Electronic Supplementary Material (ESI) for Organic & Biomolecular Chemistry.


# Supporting Information

## Enantiospecific total syntheses of meroterpenoids (–)-F1839-I, (–)-corallidictyal B and D

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# 1. General Information

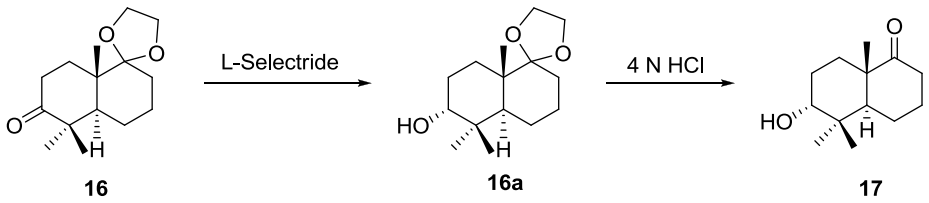
All reactions were carried out under nitrogen atmosphere with dry solvents under anhydrous conditions, unless otherwise mentioned. All the chemicals were purchased commercially, and used without further purification. Anhydrous THF and diethyl ether were distilled from sodium-benzophenone and dichloromethane was distilled from calcium hydride. Yields refer to chromatographically pure material, unless otherwise stated. Reaction were monitored by thin-layer chromatography (TLC) carried out on 0.25 mm Merck silica gel plates (60F-254) using UV light as a visualizing agent and an p-anisaldehyde or ninhydrine stain, and heat as developing agents. Merck silica gel (particle size 100-200 and 230-400 mesh) was used for flash column chromatography.

Reagents were purchased at the highest commercial quality and used without further purification, unless otherwise stated. NMR spectra were recorded on Bruker Avance 500 ($^{1}$H: 500MHz, $^{13}$C: 125MHz) in $CDCl_3$ having TMS 0.03% as internal standard. Mass spectrometric data were obtained using WATERS-Q-T of Premier-ESI-MS.

The following abbreviations were used to explain the multiplicities: s = singlet, d = doublet, t = triplet, q = quartet, dd = doublet of doublet, ddd = doublet of a doublet of a doublet. The coupling constants in the $^{1}$H NMR spectra are uncorrected.

## 2. Experimental Procedures:

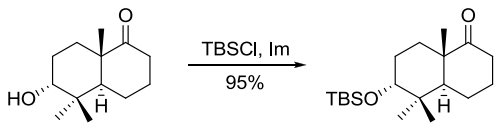
**Synthesis of 17**:




16 16a 17

To a magnetically stirred solution of ketone **16** (4 g, 15.8 mmol) in THF, cooled to –78 $^{o}$C, was added L-selectride (23.7 mL, 23.7 mmol, 1 M in THF). The reaction mixture allowed to stir for 1 h at same temperature and then allowed to come to room temperature and stirred for additional 2 h. After completion, reaction was quenched with saturated $NH_4Cl$. The reaction mixture was then extracted with ethyl acetate and dried over $Na_2SO_4$. The solvents were removed in vacuo to yield alcohol **16a**. Crude alcohol was dissolved in THF, cooled to 0 $^{o}$C, and then added 4 N HCl dropwise. Reaction mixture stirred for 2 h at same temperature. After completion, reaction mixture was extracted with ethyl acetate and dried over $Na_2SO_4$. Evaporation of the solvent and purification of the residue on silica gel column using EtOAc-hexane (1:4) as eluent furnished the compound (–)-**17** (3 g, 90%) as a white solid; $R_f$ = 0.3 (EtOAc-hexane 1:3); $[\alpha]_D^{20}$ –56.8 (*c* 0.44, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 3394 (br), 2958, 1713, 1258, 1102, 1068, 856, 772; **$^1$H NMR** (400 MHz, $CDCl_3$) δ 0.93 (s, 3H), 0.97 (s, 3H), 1.14 (s, 3H), 1.32 - 1.39 (m, 1H), 1.54 - 1.67, m, 5H), 1.84 - 1.93 (m, 1), 1.94 - 1.99 (m, 1H), 2.01 - 2.07 (m, 1H), 2.14 - 2.24 (m, 1H), 2.55 (td, *J* = 13.70, 7.02 Hz, 1H), 3.42 (br s, 1H); $^{13}$C NMR (100 MHz, $CDCl_3$) δ 18.8, 20.9, 22.8, 25.3, 26.1, 26.5, 28.6, 37.9, 38.8, 46.7, 49.0, 75.9, 215.6; **HRMS**: m/z calcd for $C_{13}H_{23}O_2$ $[M+H]^+$: 211.1698; found: 211.1692.

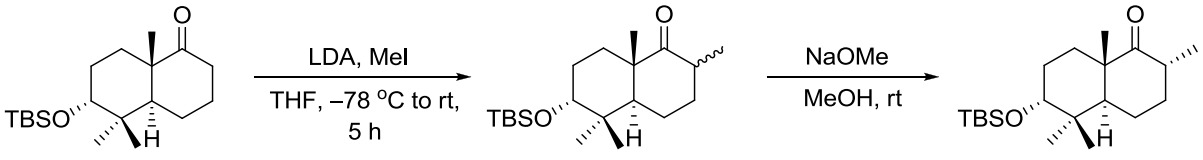
**Synthesis of 18**:




**17** **18**

To a solution of **17** (3g, 14.3 mmol) in DMF (25 mL), was added imidazole (4.86 g, 71.5 mmol) and TBSCl (8.6 g, 57 mmol). The mixture was stirred for 8 h at 100 $^{o}$C, diluted with ethyl acetate, washed with brine, dried over $Na_2SO_4$. Evaporation of the solvent and purification of the residue on silica gel column using EtOAc-hexane (1:19) as eluent furnished the compound (–)-**18** (4.4 g, 95%) as a white solid; $R_f$ = 0.3 (EtOAc-hexane 1:3); $[\alpha]_D^{20}$ –50.7 (*c* 0.44, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 2954, 1714, 1476, 1464, 1249, 1092, 1068, 851, 771, 671; **$^1$H NMR** (400 MHz, $CDCl_3$) δ 0.00 (s, 3H), 0.03 (s, 3H), 0.86 (s, 9H), 0.90 (s, 3H), 1.12 (s, 3H), 1.24 - 1.30 (m, 1H), 1.51 - 1.64 (m, 5H), 1.78 - 1.87 (m, 1H), 1.99 - 2.07 (m, 2H), 2.16 - 2.23 (m, 1H), 2.50 - 2.60 (m, 1H), 3.31 - 3.38 (m, 1H); $^{13}$C NMR (100 MHz, $CDCl_3$) δ –4.6, –4.0, 18.5, 19.1, 20.7, 22.7, 25.6, 26.3, 26.4 (3C), 26.5, 29.6, 38.0, 39.5, 46.8, 49.1, 76.5, 216.1; **HRMS**: m/z calcd for $C_{19}H_{37}O_2Si$ $[M+H]^+$: 325.2563; found: 325.2563.

**Synthesis of 19**:

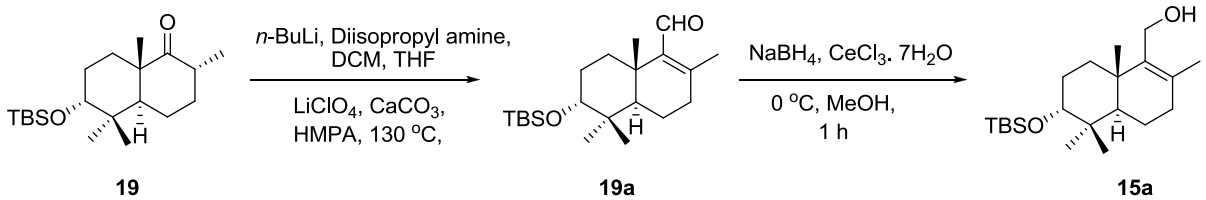



**18** **18ab** **19**

To a magnetically stirred solution of diisopropylamine (3.7 mL, 26.2 mmol) in THF (40 mL), cooled to 0 $^{o}$C was added *n*-butyllithium (11.2 mL, 14.4 mmol, 1.6 M in hexane), stirred for 30 min before being cooled to –78 $^{o}$C. A solution of the TBS ether **18** (4.25 g, 13.1 mmol) in THF (10 mL) was then added dropwise at –78 $^{o}$C and the resulting solution stirred for 45 min at same temperature. Then methyl iodide (8.2 mL, 131 mmol) was added and the solution allowed to warm to 25 $^{o}$C

and stirred for additional 3 h. The reaction was quenched with a saturated solution of $NH_4Cl$ and extracted three times with ether. The combined organic extracts were washed with brine, and dried over $Na_2SO_4$. The solvents were removed in vacuo to yield both diastereomers of the ketone **18ab** as crude, orange-brown oil. To a stirring solution of methanol (30 mL) and sodium metal (3 g, 131 mmol) at 25 $^oC$ was added a solution of the ketone **18ab** in methanol (25 mL) and the resulting mixture was allowed to stir for 10 h. The solvent was removed in vacuo and the crude residue diluted with ether and water and extracted three times with ether. The combined organic extracts were washed with brine and dried ($Na_2SO_4$). The solvent was removed in vacuo and the crude residue purified by flash chromatography on silica gel (20% ethyl acetate -hexane) to yield the ketone (–)-**19** as an white solid (4.3 g, 97%); $[\alpha]_D^{20}$ –32.6 (*c* 0.48, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 2955, 2857, 1709, 1472, 1461, 1255, 1090, 1078, 853, 772, 671; **$^1$H NMR** (500 MHz, $CDCl_3$): δ 0.01 (br. s., 3 H), 0.03 (s, 3 H), 0.86 (s, 3 H), 0.87 (s, 9 H), 0.90 (s, 3 H), 0.97 (d, *J*=6.3 Hz, 3 H), 1.10 - 1.12 (s, 3 H), 1.18 - 1.28 (m, 2 H), 1.52 - 1.70 (m, 4 H), 1.79 - 1.86 (m, 1 H), 2.03 - 2.10 (m, 2 H), 2.64 (dquin, *J*=13.0, 6.4, 6.4, 6.4, 6.4 Hz, 1 H), 3.34 (t, *J*=2.6 Hz, 1 H); **$^{13}$C NMR** (125 MHz, $CDCl_3$): δ –4.6, –4.0, 15.4, 18.5, 19.3, 21.2, 22.7, 25.7, 26.3 (3C), 26.6, 29.5, 36.0, 39.6, 40.3, 47.7, 48.8, 76.6, 216.7; **HRMS**: m/z calcd for $C_{20}H_{39}O_2Si$ $[M+H]^+$: 339.2719; found: 339.2729.

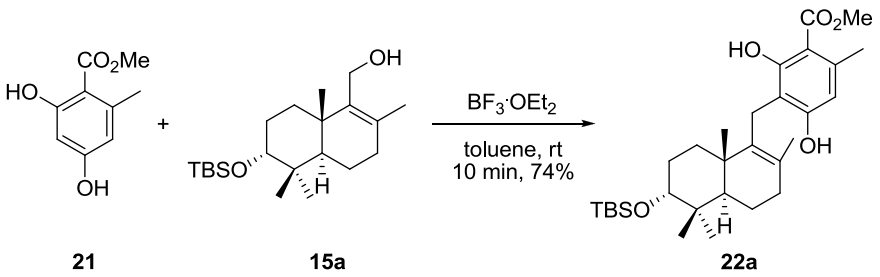
**Synthesis of 15a**:




To a magnetically stirred solution of diisopropylamine (5 mL, 35.4 mmol) and THF (10 mL) cooled to 0 $^oC$ was added *n*-butyllithium (18.4 mL, 29.5 mmol, 1.6 M in hexane). The solution was allowed to stir for 30 min before being cooled to –95 $^oC$, followed by dropwise addition of DCM (10 mL) at same temperature for

30 min. A solution of the ketone **19** (4 g, 11.8 mmol) in THF (10 mL) was added dropwise to the mixture and it was allowed to gradually warm to –20 $^{o}$C over 2 h. The reaction mixture was then refluxed for 1 h, cooled to 0 $^{o}$C, and the solvents removed in vacuo. To the crude residue was added hexamethylphosphoramide (40 mL), lithium perchlorate (3.75 g, 35.4 mmol), calcium carbonate (4.18 g, 41.8 mmol), and the mixture was heated with stirring to 130 $^{o}$C for 1.5 h. After the reaction mixture cooled, it was diluted with water and extracted three times with ether. The combined organic extracts were washed once with brine and dried ($MgSO_4$). The solvent was removed in vacuo to afford crude **19a** as brown liquid. To a stirred solution of crude aldehyde **19a** in methanol (50 mL) at 0 $^{o}$C, was added $CeCl_3 \cdot 7H_2O$ (220 mg, 0.58 mmol), followed by $NaBH_4$ (447 mg, 11.8 mmol). The resulting solution was stirred for additional 30 min at same temperature. The methanol was removed on under reduced pressure, then extracted with $CH_2Cl_2$ and dried over $Na_2SO_4$. Evaporation of the solvent and purification of the residue on silica gel column using EtOAc-hexane (1:15) as eluent furnished the compound (+)-**15a** (2.2 g, 53%) as a white solid; $R_f$ = 0.5 (EtOAc-hexane 1:5); $[\alpha]_D^{20}$ +13.9 (*c* 0.48, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 3347 (br), 2945, 2891, 1471, 1254, 1078, 1009, 834, 773; **$^1$H NMR** (500 MHz, $CDCl_3$): δ 0.03 (s, 3 H), 0.04 (s, 3 H), 0.83 (s, 3 H), 0.87 (s, 3 H), 0.88 (s, 9 H), 0.96 (s, 3 H), 1.39 - 1.46 (m, 1 H), 1.50 - 1.62 (m, 4 H), 1.72 (s, 3 H), 1.74 - 1.82 (m, 1 H), 1.87 - 1.93 (m, 1 H), 1.99 - 2.10 (m, 2 H), 3.38 (t, *J*=2.6 Hz, 1 H), 4.06 (d, *J*=12.0 Hz, 1 H), 4.18 (d, *J*=12.0 Hz, 1 H); **$^{13}$C NMR** (125 MHz, $CDCl_3$) δ –4.5, –4.0, 18.6, 18.7, 19.7, 21.1, 22.4, 26.4 (3C), 26.6, 29.4, 30.1, 33.9, 38.2, 38.6, 45.1, 58.7, 76.5, 132.6, 141.4; **HRMS**: m/z calcd for $C_{21}H_{41}O_2Si$ $[M+H]^+$: 353.2876; found: 353.2891.

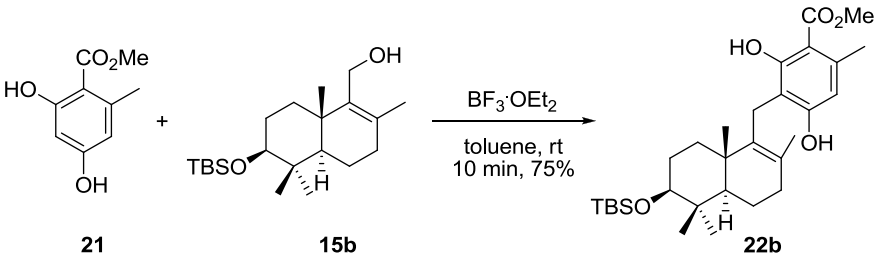
**Synthesis of 22a**:




21 15a 22a

To a magnetically stirred solution of ester **21** (100 mg, 0.54 mmol) and allyl alcohol **15a** (290 mg, 0.82 mmol) in toluene (5 mL) was added $BF_3{\cdot}OEt_2$ (7 μL, 54 $\mu$mol) dropwise at room temperature. The resulting solution was stirred for 10 min at rt and quenched with water followed by saturated $NaHCO_3$. The reaction mixture was then extracted with ethyl acetate and dried over $Na_2SO_4$. Evaporation of the solvent and purification of the residue on silica gel column using EtOAc-hexane (1:99) as eluent furnished the compound (+)-**22a** (210 mg, 74%) as a white solid; $R_f$ = 0.6 (EtOAc-hexane 1:19); $[\alpha]_D^{20}$ +42.3 (*c* 0.53, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 3427 (br), 2958, 2862, 1632, 1603, 1262, 1063, 830; **$^1$H NMR** (500 MHz, $CDCl_3$) : δ –0.07 (s, 3 H), –0.01 (s, 3 H), 0.84 (s, 3 H), 0.86 (s, 9 H), 0.89 (s, 3 H), 1.04 (s, 3 H), 1.25 - 1.31 (m, 1 H), 1.34 (dd, *J*=13.7, 3.4 Hz, 1 H), 1.61 - 1.71 (m, 4 H), 1.73 (s, 3 H), 1.75 - 1.82 (m, 1 H), 2.16 (m, 2 H), 2.43 (s, 3 H), 3.31 - 3.34 (m, 1 H), 3.39 (d, *J*=17.2 Hz, 1 H), 3.51 (d, *J*=17.8 Hz, 1 H), 3.91 (s, 3 H), 6.11 (s, 1 H), 7.84 (s, 1 H), 12.27 (s, 1 H); **$^{13}$C NMR** (125 MHz, $CDCl_3$): δ –4.44, –4.38, 18.4, 18.5, 20.3, 20.7, 22.3, 24.3, 24.4, 26.2 (3C), 26.3, 28.7, 29.4, 33.7, 38.6, 39.5, 44.7, 52.0, 76.4, 104.5, 109.9, 112.9, 133.7, 140.2, 140.3, 161.4, 162.9, 173.3; **HRMS**: m/z calcd for $C_{30}H_{47}O_5Si$ $[M-H]^+$: 515.3193; found: 515.3192.

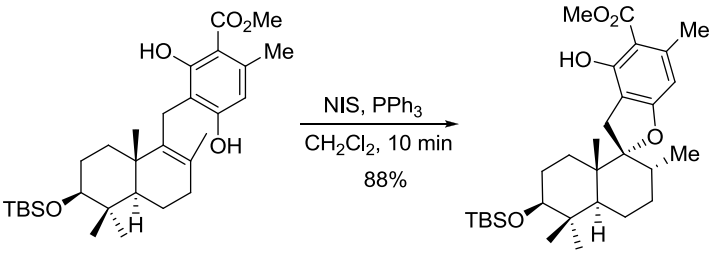
**Synthesis of 22b**:




21 15b 22b

Using same procedure like above, 100 mg of **21** gave 212 mg of **22b** in 75% yield. $[\alpha]_D^{20}$ +83.6 (*c* 0.44, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 3339, 2952, 2856, 1650, 1620, 1581, 1332, 1250, 1196, 1104, 836,773; **$^1$H NMR** (400 MHz, $CDCl_3$): δ –0.03 (s, 3 H), 0.00 (s, 3H), 0.77 (s, 3 H), 0.85 (s, 9 H), 0.92 (s, 3 H), 1.03 (s, 3 H), 1.13 (t, *J*=12.82 Hz, 2 H), 1.43 - 1.48 (m, 1 H), 1.56 - 1.65 (m, 3 H), 1.71 (s, 3 H), 1.72 – 1.76 (m, 1 H), 2.12 - 2.18 (m, 2 H), 2.44 (s, 3 H), 3.17 (dd, *J*=11.45, 4.58 Hz, 1 H), 3.38 (d, *J*=17.6 Hz, 1 H), 3.47 (d, *J*=17.6 Hz, 1 H), 3.90 (s, 3 H), 6.15 (s, 1 H), 7.78 (s, 1 H), 12.29 (s, 1 H); **$^{13}$C NMR** (100 MHz, $CDCl_3$): δ –4.6, –3.4, 16.4, 18.4, 19.0, 20.2, 20.7, 24.4, 24.5, 26.2 (3C), 28.1, 28.8, 34.1, 34.1, 39.6, 39.8, 51.1, 52.1, 79.3, 104.8, 109.7, 112.5, 134.1, 139.8, 140.5, 161.0, 163.0, 173.2; **HRMS**: m/z calcd for $C_{30}H_{49}O_5Si$ $[M+H]^+$: 517.3349; found: 517.3332.

**Synthesis of 23**:

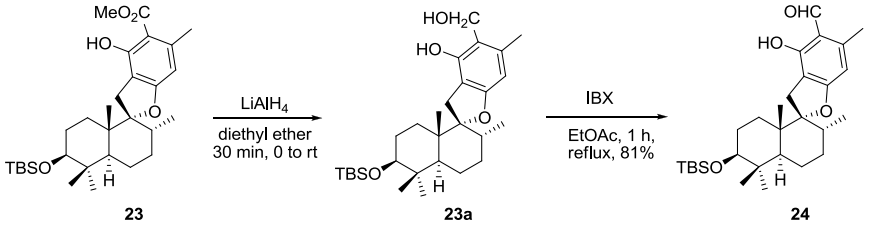



**22b** **23**

To a magnetically stirred solution of *N*-iodosuccinimide (3.4 mg, 0.15 μmol), in DCM at 0 $^oC$, was added $PPh_3$ (4 mg, 15 μmol) and stirred for 15 min at same temperature. Above solution was added dropwise to dichloromethane (1 mL) solution of compound **22b** (80 mg, 0.15 mmol) at room temperature and stirred for additional 10 min. After completion of reaction, reaction mixture was extracted with dichloromethane and dried over $Na_2SO_4$. Evaporation of the solvent and purification of the residue on silica gel column using EtOAc-hexane (1:49) as eluent furnished the compound **23** (70 mg, 88%) as a white solid; $R_f$ = 0.5 (EtOAc-hexane 1:19); **IR** (neat): $\nu_{max}/cm^{-1}$ 3458 (br), 2949, 1608, 1458, 1262, 1198, 1141, 1079, 1018, 849, 772; **$^1$H NMR** (400 MHz, $CDCl_3$): δ 0.01 (s, 3 H), 0.02 (s, 3 H),

0.70 (d, *J* = 6.8 Hz, 3 H), 0.76 (s, 3 H), 0.86 (s, 9 H), 0.92 (s, 3 H), 0.96 (s, 3 H), 1.31 - 1.34 (m, 1 H), 1.40 - 1.47 (m, 3 H), 1.51 - 1.64 (m, 5 H), 1.75 (m, 1 H), 2.48 (s, 3 H), 2.75 (d, *J* = 16.3 Hz, 1 H), 3.11 (d, *J* = 16.3 Hz, 1 H), 3.17 (dd, *J* = 11.4, 5 Hz, 1 H), 3.87 - 3.89 (m, 3 H), 6.25 (s, 1 H), 11.80 (s, 1 H); **$^{13}$C NMR** (100 MHz, $CDCl_3$): δ –4.6, –3.5, 15.7, 16.4, 16.5, 18.4, 21.6, 25.1, 26.2 (3C), 27.5, 28.8, 29.7, 31.4, 31.6, 37.3, 39.7, 42.4, 46.1, 52.0, 79.2, 99.3, 105.1, 105.2, 111.4, 143.9, 160.2, 166.2, 172.8; **HRMS**: m/z calcd for $C_{30}H_{49}O_5Si$ $[M+H]^+$: 559.3455; found: 517.3349.

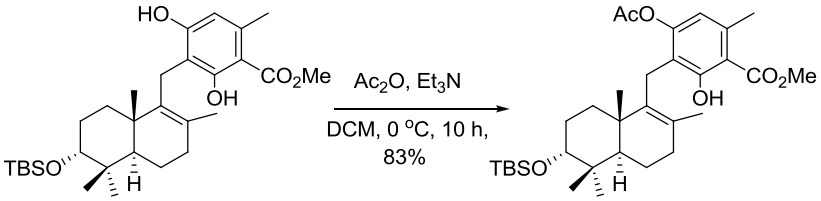
**Synthesis of 24**:




To a magnetically stirred solution of **23** (50 mg, 96 $\mu$mol) in diethyl ether, cooled to 0 $^{o}$C, was added $LiAlH_4$ (7 mg, 0.19 mmol), stirred for 10 min at same temperature. After stirring for 10 min at same temperature, reaction temperature was raised to 10 $^{o}$C and stirred for additional 20 min. After completion, reaction was quenched by ice, extracted with diethyl ether and dried over $Na_2SO_4$. Solvent was removed under reduced pressure to give crude alcohol **23a**. To a solution of **27a** in acetonitrile was added IBX (80 mg, 0.29 mmol), and reaction mixture was refluxed for 1 h. After completion, reaction mixture was filtered through celite pad, washed with $NaHCO_3$, brine and dried over $Na_2SO_4$. Evaporation of the solvent and purification of the residue on silica gel column using EtOAc-hexane (1:9) as eluent furnished the compound **24** (38 mg, 81%) as a white solid; $R_f$ = 0.5 (EtOAc-hexane 1:4); **IR** (neat): $\nu_{max}/cm^{-1}$ 3458 (br), 2941, 2862, 1717, 1608, 1459, 1261, 1152, 1051, 836, 762; **$^{1}$H NMR** (400 MHz, $CDCl_3$): δ –0.02 (s, 3 H), 0.01 (s, 3 H), 0.71 (d, *J* = 6.6 Hz, 3 H), 0.76 (s, 3 H), 0.86 (s, 9 H), 0.93 (s, 3 H), 0.97 (s, 3 H),

1.27 - 1.32 (m, 2 H), 1.41 - 1.51 (m, 4 H), 1.56 - 1.65 (m, 3 H), 1.74 - 1.82 (m, 1H), 2.51 (s, 3 H), 2.74 (d, *J* = 16.3 Hz, 1 H), 3.10 (d, *J* = 16.2 Hz, 1 H), 3.16 (dd, *J* = 11.4, 4.5 Hz, 1 H), 6.25 (s, 1 H), 10.01 (s, 1 H), 12.49 (s, 1 H); **$^{13}$C NMR** (100 MHz, $CDCl_3$): δ -4.6, -3.4, 15.6, 16.3, 16.6, 18.4, 19.0, 21.6, 26.2 (3C), 27.5, 28.8, 29.7, 30.8, 31.4, 37.3, 39.7, 42.4, 46.2, 79.2, 100.3, 104.8, 111.5, 113.8, 145.3, 161.1, 169.1, 192.9; **HRMS**: m/z calcd for $C_{29}H_{47}O_4Si$ $[M+H]^+$: 487.3244; found: 487.3248.

