Supporting information Available

General Experimental Methods.

Melting points were determined using a hot-stage melting point apparatus and are uncorrected. Infrared spectra were recorded on a FT-IR spectrophotometer as potassium bromide disks of solids (KBr) or as thin films of liquids (neat) between sodium chloride plates. Nuclear magnetic resonance spectra (^{1}H, ^{31}P and ^{13}C NMR) were recorded on either 300 or 400 MHz spectrometers. ^{1}H and ^{13}C NMR assignments were confirmed using standard 2D COSY, NOESY, HSQC, and HMBC experiments. Low resolution electrospray ionisation (ESI) were recorded in the positive mode (ESI^{+}) on a QMS-quadrupole mass spectrometer. Accurate mass measurements were obtained at high resolution with a FTMS and a 4.7T superconducting magnet. The instrument was externally calibrated with FC5311. Analytical thin-layer chromatography (TLC) was performed on plastic slides coated with silica gel (Polygram SIL g/uv254). Flash chromatography was performed using Merck silica gel 60 (Merck no. 9385), 0.063-0.200 mm (230-400 mesh). Solvents were purified according to standard procedures. Chloroform used for optical rotations was of analytical purity. Degassed methanol and benzene were used in all hydrogenation reactions. Degassed dichloromethane was used in metathesis reactions. Deuterated chloroform was used as supplied. Deuterated dichloromethane was degassed by three freeze-pump-thaw cycles. Grubbs' catalyst refers to bis(tricyclohexylphosphine)benzylidene ruthenium dichloride.[18] Second generation Grubbs' catalyst refers to tricyclohexylphosphine[1,3-bis(2,4,6-trimethylphenyl)-4,5-dihydroimidazol-2-ylidene][benzylidene]ruthenium dichloride.[19] Wilkinson's catalyst refers to chlorotris(triphenylphosphine)rhodium (I).[23] Rh(I)-(*S*,*S*)-Et-DuPHOS refers to (+)-1,2-bis[(2*S*,5*S*)-2,5-diethylphospholano]benzene(1,5-cyclooctadiene)rhodium(I) tetrafluoroborate.[20] Rh(I)-(*R*,*R*)-Et-DuPHOS refers to (-)-1,2-bis[(2*R*,5*R*)-2,5-diethylphospholano]benzene(1,5-cyclooctadiene)rhodium(I) tetrafluoroborate.[20] All ruthenium-catalysed metathesis reactions were performed using standard Schlenk techniques under an atmosphere of nitrogen or in an argon filled drybox. Solvents were dried and degassed using standard procedures. In all rhodium-phosphine hydrogenations, high purity (<10 ppm of

oxygen) hydrogen and argon were used and purified by passage through a series of traps to remove water, oxygen and hydrocarbons. Ethylene and *cis*-2-butene were used as supplied. The enantiomeric excess of hydrogenation products was determined *via* analytical gas chromatography (GC) using a chiral column Model C-024 (column: 0.25 mm x 50 cm, 50CP2/XE60-SVALSAPEA) using helium as the carrier gas. Optical rotations were measured with a polarimeter (in a cell length of 1 dm) at a wavelength of 589 nm (sodium D line) at a temperature of 22ºC.

(2*R*)-Methyl 2*N*-acetylaminopent-4-enoate (*ent*-4).[16] (2*Z*)-Methyl 2*N*-acetylaminopenta-2,4-dienoate **3** (40.0 mg, 0.24 mmol), benzene (5 ml), [(COD)Rh(*R,R*)-Et-DuPHOS]OTf (3 mg), 30 psi H_2, 3 h, 88% yield, 96% ee (2*R*-**4**), t_R = 16.4 min (*R*) (GC chiral column Model C-024, 100ºC for 1 min, 5ºC min^{-1} to 280ºC for 9 min). $[\alpha]^{22}_D$ -43.0º (c = 0.47, $CHCl_3$). Spectral data were consistent with literature data.[16]

(2*S*)-Methyl 2*N*-benzoylaminopent-4-enoate (6).[32] (2*Z*)-Methyl 2*N*-benzoylaminopenta-2,4-dienoate (100.0 mg, 0.43 mmol), benzene (8 ml), [(COD)Rh(*S,S*)-Et-DuPHOS]OTf (3 mg), 30 psi H_2, 3 h, 99% yield, 100% ee (2*S*-**6**), t_R = 27.0 min (GC chiral column Model C-024, 180ºC for 1 min, 2ºC min^{-1} to 210ºC for 20 min). $[\alpha]^{22}_D$ +49.3º (c = 1.12, $CHCl_3$). Spectral data were consistent with literature data.[32]

(2*R*)-Methyl 2*N*-benzoylaminopent-4-enoate (*ent*-6).[32] (2*Z*)-Methyl 2*N*-benzoylaminopenta-2,4-dienoate (100.0 mg, 0.43 mmol), benzene (8 ml), [(COD)Rh(*R,R*)-Et-DuPHOS]OTf (3 mg), 30 psi H_2, 3 h, 93% yield, 100% ee (2*R*-**6**), t_R = 26.4 min (GC chiral column Model C-024, 180ºC for 1 min, 2ºC min^{-1} to 210ºC for 20 min). $[\alpha]^{22}_D$ -49.7º (c = 0.64, $CHCl_3$). Spectral data were consistent with literature data.[32]

(2*S*)-Methyl 2*N*-acetylamino-5-phenylpent-4-enoate (13).[30] (2*Z*)-Methyl 2*N*-acetylamino-5-phenylpenta-2,4-dienoate **12** (28.0 mg, 0.11 mmol), methanol (5 ml), [(COD)Rh(*S,S*)-Et-DuPHOS]OTf (1 mg), 75 psi H_2, 2 h, 97% yield, 99% ee (2*S*-**13**). $[\alpha]^{22}_D$ +90.0º (c = 0.64, $CHCl_3$). Spectral data were consistent with literature data.[30]

(2*R*)-Methyl 2*N*-acetylamino-5-phenylpent-4-enoate (*ent*-13).[30] (2*Z*)-Methyl 2*N*-acetylamino-5-phenylpenta-2,4-dienoate **12** (27.4 mg, 0.11 mmol), methanol (5 ml), [(COD)Rh(*R,R*)-Et-DuPHOS]OTf (1 mg), 75 psi H_2, 2 h, 92% yield, 99% ee (2*R*-**13**). $[\alpha]^{22}_D$ –89.8º (c = 1.03, $CHCl_3$). Spectral data were consistent with literature data.[30]

(2*S*)-Methyl 2*N*-acetylamino-5-methylhex-4-enoate (15). (2*Z*)-Methyl 2*N*-acetylamino-5-methylhexa-2,4-dienoate **16** (74.0 mg, 0.38 mmol), methanol (5 ml), [(COD)Rh(*S,S*)-Et-DuPHOS]OTf (2 mg), 75 psi H_2, 2 h, 98% yield, 100% ee (2*S*-**15**), t_R = 24.2 min (GC chiral column Model C-024, 100ºC for 1 min, 5ºC min^{-1} to 210ºC for 7 min). $[\alpha]^{22}_D$ +58.2º (c = 0.79, $CHCl_3$), m.p. 46-48ºC. ν_{max} (neat): 3288m, 2955w, 1746s, 1660s, 1538m, 1436m, 1377m, 1274w, 1210w, 1126w, 1030w, 736w cm^{-1}. ^{1}H NMR (300 MHz, $CDCl_3$): δ 1.59 (s, 3H, H6a), 1.69 (d, *J* 0.9 Hz, 3H, H6b), 2.00 (s, 3H, CH_3CO), 2.39-2.60 (m, 2H, H3), 3.72 (s, 3H, OCH_3), 4.63 (dt, *J* 7.9, 5.6 Hz, 1H, H2), 4.99 (t, *J* 7.5 Hz, 1H, H4), 6.02 (bs, 1H, NH). ^{13}C NMR. (100 MHz, $CDCl_3$): δ 18.0, 26.0, ($(CH_3)_2$), 23.3 (CH_3CO), 30.8 (C3), 52.2, 52.4 (C2, OCH_3), 117.6 (C4), 136.6 (C5), 169.8, 172.8 (C1, CONH). HRMS (ESI^+, MeOH): *m/z* calcd for $C_{10}H_{17}NO_3Na$ [$(M+Na)^+$] 222.1106, found 222.1105.

(2*R*)-Methyl 2*N*-acetylamino-5-methylhex-4-enoate (*ent*-15). (2*Z*)-Methyl 2*N*-acetylamino-5-methylhexa-2,4-dienoate **16** (24.5 mg, 0.12 mmol), methanol (5 ml), [(COD)Rh(*R,R*)-Et-DuPHOS]OTf (1 mg), 75 psi H_2, 2 h, 100% yield, 100% ee (2*R*-**15**), t_R = 23.9 min (GC chiral column Model C-024, 100ºC for 1 min, 5ºC min^{-1} to 210ºC for 7 min). $[\alpha]^{22}_D$ -58.3º (c = 0.53, $CHCl_3$). Spectral data were consistent with that previously obtained.

(2*S*,7*S*)-Dimethyl 2,7-*N,N'*-dibenzoylamino-oct-4-enedioate (7). (2*S*)-Methyl 2*N*-benzoylaminopent-4-enoate **6** (49.0 mg, 0.21 mmol), dichloromethane (4 ml), 2nd generation Grubbs'

catalyst (18.0 mg, 0.02 mmol, 10 mol%), 12 h, 50°C, 100% conversion. Purification by flash chromatography (SiO_2, dichloromethane : light petroleum : ethyl acetate, 1:1:1) gave pure dimer **7** (32.8 mg, 36%) as a pale brown solid, m.p. 140-142ºC. t_R (*E*/*Z*) = 13.5, 13.9 min (GC column 30QC5/BPX5), 150ºC for 1 min, 10ºC min^{-1} to 280ºC for 6 min). $[\alpha]^{22}_D$ +56.4º (c = 0.27, $CHCl_3$). ν_{max} (neat): 3322bm, 2953m, 2358w, 1742s, 1644s, 1603w, 1580w, 1538m, 1488m, 1436m, 1267w, 1218m, 1027w, 973w, 802w, 736m cm^{-1}. ^{1}H NMR (300 MHz, $CDCl_3$): δ 2.57-2.69 (m, 4H, H3,6), 3.67 (s, 6H, OCH_3), 4.85-4.98 (m, 2H, H2,7), 5.49 (t, *J* 4.1 Hz, 2H, H4,5), 6.86 (bd, *J* 7.4 Hz, 2H, NH), 7.40-7.44 (m, 4H, H3',5'), 7.48-7.52 (m, 2H, H4'), 7.81-7.83 (m, 4H, H2',6'). ^{13}C NMR (100 MHz, $CDCl_3$): δ 35.2 (C3,6), 52.5 (C2,7), 52.6 (OCH_3), 127.2 (C2',6'), 128.7 (C3',5'), 128.8 (C4,5), 131.9 (C4'), 133.9 (C1'), 167.1, 172.4 (C1,8, CONH). HRMS (ESI^+, MeOH): *m*/*z* calcd for $C_{24}H_{26}N_2O_6Na$ [$(M+Na)^+$] 461.1689, found 461.1695.

Attempted dimerisation of (2*S*)-methyl 2*N*-acetylamino-5-phenylpent-4-enoate (13). *Trial 1*: (2*S*)-Methyl 2*N*-acetylamino-5-phenylpent-4-enoate **13** (59.3 mg, 0.24 mmol), dichloromethane (10 ml), Grubbs' catalyst (19.8 mg, 0.02 mmol, 10 mol%), 13 h, 50°C, 0% conversion of **13** into dimer **5**. *Trial 2*: (2*S*)-Methyl 2*N*-acetylamino-5-phenylpent-4-enoate **13** (59.3 mg, 0.24 mmol), dichloromethane (7 ml), 2nd generation Grubbs' catalyst (10.2 mg, 0.01 mmol, 5 mol%), 20 h, 50°C, 33% conversion of **13** into dimer **5**.

Dimerisation of (2*S*)-Methyl 2*N*-acetylaminohex-4-enoate (17). (2*S*)-Methyl 2*N*-acetylaminohex-4-enoate **17** (17.0 mg, 0.09 mmol), dichloromethane (4 ml), 2nd generation Grubbs' catalyst (4.2 mg, 0.005 mmol, 5 mol%), 17 h, 50°C, 100% conversion into dimer **5**. Spectroscopic data were in agreement with that previously obtained.

