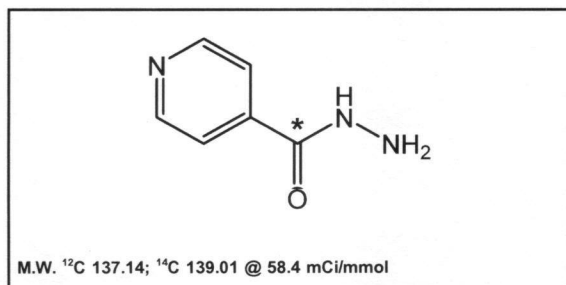




## Product Data Sheet

**MC-448**

**Isoniazid, [carbonyl-<sup>14</sup>C]-**



**Lot #:** 229-093-0584-A-20121002-DRE

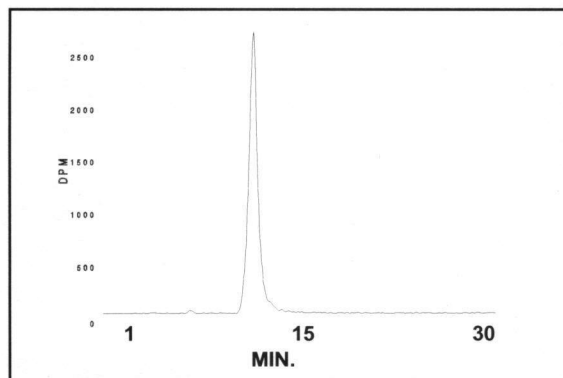
**Specific Activity:** 58.4 mCi/mmol

**Concentration:** 0.1 mCi/ml; 238.03 µg/ml

**Packaged in:** Ethanol solution

**Date of Analysis:** October 16, 2012

**Radiochemical Purity:** 98.7%



HPLC ANALYSIS LOT 229-093-0584-A-20121002-DRE  
File Name: intm5002 Date and Time: 10/16/2012 8:29:02 A  
Unit 20 Radio

Peak #	Area %	Time	Area
1	0.51	6.66670	67.30722
2	98.78	11.53330	13037.43568
3	0.11	12.73670	14.13417
4	0.19	13.70330	25.62141
5	0.40	14.16670	53.30832
Totals	100.00		13197.80680

**Stability and Storage Recommendation:** Store at -20°C.

**Product Warranty:** Stated on the reverse side of this Product Data Sheet.

**Caution:** Not For Use In Humans Or Clinical Diagnosis. This product is intended for investigational or manufacturing use only. It is pharmaceutically unrefined and is not intended for use in humans. Responsibility for its use in humans, as a diagnostic reagent, and compliance with federal laws rests solely with the purchaser.

**MC-448**

**Isoniazid, [carbonyl-<sup>14</sup>C]-**

**Lot 229-093-0584-A-20121002-DRE**

**A) All chromatograms were run using the HPLC method described on the Product Data Sheet.**

**Concentrations and volumes:**

Standard solution concentration was 1.0 mg/ml.

**Isoniazid, [carbonyl-<sup>14</sup>C]-** concentration was 0.1 mCi/ml.

Volume of standard alone injection was 3.0 µl.

Volume of **Isoniazid, [carbonyl-<sup>14</sup>C]-** alone injection was 2.0 µl.

Co-injection solution consisted of 2.0 µl **Isoniazid, [carbonyl-<sup>14</sup>C]-** + 3.0 µl standard.

Volume of co-injection was 5.0 µl.

Volume of blank injection was 2.0 µl.

