

# Supporting Information

for

## Preparation of a disulfide linked precipitative soluble support for solution-phase synthesis of trimeric oligodeoxyribonucleotide 3'-(2-chlorophenylphosphate) building blocks

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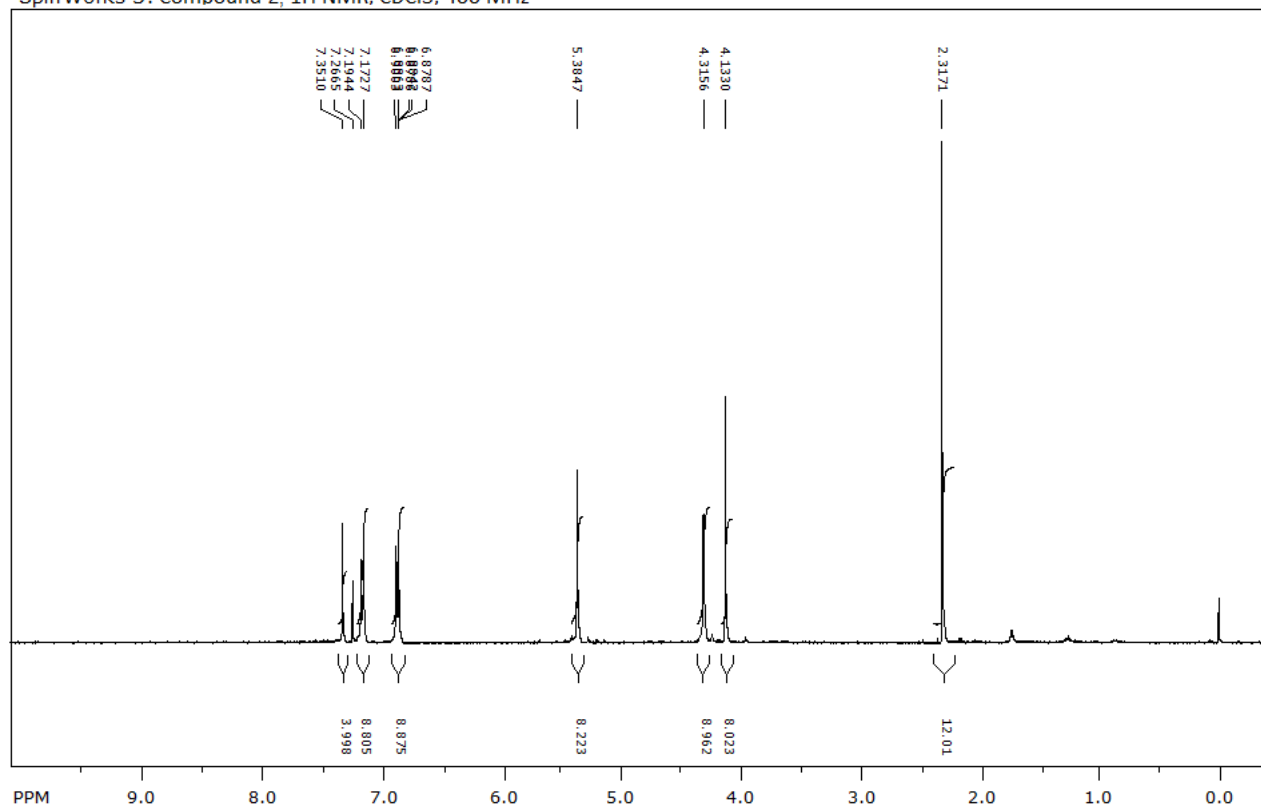
\*Corresponding author

**<sup>1</sup>H NMR, <sup>13</sup>C NMR and DEPT spectra for 2, and 3, <sup>31</sup>P NMR spectra of 10, mass spectra for 2, 3, 7a–10**

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SpinWorks 3: Compound 2,  $^1\text{H}$  NMR,  $\text{CDCl}_3$ , 400 MHz



SpinWorks 3: Compound 2,  $^{13}\text{C}$  NMR,  $\text{CDCl}_3$ , 125 MHz

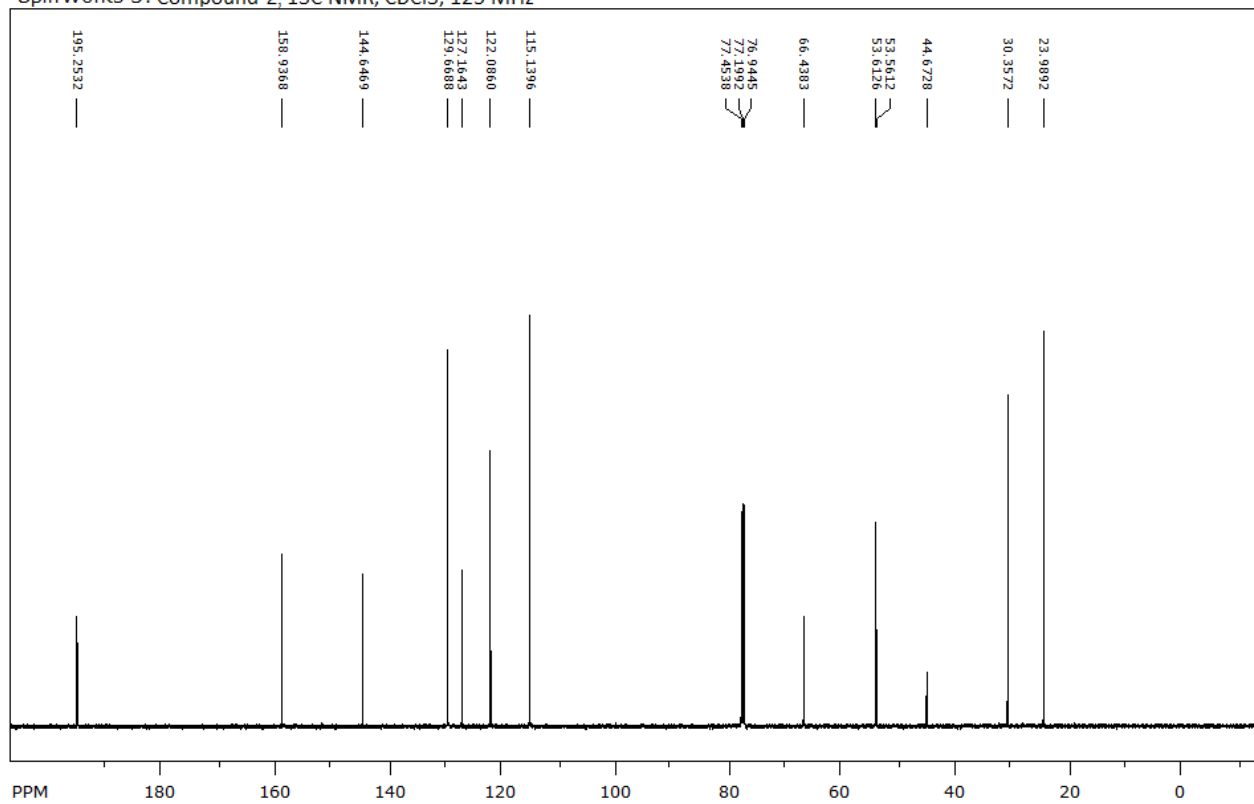
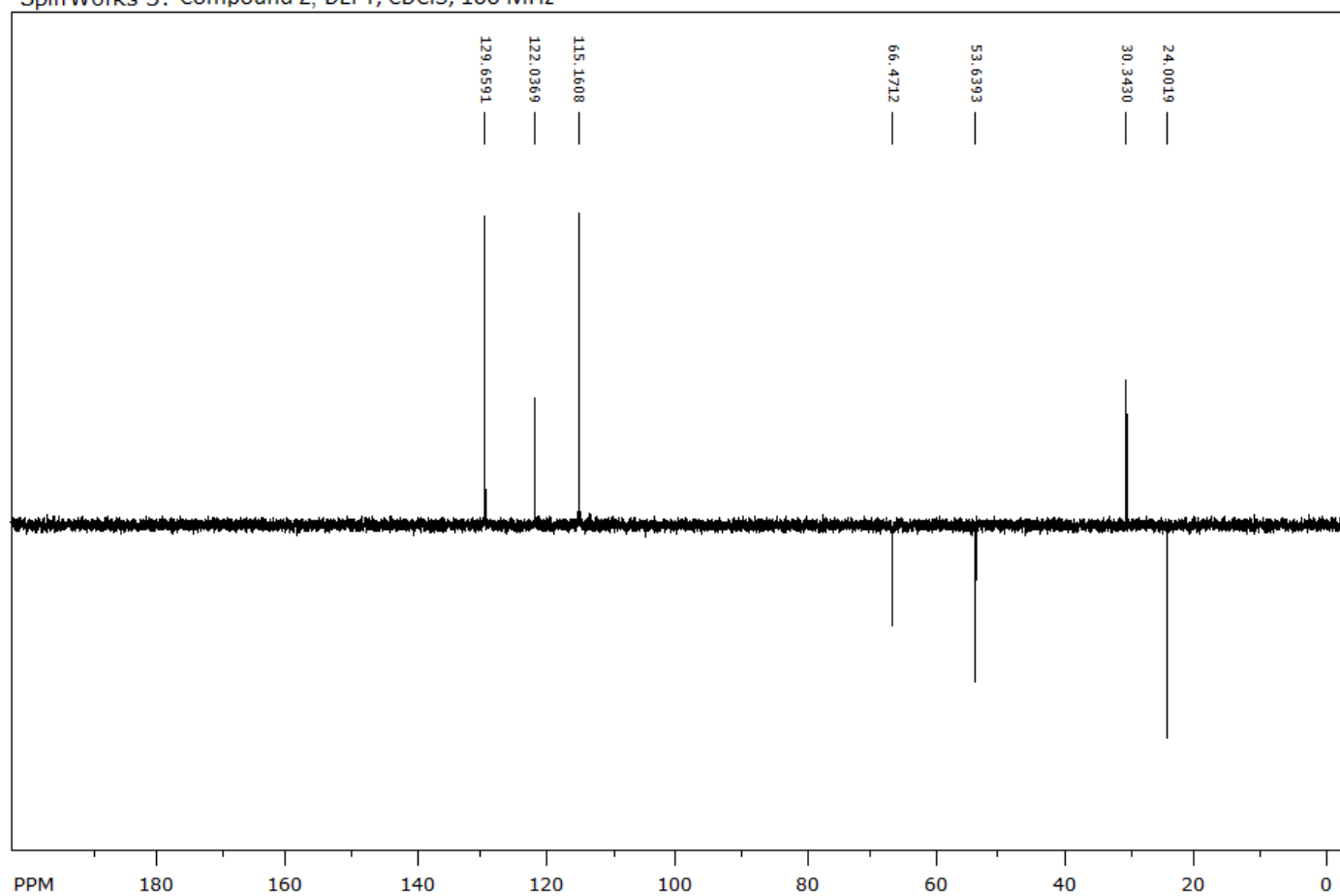