Cross metathesis of (2*S*)-methyl 2*N*-acetylaminopent-4-enoate (4) in the presence of (2*S*)-methyl 2*N*-acetylaminopenta-2,4-dienoate (3). (2*S*)-Methyl 2*N*-acetylamino-pent-4-enoate **4** (34.0 mg, 0.20 mmol), (2*Z*)-methyl 2*N*-acetylamino-penta-2,4-dienoate **3** (33.6 mg, 0.20 mmol), dichloromethane (4 ml), Grubbs' catalyst (16.3 mg, 0.02 mmol, 10 mol%), 18 h, 50°C. The ^{1}H NMR spectrum displayed peaks characteristic of the starting allylglycine derivative **4** and dienamide **3** but no peaks characteristic of expected dimer **5**. The mass spectrum displayed peaks attributed to allylglycine derivative **4** and tricyclohexylphosphine-dienamide conjugate addition adduct. Mass Spectrum (ESI^{+}, DCM/MeOH): *m/z* 194.1 $C_8H_{13}NO_3Na$ [$(M+Na)^{+}$], **4**. *m/z* 450.4 $C_{26}H_{45}NO_3P^{+}$ [M^{+}], tricyclohexylphosphine-dienamide adduct.

Cross metathesis of (2*S*)-methyl 2*N*-acetylaminopent-4-enoate (4) in the presence of (2*S*)-methyl 2*N*-acetylamino-5-phenylpenta-2,4-dienoate (12). (2*S*)-Methyl 2*N*-acetylaminopent-4-enoate **4** (18.1 mg, 0.11 mmol), (2*Z*)-methyl 2*N*-acetylamino-5-phenylpenta-2,4-dienoate **12** (26.1 mg, 0.11 mmol), dichloromethane (4 ml), Grubbs' catalyst (8.7 mg, 0.01 mmol, 10 mol%), 18 h, 50°C, 28% conversion of **4** into dimer **5**. Dienamide **12** did not react under these conditions.

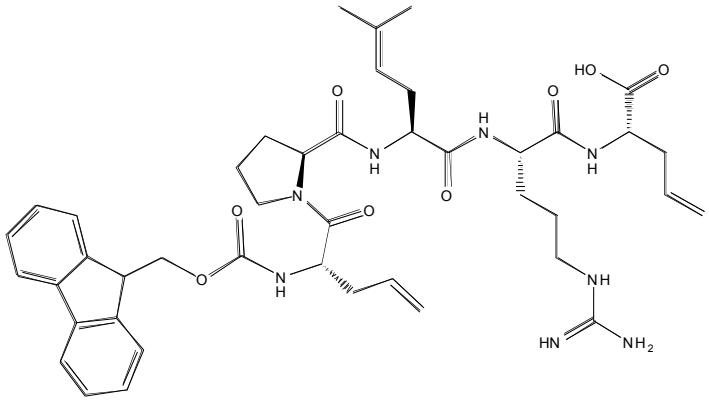
Cross metathesis of (2*S*)-Methyl 2*N*-acetylaminopent-4-enoate (4) in the presence of (2*S*)-Methyl 2*N*-acetylamino-5-methylhex-4-enoate (15). (2*S*)-Methyl 2*N*-acetylaminopent-4-enoate **4** (12.7 mg, 0.07 mmol), (2*S*)-methyl 2*N*-acetylamino-5-methylhex-4-enoate **15** (12.0 mg, 0.07 mmol), dichloromethane (4 ml), Grubbs' catalyst (11.5 mg, 0.01 mmol, 20 mol%), 18 h, 50°C, 100% conversion of **4** into dimer **5**. **15** did not react under these conditions.

Wilkinson's hydrogenation of Dimer (7). (2*S*,7*S*)-Dimethyl 2,7-*N,N'*-dibenzoylamino-octanedioate (18). (2*S*,7*S*)-Dimethyl 2,7-*N,N'*-dibenzoylamino-octa-4-enedioate **7** (20.0 mg, 0.05

mmol), benzene (5 ml), Wilkinson's catalyst (2 mg), 50 psi H_2, 4 h, 100% of **18** as a brown oil. t_R = 17.2 min (GC: Column 30QC5/BPX5, 150ºC for 1 min, 10ºC min^{-1} to 280ºC for 6 min). ν_{max} (neat): 3055m, 2986w, 2955w, 1741s, 1662s, 1603w, 1580w, 1518m, 1486m, 1438s, 1359w, 1286s, 1182m, 1120m, 1028w, 896m cm^{-1}. ^{1}H NMR (300 MHz, $CDCl_3$): δ 1.35-1.53 (m, 4H, H4,5), 1.80-2.02 (m, 4H, H3,6), 3.78 (s, 3H, OCH_3), 4.82 (dt, *J* 7.4, 5.3 Hz, 1H, H2,7), 6.73 (bd, *J* 7.7 Hz, 2H, NH), 7.40-7.49 (m, 6H, H3',4',5'), 7.78-7.82 (m, 4H, H3',5'). ^{13}C NMR (100 MHz, $CDCl_3$): δ 24.9 (C4,5), 32.6 (C3,6), 52.5, 52.7 (C2, OCH_3), 127.2 (C2',6'), 128.6 (C3',5'), 131.9 (C4'), 134.1 (C1'), 167.2, 173.2 (C1,8, CONH). HRMS (ESI$^+$, MeOH): m/*z* calcd for $C_{24}H_{28}N_2O_6Na$ [(M+Na)$^+$] 463.1845, found: 463.1842

Wilkinson's hydrogenation of (2*S*)-methyl 2*N*-acetylamino-5-phenylpenta-2,4-dienoate (12). (2*S*)-Methyl 2*N*-acetylamino-5-phenylpenta-2,4-dienoate **12** (11.5 mg, 0.05 mmol), benzene (5 ml), Wilkinson's catalyst (1 mg), 50 psi H_2, 4 h, 99% yield of a 1:4 mixture of 13:14 as a brown oil. This mixture was subjected to the hydrogenation conditions previously described which led to 100% conversion into **14**.[34]. t_R = 10.8 min (GC column 30QC5/BPX5, 150ºC for 1 min, 10ºC min^{-1} to 280ºC for 6 min). ν_{max} (neat): 3054m, 2956m, 1736m, 1676m, 1509w, 1438m, 1372w, 1265s, 1174w, 1120m, 1028w, 738s cm^{-1}. ^{1}H NMR (300 MHz, $CDCl_3$): δ 1.53-1.65 (m, 4H, H3,4), 1.94 (s, 3H, CH_3CO), 2.52-2.59 (m, 2H, H5), 3.65 (s, 3H, OCH_3), 4.54-4.63 (m, 1H, H2), 5.90 (bd, *J* 7.2 Hz, 1H, NH), 7.07-7.29 (m, 5H, AromCH). ^{13}C NMR (75 MHz, $CDCl_3$): δ 23.3 (CH_3CO), 27.2 (C4), 32.3 (C3), 35.5 (C5), 52.1, 52.5 (C2, OCH_3), 126.1, 128.5, 132.2 (Arom CH), 141.7, (Arom C), 169.9, 173.2 (C1, CONH). Mass Spectrum (ESI$^+$, MeOH): *m/z* 272.2 $C_{14}H_{19}NO_3Na$ [(M+Na)$^+$].

Linear Pentapeptide: Fmoc-Hag-Pro-Pre-Arg-Hag-OH



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The procedure outlined in the General Section was used to attach the first amino acid, Fmoc-Hag-OH, to Wang resin. Quantities of the resin and coupling reagents are presented in Table 1. The first coupling reaction was shaken for 14 h.

Table 1 Quantities of Reagents used in the Synthesis of Fmoc-Hag-Pro-Pre-Arg-Hag-OH

Reagent	*Mass (mg) or Volume (μl)*	*Mole (mmol)*
Wang Resin	212 mg	0.19
Fmoc-L-Hag-OH	195 mg	0.58
DIC	90.6μl	0.58
DMAP	7.1 mg	0.06

The procedure outlined in the General Section was used for subsequent coupling reactions in the synthesis of pentapeptide Fmoc-Hag-Pro-Pre-Arg-Hag-OH. Quantities of the coupling reagents HATU and NMM are tabulated below (Table 2) and remained constant throughout the synthesis. The quantities of successive amino acids and their reaction durations are detailed in Table 3.

Table 2 Quantities of Coupling Reagents used in the Synthesis of Fmoc-Hag-Pro-Pre-Arg-Hag-OH

Coupling Reagent	*Mass (mg) or Volume (ml)*	*Mole (mmol)*
HATU	147 mg	0.39
NMM	128 μl	1.16

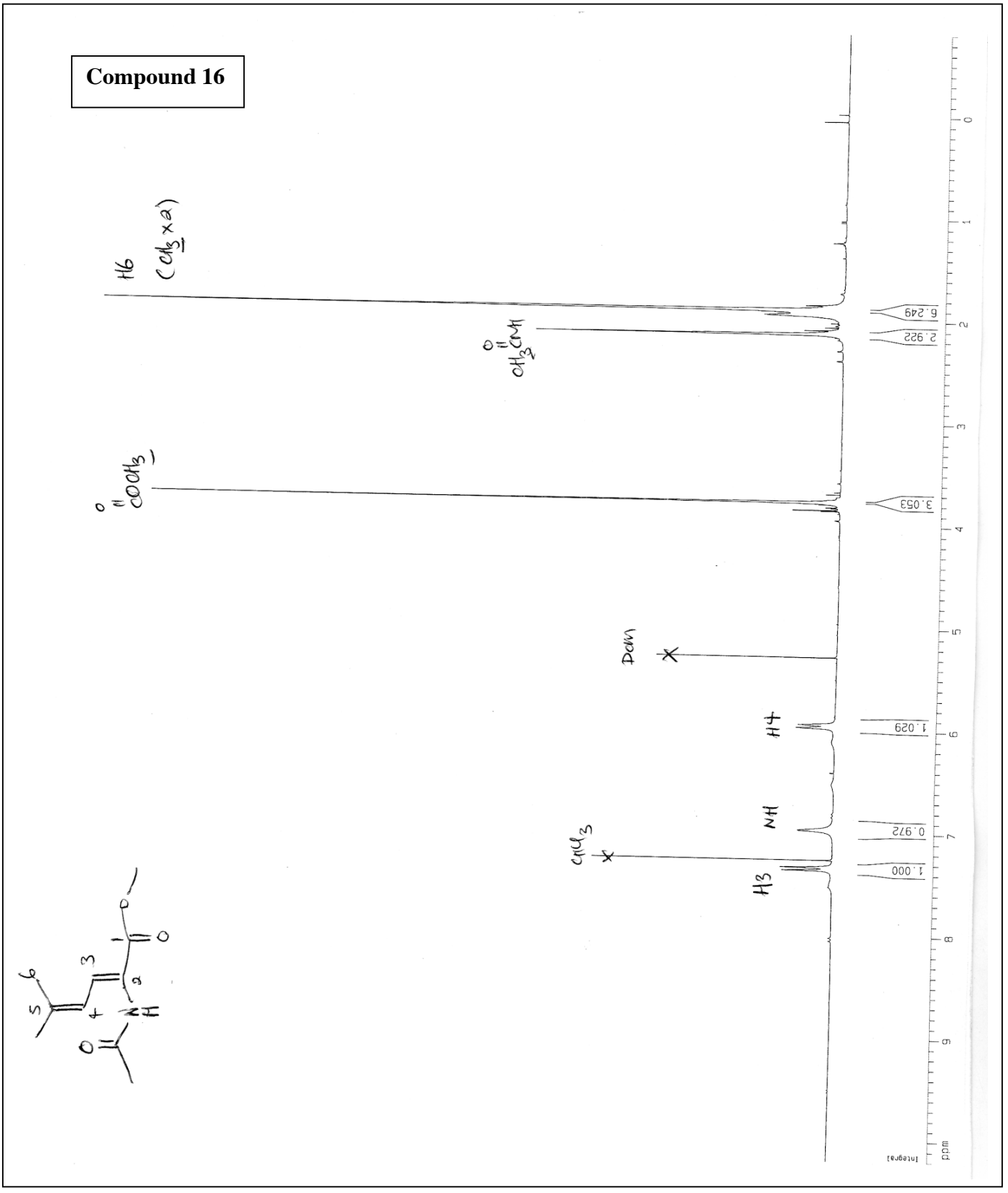
Table 3 Quantities of Amino Acids used in the Synthesis of Fmoc-Hag-Pro-Pre-Arg-Hag-OH

Amino Acid	*Mass (mg)*	*Mole (mmol)*	*Reaction Time (h)**
Fmoc-L-Arg(Pbf)-OH	376	0.58	2
Fmoc-L-Pre-OH	211	0.58	3
Fmoc-L-Pro-OH	196	0.58	6
Fmoc-L-Hag-OH	195	0.58	2

* *Note:* Reaction times have not been optimised.

