

## Supplementary Material

### A New Strategy for Synthesis of Organosilicon Compounds of Cyclopropane Derivatives

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<sup>A</sup>Organosilicon Research Laboratory, Faculty of Chemistry, University of Tabriz, Tabriz 51666-14766, Iran.

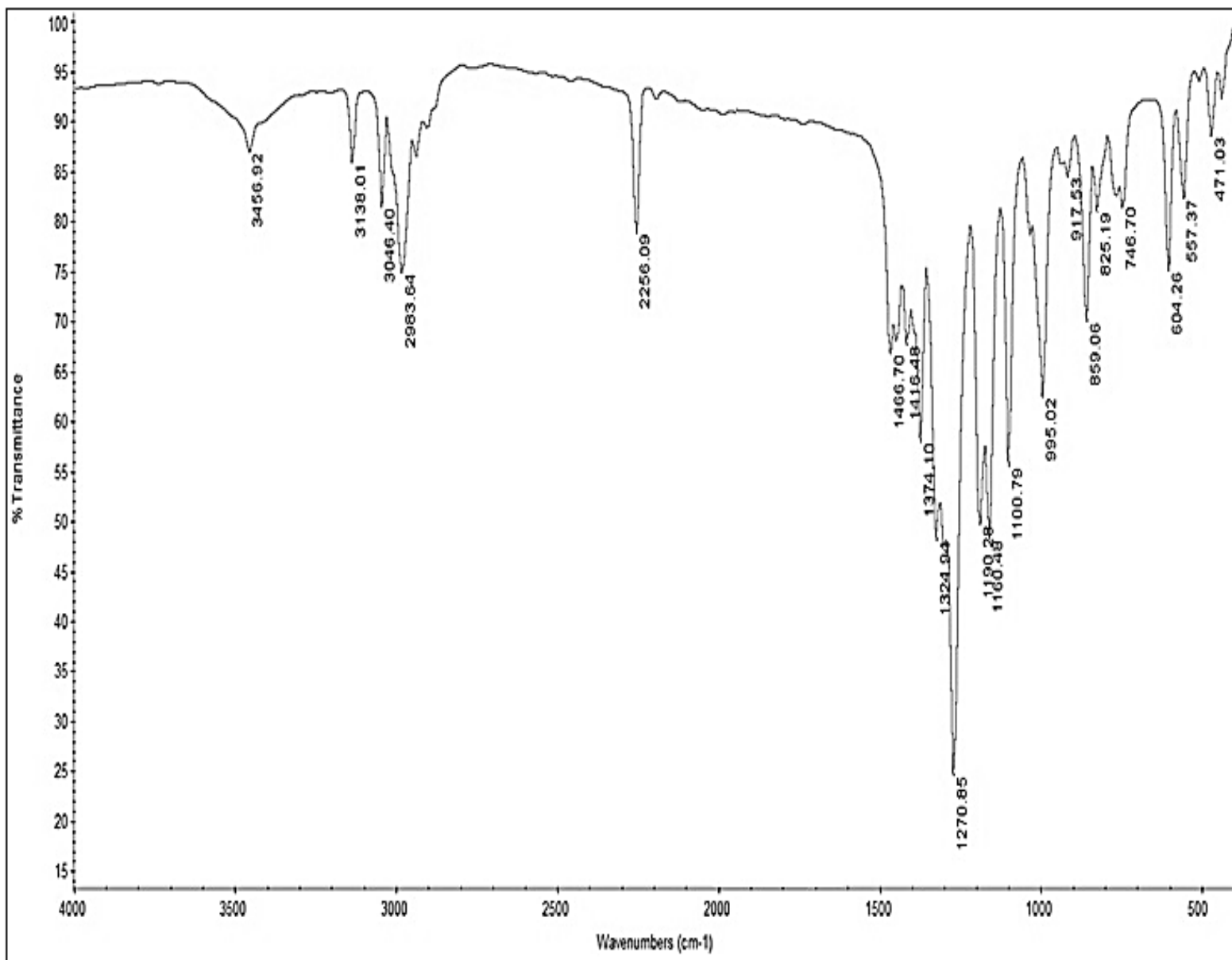
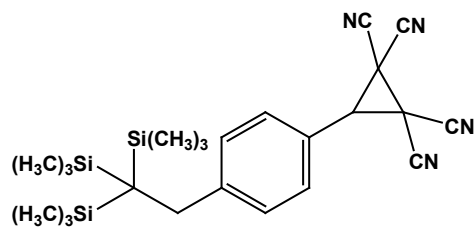
<sup>B</sup>Department of Organic Chemistry, Faculty of Chemistry, Urmia University, Urmia 57159, Iran.

<sup>C</sup>Corresponding author. Email: dsafa@tabrizu.ac.ir

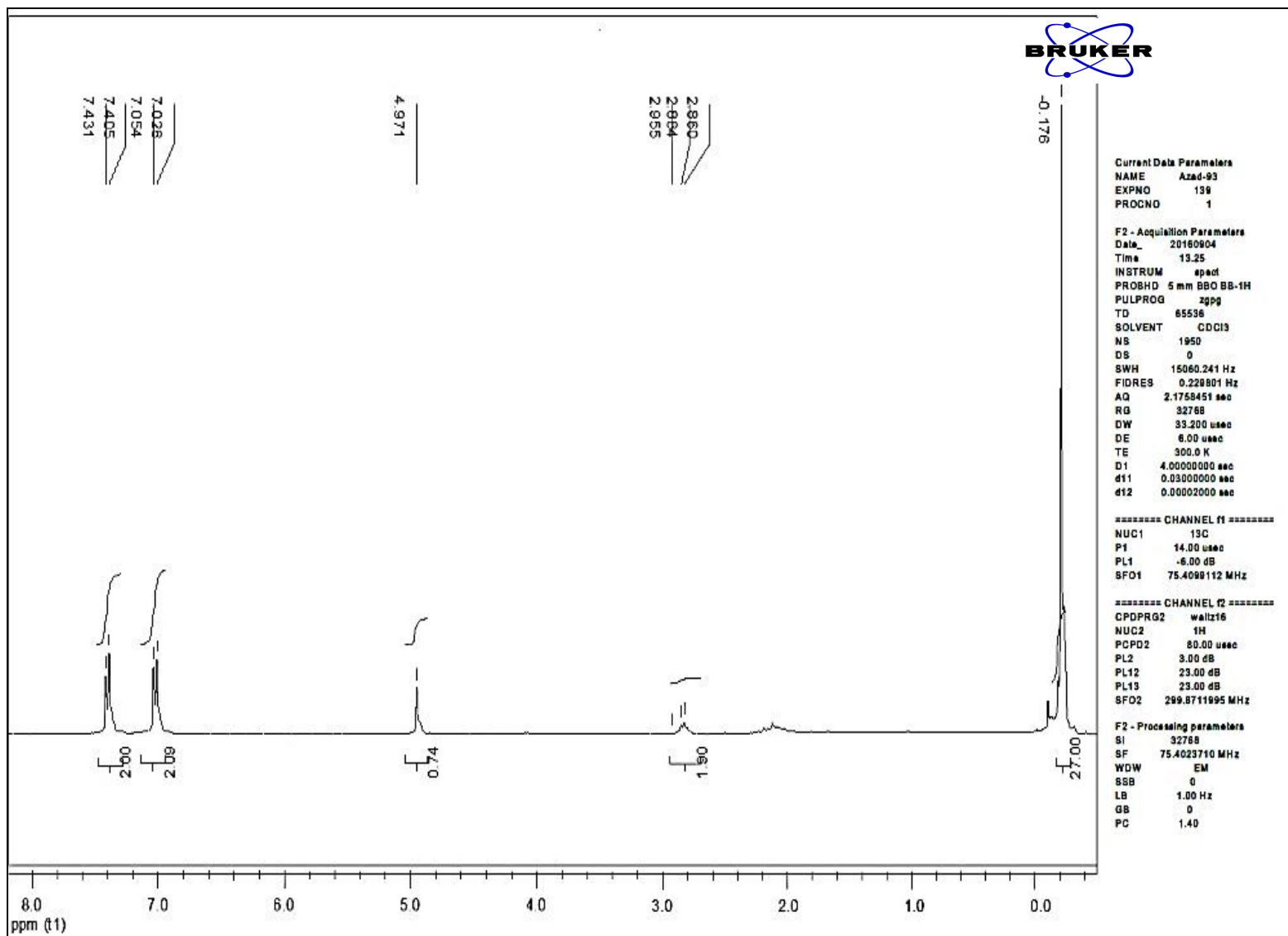
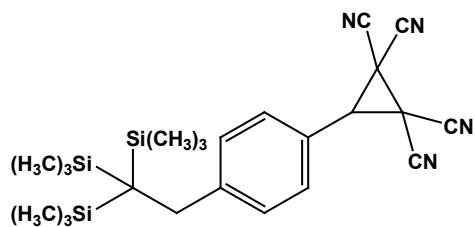
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<sup>1</sup>H-NMR spectrum of 5c (CDCl<sub>3</sub>)



$^{13}\text{C}$ -NMR spectrum of **5c** ( $\text{CDCl}_3$ )



Current Data Parameters  
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EXPNO 139  
PROCNO 1

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PULPROG zgpg  
TD 65536  
SOLVENT DMSO  
NS 1950  
DS 0  
SWH 15060.241 Hz  
FIDRES 0.229801 Hz  
AQ 2.1758451 sec  
RG 32768  
DW 33.200 usec  
DE 6.00 usec  
TE 300.0 K  
D1 4.0000000 sec  
d11 0.0300000 sec  
d12 0.0002000 sec

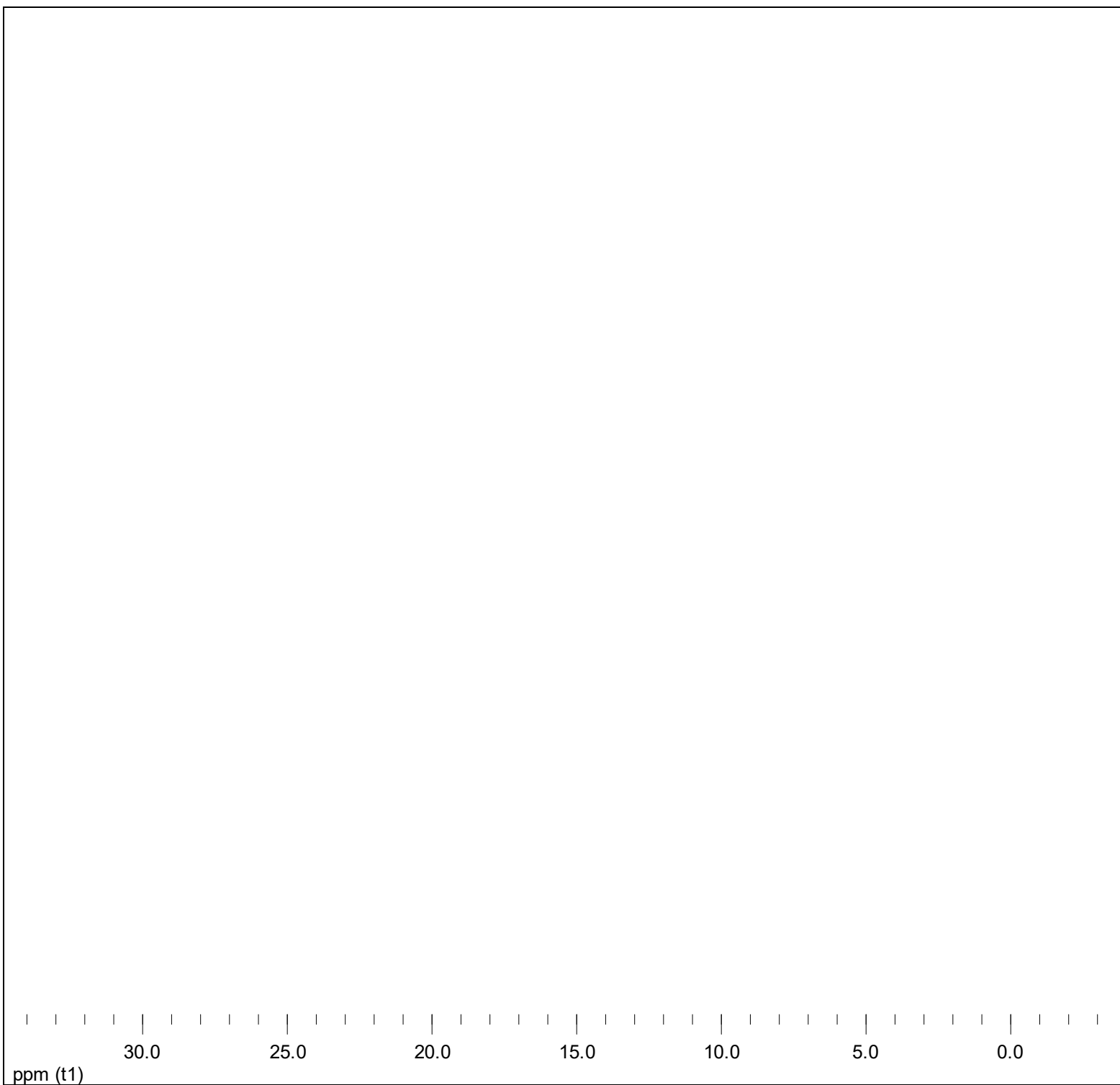
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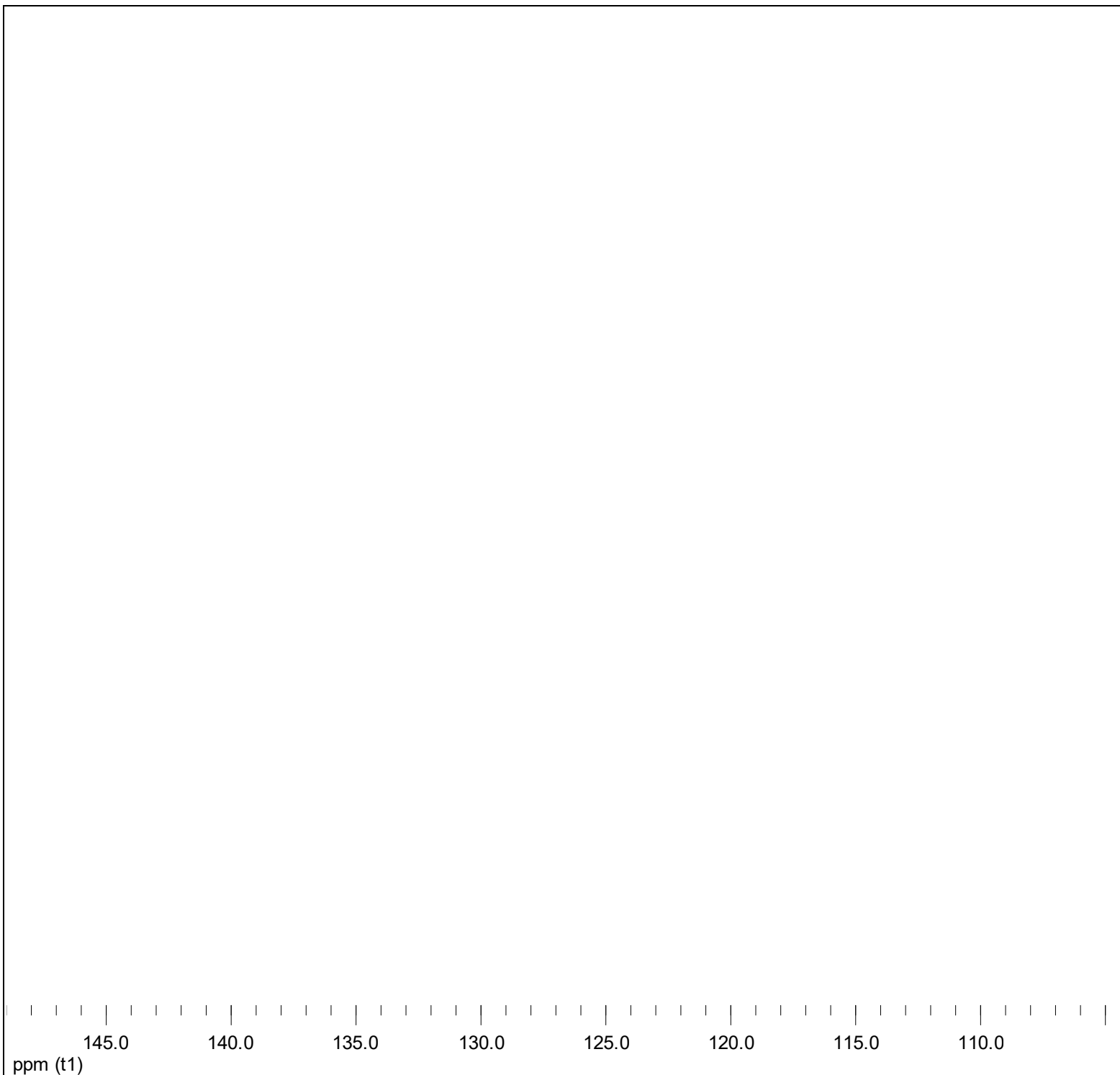
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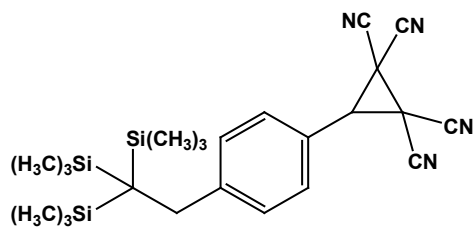
Expanded  $^{13}\text{C}$ -NMR spectrum of **5c** (aliphatic region)



