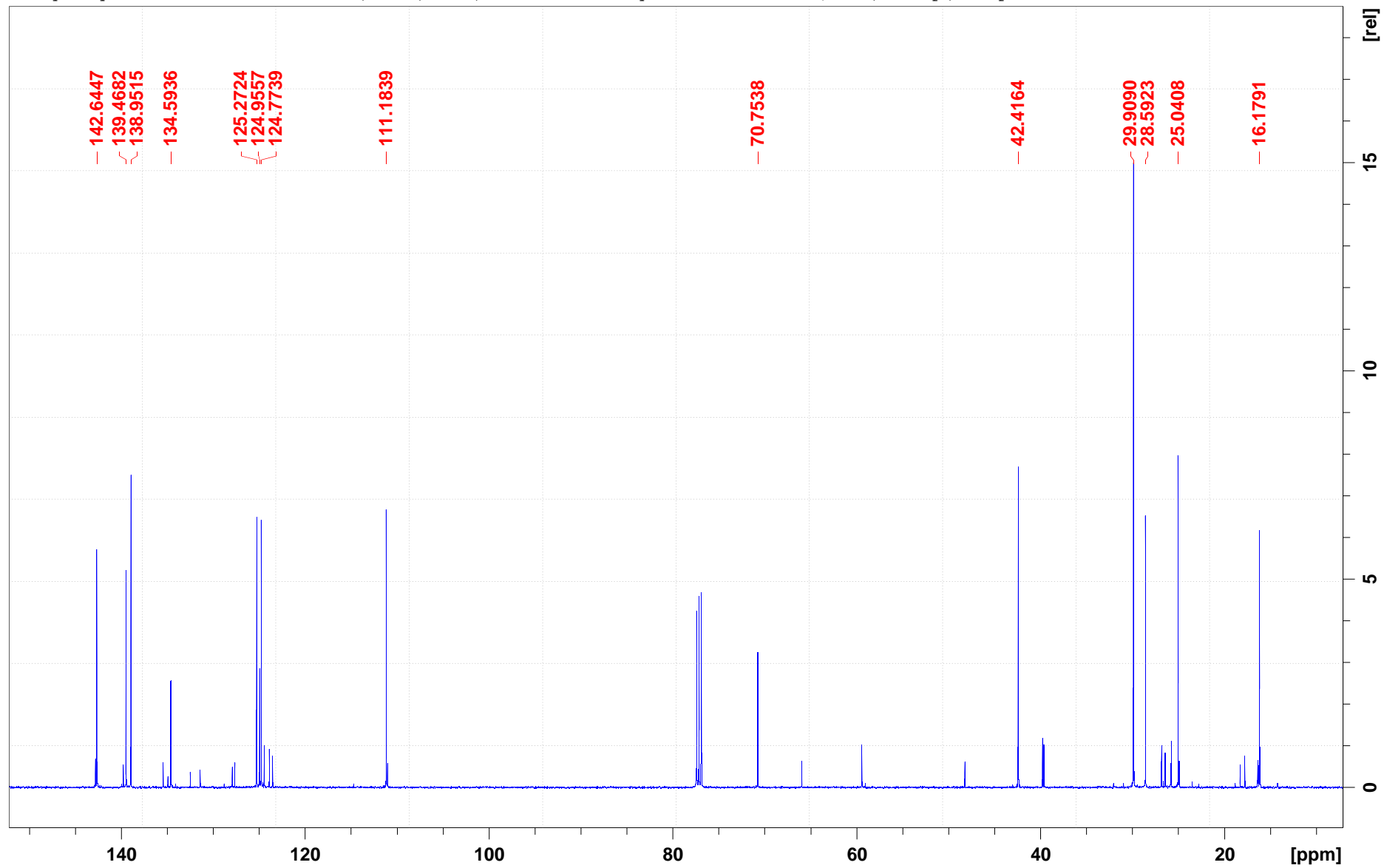
11,12-Dehydroisodendrolasin 4 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



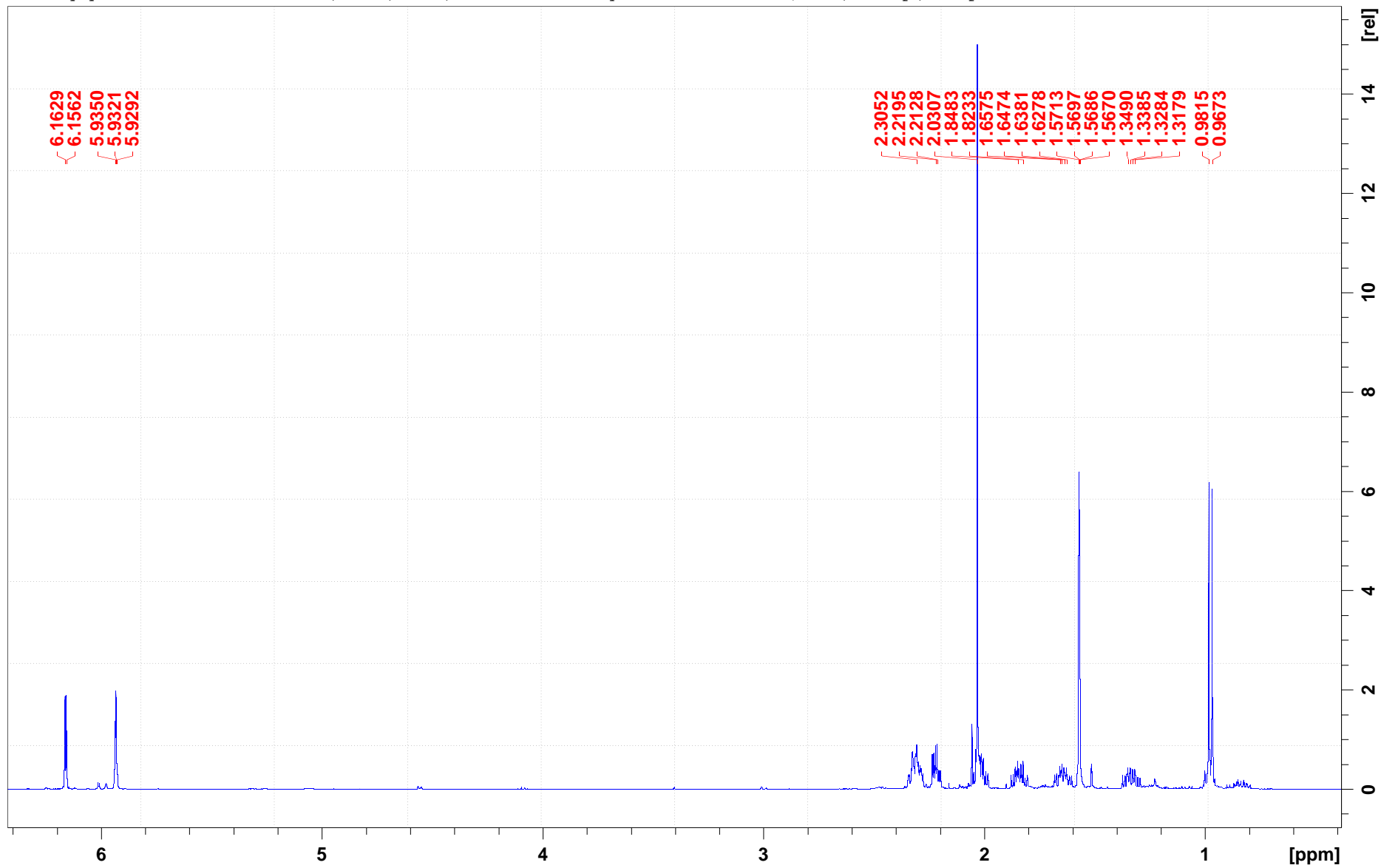
11-Hydroxyisodendrolasin 10 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



11-Hydroxyisodendrolasin 11 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

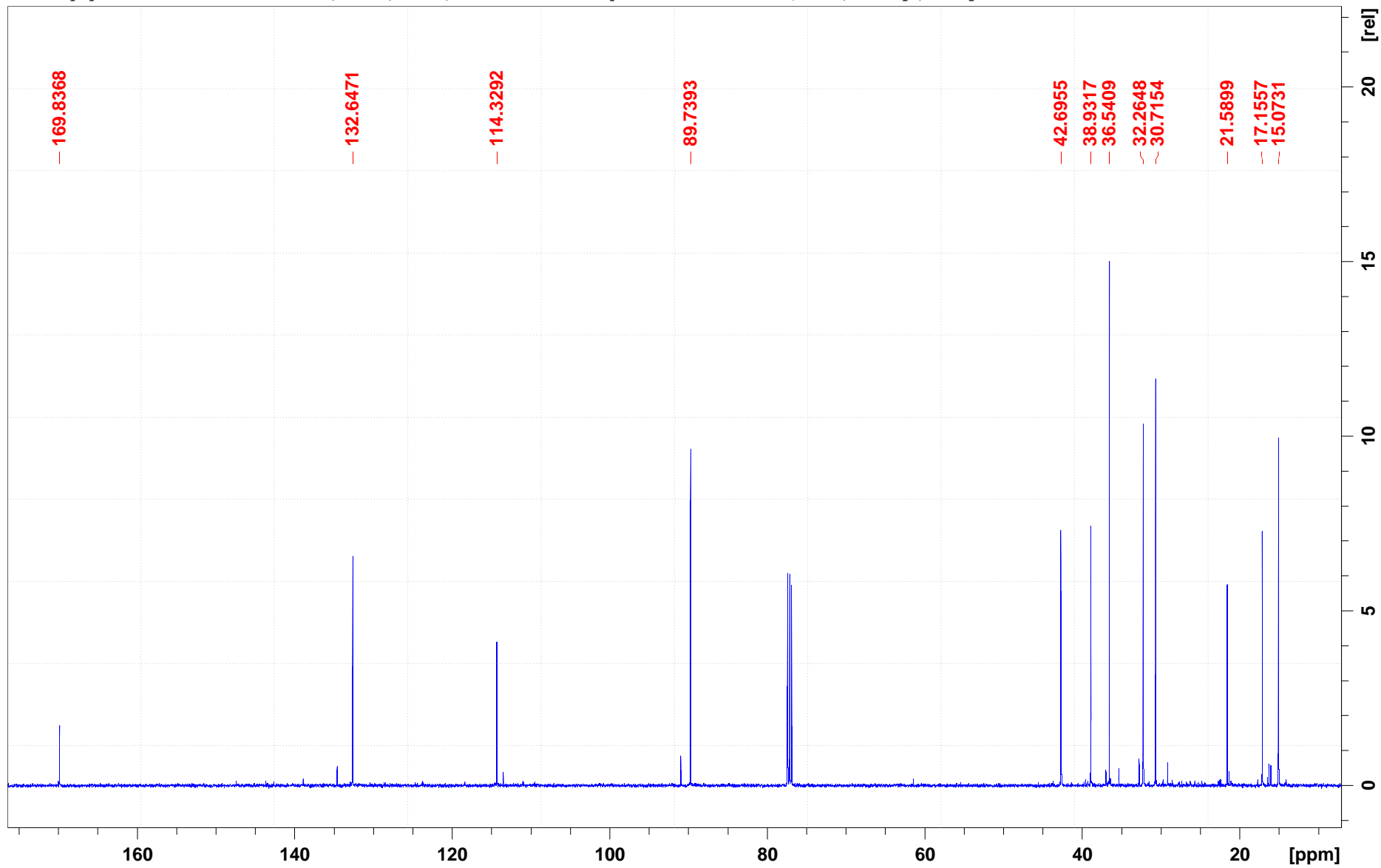


Acetoxymyodesert-3-ene 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

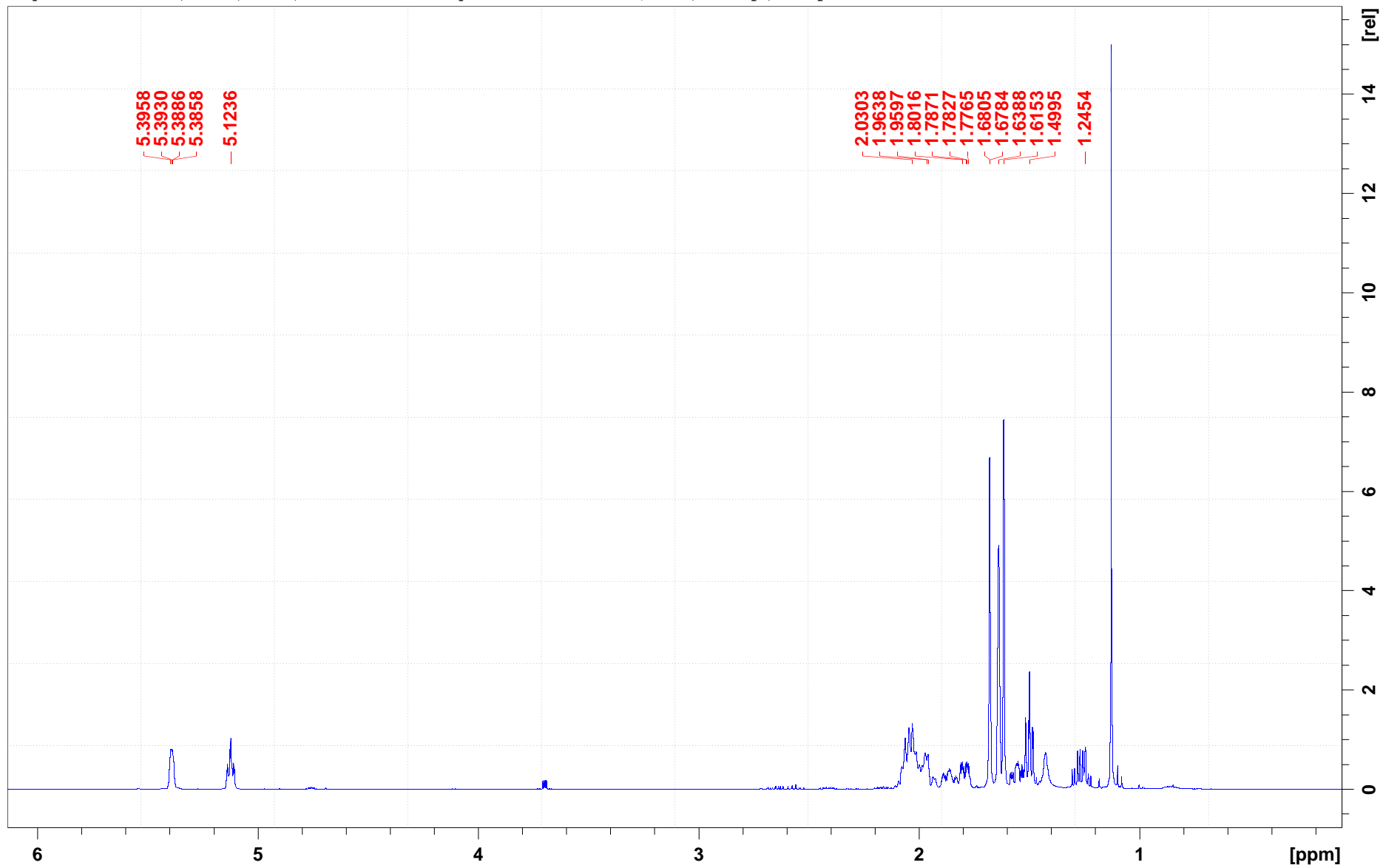




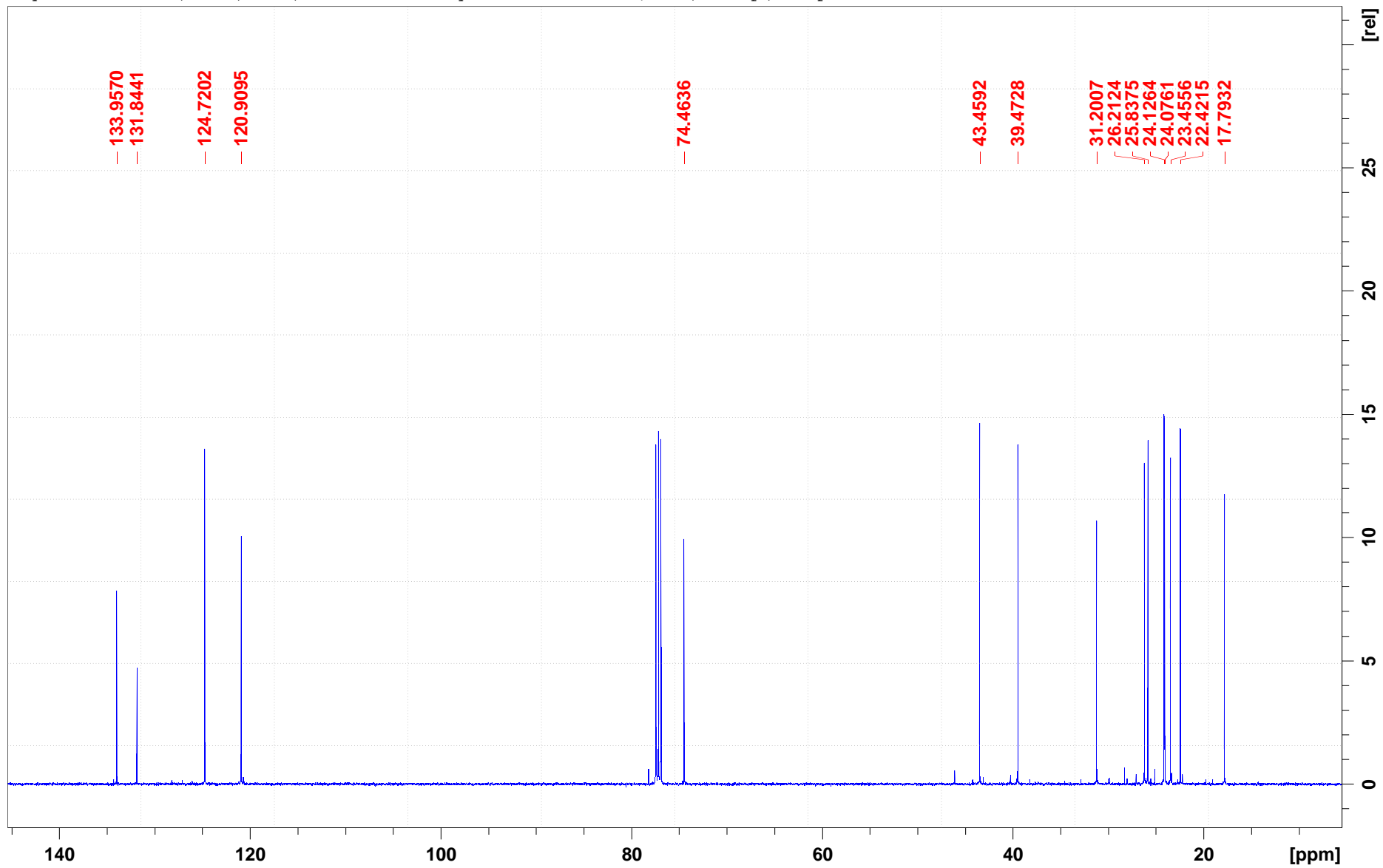
Acetoxymyodesert-3-ene 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