After the final amino acid coupling, a small aliquot of peptidyl-resin was subjected to the TFA-mediated cleavage procedure described in the General Section. Mass spectral analysis of the isolated residue confirmed formation of the linear pentapeptide (**19**). Mass spectrum (ESI^+, $MeCN/H_2O$): *m/z* 813.6 $(M+H)^+$, $C_{43}H_{57}N_8O_8$.requires 813.4; *m/z* 831.5 $(M+H_2O+H)^+$, $C_{43}H_{59}N_8O_9$ requires 831.4; *m/z* 927.6 $(M+TFA+H)^+$, $C_{45}H_{58}F_3N_8O_{10}$ requires 927.4.

Compound 16



Compound 16

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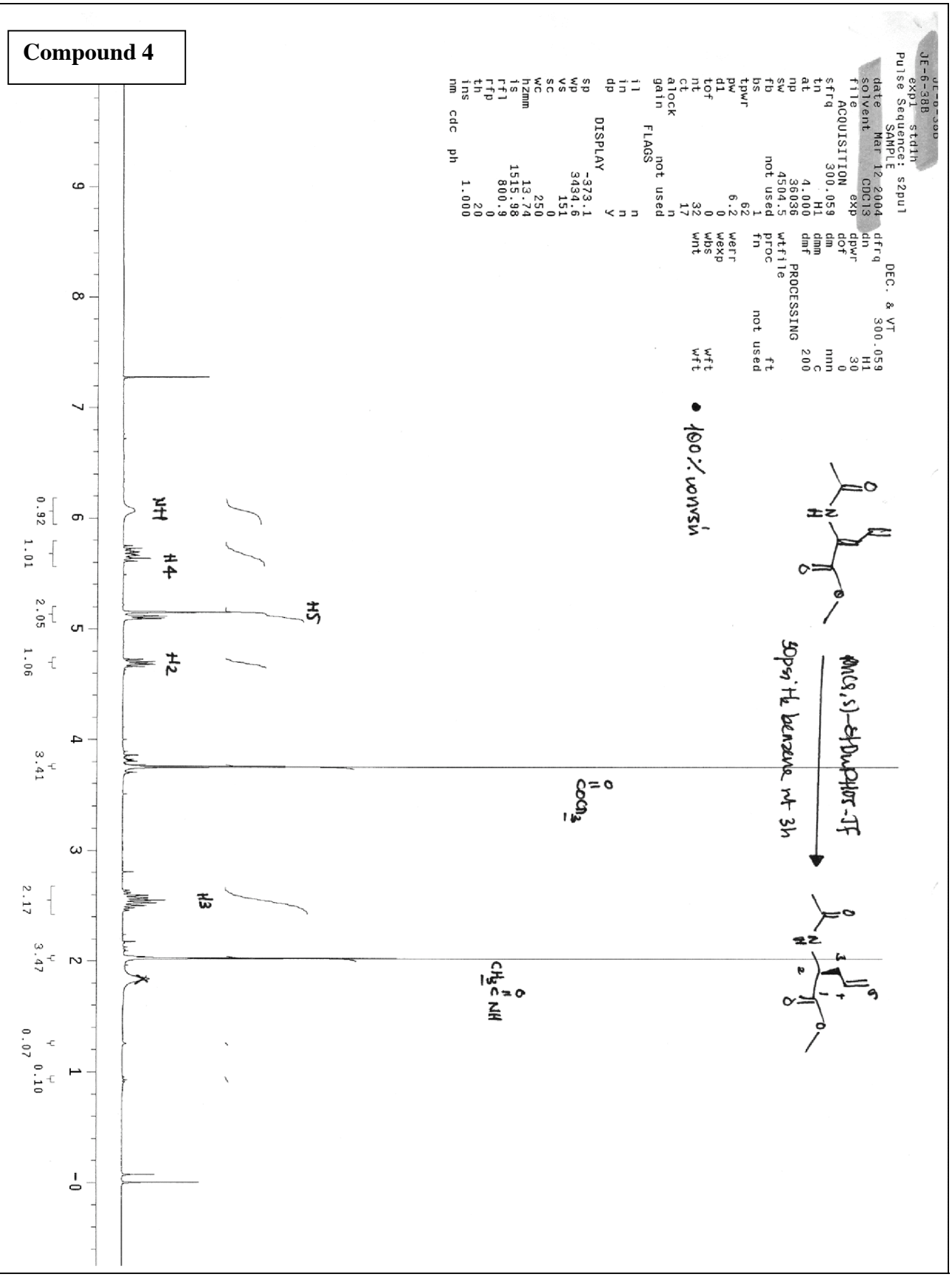
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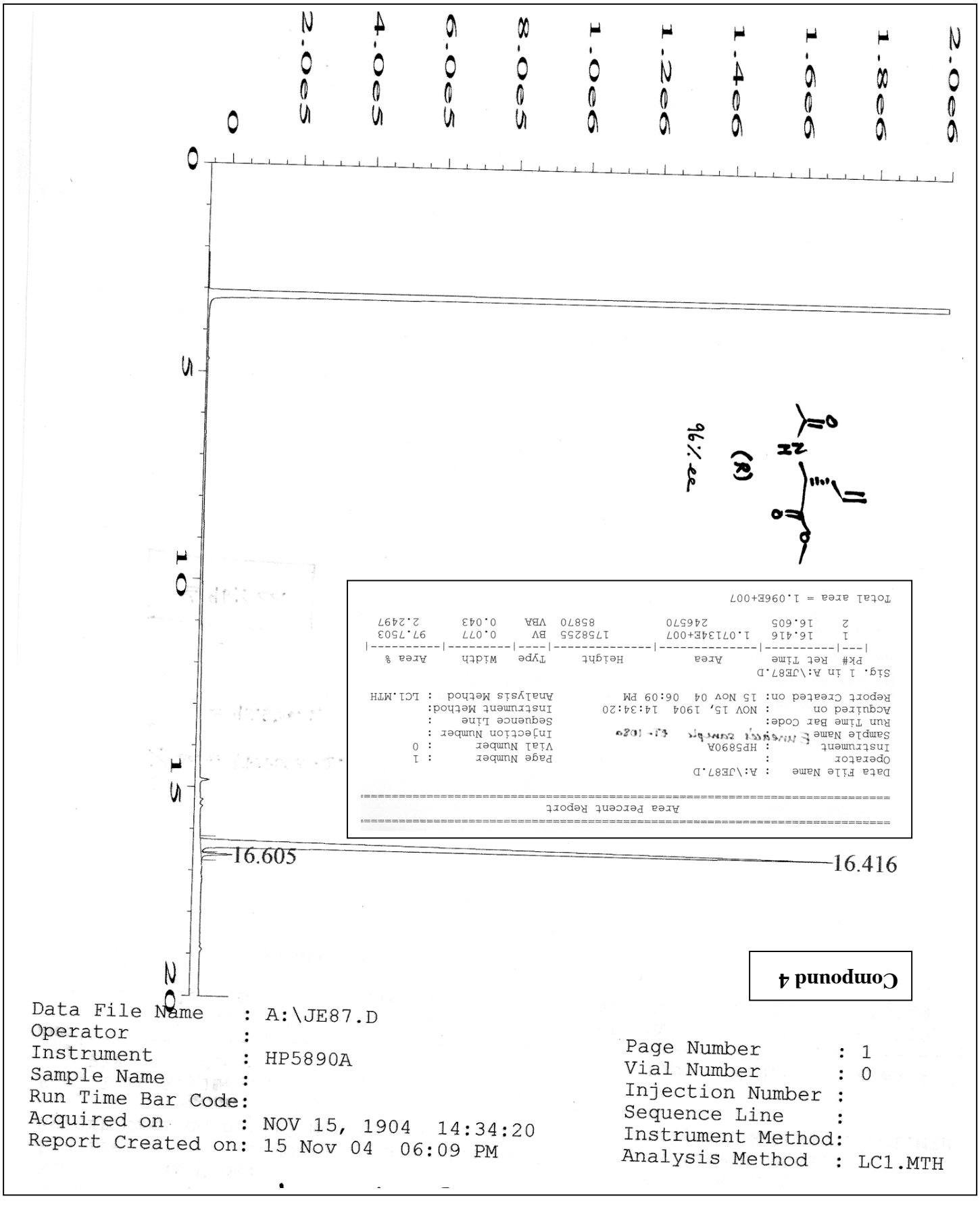
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Compound 4

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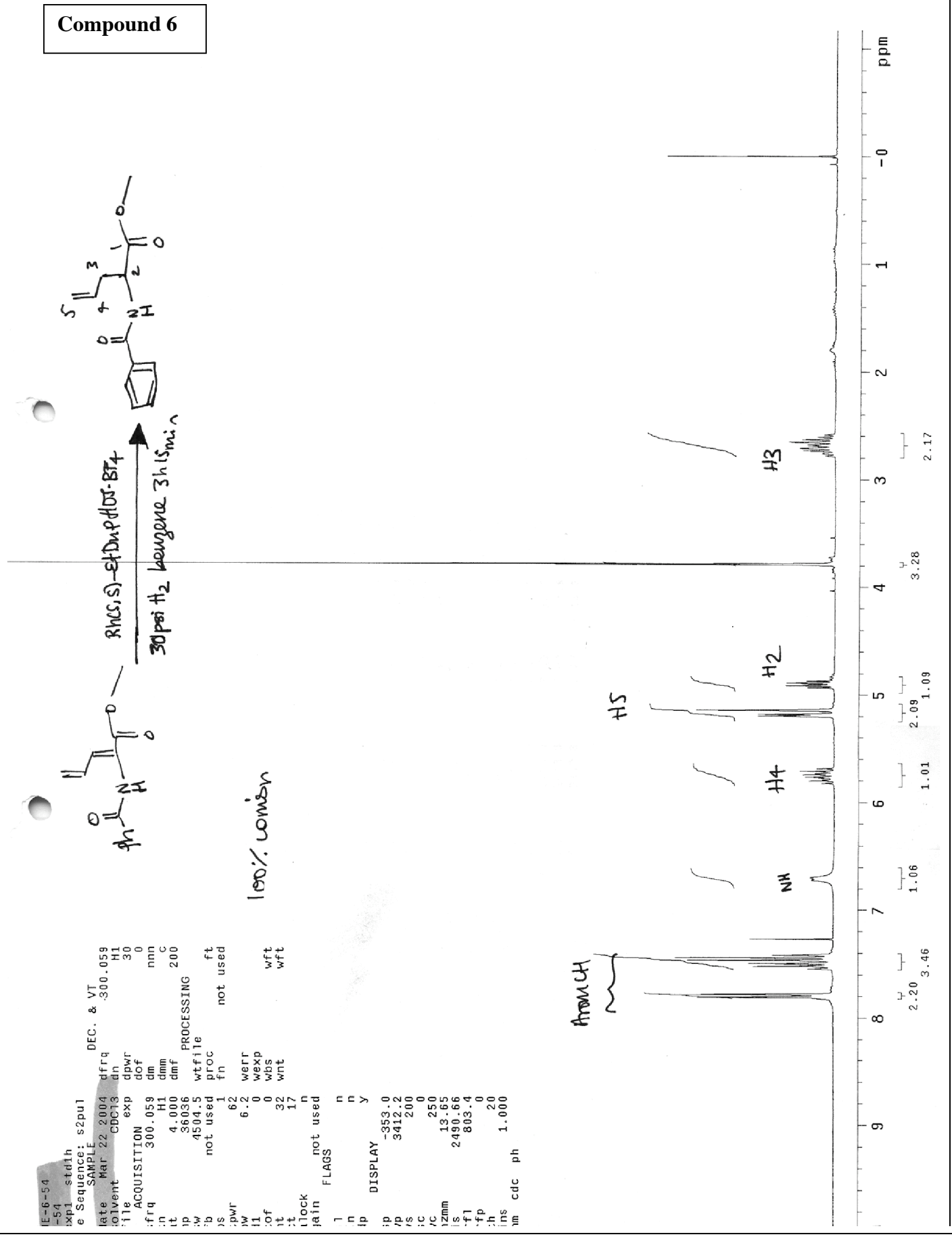
Compound 4

