Supporting Information

**Regioselectivity in Palladium-Indium Iodide-Mediated Allylation
Reaction of Glyoxylic Oxime Ether and *N*-Sulfonylimine**

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General. ^1H and ^{13}C NMR spectra were recorded at 500 MHz and at 125 MHz, respectively. Mass spectra were obtained by FAB+ method. Preparative TLC separations were carried out on precoated silica gel plates (E. Merck 60F₂₅₄).

syn-4A: a colorless crystal; mp 107-110 °C (AcOEt/hexane); $[\alpha]_D^{32}$ -22.0 (c 1.24, CHCl_3); IR (CHCl_3) 3295, 1692, 1585 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.33-7.14 (10H, m), 6.15 (1H, m), 6.00 (1H, d, $J=10.4$ Hz), 5.12 (1H, d, $J=16.8$ Hz), 4.99 (1H, d, $J=9.8$ Hz), 4.76 (1H, br s), 4.54, 4.47 (2H, AB q, $J=11.6$ Hz), 3.98 (1H, br s), 3.52 (2H, br m), 3.42 (1H, br m), 2.05 (2H, br m), 1.95-1.78 (3H, m), 1.48-1.25 (2H, m), 1.19, 0.98 (each 3H, s); ^{13}C NMR (CDCl_3) δ 172.9, 140.2, 137.6, 128.9, 128.6, 128.0, 127.9, 127.5, 126.9, 117.2, 75.6, 66.1, 65.4, 53.2, 52.3, 48.3, 47.7, 44.6, 37.9, 32.9, 26.4, 20.8, 20.0; MS (FAB) m/z 495 ($\text{M}+\text{H}^+$, 100); HRMS calcd for $\text{C}_{28}\text{H}_{35}\text{N}_2\text{O}_4\text{S}$ ($\text{M}+\text{H}^+$) 495.2317, found 495.2312; Anal. calcd for $\text{C}_{28}\text{H}_{34}\text{N}_2\text{O}_4\text{S}$: C, 67.99; H, 6.93; N, 5.66; S, 6.48. Found: C, 68.04; H, 7.04; N, 5.65; S, 6.61.

syn-4B: a colorless oil; $[\alpha]_D^{31}$ -13.9 (c 1.32, CHCl_3); IR (CHCl_3) 3295, 1693, 1608 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.38-7.21 (5H, m), 7.12 (2H, d, $J=8.5$ Hz), 6.82 (2H, d, $J=8.5$ Hz), 6.12 (1H, m), 6.01 (1H, br s), 5.11 (1H, d, $J=16.8$ Hz), 4.97 (1H, d, $J=9.5$ Hz), 4.70 (1H, br m), 4.56, 4.49 (2H, AB q, $J=11.6$ Hz), 3.97 (1H, br m), 3.78 (3H, s), 3.54-3.40 (3H, br m), 2.08-2.00 (2H, m), 1.97-1.73 (3H, m), 1.47-1.25 (2H, m), 1.18, 0.97 (each 3H, s); ^{13}C NMR (CDCl_3) δ 172.8, 158.5, 137.6, 132.1, 128.9 (x 2), 128.0, 127.5, 116.9, 114.0, 75.6, 66.3, 65.4, 55.2, 53.1, 51.3, 48.3, 47.7, 44.6, 37.9, 32.9, 26.4, 20.8, 19.9; MS (FAB) m/z 525 ($\text{M}+\text{H}^+$, 60), 91 (100); HRMS calcd for $\text{C}_{29}\text{H}_{37}\text{N}_2\text{O}_5\text{S}$ ($\text{M}+\text{H}^+$) 525.2423, found 525.2433.

syn-4C: amorphous; $[\alpha]_D^{28}$ -19.6 (c 0.98, CHCl_3); IR (CHCl_3) 3032, 1692 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.28-7.10 (7H, m), 6.95-6.80 (2H, m), 6.23 (1H, m), 6.00 (1H, br m), 5.13 (1H, d, $J=16.8$ Hz), 4.97 (2H, m), 4.55 (1H, d, $J=11.6$ Hz), 4.44 (1H, d, $J=11.3$ Hz), 3.93 (2H, m), 3.75 (3H, s), 3.48-3.42 (2H, m), 2.03 (2H, m), 1.87-1.81 (3H, m),

1.36-1.24 (2H, m), 1.13, 0.95 (each 3H, s); ^{13}C NMR (CDCl_3) δ 173.4, 157.0, 137.8, 136.9, 129.0, 127.9, 127.4, 120.7, 117.4, 110.8, 75.4, 65.3, 64.8, 55.2, 53.1, 48.1, 47.6, 45.2, 44.6, 37.8, 32.9, 26.3, 20.7, 19.9; MS (FAB) m/z 525 ($\text{M}+\text{H}^+$, 100); HRMS calcd for $\text{C}_{29}\text{H}_{37}\text{N}_2\text{O}_5\text{S}$ ($\text{M}+\text{H}^+$) 525.2423, found 525.2413. Some peaks of ^{13}C NMR were missing due to overlap.

syn-**4D**: amorphous substance; $[\alpha]_D^{29}$ -20.1 (c 0.94, CHCl_3); IR (CHCl_3) 3280, 1692 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.29-7.06 (5H, m), 7.05-6.90 (4H, m), 6.07 (1H, m), 5.94 (1H, br m), 5.03 (1H, d, $J=16.8$ Hz), 4.90 (1H, br d, $J=9.8$ Hz), 4.67 (1H, br m), 4.49, 4.41 (2H, AB q, $J=11.6$ Hz), 3.88 (1H, br m), 3.48-3.26 (3H, m), 2.23 (3H, s), 2.02-1.87 (2H, m), 1.85-1.68 (3H, m), 1.38-1.15 (2H, m), 1.10, 0.88 (each 3H, s); ^{13}C NMR (CDCl_3) δ 172.8, 137.6, 137.0, 136.4, 129.3, 128.9, 127.9, 127.7, 127.4, 116.9, 75.5, 66.1, 65.3, 53.0, 51.7, 48.2, 47.6, 44.5, 37.8, 32.8, 26.3, 20.9, 20.6, 19.8; MS (FAB) m/z 509 ($\text{M}+\text{H}^+$, 100); HRMS calcd for $\text{C}_{29}\text{H}_{37}\text{N}_2\text{O}_4\text{S}$ ($\text{M}+\text{H}^+$) 509.2474, found 509.2464.

syn-**4E**: amorphous; $[\alpha]_D^{29}$ -17.2 (c 1.12, CHCl_3); IR (CHCl_3) 3032, 1692 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.32-7.15 (5H, m), 7.15-6.97 (4H, m), 6.15 (1H, m), 6.00 (1H, br m), 5.12 (1H, d, $J=16.8$ Hz), 4.98 (1H, br d, $J=8.6$ Hz), 4.74 (1H, br m), 4.57, 4.49 (2H, AB q, $J=11.6$ Hz), 3.97 (1H, br m), 3.59-3.31 (3H, m), 2.31 (3H, s), 2.12-1.96 (2H, m), 1.95-1.78 (3H, m), 1.46-1.27 (2H, m), 1.14, 0.97 (each 3H, s); ^{13}C NMR (CDCl_3) δ 172.9, 137.7, 137.1, 136.5, 129.3, 128.9, 128.0, 127.7, 127.5, 117.0, 75.6, 66.2, 65.3, 53.1, 51.8, 48.2, 47.7, 44.5, 37.9, 32.9, 26.3, 21.0, 20.7, 19.9; MS (FAB) m/z 509 ($\text{M}+\text{H}^+$, 100); HRMS calcd for $\text{C}_{29}\text{H}_{37}\text{N}_2\text{O}_4\text{S}$ ($\text{M}+\text{H}^+$) 509.2474, found 509.2481. Some peaks of ^{13}C NMR were missing due to overlap.

syn-**4F**: a colorless crystal; mp 104-106 $^\circ\text{C}$ (AcOEt/hexane); $[\alpha]_D^{25}$ -23.2 (c 1.26, CHCl_3); IR (CHCl_3) 3281, 1692 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.31-7.08 (7H, m), 6.98-6.87 (2H, m), 6.11 (1H, m), 6.02 (1H, br d, $J=9.5$ Hz), 5.10 (1H, d, $J=17.1$ Hz), 4.99 (1H, d, $J=9.8$ Hz), 4.69 (1H, br m), 4.54, 4.46 (2H, AB q, $J=12.7$ Hz), 3.96 (1H, br m), 3.56-3.42 (2H, m), 3.39 (1H, br t, $J=8.9$ Hz), 2.08-2.00 (2H, m), 1.97-1.69 (3H, m),

1.46-1.26 (2H, m), 1.17, 0.96 (each 3H, s); ^{13}C NMR (CDCl_3) δ 172.7, 162.7, 160.7, 137.6, 137.3, 136.0, 129.3, 128.9, 128.0, 127.5, 115.4, 115.2, 75.5, 66.2, 65.3, 53.0, 51.3, 48.2, 47.6, 44.4, 37.8, 32.8, 26.2, 20.6, 19.8; MS (FAB) m/z 513 ($\text{M}+\text{H}^+$, 100); HRMS calcd for $\text{C}_{28}\text{H}_{34}\text{FN}_2\text{O}_4\text{S}$ ($\text{M}+\text{H}^+$) 513.2224, found 513.2217; Anal. calcd for $\text{C}_{28}\text{H}_{33}\text{FN}_2\text{O}_4\text{S}$: C, 65.60; H, 6.49; N, 5.46; F, 3.71. Found: C, 65.61; H, 6.20; N, 5.38; F, 3.84.