Expanded <sup>13</sup>C-NMR spectrum of **5c** (aromatic region)

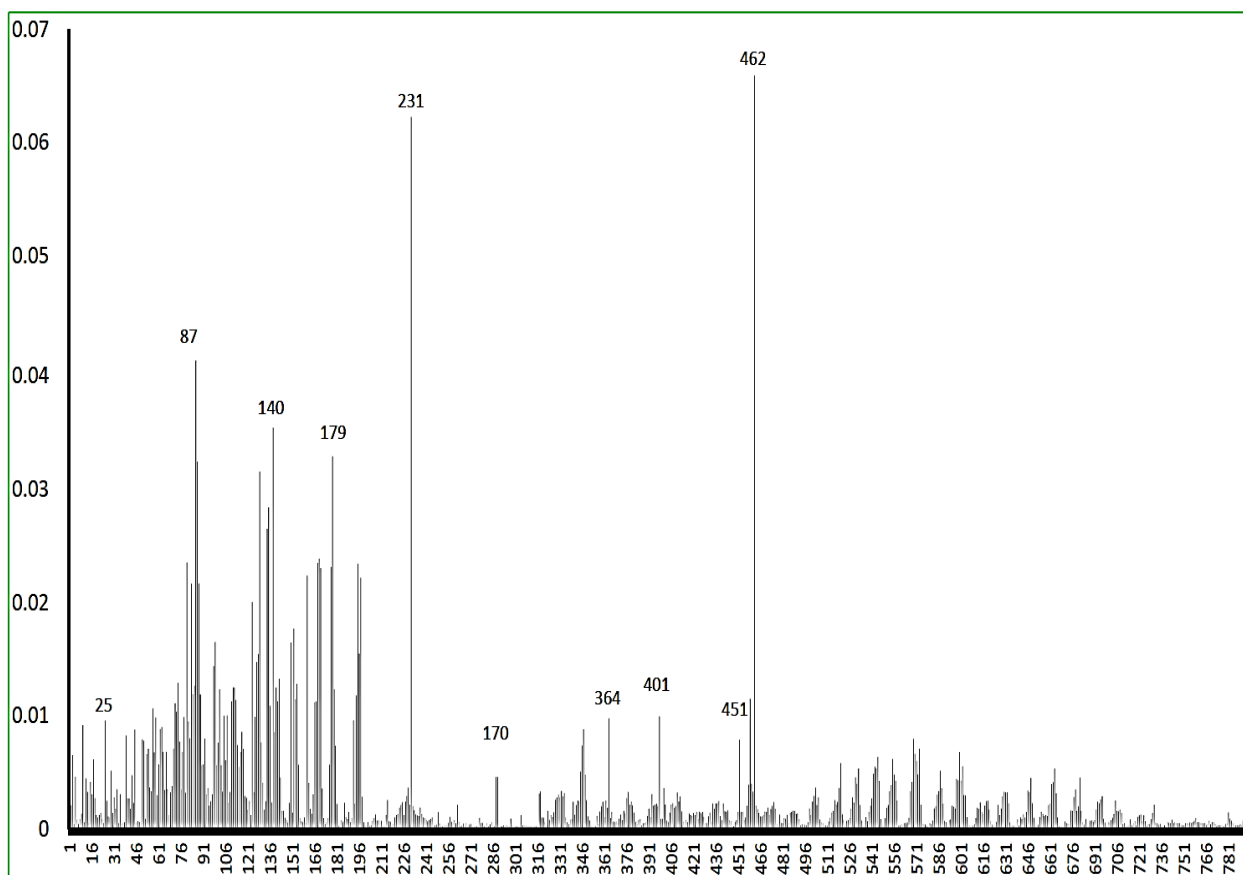


Mass spectrum of **5c**

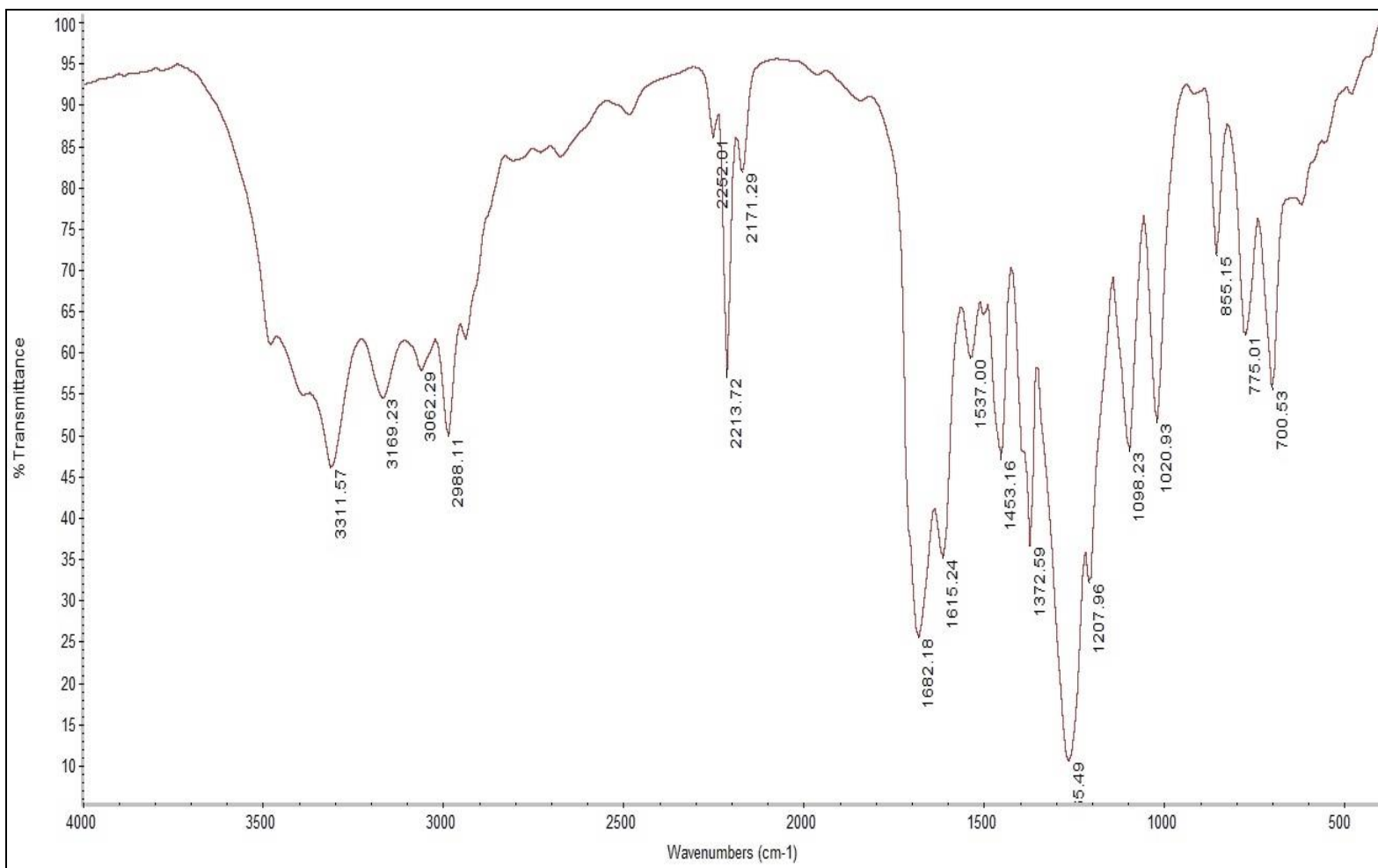
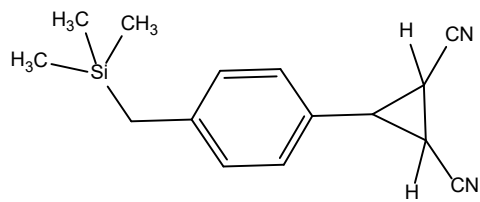


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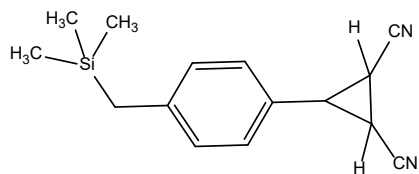


IR Spectrum of **4d** (KBr)



<sup>1</sup>H-NMR spectrum of **4d** (CDCl<sub>3</sub>)



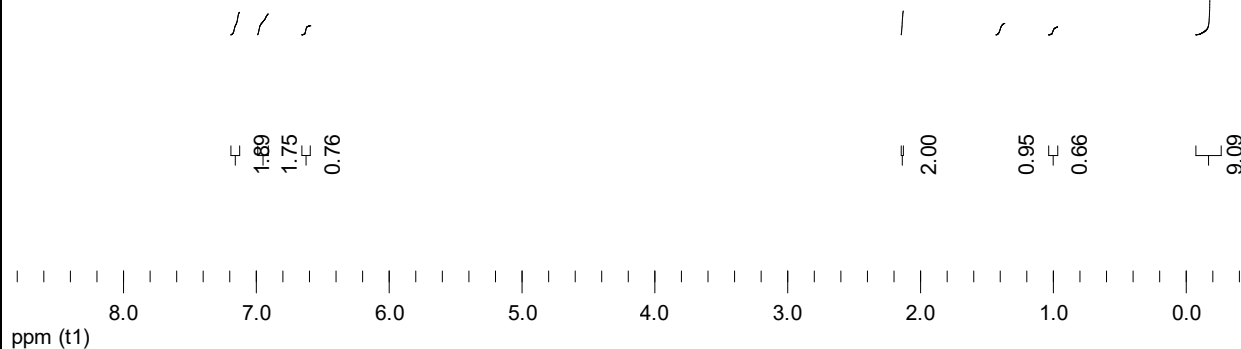


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F2 - Acquisition Parameters  
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 PULPROG zg  
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 SOLVENT CDCl3  
 NS 6  
 DS 0  
 SWH 6172.839 Hz  
 FIDRES 0.188380 Hz  
 AQ 2.6542580 sec  
 RG 256  
 DW 81.000 usec  
 DE 6.00 usec  
 TE 300.0 K  
 DI 4.00000000 sec

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Expanded <sup>1</sup>H-NMR spectrum of **4d** (aliphatic region)

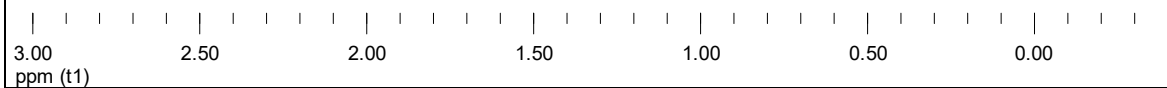


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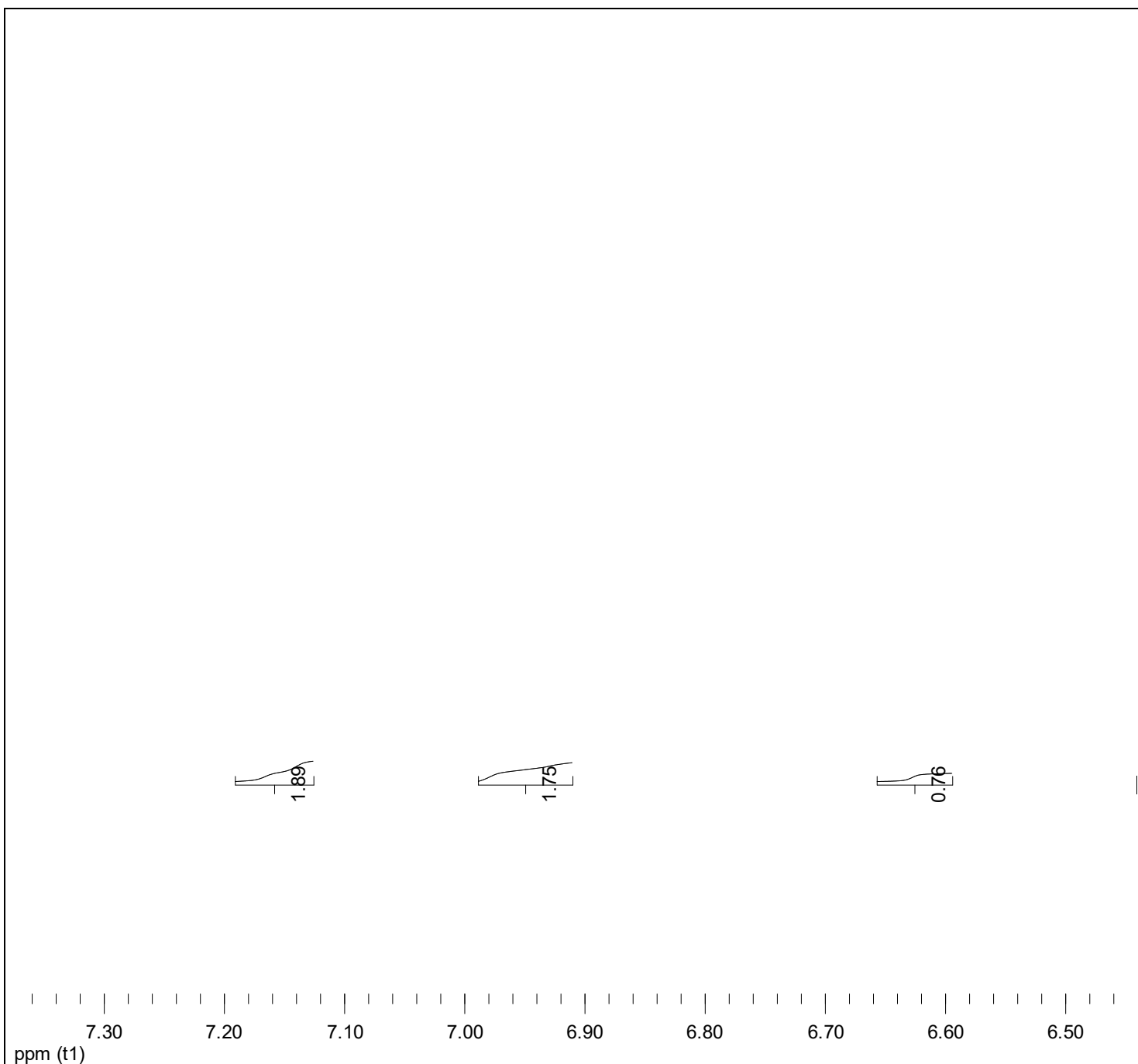
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PULPROG zg  
TD 32768  
SOLVENT CDCl3  
NS 6  
DS 0  
SWH 6172.839 Hz  
FIDRES 0.188380 Hz  
AQ 2.6542580 sec  
RG 256  
DW 81.000 usec  
DE 6.00 usec  
TE 300.0 K  
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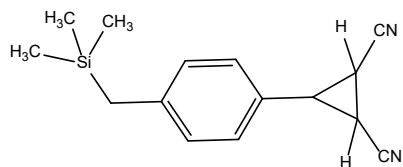
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Expanded <sup>1</sup>H-NMR spectrum of **4d** (aromatic region)