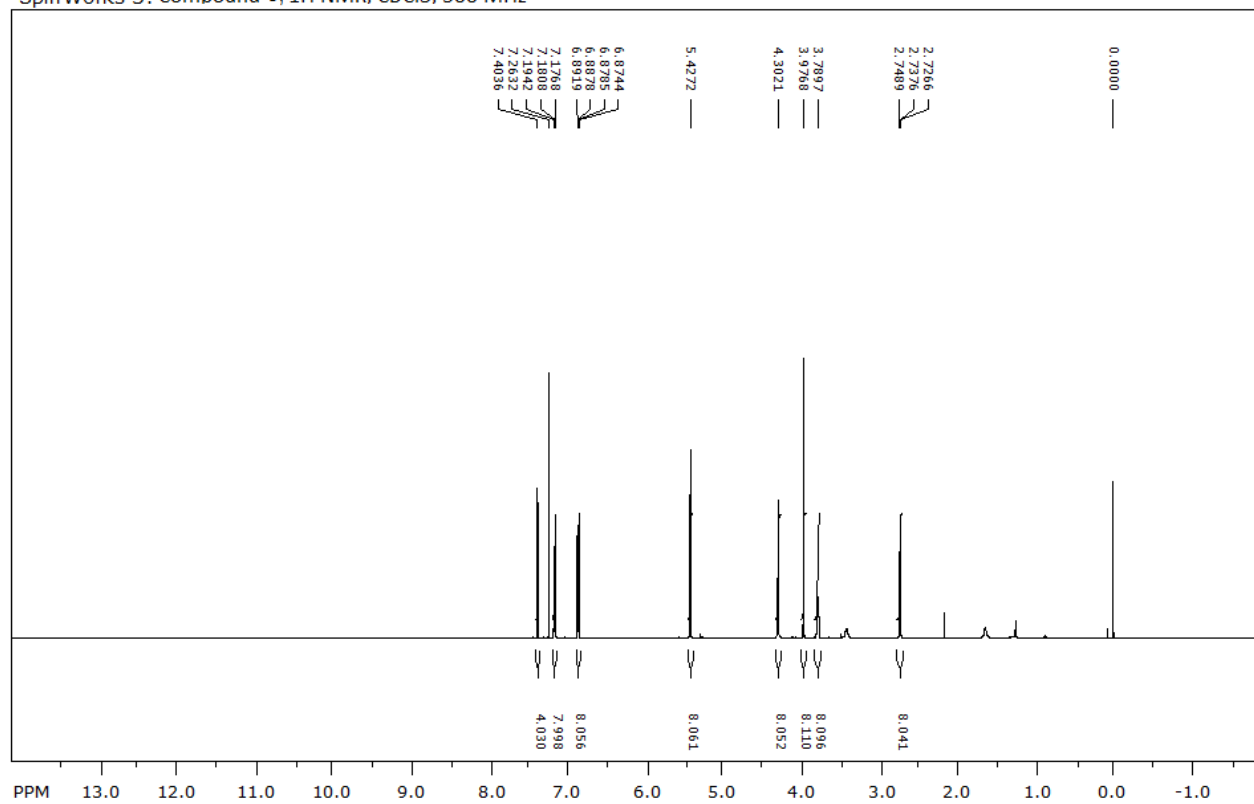
Figure S1:  $^1\text{H}$  and  $^{13}\text{C}$  spectra of 2.