4G: a colorless oil; $[\alpha]_{\text{D}}^{34}$ -66.3 (c 0.86, CHCl_3); IR (CHCl_3) 3295, 1690, 1585 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.41-7.20 (5H, m), 6.12 (1H, br s), 5.96 (1H, m), 5.05-4.90 (2H, m), 4.68, 4.60 (2H, AB q, $J=11.6$ Hz), 4.22 (1H, br s), 3.98 (1H, br m), 3.48 (2H, br m), 2.07-1.96 (2H, br m), 1.95-1.80 (3H, m), 1.47-1.27 (2H, m), 1.15, 1.11, 1.09, 0.93 (each 3H, s); ^{13}C NMR (CDCl_3) δ 173.9, 143.5, 138.0, 128.8, 127.9, 127.4, 113.2, 75.3, 68.6, 65.5, 53.2, 47.8, 47.6, 44.5, 40.0, 38.3, 32.9, 26.4, 25.8, 22.4, 20.6, 19.9; MS (FAB) m/z 447 ($\text{M}+\text{H}^+$, 100); HRMS calcd for $\text{C}_{24}\text{H}_{35}\text{N}_2\text{O}_4\text{S}$ ($\text{M}+\text{H}^+$) 447.2318, found 447.2329.

4H: a colorless oil; $[\alpha]_{\text{D}}^{24}$ -14.6 (c 0.97, CHCl_3); IR (CHCl_3) 3280, 1689, 1602 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.47 (2H, d, $J=7.7$ Hz), 7.34-7.10 (8H, m), 6.55 (1H, dd, $J=17.4$, 10.7 Hz), 6.05 (1H, br d, $J=11.3$ Hz), 5.13-5.00 (2H, m), 4.86 (1H, br d, $J=11.3$ Hz), 4.54, 4.40 (2H, AB q, $J=11.6$ Hz), 3.98 (1H, br m), 3.50 (2H, br m), 2.12-1.78 (5H, m), 1.46 (3H, s), 1.46-1.23 (2H, m), 1.08, 0.95 (each 3H, s); ^{13}C NMR (CDCl_3) δ 173.3, 145.3, 143.0, 138.1, 129.1, 128.3, 128.1, 127.6, 126.8, 126.5, 114.0, 75.2, 68.2, 65.7, 53.4, 47.9, 47.7, 46.9, 44.6, 38.0, 33.0, 26.5, 20.7, 20.0, 18.1; MS (FAB) m/z 91 (100), 509 ($\text{M}+\text{H}^+$, 13); HRMS calcd for $\text{C}_{29}\text{H}_{37}\text{N}_2\text{O}_4\text{S}$ ($\text{M}+\text{H}^+$) 509.2474, found 509.2471.

4I: a colorless crystal; mp 84-86 $^{\circ}\text{C}$ (AcOEt/hexane); as a 1:1 *syn/anti* mixture; $[\alpha]_{\text{D}}^{28}$ -66.8 (c 1.34, CHCl_3); IR (CHCl_3) 3280, 1729, 1691 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.45-7.20 (5H, m), 6.30 (1/2H, d, $J=11.3$ Hz), 6.06 (1/2H, d, $J=11.9$ Hz), 5.78 (1/2H, m), 5.35 (1/2H, m), 5.03 (1/2H, dd, $J=11.3$, 2.6 Hz), 5.00-4.87 (1H, m), 4.80 (1/2H, m), 4.72-4.60 (2H, m), 4.56 (1/2H, m), 4.49 (1/2H, m), 3.97 (1H, m), 3.53-3.42 (2H, m), 2.45-0.90 (19H, m), 1.17, 1.15, 0.97, 0.96 (each 1/2 x 3H, s); ^{13}C NMR (CDCl_3) δ 174.8,

173.3, 138.2, 138.1, 135.8, 135.1, 128.9, 128.7, 128.1 (x 2), 127.5, 118.7, 118.1, 75.8, 75.6, 65.3, 65.1, 64.4, 62.7, 53.2, 53.0, 52.2, 51.9, 48.4, 48.0, 47.6 (x 2), 44.5 (x 2), 38.6, 37.9, 37.6, 32.8, 32.7, 31.6, 31.5, 30.1, 27.0, 26.5, 26.4, 26.3, 26.2, 20.7, 20.6, 19.9, 19.8; MS (FAB) m/z 91 (100), 501 ($M+H^+$, 78); HRMS calcd for $C_{28}H_{41}N_2O_4S$ ($M+H^+$) 501.2787, found 501.2791. Anal. calcd for $C_{28}H_{40}N_2O_4S$: C, 67.17; H, 8.05; N, 5.59; S, 6.40. Found: C, 66.88; H, 7.86; N, 5.53; S, 6.35. Some peaks of ^{13}C NMR were missing due to overlap.

4J: a colorless oil; $[\alpha]_D^{26} -56.0$ (c 0.95, $CHCl_3$); IR ($CHCl_3$) 3280, 1692 cm^{-1} ; 1H NMR ($CDCl_3$) δ 7.40-7.22 (5H, m), 6.14 (1H, br d, $J=10.1$ Hz), 5.76 (1H, m), 5.03 (1H, d, $J=17.1$ Hz), 4.97 (2H, m), 4.68, 4.64 (2H, AB q, $J=11.6$ Hz), 4.37 (1H, br m), 3.96 (1H, br m), 3.49, 3.46 (2H, AB q, $J=13.7$ Hz), 3.25 (1H, dd, $J=15.8, 7.9$ Hz), 2.20-1.70 (5H, m), 1.68, 1.52 (each 3H, s), 1.45-1.25 (2H, m), 1.15, 0.96 (each 3H, s); ^{13}C NMR ($CDCl_3$) δ 172.9, 137.8, 137.1, 135.0, 128.9, 128.1, 127.5, 121.4, 115.9, 75.7, 66.2, 65.3, 53.1, 48.2, 47.6, 44.8, 44.5, 38.0, 32.8, 26.3, 25.8, 20.7, 19.9, 18.0; MS (FAB) m/z 473 ($M+H^+$, 100); HRMS calcd for $C_{26}H_{37}N_2O_4S$ ($M+H^+$) 473.2474, found 473.2479.

4K: amorphous substance as a 4:1 *E/Z* mixture; $[\alpha]_D^{26} -36.0$ (c 1.20, $CHCl_3$); IR ($CHCl_3$) 3280, 1730, 1692 cm^{-1} ; 1H NMR ($CDCl_3$) δ 7.44-7.16 (10H, m), 6.40 (1/5H, d, $J=15.8$ Hz), 6.32 (4/5H, d, $J=15.9$ Hz), 6.32 (1H, m), 6.20-6.11 (1H, m), 5.93 (4/5H, m), 5.85 (1/5H, m), 5.18-5.02 (2H, m), 4.70, 4.67 (2H, AB q, $J=11.6$ Hz), 4.50 (1H, br s), 3.97 (1H, m), 3.54-3.42 (2H, m), 3.33 (1H, m), 2.13-1.70 (5H, m), 1.45-1.25 (2H, m), 1.11, 0.95 (each 4/5 x 3H, s), 0.87, 0.82 (each 1/5 x 3H, s); ^{13}C NMR ($CDCl_3$) δ 172.5, 137.8, 137.0, 136.2, 132.2, 128.9, 128.8, 128.4 (x 2), 128.1, 127.6 (x 2), 127.4, 126.5, 126.4, 117.8, 116.9, 75.8, 65.9, 65.3, 53.1, 48.7, 48.3, 47.6, 44.5, 38.1, 32.8, 26.3, 20.7, 19.8; MS (FAB) m/z 521 ($M+H^+$, 100); HRMS calcd for $C_{30}H_{37}N_2O_4S$ ($M+H^+$) 521.2474, found 521.2477. Some peaks of ^{13}C NMR were missing due to a 4:1 *E/Z* mixture.

4L: a colorless oil as a 1:1 *E/Z* mixture; $[\alpha]_D^{27} -21.3$ (c 1.53, $CHCl_3$); IR ($CHCl_3$) 3274,

1691, 1600 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.35-7.10 (10H, m), 6.05-5.90 (1H, m), 5.83 (1/2H, m), 5.75 (1/2H, m), 5.60-5.45 (1H, m), 4.74 (1H, br m), 4.54, 4.44 (1/2 x 2H, AB q, $J=11.6$ Hz), 4.53, 4.43 (1/2 x 2H, AB q, $J=11.6$ Hz), 3.98 (1H, br m), 3.76 (1/2H, br t, $J=8.8$ Hz), 3.63-3.40 (2H, m), 3.34 (1/2H, br t, $J=8.4$ Hz), 2.15-1.80 (5H, m), 1.60 (1/2 x 3H, d, $J=6.7$ Hz), 1.55 (1/2 x 3H, d, $J=5.8$ Hz), 1.45-1.25 (2H, m), 1.19, 1.18 (each 1/2 x 3H, s), 0.97 (3H, s); ^{13}C NMR (CDCl_3) δ 173.2, 141.3, 141.1, 137.7, 130.1, 129.0 (x 2), 128.6, 128.0, 127.8 (x 2), 127.5, 126.7, 126.1, 75.5 (x 2), 66.5, 66.1, 65.3, 65.2, 53.2, 51.5, 48.2, 48.1, 47.7, 47.6, 44.7, 44.6 (x 2), 38.1, 37.9, 32.8 (x 2), 26.3, 20.7 (x 2), 19.9, 19.8, 18.1, 12.8; MS (FAB) m/z 77 (100), 509 ($\text{M}+\text{H}^+$, 18); HRMS calcd for $\text{C}_{29}\text{H}_{37}\text{N}_2\text{O}_4\text{S}$ ($\text{M}+\text{H}^+$) 509.2474, found 509.2471. Some peaks of ^{13}C NMR were missing due to overlap.