$^{13}\text{C}$ -NMR spectrum of **4d** ( $\text{CDCl}_3$ )



Current Data Parameters

NAME Azad-93  
 EXPNO 116  
 PROCNO 1

F2 - Acquisition Parameters

Date 20160523  
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 PULPROG zg  
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 SOLVENT CDCl3  
 NS 6  
 DS 0  
 SWH 6172.839 Hz  
 FIDRES 0.188380 Hz  
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 RG 256  
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 DE 6.00 usec  
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 D1 4.0000000 sec

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

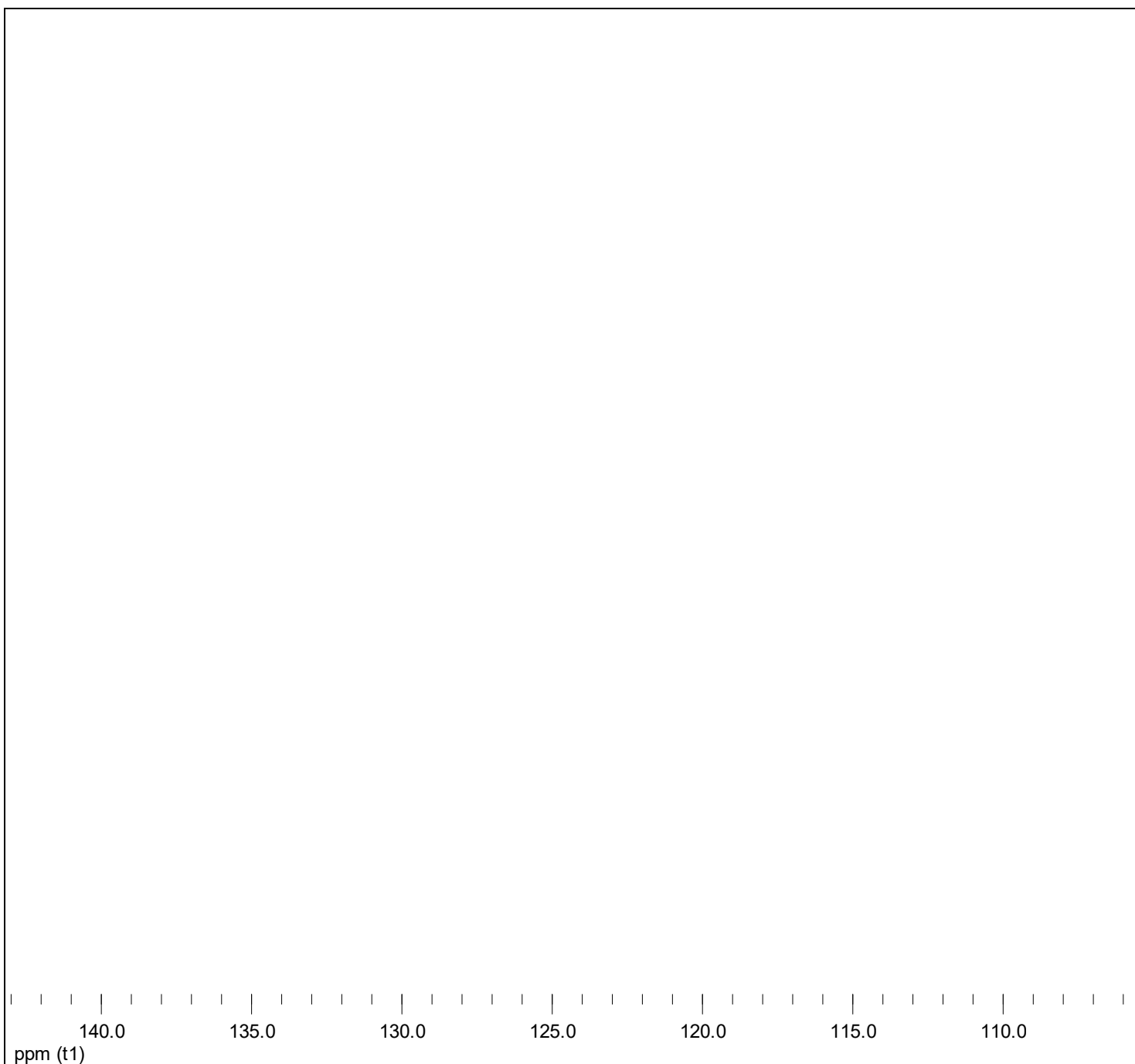
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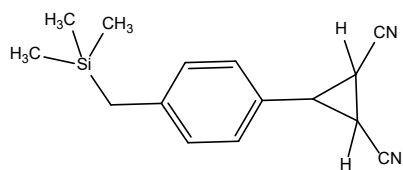
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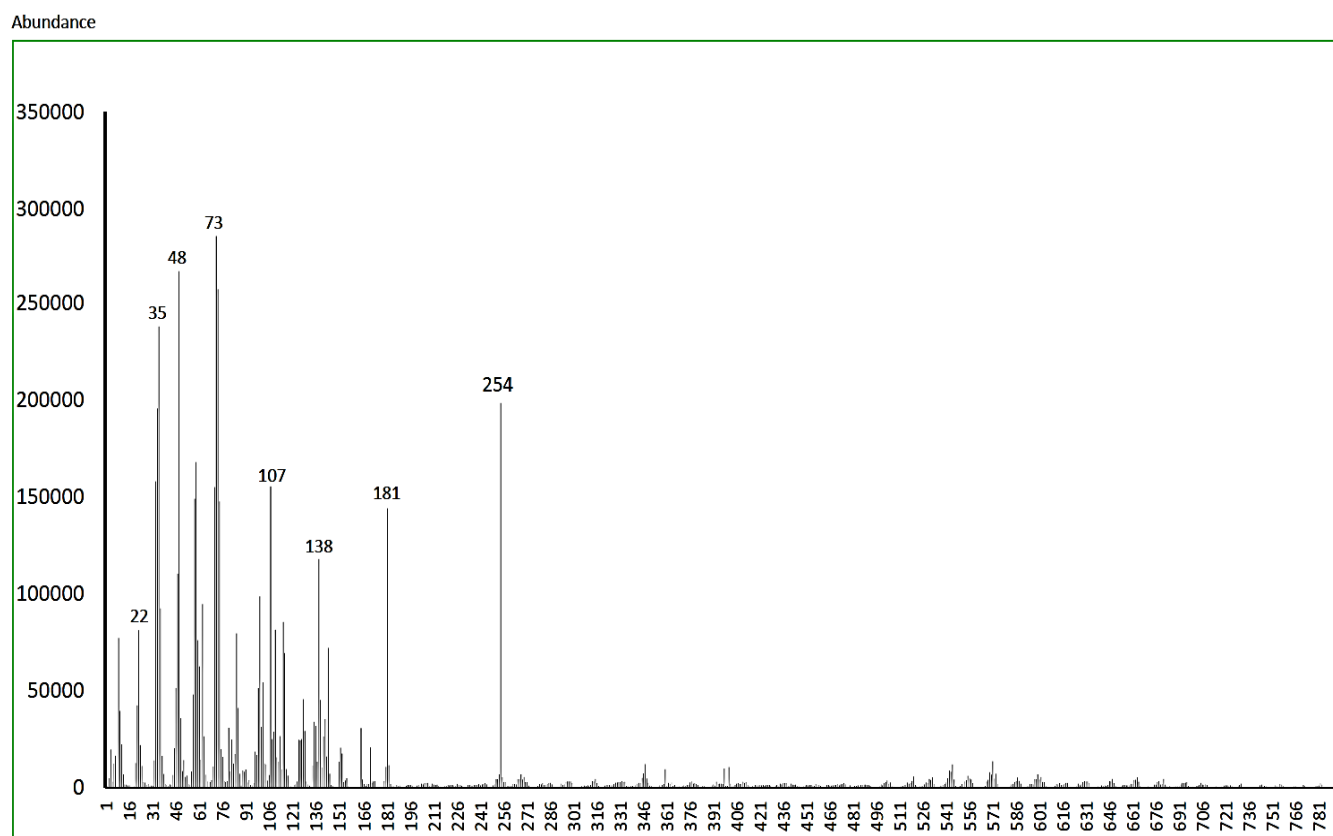
Expanded  $^{13}\text{C}$ -NMR spectrum of **4d** (aromatic region)



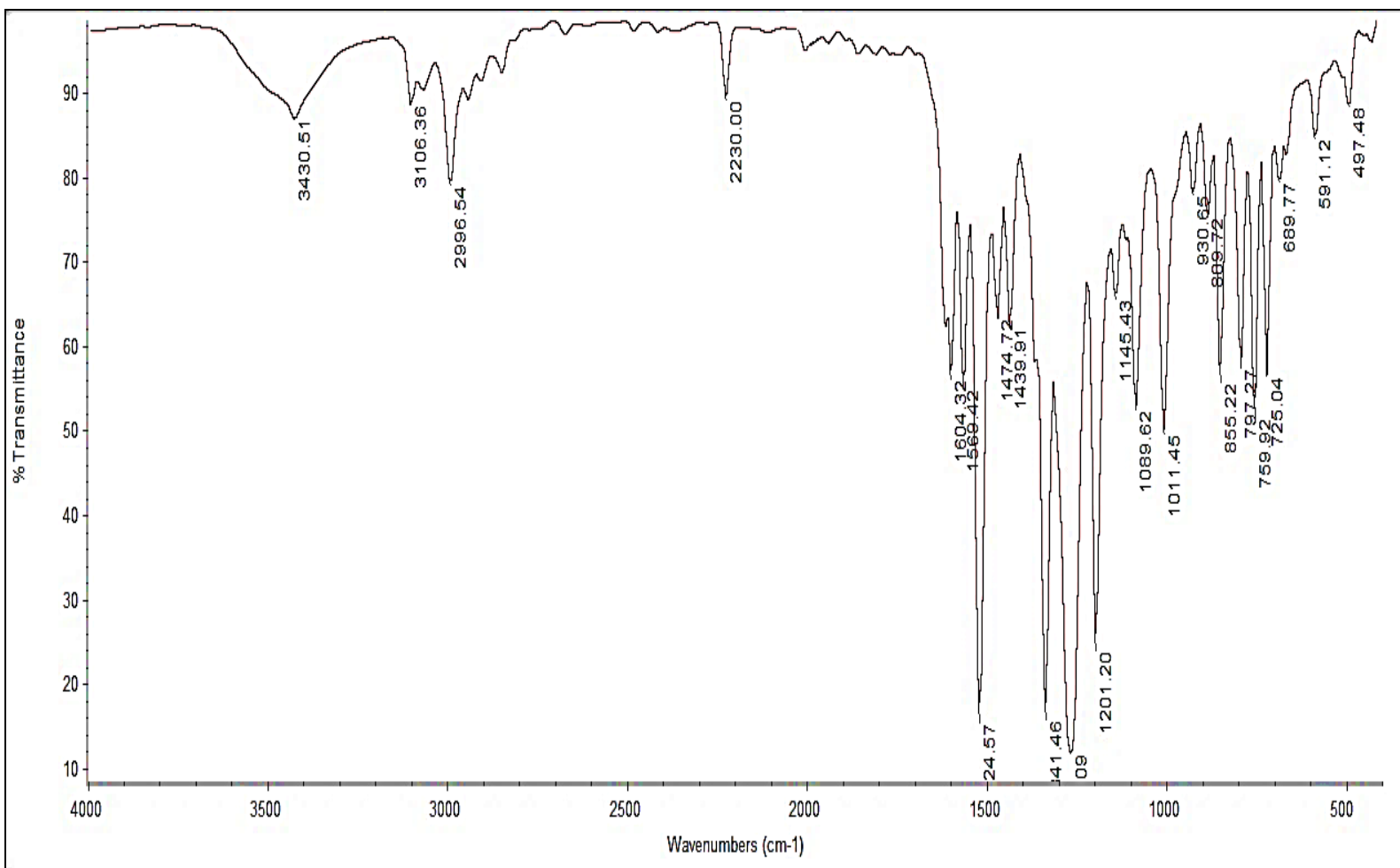
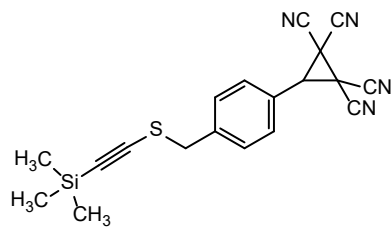
Mass spectrum of **4d**



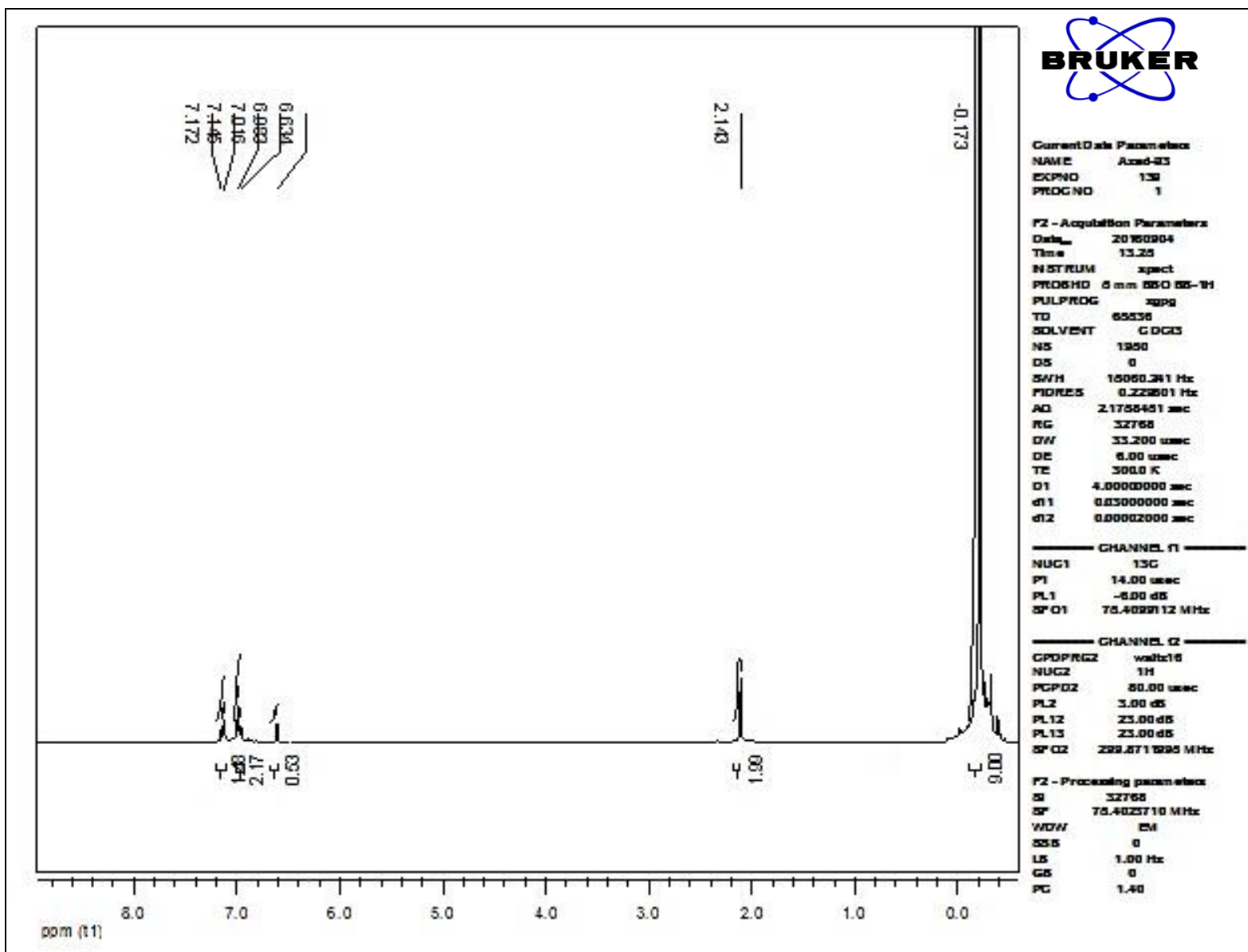
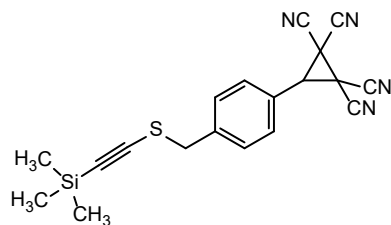
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Vial Number: 1