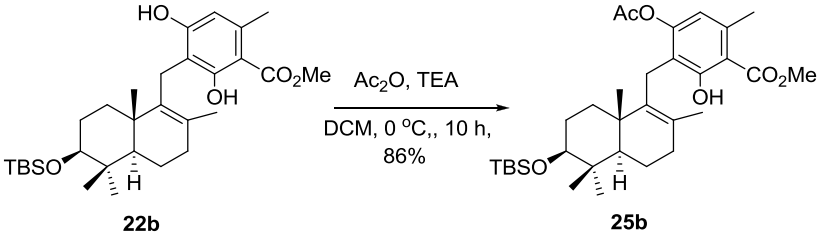
**Synthesis of 25a**:




**22a** **25a**

To a magnetically stirred solution of **22a** (100 mg, 0.19 mmol) in DCM, cooled to 0 $^oC$, was added triethyl amine (80 $\mu$L, 0.58 mmol), followed by $Ac_2O$ (37 μL, 0.39 mmol). The reaction mixture was stirred for 10 h at same temperature. After completion of reaction, reaction mixture was extracted with DCM and dried over $Na_2SO_4$. Evaporation of the solvent and purification of the residue on silica gel column using EtOAc-hexane (1:99) as eluent furnished the compound (+)-**25a** (90 mg, 83%) as a white solid; $R_f$ = 0.5 (EtOAc-hexane 1:19); $[\alpha]_D^{20}$ +22.8 (*c* 0.52, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 3472 (br), 2954, 1658, 1452, 1249, 1193, 1077, 835, 772; **$^1$H NMR** (400 MHz, $CDCl_3$): δ –0.05 (s, 3 H), –0.01 (s, 3 H), 0.80 (s, 3 H), 0.85 (s, 9 H), 0.86 (s, 3 H), 0.91 (s, 3 H), 1.23 - 1.36 (m, 3 H), 1.44 - 1.52 (m, 1 H), 1.55 (s, 3 H),1.65 - 1.76 (m, 3 H), 2.02 - 2.09 (m, 2 H), 2.24 (s, 3 H), 2.45 (s, 3 H), 3.26 - 3.35 (m, 2 H), 3.42 (d, *J*=17.2 Hz, 1 H), 3.92 (s, 3 H), 6.33 (s, 1 H), 11.72 (s, 1 H); **$^{13}$C NMR** (100 MHz, $CDCl_3$): δ –4.5, –4.2, 18.6, 19.0, 20.8, 21.0, 21.7, 22.5, 24.1, 24.2, 26.3 (3C), 26.6, 29.4, 29.6, 34.2, 38.6, 39.2, 44.6, 52.4, 76.8, 110.3, 117.5, 120.5, 127.4, 137.5, 139.1, 153.2, 162.9, 169.4, 172.6; **HRMS**: m/z calcd for $C_{32}H_{51}O_6Si$ $[M+H]^+$: 559.3455; found: 559.3459.

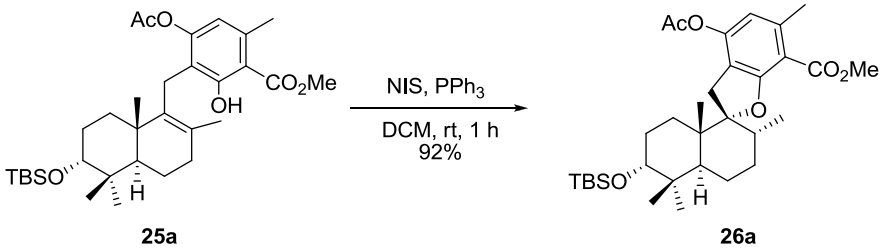
**Synthesis of 25b**:




**22b** **25b**

Using same procedure like above, 200 mg of **22b** gave 188 mg of **25b** in 86% yield. $[\alpha]_D^{20}$ +39.3 (*c* 0.44, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 2953, 2856, 1769, 1657, 1451, 1366, 1246, 1192, 1148, 1103, 835; **$^1$H NMR** (400 MHz, $CDCl_3$): δ 0.00 (s, 6 H), 0.73 (s, 3 H), 0.85 (s, 9 H), 0.89 (s, 3 H), 0.92 (s, 3 H), 1.10 (dd, *J*=12.7, 1.8 Hz, 1 H), 1.14 - 1.23 (m, 1 H), 1.44 - 1.51 (m, 3 H), 1.59 (s, 3 H), 1.60 - 1.67 (m, 2 H), 2.05 (br s, 2 H), 2.22 (s, 3 H), 2.47 (s, 3 H), 3.15 (dd, *J*=11.3, 4.5 Hz, 1 H), 3.29 (d, *J*=16.3 Hz, 1 H), 3.46 (d, *J*=16.3 Hz, 1 H), 3.94 (s, 3 H), 6.37 (s, 1 H), 11.83 (s, 1 H); **$^{13}$C NMR** (100 MHz, $CDCl_3$): δ -4.6, -3.4, 16.4, 18.4, 19.4, 20.7, 21.0, 21.5, 23.7, 24.2, 26.2 (3C), 28.5, 29.0, 34.7, 34.9, 39.3, 39.8, 51.1, 52.5, 79.6, 110.3, 117.5, 120.5, 127.9, 137.4, 139.3, 153.5, 162.7, 169.1, 172.7; **HRMS**: m/z calcd for $C_{32}H_{51}O_6Si$ $[M+H]^+$: 559.3455; found: 559.3468.

**Synthesis of 26a**:

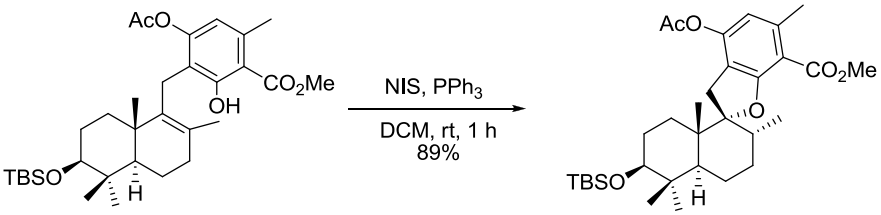



**25a** **26a**

To a magnetically stirred solution of *N*-iodosuccinimide (3.2 mg, 0.14 μmol), in DCM at 0 °C, was added $PPh_3$ (3.6 mg, 14 μmol) and stirred for 15 min at same temperature. Above solution was added dropwise to DCM (1 mL) solution of compound **25a** (80 mg, 0.14 mmol) at room temperature and stirred for additional 1 h. After completion of reaction, reaction mixture was extracted with DCM and dried over $Na_2SO_4$. Evaporation of the solvent and purification of the residue on

silica gel column using EtOAc-hexane (1:49) as eluent furnished the compound (–)-**26a** (74 mg, 92%) as a white solid; $R_f$ = 0.5 (EtOAc-hexane 1:19); $[\alpha]_D^{20}$ –65.7 (*c* 0.44, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 3452 (br), 2954, 1605, 1449, 1274, 1202, 1151, 1078, 1018, 853, 772; **$^1$H NMR** (500 MHz, $CDCl_3$): δ –0.05 (s, 3 H), 0.00 (s, 3 H), 0.72 (d, *J*=6.5 Hz, 3 H), 0.83 (s, 3 H), 0.86 (s, 9 H), 0.89 (s, 3 H), 0.94 (s, 3 H), 0.99 - 1.03 (m, 1 H), 1.34 - 1.42 (m, 1 H), 1.51 - 1.60 (m, 4 H), 1.68 – 1.75 (m, 1 H), 1.81 - 1.86 (m, 2 H), 2.11 (dd, *J*=12.9, 2.5 Hz, 1 H), 2.28 (s, 3 H), 2.42 (s, 3 H), 2.61 (d, *J*=16.3 Hz, 1 H), 3.08 (d, *J*=16.3 Hz, 1 H), 3.31 (d, *J*=2.1 Hz, 1 H), 3.84 (s, 3 H), 6.35 (s, 1 H); **$^{13}$C NMR** (100 MHz, $CDCl_3$): δ –4.7, –4.0, 15.9, 16.8, 18.4, 21.3, 21.4, 21.5, 22.7, 24.7, 25.9, 26.3 (3C), 27.3, 29.7, 31.5, 32.2, 38.1, 38.7, 40.6, 42.2, 51.8, 76.4, 98.5, 111.2, 115.1, 115.1, 118.9, 140.8, 148.1, 163.0, 166.9, 168.4; **HRMS**: m/z calcd for $C_{32}H_{51}O_6Si$ $[M+H]^+$: 559.3455; found: 559.3451.

**Synthesis of 26b**:

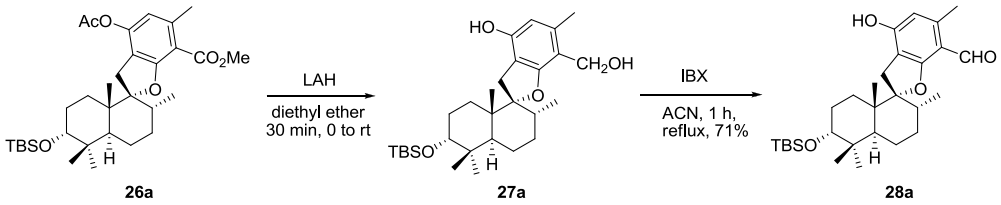



**25b** **26b**

Using same procedure like above, 180 mg of **25b** gave 160 mg of **26b** in 89% yield. $[\alpha]_D^{20}$ –16.4 (*c* 0.44, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 2926, 1723, 1604, 1449, 1260, 1201, 1146, 1083, 834, 773; **$^1$H NMR** (500 MHz, $CDCl_3$): δ 0.00 (s, 3 H), 0.02 (s, 3 H), 0.73 (d, *J*=6.9 Hz, 3 H), 0.76 (s, 3 H), 0.87 (s, 9 H), 0.92 (s, 3 H), 0.93 (s, 3 H), 1.27 - 1.29 (m, 1 H), 1.42 - 1.51 (m, 5 H), 1.52 - 1.57 (br. s., 2 H), 1.61 - 1.63 (m, 1 H), 1.69 - 1.74 (m, 1 H), 2.27 (s, 3 H), 2.39 (s, 3 H), 2.66 (d, *J*=16.6 Hz, 1 H), 3.01 (d, *J*=16.6 Hz, 1 H), 3.15 (dd, *J*=11.2, 4.3 Hz, 1 H), 3.87 (s, 3 H), 6.35 (s, 1 H); **$^{13}$C NMR** (125 MHz, $CDCl_3$): δ -4.6, -3.4, 15.7, 16.2, 16.4, 18.5, 20.9, 21.2, 21.6, 26.3 (3C), 27.5, 29.1, 29.7, 31.6, 32.1, 37.2, 39.6, 42.4,

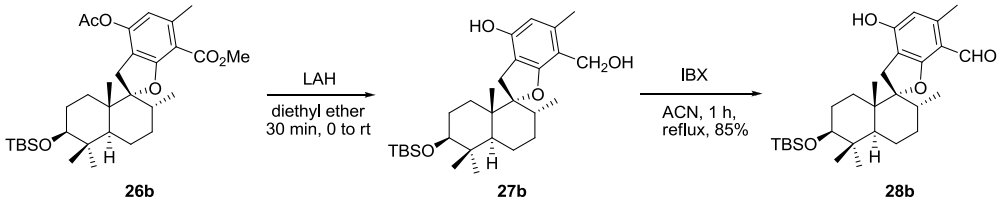
46.3, 51.8, 79.4, 98.3, 111.6, 115.2, 118.7, 140.1, 148.3, 162.2, 167.4, 168.3; **HRMS**: m/z calcd for $C_{30}H_{47}O_5Si$ $[M-Ac]^+$: 515.3193; found: (M-H) 515.3192.

**Synthesis of 28a**:



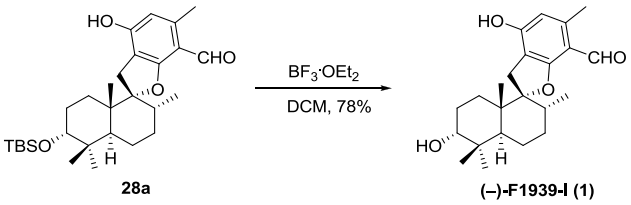

To a magnetically stirred solution of **26a** (50 mg, 89 $\mu$mol) in diethyl ether, cooled to 0 $^oC$, was added LAH (14 mg, 0.36 mmol), stirred for 10 min at same temperature. After stirring for 10 min at same temperature, reaction temperature was raised to 10 $^oC$ and stirred for additional 20 min. After completion, reaction was quenched by ice, extracted with diethyl ether and dried over $Na_2SO_4$. Solvent was removed under reduced pressure to give crude alcohol **27a**. To a solution of **27a** in acetonitrile was added IBX (74 mg, 0.26 mmol), and reaction mixture was refluxed for 1 h. After completion, reaction mixture was filtered through celite pad, washed with $NaHCO_3$, brine and dried over $Na_2SO_4$. Evaporation of the solvent and purification of the residue on silica gel column using EtOAc-hexane (1:9) as eluent furnished the compound (–)-**28a** (30 mg, 71%) as a white solid; $R_f$ = 0.5 (EtOAc-hexane 1:4); $[\alpha]_D^{20}$ –64.3 (*c* 0.22, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 3462 (br), 2925, 2859, 1715, 1612, 1462, 1272, 1152, 1056, 832, 761; **$^1$H NMR** (400 MHz, $CDCl_3$): δ –0.08 (s, 3 H), –0.01 (s, 3 H), 0.72 (d, *J*=6.8 Hz, 3 H), 0.82 (s, 9 H), 0.82 (s, 3 H), 0.88 (s, 3 H), 0.98 (s, 3 H), 0.99 - 1.04 (m, 1 H), 1.36 - 1.42 (m, 2 H), 1.52 - 1.58 (m, 3 H), 1.76 - 1.90 (m, 3 H), 2.15 (dd, *J*=12.7, 2.3 Hz, 1 H), 2.51 (s, 3 H), 2.71 (d, *J*=15.9 Hz, 1 H), 3.11 (d, *J*=15.9 Hz, 1 H), 3.30 (br. s., 1 H), 6.06 (s, 1 H), 10.32 (s, 1 H); **$^{13}$C NMR** (100 MHz, $CDCl_3$): δ –4.5, –4.2, 16.0, 16.8, 18.4, 21.2, 22.0, 22.5, 24.8, 25.8, 26.1 (3C), 30.0, 30.6, 31.5, 37.6, 38.6, 40.4, 42.5, 76.3, 100.0, 111.0, 111.1, 112.0, 142.8, 156.2, 168.8, 189.1; **HRMS**: m/z calcd for $C_{29}H_{47}O_4Si$ $[M+H]^+$: 487.3244; found: 487.3232.

**Synthesis of 28b**:




Using same procedure like above, 100 mg of **26b** gave 74 mg of **28b** in 85% yield. $[\alpha]_D^{20}$ –32.1 (*c* 0.56, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 3462 (br), 2925, 2859, 1715, 1612, 1462, 1272, 1152, 1056, 832, 761; **$^1$H NMR** (400 MHz, $CDCl_3$): δ 0.00 (s, 3 H), 0.03 (s, 3 H), 0.75 (d, *J*=6.3 Hz, 3 H), 0.78 (s, 3 H), 0.87 (s, 9 H), 0.93 (s, 3 H), 0.99 (s, 3 H), 1.32 - 1.37 (m, 2 H), 1.45 - 1.52 (m, 3 H), 1.61 (d, *J*=13.6 Hz, 4 H), 1.80 (dq, *J*=11.5, 5.8 Hz, 1 H), 2.54 (s, 3 H), 2.75 (d, *J*=15.9 Hz, 1 H), 3.11 (d, *J*=15.9 Hz, 1 H), 3.15 (dd, *J*=11.5, 4.7 Hz, 1 H), 5.97 (br s, 1 H), 6.11 (s, 1 H), 10.36 (s, 1 H); **$^{13}$C NMR** (100 MHz, $CDCl_3$): δ –4.5, –3.5, 15.8, 16.4, 16.6, 18.4, 21.6, 21.9, 26.2 (3C), 27.5, 28.9, 29.9, 30.7, 31.5, 37.4, 39.7, 42.4, 46.3, 79.1, 99.9, 111.0, 111.4, 111.8, 142.9, 156.8, 168.7, 189.4; **HRMS**: m/z calcd for $C_{29}H_{47}O_4Si$ $[M+H]^+$: 487.3244; found: 487.3245.

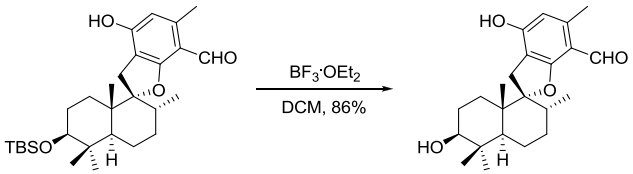
**Synthesis of (–)-F1939-I (1)**:




To a magnetically stirred solution of aldehyde **28a** (15 mg, 31 μmol) in DCM (1 mL) was added $BF_3{\cdot}OEt_2$ (8 $\mu$L, 62 μmol) dropwise at room temperature. The resulting solution was stirred for 10 min at rt and quenched with water followed by saturated $NaHCO_3$. The reaction mixture was then extracted with DCM and dried over $Na_2SO_4$. Evaporation of the solvent and purification of the residue on silica gel column using MeOH-DCM (1:49) as eluent furnished the compound **(–)-F1939-I (1)** (9 mg, 78%) as a white solid; $R_f$ = 0.2 (EtOAc-hexane 1:3); $[\alpha]_D^{20}$ –64.2

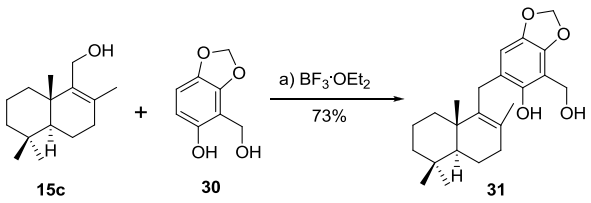
(*c* 0.22, MeOH); **IR** (neat): $\nu_{max}/cm^{-1}$ 3401 (br), 2951, 2840, 2519, 2115, 1644, 1452, 1416, 1111, 1016, 684; **$^{1}$H NMR** (500 MHz, Pyridine-$d_5$): δ 0.88 (d, *J* = 6.3 Hz, 3 H), 0.94 (s, 3 H), 1.01 (s, 3 H), 1.19 (d, *J* = 12.7, 3.5 Hz, 1 H), 1.27 (s, 3 H), 1.46 (dd, *J* = 13.3, 4.1 Hz, 1 H), 1.60 - 1.65 (m, 2 H), 1.68 - 1.70 (m, 1 H), 1.83 - 1.92 (m, 2H), 2.00 (td, *J* = 13.2, 2.3 Hz, 1 H), 2.41 (td, *J* = 12.9, 3.9 Hz, 1 H), 2.62 (d, *J* = 13.0, 2.2 Hz, 1 H), 2.70 (s, 3 H), 3.02 (d, *J* = 16.04 Hz, 1 H), 3.42 (d, *J* = 16.04 Hz, 1 H), 3.63 (br. s., 1 H), 6.54 (s, 1 H), 10.88 (s, 1 H); **$^{13}$C NMR** (100 MHz, Pyridine-$d_5$): δ 15.8, 16.2, 21.3, 21.8, 22.6, 24.7, 26.0, 29.1, 31.4, 31.6, 37.2, 38.1, 40.4, 42.7, 74.6, 99.4, 110.3, 111.6, 111.8, 141.8, 159.9, 168.9, 187.8; **HRMS**: m/z calcd for $C_{23}H_{33}O_4$ $[M+H]^+$: 373.2379; found: 373.2379.

**Synthesis of *epi*- F1939-I (29)**:



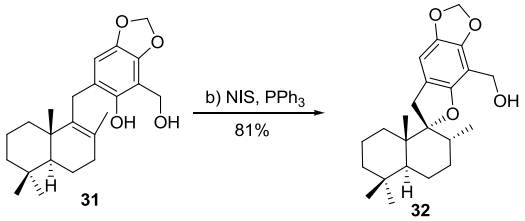

Using same procedure like above, 50 mg of **28b** gave 32 mg of **29** in 86% yield. $[\alpha]_D^{20}$ –42.8 (*c* 0.22, $CHCl_3$); **IR** (neat): $\nu_{max}/cm^{-1}$ 3408 (br), 2927, 2848, 1712, 1610, 1436, 1266, 1132, 841; **$^{1}$H NMR** (400 MHz, $CDCl_3$): δ 0.84 (d, *J*=6.4 Hz, 3 H), 0.98 (s, 3 H), 1.08 (s, 3 H), 1.28 (s, 3 H), 1.42 - 1.49 (m, 2 H), 1.55 - 1.63 (m, 2 H), 1.64 - 1.77 (m, 3 H), 1.78 - 1.91 (m, 3 H), 2.72 (s, 3 H), 2.98 (d, *J*=16.5 Hz, 1 H), 3.36 (d, *J*=16.0 Hz, 1 H), 3.49 (dd, *J*=10.5, 5.5 Hz, 1 H), 6.55 (s, 1 H), 10.83 (s, 1 H); **$^{13}$C NMR** (100 MHz, $CDCl_3$): δ 14.0, 14.7, 14.7, 19.8, 20.2, 26.1, 27.1, 28.3, 28.4, 29.8, 35.5, 37.7, 40.9, 45.0, 76.0, 97.6, 109.6, 110.0, 110.3, 140.3, 158.4, 166.9, 186.1; **HRMS**: m/z calcd for $C_{23}H_{33}O_4$ $[M+H]^+$: 373.2379; found: 373.2384.

**Synthesis of 31:**




To a magnetically stirred solution of phenol derivative **27** (300 mg, 1.78 mmol) and alcohol **15c** (396 mg, 1.78 mmol) in toluene (10 mL). To the above reaction mixture $BF_3.OEt_2$ (25 mg, 0.178 mmol) was added at room temperature under argon atmosphere. Reaction mixture was stirred for 10 min. and quenched with water. Then, organic layer was extracted by ethyl acetate twice. Solvent was removed under vacuum and crude purified by flash chromatography on silica gel (EtOAc/hexane 1/9) to get coupling compound **31** (480 mg, 73%) as greenish viscous liquid. $R_f$ = 0.4 (EtOAc/hexane 1/3); $[\alpha]_D^{20}$ + 183 (*c* 0.48, $CHCl_3$); **IR** (neat) $\upsilon_{max}/cm^{-1}$ 3412, 2925, 1649, 1498, 1443, 1375, 1254, 1215, 1176, 1065, 966, 934, 866, 773; **$^1$H NMR** (400 MHz, $CDCl_3$) δ 0.84 (s, 3 H), 0.90 (s, 3 H), 1.00 (s, 3 H), 1.01 - 1.13 (m, 2 H), 1.22 (dd, *J* = 12.69, 1.81 Hz, 1 H), 1.31 - 1.37 (m, 2 H), 1.44 - 1.49 (m, 1 H), 1.51 (s, 3 H), 1.53 - 1.56 (m, 1 H), 1.58 - 1.63 (m, 1 H), 1.70 - 1.75 (m, 1 H), 2.08 - 2.18 (m, 2 H), 3.20 (d, *J* = 17.22 Hz, 1 H), 3.32 (d, *J* = 17.22 Hz, 1 H), 4.87 (s, 2 H), 5.85 - 5.85 (m, 1 H), 5.86 - 5.86 (m, 1 H), 6.51 (s, 1 H); **$^{13}$C NMR** (400 MHz, $CDCl_3$) δ 18.8, 19.0, 20.1, 20.2, 21.7, 26.8, 33.2, 33.3, 33.5, 36.0, 38.9, 41.6, 51.8, 57.9, 100.8, 107.9, 108.1, 119.9, 129.3, 137.4, 140.0, 142.3, 148.0; **HRMS** m/z calcd for $C_{23}H_{32}O_4$ [(M-H)] 371.2228, found 371.2234.

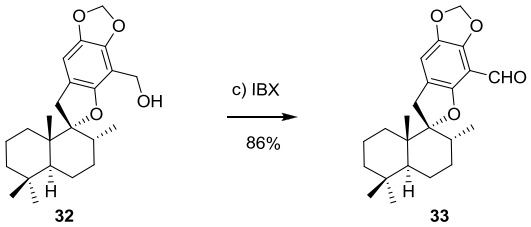
**Synthesis of 32:**




To a magnetically stirred solution of phenol **31** (214 mg, 0.57 mmol) in $CH_2Cl_2$ (5 mL) was added to the stirred solution of N-Iodosuccinimide (13 mg, 0.057 mmol)

and triphenylphosphine (15 mg, 0.057 mmol) at 0 °C. The reaction mixture was kept for stirring at room temperature for 22 h. After completion of reaction solvent was removed under vacuum and the crude was purified by flash chromatography on silica gel (EtOAc/hexane 1/6) to get spirocompound **32** (175 mg, 81%) as greenish paste. $R_f$ = 0.3 (EtOAc/hexane 1/6); $[\alpha]_D^{20}$ − 4.4 (*c* 0.16, $CHCl_3$); **IR** (neat) $\upsilon_{max}/cm^{-1}$ 3462, 2933, 1614, 1455, 1385, 1308, 1249, 1212, 1184, 1116, 1065, 986, 957, 937, 909, 846; **$^1$H NMR** (400 MHz, $CDCl_3$) δ 0.73 (d, *J* = 6.53 Hz, 3 H), 0.84 (s, 3 H), 0.90 (s, 3 H), 0.94 (s, 3 H), 1.09 - 1.15 (m, 1 H), 1.33 - 1.43 (m, 5 H), 1.53 - 1.64 (m, 5 H), 1.71 - 1.76 (m, 1 H), 2.73 (d, *J* = 16.03 Hz, 1 H), 3.16 (d, *J* = 16.26 Hz, 1 H), 4.71 (s, 2 H), 5.87 (d, *J* = 1.37 Hz, 1 H), 5.88 - 5.88 (m, 1 H), 6.49 (s, 1 H); **$^{13}$C NMR** (400 MHz, $CDCl_3$) δ 15.7, 16.1, 18.2, 21.3, 21.9, 31.3, 31.3, 33.2, 33.4, 34.5, 37.1, 41.8, 42.4, 47.0, 56.3, 97.5, 101.1, 103.5, 105.6, 117.4, 140.7, 144.1, 153.4; **HRMS** m/z calcd for $C_{23}H_{32}O_4$ [(M+H–$H_2O$)] 355.23, found 355.2273.

