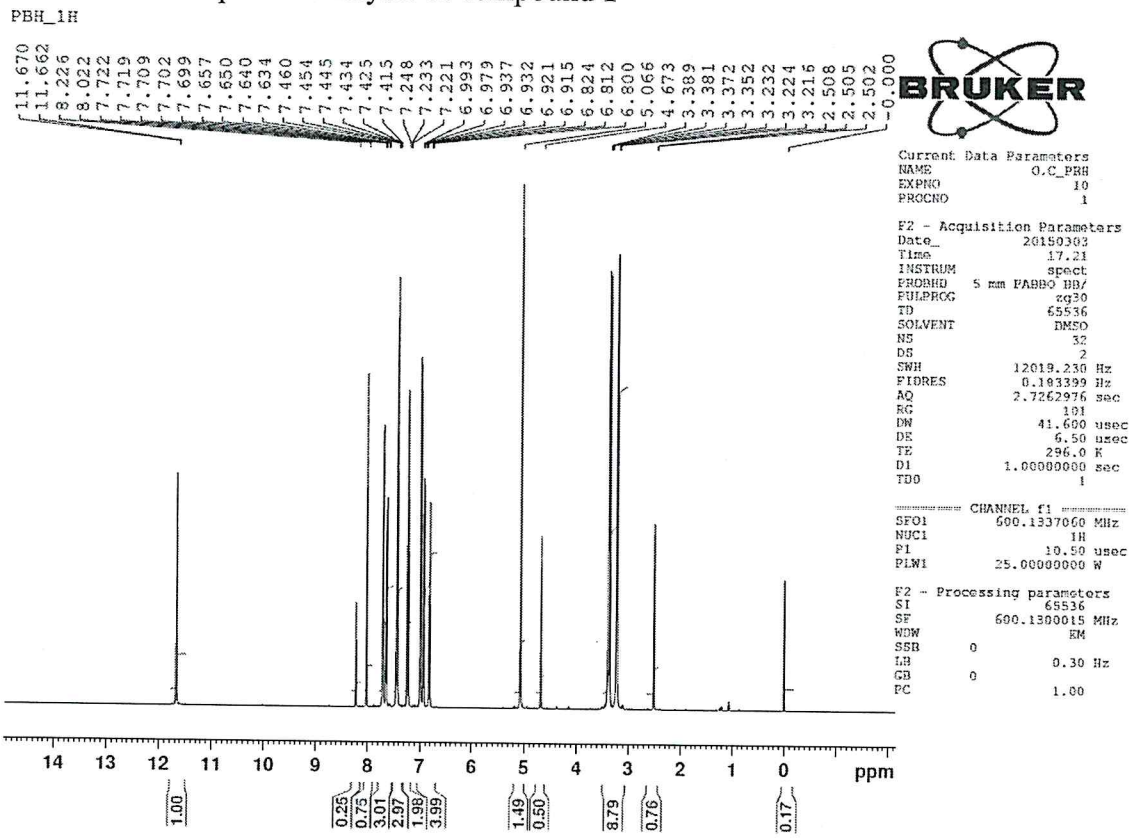
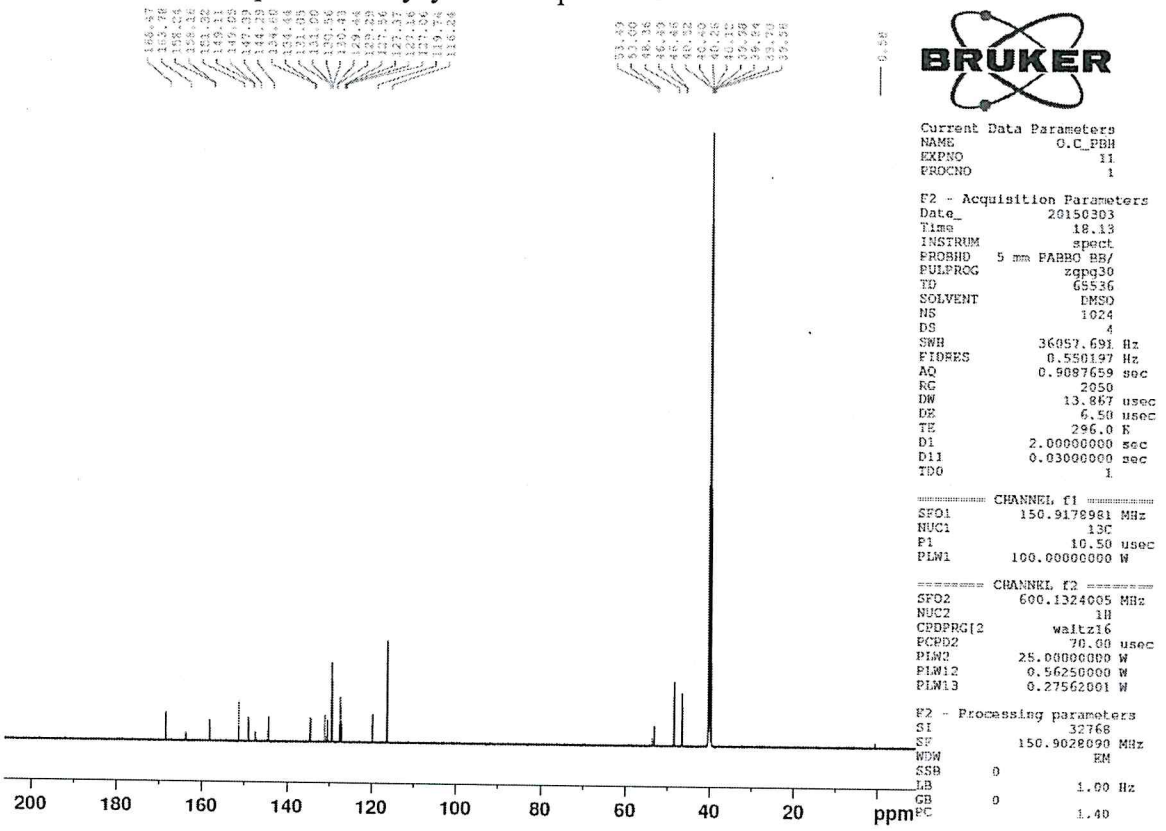
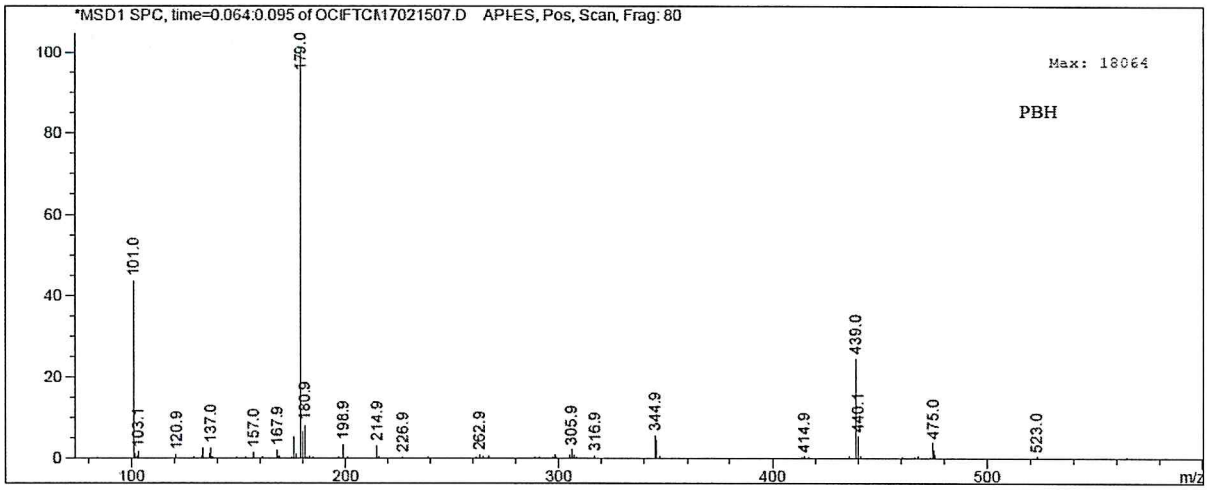
Data 1. ^{1}H-NMR spectral analysis of compound **1**



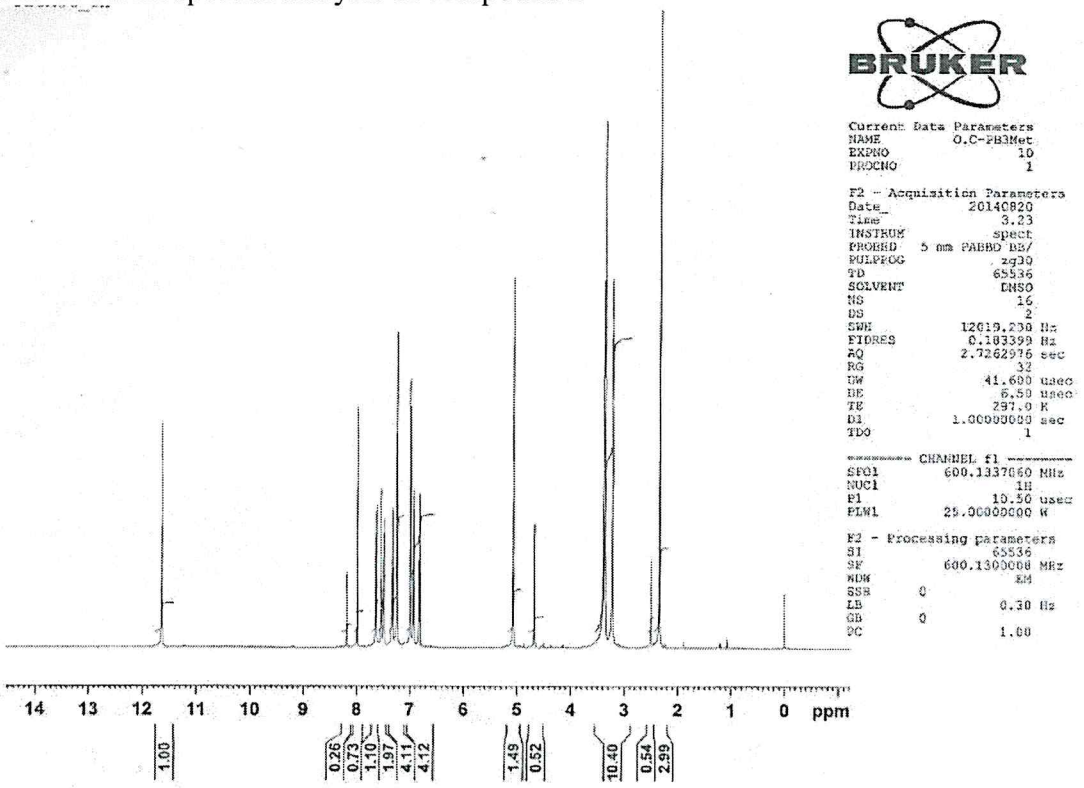
Data 2. ^{13}C-NMR spectral analysys of compound **1**



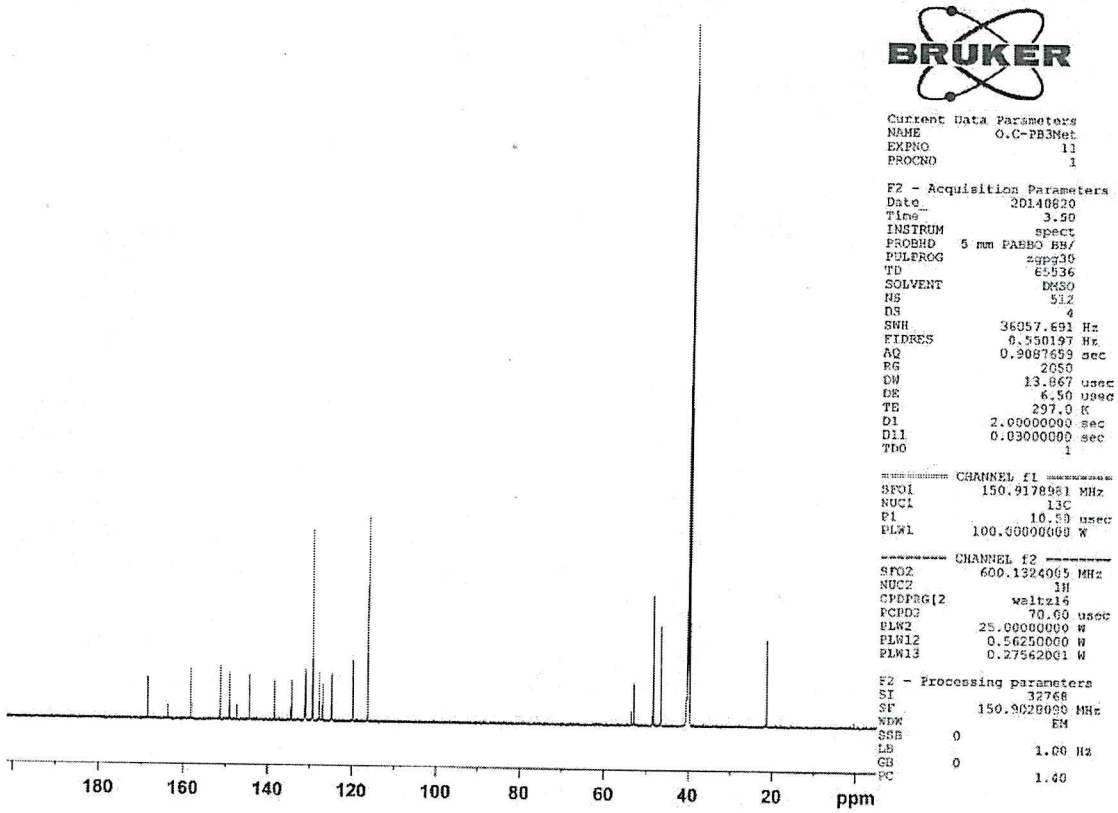
Data 3. Mass spectral analysis of compound **1**



Data 4. ^{1}H-NMR spectral analysis of compound 2

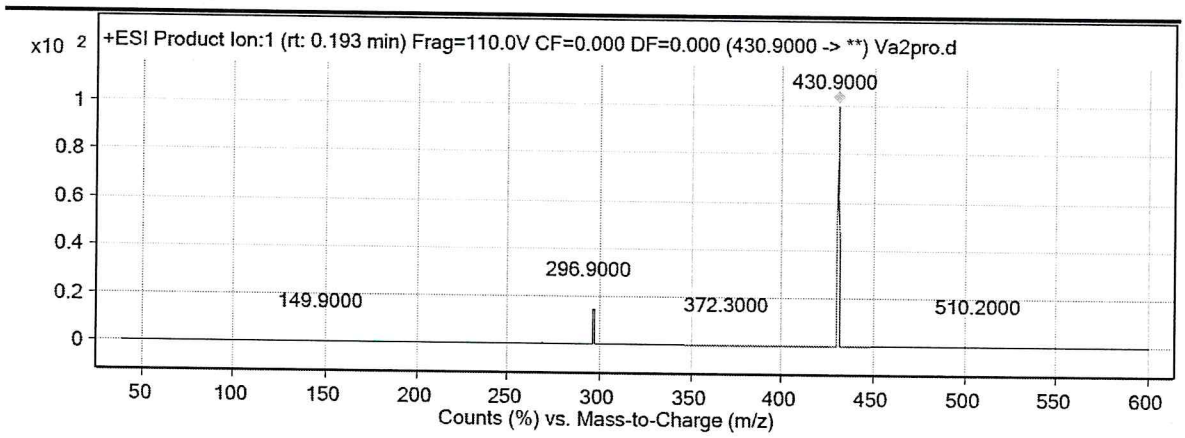


Data 5. ^{13}C-NMR spectral analysis of compound **2**



Data 6. Mass spectral analysis of compound **2**

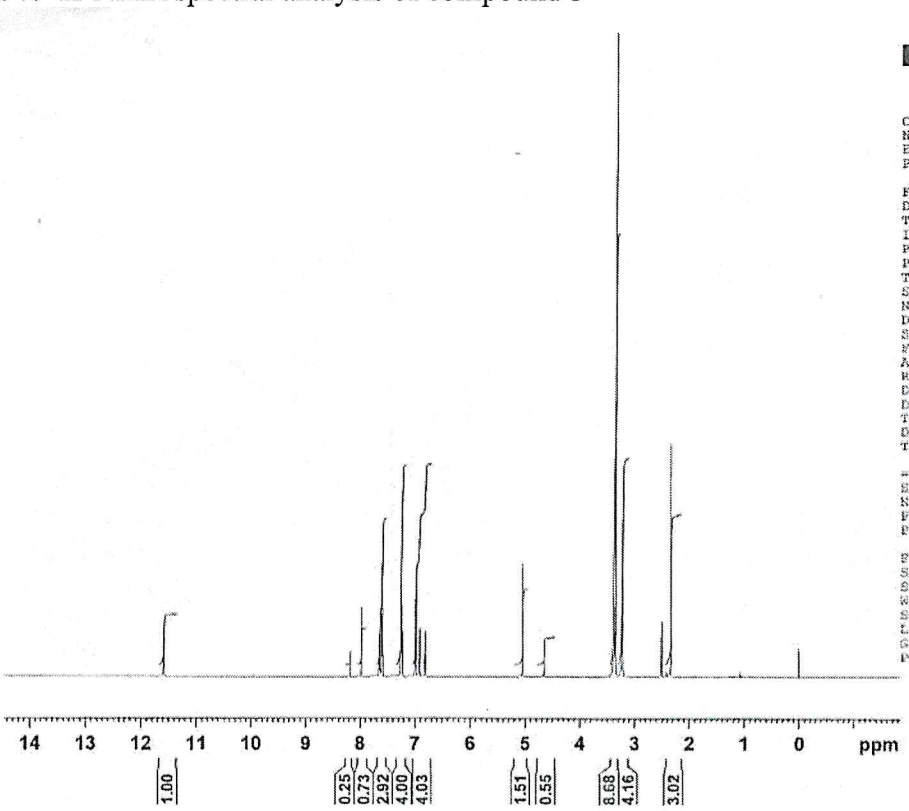
Qualitative Analysis Report



Peak List

m/z	z	Abund
92.5	2	55.68
118		59.1
149.9		64.42
241.4	2	66.78
242.2		79.38
252.5	2	56.42
268.8		1107.38
296.9		25721.48
429.7		423.1
430.9		172665.95

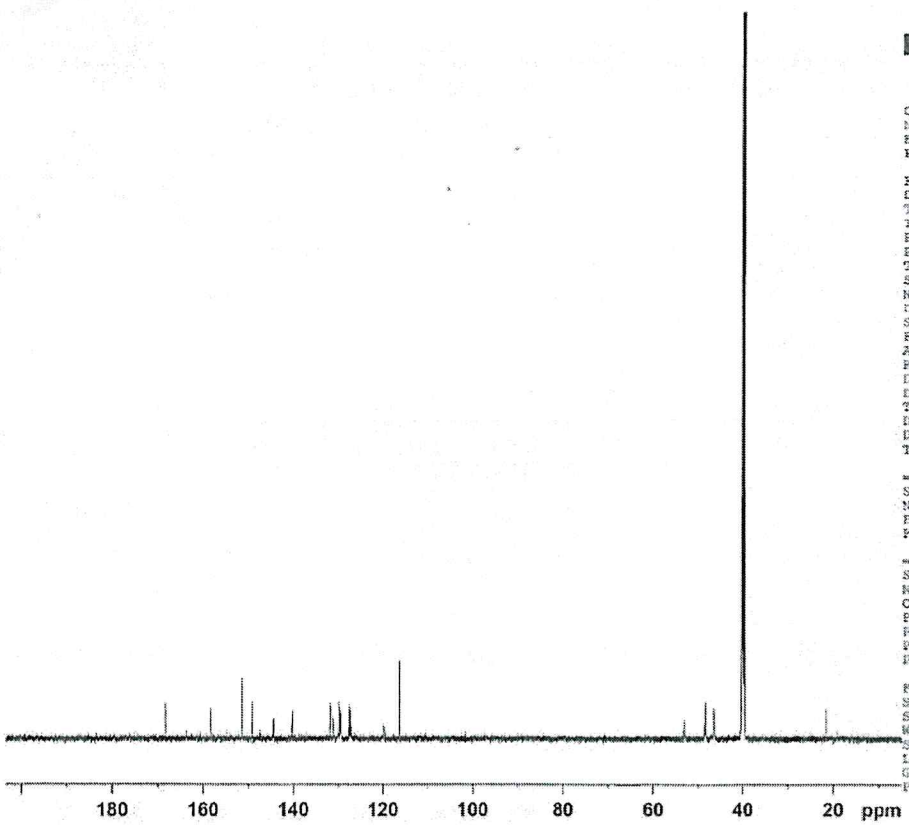
Data 7. ^{1}H-NMR spectral analysis of compound **3**



BRUKER

```
Current Data Parameters
NAME                  0.C-PB4Met
EXPNO                         10
PROCNO                         1

F2 - Acquisition Parameters
Date_               20140820
Time                     6.21
INSTRUM                 spect
PROBHD   5 mm PABBO BB/
PULPROG                 zg30
TD                     65536
SOLVENT                 DMSO
NS                        16
DS                         2
SWH                12019.230 Hz
FIDRES              0.183399 Hz
AQ                  2.7262976 sec
RG                        57
DW                    41.600 usec
DE                     6.50 usec
TE                    297.6 K
D1                  1.00000000 sec
TD0                        1

======== CHANNEL f1 ========
SFO1              600.1337060 MHz
NUC1                      1H
P1                     10.50 usec
PLW1              25.00000000 W

F2 - Processing parameters
SI                     65536
SF                600.1300022 MHz
WDW                       EM
SSB          0
LB                     0.30 Hz
GB           0
PC                     1.00
```

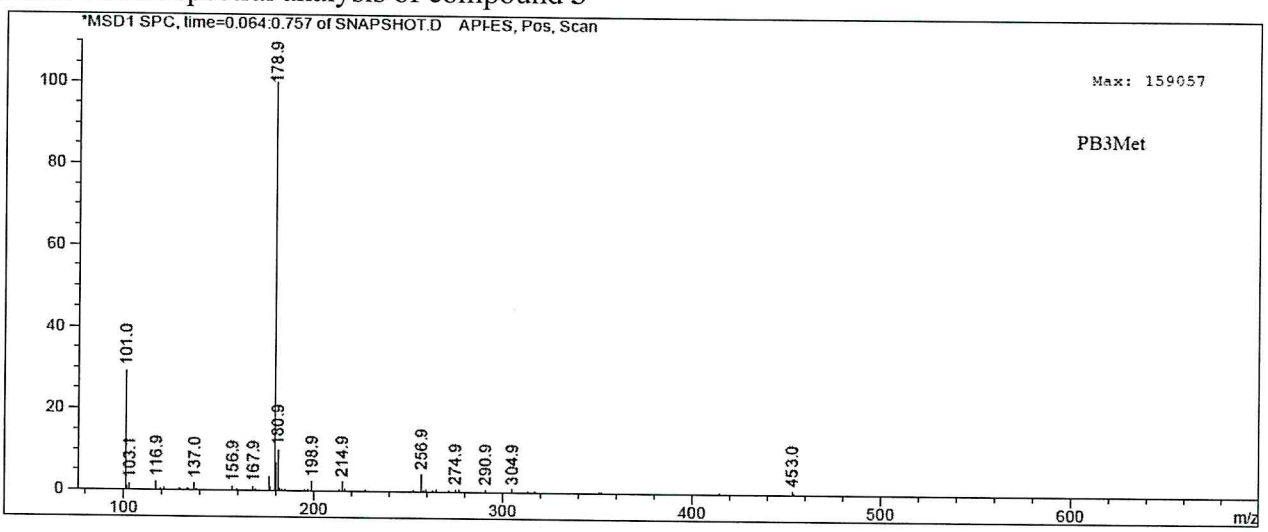
Data 8. ^{13}C-NMR spectral analysis of compound **3**



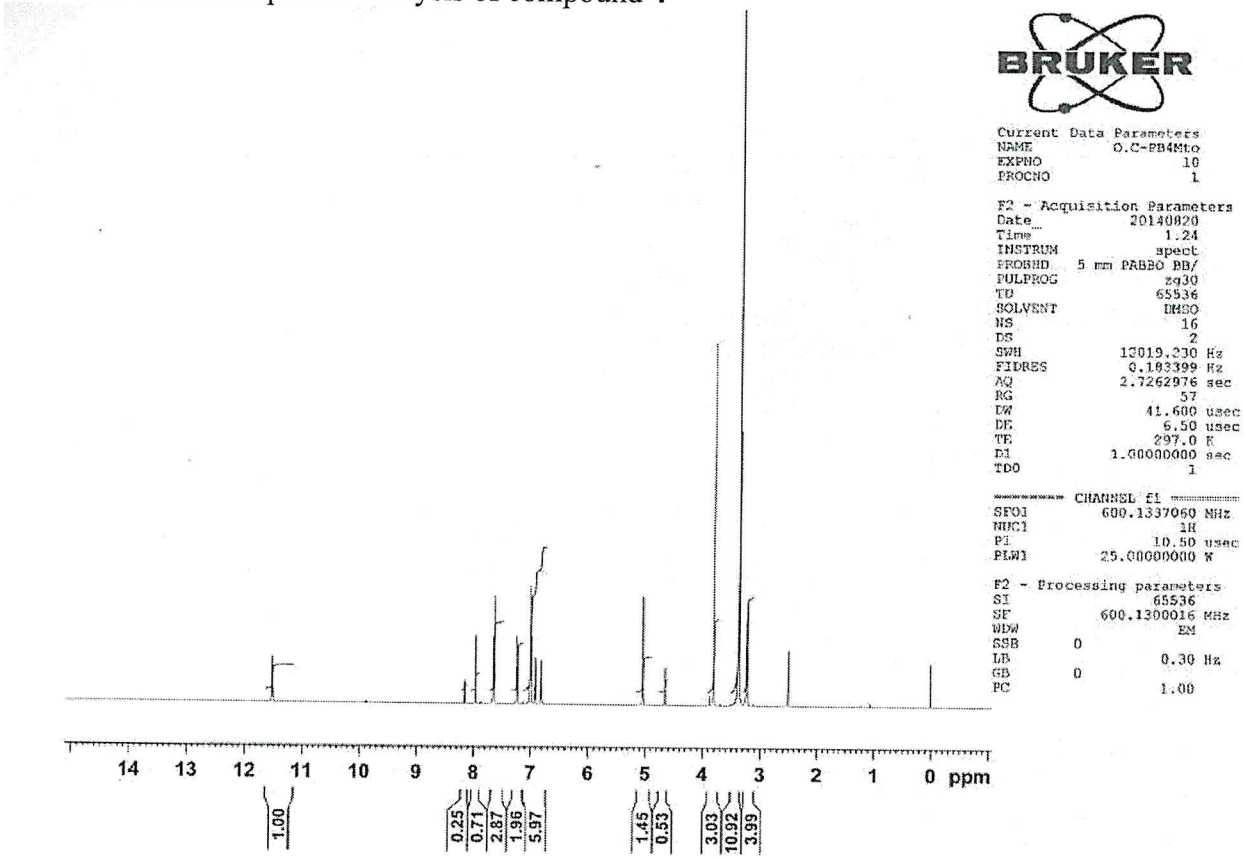
BRUKER

```
Current Data Parameters
NAME                  0.C-PB4Met
EXPNO                         11
PROCNO                         1

F2 - Acquisition Parameters
Date_               20140820
Time                     6.47
INSTRUM                 spect
PROBHD   5 mm PABBO BB/
PULPROG                 zgpg30
TD                     65536
SOLVENT                 DMSO
NS                       512
DS                         4
SWH                36057.691 Hz
FIDRES              0.550197 Hz
AQ                  0.9087659 sec
RG                      2050
DW                    13.867 usec
DE                     6.50 usec
TE                    297.6 K
D1                  2.00000000 sec
D11                 0.03000000 sec
TD0                        1

======== CHANNEL f1 ========
SFO1              150.9178981 MHz
NUC1                      13C
P1                     10.50 usec
PLW1             100.00000000 W

======== CHANNEL f2 ========
SFO2              600.1324005 MHz
NUC2                      1H
CPDPRG[2                waltz16
PCPD2                  70.00 usec
PLW2              25.00000000 W
PLW12              0.56250000 W
PLW13              0.27562001 W

F2 - Processing parameters
SI                     32768
SF                150.9028090 MHz
WDW                       EM
SSB          0
LB                     1.00 Hz
GB           0
PC                     1.40
```