IR Spectrum of **3c** (KBr)

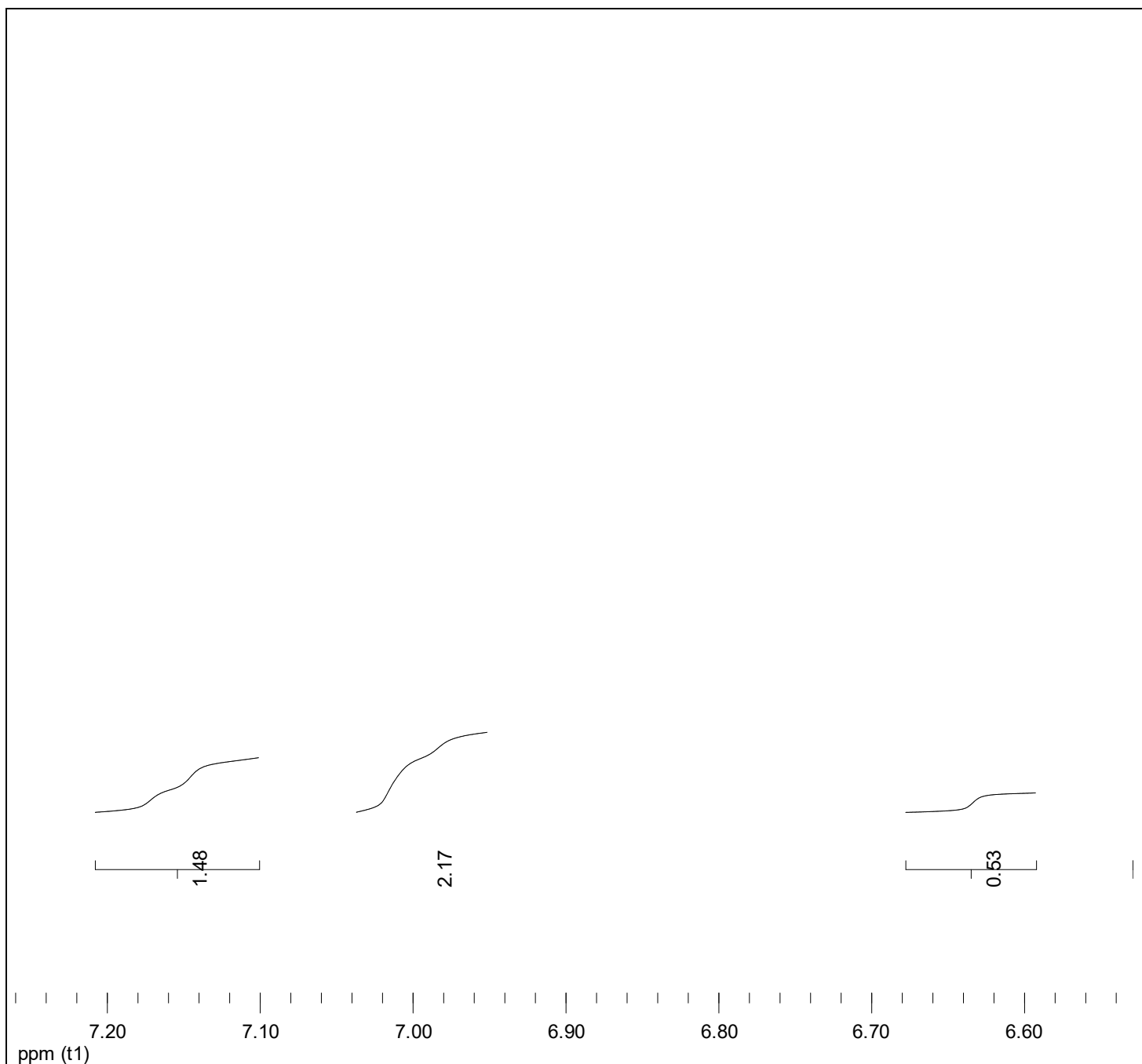


<sup>1</sup>H-NMR spectrum of **3c** (CDCl<sub>3</sub>)

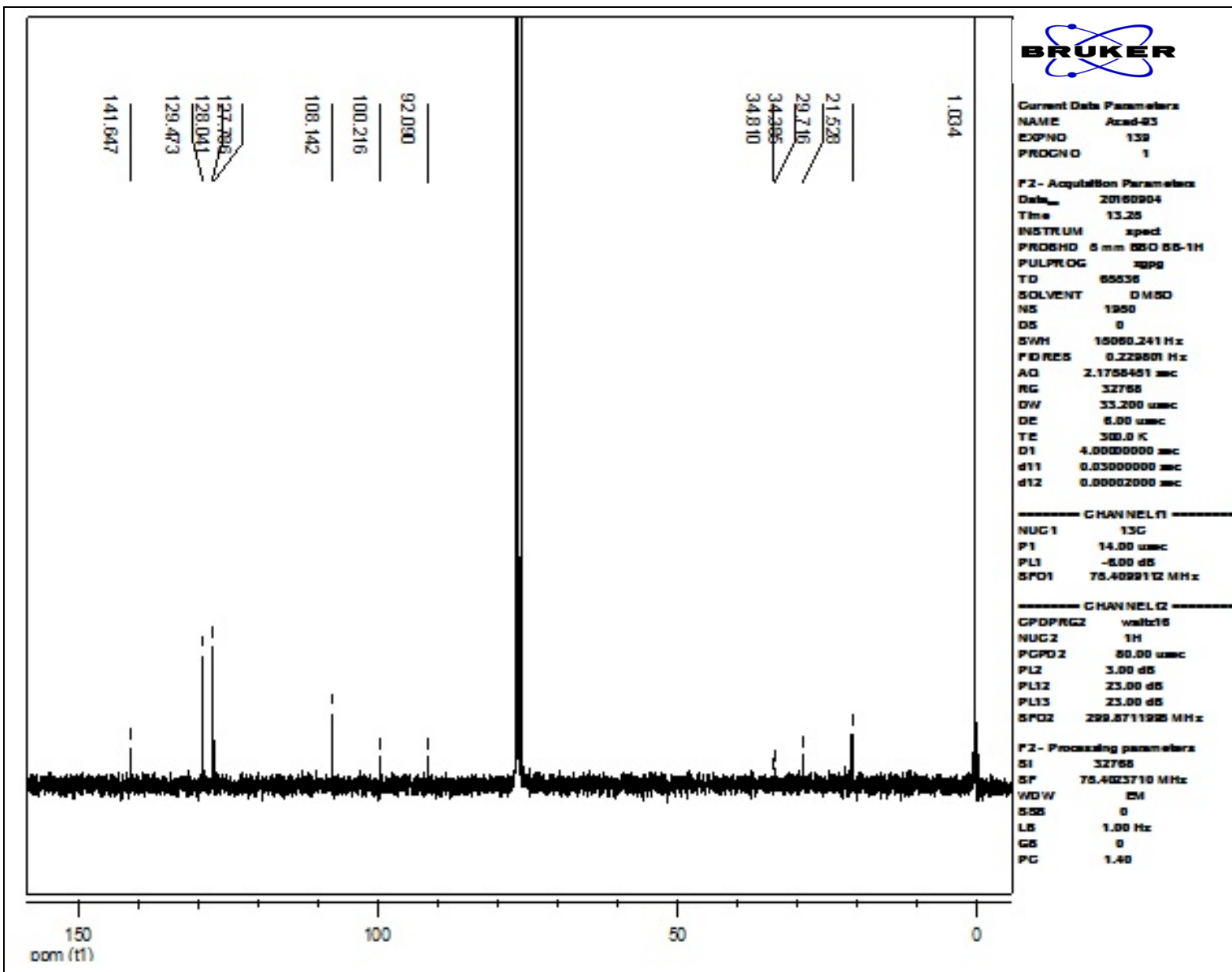
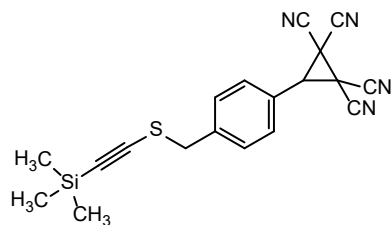


Expanded <sup>1</sup>H-NMR spectrum of **3c** (aromatic region)

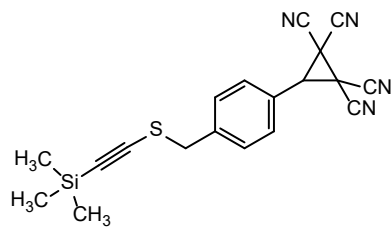




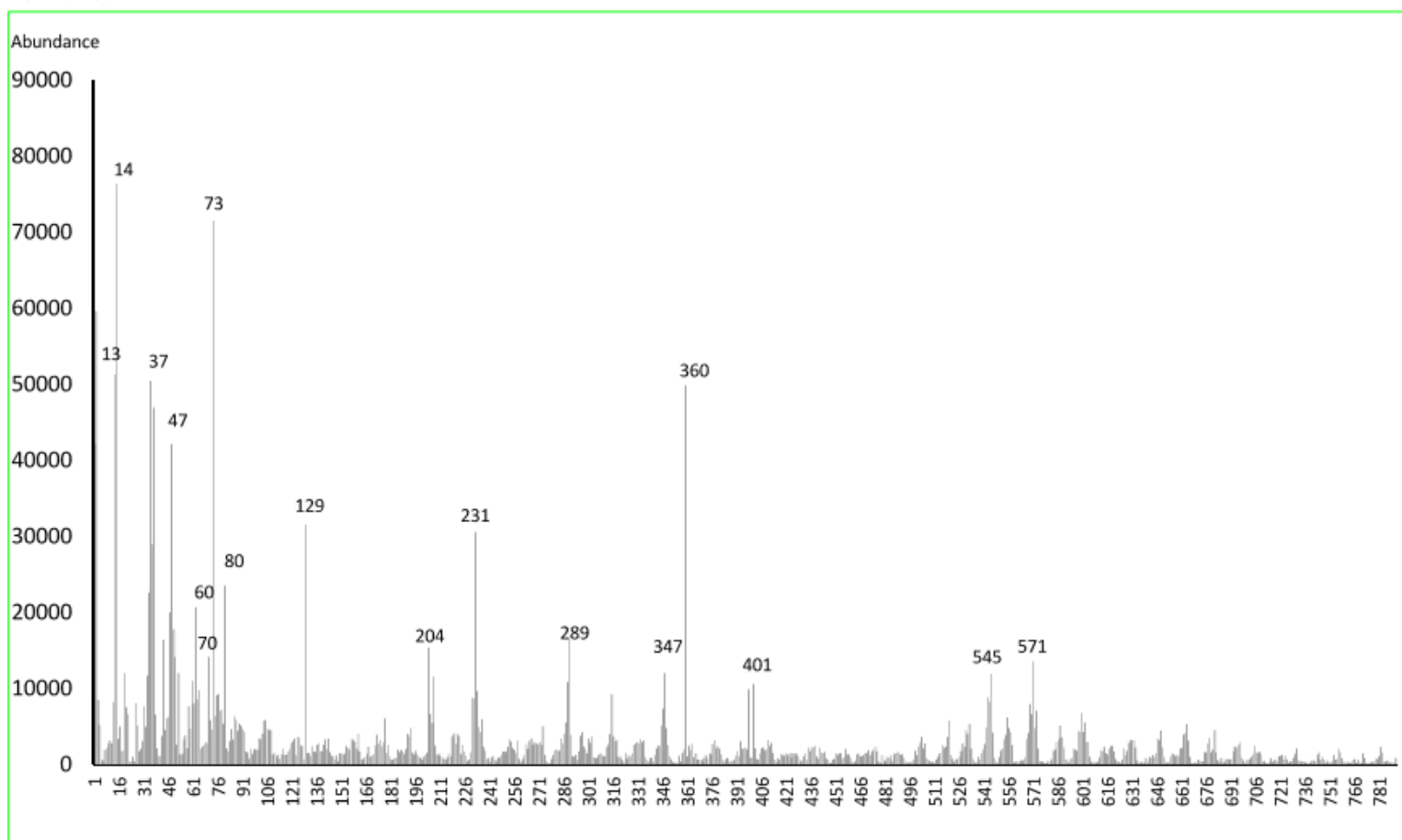
$^{13}\text{C}$ -NMR spectrum of **3c** ( $\text{CDCl}_3$ )



