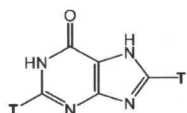




## Product Data Sheet

**MT-700**

**Hypoxanthine, [2,8-<sup>3</sup>H]-**



M.W. <sup>1</sup>H 136.11; <sup>3</sup>H 138.09 @ 28.5 Ci/mmol

**Lot #:** 167-121-0285-A-20090327-TN

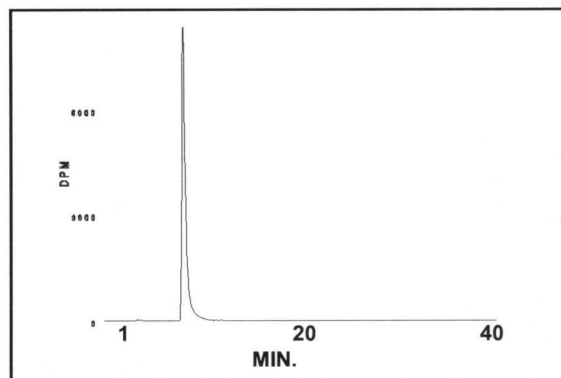
**Specific Activity:** 28.5 Ci/mmol

**Concentration:** 1.0 mCi/ml; 4.85 µg/ml

**Packaged in:** Sterile water solution

**Date of Analysis:** June 24, 2009

**Radiochemical Purity:** 99.2%



HPLC ANALYSIS LOT 167-121-0285-A-20090327-TN

File Name: int41973 Date and Time: 6/24/2009 9:55:50 AM

Unit 4 Radio

Peak #	Area %	Time	Area
1	0.45	3.51330	101.03947
2	99.29	8.09670	22380.01607
3	0.07	9.97000	14.71519
4	0.20	11.51000	44.67889
Totals	100.00		22540.44962

**Stability and Storage Recommendation:** The rate of decomposition is approximately 1% / month for the first six months after purification when stored at 0-5°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.

**MT-700**

**Hypoxanthine, [2, 8-<sup>3</sup>H]-**

**Lot 167-121-0285-A-20090327-TN**

**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.

**Hypoxanthine, [2, 8-<sup>3</sup>H]-** concentration was 1.0 mCi/mL.

Volume of standard alone injection was 2.0 µL.

Volume of **Hypoxanthine, [2, 8-<sup>3</sup>H]-** alone injection was 1.0 µL.

Co-injection solution consisted of 1.0 µL **Hypoxanthine, [2,8-<sup>3</sup>H]-** + 2.0 µL standard.

Volume of co-injection was 3.0 µL.

Volume of blank injection was 1.0 µL.

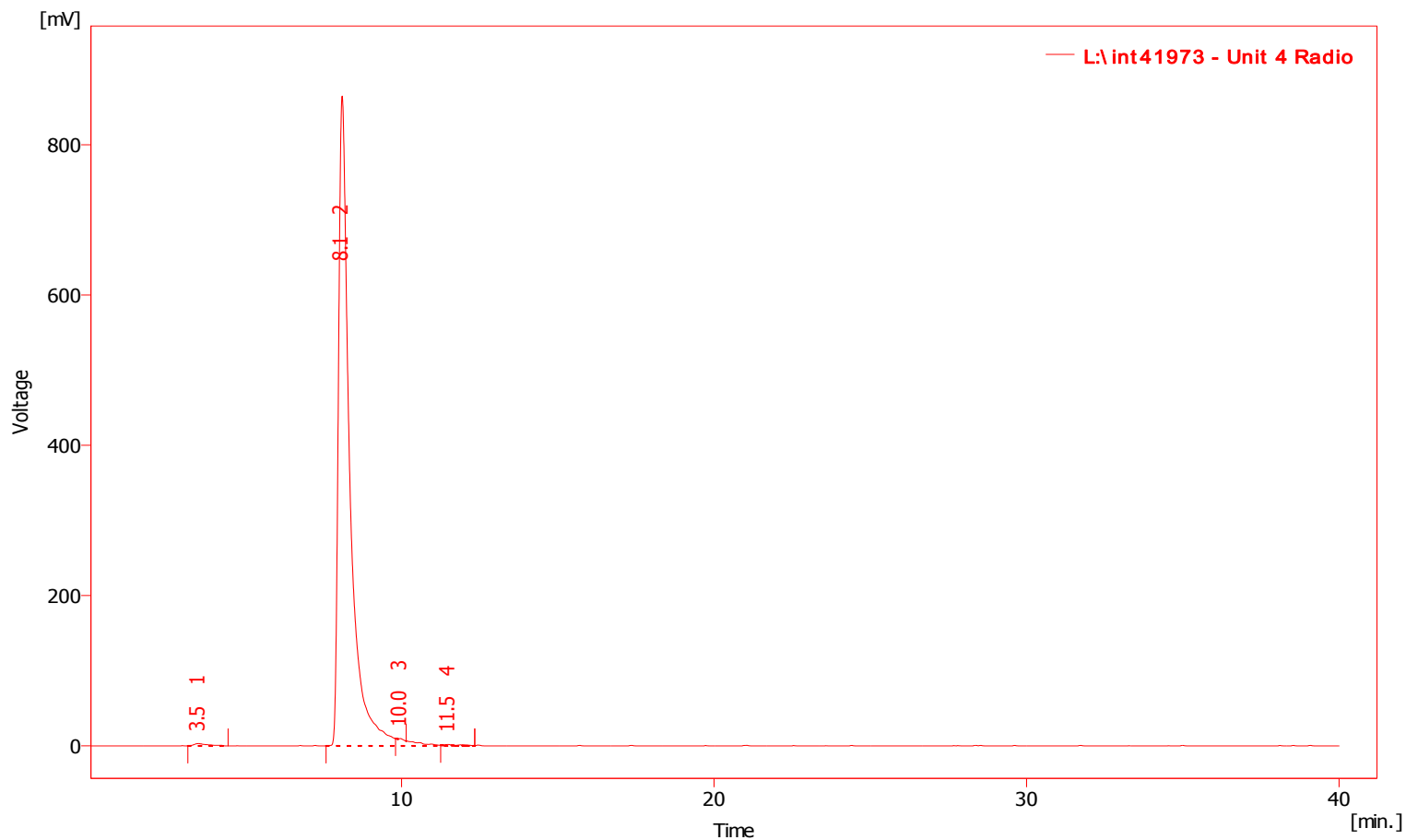
**B) Mass spectrometry – Positive mode**

