

**Supplementary Material**

**Davis et al.**

Supporting Information

## Synthesis of Sansalvamide A Peptidomimetics: Triazole, Oxazole, Thiazole, and Pseudoproline containing compounds

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**Table of compounds with text describing structural variations**

Comp #		aa <sub>1</sub>	aa <sub>2</sub>	aa <sub>3</sub>	aa <sub>4</sub>	aa <sub>5</sub>
1	A-Tri-III	Phe	Leu	Val-Triazole	Leu	Leu
2	B-Tri-III	Phe	Leu	Val-Triazole	Leu	NMe-Leu
3	A-Ox-III	Phe	Leu	Oxazole	Leu	Leu
4	B-Ox-III	Phe	Leu	Oxazole	Leu	NMe-Leu
5	C-Ox-III	Phe	NMe-D-Phe	Oxazole	Leu	Lys(Cbz)
6	D-Ox-III	(2R,3R)-β-Benzoxy-Phe	Leu	Oxazole	D-Leu	D-Phe
7	D-Ox-II	(2R,3R)-β-Benzoxy-Phe	Oxazole	NMe-Val	D-Leu	D-Phe
8	D-Ox-I	Phenyl-Oxazole	Leu	NMe-Val	D-Leu	D-Phe
9	A-Th-III	Phe	Leu	Thiazole	Leu	Leu
10	B-Th-III	Phe	Leu	Thiazole	Leu	NMe-Leu
11	C-Th-III	Phe	NMe-D-Phe	Thiazole	Leu	Lys(Cbz)
12	A-PP-II	Phe	Thr(ΨMe,Me-Pro)	Val	Leu	Leu
13	A-PP-III	Phe	Leu	Thr(ΨMe,Me-Pro)	Leu	Leu

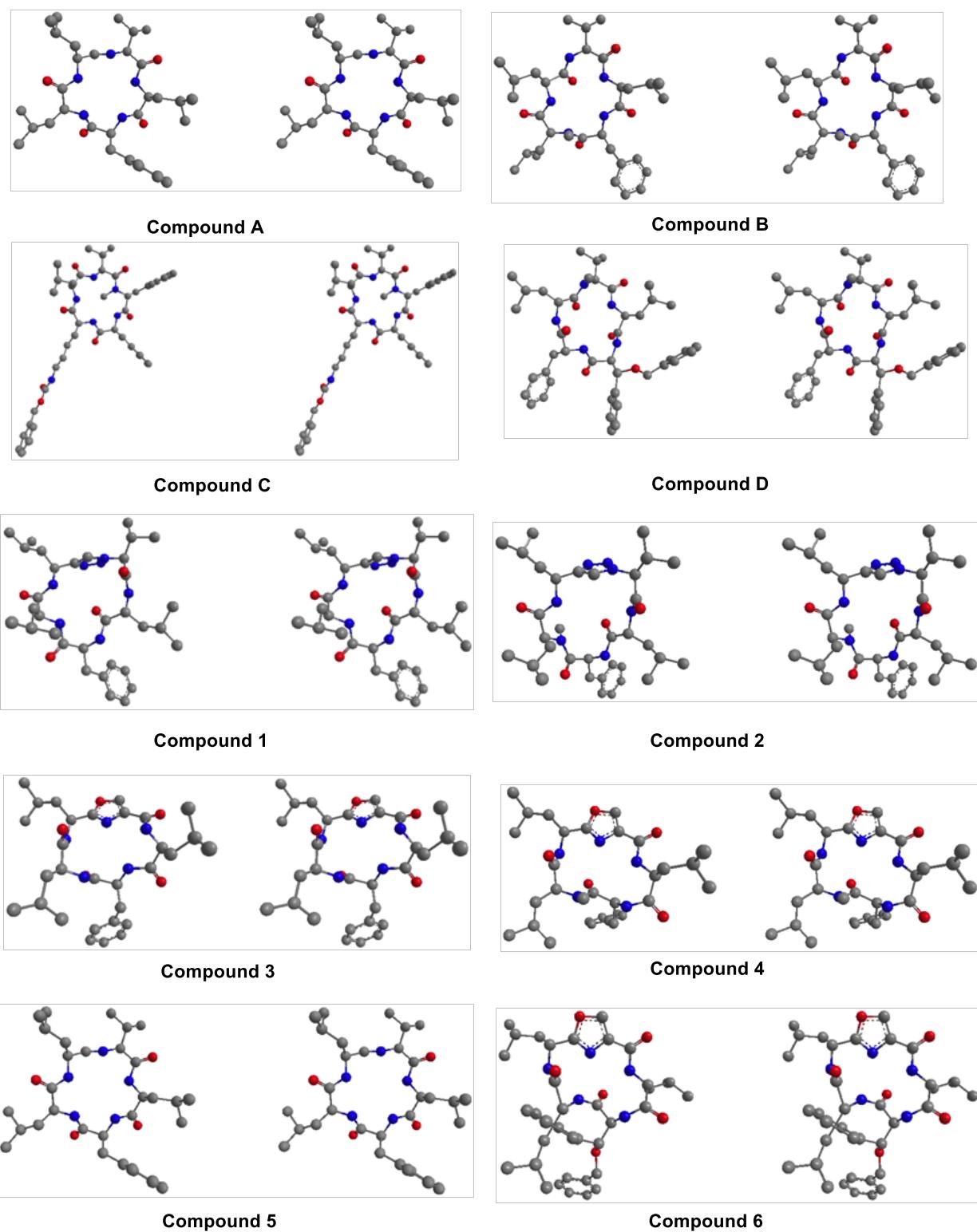
**Supplementary Material**

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**Table of cytotoxicity of additional compounds**

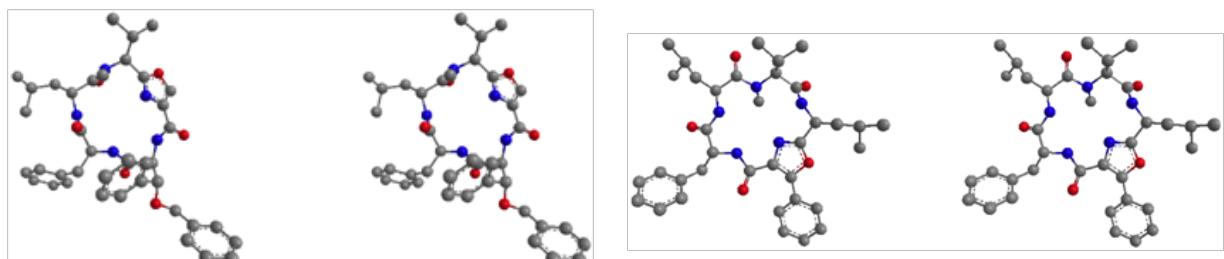
<b>Compound</b>		<b>PGI at 25μM</b>	<b>Error</b>
<b>B</b>		86%	±0.3%
<b>C</b>		78.8%	±1.4%
<b>D</b>		47.5%	±5.1%
<b>2</b>	B-Tri-III	60.9%	±3.7%
<b>4</b>	B-Ox-III	23.4%	±6.0%
<b>5</b>	C-Ox-III	42.2%	±0.8%
<b>6</b>	D-Ox-III	2.3%	±1.3%
<b>7</b>	D-Ox-II	4.6%	±2.5%
<b>8</b>	D-Ox-I	2.9%	±1.6%
<b>10</b>	B-Th-III	14.0%	±5.0%
<b>11</b>	C-Th-III	6.1%	±1.9%
<b>12</b>	A-PP-II	7.7%	±3.3%

**Molecular models of all compounds in stereo**

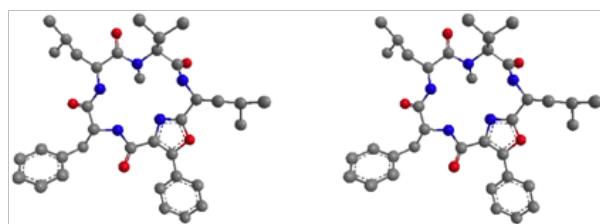


*Supplementary Material*

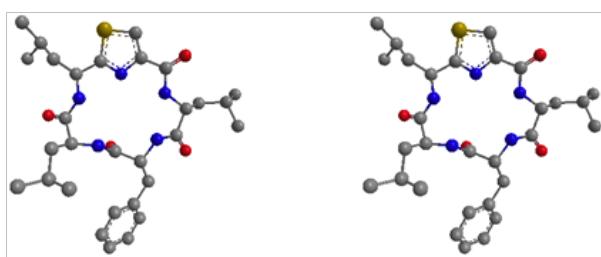
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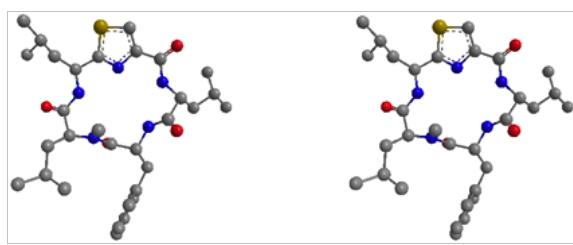
Compound 7



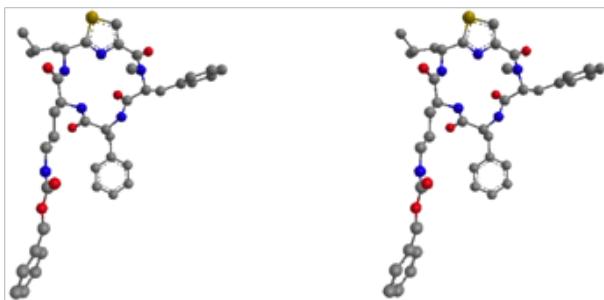
Compound 8



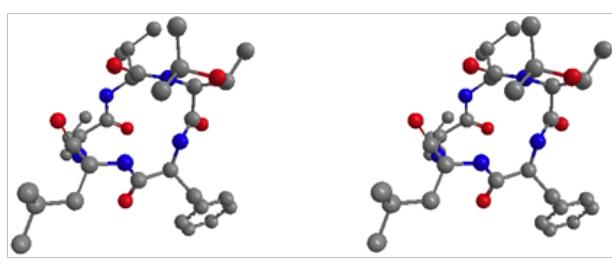
Compound 9



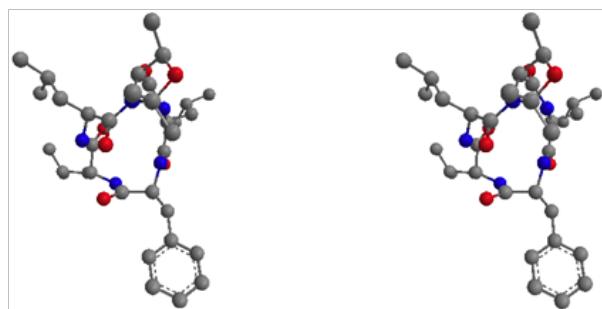
Compound 10



Compound 11



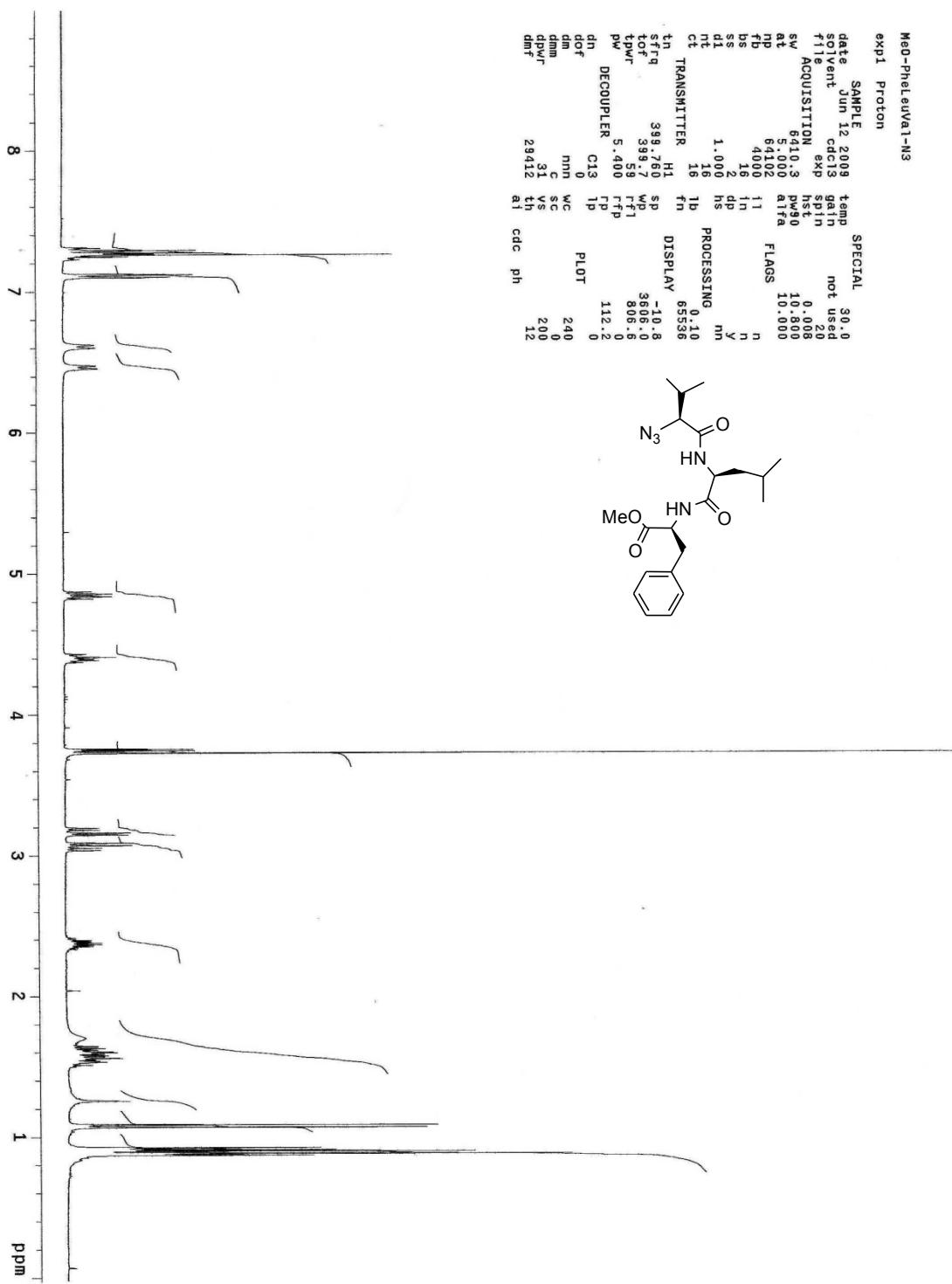
Compound 12



Compound 13

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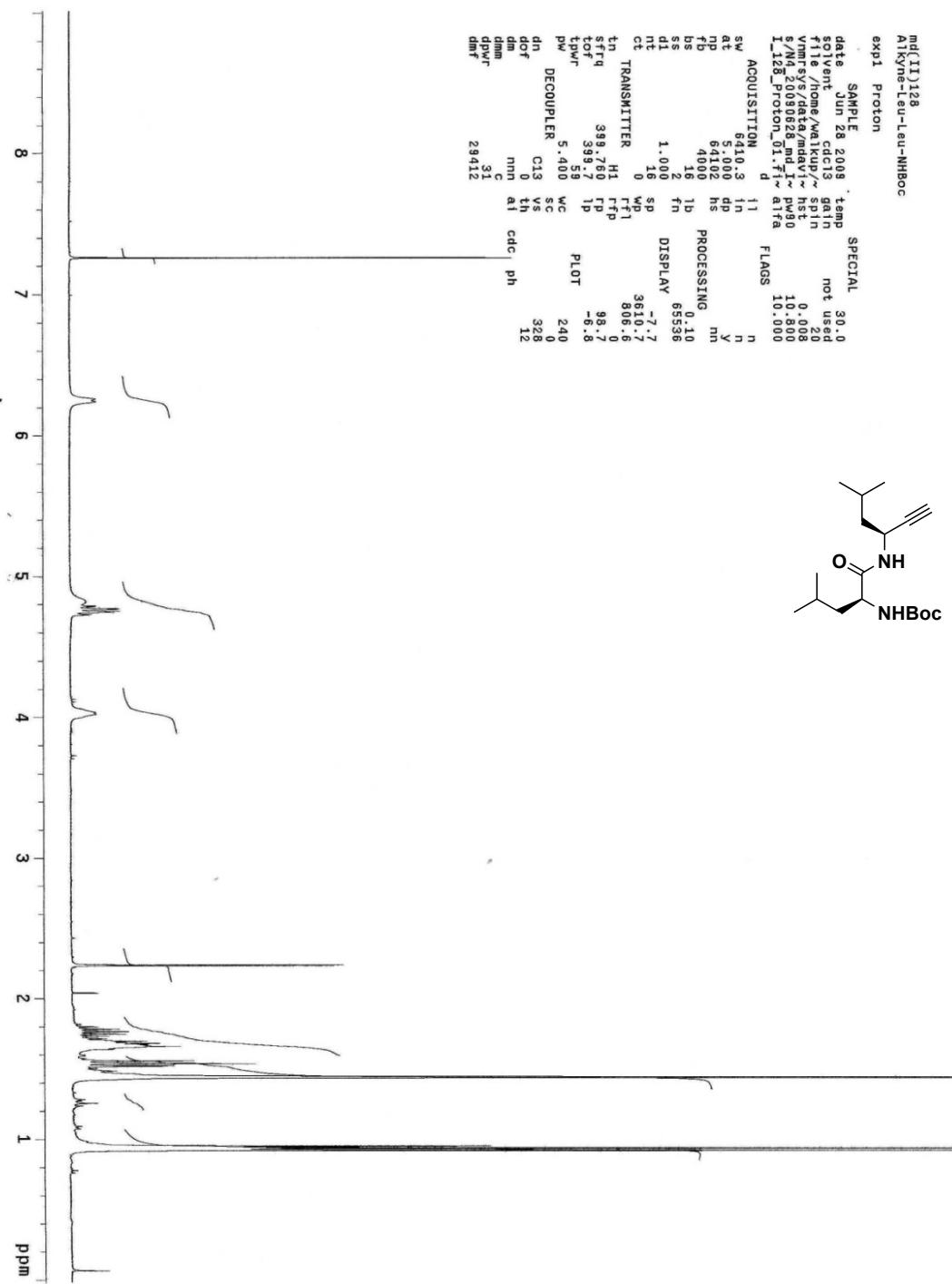


Compound 1: A-Tri-III

**NMR Tripeptide MeO-Phe-Leu-Val-N<sub>3</sub>(22)**

## **Supplementary Material**

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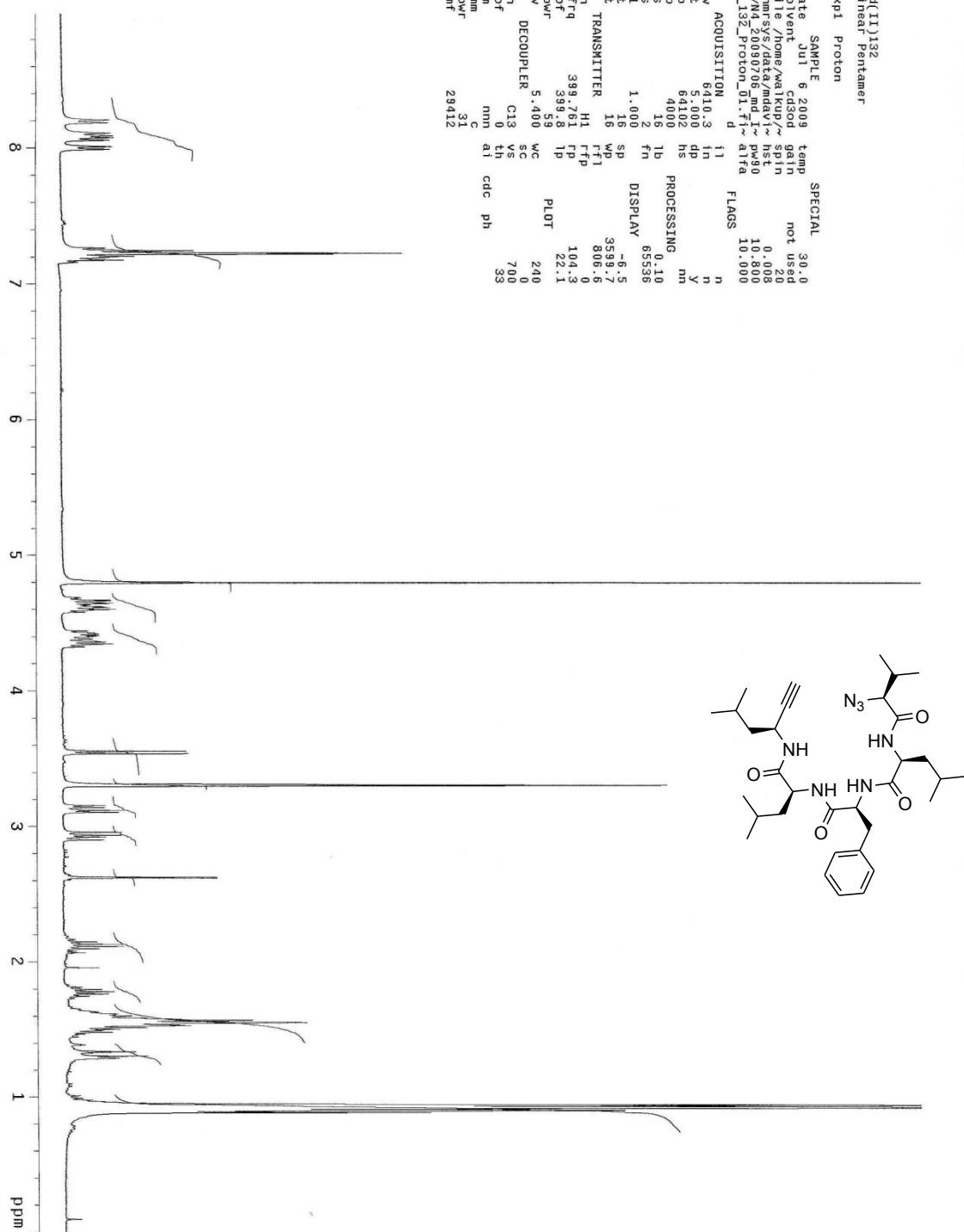


## Compound 1: A-Tri-III

## NMR Dipeptide Alkyne-Leu-Leu-NHBoc

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Compound 1: A-Tri-III

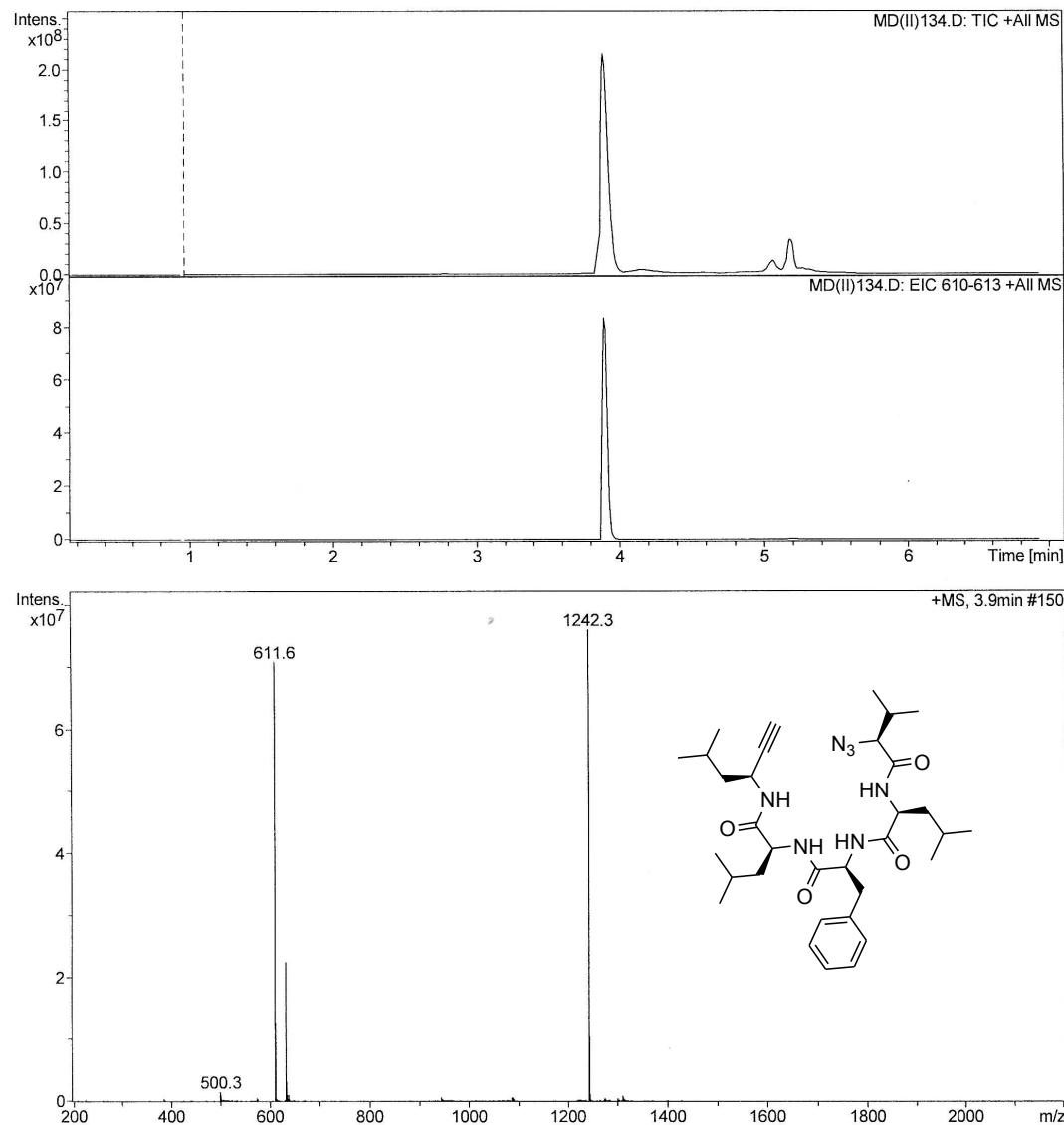
NMR Pentapeptide Alkyne-Leu-Leu-Phe-Leu-Val-N<sub>3</sub> (23)

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**Display Report - All Windows Selected Analysis**

**Analysis Name:** MD(II)134.D    **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M    **Operator:** sdsu    **Print Date:** 7/15/2009 4:50:54 PM  
**Sample Name:** md(II)134    **Acq. Date:** 7/3/2009 12:29:06 PM  
**Analysis Info:**

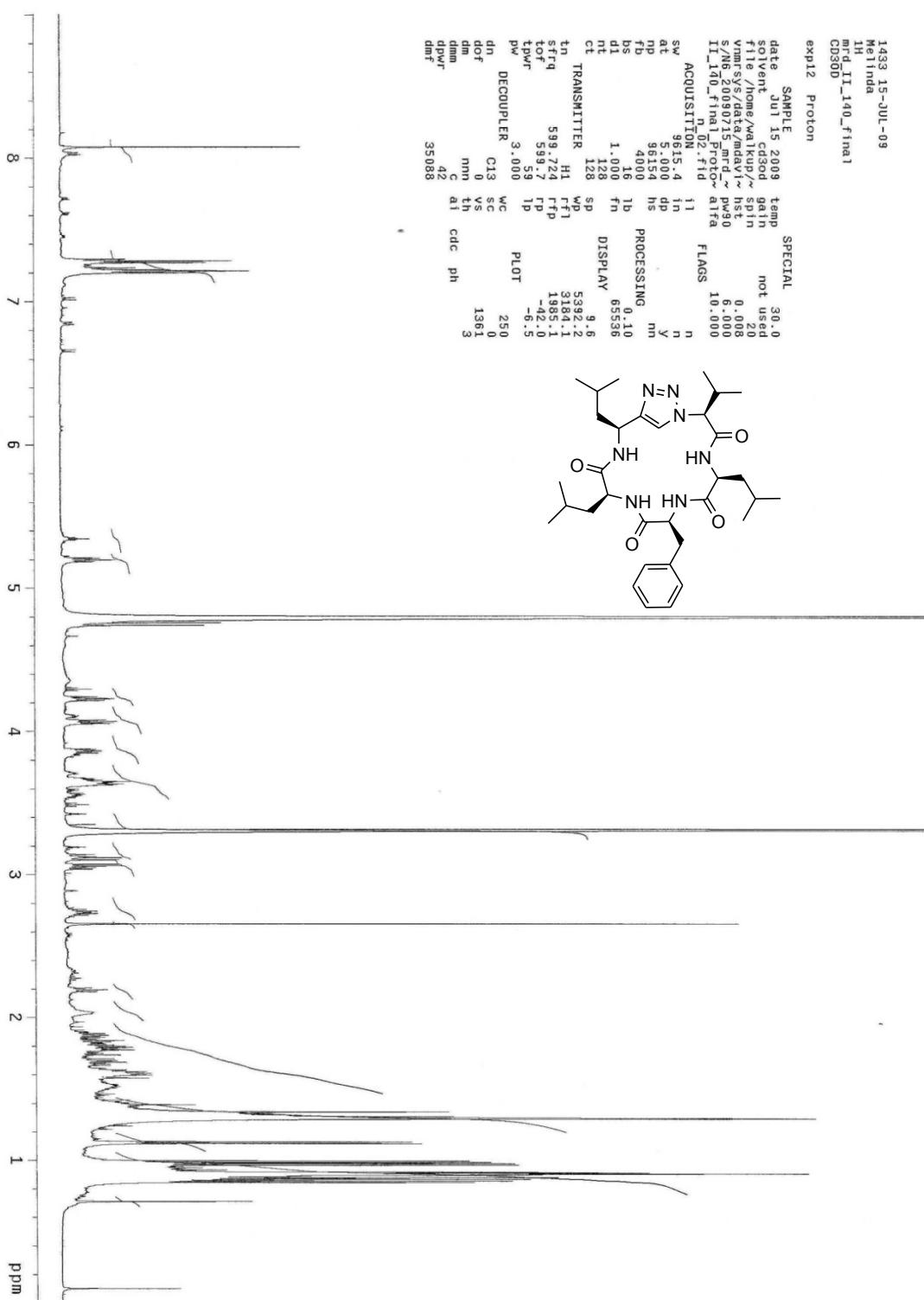


Compound 1: A-Tri-III

**LCMS Pentapeptide Alkyne-Leu-Leu-Phe-Leu-Val-N<sub>3</sub> (23) (MW = 611)**

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### Compound 1: A-Tri-III

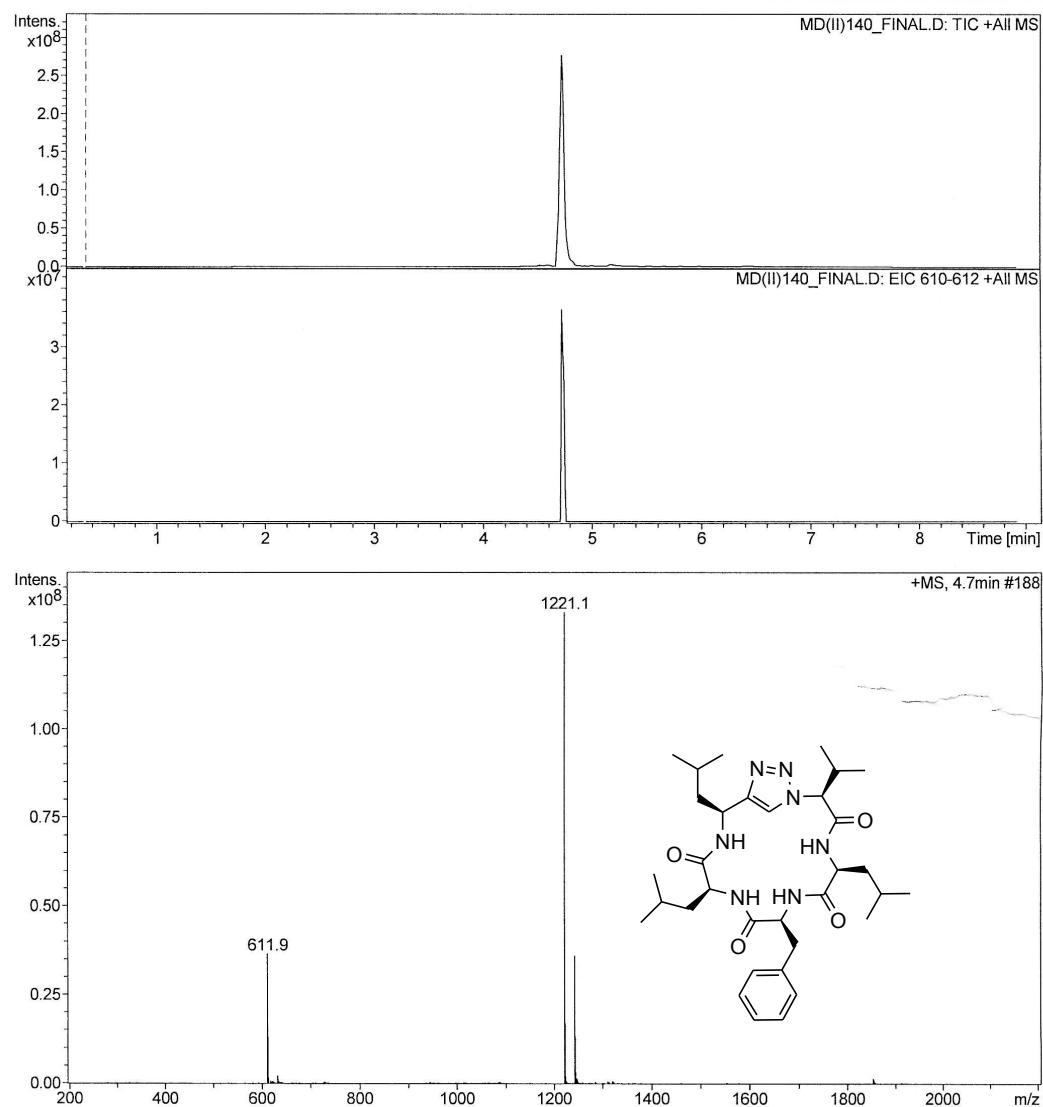
## NMR Macrocyclic Phe-Leu-Val-Triazole-Leu-Leu (1)

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**Display Report - All Windows Selected Analysis**

**Analysis Name:** MD(II)140\_FINAL **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA\_LDNQ.M **Operator:** sdsu **Print Date:** 7/14/2009 10:24:51 PM  
**Sample Name:** md(II)140\_final **Acq. Date:** 7/14/2009 10:09:44 PM  
**Analysis Info:**



Compound 1: A-Tri-III

**LCMS Macrocyclic Phe-Leu-Val-Triazole-Leu-Leu (1) (MW = 610)**

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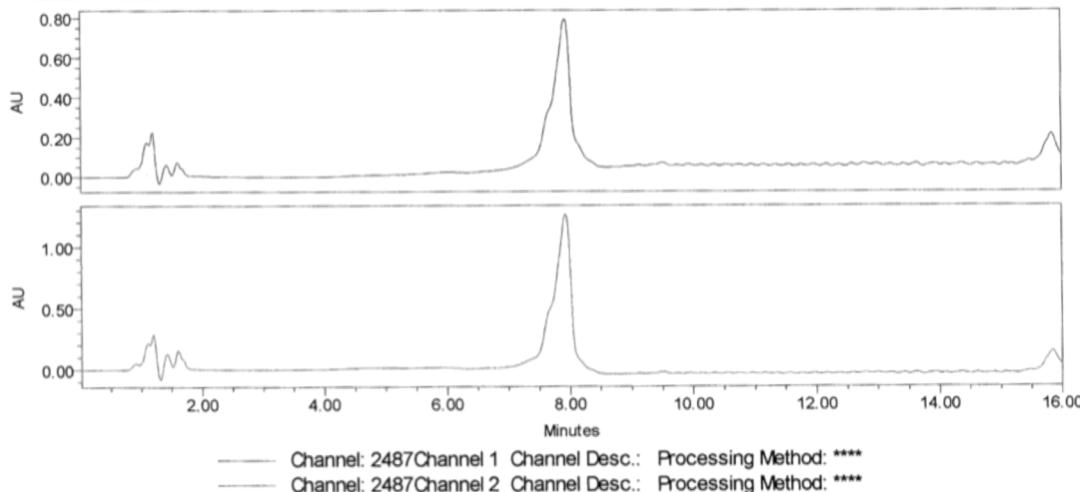
SDSU

Project Name: Defaults  
Reported by User: System

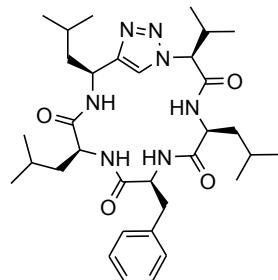
Breeze

**SAMPLE INFORMATION**

Sample Name:	md(l)140_final_2	Acquired By:	System
Sample Type:	Unknown	Sample Set Name:	
Vial:	1	Acq. Method:	primary_sanA_ss_ACN
Injection #:	30	Date Acquired:	7/14/2009 10:32:58 PM
Run Time:	16.00 Minutes	Injection Volume:	30.00 ul



	Peak Name	RT (min)	Area ( $\mu\text{V}^*\text{sec}$ )	% Area	Height ( $\mu\text{V}$ )	Amount	Units
1	****	****	****	****	****	****	****
2	****	****	****	****	****	****	****



Report Method: Injection Summary Report

Printed 10:49:12 PM 7/14/2009

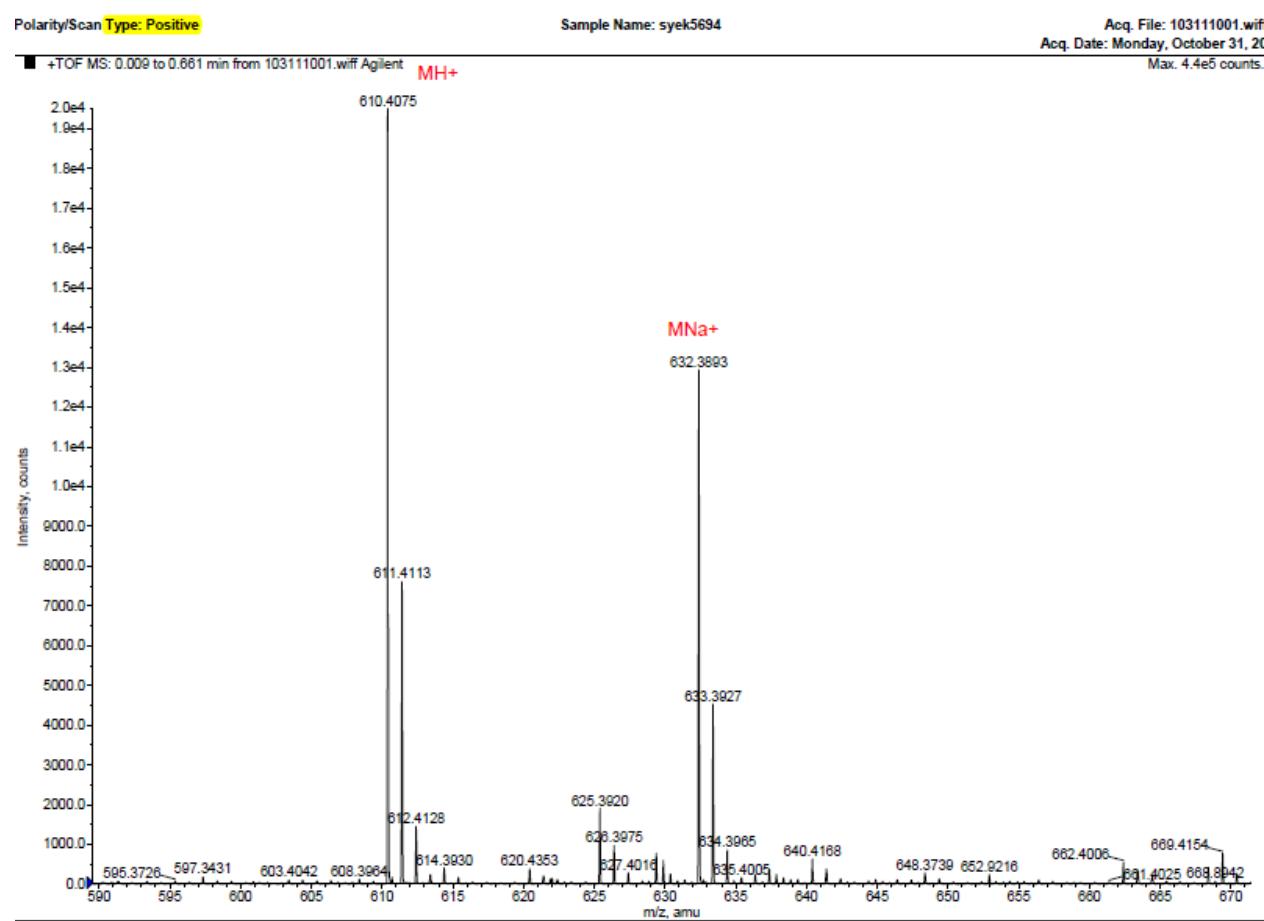
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Compound 1: A-Tri-III

**HPLC Macrocyclic Phe-Leu-Val-Triazole-Leu-Leu (1)**

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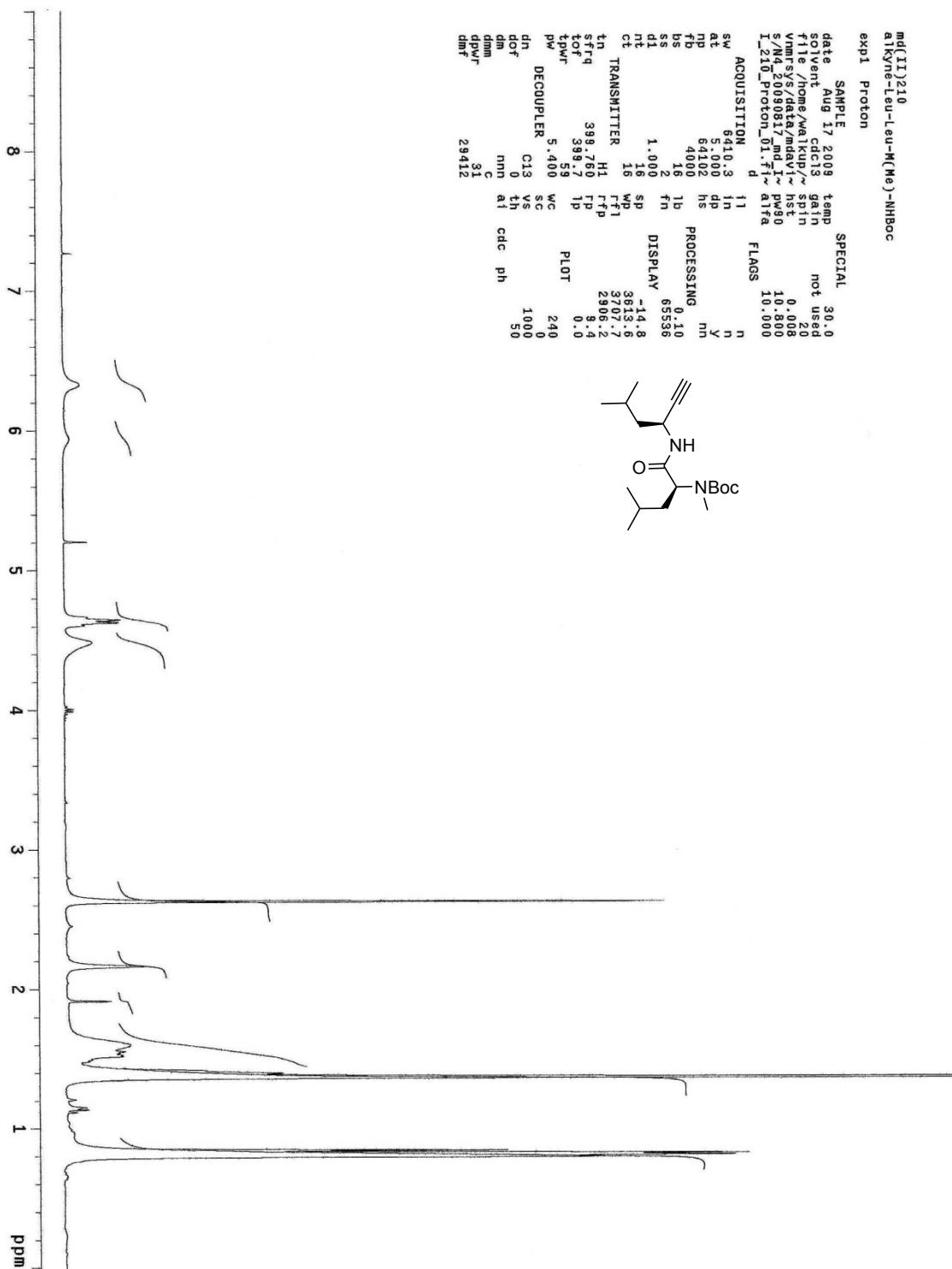


Compound 1: A-Tri-III

**HRMS Macrocyclic Phe-Leu-Val-Triazole-Leu-Leu (1) (MW = 610.4075)**

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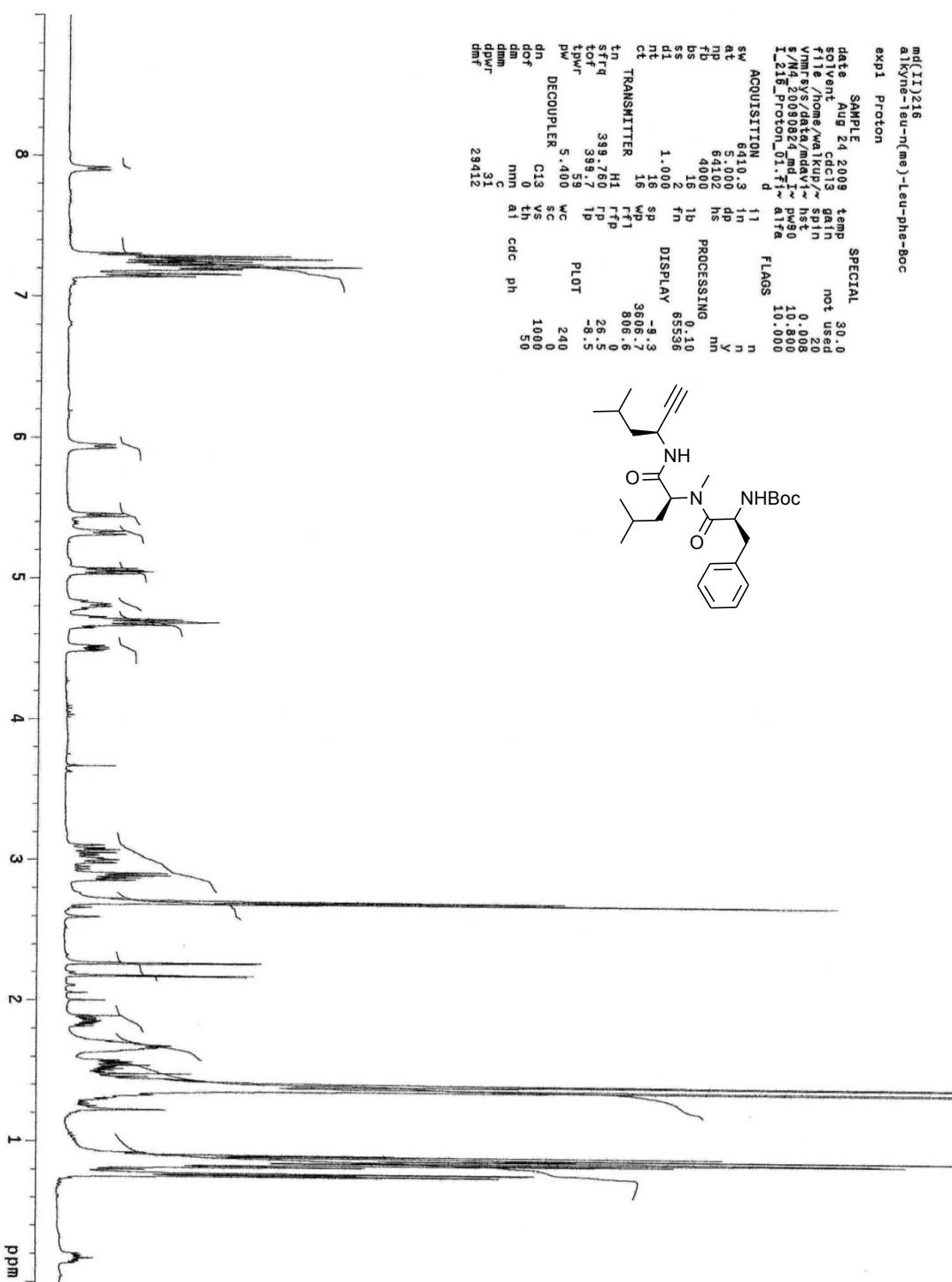


Compound 2: B-Tri-III

NMR Dipeptide Alkyne-Leu-Leu-N(Me)Boc

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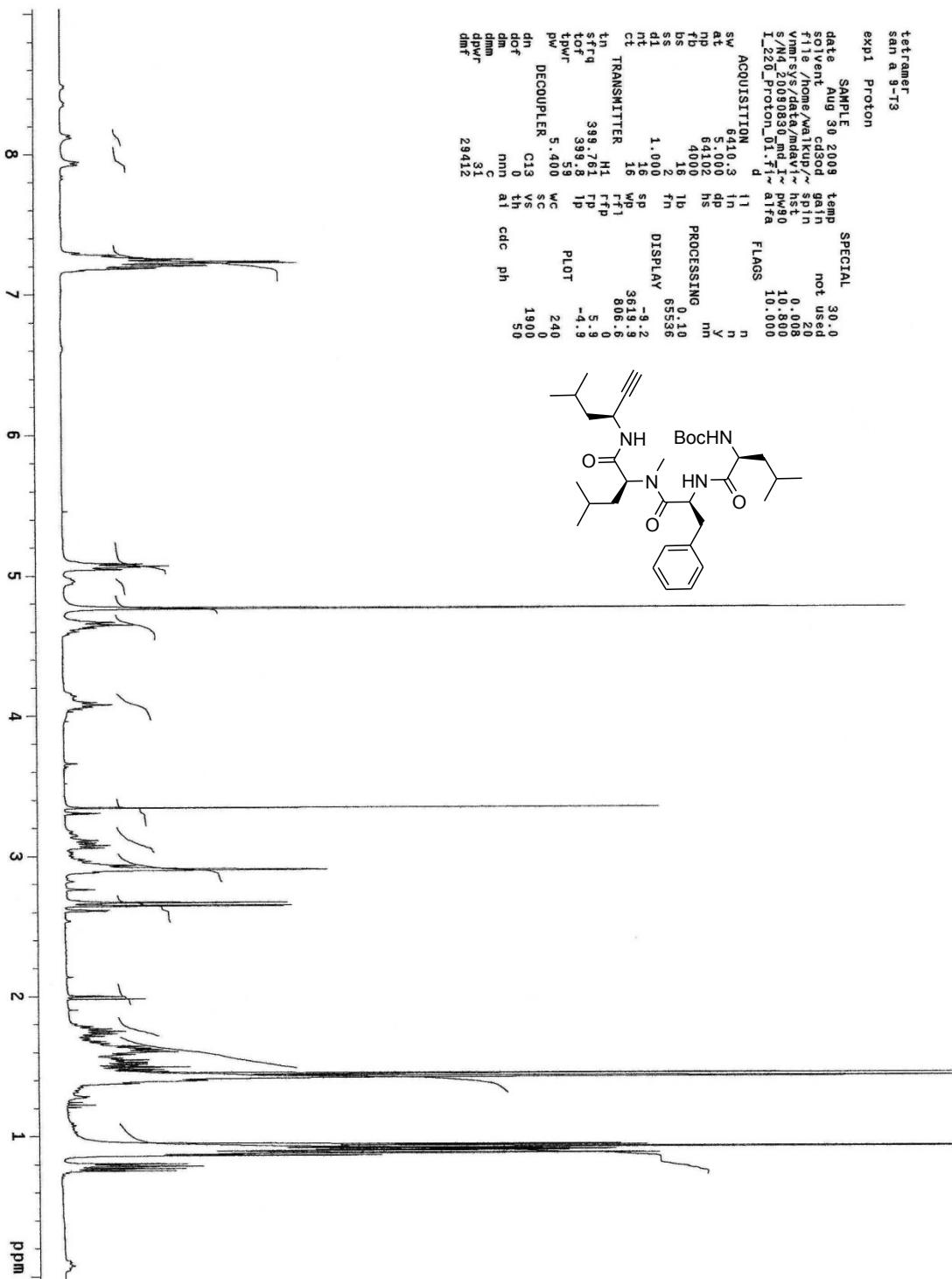


Compound 2: B-Tri-III

**NMR Tripeptide Alkyne-Leu-Leu-N(Me)-Phe-NHBoc**

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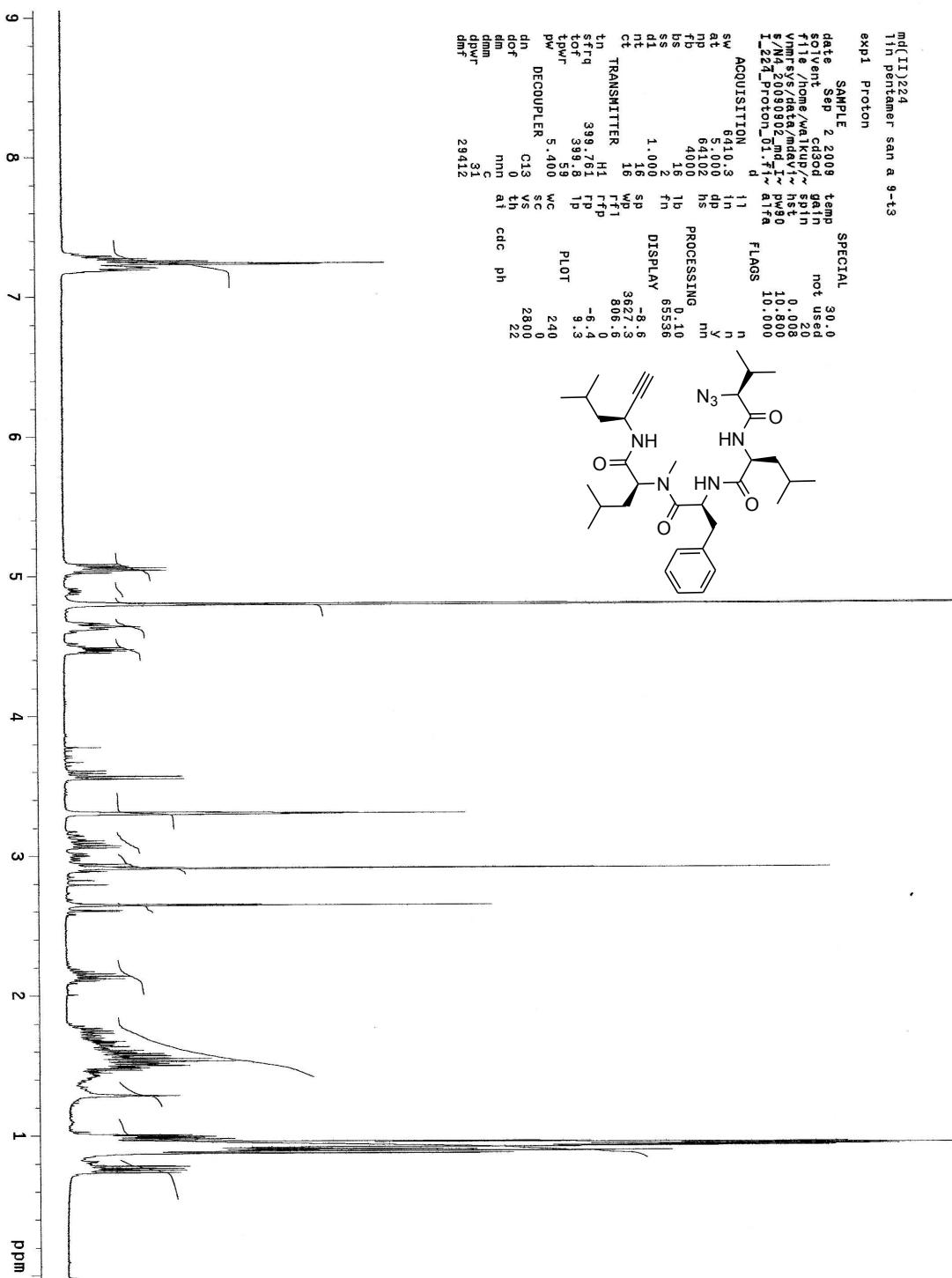


Compound 2: B-Tri-III

NMR Tetrapeptide Alkyne-Leu-Leu-N(Me)-Phe-Leu-NHBoc

**Supplementary Material**

Davis et al.