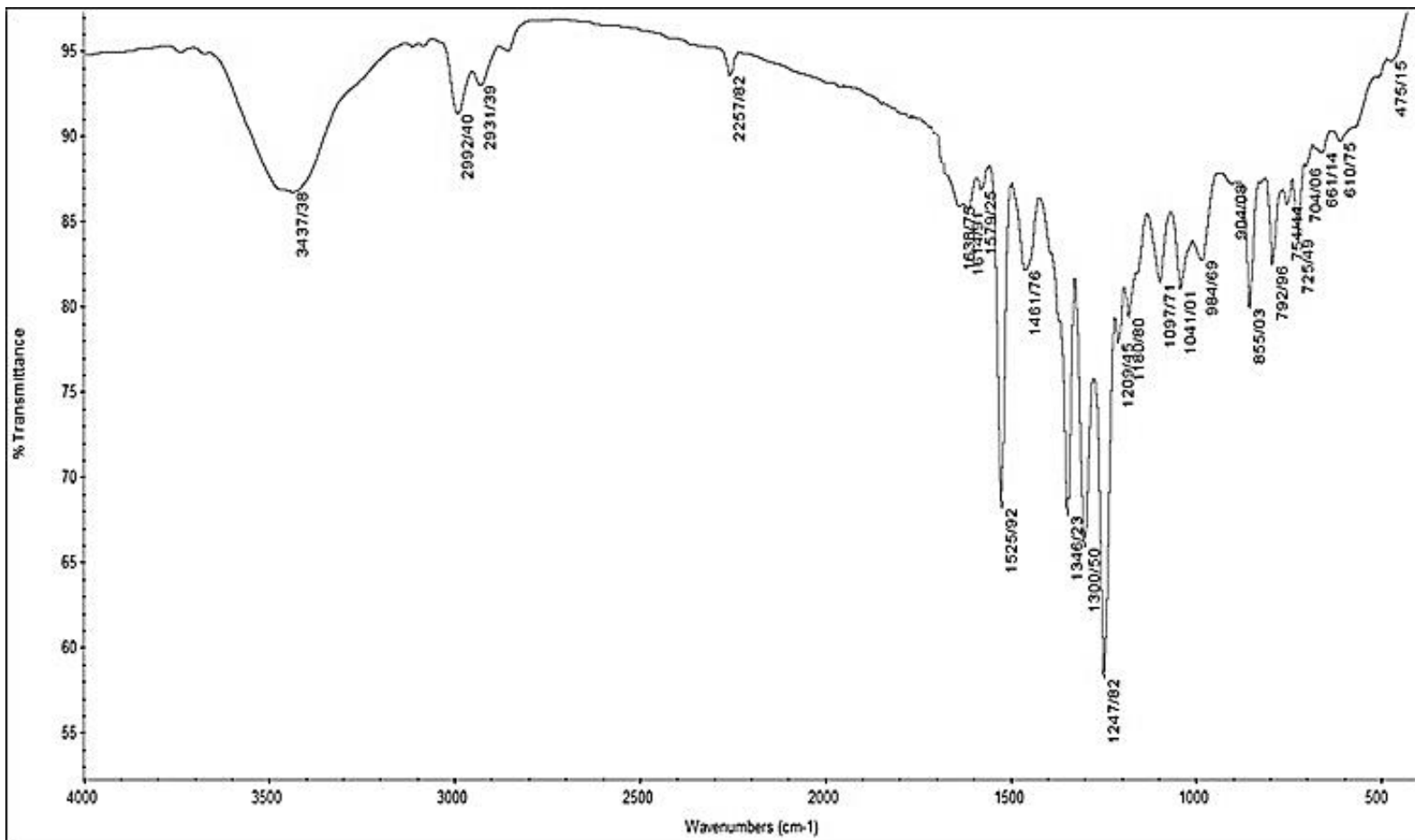
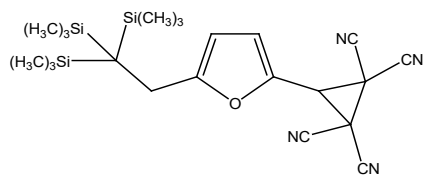
Mass spectrum of 3c



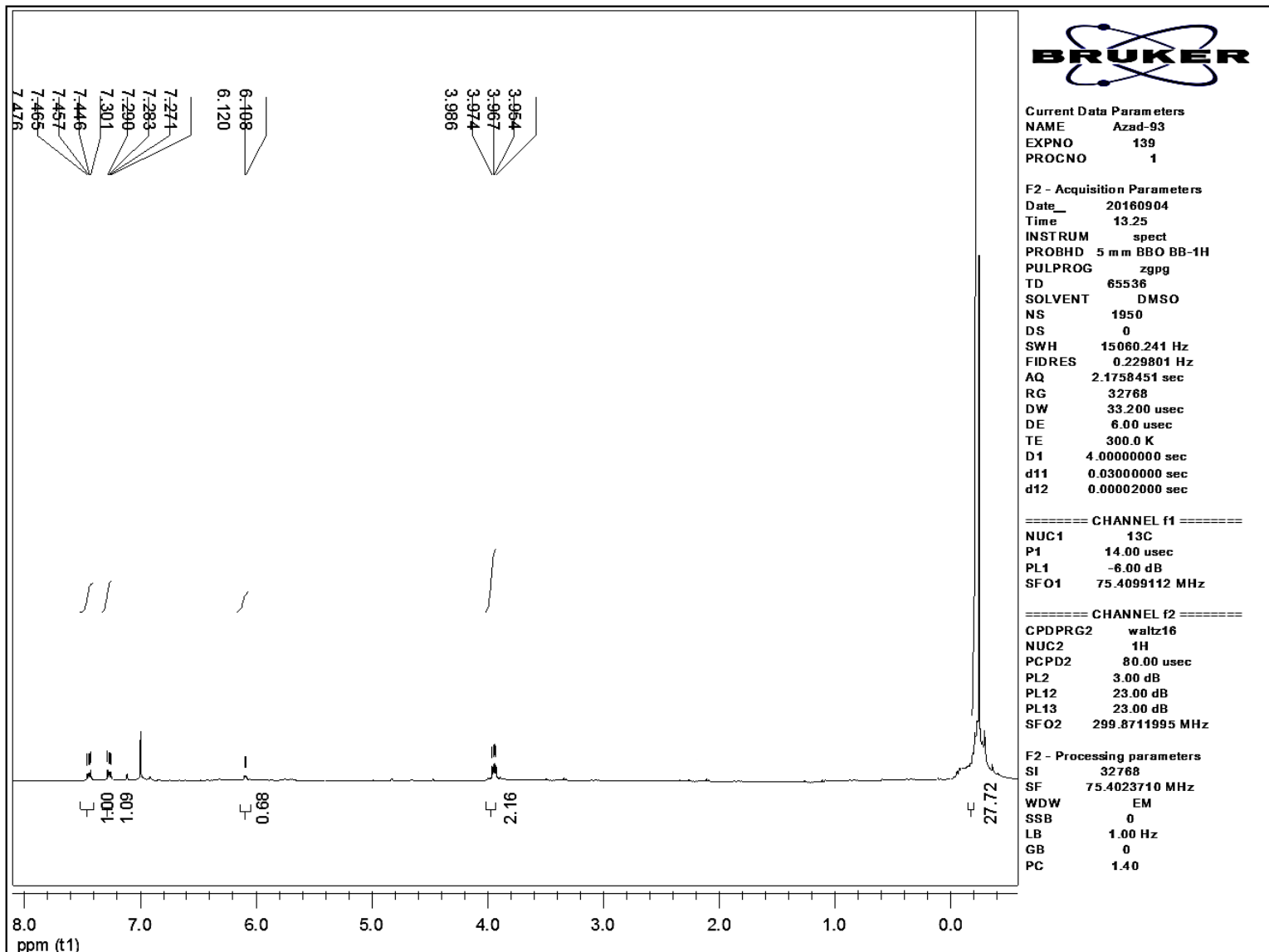
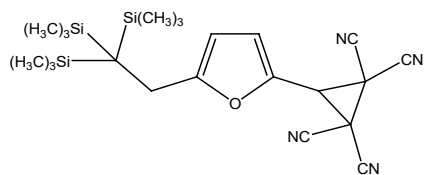
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 Vial Number: 1



IR Spectrum of **6e** (KBr)



<sup>1</sup>H-NMR spectrum of 6e (CDCl<sub>3</sub>)



Expanded <sup>1</sup>H-NMR spectrum of **6e** (aliphatic region)



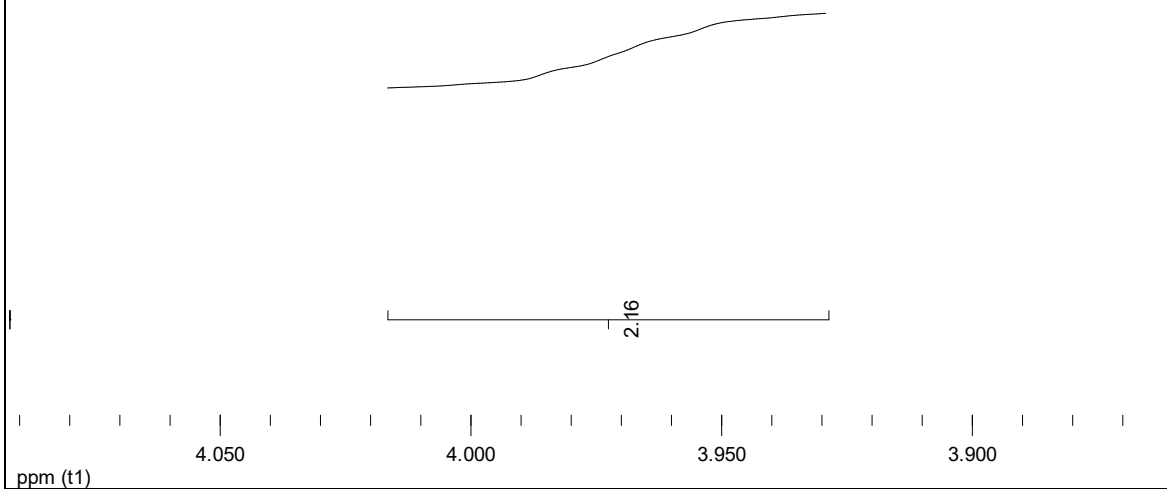
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PROCNO 1

F2 - Acquisition Parameters  
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PULPROG zgpg  
TD 65536  
SOLVENT DMSO  
NS 1950  
DS 0  
SWH 15060.241 Hz  
FIDRES 0.229801 Hz  
AQ 2.1758451 sec  
RG 32768  
DW 33.200 usec  
DE 6.00 usec  
TE 300.0 K  
D1 4.0000000 sec  
d11 0.0300000 sec  
d12 0.0000200 sec

==== CHANNEL f1 ====  
NUC1 13C  
P1 14.00 usec  
PL1 -6.00 dB  
SFO1 75.4099112 MHz

==== CHANNEL f2 ====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 80.00 usec  
PL2 3.00 dB  
PL12 23.00 dB  
PL13 23.00 dB  
SFO2 299.8711995 MHz

F2 - Processing parameters  
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PC 1.40



Expanded  $^1\text{H}$ -NMR spectrum of **6e** (aliphatic region)



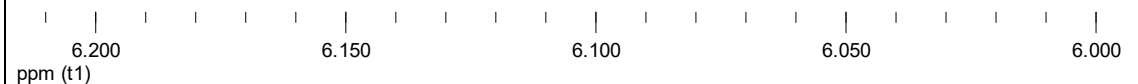
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PULPROG zgpg  
TD 65536  
SOLVENT DMSO  
NS 1950  
DS 0  
SWH 15060.241 Hz  
FIDRES 0.229801 Hz  
AQ 2.1758451 sec  
RG 32768  
DW 33.200 usec  
DE 6.00 usec  
TE 300.0 K  
D1 4.0000000 sec  
d11 0.03000000 sec  
d12 0.00002000 sec

==== CHANNEL f1 =====  
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P1 14.00 usec  
PL1 -6.00 dB  
SFO1 75.4099112 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 80.00 usec  
PL2 3.00 dB  
PL12 23.00 dB  
PL13 23.00 dB  
SFO2 299.8711995 MHz

F2 - Processing parameters  
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PC 1.40



Expanded  $^1\text{H}$ -NMR spectrum of **6e** (aromatic region)



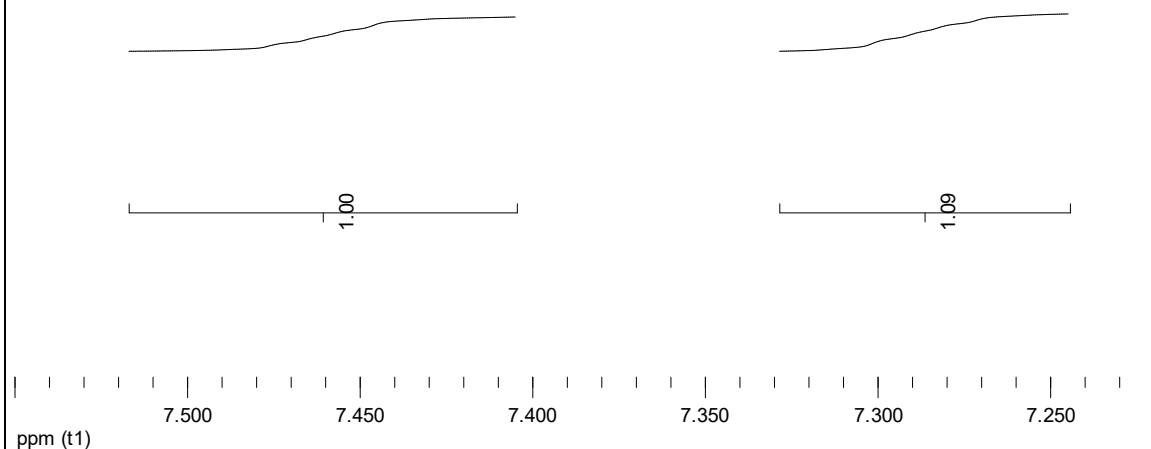
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SOLVENT DMSO  
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FIDRES 0.229801 Hz  
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TE 300.0 K  
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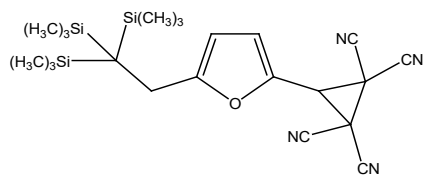
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SFO2 299.8711995 MHz

F2 - Processing parameters  
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PC 1.40



<sup>13</sup>C-NMR spectrum of 6e (CDCl<sub>3</sub>)





Current Data Parameters  
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 SOLVENT DMSO  
 NS 1950  
 DS 0  
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 FIDRES 0.229801 Hz  
 AQ 2.1758451 sec  
 RG 32768  
 DW 33.200 usec  
 DE 6.00 usec  
 TE 300.0 K  
 D1 4.0000000 sec  
 d11 0.0300000 sec  
 d12 0.00002000 sec

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 PL1 -6.00 dB  
 SFO1 75.4099112 MHz

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 PL12 23.00 dB  
 PL13 23.00 dB  
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F2 - Processing parameters  
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 SF 75.4023710 MHz  
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 LB 1.00 Hz  
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 PC 1.40



Expanded <sup>13</sup>C-NMR spectrum of **6e** (aliphatic region)



Current Data Parameters

NAME Azad-93  
EXPNO 139  
PROCNO 1

F2 - Acquisition Parameters

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Time 13.25  
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PULPROG zgpg  
TD 65536  
SOLVENT DMSO  
NS 1950  
DS 0  
SWH 15060.241 Hz  
FIDRES 0.229801 Hz  
AQ 2.1758451 sec  
RG 32768  
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TE 300.0 K  
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d11 0.03000000 sec  
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===== CHANNEL f1 =====

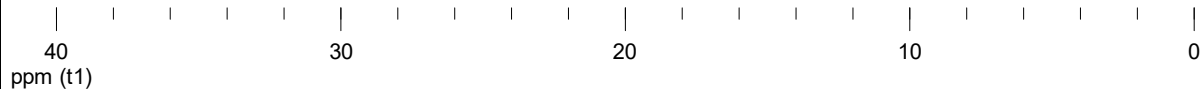
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NUC2 1H  
PCPD2 80.00 usec  
PL2 3.00 dB  
PL12 23.00 dB  
PL13 23.00 dB  
SFO2 299.8711995 MHz

F2 - Processing parameters

SI 32768  
SF 75.4023710 MHz  
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SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40



Expanded  $^{13}\text{C}$ -NMR spectrum of **6e** (aromatic region)



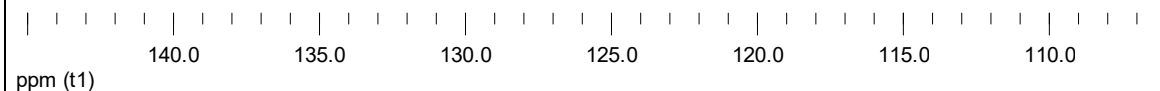
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PROCNO 1

F2 - Acquisition Parameters  
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PULPROG zgpg  
TD 65536  
SOLVENT DMSO  
NS 1950  
DS 0  
SWH 15060.241 Hz  
FIDRES 0.229801 Hz  
AQ 2.1758451 sec  
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DE 6.00 usec  
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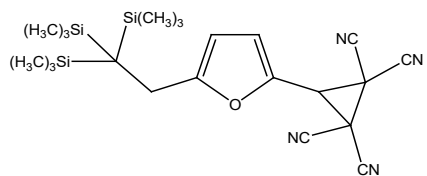
==== CHANNEL f1 =====  
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P1 14.00 usec  
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==== CHANNEL f2 =====  
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NUC2 1H  
PCPD2 80.00 usec  
PL2 3.00 dB  
PL12 23.00 dB  
PL13 23.00 dB  
SFO2 299.8711995 MHz