Compound 6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H5
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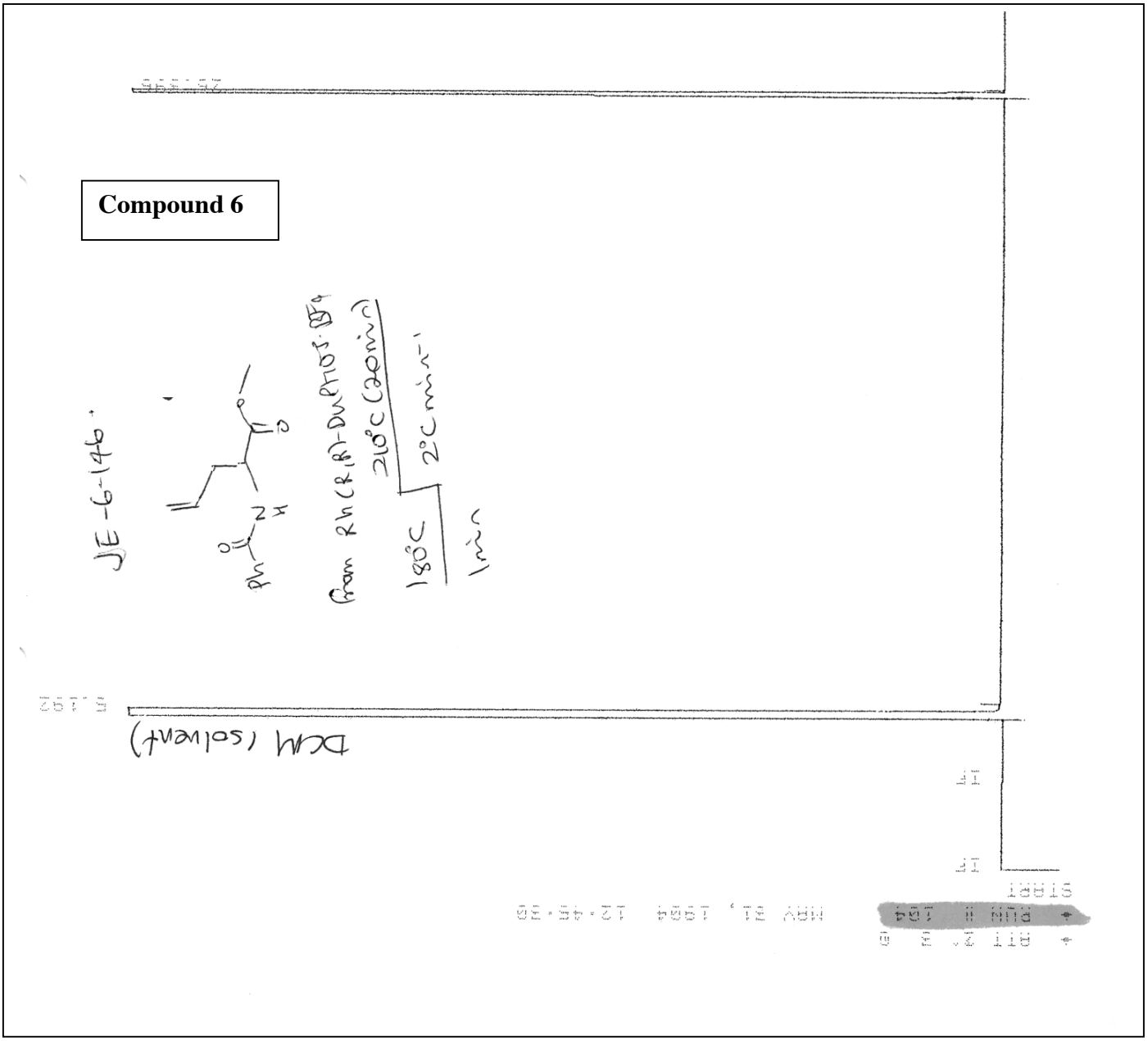
Compound 6



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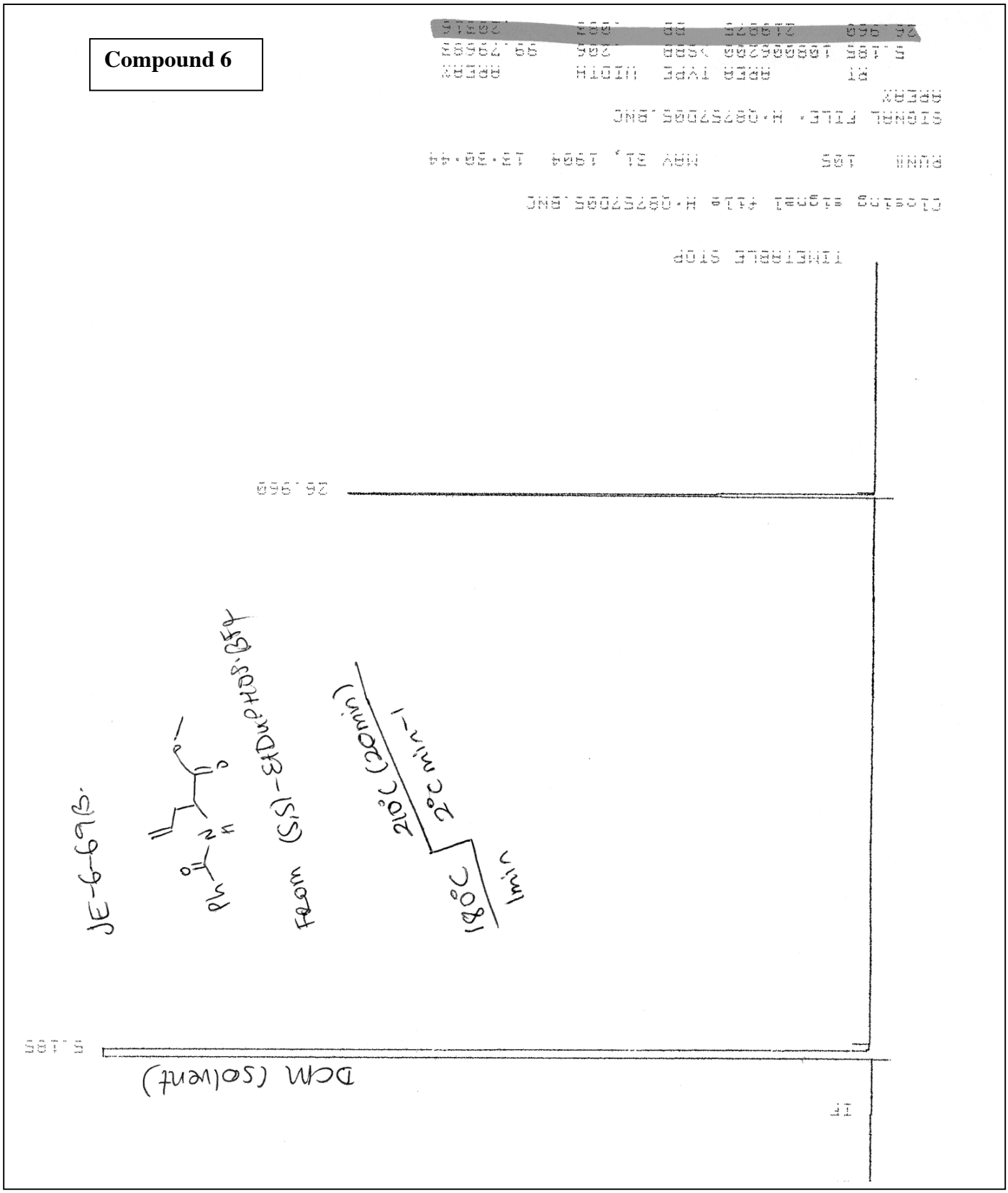
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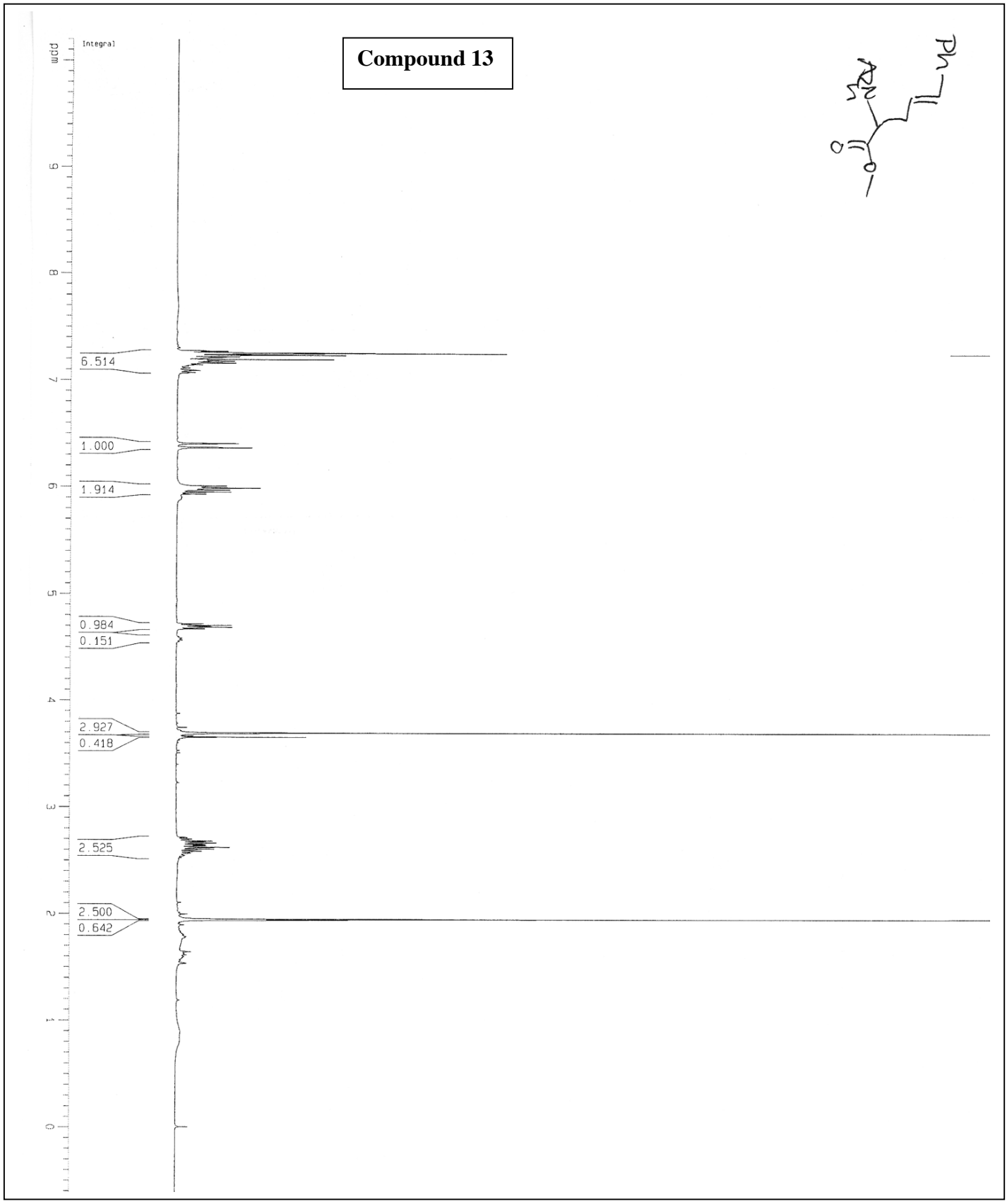
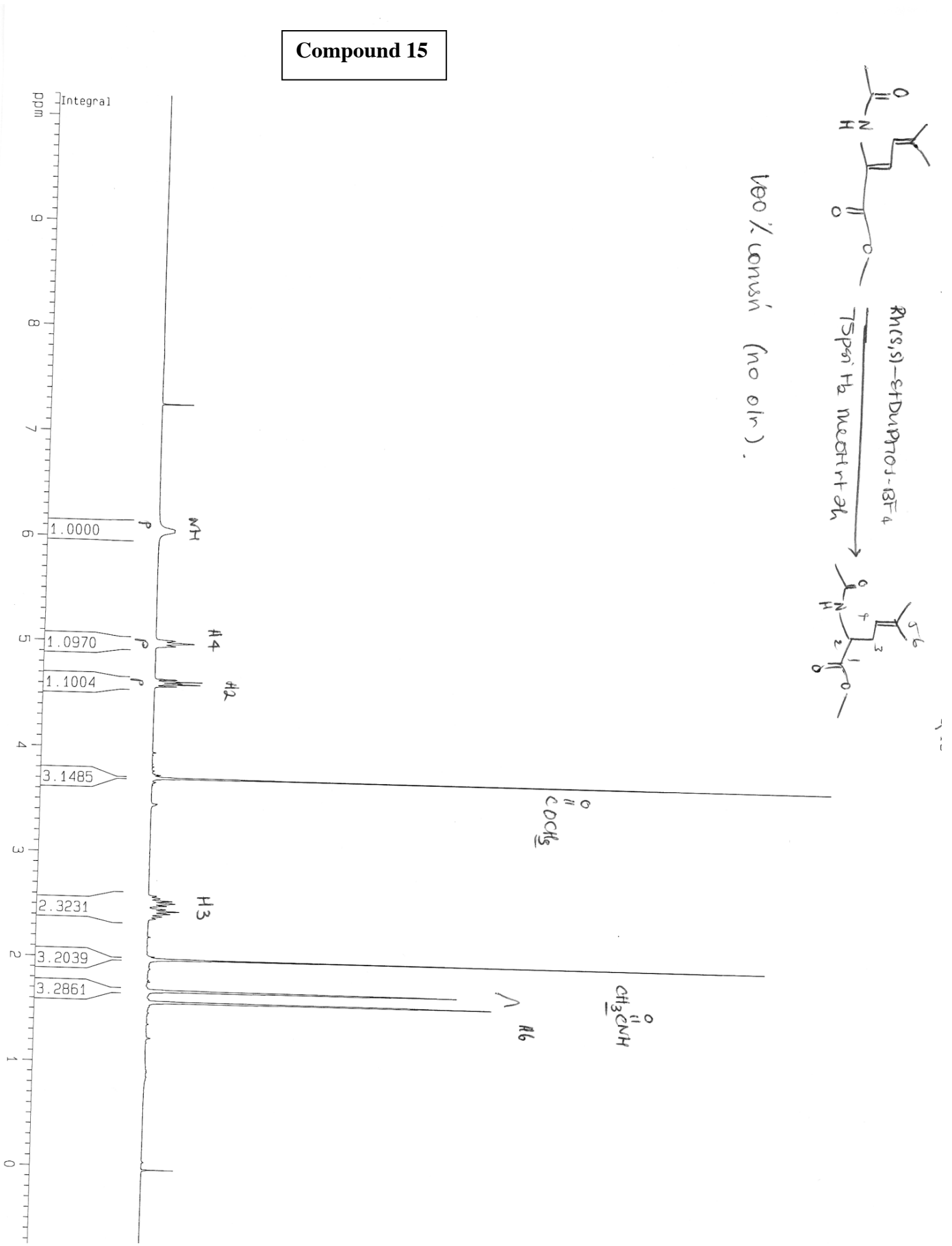
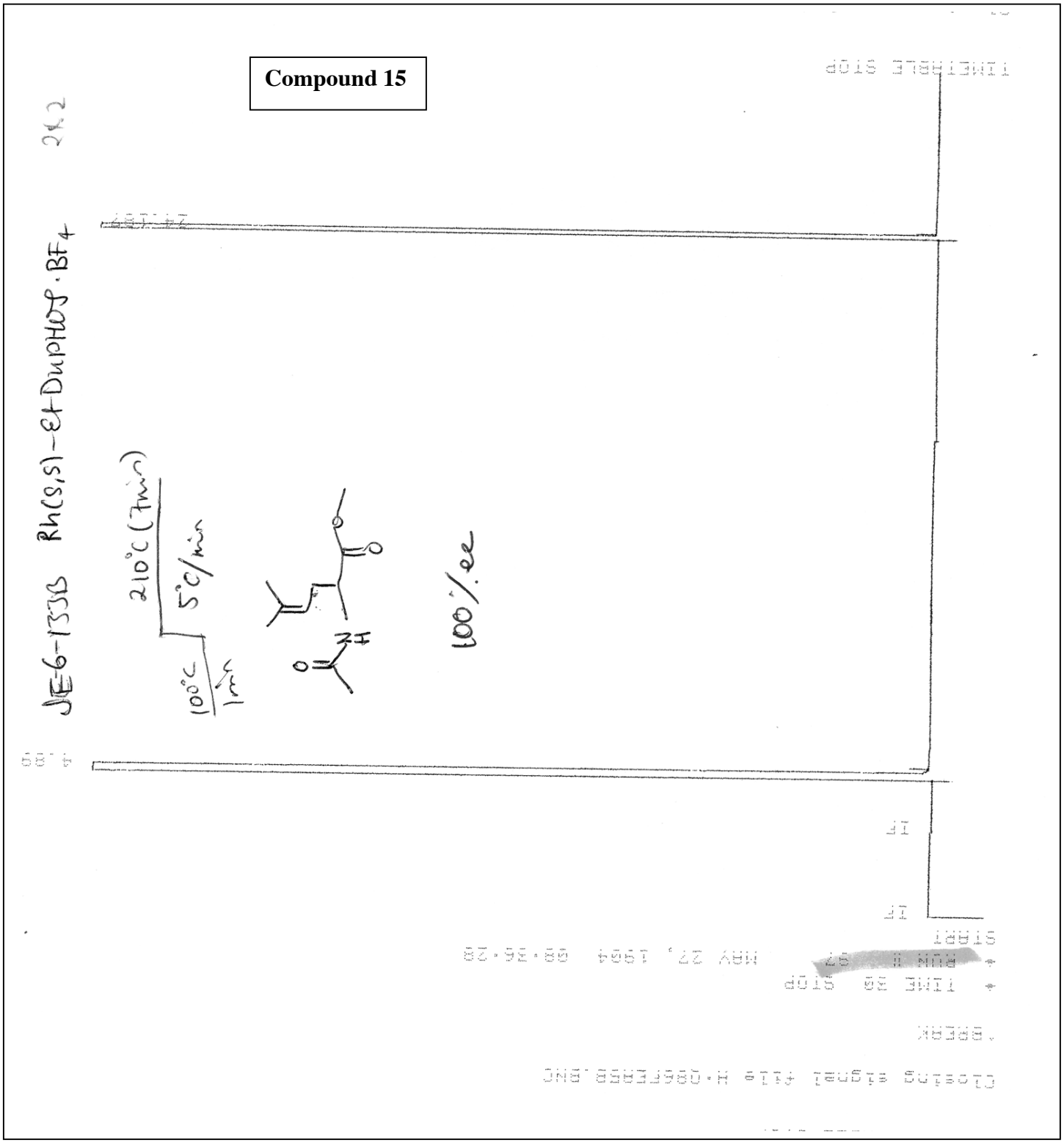
(S,S)-EtDuPHOS, BF4
Ph
N
H
O
O
Foam
180°C
1 min
210°C (20 min)
2°C min-1
DCM (solvent)
TIMETABLE STOP
25.969
TF

