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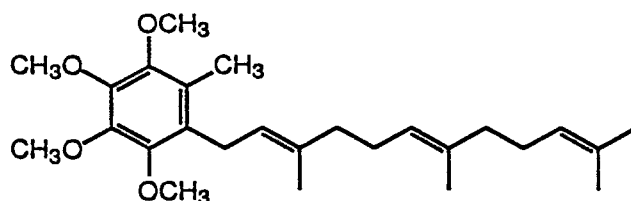


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J5513-1



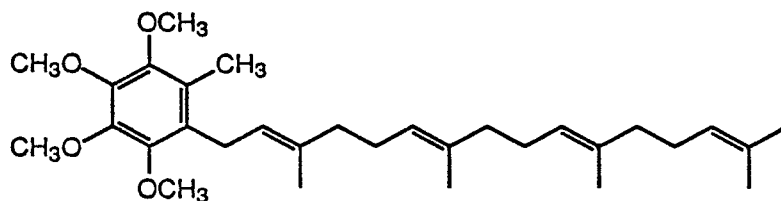
$R_f = 0.10$ (2% actone/hexanes);

IR (neat) 2962, 2929, 1466, 1417, 1406, 1350, 1107, 1082, 1068, 1041 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 5.077-5.017 (m, 3H), 3.887 (s, 3H), 3.881 (s, 3H), 3.767 (s, 3H), 3.764 (s, 3H), 3.304 (d, $J = 6.5$ Hz, 2H), 2.122 (s, 3H), 2.072-1.910 (m, 8H), 1.752 (s, 3H), 1.646 (s, 3H), 1.567 (s, 3H), 1.558 (s, 3H);

^{13}C NMR (125 MHz, CDCl_3) δ 147.85, 147.66, 144.92, 144.67, 135.01, 134.92, 131.19, 129.23, 125.34, 124.35, 124.11, 122.89, 61.17, 61.04, 60.65, 60.60, 39.69, 26.73, 26.57, 25.78, 25.63, 17.63, 16.18, 15.97, 11.67;

HREIMS calcd. for $\text{C}_{26}\text{H}_{40}\text{O}_4$ M^+ 416.29266, found 416.29166.



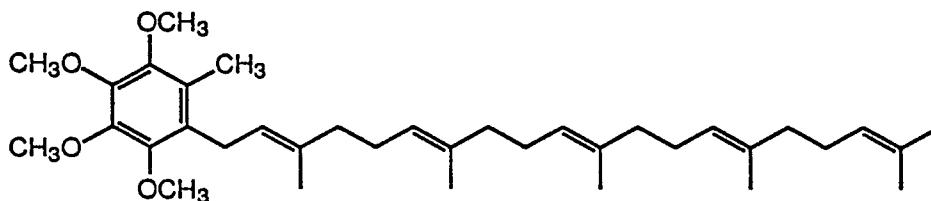
$R_f = 0.10$ (2% actone/hexanes);

IR (neat) 2931, 2856, 1470, 1454, 1446, 1417, 1406, 1350, 1107, 1068, 1041 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 5.088-5.017 (m, 4H), 3.888 (s, 3H), 3.883 (s, 3H), 3.768 (s, 3H), 3.765 (s, 3H), 3.305 (d, $J = 6.5$ Hz, 2H), 2.123 (s, 3H), 2.082-1.924 (m, 12H), 1.753 (s, 3H), 1.656 (s, 3H), 1.576 (s, 3H), 1.565 (s, 6H);

^{13}C NMR (125 MHz, CDCl_3) δ 147.85, 147.67, 144.92, 144.67, 135.05, 134.96, 134.84, 131.17, 129.23, 125.34, 124.40, 124.22, 124.13, 122.87, 61.17, 61.04, 60.61, 39.70, 26.76, 26.62, 25.78, 25.64, 17.64, 16.20, 15.96, 11.67;

HREIMS calcd. for $\text{C}_{31}\text{H}_{48}\text{O}_4$ M^+ 484.35526, found 484.35480.



$R_f = 0.10$ (2% actone/hexanes);

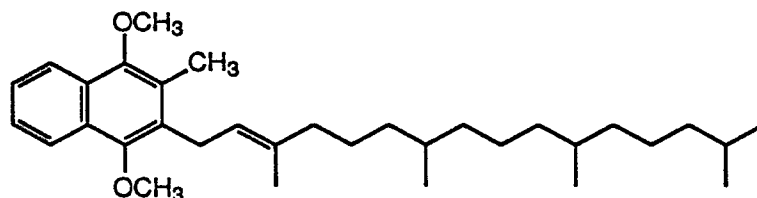
IR (neat) 2962, 2927, 2856, 1466, 1417, 1406, 1350, 1105, 1086, 1070, 1041, 1014, 733 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 5.103-5.050 (m, 4H), 5.030 (t, $J = 6.5$ Hz, 1H), 3.888 (s, 3H), 3.882 (s, 3H), 3.767 (s, 3H), 3.766 (s, 3H), 3.305 (d, $J = 6.5$ Hz, 2H), 2.123 (s, 3H), 2.084-1.922 (m, 16H), 1.753 (s, 3H), 1.659 (s, 3H), 1.580 (s, 3H), 1.573 (s, 6H), 1.563 (s, 3H).

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^{13}C NMR (125 MHz, CDCl_3) δ 147.85, 147.67, 144.92, 144.67, 135.06, 134.99, 134.90, 134.84, 131.20, 129.24, 125.35, 124.40, 124.24, 124.12, 122.86, 61.17, 61.05, 60.63, 39.71, 26.78, 26.67, 26.62, 25.79, 25.66, 17.65, 16.20, 15.98, 11.68;

HREIMS calcd. for $\text{C}_{36}\text{H}_{56}\text{O}_4$ M^+ 552.41786, found 552.41730.



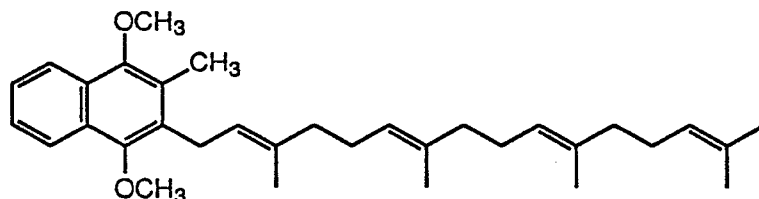
R_f = 0.1 (2% acetone/hexanes);

IR (neat) 2950, 2926, 1591, 1458, 1352, 1290, 1193, 1065, 1028, 802 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 8.033 (m, 2H), 7.430 (m, 2H), 5.080 (t, J = 6.5 Hz, 1H), 3.869 (s, 3H), 3.853 (s, 3H), 3.550 (d, J = 6 Hz, 2H), 2.360 (s, 3H), 1.950 (m, 2H), 1.795 (s, 3H), 1.500 (m, 1H), 1.360-0.950 (m, 18H), 0.850 (s, 3H), 0.837 (s, 3H), 0.810 (d, J = 2.5 Hz, 3H), 0.798 (d, J = 2.5 Hz, 3H);

^{13}C NMR (125 MHz, CDCl_3) δ 150.09, 149.73, 136.09, 130.94, 127.48, 127.26, 126.91, 125.36, 125.23, 122.59, 122.27, 122.09, 62.18, 61.29, 39.98, 39.38, 37.43, 37.39, 37.30, 36.70, 32.78, 32.66, 27.97, 26.33, 25.39, 24.80, 24.46, 22.71, 22.61, 19.74, 19.65, 16.31, 12.41;

HREIMS calcd. for $\text{C}_{33}\text{H}_{52}\text{O}_2$ M^+ 480.39673, found 480.39520.



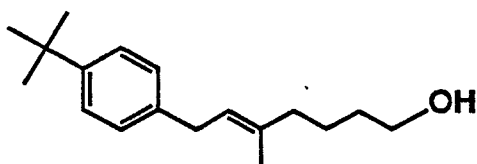
R_f = 0.1 (2% acetone/hexanes);

IR (neat) 2923, 2836, 1593, 1454, 1354, 1267, 1196, 1111, 1060, 1012, 958, 906, 767, 732 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 8.055-8.031 (m, 2H), 7.454-7.435 (m, 2H), 5.118-5.065 (m, 4H), 3.875 (s, 3H), 3.859 (s, 3H), 3.560 (d, J = 6 Hz, 2H), 2.368 (s, 3H), 2.098-2.033 (m, 8H), 1.956-1.930 (m, 4H), 1.822 (s, 3H), 1.662 (s, 3H), 1.581 (s, 3H), 1.564 (s, 3H), 1.555 (s, 3H);

^{13}C NMR (125 MHz, CDCl_3) δ 150.03, 149.67, 135.72, 135.06, 134.87, 131.22, 130.88, 127.44, 127.21, 126.91, 125.36, 125.23, 124.36, 124.15, 124.01, 122.77, 122.24, 122.06, 62.17, 61.30, 39.68, 26.74, 26.59, 26.52, 26.30, 25.68, 17.67, 16.39, 16.00, 15.94, 12.38;

HREIMS calcd. for $\text{C}_{33}\text{H}_{46}\text{O}_2$ M^+ 474.35019, found 474.34978.



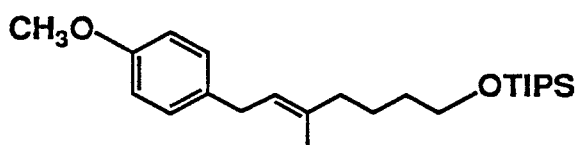
$R_f = 0.20$ (15% ethyl acetate / hexanes);

IR (neat) 3300, 2950, 2900, 2850, 1500, 1475, 1375, 1275, 1200, 1100, 1075, 950, 900, 810, 740 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 7.288 (dt, $J = 8$, 2 Hz), 7.096 (d, $J = 8$ Hz, 2H), 5.336 (tq, $J = 7$, 1.5 Hz, 1H), 3.633 (t, $J = 6$ Hz, 2H), 3.313 (d, $J = 7$ Hz, 2H), 2.044 (t, $J = 7$ Hz, 2H), 1.703 (s, 3H), 1.570-1.450 (m, 4H), 1.291 (s, 9H), 1.252 (s, 1H);

^{13}C NMR (125 MHz, CDCl_3) δ 148.43, 138.56, 135.78, 127.88, 125.17, 123.32, 62.77, 39.34, 34.29, 33.59, 32.33, 31.36, 24.01, 15.96;

HREIMS calcd. for $\text{C}_{18}\text{H}_{28}\text{O}$ M^+ 260.21402, found 260.21404.



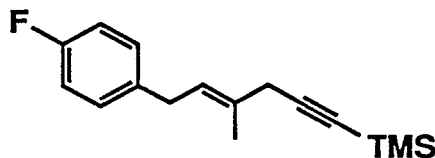
$R_f = 0.20$ (10% acetone / pentane);

IR (neat) 2941, 2864, 1612, 1537, 1462, 1383, 1300, 1246, 1174, 1105, 1039, 881, 822, 681 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 7.067, (d, $J = 8.5$ Hz, 2H), 6.799 (dt, $J = 8.5$, 1.5 Hz, 2H), 5.294 (dt, $J = 7.5$, 1.5 Hz, 1H), 3.763 (s, 3H), 3.659 (t, $J = 6$ Hz, 2H), 3.273 (d, $J = 7$ Hz, 2H), 2.024 (t, $J = 7$ Hz, 2H), 1.670 (s, 3H), 1.550-1.450 (m, 4H), 1.039 (br s, 21 H);

^{13}C NMR (125 MHz, CDCl_3) δ 157.67, 136.03, 133.88, 129.12, 123.38, 113.74, 63.32, 55.23, 39.44, 33.25, 32.61, 24.11, 18.03, 15.92, 12.02;

HREIMS calcd. for $\text{C}_{24}\text{H}_{42}\text{O}_2\text{Si}$ M^+ 390.29541, found 390.29546.



$R_f = 0.50$ (pentane);

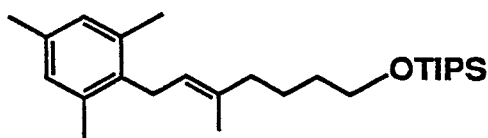
IR (neat) 2958, 2916, 2173, 1529, 1221, 1155, 1041, 843, 760 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 7.119 (m, 2H), 6.954 (m, 2H), 5.600 (tq, $J = 7.5$, 1.5 Hz, 1H), 3.352 (d, $J = 7.5$ Hz, 2H), 2.969 (s, 2H), 1.769 (s, 3H), 0.155 (s, 9 H);

^{13}C NMR (125 MHz, CDCl_3) δ 162.26, 160.32, 136.69, 131.19, 129.62, 129.54, 124.47, 115.20, 115.15, 114.98, 104.29, 86.98, 33.31, 29.96, 16.12, 0.09;

HREIMS calcd. for $\text{C}_{16}\text{H}_{21}\text{FSi}$ M^+ 260.13966, found 260.13910.