General procedure for reaction of *N*-sulfonylimine **6** in THF

A mixture of **6** (32.4 mg, 0.125 mmol), allylic reagents (0.25 mmol), $\text{Pd}(\text{PPh}_3)_4$ (7.3 mg, 0.0063 mmol), and indium iodide (60 mg, 0.25 mmol) in THF (1.0 mL) was stirred under argon atmosphere at 20 $^\circ\text{C}$ for 1-3 h. The reaction mixture was diluted with saturated aqueous potassium sodium (+)-tartrate and then extracted with AcOEt. The organic phase was dried over MgSO_4 and concentrated at reduced pressure. Purification of the residue by preparative TLC (hexane:AcOEt=4:1, 2-fold development) afforded the products **7A-D**.

7A: a colorless crystal; mp 74-76 $^\circ\text{C}$ (AcOEt/hexane); IR (CHCl_3) 3376, 1454, 1331 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.55 (2H, d, $J=8.3$ Hz), 7.33-7.04 (7H, m), 5.50 (1H, m), 5.08-5.01 (2H, m), 4.89 (1H, br s), 4.38 (1H, m), 2.46 (2H, m), 2.37 (3H, s); ^{13}C NMR (CDCl_3) δ 143.1, 140.3, 137.5, 133.0, 129.3, 128.4, 127.4, 127.1, 126.5, 119.3, 57.1, 41.9, 21.4; MS (FAB) m/z 302 ($\text{M}+\text{H}^+$, 10), 131 (100); HRMS calcd for $\text{C}_{17}\text{H}_{20}\text{NO}_2\text{S}$ ($\text{M}+\text{H}^+$) 302.1214, found 302.1220; Anal. calcd for $\text{C}_{17}\text{H}_{19}\text{NO}_2\text{S}$: C, 67.74; H, 6.35; N, 4.65; S, 10.64. Found: C, 67.46; H, 6.28; N, 4.66; S, 10.85.

syn-**7B**: a colorless crystal; mp 145-147 $^\circ\text{C}$ (AcOEt/hexane); IR (CHCl_3) 3371, 1454,

1327 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.37 (2H, d, $J=7.9$ Hz), 7.27-6.85 (12H, m), 5.80 (1H, m), 5.01 (1H, d, $J=10.1$ Hz), 4.88 (1H, d, $J=17.1$ Hz), 4.80 (1H, br s), 4.54 (1H, br t, $J=7.1$ Hz), 3.54 (1H, br t, $J=8.2$ Hz), 2.34 (3H, s); ^{13}C NMR (CDCl_3) δ 142.9, 138.9, 138.3, 137.1, 136.3, 129.1, 128.8, 128.4, 127.8 (x 2), 127.4, 127.3, 127.1, 118.2, 61.6, 56.5, 21.4; MS (FAB) m/z 378 ($\text{M}+\text{H}^+$, 5), 260 (100); HRMS calcd for $\text{C}_{23}\text{H}_{24}\text{NO}_2\text{S}$ ($\text{M}+\text{H}^+$) 378.1527, found 378.1516; Anal. calcd for $\text{C}_{23}\text{H}_{23}\text{NO}_2\text{S}$: C, 73.18; H, 6.14; N, 3.71; S, 8.49. Found: C, 72.90; H, 6.14; N, 3.75; S, 8.53.

syn-7C: a colorless crystal; mp 135-139 $^\circ\text{C}$ (AcOEt/hexane); IR (CHCl_3) 3370, 1457, 1328 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.37 (2H, d, $J=7.9$ Hz), 7.31-6.82 (9H, m), 6.77 (2H, d, $J=8.6$ Hz), 5.76 (1H, m), 4.98 (1H, d, $J=10.1$ Hz), 4.86 (1H, d, $J=17.1$ Hz), 4.80 (1H, br d, $J=5.8$ Hz), 4.48 (1H, br t, $J=7.0$ Hz), 3.79 (3H, s), 3.48 (1H, br t, $J=7.9$ Hz), 2.34 (3H, s); ^{13}C NMR (CDCl_3) δ 158.8, 142.7, 138.5, 137.1, 136.7, 130.8, 129.4, 129.1, 127.8 (x 2), 127.3, 127.1, 117.9, 114.2, 61.7, 55.6, 55.2, 21.4; MS (FAB) m/z 408 ($\text{M}+\text{H}^+$, 2), 260 (100); HRMS calcd for $\text{C}_{24}\text{H}_{26}\text{NO}_3\text{S}$ ($\text{M}+\text{H}^+$) 408.1633, found 408.1638; Anal. calcd for $\text{C}_{24}\text{H}_{25}\text{NO}_3\text{S}$: C, 70.73; H, 6.18; N, 3.44; S, 7.87. Found: C, 70.69; H, 6.00; N, 3.38; S, 7.92.

7D: a colorless crystal; mp 148-151 $^\circ\text{C}$ (AcOEt/hexane); IR (CHCl_3) 3376, 1456, 1328 cm^{-1} ; ^1H NMR (CDCl_3) δ 7.39 (2H, d, $J=8.3$ Hz), 7.10-7.03 (3H, m), 6.98 (2H, d, $J=8.3$ Hz), 6.91 (2H, d, $J=6.7$ Hz), 5.66 (1H, dd, $J=17.4$, 10.7 Hz), 5.13 (1H, d, $J=10.7$ Hz), 5.06 (1H, d, $J=17.4$ Hz), 5.00 (1H, d, $J=8.0$ Hz), 4.06 (1H, d, $J=8.0$ Hz), 2.29, 1.07, 0.87 (each 3H, s); ^{13}C NMR (CDCl_3) δ 143.1, 142.7, 137.6, 137.2, 129.0, 128.3, 127.4, 127.0, 126.9, 115.0, 65.6, 41.1, 24.9, 23.8, 21.3; MS (FAB) m/z 330 ($\text{M}+\text{H}^+$, 12), 260 (100); HRMS calcd for $\text{C}_{19}\text{H}_{24}\text{NO}_2\text{S}$ ($\text{M}+\text{H}^+$) 330.1528, found 330.1522; Anal. calcd for $\text{C}_{19}\text{H}_{23}\text{NO}_2\text{S}$: C, 69.27; H, 7.04; N, 4.25; S, 9.73. Found: C, 69.04; H, 6.98; N, 4.26; S, 9.80.

File Name	Acquisition Time (sec)	Comment	Date	Notes
C:\ProgramData\Sciencemadness.org\Documents\FR-009M83-Me-Branch.mda	3.27(16)	not	Tue Oct 13 10:08:27 2002	
				Frequency (MHz) 500.00
		Solvent		Nucleus 1H
		Points Count		Swep Width (Hz) 10000.00
				Temperature (degrees C) 0.00
				Number of Transients 8