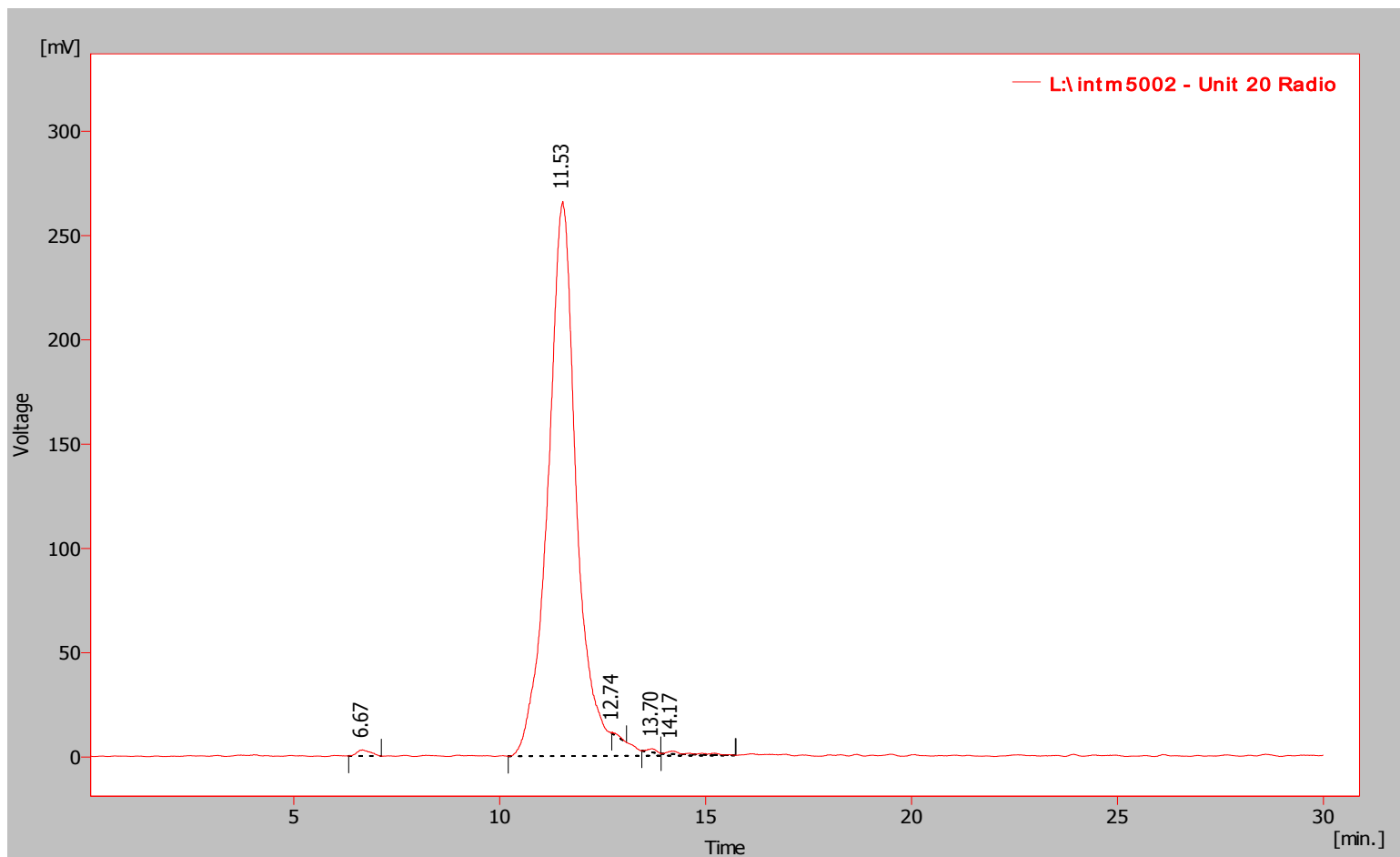
**B) Mass spectrometry – Positive mode**

**C) NMR**

**MC-448**  
**Isoniazid, [carbonyl-14C]-**  
**Lot 229-093-0584-A-20121002-DRE**

## Chromatogram Info:

File Name	: L:\intm5002	File Created	: 11/5/2013 3:42:34 PM
Origin	: Acquired, Acquisition started 10/16/2012 7:59:03 AM	Acquired Date	: 10/16/2012 8:29:02 AM
Project	: Test	By	: Administrator
Method	: Unit_20_30_min_run_met.	By	: Administrator
Description	: Radiochemical trace of 14C material alone	Modified	: 11/5/2013 3:59 PM
Created	: 4/15/2008 11:40 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



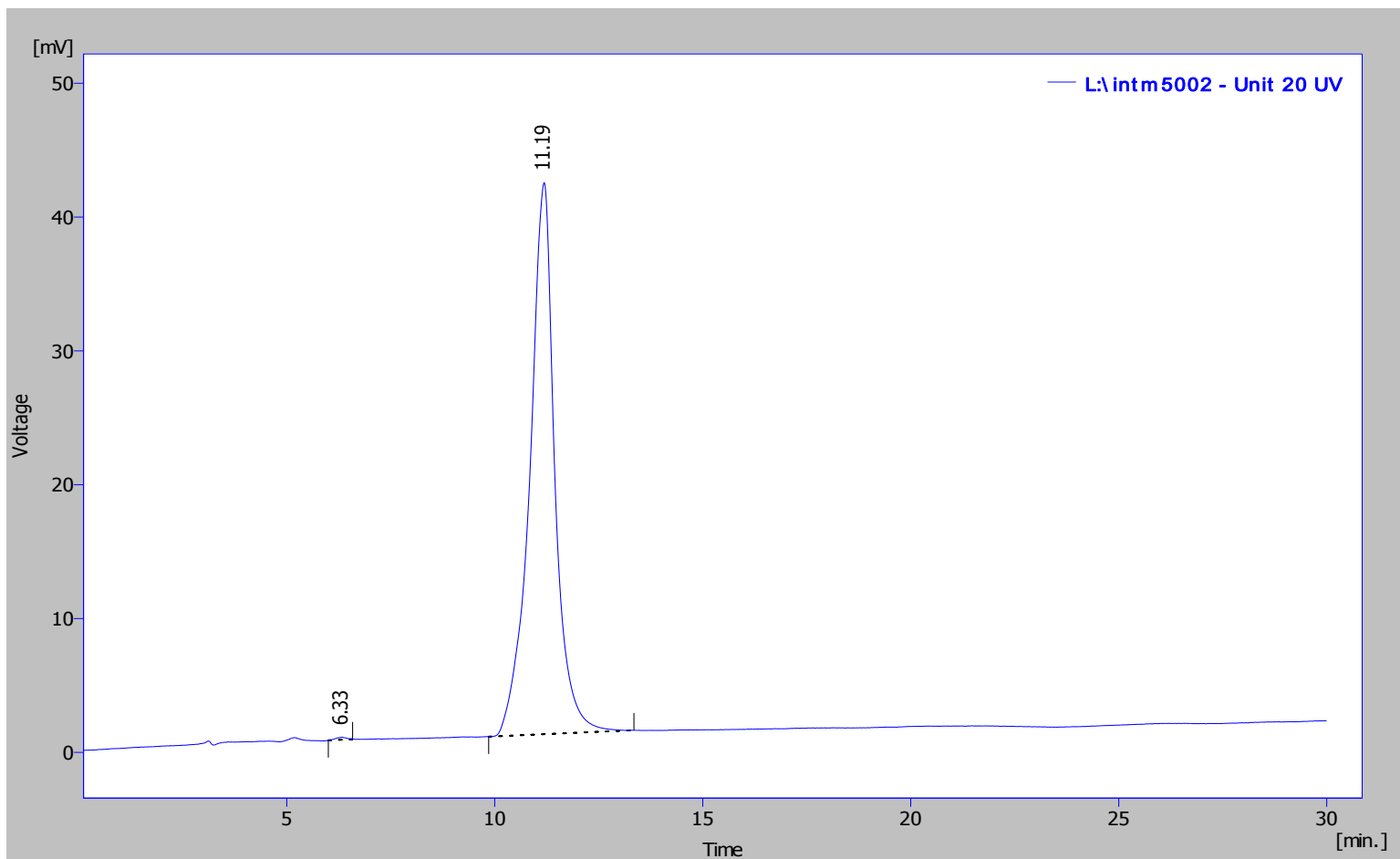
Result Table (Uncal - L:\intm5002 - Unit 20 Radio)

	Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
1		6.667	0.51	67.307	3.005	1.101	1646.849
2		11.533	98.78	13037.436	265.915	97.394	1641.609
3		12.737	0.11	14.134	0.856	0.314	1650698.513
4		13.703	0.19	25.621	1.789	0.655	12369.901
5		14.167	0.40	53.308	1.466	0.537	14881.953
		Total	100.00	13197.807	273.031	100.000	

**MC-448**  
**Isoniazid, [carbonyl-14C]-**  
**Lot 229-093-0584-A-20121002-DRE**

## Chromatogram Info:

File Name	: L:\intm5002	File Created	: 11/5/2013 3:42:34 PM
Origin	: Acquired, Acquisition started 10/16/2012 7:59:03 AM	Acquired Date	: 10/16/2012 8:29:02 AM
Project	: Test	By	: Administrator
Method	: Unit_20_30_min_run_met.	By	: Administrator
Description	: UV trace of 14C material alone	Modified	: 11/5/2013 4:00 PM
Created	: 4/15/2008 11:40 AM		
Column	:	Detection	: UV 254nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



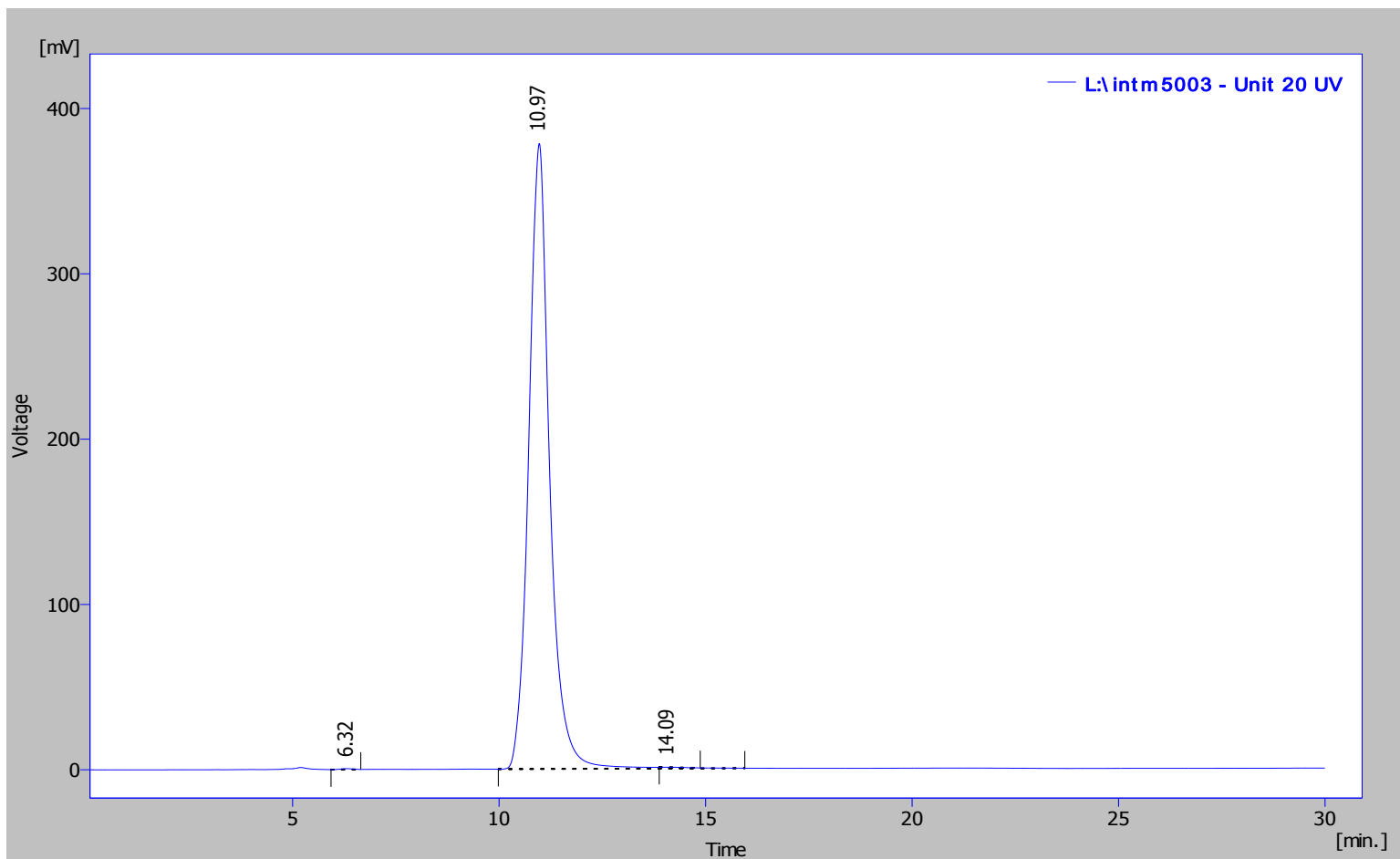
Result Table (Uncal - L:\intm5002 - Unit 20 UV)

	Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
1		6.330	0.19	3.248	0.189	0.455	2831.399
2		11.187	99.81	1724.558	41.216	99.545	2109.098
		Total	100.00	1727.806	41.404	100.000	

**MC-448**  
**Isoniazid, [carbonyl-14C]-**  
**Lot 229-093-0584-A-20121002-DRE**

## Chromatogram Info:

File Name	: L:\intm5003	File Created	: 11/5/2013 3:42:34 PM
Origin	: Acquired, Acquisition started 10/16/2012 8:32:08 AM	Acquired Date	: 10/16/2012 9:02:07 AM
Project	: Test	By	: Administrator
Method	: Unit_20_30_min_run_met.	By	: Administrator
Description	: UV trace of standard alone	Modified	: 11/5/2013 4:01 PM
Created	: 4/15/2008 11:40 AM		
Column	:	Detection	: UV 254nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\intm5003 - Unit 20 UV)

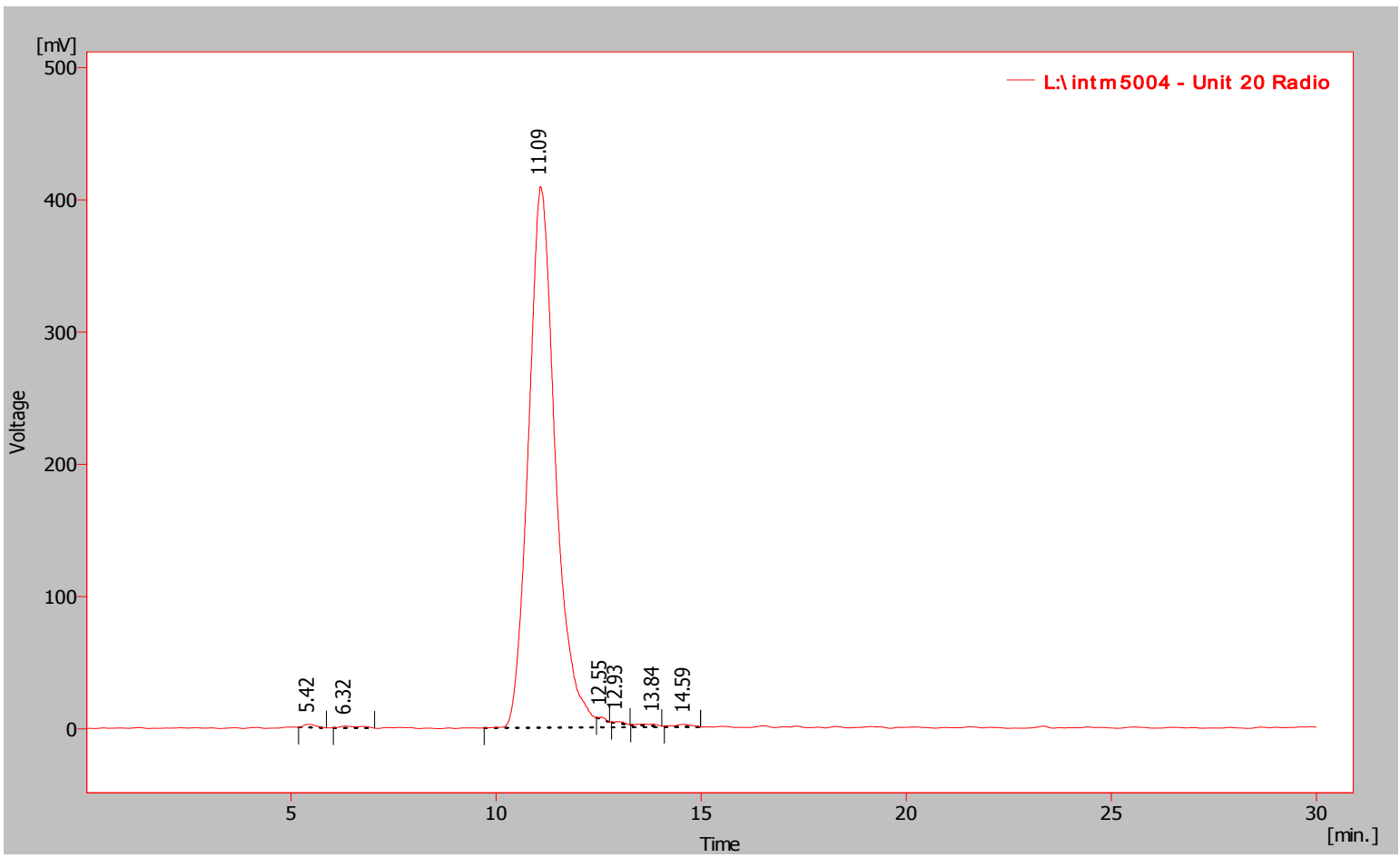
	Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
1		6.323	0.07	9.919	0.529	0.140	2461.271
2		10.973	99.89	13310.151	378.330	99.827	2633.150
3		14.087	0.03	4.202	0.126	0.033	6757.686
		Total	100.00	13324.273	378.986	100.000	



