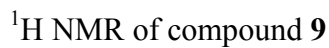


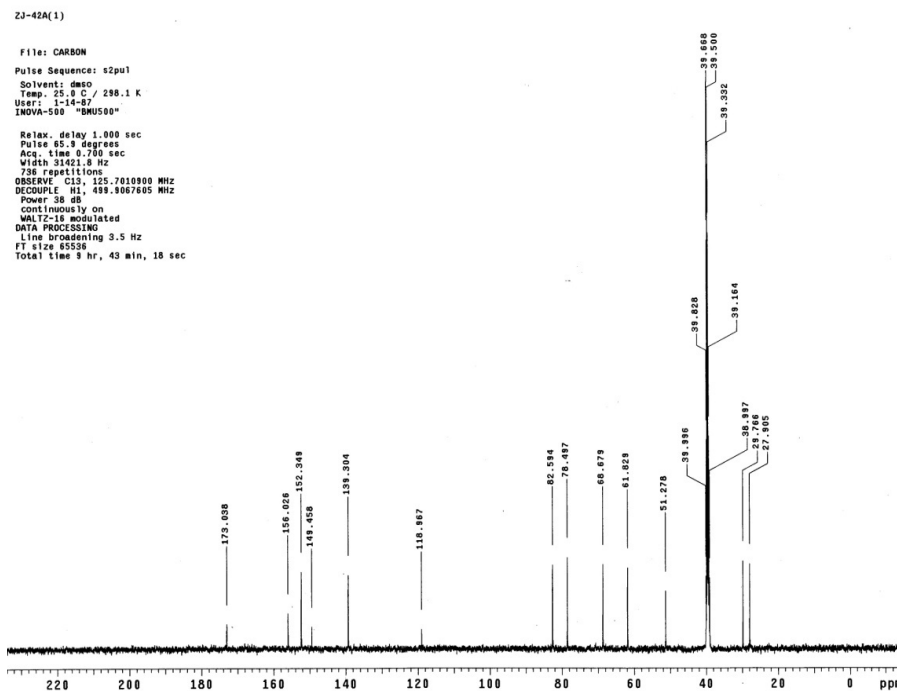
Supporting Information

Content

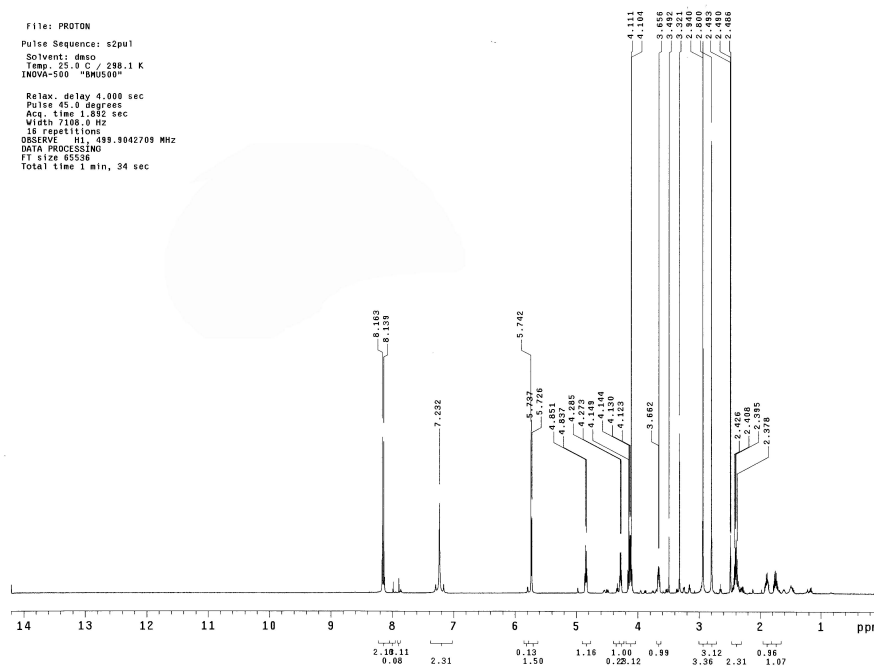
S-2	¹ H-NMR of compound 6b; ¹ H-NMR of compound 8
S-3	¹³ C-NMR of compound 8; ¹ H-NMR of compound 9
S-4	¹³ C-NMR of compound 9; ¹ H-NMR of compound 10
S-5	¹³ C-NMR of compound 10; ¹ H-NMR of compound 11
S-6	¹³ C-NMR of compound 11; ¹ H-NMR of compound 12
S-7	ESI-TOF MS compound 12; ¹ H-NMR of compound 13
S-8	¹³ C-NMR of compound 13; ¹ H-NMR of compound 14
S-9	¹³ C-NMR of compound 14; ¹ H-NMR of compound 15a
S-10	¹³ C-NMR of compound 15a; ¹ H-NMR of compound 16a
S-11	¹ H -NMR of compound 15b; ¹³ C -NMR of compound 15b
S-12	ESI-TOF-HRMS of compound 15b; ¹ H-NMR of compound 5a
S-13	¹³ C-NMR of compound 5a; ¹ H-NMR of compound 5b
S-14	¹³ C-NMR of compound 5b; ¹ H- ¹ H COSY NMR of compound 5b
S-15	¹ H- ¹ H NOESY NMR of compound 5b; ¹ H-NMR of compound 17
S-16	¹³ C-NMR of compound 17; ¹ H-NMR of compound 18
S-17	¹³ C-NMR of compound 18; ³¹ P-NMR of compound 19
S-18	¹ H-NMR of compound 20; ¹³ C-NMR of compound 20
S-19	³¹ P-NMR of compound 21
S-20	MALDI-TOF-MS ODN-I and ODN-II
S-21	MALDI-TOF-MS ODN-III and ODN-IV
S-22	MALDI-TOF-MS RNA-AI and RNA-AII
S-23	MALDI-TOF-MS RNA-BI and RNA-BII
S-24	MALDI-TOF-MS RNA-BIII
S-25	Minor groove width (Å) calculated with the CURVES program.