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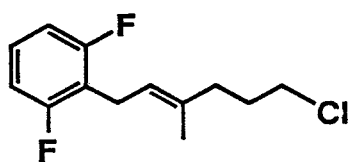
$R_f = 0.10$ (hexanes);

IR (neat) 2939, 2862, 1460, 1365, 1107, 1012, 881, 849, 679 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 6.858 (s, 2H), 5.013 (t, $J = 6.5$ Hz, 1H), 3.684 (t, $J = 6$ Hz, 2H), 3.321 (d, $J = 6.5$ Hz, 2H), 2.284 (s, 6H), 2.276 (s, 3H), 2.017 (t, $J = 7.5$ Hz, 2H), 1.780 (s, 3H), 1.500 (m, 4H), 1.041 (s, 18H), 1.031 (s, 3H);

^{13}C NMR (125 MHz, CDCl_3) δ 136.15, 135.51, 135.28, 134.92, 128.76, 122.32, 63.33, 39.43, 32.63, 28.32, 24.19, 20.78, 19.92, 18.02, 16.00, 12.04;

HRCIMS calcd. for $\text{C}_{26}\text{H}_{47}\text{OSi}$ ($\text{M} + \text{H}$) $^+$ 403.33962, found 403.34082.



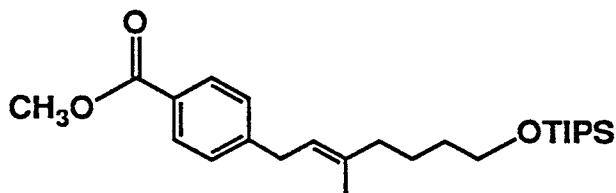
$R_f = 0.30$ (pentane);

IR (neat) 2954, 2860, 2339, 1623, 1590, 1443, 1264, 1173, 1004, 899, 780, 722, 654 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 7.108 (m, 1H), 6.828 (m, 2H), 5.273 (t, $J = 7$ Hz, 1H), 3.460 (t, $J = 7$ Hz, 2H), 3.375 (d, $J = 7$ Hz, 2H), 2.116 (t, $J = 7.5$ Hz, 2H), 1.856 (m, 2H), 1.751 (s, 3H);

^{13}C NMR (125 MHz, CDCl_3) δ 162.38, 162.31, 160.43, 160.35, 134.91, 127.30, 127.21, 127.11, 121.743, 111.12, 111.06, 110.88, 44.40, 36.57, 30.67, 21.31, 15.76;

HREIMS calcd. for $\text{C}_{13}\text{H}_{15}\text{F}_2\text{Cl}$ M^+ 244.08304, found 244.08231.



$R_f = 0.30$ (10 % acetone / hexanes);

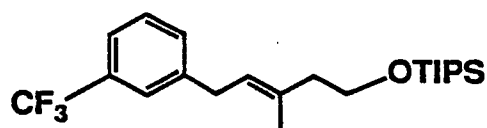
IR (neat) 2937, 2862, 1724, 1610, 1462, 1277, 1190, 1109, 1012, 881, 681 cm^{-1} ;

^1H NMR (500 MHz, CDCl_3) δ 7.922 (d, $J = 8$ Hz, 2H), 7.216 (d, $J = 8$ Hz, 2H), 5.302 (td, $J = 7.5$, 1 Hz, 1H), 3.878 (s, 3H), 3.665 (t, $J = 6$ Hz, 2H), 3.383 (d, $J = 7.5$ Hz, 2H), 2.044 (t, $J = 7$ Hz, 2H), 1.680 (s, 3H), 1.519-1.475 (m, 4H), 1.041 (s, 18H), 1.031 (s, 3H);

^{13}C NMR (125 MHz, CDCl_3) δ 167.15, 147.38, 137.32, 129.69, 128.29, 127.70, 121.90, 63.26, 51.90, 39.39, 34.26, 32.57, 24.09, 18.03, 16.05, 12.03;

HRCIMS calcd. for $\text{C}_{25}\text{H}_{43}\text{O}_3\text{Si}$ ($\text{M} + \text{H}$) $^+$ 419.29815, found 419.29779.

J5513-5



R_f = 0.15 (pentane);

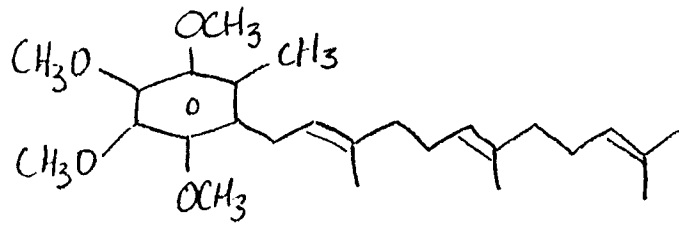
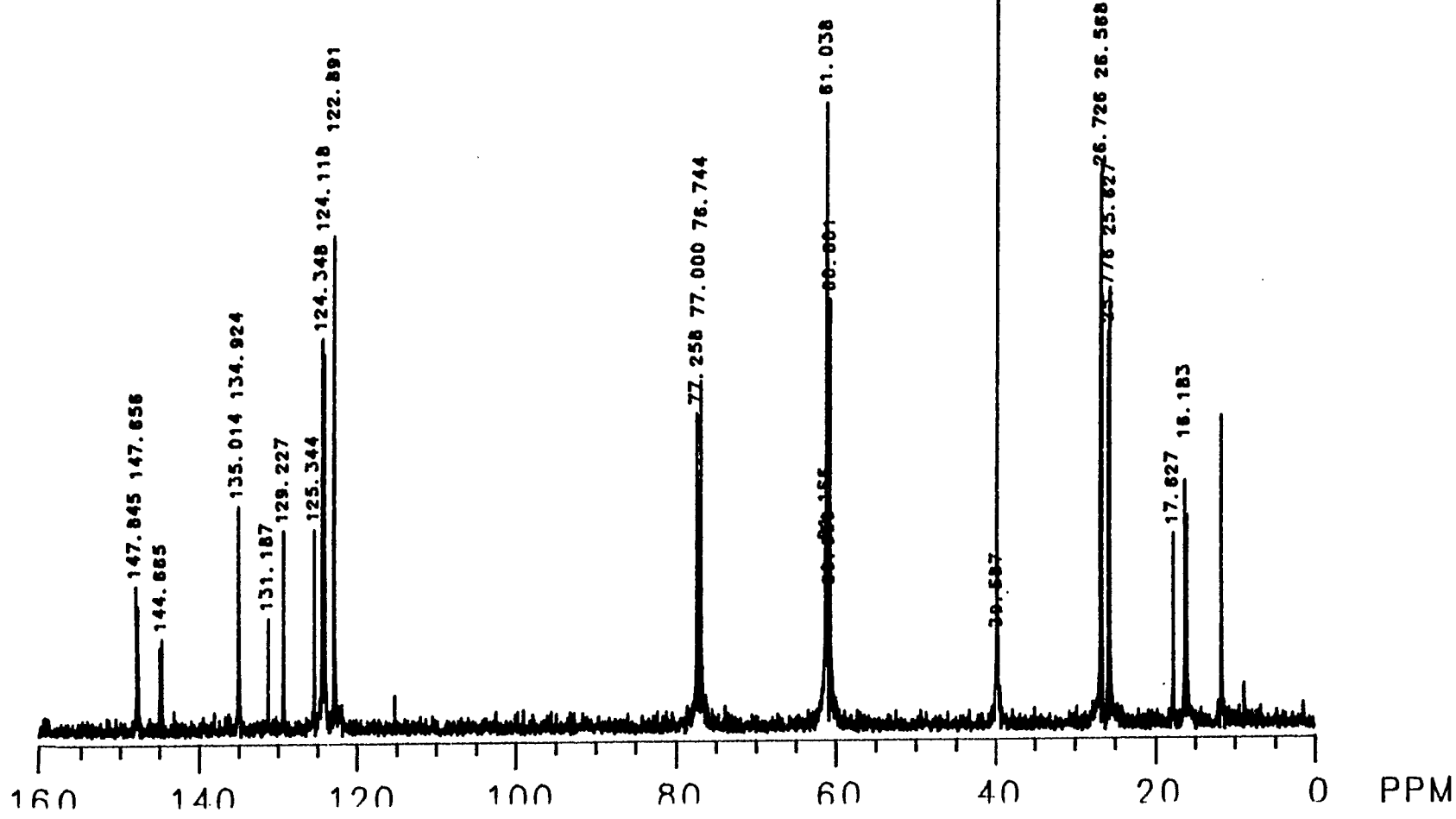
IR (neat) 2941, 2866, 1462, 1331, 1165, 1128, 1074, 995, 881, 796, 742, 681 cm⁻¹;

¹H NMR (500 MHz, CDCl₃) δ 7.420 (m, 2H), 7.370-7.340 (m, 2H), 5.372 (t, J = 7.5 Hz, 1H), 3.788 (t, J = 7 Hz, 2H), 3.408 (d, J = 7 Hz, 2H), 2.299 (t, J = 7 Hz, 2H), 1.750 (s, 3H), 1.053 (br s, 21 H);

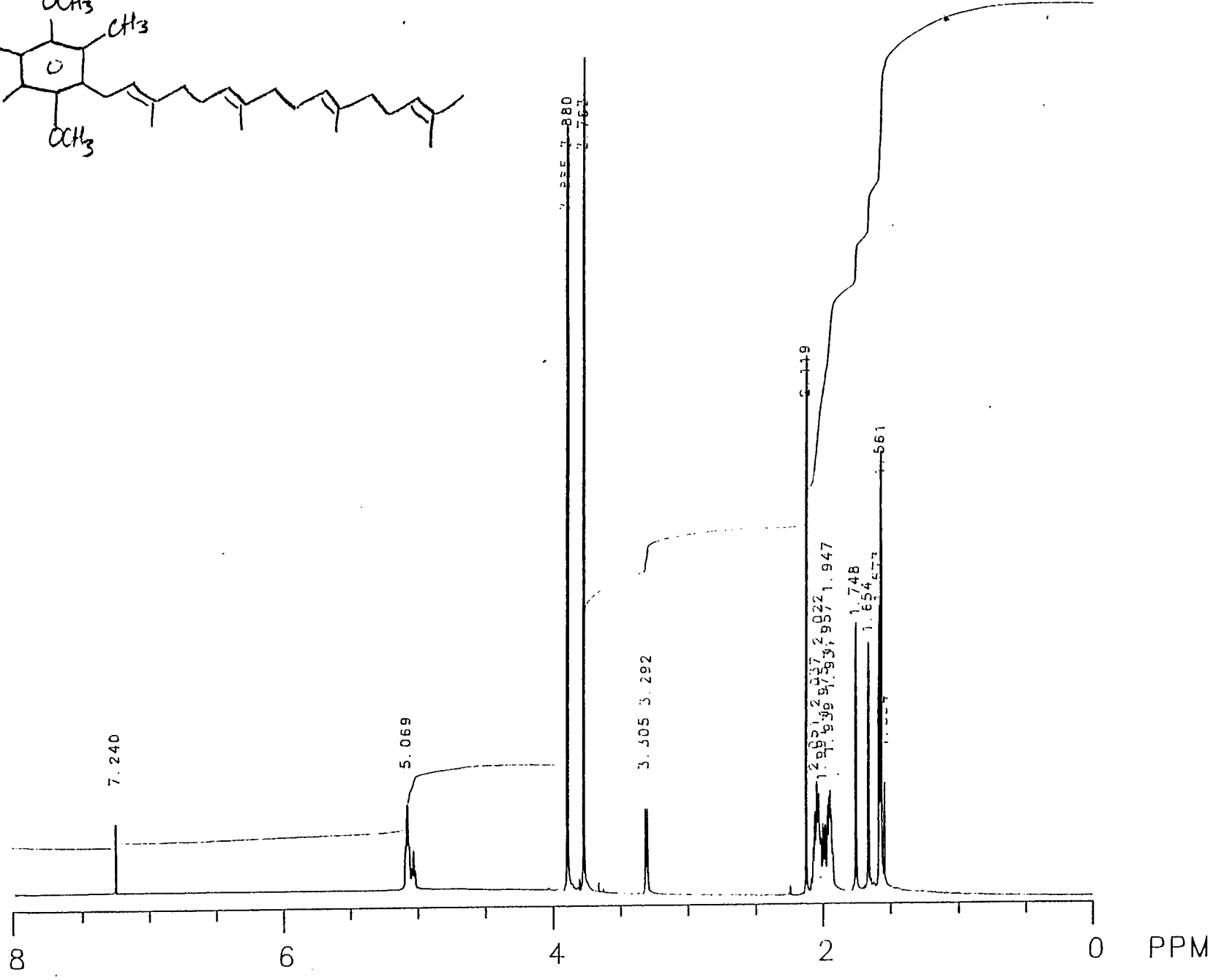
¹³C NMR (125 MHz, CDCl₃) δ 142.52, 134.78, 131.73, 128.68, 125.03, 123.72, 122.63, 122.57, 62.52, 43.10, 34.05, 17.99, 16.62, 12.04;

HRCIMS calcd. for C₂₂H₃₆OF₃Si (M + H)⁺ 401.24875, found 401.24805.