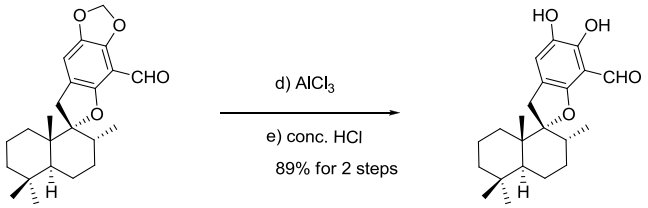
**Synthesis of 33:**




To a magnetically stirred solution of spirocompound **32** (175 mg, 0.47 mmol) in ethyl acetate (10 mL) was added with IBX (395 mg, 1.41 mmol) and put under reflux condition for 3 h. After completion of reaction, mixture was filtered through sintered glass filter, solvent removed under vacuum and then, purified by flash chromatography on silica gel (EtOAc/hexane 1/20) to get the compound **33** (150 mg, 86%) as yellow solid. $R_f$ = 0.3 (EtOAc/hexane 1/20); $[\alpha]_D^{20}$ − 35 (*c* 0.2, $CHCl_3$); **IR** (neat) $\upsilon_{max}/cm^{-1}$ 2933, 1690, 1637, 1454, 1392, 1310, 1255, 1190, 1090, 1071, 968, 926, 750, 629; **$^1$H NMR** (400 MHz, $CDCl_3$) δ 0.75 (d, *J* = 6.34 Hz, 3 H), 0.84 (s, 3 H), 0.90 (s, 3 H), 0.96 (s, 3 H), 1.10 - 1.15 (m, 1 H), 1.31 - 1.44 (m, 5 H), 1.54

- 1.67 (m, 5 H), 1.76 (dd, *J* = 6.57, 5.21 Hz, 1 H), 2.74 (d, *J* = 16.31 Hz, 1 H), 3.15 (d, *J* = 16.31 Hz, 1 H), 6.02 - 6.03 (m, 1 H), 6.03 - 6.03 (m, 1 H), 6.77 (s, 1 H), 10.26 (s, 1 H); **$^{13}$C NMR** (400 MHz, $CDCl_3$) δ 15.6, 16.1, 18.2, 21.3, 21.9, 31.1, 31.3, 33.2, 33.4, 33.6, 37.1, 41.6, 42.5, 46.6, 99.1, 102.6, 105.4, 110.8, 118.9, 141.3, 145.5, 157.3, 186.8; **HRMS** m/z calcd for $C_{23}H_{30}O_4$ [(M+Na)] 393.2042, found 393.2041.

**Synthesis of (–)-Corallidictyal D (6):**

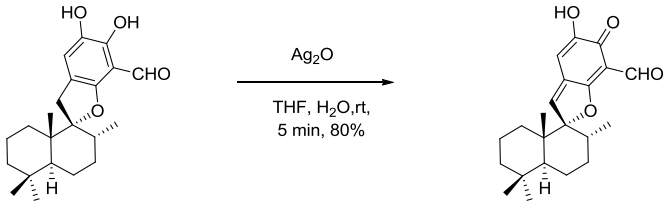



**33** **(–)-Corallidictyal D (6)**

To a magnetically stirred solution of compound **33** (150 mg, 0.40 mmol) in $CH_2Cl_2$ (10 mL), was added anhydrous $AlCl_3$ (162 mg, 1.21 mmol) at –40 °C under argon atmosphere. Then, Reaction mixture was stirred for 5 min. and reaction was quenched by water (0.5 mL). Solvent was removed under vacuum. The crude was dissolved in methanol (4 mL), to it concentrated HCl (1 mL) was added and reaction mixture kept under reflux condition for 30 min. After the disappearance of intermediate chloromethyl ether, reaction mixture cooled to room temperature and diluted with ether (50 mL). Then, washed with water (3 × 20 mL) and finally with brine (2 × 20 mL). The organic layer was dried over sodium sulphate, and solvent removed to give Corallidictyal D (**6**) (130 mg, 89%) as colorless oil. $R_f$ = 0.2 (EtOAc/hexane 1/10); $[\alpha]_D^{20}$ –23 (*c* 0.22, $CHCl_3$); **IR** (neat) $\upsilon_{max}/cm^{-1}$ 3670, 3429, 2928, 1650, 1466, 1331, 1298, 1254, 1212, 1108, 1060, 1030, 1005, 976, 727; **$^1$H NMR** (400 MHz, $CDCl_3$) δ 0.73 (d, *J* = 6.41 Hz, 3 H), 0.84 (s, 3 H), 0.91 (s, 3 H), 0.96 (s, 3 H), 1.26 - 1.44 (m, 7 H), 1.48 (dd, *J* = 12.36, 4.12 Hz, 1 H), 1.57 - 1.66 (m, 3 H), 1.75 - 1.82 (m, 1 H), 2.73 (d, *J* = 16.49 Hz, 1 H), 3.14 (d, *J* = 16.03 Hz, 1 H), 5.01 (br. s., 1 H), 6.93 (s, 1 H), 10.20 (s, 1 H), 11.09 (s, 1 H); **$^{13}$C NMR** (400 MHz, $CDCl_3$) δ 15.6, 16.2, 18.2, 21.3, 21.9, 31.1,

31.3, 33.2, 33.4, 33.5, 37.1, 41.6, 42.4, 46.8, 99.3, 105.6, 117.3, 119.3, 136.8, 146.1, 156.9, 192.9; **HRMS** m/z calcd for $C_{22}H_{30}NaO_4$ [(M+Na)] 381.2042, found 381.2045.

**Synthesis of (–)-Corallidictyal B (5):**

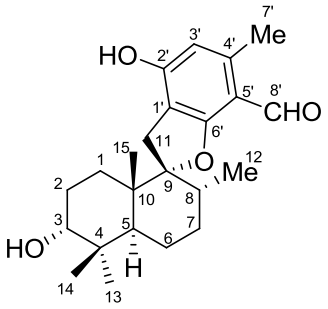



(–)-Corallidictyal D (6) (–)-Corallidictyal B (5)

To a magnetically stirred solution of corallidictyal D **(6)** (56 mg, 0.15mmol) in THF (5 mL) and $H_2O$ (0.1 mL) was added $Ag_2O$ (54 mg, 0.23 mmol) and mixture allowed to stir at room temperature under argon atmosphere for 1 h. After the completion of reaction, mixture was filtered by sintered glass filter and residue washed with acetone. The filtrate was concentrated under vacuum and crude purified by flash chromatography on silica gel (EtOAc/hexane 1/6) to get the corallidictyal B (**5**)(45 mg, 80%) as yellow coloured liquid. $R_f$ = 0.6 (EtOAc/hexane 1/2; $[\alpha]_D^{20}$ −103° (*c* 0.1, $CHCl_3$); **IR** (neat) $\upsilon_{max}/cm^{-1}$ 2924, 2853, 1744, 1689, 1556, 1462, 1310, 1092; **$^1$H NMR** (400 MHz, $CDCl_3$) δ 0.54 (d, *J* = 6.87 Hz, 3 H), 0.87 (s, 3 H), 0.94 (s, 3 H), 1.27 (s, 3 H), 1.67 - 1.37 (m, 8 H), 1.83 - 1.75 (m, 3 H), 2.46 - 2.39 (m, 1 H), 6.43 (s, 1 H), 7.24 (s, 1 H), 7.43 (br. s., 1 H), 10.30 (s, 1 H); **$^{13}$C NMR** (400 MHz, $CDCl_3$) δ 186.2, 180.0, 177.1, 150.3, 149.8, 130.8, 111.2, 107.7, 98.2, 47.3, 43.9, 41.1, 34.2, 33.7, 33.3, 32.8, 31.9, 21.9, 21.4, 19.3, 18.1, 15.6; **HRMS** m/z calcd for $C_{22}H_{28}O_4$ [(M+H)] 356.1988, found 356.199.

# 3. $^{1}$H and $^{13}$C NMR comparison tables:

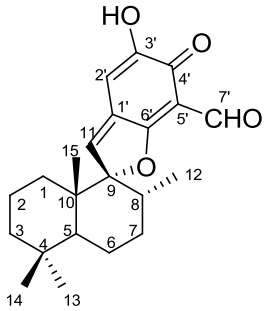
## 3.1 (–)-F1839-I (1)




**(–)-F1939-I (1)**

| Position | Nat. F1839-I[2] | Synthetic F1839-I | Nat. F1839-I[2] | Synthetic F1839-I |
|---|---|---|---|---|
| | δH (270 MHz) (No of photon, mult, J Hz) | δH (125 MHz) (mult, JHz) | δC (67.5 MHz) | δC (500 MHz) |
| 1 | 1.17 (1H, tdd, 13.0, 3.7)<br>2.40 (1H, td, 13.0, 3.7) | 1.19 (1H, d, 12.7, 3.5)<br>2.41 (1H, td, 12.9, 3.9) | 24.7 | 24.7 |
| 2 | 1.88 (1H, m)<br>2.01 (1H, tdd, 13.0, 3.7, 2.2) | 1.83 - 1.92 (1H, m)<br>2.00 (1H, td, 13.2, 2.3) | 25.9 | 26.0 |
| 3 | 3.64 (1H, d, 2.2) | 3.63 (1H, br. s.) | 74.6 | 74.6 |
| 4 | - | | 38.1 | 38.1 |
| 5 | 2.62 (1H, dd, 12.7, 2.2) | 2.62 (1H, d, 13.0, 2.2) | 40.4 | 40.4 |
| 6 | 1.46 (1H, m)<br>1.69 (1H, m) | 1.46 (1H, dd, 13.3, 4.1)<br>1.68 - 1.70 (1H, m) | 21.3 | 21.3 |
| 7 | 1.63 (2H, m) | 1.60 - 1.65 (2 H, m) | 31.5 | 31.6 |
| 8 | 1.88 (1H, m) | 1.83 - 1.92 (1H, m) | 37.2 | 37.2 |
| 9 | - | | 98.4 | 99.4 |
| 10 | - | | 42.7 | 42.7 |
| 11 | 3.02 (1H, d, 12.5)<br>3.42 (1H, d, 12.5) | 3.02 (1H, d, 16.04)<br>3.42 (1H, d, 16.04) | 31.4 | 31.4 |
| 12 | 0.87 (3H, d, 6.1) | 0.88 (3H, d, 6.3) | 15.8 | 15.8 |
| 13 | 1.23 (3H, s) | 1.27 (3H, s) | 29.1 | 29.1 |
| 14 | 0.93 (3H, s) | 0.94 (3H, s) | 22.6 | 22.6 |
| 15 | 1.00 (3H, s) | 1.01(3H, s) | 16.1 | 16.2 |
| 1’ | - | | 111.6 | 111.6 |
| 2’ | - | | 159.9 | 159.9 |
| 3’ | 6.58 (1H, s) | 6.54 (3H, s) | 111.8 | 111.8 |
| 4’ | - | | 141.8 | 141.8 |
| 5’ | - | | 111.2 | 110.3 |
| 6’ | - | | 168.9 | 168.9 |
| 7’ | 2.69 (3H, s) | 2.70 (3H, s) | 21.8 | 21.8 |
| 8’ | 10.88 (1H, s) | 10.88 (3H, s) | 187.8 | 187.8 |

## 3.2: (–)-Corallidictyal B (5):

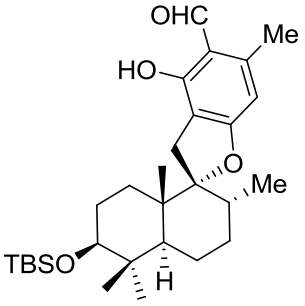



**(–)–Corallidictyal B (5)**

| Entry | Corallidictyal B (Isolated)[3] **$^1$H-NMR** | Corallidictyal B (Present work) **$^1$H-NMR** |
|---|---|---|
| | $\delta_H$ ($CDCl_3$, 400 MHz) | $\delta_H$ ($CDCl_3$, 400 MHz) |
| 1 | 10.31 (s) | 10.30 (s, 1 H) |
| 2 | 7.25 (s) | 7.24 (s, 1 H) |
| 3 | 6.43 (s) | 6.43 (s, 1 H) |
| 4 | 7.40 (br, s, OH) | 7.43 (br. s., 1 H) |
| 5 | 2.42 (m) | 2.46 (m, 1 H) |
| 6 | 1.80-0.8 (m) | 1.83 - 1.75 (m, 3 H) |
| 7 | 1.75 (dd, 2.7, 12.2) | 1.67 - 1.37 (m, 8 H) |
| 8 | 1.28 (s) | 1.27 (s, 3 H) |
| 9 | 0.95 (s) | 0.94 (s, 3 H) |
| 10 | 0.88 (s) | 0.87 (s, 3 H) |
| 11 | 0.56 (s) | 0.54 (d, *J* = 6.9 Hz, 3 H) |

| Carbon | Corallidictyal B (Isolated)[3] **$^{13}$C-NMR** | Corallidictyal B (Present work) **$^{13}$C-NMR** |
|---|---|---|
| | $\delta_C$ ($CDCl_3$, 100 MHz) | $\delta_C$ ($CDCl_3$, 100 MHz) |
| C-7’ | 186.1 | 186.2 |
| C-4’ | 180.0 | 180.0 |
| C-6’ | 177.0 | 177.1 |
| C-3’ | 150.3 | 150.3 |
| C-11’ | 149.7 | 149.8 |
| C-1’ | 130.8 | 130.8 |
| C-9’ | 111.1 | 111.2 |
| C-5’ | 107.7 | 107.7 |
| C-2’ | 98.1 | 98.2 |
| C-5 | 47.3 | 47.3 |
| C-10 | 44.0 | 43.9 |
| C-1, 2, 3, 4, 6, 7 | 41.2- 18.2 | 41.1<br>33.7<br>32.8<br>31.9<br>21.4<br>18.1 |
| C-8 | 34.2 | 34.2 |
| C-13 | 33.3 | 33.3 |
| C-14 | 21.9 | 21.9 |
| C-15 | 19.3 | 19.3 |
| C-12 | 15.6 | 15.6 |

# 4. X-ray crystallographic data for compound 24




**24**

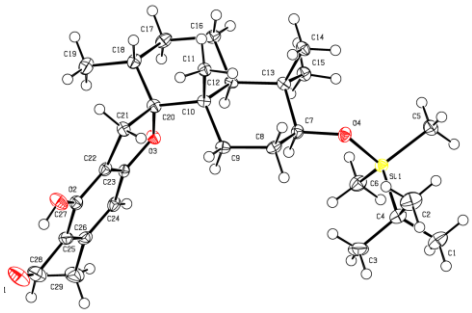


**Fig. 1.** ORTEP diagram for compound **24**

## Datablock: 3novd

Bond precision: C-C = 0.0035 A Wavelength=0.71073

Cell: a=7.1072(5) b=13.7421(11) c=27.891(2)
alpha=90 beta=90 gamma=90
Temperature: 100 K

| | Calculated | Reported |
|---|---|---|
| Volume | 2724.1(3) | 2724.1(3) |
| Space group | P 21 21 21 | P 21 21 21 |
| Hall group | P 2ac 2ab | P 2ac 2ab |
| Moiety formula | C29 H46 O4 Si | C29 H46 O4 Si |
| Sum formula | C29 H46 O4 Si | C29 H46 O4 Si |
| Mr | 486.75 | 486.75 |
| Dx,g cm-3 | 1.187 | 1.187 |
| Z | 4 | 4 |
| Mu (mm-1) | 0.118 | 0.118 |
| F000 | 1064.0 | 1064.0 |
| F000' | 1064.76 | |
| h,k,lmax | 8,16,33 | 8,16,33 |
| Nref | 5079[ 2916] | 5079 |
| Tmin,Tmax | 0.977,0.984 | 0.965,0.992 |
| Tmin' | 0.977 | |

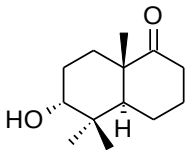
Correction method= # Reported T Limits: Tmin=0.965 Tmax=0.992
AbsCorr = MULTI-SCAN

Data completeness= 1.74/1.00 Theta(max)= 25.498

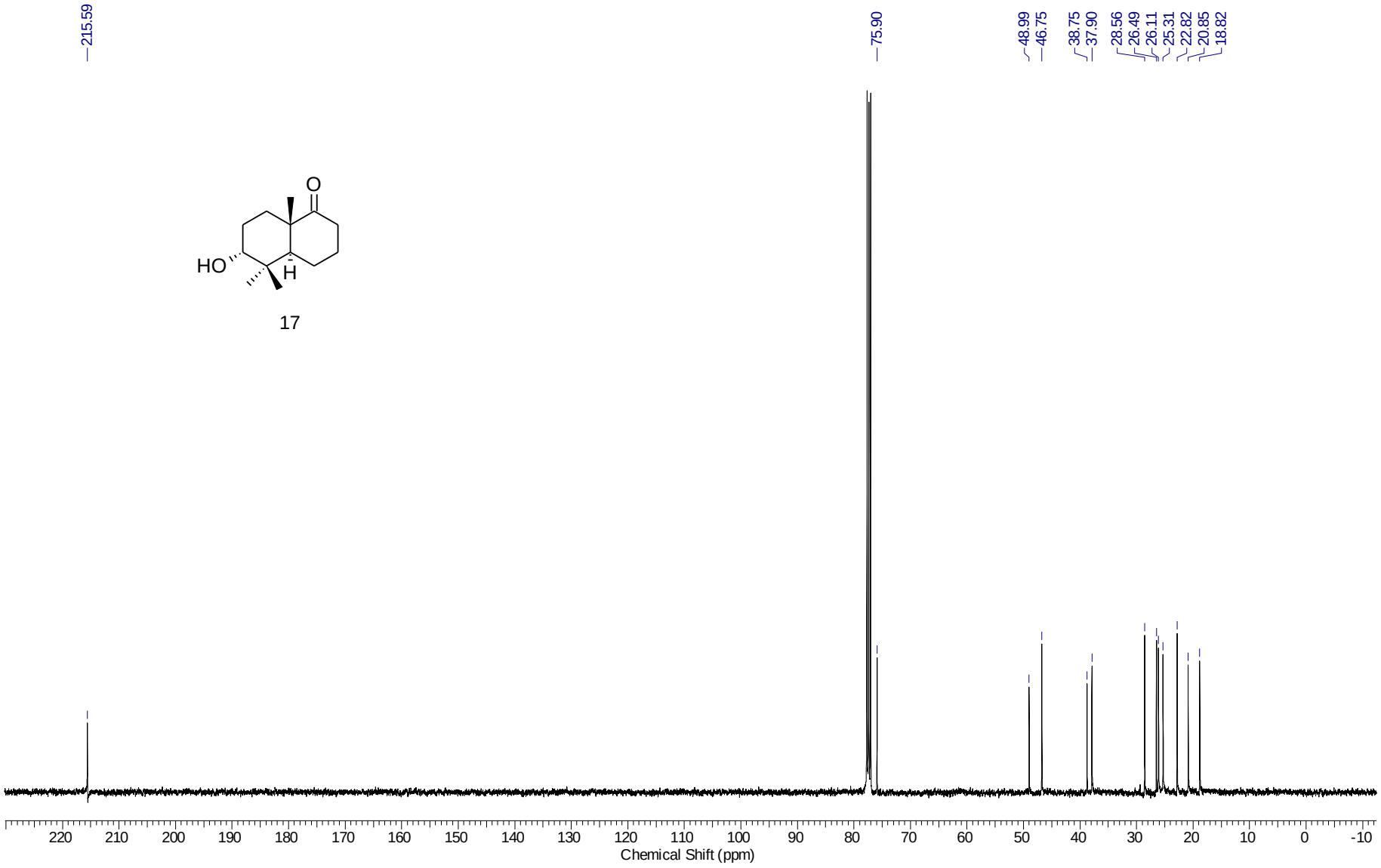
R(reflections)= 0.0345( 4703) wR2(reflections)= 0.0937( 5079)

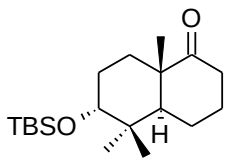
S = 1.112 Npar= 318

# 4. $^{1}$H and $^{13}$CNMR Spectra:



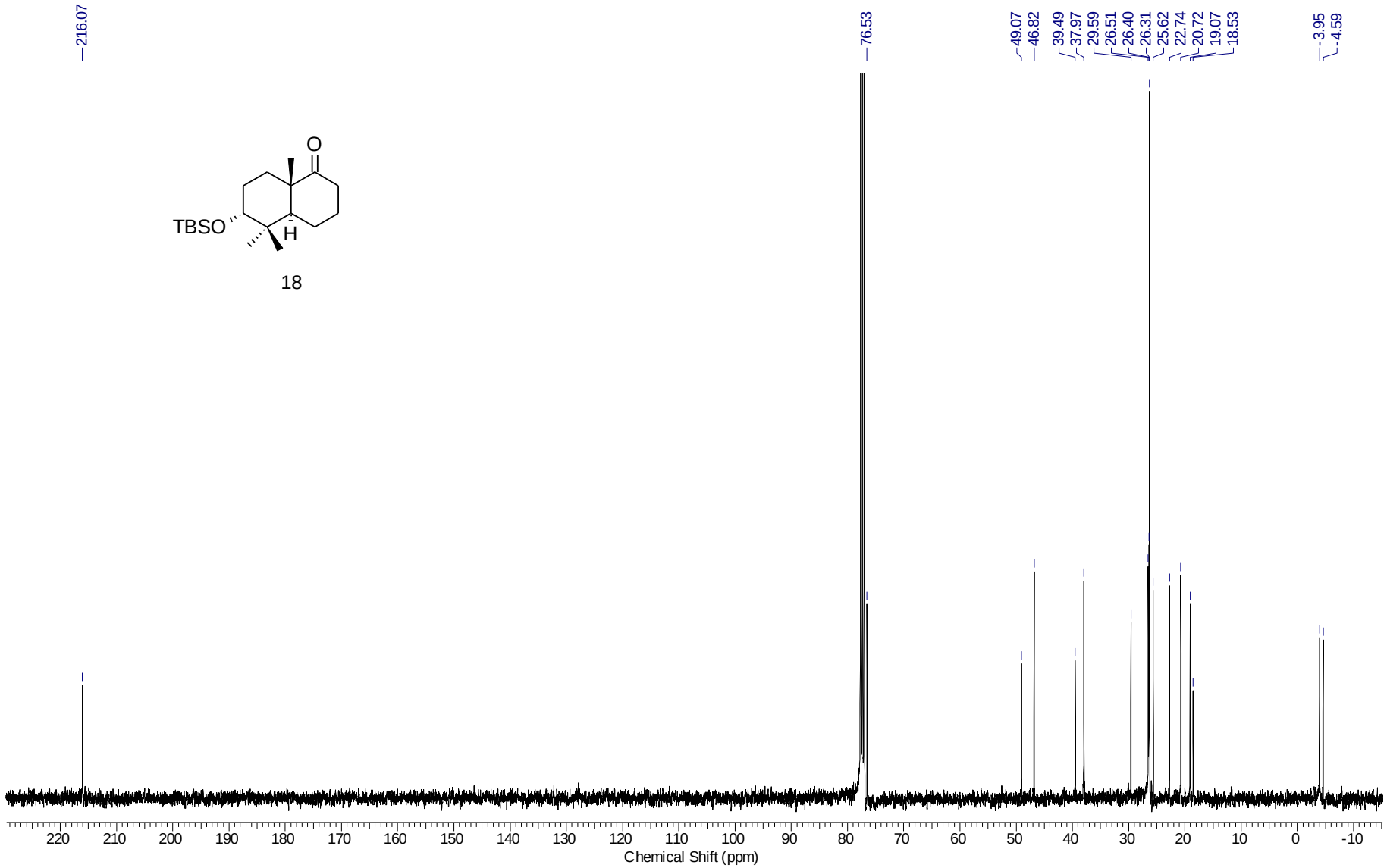

17


215.59
75.90
48.99
46.75
38.75
37.90
28.56
26.49
26.11
25.31
22.82
20.85
18.82
O
HO
H
17
220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10
Chemical Shift (ppm)

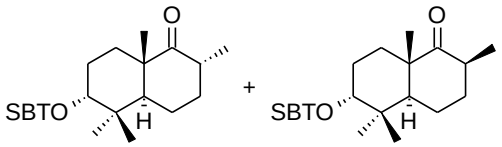

O
TBSO
H

18


3.35
3.35
3.34
2.59
2.57
2.56
2.20
2.03
2.02
1.83
1.82
1.82
1.81
1.64
1.63
1.62
1.56
1.55
1.54
1.29
1.26
1.12
0.90
0.86
0.03
0.00
1.01
1.08
1.07
2.03
1.04
5.17
1.17
3.06
3.07
9.38
3.04
3.02
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
-0.5
Chemical Shift (ppm)


216.07
76.53
49.07
46.82
39.49
37.97
29.59
26.51
26.40
26.31
25.62
22.74
20.72
19.07
18.53
-3.95
-4.59
O
TBSO
H
18
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
Chemical Shift (ppm)