**C) NMR**

**MT-700**  
**Hypoxanthine, [2, 8-3H]**  
**Lot 167-121-0285-A-20090327-TN**

Chromatogram Info:

File Name	: L:\int41973	File Created	: 3/6/2014 9:03:05 AM
Origin	: Acquired, Acquisition started 6/24/2009 9:15:52 AM	Acquired Date	: 6/24/2009 9:55:50 AM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: Radiochemical trace of 3H material alone	Modified	: 3/6/2014 9:20 AM
Created	: 6/12/2008 10:30 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



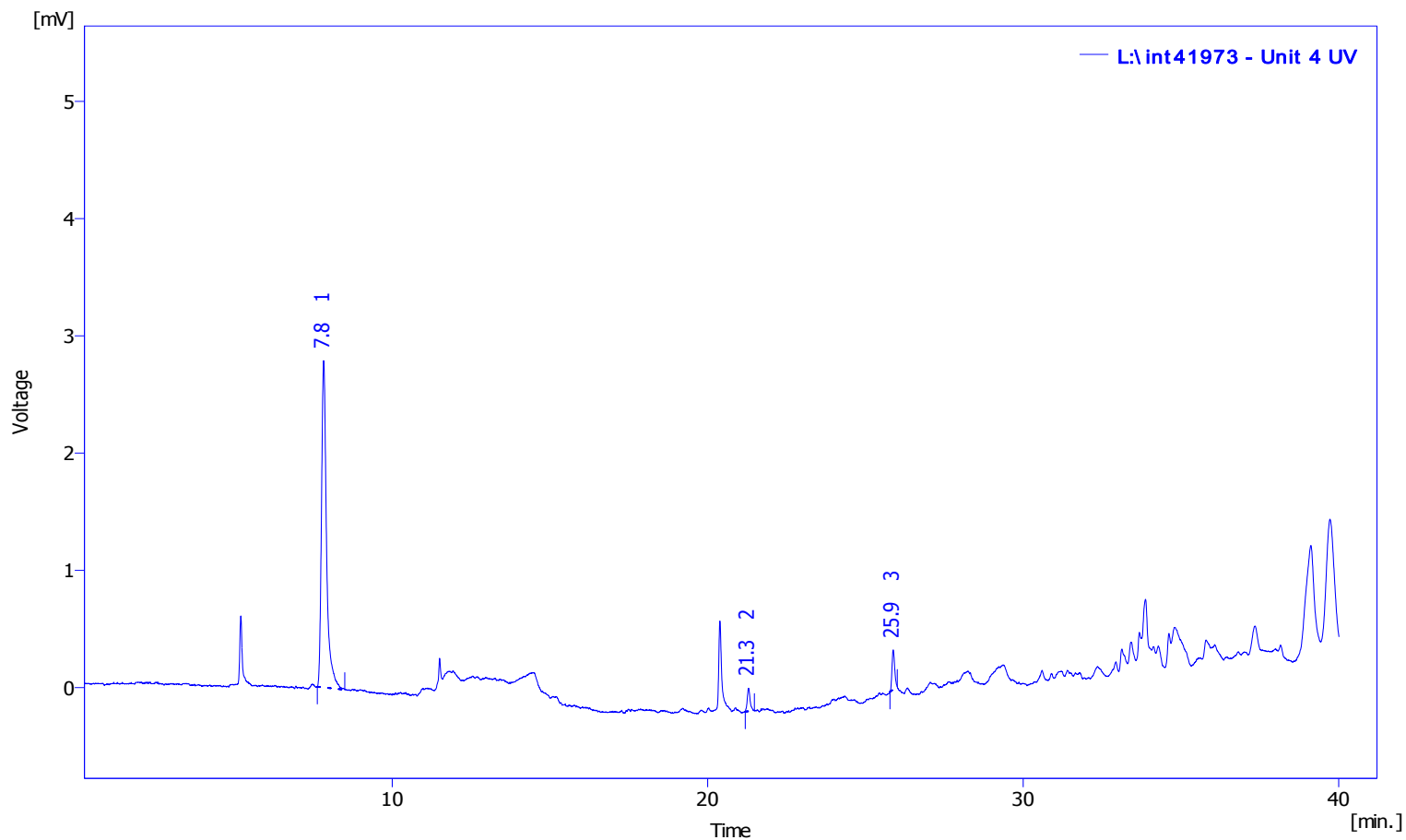
Result Table (Uncal - L:\int41973 - Unit 4 Radio)

	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/I [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
1		3.51	101.039	3.25	0.45	0.37	364.17	7283.40	1.67		
2		8.10	22380.016	864.92	99.29	99.29	3141.70	62833.96	4.71		7.0
3		9.97	14.715	1.61	0.07	0.18	12893.16	257863.10	1.01		4.0
4		11.51	44.679	1.29	0.20	0.15	13480.53	269610.52	2.10		4.1
		Total	22540.450	871.07	100.00	100.00					

**MT-700**  
**Hypoxanthine, [2, 8-3H]**  
**Lot 167-121-0285-A-20090327-TN**

Chromatogram Info:

File Name	: L:\int41973	File Created	: 3/6/2014 9:03:05 AM
Origin	: Acquired, Acquisition started 6/24/2009 9:15:52 AM	Acquired Date	: 6/24/2009 9:55:50 AM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of 3H material alone	Modified	: 3/6/2014 9:10 AM
Created	: 6/12/2008 10:30 AM		
Column	:	Detection	: UV 250nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



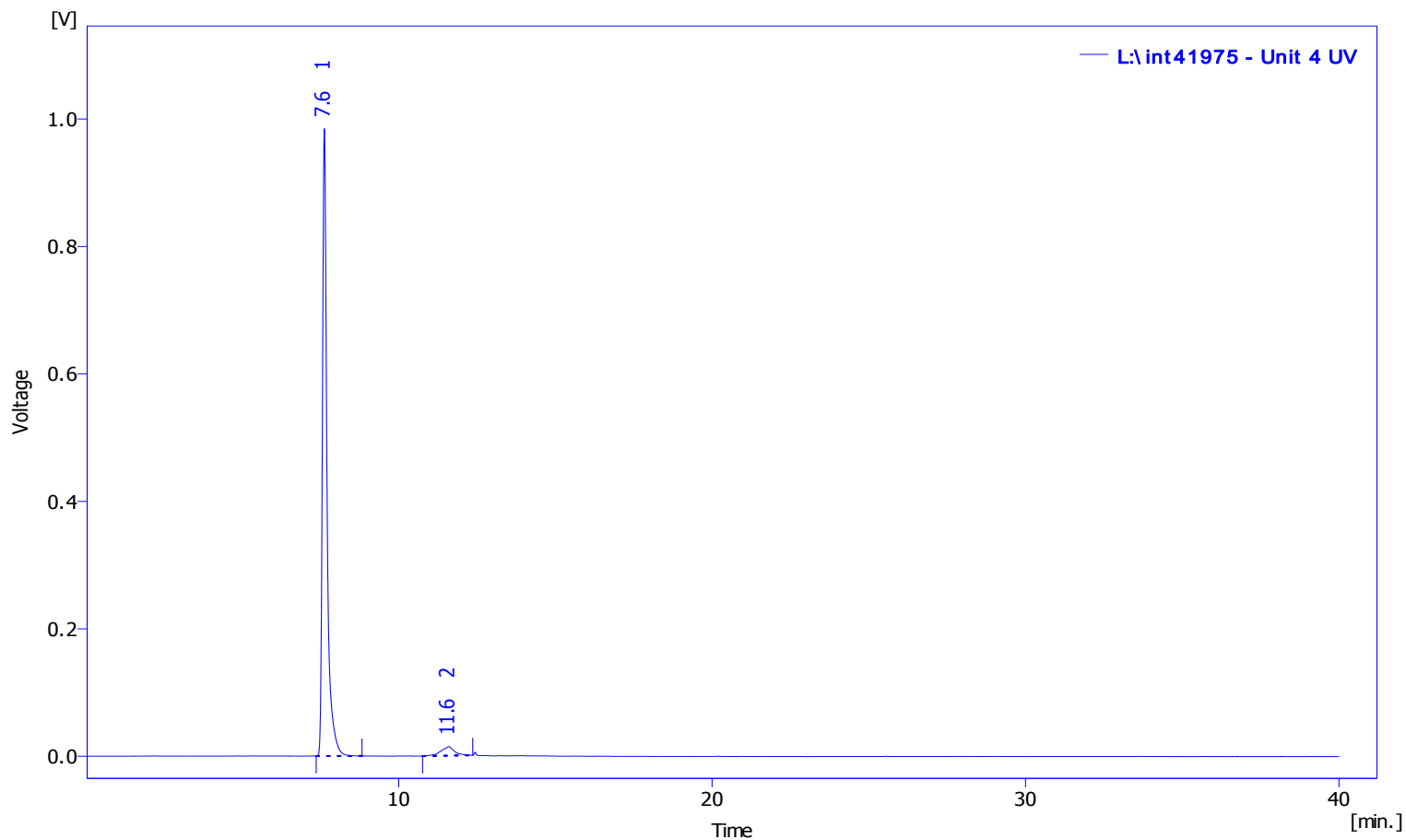
Result Table (Uncal - L:\int41973 - Unit 4 UV)

	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/l [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
1		7.83	31.159	2.79	90.64	83.89	13256.34	265126.70	1.53		
2		21.29	1.236	0.20	3.60	5.93	288352.36	5767047.29	1.27		62.7
3		25.88	1.981	0.34	5.76	10.18	397086.23	7941724.51	1.18		28.5
		Total	34.376	3.32	100.00	100.00					

**MT-700**  
**Hypoxanthine, [2, 8-3H]**  
**Lot 167-121-0285-A-20090327-TN**

Chromatogram Info:

File Name	: L:\int41975	File Created	: 3/6/2014 9:03:05 AM
Origin	: Acquired, Acquisition started 6/24/2009 11:53:51 AM	Acquired Date	: 6/24/2009 12:33:50 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of standard material alone	Modified	: 3/6/2014 9:21 AM
Created	: 6/12/2008 10:30 AM		
Column	:	Detection	: UV 250nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\int41975 - Unit 4 UV)

