Supporting Information

[1]. Preparative photolyses: The light source was a medium-pressure mercury lamp (500 W) in a cooling water jacket. The solution of the substrate and an excess amount of alkene in benzene was purged with dry argon for 15 min. The solutions were then irradiated with $\lambda >$ 400 nm at room temperature under continuous argon purging. At the end of the reaction (TLC monitoring), the solvent was removed *in vacuo* and the residue was separated by flash chromatography on a silica gel column with petroleum ether (b.p. 60-90 °C)/ethyl acetate as eluents.

[2]. Spectral data of typical compounds.

4a. Yellow crystals from chloroform. m.p. 228°C; IR (KBr): 3050, 1740, 1700, 1660, 1600, 1580, 1450, 1370, 1340, 1290, 1240, 1180, 1100, 1050, 940, 900, 840, 790, 760, 700 cm^{-1}; ^{1}HNMR(300M,$CDCl_3$): 2.61 (3H, s, $-CH_3$), 6.95-7.01(2H, m), 7.31-7.62(9H, m), 8.06-8.09(2H, dd, J=7.1, 1.4), 8.32(1H, d, J=8.2); MS: 367(M^+, 23.0), 325(38.1), 296(26.3), 248(13.4), 220(12.8), 190(9.9), 165(12.1), 105(100), 77(53.8), 43(31.6); Found: C, 78.30, H, 4.60, N, 3.79. $C_{24}H_{17}O_3N$ requires C, 78.47, H, 4.63, N, 3.81.

4b. Yellow crystals from ethyl acetate. m.p. 179°C; IR (KBr): 1730, 1700, 1670, 1600, 1580, 1500, 1450, 1380, 1340, 1300, 1250, 1170, 1050, 840, 780, 750, 700, 680, 630 cm^{-1}; ^{1}HNMR(300M,$CDCl_3$): 2.60(3H, s, $COCH_3$), 3.87(3H, s, OCH_3), 6.97-7.58(10H, m, ArH), 8.02-8.46(2H, dd, J=8.6, 1.5), 8.31(1H, d, J=7.9); MS: 397(M^+, 61.3), 355(53.4), 326(37.0), 250(49.7), 235(8.9), 219(11.6), 207(10.6), 179(8.6), 105(100), 77(57.6), 43(74.8); Found: C, 75.39, H, 5.00, N, 3.63. $C_{25}H_{19}O_4N$ requires C, 75.57, H, 4.79, N, 3.53.

4e. Green needles from ethyl acetate. m.p. 179°C; IR (KBr): 3050, 1740, 1720, 1670, 1580, 1450, 1360, 1340, 1310, 1280, 1240, 1200, 1080, 1030, 930, 840, 790, 780, 760, 700, 620, 560 cm^{-1}; ^{1}HNMR(300M,$CDCl_3$): 2.61(3H, s, $COCH_3$), 6.95-7.01(2H, m, ArH), 7.30-7.62(8H, m), 7.98-8.01(2H, m), 8.30-8.33(1H, d, J=8.1); MS: 401(M^+, 30.1), 359(56.9), 330(35.0), 248(8.2), 220(24.2), 191(11.9), 171(14.3), 165(23.8), 139(100), 111(41.6), 43(59.2); Found: C, 71.78, H, 3.97, N, 3.39. $C_{24}H_{16}O_3NCl$ requires C, 71.73, H, 3.99, N, 3.49.

6. Colorless prisms from ethyl acetate. m.p. 270-272°C; IR (KBr): 1805, 1750, 1718, 1600, 1460, 1365, 1335, 1310, 1270, 1170, 1015, 940, 760, 700 cm^{-1}; ^{1}HNMR(500M,$CDCl_3$): 2.41(3H, s, $COCH_3$), 2.71(3H, s, $COCH_3$), 5.41(1H, s), 7.10(2H, d, J=7.2, ArH), 7.18-7.39(7H, m, ArH), 7.59(2H, m, ArH), 7.92(1H, d, J=8.0, ArH), 8.03(1H, d, J=8.0, ArH); MS: 367(0.2), 352(0.9), 291(26), 263(45), 221(100); Found: C, 70.09, H, 4.32, N, 6.02. $C_{28}H_{20}N_2O_6$ requires C, 70.00, H, 4.17, N, 5.83.

