

## **Supporting Information – Part 3 of 3**

### **A Highly Efficient Route to *o*-Allylbiaryls via Palladium-Catalyzed Three-Component Coupling of Benzynes, Allylic halides, and Aryl Organometallic reagents**

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##### **Part 1**

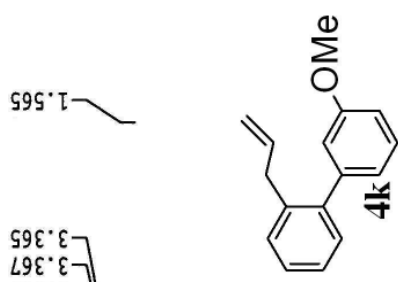
Experimental Section and  $^1\text{H}$  and  $^{13}\text{C}$  NMR Data

##### **Part 2**

$^1\text{H}$  and  $^{13}\text{C}$  NMR Spectra for compounds 4a-c, 4e-h,  $^1\text{H}$  NMR Spectra for 4i,j

##### **Part 3**

$^1\text{H}$  and  $^{13}\text{C}$  NMR Spectra for compounds 4k-s



1.565

7.338  
7.332  
7.325  
7.318  
7.312  
7.279  
7.276  
7.271  
7.269  
6.933  
6.931  
6.922  
6.919  
6.905  
6.897  
6.894  
6.890  
5.954  
5.937  
5.926  
5.909  
5.055  
5.053  
5.039  
5.036  
4.972  
4.969  
4.944  
4.941  
3.844  
3.842  
3.833  
3.380  
3.378  
3.375  
3.369  
3.367  
3.365

ppm

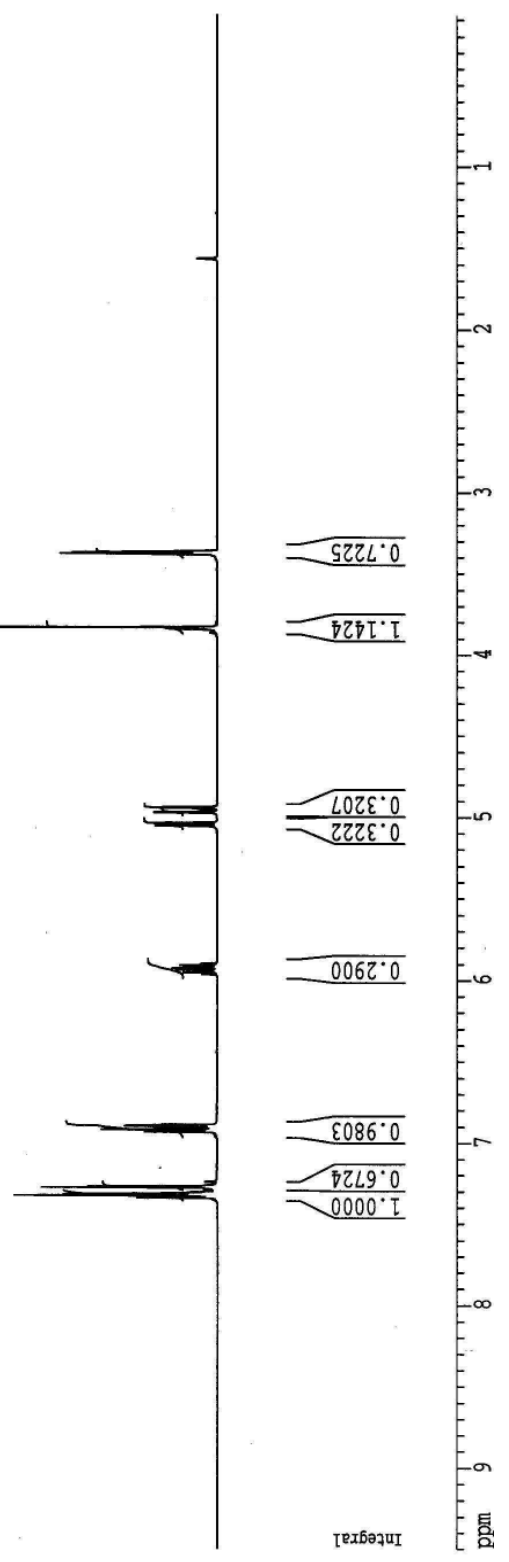
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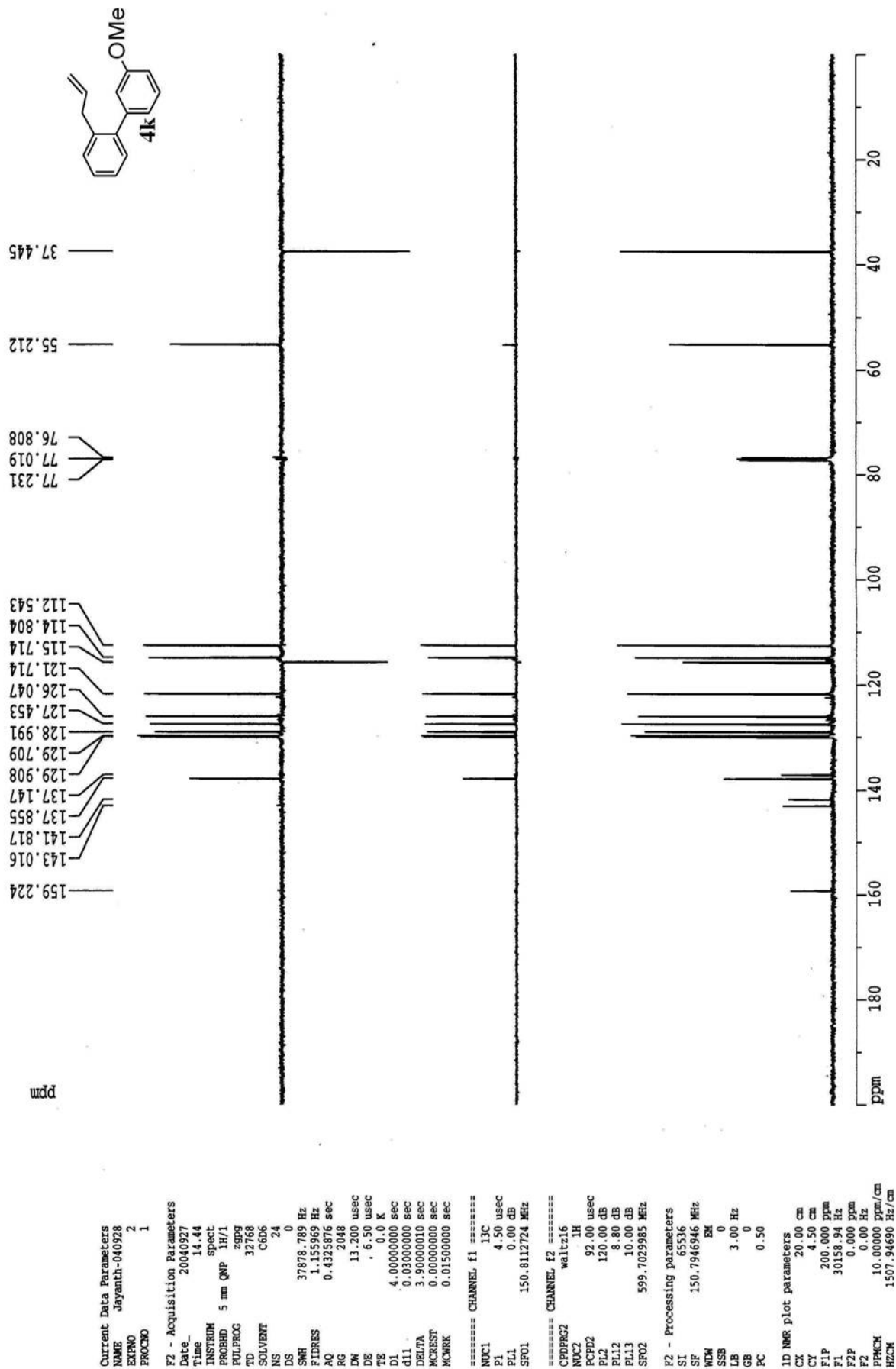
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F2 -299.85 Hz  
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HZCM 250.30951 Hz/cm