SA375_1H-1.JDF

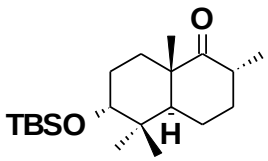



**19**

+

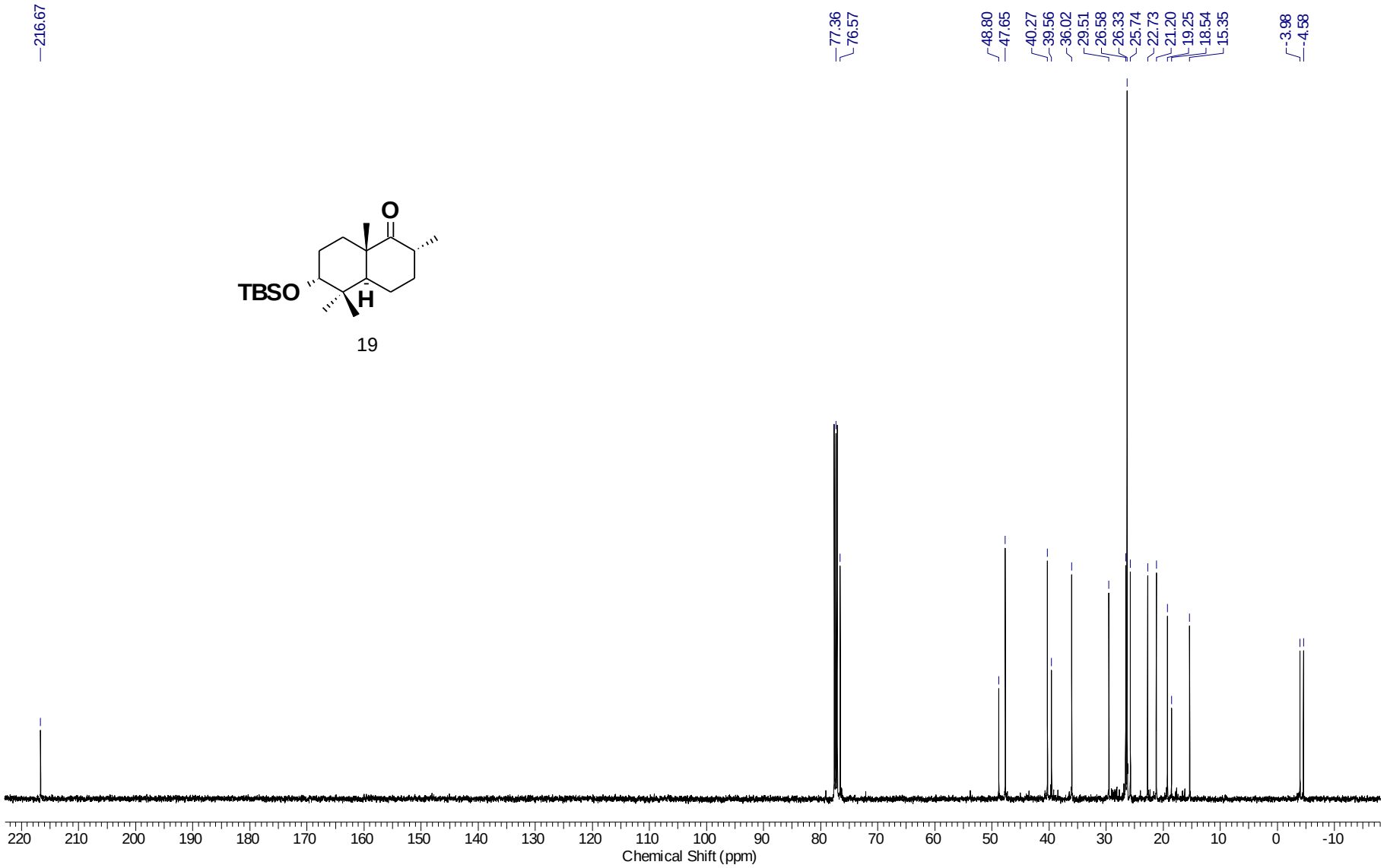


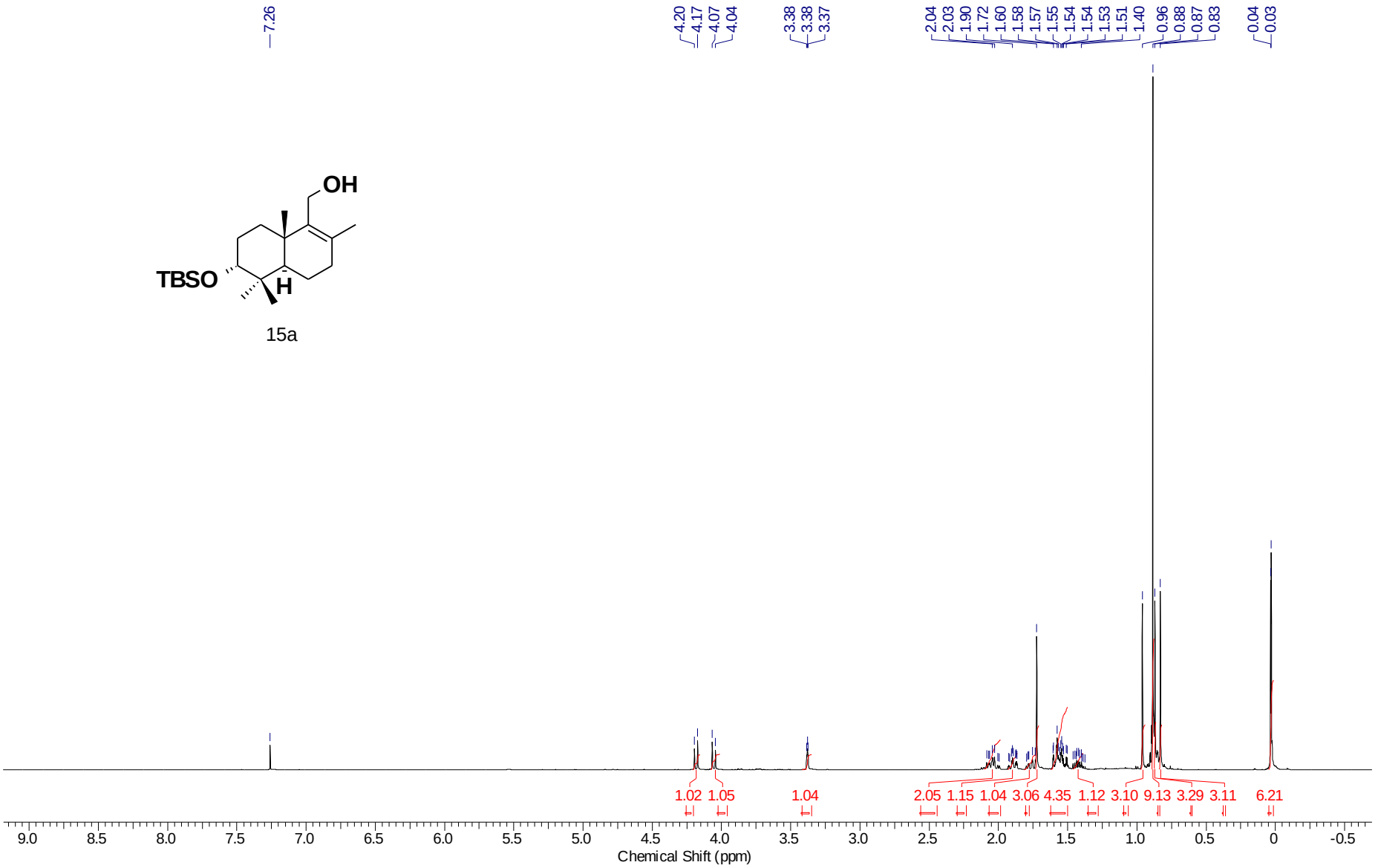

**19**

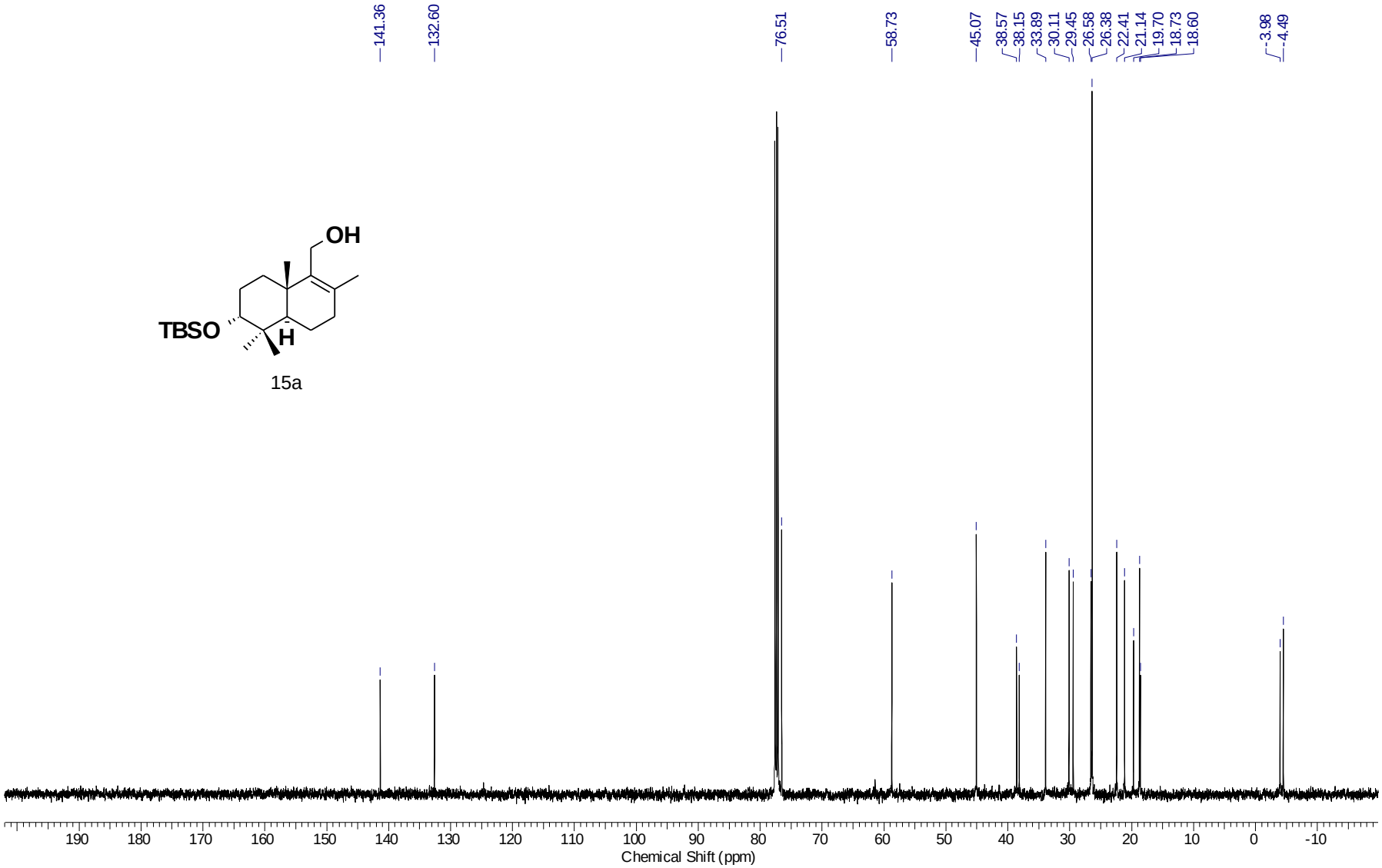

O
TBSO
H

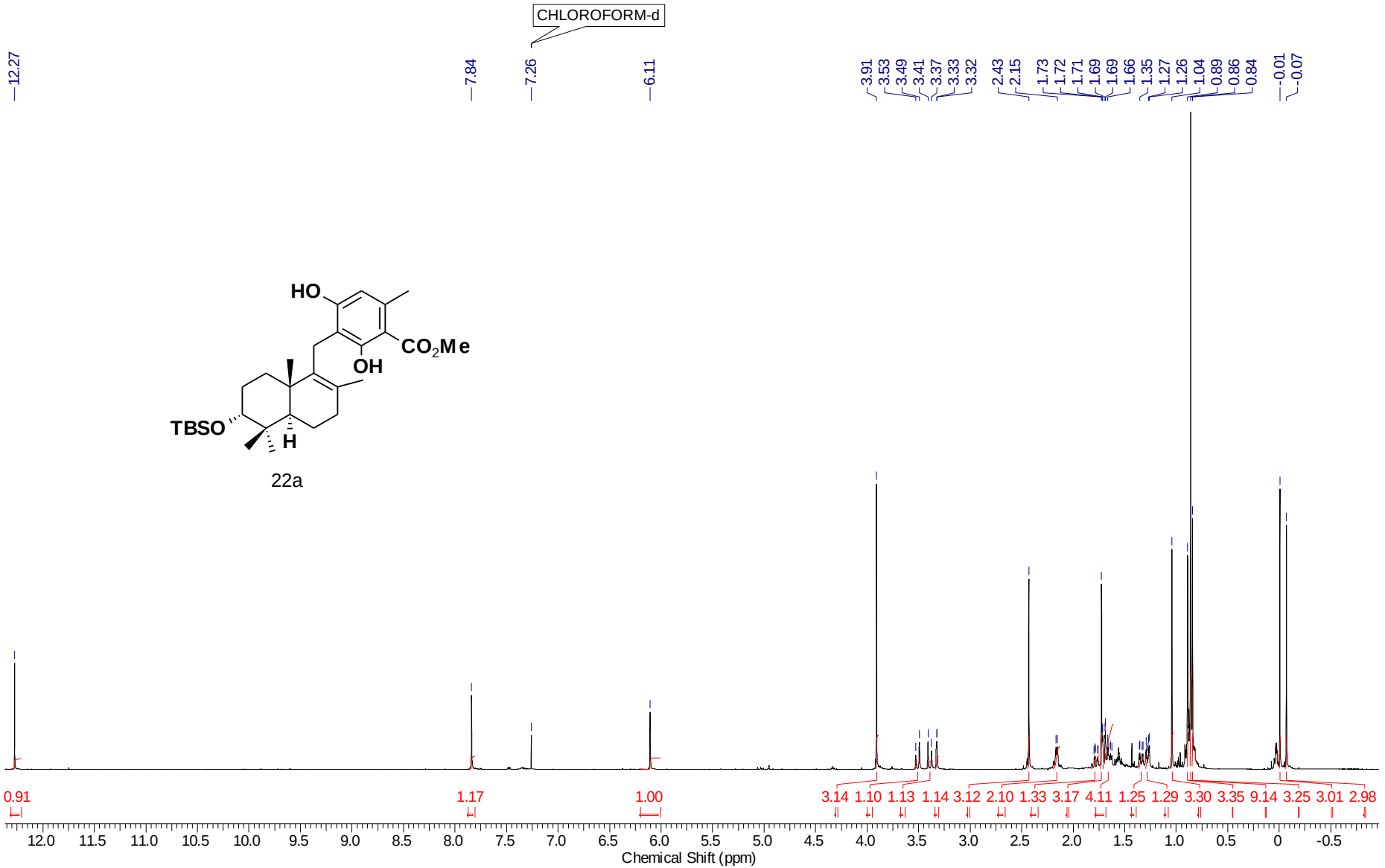
19

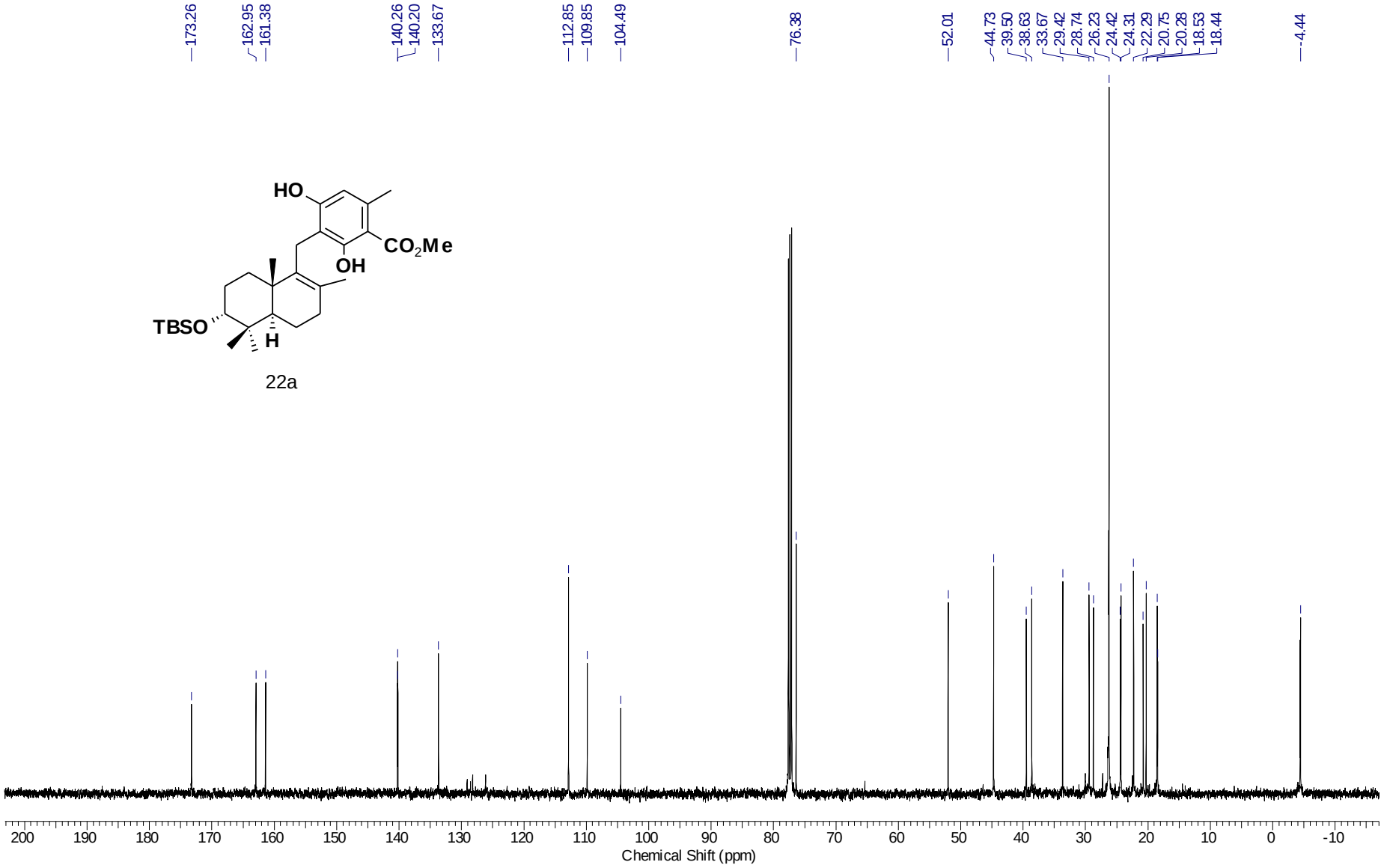

7.25
3.35
3.34
3.34
2.68
2.65
2.64
2.62
2.09
2.07
2.06
1.67
1.63
1.60
1.59
1.25
1.23
1.22
1.11
0.97
0.96
0.90
0.87
0.86
0.03
0.00
1.05
1.01
2.11
1.16
4.43
2.11
3.11
3.06
3.03
12.38
3.08
3.09
10.5
10.0
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
-0.5
-1.0
Chemical Shift (ppm)


216.67
77.36
76.57
48.80
47.65
40.27
39.56
36.02
29.51
26.58
26.33
25.74
22.73
21.20
19.25
18.54
15.35
-3.98
-4.58
O
TBSO
H
19
220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10
Chemical Shift (ppm)

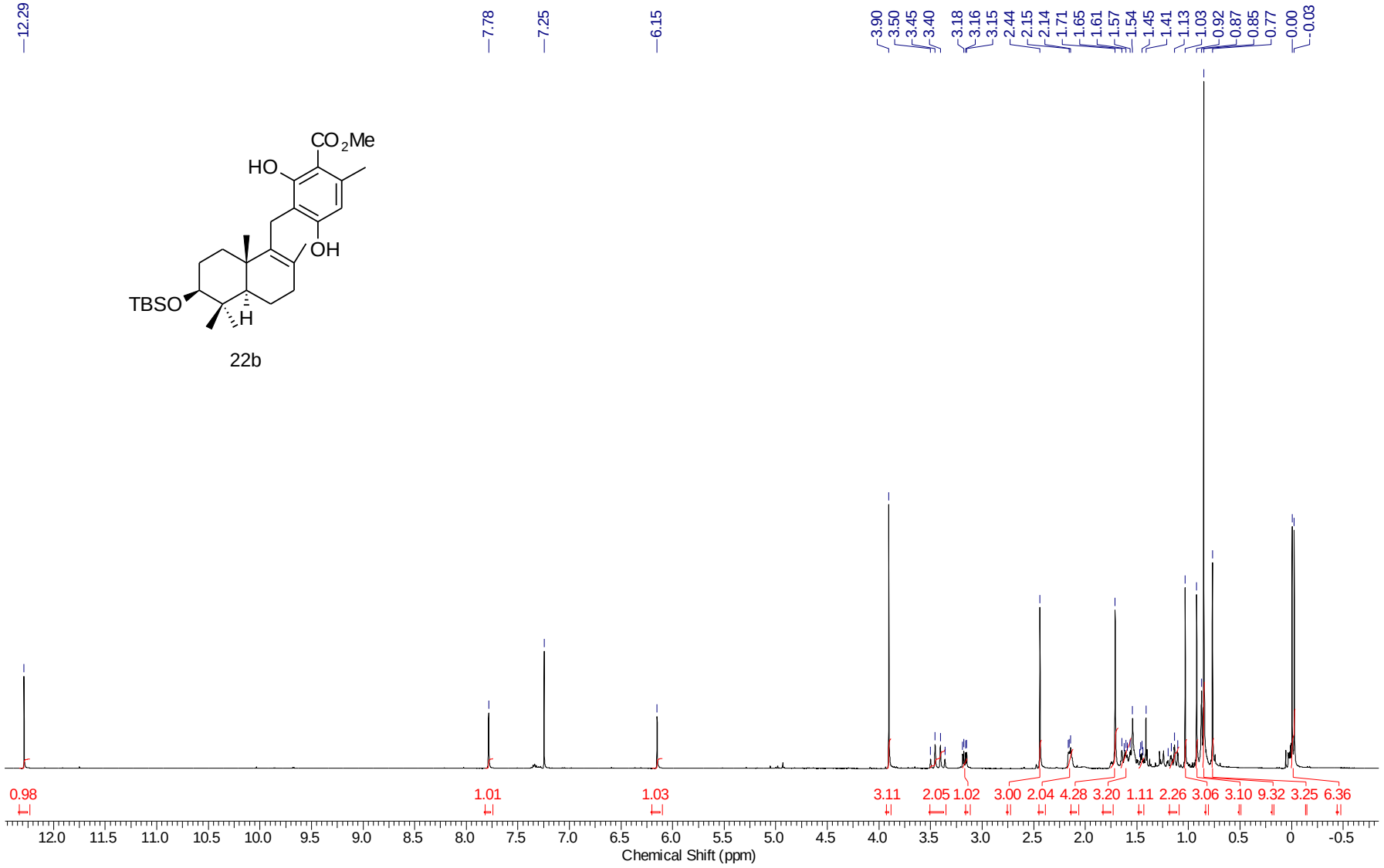

7.26
4.20
4.17
4.07
4.04
3.38
3.38
3.37
2.04
2.03
1.90
1.72
1.60
1.58
1.57
1.55
1.54
1.54
1.53
1.51
1.40
0.96
0.88
0.87
0.83
0.04
0.03
OH
TBSO
H
15a
1.02 1.05
1.04
2.05 1.15 1.04 3.06 4.35 1.12 3.10 9.13 3.29 3.11
6.21
9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0 -0.5
Chemical Shift (ppm)

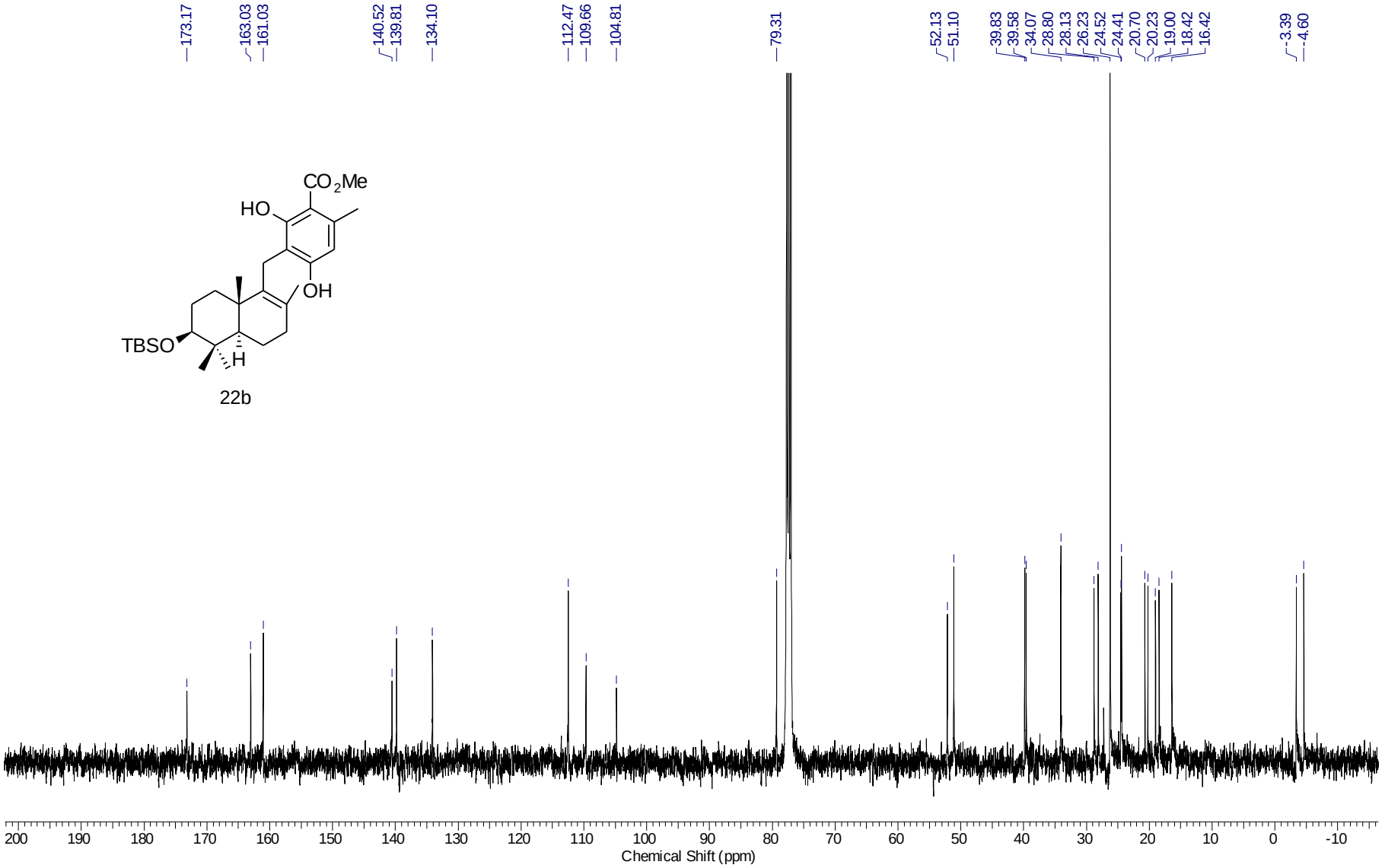

141.36
132.60
76.51
58.73
45.07
38.57
38.15
33.89
30.11
29.45
26.58
26.38
22.41
21.14
19.70
18.73
18.60
-3.98
-4.49
OH
TBSO
H
15a
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
Chemical Shift (ppm)