SpinWorks 3: Compound 2, DEPT, CDCl<sub>3</sub>, 100 MHz

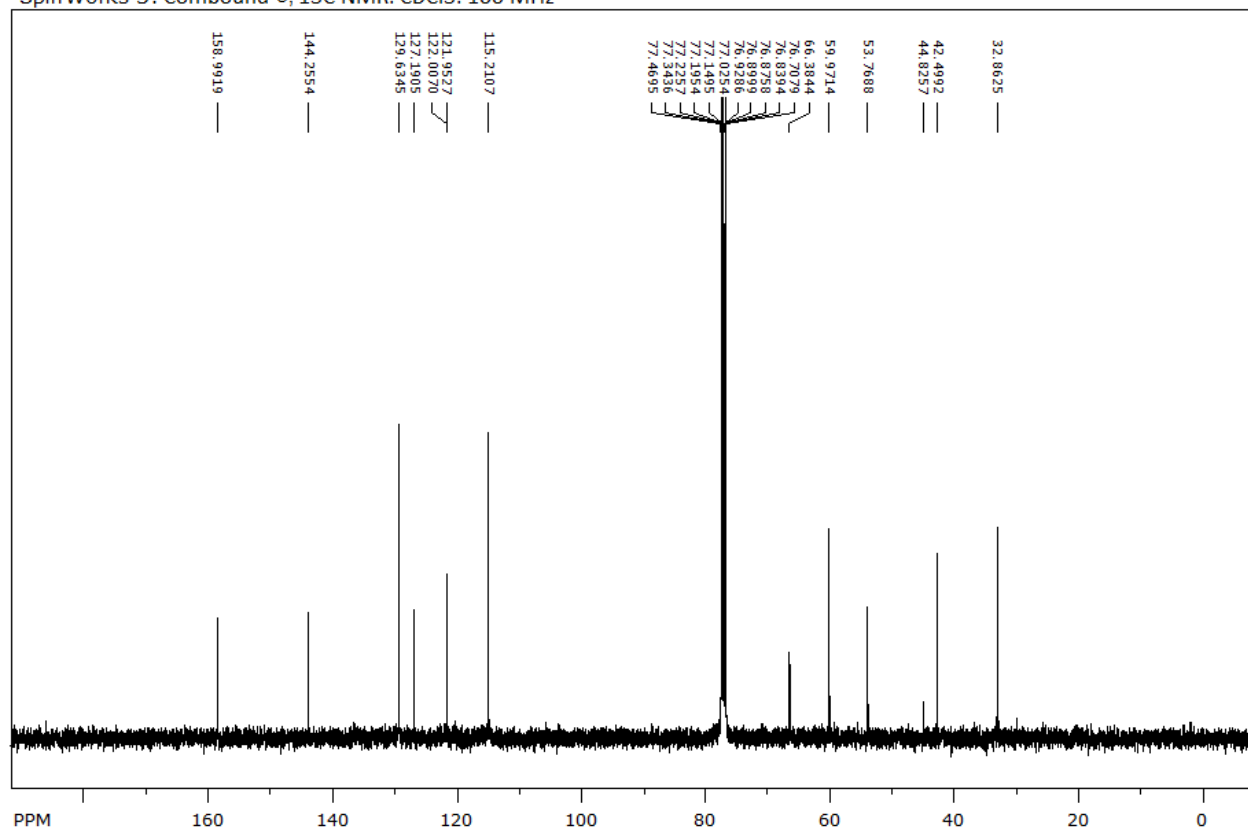


**Figure S2:** DEPT spectra of **2**.

SpinWorks 3: Compound 3,  $^1\text{H}$  NMR,  $\text{CDCl}_3$ , 500 MHz



SpinWorks 3: Compound 3,  $^{13}\text{C}$  NMR,  $\text{CDCl}_3$ , 100 MHz



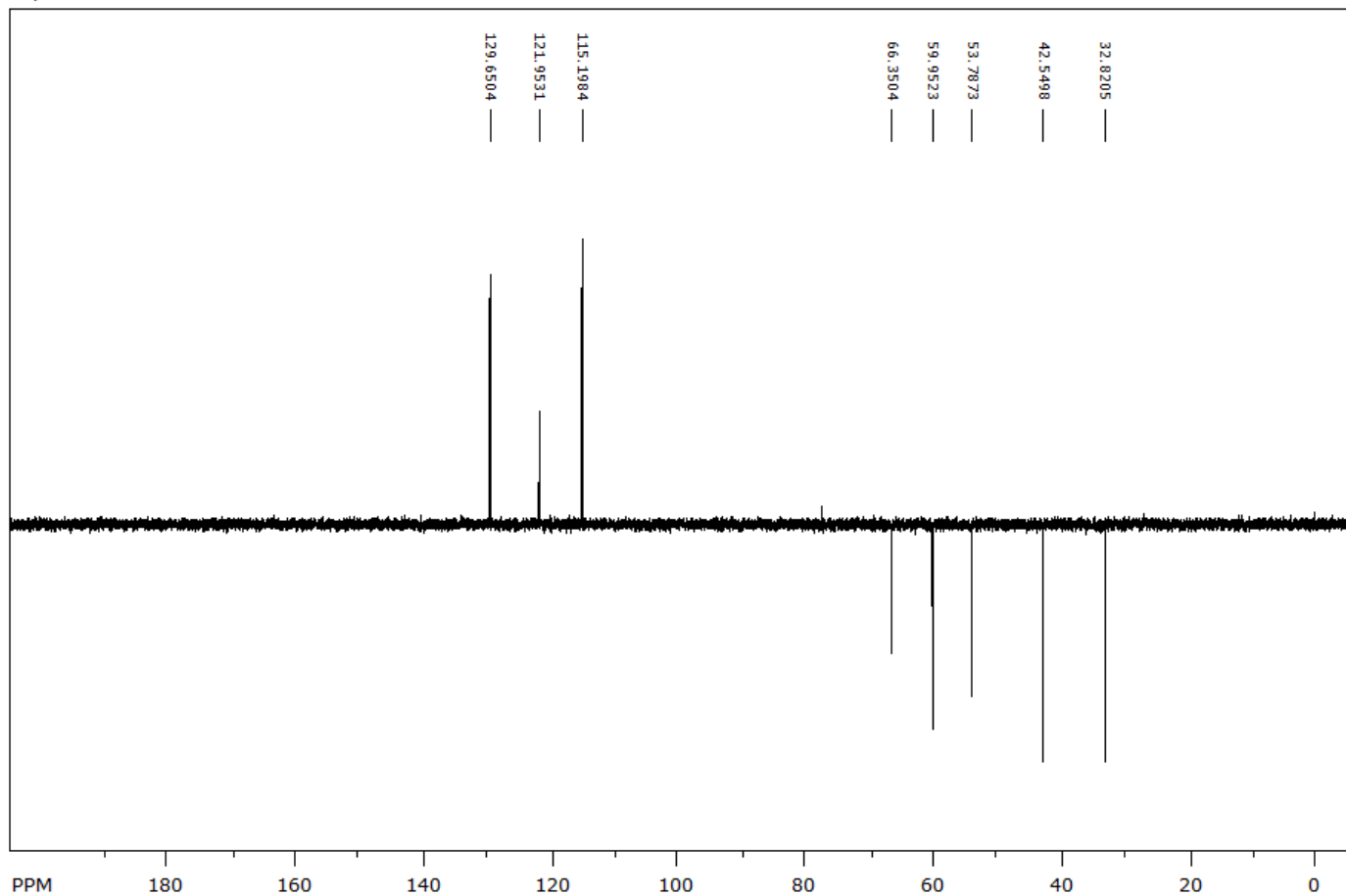


Figure S4: DEPT spectra of 3.

Compound **10**, P31 NMR, CDCl<sub>3</sub>, 162 MHz



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PROCNO 1

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PULPROG zgpg30  
TD 65536  
SOLVENT Acetone  
NS 384  
DS 4  
SWH 64724.918 Hz  
FIDRES 0.987624 Hz  
AQ 0.5063233 sec  
RG 20642.5  
DW 7.725 usec  
DE 6.00 usec  
TE 295.0 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

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P1 6.90 usec  
PL1 1.00 dB  
SFO1 161.8298371 MHz

===== CHANNEL f2 =====  
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NUC2 1H  
PCPD2 80.00 usec  
PL2 -1.00 dB  
PL12 18.00 dB  
PL13 18.00 dB  
SFO2 399.7515990 MHz

F2 - Processing parameters  
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SF 161.8217460 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

6.53  
6.56  
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6.89  
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7.52  
7.78  
7.80  
8.02  
8.05