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4.893  
4.892  
4.905  
4.932  
4.936  
4.940  
5.024  
5.038  
5.042  
5.045  
5.055  
5.066  
5.076  
5.080  
5.089  
5.902  
5.910  
5.915  
5.922  
5.935  
7.072  
7.079  
7.082  
7.092  
7.095  
7.099  
7.109  
7.113  
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7.235  
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7.261  
7.270  
7.274

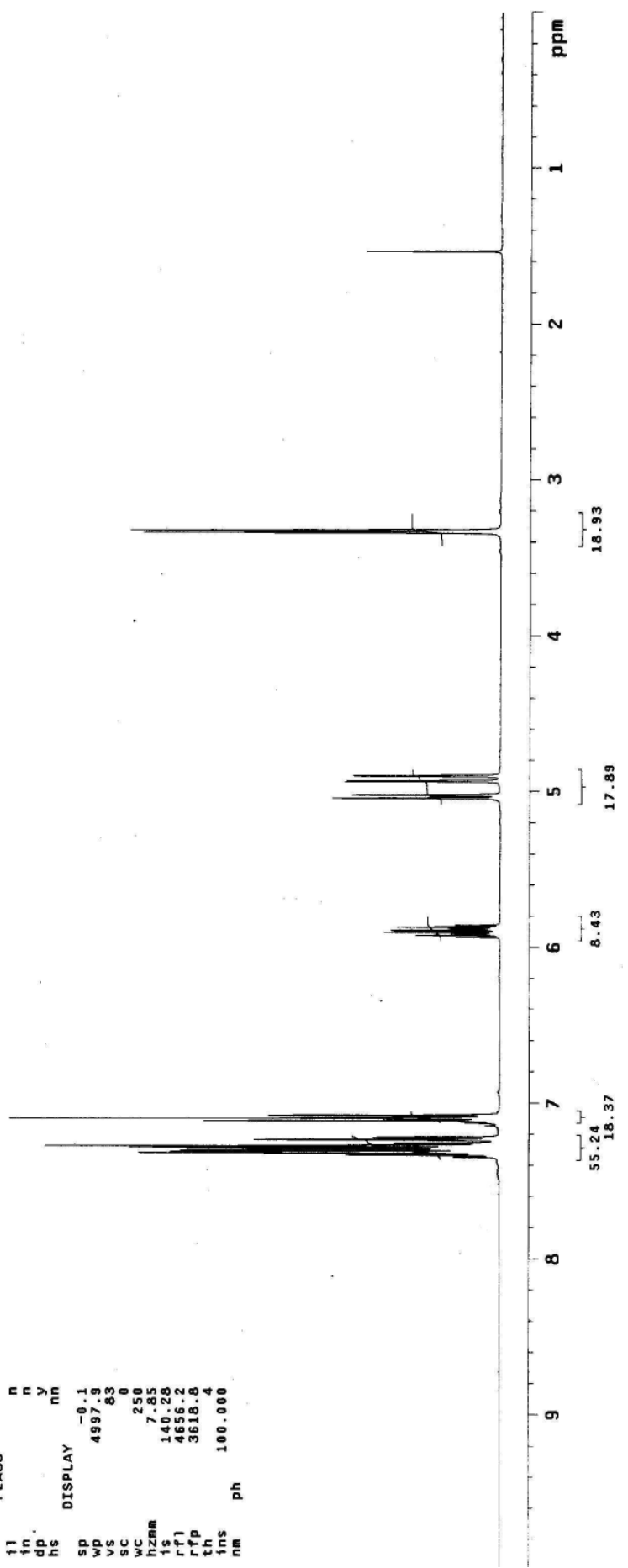
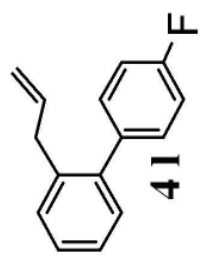
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3.325