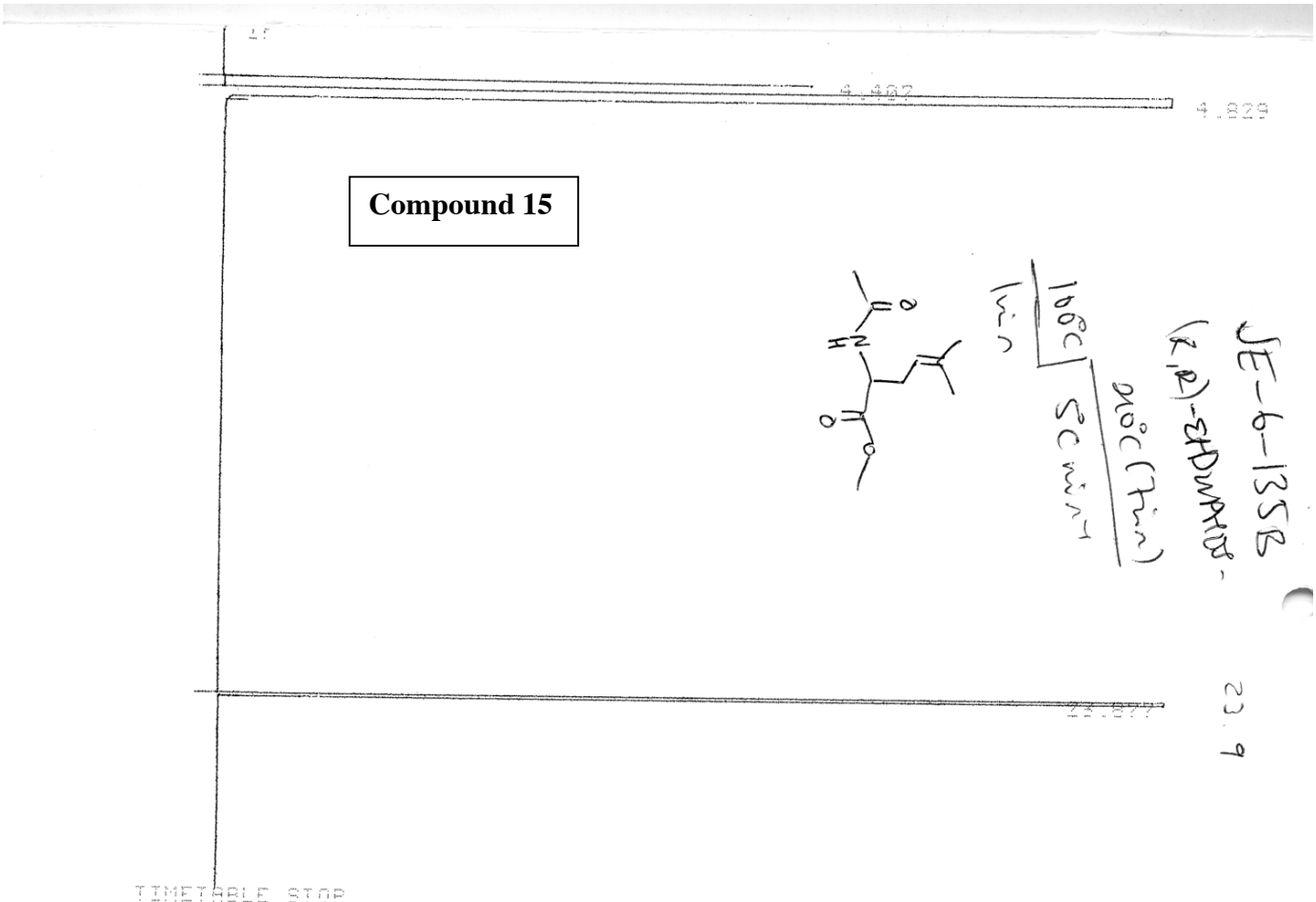

Compound 13
Integral
ppm
6.514
1.000
1.914
0.984
0.151
2.927
0.418
2.525
2.500
0.642

Compound 15


Rh(S,S)-EtDuPhos-BF4
75psi H2 MeOH rt 8h
100% conv (no elm).
Integral
ppm
1.0000
1.0970
1.1004
3.1485
2.3231
3.2039
3.2861
NH
#4
#2
H3
H6