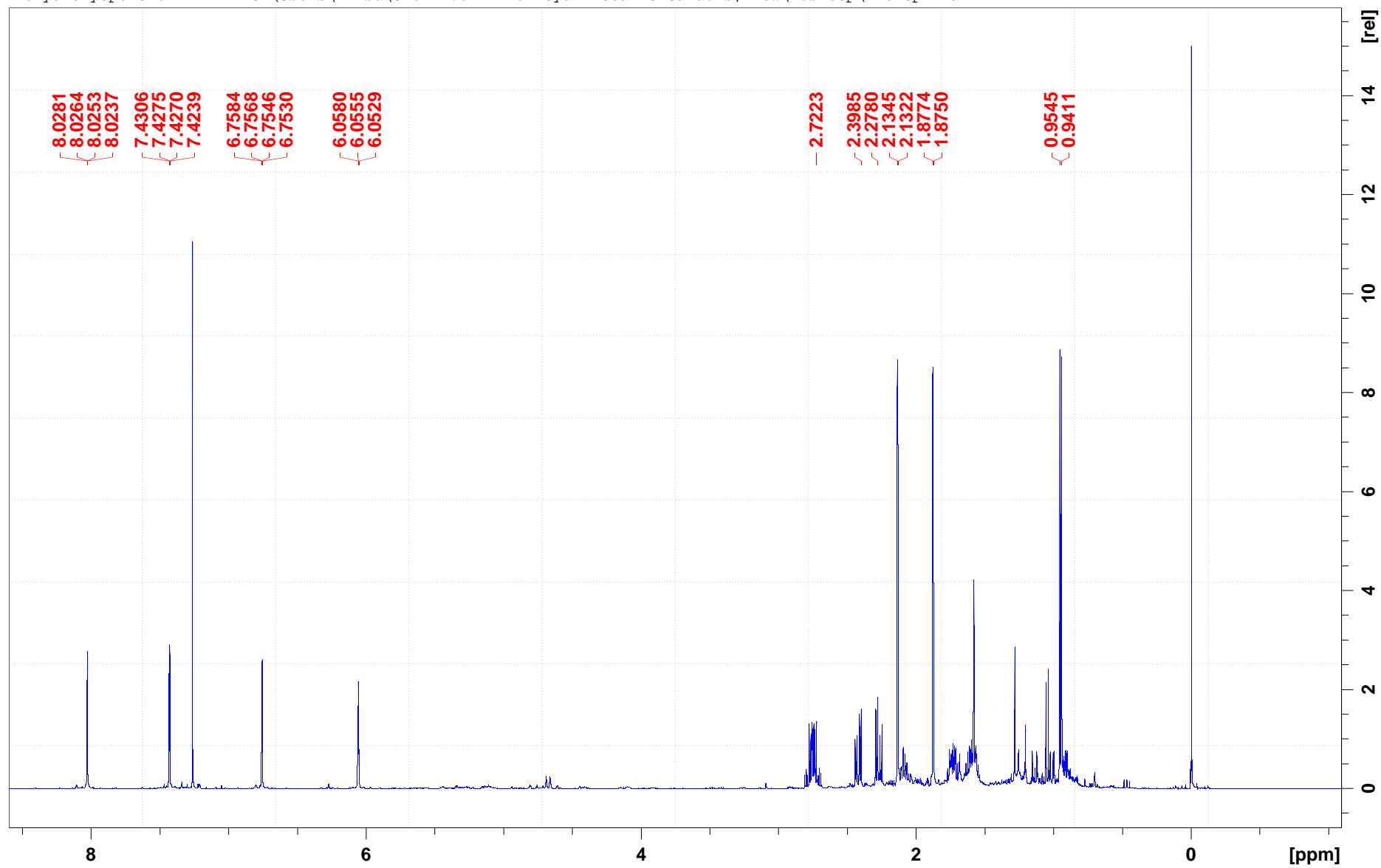
Anymol 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



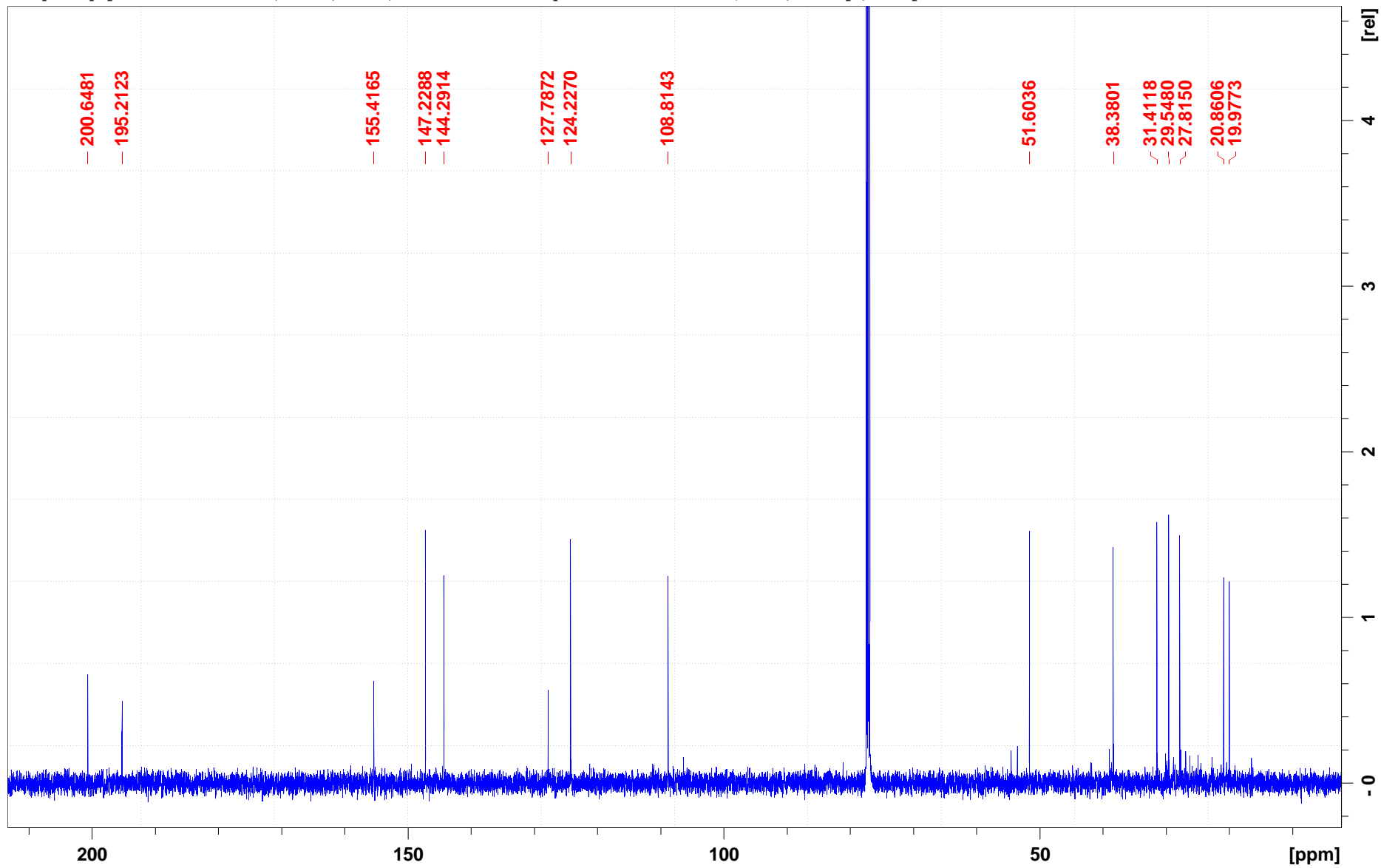
Anymol 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



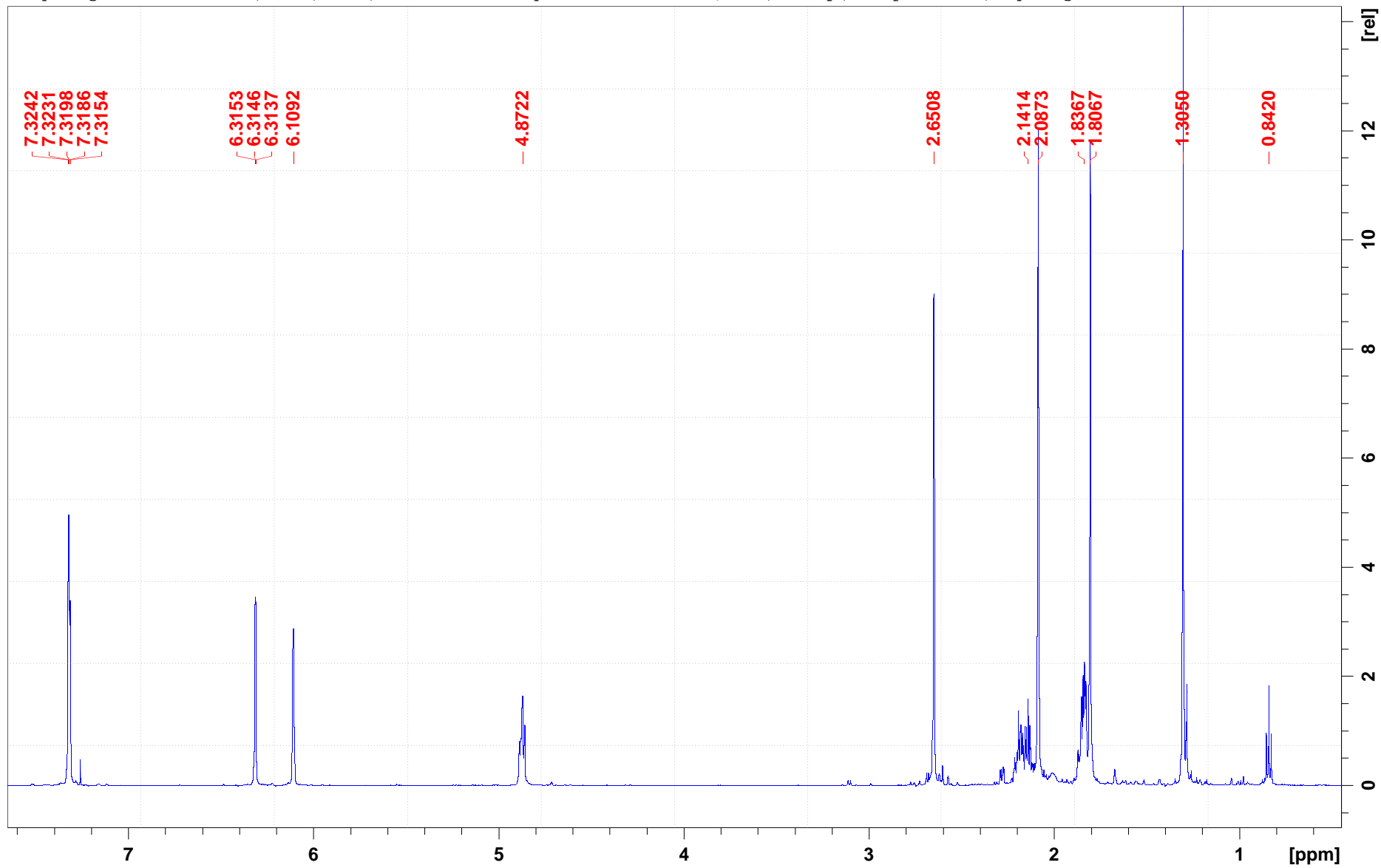
Dehydromyoporone 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



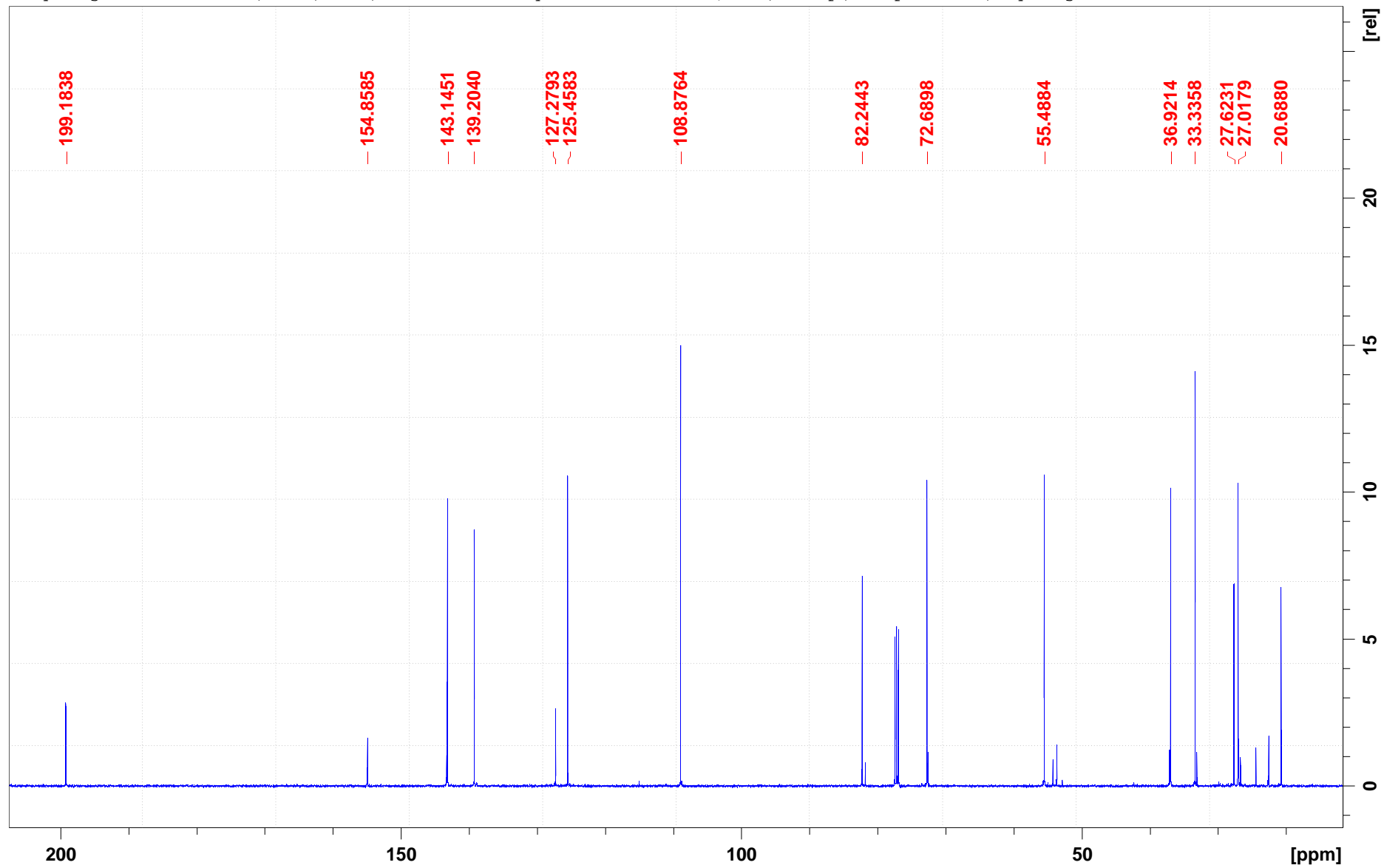
Dehydromyoporone 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



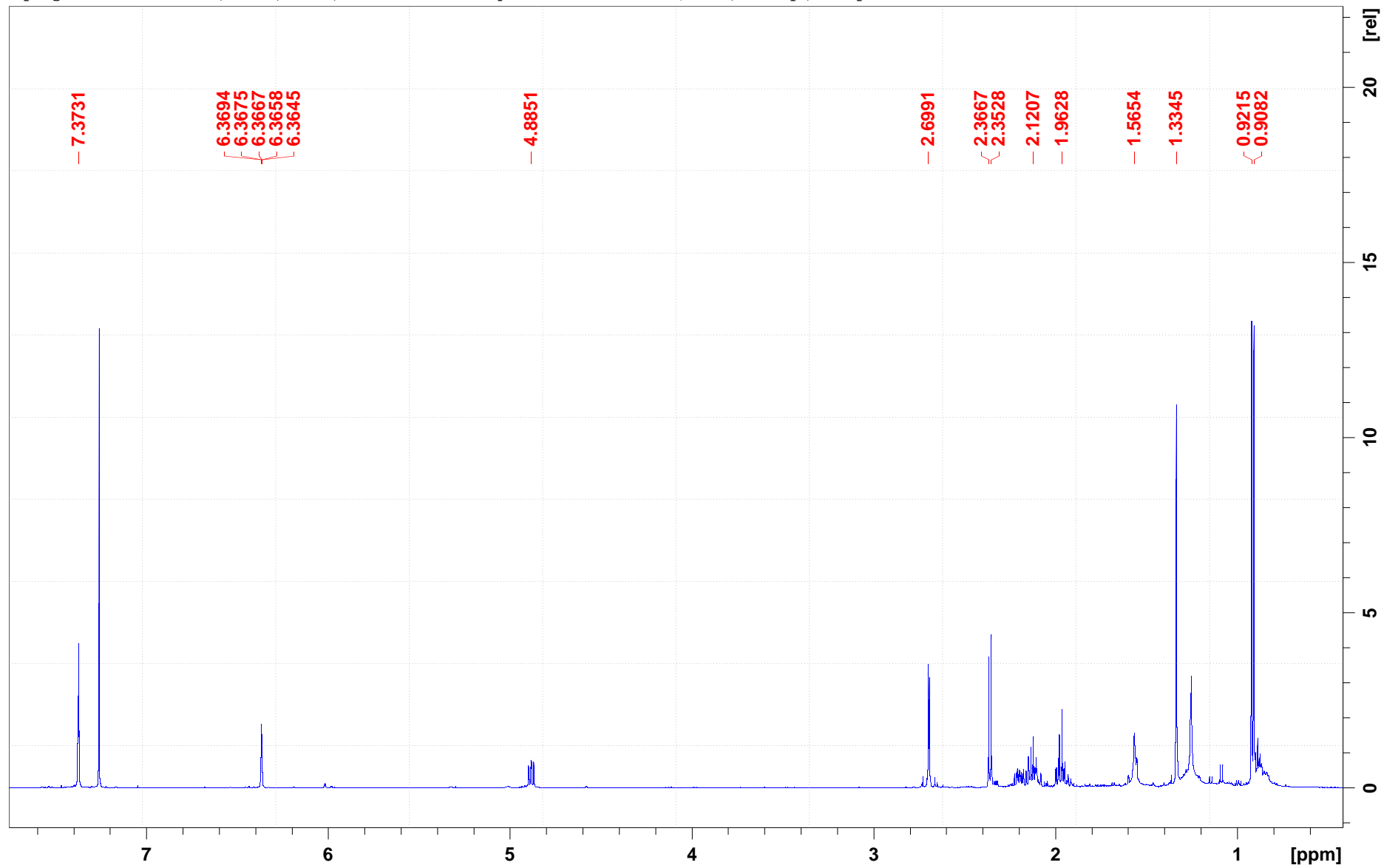
Dehydrongaione 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR\Dihydrongaione"