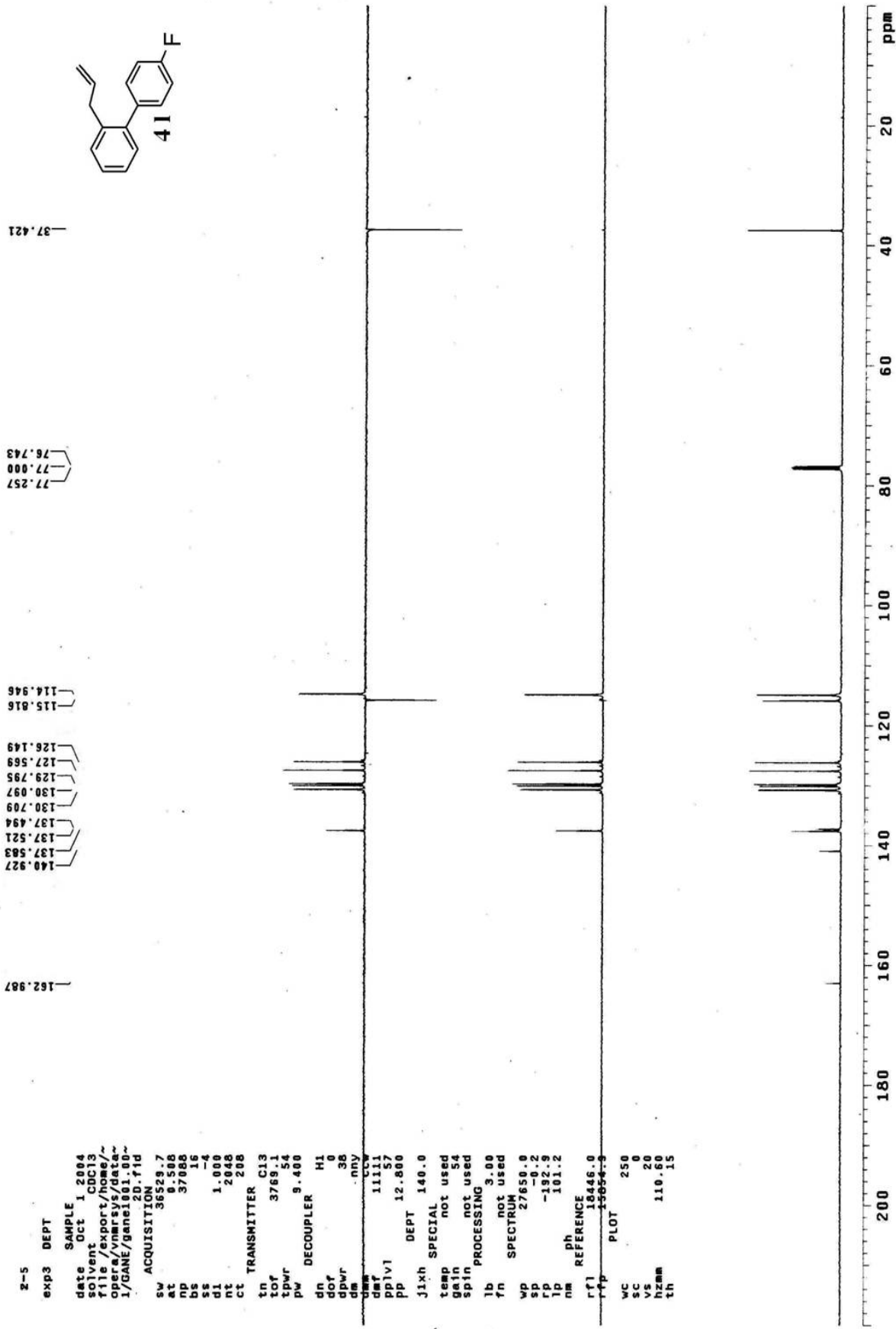
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at 2.152
np 39276
sw 9000.9
fb not used
bs 4
tpwr 55
pw 1.000
d1 980.4
nt 32
ct 32
alock not used
gain not used
FLAGS
f1 n
in n
dp y
hs nn
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vs 83
sc 0
wc 250
hzmm 7.85
ls 140.28
rfl 4656.2
rff 3618.8
th 4
ins 100.000
nm ph
DEC. & VT
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dn H1
dpwr 38
dof 0
nmn nnn
c 11299
dms 1.0
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fn 32768
math f
werr 5.5
wexp 1.000
wbs 32
wnt 32
wft wft
wft wft

```





2-5 exp3 DEPT

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 at 9.588  
 np 37966  
 ss 14  
 si 4  
 d1 1.000  
 nt 2048  
 ct 208

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 tpwr 54  
 pw 9.400

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 dpwr 38  