Compound 2: B-Tri-III

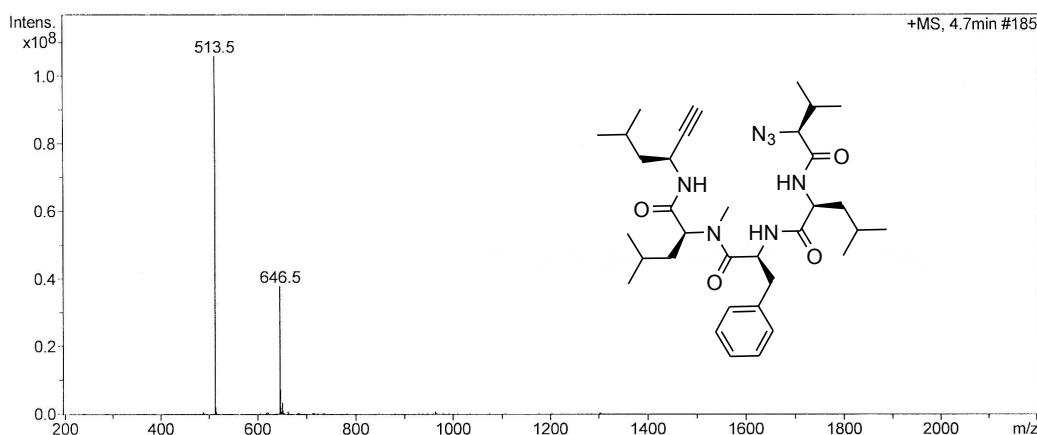
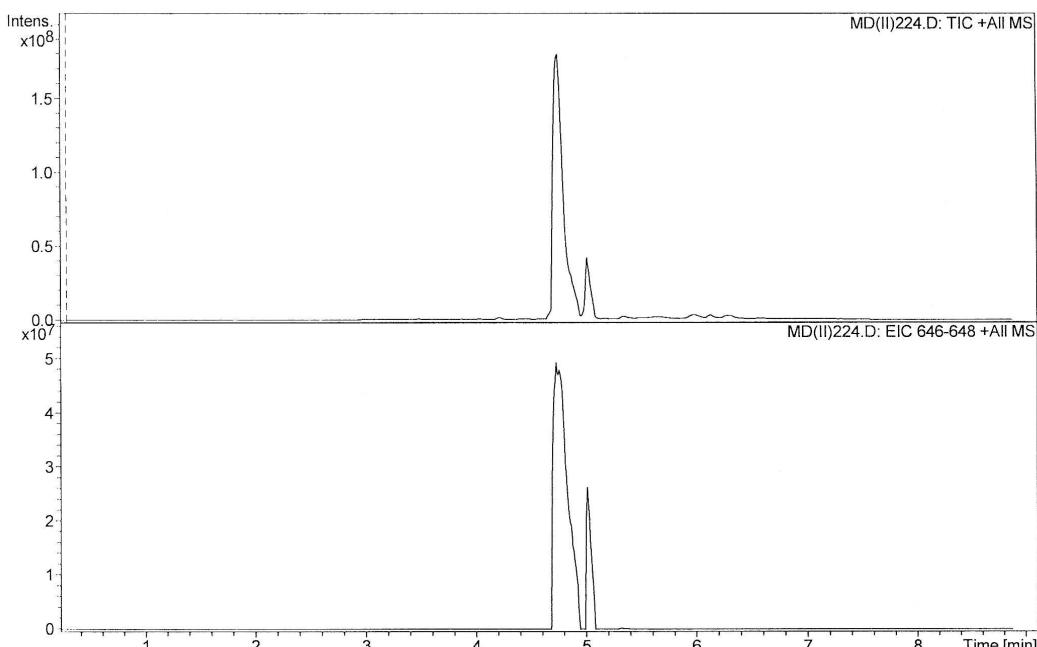
NMR Pentapeptide Alkyne-Leu-Leu-N(Me)-Phe-Leu-Val-N<sub>3</sub> (33)

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** MD(II)224.D    **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA\_LONG.M    **Operator:** sdsu    **Print Date:** 9/2/2009 8:59:53 PM  
**Sample Name:** md(II)224    **Acq. Date:** 9/2/2009 8:50:32 PM  
**Analysis Info:**

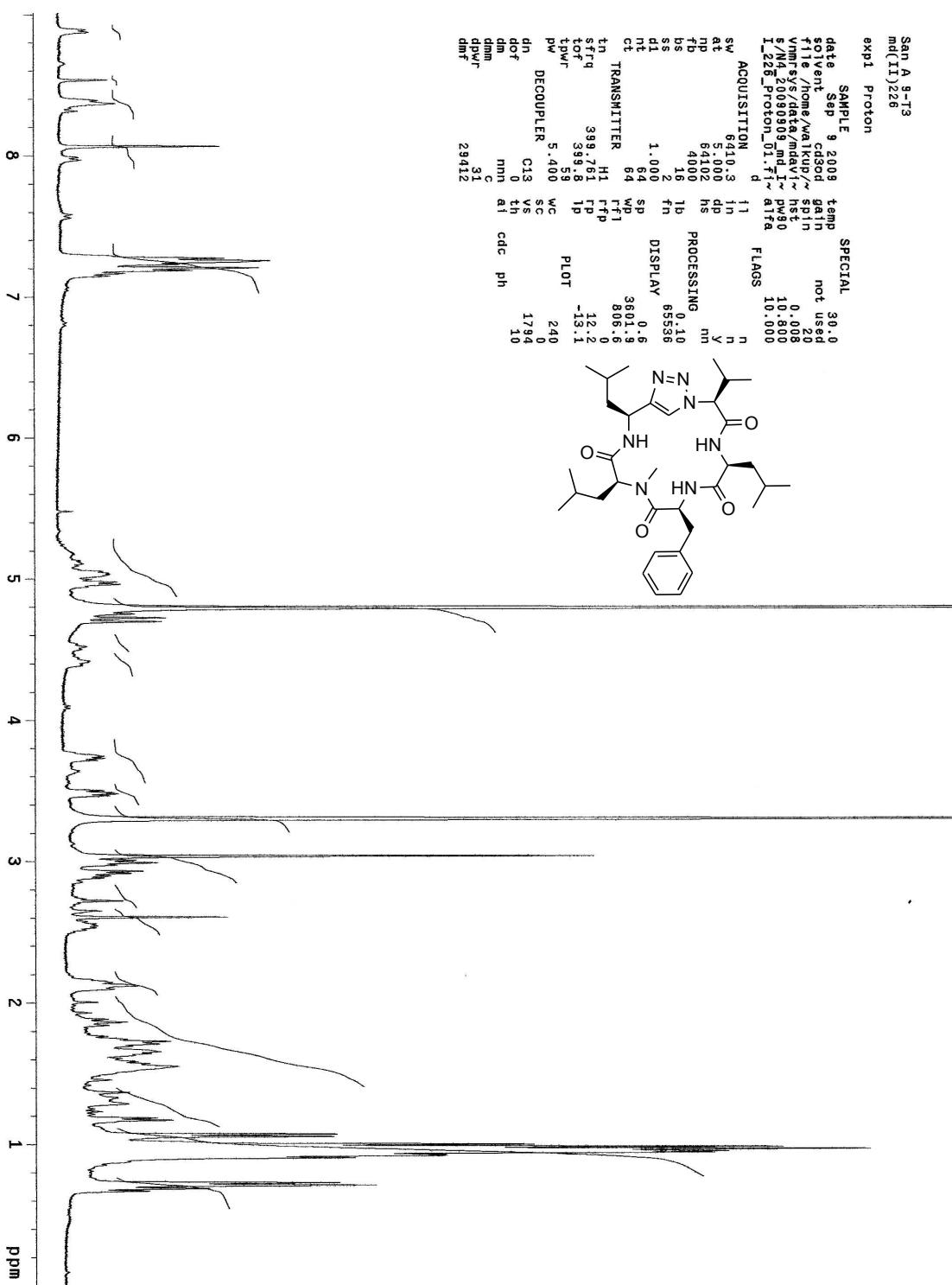


Compound 2: B-Tri-III

**LCMS Pentapeptide Alkyne-Leu-Leu-N(Me)-Phe-Leu-Val-N<sub>3</sub> (33) (MW = 624)**

**Supplementary Material**

Davis et al.



Compound 2: B-Tri-III

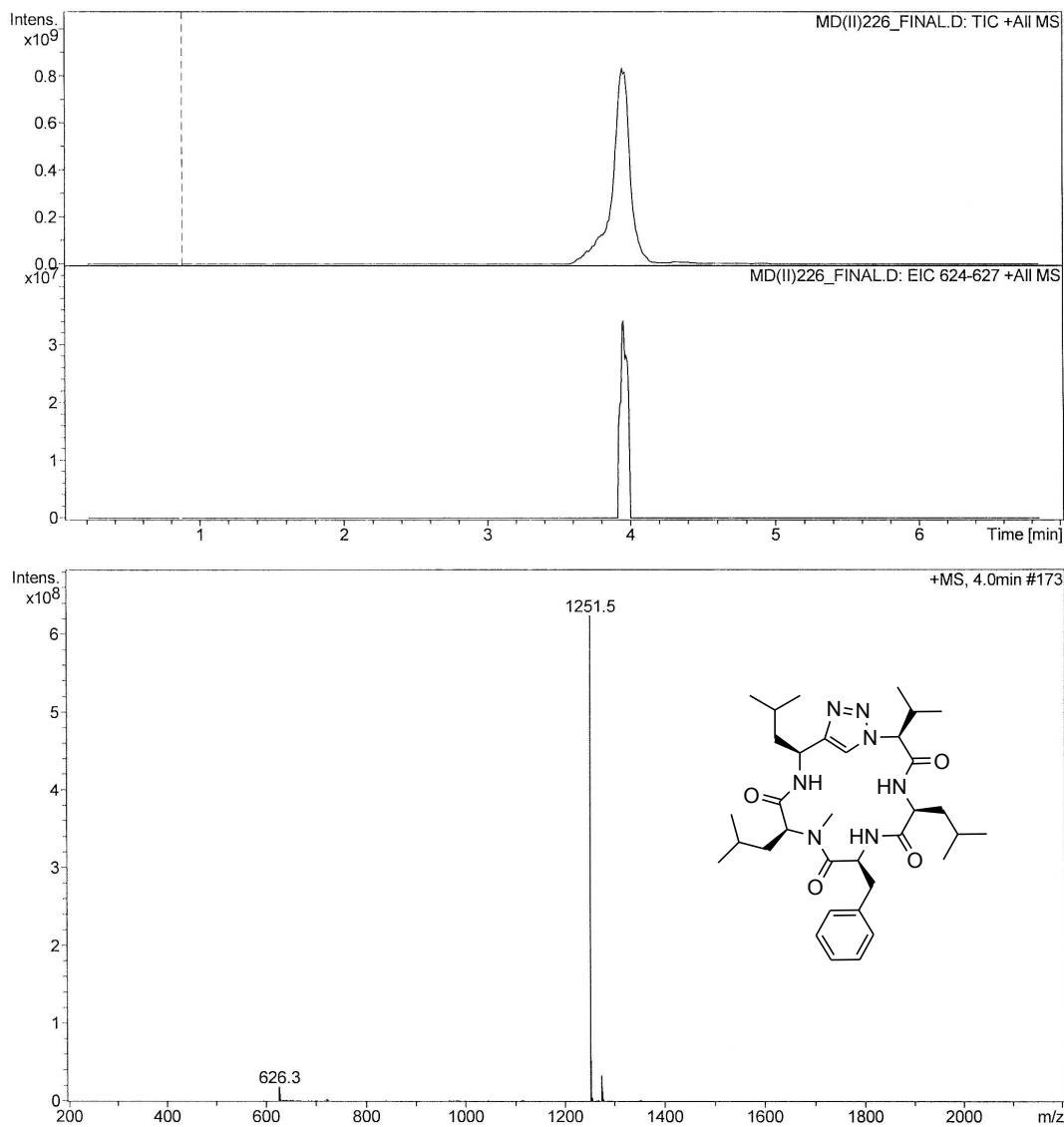
NMR Macrocyclic Phe-Leu-Val-Triazole-Leu-Leu-N(Me) (2)

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** MD(II)226\_FINAL **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M L.D **Operator:** sdsu **Print Date:** 9/9/2009 9:04:20 PM  
**Sample Name:** md(II)226\_final **Acq. Date:** 9/9/2009 8:56:29 PM  
**Analysis Info:**



Compound 2: B-Tri-III

**LCMS Macrocyclic Phe-Leu-Val-Triazole-Leu-Leu-N(Me) (2) (MW = 624)**

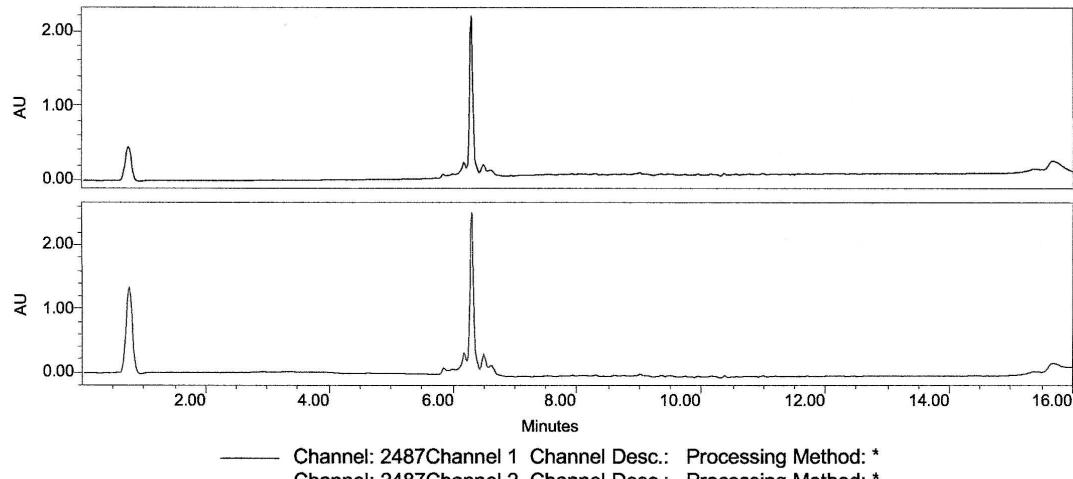
**Supplementary Material****Davis et al.**

SDSU

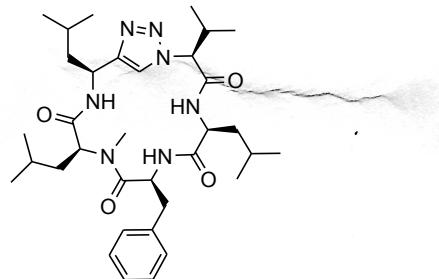
Project Name: Defaults  
Reported by User: System

1/Breeze

SAMPLE INFORMATION	
Sample Name:	md(lI)226_f50
Sample Type:	Unknown
Vial:	1
Injection #:	133
Run Time:	16.00 Minutes
Acquired By:	System
Sample Set Name:	
Acq. Method:	primary_sanA_ss_ACN
Date Acquired:	9/7/2009 10:43:40 PM
Injection Volume:	50.00 ul



	Peak Name	RT (min)	Area (V*sec)	% Area	Height (V)	Amount	Units
1	****	****	****	****	****	****	****
2	****	****	****	****	****	****	****



Report Method: Injection Summary Report Printed 10:59:54 PM 9/7/2009

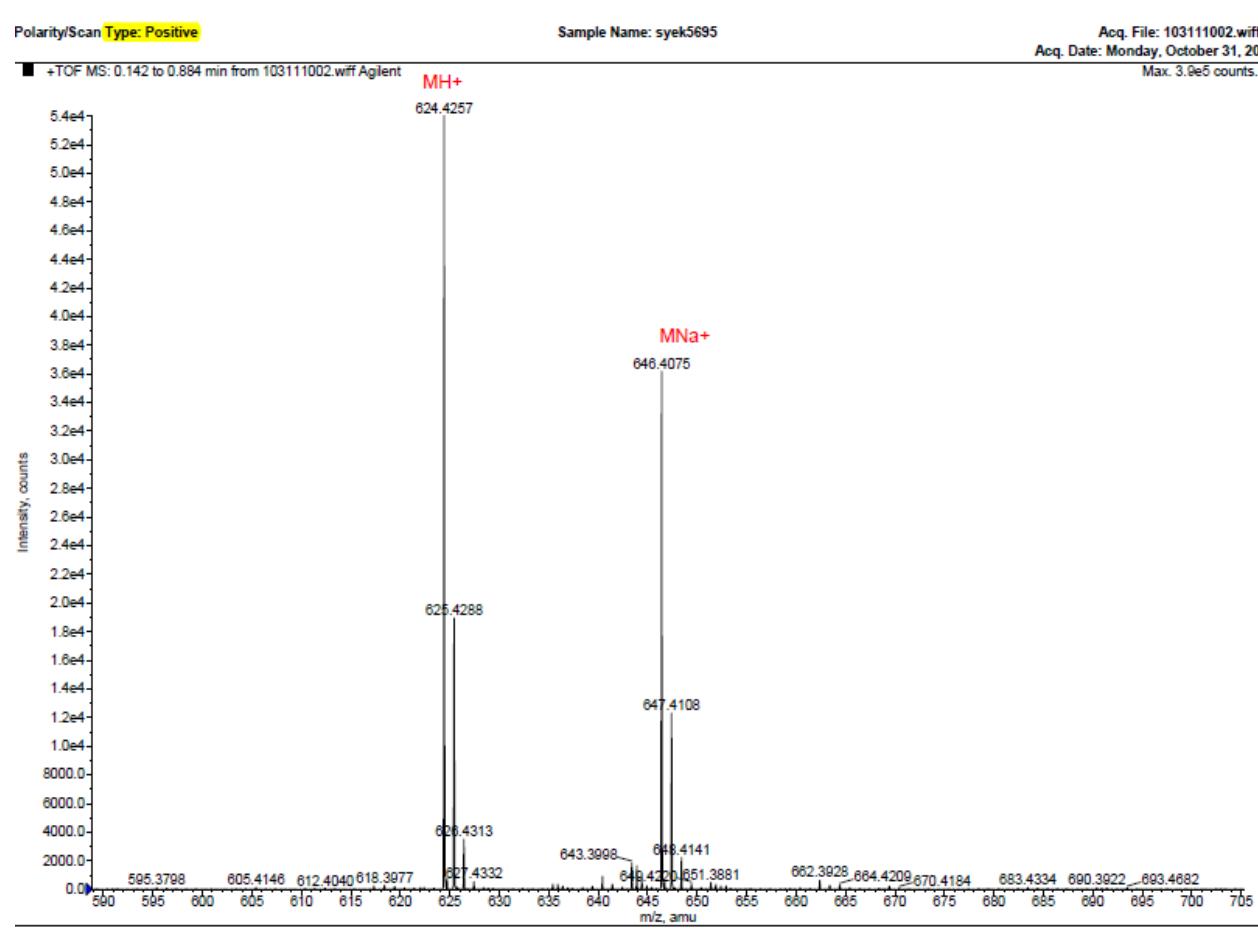
Page: 1 of 1

Compound 2: B-Tri-III

**HPLC Macrocycle Phe-Leu-Val-Triazole-Leu-Leu-N(Me) (2)**

**Supplementary Material**

**Davis et al.**

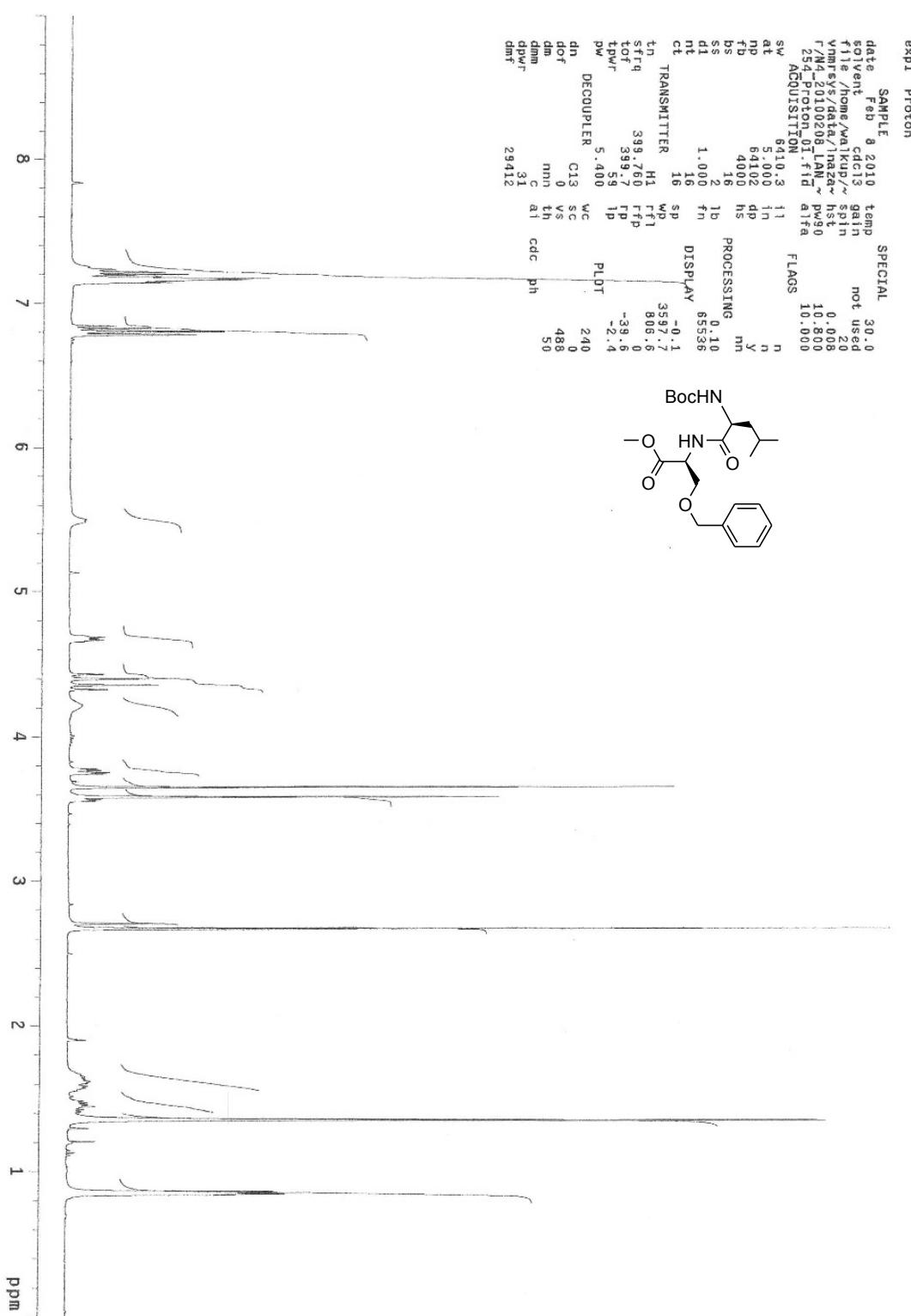


Compound 2: B-Tri-III

**HRMS Macrocycle Phe-Leu-Val-Triazole-Leu-Leu-N(Me) (2)** (MW = 624.4257)

## Supplementary Material

Davis et al.

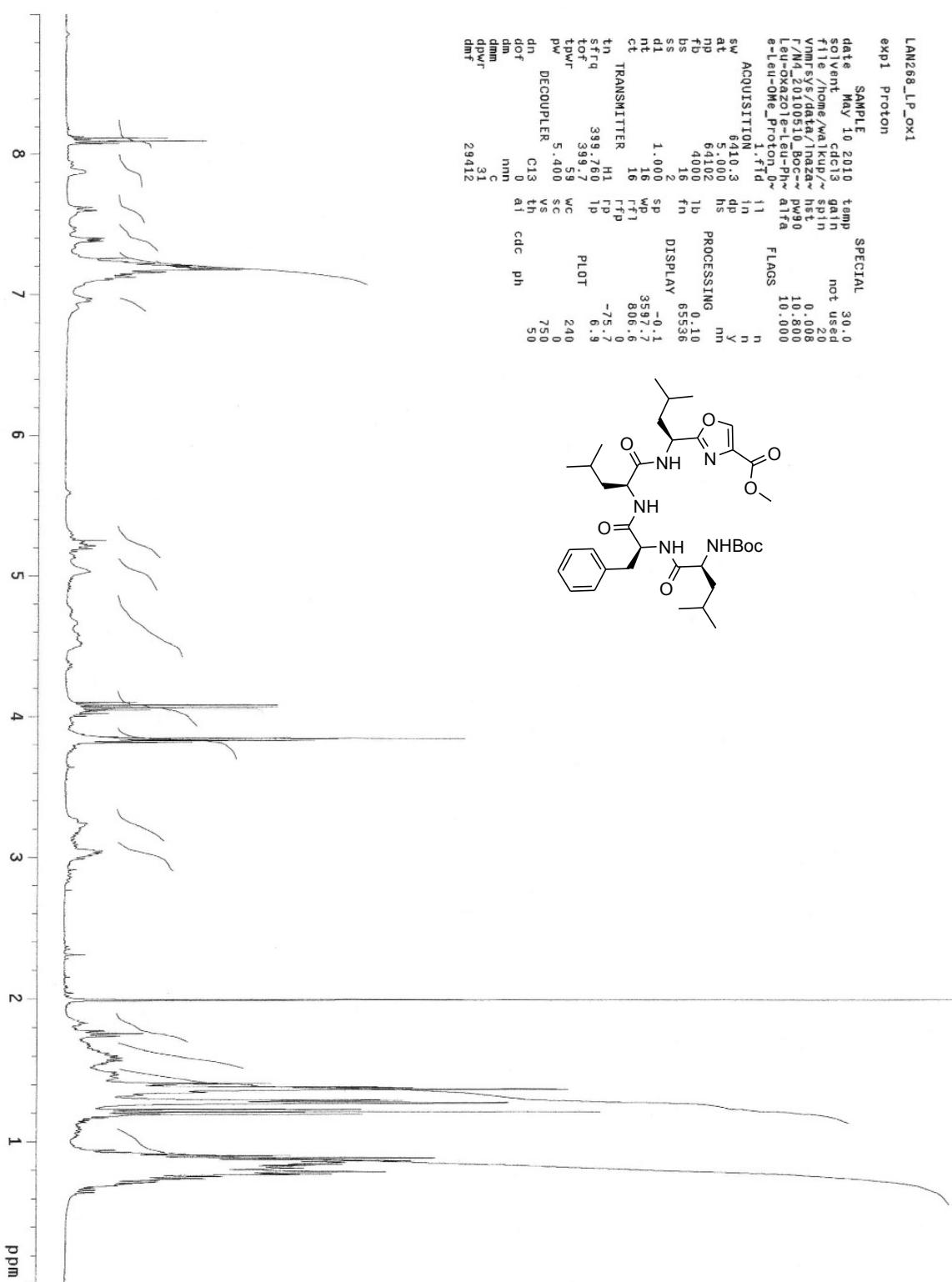


Compound 3: A-Ox-III

**NMR Dipeptide MeO-Ser(Bzl)-Leu-NHBoc**

## **Supplementary Material**

Davis et al.



### Compound 3: A-Ox-III

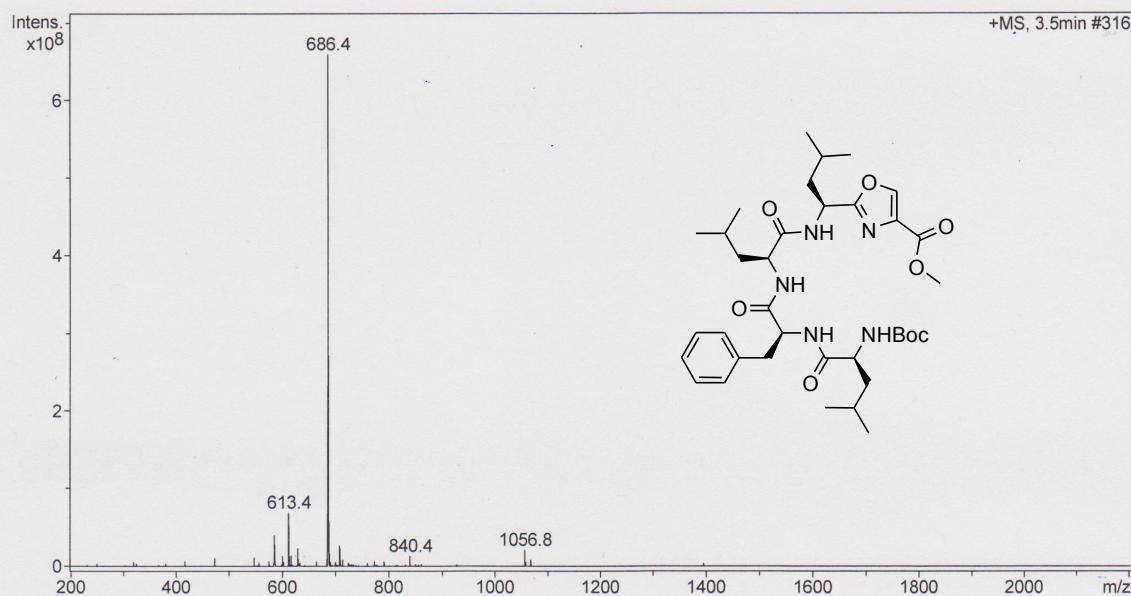
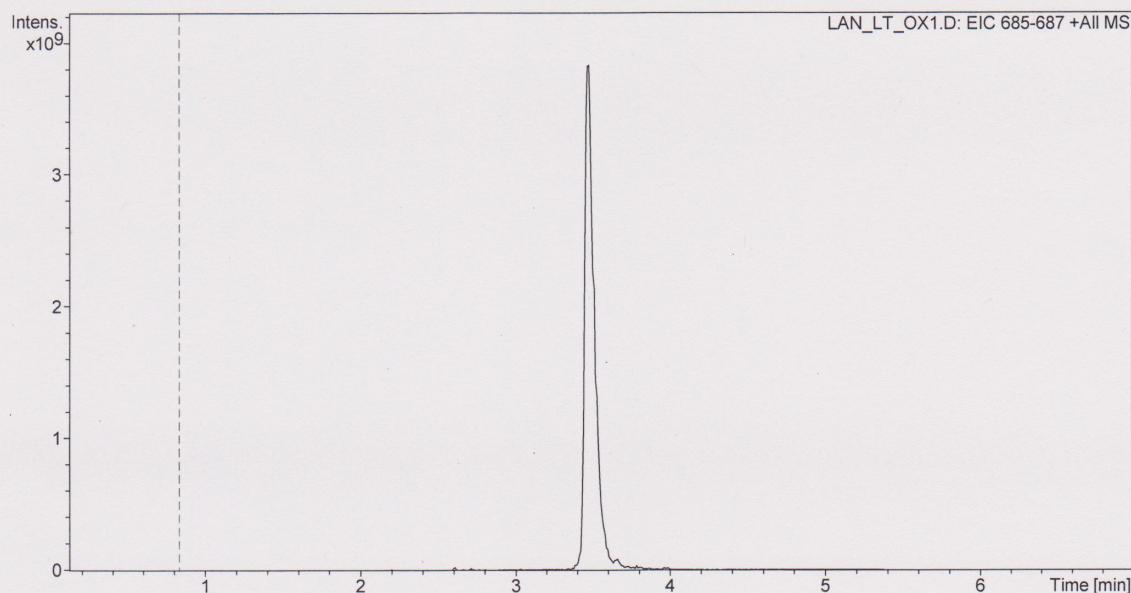
## NMR Pentapeptide MeO-Oxazole-Leu-Leu-Phe-Leu-NH<sub>2</sub> (43)

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** LAN\_LT\_OX1.D    **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M    **Operator:** sdsu    **Print Date:** 6/8/2011 9:35:07 AM  
**Sample Name:** LAN\_LT\_Ox1    **Acq. Date:** 5/11/2010 4:11:04 AM  
**Analysis Info:**



MSD Trap Report v 4 (Let-Opt2)

Page 1 of 1

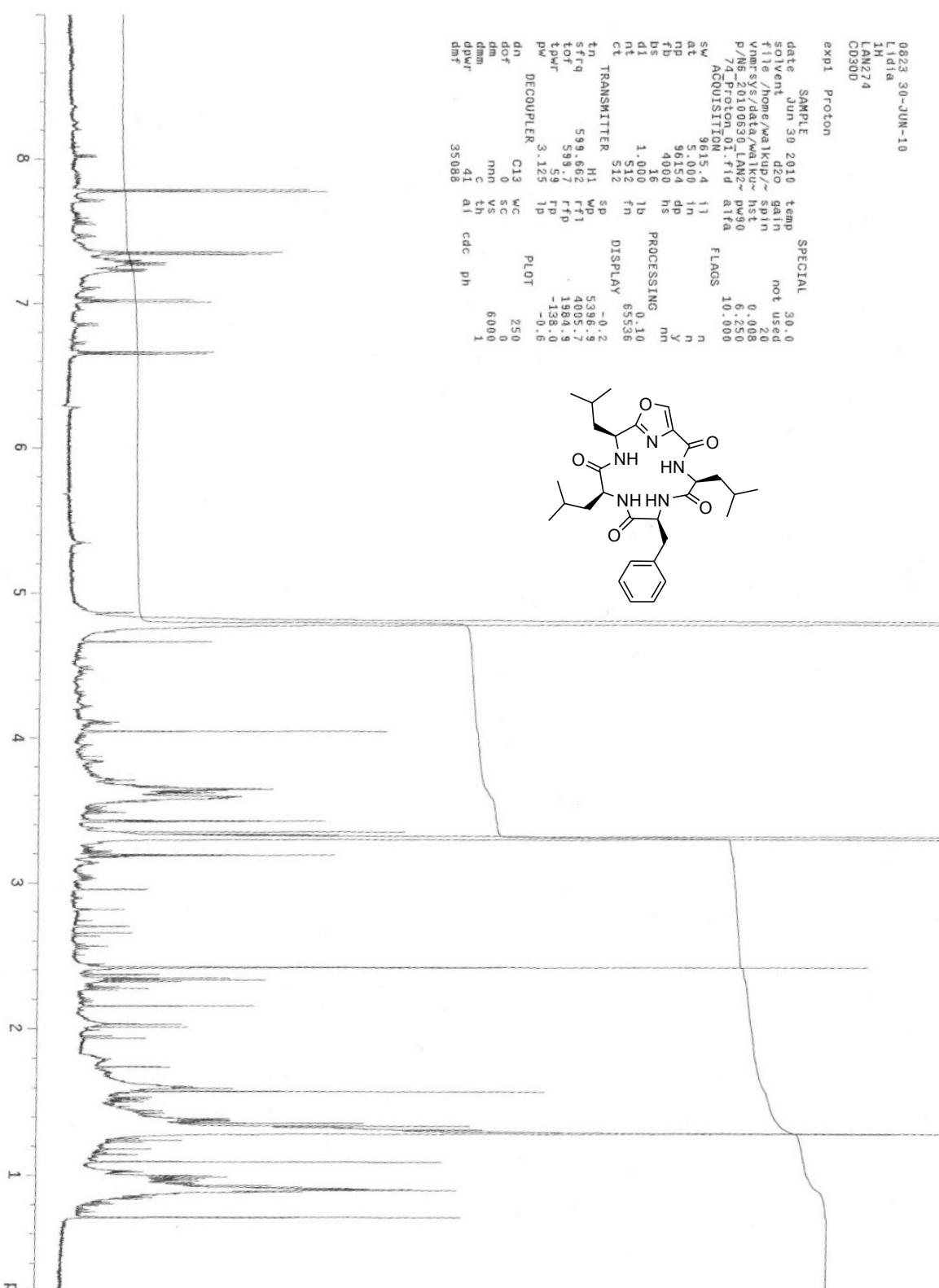
Agilent Technologies

Compound 3: A-Ox-III

**LCMS Linear pentapeptide MeO-Oxazole-Leu-Leu-Phe-Leu-NHBoc (43) (MW = 685.85)**

**Supplementary Material**

Davis et al.



Compound 3: A-Ox-III

**NMR Macrocyclic Phe-Leu-Oxazole-Leu-Leu (3)**

**Supplementary Material**

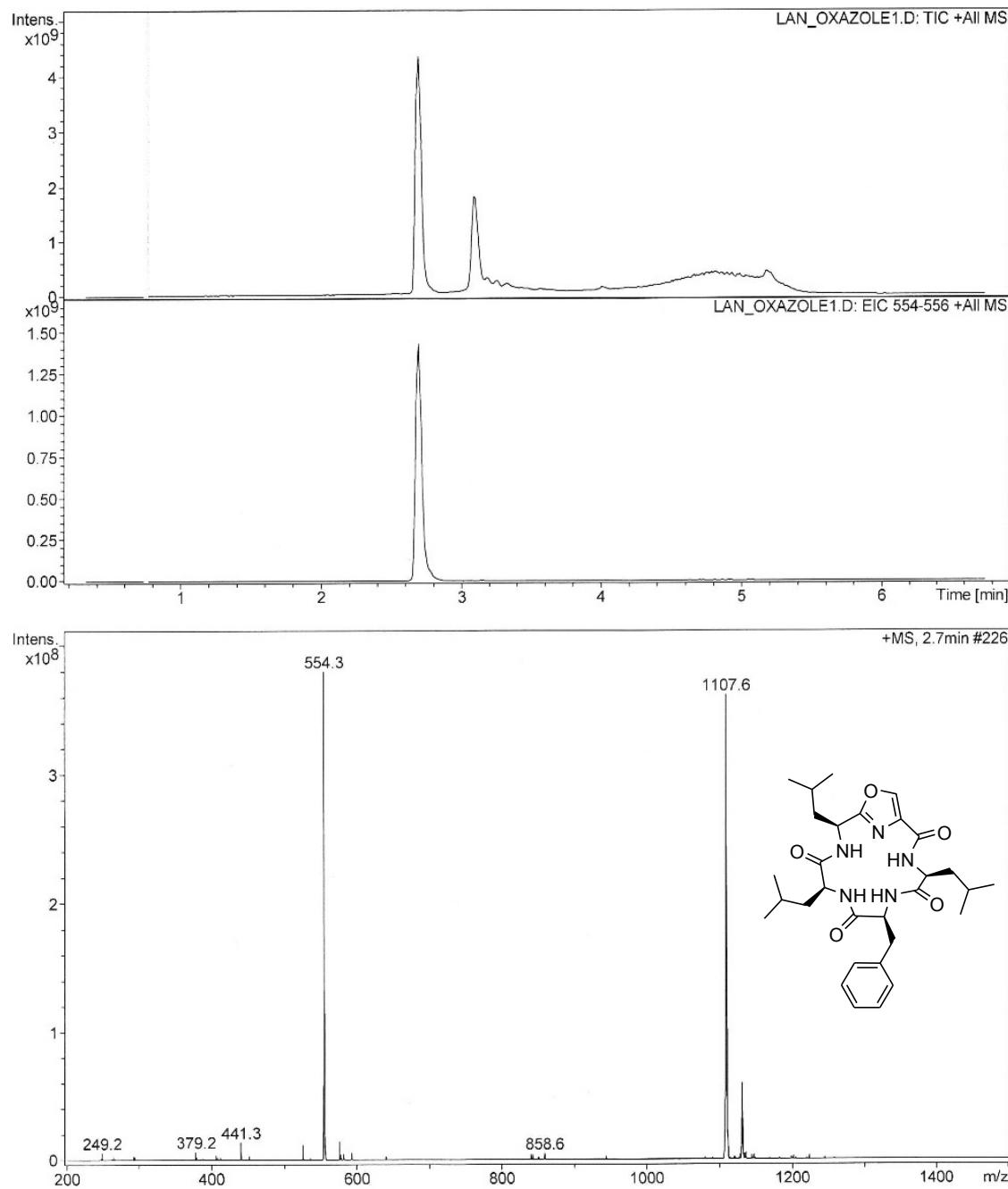
**Davis et al.**

**Display Report - All Windows All Analyses**

**Operator:** sdsu

**Instrument:** Agilent 6330 Ion Trap

**Print Date:** 6/28/2010 3:08:38 PM



Compound 3: A-Ox-III

**LCMS Macrocyclic Phe-Leu-Oxazole-Leu-Leu (3) (MW = 553.69)**

**Supplementary Material****Davis et al.**

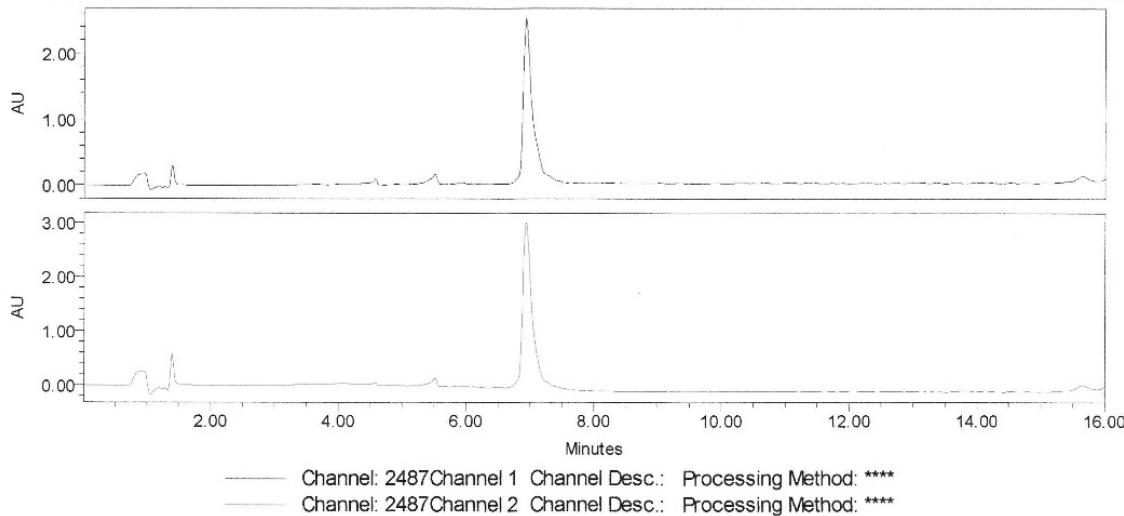
SDSU

Project Name: Defaults  
 Reported by User: System

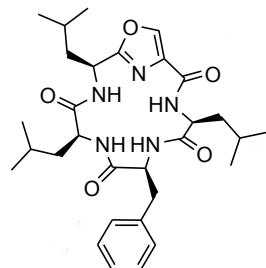
Breeze

**SAMPLE INFORMATION**

Sample Name:	oxazole1-lan	Acquired By:	System
Sample Type:	Unknown	Sample Set Name:	
Vial:	1	Acq. Method:	primary_sanA_ss_ACN
Injection #:	299	Date Acquired:	6/28/2010 5:25:18 PM
Run Time:	16.00 Minutes	Injection Volume:	100.00 $\mu$ l



	Peak Name	RT (min)	Area ( $\mu$ V*sec)	% Area	Height ( $\mu$ V)	Amount	Units
1	****	****	****	****	****	****	****
2	****	****	****	****	****	****	****



Report Method: Injection Summary Report

Printed 5:41:33 PM 6/28/2010

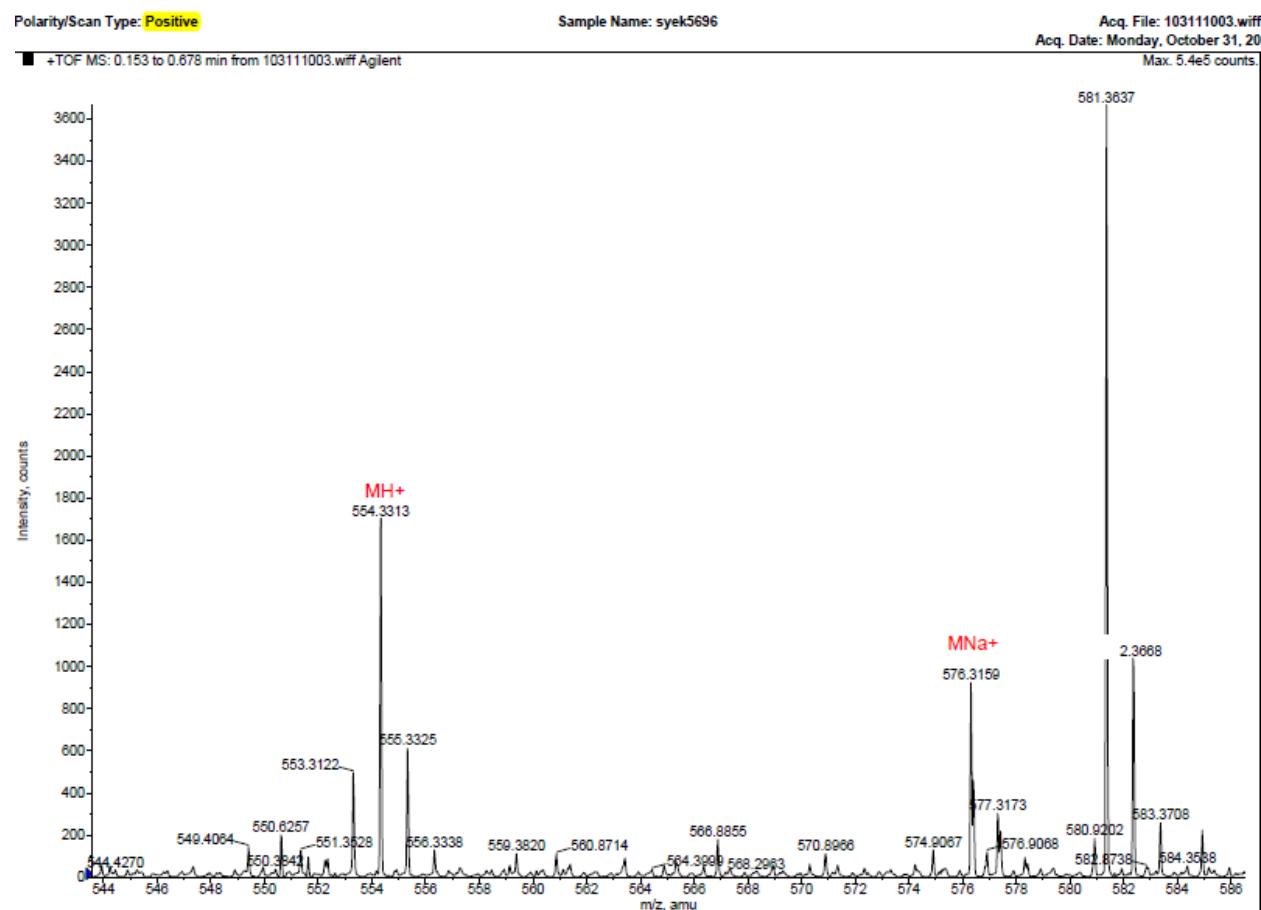
Page: 1 of 1

Compound 3: A-Ox-III

**HPLC Macrocycle Phe-Leu-Oxazole-Leu-Leu (3)**

**Supplementary Material**

**Davis et al.**

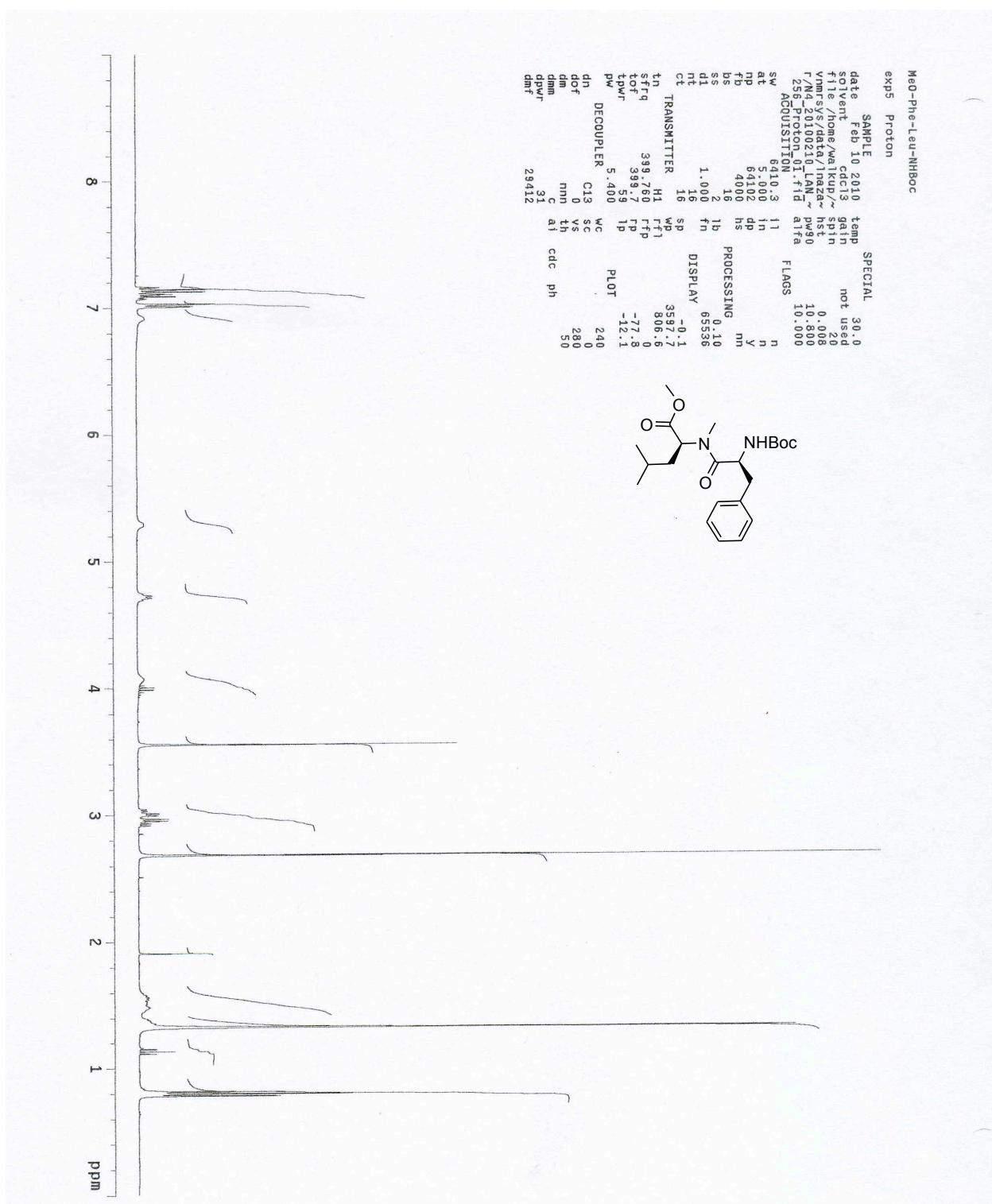


Compound 3: A-Ox-III

HRMS Macrocyclic Phe-Leu-Oxazole-Leu-Leu (**3**) (MW = 554.3313)

**Supplementary Material**

Davis et al.