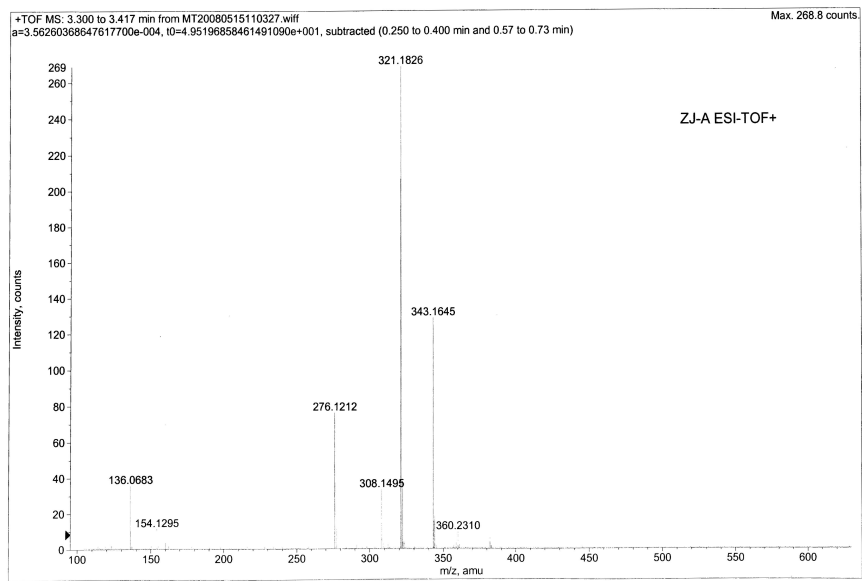
¹³C NMR of compound 11



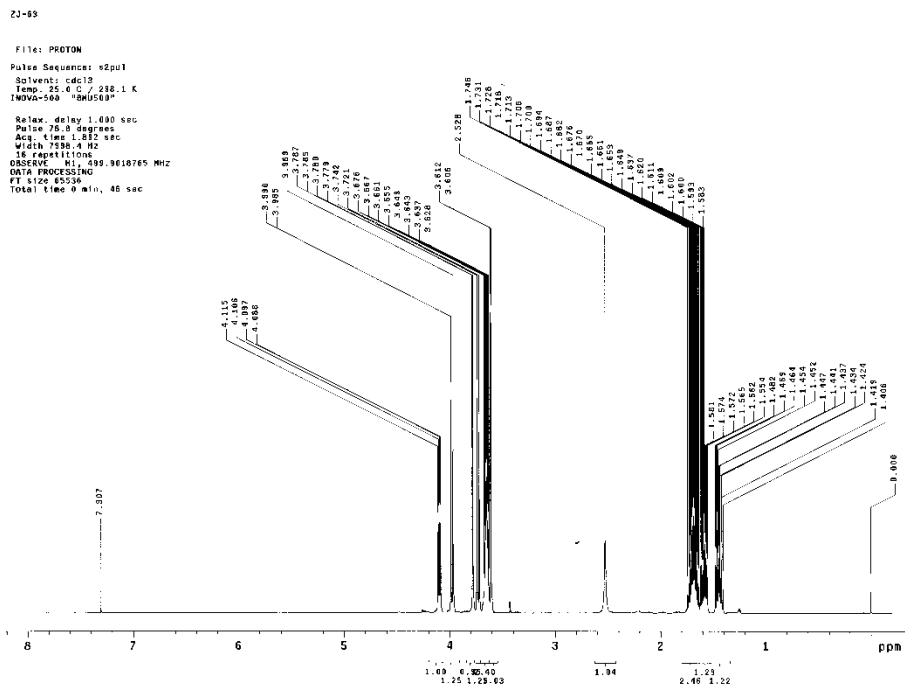
¹H NMR of compound 12



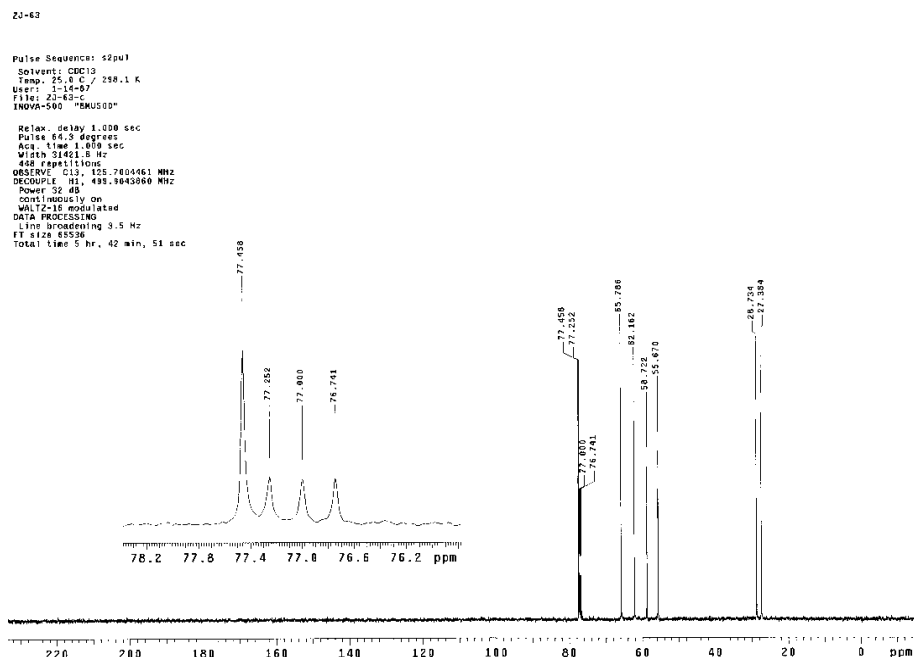
ESI-TOF MS of compound 12



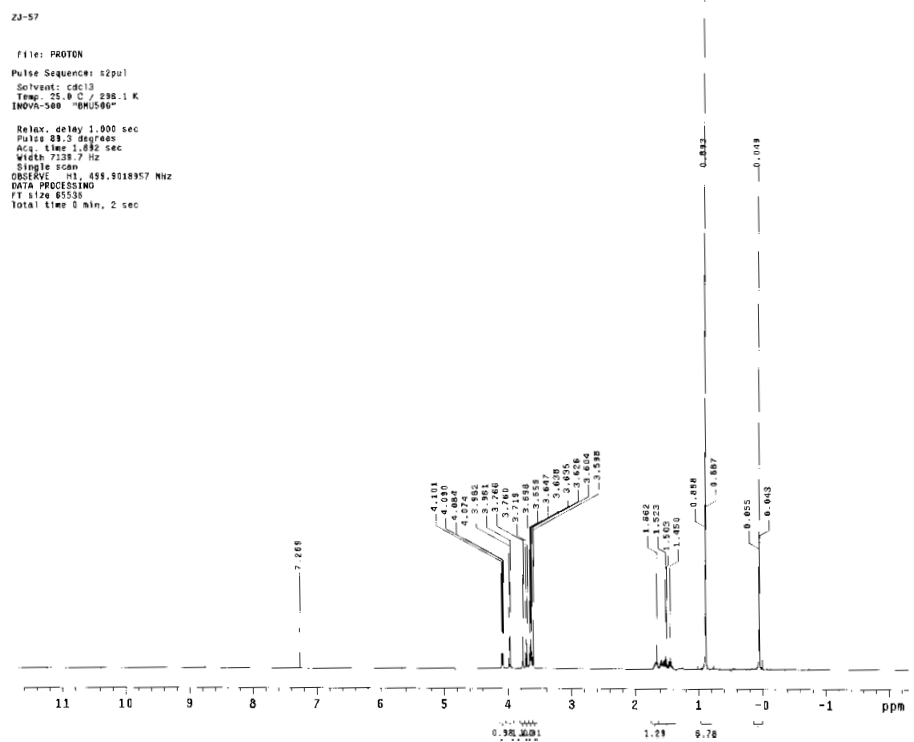
¹H NMR of compound 13



¹³C NMR of compound 13



¹H NMR of compound 14

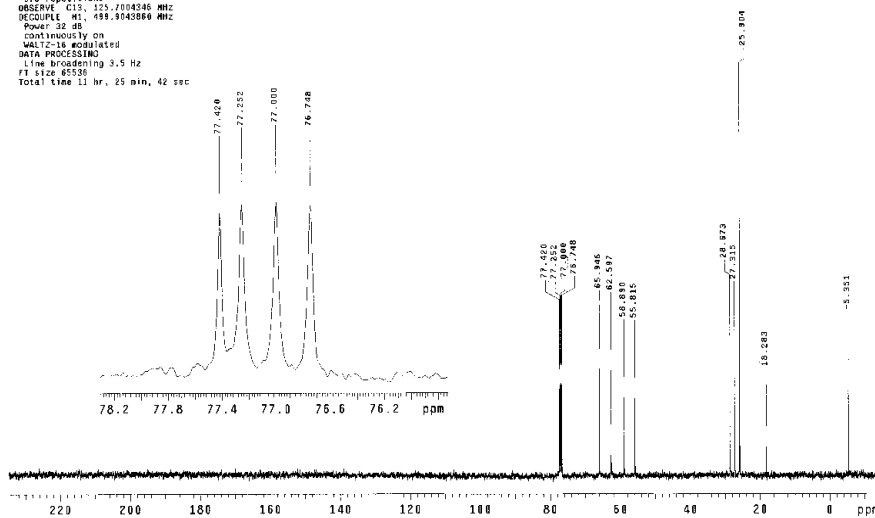


¹³C NMR of compound **14**

ZJ-57

File: CARBON
Pulse Sequence: zgpg30
Solvent: cdcl3
Temp: 25.0 C / 298.1 K
User: 1-18-82
INOVA-500 "QNP500"

Relax: delay 1.000 sec
Pulse: 64.3 degrees
Acq: time 1.000 sec
Width: 31621.8 Hz
576 repetitions
OBSERVE: C13, 125.2004386 MHz
DECOUPLE: H1, 499.9043869 MHz
Power: 32 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 3.5 Hz
F1 size 65536
Total time 11 hr, 25 min, 42 sec