7. colorless needles from petroleum ether (60-90°)/ethyl acetate. m.p. 179°C; IR (KBr): 1800, 1770, 1720, 1600, 1460, 1370, 1340, 1310, 1280, 1180, 1018, 932, 770, 700 cm^{-1}; ^{1}HNMR(500M,$CDCl_3$): 2.51(3H, s, $COCH_3$), 2.82(3H, s, $COCH_3$), 5.80(1H, s), 6.79(1H, d, J=7.5, ArH), 6.85(1H, t, J=7.5, ArH), 7.10-7.33(8H, m, ArH), 7.63(1H, d, J=6.7, ArH), 7.84(1H, d, J=7.7, ArH), 8.18(1H, d, J=8.3, ArH); MS: 352(0.9), 291(26), 263(41), 221(100); Found: C, 70.12, H, 4.09, N, 5.63. $C_{28}H_{20}N_2O_6$ requires C, 70.00, H, 4.17, N, 5.83.

*Crystal Structure of compound **4a***

$C_{24}H_{17}NO_3$, M = 367.39 triclinic, space group P-1 with a = 8.2328(2), b = 16.7881(5), c = 12.5486(6) Å , α = 83.112(2)°, β = 86.853(2)°, γ = 79.392(2)°, V = 919.21(6) Å ^{3}, z = 2, Dc = 1.327 g cm^{-3}. Absorption coefficient 0.088 mm^{-1}, F(000) = 384. A yellow block shaped crystal of 0.46 ×0.28×0.24mm was used. Data were collected on a Siemens SMART CCD area detector diffractometer equipped with graphite-monochromatized Mo Kα in the range of θ 2.96 -28.37°. The structure was solved by direct method SHELXL-97 and refined on F^2 by full-matrix least-squares method. A total of 4484 independent reflections [R (int) =0.0750] were used in the refinement which converged with R = 0.1357 and wR = 0.3221.