Dehydrongaione 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR\Dihydrongaione"

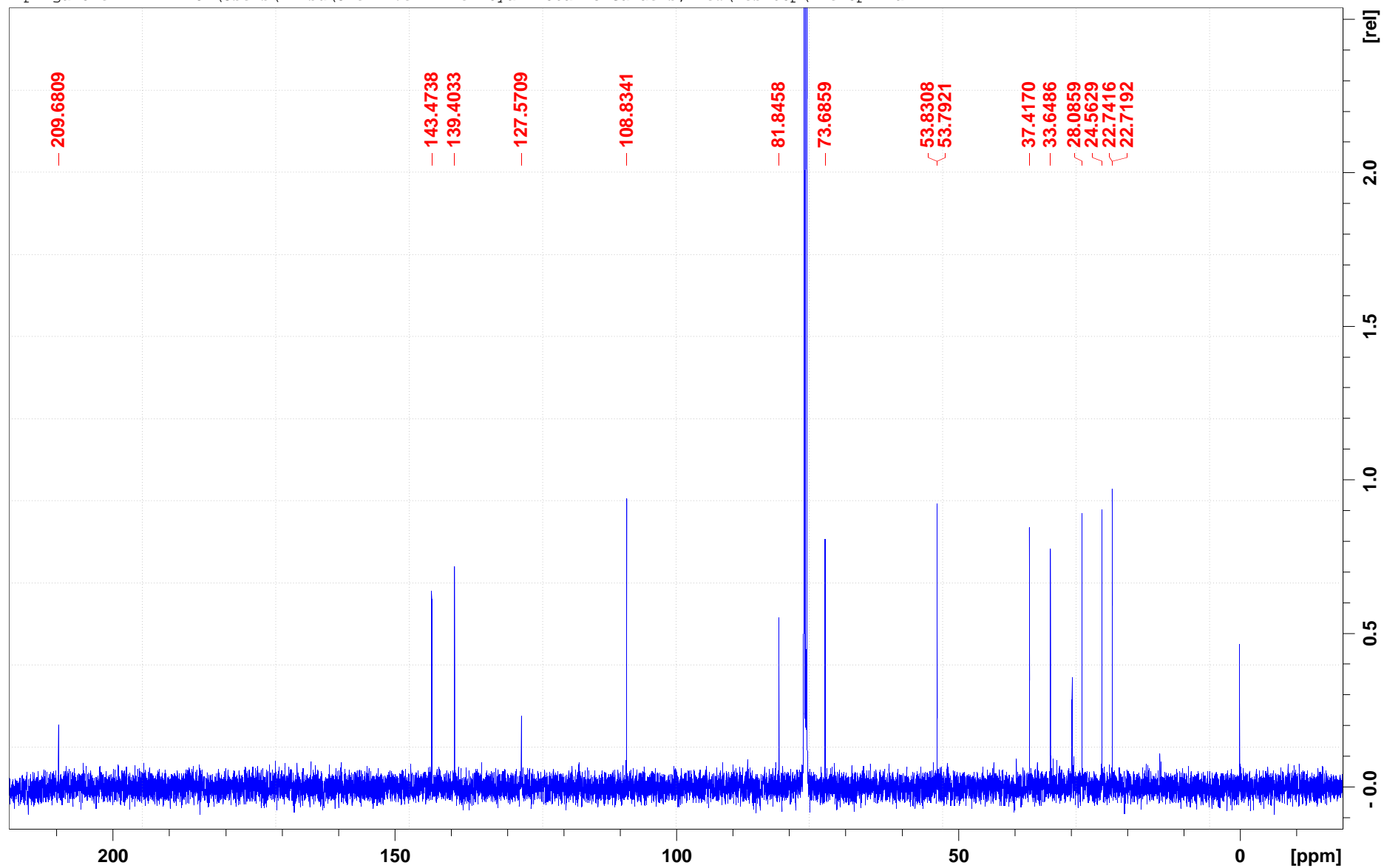


Epingaione 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

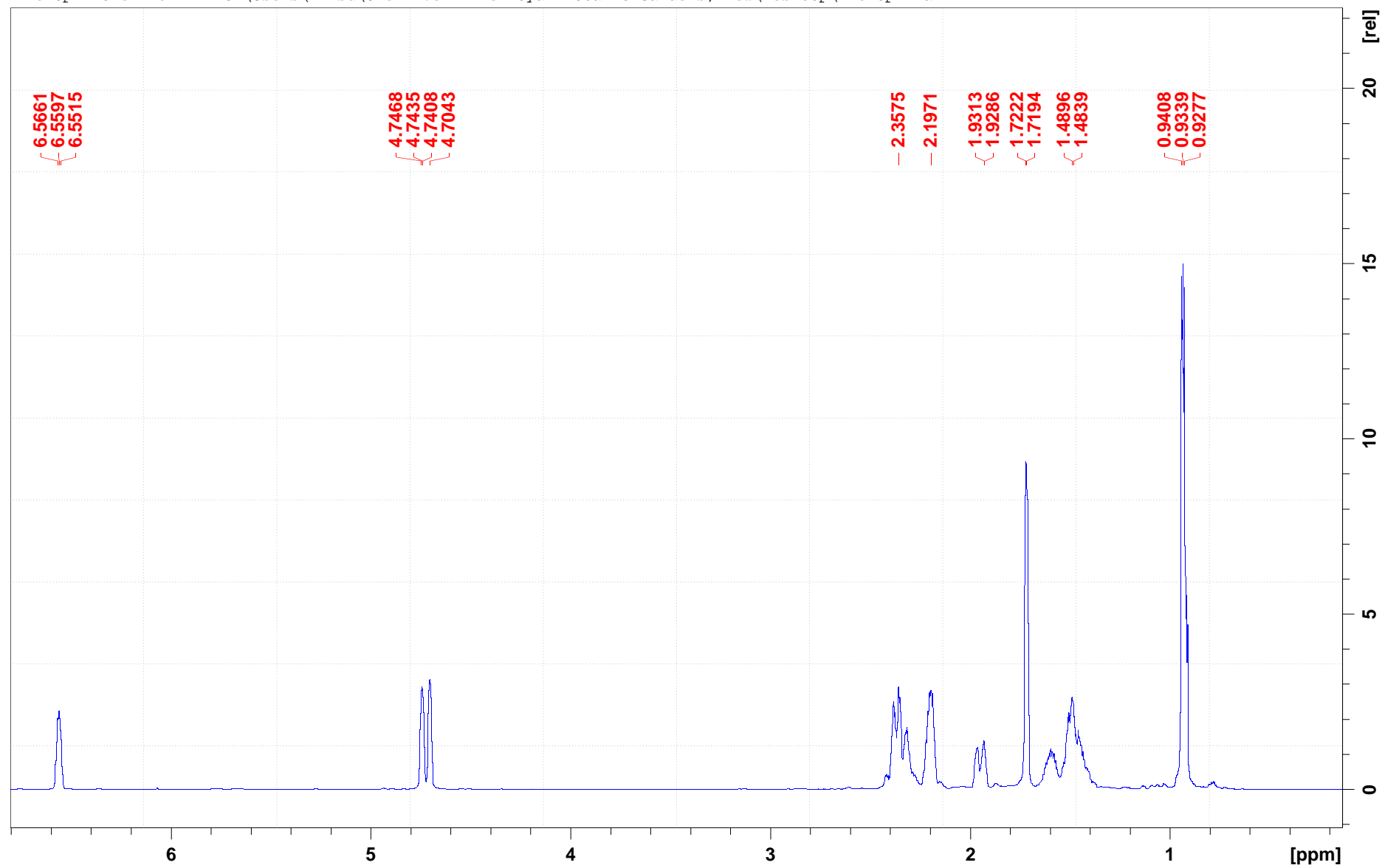




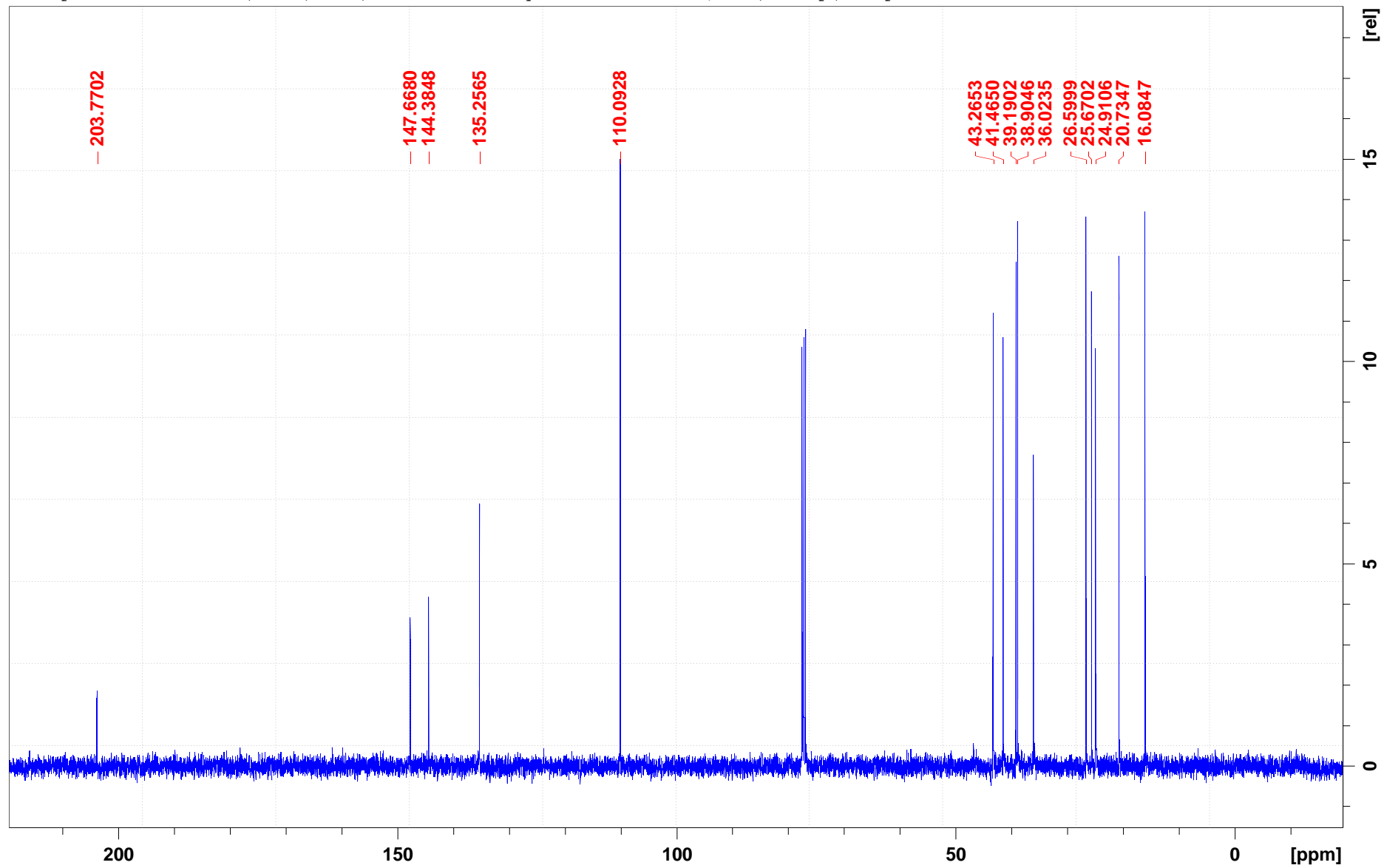
Epingaione 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



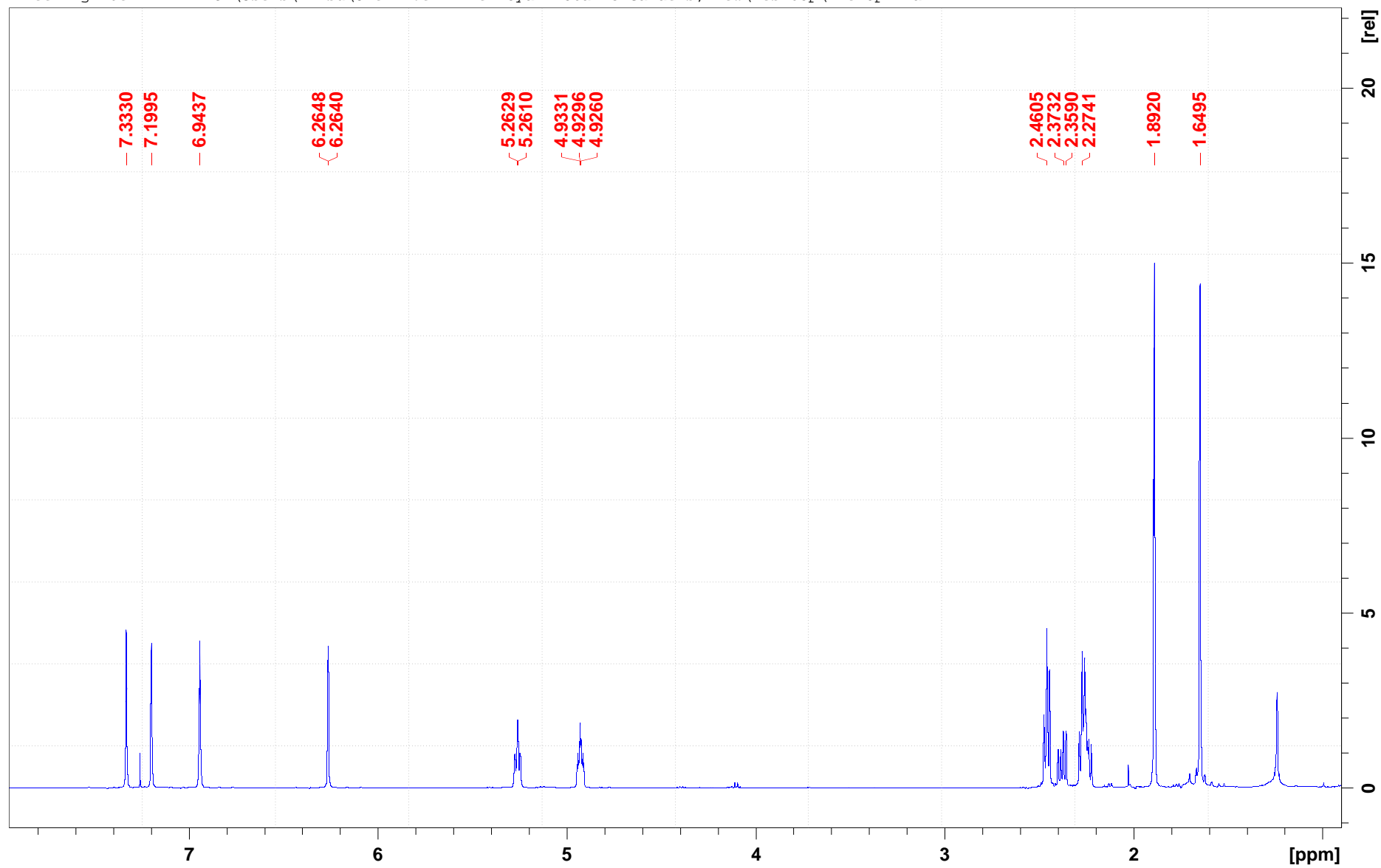
Eremophilone 10 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