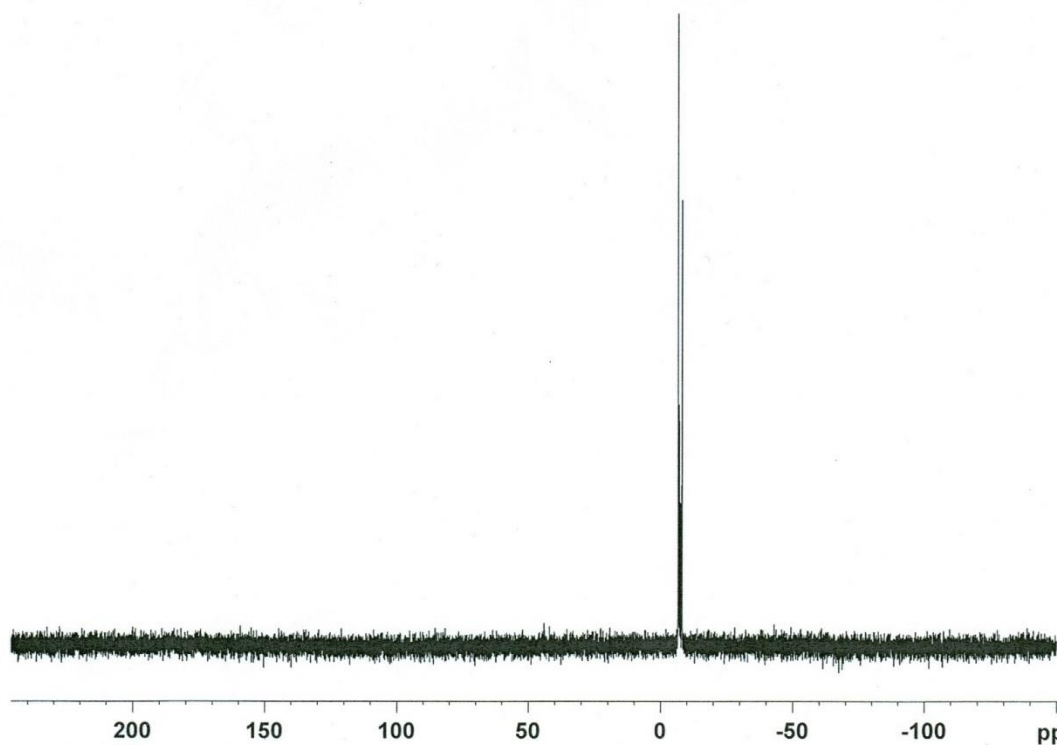


Figure S5: <sup>31</sup>P spectra of **10**.

# Generic Display Report

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Operator Bruker07  
Instrument micrOTOF-Q

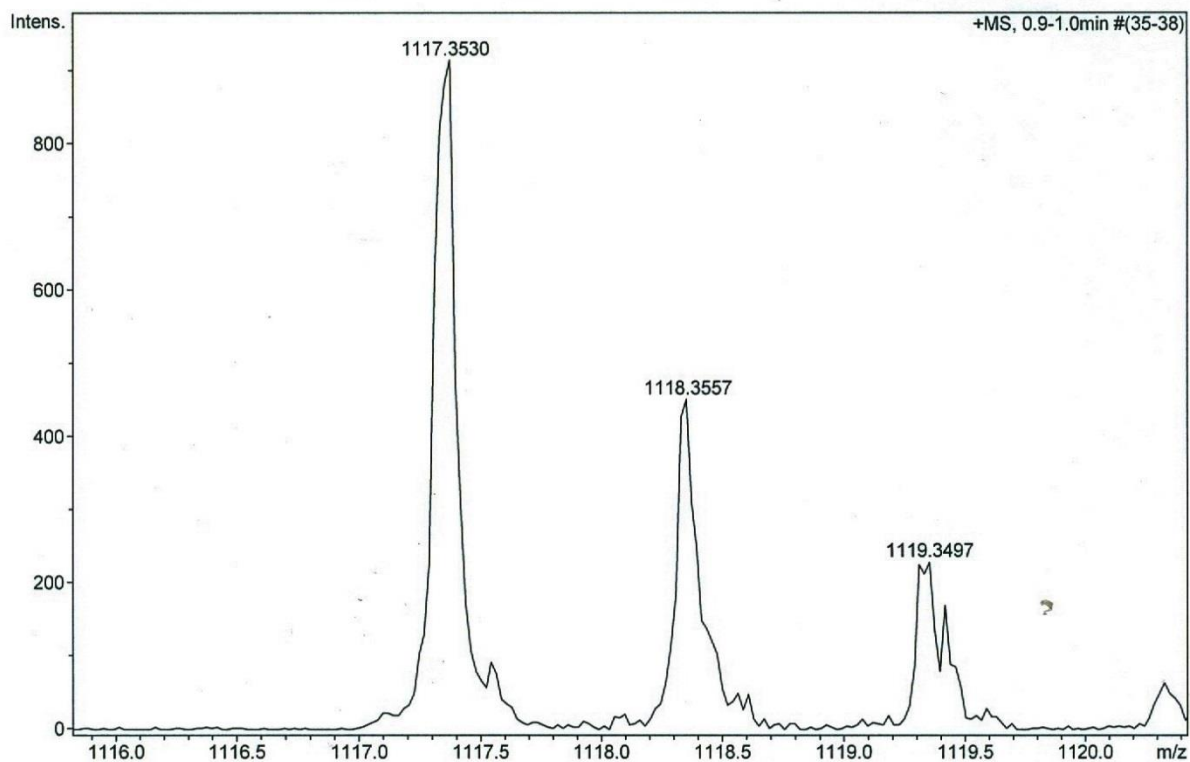
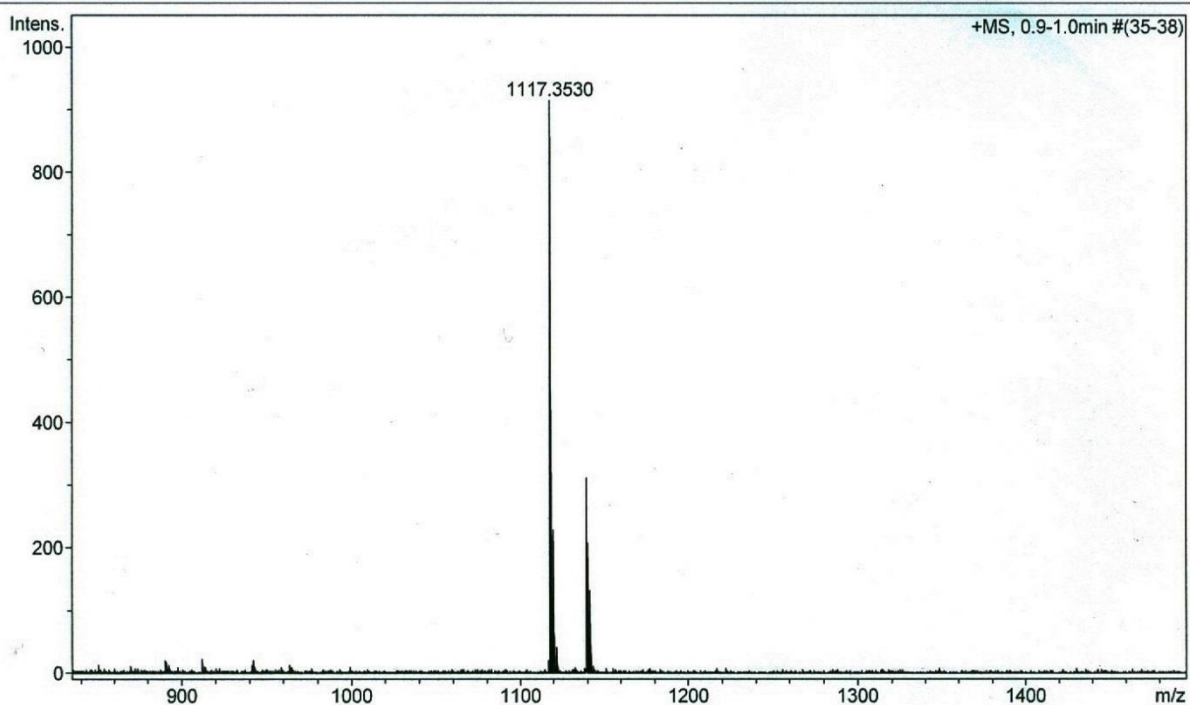


Figure S6: MS (ESI) spectrum of 2.