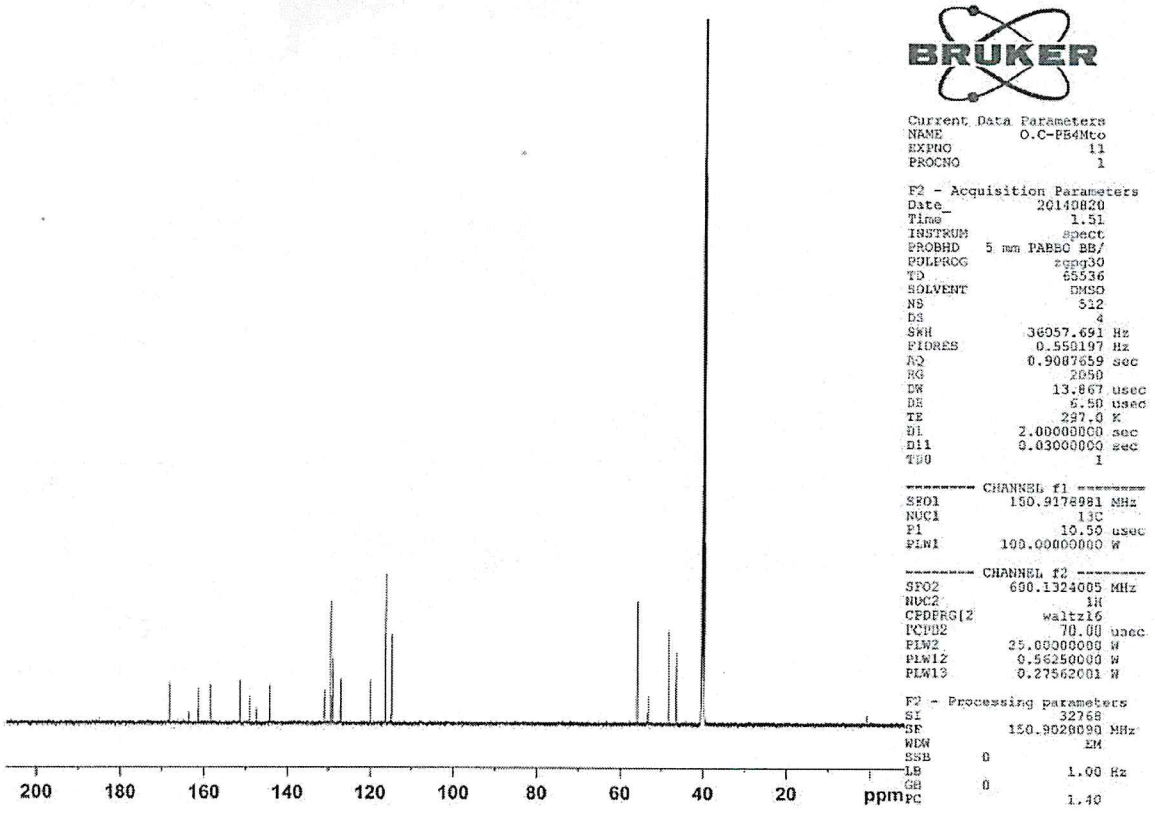
Data 9. Mass spectral analysis of compound **3**



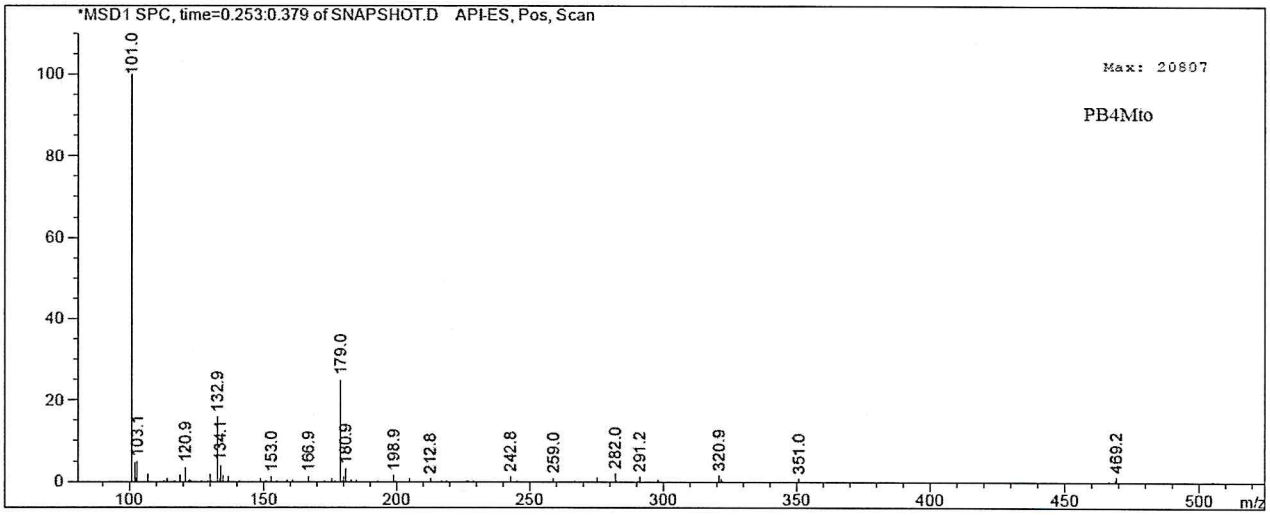
Data 10. ^{1}H-NMR spectral analysis of compound **4**



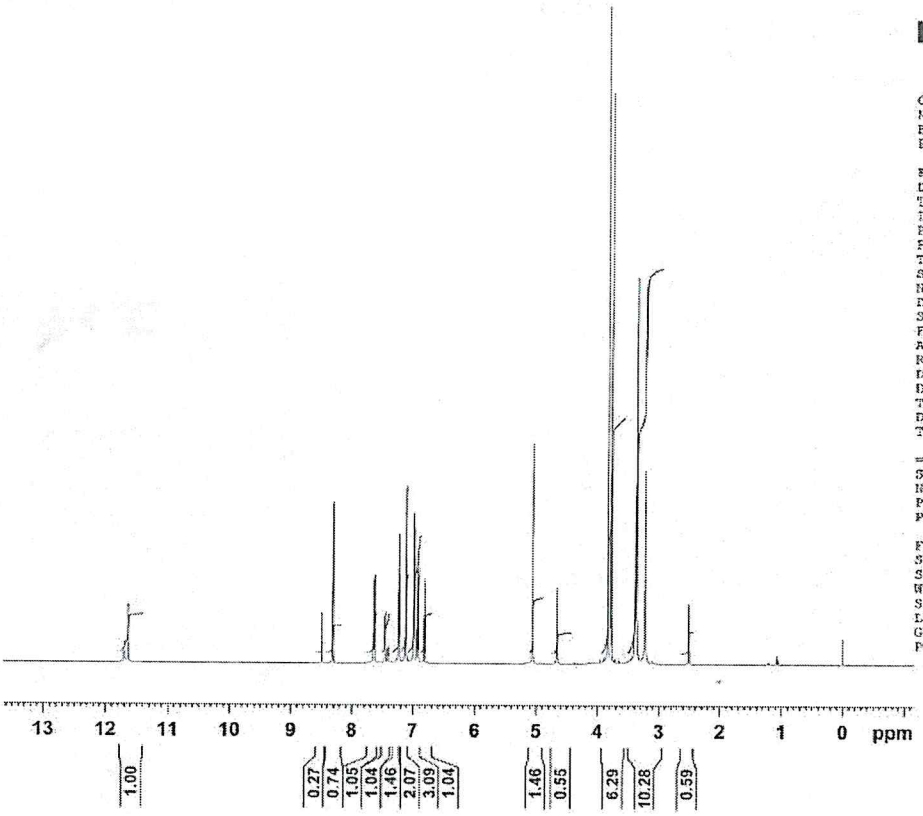
Data 11. ^{13}C-NMR spectral analysis of compound **4**



Data 13. Mass spectral analysis of compound **4**



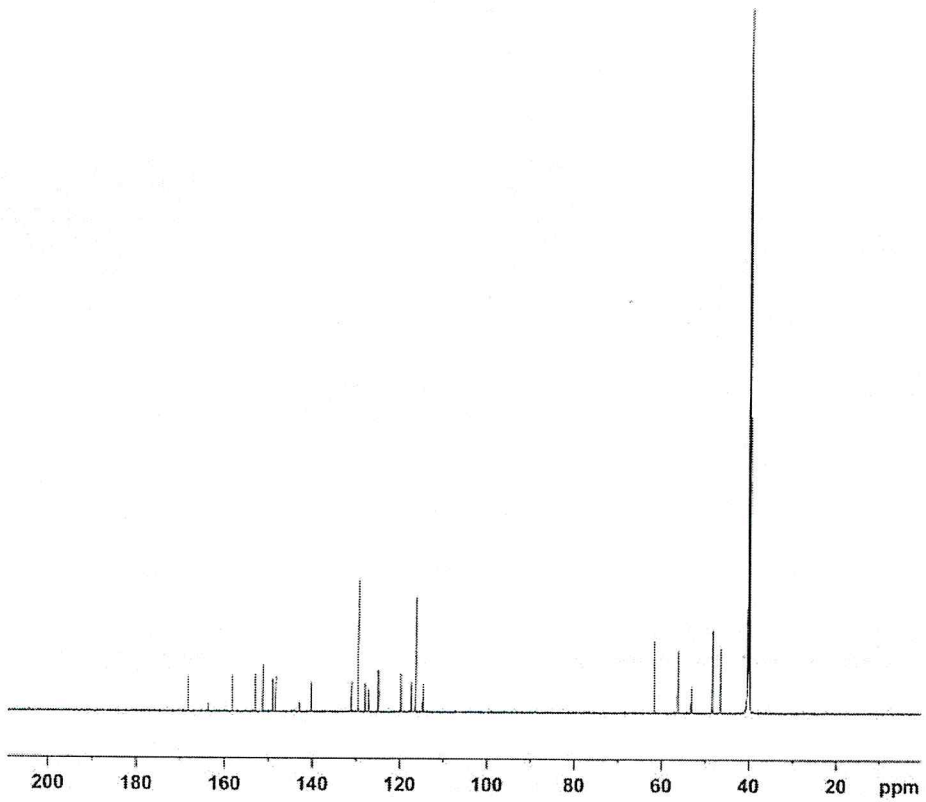
Data 14. ^{1}H-NMR spectral analysis of compound **5**



BRUKER

```
Current Data Parameters
NAME                 O.C-PB23Mto
EXPNO                         10
PROCNO                         1

F2 - Acquisition Parameters
Date_              20140820
Time                       1.54
INSTRUM                   spect
PROBHD     5 mm PABBO BB/
PULPROG                   zg30
TD                       65536
SOLVENT                   DMSO
NS                           16
DS                            2
SWH                  12019.230 Hz
FIDRES                0.183399 Hz
AQ                    2.7262976 sec
RG                           32
DW                      41.600 usec
DE                       6.50 usec
TE                      297.0 K
D1                    1.00000000 sec
TD0                           1

======== CHANNEL f1 ========
SFO1           600.1337060 MHz
NUC1                       1H
P1                      10.50 usec
PLW1          25.00000000 W

F2 - Processing parameters
SI                       65536
SF             600.1300007 MHz
WDW                         EM
SSB          0
LB                       0.30 Hz
GB           0
PC                       1.00
```

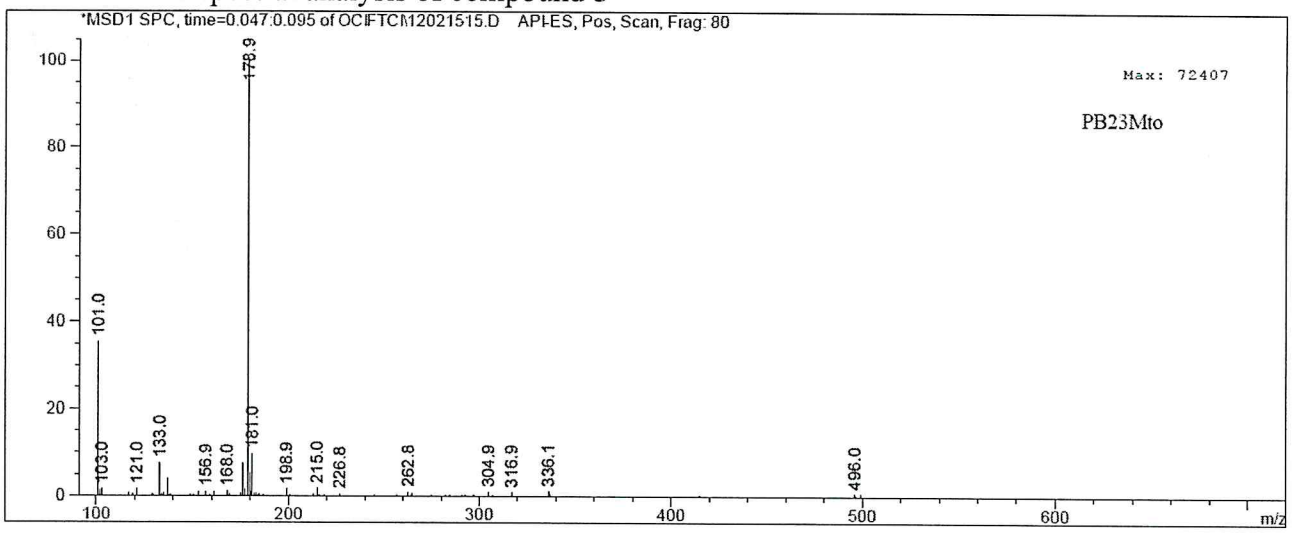
Data 15. ^{13}C-NMR spectral analysis of compound **5**



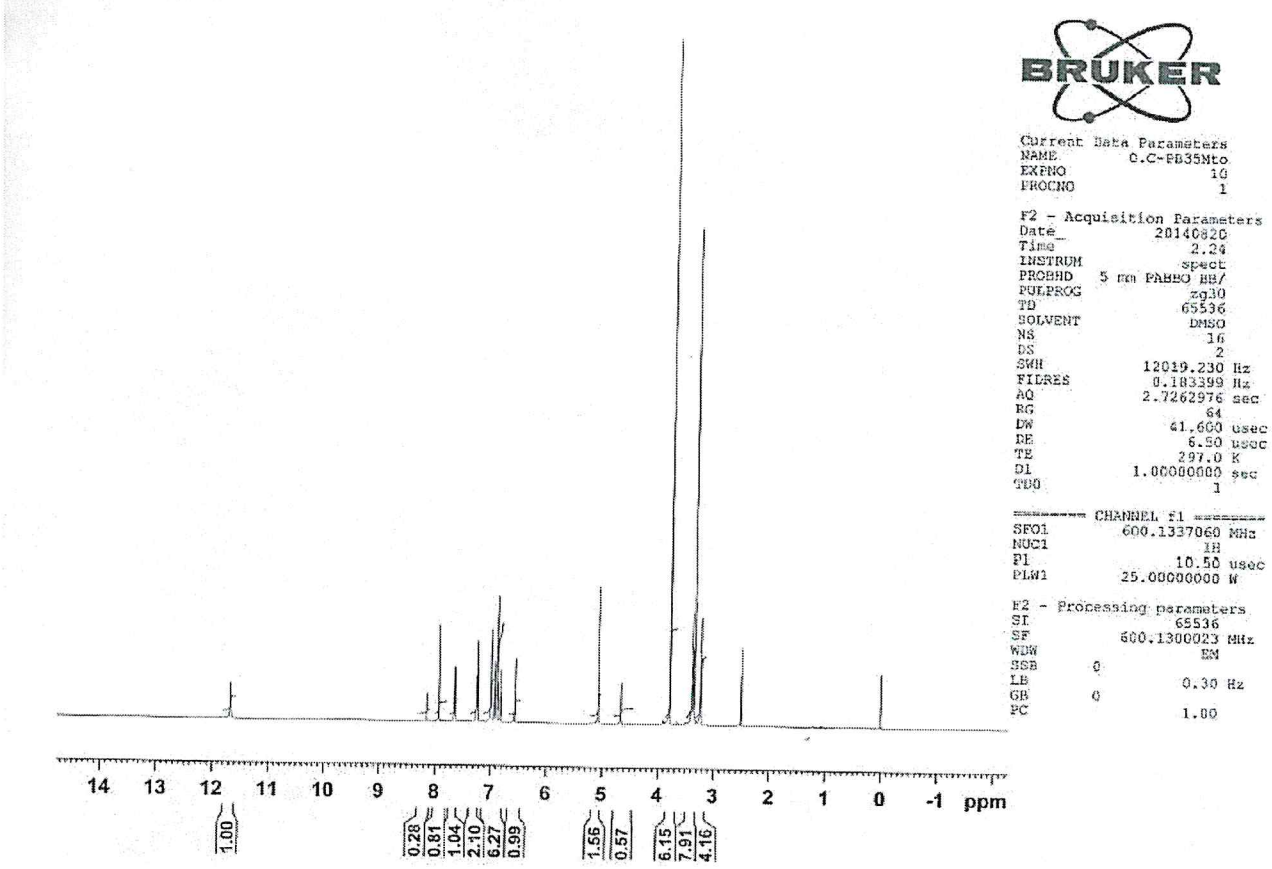
BRUKER

```
Current Data Parameters
NAME                 O.C-PB23Mto
EXPNO                         11
PROCNO                         1

F2 - Acquisition Parameters
Date_              20140820
Time                       2.21
INSTRUM                   spect
PROBHD     5 mm PABBO BB/
PULPROG                zgpg30
TD                       65536
SOLVENT                   DMSO
NS                          512
DS                            4
SWH                  36057.691 Hz
FIDRES                0.550197 Hz
AQ                    0.9087659 sec
RG                         2050
DW                      13.867 usec
DE                       6.50 usec
TE                      297.0 K
D1                    2.00000000 sec
D11                   0.03000000 sec
TD0                           1

========== CHANNEL f1 ==========
SFO1           150.9178981 MHz
NUC1                       13C
P1                      10.50 usec
PLW1         100.00000000 W

========== CHANNEL f2 ==========
SFO2           600.1324005 MHz
NUC2                       1H
CPDPRG[2              waltz16
PCPD2                   70.00 usec
PLW2          25.00000000 W
PLW12          0.56250000 W
PLW13          0.27562001 W

F2 - Processing parameters
SI                       32768
SF             150.9028090 MHz
WDW                         EM
SSB          0
LB                       1.00 Hz
GB           0
PC                       1.40
```

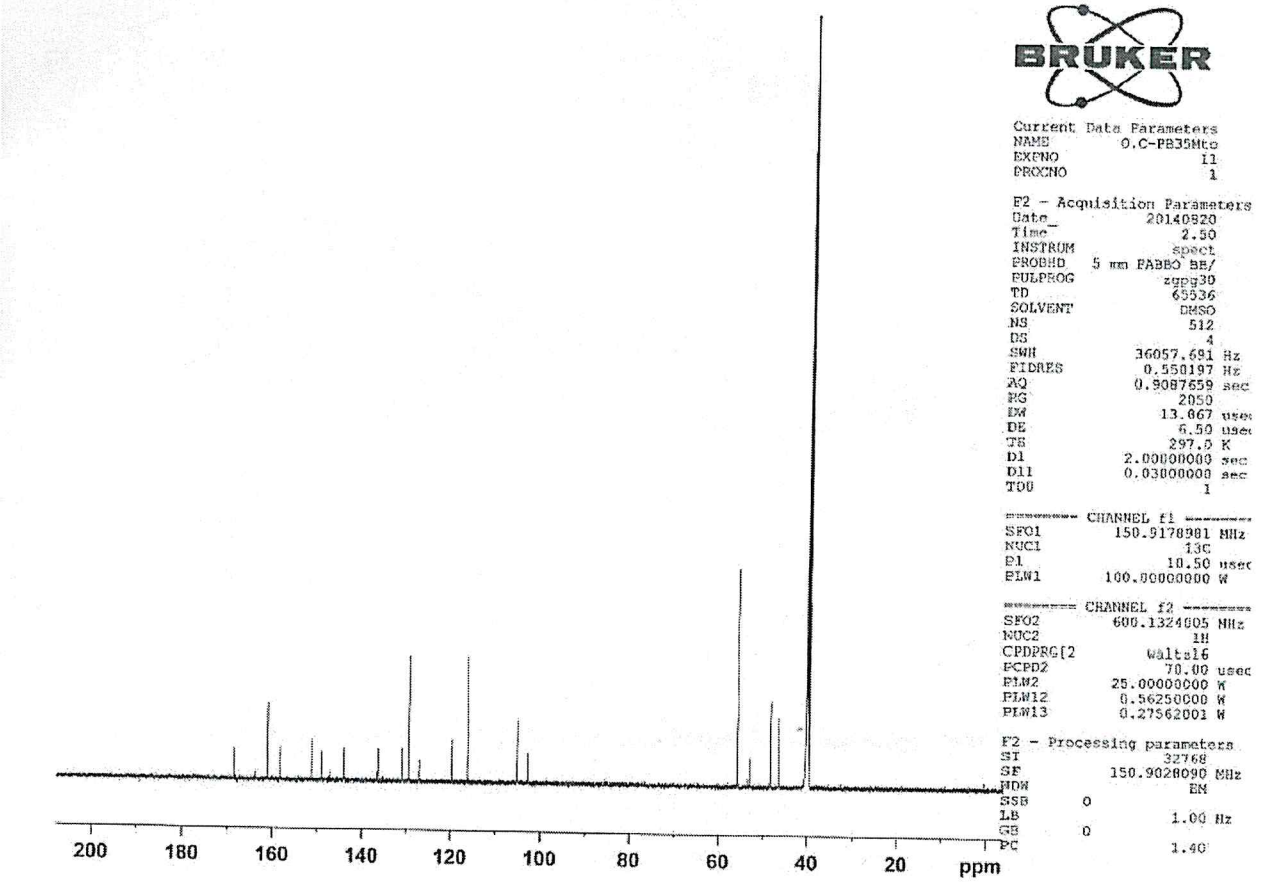
Data 16. Mass spectral analysis of compound **5**