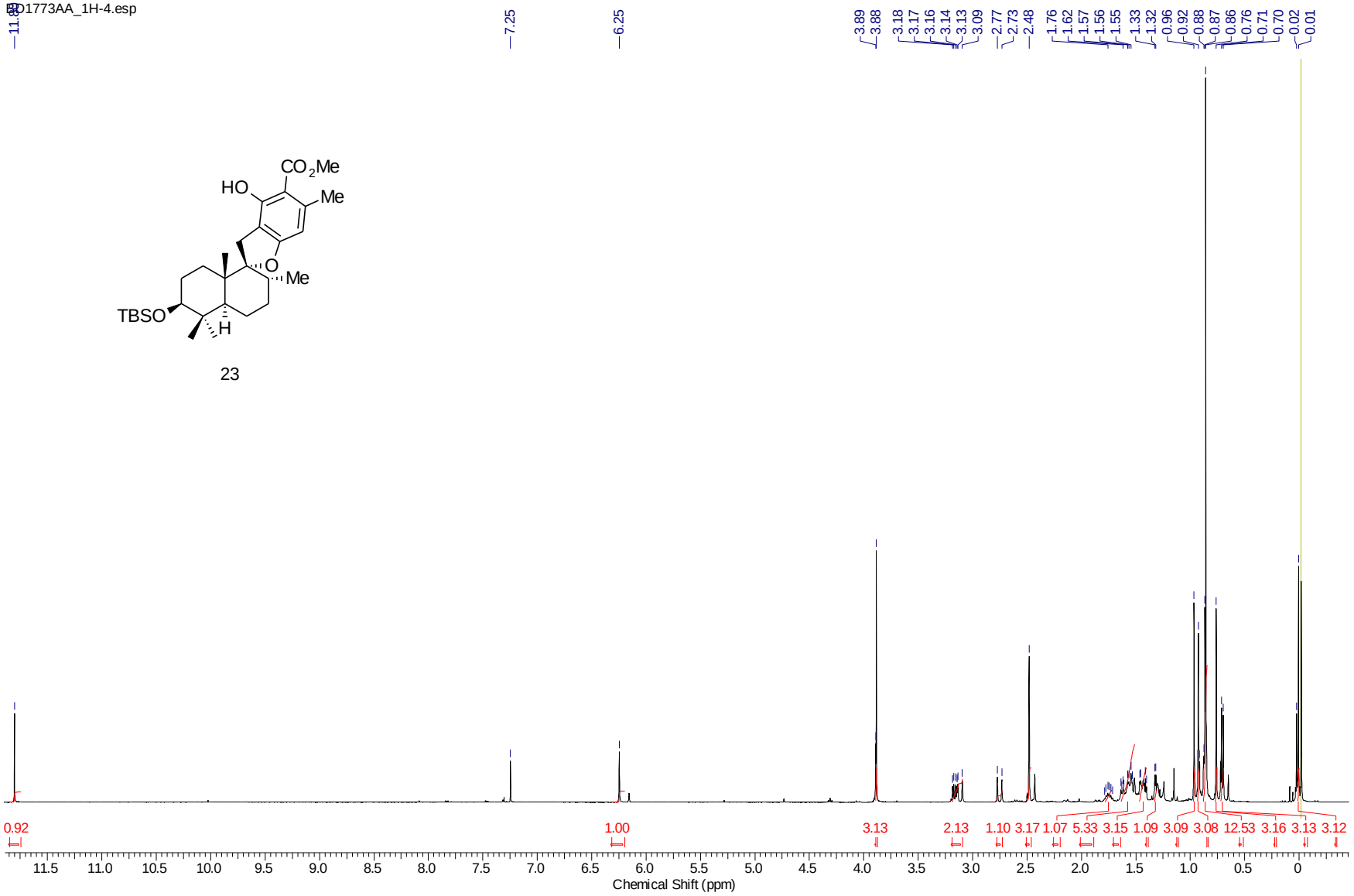

CHLOROFORM-d
12.27
7.84
7.26
6.11
3.91
3.53
3.49
3.41
3.37
3.33
3.32
2.43
2.15
1.73
1.72
1.71
1.69
1.69
1.66
1.35
1.27
1.26
1.04
0.89
0.86
0.84
-0.01
-0.07
HO
CO2Me
OH
TBSO
H
22a
0.91
1.17
1.00
3.14 1.10 1.13 1.14 3.12 2.10 1.33 3.17 4.11 1.25 1.29 3.30 3.35 9.14 3.25 3.01 2.98
12.0 11.5 11.0 10.5 10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0 -0.5
Chemical Shift (ppm)


173.26
162.95
161.38
140.26
140.20
133.67
112.85
109.85
104.49
76.38
52.01
44.73
39.50
38.63
33.67
29.42
28.74
26.23
24.42
24.31
22.29
20.75
20.28
18.53
18.44
-4.44
HO
CO2Me
OH
TBSO
H
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
Chemical Shift (ppm)

22a

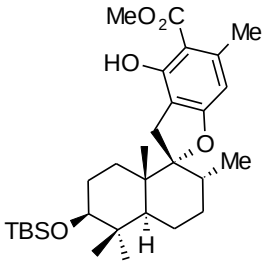

12.29
7.78
7.25
6.15
3.90
3.50
3.45
3.40
3.18
3.16
3.15
2.44
2.15
2.14
1.71
1.65
1.61
1.57
1.54
1.45
1.41
1.13
1.03
0.92
0.87
0.85
0.77
0.00
-0.03
CO2Me
HO
OH
TBSO
H
22b
0.98
1.01
1.03
3.11
2.05
1.02
3.00
2.04
4.28
3.20
1.11
2.26
3.06
3.10
9.32
3.25
6.36
Chemical Shift (ppm)


173.17
163.03
161.03
140.52
139.81
134.10
112.47
109.66
104.81
79.31
52.13
51.10
39.83
39.58
34.07
28.80
28.13
26.23
24.52
24.41
20.70
20.23
19.00
18.42
16.42
-3.39
-4.60
CO2Me
HO
OH
TBSO
H
22b
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
Chemical Shift (ppm)

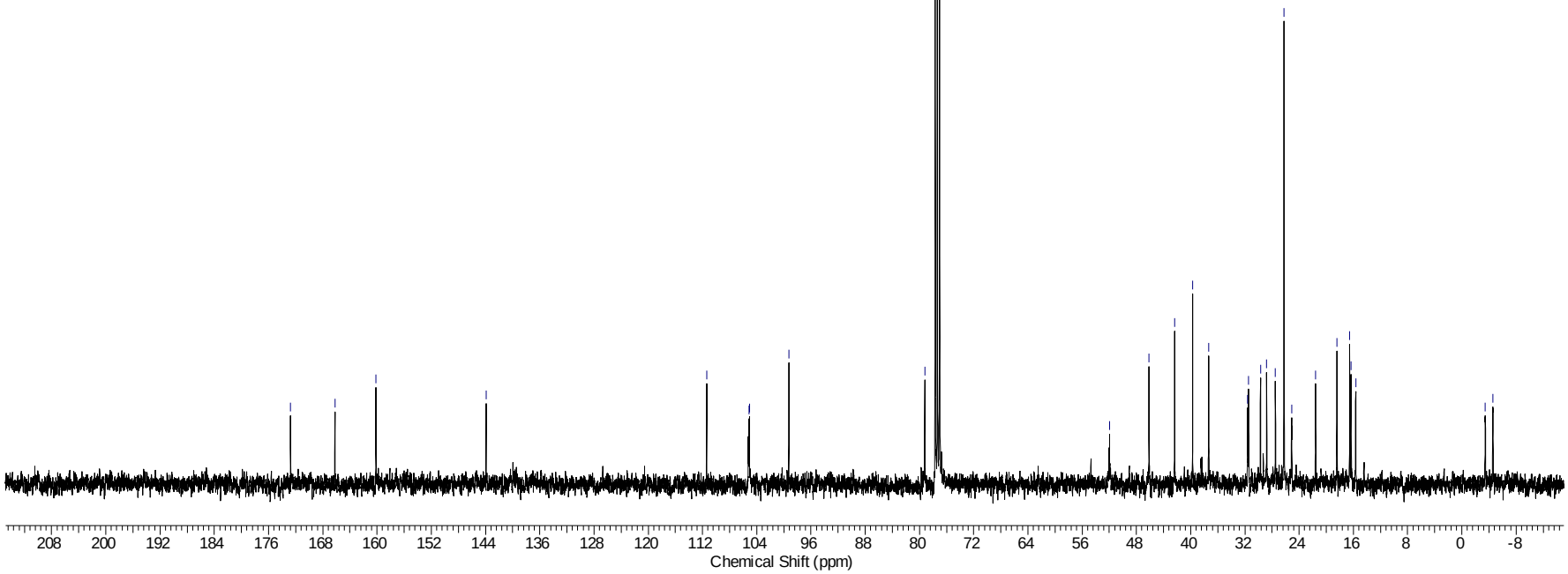

BD1773AA_1H-4.esp
11.69
7.25
6.25
3.89
3.88
3.18
3.17
3.16
3.14
3.13
3.09
2.77
2.73
2.48
1.76
1.62
1.57
1.56
1.55
1.33
1.32
0.96
0.92
0.88
0.87
0.86
0.76
0.71
0.70
0.02
0.01
CO2Me
HO
Me
O
Me
TBSO
H
23
0.92
1.00
3.13
2.13
1.10
3.17
1.07
5.33
3.15
1.09
3.09
3.08
12.53
3.16
3.13
3.12
11.5
11.0
10.5
10.0
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
Chemical Shift (ppm)

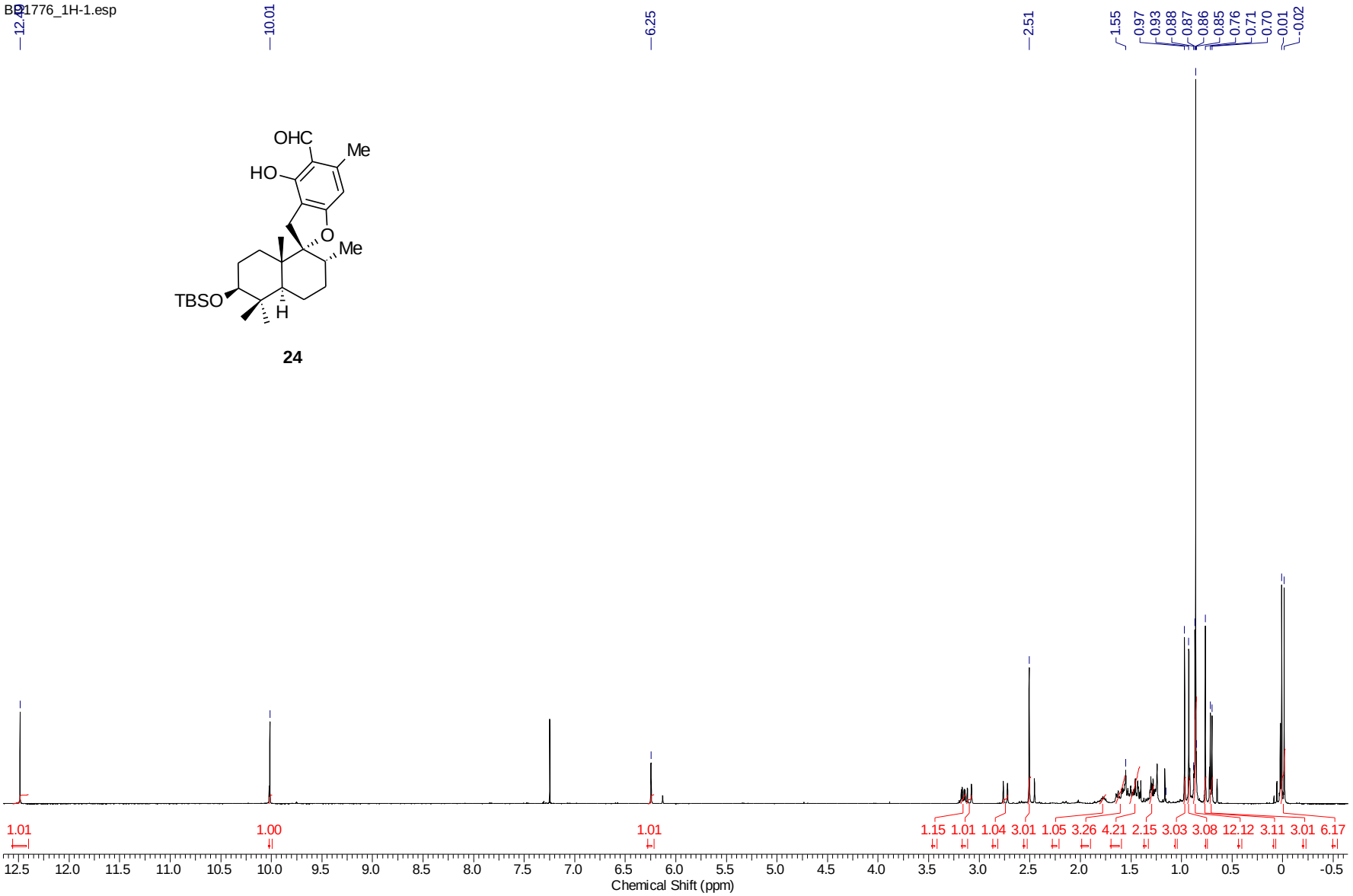
BD1773AA_13C-3.ESP

172.75
166.22
160.17
143.92
111.39
105.16
105.06
99.27
79.21
51.97
46.15
42.35
39.71
37.34
31.60
31.45
29.71
28.79
27.50
26.23
25.12
21.56
18.42
16.53
16.35
15.66
-3.45
-4.56



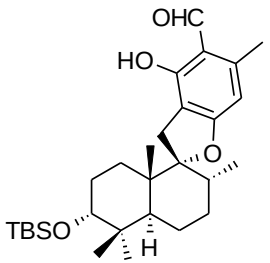

23



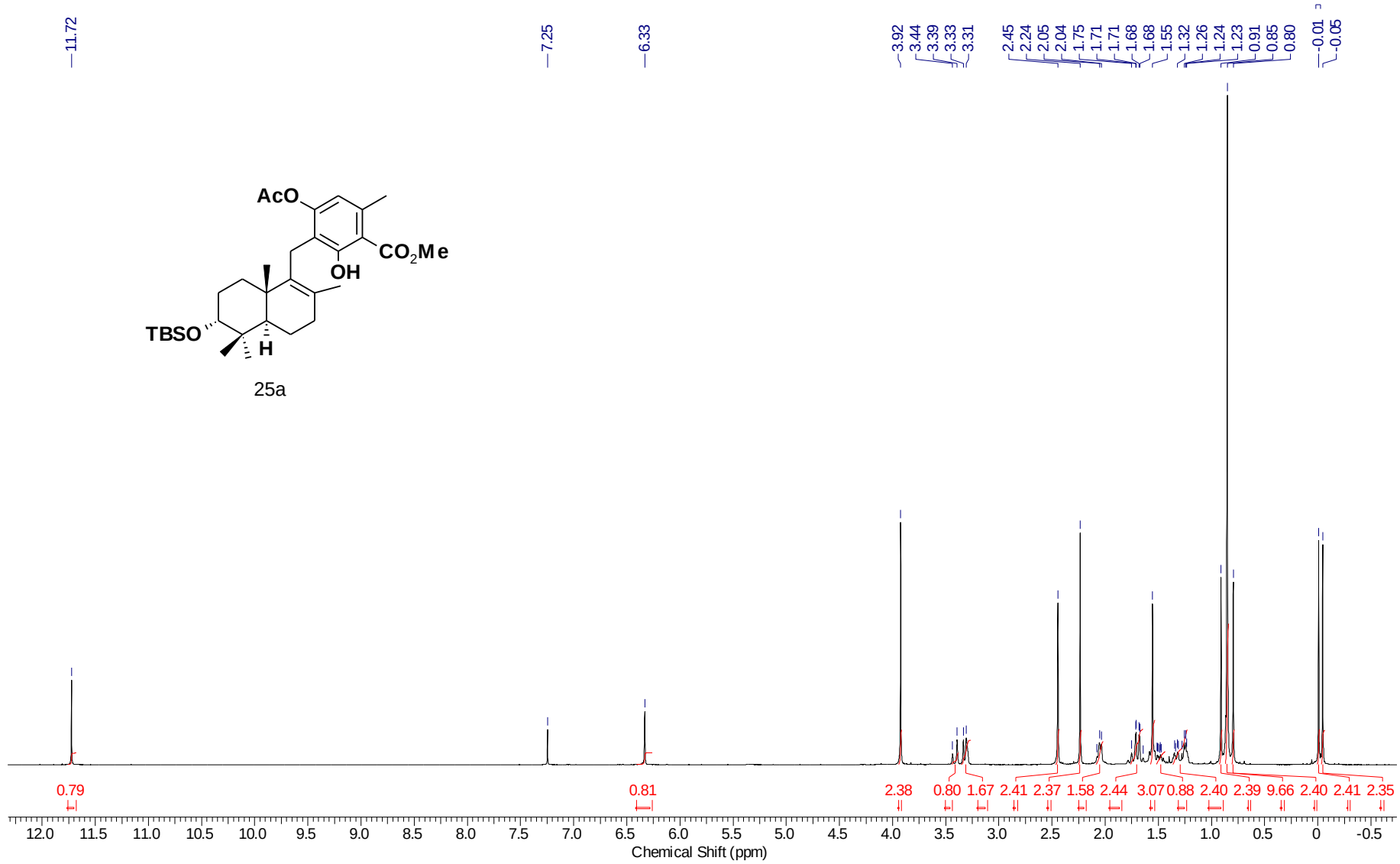

BP1776_1H-1.esp
12.49
10.01
6.25
2.51
1.55
0.97
0.93
0.88
0.87
0.86
0.85
0.76
0.71
0.70
0.01
-0.02
OHC
Me
HO
O
Me
TBSO
H
1.01
1.00
1.01
1.15 1.01 1.04 3.01 1.05 3.26 4.21 2.15 3.03 3.08 12.12 3.11 3.01 6.17
Chemical Shift (ppm)

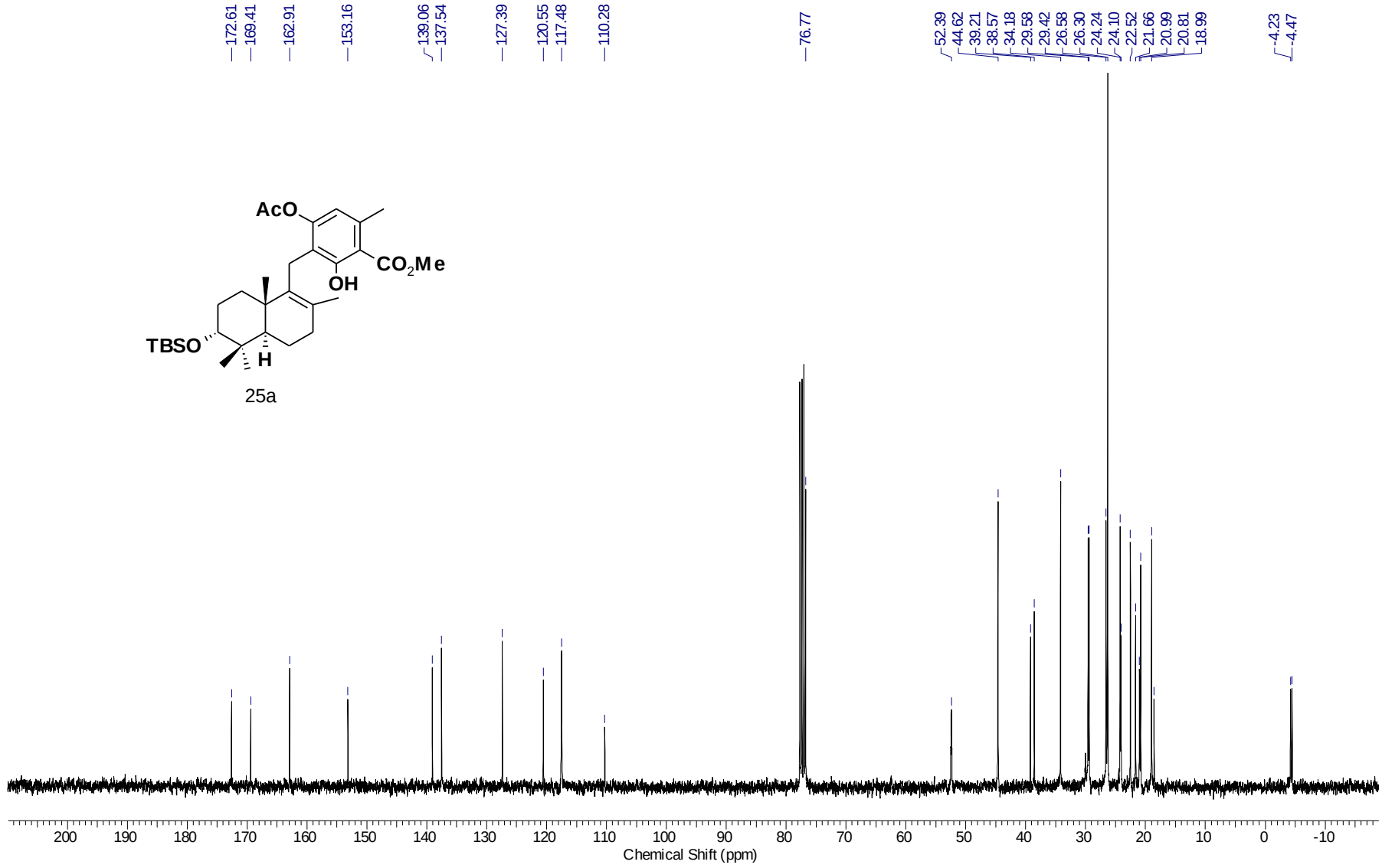
**24**

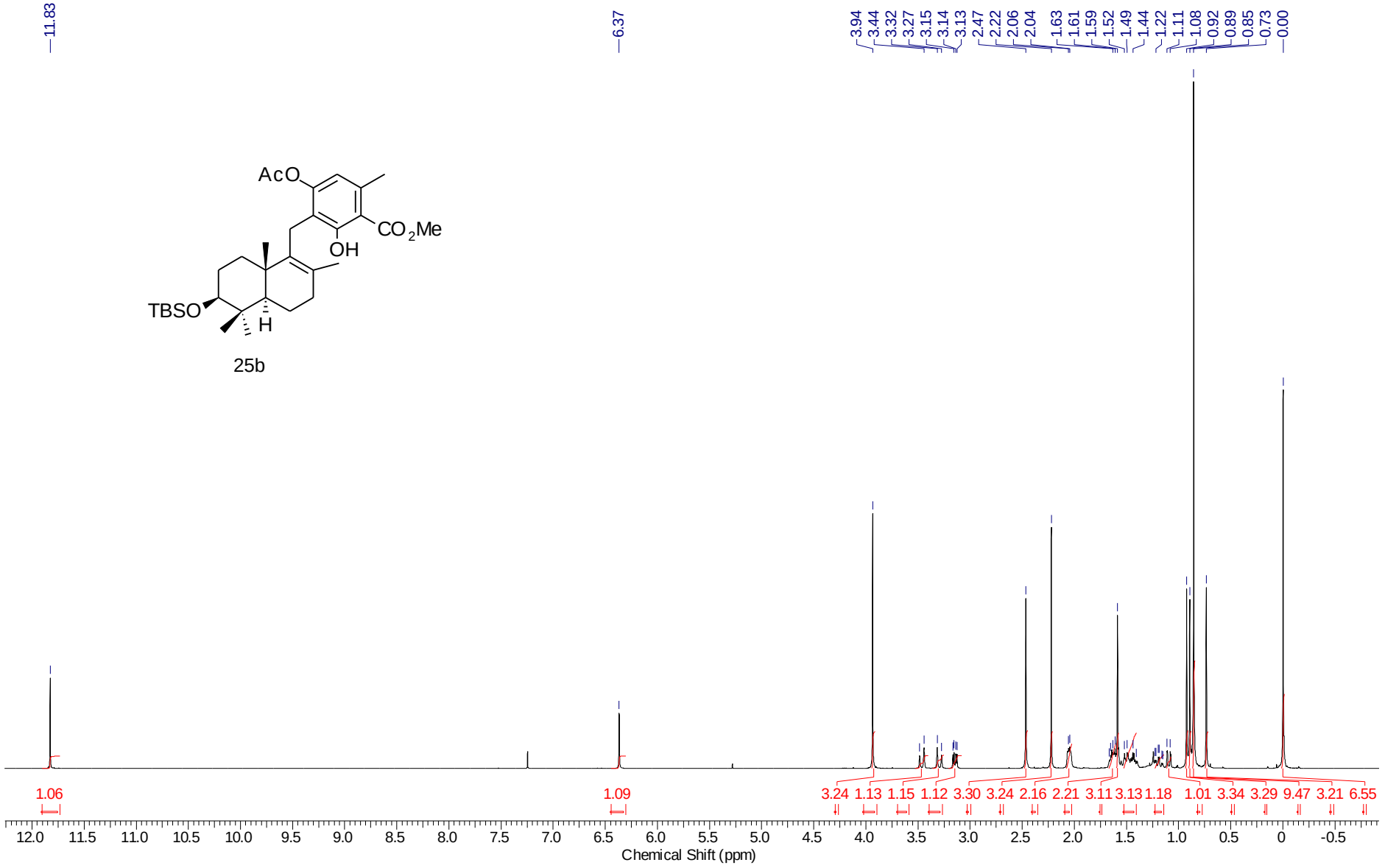
BD1776A_13C-1.JDF

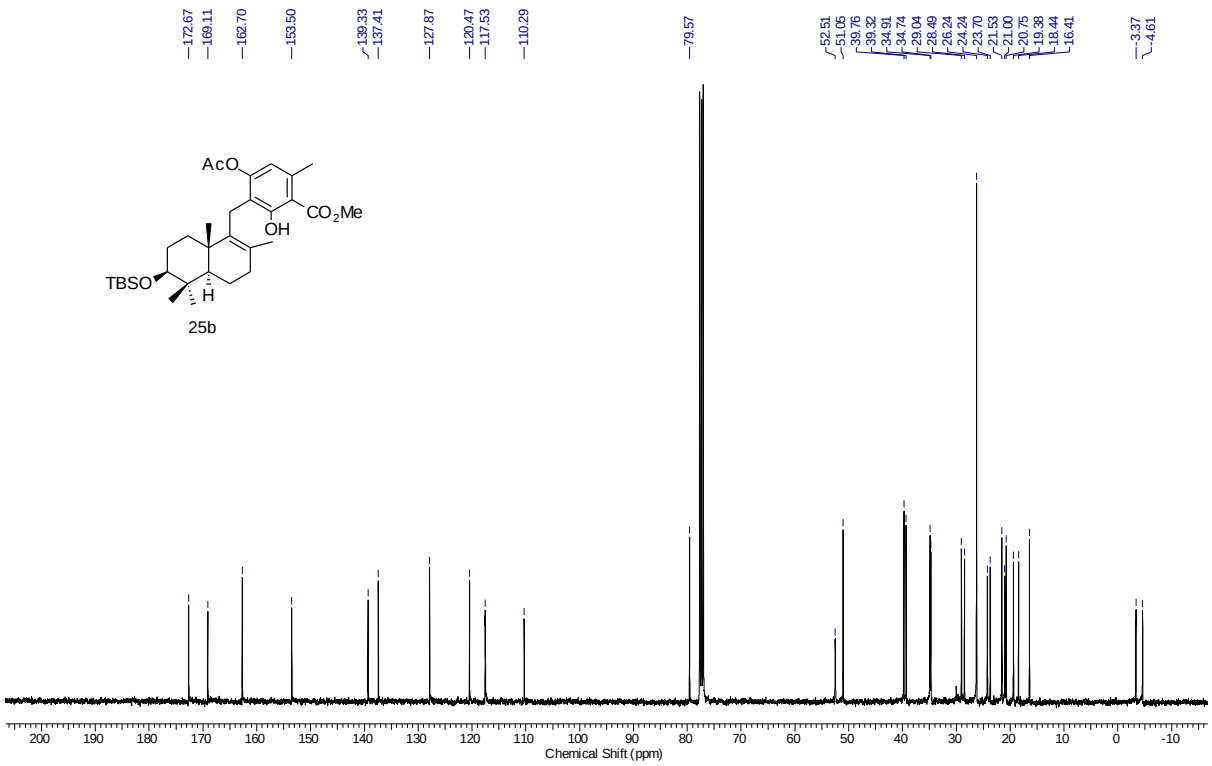


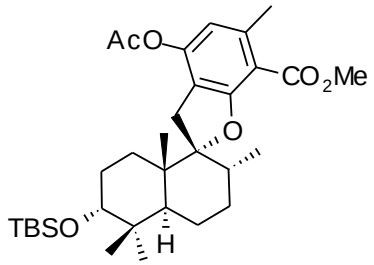

24


11.72
7.25
6.33
3.92
3.44
3.39
3.33
3.31
2.45
2.24
2.05
2.04
1.75
1.71
1.71
1.68
1.68
1.55
1.32
1.26
1.24
1.23
0.91
0.85
0.80
-0.01
-0.05
AcO
CO2Me
OH
TBSO
H
25a
0.79
0.81
2.38
0.80
1.67
2.41
2.37
1.58
2.44
3.07
0.88
2.40
2.39
9.66
2.40
2.41
2.35
12.0
11.5
11.0
10.5
10.0
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
-0.5
Chemical Shift (ppm)