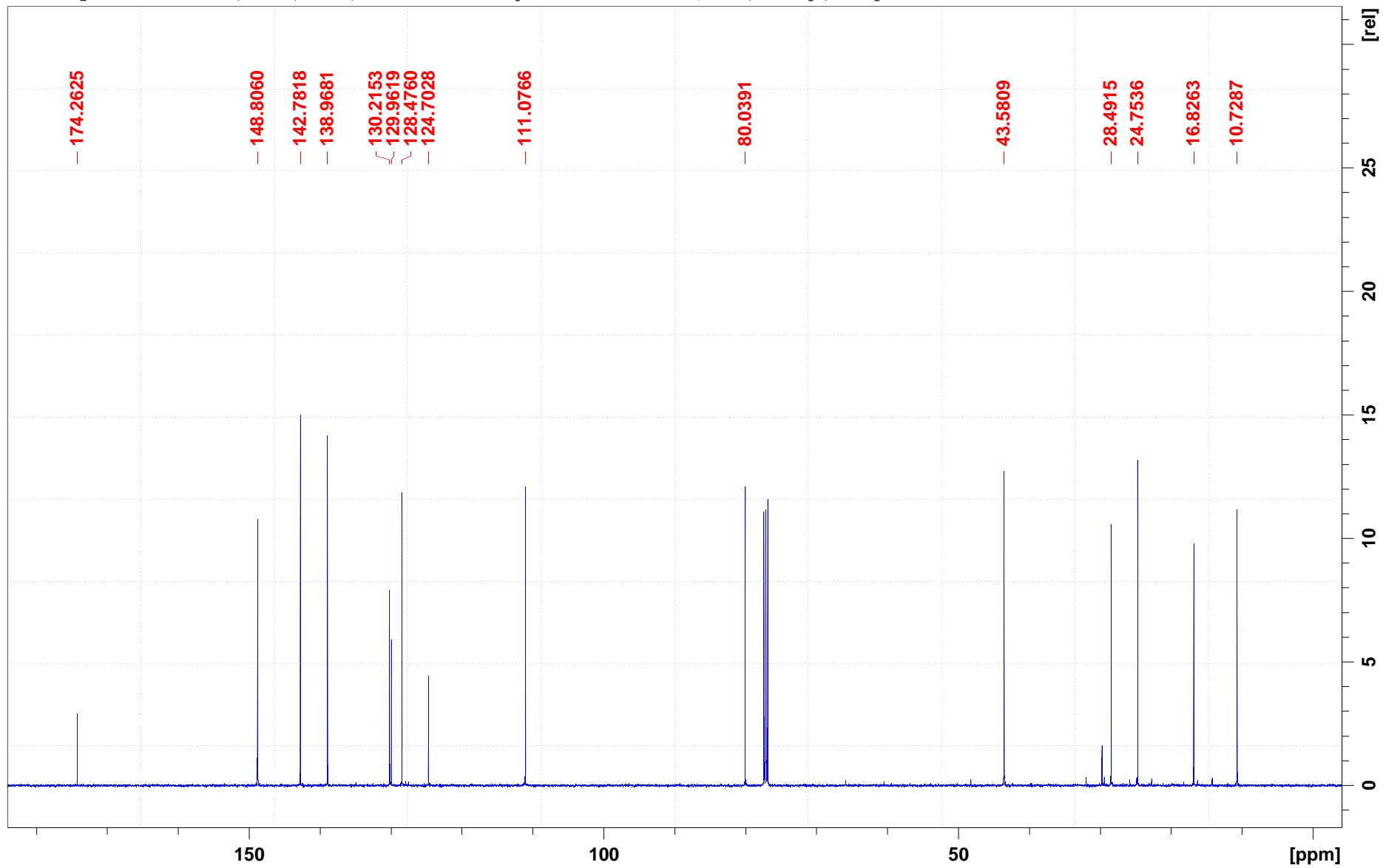
Eremophilone 11 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



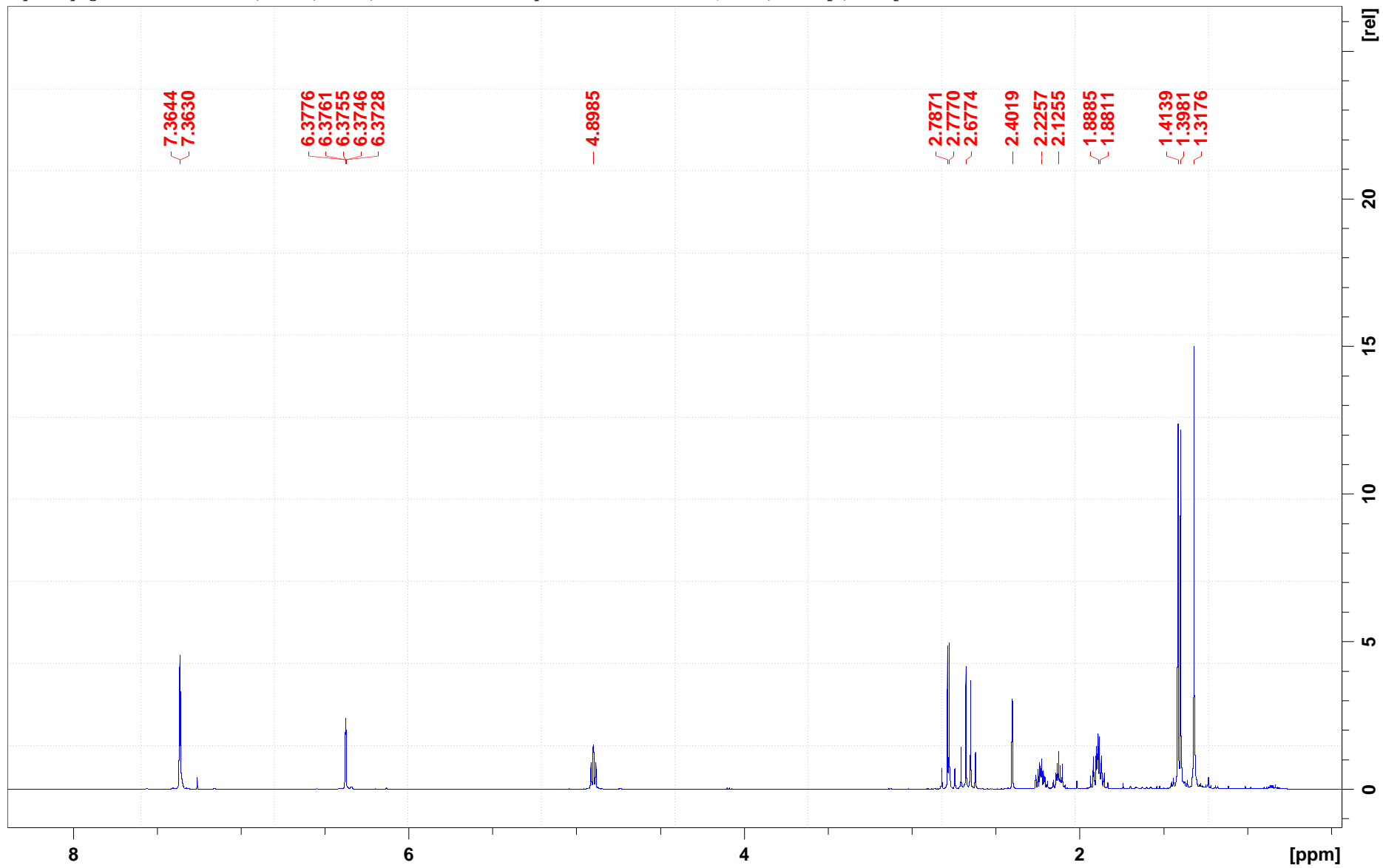
Freelingnite 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



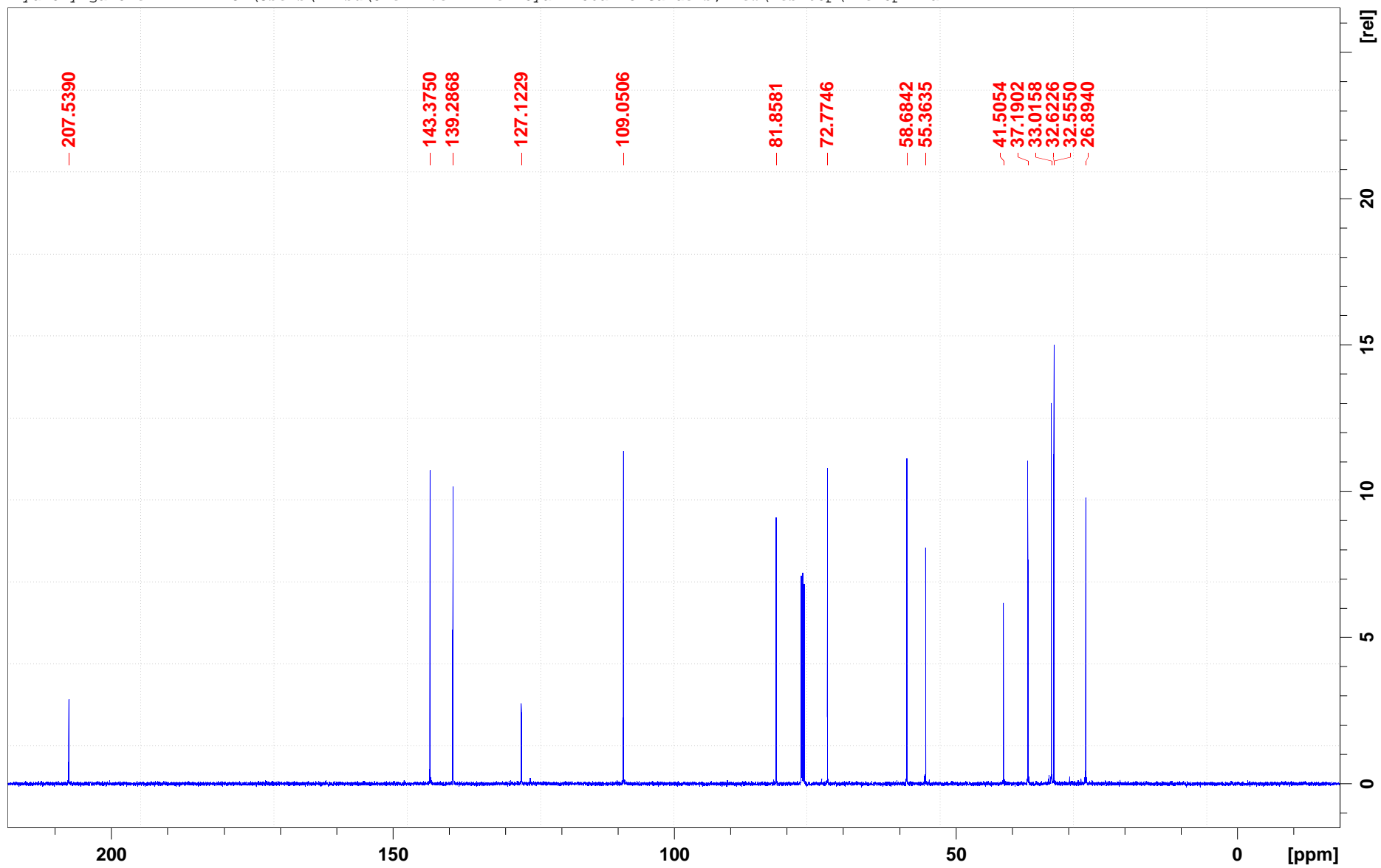
Freelingnite 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



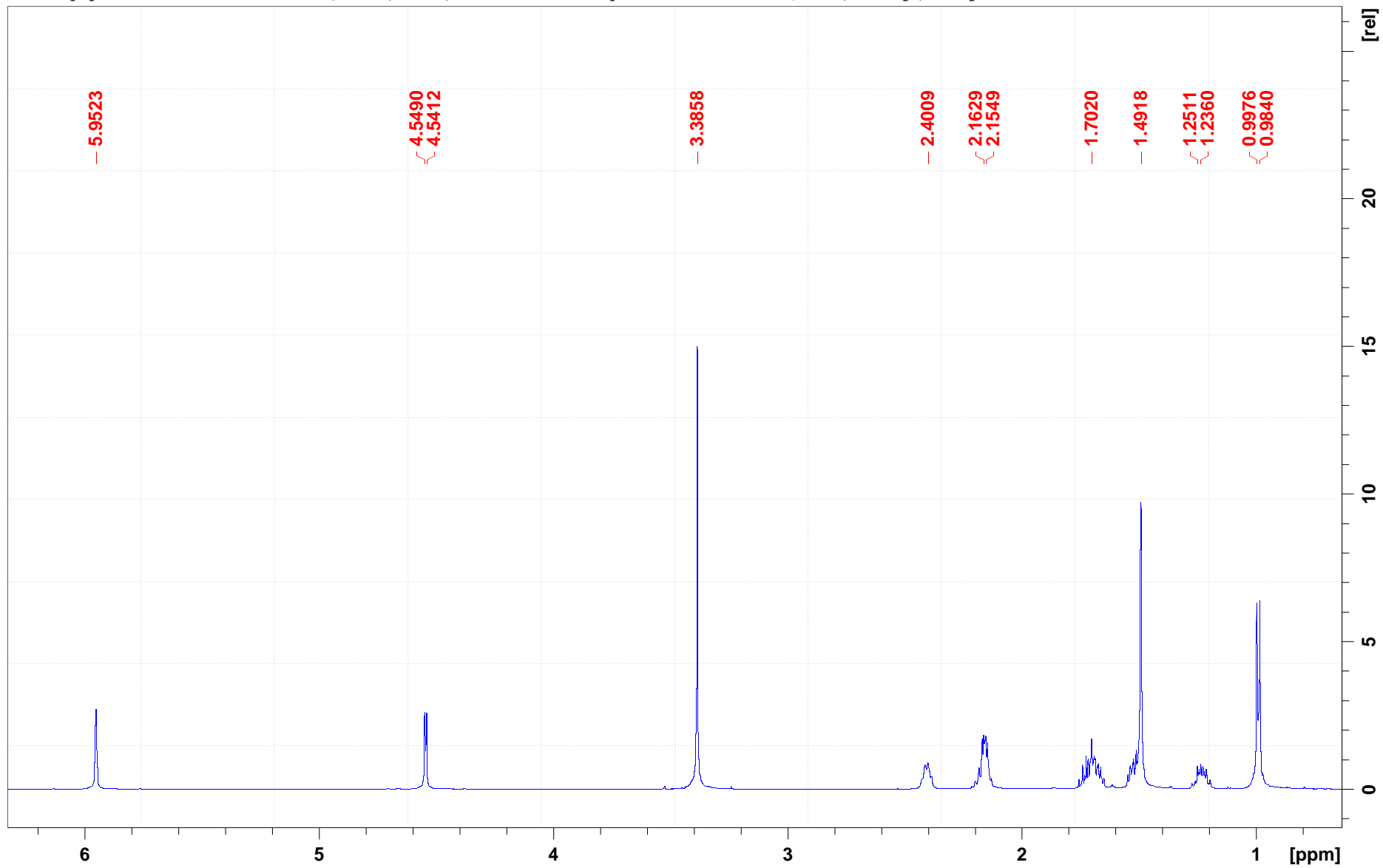
Hydroxyngaione 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