*Crystal Structure of compound **4d***

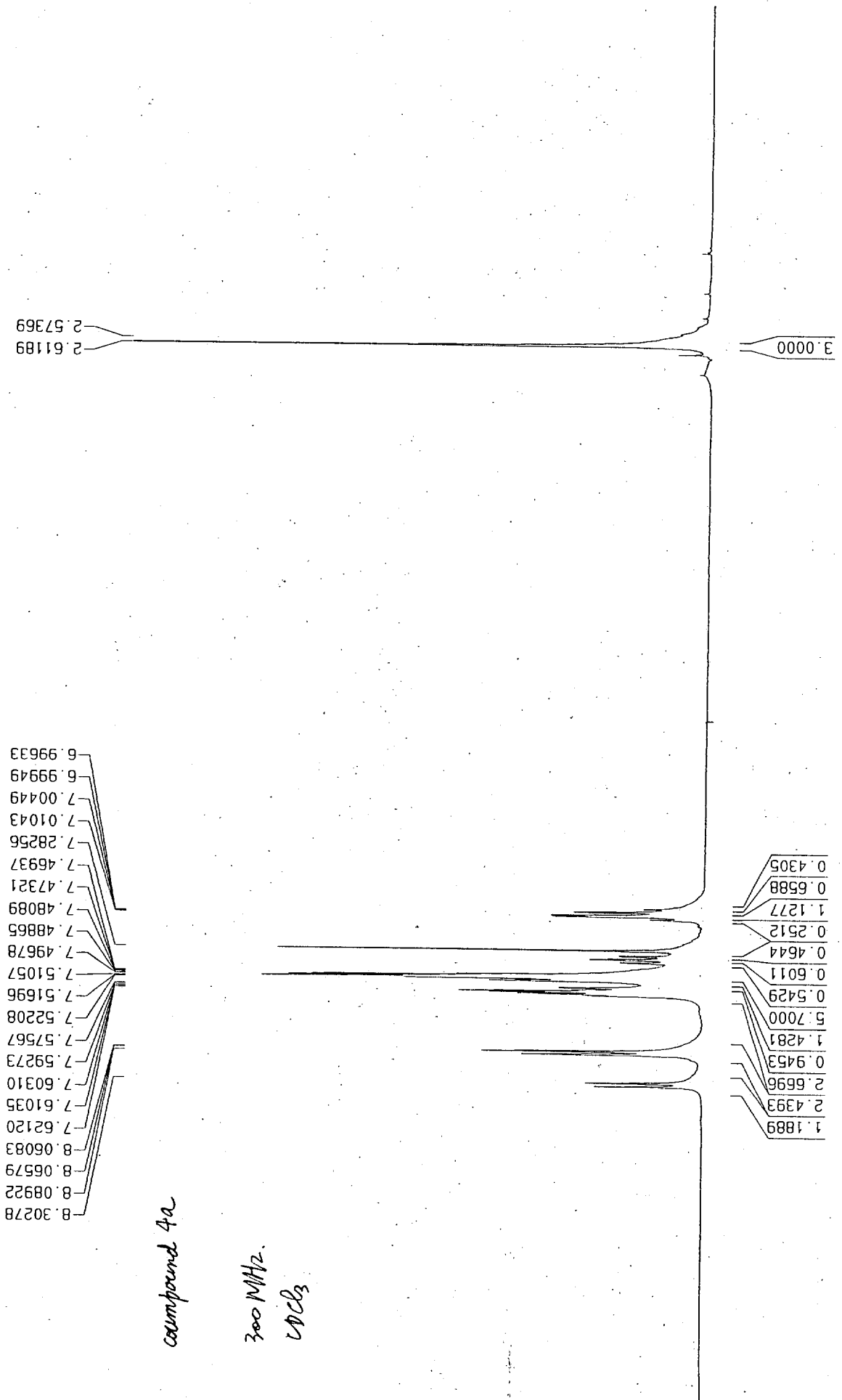
$C_{24}H_{17}NO_3$, M = 397.41 monoclinic, space group P 21/c with a = 8.0395(3), b = 9.1233(4), c = 14.8438(5)) Å , α = 90°, β = 96.954(1)°, γ = 90°, V = 1988.70(12) Å ^{3}, z = 4, Dc = 1.327 g cm^{-3}. Absorption coefficient 0.090 mm^{-1}, F(000) = 832. A yellow block shaped crystal of 0.34 ×0.26×0.22mm was used. Data were collected on a Siemens SMART CCD area detector diffractometer equipped with graphite-monochromatized Mo Kα in