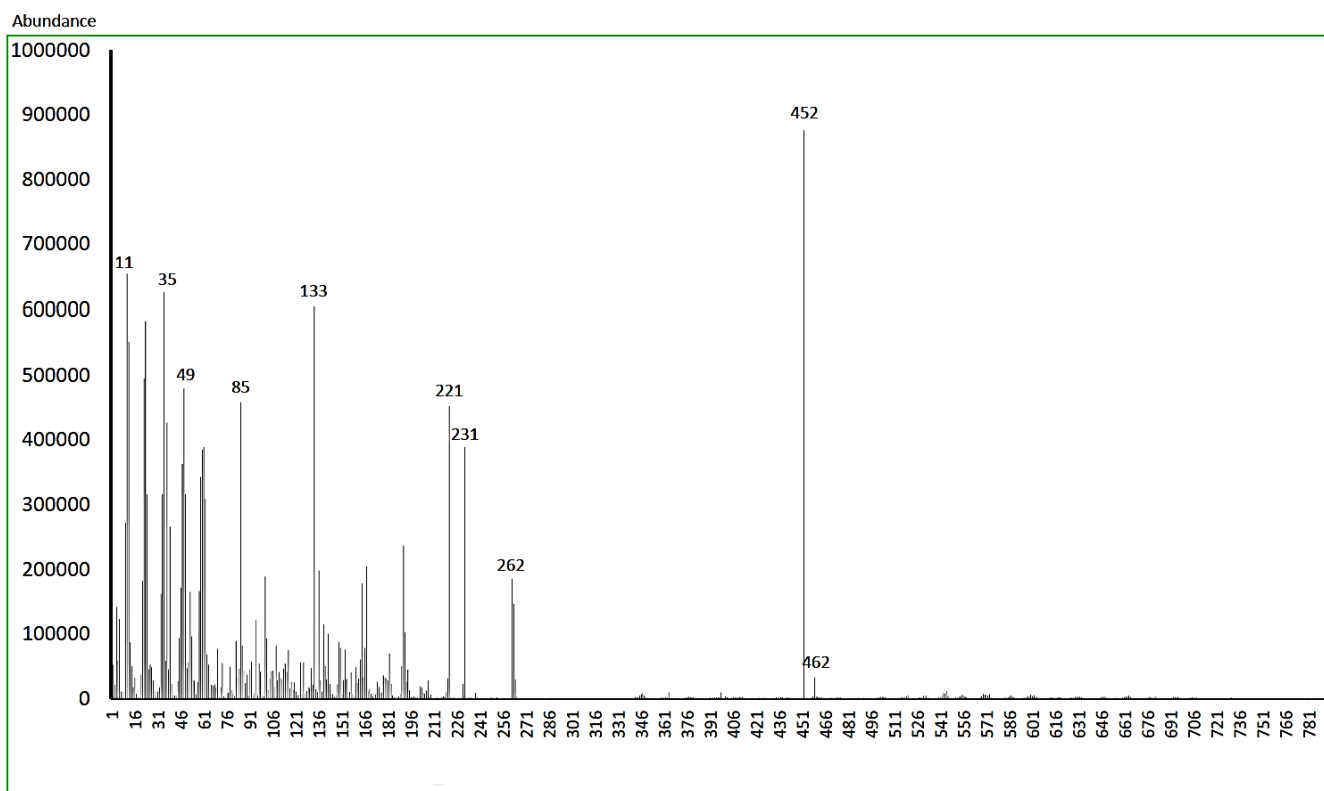
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GB 0  
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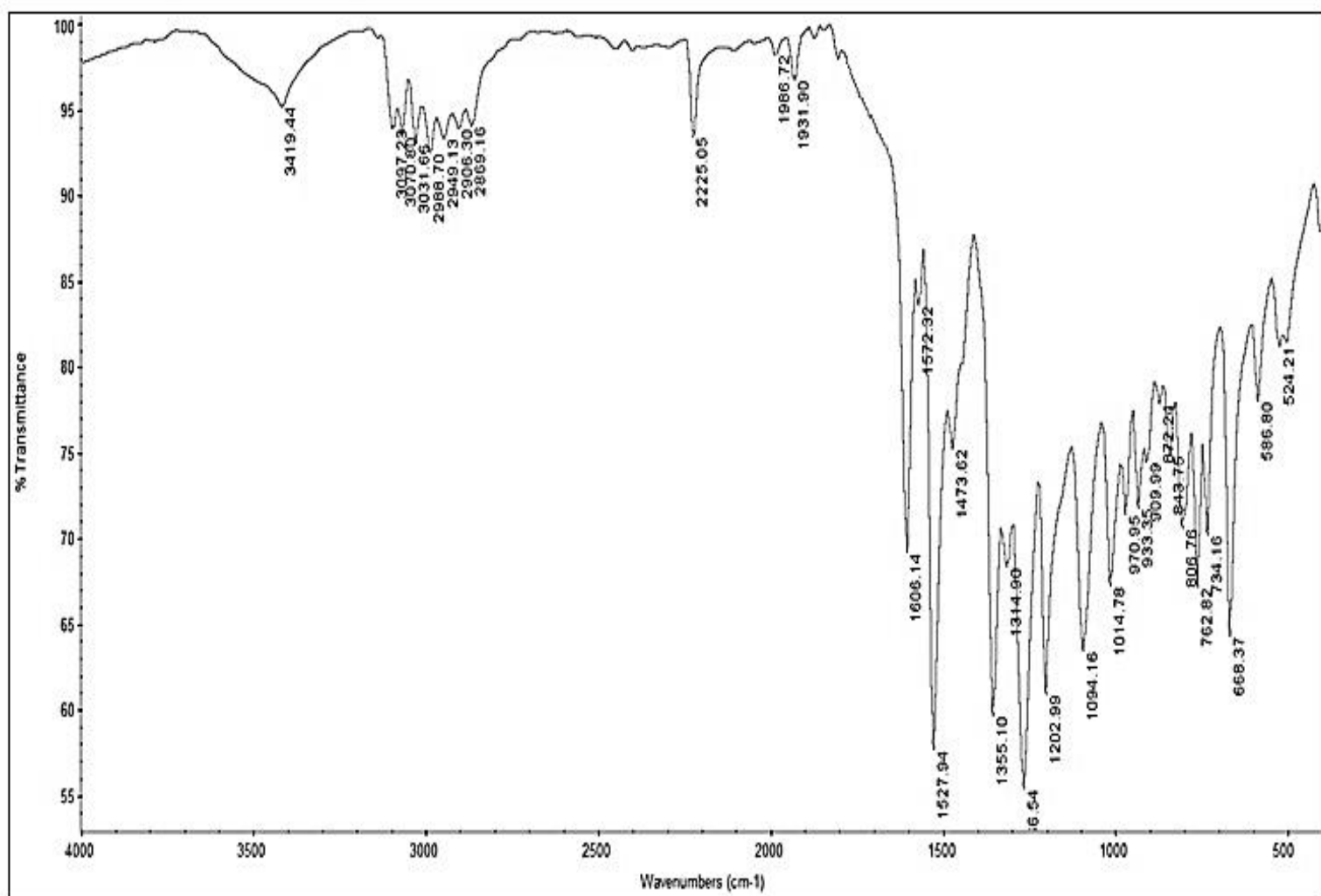
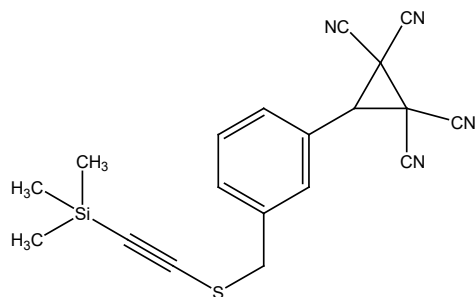
Mass spectrum of **6e**



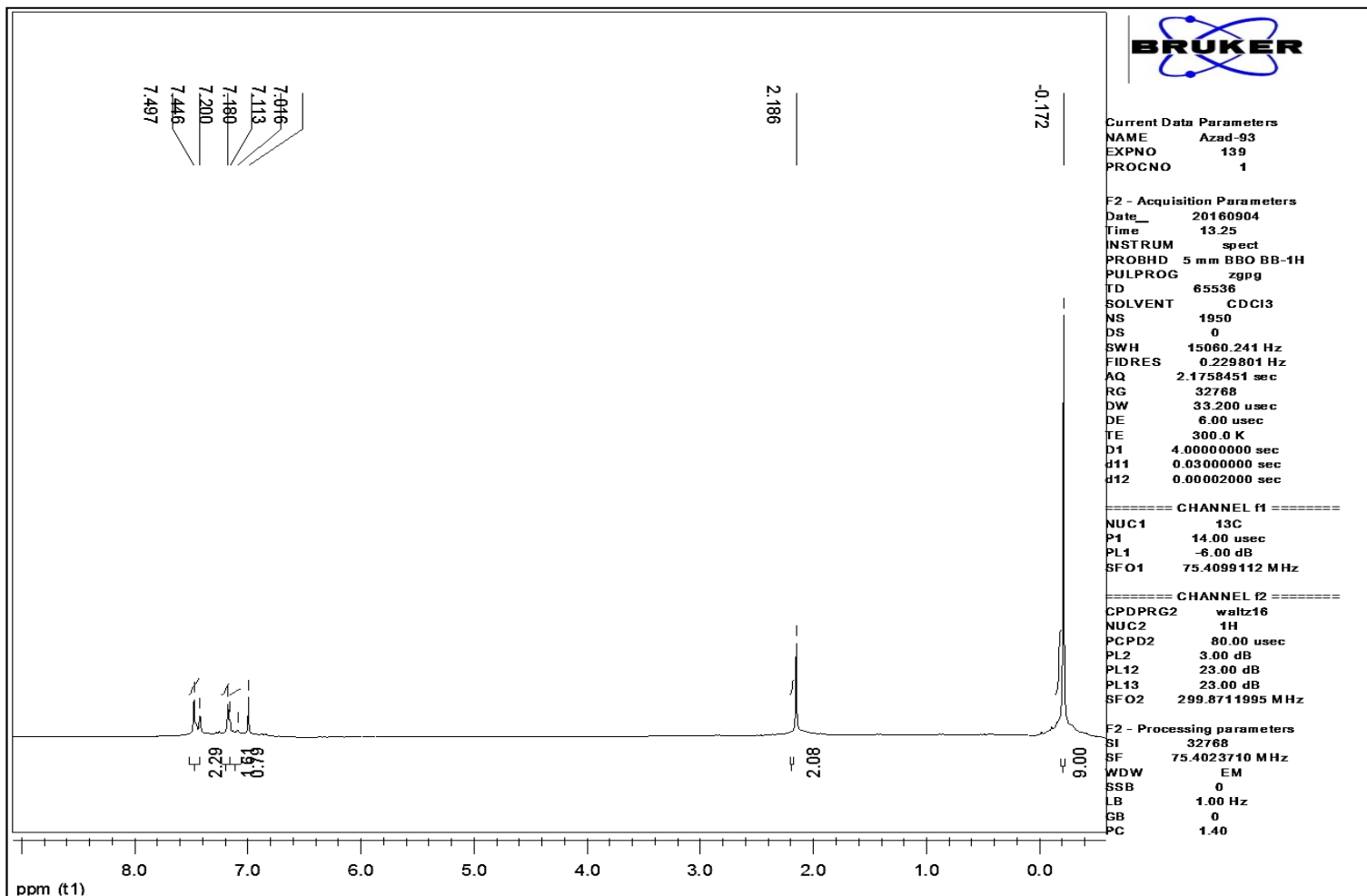
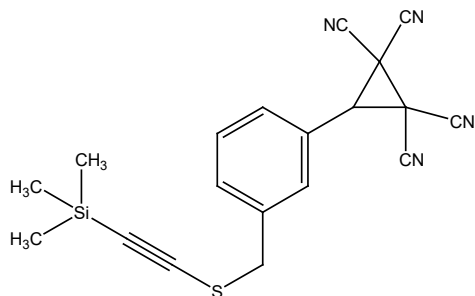
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Instrument : Instrumen  
Sample Name: 990626  
Misc Info :  
Vial Number: 1



FT-IR Spectrum of **7b** (KBr)



<sup>1</sup>H-NMR spectrum of **7b** (CDCl<sub>3</sub>)



Expanded  $^1\text{H-NMR}$  spectrum of **7b** (aromatic region)



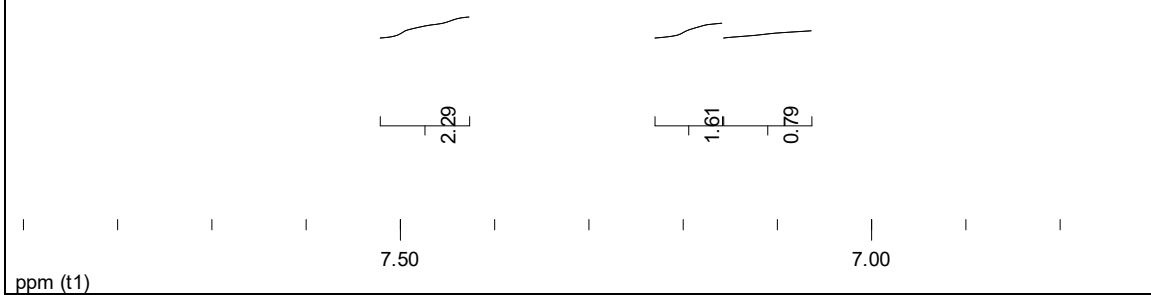
Current Data Parameters  
NAME Azad-93  
EXPNO 139  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20160904  
Time 13.25  
INSTRUM spect  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg  
TD 65536  
SOLVENT CDCl3  
NS 1950  
DS 0  
SWH 15060.241 Hz  
FIDRES 0.229801 Hz  
AQ 2.1758451 sec  
RG 32768  
DW 33.200 usec  
DE 6.00 usec  
TE 300.0 K  
D1 4.0000000 sec  
d11 0.0300000 sec  
d12 0.0000200 sec