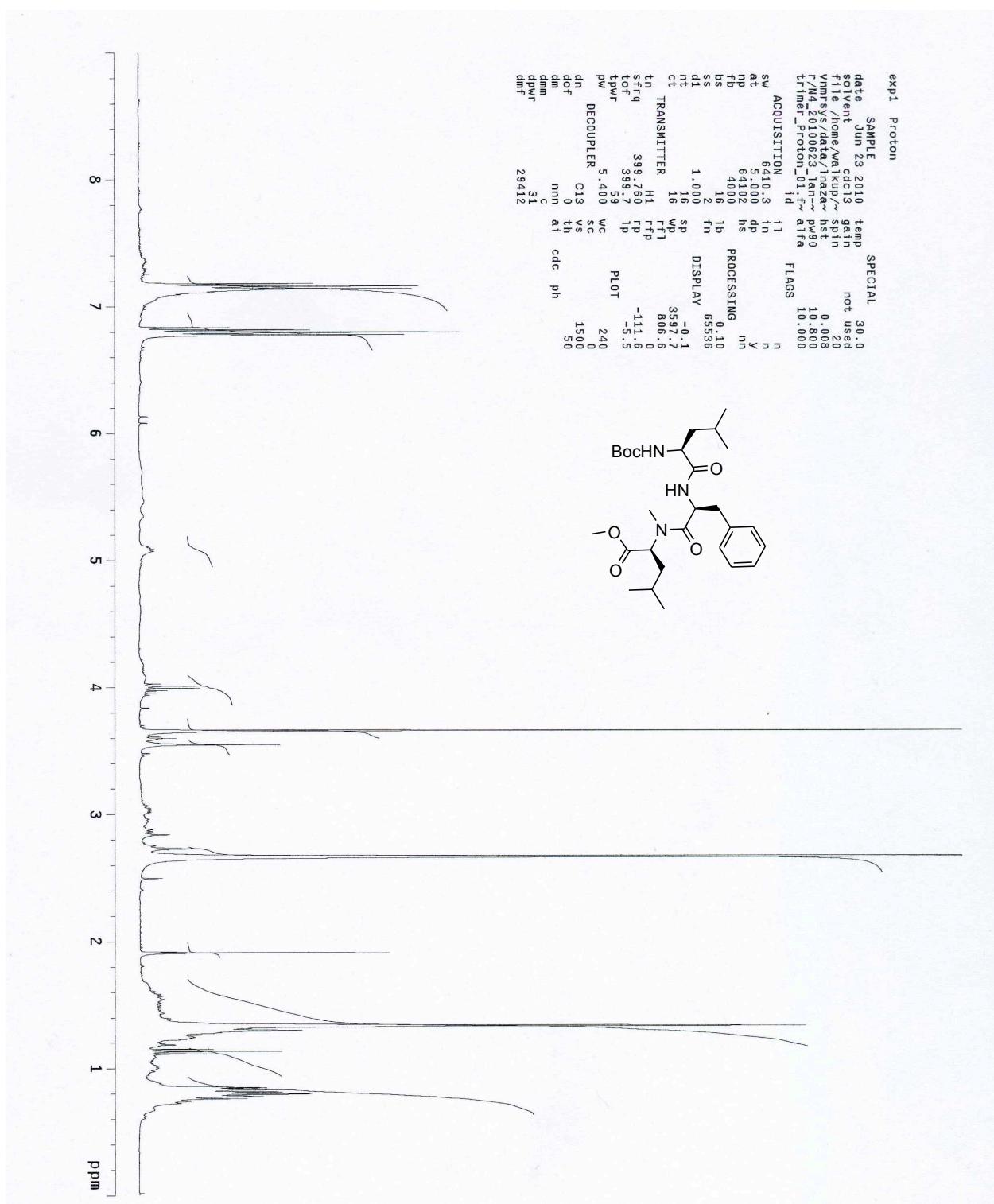


Compound 4: B-Ox-III

NMR Dipeptide MeO-Leu-N(Me)-Phe-NHBoc

**Supplementary Material**

Davis et al.

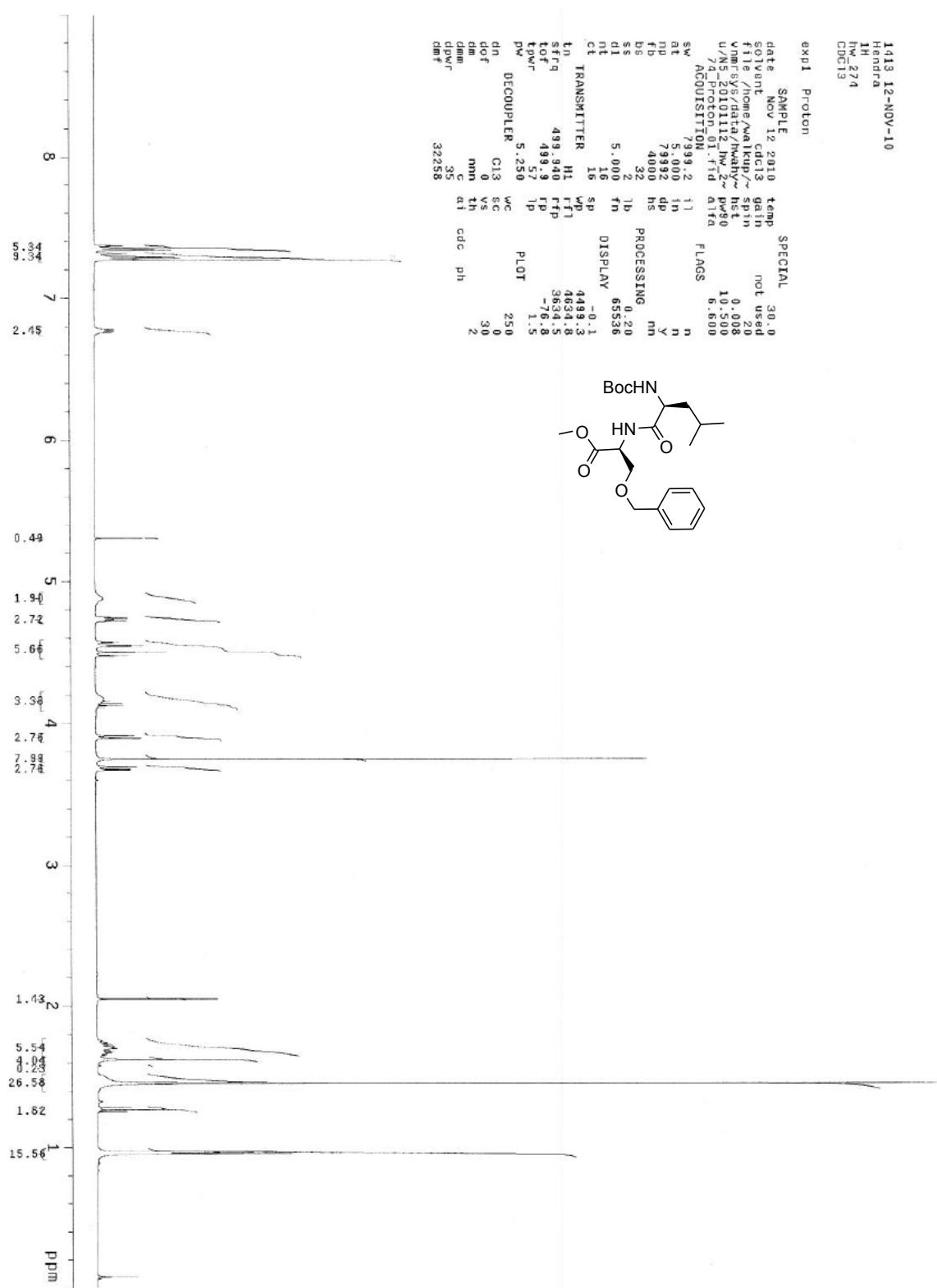


Compound 4: B-Ox-III

NMR Tripeptide MeO-Leu-N(Me)-Phe-Leu-NHBoc

**Supplementary Material**

Davis et al.

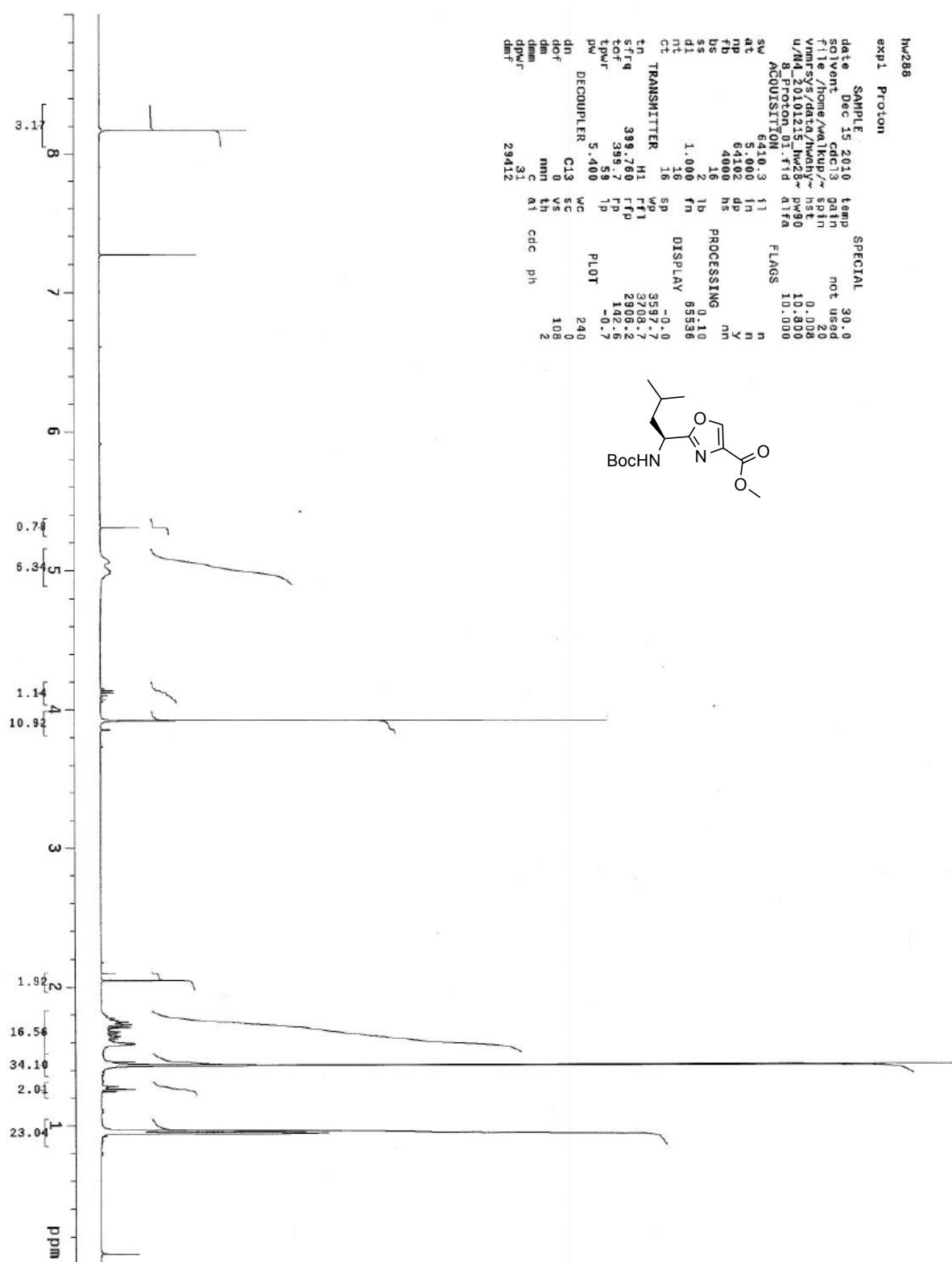


Compound 4: B-Ox-III

NMR Dipeptide MeO-Ser(Bzl)-Leu-NHBoc

## **Supplementary Material**

Davis et al.

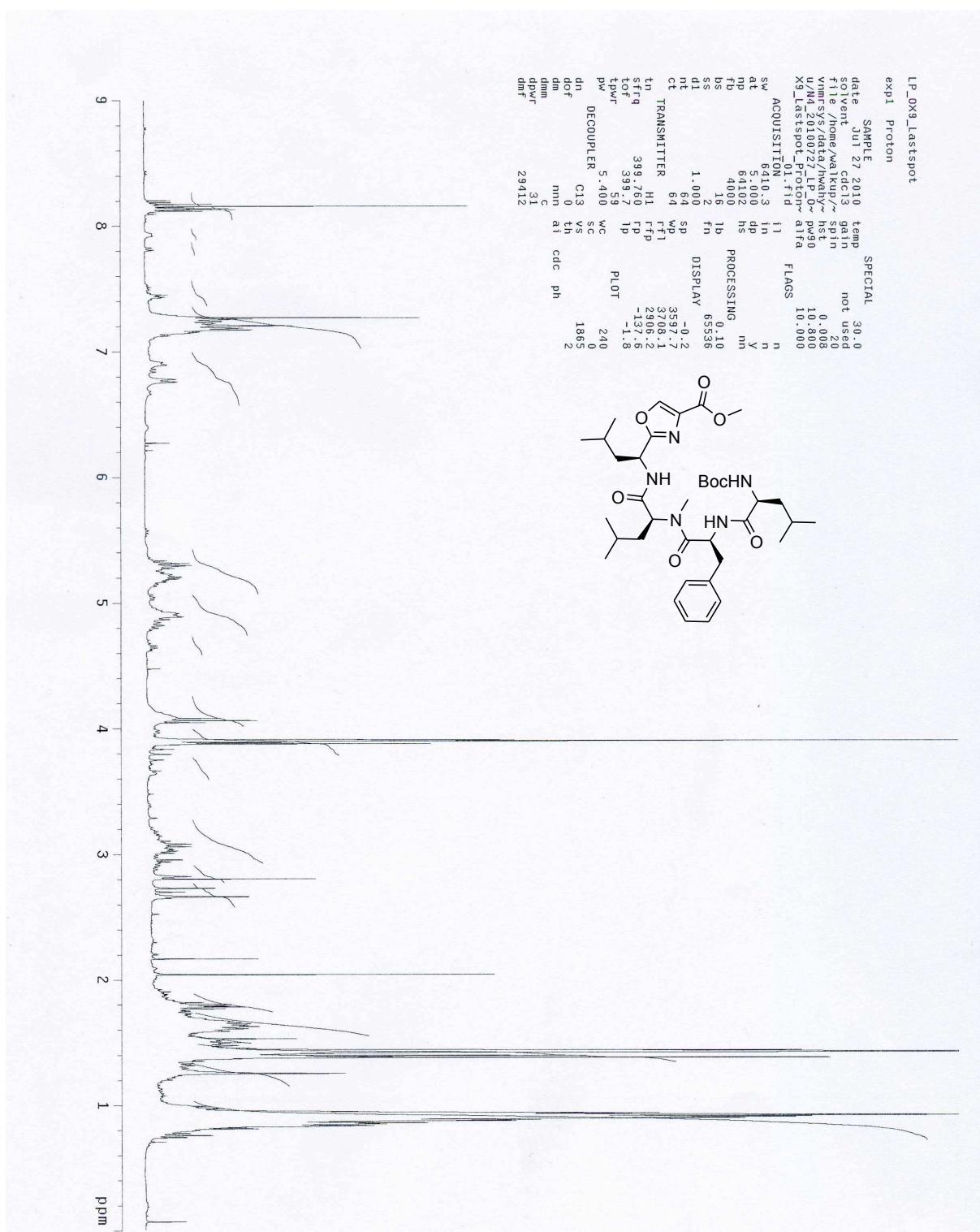


### Compound 4: B-Ox-III

## NMR Dipeptide MeO-Oxazole-Leu-NHBoc

### Supplementary Material

Davis et al.



Compound 4: B-Ox-III

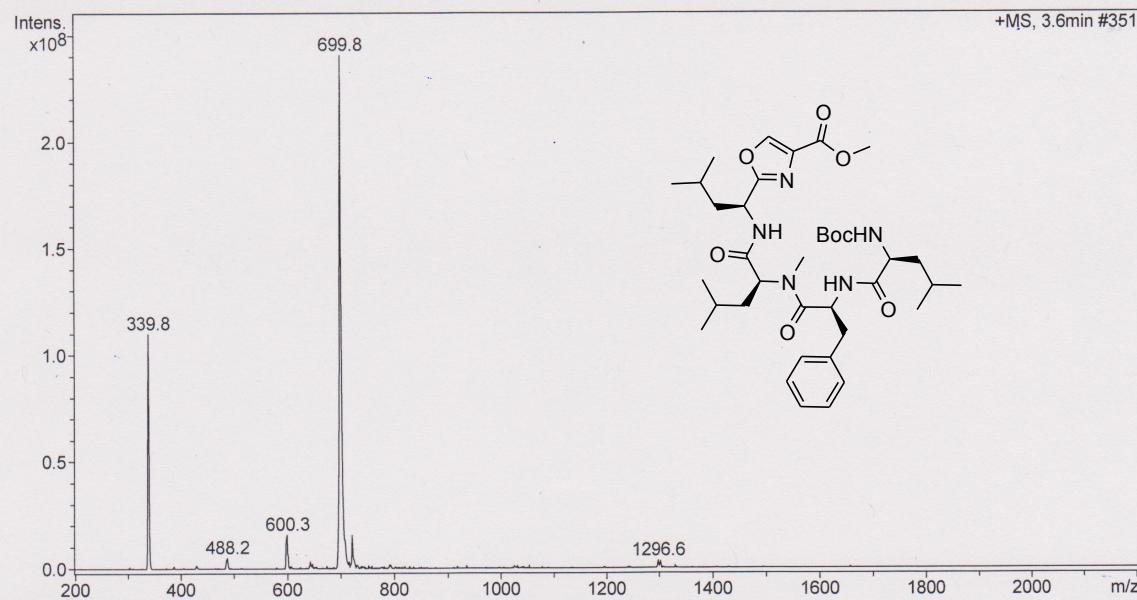
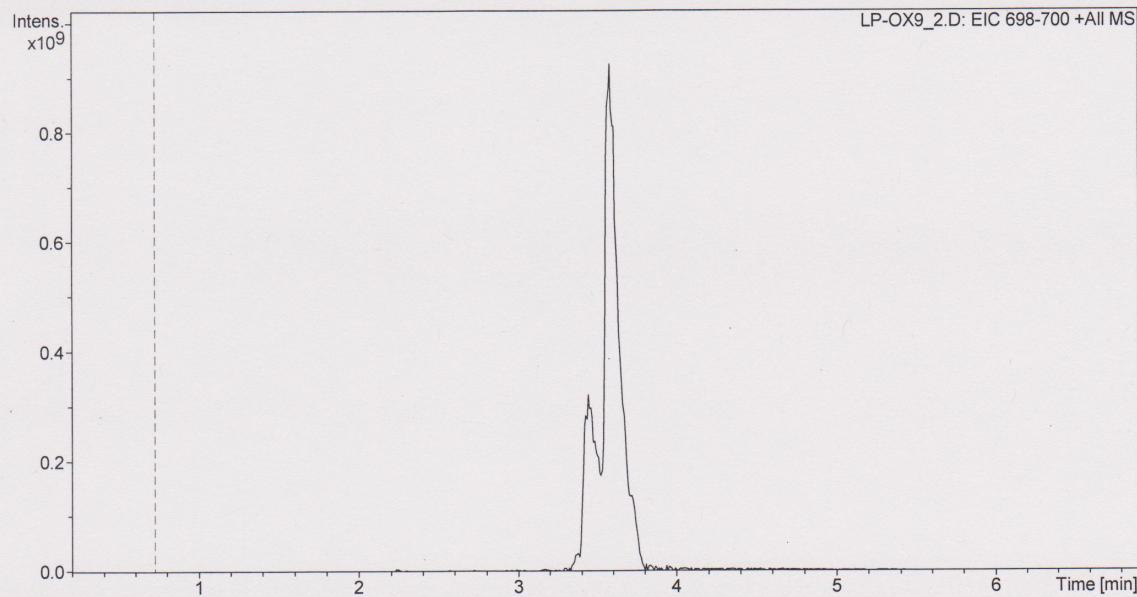
**NMR Pentapeptide MeO-Oxazole-Leu-Leu-N(Me)-Phe-Leu-NHBoc**

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** LP-OX9\_2.D    **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M    **Operator:** sdsu    **Print Date:** 6/8/2011 9:23:34 AM  
**Sample Name:** LP-OX9\_2    **Acq. Date:** 8/17/2010 10:36:34 AM  
**Analysis Info:**

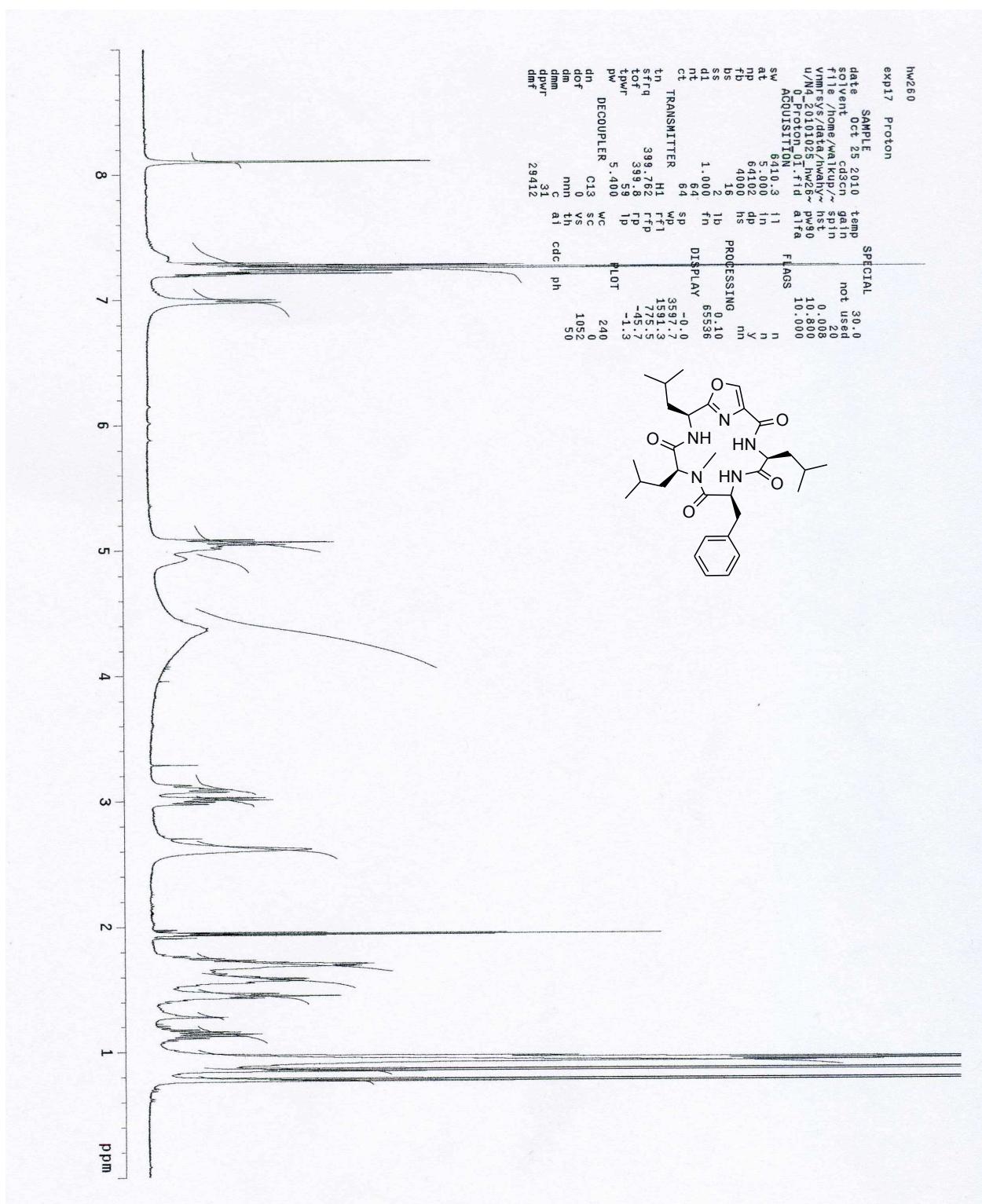


Compound 4: B-Ox-III

LCMS Pentapeptide MeO-Oxazole-Leu-Leu-N(Me)-Phe-Leu-NHBoc (MW = 699)

**Supplementary Material**

Davis et al.



Compound 4: B-Ox-III

NMR Macrocyclic Phe-Leu-Oxazole-Leu-Leu-N(Me) (4)

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** HW260.D

**Method:** SANA.M

**Sample Name:** hw260

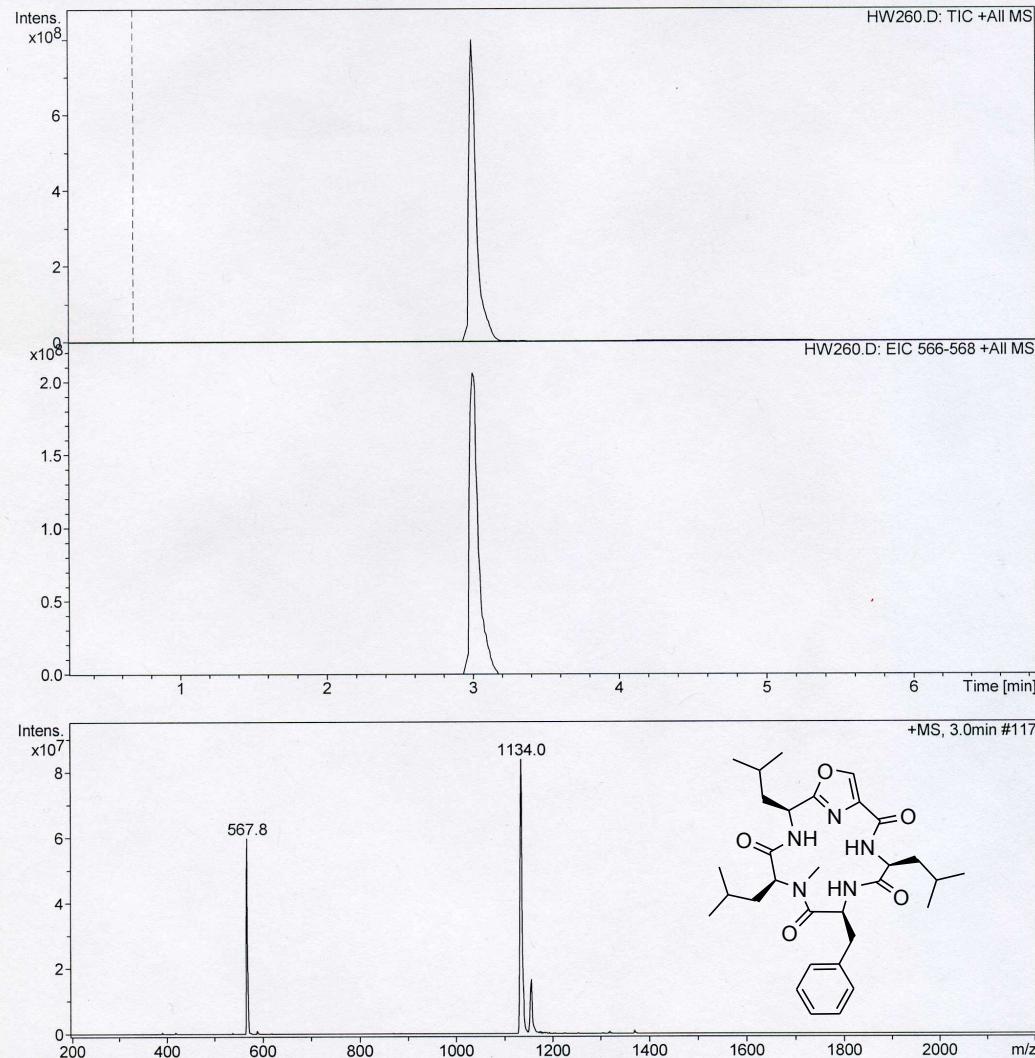
**Analysis Info:**

**Instrument:** Agilent 6330 Ion Trap

**Operator:** sdsu

**Print Date:** 11/1/2010 1:38:38 PM

**Acq. Date:** 10/26/2010 4:50:50 PM



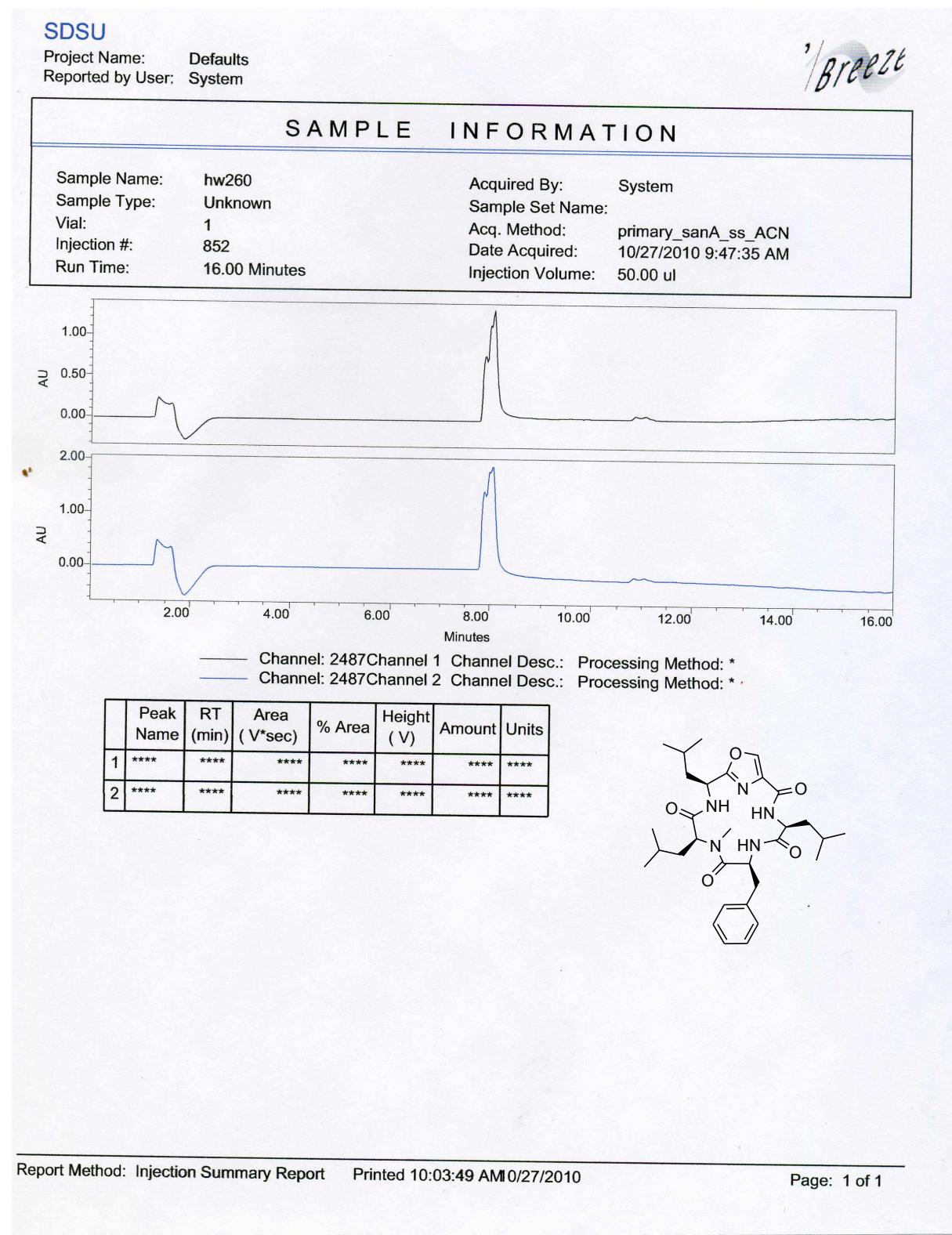
MSD Trap Report v 4 (Let-Opt2)

Page 1 of 1

Agilent Technologies

Compound 4: B-Ox-III

**LCMS Macrocyclic Phe-Leu-Oxazole-Leu-Leu-N(Me) (4) (MW = 567)**

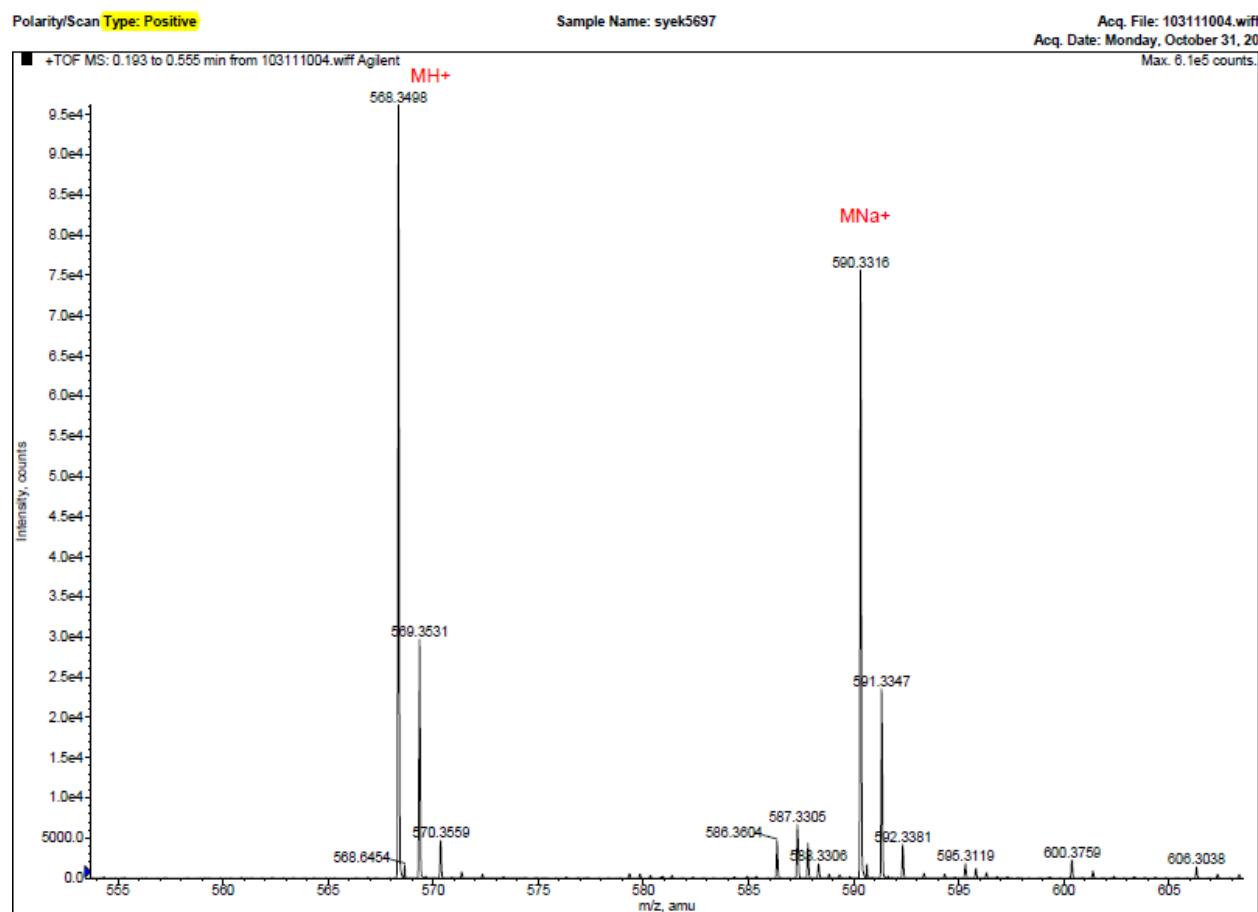
**Supplementary Material****Davis et al.**

Compound 4: B-Ox-III

**HPLC Macrocyclic Phe-Leu-Oxazole-Leu-Leu-N(Me) (4)**

**Supplementary Material**

**Davis et al.**



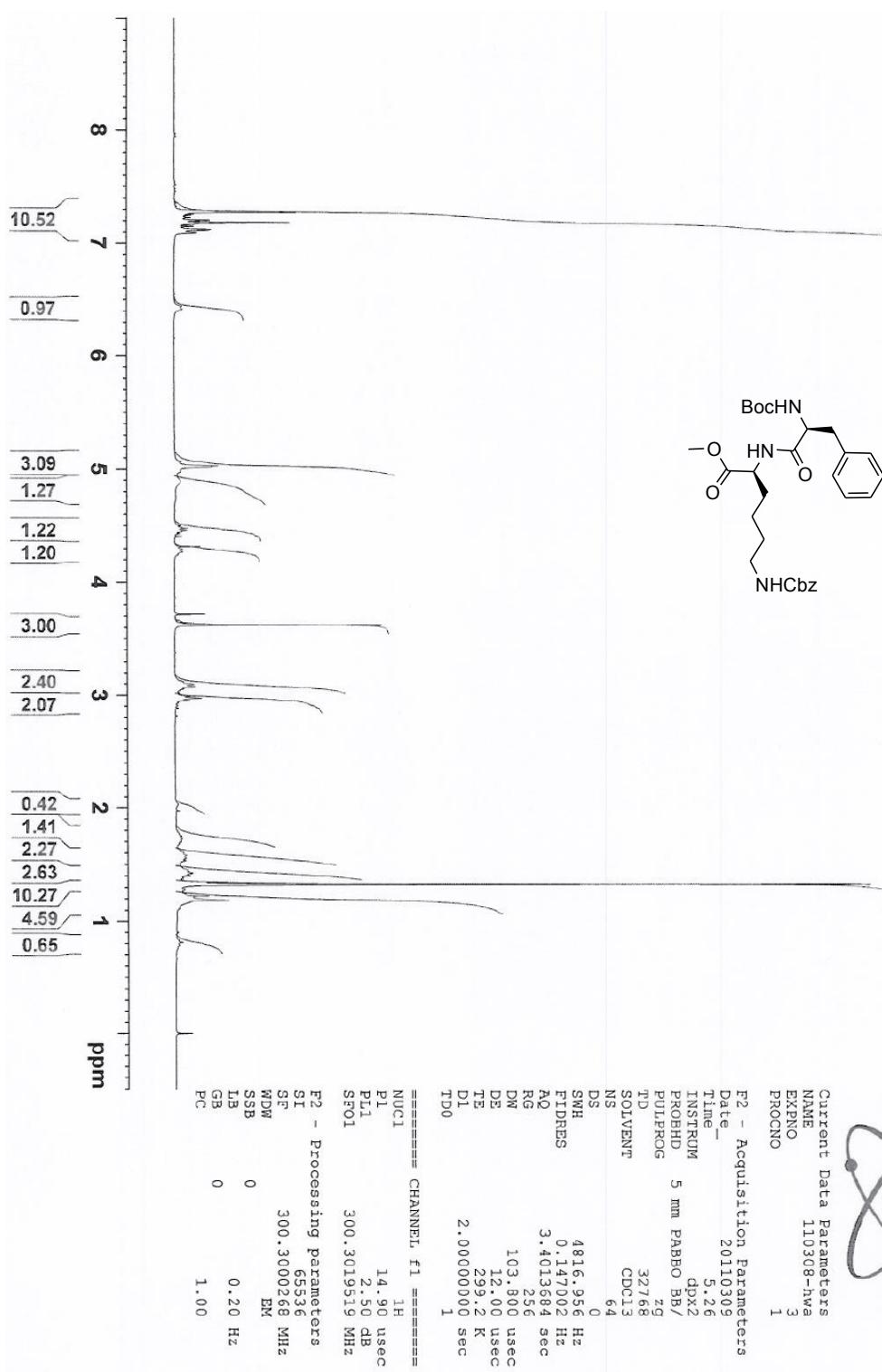
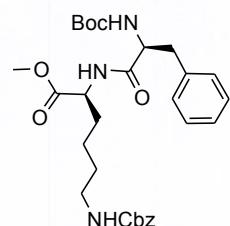
Compound 4: B-Ox-III

HRMS Macrocyclic Phe-Leu-Oxazole-Leu-Leu-N(Me) (4) (MW = 568.3520)

**Supplementary Material**

Davis et al.

Supervisor Shelli McAlpine  
1H CDCl<sub>3</sub> F:\hwa 51

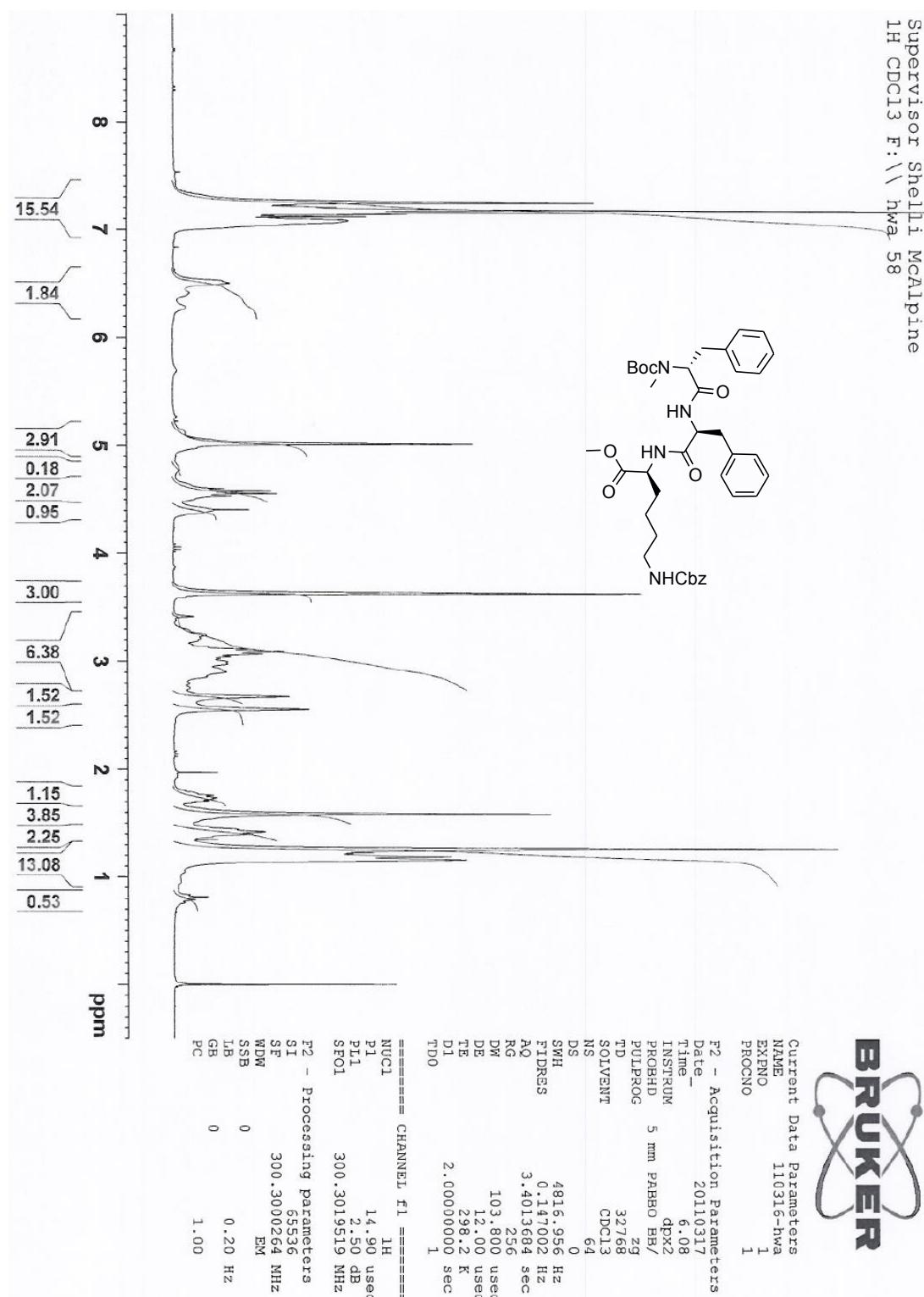


Compound 5: C-Ox-III

NMR Dipeptide MeO-Lys(Cbz)-Phe-NHBoc

**Supplementary Material**

Davis et al.

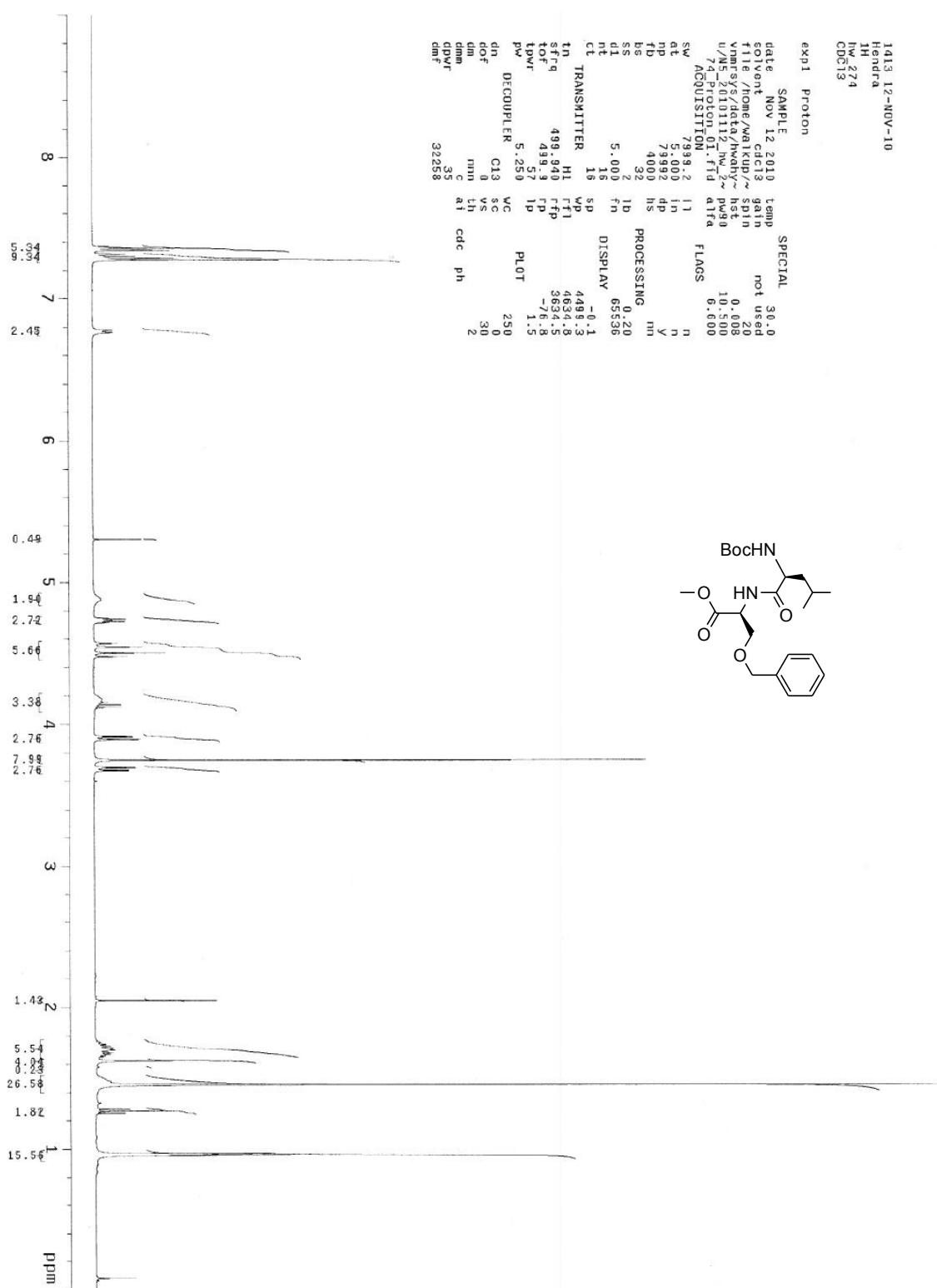


Compound 5: C-Ox-III

**NMR Tripeptide MeO-Lys(Cbz)-Phe-D-Phe-N(Me)Boc**

## Supplementary Material

Davis et al.

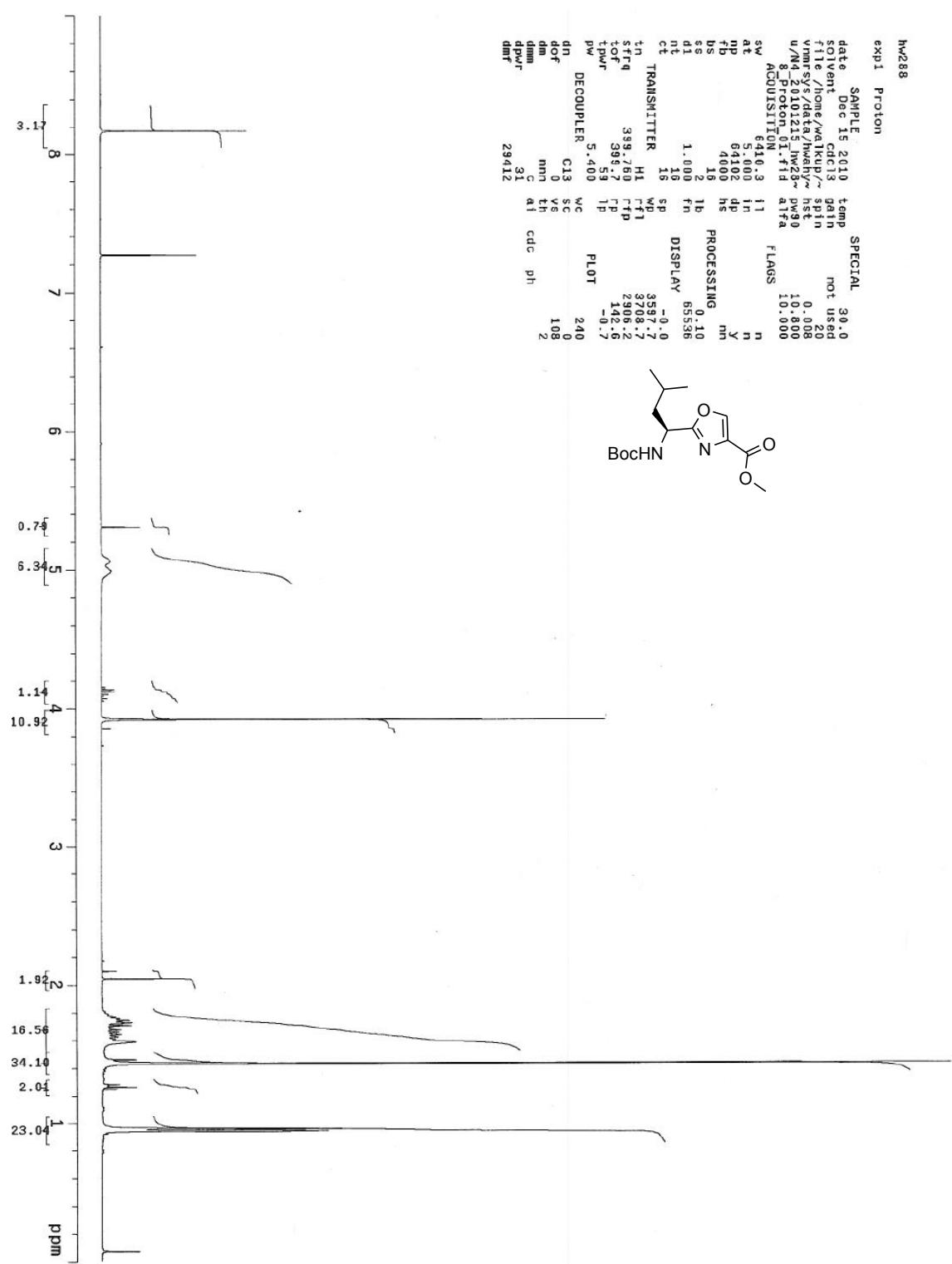


Compound 5: C-Ox-III

NMR Dipeptide MeO-Ser(Bzl)-Leu-NHBoc

### Supplementary Material

Davis et al.

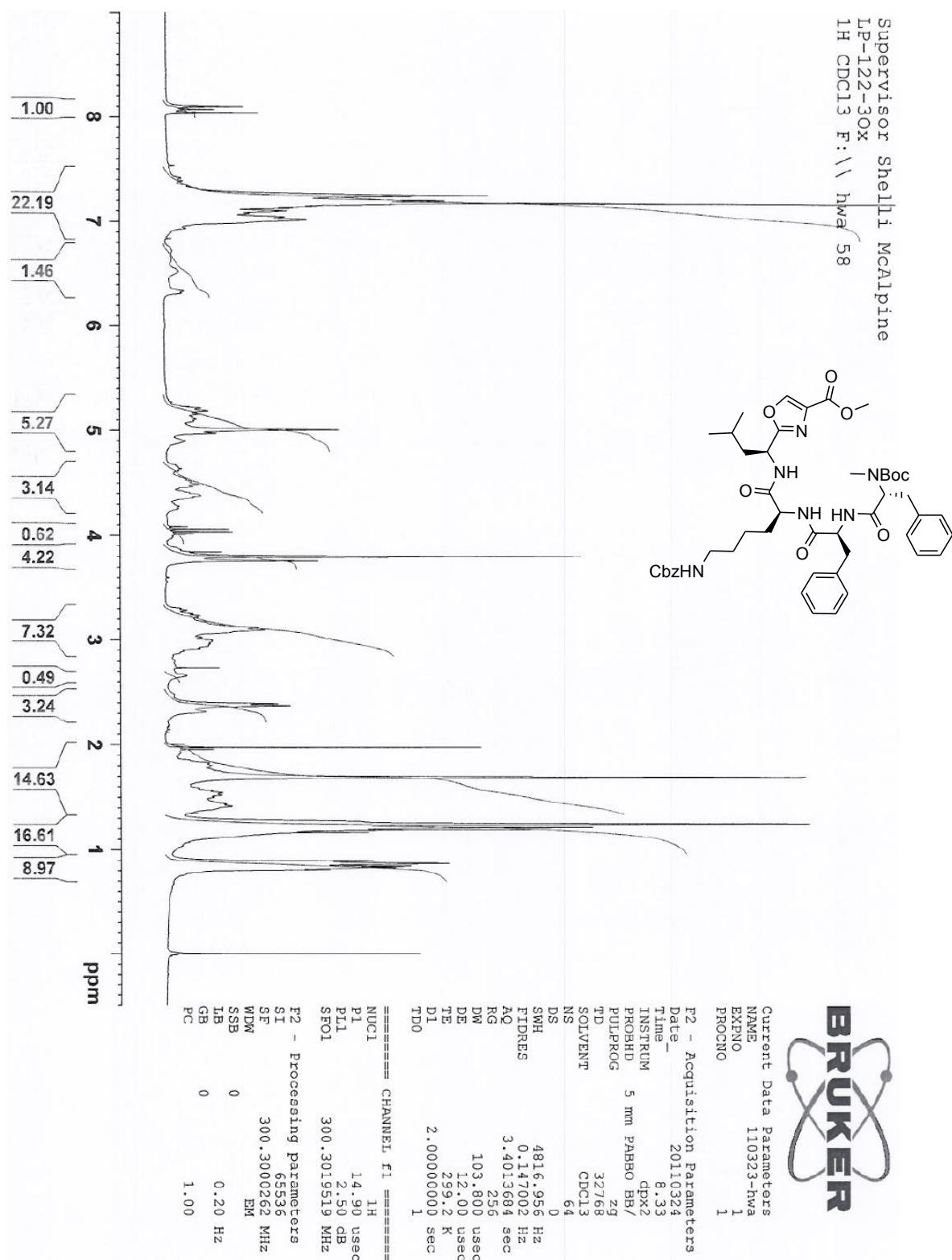


Compound 5: C-Ox-III

NMR Dipeptide MeO-Oxazole-Leu-NHBoc

**Supplementary Material**

Davis et al.