Data 17. ^{1}H-NMR spectral analysis of compound **6**

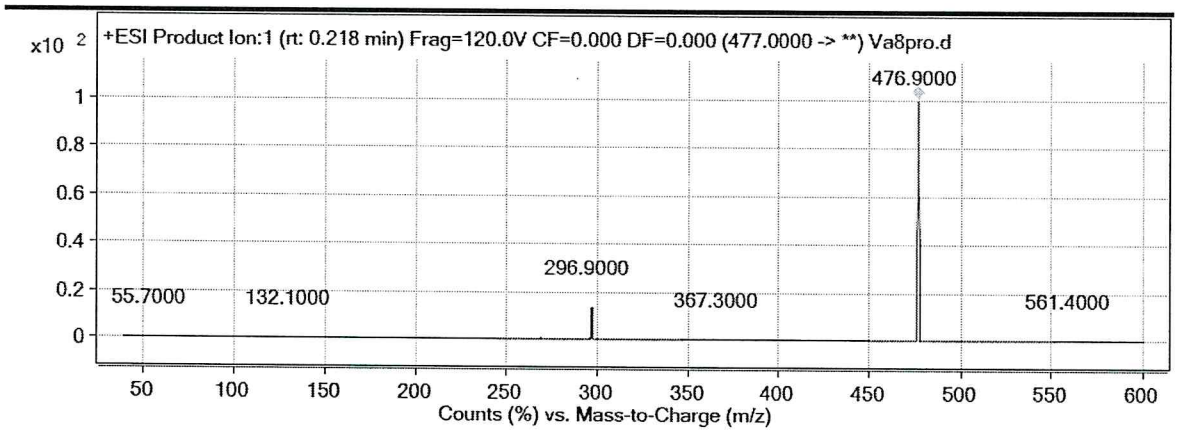


Data 18. ^{13}C-NMR spectral analysis of compound **6**



Data 19. Mass spectral analysis of compound **6**

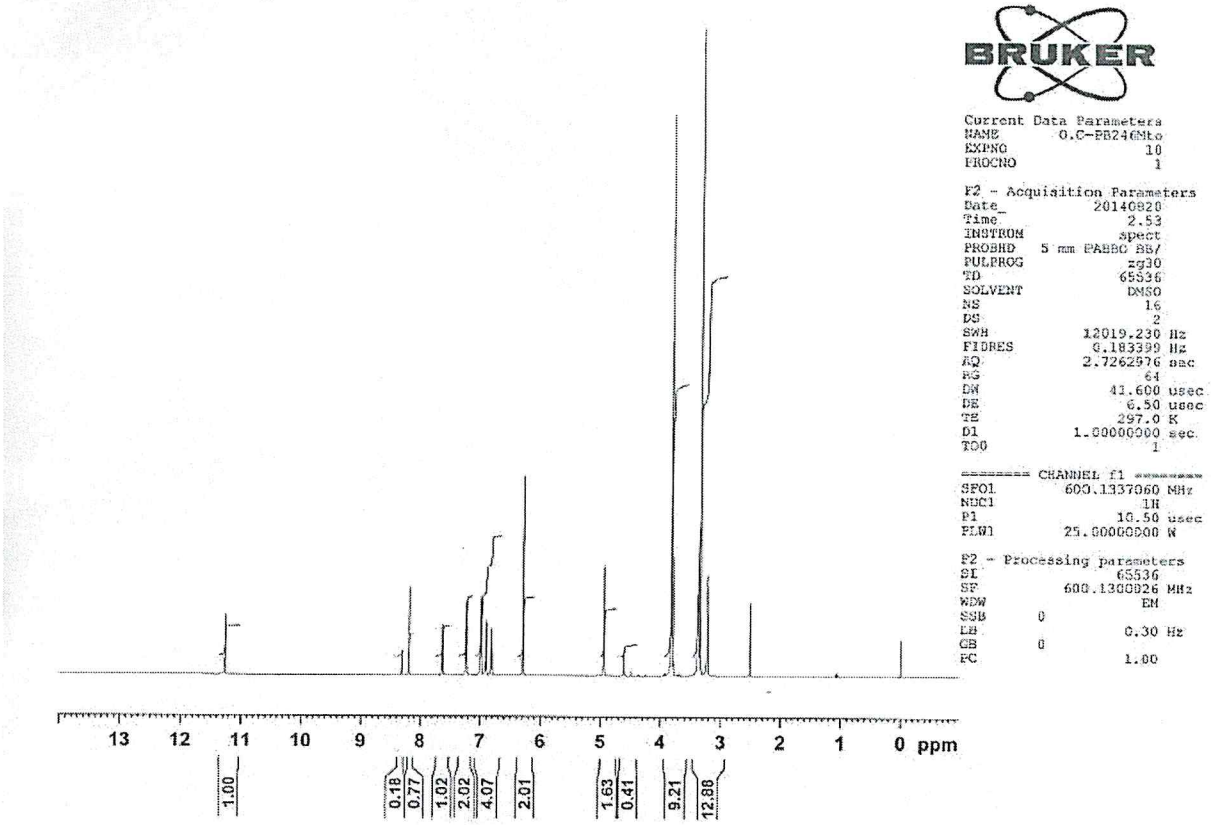
Qualitative Analysis Report



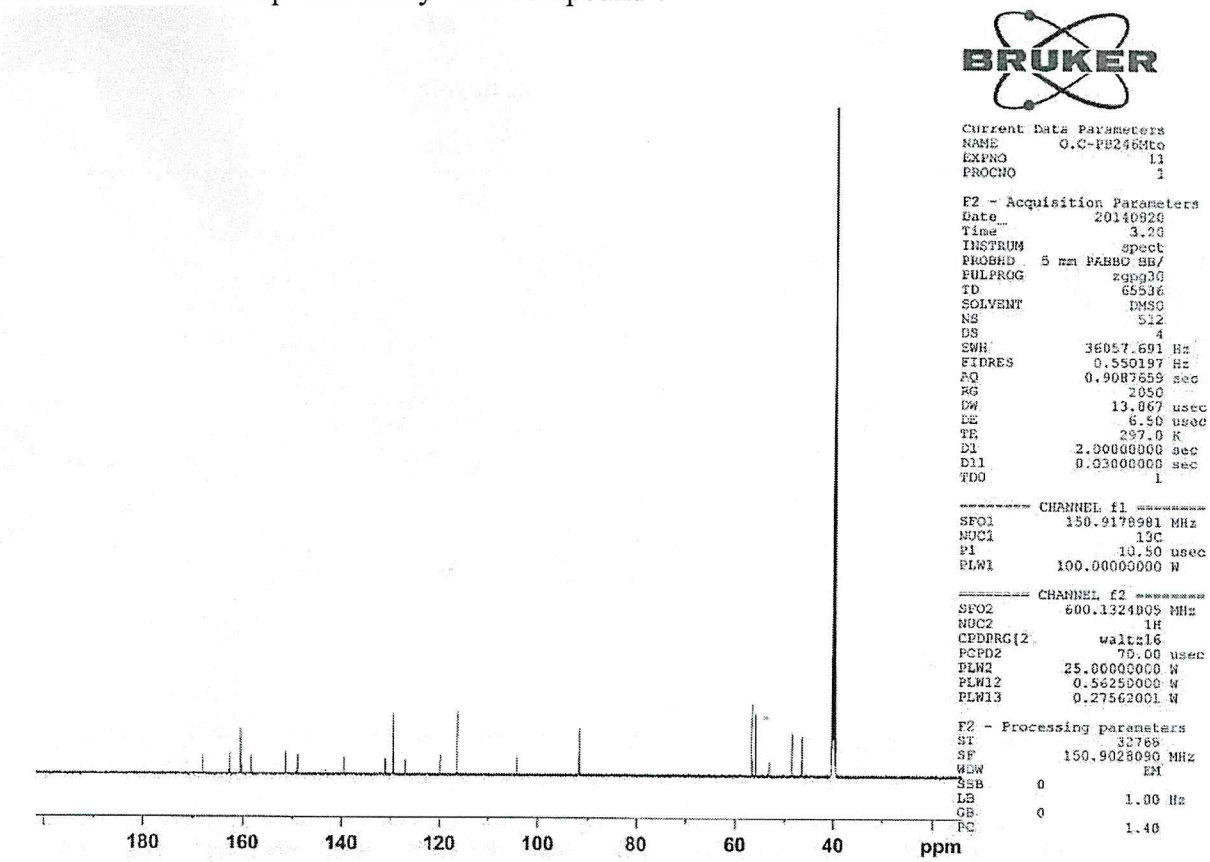
Peak List

m/z	z	Abund
90.5	2	56.5
119.7	2	55.8
132.1		82.58
149.5	2	73.86
241.6	2	66.2
268.9		1360.48
296.9		23633.5
458.8		59.6
475.6		278.38
476.9		174022.17

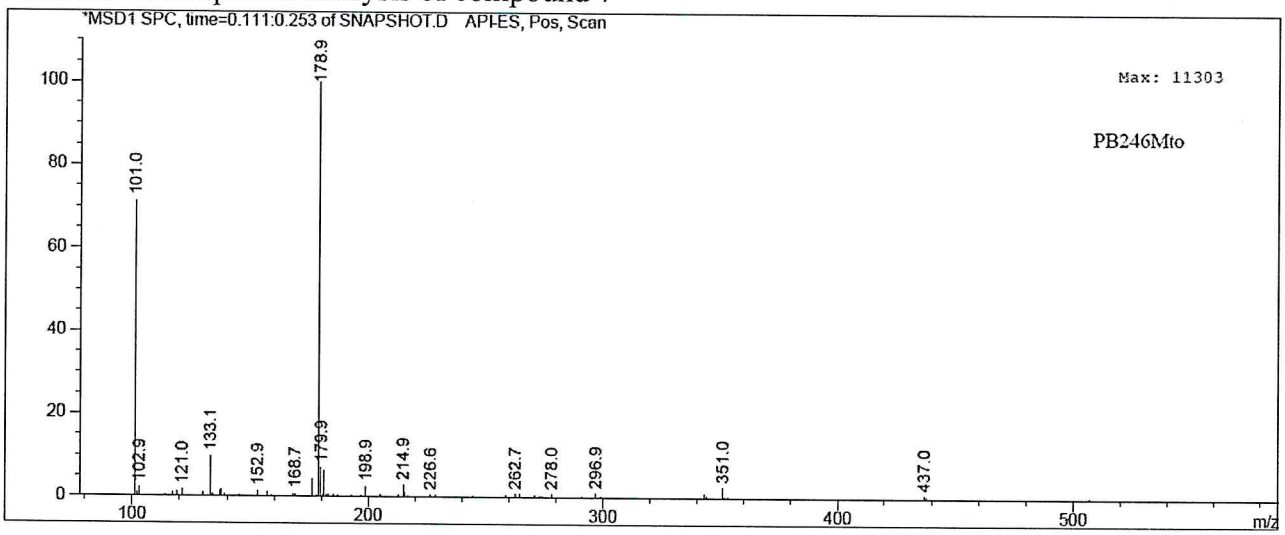
Data 20. ^{1}H-NMR spectral analysis of compound **7**



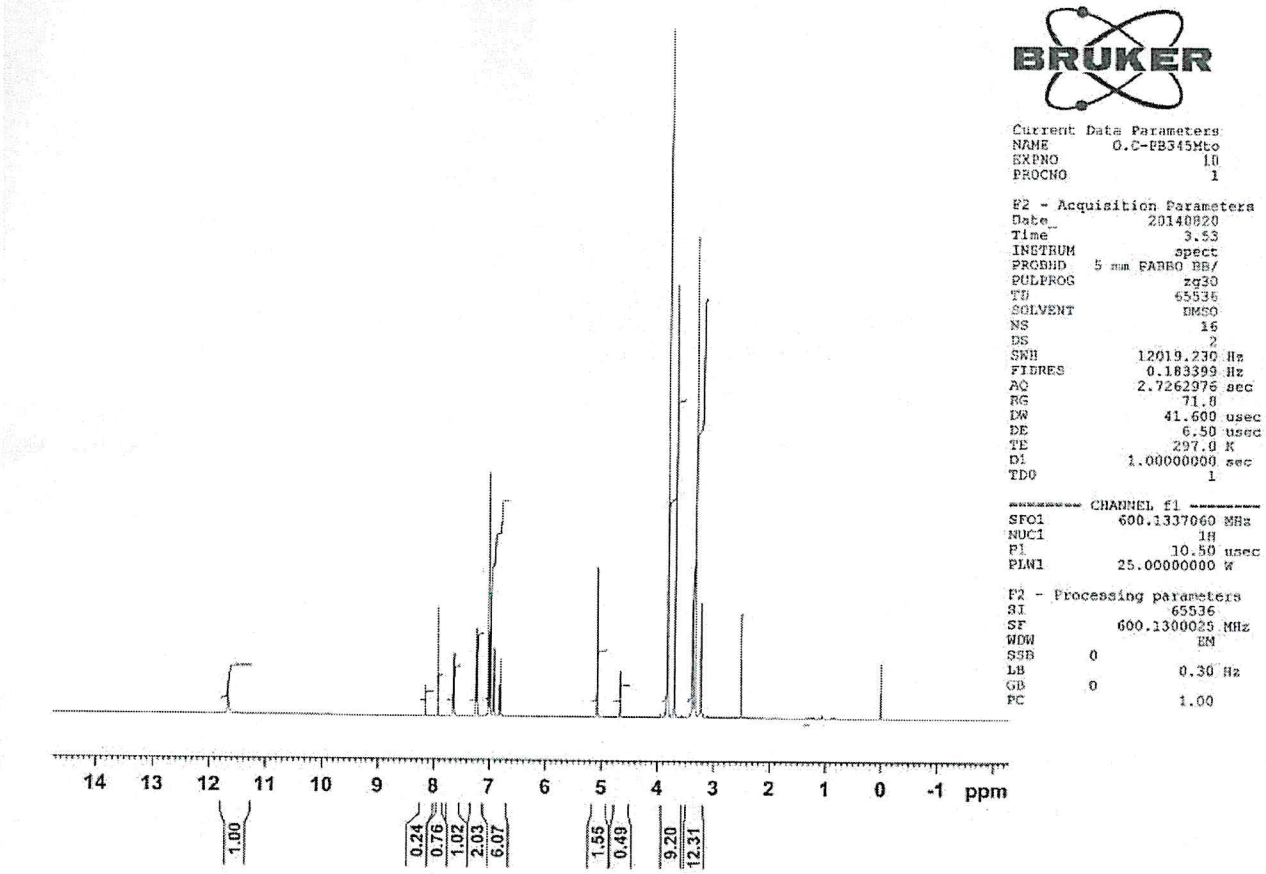
Data 21. ^{13}C-NMR spectral analysis of compound **7**



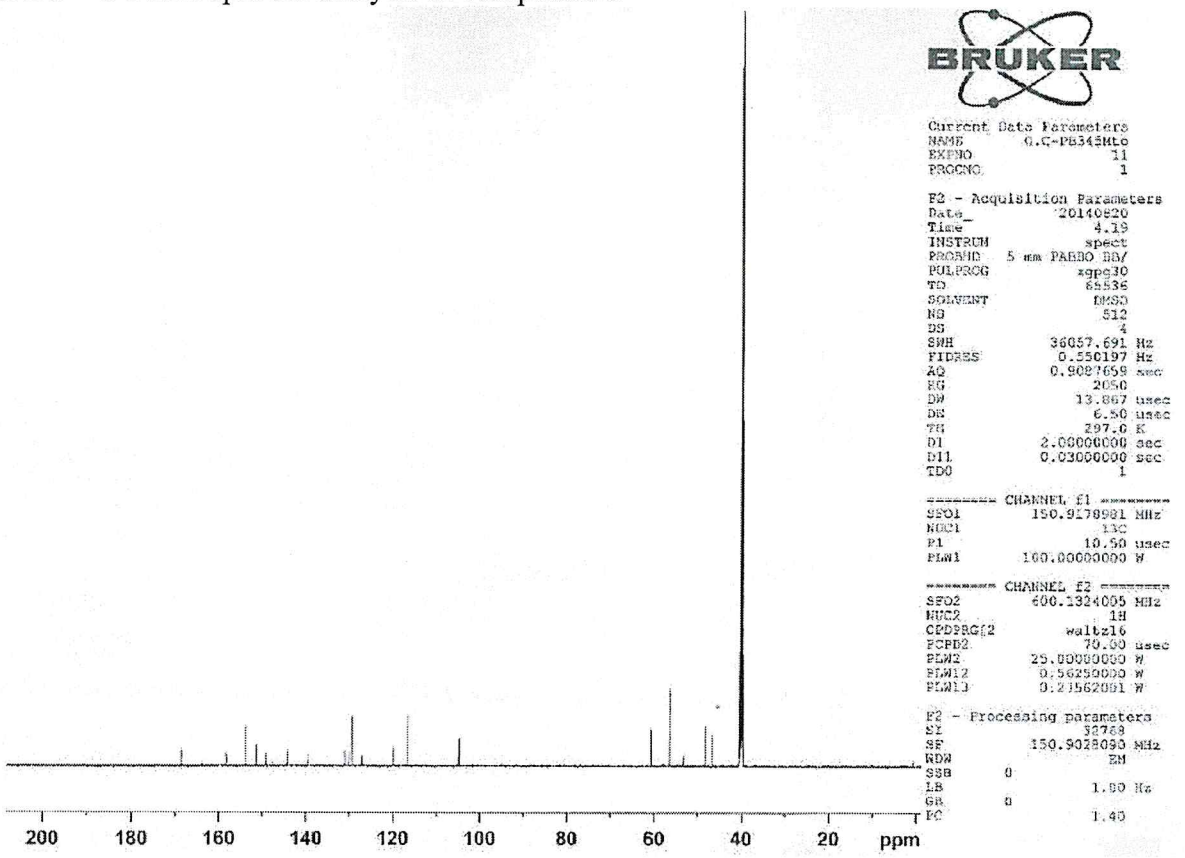
Data 22. Mass spectral analysis of compound **7**



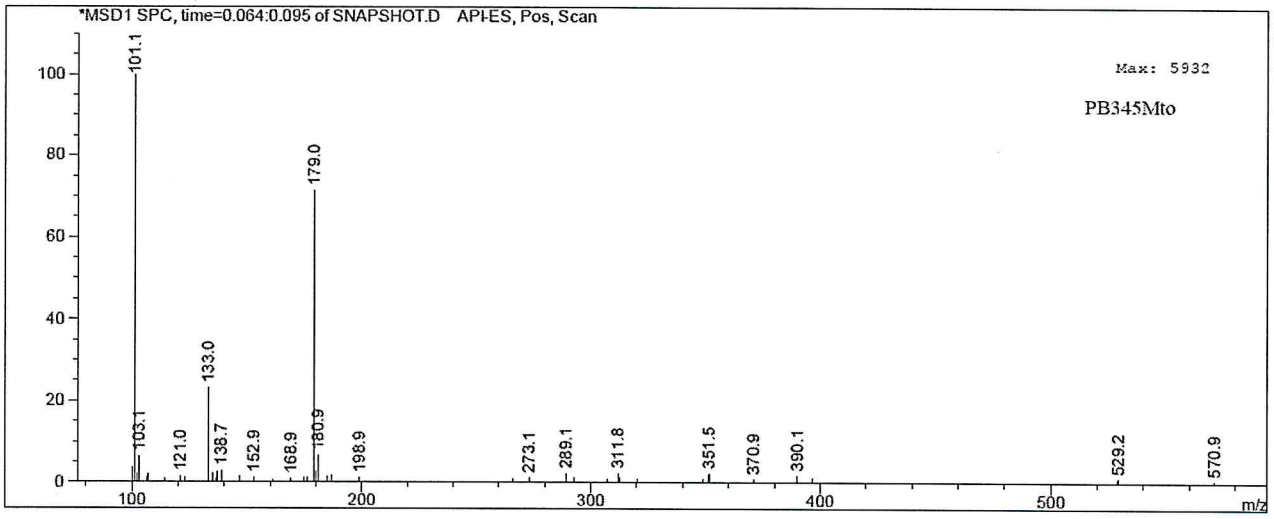
Data 23. ^{1}H-NMR spectral analysis of compound **8**



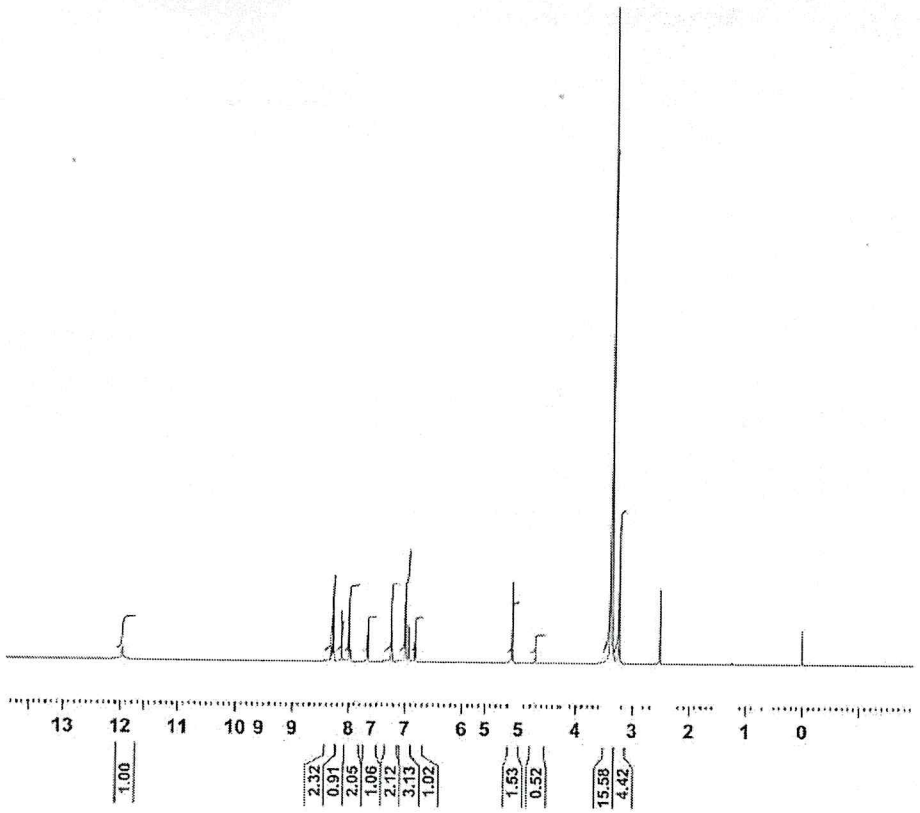
Data 24. ^{13}C-NMR spectral analysis of compound **8**



Data 25. Mass spectral analysis of compound **8**



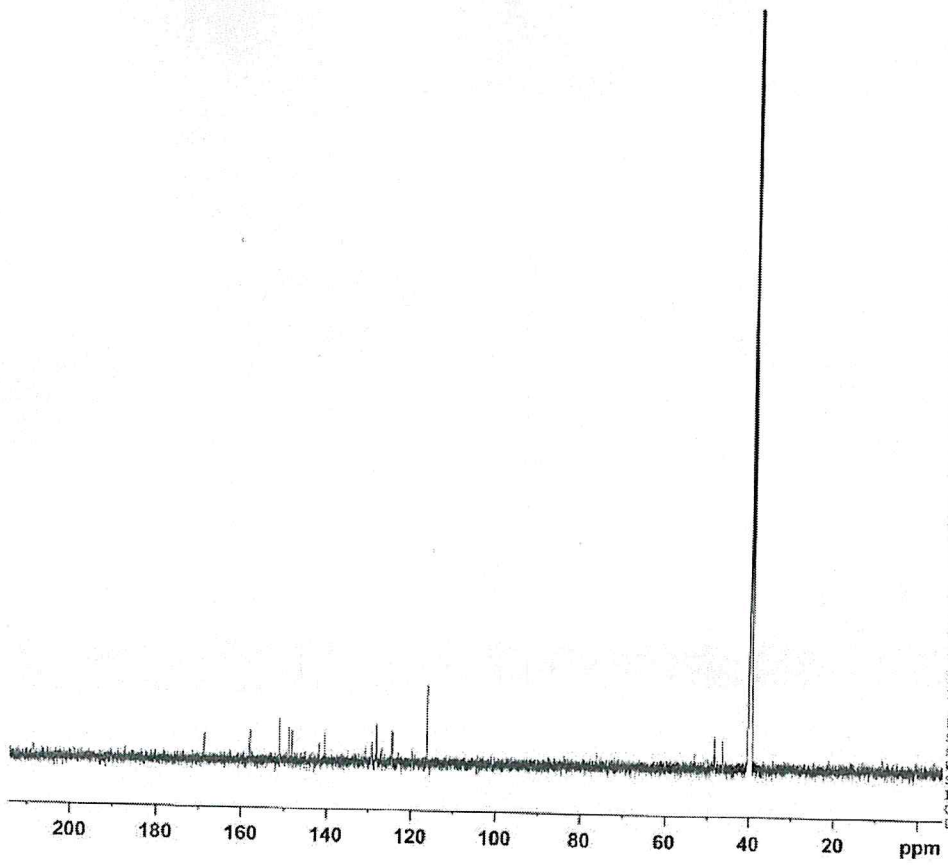
Data 26. ^{1}H-NMR spectral analysis of compound **9**



BRUKER

```
Current Data Parameters
NAME                  O.C-PBNO
EXPNO                       10
PROCNO                       1

F2 - Acquisition Parameters
Date_               20140820
Time                     5.51
INSTRUM                  spect
PROBHD     5 mm PABBO BB/
PULPROG                  zg30
TD                      65536
SOLVENT                  DMSO
NS                         16
DS                          2
SWH                 12019.230 Hz
FIDRES                0.183399 Hz
AQ                    2.7262976 sec
RG                         80.6
DW                       41.600 usec
DE                        6.50 usec
TE                       297.0 K
D1                    1.00000000 sec
TD0                          1

======== CHANNEL f1 ========
SFO1                600.1337060 MHz
NUC1                        1H
P1                       10.50 usec
PLW1                25.00000000 W

F2 - Processing parameters
SI                      65536
SF                  600.1300015 MHz
WDW                        EM
SSB                 0
LB                        0.30 Hz
GB                  0
PC                        1.00
```

Data 27. ^{13}C-NMR spectral analysis of compound **9**

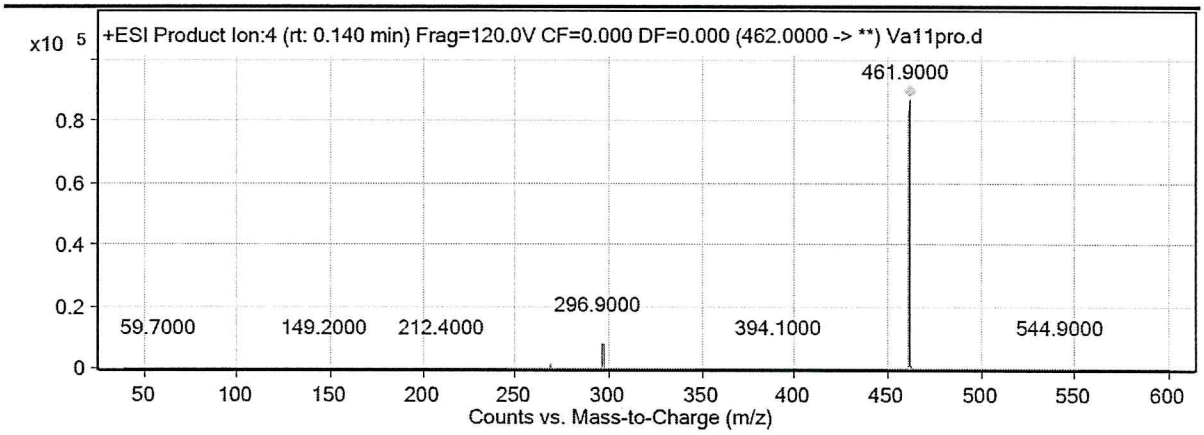


BRUKER

```
Current Data Parameters
NAME                  O.C-PBNO
EXPNO                       11
PROCNO                       1

F2 - Acquisition Parameters
Date_               20140820
Time                     6.17
INSTRUM                  spect
PROBHD     5 mm PABBO BB/
PULPROG                zgpg30
TD                      65536
SOLVENT                  DMSO
NS                         512
DS                           4
SWH                 36057.691 Hz
FIDRES                0.550197 Hz
AQ                    0.9087659 sec
RG                        2050
DW                       13.867 usec
DE                        6.50 usec
TE                       297.0 K
D1                    2.00000000 sec
D11                   0.03000000 sec
TD0                          1

======== CHANNEL f1 ========
SFO1                150.9178981 MHz
NUC1                        13C
P1                       10.50 usec
PLW1               100.00000000 W

======== CHANNEL f2 ========
SFO2                600.1324005 MHz
NUC2                        1H
CPDPRG[2                waltz16
PCPD2                    70.00 usec
PLW2               25.00000000 W
PLW12               0.56250000 W
PLW13               0.27562001 W

F2 - Processing parameters
SI                      32768
SF                  150.9028890 MHz
WDW                        EM
SSB                 0
LB                        1.00 Hz
GB                  0
PC                        1.40
```