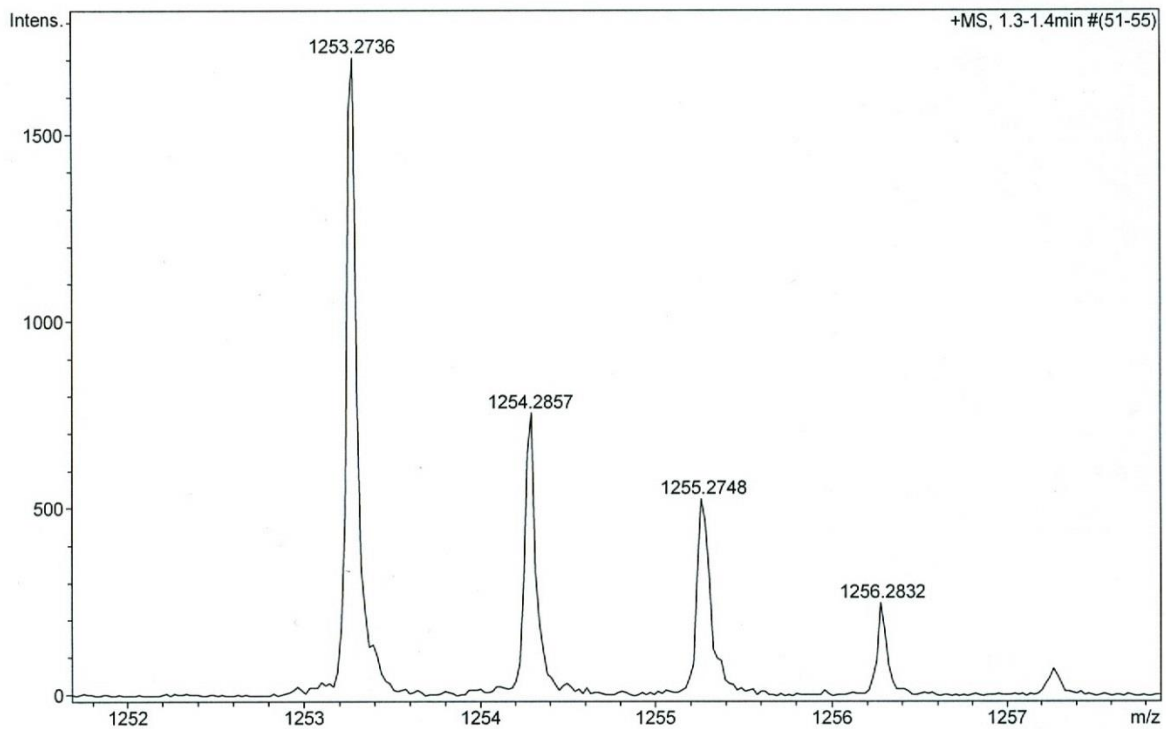
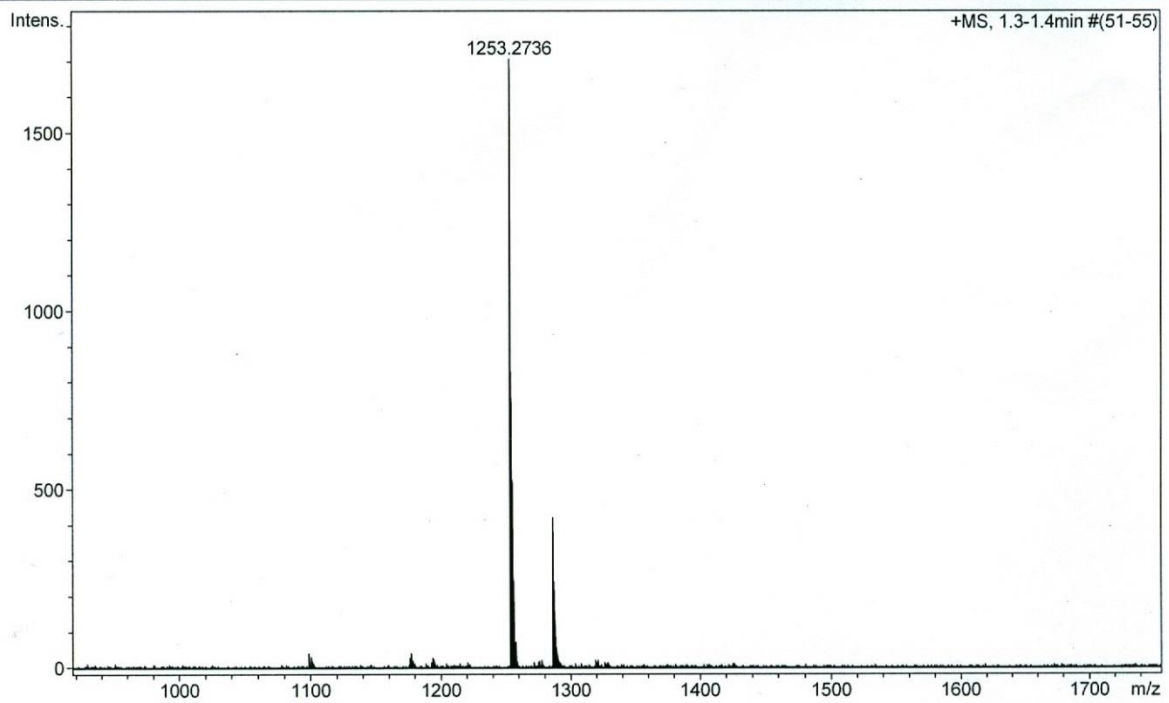
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Comment

Acquisition Date 5/23/2013 10:48:59 AM

Operator Bruker07  
Instrument micrOTOF-Q



**Figure S7: MS (ESI) spectrum of 3.**



# Generic Display Report

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Operator Bruker07  
Instrument micrOTOF-Q

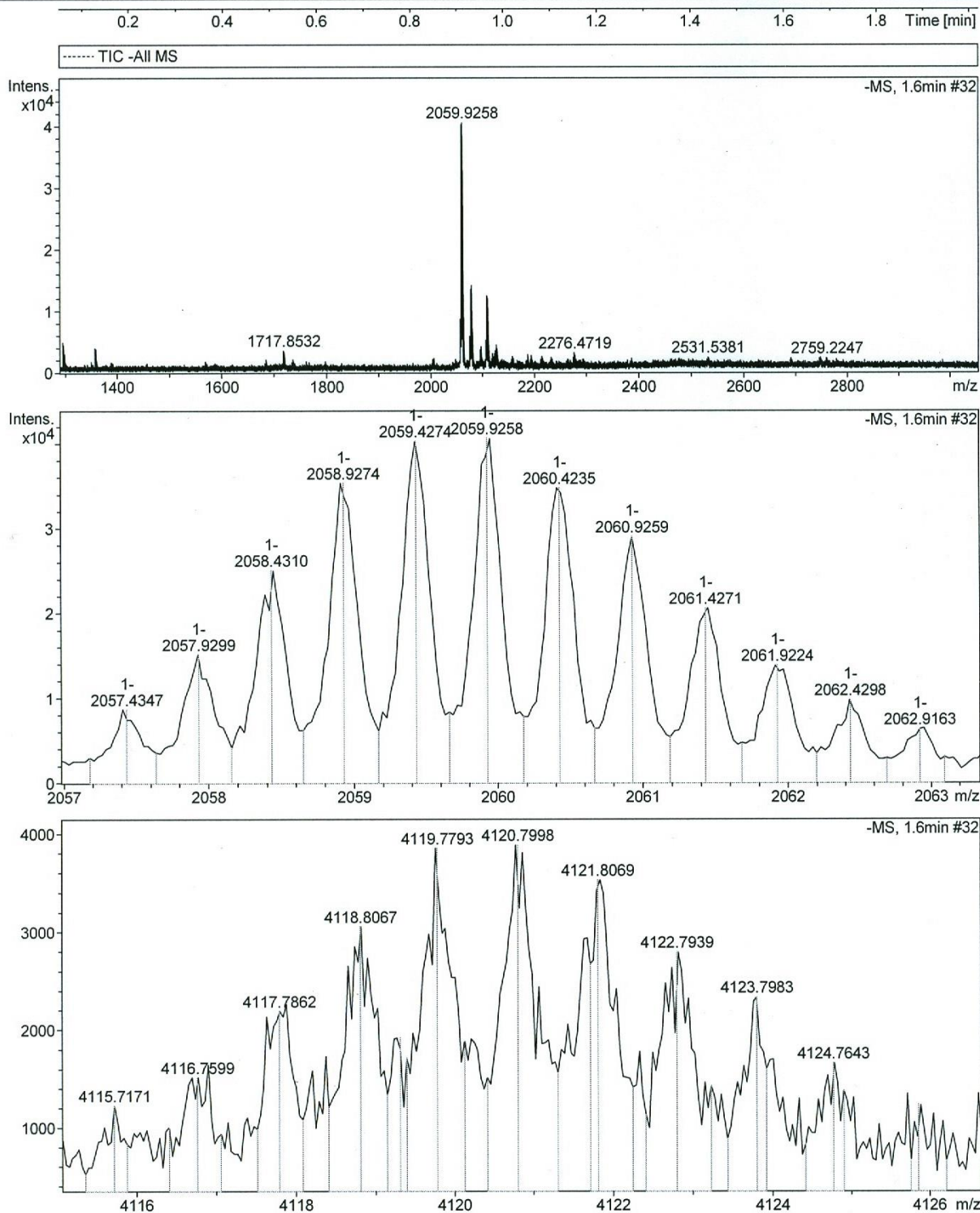


Figure S8: MS (ESI) spectrum of 7A.