172.61
169.41
162.91
153.16
139.06
137.54
127.39
120.55
117.48
110.28
76.77
52.39
44.62
39.21
38.57
34.18
29.58
29.42
26.58
26.30
24.24
24.10
22.52
21.66
20.99
20.81
18.99
-4.23
-4.47
AcO
CO2Me
OH
TBSO
H
25a
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
Chemical Shift (ppm)

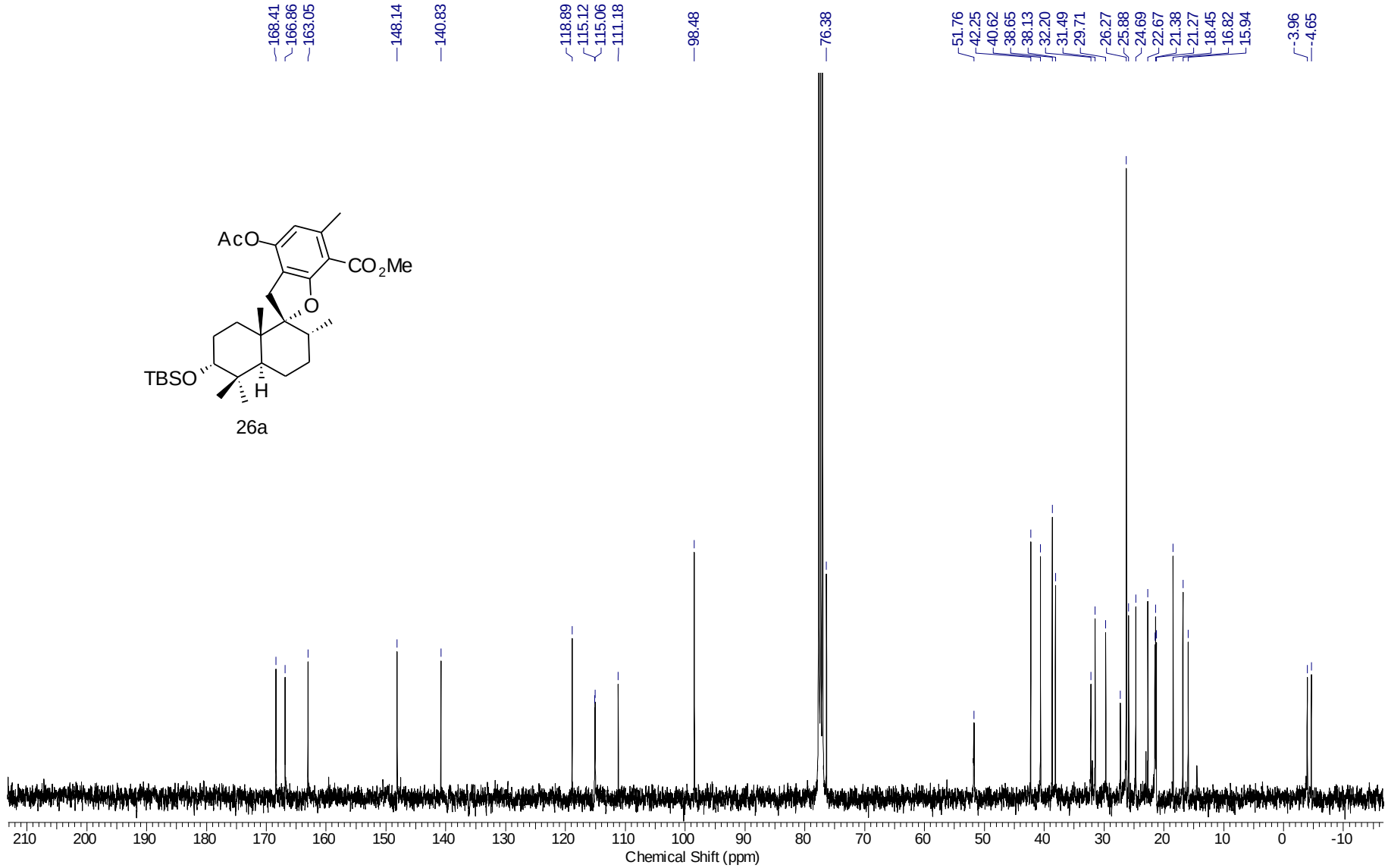

11.83
6.37
3.94
3.44
3.32
3.27
3.15
3.14
3.13
2.47
2.22
2.06
2.04
1.63
1.61
1.59
1.52
1.49
1.44
1.22
1.11
1.08
0.92
0.89
0.85
0.73
0.00
AcO
CO2Me
OH
TBSO
H
25b
1.06
1.09
3.24 1.13 1.15 1.12 3.30 3.24 2.16 2.21 3.11 3.13 1.18 1.01 3.34 3.29 9.47 3.21 6.55
12.0 11.5 11.0 10.5 10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0 -0.5
Chemical Shift (ppm)

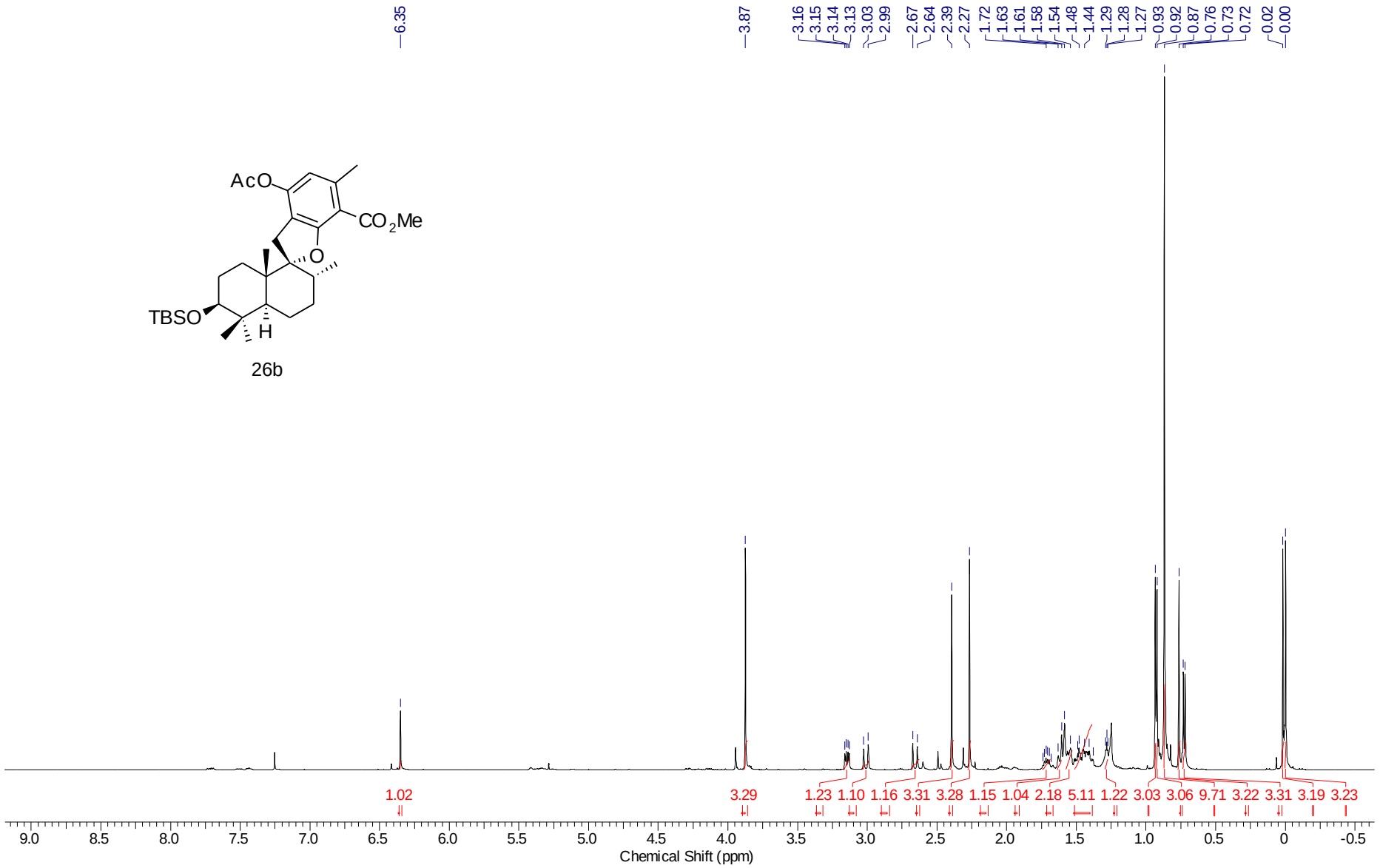

172.67
169.11
162.70
153.50
139.33
137.41
127.87
120.47
117.53
110.29
79.57
52.51
51.05
39.76
39.32
34.91
34.74
29.04
28.49
26.24
24.24
23.70
21.53
21.00
20.75
19.38
18.44
16.41
3.37
-4.61
AcO
CO2Me
OH
TBSO
H
25b
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
Chemical Shift (ppm)

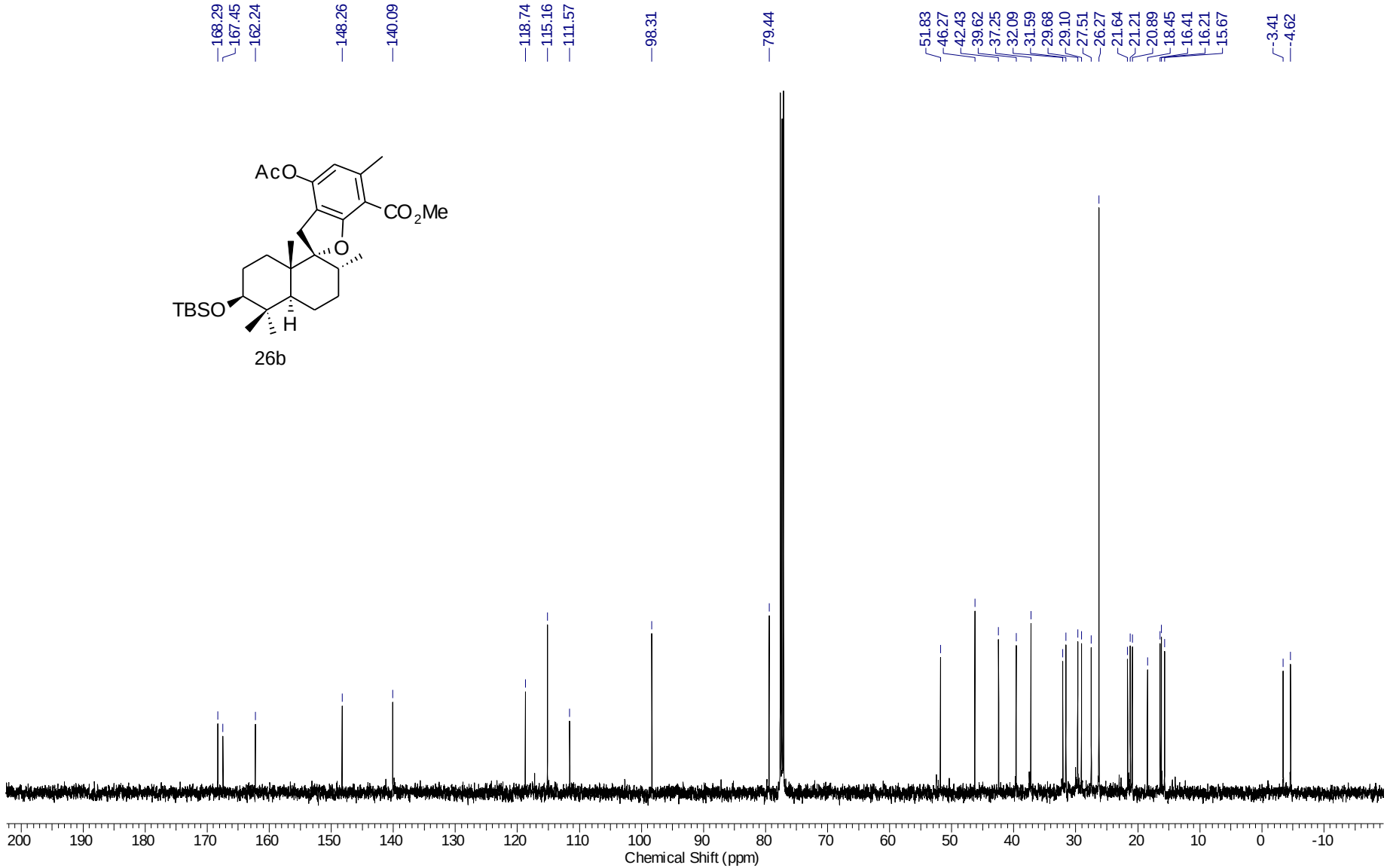

AcO
CO2Me
O
TBSO
H

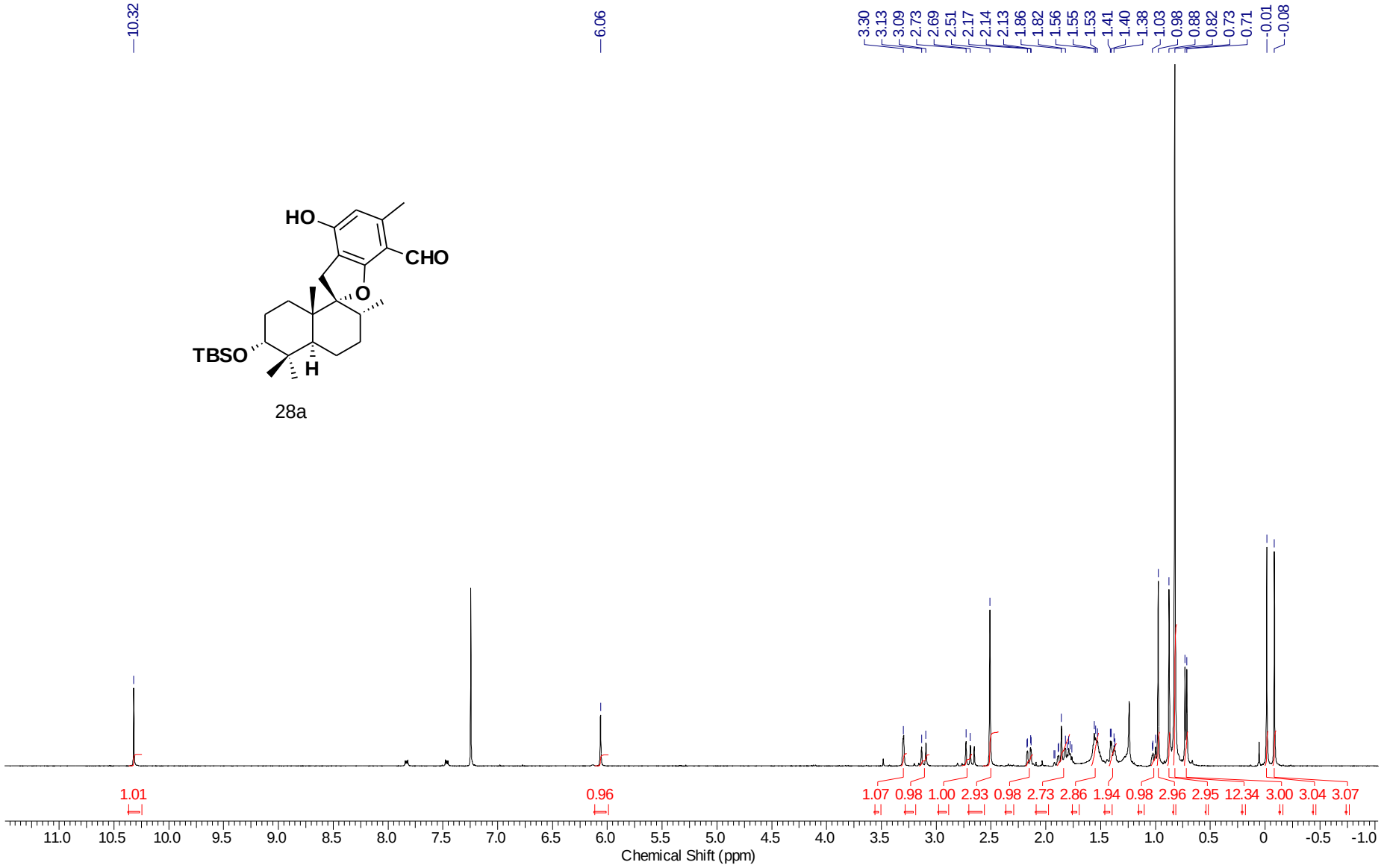
26a


7.26
6.35
3.84
3.31
3.30
3.06
2.62
2.59
2.42
2.28
1.83
1.82
1.56
1.56
1.55
1.55
1.53
1.43
0.94
0.89
0.86
0.83
0.73
0.72
0.00
-0.05
1.00
3.02 1.02 1.08 1.04 3.15 3.08 1.07 2.05 1.19 4.17 1.32 1.10 3.07 3.10 1.00 8.98 3.10 3.02 3.02 3.11
12 11 10 9 8 7 6 5 4 3 2 1 0
Chemical Shift (ppm)

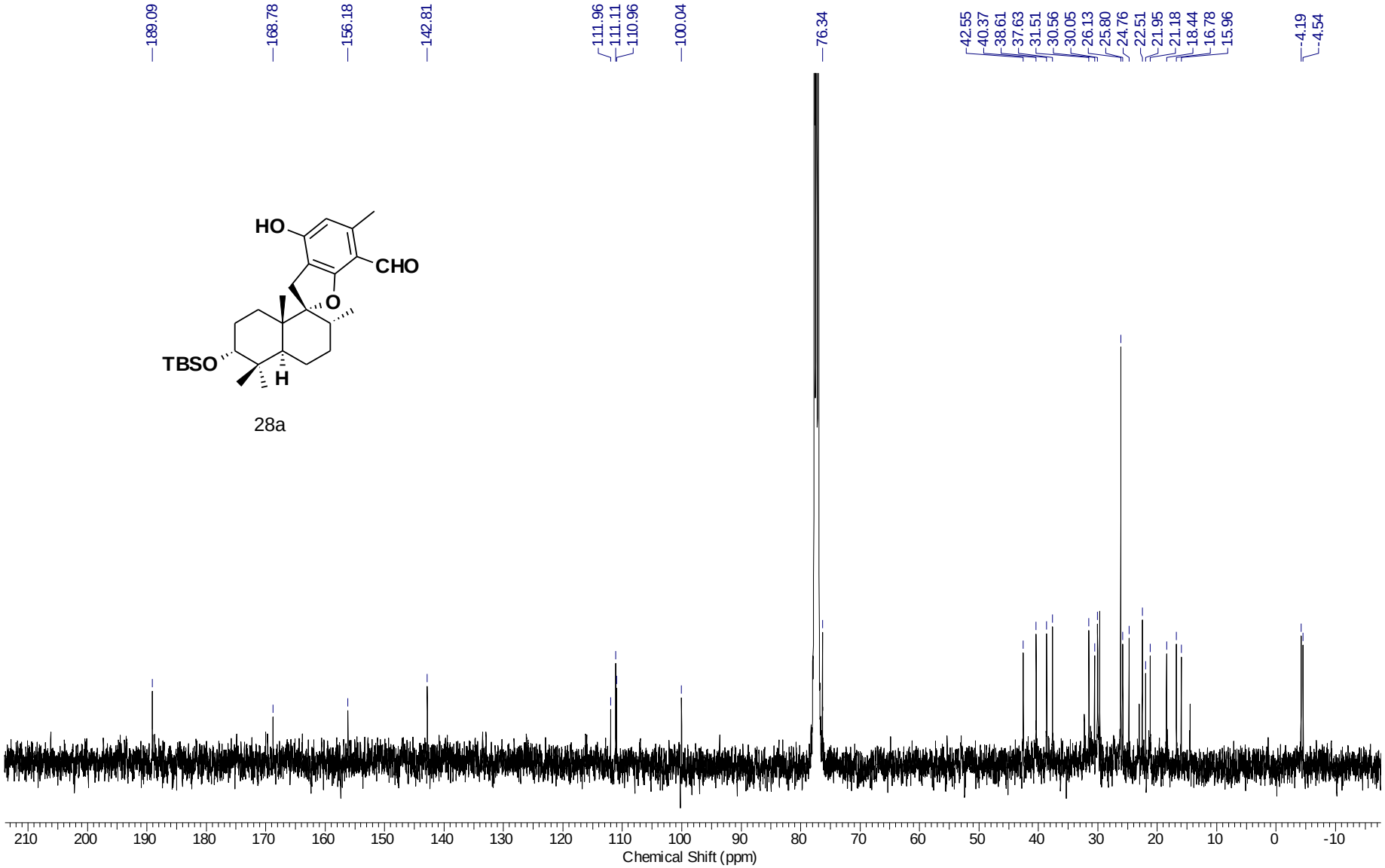

168.41
166.86
163.05
148.14
140.83
118.89
115.12
115.06
111.18
98.48
76.38
51.76
42.25
40.62
38.65
38.13
32.20
31.49
29.71
26.27
25.88
24.69
22.67
21.38
21.27
18.45
16.82
15.94
-3.96
-4.65
AcO
CO2Me
O
TBSO
H
26a
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
Chemical Shift (ppm)

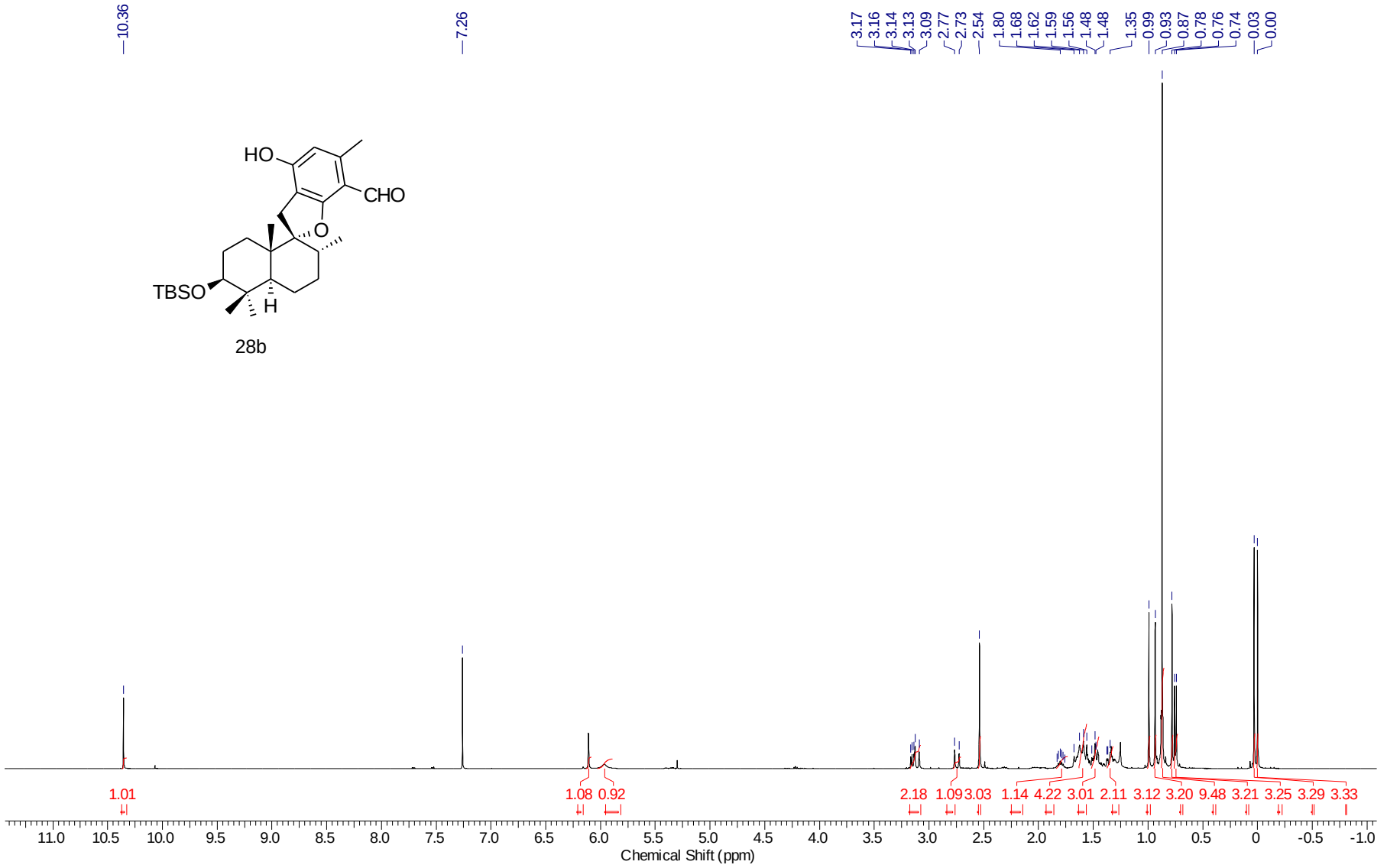

6.35
3.87
3.16
3.15
3.14
3.13
3.03
2.99
2.67
2.64
2.39
2.27
1.72
1.63
1.61
1.58
1.54
1.48
1.44
1.29
1.28
1.27
0.93
0.92
0.87
0.76
0.73
0.72
0.02
0.00
AcO
CO2Me
O
TBSO
H
26b
1.02
3.29
1.23 1.10 1.16 3.31 3.28 1.15 1.04 2.18 5.11 1.22 3.03 3.06 9.71 3.22 3.31 3.19 3.23
9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0 -0.5
Chemical Shift (ppm)