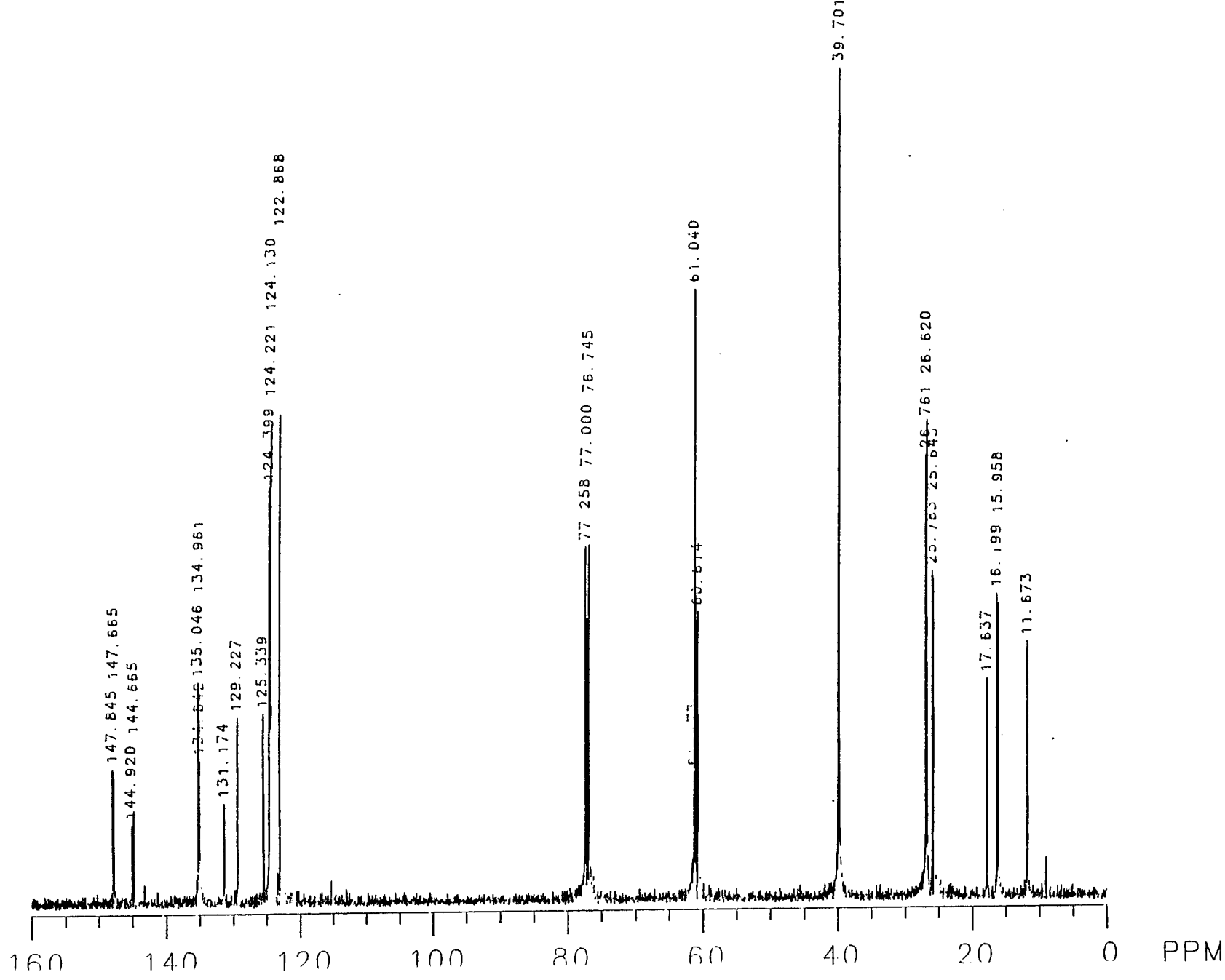
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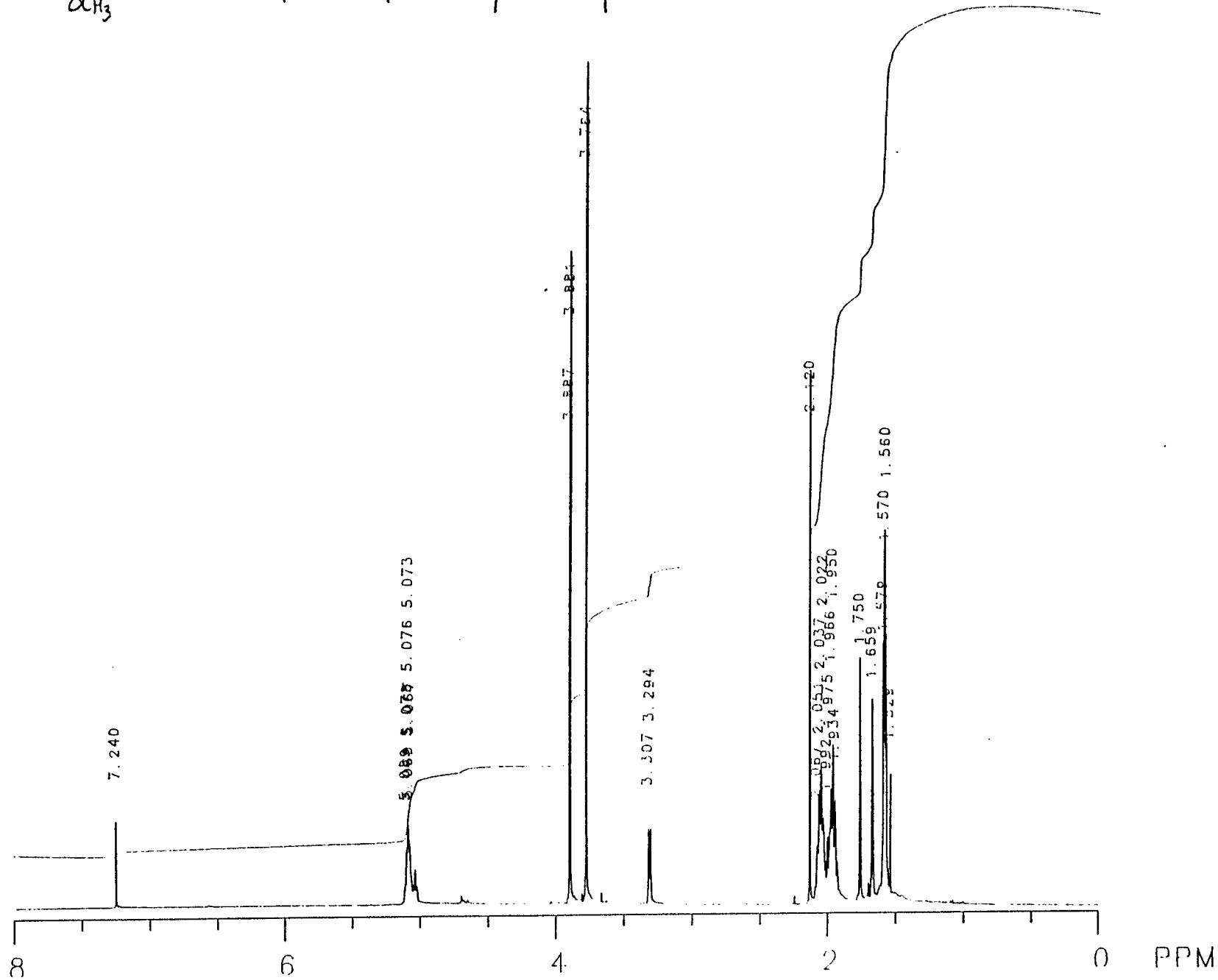
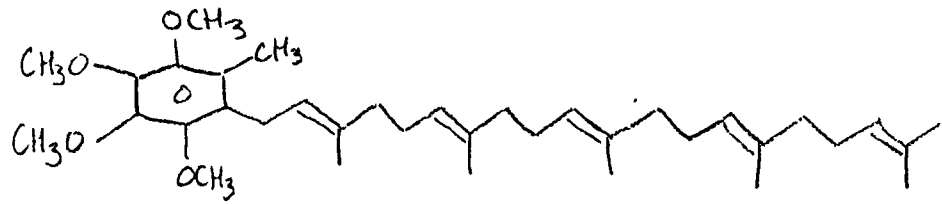


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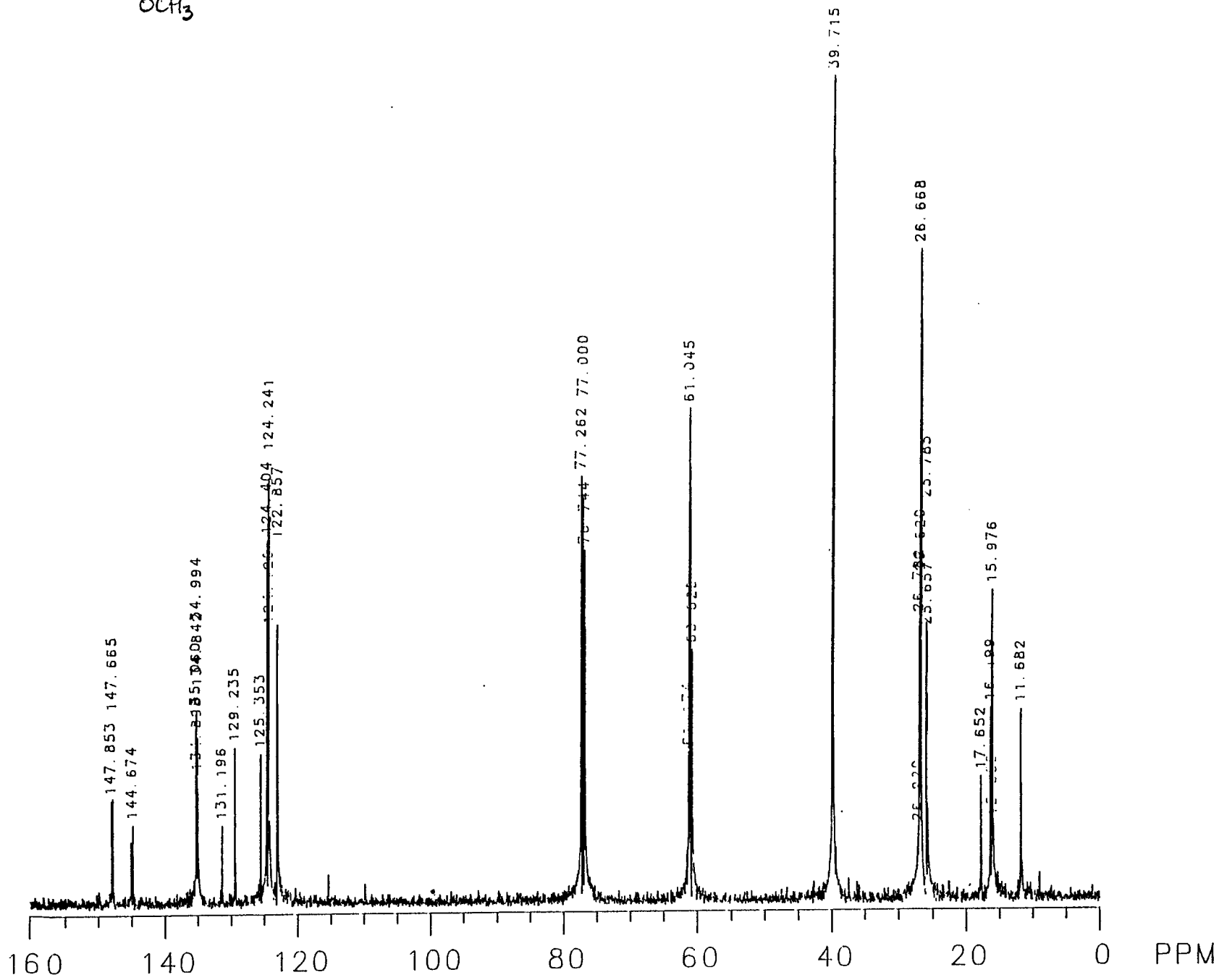