Data 28. Mass spectral analysis of compound **9**

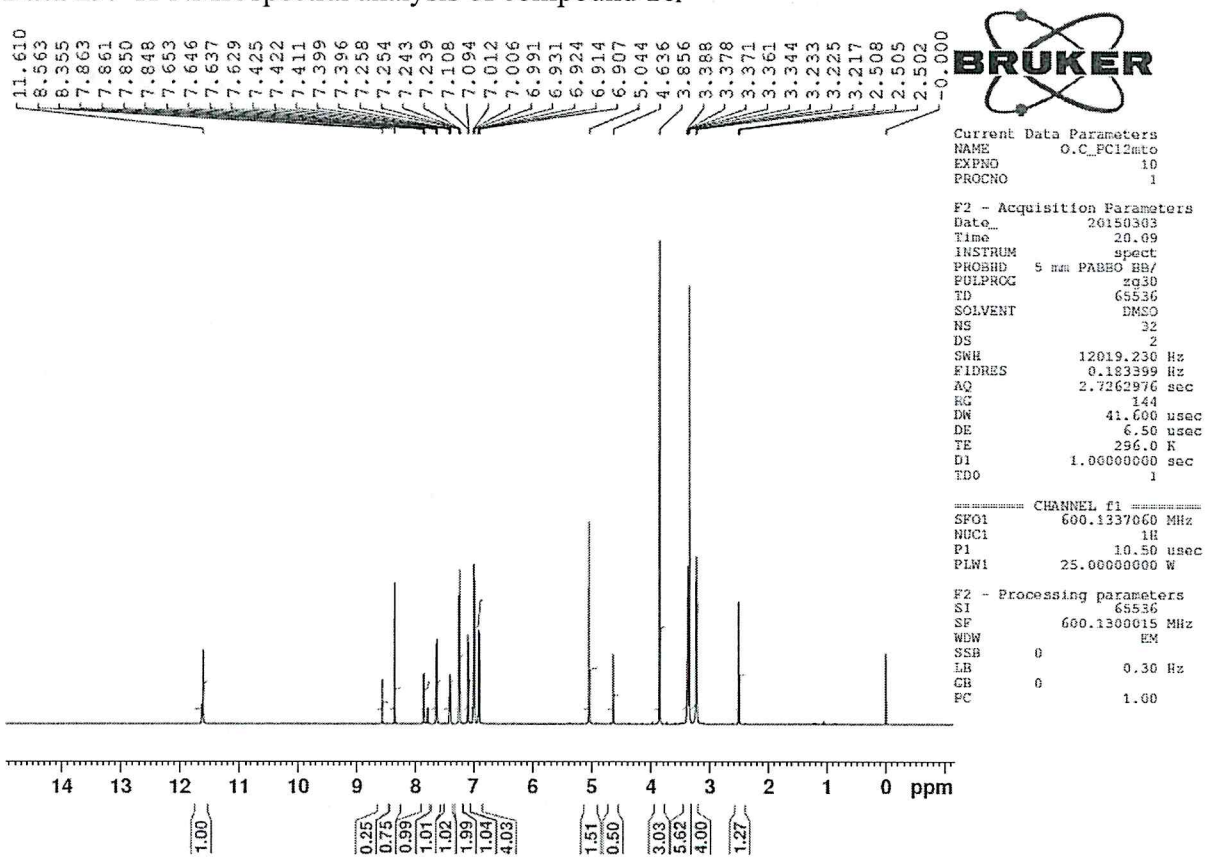
Qualitative Analysis Report



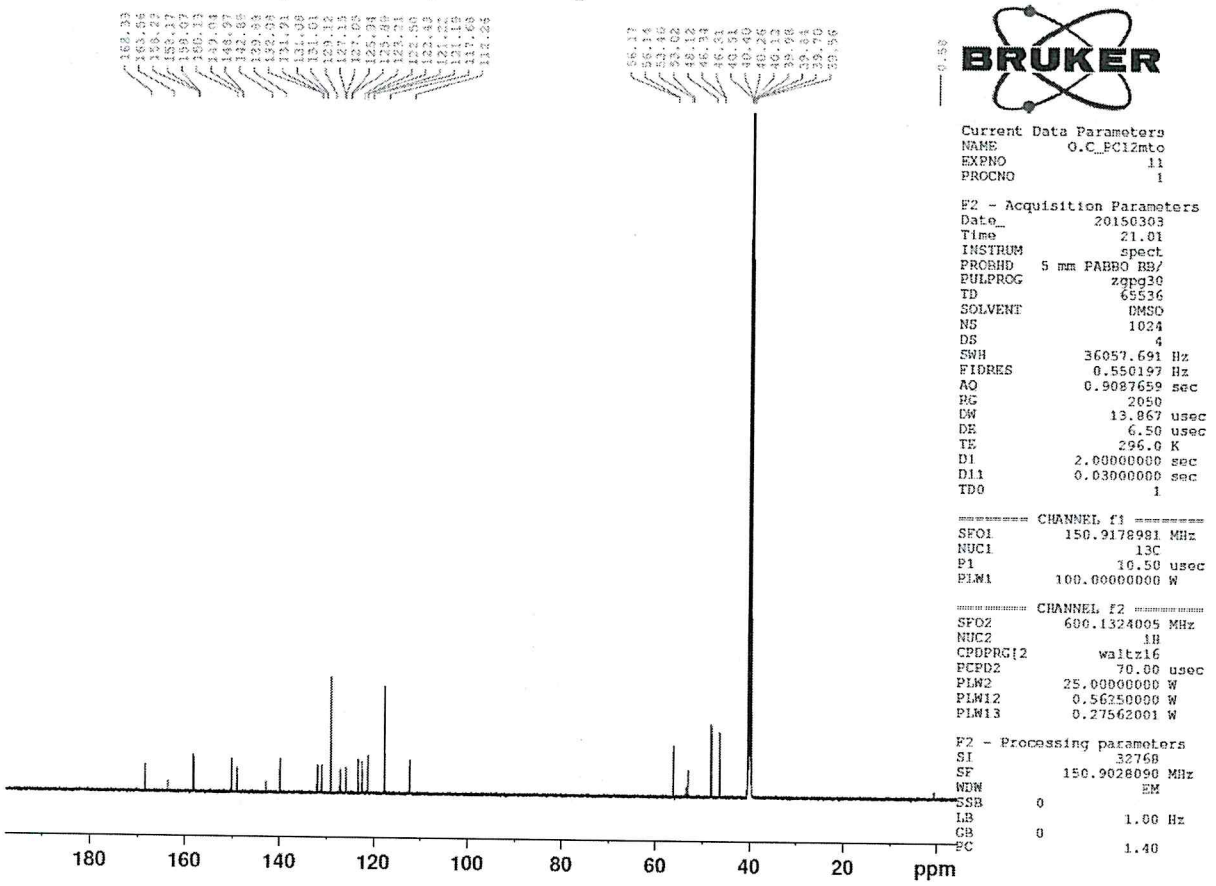
Peak List

m/z	z	Abund
43.7	2	54.98
59.7	2	58.34
109.2		54.48
118.6	2	54.78
149.2		59.66
212.4	2	54.12
268.9		884.76
296.9		7646.08
460.1		63.06
461.9		87040.38

Data 29. ^{1}H-NMR spectral analysis of compound **10**$_{l}$

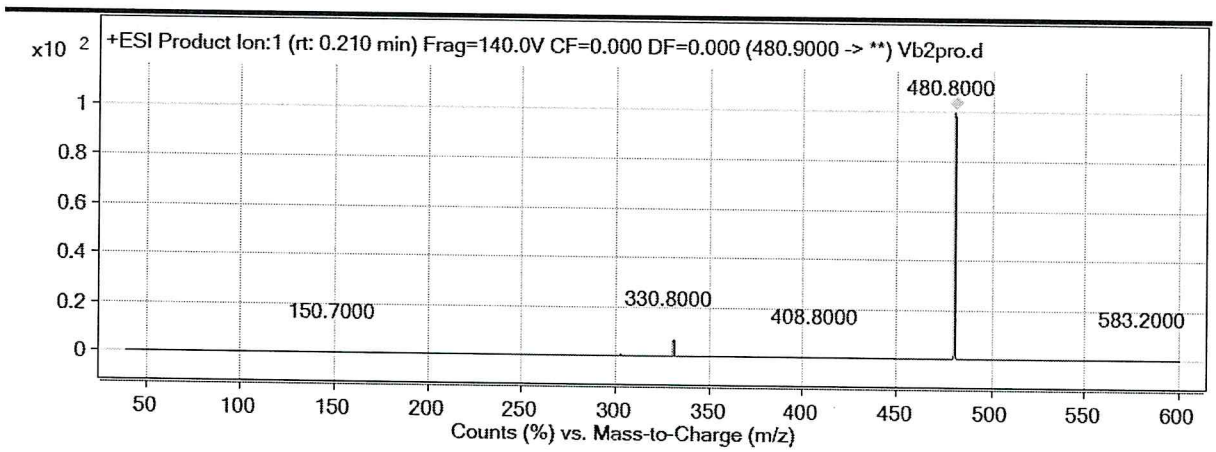


Data 30. ^{13}C-NMR spectral analysis of compound **10**



Data 31. Mass spectral analysis of compound **10**

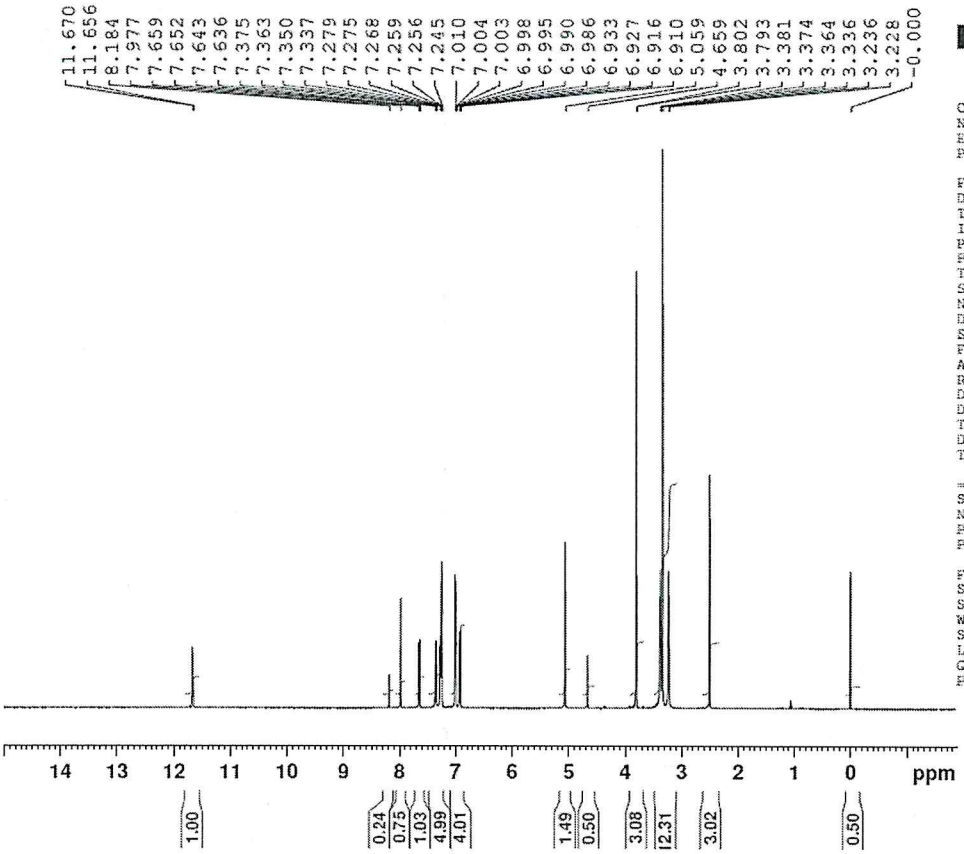
Qualitative Analysis Report



Peak List

m/z	z	Abund
149.5	2	54.76
150.7	2	94.6
179.9		54.5
180.6	2	54.62
190.7	2	93.92
290.4	2	56.7
302.7	2	446.1
328.6	2	54.6
330.8		5004.22
480.8		76619.34

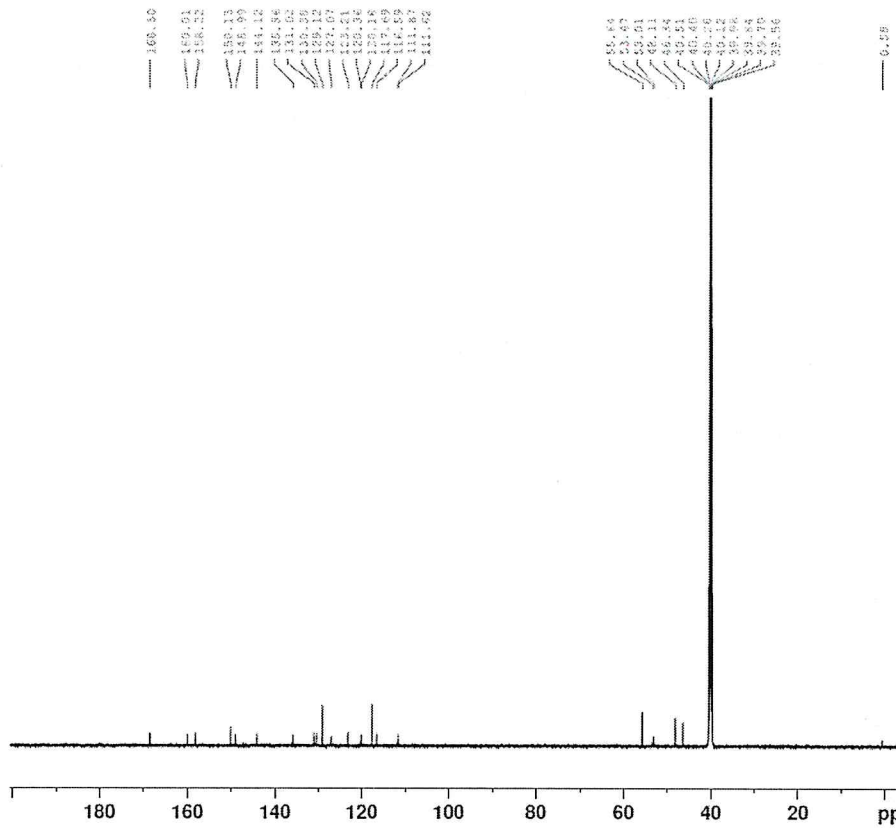
Data 32. ^{1}H-NMR spectral analysis of compound **11**



BRUKER

```
Current Data Parameters
NAME          O.C_PC13mto
EXPNO                  10
PROCNO                  1

F2 - Acquisition Parameters
Date_              20150303
Time                 19.13
INSTRUM              spect
PROBHD   5 mm PABBO BB/
PULPROG              zg30
TD                  65536
SOLVENT              DMSO
NS                     32
DS                      2
SWH             12019.230 Hz
FIDRES          0.183399 Hz
AQ              2.7262976 sec
RG                    203
DW                41.600 usec
DE                 6.50 usec
TE                296.0 K
D1             1.00000000 sec
TD0                     1

========== CHANNEL f1 ==========
SFO1          600.1337060 MHz
NUC1                  1H
P1                 10.50 usec
PLW1          25.00000000 W

F2 - Processing parameters
SI                  65536
SF            600.1300027 MHz
WDW                    EM
SSB       0
LB                 0.30 Hz
GB        0
PC                 1.00
```

Data 33. ^{13}C-NMR spectral analysis of compound **11**

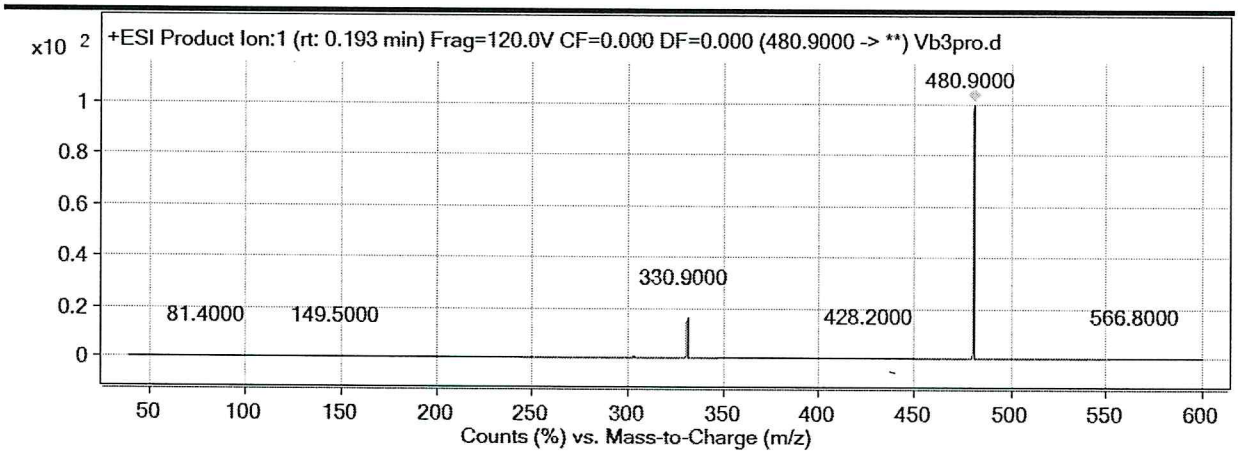


BRUKER

```
Current Data Parameters
NAME          O.C_PC13mto
EXPNO                  11
PROCNO                  1

F2 - Acquisition Parameters
Date_              20150303
Time                 20.05
INSTRUM              spect
PROBHD   5 mm PABBO BB/
PULPROG           zgpg30
TD                  65536
SOLVENT              DMSO
NS                   1024
DS                      4
SWH            36057.691 Hz
FIDRES          0.550197 Hz
AQ              0.9087659 sec
RG                   2050
DW                13.867 usec
DE                 6.50 usec
TE                296.0 K
D1             2.00000000 sec
D11            0.03000000 sec
TD0                     1

======== CHANNEL f1 ========
SFO1          150.9178981 MHz
NUC1                  13C
P1                 10.50 usec
PLW1         100.00000000 W

========== CHANNEL f2 ==========
SFO2          600.1324005 MHz
NUC2                  1H
CPDPRG[2          waltz16
PCPD2              70.00 usec
PLW2          25.00000000 W
PLW12          0.56250000 W
PLW13          0.27562001 W

F2 - Processing parameters
SI                  32768
SF            150.9028090 MHz
WDW                    EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.40
```

Data 34. Mass spectral analysis of compound **11**

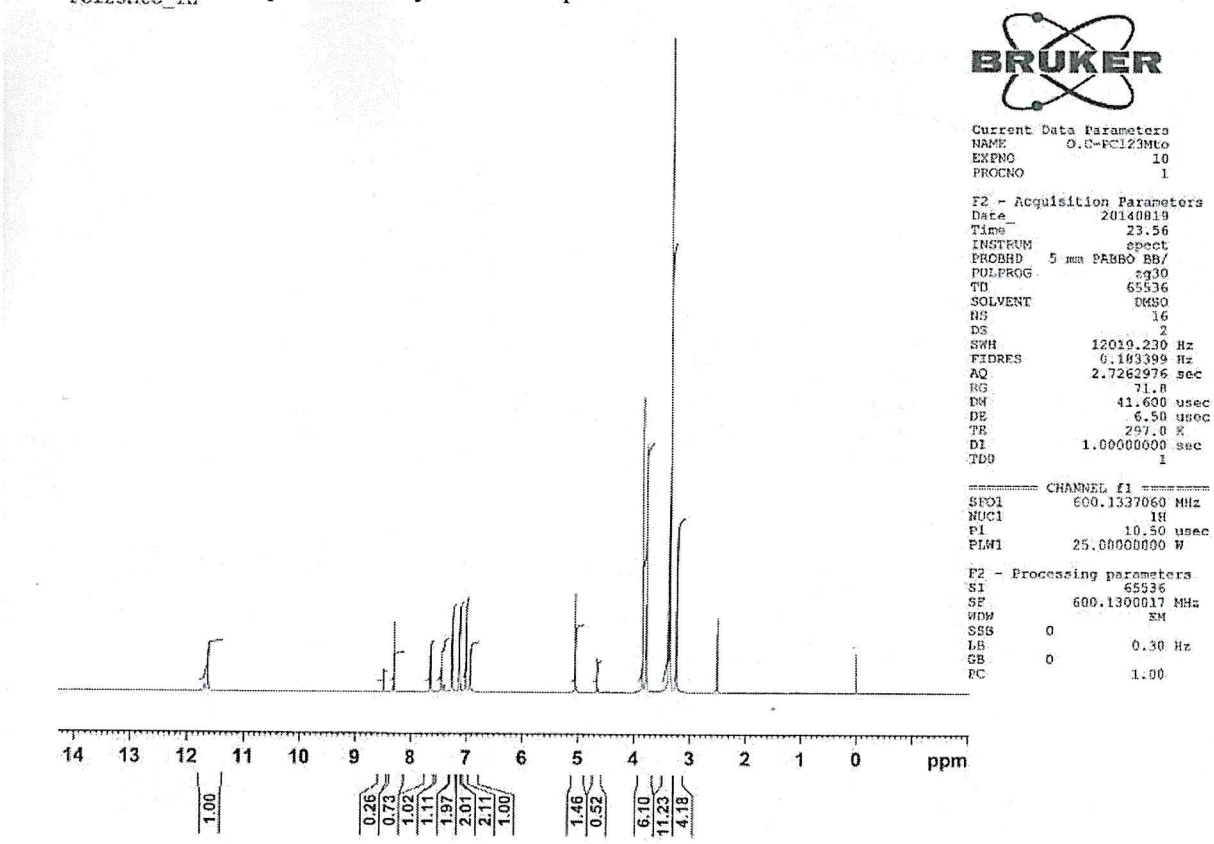
Qualitative Analysis Report



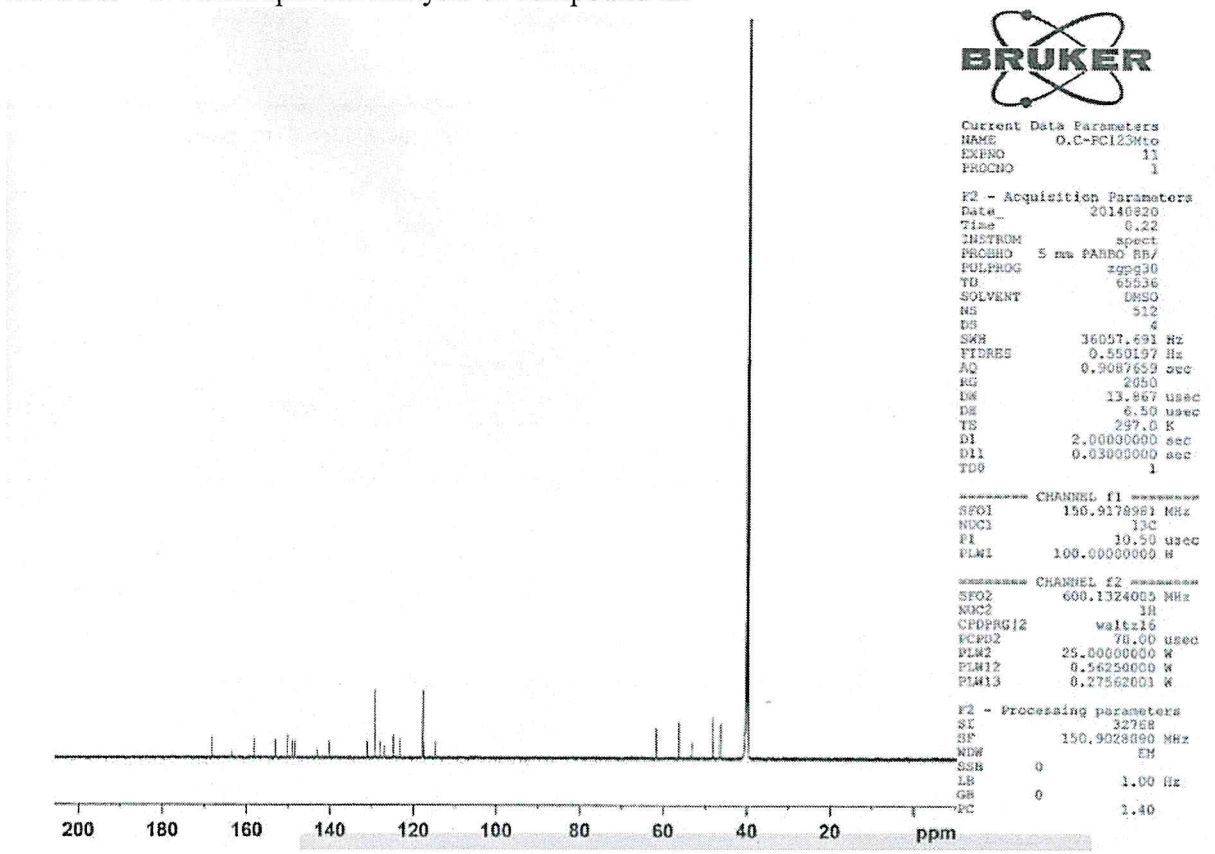
Peak List

m/z	z	Abund
81.4	2	59.4
131.8		53.64
138.3	2	60.9
149.5	2	63.62
165.5	2	58.1
189.9		54.7
274.2		56.72
302.7	2	540.44
330.9		10467.06
480.9		67117.24