syn-4D : R = 4-Me-C₆H₄

No.	(gpm)	(ft ²)	Height	No.	(gpm)	(ft ²)	Height	No.	(gpm)	Value	Deviation Value
1	2.22	110.81	0.1877	39	4.47	223.01	0.0450	77	10.92	3.91	0.345
2	2.22	110.81	0.1877	40	4.48	224.04	0.0450	78	11.02	3.91	0.345
3	2.22	110.81	0.0676	41	4.48	224.04	0.0450	79	11.02	3.91	0.345
4	2.22	110.81	0.0676	42	4.48	224.04	0.0450	80	11.02	3.91	0.345
5	2.22	110.81	0.0676	43	4.48	224.04	0.0450	81	11.02	3.91	0.345
6	2.22	110.81	0.0676	44	4.48	224.04	0.0450	82	11.02	3.91	0.345
7	2.22	110.81	0.0676	45	4.48	224.04	0.0450	83	11.02	3.91	0.345
8	2.22	110.81	0.0676	46	4.48	224.04	0.0450	84	11.02	3.91	0.345
9	2.22	110.81	0.0676	47	4.48	224.04	0.0450	85	11.02	3.91	0.345
10	2.22	110.81	0.0676	48	4.48	224.04	0.0450	86	11.02	3.91	0.345
11	2.22	110.81	0.0676	49	4.48	224.04	0.0450	87	11.02	3.91	0.345
12	2.22	110.81	0.0676	50	4.48	224.04	0.0450	88	11.02	3.91	0.345
13	2.22	110.81	0.0676	51	4.48	224.04	0.0450	89	11.02	3.91	0.345
14	2.22	110.81	0.0676	52	4.48	224.04	0.0450	90	11.02	3.91	0.345
15	2.22	110.81	0.0676	53	4.48	224.04	0.0450	91	11.02	3.91	0.345
16	2.22	110.81	0.0676	54	4.48	224.04	0.0450	92	11.02	3.91	0.345
17	2.22	110.81	0.0676	55	4.48	224.04	0.0450	93	11.02	3.91	0.345
18	2.22	110.81	0.0676	56	4.48	224.04	0.0450	94	11.02	3.91	0.345
19	2.22	110.81	0.0676	57	4.48	224.04	0.0450	95	11.02	3.91	0.345
20	2.22	110.81	0.0676	58	4.48	224.04	0.0450	96	11.02	3.91	0.345
21	2.22	110.81	0.0676	59	4.48	224.04	0.0450	97	11.02	3.91	0.345
22	2.22	110.81	0.0676	60	4.48	224.04	0.0450	98	11.02	3.91	0.345
23	2.22	110.81	0.0676	61	4.48	224.04	0.0450	99	11.02	3.91	0.345
24	2.22	110.81	0.0676	62	4.48	224.04	0.0450	100	11.02	3.91	0.345
25	2.22	110.81	0.0676	63	4.48	224.04	0.0450	101	11.02	3.91	0.345
26	2.22	110.81	0.0676	64	4.48	224.04	0.0450	102	11.02	3.91	0.345
27	2.22	110.81	0.0676	65	4.48	224.04	0.0450	103	11.02	3.91	0.345
28	2.22	110.81	0.0676	66	4.48	224.04	0.0450	104	11.02	3.91	0.345
29	2.22	110.81	0.0676	67	4.48	224.04	0.0450	105	11.02	3.91	0.345
30	2.22	110.81	0.0676	68	4.48	224.04	0.0450	106	11.02	3.91	0.345
31	2.22	110.81	0.0676	69	4.48	224.04	0.0450	107	11.02	3.91	0.345
32	2.22	110.81	0.0676	70	4.48	224.04	0.0450	108	11.02	3.91	0.345
33	2.22	110.81	0.0676	71	4.48	224.04	0.0450	109	11.02	3.91	0.345
34	2.22	110.81	0.0676	72	4.48	224.04	0.0450	110	11.02	3.91	0.345
35	2.22	110.81	0.0676	73	4.48	224.04	0.0450	111	11.02	3.91	0.345
36	2.22	110.81	0.0676	74	4.48	224.04	0.0450	112	11.02	3.91	0.345
37	2.22	110.81	0.0676	75	4.48	224.04	0.0450	113	11.02	3.91	0.345
38	2.22	110.81	0.0676	76	4.48	224.04	0.0450	114	11.02	3.91	0.345
39	2.22	110.81	0.0676	77	4.48	224.04	0.0450	115	11.02	3.91	0.345
40	2.22	110.81	0.0676	78	4.48	224.04	0.0450	116	11.02	3.91	0.345
41	2.22	110.81	0.0676	79	4.48	224.04	0.0450	117	11.02	3.91	0.345
42	2.22	110.81	0.0676	80	4.48	224.04	0.0450	118	11.02	3.91	0.345
43	2.22	110.81	0.0676	81	4.48	224.04	0.0450	119	11.02	3.91	0.345
44	2.22	110.81	0.0676	82	4.48	224.04	0.0450	120	11.02	3.91	0.345
45	2.22	110.81	0.0676	83	4.48	224.04	0.0450	121	11.02	3.91	0.345
46	2.22	110.81	0.0676	84	4.48	224.04	0.0450	122	11.02	3.91	0.345
47	2.22	110.81	0.0676	85	4.48	224.04	0.0450	123	11.02	3.91	0.345
48	2.22	110.81	0.0676	86	4.48	224.04	0.0450	124	11.02	3.91	0.345
49	2.22	110.81	0.0676	87	4.48	224.04	0.0450	125	11.02	3.91	0.345
50	2.22	110.81	0.0676	88	4.48	224.04	0.0450	126	11.02	3.91	0.345
51	2.22	110.81	0.0676	89	4.48	224.04	0.0450	127	11.02	3.91	0.345
52	2.22	110.81	0.0676	90	4.48	224.04	0.0450	128	11.02	3.91	0.345
53	2.22	110.81	0.0676	91	4.48	224.04	0.0450	129	11.02	3.91	0.345
54	2.22	110.81	0.0676	92	4.48	224.04	0.0450	130	11.02	3.91	0.345
55	2.22	110.81	0.0676	93	4.48	224.04	0.0450	131	11.02	3.91	0.345
56	2.22	110.81	0.0676	94	4.48	224.04	0.0450	132	11.02	3.91	0.345
57	2.22	110.81	0.0676	95	4.48	224.04	0.0450	133	11.02	3.91	0.345
58	2.22	110.81	0.0676	96	4.48	224.04	0.0450	134	11.02	3.91	0.345
59	2.22	110.81	0.0676	97	4.48	224.04	0.0450	135	11.02	3.91	0.345
60	2.22	110.81	0.0676	98	4.48	224.04	0.0450	136	11.02	3.91	0.345
61	2.22	110.81	0.0676	99	4.48	224.04	0.0450	137	11.02	3.91	0.345
62	2.22	110.81	0.0676	100	4.48	224.04	0.0450	138	11.02	3.91	0.345
63	2.22	110.81	0.0676	101	4.48	224.04	0.0450	139	11.02	3.91	0.345
64	2.22	110.81	0.0676	102	4.48	224.04	0.0450	140	11.02	3.91	0.345
65	2.22	110.81	0.0676	103	4.48	224.04	0.0450	141	11.02	3.91	0.345
66	2.22	110.81	0.0676	104	4.48	224.04	0.0450	142	11.02	3.91	0.345
67	2.22	110.81	0.0676	105	4.48	224.04	0.0450	143	11.02	3.91	0.345
68	2.22	110.81	0.0676	106	4.48	224.04	0.0450	144	11.02	3.91	0.345
69	2.22	110.81	0.0676	107	4.48	224.04	0.0450	145	11.02	3.91	0.345
70	2.22	110.81	0.0676	108	4.48	224.04	0.0450	146	11.02	3.91	0.345
71	2.22	110.81	0.0676	109	4.48	224.04	0.0450	147	11.02	3.91	0.345
72	2.22	110.81	0.0676	110	4.48	224.04	0.0450	148	11.02	3.91	0.345
73	2.22	110.81	0.0676	111	4.48	224.04	0.0450	149	11.02	3.91	0.345
74	2.22	110.81	0.0676	112	4.48	224.04	0.0450	150	11.02	3.91	0.345
75	2.22	110.81	0.0676	113	4.48	224.04	0.0450	151	11.02	3.91	0.345
76	2.22	110.81	0.0676	114	4.48	224.04	0.0450	152	11.02	3.91	0.345
77	2.22	110.81	0.0676	115	4.48	224.04	0.0450	153	11.02	3.91	0.345
78	2.22	110.81	0.0676	116	4.48	224.04	0.0450	154	11.02	3.91	0.345
79	2.22	110.81	0.0676	117	4.48	224.04	0.0450	155	11.02	3.91	0.345
80	2.22	110.81	0.0676	118	4.48	224.04	0.0450	156	11.02	3.91	0.345
81	2.22	110.81	0.0676	119	4.48	224.04	0.0450	157	11.02	3.91	0.345
82	2.22	110.81	0.0676	120	4.48	224.04	0.0450	158	11.02	3.91	0.345
83	2.22	110.81	0.0676	121	4.48	224.04	0.0450	159	11.02	3.91	0.345
84	2.22	110.81	0.0676	122	4.48	224.04	0.0450	160	11.02	3.91	0.345
85	2.22	110.81	0.0676	123	4.48	224.04	0.0450	161	11.02	3.91	0.345
86	2.22	110.81	0.0676	124	4.48	224.04	0.0450	162	11.02	3.91	0.345
87	2.22	110.81	0.0676	125	4.48	224.04	0.0450	163	11.02	3.91	0.345
88	2.22	110.81	0.0676	126	4.48	224.04	0.0450	164	11.02	3.91	0.345
89	2.22	110.81	0.0676	127	4.48	224.04	0.0450	165	11.02	3.91	0.345
90	2.22	110.81	0.0676	128	4.48	224.04	0.0450	166	11.02	3.91	0.345
91	2.22	110.81	0.0676	129	4.48	224.04	0.0450	167	11.02	3.91	0.345
92	2.22	110.81	0.0676	130	4.48	224.04	0.0450	168	11.02	3.91	0.345
93	2.22	110.81	0.0676	131	4.48	224.04	0.0450	169	11.02	3.91	0.345
94	2.22	110.81	0.0676	132	4.48	224.04	0.0450	170	11.02	3.91	0.345
95	2.22	110.81	0.0676	133	4.48	224.04	0.0450	171	11.02	3.91	0.345
96	2.22	110.81	0.0676	134	4.48	224.04	0.0450	172	11.02	3.91	0.345
97	2.22	110.81	0.0676	135	4.48	224.04	0.0450	173	11.02	3.91	0.345
98	2.22	110.81	0.0676	136	4.48	224.04	0.0450	174	11.02	3.91	0.345
99	2.22	110.81	0.0676	137	4.48	224.04	0.0450	175	11.02	3.91	0.345
100	2.22	110.81	0.0676	138	4.48	224.04	0.0450	176	11.02	3.91	0.345
101	2.22	110.81	0.0676	139	4.48	224.04	0.0450	177	11.02	3.91	0.345
102	2.22	110.81	0.0676	140	4.48	224.04	0.0450	178	11.02	3.91	0.345
103	2.22	110.81	0.0676	141	4.48	224.04	0.0450	179	11.02	3.91	0.345
104	2.22	110.81	0.0676	142	4.48	224.04	0.0450	180	11.02	3.91	0.345
105	2.22	110.81	0.0676	143	4.48	224.04	0.0450	181	11.02	3.91	