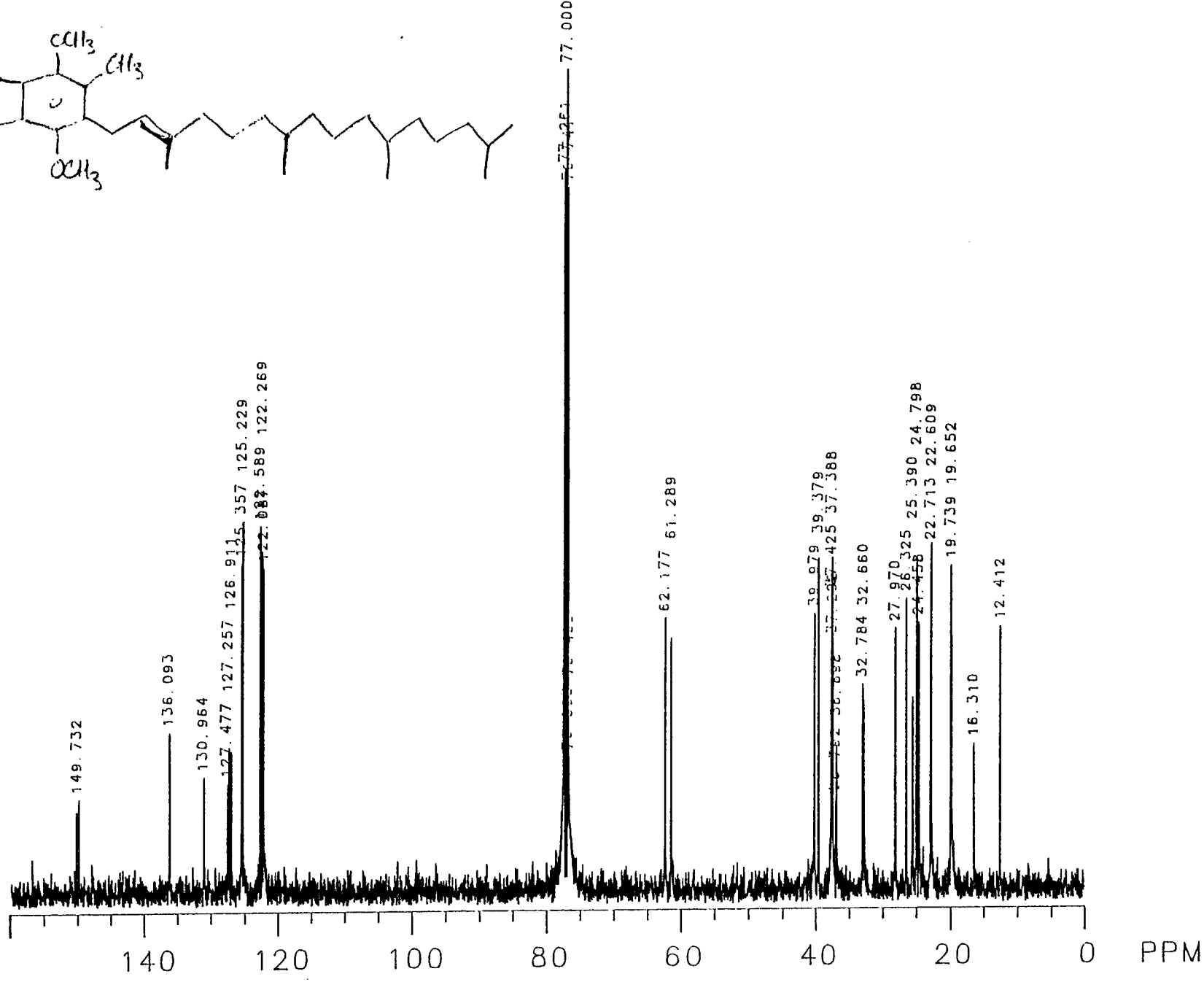
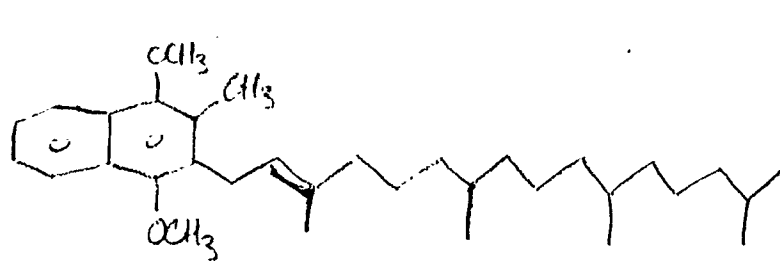
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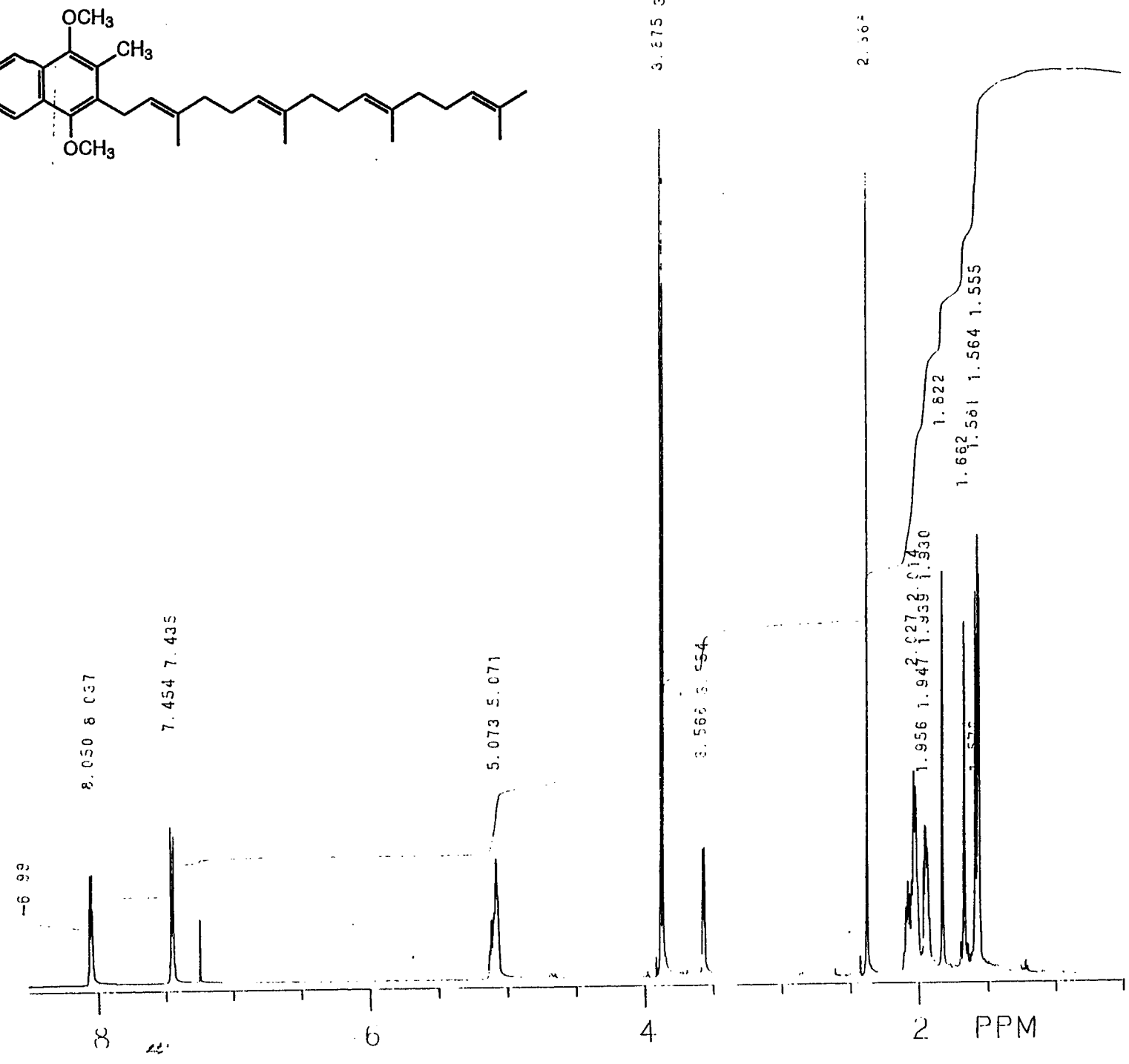
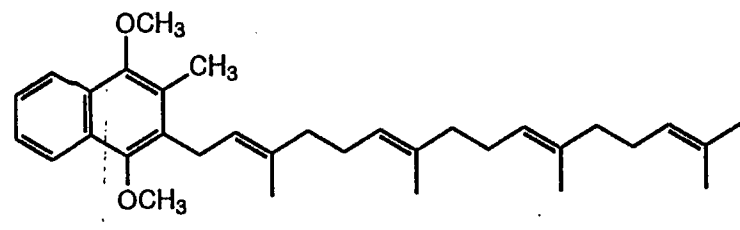


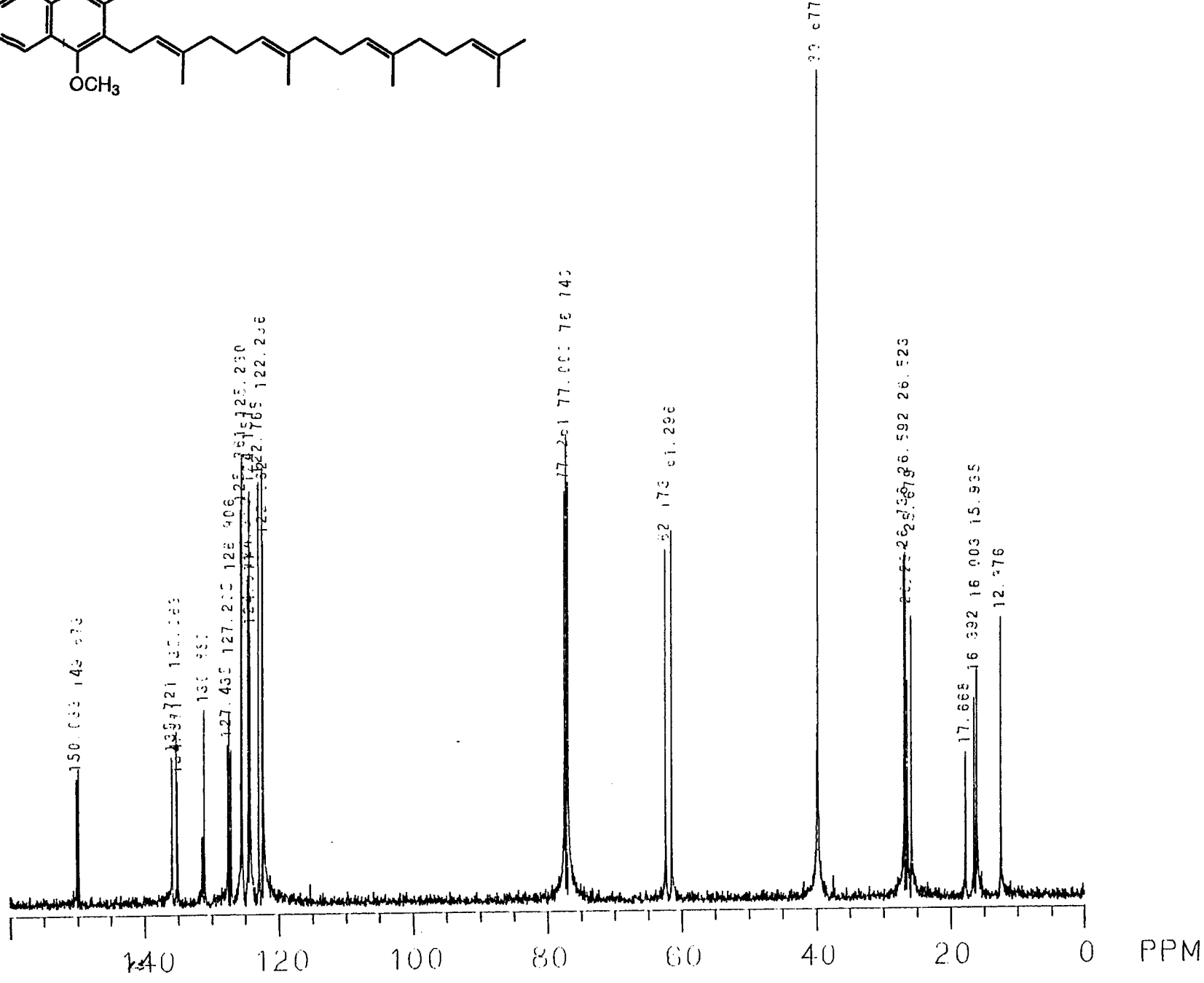
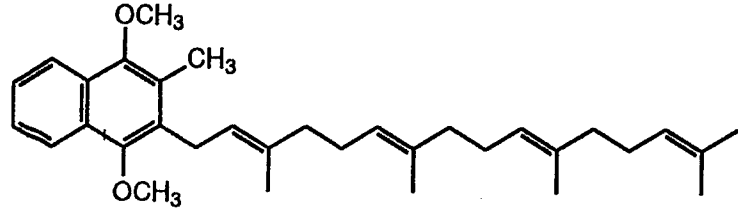
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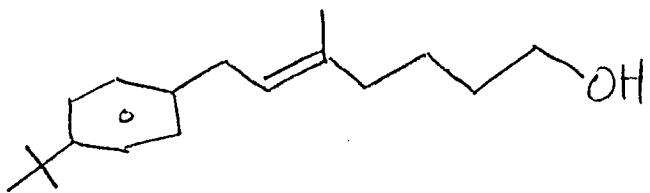
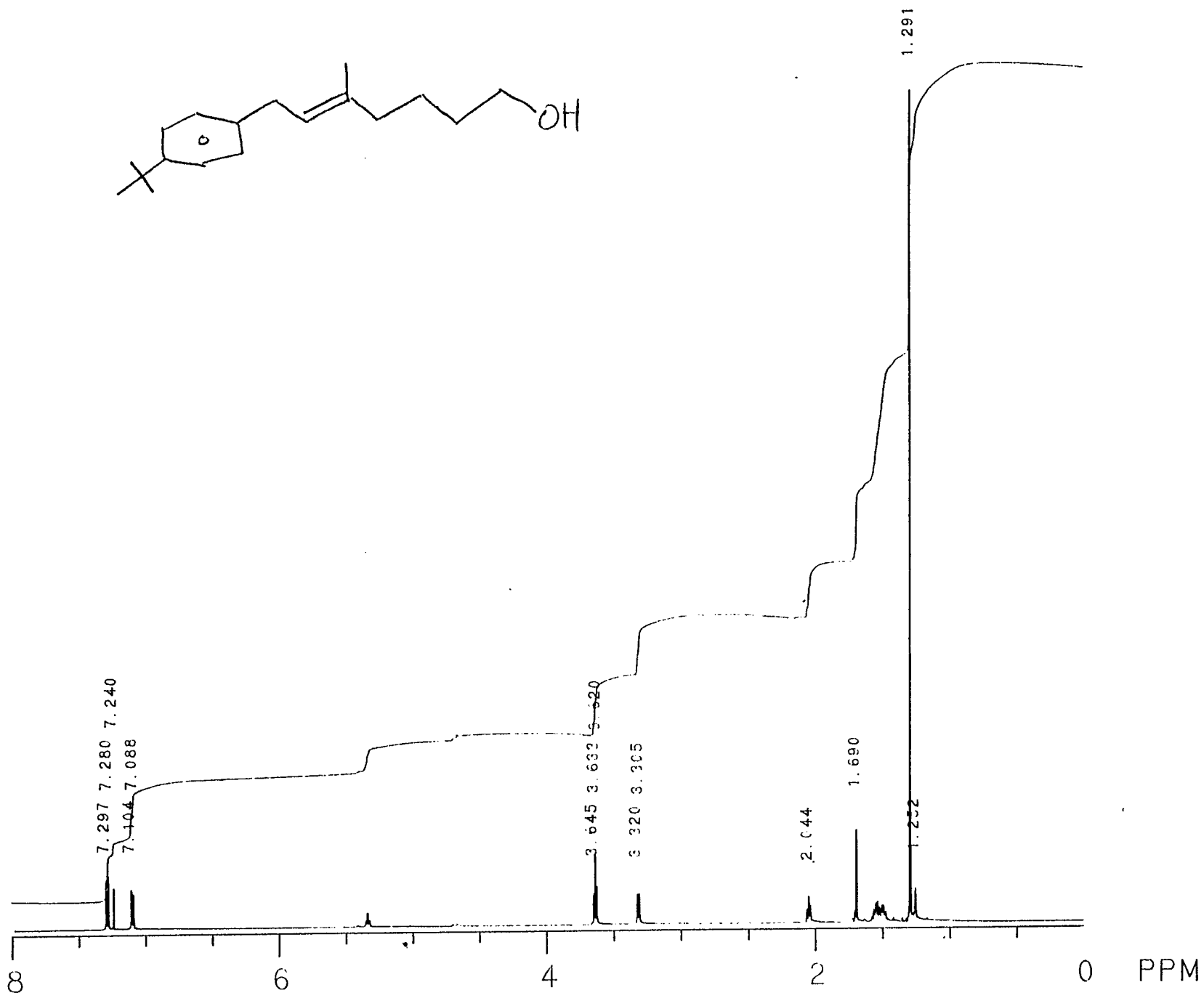