 dm nny

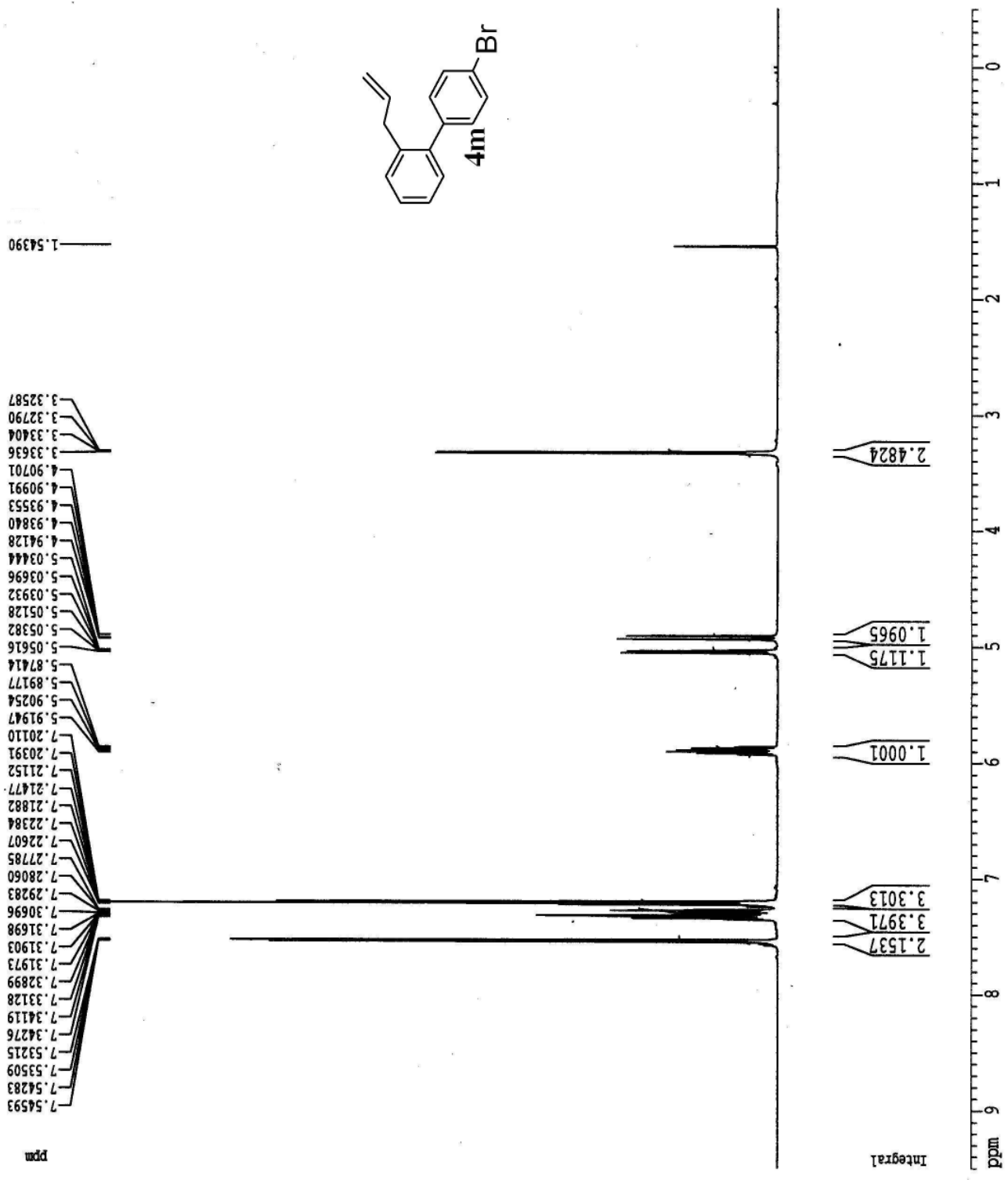
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 lp -12.2  
 lb 101.2

nm dh  
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 r2 12054.9

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 th 15



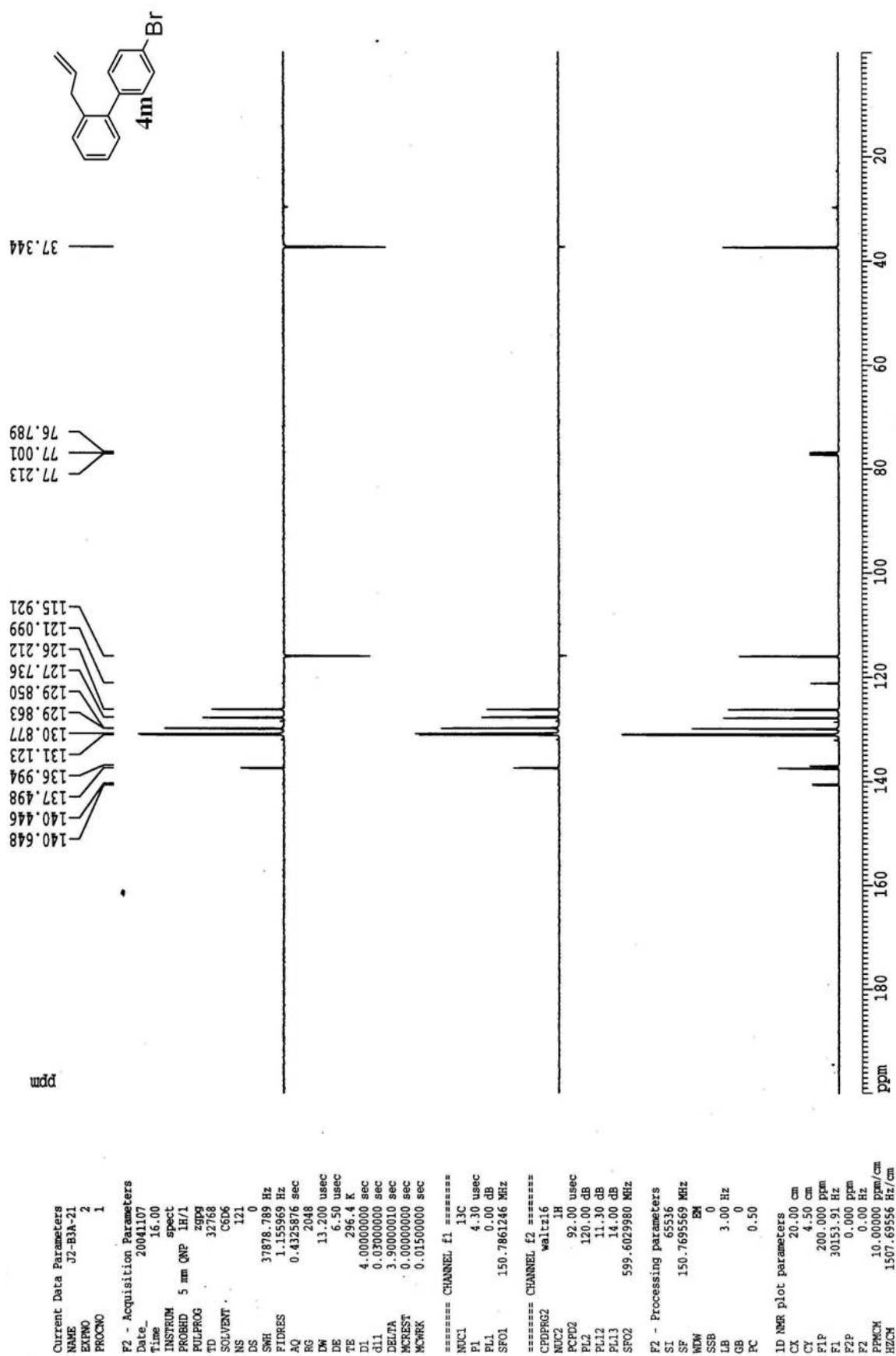
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 IDRES 0.219235 Hz  
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 L1 4.00 dB  
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2 - Processing parameters  
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 B 0  
 C 0.50

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 1 5696.20 Hz  
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 2 -299.80 Hz  
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Current Data Parameters  
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PROCNO 1