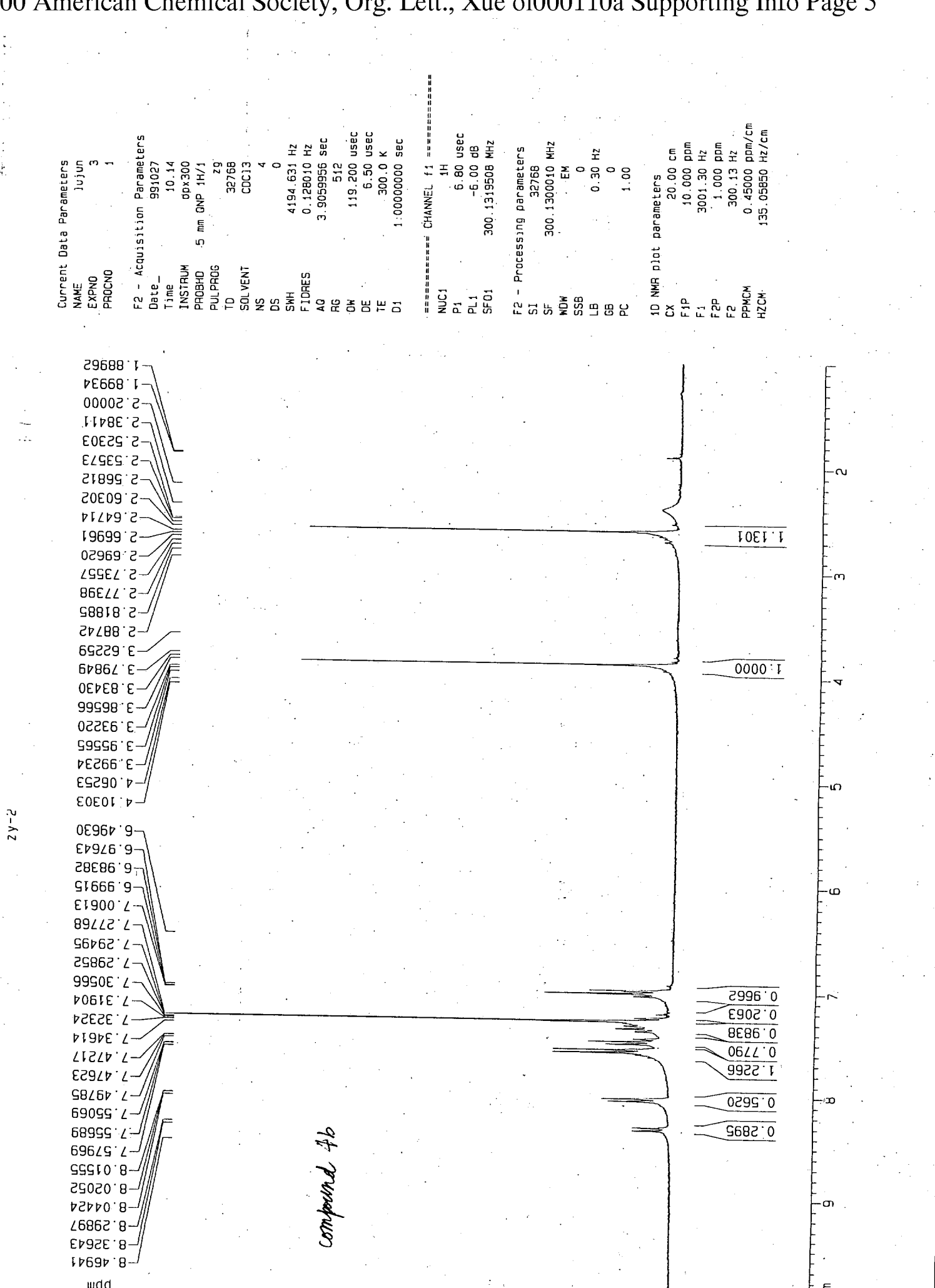
the range of θ 1.84-28.35°. The structure was solved by direct method SHELXL-97 and refined on F^2 by full-matrix least-squares method. A total of 13747 independent reflections [R (int) =0.0693] were used in the refinement which converged with R = 0.0566 and wR = 0.1393.