# Generic Display Report

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Instrument micrOTOF-Q

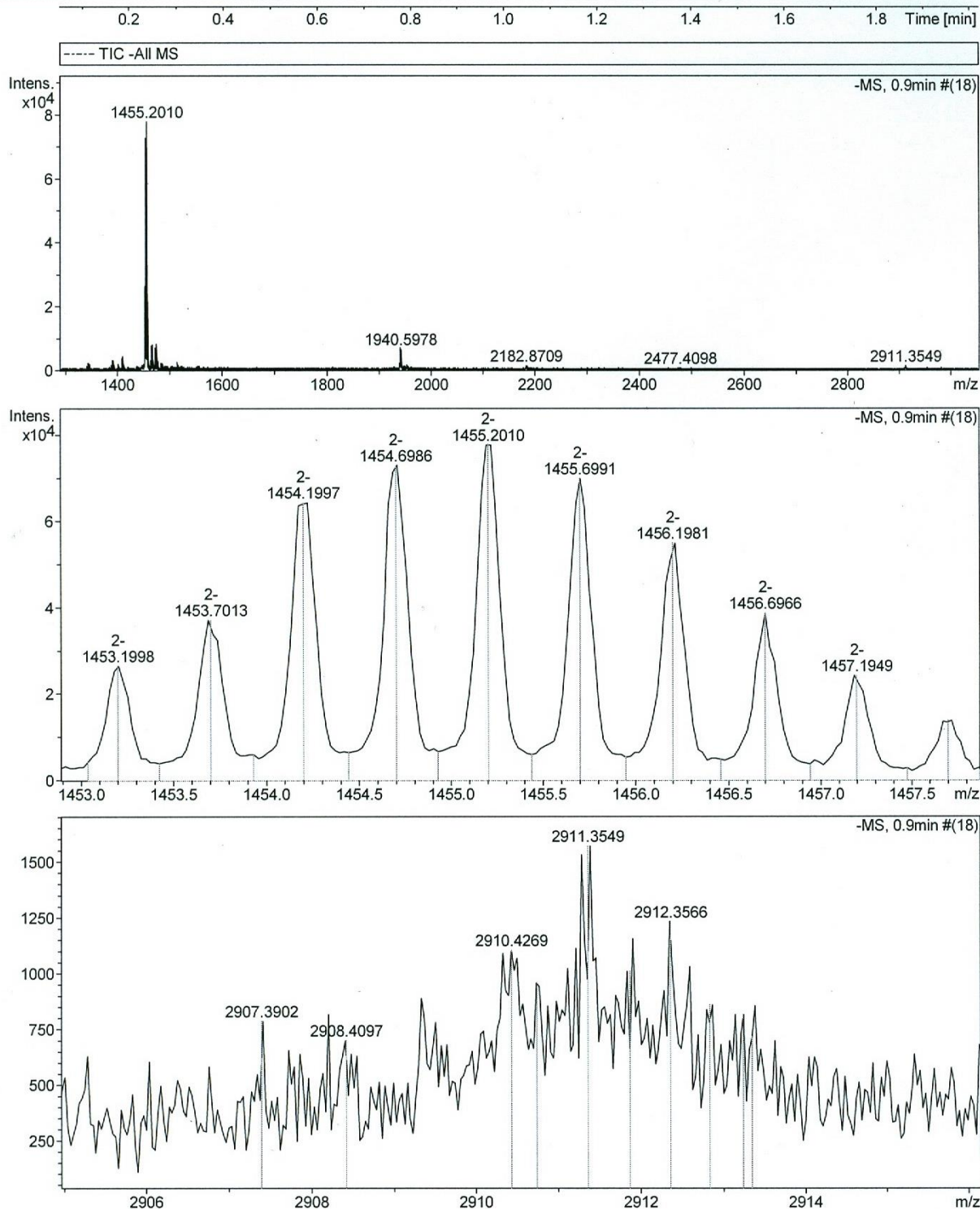


Figure S9: MS (ESI) spectrum of 7B.

# Generic Display Report

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Acquisition Date 2/5/2014 10:49:56 AM

Operator Bruker07  
Instrument micrOTOF-Q

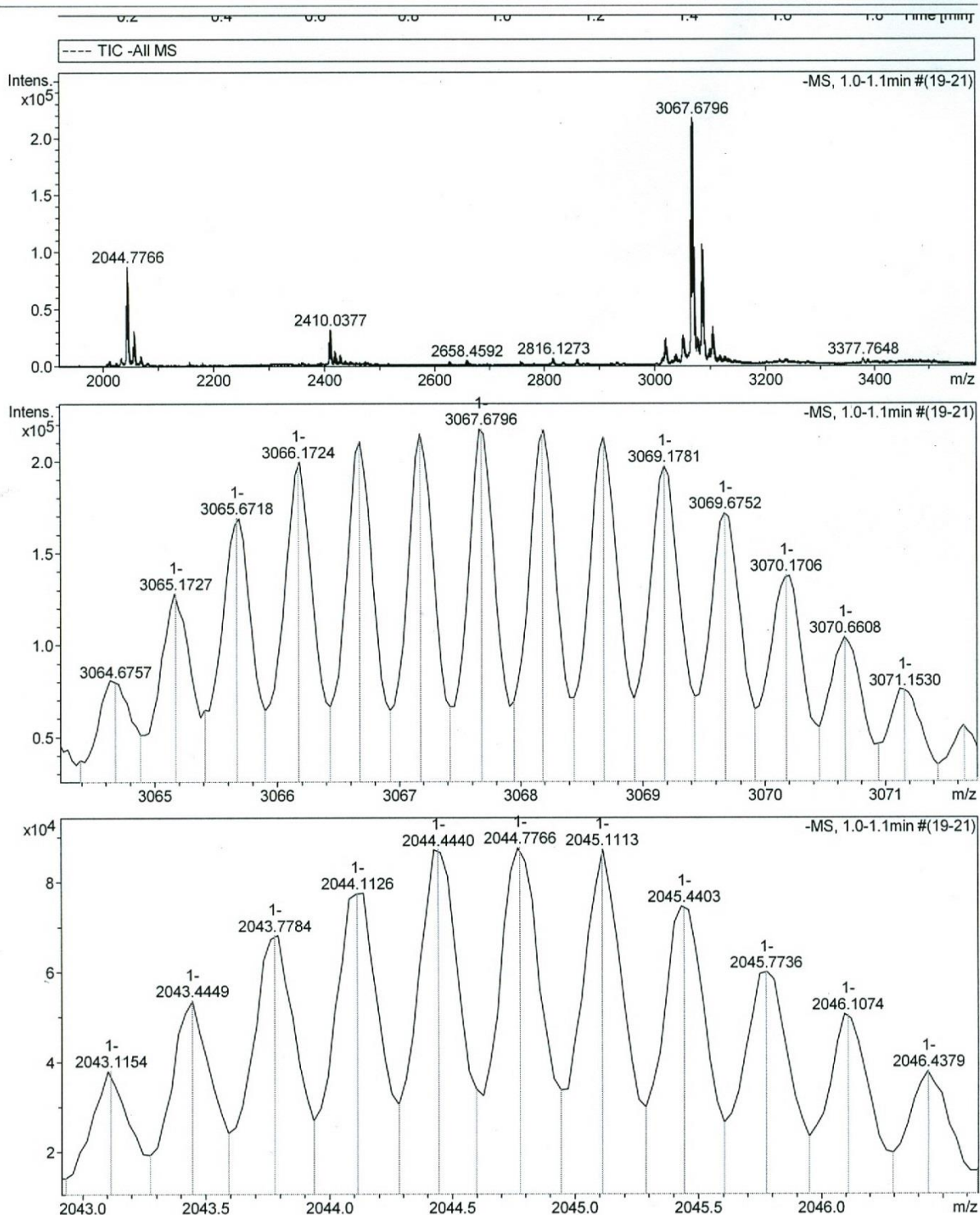


Figure S10: MS (ESI) spectrum of 8A.