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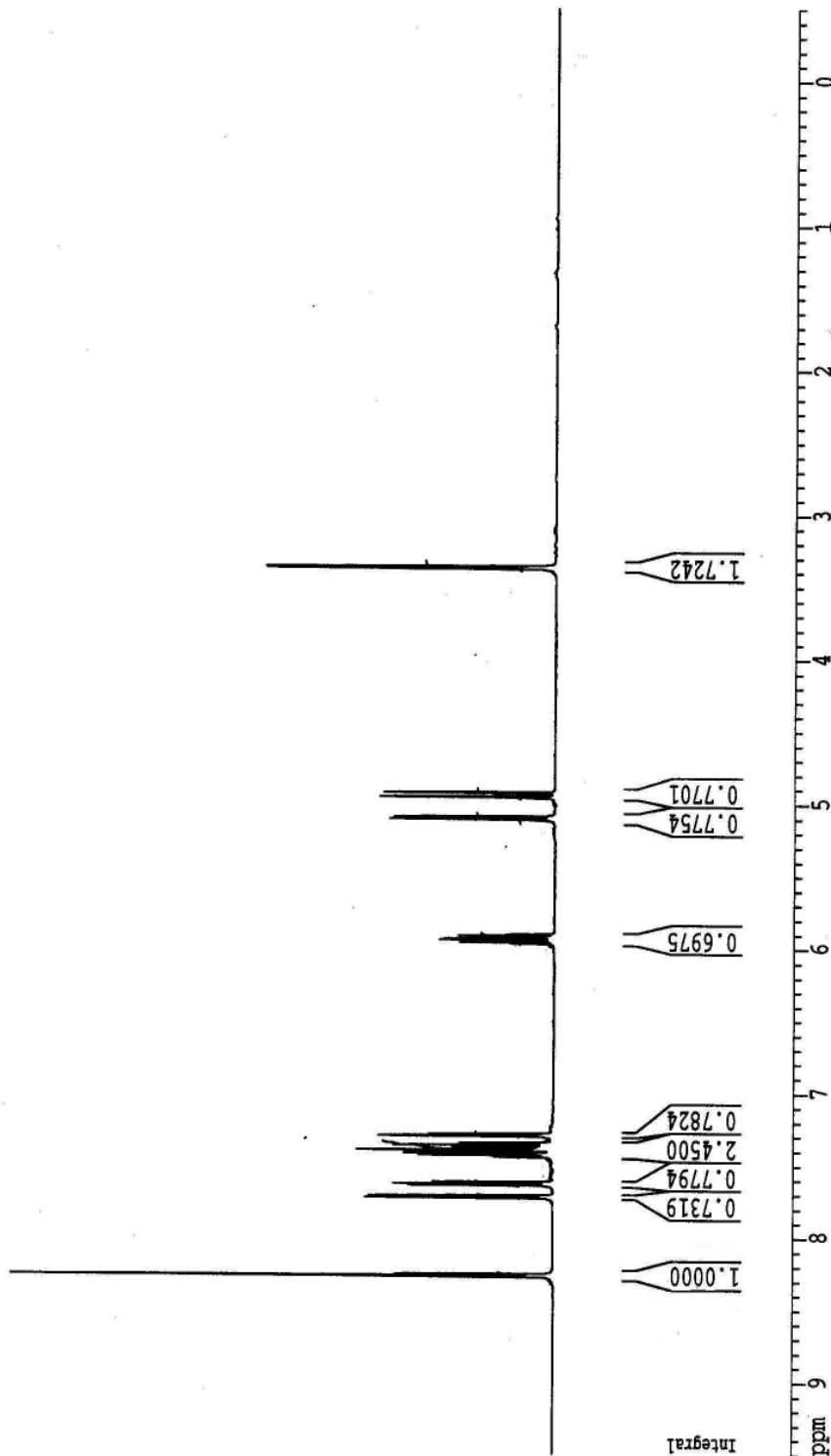
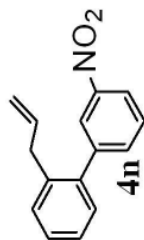
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FIDRES 0.256020 Hz  
AQ 1.9530228 sec  
RG 16  
DW 59.600 usec  
DE 6.50 usec  
TE 297.0 K  
DL 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

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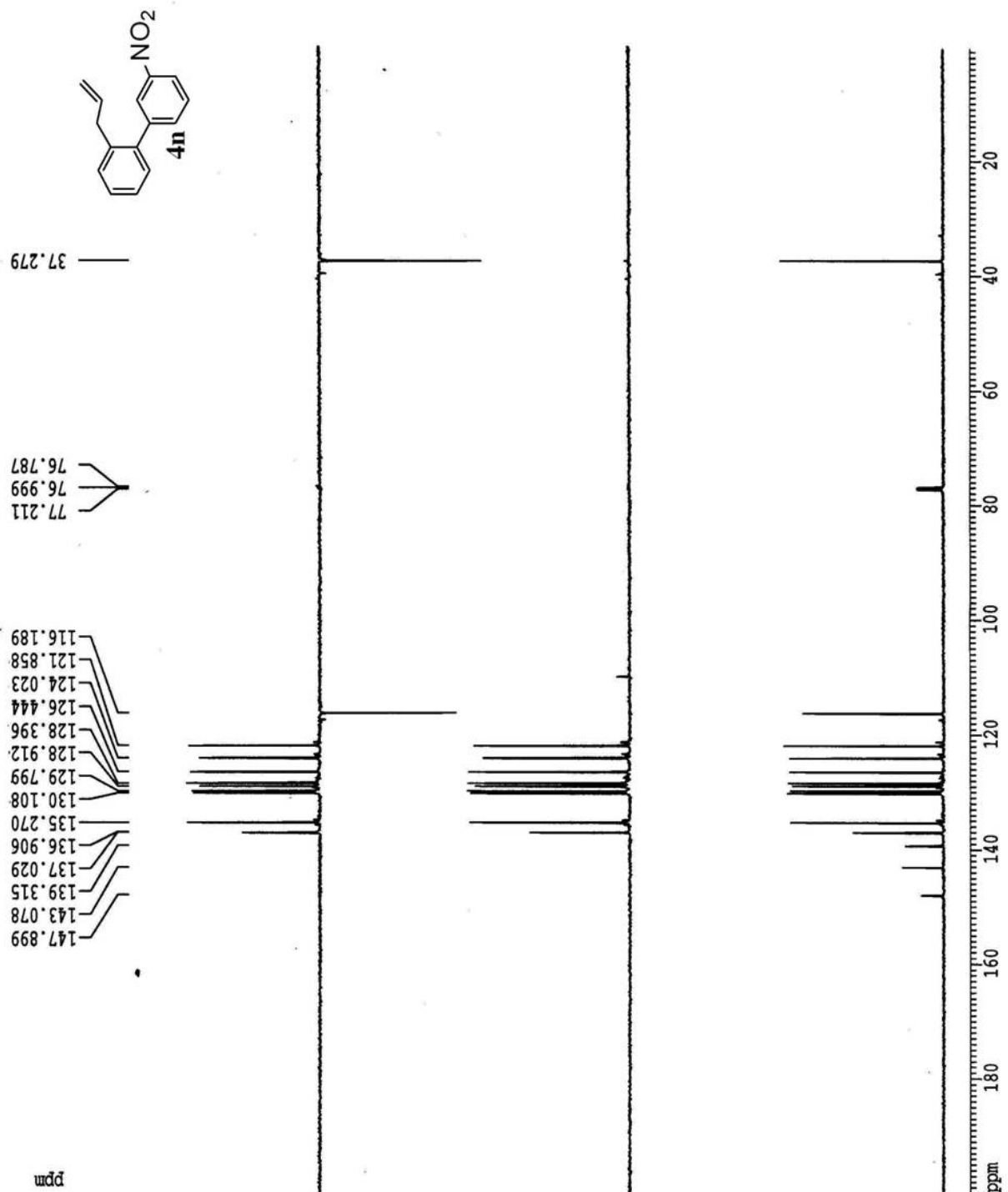
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CY 8.00 cm  
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F1 5696.20 Hz  
F2P -0.500 ppm  
F2 -299.80 Hz  
PPMCM 0.50000 ppm/cm  
HZCM 299.79999 Hz/cm

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8.26309  
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8.25153  
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7.71145  
7.70960  
7.70886  