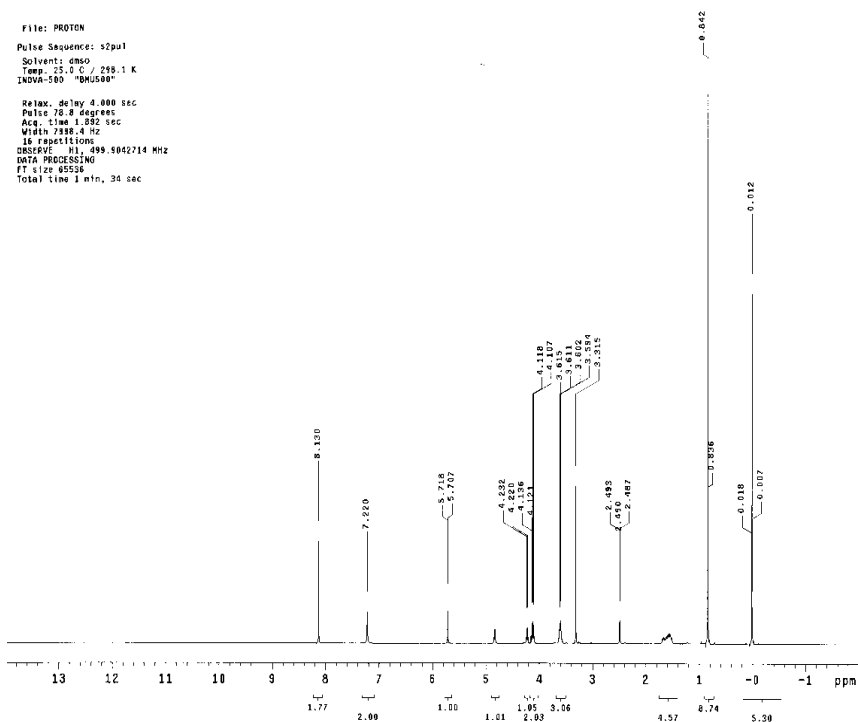


¹H NMR of compound **15a**

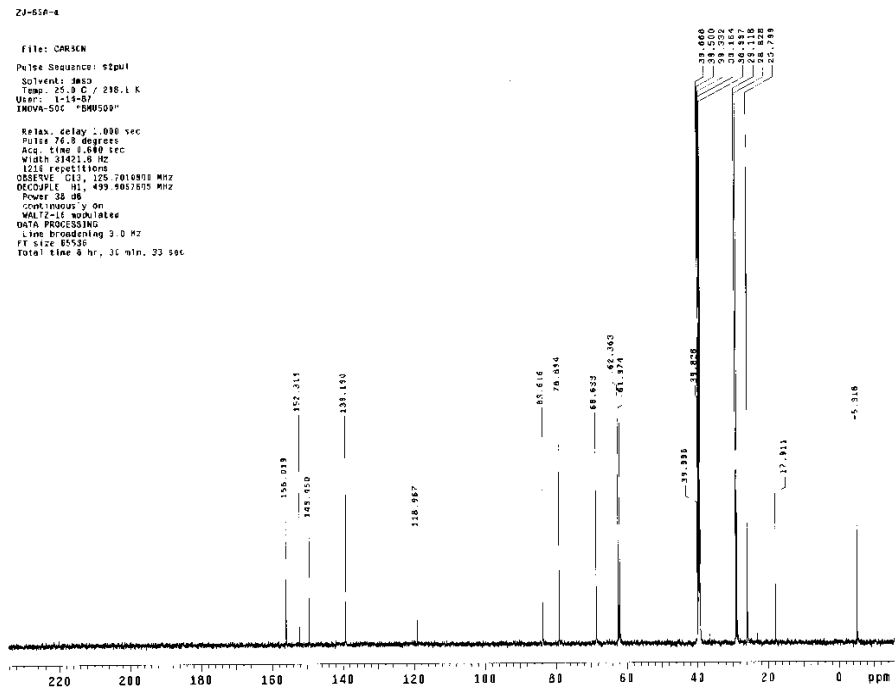
ZJ-65A-4

File: PROTON
Pulse Sequence: zgpg30
Solvent: dmsd
Temp: 25.0 C / 298.1 K
User: 1-18-82
INOVA-500 "QNP500"

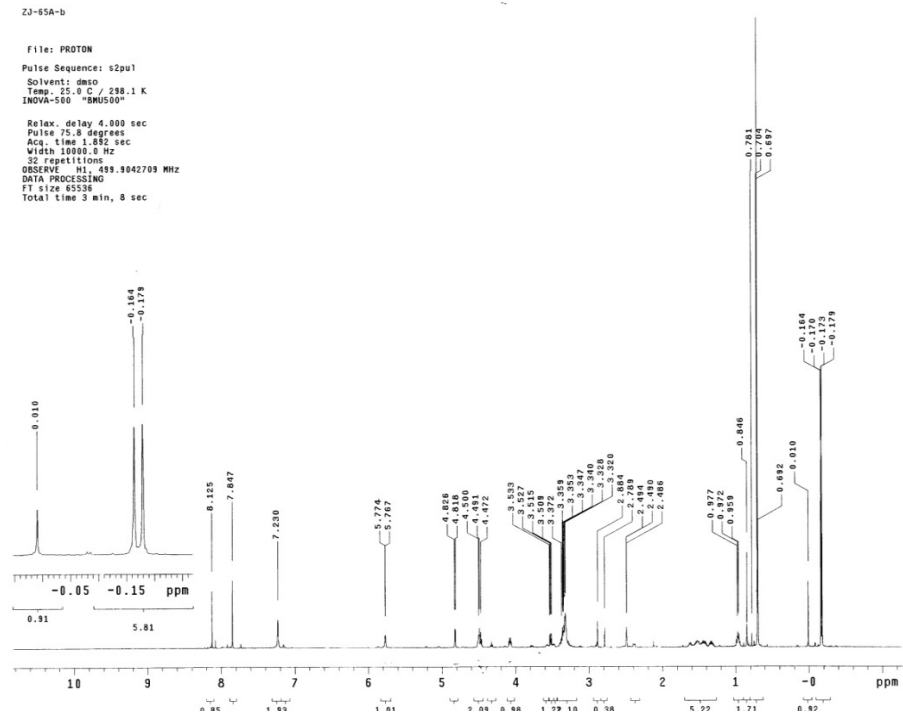
Relax: delay 4.000 sec
Pulse: 78.0 degrees
Acq: time 1.592 sec
Width: 7888.4 Hz
16 repetitions
OBSERVE: H1, 499.9042714 MHz
DATA PROCESSING
F1 size 65536
Total time 1 min, 34 sec