Hydroxyngaione 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

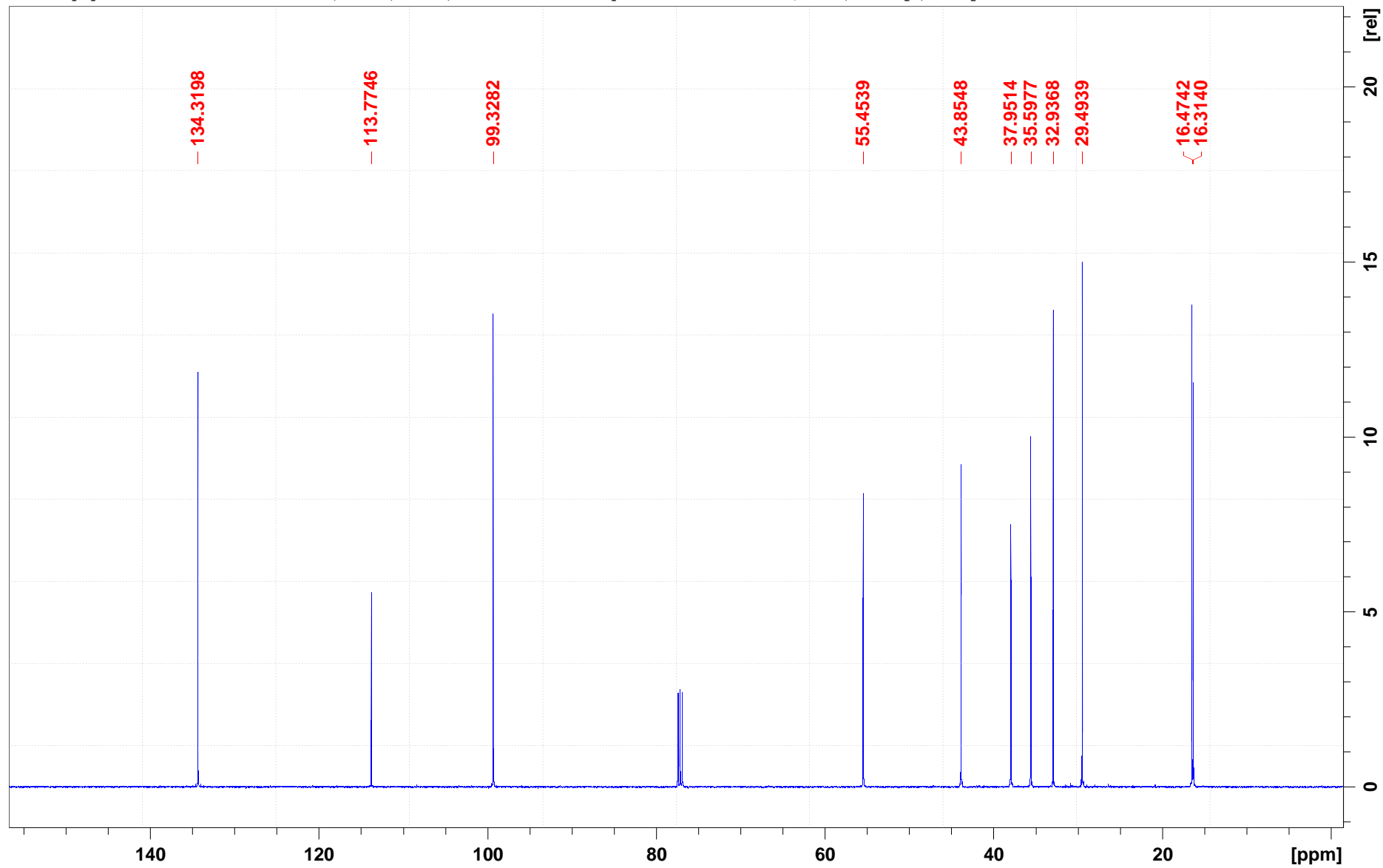


Methoxymyodesert-3-ene 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

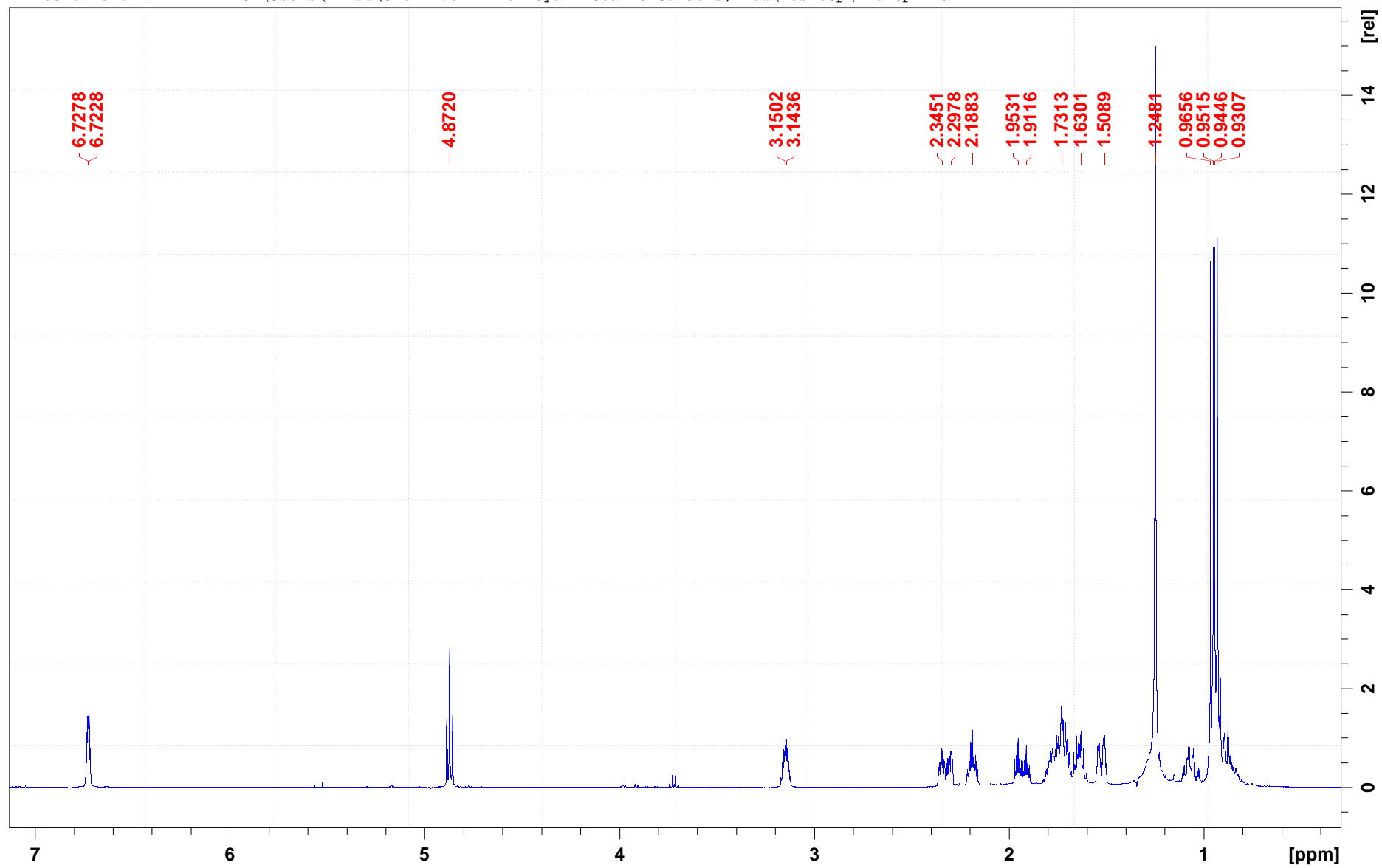




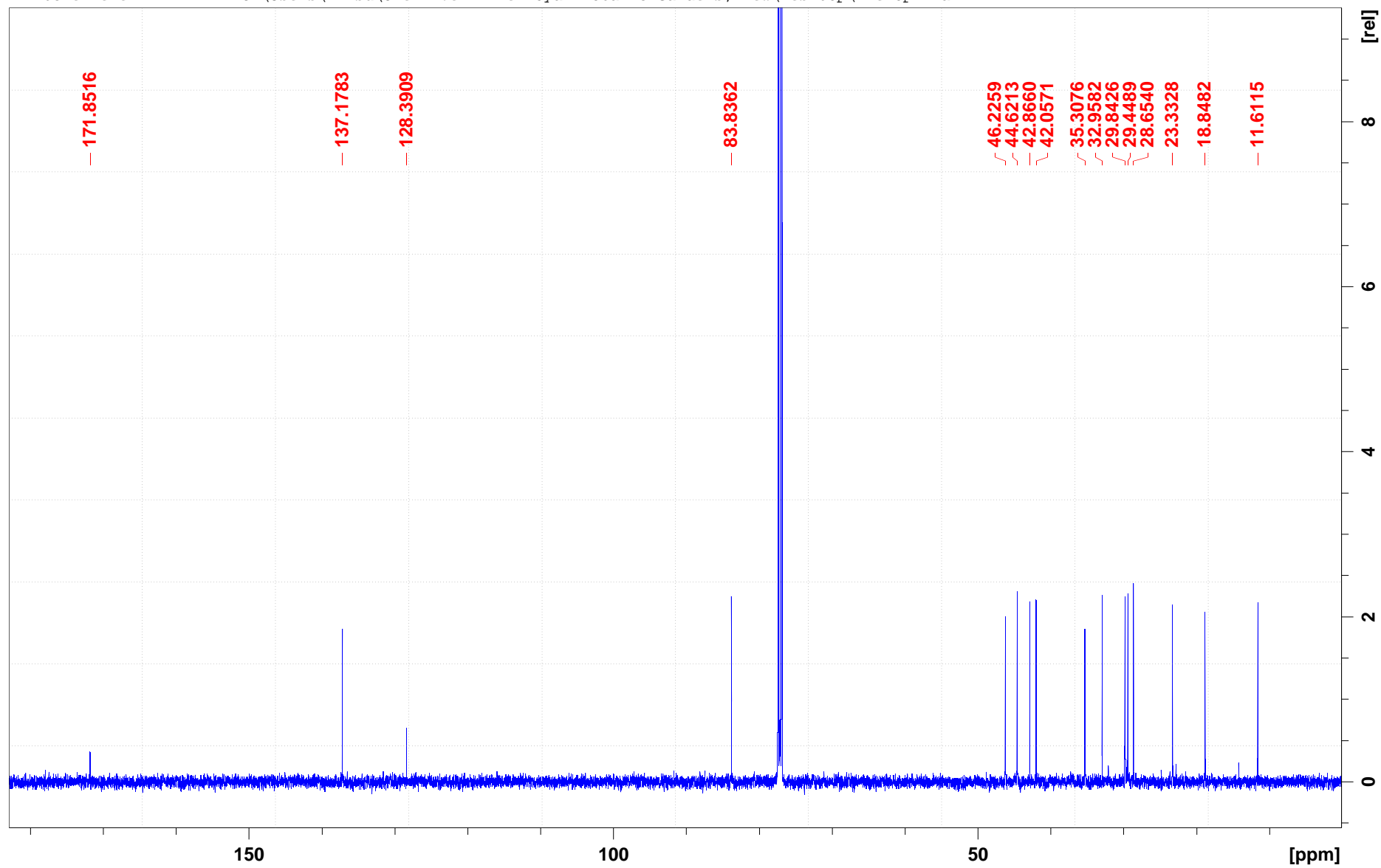
Methoxymyodesert-3-ene 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



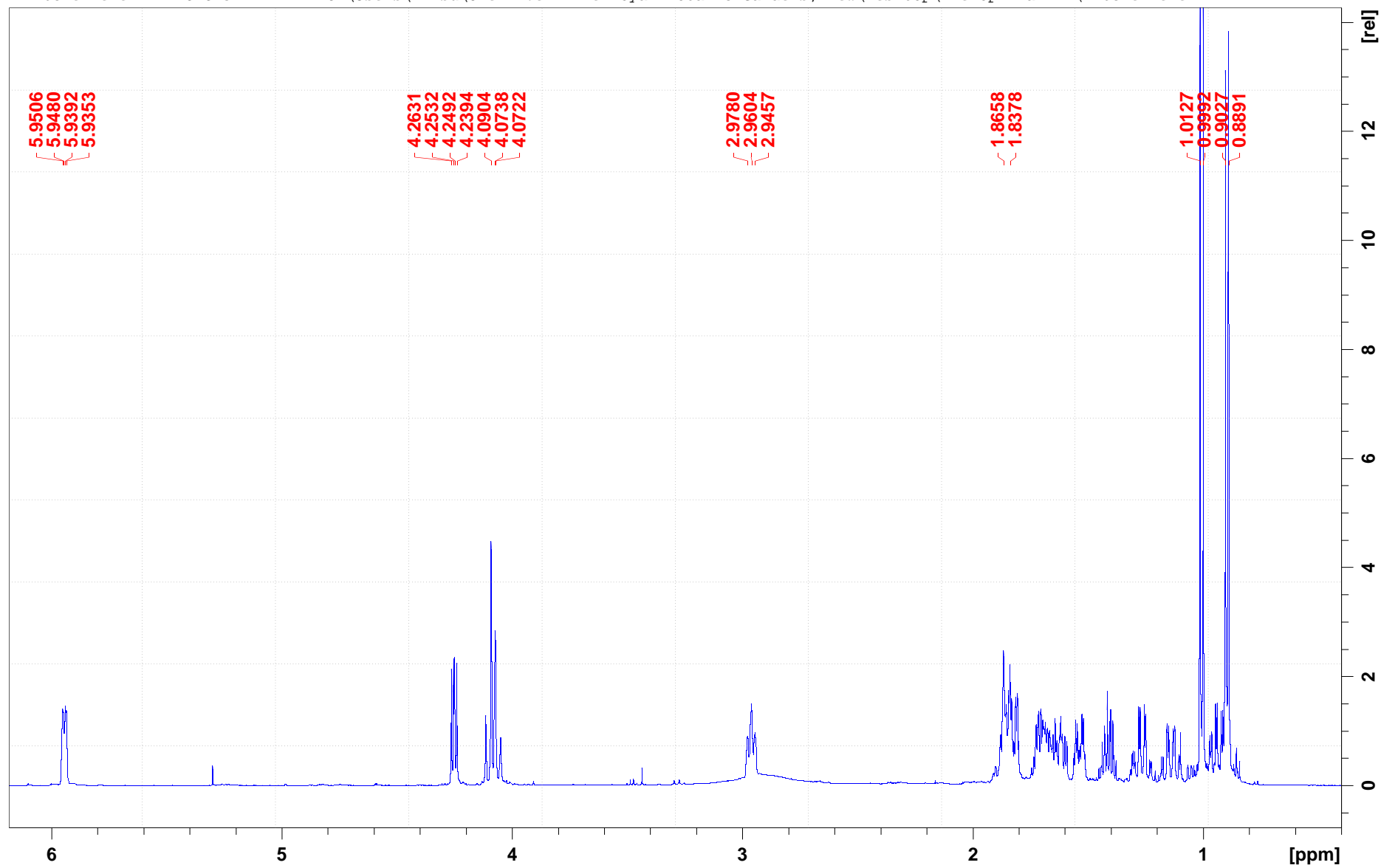
"Mitchellene B" 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



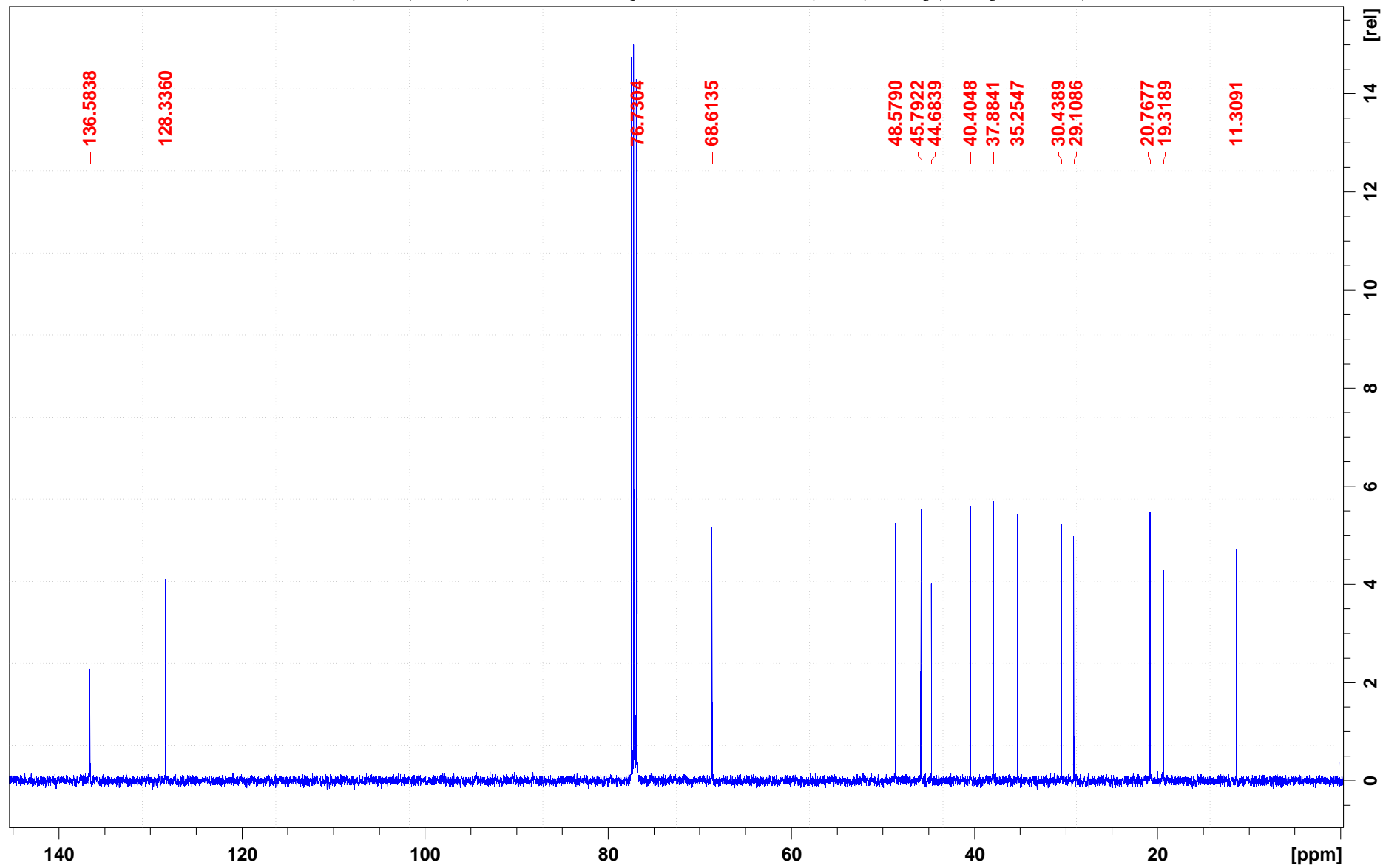
"Mitchellene B" 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



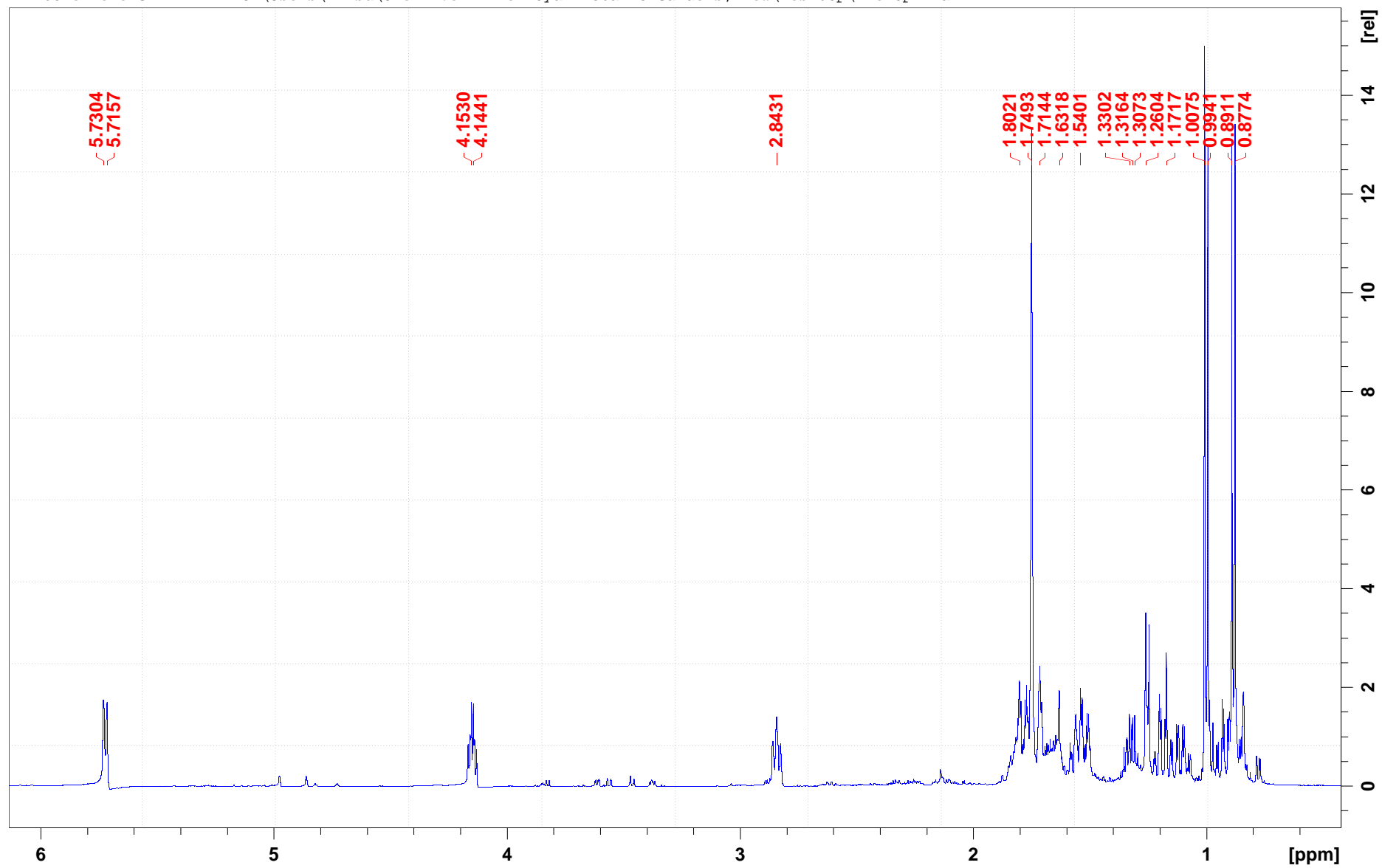
"Mitchellene F in CDCl3" 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR\Mitchellene F"