J5513-13

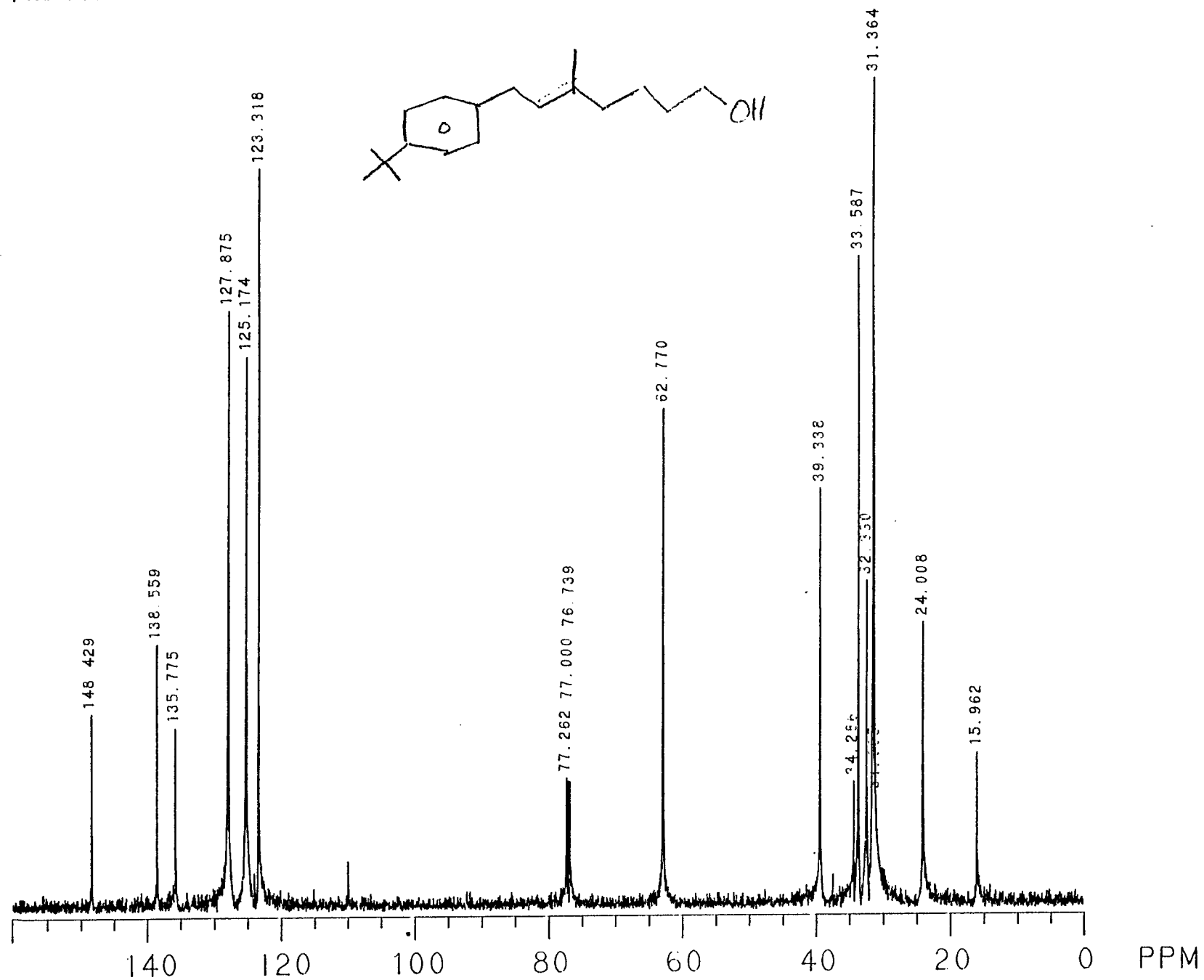




J5513-16

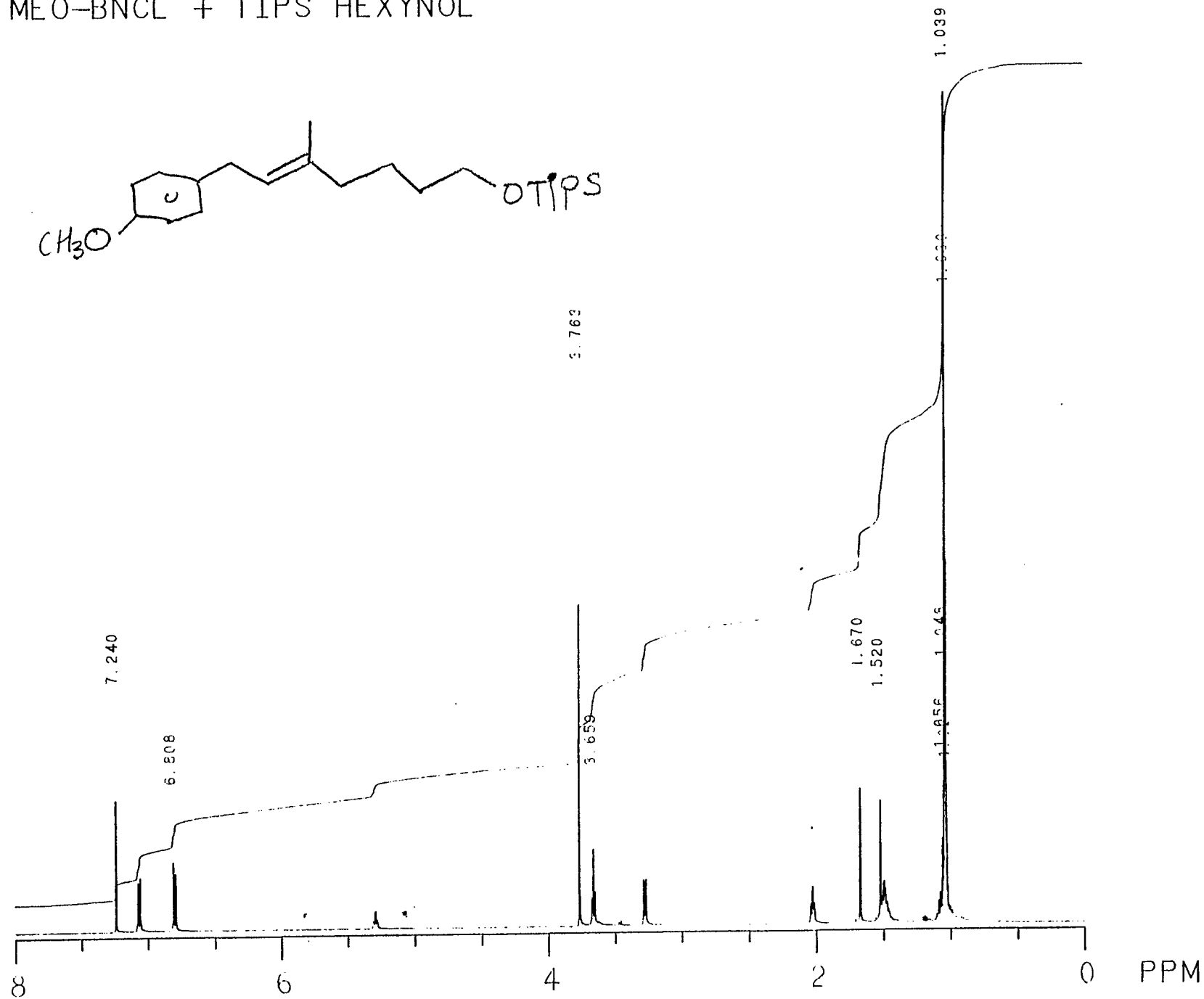
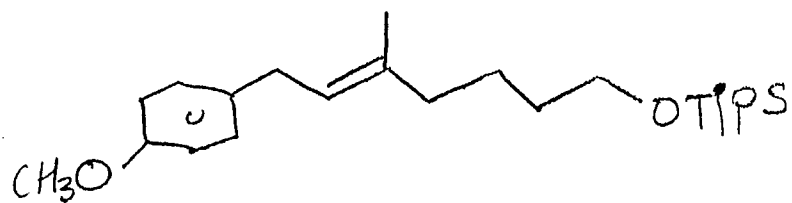