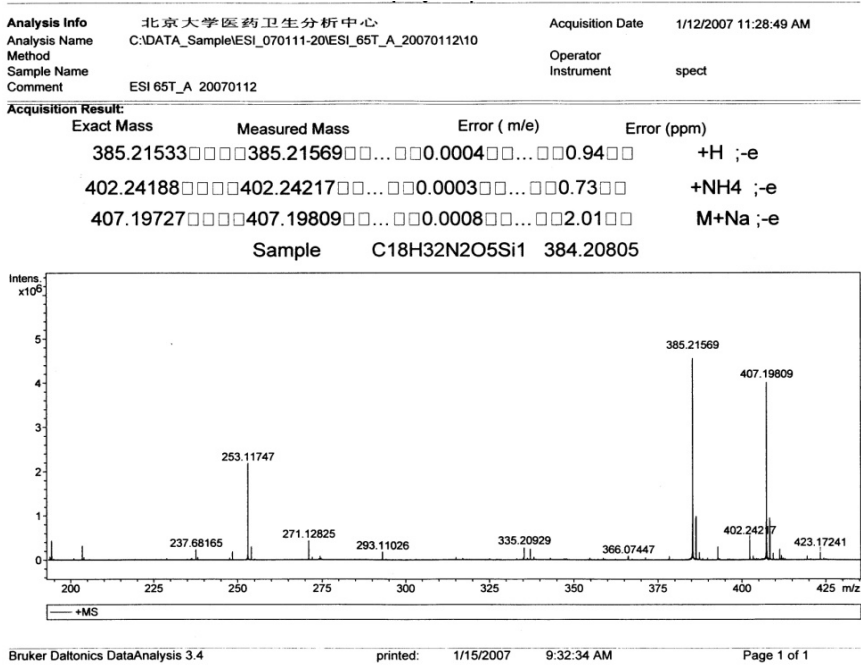
¹³C NMR of compound 15a



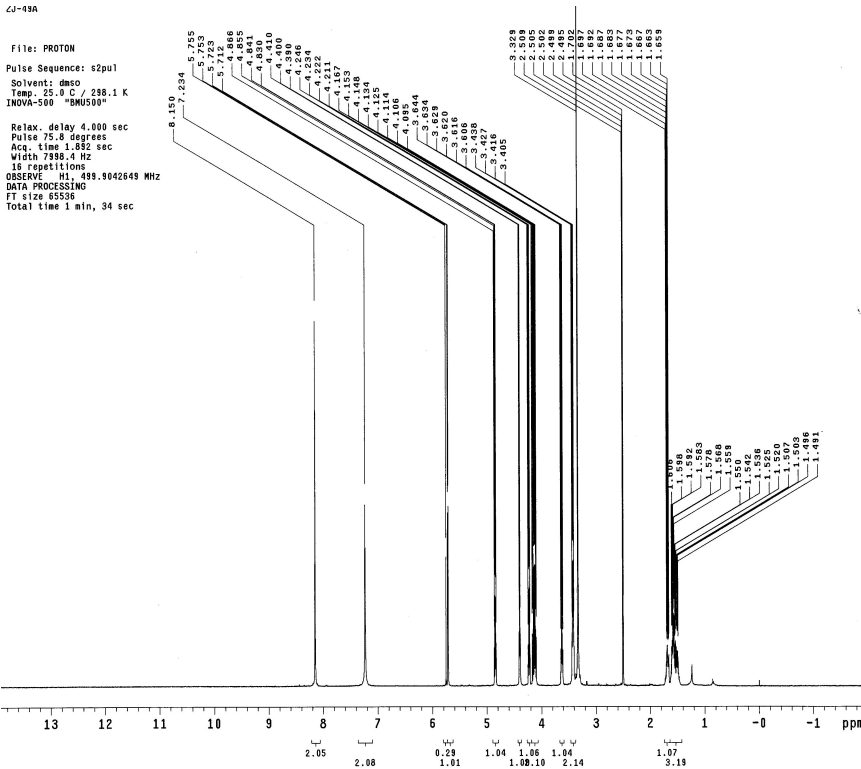
¹H NMR of compound 16a



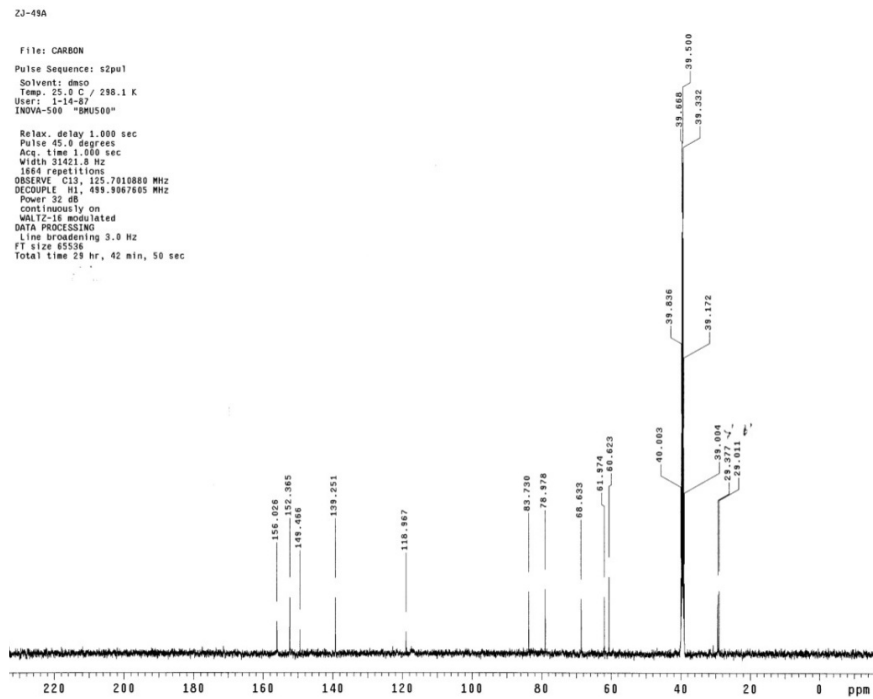
ESI-TOFHRMS of **15b**



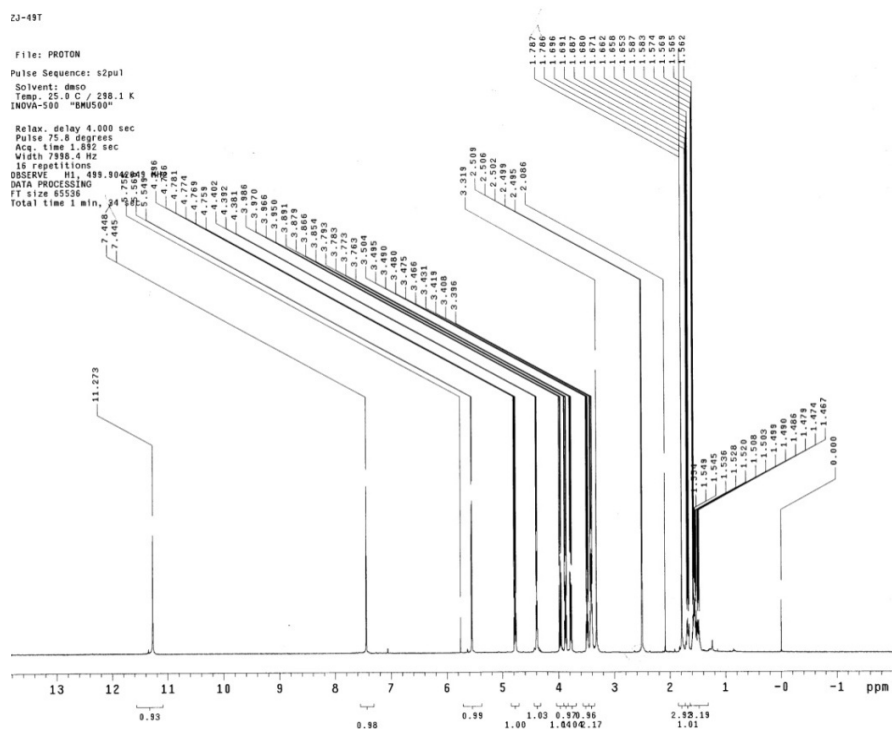
¹H NMR of compound **5a**



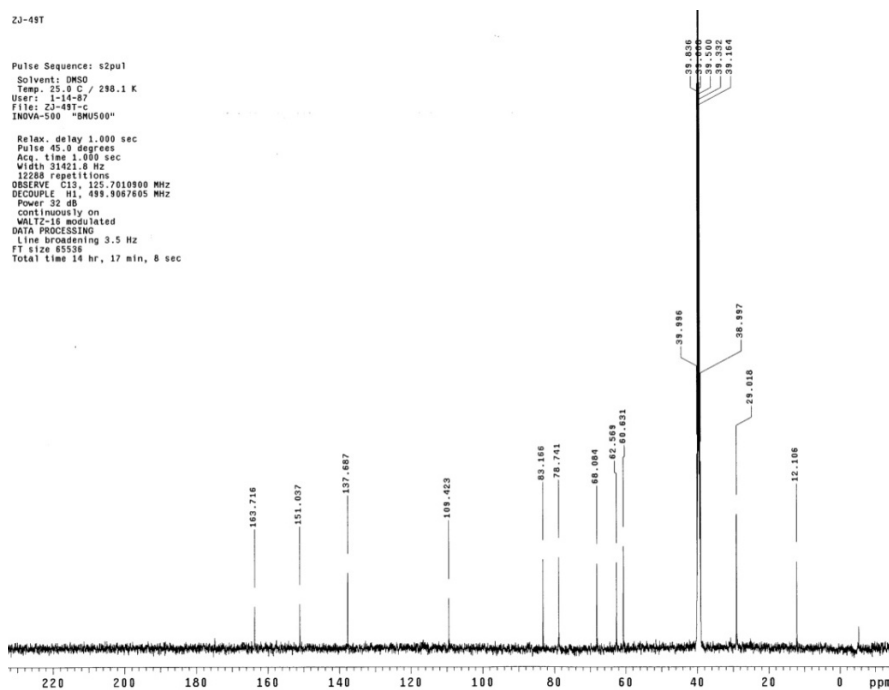