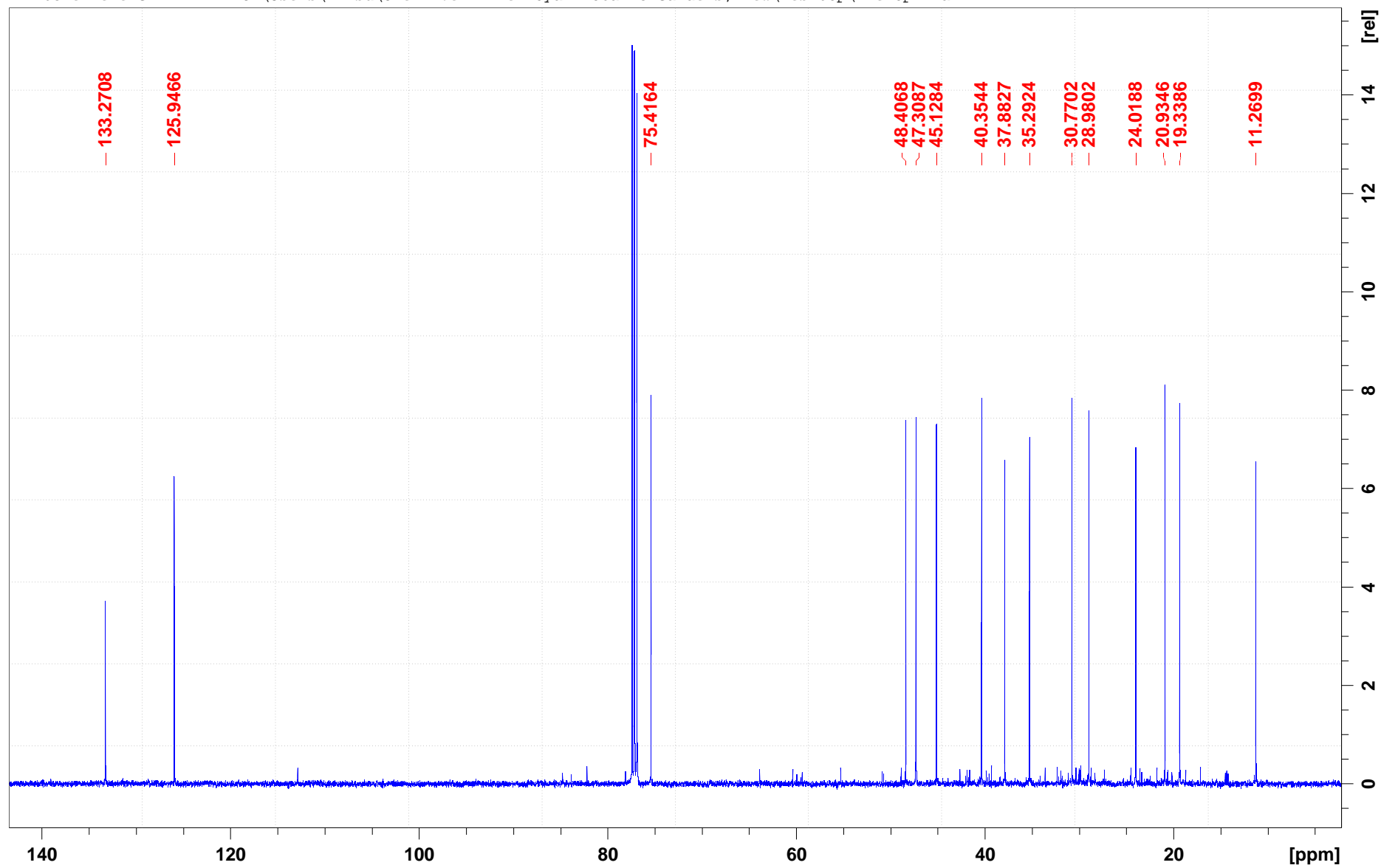
"Mitchellene F in CDCl3" 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR\Mitchellene F"



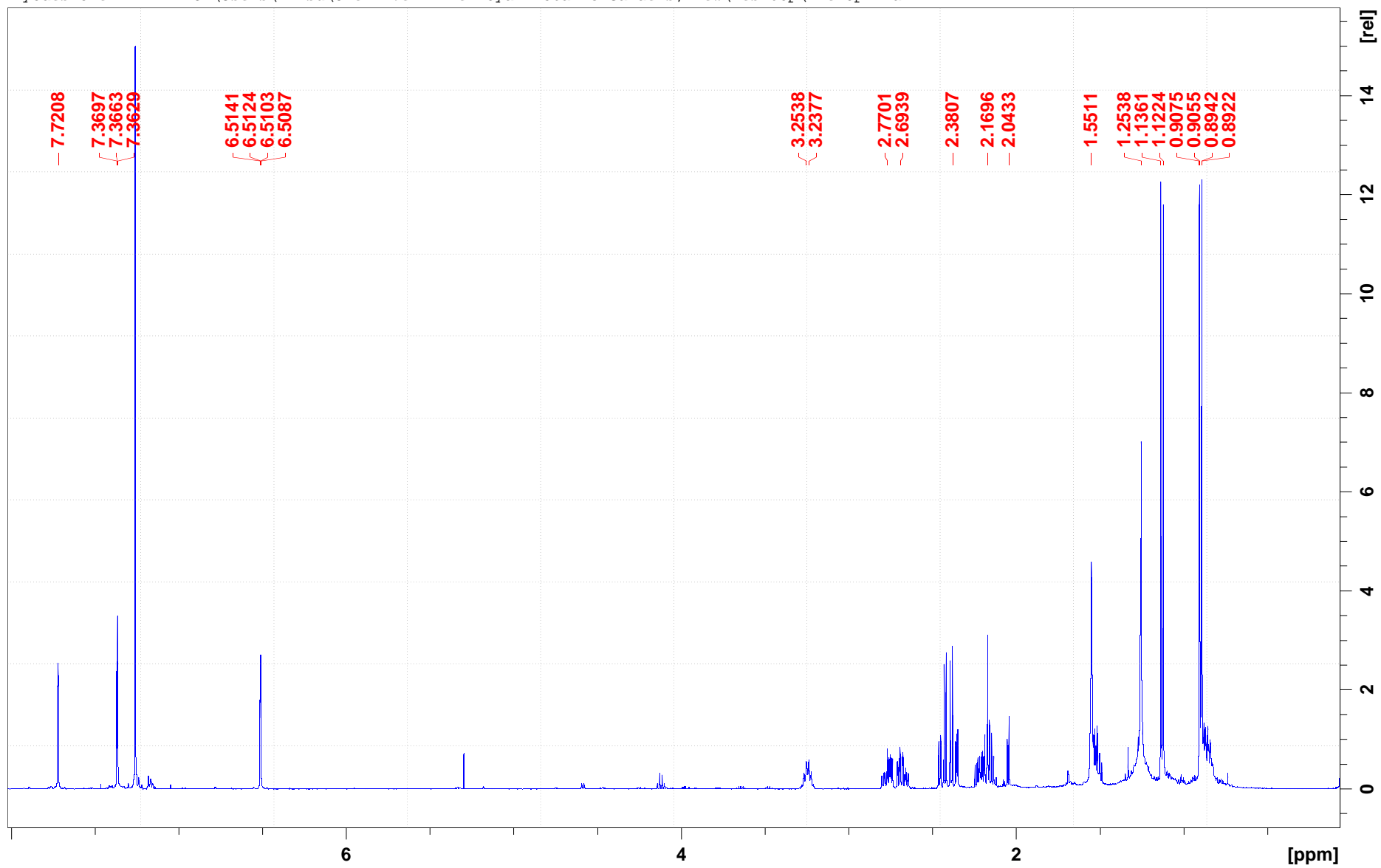
"Mitchellene G" 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



"Mitchellene G" 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

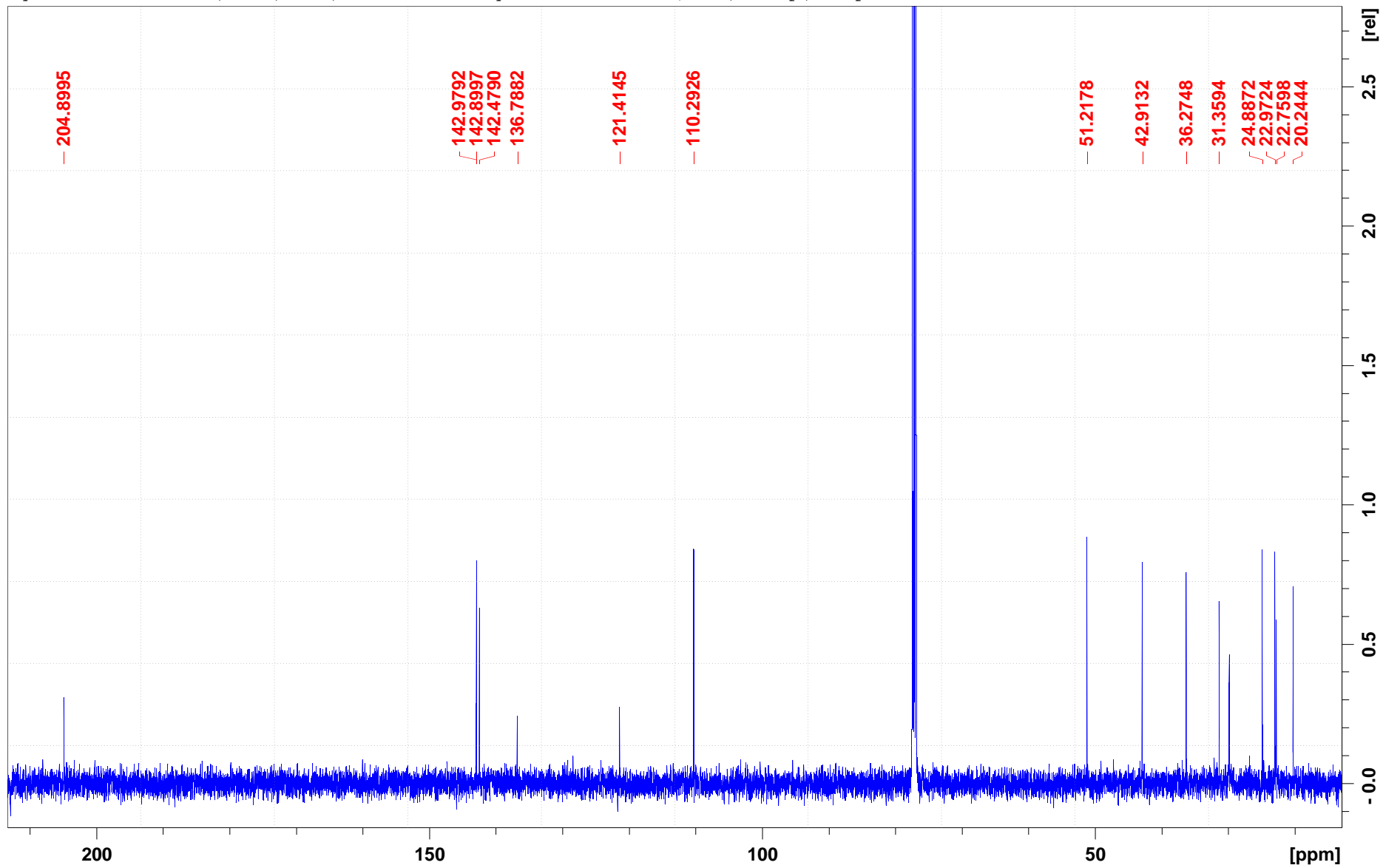


Myodesmone 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

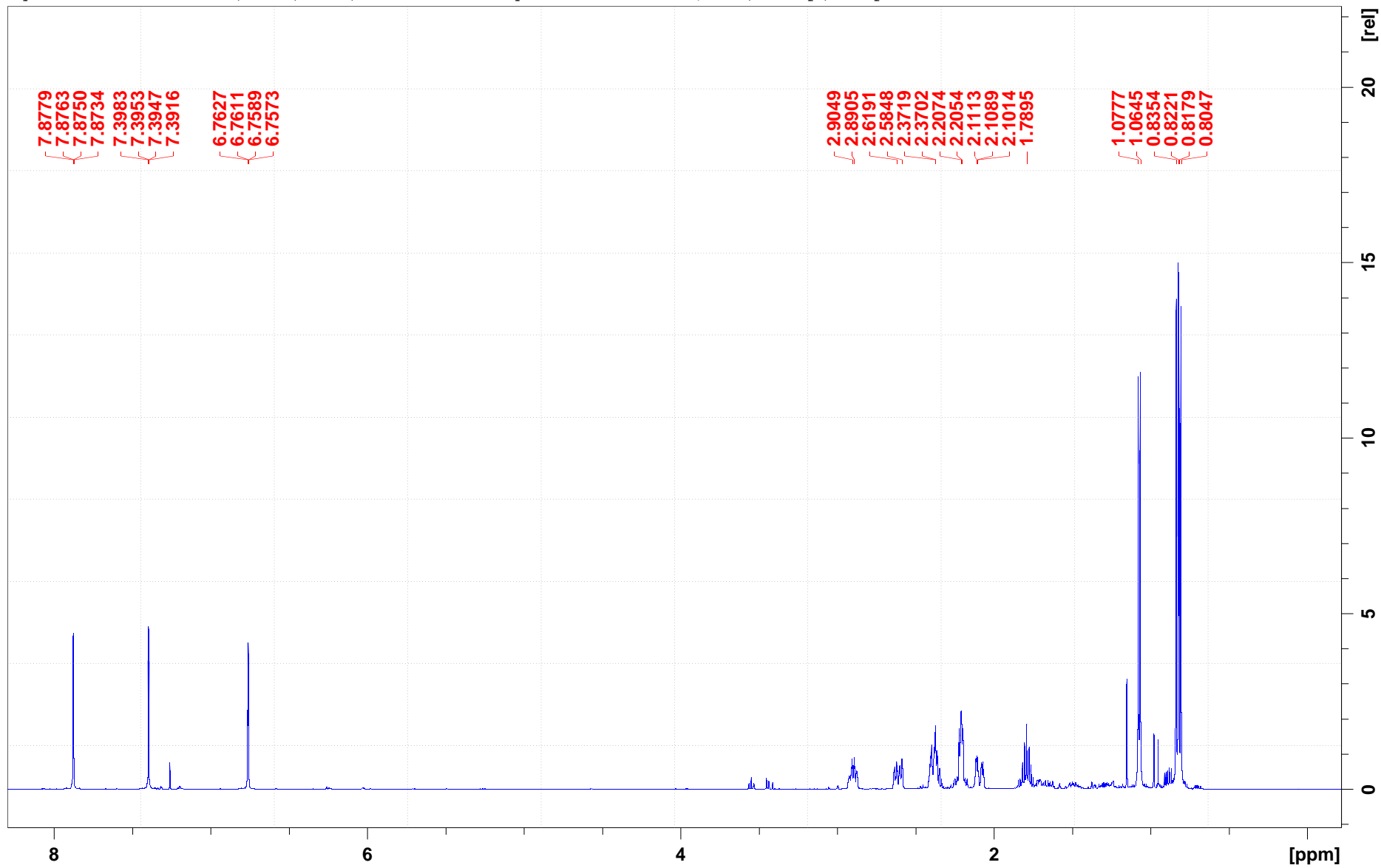




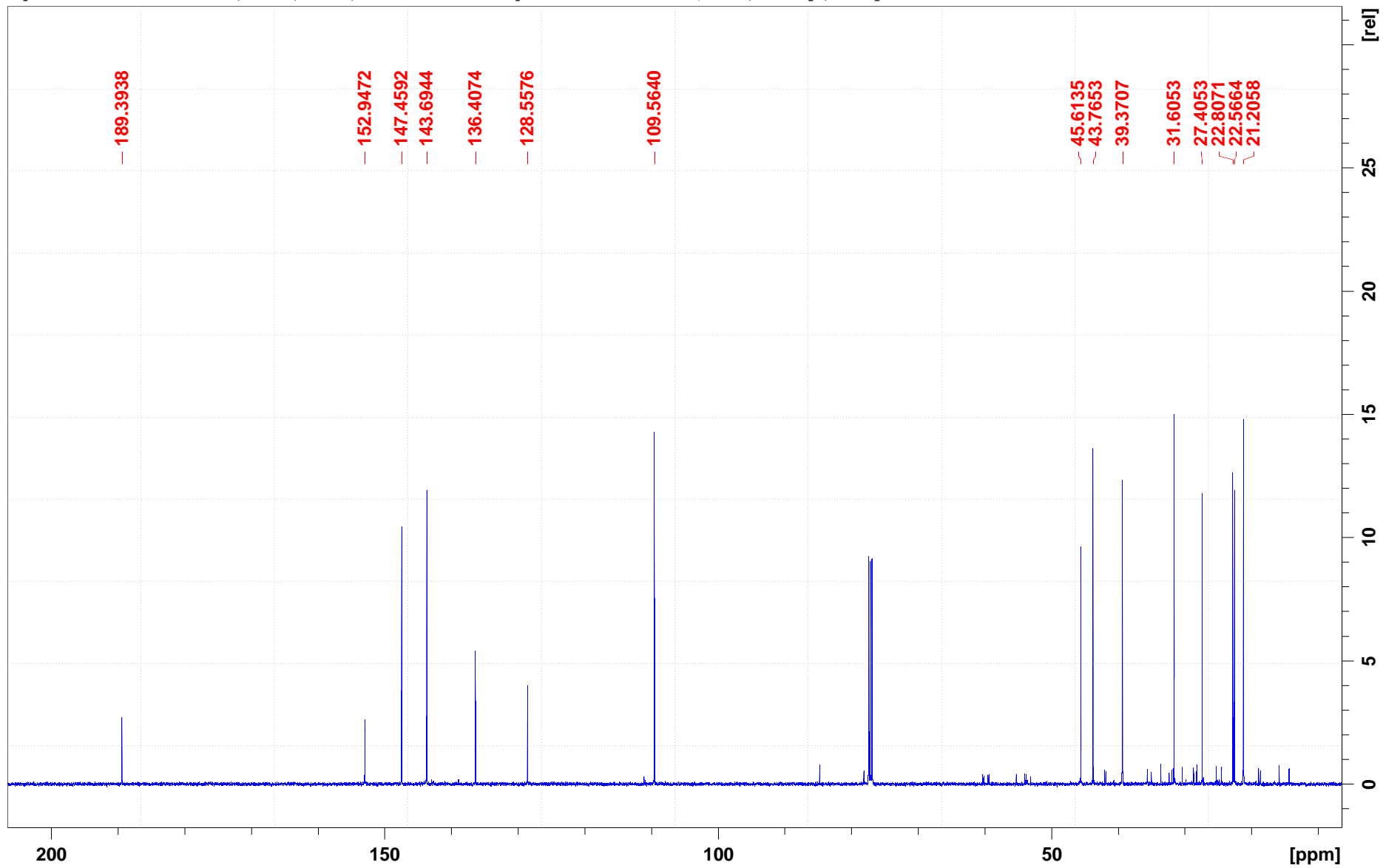
Myodesmone 3 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