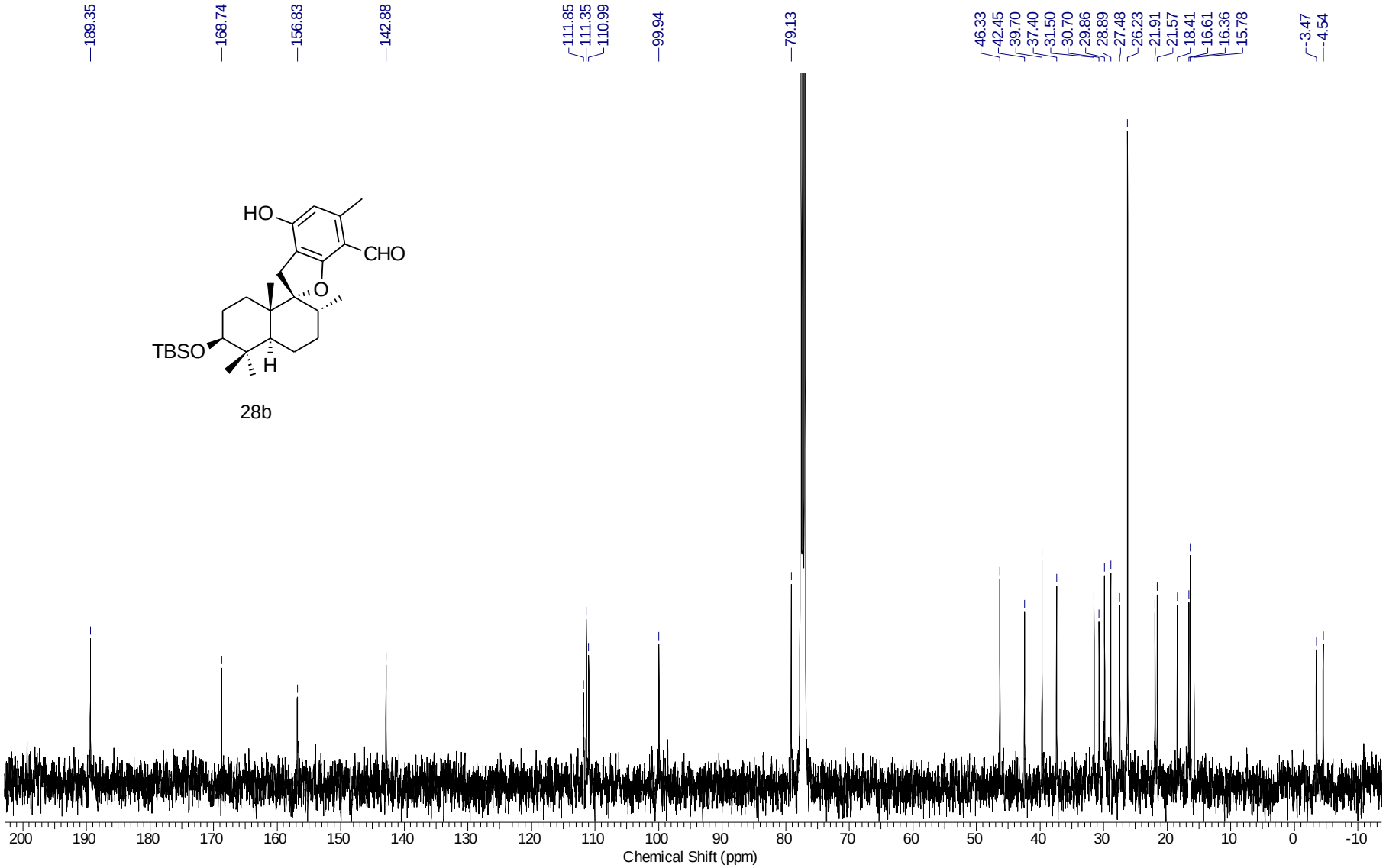

168.29
167.45
162.24
148.26
140.09
118.74
115.16
111.57
98.31
79.44
51.83
46.27
42.43
39.62
37.25
32.09
31.59
29.68
29.10
27.51
26.27
21.64
21.21
20.89
18.45
16.41
16.21
15.67
-3.41
-4.62
AcO
CO2Me
O
TBSO
H
26b
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
Chemical Shift (ppm)


10.32
6.06
3.30
3.13
3.09
2.73
2.69
2.51
2.17
2.14
2.13
1.86
1.82
1.56
1.55
1.53
1.41
1.40
1.38
1.03
0.98
0.88
0.82
0.73
0.71
-0.01
-0.08
HO
CHO
O
TBSO
H
1.01
0.96
1.07 0.98 1.00 2.93 0.98 2.73 2.86 1.94 0.98 2.96 2.95 12.34 3.00 3.04 3.07
11.0 10.5 10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0 -0.5 -1.0
Chemical Shift (ppm)

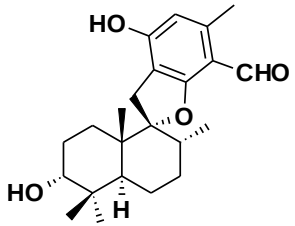
28a


189.09
168.78
156.18
142.81
111.96
111.11
110.96
100.04
76.34
42.55
40.37
38.61
37.63
31.51
30.56
30.05
26.13
25.80
24.76
22.51
21.95
21.18
18.44
16.78
15.96
-4.19
-4.54
HO
CHO
O
TBSO
H
28a
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
Chemical Shift (ppm)

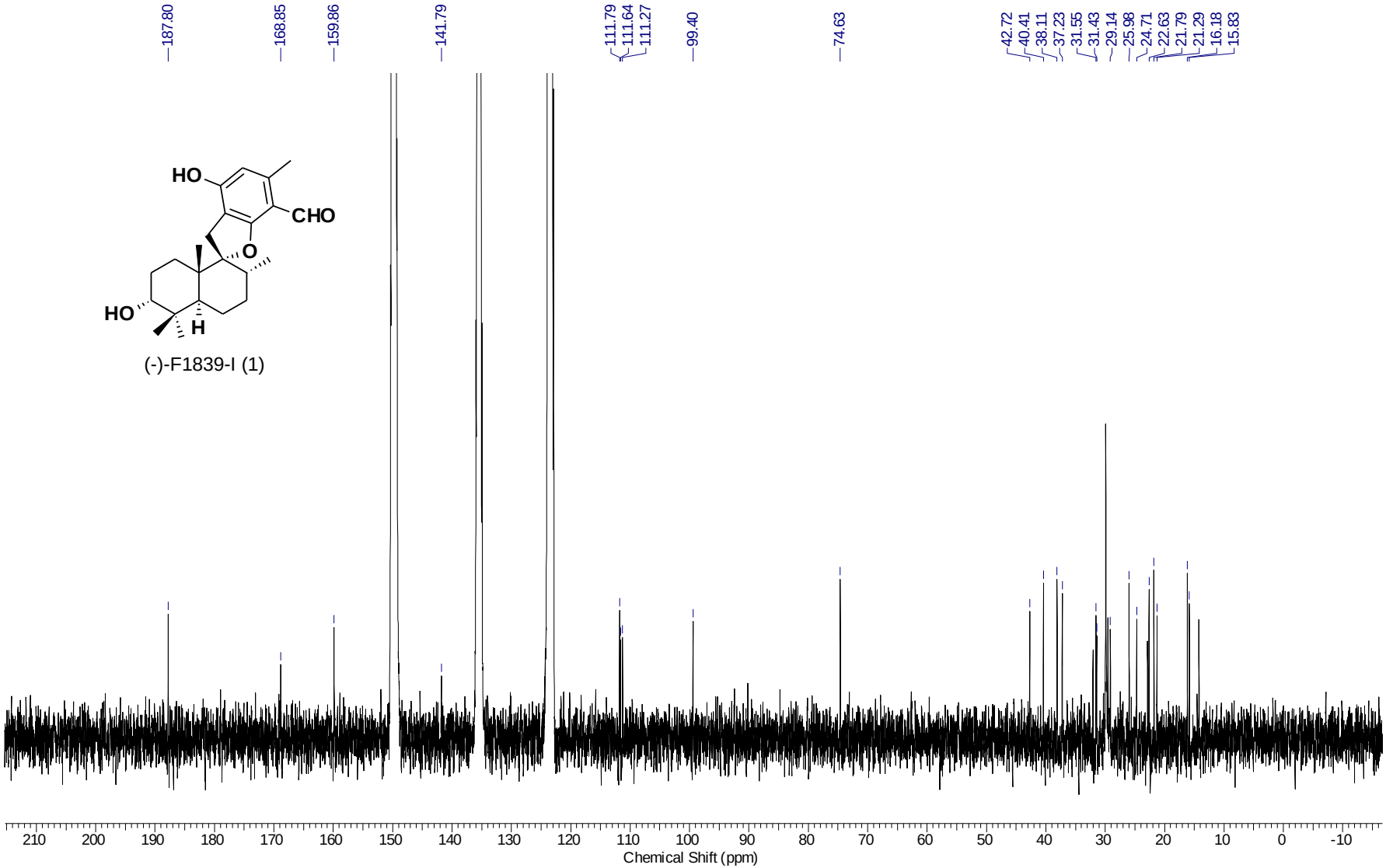

10.36
7.26
3.17
3.16
3.14
3.13
3.09
2.77
2.73
2.54
1.80
1.68
1.62
1.59
1.56
1.48
1.48
1.35
0.99
0.93
0.87
0.78
0.76
0.74
0.03
0.00
HO
CHO
O
TBSO
H
28b
1.01
1.08
0.92
2.18
1.09
3.03
1.14
4.22
3.01
2.11
3.12
3.20
9.48
3.21
3.25
3.29
3.33
11.0
10.5
10.0
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
-0.5
-1.0
Chemical Shift (ppm)

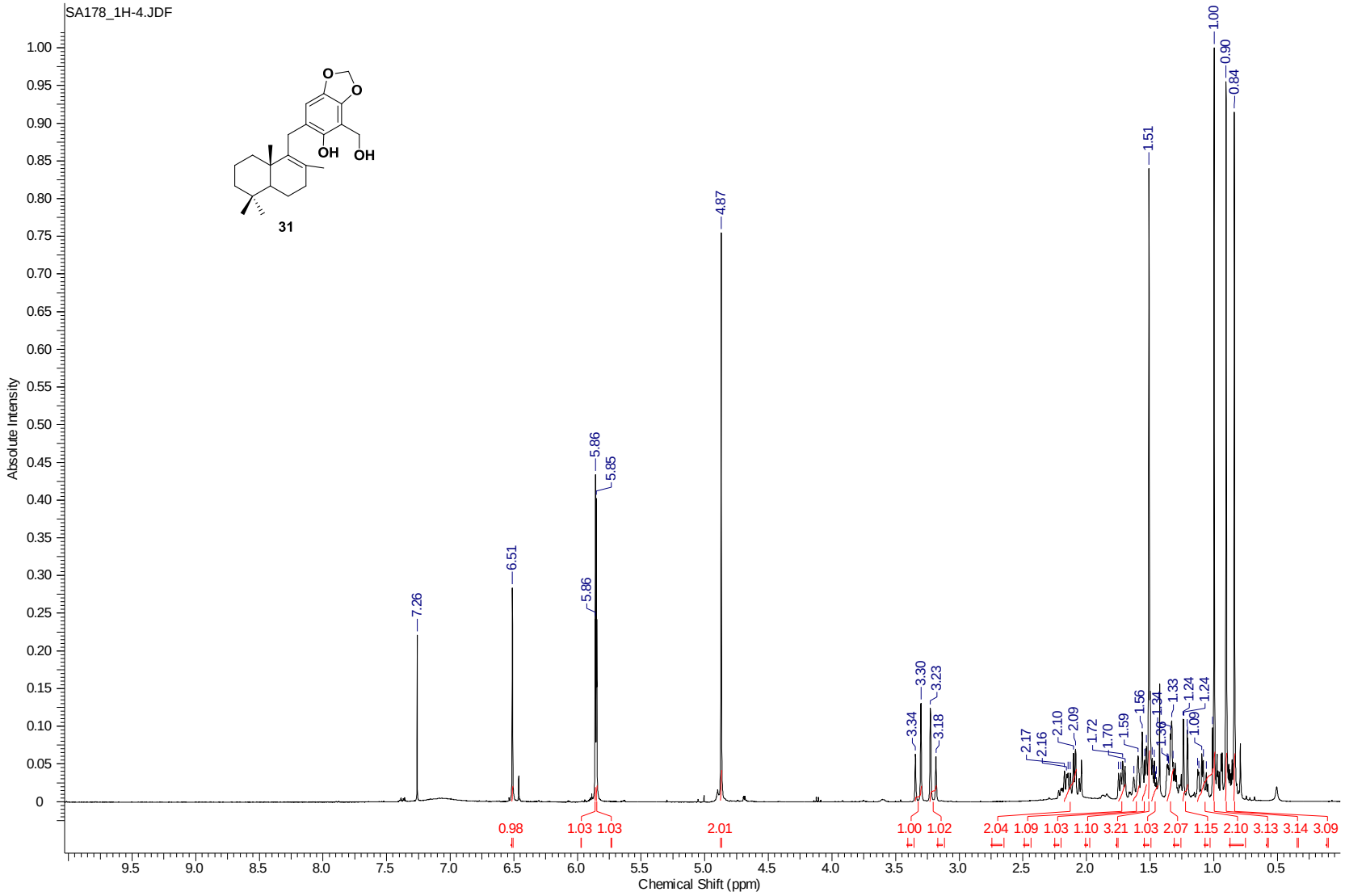

189.35
168.74
156.83
142.88
111.85
111.35
110.99
99.94
79.13
46.33
42.45
39.70
37.40
31.50
30.70
29.86
28.89
27.48
26.23
21.91
21.57
18.41
16.61
16.36
15.78
-3.47
-4.54
HO
CHO
O
TBSO
H
28b
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
Chemical Shift (ppm)

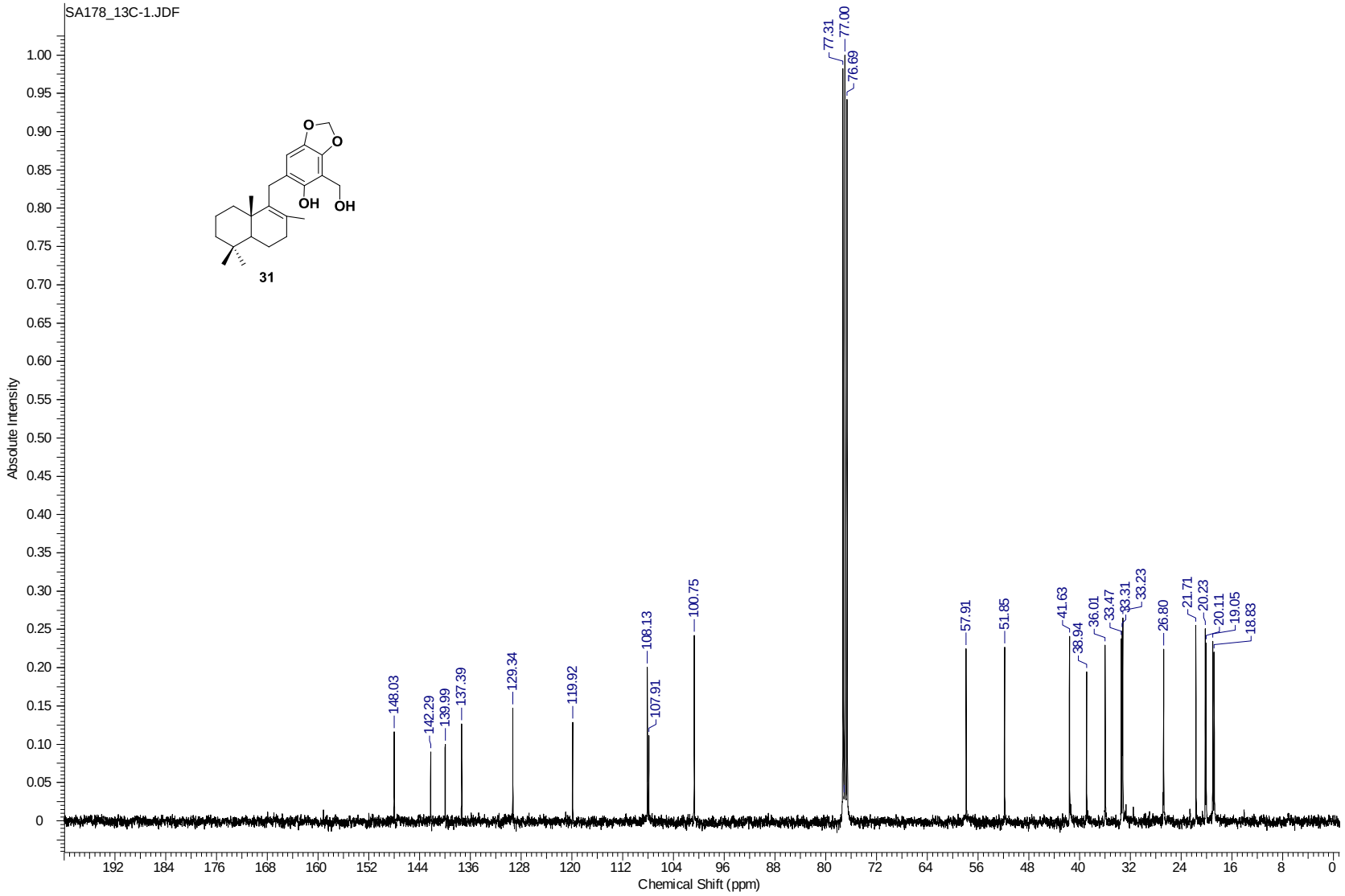
BD1794E-1H-36.ESP

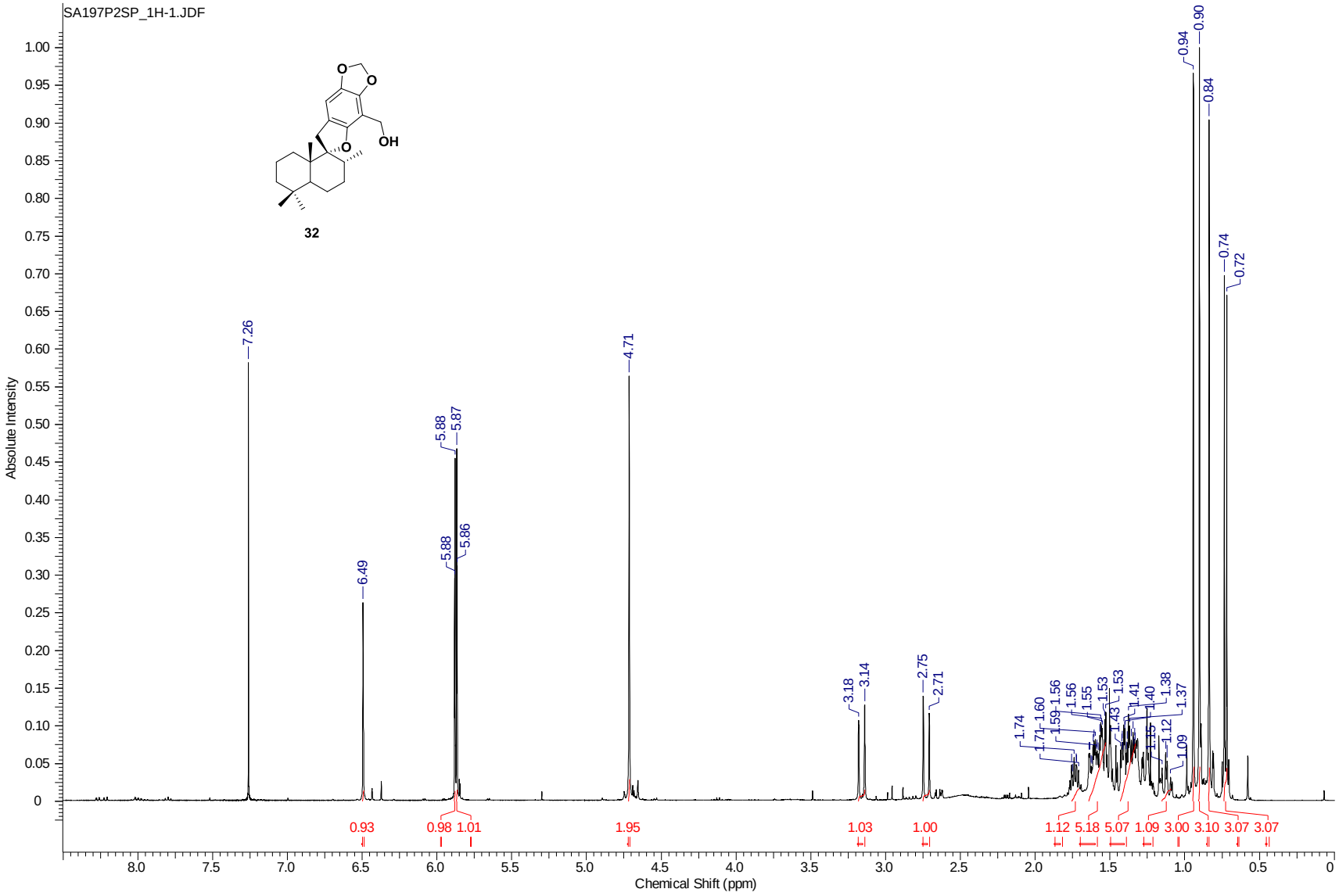


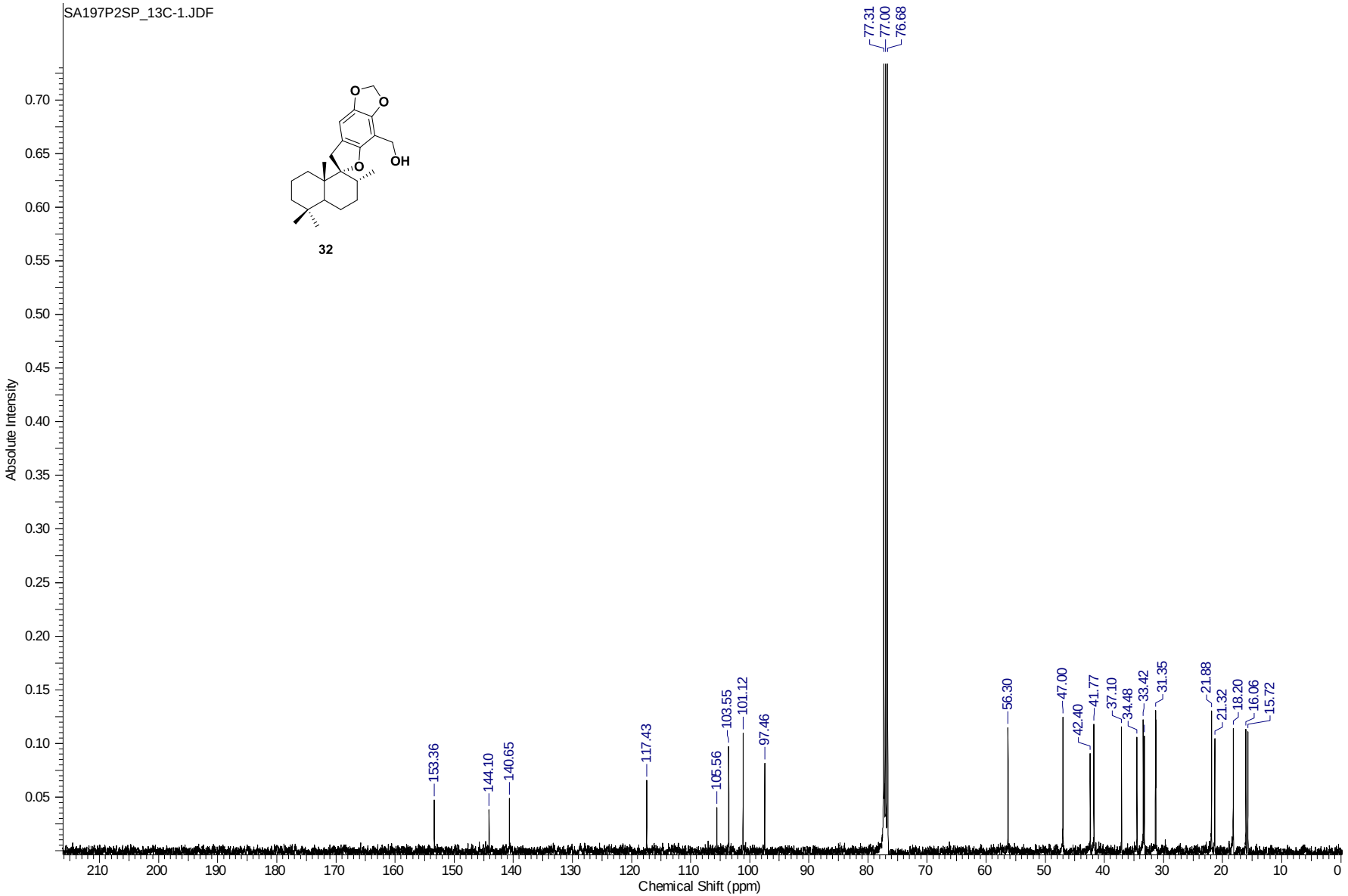

(-)-F1839-I (1)