KLSC . 002 GORDANA 20JUN94
 HEXYN-OL + T-BU BENZYL CL



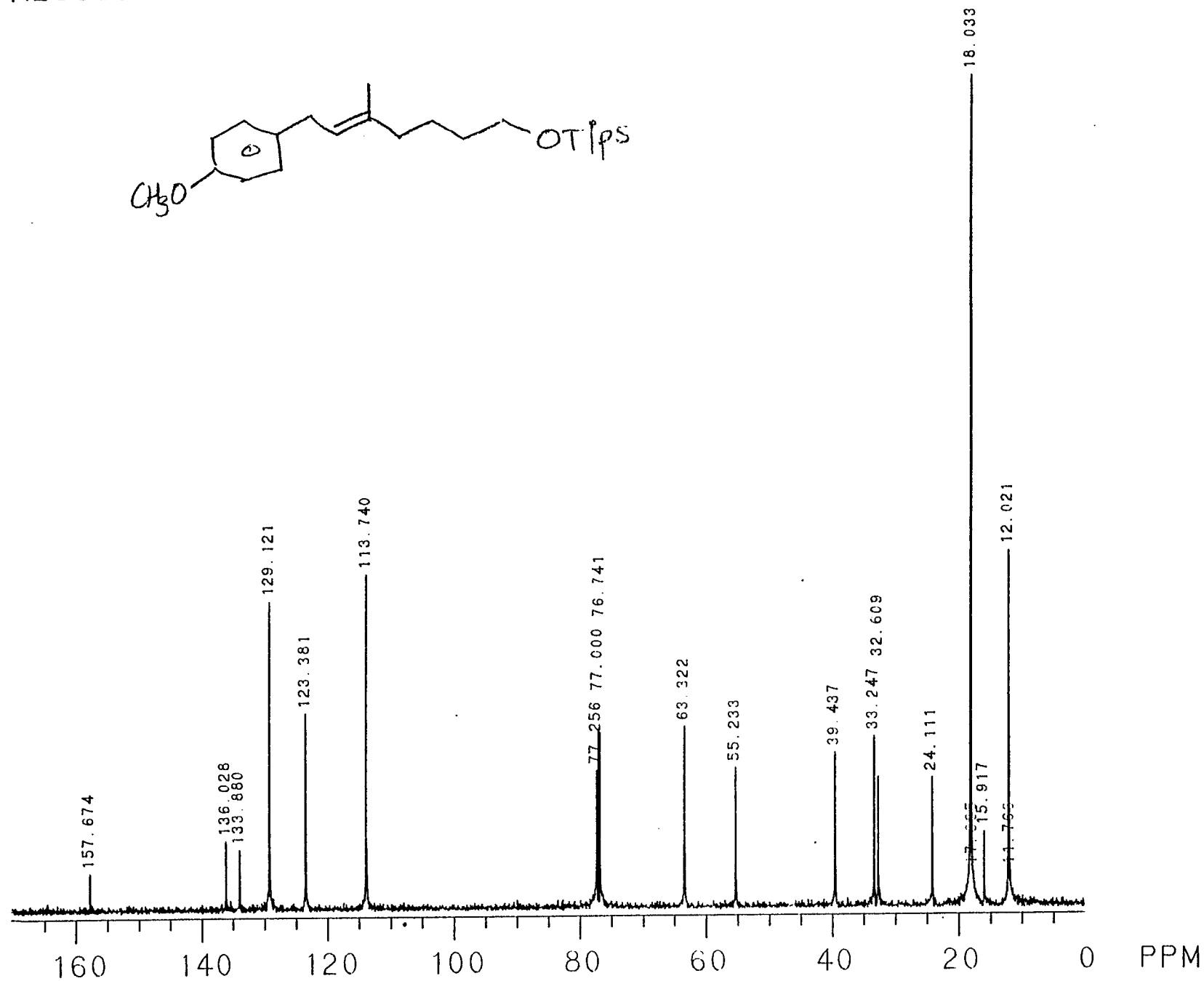
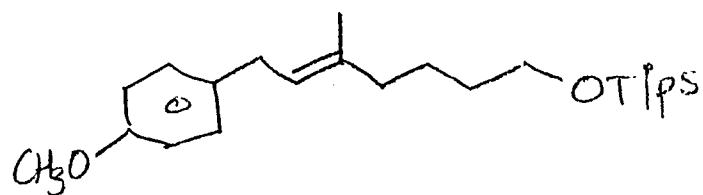
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KLS . 002 ANDREI 11JUL90
 MEO-BNCL + TIPS HEXYNOL