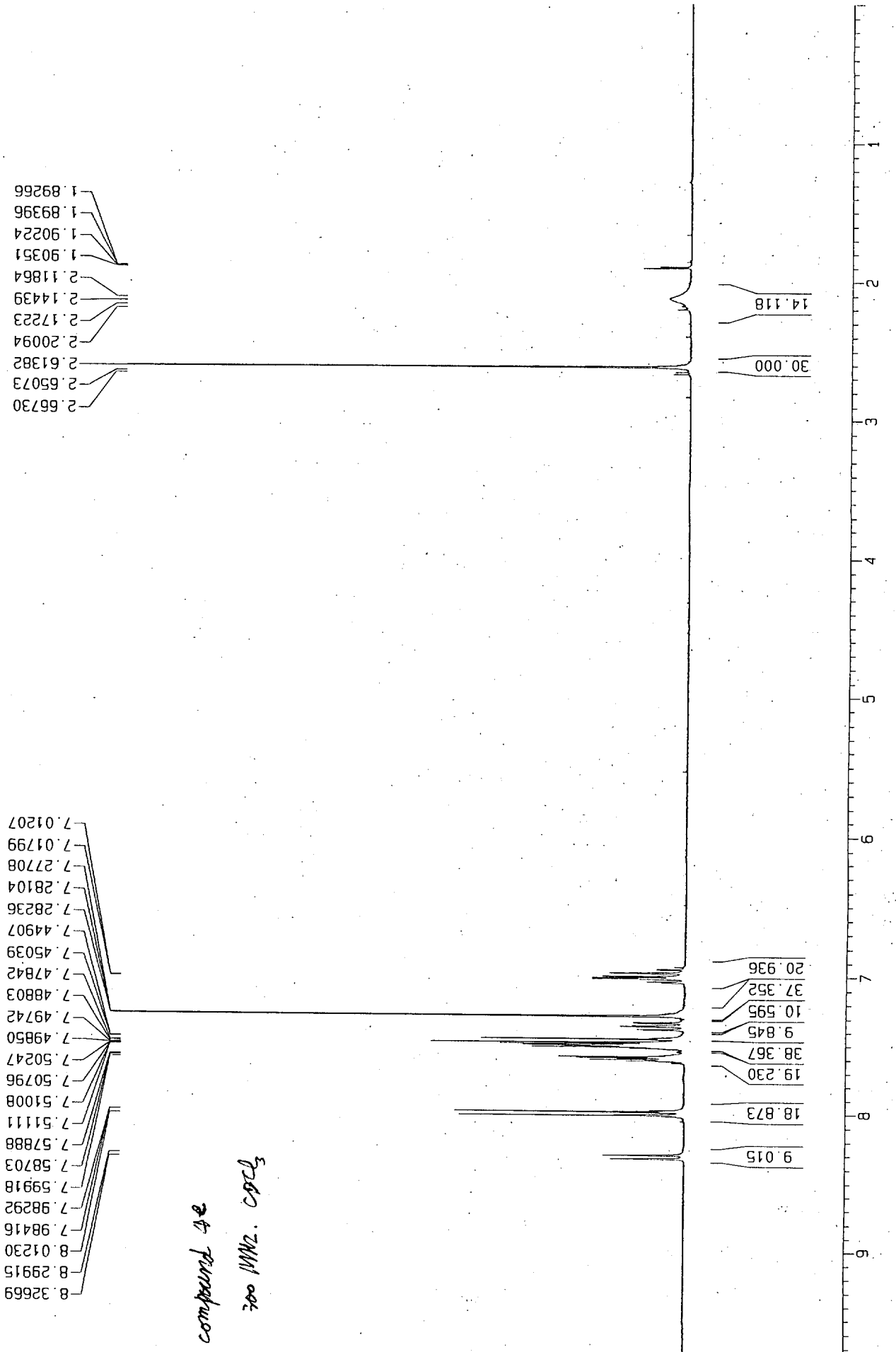
Crystal Structure of compound 6

$C_{28}H_{20}N_2O_6$, M = 480.48. Monoclinic, space group P21/c with a = 13.20(2), b = 12.246(4), c = 14.176(3) Å , α = 90°, β = 90.90(5) °, γ = 90°, V = 2290.7400 Å ^{3}, z = 4, Dc = 1.393 g cm^{-3}. Absorption coefficient 0.099 mm^{-1}, F(000) = 1000. A colorless prismatic shaped crystal of 0.400×0.300×0.300 mm was used. Data were collected on an Rigaku RAXISIV detector diffractometer equipped with graphite-monochromatized Mo Kα in the range of θ 2-27°. The structure was solved by direct method (SHELXS86) and refined on F^2 by full-matrix least-squares method. A total of 4222 independent reflections [R (int) =0.086] were used in the refinement which converged with R = 0.0722 and wR = 0.1043.