¹³C NMR of compound **5a**



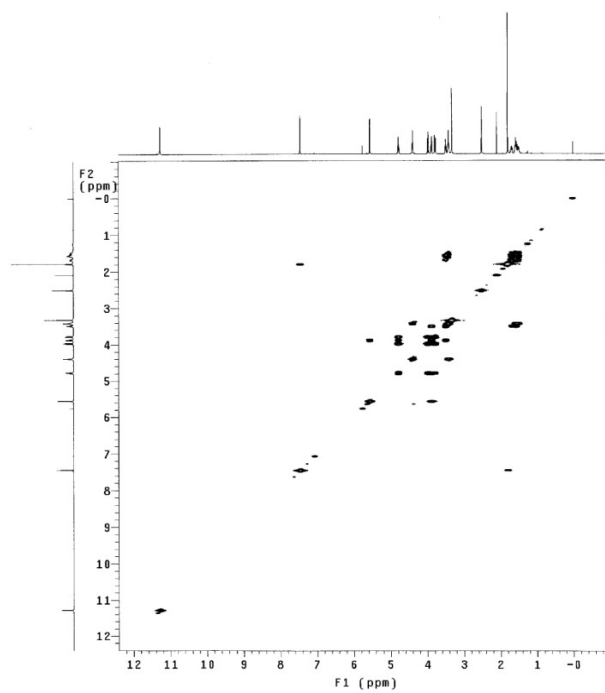
¹H NMR of compound **5b**



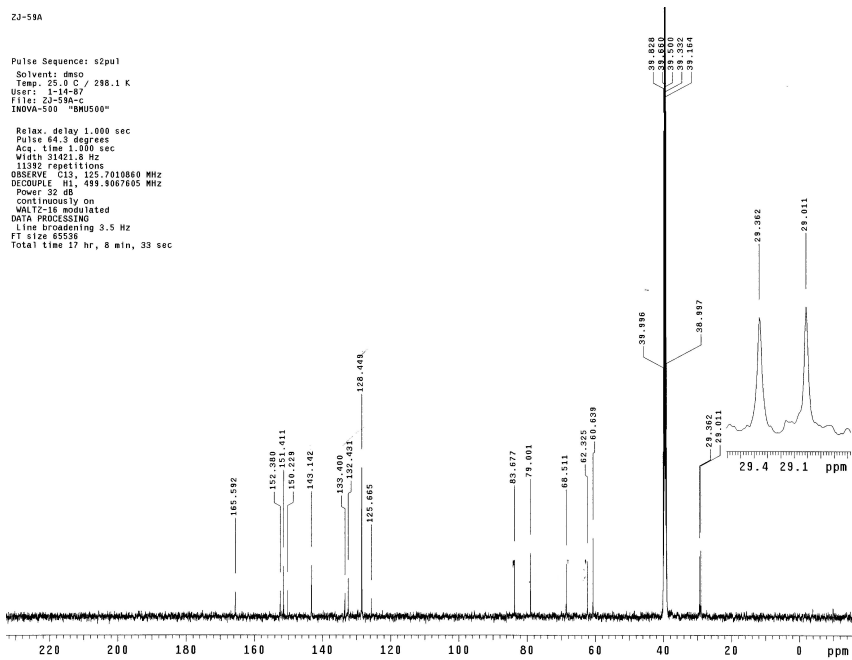
¹³C NMR of compound **5b**



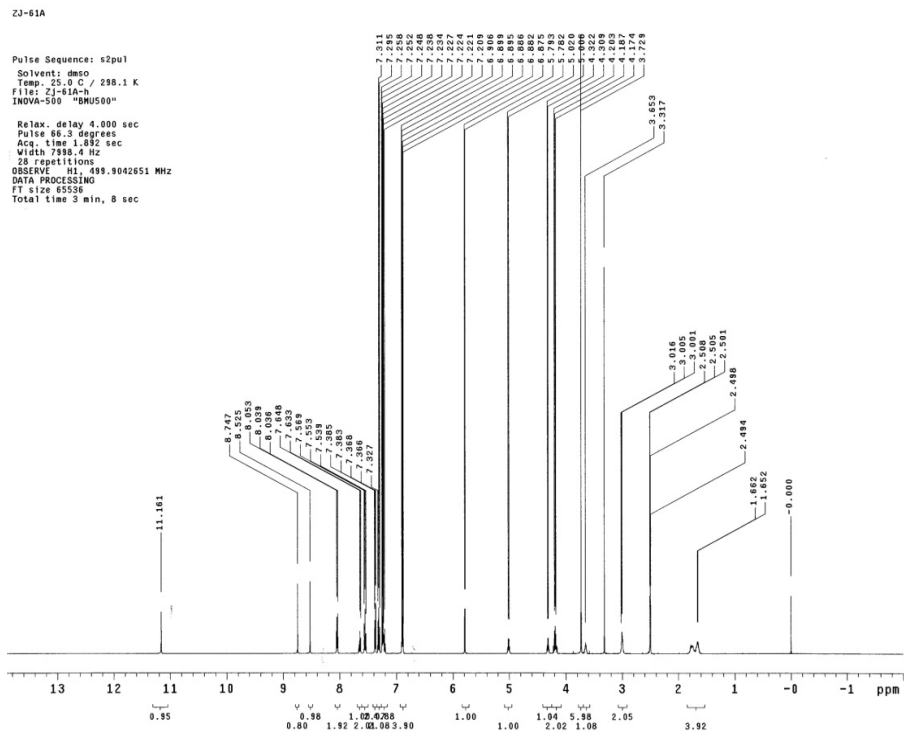
H-H COSY of compound **5b**



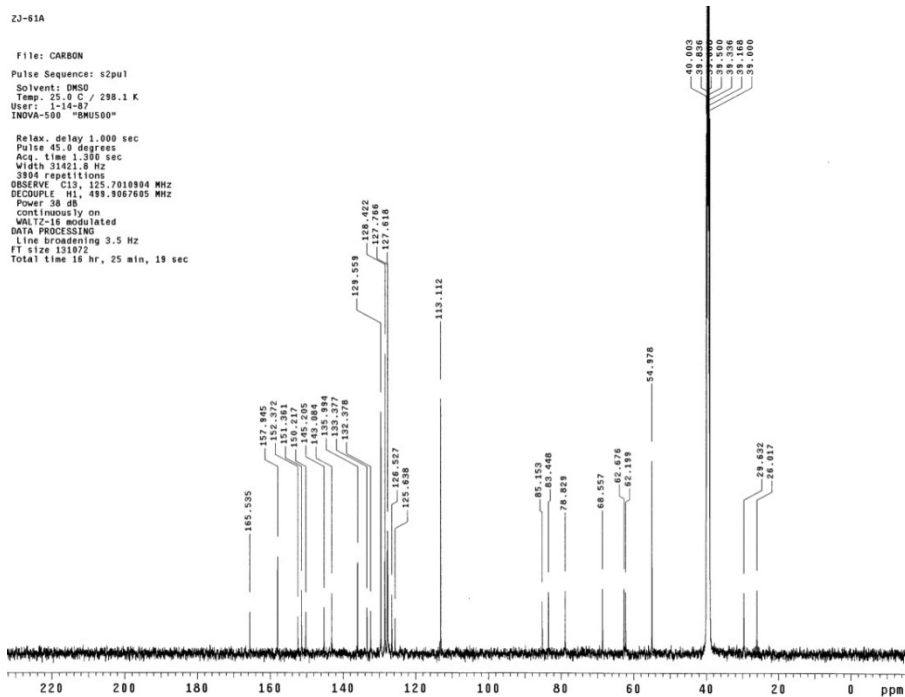
¹³C NMR of compound 17



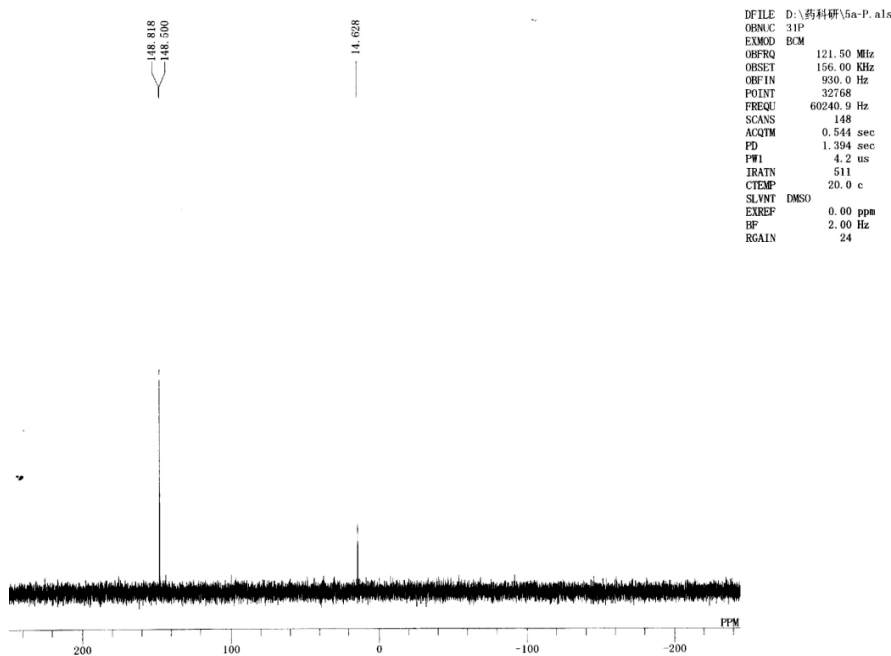