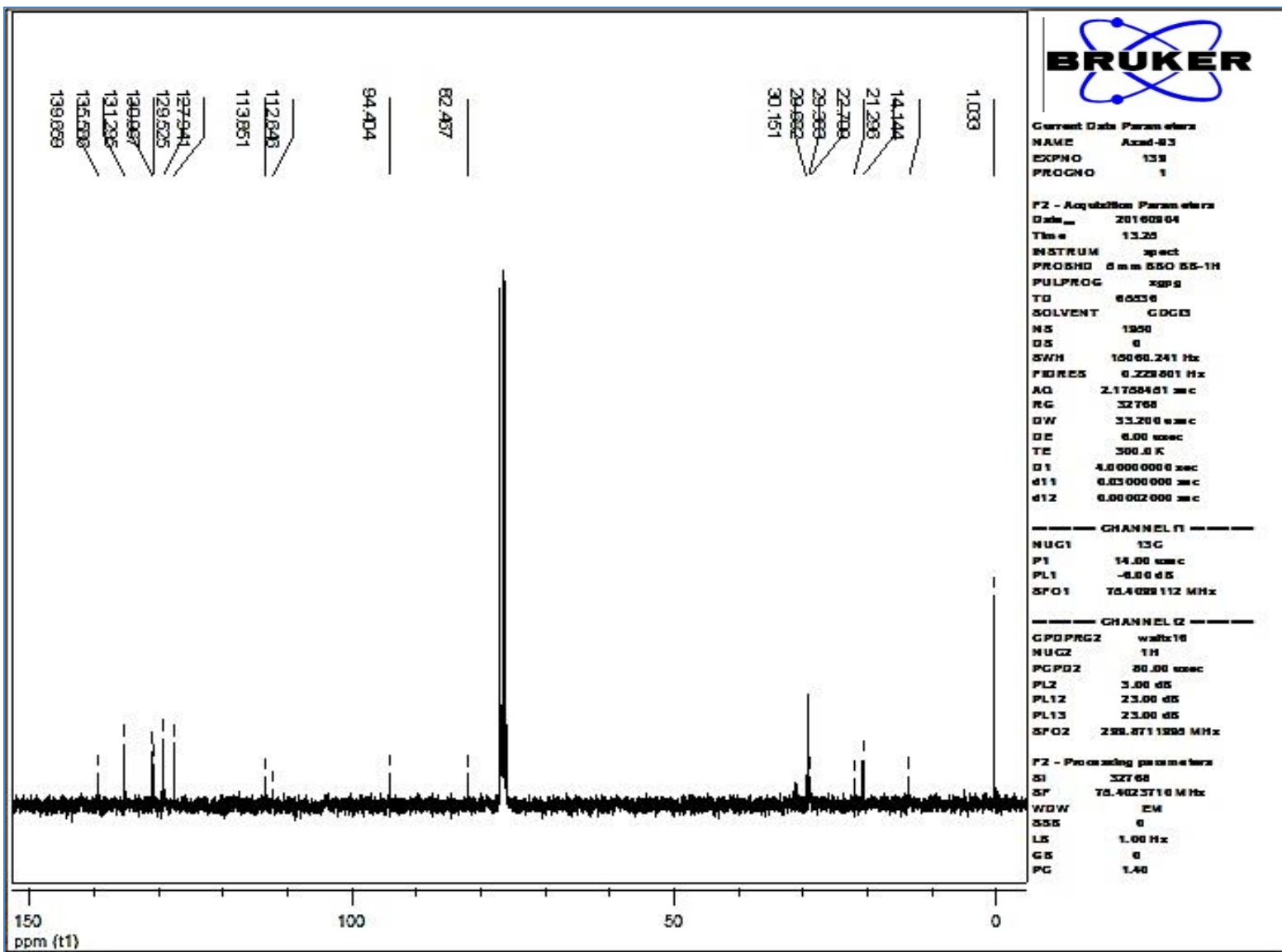
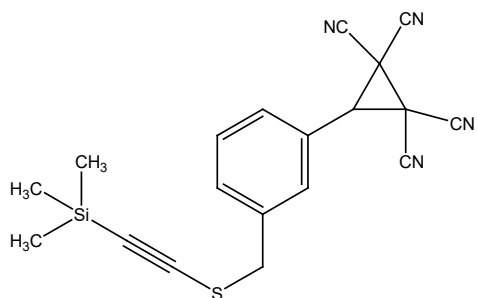
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NUC1 13C  
P1 14.00 usec  
PL1 -6.00 dB  
SFO1 75.4099112 MHz

==== CHANNEL f2 ====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 80.00 usec  
PL2 3.00 dB  
PL12 23.00 dB  
PL13 23.00 dB  
SFO2 299.8711995 MHz

F2 - Processing parameters  
SI 32768  
SF 75.4023710 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

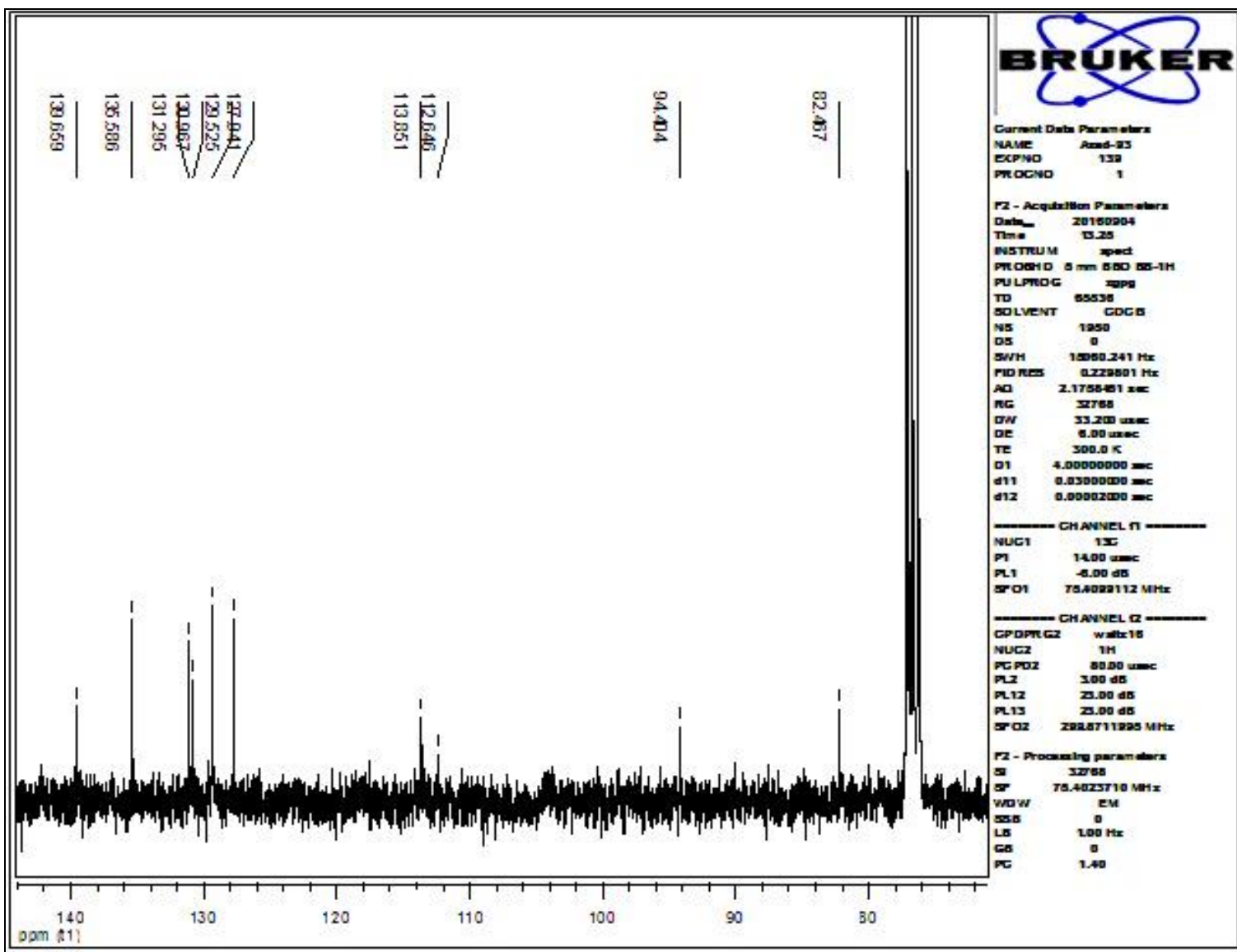


$^{13}\text{C}$ -NMR spectrum of **7b** ( $\text{CDCl}_3$ )

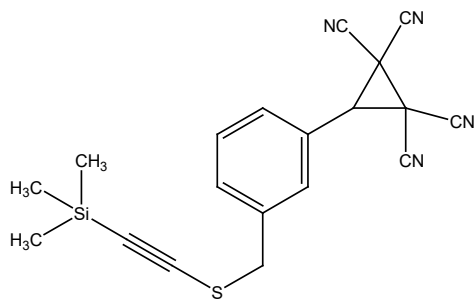


Expanded  $^{13}\text{C}$ -NMR spectrum of **7b**



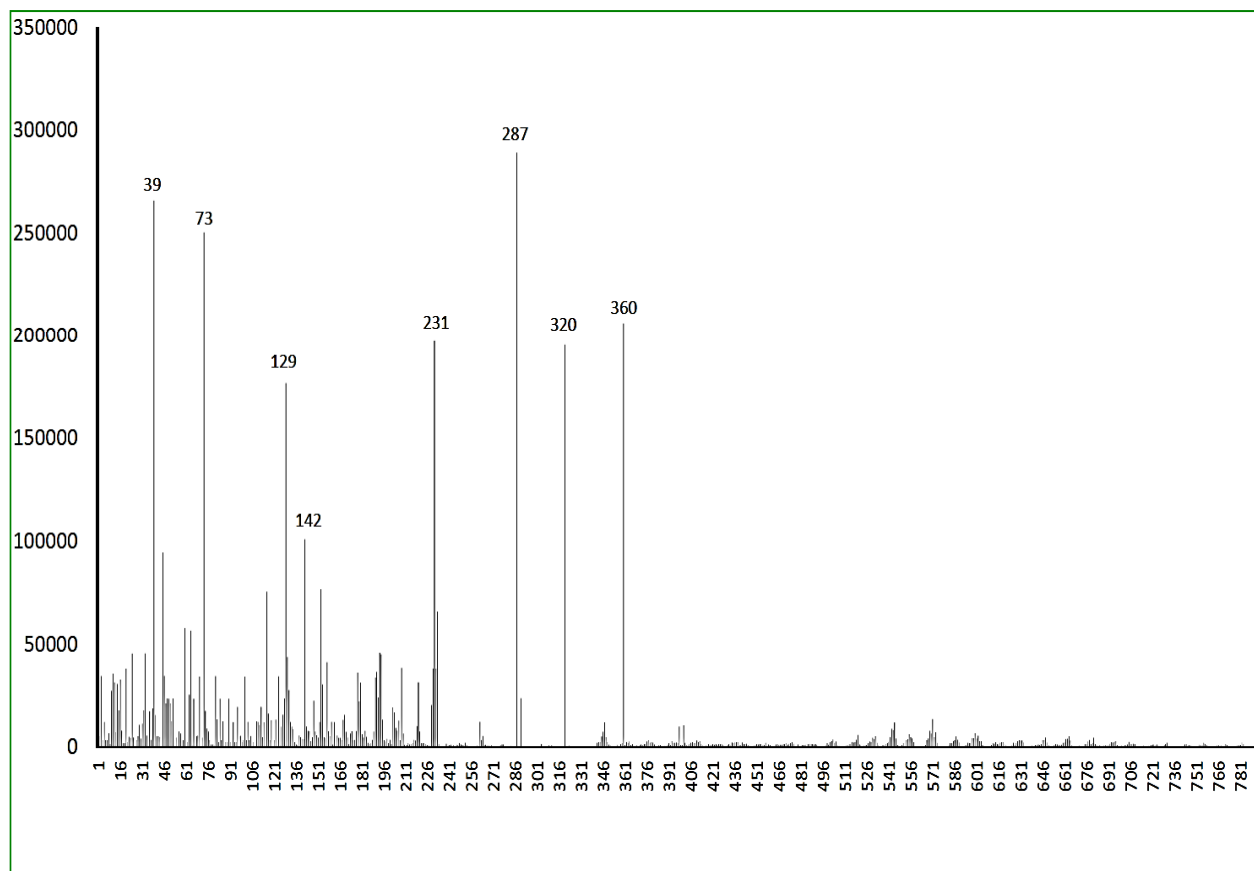


Mass spectrum of **7b**

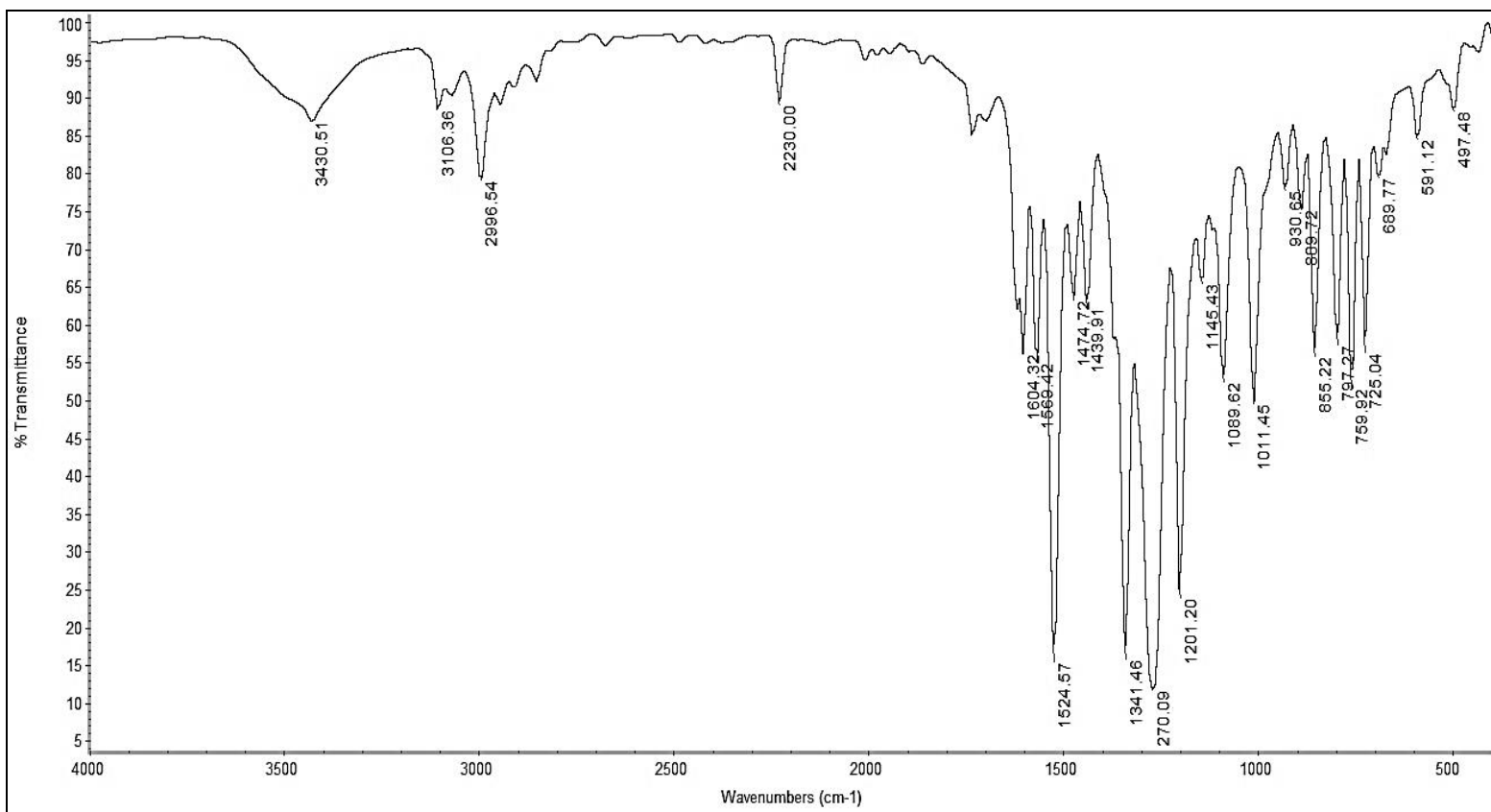
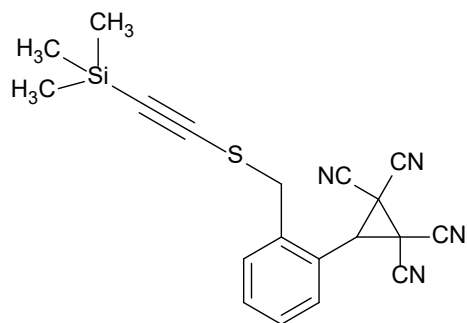


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 Operator :  
 Acquired : 30 Sep 2020 13:05 using AcqMethod PAH  
 Instrument : Instrumen  
 Sample Name: 990627  
 Misc Info :  
 Vial Number: 1