# Generic Display Report

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Operator Bruker07  
Instrument micrOTOF-Q

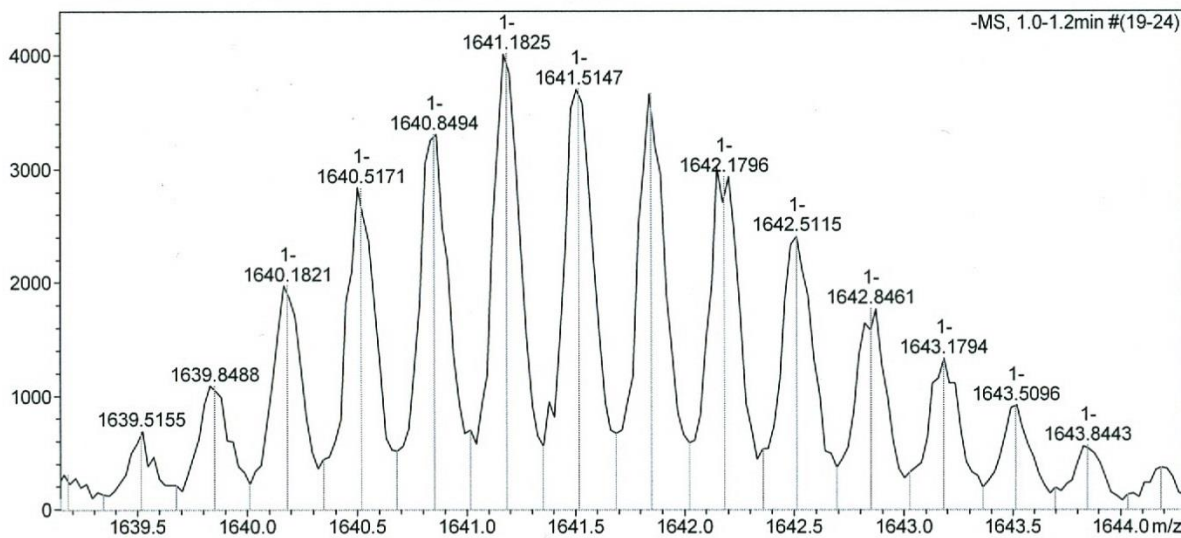
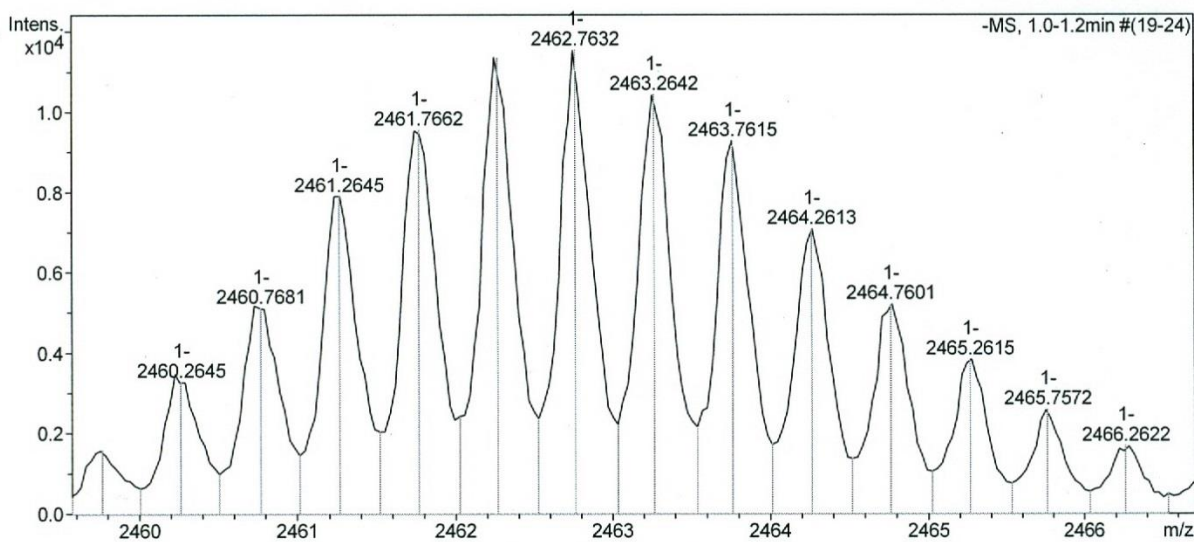
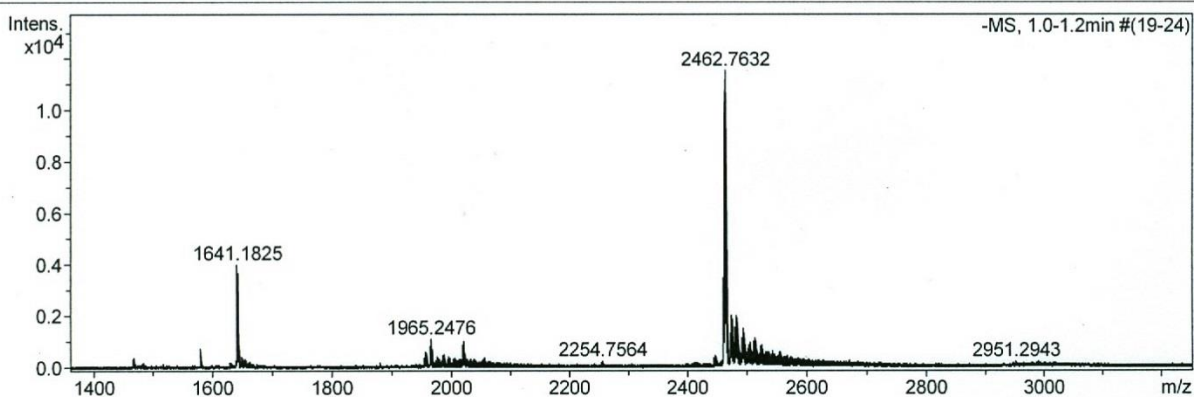


Figure S11: MS (ESI) spectrum of 8B.

# Generic Display Report

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Operator Bruker07  
Instrument micrOTOF-Q