Compound 15





TIMETABLE STOP

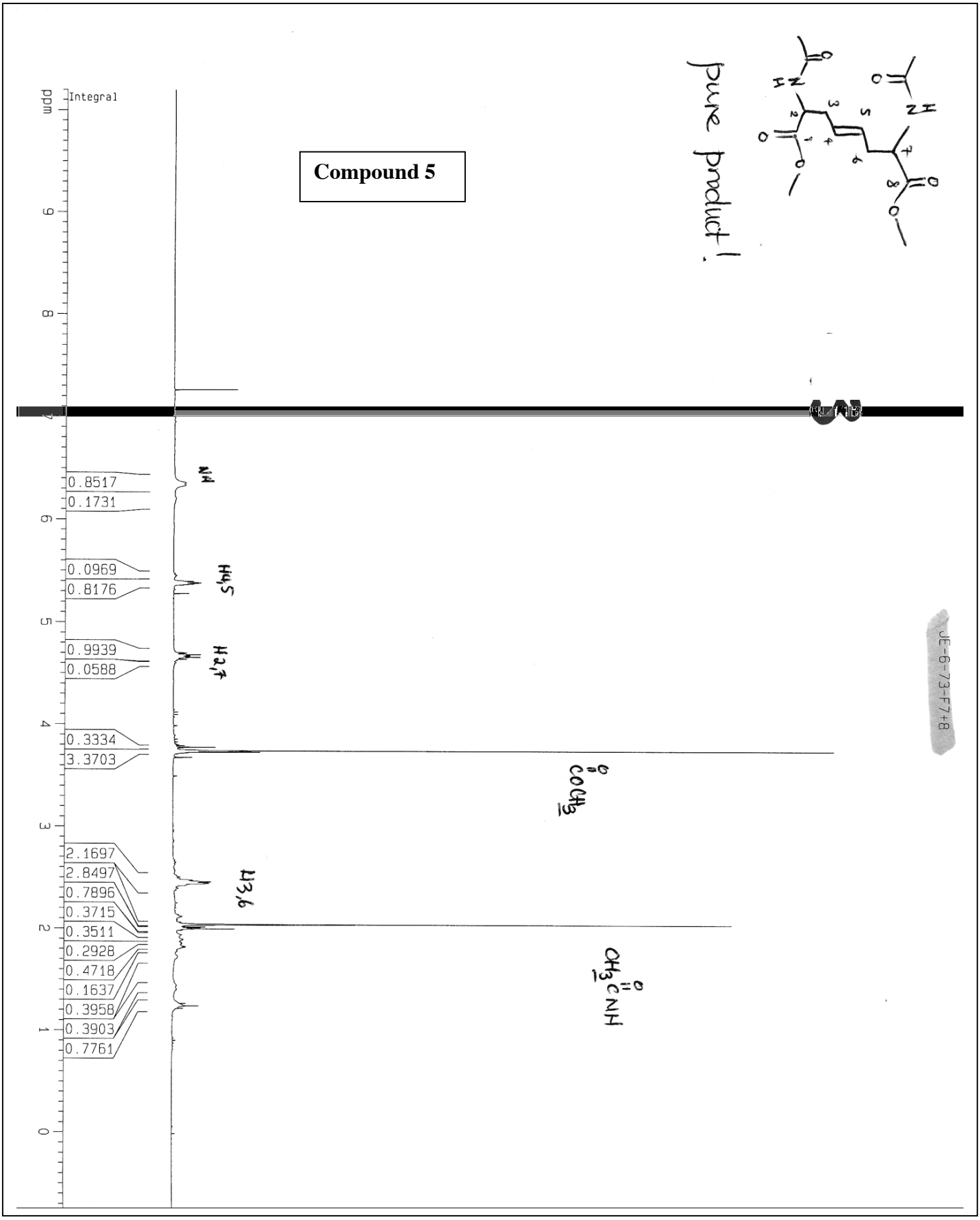
Closing signal file H:\08700BC4.BNC

RUN# 99 MAY 27, 1904 10:26:11

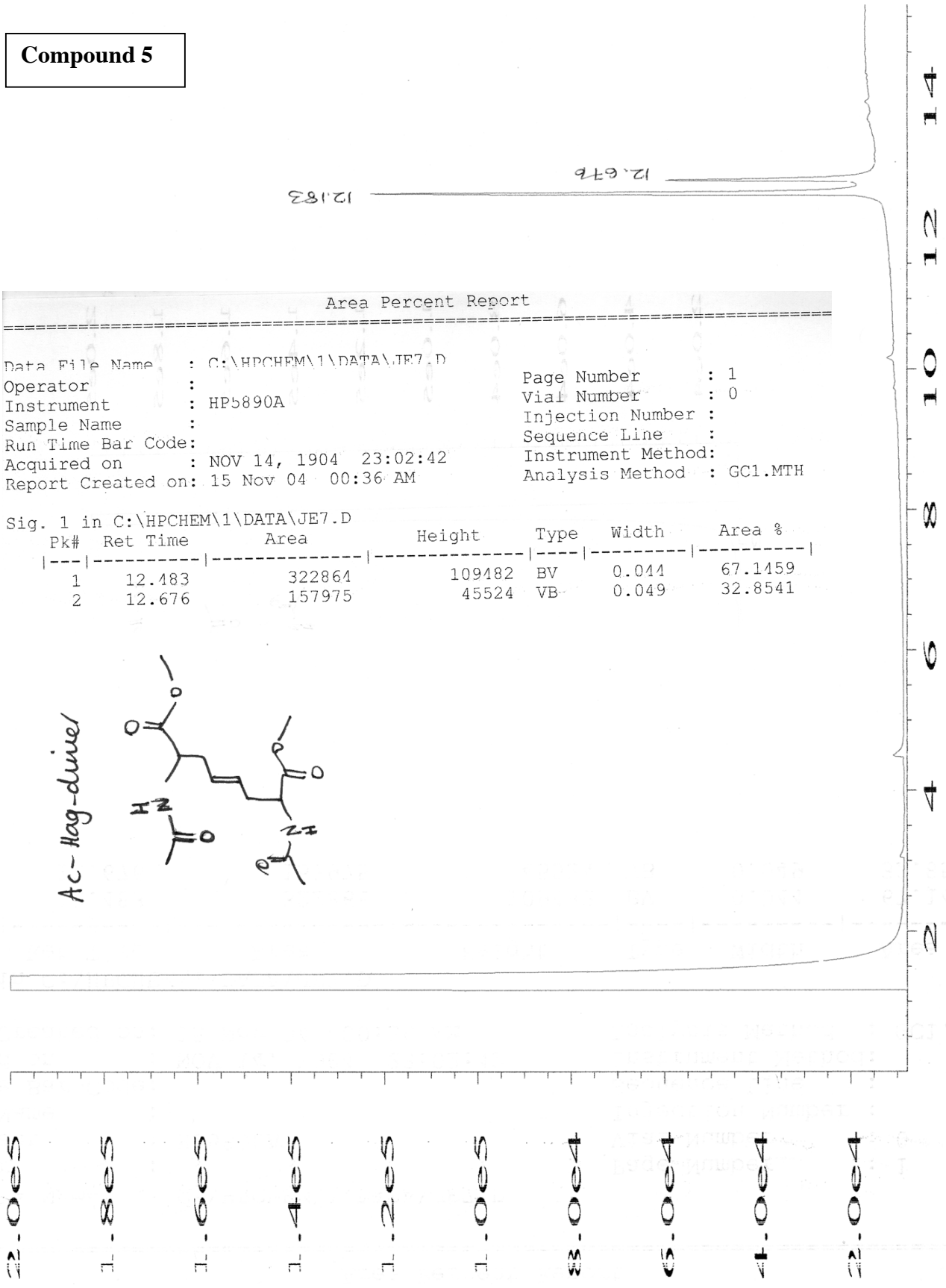
SIGNAL FILE: H:\08700BC4.BNC
AREA%

RT	AREA	TYPE	WIDTH	AREA%
4.402	7138	PB	.083	.006067
4.829	116935768	VBBB	.223	99.483324
23.877	600577	PB	.049	.510609

TOTAL AREA=1.17603E+08
MUL FACTOR=1.00000E+00


Compound 5
pure product!
Integral
ppm
0.8517
0.1731
0.0969
0.8176
0.9939
0.0588
0.3334
3.3703
2.1697
2.8497
0.7896
0.3715
0.3511
0.2928
0.4718
0.1637
0.3958
0.3903
0.7761
NH
H4,5
H2,7
H3,6
JE-6-73-F7+8

Compound 5



Area Percent Report

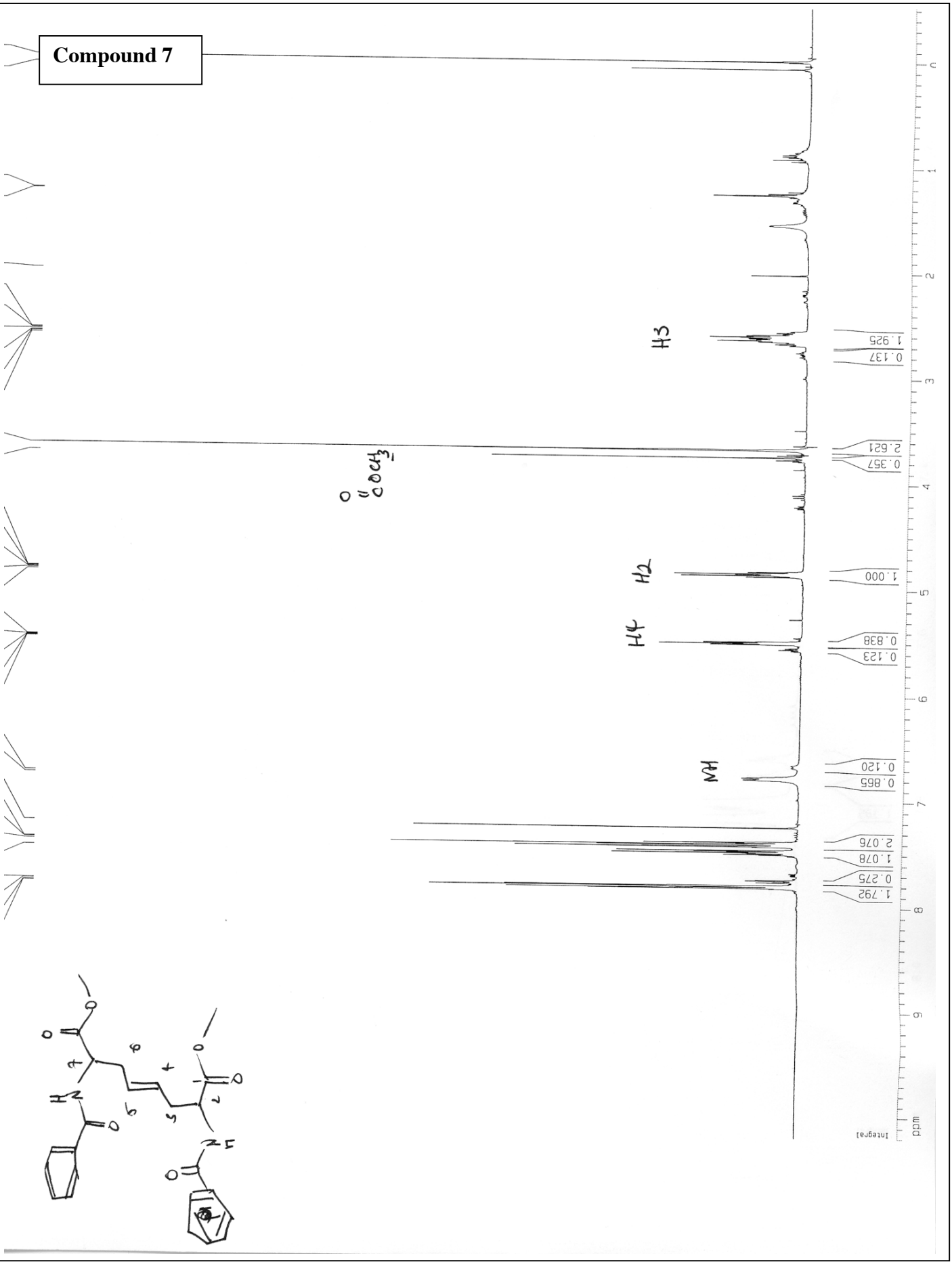
Data File Name : C:\HPCHEM\1\DATA\JE7.D
Operator :
Instrument : HP5890A
Sample Name :
Run Time Bar Code:
Acquired on : NOV 14, 1904 23:02:42
Report Created on: 15 Nov 04 00:36 AM

Page Number : 1
Vial Number : 0
Injection Number :
Sequence Line :
Instrument Method:
Analysis Method : GC1.MTH

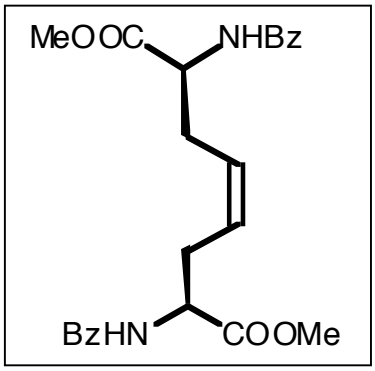
Sig. 1 in C:\HPCHEM\1\DATA\JE7.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	12.483	322864	109482	BV	0.044	67.1459
2	12.676	157975	45524	VB	0.049	32.8541