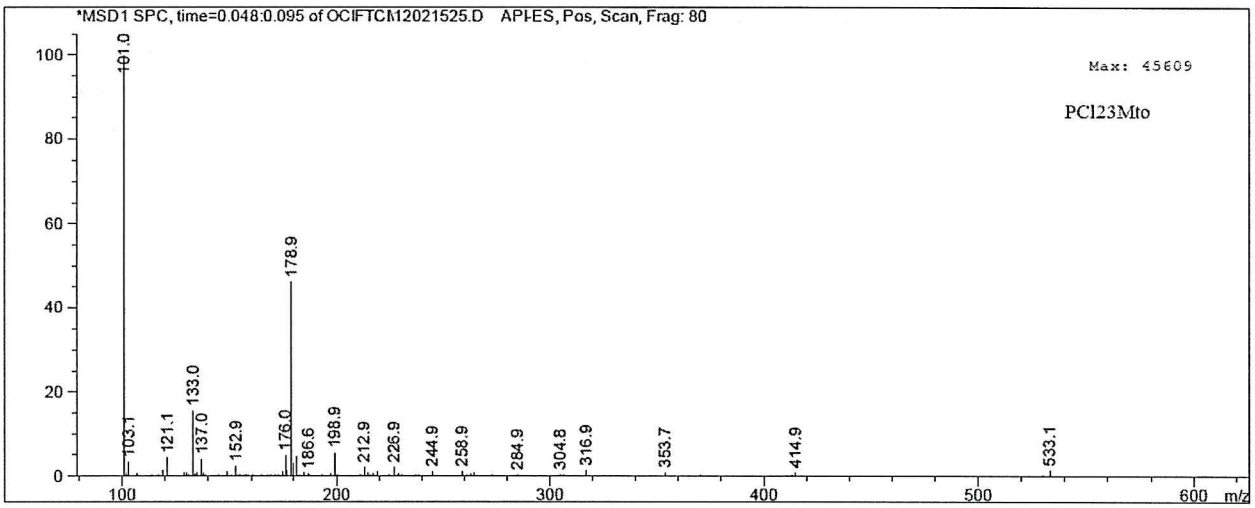
Data 35. ^{1}H-NMR spectral analysis of compound **12**



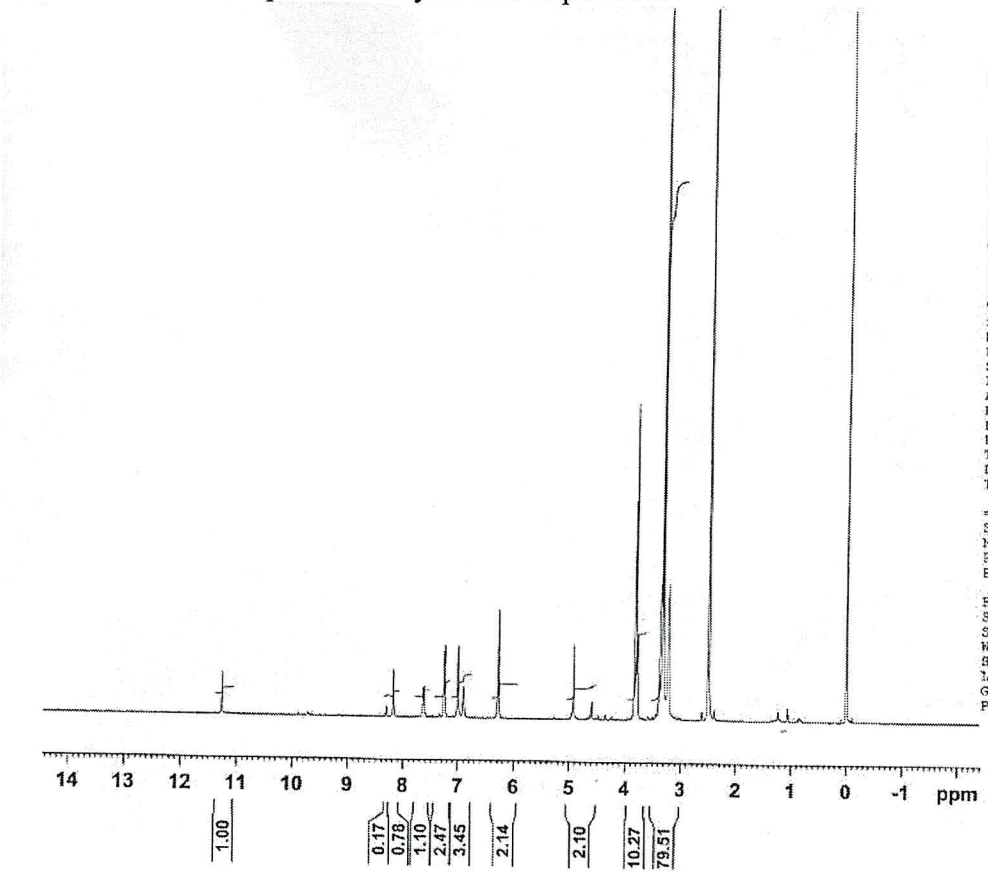
Data 36. ^{13}C-NMR spectral analysis of compound **12**



Data 37. Mass spectral analysis of compound **12**



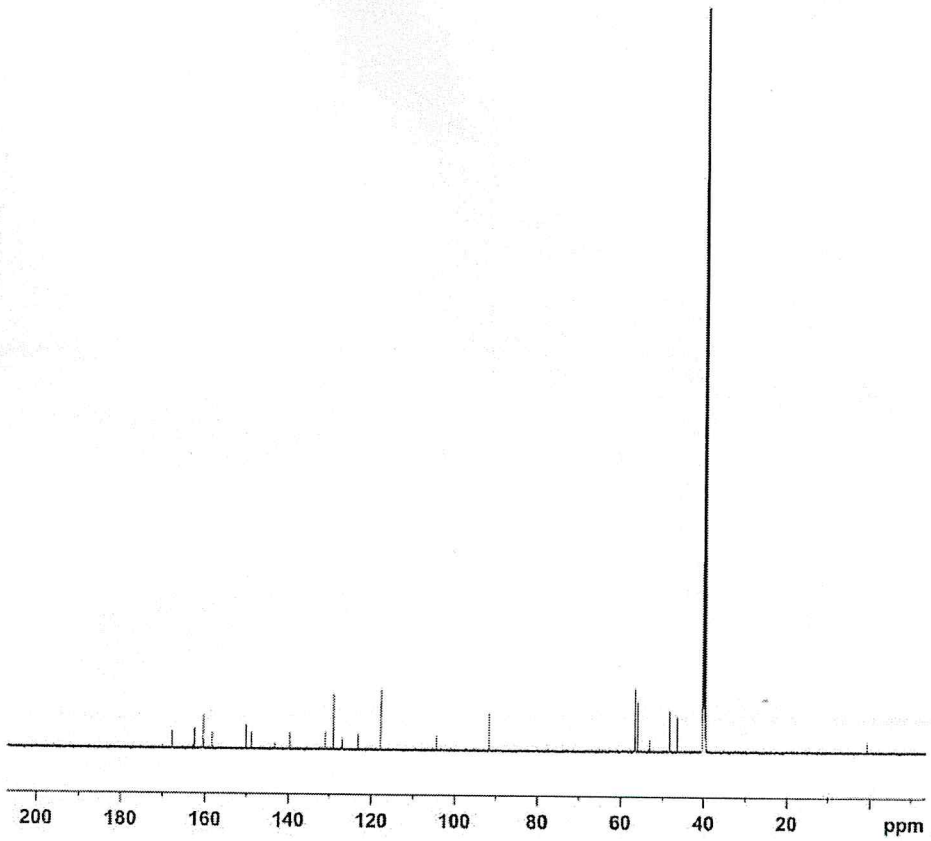
Data 38. ^{1}H-NMR spectral analysis of compound **13**



BRUKER

```
Current Data Parameters
NAME          O.C-PC1246Mto
EXPNO                   10
PROCNO                   1

F2 - Acquisition Parameters
Date_               20140820
Time                    6.50
INSTRUM                spect
PROBHD    5 mm PABBO BB/
PULPROG                zg30
TD                    65536
SOLVENT               DMSO
NS                       16
DS                        2
SWH                12019.230 Hz
FIDRES              0.183399 Hz
AQ                  2.7262976 sec
RG                       90.5
DW                   41.600 usec
DE                    6.50 usec
TE                   297.0 K
D1                1.00000000 sec
TD0                      1

======== CHANNEL f1 ========
SFO1              600.1337060 MHz
NUC1                      1H
P1                     10.50 usec
PLW1              25.00000000 W

F2 - Processing parameters
SI                       65536
SF                600.1300036 MHz
WDW                        EM
SSB          0
LB                      0.30 Hz
GB           0
PC                       1.00
```

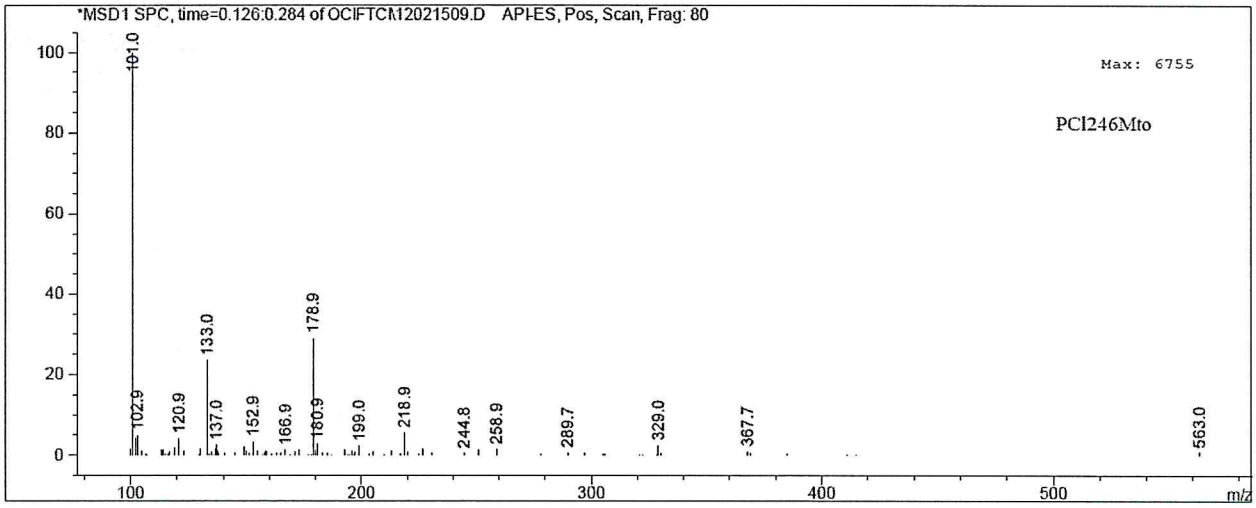
Data 39. ^{13}C-NMR spectral analysis of compound **13**



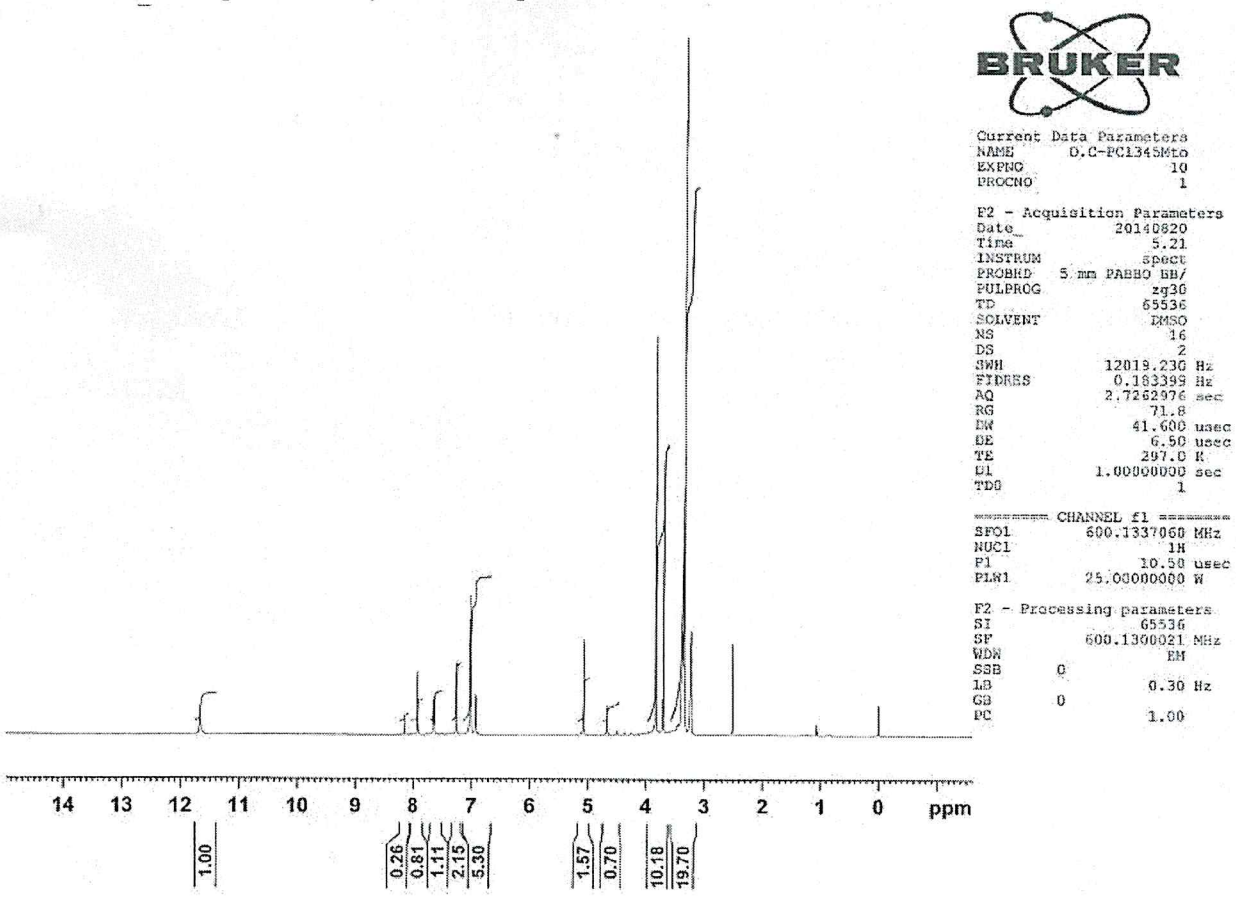
BRUKER

```
Current Data Parameters
NAME          O.C-PC1246Mto
EXPNO                   12
PROCNO                   1

F2 - Acquisition Parameters
Date_               20140820
Time                   11.25
INSTRUM                spect
PROBHD    5 mm PABBO BB/
PULPROG             zgpg30
TD                    65536
SOLVENT               DMSO
NS                     1024
DS                        4
SWH                36057.691 Hz
FIDRES              0.550197 Hz
AQ                  0.9087659 sec
RG                       2050
DW                   13.867 usec
DE                    6.50 usec
TE                   297.0 K
D1                2.00000000 sec
D11               0.03000000 sec
TD0                      1

======== CHANNEL f1 ========
SFO1              150.9178981 MHz
NUC1                      13C
P1                     10.50 usec
PLW1             100.00000000 W

======== CHANNEL f2 ========
SFO2              600.1324005 MHz
NUC2                      1H
CPDPRG[2             waltz16
PCPD2                  70.00 usec
PLW2              25.00000000 W
PLW12             0.56250000 W
PLW13             0.27562001 W

F2 - Processing parameters
SI                       32768
SF                150.9028090 MHz
WDW                        EM
SSB          0
LB                      1.00 Hz
GB           0
PC                       1.40
```

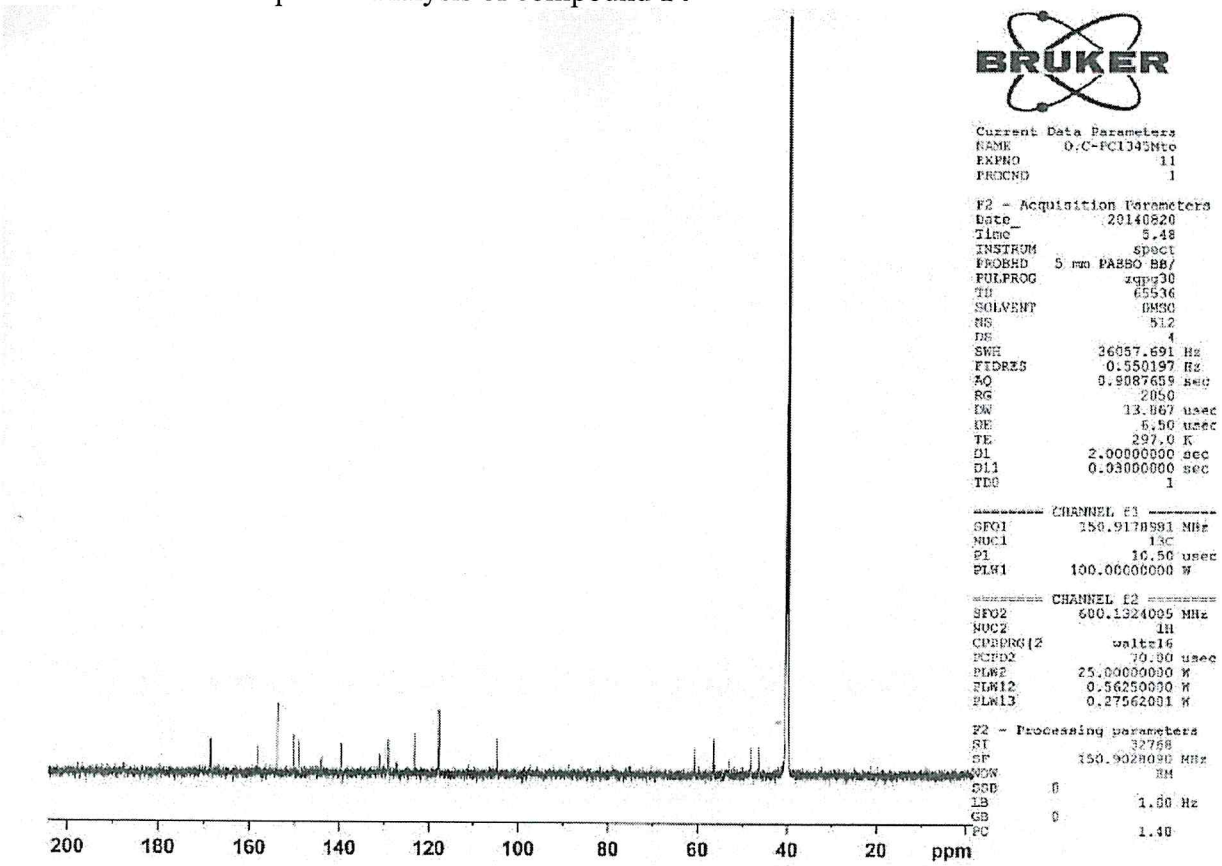
Data 40. Mass spectral analysis of compound **13**



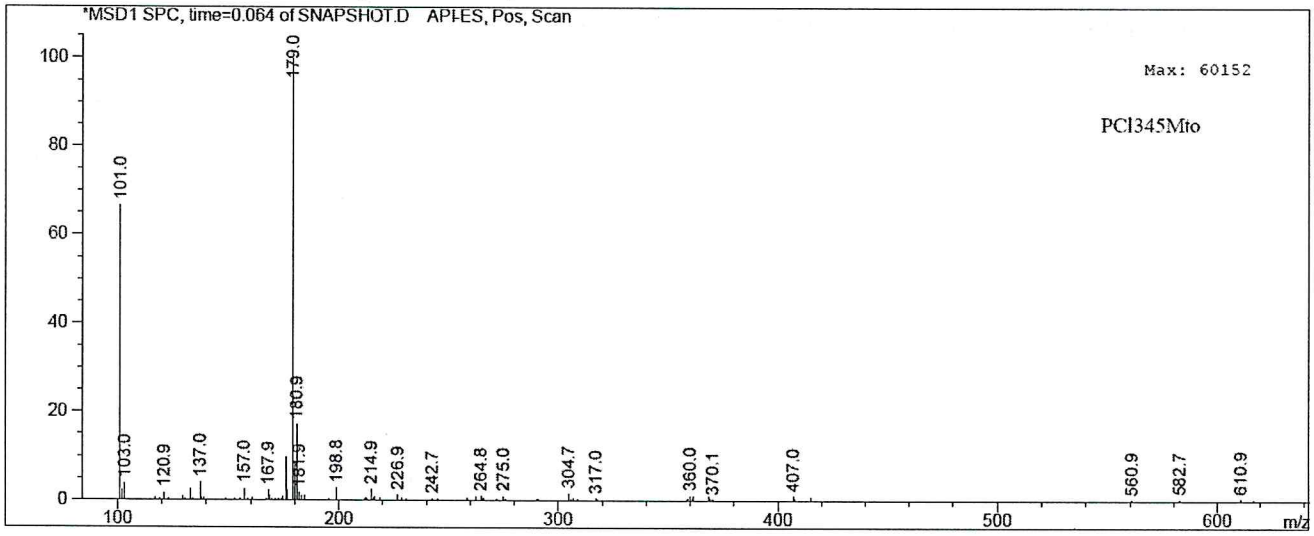
Data 41. ^{1}H-NMR spectral analysis of compound **14**



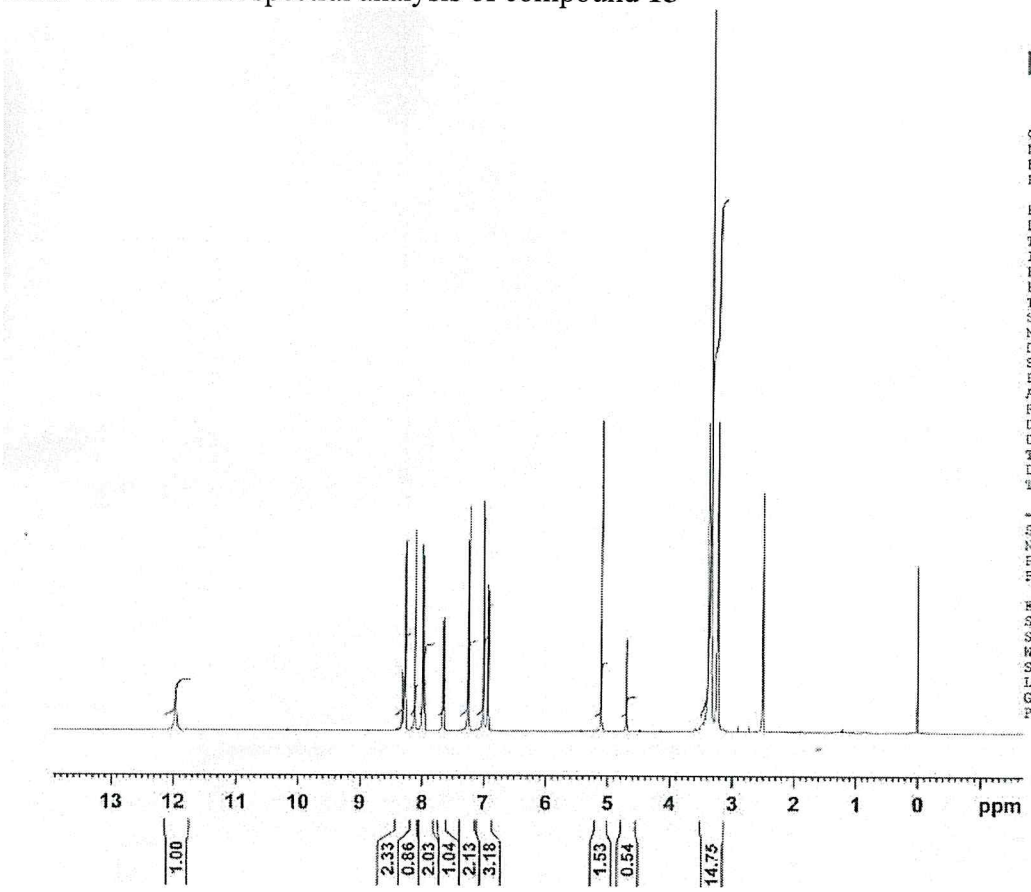
Data 42. ^{13}C-NMR spectral analysis of compound **14**



Data 43. Mass spectral analysis of compound **14**



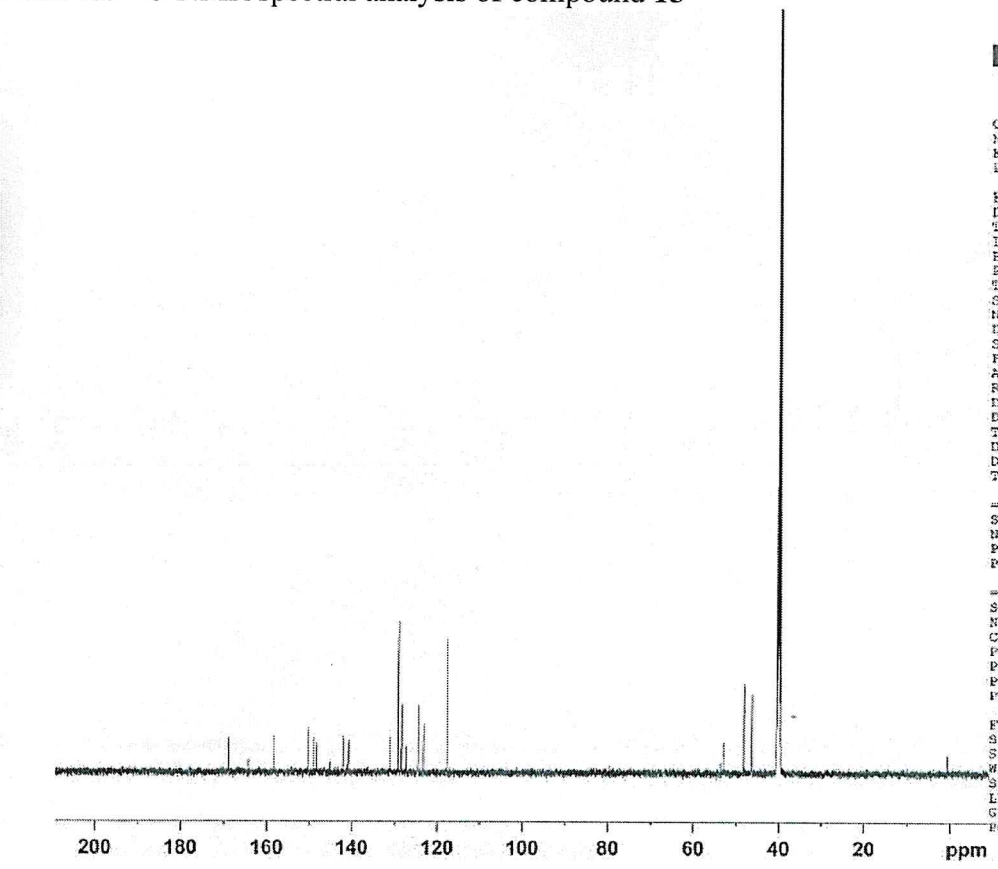
Data 44. ^{1}H-NMR spectral analysis of compound **15**