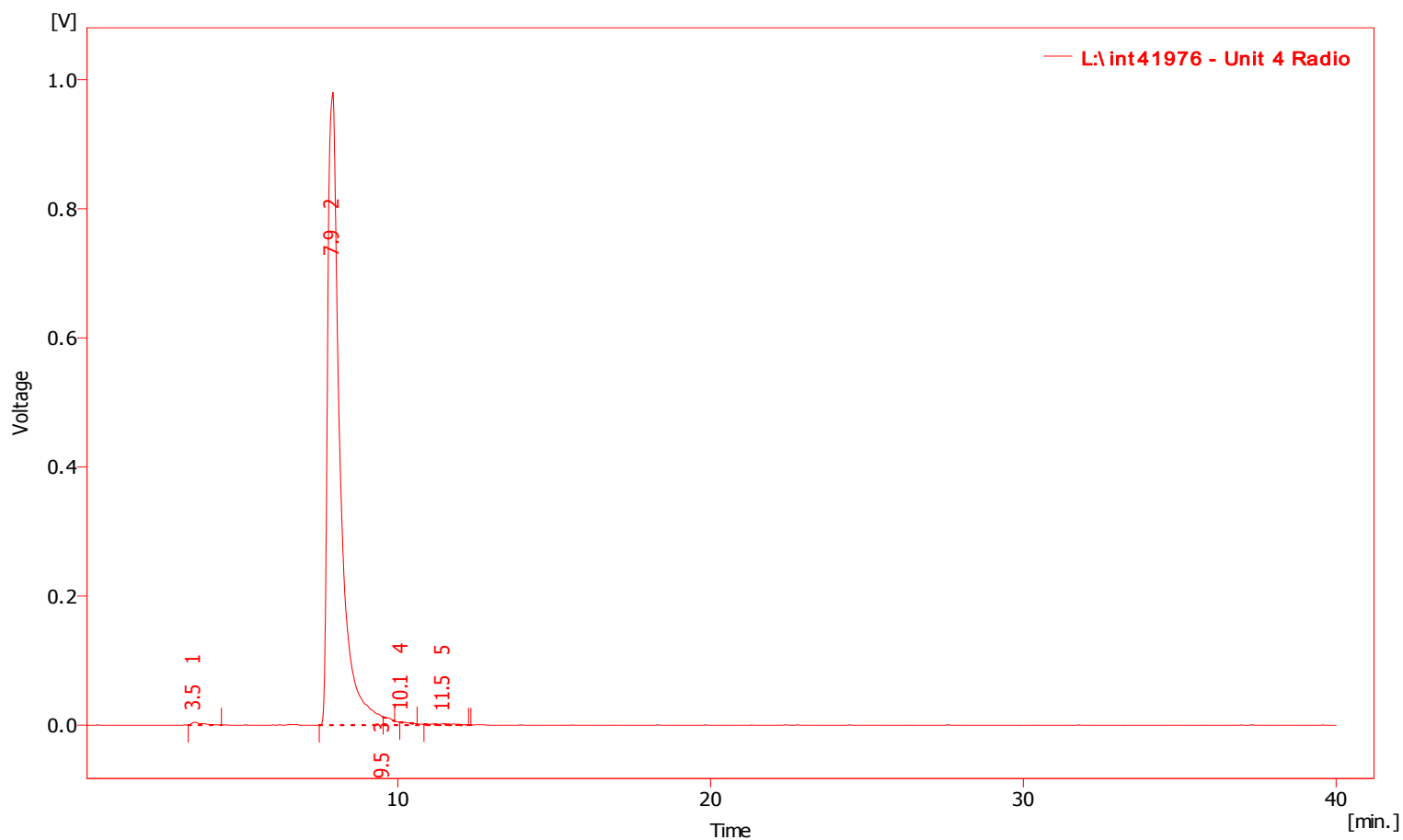
	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/I [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
1		7.63	10086.454	984.41	95.93	98.57	15685.01	313700.27	1.60		
2		11.60	427.431	14.26	4.07	1.43	3848.32	76966.33	0.93		8.0
		Total	10513.885	998.67	100.00	100.00					



**MT-700**  
**Hypoxanthine, [2, 8-3H]**  
**Lot 167-121-0285-A-20090327-TN**

Chromatogram Info:

File Name	: L:\int41976	File Created	: 3/6/2014 9:03:05 AM
Origin	: Acquired, Acquisition started 6/24/2009 1:30:02 PM	Acquired Date	: 6/24/2009 2:10:01 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: Radiochemical trace of 3H material co-injected with standard	Modified	: 3/6/2014 9:22 AM
Created	: 6/12/2008 10:30 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