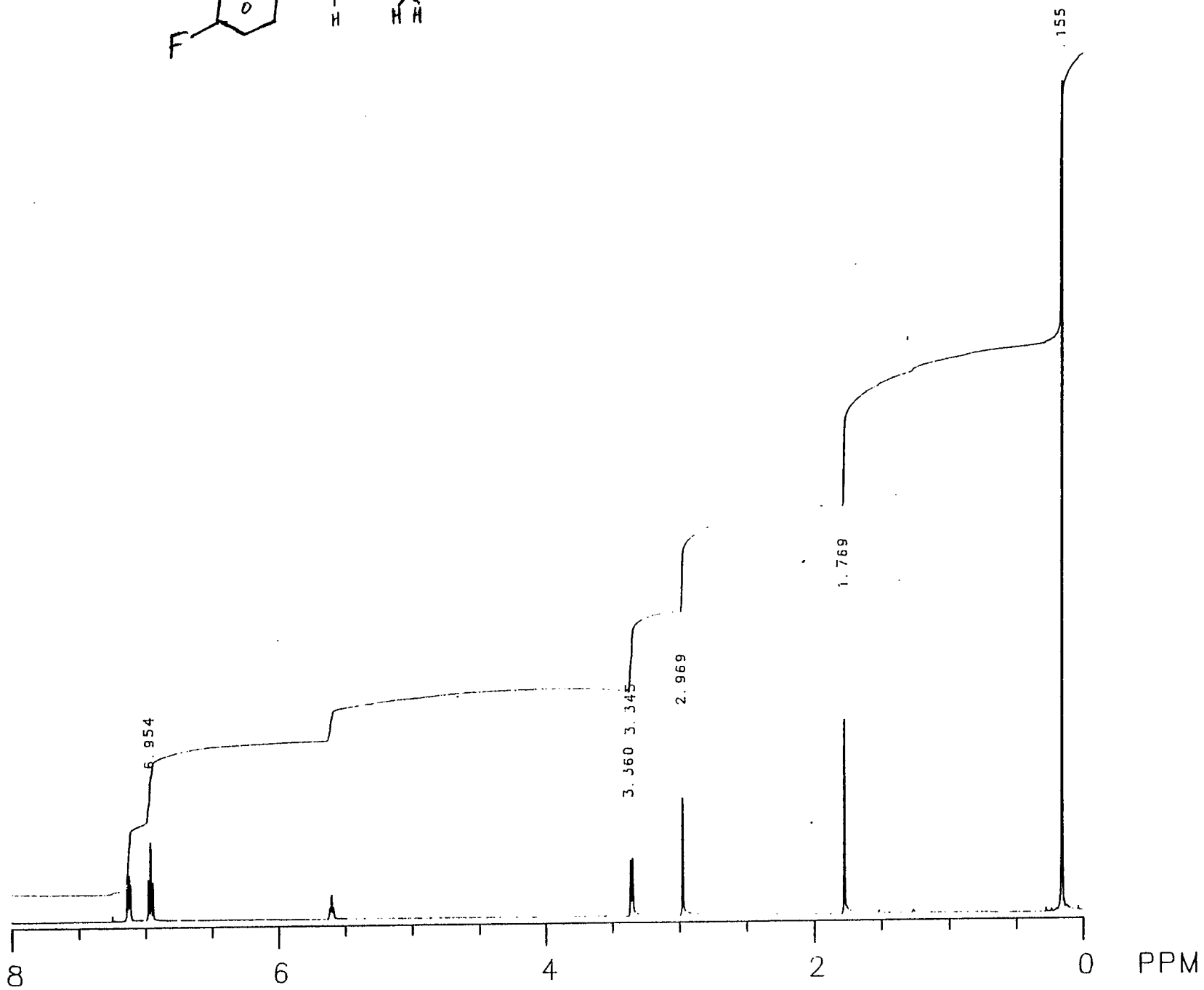


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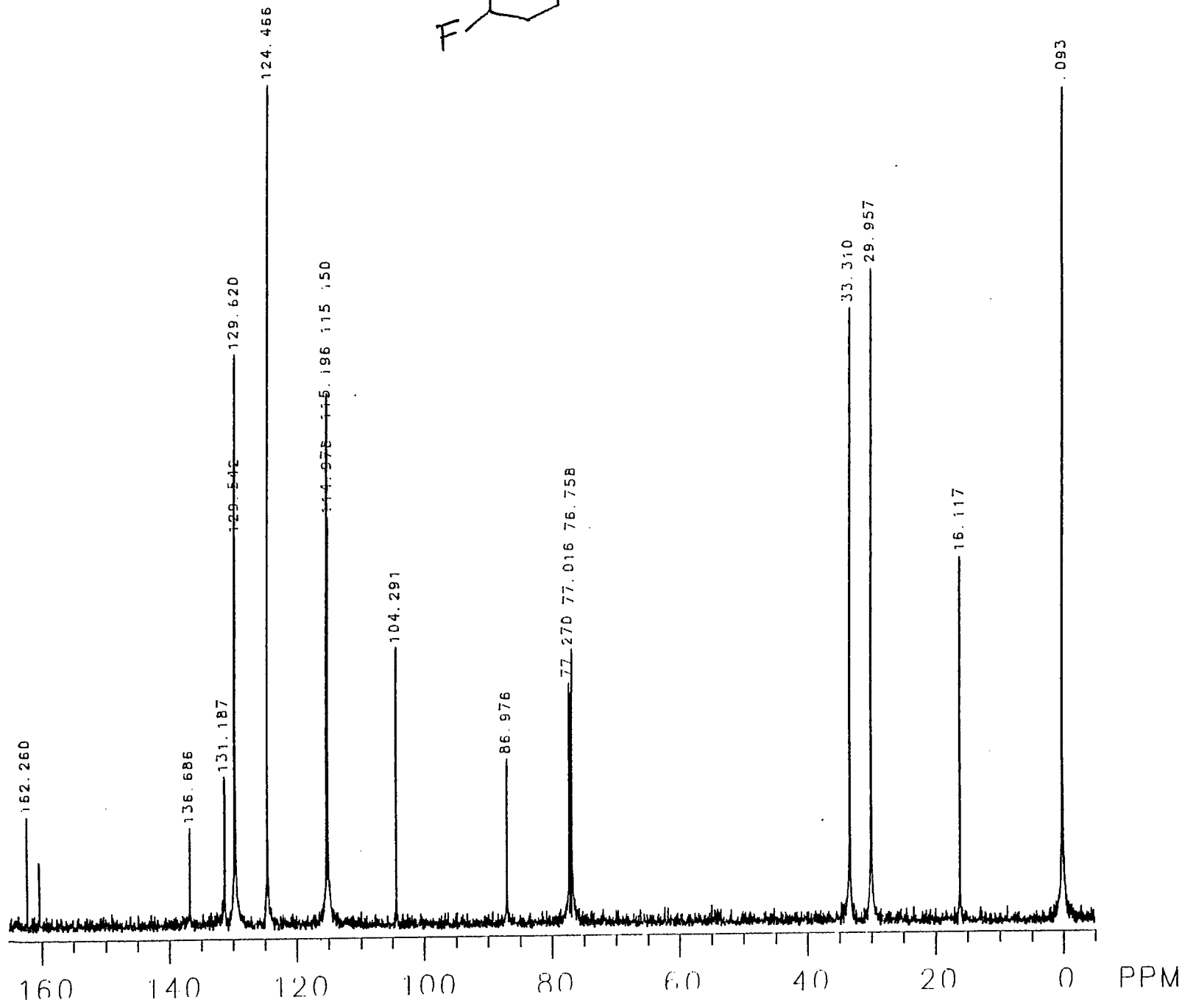
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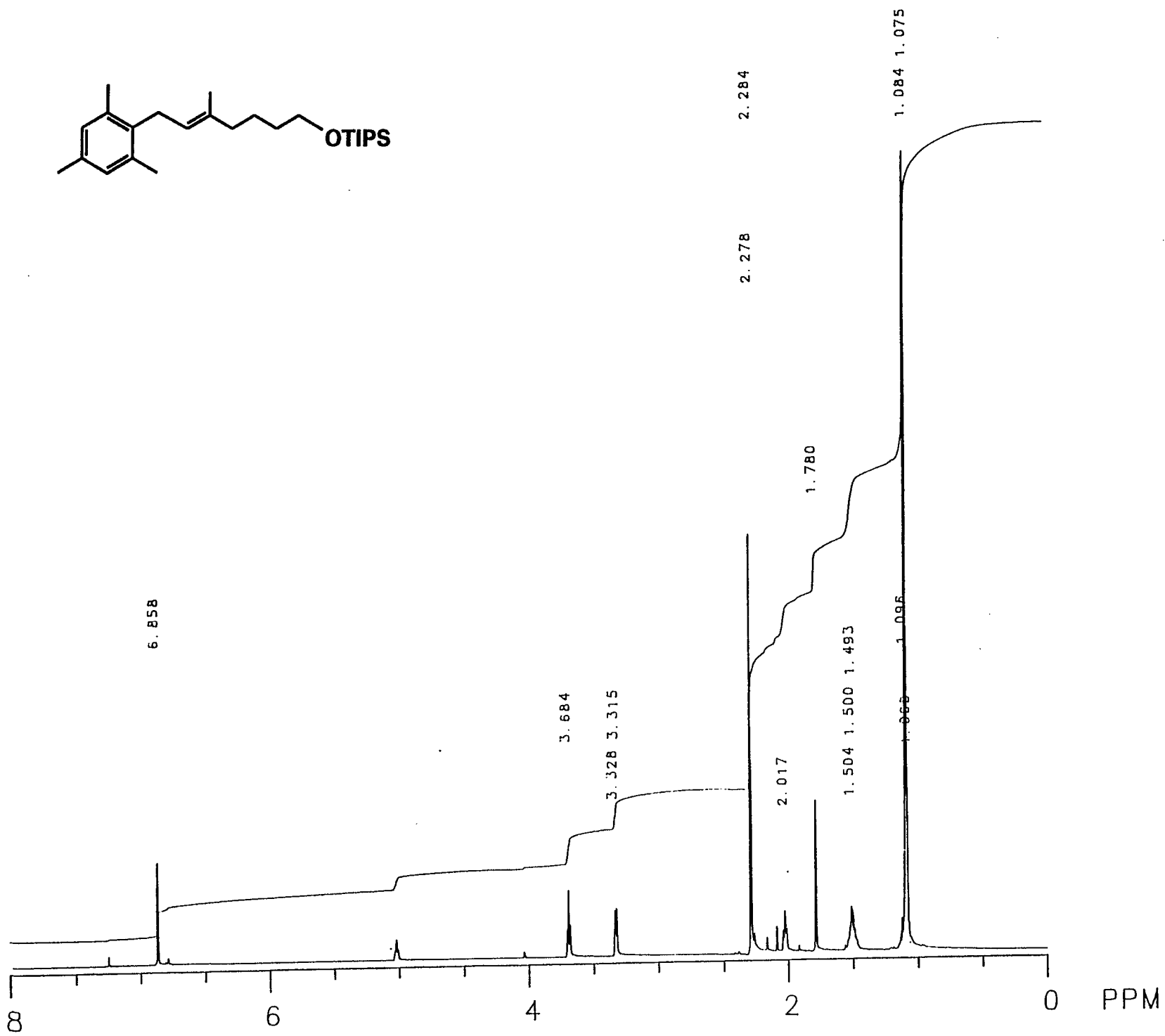
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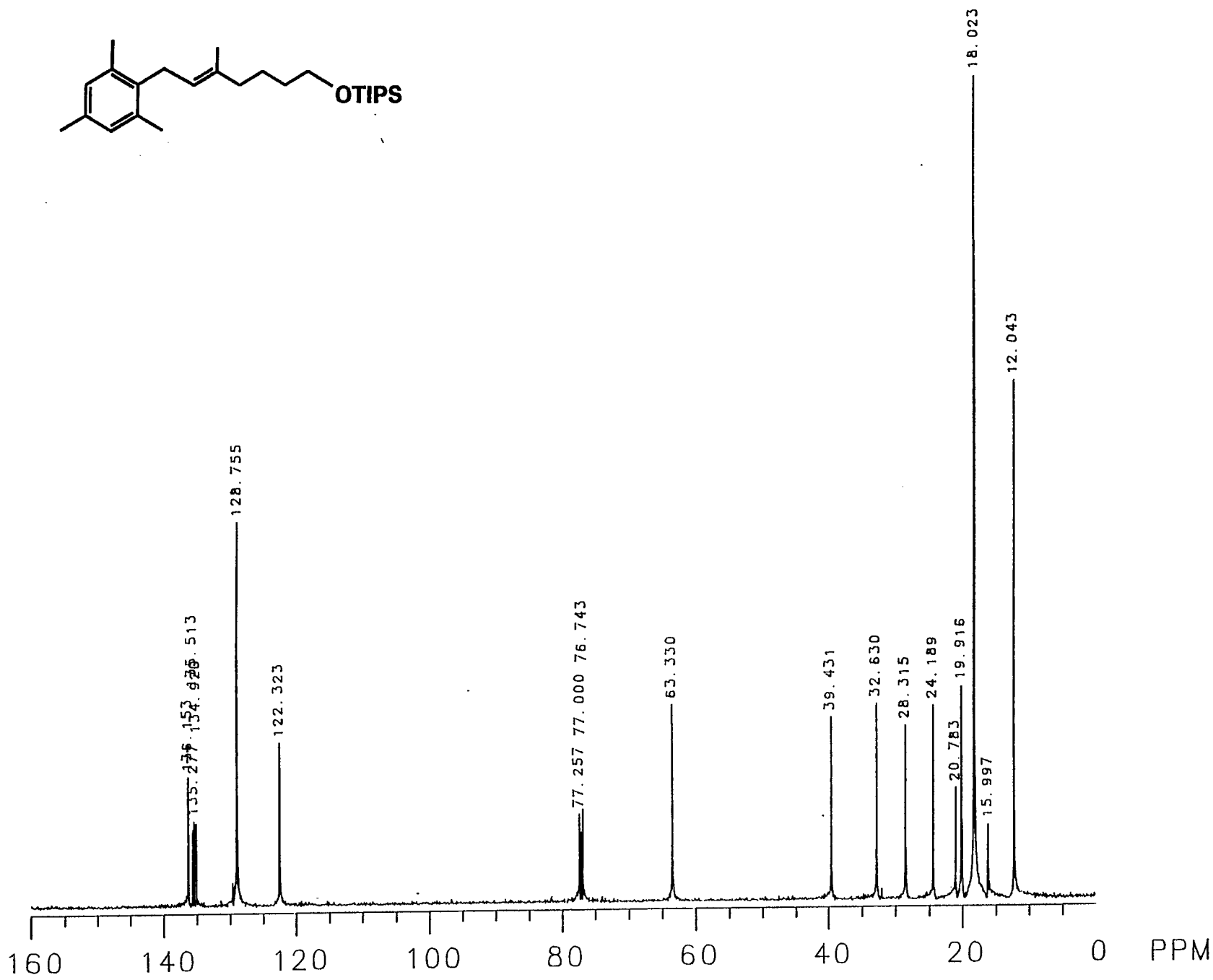
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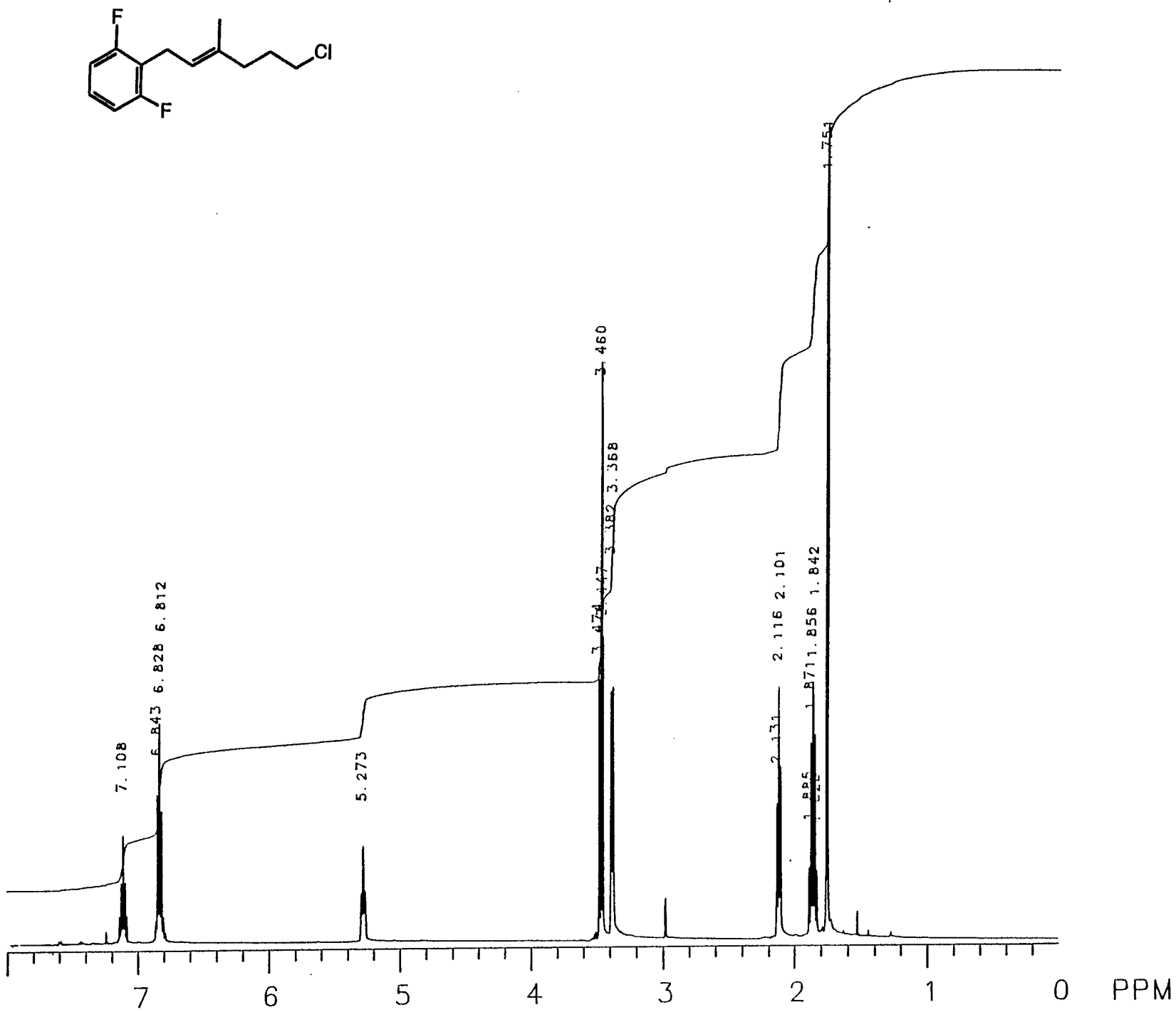
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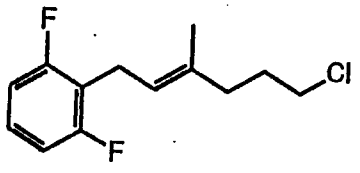
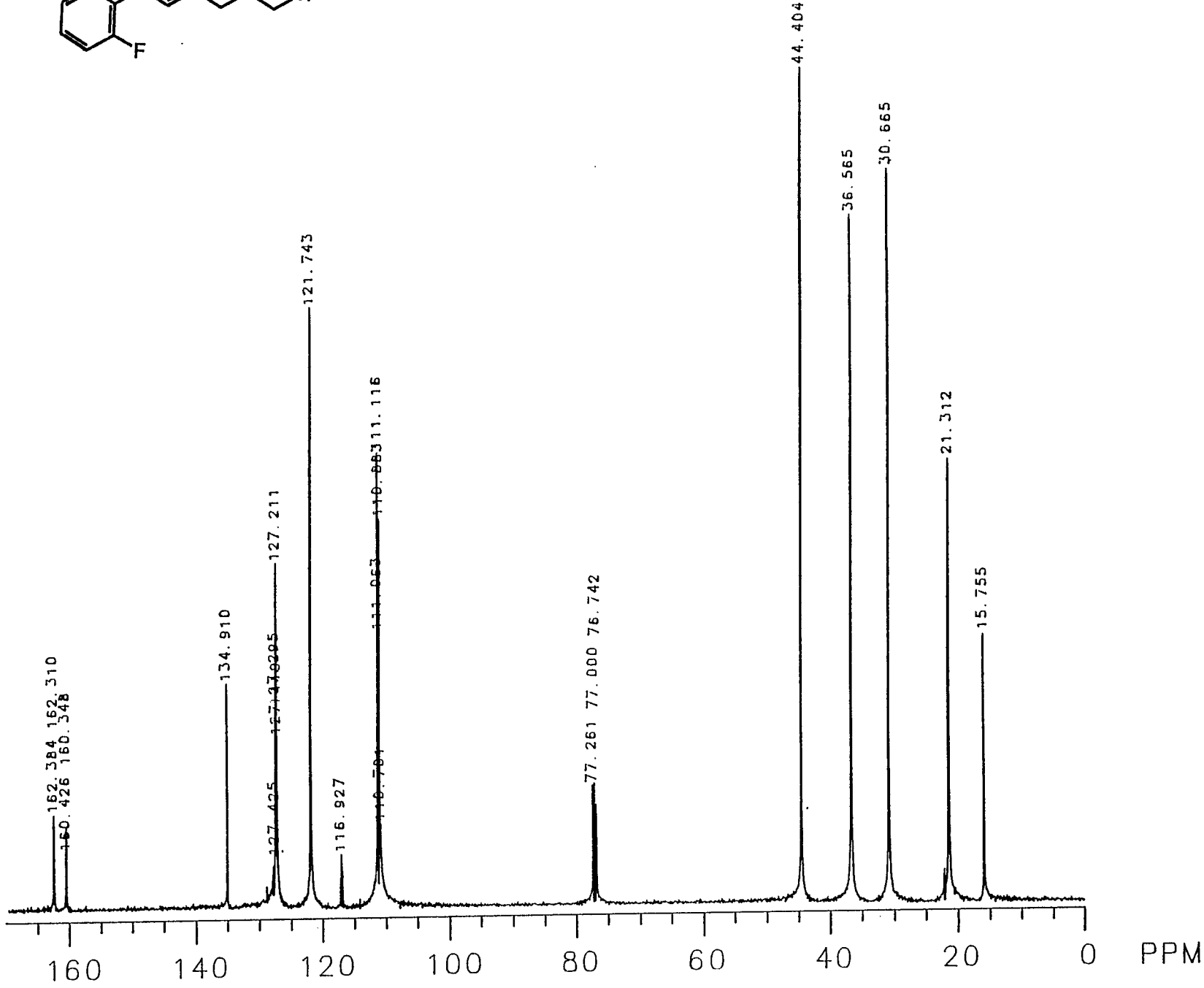
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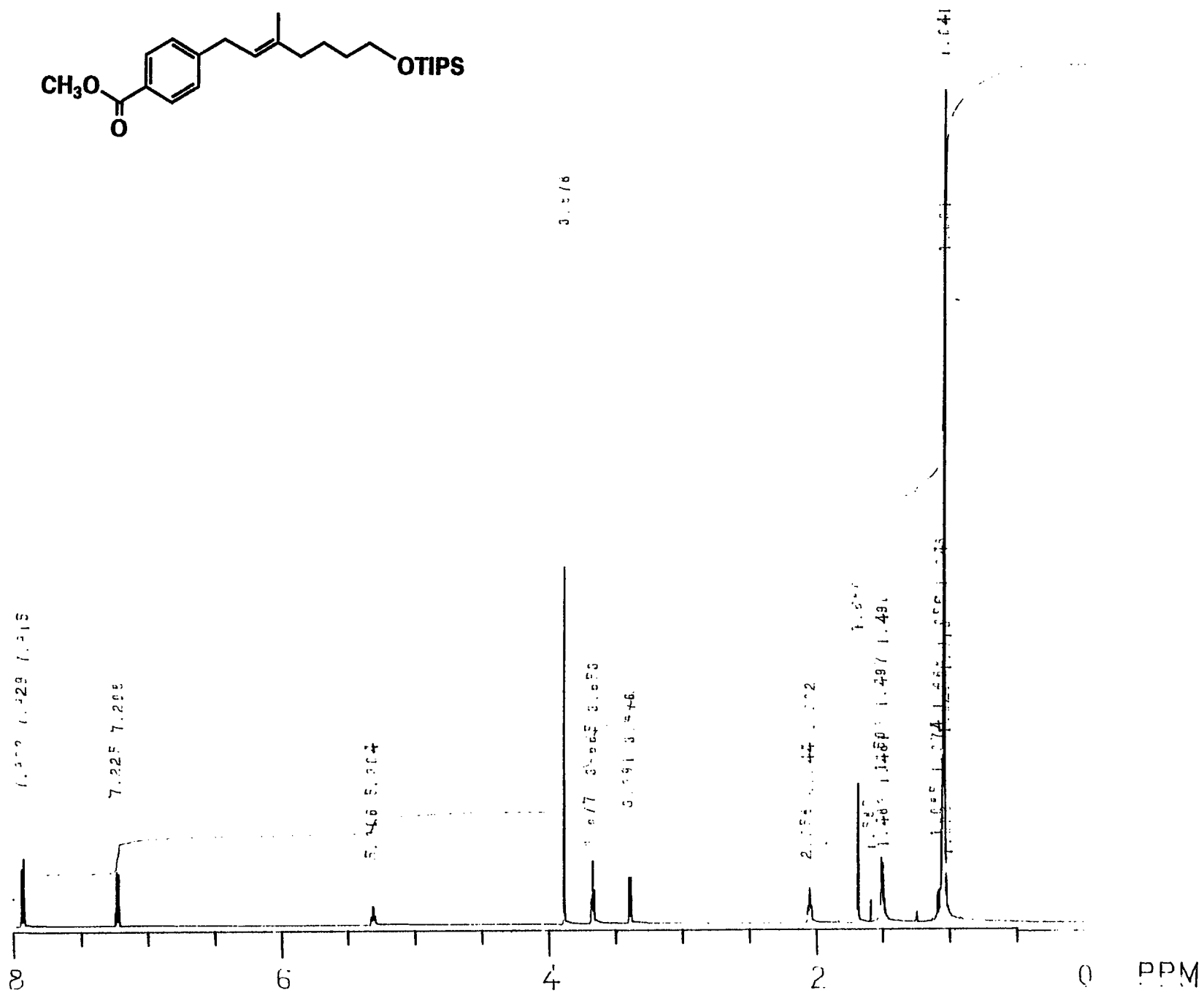
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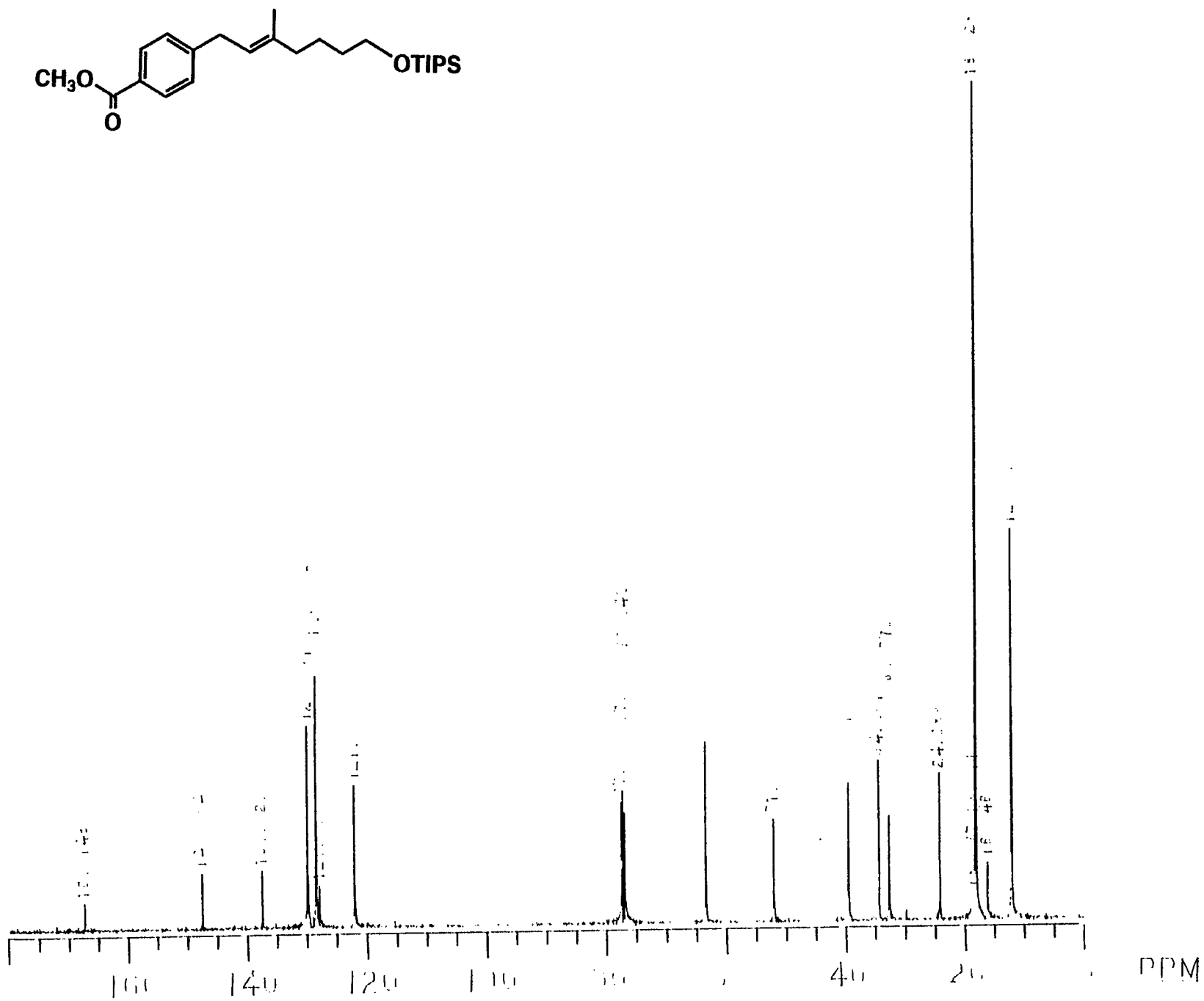
J5513-25