¹H NMR of compound 18



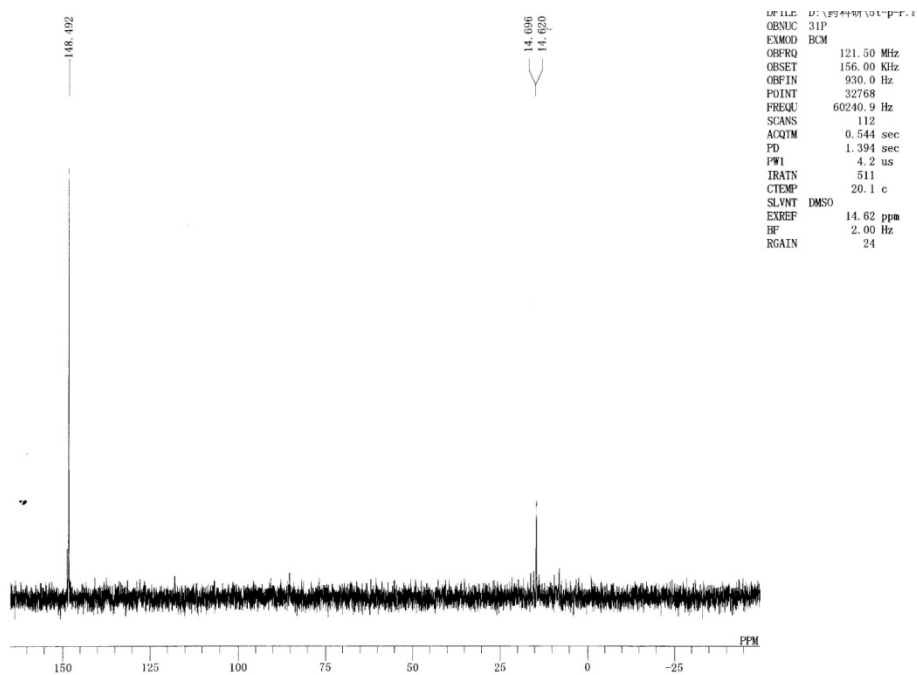
¹³C NMR of compound 18



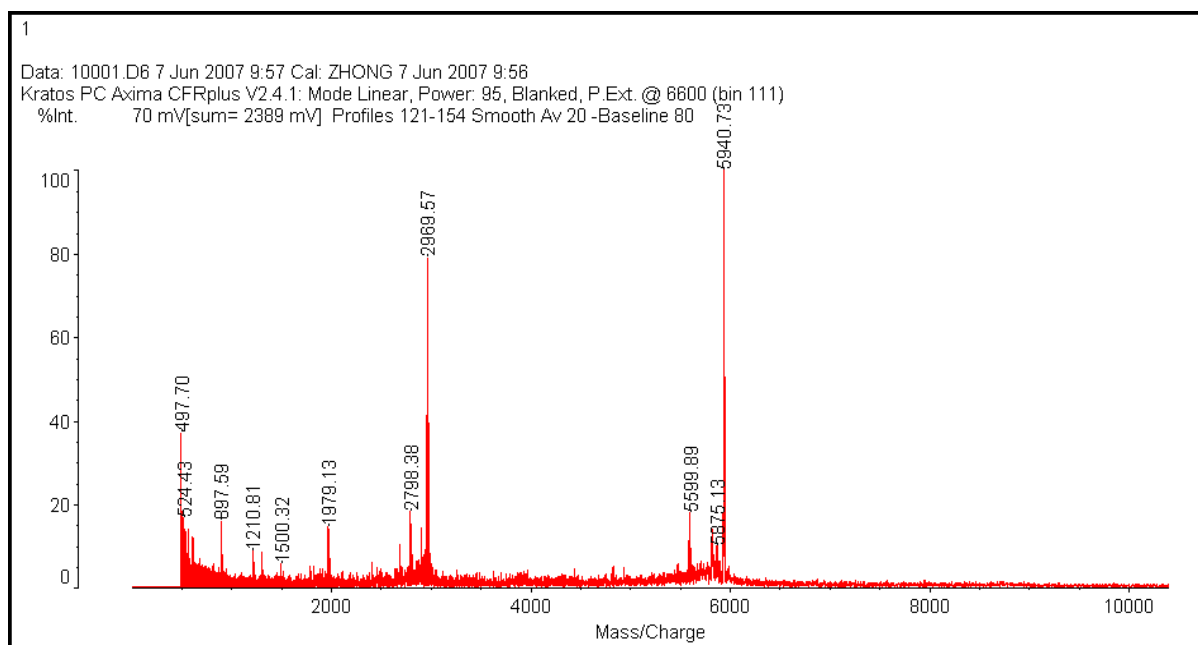
³¹P NMR of compound 19



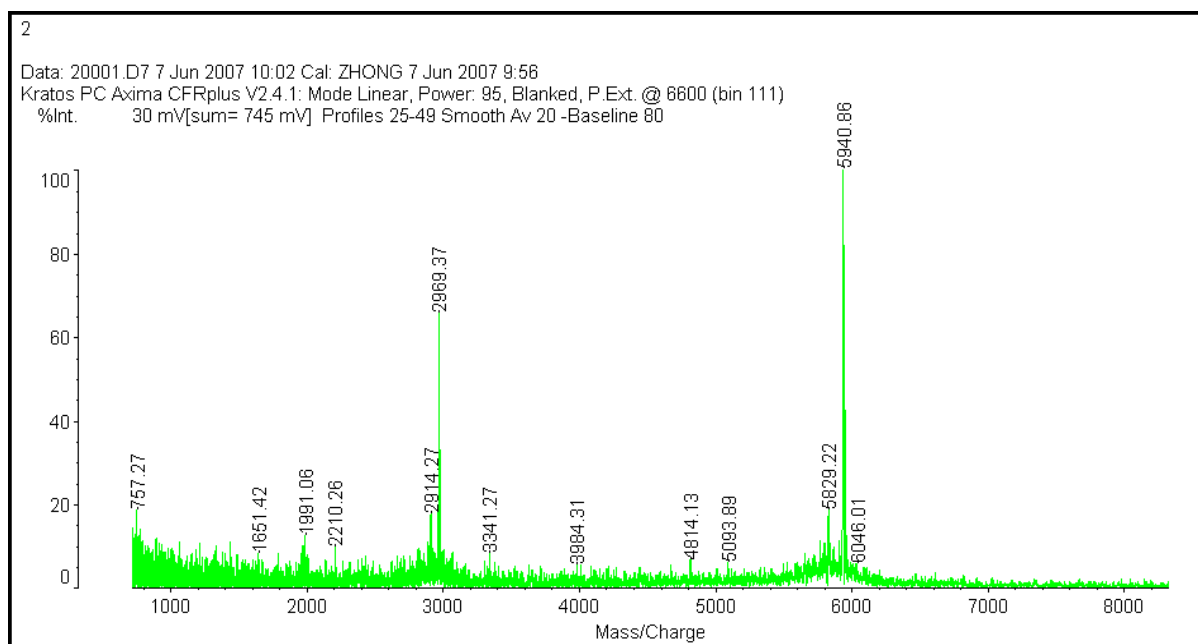
³¹P NMR of compound **21**



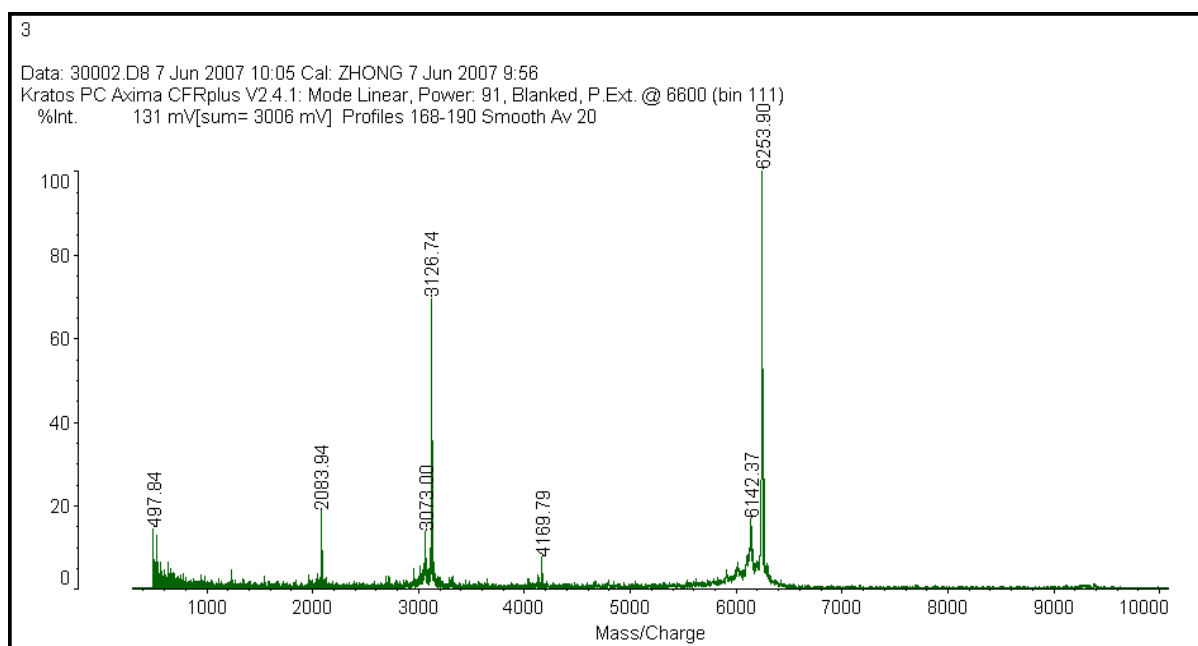
MALDI-TOF-MS data of ODN-I:



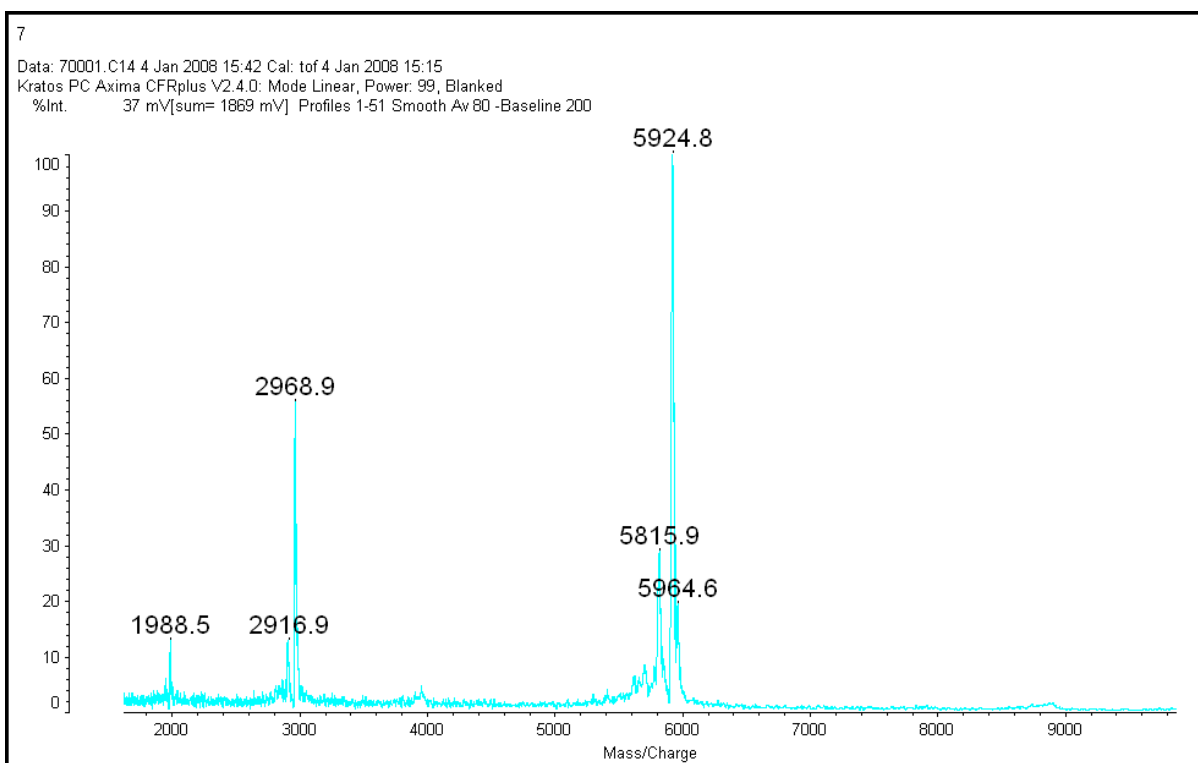
MALDI-TOF-MS data of ODN-II



MALDI-TOF-MS data of ODN-III

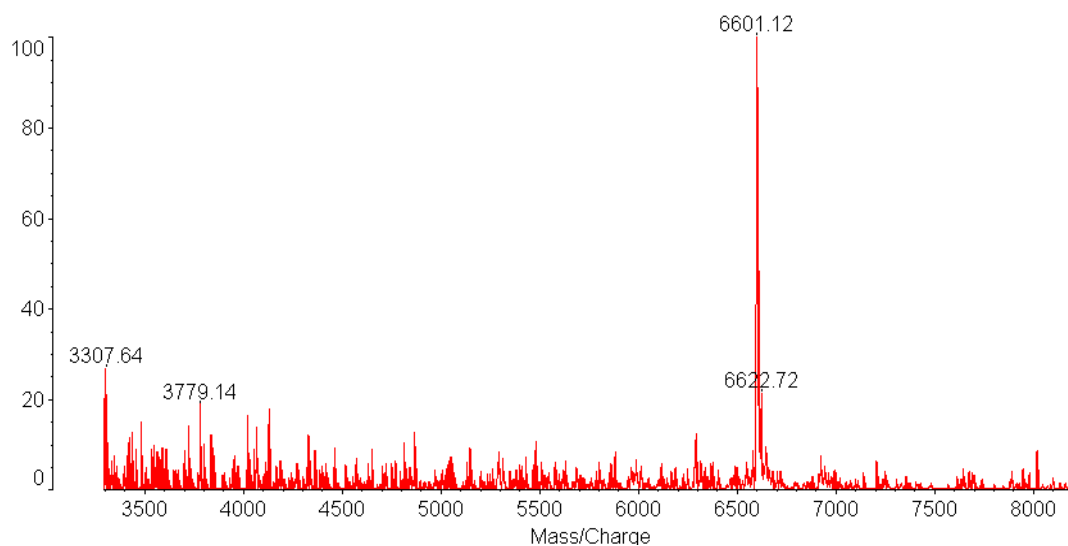


MALDI-TOF-MS data of ODN-IV



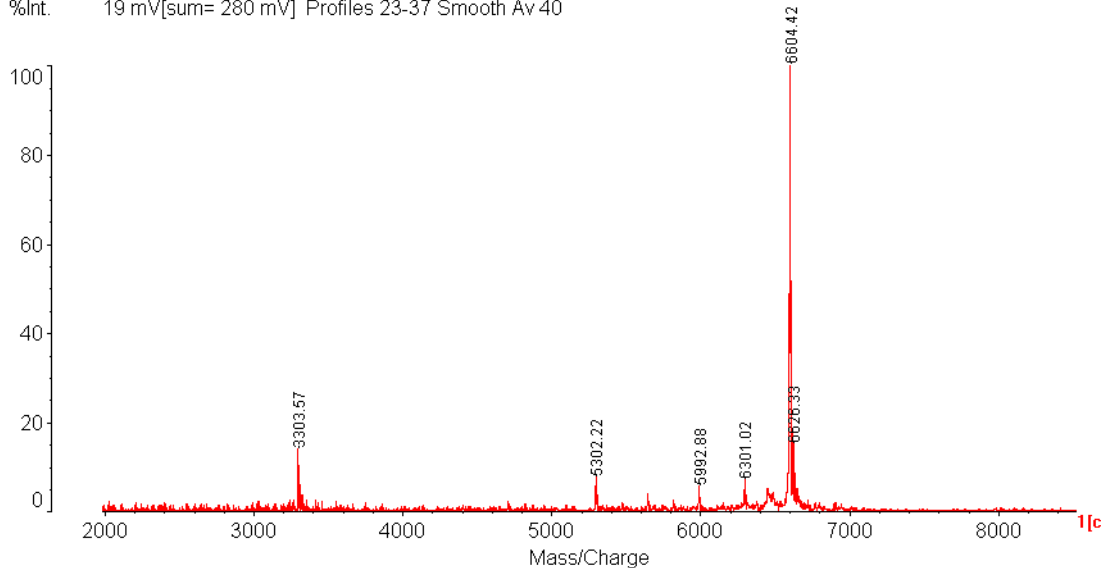
MALDI-TOF-MS data of RNA-AI

DHB
Data: 10004.O12 29 Aug 2008 16:08 Cal: zhong 29 Aug 2008 16:02
Kratos PC Axima CFRplus V2.4.1: Mode Linear, Power: 119, Blanked, P.Ext. @ 6600 (bin 111)
%Int. 5.8 mV[sum= 29 mV] Profiles 1-5 Smooth Av 40



MALDI-TOF-MS data of RNA-AII

HAP
Data: 20001.O12 1 Sep 2008 8:42 Cal: 080111 29 Aug 2008 10:58
Kratos PC Axima CFRplus V2.4.1: Mode Linear, Power: 107, Blanked, P.Ext. @ 6600 (bin 111)
%Int. 19 mV[sum= 280 mV] Profiles 23-37 Smooth Av 40