File Name	Points Count	Date	Comment
C:\Documents and Settings\Omni\My Documents\13\NMR\85-2M-8-H88-2M-8-H-1.mdata	32768	Thu Oct 17 17:39:43 2002	noq
CHLOROFORM-D	32768	Number of Transients	1H
		Original Points Count	Nucleus
			500.00
			Frequency (MHz)
			5000.00
			Acquisition Time (sec)
			3.2768

No.	(ppm)	Height	(Hz)	No.	(ppm)	Height	(Hz)	No.	(ppm)	Height	(Hz)	No.	(ppm)	Value	Absolute Value
1	1.0	0.058	1.5	15	3.9	0.049	1.2	30	1.1	0.033	0.8	1	1.0	1.0	1.0
2	0.9	0.049	1.2	16	3.8	0.049	1.2	31	1.0	0.033	0.8	2	1.1	1.1	1.1
3	0.8	0.049	1.2	17	3.7	0.049	1.2	32	0.9	0.033	0.8	3	1.2	1.2	1.2
4	0.7	0.049	1.2	18	3.6	0.049	1.2	33	0.8	0.033	0.8	4	1.3	1.3	1.3
5	0.6	0.049	1.2	19	3.5	0.049	1.2	34	0.7	0.033	0.8	5	1.4	1.4	1.4
6	0.5	0.049	1.2	20	3.4	0.049	1.2	35	0.6	0.033	0.8	6	1.5	1.5	1.5
7	0.4	0.049	1.2	21	3.3	0.049	1.2	36	0.5	0.033	0.8	7	1.6	1.6	1.6
8	0.3	0.049	1.2	22	3.2	0.049	1.2	37	0.4	0.033	0.8	8	1.7	1.7	1.7
9	0.2	0.049	1.2	23	3.1	0.049	1.2	38	0.3	0.033	0.8	9	1.8	1.8	1.8
10	0.1	0.049	1.2	24	3.0	0.049	1.2	39	0.2	0.033	0.8	10	1.9	1.9	1.9
11	0.0	0.049	1.2	25	2.9	0.049	1.2	40	0.1	0.033	0.8	11	2.0	2.0	2.0
12	0.0	0.049	1.2	26	2.8	0.049	1.2	41	0.0	0.033	0.8	12	2.1	2.1	2.1
13	0.0	0.049	1.2	27	2.7	0.049	1.2	42	0.0	0.033	0.8	13	2.2	2.2	2.2
14	0.0	0.049	1.2	28	2.6	0.049	1.2	43	0.0	0.033	0.8	14	2.3	2.3	2.3
15	0.0	0.049	1.2	29	2.5	0.049	1.2	44	0.0	0.033	0.8	15	2.4	2.4	2.4
16	0.0	0.049	1.2	30	2.4	0.049	1.2	45	0.0	0.033	0.8	16	2.5	2.5	2.5
17	0.0	0.049	1.2	31	2.3	0.049	1.2	46	0.0	0.033	0.8	17	2.6	2.6	2.6
18	0.0	0.049	1.2	32	2.2	0.049	1.2	47	0.0	0.033	0.8	18	2.7	2.7	2.7
19	0.0	0.049	1.2	33	2.1	0.049	1.2	48	0.0	0.033	0.8	19	2.8	2.8	2.8
20	0.0	0.049	1.2	34	2.0	0.049	1.2	49	0.0	0.033	0.8	20	2.9	2.9	2.9
21	0.0	0.049	1.2	35	1.9	0.049	1.2	50	0.0	0.033	0.8	21	3.0	3.0	3.0
22	0.0	0.049	1.2	36	1.8	0.049	1.2	51	0.0	0.033	0.8	22	3.1	3.1	3.1
23	0.0	0.049	1.2	37	1.7	0.049	1.2	52	0.0	0.033	0.8	23	3.2	3.2	3.2
24	0.0	0.049	1.2	38	1.6	0.049	1.2	53	0.0	0.033	0.8	24	3.3	3.3	3.3
25	0.0	0.049	1.2	39	1.5	0.049	1.2	54	0.0	0.033	0.8	25	3.4	3.4	3.4
26	0.0	0.049	1.2	40	1.4	0.049	1.2	55	0.0	0.033	0.8	26	3.5	3.5	3.5

Acquisition Time (sec)	Comment	Date	File Name	C:\Documents and Settings\Owner\My Documents\ RFA\NMR76-4F-branch.mrdata
3.2708	noe	Fri Oct 11 16:09:34 2002		
Frequency (MHz)	Nucleus	Number of Transients	Points Count	CHL010FOR4-D
500.00	¹ H	8	32768	Solvent
Sweep Width (Hz)	Temperature (degree C)	Original Points Count		
10000.00	0.000

No.	(gpm)	(ft ²)	(ft)	(ft ³)	(ft ³ /s)	(ft ³ /min)	(ft ³ /hr)	(ft ³ /day)	(ft ³ /year)	Absolute Value										
1	0.00	0.0	0.0063	18	1.68	842.0	0.2532	35	412	2053.7	0.0685	17	892	100	2.593	1748664.3				
2	0.68	44.67	0.2121	19	1.83	917.4	0.2232	36	434	2066.7	0.2022	53	614	3072.0	0.0491	2	118	-1.11	1.221	1.051944.3
3	0.68	44.67	0.2120	37	1.86	929.9	0.1060	37	445	2226.2	0.1343	54	634	3072.0	0.1874	3	128	-1.41	2.042	1.765914.3
4	0.91	45.37	0.1664	21	1.88	938.7	0.2151	38	447	2236.3	0.2151	55	636	3475.9	0.1486	3	170	-1.95	3.007	1.823544.3
5	0.91	45.37	1.0000	22	1.88	943.1	1.1103	39	448	2236.3	0.2562	56	638	3488.3	0.1886	5	1.97	-2.50	1.209	1.451004.3
6	0.99	49.95	0.0000	23	1.92	958.9	0.0313	40	449	2274.9	0.1476	57	714	3267.3	0.2751	6	3.35	-3.43	1.075	1.660764.3
7	1.12	58.84	0.0817	24	2.03	1013.4	0.4881	41	450	2274.9	0.0352	58	714	3267.3	0.2751	7	3.44	-3.57	1.960	1.610664.3
8	1.12	58.84	0.0817	25	2.03	1013.4	0.4881	42	450	2274.9	0.0352	59	714	3267.3	0.2751	8	3.44	-3.57	1.960	1.610664.3
9	1.25	61.61	0.0000	26	2.09	1067.1	0.1137	43	459	2394.3	0.1332	60	716	3394.5	0.2489	9	3.87	-4.00	0.932	1.588764.2
10	1.25	61.61	0.0000	27	2.09	1067.1	0.1137	44	459	2394.3	0.1332	61	716	3394.5	0.2489	10	3.87	-4.00	0.932	1.588764.2
11	1.25	62.38	0.1584	27	2.09	1067.1	0.0622	44	509	2543.4	0.1436	61	716	3394.5	0.2489	10	4.49	-4.57	1.011	1.588764.2
12	1.25	62.38	0.0525	28	2.09	1067.1	0.0505	45	512	2500.0	0.1502	62	720	3509.7	0.1834	11	4.49	-4.73	0.895	0.2591564.2
13	1.25	62.38	0.0155	29	2.09	1067.1	0.1688	46	601	3006.7	0.0543	63	720	3509.7	0.1834	12	8.06	-3.03	0.885	5.8212564.2
14	1.30	65.19	0.0551	30	2.31	1175.5	0.2108	47	603	3017.1	0.0637	64	724	3814.0	0.0768	13	8.06	-3.10	0.974	5.768864.2
15	1.30	65.19	0.0997	31	2.34	1175.5	0.0548	48	607	3035.7	0.0637	65	726	3523.5	0.0637	14	8.07	-3.06	0.932	5.522364.2
16	1.30	65.90	0.0000	32	2.36	1175.5	0.0548	49	609	3043.4	0.1077	66	726	3530.2	0.0629	15	8.07	-3.01	1.000	5.522364.2
17	1.38	68.51	0.0774	33	2.49	1254.5	0.0250	50	611	3052.5	0.0098	67	727	3533.5	0.0401	16	8.07	-3.01	2.109	1.240214.3
18	1.38	68.51	0.0774	34	2.49	1254.5	0.0250	50	611	3052.5	0.0098	67	727	3533.5	0.0401	16	8.07	-3.01	2.109	1.240214.3

23 Nov 2002

Acquisition Time (sec)	3.27168	Comment	noe	Date	Sat Nov 23 04:55:02 2002	File Name	C:\Documents and Settings\Owner\My Documents\1H-NMR\153153-1.mrdata
Frequency (MHz)	500.00	Nucleus	1H	Number of Transients	8	Points Count	32768
Sweep Width (Hz)	10000.00	Temperature (degree C)	0.000	Original Points Count	32768	Solvent	CHLOROFORM-D