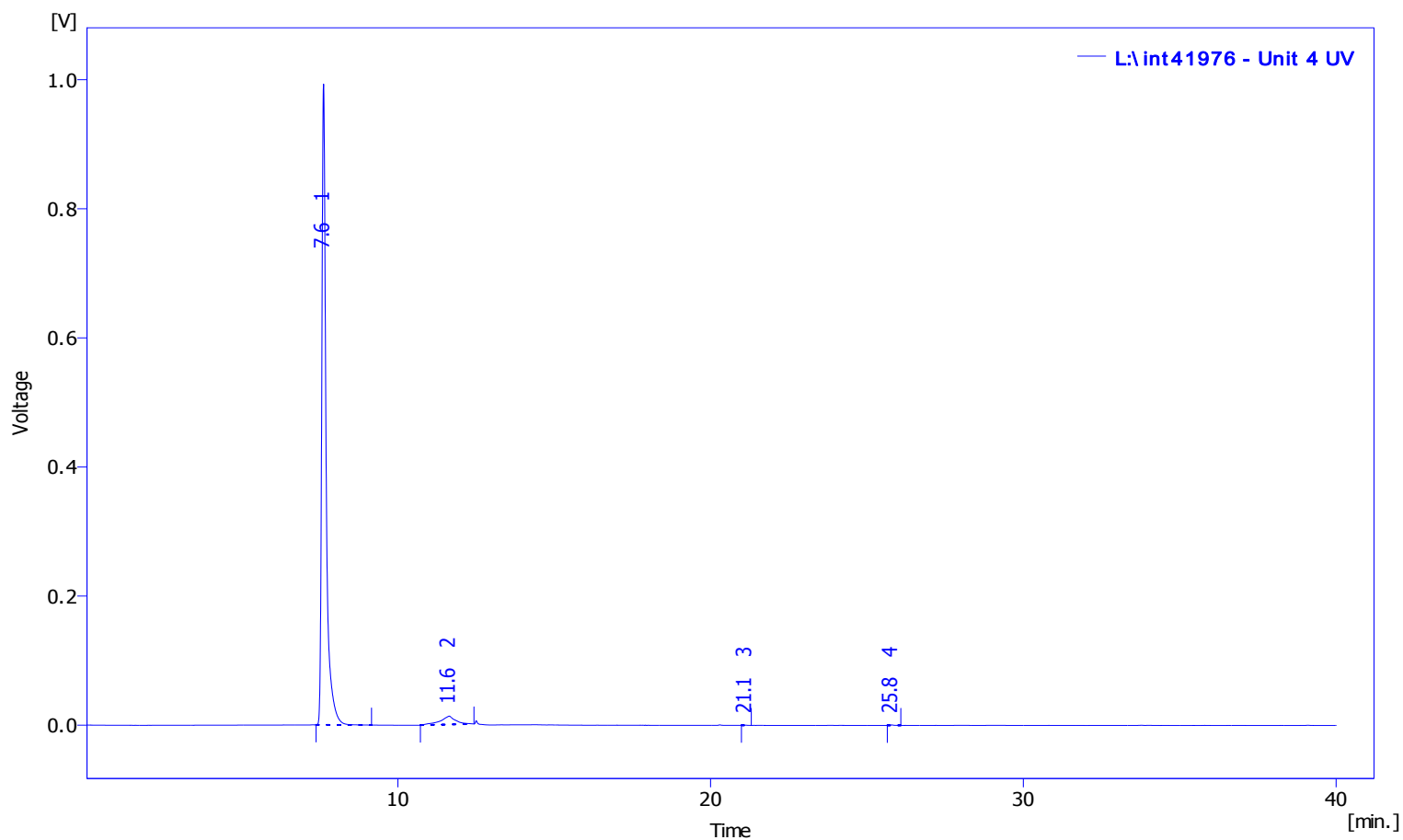
Result Table (Uncal - L:\int41976 - Unit 4 Radio)

	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/l [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
1		3.50	114.101	4.61	0.41	0.47	438.66	8773.13	2.59		
2		7.92	27582.636	980.53	99.16	99.24	2451.38	49027.67	5.68		6.8
3		9.54	17.892	0.07	0.06	0.01	5038519.82	100770396.31	27.25		4.9
4		10.13	19.009	0.81	0.07	0.08	44289.33	885786.57	4.10		5.7
5		11.47	82.873	2.07	0.30	0.21	9997.91	199958.13	1.09		4.1
		Total	27816.510	988.09	100.00	100.00					

**MT-700**  
**Hypoxanthine, [2, 8-3H]**  
**Lot 167-121-0285-A-20090327-TN**

Chromatogram Info:

File Name	: L:\int41976	File Created	: 3/6/2014 9:03:05 AM
Origin	: Acquired, Acquisition started 6/24/2009 1:30:02 PM	Acquired Date	: 6/24/2009 2:10:01 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of 3H material co-injected with standard	Modified	: 3/6/2014 9:21 AM
Created	: 6/12/2008 10:30 AM		
Column	:	Detection	: UV 250nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



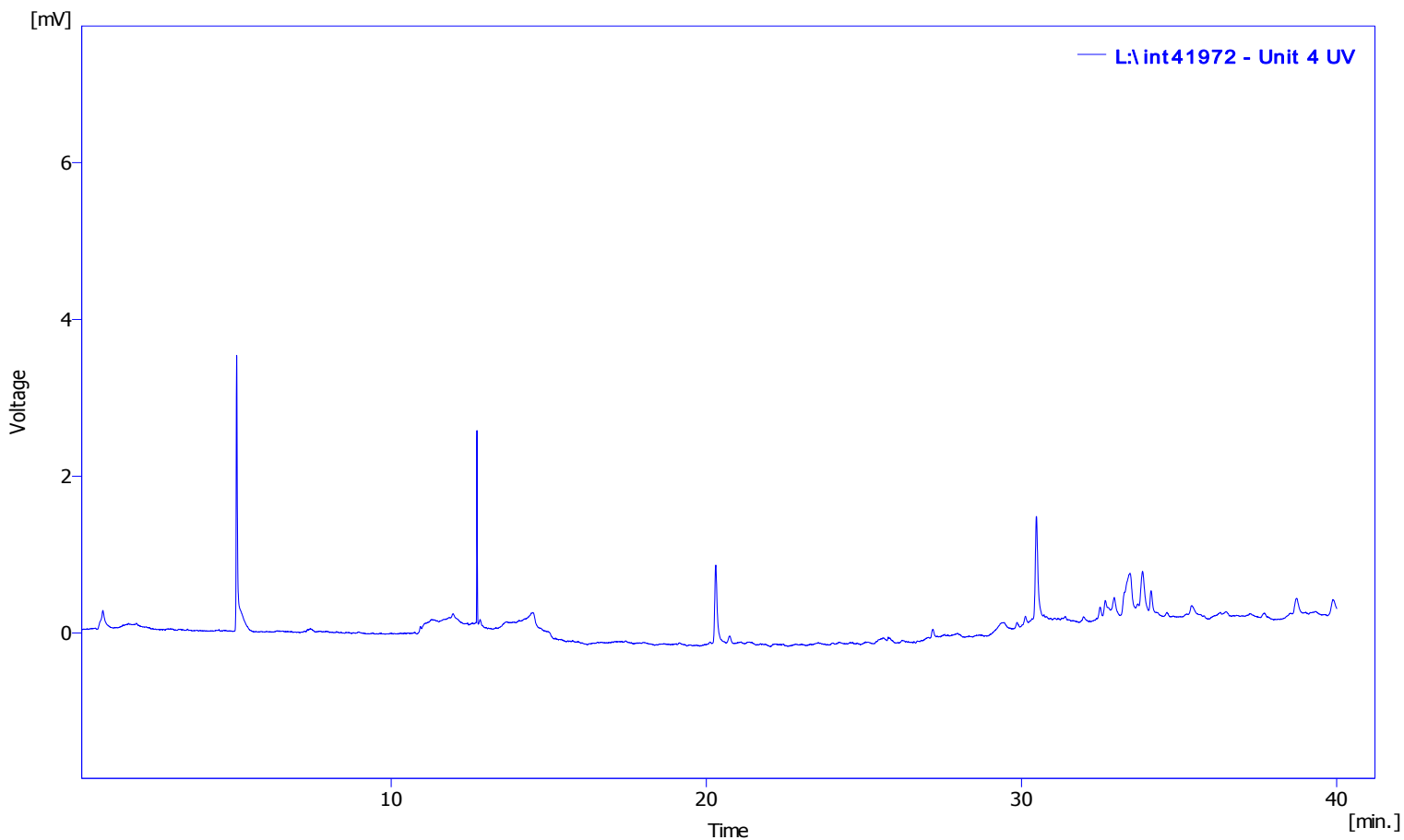
Result Table (Uncal - L:\int41976 - Unit 4 UV)