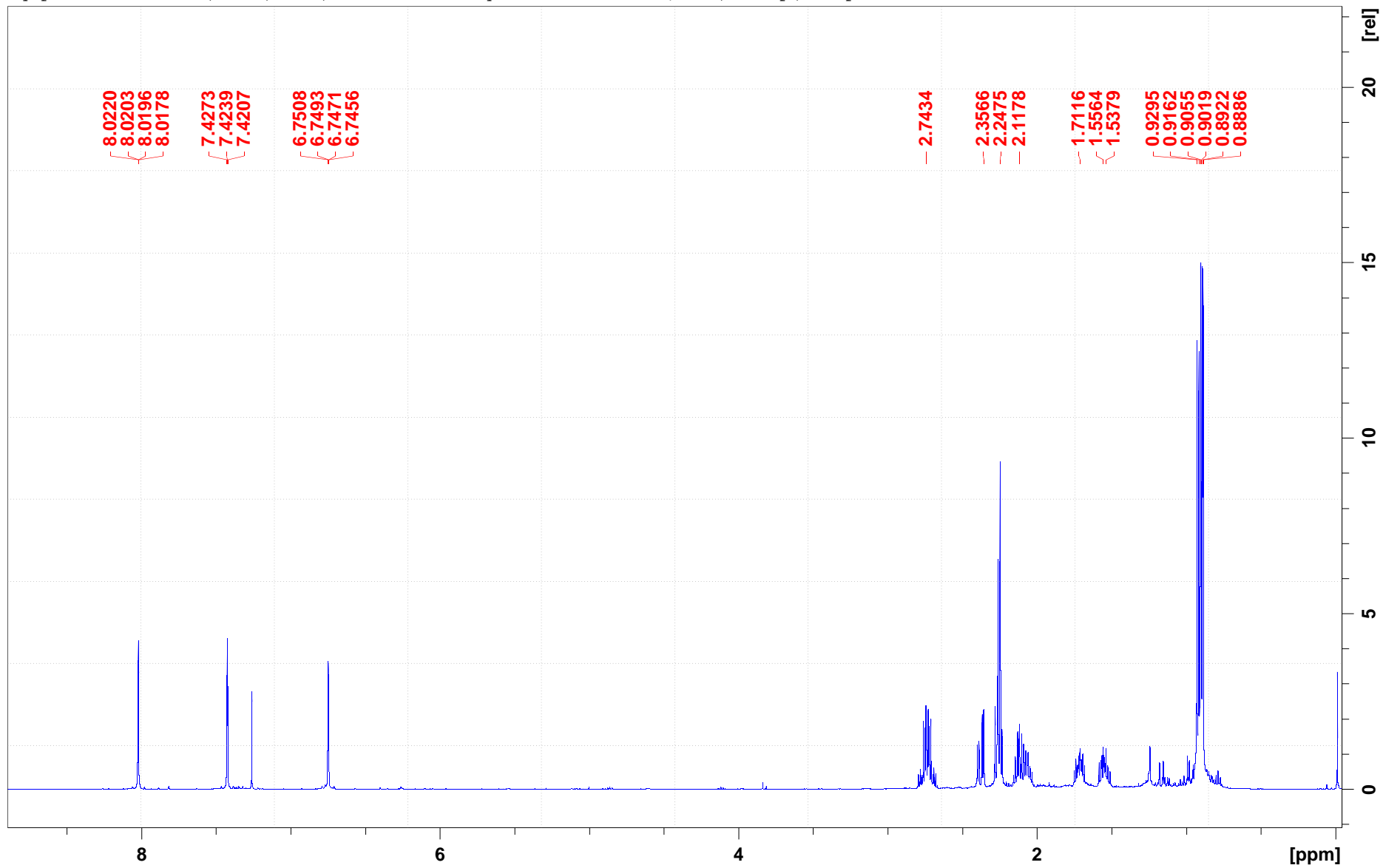
Myomontanone 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



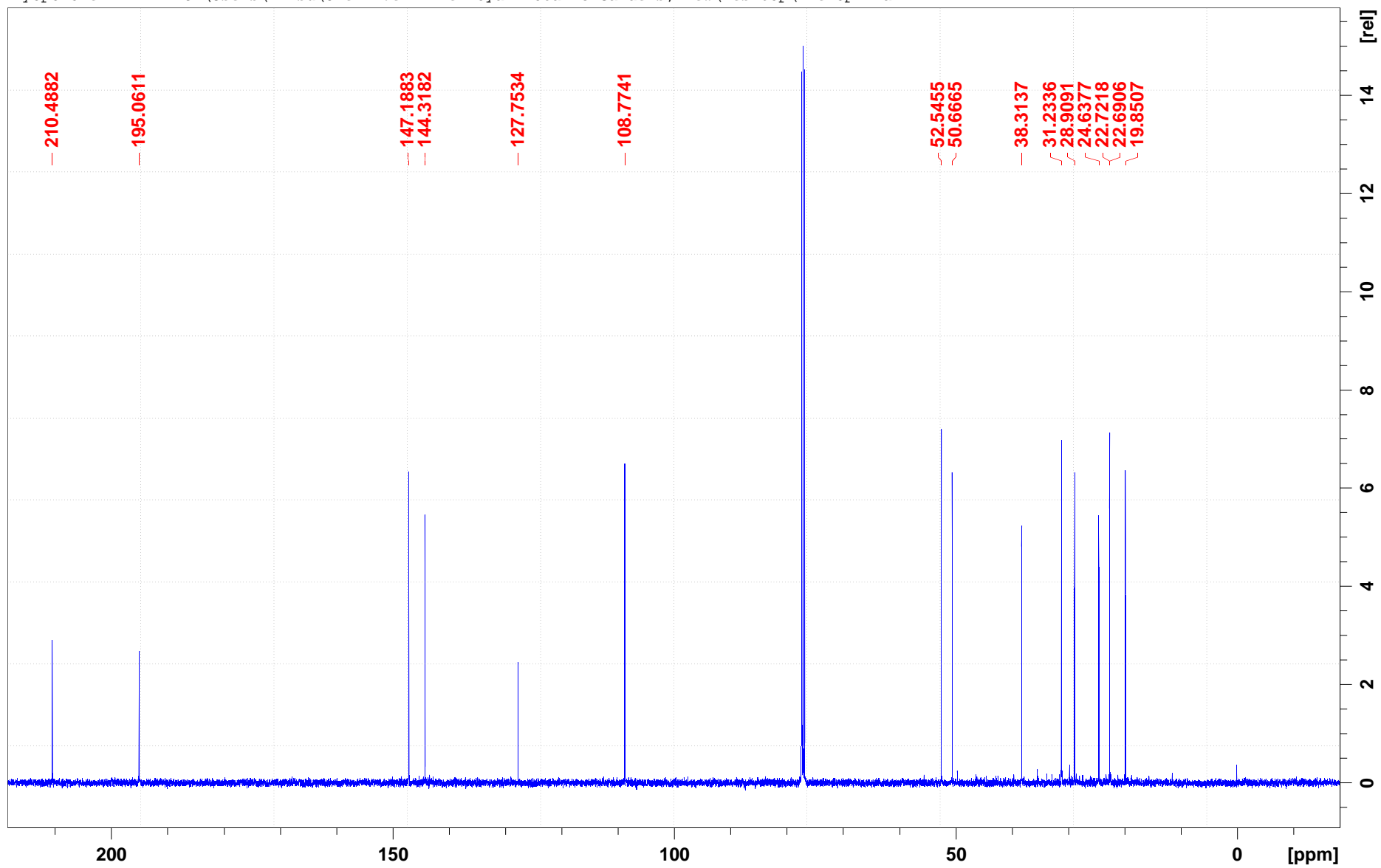
Myomontanone 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



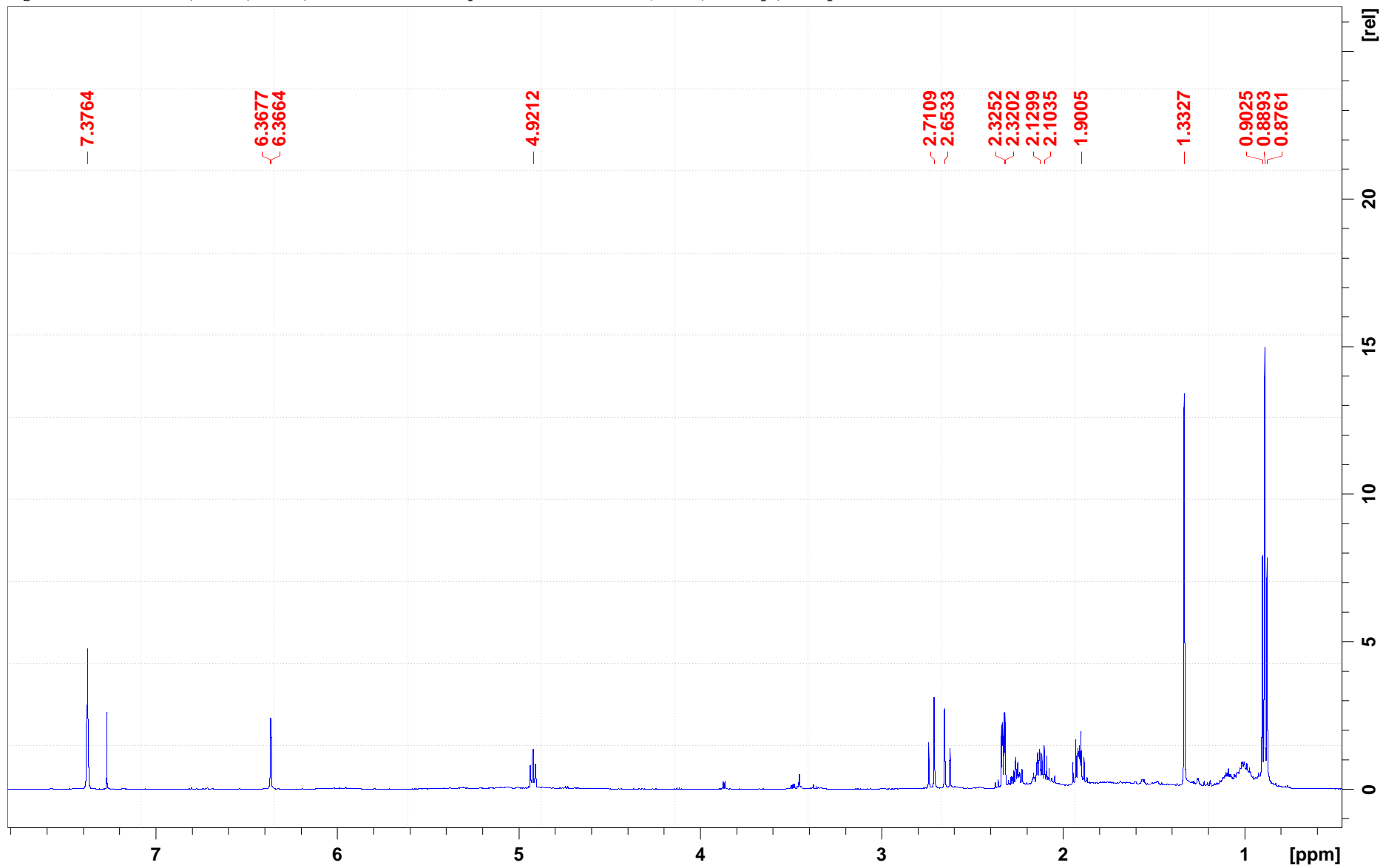
Myoporone 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



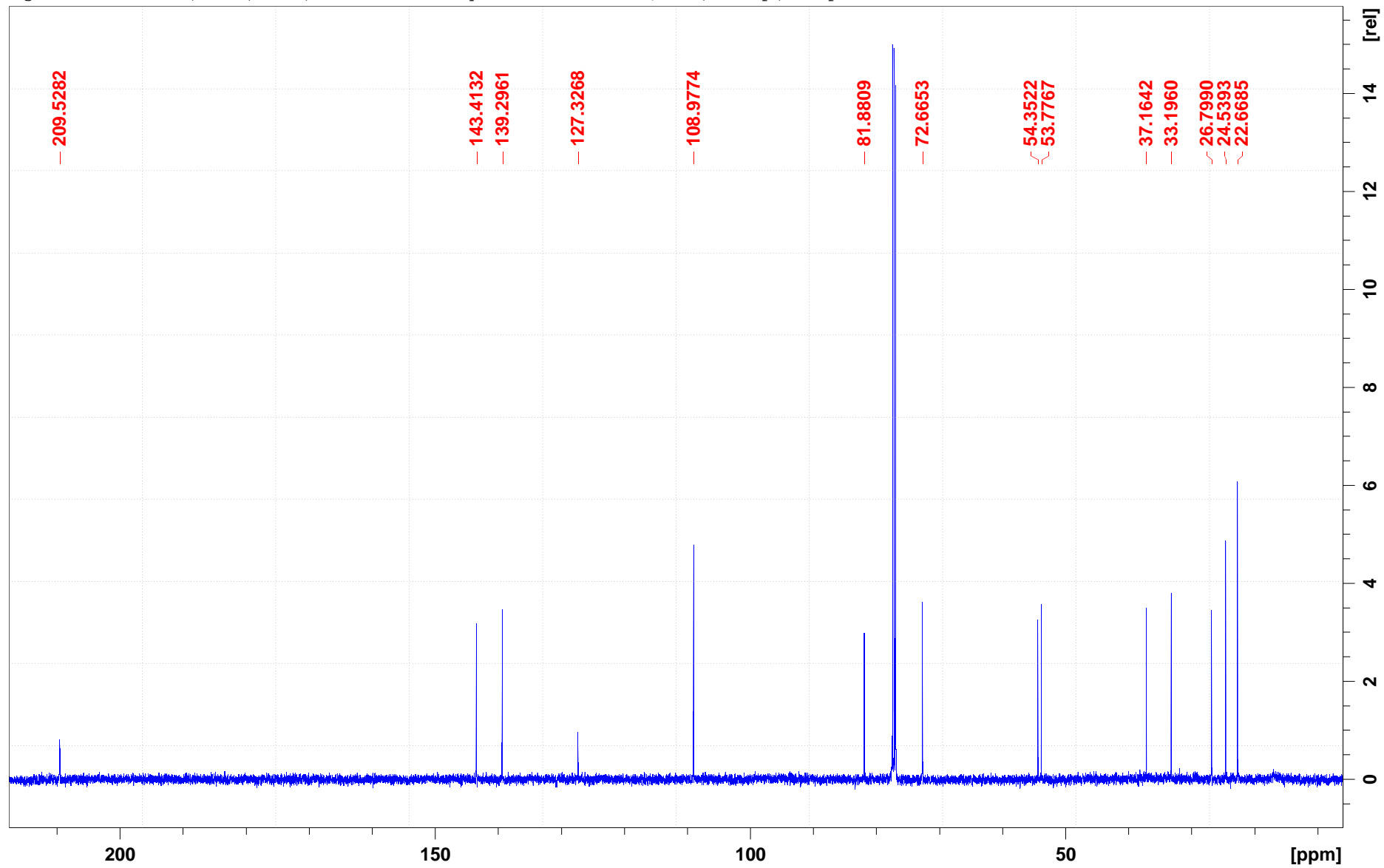
Myoporone 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