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value
1	-0.02	-11.5	0.0264	18	1.88	940.3	0.2157	35	6.07	3003.2	0.0584
2	-0.01	-3.4	0.1496	19	2.02	1012.3	0.1143	36	6.52	3262.4	0.1156
3	-0.02	-3.4	0.1496	20	2.04	1019.3	0.1007	37	6.55	3273.1	0.1203
4	0.07	35.1	0.0500	21	2.05	1023.0	0.1509	38	6.58	3279.8	0.1157
5	0.06	427.6	0.0500	22	3.50	1750.8	0.1171	39	6.58	3290.5	0.1024
6	0.08	440.4	0.0451	23	3.98	1989.8	0.1167	40	7.19	3522.9	0.3498
7	0.05	475.7	0.0773	24	4.12	2057.9	0.0506	41	7.21	3603.0	0.2393
8	0.05	475.7	0.0773	25	4.12	2057.9	0.0506	42	7.21	3603.0	0.2393
9	0.08	440.4	0.0451	26	4.39	2194.0	0.1050	43	7.24	3620.7	0.5891
10	1.26	627.5	0.1918	27	4.41	2205.6	0.1334	44	7.25	3627.1	0.5183
11	1.26	627.5	0.1918	28	4.53	2255.1	0.2099	45	7.26	3630.2	1.6000
12	1.27	638.9	0.0866	29	4.55	2276.7	0.1573	46	7.26	3641.8	0.2039
13	1.41	704.1	0.1201	30	4.85	2458.9	0.1168	47	7.20	3648.4	0.2782
14	1.48	727.6	0.5157	31	5.05	2523.9	0.1331	48	7.21	3656.7	0.1920
15	1.51	768.9	0.0548	32	5.07	2533.3	0.3181	49	7.47	3733.3	0.4721
16	1.56	780.7	0.3310	33	5.10	2550.4	0.2262	50	7.48	3741.0	0.3839
17	1.82	909.1	0.1845	34	6.04	3021.9	0.0946

No.	rpm	Massic Value	No.	rpm	Massic Value	No.	rpm	Massic Value	No.	rpm	Massic Value
1	0.003	0.424	13	4.54	4.68	25	8.11	8.16	26	8.11	8.16
2	0.025	0.981	14	4.66	4.72	26	8.11	8.16	27	8.11	8.16
3	0.100	1.311	15	4.76	4.84	27	8.11	8.16	28	8.11	8.16
4	0.113	1.267	16	5.07	5.07	28	8.11	8.16	29	8.11	8.16
5	0.200	1.508	17	5.60	5.60	29	8.11	8.16	30	8.11	8.16
6	0.51	1.781	18	6.19	6.30	30	8.11	8.16	31	8.11	8.16
7	0.78	2.111	19	6.30	6.34	31	8.11	8.16	32	8.11	8.16
8	0.26	2.358	20	6.72	6.72	32	8.11	8.16	33	8.11	8.16
9	0.42	2.544	21	6.72	6.72	33	8.11	8.16	34	8.11	8.16
10	0.365	4.02	22	8.11	8.16	34	8.11	8.16	35	8.11	8.16
11	0.37	4.441	23	8.11	8.16	35	8.11	8.16	36	8.11	8.16
12	0.37	4.441	24	8.11	8.16	36	8.11	8.16	37	8.11	8.16

[illegible]

No.	Opinion	Observed Value	Nr.	Opinion	Observed Value
1	0.95	0.95	12	0.91	0.95
2	0.95	0.90	13	0.94	0.95
3	0.95	0.90	14	0.94	0.95
4	0.95	0.90	15	0.94	0.95
5	0.95	0.90	16	0.94	0.95
6	0.95	0.90	17	0.94	0.95
7	0.95	0.90	18	0.94	0.95
8	0.95	0.90	19	0.94	0.95
9	0.95	0.90	20	0.94	0.95
10	0.95	0.90	21	0.94	0.95
11	0.95	0.90	22	0.94	0.95
23	0.95	0.90	24	0.94	0.95
25	0.95	0.90	26	0.94	0.95
27	0.95	0.90	28	0.94	0.95
29	0.95	0.90	30	0.94	0.95
31	0.95	0.90	32	0.94	0.95
33	0.95	0.90	34	0.94	0.95
35	0.95	0.90	36	0.94	0.95
37	0.95	0.90	38	0.94	0.95
39	0.95	0.90	40	0.94	0.95
41	0.95	0.90	42	0.94	0.95
43	0.95	0.90	44	0.94	0.95
45	0.95	0.90	46	0.94	0.95
47	0.95	0.90	48	0.94	0.95
49	0.95	0.90	50	0.94	0.95
51	0.95	0.90	52	0.94	0.95
53	0.95	0.90	54	0.94	0.95
55	0.95	0.90	56	0.94	0.95
57	0.95	0.90	58	0.94	0.95
59	0.95	0.90	60	0.94	0.95
61	0.95	0.90	62	0.94	0.95
63	0.95	0.90	64	0.94	0.95
65	0.95	0.90	66	0.94	0.95
67	0.95	0.90	68	0.94	0.95
69	0.95	0.90	70	0.94	0.95
71	0.95	0.90	72	0.94	0.95
73	0.95	0.90	74	0.94	0.95
75	0.95	0.90	76	0.94	0.95
77	0.95	0.90	78	0.94	0.95
79	0.95	0.90	80	0.94	0.95
81	0.95	0.90	82	0.94	0.95
83	0.95	0.90	84	0.94	0.95
85	0.95	0.90	86	0.94	0.95
87	0.95	0.90	88	0.94	0.95
89	0.95	0.90	90	0.94	0.95
91	0.95	0.90	92	0.94	0.95
93	0.95	0.90	94	0.94	0.95
95	0.95	0.90	96	0.94	0.95
97	0.95	0.90	98	0.94	0.95
99	0.95	0.90	100	0.94	0.95

No.	(pm)	(Hz)	Height	No.	(pm)	(Hz)	Height	No.	(pm)	(Hz)	Height	No.	(pm)	(Hz)	Height
1	0.00	0.0	0.2043	35	1.81	953.7	0.0968	49	4.67	2353.8	0.3535	73	6.17	3084.5	0.1266
2	0.02	0.4	0.0580	36	1.92	981.3	0.0917	50	4.70	2368.3	0.3171	74	6.18	3093.5	0.1273
3	0.02	4.1	0.2078	37	2.03	985.3	0.0937	51	4.72	2369.0	0.1225	75	6.21	3102.4	0.0973
4	0.07	43.6	0.2653	38	2.02	1000.0	0.1018	52	5.05	2520.6	0.0038	76	6.22	3110.1	0.0891
5	0.05	47.4	0.9895	39	2.03	1010.0	0.1168	53	5.08	2541.0	0.0448	77	6.23	3114.1	0.1289
6	0.05	47.4	0.9895	40	2.03	1010.0	0.1168	54	5.08	2541.0	0.0448	78	6.23	3114.1	0.1289
7	1.11	556.4	0.9525	3	3.22	1610.8	0.085	55	5.12	2569.2	0.1765	79	6.25	3124.8	0.1025
8	1.16	578.8	0.0433	4	3.22	1610.8	0.085	56	5.13	2569.2	0.1765	80	6.25	3124.8	0.1025
9	1.24	629.3	0.0616	33	3.25	1625.1	0.0428	57	5.17	2583.7	0.1439	81	6.34	3169.7	0.1455
10	1.26	629.3	0.1738	34	3.46	1725.5	0.0925	58	5.32	2650.2	0.0272	82	6.39	3169.7	0.0465
11	1.27	629.3	0.0911	35	3.47	1732.3	0.1041	59	5.42	2690.9	0.0157	83	6.42	3209.3	0.0550
12	1.30	648.8	0.0687	36	3.47	1742.4	0.2048	60	5.63	2971.3	0.0737	84	7.20	3309.4	0.0749
13	1.31	652.9	0.0271	37	3.50	1750.3	0.2486	61	5.84	2920.3	0.0701	85	7.21	3304.5	0.1471
14	1.32	652.9	0.0191	38	3.58	1764.3	0.0271	62	5.85	2920.3	0.0671	86	7.22	3304.5	0.1281
15	1.33	652.9	0.0191	39	3.58	1764.3	0.0271	63	5.85	2920.3	0.0671	87	7.22	3304.5	0.1281
16	1.34	658.8	0.0433	40	3.58	1764.3	0.0271	64	5.87	2924.2	0.0160	88	7.26	3327.5	0.0366
17	1.59	780.8	0.3335	41	3.57	1874.9	0.0906	65	5.98	2946.0	0.0611	89	7.28	3327.5	0.3407
18	1.70	849.3	0.0505	42	3.58	1891.6	0.0739	66	5.91	2954.8	0.0771	90	7.29	3345.1	0.5959
19	1.71	849.3	0.0205	43	4.01	2048.9	0.0519	67	5.91	2954.8	0.0771	91	7.29	3345.1	0.7476
20	1.81	965.2	0.1699	44	4.01	2054.3	0.0651	68	5.94	2963.3	0.0272	92	7.30	3361.2	1.0006
21	1.83	913.3	0.0335	45	4.11	2054.3	0.0597	69	5.94	2971.3	0.0752	93	7.30	3361.2	0.5578
22	1.83	913.3	0.0335	46	4.11	2054.3	0.0597	70	5.94	2971.3	0.0752	94	7.30	3361.2	0.5578
23	1.84	965.2	0.0174	47	4.09	2054.3	0.0597	71	5.94	2971.3	0.0752	95	7.32	3361.2	0.5578
24	1.89	890.2	0.0897	48	4.65	2232.5	0.1370	72	6.15	3075.7	0.0888	96	7.36	3366.3	0.3565