	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/l [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
1		7.62	9546.531	992.94	95.50	98.60	18110.15	362203.05	1.65		
2		11.64	442.409	13.00	4.43	1.29	3764.41	75288.27	0.88		8.2
3		21.12	2.120	0.36	0.02	0.04	305079.18	6101583.64	1.17		20.8
4		25.79	5.314	0.75	0.05	0.07	368383.51	7367670.13	1.65		29.0
		Total	9996.375	1007.05	100.00	100.00					

**MT-700**  
**Hypoxanthine, [2, 8-3H]**  
**Lot 167-121-0285-A-20090327-TN**

Chromatogram Info:

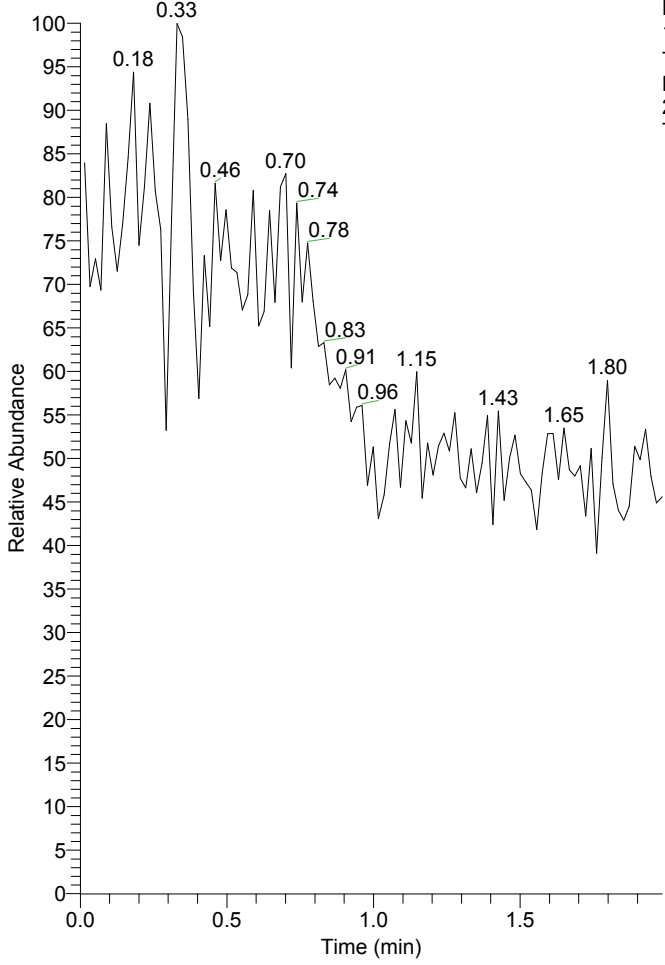
File Name	: L:\int41972	File Created	: 3/6/2014 9:03:04 AM
Origin	: Acquired, Acquisition started 6/23/2009 3:53:10 PM	Acquired Date	: 6/23/2009 4:33:08 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of blank injection	Modified	: 3/6/2014 9:10 AM
Created	: 6/12/2008 10:30 AM		
Column	:	Detection	: UV 250nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



*Result Table (Uncal - L:\int41972 - Unit 4 UV)*

Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/l [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
No peak to report										