**MC-448**  
**Isoniazid, [carbonyl-14C]-**  
**Lot 229-093-0584-A-20121002-DRE**

Chromatogram Info:

File Name	: L:\intm5004	File Created	: 11/5/2013 3:42:35 PM
Origin	: Acquired, Acquisition started 10/16/2012 9:03:20 AM	Acquired Date	: 10/16/2012 9:33:19 AM
Project	: Test	By	: Administrator
Method	: Unit_20_30_min_run_met.	By	: Administrator
Description	: Radiochemical trace of 14C material co-injected with standard	Modified	: 11/5/2013 4:02 PM
Created	: 4/15/2008 11:40 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



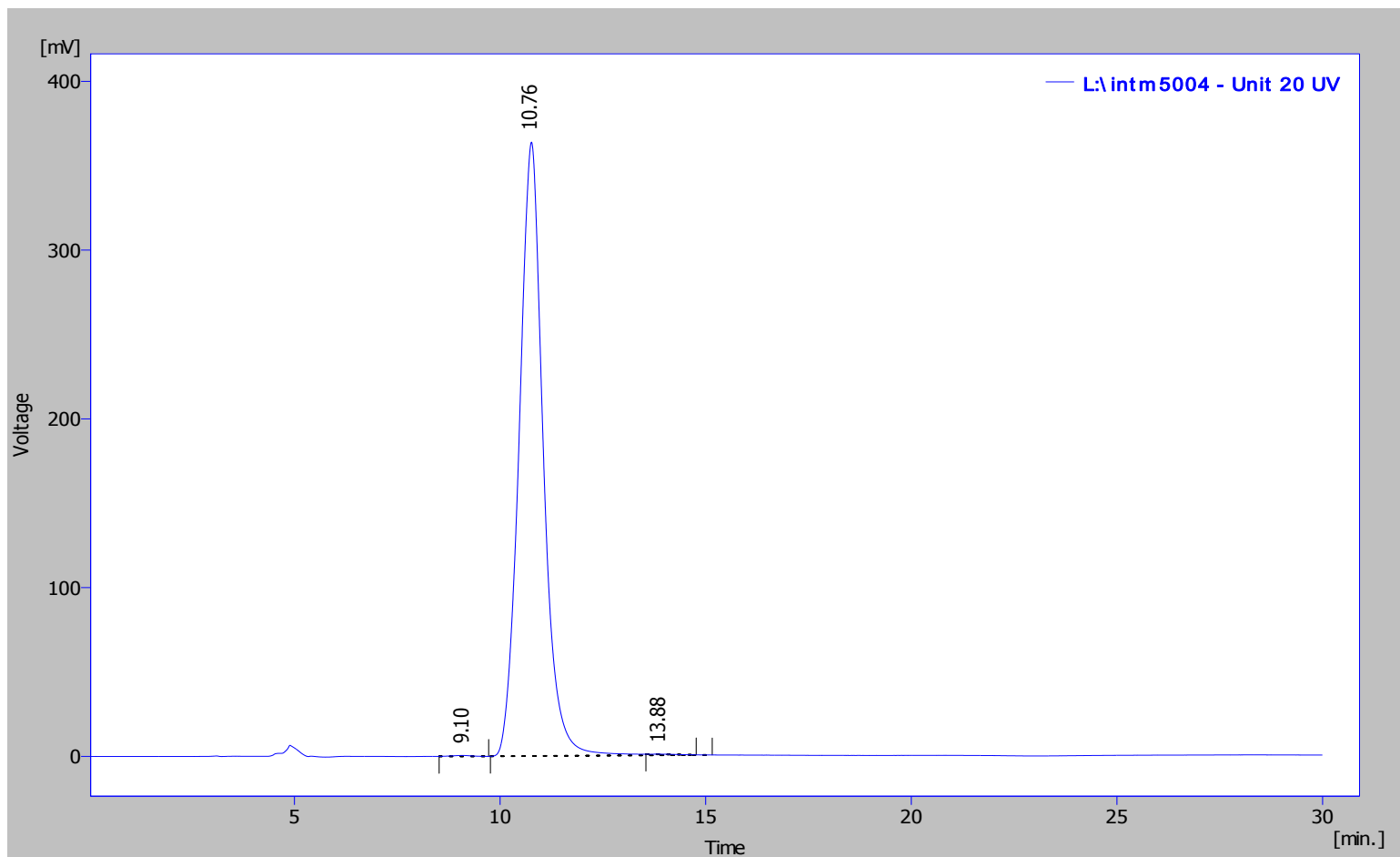
Result Table (Uncal - L:\intm5004 - Unit 20 Radio)

	Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
1		5.420	0.25	48.522	2.499	0.596	1464.707
2		6.320	0.28	54.622	1.451	0.346	419.057
3		11.087	98.79	18946.960	409.182	97.539	1501.936
4		12.553	0.10	18.863	1.643	0.392	26945.291
5		12.933	0.12	22.750	1.196	0.285	19146.321
6		13.837	0.21	40.061	1.607	0.383	3382.180
7		14.590	0.25	47.588	1.930	0.460	7753.381
		Total	100.00	19179.366	419.508	100.000	

**MC-448**  
**Isoniazid, [carbonyl-14C]-**  
**Lot 229-093-0584-A-20121002-DRE**

## Chromatogram Info:

File Name	: L:\intm5004	File Created	: 11/5/2013 3:42:35 PM
Origin	: Acquired, Acquisition started 10/16/2012 9:03:20 AM	Acquired Date	: 10/16/2012 9:33:19 AM
Project	: Test	By	: Administrator
Method	: Unit_20_30_min_run_met.	By	: Administrator
Description	: UV trace of 14C material co-injected with standard	Modified	: 11/5/2013 4:03 PM
Created	: 4/15/2008 11:40 AM		
Column	:	Detection	: UV 254nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



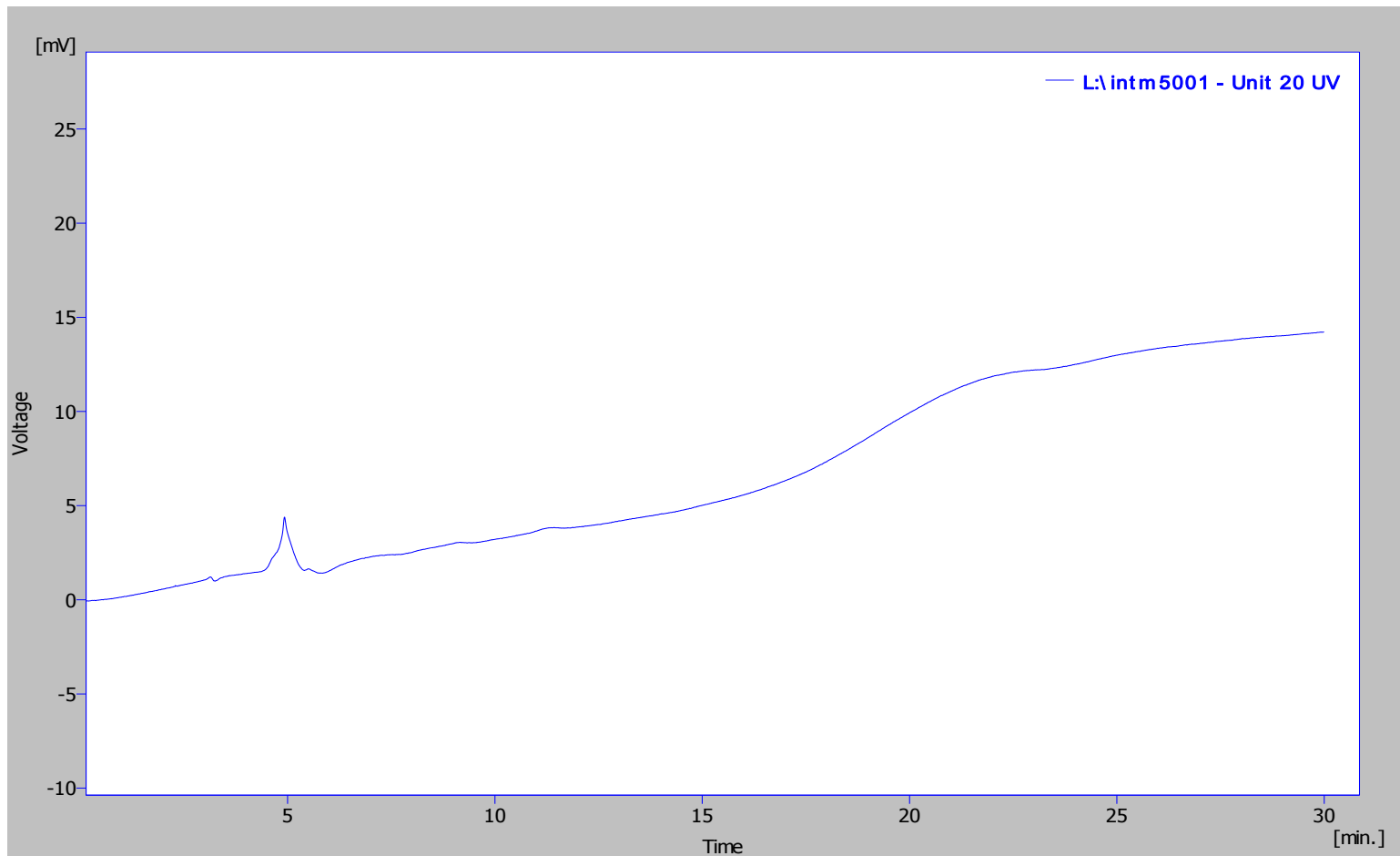
Result Table (Uncal - L:\intm5004 - Unit 20 UV)

	Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
1		9.103	0.11	16.551	0.541	0.148	2020.603
2		10.763	99.85	14820.357	363.846	99.809	1782.793
3		13.877	0.04	5.989	0.153	0.042	3484.227
		Total	100.00	14842.897	364.540	100.000	

**MC-448**  
**Isoniazid, [carbonyl-14C]-**  
**Lot 229-093-0584-A-20121002-DRE**

## Chromatogram Info:

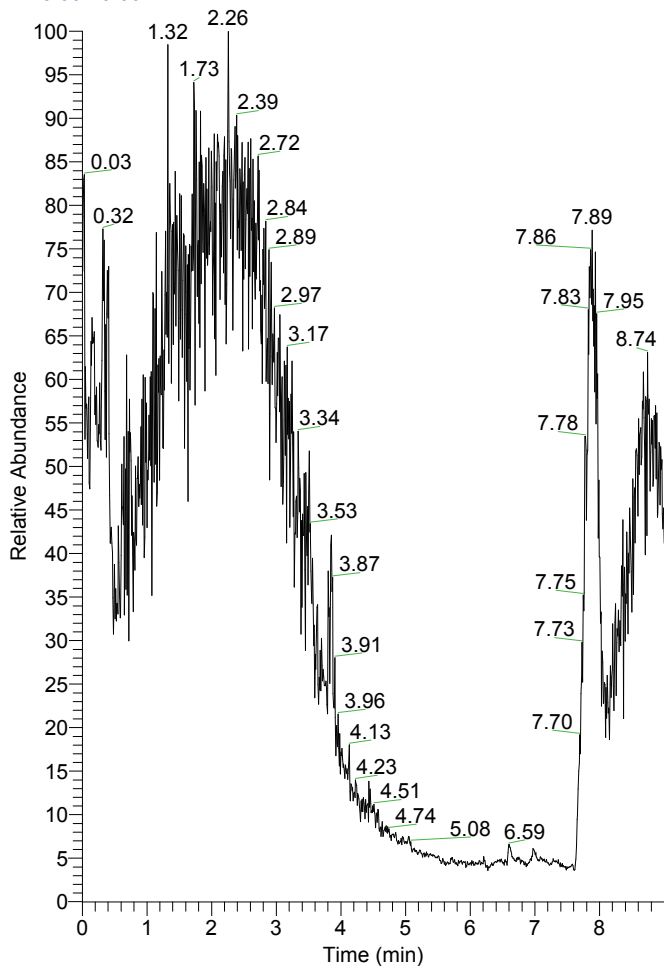
File Name	: L:\intm5001	File Created	: 11/5/2013 3:42:34 PM
Origin	: Acquired, Acquisition started 10/16/2012 7:27:02 AM	Acquired Date	: 10/16/2012 7:57:01 AM
Project	: Test	By	: Administrator
Method	: Unit_20_30_min_run_met.	By	: Administrator
Description	: UV trace of blank injection	Modified	: 11/5/2013 3:49 PM
Created	: 4/15/2008 11:40 AM		
Column	:	Detection	: UV 254nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