Compound 7


H3
H2
H4
NH
1.792
0.275
1.078
2.075
0.865
0.120
0.838
0.123
1.000
2.621
0.357
0.137
1.925
Integral
ppm

Compound 7



Area Percent Report

Data File Name : A:\JE135.D
Operator :
Instrument : HP5890A
Sample Name :
Run Time Bar Code:
Acquired on : MAR 24, 1904 11:39:10
Report Created on: 12 Nov 04 10:08 AM

Page Number : 1
Vial Number : 0
Injection Number :
Sequence Line :
Instrument Method:
Analysis Method : DEFAULT.MTH

Sig. 1 in A:\JE135.D

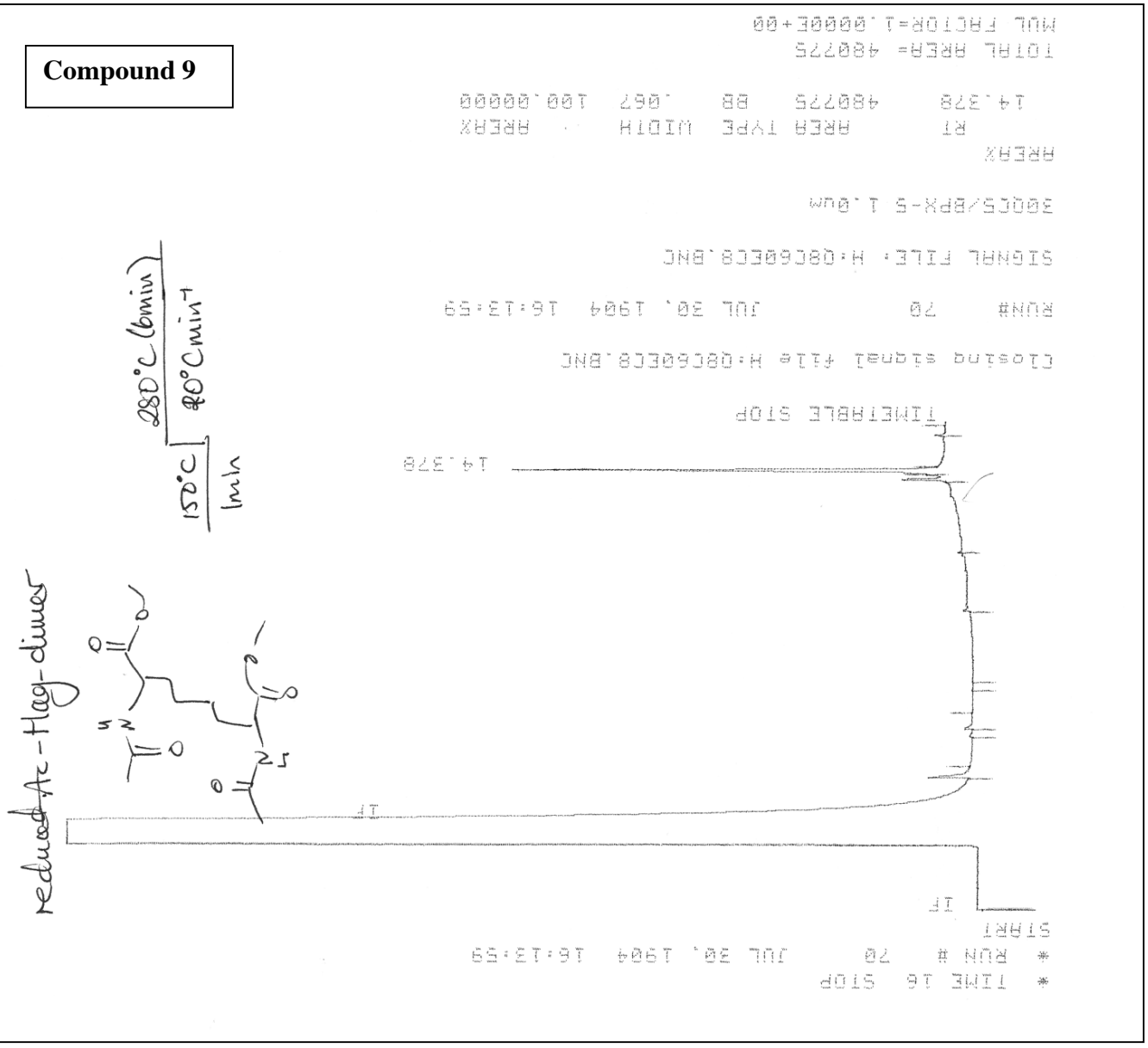
Pk#	Ret Time	Area	Height	Type	Width	Area %
1	13.530	52197	20098	BB	0.040	72.4234
2	13.877	19875	4626	BB	0.060	27.5766

Total area = 72073

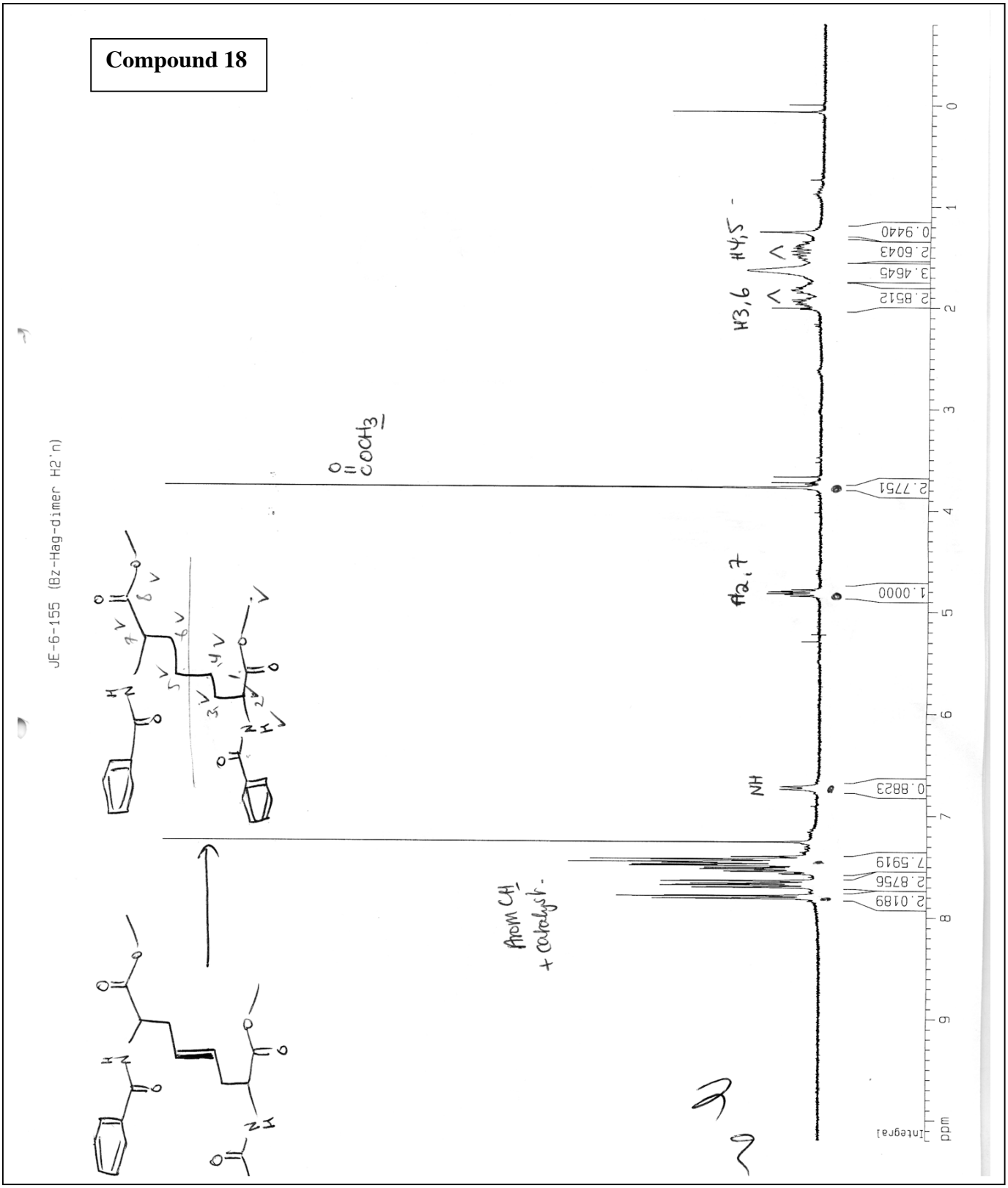
Data File Name : A:\JE135.D
Operator :
Instrument : HP5890A
Sample Name :
Run Time Bar Code:
Acquired on : MAR 24, 1904 11:39:10
Report Created on: 11 Nov 04 05:26 PM

Page Number : 1
Vial Number : 0
Injection Number :
Sequence Line :
Instrument Method:
Analysis Method : DEFAULT.MTH

Compound 9


reduced Ac-Hagedimer
150°C (1min)
40°C min⁻¹
280°C (6min)
14.378
TIMETABLE STOP
RUN# 70 JUL 30, 1909 16:13:59
SIGNAL FILE: M:08C606EC8.BNC
300CS/BPX-5 1.0UM
AREAX
RT AREA TYPE WIDTH AREAX
14.378 480775 BB .067 100.00000
TOTAL AREA= 480775
MUL FACTOR=1.00000E+00
* TIME 16 STOP
* RUN # 70 JUL 30, 1909 16:13:59
START

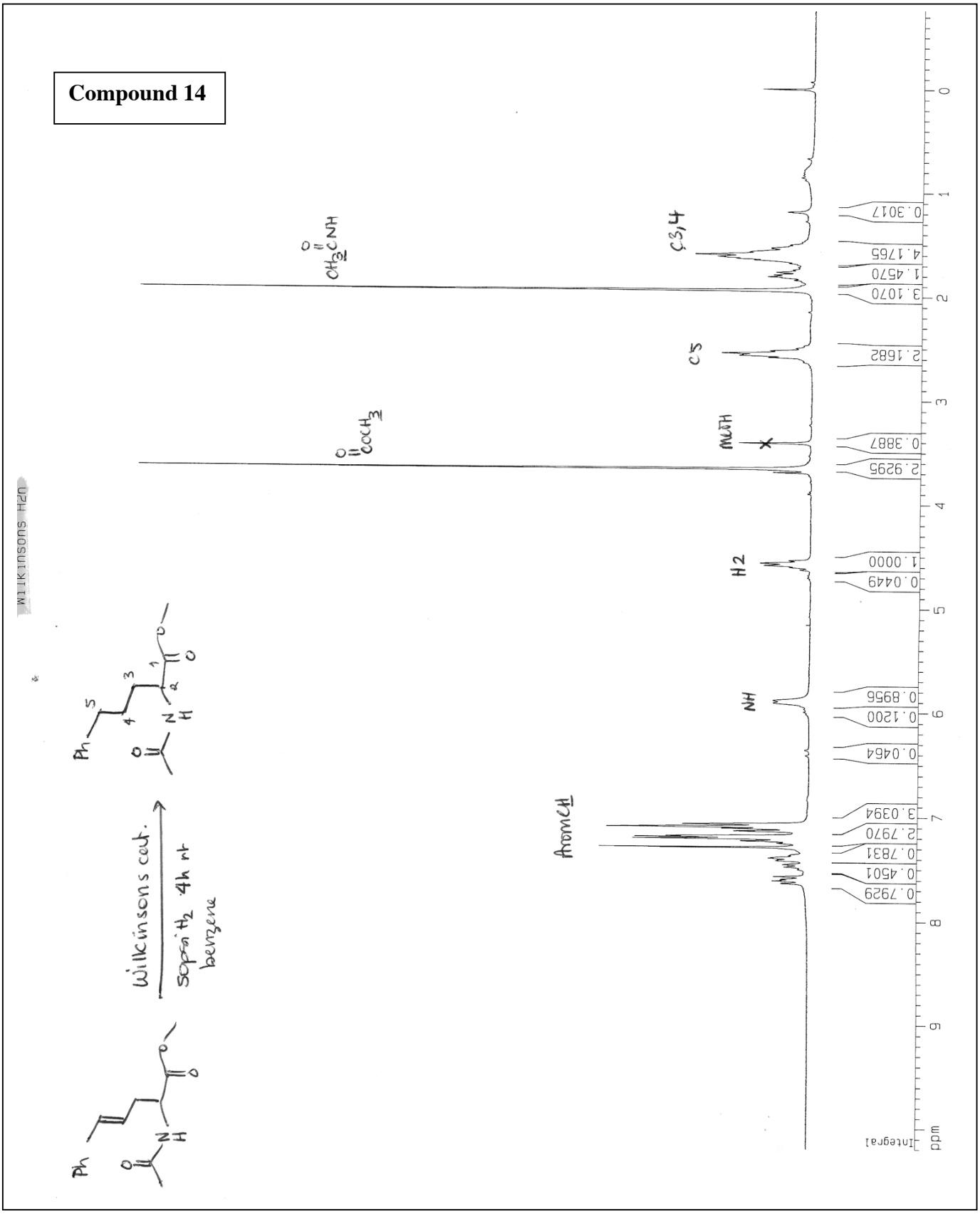
Compound 18


JE-6-155 (Bz-Hag-dimer H2'n)
Arom CH + catalyst
NH
Ha, 7
H3,6
H4,5
integral
ppm
2.0189
2.8756
7.5919
0.8823
1.0000
2.7751
2.8512
3.4645
2.6043
0.9440