RT: 0.00 - 1.98



NL:  
1.83E9  
TIC MS  
MT700-  
20090327-  
TN

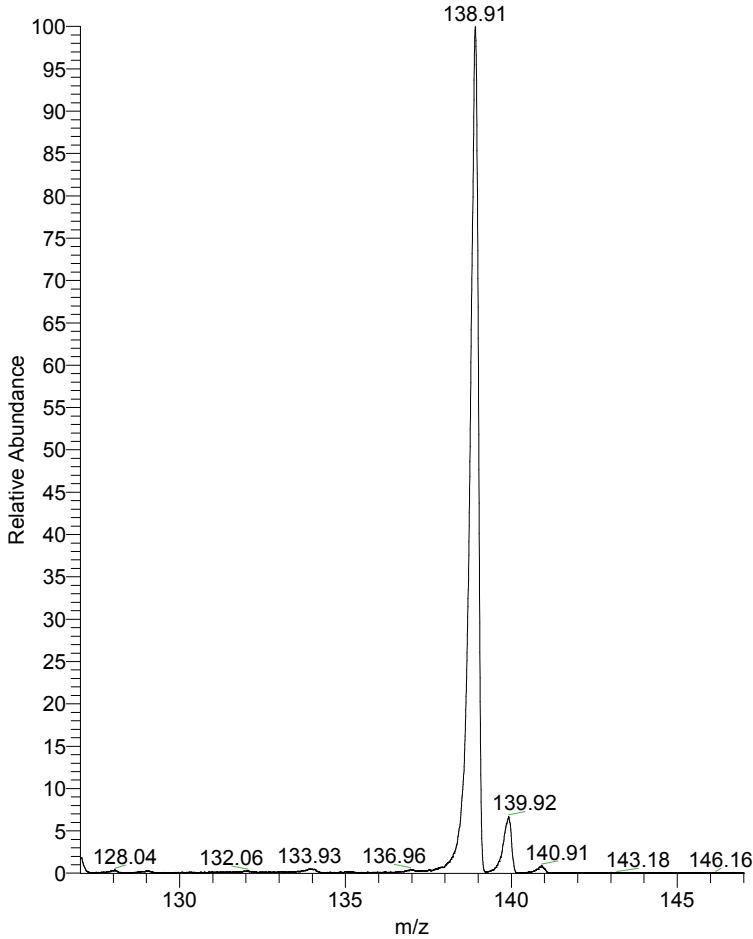
MT700-20090327-TN#1-107 RT: 0.01-1.98 AV:

T: + p ESI Z ms [127.00-147.00]

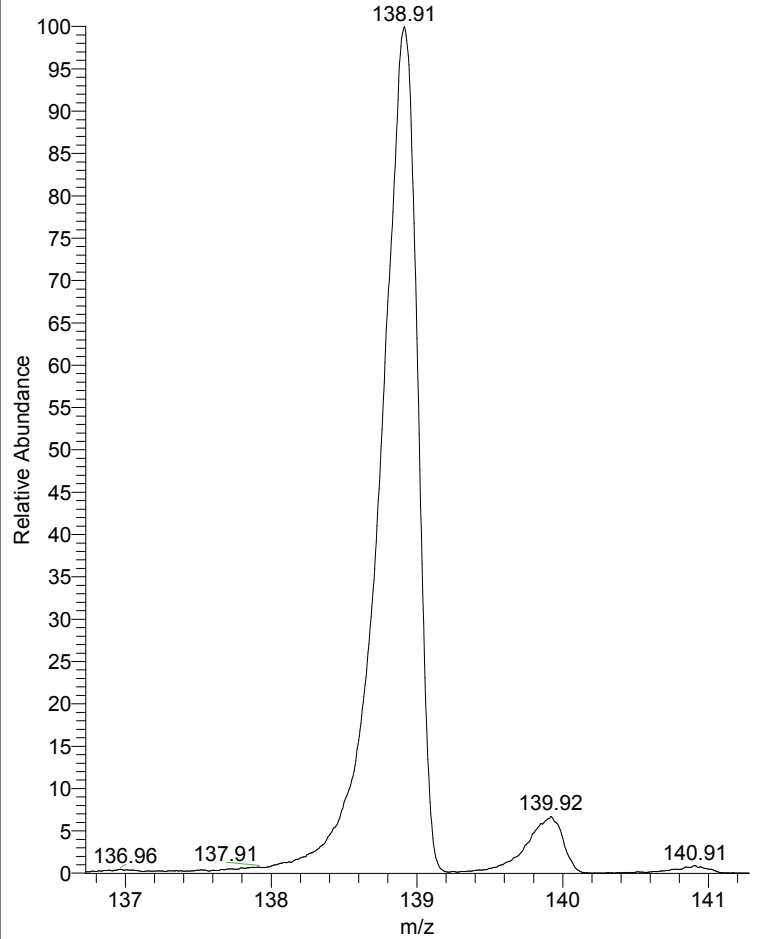
m/z = 136.81-141.20

m/z	Intensity	Relative
136.92	6868841.0	0.70
138.82	985298112.0	100.00
139.84	64580252.0	6.55
140.84	8152043.5	0.83

MT700-20090327-TN #1-107 RT: 0.01-1.98 AV: 107 NL: 1.61E7  
T: + p ESI Z ms [127.00-147.00]



MT700-20090327-TN #1-107 RT: 0.01-1.98 AV: 107 NL: 1.61E7  
T: + p ESI Z ms [127.00-147.00]



MT700 3H NMR in D2O  
Batch 20090327-TN

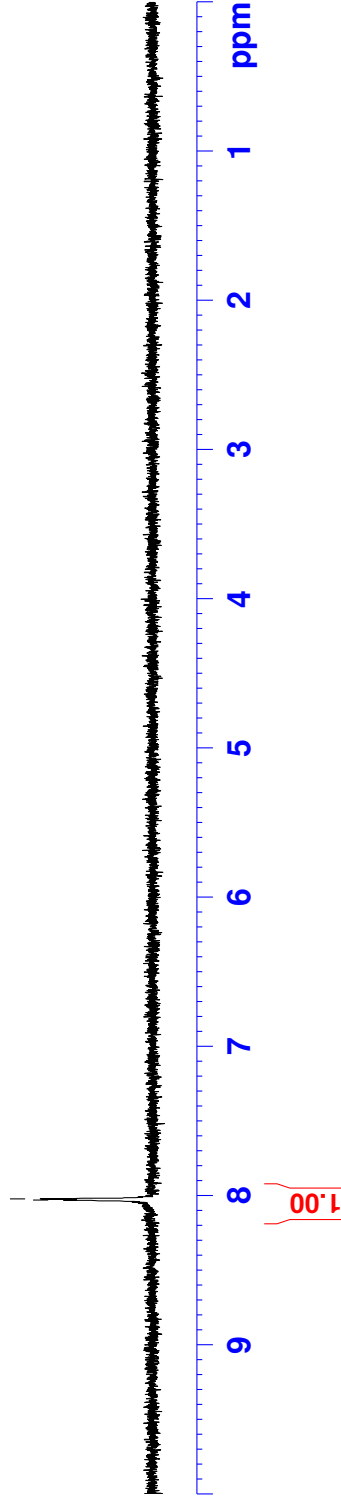
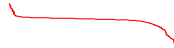
88.031  
88.023