BRUKER

```
Current Data Parameters
NAME                  O.C-PClNO
EXPNO                        10
PROCNO                        1

F2 - Acquisition Parameters
Date_                  20140819
Time                      23.26
INSTRUM                   spect
PROBHD     5 mm PABBO BB/
PULPROG                   zg30
TD                       65536
SOLVENT                   DMSO
NS                           16
DS                            2
SWH                   12019.230 Hz
FIDRES                0.183399 Hz
AQ                    2.7262976 sec
RG                         71.8
DW                       41.600 usec
DE                        6.50 usec
TE                       297.0 K
D1                    1.00000000 sec
TD0                           1

======== CHANNEL f1 ========
SFO1                600.1337060 MHz
NUC1                        1H
P1                       10.50 usec
PLW1                25.00000000 W

F2 - Processing parameters
SI                       65536
SF                  600.1300009 MHz
WDW                         EM
SSB                  0
LB                        0.30 Hz
GB                   0
PC                        1.00
```

Data 45. ^{13}C-NMR spectral analysis of compound **15**

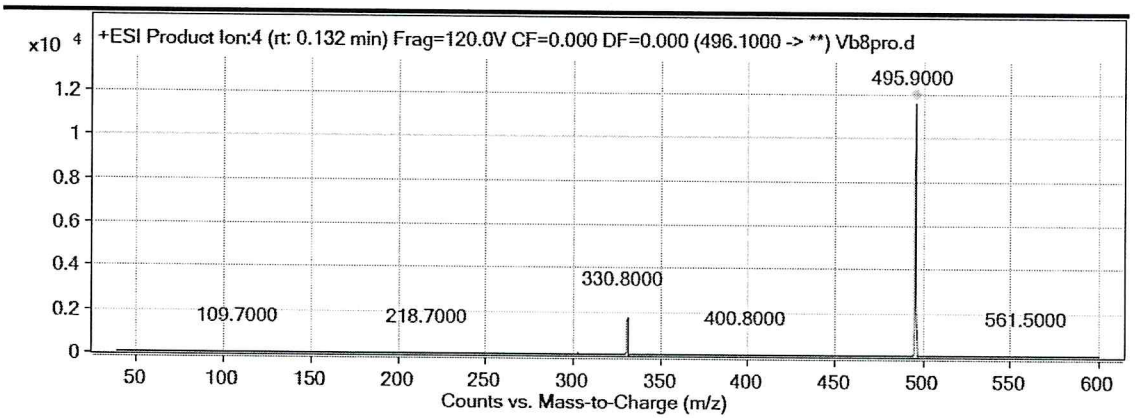


BRUKER

```
Current Data Parameters
NAME                  O.C-PClNO
EXPNO                        11
PROCNO                        1

F2 - Acquisition Parameters
Date_                  20140819
Time                      23.52
INSTRUM                   spect
PROBHD     5 mm PABBO BB/
PULPROG                 zgpg30
TD                       65536
SOLVENT                   DMSO
NS                         512
DS                            4
SWH                   36057.691 Hz
FIDRES                0.550197 Hz
AQ                    0.9087659 sec
RG                         2050
DW                       13.867 usec
DE                        6.50 usec
TE                       297.0 K
D1                    2.00000000 sec
D11                   0.03000000 sec
TD0                           1

======== CHANNEL f1 ========
SFO1                150.9178981 MHz
NUC1                        13C
P1                       10.50 usec
PLW1                100.00000000 W

======== CHANNEL f2 ========
SFO2                600.1324005 MHz
NUC2                        1H
CPDPRG[2                waltz16
PCPD2                    70.00 usec
PLW2                25.00000000 W
PLW12                0.56250000 W
PLW13                0.27562001 W

F2 - Processing parameters
SI                        32768
SF                  150.9028098 MHz
WDW                         EM
SSB                  0
LB                        1.00 Hz
GB                   0
PC                        1.40
```

Data 46. Mass spectral analysis of compound **15**

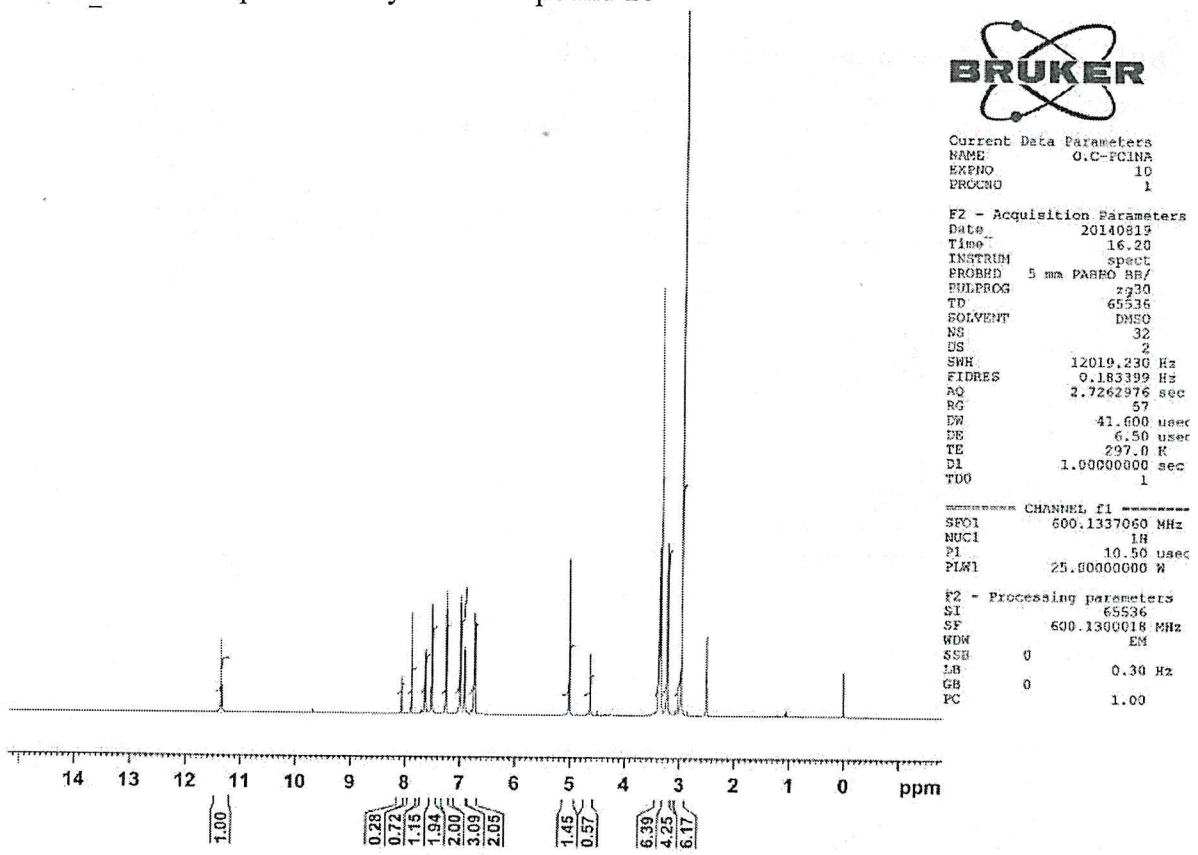
Qualitative Analysis Report



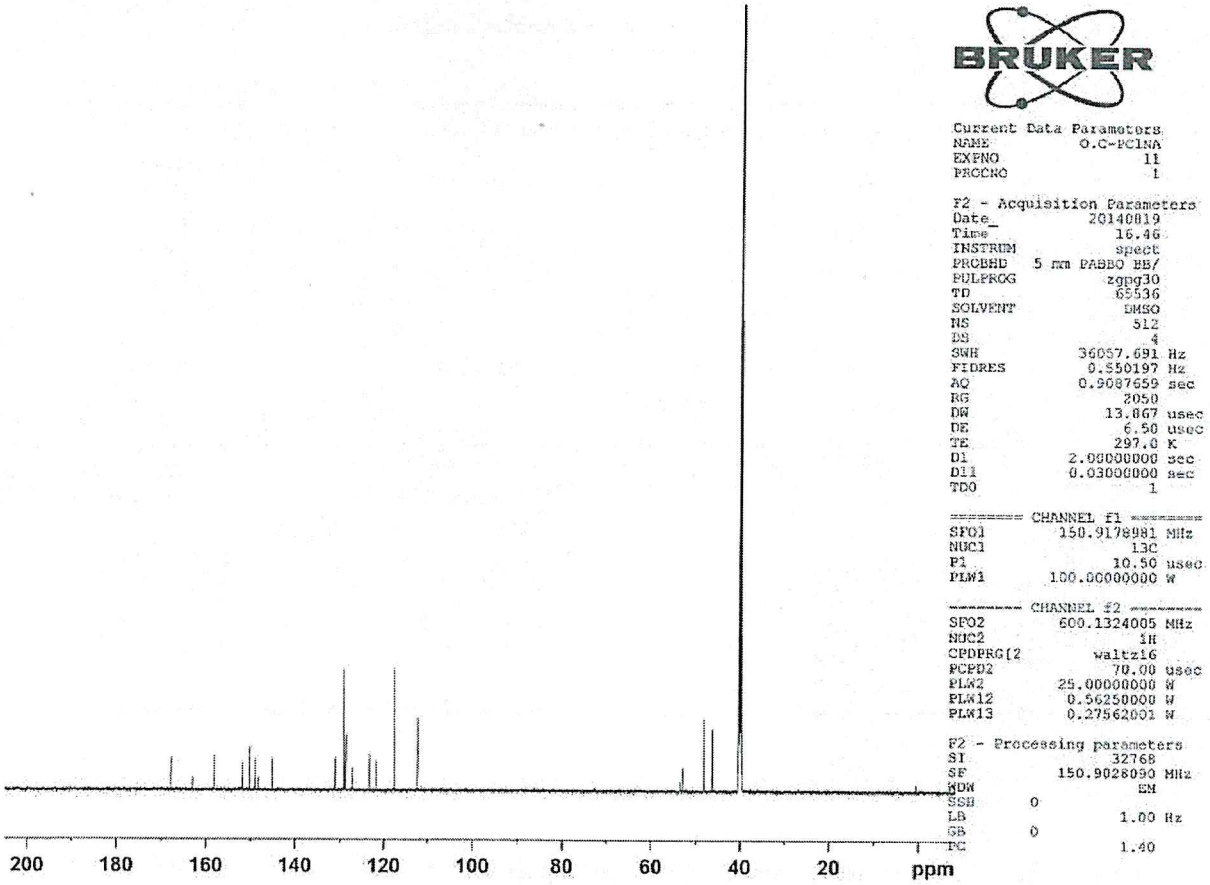
Peak List

m/z	z	Abund
109.7	2	49.88
150.1		49.12
275.5	2	50.56
302.6	2	127.04
327.5	2	53.7
330.8		1760.5
353.6	2	48.98
486		49.1
495.9		11614.72
497		71.86

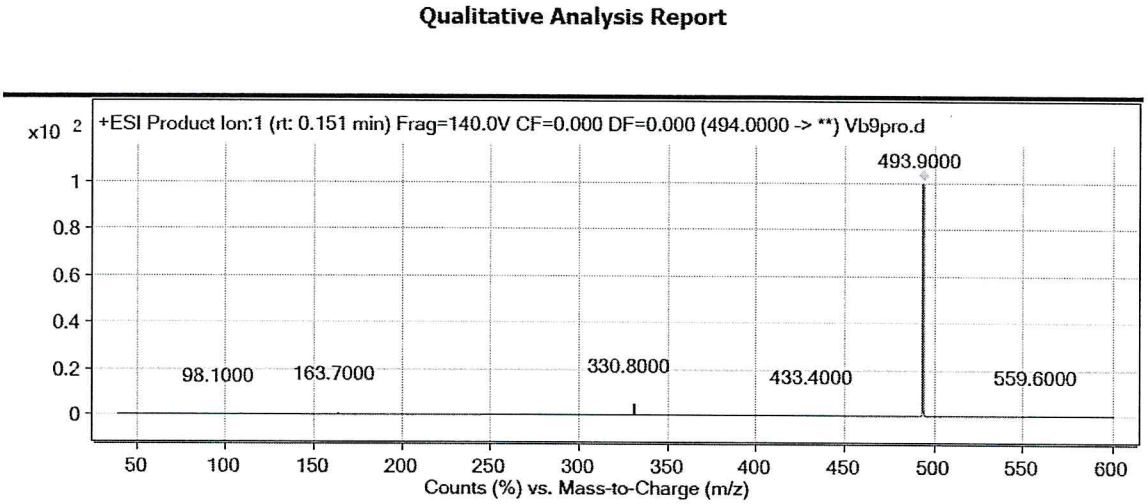
Data 47. ^{1}H-NMR spectral analysis of compound **16**



Data 48. ^{13}C-NMR spectral analysis of compound **16**



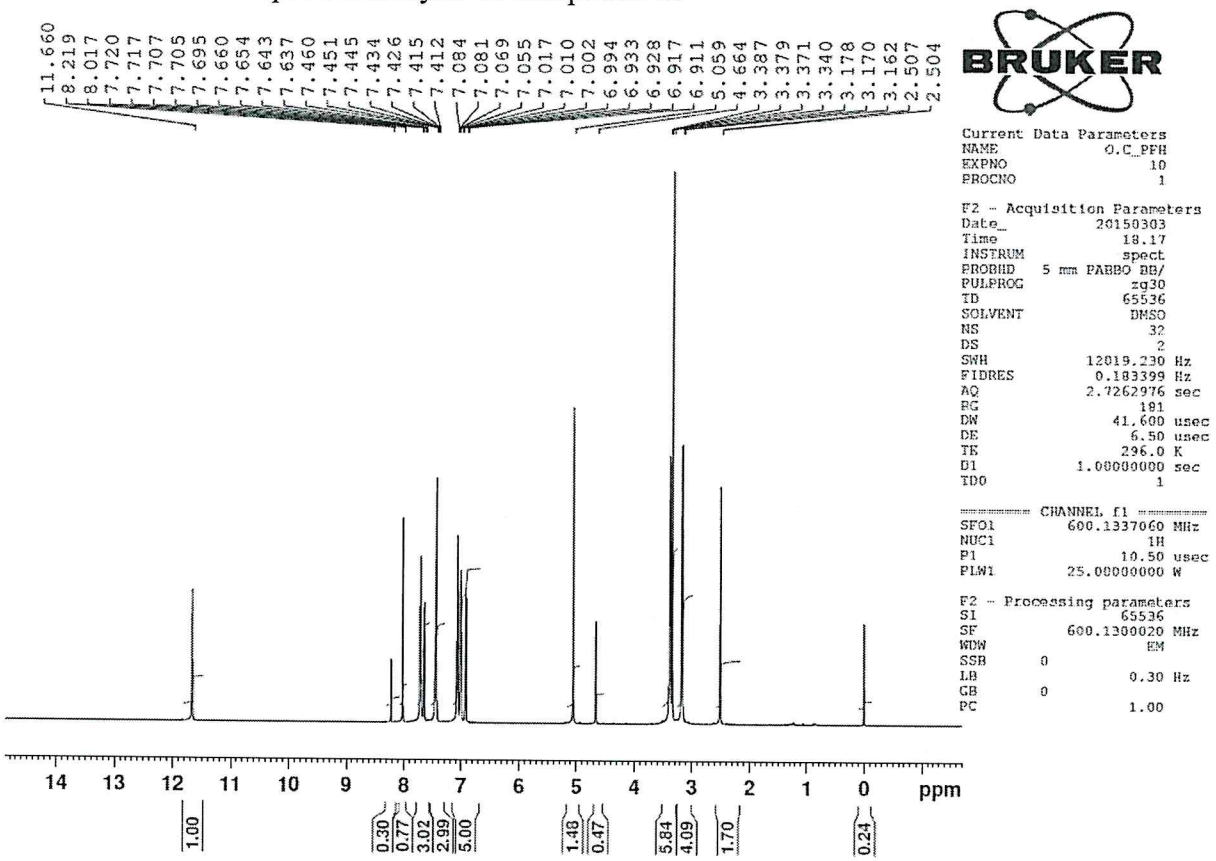
Data 49. Mass spectral analysis of compound **16**



Peak List

m/z	z	Abund
152.9		53.56
163.7	2	509.82
175.5	2	76.96
203.2		56.4
204.2		75.58
221		58.16
302.6	2	289.62
330.8		3890.98
493.9		78139.02
495.4		54.96

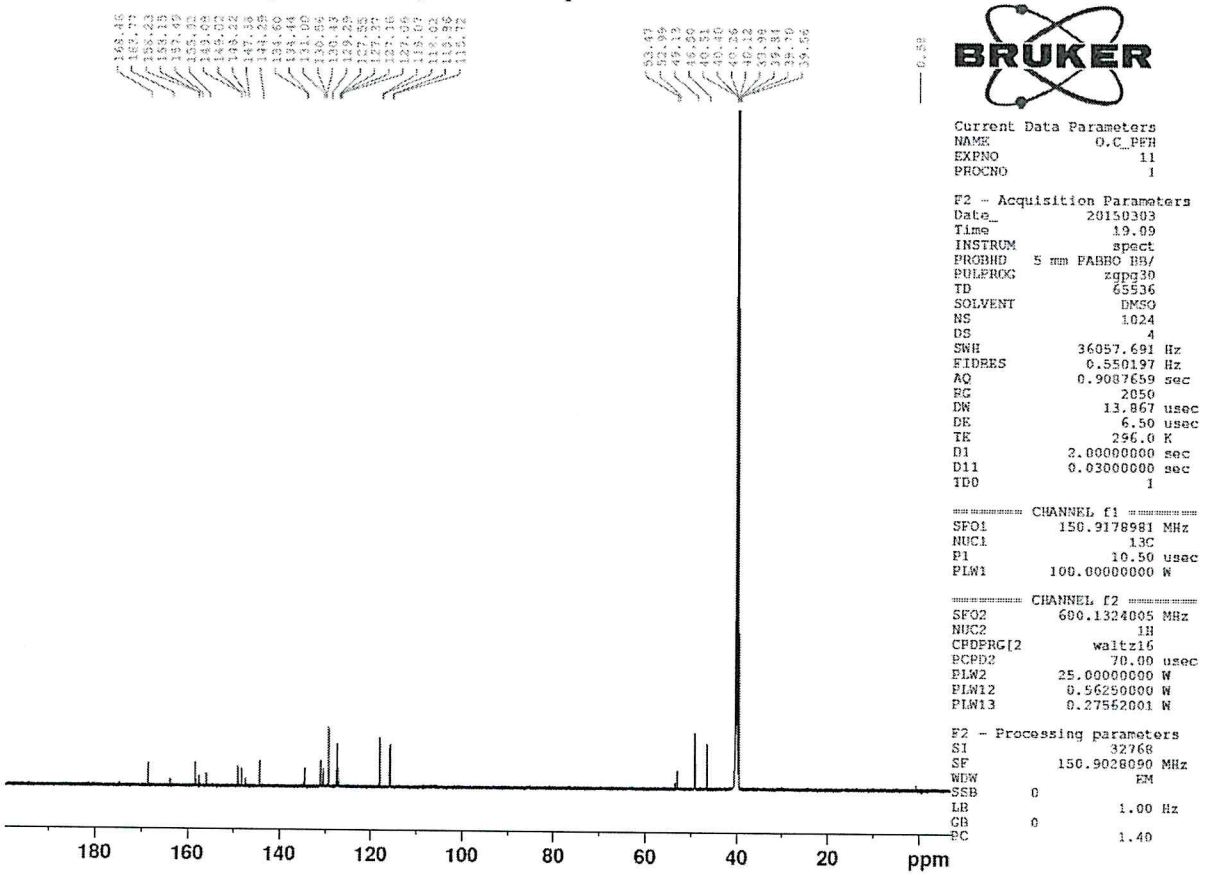
Data 50. ^{1}H-NMR spectral analysis of compound **17**



BRUKER

```
Current Data Parameters
NAME                  O.C_PFH
EXPNO                      10
PROCNO                      1

F2 - Acquisition Parameters
Date_                20150303
Time                    18.17
INSTRUM                 spect
PROBHD    5 mm PABBO BB/
PULPROG                 zg30
TD                     65536
SOLVENT                 DMSO
NS                        32
DS                         2
SWH                12019.230 Hz
FIDRES             0.183399 Hz
AQ                 2.7262976 sec
RG                       181
DW                    41.600 usec
DE                     6.50 usec
TE                    296.0 K
D1                 1.00000000 sec
TD0                        1

======== CHANNEL f1 ========
SFO1             600.1337060 MHz
NUC1                     1H
P1                    10.50 usec
PLW1             25.00000000 W

F2 - Processing parameters
SI                     65536
SF               600.1300020 MHz
WDW                      EM
SSB          0
LB                     0.30 Hz
GB           0
PC                     1.00
```

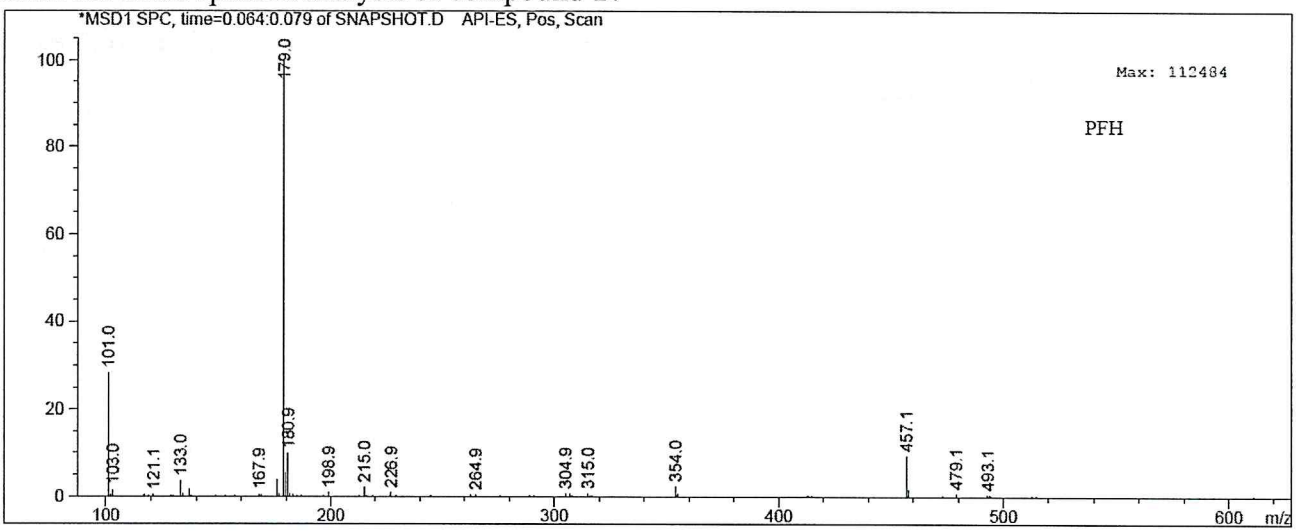
Data 51. ^{13}C-NMR spectral analysis of compound **17**



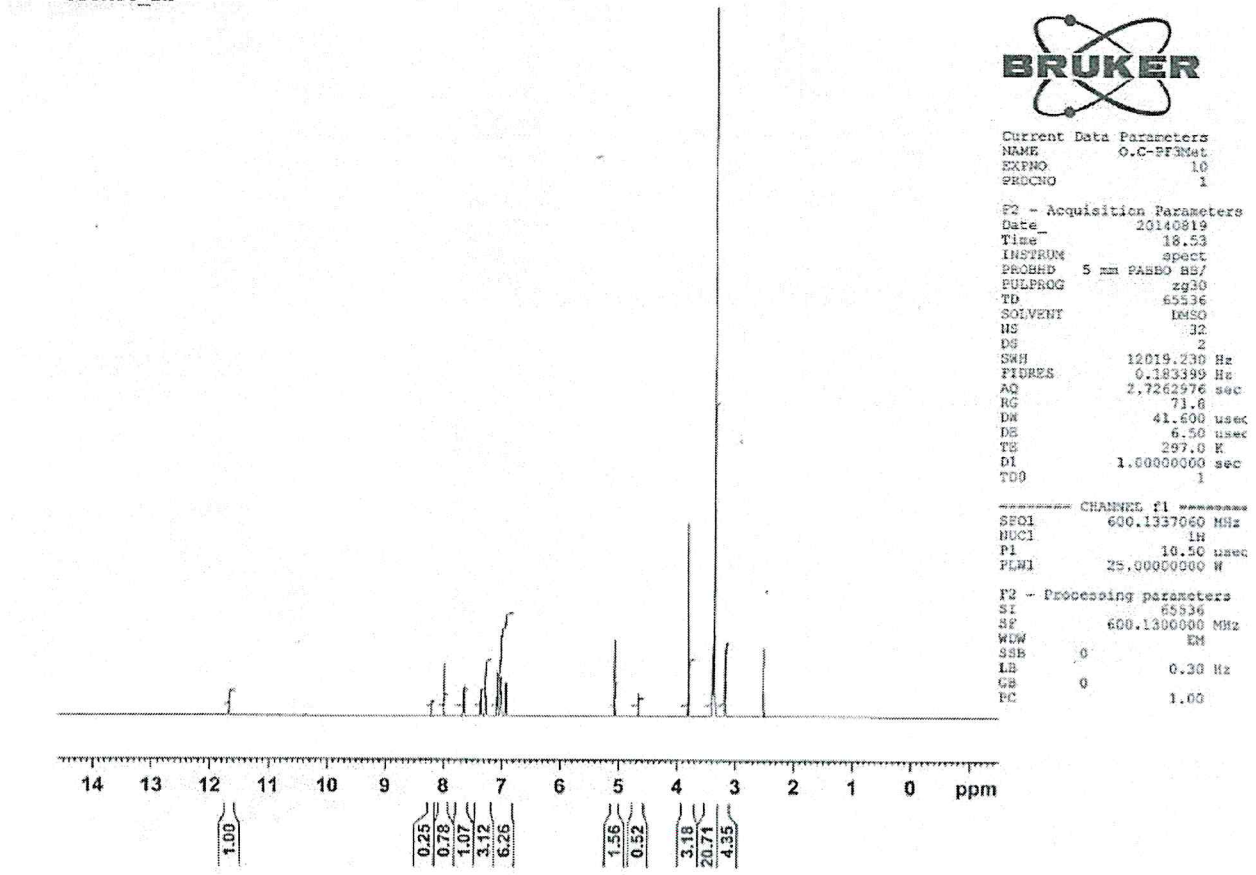
BRUKER

```
Current Data Parameters
NAME                  O.C_PFH
EXPNO                      11
PROCNO                      1

F2 - Acquisition Parameters
Date_                20150303
Time                    19.09
INSTRUM                 spect
PROBHD    5 mm PABBO BB/
PULPROG                 zgpg30
TD                     65536
SOLVENT                 DMSO
NS                       1024
DS                         4
SWH                36057.691 Hz
FIDRES             0.550197 Hz
AQ                 0.9087659 sec
RG                      2050
DW                    13.867 usec
DE                     6.50 usec
TE                    296.0 K
D1                 2.00000000 sec
D11                0.03000000 sec
TD0                        1

======== CHANNEL f1 ========
SFO1             150.9178981 MHz
NUC1                     13C
P1                    10.50 usec
PLW1            100.00000000 W

======== CHANNEL f2 ========
SFO2             600.1324005 MHz
NUC2                     1H
CPDPRG[2              waltz16
PCPD2                 70.00 usec
PLW2             25.00000000 W
PLW12             0.56250000 W
PLW13             0.27552001 W

F2 - Processing parameters
SI                     32768
SF               150.9028090 MHz
WDW                      EM
SSB          0
LB                     1.00 Hz
GB           0
PC                     1.40
```