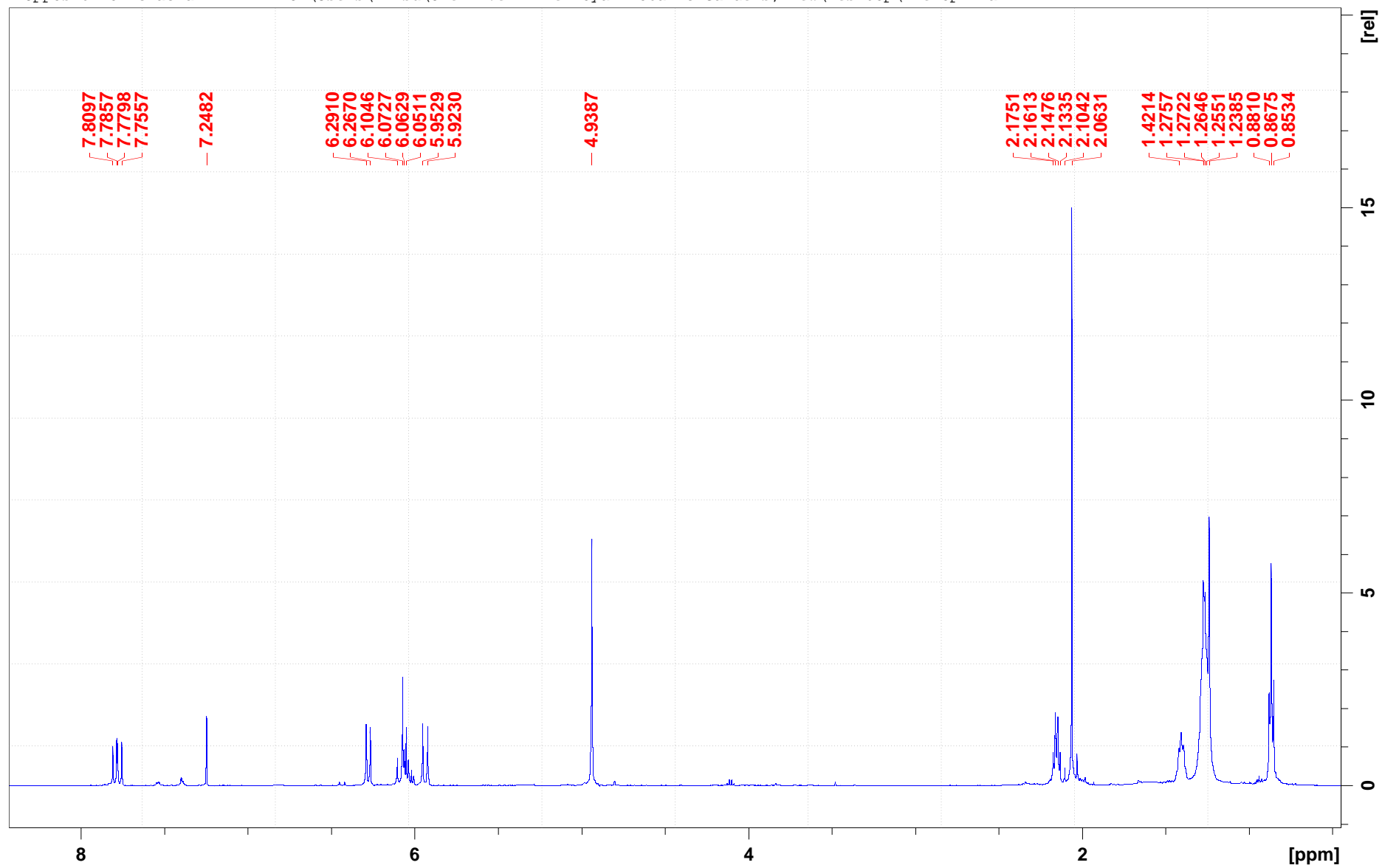
Ngaione 1 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



Ngaione 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

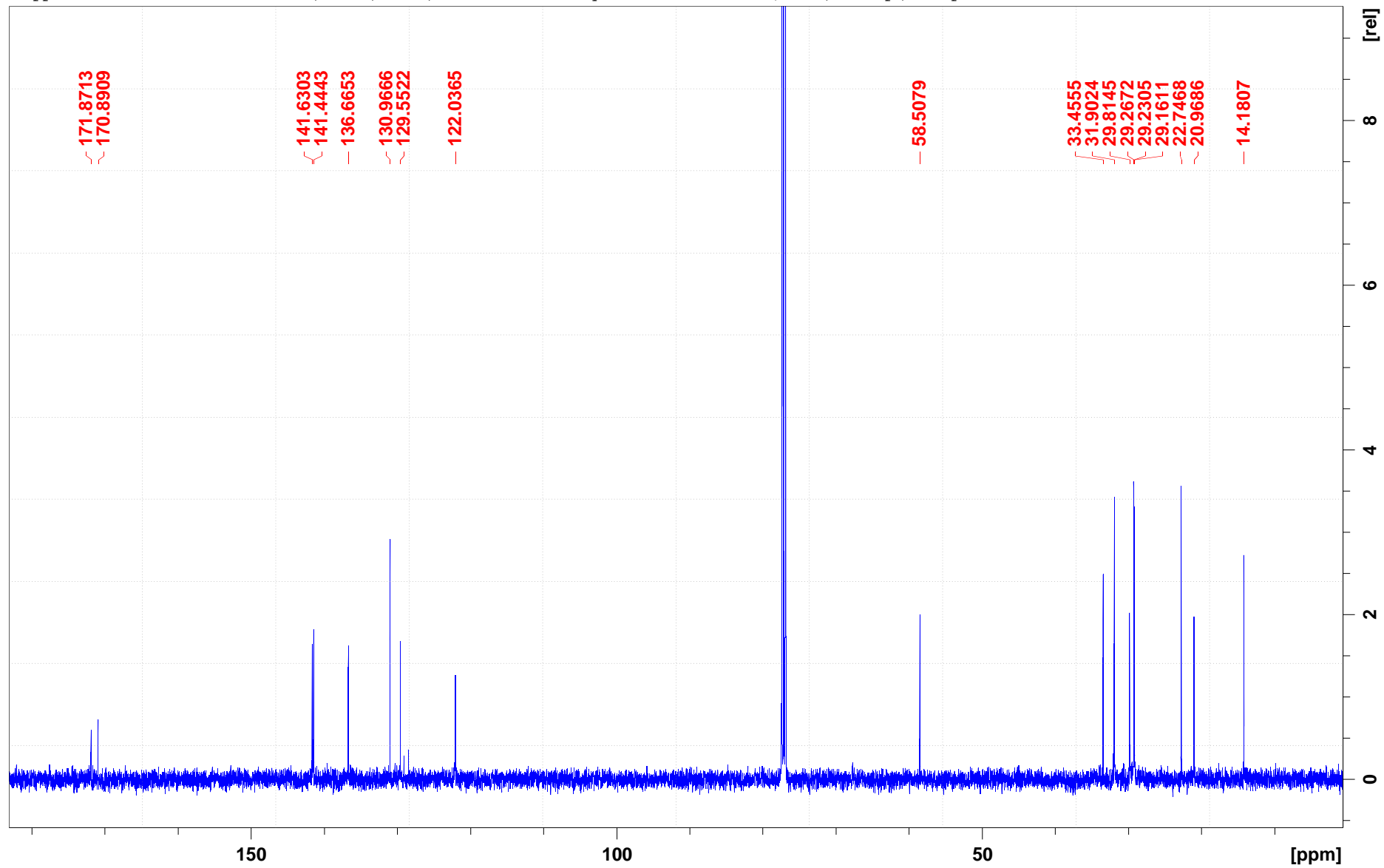


"Oppositifolic acid" 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

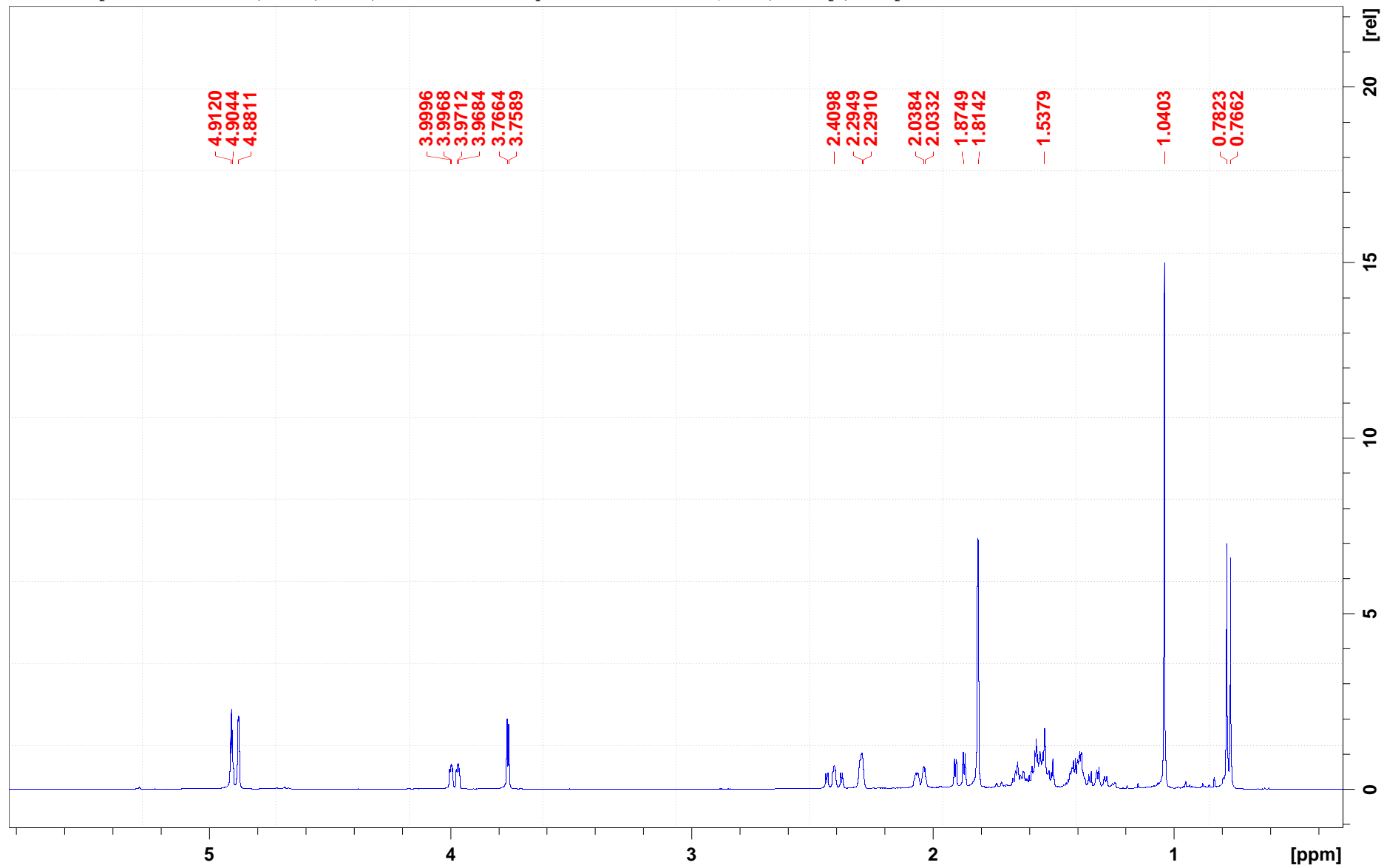




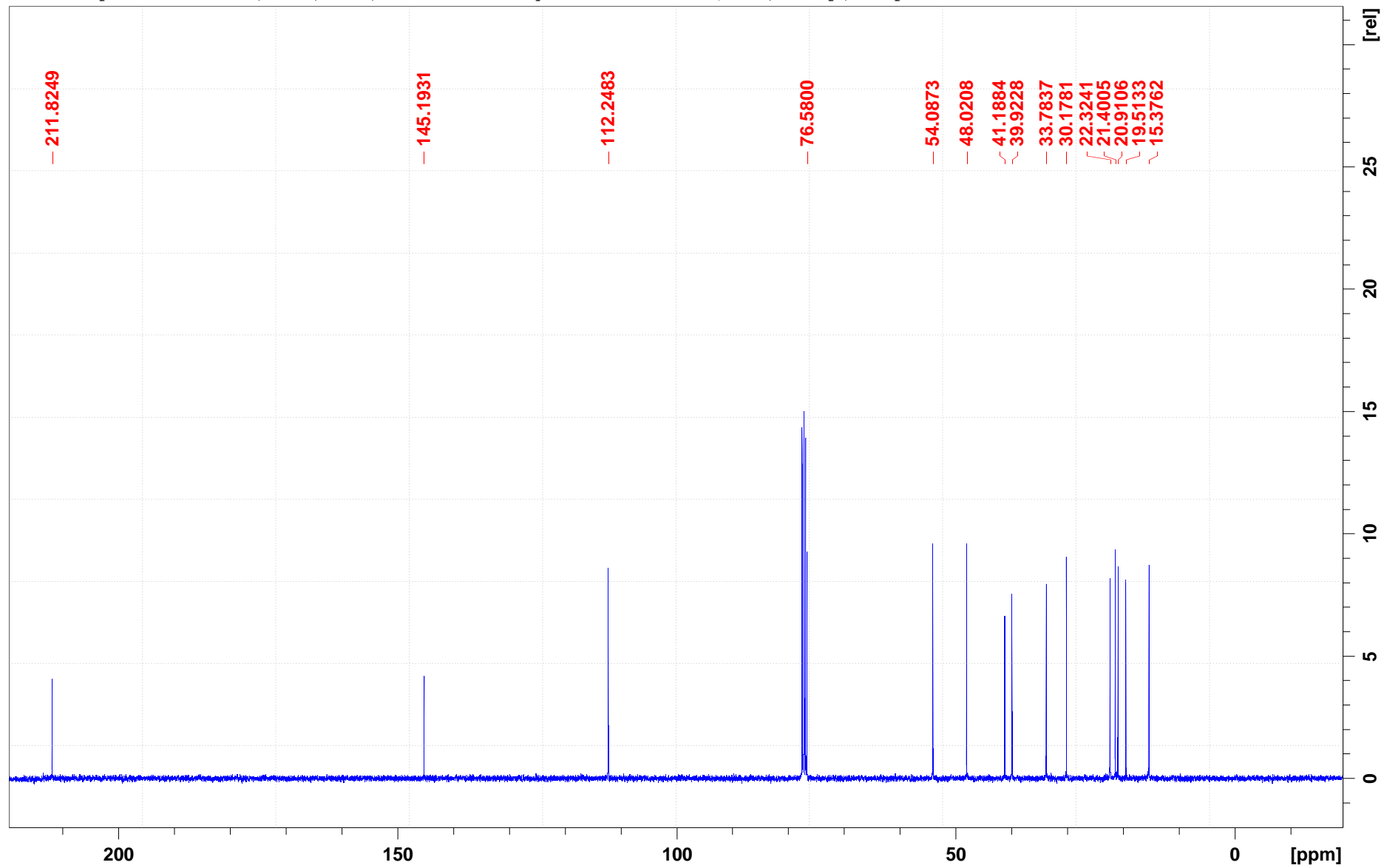
"Oppositifolic acid" 3 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



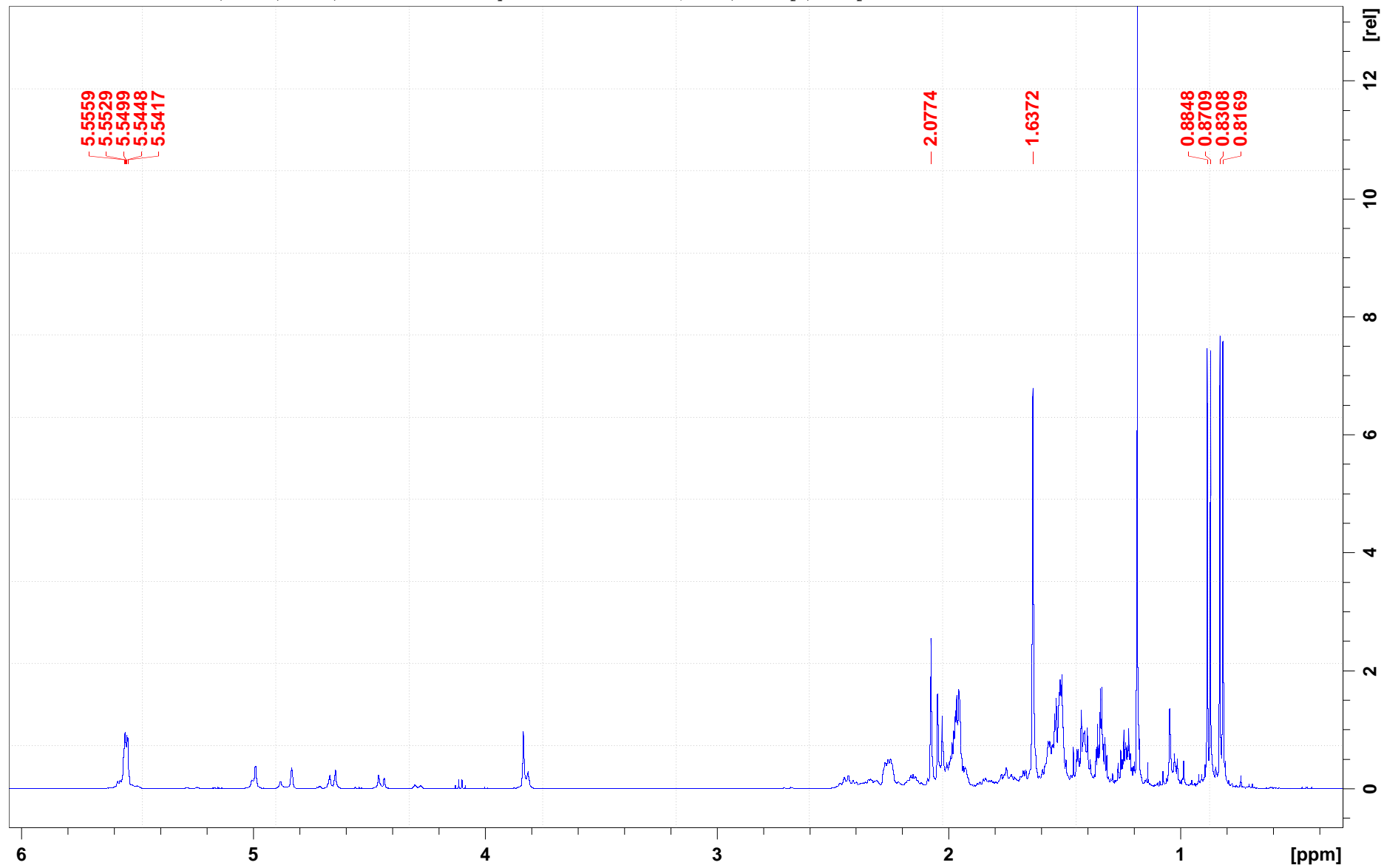
Santalcamphor 10 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



Santalcamphor 11 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



t-Muurolol 2 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"



t-Muurolol 3 1 "C:\Users\nmrsu\OneDrive - The Royal Botanic Gardens, Kew\Desktop\Eremophila NMR"