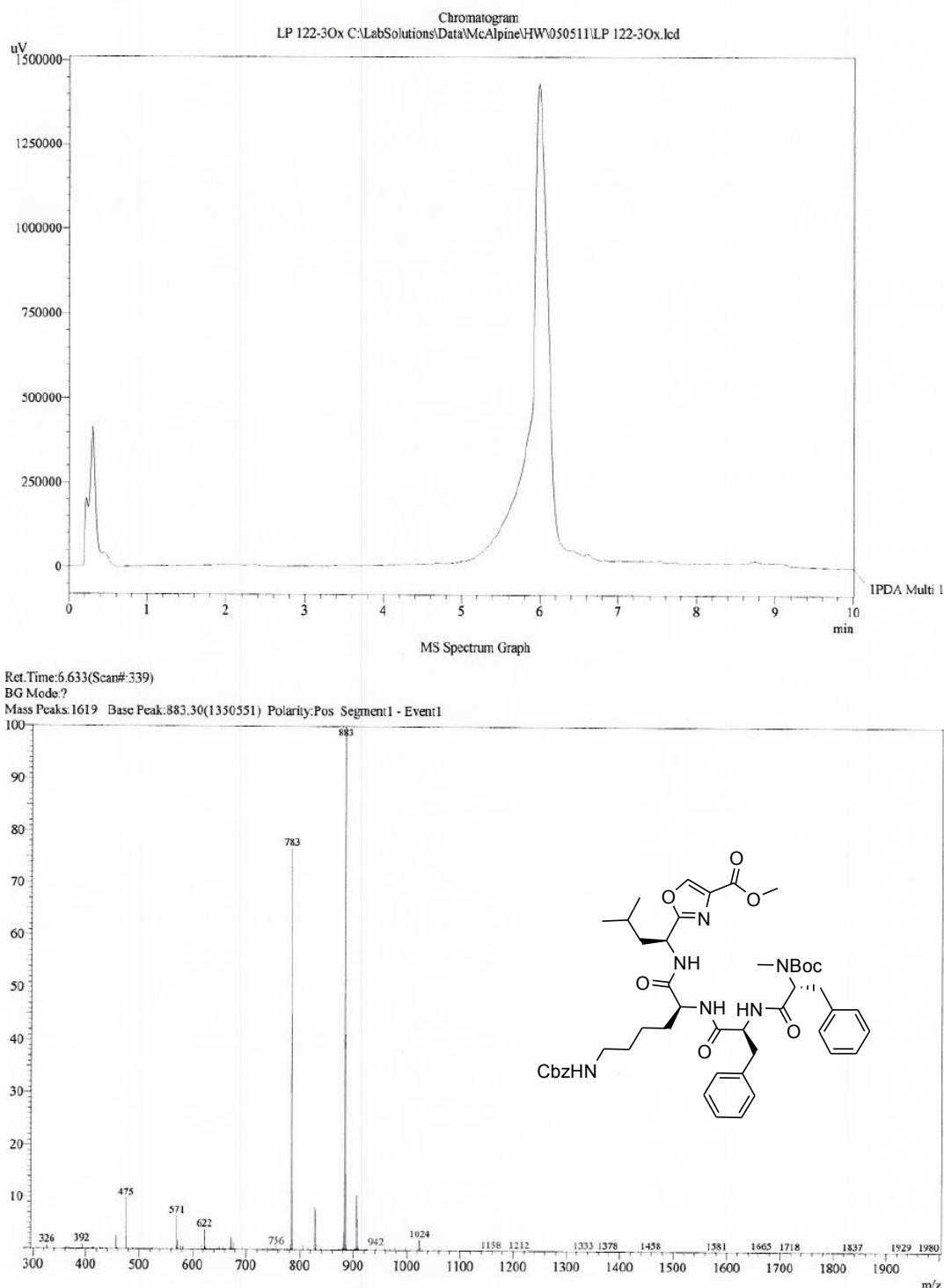
Compound 5: C-Ox-III

**NMR Pentapeptide MeO-Oxazole-Leu-Lys(Cbz)-Phe-D-Phe-N(Me)Boc**

**Supplementary Material**

**Davis et al.**

**==== Shimadzu LCMSsolution Analysis Report ====**

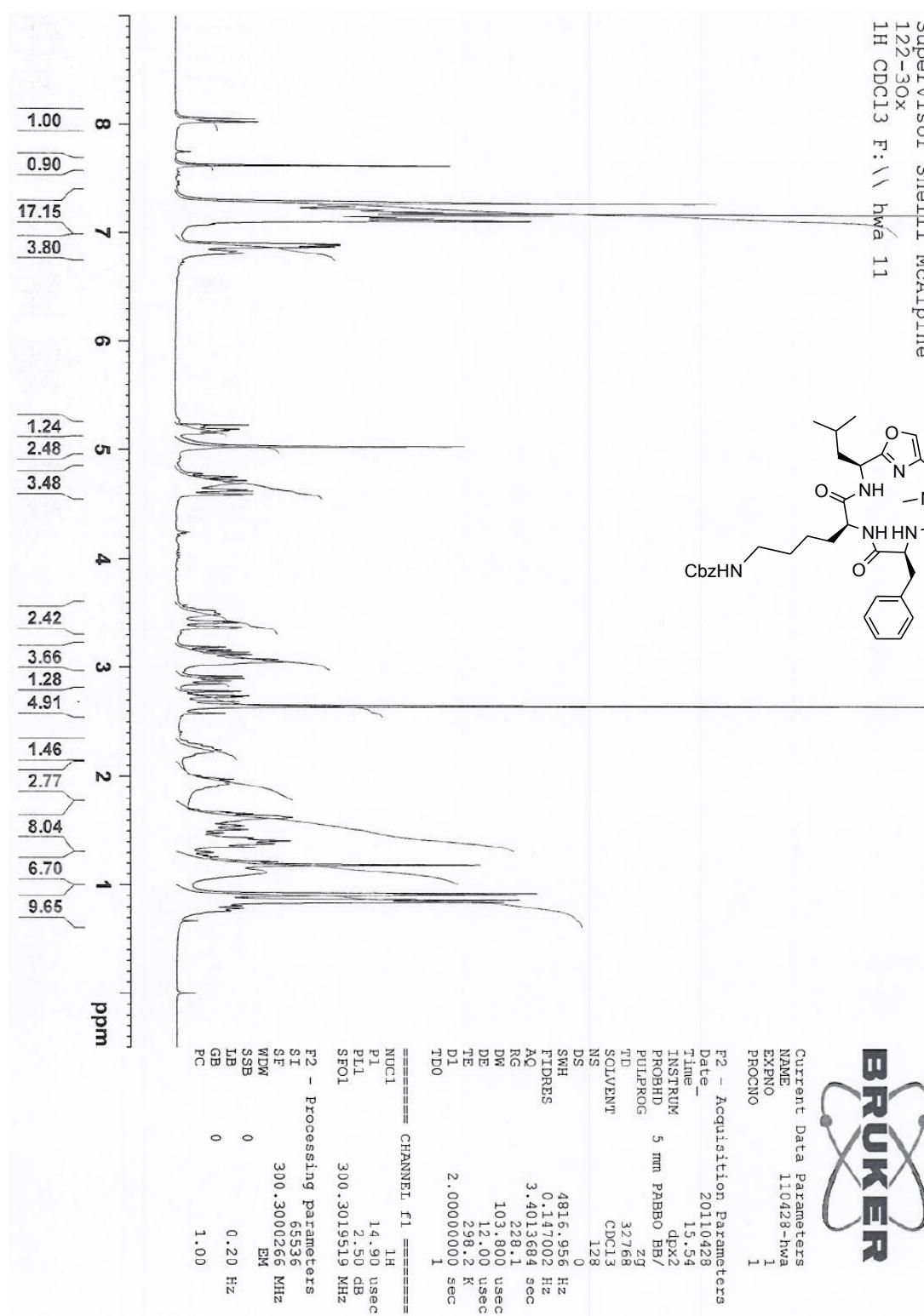


Compound 5: C-Ox-III

**HPLC/LCMS Pentapeptide MeO-Oxazole-Leu-Lys(Cbz)-Phe-D-Phe-N(Me)Boc (MW = 882)**

**Supplementary Material**

Davis et al.



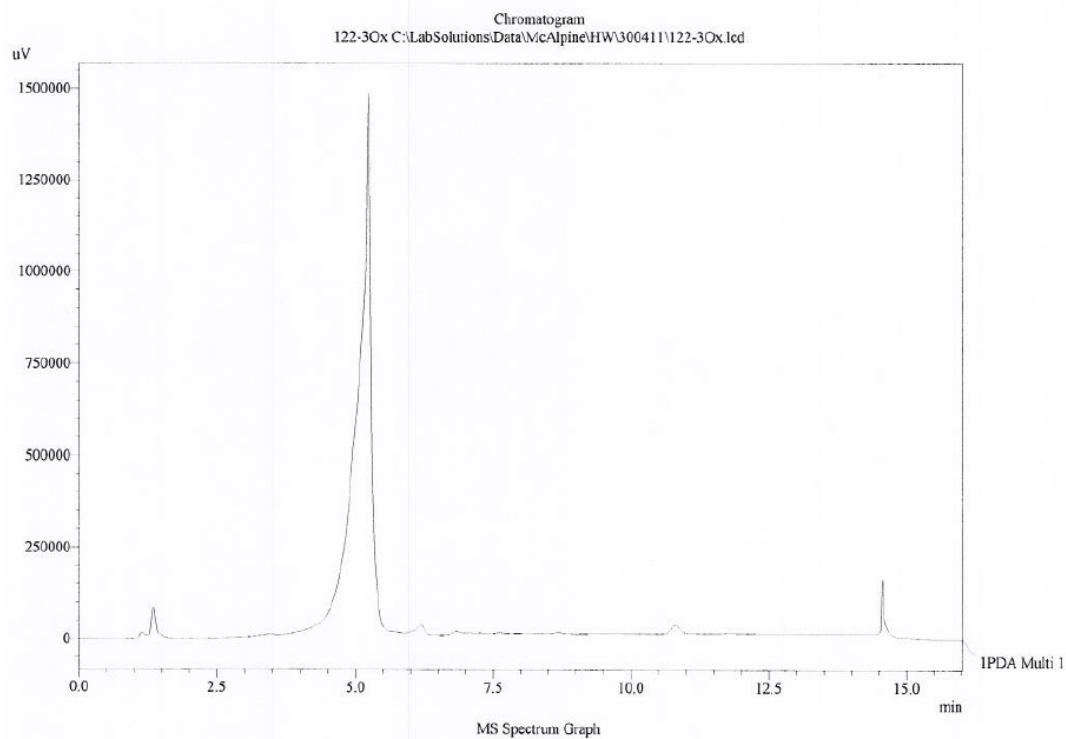
Compound 5: C-Ox-III

**NMR Macrocyclic Phe-D-Phe-N(Me)-Oxazoline-Leu-Lys(Cbz) (5)**

**Supplementary Material**

**Davis et al.**

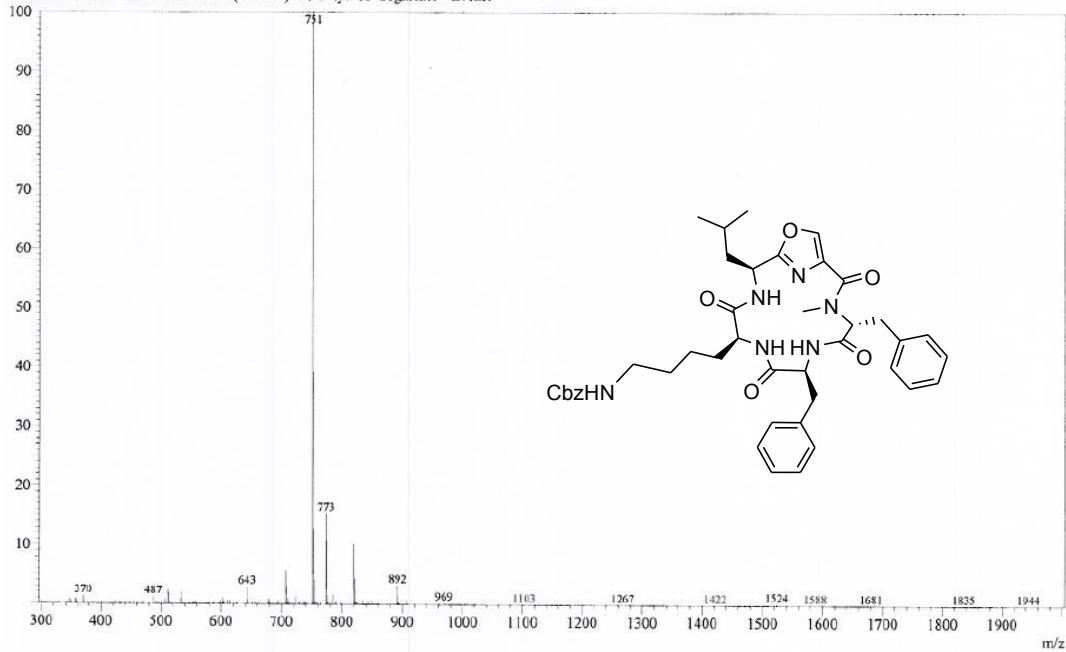
**==== Shimadzu LCMSsolution Analysis Report ====**



Ret Time:5.200(Scan#:253)

BG Mode:?

Mass Peaks:1605 Base Peak:751.15(881037) Polarity:Pos Segment1 - Event1

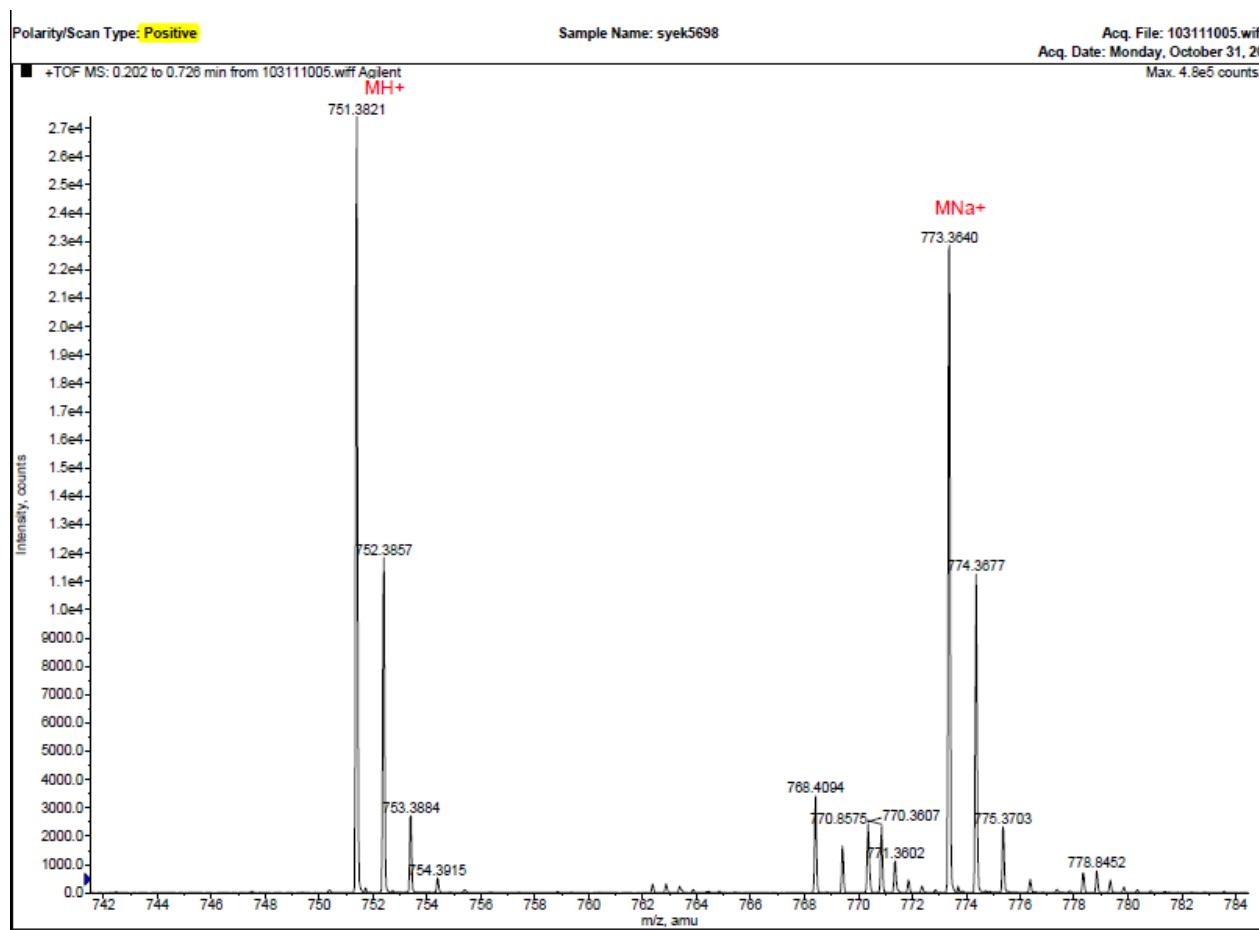


Compound 5: C-Ox-III

HPLC+LCMS Macrocyclic Phe-D-Phe-N(Me)-Oxazole-Leu-Lys(Cbz) (5) (MW=750)

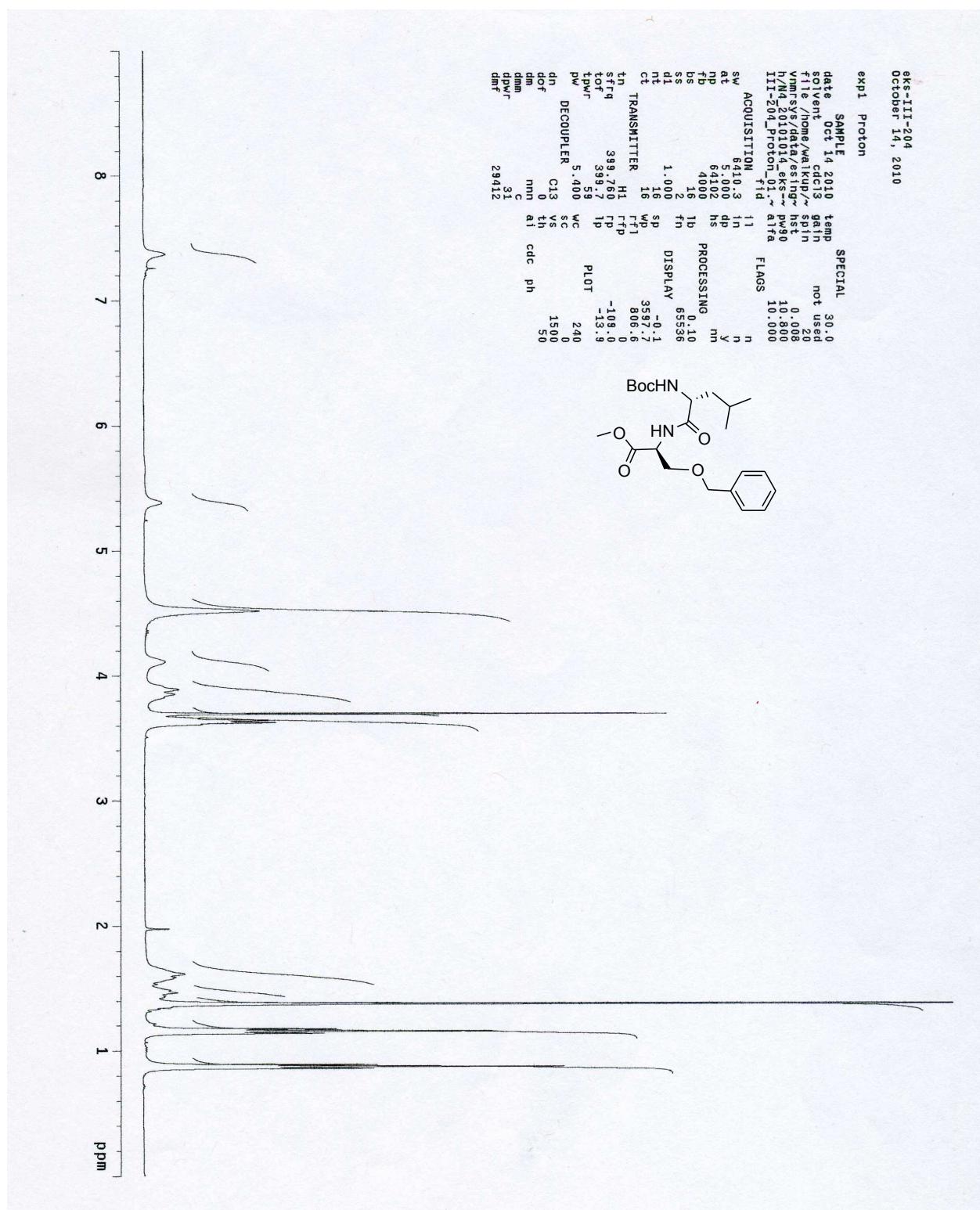
**Supplementary Material**

Davis et al.



## Supplementary Material

Davis et al.



Compound 6: D-Ox-III

NMR Dipeptide MeO-Ser(Bzl)-D-Leu-NHBoc

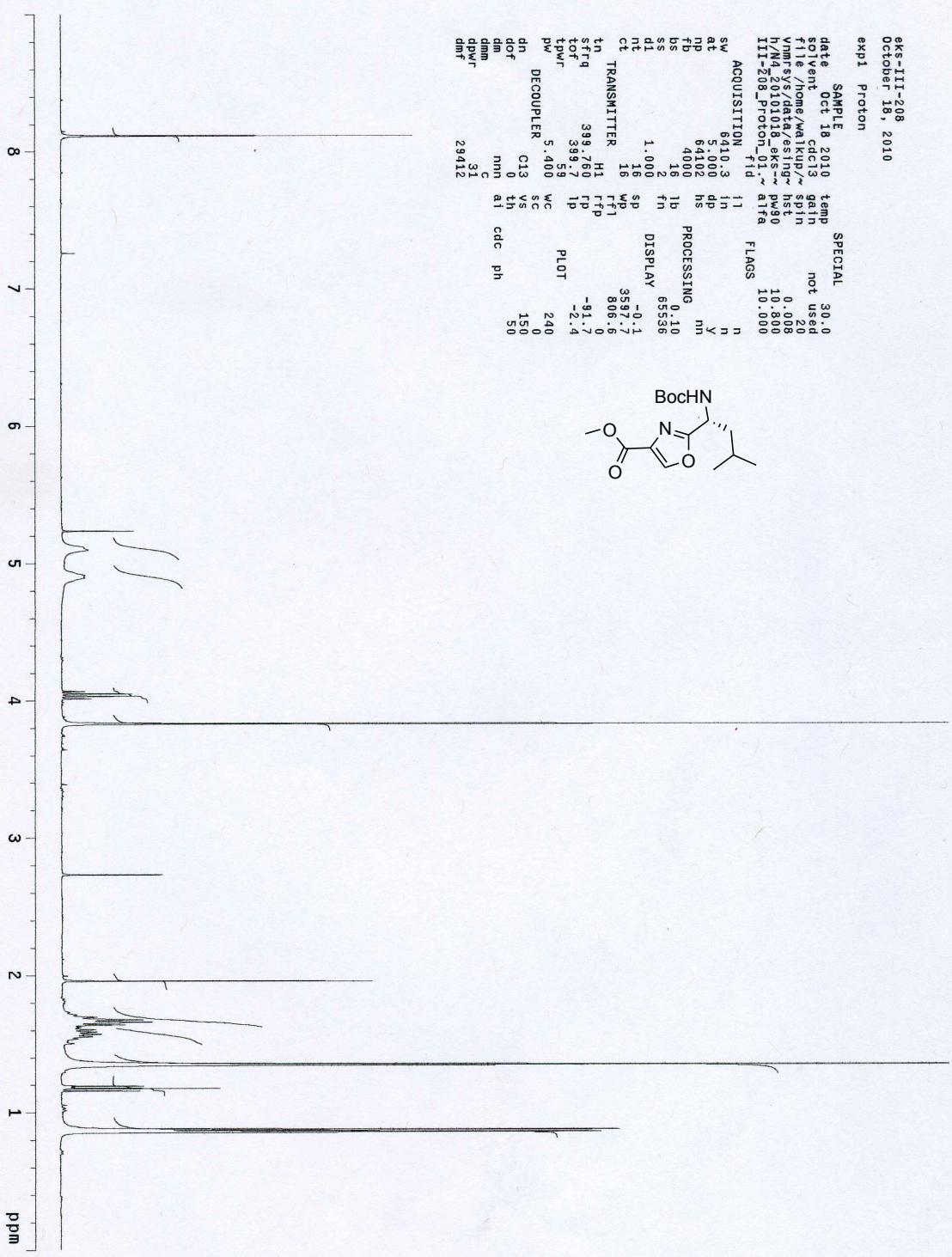
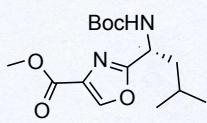
**Supplementary Material**

Davis et al.

ekr-III-208  
October 18, 2010

expt1 Proton

SAMPLE	2010	temp	30.0	SPECIAL
date	Oct 18	gain	20	not used
solvent	cdcl <sub>3</sub>	spin	0.008	
f1le	/home/walkup/mvs/sdata/eising~	hst	10.800	
vrnmrs	hN4_2001018_ekr-~	psg0		
h1N4	ITI-2001018_ekr-~	a1fa	10.000	
ITI-Z18_Proton_01~				
ACQUISITION		FLAGS		
sw	610.3	i1	n	
at	5.000	in	y	
dp	64102	hs	mm	
fb	4000	PROCESSING	0.10	
bs	16	lb		
ss	1.000	fn	65536	
dl	16	DISPLAY	-0.1	
nt	16	sp	3597.7	
ct	16	wp	806.6	
TRANSMITTER		r1f1		
tn		H1		
sfrq		r1p		
tof	399.760	399.7	-91.7	
tpwr	5.9	1p	-2.4	
pwr	5.400	wc	240	
DECOPLER		sc	150	
dn	C13	vs	50	
dof	0	th		
dm	ai	c1c		
dmm	ph	ph		
dpr	31			
dmf	29412			



Compound 6: D-Ox-III

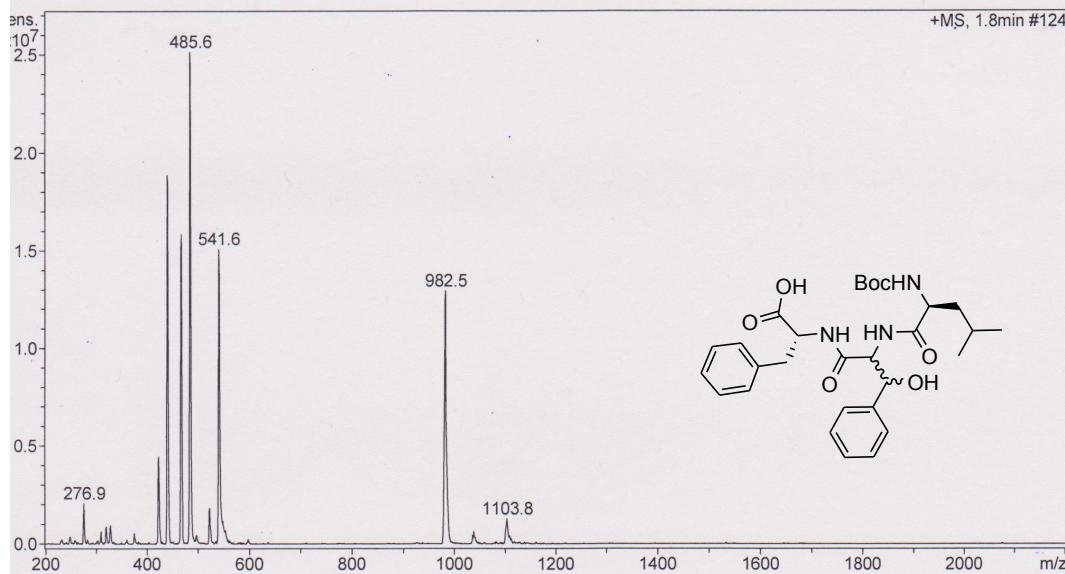
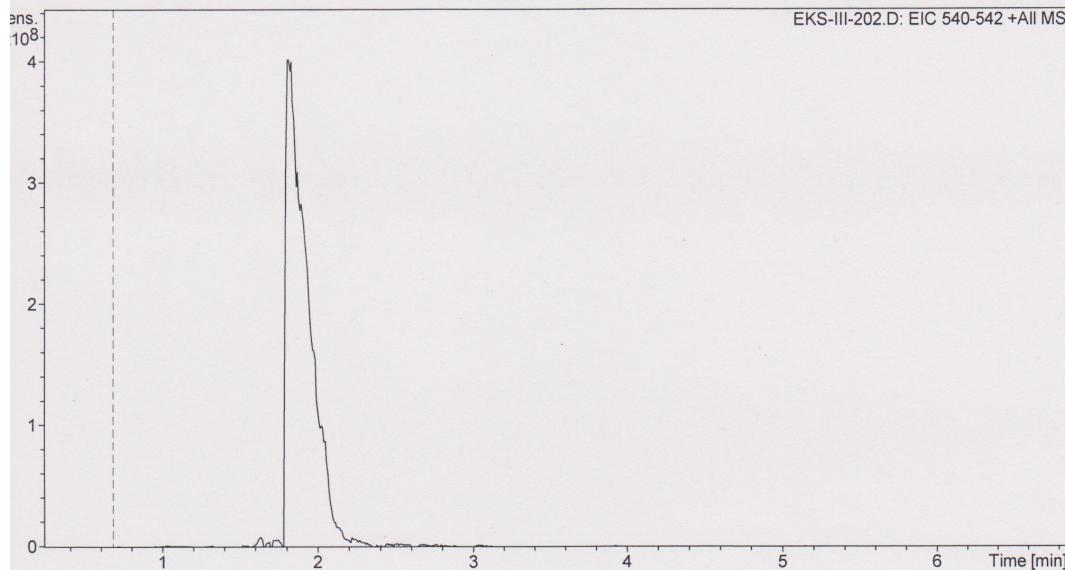
NMR Dipeptide MeO-Oxazole-D-Leu-NHBoc

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** EKS-III-202.D    **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M    **Operator:** sdsu    **Print Date:** 6/8/2011 9:29:53 AM  
**Sample Name:** eks-III-202    **Acq. Date:** 10/19/2010 10:53:25 AM  
**Analysis Info:**



ISD Trap Report v 4 (Let-Opt2)

Page 1 of 1

Agilent Technologies

Compound 6: D-Ox-III

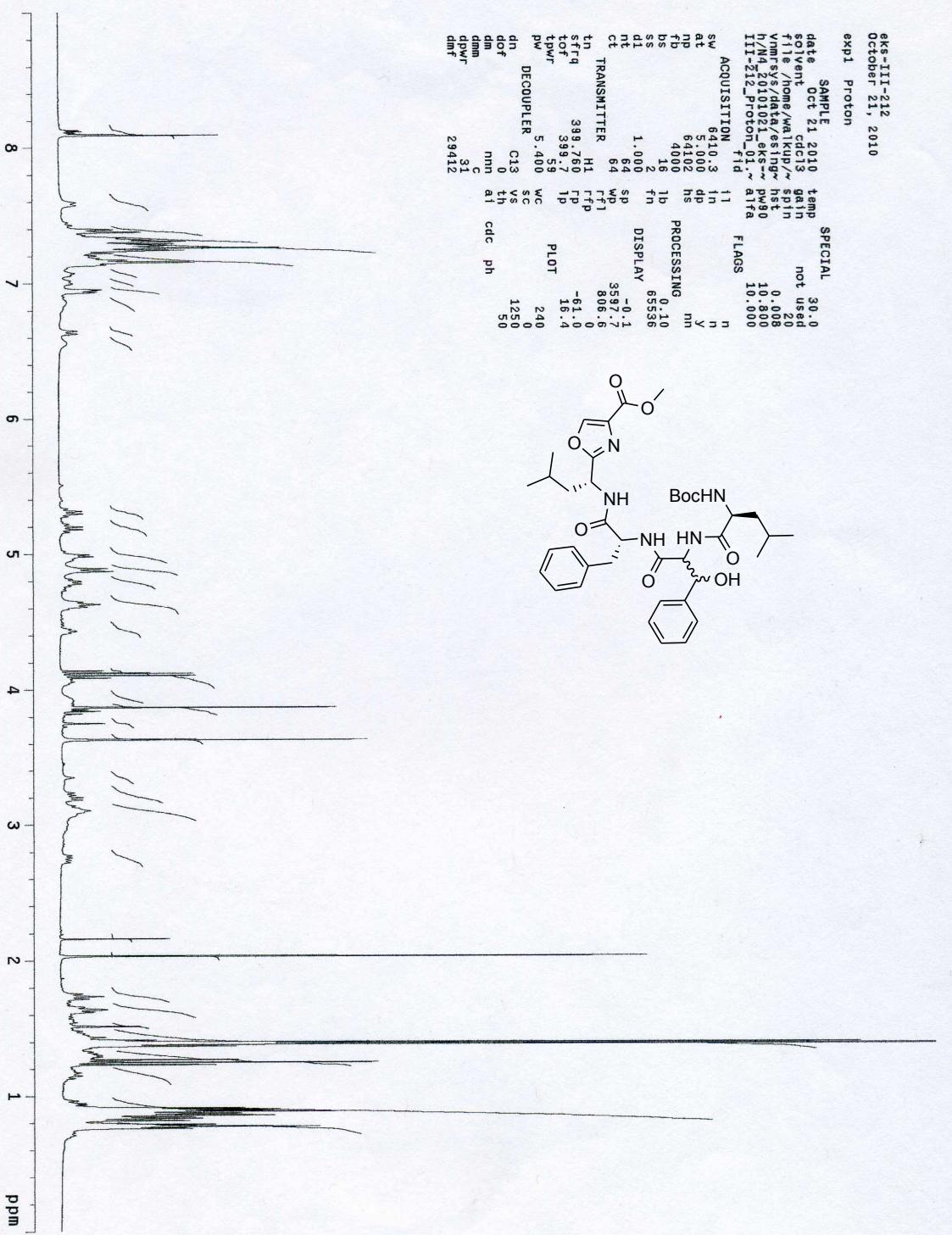
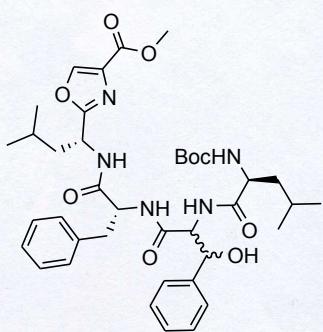
**LCMS Tripeptide HO-D-Phe-Phe-(2R,3R)/(2S,3S)-β-OH-Leu-NHBoc (MW = 541)**

**Supplementary Material**

Davis et al.

8ts-III-212  
October 21, 2010

expt Proton  
 SAMPLE 2010 temp 30.0  
 date Oct 21 2010 gain 20  
 solvent cdcl<sub>3</sub> spin 200  
 f1le /home/walkup/.vmrys/data/esting.hst 0.008  
 hN4 20101021.leks~ pw0 10.800  
 III-212\_Proton\_01~ alfa 10.000  
 ACQUISITION fid  
 sw 610.3 in 11  
 at 5.000 n  
 np 64102 hs y  
 fb 4000 0.10  
 bs 16 6536  
 ss 2 fn  
 d1 1.000  
 nt 64 sp DISPLAY -0.1  
 ct 64 wdp 3597?  
 TRANSMITTER rf1 806.6  
 tn H1 rfp 806.6  
 sfrq 398.60 tp -61.0  
 torf 399.7 tp 16.4  
 tppr 5.59  
 pw 5.400 wc 240  
 DECOUPLER C13 sc 125.0  
 dn 0 vs 50  
 dof 0 th ai  
 dm c cdc ph  
 dmf 31 29412



Compound 6: D-Ox-III

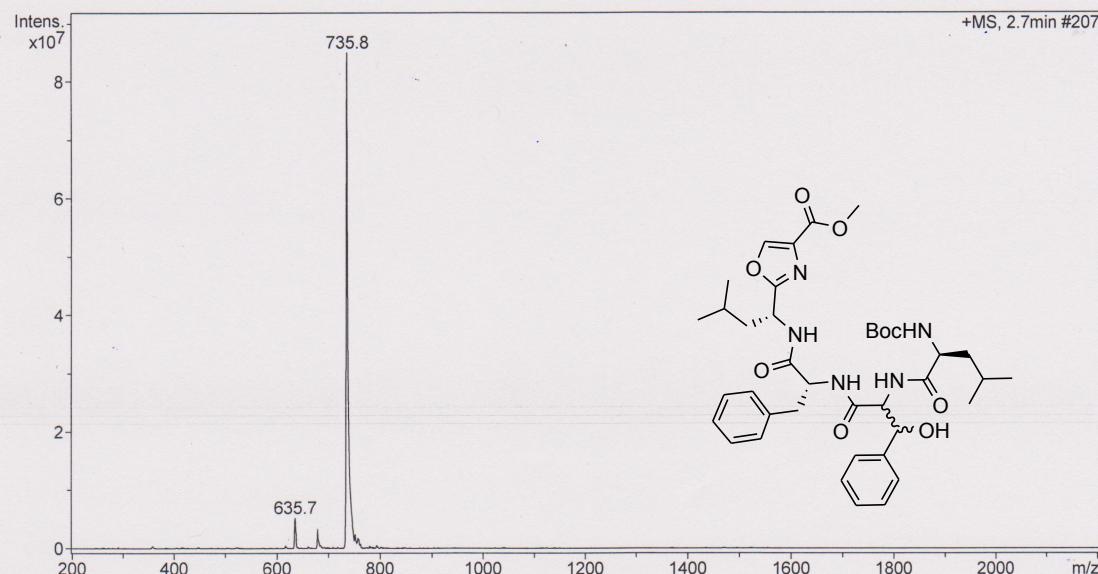
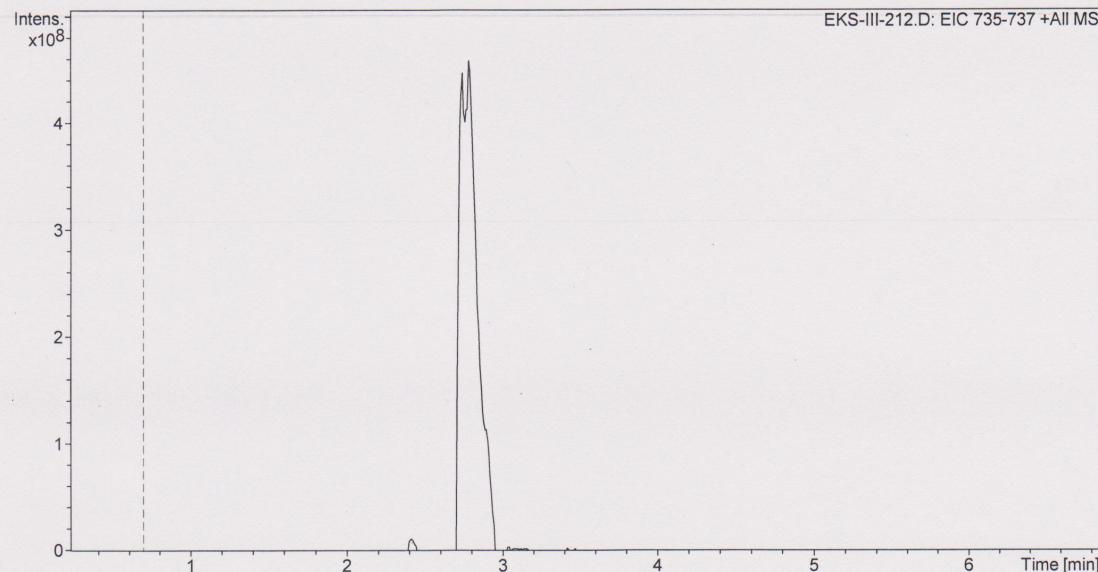
NMR Pentapeptide MeO-Oxazole-D-Leu-D-Phe-(2R,3R)/(2S,3S)-β-OH-Phe-Leu-NHBoc

## **Supplementary Material**

Davis et al.

Display Report - All Windows Selected Analysis

**Analysis Name:** EKS-III-212.D    **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M                        **Operator:** sdsu                        **Print Date:** 6/8/2011 9:30:59 AM  
**Sample Name:** eks-III-212              **Acq. Date:** 10/19/2010 6:46:26 PM  
**Analysis Info:**

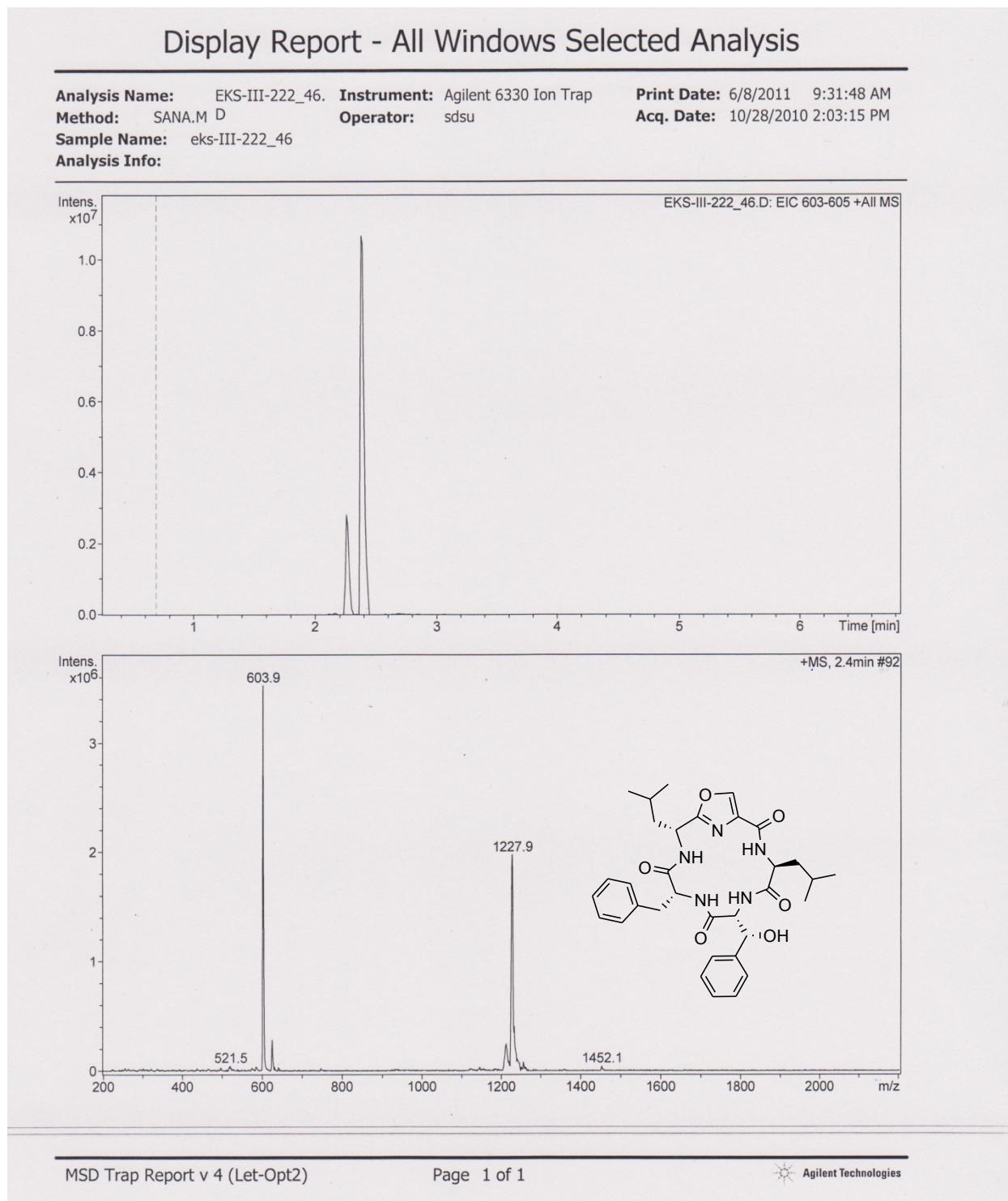


## Compound 6: D-Ox-III

## LCMS Pentapeptide MeO-Oxazole-D-Leu-D-Phe-(2R,3R)/(2S,3S)- $\beta$ -OH-Phe-Leu-NHBoc (MW = 736)

**Supplementary Material**

**Davis et al.**

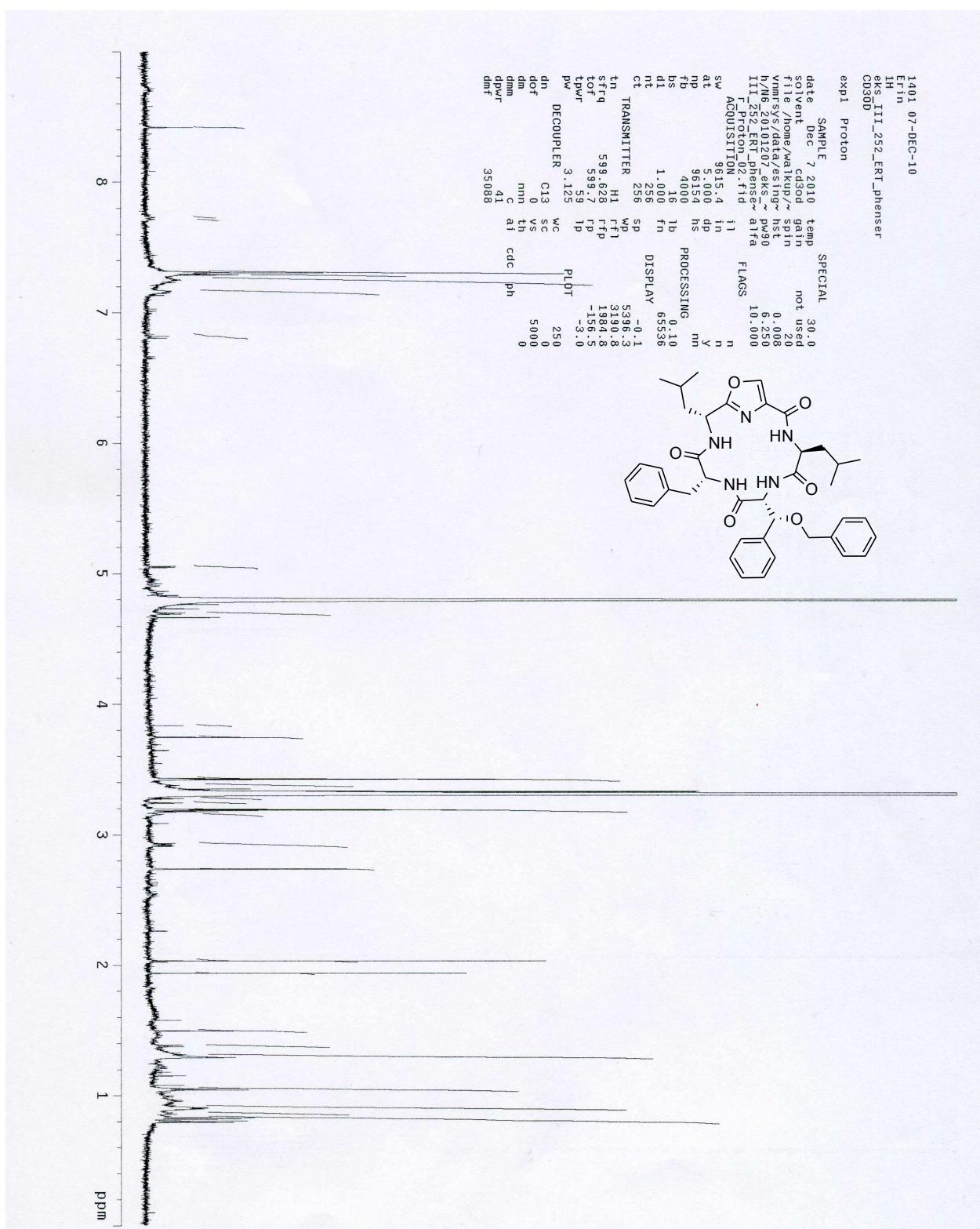


Compound 6: D-Ox-III

**LCMS Macrocyclic (2R,3R)- $\beta$ -hydroxy-Phe-Leu-Oxazole-D-Leu-D-Phe (MW = 604)**

**Supplementary Material**

Davis et al.