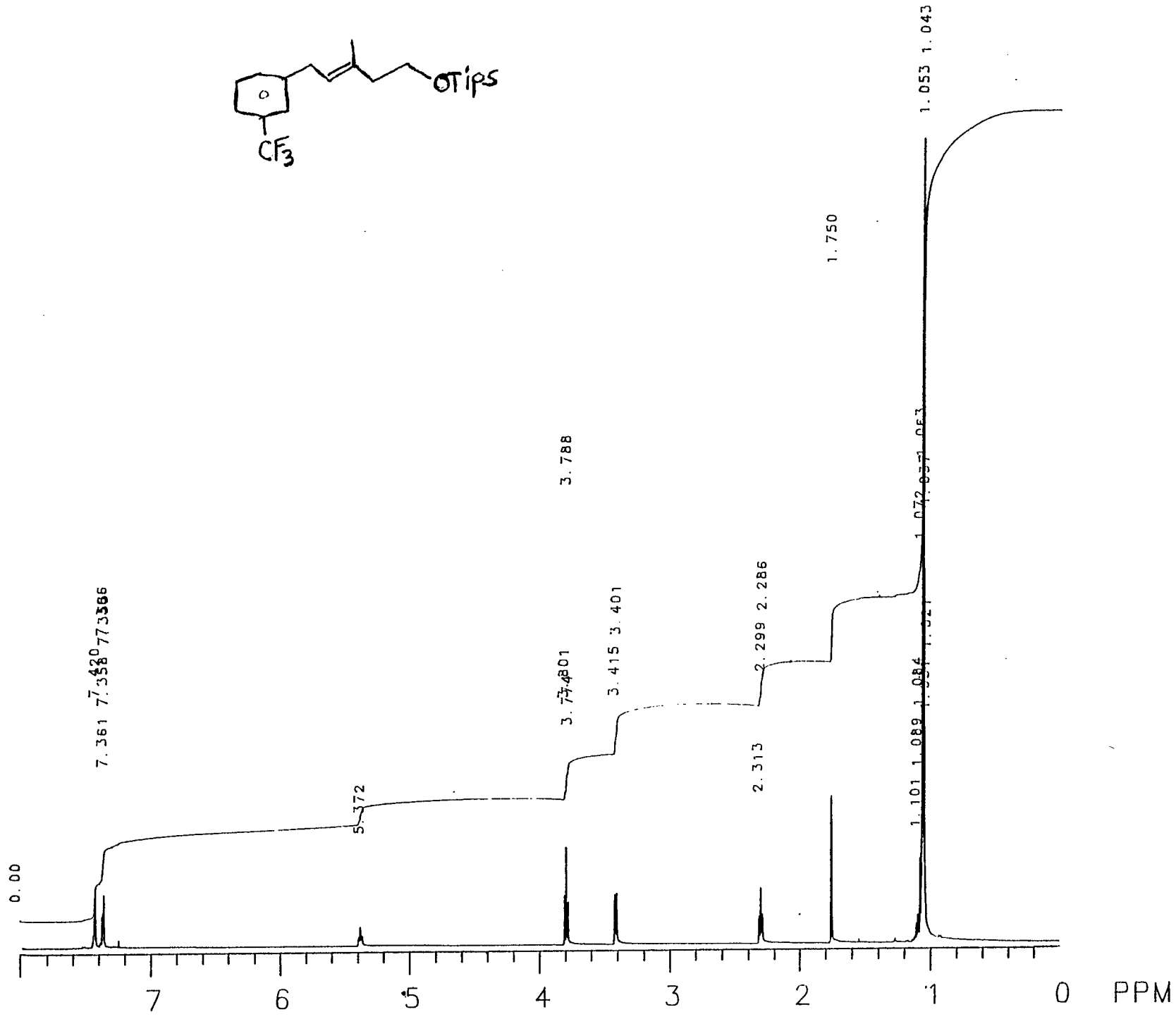
J5513-26



J5513-27



J5513-28



J5513-29