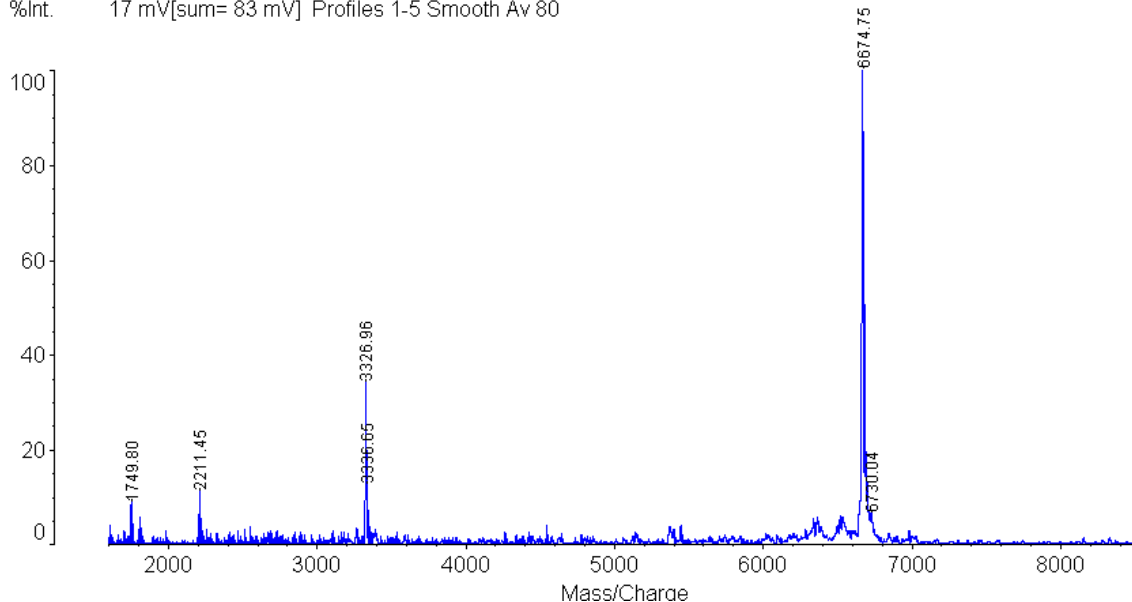
MALDI-TOF-MS data of RNA-BI

HB

Data: 40002.N14 29 Aug 2008 16:03 Cal: zhong 29 Aug 2008 16:02

ratos PC Axima CFRplus V2.4.1: Mode Linear, Power: 114, Blanked, P.Ext. @ 6600 (bin 111)

%Int. 17 mV[sum= 83 mV] Profiles 1-5 Smooth Av 80



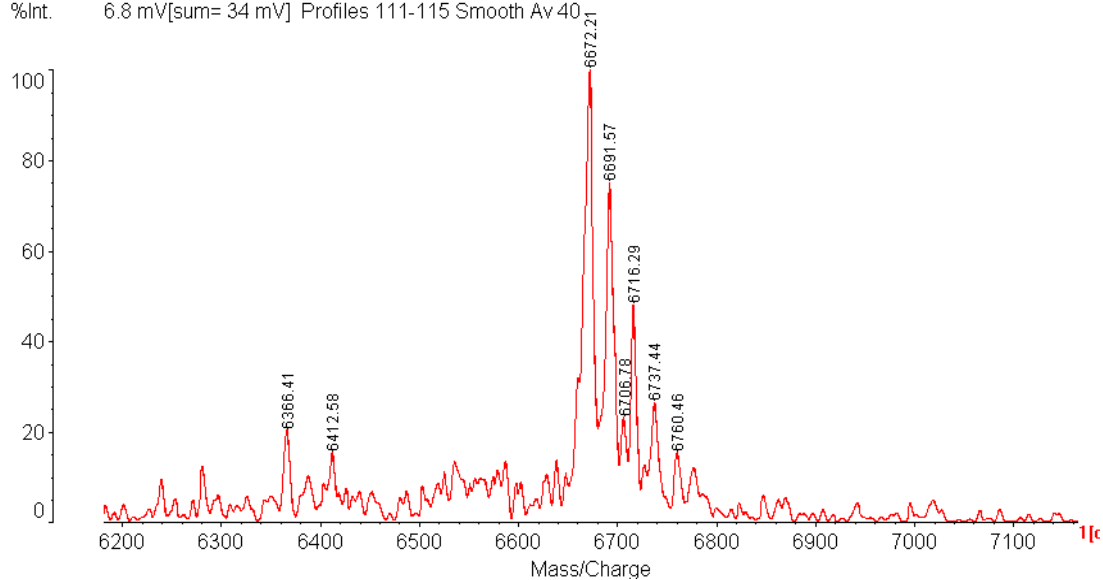
MALDI-TOF-MS data of RNA-BII

THAP

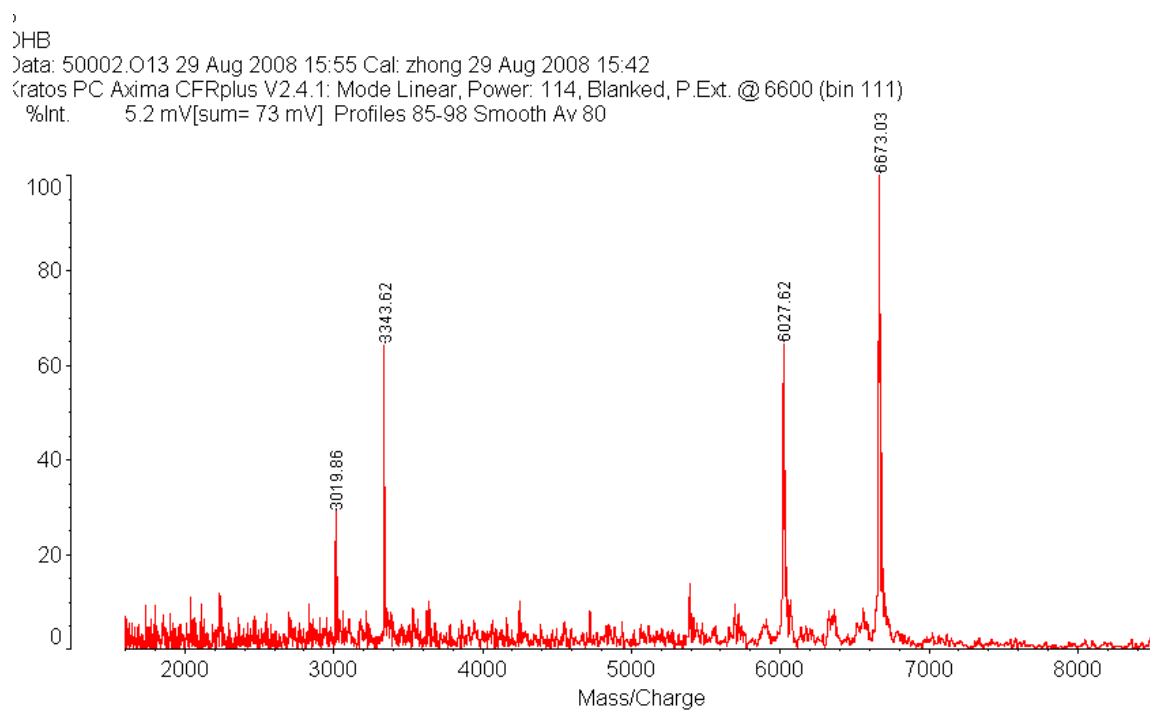
Data: 70001.O14 1 Sep 2008 8:54 Cal: 080111 29 Aug 2008 10:58

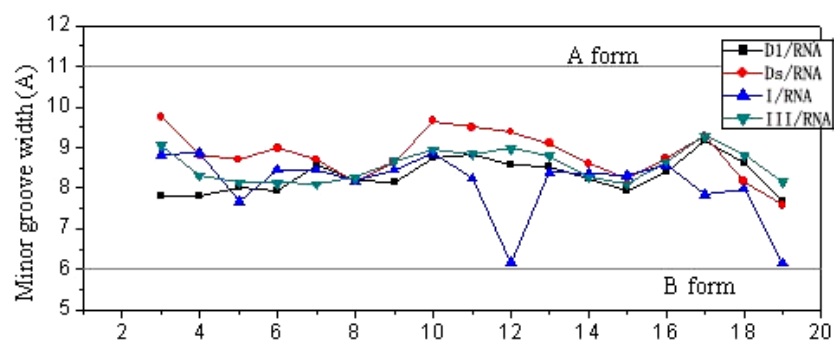
ratos PC Axima CFRplus V2.4.1: Mode Linear, Power: 107, Blanked, P.Ext. @ 6600 (bin 111)

%Int. 6.8 mV[sum= 34 mV] Profiles 111-115 Smooth Av 40



MALDI-TOF-MS data of RNA-BIII





Minor groove width (Å) calculated with the CURVES program. The x axis shows the number of the RNA strand. The minor groove width values for the canonical A- and B-conformations are 11 Å and 6 Å, respectively.