[3]. ^{1}H NMR spectra of compounds **4a**, **4b**, **4e**, **6** and **7**.






compound 4e
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7.50247
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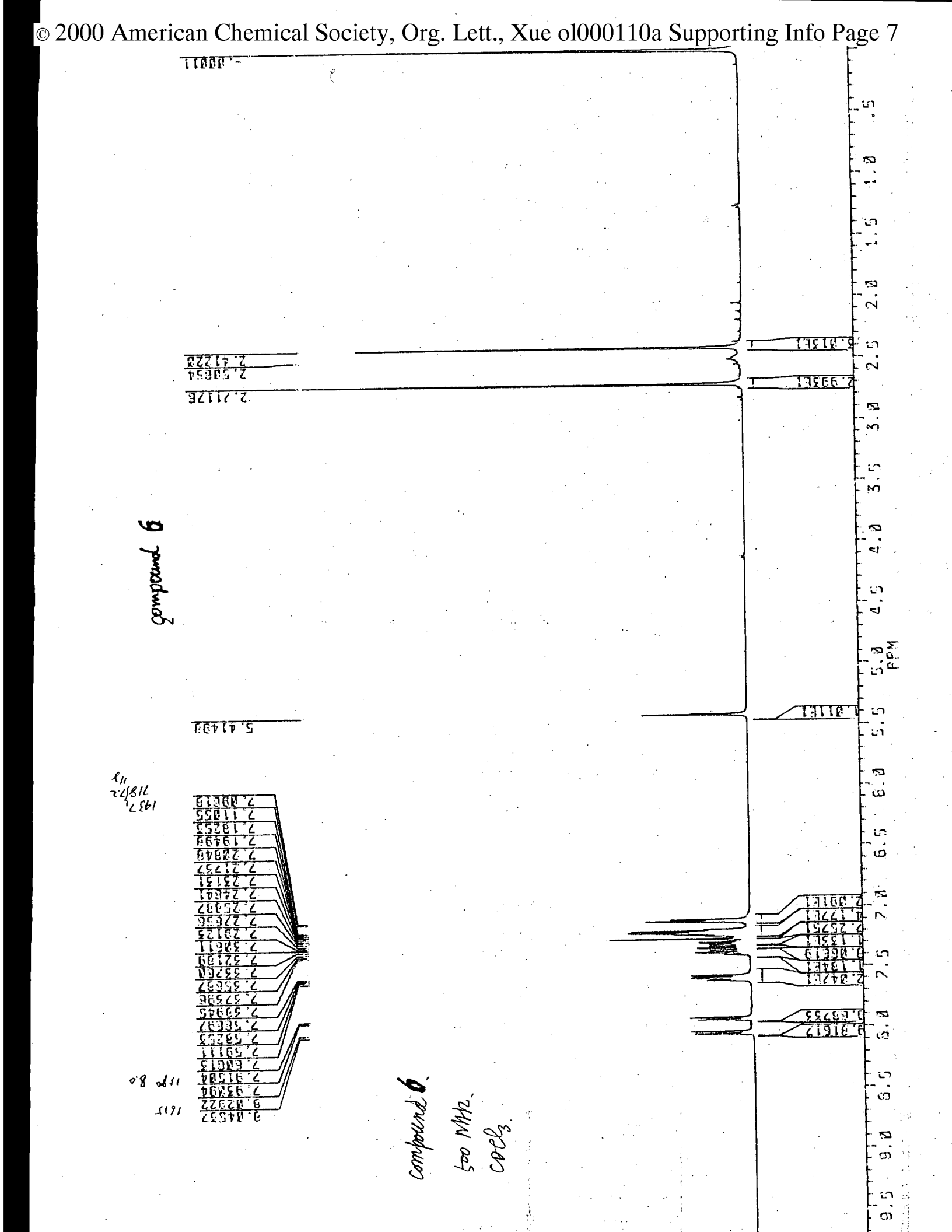