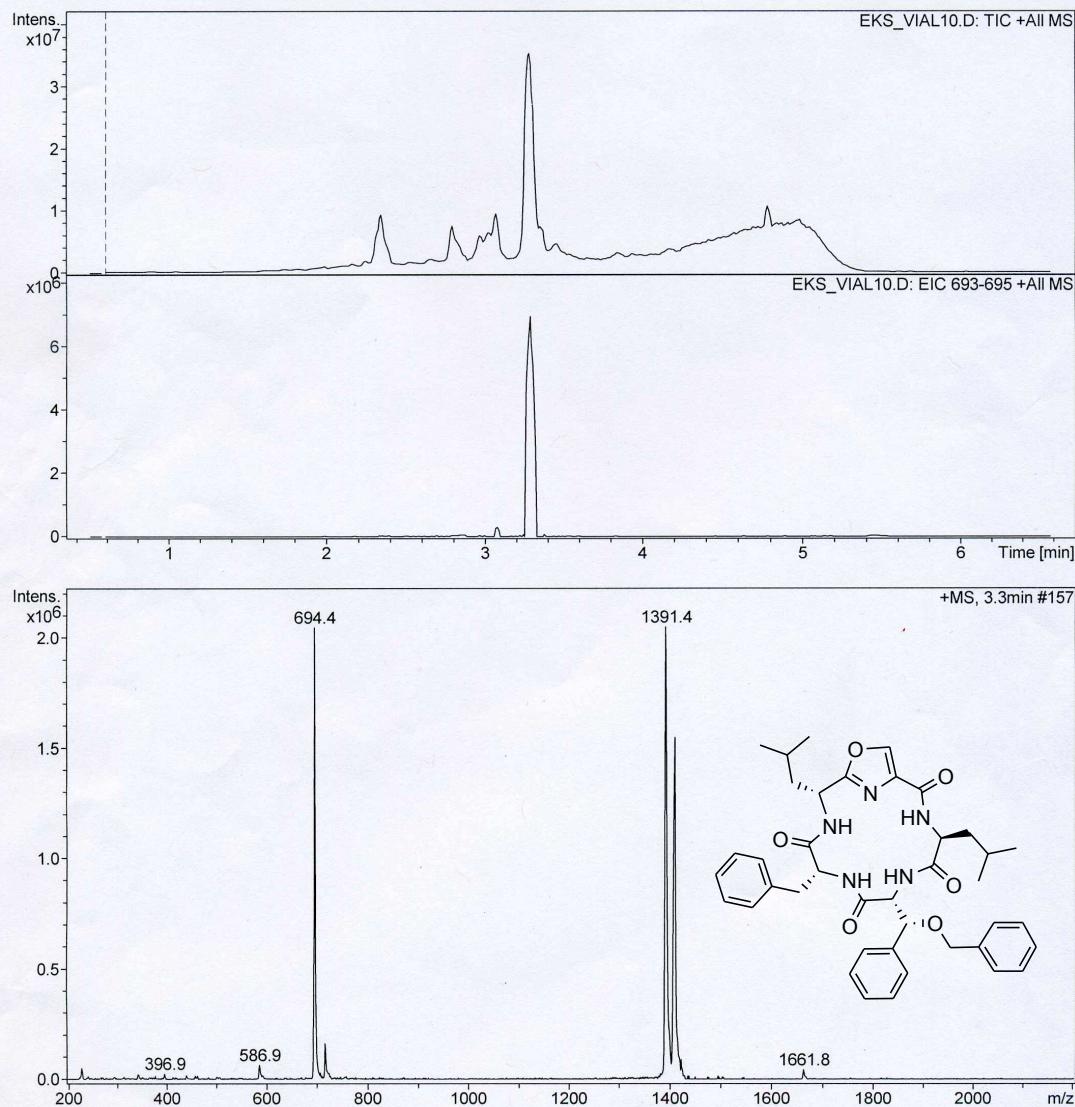
Compound 6: D-Ox-III  
**NMR Macrocyclic (2R,3R)-β-benzoxy-Phe-Leu-Oxazole-D-Leu-D-Phe (6)**

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** EKS\_VIAL10.D    **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M    **Operator:** sdsu    **Print Date:** 4/3/2011 6:25:51 PM  
**Sample Name:** eks\_vial10    **Acq. Date:** 3/30/2011 5:34:17 PM  
**Analysis Info:**

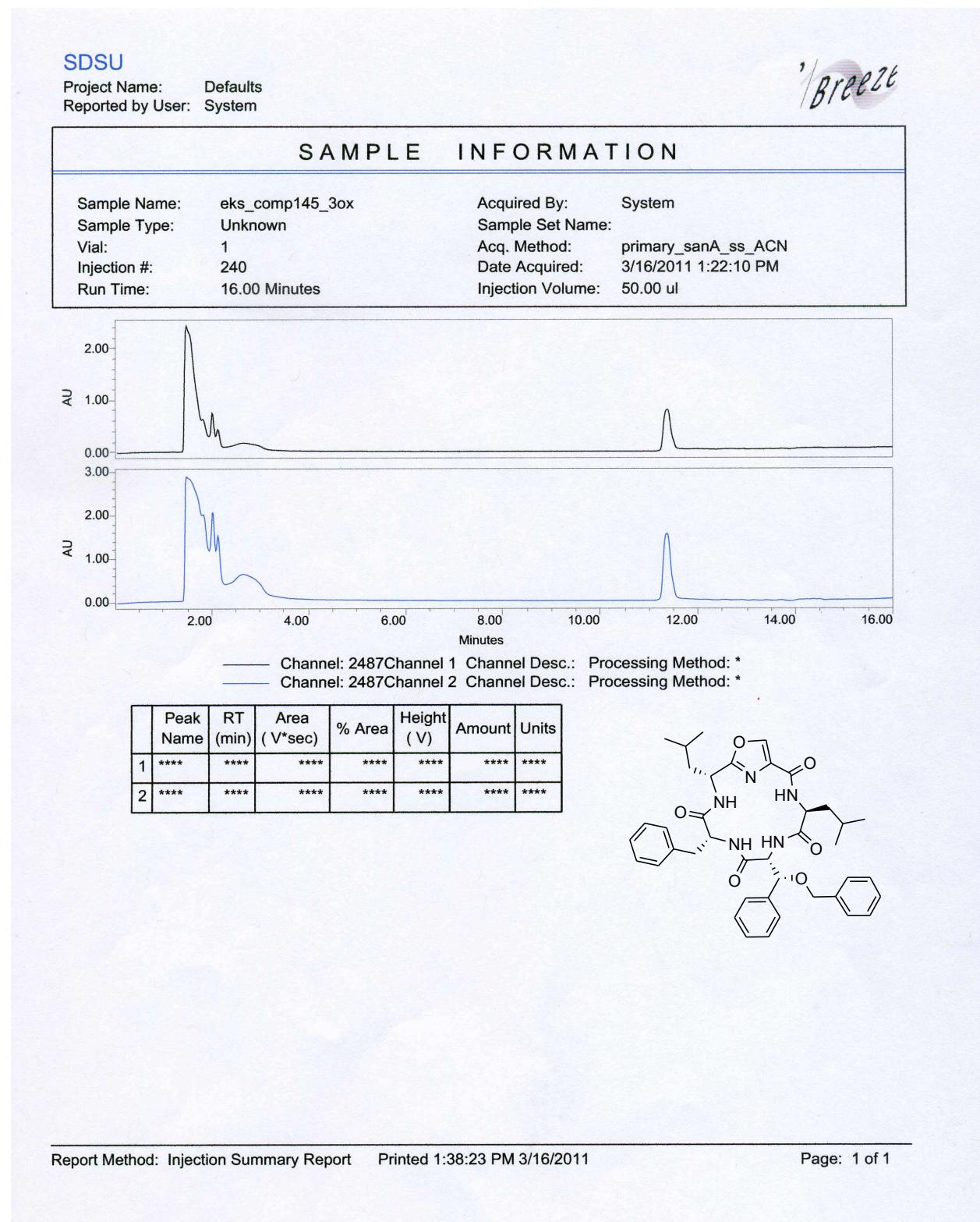


Compound 6: D-Ox-III

**LCMS Macrocyclic (2R,3R)-β-benzoxy-Phe-Leu-Oxazolidinone-D-Leu-D-Phe (6) (MW = 694)**

**Supplementary Material**

**Davis et al.**

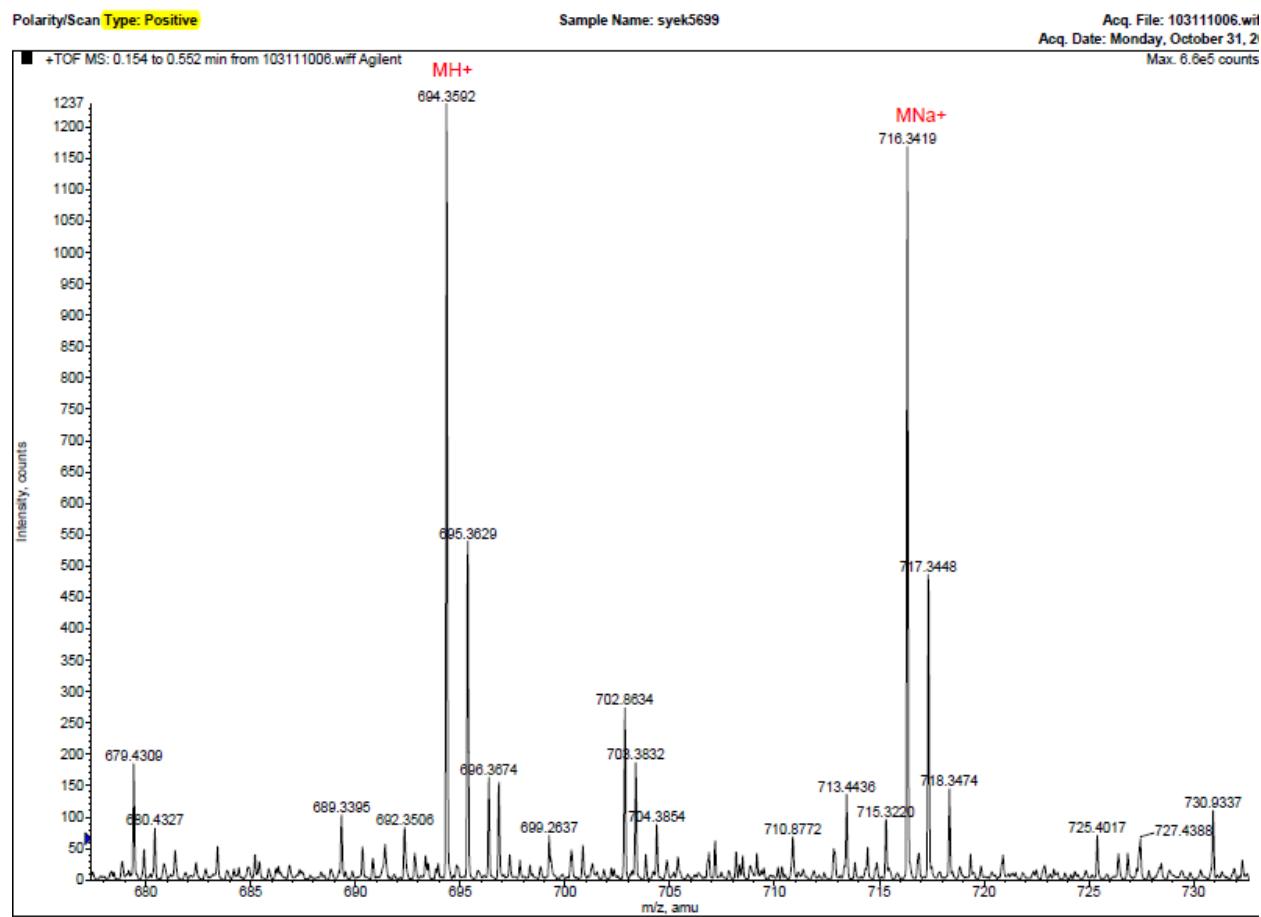


Compound 6: D-Ox-III

**HPLC Macrocyclic (2R,3R)- $\beta$ -benzoxo-Phe-Leu-Oxazole-D-Leu-D-Phe (6)**

**Supplementary Material**

**Davis et al.**

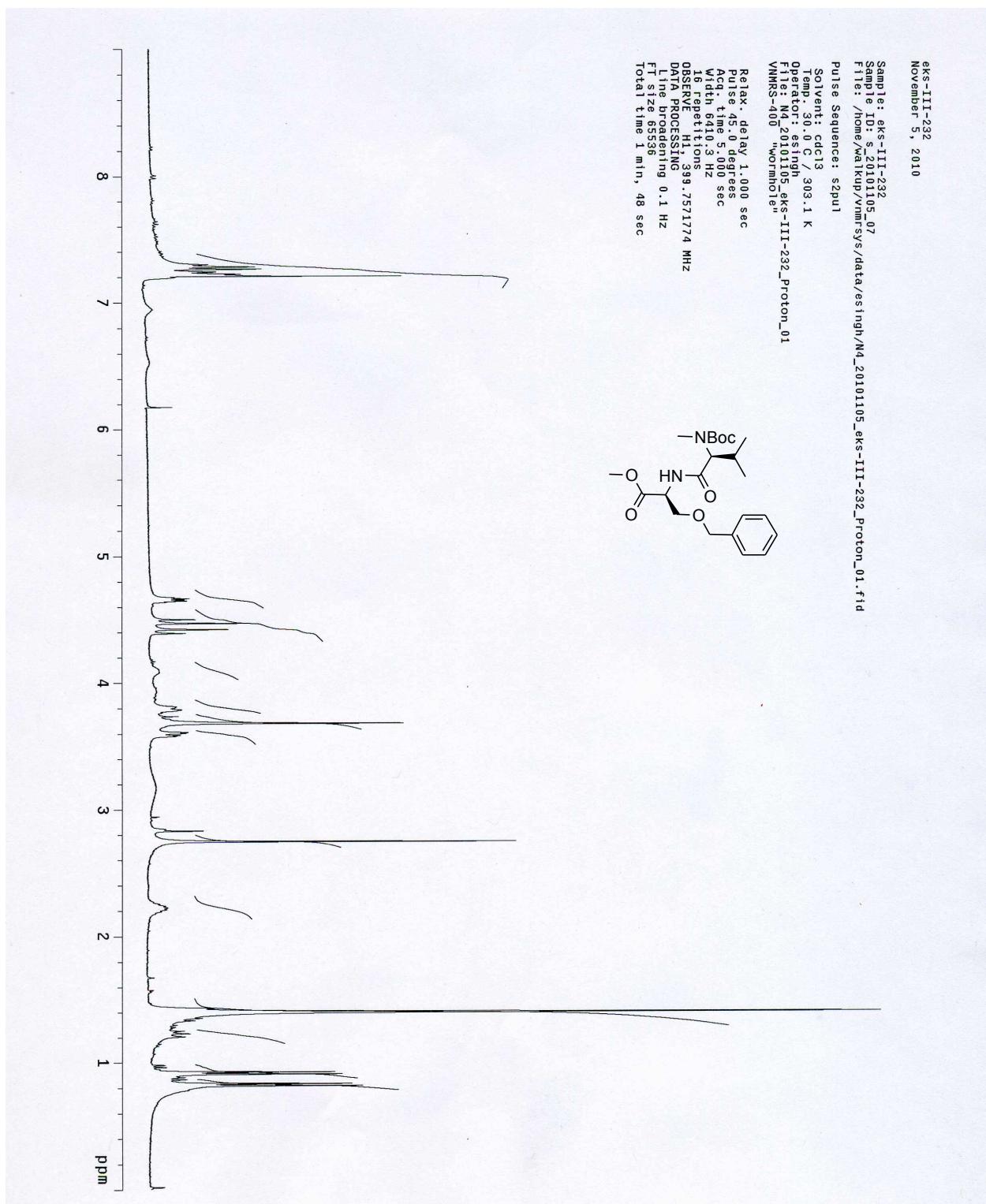


Compound 6: D-Ox-III

**HRMS Macrocyclic (2R,3R)-β-benzoxy-Phe-Leu-Oxazole-D-Leu-D-Phe (6) (MW = 694.3592)**

**Supplementary Material**

**Davis et al.**

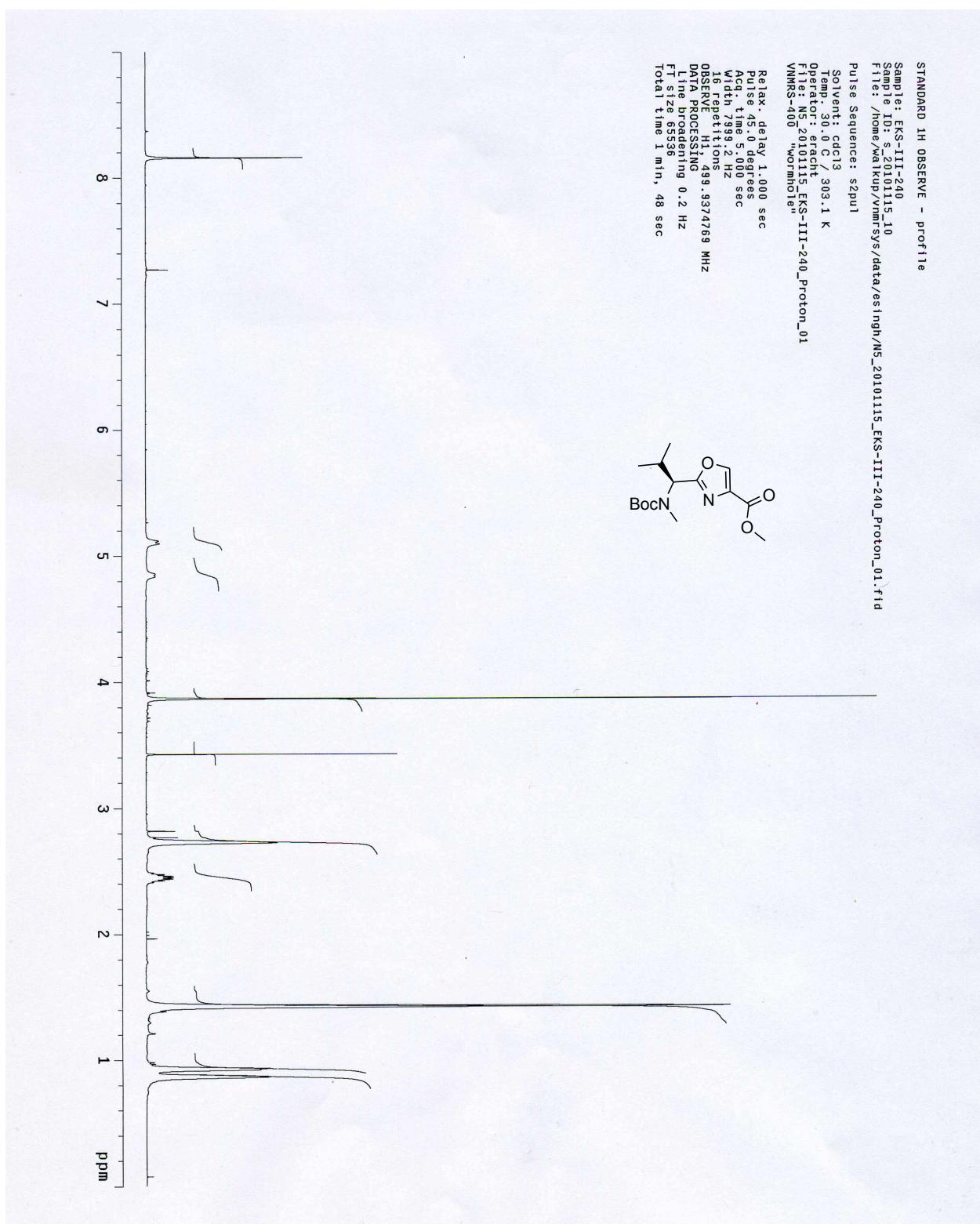


Compound 7: D-Ox-II

**NMR Dipeptide MeO-Ser(Bzl)-Val-N(Me)Boc**

**Supplementary Material**

**Davis et al.**



Compound 7: D-Ox-II

**NMR Dipeptide MeO-Oxazole-Val-N(Me)Boc**

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** EKS-III-234.D

**Instrument:** Agilent 6330 Ion Trap

**Print Date:** 6/8/2011 9:22:13 AM

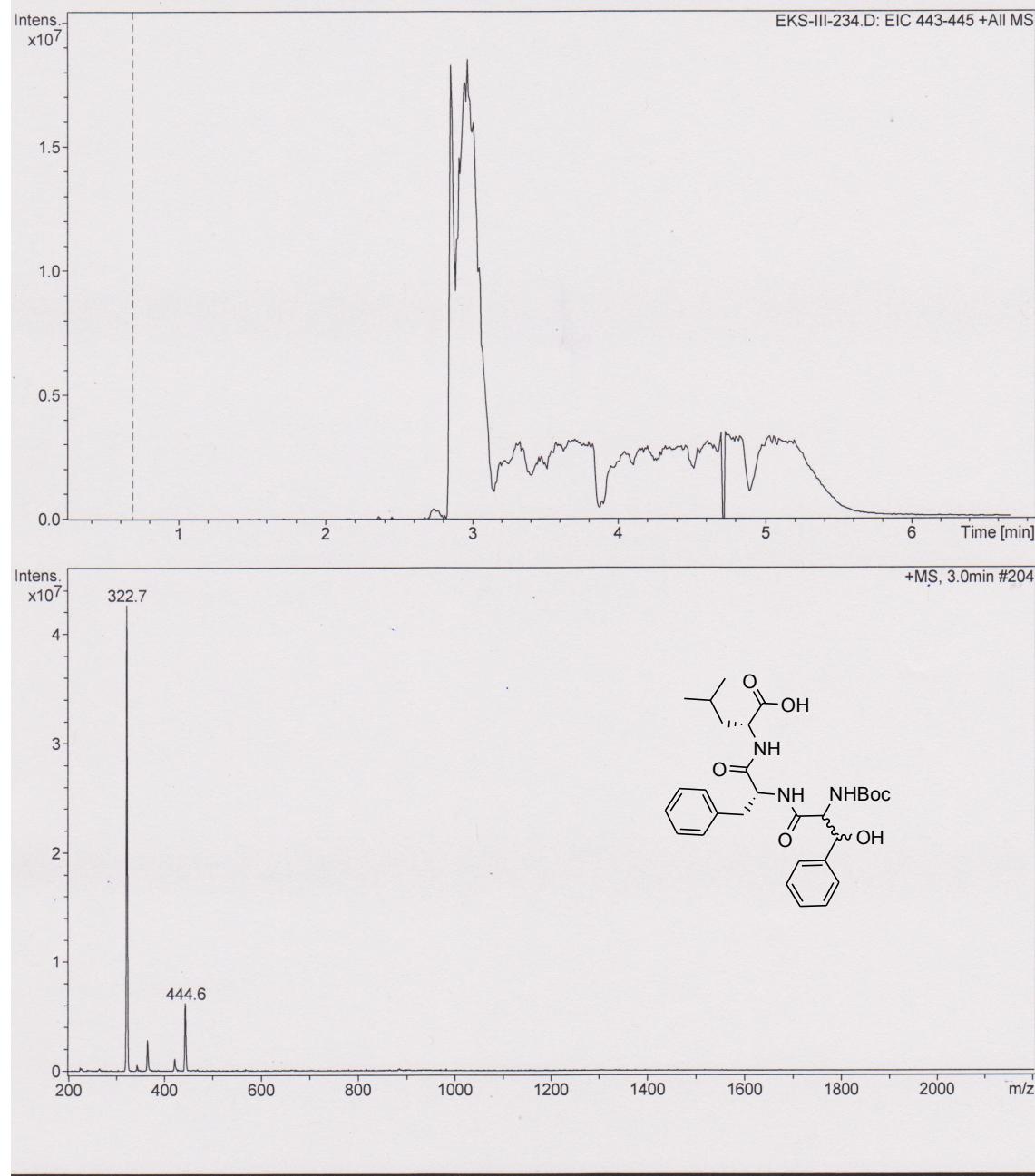
**Method:** SANA.M

**Operator:** sdsu

**Acq. Date:** 11/8/2010 12:05:19 PM

**Sample Name:** eks-III-234

**Analysis Info:**

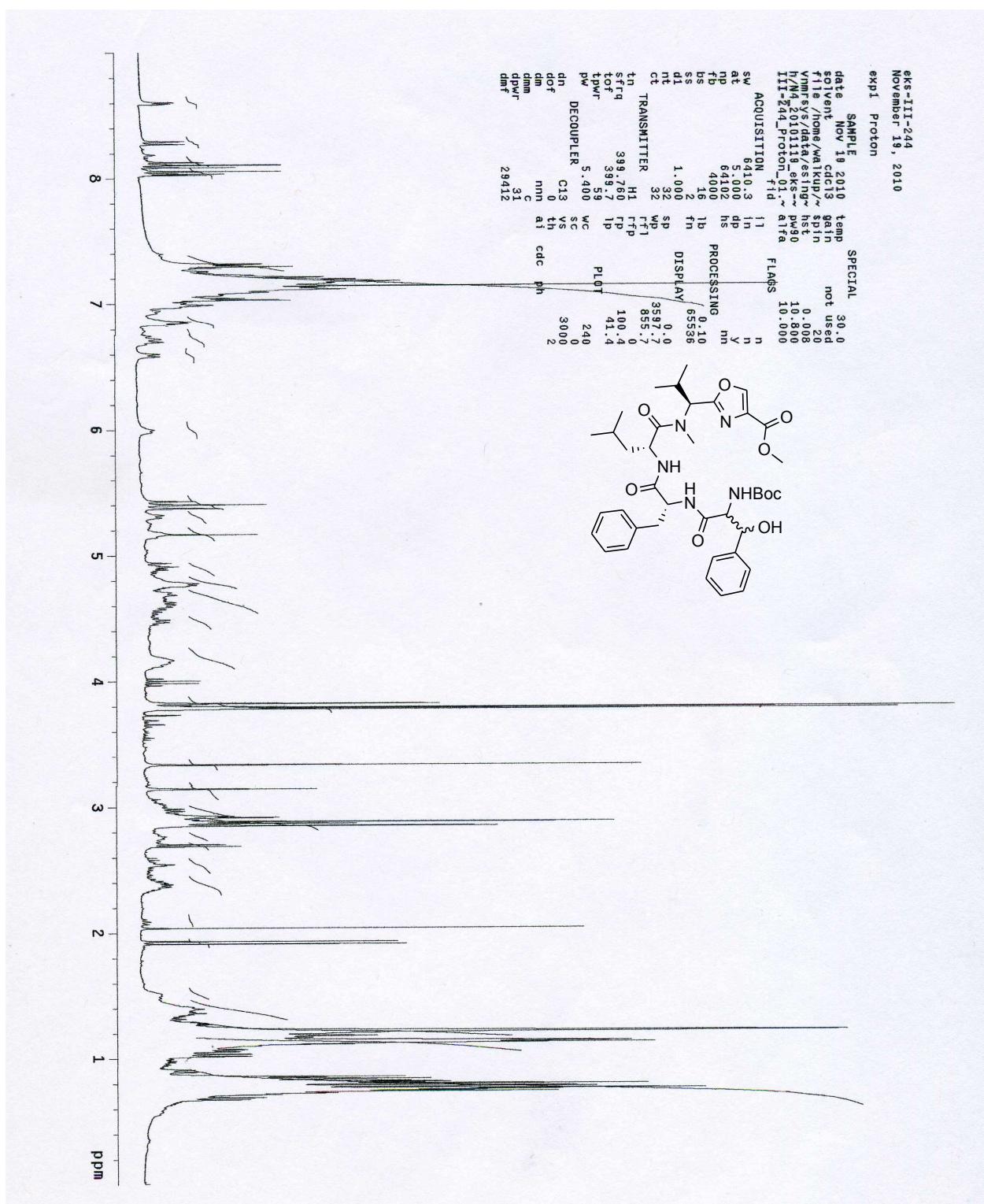


Compound 7: D-Ox-II

**LCMS Tripeptide HO-D-Leu-D-Phe-  $\beta$ -OH-(2R,3R)/(2S,3S)-NH<sub>Boc</sub> (MW = 444)**

**Supplementary Material**

Davis et al.



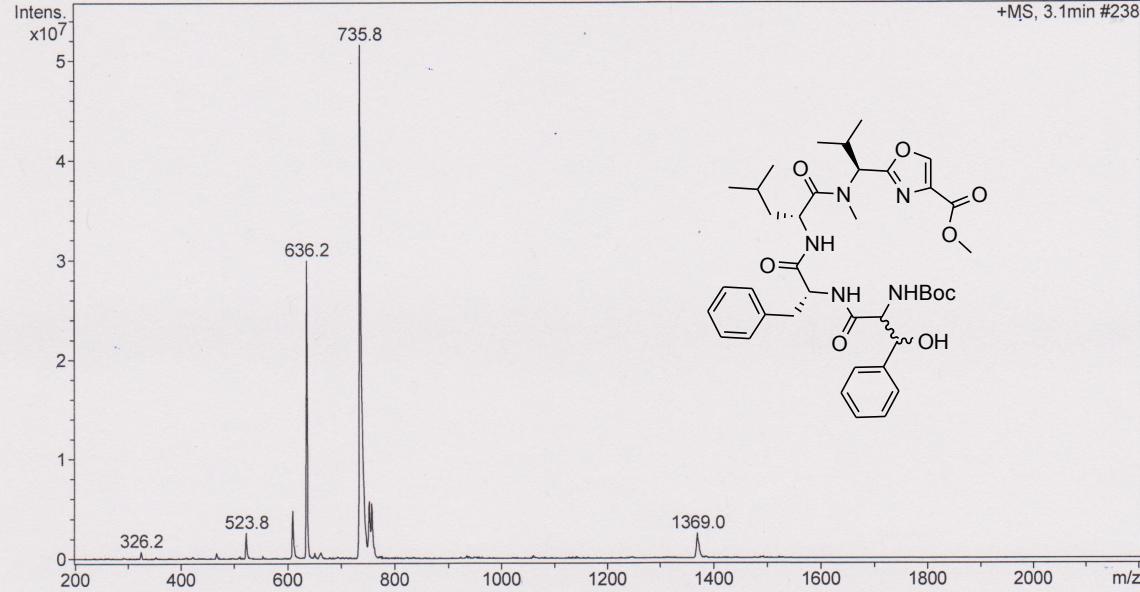
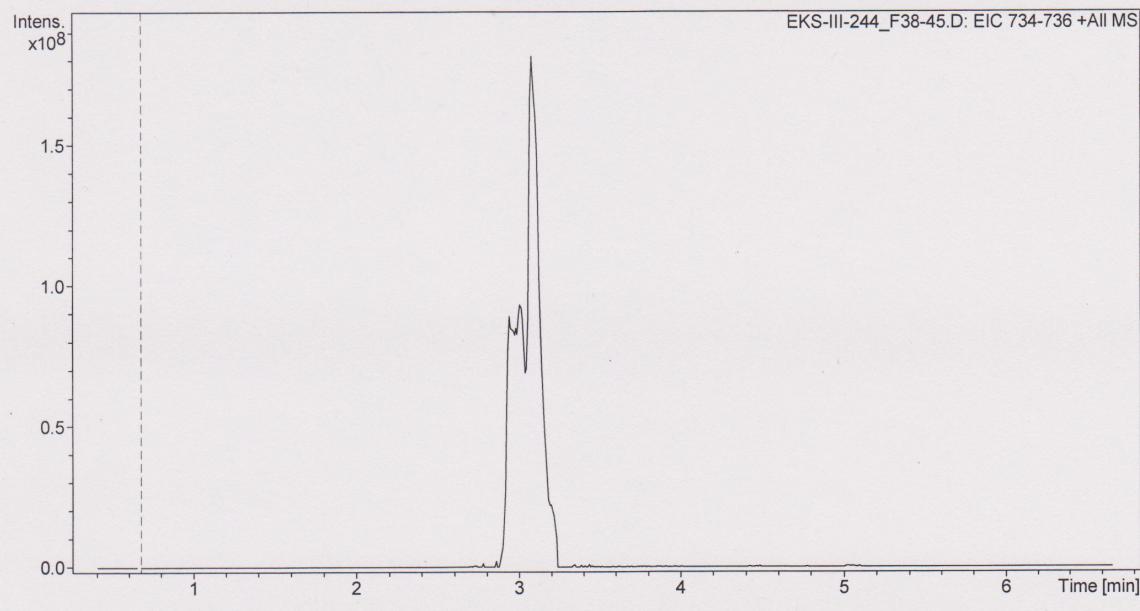
NMR Pentapeptide MeO-Oxazole-Val-N(Me)-D-Leu-D-Phe-(2R,3R)/(2S,3S)- $\beta$ -OH-Phe-NHBoc

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** EKS-III-244\_F38 **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M -45.D **Operator:** sdsu **Print Date:** 6/8/2011 9:27:43 AM  
**Sample Name:** eks-III-244\_f38-45 **Acq. Date:** 11/19/2010 4:08:59 AM  
**Analysis Info:**



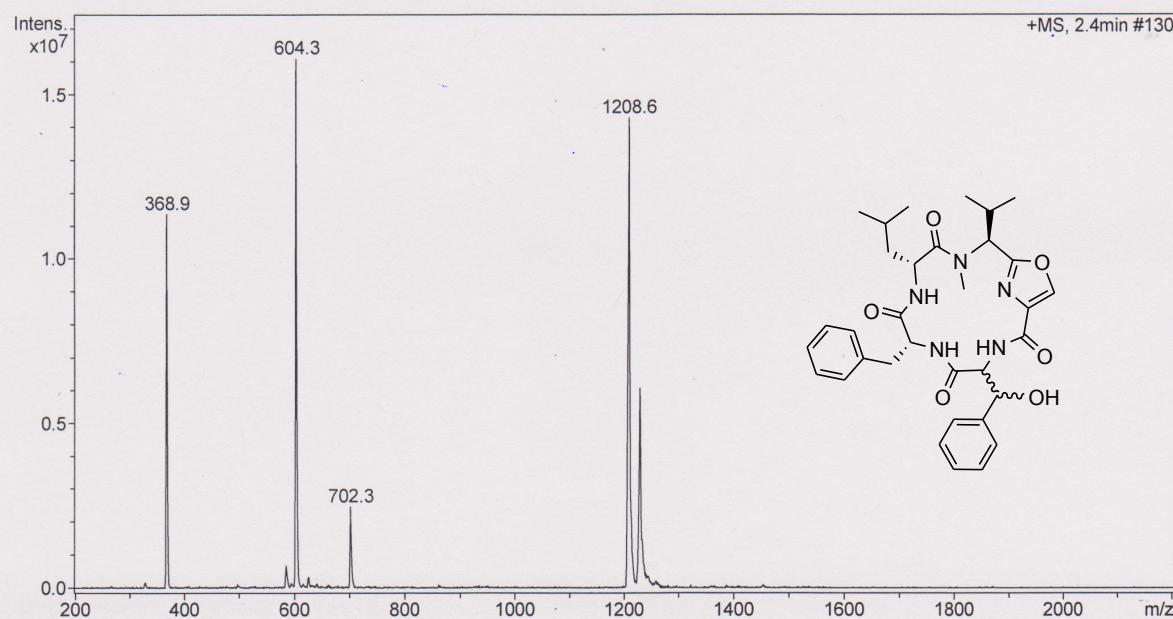
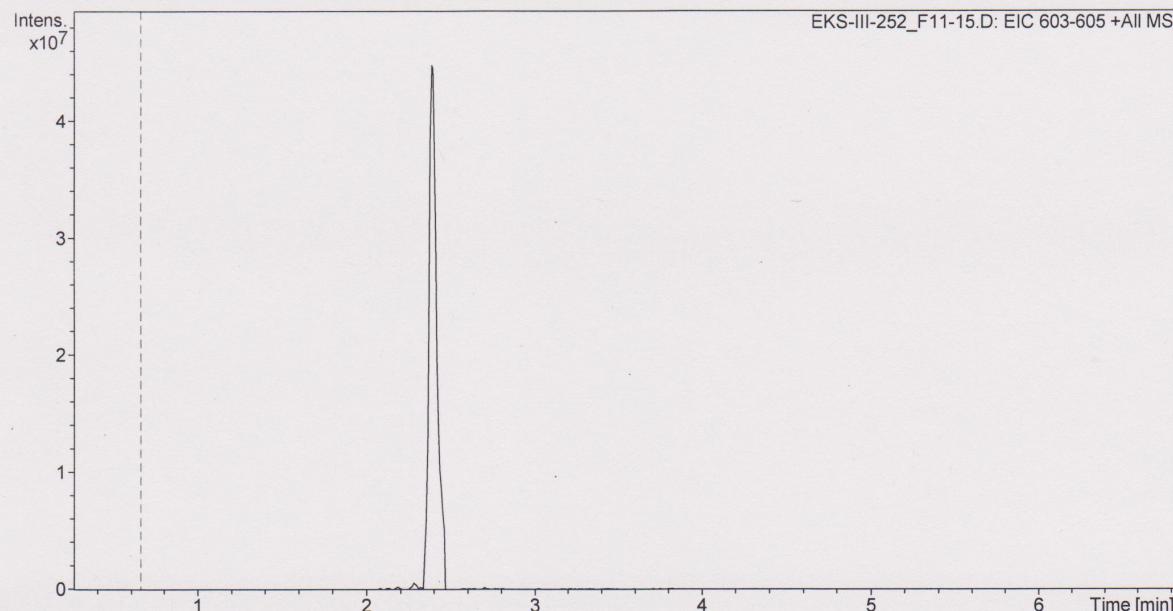
**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** EKS-III-252\_F11 **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M -15.D **Operator:** sdsu  
**Sample Name:** eks-III-252\_f11-15  
**Analysis Info:**

**Print Date:** 6/8/2011 9:28:48 AM  
**Acq. Date:** 11/30/2010 2:20:23 PM

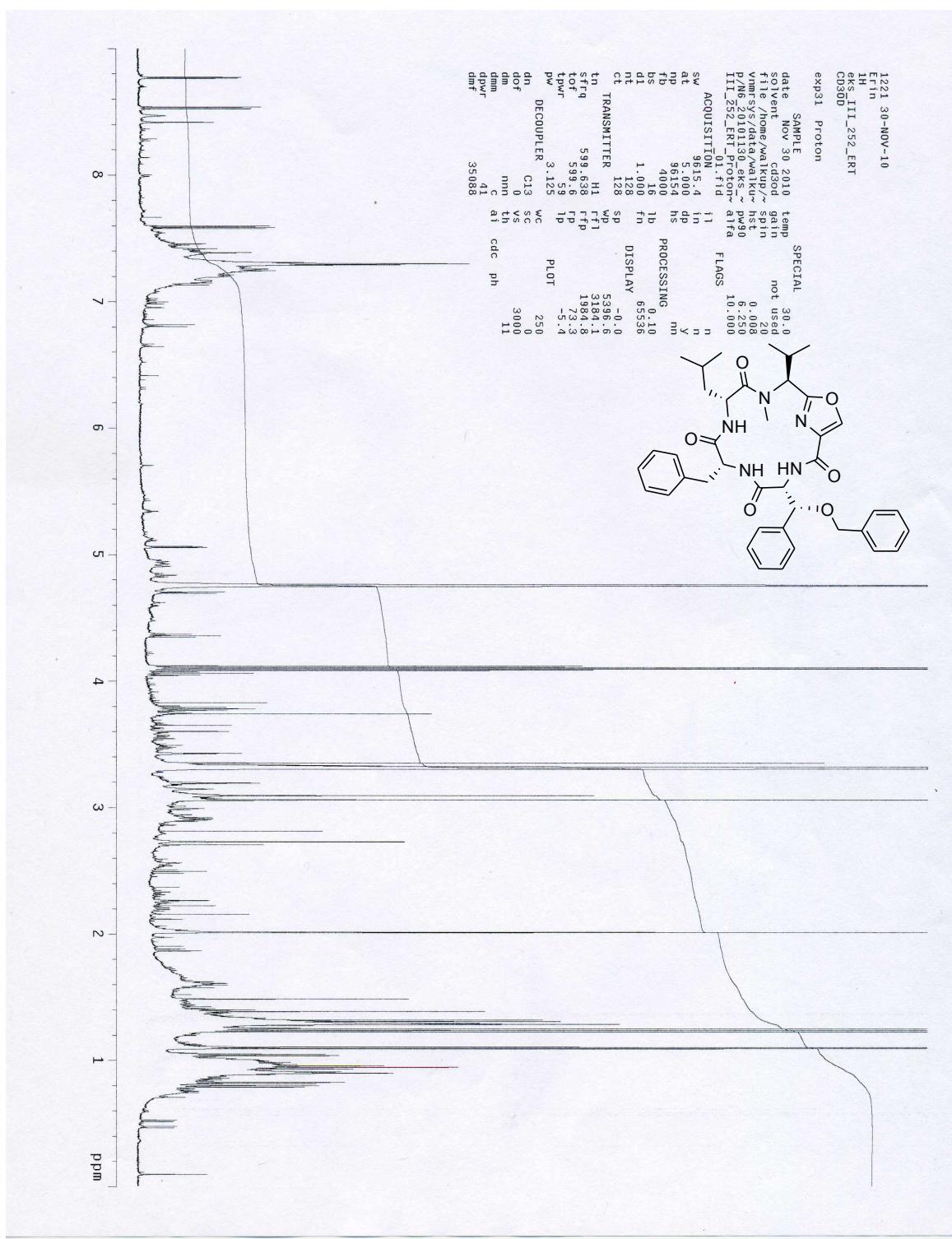


Compound 7: D-Ox-II

**LCMS Macrocyclic (2R,3R)- $\beta$ -OH-Phe-Oxazole-Val-N(Me)-D-Leu-D-Phe (MW = 604)**

**Supplementary Material**

Davis et al.



Compound 7: D-Ox-II

**NMR Macrocycle (2R,3R)-β-benzoxy-Phe-oxazole-Val-N(Me)-D-Leu-D-Phe (7)**

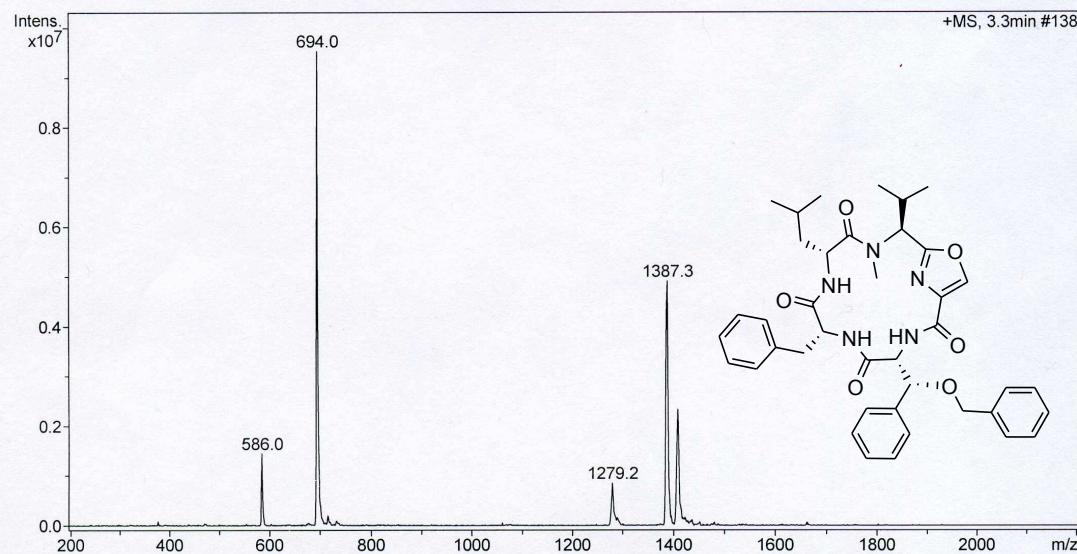
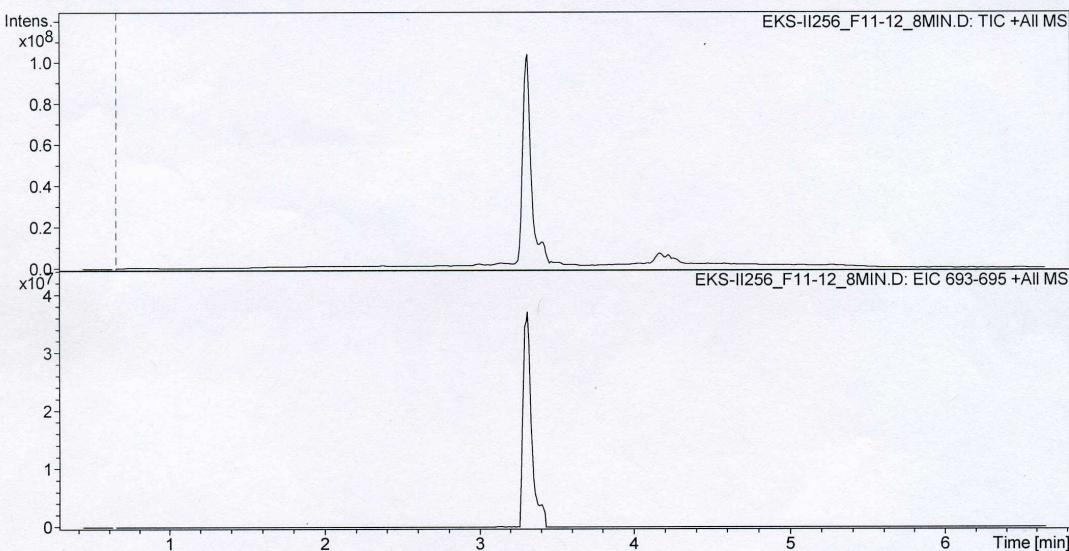
**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** EKS-II256\_F11-1 **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M 2\_8MIN.D **Operator:** sdsu **Print Date:** 12/13/2010 5:30:26 PM  
**Sample Name:** eks-II256\_f11-12\_8min **Acq. Date:** 12/13/2010 4:02:20 PM

**Analysis Info:**

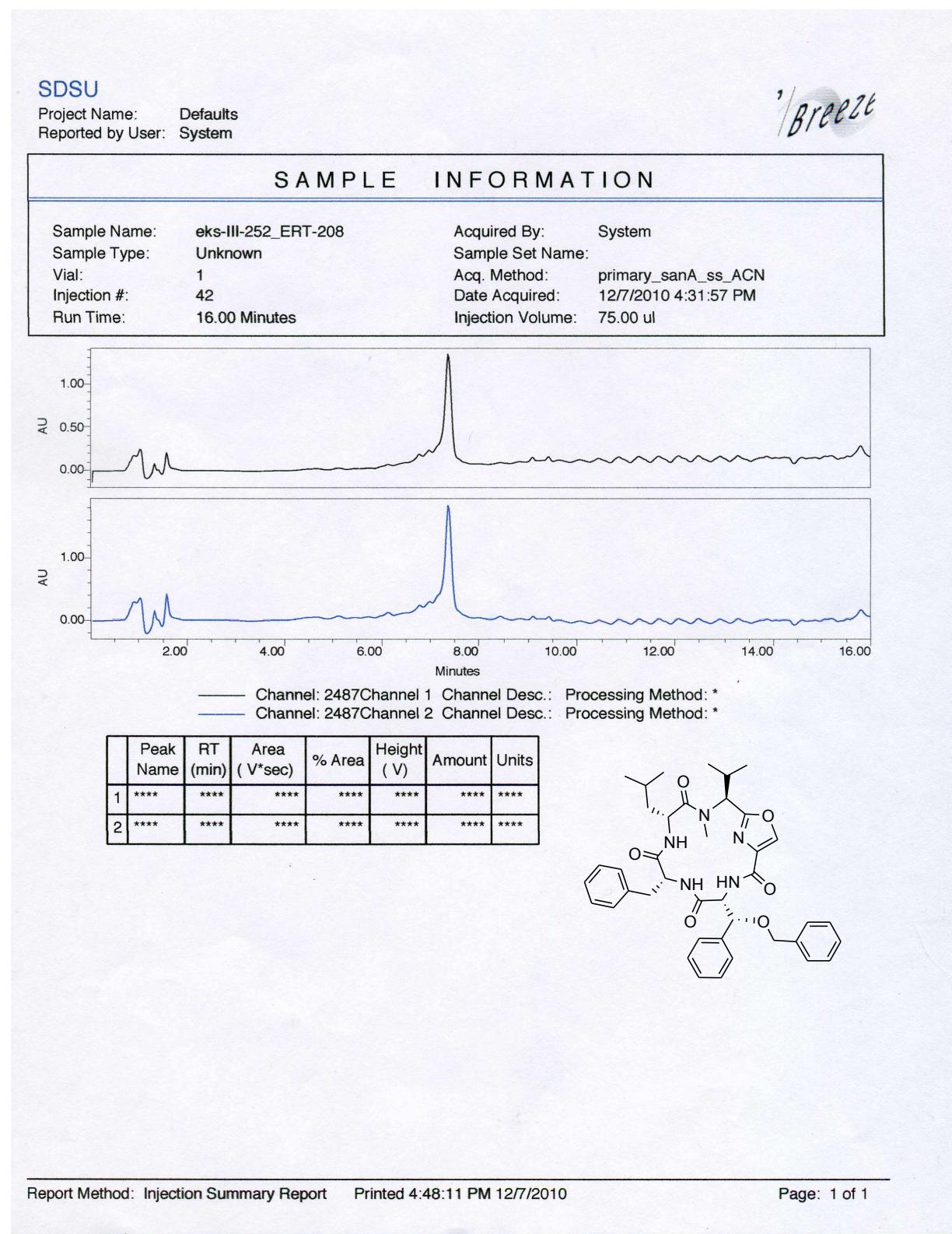


Compound 7: D-Ox-II

**LCMS Macrocyclic (2R,3R)- $\beta$ -benzoxo-Phe-oxazole-Val-N(Me)-D-Leu-D-Phe (7) (MW = 694)**

**Supplementary Material**

**Davis et al.**

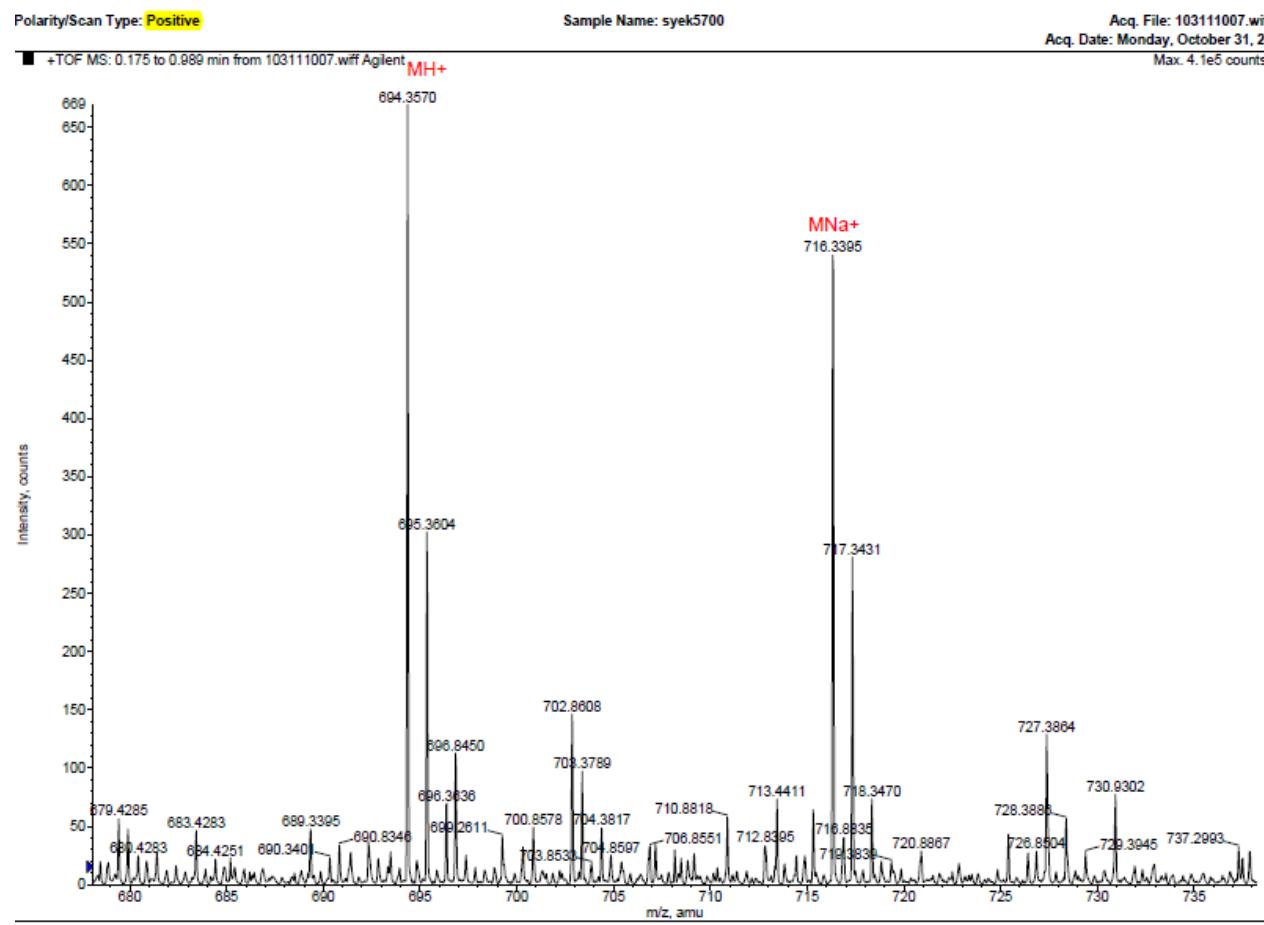


Compound 7: D-Ox-II

**HPLC Macrocyclic (2R,3R)- $\beta$ -benzoxo-Phe-oxazole-Val-N(Me)-D-Leu-D-Phe (7)**

**Supplementary Material**

**Davis et al.**



Compound 7: D-Ox-II

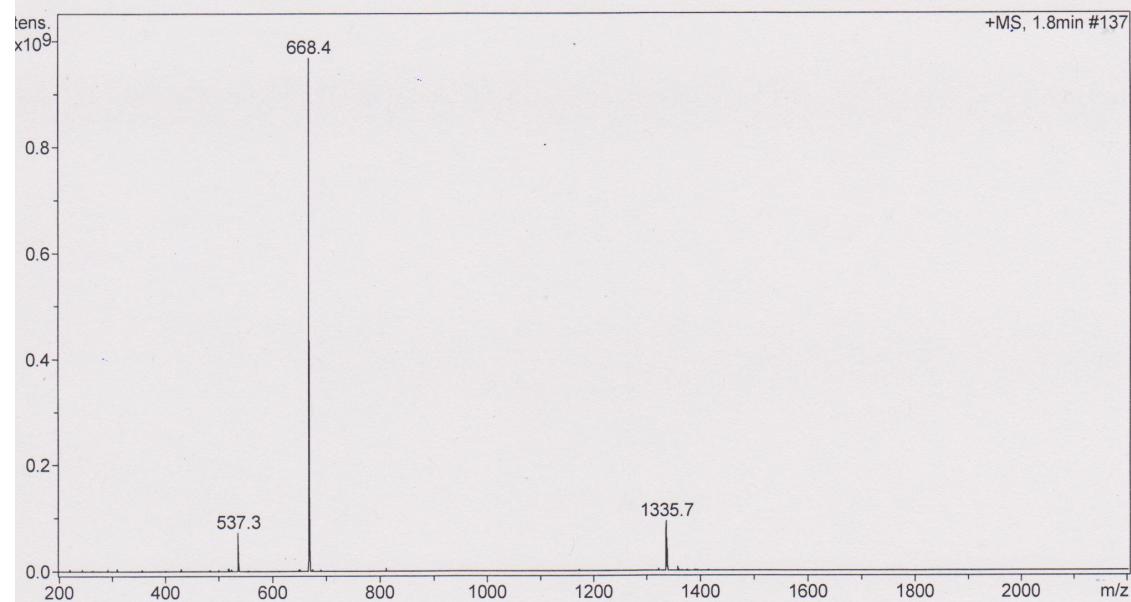
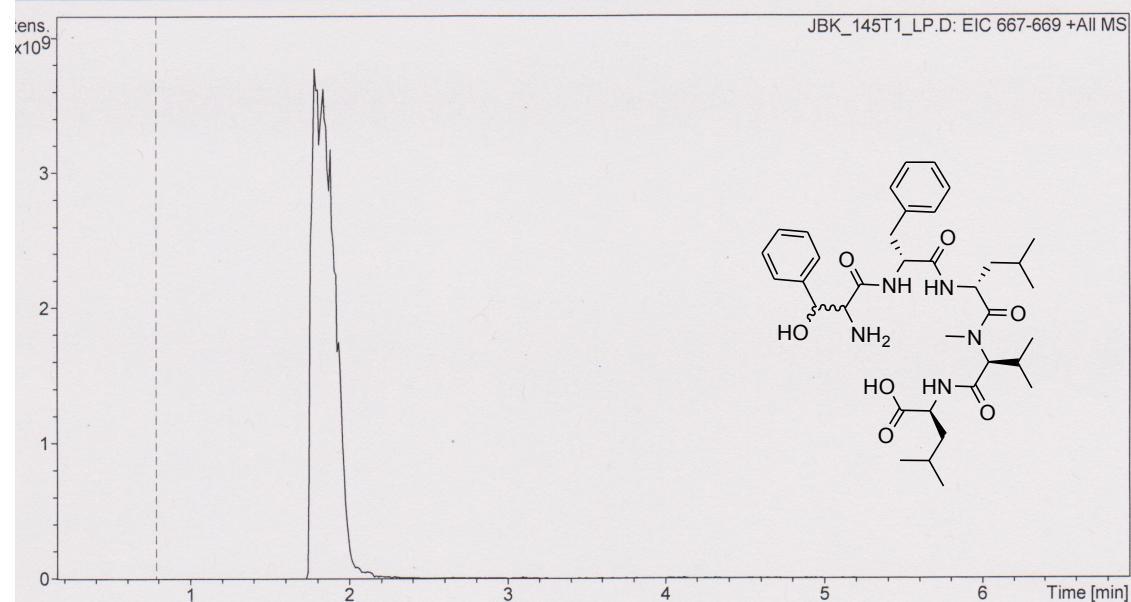
**HRMS Macrocycle (2R,3R)- $\beta$ -benzoxo-Phe-oxazole-Val-N(Me)-D-Leu-D-Phe (7) (MW = 694.3570)**

## **Supplementary Material**

Davis et al.