19	1.60	799.6	0.2961	39	4.52	2260.5	0.1532	59	5.85	2925.8	0.0325
20	1.61	806.3	0.2499	40	4.54	2267.8	0.1557	60	5.96	2978.3	0.0523

File Name	Date	Comment	Acquisition Time (sec)
C:\Documents and Settings\Owner\My Documents - RW-MMR077-2\ncs-files\077-2\ncs-linear1.mrdata	Fri Oct 11 19:45:10 2002	now	3.2768
CHLOROFORM-D	Number of Transients	Nucleus	Frequency (MHz)
Solvent	32768	1H	500.00
	Original Points Count	Temperature (degrees C)	10000.00
	32768	0.000	
		Temperature (degrees C)	0.000
		Fluxes Width (Hz)

[illegible]

246 1.7

NOE

Date : Thu Oct 10 05:21:02 2002

Filename : LoadingFID.mdata

Comment : none

Slit: 1.0

EMODE : none

POINT 32768 points
SAMPD 32768 points
FREQ 100000.0 Hz
PULPROG zgpg30
DELTA 4.00 usec
DEAD 55.8 usec
INTEG 100.0 usec
TIMES 8 times
PULPROG zgpg30
PULPROG 3.7232 sec
ACQTM 3276.7598 msec
PREDL 0.01000 msec
ACQTM 1000.0000 msec
PULPROG zgpg30
PULPROG 8.40 usec
GENUC 500.00 MHz
DEPRG 102160.23 Hz
RGAIN 23
SCANS 8 times
COLL 3
SPIN 11 Hz
SPINNING 23.4 C
TEMP

[illegible] [illegible]

16	1.23	0.403	0.474	36	2.26	0.603	0.603	56	5.27	2.233	0.601
17	1.71	0.570	0.480	37	2.56	1.287	0.0384	57	5.29	26.43	0.0206
18	1.74	0.695	0.4560	38	2.59	1.952	0.0286	58	5.39	2656.0	0.0217
19	1.77	0.872	0.4577	39	2.61	1.925	0.0178	59	5.41	2703.3	0.0419
20	1.83	0.918	0.1686	40	3.45	1723.4	0.0706	60	5.42	2710.7	0.0424

noe

[illegible]

Acquisition Time (sec)	Comment	Date	Number of Transients	Original Points Count	Points Count	File Name
0.9997	13C	The Oct 17 12:26:28 2002	256	32768	32768	C:\Documents and Settings\Owner\My Documents\13C\NMR\13C-2MDO-BI-0165-2MDO-BI-C\mrdia
Frequency (MHz)	125.65					
Temperature (degree C)	303.00					
Probe Width (Hz)	33308.30					
						Solvent
						CHLOROFORM-D

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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15 Oct 2002

Acquisition Time (sec)	0.987	Chemical Shift	129.26074	Date	Tue Oct 15 10:22:13 2002	Nucleus	¹³ C	Number of Transients	256
File Name	C:\Documents and Settings\user\My Documents\15-10-02\15-10-02-13-0002	Frequency (MHz)	125.65			Temperature (degree C)	0.000		
Original Points Count	32768	Points Count	32768	Solvent	CHLOROFORM-D	Swamp Width (Hz)	33388.90

No.	(ppm)	Height	No.	(ppm)	Height
1	14.04	0.0045	18	75.74	0.0114
2	19.83	0.0045	19	86.10	0.0045
3	20.64	0.0045	20	77.26	0.0045
4	20.73	0.0045	21	116.94	0.0045
5	20.91	0.0045	22	126.95	0.0045
6	26.27	0.0045	23	127.43	0.0045
7	32.77	0.0045	24	127.70	0.0045
8	37.81	0.0045	25	127.93	0.0045
9	44.47	0.0045	26	128.49	0.0045
10	44.57	0.0045	27	128.59	0.0045
11	47.37	0.0045	28	128.67	0.0045
12	48.17	0.0045	29	128.87	0.0045
13	51.73	0.0045	30	129.26	0.0045
14	53.03	0.0045	31	137.01	0.0045
15	65.26	0.0045	32	137.62	0.0045
16	66.10	0.0045	33	172.84	0.0045
17	75.50	0.0045			

17 Oct 2002

Acquisition Time (sec)	0.9867	Comment	no
Frequency (MHz)	125.85	Nucleus	¹³ C
Sweep Width (Hz)	30083.90	Temperature (degree C)	0.000
Date	The Oct 17 14:20:13 2002	Original Points Count	32768
File Name	C:\Documents and Settings\Owner\My Documents\15_1\NMR\158-2Me-Bi-C-4Me-2Me-Bi-C.mmda	Points Count	32768
Solvent	CHLOROFORM-D

syn-4E: R = 2-Me-C₆H₄

No.	Height	Height	No.	Height	Height		
1	14.09	1770.7	0.0555	16	75.56	9484.4	0.3575
2	19.89	2489.0	0.5145	17	76.74	9674.4	0.9485
3	20.70	2600.4	0.9708	18	77.60	9874.4	0.9524
4	20.96	2633.5	0.4321	19	77.25	9700.5	0.9514
5	21.00	2633.5	0.4321	20	77.25	9700.5	0.9514
6	21.00	2633.5	0.4321	21	77.25	9700.5	0.9514
7	37.88	4759.4	0.4544	22	127.75	16051.2	0.7531
8	41.54	5596.3	0.2918	23	127.88	16090.2	0.9786
9	47.64	5966.4	0.4023	24	128.93	16200.2	1.0000
10	48.24	6060.8	0.2322	25	129.32	16248.9	0.9783
11	51.79	6507.6	0.1929	26	136.46	17148.9	0.2150
12	53.11	6673.3	0.1959	27	137.06	17221.3	0.2037
13	60.31	7578.5	0.0451	28	137.66	17296.9	0.2505
14	65.34	8210.6	0.0342	29	172.91	21726.7	0.1965
15	66.16	8313.0	0.4396				

Acquisition Time (sec)	Comment	Date	File Name	Acquisition Time (sec)
0.9687	C:\Documents and Settings\Owen\My Documents\ P14\NMR76-4F-branch-CV16-4F-branch-C.mrdata	Fri Oct 11 16:24:02 2002	File Name	0.9687
3.7958	Polystyrene	3/7/98	Polystyrene	3.7958
33958.30	CHLOROFORM-D	3/7/98	CHLOROFORM-D	33958.30
125.65	Frequency (MHz)	125.65	Frequency (MHz)	125.65
256	Number of Transients	256	Number of Transients	256
13C	Nucleus	13C	Nucleus	13C
33958.30	Swept Width (Hz)	33958.30	Swept Width (Hz)	33958.30
1000	Temperature (degrees C)	1000	Temperature (degrees C)	1000

[illegible]

Acquisition Time (sec)	Comment	Date	Sat Nov 25 05:42:10 2002	File Name	C:\Documents and Settings\Omer\My Documents\ 155\NMR\1501\1501.mrdata
Frequency (MHz)	Nucleus	Number of Transmits	1024	Points Count	32768
Sweep Width (Hz)	Temperature (degrees C)				Solvent
33808.30	0.000				CHLOROFORM-D

No.	Uppm	(Hz)	Height	No.	Uppm	(Hz)	Height
1	-0.01	-0.53	0.5234	14	65.18	8567.0	0.5269
2	16.09	2273.0	0.3277	15	73.23	8567.0	0.3397
3	20.02	2515.1	0.9556	16	113.98	14586.7	0.9291
4	20.73	2605.1	0.3387	17	113.98	14586.7	0.3421
5	30.55	3359.2	0.3447	18	129.84	16330.1	0.9446
6	30.55	3359.2	0.3447	19	129.84	16330.1	0.9446
7	35.29	4776.4	0.3430	20	127.58	16330.1	0.9446
8	46.81	5893.8	0.9317	21	126.09	16222.2	0.1434
9	46.81	5893.8	0.9317	22	126.09	16222.2	0.1434
10	47.72	5986.2	0.9565	23	136.05	17989.4	0.9176
11	47.72	5986.2	0.9565	24	136.05	17989.4	0.9176
12	53.59	6709.0	0.9312	25	143.25	17989.4	0.9346
13	53.59	6709.0	0.9312	26	143.25	17989.4	0.9346
14	55.20	8254.6	0.9313	27	173.23	23131.0	0.9161

17 Nov 2002

Acquisition Time (sec)	0.957	Comment	100	Date	Sun Nov 17 00:05:18 2003	File Name	C:\Documents and Settings\Owner\My Documents\ 1H-NMR\1137C1137C.mr
Resolution (Hz)	0.097	Acquisition	100	Number of Transients	256	Points Count	32768
Sweep Width (Hz)	33838.30	Temperature (degree C)	100	Original Points Count	32768	Solvent	CHLOROFORM-D