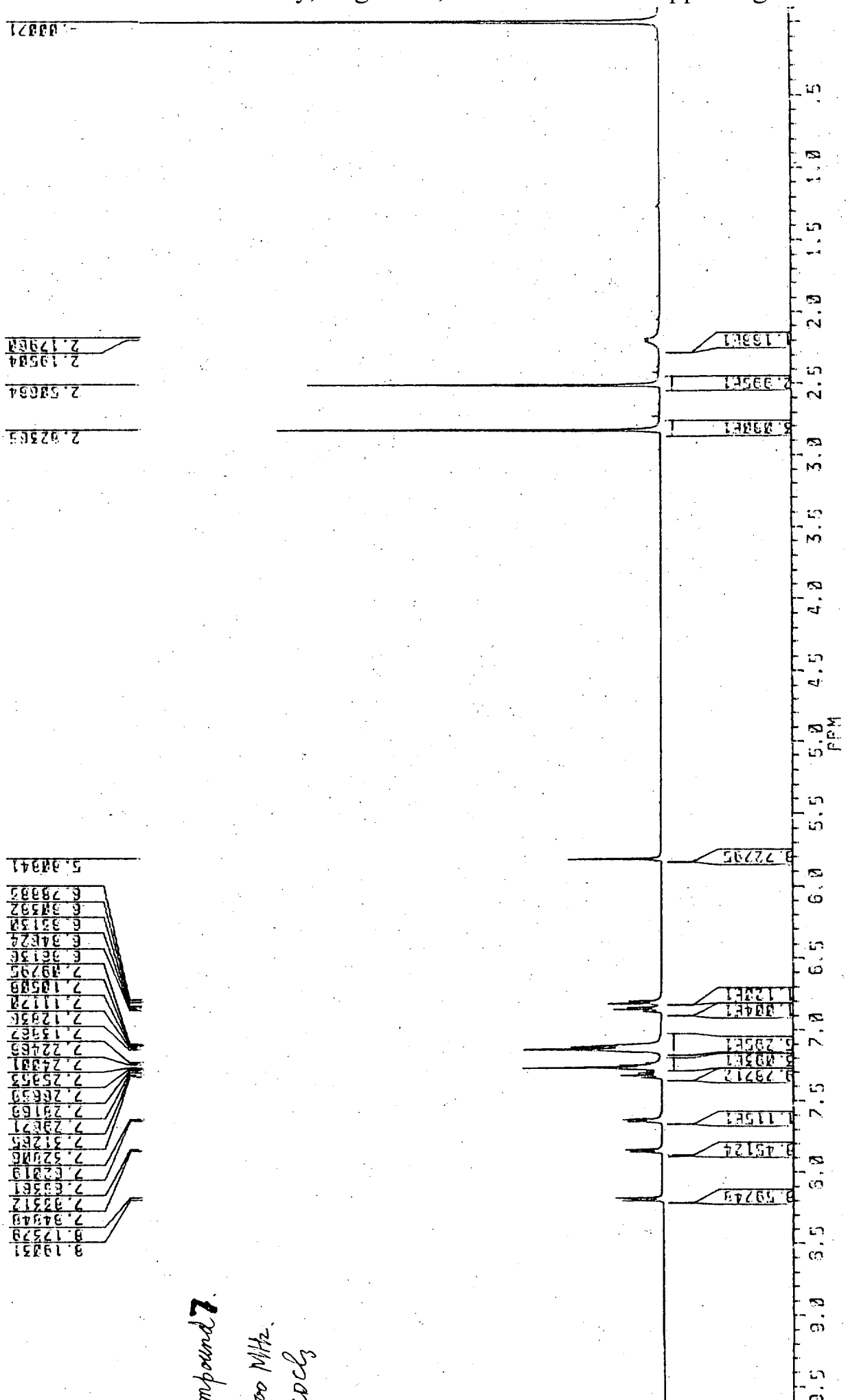

Compound 7.
300 MHz.
$CDCl_3$