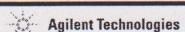
Display Report - All Windows Selected Analysis

**Analysis Name:** JBK\_145T1\_LP.D **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M **Operator:** sdsu **Print Date:** 6/8/2011 9:18:30 AM  
**Sample Name:** jbk\_145T1\_lp **Acq. Date:** 6/28/2010 10:35:16 AM  
**Analysis Info:**



MSD Trap Report v 4 (Let-Opt2)

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## Compound 8: D-Ox-I

## LCMS Pentapeptide HO- Leu-Val-N(Me)-D-Leu-D-Phe- $\beta$ -OH(2R,3R)(2S,3S)-Phe-NH<sub>2</sub> (MW = 668)

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** JBK\_196B.D

**Instrument:** Agilent 6330 Ion Trap

**Print Date:** 6/8/2011 9:12:14 AM

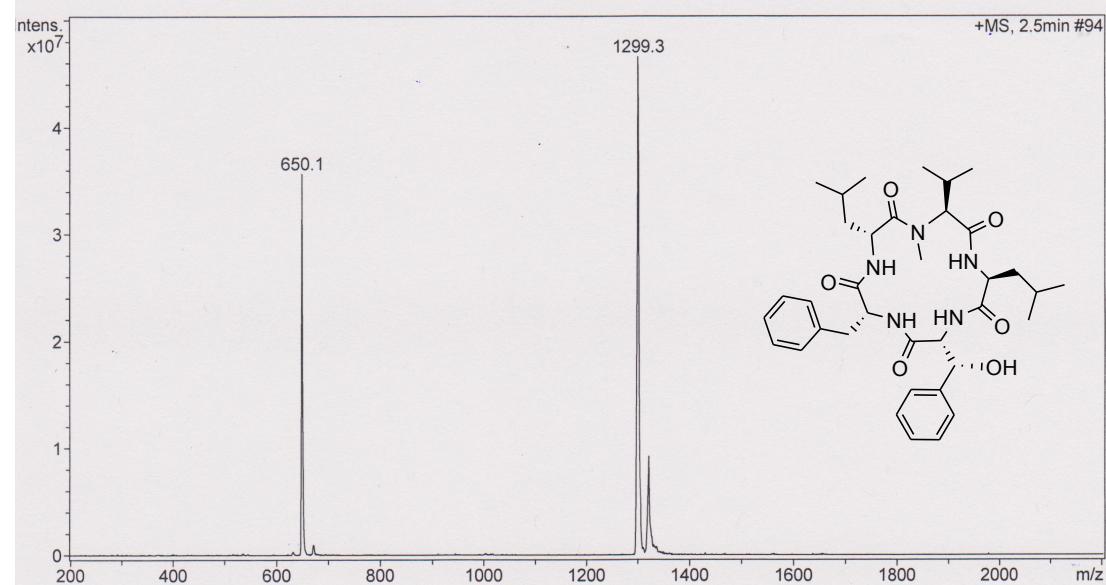
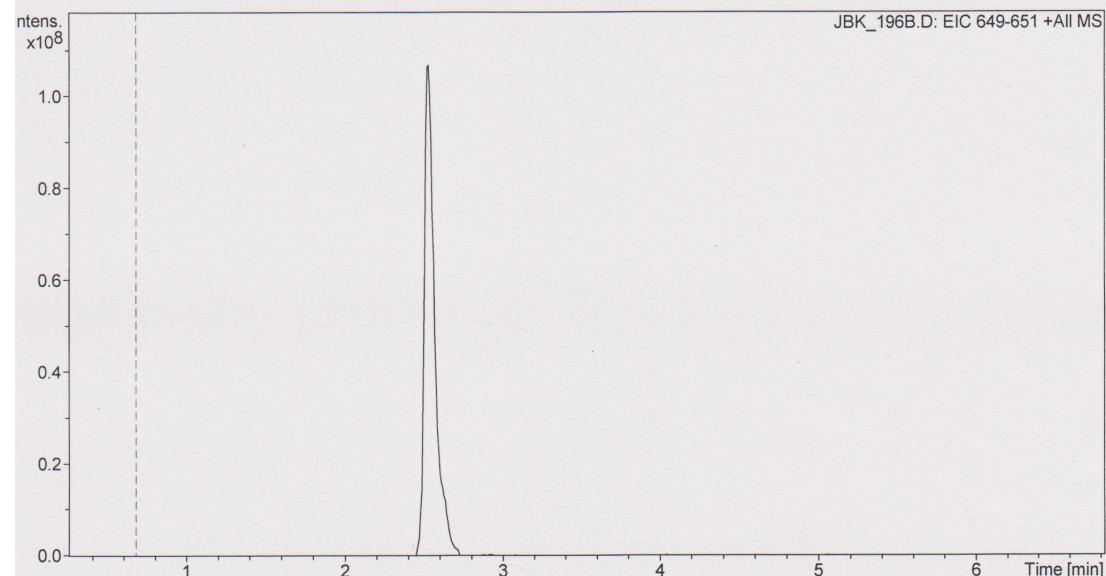
**Method:** SANA.M

**Operator:** sdsu

**Acq. Date:** 11/18/2010 4:02:48 AM

**Sample Name:** jbk\_196b

**Analysis Info:**

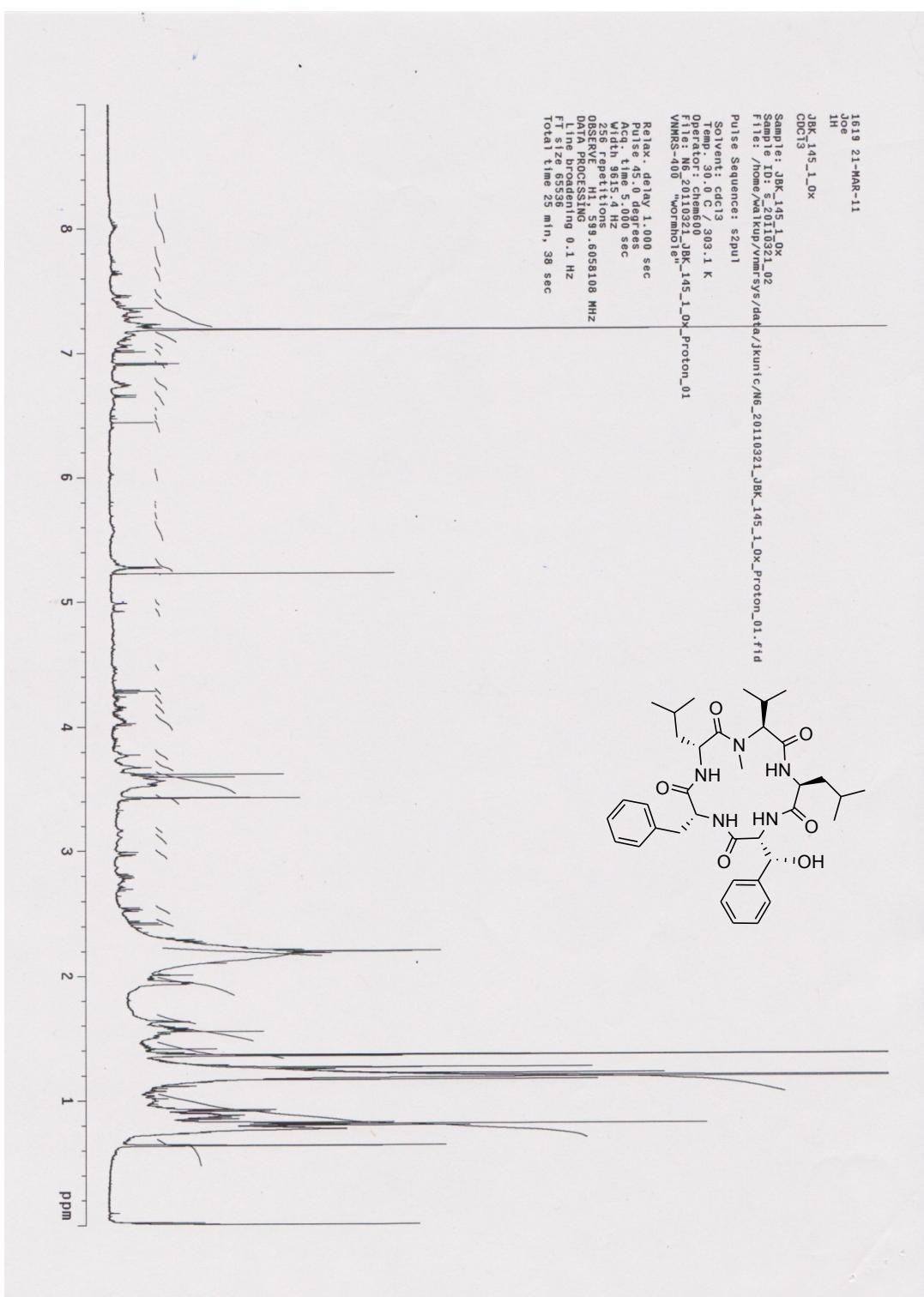


Compound 8: D-Ox-I

**LCMS Macrocyclic  $\beta$ -OH(2R,3R)-Phe-Leu-Val-N(Me)-D-Leu-D-Phe (MW = 649.82)**

**Supplementary Material**

Davis et al.

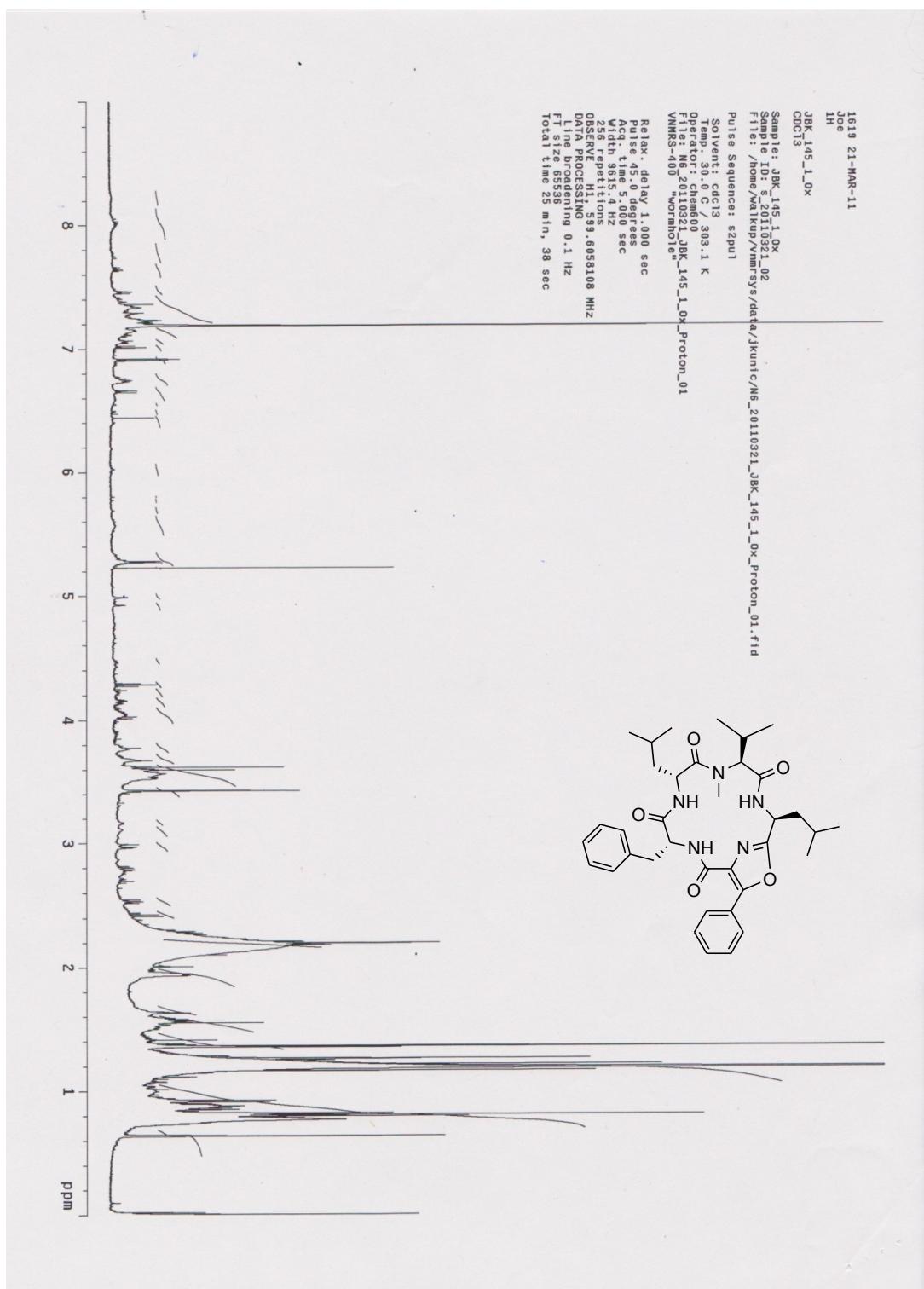


Compound 8: D-Ox-I

**NMR Macrocycle  $\beta$ -OH(2*R*,3*R*)-Phe-Leu-Val-N(Me)-D-Leu-D-Phe (8)**

**Supplementary Material**

Davis et al.



Compound 8: D-Ox-I

**NMR Macrocycle Phe-Oxazole-Leu-Val-N(Me)-D-Leu-D-Phe (8)**

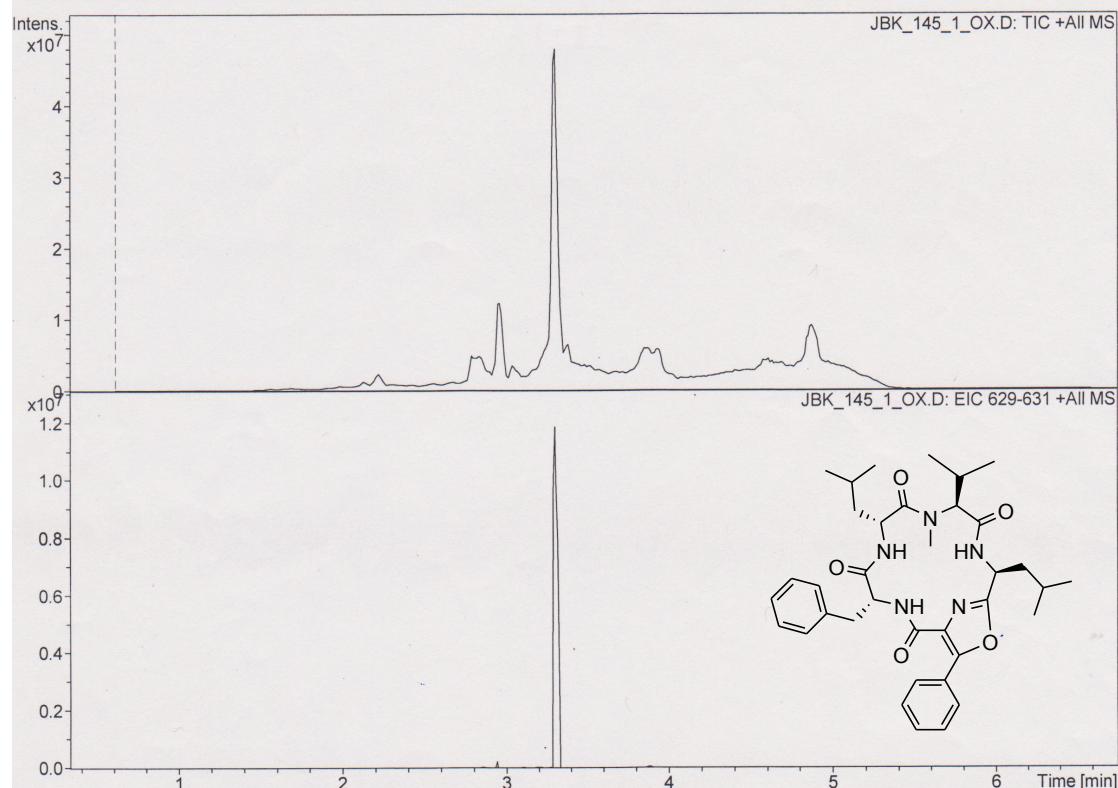
**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** JBK\_145\_1\_OX. **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M D **Operator:** sdsu **Print Date:** 3/20/2011 1:32:40 PM  
**Sample Name:** jbk\_145\_1\_Ox **Acq. Date:** 3/20/2011 1:24:12 PM

**Analysis Info:**



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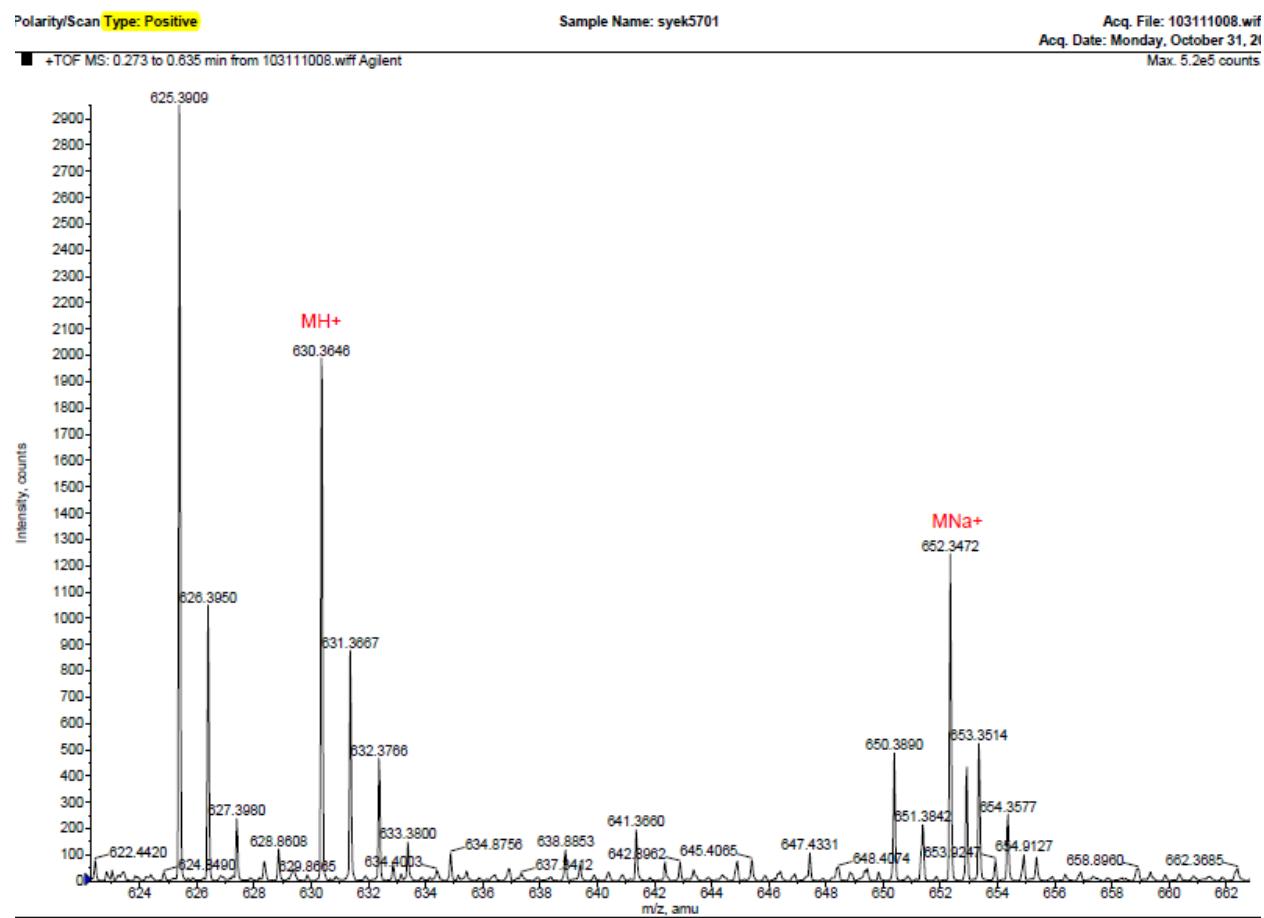
Agilent Technologies

Compound 8: D-Ox-I

**LCMS Macrocyclic Phe-Oxazole-Leu-Val-N(Me)-D-Leu-D-Phe (8) (MW = 629.79)**

**Supplementary Material**

**Davis et al.**

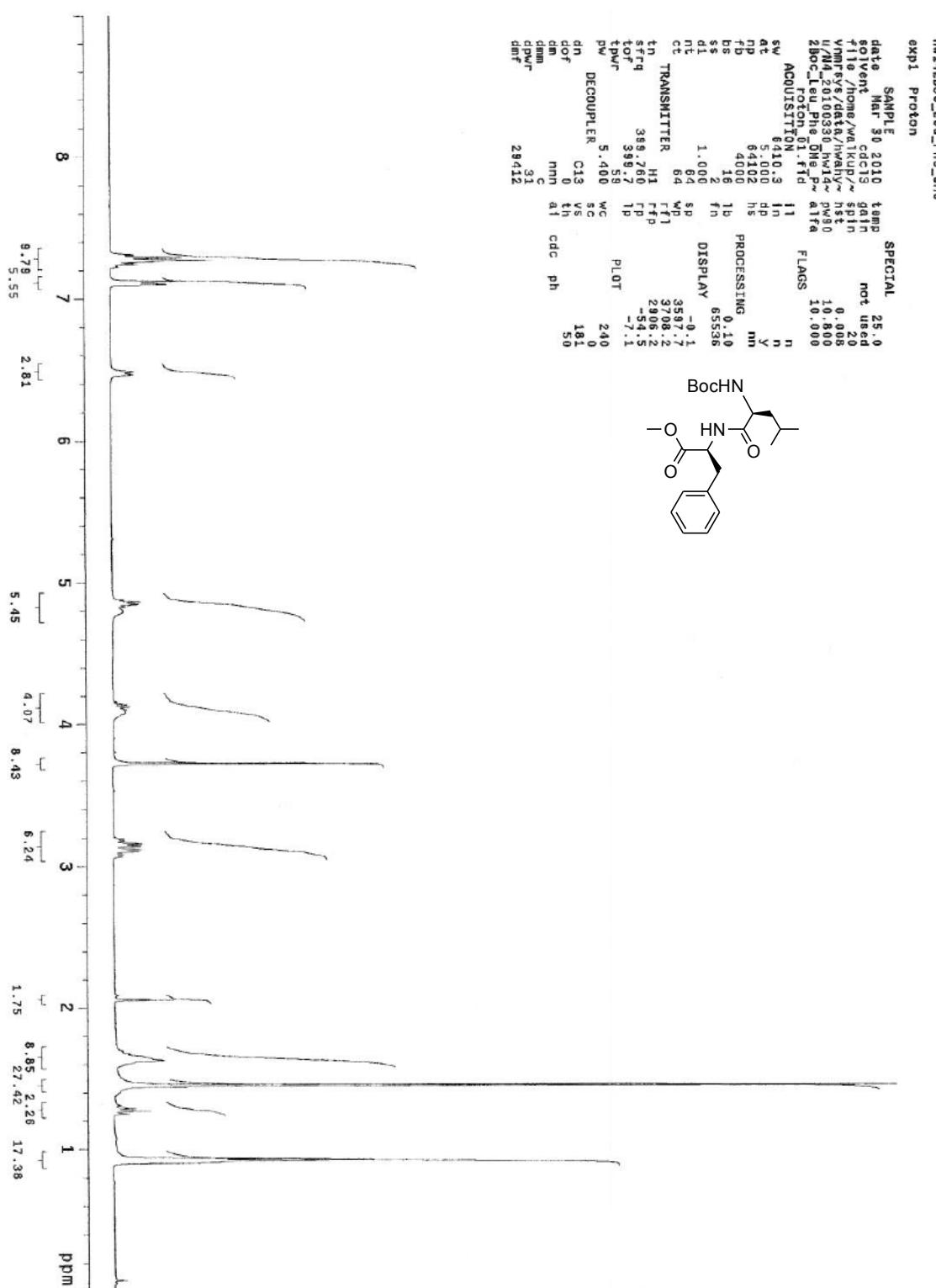


Compound 8: D-Ox-I

**HRMS Macrocyclic Phe-Oxazole-Leu-Val-N(Me)-D-Leu-D-Phe (8) (MW = 630.3646)**

**Supplementary Material**

Davis et al.

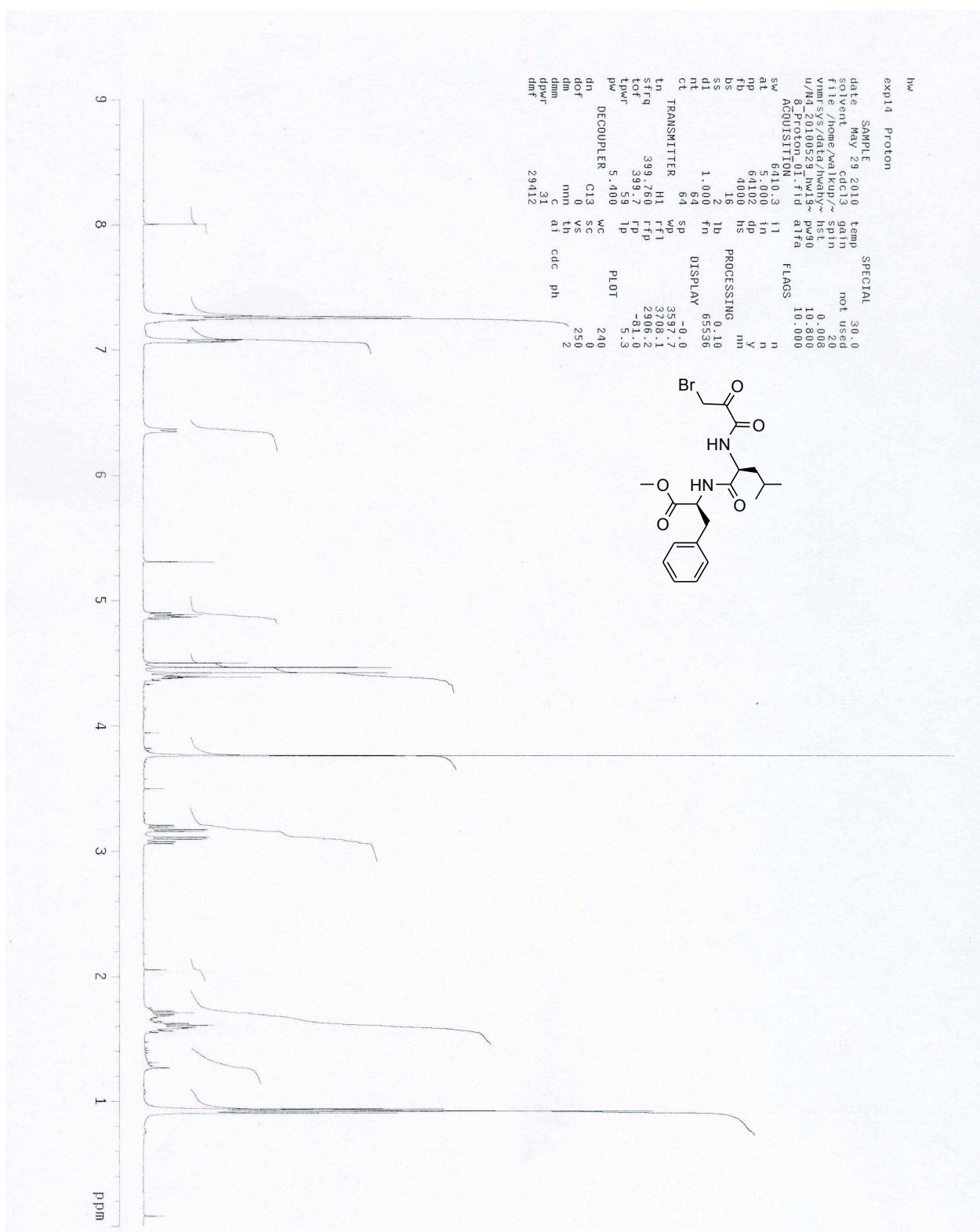


Compound 9: A-Th-III

NMR Dipeptide MeO-Phe-Leu-NHBoc

### Supplementary Material

Davis et al.

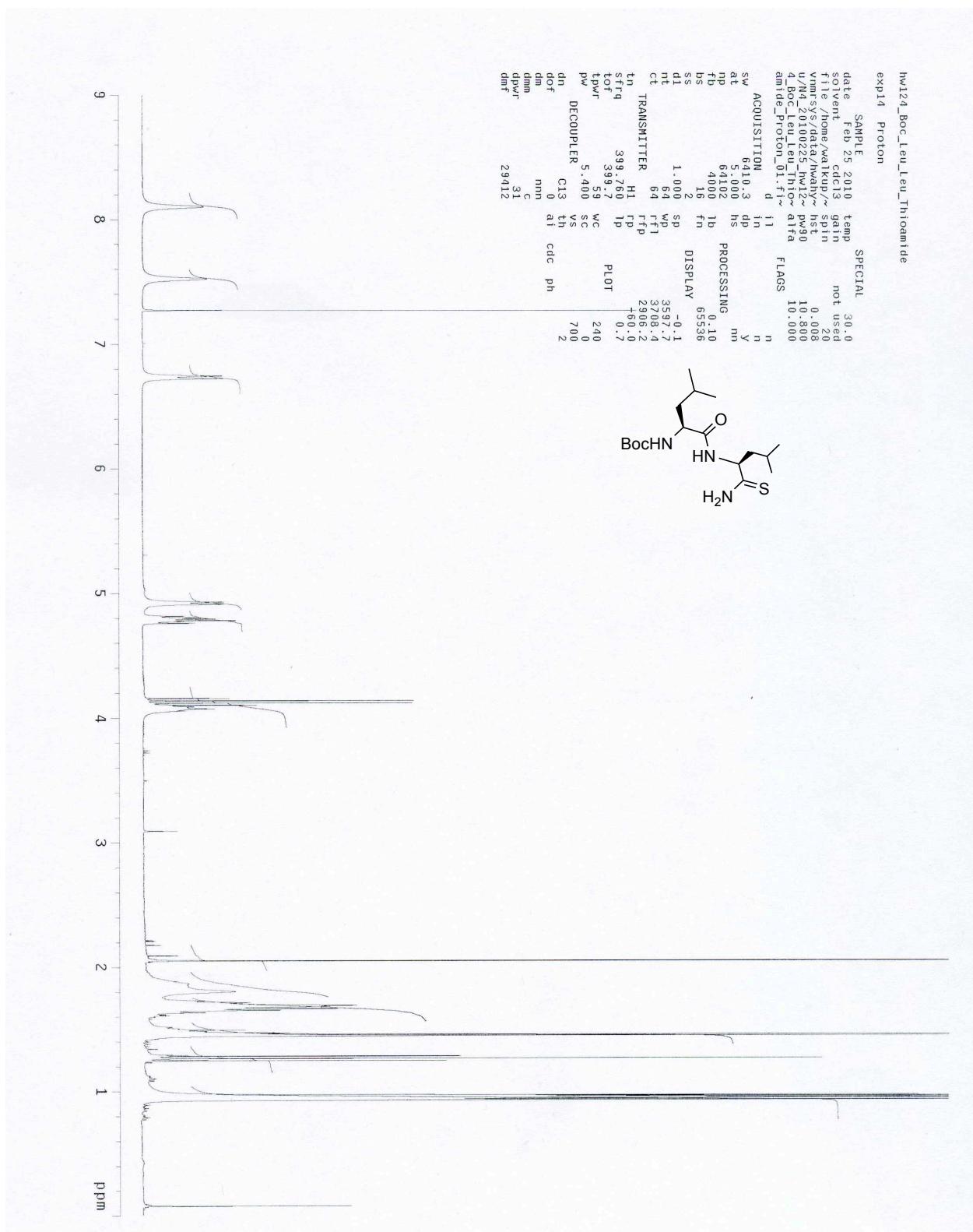


Compound 9: A-Th-III

NMR Tripeptide MeO-Phe-Leu-Ketone-Br (48)

## Supplementary Material

Davis et al.

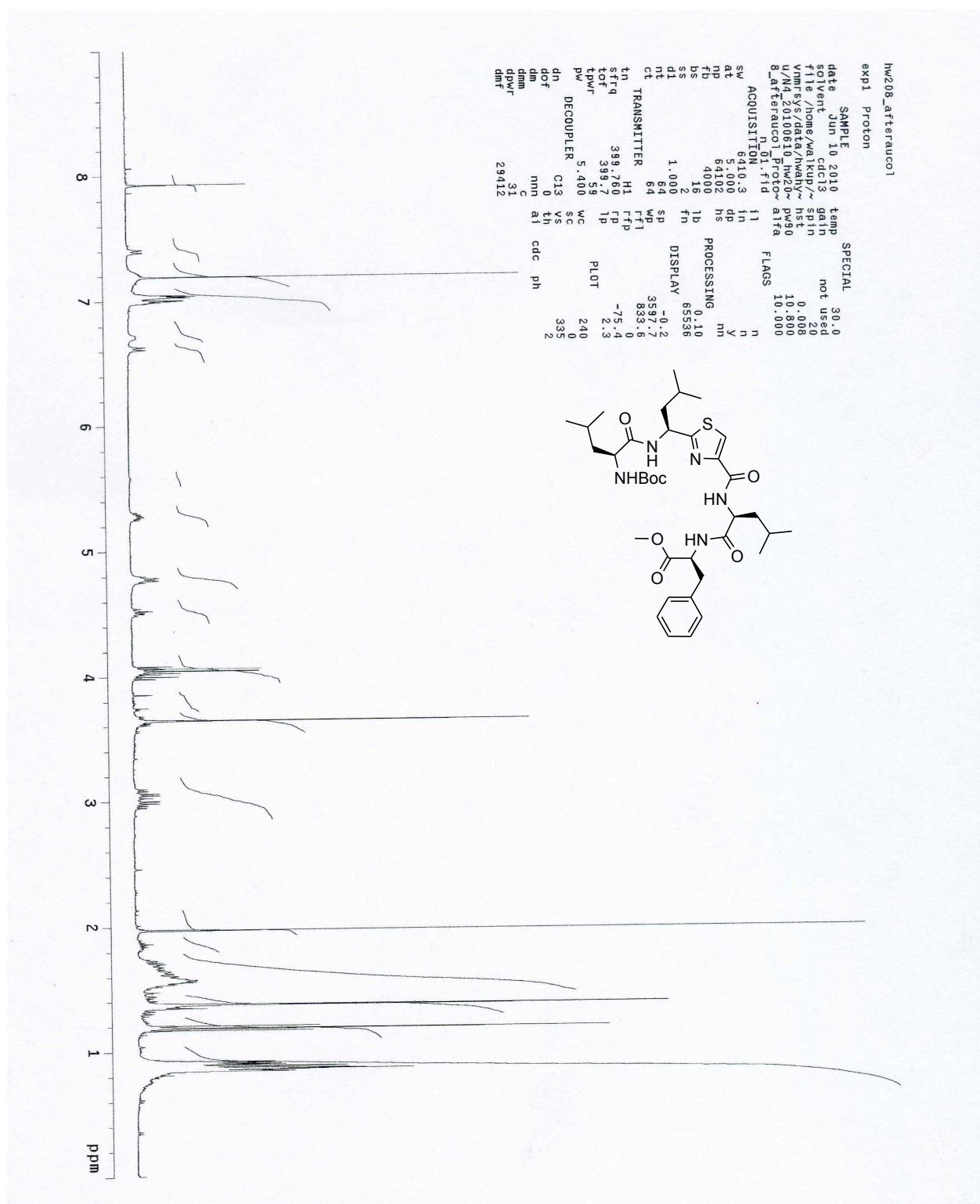


Compound 9: A-Th-III

**NMR Dipeptide Thioamide-Leu-Leu-NHBoc (52)**

### Supplementary Material

Davis et al.



Compound 9: A-Th-III

**NMR Pentapeptide MeO-Phe-Leu-Thiazole-Leu-Leu-NHBoc (53)**

**Supplementary Material**

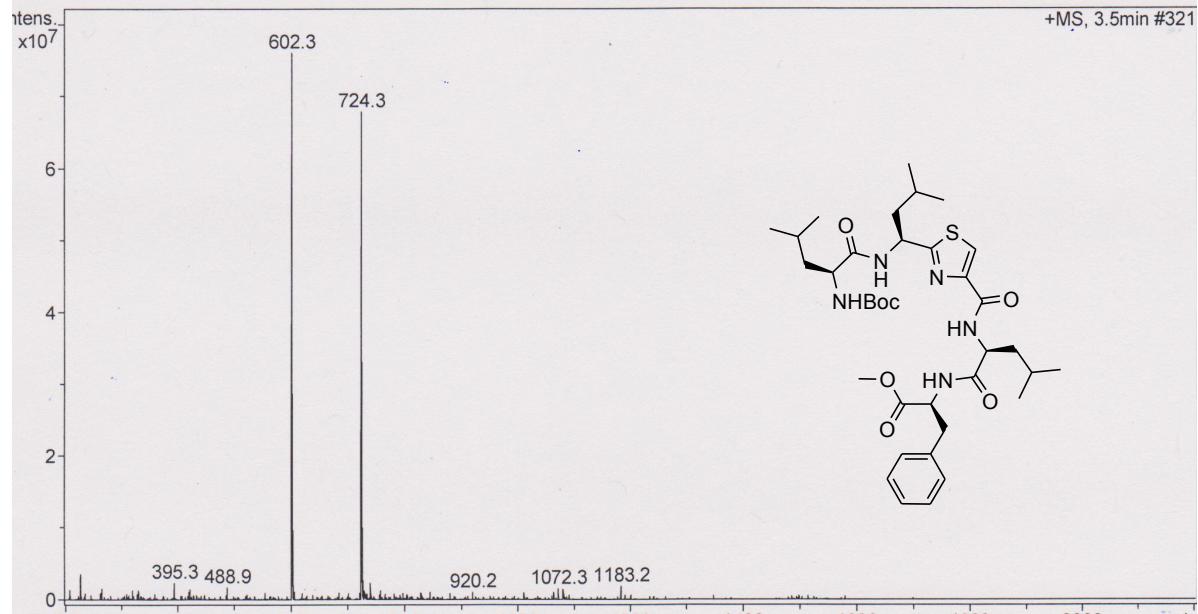
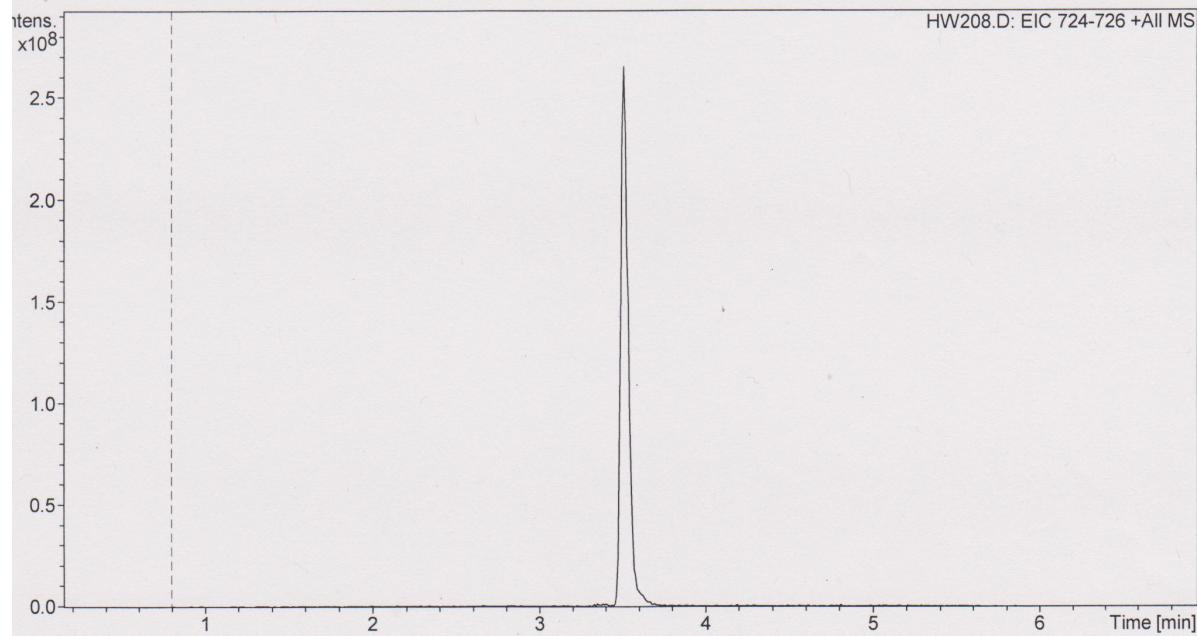
**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** HW208.D  
**Method:** SANA.M  
**Sample Name:** hw208\_aucol35  
**Analysis Info:**

**Instrument:** Agilent 6330 Ion Trap  
**Operator:** sdsu

**Print Date:** 6/8/2011 9:14:51 AM  
**Acq. Date:** 6/9/2010 7:21:57 PM

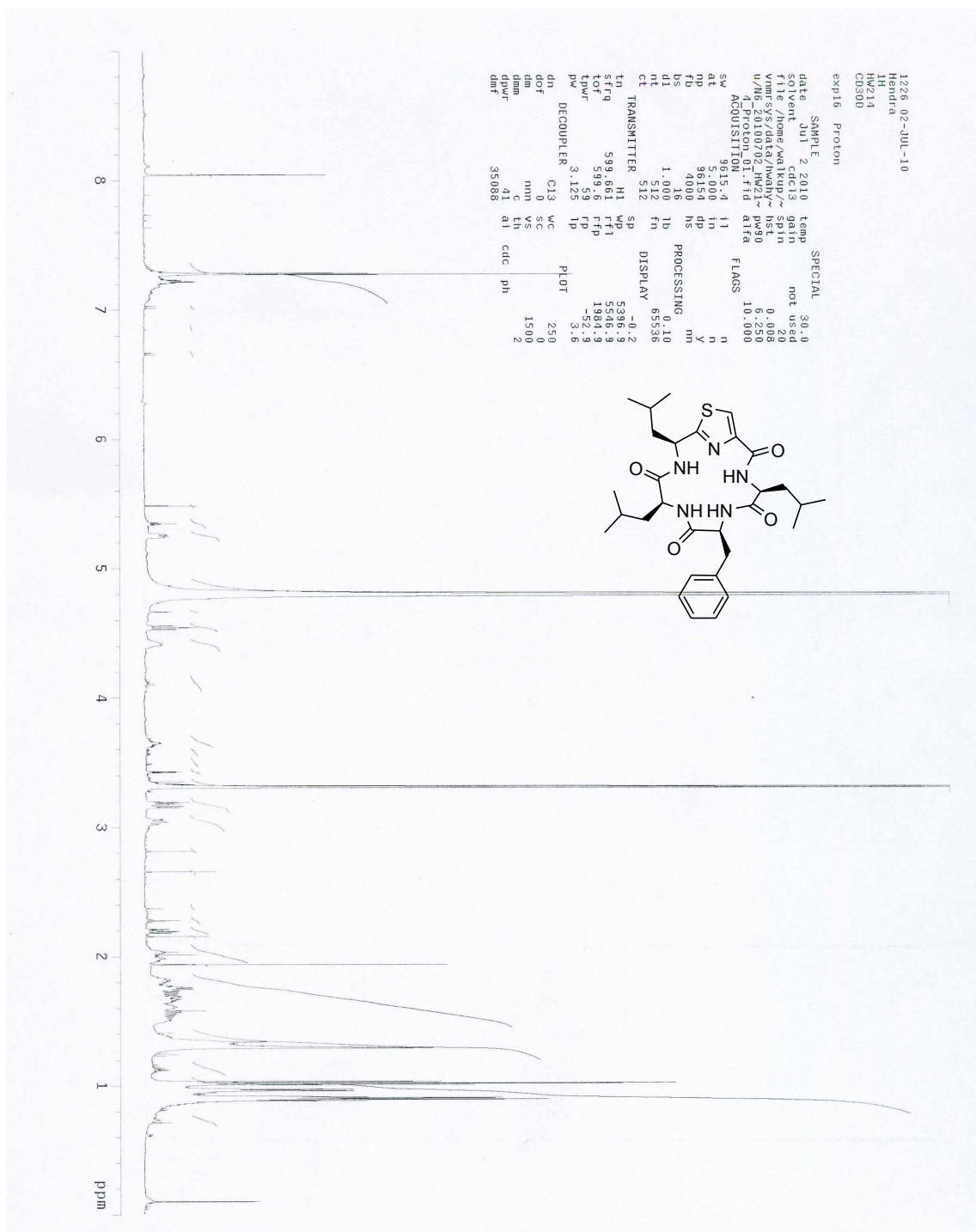


Compound 9: A-Th-III

**LCMS Pentapeptide MeO-Phe-Leu-Thiazole-Leu-Leu-NHBoc (53) (MW=701)**

**Supplementary Material**

Davis et al.



Compound 9: A-Th-III

NMR Macrocyclic Phe-Leu-Thiazole-Leu-Leu (9)

**Supplementary Material**

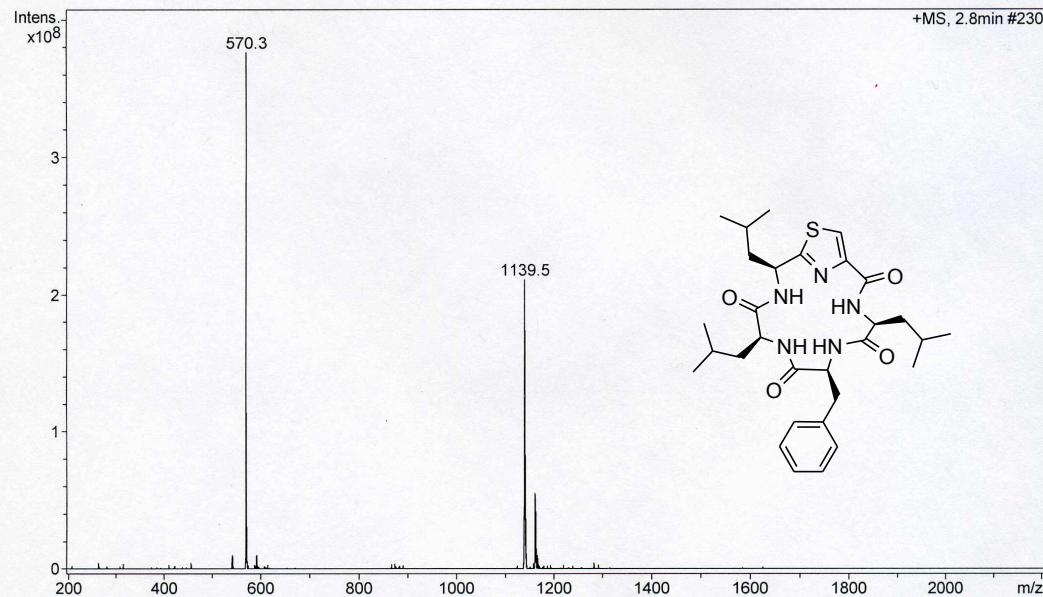
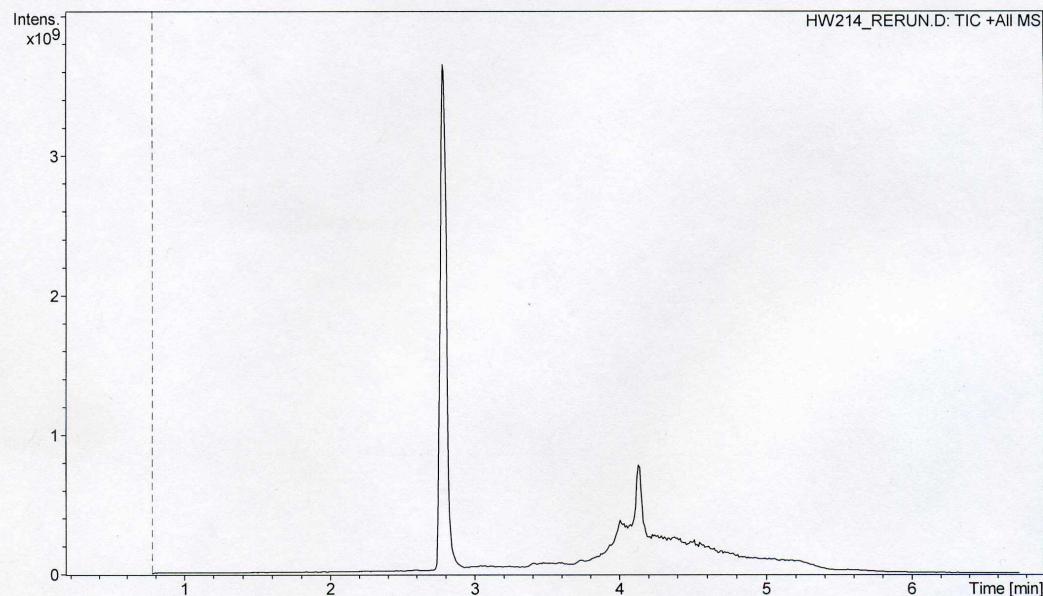
**Davis et al.**

**Display Report - All Windows All Analyses**

**Operator:** sdsu

**Instrument:** Agilent 6330 Ion Trap

**Print Date:** 7/13/2010 3:29:17 PM



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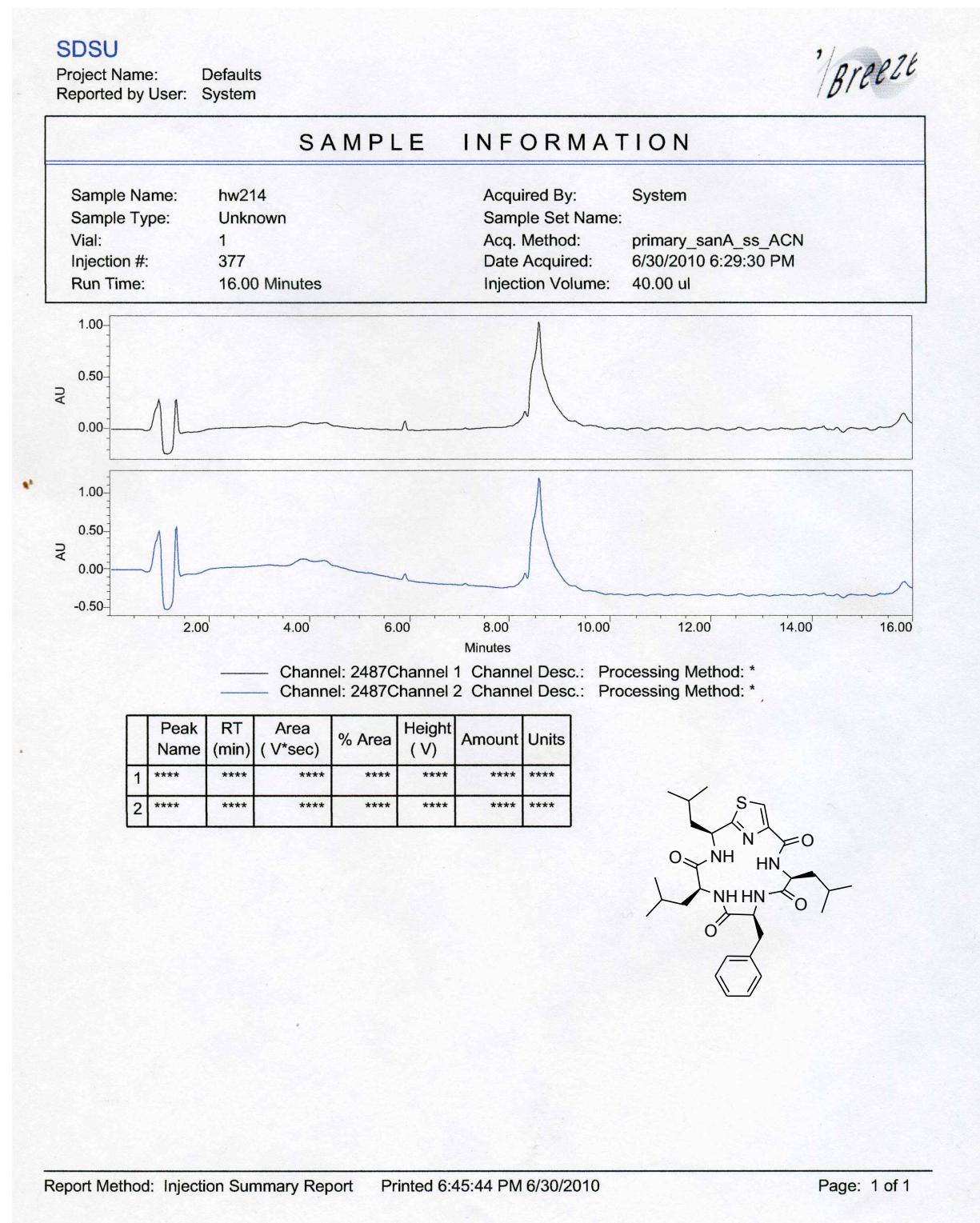
Agilent Technologies

Compound 9: A-Th-III

**LCMS Macrocyclic Phe-Leu-Thiazole-Leu-Leu (9) (MW=569)**

**Supplementary Material**

**Davis et al.**

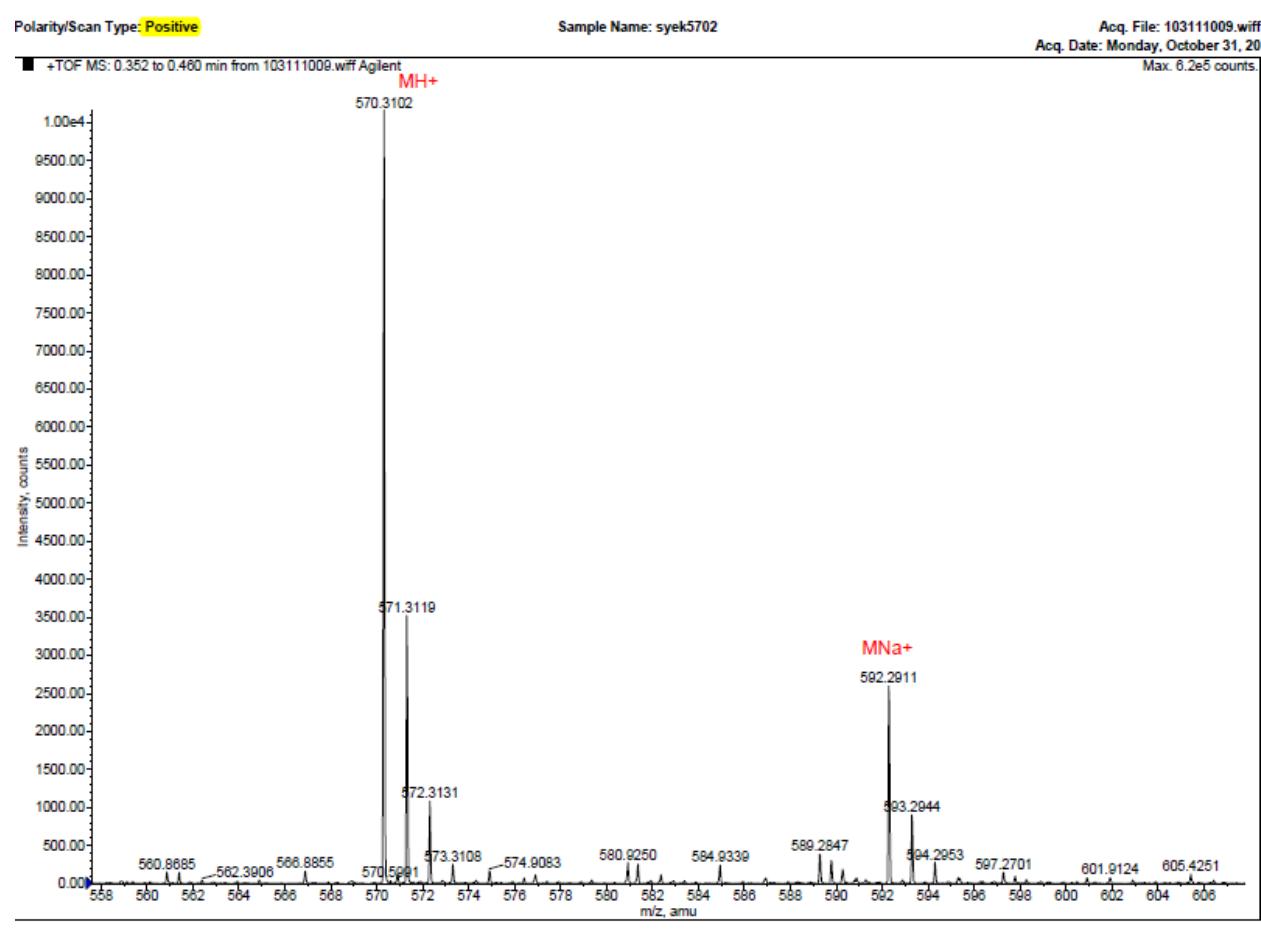


Compound 9: A-Th-III

**HPLC Macrocycle Phe-Leu-Thiazole-Leu-Leu (9)**

**Supplementary Material**

**Davis et al.**

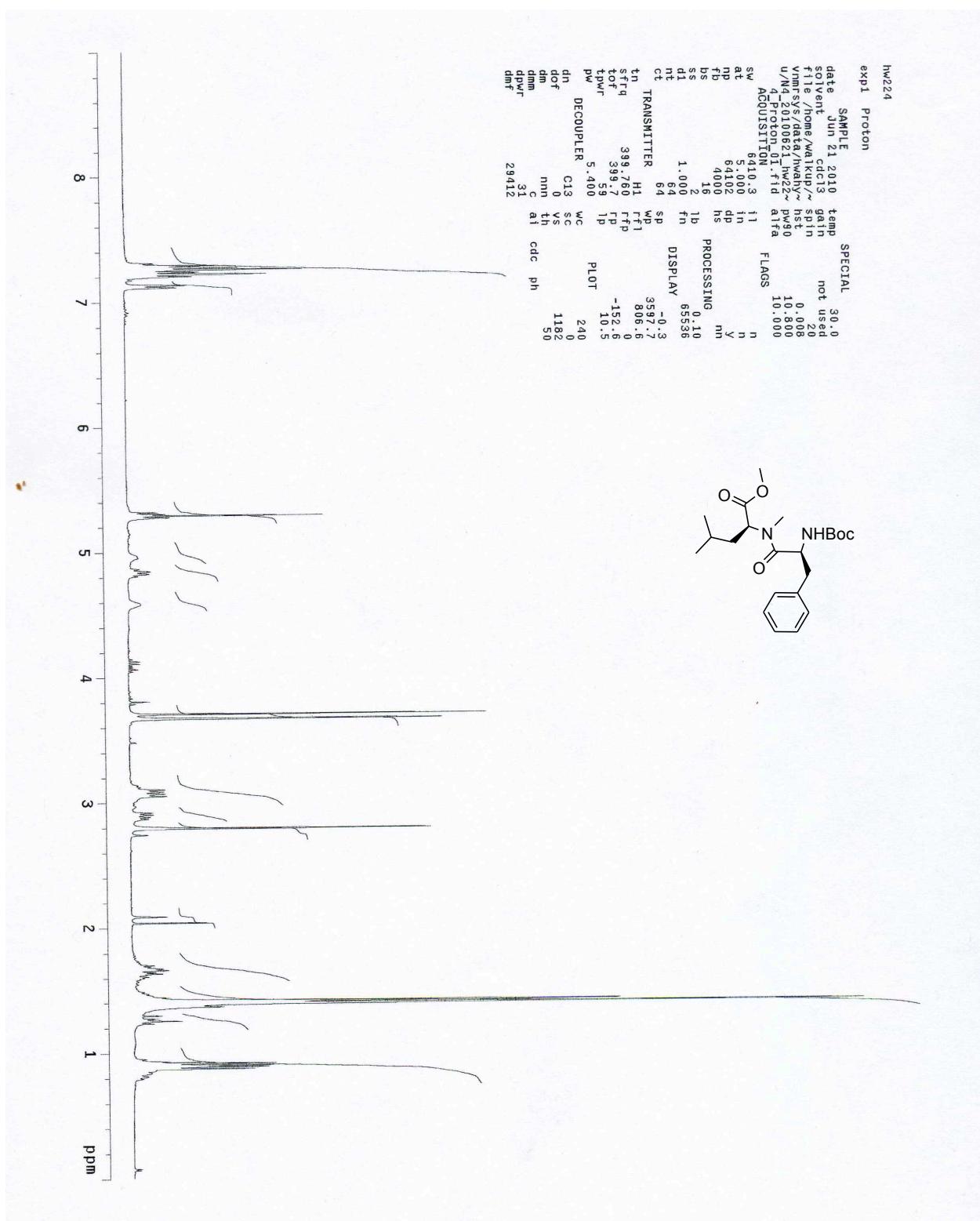


Compound 9: A-Th-III

HRMS Macrocyclic Phe-Leu-Thiazole-Leu-Leu (9) (MW= 570.3102)

**Supplementary Material**

Davis et al.