7.70688  
7.63785  
7.62576  
7.62331  
7.42521  
7.41508  
7.41271  
7.39225  
7.39038  
7.35760  
7.35517  
7.29442  
7.29229  
5.95342  
5.93646  
5.92605  
5.92491  
5.90807  
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5.10169  
5.09912  
5.09007  
5.08752  
5.08485  
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4.94625  
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3.6876  
3.6324  
3.36088  
3.35840







Current Data Parameters

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PROCNO	1

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TD	32768
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DS	0
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RG	2048
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GL1	0.03000000 sec
DELTA	3.90000010 sec
MCREST	0.00000000 sec
MCWRSK	0.01500000 sec

===== CHANNEL f1 =====

NUC1	13C
PL	4.30 usec
PL1	0.00 dB
SFO1	150.7861246 MHz

===== CHANNEL f2 =====

CPDPRG2	waltz16
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PL13	14.00 dB
SFO2	599.6029980 MHz

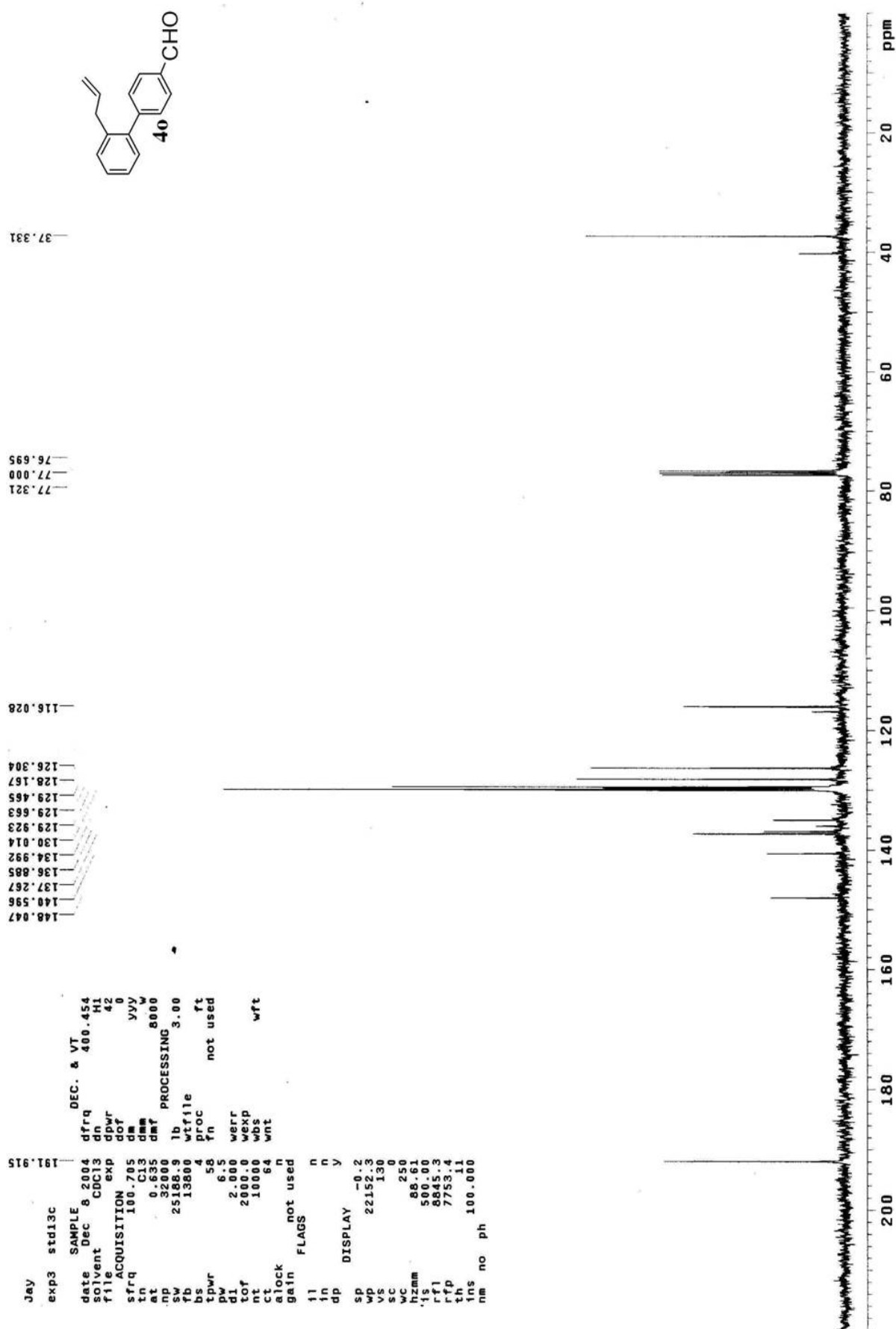
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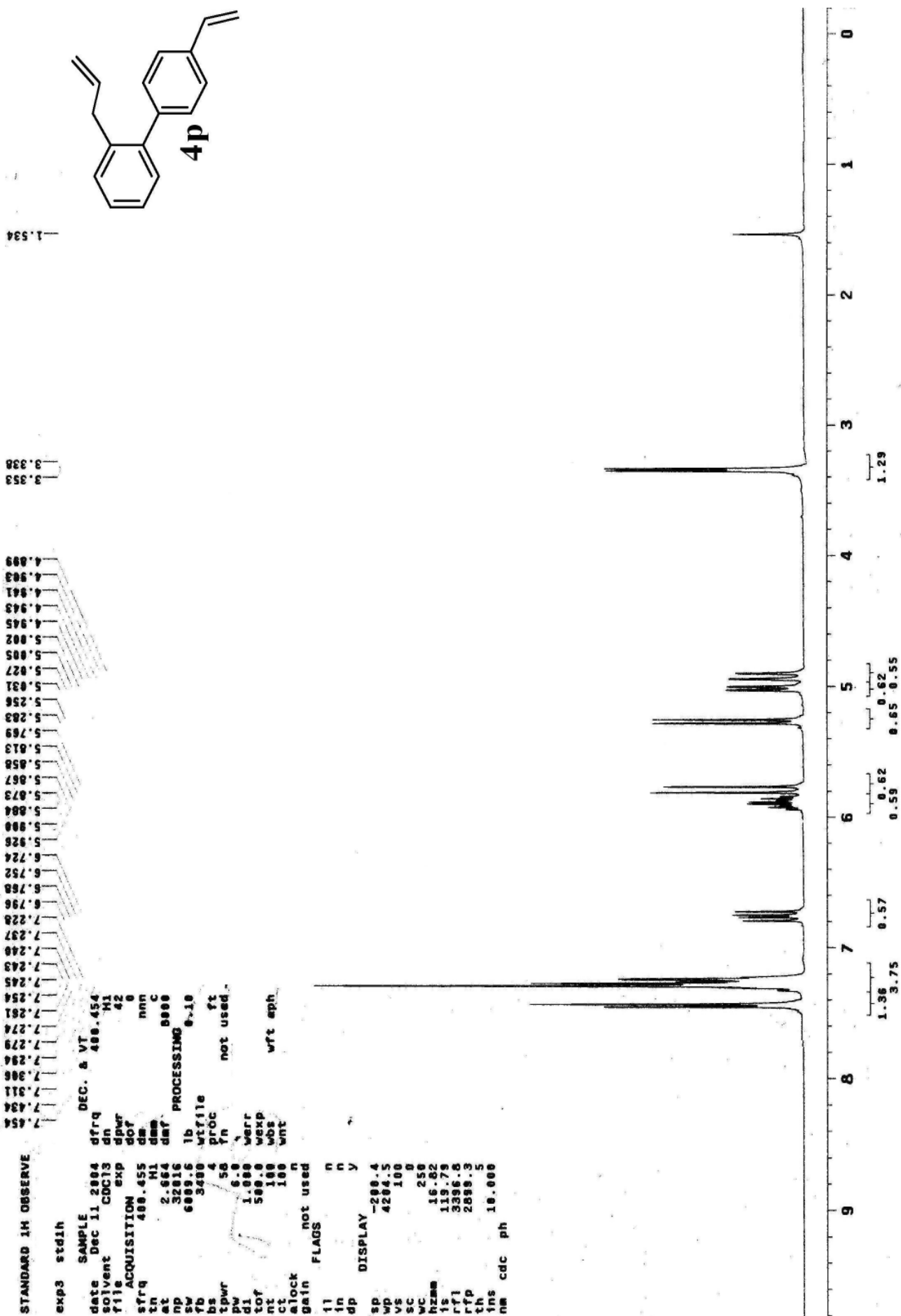
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1D NMR plot parameters

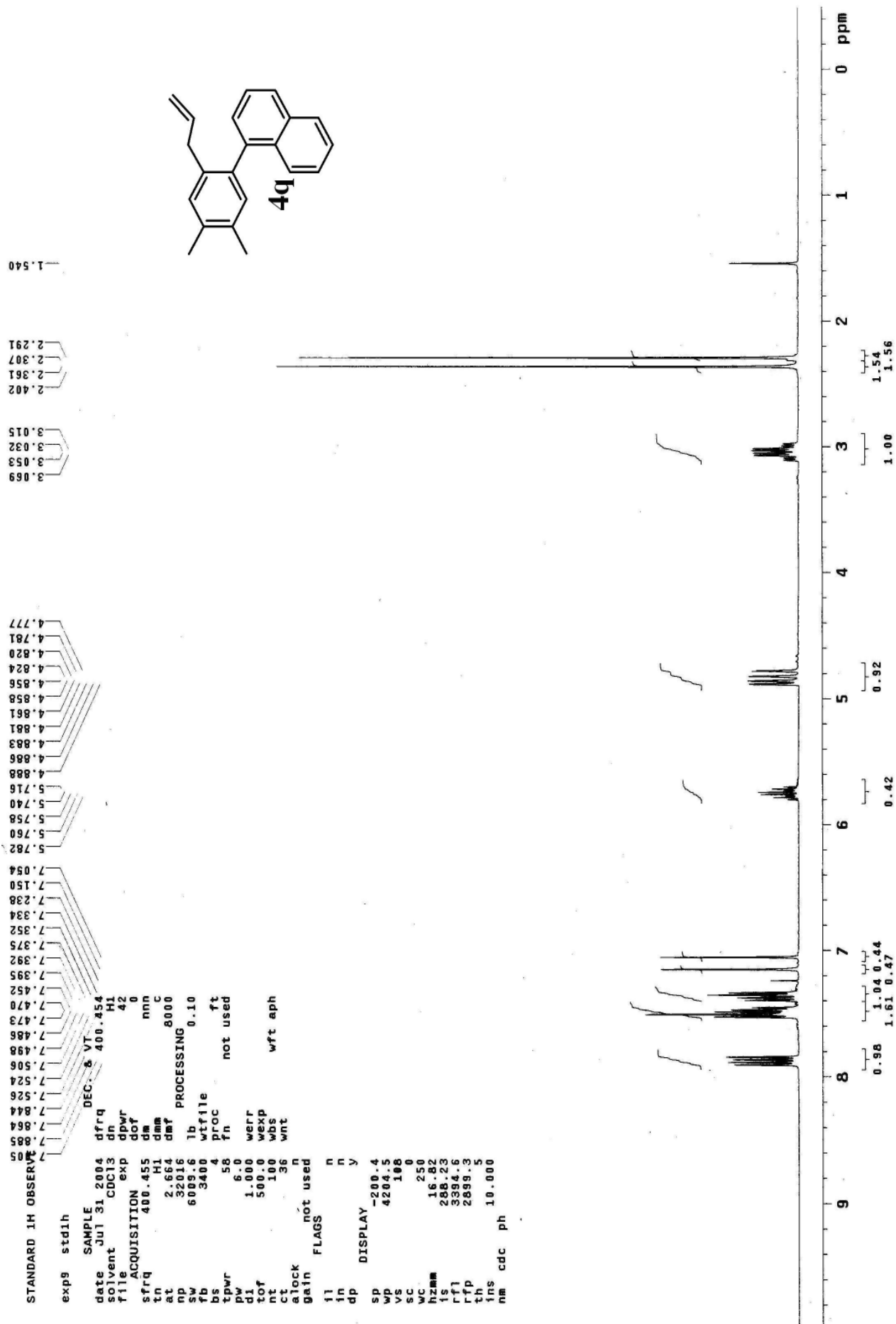
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F2	0.00 Hz
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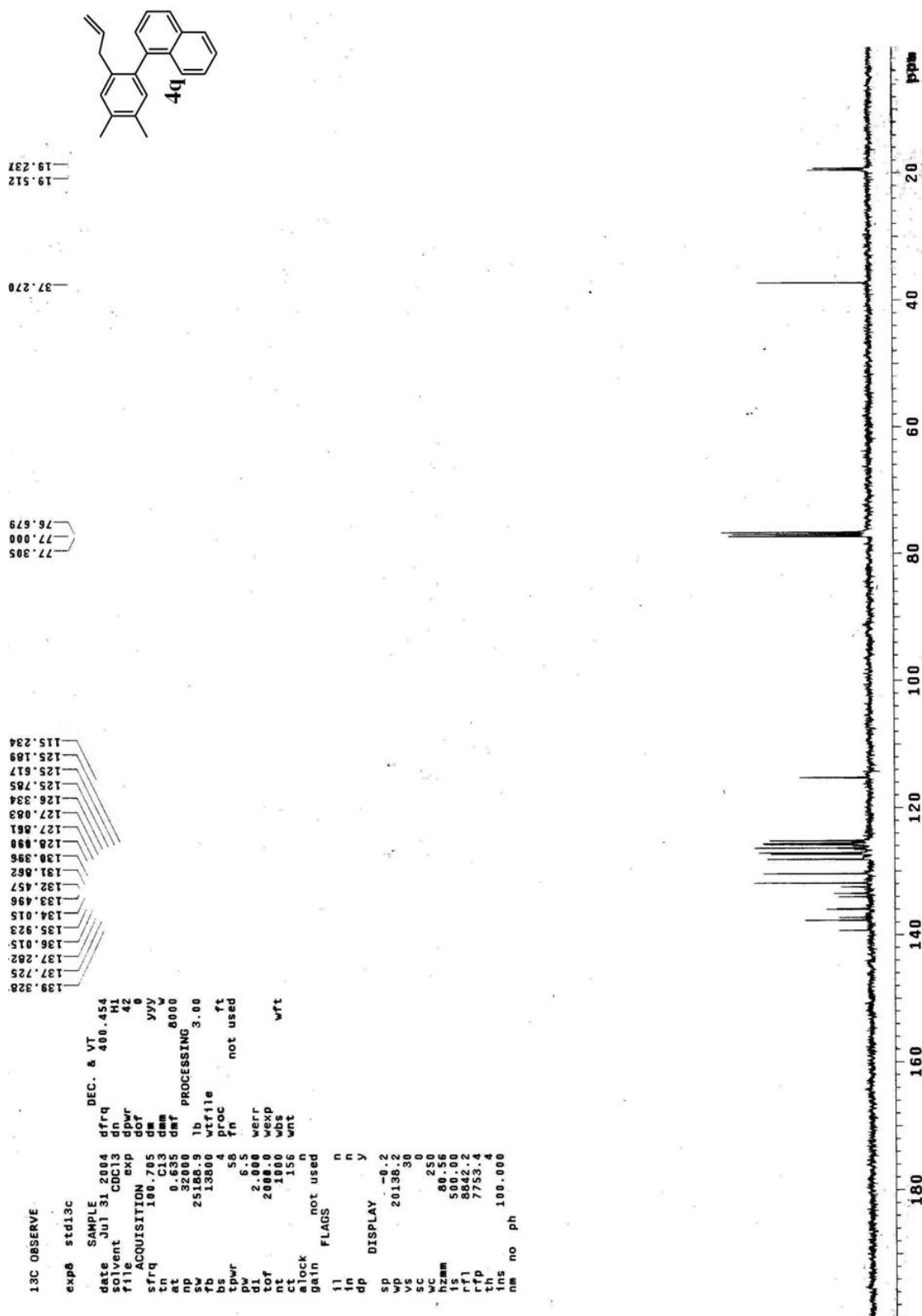


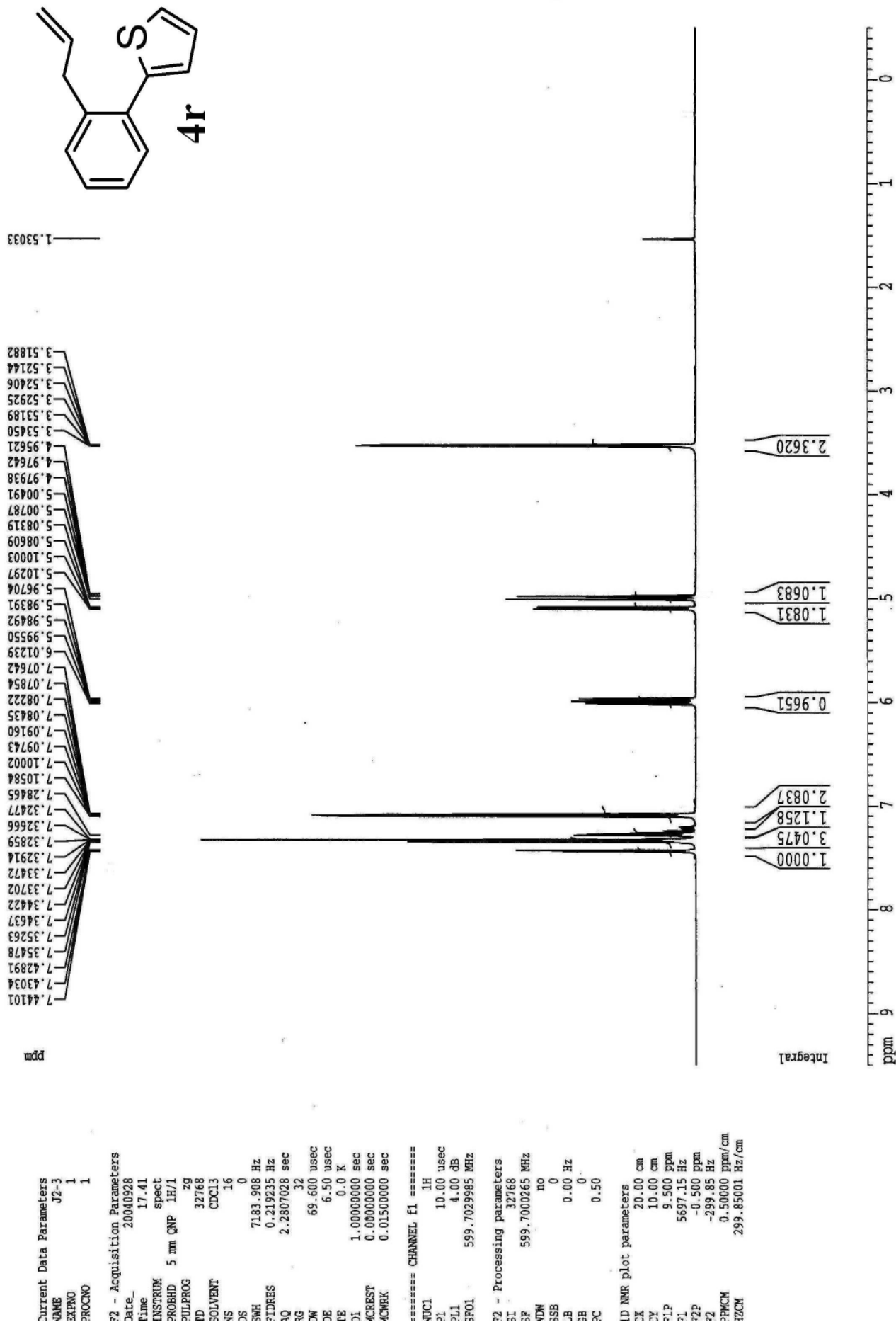




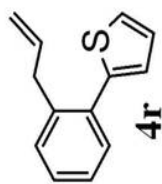












37.693

76.787  
76.999  
77.211

115.939  
125.243  
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126.496  
126.986  
128.030  
130.026  
131.015  
134.113  
137.564  
138.121  
142.542

ppm

Current Data Parameters  
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EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

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TD 32768  
SOLVENT C6D6  
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DS 0  
SWH 37878.789 Hz  
FIDRES 1.155969 Hz  
AQ 0.4325876 sec  
RG 2048  
DM 13.200 usec  
DE 6.50 usec  
TE 300 K  
D1 4.00000000 sec  
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DELTA 3.90000010 sec  
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MCWK 0.01500000 sec

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SFO1 150.811274 MHz

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CPDPRG2 waltz16  
NUC2 1H  
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PL12 8.80 dB  
PL13 10.00 dB  
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