Compound 18

TOTAL AREA= 569301
MUL FACTOR=1.00000E+00
AREAX
RT AREA TYPE WIDTH AREAX
11.042 151S9 PB .052 2.66256
17.155 554143 PB .136 97.33744
* LIST: ATT 2^ = 5
* ATT 2^ 3 0
* RUN # 67 JUL 30, 1904 13:33:43
START
IF
IF
11.042
17.155
TIMETABLE STOP
Closing signal file H:08C5E938.BNC
RUN# 67 JUL 30, 1904 13:33:43
SIGNAL FILE: H:08C5E938.BNC
300C5/BPX-5 1.0um
AREAX
RT AREA TYPE WIDTH AREAX
11.042 151S9 PB .052 2.66256
17.155 554143 PB .136 97.33744
TOTAL AREA= 569301
MUL FACTOR=1.00000E+00
280°C (6 min)
10°C min⁻¹
150°C
1 min

Compound 14


Wilkinsons cat.
Sopra H2 4h rt
benzene
Ph
NH
O
OCH3
CH2CNH
CH3OH
H2
C5
C3,4
Aromatic
0.7929
0.4501
0.7831
2.7970
3.0394
0.0464
0.1200
0.8956
1.0000
0.0449
2.9295
0.3887
2.1682
3.1070
1.4570
4.1765
0.3017
Integral
ppm

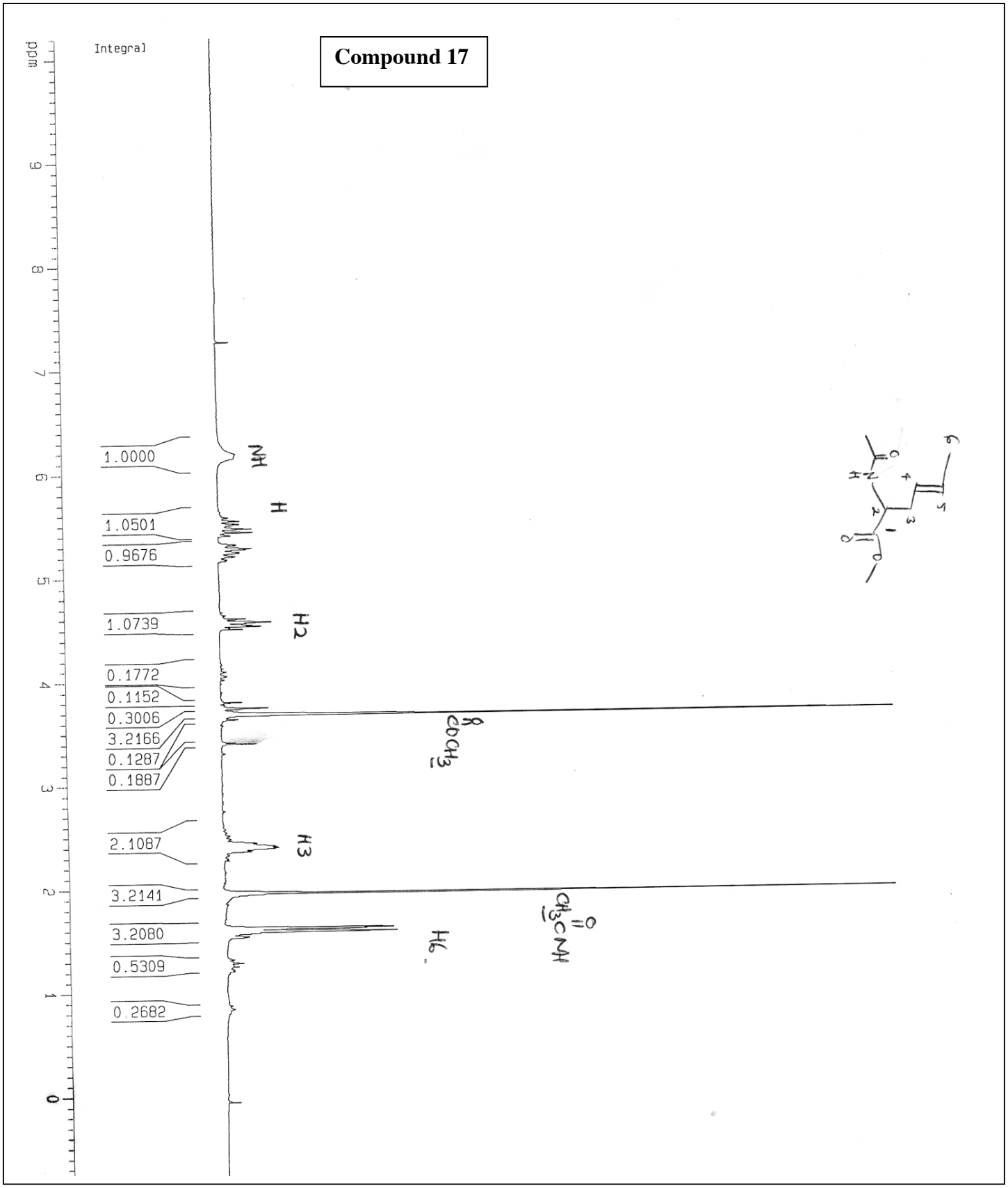
Compound 14

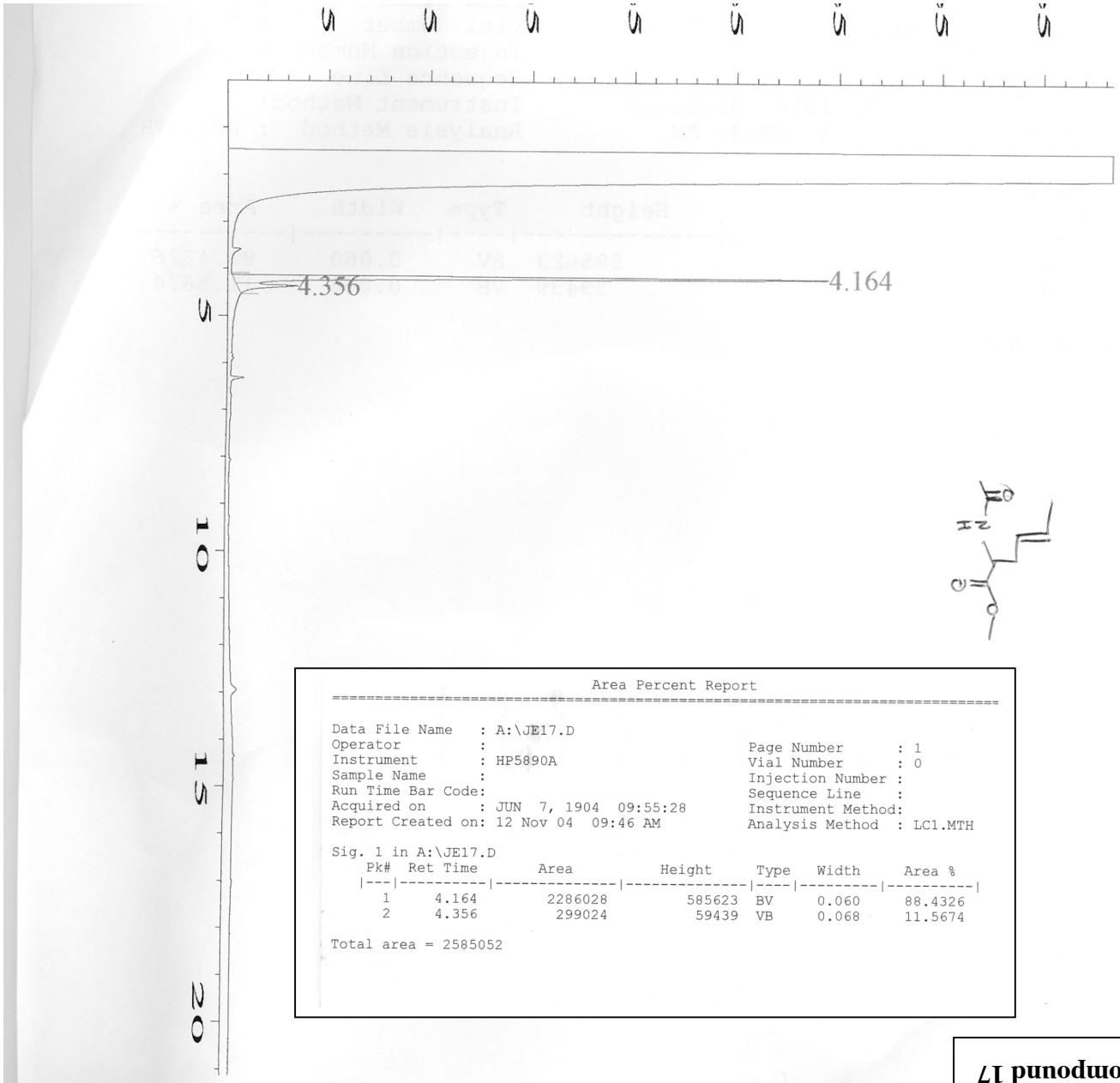
Area Percent Report

Data File Name	: C:\HPCHEM\1\DATA\JE61.D		
Operator	:		
Instrument	: HP5890A	Page Number	: 1
Sample Name	:	Vial Number	: 0
Run Time Bar Code:		Injection Number	:
Acquired on	: JUL 28, 1904 11:38:51	Sequence Line	:
Report Created on:	12 Nov 04 10:48 AM	Instrument Method:	
		Analysis Method	: LC1.MTH

Sig. 1 in C:\HPCHEM\1\DATA\JE61.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	10.786	1639190	545977	BB	0.044	98.2905
2	11.271	28509	10214	BV	0.042	1.7095


Compound 17
Integral
ppm
1.0000
1.0501
0.9676
1.0739
0.1772
0.1152
0.3006
3.2166
0.1287
0.1887
2.1087
3.2141
3.2080
0.5309
0.2682
NH
H
H2
H3
H6
OCH3
CH3CNH



Area Percent Report

Data File Name : A:\JE17.D
Operator :
Instrument : HP5890A
Sample Name :
Run Time Bar Code:
Acquired on : JUN 7, 1904 09:55:28
Report Created on: 12 Nov 04 09:46 AM

Page Number : 1
Vial Number : 0
Injection Number :
Sequence Line :
Instrument Method:
Analysis Method : LC1.MTH

Sig. 1 in A:\JE17.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	4.164	2286028	585623	BV	0.060	88.4326
2	4.356	299024	59439	VB	0.068	11.5674

Total area = 2585052

S23

Compound 17

Data File Name : A:\JE17.D
Operator :
Instrument : HP5890A
Sample Name :
Run Time Bar Code:
Acquired on : JUN 7, 1904 09:55:28
Report Created on: 12 Nov 04 09:46 AM

Page Number : 1
Vial Number : 0
Injection Number :
Sequence Line :
Instrument Method:
Analysis Method : LC1.MTH