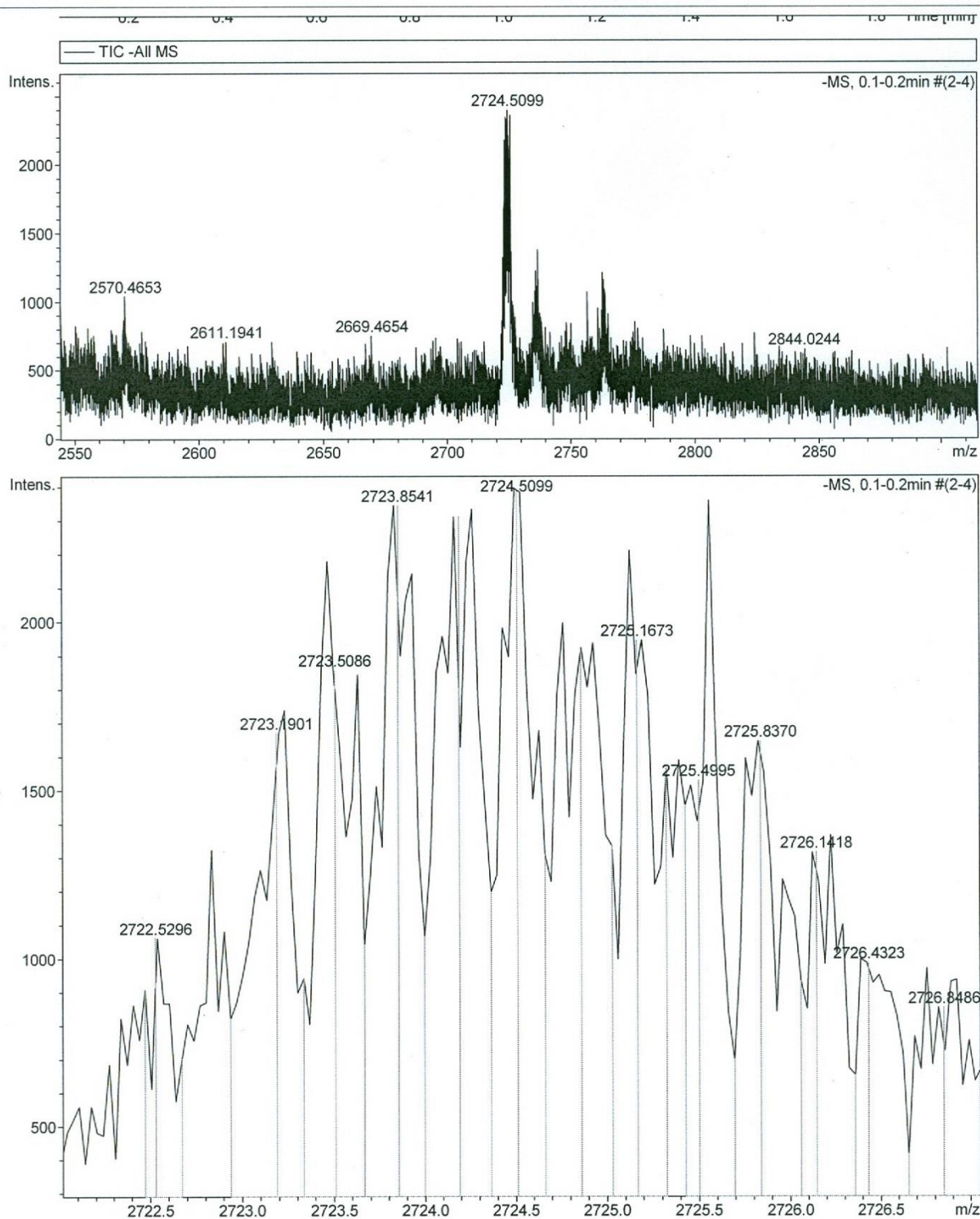


Figure S12: MS (ESI) spectrum of 9.

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Operator Bruker07  
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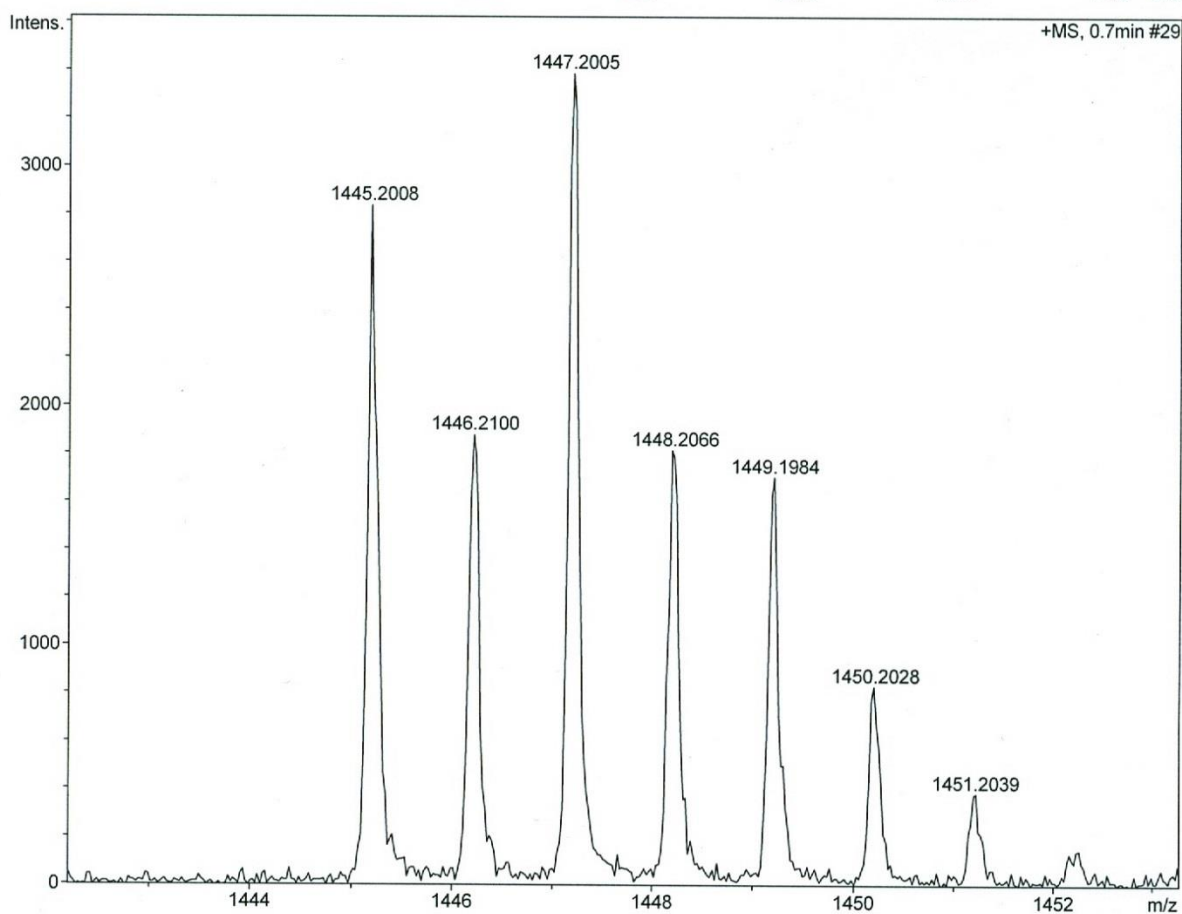
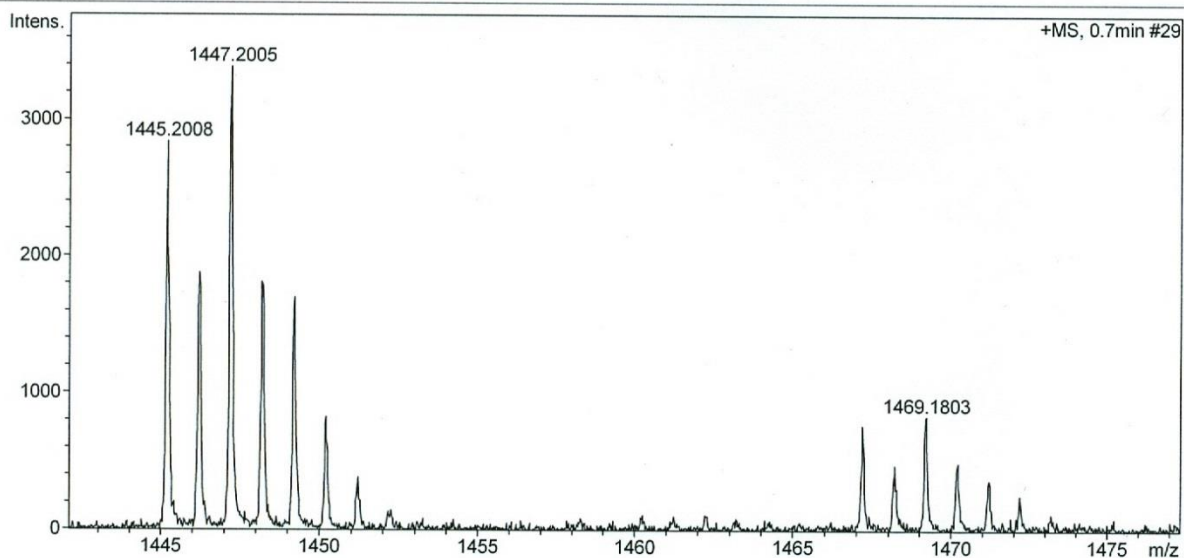


Figure S13: MS (ESI) spectrum of 10.