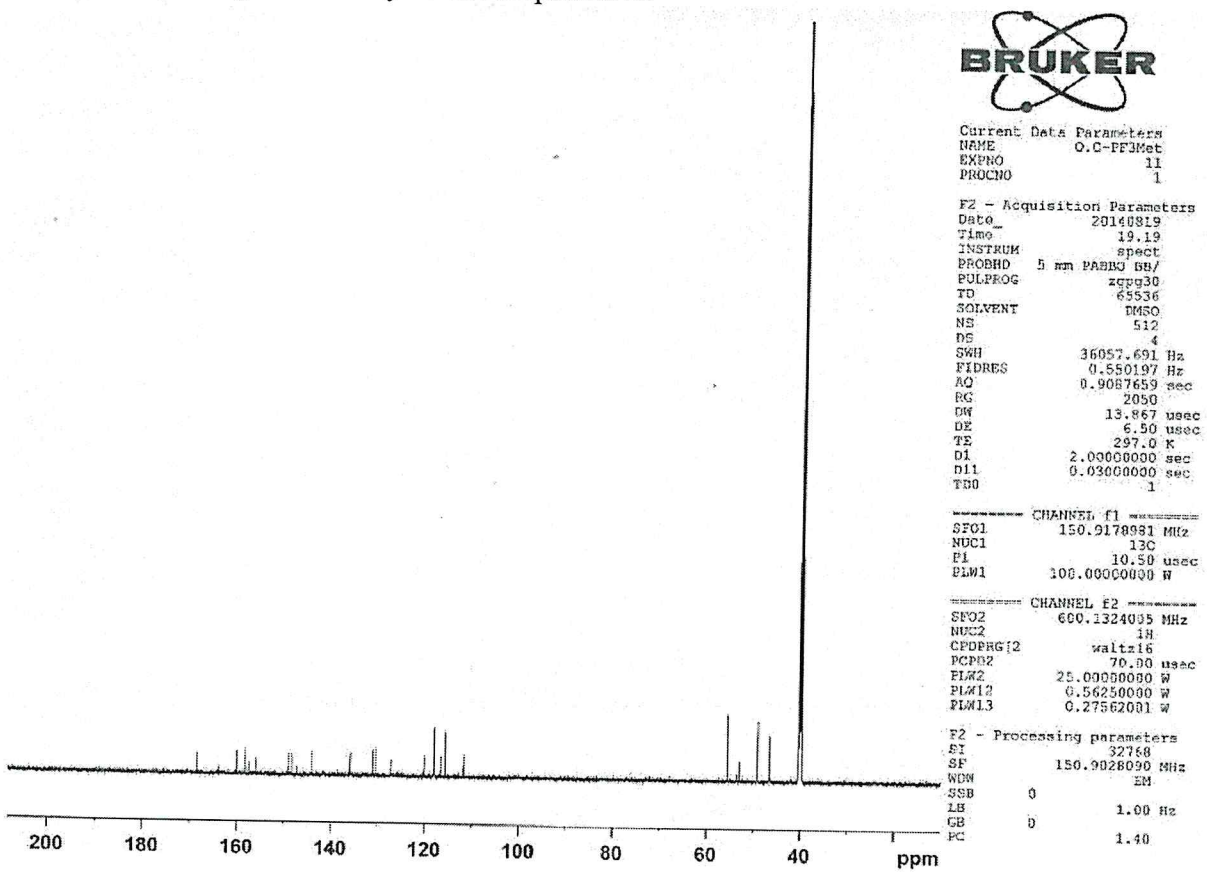
Data 52. Mass spectral analysis of compound **17**



Data 53. ^{1}H-NMR spectral analysis of compound **18**

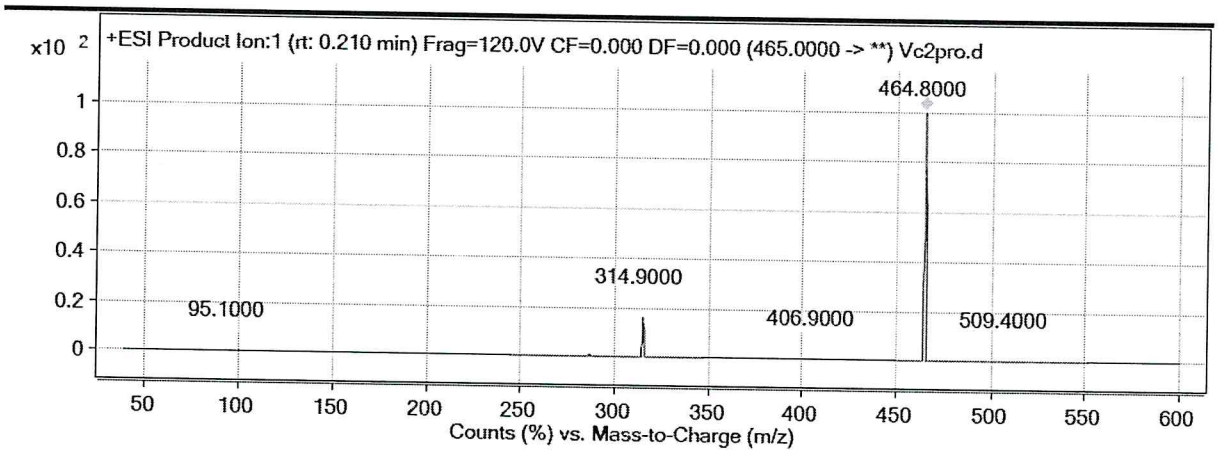


Data 54. ^{13}C-NMR spectral analysis of compound **18**



Data 55. Mass spectral analysis of compound **18**

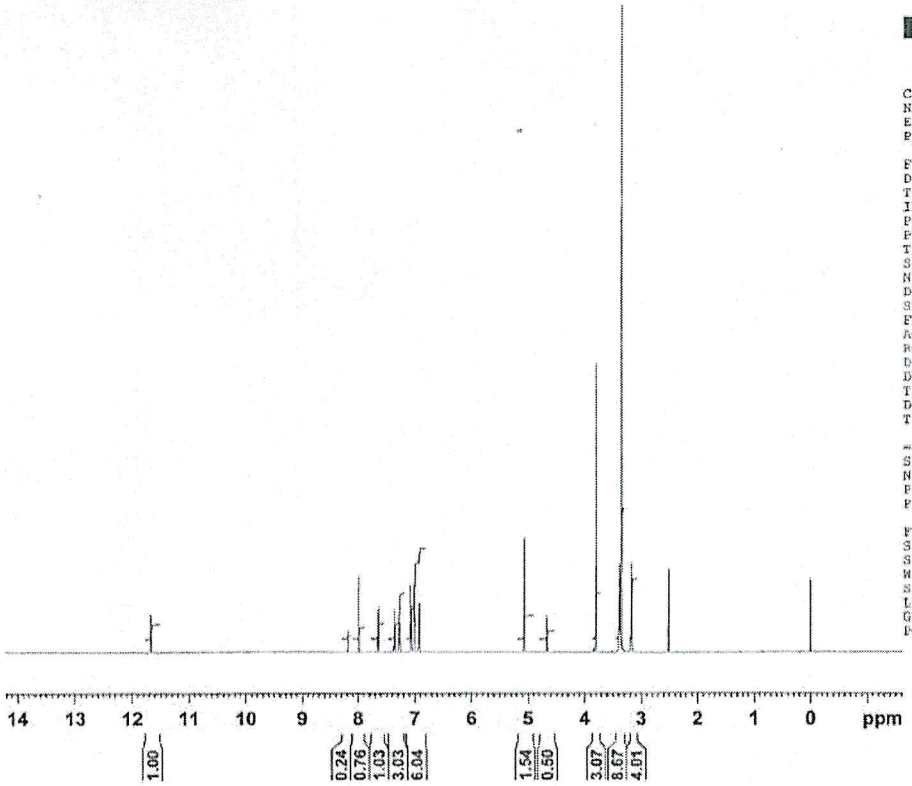
Qualitative Analysis Report



Peak List

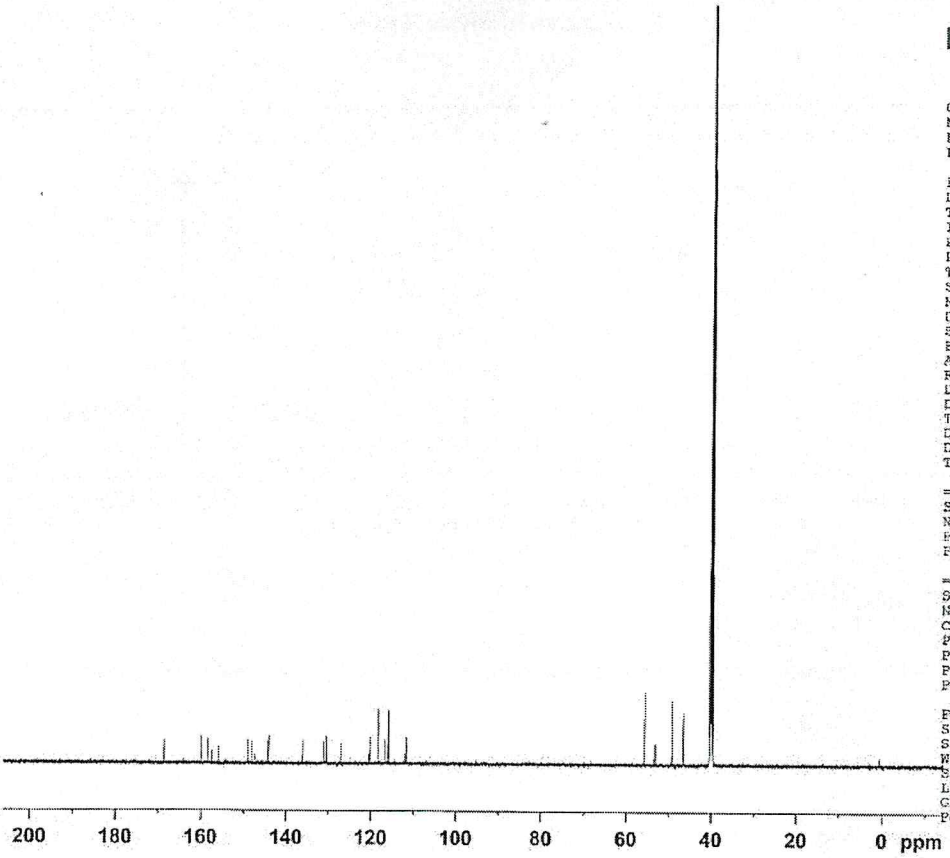
m/z	z	Abund
94		56.28
95.1		75.34
96.9		56.44
121.6	2	60.74
137		72.66
149.8		68.82
162.2		54.92
286.6	2	1324.7
314.9		26129.38
464.8		161148.52

Data 56. ^{1}H-NMR spectral analysis of compound **19**




```
Current Data Parameters
NAME                  O.C-PF3Mto
EXPNO                         10
PROCNO                         1

F2 - Acquisition Parameters
Date_                   20140819
Time                       19.23
INSTRUM                    spect
PROBHD    5 mm PABBO BB/
PULPROG                    zg30
TD                        65536
SOLVENT                    DMSO
NS                           32
DS                            2
SWH                   12019.230 Hz
FIDRES                0.183399 Hz
AQ                    2.7262976 sec
RG                         71.8
DW                       41.600 usec
DE                        6.50 usec
TE                       297.0 K
D1                    1.00000000 sec
TD0                            1

======== CHANNEL f1 ========
SFO1                600.1337060 MHz
NUC1                        1H
P1                       10.50 usec
PLW1                25.00000000 W

F2 - Processing parameters
SI                        65536
SF                  600.1300020 MHz
WDW                          EM
SSB                   0
LB                        0.30 Hz
GB                    0
PC                        1.00
```

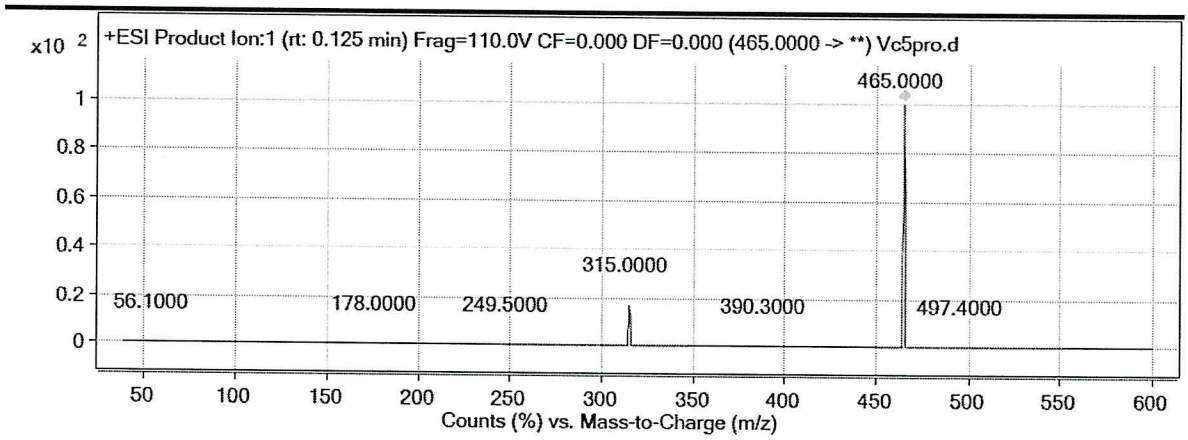
Data 57. ^{13}C-NMR spectral analysis of compound **19**




```
Current Data Parameters
NAME                  O.C-PF3Mto
EXPNO                         11
PROCNO                         1

F2 - Acquisition Parameters
Date_                   20140819
Time                       19.50
INSTRUM                    spect
PROBHD    5 mm PABBO BB/
PULPROG                 zgpg30
TD                        65536
SOLVENT                    DMSO
NS                          512
DS                            4
SWH                   36057.691 Hz
FIDRES                0.550197 Hz
AQ                    0.9087659 sec
RG                         2050
DW                       13.867 usec
DE                        6.50 usec
TE                       297.0 K
D1                    2.00000000 sec
D11                   0.03000000 sec
TD0                            1

======== CHANNEL f1 ========
SFO1                150.9178981 MHz
NUC1                        13C
P1                       10.50 usec
PLW1                100.00000000 W

======== CHANNEL f2 ========
SFO2                600.1324005 MHz
NUC2                        1H
CPDPRG[2                waltz16
PCPD2                    70.00 usec
PLW2                25.00000000 W
PLW12                0.56250000 W
PLW13                0.27562001 W

F2 - Processing parameters
SI                        32768
SF                  150.9028090 MHz
WDW                          EM
SSB                   0
LB                        1.00 Hz
GB                    0
PC                        1.40
```

Data 58. Mass spectral analysis of compound **19**

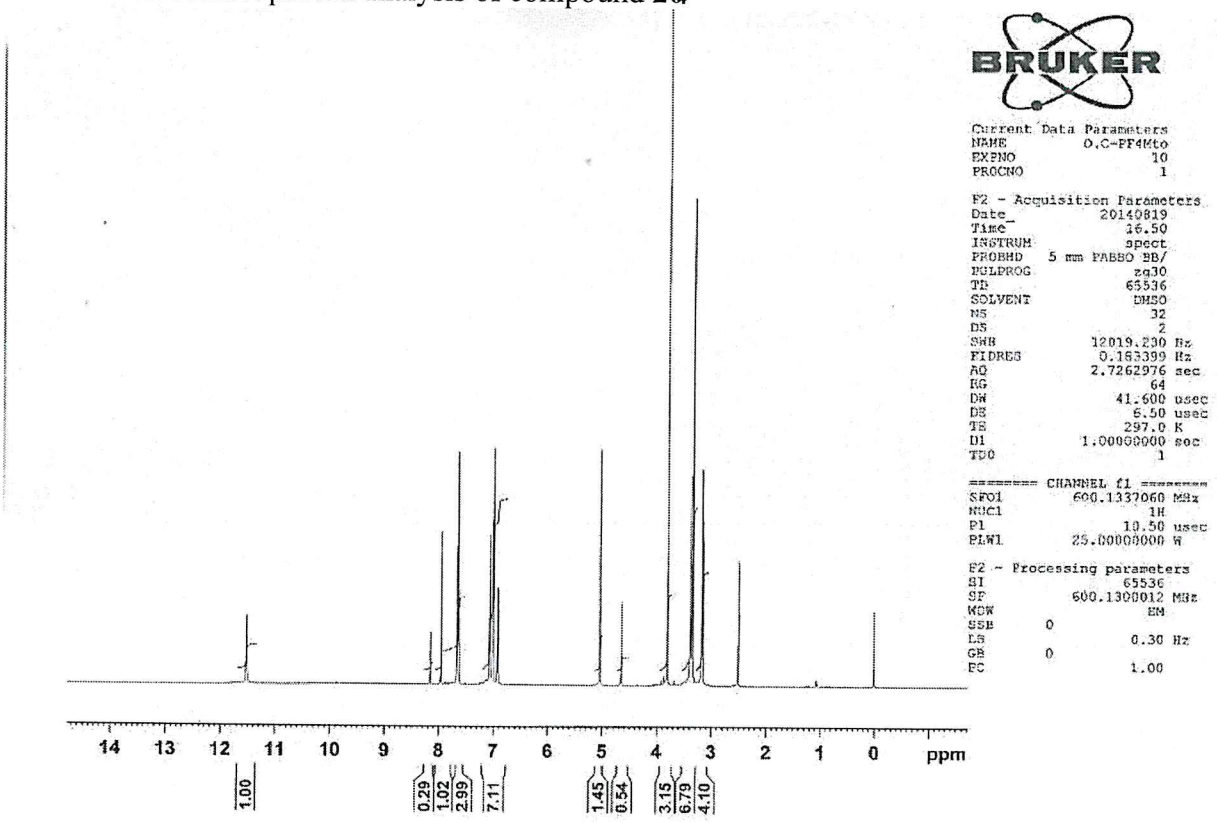
Qualitative Analysis Report



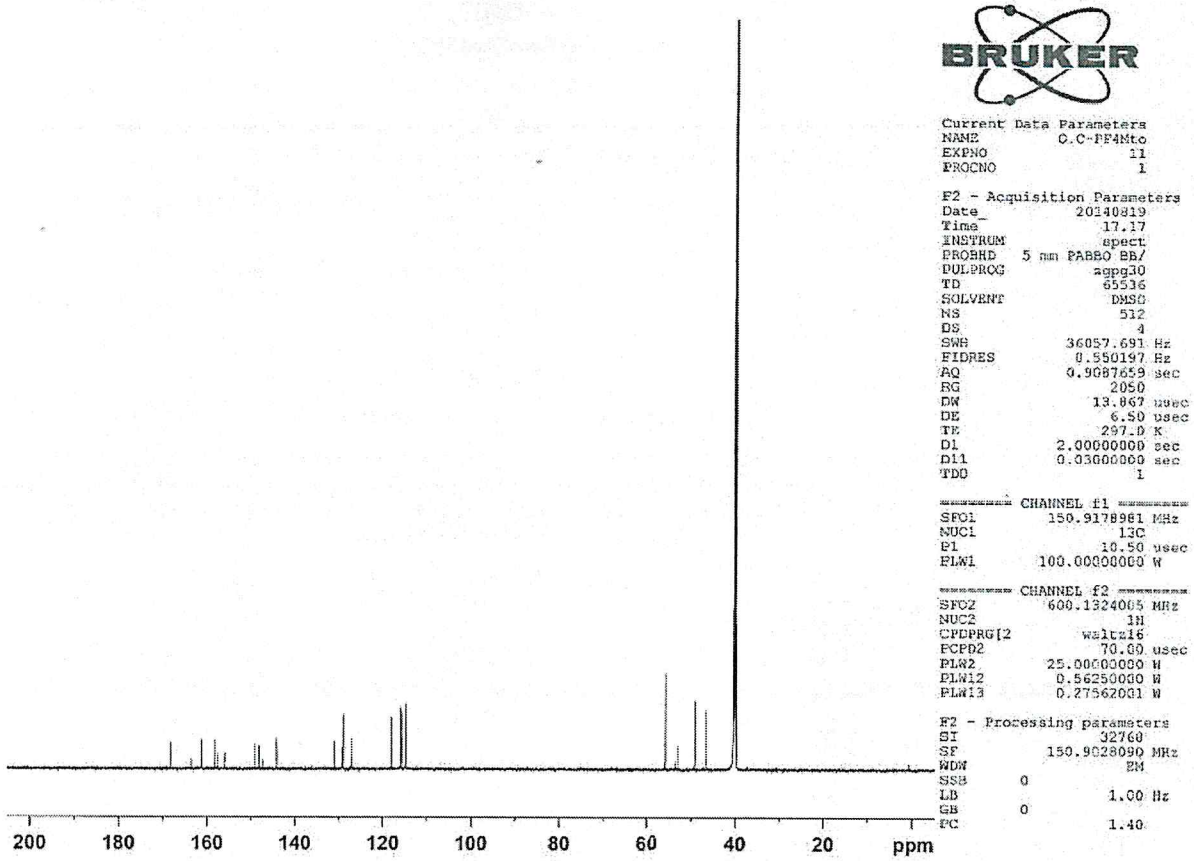
Peak List

m/z	z	Abund
56.1		56.24
94.1		51.08
122.2		51.12
178		58.2
249.5	2	59.02
272.2		54.22
286.5	2	70.4
315		3012.14
390.3		53.62
465		18277.52

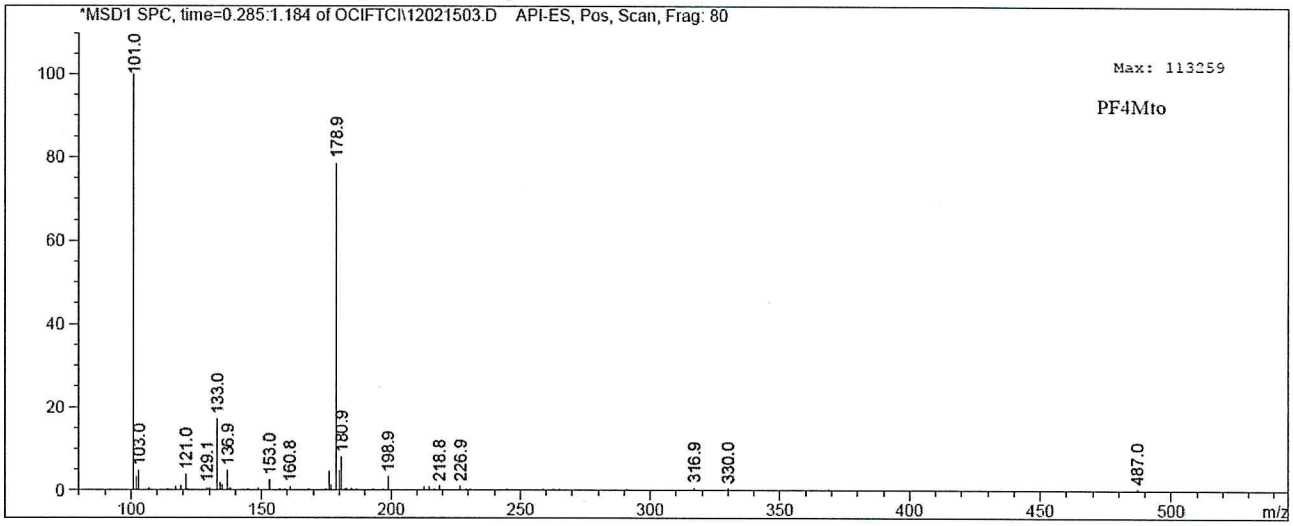
Data 59. ^{1}H-NMR spectral analysis of compound **20**



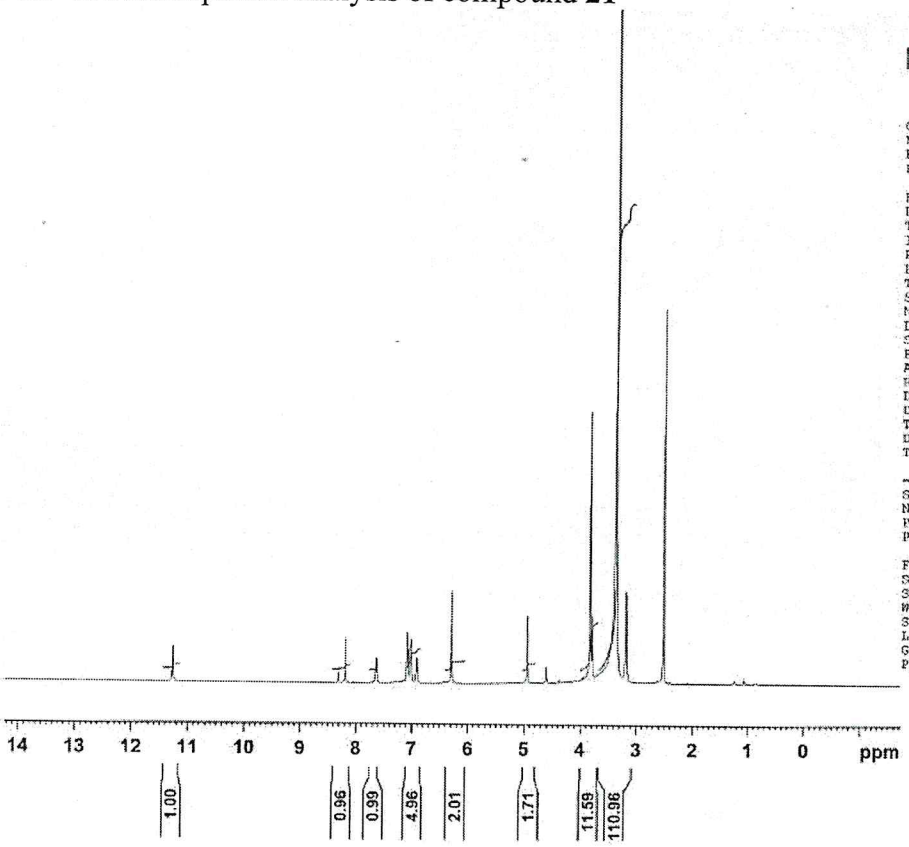
Data 60. ^{13}C-NMR spectral analysis of compound **20**