**BRUKER**

NAME MT700-20090327-TN  
EXPNO 1  
PROCNO 1  
Date\_ 20090629  
Time\_ 12.06  
INSTRUM spect  
PROBHD 5 mm DUX 3H-1H  
PULPROG zg  
TD 16384  
SOLVENT D2O  
NS 1508  
DS 2  
SWH 6172.839 Hz  
FIDRES 0.376760 Hz  
AQ 1.3271540 sec  
RG 46341  
DW 81.000 usec  
DE 6.00 usec  
TE 300.0 K  
D1 2.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 3H  
P1 10.00 usec  
PL1 2.00 dB  
SF01 320.1321857 MHz  
SI 32768  
SF 320.1305850 MHz  
WDW no  
SSB 0  
LB 0.00 Hz  
GB 0  
PC 1.00

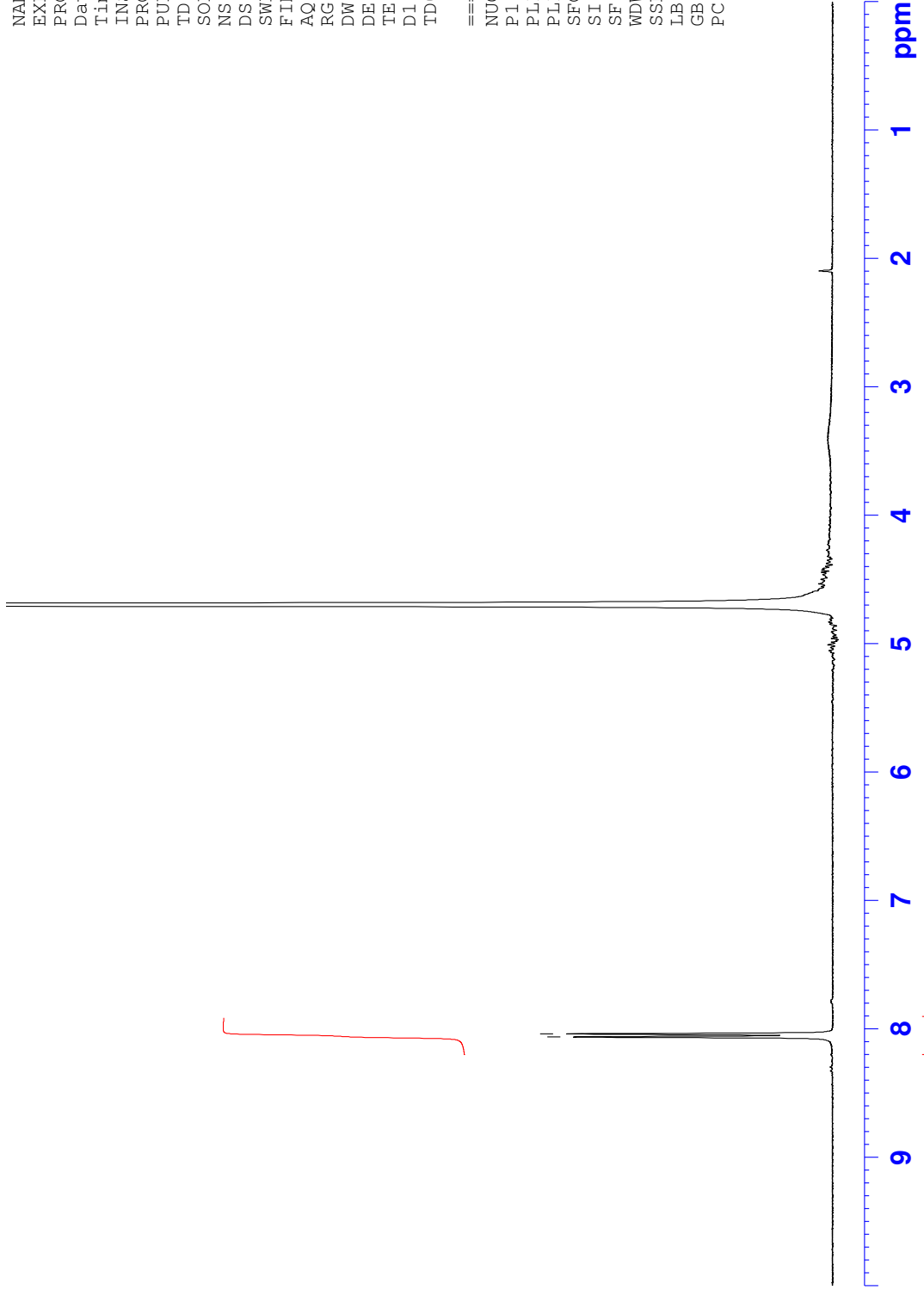




Hypoxanthine std 1H NMR



8.039  
8.036  
8.033



NAME Hypoxanthine std  
EXPNO 1  
PROCNO 1  
Date\_ 20090701  
Time 9.16  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT D2O  
NS 512  
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 293.5 K  
D1 1.00000000 sec  
TD0 1  
==== CHANNEL f1 =====  
NUC1 1H  
P1 14.50 usec  
PL1 -0.70 dB  
PL1W 10.03411102 W  
SF01 400.1324710 MHz  
SI 32768  
SF 400.1300000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00