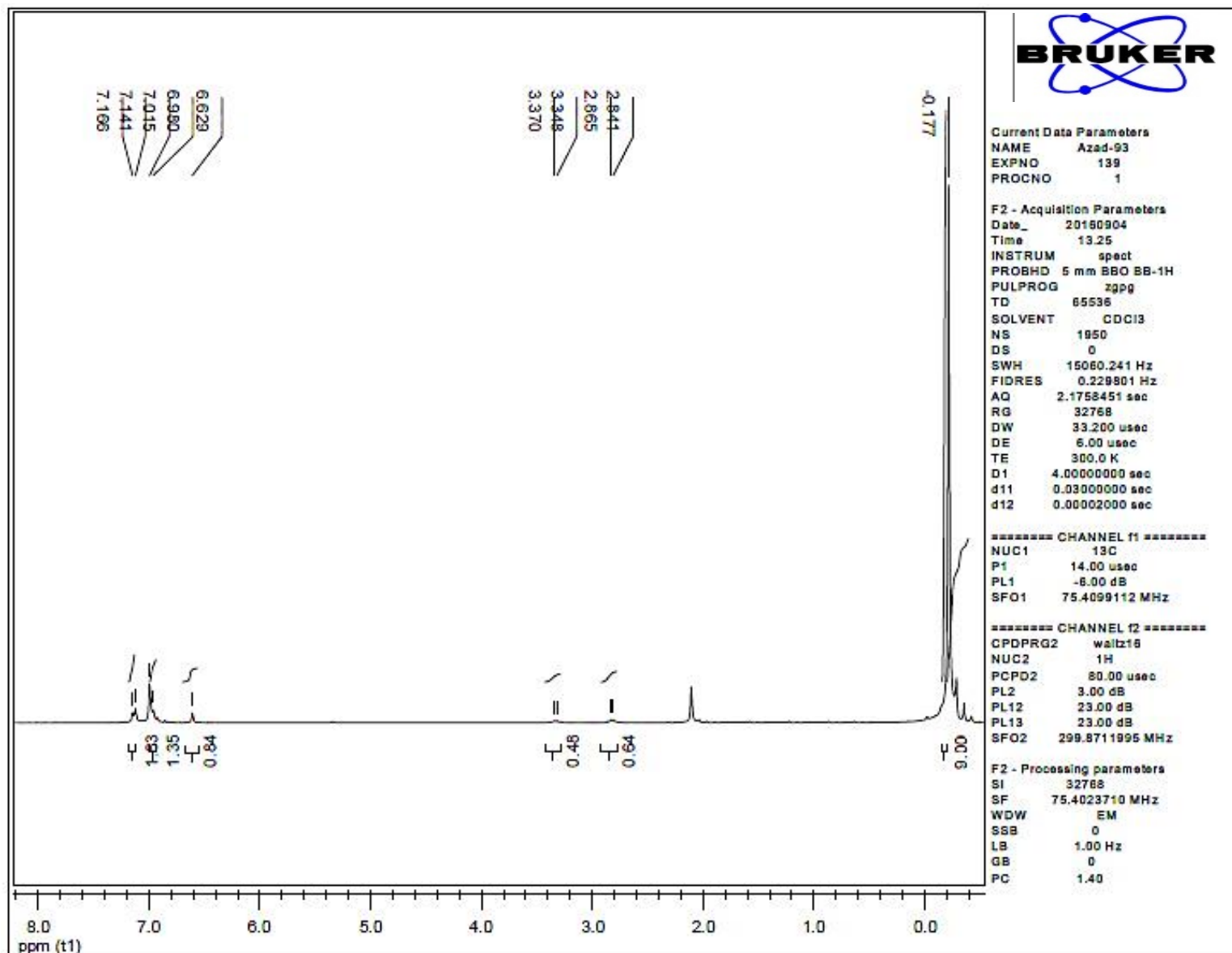
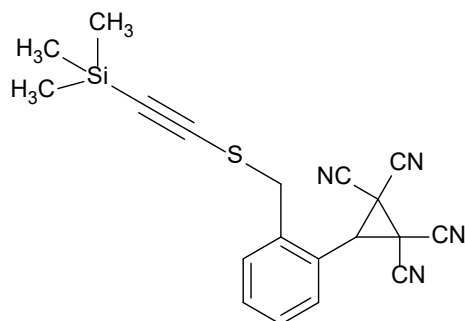
Abundance



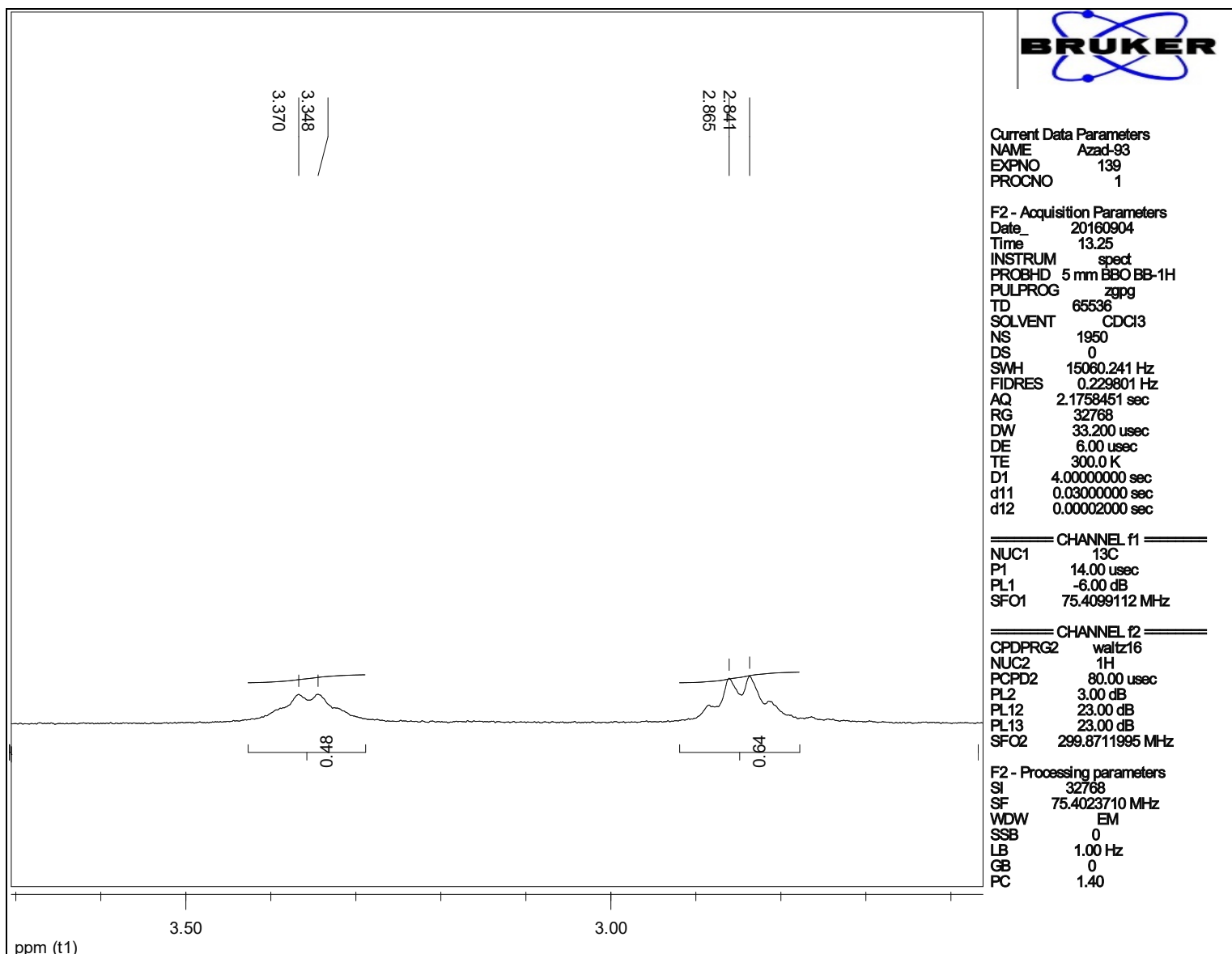
IR Spectrum of **10a** (KBr)



<sup>1</sup>H-NMR spectrum of **10a** (CDCl<sub>3</sub>)



Expanded <sup>1</sup>H-NMR spectrum of **10a** (aliphatic region)



Expanded <sup>1</sup>H-NMR spectrum of **10a** (aromatic region)



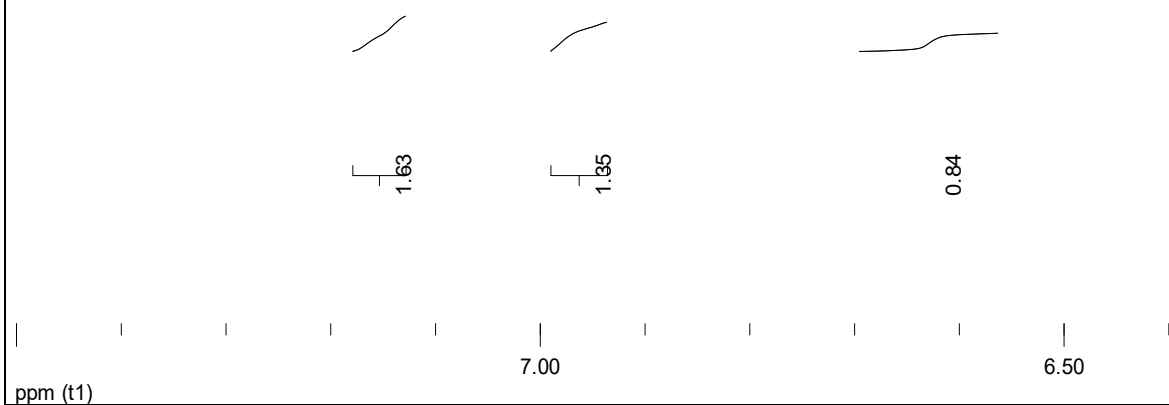
Current Data Parameters  
NAME Azad-93  
EXPNO 139  
PROCNO 1

F2 - Acquisition Parameters  
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Time 13.25  
INSTRUM spect  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg  
TD 65536  
SOLVENT CDCl3  
NS 1950  
DS 0  
SWH 15060.241 Hz  
FIDRES 0.229801 Hz  
AQ 2.1758451 sec  
RG 32768  
DW 33.200 usec  
DE 6.00 usec  
TE 300.0 K  
D1 4.0000000 sec  
d11 0.0300000 sec  
d12 0.0002000 sec

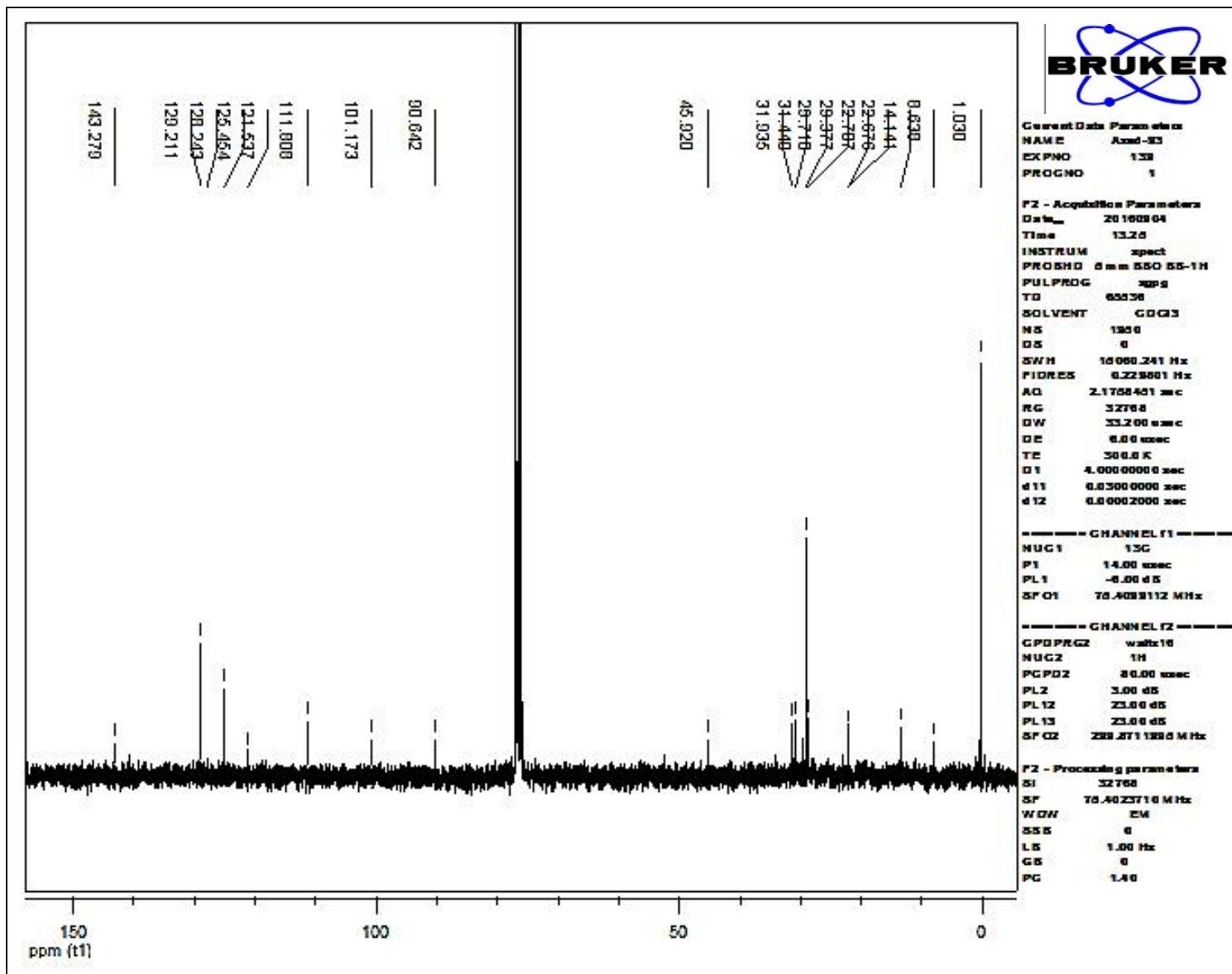
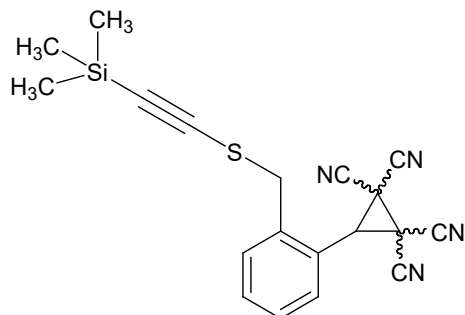
==== CHANNEL f1 ====  
NUC1 13C  
P1 14.00 usec  
PL1 -6.00 dB  
SFO1 75.4099112 MHz

==== CHANNEL f2 ====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 80.00 usec  
PL2 3.00 dB  
PL12 23.00 dB  
PL13 23.00 dB  
SFO2 299.8711995 MHz

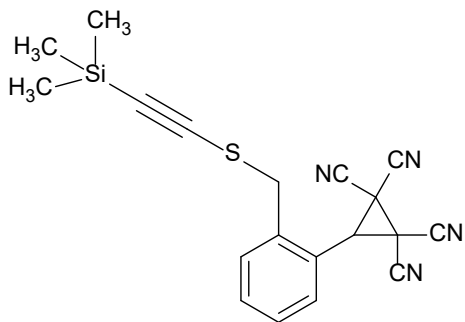
F2 - Processing parameters  
SI 32768  
SF 75.4023710 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40



<sup>13</sup>C-NMR spectrum of **10a** (CDCl<sub>3</sub>)



Mass spectrum of 10a



File : C:\MSDCHEM\3\DATA\Snapshot\30001978.D  
 Operator :  
 Acquired :30 Sep 2020 13:15 using AcqMethod PAH  
 Instrument : Instrumen  
 Sample Name: 9902701  
 Misc Info :  
 Vial Number: 1