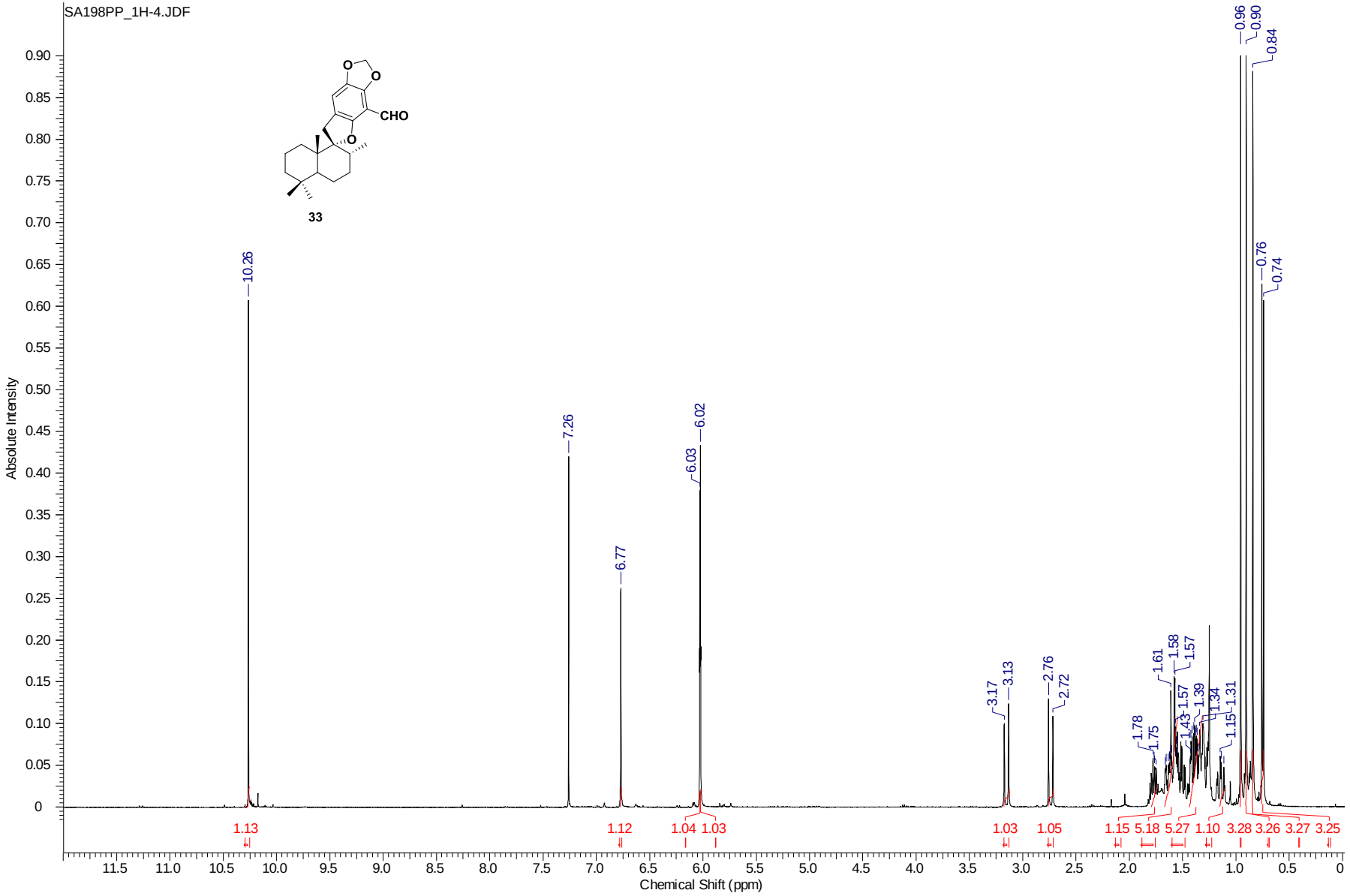

187.80
168.85
159.86
141.79
111.79
111.64
111.27
99.40
74.63
42.72
40.41
38.11
37.23
31.55
31.43
29.14
25.98
24.71
22.63
21.79
21.29
16.18
15.83
HO
CHO
O
HO
H
(-)-F1839-I (1)
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10
Chemical Shift (ppm)

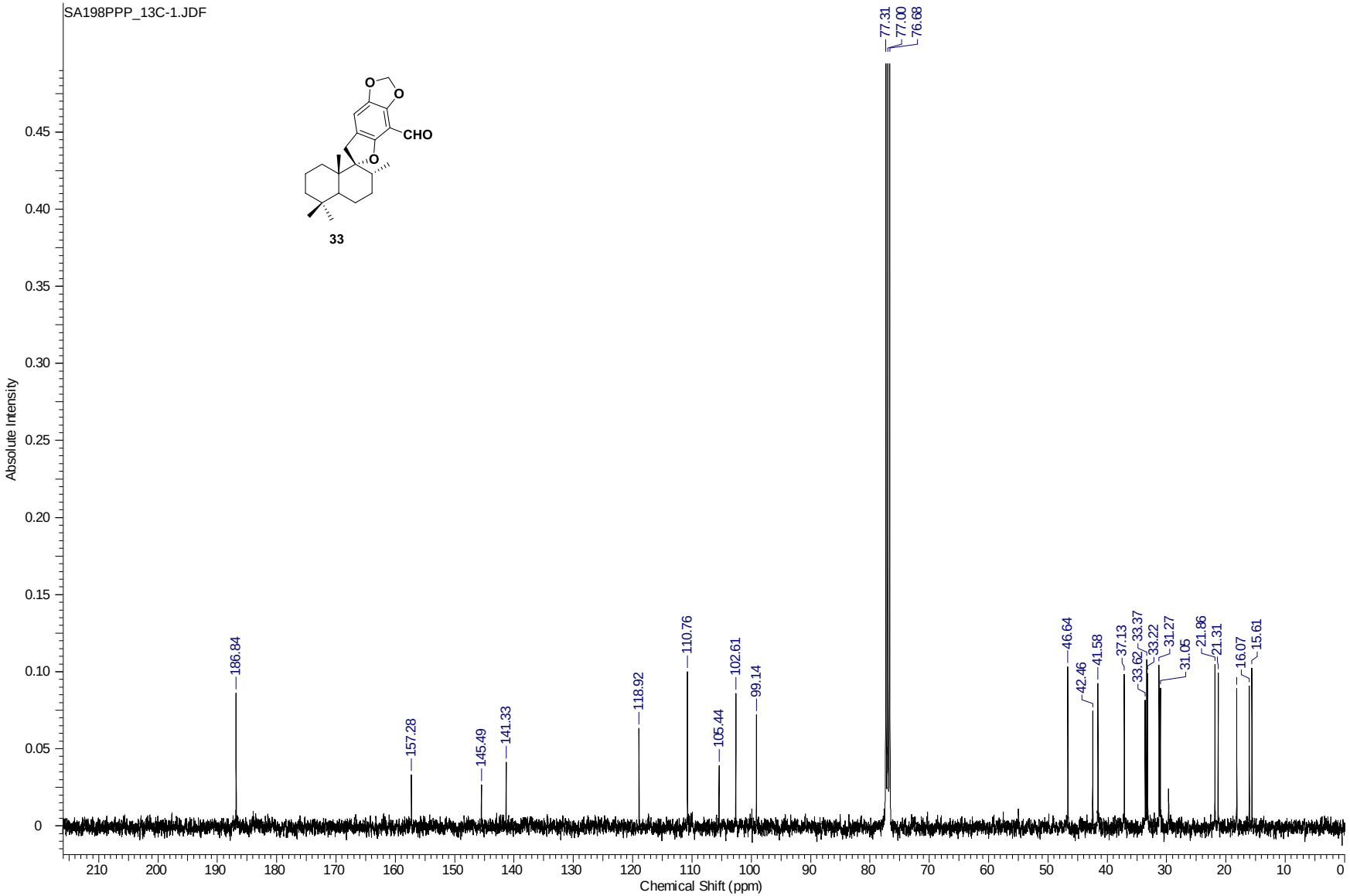

SA178_1H-4.JDF
O
O
OH
OH
31
Absolute Intensity
Chemical Shift (ppm)
7.26
6.51
5.86
5.85
5.86
4.87
3.34
3.30
3.23
3.18
2.17
2.16
2.10
2.09
1.72
1.70
1.59
1.56
1.51
1.34
1.33
1.24
1.24
1.09
1.00
0.90
0.84
0.98
1.03
1.03
2.01
1.00
1.02
2.04
1.09
1.03
1.10
3.21
1.03
2.07
1.15
2.10
3.13
3.14
3.09

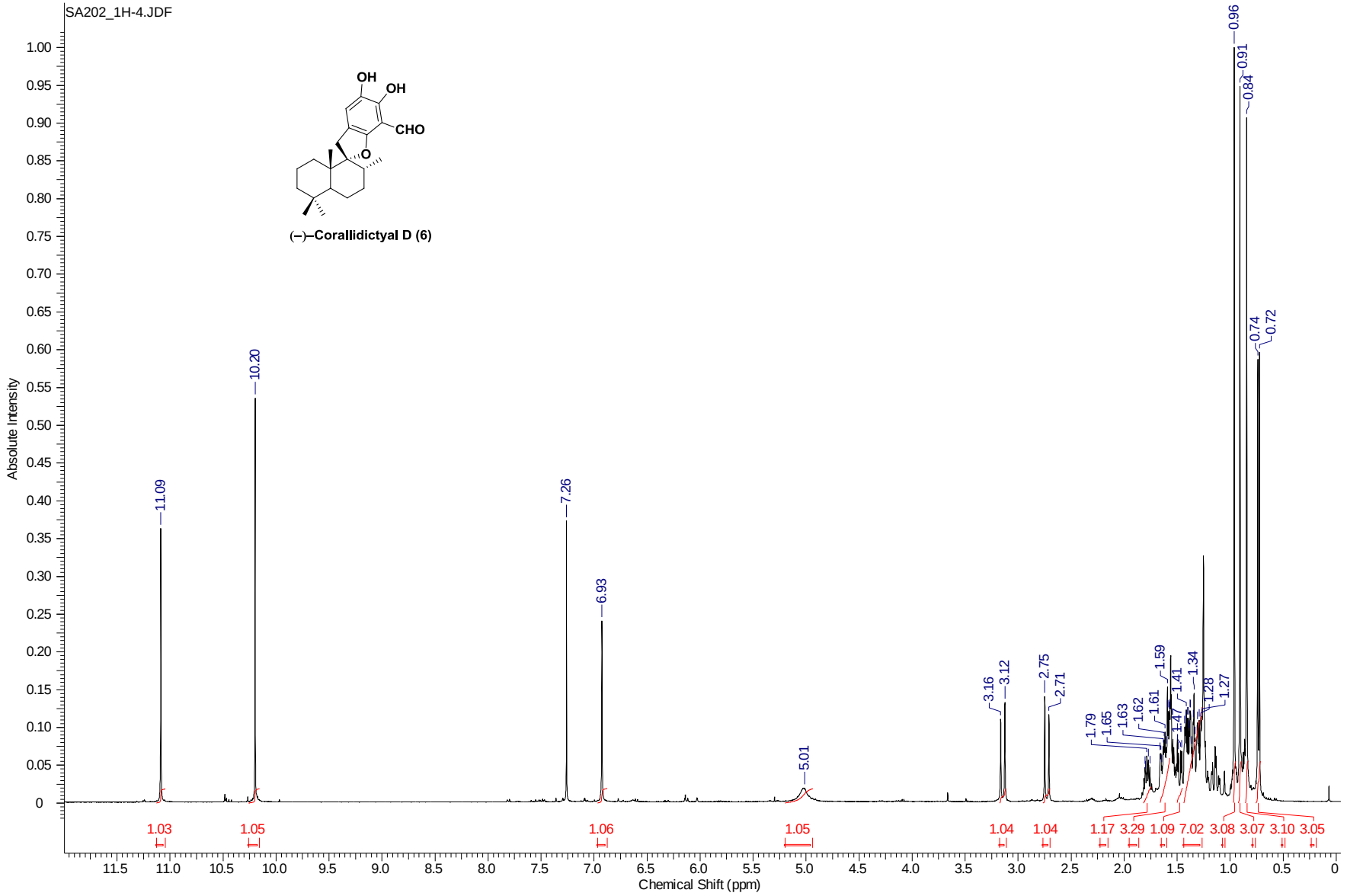

SA178_13C-1.JDF
OH
OH
O
O
31
Absolute Intensity
Chemical Shift (ppm)
77.31
77.00
76.69
148.03
142.29
139.99
137.39
129.34
119.92
108.13
107.91
100.75
57.91
51.85
41.63
38.94
36.01
33.47
33.31
33.23
26.80
21.71
20.23
20.11
19.05
18.83

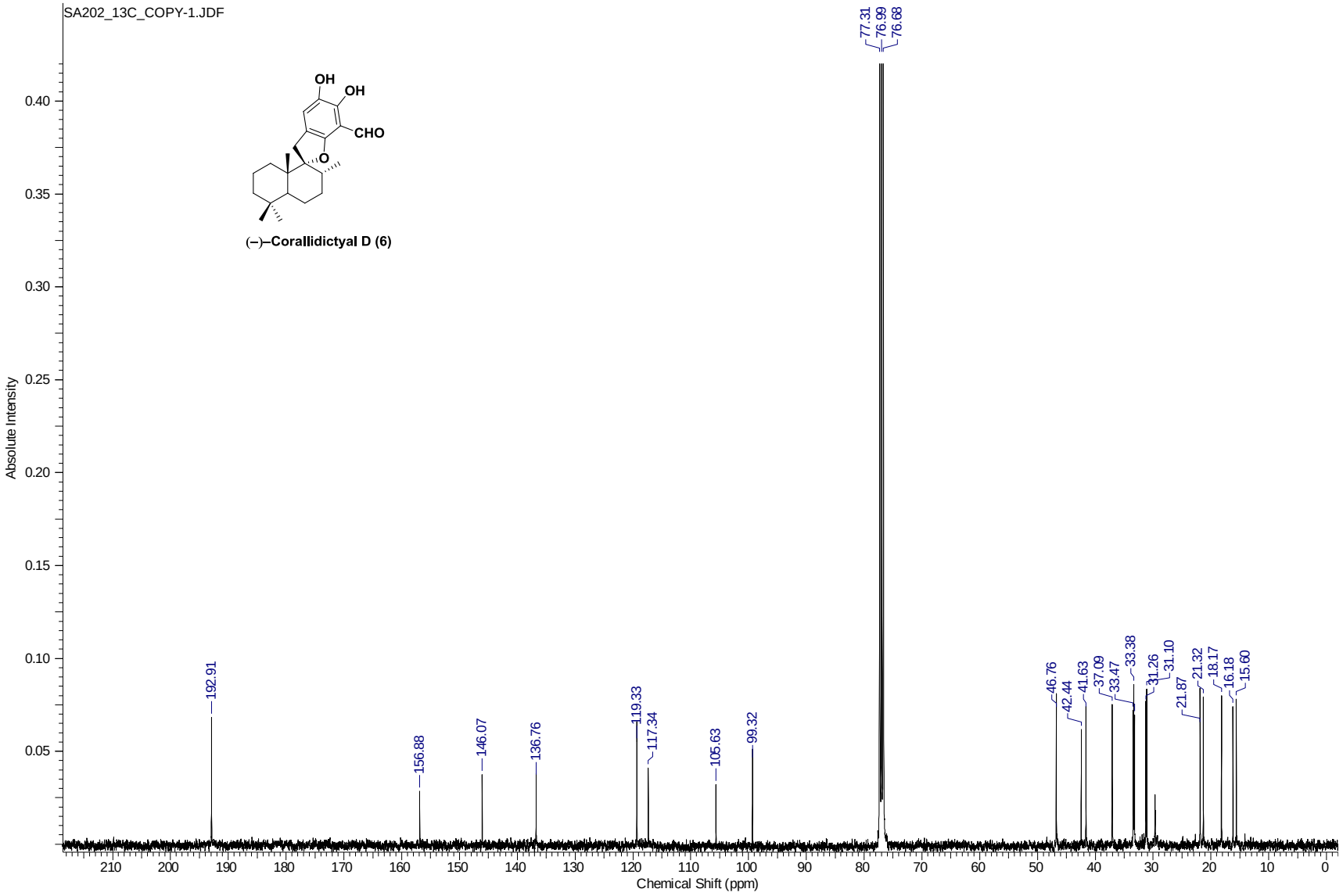

SA197P2SP_1H-1.JDF
OH
32
Absolute Intensity
Chemical Shift (ppm)
7.26
6.49
5.88
5.87
5.88
5.86
4.71
3.18
3.14
2.75
2.71
1.74
1.71
1.60
1.59
1.56
1.56
1.55
1.53
1.53
1.43
1.41
1.40
1.38
1.37
1.16
1.12
1.09
0.94
0.90
0.84
0.74
0.72
0.93
0.98
1.01
1.95
1.03
1.00
1.12
5.18
5.07
1.09
3.00
3.10
3.07
3.07

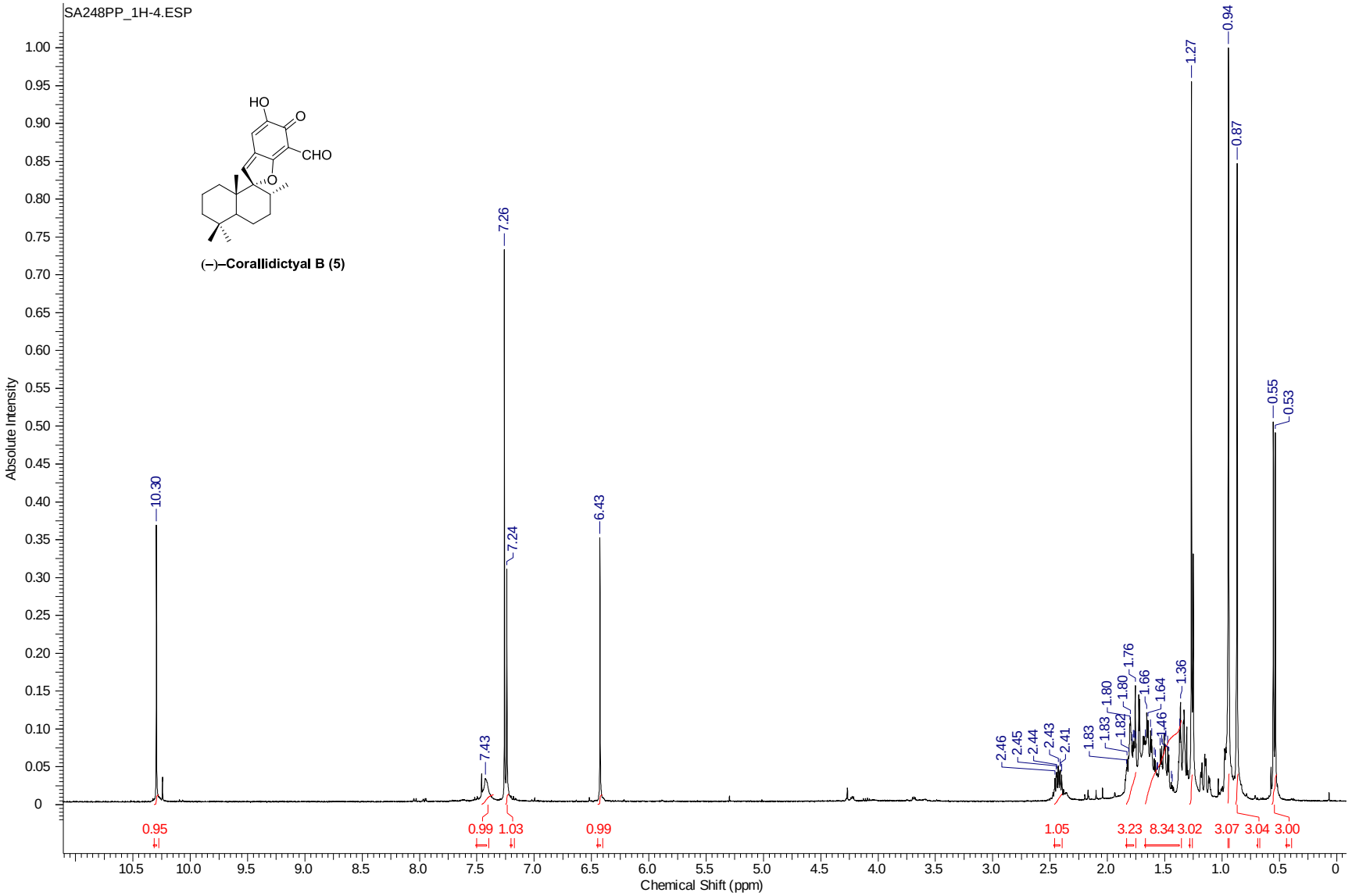

SA197P2SP_13C-1.JDF
O
O
O
OH
32
77.31
77.00
76.68
153.36
144.10
140.65
117.43
105.56
103.55
101.12
97.46
56.30
47.00
42.40
41.77
37.10
34.48
33.42
31.35
21.88
21.32
18.20
16.06
15.72
Absolute Intensity
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Chemical Shift (ppm)

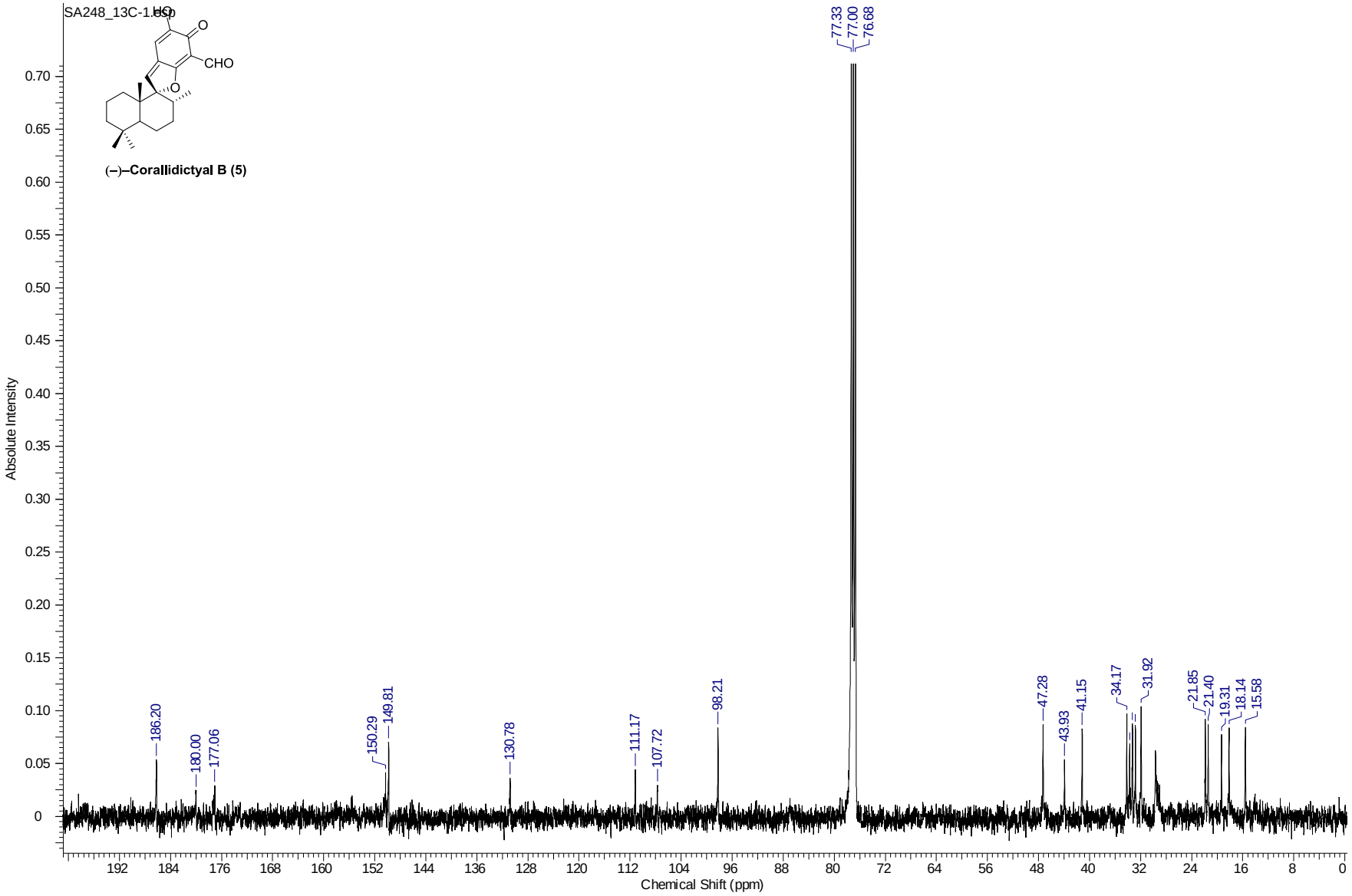

SA198PP_1H-4.JDF
CHO
33
Absolute Intensity
Chemical Shift (ppm)
10.26
7.26
6.77
6.03
6.02
3.17
3.13
2.76
2.72
1.78
1.75
1.61
1.58
1.57
1.57
1.43
1.39
1.34
1.31
1.15
0.96
0.90
0.84
0.76
0.74
1.13
1.12
1.04
1.03
1.03
1.05
1.15
5.18
5.27
1.10
3.28
3.26
3.27
3.25


SA198PPP_13C-1.JDF
O
O
CHO
O
33
77.31
77.00
76.68
186.84
157.28
145.49
141.33
118.92
110.76
105.44
102.61
99.14
46.64
42.46
41.58
37.13
33.62
33.37
33.22
31.27
31.05
21.86
21.31
16.07
15.61
Absolute Intensity
0
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
0.45
Chemical Shift (ppm)
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0


SA202_1H-4.JDF
OH
OH
CHO
O
(–)–Corallidictyal D (6)
Absolute Intensity
Chemical Shift (ppm)
0.96
0.91
0.84
0.74
0.72
11.09
10.20
7.26
6.93
5.01
3.16
3.12
2.75
2.71
1.79
1.65
1.63
1.62
1.61
1.59
1.47
1.41
1.34
1.28
1.27
1.03
1.05
1.06
1.05
1.04
1.04
1.17
3.29
1.09
7.02
3.08
3.07
3.10
3.05


SA202_13C_COPY-1.JDF
OH
OH
CHO
O
(–)–Corallidictyal D (6)
77.31
76.99
76.68
192.91
156.88
146.07
136.76
119.33
117.34
105.63
99.32
46.76
42.44
41.63
37.09
33.47
33.38
31.26
31.10
21.87
21.32
18.17
16.18
15.60
Absolute Intensity
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Chemical Shift (ppm)


SA248PP_1H-4.ESP
HO
O
CHO
O
(–)–Corallidictyal B (5)
Absolute Intensity
Chemical Shift (ppm)
10.30
7.43
7.26
7.24
6.43
2.46
2.45
2.44
2.43
2.41
1.83
1.82
1.80
1.80
1.76
1.66
1.64
1.46
1.36
1.27
0.94
0.87
0.55
0.53
0.95
0.99
1.03
0.99
1.05
3.23
8.34
3.02
3.07
3.04
3.00


SA248_13C-1.esp
HO
O
CHO
O
(–)–Corallidictyal B (5)
Absolute Intensity
Chemical Shift (ppm)
186.20
180.00
177.06
150.29
149.81
130.78
111.17
107.72
98.21
77.33
77.00
76.68
47.28
43.93
41.15
34.17
31.92
21.85
21.40
19.31
18.14
15.58

## 6. References: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[2] K. Sakai, K. Watanabe, K. Masuda, M. Tsuji, K. Hasumi and A. Endo, *J. Antibiot.* **1995**, *48*, 447.

[3] J. A. Chan, A. J. Freyer, B. K. Carte, M. E. Hemling, G. A. Hofmann, M. R. Mattern, M. A. Mentzer, J. W. Westley, *J. Nat. Prod*. **1994**, *57*, 1543.