Data 61. Mass spectral analysis of compound **20**

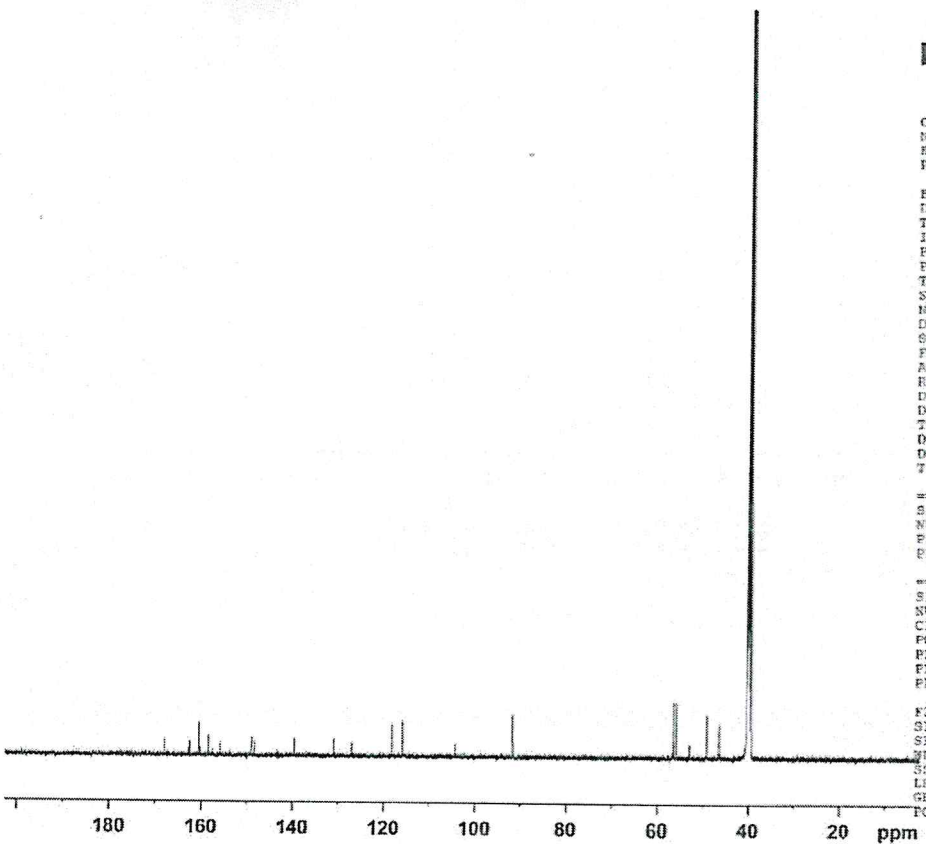


Data 62. ^{1}H-NMR spectral analysis of compound **21**



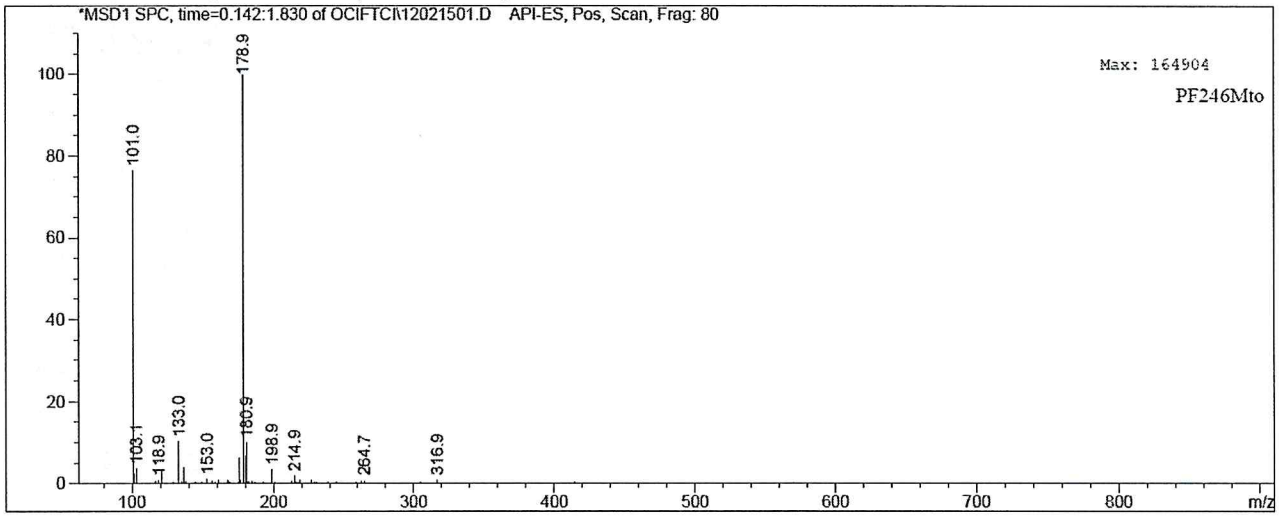

```
Current Data Parameters
NAME          O.C-PF246Mto
EXPNO                   10
PROCNO                   1

F2 - Acquisition Parameters
Date_           20140819
Time              21.26
INSTRUM           spect
PROBHD   5 mm PABBO BB/
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                  32
DS                   2
SWH           12019.230 Hz
FIDRES        0.183399 Hz
AQ            2.7262976 sec
RG                80.6
DW              41.600 usec
DE               6.50 usec
TE              297.0 K
D1           1.00000000 sec
TD0                  1

======== CHANNEL f1 ========
SFO1        600.1337060 MHz
NUC1              1H
P1               10.50 usec
PLW1        25.00000000 W

F2 - Processing parameters
SI               65536
SF          600.1300000 MHz
WDW               EM
SSB      0
LB               0.30 Hz
GB       0
PC               1.00
```

Data 63. ^{13}C-NMR spectral analysis of compound **21**

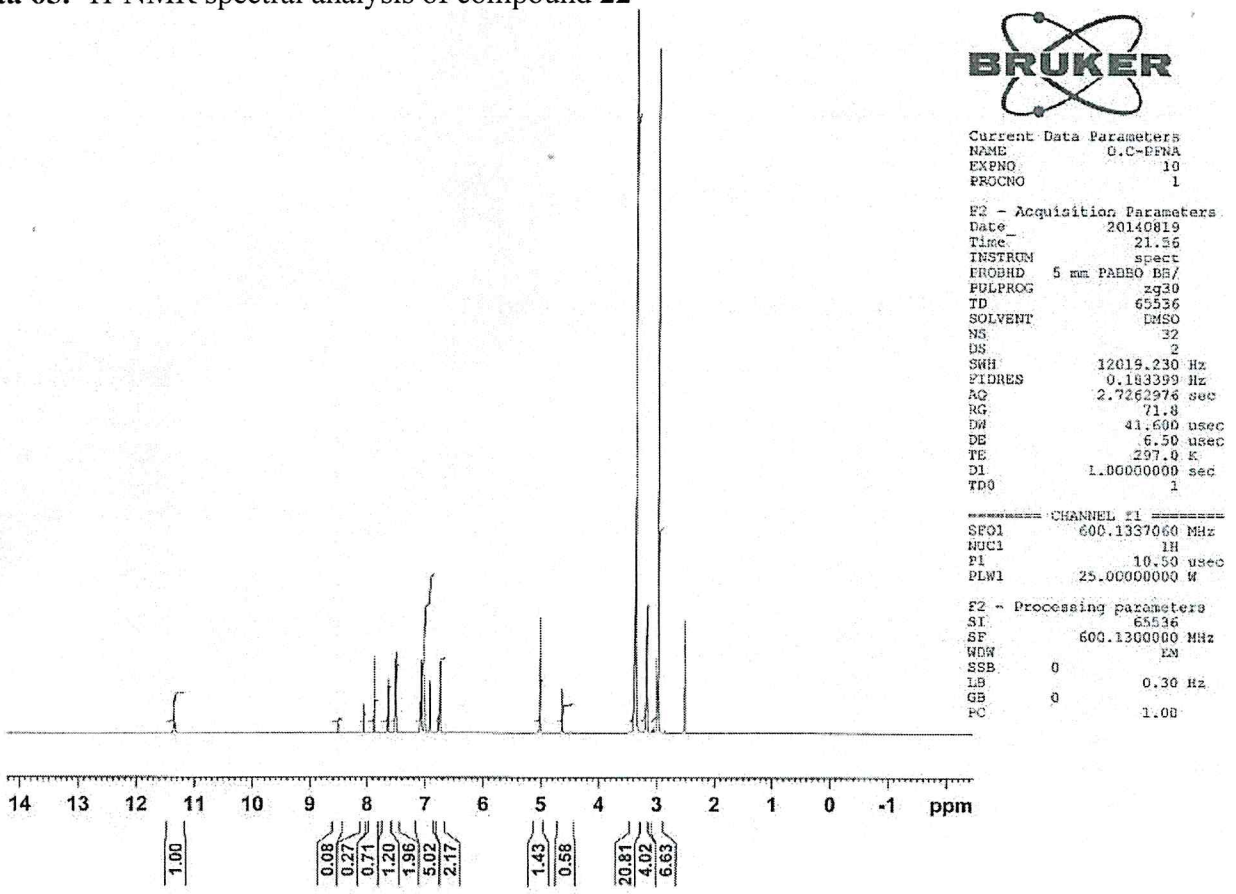



```
Current Data Parameters
NAME          O.C-PF246Mto
EXPNO                   12
PROCNO                   1

F2 - Acquisition Parameters
Date_           20140820
Time              14.21
INSTRUM           spect
PROBHD   5 mm PABBO BB/
PULPROG         zgpg30
TD               65536
SOLVENT           DMSO
NS                1024
DS                   4
SWH           36057.691 Hz
FIDRES        0.550197 Hz
AQ            0.9087659 sec
RG                2050
DW              13.867 usec
DE               6.50 usec
TE              297.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  1

======== CHANNEL f1 ========
SFO1        150.9178981 MHz
NUC1              13C
P1               10.50 usec
PLW1       100.00000000 W

======== CHANNEL f2 ========
SFO2        600.1324005 MHz
NUC2              1H
CPDPRG[2          waltz16
PCPD2            70.00 usec
PLW2        25.00000000 W
PLW12        0.56250000 W
PLW13        0.27562001 W

F2 - Processing parameters
SI               32768
SF          150.9028090 MHz
WDW               EM
SSB      0
LB               1.00 Hz
GB       0
PC               1.40
```

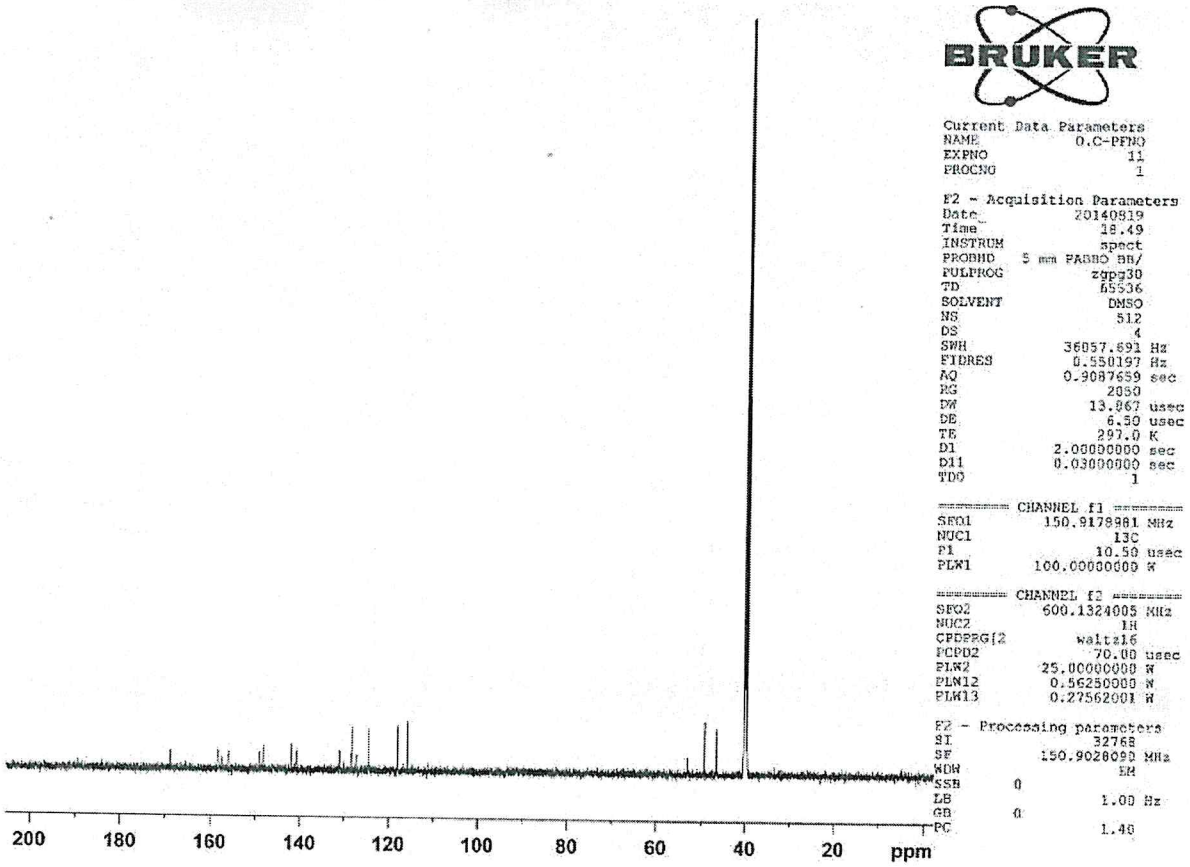
Data 64. Mass spectral analysis of compound **21**



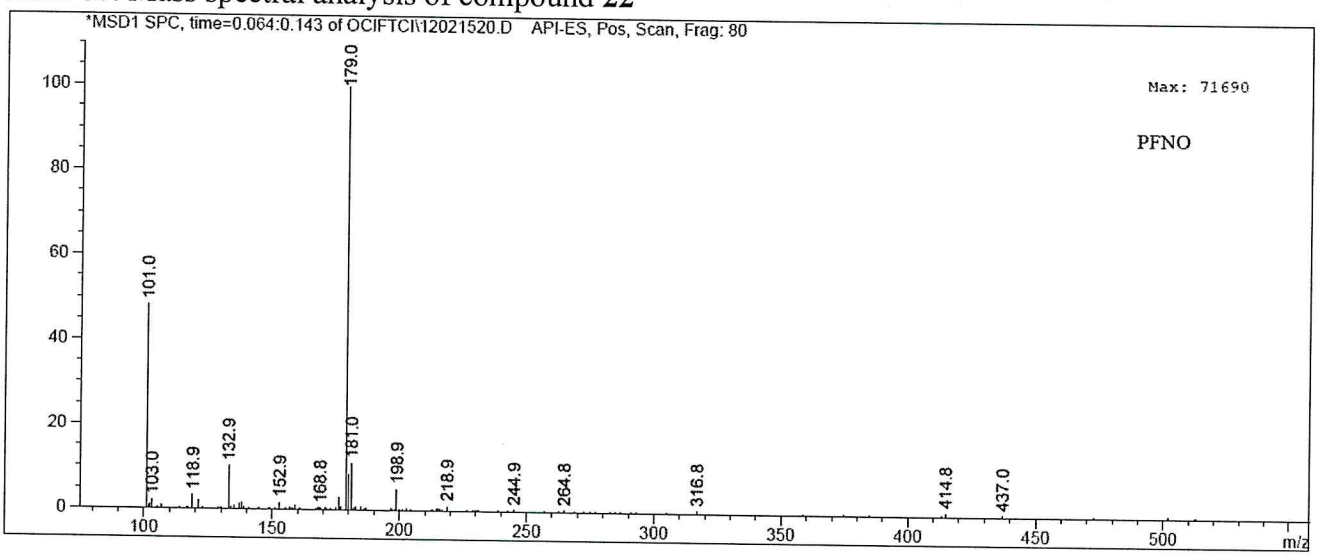
Data 65. ^{1}H-NMR spectral analysis of compound **22**



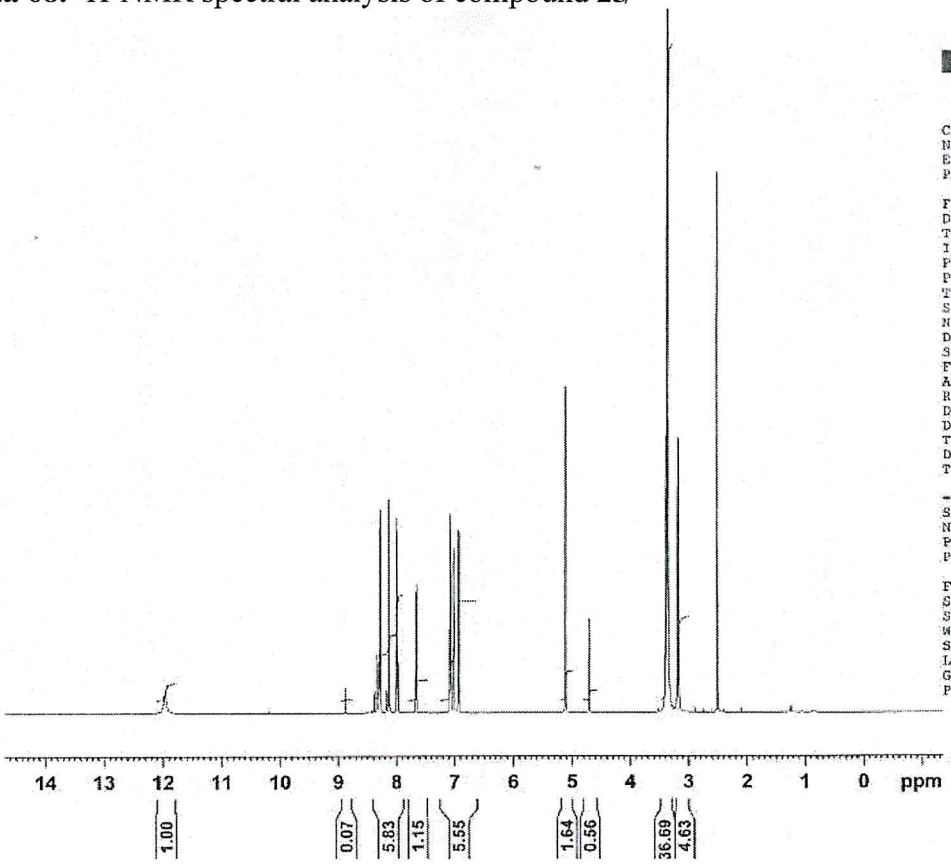
Data 66. ^{13}C-NMR spectral analysis of compound **22**



Data 67. Mass spectral analysis of compound **22**



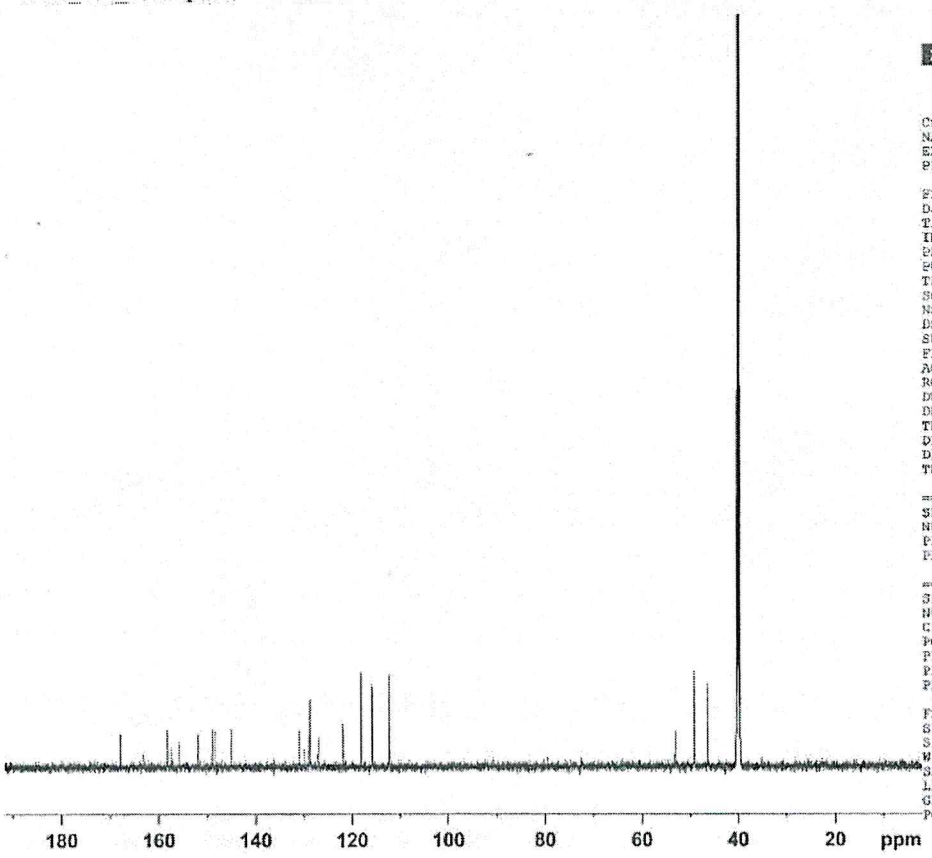
Data 68. ^{1}H-NMR spectral analysis of compound **23**



BRUKER

```
Current Data Parameters
NAME                  O.C-PFNO
EXPNO                       10
PROCNO                       1

F2 - Acquisition Parameters
Date_               20140819
Time                    18.22
INSTRUM                 spect
PROBHD   5 mm PABBO BB/
PULPROG                 zg30
TD                     65536
SOLVENT                 DMSO
NS                        32
DS                         2
SWH                 12019.230 Hz
FIDRES                0.183399 Hz
AQ                  2.7262976 sec
RG                       80.6
DW                    41.600 usec
DE                     6.50 usec
TE                     297.0 K
D1                  1.00000000 sec
TD0                          1

======== CHANNEL f1 ========
SFO1                600.1337060 MHz
NUC1                        1H
P1                       10.50 usec
PLW1                25.00000000 W

F2 - Processing parameters
SI                         65536
SF                  600.1300000 MHz
WDW                           EM
SSB                  0
LB                           0.30 Hz
GB                   0
PC                           1.00
```

Data 69. ^{13}C-NMR spectral analysis of compound **23**

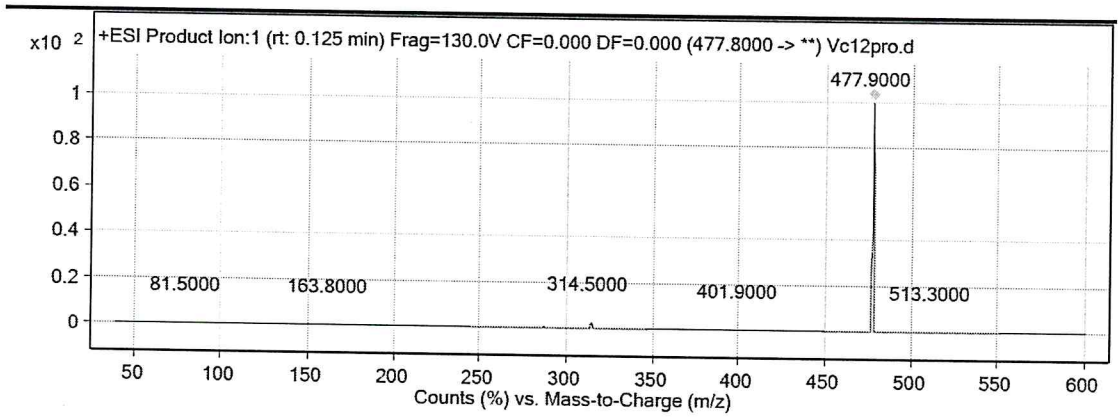


BRUKER

```
Current Data Parameters
NAME                  O.C-PFNA
EXPNO                       11
PROCNO                       1

F2 - Acquisition Parameters
Date_               20140819
Time                    22.22
INSTRUM                 spect
PROBHD   5 mm PABBO BB/
PULPROG                 zgpg30
TD                     65536
SOLVENT                 DMSO
NS                        512
DS                          4
SWH                 36057.691 Hz
FIDRES                0.550197 Hz
AQ                  0.9087659 sec
RG                       2050
DW                    13.867 usec
DE                     6.50 usec
TE                     297.0 K
D1                  2.00000000 sec
D11                 0.03000000 sec
TD0                          1

======== CHANNEL f1 ========
SFO1                150.9178981 MHz
NUC1                        13C
P1                       10.50 usec
PLW1               100.00000000 W

======== CHANNEL f2 ========
SFO2                600.1324005 MHz
NUC2                        1H
CPDPRG[2                waltz16
PCPD2                    70.00 usec
PLW2                25.00000000 W
PLW12                0.56250000 W
PLW13                0.27562001 W

F2 - Processing parameters
SI                         32768
SF                  150.9028090 MHz
WDW                           EM
SSB                  0
LB                           1.00 Hz
GB                   0
PC                           1.40
```

Data 70. Mass spectral analysis of compound **23**

Qualitative Analysis Report



Peak List

m/z	z	Abund
163.8		166.08
176.5	2	54.06
259.5	2	53.76
286.8		206.02
314.5	2	980.46
332.1		50.7
472		51.46
476		64.92
477.9		36509.84
513.3		50.8