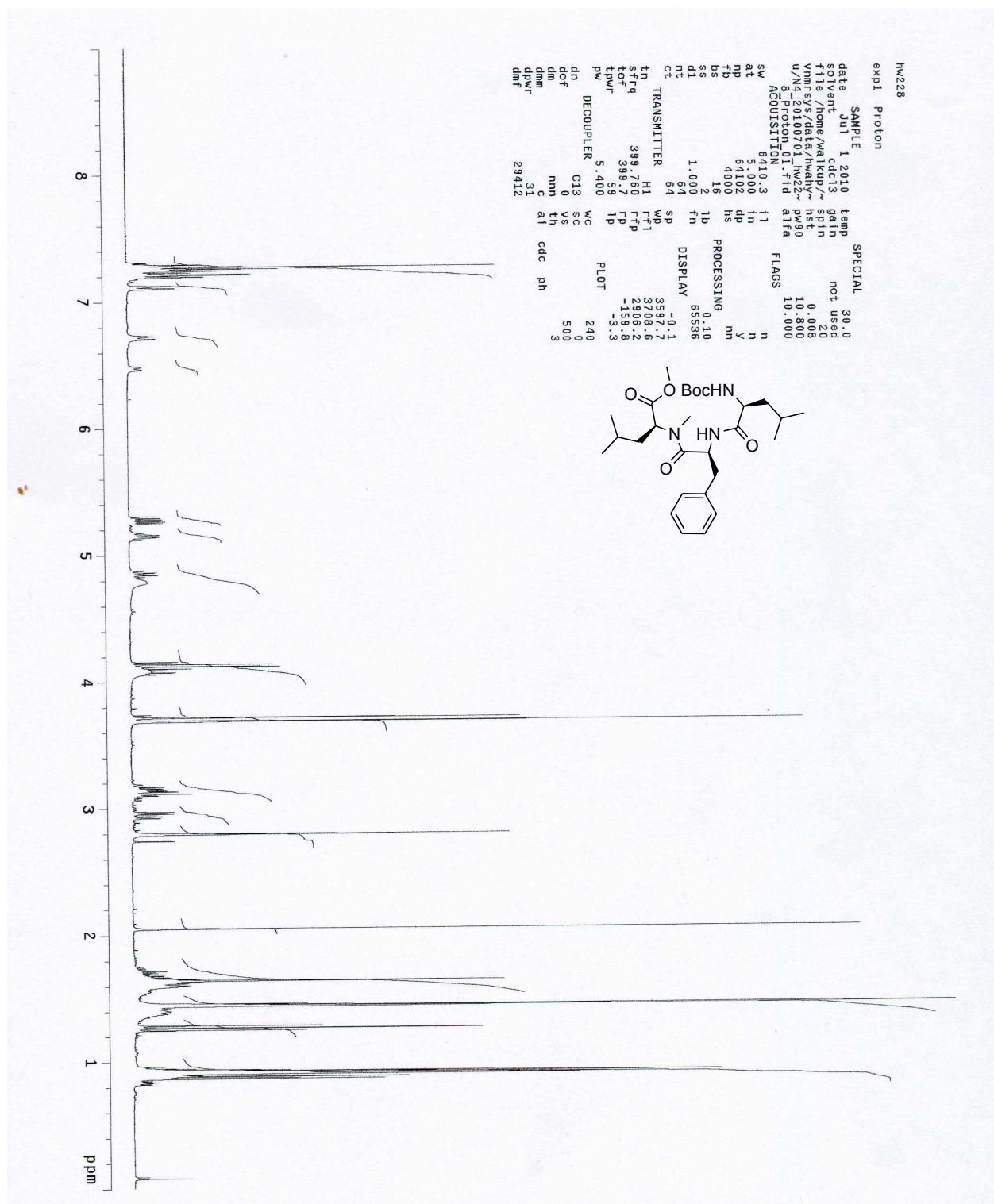


Compound 10: B-Th-III

NMR Dipeptide MeO-Leu-N(Me)-Phe-NHBoc

### Supplementary Material

Davis et al.

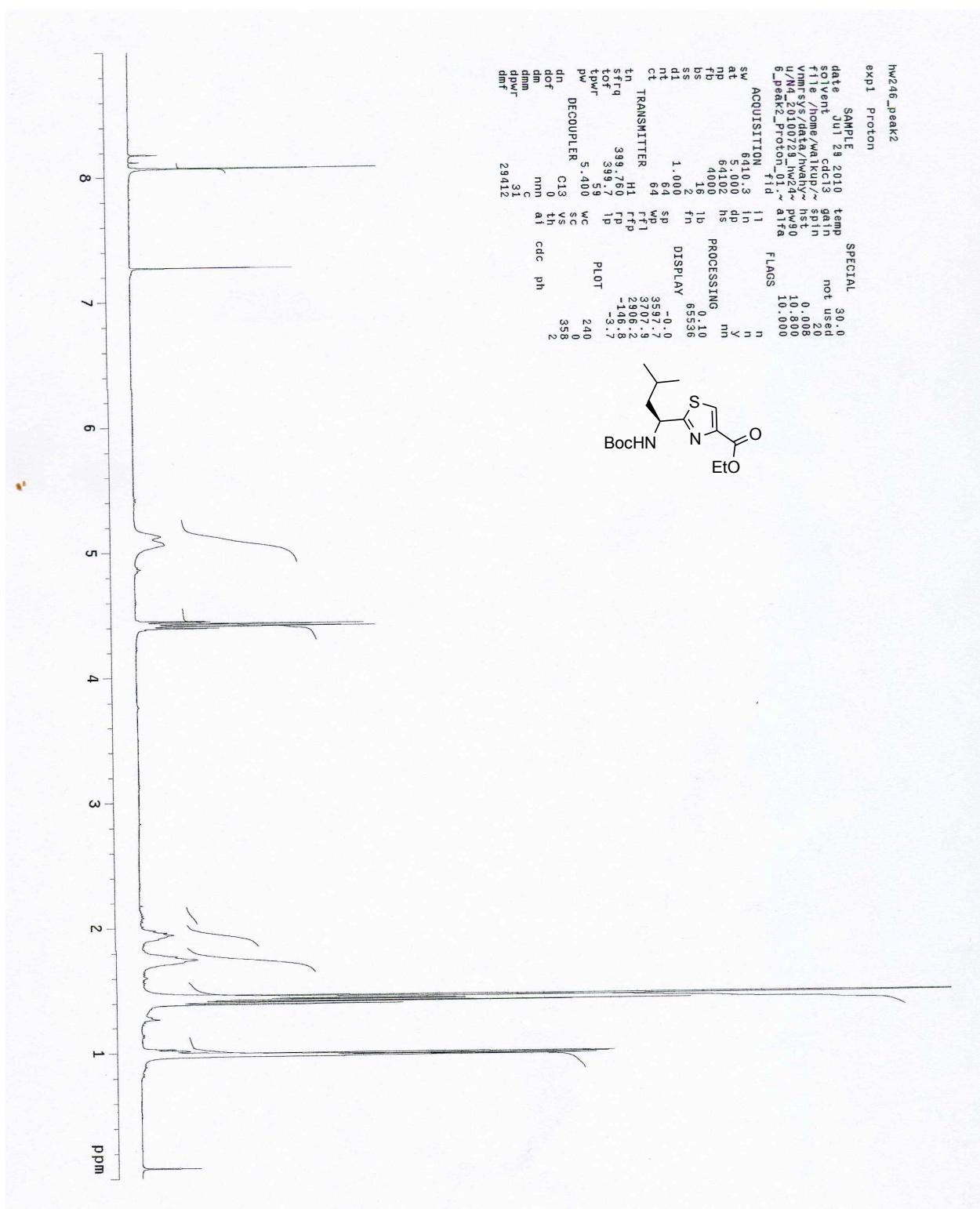


Compound 10: B-Th-III

**NMR Tripeptide MeO-Leu-N(Me)-Phe-Leu-NHBoc**

### Supplementary Material

Davis et al.

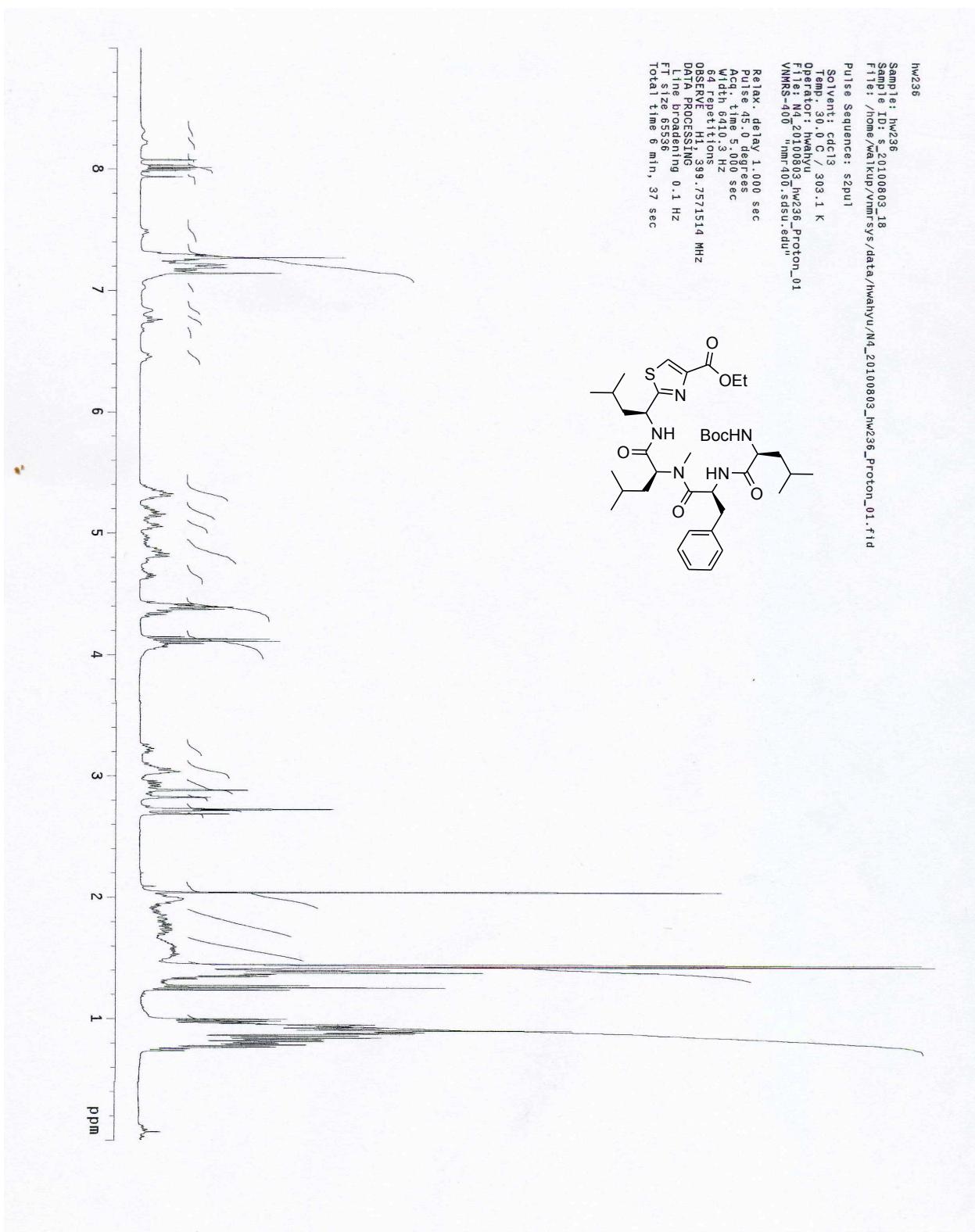


Compound 10: B-Th-III

NMR Dipeptide EtO-Thiazole-Leu-NHBoc (57)

**Supplementary Material**

Davis et al.



Compound 10: B-Th-III

**NMR Pentapeptide EtO-Thiazole-Leu-Leu-N(Me)-Phe-Leu-NHBoc (63)**

**Supplementary Material**

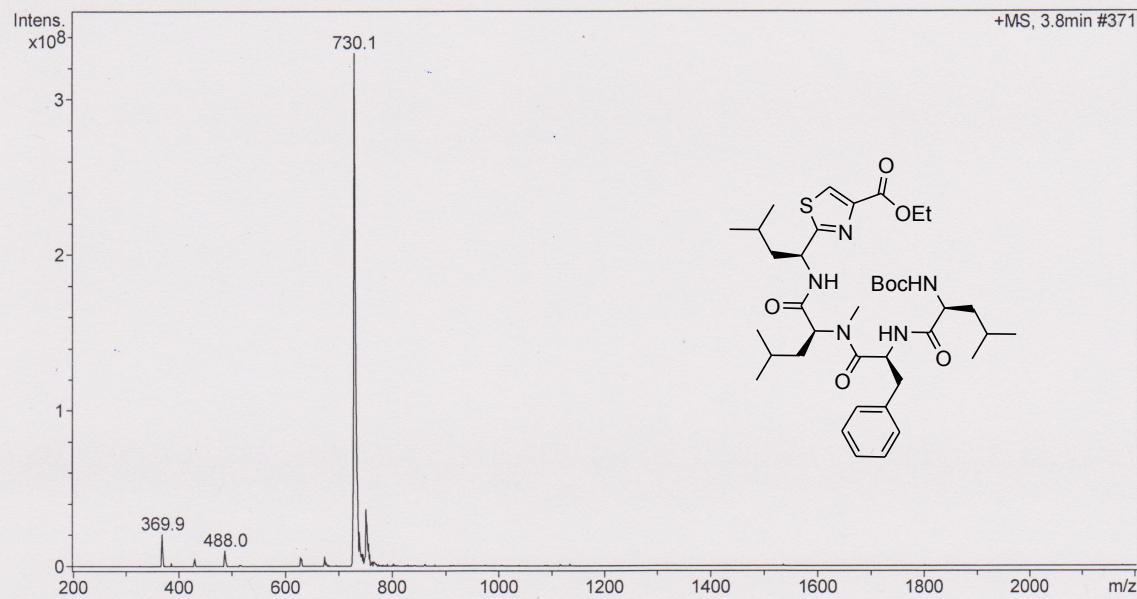
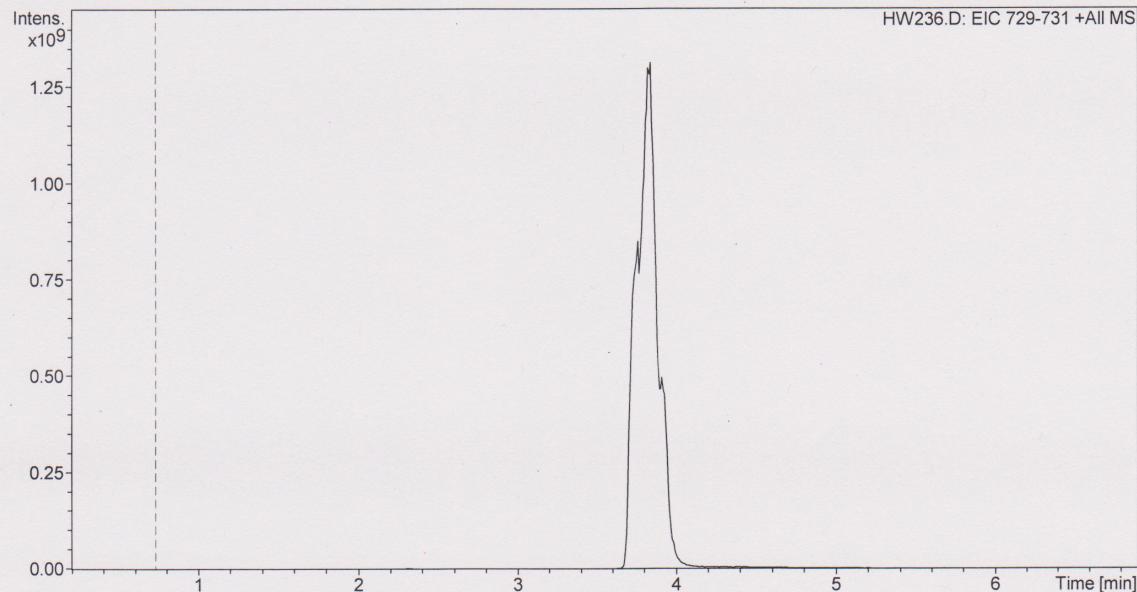
**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** HW236.D  
**Method:** SANA.M  
**Sample Name:** hw236  
**Analysis Info:**

**Instrument:** Agilent 6330 Ion Trap  
**Operator:** sdsu

**Print Date:** 6/8/2011 9:16:12 AM  
**Acq. Date:** 8/12/2010 4:29:06 PM



MSD Trap Report v 4 (Let-Opt2)

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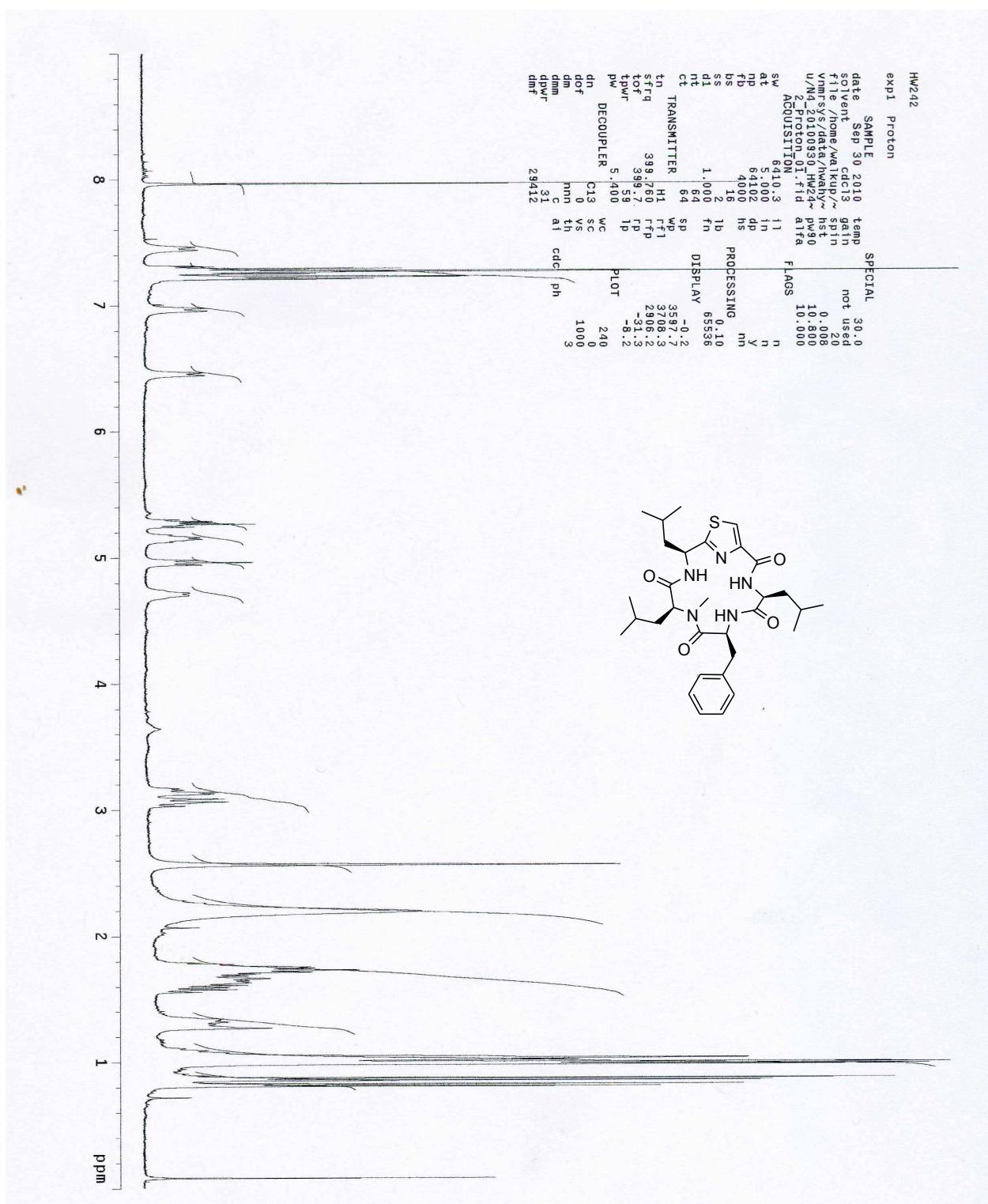
Agilent Technologies

Compound 10: B-Th-III

**LCMS Pentapeptide EtO-Thiazole-Leu-Leu-N(Me)-Phe-Leu-NHBoc (63) (MW = 729)**

**Supplementary Material**

Davis et al.



Compound 10: B-Th-III

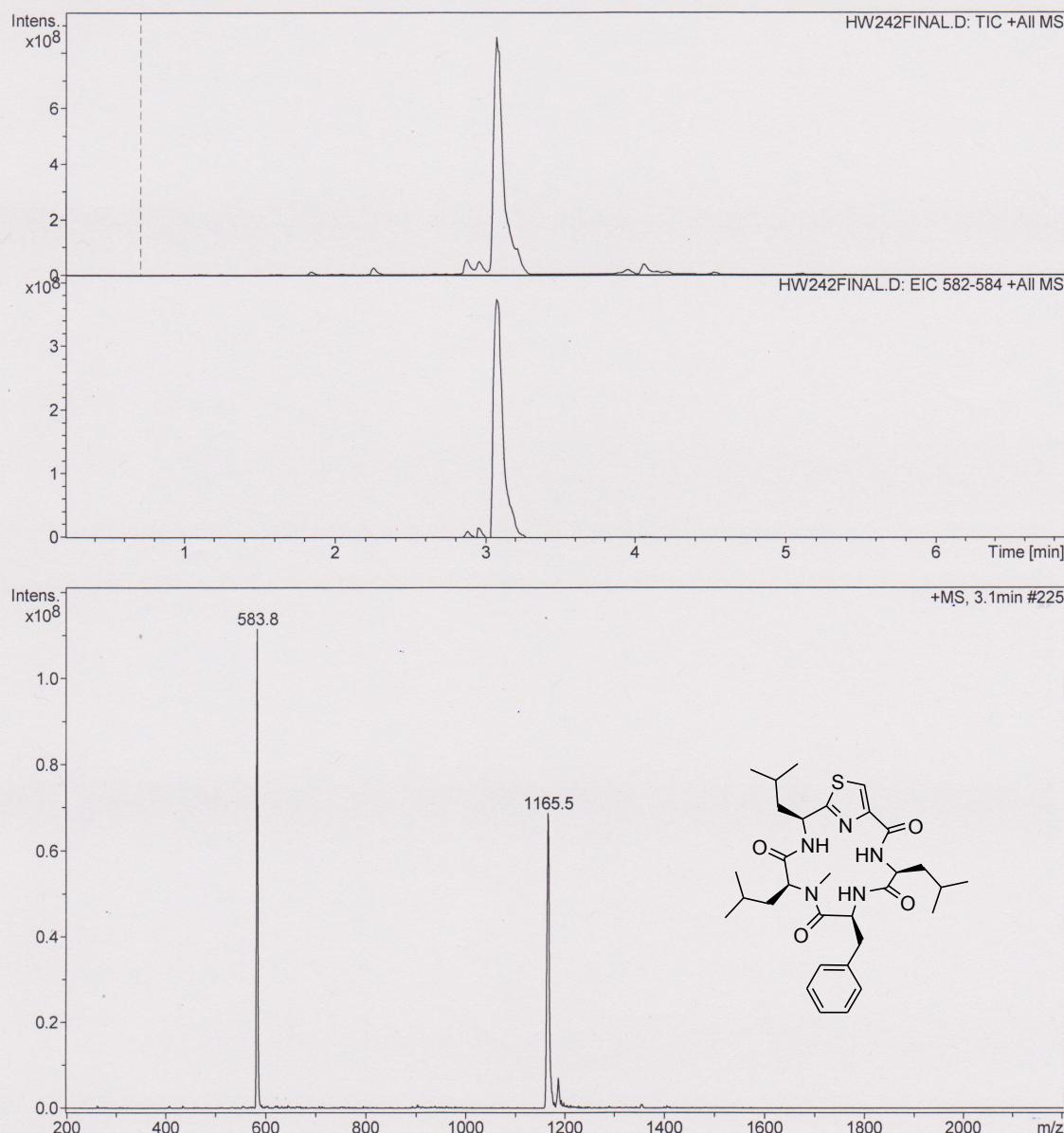
**NMR Macrocyclic Phe-Leu-Thiazole-Leu-Leu-N(Me) (10)**

**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** HW242FINAL.D    **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M    **Operator:** sdsu    **Print Date:** 6/8/2011 9:25:14 AM  
**Sample Name:** HW242final    **Acq. Date:** 9/30/2010 2:50:31 PM  
**Analysis Info:**



Compound 10: B-Th-III

**LCMS Macrocyclic Phe-Leu-Thiazole-Leu-Leu-N(Me) (10) (MW = 583)**

**Supplementary Material****Davis et al.**

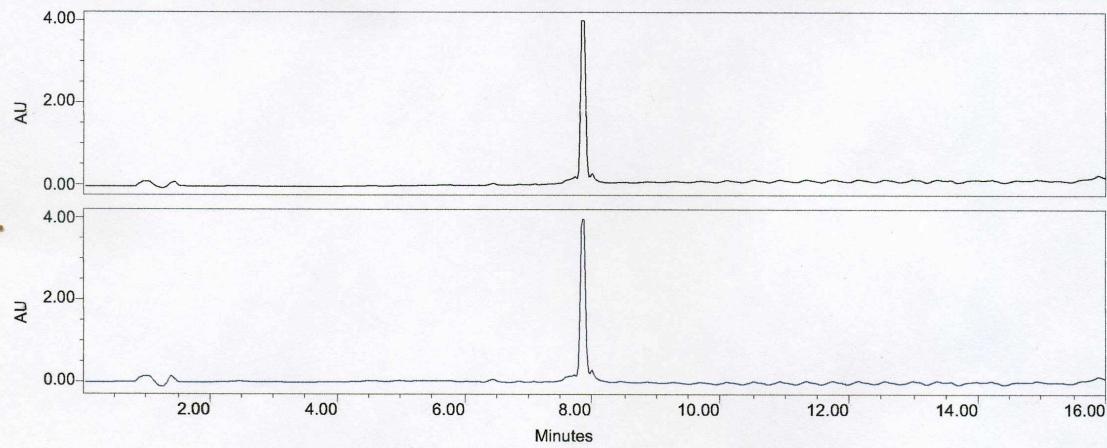
SDSU

Project Name: Defaults  
Reported by User: System

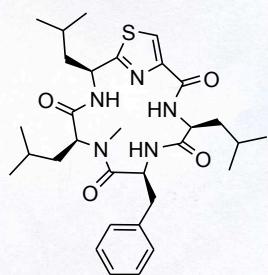
Breeze

**S A M P L E   I N F O R M A T I O N**

Sample Name:	hw242	Acquired By:	System
Sample Type:	Unknown	Sample Set Name:	
Vial:	1	Acq. Method:	primary_sanA_ss
Injection #:	749	Date Acquired:	9/29/2010 11:33:03 AM
Run Time:	16.00 Minutes	Injection Volume:	100.00 ul



	Peak Name	RT (min)	Area (V*sec)	% Area	Height (V)	Amount	Units
1	****	****	****	****	****	****	****
2	****	****	****	****	****	****	****



Report Method: Injection Summary Report Printed 11:49:17 AM 9/29/2010

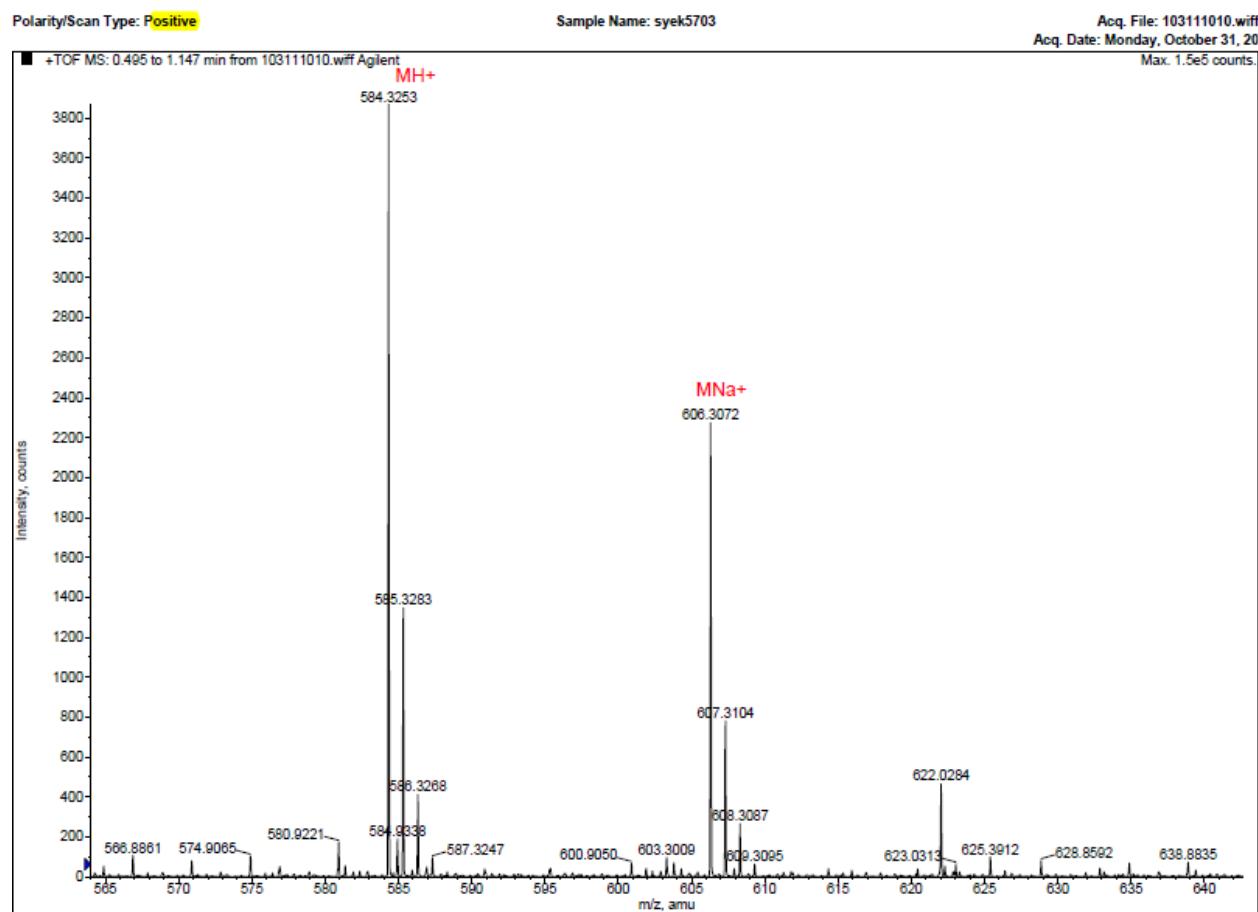
Page: 1 of 1

Compound 10: B-Th-III

**HPLC Macrocyclic Phe-Leu-Thiazole-Leu-Leu-N(Me) (10)**

*Supplementary Material*

Davis et al.

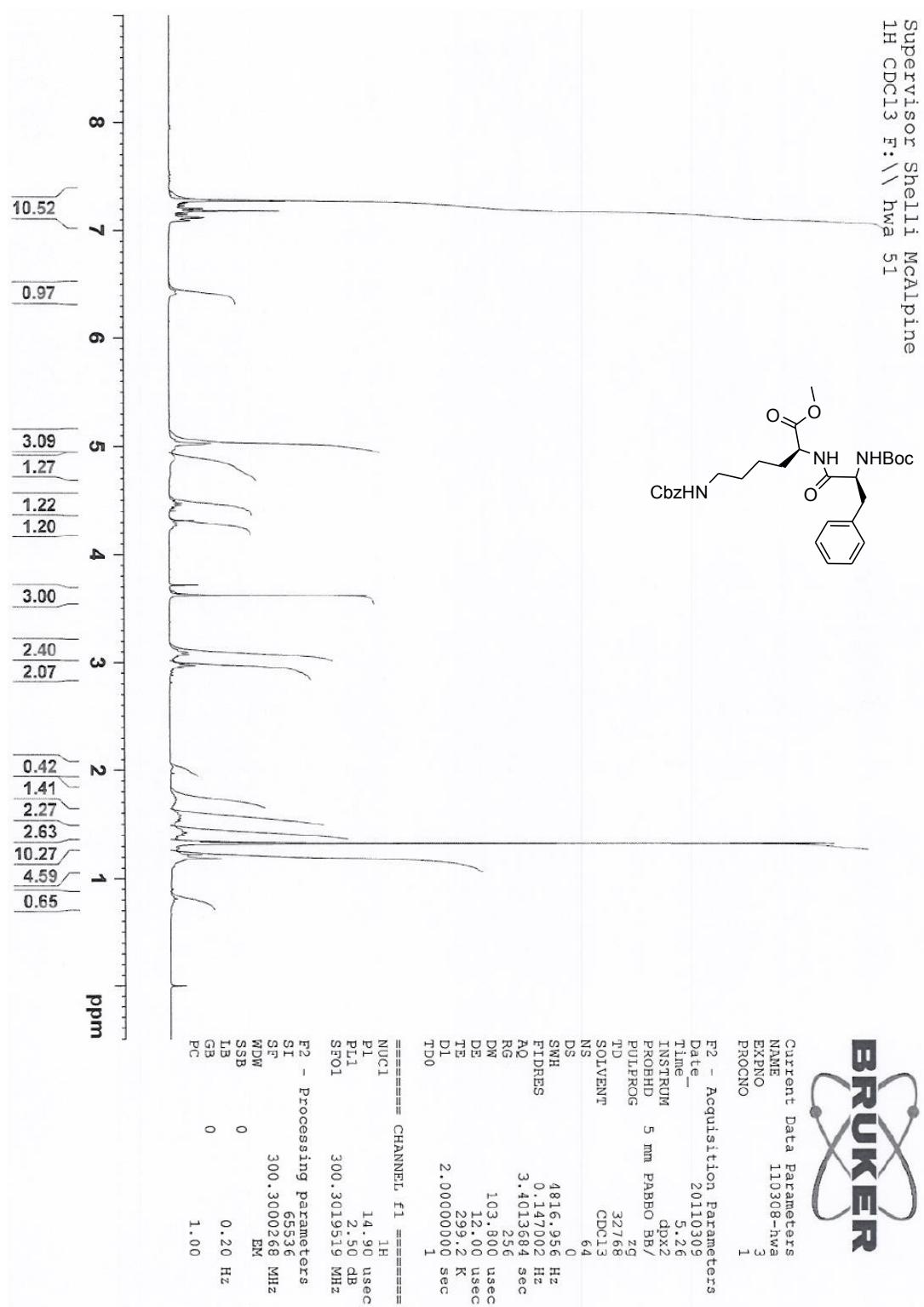


Compound 10: B-Th-III

**HRMS Macrocyclic Phe-Leu-Thiazole-Leu-Leu-N(Me) (10) (MW = 584.3253)**

**Supplementary Material**

Davis et al.

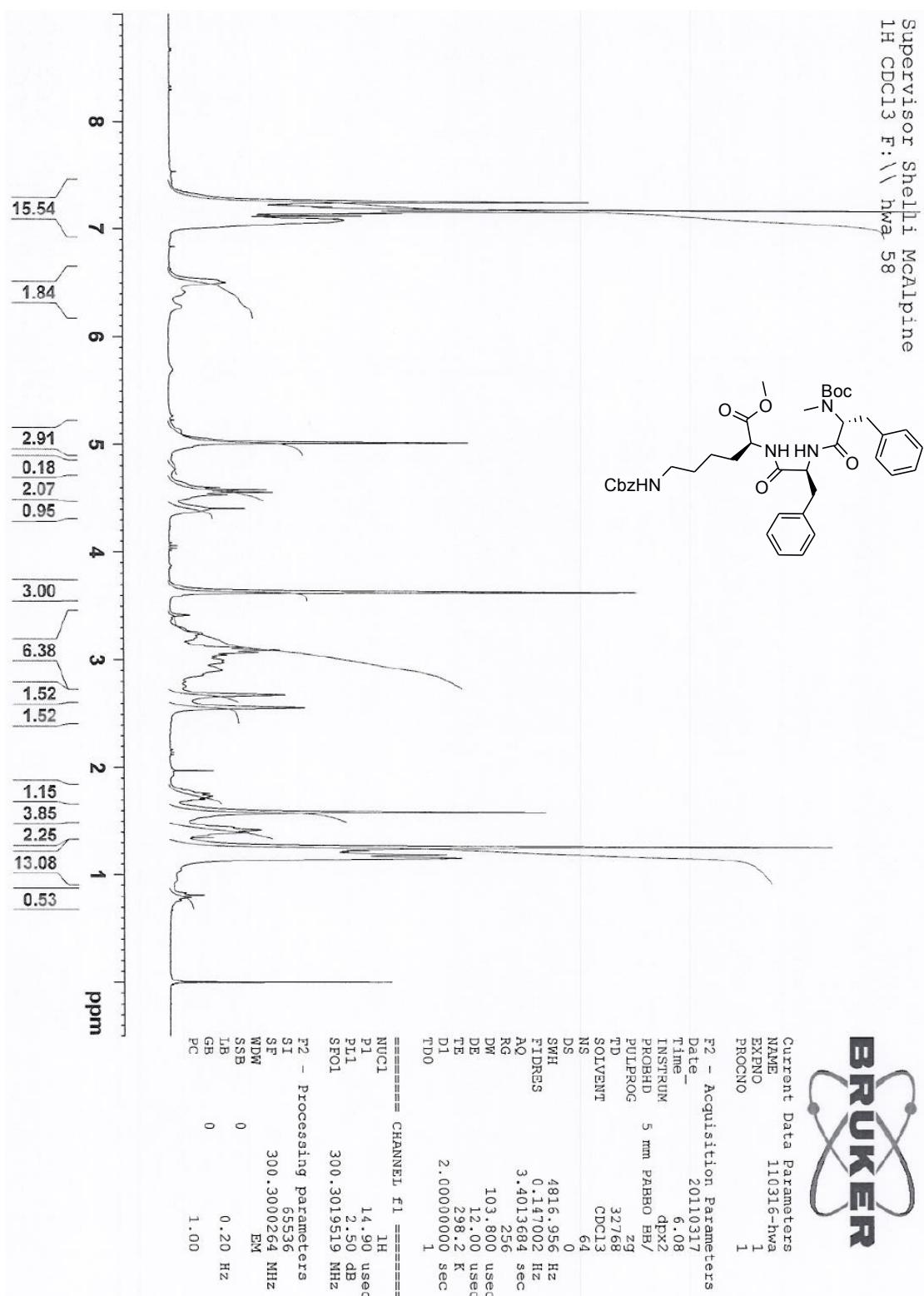


Compound 11: C-Th-III

NMR Dipeptide MeO-Lys(Cbz)-Phe-NHBoc

**Supplementary Material**

Davis et al.

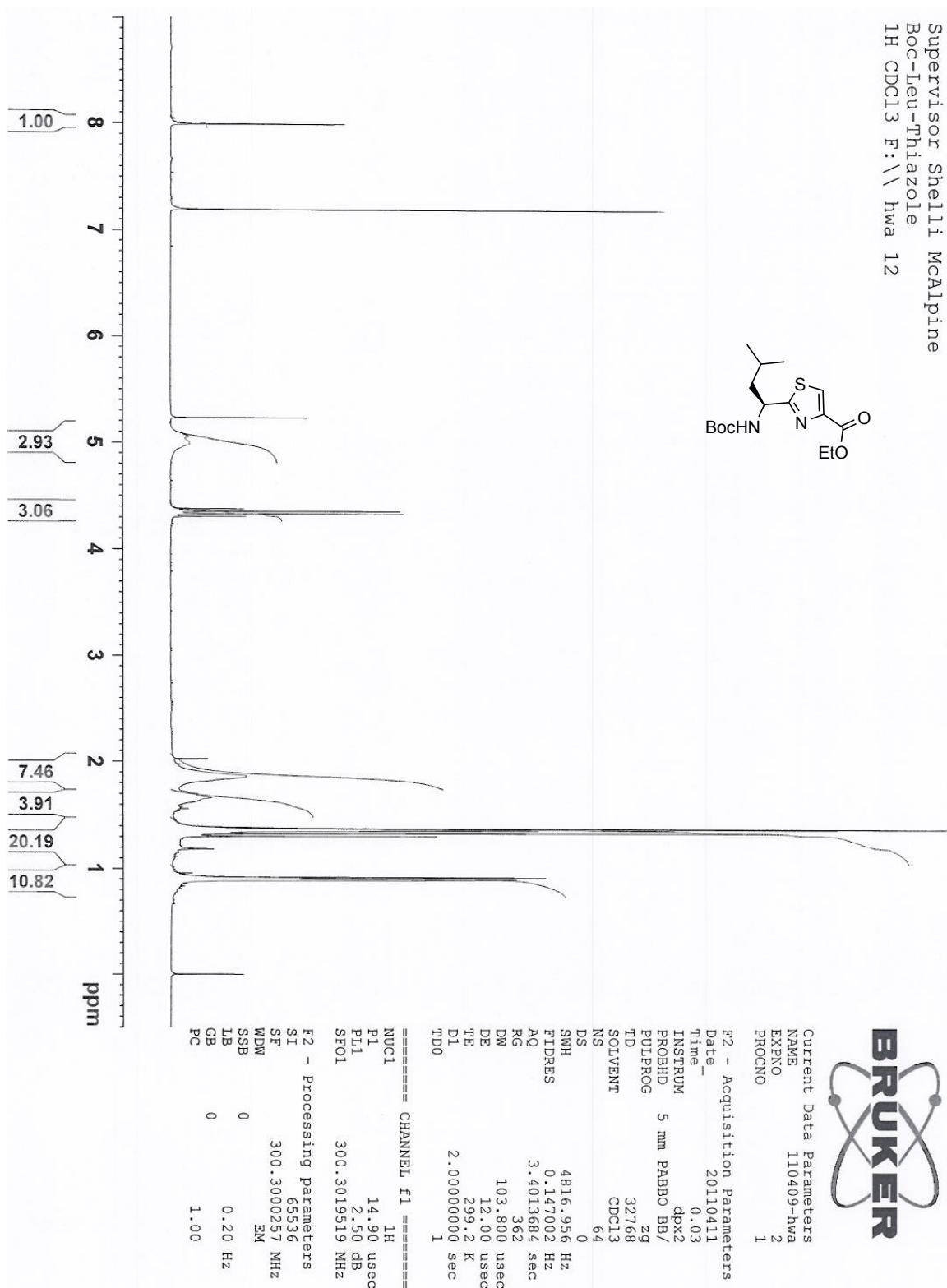


Compound 11: C-Th-III

NMR Tripeptide MeO-Lys(Cbz)-Phe-D-Phe-N(Me)Boc

**Supplementary Material**

Davis et al.



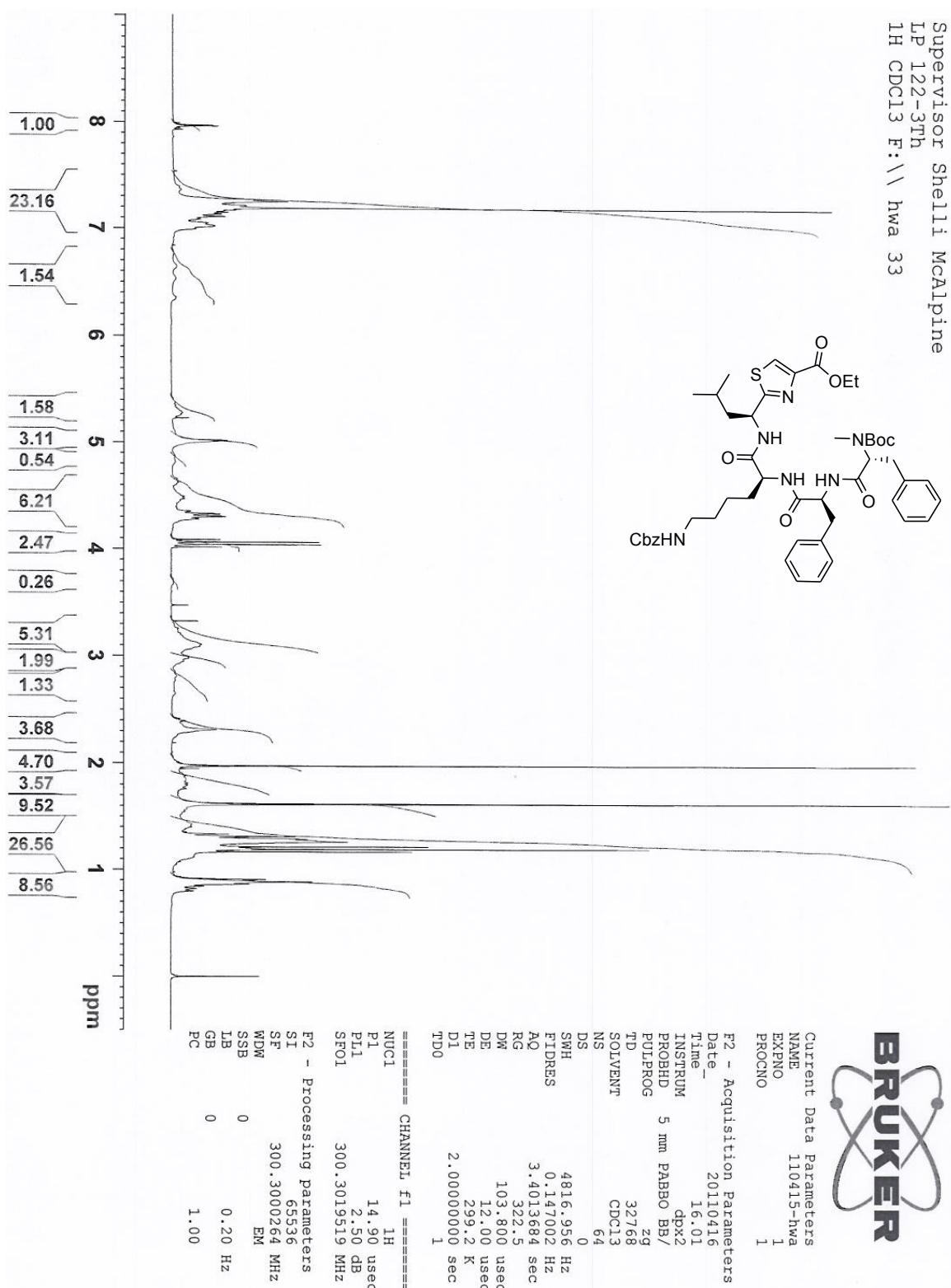
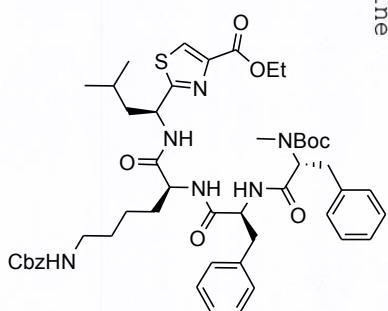
Compound 11: C-Th-III

**NMR Dipeptide EtO-Thiazole-Leu-NHBoc**

**Supplementary Material**

Davis et al.