*Result Table (Uncal - L:\intm5001 - Unit 20 UV)*

Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
No peak to report						

RT: 0.00 - 9.00



NL:  
3.45E9  
TIC MS  
MC448

MC448#47-163 RT: 0.40-1.38 AV: 117

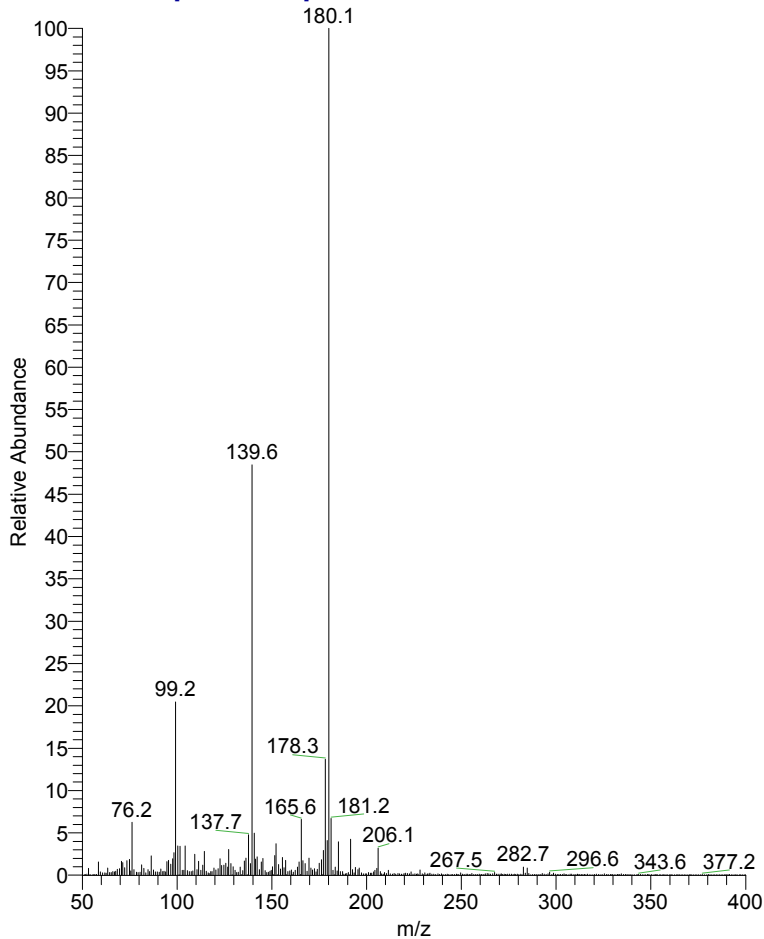
T: + c ESI Full ms [50.00-400.00]

m/z= 137.1-144.1

m/z	Intensity	Relative
137.7	22201505.5	9.79
138.7	6262988.7	2.76
139.6	226706547.4	100.00
140.8	23139423.3	10.21
141.5	8761382.6	3.86
142.3	9915747.8	4.37
143.4	2870727.1	1.27

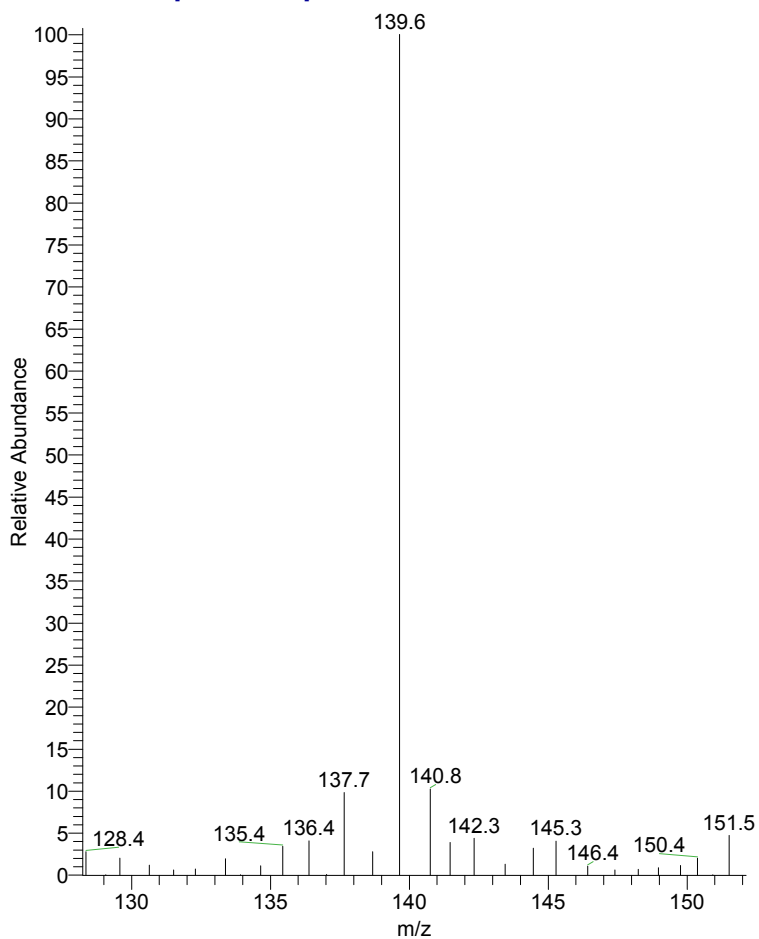
MC448 #47-163 RT: 0.40-1.38 AV: 117 NL: 4.68E8

T: + c ESI Full ms [50.00-400.00]



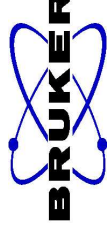
MC448 #47-163 RT: 0.40-1.38 AV: 117 NL: 2.27E8

T: + c ESI Full ms [50.00-400.00]



MC448 1H NMR in MeOD  
Batch 20121002-DRE

8.708  
8.704  
8.697  
8.693  
7.777  
7.773  
7.766  
7.761



NAME MC448-20121002-DRE  
EXPNO 1  
PROCNO 1  
Date\_ 20121008  
Time 11.06  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT MeOD  
NS 256  
DS 2  
SWH 8278.146 Hz  
FIDRES 0.126314 Hz  
AQ 3.9584243 sec  
RG 362  
DW 60.400 usec  
DE 6.50 usec  
TE 294.9 K  
D1 2.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.00 usec  
PL1 -1.00 dB  
PL1W 10.75174427 W  
SF01 400.1324710 MHz  
SI 32768  
SF 400.1300000 MHz  
WDW no  
SSB 0  
LB 0.00 Hz  
GB 0  
PC 1.00