No.	ppm	Height	No.	ppm	Height
1	16.04	2266.2	15	75.74	9517.2
2	10.86	2484.8	16	76.74	9642.4
3	20.65	2355.2	17	77.90	9674.4
4	26.78	3339.7	18	77.26	9796.5
5	26.78	3339.7	19	77.26	9796.5
6	32.82	4154.2	20	121.44	15258.8
7	37.98	4773.9	21	127.55	16226.4
8	44.55	5597.4	22	128.07	16091.6
9	44.76	5624.3	23	128.77	16180.6
10	47.63	5954.3	24	138.67	16193.0
11	48.21	6057.7	25	134.86	16880.6
12	53.09	8871.2	26	137.11	17227.5
13	65.26	8200.2	27	137.84	17519.6
14	66.20	8318.2	28	172.08	21722.5

20 Nov 2002

Acquisition Time (sec)	0.067	Comment	100	Date	Wed Nov 20 00:34:48 2002	File Name	C:\Documents and Settings\Owner\My Documents\16-31401-145C-145C.mrdata
Frequency (MHz)	128.6	Nucleus	¹³ C	Number of Transients	250	Points Count	32768
Sweep Width (Hz)	33088.30	Temperature (degree C)	0.000			Original Points Count	32768
						Solvent	CHLOROFORM-D

No.	ppm	Height	No.	ppm	Height
1	19.84	2452.8	17	117.83	14055.7
2	20.70	2500.4	18	126.35	15677.5
3	26.34	3359.0	19	126.53	15598.1
4	27.81	4728.2	20	127.42	16059.9
5	36.11	4715.0	21	127.72	16058.9
6	44.52	5594.3	22	127.82	16035.7
7	47.64	5985.4	23	128.13	16099.9
8	48.31	6070.2	24	128.35	16128.8
9	48.66	6114.8	25	128.45	16139.2
10	53.13	8975.4	26	128.81	16184.7
11	65.28	8202.3	27	128.85	16190.9
12	65.85	8278.9	28	132.16	16695.8
13	75.78	8522.4	29	130.22	17115.8
14	75.78	8442.4	30	135.98	17212.0
15	77.26	8768.4	31	135.98	17218.8
16	77.26	8768.5	32	172.51	14765.0

6 Nov 2002

Acquisition Time (sec)	0.067	File Name	C:\Documents and Settings\Owner\My Documents\ 1H-NMR(120C)120C.mrdata
Pre-Acquisition Delay (sec)	1.00	Points Count	32768
Relaxation Delay (sec)	1.00	Original Points Count	32768
Sweep Width (Hz)	32000.00	Solvent	CHLOROFORM-D
Comment	NO		
Temperature (degree C)	130		
	Temperature (degree C)

No.	ppm	F2	Height	No.	ppm	F2	Height	No.	ppm	F2	Height
1	12.76	1603.1	0.057	15	47.65	5957.4	0.1156	29	126.72	15921.9	0.2297
2	10.05	2283.3	0.1851	16	48.13	6947.4	0.0598	30	127.47	16016.1	0.2507
3	19.85	2563.1	0.1467	17	46.20	6562.7	0.0580	31	127.75	16032.3	0.2504
4	19.92	2563.1	0.1467	18	53.18	6661.6	0.0978	32	127.84	16052.6	0.2250
5	20.66	2566.2	0.1419	19	53.18	6661.6	0.0978	33	128.69	16152.8	0.5693
6	20.71	2602.4	0.1706	20	65.25	8188.2	0.6656	34	128.69	16152.8	0.5693
7	26.34	3310.0	0.2542	21	66.14	8310.9	0.0975	35	128.67	16206.4	0.3390
8	32.85	4127.3	0.1868	22	66.51	8356.5	0.1471	36	130.08	16344.0	0.0348
9	37.87	4758.4	0.0376	23	75.50	9486.2	0.1273	37	137.70	17302.0	0.1160
10	38.09	4768.3	0.0459	24	75.53	9490.3	0.1250	38	141.11	17750.3	0.0512
11	44.58	5598.4	0.1001	25	76.74	9642.4	0.9907	39	141.33	17758.2	0.0494
12	44.59	5602.5	0.0989	26	77.00	9674.4	1.0000	40	172.24	21767.0	0.0369
13	47.61	5962.2	0.0841	27	77.25	9705.5	0.9800				
14	47.61	5962.2	0.1352	28	126.07	15941.3	0.0338

[illegible]

Acquisition Time (sec)	0.987	Comment	noe	Date	Time Mon 30 15:57:59 2002	File Name	C:\Documents and Settings\Owner\My Documents\ 1N-MMR1(161C16) C.mnda	20 Nov 2002
Frequency (MHz)	125.65	Nucleus	13C	Number of Transients	128	Points Count	32768	
Sweep Width (Hz)	33888.30	Temperature (degree C)	0.000	Original Points Count	32768	Solvent	CHLOROFORM-D

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height
1	15.77	2484.5	0.5187	16	52.96	6654.7	0.3649
2	15.71	2459.5	0.5187	17	62.87	7832.2	0.3785
3	25.71	3202.4	0.4583	18	64.83	8052.4	0.3785
4	25.71	3202.4	0.4583	19	75.76	9518.3	0.4466
5	26.04	3271.8	0.4671	20	76.74	9642.4	1.0000
6	26.31	3305.9	0.4465	21	77.60	9744.4	0.9945
7	32.63	4100.4	0.4990	22	77.24	9705.5	0.9528
8	32.87	4105.6	0.4698	23	121.09	15215.4	0.3739
9	32.81	4123.2	0.4898	24	127.56	16028.5	0.4387
10	33.71	4235.9	0.3959	25	128.07	16091.5	0.0052
11	38.27	4893.1	0.3053	26	128.13	16099.3	0.9519
12	40.50	5088.4	0.3815	27	128.58	16155.7	0.8649
13	42.50	5388.4	0.3815	28	128.57	16155.7	0.1802
14	47.65	5982.4	0.4053	29	140.47	17646.8	0.3511
15	48.47	6066.6	0.2656	30	173.04	21742.2	0.2027

18 Nov 2002

Acquisition Time (sec)	0.9667	Comment	noe	Date	Mon Nov 18 20:35:23 2002	File Name	C:\Documents and Settings\Omer\My Documents\ 1H-NMR(140C)140C.mrdata	Points Count	32768
Frequency (MHz)	125.65	Nucleus	13C	Number of Transients	255	Original Points Count	32768	Points Count	32768
Sweep Width (Hz)	33898.30	Temperature (degree C)	0.000				Solvent	CHLOROFORM-D

No.	ppm	Height	Area	Height	Area	No.	ppm	Height	Area
1	173.31761	0.0007	15.47	50.03	6652.9	17	48.45	6097.7	0.0511
2	134.44778	0.0007	15.47	50.03	6652.9	18	48.00	6093.9	0.0507
3	134.44778	0.0007	15.47	50.03	6652.9	19	52.03	6652.9	0.1232
4	124.71591	0.0007	15.47	50.03	6652.9	20	62.72	7860.6	0.0864
5	124.71591	0.0007	15.47	50.03	6652.9	21	62.80	7860.6	0.0846
6	124.71591	0.0007	15.47	50.03	6652.9	22	64.97	8184.0	0.0882
7	124.71591	0.0007	15.47	50.03	6652.9	23	65.01	8184.0	0.0764
8	124.71591	0.0007	15.47	50.03	6652.9	24	75.83	9527.5	0.1501
9	124.71591	0.0007	15.47	50.03	6652.9	25	76.74	9542.4	0.1374
10	124.71591	0.0007	15.47	50.03	6652.9	26	77.25	9542.4	0.0895
11	124.71591	0.0007	15.47	50.03	6652.9	27	77.25	9542.4	0.0895
12	124.71591	0.0007	15.47	50.03	6652.9	28	119.96	15072.6	0.0784
13	124.71591	0.0007	15.47	50.03	6652.9				
14	124.71591	0.0007	15.47	50.03	6652.9

20 Nov 2002

Acquisition Time (sec)	0.967	Comment	noe	Date	Wed Nov 20 03:57:03 2002	File Name	C:\Documents and Settings\Owner\My Documents\ 1H-NMR(146C)146C.mrdata
Frequency (MHz)	125.05	Nucleus	¹³ C	Number of Transients	250	Points Count	32768
Sweep Width (Hz)	33388.30	Temperature (degree C)	0.000	Original Points Count	32768	Solvent	CHLOROFORMD

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height
1	19.77	2484.5	0.1681	16	77.25	9786.5	0.3773
2	20.65	2595.2	0.1330	17	128.19	16263.0	0.0552
3	26.29	3295.8	0.1444	18	128.26	16269.7	0.0552
4	32.74	4113.9	0.1436	19	128.65	16388.1	0.0454
5	34.03	4275.3	0.1197	20	127.65	16038.8	0.1753
6	38.21	4805.8	0.1154	21	126.19	16107.1	0.3215
7	44.49	5595.1	0.1463	22	128.42	16136.1	0.1374
8	47.68	5995.5	0.1495	23	128.60	16158.8	0.3179
9	48.49	6092.9	0.1126	24	128.65	16165.1	0.3898
10	53.01	6665.9	0.1444	25	131.48	16520.3	0.1308
11	62.69	7873.3	0.1447	26	133.78	16859.4	0.1358
12	65.01	8168.2	0.1280	27	137.35	17257.5	0.0897
13	65.01	8168.2	0.1280	28	137.35	17257.5	0.0897
14	76.74	9642.4	0.9861	29	173.13	21724.8	0.0744
15	77.00	9674.4	1.0000