Supervisor Shelli McAlpine  
LP 122-3Th  
1H CDCl<sub>3</sub> F:\\ hwa 33



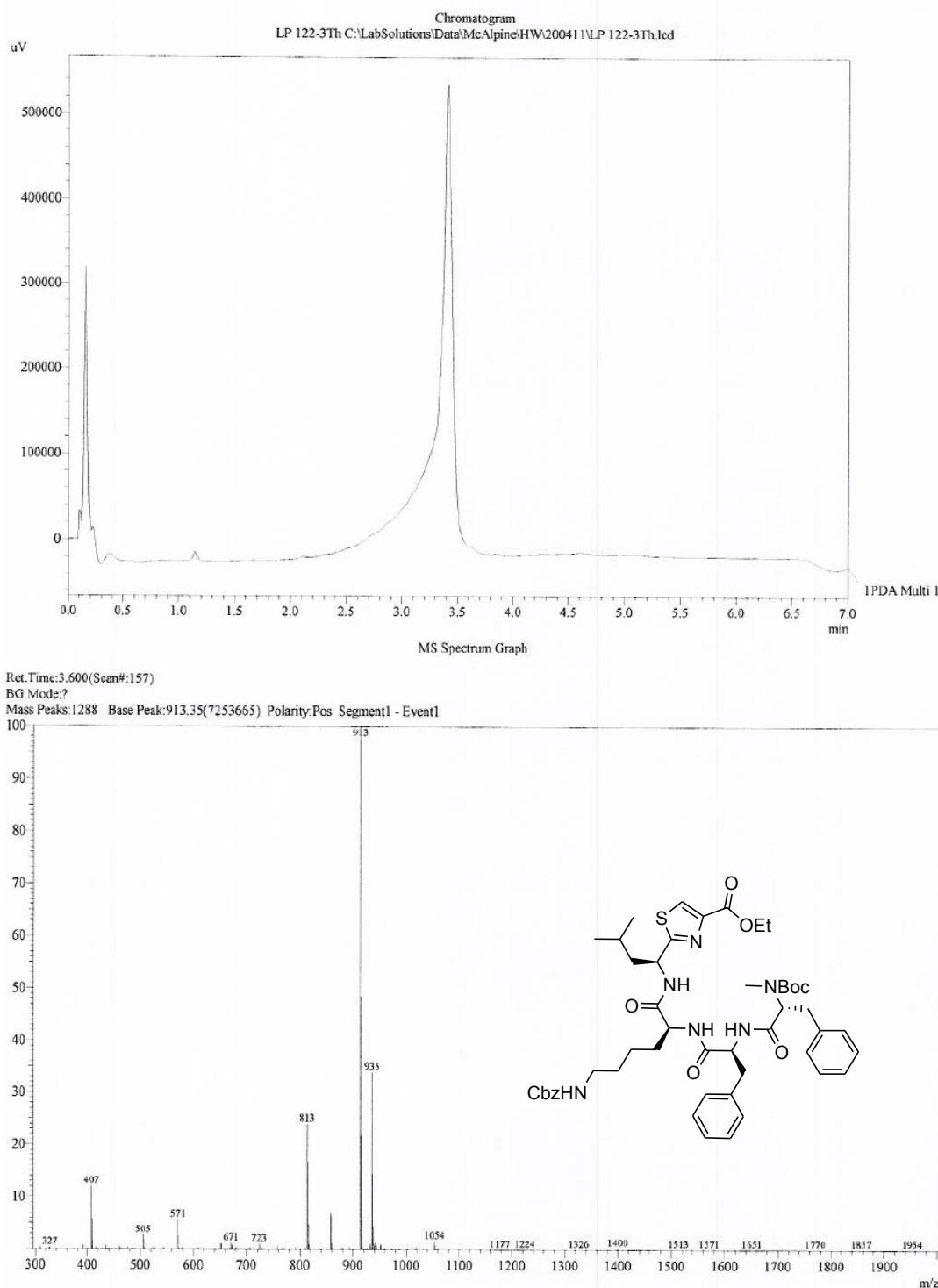
Compound 11: C-Th-III

NMR Pentapeptide EtO-Thiazole-Leu-Lys(Cbz)-Phe-D-Phe-N(Me)Boc

**Supplementary Material**

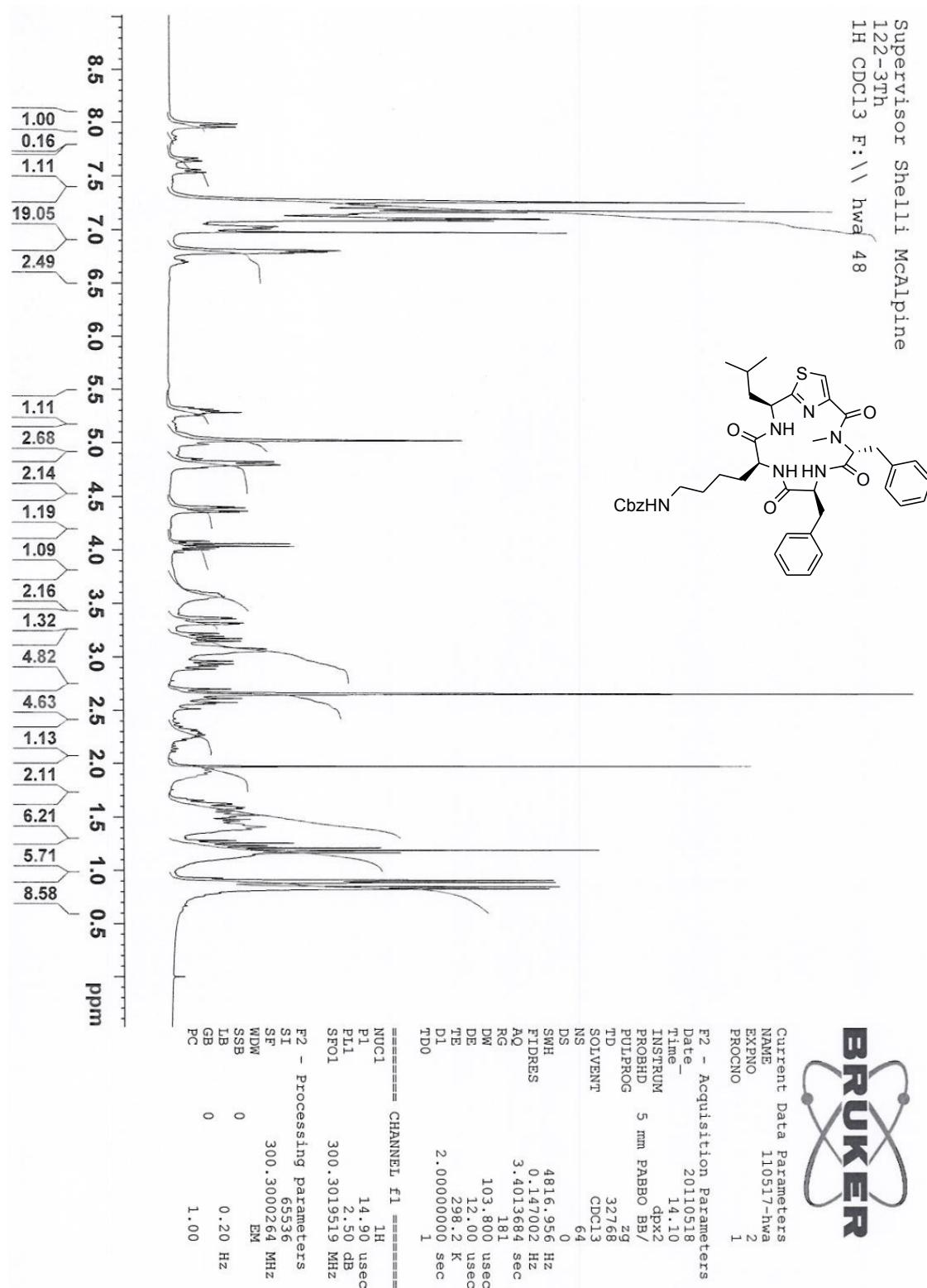
**Davis et al.**

**==== Shimadzu LCMSsolution Analysis Report ====**



**Supplementary Material**

Davis et al.



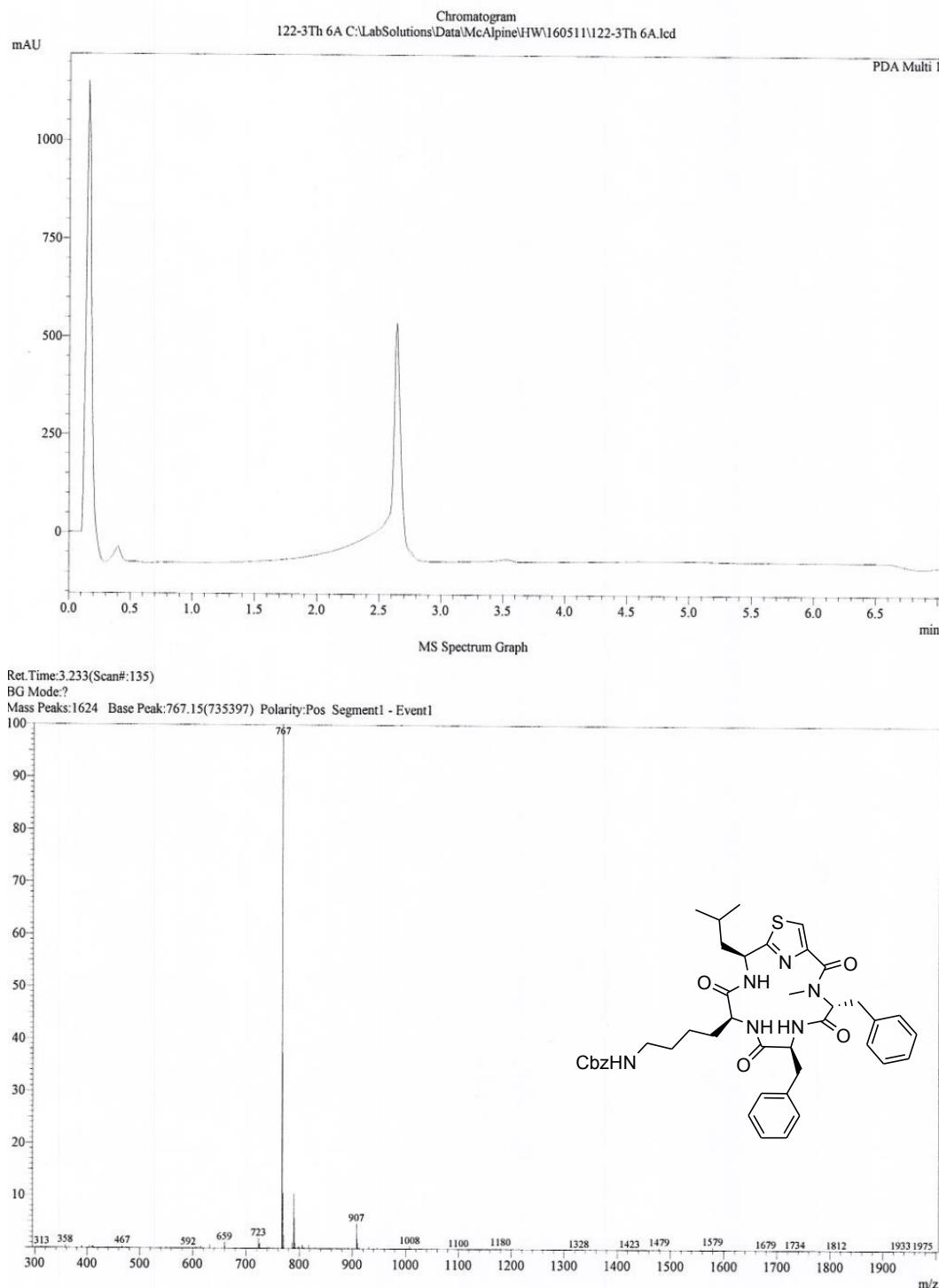
Compound 11: C-Th-III

**NMR Macrocycle Phe-D-Phe-N(Me)-Thiazole-Leu-Lys(Cbz) (11)**

**Supplementary Material**

**Davis et al.**

**===== Shimadzu LCMSsolution Analysis Report =====**

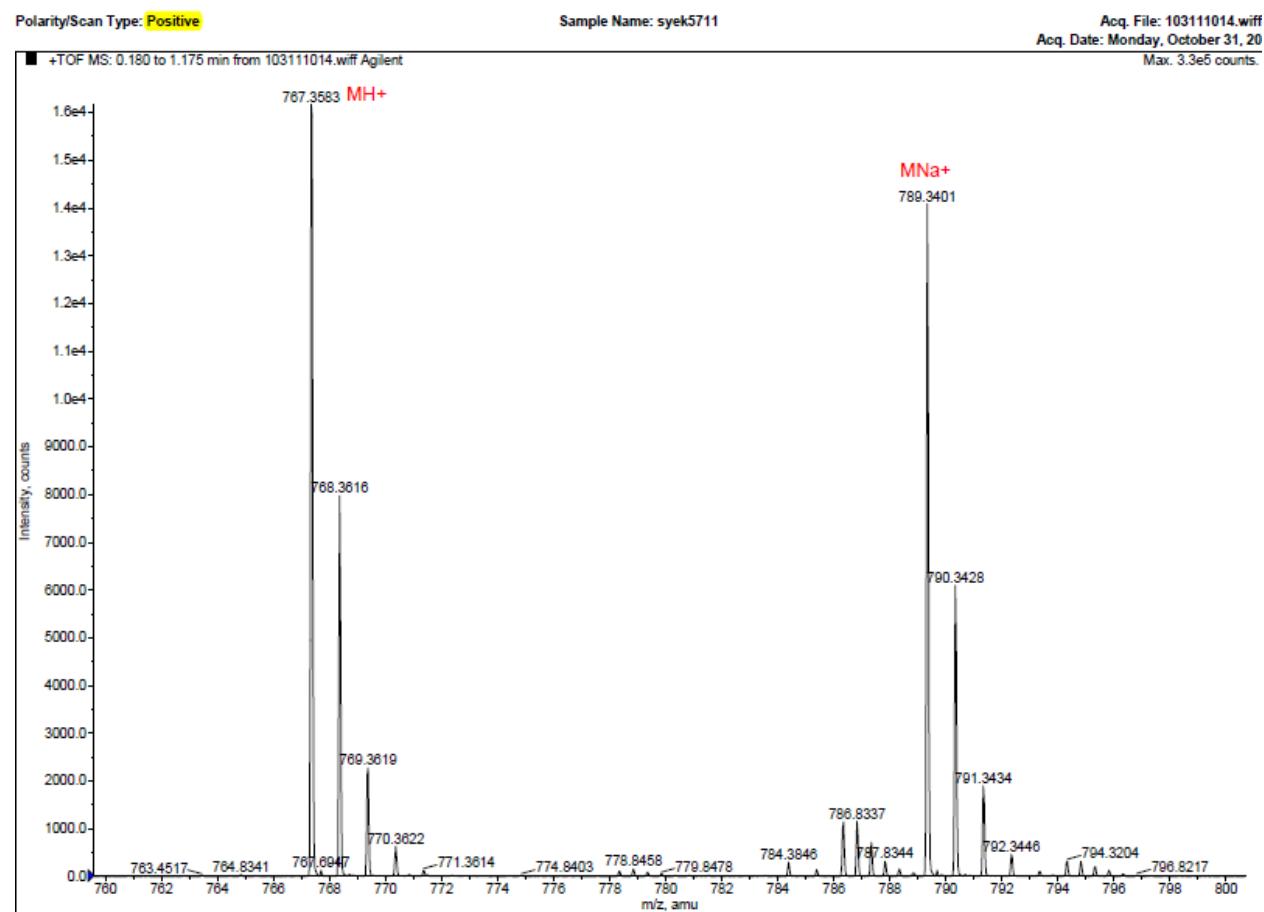


Compound 11: C-Th-III

HPLC+LCMS Macrocyclic Phe-D-Phe-N(Me)- Thiazole-Leu-Lys(Cbz) (11) (MW = 766)

**Supplementary Material**

**Davis et al.**

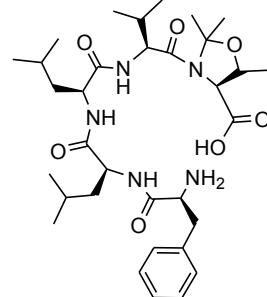
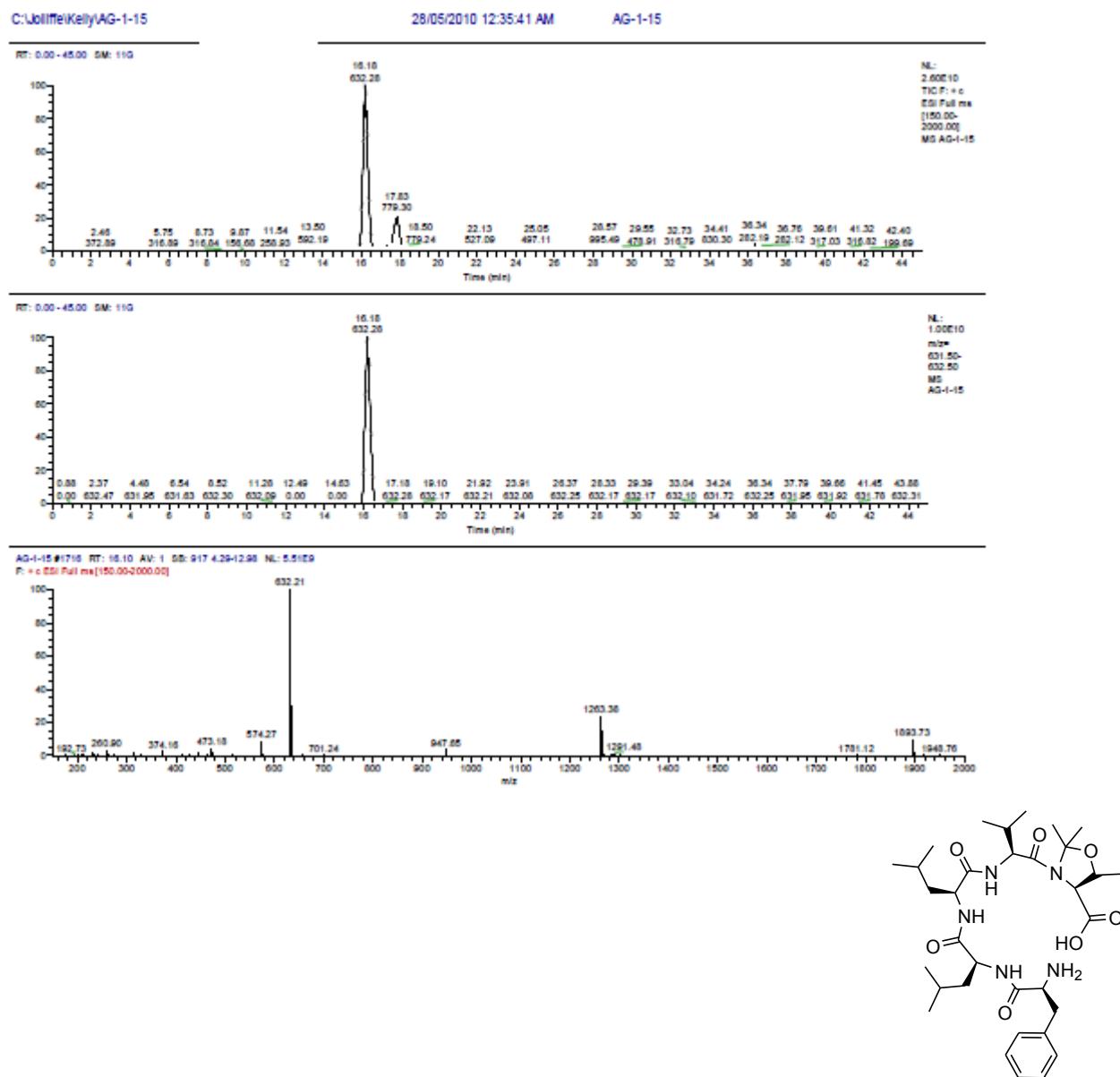


Compound 11: C-Th-III

**HRMS Macrocyclic Phe-D-Phe-N(Me)- Thiazole-Leu-Lys(Cbz) (11) (MW = 767.3583)**

## Supplementary Material

Davis et al.



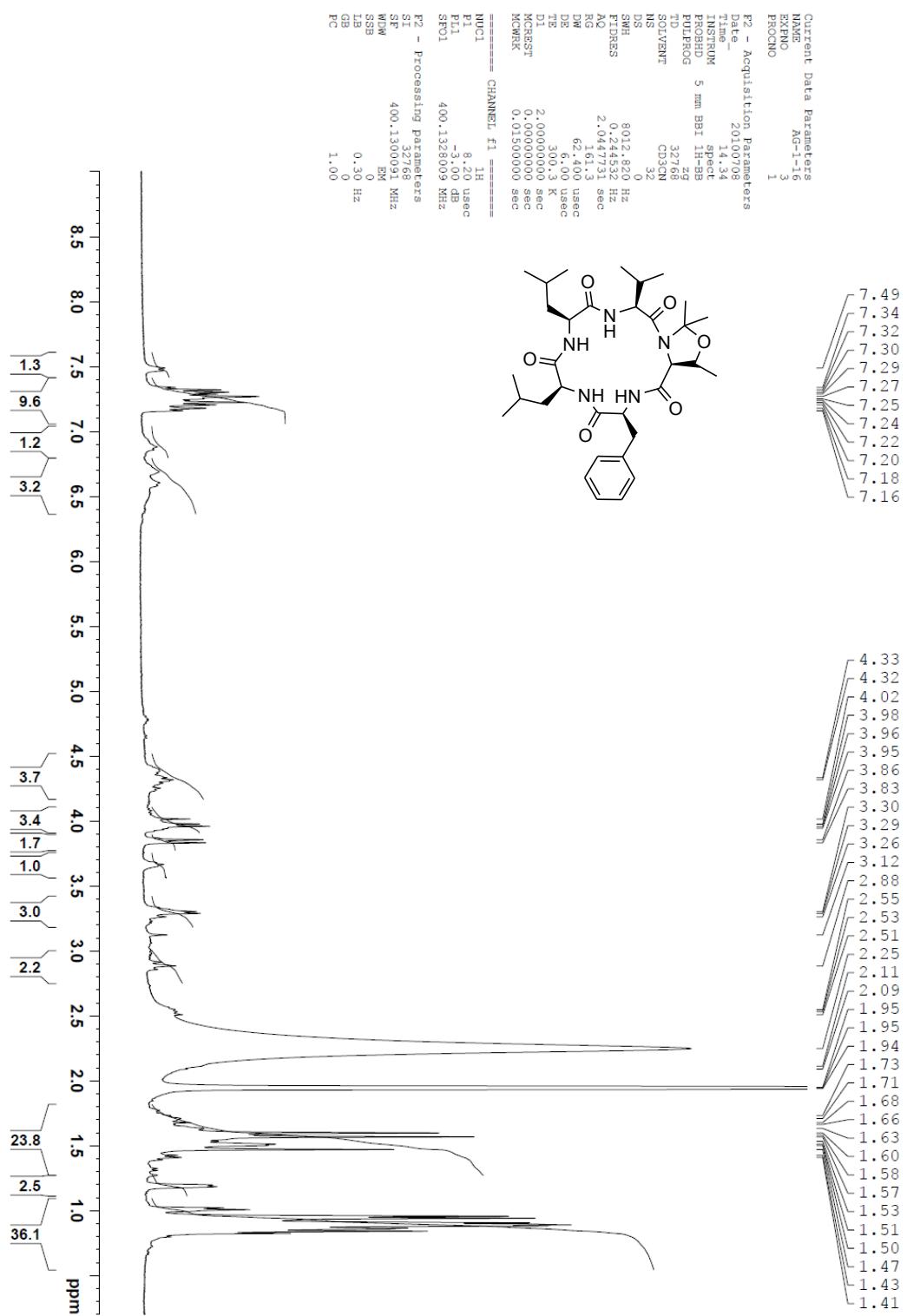
Compound 12: A-PP-II

**LCMS Deprotected Pentapeptide HO-Thr( $\Psi$ Me,Me-Pro)-Val-Leu-Leu-Phe-NH<sub>2</sub> (MW = 631)**

## **Supplementary Material**

Davis et al.

## <sup>1</sup>H NMR of Cyclized Pentapeptide Thr( $\psi$ -Me,Me pro)-Val-Leu-Leu-Phe (12-PP)

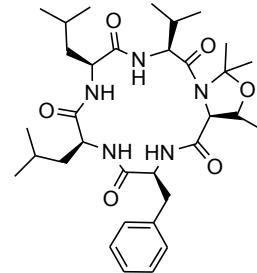
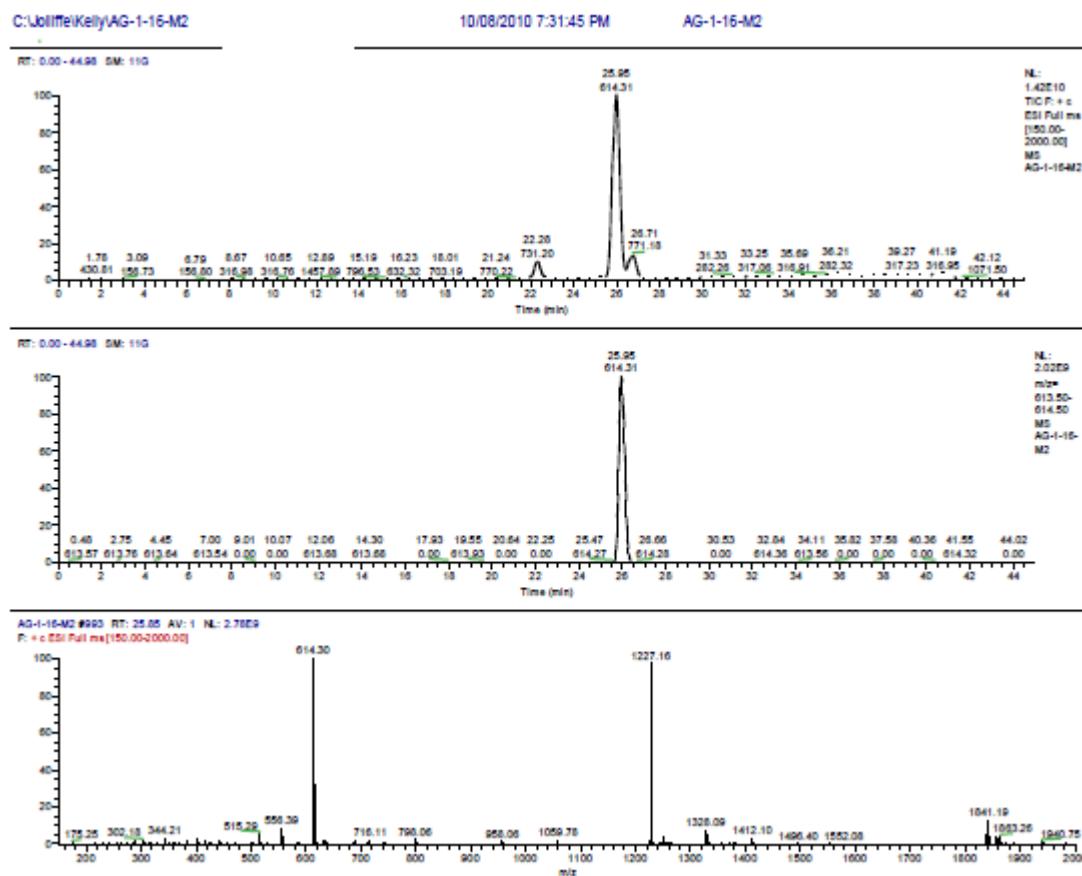


## Compound 12: A-PP-II

## NMR Macrocycle Phe-Thr( $\Psi$ Me,Me-Pro)-Val-Leu-Leu (12)

**Supplementary Material**

**Davis et al.**



Compound 12: A-PP-II

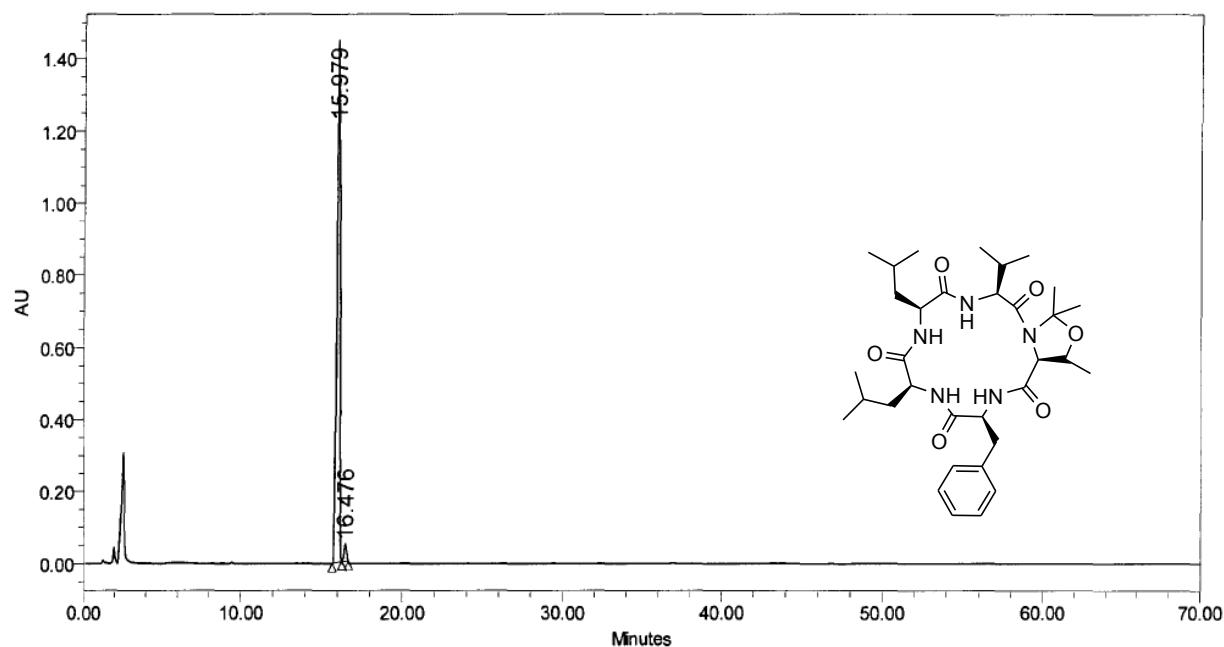
LCMS Macrocyclic Phe-Thr( $\Psi$ Me,Me-Pro)-Val-Leu-Leu (MW = 613)



**The University of Sydney, School of Chemistry**  
**Single Channel Report**

**SAMPLE INFORMATION**

Project Name:	Payne	Acq. Method Set:	G_40to100ov30_B_D2ml
Sample Name:	AG-1-16M-2	Sample Set Name:	RJP_AFGPanalyt
Sample Type:	Unknown	Date Acquired:	9/08/2010 9:42:11 PM EST
Vial:	8	Proc. Method:	NoPeaks
Injection #:	1	Date Processed:	13/08/2010 1:49:27 PM EST
Injection Volume:	10.00 $\mu$ l	Channel Name:	PDA Max Plot 190.0 - 800.0
Run Time:	70.0 Minutes	Proc. Chnl. Descr.:	PDA MaxPlot (190.0 nm to 800.0 nm)
Chromatogram_Info:	0t100%Bover40, A:H2O/TFA 100:0.1, B:ACN/TFA 100:0.1; SunFire C18-106 01;0.2 mL/min		



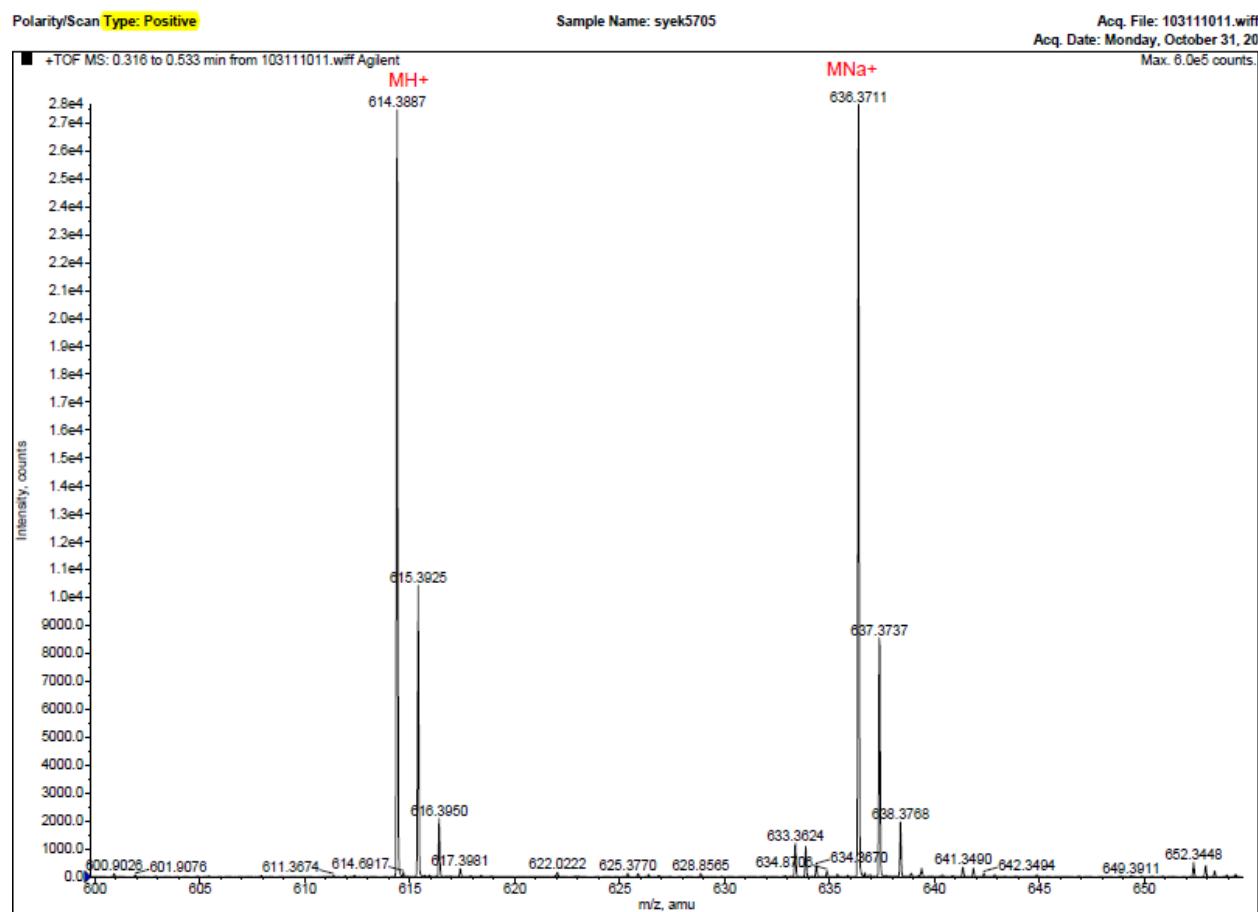
	RT	Area	% Area	Height
1	15.979	20121855	97.31	1447222
2	16.476	557241	2.69	48631

Compound 12: A-PP-II

**HPLC Macrocyclic Phe-Thr( $\Psi$ Me,Me-Pro)-Val-Leu-Leu (12)**

**Supplementary Material**

**Davis et al.**



Compound 12: A-PP-II

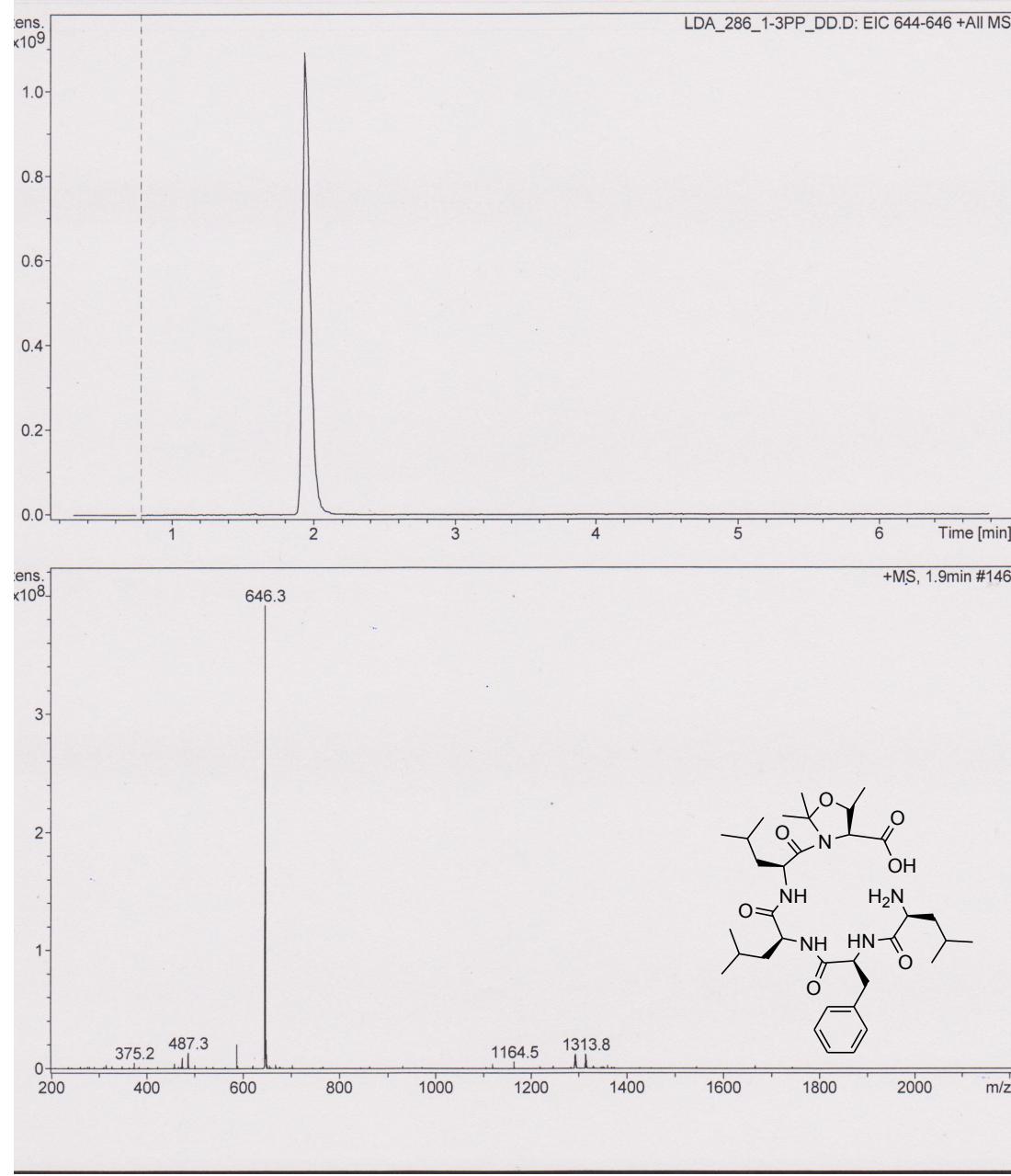
**HRMS Macrocyclic Phe-Thr( $\Psi$ Me,Me-Pro)-Val-Leu-Leu (MW = 614.3887)**

## **Supplementary Material**

Davis et al.

Display Report - All Windows Selected Analysis

**Analysis Name:** LDA\_286\_1-3PP\_ **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M DD.D **Operator:** sdsu **Print Date:** 6/8/2011 9:32:59 AM  
**Sample Name:** LDA\_286\_1-3pp\_dd **Acq. Date:** 5/26/2010 5:41:45 PM  
**Analysis Info:**

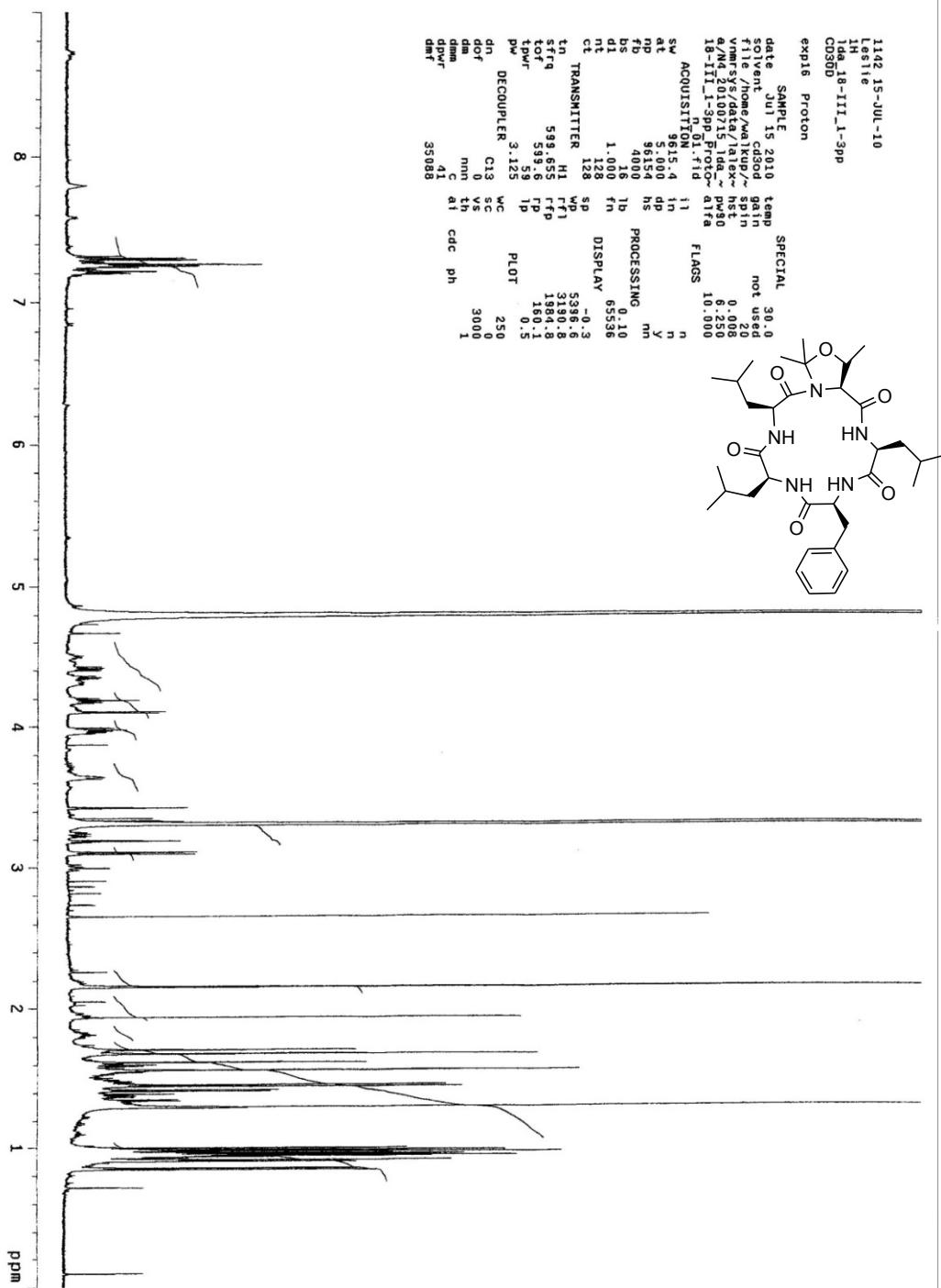


### Compound 13: A-PP-III

## LCMS Deprotected Pentapeptide HO-Thr( $\Psi$ Me,Me-Pro)-Leu-Leu-Phe-Leu-NH<sub>2</sub> (MW=646)

**Supplementary Material**

Davis et al.



Compound 13: A-PP-III

**NMR Macrocyclic Phe-Leu-Thr( $\Psi$ Me,Me-Pro)-Leu-Leu (13)**

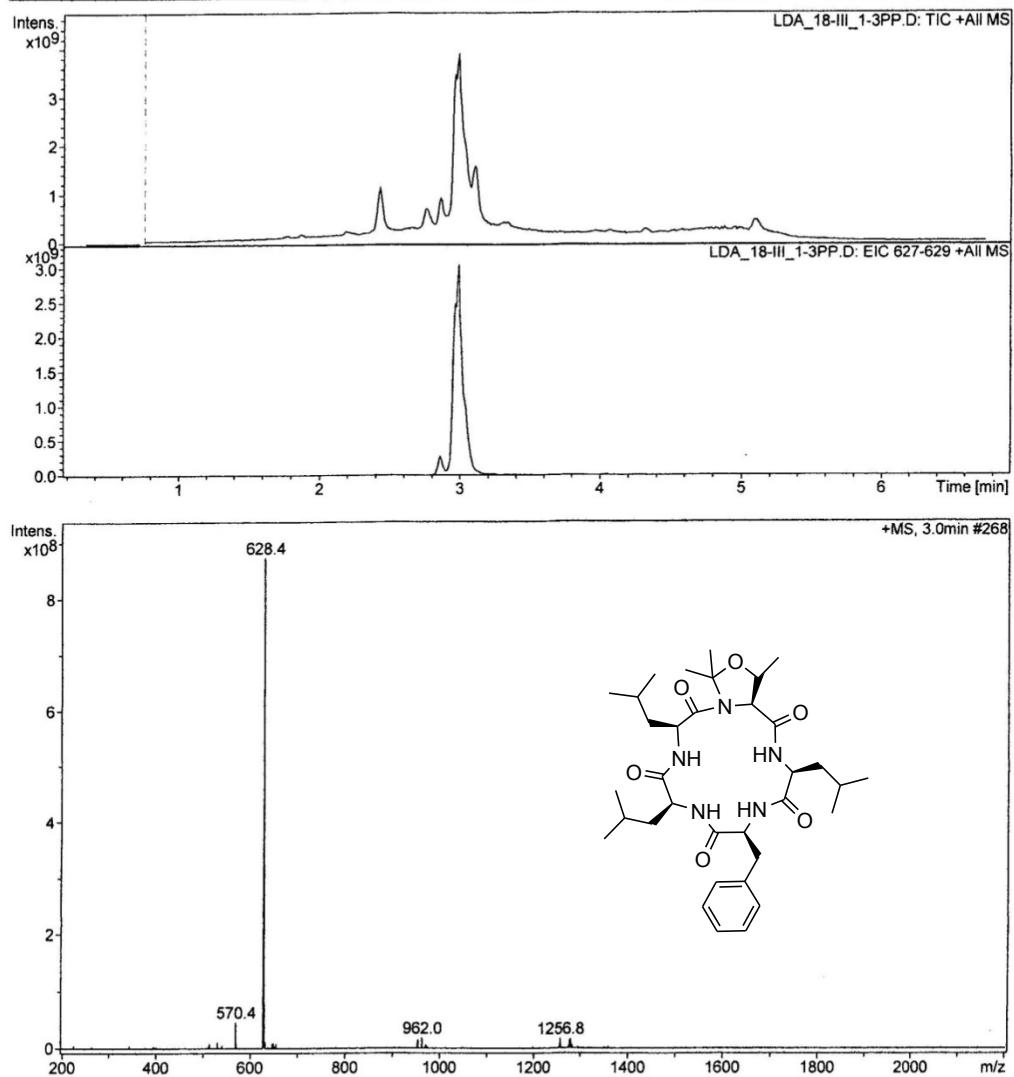
**Supplementary Material**

**Davis et al.**

**Display Report - All Windows Selected Analysis**

**Analysis Name:** LDA\_18-III\_1-3P **Instrument:** Agilent 6330 Ion Trap  
**Method:** SANA.M P.D **Operator:** sdsu **Print Date:** 7/29/2010 12:00:31 PM  
**Sample Name:** LDA\_18-III\_1-3pp **Acq. Date:** 7/13/2010 5:53:29 PM

**Analysis Info:**



Compound 13: A-PP-III

LCMS Macrocycle Phe-Leu-Thr( $\Psi$ Me, Me-Pro)-Leu-Leu (13) (MW= 628)

**Supplementary Material**

Davis et al.

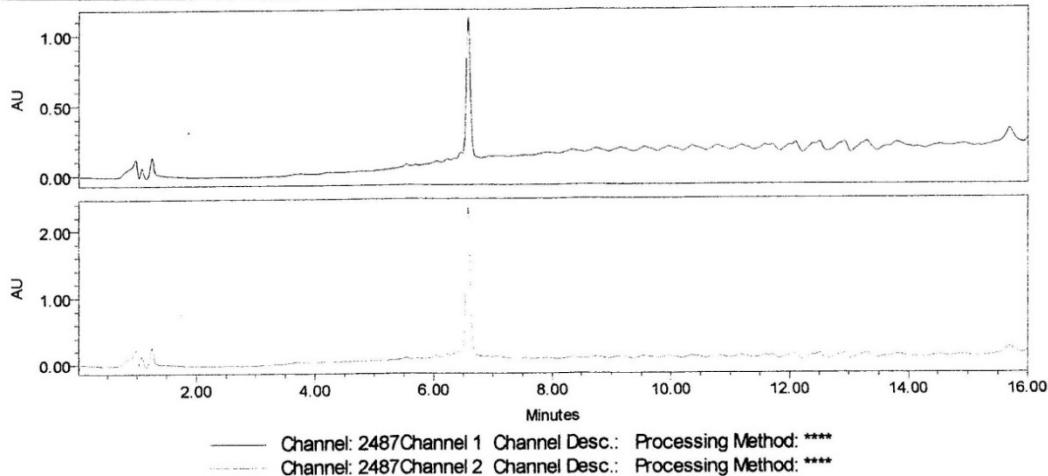
SDSU

Project Name: Defaults  
Reported by User: System

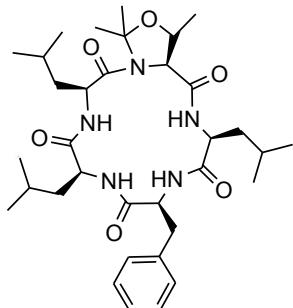
Breeze

**SAMPLE INFORMATION**

Sample Name:	LDA_18-III_1-3PP	Acquired By:	System
Sample Type:	Unknown	Sample Set Name:	
Vial:	1	Acq. Method:	primary_sanA_ss_ACN
Injection #:	480	Date Acquired:	7/20/2010 2:25:27 PM
Run Time:	16.00 Minutes	Injection Volume:	50.00 $\mu$ l



	Peak Name	RT (min)	Area ( $\mu$ V*sec)	% Area	Height ( $\mu$ V)	Amount	Units
1	****	****	****	****	****	****	****
2	****	****	****	****	****	****	****



Report Method: Injection Summary Report Printed 2:41:41 PM 7/20/2010

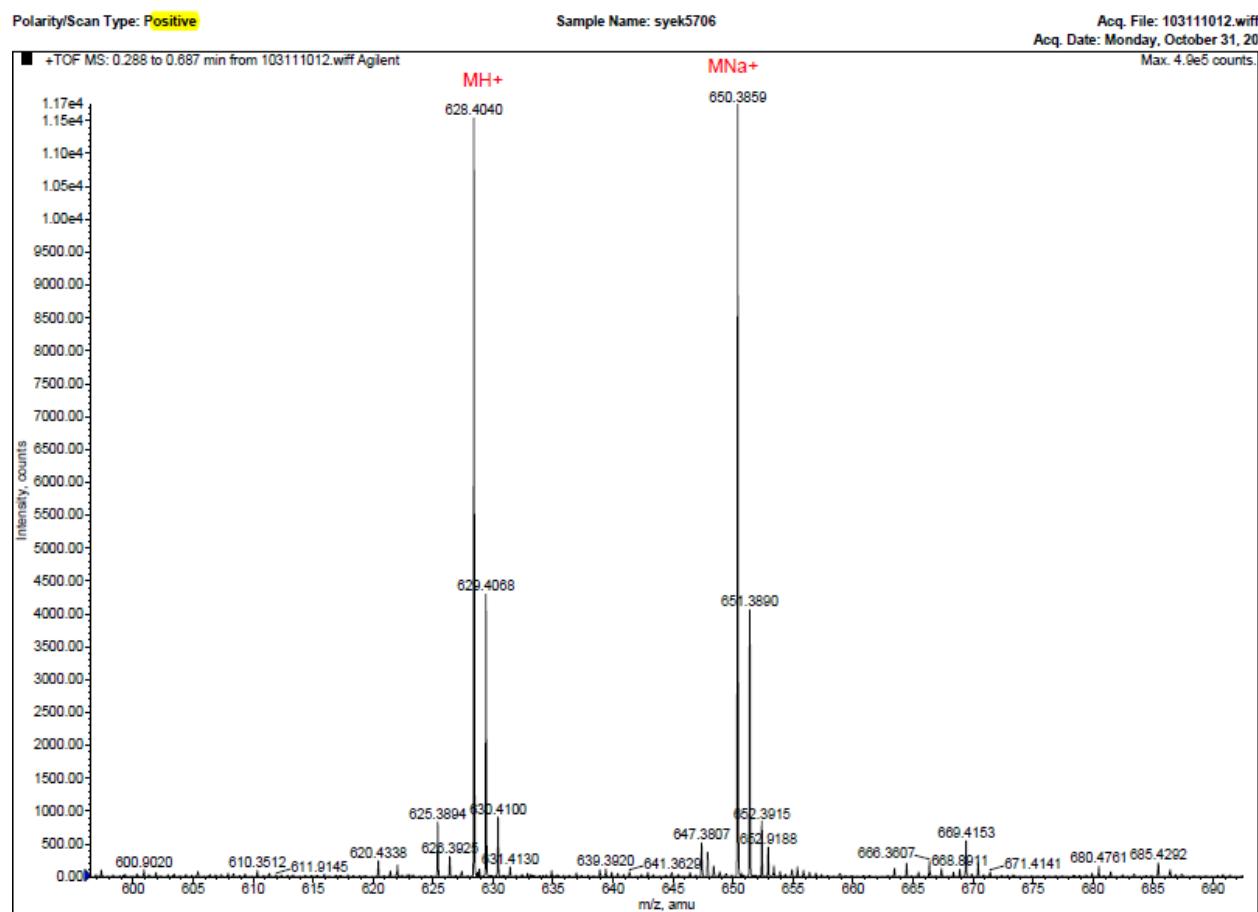
Page: 1 of 1

Compound 13: A-PP-III

**HPLC Macrocycle Phe-Leu-Thr( $\Psi$ Me,Me-Pro)-Leu-Leu (13)**

**Supplementary Material**

**Davis et al.**



Compound 13: A-PP-III

**HRMS Macrocycle Phe-Leu-Thr( $\Psi$ Me,Me-Pro)-Leu-Leu (13) (MW= 628.4040)**